Draft Supplemental Environmental Impact Report

City of Beverly Hills

9900 Wilshire Boulevard (One Beverly Hills) Project

SCH #2006071107

rincon

Rincon Consultants Inc.
Environmental Scientists . Planners . Engineers

April 2016

DRAFT
SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

9900 WILSHIRE BOULEVARD
(ONE BEVERLY HILLS)
PROJECT

SCH #2006071107

Prepared by:
City of Beverly Hills
Community Development Department
455 North Rexford Drive, First Floor
Beverly Hills, CA 90210
Andre Sahakian, Associate Planner, 310-285-1127

Prepared with the assistance of:

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, CA 93003
805-644-4455

April 2016

This report prepared on 50% recycled paper with 50% post-consumer content.

TABLE OF CONTENTS

Page

Executive Summary 1

1 Introduction 19
- 1.1 Project Background 19
- 1.2 SEIR Background 20
- 1.3 Purpose and Legal Authority 21
- 1.4 Scope and Content 22
- 1.5 Issues Not Studied in Detail in the SEIR 23
- 1.6 Lead, Responsible and Trustee Agencies 25
- 1.7 Environmental Review Process 25

2 Project Description 27
- 2.1 Project Applicant 27
- 2.2 Lead Agency Contact Person 27
- 2.3 Project Location 27
- 2.4 Existing Site Characteristics 27
- 2.5 Project Characteristics 30
- 2.6 Grading and Construction 45
- 2.7 Project Objectives 51
- 2.8 Required Approvals 54

3 Environmental Setting 55
- 3.1 Regional Setting 55
- 3.2 Project Site Setting 55
- 3.3 Cumulative Projects Setting 56

4 Environmental Impact Analysis 59
- 4.1 Air Quality 61
- 4.2 Greenhouse Gas Emissions/Climate Change 87
- 4.3 Land Use and Planning 111
- 4.4 Noise and Vibration 143
- 4.5 Transportation and Traffic 167
- 4.6 Utilities (Water Supply) 207

5 Other CEQA-Required Discussions 219
- 5.1 Growth Inducement 219
- 5.2 Irreversible Environmental Effects 221
- 5.3 Energy Effects 222

6 Alternatives 227
- 6.1 No Project Alternative (Approved Project) 231
- 6.2 Reduced Hotel Alternative 233
- 6.3 Office Alternative 235
- 6.4 Alternatives Considered but Rejected 239
- 6.5 Environmentally Superior Alternative 240

7 References and Report Preparers 246
7.1 References 246
7.2 Report Preparers 251

List of Figures

Figure 2-1 Regional Location 28
Figure 2-2 Project Site and Surrounding Land Uses 29
Figure 2-3 Site Plan 32
Figure 2-4a East Elevation 33
Figure 2-4b West Elevation 34
Figure 2-4c North Elevation 35
Figure 2-4d South Elevation 36
Figure 2-4e South Building Looking South 37
Figure 2-5a Motor Court Option 1 42
Figure 2-5b Motor Court Option 2 43
Figure 2-6 Preliminary Construction Schedules 46
Figure 2-7 Site Logistics (Material & Equipment Staging, Delivery Truck Queue) ... 47
Figure 2-8 Truck Route to and from Site 50
Figure 4.3-1 Zoning Designations 112
Figure 4.4-1 Sensitive Noise Receptors Noise Measurement Locations 145
Figure 4.5-1 Project Location and Study Intersections 168
Figure 4.5-2 Traffic Volumes & Lane Configurations Existing (2015) plus Approved 9900 Wilshire Boulevard Project - AM & PM Peak Hours 171
Figure 4.5-3 Traffic Volumes & Lane Configurations Existing (2015) plus Approved 9900 Wilshire Boulevard Project - Mid-Day & Weekend Peak Hours 172
Figure 4-5-4 Traffic Volumes & Lane Configurations Existing (2015) plus Proposed One Beverly Hills Project - AM & PM Peak Hours 184
Figure 4-5-5 Traffic Volumes & Lane Configurations Existing (2015) plus Proposed One Beverly Hills Project - Mid-Day & Weekend Peak Hours 185
Figure 4-5-6 Traffic Volumes & Lane Configurations Existing (2015) plus Proposed One Beverly Hills Project - AM & PM Peak Hours 201
Figure 4-5-7 Traffic Volumes & Lane Configurations Cumulative (2020) plus Proposed One Beverly Hills Project - Mid-Day & Weekend Peak Hours 202
Figure 6-1 Motor Court Option 3 241
Figure 6-2 Motor Court Option 4 242
Figure 6-3 Motor Court Option 5 243

List of Tables

Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts 5
Table 1-1 NOP Comments Received 20
Table 1-2 Issues Not Studied in the SEIR 23
Table 2-1 Existing Land Uses and Zoning 30

Table 2-2 Proposed Project Characteristics 38
Table 2-3 Comparison of the Approved Project and Proposed Project 39
Table 3-1 Cumulative Projects 56
Table 4-1-1 Current Federal and State Ambient Air Quality Standards 62
Table 4-1-2 Ambient Air Quality Data 67
Table 4-1-3 SCAQMD LSTs for Emissions in SRA-2 72
Table 4-1-4 SCAG Population, Housing and Employment Forecasts for Beverly Hills 73
Table 4-1-5 Approved and Proposed Project Population Growth 73
Table 4-1-6 Approved and Proposed Project Employee Population Growth 74
Table 4-1-7 Estimated Construction Maximum Daily Air Pollutant Emissions – 2.5-Month Grading Scenario 77
Table 4-1-8 Estimated Construction Maximum Daily Air Pollutant Emissions – 5-Month Grading Scenario 78
Table 4-1-9 Estimated Construction Maximum On-site Daily Air Pollutant Emissions – 2.5-Month Grading Scenario 79
Table 4-1-10 Estimated Construction Maximum On-site Daily Air Pollutant Emissions – 5-Month Grading Scenario 80
Table 4-1-11 Estimated Operational Emissions of the Approved Project and Proposed Project 82
Table 4-2-1 Estimated Construction Emissions of Greenhouse Gases 101
Table 4-2-2 Combined Annual Emissions of Greenhouse Gases 102
Table 4.2-3 Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies 104
Table 4.2-4 Project Consistency with Applicable SCAG SCS Greenhouse Gas Emission Reduction Strategies 107
Table 4.2-5 Project Consistency with Applicable Beverly Hills Sustainable City Plan Goals 108
Table 4.3-1 Existing Land Uses and Zoning 113
Table 4.3-2 Project Consistency with General Plan Goals and Policies 125
Table 4.4-1 Noise Measurement Results 146
Table 4.4-2 Existing Traffic-Generated Noise 147
Table 4.4-3 Land Use Noise Compatibility Matrix 148
Table 4.4-4 Significance of Changes in Operational Noise Exposure 151
Table 4.4-5 Typical Construction Equipment Noise Levels 154
Table 4.4-6 Construction Noise Levels by Phase 155
Table 4.4-7 Pre-Project and Post-Project Traffic Noise 159
Table 4.4-8 Combined Operational Noise Plus Traffic Noise Impacts (CNEL) 160
Table 4.4-9 Vibration Levels for Construction Equipment 161
Table 4.4-10 Combined Operational Noise Plus Cumulative Traffic Noise Impacts (CNEL) 166
Table 4.5-1 Daily Traffic Volumes on Residential Streets 173
Table 4.5-2 Existing (2015) Intersection Level of Service 174
Table 4.5-3 Level of Service Definitions for Signalized Intersections 177
Table 4.5-4 Unsignalized Intersection Level of Service Definitions 178
Table 4.5-5 Trip Generation Comparison 183
Table 4.5-6 Existing Baseline Plus Project Intersection Level of Service 186

Table 4.5-7 Residential Street Impacts – Baseline & Baseline Plus Project..... 189
Table 4.5-8 Existing Plus Project PM Peak Hour Level of Service and Delay 191
Table 4.5-9 Cumulative Plus Project PM Peak Hour Level of Service and Delay..... 191
Table 4.5-10 Existing Plus Project PM Peak Hour Inbound Left/U-Turn Storage Demand 191
Table 4.5-11 Cumulative Plus Project PM Peak Hour Inbound Left/U-Turn Storage Demand 192
Table 4.5-12 Cumulative (2020) Intersection Level of Service 203
Table 4.5-13 Residential Street Impacts – Cumulative & Cumulative Plus Project..... 205
Table 4.6-1 Projected Water Supply Normal Water Year..... 208
Table 4.6-2 Projected Water Supply Multiple Dry Years (2033-2035)..... 208
Table 4.6-3 Water Demand – 9900 Wilshire Boulevard Project..... 216
Table 4.6-4 Forecast Water Demand vs. Supply in 2035..... 217
Table 5-1 Employee Forecast – Proposed Project 220
Table 5-2 Estimated Project-Related Annual Motor Vehicle Fuel Consumption ... 224
Table 5-3 Estimated Project-Related Energy Usage Compared to State-Wide Energy Usage..... 225
Table 6-1 Comparison of Project Alternatives' Buildout Characteristics..... 230
Table 6-2 Trip Generation Comparison 235
Table 6-3 Water Demand Comparison 235
Table 6-4 Trip Generation Comparison 238
Table 6-5 Water Demand Comparison 238
Table 6-6 Comparison of Environmental Impacts of Alternatives 244

Appendices

Appendix A Initial Study/NOP/NOP Responses
Appendix B Air Quality/Greenhouse Gas Emissions Modeling Results
Appendix C Noise Data and Modeling Results
Appendix D Transportation Impact Analysis
Appendix E Alternatives Trip Generation and Water Demand

EXECUTIVE SUMMARY

This document is a Supplemental Environmental Impact Report (SEIR) analyzing the environmental effects of the proposed 9900 Wilshire Boulevard (One Beverly Hills) Project (Proposed Project). This section summarizes the characteristics of the Proposed Project, alternatives to the Proposed Project, and the environmental impacts, mitigation measures, and residual impacts associated with the Proposed Project.

PROJECT SYNOPSIS

Project Applicant

Wanda Beverly Hills Properties, LLC ("Wanda")
439 North Canon Drive, Suite 207
Beverly Hills, California 90210

Lead Agency

City of Beverly Hills
455 Rexford Drive, First Floor
Beverly Hills, CA 90210

Project Description

This Supplemental Environmental Impact Report (SEIR) has been prepared to examine the potential environmental effects of the One Beverly Hills Project. The following is a summary of the full project description, which can be found in Section 2.0, *Project Description.*

The Proposed Project is an alteration of the approved 9900 Wilshire Project (Approved Project) for which the City of Beverly Hills certified a Final Environmental Impact Report (SCH No. 2006071107) in accordance with the California Environmental Quality Act (CEQA) in April 2008. The version of the Approved Project that was studied in the 2008 FEIR included the demolition of the Robinsons-May department store, which occupied the site at that time, as well as construction of 252 luxury condominiums in four separate buildings, 19,856 square feet (sf) of commercial space, a two-level subterranean parking garage containing a total of 956 parking spaces, and landscaped gardens and other open space throughout the site. The 252 luxury condominiums were contained in 2 buildings (North and South Buildings) and two smaller 4-story loft buildings. The commercial component was located along the north side of Santa Monica Boulevard in a one-story building.

The City adopted the 9900 Wilshire Specific Plan (Approved Project) in April 2008 and subsequently approved an Administrative Modification to the Specific Plan in December 2012. Per the current Specific Plan, 235 residential units, 16,456 sf of commercial building area, and 876 parking spaces are allowed onsite. A two-story commercial building is allowed along the north side of Santa Monica Boulevard.

Project Characteristics

The Proposed Project involves the development of 901,514 sf of floor area, which is identical to the floor area of the Approved Project. The Proposed Project would include up to 193 condominiums and up to a 134-room luxury hotel that would be located in two of the linear buildings that were previously approved and are known as the South Building and the North Building. The Proposed Project would also include development of a smaller building located to the east of the South Building. This building was proposed for use as a "spa pavilion" under the Approved Project, but would be shifted to the north and would be used for ancillary hotel uses under the currently Proposed Project. Under the Proposed Project, the maximum height of the South Building would be 185 feet and the North Building would be 161 feet at its highest point. The Proposed Project would involve no increase in building height as compared to the Approved Project.

The footprint of each of the buildings proposed for the site would minimally change as compared to the Approved Project. The width of the South Building and North Building would increase by five feet along the eastern sides. However, there would be reductions of approximately 10 feet on both the east and west sides of the South building on floors two, three, four, and five.

The North Building would contain 102 residences along with facilities, such as a rooftop pool, that would be available only to residents. The South Building would contain 91 residences. The up to 134-room hotel would be located solely in the South Building along with all of the hotel-related facilities other than the meeting space, which would be located in an adjacent building to the east of the South Building. The hotel's guestrooms would be located on levels two, three, four, and a portion of level five of the South Building.

The proposed hotel has been planned to include a main ballroom and three meeting rooms containing a total of 7,942 sf along with pre-function space and ancillary facilities. Food and beverage facilities would include a VIP Function Room, an all-day dining restaurant, a fine dining restaurant, and a roof-top bar, totaling approximately 16,057 sf. In addition, there would be 1,600 sf of outdoor dining space and a 1,907 sf lobby lounge. Other hotel uses would include a 14,435 sf spa and fitness facility and a 2,484 sf hotel boutique shop. The table below summarizes the basic Project characteristics.

Proposed Project Characteristics

Lot Area	7.95 acres
Lot Coverage (Approximate)	104,360 sf
Floor Area	901,514 sf
Parking	1,140 total spaces
Building Height	North Building – 161 feet South Building – 185 feet

Site Access

Vehicle access to the site is designed to separate residential traffic from hotel traffic and through traffic on Merv Griffin Way. In order to provide access to the hotel along with a "front door", a motor court would be incorporated into the South Building on Santa Monica Boulevard. This

motor court would replace the approved public self-parking garage access on North Santa Monica Boulevard. Guests would ascend within a lobby that opens to the garden level. All hotel guests, including guests utilizing the restaurants or the meeting space, would be required to valet park their cars unless they are being dropped off in the motor court.

Residents and their guests would continue to access their residences via a private, secured drive at the west property line that is accessed from Wilshire Boulevard and Santa Monica Boulevard. In support of the residences' linear design, multiple small-scale building lobbies have been incorporated into the Project to provide convenient, private elevator access to residences.

All parking (other than motor court parking) would be below-grade and hotel parking would be separate from residential parking. The total depth of the parking garage would be approximately 42 feet. A total of about 1,140 parking spaces would be provided. This takes into account Beverly Hills Municipal Code (BHMC) permitted reductions, covenants and/or other means to provide legally adequate parking for One Beverly Hills. Similar to the Approved Project, loading docks and staff parking would be below-grade and accessed from Merv Griffin Way.

The applicant is considering two site access options for residences and the hotel motor court, which would be for hotel guests, spa and restaurant visitors, taxis, shared ride vans, private cars/limos, and the hotel valet service. These options are described below and illustrated on Figures 2-6a and 2-6b. The potential effects of each option on local traffic levels of service are discussed in Section 4.5, *Transportation and Traffic* (under Impact T-3).

Option 1

Option 1 would allow only right turns into and out of the motor court from Santa Monica Boulevard. Motorists traveling east on Santa Monica Boulevard would need to make a u-turn at the traffic signal at Merv Griffin Way in order to access the motor court. A deceleration lane would be provided along the north side of Santa Monica Boulevard, east of the motor court driveway. No guest or resident access would be provided from Merv Griffin Way. The residents and visitors driveway would be located at the western edge of the site and would also be right-in and right-out only.

Option 2

Under normal conditions Option 2 would allow two-way access from Santa Monica Boulevard with a left turn lane, as well as a one-way 26-foot wide entrance access from Merv Griffin Way. Under special circumstances in which Santa Monica Boulevard is partially or fully closed, the access point to Merv Griffin Way would be converted into a two-way driveway allowing both ingress and egress (which can be accommodated with the 26-foot width).

ALTERNATIVES

As required by CEQA, this SEIR examines alternatives to the Proposed Project. Studied alternatives include the following.

- ***No Project (Approved Project)*** *- This alternative assumes that the Approved Project as last modified in 2012 is built on the Project site. This would involve 235 condominiums, 11,656 square feet of retail space and 4,800 square feet of restaurant/lounge/bar space.*

- ***Reduced Hotel Alternative*** *- Under this alternative, the hotel would be reduced to 67 rooms and the size of all ancillary hotel facilities (spa and fitness center, ballroom/meeting rooms, hotel shops, restaurants/lounge/ bars) would be reduced by 50 percent. These facilities would be replaced by an additional 21 residential units, bringing the total number of residences to 214.*
- ***Office Alternative*** *- Under this alternative, the hotel component of the Proposed Project would be replaced with 204,291 square feet of office space. The office space would replace the hotel spaces and lobby of the South Building. Other than replacing the hotel with office space, this alternative would be identical to the Proposed Project. It would include 193 residences and all other components described in Section 2.0, Project Description.*

The No Project alternative (Approved Project) would avoid the increased severity temporary air quality and noise impacts associated with construction of the Proposed Project. Long-term impacts of the Approved Project would be incrementally lower, but the overall magnitude of long-term impacts would be about the same as those of the Proposed Project. Neither the Reduced Hotel alternative nor the Office alternative would avoid the Proposed Project's increased severity construction-related impacts. Overall long-term impacts of the Reduced Hotel alternative would be slightly lower than those of the Proposed Project with respect to traffic, air quality, GHGs, and utilities. For the Office alternative, impacts related to traffic, air quality, and GHGs would be higher than those of the Proposed Project, but utility (water) impacts would be somewhat lower. The Office alternative could potentially have significant traffic impacts. Either the Approved Project or the Reduced Hotel alternative would be environmentally superior to the Proposed Project overall. The Office alternative would not be environmentally superior to the Proposed Project.

The Approved Project would meet the original objectives outlined in the 2008 FEIR and new objectives related to providing a set of mixed-uses that takes maximum advantage of the physical, social and economic potential of the Project Site and creating a unified, environmentally sensitive development; however, it would not meet any of the new objectives relating to the hotel, including those associated with maximizing transient occupancy tax and other tax revenues.

The Reduced Hotel alternative would generally meet the most of the original objectives outlined in the 2008 FEIR as well as the new objectives for the Proposed Project, but the smaller hotel would have fewer benefits than the Proposed Project with respect to transient occupancy tax and other tax revenues.

The Office alternative would generally meet most of the original objectives outlined in the 2008 FEIR as well as the new objectives related to providing a set of mixed-uses that takes maximum advantage of the physical, social and economic potential of the Project Site and creating a unified, environmentally sensitive development; however, it would not meet any of the new objectives relating to the hotel, including those associated with maximizing transient occupancy tax and other tax revenues.

AREAS OF KNOWN CONTROVERSY

The SEIR scoping process did not identify any area of known controversy for the Proposed Project. Responses to the Notice of Preparation of a Draft SEIR and input received at an SEIR scoping meeting held by the City are summarized in Section 1.0, *Introduction*.

ISSUES TO BE RESOLVED

The primary issue to be resolved is whether or not the City should approve the requested amendments to the adopted 9900 Wilshire Specific Plan. The primary change involves converting the retail component of the Approved Project and a portion of the residential component to a hotel. The applicant is also requesting minor modifications to other Specific Plan requirements, including a change to the design of the site access. As described above, the applicant is considering two options for site access and, if City decisionmakers approve the proposed Specific Plan amendments, they will need to decide between these.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if any). Impacts are categorized as follows:

> ***Significant and Unavoidable:*** *An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the Project is approved per §15093 of the CEQA Guidelines.*
>
> ***Less than Significant with Mitigation Incorporated:*** *An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.*
>
> ***Less than Significant:*** *An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.*
>
> ***No Impact or Beneficial:*** *The Proposed Project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.*

Table ES–1
Summary of Environmental Impacts,
Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
AIR QUALITY		
Impact AQ-1 The Proposed Project would not directly or indirectly generate population growth beyond that associated with the Approved Project. Job growth associated with the Proposed Project would increase beyond that associated with the Approved Project; however, job growth associated with the Proposed Project would not exceed AQMP growth forecasts. Impacts related to AQMP consistency would, therefore, be less than significant.	None required	Less than significant

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
Impact AQ-2 On-site construction activity would generate temporary emissions. Such emissions may result in temporary adverse impacts to local air quality. The 2008 FEIR identified a significant and unavoidable impact related to construction of the Approved Project due to NO_x emissions in excess of the SCAQMD threshold. Construction of the Proposed Project would also generate NO_X emissions that exceed SCAQMD thresholds and, under the 2.5-month grading scenario, would generate maximum daily NO_x emissions substantially exceeding those of the Approved Project. Therefore, construction activity associated with the Proposed Project could increase the severity of the previously identified significant and unavoidable impact for the Approved Project.	The following mitigation measures from the 2008 FEIR would apply to the Proposed Project: **AQ-1** The Developer shall prepare a Construction Traffic Emission Management Plan to minimize emissions from vehicles including, but not limited to, scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes. **AQ-2** The Contractor shall ensure that the use of all construction equipment is suspended during first-stage smog alerts. **AQ-3** The Contractor shall promote the use of electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible. **AQ-4** The Contractor shall maintain construction equipment by conducting regular tune-ups according to the manufacturers′ recommendations. **AQ-5** The Contractor shall promote the use of electric welders to avoid emissions from gas or diesel welders, to the extent feasible. **AQ-6** The Contractor shall promote the use of on-site electricity or alternative fuels rather than diesel-powered or gasoline powered generators to the extent feasible. **AQ-7** Prior to use in construction, the project applicant and contractor will evaluate the feasibility of retrofitting the large off-road construction equipment that will be operating for significant periods. Retrofit technologies such as particulate traps, selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc., will be evaluated. These technologies will be required if they are verified by the California Air Resources Board (ARB) and/or the U.S. Environmental Protection Agency (EPA) and are commercially available and can feasibly be retrofitted onto construction equipment. **AQ-8** The Contractor shall ensure that traffic speeds on all unpaved roads are reduced to 15 miles per hour or less. **AQ-9** The Contractor shall ensure that the project site is watered at least three times daily during dry weather.	Increased severity of the previously identified significant and unavoidable impact

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
	AQ-10 The Contractor shall install wind monitoring equipment on site, to the extent feasible, and suspend grading activities when wind speeds exceed 25 miles per hour per SCAQMD guidelines. **AQ-11** The Contractor shall install water storage piles by hand or apply cover when wind events are declared (wind speeds in excess of 25 miles per hour). **AQ-12** The Contractor shall apply nontoxic chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). **AQ-13** The Contractor shall replace ground cover in disturbed areas as quickly as possible.	
Impact AQ-3 Operation of the Proposed Project would generate air pollutant emissions in the long-term. Daily emissions associated with the Proposed Project would not exceed the emissions associated with the Approved Project or SCAQMD thresholds. In addition, operation of the Proposed Project would not expose sensitive receptors to substantial concentrations of toxic air contaminants. Therefore, the Proposed Project would be less than significant.	None required	Less than significant
Impact AQ-4 Project traffic would generate CO emissions that have the potential to create high concentrations of CO, or CO hotspots. However, Project traffic would not cause the level of service (LOS) of an intersection to change to E or F, nor would it increase the volume to capacity ratio (V/C) by two percent or more for intersections rated D or worse. Therefore, localized air quality impacts related to CO hotspots would be less than significant.	None required	Less than significant
GREENHOUSE GAS EMISSIONS		
Impact GHG-1 Construction of the Approved or Proposed Project would generate temporary construction, as well as operational GHG emissions, which would incrementally contribute to climate	None required. As discussed in Section 2.0, Project Description, the Proposed Project includes a number of design features aimed at energy use reduction that would also reduce GHG emissions. In addition, the Proposed Project, by virtue of its location and design,	Less than significant

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
change. The Proposed Project's total GHG emissions would be incrementally higher than those of the Approved Project, but less than emissions associated with the former Robinson--May. In addition, the Proposed Project would be consistent with the Climate Action Team GHG reduction strategies, the SCAG Sustainable Communities Strategy, and Beverly Hills Sustainable City Plan Goals. Therefore, the Proposed Project's contribution to cumulative climate change impacts would be less than significant. The Proposed Project would also be consistent with GHG plans and policies.	would implement a range of policies related to GHG reduction.	
LAND USE AND PLANNING		
Impact LU-1 With approval of the Specific Plan amendment and implementation of mitigation measures identified in the 2008 FEIR and throughout this SEIR, the Proposed Project would be potentially consistent with applicable City policies, regulations and standards. This impact would be less than significant with mitigation.	With measures identified in other sections of this SEIR (specifically, Mitigation Measures NOISE-1 through NOISE-3 and TRAF-1 through TRAF-8 from the 2008 FEIR, listed in Sections 4.4, Noise and Vibration, and 4.5, Transportation and Traffic, respectively), would be potentially consistent with the City's General Plan and the 9900 Wilshire Specific Plan.	Less than significant
NOISE		
Impact N-1 Construction activities associated with the Proposed Project would generate temporary noise increases that would be audible at nearby sensitive receptor locations, including the Beverly Hilton, residences and El Rodeo School. Maximum and daily construction-related noise would be similar to that identified for the Approved Project in the 2008 FEIR, but the overall duration of construction activity would be 18 months longer than for the Approved Project. Therefore, the Proposed Project would result in an increase in the severity of the significant and unavoidable impact identified for the Approved Project in the 2008 FEIR. It would also contribute to significant temporary cumulative noise impacts related to construction activity.	The following measure from the 2008 FEIR would apply to the Proposed Project. Additional mitigation is not available. **NOISE-1** Prior to issuance of grading permits, the applicant shall submit a Construction Management Plan satisfactory to the Director of Community Development and the Building Official. The Building Official shall enforce noise attenuating construction requirements. The Construction Management Plan shall include, but not be limited to, the following: • Excavation, grading, and other construction activities related to the Proposed Project shall be restricted to the hours of operation allowed under Section 5-1-206, Restrictions on Construction Activity, of the City Municipal Code. Any deviations from these standards shall require the written approval of the City Building Official. • Stockpiling and vehicle staging areas shall be located as far away from occupied	Increased severity of the previously identified significant and unavoidable Project and cumulative impact

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
	residences as possible, and screened from these uses by a solid noise attenuation barrier. Noise attenuation barriers constructed to the specifications identified in the bullet point below are capable of reducing noise levels by 7.7 dB(A). • Solid noise attenuation barriers (temporary barriers or noise curtains) with a sound transmission coefficient (STC) of at least 20 shall be used along all Project boundaries during the construction phases associated with the development of the Project. Noise attenuation barriers constructed at the property lines to a height of 12 feet with an STC rating of at least 20 are capable of reducing noise levels by 7.7 dB(A).1 • All stationary construction equipment (e.g., air compressor, generators, etc.) shall be operated as far away from the residential and institutional uses to the north of the Project site as possible. If this is not possible the equipment shall be shielded with temporary sound barriers, sound aprons, or sound skins to the satisfaction of the Director of Community Development. • Haul routes for removing excavated materials from the site shall be designed to avoid residential areas, and areas occupied by noise sensitive receptors (e.g., hospitals, schools, convalescent homes, etc.). The following measure from the 2008 FEIR would address cumulative impacts: **NOISE-4** The Project applicant shall coordinate with other project applicants with projects within a 1,000-foot radius that have overlapping constructions schedules regarding the following: • All temporary roadway closures shall be coordinated to limit overlap of roadway closures; • All major deliveries for all projects shall be coordinated to limit the occurrence of simultaneous deliveries. The applicants shall ensure that deliveries of items such as concrete and other high-volume items shall not be done simultaneously; • The applicants shall coordinate regarding the loading and unloading of delivery vehicles. Any off-site staging areas for delivery vehicles shall be consolidated and	

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
	shared; and • Applicants or their representatives shall meet on a regular basis during construction to address any outstanding issues related to construction traffic, deliveries, and worker parking.	
Impact N-2 Noise associated with operation of the Proposed Project, including noise from traffic on nearby roads, rooftop ventilation, and outdoor dining areas could be audible at nearby receptor locations. However, the 2008 FEIR determined that operation of the Approved Project would have less than significant operational impacts and the Proposed Project's operational noise impacts would not be substantially greater than those of the Approved Project. Therefore, operational noise impacts associated with the Proposed Project would be less than significant.	None required	Less than significant
Impact N-3 Construction-activities associated with the Proposed Project could generate ground-borne vibration. The 2008 FEIR determined that impacts related to construction-generated vibration would be significant and unavoidable. Construction-related vibration associated with the Proposed Project would be similar to that identified for the Approved Project in the 2008 FEIR, but the overall duration of construction activity would be about 18 months longer. Therefore, the Proposed Project would increase the severity of the significant and unavoidable vibration impact identified for the Approved Project in the 2008 FEIR.	See Measure Noise-1 under Impact N-1.	Increased severity of the previously identified significant and unavoidable impact
Impact N-4 Noise levels at proposed sensitive receptors may exceed City thresholds for interior and exterior noise. The 2008 FEIR determined that the Approved Project would result in a potentially significant impact unless mitigation is incorporated because it would locate receptors in areas exceeding the normally acceptable range for proposed uses. The Proposed Project would be subject to the same noise levels as the Approved Project, but mitigation included in	The following measures from the 2008 FEIR would apply to the Proposed Project: **NOISE-2** The applicant shall implement sound attenuation features to reduce noise levels at all private outdoor livable spaces (i.e., balconies) on building floors 1 through 6 fronting Wilshire and Santa Monica Boulevards and Merv Griffin Way to 65 dBA CNEL. Such features may include berms made of sloping mounds of earth, walls and fences constructed of a variety of materials, thick plantings of trees and shrubs, or combinations of these materials, or the use of solid material for	No impact

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
the 2008 FEIR would continue to apply and would reduce impacts to below a level of significance. Therefore, the Proposed Project's impact relative to that of the Approved Project would be less than significant.	balcony construction such as double-paned or laminated glass, Plexiglas, or wood. Acoustical analysis shall be performed prior to the issuance of an occupancy permit to demonstrate that noise levels at the exterior livable spaces do not exceed state land use standards for residences. This requirement shall be incorporated into the plans to be submitted by the applicant to the City of Beverly Hills for review and approval prior to the issuance of building permits. **NOISE-3** The applicant shall incorporate building materials and techniques that reduce sound transmission through walls, windows, doors, ceilings, and floors of on-site residences in order to achieve interior noise levels of 45 dBA CNEL. Such building materials and techniques may include double-paned windows, staggered studs, or sound-absorbing blankets incorporated into building wall design, or outdoor noise barriers erected between noise sources and noise sensitive areas, such as berms made of sloping mounds of earth, walls and fences constructed of a variety of materials, thick plantings of trees and shrubs, or combinations of these materials. Acoustical analysis shall be performed prior to the issuance of an occupancy permit to demonstrate that noise levels in the interior livable spaces do not exceed state standards for residences. This requirement shall be incorporated into the plans to be submitted by the applicant to the City of Beverly Hills for review and approval prior to the issuance of building permits.	
TRANSPORTATION AND TRAFFIC		
Impact T-1 Implementation of the Proposed Project would generate traffic at study area intersections; however, Project-generated traffic would not cause any intersection to exceed City standards under existing baseline plus Project traffic conditions or otherwise create significant impacts to roadway operations beyond those associated with the Approved Project. Impacts associated with the Proposed Project would be less than significant.	None required	Less than significant

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
Impact T-2 Implementation of the Proposed Project would increase traffic on residential streets north of the Project site; however, Proposed Project-generated traffic would not cause any intersection to exceed City thresholds under existing baseline plus Proposed Project traffic conditions. Impacts to residential streets would, therefore, be less than significant.	None required	Less than significant
Impact T-3 The Project driveways would provide adequate site access and would not create hazardous traffic conditions. Therefore, impacts associated with the Proposed Project would be less than significant.	None required	Less than significant
Impact T-4 The Proposed Project does not include design features that would impede emergency access vehicles. Impacts associated with the Proposed Project would be less than significant.	None required	Less than significant
Impact T-5 The Proposed Project would not involve any disruptions to the local active transportation system. Therefore, impacts in this regard would be less than significant.	None required	Less than significant
Impact T-6 Metro is constructing the extension of the Purple Line south of the Project site. The Proposed Project would not conflict with applicable policies associated with public transit, and would not decrease the performance or safety of the Purple Line. Impacts associated with the Proposed Project would be less than significant.	None required	Less than significant
Impact T-7 Construction activities for the Proposed Project would result in traffic impacts due to haul truck traffic, equipment and material deliveries, worker traffic, and worker parking. Construction would also contribute to cumulative construction-related traffic impacts. Project and cumulative impacts would be less than significant with mitigation incorporated.	The following mitigation measures from the 2008 FEIR would apply to the Proposed Project: **TRAF-1** An Environmental Monitor shall be retained that will be responsible for monitoring compliance with the mitigation measures in the adopted Mitigation Monitoring Program. The name, phone number, and other contact information for the Environmental Monitor shall be posted on the construction trailer. The developer shall deposit funds sufficient to pay for the Environmental Monitor who will be hired by and work for the City.	Less than significant

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
	TRAF-2 The Environmental Monitor shall pro-actively inform the public of the ongoing project progress and exceptions to the expected plans. The Environmental Monitor shall also respond to requests for information and assistance from members of the public when impacts raise special concerns by members of the public. **TRAF-3** The Construction Relations Officer shall be assigned and a hotline number shall be published on construction signage placed along the boundary of the project site, along Wilshire Boulevard, Merv Griffin Way, and Santa Monica Boulevard to address day-to-day issues. **TRAF-4** The Developer, Construction Relations Officer, and Environmental Monitor shall each provide monthly project updates to the Community Development Department (CDD) Director. **TRAF-5** The Developer shall revise and finalize the Draft Construction Traffic Management Plan to minimize traffic flow interference from construction activities. The Final Construction Traffic Management Plan shall be submitted to the City and shall include plans to accomplish the following: • Maintain existing access for land uses in the proximity of the Project site during Project construction; • Schedule deliveries and pick-ups of construction materials for non-peak travel periods, to the maximum extent feasible; • Coordinate haul trucks, deliveries and pick-ups to reduce the potential for trucks waiting to load or unload for protracted periods of time; • Minimize obstruction of through-traffic lanes on Wilshire Boulevard and Santa Monica Boulevard; • Construction equipment traffic from the contractors shall be controlled by flagman; • Designated transport routes for heavy trucks and haul trucks to be used over the duration of the Proposed Project; • Schedule vehicle movements to ensure that there are no vehicles waiting offsite and impeding public traffic flow on the surrounding streets; • Establish requirements for loading/unloading and storage of materials on the Project site, where parking spaces	

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
	would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses; • Coordinate with adjacent businesses and emergency service providers to ensure adequate access exists to the Project site and neighboring businesses; and • Prohibit parking for construction workers except on the Project site and any designated offsite parking locations. These off site locations will require the approval of the City of Beverly Hills. These offsite parking locations cannot include any parking garage in the City of Beverly Hills or any residential streets including Whittier Drive and those streets which connect to Whittier Drive. The Final Construction Traffic Management Plan shall be submitted and approved by the City no later 30 days prior to commencement of construction. **TRAF-6** The Developer shall submit a Construction Workers Parking Plan identifying parking locations for construction workers. To the maximum extent feasible, all worker parking shall be accommodated on the project site. During demolition and construction activities when construction worker parking cannot be accommodated and the project site, the Plan shall identify alternate parking locations for construction workers and specify the method of transportation to and from the project site for approval by the City 30 days prior to commencement of construction. The Construction Workers Parking Plan must include appropriate measures to ensure that the parking location requirements for construction workers will be strictly enforced. These include but are not limited to the following measures: • All construction contractors shall be provided with written information on where their workers and their subcontractors are permitted to park and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets north of Wilshire or in public parking structures; • No parking for construction workers shall be permitted within 500 feet of the nearest point of the project site except within	

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
	designated areas. The contractor shall be responsible for informing subcontractors and construction workers of this requirement, and if necessary, for hiring a security guard to enforce these parking provisions. The contractor shall be responsible for all costs associated with enforcement of this mitigation measures; and • In lieu of the above, the project applicant/construction contractor has the option of phasing demolition and construction activities such that all construction worker parking can be accommodated on the project site throughout the entire duration of demolition, excavation and construction activities. **TRAF-7** Traffic control devices, and specifically stop signs, shall be installed at each driveway exit point prior to building occupancy. **TRAF-8** The project applicant shall revise the project site plan to increase the curb radius at the driveway on Wilshire Boulevard to allow vehicles traveling 25 to 35 mph to turn safely. **TRAF-9** The applicant for the Proposed Project shall coordinate with the applicant for The Beverly Hilton Revitalization Plan and the City of Beverly Hills as follows: • All temporary roadway closures shall be coordinated to limit overlap of roadway closures. • All major deliveries for all three projects shall be coordinated to limit the occurrence of simultaneous deliveries. The project applicants shall ensure that deliveries of items such as concrete and other high-volume items shall not be done simultaneously. • The applicants shall coordinate regarding the loading and unloading of delivery vehicles. Any offsite staging areas for delivery vehicles shall be consolidated and shared. • Applicants or their representatives shall meet on a regular basis during construction to address any outstanding issues related to construction traffic, deliveries, and worker parking.	

Table ES–1
Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
UTILITIES ANDS SERVICE SYSTEMS (WATER)		
Impact UTIL-1 The Proposed Project would result in a net increase in water demand of approximately 21 acre-feet per year as compared to the Approved Project. This additional demand could be accommodated by the City's projected 2035 water demand and supply scenario presented in the 2010 Urban Water Management Plan. Therefore, impacts would be less than significant.	The project would incorporate the following to minimize water use: • Use of high-efficiency toilets (maximum 1.28 gallons per flush), including dual-flush water closets, and no-flush or waterless urinals in all non-residential restrooms, as appropriate • Use of non-residential restroom faucets with a maximum flow rate of 0.5 gallons per minute and non-residential kitchen faucets (except restaurant kitchens) with a maximum flow rate of 1.5 gallons per minute (restaurant kitchen faucets shall have pre-rinse self-closing spray heads with a maximum flow rate of 1.6 gallons per minute) • Use of non-residential restroom faucets with a self-closing design (i.e., that will automatically turn off when not in use) • Use of individual metering and billing for water use of all residential uses and exploration of such metering for commercial spaces • Use of a leak detection system for any swimming pool, Jacuzzi, or other comparable spa equipment introduced on-site • Prohibition of the use of single-passing cooling equipment • Operation of cooling towers at a minimum of 5.5 cycles of concentration • Use of a weather-based irrigation controller with rain shutoff, matched precipitation (flow) rates for sprinkler heads, and rotating sprinkler nozzles or comparable technology, such as drip/microspray/subsurface irrigation where appropriate • Minimum irrigation system distribution uniformity of 75 percent • Use of a separate water meter (or submeter), flow sensor, and master valve shutoff for irrigated landscape areas totaling 5,000 square feet and greater • Use of permeable surfaces within common site areas that are not located above subterranean parking • Incorporation of proper hydro-zoning, turf minimization, xeriscaping, and use of native/drought-tolerant plant materials, as feasible or appropriate. Specifically, 100 percent of all landscaping will consist of drought-tolerant plants and at least 50 percent will consist of native species.	Less than significant

Table ES–1
Summary of Environmental Impacts,
Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Significance After Mitigation
	• Use of landscape contouring/bioswales, rain gardens, cisterns, and tree pits to minimize precipitation runoff Mitigation beyond these project features is not required.	
OTHER CEQA-REQUIRED DISCUSSIONS		
Population growth associated with the Proposed Project would exceed SCAG population forecasts for Beverly Hills for 2020 and not for 2034,, but is estimated at 114 fewer persons than under the Approved Project. Employment associated with the Proposed Project is within SCAG forecasts and the Project would not removal obstacles to growth.	None required	Less than significant
The Proposed Project would increase overall energy use as compared to the Approved Project, but would not significantly affect local or regional energy supplies. Meeting Title 24 energy conservation requirements in combination with Project features aimed at minimizing energy use would ensure that energy is not used in an inefficient, wasteful, or unnecessary manner	None required beyond meeting Title 24 requirements and implementing proposed sustainability features and Specific Plan requirements aimed at achieving LEED certification.	Less than significant

This page intentionally left blank.

1 INTRODUCTION

This document is a Draft Supplemental Environmental Impact Report (SEIR) for a proposed residential and hotel project located on the south side of the 9900 block of Wilshire Boulevard, north of Santa Monica Boulevard. In 2008, the City of Beverly Hills (City) certified a Final EIR (hereafter referred to as the "2008 FEIR") for a project (the 9900 Wilshire Project) on the same site and with a similar physical development envelope (hereafter referred to as the "Approved Project"). The currently proposed One Beverly Hills project (hereafter referred to as the "Proposed Project" or "Project") would eliminate the originally proposed retail component and reduce the size of the residential component by 42 units, replacing these facilities with a hotel and its associated services and amenities. Other changes include a potential additional level or partial level of underground parking and changes to site circulation and ground floor access/entry configurations.

This section discusses (1) the Project and SEIR background; (2) the legal basis for preparing an SEIR; (3) the scope and content of the SEIR; (4) issue areas found not to be significant by the Initial Study; (5) the lead, responsible, and trustee agencies; and (5) the environmental review process required under the California Environmental Quality Act (CEQA). The proposed project is described in detail in Section 2.0, *Project Description*.

1.1 PROJECT BACKGROUND

As noted above, the proposed One Beverly Hills Project is an alteration to the approved 9900 Wilshire Project for which the City of Beverly Hills certified a Final EIR (SCH No. 2006071107) in February 2008. As studied in the 2008 FEIR, the Approved Project originally included the demolition of the Robinsons-May department store, which occupied the site at that time, as well as construction of 252 luxury condominiums in four separate buildings; 19,856 square feet (sf) of commercial space; a two-level subterranean parking garage with mezzanine containing 956 parking spaces; and landscaped gardens and other open space throughout the site. The 252 luxury condominiums were contained in two buildings (North and South Buildings) and two smaller four-story loft buildings. The commercial component was located along the north side of Santa Monica Boulevard in a one-story building.

The City of Beverly Hills adopted a Specific Plan for the 9900 Wilshire Project (the "9900 Wilshire Specific Plan") in April 2008 and reduced the number of approved residential units from 252 to 235; reduced the commercial square footage from 19,856 sf to 16,456 sf; and reduced the number of parking spaces from 956 to 803. The 9900 Wilshire Specific Plan also removed the two smaller four-story loft buildings and included a two-story commercial building along the north side of Santa Monica Boulevard. In December 2012, an Administrative Modification to the 9900 Wilshire Specific Plan was approved, further reducing the approved commercial square footage to 15,856 sf and increasing the parking spaces to 876.

For purposes of this SEIR, the 2012 version of the Approved Project (9900 Wilshire Specific Plan) is used as the baseline for the analysis as it represents what is currently permitted for development at the project site today. The 2008 FEIR and associated studies are used in this analysis, where appropriate, since there was no substantial change to the Approved Project, and no subsequent environmental review, following certification of the 2008 FEIR.

1.2 SEIR BACKGROUND

The City of Beverly Hills distributed a Notice of Preparation (NOP) of the SEIR for a 30-day agency and public review period starting on November 30, 2015 and ending on December 29, 2015. The City received three letters in response to the NOP. Table 1-1 summarizes the content of the letters and where the issues raised in the letters are addressed in the SEIR. In addition, the City held an SEIR Scoping Meeting on December 7, 2015. The meeting, held from 6 PM to 8 PM, was aimed at providing information about the Proposed Project to members of public agencies and residents/ community members. The meeting was held at Beverly Hills City Hall at 455 North Rexford Drive, Beverly Hills, CA 90210. Approximately five individuals attended the meeting. Attendees were invited to share their comments on the SEIR scope, including suggestions for analyses that should be included in the SEIR and Project alternatives that should be considered. One individual (Barbara Broide) spoke at the meeting. Ms. Broide also submitted written comments that cover the issues raised at the meeting. Issues raised in written responses to the NOP and the places in the document where the SEIR addresses these comments are summarized in Table 1–1.

Table 1–1
NOP Comments Received

Written Reponses		
Responder	**NOP Response**	**Where Responses Are Addressed**
South Coast Air Quality Management District	The responder provides guidance on the analysis of air quality including recommendations on using the Air Quality Handbook, analyzing both construction and operation emissions, and use of localized significance thresholds. Additionally, the responder provides guidance on developing mitigation measures.	See sections 4.1, *Air Quality*, and 4.2 *GHG Emissions*. The air quality analysis follows SCAQMD recommended methodologies; however, because the Proposed Project is not a major generator of diesel truck trips, preparation of a health risk assessment (HRA) is not warranted so no HRA has been prepared.
Los Angeles County Metropolitan Transportation Authority (Metro)	The responder provides guidance regarding maintenance/relocation of bus stops during construction as well as design of bus amenities. The responder also describes Congestion Management Program (CMP) traffic impact analysis requirements. Correspondence previously submitted for the Approved Project and 2008 FEIR are attached to the respondent's letter.	See Section 4.5, *Transportation and Traffic*. CMP impacts are discussed under Impact T-1. Construction-related impacts are discussed under Impact T-3.
Barbara Broide	The responder suggests that the traffic analysis should consider intersections west of Beverly Hills and should consider entitlements granted by the City of Los Angeles in the Century City area. The responder also states that impacts to planned public transit improvements need to be considered and suggests that the City should consider a condition requiring post-construction monitoring of traffic levels and, as necessary, adjustment of mitigation requirements.	See Section 4.5, *Transportation and Traffic*. Impacts to levels of service at study area intersections are discussed under Impact T-1. Construction-related impacts are discussed under Impact T-3.

Table 1–1
NOP Comments Received

Written Reponses		
Responder	**NOP Response**	**Where Responses Are Addressed**
City of Los Angeles Bureau of Sanitation	The responder provides the City of Los Angeles' (LA) requirements for wastewater, stormwater and solid resources. The requirements are as follows: **Wastewater** – Sewage from the Proposed Project will ultimately flow through the City of LA's system. As such, the developer may be subject to additional requirements and charges. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. **Stormwater** – A summary of the post-construction, Green Street and construction requirements are provided, which include the Stormwater Low Impact Development (LID) standards, the pending requirements for the Green Street Initiative, preparation of a Wet Weather Erosion Control Plan for construction during the rainy season, and preparation of a Storm Water Pollution Prevention Plan (SWPPP). **Solid Waste Resources** – The City of LA requires residential developments to set aside a recycling area or room for onsite recycling activities.	**Wastewater** – As stated in Section 4.12, *Utilities and Service Systems,* of the 2008 DEIR for the Approved Project, the City will require capacity upgrades to the sewer conveyance system prior to occupancy to avoid overloading the system. Developer fees will also be assessed on each project to pay for improvements. This requirement also applies to the Proposed Project. **Stormwater –** As stated in Section 4.6, *Hydrology and Water Quality,* of the 2008 DEIR, the Applicant must satisfy all applicable requirements of the NPDES program and Article 5 of Chapter 4 of Title 9 of the Beverly Hills Municipal Code, Stormwater and Urban Runoff Pollution Control, which includes preparation of a SPPP containing structural treatment and source control measures, and Best Management Practices by requiring controls of pollutant discharges that utilize best available technology economically achievable and best conventional pollutant control technology to reduce pollutants. These requirements also apply to the Proposed Project. **Solid Waste Resources** – The Applicant's site plans include a trash/recycle room on Level P1 of the proposed development. The detailed designs and site plans are available upon request.

1.3 PURPOSE AND LEGAL AUTHORITY

The Proposed Project requires the discretionary approval of the City of Beverly Hills' Planning Commission and City Council. Therefore, it is subject to the environmental review requirements of CEQA. In accordance with Section 15121 of the *CEQA Guidelines* (California Code of Regulations, title 14), the purpose of this SEIR is to serve as an informational document that:

> *...will inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.*

This SEIR has been prepared pursuant to Section 15163 of the *CEQA Guidelines*, which outlines the requirements of a supplement to an EIR. The process will culminate with Planning Commission and City Council hearings to consider certification of the Final SEIR and approval of the Proposed Project.

1.4 SCOPE AND CONTENT

Pursuant to CEQA Guidelines Section 15163, a lead agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. The Guidelines further state the following:

- *The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.*
- *A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.*
- *A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.*
- *When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.*

The Proposed Project is similar to the Approved Project originally entitled in 2008 and last modified in 2012; therefore, the City has determined that a Supplemental EIR (SEIR) is the appropriate CEQA approach.

Because the size and location of the built components of the Project would remain similar to the Approved Project studied in the 2008 FEIR, this SEIR focuses on the issues for which the Initial Study determined may have environmental impacts above and beyond those associated with the Approved Project and identified in the 2008 FEIR. The following issues have been studied in the SEIR:

- *Air Quality*
- *Greenhouse Gas Emissions*
- *Land Use*
- *Noise*
- *Transportation/Traffic*
- *Utilities and Service Systems (Water supply)*
- *Appendix F Analysis*

The alternatives section of the SEIR (Section 6.0) was prepared in accordance with Section 15126.6 of the *CEQA Guidelines.* The alternatives discussion evaluates the CEQA-required "no project" alternative and two alternative development scenarios for the site.

In preparing the SEIR, use was made of pertinent City policies and guidelines, certified EIRs and adopted CEQA documents, and background documents prepared by the City. A full reference list is contained in Section 7.0, *References and Report Preparers*.

Certain development standards contained in the adopted 9900 Wilshire Specific Plan and mitigation measures included in the 2008 FEIR are discussed in this SEIR in the context of the

issues studies in this SEIR. However, all standards contained in the 9900 Wilshire Specific Plan and mitigation measures included in the 2008 FEIR and mitigation monitoring and reporting plan (MMRP), including those not specifically discussed in this SEIR, continue to apply to development in the Specific Plan area (the current Project site) unless they are specifically superseded by new or revised Specific Plan standards or new or revised mitigation measures identified in this SEIR and adopted as requirements by the City of Beverly Hills.

1.5 ISSUES NOT STUDIED IN DETAIL IN THE SEIR

The Initial Study (Appendix A) found potentially significant environmental impacts related to six environmental issue areas, but found no potential for significant impacts for the remaining environmental checklist issues. The Initial Study findings for the issues for which it was determined that additional analysis in this SEIR was not warranted are summarized in Table 1–2. More detailed discussion can be found in the Initial Study.

Table 1–2
Issues Not Studied in the SEIR

Issue Area	Initial Study Finding
Aesthetics	The height and footprint of the buildings included in the Proposed Project are similar to those of the Approved Project; therefore, its overall effects to scenic vistas and resources, visual character, and light/glare conditions would be similar to those of the Approved Project. As such, the Proposed Project would not involve any new impacts related to aesthetics beyond those identified in the 2008 FEIR.
Agriculture and Forestry Resources	The Project site is within an urbanized area of Beverly Hills that lacks agricultural lands or forests. No impact to these resources would occur.
Air Quality	Although this SEIR analyzes potential air quality impacts, the Initial Study determined that the residential and hotel uses that make up the Proposed Project would not create odor impacts.
Biological Resources	The project site is within an urbanized area that lacks native biological habitats and the footprints. Therefore, the Proposed Project would have no impacts to biological resources.
Cultural Resources	Pursuant to the 2008 approvals, the Robinson's May building that the 2008 FEIR identified as a historic resource was demolished in 2014. Impacts to the historic street lights identified in the 2008 FEIR would still be mitigated by MM-CR-3 from the 2008 FEIR. MMR-CR-4, -5, and -6 would still mitigate potential impacts to archaeological and paleontological resources. Therefore, the Proposed Project would not increase the potential for impacts related to cultural resources.
Geology	The 2008 FEIR found that the Approved Project would have significant, but mitigable impacts related to geologic hazards. The Proposed Project would involve a development footprint nearly identical to that of the Approved Project and would be subject to the same mitigation measures that were included in the 2008 FEIR. Therefore, the Proposed Project would not create any new significant impacts related to geologic hazards beyond those identified in the 2008 FEIR. In addition, the Phase II Site-Specific Fault Rupture Investigation (prepared by Geocon in 2014) recommended a 50-foot structural set-back from the northwestern property line along the common boundary between the Project site and the adjacent service station at 9988 Wilshire Boulevard. Development of the Proposed Project would include this set-back, which would ensure that impacts related to possible rupture along any of the nearby off-site faults would be reduced to a less than significant level.

Table 1–2
Issues Not Studied in the SEIR

Issue Area	Initial Study Finding
Hazards and Hazardous Materials	The 2008 FEIR identified potentially significant impacts related to the potential release of hazardous materials during onsite building demolition. However, building demolition has already been undertaken and there are no other identified hazards on or around the Project site. Therefore, the Proposed Project would not involve any new significant impacts related to hazards or hazardous materials.
Hydrology and Water Quality	The 2008 FEIR identified potentially significant impacts to water quality due to runoff from the Project site, but included MM-HYDRO-1 and -2 to address such impacts. The footprint and potential impacts of the Proposed Project would be nearly identical to those of the Approved Project and the required mitigation measures would continue to apply. Therefore, the Proposed Project would not involve any new significant impacts related to hydrology or water quality.
Land Use and Planning	This SEIR addresses land use and planning, but the Project involves infill development that would not include new roads or other components that would divide an established community. There is no habitat conservation plan or natural community conservation plan that applies to the Project site. Therefore, the issue of habitat and natural community conservation plans is not studied further in this SEIR.
Mineral Resources	The 2008 FEIR did not identify any impacts to mineral resources and the Proposed Project similarly would have no impact.
Noise	Noise impacts are addressed in this SEIR, but the Project site is not subject to noise from a public or private airport. Therefore, noise issues related to airports are not studied further in this SEIR.
Population and Housing	The Proposed Project would generate fewer new residences and less resident population than the Approved Project since it involves 42 fewer residential units. Like the Approved Project, the Proposed Project would not displace housing or residents. Therefore, population is not studied further in this SEIR.
Public Services	The Proposed Project would involve 42 fewer residences than the Approved Project and, therefore, would involve incrementally less demand for schools, and parks. As discussed in the Initial Study, demand for fire and police service would be similar to what was studied in the 2008 FEIR and no new or expanded fire or police facilities would be needed. Consequently, the Proposed Project would have no impact as compared to the Approved Project and further study of these issues in this SEIR is not warranted.
Recreation	The Proposed Project would involve 42 fewer residences than the Approved Project and, therefore, would involve incrementally less demand for parks and recreational facilities. Consequently, the Proposed Project would have no impact as compared to the Approved Project and further study of recreation in this SEIR is not warranted.
Transportation/Traffic	Transportation/traffic issues are studied in this SEIR. However, the Proposed Project would have no impact with respect to air traffic and would provide sufficient parking to meet City requirements. Consequently, these issues are not analyzed further in this SEIR.
Utilities and Service Systems	The Proposed Project would generally have similar or less impact with respect to utilities and service systems as compared to the Approved Project. The Initial Study found no new significant impact related to wastewater, storm drains, or solid waste so these topics are not studied further in this SEIR. However, due to current statewide drought conditions that have occurred since certification of the 2008 FEIR, the issue of water supply is studied in Section 4.6 of this SEIR.

1.6 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The *CEQA Guidelines* define lead, responsible and trustee agencies. The City of Beverly Hills is the lead agency for the Project because it holds principal responsibility for approving the Project.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the Project. Responsible agencies include the Los Angeles Regional Water Quality Control Board, which regulates water quality in the region, and the South Coast Air Quality Management District, which regulates air quality in the region.

A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. There are trustee agencies for the Proposed Project.

1.7 ENVIRONMENTAL REVIEW PROCESS

The major steps in the environmental review process, as required under CEQA, are outlined below. The steps are presented in sequential order.

1. **Notice of Preparation (NOP) and Initial Study.** After deciding that an SEIR is required, the lead agency (City of Beverly Hills) must file a NOP soliciting input on the SEIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing *(CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. The NOP may be accompanied by an Initial Study that identifies the issue areas for which the project could create significant environmental impacts.

2. **Draft SEIR Prepared.** The Draft SEIR must contain a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.

3. **Notice of Completion.** The lead agency must file a Notice of Completion with the State Clearinghouse when it completes a Draft SEIR and prepare a Public Notice of Availability of a Draft SEIR. The lead agency must place the Notice in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the Notice to anyone requesting it *(CEQA Guidelines* Section 15087). Additionally, public notice of Draft SEIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public, and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a DEIR is 30 days. When a DEIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the Clearinghouse approves a shorter period (Public Resources Code 21091).

4. **Final SEIR.** A Final SEIR must include a) the DEIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.

5. **Certification of Final SEIR.** Prior to making a decision on the project, the lead agency must certify that a) the Final SEIR has been completed in compliance with CEQA; b) the Final SEIR was presented to the decision-making body of the lead agency; and c) the decision-making body reviewed and considered the information in the Final SEIR prior to approving the project *(CEQA Guidelines* Section 15090).

6. **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects; b) require changes to the project to reduce or avoid significant environmental effects; or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted *(CEQA Guidelines* Sections 15042 and 15043).

7. **Findings/Statement of Overriding Considerations.** For any significant impact of the project identified in the SEIR, the lead agency must find, based on substantial evidence, that a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible *(CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.

8. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the SEIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.

9. **Notice of Determination.** The lead agency must file a Notice of Determination after deciding to approve a project for which an SEIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the Notice with the County Clerk. The Notice must be posted for 30 days and sent to anyone previously requesting notice. Posting of the Notice starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

2 PROJECT DESCRIPTION

This section describes the Proposed Project, including the Project applicant, the project approved on the Project site in 2012 (the Approved Project), the Project location, major Project characteristics, Project objectives, and discretionary approvals needed for Project approval.

2.1 PROJECT APPLICANT

Wanda Beverly Hills Properties, LLC ("Wanda")
439 North Canon Drive, Suite 207
Beverly Hills, California 90210

2.2 LEAD AGENCY CONTACT PERSON

Andre Sahakian, Associate Planner
City of Beverly Hills
Community Development Department
455 Rexford Drive, First Floor
Beverly Hills, CA 90210
(310) 285-1127

2.3 PROJECT LOCATION

The Project site is located in the City of Beverly Hills, approximately seven miles west of the City of Los Angeles Civic Center. It is located on the south side of the 9900 block of Wilshire Boulevard, north of Santa Monica Boulevard. The approximately 8-acre site forms the western entrance into the City of Beverly Hills and is currently vacant. Figure 2-1 shows the location of the Project site within the region. Figure 2-2 shows the location of the Project site within the surrounding neighborhood.

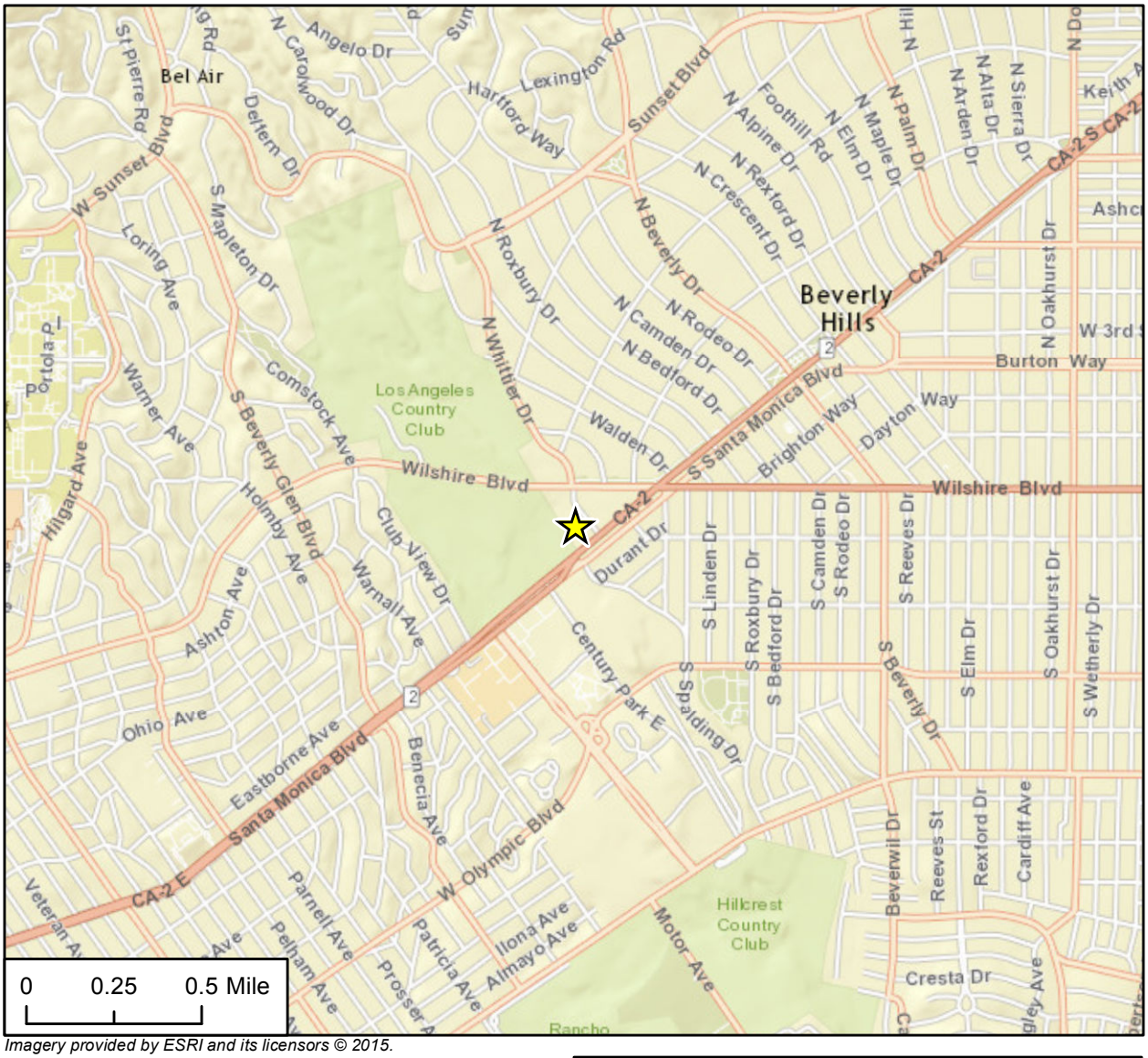
Major regional access is provided by Santa Monica Boulevard, which connects to U.S. Highway 101 (Hollywood Freeway) to the east and Interstate 405 (I-405) to the west, as well as Wilshire Boulevard, which connects to I-405 to the west.

2.4 EXISTING SITE CHARACTERISTICS

2.4.1 Current Land Use Designation and Zoning

The Project site is currently vacant and has a General Plan land use designation of "Specific Plan: 9900 Wilshire." The site is zoned C-3 (Commercial), as defined by the City's Zoning Ordinance and the Land Use Element of the General Plan. Uses permitted in the C-3 designation include a wide range of Low- to High-Intensity Commercial uses, such as restaurants, offices, and retail shops.

The 9900 Wilshire Specific Plan that was originally adopted in April 2008 serves as the primary land use regulatory document for the Project site. When adopted, the Specific Plan resulted in changes to some aspects of the Project that were studied in the February 2008 FEIR. These changes included reducing the number of residential units from 252 to 235; reducing the



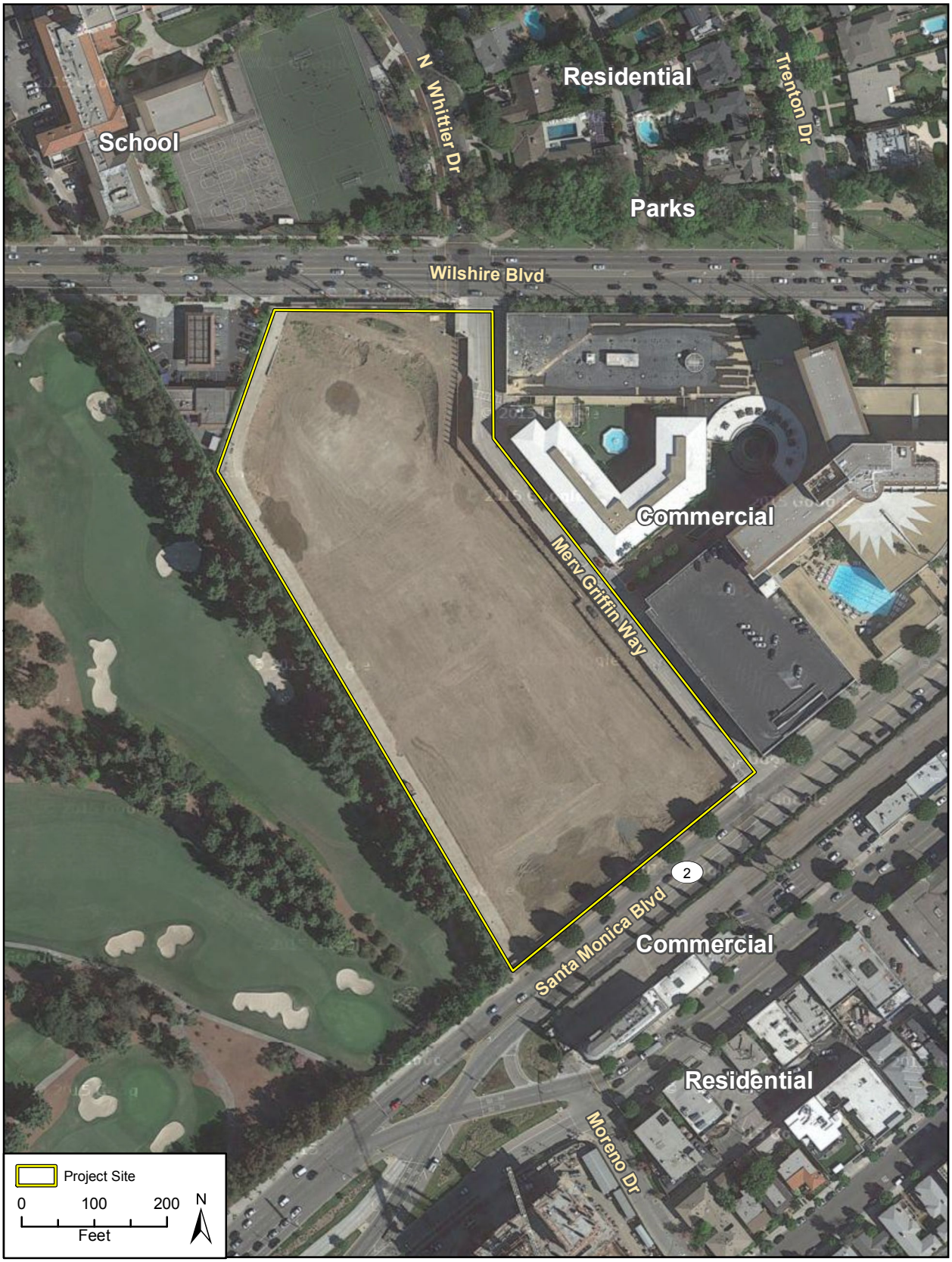
Imagery provided by ESRI and its licensors © 2015.

N

Project Location

Regional Location

Figure 2-1



Imagery provided by Google and its licensors © 2015.

Project Site and Surrounding Land Uses

Figure 2-2

commercial square footage from 19,856 sf to 16,456 sf; and reducing the number of parking spaces from 956 to 803. The Specific Plan that was adopted in April 2008 also removed the two smaller, four-story loft buildings and added a two-story commercial building located along the north side of Santa Monica Boulevard. An Administrative Modification to the Specific Plan was approved in December 2012, further reducing the approved commercial square footage to 15,856 sf and increasing the parking spaces to 876.

2.4.2 Surrounding Land Uses

The neighborhood around the Project site is characterized by a mix of commercial, retail, and residential uses (see Figure 2-2). There are also an elementary school and a linear parkway to the north, across Wilshire Boulevard. Table 2–1 identifies the uses immediately around the Project site. The closest residence is to the north of the Project site across Wilshire Boulevard.

Table 2–1
Existing Land Uses and Zoning

Direction	Jurisdiction	Existing Zoning	Existing Use(s)
North	City of Beverly Hills	S (school), R-1X (one-family residential)	El Rodeo Elementary School, single-family one- and two-story homes, and Beverly Gardens Park (linear parkway)
East	City of Beverly Hills	C-3 (commercial), Beverly Hilton Specific Plan	Beverly Hilton Hotel, Waldorf Astoria Hotel (under construction), above-ground parking structure, and ancillary hotel uses
South	City of Beverly Hills	T-1 (transportation overlay), C-3A (commercial), and C-3 (commercial)	Former railroad right-of-way includes a privately owned surface parking lot, one- and two-story small retail shops and office buildings, and a four-story medical clinic
West	City of Beverly Hills	C-3 (commercial)	Avis Union 76 gas station
	City of Los Angeles	A1-1XL (Agricultural Zone)	Los Angeles Country Club

2.5 PROJECT CHARACTERISTICS

The proposed One Beverly Hills Project (Proposed Project) is an alteration of the approved 9900 Wilshire Project (Approved Project). The City of Beverly Hills certified a Final Environmental Impact Report (2008 FEIR) for the 9900 Wilshire Project (SCH No. 2006071107) in accordance with CEQA in April 2008. The version of the Approved Project studied in the 2008 FEIR included the demolition of the Robinsons May department store, which occupied the site at that time, and construction of 252 luxury condominiums in four separate buildings, 19,856 sf of commercial space, a two-level subterranean parking garage with 956 parking spaces, and landscaped gardens and other open space throughout the site. The 252 luxury condominiums were contained in two buildings (North and South Buildings) and two smaller four-story loft buildings. The commercial component was located along the north side of Santa Monica Boulevard in a one-story building.

As discussed above, the City adopted the 9900 Wilshire Specific Plan (the Approved Project) in April 2008 and subsequently approved an Administrative Modification to the Specific Plan in December 2012. Per the current Specific Plan, 235 residential units, 15,856 sf of commercial

building area, and 876 parking spaces are allowed onsite. A two-story commercial building is allowed along the north side of Santa Monica Boulevard.

For the purposes of this SEIR, the Approved Project (the 9900 Wilshire Specific Plan as modified in 2012) is used as the baseline for the analysis as it represents what is currently permitted for development at the Project site. However, the 2008 FEIR and associated studies are used in this analysis, as appropriate, since there was no substantial change to the Project between 2008 and 2012 and, therefore, no additional CEQA environmental document was prepared.

2.5.1 Proposed Site Plan

Figure 2-3 shows the currently proposed site plan for the Proposed Project, while Figures 2-4a-e compare the elevations of the Proposed Project to those of the Approved Project. The Proposed Project involves the development of 901,514 sf of floor area, which is identical to the approved floor area of the Approved Project. The Proposed Project would include up to 193 condominiums and a luxury hotel with up to a 134 rooms that would be located in two of the linear buildings previously approved and are known as the South Building and the North Building. The Proposed Project would also include development of a smaller building located to the east of the South Building, which was proposed for use as a "spa pavilion" under the Approved Project, but would be shifted to the north and would be used for ancillary hotel uses under the Proposed Project. Under the Proposed Project, the maximum height of the South Building would be 185 feet and the North Building would be 161 feet at its highest point. The Specific Plan for the Approved Project entitled the Approved Project to 205 feet for the South Building and 161 feet for the North Building, and no modifications were made to the height restrictions in the December 2012 Administrative Modification. The Proposed Project would involve no increase in building height as compared to the Approved Project.

The footprint of each of the buildings proposed for the site would minimally change as compared to the Approved Project. The width of the South Building and North Building would increase by five feet along the eastern sides. However, there would be reductions of approximately 10 feet on both the east and west sides of the South building on floors two, three, four, and five.

The North Building would contain 102 residences along with facilities, such as the rooftop pool, that would be available only to residents. The South Building would contain 91 residences. The up to 134-room hotel would be located solely in the South Building along with all of the hotel-related facilities other than the meeting space, which would be located in an adjacent building to the east of the South Building. The hotel's guestrooms would be located on levels two, three, four, and a portion of level five of the South Building.

The proposed hotel has been planned to include a main ballroom and three meeting rooms with a total area of 7,942 sf, along with pre-function space and ancillary facilities. Food and beverage facilities would include a VIP Function Room, an all-day dining restaurant, a fine dining restaurant, and a roof-top bar, totaling approximately 16,057 sf. In addition, there would be 1,600 sf of outdoor dining space and a 1,907 sf lobby lounge. Other hotel uses would include a 14,435 sf spa and fitness facility and a 2,484 sf hotel boutique shop. Table 2-2 summarizes the basic Project characteristics, while Table 2–3 compares the Approved Project to the Proposed Project.

Source: Richard Meier & Partners, LLP, June 2015

Site Plan

Figure 2-3

2 East Elevation - 12.06.12 City of Beverly Hills Entitled (Approved)

CITY OF BEVERLY HILLS ENTITLEMENT ENVELOPE

East Elevation

Source: Richard Meier & Partners LLP, June 2015

Figure 2-4a

City of Beverly Hills

2 West Elevation - 12.06.12 City of Beverly Hills Entitled (Approved)

CITY OF BEVERLY HILLS ENTITLEMENT ENVELOPE

1 West Elevation - Proposed

West Elevation

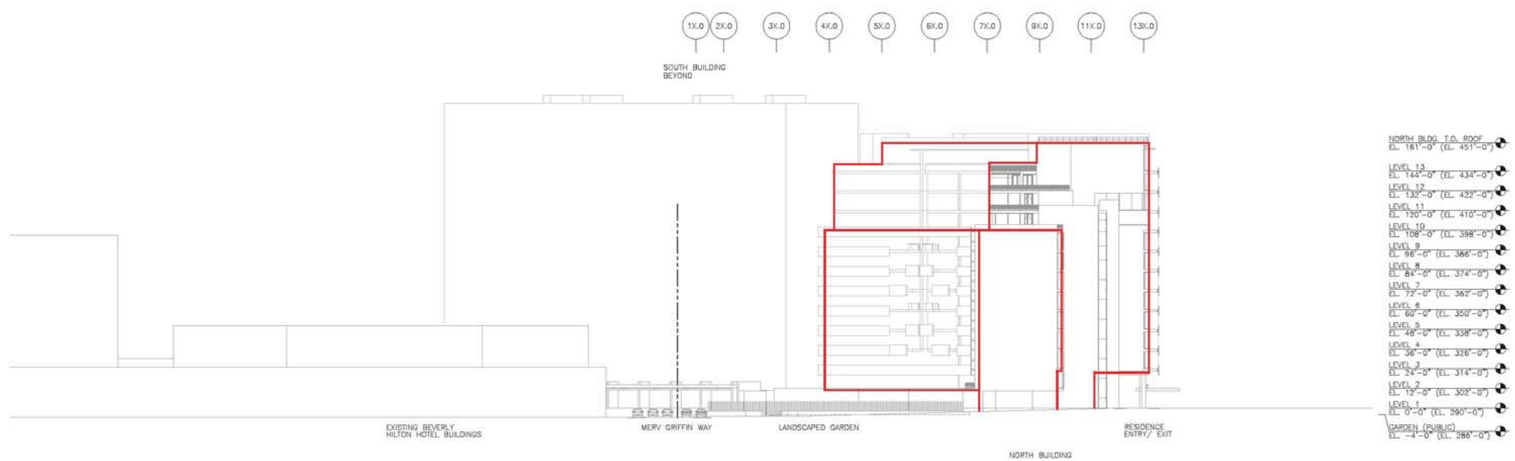
Source: Richard Meier & Partners LLP, June 2015

Figure 2-4b

City of Beverly Hills

2 North Elevation - 12.06.12 City of Beverly Hills Entitled (Approved)

CITY OF BEVERLY HILLS ENTITLEMENT ENVELOPE



0 50 100 Feet

N

1 North Elevation - Proposed

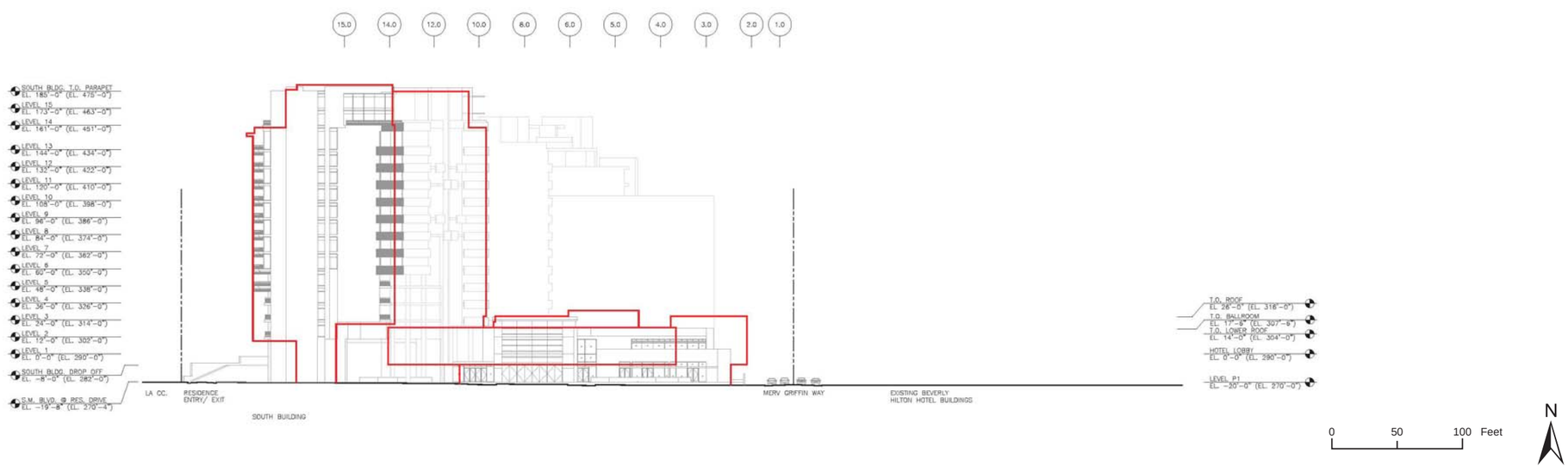
North Elevation

Figure 2-4c

Source: Richard Meier & Partners LLP, June 2015

2 South Elevation - 12.06.12 City of Beverly Hills Entitled (Approved)

CITY OF BEVERLY HILLS ENTITLEMENT ENVELOPE



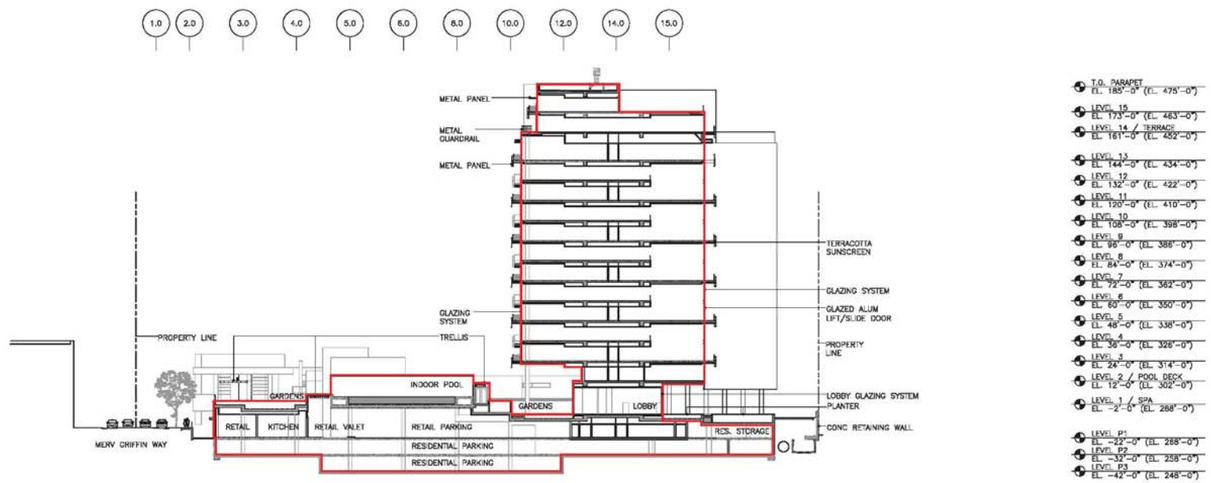
1 South Elevation - Proposed

South Elevation

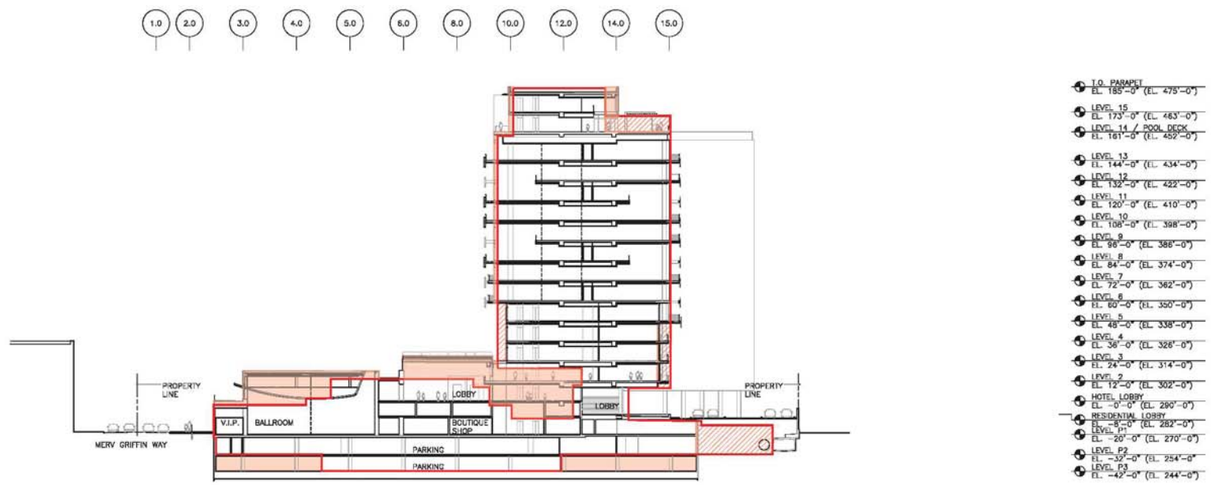
Figure 2-4d

Source: Richard Meier & Partners LLP, June 2015

City of Beverly Hills



2 South Tower Section Looking South - 12.06.12 City of Beverly Hills Entitled



1 South Tower Section Looking South - Proposed

CITY OF BEVERLY HILLS ENTITLEMENT ENVELOPE

AREA REMOVED

AREA ADDED

0 50 100 Feet

N

South Building Looking South

Source: Richard Meier & Partners LLP, June 2015

Figure 2-4e

City of Beverly Hills

Table 2–2
Proposed Project Characteristics

Lot Area	7.95 acres
Lot Coverage (Approximate)	104,360 sf
Floor Area	901,514 sf
Parking	1,140 total spaces
Building Height	North Building – 161 feet South Building – 185 feet

As with the Approved Project, the proposed residential buildings included in the Proposed Project would be positioned along the west property line and have been designed to be raised above the ground to allow light, views and the Los Angeles Country Club landscape to pass below the architecture. The buildings would be curvilinear and horizontal to reflect the natural forms and geometry of the Los Angeles Country Club landscape, and the classic horizontal massing of the neighboring Hilton Hotel.

2.5.2 Site Access and Parking

Vehicle access to the site is designed to separate residential traffic from hotel traffic and through traffic on Merv Griffin Way. In order to provide access to the hotel along with a "front door", a motor court would be incorporated into the South Building on Santa Monica Boulevard. This motor court would replace the approved public self-parking garage access on North Santa Monica Boulevard. Guests would ascend within a lobby that opens to the garden level. All hotel guests, including guests utilizing the restaurants or the meeting space, would be required to valet park their cars unless they are being dropped off in the motor court.

Residents and their guests would continue to access their residences via a private, secured drive at the west property line that is accessed from Wilshire Boulevard and Santa Monica Boulevard. In support of the residences' linear design, multiple small-scale building lobbies have been incorporated into the Project to provide convenient, private elevator access to residences.

All parking (other than motor court parking) would be below-grade and hotel parking would be separate from residential parking. The total depth of the parking garage would be approximately 42 feet. A total of about 1,140 parking spaces would be provided. This takes into account Beverly Hills Municipal Code (BHMC) permitted reductions, covenants and/or other means to provide legally adequate parking for One Beverly Hills. Similar to the Approved Project, loading docks and staff parking would be below-grade and accessed from Merv Griffin Way.

The applicant is considering two site access options for residences and the hotel motor court, which would be for hotel guests, spa and restaurant visitors, taxis, shared ride vans, private cars/limos, and the hotel valet service. These options are described below and illustrated on Figures 2-5a and 2-5b. The potential effects of each option on local traffic levels of service are discussed in Section 4.5, *Transportation and Traffic* (under Impact T-3).

Table 2–3
Comparison of the Approved Project and Proposed Project

Use	Approved Project	Proposed Project	Change from Approved Project
Residential			
Unit Types			
Efficiencies	0	0	0
1 Bedroom	35	41	+6
2 Bedrooms	106	67	-39
3 Bedrooms	62	22	-40
3 Bedrooms with Den	0	36	+36
4 Bedrooms	19	15	-4
4 Bedrooms with Den	0	0	–
Townhouse (2 Bedroom)	0	5	+5
Penthouse (5 or more bedrooms)	13	7	-6
Total Residential Units	***235***	***193***	***-42***
Residential Floor Area			
North Residential Building	327,448 SF	324,429 SF	-3,019 SF
South Residential Building	486,408 SF	341,009 SF	-145,399 SF
Other Residential Spaces	71,802 SF	31,785 SF	-40,017 SF
Total Residential Area	***885,658 SF***	***697,223 SF***	***-188,435 SF***
Commercial			
Retail	11,656 SF	0 SF[1]	-11,656
Restaurant	4,200 SF	0 SF	-4,200
Outdoor Dining (not counted in commercial floor area)	600 SF	1,600 SF	+1,000
Total Commercial Area	***15,856 SF***	***0 SF***	***-15,856***
Hotel			
Hotel Rooms	0	134	+134
Hotel Floor Area			
Hotel Rooms		95,921 SF	+95,921 SF
Restaurant/Lounge/Bar	0	16,057 SF	+16,057 SF
Hotel Shops	0	2,484 SF	+2,484 SF
Ballroom/Meeting Rooms		7,942 SF	+7,942 SF
Amenity, Storage, BOH		65,545 SF	+65,545 SF
Spa & Fitness		14,435 SF	+14,435 Sf
Hotel & Lobby Lounge	0	1,907 SF	+1,907 SF
Total	0	204,291 SF	+204,291 SF

[1]*The hotel includes restaurants and shops under the Proposed Project.*
SF = square feet

Option 1

As shown in Figure 2-5a, Option 1 would allow only right turns into and out of the motor court from Santa Monica Boulevard. Motorists traveling east on Santa Monica Boulevard would need to make a U-turn at the traffic signal at Merv Griffin Way in order to access the motor court. A deceleration lane would be provided along the north side of Santa Monica Boulevard, east of the motor court driveway. No guest or resident access would be provided from Merv Griffin Way. The driveway for residents and visitors would be located at the western edge of the site and would also be right-in and right-out only.

Option 2

As shown in Figure 2-5b, under normal conditions Option 2 would allow two-way access from Santa Monica Boulevard with a left turn lane, as well as a one-way, 26-foot-wide entrance access from Merv Griffin Way. Under special circumstances when Santa Monica Boulevard is partially or fully closed, the access point to Merv Griffin Way would be converted into a two-way driveway allowing both ingress and egress (which can be accommodated with the 26-foot width).

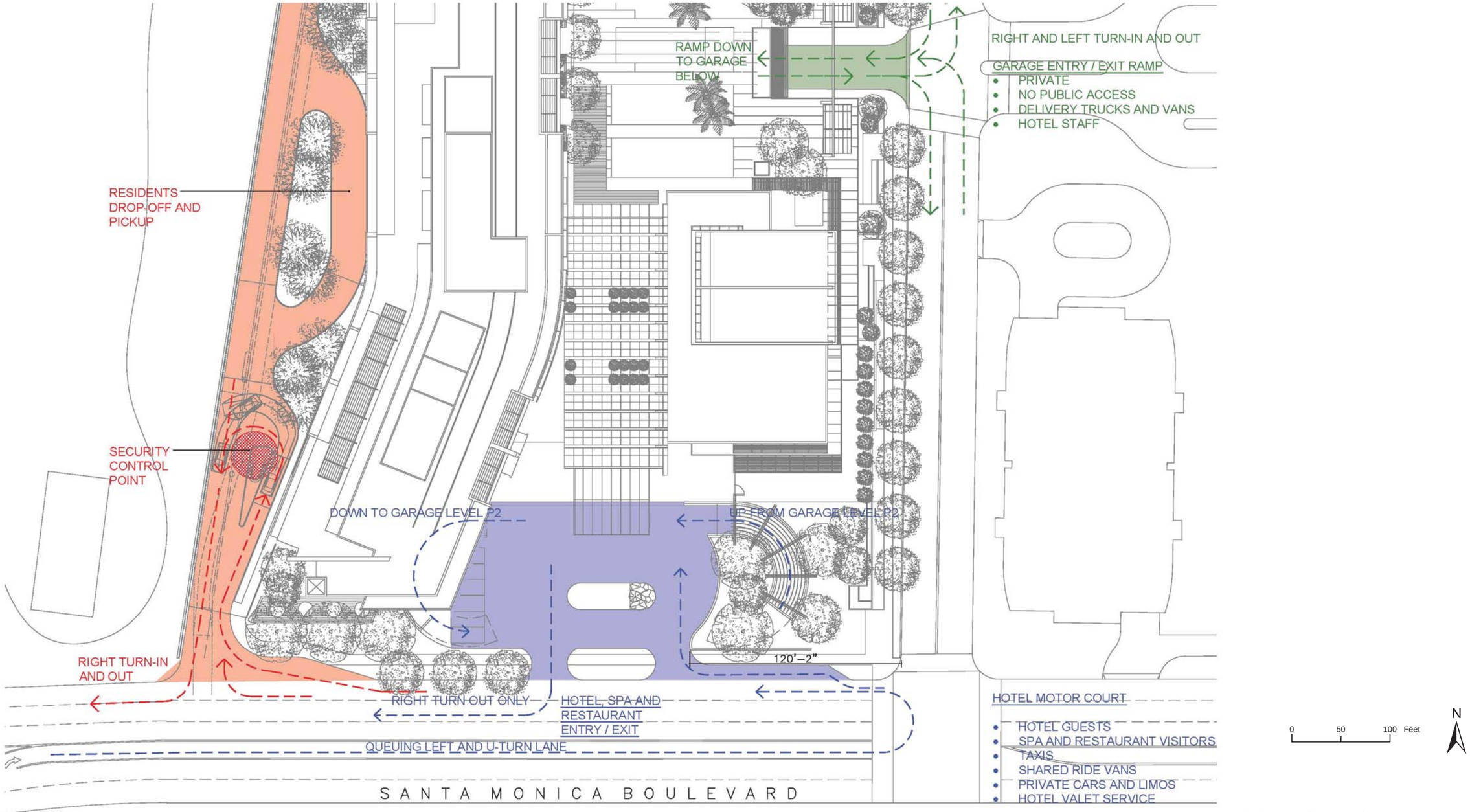
2.5.3 Sustainability Features

The design of the One Beverly Hills project is based on principles of smart growth and environmental sustainability, as evidenced in its mixed-use nature, and the availability of existing infrastructure to service the proposed uses. In addition, the design of new buildings will incorporate LEED® features to make it possible to achieve the equivalent of Silver certification under the U.S. Green Building Council's LEED-H® or LEED-NC® Rating System. Such LEED® features will include energy-efficient buildings, a pedestrian and bicycle-friendly site design, and water conservation measures, among others. Buildings would be "thin" in support of a sustainable design concept to maximize daylight and natural ventilation. Most residences would be designed to include cantilevered terraces and balconies that shade the glass and create depth and scale at the building elevations. Additionally, in accordance with the Conditions of Approval for the Approved Project, the Proposed Project would incorporate graywater systems to reduce overall water demands and the amount of wastewater that must be treated offsite. The following list summarizes additional features planned to enable the Project to achieve the equivalent of LEED® Silver certification.

Water Conservation

- *Use of high-efficiency toilets (maximum 1.28 gallons per flush), including dual-flush water closets, and no-flush or waterless urinals in all non-residential restrooms, as appropriate*
- *Use of non-residential restroom faucets with a maximum flow rate of 0.5 gallons per minute and non-residential kitchen faucets (except restaurant kitchens) with a maximum flow rate of 1.5 gallons per minute (restaurant kitchen faucets shall have pre-rinse self-closing spray heads with a maximum flow rate of 1.6 gallons per minute)*
- *Use of non-residential restroom faucets with a self-closing design (i.e., that will automatically turn off when not in use)*
- *Use of individual metering and billing for water use of all residential uses and exploration of such metering for commercial spaces*

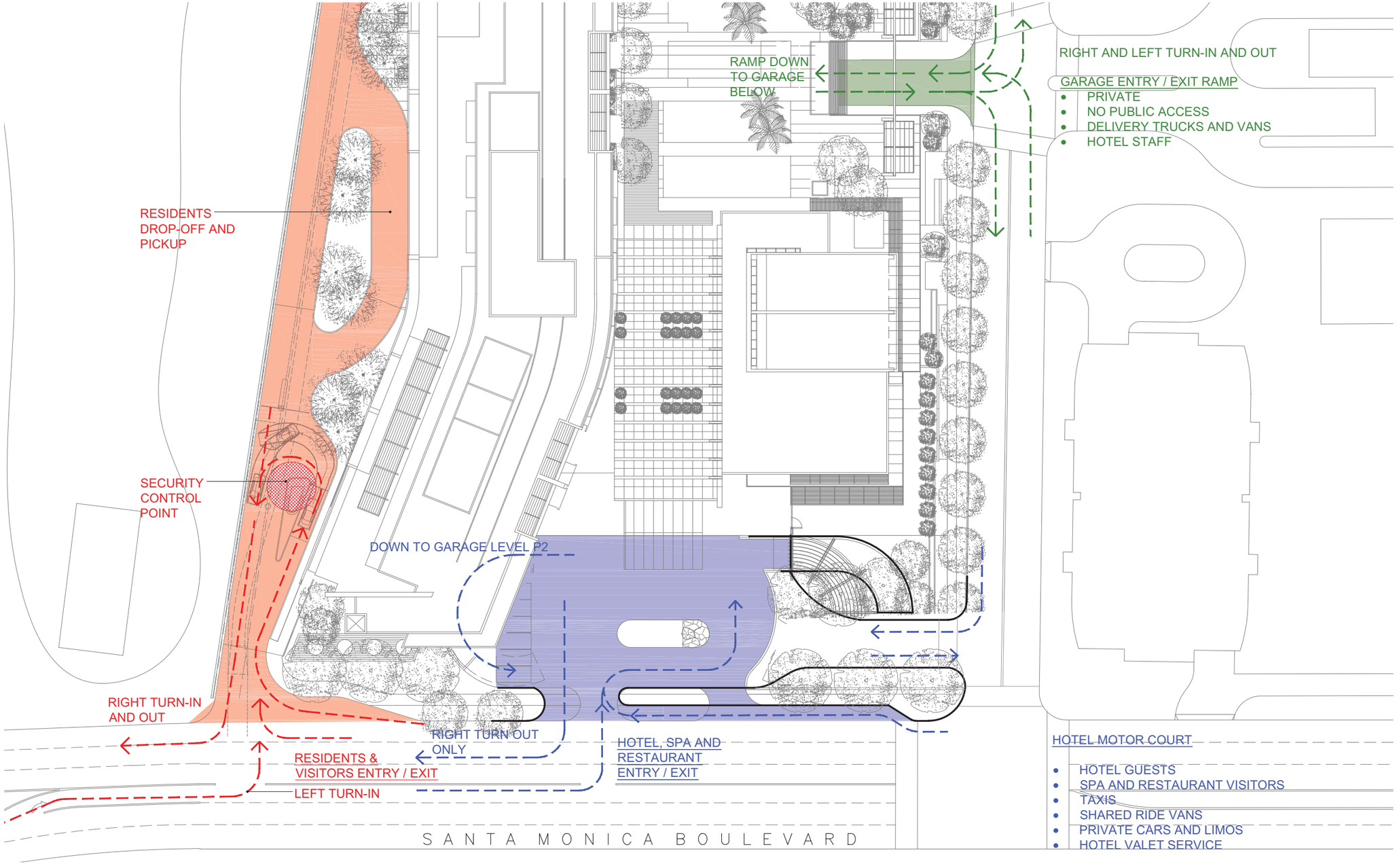
This page intentionally left blank.



Motor Court Option 1

Source: Richard Meier & Partners LLP, June 2015

Figure 2-5a



Motor Court Option 2

Source: Richard Meier & Partners LLP, June 2015

Figure 2-5b

- *Use of a leak detection system for any swimming pool, Jacuzzi, or other comparable spa equipment introduced onsite*
- *Prohibition of the use of single-passing cooling equipment*
- *Operation of cooling towers at a minimum of 5.5 cycles of concentration*
- *Use of a weather-based irrigation controller with rain shutoff, matched precipitation (flow) rates for sprinkler heads, and rotating sprinkler nozzles or comparable technology, such as drip/microspray/subsurface irrigation where appropriate*
- *Minimum irrigation system distribution uniformity of 75 percent*
- *Use of a separate water meter (or submeter), flow sensor, and master valve shutoff for irrigated landscape areas totaling 5,000 square feet and greater*
- *Use of permeable surfaces within common site areas that are not located above subterranean parking*
- *Incorporation of proper hydro-zoning, turf minimization, xeriscaping, and use of native/drought-tolerant plant materials, as feasible or appropriate. Specifically, 100 percent of all landscaping will consist of drought-tolerant plants and at least 50 percent will consist of native species.*
- *Use of landscape contouring/bioswales, rain gardens, cisterns, and tree pits to minimize precipitation runoff*

Water Quality Considerations

- *Installation of catch basin inserts and screens to provide runoff contaminant removal*
- *Implementation of Best Management Practices (BMPs) to control stormwater runoff, minimize pollutant loading and erosion effects during and after construction*

Energy Conservation

- *Use of full-cutoff or fully shielded on-street lighting oriented to pedestrian areas/sidewalks so as to minimize overlighting*
- *Use of light emitting diode (LED) lighting or other energy-efficient lighting technologies where appropriate*
- *Incorporation of passive energy-efficiency strategies, such as overhangs, and shading devices*
- *Exceeding Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2013 Building Energy Efficiency Standards requirements*
- *Incorporation of energy efficient design methods and technologies such as centralized chiller plant and water cooled variable refrigerant flow systems, high performance window glazing, passive design and façade shading devices such as brise-soleil, and enhanced insulation to minimize solar heat gain*
- *Application of energy-saving technologies and components to reduce the Project's electrical use-profile. Examples of these components include light emitting diode (LED) and other efficient lighting technology, energy saving lighting control systems such as light- and motion-detection controls (where applicable), and energy efficient heating, ventilation and cooling equipment*
- *Utilization of full-cutoff or fully shielded on-street lighting oriented to pedestrian areas/sidewalks so as to follow dark sky standards and to minimize light trespass and glare*
- *Use of energy-saving variable frequency drive technology on domestic water pumps or ventilation fans will be incorporated, if applicable and necessary*
- *Performance of post-construction commissioning of building energy systems; building system retrocommissioning on an ongoing basis at intervals of roughly five years to ensure all systems are running at optimal efficiency.*
- *Use of high efficiency mechanical equipment selection exceeding Title 24 requirements*

- *Use of air side and water side economizers to maximize use of free cooling using local climactic conditions*
- *Use of integrated daylighting controls*
- *Use of zoned residential systems with programmable thermostats to allow different schedules to be incorporated in different rooms*
- *Use of variable frequency drives on motors*
- *Use of centralized energy management control systems to monitor and control all mechanical systems*
- *Use of integrated daylighting and occupancy controls*

Transportation
- *Onsite bicycle storage and bicycle amenities for residents, visitors and employees.*

Air Quality
- *Prohibition of the use of chlorofluorocarbons (CFCs) in HVAC systems.*
- *Adherence to California air emissions requirements for all heating or cogeneration equipment utilized at the Project*
- *Use of adhesives, sealants, paints, finishes, carpet, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air quality pollutants*

Noise Management
- *Design of all outdoor mounted mechanical and electrical equipment to meet the BHMC noise requirements*
- *Partial enclosure of all outdoor loading dock and trash/recycling areas such that the line-of-sight between these noise sources (loading dock service area) and any adjacent noise sensitive land use is obstructed*
- *Use of landscaping and architectural elements to divert sound away from neighboring properties and resident spaces*

2.5.4 Landscaping

The site project landscape design would continue to be landscaped with public and private gardens and drought-tolerant landscaping that would require minimal watering. The landscape features under the Proposed Project would be similar to what is already allowed under the Approved Project with a small increase in overall open and green space.

2.6 GRADING AND CONSTRUCTION

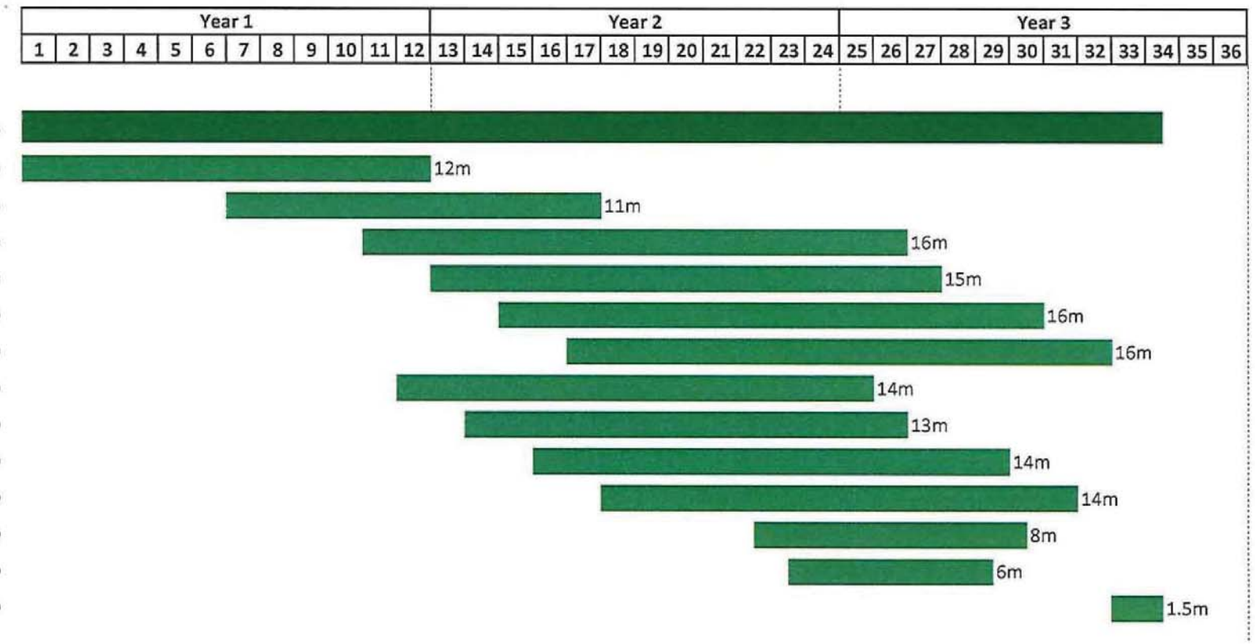
Construction of the Proposed Project would occur over approximately 34 months. About eight months of early infrastructure work for storm drain line, retaining wall, shoring, and road-access work would precede the 34-month construction period. All construction equipment would be a minimum Tier 4 in order to comply with California Air Resources Board (CARB) requirements. Recyclable materials would be used onsite to reduce off-haul to the greatest extent possible. The preliminary construction schedule is shown in Figure 2-6. Construction staging areas and other construction-related logistics are shown in Figure 2-7.

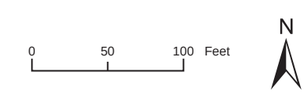
It is anticipated that there would be three periods of peak construction activity as the site's demolition phase has already been completed. The first phase would occur with the excavation

Wanda Beverly Hills - Preliminary Project Summary Schedule

PRELIMINARY CONSTRUCTION SCHEDULE DATED 8/24/15 v1

No.	CONSTRUCTION PHASES	33.5	mo
1	Shoring, Excavation & Foundation	12	mo
2	Below Grade Substructure Core	11	mo
3	Superstructure Core - South	16	mo
4	Exterior Building Envelope - South	15	mo
5	Interior Build-out - South	16	mo
6	MEP Installation & Testing - South	16	mo
7	Superstructure Core - North	14	mo
8	Exterior Building Envelope - North	13	mo
9	Interior Build-out - North	14	mo
10	MEP Installation & Testing - North	14	mo
11	Sitework & Landscape	8	mo
12	Utilities & Off-site Improvements	6	mo
13	Final Inspections	1.5	mo

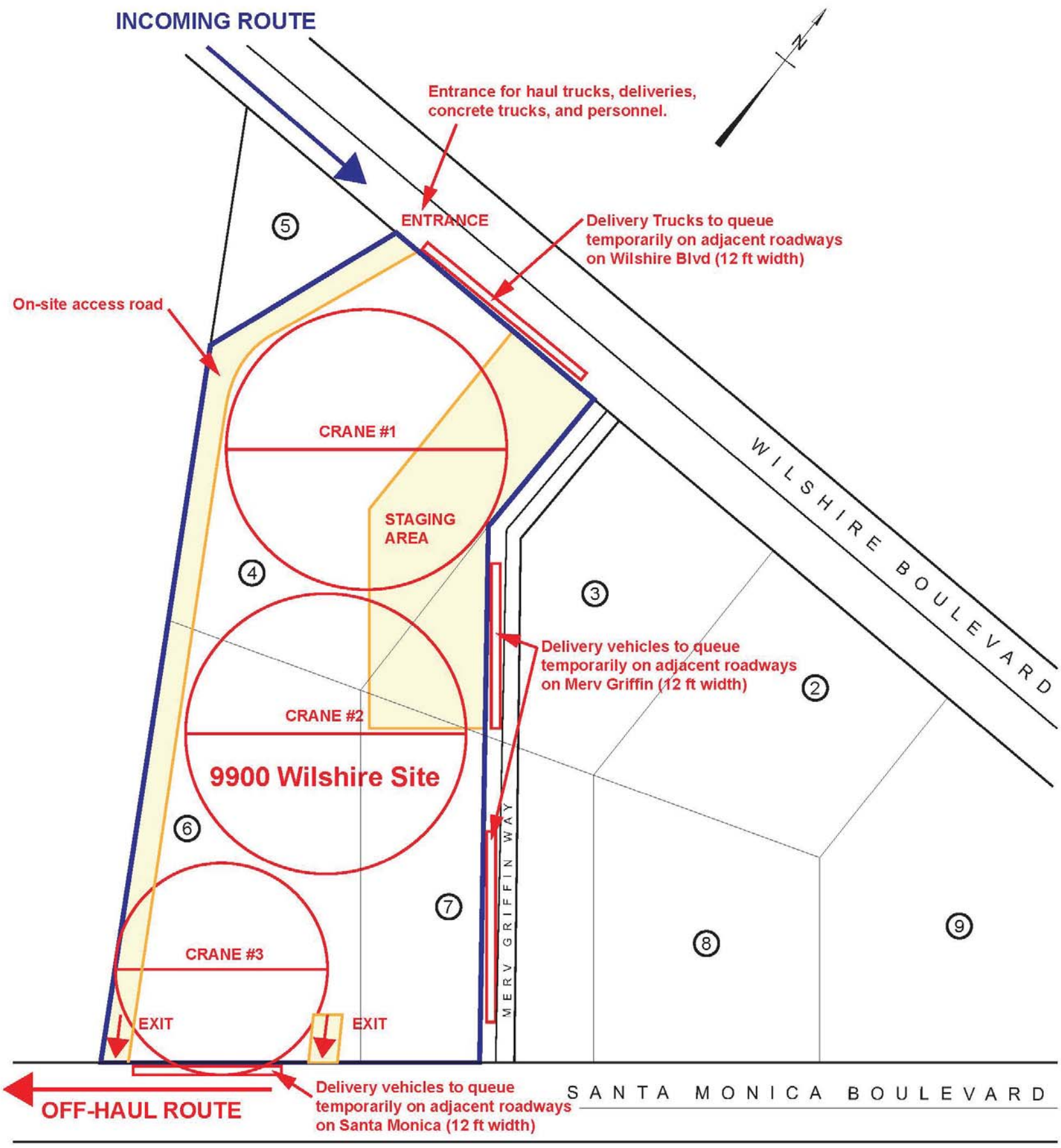




Preliminary Construction Schedules

Source: Richard Meier & Partners LLP, June 2015

Figure 2-6



Site Logistics (Material & Equipment Staging, Delivery Truck Queue)

Source: Richard Meier & Partners LLP, June 2015

Figure 2-7

of the subterranean parking garage. In accordance with City regulations, earthwork and excavation are expected to occur over a period of approximately five months and are expected to involve around 162 truckloads per day at two- and three-minute intervals (bottom dumps, 14 cubic yards), or up to 300 trucks per day for up to 2.5 months. The total approximate volume of onsite excavation off-haul is estimated at 259,487 cubic yards.

During the excavation phase of construction, the construction crew sizes are anticipated to be relatively small (i.e., less than 40 workers per day). Parking during this phase is expected to occur on the Project site in sections of the service road not used for access to and egress from the site. During the construction of the Project parking structure, construction crew sizes may reach peaks of approximately 150 workers per day. During this approximately eight-month period, offsite parking in West Los Angeles would be provided with a shuttle service to and from the site.

During construction, soil would be excavated to construct the three-level, subterranean parking structure. The construction staging area for the Project haul trucks during the excavation phase is expected to be located along Sepulveda Boulevard, north and south of Wilshire Boulevard. Trucks are to be stationed at this location until called upon by the onsite dispatcher to export excavated soils. From the queue along Sepulveda Boulevard, trucks are expected to proceed east on Wilshire Boulevard directly to the job site. After loading, which would occur entirely on the Project site, trucks would exit the site at the existing service road intersection (southeast of the site) onto Santa Monica Boulevard. They would then proceed west to the 405 Freeway and travel north or south, as necessary, to the designated landfill. Please refer to Exhibit 1 for the truck routes to and from the site. Traffic control personnel would be stationed, full-time, at the entrance to the site on Wilshire Boulevard and at the exit on Santa Monica Boulevard, both of which are City-designated truck routes. Haul routes are shown on Figure 2-8. The total number of trucks required to access the site during the excavation process could be as many as 162 trucks per day for up to 5 months, or up to 300 trucks per day for up to 2-1/2 months.

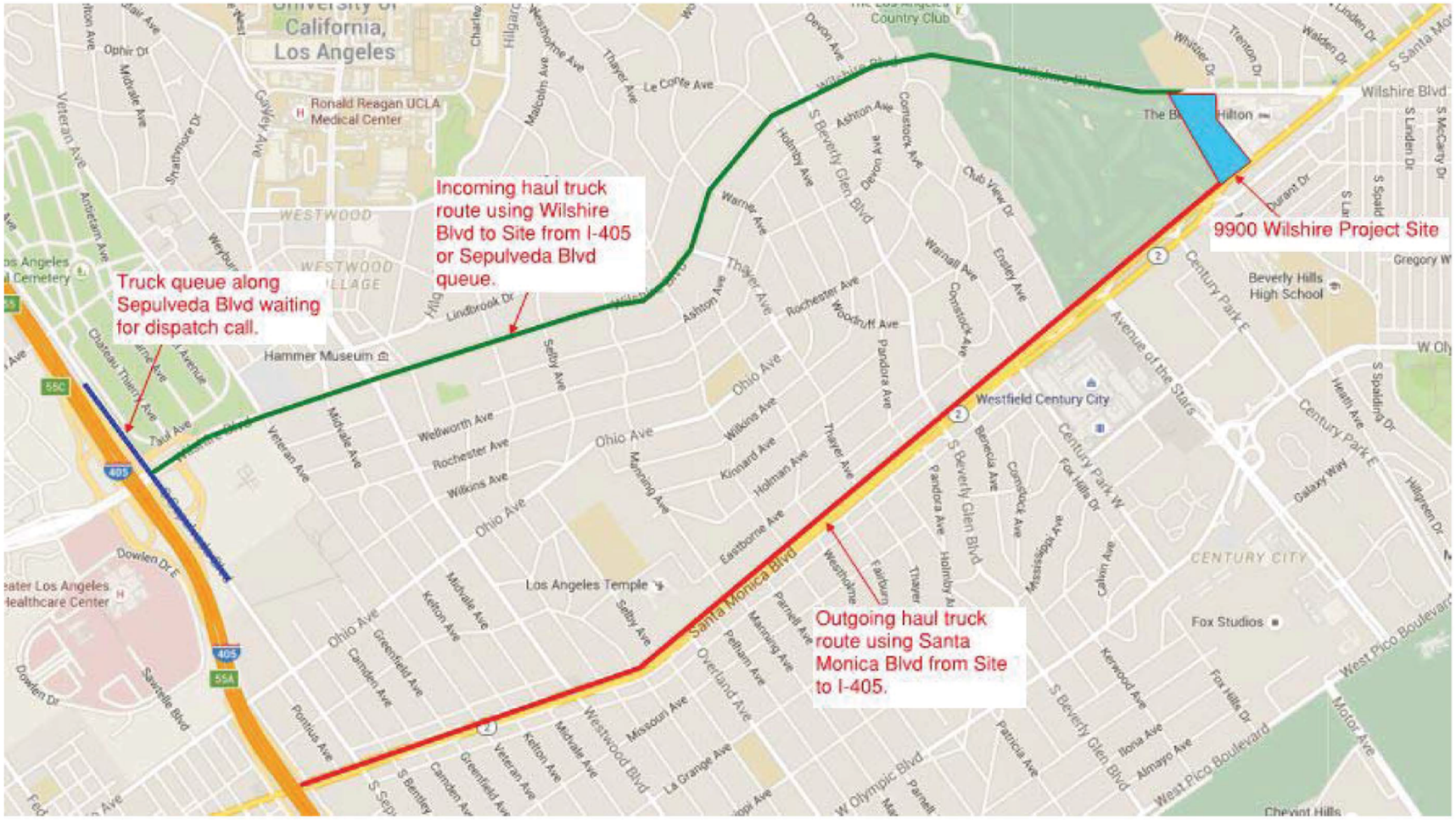
Upon completion of the parking garage, the garage would be utilized for construction crew parking as well as for the staging and storage of materials. During the construction and finishing of the plaza and the Project's buildings, construction crew sizes are expected to peak at approximately 500 workers per day. Given that the proposed parking structure would be constructed prior to the construction of the ground level and the Project's buildings, all construction worker vehicles would be accommodated on the Project site.

Construction material deliveries for the Project would include concrete, plumbing supplies, electrical supplies, electrical fixtures, wood and steel framing, formwork, finishes, glass curtain walls, and other materials to complete the project. These materials would be delivered to and

stored on the site. It is anticipated that these deliveries would utilize vehicles of varying sizes from small delivery trucks to cement mixer trucks, and possibly 18-wheel trucks.

Heavy construction equipment would also be delivered to the site. This equipment would include cranes, bulldozers, excavators, personnel and equipment hoists, and other large items of machinery. It is anticipated that most of this heavy equipment would be transported to the site on large trucks such as 18-wheelers or other similar sized vehicles and would remain on the site until each piece of equipment is no longer needed.

This page intentionally left blank.



Truck Route to and from Site

Source: Richard Meier & Partners LLP, June 2015

Figure 2-8

City of Beverly Hills

Prior to completion of the subterranean parking garage and ground level plaza, concrete mixer trucks and other material delivery trucks may need to queue temporarily on adjacent roadways such as Wilshire Boulevard, Santa Monica Boulevard, and Merv Griffin Way as they enter onto and deliver material to the Project site. This queuing would be managed in accordance with a Construction Management Plan approved by the City of Beverly Hills. After the subterranean parking garage and the ground level plaza are completed, it is expected that the material and equipment deliveries would be stored on site (see Figure 2-8).

2.7 PROJECT OBJECTIVES

The objectives for the Approved Project, as listed in the 2008 FEIR, are as follows:

- *To create a world class architectural landmark with a visual presence at the dual gateway to the City at Wilshire Boulevard and Santa Monica Boulevard, and which will enhance the beauty and image of the City of Beverly Hills.*
- *To develop an environmentally sensitive and sustainable project for which the applicant intends to seek Leadership in Energy and Environmental Design (LEED) certification from the U.S. Green Building Council and establish a benchmark for environmentally responsible design in the City of Beverly Hills. To preserve approximately two thirds of the Project site as landscaped gardens and other open space to enhance the visual character of the Project.*
- *To provide a 0.42-acre entry garden along Wilshire Boulevard for the use and enjoyment of the public that complements and extends the existing Beverly Gardens Park on the north side of Wilshire Boulevard, enhances the garden qualities of the City, and replaces a high density commercial use across the street from an existing school and residential neighborhood.*
- *To redevelop the Project site in a manner that does not substantially increase the traffic levels and related operational air quality and noise impacts associated with the prior Robinsons May department store use on the site prior to closure.*
- *To improve the utilization and visual appearance of the Project site by eliminating the existing above ground parking structure and constructing subterranean parking for the Project that will be spread across the entire Project site to provide convenient parking for Project residents, guests and retail patrons.*
- *To provide a substantial amount of housing for local and area residents to help meet market demand and alleviate the substantial housing shortage in the City of Beverly Hills and the Westside of Los Angeles.*
- *To provide new housing within the City without having to tear down existing rental units or otherwise displace existing housing.*
- *To provide full service residential condominiums that are competitive with existing and proposed condominium projects in the Wilshire Corridor and Century City and have comparable views, so that residents who desire to "downsize" from their existing homes will not have to move out of Beverly Hills to find suitable housing.*
- *To provide restaurant and retail spaces along Santa Monica Boulevard to (a) serve project residents and others and (b) enhance pedestrian activity and street life by providing a connection between the current retail uses in Century City and Beverly Hills.*
- *To improve traffic circulation in and around the Project site by providing additional vehicular access points on Wilshire Boulevard and Santa Monica Boulevard for Project residents in order to reduce traffic on Merv Griffin Way.*
- *To reduce the intensity of uses currently permitted thereon by replacing the existing C 3 commercial zoning designation with a specific plan zoning designation that limits development to*

approximately two thirds of the number of residential units that would be permitted under the R4 residential zoning designation, along with a small amount of retail space.

- *To provide an appropriate transition from the larger office and residential buildings in Century City and the Wilshire Corridor.*
- *To provide housing in close proximity to the office and retail uses in Century City and Beverly Hills.*
- *To provide annual net revenue to the City that substantially exceeds the revenue the City would receive from commercial operations on the Project site.*

Other than the objectives related to the provision of retail development, the objectives for the Approved Project continue to apply. The following additional objectives apply to the Proposed Project:

1. *Promote fiscal benefits to, and economic development and job creation in, the City of Beverly Hills.*
   a. *Develop a luxury hotel with appropriate high-end amenities (i.e., meeting rooms, spa, and restaurants) that attract tourists, business travelers, and members of the Beverly Hills community alike.*
   b. *Ensure that the hotel is of a quality, size, design, and use that attracts visitors from around the world along with members of the Beverly Hills community so that it is established as a world class hotel and furthers Beverly Hills' reputation as a premier hospitality location.*
   c. *Provide restaurants at the western gateway to Beverly Hills to serve the Project's residents, hotel guests and the Beverly Hills community and to enhance pedestrian activity.*
   d. *Provide a complementary mix of land uses, including a hotel use that maximizes transient occupancy tax and other tax revenues to the City in order for the City to continue to provide and finance critical City services including its police department, fire department and schools.*
   e. *Provide increased annual net revenue to the City that substantially exceeds the revenue the City would receive from the approved residential project or other commercial uses on the Project Site.*
   f. *Increase the supply of luxury hotel rooms in the City to meet the City's ever increasing demand for luxury hotel rooms and (1) to prevent further leakage into competing luxury hotels outside of the City including luxury hotels in West Hollywood, Century City and Santa Monica and (2) to ensure that these guests and visitors continue to shop, stay and dine in Beverly Hills to support local businesses and to increase the revenues to the City.*
2. *Provide a set of mixed-uses that takes maximum advantage of the physical, social and economic potential of the Project Site.*
   a. *Increase the Beverly Hills community's use and enjoyment of the site by adding commercial uses that include hotel rooms, dining options and luxury hotel amenities (including a spa and meeting facilities).*
   b. *Arrange residential and onsite hotel facilities and other uses in a way that is logical and promotes efficient operations.*
   c. *Provide the range of uses within the hotel to ensure that it is economically viable as a luxury hotel.*

   d. *Co-locate residential and hotel units to permit shared use of site amenities.*
   e. *Provide needed housing for local and area residents to help meet the market demand and alleviate the housing shortage in the City of Beverly Hills and the Westside of Los Angeles.*
   f. *Expand the variety of high-quality housing options to the City's residents by providing much sought after hotel-amenitized condominiums that are competitive with existing housing.*
   g. *Provide full service, hotel-amenitized condominiums that are competitive with existing and proposed condominium projects in the Wilshire Corridor and Century City and have comparable views, so that the residents who desire to downsize from their existing homes will not have to move out of Beverly Hills to find suitable full service housing.*
3. *Create a unified, environmentally sensitive hotel and residential development.*
   a. *Enhance the City's western gateway and the pedestrian and vehicular views from Wilshire Boulevard and Santa Monica Boulevard.*
   b. *Create a world-class architectural landmark with a visual presence at the dual gateway to the City of Beverly Hills at Wilshire Boulevard and Santa Monica Boulevard and which will enhance the beauty and image of the City of Beverly Hills.*
   c. *Redevelop the Project Site in a manner that does not substantially increase the traffic levels and related operational air quality and noise impacts associated with the prior Robinsons-May department store.*
   d. *Incorporate environmentally sensitive, sustainable, responsible design, including Leadership in Energy and Environmental Design (LEED) standards.*
   e. *Preserve approximately forty percent of the Project Site as landscaped gardens and other green space to enhance the visual character of the Project and to maximize the community's use and enjoyment of the Site.*
   f. *Provide an entry garden along Wilshire Boulevard for the use and enjoyment of the Beverly Hills Community that complements and extends the existing Beverly Gardens Park on the north side of Wilshire Boulevard, and enhance the garden qualities of the City across the street.*
   g. *Provide subterranean parking and loading dock facilities to provide convenient parking for the Project's guests and residents and to enable the creation of the Project's substantial open space and green space for the use and enjoyment of the Beverly Hills community and the Project's residents and guests.*
   h. *Improve traffic circulation in and around the Project Site by providing additional vehicular access points on Wilshire Boulevard and Santa Monica Boulevard, and reduce traffic on Merv Griffin Way.*
   i. *Develop the Project Site in order to maximize the strength of its physical, social and economic potential without negatively impacting its neighboring residential and school uses.*

2.8 REQUIRED APPROVALS

The Proposed Project would require the discretionary approval of the City of Beverly Hills. The City's Planning Commission will provide a recommendation to the City Council, who will be responsible for Project approval. Specifically, the following approvals would be required:

- *Certification of the Final SEIR*
- *Approval of a Specific Plan Amendment – The 9900 Wilshire Specific Plan would need to be amended to allow hotel and related uses.*
- *Amended Development Agreement*
- *Approval of a Tentative Tract Map*
- *Architectural Review*
- *Other approvals as required by the City or other agencies*

3 ENVIRONMENTAL SETTING

This section provides a general overview of the environmental setting for the Project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4.0, *Environmental Impact Analysis*.

3.1 REGIONAL SETTING

The Project site is located in the City of Beverly Hills, approximately seven miles west of the civic center for the City of Los Angeles. It is situated on the south side of the 9900 block of Wilshire Boulevard, north of Santa Monica Boulevard. The approximately eight-acre site forms the western entrance into the City of Beverly Hills and is currently vacant. Figure 2-1 in Section 2.0, *Project Description*, shows the location of the Project site in the region. Figure 2-2 shows the location of the Project site in the surrounding neighborhood.

The 2014 population of the City is estimated at 34,833 persons. The City's current housing stock consists of an estimated 16,433 units. The average household size in the City is about 2.33 persons per unit (California Department of Finance, 2015).

A grid system of east-west and north-south roadways, including arterials, collectors, and local streets, provide vehicular access throughout the City. The major roadways include Santa Monica Boulevard, Wilshire Boulevard, Sunset Boulevard, Whittier Drive, and Beverly Drive. The closest freeways are Interstate Highway 405 (I-405) and Interstate 10 (I-10). I-405 is located over two miles west of the Project site, and I-10 is located over two miles south of the Project site.

The Mediterranean climate of the region and the coastal influence produce moderate temperatures year round, with rainfall concentrated in the winter months. Although air quality in the area has steadily improved in recent years, the Los Angeles region remains a non-attainment area for ozone (urban smog). The City of Beverly Hills is located approximately seven miles inland from the coastline of the Pacific Ocean.

3.2 PROJECT SITE SETTING

As shown in Figure 2-2, the Project site is bound by the Los Angeles Country Club on the west, Wilshire Boulevard to the north, the centerline of Merv Griffin Way to the east, and Santa Monica Boulevard to the south. The site is approximately 7.95 acres in size and is currently vacant land.

The Project site is zoned C-3 (commercial) under the City's Zoning Ordinance. Uses permitted under the C-3 designation include a wide range of Low- to High-Intensity Commercial uses, such as restaurants, offices, and retail shops. The Land Use Element of the Beverly Hills General Plan designates the site as SP (9900 Wilshire Specific Plan). Originally adopted in April 2008 and last amended in December 2012, the 9900 Wilshire Specific Plan serves as the primary land use regulatory document for the Project site.

Land uses to the north of the Project site and across Wilshire Boulevard include El Rodeo Elementary School; single-family, one- and two-story homes; and Beverly Gardens Park, a

public, landscaped, linear parkway along the north side of Wilshire Boulevard. Located south of the site are Santa Monica Boulevard and a former railroad right-of-way. The property immediately south of the former railroad right-of-way includes a privately owned surface parking lot, an automotive repair shop, one- and two-story small retail shops and office buildings, and a four-story medical clinic. Located east of the Project site are Merv Griffin Way and the eight-story, 95-foot-tall (to the roofline) Beverly Hilton, the existing above-ground parking structure fronting Santa Monica Boulevard, and ancillary hotel uses. Located west of the Project site are the Union 76 Gas Station, the Los Angeles Country Club, and the community of Westwood in the City of Los Angeles.

3.3 CUMULATIVE PROJECTS SETTING

In addition to the specific impacts of individual projects, CEQA requires SEIRs to consider potential cumulative impacts. CEQA defines "cumulative impacts" as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts. Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the Proposed Project and other nearby projects. For example, traffic impacts of two nearby projects may be insignificant when analyzed separately, but could have a significant impact when analyzed together. Cumulative impact analysis allows the SEIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

CEQA requires cumulative impact analysis in EIRs to consider either a list of planned and pending projects that may contribute to cumulative effects or a forecast of future development potential. Currently planned and pending projects in Beverly Hills and surrounding areas including the City of Los Angeles are listed in Table 3-1. These projects are considered in the cumulative analyses in Section 4.0, *Environmental Impact Analysis.*

In addition to the projects listed in Table 3–1, the Santa Monica Boulevard Reconstruction project is currently underway. The project design includes reconstructing the roadway and upgrading the century-old drainage system between Doheny Drive and Wilshire Boulevard. This project is also being considered in the cumulative analyses for Section 4.0.

Table 3–1
Cumulative Projects

Project Name/Location	Description of Project[1]
257 North Canon Drive	15.899 KSF retail shopping center, 26.196 KSF office, 1.8 restaurant
246 North Canon Drive	7.1 KSF Restaurant
250 North Crescent Drive	8 Condominiums
9262 Burton Way	23 Condominiums
325 North Maple Drive	7.8 KSF Post Office, 3.7 KSF Retail, & 88.5 KSF Creative Office
450-460 North Palm Drive	35 Condominiums
154-168 North La Peer Drive	16 Condominiums
425 North Palm Drive	20 Condominiums
8955 Olympic Boulevard	19.8 KSF Automobile Sales

Table 3–1
Cumulative Projects

Project Name/Location	Description of Project[1]
9212 Olympic Boulevard	13.3 KSF Office, 1 KSF Fast Food w/o Drive Thru, & 4.7 KSF Variety Store
332 North Oakhurst Drive	31 Condominiums
305-239 South Elm Drive	30 Condominiums
9908 South Santa Monica Boulevard	27 Condominiums
207 South Robertson Boulevard	1.7 KSF Office
9000 Wilshire Boulevard	31.7 KSF Office
8600 Wilshire Boulevard	21 Apartments, 4 Townhouses, 2.9 KSF Medical Office & 1.9 KSF Retail
8767 Wilshire Boulevard	21 KSF General Office, 34 KSF Medical-Dental Office, 3 KSF Restaurant, 15.5 KSF Automobile Sales, 1.5 KSF Pharmacy-Drug Store without Drive-Through Window
9200 Wilshire Boulevard	53 Condominiums, 5.6 KSF Quality Restaurant, & 8.4 KSF Retail
9230 Wilshire Boulevard	Jim Falk Lexus Project 150.3 KSF Automobile Sales
9876 Wilshire Boulevard	120 Condominiums, 522 Hotel Rooms, & 12.3 KSF Restaurant
121 San Vicente Boulevard	35 KSF Medical-Dental Office Building
8816 Beverly Boulevard	Mixed-Use
623 La Peer Drive	La Peer Hotel
645 Robertson Boulevard	Hotel, Restaurant, & Retail
9001 Santa Monica Boulevard	Mixed-Use
9040, 9060, 9080, 9098 Santa Monica Boulevard	Mixed-Use
10131 Constellation Boulevard	483 Condominiums
10250 West Santa Monica Boulevard	West Century City - New Century Plan Project
9786 West Pico Boulevard	Museum of Tolerance Expansion to add 13.5 KSF of Cultural Space
9760 West Pico Boulevard	YULA Boys High School Expansion
2025 South Avenue of the Stars	Century Plaza Mixed Use Development – 293 Condominiums, 91 KSF Retail, 100 KSF Office, Hotel
10330 West Bellwood Avenue	Bellwood Avenue Senior Care & 24 KSF Medical Office Project, 158 Condominiums
10000 West Santa Monica Boulevard	283 Condominiums
10250 West Santa Monica Boulevard	71.7 KSF New Retail & Renovation of the Century City (Westfield) Shopping Center
1950 South Avenue of the Stars	Century City Center Project – 72.5 KSF Office
888 South Devon Avenue	32 Apartments
300 South Wetherly Drive	140 Condominiums
8723 West Alden Drive	Cedars-Sinai Medical Center Project - West Tower (New medical building with 100 hospital beds)

[1] Cumulative project details, including trip generation numbers, were provided by the Cities of Los Angeles and West Hollywood for the Traffic Impact Study (see Appendix D).

KSF = 1,000 square feet

This page intentionally left blank.

4 ENVIRONMENTAL IMPACT ANALYSIS

This section discusses the possible environmental effects of the 9900 Wilshire Boulevard Project for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. "Significant effect" is defined by the *CEQA Guidelines* §15382 as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. Within the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City, other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text, with the discussion of the effect and its significance following. Each bolded impact listing also contains a statement of the significance determination for the environmental impact as follows:

> ***Significant and Unavoidable:*** *An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the CEQA Guidelines.*
>
> ***Less than Significant with Mitigation Incorporated:*** *An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.*
>
> ***Less than Significant:*** *An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.*
>
> ***No Impact or Beneficial:*** *The Proposed Project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.*

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measures. In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the Proposed Project in conjunction with other planned and pending developments in the area listed in Section 3, *Environmental Setting*.

Please refer to the Executive Summary of this SEIR, which summarizes all impacts and mitigation measures that apply to the Proposed Project.

This page intentionally left blank.

4.1 AIR QUALITY

This section analyzes the Proposed Project's temporary and long-term impacts to local and regional air quality. Greenhouse gas emissions are discussed in Section 4.2, *Greenhouse Gas Emissions*. This section uses data generated using the California Air Emissions Estimator Model (CalEEMod), which can be found in Appendix B.

4.1.1 Setting

The project site is located in the City of Beverly Hills, which is part of the South Coast Air Basin (the Basin) and under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

a. Climate and Meteorology. Air quality in the Basin is affected by various emission sources (mobile and industry, etc.) as well as atmospheric conditions such as wind speed, wind direction, temperature, and rainfall, etc. The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States give the Basin the worst air pollution problem in the nation.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunder showers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. Beverly Hills has a Mediterranean climate with moderate, dry summers that reach an average temperature of up to 83 degrees Fahrenheit and cool, wet winters that can dip as low as 45 degrees Fahrenheit. Average monthly rainfall measured in Beverly Hills during a 40 year average period varied from 3.5 inches in February to 0.1 inch or less between May and August, with an annual total of approximately 15 inches (City of Beverly Hills Urban Water Management Plan, 2010).

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid to late afternoons on hot summer days. Winter inversions frequently break by midmorning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino counties. In the winter, the greatest pollution problem is the accumulation of carbon monoxide (CO) and nitrogen oxides (NO_X) due to low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

b. Sensitive Receptors. Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to

protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are therefore, schools and hospitals. Sensitive receptors likely to be affected by air quality impacts associated with project construction include residential areas and schools near the project site such as the single-family residences and El Rancho School 100 feet to the north, multi-family residences 400 feet to the south, and Beverly Hills High School 700 feet to the south of the Project site.

c. Air Pollution Regulation.

Federal Regulations/Standards. Pursuant to the federal Clean Air Act (CAA) of 1970, the U.S. Environmental Protection Agency (U.S. EPA) established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants termed "criteria" pollutants, which are those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health. The current AAQS plus the California standards (which are generally more stringent than federal standards) are shown in Table 4.1–1.

Table 4.1–1
Current Federal and State Ambient Air Quality Standards

Pollutant	Federal Standard	California Standard
Ozone	0.070 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.07 ppm (8-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.14 ppm (24-hr avg) 0.075 ppm (1-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1-hr avg)
Lead	0.15 $\mu g/m^3$ (3-month avg)	1.5 $\mu g/m^3$ (30-day avg)
Particulate Matter (PM_{10})	150 $\mu g/m^3$ (24-hr avg)	20 $\mu g/m^3$ (annual avg) 50 $\mu g/m^3$ (24-hr avg)
Particulate Matter ($PM_{2.5}$)	12 $\mu g/m^3$ (annual avg) 35 $\mu g/m^3$ (24-hr avg)	12 $\mu g/m^3$ (annual avg)

ppm= parts per million
$\mu g/m^3$ = micrograms per cubic meter
Source: California Air Resources Board, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, 2015.

The U.S. EPA uses data collected at permanent monitoring stations to classify regions as "attainment" or "nonattainment," depending on whether the region meets the requirements stated in the primary NAAQS. Nonattainment areas are imposed with additional restrictions as required by the U.S. EPA.

The U.S. EPA established new national air quality standards for ground-level ozone and fine particulate matter in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health

standards for ozone and particulate matter, was unconstitutional and an improper delegation of legislative authority to the U.S. EPA. On February 27, 2001, the U.S. Supreme Court upheld the way the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the U.S. EPA must consider financial costs as well as health benefits in writing standards. The justices also rejected arguments that the U.S. EPA took too much lawmaking power from Congress when it set tougher standards for ozone and soot in 1997. Nevertheless, the court dismissed the U.S. EPA's policy for implementing new ozone rules, saying that the agency ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the White House Office of Management and Budget (OMB) cleared the U.S. EPA to implement the 8-hour ground-level ozone standard. The U.S. EPA issued the proposed rule implementing the 8-hour ozone standard in April 2003. The U.S. EPA completed final 8-hour nonattainment status on April 15, 2004. The U.S. EPA revoked the 1-hour ozone standard on June 15, 2005, and lowered the 8-hour O_3 standard from 0.08 parts per million (ppm) to 0.075 ppm on April 1, 2008. The U.S. EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The U.S. EPA lowered the 24-hour $PM_{2.5}$ standard from 65 to 35 micrograms per cubic meter ($\mu g/m_3$) and revoked the annual PM_{10} standard on December 17, 2006. The U.S. EPA issued final designations for the 2006 24-hour $PM_{2.5}$ standard on December 12, 2008.

Descriptions of the criteria pollutants follow:

Ozone. O_3 (smog) is formed by photochemical reactions between oxides of nitrogen and reactive organic gases rather than being directly emitted. Ozone is a pungent, colorless gas typical of Southern California smog. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. Ozone levels peak during summer and early fall. The entire Basin is designated as a nonattainment area for the State 1-hour and 8-hour ozone standards. The U.S. EPA has officially designated the status for the Basin regarding the 8-hour ozone standard as "Extreme." The Basin has until 2024 to attain the federal 8-hour O_3 standard.

Carbon Monoxide. CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless odorless gas that can cause dizziness, fatigue, and impairment to central nervous system functions. The entire Basin is in attainment for the State standards for CO. The Basin is designated as an "Attainment/Maintenance" area under the federal CO standards.

Nitrogen Oxides. Nitrogen dioxide (NO_2), a reddish-brown gas, and nitric oxide (NO), a colorless odorless gas, is formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_X. NO_X is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO_2 decreases lung function and may reduce resistance to infection. The entire Basin is designated as nonattainment for the State NO_2 standard and as an "Attainment/Maintenance" area under the federal NO_2 standard.

Sulfur Dioxide. Sulfur dioxide (SO_2) is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous

SO_2 levels. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The entire Basin is in attainment for both federal and State SO_2 standards.

Lead. Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the blood stream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. The Los Angeles County portion of the Basin was re-designated as nonattainment for the State and federal standards for lead in 2010.

Particulate Matter. Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (particulate matter less than 10 microns in diameter [PM_{10}]), derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle ($PM_{2.5}$) levels. Fine particles can also be formed in the atmosphere through chemical reactions. PM_{10} can accumulate in the respiratory system and aggravate health problems such as asthma. The U.S. EPA's scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death; increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. The Basin is a nonattainment area for the State PM_{10} and $PM_{2.5}$ standards and a nonattainment area for the federal $PM_{2.5}$ standards. The Basin was redesignated as attainment/maintenance for the federal PM_{10} standard in 2013.

Reactive Organic Compounds. Reactive organic compounds (ROCs, also known as ROGs and volatile organic compounds [VOCs]) are formed from combustion of fuels and evaporation of organic solvents. ROCs are not defined criteria pollutants but are a prime component of the photochemical smog reaction. Consequently, ROCs accumulate in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower.

Sulfates. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The entire Basin is in attainment for the State standard for sulfates.

Hydrogen Sulfide. Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. In 1984, a California Air Resources Board (CARB) committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly

reduce odor annoyance. The state standard for outdoor levels of hydrogen sulfide is 30 parts per billion averaged over one hour (SCAQMD, 2015).The entire Basin is unclassified for the State standard for H_2S.

Visibility-Reducing Particles. Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. The statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze. The entire Basin is unclassified for the State standard for visibility-reducing particles.

State Regulations/Standards. In 1967, the California Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the California Air Resources Board (CARB). The CARB coordinates and oversees both State and federal air pollution control programs in California. It also oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the U.S. EPA and local air districts. The CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution.

The CARB identified particulate emissions from diesel-fueled engines (diesel particulate matter [DPM]) as toxic air contaminants (TACs) in August 1998. Following the identification process, CARB was required by law to determine whether there is a need for further control. In September 2000, the CARB adopted the Diesel Risk Reduction Plan (Diesel RRP), which recommends many control measures to reduce the risks associated with DPM and to achieve the goal of 85 percent DPM reduction by 2020.

California Green Building Code. California Green Buildings Standards Code (Cal Green Code) (California Code of Regulations [CCR], Title 24, Part 11) was adopted by the California Building Standards Commission in 2013 and became effective in January 2014. The Code applies to all new constructed residential, nonresidential, commercial, mixed-use, and State-owned facilities, as well as schools and hospitals. Cal Green Code is comprised of Mandatory Residential and Nonresidential Measures and more stringent Voluntary Measures (TIERs I and II).

Mandatory Measures are required to be implemented on all new construction projects and consist of a wide array of green measures concerning project site design, water use reduction, improvement of indoor air quality, and conservation of materials and resources. The Cal Green Building Code refers to Title 24, Part 6 compliance with respect to energy efficiency; however, it encourages 15 percent energy use reduction over that required in Part 6. Voluntary Measures are optional, more stringent measures may be used by jurisdictions to enhance their commitment towards green and sustainable design and achievement of Assembly Bill (AB) 32 goals. Under TIERs I and II, all new construction projects are required to reduce energy consumption by 15 percent and 30 percent, respectively, below the baseline required under the California Energy Commission (CEC), as well as implement more stringent green measures than those required by mandatory code.

Local Regulations and Policies. Local regulations and policies related to air quality are described below.

Regional Air Quality Planning Framework. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state. The CARB is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for U.S. EPA approval. Significant authority for air quality control within the local air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan. The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. Every 3 years, the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The SCAQMD adopted the Final 2012 AQMP on December 7, 2012 and forwarded it to the CARB for review in February 2013. The 2012 AQMP includes the new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches.

Currently, the SCAQMD staff is in the process of developing the 2016 AQMP, which will be a comprehensive and integrated Plan primarily focused on addressing the ozone standards. The Plan will be a regional and multi-agency effort (SCAQMD, CARB, SCAG, and U.S. EPA). State and federal planning requirements include developing control strategies, attainment demonstrations, reasonable further progress, and maintenance plans. The 2016 AQMP will incorporate the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, Regional Transportation Plan/Sustainable Communities Strategy, and updated emission inventory methodologies for various source categories.

City of Beverly Hills. The Climate Change and Air Quality Element (2009) of the Beverly Hills Sustainable City Plan include goals and polices related to air quality. The following goal, objective, and policies are applicable to the Proposed Project:

- ***Goal:*** *Combat climate change and improve air quality*
- ***Objective:*** *Reduce and encourage the reduction of air emissions in City operations and Citywide.*
- ***Policy 2.1:*** *Minimize mobile source emissions from on- and off-road (construction) vehicles.*
- ***Policy 2.3:*** *Minimize stationary source air emissions.*
- ***Policy 2.4:*** *Minimize particulate matter, both airborne photochemical precipitates and windborne dust.*

d. Current Air Quality. The SCAQMD, together with CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the site is the West Los Angeles – VA Hospital (located at Wilshire Boulevard & Sawtelle), and its air quality trends are representative of the ambient air quality in the Project area. The pollutants monitored at this station are O_3, CO, and NO_2. Data for PM_{10} and $PM_{2.5}$ is from the second

nearest station (Los Angeles-North Main Street, 1630 North Main Street) to the Project site. Data for SO_2 is from the Los Angeles-Westchester Parkway station. Table 4.1–2 summarizes the ambient air quality levels measured at these stations between 2012-2014.

Table 4.1–2
Ambient Air Quality Data

Pollutant	2012	2013	2014
Ozone, ppm - Worst Hour	0.09	0.08	0.09
Number of days of State exceedances – 8 hour average (>0.07 ppm)	1	1	6
Carbon Monoxide, ppm - Worst 8 Hours	1.15	*	*
Number of days of State/Federal exceedances (>9.0 ppm)	0	0	0
Nitrogen Dioxide, ppm - Worst Hour	61.3	51.2	63.9
Number of days of State exceedances (>0.18 ppm)	0	0	0
Sulfur Dioxide, ppm – Worst Hour	0.002	0.002	*
Number of days of State exceedances (>0.04 ppm)	*	*	*
Particulate Matter <10 microns, $\mu g/m^3$ Worst 24 Hours	90.9	74.5	86.8
Number of samples of State exceedances (>50 $\mu g/m^3$)	24	21	19
Number of samples of Federal exceedances (>150 $\mu g/m^3$)	0	0	0
Particulate Matter <2.5 microns, $\mu g/m^3$ Worst 24 Hours	79.0	54.8	65.0
Number of samples of Federal exceedances (>35 $\mu g/m^3$)	4	1	6

Source: CARB, Annual Air Quality Data Summaries available at http://www.arb.ca.gov

- *Particulate Matter (<10 and <2.5) data from Los Angeles-North Main Street station.*
- *Ozone, Carbon Monoxide, and Nitrogen Dioxide data taken from West Los Angeles – VA Hospital station.*
- *Sulfur Dioxide data taken from Los Angeles-Westchester Parkway*

** Insufficient data available to determine the value*

The pollutants that exceeded thresholds during the monitoring period were O_3, PM_{10} and $PM_{2.5}$. TheO_3 standard was exceeded once in 2012 and 2013 and six times in 2014; the PM_{10} standard was exceeded 24 times in 2012, 21 times in 2013, and 19 in 2014; the PM2.5 standard was exceeded four times in 2012, one time in 2013, and six times in 2014.

4.1.2 Impact Analysis

a. Methodology and Significance Thresholds.

Methodology. The air quality analysis conforms to the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook* (1993). The handbook includes thresholds for emissions associated with both construction and operation of proposed projects.

For the purposes of this analysis, the Approved Project is used as the baseline for the analysis as it represents what is currently permitted for development at the Project site today. Emissions

calculations were completed in CalEEMod for the Approved Project as well as the Proposed Project in order to provide an "apples to apples" comparison of emissions. Each Project's emissions and the difference in emissions generated between the Approved Project and Proposed Project were then compared to SCAQMD significance thresholds. The Approved Project included two residential towers, a restaurant with outdoor eating area, two-story retail component, and a subterranean parking garage, whereas the Proposed Project includes a hotel with restaurant, spa, and bar, two residential buildings, and a subterranean parking garage. In addition to the Approved and Proposed Project calculations completed in CalEEMod, the operational emissions associated with the former Robinson-May building were calculated for comparison purposes.

The construction schedule for the Approved Project was approximately 24 months, while construction of the Proposed Project would span 34 months. Approximately eight months of early infrastructure work for storm drain line, retaining wall, shoring, and road access work would precede the 34-month construction period for the Proposed Project. In accordance with City regulations, earthwork and excavation are expected to occur over a period of approximately 5 months and are expected to involve approximately 162 truckloads per day at 2- and 3-minute intervals (bottom dumps, 14 cubic yards), or up to 300 trucks per day for up to 2.5 months. Therefore, the Proposed Project was modeled under two grading scenarios (2.5 months and 5 months). The 2008 FEIR determined that the Approved Project would have a significant and unavoidable impact resulting from the demolition of the Robinsons-May building. This building was demolished in July 2014 and this impact would not apply to the Proposed Project. In addition, the 2008 FEIR found that the Approved Project would have a significant and unavoidable impact resulting from construction due to the PM and NOX emissions and required the following mitigation measures to reduce construction emissions:

AQ-1 The Developer shall prepare a Construction Traffic Emission Management Plan to minimize emissions from vehicles including, but not limited to, scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.

AQ-2 The Contractor shall ensure that the use of all construction equipment is suspended during first-stage smog alerts.

AQ-3 The Contractor shall promote the use of electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible.

AQ-4 The Contractor shall maintain construction equipment by conducting regular tune-ups according to the manufacturers' recommendations.

AQ-5 The Contractor shall promote the use of electric welders to avoid emissions from gas or diesel welders, to the extent feasible.

AQ-6 The Contractor shall promote the use of on-site electricity or alternative fuels rather than diesel-powered or gasoline powered generators to the extent feasible.

AQ-7 Prior to use in construction, the project applicant and contractor will evaluate the feasibility of retrofitting the large off-road construction equipment that will be operating for significant periods. Retrofit technologies such as particulate traps, selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc., will be evaluated. These technologies will be required if they are verified by the California Air Resources Board (ARB) and/or the U.S. Environmental Protection Agency (EPA) and are commercially available and can feasibly be retrofitted onto construction equipment.

AQ-8 The Contractor shall ensure that traffic speeds on all unpaved roads are reduced to 15 miles per hour or less.

AQ-9 The Contractor shall ensure that the project site is watered at least three times daily during dry weather.

AQ-10 The Contractor shall install wind monitoring equipment on site, to the extent feasible, and suspend grading activities when wind speeds exceed 25 miles per hour per SCAQMD guidelines.

AQ-11 The Contractor shall install water storage piles by hand or apply cover when wind events are declared (wind speeds in excess of 25 miles per hour).

AQ-12 The Contractor shall apply nontoxic chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).

AQ-13 The Contractor shall replace ground cover in disturbed areas as quickly as possible.

All construction equipment would be a minimum Tier 3 in order to comply with California Air Resources Board (CARB) requirements. Recyclable materials would be used on-site to reduce off-haul. Workers would park off-site and be shuttled to the Project site in order to reduce traffic and emissions. Construction would require the export of approximately 309,000 cubic yards (CY) of material.

Modeling assumed compliance with SCAQMD Architectural Coating Rule 1113. Complete results from CalEEMod and assumptions can be viewed in Appendix B. All other values utilized in the modeling were based on applicable SCAQMD defaults for the Basin.

Both temporary construction emissions and long-term operation emissions were calculated using CalEEMod. The estimate of total daily trips associated with the Proposed Project and Approved Project was based on the Traffic Impact Analysis prepared by Fehr and Peers in April 2016 and was calculated and extrapolated to derive total annual mileage in CalEEMod. Construction and long-term emissions were analyzed based on the regional thresholds established by the SCAQMD and published in the *CEQA Air Quality Handbook*.

The SCAQMD's current guidelines, included in its *CEQA Air Quality Handbook*, were adhered to in the assessment of potential short- and long-term air quality impacts of the Proposed Project

and the Approved Project. However, the air quality models identified in the *CEQA Air Quality Handbook* are outdated; therefore, CalEEMod Version 2013.2.2 was used to estimate regional air pollutant emissions associated with construction and operation of the Approved Project and Proposed Project.

Thresholds. Pursuant to the *State CEQA Guidelines*, air quality impacts related to the Proposed Project would be significant if the Proposed Project would:

a) *Conflict with or obstruct implementation of the applicable air quality plan;*
b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);*
d) *Expose sensitive receptors to substantial pollutant concentrations; or*
e) *Create objectionable odors affecting a substantial number of people.*

As discussed in the Initial Study prepared for the Project (Appendix A), on-site development would not generate objectionable odors that would affect a substantial number of people. Consequently, threshold (e) related to objectionable odors is not discussed below. The analysis that follows focuses on the other remaining impact criteria listed above (a-d).

Air Quality Management Plan Consistency. Criteria for determining consistency with the SCAQMD's AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's *CEQA Air Quality Handbook* (1993), and include the following:

- *The Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*
- *The Project will not exceed the assumptions in the AQMP based on the year of Project buildout.*

Construction Emission Thresholds. The SCAQMD has developed specific numeric thresholds that apply to projects within the Basin. The SCAQMD currently recommends that impacts associated with projects with construction-related mass daily emissions that exceed any of the following emissions thresholds should be considered significant:

- *75 pounds per day of ROG*
- *100 pounds per day of* NO_X
- *550 pounds per day of CO*
- *150 pounds per day of* SO_x
- *150 pounds per day of* PM_{10}
- *55 pounds per day of* $PM_{2.5}$

Operational Emission Thresholds. The SCAQMD has also established the following significance thresholds for Project operations within the Basin:

- *55 pounds per day of ROG*
- *55 pounds per day of* NO_X
- *550 pounds per day of CO*

- *150 pounds per day of SO_X*
- *150 pounds per day of PM_{10}*
- *55 pounds per day of $PM_{2.5}$*

Localized Significance Thresholds. In addition to the above thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook*. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, distance to the sensitive receptor, and other factors. However, LSTs only apply to emissions within a fixed stationary location. LSTs have been developed for NO_X, CO, PM_{10} and $PM_{2.5}$. LSTs do not apply to on-site mobile sources such as cars on a roadway (SCAQMD, 2009). As such, LSTs are not typically a consideration for project operation since the majority of operational emissions are usually generated by cars on roadways.

LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for sites that measure one, two, or five acres. The Project site is 7.98 acres. However, this analysis assumes that there would be no more than five acres under active construction at one time, and relies on the five-acre LSTs for significance determinations. The five-acre LSTs provide a more stringent threshold for construction emissions compared to the analysis of emissions over a larger area. According to the SCAQMD's publication, Final Localized Significant Thresholds Methodology, the use of LSTs is voluntary, to be implemented at the discretion of local agencies. LSTs for construction on a five-acre site in are shown in Table 4.1–3. Beverly Hills falls under Source Receptor Area (SRA) 2, Northwest Coastal LA County, and the LST thresholds in Table 4.1-3 are consistent with SRA 2. LSTs are provided for receptors at a distance of 25 to 500 meters from the Project site boundary. As described above, the nearest existing sensitive receptor is approximately 50 feet, or 15 meters, from the Project site boundary. The residential sensitive receptors located approximately 150 feet northeast across Wilshire Boulevard and El Rodeo School located approximately 100 feet north across Wilshire Boulevard are approximately 45 and 30 meters from where construction would occur, respectively. Therefore, the Hilton Hotel would be the only sensitive receptor that would be located adjacent to Project construction. According to the SCAQMD's LST methodology, projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters (SCAQMD, 2008).

Table 4.1–3
SCAQMD LSTs for Emissions in SRA-2

Pollutant	Allowable emissions as a function of receptor distance in meters from a five-acre site (lbs/day)				
	25	50	100	200	500
Gradual conversion of NO_x to NO_2	221	212	226	250	312
CO	1,531	1,985	2,762	4,383	10,467
PM_{10}	13	40	55	84	174
$PM_{2.5}$	6	8	14	29	95

Source: SCAQMD, website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2. Accessed January 2016.

The LST mass rate look-up tables are updated annually by SCAQMD with the most recent air quality monitoring data (Final Localized Significance Threshold Methodology, 2008). Mass rate LSTs for nitrogen dioxide (NO_2) are derived using an air quality dispersion model to back-calculate the emissions per day that would cause or contribute to a violation of any short-term AAQS for a particular SRA. According to the SCAQMD, the most stringent of the federal and state standards for NO_2 is the 1-hour state standard of 0.18 parts per million (ppm) (Final Localized Significance Threshold Methodology, 2008), which is what the most recent LST for NO_2 is based on.

b. Project Impacts and Mitigation Measures.

Threshold	*Conflict with or obstruct implementation of the applicable air quality plan.*

Impact AQ-1 The Proposed Project would not directly or indirectly generate population growth beyond that associated with the Approved Project. Job growth associated with the Proposed Project would increase beyond that associated with the Approved Project; however, job growth associated with the Proposed Project would not exceed AQMP growth forecasts. Impacts related to AQMP consistency would, therefore, be *less than significant*.

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The 2012 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city general plans and the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) socioeconomic forecast projections of regional population, housing, and employment growth. The growth assumptions used in the AQMP are based on SCAG growth forecasts. Therefore, if the Proposed Project would not facilitate growth exceeding SCAG forecasts, then the Proposed Project would be consistent with the assumptions in the AQMP (SCAG, 2012).

As shown in Table 4.1–4 the RTP/SCS population growth forecast for Beverly Hills is 35,000 in 2020 and 36,300 in 2035 (SCAG, 2012). SCAG's forecasts that Beverly Hills would have 15,200 housing units in 2020 and 15,600 housing units in 2035 (SCAG, 2012). SCAG estimates citywide employment for Beverly Hills at 61,400 jobs in 2020 and 64,800 jobs in 2035 (SCAG, 2012).

Table 4.1–4
SCAG Population, Housing, and Employment Forecasts for Beverly Hills

Year	Population	Housing	Employment
2020	35,000	15,200	61,400
2035	36,300	15,600	64,800

Source: SCAG, 2012 Adopted Growth Forecast. http://gisdata.scag.ca.gov/Pages/SocioEconomicLibrary.aspx?keyword=Forecasting

Beverly Hills currently has an estimated population of 34,833 (California Department of Finance, 2015). The Proposed Project would accommodate up to 193 new residential units within Beverly Hills. The City has approximately 2.33 persons per household (California Department of Finance, 2015). Development of the Proposed Project would therefore accommodate an estimated 450 residents (193 dwelling units x 2.33 people/dwelling unit). Based on this average, the Project would add an estimated 450 residents, for a total City population of 35,283 residents (California Department of Finance, 2015). The 450 new residents would increase the City's population by 1.3 percent and the resulting population would exceed SCAG's 2020 population forecast of 35,000. The population of 35,283 is, however, within the 2035 population forecast for the City (see Table 4.1-4). Additionally, when compared to the Approved Project, the Proposed Project would result in approximately 114 fewer residents (as shown in Table 4.1–5). Population growth associated with the Project is therefore generally in line with City forecasts. Moreover, as discussed further in Section 4.2, *Greenhouse Gas Emissions*, by creating urban fill development in an area that is well-served by public transit, the Project would fulfill goals of SCAG's Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS) related to maximizing the productivity of the transportation system and encouraging land use and growth patterns that facilitate transit and non-motorized transportation. The City's existing housing stock already exceeds the 2020 SCAG forecast for housing with approximately 16,433 housing units (California Department of Finance, 2015). SCAG's housing forecast for Beverly Hills is 15,600 in 2035 (SCAG, 2012).

Table 4.1–5
Approved and Proposed Project Population Growth

	Approved Project [a]	Proposed Project [b]	Net Population Change
Projected Population Growth	564	450	(114)

[a] City of Beverly Hills, 9900 Wilshire Project Final EIR, 2008.
[b] 2.33 residents/unit, Source: California Department of Finance, 2015.
( ) Denotes negative

The Proposed Project also includes 134 hotels rooms and ancillary uses, including a restaurant and bar. These uses would increase the number of employees and visitors in the City. Hotel patrons would not permanently induce population growth. As shown in Table 4.1-6, the number of employees projected for the Proposed Project is 186 individuals, 138 to 160 more than the Approved Project.

Table 4.1–6
Approved and Proposed Project Employee Population Growth

	Approved Project [a]	Proposed Project [b]	Net Employee Population Change
Number of Projected Employees	26-48	186	138-160

[a] *City of Beverly Hills, 9900 Wilshire Project Final EIR, 2008.*
[b] *SCAG, 2001 (see Table 5-1 in Section 5.0, Other CEQA-Required Discussions, for calculations).*

SCAG estimated employment (jobs) in the City to be 58,000 in 2008. SCAG's employment growth forecast for Beverly Hills is 64,800 in 2035 (SCAG, 2012). Therefore, jobs are expected to increase in the City by approximately 6,800 between 2008 and 2035. Consequently, the employment increase generated by the Proposed Project would account for approximately 2.7 percent of job growth (186 out of 6,800 jobs) between 2008 and 2035 and would not exceed SCAG employment forecasts.

The Approved Project was estimated to generate 564 residents in the proposed 252 residential units (City of Beverly Hills, 2008c). Additionally, the Approved Project included commercial uses, which could generate between 26 and 48 new employees. The employees added by the Proposed Project would be 138 to 160 more than what was identified for the 2008 FEIR (see Table 4.1-6). However, as discussed above, the additional employees would be within the SCAG estimate. Therefore, the Proposed Project would not create any new impacts associated with employment growth.

The 2008 FEIR determined that the Approved Project would result in no impact related to the displacement of housing or people. The Project site did not have any housing or residents in 2008. The Proposed Project is located on the same site, which became vacant in July 2014.

Based on the above facts, the Proposed Project would not conflict with the AQMP or goals related to maintaining regional air quality. This would be a less than significant impact.

Mitigation Measures. Impacts would be less than significant and no mitigation measures would be required.

Level of Significance After Mitigation. Impacts related to AQMP consistency would be less than significant without mitigation.

Threshold	*Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
Threshold	*Expose sensitive receptors to substantial pollutant concentrations.*

Impact AQ-2 On-site construction activity would generate temporary emissions. Such emissions may result in temporary adverse impacts to local air quality. The 2008 FEIR identified a significant and unavoidable impact related to construction of the Approved Project due to NO_x emissions in excess of the SCAQMD threshold. Construction of the Proposed Project would also generate NO_X emissions that exceed SCAQMD

thresholds and, under the 2.5-month grading scenario, would generate maximum daily NO_x emissions substantially exceeding those of the Approved Project. Therefore, construction activity associated with the Proposed Project could increase the severity of the previously identified *significant and unavoidable* impact for the Approved Project.

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction vehicles, in addition to ROG that would be released during the drying phase upon application of architectural coatings. Construction would generally consist of grading, construction of the proposed buildings, paving, and architectural coating.

The grading phase would involve the greatest concentration of heavy equipment use and the highest potential for fugitive dust emissions. Estimated preliminary grading for the Proposed Project would include exporting approximately 259,487 CY of soil off-site and was modeled under two scenarios (2.5 and 5 months), as described in Section 2.6 of Section 2.0, *Project Description*. Based on the information outlined in the 2008 FEIR, the Approved Project would require export of approximately 95,000 CY of material off-site.

Both the Approved Project and the Proposed Project would be required to comply with SCAQMD Rule 403, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located within the South Coast Air Basin. The following conditions are required to reduce fugitive dust in compliance with SCAQMD Rule 403. These conditions were included in CalEEMod for the grading phases of construction for both the Approved Project and the Proposed Project.

1. ***Minimization of Disturbance.*** *Construction contractors shall minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.*
2. ***Soil Treatment.*** *Construction contractors shall treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least two times daily, preferably in the late morning and after work is done for the day.*
3. ***Soil Stabilization.*** *Construction contractors shall monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials, shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.*
4. ***No Grading During High Winds.*** *Construction contractors shall stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).*
5. ***Street Sweeping.*** *Construction contractors shall sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.*

Construction emissions modeling for grading, building construction, paving, and application of architectural coatings is based on the overall scope of the proposed development and construction phasing for each Project. Emissions modeling does account for the use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113. The Approved Project and the Proposed Project were modeled separately and emissions were compared to SCAQMD significance thresholds and then compared to each other in order to calculate the difference in emissions that would occur between the Approved Project and Proposed Project.

Table 4.1–7 shows estimated maximum daily emissions for each year of construction for the Approved Project and the Proposed Project under the 2.5-month grading scenario. Table 4.1–8 shows estimated maximum daily emissions for each year of construction for the Approved Project and the Proposed Project under the 5-month grading scenario. The Proposed Project would result in a net maximum daily increase in NOx emissions of more than 100 pounds (SCAQMD's NO_x threshold) compared to the Approved Project under the 2.5-month grading scenario. The maximum net increase in daily construction emissions between the Proposed Project and the Approved Project under the 2.5-month grading scenario would be less than SCAQMD regional thresholds for ROG, SO_2, PM_{10}, and $PM_{2.5}$. The net increase in daily construction emissions between the Proposed Project and the Approved Project under the 5-month grading scenario would be less than SCAQMD regional thresholds for NO_X, ROG, SO_2, PM_{10}, and $PM_{2.5}$. As with the Approved Project (as set forth in the 2008 FEIR), the Proposed Project would have significant temporary impacts to regional air quality during construction. Although SCAQMD thresholds are based on maximum daily emissions, it should also be noted that the overall duration of construction activity for the Proposed Project would be 18 months longer than for the Approved Project, thus increasing the length of time to which nearby receptors would be exposed to air pollutants.

LSTs only apply to those emissions generated by on-site construction activities, such as emissions from on-site grading, and do not apply to off-site mobile emissions. The LST for sensitive receptors 25 meters from the Project site were used to illustrate the closest receptor, which is the Hilton Hotel that would be located adjacent to ongoing construction. As indicated in Tables 4.1–9 and 4.1–10, with compliance with SCAQMD Architectural Coating Rule 1113 and SCAQMD Fugitive Dust Rule 403, the net increase in combined daily on-site construction emissions between the Proposed Project and the Approved Project would be below LSTs for NO_X, CO, PM_{10}, and $PM_{2.5}$ under either grading scenario. Therefore, impacts related to LSTs would be less than significant.

Mitigation Measures. Mitigation Measures AQ-1 through 13 from the 2008 FEIR, listed under "Methodology and Significance Thresholds", would apply to the Proposed Project. Additional mitigation is not available.

Significance After Mitigation. The 2008 FEIR found that the Approved Project would have a significant and unavoidable impact related to short-term construction impacts because NO_X emissions would exceed SCAQMD's regional significance thresholds, even after incorporation of mitigation. Daily construction emissions associated with the Proposed Project under the 2.5-month grading scenario would also exceed the SCAQMD's regional significance thresholds, even after incorporation of mitigation. Therefore, the Proposed Project would increase the severity of the significant and unavoidable impact identified in the 2008 FEIR due to a longer construction period.

Table 4.1–7
Estimated Construction Maximum Daily Air Pollutant Emissions[a] – 2.5-Month Grading Scenario

Approved Project						
	Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	3.5	66.8	59.1	0.2	7.8	4.2
2018	74.1	34.8	65.4	0.1	6.7	3.1
Maximum lbs/day	**74.1**	**66.8**	**65.4**	**0.2**	**7.8**	**4.2**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Proposed Project						
	Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	11.0	202.7	135.7	0.6	19.4	8.7
2018	34.9	25.7	53.0	0.1	6.8	2.6
2019	35.3	36.0	68.4	0.1	7.5	3.3
2020	34.6	23.8	49.1	0.1	6.7	2.6
Maximum lbs/day	**35.3**	**202.7**	**135.7**	**0.6**	**19.4**	**8.7**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**No**	**No**
Net Change in Emissions (Proposed Project - Approved Project)						
	Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Difference in Maximum lbs/day [b]	**(38.8)**	**135.9**	**70.3**	**0.4**	**11.6**	**4.5**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**No**	**No**

Notes: All calculations were made using CalEEMod. See Appendix B for calculations. Site Preparation, Grading, Paving, Building Construction and Architectural Coating totals include worker trips, construction vehicle emissions and fugitive dust.
[a] Maximum daily emissions include on-site and off-site emissions.
[b] Indicates the net difference in maximum daily emissions between the Approved Project and the Proposed Project.
( ) denotes negative

Table 4.1–8
Estimated Construction Maximum Daily Air Pollutant Emissions [a] – 5-Month Grading Scenario

Approved Project						
	Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	3.5	66.8	59.1	0.2	7.8	4.2
2018	74.1	34.8	65.4	0.1	6.7	3.1
Maximum lbs/day	**74.1**	**66.8**	**65.4**	**0.2**	**7.8**	**4.2**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Proposed Project						
	Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	6.3	117.1	87.5	0.3	13.3	6.2
2018	34.9	110.5	86.6	0.3	29.7	10.2
2019	35.3	36.0	68.4	0.1	7.5	3.3
2020	35.2	35.0	66.6	0.1	7.5	3.3
Maximum lbs/day	**35.3**	**117.1**	**87.5**	**0.3**	**29.7**	**10.2**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**No**	**No**
Net Emissions (Proposed Project - Approved Project)						
	Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Difference in Maximum lbs/day	**(38.8)**	**50.3**	**22.1**	**0.1**	**21.9**	**6.0**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: All calculations were made using CalEEMod. See Appendix B for calculations. Site Preparation, Grading, Paving, Building Construction and Architectural Coating totals include worker trips, construction vehicle emissions and fugitive dust.
[a] Maximum daily emissions include on-site and off-site emissions.
[b] Indicates the net difference in maximum daily emissions between the Approved Project and the Proposed Project.
( ) denotes negative

Table 4.1–9
Estimated Construction Maximum On-site Daily Air Pollutant Emissions (LST) – 2.5-Month Grading Scenario

Approved Project						
	On-site Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	1.4	29.0	36.5	<0.1	4.1	2.8
2018	70.8	14.2	17.8	<0.1	0.9	0.9
Maximum On-site lbs/day[a]	**70.8**	**29.0**	**36.5**	**<0.1**	**4.1**	**2.8**
Local Significance Thresholds[b] (LSTs)	*n/a*	*221*	*1,531*	*n/a*	*13*	*6*
Threshold Exceeded?	**n/a**	**No**	**No**	**n/a**	**No**	**No**
Proposed Project						
	On-site Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	1.4	29.0	36.5	<0.1	4.3	2.9
2018	31.8	14.2	17.8	<0.1	0.9	0.9
2019	31.8	14.2	17.8	<0.1	0.9	0.9
2020	31.8	14.2	17.8	<0.1	0.9	0.9
Maximum On-site lbs/day[a]	**31.8**	**29.0**	**36.5**	**<0.1**	**4.3**	**2.9**
Local Significance Thresholds[b](LSTs)	*n/a*	*221*	*1,531*	*n/a*	*13*	*6*
Threshold Exceeded?	**n/a**	**No**	**No**	**n/a**	**No**	**No**
Change in Maximum Daily Air Pollutant Emissions: Net Emissions (Proposed Project - Approved Project)						
	On-site Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Difference in Maximum On-site lbs/day[a]	**(39.0)**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**
Local Significance Thresholds [b,c] (LSTs)	*n/a*	*221*	*1,531*	*n/a*	*13*	*6*
Threshold Exceeded?	**n/a**	**No**	**No**	**n/a**	**No**	**No**

Source: SCAQMD LST Spreadsheet for a 5-acre site and CalEEMod; see Appendix B for calculations and assumptions. Assumed compliance with SCAQMD Fugitive Dust Rule 403 and SCAQMD Architectural Coating Rule 1113 and SCAQMD Fugitive Dust Rule 403.
[a] Maximum daily on-site emissions from construction phases.
[b] LSTs are for a five-acre project in SRA-2 within a distance of 25 meters from the site boundary.
[c] Indicates the net difference in maximum daily emissions between the Approved Project and the Proposed Project.

Table 4.1–10
Estimated Construction Maximum On-site Daily Air Pollutant Emissions (LST) – 5-Month Grading Scenario

Approved Project						
	On-site Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	1.4	29.0	36.5	<0.1	4.1	2.8
2018	70.8	14.2	17.8	<0.1	0.9	0.9
Maximum On-site lbs/day[a]	**70.8**	**29.0**	**36.5**	**<0.1**	**4.1**	**2.8**
Local Significance Thresholds[b] (LSTs)	*n/a*	*221*	*1,531*	*n/a*	*13*	*6*
Threshold Exceeded?	**n/a**	**No**	**No**	**n/a**	**No**	**No**
Proposed Project						
	On-site Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2017	1.4	29.0	36.5	<0.1	4.2	2.8
2018	31.8	26.6	35.3	<0.1	4.2	2.8
2019	31.8	14.2	17.8	<0.1	0.9	0.9
2020	31.8	14.2	17.8	<0.1	0.9	0.9
Maximum On-site lbs/day[a]	**31.8**	**29.0**	**36.5**	**<0.1**	**4.2**	**2.8**
Local Significance Thresholds[b] (LSTs)	*n/a*	*221*	*1,531*	*n/a*	*13*	*6*
Threshold Exceeded?	**n/a**	**No**	**No**	**n/a**	**No**	**No**
Change in Maximum Daily Air Pollutant Emissions: Net Emissions (Proposed Project - Approved Project)						
	On-site Emissions (lbs/day)					
Year	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Difference in Maximum On-site lbs/day [a]	**(39.0)**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**
Local Significance Thresholds [b, c] (LSTs)	*n/a*	*221*	*1,531*	*n/a*	*13*	*6*
Threshold Exceeded?	**n/a**	**No**	**No**	**n/a**	**No**	**No**

Source: SCAQMD LST Spreadsheet for a 5-acre site and CalEEMod; see Appendix B for calculations and assumptions. Assumed compliance with SCAQMD Fugitive Dust Rule 403 and SCAQMD Architectural Coating Rule 1113.
[a] Maximum daily on-site emissions from construction phases.
[b] LSTs are for a five-acre project in SRA-2 within a distance of 25 meters from the site boundary.
[c] Indicates the net difference in maximum daily emissions between the Approved Project and the Proposed Project.

Threshold	*Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).*
Threshold	*Expose sensitive receptors to substantial pollutant concentrations.*

Impact AQ-3 Operation of the Proposed Project would generate air pollutant emissions in the long-term. Daily emissions associated with the Proposed Project would not exceed the emissions associated with the Approved Project or SCAQMD thresholds. In addition, operation of the Proposed Project would not expose sensitive receptors to substantial concentrations of toxic air contaminants. Therefore, the Proposed Project would be *less than significant*.

Long-term air pollutant emissions are those associated with stationary sources and mobile sources involving any Project-related changes. The Proposed Project would result in an increase in both stationary and mobile source emissions. Stationary source emissions would come from additional natural gas consumption for on-site buildings and electrical demand. Mobile source emissions would come from Project-related vehicle trips. The total emissions generated by the Approved Project and the Proposed Project were calculated using CalEEMod. These calculations were used to determine the potential net change in emissions generated by the Proposed Project and are shown in Table 4.1-11. Back-up generators may also be used on-site; however, they are not included in the operational emission calculations because back-up generators are regulated by SCAQMD and would be used infrequently. In addition, back-up generators are generally used in an emergency situation and would not be used in combination with other energy sources.

In addition to the Approved and Proposed Project calculations completed in CalEEMod, the operational emissions associated with the former Robinson-May building were calculated. Based on the CalEEMod results, the former Robinson-May building generated a greater amount of operational emissions than both the Approved and Proposed Projects. It was assumed that the former Robinson-May building did not incorporate the emissions reduction measures associated with the Approved and Proposed Projects. Neither the Proposed nor the Approved Project emissions would exceed SCAQMD thresholds. Additionally, the net change of ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$ from the Approved Project to the Proposed Project would be less than the corresponding SCAQMD daily emission thresholds. As shown in Table 4.1–11, operational emissions associated with neither the Proposed nor the Approved Projects would exceed SCAQMD thresholds. Moreover, emissions associated with the Proposed Project would slightly lower than for the Approved Project, primarily because overall vehicle miles traveled (VMT) and ROG emissions calculated within CalEEMod are higher for residential uses than for hotel uses.[1] The Proposed Project's long-term impacts to regional air quality would be less than significant.

[1] *CalEEMod assumes the total surface for painting equals 2.7 times the floor square footage for residential uses and 2 times that for non-residential square footage; therefore, ROG emissions calculated for residential uses will be higher than non-residential uses for the same floor square footages.*

Table 4.1–11
Estimated Operational Emissions of the Approved Project and Proposed Project

Robinson May					
	Maximum Emissions (lbs/day)				
Source	**ROG**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area Emissions	17.4	<0.1	0.1	<0.1	<0.1
Energy Emissions	<0.1	0.1	0.1	<0.1	<0.1
Mobile Emissions	17.7	40.6	166.8	20.5	5.9
Approved Project Total Emissions	**35.1**	**40.8**	**167.0**	**20.5**	**5.9**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No
Approved Project					
	Maximum Emissions (lbs/day)				
Source	**ROG**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area Emissions	28.7	0.2	19.6	<0.1	<0.1
Energy Emissions	0.1	0.9	0.5	<0.1	<0.1
Mobile Emissions	6.3	12.3	52.7	8.4	2.4
Approved Project Total Emissions	**35.1**	**13.4**	**72.7**	**8.5**	**2.5**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No
Proposed Project					
	Maximum Emissions (lbs/day)				
Source	**ROG**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area Emissions	28.7	0.2	16.1	<0.1	<0.1
Energy Emissions	0.2	1.8	1.3	0.1	0.1
Mobile Emissions	5.2	9.1	42.8	7.4	2.1
Proposed Project Total Emissions	**34.2**	**11.1**	**60.2**	**7.6**	**2.3**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No
Change in Combined Total Emissions					
Net Emissions (Proposed Project – Approved Project)	**(0.9)**	**(2.3)**	**(12.5)**	**(0.9)**	**(0.2)**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No

Source: See Appendix B for CalEEMod calculations. Assumed compliance with SCAQMD's Architectural Coating Rule 1113 and SCAQMD Fugitive Dust Rule 403.
Note: Emission totals shown may not sum exactly as a result of rounding.
( ) Denotes negative

Heavy-duty diesel fueled vehicles generate diesel particulate matter, which is a toxic air contaminant (TAC). If a project would generate or attract substantial heavy-duty diesel fueled vehicles trips, a mobile source health risk assessment may be necessary to ensure that the Project is not exposing sensitive receptors to substantial concentrations of DPM. The SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (2003), provides guidance on evaluating mobile source emissions from land uses that attract or generate heavy-duty diesel fueled vehicles, such as truck stops, warehouse/distribution centers, or transit centers. CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) recommends avoiding the siting of new commercial trucking facilities that accommodate more than 100 trucks per day, or 40 trucks equipped with TRUs, within 1,000 feet of sensitive receptors. It also recommends against siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.

The 2008 FEIR (City of Beverly Hills 2008c) determined that the Approved Project would not be a source of toxic air contaminants (TACs) regulated by the SCAQMD, state, or federal government. Therefore, it determined that the Approved Project would have a less than significant impact related to exposing sensitive receptors to TACs. Although the Proposed Project includes hotel uses not included in the Approved Project, hotel uses do not attract substantially more heavy-duty diesel-fueled vehicles than the residential, retail, and restaurant land uses proposed in the Approved Project. Land uses that attract heavy duty vehicles, such as commercial trucking facilities, truck stops, distribution centers, and transit centers discussed in the SCAQMD and CARB guidance material, are not included in the Proposed Project. Additionally, although the Proposed Project would include sensitive residential receptors, the nearest freeway, Interstate 405, is located over two miles west of the Project site and nearby urban roadways, Wilshire Boulevard and Santa Monica Boulevard, support approximately 44,250 and 24,530 average daily trips, respectively (Fehr and Peers, 2015).[2] Therefore, the Proposed Project would not place sensitive receptors within 500 feet of a freeway or urban roads with more than 100,000 vehicle trips per day.

Mitigation Measures. Mitigation would not be required since impacts would be less than significant.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Threshold	*Expose sensitive receptors to substantial pollutant concentrations.*

Impact AQ-4 **Project traffic would generate CO emissions that have the potential to create high concentrations of CO, or CO hotspots. However, Project traffic would not cause the level of service (LOS) of an intersection to change to E or F, nor would it increase the volume to capacity ratio (V/C) by two percent or more for intersections rated D or worse. Therefore, localized air quality impacts related to CO hotspots would be *less than significant*.**

[2] *Peak hour trips generally account for about ten percent of average daily trips. Average daily trips were estimated by multiplying peak hour trips from the Traffic Study prepared by Fehr and Peers for the Proposed Project by ten (2015).*

Areas with high vehicle density, such as congested intersections, have the potential to create high concentrations of CO, known as CO hotspots. A project's localized air quality impact is considered significant if CO emissions create a hotspot where either the California one-hour standard of 20 ppm or the federal and state eight-hour standard of 9.0 ppm is exceeded. This typically occurs at severely congested intersections (level of service [LOS] E or worse). Pursuant to SCAQMD guidance, a CO hotspot analysis should be conducted for intersections where the Proposed Project would have a significant impact at a signalized intersection, causing the LOS to change to E or F, or when the volume to capacity ratio (V/C) increases by two percent or more as a result of a Proposed Project for intersections rated D or worse (SCAQMD, 2003). As discussed in Section 4.5, *Transportation and Traffic*, three intersections currently operate at LOS E or F during one or more peak hours: Santa Monica Boulevard North & Wilshire Boulevard, Santa Monica Boulevard North & Merv Griffin Way, and Whittier Drive/Merv Griffin Way & Wilshire Boulevard (Fehr & Peers, 2015). However, when comparing the Approved Project with the Proposed Project, a majority of the intersections experience a decrease in V/C. In those locations that would experience an increase in V/C, the increase would not be not high enough to be a significant impact based on City of Beverly Hills or City of Los Angeles significance thresholds.

Under cumulative conditions in 2020, when the Project would be operational, some intersections will experience a decrease in V/C. The intersection of Santa Monica Boulevard North & Wilshire Boulevard is expected to experience an improvement in LOS from E or F to D for all peak periods once the Project is in place. In locations in which there is an increase of V/C for intersections already operating at LOS E, the increase would not cause a significant impact. The Proposed Project is forecast to result in a net decrease of 20 vehicle trips during the a.m. peak hour and a net increase of 14 vehicles trips during the p.m. peak hour (Fehr & Peers, 2015). Under cumulative conditions in year 2020, the addition of Project traffic would not cause the LOS of any intersections to change to E or F, nor would it increase the V/C by two percent or more at an intersection rated as LOS D under existing conditions. In addition, as shown in Table 4.1-11, Project operational CO emissions would be well below SCAQMD regional thresholds. Therefore, the Proposed Project would not result in a CO hotspot and impacts would be less than significant.

Mitigation Measures. Mitigation would not be required since impacts would be less than significant.

Significance After Mitigation. Impacts would be less than significant without mitigation.

c. Cumulative Impacts. The South Coast Air Basin is a non-attainment area for the federal and state standards for ozone and $PM_{2.5}$ and the state standards for NO_2 and PM_{10}. Any growth within the Los Angeles metropolitan area would contribute to existing exceedances of ambient air quality standards when taken as a whole with existing development. Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. The SCAQMD's approach to determining cumulative air quality impacts for criteria air pollutants is to first determine whether or not the Proposed Project would result in a significant Project-level impact to regional air quality based on SCAQMD significance thresholds. If the Project does not exceed SCAQMD thresholds, then the lead agency needs to consider the additive effects of related projects only if the Proposed Project is part of an ongoing regulatory

program or is contemplated in a Program EIR, and the related projects are located within approximately one mile of the Project site. If there are related projects within the vicinity (one-mile radius) of the Project site that are part of an ongoing regulatory program or are contemplated in a Program EIR, then the additive effect of the related projects should be considered.

The Proposed Project is not part of an ongoing regulatory program; therefore, the SCAQMD recommends that Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed in Impact AQ-1, the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. However, as discussed in Impact AQ-2, daily emissions of construction-related pollutants would exceed SCAQMD regional significance thresholds for NO_X, but would not expose sensitive receptors to substantial pollutant concentrations. As discussed in Impact AQ-3, the Proposed Project would not result in an increase in daily operational emissions that would exceed the SCAQMD thresholds. In addition, as discussed in Impact AQ-4, Project traffic would not create a CO hot spot at study area intersections.

The planned and pending projects listed in Table 3-1 in Section 3.0, *Environmental Setting*, would cumulatively increase overall air pollutant emissions within the South Coast Air Basin. These include other construction projects in the immediate site vicinity that would likely occur concurrently with construction of the Project. By applying the SCAQMD cumulative air quality impact methodology, implementation of the Proposed Project would result in an addition of criteria pollutants during construction such that cumulative impacts, in conjunction with related projects, would occur. As discussed under Impact AQ-1, mitigation is not available to reduce NO_X emissions from Project construction to below SCAQMD regional thresholds; therefore, the Proposed Project's contribution to cumulative regional air quality impacts would be cumulatively considerable and significant and unavoidable.

This page intentionally left blank.

4.2 GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE

This section addresses the Proposed Project's contribution to cumulative impacts to global climate change.

4.2.1 Environmental Setting

a. Climate Change and Greenhouse Gases. Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC, 2013), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-20th century (IPCC, 2013).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The GHGs that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Observations of CO_2 concentrations, globally-averaged temperature, and sea level rise are generally well within the range of the extent of the earlier IPCC projections. The recently observed increases in CH_4 and N_2O concentrations are smaller than those assumed in the scenarios in the previous assessments. Each IPCC assessment has used new projections of future climate change that have become more detailed as the models have become more advanced.

Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and sulfur hexafluoride (SF_6) (California Environmental Protection Agency [CalEPA], 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a

common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane (CH_4) has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (IPCC, 2007).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. The following discusses the primary GHGs of concern.

Carbon Dioxide. The global carbon cycle is made up of large carbon flows and reservoirs. Billions of tons of carbon in the form of CO_2 are absorbed by oceans and living biomass (i.e., sinks) and are emitted to the atmosphere annually through natural processes (i.e., sources). When in equilibrium, carbon fluxes among these various reservoirs are roughly balanced (United States Environmental Protection Agency [U.S. EPA], April 2015). CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the second half of the 20th century. Concentrations of CO_2 in the atmosphere have risen approximately 40 percent since the industrial revolution. The global atmospheric concentration of CO_2 has increased from a pre-industrial value of about 280 parts per million (ppm) to 391 ppm in 2011 (IPCC, 2007; Oceanic and Atmospheric Administration [NOAA], 2010). The average annual CO_2 concentration growth rate was larger between 1995 and 2005 (average: 1.9 ppm per year) than it has been since the beginning of continuous direct atmospheric measurements (1960–2005 average: 1.4 ppm per year), although there is year-to-year variability in growth rates (NOAA, 2014). Currently, CO_2 represents an estimated 74 percent of total GHG emissions (IPCC, 2007). The largest source of CO_2 emissions, and of overall GHG emissions, is fossil fuel combustion.

Methane. Methane (CH_4) is an effective absorber of radiation, though its atmospheric concentration is less than that of CO_2 and its lifetime in the atmosphere is limited to 10 to 12 years. It has a GWP approximately 25 times that of CO_2. Over the last 250 years, the concentration of CH_4 in the atmosphere has increased by 148 percent (IPCC, 2007), although emissions have declined from 1990 levels. Anthropogenic sources of CH_4 include enteric fermentation associated with domestic livestock, landfills, natural gas and petroleum systems, agricultural activities, coal mining, wastewater treatment, stationary and mobile combustion, and certain industrial processes (U.S. EPA, 2014).

Nitrous Oxide. Concentrations of nitrous oxide (N_2O) began to rise at the beginning of the industrial revolution and continue to increase at a relatively uniform growth rate (NOAA, 2014). N2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Use of these fertilizers has increased over the last century. Agricultural soil management and mobile source fossil fuel combustion are the major sources of N_2O emissions. The GWP of nitrous oxide is approximately 298 times that of CO_2 (IPCC, 2007).

Fluorinated Gases (HFCS, PFCS and SF_6). Fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfurhexafluoride (SF_6), are powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone-destroying potential and are phased out under the Montreal Protocol (1987) and Clean Air Act Amendments of 1990. Electrical transmission and distribution systems account for most SF_6 emissions, while PFC emissions result from semiconductor manufacturing and as a by-product of primary aluminum production. Fluorinated gases are typically emitted in smaller quantities than CO_2, CH_4, and N_2O, but these compounds have much higher GWPs. SF_6 is the most potent GHG the IPCC has evaluated.

Greenhouse Gas Emissions Inventory. Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT, or gigatonne) CO_2e in 2010 (IPCC, 2014). CO_2 emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, CO_2 was the most abundant, accounting for 76 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while nitrous oxide and fluorinated gases account for 6 and 2 percent respectively (IPCC, 2014).

Total U.S. GHG emissions were 6,673.0 MMT CO_2e in 2013 (U.S. EPA, 2015). Total U.S. emissions have increased by 5.9 percent since 1990; emissions increased by 2.0 percent from 2012to 2013 (U.S. EPA, 2015). The increase from 2012 to 2013 was due to an increase in an increase in the carbon intensity of fuels consumed to generate electricity due to an increase in coal consumption, with decreased natural gas consumption. Additionally, relatively cool winter conditions led to an increase in fuels for the residential and commercial sectors for heating. Since 1990, U.S. emissions have increased at an average annual rate of 0.3 percent. In 2013, the industrial and transportation end-use sectors accounted for 28.8 percent and 27.1 percent of CO_2 emissions (with electricity-related emissions distributed), respectively. Meanwhile, the residential and commercial end-use sectors accounted for 16.9 percent of CO_2 emissions each (U.S. EPA, 2015).

Based upon the California Air Resources Board (CARB) California Greenhouse Gas Inventory for 2000-2013 (CARB, 2015a), California produced 459 MMT CO_2e in 2013. The major source of GHG in California is transportation, contributing 36 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 20 percent of the state's GHG emissions (CARB, 2015a). Electric power accounted for approximately 20 percent of the total emissions. California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. CARB has projected statewide unregulated GHG emissions for the year 2020 will be 509 MMT CO_2e (CARB,2015b). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

Potential Effects of Climate Change. Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than

were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The global combined land and ocean temperature data show an increase of about 0.89°C (0.69°C–1.08°C) over the period 1901–2012 and about 0.72°C (0.49°C–0.89°C) over the period 1951–2012 when described by a linear trend. Several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations are in agreement that LSAT as well as sea surface temperatures have increased. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC, 2013).

According to the CalEPA's *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, 2010). Below is a summary of some of the potential effects that could be experienced in California as a result of climate change.

Sea Level Rise. According to The Impacts of Sea-Level Rise on the California Coast, prepared by the California Climate Change Center (CCCC, 2009), climate change has the potential to induce substantial sea level rise in the coming century. The rising sea level increases the likelihood and risk of flooding. Sea levels are rising faster now than in the previous two millennia, and the rise is expected to accelerate, even with robust GHG emission control measures. The most recent IPCC report (2013) predicts a mean sea–level rise of 11-38 inches by 2100. This prediction is more than 50 percent higher than earlier projections of 7-23 inches, when comparing the same emissions scenarios and time periods. The previous IPCC report (2007) identified a sea level rise on the California coast over the past century of approximately eight inches. Based on the results of various climate change models, sea level rise is expected to continue. The California Climate Adaptation Strategy (2009) estimates a sea level rise of up to 55 inches by the end of this century.

Air Quality. Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Energy Commission [CEC], 2009).

Water Supply. Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future water supplies in California. However, the average early spring snowpack in the Sierra Nevada decreased by about 10 percent during the last century, a loss of 1.5 million acre-feet of snowpack storage. During the same period, sea level rose eight inches along California's coast.

California's temperature has risen 1°F, mostly at night and during the winter, with higher elevations experiencing the highest increase. Many Southern California cities have experienced their lowest recorded annual precipitation twice within the past decade. In a span of only two years, Los Angeles experienced both its driest and wettest years on record (California Department of Water Resources [DWR], 2008; CCCC, 2009).

This uncertainty complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. Based upon historical data and modeling DWR projects that the Sierra snowpack will experience a 25 to 40 percent reduction from its historic average by 2050. Climate change is also anticipated to bring warmer storms that result in less snowfall at lower elevations, reducing the total snowpack (DWR, 2008).

Hydrology. As discussed above, climate change could potentially affect: the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. The rate of increase of global mean sea levels over the 2001-2010 decade, as observed by satellites, ocean buoys and land gauges, was approximately 3.2 mm per year, which is double the observed 20th century trend of 1.6 mm per year (World Meteorological Organization [WMO], 2013). As a result, sea levels averaged over the last decade were about 8 inches higher than those of 1880 (WMO, 2013). Sea level rise may be a product of climate change through two main processes: expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply due to salt water intrusion. Increased CO_2 emissions can cause oceans to acidify due to the carbonic acid it forms. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture. California has a $30 billion annual agricultural industry that produces half of the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater air pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (CCCC, 2006).

Ecosystems and Wildlife. Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the average global surface temperature could rise by 1.0-4.5°F (0.6-2.5°C) in the next 50 years, and 2.2-10°F (1.4-5.8°C) in the next century, with substantial regional variation. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan, 2004).

According to the Center for Ocean Solutions, potential impacts from sea level rise on coastal communities include: coastal erosion, coastal inundation, the intrusion of salt water into fresh water, and increased frequency and intensity of storms and waves. Unlike flooding events that can be short lived, erosion can cause greater and potentially permanent damage. Coastal erosion will increase as global sea levels continue to rise. Higher sea levels will allow waves and tides to travel farther inland, exposing beaches, cliffs, and coastal dunes to more persistent erosion forces. Erosion is not a new issue in California but rising sea levels threaten to increase the severity and frequency of erosion damage to coastal infrastructure and property. However, as the project site is approximately six miles from the coastline and approximately 280 feet above mean sea level elevation, it is not at risk for inundation from sea level rise (Google Earth, 2016).

b. Regulatory Setting. The following regulations address both climate change and GHG emissions.

International Regulations. The United States is, and has been, a participant in the United Nations Framework Convention on Climate Change (UNFCCC) since it was produced in 1992. The UNFCCC is an international environmental treaty with the objective of, "stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." This is generally understood to be achieved by stabilizing global GHG concentrations between 350 and 400 ppm, in order to limit the global average temperature increases between 2 and 2.4°C above pre-industrial levels (IPCC, 2007). The UNFCCC itself does not set limits on GHG emissions for individual countries or enforcement mechanisms. Instead, the treaty provides for updates, called "protocols," that would identify mandatory emissions limits.

Five years later, the UNFCCC brought nations together again to draft the *Kyoto Protocol* (1997). The Kyoto Protocol established commitments for industrialized nations to reduce their collective emissions of six GHGs (CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs) to 5.2 percent below 1990 levels by 2012. The United States is a signatory of the Kyoto Protocol, but Congress has not ratified it and the United States has not bound itself to the Protocol's commitments (UNFCCC, 2007). The first commitment period of the Kyoto Protocol ended in 2012. Governments, including 38 industrialized countries, agreed to a second commitment period of the Kyoto Protocol beginning January 1, 2013 and ending either on December 31, 2017 or December 31, 2020, to be decided by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its seventeenth session (UNFCCC, 2011).

In Durban (17th session of the Conference of the Parties in Durban, South Africa, December 2011), governments decided to adopt a universal legal agreement on climate change as soon as possible, but not later than 2015. Work will begin on this immediately under a new group called the Ad Hoc Working Group on the Durban Platform for Enhanced Action. Progress was also made regarding the creation of a Green Climate Fund (GCF) for which a management framework was adopted (UNFCCC, 2011).

Federal Regulations. The United States Supreme Court in Massachusetts et al. v. Environmental Protection Agency et al. ([2007] 549 U.S. 05-1120) held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act.

The U.S. EPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The first annual reports for these sources were due in March 2011.

On May 13, 2010, the U.S. EPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 tons CO_2e per year for GHG emissions. New and existing industrial facilities that meet or exceed that threshold will require a permit after that date. On November 10, 2010, the U.S. EPA published the "PSD and Title V Permitting Guidance for Greenhouse Gases." The U.S. EPA's guidance document is directed at state agencies responsible for air pollution permits under the Federal Clean Air Act to help them understand how to implement GHG reduction requirements while mitigating costs for industry. It is expected that most states will use the U.S. EPA's new guidelines when processing new air pollution permits for power plants, oil refineries, cement manufacturing, and other large point sources of pollution.

On January 2, 2011, the U.S. EPA implemented the first phase of the Tailoring Rule for GHG emissions Title V Permitting. Under the first phase of the Tailoring Rule, all new sources of emissions are subject to GHG Title V permitting if they are otherwise subject to Title V for another air pollutant and they emit at least 75,000 tons CO_2e per year. Under Phase 1, no sources were required to obtain a Title V permit solely due to GHG emissions. Phase 2 of the Tailoring Rule went into effect July 1, 2011. At that time new sources were subject to GHG Title V permitting if the source emits 100,000 tons CO_2e per year, or they are otherwise subject to Title V permitting for another pollutant and emit at least 75,000 tons CO_2e per year.

On July 3, 2012 the U.S. EPA issued the final rule that retains the GHG permitting thresholds that were established in Phases 1 and 2 of the GHG Tailoring Rule. These emission thresholds determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

California Regulations. CARB is responsible for the coordination and oversight of State and local air pollution control programs in California. California has a numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, U.S. EPA granted the waiver of Clean Air Act preemption to California for its greenhouse gas emission standards for motor vehicles beginning with the 2009 model year. Pavley I took effect for model years starting in 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" will cover 2017 to 2025. Fleet average emission standards would reach 22 percent reduction from 2009 levels by 2012 and 30 percent by 2016. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB, 2011).

In 2005, Executive Order (EO) S-3-05 established statewide GHG emissions reduction targets. EO S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels (CalEPA, 2006). In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report") (CalEPA, 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture. In April 2015 Governor Brown issued EO B-30-15, calling for a new target of 40 percent below 1990 levels by 2030.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by CARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years. Implementation activities are ongoing and CARB is currently the process of updating the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines CARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (CARB, 2014a).

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

CARB Resolution 07-54 establishes 25,000 metric tons (MT) of GHG emissions as the threshold for identifying the largest stationary emission sources in California for purposes of requiring the

annual reporting of emissions. This threshold is just over 0.005 percent of California's total inventory of GHG emissions for 2004.

Senate Bill (SB) 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, CARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8 percent reduction in GHGs from transportation sources by 2020 and a 13 percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

In April 2011, Governor Brown signed SB 2X requiring California to generate 33 percent of its electricity from renewable energy by 2020.

Executive Order B-30-15, signed by the governor in April 2015, establishes a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050. SB 350 was adopted in October 2015, setting goals of reaching a 50% reduction in petroleum use from motor vehicles; generating 50% of California's electricity from renewable power sources; and doubling energy efficiency in existing buildings, all by 2030.

For more information on the Senate and Assembly Bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

CARB has also launched the "Cap-and-Trade" program, which was adopted on October 20, 2011 and uses a market-based mechanism to lower GHG emissions. In September 2013, CARB issued their first carbon offset credits as part of the program (CARB, 2014b). A carbon offset is a credit for greenhouse gas reductions achieved by an activity outside the capped sectors of industrial, transportation fuels and natural gas, and electric power (Climate Policy Initiative website, accessed March 2016). Under the California Cap and Trade Program, each compliance offset credit is equal to 1 MT of CO_2e.

California Environmental Quality Act. Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, the South Coast Air Quality Management District (SCAQMD), the Bay Area Air Quality Management District (BAAQMD), the San Luis Obispo Air Pollution Control District (SLOAPCD), and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted quantitative significance thresholds for GHGs.

Local Regulations. In February 2009, the City of Beverly Hills adopted the Beverly Hills Sustainable City Plan, which includes initiatives, goals, and actions to reduce the City's GHG emissions.

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds. Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions in March 2010. These guidelines are used in evaluating the cumulative significance of GHG emissions from the proposed project.

With respect to GHG emissions, the adopted CEQA Guidelines asks whether a project would:

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*
- *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

The majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines*, Section 15355).

The SCAQMD threshold, which was adopted in December 2008, considers emissions of over 10,000 MT CO_2e/year to be significant. However, the SCAQMD's threshold applies only to stationary sources and is intended to apply only when the SCAQMD is the CEQA lead agency.

In the latest guidance provided by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD has considered a tiered approach to determine the significance of residential and commercial projects. The draft-tiered approach is outlined in the meeting minutes, dated September 29, 2010.

> ***Tier 1*** *- If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.*
>
> ***Tier 2*** *- Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.*
>
> ***Tier 3*** *- Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 3,000 tons of CO_2e per year for commercial/residential mixed use projects.*

Because the SCAQMD has not adopted GHG emissions thresholds that apply to land use projects where the SCAQMD is not the lead agency and no GHG emissions thresholds or qualifying local GHG reduction plan have been adopted in the City of Beverly Hills, the project is evaluated based on the SCAQMD's recommended/preferred option threshold for all land use types, including mixed use projects, of 3,000 metric tons CO_2e per year (SCAQMD, "Proposed Tier 3 Quantitative Thresholds – Option 1", September 2010). Therefore, the project's contribution to cumulative impacts related to GHG emissions and climate change would be cumulatively considerable if the project would produce in excess of 3,000 metric tons CO_2e/year more than the Approved Project.

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches (as discussed below in GHG Cumulative Significance) adequately address impacts from temporary construction activity. As stated in the CEQA and Climate Change white paper, "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA, 2008). Nevertheless, air districts such as the SCAQMD (2015) have recommended amortizing construction-related emissions over a 30-year period in conjunction with the proposed project's operational emissions. Therefore, this threshold has been applied to the Proposed Project's combined operational and amortized construction emissions, per SCAQMD's recommendation (2015).

Study Methodology. Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. Emissions calculations were completed in CalEEMod for the Approved Project as well as the Proposed Project to compare the emissions generated by the two projects to quantitative thresholds. The Approved Project included two residential buildings, a restaurant with outdoor eating area, two-story retail component, and a subterranean parking garage, whereas the Proposed Project includes a hotel with restaurant, spa, and bar, two residential buildings, and a subterranean parking garage. The construction schedule for the Approved Project was approximately 24 months, while construction of the Proposed Project would span 42 months. The version of the Approved Project studied in the 2008 FEIR included a demolition phase to remove the vacant 228,000-square-foot Robinson-May department store and associated two-level, 956-space parking structure, which occupied the site at that time. The department store closed in 2006 and has been demolished since the 2008 FEIR was adopted. Operational emissions associated with the Robinson-May building were quantified in CalEEMod to provide a baseline that the Approved and Proposed Projects will be compared to. The Approved and Proposed Projects' total emissions were then compared to the operational emissions associated with the Robinson-May building. The GHG emission reductions associated with design features aimed at GHG reduction for both the Approved Project and the Proposed Project were quantified in CalEEMod.

Impacts associated with GHG emissions generated by the Approved Project were evaluated in the 2008 FEIR. At the time of the 2008 FEIR, there were no established quantitative significance thresholds for GHG emissions. The 2008 FEIR analyzed the Approved Project's impact on GHG emissions by evaluating its consistency with the Climate Action Team's strategies, as they represented the current statewide approach to reducing GHG emissions at the time. The 2008 FEIR established that, while the Approved Project would result in GHG emissions, it would result in a proportionately small increase (or even a decrease) in GHG emissions relative to the existing uses. In addition, the Approved Project would include features and mitigation measures to achieve the strategies outlined by the Climate Action Team. Cumulative impacts

were determined to be less than significant. Nonetheless, GHG emissions were recalculated in CalEEMod for this assessment to compare the Approved and Proposed Projects.

Completion of the Approved Project would require export of approximately 95,000 CY of material, whereas completion of the Proposed Project would require export of approximately 259,487 CY of material. Both projects were independently modeled in CalEEMod in order to provide an "apples to apples" comparison of emissions. Each Project's emissions and the net change in emissions between the Approved Project and the Proposed Project were then compared to the significance threshold. The Proposed Project would be designed to achieve a Silver Leadership in Energy and Environmental Design (LEED) Certification. The Approved Project was assumed to also include these sustainable design features. The following LEED design features were included in the CalEEMod model: use of gray water, transit accessibility, improved pedestrian network, use of energy efficiency lighting and appliances, Title 24 exceedance, and installation of low-flow indoor water features. Additional LEED design features would be incorporated into the Project. However, some LEED design features are not currently quantifiable in the CalEEMod model.

The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume (IPCC, 2007) and are the GHG emissions that the Projects would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF_6, were also considered for the analysis. Emissions of all GHGs are converted into their CO_2e. Calculations are based on the methodologies discussed in the CAPCOA CEQA and Climate Change white paper (2008) and included the use of the California Climate Action Registry (CCAR) General Reporting Protocol (2009).

On-Site Operational Emissions. Operational emissions associated with the Approved and Proposed Projects, as well as the former Robinson-May building, were calculated using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2 software program (see Appendix B for all calculations). Operational emissions from energy use (electricity and natural gas use) for the Projects were estimated using CalEEMod. The default values on which CalEEMod are based include the CEC-sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies. CalEEMod provides operational emissions of CO_2, N_2O and CH_4. This methodology is considered reasonable and reliable for use, as it has been subjected to peer review by numerous public and private stakeholders, and in particular by the CEC. It is also recommended by CAPCOA (2008).

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating, were calculated in CalEEMod and utilize standard emission rates from CARB, U.S. EPA, and district supplied emission factor values (CalEEMod User Guide, 2013).

Emissions from waste generation were also calculated using CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide, 2013). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in

California using the average values for Northern and Southern California. Complete results from CalEEMod and assumptions can be viewed in Appendix B.

Direct Emissions from Mobile Combustion. Emissions of CO_2 and CH_4 from transportation sources for the Projects were quantified using CalEEMod. Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using the California Climate Action Registry General Reporting Protocol (2009) direct emissions factors for mobile combustion (see Appendix C for calculations). The estimates of total daily trips associated with the Projects were based on the Traffic Study prepared by Fehr & Peers in April 2016 and were calculated and extrapolated to derive total annual mileage in CalEEMod. Emission rates for N_2O emissions were based on the vehicle mix output generated by CalEEMod and the emission factors found in the California Climate Action Registry General Reporting Protocol.

A limitation of the quantitative analysis of emissions from mobile combustion is that emission models, such as CalEEMod, evaluate aggregate emissions, meaning that all vehicle trips and related emissions assigned to a project are assumed to be new trips and emissions generated by the project itself. Such models do not demonstrate, with respect to a regional air quality impact, what proportion of these emissions are actually "new" emissions, specifically attributable to the project in question. For most projects, the main contributor to regional air quality emissions is from motor vehicles; however, the quantity of vehicle trips appropriately characterized as "new" is usually uncertain as traffic associated with a project may be relocated trips from other locales. In other words, vehicle trips associated with the project may include trips relocated from other existing locations. Therefore, because the proportion of "new" versus relocated trips is unknown, the vehicle miles traveled (VMT) estimate generated by CalEEMod is used as a conservative, "worst-case" estimate.

Construction Emissions. Construction of the Projects would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. CalEEMod was used to estimate emissions associated with the construction period, based on parameters such as the duration of construction activity, area of disturbance, and anticipated equipment use during construction. Earthwork and excavation are expected to occur over a period of approximately 5 months and are expected to involve approximately 162 truckloads per day at 2- and 3-minute intervals (bottom dumps, 14 cubic yards), or up to 300 trucks per day for up to 2.5 months. Therefore, the Proposed Project was modeled under two grading scenarios (2.5 months and 5 months). Modeling assumed compliance with SCAQMD Fugitive Dust Rule 403 and SCAQMD Architectural Coating Rule 1113 (SCAQMD rules are described in more detail in Section 4.2, *Air Quality*). Complete results from CalEEMod and assumptions can be viewed in Appendix B.

b. Project Impacts and Mitigation Measures.

Threshold	*Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*
Threshold	*Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Impact GHG-1 **Construction of the Approved or Proposed Project would generate temporary construction, as well as operational GHG emissions, which would incrementally contribute to climate change. The Proposed Project's total GHG emissions would be incrementally higher than those of the Approved Project, but less than emissions associated with the former Robinson-May. In addition, the Proposed Project would be consistent with the Climate Action Team GHG reduction strategies, the SCAG Sustainable Communities Strategy, and Beverly Hills Sustainable City Plan Goals. Therefore, the Proposed Project's contribution to cumulative climate change impacts would be *less than significant.* The Proposed Project would also be consistent with GHG plans and policies.**

The 2008 FEIR addressed impacts related to GHG emissions, but did not calculate emissions and concluded that the Approved Project's contribution to cumulative climate change impacts would not be significant based on the site location and design. For this analysis, GHG emissions for both the Proposed Project and Approved Project were calculated using CalEEMod based on each Project's construction schedule and the type of development proposed. In addition, the operational GHG emissions associated with the former Robinson-May building were modeled in CalEEMod. The Approved and Proposed Projects' total emissions were then compared to the operational emissions associated with the Robinson-May building, which is the baseline for the Projects. The following summarizes the Proposed Project and Approved Project's overall GHG emissions Robinson-May and compares calculated emissions to the SCAQMD's recommended 3,000 MT threshold for GHG emissions (see Appendix B for full CalEEMod worksheets).

Construction Emissions. Based on the CalEEMod results, construction of the Approved Project would generate an estimated 2,287 MT of CO_2e and construction of the Proposed Project would generate 4,758 MT of CO_2e under the 2.5-month grading schedule and 4,865 MT of CO_2e under the 5-month grading schedule (as shown in Table 4.2-1). Amortized over a 30-year period (the assumed life of the project), construction of the Approved Project would generate an estimated 76 MT of CO_2e per year and construction of the Proposed Project would generate 159 or 162 MT of CO_2e per year under the 2.5-month and 5-month grading schedules, respectively.

Operational Indirect and Stationary Direct Emissions. Table 4.2–2 summarizes GHG emissions associated with area sources, energy use, solid waste generation, water use, and transportation. Emissions associated with each of these sources are discussed below.

Area Source Emissions. As shown in Table 4.2–2, direct sources of air emissions would include consumer product use and landscape maintenance equipment. Area source emissions

would be approximately 4 MT of CO_2e per year for the Approved Project, 3 MT of CO_2e per year for the Proposed Project, and <0.1 MT of CO_2e per year for the former Robinson-May building.

Table 4.2–1
Estimated Construction Emissions of Greenhouse Gases

Approved Project	
Construction Year	**CO_2e (MT)**
2017	1,242
2018	1,045
Total	**2,287**
Amortized over 30 years	*76 MT per year*
Proposed Project (2.5-Month Grading Period)	
2017	2,043
2018	1,087
2019	1,315
2020	313
Total	**4,758**
Amortized over 30 years	*159 MT per year*
Proposed Project (5-Month Grading Period)	
2017	1,732
2018	1,290
2019	1,247
2020	597
Total	**4,865**
Amortized over 30 years	*162 MT per year*

See Appendix B for calculations and for GHG emission factor assumptions. Assumed compliance with SCAQMD Architectural Coating Rule 1113 and SCAQMD Fugitive Dust Rule 403.
Note: Total may not add up due to rounding.

Table 4.2–2
Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (Metric Tons CO_2e)			
			Proposed Project	
	Robinson-May	Approved Project	2.5-Month Grading Scenario	5-Month Grading Scenario
Construction	None	76	159	162
Operational				
Area	<0.1	4	3	
Energy	1,967	990	1,498	
Solid Waste	134	17	37	
Water	144	69	73	
Mobile				
CO_2 and CH_4	3,472	1,415	1,181	
N_2O [1]	162	75	65	
Total Emissions	**5,879**	**2,646**	**3,015**	**3,018**
Net New Emissions (Approved or Proposed Project – Robinson-May)	--	*(3,233)*	*(2,864)*	*(2,861)*

Sources: See Appendix B for calculations and for GHG emission factor assumptions.
1. Calculation sheets for N_2O mobile emissions are included in Appendix B.
( ) – denotes negative

Energy Use. As shown in Table 4.2–2, operation of on-site development would consume both electricity and natural gas. The generation of electricity through combustion of fossil fuels typically yields CO_2, and to a smaller extent, N_2O and CH_4. As discussed above, annual electricity and natural gas emissions can be calculated using default values from the CEC sponsored CEUS and RASS studies, which are built into CalEEMod. Electricity consumption associated with the former Robinson-May building generated an estimated 1,941 MT of CO_2e per year and natural gas use generated an estimated 26 MT of CO_2e per year (see Appendix B for full results and calculations). Thus, overall energy use for the Robinson-May building generated approximately 1,967 MT of CO_2e per year. Electricity consumption associated with the Approved Project would generate an estimated 810 MT of CO_2e per year and natural gas use would generate an estimated 180 MT of CO_2e per year (see Appendix B for full results and calculations). Thus, overall energy use for the Approved Project would generate approximately 990 MT of CO_2e per year. Electricity consumption associated with the Proposed Project would generate an estimated 1,125 MT of CO_2e per year and natural gas use would generate an estimated 373 MT of CO_2e per year (see Appendix B for full results and calculations). Thus, overall energy use of the Proposed Project would generate approximately 1,498 MT of CO_2e per year. The Proposed Project would result in greater GHG emissions than the Approved Project despite a slight reduction in overall vehicle miles traveled (VMT) as compared to the Approved Project, largely because the hotel is more energy intensive than the residential and retail uses it would replace.

Solid Waste Emissions. In accordance with AB 939, the CalEEMod emissions estimate assumes by default that the former Robinson-May building achieved at least a 50 percent

diversion rate of recyclable materials. Based on this estimate, solid waste associated with the former Robinson-May building generated approximately 134 MT of CO_2e per year. In congruence with the City of Beverly Hills current residential and commercial diversion rate, it was assumed that the Approved and Proposed Projects would achieve at least a 70 percent diversion rate of recyclable materials. Based on these estimates, solid waste associated with the Approved Project would generate approximately 17 MT of CO_2e per year and the Proposed Project would generate an estimated 37 MT of CO_2e per year (as shown in Table 4.2–2).

*Water Use Emissions***.** Based on the amount of electricity used to supply and convey water, the former Robinson-May building generated approximately 144 MT of CO_2e per year, the Approved Project would generate approximately 69 MT of CO_2e per year, and the Proposed Project would generate approximately 73 MT of CO_2e per year (as shown in Table 4.2–2).

Transportation Emissions. As shown in Table 4.2–2, mobile source GHG emissions were estimated using the average daily trips for both projects according to the traffic study (see Appendix D). The former Robinson-May building generated approximately 7,410,769 annual VMT, while the Approved Project would generate an estimated 3,423,100 annual VMT and the Proposed Project would generate an estimated 2,966,985 annual VMT. As noted above, CalEEMod does not calculate N_2O emissions related to mobile sources. Rincon estimated N_2O emissions for both projects, as well as the Robinson-May building, and included these in the overall emissions total, based on the VMTs above and using calculation methods provided by the California Climate Action Registry General Reporting Protocol (January 2009). The mobile emissions generated by the former Robinson-May were approximately 3,634 MT of CO_2e per year. The Approved Project's annual mobile emissions would generate an estimated 1,490 MT of CO_2e, and the Proposed Project's mobile emissions would generate an estimated 1,245 MT CO_2e.

Combined Construction, Stationary, and Mobile Source Emissions. Table 4.2–2 compares the combined construction, operational indirect, and stationary direct GHG emissions associated with development of both Projects, as well as the operational emissions associated with the former Robinson-May building, and compares the difference between the total GHG emissions of the Proposed Project and the operational emissions associated with the former Robinson-May building to the significance threshold.

The combined annual emissions for the Robinson-May building are estimated at 5,879 MT of CO_2e per year. The combined annual emissions for the Approved Project are estimated at 2,646 MT of CO_2e per year, while combined annual emissions for the Proposed Project are estimated at 3,015 MT of CO_2e per year under the 2.5-month grading scenario, and 3,018 MT of CO_2e per year under the 5-month grading scenario. Emissions associated with the Proposed Project would exceed 3,000 MT tons under either the 2.5-month or 5-month grading scenario, but the increase in emissions as compared to the Approved Project would be less than 400 MT under either scenario. Moreover, both the Approved Project and the Proposed Project would result in fewer annual GHG emissions than operation of the former Robinson-May building. Therefore, the Proposed Project would not substantially increase GHG emissions.

<u>Consistency with Applicable Plans and Policies</u>. As discussed in the Setting, a number of plans and policies aimed at GHG reduction apply to the Proposed Project. The Climate Action Team Report (the "2006 CAT Report"), published in March 2006, identifies a recommended list

of strategies that the State could pursue to reduce climate change GHG emissions. CAT strategies are recommended to reduce GHG emissions at a statewide level to meet the goals of the Executive Order S-3-05. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with existing authority of the State agencies.

The SCAG SCS also contains a number of strategies that relate to the operations of SCAG and regional land use planning. Because such strategies lie beyond the scope of individual development projects, only those strategies applicable to the Proposed Project are addressed.

The City of Beverly Hills adopted a Sustainable City Plan in 2009. This plan also contains goals intended to support sustainable development within the City. Implementation of this plan would contribute to a reduction in the City's overall GHG emissions.

Tables 4.2–3 through Table 4.2–5 compare the Proposed Project to applicable policies from each of the above plans and policy documents. As illustrated in these tables, the Proposed Project would not conflict with GHG reduction strategies set forth by the 2006 CAT Report, the SCAG SCS, or the Beverly Hills Sustainable City Plan. As discussed in detail in Section 4.3, *Land Use and Planning*, the Proposed Project would also be consistent with applicable policies of the Beverly Hills General Plan, including a range of policies aimed indirectly at reducing GHG emissions through reduction in vehicle miles traveled, energy use, and water consumption.

Table 4.2–3
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
California Air Resources Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by CARB in September 2004.	**Consistent** Vehicles that travel to and from the project site on public roadways would be in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Diesel Anti-Idling The CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling in July 2004.	**Consistent** Current State law restricts diesel truck idling to five minutes or less. Diesel trucks operating from and making deliveries to the project site are subject to this state-wide law. Construction vehicles are also subject to this regulation.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans. 2) Require that only low GWP refrigerants be used in new vehicular systems. 3) Adopt specifications for new commercial refrigeration. 4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs. 5) Enforce federal ban on releasing HFCs.	**Consistent** This strategy applies to consumer products. All applicable products would be required to comply with the regulations that are in effect at the time of manufacture.
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	*Not applicable*, but diesel vehicles such as construction vehicles that travel to and from the project site on public roadways could utilize this fuel once it is commercially available.
Heavy-Duty Vehicle Emission Reduction Measure Increased efficiency in the design of heavy duty vehicles and an education program for the heavy duty vehicle sector.	**Consistent** Heavy-duty vehicles for construction activities that travel to and from the project site on public roadways would be subject to all applicable CARB efficiency standards that are in effect at the time of vehicle manufacture.

Table 4.2–3
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Achieve 50 Percent Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	**Consistent** According to data provided by Beverly Hills Public Works, the City of Beverly Hills met its target disposal rate. Based on the data provided for 2011 (the most recent year for which data is available), the City's overall diversion rate was 78 percent (City of Beverly Hills, 2012a). The City has implemented multiple programs designed to sustain these disposal rates.
Zero Waste – High Recycling Efforts to exceed the 50 percent goal would allow for additional reductions in climate change emissions.	**Consistent** As discussed further in Section 4.3, *Land Use and Planning*, the Proposed Project would be required to participate in waste diversion programs. The Project would also be subject to all applicable State and City requirements for solid waste reduction as they change in the future.
Department of Forestry	
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	**Consistent** The project site would continue to be landscaped with public and private gardens in accordance with the approved 9900 Wilshire Specific Plan.
Department of Water Resources	
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	**Consistent** The proposed structures would be required to be consistent with CalGreen standards. As such, the Proposed Project would be equipped with low-flow plumbing fixtures, reducing water use. The Project would also utilize a gray water system to reduce water use, as required by the 9900 Wilshire Specific Plan and discussed in Section 4.6, *Utilities and Service Systems (Water)*. In addition, the Proposed Project would: include individual metering and billing for water use of all residential uses and single-passing cooling equipment would be prohibited.
Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	**Consistent** The Proposed Project would be designed to achieve a Silver LEED Certification through environmentally-sensitive architecture and building systems. Buildings would be "thin" and incorporate passive energy-efficiency strategies, such as overhands and shading devices, centralized chiller plant and water cooled variable refrigerant flow systems, high performance window glazing, and enhanced insulation in support of a sustainable design concept to maximize daylight and natural ventilation. The Project would also be equipped with equipment (e.g., HVAC systems), lighting fixtures, and lighting that exceed Title 24 requirements based on the 2013 Building Energy Efficiency Standards requirements.
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	**Consistent** Under State law, appliances that are purchased for the Project - both pre- and post-development – would be consistent with energy efficiency standards that are in effect at the time of manufacture.

Table 4.2–3
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Fuel-Efficient Replacement Tires & Inflation Programs State legislation established a statewide program to encourage the production and use of more efficient tires.	**Consistent** Residents living at the project site could purchase tires for their vehicles that comply with state programs for increased fuel efficiency.
Municipal Utility Energy Efficiency Programs/Demand Response Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	*Not applicable*, but project development would not preclude the implementation of this strategy by municipal utility providers.
Municipal Utility Renewable Portfolio Standard California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 20 percent of retail electricity sales from renewable energy sources by 2017, within certain cost constraints.	*Not applicable*, but the project would not preclude implementation of this strategy by Southern California Edison.
Municipal Utility Combined Heat and Power Cost effective reduction from fossil fuel consumption in the commercial and industrial sector through the application of on-site power production to meet both heat and electricity loads.	*Not applicable* since this strategy addresses incentives that could be provided by utility providers such as Southern California Edison and The Gas Company.
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and -leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.	**Consistent** The Proposed Project would be designed to achieve a Silver LEED Certification through environmentally-sensitive architecture and building systems. Buildings would be "thin" and incorporate passive energy-efficiency strategies, such as overhands and shading devices, centralized chiller plant and water cooled variable refrigerant flow systems, high performance window glazing, and enhanced insulation in support of a sustainable design concept to maximize daylight and natural ventilation. The Project would also be equipped with equipment (e.g., HVAC systems), lighting fixtures, and lighting that exceed Title 24 requirements based on the 2013 Building Energy Efficiency Standards requirements.
Business, Transportation and Housing	
Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. The Governor is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density	**Consistent** The Project site is accessible via existing bus transit facilities. Metro Transit has more than five bus stops within ¼ mile of the Project site.

Table 4.2–3
Project Consistency with Applicable Climate Action Team Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.	
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard. The Governor has set a goal of achieving 33 percent renewable in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	*Not applicable*, but Project development would not preclude the implementation of this strategy by energy providers.
California Solar Initiative The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	**Consistent** The Proposed Project would be required to comply with Section A4.211 "Renewable Energy" of the 2010 CalGreen Code, which requires provision of a minimum of 300 square feet of unobstructed roof area facing within 30 degrees of south for future solar collector or photovoltaic panels.

Table 4.2–4
Project Consistency with Applicable SCAG SCS Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Land Use Actions and Strategies	
Support projects, programs, policies and regulations that encourage the development of complete communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance.	**Consistent** The Proposed Project includes mixed-use buildings with residential, retail, and other commercial uses. These uses would also be located in an urbanized area and in proximity to existing residential and commercial development. Existing public transit facilities are located within 0.1 mile of the project site. The Proposed Project would be consistent with efforts to provide diverse housing choices with commercial and recreational opportunities. On-site commercial opportunities include restaurants, a bar, and hotel shops, while a range of commercial businesses are located within easy walking distance of the project site. On-site recreational opportunities would include a rooftop pool and other amenities for site residents and, per the adopted Specific Plan, public gardens for use by Beverly Hills residents and visitors, including Specific Plan Area residents and visitors. Residents and employees would have ready access alternative modes of transportation, including non-auto (e.g., walking, bicycles) and public transportation (existing public transit facilities are within 0.1 mile of the Project site).
Transportation Network Actions and Strategies	
Prioritize transportation investments to support compact infill development that includes a mix of land uses, housing options, and open/park space, where appropriate, to maximize the benefits for existing communities, especially vulnerable populations, and to minimize any negative impacts.	**Consistent** The Project site is located in an area surrounded by existing development, and would add residential, commercial, and recreational uses. As such, the Proposed Project would be infill development that would minimize negative impacts and efficiently use existing infrastructure

Table 4.2–4
Project Consistency with Applicable SCAG SCS Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Explore and implement innovative strategies and projects that enhance mobility and air quality, including those that increase the walkability of communities and accessibility to transit via non-auto modes, including walking, bicycling, and neighborhood electric vehicles (NEVs) or other alternative fueled vehicles.	**Consistent** The Proposed Project is located in an urbanized area and in close proximity to existing residential and commercial development. Existing public transit facilities are located within 0.1 miles of the Project site. The Project would be walkable and pedestrian access to the existing transit would be available.
Collaborate with local jurisdictions to plan and develop residential and employment development around current and planned transit stations and neighborhood commercial centers.	**Consistent** The Proposed Project is located in an urbanized area and in close proximity to existing public transit facilities, including the planned Purple Line. The Proposed Project would be consistent with efforts to support the use of public transportation.
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other ZEV options.	**Consistent** The Project site is located in an urbanized area and in proximity to existing residential and commercial development. Existing public transit facilities are located near the project site. The Proposed Project would include pedestrian connections to the existing developed areas surrounding the site as well as access to transit.
Transportation Demand Management Actions and Strategies	
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	*Not applicable*; however, occupants of the project site could take advantage of local active transportation and ride-share opportunities.
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	*Not applicable*; however, occupants of the Project site could telecommute as appropriate.
Clean Vehicle Technology Actions and Strategies	
Develop a Regional PEV Readiness Plan with a focus on charge port infrastructure plans to support and promote the introduction of electric and other alternative fuel vehicles in Southern California.	*Not applicable*, but Project development would not preclude implementation of this strategy.

Table 4.2–5
Project Consistency with Applicable Beverly Hills Sustainable City Plan Goals

Goal	Project Consistency
Climate Change and Air Quality	
Combat climate change and improve air quality.	**Consistent** The Proposed Project is designed to achieve a Silver LEED Certification through environmentally-sensitive architecture and building systems. Buildings would be “thin” in support of a sustainable design concept to maximize daylight and natural ventilation. Each residence would be designed to include cantilevered terraces and balconies that shade the "clear" glass and create depth and scale at the building elevations. The use of adhesives, sealants, paints, finishes, carpet, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air quality pollutants would be required on site. In addition, the use of chlorofluorocarbons (CFCs) in HVAC systems would be prohibited. The Proposed Project would not conflict with the implementation of this goal.

Table 4.2–5
Project Consistency with Applicable
Beverly Hills Sustainable City Plan Goals

Goal	Project Consistency
Energy	
Encourage the use of energy in a clean and efficient manner and the use of renewable energy sources.	**Consistent** The Proposed Project is designed to achieve a Silver LEED Certification through environmentally-sensitive architecture and building systems. Buildings would be "ultra-thin" in support of a sustainable design concept to maximize daylight and natural ventilation. Each residence would be designed to include cantilevered terraces and balconies that shade the "clear" glass and create depth and scale at the building elevations. The Proposed Project would not conflict with the implementation of this goal.
Water	
Reduce water use while maintaining a garden-like quality in the City.	**Consistent** The Proposed Project would continue to be landscaped with public and private gardens as approved with a small increase in overall open and green space. As described in Section 2.0, *Project Description*, 100% of onsite plants would be drought-tolerant.
Land Use, Transportation and Open Space	
Foster an energy efficient, walk-able community that provides ample goods, services and benefits to all residents while respecting the local environment.	**Consistent** The Proposed Project is an infill development in a mixed use urban setting. The project site is accessible via existing bus transit facilities.

Conclusion. The Proposed Project would incrementally increase GHG emissions as compared to the Approved Project, but would generate fewer emissions than the former Robinson-May. In addition, as indicated in tables 4.2-3 through 4.2-5, the Proposed Project would not conflict with applicable CAT strategies, SCAG'S SCS GHG emission reduction strategies, or Beverly Hills Sustainable City Plan Goals. Based on these facts, the Proposed Project's impact related to GHG emissions and climate change would be less than significant.

Mitigation Measures. Mitigation is not required. Nonetheless, as discussed in Section 2.0, *Project Description*, the Proposed Project includes a number of design features aimed at energy use reduction that would also reduce GHG emissions. In addition, the Proposed Project, by virtue of its location and design, would implement a range of policies related to GHG reduction.

Significance after Mitigation. Impacts related to Project-generated GHG emissions would be less than significant without mitigation.

b. Cumulative Impacts. Table 3-1 in Section 3.0, *Environmental Setting*, lists planned and pending developments in and around Beverly Hills. Such development would increase overall GHG emissions generated within Beverly Hills and the region. As indicated in Impact GHG-1, GHG emissions associated with the Proposed Project would be less than significant and the Proposed Project would be consistent with and help implement applicable plans and policies related to GHG emissions reductions. Analysis of GHG-related impacts is cumulative in nature

as climate change is related to the accumulation of GHGs in the global atmosphere. In addition, the State of California has mandated an 80 percent reduction in GHG emissions by 2050 and numerous agencies around the state, including the City of Beverly Hills, have adopted regulations aimed at meeting this goal and additional regulations are expected to be adopted in the decades ahead. The Project's contribution to cumulative levels of GHGs would not be cumulatively considerable and cumulative impacts to climate change would be less than significant.

4.3 LAND USE AND PLANNING

This section analyzes the Proposed Project's consistency with relevant policies of applicable local and regional plans, including the City of Beverly Hills' General Plan, 9900 Wilshire Specific Plan, and Municipal Code.

4.3.1 Setting

a. Project Site. As illustrated in Figure 2-1, Regional Location, in Section 2.0, *Project Description*, the Project site is located in the City of Beverly Hills (the City), approximately seven miles west of the City of Los Angeles Civic Center. Major regional access is provided by Santa Monica Boulevard, which connects to U.S. Highway 101 (Hollywood Freeway) to the east and Interstate 405 (I-405) to the west; Wilshire Boulevard, which connects to I-405 to the west; and Robertson Boulevard and La Cienega Boulevard, which connect to I-10 to the south.

The Project site is situated in the western portion of the 9900 block of Wilshire Boulevard. As illustrated in Figure 2-2, *Project Site and Surrounding Land Uses*, and discussed in Section 2.0, *Project Description*, the site is bound by the Los Angeles Country Club on the west, Wilshire Boulevard to the north, the center-line of Merv Griffin Way to the east, and Santa Monica Boulevard to the south. The site totals approximately eight acres, and is currently vacant. The site was formerly occupied by the Robinsons May department store and an associated two-level, 956-space parking structure.

Presently, the Project site is zoned for C-3 (commercial) uses and the 9900 Wilshire Specific Plan (Specific Plan), as defined by the City's Zoning Map and Land Use Element of the General Plan (Beverly Hills, 2008a and 2008b). Uses permitted under the C-3 designation include a wide range of low- to high-intensity commercial uses, such as restaurants, offices, and retail shops. The standards and regulations set forth by the Specific Plan, however, supersede the C-3 zoning for the Project site. The City adopted the Specific Plan for the 9900 Wilshire Project in April 2008 (the 2008 Project) and reduced the number of approved residential units from 252 to 235, the commercial building area from 19,856 sf to 16,456 sf, and the number of parking spaces from 956 to 803. The Specific Plan that was adopted in April 2008 also removed the two smaller, four-story loft buildings and included a two-story commercial building located along the north side of Santa Monica Boulevard. In December 2012 an Administrative Modification was approved. This further reduced the approved commercial square footage to 15,856 sf and increased the parking spaces to 876 (Approved Project). For the purposes of this analysis, the Approved Project is used as the baseline for the analysis as it represents what is currently permitted at the Project site.

b. Surrounding Land Uses. Land uses surrounding the Project site are illustrated in Figure 2-2 and discussed in the subsection Surrounding Land Uses, in Section 2.0. Figure 4.3-1 Zoning Designations, illustrates the zoning designations described in Table 4.3–1.

Imagery provided by Google and its licensors © 2015. Zoning layer from City of Beverly Hills, December, 2015.

Zoning Designations

Figure 4.3-1

Table 4.3–1
Existing Land Uses and Zoning

Direction	Existing Land Use(s)	Existing Zoning	Permitted Use(s)
North	El Rodeo Elementary School	S (school)	Structures as defined by the Education Code Section 40041 for public education purposes
	Single-family one- and two-story homes	R-1 (one-family residential) R-1X (one-family residential);	R-1 – Private one-family residences or small family daycare homes R-1X – Private one-family residences or small family daycare homes
	Beverly Gardens Park (linear parkway)	Park, Reservoirs, Government (unzoned)	Public open spaces, including parks, schools, median strips, and reservoirs
East	Beverly Hilton Hotel (eight stories, 95 feet tall to the roofline), above-ground parking structure, and ancillary hotel uses	C-3 (commercial)	Includes, but is not limited to, a café, carpenter shop, cinema or theater, conservatory, dancing academy, dressmaking or millinery store, exercise club, library, office, parking garage, photography gallery, shop for conducting of wholesale or retail business, store, and a studio
South	Former railroad right-of-way, includes a privately owned surface parking lot	T-1 (transportation)	Railway lines, stations, affiliated structures, and parking lots for such transportation uses
	An automotive repair shop, one- and two-story small retail shops and office buildings, and a four-story medical clinic	C-3 (commercial), C-3A (commercial)	See above for C-3 zone C-3A (commercial) zoning designation includes, but is not limited to, a café, carpenter shop, cinema, conservatory, dancing academy, dressmaking or millinery store, exercise club, library, office, parking garage, photography gallery, shop for conducting of wholesale or retail business, store, and a studio
West	Avis Union 76 gas station	C-3 (commercial)	See above for C-3 zone
	Los Angeles Country Club (within the City of Los Angeles)	A1-1XL (Agricultural Zone)	One-family dwellings, parks, recreational uses, golf course, farming

Sources: Beverly Hills, 2008a; Los Angeles, 2015a and 2015b

c. Regulatory Setting. The City of Beverly Hills regulates land use in the incorporated City boundaries through its General Plan, Municipal Code, and specific plans. The 9900 Wilshire Specific Plan applies to the Project site. These regulatory documents establish policies that apply citywide and to specific subareas within the City.

General Plan. California requires every city and county to prepare a comprehensive General Plan that guides decision-making and implementation related to land use, zoning, redevelopment, environmental justice, planning, and general decision-making of the jurisdiction into the future. The Beverly Hills General Plan, amended and adopted in 2010 (since approval of the 9900 Wilshire Specific Plan [Approved Project] and certification of the 2008 FEIR), includes the seven required elements: Land Use, Open Space, Circulation, Conservation, Noise, Safety, and Housing. In addition, the City has included three optional elements: Historic Preservation, Economic Sustainability, and Public Services. The General Plan Elements are

summarized below, while specific goals and policies that potentially apply to the Proposed Project are discussed under Impact LU-1 below.

Land Use. Generally, the goals and policies of this element are intended to maintain the overall land use pattern of the City. The Land Use Element also links the other elements of the General Plan together because it dictates the long-range use of the land.

Historic Preservation. The Historic Preservation Element was added to the General Plan in 2010, after adoption of the Approved Project and certification of the 2008 FEIR. This element is the principal guide for preservation of the City's historic resources. It identifies known historic resources in the City, describes state and federal laws pertaining to historic resources, and includes policies aimed to preserving known and newly identified resources.

Economic Sustainability. The Economic Sustainability Element is the principal guide that encourages and sustains a resilient business community in the City. Policies relate to the maintenance of a sustainable economic base for the City, maintaining the City's market position, and enhancing local commercial corridors.

Open Space. The Open Space Element is the principal guide for the maintenance and conservation of natural resources, open space, and recreation and park lands in the City of Beverly Hills. This element serves two main purposes:

- *To guide the City in policy issues concerning the acquisition, control, development, and use of space*
- *To maintain an inventory of the type, location and use patterns of the City's open space and recreation resources for future planning purposes.*

Circulation. The goals and policies of the Circulation Element are intended to limit negative effects caused by vehicles, and circulate vehicles through the City as expeditiously as possible. The Circulation Element has two overarching objectives: first, the neighborhoods of Beverly Hills should be preserved and enhanced, including limiting negative effects caused by vehicles and second, vehicles should move into, out of, or through Beverly Hills as expeditiously as possible.

Conservation. The Conservation Element is the principal guide for the conservation and use of natural resources in the City. The element addresses such topics as water supply, storm drainage/runoff, solid waste, energy, and telecommunications. The City is committed to meeting the future needs of residents and businesses by ensuring a high-quality water, wastewater, storm drainage, solid waste, energy, and telecommunications systems.

Noise. The purpose of the Noise Element is to ensure that Beverly Hills residents will be protected from excessive noise. The information contained in this document provides a framework to achieve compatible land uses and provides baseline noise levels and sources of noise to aide in enforcement of noise controls.

Safety. The primary purpose of the Safety Element is to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from earthquakes, urban and wildland fires, terrorism, floods, earthquakes, landslides, public health emergencies, and other natural and man-made disasters. This element specifically addresses

fire, flood, geologic and seismic hazards, hazardous materials, noise, and natural and man-made disaster preparedness.

Public Services. The Public Services Element provides goals and policies related to the provision of coordinated police fire and emergency medical services; provision of quality cultural services; provision of quality human services, including three major functional components: information, referral, and access to service; development of new programs to address unmet service needs; support for the enhancement and development of library facilities, services, collections, and programs in relation to changing community needs and industry trends. It also addresses the local educational system.

Housing. The Housing Element is a guide for expanding housing opportunities and services for all household types and income groups, and policy guidance for local decision-making related to housing, especially the provision of affordable housing.

9900 Wilshire Specific Plan. A Specific Plan is a planning document for a defined area in the City and is intended to guide proposed development in a manner that would adhere to and implement various goals and policies of the City's General Plan. A Specific Plan defines development standards, including, but not limited to, density requirements, building heights, setback requirements, and parking plans. Allowed land use types are also defined and attributed to particular portions of a Specific Plan area. As set forth in the City's Zoning Ordinance, a Specific Plan supersedes other development regulations and standards set forth in the Beverly Hills Planning and Zoning Ordinance for the Specific Plan area. Except where provisions of the Specific Plan provide otherwise, policies and standards in the Specific Plan are applied in lieu of provisions in Zoning Ordinance. Notwithstanding anything to the contrary in the Specific Plan, the following applies: (a) development in accordance with the Specific Plan is not governed by any other regulations in the Municipal Code governing development, including without limitation those regulations governing development in residential and commercial zones, and (b) wherever the Specific Plan contains provisions that establish regulations (including, but not limited to, standards such as density, height, use, parking, signage, open space, and landscape requirements) that are different from, or more restrictive or more permissive than what would be allowed pursuant to the provisions contained in the Municipal Code, the Specific Plan will prevail and supersede the applicable provisions of the Municipal Code.

The 9900 Wilshire Specific Plan applies to the Project site and the main goals and objectives that apply to the Project along with applicable Specific Plan development standards and guidelines, are listed below. It should be noted, however, that the entire Specific Plan applies to the Proposed Project and any future development in the Specific Plan area (Project site).

Goals and Objectives

a. *To create a world-class architectural landmark with a visual presence at the dual gateway to the City at Wilshire Boulevard and Santa Monica Boulevard that will enhance the beauty and image of Beverly Hills.*
b. *To develop an environmentally sensitive and sustainable project.*
c. *To develop a significant portion of the Specific Plan Area as landscaped gardens and other open space to enhance the visual character of the neighborhood and the City.*
d. *To provide Public Gardens along Wilshire Boulevard, Merv Griffin Way and at the corner of Merv Griffin Way and Santa Monica Boulevard for the use and enjoyment of the public during*

certain hours that enhances the garden qualities of the City.

e. To redevelop the Specific Plan Area in a manner that does not substantially increase the traffic impacts and related operational air quality and noise impacts associated with the Existing Building.

f. To improve the utilization and visual appearance of the Specific Plan Area by eliminating the existing above-ground parking structure and constructing subterranean parking for the Specific Plan Area.

g. To provide high-quality housing for local and area residents to provide a variety of housing to meet the City's housing needs.

h. To provide new housing within the City without having to tear down existing rental units or otherwise displace existing housing.

i. To provide full-service luxury residential condominiums with vista views.

j. To provide retail space along Santa Monica Boulevard and restaurant space on Merv Griffin Way to (i) serve Project residents and other and (ii) enhance pedestrian activity and street life.

k. To improve traffic circulation in and around the Specific Plan Area by providing additional vehicular access points on Wilshire Boulevard and Santa Monica Boulevard for Project residents in order to reduce the amount of traffic on Merv Griffin Way.

l. To provide housing in close proximity to the office and retail uses in Beverly Hills.

m. To provide revenue to the City to offset the loss of commercial uses on the site.

n. To provide affordable housing consistent with the City's Housing Element by providing a contribution to the City's affordable housing fund.

The following is a summary of key standards and guidelines from sections 3, 4, and 6 of the Specific Plan:

Chapter 3.0 – General Plan Components

3.2 Land Uses

The land use concept for the Specific Plan Area encourages a development consisting of luxury residential units, retail and restaurant uses, a central subterranean parking structure and landscaped gardens, including the Public Gardens and other open space, all on 7.95 net acres of land. Figure 5 [of the Specific Plan] illustrates the basic land use concept of the Specific Plan Area.

The uses in the Specific Plan Area shall be limited to those uses shown on Figure 5 or otherwise described in Section 4.2 of Chapter 4.0 of this Specific Plan. Ancillary uses for the condominiums include health spas, private fitness centers, squash courts, pools, screening rooms, meeting rooms, game rooms, common areas, outdoor living areas, parking, storage, residential storage units, wine storage, security offices, back-of-house (BOH) kitchen, BOH laundry, BOH storage facilities, for the exclusive use of the condominium residents and guests, and other amenities associated with luxury residential condominiums approved by the Director of Community Development (the "Director').

A maximum of 600 square feet of open air dining within the Specific Plan Area, in substantially the location shown on Figure 37, shall be permitted in conjunction [with] the restaurant and shall not require separate authorization or approval of an Open Air Dining Permit, provided that such open air dining complies with the operational standards set forth in Section 6 4 of Chapter 6.0 of this Specific Plan. Any open air dining proposed in a public right of way shall require the approval of an Open Air Dining Permit in accordance with the procedures set forth in Article 35 of Chapter 3 of Title 10 of the Municipal Code or its successor.

3.3 Site Planning

A. Building Placement

The location and distribution of buildings and open space, including building levels located below grade, shall be substantially as shown on Figure 6 of the Specific Plan. Within the open space and public rights-of-way, the location, distribution and type of pedestrian amenities and landscaping shall be substantially as shown on Figure 38 of the Specific Plan. Within the Public Gardens, the location and distribution of pedestrian amenities and the location, distribution and type of landscaping shall be generally as shown on Figure 39 of the Specific Plan.

The total floor area for commercial uses shall not exceed 16,456 square feet, which may include a maximum of 4,800 square feet of floor area for dining and bar uses (including a maximum of 600 square feet of open air dining area). A maximum of 235 residential units shall be permitted in the Specific Plan Area.

B. Circulation

1. Local Circulation

The Specific Plan Area is located within the area bounded by Wilshire Boulevard to the north, Santa Monica Boulevard to the south, Merv Griffin Way to the east, and the Los Angeles Country Club to the west. Other key streets in the vicinity include Whittier Drive and Elevado Avenue. The locations of these streets are shown on Figure 9.

Wilshire Boulevard is an east-west arterial roadway that runs between Ocean Avenue in Santa Monica to the west and Grand Avenue in downtown Los Angeles lo !he east. In the vicinity of the Specific Plan Area, Wilshire Boulevard provides six lanes of travel, which are divided by painted medians and two-way left tum lanes. On-street parking is not permitted before 7:00 p.m. on Wilshire Boulevard within the immediate vicinity of the Specific Plan Area. Wilshire Boulevard is on the Congestion Management Plan (CMP) road system as a part of the CMP roadway network.

Santa Monica Boulevard has been designated by the City as a Major Class 1 Highway. It is an east-west arterial roadway that runs between the City of Santa Monica to the west and Sunset Boulevard in Silver Lake to the east. The Santa Monica Boulevard Transit Parkway Project which was completed in 2007 consisted of the reconstruction and reconfiguration of 2.5 mites of Santa Monica Boulevard between 1-405 on the west and Beverly Hills city limit on the east (Moreno Drive). This segment of the boulevard has three eastbound and three westbound travel lanes. The project includes a new street lighting and traffic signal system, a landscaped median, bicycle lanes and bus priority features. Santa Monica Boulevard is on the CMP road system as part of the CMP roadway network.

Whittier Drive is a local residential street It is a north-south roadway, the southern terminus of which is directly across the street from the northern terminus of Merv Griffin Way. Elevado Avenue is a residential street. It is a north-south to east-west roadway, the southwestern terminus of which is at Whittier Drive.

Transportation improvements and facilities, including, but not limited to, alleys, driveways and parking facilities, shall be constructed within the Specific Plan Area to minimize the parking and circulation impacts on surrounding streets including impacts lo public transportation. The alleys, driveways and parking facilities to be constructed within the Specific Plan Area shall be substantially as shown on Figures 10 through 12.

A new residential access road shall be constructed along the western edge of the Specific Plan Area. A new traffic signal at Merv Griffin Way and Santa Monica Boulevard shall be constructed and the intersection of Merv Griffin Way and Wilshire Boulevard shall be modified to provide one left-turn lane, one through lane, and one right-turn lane on the portion of Merv Griffin Way within the Specific Plan Area.

A new delivery access along Santa Monica Boulevard west of Merv Griffin Way shall be provided as well as a new access along Merv Griffin Way between Wilshire Boulevard and Santa Monica Boulevard. These two access points will also provide access for the retail and restaurant components of the project.

A residential access point on Wilshire Boulevard shall be limited to right turns in and right turns out only. The residential access point on Santa Monica Boulevard can provide for right turns in and out, and for left turns in. The access points, driveways and roadway improvements shall be substantially as shown on Figure 10.

Merv Griffin Way is a private street owned in part by the owner of the Specific Plan Area, and in part by the adjacent landowners to the east. Any proposal to realign. close or substantially change Merv Griffin Way shall require approval of the Planning Commission, which decision may be appealed to the City Council pursuant to the provisions of Chapter 4 of Title 1 of the City's Municipal Code provided, however, that Merv Griffin Way may be closed to the public from time to time for maintenance and repairs and improvement work if approved by the Director of Public Works and Transportation, and for emergencies.

2. Traffic Impacts
A traffic impact study was prepared in connection with consideration of the Specific Plan. Those studies analyzed the impact of the Specific Plan and concluded that the implementation of the Specific Plan would have no significant adverse traffic impacts.

3. Pedestrian Circulation
The commercial area along Santa Monica Boulevard is intended to enhance the pedestrian character of this portion of Santa Monica Boulevard. In addition, the Public Gardens will create an inviting pedestrian opportunity along Wilshire Boulevard, Merv Griffin Way and at the corner of Merv Griffin Way and Santa Monica Boulevard that does not exist today. The provision of this inviting pedestrian opportunity is designed to encourage pedestrians from neighboring areas to walk to the commercial uses at the Project Site, such as the restaurant, and to provide an attractive pedestrian link between the Business Triangle and the 9900 Wilshire and adjacent hotel area of the City.

4. Parking Facilities
The subterranean parking structure will provide approximately 803 parking spaces substantially as shown on Figures 11 and 12, including separate residential (681 with not more than 31 tandem spaces) and commercial (122 with not more than 30 tandem spaces} areas. These spaces will provide parking for all land uses within the Specific Plan Area.

3.4 Utilities

Due to the long-time operation of commercial uses in the Specific Plan Area and the urbanized nature of the surrounding area, the Specific Plan Area is currently provided with adequate facilities for sewage, water, drainage. solid waste disposal and energy. As limited in size and intensity of use by the Specific Plan, the Specific Plan Area will not require the development of additional sewage, water,

solid waste disposal, energy, or other essential facilities. However, the Project will be required to pay its fair share to mitigate any cumulative impacts on City facilities. In addition, all utility construction, connections and maintenance shall conform to the provisions of the Beverly Hills Municipal Code. Implementation of the Specific Plan will require relocation of certain utilities substantially as shown on Figures 31 through 36. The telephone facilities plan shall be substantially as shown on Figure 35.

A. Water
The City provides water to the Specific Plan Area. Figure 31 shows the location and size of the water distribution system that serves the Specific Plan Area. The existing supply and distribution of water can accommodate the level of water demand from the commercial and condominium uses proposed in the Specific Plan Area.

B. Sewer
Figure 32 shows the present size and location of the sewer facilities servicing the Specific Plan Area. Wastewater generated from the Specific Plan Area would be conveyed through these lines and treated at the Hyperion Water Treatment Plant in El Segundo. The calculations prepared by the City in connection with its review of the Specific Plan indicate that the existing sewer lines are adequate to accommodate the level of wastewater generated by the Specific Plan.

C. Solid Waste Disposal
Solid waste disposal for the Specific Plan Area is provided through a franchise with the City. All solid waste generated by the Specific Plan Area will be disposed of at landfills in Los Angeles or Riverside Counties. The City's solid waste is currently disposed or at the following landfills:
Puente Hills Landfill, Bradley West Landfill, Chiquita Canyon Landfill, Sunshine Canyon Landfill, and El Sobrante Landfill (Riverside County). Based on the projected solid waste generation, the Specific Plan Area will not have significant solid waste disposal impacts and existing solid waste disposal facilities and landfill capacities are sufficient to accommodate the Specific Plan's projected solid waste.

D. Stormdrain
The Specific Plan Area is currently developed with commercial buildings and parking structures. Implementation of the Specific Plan will not increase the amount of impermeable land or result in changes in absorption rates that would increase the amount of stormwater runoff from the Specific Plan Area. In addition, development within the Specific Plan Area will be required to comply with all requirements of the City's National Pollution Discharge Elimination System (NPDES) Permit and the City's storm water and urban runoff management ordinance (Article 5, Chapter 4, Title 9 of the Beverly Hills Municipal Code}. The storm drain plan for the Specific Plan Area is shown on Figure 33 of the Specific Plan.

E. Energy
The Southern California Edison Company provides electricity to the Specific Plan Area. The Southern California Gas Company provides natural gas to the Specific Plan Area. According to the studies prepared for the Specific Plan, the existing supply and distribution of electricity and natural gas can accommodate the level of demand from the uses proposed in the Specific Plan. Figures 34 and 36 illustrate electrical and gas facilities, respectively.

F. Graywater System
The Project shall include a graywater system to reduce overall water demands, and specifically, limit

the demand for irrigation water. The graywater system may include: (1} dual piping to maintain graywater separate from potable water: (2) tanks to hold the graywater before and after treatment; (3) graywater treatment system including filtering and disinfecting systems; and (4) booster pumps to ensure water is delivered at pressures adequate for its intended uses. The graywater system shall collect drainage discharged from sinks, service sinks, bathtubs, showers and clothes washers. This 'gray' wastewater shall then be filtered and treated until it reaches a level of quality consistent with its intended re-use. For example, graywater may be used for flushing water in toilets and urinals within the Project's residences, as well as public restrooms in the common areas. The remaining graywater shall be used for irrigation and other non-potable water using systems, thus reducing the Project's overall water demands and, in particular, demand for water which would be otherwise used for irrigation.

Chapter 4.0 – Development Standards and Guidelines

4.2 Permitted Uses

A. Commercial Area

The following uses are permitted within the portion of the Specific Plan Area designated for commercial use, as shown on Figures 2 and 37:

- *Alcohol sales.*
- *Art shop or gallery.*
- *Bank.*
- *Clothes dry cleaning (excluding plants).*
- *Decorating or interior design shop or store.*
- *Florist.*
- *Food and beverage establishments.*
- *Live entertainment, conducted indoors.*
- *Retail stores and shops.*
- *Offices, only on floors other than ground floor and excluding real estate offices, medical offices, and physical therapy offices.*
- *Office supply, stationery and gift stores.*
- *A maximum of 600 square feet of open-air dining as shown in Figure 37 of this Specific Plan.*
- *Optical/eyewear, including optometry/opticians.*
- *Parks, gardens and open space.*
- *Photography shop or gallery.*
- *Shoe repair shop.*
- *Tailor.*
- *Other similar uses determined by the Director to be consistent with the goals and objectives of the Specific Plan.*

B. Residential Area

The following uses are permitted within the portion of the Specific Plan Area designated for residential use, as shown on Figure 2:

- *Residential Dwellings, including condominiums, townhomes, and lofts, and the usual and customary accessory and appurtenant uses thereto, including without limitation the ancillary uses described in Section 3.2 of Chapter 3.0, provided that such uses are limited to use by residents of the Specific Plan Area.*
- *Parks, gardens and open space.*

- *Other similar uses determined by the Director to be consistent with the goals and objectives of the Specific Plan.*

C. Public Gardens
The following uses are permitted within the portion of the Specific Plan Area designated for residential use, as shown on Figure 2 [of the Specific Plan]:

- *Parks, gardens and open space.*
- *Other similar uses determined by the Director to be consistent with the goals and objectives of the Specific Plan.*

4.3 Parking

A. Parking Requirements

Type of Use	Parking Spaces
Eating and bar facilities equal to or greater than 1,000 square feet	1 space per 45 square feet of dining and bar floor area plus 1 space per 350 square feet of kitchen and back-of-house floor area
Eating and bar facilities less than 1,000 square feet	1 space per 350 square feet of floor area
Open air dining	1 space per 45 square feet of dining area
Commercial uses permitted under the Specific Plan and not otherwise specified in this Section 4.3	1 space per 350 square feet of floor area
Multi-family dwelling units	2 spaces for each one-bedroom unit 2-1/2 spaces for each two-bedroom unit 3 spaces for each three or four-bedroom unit 4 spaces for each five-bedroom or more unit 1 permanent guest parking space for each four dwelling units 1 space for each efficiency unit containing less than 1,000 square feet 2 spaces for each efficiency unit containing 1,000 square feet or more

B. General Parking Provisions
The dimensions of the parking spaces shall be 9 feet by 19 feet as shown on Figures 11 and 12. All commercial parking shall be separated from the parking for the residents and their guests. Commercial parking shall be located on the first level of the subterranean parking structure. The balance of the parking located on the first level and all parking located on the second level of the parking structure shall be for residents and their guests. Valet parking shall be for residents and their guests, and shall also be available to commercial patrons.

C. Loading Docks
Two (2) loading docks shall be provided for the Specific Plan Area substantially in the locations and dimensions shown on Figure 13.

4.4 Building Height

As shown on Figure 7 (a) the height of the south condominium building near the western boundary of the Specific Plan Area shall not exceed 205 feet from adjacent grade at its highest point, (b) the height of the north condominium building near the western boundary of the Specific

Plan Area shall not exceed (i) 108 feet from adjacent grade for the first 90 feet from the northerly end of such north condominium building, and (ii) 161 feet from adjacent grade either the first 150 feet from the northerly end of such condominium building, with steps in height to 137 feet and 149 feet at different locations as shown on Figure 7 (c) the height of the commercial building and the Spa Building located along the southern boundary of the Specific Plan Area (fronting Santa Monica Boulevard) shall not exceed 48 feet from adjacent grade, and (d) the height of the commercial building located at the corner of Santa Monica Boulevard and Merv Griffin Way shall not exceed 50 feet from adjacent grade.

4.5 Residential Outdoor Living Space

The residential units in the Specific Plan Area shall include a minimum of two (200) square feet of usable outdoor space per unit. The usable outdoor living space shall be provided through a combination of private balconies in the individual units and common access to the residential landscaped gardens and pool area shown on Figure 38.

4.6 Sign Standards

A unified sign plan, satisfactory to the Director of Community Development (the "Unified Sign Plan") shall be prepared for the Specific Plan Area. The Unified Sign Plan shall encompass all exterior signage, including both permanent and temporary signs.

4.7 Architecture and Design

A. Residential Buildings

The residential buildings shall be constructed substantially as shown on Figures 14 through 30 of the Specific Plan.

The residential buildings positioned at the west property line are raised above the ground to allow light and views of the golf course landscape to the west to pass below the architecture, and are curvilinear and horizontal to reflect the natural forms and geometry of the open space to the west, and the classic horizontal massing of the Beverly Hilton Hotel.

B. Commercial Buildings

The commercial space shall be constructed substantially as shown on Figure 37 of the Specific Plan and in accord with plans approved pursuant to Section 4.7.E of the Specific Plan.

C. Open Space/Landscaping

The landscaping shall be developed substantially as shown on Figures 38 and 39 of the Specific Plan. The location and type of all plant materials shall respond to and complement the architectural design of the buildings in the Specific Plan Area and shall be integrated with the buildings as an additional architectural element. Landscaping shall be used to highlight entries, contrast with or reinforce building lines and volumes, and soften hard structural lines and building mass.

Landscaping shall be used to define pedestrian activity areas such as the commercial space and landscaped gardens. The landscaping shall be designed to enhance the garden quality of the City and shall incorporate mature plant material.

D. Public Gardens

The Public Gardens are on a 0.81 acre (35,468 square feet) area located at the corner of Wilshire Boulevard and Merv Griffin Way, and include a garden pathway along Merv Griffin Way from

Wilshire Boulevard to the corner of Merv Griffin Way and Santa Monica Boulevard as generally shown on Figures 2 and 39 of the Specific Plan. The gardens are provided for the use and enjoyment of Beverly Hills residents and visitors, including Specific Plan Area residents and visitors. They are designed to enhance the garden qualities of the City. The Public Gardens shall be open to the public during certain hours, and shall complement and extend the existing Beverly Gardens Park on the north side of Wilshire Boulevard. The Public Gardens shall be developed substantially as shown on Figure 39 of the Specific Plan. The Public Gardens shall include both functional and aesthetic elements such as water features, paths and benches.

E. Architectural Review
Prior to issuance of building permits, the design, materials and finishes of the buildings, and proposed landscaping shall be subject to the review and approval of the Architectural Commission and shall be generally consistent with the building elevations presented to the City Council , as shown in Figures 40 through 43.

4.8 Green Building Standards

Development in the Specific Plan Area shall incorporate green construction standards and seek certification under the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

The following LEED features shall be incorporated into the Project:

- *Balconies and overhangs to shade window glazing, while allowing reflected and diffuse daylight into residential units to enhance the use of natural light and reduces the need for artificial light sources;*
- *The selection of a developed urban site and the conversion of a substantial portion of the site to green space;*
- *Close proximity to public transportation;*
- *Limiting the development footprint to approximately one-third of the Project site;*
- *Landscaping and exterior design utilizing subterranean parking and landscaped and shaded non-roof surfaces and light-colored, low-albedo roof surfaces to reduce local heat island effects;*
- *The reduction of chlorofluorocarbons (CFCs) from the building systems;*
- *The recycling of building materials such as asphalt, metals, glass and concrete from demolition site work;*
- *The selection of materials, such as adhesives, sealants, pains, and carpeting, that reduce off-gassing to improve internal air quality;*
- *The involvement during design and construction of a LEED Accredited Professional; and*
- *A gray water system as set forth in Section 3.4F of this Specific Plan.*

Chapter 6.0 - Standards

6.1 Residential Condominiums

The residential condominiums shall be operated in compliance with the following operational standards:

Outdoor living areas such as balconies shall not be used to store personal properly in a manner that is visible from the public or private right-of-way or the Public Gardens, nor shall such outdoor areas be used to hang laundry. All outdoor living areas shall be maintained in a safe,

clean, and orderly condition. The covenants, conditions and restrictions to be recorded with respect to the Specific Plan Area shall include the foregoing standards.

6.2 Retail/Restaurant

The retail/restaurant space shall be operated in compliance with the following operational standards:
Maximum Hours of operation Retail: 10:00 a.m. to 9 00 p.m.
Restaurant: 7:00 a.m. to 200 a.m.

6.3 Public Gardens

The Public Gardens shall be open to the public from 8:00 a.m. to dusk (or as otherwise established by the property owner and approved by the Director), provided that the Public Gardens may be closed to the public from time to time tor maintenance and repairs, improvement work, and emergencies, as each is determined by the Director to be reasonably required.

6.4 Open Air Dining

All open air dining areas located within the Specific Plan Area shall comply with the following standards:

A. The design and colors used for chairs, tables, lighting and other fixtures shall generally be consistent with the architectural style and colors used on the related building facade and with the furnishings used in the restaurant interior.
B. No advertising, other than advertising for the related restaurant, is permitted on any umbrellas.
C. Lights may only illuminate the open air dining area. They cannot emit spillover light on the adjacent sidewalk.
D. No alcoholic beverages shall be served or consumed in the open air dining area without the required license and approval from the State Department of Alcoholic Beverages Control.

Municipal Code. The City of Beverly Hills' Municipal Code organizes regulations that implement the City's General Plan. Title 10, *Planning and Zoning* divides the City into zoning districts and provides development standards for each district, including permitted uses, density and intensity of uses, building height, and other standards for development and activity. However, as set forth in Title 10, Chapter 3, Article 15.7 of the Beverly Hills Municipal Code, the 9900 Wilshire Specific Plan supersedes other development regulations and standards set forth in the Beverly Hills Planning and Zoning Ordinances for the Specific Plan Area. The provisions of 9900 Wilshire Specific Plan are applied in lieu of the provisions in the Planning and Zoning Ordinances. For development standards not established as part of the 9900 Wilshire Specific Plan, the standards in the Planning and Zoning Ordinances apply. In addition, any terms used in the 9900 Wilshire Specific Plan that are not defined or described therein shall have the meanings set forth in the planning and zoning ordinances.

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds. According to the City's adopted CEQA checklist, which corresponds to Appendix G of the State CEQA Guidelines, impacts would be significant if implementation of the Proposed Project would:

- *Physically divide an established community*

- *Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect*
- *Conflict with any applicable habitat conservation plan or natural community conservation plan*

As discussed in the Initial Study (Appendix A), the Proposed Project would have no impact related to division of an established community or conflicts with a habitat conservation plan or natural community conservation plan. As such, these issues are not discussed further in this SEIR. This section therefore focuses on assessing the Proposed Project's consistency with applicable land use policies and regulations.

b. Project Impacts and Mitigation Measures.

Impact LU-1 With approval of the Specific Plan amendment and implementation of mitigation measures identified in the 2008 FEIR and throughout this SEIR, the Proposed Project would be potentially consistent with applicable City policies, regulations and standards. This impact would be *less than significant with mitigation*.

The Proposed Project would involve construction of up to 193 condominiums and up to a 134-room luxury hotel. Other components of the Proposed Project include a spa, subterranean parking, dining areas, and public and private open space. The following analysis discusses the Proposed Project's consistency with applicable land use policies and regulations. As noted in the *Setting*, the Beverly Hills General Plan was updated in 2010, after certification of the 2008 FEIR and approval of the 9900 Wilshire Specific Plan.

General Plan Consistency

The nine elements of the Beverly Hills General Plan contain a number of goals, objectives, recommendations, and programs for land development. These goals, objectives, recommendations, and programs are general in nature and subject to interpretation. The final authority for interpretation of these components rests with the City Council. Consistency of the Project with each General Plan Element and its corresponding goals and policies is analyzed in Table 4.3–2.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
Land Use Element	
LU 2 Community Character and Quality. A built environment that is distinguished by its high level of site planning, architecture, landscape design, and sensitivity to its natural setting and history.	**Potentially Consistent** The Proposed Project is nearly identical architecturally to the Approved Project and would conform to the architectural requirements of the adopted 9900 Wilshire Specific Plan and other City standards.
LU 2.2 Public Streetscapes and Landscape. Maintain and enhance the quality and health of the "green infrastructure" that contributes to the City's identity and	**Not Applicable** The Proposed Project does not involve public infrastructure; nevertheless, the Project would

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
quality of life, including its street trees, landscaped medians and parkways, parks, and open spaces, while seeking to conserve water resources.	comply with applicable water conservation requirements and, as discussed in Section 4.6, would not significantly affect local water supplies.
LU 2.4 Architectural and Site Design. Require that new construction and renovation of existing buildings and properties exhibit a high level of excellence in site planning, architectural design, building materials, use of sustainable design and construction practices, landscaping, and amenities that contribute to the City's distinctive image and complement existing development.	**Potentially Consistent** The Proposed Project is nearly identical architecturally to the Approved Project and would conform to the architectural requirements of the adopted 9900 Wilshire Specific Plan and other City standards.
LU 2.5 Design Review. Consider design review for new construction and renovation projects that focuses on achieving appropriate form, function, and use of materials to promote creativity, innovation, and design quality.	**Potentially Consistent** The Proposed Project is nearly identical architecturally to the Approved Project and would conform to the architectural requirements of the adopted 9900 Wilshire Specific Plan and other City standards.
LU 2.7 City Gateways. Explore opportunities for public improvements and private development to work together to enhance the sense and quality of entry at key gateways into the City.	**Potentially Consistent** The Proposed Project would provide an iconic visual element near the western gateway to Beverly Hills. The Project is virtually identical architecturally to the Approved Project, which underwent design review and was approved in 2008.
LU 7 Multi-Family Residential Neighborhoods. Multi-family residential neighborhoods providing ownership and rental units that are well-designed, exhibit architectural characteristics and qualities representative of the City, and that provide amenities for their residents.	**Potentially Consistent** The Proposed Project is nearly identical architecturally to the Approved Project and would conform to the architectural requirements of the adopted 9900 Wilshire Specific Plan and other City standards. Onsite amenities would include health spas, private fitness centers, squash courts, pools, screening rooms, meeting rooms, game rooms, common areas, outdoor living areas, parking, storage, residential storage units, wine storage, security offices, back-of-house (BOH) kitchen, BOH laundry, BOH storage facilities, for the exclusive use of the condominium residents and guests
LU 7.1 Character and Design. Require that multi-family dwellings and properties be designed to reflect the high level of architectural and landscape quality that distinguishes existing neighborhoods. These may provide for: (a) building facades and entrances that directly address the street, including the use of stoops, porches, and recessed entries; (b) modulation of building volume and masses, avoiding the effect of blank continuous walls; and (c) setback of the ground floor from the sidewalk to provide privacy, a sense of security, and to leave room for landscaping while being open and contributing to a quality pedestrian environment.	**Potentially Consistent** The Proposed Project is nearly identical architecturally to the Approved Project and would conform to the architectural requirements of the adopted 9900 Wilshire Specific Plan and other City standards. The Project does not include entrances that directly address the street, but the Project design would provide for privacy and would contribute to the pedestrian environment with sidewalks and public gardens that would invite pedestrian activity along Wilshire Boulevard and Merv Griffin Way. In addition, the Project site is within a short walk of existing commercial business and transit facilities.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
LU 7.2 Amenities. Encourage new multi-family development to provide amenities for residents such as on-site recreational facilities, community meeting spaces, and require useable private open space, public open space, or both.	**Potentially Consistent** Onsite amenities would include health spas, private fitness centers, squash courts, pools, screening rooms, meeting rooms, game rooms, common areas, outdoor living areas, parking, storage, residential storage units, wine storage, security offices, back-of-house (BOH) kitchen, BOH laundry, BOH storage facilities, for the exclusive use of the condominium residents and guests. Public gardens for the use of site residents are also part of the Project.
LU 9 Diverse Districts and Corridors. A diversity of vital and active business and commercial districts providing a choice of uses and activities for the City's' residents and visitors.	**Potentially Consistent** The Project site is within a business district that provides a diversity of uses and activities. The Project includes businesses (hotel, restaurant, bar, hotel shops) as well as residences that would provide patrons for existing and planned area businesses.
LU 9.1 Uses for Diverse Customers. Accommodate retail, office, entertainment, dining, hotel, and visitor-serving uses that support the needs of local residents, attract customers from the region, and provide a quality experience for national and international tourists.	**Potentially Consistent** The Project includes a hotel, restaurant, bar, and hotel shops that would attract national and international tourists and serve local residents.
LU 9.3 Anchor Locations. It is also recommended that certain anchor locations be set aside to permit development of a higher intensity type of development which is not otherwise provided in the community. These areas should be located so as to be accessible from the City's major shopping areas and close to the City's major streets. These anchor locations should include those large parcels that are located at the gateways to the City, such as the site at 9900 Wilshire Boulevard where additional building height is appropriate. A variety of land uses such as commercial, residential, and mixed use should be considered for the gateway locations. A change of use from commercial to residential or mixed use should be allowed only if such change provides an adequate transition to adjacent single family neighborhoods.	**Potentially Consistent** The Project includes a mix of uses, including residences, a hotel, restaurant, and bar, and hotel shops at a gateway location (9900 Wilshire Boulevard) and at a higher intensity (buildings that are161-185 feet in height) than is present in most of Beverly Hills. The replacement of some residences under the Approved Project would not alter the overall height or mass of the Project, nor would the hotel component be expected to create any compatibility conflicts with nearby residential neighborhoods.
LU 9.4 Anchor Location Design Criteria. The anchor location should encourage unified development oriented towards and along Wilshire Boulevard planned to complement the scale and character of adjacent residential areas. In addition, development of the anchor locations should incorporate measures to enhance streets, sidewalks, and roadways in order to encourage pedestrian circulation between these areas and the Business Triangle.	**Potentially Consistent** The Project would create a unified development along Wilshire Boulevard. The site layout is substantially the same as the Approved Project described in the 9900 Wilshire Specific Plan. The Project would include enhanced sidewalks as well as public gardens that would invite pedestrian activity along Wilshire Boulevard and Merv Griffin Way. In addition, the Project site is within a short walk of existing commercial business and transit facilities.
LU 9.5 Commercial/ Residential Mixed Uses. The feasibility of allowing mixed commercial/residential uses should be analyzed in order to expand the variety of	**Potentially Consistent** The Project includes a mix of uses, including residences, a hotel, restaurant, and bar, and hotel

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
housing types available and in certain areas, to improve commercial/residential transitions.	shops. The mix of housing is similar to what is allowed under the Approved Project described in the 9900 Wilshire Specific Plan. The proposed hotel, restaurant, and bar components would provide an appropriate transition between the business district south of Wilshire Boulevard and residential neighborhoods to the north.
LU 12 Business Districts Adjoining Residential Neighborhoods. Compatible relationships between commercial districts and corridors and adjoining residential neighborhoods, assuring that the integrity, character, and quality of both commercial and residential areas are protected and public safety and quality of life are maintained.	**Potentially Consistent** Similar to the Approved Project, the Proposed Project design orients outdoor activity areas, vehicular entrances, and loading areas toward the south, away from residential neighborhoods to the north of the site across Wilshire Boulevard. The Project is not expected to create public safety or quality of life issues for nearby residential neighborhoods.
LU 12.1 Functional and Operational Compatibility. Require that retail, office, entertainment, and other businesses abutting residential neighborhoods be managed to assure that businesses do not create an unreasonable and detrimental impact on neighborhoods with respect to safety, privacy, noise, and quality of life by regulating hours of operation, truck deliveries, internal noise, staff parking and on-site loitering, trash storage and pick-up and other similar business activities.	**Potentially Consistent** See discussion under Goal LU 12.
LU 12.2 Building, Parking Structure, and Site Design. Require that buildings, parking structures, and properties in commercial and office districts be designed to assure compatibility with abutting residential neighborhoods, incorporating such elements as setbacks, transitional building heights and bulk, architectural treatment of all elevations, landscape buffers, enclosure of storage facilities, air conditioning, and other utilities, walls and fences, and non-glare external lighting.	**Potentially Consistent** See discussion above under Goal LU 12. The building heights, architectural treatments, and lighting would be similar to those of the Approved Project and would comply with the adopted 9900 Wilshire Specific Plan.
LU 13 Public and Quasi-Public Uses Supporting Resident Needs. Governmental, utility, institutional, educational, recreational, cultural, religious, and social facilities and services that are located and designed to complement the City's neighborhoods, centers, and corridors.	**Not Applicable** The Proposed Project is a private residential/commercial development. The Proposed Project would, however, complement adjacent commercial developments and implement the adopted 9900 Wilshire Specific Plan.
LU 13.10 Parks and Open Spaces. Seek to expand the City's parklands, greenways, and open spaces as land becomes available or as existing buildings are demolished. Consider alternative prototypes and standards for park development in urban areas where available land is limited.	**Not Applicable** The Project is not a park or open space project. However, the Project would provide open plazas and public gardens to increase public gathering space and provide recreational opportunities for site residents and hotel patrons.
LU 14 Environmental Sustainability and Carbon Footprint. Land uses and built urban form that are environmentally sustainable by minimizing consumption of scarce resources, pollution, greenhouse gas emissions, wastes, and exposure of residents and visitors to toxics and hazards.	**Potentially Consistent** The Proposed Project involves mixed use infill development within an urbanized area. As such, it is generally consistent with statewide goals related to reducing greenhouse gas emissions by minimizing vehicle miles traveled (VMT). The Proposed Project would be subject to the Green

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
	Building Standards Code. It would also be designed to meet LEED Silver standards, would not consume energy in a wasteful manner (as discussed in Section 5.0), and would not expose residents or visitors to toxic or hazardous materials.
LU 14.2 Site Development. Require that sites and buildings be planned and designed to meet applicable environmental sustainability objectives by: (a) facilitating pedestrian access between properties and access to public transit; (b) providing solar access; (c) assuring natural ventilation; (d) enabling capture and re-use of stormwater and graywater on-site while reducing discharge into the stormwater system; and (e) using techniques consistent with the City's sustainability programs such as the City's Green Building Ordinance.	**Potentially Consistent** The Proposed Project would be located within an area that is well-served by public transit and would comply with the Green Building Standards Code, which requires solar access, natural ventilation, and stormwater capture. Also see the above discussion of Goal LU 14.
LU 14.4 New Construction of Private Buildings. Require that new and substantially renovated buildings be designed and constructed in accordance with the City's sustainability programs such as the City's Green Building Ordinance or comparable criteria to reduce energy, water, and natural resource consumption, minimize construction wastes, use recycled materials, and avoid the use of toxics and hazardous materials.	**Potentially Consistent** See the above discussions of Goal LU 14 and Policy LU 14.2.
LU 14.8 Private Development Landscaping Material and Irrigation. Require the use of landscaping materials and irrigation systems that minimize water use and runoff onto public streets and drainage systems .	**Potentially Consistent** The Project would be subject to applicable water conservation requirements contained in the Water Efficient Landscape Ordinance (BHMC Title 9, Chapter 4, Article 4) and the Green Building Standards Code. It would also be designed to meet LEED Silver standards. Also, see the above discussions of Goal LU 14 and Policy LU 14.2.
LU 15 Economic Sustainability. Vital and successful businesses that contribute to the City's identity and culture, provide high-paying jobs, and contribute revenue that sustains the level and quality of services in the City.	**Potentially Consistent** The Proposed Project would replace residential units in the Approved Project with a hotel and associated facilities that would provide long-term jobs, generate City revenues, and provide quality services in the community.
LU 15.1 Economic Vitality and Business Revenue. Sustain a vigorous economy by supporting businesses that contribute revenue, quality services and high-paying jobs.	**Potentially Consistent** See the above discussion of Goal LU 15.
LU 15.2 Priority Businesses. Retain and build upon the key business sectors contributing to the City's identity, economy, and revenue for resident services, such as entertainment-related Class-A offices, high end retail and fashion, restaurant, hotel, technology, and supporting uses.	**Potentially Consistent** The Proposed Project would replace the retail development and some of the residences that could be built under the Approved Project with a hotel component. Also, see the above discussion of Goal LU 15.
LU 16 Social Sustainability and Equity. Land uses and built urban form that provide diverse social and cultural opportunities, life-long learning opportunities, safe access to schools, a healthy environment, and high	**Potentially Consistent** The Proposed Project would provide a mix of residential and commercial uses in a built urban form that is consistent with that described in the

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
quality of life.	approved 9900 Wilshire Specific Plan. The proposed mix of uses would not conflict with this goal.
LU 16.4 Public Places. Provide plazas, open spaces, and other outdoor improvements that are accessible to and used for public gatherings and activities, either through capital improvement or as a development requirement.	**Potentially Consistent** As required by the 9900 Wilshire Specific Plan, the Project would develop a substantial portion of the site as landscaped gardens and other open space and would provide Public Gardens along Wilshire Boulevard, Merv Griffin Way and at the corner of Merv Griffin Way and Santa Monica Boulevard for the use and enjoyment of the public during certain hours.
Economic Sustainability Element	
ES 1 Sustainable Economic Base. A fiscally sustainable base to maintain the level of service currently provided to residents, recognizing the City is highly dependent upon the symbiosis between a vibrant business community and the residential quality of life, which is the one of the City's defining characteristics, and which this General Plan aims to protect and enhance. It is the intent of these goals and policies to insure the City's continued financial health in a manner that is consistent with the goals and policies set forth in the Land use Element (LU), including but not limited to Community Character and Quality (LU 2).	**Potentially Consistent** The Proposed Project would replace some of the residences that could be built under the Approved Project with a hotel component that would generate City revenues. Also, see the above discussion of Goal LU 15.
ES 1.3 Tax Base. Consistent with future economic sustainability plans, identify opportunities to enable the expansion of the City's tax base.	**Potentially Consistent** The Proposed Project would replace some of the residences that could be built under the Approved Project with a hotel component that would generate City revenues. Also, see the above discussion of Goal LU 15.
ES 1.4 Retain Existing Industries. Consistent with future economic sustainability plans, encourage existing industries such as luxury retail, tourism, hoteling, finance, entertainment and media businesses and services to remain and expand within the City.	**Not Applicable** The Proposed Project does not involve the potential removal of any existing businesses, but would replace the retail development and some of the residences that could be built under the Approved Project with a hotel component that would generate local jobs and City revenues. Also, see the above discussion of Goal LU 15.
Open Space Element	
OS 6 Visual Resource Preservation. Maintenance and protection of significant visual resources and aesthetics that define the City.	**Potentially Consistent** Although the aesthetic impact of the Approved Project was identified as significant and unavoidable, the Proposed Project would not increase aesthetic impacts relative to the Approved Project and is visually consistent with what is allowed under the adopted 9900 Wilshire Specific Plan.
OS 6.3 Landscaping. Require that new development be located and designed to visually complement the urban setting by providing accessible, landscaped entries,	**Potentially Consistent** As required by the 9900 Wilshire Specific Plan, the Project would develop a substantial portion of the

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
courtyards, and plazas.	site as landscaped gardens and other open space and would provide Public Gardens along Wilshire Boulevard, Merv Griffin Way and at the corner of Merv Griffin Way and Santa Monica Boulevard for the use and enjoyment of the public during certain hours.
OS 6.5 Standards for New Development. Seek to ensure that new development does not adversely impact the City's unique urban landscape.	**Potentially Consistent** The Project would comply with the approved 9900 Wilshire Specific Plan, which described site development as “a world-class architectural landmark with a visual presence at the dual gateway to the City at Wilshire Boulevard and Santa Monica Boulevard that will enhance the beauty and image of Beverly Hills.”
Circulation Element	
CIR 1 Circulation System. Provide a safe and efficient roadway circulation system within the City.	**Not Applicable** The Project is not a circulation system improvement, but the Project would not significantly affect circulation system operation and, therefore, would not conflict with this goal.
CIR 1.1 Roadway Improvements. Study and implement opportunities for improving traffic flow on City roadways during Peak hours. Work collaboratively with regional agencies and adjacent jurisdictions to coordinate interface of adjacent roadways.	**Not Applicable** The Project is not a circulation system improvement, but the Project would not significantly affect circulation system operation and, therefore, would not conflict with this policy.
CIR 1.2 Intersection Improvements. Study and implement opportunities for capacity improvements at City intersections, such as the intersection of Wilshire Boulevard and North Santa Monica Boulevard, to improve traffic flows along major roadways. Work collaboratively with regional agencies and adjacent jurisdictions to help improve the capacity at these intersections.	**Not Applicable** The Project is not a circulation system improvement, but the Project would not significantly affect circulation system operation and, therefore, would not conflict with this policy.
CIR 1.3 Advanced Signal Technologies. Implement advanced signal and intersection technologies that improve traffic flow and optimize traffic signal timing and coordination to reduce travel time and delay along major corridors.	**Not Applicable** The Project is not a circulation system improvement, but the Project would not significantly affect circulation system operation and, therefore, would not conflict with this policy.
CIR 6 Transportation Demand Management (TDM). A reduction in single-occupant motor vehicle travel in the City through Transportation Demand Management (TDM) that ensures efficiency of the existing transportation network and promotes the movement of people instead of personal automobiles.	**Not Applicable** The Project does not involve TDM improvements, but the Project is a mixed use infill development on a site that is well served by transit and is within a pedestrian-oriented environment. The Project would not conflict with this goal.
CIR 6.7 Multi-Modal Design. Require proposed development projects to implement site designs and on-site amenities that support alternative modes of transportation, and consider TDM programs with achievable trip reduction goals as partial mitigation for project traffic impacts.	**Potentially Consistent** The Project does not include a specific TDM program, but the Project site includes various pedestrian facilities (see discussion of Goal CIR 7) and the Project site is located in close proximity to various transit facilities. These factors would partially mitigate traffic impacts, which have been

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
	determined to be less than significant based on City criteria (see Section 4.5, *Transportation and Traffic*).
CIR 6.8 Transportation Management Associations. Encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations.	**Potentially Consistent** The Project applicant is not proposing a Transportation Management Association (TMA), but would be expected to participate in any TMA that is formed. Also, see the discussion of Policy CIR 6.7.
CIR 7 Pedestrians. A safe and comfortable pedestrian environment that results in walking as a desirable travel choice, particularly for short trips, within the City.	**Potentially Consistent** Per the 9900 Wilshire Specific Plan, the Project is intended to enhance the pedestrian character along Santa Monica Boulevard, while the proposed public gardens would invite pedestrian activity along Wilshire Boulevard and Merv Griffin Way. In addition, the Project site is within a short walk of existing commercial business and transit facilities.
CIR 7.7 Pedestrian Network—Private. Design access to new developments and buildings to encourage walking.	**Potentially Consistent** See the discussion of Goal CIR 7.
CIR 8 Bikeways. An integrated, complete, and safe bicycle system to encourage bicycling within the City.	**Potentially Consistent** Per the 9900 Wilshire Specific Plan, the Project would include bicycle lanes.
CIR 8.5 Bikeway Amenities. Require that new development projects (e.g., employment centers, educational institutions, and commercial centers) provide bicycle racks, personal lockers, showers, and other bicycle support facilities.	**Potentially Consistent** Per the 9900 Wilshire Specific Plan, the Project would include bicycle lanes.
CIR 8.8 Bicycle Access. Require new development projects on existing and potential bicycle routes to facilitate bicycle and pedestrian access to and through the project, through designated pathways.	**Potentially Consistent** Per the 9900 Wilshire Specific Plan, the Project is intended to enhance the pedestrian character along Santa Monica Boulevard, while the proposed public gardens would invite pedestrian activity along Wilshire Boulevard and Merv Griffin Way.
CIR 10 Funding. Develop sufficient funding sources to construct and maintain the transportation facilities needed to achieve the City's mobility goals.	**Not Applicable** The Project does not involve the development of transportation facility funding sources, but the Project applicant would pay all applicable transportation mitigation fees.
CIR 10.3 Fair Share Costs. Assess fees on new development for all transportation modes and ensure that payment is collected for the fair share of the costs of new and enhanced facilities.	**Potentially Consistent** The Project applicant would pay applicable transportation mitigation fees.
Conservation Element	
CON 1 Water Supply System. High-quality reliable water supply, treatment, distribution, pumping and storage systems that provide water as affordably as possible and meet current and future daily and peak water demands of the City, considering the sustainability goals and policies in this general plan.	**Not Applicable** The Project is a private development project; however, as discussed in Section 4.6, *Utilities and Service Systems*, sufficient water would be available to meet Project demand. The Project would not conflict with this goal.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
CON 1.6 Development Requirements—Water Service. Require new development to be served from an approved domestic water supply.	**Potentially Consistent** The Project would be served by the City of Beverly Hills and, as discussed in Section 4.6, *Utilities and Service Systems*, sufficient water would be available to meet Project demand.
CON 1.7 Development Requirements—Groundwater. Require engineering design and construction practices to ensure that existing and new development does not degrade the City's groundwater supplies.	**Potentially Consistent** The Project would include excavation activity, but such activity would comply with appropriate engineering and construction practices, and would not degrade groundwater.
CON 4 Water Supply Costs. A system where the costs of improvements to the water supply, transmission, distribution, storage and treatment systems are borne by those who benefit.	**Potentially Consistent** Per the 9900 Wilshire Specific Plan, the Project applicant would pay for water system improvements needed to serve the proposed development.
CON 2 Water Conservation through System Improvements. Provision of a system that minimizes water consumption through conservation methods and other techniques.	**Not Applicable** The Project is a private development project, not a water system improvement; however, as discussed in Section 4.6, *Utilities and Service Systems*, sufficient water would be available to meet Project demand.
CON 2.4 Water Conservation Measures for Private Projects. Continue providing incentives, and where practical, require the installation of water conserving measures, devices and practices for new private construction projects and major alterations to existing private buildings, including requirements for using reclaimed water for construction watering and for pumping subterranean water back into the ground rather than into the storm drain system.	**Potentially Consistent** The Proposed Project would be subject to applicable water conservation requirements contained in the Water Efficient Landscape Ordinance (BHMC Title 9, Chapter 4, Article 4) and the Green Building Standards Code. As discussed in Section 2.0, it would also be designed to meet LEED Silver standards and would incorporate such features as high-efficiency toilets; no-flush or waterless urinals in all non-residential restrooms; non-residential restroom faucets with a maximum flow rate of 0.5 gallons per minute and non-residential kitchen faucets (except restaurant kitchens) with a maximum flow rate of 1.5 gallons per minute; individual metering and billing for water use of all residential uses and exploration of such metering for commercial spaces; and a leak detection system for any swimming pool, Jacuzzi, or other comparable spa equipment introduced on-site; and use of drought-tolerant plants. Finally, per the 9900 Wilshire Specific Plan, the Project would include a gray water system as set forth in Section 3.4F of this Specific Plan.
CON 2.5 Water Efficient Landscaping. Where feasible, encourage installation of drought tolerant landscaping or water-efficient irrigation systems for all private and city landscaping and parkways. Identify and implement minimum design and installation efficiency criteria for landscape irrigation systems.	**Potentially Consistent** See discussion of Policy CON 2.4.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
CON 3 Water Conservation through Reduced Consumption. Conservation programs that limit water consumption through site design, the use of water conservation systems and other techniques.	**Potentially Consistent** See above discussion of Policy CON 2.4.
CON 3.8 Water Conservation Measures for Private Projects. Require the installation of water conserving measures, devices and practices that meet "green building" standards for new private construction projects and major alterations to existing private buildings.	**Potentially Consistent** See above discussion of Policy CON 2.4.
CON 3.9 Water-Efficient Landscaping. Encourage and promote drought-tolerant landscaping or water efficient irrigation systems for all private and city landscaping and parkways	**Potentially Consistent** See above discussion of Policy CON 2.4.
CON 4.1 Developer Fees. Require the costs of improvements to the existing water supply, transmission, distribution, pumping, storage and treatment facilities necessitated by new development be borne by those benefiting from the improvements, either through the payment of fees, or by the actual construction of improvements.	**Potentially Consistent** Per the 9900 Wilshire Specific Plan, the Project applicant would pay for water system improvements needed to serve the proposed development.
CON 7 Wastewater Treatment System. A wastewater collection and treatment system that supports existing and planned development.	**Not Applicable** The Project is not a wastewater collection/treatment system improvement, but the Project would not adversely affect the wastewater system or otherwise conflict with this goal.
CON 7.2 Municipal Connections & Capacity. Require that development be connected to the municipal sewer system, and ensure that adequate capacity is available for the treatment of generated wastewater flows and the safe disposal of generated sludge.	**Potentially Consistent** The Project would connect to the municipal sewer system and, as discussed in the Initial Study, would not adversely affect system operation.
CON 7.3 Sewer Analysis for New Development. Require that new development and major renovation projects submit a sewer analysis outlining capacity and improvement needs to the satisfaction of the City prior to the issuance of building permits.	**Potentially Consistent** The Project applicant would provide the required sewer analysis for City approval prior to issuance of building permits.
CON 7.4 Water Conservation. Require that wastewater flows be minimized in existing and future developments through water conservation and recycling efforts.	**Potentially Consistent** As discussed in Section 4.6, *Utilities and Service Systems*, the Project would comply with applicable water conservation efforts. Per Section 3.4F of the 9900 Wilshire Specific Plan, a gray water system would be provided onsite.
CON 10 Storm Drainage System. Provision of a fiscally sustaining storm drainage system that reduces pollutants entering the ocean.	**Not Applicable** The Project is not a community storm drain system. Nevertheless, as discussed in the Initial Study (Appendix A), the onsite storm drain system would comply with current local, state, and federal requirements pertaining to storm water quality.
CON 10.3 Storm Runoff Impacts. Require new development to prepare hydrologic studies to assess storm runoff impacts on the local and sub-regional storm drainage systems, and, if warranted, require new	**Potentially Consistent** The Project applicant would prepare required hydrologic studies and design onsite facilities that

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
development to provide adequate drainage facilities and mitigate increases in stormwater flows and/or cumulative increases in regional flows. Require final drainage plans be submitted for review and approval.	comply with applicable local, state, and federal requirements as part of the final review and approval of Project building plans.
CON 11 Storm Drainage System that Preserves Water Quality. Provision of a storm drainage system that does not degrade the quality of the City's surface waters, groundwater system, and other sensitive environmental areas.	**Potentially Consistent** The Project would comply with applicable local, state, and federal requirements pertaining to surface runoff, both during construction and long-term Project operation. As discussed in the Initial Study (Appendix A), the Proposed Project would not significantly affect surface or ground water quality.
CON 11.1 Development Mitigation. Require that new development does not degrade surface waters or the groundwater system.	**Potentially Consistent** See the above discussion of consistency with Goal CON 11.
CON 11.3 National Pollutant Discharge Elimination System (NPDES) Permit. Require developers to obtain and comply with a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board (SWRCB).	**Potentially Consistent** The Project would comply with NPDES General Construction Permit requirements, as discussed in the Initial Study (Appendix A).
CON 11.4 Drainage Technology. Require that new developments employ the most efficient drainage technology to control drainage and minimize damage to environmentally sensitive areas.	**Potentially Consistent** The Project applicant would employ the most efficient drainage technology to control drainage in accordance with local, state, and federal requirements. As discussed in the Initial Study (Appendix A), the Project site is within an urbanized area and is not adjacent to and environmentally sensitive areas.
CON 12 Storm Drainage Toxicity. A system that minimizes the amount and toxicity of discharge into the storm drain system.	**Potentially Consistent** The Project would comply with applicable local, state, and federal requirements pertaining to surface runoff, both during construction and long-term Project operation.
CON 12.2 Permeable Surfaces. Require the use of landscaping and permeable service treatments in new developments as alternatives to nonpermeable surfaces, and explore the feasibility of retrofitting existing large asphalt surfaces in the community such as alleys, parking lots, and driveways into more permeable alternatives.	**Potentially Consistent** The Proposed Project includes landscaping and community gardens that would capture some site runoff. The Project would be subject to applicable local, state, and federal storm water runoff requirements, which limit runoff to pre-project levels during peak runoff events. As discussed in Section 2.0, the Project would incorporate use of permeable surfaces within common site areas that are not located above subterranean parking and use of landscape contouring/bioswales, rain gardens, cisterns, and tree pits to minimize precipitation runoff.
CON 13 Solid Waste Collection and Disposal Operations and Costs. Solid waste services that operate in accordance with the California Integrated Waste Management Act of 1989 (AB 939), and are funded in a manner that reduces the cost of collection and disposal.	**Potentially Consistent** The Project would participate in City solid waste recycling programs, which comply with AB 939 waste diversion requirements.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
CON 13.1 Waste Collection. Provide an adequate and orderly system for collection and disposal of solid waste for new and existing development in the City.	**Potentially Consistent** Solid waste bins would comply with applicable BHMC requirements.
CON 16 Waste Reduction. An efficient and innovative waste management program that reduces the amount of waste material entering regional landfills.	**Potentially Consistent** See above discussion of Goal CON 13.
CON 16.6 Recycled Building Materials. Encourage the use of recycled building materials wherever possible for new or renovated public and private development.	**Potentially Consistent** The Proposed Project would be built to LEED Silver standards. This would be expected to include the use of recycled materials as feasible.
CON 16.7 Demolition Waste. Require the recycling of demolition waste for new construction and renovation and projects.	**Potentially Consistent** The Project does not involve demolition. However, the Project applicant would comply with the City's waste management plan, which mandates recycling of construction waste. Per the 9900 Wilshire Specific Plan, building materials such as asphalt, metals, glass and concrete from demolition site work would be recycled.
CON 17 Natural Gas System. Provision of an adequate, safe, and dependable supply of natural gas energy to support existing and future land uses within the City.	**Not Applicable** The Project does not involve the development of natural gas supplies, although adequate supplies would be available to serve the Project.
CON 17.1 New Development Requirements. Require that new development is approved contingent upon its ability to be served with adequate natural gas facilities and infrastructure.	**Potentially Consistent** Adequate natural gas supplies would be available to serve the Project.
CON 18 Electrical Energy System. Provision of an adequate, safe, and dependable supply of electrical energy to support existing and future land uses within the City.	**Not Applicable** The Project does not involve the development of electrical energy, although adequate electrical energy capacity would be available to serve the Project.
CON 18.1 New Development Requirements. Require that new development is approved contingent upon the ability to be served with adequate electrical facilities and service.	**Potentially Consistent** Adequate electrical energy capacity would be available to serve the Project.
CON 20 Telecommunication System. The provision of an adequate, safe, and dependable telecommunication infrastructure to support existing and future land uses within the City.	**Potentially Consistent** Adequate telecommunication system infrastructure is available to serve the Project.
CON 20.1 Development Requirements. Require that all new construction intended to be used for professional offices be wired to link with cable, fiber optic systems, or other modern communication systems.	**Not Applicable** The Project does not involve professional offices, though modern communication systems are available to serve the Project.
CON 20.6 Undergrounding of Utilities. Continue to require that utilities be undergrounded in all new development and establish criteria or standards for undergrounding in rehabilitation projects.	**Potentially Consistent** Project utilities would be undergrounded.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
Noise Element	
N 1 Land Use Conflicts. Minimize land use conflicts between various noise sources and other human activities.	**Potentially Consistent** The Project would be exposed to noise from roadways and other sources. However, as discussed in Section 4.4, *Noise*, acceptable interior and exterior noise levels can be achieved onsite and the Project's impact to existing uses in the area would not be significant in the long term.
N 1.2 Noise between Adjacent Uses. Consider developing standards for new high-density residential development that adequately minimize noise between adjacent units within the development and between the development and adjacent buildings through the use of design features and building materials such as orientation, window insulation, common wall separation, common floor/ceilings separation.	**Not Applicable** The Project does not involve the development of noise standards. Nevertheless, the Project would comply with mitigation measures from the 2008 FEIR, which would maintain acceptable noise levels in Project residences. As discussed in Section 2.0, design of all outdoor mounted mechanical and electrical equipment would meet applicable noise control requirements, outdoor loading dock and trash/recycling areas would be partially enclosed such that the line-of-sight between these noise sources (loading dock service area) and any adjacent noise sensitive land use is obstructed, and landscaping and architectural elements would be used to divert sound away from neighboring properties and resident spaces.
N 1.4 Limit Hours of Truck Deliveries. Limit the hours of truck deliveries to commercial uses abutting residential neighborhoods and other noise-sensitive receptors in order to minimize exposure to excessive noise, unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at other hours.	**Potentially Consistent** Deliveries to the Project site would comply with applicable restrictions on delivery hours. Deliveries would be via the southern site boundary along Santa Monica Boulevard, thus limiting potential noise exposure for residences located north of the site. All loading areas would be completely enclosed.
N 2 Motor Vehicles. Minimized motor vehicle traffic noise impacts on sensitive noise receptors.	**Potentially Consistent** As discussed in Section 4.4, *Noise*, the Project would be subject to noise exceeding the normally acceptable range due to traffic on adjacent roadways. However, mitigation measures from the 2008 FEIR would achieve acceptable noise levels onsite. Also, see above discussions of policies N 1.2 and N 1.4.
N 2.1 Sensitive Land Uses Adjacent to Heavy Arterials. Require that the design of new residential or other new noise sensitive land uses within the 60 dBA and 65 dBA CNEL (and higher) roadway contours demonstrate that the project will meet interior and exterior noise standards. Require the use of interior noise insulation, double paned windows, or other noise mitigation measures, as appropriate, to achieve required standards.	**Potentially Consistent** The Project would be exposed to noise from roadways and other sources. However, as discussed in Section 4.4, *Noise*, acceptable interior and exterior noise levels can be achieved onsite with implementation of mitigation measures contained in the 2008 FEIR.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
Safety Element	
S 3 Existing and New Development and Redevelopment. All existing and new development and redevelopment address the provision of fire protection in a proactive and preventative manner.	**Potentially Consistent** The Project would incorporate all Code requirements pertaining to fire safety. As discussed in the Initial Study (Appendix A), the Project would not create the need for new or expanded fire protection facilities.
S 3.2 Impacts of New Development. Assess the impacts of significant increases in development density and intensity, and subsequent impacts on traffic congestion, water infrastructure capacity, fire hazards, and emergency response times.	**Potentially Consistent** As discussed in the Initial Study (Appendix A), the Project would not create the need for new or expanded fire protection facilities, or otherwise adversely affect fire protection service.
S 3.3 Fire Protection Services. Require that new development and re-development of structures provide adequate fire safety features and responder access so as not to cause a reduction of fire protection services below acceptable, safe levels.	**Potentially Consistent** See the discussions of Goal S 3 and Policy S 3.2.
S 3.4 Fire Department Access. Design private and public access drives and roadways to preserve and maintain Fire Department access to properties.	**Potentially Consistent** See the discussions of Goal S 3 and Policy S 3.2.
S 3.5 Fire Protection for New and Existing Buildings. Require all new residential and commercial buildings, all substantial renovations, and all existing buildings having five-stories or exceeding a height of 55-feet, to be equipped with an automatic fire extinguishing system.	**Potentially Consistent** The Project would incorporate an automatic fire extinguishing system. Also, see the discussions of Goal S 3 and Policy S 3.2.
S 4 Protection from Flood Hazards. To reduce the potential risk of flood hazards to human life and public and private property.	**Potentially Consistent** As discussed in the Initial Study (Appendix A), the Project site is not subject to significant flood hazards. The Project would be subject to applicable local, state, and federal storm water runoff requirements, which limit runoff to pre-project levels during peak runoff events.
S 4.1 Flood Mitigation Design. Require that new development incorporate sufficient measures to mitigate flood hazards, including the design of onsite drainage systems linking with citywide storm drainage, gradation of the site so that runoff does not impact adjacent properties or structures on the site, and elevation of the structures above any flooding elevation.	**Potentially Consistent** See above discussion of Goal S 4.
S 4.2 Permeable Surface Area. Require the use of permeable surfaces for new development and redevelopment, including alleys and driveways for residential, commercial, and City properties.	**Potentially Consistent** As discussed above, the Project would comply with applicable regulations limiting site runoff. As appropriate, the use of permeable surfaces to reduce runoff is one of the approaches that may be used to achieve stormwater runoff requirements.
S 5 Protection from Geologic Hazards. To reduce the known level of risk to loss of life, personal injury, public and private property damage, economic and social dislocation, and disruption of vital community services	**Potentially Consistent** As discussed in the Initial Study (Appendix A), the Project would incorporate current seismic and geologic hazard safety standards.

Table 4.3–2
Project Consistency with General Plan Goals and Policies

Goal/Policy	Project Consistency
that would result from earthquake damage or other geologic disturbance.	
S 5.1 Safety Standards. Require new development and redevelopment to be in compliance with seismic and geologic hazard safety standards, including design and construction standards that regulate land use in areas known to have or to potentially have, significant seismic and/or other geologic hazards.	**Potentially Consistent** As discussed in the Initial Study (Appendix A), the Project would incorporate current seismic and geologic hazard safety standards.
Public Services Element	
PS 3 Cultural Resources. The provision of cultural resources that meet the needs of the community.	**Potentially Consistent** The Proposed Project would include public gardens as well as restaurants and bars that would help meet community demand.
PS 3.4 Public Art in New Development. Encourage private commercial development to include public art in new buildings.	**Potentially Consistent** The proposed public gardens would include water features and other decorative elements. It is also anticipated that the hotel entrance and lobby would include artistic elements.
Housing Element	
H2 Housing Supply and Diversity. Provide a variety of housing types and adequate affordable housing supply to meet the existing and future needs of the community.	**Potentially Consistent** Although the Proposed Project would include 42 fewer residential units than the Approved Project, it would provide 193 units ranging from one to five bedrooms in size. The Project would allow the City to maintain its existing stock of housing, including existing affordable housing within the City, and preserve the character and stability of existing residential neighborhoods. It would introduce a new type of housing for the City, luxury condominiums within tower buildings along the intensely developed Wilshire and Santa Monica Boulevard corridors. The Project would not add rental housing, though implementation of the Project would not prevent the development of rental housing within other areas of the City.
H 2.7 Environmentally Sustainable Housing. Promote conservation of water and energy, use of sustainable building materials and drought resistant landscaping to reduce the operating costs and carbon emissions associated with housing.	**Potentially Consistent** The Proposed Project would be subject to applicable water conservation requirements contained in the Water Efficient Landscape Ordinance (BHMC Title 9, Chapter 4, Article 4) and the Green Building Standards Code. It would also be designed to meet LEED Silver standards and would incorporate the sustainability features described in Section 2.0, *Project Description*.

9900 Wilshire Specific Plan

The Proposed Project is an alteration to the approved and entitled 9900 Wilshire Project (Approved Project). While the Proposed Project maintains the same overall design and is within the building envelope as allowed under the Specific Plan, the Proposed Project would require

amending the Specific Plan to allow a portion of one of the buildings to be used for a hotel and related uses. The City of Beverly Hills certified a FEIR for the 9900 Wilshire Project in February 2008. The City adopted a Specific Plan for the 9900 Wilshire Project in April 2008 and reduced the number of approved residential units and removed the two smaller four-story loft buildings. In December 2012, an Administrative Modification to the Project was approved. This further reduced the approved commercial square footage and increased the parking spaces.

As listed in the *Regulatory Setting*, the Specific Plan provides Goals and Objectives *a* through *n*. The Proposed Project would adhere to these goals and objectives by providing the following: structures that would enhance the beauty of the Project site; an environmentally sustainable project; subterranean parking and landscaped public and private gardens to enhance the visual character of the site; high-quality housing that would include a variety of options through 1-5 bedroom units; vista views from the residential and hotel units; housing in close proximity to office and retail uses; vehicular access points on Wilshire Boulevard and Santa Monica Boulevard; and revenue to the City. Goal/Objective *e* requires that the Project would not create substantial impacts associated with air quality, noise and traffic. As discussed in Section 4.1, *Air Quality*, although temporary air quality impacts associated with construction of either the Approved Project or the Proposed Project would be significant and unavoidable, long-term impacts related to operation of the Proposed Project would be less than significant. As discussed in sections 4.4, *Noise and Vibration,* and 4.5, *Transportation and Traffic*, mitigation measures identified in the 2008 FEIR for noise and traffic would reduce impacts associated with either the Approved Project or the Proposed Project to a less than significant level. Therefore, with implementation of mitigation measures required in the 2008 FEIR, the Project would not create substantial permanent impacts related to air quality, noise or traffic. In addition, the Proposed Project complies with Goal/Objective *j* because the Proposed Project would include hotel-related retail space. Therefore, with implementation of the recommended mitigation measures, the Proposed Project would not conflict with the goals and objectives set forth by the Specific Plan.

The following discusses the Project's compliance with applicable regulations and standards under Chapter 4.0 of the Specific Plan:

- *4.2 Permitted Uses – The permitted uses do not include, nor exclude, hotels. In addition, the Proposed Project would result in 1,600 sf of open air dining, which exceeds the allowed 600 sf.*
- *4.3 Parking – Parking requirements do not provide standards for a hotel use.*
- *4.4 Building Height - Under the Proposed Project, the maximum height of the South Building would be 185 feet and the North Building would be 161 feet at its highest point. The approved Specific Plan entitled the Approved Project to 205 feet for the South Building and 161 feet for the North Building, and no modifications were made to the height restrictions in the December 2012 Administrative Modification, resulting in no increase in height under the currently Proposed Project.*
- *4.5 Residential Outdoor Living Space - Each residence would be designed to include cantilevered terraces and balconies. Each residence would also have access to a rooftop pool as well as the proposed public gardens along the Wilshire Boulevard frontage. Therefore, the Project would comply with this standard.*

- *4.6 Sign Standards – A Unified Sign Plan will be submitted to the Director of Community Development. Upon approval of this plan, the Project would comply with the standards for signage.*
- *4.7 Architecture and Design – Prior to the issuance of building permits, the Project will be submitted to the City's Architectural Commission. Upon approval, the Project would comply with the architectural standards.*
- *4.8 Green Building Standards – The Proposed Project would incorporate green construction standards. The Project applicant proposes to design the building to meet Silver standards under the LEED Green Building Rating System. Therefore, the Project would comply with this standard.*

Implementation of the currently Proposed Project would involve the adoption of an amendment to the 9900 Wilshire Specific Plan to ensure that the Project would comply with the standards and regulations associated with permitted uses and parking, including allowing a hotel use within the Specific Plan area. Other proposed amendments would involve:

- *Increasing the amount of allowable open air dining space from 600 feet to 1,600 square feet*
- *Minor revisions to site access, as described in Section 2.0*
- *Eliminating the following items from the list of LEED features to be incorporated into the Project:*
    - *Limiting the development footprint to approximately one-third of the Project site*
    - *The recycling of building materials such as asphalt, metals, glass and concrete from demolition site work*

As discussed throughout this SEIR, notably in sections 4.4, *Noise*, and 4.5, *Transportation and Traffic*, these Specific Plan amendments would not result in significant environmental effects.

The Project would require approvals by the Architectural Commission. Upon adoption of the amendment and with the required approvals, the Proposed Project would comply with the land use requirements set forth by the Specific Plan, and therefore, would not result in adverse physical land use impacts.

Mitigation Measures. The Proposed Project, with approval of the proposed Specific Plan Amendment, along with adherence to existing regulations, and implementation of mitigation measures identified in other sections of this SEIR (specifically, Mitigation Measures NOISE-1 through NOISE-3 and TRAF-1 through TRAF-8 from the 2008 FEIR, listed in Sections 4.4, *Noise and Vibration,* and 4.5, *Transportation and Traffic*, respectively), would be potentially consistent with the City's General Plan and the 9900 Wilshire Specific Plan. Impacts would be less than significant with incorporated mitigation.

Significance After Mitigation. With adherence to existing regulations as well as the mitigation measures identified in this SEIR, impacts would be less than significant with incorporated mitigation.

c. Cumulative Impacts. Cumulative development in accordance with the City's General Plan would incrementally modify land use patterns and the general setting of the area. As shown in Table 3-1 in Section 3.0, *Environmental Setting*, pending and approved development in

the cities of Beverly Hills and Los Angeles would consist of multi-family dwelling units and commercial/retail development in the vicinity of the Project site. Planned cumulative development would incrementally increase overall development intensity throughout the area, while incrementally reducing the amount of undeveloped land. However, similar to the Proposed Project, land use and policy consistency impacts associated with individual projects would be addressed on a case-by-case basis to determine consistency with applicable plans and policies, and cumulative significant impacts would not occur. Moreover, because the Proposed Project's impacts related to land use compatibility and consistency with local plans and goals would be less than significant with mitigation (as discussed above), the Project's contribution to cumulative land use impacts would not be cumulatively considerable.

4.4 NOISE AND VIBRATION

This section addresses the impact of the noise and vibration that would be generated by the Proposed Project on nearby noise-sensitive land uses, as well as the effect of current and future noise and vibration levels on the Proposed Project.

4.4.1 Setting

a. Overview of Sound Measurement. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dBA level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of about 6 dBA per doubling of distance from point sources such as industrial machinery. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance.

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. Two commonly used noise metrics – the Day-Night average level (Ldn) and the Community Noise Equivalent Level (CNEL) - recognize this fact by weighting hourly Leqs over a 24-hour period. The Ldn is a 24-hour average noise level that adds 10 dBA to actual nighttime (10 p.m. to 7 AM) noise levels to account for the greater sensitivity to noise during that time period. The CNEL is identical to the Ldn, except it also adds a 5 dBA penalty for noise occurring during the evening (7 PM to 10 p.m.).

b. Vibration. Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the United States.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people (Federal Transit Administration, 2006). A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. In terms of ground-borne vibration impacts on structures, the FTA states that ground-borne vibration levels in excess of 100 VdB would damage fragile buildings and levels in excess of 95 VdB would damage extremely fragile historic buildings. Based on the City of Beverly Hills Noise Ordinance and the State Office of Planning and Research Land Use Compatibility guidelines, the Proposed Project would result in significant vibration impacts if groundborne vibration levels exceeds the Federal Railroad Administration (FRA) maximum acceptable level threshold of 72 VdB for residences and buildings where people normally sleep, including hotels, and 75 Vdb for institutional land uses with primary daytime use (such as schools).

c. Sensitive Receptors. Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, and libraries are most sensitive to noise intrusion and therefore have more stringent noise exposure targets than manufacturing or agricultural uses that are not subject to effects such as sleep disturbance. The neighborhood surrounding the Project site is characterized by a mix of commercial, retail, residential, and public uses. Noise sensitive land uses near the Project area include a hotel 50 feet east of the Project, single-family residences 100 feet to the north, El Rodeo School 100 feet to the north, multi-family residences 400 feet to the south, and Beverly Hills High School 700 feet to the south and are shown in Figure 4.4-1.

d. Existing Noise Sources. The most common source of noise in the Project site vicinity is traffic on surrounding roads such as Wilshire Boulevard, Santa Monica Boulevard, and Merv Griffin Way. Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create sustained noise levels. Ambient noise levels would be expected to be highest during the daytime and rush hour unless congestion slows speeds substantially. To determine ambient noise levels at nearby sensitive receptors, Rincon Consultants, Inc. took ten 15-minute noise measurements between 11:00 a.m. and 1:00 p.m. (daytime) and 11:00 p.m. and 2 a.m. (nighttime) at the Project site on February 24, 25, and 29, 2016, using an Extech integrating sound level meter (see Appendix C for noise measurement data). Table 4.4–1 lists the 15-minute noise levels measured at these locations, as well as the ambient noise levels based on CNELs estimated using the noise measurements. Figure 4.4-1 shows the measurement locations. Ambient noise levels near the project site range from 74 to 82.2 dBA CNEL. CNELs are high due to the fact that roadway traffic persists throughout the night, which is reflected in the nighttime noise measurements, which ranged from 66.3 to 74.7 dBA Leq.

Fehr & Peers prepared the Transportation Impact Study for the Project and analyzed local roadway segments and intersections in the surrounding roadway network and provided

Imagery provided by Google and its licensors © 2016.

Sensitive Noise Receptors
Noise Measurement Locations

Figure 4.4-1

average daily trip (ADT) rates and peak hour trips (see Appendix D). Using the trip data, existing traffic-generated noise levels along these segments were estimated using the U.S. Department of Transportation, Federal Highway Administration's (FHWA) Traffic Noise Model Version 2.5 (FHWA, 2004). Table 4.4–2 shows the estimated current traffic noise levels at existing sensitive receptors near the Project site.

Table 4.4–1
Noise Measurement Results

Measurement Location	Measurement Location	Distance to Nearest Sensitive Receptor	Distance from Centerline of Nearest Roadway	Sample Time	Day-time Leq (dBA)	Night-time Leq (dBA)	CNEL[1]
1	Northwest Corner of Wilshire and Whittier	100 ft (to El Rodeo School)	55 ft	11:27 a.m. - 11:42 a.m. 11:56 p.m. - 12:11 a.m.	74.7	66.3	75.1
2	Northern Project site boundary on Wilshire	180 ft (Beverly Hilton)	36 ft	11:46 a.m. - 12:01 p.m. 12:13 a.m. - 12:28 a.m.	76.9	73.0	80.3
3	Eastern Project site boundary on Merv Griffin Way	50 ft (Beverly Hilton)	50 ft	12:06 p.m. - 12:21 p.m. 12:31 a.m. - 12:46 a.m.	70.0	66.9	74
4	Southwestern Project site boundary near golf course	630 ft (Beverly Hilton	40 ft	12:28 p.m. - 12:43 p.m. 1:14 a.m. – 1:29 a.m.	73.0	67.5	75.2
5	Southern Project site boundary on Santa Monica near Merv Griffin	340 ft (Beverly Hilton)	40 ft	12:07 p.m. - 12:22 p.m. 12:56 a.m. – 1:11 a.m.	79.5	74.7	82.2

All measurements were taken using Extech sound level meter.
Refer to the Appendix C for noise monitoring data sheets
[1] CNEL estimated assuming daytime Leq occurred from 7 AM to 7 PM and nighttime Leq occurred from 7 PM to 7 AM.

Table 4.4–2
Existing Traffic-Generated Noise

Receptor Number	Receptor Location	Modeled Noise Level (CNEL)
1	Northwest Corner of Wilshire and Whittier	74.3
2	Northern Project site boundary on Wilshire	74.4
3	Eastern Project site boundary on Merv Griffin Way	74.9
4	Southwestern Project site boundary near golf course	78.2
5	Southern Project site boundary on Santa Monica near Merv Griffin	76.6

Refer to Appendix C for these estimates. Calculated using the FHWA Traffic Noise Model.
[2] Receptor 1 is reflective of noise levels at the nearest residential sensitive receptor and El Rodeo School.
[3] Receptor 3 is reflective of noise levels at the nearest sensitive receptor, the Beverly Hilton Hotel.

Modeled traffic noise levels in the study area range from about 74 dBA to 78 dBA CNEL. The highest modeled noise level at the southern Project site boundary is primarily due to traffic noise generated on Santa Monica Boulevard. Because modeled noise only predicts traffic-generated noise and does not take into account other noise events during noise measurement such as car horns, airplanes flying overhead, and human voices, modeled noise was somewhat lower than the measured noise levels at the same locations. Nonetheless, the noise levels at the measurement locations indicate that the model is an appropriate tool for determining existing and future noise levels for this area.

e. Regulatory Setting. The City of Beverly Hills General Plan contains noise policies that address unnecessary, excessive, and annoying noise levels and sources, such as vehicles, construction, special sources (e.g., radios, musical instrument, animals, etc.) and stationary sources (e.g., heating and cooling systems, mechanical rooms, etc.). Table 4.4–3 shows City noise compatibility guidelines for various land uses.

The City's noise ordinance (Beverly Hills Municipal Code [BHMC] Section 51-201 through 5-1-210) includes noise standards and regulations. Title 5, Chapter 1, Noise Regulations, of the City of Beverly Hills Municipal Code contains the following that would apply to the Project:

> *5-1-201: SOUND AMPLIFYING EQUIPMENT:*
>
> *It shall be unlawful for any person within any residential zone of the city to use or operate any sound amplifying equipment between the hours of ten o'clock (10:00) P.M. and eight o'clock (8:00) A.M. of the following day in such a manner as to be distinctly audible at or beyond the property line of the property on which the equipment is located. (Ord. 11-O-2613, eff. 10-31-2011).*

Table 4.4–3
Land Use Noise Compatibility Matrix

Land Use Categories	Community Noise Equivalent Levels (CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential (Low Density, Single Family, Duplex, Mobile Homes)	50-60	55-70	70-75	75-85
Residential (Multiple Family)	50-65	60-70	70-75	70-85
Transient Lodging (Hotel, Motel)	50-65	60-70	70-80	80-85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	80-85
Office Buildings, Business Commercial and Professional	50-75	67.5-77.5	75-85	NA

Source: Appendix B of the City of Beverly Hills General Plan, 2010.

> *5-1-202: MACHINERY, EQUIPMENT, FANS, AND AIR CONDITIONING:*
>
> *It shall be unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than five (5) decibels based on a reference sound pressure of 0.0002 microbars, as measured in any octave band center frequency, in cycles per second, as follows: 63, 125, 250, 500, 1,000, 2,000, 4,000, and 8,000 and for the combined frequency bands (all pass). (1962 Code § 4-8.206).*

Section 5-1-205 of the BHMC prohibits construction activity between the hours of 6:00 PM and 8:00 AM Monday through Friday and prohibits construction activity on Sundays and on public holidays. Based on the City of Beverly Hills Noise Ordinance and the State Office of Planning and Research Land use Compatibility Guidelines, the Proposed Project would result in significant noise impacts if construction activities on the Project site would result in an increase of 5 dBA or more outside the hours permitted by the City's noise ordinance. Further, construction work within 500 feet of a residential zone is prohibited on Saturdays unless an after-hours construction permit has been issued. The Project site is within 100 feet of single family residences to the north and multi- family residences 400 feet to the south. Therefore, construction work within these residential areas would be prohibited on Saturdays or have to adhere to conditions of any after-hours construction permit issued for the Project. Section 5-1-206 of the BHMC (which was adopted after approval of the Approved Project) prohibits the creation of noise on any street, sidewalk, or public place adjacent to any school, hospital, institution of learning, or church while in use where the noise substantially and unreasonably interferes, disturbs, or annoys the workings at such places. As stated in the City of Beverly Hills General Plan Noise Element, potentially sensitive land uses in Beverly Hills include residences (including residences for the elderly), schools, churches, and libraries.

The State of California requires that interior noise levels in multi-family residential uses not exceed 45 Ldn (day-night noise level). This standard is commonly used as an interior standard for all residential uses, but it is only required of multi-family residential buildings under the California Administrative Code, Title 24, Part 2 (City of Beverly Hills General Plan Noise

Element). For the interior noise impact analysis in this section, the 45 dBA interior noise threshold will be used.

4.4.2 Impact Analysis

a. Methodology and Thresholds of Significance.

Methodology. The analysis of noise impacts considers the effects of both temporary construction-related noise and long-term noise associated with operation of the Proposed Project. Construction noise estimates are based upon noise levels reported by the Federal Railroad Administration (FRA)(FRA, 2005), and the distance to nearby sensitive receptors. Reference noise levels from that document were then used to estimate noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 6 dBA per doubling of distance (line-of-sight method of sound attenuation for point sources of noise) to determine if a 5 dBA increase or more would occur. Construction noise level estimates do not account for the presence of intervening structures or topography, which could reduce noise levels at receptor locations. In addition, construction equipment estimates used for the analysis for grading, shoring, and building construction noise levels are representative of worse case conditions, since it very unlikely that all the equipment contained on site would operate simultaneously or continuously throughout the work day. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of construction noise.

To determine ambient noise levels at nearby sensitive receptors, Rincon Consultants, Inc. took ten 15-minute noise measurements between 11:00 a.m. and 1:00 p.m. (daytime) and 11:00 p.m. and 2 a.m. (nighttime) at the Project site on February 24, 25, and 29, 2016, using an Extech integrating sound level meter (see Appendix C for noise measurement data). These locations were selected to represent ambient noise levels experienced by sensitive receptors near the Project site, as well as noise levels generated by land uses similar to the Project. At each location, consideration was given to site-specific characteristics, and the sound level meter was placed away from walls and topographic features which might skew noise measurements. The noise measurements recorded the equivalent noise level (Leq) at each location.

Rincon calculated noise levels associated with existing and future traffic along local roadways using the U.S. Department of Transportation, Federal Highway Administration's (FHWA) Traffic Noise Model Version 2.5 (FHWA, 2004) (noise modeling data sheets can be viewed in Appendix C) and the Transportation Impact Study (see Appendix D and Section 4.6, *Transportation and Traffic*). Roadway noise level estimates do not account for intervening barriers, such as trees or walls, which may shield individual receptors from the noise source. Therefore, the levels presented represent a conservative estimate of the noise levels that would be experienced at individual receptor locations.

Future exterior noise levels at the proposed residences, existing nearby residences, existing hotel, and nearby schools were also calculated using the FHWA Traffic Noise Model Version 2.5 (FHWA, 2004). The interior noise level is the difference between the projected exterior noise level at the structure's façade and the noise reduction provided by the structure itself. For this analysis, interior noise level was determined by subtracting the estimated noise reduction achieved by the building shell from the estimated exterior noise level of the Project site.

In addition to traffic noise, noise from on-site stationary noise sources, including rooftop ventilation and the outdoor dining areas of the proposed project were estimated at each sensitive receptor and factored noise attenuation over distance. Noise associated with operation of the parking structure and loading dock area would not be audible off-site because both are enclosed. The new 1,000 sf outdoor dining area, which would be located on the ground floor near the intersection of Monica Boulevard and Merv Griffin Way at the southeast corner of the project site would be a new potential noise source. In addition, there is a 600 sf rooftop bar area on the 14th floor that has been approved as part of the 2008 FEIR.

As assumed in the 2008 FEIR, rooftop mounted equipment produce up to 56 dBA at 50 feet. Noise levels calculated for noise produced by rooftop mounted equipment accounted for 173 feet of height attenuation as well as attenuation from distance to each of the five noise sensitive receptor locations.

Finally, for the outdoor dining areas, a certified EIR for a Cheesecake Factory restaurant in Marina Del Rey with a similarly sized outdoor dining area determined that noise levels associated with a comparable outdoor dining area with a seating capacity of 75-100 seats can range from 34 dBA to 56 dBA at receptor locations 75-100 feet way (City of Los Angeles, 2000). Thus, 56 dBA was assumed to be a typical noise level at both the 1,000 square foot ground floor dining area and at the 600 square foot rooftop bar. This is considered a conservative measure as the outdoor dining areas would be smaller and, therefore, unlikely to generate noise levels as high as what was measured at the Cheesecake Factory. Calculations for noise levels from the rooftop bar accounted for 161 feet of height attenuation as well as attenuation over the varying distances to each of the five noise sensitive receptor locations.

Traffic noise levels for the Existing Plus Approved Project and Cumulative Plus Approved Project scenarios were combined with noise levels for rooftop ventilation and rooftop bar to estimate ambient noise levels in CNEL associated with the Approved Project at each sensitive receptor. Traffic noise levels for the Existing Plus Proposed Project and Cumulative Plus Proposed Project scenarios were combined with noise levels for rooftop ventilation, rooftop bar, and outdoor dining to estimate ambient noise levels in CNEL associated with the Proposed Project at each sensitive receptor.

Significance Thresholds. Pursuant to Appendix G of the *State CEQA Guidelines*, potentially significant impacts would occur if the Project would result in any of the following conditions:

1. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
2. *Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;*
3. *A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project;*
4. *A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project;*
5. *For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the Project area to excessive noise levels; and/or*

6. *For a Project within the vicinity of a private airstrip, exposure of people residing or working in the Project area to excessive noise levels.*

As discussed in the Initial Study (Appendix A), the Project site is not located in the vicinity of a private airstrip nor is it located within two miles of an airport or within an airport land use plan. Impacts related to airport noise (thresholds 5 and 6) would therefore be less than significant and are not discussed further in this section.

Construction Noise and Vibration. With respect to temporary construction noise and vibration (Impacts N-1 and N-3), the following quantitative thresholds would apply:

- *Construction activities occurring on the Project site would result in a noise increase of 5 dBA or more outside the hours permitted by the City's noise ordinance (i.e., between 6 PM and 8 AM on weekdays, or at any time on Saturday, Sunday, or a public holiday) or would increase noise by 5 dBA or more during daytime hours at a school or other noise-sensitive use that operates during the day.*

- *Vibration exceeds the Federal Railroad Administration (FRA) maximum acceptable level of 65 VdB for buildings where low ambient vibration is essential for interior operations (such as hospitals and recording studios), 72 VdB for residences and buildings where people normally sleep, including hotels, and 75 VdB for institutional land uses with primary daytime use (such as churches and schools).*

Long-Term Operation. Impacts to existing offsite development (Impacts N-2) would be significant if Project-related traffic or stationary noise sources would cause a noise increase equal to or exceeding the levels shown in Table 4.4–4 at a noise-sensitive use. These thresholds differ from those used in the 2008 FEIR, but reflect Policy N 1.5 of the current Noise Element of the Beverly Hills General Plan, which was adopted in 2010.

Table 4.4–4
Significance of Changes in Operational Noise Exposure

Existing Noise Exposure (CNEL)	Significant Noise Increase
55	3
60	2
65	1
70	1
Over 75	1

Source: City of Beverly Hills, Noise Element of the General Plan, Policy N 1.5, 2010.

Impacts would also be significant if proposed new land uses would be exposed to noise exceeding the normally acceptable range, as shown in Table 4.4-3, for that use (exterior noise level of over 65 dBA CNEL for proposed residences, 65 dBA CNEL for hotel rooms, or 75 dBA CNEL for other commercial uses, or interior noise level of 45 dBA CNEL for any of these uses). This threshold applies to Impact N-4.

b. Project Impacts and Mitigation Measures.

CEQA Checklist Thresholds	*Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.* *A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.*
Quantitative Threshold	*Increase of 5 dBA or more outside the hours permitted by the City's noise ordinance (i.e., between 6 PM and 8 AM on weekdays, or at any time on Saturday, Sunday, or a public holiday) or during daytime hours at a school or other noise-sensitive use that operates during the day.*

Impact N-1 Construction activities associated with the Proposed Project would generate temporary noise increases that would be audible at nearby sensitive receptor locations, including the Beverly Hilton, residences and El Rodeo School. Maximum and daily construction-related noise would be similar to that identified for the Approved Project in the 2008 FEIR, but the overall duration of construction activity would be 18 months longer than for the Approved Project. Therefore, the Proposed Project would result in an increase in the severity of the *significant and unavoidable* impact identified for the Approved Project in the 2008 FEIR.

The Proposed Project involves the development of 901,514 sf of floor area, which is identical to the approved floor area of the Approved Project. The Proposed Project would include up to 193 condominiums and up to a 134-room luxury hotel that would be located in two of the linear buildings that were previously approved and are known as the South Building and the North Building. The Proposed Project would also include development of a smaller building located to the east of the South Building. This building was proposed for use as a "spa pavilion" under the Approved Project, but would be shifted to the north and would be used for ancillary hotel uses under the currently Proposed Project.

Construction activities undertaken and equipment used would be similar to those of the Approved Project, and construction would generate similar noise levels. As with the Approved Project, construction impacts would be temporary and daily construction activities would be limited by the BHMC (Section 5-1-205) to less noise sensitive daytime hours (between 8:00 AM and 6:00 PM). Construction noise impacts primarily result when construction activities occur during times of day when people are most sensitive to noise (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction duration lasts over extended periods of time.

Construction noise levels would diminish at approximately 6 dBA per doubling of distance. Table 4.4–5 shows typical maximum construction noise levels at various distances from

construction activity and Table 4.4–6 shows noise levels generated during each of the project construction phases. Any locations that would have an uninterrupted line of site to the construction noise sources could be exposed to construction noise. Consistent with the City's restriction on the use of impact-driven piles, project construction would utilize drilled piles; nevertheless, pile installation could generate noise that would be clearly audible at nearby receptors. The nearest existing sensitive receptor is the Beverly Hilton Hotel, which is approximately 50 feet east of the Project site.

The earthmoving phase of Project construction tends to create the highest construction noise levels because of the operation of heavy equipment. As shown in Table 4.4–6, construction during the earthmoving phase would produce noise levels up to 90 dBA CNEL at the Beverly Hilton Hotel (50 feet away) and up to 89 dBA CNEL at El Rodeo School and at single-family residences to the north (100 feet away). Construction during the shoring phase would produce noise levels up to 85 dBA CNEL at the Beverly Hilton Hotel and up to 80 dBA CNEL at El Rodeo School and at single-family residences to the north. Building construction would produce noise levels up to 89 dBA CNEL at the Beverly Hilton Hotel and up to 83 dBA CNEL at El Rodeo School and at single-family residences to the north (100 feet away).

Estimated construction noise levels do not take into account intervening barriers that may further attenuate the noise level at the discussed noise receptors. During grading, equipment is dispersed in various portions of the site in both time and space. Due to site and equipment limitations, only a limited amount of equipment can operate near a given location at a particular time. In addition, construction equipment estimates used for the analysis for grading, shoring, and building construction noise levels are representative of worse case conditions, since it is assumed that all the equipment contained on site would operate simultaneously and continuously throughout the work day. Therefore, the noise levels presented in Table 4.4-6 represent a conservative, reasonable worst-case estimate of construction noise.

During construction, soil excavated from the Project site would be hauled off-site by trucks via Santa Monica Boulevard and/or Wilshire Boulevard west of the Project site (see Figure 2-9 in Section 2.0, *Project Description*). The overall number of truck trips would be higher than what was considered in the 2008 FEIR (a total of 162 trucks per day for up to 5 months, or up to 300 trucks per day for up to 2-1/2 months as compared to 300 trucks per day over a period of five to six weeks that was considered in the 2008 FEIR). However, maximum noise levels generated by the 162-300 daily truck trips would not significantly affect noise conditions on either roadway since such trips would constitute a small fraction of overall traffic on Santa Monica and Wilshire Boulevards, both of which currently carry more than 40,000 average daily vehicle trips between Beverly Hills and the 405 Freeway.

Table 4.4–5
Typical Construction Equipment Noise Levels

Equipment	Noise Level at Beverly Hilton Hotel (50 feet east)	Noise Level at El Rodeo School and Nearest Single Family residences (100 feet north)	Noise Level at multi-Family Residences (400 feet south)	Noise Level at Beverly Hills High School (700 feet south)
Pile Installation[1]	96	90	78	73
Augur Drill Rig	84	78	66	61
Backhoe	78	72	54	49
Compactor (ground)	83	77	59	54
Dozer	82	76	58	53
Dump Truck	76	70	52	47
Excavator	81	75	57	52
Flat Bed Truck	74	68	50	45
Front End Loader	79	72	54	49
Generator	81	75	57	52
Grader	83	77	59	54
Jackhammer	88	82	64	59
Pickup Truck	75	69	51	46
Pneumatic Tools	85	79	61	56
Roller	80	74	56	51
Scraper	84	78	66	61
Warning Horn	83	77	59	54
Welder/Torch	74	68	50	45

Source: FTA, 2006.

[1] Consistent with the City's restriction on the use of impact-driven piles, Project construction would utilize drilled piles. Consistent with the 2008 FEIR, noise levels shown are for sonic pile drivers.

Table 4.4–6
Construction Noise Levels by Phase

Construction Phase	Required Equipment	Anticipated Noise Levels at Nearby Receptors (dBA CNEL)	
		50 feet (Beverly Hilton Hotel)	100 feet (El Rodeo School and Nearest Single Family residences)
Earthmoving	Excavator, Scraper, Compactor, Dozer, Grader, Water Truck, Dump Truck, Rubber Tired Loaders, Dewatering Pump, Drilled piles [a]	90	89
Shoring	Auger/Drill Rig, Excavator, Rubber Tired Loader, Crane, Lift, Dewatering Pump	85	80
Construction	Crane, Dozer, Forklift/Manlift, Loader, Pneumatic Tools, Paver, Roller, Compressor, Truck	89	83
	Existing CNEL at Receptor	*74* [b]	*75.1* [c]
	Maximum Exceedance of Existing CNEL	*16*	*13.9*
	Threshold Exceeded? (> 5 dBA)	*Yes*	*Yes*

Source: FTA, 2006.
[a] *Consistent with the City's restriction on the use of impact-driven piles, The range of noise levels generated by pile drilling is estimated to be 80 to 95 dBA at 50 feet. Since pile drilling equipment was not available within the construction noise model used, sonic pile drivers, which generate noise levels of 96 dBA at 50 feet, were used in this analysis to represent noise associated with drilled piles.*
[b] *CNEL from Noise Measurement #3 in Table 4.4-1, the receptor nearest to the Beverly Hilton Hotel.*
[c] *CNEL from Noise Measurement #1 in Table 4.4-1, the receptor nearest to El Rodeo School and nearby residences.*

Limiting construction activities to the hours allowed by Section 5-1-205 of the BHMC (8:00 AM to 6:00 PM) would ensure that residences and the Beverly Hilton would not be exposed to construction noise during hours when people normally sleep. However, construction activities would be expected to generate noise levels in excess of 5 dBA above ambient noise levels at El Rodeo School during school hours. Construction noise would not conflict with Section 5-1-206 of the BHMC because the Project site is not a public place; nevertheless, exposure of El Rodeo School to noise in excess of 5 dBA above ambient levels would be a significant impact.

Per Condition of Approval #57 for the Approved Project, the Proposed Project would be required to monitor construction noise and vibration at El Rodeo School as part of the Construction Management Plan and if thresholds are exceeded, construction activities and/or measures may be modified to correct excessive noise or vibration. A temporary noise barrier, as required by Mitigation Measure NOISE-1 from the 2008 FEIR would attenuate construction noise at locations for which the barrier breaks the line of sight between the source and the receptor by up to 10 dBA (FHWA, 2001). The 2008 FEIR found that while implementation of Mitigation Measure NOISE-1 would reduce daytime and nighttime noise impacts associated with all construction activity, no feasible mitigation is available to reduce impacts to a less than significant level. Maximum and daily noise levels associated with construction activity associated with the Proposed Project would be similar to those of the Approved Project since the locations and magnitude of construction would be similar. However, the duration of the impact would be extended when compared to the Approved Project (34 months plus 8 months

of infrastructure work). Thus, construction noise associated with the Proposed Project would constitute a significant increase in duration as compared to what was identified for the Approved Project in the 2008 FEIR. In addition, the generation of noise in excess of 5 dBA above ambient levels during school hours would also constitute a significant construction noise impact beyond what was identified for the Approved Project in the 2008 FEIR due to the subsequent adoption of Section 5-1-206 of the BHMC.

Mitigation Measures. The following mitigation measure from the 2008 FEIR would apply to the Proposed Project. Additional mitigation is not available.

NOISE-1 Prior to issuance of grading permits, the applicant shall submit a Construction Management Plan satisfactory to the Director of Community Development and the Building Official. The Building Official shall enforce noise attenuating construction requirements. The Construction Management Plan shall include, but not be limited to, the following:

- *Excavation, grading, and other construction activities related to the Proposed Project shall be restricted to the hours of operation allowed under Section 5-1-206, Restrictions on Construction Activity, of the City Municipal Code. Any deviations from these standards shall require the written approval of the City Building Official.*

- *Stockpiling and vehicle staging areas shall be located as far away from occupied residences as possible, and screened from these uses by a solid noise attenuation barrier. Noise attenuation barriers constructed to the specifications identified in the bullet point below are capable of reducing noise levels by 7.7 dB(A).*[1]

- *Solid noise attenuation barriers (temporary barriers or noise curtains) with a sound transmission coefficient (STC) of at least 20 shall be used along all Project boundaries during the construction phases associated with the development of the Project. Noise attenuation barriers constructed at the property lines to a height of 12 feet with an STC rating of at least 20 are capable of reducing noise levels by 7.7 dB(A).*

- *All stationary construction equipment (e.g., air compressor, generators, etc.) shall be operated as far away from the residential and institutional uses to the north of the Project site as possible. If this is not possible the equipment shall be shielded with temporary sound barriers, sound aprons, or sound skins to the satisfaction of the Director of Community Development.*

- *Haul routes for removing excavated materials from the site shall be designed to avoid residential areas, and areas occupied by noise sensitive receptors (e.g., hospitals, schools, convalescent homes, etc.).*

Significance After Mitigation. The 2008 FEIR found that the Approved Project would have a significant and unavoidable impact related to construction noise because feasible

[1] *U.S. Department of Housing and Urban Development. The Noise Guidebook. 1985.*

mitigation was not available to reduce impacts to a less than significant level. Maximum and daily noise associated with the currently Proposed Project would be about the same as those of the Approved Project, but the overall duration of construction would be 18 months longer. In addition, daytime construction activity would expose the nearby El Rodeo School to temporary daytime noise increases of more than 5 dBA CNEL. Therefore, even with mitigation, the Proposed Project would increase the severity of the significant and unavoidable impact identified for the Approved Project in the 2008 FEIR.

CEQA Checklist Thresholds	*Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.* *A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.*
Quantitative Thresholds	*See Table 4.4-4.*

Impact N-2 Noise associated with operation of the Proposed Project, including noise from traffic on nearby roads, rooftop ventilation, and outdoor dining areas could be audible at nearby receptor locations. However, the 2008 FEIR determined that operation of the Approved Project would have less than significant operational impacts and the Proposed Project's operational noise impacts would not be substantially greater than those of the Approved Project. Therefore, operational noise impacts associated with the Proposed Project would be *less than significant*.

Onsite Operational Impacts. The 2008 FEIR determined that operational noise associated with traffic, mechanical, and parking structure noise would be less than significant. Typically, rooftop mounted equipment sources produce noise levels of approximately 56 dBA at 50 feet. Parking structures can generate Leq noise levels of up to 74 dBA from car alarms at 50 feet. However, with the use of standard design features such as shielding, enclosures and parapets, and location of rooftop equipment a suitable distance from sensitive receptors, and the fully enclosed design of the parking garage, impacts from mechanical and parking structure noise were found to be less than significant in the 2008 FEIR. Mechanical and parking structure noise would not change as compared to the Approved Project.

The Proposed Project would include up to 193 condominiums and up to a 134-room luxury hotel that would be located in two of the linear buildings that were previously approved and are known as the South Building and the North Building. The proposed hotel includes an outdoor dining area that was not considered in the 2008 FEIR. The new 1,000 sf outdoor dining area, which would be located on the ground floor near the intersection of Santa Monica Boulevard and Merv Griffin Way at the southeast corner of the project site, would be a new potential noise source. In addition, a 600 sf rooftop bar area is proposed on the 14th floor of the North Building. The proposed 1,600 total square feet of outdoor dining space has the potential to expose nearby future noise sensitive receptors to noise. The sensitive receptor nearest to the

dining area that would be affected by combined ambient noise from the outdoor dining area, traffic, and rooftop mounted equipment noise would be the Beverly Hilton Hotel, 50 feet to the east (near Receptor 3 in Figure 4.4-1). The nearest residences that would be affected by noise impacts are existing single-family residences 100 feet north of the project site (near Receptor 1 in Figure 4.4-1). Activities associated with typical use of the outdoor seating area include food services and general conversation and activity levels associated with restaurant patrons. According to an approved certified EIR for a Cheesecake Factory restaurant in Marina Del Rey with a similarly sized outdoor dining area, noise levels associated with a comparable outdoor dining area with a seating capacity of 75-100 seats was measured at 34 dBA to 56 dBA at receptor locations 75-100 feet way (City of Los Angeles, 2000). 56 dBA was assumed to be the highest ambient noise level generated from both the outdoor dining area and rooftop bar, which is a conservative measure as they would be smaller spaces and therefore produce lower noise levels. The assumed 56 dBA noise level for both outdoor areas was then calculated for noise attenuation over height and distance at the five noise sensitive receptor locations. Results are shown in Appendix C.

Offsite Operational Impacts. Offsite operational impacts would result from roadway noise. Similar to the Approved Project, the Proposed Project would increase the number of vehicle trips to and from the site. This would increase traffic noise on roadways within the vicinity of the Project site. The *Transportation Impact Study* prepared by Fehr and Peers on April 6, 2016 determined existing and future traffic levels on roadways segments in the vicinity of the Project site as well as the traffic levels expected as a result of the Proposed Project. In order to determine whether the Proposed Project would create traffic noise beyond that associated with the Approved Project and identified in the 2008 FEIR, forecast traffic levels were used to determine existing and potential future noise levels at existing sensitive receptors along these roadways and at each of the five sensitive noise receptor locations. As shown in Table 4.5–5 in Section 4.5, *Transportation and Traffic*, the Proposed Project would generate an additional 238 daily vehicle trips and 14 PM peak hour trips as compared to the Approved Project, but about 20 fewer AM peak hour trips, 39 fewer midday peak hour trips, and 60 fewer Saturday peak hour trips.

PM peak hour traffic levels were used to calculate traffic noise using the FHWA Traffic Noise Model (TNM). The fleet mix for vehicle trips along the roadways was estimated at 95% passenger vehicles, 3% light- and medium-duty trucks, 2% heavy-duty trucks. This estimate is considered reasonable for these roadways based on the urban/ downtown nature of the area. According to the FHWA, peak hour volumes are assumed to be 10 percent of average daily volumes. Therefore, PM peak hour traffic was converted to ADT using this assumption to produce noise results in Lden (CNEL), the average equivalent sound level over a 24-hour period. The results are shown in Table 4.4–7.

Table 4.4–7
Pre-Project and Post-Project Traffic Noise

Receptor Number	Receptor Location	Projected Noise Level (dBA CNEL)[a]		
		Existing	Existing Plus Approved Project	Existing Plus Proposed Project
1 [b]	Northwest Corner of Wilshire and Whittier	74.3	74.5	74.3
2	Northern Project site boundary on Wilshire	74.4	74.5	74.1
3 [c]	Eastern Project site boundary on Merv Griffin Way	74.9	75.1	75.0
4	Southwestern Project site boundary near golf course	78.2	78.3	78.6
5	Southern Project site boundary on Santa Monica near Merv Griffin	76.6	76.7	77.5

Modeled noise reflects modeled estimates based on traffic from roadways as determined in the Traffic Impact Study. Refer to Appendix D for the traffic study and Appendix C for the estimates from the FHWA Traffic Noise Model Version 2.5.

[a] *See Table 4.4-4. Note that the thresholds are based on CNEL, but the noise modeling was conducted based on PM peak hour traffic. According to the FHWA, peak hour volumes are assumed to be 10 percent of average daily volumes. Therefore, PM peak hour traffic was converted to ADT by multiplying by 10.*

[b] *Receptor 1 is reflective of noise levels at the nearest residential sensitive receptor and El Rodeo School.*

[c] *Receptor 3 is reflective of noise levels at the nearest sensitive receptor, the Beverly Hilton Hotel.*

Combined Onsite and Offsite Operational Impacts. Combined noise levels produced by roadway noise, rooftop mounted equipment, the outdoor dining area, and the rooftop bar were calculated at each of the five receptor locations. Noise associated with operation of the parking structure and loading dock area would not be audible offsite because both are enclosed; therefore, neither were included in the combined operational noise impact calculations. Noise levels at receptor locations account for noise attenuation due to distance, including the height of the rooftop mounted equipment and rooftop bar. Noise levels in CNEL for each individual source of noise is shown in Appendix C. Noise levels from each individual source of noise were combined to calculate ambient noise levels of each of the five noise receptor locations for the Existing, Existing Plus Approved Project, and Existing Plus Proposed Project scenarios. Results are shown and compared below in Table 4.4–8.

The greatest change in noise level between the Existing Plus Approved Project and Existing Plus Proposed Project is 0.9 dBA CNEL, which occurs at Receptor 5, the location nearest where the outdoor dining areas would be located. This 0.9 dBA CNEL increase in noise level is due to both the addition of the outdoor dining areas and rooftop ventilation, as well as an increase in traffic along Santa Monica Boulevard. However, this increase would not exceed the City Noise Element threshold of 1 dBA and would not affect noise-sensitive uses such as residences. As discussed above, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. A noise increase of 0.9 dBA CNEL would not be audible in an environment exposed to noise levels exceeding 77.0 dBA CNEL. Additionally, as shown in Table 4.4–8, the Proposed Project would reduce noise levels by up to 0.2 dBA CNEL at sensitive receptor locations, El Rodeo School and residences to the north (represented by Receptor 1) and at the Beverly Hilton Hotel (represented by Receptor 3).

Table 4.4–8
Combined Operational Noise Plus Traffic Noise Impacts (CNEL)

Receptor Number	Receptor Location	Projected Noise Level (dBA CNEL)			Change in Noise Level (Proposed–Approved) [3] – [2]	Significance Threshold (dBA CNEL)	Significant?
		Existing [1]	Existing Plus Approved Project [2]	Existing Plus Proposed Project [3]			
1[1]	Northwest Corner of Wilshire and Whittier	74.3	74.5	74.3	-0.2	1	No
2	Northern Project site boundary on Wilshire	74.4	74.6	74.2	-0.4	1	No
3[2]	Eastern Project site boundary on Merv Griffin Way	74.9	75.2	75.1	-0.1	1	No
4	Southwestern Project site boundary near golf course	78.2	78.3	78.6	0.3	1	No
5	Southern Project site boundary on Santa Monica near Merv Griffin	76.6	76.8	77.7	0.9	1	No

[1] *Receptor 1 is reflective of noise levels at the nearest residential sensitive receptor and El Rodeo School.*
[2] *Receptor 3 is reflective of noise levels at the nearest sensitive receptor, the Beverly Hilton Hotel.*

Operation of the outdoor dining area, rooftop bar, and rooftop ventilation systems combined with potential increases in traffic noise would not significantly alter ambient noise levels in the area or exceed City Noise Element thresholds. No other new facilities associated with Proposed Project would be expected to generate noise beyond that associated with the Approved Project and identified in the 2008 FEIR. Finally, per Conditional of Approval #5 for the Approved Project and in adherence to Beverly Hills Municipal Code Section 5-1-201, the Proposed Project would not include sound amplifying equipment in the outdoor dining areas and amplified music from within the restaurant would not be audible from the exterior between the hours of ten o'clock (10:00) P.M. and eight o'clock (8:00) A.M. of the following day at or beyond the property line. Impacts would be less than significant.

Mitigation Measures. No mitigation is necessary because the Proposed Project would not generate significant long-term noise increases due to onsite operations and increased traffic.

Significance After Mitigation. Impacts of the Proposed Project would be less than significant without mitigation.

CEQA Checklist Threshold	*Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.*
Quantitative Threshold	*65 VdB for buildings where low ambient vibration is essential for interior operations (such as hospitals and recording studios), 72 VdB for residences and buildings where people normally sleep, including hotels, and 75 VdB for institutional land uses with primary daytime use (such as churches and schools).*

Impact N-3 Construction-activities associated with the Proposed Project could generate ground-borne vibration. The 2008 FEIR determined that impacts related to construction-generated vibration would be significant and unavoidable. Construction-related vibration associated with the Proposed Project would be similar to that identified for the Approved Project in the 2008 FEIR, but the overall duration of construction activity would be about 18 months longer. Therefore, the Proposed Project would increase the severity of the *significant and unavoidable* vibration impact identified for the Approved Project in the 2008 FEIR.

Project construction activities would result in vibration that may be felt on properties in the immediate vicinity of the Project site, as commonly occurs with construction projects. Table 4.4-9 identifies various vibration velocity levels for different types of construction equipment. Consistent with the City's restriction on the use of impact-driven piles, project construction would utilize drilled piles. Project construction would also likely involve the use of bulldozers and jackhammers on the Project site for all building elements. Additionally, loaded trucks carrying construction materials would operate on the Project site and some surrounding streets during construction.

Table 4.4–9
Vibration Levels for Construction Equipment

	Approximate VdB			
Equipment	**25 Feet**	**50 Feet**	**75 Feet**	**100 Feet**
Pile Installation[1]	93	87	83	81
Large Bulldozer	87	81	77	75
Loaded Truck	86	80	76	74
Jackhammer	79	73	69	67
Small Bulldozer	58	52	48	46

Source: Federal Railroad Administration, 2012.

[1] Consistent with the City's restriction on the use of impact-driven piles, Project construction would utilize drilled piles. Vibration estimates are consistent with what was used in the 2008 FEIR.

Installation of drilled piles would generate about 87 VdB at a distance of 50 feet (the distance to the adjacent hotel) and 81 VdB at 100 feet (the distance to the nearest residences and El Rodeo School). These levels exceed the vibration threshold of 72 VdB for residences and buildings where people normally sleep as well as the 75 VdB threshold for institutional uses with primary daytime use.

The 2008 FEIR determined that development of the Proposed Project could subject nearby residents to excessive levels of vibration that are significant and unavoidable. Large bulldozers were found to be capable of producing groundborne vibration that would exceed the groundborne vibration threshold at El Rodeo School and single-family residences to the north, and the Beverly Hilton Hotel to the east.

Mitigation Measure NOISE-1 from the 2008 FEIR was required to reduce vibration impacts, but it was determined that the measure would not reduce the impact to below a level of significance. The Proposed Project would involve activities and construction equipment similar to what was described for the Approved Project in the 2008 FEIR so maximum vibration levels would be similar to what would occur with construction of the Approved Project. However, the overall duration of construction would be longer (42 months versus 24 months) so the exposure of nearby receptors to construction-related vibration would occur for 10 additional months plus 8 months of infrastructure work . Excavation, which generates relatively high levels of vibration due the use of bulldozers and loaded truck, is expected to take up to five months, as compared to the 42 days estimated for the Approved Project in the 2008 FEIR.

While Mitigation Measure NOISE-1 from the 2008 FEIR would apply to the Proposed Project, no feasible mitigation is available to fully reduce construction vibration impacts to **a** less than significant level. The maximum and typical daily levels of vibration would be similar to what was described in the 2008 FEIR, but would occur for a longer duration. Therefore, the Proposed Project would increase the severity of the significant and unavoidable vibration impact identified for the Approved Project in the 2008 FEIR.

Mitigation Measures. Mitigation Measure NOISE-1 from the 2008 FEIR, discussed above under Impact N-1, would apply to the Proposed Project. No additional mitigation beyond Mitigation Measure NOISE-1 is available.

Significance After Mitigation. The 2008 FEIR found that the Approved Project would have a significant and unavoidable impact related to construction vibration. The vibration levels generated by construction of the Proposed Project would be similar to those of the Approved Project, but the overall duration of construction activity and potential exposure to vibration would be 18 months longer and no mitigation is available to reduce this impact; therefore, the Proposed Project would increase the severity of the significant and unavoidable construction vibration impact identified in the 2008 FEIR.

CEQA Checklist Threshold	*Exposure of persons to or generation of noise levels in exceed of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.*
Quantitative Threshold	*Exposure to exterior noise level of over 65 dBA CNEL for proposed residences, 65 dBA CNEL for hotel rooms, or 75 dBA CNEL for other commercial uses, or interior noise level of 45 dBA CNEL for any of these uses*

Impact N-4 Noise levels at proposed sensitive receptors may exceed City thresholds for interior and exterior noise. The 2008 FEIR determined that the Approved Project would result in a potentially significant impact unless mitigation is incorporated because it would locate receptors in areas exceeding the normally acceptable range for proposed uses. The Proposed Project would be subject to the same noise levels as the Approved Project, but mitigation included in the 2008 FEIR would continue to apply and would reduce impacts to below a level of significance. Therefore, the Proposed Project's impact relative to that of the Approved Project would be *less than significant*.

The 2008 FEIR found noise impacts to future on-site residential uses included in the Approved Project to be significant unless mitigation is incorporated. Noise impacts to exterior living areas along Santa Monica and Wilshire Boulevards, such as patios and balconies, were found to be potentially significant since they would be subject to noise over 65 dBA. Implementation of mitigation measures NOISE-2 and NOISE-3 from the 2008 FEIR, which require the installation of sound attenuation features such as berms and trees along Wilshire Boulevard, Santa Monica Boulevard, and Merv Griffin Way, as well as the incorporation of building materials and techniques to reduce interior noise levels, were required to reduce impacts to a less than significant level.

As shown in Table 4.4–1, noise levels on the Project site are in the 74-82 dBA CNEL range, which is normally unacceptable for residential uses (see Table 4.4–3). However, the Proposed Project would not introduce any noise-sensitive uses beyond those associated with the Approved Project. To the contrary, the Proposed Project would reduce the number of on-site noise-sensitive residences by 42. The proposed hotel would also be noise-sensitive, but generally to a lesser degree than residences given the short-term duration of stays at a hotel as compared to a residence. The proposed outdoor dining area in the southeastern portion of the site would be exposed to noise exceeding 70 dBA (noise near the southern edge of the site was measured at 73 dBA and modeled at about 72 dBA – see tables 4.4–1 and 4.4–2). However, although the General Plan Noise Element does not specifically address outdoor dining areas, the normally acceptable range for commercial uses is 50-75 dBA. Exterior noise in the vicinity of the proposed outdoor dining area is within this range.

As described in the 2008 FEIR, compliance with Title 24 building requirements would provide an exterior-to-interior reduction of 31 dBA. Furthermore, Mitigation Measure NOISE-3 from the 2008 FEIR would provide an additional 10 dBA exterior-to-interior reduction. Therefore,

exterior noise levels would not exceed the 65 dBA threshold for normally acceptable at all on-site receptors with implementation of existing required measures NOISE-2 and NOISE-3 and the Proposed Project would have a less than significant impact relative to the Approved Project.

Mitigation Measures. The following measures from the 2008 FEIR would apply to the Proposed Project and would reduce impacts to on-site residences and the proposed hotel to a less than significant level. Both measures have been revised to incorporate specific noise standards that must be met at onsite indoor and outdoor living spaces.

NOISE-2 The applicant shall implement sound attenuation features to reduce noise levels at all private outdoor livable spaces (i.e., balconies) on building floors 1 through 6 fronting Wilshire and Santa Monica Boulevards and Merv Griffin Way to 65 dBA CNEL. Such features may include berms made of sloping mounds of earth, walls and fences constructed of a variety of materials, thick plantings of trees and shrubs, or combinations of these materials, or the use of solid material for balcony construction such as double-paned or laminated glass, Plexiglas, or wood. Acoustical analysis shall be performed prior to the issuance of an occupancy permit to demonstrate that noise levels at the exterior livable spaces do not exceed state land use standards for residences. This requirement shall be incorporated into the plans to be submitted by the applicant to the City of Beverly Hills for review and approval prior to the issuance of building permits.

NOISE-3 The applicant shall incorporate building materials and techniques that reduce sound transmission through walls, windows, doors, ceilings, and floors of on-site residences in order to achieve interior noise levels of 45 dBA CNEL. Such building materials and techniques may include double-paned windows, staggered studs, or sound-absorbing blankets incorporated into building wall design, or outdoor noise barriers erected between noise sources and noise sensitive areas, such as berms made of sloping mounds of earth, walls and fences constructed of a variety of materials, thick plantings of trees and shrubs, or combinations of these materials. Acoustical analysis shall be performed prior to the issuance of an occupancy permit to demonstrate that noise levels in the interior livable spaces do not exceed state standards for residences. This requirement shall be incorporated into the plans to be submitted by the applicant to the City of Beverly Hills for review and approval prior to the issuance of building permits.

Significance After Mitigation. The 2008 FEIR found that the Approved Project would have a less than significant with mitigation. Provided that the same mitigation measures are incorporated within the Proposed Project, the Proposed Project would have no new significant impact beyond that identified for the Approved Project in the 2008 FEIR.

c. Cumulative Impacts. Project construction would coincide with other planned and pending construction projects in the area, including projects such as the Beverly Hilton Revitalization Plan and 9908 Santa Monica Boulevard project that are within 1-2 blocks of the

Project site. Project construction could also overlap with the Santa Monica Boulevard Reconstruction Project. Ongoing, planned, and pending construction projects, in tandem with the Proposed Project would create significant temporary cumulative construction noise and vibration impacts, and the Project's contribution to these impacts would be considerable. This significant cumulative impact is similar to what was identified in the 2008 FEIR, but the Project would involve an additional 18 months of construction activity beyond the 24 months associated with the Approved Project.

The 2008 FEIR included Mitigation Measure NOISE-4 to reduce cumulatively significant daytime and nighttime (after-hours) construction noise and vibration impacts to the degree feasible. This measure would continue to apply, but should be revised to read as follows:

NOISE-4 The Project applicant shall coordinate with other project applicants with projects within a 1,000-foot radius that have overlapping constructions schedules regarding the following:

- *All temporary roadway closures shall be coordinated to limit overlap of roadway closures;*
- *All major deliveries for all projects shall be coordinated to limit the occurrence of simultaneous deliveries. The applicants shall ensure that deliveries of items such as concrete and other high-volume items shall not be done simultaneously;*
- *The applicants shall coordinate regarding the loading and unloading of delivery vehicles. Any off-site staging areas for delivery vehicles shall be consolidated and shared; and*
- *Applicants or their representatives shall meet on a regular basis during construction to address any outstanding issues related to construction traffic, deliveries, and worker parking.*

As was noted in the 2008 FEIR, this measure would not reduce cumulative noise or vibration impacts to below a level of significance.

Similar to what is described under Impact N-2, operational noise from the rooftop bar, rooftop ventilation, and outdoor dining areas were combined with noise levels from cumulative traffic volumes at each receptor location. Combined operational noise and cumulative traffic noise were calculated for the Future Cumulative Plus Approved Project and Future Cumulative Plus Proposed Project scenarios. Results are shown and compared below in Table 4.4–10.

As shown in Table 4.4–10, the Proposed Project would either result in the same cumulative noise levels as the Approved Project or would result in a decrease in cumulative noise levels of up to 0.2 dBA CNEL. The Proposed Project would not result in a cumulative exceedance of the City of Beverly Hills significance threshold of 1 dBA CNEL at any receptor location within the Project vicinity when compared to the Approved Project. Therefore, the Proposed Project would not substantially add to cumulative traffic noise and operational noise impacts.

Table 4.4–10
Combined Operational Noise Plus Cumulative Traffic Noise Impacts (CNEL)

Receptor Number	Receptor Location	Projected Noise Level (dBA CNEL)		Change in Noise Level (Proposed–Approved) (dBA CNEL) [2]-[1]	Significance Threshold (dBA CNEL)	Significant?
		Future Cumulative + Approved Project [1]	Future Cumulative + Proposed Project [2]			
1[1]	Northwest Corner of Wilshire and Whittier	74.9	74.7	-0.2	1	No
2	Northern Project site boundary on Wilshire	75.1	74.9	-0.2	1	No
3[2]	Eastern Project site boundary on Merv Griffin Way	75.5	75.5	0.0	1	No
4	Southwestern Project site boundary near golf course	78.8	78.7	-0.1	1	No
5	Southern Project site boundary on Santa Monica near Merv Griffin	77.4	77.4	0.0	1	No

Existing noise reflects modeled estimates based on traffic from roadways as determined in the Traffic Impact Study. Refer to Appendix D for the traffic study and Appendix C for the estimates from the FHWA Traffic Noise Model Version 2.5.
[1] Receptor 1 is reflective of noise levels at the nearest residential sensitive receptor and El Rodeo School.
[2] Receptor 3 is reflective of noise levels at the nearest sensitive receptor, the Beverly Hilton Hotel.

4.5 TRANSPORTATION AND TRAFFIC

This section analyzes the potential for the Proposed Project to cause significant impacts to the existing traffic and transportation facilities in the City of Beverly Hills and the surrounding areas of the City of Los Angeles. The analysis in this section is based on a Traffic Impact Study prepared for the Project by Fehr & Peers, in April 2016. The full study is provided in Appendix D.

4.5.1 Setting

a. Existing Street System. The Project site is located north of Santa Monica Boulevard, along the western edge of Beverly Hills. The Project study area is generally bounded by I-405 to the west, Sunset Boulevard to the north, Beverly Drive to the east, and Olympic Boulevard to the south. The following are the major roadways within the study area that are also shown in Figure 4.5-1:

Santa Monica Boulevard. Santa Monica Boulevard is a major east-west roadway in Los Angeles and Beverly Hills. Within the study area, this roadway generally travels in a southwest to northeast direction. To the west, Santa Monica Boulevard continues outside of the study area past I-405 and extends into Santa Monica, where it terminates. To the east, Santa Monica Boulevard continues into West Hollywood and eventually terminates east of US 101. Within the study area, the roadway has two to three travel lanes in each direction. The roadway is designated as a Principal Arterial in Beverly Hills.

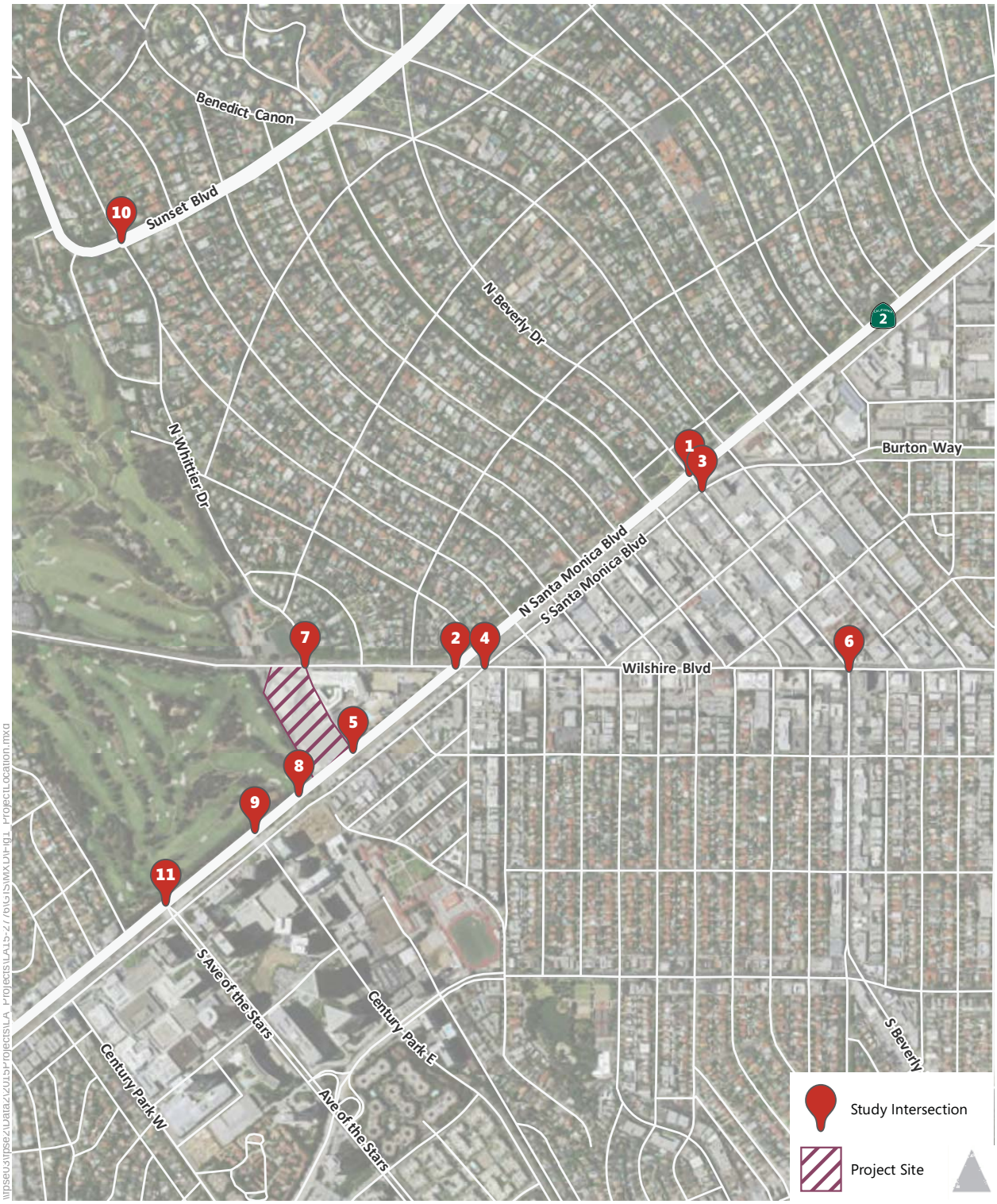
Santa Monica Boulevard South. Santa Monica Boulevard South or "Little Santa Monica Boulevard" parallels Santa Monica Boulevard through Beverly Hills. The roadway begins east of Moreno Drive and becomes Burton Way at Rexford Drive. The roadway has two travel lanes in each direction. The roadway is classified as both a Minor Arterial and Principal Arterial within the study area.

Wilshire Boulevard. Wilshire Boulevard is a major east-west roadway that extends through the study area. Wilshire Boulevard extends from Santa Monica in the west to downtown Los Angeles. The roadway connects to I-405 west of the Project site. In the study area, the roadway has three travel lanes in each direction. Wilshire Boulevard is classified as a Principal Arterial within the study area.

Sunset Boulevard. Sunset Boulevard is another major east-west roadway and extends from Pacific Coast Highway (PCH) to the west past U.S. 101 to the east and into downtown Los Angeles. Within the study area, Sunset Boulevard has four travel lanes (two in each direction) and is classified as a principal arterial within Beverly Hills.

Whittier Drive. Whittier Drive is a north-south roadway that extends north from Wilshire Boulevard into a residential neighborhood and connects to Sunset Boulevard to the north. Whittier is a two-lane roadway with parking on both sides. The roadway is classified as a local street.

Merv Griffin Way. Merv Griffin Way connects Santa Monica Boulevard and Wilshire Boulevard. It is a 4-lane undivided street.



Source: Fehr & Peers, 2016

Project Location and Study Intersections

Figure 4.5-1

Avenue of the Stars. Avenue of the Stars is a north-south roadway that runs through Century City, providing a connection between Santa Monica Boulevard and Pico Boulevard. The roadway is classified by the City of Los Angeles as a major Class II and provides three travel lanes in each direction with a wide landscaped median.

b. Existing Transit. The following transit lines operate within the study area with service provided by the Metropolitan Transportation Authority (Metro):

Metro Line 4. Line 4 provides service between downtown Los Angeles and the City of Santa Monica with service along Santa Monica Boulevard. It travels along Santa Monica Boulevard connecting the communities of Echo Park, Silver Lake, West Hollywood, Beverly Hills, Century City, West Los Angeles, and Santa Monica. Line 4 is a local service bus and has frequent stops along Santa Monica Boulevard. Most stops are approximately one to two blocks apart. Service is provided every eight to 16 minutes during the peak hours on weekdays. On weekends, headways are approximately every 10 to 15 minutes.

Metro Line 20. Line 20 provides service between downtown Los Angeles and the City of Santa Monica with service along Wilshire Boulevard. It travels along Wilshire Boulevard connecting the communities of Beverly Hills, Los Angeles, Hancock Park, Park La Brea, Santa Monica, UCLA, West Los Angeles and Westwood. Line 20 is a local service bus and has frequent bus stops along Wilshire Boulevard. Most stops are approximately one to two blocks apart. Service is provided every five to 12 minutes during peak hours on weekdays and bus headways are approximately 10 minutes on Saturdays and Sundays.

Metro Line 16/316. Line 16 and 316 operate along Santa Monica Boulevard and Burton Way within the City of Beverly Hills and provide transit service between the Century City area of Los Angeles and downtown Los Angeles. Line 316 is a limited version of Line 16, and therefore only stops at selected bus stops. During peak hours, the line operates at headways of 3 to 5 minutes.

Metro Rapid Line 704. Line 704 provides an express service between downtown Los Angeles and the City of Santa Monica with principal service along Santa Monica Boulevard as part of Metro's Rapid network. The line travels along Sunset Boulevard and Santa Monica Boulevard connecting the communities of downtown Los Angeles, Echo Park, Silver Lake, West Hollywood, Beverly Hills, Century City, Westwood, West Los Angeles, and Santa Monica. Line 704 is an express service bus route with two stops located within the study area at Santa Monica Boulevard & Wilshire Blvd and Santa Monica Boulevard & Avenue of the Stars. Buses operate along Santa Monica Boulevard every 10 to 30 minutes on weekdays and weekends.

Metro Rapid Line 720. Line 720 provides an express service between East Los Angeles and the City of Santa Monica with principal service along Wilshire Boulevard as part of Metro's Rapid network. The line travels along Wilshire Boulevard connecting the communities of Beverly Hills, Boyle Heights, Brentwood, Commerce, downtown Los Angeles, East Los Angeles, Hancock Park, Koreatown, Park La Brea, Santa Monica and Westwood. Line 720 is an express service bus route with one stop located within the study area at Wilshire Boulevard & Beverly Drive. Buses operate along Wilshire Boulevard every two to 10 minutes during peak hours on weekdays. On weekends headways are every 4 to 10 minutes.

c. Existing Bicycle Master Plan and Bicycle Facilities. Bicycle facilities generally consist of three types of facilities: Class I are multi-use or shared use paths; Class II are bike lanes; and Class III are bike routes or signed shared roadways. Within the study area, there is a limited amount of bicycle facilities. Class II bicycle lanes are provided along Santa Monica Boulevard between Sepulveda Boulevard and the study intersection of Avenue of the Stars.

d. Existing Pedestrian Facilities. A majority of the roadways within the study area have sidewalks and crosswalks. There are sidewalks along the roadways that border the site including Santa Monica Boulevard, Wilshire Boulevard, and Merv Griffin Way. Whittier Drive north of the Project site also has sidewalks. There are also cross walks and pedestrian "walk/don't walk" indicators at most of the signalized intersections. A portion of Santa Monica Boulevard south of the site lacks sidewalks. Study intersections with cross walks on at least one approach include:

- *Santa Monica Boulevard North/Beverly Drive*
- *Santa Monica Boulevard North/Wilshire Boulevard*
- *Santa Monica Boulevard South/Beverly Drive*
- *Santa Monica Boulevard South/Wilshire Boulevard*
- *Santa Monica Boulevard North/Merv Griffin Way*
- *Wilshire Boulevard/Beverly Drive*
- *Santa Monica Boulevard/Century Park East*
- *Sunset Boulevard/Whittier Drive*
- *Wilshire Boulevard/Whittier Drive/Merv Griffin Way*
- *Santa Monica Boulevard/Avenue of the Stars*

e. Existing Intersection Volumes and Lane Configurations. Manual peak hour intersection counts on Thursday September 24, 2015 and Saturday September 26, 2015. Intersection counts were taken at all study intersections at the following times:

- *Weekday morning peak hour (7:00 AM to 9:00 AM)*
- *Weekday mid-day peak hour (11:00 AM to 2:00 PM)*
- *Weekday evening peak hour (4:00 PM to 6:00 PM)*
- *Saturday mid-day peak hour (11:00 AM to 2:00 PM)*

Existing lane configurations and signal controls were obtained through field observations. Figures 4.5-2 and 4.5-3 present the existing (2015) plus Approved Project peak periods turning movement volumes, corresponding lane configurations, and traffic control devices. Raw traffic count data sheets are provided in Appendix A of the Traffic Impact Study in Appendix D of this SEIR.

Roadway segment counts were taken on Whittier Drive and Elevado Avenue on September 29 and 30, 2015. Counts were taken over a two-day period through automatic tube counters. Results are summarized in Table 4.5-1.

Traffic Volumes & Lane Configurations Existing (2015) plus Approved 9900 Wilshire Boulevard Project - AM & PM Peak Hours

Figure 4.5-2

Source: Fehr & Peers, 2016

Traffic Volumes & Lane Configurations Existing (2015) plus Approved
9900 Wilshire Boulevard Project - Mid-Day & Weekend Peak Hours

Figure 4.5-3

Source: Fehr & Peers, 2016

Table 4.5-1
Daily Traffic Volumes on Residential Streets

Roadway Segments	September 2015 Average Daily Traffic
Whittier Drive (between Wilshire Blvd & Elevado Ave)	14,055
Whittier Drive (between Elevado Ave & Lomitas Ave)	10,260
Elevado Avenue (between Whittier Dr & Beverly Dr)	4,570

Source: Fehr & Peers, April 2016. (see Appendix D for the full Traffic Impact Study)

f. Existing Intersection Levels of Service. The operation of roadway facilities are described by the level of service (LOS), which is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the least congested operating conditions, to LOS F, with the most congested operating conditions. LOS E represents "at-capacity" operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions (see "Methodology and Significance Thresholds" for further explanation).

Existing peak hour volumes and lane configurations were used to calculate the LOS for each of the study intersections. The results of the existing LOS analysis are presented in Table 4.5-2 and the corresponding LOS calculation sheets are included in Appendix B of the Traffic Impact Study in Appendix D of this SEIR. The following intersections currently operate at LOS E or F during one or more of the peak periods:

- *Santa Monica Boulevard North & Beverly Drive*
- *Santa Monica Boulevard North & Wilshire Boulevard*
- *Santa Monica Boulevard South & Wilshire Boulevard*
- *Santa Monica Boulevard North & Merv Griffin Way*
- *Beverly Drive & Wilshire Boulevard*
- *Whittier Drive/Merv Griffin Way & Wilshire Boulevard*
- *Santa Monica Boulevard & Crossover*
- *Whittier Drive & Sunset Boulevard*

Table 4.5-2
Existing (2015) Intersection Level of Service

Intersection	Control	Peak Hour	Existing (2015)	
			V/C or Delay	LOS[1, 2]
1. Santa Monica Blvd North & Beverly Dr.	Signal	AM	0.908	**E**
		MD	0.920	**E**
		PM	0.923	**E**
		WKND	0.897	D
2. Santa Monica Blvd North & Wilshire Blvd	Signal	AM	1.139	**F**
		MD	0.994	**E**
		PM	1.059	**F**
		WKND	0.946	**E**
3. Santa Monica Blvd South & Beverly Dr.	Signal	AM	0.854	D
		MD	0.784	C
		PM	0.885	D
		WKND	0.673	B
4. Santa Monica Blvd South & Wilshire Blvd	Signal	AM	0.944	**E**
		MD	0.809	D
		PM	0.895	D
		WKND	0.688	B
5. Santa Monica Blvd North & Merv Griffin Way[3, 4]	SSSC	AM	> 50	**F**
		MD	> 50	**F**
		PM	> 50	**F**
		WKND	> 50	**F**
6. Beverly Drive & Wilshire Blvd	Signal	AM	0.896	D
		MD	0.805	D
		PM	0.968	**E**
		WKND	0.751	C
7. Whittier Drive/Merv Griffin Way & Wilshire Blvd	Signal	AM	1.179	**F**
		MD	0.900	D
		PM	1.290	**F**
		WKND	0.879	D
8. Santa Monica Blvd & Crossover	Signal	AM	0.925	**E**
		MD	0.682	B
		PM	0.762	C
		WKND	0.598	A

Table 4.5-2
Existing (2015) Intersection Level of Service

Intersection	Control	Peak Hour	Existing (2015)	
			V/C or Delay	LOS[1, 2]
9. Santa Monica Blvd & Century Park East	Signal	AM	0.781	C
		MD	0.388	A
		PM	0.554	A
		WKND	0.312	A
10. Whittier Dr. & Sunset Blvd	Signal	AM	0.946	**E**
		MD	0.794	C
		PM	1.041	**F**
		WKND	0.712	C
11. Santa Monica Blvd & Avenue of the Stars	Signal	AM	0.532	A
		MD	0.390	A
		PM	0.575	A
		WKND	0.344	A

Source: Fehr & Peers, April 2016. (see Appendix D for the full Traffic Impact Study)
>50 Indicates oversaturated conditions at LOS F for SSSC intersections.
SSSC indicates Side street stop-controlled intersection
[1] LOS calculations for Beverly Hills signalized intersections were performed using the ICU methodology and LOS for Los Angeles signalized intersections were performed using the CMA methodology.
[2] Unacceptable seconds of delay per vehicle or volume-to-capacity (V/C) ratios and LOS highlighted in bold
[3] LOS calculations performed using the 2000 Highway Capacity Manual (HCM) method.
[4] The vehicular delay for the worst movement is reported for side street stop-controlled intersections.

g. Regulatory Setting

Beverly Hills General Plan. The City's Circulation Element has two overarching objectives. First, the neighborhoods of Beverly Hills should be preserved and enhanced, including limiting negative effects caused by vehicles. Secondly, vehicles should move into, out of, or through Beverly Hills as expeditiously as possible (City of Beverly Hills, 2010). The following goals and policies apply to the Proposed Project:

> ***Goal CIR 2 Transit.*** *Development of a safe, comprehensive, and integrated transit system that serves as an essential component of a multi-modal mobility system within the City.*
>
> > ***Policy CIR 2.1a Linking Transit and Development.*** *Encourage appropriate development that may include parking for local transit riders, local-serving retail, high-end retail, restaurant and supporting uses in and around transit stops and stations.*
>
> ***Goal CIR 3 - Neighborhood Traffic Management****. An improved community character and quality of life in City neighborhoods through the implementation of traffic management techniques.*

> ***Policy CIR 3.1 - Neighborhood Traffic Control Measures****. Incorporate traffic control measures in residential neighborhoods as part of proposed roadway improvement or development projects to mitigate traffic impacts to residents and reduce the negative impacts of motor vehicle traffic on quality of life. Require development projects to mitigate traffic impacts to residents and reduce the negative impacts of motor vehicle traffic on residential roadways.*

Goal CIR 6 - Transportation Demand Management (TDM). *A reduction in single-occupant motor vehicle travel in the City through Transportation Demand Management (TDM) that ensures efficiency of the existing transportation network and promotes the movement of people instead of personal automobiles.*

> ***Policy CIR 6.7 - Multi-Modal Design.*** *Require proposed development projects to implement site designs and on-site amenities that support alternative modes of transportation, and consider TDM programs with achievable trip reduction goals as partial mitigation for project traffic impacts.*

Congestion Management Program (CMP). In Los Angeles County, ICU intersection analysis methodology is used to analyze CMP operations. In June 1990, the passage of the Proposition 111 gas tax increase required urbanized areas in the State with a population of 50,000 or more to adopt a CMP. Metro is the Congestion Management Agency (CMA) for the County. Metro has been charged with the development, monitoring, and biennial updating of Los Angeles County's CMP, which is intended to address the impact of local growth on the regional transportation system. The CMP Highway System includes specific roadways, including State highways, and CMP arterial monitoring locations/intersections. The CMP is also the vehicle for proposing transportation projects that are eligible to compete for the State gas tax funds.

New projects within Beverly Hills must comply with the Los Angeles County CMP. Appendix D of the CMP includes Transportation Impact Assessment (TIA) guidelines. The TIA guidelines require analysis at monitored street intersections and segments, including freeway on-or off-ramp intersections where a project is expected to add 50 or more peak-hour vehicle trips. If a project does not add, but merely shifts, trips at a given monitoring location, the CMP analysis is not required. An evaluation of transit impacts is required by the CMP for all projects for which an EIR will otherwise be prepared.

4.5.2 Impact Analysis

a. Methodology and Significance Thresholds. The analysis of transportation system impacts employs a variety of methodologies, based on empirical research conducted by the Transportation Research Board and other authorities.

The methodologies for signalized and unsignalized intersections are described in the subsections below.

Intersection Capacity Utilization (ICU). According to *Beverly Hills Traffic Thresholds of Significance* (Beverly Hills, 2010), this study is required to use the Intersection Capacity Utilization (ICU) method of intersection capacity calculation to analyze signalized intersections within Beverly Hills. The ICU methodology is a planning-level analysis tool that provides

intersection LOS and volume-to-capacity (V/C) ratios. Table 4.5-3 describes the relationship between the various ratios and the LOS for signalized intersections.

Table 4.5-3
Level of Service Definitions for Signalized Intersections

Level of Service	Description	V/C Ratio
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	0.000-0.600
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	0.601-0.700
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	0.701-0.800
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	0.801-0.900
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	0.901-1.000
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 1.000

Source: Fehr & Peers, April 2016. (see Appendix D for full Traffic Impact Study)

Per City of Beverly Hills requirements, the ICU methodology was used to determine the V/C ratio and corresponding LOS for eight signalized study intersections in the City. A peak hour factor was applied to both the existing and future year analysis scenarios to account for fluctuations in traffic flows throughout the peak travel hours. The application of a peak hour factor of 0.85 under existing conditions and 0.90 under cumulative conditions was found to produce LOS results that more closely matched current travel conditions in the study area. Without the peak hour factor, LOS results would be better than those observed in the study area and would not reflect the actual peak hour congestion experienced by drivers.

Highway Capacity Manual (HCM). Pursuant to the City of Beverly Hills' guidelines, the Santa Monica Boulevard North & Merv Griffin Way intersection was analyzed using the most current edition of the Highway Capacity Manual (HCM) since it is unsignalized. Specifically, the operation of the unsignalized intersection was evaluated using the method provided for Two-Way Stop-Controlled Intersections in the HCM 2010. LOS ratings for stop-sign-controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side-street-controlled (SSSC) intersections, the average control delay is calculated for each minor-street stopped movement and the major-street left turns, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. For approaches with multiple lanes, the control delay is computed for each movement and the movement with the worst (i.e., longest) delay is used to determine the LOS. As shown in the Table 4.5-4, LOS F is assigned to the movement if the V/C ratio for the movement exceeds 1.0 regardless of control delay. The average control delay for

unsignalized intersections is calculated using Synchro 8.0 analysis software and is correlated to a LOS designation as shown in Table 4.5-4.

Table 4.5-4
Unsignalized Intersection Level of Service Definitions

Level of Service (v/c ≤ 1.0)	Level of Service (v/c > 1.0)[1]	Description	V/C Ratio
A	F	Little or no delay	≤ 10.0
B	F	Short traffic delay	> 10.0 to 15.0
C	F	Average traffic delays	> 15.0 to 25.0
D	F	Long traffic delays	> 25.0 to 35.0
E	F	Very long traffic delays	> 35.0 to 50.0
F	F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Source: Fehr & Peers, April 2016. (see Appendix D for full Traffic Impact Study)
Note: For approach-based and intersection-wide assessments, such as that used for all-way stop controlled intersections, LOS is defined solely by control delay.

Critical Movement Analysis. Since the intersections of Santa Monica Boulevard & Avenue of the Stars and Santa Monica Boulevard & Century Park East are located within the City of Los Angeles, they were analyzed using the Critical Movement Analysis (CMA) method per the Traffic Study Policies and Procedures (Los Angeles Department of Transportation, May 2012). Additionally, signalized intersections are currently controlled with the City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system, a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC operations to manage signal timing to improve traffic flow conditions, as well as the Adaptive Traffic Control System (ATCS), which is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. The Los Angeles intersections are currently operational with both ATSAC and ATCS capability. In accordance with City of Los Angeles procedures, a credit of 0.10 V/C reduction was applied at these locations where both ATSAC (0.07 base credit) and ATCS (an extra of 0.03 credit) are implemented.

Analysis Scenarios. Operation of the study locations was evaluated during the weekday morning (AM), midday (MD) and evening (PM) peak hours and the weekend Saturday midday (Sat MD) peak for the following scenarios:

- ***Existing (2015) Conditions*** *– The analysis of existing traffic conditions was based on 2015 counts collected for the analyzed peak hours. The existing conditions analysis also includes a description of key area roadways and an assessment of bicycle, pedestrian, and transit facilities and services near the site.*
- ***Existing (2015) Baseline Conditions*** *– This scenario accounts for the trip generation of the previously approved 9900 Wilshire Boulevard Project (Approved Project) as a baseline for assessing traffic impacts of the proposed land use changes under the Proposed Project.*
- ***Existing (2015) plus Project Conditions*** *– This traffic scenario provides an assessment of operating conditions under existing conditions with the addition of Project-generated traffic. The*

existing plus Project conditions analysis accounts for both the land use and site access changes of the Proposed Project in comparison to the Approved Project. The impacts of the Proposed Project on existing baseline traffic operating conditions were then identified.

- ***Cumulative (2020) Baseline Conditions*** *– Future traffic projections with the Approved Project and without the Proposed Project were developed for the year 2020. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the Project site by the anticipated Project opening year.*
- ***Cumulative (2020) plus Project Conditions*** *– This traffic scenario provides projected traffic volumes and an analysis of operating conditions for the year 2020 and accounts for both the land use and site access changes proposed under One Beverly Hills in comparison to 9900 Wilshire Boulevard. The impacts of the Proposed Project on future traffic operating conditions were then identified.*

Significance Thresholds. Impacts related to transportation and circulation would be potentially significant if development facilitated by the Proposed Project would:

1. *Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.*
2. *Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.*
3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.*
4. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).*
5. *Result in inadequate emergency access.*
6. *Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities.*
7. *Result in insufficient on-site parking for vehicles.*
8. *Create a temporary, but prolonged impact due to lane closure, need for temporary signals, emergency vehicle access, traffic hazards to bicycles and/or pedestrians, damage to the roadbed, truck traffic on roadways not designated as truck routes, and other similar impediments to circulation during the construction period.*

With the exception of the Santa Monica Boulevard & Avenue of the Stars and Santa Monica Boulevard & Century Park East intersections in the City of Los Angeles, all study intersections are within Beverly Hills. City of Los Angeles significance criteria were used to assess the potential for significant impacts at Santa Monica Boulevard & Avenue of the Stars and Santa Monica Boulevard & Century Park East. Significance criteria established by the City of Beverly Hills and the City of Los Angeles to assess the potential for significant Project impacts at the intersections are described below.

According the City of Beverly Hills, impacts to intersections are considered significant if:

- *The addition of Project traffic increases the V/C ratio 0.03 or greater at signalized intersections operating at LOS D*
- *The addition of Project traffic increases the V/C ratio by 0.02 or greater at signalized intersections operating at LOS E or F*
- *The addition of Project traffic increases the total delay by 4.0 seconds or greater at unsignalized intersections operating at LOS D*
- *The addition of Project traffic increases the total delay by 3.0 seconds or greater at unsignalized intersections operating at LOS E or F*

According the City of Los Angeles, impacts to intersections are considered significant if:

- *The addition of Project traffic increases the V/C ratio 0.04 or greater at signalized intersections operating at LOS C*
- *The addition of Project traffic increases the V/C ratio 0.02 or greater at signalized intersections operating at LOS D*
- *The addition of Project traffic increases the V/C ratio 0.01 or greater at signalized intersections operating at LOS E or F*

Impacts to residential streets in Beverly Hills would be significant if:

- *Project traffic is 16% or more of final ADT, 16% or more of peak hour, or both where the projected final ADT is 0-2,000.*
- *Project traffic is 12% or more of final ADT, 12% or more of peak hour, or both where the projected final ADT is 2,001-4,000.*
- *Project traffic is 8% or more of final ADT, 8% or more of peak hour, or both where the projected final ADT is 4,001-6,750.*
- *Project traffic is 6.25% or more of final ADT, 6.25% or more of peak hour, or both where the projected final ADT is 6,751 or more.*

Impacts to a CMP facility would be significant if:

- *The addition of Project traffic increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02), causing LOS F (V/C > 1.00);*
- *The addition of Project traffic increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02), if the facility is already at LOS F.*

The Initial Study for the Proposed Project (Appendix A) determined that the Project would have less than significant impacts with respect to the following issues; therefore, thresholds related to these topics are not discussed further in this SEIR:

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*
7. *Would the project result in insufficient on-site parking for vehicles?*

b. Project Impacts and Mitigation Measures.

CEQA Thresholds	*Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit* *Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways*
City of Beverly Hills Quantitative Thresholds	*The addition of project traffic increases the V/C ratio 0.03 or greater at signalized intersections operating at LOS D* *The addition of project traffic increases the V/C ratio by 0.02 or greater at signalized intersections operating at LOS E or F* *The addition of project traffic increases the total delay by 4.0 seconds or greater at unsignalized intersections operating at LOS D* *The addition of project traffic increases the total delay by 3.0 seconds or greater at unsignalized intersections operating at LOS E or F*
City of Los Angeles Quantitative Thresholds	*The addition of project traffic increases the V/C ratio 0.04 or greater at signalized intersections operating at LOS C* *The addition of project traffic increases the V/C ratio 0.02 or greater at signalized intersections operating at LOS D* *The addition of project traffic increases the V/C ratio 0.01 or greater at signalized intersections operating at LOS E or F*
CMP Quantitative Thresholds	*The addition of Project traffic increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02), causing LOS F (V/C > 1.00)* • *The addition of Project traffic increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02), if the facility is already at LOS F*

Impact T-1 Implementation of the Proposed Project would generate traffic at study area intersections; however, Project-generated traffic would not cause any intersection to exceed City standards under existing baseline plus Project traffic conditions or otherwise create significant impacts to roadway operations beyond those associated with the Approved Project. Impacts associated with the Proposed Project would be *less than significant*.

Table 4.5-5 compares the trip generation of the Proposed Project to that of the Approved Project. A detailed explanation of how the trip estimates for the Approved Project and Proposed Project were calculated can be found in the Traffic Impact Study in Appendix D. As illustrated in Table 4.5-5, in comparison to the Approved Project, the Proposed Project would generate an estimated 238 more daily vehicle trips, including 14 more p.m. peak hour trips. On the other hand, the Proposed Project would generate 20 fewer a.m. peak hour trips, 39 fewer midday peak hour trips, and 60 fewer Saturday peak hour trips.

The distribution of Project trips was estimated based on the trip distribution applied in the original traffic impact study and the trip distribution applied to the Beverly Hilton study. Since the Beverly Hilton trip distribution assumptions accounted for new hotel uses, both of the past studies were utilized to estimate the trip distribution. The Project trip distribution is shown in Figure 5 of the Traffic Impact Study (see Appendix D). Although the overall distribution of trips is similar to the original traffic impact study, the site access and circulation for the Proposed Project has been updated and therefore the Project trip distribution at the driveways are subject to change and reflect designated access points for specific uses. Below are key trip distribution assumptions:

- *The Project is composed of a mixture of uses (hotel, condominiums, and restaurant) and it is expected that residents would travel to and from a wide variety of locations for various purposes. Potential trip purposes could include work, shopping, and recreation.*

- *A majority of the trips traveling to and from the Project site would be associated with major regional destinations. To the west, drivers can access I-405 which provides connectivity to destinations throughout the Westside. To the east, drivers could travel into Beverly Hills or further into the Mid-City area or Downtown Los Angeles.*

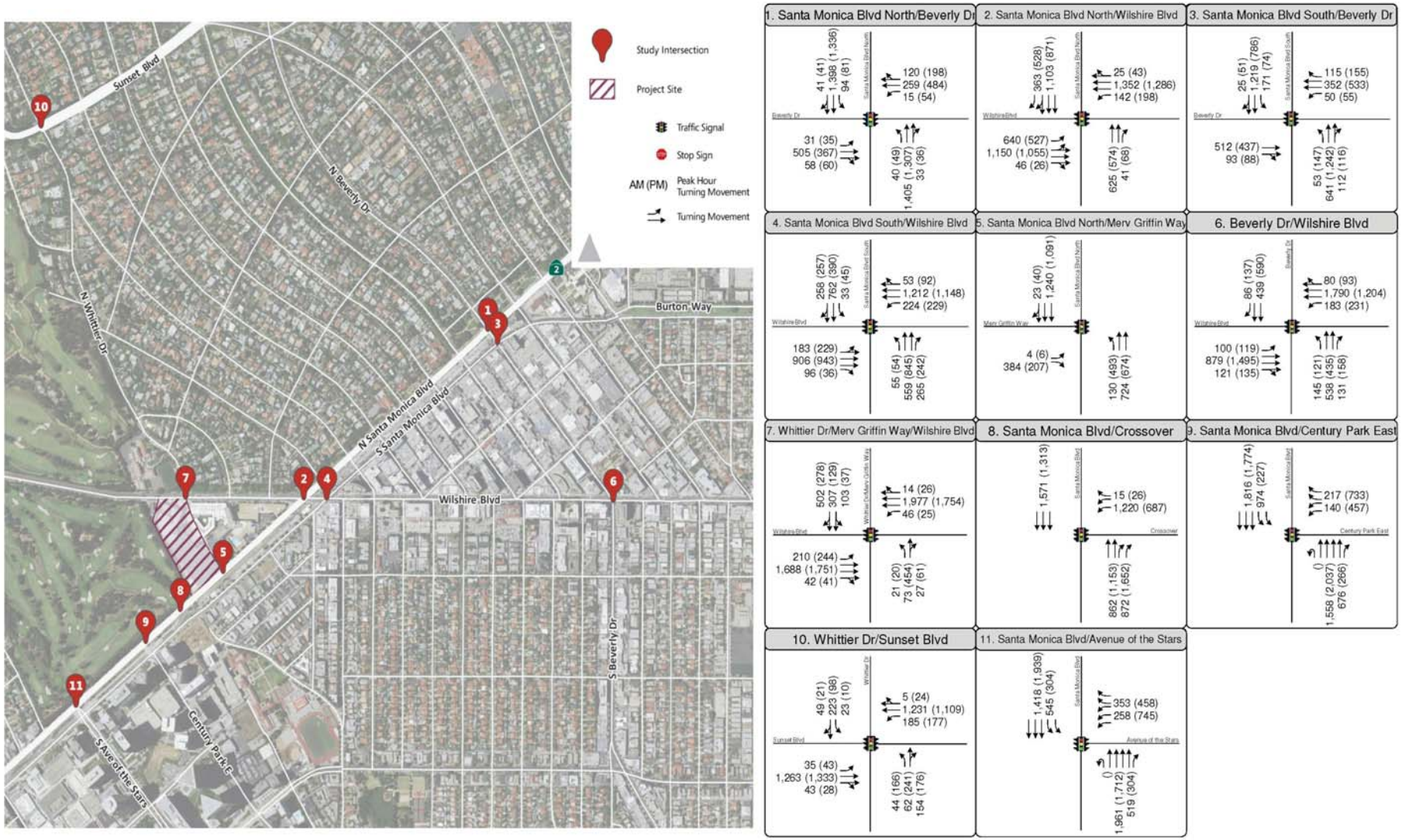
- *Some vehicles would travel to the north and south, although not as many as would travel to the east and west. Many of the vehicles traveling to the north or south would first travel to the west to access I-405 instead of traveling directly to the south along roadways like Beverly Drive or north to access Sunset Boulevard.*

Figures 6A and 6B of the Traffic Impact Study (Appendix D) provide the Project trips from the proposed One Beverly Hills. Figures 7A and 7B of the Traffic Impact Study provide the difference in trips between the Approved Project and the Proposed Project (Proposed Project minus Approved Project). Figures 4.5-4 and 4.5-5 present the existing (2015) plus Proposed Project peak periods turning movement volumes, corresponding lane configurations, and traffic control devices. Raw traffic count data sheets are provided in Appendix A of the Traffic Impact Study in Appendix D of this SEIR.

Table 4.5-5
Trip Generation Comparison

Land Use	Approved Project Trip Generation	Proposed Project Trip Generation	Change from Approved Project
Daily Trips			
Condominiums	834	685	- 149
Hotel	--	1,039	+ 1,039
Restaurant/Lounge/Bar	610	424	- 186
Retail	501	--	- 501
Spa	--	35	+ 35
Total Daily Trips	**1,945**	**2,183**	**+ 238**
AM Peak Hour Trips			
Condominiums	65	53	- 12
Hotel	--	55	+ 55
Restaurant/Lounge/Bar	56	2	- 54
Retail	12	--	- 12
Spa	--	3	+ 3
Total AM Peak Hour Trips	**133**	**113**	**- 20**
PM Peak Hour Trips			
Condominiums	78	64	- 14
Hotel	--	76	+ 76
Restaurant/Lounge/Bar	52	44	- 8
Retail	44	--	- 44
Spa	--	4	+ 4
Total PM Peak Hour Trips	**174**	**188**	**+ 14**
Midday Peak Hour Trips			
Condominiums	78	64	- 14
Hotel	--	65	+ 65
Restaurant/Lounge/Bar	78	24	- 54
Retail	40	--	- 40
Spa	--	4	+ 4
Total Mid-Day Peak Hour Trips	**196**	**157**	**- 39**
Saturday Peak Hour			
Condominiums	69	56	- 13
Hotel	--	35	+ 35
Restaurant/Lounge/Bar	48	20	- 28
Retail	58	--	- 58
Spa	--	4	+ 4
Total Saturday Peak Hour Trips	**175**	**115**	**- 60**

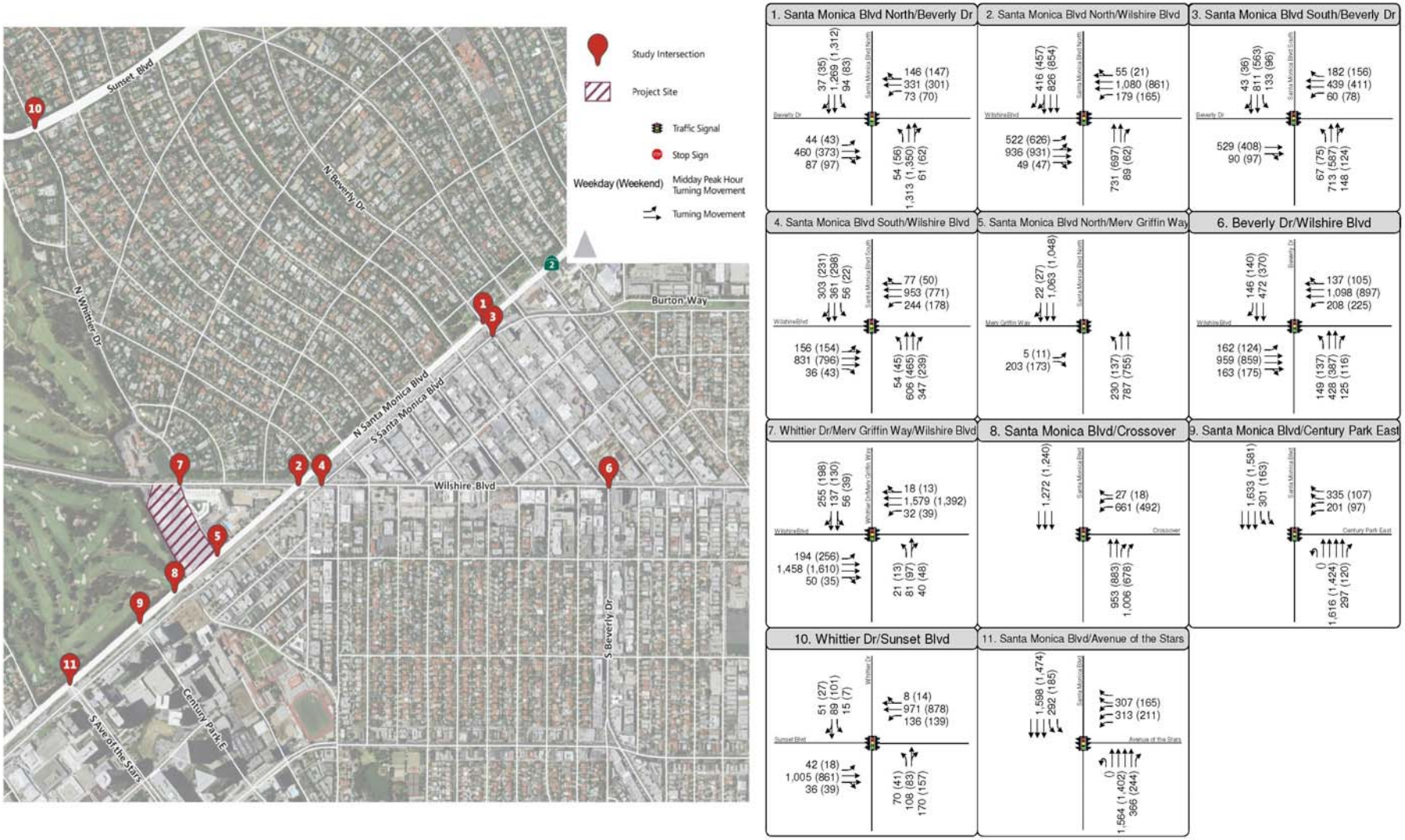
Source: Fehr & Peers, April 2016. (see Appendix D)



Traffic Volumes & Lane Configurations Existing (2015) plus Proposed One Beverly Hills Project - AM & PM Peak Hours

Figure 4.5-4

Source: Fehr & Peers, 2016



Traffic Volumes & Lane Configurations Existing (2015) plus Proposed One Beverly Hills Project - Mid-Day & Weekend Peak Hours

Figure 4.5-5

Source: Fehr & Peers, 2016

Table 4.5-6 compares V/C ratios and LOS at the study area intersections under Existing + Approved Project and Existing + Proposed Project Conditions. When comparing LOS with the Approved Project and the Proposed Project, a majority of the intersections experience a decrease in V/C with the Proposed Project. In instances where the V/C ratio increases with the Proposed Project, the increase would not exceed City of Beverly Hills or City of Los Angeles significance thresholds. Therefore, Project impacts to local intersections would be less than significant.

Table 4.5-6
Existing Baseline Plus Project Intersection Level of Service

Intersection	Control	Peak Hour	Existing + Approved Project		Existing + Proposed Project		V/C Change	Significant Impact?
			V/C	LOS[1,2]	V/C	LOS[1,2]		
1. Santa Monica Blvd North & Beverly Dr.	Signal	AM	0.926	**E**	0.916	**E**	-0.010	No
		MD	0.945	**E**	0.929	**E**	-0.016	No
		PM	0.934	**E**	0.930	**E**	-0.004	No
		WKND	0.921	**E**	0.904	**E**	-0.017	No
2. Santa Monica Blvd North & Wilshire Blvd	Signal	AM	0.957	**E**	0.943	**E**	-0.014	No
		MD	0.851	D	0.839	D	-0.012	No
		PM	0.894	D	0.877	D	-0.017	No
		WKND	0.816	D	0.803	D	-0.013	No
3. Santa Monica Blvd South & Beverly Dr.	Signal	AM	0.858	D	0.856	D	-0.002	No
		MD	0.792	C	0.786	C	-0.006	No
		PM	0.891	D	0.887	D	-0.004	No
		WKND	0.681	B	0.675	B	-0.006	No
4. Santa Monica Blvd South & Wilshire Blvd	Signal	AM	0.955	**E**	0.947	**E**	-0.008	No
		MD	0.817	D	0.818	D	0.001	No
		PM	0.904	**E**	0.899	D	-0.005	No
		WKND	0.702	C	0.691	B	-0.011	No
5. Santa Monica Blvd North & Merv Griffin Way[3,4]	Signal	AM	0.809	D	0.794	C	-0.015	No
		MD	0.768	C	0.736	C	-0.032	No
		PM	0.963	**E**	0.942	**E**	-0.021	No
		WKND	0.685	B	0.654	B	-0.031	No
6. Beverly Drive & Wilshire Blvd	Signal	AM	0.904	**E**	0.900	D	-0.004	No
		MD	0.820	D	0.811	D	-0.009	No
		PM	0.982	**E**	0.975	**E**	-0.007	No
		WKND	0.765	C	0.756	C	-0.009	No
7. Whittier Drive/Merv Griffin Way & Wilshire Blvd	Signal	AM	1.167	**F**	1.165	**F**	-0.002	No
		MD	0.884	D	0.881	D	-0.003	No
		PM	1.253	**F**	1.254	**F**	0.001	No
		WKND	0.852	D	0.850	D	-0.002	No

Table 4.5-6
Existing Baseline Plus Project Intersection Level of Service

Intersection	Control	Peak Hour	Existing + Approved Project		Existing + Proposed Project		V/C Change	Significant Impact?
			V/C	LOS[1,2]	V/C	LOS[1,2]		
8. Santa Monica Blvd & Crossover	Signal	AM	0.936	**E**	0.934	**E**	-0.002	No
		MD	0.699	B	0.693	B	-0.006	No
		PM	0.778	C	0.776	C	-0.002	No
		WKND	0.612	B	0.606	B	-0.006	No
9. Santa Monica Blvd & Century Park East	Signal	AM	0.781	C	0.781	C	0	No
		MD	0.392	A	0.395	A	0.003	No
		PM	0.557	A	0.563	A	0.006	No
		WKND	0.319	A	0.322	A	0.003	No
10. Whittier Dr. & Sunset Blvd	Signal	AM	0.951	**E**	0.949	**E**	-0.002	No
		MD	0.806	D	0.798	C	-0.008	No
		PM	1.052	**F**	1.044	**F**	-0.008	No
		WKND	0.722	C	0.715	C	-0.007	No
11. Santa Monica Blvd & Avenue of the Stars	Signal	AM	0.534	A	0.540	A	0.006	No
		MD	0.397	A	0.400	A	0.003	No
		PM	0.580	A	0.584	A	0.004	No
		WKND	0.350	A	0.351	A	0.001	No

Source: Fehr & Peers, April 2016. (see Appendix D for full Traffic Impact Study)
>50 Indicates oversaturated conditions at LOS F for SSSC intersections.
SSSC indicates Side street stop-controlled intersection
[1] LOS calculations for Beverly Hills signalized intersections were performed using the ICU methodology and LOS for Los Angeles signalized intersections were performed using the CMA methodology.
[2] Unacceptable seconds of delay per vehicle or volume-to-capacity (V/C) ratios and LOS highlighted in bold.
[3] LOS calculations performed using the 2000 Highway Capacity Manual (HCM) method.
[4] The vehicular delay for the worst movement is reported for side street stop-controlled intersections.

One CMP intersection is located within the Project study area: the Wilshire Boulevard & Santa Monica Boulevard North intersection. Several roadway improvements were previously identified in the Beverly Hilton Revitalization Project and the Approved Project. These improvements would include the reconstruction of the Wilshire Boulevard eastbound approach to the Santa Monica Boulevard North and Wilshire Boulevard intersection to provide two left-turn lanes, three through lanes, and one right-turn lane. As shown in Table 4.5-6, the Proposed Project would cause the V/C ratio at this intersection to improve as a result of proposed improvements that would be implemented in conjunction with the Proposed Project. Therefore, there would be no impacts at the CMP analysis location.

Mitigation Measures. Mitigation would not be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

CEQA Threshold	*Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit*
City of Beverly Hills Quantitative Thresholds	*Project traffic is 16% or more of final ADT, 16% or more of peak hour, or both where the projected final ADT is 0-2,000.* *Project traffic is 12% or more of final ADT, 12% or more of peak hour, or both where the projected final ADT is 2,001-4,000.* *Project traffic is 8% or more of final ADT, 8% or more of peak hour, or both where the projected final ADT is 4,001-6,750.* *Project traffic is 6.25% or more of final ADT, 6.25% or more of peak hour, or both where the projected final ADT is 6,751 or more.*

Impact T-2 Implementation of the Proposed Project would increase traffic on residential streets north of the Project site; however, Proposed Project-generated traffic would not cause any intersection to exceed City thresholds under existing baseline plus Proposed Project traffic conditions. Impacts to residential streets would, therefore, be *less than significant*.

Fehr & Peers evaluated the impact of the project on several nearby residential streets. To determine whether the addition of project-generated trips to a residential street segment results in a significant impact and thus requires mitigation, the City of Beverly Hills has established thresholds of significance for residential roadway segments as discussed in "Methodology and Significance Thresholds" and listed above.

Potentially affected residential road segments were analyzed based on comparison of existing conditions with the Approved Project to existing conditions with the Proposed Project. The results of the residential street analysis are presented in Table 4.5-7. As shown, the worst-case scenario would result in a 0.5% increase in the ADT during the p.m. peak hour on Whittier Drive between Elevado Avenue and Lomitas Avenue. This increase would not result in a significant impact under the City's thresholds. Therefore, the Proposed Project would not result in significant impacts to any of the studied residential roadway segments based on the City's threshold of significance.

Table 4.5-7
Residential Street Impacts – Baseline & Baseline Plus Project

Roadway Segment	Time of Day	Baseline	Baseline + Proposed Project	Change	Percent Change	Significant Impact?
Whittier Drive between Wilshire Boulevard & Elevado Avenue	ADT	14,054	14,073	19	0.1%	No
	AM	1,186	1,180	-6	-0.5%	No
	MD	776	766	-10	-1.3%	No
	PM	1,195	1,200	5	0.4%	No
	WKND	771	761	-10	-1.3%	No
Whittier Drive between Elevado Avenue & Lomitas Avenue	ADT	10,261	10,275	14	0.1%	No
	AM	757	752	-5	-0.7%	No
	MD	577	569	-8	-1.4%	No
	PM	874	878	4	0.5%	No
	WKND	461	453	-8	-1.7%	No
Elevado Avenue between Whittier Drive & Beverly Drive	ADT	4,573	4,578	5	0.1%	No
	AM	457	455	-2	-0.4%	No
	MD	222	219	-3	-1.4%	No
	PM	485	486	1	0.2%	No
	WKND	253	250	-3	-1.2%	No

Source: Fehr & Peers, April 2016. (see Appendix D)
ADT = Average Daily Traffic

Mitigation Measures. Mitigation would not be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Threshold	*Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Impact T-3 The Project driveways would provide adequate site access and would not create hazardous traffic conditions. Therefore, impacts associated with the Proposed Project would be *less than significant*.

Access to the Project site could result in hazardous conditions if Project driveways operate at LOS that would prevent motorists from entering and exiting the Project site safely. While the turning movements at each of the Project site driveways would remain the same as described in the traffic impact study that was prepared for the 2008 FEIR, the use for driveways under the Proposed Project has been updated as follows:

Residential Access - Residential access would be served by two Project driveways along the western boundary of the Project site: the north (Wilshire Boulevard) and south (N. Santa Monica Boulevard) driveways. Similar to the original traffic impact study, the north driveway allows for right-in, right-out access only and the south driveway allows for right-

in, left-in, & right-out access. Both of these Project driveways are exclusive to residents, visitors to the residential uses, residential valet, authorized staff, and occasional move-in/move-out trips.

Hotel Staff & Delivery Access - Along Merv Griffin Way, an all-access driveway that was initially intended to serve restaurant, retail and loading dock access in the original traffic impact study would now allow access for hotel staff parking, loading, deliveries, trash collection, and mail and courier for both the condominiums and hotel of the One Beverly Hills Project.

Hotel Visitor Access - The primary driveway serving the hotel uses is on the southern boundary of the Project site along N. Santa Monica Boulevard, and referred to as the Hotel Motor Court. The right-in, right-out only driveway was initially intended to serve restaurant, retail, and loading dock access in the original traffic impact study. With the Proposed Project, the driveway would serve hotel guests, hotel amenities visitors (e.g., restaurants, lounges, spa), taxis, shared ride vans, private cars and limos, and the hotel valet service. This driveway leads to the hotel porte-cochere, which would house two separate ramps that lead to the underground parking garage. The new signal at Merv Griffin Way & N. Santa Monica Boulevard would allow eastbound traffic to make a U-turn to access the hotel driveway.

As discussed in Section 2.0, *Project Description*, the Project applicant is considering two options for site access. To provide a thorough analysis of the flow of vehicles entering the Project site, a microsimulation model of the site access options under Existing Plus Project and Cumulative (Year 2020) Plus Project conditions was developed using the VISSIM software package (see April 6, 2016 Memorandum in Appendix D).[1] The VISSIM model was developed to simulate PM peak hour travel conditions as this reflect the period with the highest travel demand in the study area. Two performance metrics were calculated using VISSIM:

- *Vehicle delays and LOS for the turning movements at the N. Santa Monica Boulevard & Merv Griffin Way intersection affected by the access options*
- *Queuing for vehicles making a left-turn or U-turn from N. Santa Monica Boulevard and entering the project site*

All of the PM peak hour turning movement volumes are documented in the Transportation Impact Report in Appendix D.

Table 4.5-8 and Table 4.5-9 display the Existing and Cumulative delay and LOS results for each access option. Turning movements operating worse than LOS C (i.e., LOS D or E) are highlighted. The delay and LOS results indicate the following:

- *Under Existing Plus Project conditions, most of the turning movements would operate at LOS C or better under both access options.*
- *Under Cumulative Plus Project conditions, the northbound left-turn/U-turn movement would operate at LOS D under Option 1.*

[1] *The two options considered in this section are options 1 and 5 in the April 6, 2016 memorandum in Appendix D. Options 2, 3 and 4 from that memorandum are discussed under "Alternatives Considered but Rejected" in Section 6, Alternatives.*

Table 4.5-8
Existing Plus Project PM Peak Hour Level of Service and Delay

Option	LOS and Delay (sec/veh)					
	NB Santa Monica Blvd Left/U-Turn		SB Santa Monica Blvd Thru/Right-Turn		EB Merv Griffin Left/Right-Turn	
1	29	C	22	C	23	C
2	29	C	23	C	27	C

Source: Fehr & Peers, April 2016. (see Appendix D)

Table 4.5-9
Cumulative Plus Project PM Peak Hour Level of Service and Delay

Option	LOS and Delay (sec/veh)					
	NB Santa Monica Blvd Left/U-Turn		SB Santa Monica Blvd Thru/Right-Turn		EB Merv Griffin Left/Right-Turn	
1	39	D	27	C	28	C
2	31	C	25	C	27	C

Source: Fehr & Peers, April 2016. (see Appendix D)

Table 4.5-10 and Table 4.5-11 display the Existing and Cumulative queuing results for each of the access options. The storage provided and vehicle queuing results indicate the following:

- *Under Option 1, 500 feet of storage would be available for vehicles making a left-turn or U-turn at Merv Griffin Way. With all Hotel and Residential vehicles needing to make a U-turn at Merv Griffin Way, the maximum queue would exceed the available storage under Cumulative Plus Project conditions (but not under Existing Plus Project conditions).*

- *Under Option 2, a total of 500 feet of storage would be available for vehicles making a left-turn directly into the Hotel Motor Court (280 feet) or making a left-turn at Merv Griffin Way (220 feet). The total storage demand was analyzed to capture the impacts of vehicles stopping within the turn pocket to make a left-turn into the Hotel Motor Court and potentially delaying vehicles making the left-turn at Merv Griffin Way. The maximum queue would be less than the available storage under both Existing and Cumulative Plus Project conditions.*

Table 4.5-10
Existing Plus Project PM Peak Hour
Inbound Left/U-Turn Storage Demand

Option	Total Storage Demand (ft)[1]		Total Available Storage
	Avg.	Max.	
1	70	415	500
2	70	425	500

Source: Fehr & Peers, April 2016. (see Appendix D)
[1] Distance from the stop bar at Merv Griffin that a vehicle would be queued.

Table 4.5-11
Cumulative Plus Project PM Peak Hour
Inbound Left/U-Turn Storage Demand

Option	Total Storage Demand (ft)[1]		Total Available Storage
	Avg.	Max.	
1	100	550	500
2	80	445	500

Source: Fehr & Peers, April 2016. (see Appendix D)
[1] Distance from the stop bar at Merv Griffin that a vehicle would be queued.

Based on the above, site access would be adequate under Option 1 or Option 2, though Option 2 would provide slightly better overall operations at the site entrance. The Proposed Project's impacts related to design-related traffic hazards would not be significant.

Mitigation Measures. Mitigation would not be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Threshold	*Result in inadequate emergency access*

Impact T-4 The Proposed Project does not include design features that would impede emergency access vehicles. Impacts associated with the Proposed Project would be *less than significant*.

The Project site has a high level of accessibility for emergency vehicles to the north on Wilshire Boulevard, to the east on Merv Griffin Way, and to the south on Santa Monica Boulevard. Both Wilshire Boulevard and Santa Monica Boulevard provide direct routes to the site for emergency vehicles. Once emergency vehicles have reached the site, they can access the on-site structures through Merv Griffin Way, the western access roadway, or Wilshire Boulevard and Santa Monica Boulevard. Smaller emergency vehicles, such as police cars and ambulances, would be able to access the parking structure as necessary.

The Proposed Project would be required to conform to traffic and safety regulations that specify adequate emergency access measures. As described in Section VIII of the Initial Study, *Hazards and Hazardous Materials*, the Project includes an expansive motor court to provide adequate access to the site. The Project site would be required to meet the standards set forth by the Beverly Hills Fire Department. As a result, the hotel motor court area would not create issues for emergency access. Additionally, the Project site would have a Knox-Box to allow emergency access. However, off-site improvements are being completed as part of the Beverly Hilton Revitalization Plan (Waldorf Astoria). These could have an impact on the Proposed Project's site design as it related to emergency access. In addition, construction of the Proposed Project has the potential to create impacts to emergency access from lane closures, placement of construction equipment, additional construction related traffic (truck trip and construction workers), as discussed in detail under Impact T-7.

Mitigation Measures. None required. Mitigation for construction-related impacts is discussed under Impact T-7.

Significance After Mitigation. Project impacts would be less than significant.

Threshold	*Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?*

Impact T-5 The Proposed Project would not involve any disruptions to the local active transportation system. Therefore, impacts in this regard would be *less than significant*.

Potential impacts to existing and planned transit service, bicycle facilities, and pedestrian facilities are discussed below.

Existing Transit Service. Existing transit service is provided along the project frontage on Wilshire Boulevard and Santa Monica Boulevard. The proposed driveways and new traffic signal would potentially impact existing transit service.

Project Driveways - Potential disruptions to existing transit service could occur with the addition of any project driveways. The proposed project would add one driveway along Wilshire Boulevard and one driveway along Santa Monica Boulevard to serve proposed residences. The hotel driveway on Santa Monica Boulevard would have separated inbound and outbound drive aisles. The hotel driveway would serve the largest volume of peak hour vehicle trips to and from the project site. However, vehicles traveling on westbound Santa Monica Boulevard would have a turn pocket to access the hotel and would not disrupt the flow of vehicles, including buses, along Santa Monica Boulevard when slowing down to access the project site.

New Traffic Signal – The proposed new traffic signal at Santa Monica Boulevard/Merv Griffin Way would potentially disrupt existing transit service. This signal was required under the Approved Project and the Beverly Hilton Revitalization project and was assumed to be in place under baseline conditions. Currently, this intersection operates under side-street stop sign control, consequently the transit vehicles on Santa Monica Boulevard are not required to stop with the current traffic control system. The new traffic signal would result in some delay at this intersection for transit vehicles, but this delay would be minimal as a majority of the signal cycle would be allocated to Santa Monica Boulevard to facilitate movement of traffic on the major street.

The proposed land use and site access changes under the Proposed Project would not result in a disruption to existing transit service. Therefore, the impact would be less than significant and no mitigation would be required. The 2008 FEIR also concluded that the Approved Project's impact to transit capacity would be less than significant and no mitigation measures were required.

Planned Transit Service. No major transit projects are planned on Wilshire Boulevard or Santa Monica Boulevard. The proposed land use and site access changes under the Proposed Project would not result in a disruption to existing transit service. Therefore, the impact would be less than significant and no mitigation would be required.

Existing and Planned Bicycle Facilities. There are no existing or planned bicycle facilities adjacent to the Project site. Therefore, impacts under the Proposed Project would be less than significant and no mitigation is required. Similarly, the 2008 FEIR noted that no existing or planned bicycle facilities were located adjacent to the Project site or along the Project frontages. The 2008 FEIR concluded that the Approved Project would have a less than significant impact and did not require mitigation.

Adopted Bicycle System Plans, Guidelines, Policies, or Standards. Since there are no existing or planned bicycle facilities along the Project frontage, there is no conflict with the adopted system, plan, or other standards. The impact under the Proposed Project would therefore be less than significant and no mitigation is required. Similarly, the 2008 FEIR noted that no existing or planned bicycle facilities were located adjacent to the Project site or along the Project frontages; therefore, it was determined that the Approved Project would have a less than significant impact and mitigation measures were not required.

Existing and Planned Pedestrian Facilities. The Project site plan would maintain the existing sidewalks along the Project frontage on Santa Monica Boulevard and Wilshire Boulevard. While the Project would add driveways along both frontages, these driveways would not result in a significant impact to pedestrians. There are no planned pedestrian facilities along the Project frontage. Therefore, the Project impact would be less than significant and no mitigation is required. Similarly, as stated in the 2008 FEIR, the Approved Project included additional driveways along both Project frontages; however, the traffic study for the Approved Project determined that the Project trips would be distributed between the two driveways and the number of vehicles utilizing the driveways would be minimal. Therefore, it was determined that the Approved Project would have a less than significant impact to pedestrians and no mitigation measures were required.

Adopted Pedestrian System Plans, Guidelines, Policies, or Standards. There are no adopted plans to add pedestrian facilities along the project frontage. The impact would therefore be less than significant and no mitigation is required. Similarly, the 2008 FEIR concluded that the Approved Project would not conflict with or create inconsistencies with adopted pedestrian system plans, guidelines, policies or standards. Therefore, it was determined that the Approved Project would have a less than significant impact and mitigation measures were not required.

Mitigation Measures. None required.

Significance After Mitigation. This impact would be less than significant without mitigation.

Threshold	*Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?*

Impact T-6 **Metro is constructing the extension of the Purple Line south of the Project site. The Proposed Project would not conflict with applicable policies associated with public transit, and would not decrease the performance or safety of the Purple Line. Impacts**

associated with the Proposed Project would be *less than significant*.

Metro is adding rail service to the Project area through the extension of the Purple Line from its current terminus at Wilshire Boulevard and Western Avenue to Wilshire at the Veterans Administration Hospital in West Los Angeles. Construction of the extension is separated into three sections. Section 2 of the Purple Line right-of-way will be constructed approximately 0.25 mile south of the Project site, and the Century City/Constellation Station will be approximately 0.5 southwest of the Project site. Pre-construction activities are currently occurring for Section 2 and will continue until 2018. Construction of Section 2 is scheduled from 2019 until 2026. (Metro, 2015) Considering the 34-month construction schedule anticipated for the proposed project, construction activities for the Metro project and the proposed Project would temporarily overlap. However, given the distance between the Project site and the temporary nature of construction activities, potential traffic conflicts would be less than significant.

Based on the City's Circulation Element, Policy CIR 2.1a encourages supporting uses in and around transit stations. The development of residences and a hotel within walking distance of the Century City/Constellation Station are supporting uses that would encourage residents and visitors to utilize public transit. Therefore, the Proposed Project would not conflict with the applicable policies and would not adversely affect the performance or safety of the Purple Line.

Mitigation Measures. Mitigation would not be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Threshold	*Create a temporary, but prolonged impact due to lane closure, need for temporary signals, emergency vehicle access, traffic hazards to bicycles and/or pedestrians, damage to the roadbed, truck traffic on roadways not designated as truck routes, and other similar impediments to circulation during the construction period.*

Impact T-7 **Construction activities for the Proposed Project would result in traffic impacts due to haul truck traffic, equipment and material deliveries, worker traffic, and worker parking. Impacts associated with the Proposed Project would be *less than significant with mitigation incorporated*.**

The following are the main construction traffic impacts associated with the Proposed Project: trucks traveling to and from the site to remove debris, fill, and other items (haul trucks); equipment and material delivery/staging; worker traffic; and worker parking. These impacts would be similar to those of the Approved Project; however, in comparison construction activities would occur over a longer period of time under the Proposed Project. The construction period under the Approved Project was estimated to be 24 months, while the construction period under the Proposed Project would be 42 months.

Haul Truck Traffic. Similar to the Approved Project, the applicant has proposed to stage haul trucks (trucks intended to carry excavated soil) off-site at a location along Sepulveda Boulevard where they would be dispatched to the site as necessary. The trucks would travel to

the site along Sepulveda and Wilshire Boulevard and exit the site using Santa Monica Boulevard. From Santa Monica Boulevard, the trucks would travel to I-405, which would allow them to travel to their final landfill destination outside of the City of Beverly Hills. The applicant has proposed to route trucks onto the major roadways surrounding the site, which are the ones most suitable for truck traffic.

Although the applicant's construction management plan provides for truck staging and designates appropriate travel routes to access the site, trucks could impact the adjacent roadway network as follows:

- *The roadways designated as the truck routes for the project are already some of the most congested in the City of Beverly Hills and the City of Los Angeles.*
- *There is no guarantee that truck traffic will not deviate from the designated routes and impact other roadways when traveling to and from the site.*
- *The number of trucks required to access the site during the excavation process could be as many as 300 trucks per day for 2 ½ months.*

These challenges were also identified in the transportation study for the Approved Project and the 2008 FEIR.

Delivery and Staging of Material and Equipment. Another source of construction traffic would derive from the transportation of materials and equipment to the site. One example would be concrete, of which substantial quantities would be required for the parking garage and the buildings on-site. Other materials could include plumbing supplies, electrical fixtures, and even items used in furnishing the condominiums and hotel rooms. These materials would have to be delivered to the site and stored on site as well. These deliveries would occur through variously sized vehicles including small delivery trucks to cement mixer trucks, and possible 18-wheel trucks.

Additionally, heavy construction equipment would have to be delivered to the site. This equipment could include cranes, bulldozers, excavators, and other large items of machinery. Most of the heavy equipment would be transported to the site on large trucks such as 18-wheelers or other similar sized vehicles, and the heavy equipment would remain on-site until it's no longer needed.

The influx of this material and equipment could create impacts on the adjacent roadway network based on the following considerations:

- *There may be intermittent periods when large numbers of material deliveries are required such as when concrete trucks will be needed for the parking garage and the buildings.*
- *Some of the materials and equipment could require the use of large trucks (18-wheelers) which can create additional congestion on the adjacent roadways.*
- *Delivery vehicles may need to park temporarily on adjacent roadways such as Wilshire Boulevard, Santa Monica Boulevard, and Merv Griffin Way as they deliver their items.*

These challenges were also identified in the transportation study for the Approved Project and the 2008 FEIR.

Worker Traffic. The number of workers on the project site would vary from 40 per day (excavation) to 500 per day (building construction and finishing). The number of vehicles associated with these workers could be estimated by applying the following process:

- *Each worker would drive to and from the site daily at least once (2 daily person trips per worker).*
- *A small percentage of the workers may carpool or travel together. This can be based on regional auto occupancy factors (1.25 persons per vehicle).*
- *Workers would travel to/from the site in the morning (7:00 AM to 9:00 AM) and afternoon peak hours (4:00 PM to 6:00 PM). They are not all likely to arrive at the construction site within the same hour nor would they leave the site at the same time. Fehr & Peers have assumed that no more than half of the drivers would arrive during a single peak hour either in the morning or afternoon. It is our experience that many construction workers arrive at the site outside of the peak hours with many arriving at the site prior to 7:00 AM and leaving the site before 4:00 PM. Therefore, our estimates of peak hour traffic are likely to be conservative.*

Using the maximum number of workers (500), the number of worker trips would be as follows:

- *800 daily trips*
- *200 Peak Hour trips (one hour in the morning and afternoon peak period)*

These work trips would also occur with the previously Approved Project and were discussed in the 2008 FEIR.

Worker Parking. Worker parking would occur as originally planned for the Approved Project. The Project applicant would provide construction parking on the project site except during construction of the parking garage. During the project excavation phase, construction workers park on those areas of the site, which are not impacted by excavation. During the final construction phases, after the parking garage is completed, there will be sufficient parking for the construction workers on-site.

The project applicant has proposed to provide off-site worker parking in West Los Angeles while the parking garage is being constructed. Up to 150 workers would be accommodated and shuttles would be provided to facilitate travel between these off-site locations and the construction site.

This need to park workers off-site could result in a specific traffic related impact because it could lead to worker parking spilling over into adjacent areas, such as residential areas along Whittier Boulevard. Workers may park in these areas because they find the off-site parking arrangement cumbersome and want to park at a location closer to the site.

Construction Impact Summary. Similar to the Approved Project, several potential traffic-related impacts could result from construction of the proposed project:

- *The addition of 160-300 haul trucks per day traveling on congested roadways adjacent to the site. These vehicles could create additional congestion on the roadways.*
- *There would be an incremental increase in truck traffic traveling to/from the site for material and equipment delivery. Some of these vehicles could be very large trucks (18-wheelers), who could increase congestion on the adjacent roadways.*
- *The material and equipment delivery process could require vehicles to temporarily stop and unload on the adjacent streets. This loading/unloading process could involve temporary lane closures on the adjacent streets.*
- *Workers needing to park off-site while the parking garage is being constructed could forgo parking in designated off-site locations and instead park along adjacent streets like Whittier Drive. This parking spillover could impact the adjacent residential areas.*

With the exception of the duration of construction, the type of traffic construction impacts associated with the Proposed Project would be similar to the impacts discussed under the Approved Project. The construction period under the Proposed Project would occur over 42 months, while the construction period was proposed to be 24 months under the Approved Project. Therefore, the Proposed Project would result in traffic impacts occurring over a longer period of time in comparison to the Approved Project.

Mitigation Measures. Mitigation Measures TRAF-1 through TRAF-8 from the 2008 FEIR, as listed below, would apply to the Proposed Project.

TRAF-1 An Environmental Monitor shall be retained that will be responsible for monitoring compliance with the mitigation measures in the adopted Mitigation Monitoring Program. The name, phone number, and other contact information for the Environmental Monitor shall be posted on the construction trailer. The developer shall deposit funds sufficient to pay for the Environmental Monitor who will be hired by and work for the City.

TRAF-2 The Environmental Monitor shall pro-actively inform the public of the ongoing project progress and exceptions to the expected plans. The Environmental Monitor shall also respond to requests for information and assistance from members of the public when impacts raise special concerns by members of the public.

TRAF-3 The Construction Relations Officer shall be assigned and a hotline number shall be published on construction signage placed along the boundary of the project site, along Wilshire Boulevard, Merv Griffin Way, and Santa Monica Boulevard to address day-to-day issues.

TRAF-4 The Developer, Construction Relations Officer, and Environmental Monitor shall each provide monthly project updates to the Community Development Department (CDD) Director.

TRAF-5 The Developer shall revise and finalize the Draft Construction Traffic Management Plan to minimize traffic flow interference from construction activities. The Final Construction Traffic Management Plan shall be submitted to the City and shall include plans to accomplish the following:

- *Maintain existing access for land uses in the proximity of the Project site during Project construction;*
- *Schedule deliveries and pick-ups of construction materials for non-peak travel periods, to the maximum extent feasible;*
- *Coordinate haul trucks, deliveries and pick-ups to reduce the potential for trucks waiting to load or unload for protracted periods of time;*
- *Minimize obstruction of through-traffic lanes on Wilshire Boulevard and Santa Monica Boulevard;*
- *Construction equipment traffic from the contractors shall be controlled by flagman;*
- *Designated transport routes for heavy trucks and haul trucks to be used over the duration of the Proposed Project;*
- *Schedule vehicle movements to ensure that there are no vehicles waiting offsite and impeding public traffic flow on the surrounding streets;*
- *Establish requirements for loading/unloading and storage of materials on the Project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses;*
- *Coordinate with adjacent businesses and emergency service providers to ensure adequate access exists to the Project site and neighboring businesses; and*
- *Prohibit parking for construction workers except on the Project site and any designated offsite parking locations. These off site locations will require the approval of the City of Beverly Hills. These offsite parking locations cannot include any parking garage in the City of Beverly Hills or any residential streets including Whittier Drive and those streets which connect to Whittier Drive.*

The Final Construction Traffic Management Plan shall be submitted and approved by the City no later 30 days prior to commencement of construction.

TRAF-6 The Developer shall submit a Construction Workers Parking Plan identifying parking locations for construction workers. To the maximum extent feasible, all worker parking shall be accommodated on the project site. During demolition and construction activities when construction worker parking cannot be accommodated and the project site, the Plan shall identify alternate parking locations for construction workers and specify the method of transportation to and from the project site for approval by the City 30 days prior to commencement of construction. The Construction Workers Parking Plan must include appropriate measures to ensure that the parking location requirements for

construction workers will be strictly enforced. These include but are not limited to the following measures:

- *All construction contractors shall be provided with written information on where their workers and their subcontractors are permitted to park and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets north of Wilshire or in public parking structures;*
- *No parking for construction workers shall be permitted within 500 feet of the nearest point of the project site except within designated areas. The contractor shall be responsible for informing subcontractors and construction workers of this requirement, and if necessary, for hiring a security guard to enforce these parking provisions. The contractor shall be responsible for all costs associated with enforcement of this mitigation measures; and*
- *In lieu of the above, the project applicant/construction contractor has the option of phasing demolition and construction activities such that all construction worker parking can be accommodated on the project site throughout the entire duration of demolition, excavation and construction activities.*

TRAF-7 Traffic control devices, and specifically stop signs, shall be installed at each driveway exit point prior to building occupancy.

TRAF-8 The project applicant shall revise the project site plan to increase the curb radius at the driveway on Wilshire Boulevard to allow vehicles traveling 25 to 35 mph to turn safely.

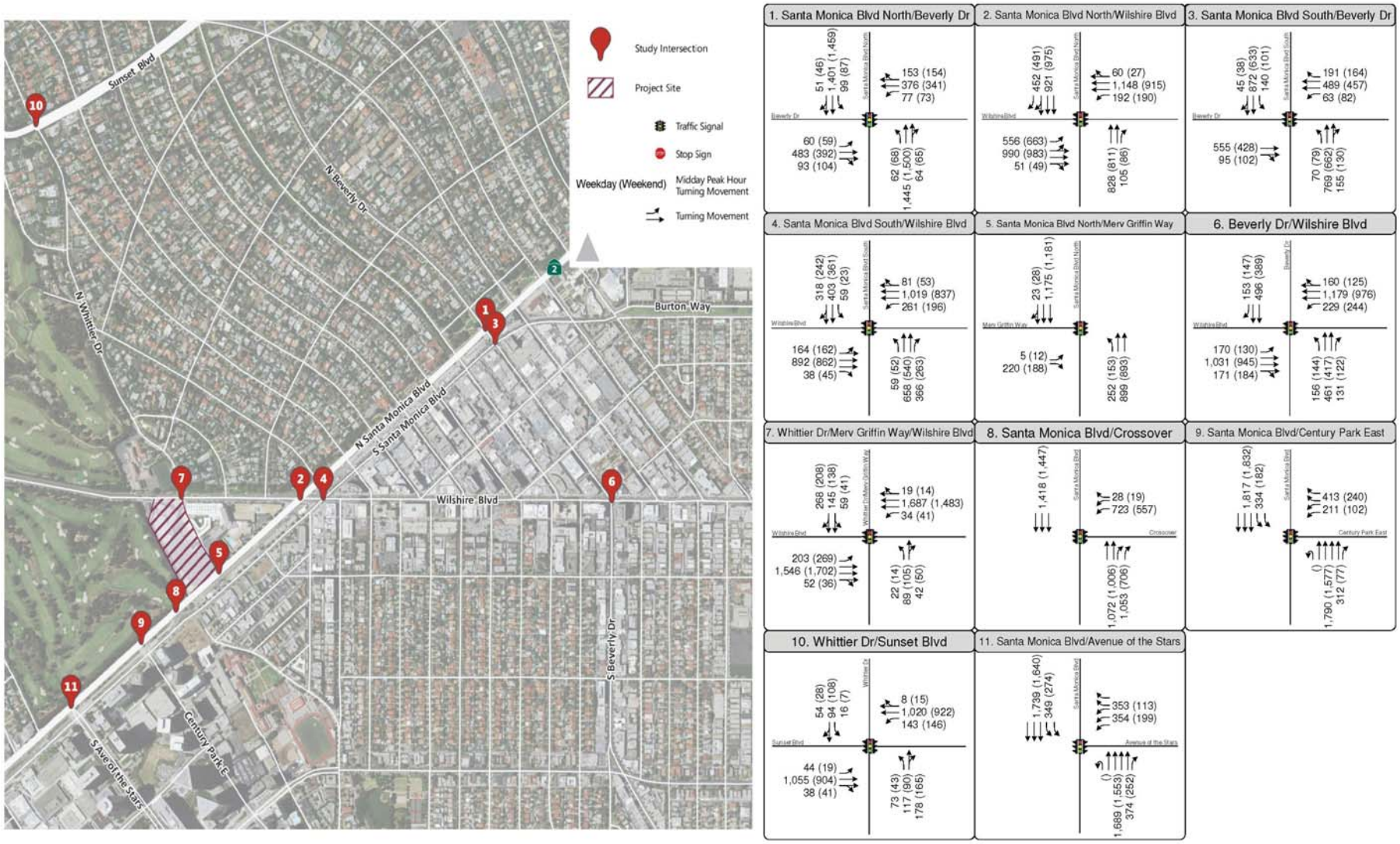
Significance After Mitigation. With implementation of the measures from the 2008 FEIR, Project-related construction impacts would be less than significant, though as discussed above, the duration of construction would be longer under the Proposed Project.

c. Cumulative Impacts. Cumulative development within the Project area would cause increases in traffic on area roadways. Section 3, *Environmental Setting*, describes planned and pending projects in the vicinity of the Project site that were included in the cumulative traffic forecasts. Figures 4.5-6 and 4.5-7 present the cumulative (2020) plus Proposed Project peak periods turning movement volumes, corresponding lane configurations, and traffic control devices. Raw traffic count data sheets are provided in Appendix A of the Traffic Impact Study in Appendix D of this SEIR. Table 4.5-12 summarizes existing, cumulative, and cumulative plus Project intersection capacities. Without the Proposed Project the 9 of 11 study intersections would be operating at an LOS of E or F in Year 2020 for at least one of the peak periods. Only the intersection of Santa Monica Boulevard and Avenue of the Stars would operate at an LOS B or better in year 2020 during all peak periods.

Traffic Volumes & Lane Configurations Existing (2015) plus Proposed One Beverly Hills Project - AM & PM Peak Hours

Figure 4.5-6

Source: Fehr & Peers, 2016



Traffic Volumes & Lane Configurations Cumulative (2020) plus Proposed One Beverly Hills Project - Mid-Day & Weekend Peak Hours

Figure 4.5-7

Source: Fehr & Peers, 2016

In comparison, with the Project in place in Year 2020, some intersections would experience slight decreases in V/C, while other intersections would experience slight increases. Roadway improvements at the intersection of Santa Monica Boulevard North and Wilshire Boulevard are expected to result in an improvement in LOS from E or F to D for all peak periods once the Project is in place. In the instances in which there would be an increase of V/C at intersections already operating at LOS E, the increase would not cause a significant impact based on City of Beverly Hills or City of Los Angeles criteria. Therefore, cumulative traffic impacts would be less than significant.

Table 4.5-12
Cumulative (2020) Intersection Level of Service

Intersection	Control	Peak Hour	Cumulative + Approved Project (2020 Baseline)		Cumulative + Proposed Project		V/C Change	Significant Impact?
			V/C	LOS1,2	V/C	LOS[1,2]		
1. Santa Monica Blvd North & Beverly Dr.	Signal	AM	0.975	**E**	0.974	**E**	-0.001	No
		MD	1.036	**F**	1.036	**F**	0	No
		PM	1.093	**F**	1.095	**F**	0.002	No
		WKND	1.058	**F**	1.056	**F**	-0.002	No
2. Santa Monica Blvd North & Wilshire Blvd	Signal	AM	1.197	**F**	0.981	**E**	-0.216	No
		MD	1.075	**F**	0.904	**E**	-0.171	No
		PM	1.143	**F**	0.942	**E**	-0.201	No
		WKND	1.041	**F**	0.881	D	-0.16	No
3. Santa Monica Blvd South & Beverly Dr.	Signal	AM	0.895	D	0.895	D	0	No
		MD	0.815	D	0.814	D	-0.001	No
		PM	0.917	**E**	0.916	**E**	-0.001	No
		WKND	0.716	C	0.714	C	-0.002	No
4. Santa Monica Blvd South & Wilshire Blvd	Signal	AM	0.995	**E**	0.992	**E**	-0.003	No
		MD	0.904	**E**	0.906	**E**	0.002	No
		PM	1.006	**F**	1.006	**F**	0	No
		WKND	0.800	C	0.800	C	0	No
5. Santa Monica Blvd North & Merv Griffin Way[3,4]	Signal	AM	0.826	D	0.828	D	0.002	No
		MD	0.789	C	0.786	C	-0.003	No
		PM	0.990	**E**	0.995	**E**	0.005	No
		WKND	0.722	C	0.715	C	-0.007	No
6. Beverly Drive & Wilshire Blvd	Signal	AM	0.921	**E**	0.922	**E**	0.001	No
		MD	0.857	D	0.856	D	-0.001	No
		PM	1.028	**F**	1.029	**F**	0.001	No
		WKND	0.820	D	0.818	D	-0.002	No
7. Whittier Drive/Merv Griffin Way &	Signal	AM	1.204	**F**	1.172	**F**	-0.032	No
		MD	0.956	**E**	0.903	**E**	-0.053	No

Table 4.5-12
Cumulative (2020) Intersection Level of Service

Intersection	Control	Peak Hour	Cumulative + Approved Project (2020 Baseline)		Cumulative + Proposed Project		V/C Change	Significant Impact?
			V/C	LOS1,2	V/C	LOS[1,2]		
Wilshire Blvd		PM	1.334	**F**	1.277	**F**	-0.057	No
		WKND	0.928	**E**	0.874	D	-0.054	No
8. Santa Monica Blvd & Crossover	Signal	AM	0.989	**E**	0.992	**E**	0.003	No
		MD	0.761	C	0.763	C	0.002	No
		PM	0.858	D	0.864	D	0.006	No
		WKND	0.691	B	0.691	B	0	No
9. Santa Monica Blvd & Century Park East	Signal	AM	0.862	D	0.835	D	-0.027	No
		MD	0.470	A	0.444	A	-0.026	No
		PM	0.696	B	0.671	B	-0.025	No
		WKND	0.418	A	0.385	A	0.033	No
10. Whittier Dr. & Sunset Blvd	Signal	AM	0.947	**E**	0.948	**E**	0.001	No
		MD	0.802	D	0.800	C	-0.002	No
		PM	1.044	**F**	1.043	**F**	-0.001	No
		WKND	0.718	C	0.716	C	-0.002	No
11. Santa Monica Blvd & Avenue of the Stars	Signal	AM	0.624	B	0.629	B	0.005	No
		MD	0.472	A	0.476	A	0.004	No
		PM	0.659	B	0.662	B	0.003	No
		WKND	0.430	A	0.432	A	0.002	No

Source: Fehr & Peers, April 2016. (see Appendix D for full Traffic Impact Study)
>50 Indicates oversaturated conditions at LOS F for SSSC intersections.
SSSC indicates Side street stop-controlled intersection
[1] LOS calculations for Beverly Hills signalized intersections were performed using the ICU methodology and LOS for Los Angeles signalized intersections were performed using the CMA methodology.
[2] Unacceptable seconds of delay per vehicle or volume-to-capacity (V/C) ratios and LOS highlighted in bold.
[3] LOS calculations performed using the 2000 Highway Capacity Manual (HCM) method.
[4] The vehicular delay for the worst movement is reported for side street stop-controlled intersections.

Table 4.5-13 shows the increase in traffic due to the Project on residential streets north of the Project site. As indicated, the highest increase in trips (19 ADT) would be on Whittier Drive between Wilshire Boulevard and Elevado Avenue, while the highest percentage increases (0.4%) would occur during the weekend peak hour on Whittier Drive between Wilshire Boulevard and Elevado Avenue, and between Elevado Avenue and Lomitas Avenue. Such increases would not exceed City thresholds; therefore, cumulative impacts to neighborhood streets would be less than significant.

Table 4.5-13
Residential Street Impacts – Cumulative & Cumulative Plus Project

Roadway Segment	Time of Day	Cumulative Baseline Volumes	Cumulative + Proposed Project	Change	Percent Change	Significant Impact?
Whittier Drive between Wilshire Boulevard & Elevado Avenue	ADT	15,038	15,057	19	0.1%	No
	AM	1,269	1,263	-6	-0.5%	No
	MD	830	820	-10	-1.2%	No
	PM	1,279	1,284	5	0.4%	No
	WKND	825	815	-10	-1.2%	No
Whittier Drive between Elevado Avenue & Lomitas Avenue	ADT	10,979	10,993	14	0.1%	No
	AM	810	805	-5	-0.6%	No
	MD	617	609	-8	-1.4%	No
	PM	935	939	4	0.4%	No
	WKND	493	485	-8	-1.7%	No
Elevado Avenue between Whittier Drive & Beverly Drive	ADT	4,893	4,898	5	0.1%	No
	AM	489	487	-2	-0.4%	No
	MD	238	235	-3	-1.1%	No
	PM	519	520	1	0.2%	No
	WKND	271	268	-3	-1.0%	No

Source: Fehr & Peers, April 2016. (see Appendix D)
ADT = Average Daily Traffic

Cumulative construction-related impacts could occur as the result of simultaneous construction of The Beverly Hilton Revitalization Plan project, the reconstruction of Santa Monica Boulevard and the Proposed Project, since construction schedules will likely overlap. Potential impacts include:

- *Simultaneous arrival and departure of haul trucks- The increased volume of haul truck traffic and number of trucks entering/exiting roadways surrounding the two project sites could result in congestion on those roadways.*
- *Simultaneous arrival and departure of delivery trucks- Equipment and supply delivery vehicles could impact adjacent roadways by creating additional congestion. There may also be temporary queuing of these delivery vehicles if large numbers of vehicles arrive or depart at once.*
- *Simultaneous construction worker parking- Construction workers for both projects could potentially park in areas adjacent to the site.*

Construction associated with the proposed project would have a cumulatively considerable contribution to cumulative traffic impacts.

Mitigation Measures. Mitigation Measure TRAF-9 from the 2008 FEIR would be required.

TRAF-9 The applicant for the Proposed Project shall coordinate with the applicant for The Beverly Hilton Revitalization Plan and the City of Beverly Hills as follows:

- *All temporary roadway closures shall be coordinated to limit overlap of roadway closures.*
- *All major deliveries for all three projects shall be coordinated to limit the occurrence of simultaneous deliveries. The project applicants shall ensure that deliveries of items such as concrete and other high-volume items shall not be done simultaneously.*
- *The applicants shall coordinate regarding the loading and unloading of delivery vehicles. Any offsite staging areas for delivery vehicles shall be consolidated and shared.*
- *Applicants or their representatives shall meet on a regular basis during construction to address any outstanding issues related to construction traffic, deliveries, and worker parking.*

Significance After Mitigation. Cumulative impacts related to construction activity would be less than significant with implementation of MM-TRAF-9.

4.6 UTILITIES (WATER SUPPLY)

This section analyzes the Proposed Project's potential impacts to water supply.

4.6.1 Setting

a. Water Supply and Demand. The Beverly Hills Public Works Department (Department) provides water service to the City of Beverly Hills, which spans 3,642 acres, or approximately 5.7 square miles. The Department also provides service to a portion of the City of West Hollywood, bounded on the west by Doheny Drive, on the north by Sunset Boulevard, on the east by Flores Street, and on the south by Beverly Boulevard. In 2010, a total population of 45,000 people resided in the service area. (City of Beverly Hills, 2011)

The City obtains its water through purchases from the Metropolitan Water District (MWD) and pumping of local groundwater. Currently, about 90 percent of the City's total water supply is purchased from MWD, which receives its supply from the State Water Project (SWP) and the Colorado River. The City obtains the remaining 10 percent of its water from groundwater in the Hollywood Basin via four municipal wells. In 2009, the City imported 11,801 acre-feet (AF) from MWD and extracted 1,311 AF from groundwater, for a total supply of 13,112 AF. In 2009, water use in the City totaled 12,653 AF. The residential sector accounts for an average of 78 percent of total water use, while the commercial, institutional, and industrial sectors account for the other 22 percent of use (City of Beverly Hills, 2011).

The City projects that annual water demand for the City and the portion of West Hollywood served by the City under normal conditions will be 12,153 acre-feet per year (AFY) in 2035. This represents a decrease of 500 AFY from 2009 demand, but an increase from the 2015 demand of 11,654 AFY. The decrease from 2009 demand is a result of the City incorporating state-mandated conservation requirements into demand projections. Projected increases between 2015 and 2035 account for the impacts of projected development on water demand with ongoing conservation measures in place.

Tables 4.6–1 and 4.6–2 show forecast water supplies under normal and multiple dry-year conditions. The City projects that, under non-drought conditions, MWD purchases will increase to 20,560 AFY and that the City can have a constant groundwater extraction rate of 800 AFY, for a total supply of 21,360 AFY (see Table 4.6–1). The minimum available annual water supply for a scenario involving multiple dry years from 2033-2035 is estimated at 13,842 AF, including 12,255 AF of imported water and 800 AF of groundwater (see Table 4.6–2) (City of Beverly Hills, 2011). The City's planned supply accommodates the projected demand for the service area under both normal and multiple-year drought conditions.

Metropolitan Water District. MWD provides supplemental water to southern California from northern California via the SWP and from the Colorado River via the Colorado River Aqueduct. MWD is composed of 26 member public agencies that provide water to more than 19 million people in Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura Counties. All member agencies use and develop local water supplies as much as possible to meet demand, and purchase the remainder from MWD when necessary. (MWD, 2015a)

Table 4.6–1
Projected Water Supply Normal Water Year

Year	Water Supply (AF)		
	Imported	Groundwater	Total
2015	18,853	800	19,653
2020	21,563	800	22,363
2025	22,893	800	23,693
2030	21,641	800	22,441
2035	20,560	800	21,360

Source: City of Beverly Hills, 2010 Urban Water Management Plan, August 2011.

Table 4.6–2
Projected Water Supply Multiple Dry Years (2033-2035)

Year	Water Supply (AF)		
	Imported	Groundwater	Total
2033	13,080	800	13,880
2034	13,107	800	13,907
2035	13,134	800	13,934

Source: City of Beverly Hills, 2010 Urban Water Management Plan, August 2011.

MWD has prepared an Integrated Water Resources Plan that is intended to provide overall supply reliability targets for the SWP, Colorado River Aqueduct, local water supplies, and conservation. The supply plan provides water supply and demand figures for the MWD service area. As indicated in this report, the average year target supply would be 4.539 million AF by year 2040, while the total demand in the MWD service area is estimated to be 4.273 million AF for this same period. This represents a potential reserve or excess capacity of approximately 266,000 AF. Near-term supplies are also sufficient to meet current and future demand during a multiple dry year scenario. Year 2016 supplies are projected to total approximately 4.301 million AF, while demand is predicted at 3.844 million AF. This represents a short-term reserve or excess supply of approximately 457,000 AF. (MWD, 2015b)

MWD supplies are delivered to the City Public Works Department by the Santa Monica Feeder Line through two service connections located on the eastside of the Sunset Reservoir between Rexford and Alpine Drives. Each connection has a capacity of 40 cubic feet per second or 23,000 AFY (at 80 percent capacity). The City's Tier 1 rate allocation is 13,380 AFY (City of Beverly Hills, 2011).

Hollywood Sub-basin. The Hollywood sub-basin underlies the northeastern part of the Coastal Plain of the Los Angeles Groundwater Basin and covers a surface area of 10,500 acres, or 16.4 square miles. The basin is bounded on the north by the Santa Monica Mountains and the Hollywood Fault, on the east by the Elysian Hills, on the west by the Inglewood Fault Zone, and on the south by the La Brea high, which is a surface divide in the basin formed by an anticline that brings impermeable rocks close to the surface. Surface drainage flows southward

to join Ballona Creek, then westward to the Pacific Ocean. Average annual precipitation ranges from 12 to 14 inches (California Department of Water Resources, 2003).

The Hollywood sub-basin is replenished by precipitation and stream flow from the higher areas to the north. However, paving of streets and lining of drainage channels have greatly increased impermeable surface and reduced percolation. Subsurface inflow may take place to a limited extent from underflow through fractured rock in the Santa Monica Mountains and through the La Brea high. The storage capacity of the basin is estimated at approximately 200,000 AF, although current storage in the basin is unknown (California Department of Water Resources, 2003). The Hollywood sub-basin is currently not adjudicated and is presently managed by the City of Beverly Hills through municipal ordinances. The natural safe yield of the basin is estimated at 3,000 AFY, and actual annual pumping limits are equal to 3,000 (City of Beverly Hills, 2011).

In 2004, the City of Beverly Hills opened a reverse osmosis water treatment plant subsidized by MWD in order to develop local groundwater supplies, thereby reducing demand on MWD's resources. The plant has a 2.7 million gallon per day (MGD) capacity, and may be expanded to 5.4 MGD at a future date, if economically feasible (City of Beverly Hills, 2005). Groundwater from the Hollywood sub-basin is conveyed to the treatment plant through a transmission main owned and maintained by the City. Treated water is then conveyed to the City's distribution system via a transmission main that connects the treatment plant with the City's Sunset Reservoir.

b. Water Distribution System. The Beverly Hills water distribution system is gravity-based and made up of 11 pressure zones (City of Beverly Hills, 2005). As identified in the 2008 approved EIR for the Approved Project, the Project site is located in Pressure Zone 4. As discussed above, the primary water supply consists of two MWD connections. In addition the City is served by two emergency connections provided by the Los Angeles Department of Water and Power (LADWP). To ensure that enough supply is on hand to meet customer needs, the distribution system includes five above-ground steel reservoirs with a combined capacity of 6 million gallons, three below-ground reservoirs with a combined capacity of 33 million gallons, and two concrete above-ground reservoirs with a combined capacity of 4.2 million gallons (City of Beverly Hills, 2011). As stated in the 2008 approved EIR for the Approved Project, the Project site is served by the Coldwater Canyon Reservoir, with a capacity of 8.5 million gallons, and the Woodland Reservoir, with a capacity of two million gallons.

The Project site is served by existing City water lines. To the north, the Project site is served by an eight-inch ductile iron line beneath Wilshire Boulevard, which is fed by 12-inch and 10-inch concrete/cast iron lines. To the south, an eight-inch line lies beneath Santa Monica Boulevard. The eight-inch lines have a flow capacity of 1,000 to 1,500 gallons per minute (gpm) at a pressure of 68 to 70 pounds per square inch (psi) as measured from connected fire hydrants.

c. Conservation. In response to drought conditions and mandatory statewide conservation of urban water use, MWD provides a water savings incentive program to member agencies, such as Beverly Hills, for water conservation programs. The incentive program allows conservation projects for all MWD member agencies that include residential turf removal, low flow toilet distribution and replacement, direct-installation of clothes washers, and residential water audits. MWD incentives have similarly allowed member districts to implement

commercial conservation projects, including turf removal, direct installation of high efficiency toilets and multi-stream rotating nozzle distribution (MWD, 2015c). MWD has also implemented rebate programs to incentivize the use of water efficient fixtures and equipment for residences, businesses, industry, institutions, and large landscapes in southern California. MWD's rebate programs include SoCalWater$mart that assists customers with installing high-efficiency toilets, clothes washers, plumbing fixtures, HVAC, sprinkler controllers, soil moisture sensors, and other water saving devices (MWD, 2015c).

To address the reduction of water use in the City of Beverly Hills by the 32 percent required by the State of California, the City of Beverly Hills has established a mandatory conservation plan to reduce water use by 32 percent. In May 2015, the City passed an emergency water conservation program that includes water scheduling limiting outdoor watering to two days per week, other outdoor watering restrictions, and possible penalties for users who do not reduce water use by 30 percent. Rebates are available to residential and commercial costumers through the City for turf removal and installation of high efficiency appliances including toilets, clothes washers, and weather-based irrigation controllers. Although not yet in effect, the City also proposes a tiered water rate structure (City of Beverly Hills, 2015). The City of Beverly Hills requires new development to comply with their water efficient landscaping ordinance where all new developments must submit a landscaping design plan, irrigation design plan, grading design plan, and a soil management report, which must be approved by the City in order to receive a building permit (City of Beverly Hills, 2012).

d. Regulatory Setting.

State

Senate Bill 610. Senate Bill (SB) 610 was signed into law in 2001. This law requires cities and counties to develop water supply assessments (WSA) when considering approval of applicable development projects in order to determine whether projected water supplies can meet the project's anticipated water demand. Triggers requiring the preparation of a WSA include residential developments of more than 500 dwelling units, shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space, commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space, and projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project. The Proposed Project does not meet these criteria and therefore does not require preparation of a WSA pursuant to SB 610. Water supply reliability is assessed in Section 4.7.2.

Senate Bill 221. Whereas SB 610 requires a written assessment of water supply availability, SB 221 requires lead agencies to obtain an affirmative written verification of sufficient water supply prior to approval of certain specified subdivision projects. For this purpose, water suppliers may rely on an Urban Water Management Plan (if the Proposed Project is accounted for within the UWMP), a Water Supply Assessment or other acceptable information that constitutes "substantial evidence." "Sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single-dry and multiple-dry water years within the 20-year (or greater) projection period that are available to meet the projected demand associated with the Proposed Project, in addition to existing and planned future uses. WSAs are required for residential projects of more than 500 units and hotels of more than 500 rooms.

Because the Proposed Project includes 193 residences and 134 hotel rooms (combined total of 427 residences/rooms), it does not require preparation of a WSA pursuant to SB 221. Therefore, the City of Beverly Hills will rely on its Urban Water Management Plan for compliance with SB 221.

Water Conservation in Landscaping Act. The Water Conservation in Landscaping Act, enacted in 2006, required the DWR to update the Model Water Efficient Landscape Ordinance (MWELO). In 2009, the Office of Administrative Law (OAL) approved the updated MWELO, which required a retail water supplier or a county to adopt the provisions of the MWELO by January 1, 2010, or enact its own provisions equal to or more restrictive than the MWELO provisions. The City of Beverly Hills has adopted a Water Efficient Landscape Ordinance that also applies to new construction with landscape area greater than 2,500 square feet. (BHMC Title 9, Chapter 4, Article 4)

Green Building Standards Code. In January 2010, the California Building Standards Commission adopted the statewide mandatory Green Building Standards Code (hereafter the "CAL Green Code") that requires the installation of water-efficient indoor infrastructure for all new projects beginning after January 1, 2011. CAL Green Code was incorporated as Part 11 into Title 24 of the California Code of Regulations. The Cal Green Code was revised in 2013 with the revisions taking effect on January 1, 2014. However, these revisions do not have substantial implications to the water use already contemplated by the 2010 Cal Green Code. The CAL Green Code applies to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure. All new development must satisfy the indoor water use infrastructure standards necessary to meet the CAL Green Code.

The CAL Green Code requires residential and nonresidential water efficiency and conservation measures for new buildings and structures that will reduce the overall potable water use inside the building by 20 percent. The 20 percent water savings can be achieved in one of the following ways: (1) installation of plumbing fixtures and fittings that meet the 20 percent reduced flow rate specified in the CAL Green Code, or (2) by demonstrating a 20 percent reduction in water use from the building "water use baseline."

Urban Water Management Plan Act. The California Urban Water Management Planning Act (the Act) (California Water Code Division 6, Part 2.6 Sections 10610–10656) applies to municipal water suppliers like the Beverly Hills Department of Public Works which serve more than 3,000 customers or provide more than 3,000 AFY of water. The Act requires these water suppliers to update their Urban Water Management Plan (UWMP) every five years to identify short-term and long-term water demand management measures to meet growing water demands during normal, dry and multiple-dry years. The plan should include a description of existing and planned water sources, alternative sources, conservation efforts, reliability and vulnerability assessments, and a water shortage contingency analysis. Details of the City's efforts to promote the efficient use and management of its water resources are contained in its 2010 UWMP.

Executive Order B-29-15. On April 1, 2015, Governor Jerry Brown signed Executive Order (EO) B-29-15, which directs the State Water Resources Control Board (SWRCB) to implement mandatory water reductions throughout California by 25 percent by February 18, 2016. In addition, EO B-29-15 intends to accomplish the following:

- *Replace 50 million square feet of lawns throughout the state with drought tolerant landscaping in partnership with local governments;*
- *Direct the creation of a temporary, statewide consumer rebate program to replace old appliances with more water and energy efficient models;*
- *Require campuses, golf courses, cemeteries and other large landscapes to make significant cuts in water use;*
- *Prohibit new homes and developments from irrigating with potable water unless water-efficient drip irrigation systems are used, and ban watering of ornamental grass on public street medians; and*
- *Prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or micro-spray systems.*

Executive Order B-36-15. On November 13, 2015, Governor Brown issued EO B-36-15, which calls for an extension of restrictions to urban potable water usage until October 31, 2016, should ongoing drought conditions in California persist through January 2016. Executive Order B-36-15 is the fifth in a series of EOs issued by Governor Brown to address California's ongoing drought conditions, which direct the SWRCB to implement water reductions in urban areas to reduce potable urban water usage by 25 percent statewide. Under this EO, the SWRCB has authority to extend and revise existing emergency water conservation regulations throughout the State of California. Current regulations mandate a statewide water savings goal of 25 percent for urban water suppliers. The City of Beverly Hills has a mandate to reduce water use by 32 percent.

Local

Beverly Hills General Plan. The Conservation Element of the General Plan identifies the City's goals for maintaining existing resources, while assuring an adequate supply to meet future needs. Goals and policies within the General Plan pertaining to water supply include:

- ***CON 1 Water Supply System.*** *High-quality reliable water supply, treatment, distribution, pumping and storage systems that provide water as affordably as possible and meet current and future daily and peak water demands of the City, considering the sustainability goals and policies in this general plan.*
- ***CON 1.1 Rights to Groundwater.*** *The City should continue to retain rights to groundwater.*
- ***CON 1.2 Urban Water Master Plan.*** *Review, evaluate, and update the City's Urban Water Master Plan and related capital improvement programs on a regular basis in order to maintain plans for expansion and improvement of distribution and storage facilities. The Department of Public Works shall determine water facilities needed to service the City, prepare capital improvements plans that include prioritization and identification of funding sources, and upgrade the water supply and distribution system accordingly.*
- ***CON 1.3 Water Distribution System.*** *Upgrade, maintain, and expand water supply, distribution, pumping, storage, and treatment including facilities to address potential shortages in water supply from the California State Water Project and the Colorado River*
- ***CON 1.4 Water Storage.*** *Maximize the City's access to water supplies, including possible acquisition of wells outside the City, and designate and acquire land, if necessary, for siting future water supply, storage, and distribution facilities.*
- ***CON 1.6 Development Requirements—Water Service.*** *Require new development to be served from an approved domestic water supply.*

- ***CON 1.7 Development Requirements—Groundwater.*** *Require engineering design and construction practices to ensure that existing and new development does not degrade the City's groundwater supplies.*
- ***CON 2 Water Conservation through System Improvements.*** *Provision of a system that minimizes water consumption through conservation methods and other techniques.*
- ***CON 2.1 Water Conservation Goals.*** *Continue to establish, review, and update water conservation goals and benchmarks on a continuous basis.*
- ***CON 2.4 Water Conservation Measures for Private Projects.*** *Continue providing incentives, and where practical, require the installation of water conserving measures, devices and practices for new private construction projects and major alterations to existing private buildings, including requirements for using reclaimed water for construction watering and for pumping subterranean water back into the ground rather than into the storm drain system.*
- ***CON 2.5 Water Efficient Landscaping.*** *Where feasible, encourage installation of drought tolerant landscaping or water-efficient irrigation systems for all private and city landscaping and parkways. Identify and implement minimum design and installation efficiency criteria for landscape irrigation systems.*
- ***CON 2.6 New Conservation Technology.*** *Explore ways to strengthen local building codes for new construction and to implement ordinances that require existing buildings to generate a higher level of water efficiency as a requirement for renovations or additions, and upon sale of the property.*
- ***CON 3 Water Conservation through Reduced Consumption.*** *Conservation programs that limit water consumption through site design, the use of water conservation systems and other techniques.*
- ***CON 3.1 Water Conservation Ordinance.*** *Review the City's water conservation ordinance and efficient landscaping ordinance regularly, and modify them as appropriate to achieve best management practices.*
- ***CON 3.2 Green Building Program.*** *Review the City's green building program to ensure that the program achieves water conservation, energy efficiency of buildings, encourages resource conservation, reduces waste generated by construction projects, and promotes the health and productivity of residents, workers, and visitors to the City.*
- ***CON 3.3 Rebate Programs.*** *Continue cooperating with the Metropolitan Water District of Southern California (MWD) to offer rebate incentives for the replacement of inefficient plumbing fixtures with water saving fixtures for all residential, commercial, industrial, and institutional uses.*
- ***CON 3.8 Water Conservation Measures for Private Projects.*** *Require the installation of water conserving measures, devices and practices that meet "green building" standards for new private construction projects and major alterations to existing private buildings.*
- ***CON 3.9 Water-Efficient Landscaping.*** *Encourage and promote drought-tolerant landscaping or water efficient irrigation systems for all private and city landscaping and parkways.*
- ***CON 4 Water Supply Costs.*** *A system where the costs of improvements to the water supply, transmission, distribution, storage and treatment systems are borne by those who benefit.*
- ***CON 4.1 Developer Fees.*** *Require the costs of improvements to the existing water supply, transmission, distribution, pumping, storage and treatment facilities necessitated by new development be borne by those benefiting from the improvements, either through the payment of fees, or by the actual construction of improvements.*

Beverly Hills Municipal Code. The Proposed Project is required to comply with Title 6 of the Beverly Hills Municipal Code. Title 6 contains standards for the extension and enlargement

of water distribution systems in the City. The City has also established a Water Conservation Ordinance, which establishes the authority for the City Manager to declare that a water shortage exists and to implement a five-stage program to curtail water use during periods of extended drought. Other water conservation programs include leak reporting and repairs, meter replacements, rate structuring, improvements in landscape irrigation equipment, and equipment rebates.

4.6.2 Impact Analysis

a. Methodology and Significance Thresholds. As discussed in the Initial Study for the Proposed Project, because of the potentially increased demand for water associated with implementation of the Proposed Project (compared to existing conditions), coupled with ongoing drought conditions in the region, potential impacts to water supply are assessed in this SEIR. The following threshold for determining the significance of impacts related to water service is identified in the environmental checklist form contained in Appendix G of the most recent update of the *CEQA Guidelines*. Would the project:

- *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

The Initial Study determined that either the Project would result in less than significant impacts with respect to other significance criteria, or that no impact would occur (please see Section XVII, *Utilities and Service Systems*, of the Initial Study in Appendix A). They are therefore not addressed further in this SEIR.

b. Project Impacts and Mitigation Measures.

Impact UTIL-1 The Proposed Project would result in a net increase in water demand of approximately 21 acre-feet per year as compared to the Approved Project. This additional demand could be accommodated by the City's projected 2035 water demand and supply scenario presented in the 2010 Urban Water Management Plan. Therefore, impacts would be *less than significant.*

As discussed in Section 2.0, *Project Description*, the Approved Project is used as the environmental baseline for this analysis because it represents what is currently permitted for development at the Project site today. As currently designed, the project would introduce fewer residential units and associated water requirements than the Approved Project. However, the currently Proposed Project also includes a hotel use with up to 134 rooms with associated amenities in place of the previously approved commercial retail and restaurant space. The addition of the hotel facilities would lead to a net increase in long-term water demand, as discussed below.

Section 2.0, *Project Description*, also describes that construction would occur over approximately 34 months, preceded by eight months of site preparation; therefore, it is anticipated that construction water use would occur over approximately 42 months (3.5 years). During construction of the Project, water would be used to reduce fugitive dust and to aid in earth compaction. The site acreage for the Project site has not changed since the City's certification of

the 2008 FEIR for the Approved Project. Therefore, the estimated construction water use would total approximately 7.1 AF of water as stated in the 2008 FEIR for the Approved Project. Over the 3.5-year construction period, this equates to just over 2 AFY. The City's 2010 UWMP accommodates for an increase in water use within its service territory of approximately 499 AF between 2015 and 2035. Additionally, in 2009 water supplied to the City was 459 AF in excess of the total demand for the year (City of Beverly Hills, 2011). The demand for water during construction would be temporary and spread across the 3.5-year construction period, and the City of Beverly Hills would have adequate water supply to accommodate the anticipated growth. Therefore, temporary impacts to water supply would be less than significant.

Regarding operational water use, the baseline water use rate for the 235 new residential condominium units and 15,856 square feet of commercial space associated with the Approved Project is 74 AFY. The currently Proposed Project would reduce the total new residential units to 193 total condominiums (42-unit reduction), and replace the Approved Project's commercial space and a portion of the residential space with a hotel of up to 134 rooms and associated amenities. The estimated long-term (operational) water demand for the Proposed Project is 95 AFY, which represents a net increase of 21 AF from the baseline water use of 74 AFY. Table 4.6–3 compares operational water demand associated with the Approved Project to that of the Proposed Project.[1]

This analysis of anticipated water demand for the Proposed Project assumes 250 gallons per day per residential unit to match the estimated water demand rate used in the 2008 FEIR for the Approved Project. Water demand from the commercial space is estimated at 0.1 gallons per square foot per day to also match the analysis in the 2008 FEIR. Water use for the hotel facilities was assumed to be 162.5 gallons per day per guest room, but water use for ancillary hotel facilities was separately calculated at 0.1875 gallons per square foot per day. Additionally, water demand from hotel restaurant facilities was estimated separately at a rate of 37.5 gallons per day per seat.[2] This rate was also used for the water demand estimates for the restaurant facility in the Approved Project. The number of seats in restaurant facilities was estimated based on a rate of 30 square feet per seat to match the analysis in the 2008 FEIR for the Approved Project.

The 2010 UWMP is the most current water plan for Beverly Hills. Per the 2010 UWMP, water demand under normal conditions is projected to be 12,153 AFY in 2035. This represents a 499-AF increase from the 2015 water demand of 11,654 AFY. Under a single dry year condition, demand is forecast to be 12,580 AFY. With the combination of imported water resources and local groundwater, the City projects an available water supply of 21,360 AF in 2035 during normal (non-drought) conditions (see Table 4.6–1). In a single dry year in 2035, the available water supply will be 15,393 AFY. Thus, 2035 supplies are forecast to exceed demand by 9,207 AF in a non-drought year and 2,813 AF in a single dry year. The UWMP also presents a scenario assuming multiple dry years (consecutive drought years) between 2015 and 2035 (see Table 4.6–2). Under this scenario, the UWMP projects a 2035 water supply of 13,934 AF in 2035 and

[1] *This analysis includes "credits" based on the applicant's forecast of onsite use of graywater in lieu of domestic water. The assumptions regarding graywater use are reasonable. However, it should be noted that if no credits were given for graywater, the difference in demand between the Proposed Project and the Approved Project would be 48 AFY (130 AFY versus 82 AFY). This additional 27 AFY beyond the 21 AFY differential considered in this analysis would not exceed City supplies or alter the conclusions of this analysis.*

[2] *Water demand rates for hotel and restaurant facilities are 125 percent of the wastewater generation rates provided in the 2006 LA CEQA Threshold Guide to match the estimates from the 2008 EIR for the Approved Project.*

Table 4.6–3
Water Demand – 9900 Wilshire Boulevard Project

Use	Quantity	Demand Factor (gal/day)[a]	Daily Demand (gal/day)	Estimated Gray Water Collected (gal/day)[b]	HVAC Gray Water Usage (gal/day)[b]	Daily Gray Water Usage (gal/day)[b c]	Daily Demand Domestic Water (gal/day)	Annual Demand (gal/year)	Annual Demand (AFY)[d]
Proposed Project									
Condominiums	193 (units)	250	48,250	26,130	10,000	0	38,250	13,961,250	43
Hotel	134 (rooms)	162.5	21,775	10,720	4,000	2,680	15,095	5,509,675	17
Hotel Ancillary[e]	90,406 (sf)	0.1875	16,951	0	550	6,780	9,621	3,511,665	11
Restaurants[f]	652 (seats)[g]	37.5	24,450	0	450	2,608	21,392	7,808,080	24
Retail	0 (sf)	0.1	0	0	0	0	0	0	0
Landscaping	95,371 (sf)	0.04958	4,729	0	0	4,729	0	0	0
Total			**116,155**	**36,850**	**15,000**	**16,797**	**84,358**	**30,790,670**	**95**
Approved Project									
Condominiums	235 (units)	250	58,750	32,970	0	0	58,750	21,443,750	66
Hotel	0	162.5	0	0	0	0	0	0	0
Hotel Ancillary	0	0.1875	0	0	0	0	0	0	0
Restaurant[h]	160 (seats)	37.5	6,000	0	0	0	6,000	2,190,000	7
Retail	11,656 (sf)	0.1	1,166	0	0	0	1,166	425,590	1
Landscaping	115,187 (sf)	0.06647	7,657	0	0	7,657	0	0	0
Total			**73,573**	**32,970**	**0**	**7,657**	**64,916**	**24,059,340**	**74**

[a] *125 percent of sewage generation factor from the 2006 LA CEQA Thresholds Guide.*
[b] *Graywater collection and usage estimates provided by the Project applicant.*
[c] *Daily gray water usage includes all graywater used onsite except for that used for the HVAC system.*
[d] *1 acre foot = 325,851 gallons*
[e] *Includes Hotel Amenity, Storage, Back of House, Ballroom/Meeting Rooms, and Spa/Fitness areas*
[f] *Includes Hotel Lobby Lounge, Restaurant/Bar Front of House, Back of House, and Outdoor Dining Area*
[g] *Based on 1 seat per 30 square feet.*
[h] *Includes Restaurant Front of House, Back of House, and Outdoor Dining*

demand of 13,842 AF. In this scenario excess water supply is reduced to 91 AF[3] (City of Beverly Hills, 2011).

Table 4.6-4 compares forecast water demand in 2035 with the Proposed Project's the forecast 2035 supply. Under normal conditions, an excess supply of 9,186 AF would remain. Under a single dry year scenario, 2,792 AF of excess supply would remain. Under the multiple dry year scenario, 71 AF of excess supply would remain. Consequently, the Proposed Project would not cause water demand within the City's service area to exceed forecast supplies under any scenario and would have a less than significant impact on the City's existing water supply entitlements and resources.

Table 4.6–4
Forecast Water Demand vs. Supply in 2035 (AFY)

Scenario	Water Demand with Project (2035 Forecast Demand + 21 AF)	Supply	Excess Supply
Normal Year	12,174	21,360	9,186
Single Dry Year	12,601	15,393	2,792
Multiple Dry Years	13,863	13,934	71

Mitigation Measures. No mitigation is necessary because impacts would be less than significant. The Proposed Project would be subject to applicable water conservation requirements contained in the Water Efficient Landscape Ordinance (BHMC Title 9, Chapter 4, Article 4) and the Green Building Standards Code. In addition, as discussed in Section 2.0, Project Description, the Proposed Project would incorporate the following features aimed at water conservation:

- *Use of high-efficiency toilets (maximum 1.28 gallons per flush), including dual-flush water closets, and no-flush or waterless urinals in all non-residential restrooms, as appropriate*
- *Use of non-residential restroom faucets with a maximum flow rate of 0.5 gallons per minute and non-residential kitchen faucets (except restaurant kitchens) with a maximum flow rate of 1.5 gallons per minute (restaurant kitchen faucets shall have pre-rinse self-closing spray heads with a maximum flow rate of 1.6 gallons per minute)*
- *Use of non-residential restroom faucets with a self-closing design (i.e., that will automatically turn off when not in use)*
- *Use of individual metering and billing for water use of all residential uses and exploration of such metering for commercial spaces*
- *Use of a leak detection system for any swimming pool, Jacuzzi, or other comparable spa equipment introduced on-site*
- *Prohibition of the use of single-passing cooling equipment*
- *Operation of cooling towers at a minimum of 5.5 cycles of concentration*
- *Use of a weather-based irrigation controller with rain shutoff, matched precipitation (flow) rates for sprinkler heads, and rotating sprinkler nozzles or comparable technology, such as drip/microspray/subsurface irrigation where appropriate*

[3] *The UWMP shows the supply/demand difference as 91 AF rather than 92 AF (13,934-13,842), presumably due to rounding.*

- *Minimum irrigation system distribution uniformity of 75 percent*
- *Use of a separate water meter (or submeter), flow sensor, and master valve shutoff for irrigated landscape areas totaling 5,000 square feet and greater*
- *Use of permeable surfaces within common site areas that are not located above subterranean parking*
- *Incorporation of proper hydro-zoning, turf minimization, xeriscaping, and use of native/drought-tolerant plant materials, as feasible or appropriate. Specifically, 100 percent of all landscaping will consist of drought-tolerant plants and at least 50 percent will consist of native species.*
- *Use of landscape contouring/bioswales, rain gardens, cisterns, and tree pits to minimize precipitation runoff*

Significance after Mitigation. Impacts would be less than significant without mitigation.

c. Cumulative Impacts. The potential for cumulative impacts to water supply availability is assessed based upon consideration of the Proposed Project in combination with the cumulative projects identified in Table 3-1 in Section 3.0, *Environmental Setting*. As discussed in the *Setting*, forecast development within the City (including planned and pending development listed in Table 3-1) would generate an increased demand of approximately 499 AFY of water between 2015 and 2035 under normal conditions, bringing overall demand to 12,153 AF in 2035. In a single dry year in 2035, future demand is estimated at 12,580 AFY and in a multiple dry year scenario demand is estimated at 13,842 AFY.

As shown in Table 4.6-4, annual water demand generated by forecast population growth in Beverly Hills between 2015 and 2035 (including planned and pending development and the Proposed Project) would bring total water demand under normal year conditions to 12,174 AFY. This total projected demand is 9,186 AF less than the projected total water supply available to the City in 2035 in a normal (non-drought) year, 2,792 AF less than the projected total water supply under a single dry year, and 71 AF less than the total water supply in a multiple dry year scenario. Because forecast water demand would still leave excess water supply available to the City, no additional entitlements or resources would be required and cumulative impacts would be less than significant. Like the Proposed Project, all planned and pending development in Beverly Hills would be subject to applicable water conservation requirements contained in the Water Efficient Landscape Ordinance (BHMC Title 9, Chapter 4, Article 4) and the Green Building Standards Code.

5 OTHER CEQA-REQUIRED DISCUSSIONS

This section discusses growth-inducing impacts, irreversible environmental impacts, and energy impacts that would be caused by the Proposed Project.

5.1 GROWTH INDUCEMENT

Section 15126(d) of the *CEQA Guidelines* requires a discussion of a Proposed Project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The Proposed Project's growth inducing potential is therefore considered significant if it could result in significant physical effects in one or more environmental issue areas.

5.1.1 Population Growth

The Proposed Project would add 193 residential units in Beverly Hills and would accommodate approximately 450 new residents based on California Department of Finance's estimate of 2.33 individuals per household (California Department of Finance, 2015). The current population of Beverly Hills is 34,833 (California Department of Finance, 2015). The Project's 450 residents would therefore increase the population of the City to 35,283. The Southern California Association of Government's (SCAG) population growth forecast for Beverly Hills is 35,000 in 2020 and 36,300 in 2035 (SCAG RTP-SCS, 2012). As discussed in Section 4.1, *Air Quality*, under Impact AQ-1, the population increase associated with the Proposed Project would cause the citywide population to exceed the 2020 SCAG forecast, but population growth associated with the Project would be within SCAG's 2035 population forecast. It is also about 114 persons less than the population forecast for the Approved Project, which would involve 42 more residences than the Proposed Project. As discussed in sections 4.1, *Air Quality*, and 4.2, *Greenhouse Gas Emissions*, the Project would generally be consistent with the regional goals contained in the Air Quality Management Plan (AQMP) and the RTP-SCS. Moreover, as discussed in the Initial Study (Appendix A), the Project involves infill development on a currently vacant site within an urbanized area that lacks significant scenic resources, native biological habitats, known cultural resource remains, surface water, or other environmental resources. Therefore, population growth would not be expected to result in significant long-term physical environmental effects.

The Proposed Project also includes a 134-room hotel totaling 204,291 square feet plus a total of 1,600 square feet of outdoor dining space, which is split between the rooftop area and the ground floor. The hotel includes restaurants, shops, a bar, a lobby lounge, a spa and fitness center, a ballroom and meeting rooms, amenities, and storage. These uses would increase the number of employees and visitors in the City. Patrons of the hotel would be temporary and would not induce permanent population growth. According to SCAG, the number of employees in the City is expected to increase by 6,800 from 2008 to 2035. As discussed further below, the number of employees for the Proposed Project is 186. This exceeds the number of employees that would be generated by the Approved Project, but the 186 additional employees are well within SCAG employment forecasts for Beverly Hills.

5.1.2 Economic Growth

The Proposed Project would generate temporary employment opportunities during construction, which would be expected to draw workers from the existing regional work force. Therefore, construction of the Project would not be considered growth-inducing from a temporary employment standpoint.

The Proposed Project includes a 134-room hotel totaling 204,291 square feet plus a total of 1,600 square feet of outdoor dining space, which is split between the rooftop area and the ground floor. The hotel includes restaurants, shops, a bar, a lobby lounge, a spa and fitness center, a ballroom and meeting rooms, amenities, and storage. The Table 5–1 shows employee estimates for the Proposed Project, which would generate an estimated 186 jobs. By comparison, the 2008 FEIR estimated employment for the Approved Project at 26-48 jobs. The hotel would also increase the number of visitors in Beverly Hills. The increased jobs and visitors would contribute to economic growth in the City. The additional population associated with the Project would also contribute to the local economy as demand for general goods increases, which in turn could result in economic growth for various sectors. However, as discussed above, the estimated number of new residents is about 114 less than the population forecast for the Approved Project, which would involve 42 more residences than the Proposed Project.

Table 5–1
Employee Forecast – Proposed Project

Use	Building Area (square feet)	Square Feet per Employee [3]	Estimated Employees
Retail/Restaurant/Bar [1]	20,141	730	28
Hotel [2]	185,750	1,179	158
Total			**186**

[1] Building area includes outdoor dining space and hotel shops (the 1,600 feet of outdoor dining space is not included in the commercial floor area, as discussed in Section 2.0, Project Description).

[2] Includes all hotel building area except restaurant/bar space and hotel shops.

[3] Estimates are the median values for Los Angeles County from the Employee Density Summary Report prepared by the Natelson Company for SCAG, 2001 (https://www.mwcog.org/uploads/committee-documents/bl5aX1pa20091008155406.pdf). The "Other Retail/Svc" category is applied to the retail, restaurant, and bar space.

As discussed in detail in Section 4.1, *Air Quality*, under Impact AQ-1, the Southern California Association of Governments (SCAG) forecasts that 6,800 jobs will be added in Beverly Hills between 2008 and 2035. The 186 jobs anticipated at the proposed hotel would be approximately 2.7 percent of job growth between 2008 and 2035 and, therefore, would be well within employment forecasts.

The Proposed Project would not be expected to induce substantial economic expansion beyond that which would occur under the Approved Project to the extent that direct physical environmental effects would result. Moreover, the environmental effects associated with any future development in or around Beverly Hills would be addressed as part of the CEQA environmental review for such development projects.

5.1.3 Removal of Obstacles to Growth

Like the Approved Project, the Proposed Project involves infill development on a site located within a fully urbanized area that is well served by existing infrastructure. As discussed in Section XVII, *Utilities and Service Systems*, of the Initial Study and sections 4.5, *Transportation and Traffic*, and 4.6, *Utilities and Service Systems (Water)*, of this SEIR, existing infrastructure in Beverly Hills would be adequate to serve the Proposed Project. No new or expanded roads or other infrastructure would be required to serve the Project; therefore, the Project would not remove any obstacles to growth.

5.2 IRREVERSIBLE ENVIRONMENTAL EFFECTS

The *CEQA Guidelines* require that EIRs evaluating projects involving amendments to public plans, ordinances, or policies contain a discussion of significant irreversible environmental changes. CEQA also requires decision makers to balance the benefits of a project against its unavoidable environmental risks in determining whether to approve a project. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the Proposed Project.

The Proposed Project involves infill development on a currently vacant lot in Beverly Hills on which a similar project (the Approved Project) has already been entitled. Construction and operation of the Proposed Project would involve an irreversible commitment of construction materials and non-renewable energy resources. The Proposed Project would involve the use of building materials and energy, some of which are non-renewable resources. Consumption of these resources would occur with any development in the region, including the Approved Project, and are not unique to the Proposed Project. Given that the overall building floor areas for the Approved Project and the Proposed Project are identical (901,514 square feet), the amount of building materials needed would be about the same under either scenario.

As with the Approved Project, the Proposed Project would also irreversibly increase local demand for non-renewable energy resources such as petroleum products and natural gas. However, increasingly efficient building design and automobile engines would offset this demand to some degree. As discussed in Section 2.0, *Project Description*, the Proposed Project includes a number of energy conservation features aimed at LEED Silver certification. In addition, the Proposed Project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. Additionally, the Proposed Project is designed to achieve a Silver LEED certification through environmentally-sensitive architecture and building systems (see further discussion in Section 5.3).

The Project would require a commitment of law enforcement, fire protection, water supply, wastewater treatment, and solid waste disposal services. However, as discussed in Section XIV, *Public Services,* and Section XVII, *Utilities and Service Systems,* of the Initial Study, and Section 4.6, *Utilities and Service Systems*, of this SEIR, impacts to these service systems would be less than

significant. Moreover, the commitment of these resources would occur under either the Proposed Project or the Approved Project.

As noted above, the Proposed Project would be subject to the California Energy Code and would also be designed to meet LEED Silver standards. The Proposed Project would be subject to the Green Building Standards Code, which requires solar access, natural ventilation, and stormwater capture. Consequently, the Proposed Project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and slowly renewable resources would be less than significant. Again, consumption of these resources would occur with any development in the region, including the Approved Project, and is not unique to the Proposed Project. Additional vehicle trips associated with the Proposed Project would incrementally increase local traffic and regional air pollutant and GHG emissions, as discussed in Sections 4.2, *Air Quality,* Section 4.4*, Greenhouse Gas Emissions,* and Section 4.6, *Transportation and Traffic*, as compared to the Approved Project. However, long-term impacts associated with operation of the Proposed Project would be less than significant based on City and regional thresholds.

The 2008 FEIR identified significant and unavoidable impacts for the Approved Project in the areas of aesthetics (views), air quality (temporary construction impacts), cultural resources (demolition of the Robinson's-May building), land use and planning (inconsistencies with land use and conservation policies), and noise/vibration (temporary construction impacts). The currently Proposed Project would have the same impacts as the Approved Project other than the cultural resources and land use and planning impacts since the Robinson's-May building has already been demolished and the 9900 Wilshire Specific Plan has been adopted, thus superseding the land use plans with which the 2008 FEIR determined that the Approved Project would be inconsistent. As discussed throughout the Initial Study in Appendix A and Section 4 of this SEIR, the Proposed Project generally would not substantially increase impacts as compared to the Approved Project; however, the Project would increase the severity of temporary construction-related air quality and noise impacts relative to the Approved Project due to the increased amount of grading and the increased duration of construction activity associated with the Proposed Project (see sections 4.1, *Air Quality*, and 4.4, *Noise*, for detailed discussions).

5.3 ENERGY EFFECTS

Public Resources Code Section 21100(b)(2) and Appendix F of the *CEQA Guidelines* require that EIRs include a discussion of the potential energy consumption and/or conservation impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful or unnecessary consumption of energy.

The Proposed Project would involve the use of energy during the construction and operational phases of the project. Energy use during the construction phase would be in the form of fuel consumption (e.g., gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. In addition, temporary grid power may also be provided to any temporary construction trailers or electric construction equipment. Long-term operation of the Proposed Project would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting, and heating and cooling systems.

Electricity service for the Proposed Project would be provided by Southern California Edison (SCE). SCE's power mix consists of approximately 20 percent renewable energy sources (wind, geothermal, solar, small hydro, and biomass) (SCE website, 2015). Gas service would be provided by the Southern California Gas Company. According to SCG (https://www.socalgas.com/smart-energy/benefits-of-natural-gas/affordable-abundant-domestic), natural gas is available in abundance domestically, with sufficient natural gas, in its traditional form, to meet the country's demand for more than 100 years. New technologies also offer the potential to capture methane, the primary ingredient in natural gas, from existing waste stream sources to make a renewable form of natural gas.

California used 296,628 gigawatt-hours (GWh) of electricity in 2013 (CEC, 2014a) and 2,313 billion cubic feet of natural gas in 2012 (CEC, 2012). Californians presently consume over 18 billion gallons of motor vehicle fuels per year (CEC, 2014b).

The Proposed and Approved Projects' estimated motor vehicle fuel use is detailed in Table 5-2. For comparison purposes, the estimated motor vehicle fuel use associated with the former Robinson-May is also shown in Table 5–2. Total estimated energy usage, including motor vehicle fuel, calculated using CalEEMod and shown in CalEEMod output files in Appendix B, is summarized and compared to state-wide usage in Table 5-3. The former Robinson-May department store had the greatest total annual fuel consumption when compared to the Approved and Proposed Projects. Automobiles traveling to and from the department store would use approximately twice as much motor fuel than motor vehicles traveling to and from the Approved Project and nearly 2 ½ times more motor fuel than motor vehicles traveling to and from the Proposed Project. Although the Proposed Project would result in more weekday trips than the Approved Project, it would generate fewer total vehicle miles traveled (VMT) as compared to the former Robinson-May store. The former Robinson-May building also used more electricity than either the Proposed Project or the Approved Project, although the Proposed Project would use more natural gas than either the former Robinson-May store or the Approved Project. . The Proposed Project would make a minimal contribution to state-wide energy consumption and would not be expected to adversely affect energy supplies.

The Proposed Project would also be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The Code applies to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances. The Code provides guidance on construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls and ceilings. The Code emphasizes saving energy at peak periods and seasons, and improving the quality of installation of energy efficiency measures. The California Green Building Standards Code sets targets for: energy efficiency; water consumption; dual plumbing systems for potable and recyclable water; diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including ecofriendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels.

Table 5-2
Estimated Project-Related Annual Motor Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips[1]	Annual Vehicle Miles Traveled[2]	Average Fuel Economy (miles/gallon)[3]	Total Annual Fuel Consumption (gallons)
Robinson-May				
Passenger Cars	51.66%	3,828,477	34.2	111,944
Light/Medium Trucks	44.44%	3,293,027	23.5	140,129
Heavy Trucks/Other	3.47%	257,280	7.7	33,413
Motorcycles	0.43%	31,970	50	639
Total	**100%**	**7,410,754**	--	**286,125**
Approved Project				
Passenger Cars	51.11%	1,749,574	34.2	51,157
Light/Medium Trucks	44.51%	1,523,533	23.5	64,831
Heavy Trucks/Other	3.94%	135,010	7.7	17,534
Motorcycles	0.44%	14,983	50	300
Total	**100%**	**3,423,100**	**--**	**133,822**
Proposed Project				
Passenger Cars	50.77%	1,506,389	34.2	44,046
Light/Medium Trucks	44.74%	1,327,290	23.5	56,480
Heavy Trucks/Other	4.06%	120,415	7.7	15,638
Motorcycles	0.43%	12,892	50	258
Total	**100%**	**2,966,985**	**--**	**116,423**

[1] Percent of vehicle trips found in Table 4.3 "Trip Type Information" in CalEEMod output (see Appendix B)
[2] Mitigated annual VMT found in Table 4.2 "Trip Summary Information" in CalEEMod output (see Appendix B)
[3] Average fuel economy for light/medium trucks, heavy trucks/other, and motorcycles provided by the United States Department of Transportation, Bureau of Transportation Statistics (2010); average fuel economy for passenger vehicles provided by the United States Department of Transportation, Bureau of Transportation Statistics (2016).
Note: Total may not add up due to rounding.

Table 5-3
Estimated Project-Related Energy Usage
Compared to State-Wide Energy Usage

Form of Energy	Units	Annual Project-Related Energy Use	Annual State-Wide Energy Use	Project % of State-Wide Energy Use
Robinson-May				
Electricity	mWh	6,758[1]	296,843,000[2]	0.0023%
Natural Gas	kBTU	476,000[1]	2,313,000,000,000[3]	0.00002%
Motor Vehicle Fuels	gallons	286,125[4]	18,019,000,000[5]	0.0016%
Approved Project				
Electricity	mWh	2,818[1]	296,843,000	0.0009%
Natural Gas	kBTU	3,354,424[1]	2,313,000,000,000	0.00015%
Motor Vehicle Fuels	gallons	133,822[4]	18,019,000,000	0.0007%
Proposed Project				
Electricity	mWh	4,583[1]	296,843,000	0.0015%
Natural Gas	kBTU	6,941,796[1]	2,313,000,000,000	0.0003%
Motor Vehicle Fuels	gallons	116,423[4]	18,019,000,000	0.0006%

[1] CalEEMod output provided in the Air Quality Analysis (see Appendix C for calculation results); Table 5.2
[2] California Energy Commission, California Energy Almanac, 2015. Total Electricity System Power, data as of September 2015. Available: http://energyalmanac.ca.gov/electricity/total_system_power.html
[3] California Energy Commission, California Energy Almanac, Overview of Natural Gas in California – Natural Gas Supply. Available: http://energyalmanac.ca.gov/naturalgas/overview.html
[4] See Table 5-2.
[5] California Energy Commission, 2014 Integrated Energy Policy Report, Available at http://www.energy.ca.gov/2014 publications/CEC-100-2014-001/CEC-100-2014-001-CMF.pdf.
Note: Total may not add up due to rounding.

The Proposed Project is required to comply with Title 24 standards. As discussed in Section 2.0, *Project Description*, the Proposed Project is designed to achieve a Silver LEED certification through environmentally-sensitive architecture and building systems. Specific sustainability features to be incorporated into the Project are described in subsection 2.5.3 of Section 2.0. In addition, per the 9900 Wilshire Specific Plan, the following LEED features at a minimum would be incorporated into the Project:

- *Balconies and overhangs to shade window glazing, while allowing reflected and diffuse daylight into residential condominiums to enhance the use of natural light and reduces the need for artificial light sources*
- *The selection of a developed urban site and the conversion of a substantial portion of the site to green space*
- *Close proximity to public transportation*
- *Landscaping and exterior design utilizing subterranean parking and landscaped and shaded non-roof surfaces and light-colored, low-albedo roof surfaces to reduce local heat island effects*
- *Reduction of chlorofluorocarbons (CFCs) from the building systems*

- *Selection of materials, such as adhesives, sealants, paints, and carpeting, that reduce off-gassing to improve internal air quality*
- *The involvement during design and construction of a LEED Accredited Professional*
- *A gray water system as set forth in Section 3.4F of the Specific Plan*

Meeting Title 24 energy conservation requirements in combination with the Project components described above would ensure that energy is not used in an inefficient, wasteful, or unnecessary manner per Public Resources Code Section 21100(b)(2).

6 ALTERNATIVES

As required by Section 15126.6 of the *CEQA Guidelines*, this SEIR examines a range of reasonable alternatives to the proposed project that would attain most of its basic objectives (stated in Section 2.5 of this SEIR) but would avoid or substantially lessen any of its significant effects.

As discussed in Section 2.0, *Project Description*, the objectives for the Approved Project, as listed in the 2008 FEIR, are as follows:

- *To create a world class architectural landmark with a visual presence at the dual gateway to the City at Wilshire Boulevard and Santa Monica Boulevard, and which will enhance the beauty and image of the City of Beverly Hills.*
- *To develop an environmentally sensitive and sustainable project for which the applicant intends to seek Leadership in Energy and Environmental Design (LEED) certification from the U.S. Green Building Council and establish a benchmark for environmentally responsible design in the City of Beverly Hills. To preserve approximately two thirds of the Project site as landscaped gardens and other open space to enhance the visual character of the Project.*
- *To provide a 0.42-acre entry garden along Wilshire Boulevard for the use and enjoyment of the public that complements and extends the existing Beverly Gardens Park on the north side of Wilshire Boulevard, enhances the garden qualities of the City, and replaces a high density commercial use across the street from an existing school and residential neighborhood.*
- *To redevelop the Project site in a manner that does not substantially increase the traffic levels and related operational air quality and noise impacts associated with the prior Robinson--May department store use on the site prior to closure.*
- *To improve the utilization and visual appearance of the Project site by eliminating the existing above ground parking structure and constructing subterranean parking for the Project that will be spread across the entire Project site to provide convenient parking for Project residents, guests and retail patrons.*
- *To provide a substantial amount of housing for local and area residents to help meet market demand and alleviate the substantial housing shortage in the City of Beverly Hills and the Westside of Los Angeles.*
- *To provide new housing within the City without having to tear down existing rental units or otherwise displace existing housing.*
- *To provide full service residential condominiums that are competitive with existing and proposed condominium projects in the Wilshire Corridor and Century City and have comparable views, so that residents who desire to "downsize" from their existing homes will not have to move out of Beverly Hills to find suitable housing.*
- *To provide restaurant and retail spaces along Santa Monica Boulevard to (a) serve project residents and others and (b) enhance pedestrian activity and street life by providing a connection between the current retail uses in Century City and Beverly Hills.*
- *To improve traffic circulation in and around the Project site by providing additional vehicular access points on Wilshire Boulevard and Santa Monica Boulevard for Project residents in order to reduce traffic on Merv Griffin Way.*
- *To reduce the intensity of uses currently permitted thereon by replacing the existing C 3 commercial zoning designation with a specific plan zoning designation that limits development to approximately two thirds of the number of residential units that would be permitted under the R4 residential zoning designation, along with a small amount of retail space.*

- *To provide an appropriate transition from the larger office and residential buildings in Century City and the Wilshire Corridor.*
- *To provide housing in close proximity to the office and retail uses in Century City and Beverly Hills.*
- *To provide annual net revenue to the City that substantially exceeds the revenue the City would receive from commercial operations on the Project site.*

Other than the objectives related to the provision of retail development, the objectives for the Approved Project continue to apply. The following additional objectives apply to the Proposed Project:

1. *Promote fiscal benefits to, and economic development and job creation in, the City of Beverly Hills.*
   a. *Develop a luxury hotel with appropriate high-end amenities (i.e., meeting rooms, spa, and restaurants) that attract tourists, business travelers, and members of the Beverly Hills community alike.*
   b. *Ensure that the hotel is of a quality, size, design, and use that attracts visitors from around the world along with members of the Beverly Hills community so that it is established as a world class hotel and furthers Beverly Hills' reputation as a premier hospitality location.*
   c. *Provide restaurants at the western gateway to Beverly Hills to serve the Project's residents, hotel guests and the Beverly Hills community and to enhance pedestrian activity.*
   d. *Provide a complementary mix of land uses, including a hotel use that maximizes transient occupancy tax and other tax revenues to the City in order for the City to continue to provide and finance critical City services including its police department, fire department and schools.*
   e. *Provide increased annual net revenue to the City that substantially exceeds the revenue the City would receive from the approved residential project or other commercial uses on the Project Site.*
   f. *Increase the supply of luxury hotel rooms in the City to meet the City's ever increasing demand for luxury hotel rooms and (1) to prevent further leakage into competing luxury hotels outside of the City including luxury hotels in West Hollywood, Century City and Santa Monica and (2) to ensure that these guests and visitors continue to shop, stay and dine in Beverly Hills to support local businesses and to increase the revenues to the City.*
2. *Provide a set of mixed-uses that takes maximum advantage of the physical, social and economic potential of the Project Site.*
   a. *Increase the Beverly Hills community's use and enjoyment of the site by adding commercial uses that include hotel rooms, dining options and luxury hotel amenities (including a spa and meeting facilities).*
   b. *Arrange residential and onsite hotel facilities and other uses in a way that is logical and promotes efficient operations.*
   c. *Provide the range of uses within the hotel to ensure that it is economically viable as a luxury hotel.*
   d. *Co-locate residential and hotel units to permit shared use of site amenities.*

   e. *Provide needed housing for local and area residents to help meet the market demand and alleviate the housing shortage in the City of Beverly Hills and the Westside of Los Angeles.*
   f. *Expand the variety of high-quality housing options to the City's residents by providing much sought after hotel-amenitized condominiums that are competitive with existing housing.*
   g. *Provide full service, hotel-amenitized condominiums that are competitive with existing and proposed condominium projects in the Wilshire Corridor and Century City and have comparable views, so that the residents who desire to downsize from their existing homes will not have to move out of Beverly Hills to find suitable full service housing.*
3. *Create a unified, environmentally sensitive hotel and residential development.*
   a. *Enhance the City's western gateway and the pedestrian and vehicular views from Wilshire Boulevard and Santa Monica Boulevard.*
   b. *Create a world-class architectural landmark with a visual presence at the dual gateway to the City of Beverly Hills at Wilshire Boulevard and Santa Monica Boulevard and which will enhance the beauty and image of the City of Beverly Hills.*
   c. *Redevelop the Project Site in a manner that does not substantially increase the traffic levels and related operational air quality and noise impacts associated with the prior Robinson-May department store.*
   d. *Incorporate environmentally sensitive, sustainable, responsible design, including Leadership in Energy and Environmental Design (LEED) standards.*
   e. *Preserve approximately forty percent of the Project Site as landscaped gardens and other green space to enhance the visual character of the Project and to maximize the community's use and enjoyment of the Site.*
   f. *Provide an entry garden along Wilshire Boulevard for the use and enjoyment of the Beverly Hills Community that complements and extends the existing Beverly Gardens Park on the north side of Wilshire Boulevard, and enhance the garden qualities of the City across the street.*
   g. *Provide subterranean parking and loading dock facilities to provide convenient parking for the Project's guests and residents and to enable the creation of the Project's substantial open space and green space for the use and enjoyment of the Beverly Hills community and the Project's residents and guests.*
   h. *Improve traffic circulation in and around the Project Site by providing additional vehicular access points on Wilshire Boulevard and Santa Monica Boulevard, and reduce traffic on Merv Griffin Way.*
   i. *Develop the Project Site in order to maximize the strength of its physical, social and economic potential without negatively impacting its neighboring residential and school uses.*

Included in this analysis are four alternatives, including the CEQA-required "no project" alternative, that involve changes to the Project that may reduce the Project-related environmental impacts as identified in this SEIR. Ordinarily, alternatives analyses focus primarily on issues for which the proposed action would have unavoidably significant impacts. However, the only increased severity significant impacts of the Proposed Project that cannot be avoided relate to the temporary construction activity (air quality and noise). Because construction of any development on the Project site of a scale similar to what is currently

proposed would be expected to have construction-related impacts similar to those identified for the Proposed Project, the alternatives selected for consideration do not specifically address construction-related impacts. Rather, alternatives have been developed to provide a reasonable range of options to consider that would help decision makers and the public understand the general implications of revising or eliminating certain components of the Proposed Project and revising the 9900 Wilshire Specific Plan.

The following alternatives are evaluated in this SEIR:

- *No Project (Approved Project)*
- *Reduced Hotel Alternative*
- *Office Alternative*

The potential environmental impacts of each alternative are analyzed in Sections 6.1 through 6.3.

Table 6-1 provides a summary comparison of the development characteristics of the Proposed Project and each of the alternatives considered. A more detailed description of the alternatives is included in the impact analysis for each alternative.

Table 6-1
Comparison of Project Alternatives' Buildout Characteristics

Characteristic	Alternatives			
	Proposed Project	No Project Alternative (Approved Project)	Reduced Hotel Alternative	Office Alternative
Residential Units	193	235	214	193
Hotel Rooms	134	--	67	--
Retail	--	11,656 SF	--	--
Spa & Fitness	14,435 SF	--	7,217 SF	--
Ballroom & Meeting Rooms	7,942 SF	--	3,971 SF	--
Hotel Shops	2,484 SF	--	1,242 SF	--
Restaurant/Lounge/Bar	15,227 SF	4,800 SF	7,614 SF	--
Office	--	--	--	204,291 SF

SF = square feet

All of these alternatives are described and analyzed below. Other alternatives considered as part of this SEIR involve different site access options beyond those described in Section 2.0, *Project Description*. These additional options are discussed in subsection 6.5, *Alternatives Considered But Rejected*.

6.1 NO PROJECT ALTERNATIVE (APPROVED PROJECT)

6.1.1 Description

This alternative assumes that the Approved Project as last modified in 2012 is built on the Project site. As described in detail in Section 2.0, *Project Description*, this would involve 235 condominiums, 11,656 square feet of retail space and 4,800 square feet of restaurant/lounge/bar space. Per the approved 9900 Wilshire Specific Plan, the South Building would be 205 feet in height and the North Building would be 161 feet in height.

6.1.2 Impact Analysis

a. Air Quality. As discussed in Section 4.1, *Air Quality*, construction-related air pollutant emissions associated with the Approved Project would be somewhat lower than those of the Proposed Project due to the reduction in overall excavation and reduced timeframe of construction. Nevertheless, as identified in the 2008 FEIR, construction-related emissions of NO_x would exceed SCAQMD thresholds and would be unavoidably significant. All mitigation from the 2008 FEIR would continue to apply.

In the long term, neither the Approved Project nor the Proposed Project would generate emissions exceeding SCAQMD regional thresholds, nor would either conflict with the SCAQMD's Air Quality Management Plan (AQMP). Overall impacts associated with the Approved Project would be about the same as those of the Proposed Project and would be less than significant.

b. Greenhouse Gas Emissions. As discussed in Section 4.2, *Greenhouse Gas Emissions*, the Approved Project would generate about 400 fewer metric tons of CO_2e annually than the Proposed Project. Emissions associated with either the Approved Project or the Proposed Project would be substantially less than emissions associated with the former Robinson-May; therefore, neither the Approved Project nor the Proposed Project would increase emissions as compared to the former use of the Project site. Neither the Approved Project nor the Proposed Project would conflict with applicable plans or policies related to GHG emissions since either would involve infill development that would comply with applicable energy conservation requirements and proposed sustainability features, while being consistent with regional efforts to reduce vehicle miles traveled (VMT) by providing housing and services in an already urbanized area. Impacts would be less than significant for either the Approved Project or the Proposed Project and mitigation would not be required.

c. Land Use and Planning. The Approved Project is entirely consistent with the 9900 Wilshire Specific Plan and is already fully entitled by the City. As such, it would have no conflicts with respect to applicable land use plans or policies. The Proposed Project, by comparison, would require certain amendments to the adopted Specific Plan. As discussed in Section 4.3, *Land Use and Planning*, adoption of these amendments would not conflict with other City plans or policies, nor would it result in any new significant environmental effects other than temporary air quality and noise impacts related to construction activity. Impacts would be less than significant for either the Approved Project or the Proposed Project. Nevertheless, the overall impact of the Approved Project would be somewhat lower since no change to the adopted Specific Plan would be required.

d. Noise and Vibration. As discussed in Section 4.4, *Noise and Vibration*, maximum daily noise levels associated with construction of the Approved Project would be similar to those of the Proposed Project, but the overall duration of construction would be 18 months shorter under the Approved Project. Construction activity for either the Approved Project or the Proposed Project would be limited to daytime hours, thus avoiding generation of high noise levels when residents are most sensitive to noise; however, the nearby El Rodeo School would be adversely affected by daytime construction noise for either the Approved Project or the Proposed Project. Mitigation measures from the 2008 FEIR would apply. Although the Approved Project's impact would be somewhat lower than that of the Proposed Project due to the shorter duration of construction, the temporary noise impact would remain unavoidably significant.

In the long term, the overall increase in onsite and traffic noise would be slightly lower under the Approved Project than under the Proposed Project. As with the Proposed Project, the change in long-term noise exposure for nearby sensitive receptors would be less than significant. Exposure of future onsite residents to noise would be the same, while the overall number of noise-sensitive residences would be lower under the Proposed Project (193 versus 235). Mitigation would be the same for either the Approved Project or the Proposed Project and would reduce overall impacts related to either scenario to a less than significant level.

e. Transportation and Traffic. As shown in Table 4.5.-5 in Section 4.5, *Transportation and Traffic*, the Approved Project would generate an estimated 1,945 average daily vehicle trips (ADT), including 133 a.m. peak hour trips, 196 midday peak hour trips, 174 p.m. peak hour trips, and 175 Saturday peak hour trips. The Proposed Project, by comparison, would generate 2,183 ADT, including 113 a.m. peak hour trips, 157 midday peak hour trips, 188 p.m. peak hour trips, and 115 Saturday peak hour trips. Therefore, the Approved Project would generate less overall daily traffic and slightly less p.m. peak hour traffic, but slightly more a.m. and midday peak hour traffic as compared to the Proposed Project. As with the Proposed Project, forecast levels of service (LOS) with Approved Project traffic would be at E or F at 10 of 11 study area intersections. These conditions are similar to what was identified in the 2008 FEIR and represent a reduction in long-term traffic as compared to the former Robinson-May. Overall long-term impacts to study intersections would be about the same as those of the Proposed Project and would not be significant. Impacts related to the Congestion Management Program (CMP), residential streets, site access, and alternative transportation modes would also be similar to those of the Proposed Project and less than significant.

As identified in the 2008 FEIR, construction of the Approved Project would have significant temporary traffic impacts. Overall impacts would be lower than those of the Proposed Project due to the reduced number of truck trips related to earth movement and reduced overall timeframe for construction. Mitigation adopted as part of the 2008 FEIR would continue to apply to the Approved Project and would reduce impacts to a less than significant level.

f. Utilities and Service Systems (Water). As discussed in Section 4.6, *Utilities and Service Systems*, the Approved Project would generate demand for an estimated 74 acre-feet per year (AFY) of water. By comparison, the Proposed Project would generate demand for about 95 AFY. Thus, demand associated with the Approved Project would be about 22 percent lower than that of the Proposed Project. Current and planned water supplies would be adequate to meet the demands of either the Approved Project or the Proposed Project and impacts would be less than

significant. Mitigation beyond standard water conservation requirements and implementation of the water conservation requirements of the adopted 9900 Wilshire Specific Plan would not be needed under either scenario.

6.2 REDUCED HOTEL ALTERNATIVE

6.2.1 Description

Under this alternative, the hotel would be reduced to 67 rooms and the size of all ancillary hotel facilities (spa and fitness center, ballroom/meeting rooms, hotel shops, restaurants/ lounge/ bars) would be reduced by 50 percent. These facilities would be replaced by an additional 21 residential units, bringing the total number of residences to 214. The new residences are assumed to include 12 one-bedroom, 7 two-bedroom, and 2 three-bedroom units. The 57 hotel rooms would be on the lower floors of the South Building.

6.2.2 Impact Analysis

a. Air Quality. Temporary construction-related air quality impacts associated with this alternative would be similar to those of the Proposed Project since the building footprints and overall amount and duration of construction would be the same. As with the Proposed Project, this alternative would increase the severity of the unavoidably significant impact identified in the 2008 FEIR. Mitigation from the 2008 FEIR would apply, but would not avoid the increased severity of this impact.

In the long term, this alternative would generate about 31 percent less overall daily traffic than the Proposed Project. Energy use would also be somewhat lower. Overall air quality impacts would, therefore, be lower than those of the Proposed Project. As with the Proposed Project, emissions would be below SCAQMD thresholds for all pollutants and impacts would be less than significant. Impacts related to AQMP consistency would also be less than significant. As with the Proposed Project, mitigation would not be required for long-term impacts.

b. Greenhouse Gas Emissions. Temporary construction-related GHG impacts associated with this alternative would be similar to those of the Proposed Project since the building footprints and amount and duration of construction would be the same. This alternative would generate about 31 percent less daily traffic than the Proposed Project and would have about 20 percent lower demand for water as well as a reduction in overall energy use due to the reduction in restaurant/lounge/bar space. Overall impacts related to GHGs and climate change would be lower than those of the Proposed Project. Similar to the Proposed Project, GHG emissions would be lower than those associated with the former Robinson-May. This alternative would also be expected to generate somewhat fewer emissions than the Approved Project. Neither this alternative nor the Proposed Project would conflict with applicable plans or policies related to GHG emissions since both entail infill development that would comply with applicable energy conservation requirements, implement proposed sustainability features, and generally be consistent with regional efforts to reduce regional vehicle miles traveled by providing housing and hotel rooms in an already urbanized area**.**

c. Land Use and Planning. Like the Proposed Project, this alternative would require certain amendments to the adopted 9900 Wilshire Specific Plan. However, as discussed for the Proposed Project in Section 4.3, *Land Use and Planning*, adoption of the required Specific Plan

amendments under this alternative would not conflict with other City plans or policies, nor would the amendments result in an increase in the severity of environmental effects beyond those associated with the Approved Project other than the same temporary air quality and noise impacts related to construction activity that would occur under the Proposed Project. The overall impact of this alternative would be about the same as that of the Proposed Project and would be less than significant.

d. Noise and Vibration. Maximum daily noise levels associated with construction of this alternative would be similar to those of the Proposed Project and the overall duration of construction would also be about the same. Construction activity for either this alternative or the Proposed Project would be limited to daytime hours, thus avoiding generation of high noise levels when residents are most sensitive to noise; however, the nearby El Rodeo School would be adversely affected by daytime construction noise for either this alternative or the Proposed Project. Mitigation measures from the 2008 FEIR would apply to this alternative. However, as with the Proposed Project, the severity of the Approved Project's unavoidably significant construction noise impact would increase because of the 18-month increase in the duration of construction.

In the long term, neither this alternative nor the Proposed Project would generate a significant noise increase at nearby sensitive receptors. Exposure of future onsite residents to noise would be the same as under the Proposed Project, but the overall number of noise-sensitive residences would be slightly higher under this alternative (214 versus 193). Mitigation for the Proposed Project would apply to this alternative. As with the Proposed Project, these measures would reduce impacts to a less than significant level.

e. Transportation and Traffic. As shown in Table 6–2, this alternative would generate an estimated 1,508 ADT, including 89 a.m. peak hour trips, 129 midday peak hour trips, 155 p.m. peak hour trips, and 101 Saturday peak hour trips. This is 675 less ADT, 24 fewer a.m. peak hour trips, 28 fewer midday peak hour trips, 33 fewer p.m. peak hour trips, and 14 fewer Saturday peak hour trips as compared to the Proposed Project. Because this alternative would generate less overall daily and peak hour traffic, it would have lower impacts at study intersections. Like the Proposed Project, this alternative would result in no significant transportation/traffic effects as compared the Approved Project. Similar to the Proposed Project, future LOS conditions would be similar to what was identified in the 2008 FEIR and represent a reduction in long-term traffic as compared to the former Robinson-May. Impacts related to residential streets and the Congestion Management Program (CMP) would also be lower, while impacts related to site access and alternative transportation modes would be similar to those of the Proposed Project and less than significant.

Similar to the Proposed Project and as identified in the 2008 FEIR, construction of this alternative would have significant temporary traffic impacts. Overall impacts would be about the same as those of the Proposed Project since construction trips and the overall timeframe for construction would be similar. Mitigation adopted as part of the 2008 FEIR would apply and would reduce impacts to a less than significant level.

Table 6–2
Trip Generation Comparison

	Proposed Project	Reduced Hotel Alternative	Difference
Average Daily Traffic (ADT)	2,183	1,508	-675
A.M. Peak Hour Trips	113	89	-24
Midday Peak Hour Trips	157	129	-28
P.M. Peak Hour Trips	188	155	-33
Saturday Peak Hour Trips	115	101	-14

See Appendix E for calculations of Reduced Hotel alternative traffic. Trip estimates based on the rates shown in Table 10 of the Traffic Impact Study in Appendix D, and the buildout characteristics shown in Table 6-1.

f. Utilities and Service Systems (Water). As shown in Table 6–3, this alternative would generate demand for an estimated 69 AFY of water, or about 26 AFY (27%) less than the 95 AFY demand associated with the Proposed Project. Current and planned water supplies would be adequate to meet the demands of either this alternative or the Proposed Project and impacts would be less than significant. Mitigation beyond standard water conservation requirements and implementation of the water conservation requirements of the adopted 9900 Wilshire Specific Plan would not be needed under either scenario.

Table 6–3
Water Demand Comparison

	Demand (AFY)	
Use	**Proposed Project**	**Reduced Hotel Alternative**
Condominiums	43	49
Hotel/Hotel Ancillary	28	8
Restaurants/Other	24	12
Total	**95**	**69**

See Appendix E for calculations of Reduced Hotel alternative water demand.
AFY = acre-feet per year
All based on demand factors of 250 gallons/condominium/day, 162.5 gallons/hotel room/day, and 37.5 gallons/seat/day for restaurant (1 seat/30 square feet).
Assumes that water use is 125% of wastewater generation.
1 AF = 325,851 gallons

6.3 OFFICE ALTERNATIVE

6.3.1 Description

Under this alternative, the hotel component of the Proposed Project would be replaced with 204,291 square feet of office space. The office space would replace the hotel rooms and lobby of the South Building. Other than replacing the hotel with office space, this alternative would be identical to the Proposed Project. It would include 193 residences and all other components described in Section 2.0, *Project Description*.

6.3.2 Impact Analysis

a. Air Quality. Temporary construction-related air quality impacts associated with this alternative would be similar to those of the Proposed Project since the building footprints and overall amount and duration of construction would be the same. As with the Proposed Project, this alternative would increase the severity of the unavoidably significant impact identified in the 2008 FEIR. Mitigation from the 2008 FEIR would apply, but would not avoid the increased in severity of this impact.

In the long term, this alternative would generate about 35 percent more daily vehicle traffic than the Proposed Project due to the replacement of the hotel with office development. On the other hand, energy use would be somewhat lower. Overall air quality impacts would similar to, but slightly higher than those of the Proposed Project. The office use would generate an estimated 464 employees, or about 278 more than the 186 employees that would be generated by the hotel and ancillary uses.[1] Such employment growth would remain within Southern California Association of Governments (SCAG) forecasts for Beverly Hills; therefore, this alternative would not conflict with the AQMP. Similar to the Proposed Project, long-term impacts associated with this alternative would be less than significant.

b. Greenhouse Gas Emissions. Temporary construction-related GHG impacts associated with this alternative would be similar to those of the Proposed Project since the building footprints and amount and duration of construction would be the same. This alternative would generate about 35 percent more daily traffic than the Proposed Project, but would have slightly lower demand for energy and water due to the replacement of the hotel component with an office component. Overall impacts related to GHGs and climate change would be similar to, but slightly higher than those of the Proposed Project. Similar to the Proposed Project, GHG emissions would be lower than those associated with the former Robinson-May. Neither this alternative nor the Proposed Project would conflict with applicable plans or policies related to GHG emissions since both entail infill development that would comply with applicable energy conservation requirements, implement proposed sustainability features, and generally be consistent with regional efforts to reduce regional vehicle miles traveled by providing housing and office space in an already urbanized area.

c. Land Use and Planning. Like the Proposed Project, this alternative would require certain amendments to the adopted 9900 Wilshire Specific Plan. However, as discussed for the Proposed Project in Section 4.3, *Land Use and Planning*, adoption of the required Specific Plan amendments under this alternative would not conflict with other City plans or policies, nor would the amendments result in any increase in the severity of environmental effects beyond those associated with the Approved Project other than the same temporary air quality and noise impacts related to construction activity that would occur under the Proposed Project. The overall impact of this alternative would be about the same as that of the Proposed Project and would be less than significant. The office use would generally be compatible with the mix of uses in the area. This alternative would provide more jobs than the Proposed Project, but would have fewer benefits to the City's tax base and would not expand the City's hotel industry. As

[1] *This estimate assumes 440 square feet per employee, based on the average for Los Angeles County reported in the Employment Density Study prepared by the Natelson Company for the Southern California Association of Governments, 2001. This same study was used to estimate employment generated by the Proposed Project (see sections 4.1, Air Quality, and 5.0, Other CEQA-Required Discussions).*

such, it may be less consistent with Economic Sustainability Element policies ES 1.3 and ES 1.4 than the Proposed Project.

d. Noise and Vibration. Maximum daily noise levels associated with construction of this alternative would be similar to those of the Proposed Project and the overall duration of construction would also be about the same. Construction activity for either this alternative or the Proposed Project would be limited to daytime hours, thus avoiding generation of high noise levels when residents are most sensitive to noise; however, the nearby El Rodeo School would be adversely affected by daytime construction noise for either this alternative or the Proposed Project. Mitigation measures from the 2008 FEIR would apply to this alternative. However, as with the Proposed Project, the severity of the Approved Project's unavoidably significant construction noise impact would increase because of the 18-month increase in the duration of construction.

In the long term, neither this alternative nor the Proposed Project would generate a significant noise increase at nearby sensitive receptors. This alternative would generate slightly greater overall traffic noise, but slightly less onsite noise due to elimination of outdoor dining areas. Exposure of future onsite residents to noise would be the same as under the Proposed Project. The number of noise-sensitive residences would be the same as with the Proposed Project, but the office use would be somewhat less noise-sensitive than the hotel use. Mitigation for the Proposed Project would apply to this alternative. As with the Proposed Project, these measures would reduce impacts to a less than significant level.

e. Transportation and Traffic. As shown in Table 6–4, this alternative would generate an estimated 2,938 average ADT, including 373 a.m. peak hour trips, 217 midday peak hour trips, 368 p.m. peak hour trips, and 144 Saturday peak hour trips. This is 755 more ADT, 260 more a.m. peak hour trips, 29 more midday peak hour trips, 211 more p.m. peak hour trips, and 29 more Saturday peak hour trips as compared to the Proposed Project. This alternative would have a greater overall daily impact and a greater impact at study intersections during all peak hours. This alternative could potentially result in significant impacts to study intersections beyond those associated with the Approved Project, though additional analysis would be required to determine the severity of such impacts. Impacts related to residential streets and the Congestion Management Program (CMP) would also be somewhat higher than those of the Proposed Project due to overall increase in vehicle trips, but would not be expected to exceed local or CMP significance thresholds. Impacts related to site access and alternative transportation modes would be similar to those of the Proposed Project.

Similar to the Proposed Project and as identified in the 2008 FEIR, construction of this alternative would have significant temporary traffic impacts. Overall impacts would be about the same as those of the Proposed Project since construction trips and the overall timeframe for construction would be similar. Mitigation adopted as part of the 2008 FEIR would apply and would reduce temporary construction impacts to a less than significant level.

Table 6–4
Trip Generation Comparison

	Proposed Project	Office Alternative	Difference
Average Daily Traffic (ADT)	2,183	2,938	+755
A.M. Peak Hour Trips	113	373	+260
Midday Peak Hour Trips	188	217	+29
P.M. Peak Hour Trips	157	368	+211
Saturday Peak Hour Trips	115	144	+29

See Appendix E for calculations of Office alternative traffic.
Trip estimates for the Office Alternative are based on the rates shown in Table 10 of the Traffic Impact Study in Appendix D and the following rates for the office component (all from Institute of Transportation Engineers, Trip Generation, 9th Edition, except midday peak hour, which assumes that the midday rate is half of the p.m. peak hour rate):

- *11.03 daily trips per 1,000 square feet*
- *1.56 a.m. peak hour trips per 1,000 square feet*
- *0.75 midday peak hour trips per 1,000 square feet*
- *1.49 p.m. peak hour trips per 1,000 square feet*
- *0.43 Saturday peak hour trips per 1,000 square feet*

Buildout characteristics of the office alternative are shown in Table 6-1.

f. Utilities and Service Systems (Water). As shown in Table 6–5, this alternative would generate demand for an estimated 76 AFY of water, or about 19 AFY (20%) less than the 95 AFY demand associated with the Proposed Project. Current and planned water supplies would be adequate to meet the demands of either this alternative or the Proposed Project and impacts would be less than significant. Mitigation beyond standard water conservation requirements and implementation of the water conservation requirements of the adopted 9900 Wilshire Specific Plan would not be needed under either scenario.

Table 6–5
Water Demand Comparison

	Demand (AFY)	
Use	**Proposed Project**	**Office Alternative**
Condominiums	43	43
Hotel/Hotel Ancillary	28	--
Restaurants/Other	24	--
Office	--	33
Total	**95**	**76**

See Appendix E for calculations of Office alternative water demand.
AFY = acre-feet per year
Based on demand factors of 250 gallons/condominium/day, 162.5 gallons/hotel room/day, 37.5 gallons/seat/day for restaurant (1 seat/30 square feet), and 0.1875 gallons/square foot/day for office.
Assumes that water use is 125% of wastewater generation.
Sources: City of LA CEQA Thresholds Guide, 2006, and City of Los Angeles Bureau of Sanitation, Sewer Generation Rates Table, March 20, 2002.
1 AF = 325,851 gallons

6.4 ALTERNATIVES CONSIDERED BUT REJECTED

In addition to the two site access options (Options 1 and 2) described in Section 2.0, *Project Description*, the applicant and City considered three other site access options (numbered as options 3-5 herein).[2] These are described below and illustrated on Figures 6-1 through 6-3.

3. *Partial U-Turn at Merv Griffin Way for Vehicles Entering Hotel, Secondary Access from Merv Griffin Way, & Separate Left-turn for Residential Uses*

    - *This option shifts the driveway into the Hotel Motor Court to the intersection of Merv Griffin Way & N. Santa Monica Boulevard. Instead of making a complete U-turn at Merv Griffin Way, vehicles would make a partial U-turn and pull directly into the Hotel Motor Court. Vehicles traveling on Merv Griffin Way would also be able to access the Hotel Motor Court at a secondary driveway located just before the signal at N. Santa Monica Boulevard. Vehicles entering the residential uses would be able to make a left-turn from N. Santa Monica Boulevard directly into the residential driveway.*

4. *Partial U-Turn at Merv Griffin Way for Vehicles Entering Hotel & Separate Left-turn for Residential Uses*

    - *Access to the site is the same as for Option 3 above except the secondary driveway providing direct access to the Hotel Motor Court from Merv Griffin Way is no longer provided. Vehicles traveling on Merv Griffin Way would make a right-turn directly into the Hotel Motor Court driveway at the intersection of N. Santa Monica Boulevard.*

5. *Left-Turn/U-Turn Access at Hotel Motor Court*

    - *This alternative is similar to Option 1 in Section 2.0, Project Description, but allows eastbound traffic to turn left into the Hotel Motor Court driveway from N. Santa Monica Boulevard instead of having to make a U-turn at the intersection.*

These three options were studied as part of a site access analysis performed by Fehr & Peers (see April 6, 2016 memorandum in Appendix D). The options were found to not work as well as Options 1 and 2 in Section 2.0, *Project Description*, and under Impact T-3 in Section 4.5, *Transportation and Traffic*) and were therefore rejected from further consideration. Fehr & Peers identified the following specific concerns with these site access options:

- *The diagonal entrance to the Hotel Motor Court at the Merv Griffin Way & N. Santa Monica Boulevard intersection could result in driver confusion. Unlike an office or residential building, most people driving to a hotel are visiting from outside the area and not familiar with the site access or surrounding roadway network. Therefore, the diagonal driveway could result in on-going driver confusion for those visiting the hotel.*
- *The diagonal entrance to the Hotel Motor Court could result in high travel speeds from those entering the hotel from southbound N. Santa Monica Boulevard. The diagonal entry way does not force vehicles to slow down upon entry.*
- *Pedestrian access to the hotel and along N. Santa Monica Boulevard would be disrupted with the diagonal driveway into the Hotel Motor Court. Pedestrian activity along N. Santa Monica*

[2] *These options are numbered as options 2-4 in the Fehr & Peers memorandum dated February 24, 2016 in Appendix D.*

Boulevard is expected to increase with the development of the proposed project and the site under construction next door to the proposed project. Creating a pedestrian friendly and walkable environment between the proposed project and adjacent uses will help to encourage walking for short-distance trips.

No specific concerns were identified for Option 5 (Option 4 from the Fehr & Peers memo). However, Option 2 in Section 2.0 is a refinement of Option 5 that has the following advantages:

- *It would also minimize vehicle delays and vehicle queuing at the project site.*
- *Providing direct access from Santa Monica Boulevard North to the residential and Hotel Motor Court driveways limits the need for vehicles to make a U-turn at the Merv Griffin Way intersection.*
- *The secondary driveway on Merv Griffin Way allows vehicles to enter the Hotel Motor Court from the north without needing to access Santa Monica Boulevard, and allows an alternative route for vehicles during special events that require partial or full closure of Santa Monica Boulevard North.*

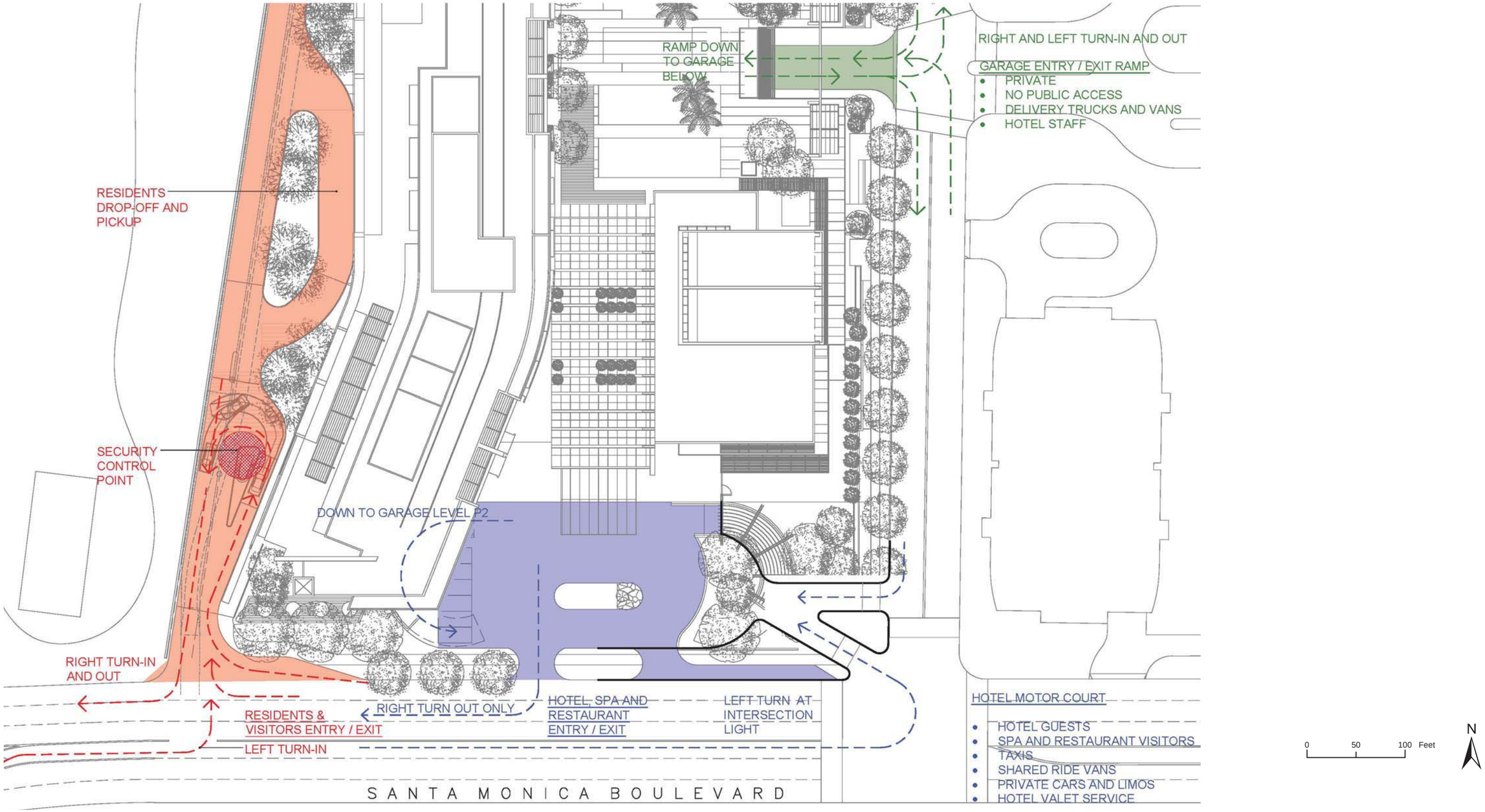
Therefore, Option 2 in Section 2.0 was selected for consideration in lieu of Option 5.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6-6 indicates whether each alternative's environmental impact is greater than, less than, or similar to that of the Proposed Project. The No Project alternative (Approved Project) would avoid the increased severity temporary air quality and noise impacts associated with construction of the Proposed Project. Long-term impacts of the Approved Project would be incrementally lower, but the overall magnitude of long-term impacts would be about the same as those of the Proposed Project. Neither the Reduced Hotel alternative nor the Office alternative would avoid the Proposed Project's increased severity construction-related impacts. Overall long-term impacts of the Reduced Hotel alternative would be slightly lower than those of the Proposed Project with respect to traffic, air quality, GHGs, and utilities. For the Office alternative, impacts related to traffic, air quality, and GHGs would be higher than those of the Proposed Project, but utility (water) impacts would be somewhat lower. The Office alternative could potentially have significant traffic impacts. Either the Approved Project or the Reduced Hotel alternative would be environmentally superior to the Proposed Project overall. The Office alternative would not be environmentally superior to the Proposed Project.

The Approved Project would meet the original objectives outlined in the 2008 FEIR and would generally meet new objectives related to providing a set of mixed-uses that takes maximum advantage of the physical, social and economic potential of the Project Site and creating a unified, environmentally sensitive development. However, the Approved Project would not meet any of the new objectives relating to the hotel, including those associated with maximizing transient occupancy tax and other tax revenues.

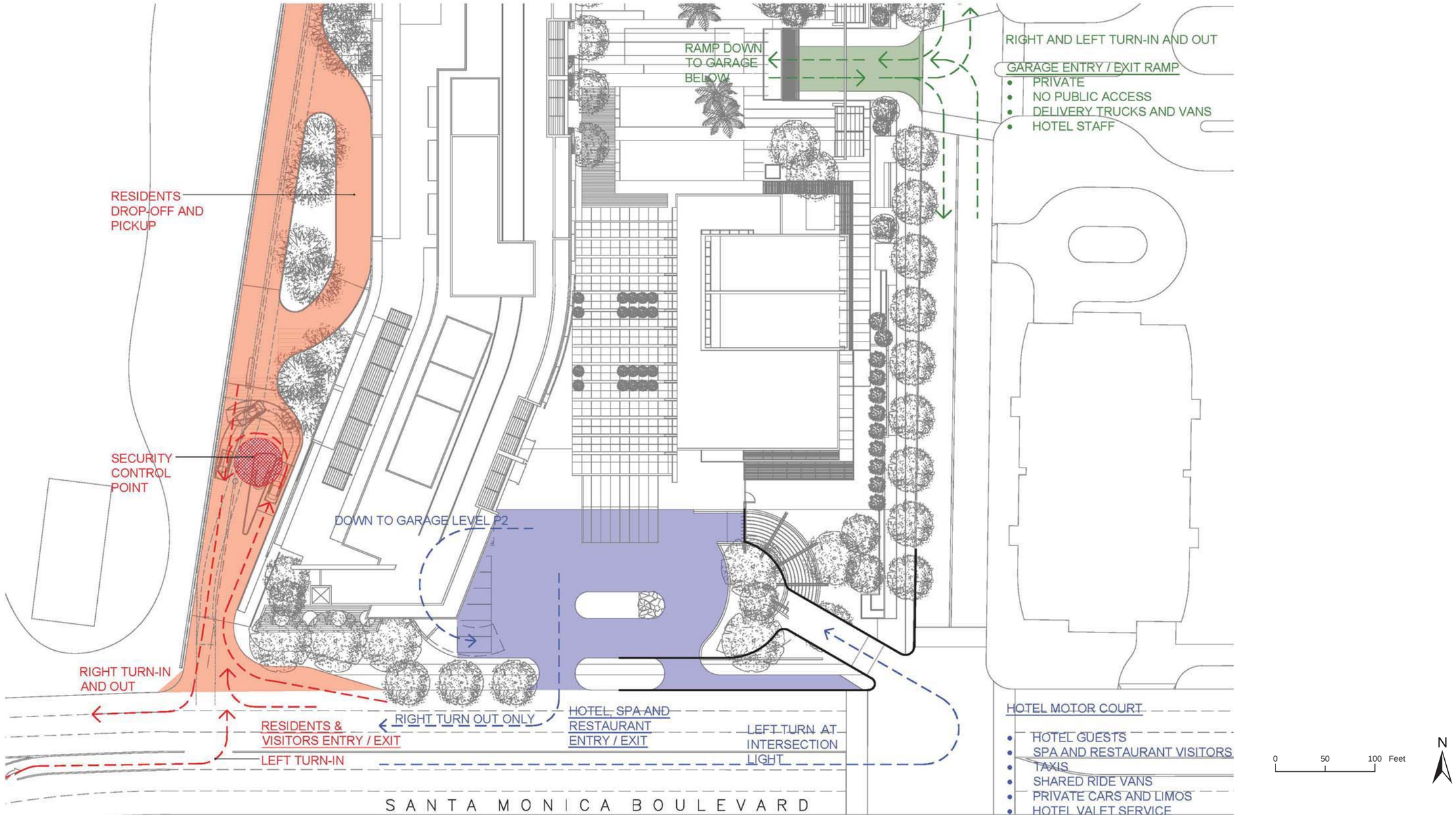
The Reduced Hotel alternative would generally meet the most of the original objectives outlined in the 2008 FEIR as well as the new objectives for the Proposed Project. However, the smaller hotel would have fewer benefits than the Proposed Project with respect to transient occupancy tax and other tax revenues.



Motor Court Option 3

Source: Richard Meier & Partners LLP, June 2015

Figure 6-1

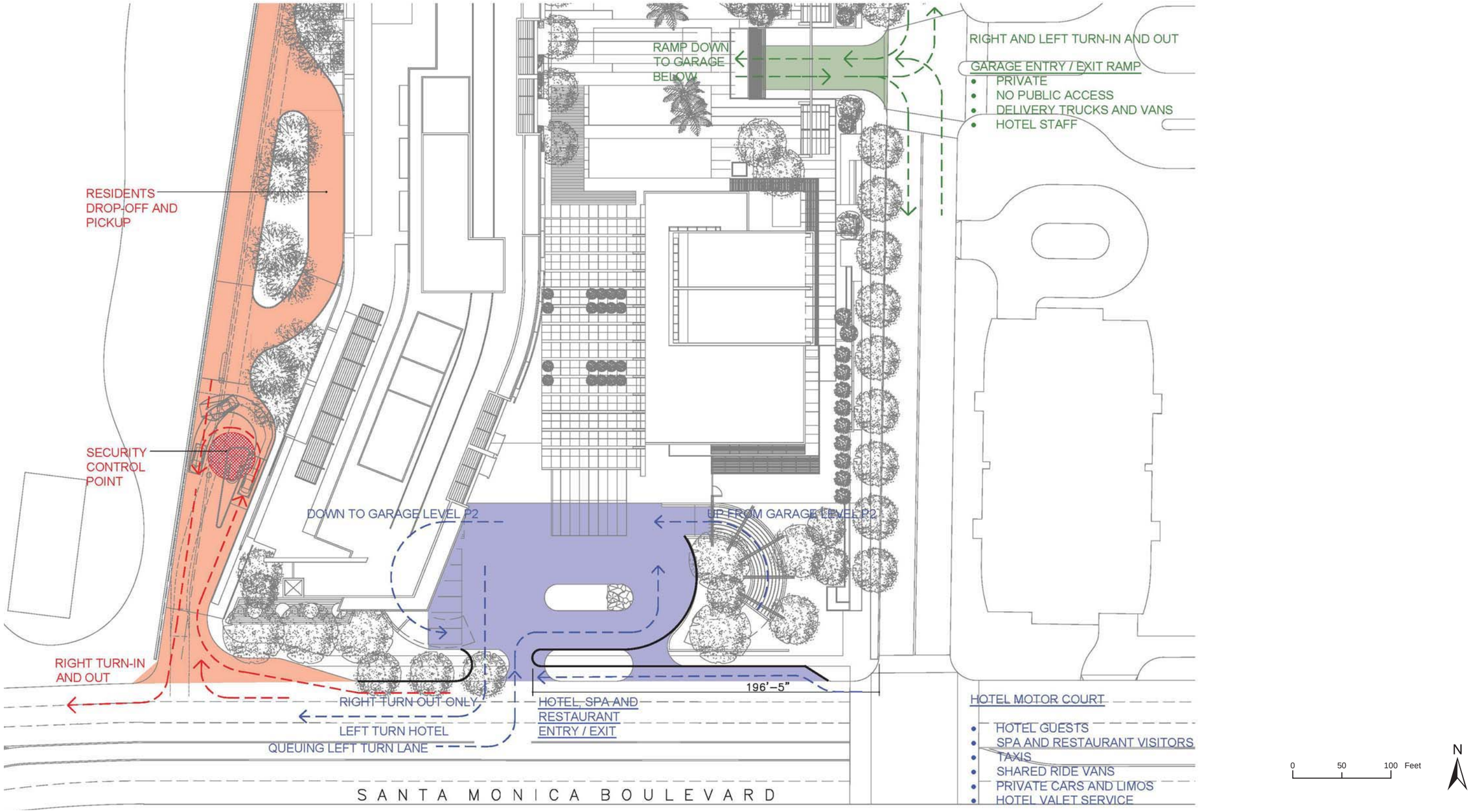


Motor Court Option 4

Source: Richard Meier & Partners LLP, June 2015

Figure 6-2

City of Beverly Hills



Motor Court Option 5

Source: Richard Meier & Partners LLP, June 2015

Figure 6-3

Table 6-6
Comparison of Environmental Impacts of Alternatives

Issue	No Project Alternative (Approved Project)	Reduced Hotel Alternative	Office Alternative
Air Quality	-	-	+
Greenhouse Gas Emissions	-	-	+
Land Use and Planning	-	=	+
Noise and Vibration	-	=	=
Transportation and Traffic	=	-	+
Utilities and Service Systems (Water)	-	-	-

+ Impacts greater than those of the Proposed Project
- Impacts less than those of the Proposed Project
= Impacts similar impact to the Proposed Project
Note: Although impacts are identified as greater than or less than those of the Proposed Project, the overall magnitude of impacts (significant versus less than significant) is the same for all alternatives for each of the studied issues with the possible exception of transportation/traffic impacts associated with the Office alternative, which could be significant.

The Office alternative would generally meet the most of the original objectives outlined in the 2008 FEIR as well as the new objectives related to providing a set of mixed-uses that takes maximum advantage of the physical, social and economic potential of the Project Site and creating a unified, environmentally sensitive development. However, the Office alternative would not meet any of the new objectives relating to the hotel, including those associated with maximizing transient occupancy tax and other tax revenues.

This page intentionally left blank.

7 REFERENCES AND REPORT PREPARERS

7.1 REFERENCES

Beverly Hills, City of. 3770351.65 m N and 369453.59 m E. Google Earth. January 2016.

Beverly Hills, City of. (2005). *2005 General Plan Update Technical Background Report, Chapter 3.* Retrieved 12 21, 2015, from Beverly Hills Community Development: *http://www.beverlyhills.org/business/constructionlanduse/generalplan/technicalbackgroundreports/*. Accessed December 2015.

Beverly Hills, City of. (2008a). City of Beverly Hills Zoning Map. [online]: http://www.beverlyhills.org/cbhfiles/storage/files/64529851516564397/FinalZoningMap.pdf. Accessed December 2015.

Beverly Hills, City of. (2008b). City of Beverly Hills Land Use Element. http://www.beverlyhills.org/cbhfiles/storage/files/filebank/10278--2_LandUse%2001122010.pdf. Accessed December 2015.

Beverly Hills, City of. (2008c). 9900 Wilshire Project Final Environmental Impact Report.

Beverly Hills, City of. (2009). Beverly Hills Sustainable City Plan. http://www.beverlyhills.org/cbhfiles/storage/files/24347783778629768/SustainableCityPlan.pdf. Accessed December 2015.

Beverly Hills, City of. (2011). *City of Beverly Hills Urban Water Management Plan.* Retrieved 15 18, 2015, from California Department of Water Resources: *http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Beverly%20Hills,%20City%20of/Beverly%20Hills%202010%20UWMP_August%202011.pdf*

Beverly Hills, City of. (2010). City of Beverly Hills Circulation Element. [online]: http://www.beverlyhills.org/cbhfiles/storage/files/filebank/10281--6_Circulation%2001122010.pdf. Accessed December 2015.

Beverly Hills, City of. (2012a). City of Beverly Hills Public Works: *http://www.beverlyhills.org/living/recyclingandconservation/*. Accessed January 2016.

Beverly Hills, City of. (2012b). *Water Efficient Landscaping* (http://www.beverlyhills.org/business/constructionlanduse/singlefamilyresidences/waterefficientlandscaping/). Accessed December 2015.

Beverly Hills, City of. (2015). *BH2O*. *http://beverlyhills.org/living/recyclingandconservation/waterconservation/#*. Accessed December 2015.

California Air Pollution Control Officers Association (CAPCOA). CEQA & Climate Change. January 2008. Available at. http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf. Accessed January 2016.

California Air Districts. *CalEEMod User's Guide*. 2013. Available at: http://www.aqmd.gov/caleemod/user's-guide. Accessed January 2016.

California Air Resources Board (CARB). *Air Quality and Land Use Handbook: A Community Health Perspective*. 2005. Available at: http://www.arb.ca.gov/ch/handbook.pdf. Accessed January 2016.

CARB. *Greenhouse Gas Inventory Data – 2000 to 2013 by Category as defined in the 2008 Scoping Plan*. April 2015a. Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed January 2016.

CARB. 2020 Business-as-Usual (BAU) Emissions Projection. May 2015b. Available at: http://www.arb.ca.gov/cc/inventory/data/bau.htm. Accessed February 2016.

CARB. *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider the "LEV III" Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards and Test Procedures and to the On-Board Diagnostic System Requirements for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, and to the Evaporative Emission Requirements for Heavy-Duty Vehicles*. December 2011. Available at: http://www.arb.ca.gov/regact/2012/leviiighg2012/levisor.pdf. Accessed January 2016.

CARB. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Available at: http://www.arb.ca.gov/ch/handbook.pdf. Accessed January 2016.

CARB. Ambient Air Quality Standards. 2014. Available at: http://www.arb.ca.gov /research/aaqs/aaqs2.pdf. Accessed January 2016.

CARB. AB 32 Scoping Plan Website. June 2014a. Available at: http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed January 2016.

CARB. Assembly Bill 32 Overview. August 2014b. Available at: http://www.arb.ca.gov/cc/ab32/ab32.htm. Accessed March 2016.

CARB. *Greenhouse Gas Inventory Data – 2000 to 2012 by Category as defined in the 2008 Scoping Plan*. March 2014. Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed January 2016.

California Climate Change Center (CCCC). *Climate Scenarios for California*. 2006.

CCCC. *The Impacts of Sea-Level Rise on the California Coast*. May 2009.

California Department of Finance. Table 2: E-5 City/County Population and Housing Estimates. November 1, 2015. Available at: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php. Accessed: January 2016

California Department of Water Resources (DWR). *Managing an Uncertain Future: Climate Change Adaption Strategies for California's Water*. October 2008. Available at: http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf. Accessed December 2015.

California Environmental Protection Agency (CalEPA). *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March 2006. Available at: http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF. Accessed December 2015.

CalEPA. *Climate Action Team Biennial Report*. April 2010.

California Department of Water Resources. October 2008. *Managing an Uncertain Future: Climate Change Adaption Strategies for California's Water*. Available online at: http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf

California Energy Commission. *2009 California Climate Adaptation Strategy*. March 2009. Available at: http://www.energy.ca.gov/2009publications/CEC-500-2009-038/CEC-500-2009-038-D.PDF. Accessed January 2016.

California Natural Resources Agency. *Environmental Health and Equity Impacts from Climate Change and Mitigation Policies in California: A Review of the Literature*. January 2009. Available at: http://www.energy.ca.gov/2009publications/CEC-500-2009-038/CEC-500-2009-038-D.PDF. Accessed January 2016.

California Climate Action Registry. *California Climate Action Registry General Reporting Protocol*. Available at: http://sfenvironment.org/sites/default/files/fliers/files/ccar_grp_3-1_january2009_sfe-web.pdf. Accessed January 2016.

Climate Policy Initiative. Available at: http://climatepolicyinitiative.org/. Accessed March 2016.

Federal Railroad Administration. *High-Speed Ground Transportation Noise and Vibration Impact Assessment*. September 2012.

Federal Transit Administration (FTA). *Transit Noise and Vibration Impact Assessment*. May 2006.

Intergovernmental Panel on Climate Change (IPCC). Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. 2007.

IPCC. 2013: Summary for Policymakers. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. 2013.

IPCC. Summary for Policymakers. In: *Climate Change 2014, Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.* 2014.

Los Angeles, City of. (2015a). City of Los Angeles Zoning Information and Map Access System (ZIMAS). [online]: http://zimas.lacity.org/. Accessed December 2015.

Los Angeles, City of. (2015b). City of Los Angeles Zoning Ordinance. [online]: http://library.amlegal.com/nxt/gateway.dll/California/lapz/municipalcodechapteriplanningandzoningco/chapterigeneralprovisionsandzoning/article2specificplanning-

zoningcomprehen/sec1205a1agriculturezone?f=templates$fn=default.htm$3.0$vid=amlegal:lapz_ca$anc=JD_12.05. Accessed December 2015.

Metro. 2015. Westside Subway Extension of the Metro Purple Line – Pre-Construction Fact Sheet. [online]: http://media.metro.net/projects_studies/westside/images/factsheet_preconstruction_2015.pdf. Accessed January 2016.

MWD. (2015a). *Overview*. Retrieved 12 21, 2015, from The Metropolitan Water Districy of Southern California: *http://www.mwdh2o.com/WhoWeAre/Mission/Pages/default.aspx*

MWD. (2015b). *Draft 2015 Integrated Water Resource Plan Update.* Retrieved 12 21, 2015, from Metropolitan Water District of Southern California: *http://mwdh2o.granicus.com/MetaViewer.php?view_id=12&event_id=1227&meta_id=113004*

MWD. (2015c). *2015 Regional Progress Report.* Retrieved 12 24, 2015, from The Metropolitan Water District of Southern California Conservation Programs: *http://www.mwdh2o.com/PDF_In_The_Community/3.1_1.2_Regional_Progress_Report.pdf*

National Oceanic & Atmospheric Administration (NOAA). *Annual Greenhouse Gas Index*. September 2014. Available at: http://www.esrl.noaa.gov/gmd/aggi/. Accessed on: July 2015.

Parmesan, C. *Ecological and Evolutionary Responses to Recent Climate Change*. 2004.

South Coast Air Quality Management District (SCAQMD), CEQA Handbook, 1993.

SCAQMD. *Final Localized Significance Threshold Methodology.* 2008. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed on: June 2015.

SCAQMD. September 28, 2010.Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15 "Proposed Tier 3 Quantitative Thresholds – Option 1". Accessed at: www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2 Accessed March 2016.

SCAQMD. Appendix C - Mass Rate LST Look-up Tables. 2009. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2. Accessed January 2016.

SCAQMD. February 2013. *Final 2012 AQMP.* Available online at: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan. Accessed December 2015.

SCAQMD. 2008. *Air Quality Significance Thresholds.* Available online at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed February 2016.

SCAQMD. 2003. *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis.* Available online at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. Accessed February 2016.

Southern California Association of Governments (SCAG). April 2012. *Final Growth Forecast Appendix: Regional Transportation Plan: 2012-2035 RTP Sustainable Communities Strategy .*

Southern California Association of Governments. *Towards a Sustainable Future.* Available online at: http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_GrowthForecast.pdf. Accessed January 2016.

Southern California Gas Company website, https://www.socalgas.com/smart-energy/benefits-of-natural-gas/affordable-abundant-domestic, accessed February 2016.

State Water Resources Control Board, 2015. Available at: http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/emergency_regulation.shtml. Accessed December 2015.

The Natelson Company. *Employment Density Study Summary Report (https://www.mwcog.org/uploads/committee-documents/bl5aX1pa20091008155406.pdf). 2001.* Prepared for Southern California Association of Governments (SCAG). Accessed February 2016.

United Nations Framework Convention on Climate Change (UNFCCC). *United Nations Framework Convention on Climate Change.* August 2007. Available: http://unfccc.int/files/essential_background/convention/status_of_ratification/application/pdf/unfccc_conv_rat.pdf. Accessed January 2016.

UNFCCC. *Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its sixteenth session.* November 2011. Available at: http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/awgkp_outcome.pdf. Accessed January 2016.

UNFCCC. *Report of the Conference of the Parties on its seventeenth session.* 2012. Available at: http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf. Accessed January 2016.

United States Environmental Protection Agency (EPA). *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013*. U. S. EPA #430-R-15-004. April 2015. Available online at: http://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf. Accessed January 2016.

World Meteorological Organization (WMO). A summary of current and climate change findings and figures. March 2013. Available at: http://www.wmo.int/pages/mediacentre/factsheet/documents/Climate-Change-Info-Sheet-136_fr.pdf. Accessed January 2016.

7.2 REPORT PREPARERS

This SEIR was prepared by the City of Beverly Hills, with the assistance of Rincon Consultants, Inc. and Fehr & Peers. Consultant staff involved in the preparation of the SEIR are listed below.

Rincon Consultants, Inc.
Joe Power, AICP CEP, Principal in Charge
Susanne Huerta, AICP, Senior Environmental Planner
Aubrey Mescher, MESM, Senior Environmental Planner
Chris Bersbach, MESM, Senior Environmental Planner
Lindsey Sarquilla, MESM, Senior Environmental Planner
Hannah Mize, Associate Environmental Planner
Lawrence Truong, Associate Environmental Planner
Wade Sherman, Graphics Technician

Fehr & Peers
Sarah Brandenberg, Principal
Christine Mercado, Senior Transportation Engineer
Secundino Arellano, Transportation Engineer

Appendix A

Initial Study/NOP/NOP Responses

City of Beverly Hills

Notice of Preparation of a Supplemental Environmental Impact Report (SEIR) and Notice of Public Scoping Meeting

DATE: Monday, December 7, 2015 **TIME:** 6:00 p.m. to 8:00 p.m.

LOCATION: Municipal Gallery - Beverly Hills City Hall, 2nd Floor
455 North Rexford Drive, Beverly Hills, CA 90210

PROJECT: 9900 Wilshire Boulevard (One Beverly Hills) Project

The City of Beverly Hills is preparing a Supplemental Environmental Impact Report (SEIR) for the proposed One Beverly Hills Project located at 9900 Wilshire Boulevard as more fully described below. The public is invited to attend a preliminary "scoping" meeting on Monday, December 7, 2015 at 6:00 p.m. to comment on environmental issues that should be addressed in the SEIR.

Project Location: The property is located in the City of Beverly Hills, on the south side of the 9900 block of Wilshire Boulevard, north of Santa Monica Boulevard. The approximately 8-acre site forms the western entrance into the City of Beverly Hills and is currently vacant. The address for the project site is 9900 Wilshire Boulevard, and the Assessor's Parcel Number is 4327-028-002.

Project Description: The proposed One Beverly Hills Project is an alteration to the approved 9900 Wilshire Project. The City of Beverly Hills certified a Final Environmental Impact Report (FEIR) for the 9900 Wilshire Project in accordance with the California Environmental Quality Act (CEQA) in February 2008. The project studied in the FEIR included the demolition of the Robinsons-May department store, which occupied the site at that time, as well as construction of luxury condominiums, commercial space, a two-level subterranean parking garage with mezzanine containing a total of 956 parking spaces, and landscaped gardens and other open space throughout the site. The luxury condominiums were contained in two tower buildings (North and South Buildings), the commercial component was located along the north side of Santa Monica Boulevard and Merv Griffin Way. The City adopted a Specific Plan for the 9900 Wilshire Project in April 2008. In December 2012 an Administrative Modification was approved for the project, which reduced the approved commercial square footage and increased the parking spaces (2012 Approved Project). For the purposes of the SEIR for the currently proposed project, the 2012 Approved Project is used as the baseline as it represents what is currently permitted for development at the project site today.

The currently proposed project involves the development of 901,514 sf of floor area (primarily within two towers on the property), which is identical to the approved floor area of the 2012 Project. The project

would include up to 193 condominiums and up to a 134-room luxury hotel. The currently proposed project would also include development of a smaller building located to the east of the South Building to be used for ancillary hotel uses. Under this modified project, the maximum height of the South Building would be 185 feet and the North Building would be 161 feet at its highest point, representing no increase in height from the 2012 Approved Project. The footprint of each of these buildings would also change minimally. The table below provides a comparison of the 2012 Approved Project and the currently proposed project.

Comparison of Current Project to Previously Approved Project

	2012 Approved Project	Currently Proposed Project
Residential Units		
Efficiencies	0	0
1 Bedroom	35	41
2 Bedrooms	106	67
3 Bedrooms	62	22
3 Bedrooms with Den	0	36
4 Bedrooms	19	15
4 Bedrooms with Den	0	0
Townhouse (2 Bedroom)	0	5
Penthouse (5 or more bedrooms)	13	7
Total Residential Units	235	193
Hotel		
Hotel Rooms	0	134
Hotel Floor Area[1])	0	204,291 SF
Commercial		
Retail	11,656 SF	0 SF
Restaurant	4,200 SF	0 SF
Outdoor Dining (not counted to floor area)	600 SF	1,600 SF
Total Commercial Area	15,856 SF	0 SF

1- Includes all restaurants, shops, bar, lobby, spa & fitness, ballroom and meeting rooms, amenities, and storage
SF= square feet

In order to provide access to the hotel along with a “front door”, a motor court would be incorporated into the South Building on Santa Monica Boulevard. This motor court will replace a previously approved public self-parking garage access on North Santa Monica Boulevard. The hotel would only be entered from Santa Monica Boulevard, and all hotel guests, including guests utilizing the restaurants or the meeting space, would be required to valet park their cars unless they are being dropped off in the motor court. Residents and their guests would continue to access their residences via the original project’s private, secured drive at the west property line that is accessed from Wilshire Boulevard and Santa Monica Boulevard. All parking (other than motor court parking) would be below-grade and hotel parking would be separate from residential parking. The total number of parking spaces in the project is anticipated to be approximately 1,140 spaces. The loading docks and staff parking would be below-grade and accessed from Merv Griffin Way.

Initial Study: An Initial Study has been prepared, which identifies new information, substantial changes in the project, or substantial changes in circumstances that may potentially result in greater environmental effects than identified in the previous EIR, or that may require major revisions to the previous EIR, in the following issue areas:

- Greenhouse Gas Emissions
- Land Use Planning
- Transportation/Traffic
- Utilities and Service Systems
- Air Quality
- Noise
- Mandatory Findings of Significance

Purpose of the Scoping Meeting: The purpose of the scoping meeting is to present the Project in a public setting and provide an opportunity for a full airing of the environmental issues that are important to the community. The meeting will include a presentation of the proposal and the environmental issues to be analyzed in the SEIR will be described. Following the presentation, interested agencies, organizations, and members of the public will be encouraged to present views concerning what environmental issues should be included in the SEIR. The oral and written comments made during the scoping meeting will provide an inventory of potential environmental effects of the project to be addressed by the SEIR, such as traffic, air quality, and noise.

30-Day Comment Period: The City invites all interested members of the public to attend the public scoping meeting. The City also invites written comments on issues related to potential environmental impacts during a 30-day comment period, which starts on November 30, 2015 and will conclude on December 29, 2010. Written comments should be addressed to:

Andre Sahakian, Associate Planner
City of Beverly Hills Community Development Department
455 North Rexford Drive
Beverly Hills, California 90210
Fax: (310) 858-5966
Email: asahakian@beverlyhills.org

After the Draft SEIR has been prepared, it will be released for public review and comment. The Planning Commission will then hold a public hearing on the Draft SEIR and on the project. Separate notices of the availability of the Draft SEIR and of the hearings on the project will be released at later dates.

The case file on this project, which includes the plans and applications, is available for public review at the Planning Division, 455 North Rexford Drive, Beverly Hills, CA 90210. Copies of the Initial Study are also available in the Planning Division at City Hall and online at www.beverlyhills.org/environmental. If there are any questions regarding this notice, or if you would like to review the file or receive copies of available documents, please contact Andre Sahakian, Associate Planner at (310) 285-1127 or via email at asahakian@beverlyhills.org.

Signature	November 30, 2015 Date
Andre Sahakian Printed Name	Associate Planner Title

City of Beverly Hills

9900 Wilshire Boulevard (One Beverly Hills) Project

Initial Study

Circulated November 2015
(Revised March 2016)

rincon

Environmental Scientists Planners Engineers

9900 Wilshire Boulevard (One Beverly Hills)

Initial Study

Prepared by:

City of Beverly Hills
Community Development Department
455 North Rexford Drive, First Floor
Beverly Hills, California 90210
Andre Sahakian, Associate Planner
310-285-1127

Prepared with the assistance of:

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

Circulated November 2015
(revised March 2016)

This report is printed on 50% recycled paper.

TABLE OF CONTENTS

Page

Initial Study 3
1. Project Title 3
2. Lead Agency Name and Address 3
3. Contact Person and Phone Number 3
4. Project Location 3
5. Project Sponsor's Name and Address 3
6. General Plan Designation 3
7. Zoning 3
8. Description of Project 3
9. Surrounding Land Uses and Setting 6
10. Other Public Agencies Whose Approval is Required 6
Environmental Factors Potentially Affected 11
Determination 12
Environmental Checklist 13
I. Aesthetics 13
II. Agriculture and Forestry Resources 15
III. Air Quality 17
IV. Biological Resources 19
V. Cultural Resources 21
VI. Geology and Soils 23
VII. Greenhouse Gas Emissions 27
VIII. Hazards and Hazardous Materials 29
IX. Hydrology and Water Quality 34
X. Land Use and Planning 39
XI. Mineral Resources 41
XII. Noise 42
XIII. Population and Housing 45
XIV. Public Services 47
XV. Recreation 50
XVI. Transportation/Traffic 51
XVII. Utilities and Service Systems 55
XVIII. Mandatory Findings of Significance 59
References 62
Bibliography 62

List of Figures

Figure 1 Regional Location 7
Figure 2 Project Location 8
Figure 3 Site Plan 9
Figure 4 Construction Schedule 10

List of Tables

Table 1 - Comparison of Current Project to Previously Approved Project 5
Table 2 Wastewater Generation – One Beverly Hills 57
Table 3 Solid Waste Generation 59

Appendices

Appendix A – Phase II Site-Specific Fault Rupture Investigation and Peer Review

INITIAL STUDY

1. **Project Title:**
   9900 Wilshire Boulevard (One Beverly Hills) Project

2. **Lead Agency Name and Address:**
   City of Beverly Hills
   Community Development Department
   455 North Rexford Drive, First Floor
   Beverly Hills, CA 90210

3. **Contact Person and Phone Number:**
   Andre Sahakian, Associate Planner
   310-285-1127

4. **Project Location:**
   The project site is located in the City of Beverly Hills, approximately seven miles west of the City of Los Angeles Civic Center. It is located on the south side of the 9900 block of Wilshire Boulevard, north of Santa Monica Boulevard. The approximately 8-acre site forms the western entrance into the City of Beverly Hills and is currently vacant. Figure 1 shows the location of the project site within the region. Figure 2 shows the location of the project site within the surrounding neighborhood.

5. **Project Sponsor's Name and Address:**
   Wanda Beverly Hills Properties, LLC ("Wanda")
   439 North Canon Drive, Suite 207
   Beverly Hills, California 90210

6. **General Plan Designation:**
   Specific Plan – 9900 Wilshire (SP)

7. **Zoning:**
   Commercial (C-3) and 9900 Wilshire Specific Plan

8. **Description of Project:**
   The proposed One Beverly Hills Project, hereafter refered to as the Proposed Project is an alteration to the approved 9900 Wilshire Project, hereafter refered to as the Approved Project. The City of Beverly Hills certified a Final Environmental Impact Report (FEIR) for the Approved Project (SCH No. 2006071107) in accordance with the California Environmental Quality Act (CEQA) in February 2008. The project studied in the FEIR included the demolition of the Robinsons-May department store, which occupied the site at that time, as well as construction of 252 luxury condominiums in four separate buildings, 19,856 square feet (sf) of commercial space, a two-level subterranean parking garage with mezzanine containing a total of 956 parking spaces, and landscaped gardens and other open space throughout the site. The 252 luxury condominiums were contained in 2 tower buildings (North and South Buildings) and two smaller 4-story loft buildings. The commercial component was located along the north side of Santa Monica Boulevard in a

one-story building. The City adopted a Specific Plan for the 9900 Wilshire Project in April 2008 (the 2008 Project) and reduced the number of approved residential units from 252 to 235, the commercial square footage from 19,856 sf to 16,456 sf, and the number of parking spaces from 956 to 803. The Specific Plan that was adopted in April 2008 also removed the two smaller 4-story loft buildings and contained a two-story commercial building located along the north side of Santa Monica Boulevard. In December 2012 an Administrative Modification was approved, which further reduced the approved commercial square footage to 15,856 sf and increased the parking spaces to 876 (Approved Project).

For the purposes of this analysis, the Approved Project is used as the baseline for the analysis as it represents what is currently permitted for development at the project site today. However, the 2008 FEIR and associated studies are used in this analysis, where necessary, since there was no substantial change to the project between 2008 and 2012.

The Proposed Project involves the development of 901,514 sf of floor area, which is identical to the approved floor area of the Approved Project. The Proposed Project would include up to 193 condominiums and up to a 134-room luxury hotel that would be located in two of the linear buildings that were previously approved and are known as the South Building and the North Building. The Proposed Project would also include development of a smaller building located to the east of the South Building. This building was proposed for use as a "spa pavilion" under the Approved Project, but would be shifted to the north and would be used for ancillary hotel uses under the Proposed Project. Under this modified project, the maximum height of the South Building would be 185 feet and the North Building would be 161 feet at its highest point. The approved Specific Plan entitled the Approved Project to 205 feet for the South Building and 161 feet for the North Building, and no modifications were made to the height restrictions in the December 2012 Administrative Modification, resulting in no increase in height under the Proposed Project. The footprint of each of these buildings would minimally change, although the width of the South Building and North Building along the eastern sides would increase by five feet. However, there are reductions of approximately 10 feet on both the east and west sides of the South building on floors two, three, four, and five.

The North Building would contain 102 residences along with facilities that would be available only to residents, such as the rooftop pool. The South Building would contain 91 residences. The up to 134-room hotel would be located solely in the South Building along with all of the hotel-related facilities other than the meeting space, which would be located in an adjacent building to the east of the South Building. The hotel's guestrooms would be located on levels two, three, four, and a portion of level five of the South Building.

The hotel has been planned to include a main ballroom and three meeting rooms containing a total of 7,942 sf along with pre-function space and ancillary facilities. Food and beverage facilities would include a VIP Function Room, an all-day dining restaurant, a fine dining restaurant, and a roof-top bar, totaling approximately 14,457 sf. In addition, there will be 1,600 sf of outdoor dining space and a 1,907 sf lobby lounge. Other hotel uses would include a 14,435 sf spa and fitness facility and a 2,484 sf hotel boutique shop. Table 1 provides a comparison of the Approved Project and the Proposed Project.

Table 1 - Comparison of Proposed Project to Approved Project

	Approved Project	Proposed Project
Residential Units		
Efficiencies	0	0
1 Bedroom	35	41
2 Bedrooms	106	67
3 Bedrooms	62	22
3 Bedrooms with Den	0	36
4 Bedrooms	19	15
4 Bedrooms with Den	0	0
Townhouse (2 Bedroom)	0	5
Penthouse (5 or more bedrooms)	13	7
Total Residential Units	235	193
Hotel		
Hotel Rooms	0	134
Hotel Floor Area[1])	0	204,291 SF
Commercial		
Retail	11,656 SF	0 SF
Restaurant	4,200 SF	0 SF
Outdoor Dining (not counted to floor area)	600 SF	1,600 SF
Total Commercial Area	15,856 SF	0 SF

1- Includes all restaurants, shops, bar, lobby, spa & fitness, ballroom and meeting rooms, amenities, and storage
SF= square feet

As with the Approved Project, the currently proposed residential buildings would be positioned along the west property line and have been designed to be raised above the ground to allow light, views and the Country Club landscape to pass below the architecture. The buildings would be curvilinear and horizontal to reflect the natural forms and geometry of the Country Club landscape, and the classic horizontal massing of the neighboring Hilton Hotel.

Site Access

Vehicle access to the site is designed to separate residential traffic from hotel traffic and through traffic on Merv Griffin Way. In order to provide access to the hotel along with a "front door", a motor court would be incorporated into the South Building on Santa Monica Boulevard. This motor court will replace the approved public self-parking garage access on North Santa Monica Boulevard. The hotel would only be entered from Santa Monica Boulevard, and guests would ascend within a lobby that opens to the garden level. All hotel guests, including guests utilizing the restaurants or the meeting space, would be required to valet park their cars unless they are being dropped off in the motor court.

Residents and their guests would continue to access their residences via the original project's private, secured drive at the west property line that is accessed from Wilshire Boulevard and Santa Monica Boulevard. In support of the residences linear design, multiple small-scale building lobbies have been incorporated into the project to provide convenient, private elevator access to each residence.

All parking (other than motor court parking) would be below-grade and hotel parking would be separate from residential parking. The total depth of the parking lot would be approximately 42 feet. The total number of parking spaces in the project is anticipated to be approximately 1,140 spaces. This is based on taking into account code permitted reductions,

covenants and/or other means to provide legally adequate parking for One Beverly Hills. The loading docks and staff parking would be below-grade and accessed from Merv Griffin Way.

Sustainability Features
One Beverly Hills is designed to achieve a Silver LEED Certification through environmentally-sensitive architecture and building systems. Buildings would be in support of a sustainable design concept to maximize daylight and natural ventilation. Each residence would be designed to include terraces and balconies that shade the glass and create depth and scale at the building elevations.

Landscaping
The site would continue to be landscaped with public and private gardens similar to what was previously approved.

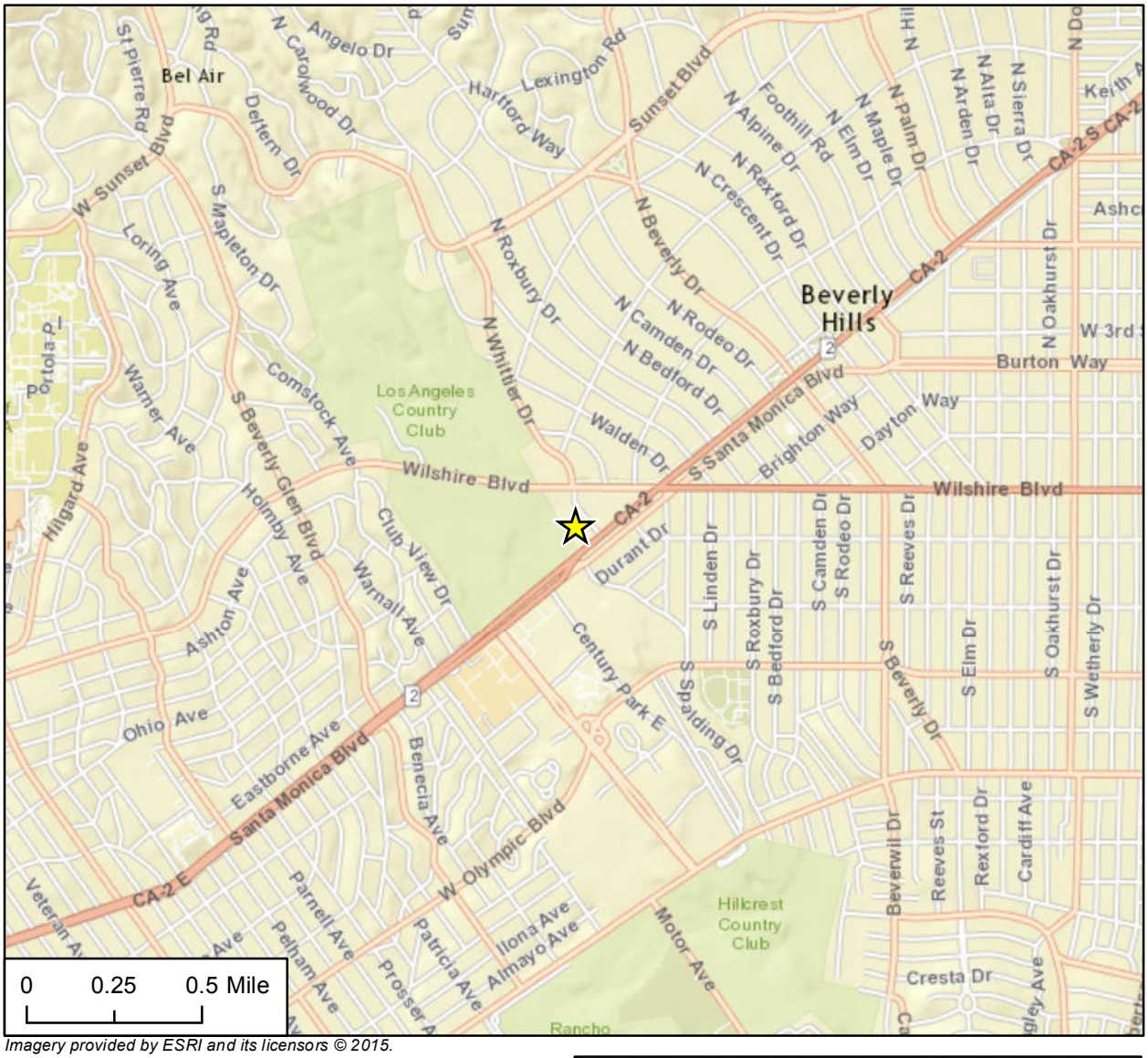
Construction
Approximately eight months of early infrastructure work for storm drain line, retaining wall, shoring, and road access work would precede the 34 month construction period. The preliminary construction schedule is shown in Figure 4.

All construction equipment would be a minimum Tier 4 in order to comply with California Air Resources Board (CARB) requirements. Recyclable materials would be used on-site to reduce off-haul. Workers would park off-site and be shuttled to the project site in order to reduce traffic and emissions. Construction would require the export of approximately 309,000 cubic yards (CY) of material.

9. Surrounding Land Uses and Setting:
The project site is bound by the Los Angeles Country Club and the Avis Union 76 gas station to the west, Wilshire Boulevard to the north, the center-line of Merv Griffin Way to the east, and Santa Monica Boulevard to the south. The Beverly Hilton is located east of the site across Merv Griffin Way. North across Wilshire Boulevard are residences, El Rodeo School, and the continuation of the Los Angeles Country Club. South across Santa Monica Boulevard are commercial uses and residences.

10. Other Public Agencies Whose Approval is Required:

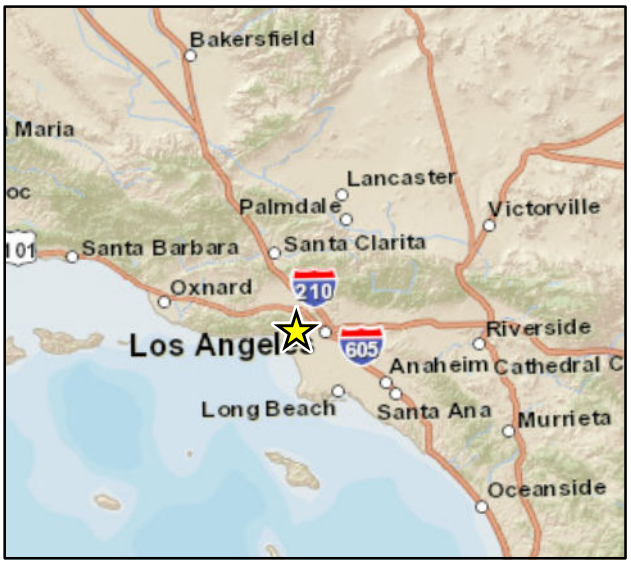
No other specific agency approvals are required. However, the Los Angeles Regional Water Quality Control Board, which regulates water quality in the region, and the South Coast Air Quality Management District, which regulates air quality in the region, are responsible agencies for the Proposed Project.



Imagery provided by ESRI and its licensors © 2015.

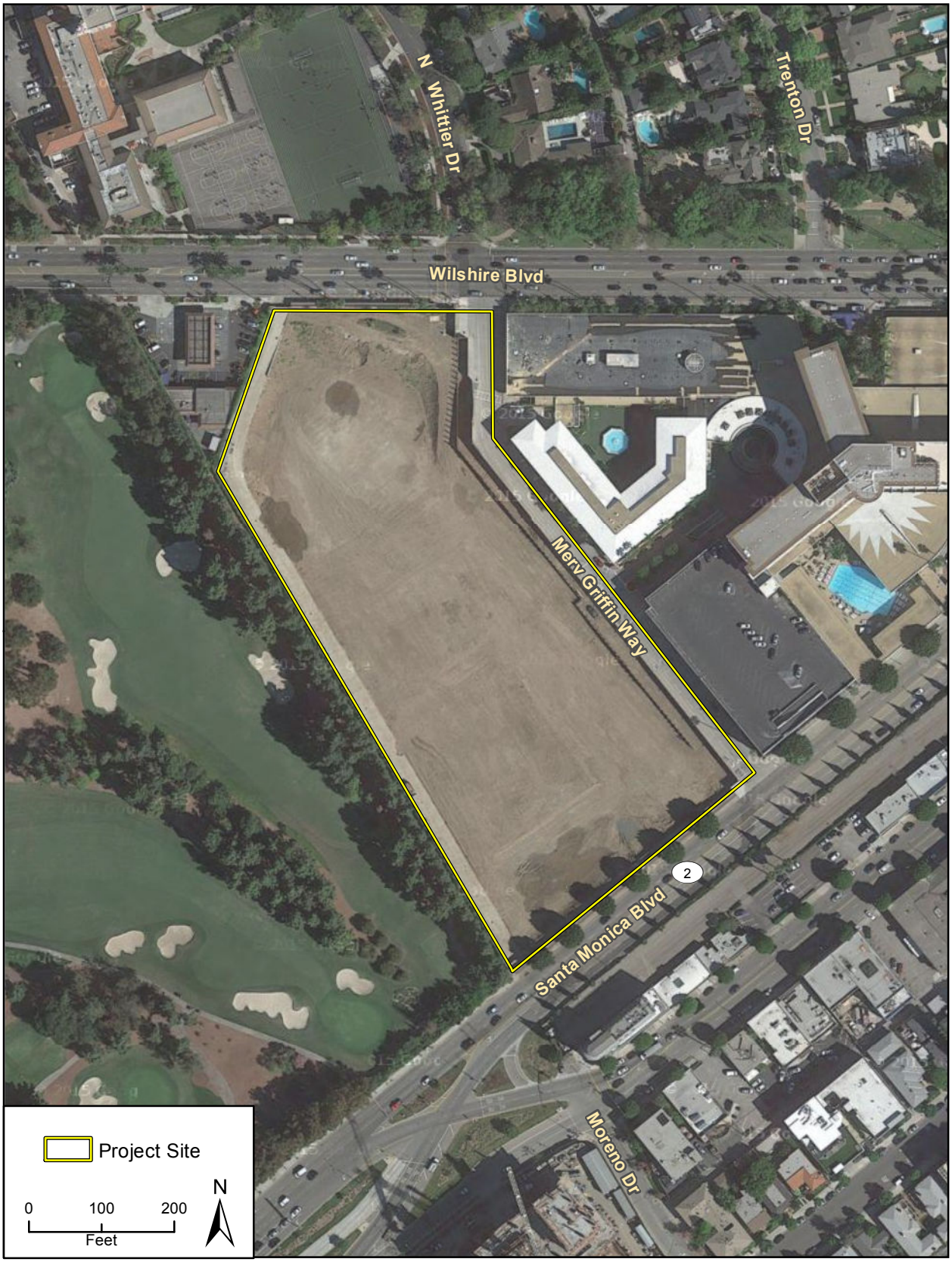
N

Project Location



Regional Location

Figure 1



Imagery provided by Google and its licensors © 2015.

Project Location

Figure 2

Source: Richard Meier & Partners, LLP, June 2015

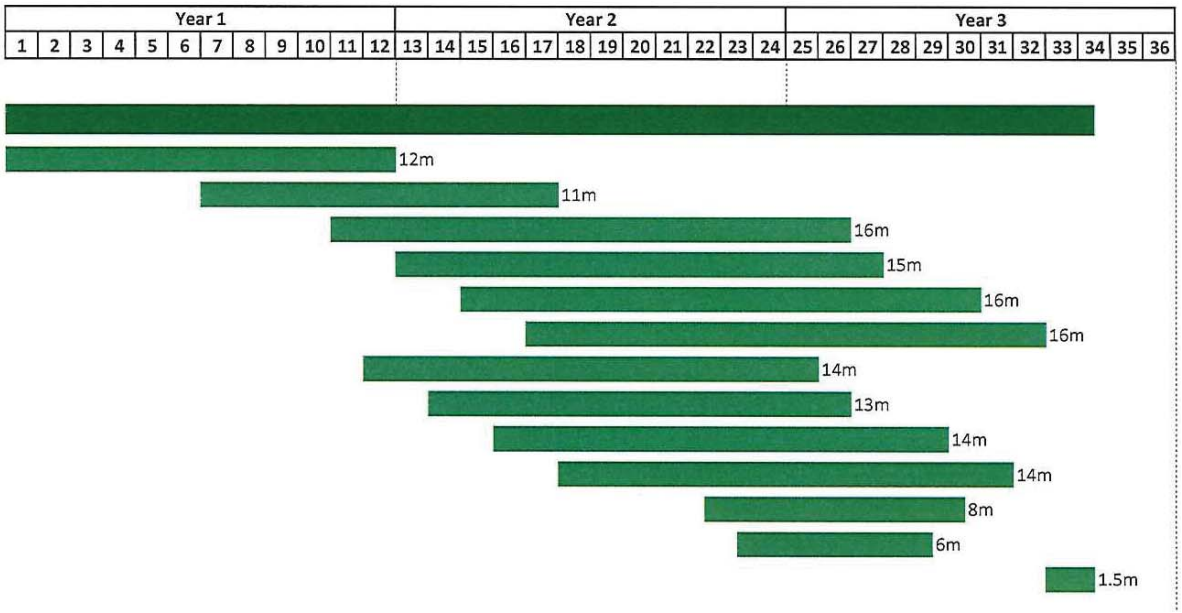
Site Plan

Figure 3

Wanda Beverly Hills - Preliminary Project Summary Schedule

PRELIMINARY CONSTRUCTION SCHEDULE DATED 8/24/15 v1

No.	CONSTRUCTION PHASES	33.5	mo
1	Shoring, Excavation & Foundation	12	mo
2	Below Grade Substructure Core	11	mo
3	Superstructure Core - South	16	mo
4	Exterior Building Envelope - South	15	mo
5	Interior Build-out - South	16	mo
6	MEP Installation & Testing - South	16	mo
7	Superstructure Core - North	14	mo
8	Exterior Building Envelope - North	13	mo
9	Interior Build-out - North	14	mo
10	MEP Installation & Testing - North	14	mo
11	Sitework & Landscape	8	mo
12	Utilities & Off-site Improvements	6	mo
13	Final Inspections	1.5	mo



NOTE: There is approximately 8 months of early infrastructure work for storm drain line, retaining wall, shoring, and road access work that precedes the above noted schedule.

Source: Wanda Beverly Hills Properties, August 2015

Preliminary Construction Schedule

Figure 4

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	■ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
■ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
■ Land Use/Planning	☐ Mineral Resources	■ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
■ Transportation/Traffic	■ Utilities/Service Systems	■ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

■ I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A Supplemental ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Proposed Project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Signature _____ Date _____

ENVIRONMENTAL CHECKLIST

The environmental analysis contained in this checklist compares the impacts of the Proposed Project to those of the Approved Project that was the subject of the 9900 Wilshire Project FEIR (SCH No. 2006071107) certified by the City of Beverly Hills in February 2008. The 9900 Wilshire Project FEIR is hereinafter referred to as the "2008 FEIR." As discussed above, the entitlement for the Approved Project has undergone revisions that reduced its overall scope, but the 2008 FEIR analyzed the effects of the full Approved Project.

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
I. Aesthetics						
-- Would the Project:						
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☐	■	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐	■	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☐	■	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☐	■	☐

a) Would the project have a substantial adverse effect on a scenic vista?

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The City considers an impact significant if a project would obstruct, interrupt, or diminish a valued focal or panoramic view. The 2008 FEIR reviewed the mixed-use development plan for the project site. Short term construction impacts were expected to occur for approximately 24 months and were considered less than significant. The project would have exceeded the height of the neighboring Beverly Hilton Hotel's Wilshire Tower by nearly 50 feet as well as the 45-foot height restriction on the project site at the time. It was determined that impacts to the scenic vistas and visual character would be significant and unavoidable as a result of that proposed

development and that no mitigation was available to reduce these impacts. This determination was based on the proposed change in character from the vacant Robinsons-May department store development to residential and commercial land uses, as well as increasing development density and building heights on the project site. The Approved Project was also found to adversely affect panoramic west-facing views from guestrooms in the Beverly Hilton Hotel's Wilshire Tower.

The Proposed Project would develop a floor area of 901,514 sf, which is identical to the approved floor area of the Approved Project. The project would include up to 193 condominiums and an up to 134-room luxury hotel that would be located in two of the same linear buildings that were previously approved and are known as the South Building and the North Building. As described in Section 8, *Project Description*, the height would be similar and the footprint of each of these buildings would change minimally. The existing site is now vacant, rather than being occupied by the Robinsons-May structures. Nonetheless, the project would have no new impacts with regards to height related to the neighboring Wilshire Tower, as well as on views from the Wilshire Tower guestrooms. No project-specific impacts related to character or scenic views beyond those identified in the 2008 FEIR would occur and further study of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The 2008 FEIR determined that the project would not degrade the visual character or quality of the site or its surroundings as viewed from the scenic portion of Wilshire Boulevard, between its intersection with Santa Monica Boulevard on the west and Doheny Drive on the east.

The project site was previously developed with a Robinsons-May department store, which has since been demolished as part of the Approved Project. The project site is only briefly visible from the scenic segment of Wilshire Boulevard because of its angle relative to the project site and intervening development. The Proposed Project would be located on the same site analyzed in the 2008 FEIR and similar to the Approved Project, it would not damage trees, rock outcroppings, or historic buildings, as none are now present on the site. Therefore, no project-specific impacts related to scenic resources within a state scenic highway would occur and further study of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The 2008 FEIR determined that impacts related to operational light from the project site would be significant, but mitigable. The Proposed Project would be subject to the same general mitigation measures identified and analyzed in the 2008 FEIR, specifically MM-LG-1, which requires that light sources be shielded, directed downward, and focused on the project site, all

of which would reduce the potential for off-site light spillover. The building materials would include, but would not be limited to, metal sunscreens, glazing systems, glazed alum lift/slide doors, concrete retaining walls, metal guardrails, terracotta sunscreens, metal panels, and trellis. These building materials generally have low reflectivity.

The 2008 FEIR determined that impacts related to operational glare from the project site would be less than significant based on building siting and building materials. The Proposed Project would site buildings in two of the same locations as the Approved Project and would use similar low-reflectivity materials to minimize glare. No new impacts would occur.

Because the project site is within an urbanized area already characterized by high levels of light and glare and because all project development would comply with existing Municipal Code requirements as well as the light mitigation measure included in the 2008 FEIR, the Proposed Project would not result in any significant light/glare impacts or increase the severity of significant light/glare impacts beyond those identified in the 2008 FEIR, and further study of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

The 2008 FEIR analyzed the shade/shadow impacts of the Approved Project and determined that impacts would be less than significant. The Proposed Project includes 901,514 sf of floor area, which is identical to the floor area of the Approved Project. The project would be located in two of the same linear buildings that were previously approved and are known as the South Building and the North Building. The height of the Proposed Project and Proposed Project would not increase. The footprint of each of these buildings would not change by more than 5%. Therefore, shade/shadow impacts of the buildings would be almost identical to those of the 2008 Project. No project-specific shadow impacts beyond those identified in the 2008 FEIR would occur and further study of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
II. Agriculture and Forestry Resources						
-- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of						

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
II. Agriculture and Forestry Resources						
forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:						
a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☐	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☐	☐	■

a) Would the project convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

The project site is located in a highly urbanized area with no nearby agricultural land uses. The existing environment would not support the conversion of the project site to farmland. The 2008 FEIR determined that the 2008 Project would not have any significant irreversible impacts on agricultural resources, as the area is not conducive to agricultural production. The Proposed Project is located on the same site and has the same footprint as was included in the analysis of the 2008 Project. The project site is within an urbanized area that lacks agricultural or forest land. Therefore, the Proposed Project would not result in any significant impacts to agricultural resources or forest land. Further analysis of these issues is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
III. Air Quality						
-- Would the project:						
a) Conflict with or obstruct implementation of the applicable air quality plan?	■	☐	☐	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	■	☐	☐	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	■	☐	☐	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	■	☐	☐	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☐	■	☐

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?
The project site is within the South Coast Air Basin (the Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that applicable air quality standards are met and, if they are not met, to develop strategies to meet the standards. The SCAQMD has adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of state and federal air quality standards.

The Proposed Project would include hotel facilities (rooms, meeting spaces, restaurant and retails uses) that would generate an increased number of job opportunities, vehicle trips, and construction and operational emissions than those estimated as part of the Approved Project. The Proposed Project could therefore be inconsistent with the AQMP. Furthermore, the 2007 AQMP, which was not adopted when the 2008 FEIR was certified, should be used to assess the Proposed Project.

The Proposed Project would generate short-term air pollutant emissions associated with construction, as well as long-term operational emissions, which could result in significant and unavoidable impacts and may result in additional impacts beyond those identified in the 2008 FEIR. Emissions have the potential to contribute to an existing air quality violation or result in a cumulatively considerable net increase of criteria pollutants for which the region is in non-attainment.

Project-specific construction and operational emissions will be analyzed in a SEIR. As necessary, mitigation measures will be developed to reduce air quality impacts.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are considered particularly sensitive to air pollution. Sensitive receptors include land uses that are more likely to be used by these population groups. Sensitive receptors include health care facilities, retirement homes, school and playground facilities, and residential areas.

The 2008 FEIR determined that implementation of the 2008 Project would result in the exposure of receptors to short- and long-term emissions of Toxic Air Contaminants (TACs) from on-site and off-site stationary and mobile sources. Impacts related to short-term construction were determined to be less than significant. Impacts related to long-term on-site stationary sources and off-site mobile-sources were also determined to be less than significant. The Proposed Project would involve nearly the same building footprints as the 2008 Project, but could include hotel facilities (rooms, meeting spaces, restaurant and retails uses) that were not addressed in the 2008 FEIR. Therefore, impacts related to pollutant concentrations could be potentially significant. Construction and operational emissions of TACs will be analyzed in an SEIR to determine what, if any, mitigation measures may be available, required, and/or feasible to reduce impacts to sensitive receptors.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

e) Would the project create objectionable odors affecting a substantial number of people?

As stated in the 2008 FEIR, construction activities associated with the development of onsite land uses could result in odorous emissions from diesel exhaust generated by construction equipment. However, because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, nearby receptors would not be affected by diesel exhaust odors associated with project construction and the impact related to the 2008 Project was determined to be less than significant. As stated in the 2008 FEIR, odors from residential and commercial uses would occur primarily from food preparation activities and disposal of refuse. The 2008 FEIR determined that these odors would not have a significant impact, as odors would be similar to existing residential uses surrounding the project site, permits control odors from restaurant operations, and refuse would be disposed of in appropriate trash containers. The Proposed Project would generate the same odors from residential, hotel, and hotel-restaurant uses. Therefore, the Proposed Project would not result in any new significant odor impacts to or increase the severity of significant odor impacts beyond those identified in the 2008 FEIR. Further analysis of odor issues is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
IV. Biological Resources						
-- Would the project:						
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☐	■
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☐	■
c) Have a substantial adverse effect on	☐	☐	☐	☐	☐	■

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
IV. Biological Resources						
-- Would the project:						
federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?						
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐	☐	■
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐	☐	■
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☐	■

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is located in an urbanized area of Beverly Hills. The 2008 FEIR determined that the Approved Project would not have any significant impacts on biological resources since the area does not include any Threatened/Endangered or Rare species or their habitats, local designated species, locally designated natural communities, wetland habitats, or wildlife corridors. The site is also not within the area of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Proposed Project would involve building footprints that would be nearly identical to those of the Approved Project. The project site is no longer occupied by the former Robinsons-May building; in addition, the vacant site does not include any of the biological resources listed above, thus the project would not result in any significant impacts to biological resources. Further analysis of these issues is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
V. Cultural Resources						
-- Would the project:						
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☐	■	☐
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	☐	■	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☐	■	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☐	■	☐

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The 2008 FEIR determined that the Approved Project would have a significant and unavoidable impact resulting from the demolition of the Robinsons-May building. This building was demolished in July 2014 and this impact would not apply to the Proposed Project. The 2008 FEIR also determined that four potentially historic street lights were located adjacent to the project site. These four street lights are still adjacent to the site and MM-CR-3, which requires removal and reinstallation of the lights adjacent to the project site, would apply to the Proposed Project and would reduce this impact to a less than significant level.

The Proposed Project would involve nearly identical building footprints as those of the Approved Project. Therefore, the Proposed Project would not impact any other historic resources beyond those identified in the 2008 FEIR. The project would not result in any additional significant impacts to historic resources or increase the severity of significant impacts to historic resources beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

b) Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

The 2008 FEIR determined that the Approved Project would have a significant, but mitigable impact on archaeological resources. This determination was due to the fact that excavation of the project site has the potential to disturb unknown resources causing a potentially significant impact upon those resources. The Proposed Project would develop nearly identical building footprints as the Approved Project. While the Proposed Project includes deeper excavation at approximately 42′ rather than 35′ as analyzed in the 2008 FEIR. MM-CR-4 and MM-CR-5, which outline the recovery procedures if a previously unknown artifact or human remains are uncovered during project construction, would apply to the Proposed Project. Implementation of MM-CR-4 and MM-CR-5 would reduce project impacts to a less than significant level and further analysis of these issues is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The 2008 FEIR determined that the Approved Project would have a significant, but mitigable impact on paleontological resources. This determination was due to the fact that excavation of the project site has the potential to disturb unknown resources causing a potentially significant impact upon those resources. The Proposed Project would involve building footprints that would be nearly identical to those proposed in the Approved Project. While the Proposed

Project includes deeper excavation at approximately 42′ rather than 35′ as analyzed in the 2008 FEIR. MM-CR-6, which outlines the recovery procedures if a previously unknown paleontological resource is uncovered during project construction, would apply to the Proposed Project. Implementation of MM-CR-6 would reduce impacts to a less than significant level and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
VI. Geology and Soils						
-- Would the project:						
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:						
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☐	■	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☐	■	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☐	■	☐
iv) Landslides?	☐	☐	☐	☐	☐	■
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☐	■	☐
d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☐	☐	■	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of	☐	☐	☐	☐	☐	■

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
VI. Geology and Soils						
-- Would the project:						
wastewater?						

The 2008 FEIR determined that the relatively level site conditions and extent of developed lands on the project site and in the area would avoid potential impacts associated with landslides. The site is not mapped as a landslide area on State geologic maps. It was also determined that construction activity associated with site development would have the potential to result in erosion of soils; however, this impact would be short term and use of required construction Best Management Practices on the site would reduce any impacts to a less than significant level. The 2008 FEIR also determined that the Approved Project development would be served by the existing municipal sewage disposal system. Therefore, items a.iv) and e) listed above were determined to have no impact under the Approved Project, nor would there be any impact under the Proposed Project, as the Proposed Project would develop nearly identical building footprints as the Approved Project, the project site is still relatively level, and the Proposed Project would be connected to the municipal sewage disposal system. In addition, the Proposed Project would also implement BMPs in accordance with regulatory requirements. Thus, no additional impacts would occur, and further analysis of these issues is not warranted.

a.i) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.ii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

As described in the 2008 FEIR, a total of 41 faults are located within 60 miles of the project site. The Newport-Inglewood Fault Zone, which is mapped as an Alquist-Priolo Earthquake Fault Zone, is located approximately 3.3 miles southeast of the site; therefore the project site is not located within an Alquist-Priolo Earthquake Zone. The 2008 FEIR determined that the potential for surface rupture at the project site is low and impacts to people or structures from surface rupture are less than significant. The Proposed Project would develop residential, retail, and hotel uses on the same site analyzed in the 2008 FEIR and impacts related to surface rupture would also be less than significant.

Impacts related to seismically induced ground shaking were determined to be significant but mitigable through implementation of recommendations included in the Report of Geotechnical Investigation for the Approved Project. The Proposed Project would be exposed to the same ground shaking risk, as it is on the same site analyzed in the 2008 FEIR and would develop building footprints that would be nearly identical to the Approved Project. A Phase II Site-

Specific Fault Rupture Investigation (Phase II) was completed in May 2014 by Geocon West, Inc. (Geocon) in order to identify faults that may traverse the project site and to evaluate the potential for surface fault rupture. The Phase II is included as Appendix A. The Phase II utilized analysis available from previous studies completed in the area including geotechnical studies prepared for the Beverly Hills Unified School District and Westside Subway Extension Project. The Phase II illustrated that a splay of the Santa Monica Fault Zone is approximately 180 feet northwest of the project site at its closest point. Geocon recommended a 50-foot structural set-back from the northwestern property line along the common boundary between the project site and the adjacent service station at 9988 Wilshire Boulevard. Development of the Proposed Project would include this set-back, which would ensure that impacts related to possible rupture along any of the nearby off-site faults would be reduced to a less than significant level. It would also be required that on-site structures comply with applicable provisions of the most recent California Building Code (CBC) and building standards adopted by the City of Beverly Hills. Therefore, the Proposed Project would not result in any new significant impacts related to Alquist-Priolo Earthquake Fault Zones or seismic ground shaking or increase the severity of significant impacts related to Alquist-Priolo Earthquake Fault Zones or seismic ground shaking beyond those identified in the 2008 FEIR and further analysis of these issues is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

a.iii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The 2008 FEIR determined that although the project site is not located within a State of California designated Liquefaction Hazard Zone, seismic activity could induce ground shaking that results in liquefaction and this impact would be significant but mitigable. The Proposed Project would develop building footprints that would be nearly identical to the Approved Project and may include seven feet of additional excavation beyond that analyzed in the 2008 FEIR. Similar to the Approved Project, the structures and subterranean garage currently proposed would be designed and constructed in conformance with recommendations made in the geotechnical reports for the projects, as well as all applicable local, state, and federal regulations, such as the CBC as well as the 2008 FEIR mitigation measures. Therefore, the Proposed Project would not result in any new significant liquefaction impacts or increase the severity of significant liquefaction impacts beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

a. iv) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The Initial Study for FEIR determined that the Approved Project would not have any significant impacts involving landslides or loss of topsoil. The topography of the site and its immediate built environment is relatively flat and devoid of any distinctive landforms. Site elevation is approximately 250 feet to 225 feet above mean sea level. Currently, the site remains in the same

condition. Therefore, given the relatively flat nature of the site and project vicinity, no potential for significant landslides exists and the project would not result in any new impacts.

NO IMPACT

b) Result in substantial soil erosion or the loss of topsoil?

The Initial Study for the FEIR determined that the Approved Project would not have any significant impacts involving loss of topsoil as the use of Best Management Practices (BMPs) on the site would reduce any impacts to less than significant. Therefore, the Proposed Project would not result in any new significant impacts beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

c) Would the project be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The 2008 FEIR determined that the project site is not located within a State of California designated Liquefaction Hazard Zone. Based on the subsurface materials at the site, liquefaction potential is low. The Proposed Project would develop building footprints that would be nearly identical to the Approved Project and similar excavation depths as the Approved Project (up to seven additional feet may be excavated as part of the Proposed Project). Due to the shallow depth of groundwater, encountered at depths of 30 to 45 feet below the existing surface, dewatering activities on the project site would be required during construction and operation of the currently proposed subterranean parking garage, as required for the Approved Project. The applicant would comply with all aspects of the Section 9-4-610 of the City's Municipal Code, which regulates dewatering, and would obtain the required NPDES Permit for Groundwater Discharge from the Los Angeles Regional Water Quality Control Board (LARWQCB). The NPDES Permit would require the project to implement Best Management Practices to reduce stormwater volume, peak flows, and/or nonpoint source pollution through infiltration, detention, and/or filtration. Compliance would ensure that impacts related to subsidence, lateral spreading, and/or collapse would not occur.

The 2008 FEIR also determined that due to the project site location and flat topography, landslides would not occur. Like the Approved Project, the structures currently proposed would be designed and constructed in conformance with recommendations made in the geotechnical reports for the projects, as well as all applicable local, state, and federal regulations, such as the UBC. Therefore, the Proposed Project would not result in any new significant impacts or increase the severity of significant impacts related to unstable soils beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

d) Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?

The 2008 FEIR determined that the upper soils on the project site have a medium expansion potential. The below-grade parking structure proposed as part of the Approved Project was planned to reach a depth of approximately 35 feet below grade; the Proposed Project would include similar excavation that would reach up to 42 feet below grade. Based on the fluctuation of the depth of groundwater to up to 28 feet below grade, the likelihood of expansive soils impacting structures on the project site in the future was found to be probable for the Approved Project. Due to the potential for deeper excavation to occur as part of the Proposed Project, the potential exists that during construction, expansive soils or soils that are unstable or would become unstable as a result of new development may be encountered. This could result in on-site or off-site lateral spreading or subsidence. Similar to the Approved Project, the currently proposed structures would be designed and constructed in conformance with recommendations made in the geotechnical reports for the projects, as well as all applicable local, state, and federal regulations, such as the UBC. Therefore, the Proposed Project would not result in any new significant impacts or increase the severity of significant impacts related to expansive soils beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
VII. Greenhouse Gas Emissions						
-- Would the project:						
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	■	□	□	□	□	□
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	■	□	□	□	□	□

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are the GHGs that are emitted in the greatest quantities

from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion. CH_4 results from fossil fuel combustion as well as off-gassing associated with agricultural practices and landfills. N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes.

Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. According to the CalEPA's *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, April 2010).

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 16 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, ARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by ARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years. Implementation activities are ongoing and ARB is currently in the process of updating the Scoping Plan.

In May 2014, ARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (ARB, June 2014).

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The 2008 FEIR addressed impacts related to GHG emissions and climate change on a cumulative and qualitative basis by comparing the project features to Climate Action Team Strategies. The Approved Project was found to have a less than significant impact related to greenhouse gas emissions and climate change. Nevertheless, the SEIR will include a full analysis of potential impacts related to GHG emissions under the current development proposal.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
VIII. Hazards and Hazardous Materials						
-- Would the project:						
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐	■	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	☐	☐	☐	☐	■	☐
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐	■	☐
e) For a project located within an airport land use plan or, where such a plan has not been	☐	☐	☐	☐	☐	■

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
VIII. Hazards and Hazardous Materials						
-- Would the project:						
adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?						
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	■	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☐	☐	■

The 2008 FEIR determined that the project site is not located within an airport land use plan, within two miles of a public airport, or within the vicinity of a private airstrip. The project site is also located in a highly urbanized area and is not exposed to any highly flammable materials such as brush, grass, or dense trees. Therefore, criteria e), f), and h) listed above were determined to have no impact in the Approved Project, and remain inapplicable to the Proposed Project, which would be located on the same site. Further analysis of these issues is not warranted.

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

As discussed in the 2008 FEIR, construction and operation of residential units and commercial space does not require extensive or ongoing use of materials that would create a significant hazard to the public. Development of the Proposed Project would result in 59 fewer residential units being constructed than were analyzed in the 2008 FEIR. The project would also result in

the development a 134-room luxury hotel, in lieu of the commercial and residential space analyzed by the 2008 FEIR. Nonetheless, the currently proposed uses would not require extensive or ongoing use of materials that would create a significant hazard to the public. Additionally, all materials used on site would be used per manufacturing specifications. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The 2008 FEIR determined that the Approved Project would have the potential to result in the exposure of the public to hazardous materials as a result of the demolition of the existing on-site structures. These structures were demolished in July 2014 and construction of the Proposed Project would not create a hazard to the public through reasonably foreseeable releases of hazardous materials. As part of the July 2014 demolition, asbestos and lead based paints were removed from the site in accordance with Beverly Hills Municipal Code Section 10-3-4201. The 2008 FEIR also determined that the types of commercial and residential land uses proposed would not include the potential to generate large quantities of hazardous and/or toxic materials, and thus would not have a potential to result in the release of hazardous materials. Development of the Proposed Project would include 59 fewer residential units than were analyzed in the 2008 FEIR. The project would also result in the development a 134-room luxury hotel, in lieu of the commercial and residential space analyzed in the 2008 FEIR. Nonetheless, the currently proposed uses would not have the potential to generate large quantities of hazardous and/or toxic materials, and thus would not have the potential to cause the release of hazardous materials. Therefore, the Proposed Project would not result in any new significant impacts or increase the severity of significant impacts related to the release of hazardous materials into the environment beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?

El Rodeo School, an elementary school, is located immediately north of the project site across Wilshire Boulevard. The 2008 FEIR required mitigation to reduce the significance of potential impacts associated with the demolition of the Robinsons-May building that existed on-site in 2008. The building was demolished in July 2014 and these impacts and mitigation measures (MM-HAZ-1, MM-HAZ-2, and MM-HAZ-3) would not apply to the Proposed Project. There is no additional mitigation associated with this impact area that would be required under the Proposed Project. The 2008 FEIR also determined that the occasional use and disposal of hazardous materials associated with residential and commercial uses would not result in the potential for accidental release and/or explosion and that such impacts would be less than significant.

Development of the Proposed Project would include 59 fewer residential units than were analyzed in the 2008 FEIR. The project would also include a 134-room luxury hotel, in lieu of the commercial and residential space analyzed in the 2008 FEIR. Other hotel related spaces would replace the Approved Project's commercial space. Nonetheless, the currently proposed uses would not have the potential to generate large quantities of hazardous and/or toxic materials, and thus would not have the potential to result in the release of hazardous materials within 1/4 mile of an existing school. Therefore, the Proposed Project would not result in any new significant impacts or increase the severity of significant impacts related to the release of hazardous materials into the environment beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

d) Would the project be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

A Phase I Environmental Site Assessment (ESA) was included in the 2008 FEIR. The ESA determined that the project site was not listed on any federal or state databases and that the Unocal facility, located immediately adjacent to the project site, represents a low potential for environmental impact as an off-site source. Other facilities are over 800 feet from the site or down-gradient of the site and therefore pose a low potential for environmental impacts to the site. For these reasons, the 2008 FEIR determined that impacts would be less than significant.

The following databases were checked (September 4, 2015) for known hazardous materials contamination at the project site:

- *GeoTracker (California State Water Resources Control Board): list of leaking underground storage tank sites*
- *EnviroStor (California Department of Toxic Substances Control): list of hazardous waste and substances sites*
- *Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database*
- *EnviroMapper (U.S. Environmental Protection Agency)*

The project would not be located on a site included on any of these databases. The closest listings for open cases are two leaking underground storage tank (LUST) cleanup sites, one of which is located at the adjacent Unocal facility and the other at Al Grimmet Auto Repair at 9953 Santa Monica Boulevard, 200 feet south of the site across Santa Monica Boulevard. Several dry cleaners and automotive shops are also within one mile of the project site; however, none have reported hazardous leaks. Therefore, the Proposed Project would not result in any new significant impacts or increase the severity of significant impacts related to the location of existing hazardous sites beyond those identified in the 2008 FEIR. Impacts would be less than significant and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The 2008 FEIR determined that the Approved Project would not encroach into roadways or evacuation pathways and would comply with all applicable City codes and regulations pertaining to emergency response and evacuation plans. Therefore, the 2008 FEIR concluded that the Approved Project would not conflict with applicable emergency response and evacuation plans.

The Proposed Project would develop building footprints that would be nearly identical to the Approved Project on the same site as the 2008 Project. Vehicle access to the site would be designed to separate residential traffic from hotel traffic and through traffic on Merv Griffin Way. In order to provide access to the hotel along with a "front door", an expansive motor court would be incorporated into the South Building on Santa Monica Boulevard. All hotel guests including guests utilizing the restaurants or the meeting space would be required to valet their cars unless they were being dropped off in the motor court. Residents and their guests would continue to access their residences via the Approved Project's private, secured drive at the west property line that would be accessed from Wilshire Boulevard and Santa Monica Boulevard.

All parking (other than motor court parking) would be below-grade and hotel parking would be separate from residential parking. The loading docks and staff parking would be below-grade and accessed from Merv Griffin Way.

In addition, the Proposed Project would be required to conform to traffic and safety regulations that specify adequate emergency access measures. In addition, the project site would be required to meet the standards set forth by the Beverly Hills Fire Department.

The Proposed Project would not result in any new significant impacts or increase the severity of significant impacts related to emergency response or emergency evacuation plans beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
IX. Hydrology and Water Quality						
-- Would the project:						
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☐	■	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☐	■	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☐	■	☐
d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☐	■	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☐	■	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☐	■	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood	☐	☐	☐	☐	☐	■

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
IX. Hydrology and Water Quality						
-- Would the project:						
Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?						
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☐	☐	■
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☐	■	☐
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☐	☐	■

The 2008 FEIR determined that the project site is not located within a 500-year or 100-year flood zone as mapped by the Federal Emergency Management Agency (FEMA). The FEMA map (06037C1585F adopted September 26, 2008) confirms that the project site is not located in a flood zone. In addition there are no landlocked water bodies where impacts from a seiche could occur. The area is also protected from inundation from a tsunami by its elevation approximately 250 to 225 feet above mean sea level. Therefore, criteria g), h), and j), listed above had no impact from the Approved Project nor would they have any impact from the Proposed Project. Further analysis of these issues is not warranted.

a) Would the project violate any water quality standards or waste discharge requirements?

f) Would the project otherwise substantially degrade water quality?

The 2008 FEIR determined that demolition and construction activities associated with the Approved Project could result in discharge of urban pollutants into the City drainage system causing a significant but mitigable impact. Dewatering would be necessary for construction of the Approved Project, and may be necessary for the Proposed Project. MM-HYDRO-1 of the 2008 FEIR required that the appropriate NPDES Permit for Groundwater Discharge would be obtained from the LARWQCB and that the City's storm drain system would meet all NPDES requirements. MM-HYDRO-1 from the 2008 FEIR would apply to the Proposed Project and would reduce project-related impacts to water quality to a less than significant level.

The 2008 FEIR also determined that operational activities associated with the 2008 Project could result in discharge of urban pollutants into the City drainage system causing a significant but mitigable impact. Dewatering would be necessary for operation of the Approved Project, and may be necessary for the Proposed Project. MM-HYDRO-1 from the 2008 FEIR would apply to the Proposed Project and would reduce project-related operational dewatering impacts to water quality to a less than significant level.

The 2008 FEIR found that water quality could be impacted by parking lot/garage-generated pollutants, as well as runoff from landscaped areas. MM-HYDRO-2 from the 2008 FEIR was required to ensure that the 2008 Project would submit and implement a Standard Urban Stormwater Mitigation Plan (SUSMP) to reduce water quality impacts from the change in land use on the project site. The Proposed Project would develop a similar parking lot/garage structure and landscaped area as the Approved Project; the depth of the subterranean garage would be seven feet deeper. Therefore, implementation of MM-HYDRO-1 and MM-HYDRO-2 from the 2008 FEIR would also reduce the Proposed Project impacts to water quality to a less than significant level.

The Proposed Project would not result in any new significant water quality impacts or increase the severity of significant impacts related to water quality beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

The 2008 FEIR determined that construction of the Approved Project would have a less than significant impact on groundwater supplies based on the required project dewatering and the location of the project site to the nearest City well. Groundwater at the site was encountered at depths of 30 to 45 feet below ground surface, which is deeper than the project's planned below grade space. There are certain techniques, including temporary dewatering wells, storage tanks, and filters, which may be used to dewater the site. A similar level of dewatering would be necessary for construction of the Proposed Project, which would develop building footprints that would be nearly identical to the Approved Project with some additional excavation (seven feet deeper) than the Approved Project. The Proposed Project would also be required to comply with all aspects of the City's dewatering ordinance and to obtain an NPDES Permit for Groundwater Discharge from the LARWQCB.

The 2008 FEIR also determined that the Approved Project would have a less than significant impact on groundwater supplies based on the project location, available groundwater supplies, and proposed new pervious surface area. The Proposed Project would develop building footprints that would be nearly identical to those analyzed in the 2008 FEIR. Dewatering, which was analyzed in the 2008 FEIR, would not deplete groundwater supplies because the distance between the project site and the nearest City well is down-gradient and because potential site dewatering would be conducted only when shallow groundwater conditions are encountered.

The project site is underlain by the Hollywood Subbasin of the Coastal Plain of Los Angeles Groundwater Basin. Overall safe yield of the Hollywood Subbasin, or the amount of groundwater that may be extracted on an annual basis without adversely affecting groundwater supply in the subbasin, is approximately 3,000 acre-feet per year (AFY). In comparison, groundwater production rates recorded by the City of Beverly Hills between the years 2005 and 2009 indicate annual production rates between 884 and 1,311 AFY, which is well within the natural safe yield (City of Beverly Hills, 2011).

The Proposed Project would be located on the same site as the Approved Project; however, the Proposed Project would include condominiums and hotels facilities (rooms, meeting spaces, restaurants and retail uses), which may have a greater demand for water than the Approved Project, which included retail and commercial space rather than a hotel. Additionally, conditions have changed due to the current statewide drought. Because of the potentially increased demand for water and drought conditions, impacts related to water supply would be potentially significant and will be further analyzed in the *Utilities and Service Systems* section of the SEIR. Further analysis of the groundwater issue is not warranted in this section, see Section XVII for more details.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

The 2008 FEIR determined that construction of the Approved Project would not alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, nor does the site contain a stream or a river, nor is the site located in close proximity to a stream or a river. The 2008 FEIR also determined that the project site was developed with a majority of impervious surfaces and served by an existing stormwater collection and conveyance system. The Approved Project was also expected to increase the amount of pervious surfaces compared to existing conditions. Therefore, the 2008 FEIR determined that potential drainage impacts would be less than significant.

The Proposed Project would include building footprints that would be nearly identical to the Approved Project and would therefore result in approximately the same amount of impervious surfaces being developed. The Proposed Project would be located on the same site analyzed in the 2008 FEIR and therefore is not located near any stream or river.

Furthermore, the new, more stringent municipal separate storm sewer system (MS4s) requirements, which have been adopted since 2008, would apply to the Proposed Project. The new MS4 requirements include Order No. R4-2012-0175 from the California Regional Water Quality Control Board for the Los Angeles Region, which covers all areas within the coastal

watersheds of Los Angeles County, except those discharges originating from the City of Long Beach, that drain into the MS4 with the objective of ensuring that discharges from the MS4 comply with water quality standards, including protecting the beneficial uses of receiving waters. The Order requires that permitees (including the City of Beverly Hills) implement specific Best Management Practices. The new requirements, as well as the other permitting requirements, would ensure that the Proposed Project would not result in any new significant impacts related to drainage patterns or increase the severity of significant impacts related to drainage patterns beyond those identified in the 2008 FEIR. Further analysis of this is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The 2008 FEIR determined that construction of the Approved Project would increase the area of pervious surfaces on the project site and would consequently decrease stormwater flow compared to the existing condition. Furthermore, in order to discharge the subdrain water proposed as part of the Approved Project (as well as the Proposed Project) the applicant would be required to comply with all aspects of the City's dewatering ordinance and the NPDES Permit for Groundwater Discharge from the LARWQCB. Therefore, the 2008 FEIR concluded that impacts associated with runoff would be less than significant. The Proposed Project would have a similar area of pervious surface and would not increase stormwater flow. Therefore, the Proposed Project would not result in any new significant runoff impacts or increase the severity of significant impacts related to runoff beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

The Initial Study for the FEIR for the Approved Project found no impacts due to flooding as the site is not located within a 500-year or 100-year flood zone as mapped by the Federal Emergency Management Agency. The Proposed Project would not result in any new impacts as the project is located on the same site. Further analysis of this issue is not warranted.

NO IMPACT

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The FEIR for the Approved Project found less than significant impacts for an earthquake-induced dam failure at the Lower Franklin Reservoir due to the distance of the Reservoir from the site. The Proposed Project is located on the same site and the severity of the impacts would

not change beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

j) Result in inundation by seiche, tsunami, or mudflow?

The Initial Study for the FEIR for the Approved Project found no impact related to inundation by seiche, tsunami, or mudflow due to the flat natre of the site and distance from the ocean or other body of water. The Proposed Project is located on the same site and no new impacts would occur. Further analysis of this issue is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
X. Land Use and Planning						
-- Would the project:						
a) Physically divide an established community?	☐	☐	☐	☐	☐	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	■	☐	☐	☐
c) Conflict with an applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☐	☐	■

a) Would the project physically divide an established community?

The 2008 FEIR concluded the Approved Project size and location would neither divide nor disrupt the arrangement of an established community and would therefore have less than significant impacts. The Proposed Project is located on the same site and is of the same approximate size, bulk, and scale. Additionally, the project site is surrounding by uses compatible with a hotel including another hotel (The Beverly Hilton), the Los Angeles Country Club, a gas station, El Rodeo school, and other commercial and residential uses. Therefore, the Proposed Project would not result in any new significant impacts related to physically dividing

an established community or increase the severity of significant impacts related to physically dividing an established community beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

NO IMPACT

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The 2008 FEIR identified potentially significant impacts from the Approved Project because the Approved Project would introduce new buildings and land uses that substantially increase development density and building heights on the project site. This conflicts with the Land Use Element Objective 3, Areas of Transitional Conflict, and Objective 4, Scale of the City. For these reasons the 2008 FEIR found that the project conflicted with the Land Use Element development criteria for commercial areas that recommend that new development complement the scale and character of adjacent residential areas.

Additionally, the 2008 FEIR found that demolition of the Robinsons-May building would result in a significant and unavoidable impact on cultural resources and therefore would conflict with conservation goals related to the landmark preservation included in the Conservation Element. This building was demolished in July 2014 and this impact would not apply to the Proposed Project.

The 2008 FEIR found the Approved Project to be consistent with all other applicable plans, policies and regulations. No feasible mitigation measures were identified to reduce inconsistency with Land Use Element objectives addressing Areas of Transitional Conflict and Scale of the City or with development criteria recommending that new development complement the scale of adjacent residential areas. The massing, scale and use of the Proposed Project is similar to that of the Approved Project. However, the Proposed Project includes hotel use which was not analyzed in the 2008 FEIR. Further analysis of the newly proposed hotel use is warranted and will be addressed in the SEIR.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

c) Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

As concluded in the 2008 FEIR, there are no applicable habitat conservation plans or natural community conservation plans on or in the vicinity of the Proposed Project site. As a result, no impacts would occur, and no further analysis of this topic is necessary. The Proposed Project would not result in any new significant impacts or increase the severity of such impacts. Further analysis of this issue is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XI. Mineral Resources						
-- Would the project:						
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☐	■
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☐	☐	■

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

As concluded in the 2008 FEIR, no mineral resources of value to the region or the residents of the state are known to be within the project area other than petroleum, and the Approved Project did not include any policies that would have any effect on the petroleum resources located in the vicinity. The Proposed Project is located on the same site analyzed in the 2008 FEIR and no new mineral resources sites have been designated since the 2008 FEIR's certification. Therefore, the Proposed Project would not result in any new significant impacts to mineral resources or increase the severity of significant impacts related to mineral resources beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XII. Noise						
-- Would the project result in:						
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	■	☐	☐	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	■	☐	☐	☐	☐	☐
c) A substantial permanent increase in ambient noise levels above levels existing without the project?	■	☐	☐	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	■	☐	☐	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?	☐	☐	☐	☐	☐	■

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Because of the logarithmic scale of the decibel unit, sound levels cannot be added or subtracted arithmetically. If a sound's physical intensity is doubled, the sound level increases by 3 dBA, regardless of the initial sound level. For example, 60 dBA plus 60 dBA equals 63 dBA. Where ambient noise levels are high in comparison to a new noise source, the change in noise level

would be less than 3 dB. For example, 70 dBA ambient noise levels are combined with a 60 dBA noise source the resulting noise level equals 70.4 dBA. One of the most frequently used noise metrics that considers both a sound's physical intensity and duration is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period.

Noise that is experienced at any receptor can be attenuated by distance or the presence of noise barriers or intervening terrain. Sound from a single source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. For acoustically absorptive, or soft, sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receiver, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dBA of noise reduction.

The City of Beverly Hills' General Plan contains noise policies that address unnecessary, excessive, and annoying noise levels and sources, such as vehicles, construction, special sources (e.g., radios, musical instrument, animals, etc.) and stationary sources (e.g., heating and cooling systems, mechanical rooms, etc.). The City's noise ordinance (BHMC Section 5-1-201 and subsequent) include noise standards and regulations. Section 5-1-202 prohibits any person from operating machinery or mechanical devices in a manner which creates a noise increase of more than 5 dBA above the ambient noise level at any property outside the hours permitted by the City's noise ordinance for construction activity.

Section 5-1-205 of the BHMC prohibits construction activity between the hours of 6:00 PM and 8:00 AM any day and prohibits construction activity on Sundays and on public holidays. Further, construction work within 500 feet of a residential zone is prohibited on Saturdays. The project site is within 500 feet of a residential zone.

As stated in the City's Noise Element, potentially sensitive land uses in Beverly Hills include residences (including residences for the elderly), schools, churches, and libraries. In addition, the Proposed Project is near other noise sensitive uses, including the school (El Rodeo School) 100 feet north of the site, the Beverly Hilton Hotel adjacent to the east of the site, and the residences south of the project site.

Vibration is a unique form of noise. It is unique because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from passing trucks. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated.

Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

c) Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The 2008 FEIR determined that construction noise impacts associated with the Approved Project would be significant and unavoidable. MM-NOISE-1 from the 2008 FEIR, which the Proposed Project may also be required to implement, would reduce daytime and nighttime noise impacts by restricting hours of construction, siting staging areas away from receptors, requiring noise attenuation barriers, locating stationary equipment away from receptors, and designing haul routes to avoid receptors. MM-NOISE-4 from the 2008 FEIR was also required to reduce cumulative noise and vibration impacts associated with The Beverly Hilton Revitalization Plan project; nonetheless, these impacts were found to be significant and unavoidable. Project-specific construction noise will be analyzed in an SEIR to determine what, if any, mitigation measures may be available, required, and/or feasible to reduce construction noise impacts.

The 2008 FEIR determined that operational noise associated with traffic generated by the Approved Project would be less than significant. Off-site noise impacts associated with mechanical equipment and the proposed parking structure were also determined to be less than significant for the Approved Project. On-site traffic noise impacts to the residential uses included in the Approved Project were found to be significant but mitigable. Implementation of MM-NOISE-2 and MM-NOISE-3 from the 2008 FEIR, which require the installation of sound attenuation features such as berms and trees along Wilshire Boulevard, Santa Monica Boulevard, and Merv Griffin Way, as well as the incorporation of building materials and techniques to reduce interior noise levels, were required to reduce impacts to a less than significant level. The Proposed Project includes hotel uses with outdoor dining areas which were not analyzed in the 2008 FEIR. Project-specific operational, including noise from new outdoor uses such as dining, and traffic noise will be analyzed in an SEIR to determine what, if any, mitigation measures may be available, required, and/or feasible to reduce operational noise impacts.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The 2008 FEIR determined that construction vibration impacts associated with the Approved Project would be significant and unavoidable. MM-NOISE-1, which the Proposed Project may

also be required to implement, would reduce daytime and nighttime vibration impacts by restricting hours of construction, siting staging areas away from receptors, requiring noise attenuation barriers, locating stationary equipment away from receptors, and designing haul routes to avoid receptors. Project-specific construction vibration will be analyzed in an SEIR to determine what, if any, mitigation measures may be available, required, and/or feasible to reduce groundborne vibration or groundborne noise impacts

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?

The 2008 FEIR determined that the project site is not located within an airport land use plan or within the vicinity of a private airstrip. The Proposed Project is located on the same site. Therefore, the Proposed Project would not result in any new significant noise impacts related to airport or increase the severity of significant noise impacts related to airports beyond those identified in the 2008 FEIR. Further analysis of these issues is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XIII. Population and Housing						
-- Would the project:						
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☐	■	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☐	■

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XIII. Population and Housing						
-- Would the project:						
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☐	■

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The 2008 FEIR found that the Approved Project would have less than significant impacts related to population growth. The project was estimated to generate 564 residents in the proposed 252 residential units. The Approved Project included commercial uses that could generate between 26 and 48 new employees in the region. The Proposed Project includes 193 residential units and would generate approximately 450 new residents based on California Department of Finance's estimate of 2.33 individuals per household (CDOF, 2015). The Proposed Project also includes 134 hotels rooms and ancillary uses, including a restaurant and bar. These uses would increase the number of employees and visitors in the City. Visitors of the hotel would be temporary and would not permanently induce population growth. According to the Southern California Association of Governments (SCAG), the number of employees in the City is expected to increase by 11,237 from 2000 to 2030. The number of employees projected for the Proposed Project is 186 (1,179 square feet per hotel employee and 730 square feet per retail/restaurant/ bar employee) (SCAG, 2001). The employees added by the Proposed Project would be 138 to 160 more than was estimated for the Approved Project. However, the additional employees would be within the SCAG estimate. Therefore, the Proposed Project would not create any new impacts beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The 2008 FEIR determined that the Approved Project would result in no impact related to the displacement of housing or people. The project site did not have any housing or residents in 2008. The Proposed Project is located on the same site, which became vacant in July 2014; therefore, the Proposed Project would not generate any additional impacts. Further analysis of this issue is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XIV. Public Services						
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
i) Fire protection?	☐	☐	☐	☐	■	☐
ii) Police protection?	☐	☐	☐	☐	■	☐
iii) Schools?	☐	☐	☐	☐	■	☐
iv) Parks?	☐	☐	☐	☐	■	☐
v) Other public facilities?	☐	☐	☐	☐	■	☐

a.i) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

Fire protection, rescue services, and emergency medical (paramedic services) are provided by the Beverly Hills Fire Department (BHFD). The 2008 FEIR determined that the Approved Project would incrementally increase demands on the BHFD based on an increased population of 564 residents. The 2008 FEIR concluded that this increase would not require the construction of new fire protection facilities. The Proposed Project would add 193 units and add 450 new

residents (193 units x 2.33 residents per unit) to the City, a reduction of 114 residents (20%) (California Department of Finance, 2015). The Proposed Project also includes 134 hotels rooms and ancillary uses including a restaurant and bar. These uses would increase the number of employees and visitors in the City and it is anticipated that demands for fire protection service would incrementally increase above current levels. The Proposed Project would also include development of a smaller building located to the east of the South Building. This building was proposed for use as a "spa pavilion" under the Approved Project, but would be shifted slightly to the north and would be used for ancillary hotel uses under the Proposed Project. Additionally, there is a pavilion east of the north building.

With the Proposed Project, residents and their guests would continue to access their residences via the Approved Project's private, secured drive at the west property line that is accessed from Wilshire Boulevard and Santa Monica Boulevard. The loading docks and staff parking would be below-grade and accessed from Merv Griffin Way. In order to provide access to the hotel along with a "front door", a motor court would be incorporated into the South Building on Santa Monica Boulevard. With an identical building footprint and site access and a reduction in residents, there would be a less than significant impact to fire response.

The BHFD requested the installation of an Opticom device at the signal at Merv Griffin Way and Santa Monica Boulevard to reduce potential traffic impacts. The Proposed Project would be required to adhere to MM-FIRE-1 from the 2008 FEIR, which requires installation of the Opticom device. MM-FIRE-2 from the 2008 FEIR would also be required and the project proponent would pay its fair share toward the replacement of the 8-inch and 10-inch sections of the main feeding the hydrants along Wilshire Boulevard with 12-inch mains in order to achieve adequate fire flow for the Proposed Project. In addition, the project site would be required to meet the standards set forth by the Beverly Hills Fire Department. Therefore, the Proposed Project would not result in any new significant impacts to fire protection services or increase the severity of significant impacts to fire protection services beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

a.ii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?

Police protection is provided by the Beverly Hills Police Department (BHPD). The 2008 FEIR determined that the Approved Project would incrementally increase demands on the BHPD based on an increased population of 564 residents. The 2008 FEIR concluded that this increase would not require the construction of new police protection facilities. The Proposed Project would add 193 units and add 450 new residents (193 units x 2.33 residents per unit) to the City, a reduction of 114 residents (20%) compared to the Approved Project (California Department of Finance, 2015). The Proposed Project is approximately the same footprint as the Approved Project but includes 134 hotel rooms and ancillary uses including a restaurant and bar. These uses would increase the number of employees and visitors in the City and it is anticipated that demands for police protection service would incrementally increase above current levels.

However, the Project includes security features such as gated entry to the residential buildings, 24-hour security and 24-hour on-site concierge for residents. These security features would incrementally decrease the need for police protection services. Overall, demand for police protection service would be similar to that analyzed in the 2008 FEIR. Therefore, the Proposed Project would not result in any new significant impacts to police protection services or increase the severity of significant impacts to police protection services beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

a.iii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?

The 2008 FEIR determined that the Approved Project would generate an estimated 176 school-age students and that while this could adversely affect schools, payment of the required school impacts fees would reduce this impact to a less than significant level. The Proposed Project would develop fewer residential units and would generate approximately 41 fewer school-age students than the Approved Project based on a standard generation rate of 0.7 students per household. Assuming most hotel guests and employees are not permanent residents of the City, hotel uses would not generate school-age students. The Proposed Project would be required pay school impact fees. Under Section 65996 of the California Government Code, the payment of such fees is deemed to fully mitigate the impacts of new development on school facilities. Therefore, the Proposed Project would not result in any new significant impacts to schools or increase the severity of significant impacts to schools beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

a.iv) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?

The 2008 FEIR determined that the Approved Project would have a less than significant impact on parks. The Approved Project's applicant was required to pay the City's Park and Recreation Facilities Construction Tax, pursuant to Beverly Hills Municipal Code Section 3-1-702; furthermore, the residential component of the Proposed Project will include a fitness center and outdoor open spaces as required by the Beverly Hills Municipal Code. The Proposed Project would generate 114 fewer residents (20%) than the Approved Project and would add more landscaped areas and open space than the Approved Project. Assuming most hotel guests and employees are not permanent residents of the City, hotel guests and employees would not use the parks frequently enough to create a significant impact. Therefore, the Proposed Project would not result in any new significant impacts to parks or increase the severity of significant

impacts to parks beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

a.v) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

The 2008 FEIR determined that the Approved Project would incrementally increase demands on public libraries based on an increased population of 564 residents. The 2008 FEIR concluded that this increase would not require the construction of new library facilities or increased library services. The Proposed Project would add 193 units and add 450 new residents (193 units x 2.33 residents per unit) to the City, a reduction of 114 residents (20%) compared to the Approved Project (California Department of Finance, 2015). Assuming most hotel guests and employees are not permanent residents of the City, hotel guests and employees would not use the libraries frequently enough to make an impact. Therefore, the Proposed Project would not result in any new significant impacts to library services or increase the severity of significant impacts to library services beyond those identified in the 2008 FEIR and further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XV. Recreation						
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐	☐	■
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☐	☐	■

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The 2008 FEIR determined that the Approved Project would have less than significant impacts related to recreational facilities and demand for recreation. According to the General Plan, the City of Beverly Hills owns and operates approximately 177 acres of public land for recreation, including community parks, neighborhood parks, sports parks, and open spaces. The park closest to the project site is Roxbury Park, located approximately half a mile south of the project site. The Approved Project included 252 new residential units and was estimated to add approximately 564 new residents. The Proposed Project would add 193 units and add 450 new residents (193 units x 2.33 residents per unit) to the City, a reduction of 20% compared to the 2008 Project (California Department of Finance, 2015). The City's estimated 2015 population is 34,833 (Department of Finance, 2015). Therefore, the ratio of public parks to residents in the City is 5 acres of parkland for every 1,000 residents, which is greater than the standard ratio of 3 acres of parkland for every 1,000 residents used by the California Legislature's Quimby Act, which requires developers to help mitigate the impacts of property improvements by dedicating parkland and/or in lieu fees.

The Proposed Project would not directly affect any existing or planned parks, but the residential population increase associated with the Proposed Project would be expected to increase the use of neighborhood parks and other recreational facilities in the area. Development of the Proposed Project would add an estimated 450 new residents for a total city population of 35,283 residents (34,833 + 450). The parkland ratio would remain around 5 acres per 1,000 residents after development of the Proposed Project. Assuming most hotel guests and employees are not permanent residents of the City, hotel guests and employees would not use the parks frequently enough to make an impact. Therefore, the project would not measurably substantially alter citywide demand for parks. No additional impacts beyond those identified in the 2008 FEIR would occur and further analysis of this issue is not warranted.

NO IMPACT

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XVI. Transportation/Traffic						
-- Would the project:						
a) Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for	■	☐	☐	☐	☐	☐

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XVI. Transportation/Traffic						
-- Would the project:						
the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?						
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	■	☐	☐	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☐	☐	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	■	☐	☐	☐	☐	☐
e) Result in inadequate emergency access?	☐	☐	☐	■	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	☐	☐	☐	☐	☐	■
g) Would the project result in insufficient on-site parking for vehicles?	☐	☐	☐	☐	■	☐

a) Would the project conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?

b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The 2008 FEIR determined that the Approved Project would have less than significant impacts related to signalized intersections located in the City, less than significant impacts related to residential street segments located, and no impact related to the applicable congestion management plan (CMP) for Los Angeles County. The Proposed Project is approximately the same footprint as the Approved Project, but includes a hotel which has the potential to generate more traffic than the previously approved residential and commercial uses. Project-specific construction and operational traffic impacts will be analyzed in an SEIR. As necessary, mitigation measures will be developed to reduce traffic impacts.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The 2008 FEIR determined that there would be no impact on air traffic patterns as a result of the Approved Project. The project site is not near an airport or an air traffic pattern zone. The Proposed Project is located on the same project site. Therefore, the Proposed Project would not result in any new significant impacts related to air traffic patterns or increase the severity of significant impacts to air traffic patterns beyond those identified in the 2008 FEIR. Further analysis of these issues is not warranted.

NO IMPACT

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The 2008 FEIR determined that the Approved Project would not result in any significant impacts related to design hazards. The Proposed Project would also generate traffic during its operation. This traffic and the proposed changes to the circulation system would have the potential to increase hazards due to design features. This impact will be analyzed in an SEIR. As necessary, mitigation measures will be developed to reduce traffic impacts.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

e) Would the project result in inadequate emergency access?

The 2008 FEIR determined that the Approved Project would have less than significant impacts related to emergency access. The project site has a high level of accessibility for emergency

vehicles to the north on Wilshire Boulevard, to the east on Merv Griffin Way, and to the south on Santa Monica Boulevard. Both Wilshire Boulevard and Santa Monica Boulevard provide direct routes to the site for emergency vehicles. The Proposed Project would be required to conform to traffic and safety regulations that specify adequate emergency access measures. As described in Section VIII, Hazards and Hazardous Materials, the project includes an expansive motor court to provide adequate access to the site. The project site would be required to meet the standards set forth by the Beverly Hills Fire Department. As a result, the hotel motor court area would not create issues for emergency access. Additionally, the project site would have a Knox-Box to allow emergency access. However, off-site improvements are being completed as part of the Beverly Hilton Revitalization Plan (Waldorf Astoria) which could have an impact on the Proposed Projects site design as it related to emergency access. Construction of the Proposed Project has the potential to create impacts to emergency access from lane closures, placement of construction equipment, additional construction related traffic (truck trip and construction workers), etc. As described in subsections "a" and "b" above, project-specific operation and construction traffic impacts, including potential impacts to emergency access, will be analyzed in an SEIR. As necessary, mitigation measures will be developed to reduce traffic impacts.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

The 2008 FEIR determined that the Approved Project would have less than significant impacts with regard to alternative transportation including transit service, bicycle facilities, and pedestrian facilities. There are no existing or planned bicycles facilities in the City. The City does have a program which supplies bike racks in the public right-of-way at the request of businesses. This service would be available to the Proposed Project. The Proposed Project would maintain the existing pedestrian facilities on Santa Monica Boulevard and Wilshire Boulevard. The Proposed Project would also have access to transit in the area through the Metro bus service with stops located on Wilshire Boulevard and Santa Monica Boulevard. The Proposed Project would not result in any new significant impacts to bus service bicycles facilities or pedestrian facilities or increase the severity of significant s beyond those identified in the 2008 FEIR. Further analysis of these issues is not warranted.

Metro is adding rail service to the area through the extension of the Purple Line from its current terminus at Wilshire Boulevard and Western Avenue to Wilshire at the Veterans Administration Hospital in West Los Angeles. The extension of the Purple Line represents a change in circumstances compared to what was analyzed in the 2008 FEIR. The Proposed Project has the potential to conflict with the extension of the Purple Line and will be analyzed in the SEIR. As necessary, mitigation measures will be developed to reduce impacts on the Purple Line.

SUBSTANTIAL CHANGE IN CIRCUMSTANCES THAT MAY REQUIRE MAJOR EIR REVISIONS

g) Would the project result in insufficient on-site parking for vehicles?

The 2008 FEIR determined that the Approved Project would have less than significant impacts with regard to the available parking supply. The 2008 FEIR analyzed 956 parking spaces proposed under the 2008 FEIR which was greater than the projects estimated demand of 635 spaces. Under the Proposed Project includes 1,083 on-site parking spaces. Per the Beverly Hills Municipal Code a total of 1,034 parking spaces are required. The proposed 1,083 parking spaces includes an additional 49 residential parking spaces providing more than sufficient parking for the project. Therefore, the Proposed Project would not result in any new significant impacts to the adequacy of parking supply beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XVII. Utilities and Service Systems						
-- Would the project:						
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☐	☐	■
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☐	■	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☐	■	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	■	☐	☐	☐	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's	☐	☐	☐	☐	■	☐

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XVII. Utilities and Service Systems						
-- Would the project:						
projected demand in addition to the provider's existing commitments?						
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☐	☐	■
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☐	☐	■

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The 2008 FEIR found that less than significant impacts to RWQCB standards would occur because there is sufficient capacity at Hyperion. As described in subsections "b" and "e" below the Proposed Project would be accommodated by available capacity at Hyperion and Hyperion would be able to adequately treat projected generated sewage. There would be no significant impacts and further analysis of these issues is not warranted.

NO IMPACT

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

e) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The 2008 FEIR determined that the existing wastewater system would be able to accommodate the additional flow generated by the project. The City's Department of Public Works is responsible for wastewater collection and distribution systems throughout the City, which generates an average flow of 6 million gallons per day (mgd). Sewage from the City of Beverly Hills and other jurisdictions is treated at the Hyperion Treatment Plant (Hyperion), which is owned and operated by the City of Los Angeles and located in El Segundo. Hyperion has a dry

weather design capacity of 450 mgd and is currently processing 340 mgd, resulting in 110 mgd of available capacity. The City of Beverly Hills has entered into an amalgamated treatment and disposal agreement with the City of Los Angeles, which eliminates entitlements and reduces limitations previously set on the amount of sewage discharged to the plant. The City has access to the plant's excess capacity upon payment of Amalgamated Sewerage System Facilities Charges to the City of Los Angeles.

The 2008 FEIR estimated that the Approved Project would generate 20,604,980 gallons of wastewater per year. As shown in Table 2, the Proposed Project would generate an estimated 27,092,782 gallons of wastewater per year or an additional 6,487,802 gallons. This represents a 31% increase in wastewater as compared to the Approved Project. Given that Hyperion has 110 mgd of remaining capacity, the increase in wastewater generation would not significantly affect wastewater treatment capabilities. Additionally, standard City conditions of approval include the requirement for graywater systems to reduce overall water demands and the amount of wastewater which must be treated through off-site treatment.

Table 2
Wastewater Generation – One Beverly Hills

Land Use	Quantity	Generation Factor (gal/day)[1]	Daily Generation (gal)	Annual Generation (gal)
Condominiums	193 du	200	38,600	14,089,000
Hotel Rooms	134 rooms	130	17,420	6,358,300
Restaurant/Bar	260 seats [2]	30	7,800	284,700
Hotel Ballroom/ Meeting Rooms	7,942 sf	800/1,000 sf	6,210	2,266,650
Spa, Cardio, Fitness Room	14,435 sf	800/1000 sf	11,217	4,094,132
Total Wastewater Generation[3]			**81,247**	**27,092,782**

1- Based on 1 seat per 30 square feet
2- *City of Los Angeles, Bureau of Sanitation Sewage Generation Factors.*
3- Total wastewater generation represents the worst case scenario as it does not include any water conservation measures such as the use of a graywater system
gal = gallon; du = dwelling unit; sf = square feet.

The 2008 FEIR identified a significant, but mitigable impact from the Approved Project due to the heavier discharge of fats, oils, and grease into the sewer system from proposed restaurant uses than uses associated with the Robinsons-May store. The Proposed Project also includes restaurant uses, which would produce discharge of fats, oils, and grease into the sewer and mitigation measure MM-WW-1, which requires the restaurant to install a Fat, Oil, and Grease Interceptor, would apply. Implementation of MM-WW-1 would reduce impacts to a less than significant level and further analysis of these issues is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Please see Section IX, *Hydrology and Water Quality*, for a discussion of potential project impacts to the City's storm drain system. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The 2008 FEIR determined that water supplies would be adequate to serve the Approved Project and impacts related to water supply would be less than significant. The Proposed Project would include condominiums and hotels facilities (rooms, meeting spaces, restaurants and retail uses), which may have a greater demand for water than the Approved Project, which included retail and commercial space rather than a hotel. Additionally, conditions have changed due to the current statewide drought. Furthermore, because of the potentially increased demand for water and drought conditions, impacts to water supply would be potentially significant and will be evaluated in an SEIR.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The 2008 FEIR found a less than significant impact from the generation of solid waste. The 2008 Project was estimated to generate 3,142 lbs of solid waste per day or 572 tons per year.

The City Public Works Department, Solid Waste Division is responsible for solid waste collection in the City of Beverly Hills. The City contracts with Recology Los Angeles for waste hauling and collection services. The disposal of solid waste occurs at one of four designated landfills: Chiquita Canyon Landfill, Sunshine Canyon Landfill and/or the Calabasas Sanitary Landfill. These landfills have a combined remaining capacity of 137,300,000 cubic yards with a combined maximum permitted throughput of 21,600 tons/day (Calrecycle, 2015).

The Proposed Project has two components (construction and operation) that would result in the generation of solid waste. During construction, the handling of all debris and waste would be subject to the City's and State's (AB 939) requirements for salvaging, recycling, and reuse of materials from construction activity on the project site. As show in Table 3, the Proposed Project would generate an estimated 2,914 pounds of solid waste per day during operation, which is 7% less than what the Approved Project would generate. Additionally, the City is required to divert at least 50% of its waste from landfills.

Table 3
Solid Waste Generation

Use	Proposed Floor Area/Units	Daily Generation Rate	Generation lbs/day	Generation (tons/year)
Condominiums	193 du	8.6 (lbs/du)	1,660	302
Hotel Rooms	134 rooms	4 (lbs/room/day)	536	98
Restaurant/Bar	7,762sf	0.005 (lbs/sf)	39	7
Hotel Ballroom/ Meeting Rooms	7,942 sf	3.12 lbs/100 sf/day	242	44
Spa, Cardio, Fitness Room	14,435 sf	3.12 lbs/100 sf/day	437	80
Total[1]			**2,914**	**531**

1- The total estimated solid waste generation does not take into account any solid waste reduction measures that would be implemented as part of the project meeting LEED Silver requirements.

Source: Calrecycle, Estimated Solid Waste Generation and Disposal Rate, Accessed September 2015, Available at: http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Service.htm

Due to the reduction in waste that would be generated by the project, the Proposed Project would not result in any new significant impacts related to solid waste or increase the severity of significant impacts related to solid waste beyond those identified in the 2008 FEIR. Further analysis of this issue is not warranted.

LESS THAN SIGNIFICANT IMPACT/NO CHANGES OR NEW INFORMATION REQUIRING PREPARATIONOF AN SEIR

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XVIII. Mandatory Findings of Significance						
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	■	☐	☐	☐	☐	☐

	Substantial Change in Project That May Require Major EIR Revisions	Substantial Change in Circumstances That May Require Major EIR Revisions	New Information Showing Potentially New or Greater Significant Effects than Previous EIR	New Information Showing Ability to Reduce, but not Eliminate Significant Effects in Previous EIR	Less than Significant Impact/No Changes or New Information Requiring Preparation of an SEIR	No Impact
XVIII. Mandatory Findings of Significance						
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	■	☐	☐	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■	☐	☐	☐	☐	☐

a) Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

As described in the sections above, the Proposed Project would not result in any new significant environmental impacts in the following areas: Aesthetics, Agricultural and Forest Resources, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Population and Housing, and Public Services. The projects impacts in these areas are therefore less than significant.

However, the Proposed Project may generate impacts in the following areas: Air Quality, Greenhouse Gas Emissions, Land Use and Planning, Noise, Transportation/Traffic, and Utilities and Service Systems. These issue areas as well as potential cumulative impacts will be

evaluated in an SEIR and any feasible mitigation measures will be identified to avoid and/or reduce any significant impacts.

SUBSTANTIAL CHANGE IN PROJECT THAT MAY REQUIRE MAJOR EIR REVISIONS

REFERENCES

Beverly Hills, City of. 2011. 2010 Urban Water Management Plan. August. [online]: http://www.beverlyhills.org/cbhfiles/storage/files/filebank/9152--Urban%20Water%20Management%20Plan%202010_8-30-11.pdf. Accessed September 4, 2015.

Beverly Hills, City of. 9900 Wilshire Project Final Environmental Impact Report. February 2008. SCH No. 2006071107

California Department of Finance. Table 2: E-5 City/County Population and Housing Estimates. November 1, 2015.

California Environmental Protection Agency (CalEPA). *Climate Action Team Biennial Report*. Final Report. April 2010.

CalRecycle. Solid Waste Information System. [online]: http://www.calrecycle.ca.gov/SWFacilities/Directory. Accessed September 2015.

Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map (FIRM), Map Number 06037C158F. September 2008.

Geocon West, Inc., Phase II Site-Specific Fault Rupture Investigation. May 6, 2014.

Southern California Associated of Governments. Employment Density Study Summary Report. October 31, 2001. [online]: http://www.mwcog.org/uploads/committee-documents/YV5WXFhW20110503134223.pdf. Accessed September 10, 2015.

Appendix A

Phase II Site-Specific Fault Rupture Investigation and Peer Review

PHASE II SITE-SPECIFIC FAULT RUPTURE INVESTIGATION

9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

GEOCON
WEST, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

ALLEN MATKINS LECK
GAMBLE MALORY & NATSIS LLP
LOS ANGELES, CALIFORNIA

PROJECT NO. A9009-06-01A

MAY 6, 2014

GEOCON
WEST, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. A9009-06-01A
May 6, 2014

VIA EMAIL

Allen Matkins Leck Gamble Malory & Natsis LLP
515 South Figueroa Street, 9th Floor
Los Angeles, CA 90071

Attention: Patrick Perry

Subject: REPORT OF PHASE II SITE-SPECIFIC FAULT RUPTURE INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA 90212

Dear Mr. Perry:

Geocon West, Inc. is pleased to submit this report summarizing our Phase II site-specific fault rupture investigation for the proposed development located at 9900 Wilshire Boulevard in the City of Beverly Hills, California. The active Santa Monica Fault Zone and the West Beverly Hills Lineament, a linear geologic feature postulated to be associated with faulting and/or erosion processes, are mapped within the vicinity of the 9900 Wilshire Site. The purpose of our evaluation was to identify faults that may traverse the Site and evaluate the potential for surface fault rupture.

This evaluation was conducted in general accordance with our proposals dated January 23, 2013 and August 28, 2013 and the terms and conditions contained in the Contract between Geocon West Inc. and BH Wilshire International authorized on February 11, 2013. It is our understanding that this report will be submitted to the City of Beverly Hills as part of the review process for a future development at the Site.

We appreciate the opportunity to be of service to you. Please contact us if you have any questions regarding this report, or if we may be of further service.

Very truly yours,

PROFESSIONAL GEOLOGIST
SUSAN FRANZEN KIRKGARD
No. 1754
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Susan F. Kirkgard
CEG 1754

PROFESSIONAL GEOLOGIST
GERALD KASMAN
NO. 2251
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Gerald Kasman
CEG 2251

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY 1

2. INTRODUCTION 1

3. PURPOSE AND SCOPE 2

4. SITE LOCATION AND DESCRIPTION 3

5. INVESTIGATION BACKGROUND 4

6. GEOLOGIC SETTING 5
   6.1 General Geologic Conditions 5
   6.2 Newport-Inglewood Fault Zone / West Beverly Hills Lineament 6
   6.3 Santa Monica Fault Zone 7

7. FAULT ACTIVITY CRITERIA 9

8. SITE-SPECIFIC INVESTIGATION 9
   8.1 General 9
   8.2 Previous Seismic Reflection Survey 10
   8.3 Subsurface Exploration 10
      8.3.1 Exploratory Trenches 10
      8.3.2 Exploration Transects 11
      8.3.2 Continuous-Core Borings 12
      8.3.3 Cone Penetration Tests 12
   8.4 Soil Stratigraphy and Relative Age Estimates 13

9. SUBSURFACE CONDITIONS 14
   9.1 Geologic Units 14
      9.1.1 Artificial Fill (af) 15
      9.1.2 Young Alluvial Deposits (Qal) 15
      9.1.3 Older Fan (Qof) and Older Terrace Deposits (Qot) 15
      9.1.4 Lakewood Formation (Qlw) 16
   9.2 Groundwater Conditions 16

10. SOIL STRATIGRAPHY AND RELATIVE AGE ESTIMATES 18

11. DATA INTERPRETATION 20
   11.1 General 20
   11.2 Exploratory Trenches 21
      11.2.1 General 21
      11.2.2 Trench 1 21
      11.2.3 Trench 2 21
      11.2.4 Trench 3 22
   11.3 Transect A 22
   11.4 Transect B 23
   11.5 Age of Faulting 24
      11.5.1 On-site Faults (Faults A Through E) 24
      11.5.2 Off-site Faults (Faults F through J) 25
   11.6 Fault Trend, Geometry, and Apparent Displacement 25
      11.6.1 Fault Trend 25
      11.6.2 Fault Geometry 25
      11.6.3 Fault Displacement 25

TABLE OF CONTENTS (CONTINUED)

12. CONCLUSIONS AND RECOMMENDATIONS 27

REFERENCES CITED

MAPS AND ILLUSTRATIONS
Figure 1, Vicinity Map
Figure 2, Site Plan
Figure 3, Historic Topographic and Geologic Map
Figure 4, CGS (2010) Compilation Geologic Map
Figure 5, Parsons (2011) Interpreted Faults
Figure 6, Interpreted Faults – Require Further Investigation
Figure 7, Kenney (2012) Surface Geology and Fault Map of the Century City Area
Figure 8, Santa Monica Fault Zone – Geomorphic Map
Figure 9, Exploration Plan
Figure 10, Log of Trench 1
Figure 11, Log of Trench 2 & 3
Figure 12, Transect A
Figure 13, Transect B
Figure 14, Interpreted Faults
Figure 15, Area Cleared of Active Faulting

APPENDIX A
INVESTIGATION PHOTOGRAPHS

APPENDIX B
GEOVISION PRELIMINARY FAULT INTERPRETATIONS

APPENDIX C
BORING LOGS

APPENDIX D
CONE PENETRATION TESTS

APPENDIX E
STRATIGRAPHIC ANALYSIS AND SOIL AGE ESTIMATES

APPENDIX F
GROUNDWATER ELEVATION CONTOUR MAP AND BORING LOGS –
9988 WILSHIRE

1. EXECUTIVE SUMMARY

This report presents the results of our Phase II site-specific fault rupture investigation for 9900 Wilshire Boulevard in the City of Beverly Hills, California (the "Site" or "9900 Wilshire Site"). The purpose of our investigation was to collect site-specific subsurface geologic information in order to assess the age and continuity of on-site stratigraphy and to evaluate the location and activity of faults that may impact proposed development.

We previously reviewed available documents relating to the regional tectonic setting and specific faults that were previously inferred to project on or toward the Site and therefore, potentially affected the proposed development. This "Phase I" report[1] was submitted and reviewed by the City of Beverly Hills (COBH) Technical Reviewer in 2013 (Geocon, 2013).

This Phase II report documents our exploration techniques and findings of a site-specific investigation, conforming to current geologic standards-of-practice for evaluation of potential surface fault rupture. The fundamental conclusions of our investigation are:

1. With a high degree of certainty, active faults (as defined by the State of California [Bryant and Hart, 2007]) do not directly impact the proposed development at the Site.

2. The previously inferred splays of the Newport-Inglewood Fault Zone (also called the West Beverly Hills Lineament) and the Santa Monica Fault Zone, projected toward or into the Site, have been investigated on-site and are now shown to be demonstrably covered by unbroken sediments at least 27,000 to 40,000 years old and therefore, not active.

3. Active northwest-trending splays of the Santa Monica Fault Zone are located off-site to the north and west of the 9900 Wilshire Site. Because of the proximity of these northwest-trending faults to the Site and because of uncertainties in projection between subsurface borings and cone penetration tests, we recommend a 50-foot wide, structural setback zone be established from the northwestern property line, north of boring B13-A along the common boundary between the 9900 Wilshire Site and the adjacent service station property (see Figure 15).

2. INTRODUCTION

This Phase II report presents the results of our fault rupture hazard investigation for 9900 Wilshire Boulevard in the City of Beverly Hills, California (the "Site" or "9900 Wilshire Site"). The location of the Site relative to surrounding features is shown on Figure 1, Vicinity Map.

A compilation geologic map prepared by the California Geological Survey (CGS, 2010) shows that the Santa Monica Fault Zone (SMFZ) and the northern extension of the Newport-Inglewood Fault Zone (NIFZ), also known as the West Beverly Hills Lineament (WBHL), are within the vicinity of

[1] Geocon West, Inc., 2013, *Fault Rupture Hazard Evaluation, 9900 Wilshire Boulevard, Beverly Hills, California*, Prepared for Allen Matkins Leck Gamble Malory & Natsis LLP, Los Angeles, California dated April 22, 2013 (Project No. A9009-06-01).

the 9900 Wilshire Site. Also, recent investigations by Parsons (2011) postulated that traces or splays of the SMFZ and the NIFZ were active according to the current State of California definition (Bryant and Hart, 2007) and project toward the 9900 Wilshire Site. These postulated faults potentially impact proposed development of the 9900 Wilshire Site.

The Geocon (2013) Phase I report summarizes our previous preliminary fault evaluation for the 9900 Wilshire Site that included a review of literature, data generated from local fault investigations, boring data from previous geotechnical investigations at the Site, and reinterpretation of the Parsons (2011) subsurface data including cone penetration tests (CPT) and continuous-core borings pertinent to the Site. We concluded that active faults are not present at the 9900 Wilshire Site (Geocon, 2013). The Geocon (2013) report was submitted to the City of Beverly Hills (COBH) for review.

The COBH Technical Reviewer subsequently requested we perform site-specific geologic standard-of-practice investigation to confirm the conclusions in the Geocon (2013) report. COBH representatives reviewed the scope of the field exploration program for this investigation prior to the beginning of work, and met with us in the field on two occasions to observe the trench exposures and core samples.

The faults investigated at the Site include:

- Inferred northwest-trending faults, associated with the NIFZ/WBHL, inferred by Parsons (2011) to project onto the southern portion of the Site.

- Inferred north-trending faults, associated with the NIFZ/WBHL inferred by GeoVision (2012) based on their interpretation of seismic reflection data.

- Inferred northeast-trending splays of the SMFZ projected by Dolan et al. (2000), TRC (2009), CGS (2010), and Antea Group (2014) near the northwest portion of the Site.

3. PURPOSE AND SCOPE

The purpose of the Phase II investigation was to a) collect site-specific subsurface geologic information, b) utilize that information to assess the age and continuity of the on-site stratigraphy, c) determine the location of faults, if any, at the 9900 Wilshire Site, and d) for any identified faults, determine whether such faults were “active” according to the current State of California definition (Bryant and Hart, 2007).

Our scope of services included the following main tasks:

- Literature review, including published geologic maps and reports, historic topographic maps, available local groundwater level data, and recent nearby fault investigations (Phase I).
- Review of preliminary results of previous seismic reflection survey performed at the Site (GeoVision, 2012).

- Excavation and logging of three exploratory trenches (total 532 lineal feet).
- Drilling and logging of 18 continuous-core hollow stem auger borings.
- Advancing nine cone penetration tests along the northern Site boundary, in the Wilshire Boulevard right-of-way.
- Stratigraphic analysis and correlation of primary stratigraphic units in recovered core samples.
- Estimating the relative age of buried soils in seven recovered cores and three exploratory trenches.
- Preparation of this report that includes the results of our investigation as well as our recommendations based on our findings.

4. SITE LOCATION AND DESCRIPTION

The 9900 Wilshire Site is bounded by Wilshire Boulevard on the north, Santa Monica Boulevard on the south, the Los Angeles Country Club and a private service station (9988 Wilshire Boulevard) on the west, and Merv Griffin Way on the east. The Site is currently occupied by a parking structure and commercial structure (the former Robinsons May department store) as shown on Figure 2, Site Plan.

Topography at the 9900 Wilshire Site has been altered by grading associated with construction of the existing Robinsons May building in the early 1950's. Current Site topography slopes to the south-southeast and Site elevations range from 268 in the southern portion of the Site adjacent to Santa Monica Boulevard to 291 feet at the northwest corner of the Site, adjacent to Wilshire Boulevard (Psomas, 2006).

Historic topographic maps, based on USGS surveys from 1923 to 1925 (Hoots, 1930), show that elevations at the 9900 Wilshire Site in the 1920's ranged from approximately 270 to 290 feet and sloped gently to the southeast, toward Santa Monica Boulevard, similar to the existing topography (Figure 3). The historic topographic map depicts an active stream channel along the along the western property boundary (adjacent to the Los Angeles Country Club) that followed the natural topography and formed a prominent natural divide between 9900 Wilshire and the adjacent properties to the west. Easements for an active Metropolitan Water District 24-inch water line and a municipal storm drain are located beneath the service driveway along the western property boundary.

The 9900 Wilshire Site is located on the western edge of the alluvial plain that borders the Cheviot Hills on the east (Figure 3) and is within the area of the modern Benedict Canyon drainage which is now obscured by urbanization but is visible on historic aerial photographs and topographic maps from the 1920's and 1930's.

5. INVESTIGATION BACKGROUND

The area around the 9900 Wilshire Site has been postulated to be affected by faulting (Figure 4). The California Geological Survey (CGS, 2010) indicates that a splay of the Santa Monica Fault Zone (SMFZ) is approximately 180 feet northwest of the 9900 Wilshire Site at its closest point (Figure 4). Also, the northern extension of the Newport-Inglewood Fault Zone (NIFZ), known as the West Beverly Hills Lineament (WBHL), may be present near the western Site boundary (Figure 4). Similarly, Dolan et al. (2000) shows the SMFZ near the northwest corner of the Site (Figure 5). However, precise locations and activity of faults are inherently uncertain owing to lack of sufficient subsurface data.

In 2011, Parsons-Brinkerhoff (Parsons) evaluated the risk of fault rupture associated with the SMFZ and the WBHL in the Century City-Beverly Hills area (Parsons, 2011). Their study generated new subsurface data for the Century City-Beverly Hills area based on continuous-core borings, cone penetration tests (CPTs), and seismic reflection surveys. However, trench excavations and soil stratigraphic age dating were not performed. Parsons (2011) interpreted the presence of a northwest-trending, 800-foot-wide zone of faults along the Beverly Hills – Century City boundary, assumed part of the WBHL/NIFZ fault zone (Figure 5). Parsons (2011) also identified multiple splays of the SMFZ, approximately 1,000 feet west of the 9900 Wilshire Site, that were not previously identified (Figure 5). In addition, Parsons (2011) postulated the newly identified WBHL faults and the SMFZ faults were "active" (per the current State of California definition [Bryant and Hart, 2007]) based on the interpreted offset of geologic units at depth and presumed association with nearby active faults. Finally, Parsons (2011) shows three WBHL faults projecting in a northwesterly direction into the southern boundary of the Site and four SMFZ faults projecting in a northeast direction towards the western boundary of the Site (Figure 5).

If valid, the Parsons (2011) interpreted faults would significantly impact proposed development of the 9900 Wilshire Site and many other nearby sites by postulating risk of surface fault rupture. Several of the Parsons (2011) inferred faults project through the Beverly Hills High School site (Figure 5). However, the Leighton (2012) investigation (that included exploratory trenches, continuous-core borings and CPTs, along two transects, and stratigraphic soil-age analysis and numeric soil-age dating) that was reviewed and accepted by the CGS (2013) clearly demonstrated that sediments with a minimum age of 100,000 years are continuous across the site. Thus the high school site is demonstratively free of active faults.

Likewise, several of the Parsons (2011) inferred WBHL faults project through the 10000 Santa Monica site located south of the 9900 Wilshire Site (Figure 5). However, in the Geocon-Feffer (2012) investigation, an excavation of one continuous exploratory trench across the 10000 Santa Monica site exposed continuous unfaulted soils estimated to be a minimum of 100,000 years old, thus demonstrating that the Parsons (2011) inferred faults either do not exist or are not active. Similarly, the findings of the Kenney GeoScience (Kenney, 2012) study provided a regional geologic context to evaluate the site-specific data from local fault investigations. Kenney (2012) assessed stratigraphy, geomorphology, and pedochronology of the region based on re-interpretation of data provided from the Parsons (2011),

Leighton (2012), and Geocon-Feffer (2012) reports, and evaluated location and activity of suspected faults in the Century City and western Beverly Hills areas. The Kenney (2012) regional assessment shows that many of the Parsons (2011) WBHL faults either do not exist or are not active. Kenney (2012) also suggests that some of the Parsons (2011) WBHL faults are better explained as one or more generally east-west trending inactive (pre-Holocene) splays of the SMFZ (designated the Santa Monica Boulevard Fault Zone) rather than possible active faults associated with WBHL. Kenney (2012) concluded that, as related to the 9900 Wilshire Site, the faults proposed by Parsons (2011) as part of the WBHL and the SMFZ either do not exist or are not active (Figure 7).

Similar to the Beverly Hills High School and 10000 Santa Monica sites, several of the Parsons (2011) northeast-trending faults project through the Westfield Century City Mall site (Figure 5). Geocon (2013) recently completed a fault investigation for this site and concludes that some of the Parsons (2011) interpreted faults do exist in this area but are not active based on the presence of a continuous unfaulted marker soil horizon estimated to be a minimum age of about 34,000 years. Kenney (2012) designates these inactive faults as part of the so-called "Santa Monica Boulevard Fault Zone" (SMBFZ), distinguishing them from interpreted active secondary splays of the deeper SMFZ near the geomorphic scarp (Figure 7).

Nonetheless, in conformance with current geologic standards-of-practice, the COBH required that site-specific investigation be carried out at the 9900 Wilshire Site. Of specific concern was a) the potential impact upon proposed development at the Site by the postulated Parsons (2011) WBHL faults near the southern portion of the Site (Figure 6) and b) the need for determination of a more accurate trend of the SMFZ splays near the northwestern portion of the Site as depicted on the CGS (2010) map (Figures 4 and 6) and on the Kenney (2012) map (Figure 7).

It is our understanding that a yet unpublished study has investigated faults that may impact the El Rodeo School site north of the 9900 Wilshire Site, on the north side of Wilshire Boulevard. The CGS geologic map (2010) also shows the SMFZ projecting toward El Rodeo School (Figures 5 and 6). Also, a possible fault-related groundwater barrier (TRC, 2009) may affect the adjacent service station property (9988 Wilshire Boulevard). The groundwater barrier trends parallel to the CGS (2010) mapped fault location (Figures 5 and 6).

6. GEOLOGIC SETTING

6.1 General Geologic Conditions

The 9900 Wilshire Site is approximately 7.6 acres in size, located on the alluvial plain along the eastern edge of the uplifted and dissected Cheviot Hills (Figure 3). Sediments exposed in the uplifted hills are Pleistocene surficial alluvial and fluvial sediments underlain by Pleistocene marine sediments of the San Pedro Formation (Kenney, 2012). Holocene sediments occur locally in modern drainages, including the modern Benedict Canyon drainage, and on the broad south-sloping alluvial fan surface east of the Cheviot Hills.

Holocene alluvial deposits associated with the modern Benedict Canyon drainage are present at the surface on much of the 9900 Wilshire Site (Figure 3). These surficial deposits are underlain by Pleistocene age alluvial sediments that we interpret as older fan and terrace deposits.

Based on topography, Kenney (2012) interprets the Cheviot Hills to be a folded structure with the eastern limb extending east across the WBHL and Benedict Canyon Wash. The Kenney (2012) tectonic model postulates that the deformation and uplift of the hills has been on-going since the late Pleistocene. South of Santa Monica Boulevard, Kenney proposes that the hills have been uplifted along a north-south axis parallel to the WBHL and Benedict Canyon Wash. Kenney's (2012) model suggests that an Ancient Benedict Canyon Wash flowed southwest with sufficient stream power to incise the Cheviot Hills as uplift occurred. Channel incision and the subsequent infilling ceased about 40,000 to 50,000 years ago and resulted in an eastward lateral migration of the Benedict Canyon drainage to its present-day course (Kenney, 2012).

As shown on Figure 4, the Site is located near the intersection of the SMFZ and the NIFZ/WBHL. The faults within these two fault zones are generally poorly understood owing to the lack of subsurface data and urbanization.

6.2 Newport-Inglewood Fault Zone / West Beverly Hills Lineament

The WBHL is a linear geomorphic feature interpreted to be either the northern extension of the NIFZ or an alignment of stream escarpments eroded by Benedict Canyon Wash and other southeast flowing drainages in this area. Near the Site, the WBHL is comprised of east-facing escarpments that separate the elevated terrain on the west from the gently sloping alluvial surface within the Benedict Canyon Drainage on the east. The WBHL has been postulated to constitute the northern extension of the active NIFZ. Based on interpretations of aerial photographs, the WBHL faults branch out as they approach the SMFZ (Dolan et al, 1997). An Alquist-Priolo Earthquake Fault Zone has not been established by the CGS for the WBHL owing to lack of evidence for being "sufficiently active and well-defined".

The Parsons (2011) investigation provides subsurface data for a portion of the WBHL, south of Santa Monica Boulevard, but does not provide for the assessment of the WBHL at the 9900 Wilshire Site. As previously indicated, Parsons (2011) interpreted a broad zone of northwest trending faults in the Century City area, and assumed them to be an active extension of the NIFZ. However, the Leighton (2012) and Geocon-Feffer (2012) investigations and the Kenney (2012) regional assessment now show that the postulated WBHL faults either do not exist or are not active.

Specifically, the Leighton (2012) investigation concludes that the postulated northwest-trending WBHL faults do not exist at Beverly Hills High School. Leighton (2012) reports that sediments at least 70,000 to 100,000 years old on the Beverly Hills High School site are documented to be unfaulted across any reasonable projection of WBHL faults. Additionally, the Geocon-Feffer (2012)

investigation at the 10000 Santa Monica site similarly shows near-surface sediments are a minimum of 30,000 years old and are unfaulted across the 10000 Santa Monica site.

6.3 Santa Monica Fault Zone

The Santa Monica Fault Zone (SMFZ) trends west to east, from the Santa Monica area to the Hollywood area, and is part of a regional fault system that extends for nearly 125 miles along the southern boundary of Transverse Ranges. This fault system is referred to as the Malibu Coast-Santa Monica-Raymond-Cucamonga fault system by Crook et al. (1983) and as the Transverse Ranges Southern Boundary fault system (TRSB) by Dolan et al. (2000). This complex system of west to east trending faults accommodates north-south shortening and uplift, and concurrent westward motion of the Western Transverse Ranges. Individual faults within the TRSB fault system exhibit varying degrees of both left-lateral strike-slip and contractional dip-slip faulting and related folding (Hill et al., 1979; Crook et al., 1983; Jones et al., 1990 and Dolan et al., 2000). All faults within the TRSB fault system show evidence for Quaternary activity and several, including the Santa Monica and Hollywood fault zones, have been demonstrated by site-specific paleoseismic studies to be active during Holocene time (Jones et al., 1990; Weaver and Dolan, 2000; Dolan et al., 2000).

The Santa Monica Fault Zone is an oblique-reverse, left-lateral fault that is thought to be a surface expression of tectonic deformation related to Pliocene-Quaternary structural development of the Santa Monica Mountains. Integration of subsurface oil and gas exploration seismic data and well logs with surficial mapping indicate the mountains are underlain by a large southward-vergent asymmetric anticline formed over a regional north-dipping thrust ramp at a depth of 6 to 9 miles. Davis and Namson (1994) have interpreted the Santa Monica anticlinal structure as a regional-scale fault propagation fold with a steep south-facing forelimb. The SMFZ is shown in their model as an out-of-sequence high-angle fault that branches upward from the main fault ramp (Santa Monica Mountains blind thrust), breaches the forelimb, and extends to the near-surface. Geophysical studies conducted at the Veteran's Administration (VA) property in West Los Angeles indicate the SMFZ is a gently dipping thrust fault with secondary near-vertical faults extending from the primary basal fault toward the ground surface (Pratt et al., 1998; Dolan et al., 2000). These secondary hanging-wall faults exhibit normal displacement but are thought to be primarily left-lateral strike slip.

The Dolan et al. (2000) investigation at the VA property is presently the most detailed paleoseismic study of the SMFZ. Trench stratigraphy with carbon-14 (14C) numerical age-control provided the basis for evaluating total slip, slip rate, and the number and age of displacement events. Dolan et al. (2000) identified five to six ground-rupturing events in the stratigraphic record between approximately 50,000 years and 1,000 to 3,000 years. These events suggest a recurrence interval of about 7,000 to 8,000 years for the SMFZ (Dolan et al., 2000, p.1573).

Much of the surface expression of the SMFZ is limited to fault-related geomorphic features, many of which have been destroyed by urbanization within the greater Los Angeles area. This has resulted in a poor understanding of the lateral extent, location, and rupture history of the SMFZ. Dolan et al. (2000) identified the fault location based on topographic scarps shown in Figure 8. Both trenching studies and seismic reflections profiles at the VA property (Crook et al., 1983; Pratt et al., 1998; Dolan et al., 2000; Catchings et al., 2001) indicate that the SMFZ topographic scarp contains a series of steeply dipping to sub-vertical faults that offset late Quaternary age sediments. The topographic scarp is visible on historic topographic maps as trending northeast through the Los Angeles Country Club, the 9988 Wilshire site (service station property adjacent to the Site on the northwest), across Wilshire Boulevard and to El Rodeo School (Figures 5 and 6). The topographic scarp is generally coincident with the northern limit of the secondary faulting or hanging wall deformation associated with the primary basal rupture surface of the SMFZ.

The CGS (2010) geologic map of the Los Angeles 30' x 60' Quadrangle (scale 1:100,000) shows the location of the SMFZ approximately 180 feet west of the 9900 Wilshire Site (Figure 4). The depicted location of the SMFZ is based on the location of the geomorphic scarp identified by Dolan et al. (2000) but has not been verified by subsurface exploration near the Site. The fault is shown to terminate on the east at the WBHL. Groundwater levels measured in monitoring wells at 9988 Wilshire (TRC, 2009 and Antea Group, 2014) suggest a groundwater barrier is present near where the CGS (2010) compilation map locates the main trace of the SMFZ. The groundwater barrier likely represents a splay of the SMFZ adjacent to the Site (Figures 5 and 6).

Parsons (2011) identified four northeast-trending splays of the SMFZ within the Los Angeles Country Club (approximately 1,000 feet west of the Site) and several northeast-trending splays south of Santa Monica Boulevard, investigated by Geocon (2013) at the Westfield site. The Parsons (2011) splays of the SMFZ, south of Santa Monica Boulevard, lack geomorphic expression and have been shown to exhibit predominantly strike-slip movement and are not active (Geocon, 2013). The faults within the Los Angeles Country Club, closer to the geomorphic scarp, could be part of the same inactive fault system investigated by Geocon (2013) but likely represent the active reverse faults associated with the geomorphic scarp and warrant further investigation in the area.

Kenney interprets all of the splays of the SMFZ identified by Parsons (2011) as secondary upper plate faults related to the primary basal left-lateral reverse SMFZ that likely daylights south of the Century City area. Kenney (2012) labels these faults as the "Santa Monica Boulevard Fault Zone" (SMBFZ), distinguishing them from the primary basal SMFZ that underlies the Century City area at depth (Figure 7). Kenney (2012) indicates that many of the SMFZ related splays or faults identified by Parsons (2011): a) likely exist, b) are in similar locations proposed by Parsons (2011), and c) are not active. In particular, Kenney concluded that the SMFZ related faults interpreted by Parsons (2011) south of Santa Monica Boulevard are likely inactive based on apparent continuation of unfaulted Pleistocene age

geologic units overlying the faults (Kenney, 2012). This conclusion was confirmed for the specific faults investigated by Geocon (2013) at the Westfield site.

In summary, the intersection of the SMFZ and the WBHL is complex and still poorly understood. The Dolan et al. (2000) study at the VA hospital indicates splays of the SMFZ in the scarp area are active, typically exhibiting reverse motion. In contrast, the Geocon (2013) investigation and the Kenney (2012) regional assessment suggest the SMFZ related faults south of the scarp are not active and exhibit predominantly strike-slip motion with both normal and reverse secondary motion (displacement).

7. FAULT ACTIVITY CRITERIA

The criteria used in our investigation to evaluate fault activity at the 9900 Wilshire Site are the same criteria used by the California Geological Survey that defines an active fault as one that has had surface displacement within Holocene time (about the last 11,000 years). These criteria for defining an active fault are based on criteria developed by the CGS (Bryant and Hart, 2007) for the Alquist-Priolo Earthquake Fault Zoning Program. Faults that have not moved in the last 11,000 years are not considered active.

8. SITE-SPECIFIC INVESTIGATION

8.1 General

Our site-specific investigation at the 9900 Wilshire Site was performed in accordance with CGS Guidelines for Evaluating the Hazard of Surface Fault Rupture (CGS Note 49) and current geologic standards-of-practice and included several methods of analysis and field exploration and review of readily available literature summarized in the Geocon (2013) Phase 1 report. Our review specifically focused on: a) the technical reports for the Parsons (2011) and Leighton (2012) investigations, b) the Kenney (2012) regional assessment, and c) previous geotechnical borings at the 9900 Wilshire Site by MACTEC (2008). We also utilized the stratigraphic age data from our previous fault rupture investigation at 10000 Santa Monica (Geocon-Feffer, 2012) and the recently completed Westfield investigation (Geocon, 2013) (Figures 5 and 6). We also reviewed groundwater level information (Antea Group, 2014; TRC, 2009) collected in nine groundwater monitoring wells at the adjacent service station property to confirm a groundwater barrier is present at that site and to compare general consistency of groundwater levels with those encountered in our borings at 9900 Wilshire.

Our field exploration included the excavation of three exploratory trenches, advancement of nine CPTs, and drilling and logging of 18 continuous-core hollow-stem auger borings along two transects, Transect A oriented in northwest direction along the western Site boundary and Transect B oriented in a general east-west direction within the Wilshire Boulevard right-of-way along the northern Site boundary. Utilities and structures at the Site greatly limited the placement of explorations. Nonetheless, the transects for our site-specific investigation are generally perpendicular to reasonable projections of potential SMFZ faults that may traverse the Site. Average spacing of the explorations was on the order of 40 feet on the western Site boundary and 10 to 40 feet on the northern Site boundary. The three exploratory trenches were purposely

located across projected extensions of the Parsons (2011) WBHL faults and the potential faults identified by GeoVision (2012). Figure 9 shows the location of Parsons (2011) and GeoVision (2012) inferred faults that may impact the Site and the locations of our explorations. Our explorations were surveyed for precise location and elevation (Psomas, 2013). Select photographs of the field investigation are presented in Appendix A.

8.2 Previous Seismic Reflection Survey

GeoVision (2012), under the direction of AMEC, completed a preliminary seismic reflection survey the Site in January 2012. The seismic reflection survey included two seismic lines, Line 1 approximately 369 feet long and Line 2 approximately 339 feet long, both of which extend from the western property line through the parking structure, parallel to Santa Monica Boulevard and the southern property (Figure 9). Anthony Martin and William Dalrymple (geophysicists with GeoVision), suggest that two north-trending faults may traverse the Site (Figure 9). Based on their interpreted northern trend, these faults may be related to the WBHL. Accordingly, these preliminary fault interpretations warranted further site-specific investigation. The seismic interpretations by GeoVision (2012) are included in Appendix B.

8.3 Subsurface Exploration

8.3.1 Exploratory Trenches

Three exploratory trenches were excavated across faults interpreted to be either on-site (GeoVision, 2012) or projecting on-site (Parsons, 2011). Trench 1 was oriented in a northwesterly direction along the west side of the parking structure and traversed the western fault interpreted by GeoVision (2012). Trench 2 was oriented in a northwesterly direction on the east side of the parking structure in a surface parking lot and traversed the eastern fault interpreted by GeoVision (2012). Trench 3 was oriented in a northeasterly direction, in the partial subterranean level of the existing parking garage, and traversed the projection of the two Parsons (2011) postulated WBHL faults that have not been specifically investigated by subsurface exploration as part of the previous fault investigations in the]area. The locations of the three exploratory trenches are shown on Figure 9.

Trenches 1 and 2 were excavated with a standard rubber-tire backhoe to depths of 7½ to 17 feet below the existing ground surface. The height restriction in the parking garage required use of a mini-excavator for Trench 3, excavated to a depth of approximately 8 feet.

The surface of the natural sediments exposed on both trench walls was cleaned of smeared earth material and closely examined for indications of faulting. These indications could include offset geologic units, contacts, or laminations (bedding), tectonically disturbed or deformed clay layers, clay gouge, soil- or clay-filled fractures, fissures, or striae on surfaces. Distinct geologic units, based on criteria that included lateral continuity, degree of soil development, color, lithology, fabric (i.e. fining

upward sequences), texture, and degree of weathering, were delineated by nails and flagging on one wall of each trench.

The contacts (lithologic and pedogenic) between the designated units, locations of fractures, and unique features exposed in the trench walls were logged in the field. Detailed logging of the trench walls was performed at a scale of 1 inch equals 5 feet. Lateral stationing was established by a standard measuring tape and horizontal string lines (vertical reference datum) were established across each trench.

After the trenches were logged, Dr. Roy Shlemon, COBH Technical Reviewer, visited the Site to observe the trenches and to discuss the preliminary interpretations regarding the age and origin of the exposed sediments.

8.3.2 Exploration Transects

Our exploration program was performed in two transects, one on-site along the western property boundary and one off-site along the north property boundary within the Wilshire Boulevard right-of-way. Spacing between explorations was an average of 10 to 40 feet. The planned location and planned depth of our subsurface explorations were determined based on the following considerations:

- trend of known faults within the Site vicinity,
- locations of postulated faults from previous investigations or published geologic maps,
- locations of prior explorations,
- locations of existing structures and utilities.

Transect A, located along the western property boundary, was explored by drilling 13 continuous-core borings and excavating one exploratory trench (Trench 1). The continuous-core borings were advanced to depths between 70 and 75 feet and the core samples were retained for further evaluation. The total transect length is approximately 820 feet. The transect location and corresponding explorations are shown on Figure 9.

The primary purpose for drilling the borings along Transect B in the Wilshire Boulevard right-of-way was to investigate faults that may extend from the Los Angeles Country Club and traverse the northwest portion of the Site, north of boring B13-A. Explorations could not be located on-site between B13-A and Wilshire Boulevard because of the existing municipal storm drain, an active MWD water line, and the existing commercial building at that location. Also, a transect of explorations in this area, parallel to the property line, would be somewhat parallel to the suspected trend of faults in the area and would likely not yield meaningful results.

Consequently, Transect B was located along the north property boundary, off-site within the Wilshire Boulevard right-of-way. Transect B was specifically designed to intercept reasonable projections of faults that may traverse the northwest portion of the Site (north of borings B12-A and B13A). This transect was explored by advancing nine CPTs and drilling five continuous-core borings. The total transect length is approximately 380 lineal feet and traverses the Dolan et al. (2000) Santa Monica Fault Zone geomorphic scarp and the northerly projection of the groundwater barrier identified at 9988 Wilshire (the adjacent service station property) (TRC, 2009). The locations of the continuous-core borings were discussed with the COBH Technical Reviewer prior to drilling. The borings were advanced to depths of approximately 70 feet beneath the existing ground surface and the core samples were retained for further evaluation. The transect location and corresponding explorations are shown on Figure 9.

8.3.2 Continuous-Core Borings

A total of 18 continuous-core borings were drilled along two transects, A and B, oriented parallel to the western and northern property boundaries with the intent of intercepting potential splays of the SMFZ that may project across the Site. The borings were spaced approximately 40 feet apart along Transect A and approximately 20 to 40 feet apart along Transect B and were drilled to depths between 70 and 75 feet. Continuous sampling of the subsurface materials was performed and the recovered core materials were logged in detail prior to removal from the core barrel. The color was included in the description and classification of the soils encountered based on the Munsell color system (Munsell Soil Color Charts, 1998). The core samples were logged for primary stratigraphy as well as pedogenic horizons (buried soil horizons) indicative of former ground surfaces.

The recovered core samples were placed in boxes and transported to a storage area on-site for further evaluation. Upon completion of the field investigation, the core samples from all of the borings were placed side-by-side and primary stratigraphy and secondary soil development was logged in detail a second time. The detailed logging included comparison of well-defined primary stratigraphy and secondary soil horizons between borings to develop a record of the subsurface stratigraphy and to evaluate lateral continuity of primary stratigraphy and between adjacent borings. The soils were correlated between adjacent borings on the basis of composition, color, texture, and secondary soil development. This information was used to develop a detailed stratigraphic profile (cross section) of the subsurface materials. The locations of the borings are shown on Figure 9. Logs of our borings are presented in Appendix C.

8.3.3 Cone Penetration Tests

Cone Penetration Tests (CPTs) yield relatively high-resolution data correlating soil type and engineering properties of the materials penetrated. A CPT consists of hydraulically advancing an electronic cone at the end of a series of rods into the ground at a constant rate and continuously measuring the resistance of the soil to penetration of the cone. Measurements are made of the tip

stress and sleeve friction; these resistances, along with the friction ratio (defined as the ratio of sleeve friction to tip stress), can be related to common soil properties and soil classification.

Nine CPTs were advanced along Transect B (Wilshire Boulevard) as an initial screening tool to locate areas of deformation and determine where continuous-core borings could be located to provide critical subsurface information to evaluate suspected faults. The CPTs were advanced to depths of approximately 70 feet beneath the existing ground surface. The locations of the CPTs are shown on Figure 9. CPT logs are presented in Appendix D

Our stratigraphic analysis of the CPT data was based on identification of sediment layers that were vertically well-defined and laterally continuous between CPTs. The CPT data provided detailed stratigraphic profiles; correlations between distinct sediment layers are possible within about 6-inch vertical increments. The lateral correlations were based mainly on groups of sediments with similar tip stress (Q_t), and friction ratio (R_f) signatures, in addition to similar soil type. Each CPT location was excavated by hand-augering to a depth of 5 feet beneath the existing ground surface to clear the location for potential underground utilities. Therefore, the upper 5 feet of the CPT signature is not considered in our evaluation.

8.4 Soil Stratigraphy and Relative Age Estimates

The main line of evidence for evaluating the presence or absence of faulting is the continuity of stratigraphy along the exploration transects. An additional line of evidence is the continuity of identified soil horizons (weathering profiles) along the exploration transects.

The CGS, as specified in the Alquist-Priolo Earthquake Fault Zoning Act (Bryant and Hart, 2007), defines an active fault as those that have had surface displacement within Holocene time (about the last 11,000 years). Therefore, it is important to establish the relative age of the sediments at the Site, particularly if they are suspected to be affected by faulting, to establish the age of the potential faults.

Numeric age-dating techniques, such as radiocarbon dates, are often a desirable method to estimate the relative age of the sediments for evaluating fault activity. When numeric dating methods cannot be used (i.e. owing to the absence of carbon or local contamination), relative age-dating methods can be used to estimate the minimum age of sediments based on the degree of soil development. Owing to the absence of carbon in the trench exposures and core samples, radiocarbon dating was not performed.

Mr. John Helms, CEG, assessed the relative age of sediments in the core samples and trenches. Five representative soil profiles were described from the core samples of Transect A (borings B3-A, B6-A, B7-A, B11-A and B12-A) and two representative soil profiles were described from the core samples of Transect B (borings B2-B and B5-B). Also, three representative soil profiles were described in Trench 1 and one representative soil profile was described in Trench 2 and in Trench 3. The general

descriptions of soil profiles, relative degree of soil development, and estimated age ranges are presented in Appendix E and summarized in Sections 9.0 and 10.0.

9. SUBSURFACE CONDITIONS

9.1 Geologic Units

The surficial geologic units encountered were divided by age and distinct stratigraphic packages and include: Younger Alluvial Deposits (Qya) of Holocene age, Older Alluvial Fan (Qof) and Older Terrace Deposits (Qot) of Pleistocene age, and terrestrial and shallow marine/near shore sediments of the Pleistocene age Lakewood Formation (Qlw). A generalized stratigraphic column of the sediments encountered in our explorations is summarized in Table 1.

Table 1: General Site Stratigraphy

Epoch	Time Scale (Age)	Geologic Symbol	Stratigraphic Unit
Holocene	**Present to 11,000+ years**	**af**	**Artificial Fill** Varying composition, locally containing concrete, asphalt and other debris
		Qal	**Young Alluvial Deposits** Primarily fine-to medium-grained sand and silty sand, minor silt and clay; variable amounts of fine gravel, massive to laminated.
Pleistocene	**11,000+ – ~55,000 years**	**Qof/Qot**	**Older Fan Deposits/Older Terrace Deposits** Older Fan Deposits: Primarily Silt, Silty Sand and Sand and gravel. Locally gravel-rich. Minor primary clay, massive. Older Terrace Deposits: Primarily Sand, Silt, and Clay. Variable amounts of gravel. Local gravel zones and clay-rich zones. Laminated sands characteristic at base of unit.

	~55,000 to ~150,000 years	**Qlw**	**<u>Lakewood Formation[2,3]</u>** Primarily fine-grained interbedded sand, silt and clay deposits, with some sand and gravel zones. Fine-grained laminated or varved sequences common.

The primary geologic units are described in detail in the boring logs and summarized below.

9.1.1 Artificial Fill (af)

Artificial fill was encountered along both exploration transects, particularly in the southern portion of Transect A (borings B1-A, B2-A and B3-A and Trench 1) and in the central portion of Transect B (boring B4-B) adjacent to the storm drain beneath Wilshire Boulevard. The fill was identified by construction debris (concrete, wire, wood, plastic) and observation of obvious mixtures or layers of soil that were not characteristic of natural alluvial processes.

9.1.2 Young Alluvial Deposits (Qal)

The Holocene Young Alluvial Deposits are interpreted as predominantly stream terrace and fluvial deposits originating from the Benedict Canyon drainage. The primary stratigraphy consists of predominantly fine- to medium-grained silty sand and sand with varying amounts of gravel and minor silt and clay. This unit is typically friable and porous and locally contains roots and organics. The young alluvial sediments were encountered along both transects (except the southern portion of Transect A, south of boring B4-A) and Trench 1 and 2. Young alluvium was not encountered in Trench 3.

9.1.3 Older Fan (Qof) and Older Terrace Deposits (Qot)

The Pleistocene older alluvial deposits at the Site are comprised of Older Fan Deposits, including fine-grained, gravel-rich sediments and locally coarsening upward sequences (considered debris flows), underlain by Older Terrace Deposits that generally consist of a series of stacked upward fining sequences characteristic of cyclic erosion and deposition in alluvial environments, and fine-grained laminated deposits that may represent overbank or estuary environments. These units appear to be generally continuous across the Site.

The Older Fan Deposits consist predominantly of fine-grained sand, silty sand and clayey sand with varying amounts of subangular slate gravel. In Trench 3, the Older Fan Deposits are primarily clay and silt with disseminated slate gravel ranging in size from fine to coarse. Strongly-developed

[2] California Department of Water Resources, 1961, *Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County*, Appendix A, Ground Water Geology, Bulletin 104.

[3] MACTEC, 2008, *Report of Geotechnical Investigation, Project Lotus Development, 9900 Wilshire Boulevard, Beverly Hills, California, Prepared for Lotus LLC, Beverly Hills, California*, dated September 2, 2008 (Project No. 49532-08-1181).

pedogenic structure and moderately developed secondary clay films were typically observed in buried soils except where gravel content is greater than approximately 20%.

The Older Terrace Deposits, characterized by a series of stacked fining upward sequences, are generally comprised of fine-grained sand, silty sand, and silt with sand with localized sand and gravel scour units and minor clay and silt beds. These deposits are massive to crudely stratified with varying degrees of oxidation and soil development. The basal unit along Transect A is a distinct laminated sand unit.

9.1.4 Lakewood Formation (Qlw)

The Lakewood Formation is a geologic unit designation used by the California Department of Water Resources (CDWR, 1961) for all older alluvial deposits of 15,000 to 275,000 years of age underlying younger alluvial sediments and late Pleistocene age terrace deposits in the Los Angeles Basin. Kenney (2012) groups the sediments in the Century City-Beverly Hills area as younger Benedict Canyon Wash Deposits (<40,000 years) and older Benedict Canyon Wash Deposits (40,000 years to 150,000 years) and Cheviot Hills Deposits (150,000 to 200,000 years). Based on age, Kenney's (2012) designated geologic units are all part of the Lakewood Formation sediments described by CDWR. We have designated the undifferentiated older alluvial deposits below the Older Terrace Deposits as Lakewood Formation, characterized by distinct predominantly fine-grained sediments with localized terrestrial channel deposits with an estimated minimum age of 55,000 years.

The primary stratigraphy of the designated Lakewood Formation is comprised of fine-grained sediments consisting of very fine sand, silt, silt and clay characteristic of low energy depositional environments such as estuary or lagoon environments. The units are massive to crudely stratified and include fine-grained laminated sands and varved clay sequences. Channel deposits consisting of sand and gravel zones are locally present which can be characterized as typically loose and friable and are locally highly oxidized. Locally, concentrations of calcium carbonate or manganese nodules are present. Soil development is strong in these sediments that are laterally continuous across the Site at depth.

9.2 Groundwater Conditions

Groundwater levels encountered in our explorations indicate the general groundwater gradient across the Site is to the south. The depth to groundwater varies from approximately 33 to 60 feet beneath the existing ground surface corresponding to approximately Elevation 209 to 249 MSL. Table 2 summarizes the groundwater levels encountered in our explorations. Groundwater data from prior explorations on-site (by others prior to 2009) was not considered as part of our evaluation of the Site groundwater conditions because of the time difference between the two sets of data.

Table 2: Summary of Groundwater Levels

(October 2013 – January 2014)

Exploration	Exploration Elevation (feet)	Date Measured	Groundwater Depth (feet)		Groundwater Elevation (feet)	
			Encountered During Drilling	Static Groundwater	Encountered During Drilling	Static Groundwater
B1-A	269.7	10/3/13	60.4	ND	209.3	ND
B2-A	268.1	10/3/13	55.0	50.5	213.1	217.6
B3-A	268.4	10/4/13	55.0	53.0	213.4	215.4
B4-A	268.5	10/7/13	55.0	50.4	213.5	218.1
B5-A	272.3	10/7/13	55.0	ND	217.3	ND
B6-A	270.6	10/8/13	45.0	41.9	225.6	228.7
B7-A	270.7	10/8/13	40.0	38.0	230.7	232.7
B8-A	271.0	10/9/13	40.0	38.6	231.0	232.4
B9-A	269.7	10/9/13	38.0	ND	231.7	ND
B10-A	270.0	10/11/13	33.0	ND	237.0	ND
B11-A	273.8	10/10/13	48.5	45.5	225.3	228.3
B12-A	277.9	10/10/13	50.0	ND	227.9	ND
B13-A	277.80	1/24/14	50.0	48.5	227.8	229.3
B1-B	288.0	1/19/14	57.0	54.0	231.0	234.0
B2-B	288.6	1/20/14	58.0	54.5	230.6	234.1
B3-B	290.0	1/21/14	59.4	ND	230.6	ND
B4-B	291.7	1/22/14	43.0	34.3	248.7	257.4
B5-B	293.4	1/27/14	45.0	40.5	248.4	252.9
C1	295.9	10/31/13	ND	24.0+*	ND	271.9
C2	294.4	10/31/13	ND	24.3+*	ND	270.1
C3	292.5	10/30/13	ND	22.5+*	ND	270
C4	289.8	10/30/13	ND	55.0+*	ND	234.8
C5	288.3	10/30/13	ND	50.4+*	ND	237.9
C6	287.3	10/30/13	ND	50.7+*	ND	236.6
C7	286.3	10/30/13	ND	50.0+*	ND	236.3
C8	285.6	10/31/13	ND	50.0+*	ND	235.6
C9	285.0	10/31/13	ND	52.5+*	ND	232.5

* Groundwater depths and elevations are estimated

ND = Not Determined

10. SOIL STRATIGRAPHY AND RELATIVE AGE ESTIMATES

Five soil profiles from the three trench exposures were described in detail (Appendix E). In addition, five representative soil profiles from borings along Transect A (borings B3-A, B6-A, B7-A, B11-A and B12-A) and two representative soil profiles from borings along Transect B (borings B2-B and B5-B) were described in detail (Appendix E). The soil descriptions are used to calculate various soil development indices (or SDIs). The SDI values were then compared to the SDI values from similar described soils with known ages to estimate minimum age ranges for the soils at the Site.

The soils across the Site mainly developed in alluvial environments. All 12 of the soil profiles from the 3 trench exposures and the borings along Transects A and B consist of stacked and truncated buried argillic and cambic diagnostic subsurface soil horizons. The truncated buried soils range from slightly developed to strongly developed. The slightly developed soils typically are 10YR to 7.5YR in color. The more strongly developed profiles are typically 7.5YR in color with thin to moderately developed secondary clay films that bridge mineral grains and line ped faces, characteristic of argillic (Bt) horizons.

The soils observed across the Site are Holocene to Pleistocene in age. Age estimates range from 4,000 to 12,000 years for the young and thin surficial alluvial stream terrace deposit studied along the northern portion of the project Site. An older and thick alluvial fan deposit that underlies the entire project Site has relative age ranging from 15,000 to 27,000 years (Appendix E).

The near-surface buried soil profiles across the project Site are laterally continuous and relatively flat lying. Lateral variability in the soils across the Site is as a result of localized scouring, infilling, and stacking of these materials in an alluvial environment. In this sedimentological environment, surfaces that have been stable long enough to form weak and robust soils can suddenly be buried by a new deposit, or scoured out (truncated) and possibly in-filled with younger material. The amount of erosion that has occurred with each truncated soil under study is unknown. Thus, the relative age estimates are the minimum, and the underlying sediments (parent material) are inherently older.

Table 3 summarizes stratigraphic units observed at the Site, location, and relative age estimates.

Table 3: Stratigraphic Units and Relative Age Estimates

Stratigraphic Unit	Location	Relative Age Estimates (ka)
Qyt	Central Portion of site (T-1 and T-2)	4 - 8
	Northern portion of site (B-7, B-11, B-2b)	8 - 12
	Northwestern portion of site (B-13, B-5b)	12 - 20
Qof	Southern Portion of Site (T-3, B-3)	15 - 30
	Central Portion of site (T-1 and T-2)	19 - 38
	Northern portion of site (B-7, B-11, B-2b)	23 - 42
	Northwestern portion of site (B-13, B-5b)	27 - 50
Qot1	Southern Portion of Site (T-3, B-3)	23 - 48
	Central Portion of site (T-1, T-2 and B-7)	27 - 50
	Northern portion of site (B-2b)	31 - 54
	Northwestern portion of site (B-13, B-5b)	39 - 70
Qot2	Southern Portion of Site (B-3)	27 - 50
	Central Portion of site (B-7)	35 - 62
	Northern portion of site (B-2b)	39 - 66
	Northwestern portion of site (B-5b)	43 - 78
Qot3+4	Southern Portion of Site (B-3)	31 - 58
	Central Portion of site (B-7)	39 -70
	Northern portion of site (B-2b)	43 - 74
	Northwestern portion of site (B-5b)	51 - 91
Qot5	Southern Portion of Site (B-3)	32 - 64
	Central Portion of site (B-7, B-11)	40 - 86
	Northern portion of site (B-2b)	44 - 78
	Northwestern portion of site (B-5b)	55 - 99
Qot6	Central Portion of site (B-7, B-11)	44 - 94
	Northern portion of site (B-2b)	48 - 86
Qoa1	Southern Portion of Site (B-3)	55 - 104
	Central Portion of site (B-7)	59 - 112
	Northern portion of site (B-2b)	56 - 98
	Northwestern portion of site (B-5b)	63 -111
Qoa 2+3	Northern portion of site (B-2b)	79 - 140
	Northwestern portion of site (B-5b)	71 - 123

Detailed stratigraphic analysis report is presented in Appendix E.

11. DATA INTERPRETATION

11.1 General

Our detailed investigation utilizes multiple lines of analysis and includes correlations of primary stratigraphy, buried soils, and groundwater levels to evaluate the presence and activity of faults at the Site. Primary stratigraphy is Holocene stream terrace and fluvial deposits (Young Alluvial Deposits) underlain by Pleistocene alluvial fan deposits (Older Fan Deposits). The fan deposits are fine-grained, gravel-rich sediments (interpreted to be debris flows originating from Benedict Canyon) that truncate the underlying Pleistocene terrace deposits (Older Terrace Deposits). The terrace deposits are characterized by stacked fining-upward-sequences comprised primarily of varying amounts of sand, silt and gravel. The older fan deposits and the upper portion of the underlying terrace deposits are laterally continuous and unbroken across the Site.

Pleistocene Lakewood Formation sediments (undifferentiated older alluvial sediments) are present below the older terrace deposits that are comprised of primarily fine-grained massive to varved sediments characteristic of low energy environments with localized fine- to coarse-grained sand and gravel deposits. The younger alluvial deposits, older fan deposits and upper portion of the terrace deposits can be correlated across the entire project area.

The entire stratigraphic section is subhorizontal except locally in the northern portion of Transect A (Figure 12) and along the eastern portion of Transect B (Figure 13) where the geologic units are inclined less than three degrees and roughly mimic the slope of the ground surface. Correlation of buried soils (based on soil development, estimated age, and elevation) generally supports this interpretation. Faults are interpreted to be present where primary stratigraphy and distinct stratigraphic units do not correlate between borings and where an apparent vertical displacement of distinct stratigraphic units is observed.

Based on our analysis, we interpret that faults are present at the Site at depth but are not active. Also, several active faults are likely present adjacent to the Site on the north and northwest, but are located more than 50 feet from the Site northern boundary.

The activity of interpreted faults is based on the age of unfaulted geologic units determined by detailed stratigraphic analysis and soil-age estimates that generally coincide with soil-age data from the recent nearby fault investigations (Geocon, 2013; Geocon-Feffer, 2012). We thus constrain the age of faulting with a high degree of confidence based on the correlation of primary stratigraphy, groundwater levels, and the soil-age stratigraphic analysis.

11.2 Exploratory Trenches

11.2.1 General

As previously described, each trench was excavated across the surface projection of a fault interpreted by GeoVision (2012) or Parsons (2011) to be either on-site or projecting toward the Site. The exposed stratigraphy in the trenches is sufficiently well defined to evaluate continuity of geologic units. We thus find positive evidence for continuous unfaulted sediments of sufficient age to rule out the presence of active faulting within the limits of each trench.

11.2.2 Trench 1

Trench 1, on the west side of the parking structure, traversed the western fault interpreted by GeoVision (2012) (Figure 9). Artificial fill of varying thickness was exposed along the entire trench to a maximum thickness of approximately 7 feet. Exposed geologic units include Young Alluvial Deposits (Units 1, 7, 8 and 9), over Older Fan Deposits (Units 2 and 3) and Older Terrace Deposits (Units 4 and 5).

The exposed stratigraphic section is well-defined and continuous across the length of the trench except where the Young Alluvial Deposits are locally removed by grading and near Stations 1+00, 1+15, and 1+49 where channel incision has removed the Young Alluvial Deposits, the Older Fan Deposits, and the upper portion of the Older Terrace Deposits and subsequently in-filled with younger channel sediments. The channel bottoms were observed in the trench and the geologic units exposed beneath the channels are continuous across the trench. The entire stratigraphic section is estimated to have a minimum age of 27,000 to 31,000 years except in the vicinity of the channels where a large section of the older fan and terrace deposits have been removed. In these areas, the minimum age of the stratigraphic section is estimated to be 20,000 years (Appendix E).

As illustrated on Figure 10, there is positive evidence for continuous unbroken, pre-Holocene sediments to rule out active faulting within the limits of Trench 1.

11.2.3 Trench 2

Trench 2, on the east side of the parking structure in a surface parking lot, traversed the eastern fault interpreted by GeoVision (2012) (Figure 9). Minimal artificial fill (less than several inches beneath the asphalt paving) was observed in this trench and is not depicted on the log. Exposed geologic units include Young Alluvial Deposits (Units 1 and 2) over Older Fan Deposits (Unit 3) and Older Terrace Deposits (Units 4 and 5). The exposed stratigraphic section is well-defined and continuous across the length of the trench. The entire stratigraphic section has a minimum age estimate of 35,000 years (Appendix E).

Here, too, Trench 2 (Figure 11) provides evidence for continuous unbroken, pre-Holocene sediments to negate active faulting within the limits of Trench 2.

11.2.4 Trench 3

Trench 3, in the partial subterranean level of the parking garage, traversed the projections of the two Parsons (2011) postulated WBHL faults (Figure 9). Artificial fill was not observed in Trench 3. Exposed geologic units include Older Fan Deposits (Unit 1) over Older Terrace Deposits (Units 2 through and 5) and the entire stratigraphic section is estimated to be a minimum age of 27,000 years old. Here too, sediment ages are based on soil-stratigraphic estimates (Appendix E). Channels (Units 6 and 7) have eroded the Older Terrace Deposits east of Station 0+80. The older of the two channel deposits (Unit 6) locally eroded Units 3, 4 and 5 (estimated minimum age of 27,000 years). The younger channel (Unit 7) locally eroded Unit 2 (minimum age of approximately 23,000 years) and the older channel deposits (Unit 6). Since Unit 1 (estimated minimum age of 15,000 years) overlies these channels and is stratigraphically higher and younger, we can estimate the minimum age of the youngest channel post-dates the age of Unit 2 but pre-dates the age of Unit 1.

Trench 3 (Figure 11) thus similarly exposes continuous unbroken, pre-Holocene sediments and eliminates the potential for active faults in the area.

11.3 Transect A

The distinct primary stratigraphic units observed along Transect A include a) Older Fan Deposits, b) laminated sand unit near the base of the Older Terrace Deposits, and c) top of the Lakewood Formation. These units and corresponding contacts were encountered in all the borings along Transect A and thus are correlated with a high degree of confidence along the length of the transect. Also, most strongly-developed argillic soil horizons are correlated between borings along Transect A with a high degree of confidence based relative profile development.

The basal contact of the Older Fan Deposits is distinct and has locally eroded the underlying Older Terrace Deposits. This contact was particularly well-defined throughout the trenches and in the core samples. Also, the laminated sand unit is distinct in the core samples, characterized by laminated or very thin alternating beds of very fine- to fine-grained sand, silty sand and silt. The top of the Lakewood Formation, characterized by a clay-rich soil horizon, was typically gray or poorly oxidized and visibly marked a distinct contact, separating the Older Terrace Deposits from the underlying predominantly fine-grained Lakewood Formation sediments (primarily silt and clay and very fine-grained sands) that were commonly varved or laminated. The basal unit of the overlying Older Terrace Deposits locally scours the top of the Lakewood Formation units. The Lakewood Formation marks a distinct change from a higher energy or stream-related depositional environment to a low-energy depositional environment characteristic of estuaries or lagoons. Figure 12 depicts the subsurface conditions encountered along Transect A.

Based on our analysis, we interpret five faults are present at depth along Transect A where the marker laminated sand and the Lakewood Formation sediments are clearly offset. The faults are designated

Fault A, B, C, D and E (from south to north) (Figure 12). In most cases, as shown on Figure 12, groundwater levels were similarly affected in the areas of interpreted faults evidenced by differences in elevation on either side of the fault.

These faults are widely spaced and may represent a branching out of splays of the SMFZ as it intersects with the WBHL. These faults are not active based on the estimated minimum age of the unfaulted sediments (minimum age of approximately 27,000 to 40,000 years). The age of the unfaulted sediments is similar to the age of the Kenney (2012) SMBFZ faults previously investigated at the Westfield site (Geocon, 2013) where the minimum age of unfaulted sediments were estimated to be approximately 34,000 years.

Two possible faults, designated Fault A' (adjacent to Fault A) and Fault B' (adjacent to Fault B) may be present at a depth greater than 60 feet beneath the existing ground surface (Figure 12). Both of these faults are confined to channel deposits of variable thickness within the Lakewood Formation (>55,000 years old), near the base of the stratigraphic section explored by the borings. The difference in thickness of the channel deposits could be related to natural depositional processes or faulting but cannot be evaluated without deeper stratigraphic information. These faults, if they exist, would not be active and may connect at depth to adjacent faults.

The locations of the interpreted faults along Transect A are shown on Figures 12 and 14.

11.4 Transect B

Nine CPTs and five continuous-core borings are located along Transect B within the Wilshire Boulevard right-of-way at the northern boundary of the Site. The CPTs were performed prior to the borings as a screening tool to identify areas of deformation or anomalies that would require subsequent exploration with borings. Our interpretation of CPT data strongly suggests that the stratigraphic section east of C4 is laterally continuous, undeformed and not disrupted by faulting. However, anomalies are clearly present west of C4. Our borings were placed west of C6 to confirm the lateral continuity of sediments between C4 and C6 and to evaluate the anomalies observed west of C4.

The distinct primary stratigraphic units observed in the borings along Transect B are similar to those observed in Transect A and described in the previous section. Also, as in Transect A, well-developed argillic soil horizons are interpreted to present along the length of Transect B and can be correlated between the borings to evaluate the continuity of the sediments. Figure 13 depicts the subsurface conditions encountered in explorations along Transect B and separately illustrates the correlation of primary stratigraphy and correlation of buried soils. Comparison of the two cross sections demonstrates our interpretations of fault locations and apparent offset of geologic units are very similar considering either stratigraphic or buried soils data.

We interpret a zone of five closely spaced faults along Transect B, west of C4 where the previously discussed distinct stratigraphic contacts were clearly offset. The faults identified along Transect B are designated Fault F, G, H, I and J (from west to east). As depicted on Figure 13, groundwater levels are similarly affected in the areas of interpreted faults, similar to Transect A, evidenced by differences in elevation on either side of the interpreted fault.

The faults depicted on Figure 13 are generally located between borings. However, an exception is Fault I where the upper 20 feet of B3-B cannot be correlated with corresponding sediments in Boring B-2B and are interpreted to be faulted. Below a depth of 20 feet, the stratigraphic units are clearly not faulted between these borings (based on correlation of key stratigraphic units). This condition suggests that Fault I projects through boring B3-B, though faults were not observed in the core samples from this boring. Fault I is not interpreted to project east of C4 because the upper stratigraphy in boring B2-B can be correlated with the stratigraphy interpreted in C4 which indicates these geologic units are not faulted.

The locations of the interpreted faults along Transect B relative to the Site are shown on Figures 13 and 14.

11.5 Age of Faulting

11.5.1 On-site Faults (Faults A Through E)

The Young Alluvial Deposits, Older Fan Deposits and upper Older Terrace Deposits are relatively undeformed and laterally continuous across the Site. There is positive evidence, based on continuity of the exposed well-defined sediments, that faulting is not present within the exploratory trenches. The sediments in the trenches are an estimated minimum age of 20,000 to 35,000 years (Appendix E). Faults, if present beneath the trenches, would not be considered active.

Along Transect A, five faults were interpreted to offset the Lakewood Formation and the overlying marker laminated sand unit. These faults, designated Faults A through E, are a minimum age of 27,000 to 40,000 years old, based on estimated ages of the oldest unfaulted geologic units across these faults, and, therefore, are not active.

Faults A through E may be part of the previously described (Kenney, 2012) SMBFZ recently investigated by Geocon (2013) at the Westfield Century City Mall site, interpreted as inactive secondary upper plate faults to the deeper SMFZ. This relationship cannot be absolutely confirmed. However, the age of faulting interpreted at the Westfield Century City Mall site is estimated to be a minimum age of 34,000 years which is generally consistent with this investigation where the minimum age of unfaulted units is 27,000 to 40,000 years.

11.5.2 Off-site Faults (Faults F through J)

Off-site, along Transect B, Faults G, H, and I are interpreted to be active based on minimum estimated ages of faulted sediments (4,000 to 12,000 years) (Appendix E). Fault J is inactive as it offsets the Lakewood Formation sediments but not the overlying Older Terrace Deposits. Fault F appears to offset Holocene sediments but the age of faulting cannot be determined based on the lack of specific boring data west of this fault. Other faults may exist west of Fault F but were not investigated by this study which focused on the 9900 Wilshire Site.

11.6 Fault Trend, Geometry, and Apparent Displacement

11.6.1 Fault Trend

Fault locations are limited between borings and CPTs. While the fault trend along Transect A could not be defined, further exploration is not warranted because these faults are not active and therefore will not impact future development.

Similarly, we were not able to define the trend of faults interpreted along Transect B. Considering the limitations of off-site exploration and locations of existing utilities and, after consultation with COBH representatives, it was determined impractical to trench this area. Accordingly, we advanced nine CPTs and drilled five continuous core borings along a transect that would intersect reasonable projections of the SMFZ across the western property line. Although uncertainty is inherent in all fault investigations, our site-specific data indicate that active faults do not directly impact the proposed development (Figure 15).

11.6.2 Fault Geometry

Based on the spacing of the borings and CPTs, fault dip could vary from approximately 35 degrees to near vertical. Fault geometry (i. e. branching or flower structure) therefore cannot be determined, but we have depicted the faults as dipping to the north for they are reasonably associated with the SMFZ (Figures 12 and 13).

The GeoVision (2012) preliminary interpretation (Appendix B) depicts the faults as flower structures, branching out they project toward the surface. Based on the GeoVision (2012) analysis, many of the faults may connect at depth; however, our data are insufficient to confirm this.

11.6.3 Fault Displacement

We interpret the primary displacement along Faults A through E to be strike-slip based on thickening and thinning of stratigraphic units across interpreted faults. Also, mainly apparent vertical displacement across these faults exhibit both normal and reverse offset that suggests the primary movement is predominantly strike-slip. Our data are insufficient to warrant estimates of slip

direction, magnitude, or offset per seismic event. We therefore limit our fundamental conclusions to activity of the various faults and their impact on the proposed development.

Apparent relative displacement of stratigraphic units across Faults F, G, H and J is interpreted as primarily reverse. It is likely that strike-slip movement has also occurred evidenced by some thickening and thinning of units across the faults, but to lesser degree than the faults identified along Transect A. Fault I is interpreted to branch into at least two fault strands as it projects to the surface. The apparent relative displacement is both normal and reverse which suggests there is strike-slip motion as well.

A summary of fault characteristics including age and relative displacement is presented Table 4.

Table 4: SUMMARY OF FAULT CHARACTERISTICS

Transect A					
Fault	**A and A'**	**B and B'**	**C**	**D**	**E**
Relative Displacement	**North and South Sides Down**	**North and South Sides Down**	**North and South Sides Down**	**North and South Sides Down**	**North and South Sides Down**
Apparent Vertical Displacement (feet)	**1 to 7**	**2 to 7**	**3**	**1 to 4**	**2 to 6**
Minimum Age of Faulting (ka)*	**>27**	**>27**	**>39**	**>40**	**>35**
State Classification	**Inactive**	**Inactive**	**Inactive**	**Inactive**	**Inactive**
Transect B					
Fault	**F**	**G**	**H**	**I**	**J**
Relative Displacement	**East Side Down**	**East Side Down**	**East Side Down**	**West and East Sides Down**	**East Side Down**
Apparent Vertical Displacement (feet)	**2+**	**3 to 5**	**3 to 10**	**6 to 14**	**1 to 2**
Minimum Age of Faulting (ka)*	**Uncertain**	**<11**	**<11**	**<11**	**>44**
State Classification	**Unknown**	**Active**	**Active**	**Active**	**Inactive**

*ka = thousand years before present

12. CONCLUSIONS AND RECOMMENDATIONS

We previously submitted a Phase I report to the COBH that provided the regional geologic setting and information regarding specific faults that were previously inferred to project on or toward the Site and, therefore, potentially impact the proposed development (Geocon, 2013). Now, in accordance with current geologic standards-of-practice, we have completed our Phase II site-specific investigation for evaluation of potential surface fault rupture. The fundamental conclusions of our Phase II investigation are:

1. With a high degree of certainty, active faults (as defined by the State of California [Bryant and Hart, 2007]) do not directly impact the proposed 9900 Wilshire Boulevard development.

2. The previously inferred splays of the Newport-Inglewood Fault Zone (also called the West Beverly Hills Lineament) and the Santa Monica Fault Zone, that were inferred to project toward or into the Site, have been investigated on-site and are now shown to be demonstrably covered by unbroken sediments at least 27,000 to 40,000 years old and therefore, not active.

3. Active northwest-trending splays of the Santa Monica Fault Zone are located off-site to the north and west of the 9900 Wilshire Site. Because of the proximity of these faults to the Site and because of uncertainties in projection between subsurface borings and cone penetration tests, we recommend a 50-foot wide, structural setback zone be established from the northwestern property line, north of boring B13-A along the common boundary between the 9900 Wilshire Site and the adjacent service station property (see Figure 15).

We have now identified five on-site faults, the last surface movement of which took place prior to approximately 27,000 years ago. These faults, in the central and southern portion of the Site, are not active based on the current State of California definition (Bryant and Hart, 2007). Our trenches, intended to explore the GeoVision (2012) and Parsons (2011) inferred faults, expose laterally continuous and unbroken sediments that are at least 20,000 to 35,000 years old. Accordingly, these faults are not active or do not exist.

We have also identified a zone of active faulting, part of the Santa Monica Fault Zone, within approximately 50 feet of the north and west Site boundary. Based on our interpretation, we are confident that these off-site faults do not traverse the 9900 Wilshire Site.

Nevertheless, because of the proximity of active faults and the limitations on constraining the trend of these faults, we recommend a 50-foot structural set-back (no build zone) from the northwestern property line along the common boundary between the 9900 Wilshire Site and the adjacent service station property (9988 Wilshire) as shown on Figure 15. Owing to the lack of detailed stratigraphic data west of the property line and the uncertainty with respect to fault locations west of borings B13-A and C4, we assume active faults could be located immediately adjacent off-site. The recommended set-back zone is considered an appropriate mitigation measure to account for the inherent uncertainties of possible rupture along any of the nearby off-site faults outside the area we investigated.

REFERENCES CITED

Antea Group, 2014, *Site Status Report, Second Half of 2013 Semi-Annual Groundwater Monitoring Report, 76 Service Station No. 250703, 9988 Wilshire Boulevard, Beverly Hills, California, USA, LARWQCB File No. R-24652*, Prepared for California Regional Water Quality Control Board, Los Angeles Region, (Project No, 140250703).

Bryant W. A. and Hart, E. W., 2007, *Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act With Index to Earthquake Fault Zones Maps*, California Geological Survey Special Publication 42, Interim Revision 2007.

California Department of Water Resources, 1961, *Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County*, Appendix A, Ground Water Geology, Bulletin 104.

California Geological Survey, 2013, *Second Fault Rupture Hazard Review, Beverly Hills High School, 241 S. Moreno Drive, Beverly Hills, CA, CGS Application No. 03-CGS0960*, letter dated March 15, 2013.

California Geological Survey, 2010, *Geologic Compilation of Quaternary Surficial Deposits in Southern California, Los Angeles 30' X 60' Quadrangle, A Project for the Department of Water Resources by the California Geological Survey*, Compiled from existing sources by Trinda L. Bedrossian, CEG and Peter D. Roffers, CGS Special Report 217, Plate 9, Scale 1:100,000.

California Geological Survey, 2002, *Guidelines for Evaluating the Hazard of Surface Fault Rupture*, CGS Note 49.

Catchings, R. D., Gandhok, G., Goldman, M. R., and Okaya, D., 2001, *Seismic Image and Fault Relations of the Santa Monica Thrust Fault, West Los Angeles, California*, U. S. Geological Survey, Open-File Report 01-111.

Crook, R., Jr., Proctor, R. J., and Lindvall, E.E., 1983, *Seismicity of the Santa Monica and Hollywood Faults Determined by Trenching*, Technical Report to the U.S. Geological Survey, Contract No. 14-08-001-20523.

Crook, R., Jr., and Proctor, R. J., 1992, *The Santa Monica and Hollywood Faults and the Southern Boundary of the Transverse Ranges Province*" in Engineering Geology Practice in Southern California, Edited by Pipkin, B. W. and Proctor, R. J., p. 233-246.

Davis, T. L. and Namson, J. S., 1994, *A Balanced Cross-Section of the 1994 Northridge Earthquake, Southern California*, Nature, Vol. 372, p. 167-169.

Dolan, J. F., Sieh, K., and Rockwell, T. K., 2000, *Late Quaternary Activity and Seismic Potential of the Santa Monica Fault System, Los Angeles, California*, Geological Society of America Bulletin, Vol. 112, No. 10, p. 1559-1581.

Dolan, J. F. and Sieh, K., 1992, *Paleoseismology and Geomorphology of the Northern Los Angeles Basin: Evidence for Holocene Activity on the Santa Monica Fault and Identification of New Strike-Slip Faults through Downtown Los Angeles*, EOS, Transactions of the American Geophysical Union, Vol. 73.

REFERENCES CITED (Continued)

Geocon West, Inc., 2013, *Fault Rupture Hazard Evaluation, 9900 Wilshire Boulevard, Beverly Hills, California,* Prepared for Allen Matkins Leck Gamble Malory & Natsis LLP, Los Angeles, California (Project No. A9009-06-01).

Geocon West, Inc. 2013, *Fault Rupture Hazard Investigation, 1801 Avenue of the Stars, 10250 Santa Monica Boulevard, 1930 Century Park West, Century City – Los Angeles, California, Prepared for Westfield, Los Angeles, California* (Project No. A8929-06-02).

Geocon West, Inc. and Feffer Geological Consulting, 2012, *Report of Fault Rupture Hazard Investigation, 10000 Santa Monica Boulevard, Los Angeles, California,* Prepared for Crescent Heights (Project No. A8928-06-01).

GeoVision, 2012, Preliminary Interpretation of Seismic Reflection Survey, 9900 Wilshire Boulevard, Beverly Hills, California.

Hill, R. L., Sprotte, E. C., Chapman, R. H., Chase, G. W., Bennett, J. H., Real, C. R., Borchardt, G., and Weber, F. H., Jr., 1979, *Earthquake Hazards Associated with Faults in the Greater Los Angeles Metropolitan Area, Los Angeles County, California, Including Faults in the Santa Monica–Raymond, Verdugo–Eagle Rock and Benedict Canyon Fault Zones*, California Division of Mines and Geology, Open File Report 79-16LA.

Hoots, H. W., 1930, *Geology of the Eastern Part of the Santa Monica Mountains, Los Angeles Basin*, in Shorter Contributions to General Geology, U.S. Geological Survey Professional Paper 165.

Jones, L. M., Sieh, K. E., Hauksson, E. and Hutton, L. K., 1990, *The 3 December 1988 Pasadena Earthquake: Evidence for Strike-Slip Motion on the Raymond Fault*, Bulletin of the Seismological Society of America, Vol. 80, pp. 474-482.

Kenney GeoScience, 2013, *Preliminary Revised Fault Map Based on Geomorphic, Structural, and Stratigraphic evaluation in the Century City/Cheviot Hills Area, California*, for Mr. Kevin Brogan, Hill, Farrer & Burrill, LLP, 300 South Grand Avenue-37th Floor, Los Angeles, CA 90071-3141.

Kenney GeoScience, 2012, *Geomorphic, Structural and Stratigraphic Evaluation of the Eastern Santa Monica Fault Zone and West Beverly Hills Lineament, Century City/Cheviot Hills, California*, for the Beverly Hills Unified School District, Mr. Gary Woods, Superintendent, 255 South Lasky Drive, Beverly Hills, CA 90212-3697 (Job No. 723-11).

Leighton Consulting, Inc, 2012, *Fault Hazard Assessment of the West Beverly Hills Lineament, Beverly Hills High School, 241 South Moreno Drive, Beverly Hills, California*, Prepared for the Beverly Hills Unified School District, 255 South Lasky Drive, Beverly Hills, California, 90212-3697 (Project No. 603314-002).

MACTEC, 2008, *Report of Geotechnical Investigation, Project Lotus Development, 900 Wilshire Boulevard, Beverly Hills, California,* Prepared for Project Lotus LLC, Beverly Hills, California (Project 4953-08-1181).

REFERENCES CITED (Continued)

Munsell® Soil Color Charts," GretagMacbeth, New Windsor, NY, 1998.

Parsons Brinkerhoff, 2011, *Century City Fault Investigation Report, Westside Subway Extension Project*, Contract No. PS-4350-2000.

Parsons Brinkerhoff, 2012, *Response to Leighton Consulting Report, Westside Subway Extension Project*, Contract No. PS-4350-2000.

Pratt, T. L., Dolan, J. F., Odum, J. K., Stephenson, W. J., Williams, R. A., and Templeton, M. E., 1998, *Multiscale Seismic Imaging of Active Fault Zones for Hazard Management: A Case Study of the Santa Monica Fault Zone, Los Angeles*, Geophysics, Vol. 63, No. 2. P. 479-489, 9 FIGS, 4 TABLES.

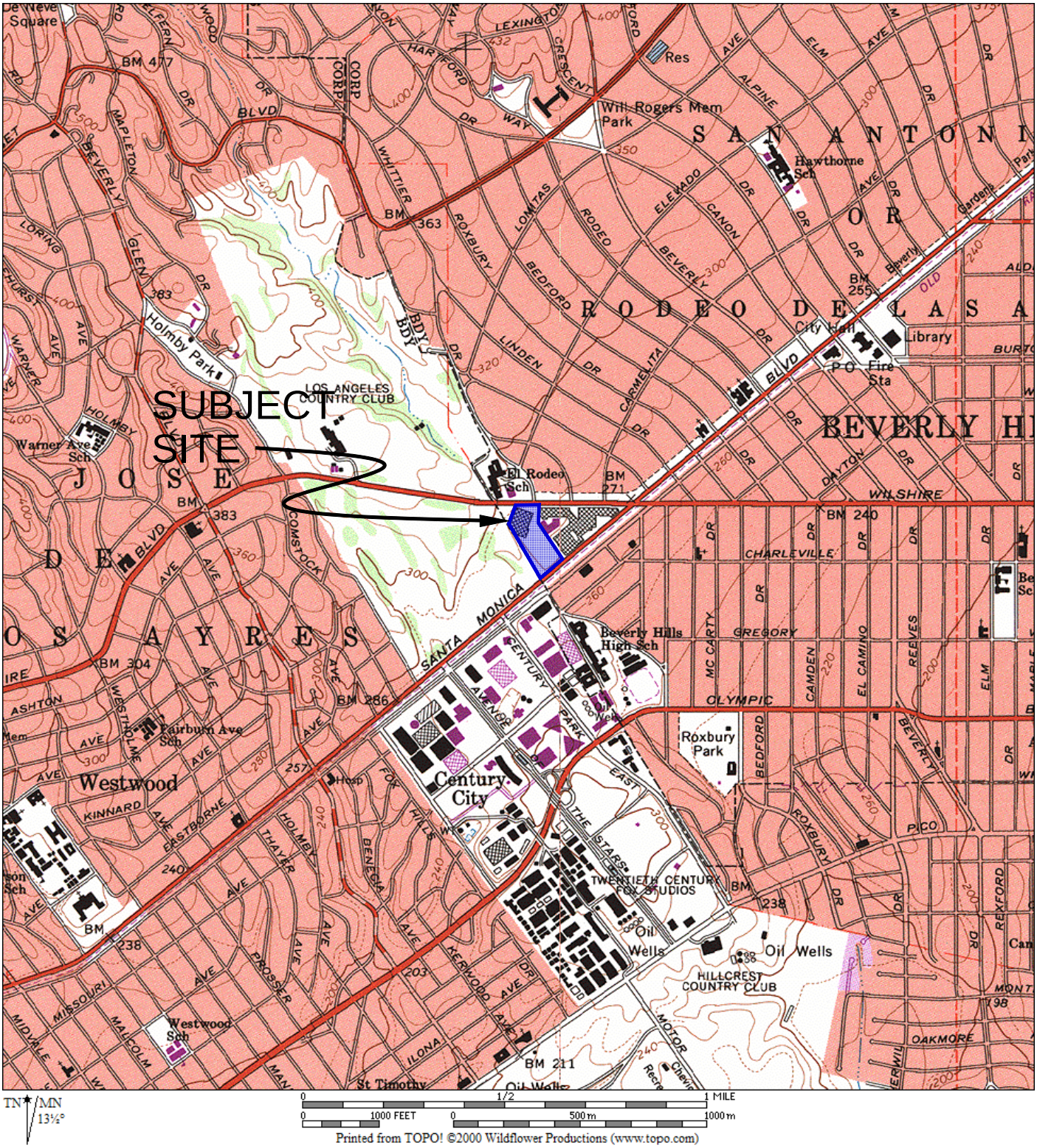
Psomas, 2013, Borehole Exhibit, Sheet 1 of 1, dated November 13, 2013, Job No. 1BHW010100.

Psomas, 2006, *Modified Vesting Tentative Track No. 067884, 9900 Wilshire in the City of Beverly Hills, County of Los Angeles, State of California*, Scale 1" = 20', Sheet 2 of 4, dated August 24, 2006, Project No. 1NEW180200 Task 100.

TRC, 2009, *Quarterly Groundwater Monitoring and Sampling Report, 76 Station 0702, 9988 Wilshire Boulevard, Beverly Hills, California*.

United States Geological Survey, 1934, *Sawtelle, Los Angeles County, California, 6.0-Minute Quadrangle*, 1:2,400.

Weaver, K. D. and Dolan, J. F., 2000, *Paleoseismology and Geomorphology of the Raymond Fault, Los Angeles County, California*, Bulletin of the Seismological Society of America, Vol. 90, p. 1409-1429.



REFERENCE:U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES, BEVERLY HILLS, CA QUADRANGLE

GEOCON
WEST, INC.

ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

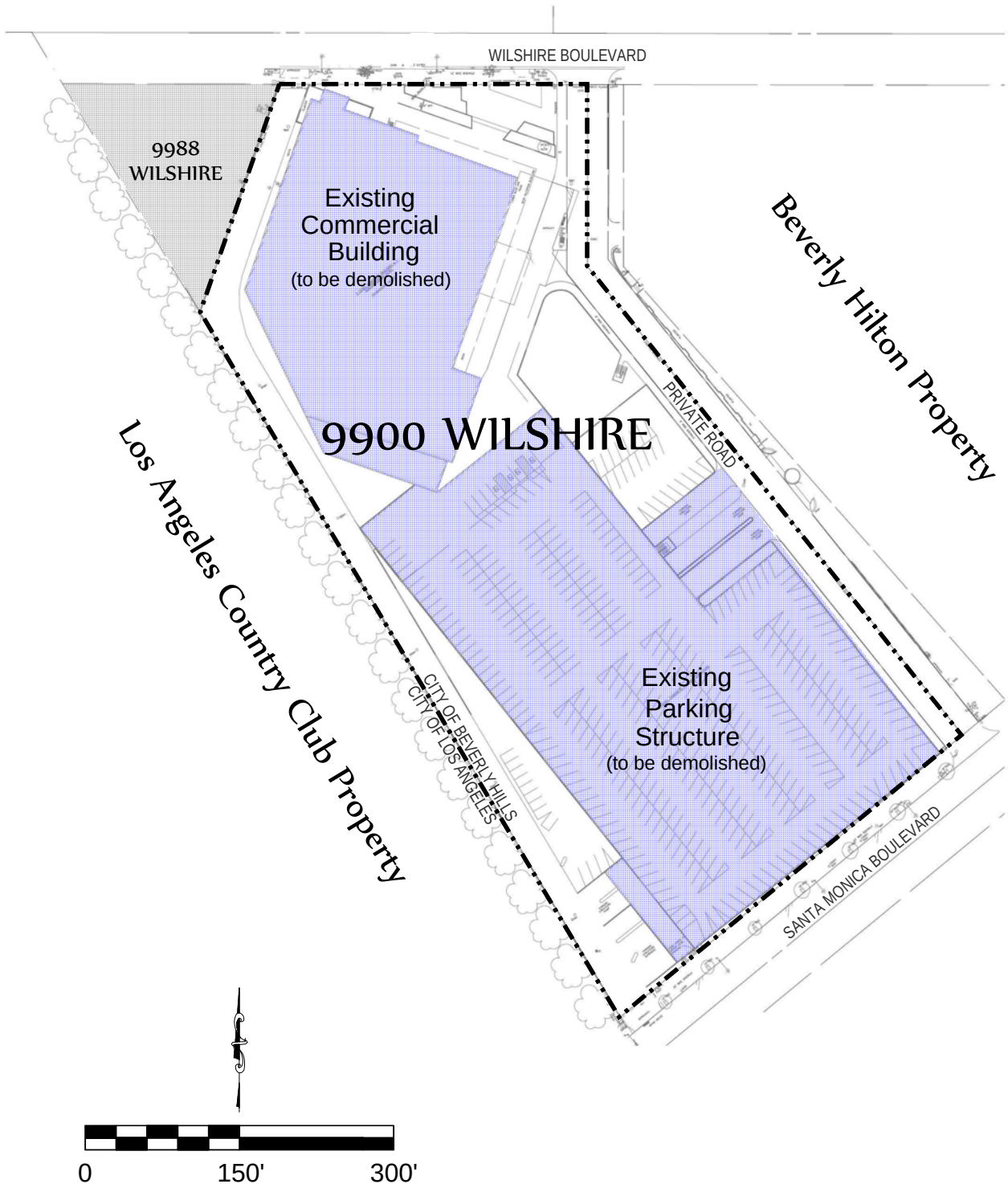
VICINITY MAP

FAULT RUPTURE HAZARD INVESTIGATION

9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 1



BASE MAP: Modified after Psomas, 2013, "Borehole Exhibit". Job No. 1BHW010100, Sheet 1 of 1

GEOCON
WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

SITE PLAN

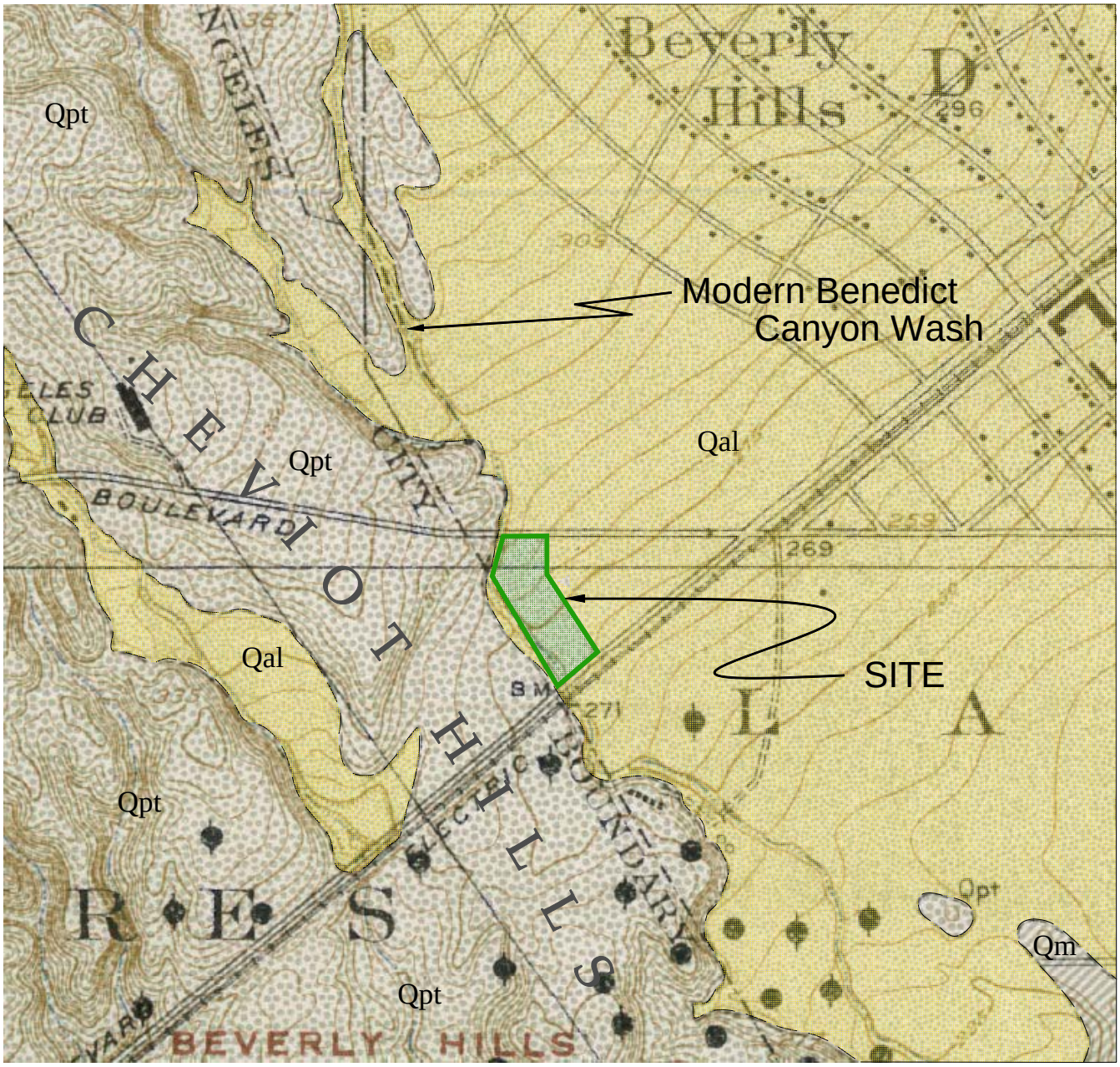
FAULT RUPTURE HAZARD INVESTIGATION

9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 2

REFERENCE: Modified after Hoots, H. W., 1930, Geology of the Eastern Part of the Santa Monica Mountains, Los Angeles Basin, in Shorter Contributions to General Geology, U.S. Geological Survey Professional Paper 165 - C. "Base from Surveys Made in 1923-1925 by US Geological Survey in Cooperation with Los Angeles County".



LEGEND

Qal - Alluvium: Coarse unconsolidated deposits in valleys and present stream channels

Qpt - Alluvial plain, stream, and marine terrace deposits

Qm - Marine Deposits: Marine sandstone, conglomerate, and clay shale

0 1000' 2000'

GEOCON WEST, INC.

ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

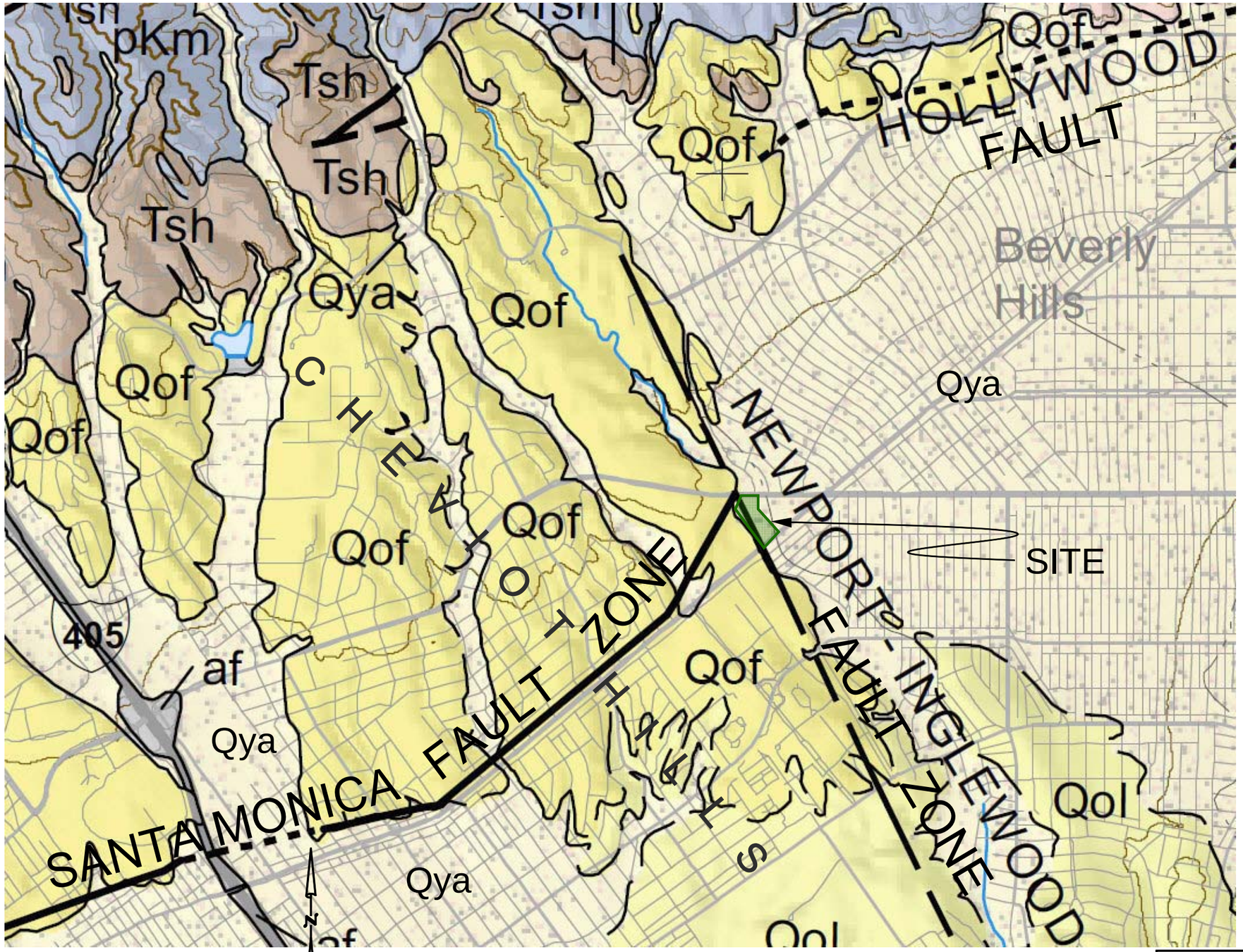
HISTORIC TOPOGRAPHIC AND GEOLOGIC MAP

FAULT RUPTURE HAZARD INVESTIGATION

9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 3



MAP UNITS

Late Holocene (Surficial Deposits)

af — Artificial Fill - deposits of fill resulting from human construction, mining, or quarrying activities: includes engineered fill for buildings, roads, dams, airport runways, harbor facilities, and waste landfills

Holocene to Late Pleistocene (Surficial Deposits)

Qya — Young Alluvial Valley Deposits - unconsolidated to slightly consolidated, undissected to slightly dissected clay, silt, sand, and gravel along stream valleys and alluvial flats or larger rivers

Late to Middle Pleistocene (Surficial Deposits)

Qof — Old Alluvial Fan Deposits - slightly to moderately consolidated, moderately dissected boulder, cobble, gravel, sand, and silt deposits issued from a confined valley or canyon

Qol — Old Lacustrine, Playa, and Estuarine (Paralic) Deposits - slightly to moderately consolidated, moderately dissected fine-grained sand, silt, mud, and clay from lake, playa, and estuarine deposits of various types

Tertiary (Bedrock)

Tsh — Fine-grained Tertiary age formations - includes fine-grained sandstone, siltstone, mudstone, shale, siliceous and calcareous sediments

Mesozoic and Older (Bedrock)

pKm — Cretaceous and pre-Cretaceous metamorphic formations of sedimentary and volcanic origin

REFERENCE: Modified after California Geological Survey, 2010, "Geologic Compilation of Quaternary Surficial Deposits in Southern California, Los Angeles 30' X 60' Quadrangle". A Project for the Department of Water Resources by the California Geological Survey, Compiled from Existing Sources by Trinda L. Bedrossian, CEG and Peter D. Roffers. Digital Preparation by Solomon McCrea and Barbara Wanish. July 2010, CGS Special Report 217, Plate 9.

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

CGS 2010 COMPILATION GEOLOGIC MAP

FAULT RUPTURE HAZARD INVESTIGATION

9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 4

LEGEND

- Parsons (2011) Interpreted Faults
- Santa Monica Fault (CGS, 2010)
- Groundwater Barrier (TRC, 2009; Antea Group, 2014)
- Santa Monica Fault Zone Geomorphic Scarp (Dolan et al., 2000)

N

0 400' 800'

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

PARSONS (2011) INTERPRETED FAULTS

FAULT RUPTURE HAZARD INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 5

LEGEND

- Parsons (2011) Interpreted Faults
- Santa Monica Fault (CGS, 2010)
- Groundwater Barrier (TRC, 2009; Antea Group, 2014)
- Santa Monica Fault Zone Geomorphic Scarp (Dolan et al., 2000)

N

0 400' 800'

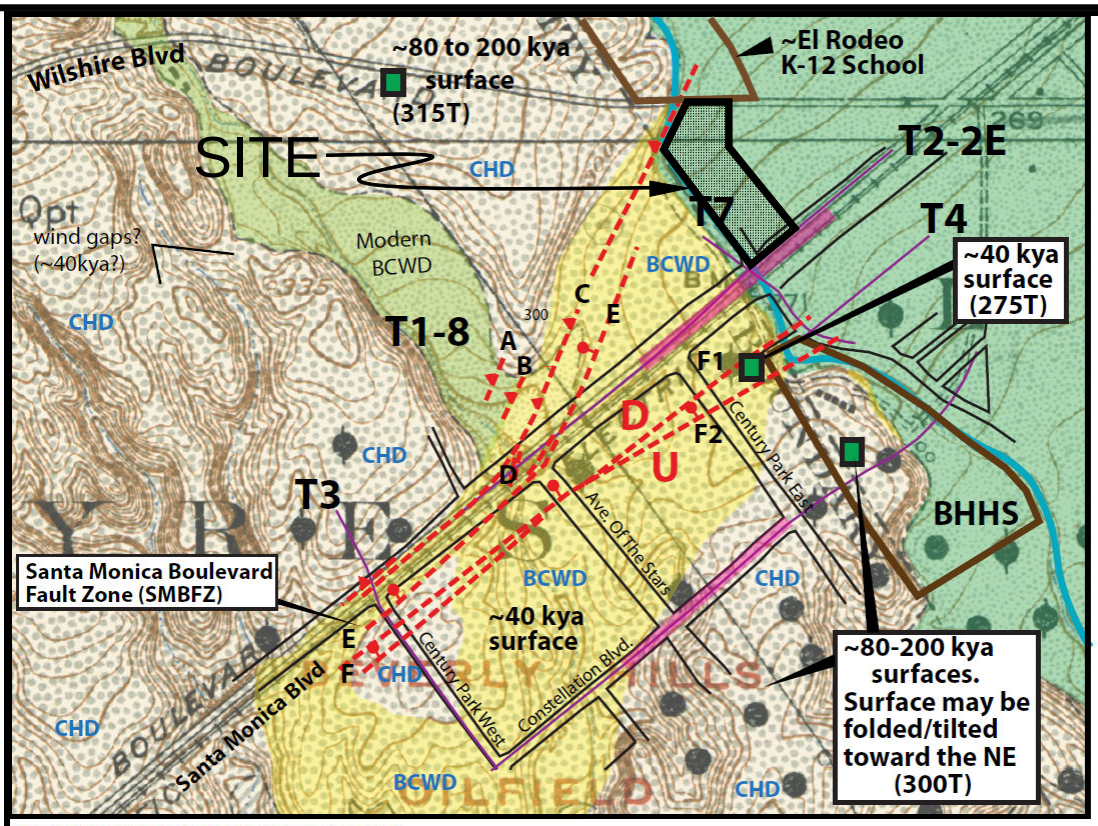
GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL | 8000

INTERPRETED FAULTS - REQUIRE FURTHER INVESTIGATION

FAULT RUPTURE HAZARD INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

MAY 2014 | PROJECT NO. A9009-06-01A | FIGURE 6



Base topographic-Geologic map from Hoots (1931).

SYMBOL DESCRIPTIONS

Approximate limits of younger Benedict Canyon Wash Deposits (<~40,000 years old).

BCWD — Approximate limits of older Benedict Canyon Wash Deposits. Upper-most sediments are a minimum of ~40,000 years old.

CHD — Approximate limits of Cheviot Hills Deposits. Upper fan-terrace surfaces (315T and 300T, see notes) are 150,000 to 200,000 years old.

D / U — Approximate surface projection location of faults identified during this study. Balls and barbs for normal and reverse apparent displacement faults. D - down, U - Up sides.

T7 — Approximate location of geologic transect by Parsons (2012).

BHHS — Beverly Hills High School

Approximate location of soil with estimated age.

Proposed Metro Stations on Santa Monica Blvd, and Constellation Blvd.

Notes:

Based on the existing soil age data, nearly all of the sediments exposed at the surface within the Cheviot Hills are 40,000 to 200,000 years old.

The 300T and 315T fan-terraces are shown on Plate ES-4 and represent average elevations of the preserved surfaces.

0 scale 1000 feet

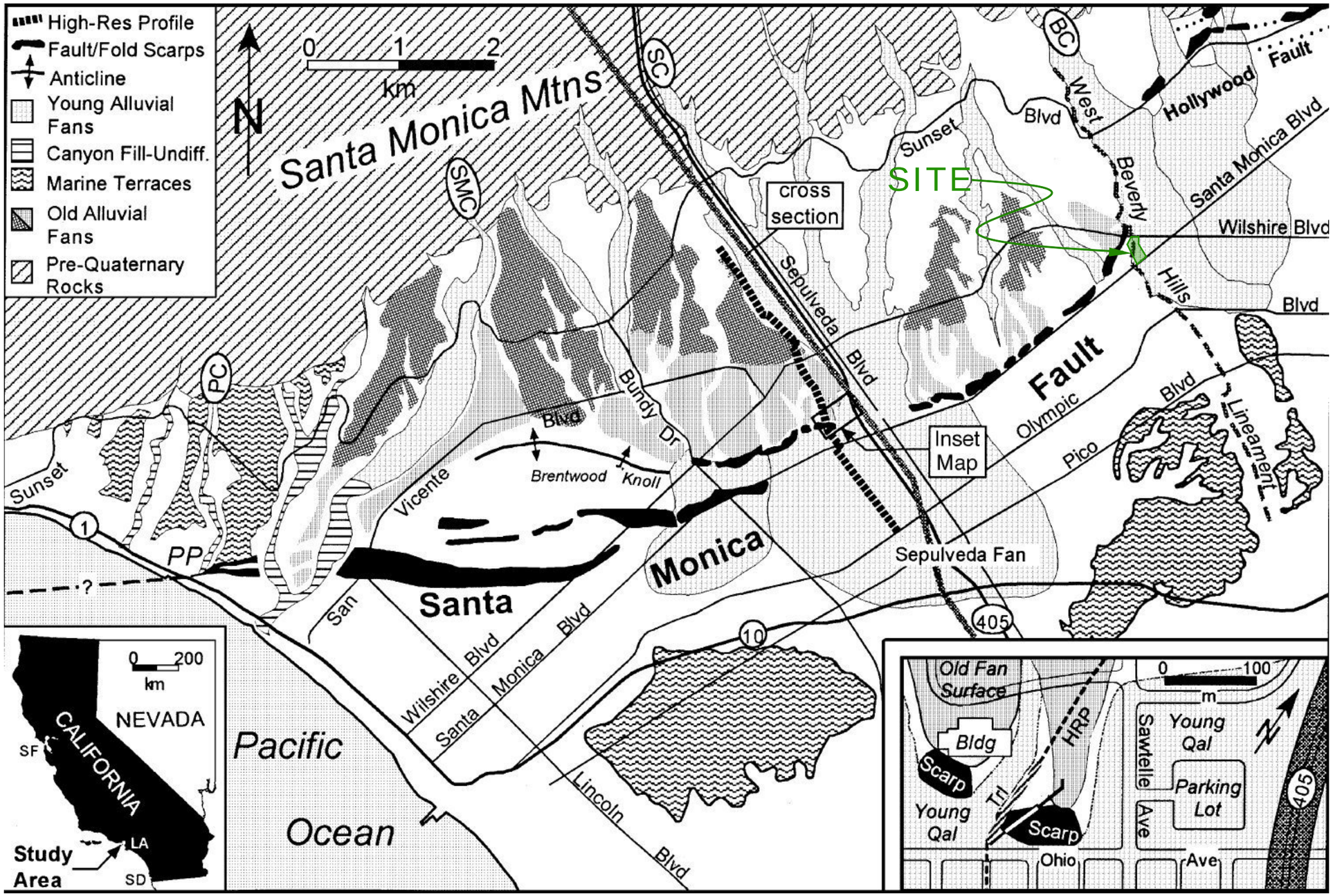
REFERENCE: Modified after Kenney, 2012, "Geomorphic, structural, and stratigraphic evaluation of the eastern Santa Monica Fault Zone, and West Beverly Hills Lineament, Century City/Cheviot Hills, California", Plate 1a, "Surface Geology and Fault Map of the Century City Area".

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

KENNEY (2013) PRELIMINARY FAULT MAP WITH NATURAL TOPOGRAPHY

FAULT RUPTURE HAZARD INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

AL		8000	MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 7



REFERENCE: Modified after Pratt, T.L., et. al., 1998, Multiscale Seismic Imaging of Active Fault Zones for Hazard Assessment: A Case Study of the Santa Monica Fault Zone, Los Angeles, California", Geophysics, Volume 63, No. 2 (March-April 1998); pages 479-489, Figure 1.

GEOCON WEST, INC.

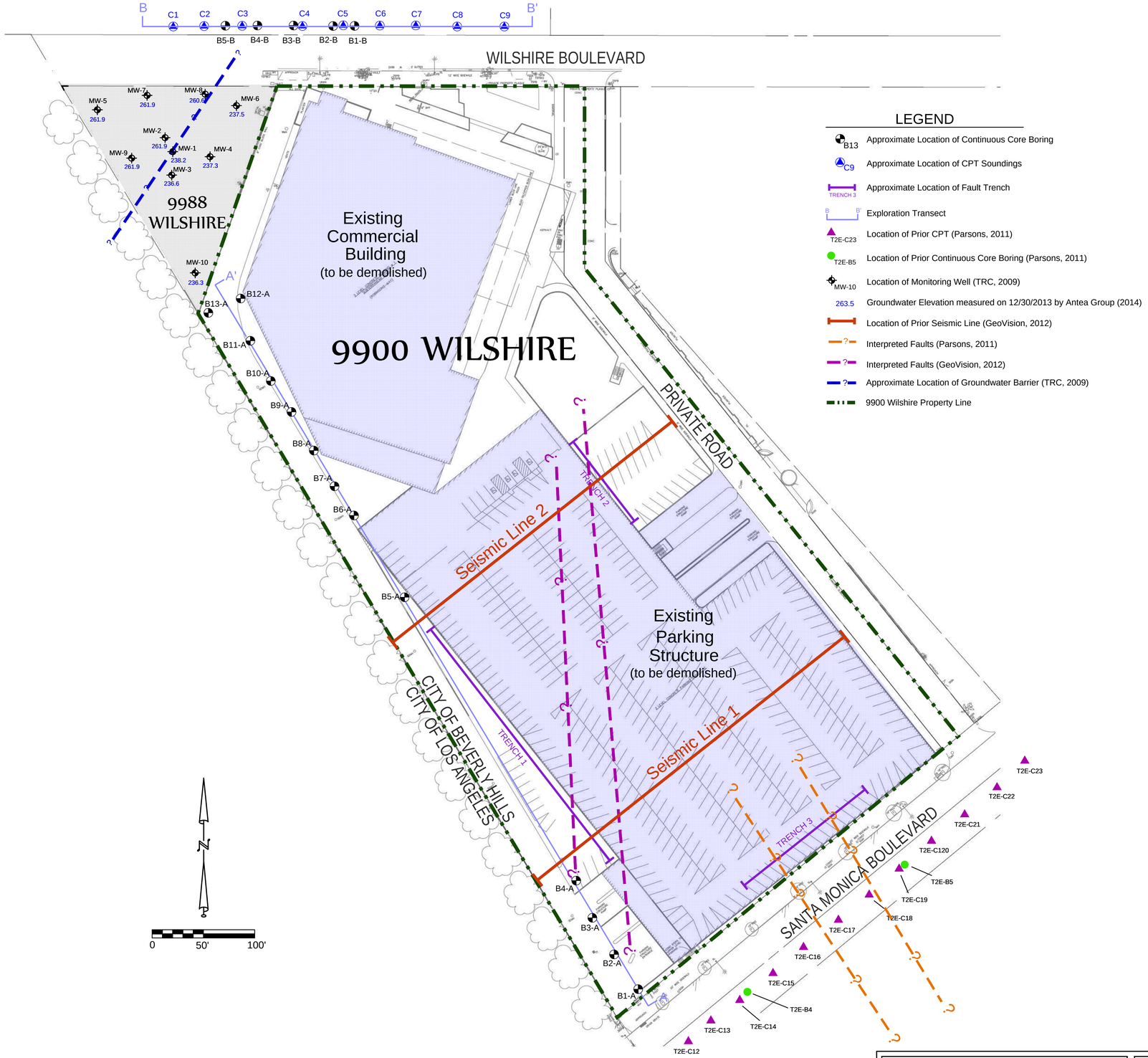
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

SANTA MONICA FAULT ZONE - GEOMORPHIC MAP

FAULT RUPTURE HAZARD INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 8



LEGEND

- B13 — Approximate Location of Continuous Core Boring
- C9 — Approximate Location of CPT Soundings
- TRENCH 3 — Approximate Location of Fault Trench
- B B' — Exploration Transect
- T2E-C23 — Location of Prior CPT (Parsons, 2011)
- T2E-B5 — Location of Prior Continuous Core Boring (Parsons, 2011)
- MW-10 — Location of Monitoring Well (TRC, 2009)
- 263.5 — Groundwater Elevation measured on 12/30/2013 by Antea Group (2014)
- Location of Prior Seismic Line (GeoVision, 2012)
- Interpreted Faults (Parsons, 2011)
- Interpreted Faults (GeoVision, 2012)
- Approximate Location of Groundwater Barrier (TRC, 2009)
- 9900 Wilshire Property Line

BASE MAP: Modified after Psomas, 2013, "Borehole Exhibit". Job No. 1BHW010100, Sheet 1 of 1

GEOCON
WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL/CHL		8000

EXPLORATION PLAN

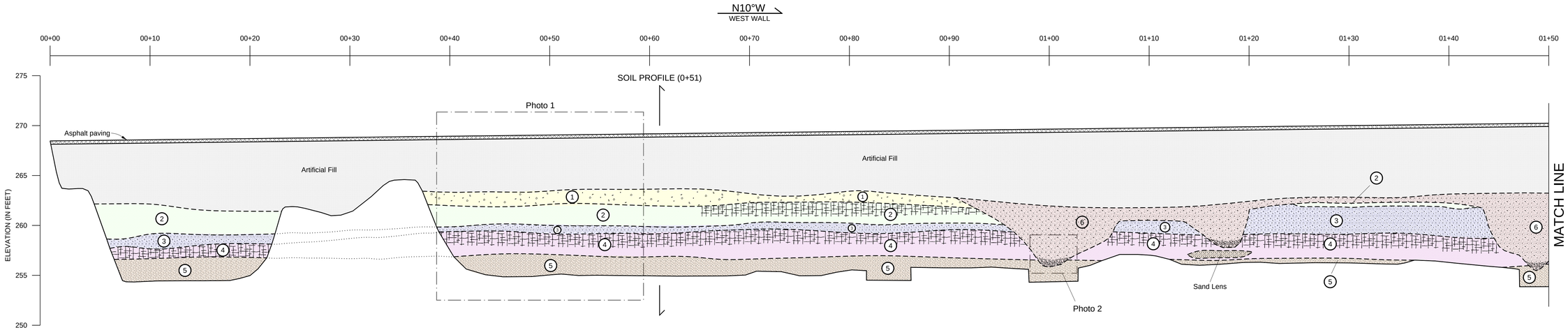
FAULT RUPTURE HAZARD INVESTIGATION

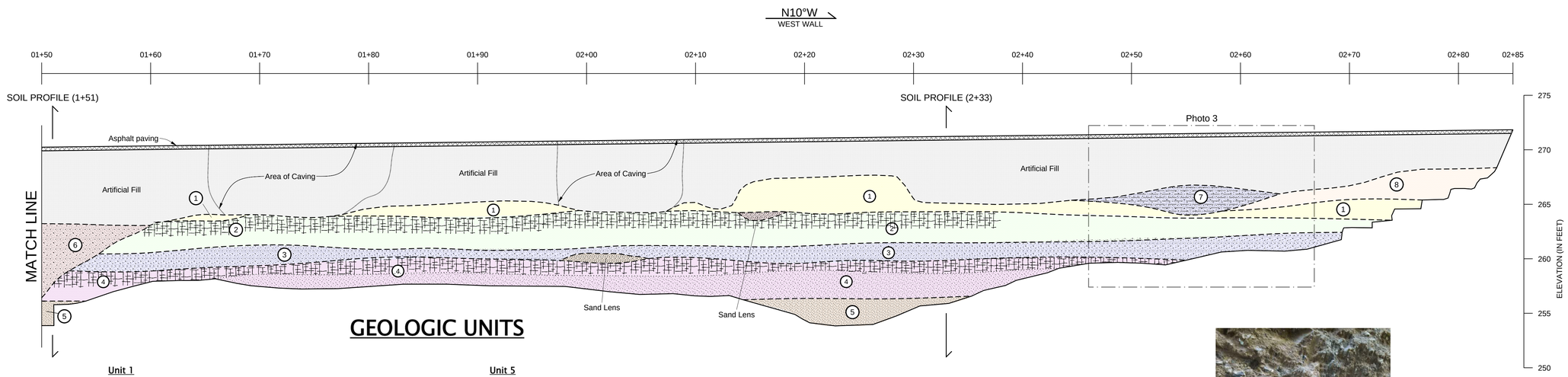
9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 9

TRENCH 1





GEOLOGIC UNITS

Unit 1
Alluvial Deposits – Silt, brown (10YR 4/3 to 10YR 4/4), trace to minor clay, and trace to minor disseminated gravel (to 1 inch), massive. Locally sandy, very fine-grained. Well-developed ped structure, partially gleyed. Gravel predominantly slate and some diatomaceous siltstone, subrounded to subangular. Lower contact narrowly gradational to abrupt.

Unit 2
Alluvial Deposits – Silt, brown (10YR 4/3 to 10YR 4/4), trace to with disseminated gravel (to ½ inch), minor clay, massive. Well-developed argillic horizon at top of unit, plugged with clay (except where abundant gravel), grading sandier with depth. Increase in gravel content north of Station 2+40. Well developed ped structure at top of unit except south of Station 0+65 and north of Station 2+40 where top of unit is gravelly. Lower contact narrowly gradational.

Unit 3
Debris Flow –Silt with Sand to Silty Sand with Gravel, brown (10YR 4/3) to dark brown (10YR 3/3), very fine-grained, plugged with clay, massive. Gravel disseminated throughout unit (10% to 50%), typically matrix-supported, locally clast-supported; Predominantly slate gravel with some diatomaceous siltstone gravel (to 2 inches; typically 1 inch or less in size), subrounded to subangular. Weakly to moderately developed ped structure (more developed where gravel content is less than 10%), secondary clay films, partially gleyed. Lower contact abrupt.

Unit 4
Alluvial Deposits – Silty Sand to Silt with Sand, brown (10YR 5/3), fine-grained, plugged with clay, trace disseminated gravel (¼ inch or less), massive. Moderate ped structure at upper contact decreasing to weak or no ped structure with depth. Some secondary clay films, partially gleyed, localized manganese stringers and staining. Lower portion of unit grades to fine-grained Silty Sand with dark yellowish brown (10YR 4/4) mottles. Lower contact abrupt to narrowly gradational.

Unit 5
Alluvial Deposits – Silty Sand to Sand with Silt, dark yellowish brown (10YR 4/4), fine-grained, generally massive with some internal sand lenses. Silt content increases with depth. Sand content increases and some gravel-rich lenses common south of Station 0+90.

Unit 6
Channel Deposits – Silty Sand, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace disseminated gravel, porous, massive. Gravel concentrated at bottom of unit (½ to 2 inches, few smaller in size), typically matrix-supported; clast-supported near base. Weak ped structure, some secondary clay films, localized manganese staining. Lateral contacts are narrowly gradational and basal contact is abrupt.

Unit 7
Channel Deposits – Sand to Gravelly Sand, light grayish brown (10YR 5/2 to 10YR 6/2), fine- to medium-grained, matrix supported, weakly bedded to well bedded. Gravel subangular to subrounded (typically less than ½-inch but locally up to 1½ – 2 inches, few to 3 inches). Some internal gravel beds (matrix-supported). Lateral and lower contacts abrupt.

Unit 8
Alluvial Deposits – Clayey Silt, dark yellowish brown (10YR 4/4) trace disseminated gravel (to ¾ inch), moderately to slightly porous, massive. Lower contact narrowly gradational.

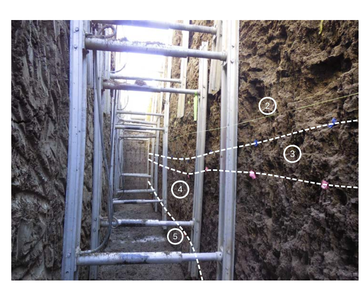


Photo 1

Photo 2

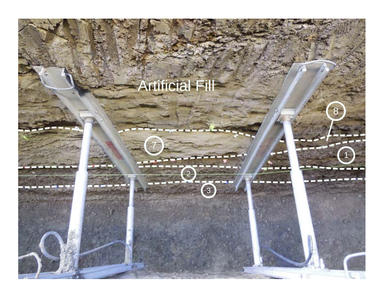


Photo 3

Note: Geologic units not correlated between trenches. For descriptive purposes only.

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

CHL / AL | 8000

LOG OF TRENCH 1
FAULT RUPTURE HAZARD INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

MAY 2014 | PROJECT NO. A9009-06-01A | FIGURE 10

TRENCH 2

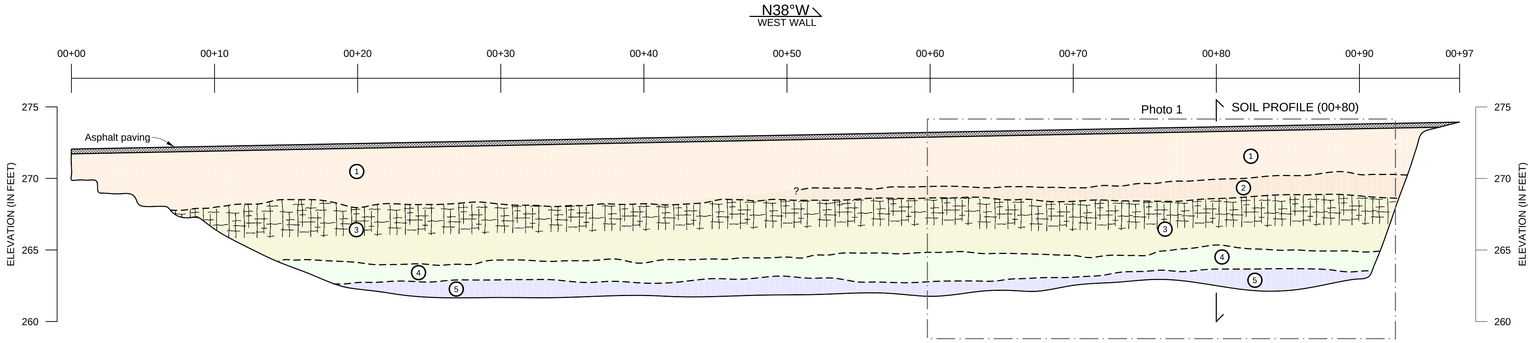
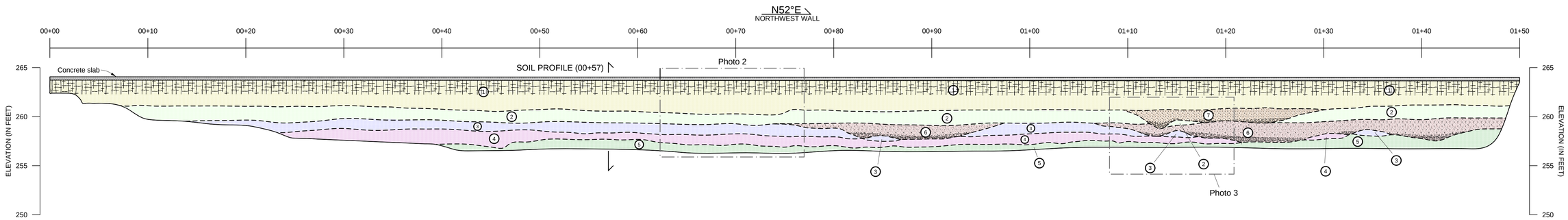


Photo 1

TRENCH 3



GEOLOGIC UNITS

TRENCH 2

Unit 1
Alluvial Deposits – Silty Sand to Silt with Sand, brown (10YR 4/3), fine-grained, minor disseminated gravel (to 3 inches, most less than 1 inch), porous, massive. Some roots in upper portion of unit, increase in gravel content at base of unit. Lower contact narrowly gradational.

Unit 2
Alluvial Deposits – Silty Sand to Sand with Silt, brown (10YR 4/3 to 10YR 4/4), very, fine-grained, some medium to coarse, trace to minor disseminated gravel (to 2 inches, typically less than 1 inch), massive. Gravel subangular to subrounded, mostly slate, some diatomaceous siltstone. Sand content greater than unit above. South of Station 0+50, not readily distinguishable from Unit 1 above. Lower contact narrowly gradational.

Unit 3
Alluvial Deposits – Silt with Sand, brown (10YR 4/3), trace to minor disseminated gravel (typically to ½ inch, few to 1½ inch), trace clay, porous, massive. Well developed ped structure, some secondary clay film, partially gleyed. Gravel subrounded to subangular, predominantly slate, some diatomaceous siltstone. Some fine roots. Lower contact narrowly gradational.

Unit 4
Alluvial Deposits – Silty Sand to Sand with Silt, yellowish brown (10YR 5/4), very fine-grained, minor disseminated gravel (to 1 inch), locally with gravel, friable, massive, porous. Gravel subrounded to subangular, locally gravel in beds or pockets. Lower contact narrowly gradational.

Unit 5
Alluvial Deposits – Silt with Sand, dark yellowish brown (10YR 3/4), very fine-grained, trace gravel (to 1 inch), massive. Laterally grades more sandy. Moderately cemented.

TRENCH 3

Unit 1
Alluvial Deposits – Clayey Silt, dark grayish brown (10YR 4/2) to brown (10YR 4/3), trace to minor gravel, slightly to moderately porous, massive. Well developed ped structure with secondary clay films. Gravel predominantly slate and diatomaceous siltstone (to ¾ inches, few to 1½ inches), gravel size increases toward the east. Lower contact narrowly gradational.

Unit 2
Alluvial Deposits – Silty Sand to Silt with Sand, dark yellowish brown (10YR 4/4), trace to with disseminated gravel (to 1 inch, typically to ½ inch), moderately porous, massive. Gravel predominantly slate and few diatomaceous siltstone clasts; matrix-supported, locally clast-supported at base. Lower contact narrowly gradational to abrupt.

Unit 3
Alluvial Deposits – Silty Sand, yellowish brown (10YR 5/4), fine- to medium-grained, trace to minor disseminated gravel (typically ½ inch, few to 1½ inch), slightly friable, massive. Gravel predominantly slate, few diatomaceous siltstone clasts; matrix-supported. Lower contact narrowly gradational.

Unit 4
Alluvial Deposits – Sand with Silt to Silty Sand, dark yellowish brown (10YR 4/4 to 10YR 4/6), minor to with gravel (laterally variable in volume), slightly friable, massive. Becomes more friable and sandier toward the east. Gravel subrounded to subangular (typically less than ½ inch, some to 2 ½ inches). Lower contact abrupt to narrowly gradational.

Unit 5
Alluvial Deposits – Silt with Sand, dark yellowish brown (10YR 3/6), fine-grained, some medium, trace to minor disseminated slate gravel (to ¼ inch, few to 1 inch), moderately porous, massive. Trace rootlet voids.

Unit 6
Channel Deposits – Sand with Gravel, dark yellowish brown (10YR 4/4), fine- to medium-grained, some coarse, friable, massive to locally bedded. Gravel (¼ inch to 2½ inches), predominantly slate, some diatomaceous siltstone, subrounded, typically larger at base. Gravel concentrated (up to 40%) and clast-supported at channel center between approximately Station 0+80 and 0+85. Lateral and lower contacts abrupt.

Unit 7
Channel Deposits – Sand with Gravel, dark yellowish brown (10YR 3/4 to 10YR 3/6), minor silt, weakly friable to moderately cemented, massive to weakly bedded. Gravel disseminated throughout unit (typically less than 1 inch; few to 3 inches), increasing in size with depth; locally concentrated in pockets or beds at base of unit. Gravel predominantly slate, few diatomaceous siltstone clasts; generally matrix-supported, locally clast-supported. Lateral and lower contracts abrupt.

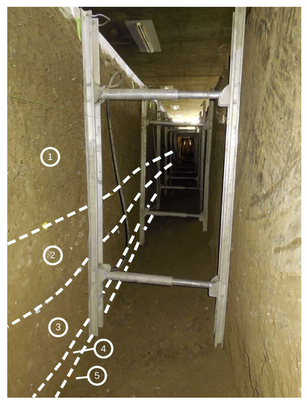


Photo 2

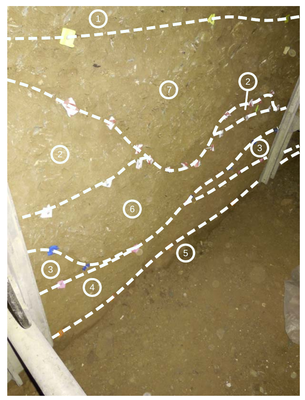


Photo 3

Note: Geologic units not correlated between trenches. For descriptive purposes only.

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

CHL / AL | 8000

LOG OF TRENCH 2 & 3

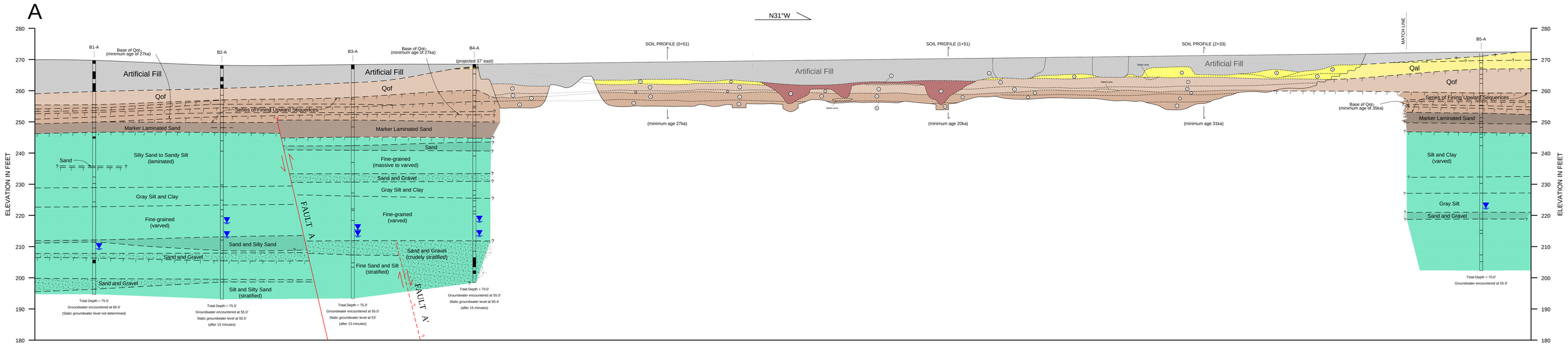
FAULT RUPTURE HAZARD INVESTIGATION

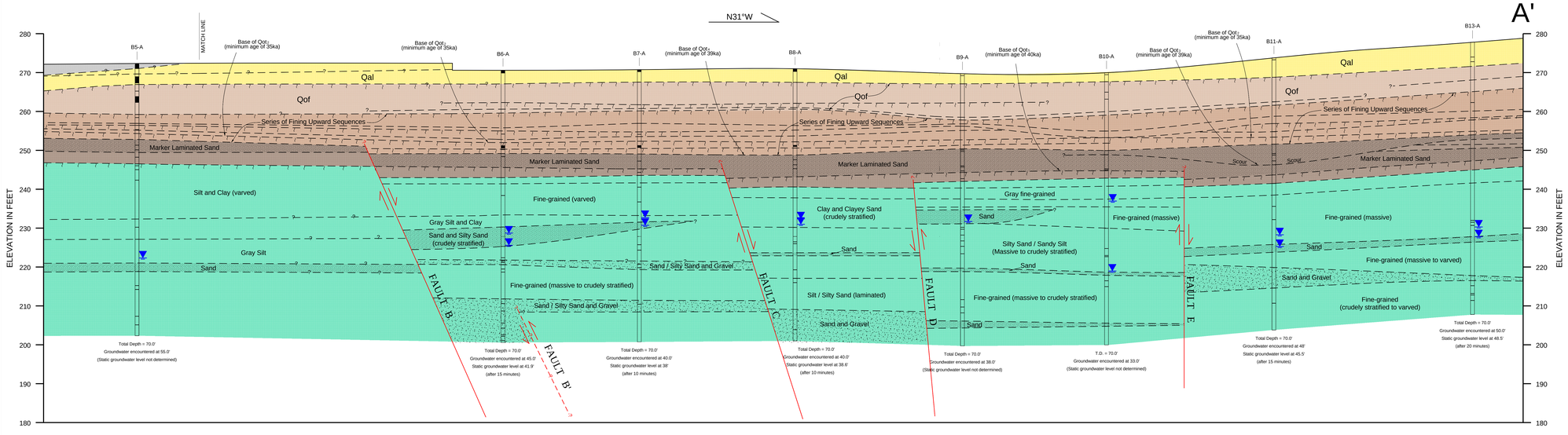
9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014 | PROJECT NO. A9009-06-01A | FIGURE 11

TRANSECT A





LEGEND

- Younger Alluvial Deposits (Qal)
  - Stream Terrace and Fluvial Deposits
- Older Fan Deposits (Qof)
  - Gravel-Rich Debris Flow
- Older Terrace Deposits (Qot)
  - Series of Fining Upward Sequences
  - Marker Laminated Sand
- Lakewood Formation (Qlw)
- Geologic Contact (Queried where uncertain)
- Argillic Soil Horizon
- Inferred Fault (Queried where uncertain)
- Groundwater Level Encountered in Boring

SCALE 1" = 10'
1:1 HORIZONTAL AND VERTICAL SCALE

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD., SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 FAX (818) 845-3704

CHL | 8000

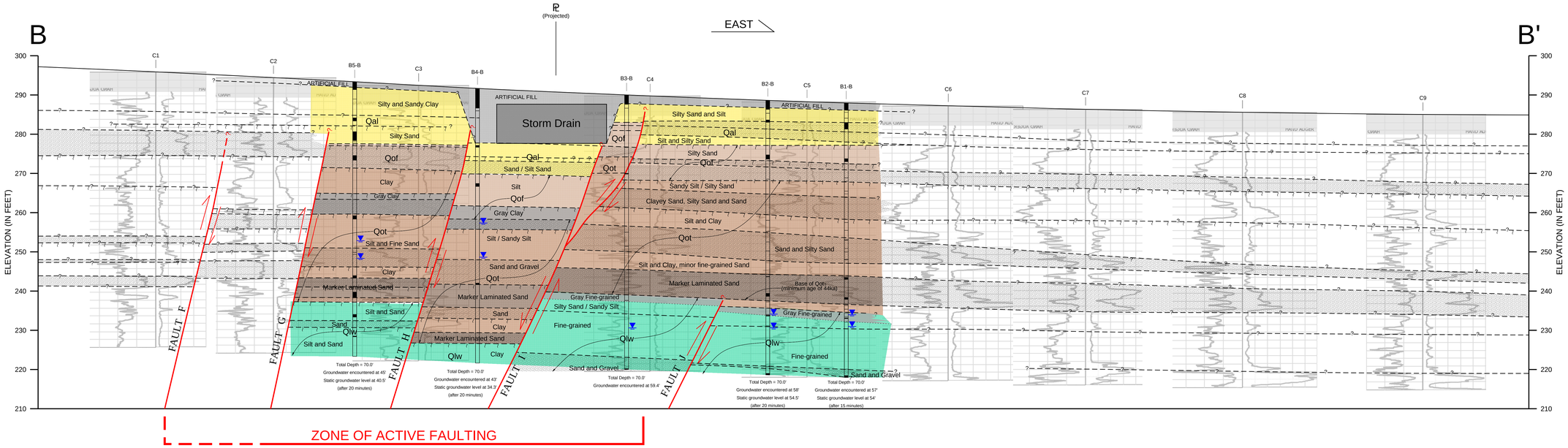
TRANSECT A

FAULT RUPTURE HAZARD INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

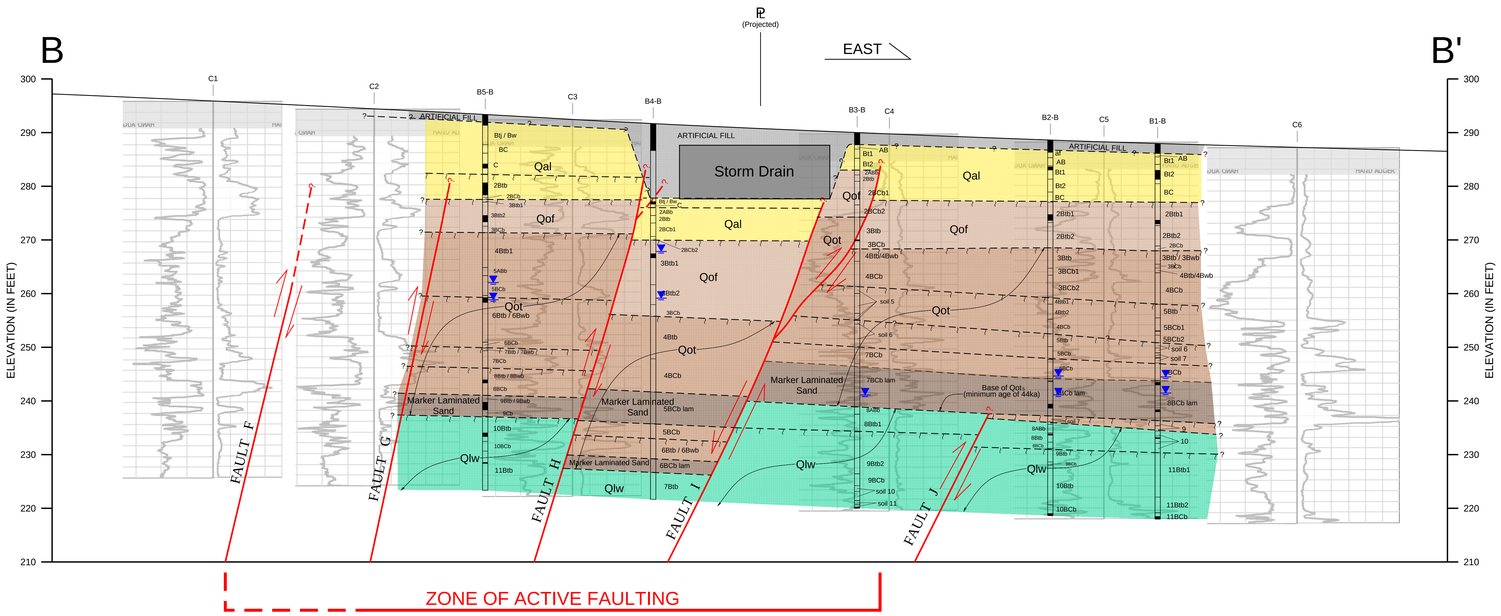
MAY 2014 | PROJECT NO. A9009-06-01A | FIGURE 12

TRANSECT B

CORRELATION OF PRIMARY STRATIGRAPHY



CORRELATION OF BURIED SOILS



LEGEND

- Younger Alluvial Deposits (Qal)
  - Stream Terrace and Fluvial Deposits
- Older Fan Deposits (Qof)
  - Gravel-Rich Debris Flow
- Older Terrace Deposits (Qot)
  - Series of Fining Upward Sequences
  - Marker Laminated Sand
- Lakewood Formation (Qlw)
- Geologic Contact (Queried where uncertain)
- Argillic Soil Horizon
- Inferred Fault (Queried where uncertain)
- Groundwater Level Encountered in Boring

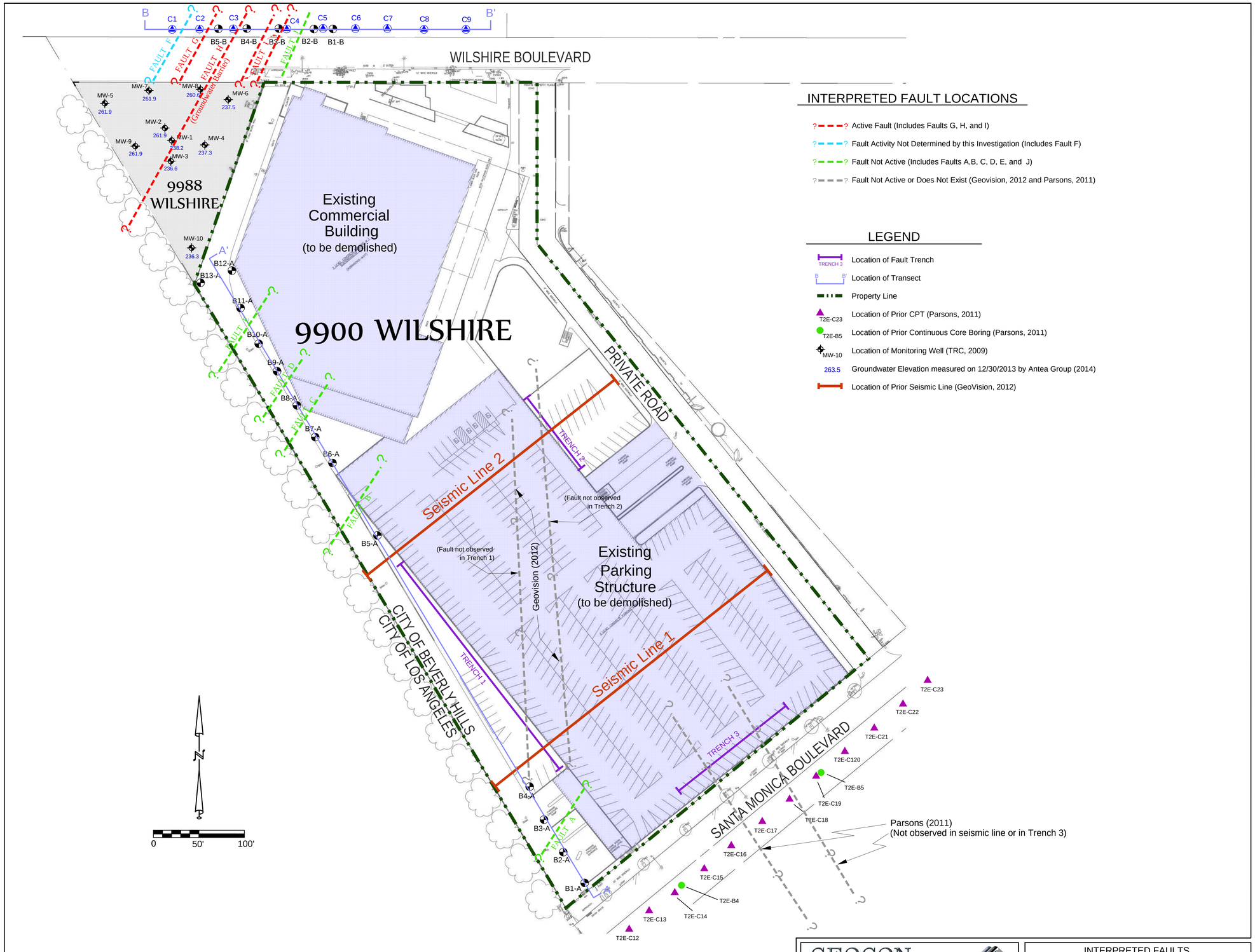
SCALE 1" = 10'
1:1 HORIZONTAL AND VERTICAL SCALE

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
1303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

CHL | | 8000

TRANSECT B
FAULT RUPTURE HAZARD INVESTIGATION
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

MAY 2014 | PROJECT NO. A9009-06-01A | FIGURE 13



INTERPRETED FAULT LOCATIONS

- Active Fault (Includes Faults G, H, and I)
- Fault Activity Not Determined by this Investigation (Includes Fault F)
- Fault Not Active (Includes Faults A,B, C, D, E, and J)
- Fault Not Active or Does Not Exist (Geovision, 2012 and Parsons, 2011)

LEGEND

- TRENCH 3 — Location of Fault Trench
- B B' — Location of Transect
- Property Line
- T2E-C23 — Location of Prior CPT (Parsons, 2011)
- T2E-B5 — Location of Prior Continuous Core Boring (Parsons, 2011)
- MW-10 — Location of Monitoring Well (TRC, 2009)
- 263.5 — Groundwater Elevation measured on 12/30/2013 by Antea Group (2014)
- Location of Prior Seismic Line (GeoVision, 2012)

BASE MAP: Modified after Psomas, 2013, "Borehole Exhibit". Job No. 1BHW010100, Sheet 1 of 1

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

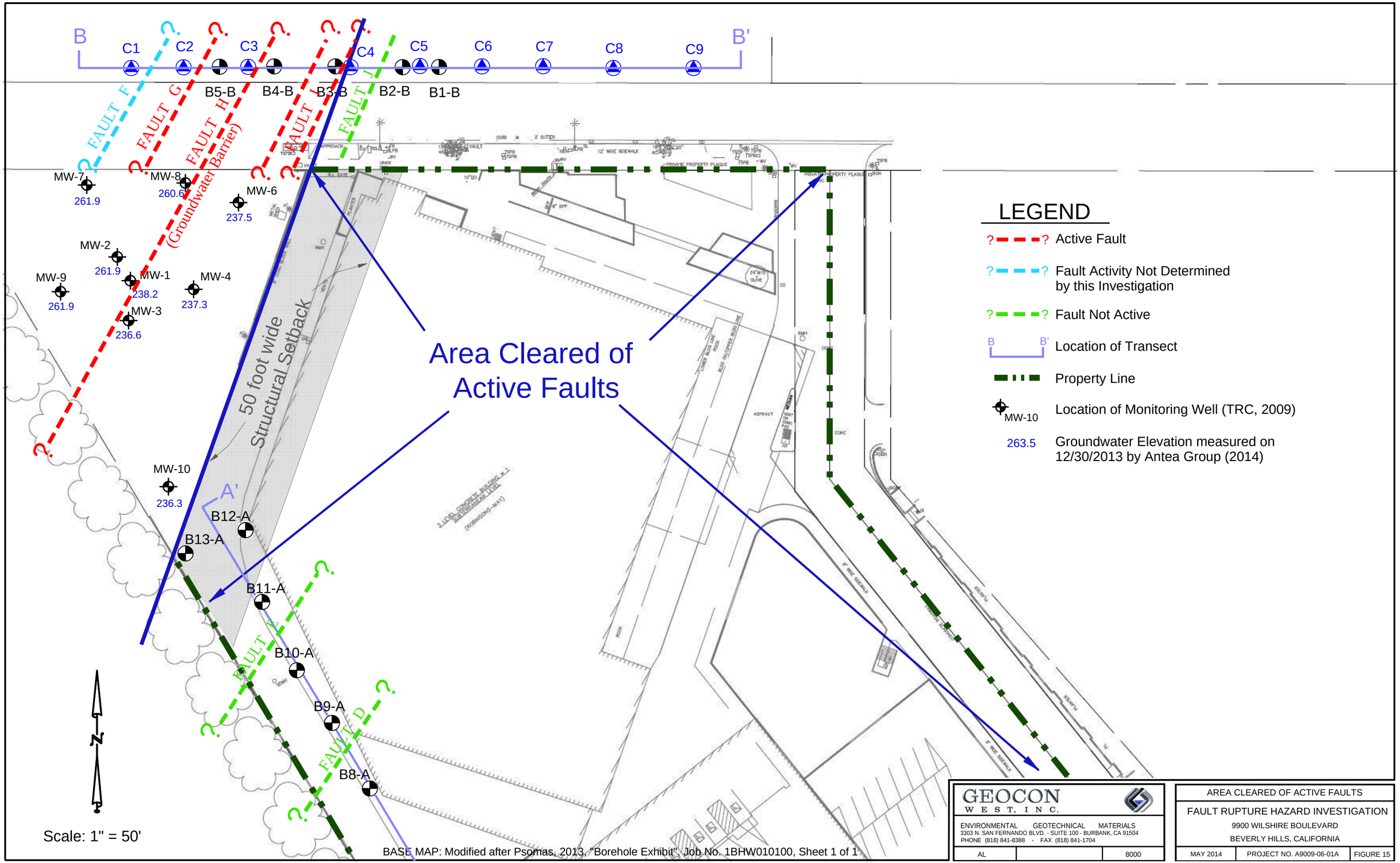
INTERPRETED FAULTS

FAULT RUPTURE HAZARD INVESTIGATION

9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 14



GEOCON
WEST, INC.

ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

AL		8000

AREA CLEARED OF ACTIVE FAULTS

FAULT RUPTURE HAZARD INVESTIGATION

9900 WILSHIRE BOULEVARD

BEVERLY HILLS, CALIFORNIA

MAY 2014	PROJECT NO. A9009-06-01A	FIGURE 15

APPENDIX A

INVESTIGATION PHOTOS

Photo 1: Trench 1 – Looking Southeast

GEOCON

SITE PHOTO 1		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A1

Photo 2: Trench 1 – Paleochannel incised into older terrace deposits (Station 1+00)

GEOCON

SITE PHOTO 2		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A2

Photo 3: Trench 1 – Looking southeast from Station 0+50

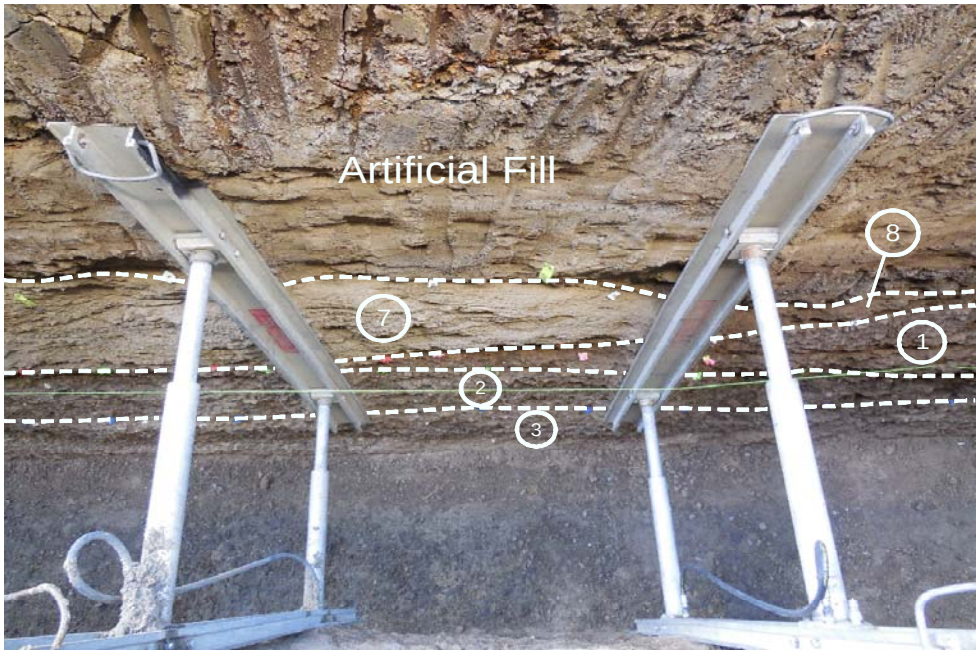


Photo 4: Trench 1 – Young alluvial deposits, channel deposits, and underlying older fan deposits (Station 2+75)

GEOCON

SITE PHOTOS 3 & 4		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A3

Photo 5: Trench 2 – Looking southeast

Photo 6: Trench 2 – Looking northwest from Station 1+10

GEOCON

SITE PHOTOS 5 & 6		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A4

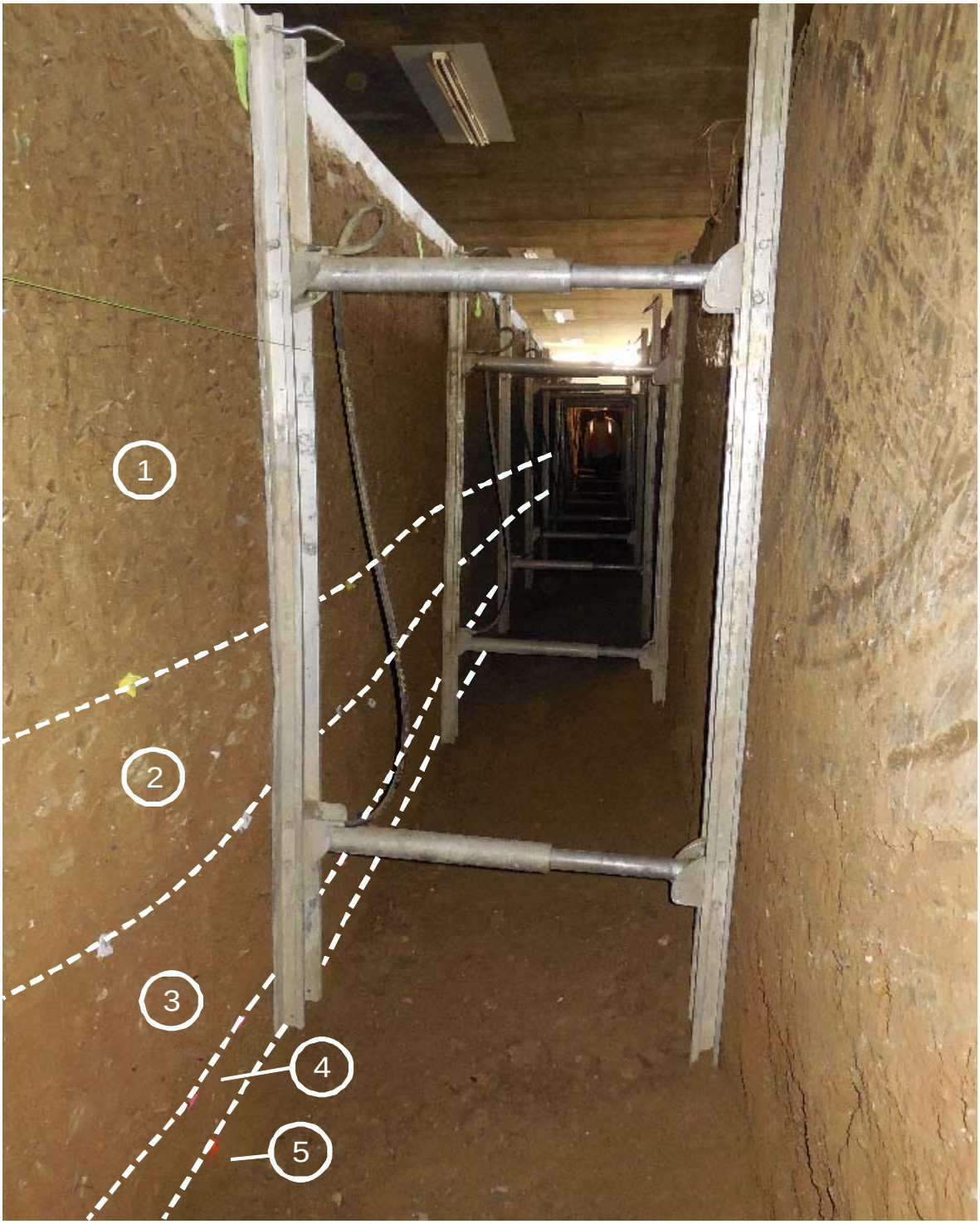


Photo 7: Trench 3 – Looking east from Station 0+60

GEOCON

SITE PHOTO 7		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A5

Photo 8: Trench 3 – Older fan unit with blocky structure

GEOCON

SITE PHOTO 8		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A6

Photo 9: Drilling operation boring B12-A

Photo 10: Core barrel retrieval

GEOCON

SITE PHOTOS 9 & 10		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A7

Photo 11: Removing core sample from core barrel

Photo 12: Core sample placement into core box

GEOCON

SITE PHOTOS 11 & 12		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A8

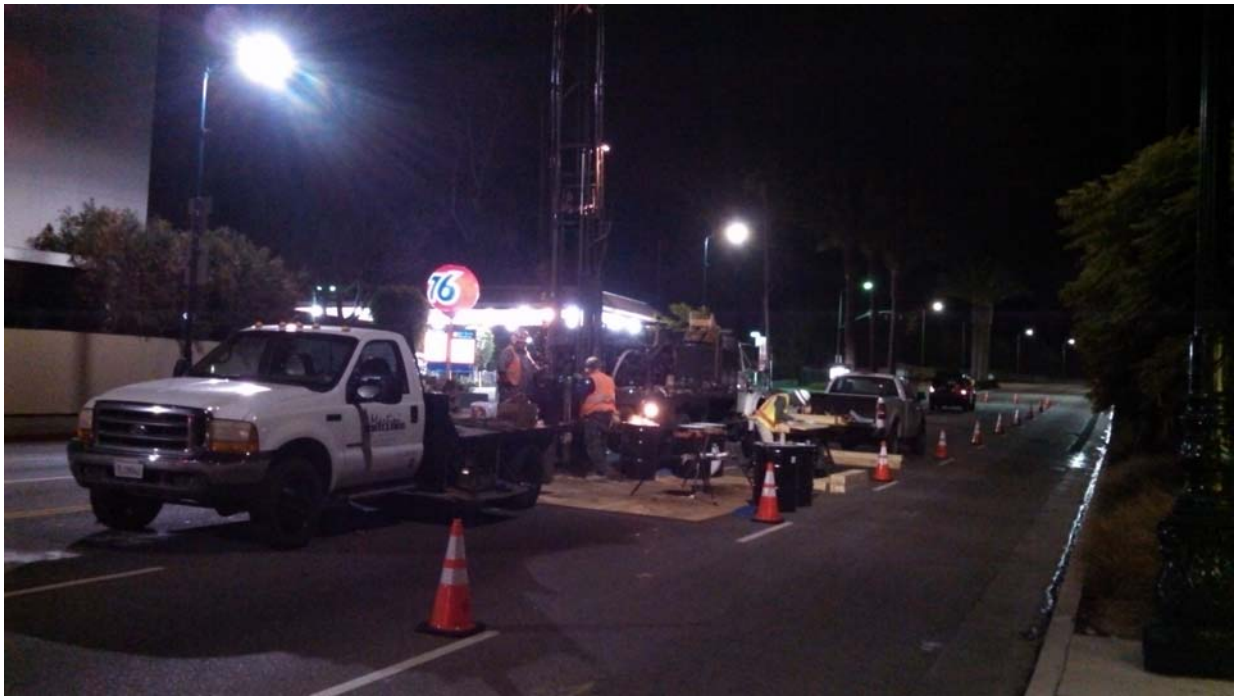


Photo 13: Drilling operation boring B4-B

Photo 14: Core sample review

GEOCON

SITE PHOTOS 13 & 14		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A9

Photo 15: Core sample – boring B13-A at 20 to 30 feet

Photo 16: Core sample – boring B4-B at 20 to 30 feet

GEOCON	**SITE PHOTOS 15 & 16**	
	FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA	
	A9009-06-01A	May 2014	Figure A10

Photo 17: Core sample boring B4-A at 30 to 40 feet

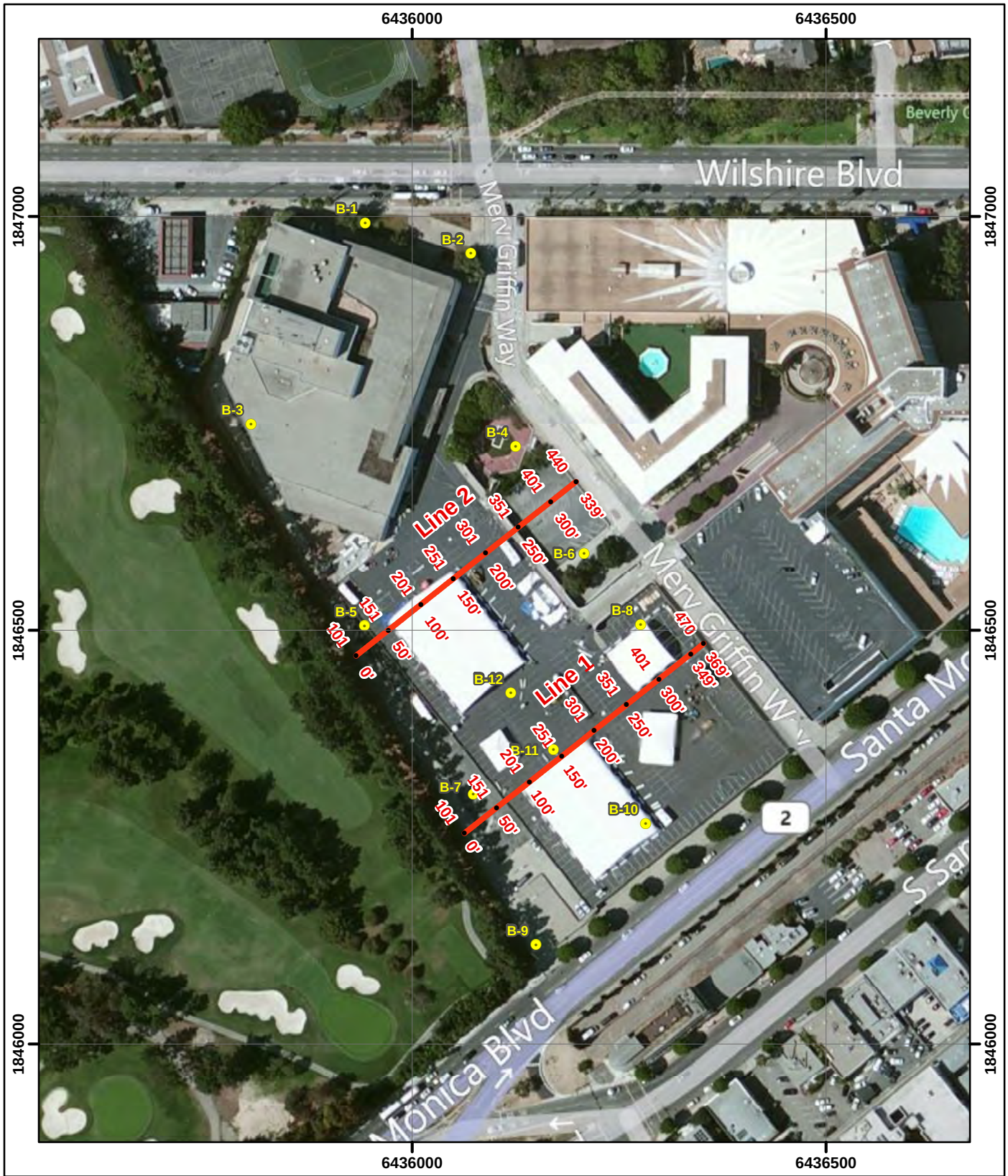
Photo 18: Core sample boring B4-A at 50 to 60 feet

GEOCON

SITE PHOTOS 17 & 18		
FAULT RUPTURE HAZARD INVESTIGATION 9900 WILSHIRE BOULEVARD BEVERLY HILLS, CA		
A9009-06-01A	May 2014	Figure A11

APPENDIX B

GEOVISION PRELIMINARY FAULT INTERPRETATIONS



Legend

- S-Wave Seismic Reflection Line with Stations and Distances
- Approximate Estimated Borehole Locations

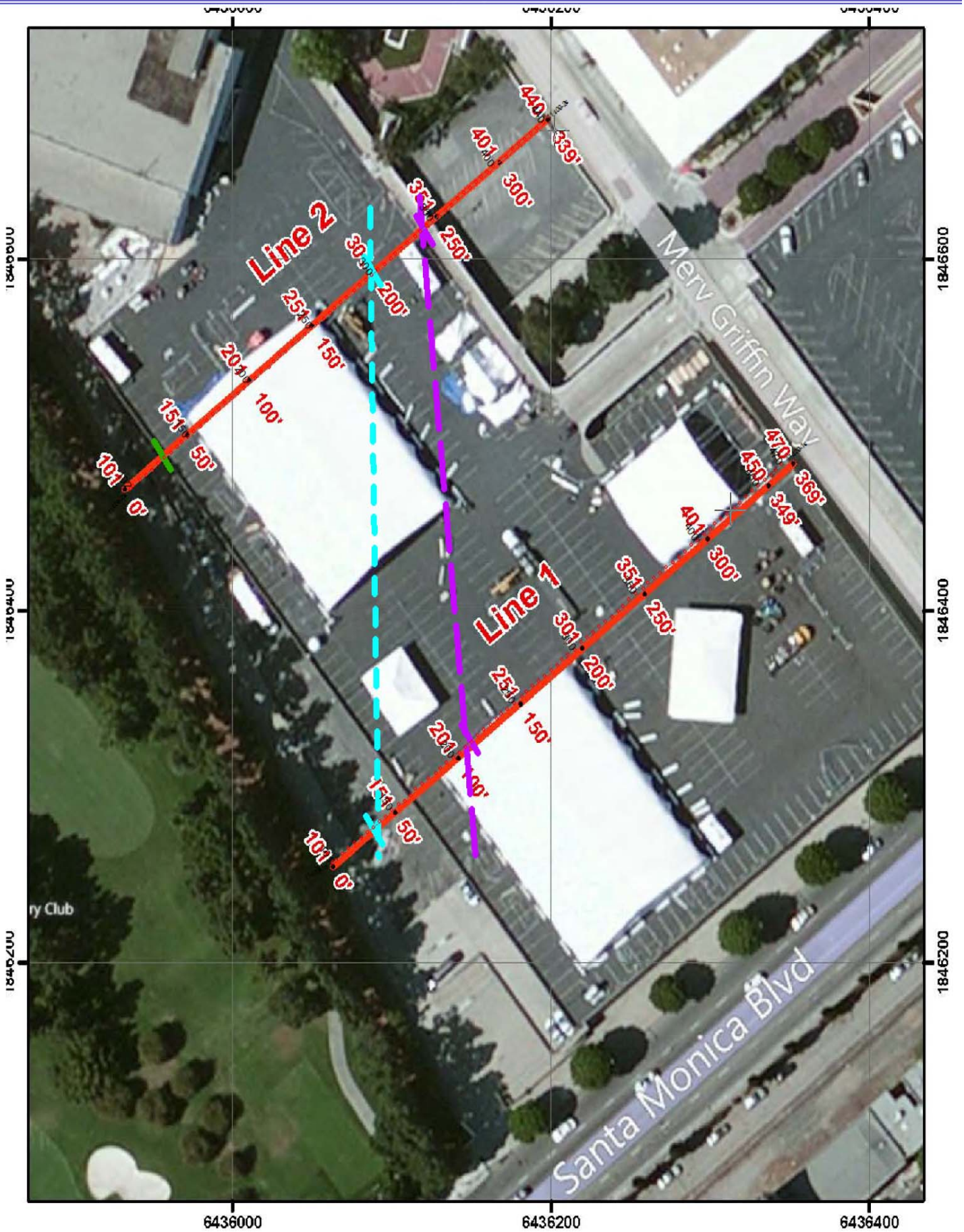
0 50 100 150
Feet

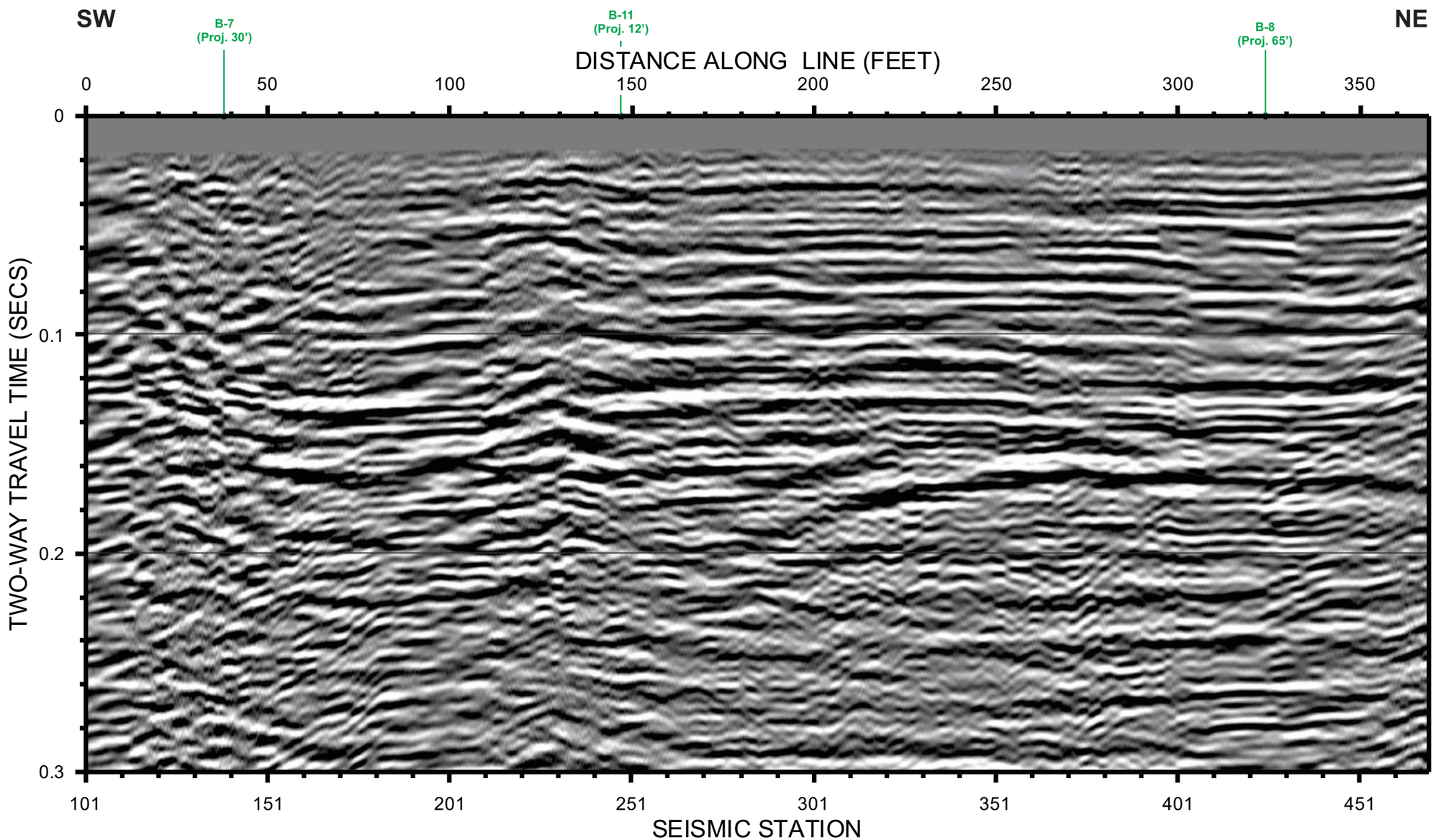
N

NOTES:
1. California Station Plane Coordinate System, NAD 83 Zone V (0405), US Feet
2. Image Source: (c) Microsoft Corporation and its data suppliers

GEOVision geophysical services

Date: 1/5/2012	FIGURE 1 SITE MAP
GV Project: 11409	SITE LOCATED AT 9900 WILSHIRE BLVD SANTA MONICA, CALIFORNIA
Developed by: D Carpenter	
Drawn by: T Rodriguez	PREPARED FOR AMEC, INC.
Approved by: W Dalrymple	
File Name: GV_11409-1	


Line 2
Line 1
Merv Griffin Way
Santa Monica Blvd
ry Club
0'
50'
100'
150'
200'
250'
300'
339'
349'
369'
1846600
1846400
1846200
6436000
6436200
6436400



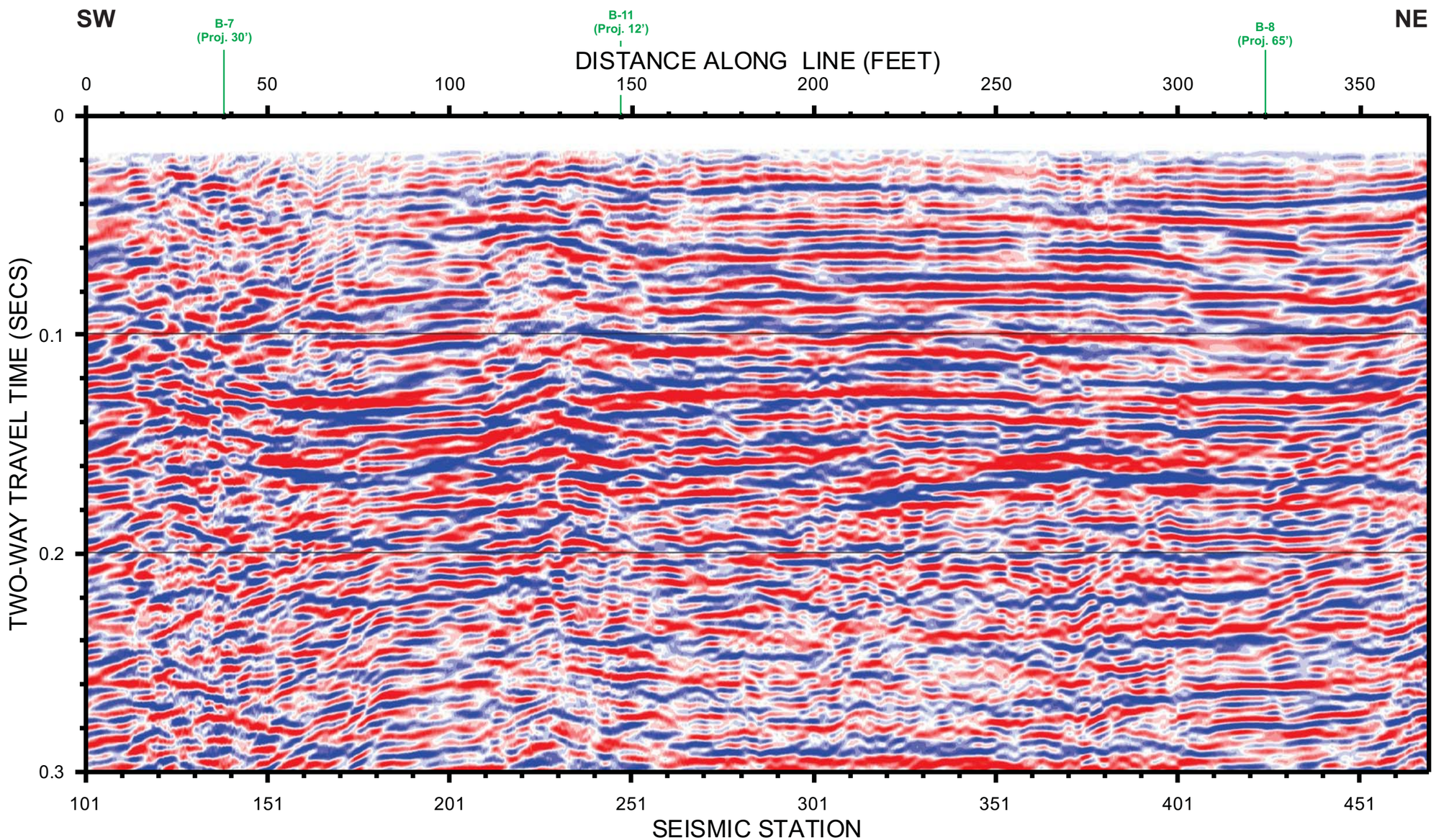
LEGEND

B-7 (Proj. 30') — Borehole Location

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services

Project No. 11409	PRELIMINARY FIGURE 4 LINE 1 - S-WAVE SEISMIC SECTION WITHOUT INTERPRETATION
Date: JUL 03, 2013	9900 WILSHIRE BLVD SANTA MONICA, CALIFORNIA
Drawn By: DALRYMPLE	
Approved By:	PREPARED FOR AMEC ENVIRONMENT AND INFRASTRUCTURE
File C:\GVPROJECTS\11409\F4.cdr	



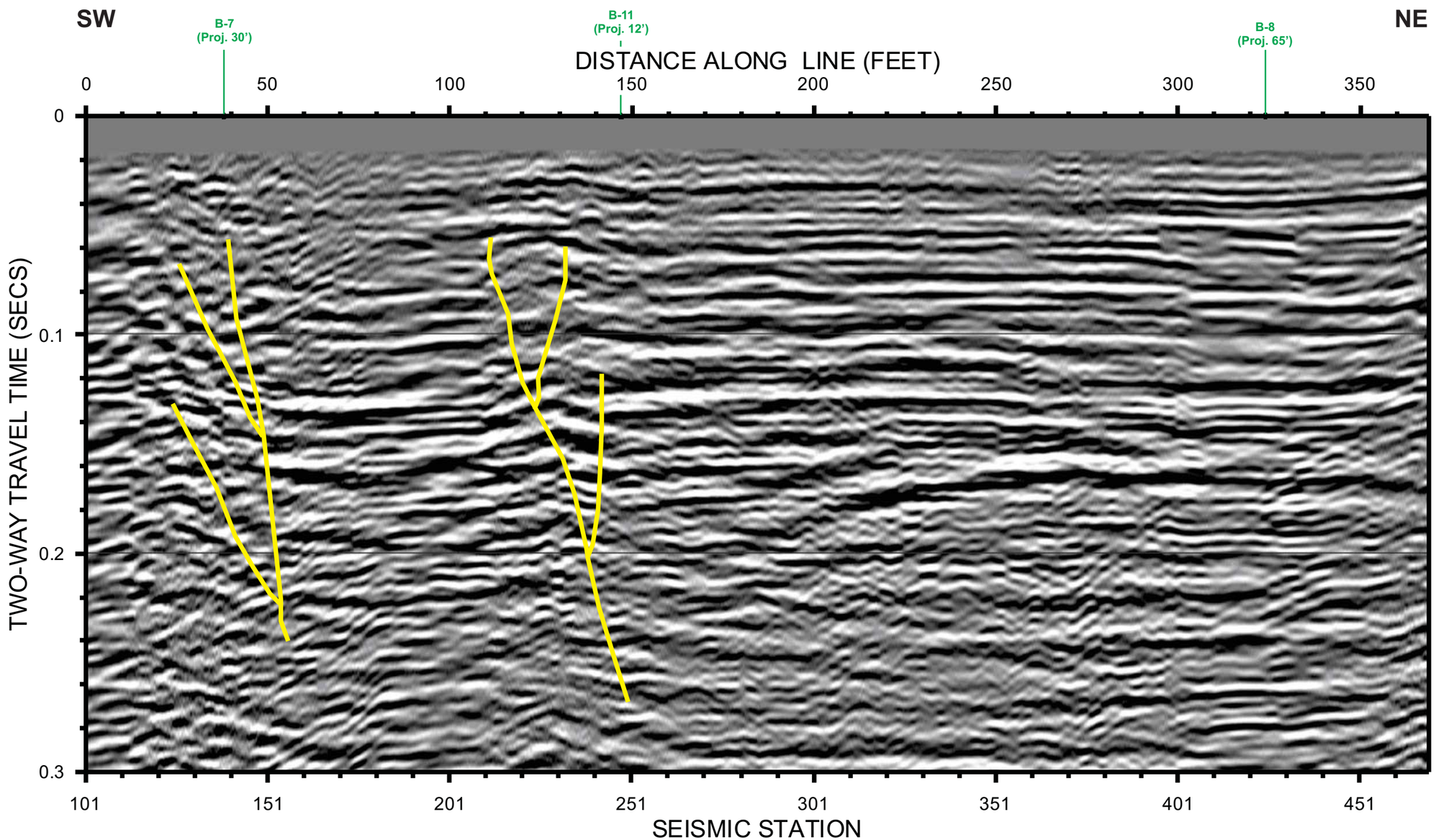
LEGEND

B-7 (Proj. 30') — Borehole Location

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services

Project No. 11409	PRELIMINARY FIGURE 5 LINE 1 - S-WAVE COLOR SEISMIC SECTION WITHOUT INTERPRETATION
Date: JUL 03, 2013	9900 WILSHIRE BLVD SANTA MONICA, CALIFORNIA
Drawn By: DALRYMPLE	
Approved By:	PREPARED FOR AMEC ENVIRONMENT AND INFRASTRUCTURE
File C:\GVPROJECTS\11409\F5.cdr	



LEGEND

B-7 (Proj. 30') — Borehole Location

Preliminary Interpreted Anomaly

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services

Project No. 11409

Date: JUL 03, 2013

Drawn By: DALRYMPLE

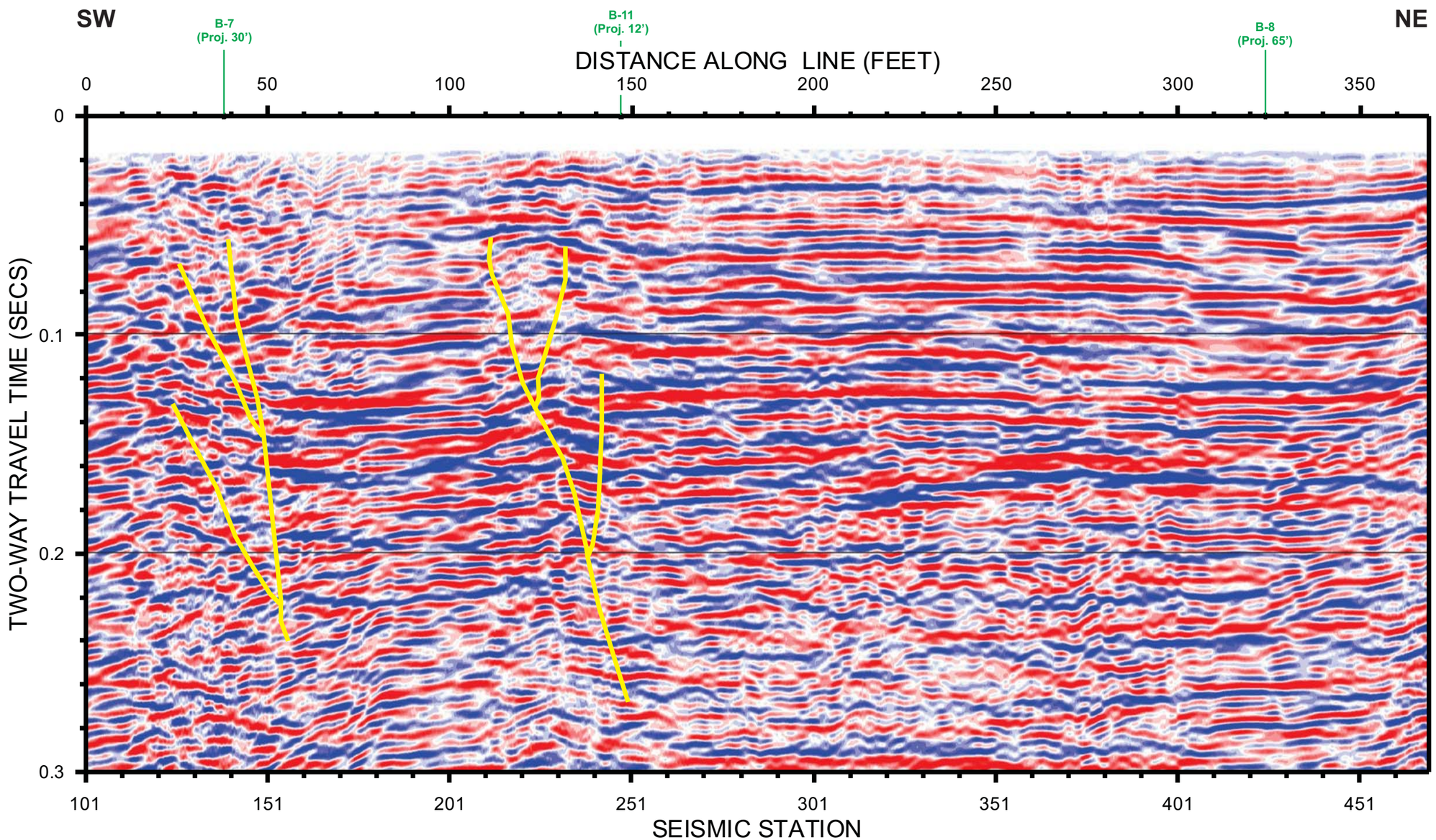
Approved By:

File C:\GVPROJECTS\11409\F6.cdr

PRELIMINARY FIGURE 6
LINE 1 - S-WAVE SEISMIC
SECTION WITH INTERPRETATION

9900 WILSHIRE BLVD
SANTA MONICA, CALIFORNIA

PREPARED FOR
AMEC ENVIRONMENT AND INFRASTRUCTURE



LEGEND

B-7 (Proj. 30') — Borehole Location

Preliminary Interpreted Anomaly

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services

Project No. 11409

Date: JUL 03, 2013

Drawn By: DALRYMPLE

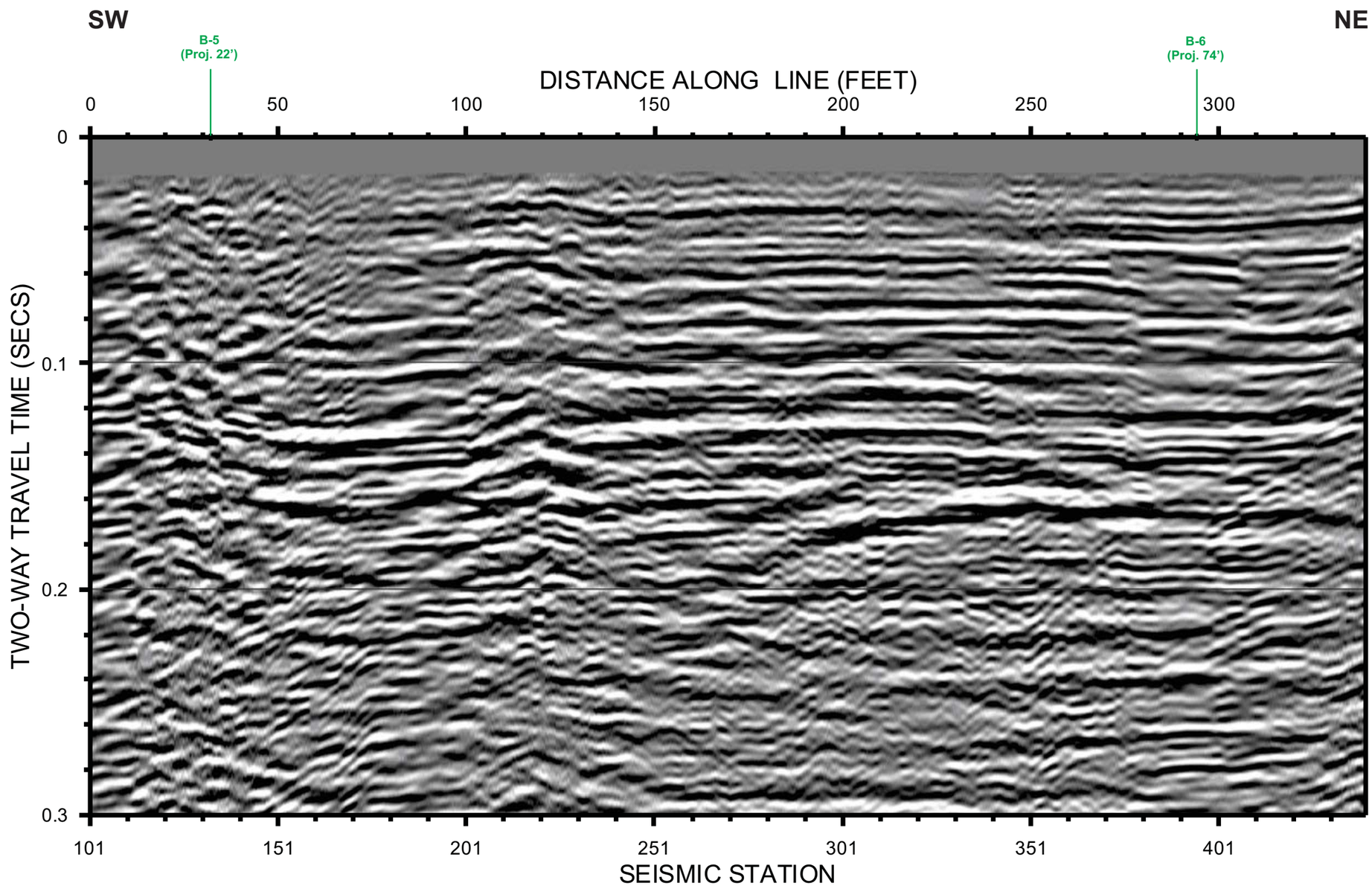
Approved By:

File C:\GVPROJECTS\11409\F7.cdr

PRELIMINARY FIGURE 7
LINE 1 - S-WAVE COLOR SEISMIC
SECTION WITH INTERPRETATION

9900 WILSHIRE BLVD
SANTA MONICA, CALIFORNIA

PREPARED FOR
AMEC ENVIRONMENT AND INFRASTRUCTURE

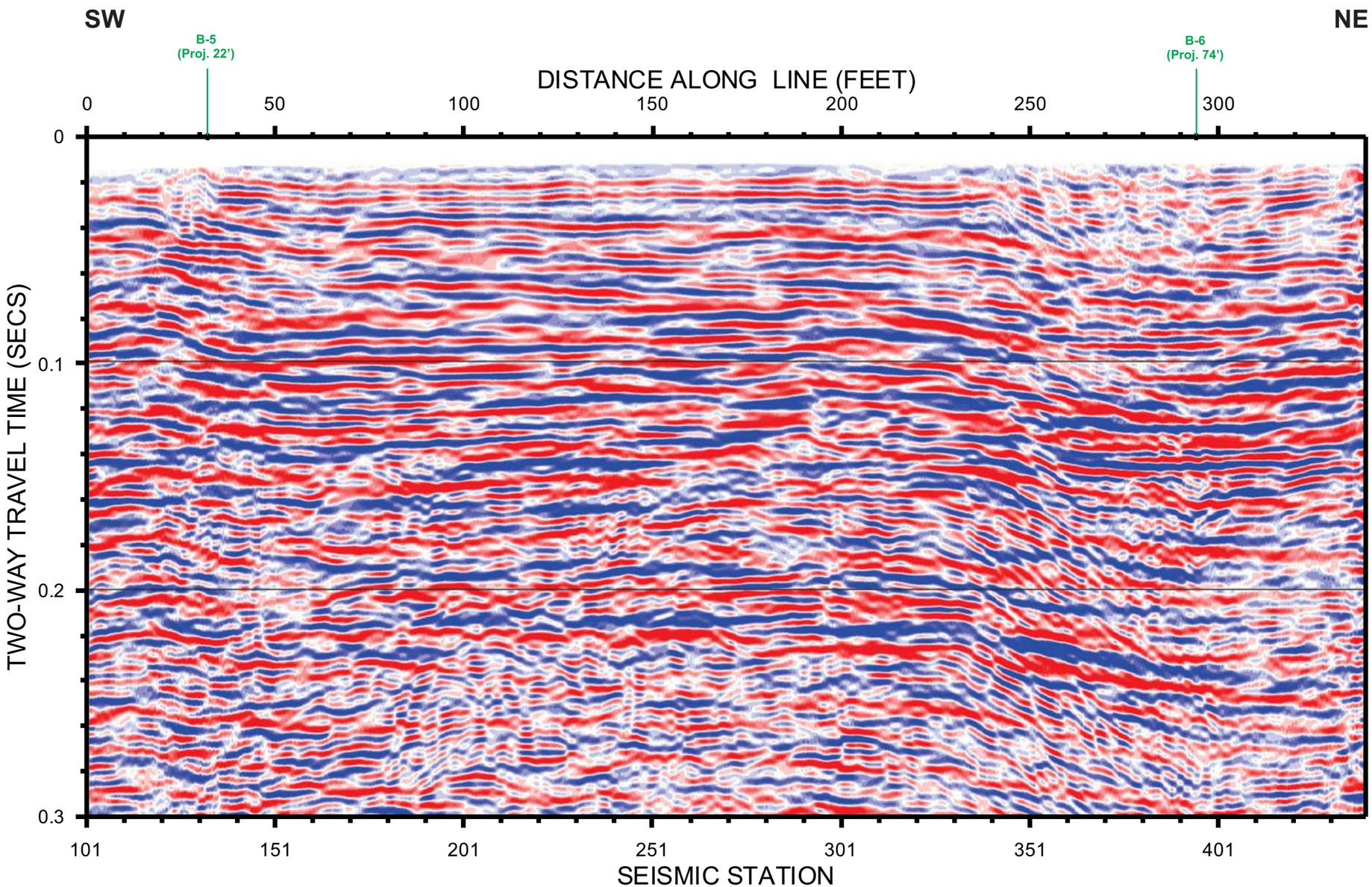


LEGEND

B-6 (Proj. 74') — Borehole Location

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services	PRELIMINARY FIGURE 8 LINE 2 - S-WAVE SEISMIC SECTION WITHOUT INTERPRETATION
Project No. 11409	9900 WILSHIRE BLVD SANTA MONICA, CALIFORNIA
Date: JUL 03, 2013	
Drawn By: DALRYMPLE	
Approved By:	PREPARED FOR AMEC ENVIRONMENT AND INFRASTRUCTURE
File C:\GVPROJECTS\11409\F8.cdr	



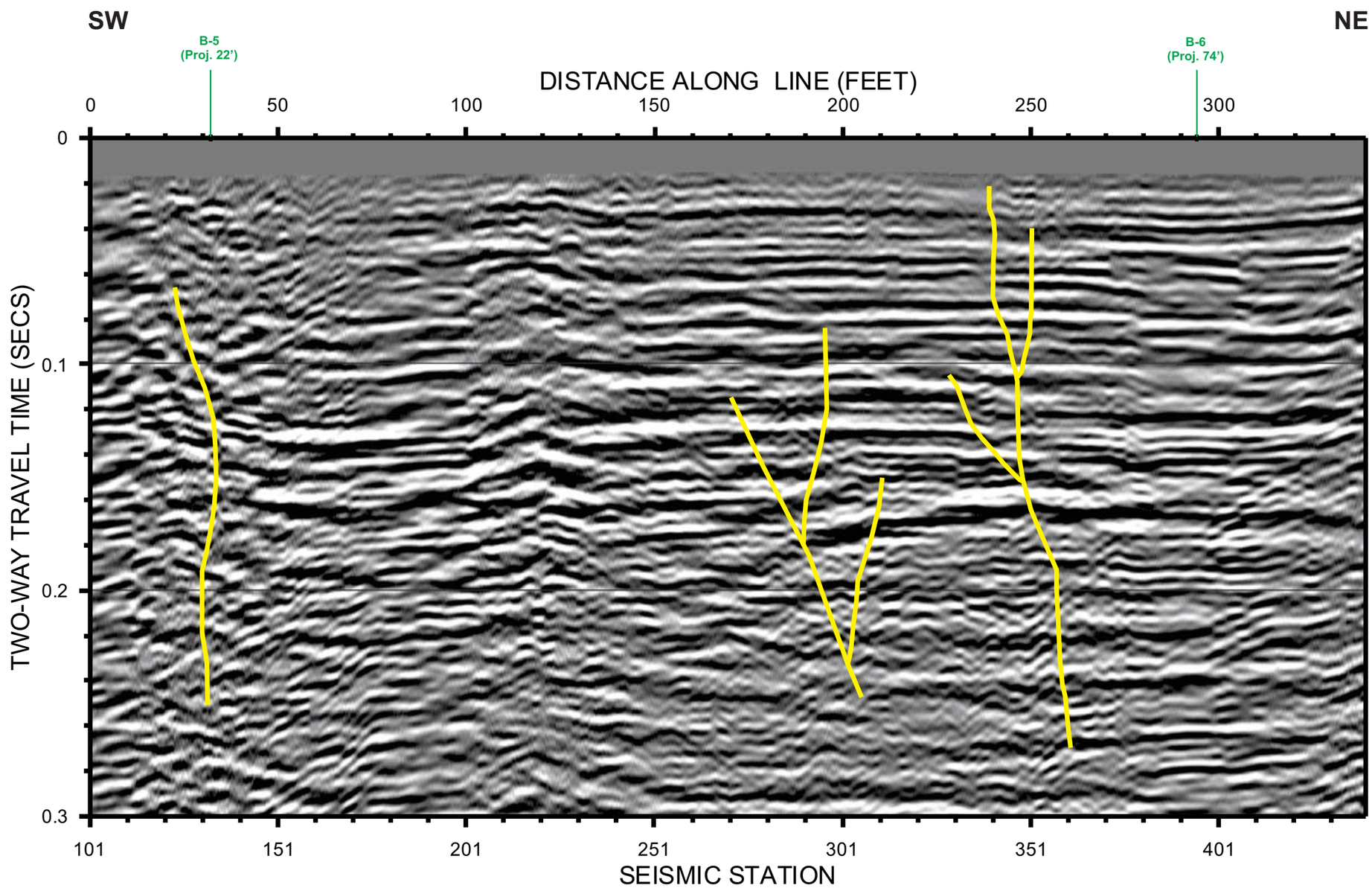
LEGEND

B-6 (Proj. 74') — Borehole Location

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services

Project No. 11409	PRELIMINARY FIGURE 9 LINE 2 - S-WAVE COLOR SEISMIC SECTION WITHOUT INTERPRETATION
Date: JUL 03, 2013	9900 WILSHIRE BLVD SANTA MONICA, CALIFORNIA
Drawn By: DALRYMPLE	
Approved By:	PREPARED FOR AMEC ENVIRONMENT AND INFRASTRUCTURE
File C:\GVPROJECTS\11409\F9.cdr	



LEGEND

B-6 (Proj. 74') — Borehole Location

Preliminary Interpreted Anomaly

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services

Project No. 11409

Date: JUL 03, 2013

Drawn By: DALRYMPLE

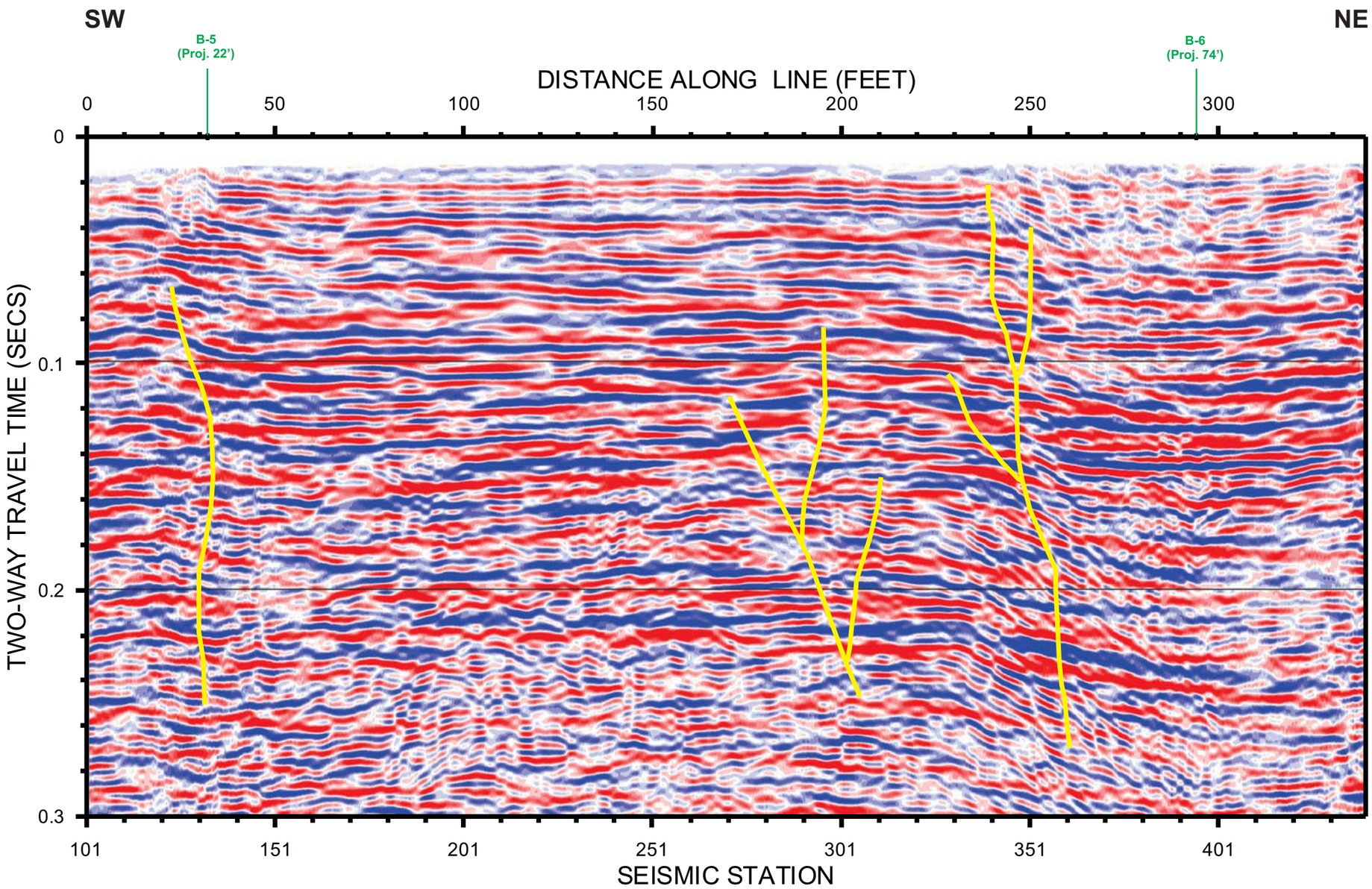
Approved By:

File C:\GVPROJECTS\11409\F10.cdr

PRELIMINARY FIGURE 10
LINE 2 - S-WAVE SEISMIC
SECTION WITH INTERPRETATION

9900 WILSHIRE BLVD
SANTA MONICA, CALIFORNIA

PREPARED FOR
AMEC ENVIRONMENT AND INFRASTRUCTURE



LEGEND

B-6 (Proj. 74') — Borehole Location

Preliminary Interpreted Anomaly

Note:
1. Borehole locations included if projected less than 75' from the line.

GEOVision geophysical services

Project No. 11409	PRELIMINARY FIGURE 11 LINE 2 - S-WAVE COLOR SEISMIC SECTION WITH INTERPRETATION
Date: JUL 03, 2013	9900 WILSHIRE BLVD SANTA MONICA, CALIFORNIA
Drawn By: DALRYMPLE	
Approved By:	PREPARED FOR AMEC ENVIRONMENT AND INFRASTRUCTURE
File C:\GVPROJECTS\11409\F11.cdr	

APPENDIX C

BORING LOGS

BORING B1-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3 and 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	65	■	0		Started sampling at 1'
						ARTIFICIAL FILL (af)
			■	1		Silty Sand, medium dense, dark yellowish brown (10YR 3/4), fine- to medium-grained, some gravel. gravel (to 1"), trace clay, some debris.
				2		
				3		
				4		3.6' - 5' - No Recovery
			■	5		5' - 5.85' - No Recovery
1	2	30	■	6		6' - some concrete fragments and gravels (to 1½")
				7		7.35' - 10' - No Recovery
			■	8		
			■	9		
			■	10		
2	3	100		11		**OLDER ALLUVIUM (Qoal)**
					SM/ML	10.1'-Silty Sand and Sandy Silt, brown (7.5YR 4/4), fine-grained, some medium-grained, minor fine gravel.
				12		
				13		
				14		
					SW	14.2'- Sand with Gravel, brown (7.5YR 4/4), fine- to medium-grained, some coarse, gravel (typically less than 1/2"; few to 2").
				15		
					SM	15.2'- Silty Sand, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4), fine-grained, trace gravel (to ¼").
				16		
					SW	16.1' - Sand with Gravel, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace subangular gravel (to 1").
2	4	100		17		
					ML/SM	16.7'- Sandy Silt, dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4), very fine- to fine-grained, trace medium, trace clay.
				18		
					SP-SM	17.9'- Sand, dark yellowish brown (10YR 4/4), fine- to medium-grained, minor gravel (to ¼")
				19		19.8- Alternating layers of Silty Sand and Sandy Silt, dark yellowish brown (10YR 3/6) and dark gray (7.5YR 4/1), very fine- to fine-grained, trace gravel (to 1/4"), trace manganese nodules, weakly laminated.
					SM/ML	
				20		

Figure C-1a

BORING B1-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3 and 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous
3	5	80		21		21.1 to 21.7'- gravel content increases, brown (7.5YR 4/4) and dark gray (7.5YR 4/1),
				22		21.7' -to 23.1' - faint varves
				23	ML	**LAKEWOOD FORMATION (Qlw)**
				24		23.1'- Silt with Sand to Silt, brown (7.5YR 4/4), minor clay, fine-grained, laminated.
				25		24.5' - 25' - No Recovery
3	6	100		26		
				27		
				28		
				29		30.3' - increase in Clay content
				30		
4	7	100		31		
				32		
				33		
				34	SP	33.9'- Sand, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace coarse-grained, some trace to minor gravel (to 3/4").
				35	ML/SM	34.4'- Sandy Silt to Silty Sand, brown (7.5YR 4.4) and dark gray (7.5YR 4/1), very fine- to fine-grained, trace to minor gravel (3/4"),faint oxidation striping, laminated.
4	8	100		36	ML	35.5'- Silt, dark gray (7.5YR 4/1) with brown (7.5YR 4.4) mottles , some fine-grained sand, oxidation oxidized.
				37		36.7' - increase in Sand content
				38	ML/CL	37.4'- Silt with Sand to Clay with Sand, dark yellowish brown (10YR 4/4), fine-grained, trace gravel (to 1/4"), trace manganese nodules, massive.
				39		
				40	SM/ML	39.5'- Silty Sand and Sandy Silt, dark yellowish brown (10YR 4/4), very fine- to fine-grained, trace trace medium-grained at base of unit, some gravel (to ¼").

Figure C-1b

BORING B1-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3 and 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL

Box	Run #	% Rec	REC	Depth (feet)	USCS Class.	Description
				40		40' - incrase in Sand content, fine- to medium-grained, trace coarse.
				41	ML	40.8'- Silt with Sand, dark gray (7.5YR 4/1), very fine-grained,trace clay, faint oxidation staining and brown (7.5YR 4/2) mottles.
				42		42' - trace to minor secondary clay
5	9	100		43		
				44		
				45		
						45.4'- becomes dark gray (7.5YR 4/1), fine-grained
				46		
				47		
5	10	100			ML	47.1'-Silt with Sand, dark brown (7.5YR 3/4), fine-grained, minor clay,
				48		fine grained, some manganese staining, trace gravel (to 1/2"), crudely stratified to laminated.
						Few layers of fine Silty Sand.
				49		
						49.2' -to 49.7'- gravel layer
				50		
				51		50.9' to 51.7' - gravel layer
				52		52.7' - trace manganese nodules
6	11	100				53.5' to 53.7' - manganese staining
				53		53.9' - increase in sand content
				54		
				55		
				56		
				57		
6	12	100				
				58	SM	57.6'- Silty Sand, dark yellowish brown (10YR 3/4) with dark gray (10YR 4/1) mottles, fine-grained, grained, massive.
				59		
				60		

Figure C-1c

BORING B1-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3 and 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60	ML	60.0'- Silt with Sand, trace gravel (to 1/4"), fine-grained, massive.
7	13	80		61, 62, 63	SW	61.9'- Sand and Gravel, brown (10YR 4/3), fine- to coarse grained, gravel (to ¼ "; few to 3"), subangular to subrounded, massive.
7	14	100		64, 65, 66, 67, 68, 69	SC	63.4'- Sandy Clay, dark yellowish brown (10YR 3/4) with dark gray (10YR 4/1) mottles, fine-grained, trace fine gravel, massive to varved. 64' - 65' - No Recovery
8	15	100		70, 71, 72, 73	SW	70.0'- Sand and Gravel, dark yellowish brown (10YR 3/6) with dark gray (10YR4/1) mottles, fine- to coarse-grained, gravel subangular to subrounded (to 1").
				74	SP-SM	73.4'- Sand with Silt, dark yellowish brown (10YR 3/6) and dark gray (10YR4/1), fine-grained, some medium- to coarse-grained, thickly laminated.
				75, 76, 77, 78, 79, 80		Total depth of boring: 75 feet. Fill to 10.0 feet. Groundwater encountered during drilling at 60.4 feet; static groundwater level not determined. Backfilled with soil cuttings and tamped. Concrete patched.

Figure C-1d

BORING B2-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.1 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	70		0		Started sampling at 1'
						ARTIFICIAL FILL (af)
				1		Silty Sand, medium dense, slightly moist, dark yellowish brown (10YR 3/4), fine- to medium-grained, trace clay, trace concrete fragments and gravel (to 1").
				2		
				3		2.6' - 2.8' - gravel layer
				4		3.8' - 5.0' - No Recovery
1	2	76		5		
				6		6.2' - 7.4' - No Recovery; rock in core
				7		
						OLDER ALLUVIUM (Qoal)
				8	**CL/SC**	7.4'- Clay with Sand to Clayey Sand with Gravel, dark brown (7.5YR 3/4) to dark yellowish brown (10YR 3/4), fine- to medium-grained, gravel subangular (to 1/8"; few to 1"), some oxidation mottling, increase in sand content with depth.
				9		
2	3	100		10	**CL/ML**	9.6'- Clay with Sand to Silt with Sand, dark brown (7.5YR 3/4), fine-grained, minor gravel (to 1/8"),subangular, slightly porous.
				11	**SP-SM**	11.1'- Sand with Silt to Silty Sand, dark yellowish brown (10YR 3/4) fine-grained, trace gravel (to 1/8"), subangular.
				12	**SC/CL**	11.5'- Clayey Sand to Sandy Clay, brown, very fine-grained, massive. 12.45' - 12.6 - abundant gravel
				13	**SP-SM**	12.6'- Sand with Silt to Silty Sand, dark brown (7.5YR 3/4) to dark yellowish brown (10YR 3/4), fine-grained.
				14	**SC/CL**	13.55'- Clayey Sand to Sandy Clay, dark yellowish brown (10YR 4/4), very fine-grained.
				15		
2	4	100		16	**SP**	15.25'- Sand, dark yellowish brown (10YR 4/4), very fine-grained, some gravel (to ½"). trace silt.
				17	**SC/CL**	16.4'- Clayey Sand to Clay with Sand, brown (7.5YR 4/4), slightly moist.
				18		
				19	**SP**	18.4'- Sand, dark yellowish brown (10YR 4/4), fine-grained, trace medium and coarse, minor gravel (to ½"), massive to weakly laminated.
				20		

Figure C-2a

BORING B2-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.1 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
3	5	100		20	SM/ML	20.0'- Silty Sand to Sandy Silt, dark yellowish brown (10YR 4/4) with dark gray (7.5YR 4/1) mottles, very fine- to fine-grained, weakly laminated, trace to minor clay.
				21		
				22	ML	21.6'- Silt with Sand , dark yellowish brown (10YR 3/4), very fine-grained, thickly laminated.
				23		
				24	CL	24.2'- Clay with Sand, dark yellowish brown (10YR 4/4) with dark gray (7.5YR 4/1) mottles, fine-grained, trace organics, faint oxidation striping, varved.
3	6	100		25		25.3' - grades to Clayey Sand
				26		26.8' to 27.5 - trace calcium carbonate nodules
				27		
				28	ML	**LAKEWOOD FORMATION (Qlw)** 27.5'- Silt with Sand, brown (7.5YR 4/4) and dark gray (7.5YR 4/1), very fine-grained, trace Clay, faint oxidation striping, weakly laminated.
				29		
				30	ML	30.0'- Silt with Sand, dark yellowish brown, minor clay, faint oxidation striping.
4	7	100		31		
				32		
				33		32.6'- manganese staining, few manganese nodules
				34		
				35		
4	8	100		36		
				37		
				38	SM	38.3'- Silty Sand, brown (7.5YR 4/4) with dark gray (7.5YR 4/1) mottles, fine-grained, trace slate gravel (to 1/2"; few to 3/4"), subrounded to subangular.
				39	CL	Silty Clay, dark gray (7.5YR 4/1), trace sand, fine-grained, faint oxidation mottling.
				40		

Figure C-2b

BORING B2-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.1 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
				41	SM/ML	40.3'- Interbedded Silty Sand and Silt, dark grayish brown (10YR 4/2) and dark yellowish brown (10YR 4/4), fine-grained, oxidation mottling, crudely stratified.
5	9	100		42, 43, 44, 45	ML	41.4' - Silt with Sand to Sandy Silt, dark grayish brown (10YR 4/2) and dark yellowish brown (10YR 4/2), minor clay, massive. 44.8' - oxidized, varved.
5	10	100		46, 47, 48		
6	11	100		49, 50, 51, 52, 53, 54, 55	ML	48.3'- Sandy Silt, trace gravel (less than 1/4' in size), fine-grained, faint oxidtion striping, varved. 53.8' - no oxidation striping
6	12	100		56	SP	55.0'- Sand with Gravel, brown (7.5YR 4/4), minor silt, fine- to medium-grained, gravel subangular (to 1").
				57, 58	ML/SM	56.1'- Silt with Sand to Silty Sand, dark yellowish brown (10YR 3/4), minor clay, trace to minor gravel (to 1"). Sandy Silt, dark yellowish brown (10YR 3/4), some clay.
				59	SM	58.3'- Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, trace to minor clay, trace gravel (to ½").
				60	ML	59.4' Silt with Sand, dark yellowish brown (10YR 3/4) with dark gray (7.5YR 4/1) mottles, minor clay, very fine-grained, massive.

Figure C-2c

BORING B2-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 3, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.1 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
					SW	60.7' - Sand and Gravel, brown (10YR 4/3), fine- to coarse-grained, gravel predominantly slate (to 1/2'; few to 3 inches), subangular to surounded.
				61		
				62		
7	13	100		63	ML/SM	62.9' - Sandy Silt to Silty Sand, dark yellowish brown (10YR 3/6) and dark gray (10YR 4/1), some manganese nodules, trace gravel (to 1/2"), laminated, weak oxidation mottling.
				64		
				65		
				66		
				67		
7	14	100		68		
						68.6' - 69.5' - increase in sand and gravel content
				69		69.4' - grades to dark gray (10YR 4/1)
				70		70' - well stratified
				71		
				72		
8	15	100		73		
				74		
				75		
						Total depth of boring: 75 feet.
				76		Fill to 7.4 feet.
						Groundwater encountered during drilling at 55 feet; static groundwater level at 50.5 feet
				77		(after 15 minutes).
						Backfilled with soil cuttings and tamped.
				78		Concrete patched.
				79		
				80		

Figure C-2d

BORING B3-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.4 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0 1 2 3 4 5		Started sampling at 1.4' **ARTIFICIAL FILL (af)** Silty Sand, brown (7.5YR 4/4), fine-grained, some medium-grained, minor gravel (to ½"), few concrete fragments (to ½").
1	2	100		6 7 8 9 10	SM	**OLDER ALLUVIUM (Qoal)** 5.8' - Silty Sand, brown (7.5YR 4/4), fine-grained, some medium-grained, trace to minor gravel (to ½"; few to 1-1/2"), massive. 7.0' - trace clay
2	3	100		11 12 13 14	SC SM SP SP-SM	10.5'- Clayey Sand, dark yellowish brown (10YR 3/6), fine-grained, trace organics. 11.1'- Silty Sand, dark yellowish brown (10YR 3/6), trace clay and gravel (to 1/4"), friable, slightly porous. 12.7'- Sand with gravel, dark yellowish brown (10YR 3/6), minor silt, fine- to medium-grained. Gravel predominantly slate (1/4 to 1/2"). 13.6'- Sand with Silt, dark yellowish brown (10YR 4/4), very fine-grained.
2	4	100		15 16 17 18 19 20	SP SM ML SP-SM SP	15.4'- Sand, dark yellowish brown (10YR 4/4), fine- to medium-grained, some coarse-grained, minor gravel, predominantly silt (to ¼"). 16.0'- Silty Sand, dark yellowish brown (10YR 3/6), very fine-grained,trace to minor gravel. 17.0'- Silt- dark yellowish brown (10YR 4/4) with gray (10YR 4/1) mottles, minor sand, very fine-grained, some caliche stringers. 17.8'- Sand with Silt, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace slate gravel (to 1"), massive. 18.5'- Sand with Gravel, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), very fine-grained, trace gravel, predominantly slate (1/8 to 1"), crudely stratified.

Figure C-3a

BORING B3-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.4 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous
				21		
				22		
3	5	100		23		22.6' - increase in sand content, dark gray (7.5YR 4/1)
					CL/ML	**LAKEWOOD FORMATION (Qlw)**
				24		23.3' - Silty Clay to Clayey Silt, dark gray (7.5YR 4/1), trace to minor sand, very fine-grained, trace manganese nodules, varved.
				25		
				26		26'-increase in sand content, trace calcium carbonate nodules, trace gravel (to 1/2").
3	6	100		27		
				28	ML	27.5'- Silt with Sand, dark brown (7.5YR 3/4) and dark gray (7.5YR 4/1), fine-grained, trace to minor clay, faint oxidation mottling and striping, trace manganese nodules, trace gravel (to ½"), varved.
				29		
				30		
				31		31.0'- increase in sand content
					CL/SC	31.4'- Clay with Sand to Clayey Sand, dark brown (7.5YR 3/4), trace gravel (10 1/4"), varved.
				32		
4	7	100		33		33.4 to 33.6'- increase in sand content
				34		
				35		
					SP	35.0'- Sand, dark yellowish brown (10YR 4/4), fine-grained, trace to minor gravel (to 1/4").
				36		35.9'- very fine-grained, trace to minor silt, trace to no gravel.
						36.4' - with clay
				37		
4	8	100		38	ML/CL	37.7'- Clayey Silt to Silty Clay, gray (7.5YR 5/1), trace to minor sand, very fine-grained, varved, weak oxidation striping.
				39		Below 39.6'- increase in sand content, trace gravel (to 1/4").
				40		

Figure C-3b

BORING B3-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.4 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as previous
					ML	41.2'- Silt with Sand, gray (7.5YR 5/1), fine grained.
				41		
				42		
5	9	100		43	SM/ML	42.2'- Sandy Silt to Silt with Sand, brown (7.5YR 4/2) to dark grayish brown (10YR 4/2), very fine-grained, weakly laminated.
				44	CL/ML	43.3'- Clay with Sand to Silt with Sand, brown (7.5YR 4/2) to dark grayish brown (10YR 4/2), very fine-grained, trace gravel (to 1/2"), varved.
				45		
				46		
					SM/ML	46.3'- Silty Sand to Sand Silt, brown (7.5YR 4/4), very fine-grained, trace gravel (less than 1/8").
5	10	100		47		
					CL/ML	46.8'- Clay with Sand to Silt with Sand,dark brown (7.5YR 3/3), massive to weakly varved.
				48		
				49		
				50		
					ML	50'- Silt with Sand, brown (7.5YR 4/4) to dark yellowish brown (10YR 4/4), minor clay, very fine-grained, locally massive to weakly laminated.
				51		
				52		
6	11	100		53		
				54		
				55		
				56		55.8' - minor gravel (to 3/4")
				57		
					ML/SM	57.0' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/6), fine- to medium-grained, minor gravel (to 1/2"), crudely stratified.
6	12	100		58		
				59		58.7' - dark yellowish brown (10YR 3/4)
				60		

Figure C-3c

BORING B3-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 4, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.4 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
				61		
7	13	100		62	ML	61.1'- Silt with Sand, dark yellowish brown (10YR 3/4) and dark gray (10YR 4/1) , minor clay, fine-grained, trace mangenese staining, laminated.
				63		
				64	SP	63.6'- Sand with Gravel, dark grayish brown (10YR 4/2), fine- to medium-grained, trace clay, gravel predominantly slate (to 1/2"; few to 1-1/2").
				65	ML	65.0'- Sandy Silt, brown (7.5YR 4/4) and dark gray (7.5YR 4/1), very fine-grained to fine-grained, weakly laminated, oxidation striping.
				66		
				67		67.7'- grades to silty sand, trace gravel (to 1/4")
7	14	100		68		
				69		69.0'- grades to Silt with Sand, trace manganese staining, few manganese nodules
				70		
				71		
				72		
8	15	100		73		
				74		
				75		
				76		Total depth of boring: 75 feet. Fill to 5.8 feet. Groundwater encountered at during drilling at 55 feet; static groundwater level at 53 feet (after 15 minutes). Backfilled with soil cuttings and tamped. Concrete patched.
				77		
				78		
				79		
				80		

Figure C-3d

BORING B4-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.5 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 1'
						ALLUVIUM (Qal)
				1	SP	Sand, very dark grayish brown (10YR 3/2), some silt, medium to coarse-grained, massive.
					ML	**OLDER ALLUVIUM (Qoal)**
				2	SM	1.1' - Clayey Silt to Silty Clay, very dark grayish brown (10YR 3/2), manganese staining.
						1.4' - Silty Sand, very dark grayish brown (10YR 3/2), trace gravel (to ¼"), fine-grained, plugged with clay.
				3	SM/ML	2.4' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 4/4), fine-grained, faint laminations, manganese staining.
				4	SM	3.1' - Silty Sand with Clay, dark yellowish brown (10YR 4/4), trace to minor gravel (to 1"; predominantly ⅛" or less), fine-grained, oxidized.
1	2	100		5		
				6		
				7		
				8		
				9	ML	8.3' - Silt with Sand, brown (7.5YR 4/4), trace gravel (to ½") ; slate and diatomaceous siltstone clasts, subangular-subrounded.
				10	SM	10' -Sand with Silt, brown (7.5YR 4/4), fine-grained.
2	3	100		11	SM/ML	10.3' - Silty Sand to Silt with Sand, brown (7.5YR 4/4), trace to minor gravel, trace clay, fine- to medium-grained, massive.
				12	SP-SM	11.3' - Sand with Silt, brown (7.5YR 4/4), trace to with gravel, medium-grained, massive.
					ML	11.8' - Silt with Sand, brown (7.5YR 4/4), fine-grained, faint laminations.
				13		
				14	SM	13.5' - Silty Sand, brown (7.5YR 4/4), fine- to medium-grained, massive.
				15	ML	14' - Silt with Sand, brown (7.5YR 4/4), trace to minor clay, fine-grained, faint laminations.
2	4	100		16	SM	15.2' - Silty Sand with clay, dark yellowish brown (10YR 3/4), fine-grained, massive.
				17	ML	16.3' - Silt with Sand, dark yellowish brown (10YR 3/6), minor clay, fine-grained, teace manganese staining, faint laminations.
				18		
				19	SM	18.5' - Silty Sand, brown (7.5YR 4/4) with dark gray (7.5YR 4/1) mottles, very fine- to fine-grained, massive.
				20	SP-SM	19.8' - Sand to Sand with Silt, dark yellowish brown (10YR 4/4), minor gravel (to 2"), fine-grained, massive to crudely stratified.

Figure C-4a

BORING B4-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.5 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
3	5	100		20	SP/SW	20.3' - fine- to medium-grained, some coarse, gravel predominantly slate (to 1/4"), crudely stratified.
				21		
				22		
				23		
				24	ML	**LAKEWOOD FORMATION (Qlw)** 23.8' - Silt, dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4), minor clay, very fine-grained, oxidation mottling, varved.
				25		
3	6	100		26	ML/SM	25.0' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/4), trace gravel (to 1/4"), fine-grained, weakly laminated, manganese staining.
				27		
				28	ML	27.8' - Silt with Sand, brown (7.5YR 4/4), very fine-grained, weakly laminated
				29	ML/SM	28.8' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/4), trace gravel (to 1/4"), fine-grained, weakly laminated, manganese staining.
4	7	100		30		
				31	CL/ML	29.4' - Clay to Silty Clay, brown (7.5YR 4/4) and dark gray (7.5YR 4/1), trace sand, very fine-grained, trace gravel (to 1/4"), varved.
				32		31.0' - increase in sand content, distinct banded pattern.
				33		
				34		
				35	SP	35.1' - Sand with Gravel, dark yellowish brown (10YR 4/4), fine- to coarse-grained, gravel surounded and subangular (to 1").
4	8	100		36		
				37		37' - dark yellowish brown (10YR 3/6)
				38	ML	37.6' - Alternating beds of Silt with Sand and Silty Sand, dark grayish brown (10YR 4/2) with dark brown (10YR 3/3) mottles, minor clay, very fine-grained, clay content decreases with depth.
				39		39.25' to 39.5' - Increase in sand content
				40	ML	39.5' - Silt, dark grayish brown (10YR 4/2), trace clay, massive.

Figure C-4b

BORING B4-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.5 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		40.0' - Minor sand, distint oxidation striping
5	9	100		41	ML	40.5' - Silt, dark gray (7.5YR 4/1) and dark yellowish brown (10YR 4/4), trace to minor sand, very fine-grained, trace calcium carbonate nodules or shell fragments, distinct oxidation striping, laminated.
				42	ML/CL	42.0' - Clayey Silt, to Clay with Silt, dark grayish-brown (10YR 4/2), trace sand, very fine-grained.
				43	ML/SM	43.0' - Alternating beds of Silt and Silty Sand, dark brown (7.5YR 3/3), minor clay, fine-grained, trace gravel (to 1/2"), subrounded to subangular, thickly laminated.
				44		
5	10	100		45		43.8' to 45.7' - with alternating dark gray (7.5YR 4/1) and (7.5YR 3/3) beds
				46		
				47		47.1" - increase in sand content, dark brown (7.5YR 3/4)
				48	ML/CL	48.0 - Clayey Silt and Silty Clay, dark brown (7.5YR 3/4), trace sand, fine-grained, few fine-grained sand beds, beds , crudely stratified. Trace gravel (to 1/4").
				49		
6	11	100		50		
				51		
				52		
				53		
				54		
				55		
6	12	100		56		56.4' to 56.7' - with gravel (to 1-1/2")
				57	SW	56.7' - Sand and Gravel, dark yellowish brown (10YR 3/4), fine- to coarse-grained, gravel predominantly slate (to 1/2"; few to 1"), trace to minor secondary clay, crudely stratified.
				58		
				59		
				60		

Figure C-4c

BORING B4-A (continued)

GEOCON WEST, INC.

Project No.: A9048-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 1818 N. Cherokee Avenue Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 268.5 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
7	13	40		60, 61, 62, 63, 64, 65		62.0' to 65.0' - No Recovery
7	14A	50		66, 67		66.25' to 67.5 - No Recovery
7	14B	100		68, 69	SC	67.5' - Clayey Sand with Gravel, brown (7.5YR 4/4) and dark gray (7.5YR 4/1), fine-fine-grained, some medium, gravel subrounded to subangular (to 1/2").
				70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80		Total depth of boring: 70 feet. Depth of fill not determined. Groundwater encountered during drilling at 55 feet; static groundwater level at 50.4 feet (after 15 minutes). Backfilled with soil cuttings and tamped. Asphalt patched.

Figure C-4d

BORING B5-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 272.3 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	57		0		Started sampling at 1.3'
				1	SM	**ALLUVIUM (Qal)** Silty Sand, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace to minor gravel (to 1/4"), massive.
				2		
				3	SP	2.7' - Sand with Gravel, dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4), fine- to medium-grained, trace coarse, uncemented. Gravel predominantly slate (to 1/4"), crudely stratified.
				4		3.4' - 5' - No Recovery
				5		
1	2	70		6	SM	**OLDER ALLUVIUM (Qoal)** 5.4' - Silty Sand, brown (7.5YR 4/4), plugged with clay, trace gravel (to ¼"; predominantly⅛").
				7		
				8	SM	7.1' - Silty Sand with Clay and Gravel, brown (7.5YR 4/4), fine-grained, massive, oxidized, minor secondary clay.
				9		8.5' - 10' - No Recovery
2	3	100		10	SM	10' - Silty Sand, brown (7.5YR 4/4), minor to with gravel (to 1/4") and secondary clay, massive.
				11		
				12		
				13	ML	13.1' - Silt with Sand, brown (7.5YR 4/4), very fine-grained, trace to minor clay, massive.
				14	SM	13.9' - Silthy Sand, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4), minor to with gravel (to 1/4"), massive.
				15		15.0' - decrease in gravel content, increase in sand content
2	4	100			SP-SM	15.4' - Sand with Silt, dark brown (7.5YR 3/4), fine-grained, trace clay, massive.
				16	SM/ML	15.9' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 3/4), fine-grained, trace clay, massive.
				17	SM	16.3' - Silty Sand, dark brown (7.5YR 3/4) to dark yellowish brown (10YR 3/4), fine-grained, massive.
				18	SM/ML	17.7' - Silty Sand to Silt with Sand, dark brown (10YR 3/3), very fine-grained, trace clay, massive.
				19	SP-SM	18.1' - Silty Sand to Sand, dark brown (7.5YR 3/3), fine-grained, massive.
				20		19.5' -Sand with Silt, dark brown (7.5YR 3/3),fine-grained, some medium and coarse, with gravel (to 1/2'), thickly laminated.

Figure C-5a

BORING B5-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 272.3 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous
				21		
				22	SP	22.2' - Sand, dark yellowish brown (10YR 3/4), very fine-grained, weakly laminated.
3	5	100			ML	22.5' - Silt with Sand, dark yellowish brown (10YR 4/4) and dark gray (7.5YR 4/1), thickly laminated.
				23		
				24	Ml/SM	22.9' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/4) and dark gray (7.5YR 4/1), very fine-grained, well stratified to laminated.
				25		24.1' - Increase in sand content
						LAKEWOOD FORMATION (Qlw)
				26	ML/SM	25.8' - Silt with Sand, dark brown (7.5YR 4/4) and dark gray (7.5YR 4/1), very fine-grained, trace to minor clay, massive to weakly laminated.
				27		26.3' - increase in sand content, massive
3	6	100				27.3' - Silt, dark brown (7.5YR 4/4) and dark gray (7.5YR 4/1), minor clay, varved.
				28	ML	
				29		
				30	SM	30' - Silty Sand with Clay, dark brown (7.5YR 4/4)with dark gray (7.5YR 4/1) mottling, moderate oxidation, laminated.
				31	SM/ML	30.8 ' - Silty Sand to Silt with Sand, dark brown (7.5YR 4/4) and dark gray (7.5YR 4/1), very fine-grained, trace clay and gravel (to ¼"), massive to laminated, variable oxidation along laminae.
				32		
4	7	100		33		
				34		
				35		
				36		
				37		
4	8	100		38		
				39		
				40		

Figure C-5b

BORING B5-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 272.3 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		40' - increase in sand content; gravel (to 1½"), crudely stratified.
				41		
				42		
5	9	100		43	ML	42.1' - Silt with Sand, dark yellowish brown (10YR 4/6) and dark gray (7.5YR 5/1), trace to minor clay, massive to crudely stratified.
				44		
				45		45' - 45.2' - Increase in sand content
				46	ML	45.2' - Silt, dark gray (10YR 4/1) with dark yellowish brown (10YR 4/6) mottles, trace to minor minor clay, massive, oxidized. 46.5' - trace gravel (to ¼")
5	10	100		47		
				48		
				49		
				50		
				51	SP-SM	51.5' - Sand with Silt and Gravel, dark yellowish brown (10YR 4/4), massive, oxidized.
				52	ML	51.9' - Silt, dark yellowish brown (10YR 3/4) and dark gray (10YR 4/1), trace clay, massive, oxidized.
6	11	100		53	SP	52.7' - Sand with Gravel, brown (10YR 4/3), fine- to medium-grained, massive.
				54	ML	53.5' - Silt, dark brown (10YR 3/3) and dark gray (10YR 4/1), massive.
				55		55.5' - with sand, trace clay, crudely stratified, oxidized
				56		
				57		
6	12	100		58	ML	57.1' - Silt with Sand, brown (7.5YR 4/4) and dark gray (10YR 4/1), minor clay, oxidation mottling.
				59	ML	58.1' - Silt to Silt with Sand, brown (7.5YR 4/4) and dark gray (10YR 4/1), oxidized.
				60		

Figure C-5c

BORING B5-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 7, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 272.3 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
7	13	100		60		Same as Previous
				61		
				62		
				63		
				64		
				65		65' to 67.2' - with gravel (to 1/2")
7	14	100		66		
				67		
				68		
				69		
				70		
				71		Total depth of boring: 70 feet. Depth of fill not determined. Groundwater encountered during drilling at 55 feet; static groundwater level not determined. Backfilled with soil cuttings and tamped. Asphalt patched.
				72		
				73		
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-5d

BORING B6-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 0.7' **ALLUVIUM (Qal)** Silt with Sand and Clay, dark brown (10YR 3/3), very fine- to fine-grained, trace gravel (to 1/4"), massive.
				1		
				2		
				3	ML/SM	**OLDER ALLUVIUM (Qoal)** 3.5' - Sandy Silt to Silty Sand, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4), very fine-grained, minor to with gravel (to 1"), subrounded to subangular, massive. Gravel volume increases with depth.
				4		
1	2	100		5		5' to 6.2' - Increase in sand content
				6		6.6' to 8.3' - weakly laminated
				7		
				8	ML	8.3' - Clayey Silt, dark yellowish brown (10YR 3/4), trace gravel (to 1/2"), subrounded to subangular, massive to varved.
				9		
				10	SM/ML	10' - Silty Sand to Sandy Silt with Gravel, dark yellowish brown (10YR 4/4). Gravel predominantly 'slate (to ¾"), subrounded to subangular.
2	3	100		11	SM	11' - Silty Sand, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4), massive. 12.5 ' to 13' - gravel layer (to ½")
				12		
				13		
				14		
				15	SP-SM	14.8' - Sand and Gravel, dark brown (10YR 3/3), fine- to medium-grained, gravel subangular (to 1/2").
		,		16	ML	15.6' - Silt with Sand, dark brown (10YR 3/3), very fine-grained, trace to minor clay, massive.
				17	SM/ML	16.4' - Silty Sand to Silt with Sand and Gravel, dark brown (10YR 3/3). Gravel predominantly slate (to 1/4"), subangular, massive.
2	4	86		18	ML	18.5' - Silt, dark yellowish brown (10YR 3/4), trace to minor sand, very fine-grained, trace fine gravel (10 1/4"), massive.
				19		
				20		19.4' - 20' - No Recovery

Figure C-6a

BORING B6-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20	SP-SM	20' - Sand to Sand with Silt, dark yellowish brown (10YR 3/4), fine- to medium-grained, some coarse, massive.
				21	ML	20.4' - Silt to Silt with Sand, dark brown (7.5YR 3/3), trace sand, fine-grained, caliche stringers, massive. Increase of sand content with depth.
3	5	100		22	SM	22' - Silty Sand, dark brown (7.5YR 3/3), fine-grained, laminated.
				23		
				24		
				25	SM	25' - Silty Sand, dark brown (10YR 3/3) and dark gray (7.5YR 4/1), trace clay, oxidation mottling, massive. Grades sandier with depth.
3	6	100		26		
				27		
						LAKEWOOD FORMATION (Qlw)
				28	ML	27.6' - Sandy Silt , dark brown (7.5YR 3/2) and dark gray (7.5YR 4/1), minor clay, trace manganese stringers, massive to varved.
				29		29.2' - Increase in clay content
				30		30' - varved
				31		
4	7	100		32	CL/ML	32.2' - Clay with Silt, dark brown (7.5YR 3/2) and dark gray (7.5YR 4/1), trace to minor sand, fine-grained, varved. Some manganese staining along beds. Increase in sand content with depth.
				33		
				34		
				35		
				36		
				37		
4	8	100		38		37.2' - grades to dark gray (7.5YR 4/1), oxidation along bedding, trace calcium carbonate nodules
				39		
				40		

Figure C-6b

BORING B6-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		
5	9	100		41 42 43 44	SP-SM	40.3' - Sand with Silt, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), fine-grained, massive to crudely stratified. 42.9' to 44' - silt interbeds
5	10	100		45 46 47 48	ML	45.3' - Silt, dark gray (10YR 4/1), weakly laminated.
				49		48.2' - Sand with Silt , brown (10YR 4/3), minor gravel (to 1"), subangular, massive.
6	11	100		50 51 52 53 54	SM	49' - Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, trace gravel (to 1"), massive.
					ML	50' - Silt, dark gray (10YR 4/1), some oxidation stringers, few calcium carbonate nodules, massive.
					SP	51.1' - Sand, dark yellowish brown (10YR 4/4), fine-grained, trace coarse, trace subrounded gravel (to 1/2"), crudely stratified.
					ML	51.9' - Silt, dark gray (10YR 4/1), massive, some oxidation stringers, trace calcium carbonate nodules, massive.
					SP	52.6' - Sand, dark yellowish brown (10YR 4/4), fine-grained, trace coarse, minor to with gravel (to 1/2"), subrounded, massive to crudely statified.
6	12	100		55 56 57 58	ML	53.1' - Silt with Sand, dark grayish brown (10YR 4/2), fine-grained, trace to some gravel (to 1"), subrounded to subangular, crudely stratified. 53.7' to 53.9' and 56.7' to 56.9' - gravel beds 54' to 58' - oxidation mottling ,, 58' - increase in gravel
				59	SM/ML	58.8' - Silty Sand with Gravel to Silt with Sand, dark brown (10YR 3/3). Gravel subangular (to 1"), massive. Increasing sand with depth.
				60		

Figure C-6c

BORING B6-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60	SP-SM	60' - Sand with Silt, brown (10YR 4/3), fine-grained, massive. 61' - with gravel (to 1"), subangular
				61		
				62		
7	13	36		63		61.9' - 65 - No Recovery
				64		
				65		
				66	SM/ML	65' - Silty Sand to Silt with Sand, dark brown (10YR 3/3) minor clay, minor to with gravel (to 1/4"), subrounded to subangular, massive.
				67	SP-SM	66.3' - Sand with Silt and Gravel, dark brown (10YR 3/3), massive. Gravel subrounded. to subangular (to 1/2"; few to 1¼"), crudely stratified.
7	14	100		68	SM	68' - Silty Sand, dark brown (10YR 3/3), massive.
				69	SP-SM	68.4' - Sand with Silt and Gravel, dark brown (10YR 3/3), massive. Gravel subrounded (to 1½").
				70	SM	69.5' - Silty Sand, dark brown (10YR 3/3), massive.
				71		Total depth of boring: 70 feet. Depth of fill not determined.
				72		Groundwater encountered during drilling at 45 feet; static groundwater level at 41.9 feet (after 15 minutes).
				73		Backfilled with soil cuttings and tamped. Asphalt patched.
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-6d

BORING B7-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100	■	0	SM	Started sampling at 0.5' **ALLUVIUM (Qal)** Silty Sand, dark brown (10YR 3/3), very fine-grained, trace to some clay. Sand content increases with depth.
				1		
				2		
				3	ML	**OLDER ALLUVIUM (Qoal)** 3.2' - Silt with Sand and Gravel, dark yellowish brown (10YR 3/4), very fine-grained, oxidation mottling.
				4		
				5		
1	2	100		6		
				7		
				8		8.0' - decrease in gravel content, weakly laminated; subhorizontal
				9	ML	9' - Silt, dark yellowish brown (10YR 4/4), some clay, massive, trace gravel.
				10	SM	10' - Silty Sand with Clay, dark yellowish brown (10YR 4/4), massive.
				11	SM/ML	10.6' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 4/4), fine-grained, trace gravel (to 1/4"), massive.
2	3	100		12		
				13		
				14	SP-SM	13.8' - Sand with Silt, dark yellowish brown (10YR 3/4), fine-grained, massive to crudely stratified. Sand content increases with depth.
				15		15.5' - 16' - with gravel (to ¾), subangular to subrounded
				16	ML	16' - Silt, dark yellowish brown (10YR 4/4), massive, trace caliche stringers.
				17	SP/SW	16.6' - Sand and Gravel with Silt, dark yellowish brown (10YR 3/4), medium- to coarse-grained, gravel subangular to subrounded (to ½"), crudely stratified. Increase in gravel content with depth.
2	4	90		18	ML	18.4' - Silt, dark yellowish brown (10YR 3/4), minor sand, fine-grained, trace gravel (to 1/4"), subangular. Increase in sand and gravel content with depth.
				19	SP	19.4' - Sand, dark yellowish brown (10YR 3/4), fine-grained, minor gravel (to 1/4"), massive
			■	20		19.5' to 20' - No Recovery

Figure C-7a

BORING B7-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous
					M/SM	20.3' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, massive.
				21		
				22		
3	5	100			SP-SM	22' - Sand with Silt, dark yellowish brown (10YR 3/4), fine-grained, massive.
				23		
				24	SP/SM	23.5' - Sand with Silt to Silty Sand, dark brown (10YR 3/3), laminated.
				25		
					SM	25.5' - Silty Sand, dark brown (10YR 3/3), massive, trace to some caliche stringers, weakly laminated.
				26		
					SP	26.4' - Sand, dark yellowish brown (10YR 4/4), fine-grained, trace silt, crudely stratified.
				27		
3	6	100			ML	**LAKEWOOD FORMATION (Qlw)**
				28		27.2' - Sandy Silt, dark yellowish brown (10YR 3/4), trace clay, weakly laminated to massive. Clay content increases with depth.
				29		29' to 34.1' - minor secondary clay, crudely stratified to laminated
				30		30' - trace gravel (to ¼")
				31		
				32		
4	7	100				
				33		
				34		
					CL	34.1' - Clay, dark yellowish brown (10YR 3/4), trace gravel, varved.
				35		
				36		
				37		37.5' - grades to dark gray (7.5YR 4/1), oxidation along bedding, trace calcium carbonate nodules
4	8	100				
				38		
				39		
					SP-SM	39.2' - Sand with Silt, dark yellowish brown (10YR 4/4), trace gravel (to1/4"), massive, trace calcium carbonate nodules.
				40		

Figure C-7b

BORING B7-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
				41		
				42	ML/CL	41' - Clayey Silt to Silty Clay, dark brown (7.5YR 3/3), trace sand, very fine-grained, massive.
5	9	100		43		42.5' to 42.7'; 42.9' to 43.6' - sandy silt beds
				44	SM/ML	43.6' - Silty Sand to Silt with Sand,dark yellowish brown (10YR 3/4), very fine-grained, trace clay, massive, some oxidation mottling, trace manganese staining.
				45	SM	45' - Silty Sand, dark yellowish brown (10YR 3/4), very fine-grained, massive.
				46		
5	10	28		47		46.4' to 50' - No Recovery
				48		
				49		
				50	SP-SM	50' - Sand with Silt and Gravel, dark brown (10YR 3/3), fine-grained, massive. Gravel predominantly slate (to ½).
				51	ML	51.4' - Sandy Silt, trace to some clay, dark gray (10YR 4/1), mostly massive, some oxidation mottling.
6	11	100		52		
				53	CL	53.4' - Clay, dark brown (7.5YR 3/3), trace sand, fine-grained, trace gravel (to 1/4"), massive.
				54		54.9' - 55.7' - slate gravel (to 1"); subangular
				55		55.7' - grades to brown (10YR 4/3)
				56		
6	12	100		57		
				58		58' - crudely stratifeid, some manganese staining along beds, trace gravel (to 1/8").
				59	SP-SM	59.3' - Gravelly Sand with Silt, dark yellowish brown (10YR 3/4), fine- to medium-grained, gravel predominantly slate (to-½"), thickly laminated.
				60		

Figure C-7c

BORING B7-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 8, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
				61	SM/ML	60.3' - Silty Sand to Silt with Sand, dark brown (10YR 3/3), fine- to medium-grained, massive to crudely stratified.
7	13	96		62, 63, 64	ML	63.2' - Silt with Sand, dark brown (10YR 3/3), minor clay, massive to crudely stratified, some manganese nodules.
			■	65		64.8' - 65' - No Recovery
7	14	100		66, 67, 68, 69		69.5' - trace gravel (to 1"), predominantly slate; subangular
				70		Total depth of boring: 70 feet.
				71		Depth of fill not determined.
				72		Groundwater encountered during drilling at 40 feet; static groundwater level at 38 feet (after 10 minutes).
				73		Backfilled with soil cuttings and tamped. Asphalt patched.
				74, 75, 76, 77, 78, 79, 80		

Figure C-7d

BORING B8-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 271.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 1.0'
						ALLUVIUM (Qal)
				1		Sandy Clay to Clay with Sand, dark brown (10YR 3/3), fine- to medium-grained, massive.
				2		
				3		
				4	CL	**OLDER ALLUVIUM (Qoal)**
						3.5' - Clay with Sand, dark brown (10YR 3/3 to 7YR 3/3), fine-grained, trace to with gravel (1/2" to 2-1/2") oxidized. Increase in sand content with depth.
						3.5' - 5.3' - trace gravel
1	2	100		5		5.3' - 8.9' - with gravel
				6		
				7		
				8		
				9	ML	8.9' - Silt, brown (7.5YR 4/4), trace to minor sand, fine-grained, some oxidation mottling.
				10	SM	10' - Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, massive.
2	3	100		11	ML/SM	10.4' - Silt to Silt with Sand, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4), very fine-grained, massive.
				12		
				13		
				14		
				15		14,6' - grades to silty sand
2	4	94		16	ML	16' - Silt, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4), trace clay, massive.
				17		
				18	SM	17.3' - Silty Sand with Gravel, dark yellowish brown (10YR 3/4), fine- to medium-grained, gravel predominantly slate (to 1"), crudely stratified.
				19	CL	18.8' - Clay, dark brown (7.5YR 3/3), fine-grained, massive. Coarsens downward to Silt with Sand
				20		19.7' - 20' - No Recovery

Figure C-8a

BORING B8-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 271.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20	SM	20' - Silty Sand, dark brown (7.5YR 3/4), trace calcium carbonate nodules, massive.
				21	ML/SM	20.4' - Silt with Sand, dark brown (7.5YR 3/4), fine-grained, massive.
3	5	100		22		22.3' - grades to Sand with Silt
				23	ML	23.4' - Silt, dark yellowish brown (10YR 3/4) with dark gray (7.5YR 4/1) mottles, laminated. Minor caliche concentrated along bedding.
				24		
				25	SP-SM	24.7' - Sand with Silt, dark yellowish brown (10YR 3/6), very fine-grained, laminated.
				26	ML	25.7' - Silt with Sand, dark yelllowish brown (10YR 3/4), weakly laminated.
3	6	100		27	ML	26.8' - Silt, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), fine-grained, varved.
				28		28' - Silty Sand, dark gray (7.5YR 4/1), fine-grained, massive.
				29		30' - with sand, fine-grained
				30	CL	**LAKEWOOD FORMATION (Qlw)**
4	7	100		31		30.4' - Silty Clay, dark grayish brown (10YR 4/2) and dark gray (7.5YR 4/1), trace sand, fine-grained, massive.
				32		31.7' - varved
				33	CL/SC	33.2' -Clay with Sand to Clayey Sand, brown (10YR 4/3), fine-grained, trace gravel (to 1/4"), crudely stratified.
				34		
				35		
				36		
4	8	100		37		
				38		
				39		
				40		

Figure C-8b

BORING B8-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 271.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
				41	SM	40.8' - Silty Sand, dark brown (10YR 3/3), fine-grained, trace clay and gravel (to 1/4"), massive.
5	9	90		42		42' - some manganese nodules
				43		43.2' - minor clay
				44		44.4'- wet
			■	45		44.5' - 45' - No Recovery
5	10	100		46		
				47		
				48	SP	47.2' - - Sand , dark brown (10YR 3/3), fine- to medium grained, massive.
				49	SC	48.2' - Clayey Sand, dark gray (7.5YR 4/1), very fine-grained, oxidation mottling, massive.
				50		
6	11	100		51	CL	50.4' - Clay with Sand, brown (10YR 4/3),fine-grained, trace gravel (to 1/8"), massive.
				52		51.7' - dark gray (7.5YR 4/1), some oxidation mottling
				53		
				54	ML	53.9' - Silt with Sand, dark brown (10YR 3/3), fine-grained, trace to some gravel (to ¼"), thickly laminated.
				55	SM	55' - Silty Sand, dark brown (10YR 3/3), fine- to medium-grained, minor gravel (to 1/2"), crudely stratified to thickly laminated.
6	12	100		56		
				57		57' - some disseminated manganese nodules along bedding
				58		
				59		
				60		

Figure C-8c

BORING B8-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 271.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
				61		
				62		
7	13	100		63	SP	62' - Silty Sand with Gravel, dark brown (10YR 3/3), fine- to medium-grained, trace coarse, gravel predominantly slate (to 1"), massive.
				64		
				65		65' -dark grayish brown (10YR 4/2), with gravel
				66		66' - gravel content increases with depth
				67		
7	14	42		68		67.1' - 70' - No Recovery
				69		
				70		
				71		Total depth of boring: 70 feet. Depth of fill not determined. Groundwater encountered during drilling at 40 feet; static groundwater level at 38.6 feet (after 10 minutes). Backfilled with soil cuttings and tamped. Asphalt patched.
				72		
				73		
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-8d

BORING B9-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0	SM/ML	Started sampling at 0.5' **ALLUVIUM (Qal)** Silty Sand to Silt with Sand, dark yellowish brown (10YR 3/4), fine- to medium-grained, trace to minor clay, massive, porous.
				1		
				2		
				3	SC/CL	**OLDER ALLUVIUM (Qoal)** 2.6' - Clayey Sand to Sandy Clay with Gravel, dark brown (7.5YR 3/3). Gravel predominantly slate (to ½"; few to 1"), massive.
				4		
1	2	100		5		
				6		
				7		7'- gravel to 2"
				8	SM/ML	7.5' - Silty Sand to Sandy Silt, dark yellowish brown (10YR 3/4), trace to minor clay and gravel (to 1/2"), massive.
				9		
2	3	100		10		
				11	SP-SM	11.2' - Sand with Silt, brown (7.5YR 4/4), fine- to medium-grained, trace gravel (to 1"), massive.
				12	CL	11.8' - Sandy Clay, dark yellowish brown (10YR 3/4 to 7.5YR 3/4), very fine-grained, massive.
				13	SP-SM	12.9' - Sand with Silt and Gravel, dark brown (7.5YR 3/4), fine- to medium-grained, trace coarse coarse, crudely stratified.
				14	CL	13.4' - Sandy Clay, dark yellowish brown (10YR 3/4), fine-grained, trace gravel (to ½"), massive.
2	4	91		15	SM	14.6' - Silty Sand with Gravel, dark brown (7.5YR 3/4), fine- to medium-grained, gravel to ¾", crudely stratified.
				16	SP-SM	15.0' - Sand with Silt, dark yellowish brown (10YR 3/6), medium-grained, trace coarse, minor to with gravel (to 1") at base, crudely stratified.
				17	ML	16.6' - Silt, dark yellowish brown (10YR 3/6) with dark gray (7.5YR 4/1) mottles, weakly varved to massive.
				18	SM	18.1' - Silty Sand, dark yellowish brown (10YR 3/6), fine-grained, massive.
				19	ML	19.3' - Silt, dark yellowish brown (10YR 4/4), trace to minor sand, very fine-grained, trace gravel (to 1/4"), laminated.
				20		19.6' to 20' - No Recovery

Figure C-9a

BORING B9 (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20	SP	20' - Sand, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace coarse, trace gravel (to ½"), laminated.
				21		
				22		
3	5	74		23	SM/ML	22.4' - Alternating layers of Silty Sand and Silt with Sand, brown (10YR 4/3),fine-grained, laminated.
				24		23.7' - 25' - No Recovery
				25		
				26	SM	25.5' - Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, trace to minor clay, massive. 26.7' - grades to sand, trace silt
				27		
3	6	100		28	CL	**LAKEWOOD FORMATION (Qlw)** 27.7' - Silty Clay, dark brown (7.5YR 3/4) and dark gray (7.5YR 4/1), trace to minor sand, very fine-grained, massive.
				29		29.4' - color change to dark gray (7.5YR 4/1)
				30		
				31		30.2' - increase in clay content, manganese staining, varved
				32		
4	7	100		33	ML	32.4' - Silt, dark brown (10YR 3/3) and some dark gray (7.5YR 4/1), faint oxidation mottling, laminated.
				34	SC/CL	34.3' - Clayey Sand to Sandy Clay, dark yellowish brown (10YR 4/4) and dark gray (7.5YR 4/1), massive to weakly laminated.
				35	SP-SM	34.7' - increase in sand content 35.0' - Sand with Silt, dark brown (7.5YR 3/4), trace gravel (to 1/4"), massive.
				36		35.5' - with gravel (to 1"), predominantly slate, subangular-subrounded.
				37		
4	8	100		38		
				39	SM	38.6' - Silty Sand, dark brown (7.5YR 3/4) with dark gray (7.5YR 4/1) mottles, trace gravel (to ½"), massive.
				40	SM/ML	39.5' - Silty Sand to Silt with Sand and Gravel, dark brown (7.5YR 3/4), gravel predominantly subangular slate clasts (to 1"). 39.8' - decrease in gravel content

Figure C-9b

BORING B9-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC	Depth (feet)	USCS Class.	Description
				40	SP-SM	40' - Sand with Silt, dark brown (7.5YR 3/4), fine-grained, trace gravel (to 1/4"), massive.
				41		
				42	SM	41.5' - Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, massive.
5	9	100		43	SM/ML	43.0' - Alternating layers of Silty Sand and Silt with Sand, dark yellowish brown (10YR 3/4), fine-grained, crudely stratified.
				44		44.4' - dark yellowish brown (10YR 4/4) and dark gray (7.5YR 4/1), weakly laminated, manganese nodules concetrated along bedding.
				45		
				46		46.3' -Increase in sand content, trace clay, some oxidation mottling
5	10	100		47		
				48		48.0' - minor gravel (to 1¼")
				49		
				50	SP-SM	50' - Sand with Silt to Silty Sand with Gravel, dark yellowish brown (10YR 3/4), gravel predominantly slate (to ⅛", few to 1½"),massive.
				51	ML/CL	50.9' - Silt with Clay, dark gray (7.5YR 4/1), trace sand, very fine-grained, oxidation mottling, varved.
6	11	100		52		52.6' - oxidation staining in distinct banded pattern
				53		53.2' - increase in clay content, minor gravel (to 1/4"), oxidized
				54		
				55		55.8' - 57.2' - increase in sand content
				56		
6	12	100		57		57.2' - trace to minor manganese nodules, trace gravel (to 1/16")
				58	CL	58.1' - Sandy Clay, dark brown (7.5YR 3/3) and dark gray (7.5YR 4/1), fine-grained, trace gravel (to 1/4"), massive.
				59		
				60		

Figure C-9c

BORING B9-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 9, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 269.7 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC	Depth (feet)	USCS Class.	Description
				60		60' - no gravel, trace manganese nodules
				61		
				62	ML/SM	61.5' - Silt with Sand, brown (10YR 4/3), fine- to medium-grained, trace to minor clay, thickly laminated.
7	13	100		63		63.6' - with gravel (to 1/2"), increase in sand content, dark yellowish brown (10YR 3/4),
				64		
				65		
				66	SP	65.7' - Sand, dark yellowish brown (10YR 3/4), fine- to medium-grained, trace coarse, thickly laminated.
				67	ML	66.2' - Silt with Sand, dark yellowish brown (10YR 3/4), very fine-grained, minor gravel, (to ½"), trace clay and manganese nodules, massive, oxidized.
7	14	100		68		
				69		
				70		Total depth of boring: 70 feet.
				71		Depth of fill not determined.
				72		Groundwater encountered during drilling at 38 feet; static groundwater level not determined.
				73		Backfilled with soil cuttings and tamped. Concrete patched.
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-9d

BORING B10-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 11, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 0.5'
						ALLUVIUM (Qal)
				1	ML	Clayey Silt, dark brown (7.5YR 3/4), trace to some very fine-grained sand, sandy clay films, trace gravel (to ¼").
				2	ML/SM	**OLDER ALLUVIUM (Qoal)**
				3		2.3' - Silt with Sand to Silty Sand with Gravel, dark brown (7.5YR 3/4), minor secondary clay. Gravel predominantly subangular slate clasts (to 1/2"), gravel increases with depth.
				4		
1	2	100		5	SM	5.0' - Silty Sand, dark yellowish brown (10YR 4/4), fine-grained, minor to with gravel (to 1/2"), minor clay, massive.
				6		6.8' - increase in sand content; decrease in clay content
				7		
				8		
				9	SM	9.1' - Silty Sand with Clay, dark yellowish brown (10YR 3/4), trace gravel (to 1/4"), massive.
2	3	100		10	SP-SM	10.2' - Sand with Silt, dark yellowish brown (10YR 4/4), trace gravel (to 1/2"), massive.
				11	SC/SM	11.1' - Clayey Sand to Silty Sand, dark brown (7.5YR 3/4), trace gravel (to ½"), massive.
				12		
				13		
				14		
2	4	90		15	SM	15.0' - Silty Sand with Gravel, dark yellowish brown (10YR 3/4), fine-grained, trace, clay, massive to crudely stratified.
				16		
				17	SM/ML	16.7' - Silty Sand to Silt with Sand, dark brown (10YR 3/3), fine-grained, trace to minor clay, trace gravel '(to ½"), massive.
				18		18.1' to 18.3' - increase in sand content
				19		
				20		19.5' - 20' - No Recovery

Figure C-10a

BORING B10-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 11, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20	SP-SM	20' - Sand with Silt and Gravel, (dark yellowish brown (10YR 3/4), fine- to medium-grained, gravel predominantly slate and diatomaceous siltstone clasts (to 1-1/2"), subangular to subangular, crudely stratified.
				21	SM	21.1' - Silty Sand, dark yellowish brown (10YR 4/4), very fine-grained, trace clay and gravel (to ¼"), massive.
3	5	93		22		22.4' - increase in sand content
				23		
				24		23.4' to 25.2' - laminated
				25		24.7' - 25' - No recovery
					SM/ML	25.2' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), fine-grained, minor clay, trace gravel (to 1/2"), massive.
				26		26.6' - 27.1' - increase in sand content,
				27	SC	**LAKEWOOD FORMATION (Qlw)**
3	6	100		28		27.1' - Clayey Sand, dark brown (7.5YR 3/4) and dark gray (7.5YR 4/1), very fine-grained, massive.
				29		29.2' - Increase in sand content, dark gray (7.5YR 4/1), faint iron oxide mottling
				30		30.5' - 32.5' - increase in silt content, distinct oxidation mottling
				31		
				32		
4	7	100		33	SM	32.5' - Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, faint oxidation striping, massive to crudely stratified.
				34		
				35	CL/SC	34.2' - Clay with Sand to Clayey Sand, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), very fine-grained, faint oxidation striping, trace gravel (to 1/2"), massive.
				36		
				37		
4	8	100		38		
				39		
				40		

Figure C-10b

BORING B10-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 11, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40	SM	40' - Silty Sand with Gravel, dark yellowish brown (10YR 3/4), trace clay, very moist. Gravel predominantly slate (to 1/2", few to 3/4").
5	9	100		41	ML/SM	40.5' - Silt with Sand to Sitly Sand, dark yellowish brown (10YR 3/4), minor gravel (to 3/4", few to 1-1/4"), subangular to surounded, massive.
				42		
				43		
				44		
				45	ML	45.2' - Silt, dark yellowish brown (10YR 3/4), trace sand, very fine-grained, trace to with gravel (to 1/2"), massive.
5	10	100		46		
				47	SM	47.0' - Silty Sand with Gravel, dark yellowish brown (10YR 3/4). Gravel predominantly diatomaceous siltstone and slate (to 3/4", few to 1¼"); subangular to subrounded, massive.
				48	ML	47.3' - Silt, dark yellowish brown (10YR 3/4), trace sand, very fine-grained, trace to with gravel (to 1/2"), massive.
				49		47.9' to 48.2' - silty sand with gravel
6	11	100		50		
				51	SP	51.1' - Sand, brown (10YR 4/3), some silt, trace gravel (to ¾"), massive.
				52	ML	52.1' - Silt with Sand, dark grayish brown (10YR 4/2), very fine-grained, faint oxidation mottling.
				53		53.5' - increase in clay content, oxidized
				54		54.2' - trace gravel (to 1/4")
6	12	100		55		55.0' - oxidation mottling becomes more prominent, crudely stratified
				56		56.5' - with gravel (to 2")
				57		
				58	ML/SM	58.1' -Silt with Sand to Silty Sand, dark grayish brown (10YR 3/4) and dark gray (7.5YR 4/1), very fine-grained, minor secondary clay, trace gravel (to 1/2"), oxidation mottling and manganese staining, massive.
				59		
				60		

Figure C-10c

BORING B10-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 11, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 270.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
7	13	100		60		
				61		61.0' - increase in sand content
				62		
				63		
				64		
7	14	23		65	SC	64.4' - Clayey Sand with Gravel, dark brown (10YR 3/3), fine-grained, gravel predominantly slate clasts (to 3/4"), massive.
				66		
				67		65.2' - 70' - No Recovery
				68		
				69		
				70		Total depth of boring: 70 feet.
				71		Depth of fill not determined.
				72		Groundwater encountered during drilling at 33 feet; static groundwater level not determined.
				73		Backfilled with soil cuttings and tamped. Concrete patched.
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-10d

BORING B11-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 273.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 0.5'
						ALLUVIUM (Qal)
				1	SM/ML	Silty Sand with Clay to Clayey Silt with Sand, dark yellowish brown (10YR 3/4), very fine- to medium-grained, trace gravel (to ½"), massive.
				2		
				3		
				4		
				5		
1	2	100		6	ML	**OLDER ALLUVIUM (Qoal)**
						5.5' - Silt to Silt with Sand, brown (7.5YR 4/4), minor to with clay, minor gravel (to 1/4"), fine-grained, massive.
				7		
				8		8.6' to 10.3' - laminated
				9		
2	3	100		10		10.3' - increase in sand content
				11	SM	11.3' - Silty Sand, dark yellowish brown (10YR 4/4), fine- to medium-grained, massive.
				12	SM/ML	12.2' - Silty Sand to Sandy Silt, dark yellowish brown (10YR 3/4), some clay films, trace gravel (to ¼"), massive.
				13		
				14		
2	4	100		15		15.0' - trace clay, increase in sand and gravel to ¾" (diatomaceous slate and shale)
				16		
				17	ML	17.0' - Silt with Sand, dark brown (7.5YR 3/4), trace to minor clay, trace gravel (to 1/2"), massive. massive.
				18		
				19	SM	19.0' - Silty Sand with Gravel, dark yellowish brown (10YR 3/6), fine- to medium-grained, trace coarse, subangular gravel (to 2"), crudely stratified.
				20		

Figure C-11a

BORING B11-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 273.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous
				21	SM	20.4' - Silty Sand with Clay, dark brown (10YR 3/3), fine-grained, some caliche stringers.
3	5	92		22	SP-SM	22.2' - Sand to Sand with Silt, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace coarse, crudely stratified.
				23		23.2' - 24.6' - gravel-rich zone
				24		
				25		24.6' - 25.0' - No Recovery
3	6A	60		26		25.7' - 26.3' - gravel-rich zone
				27		26.5' - 27.5' - No Recovery
3	6B	100		28	SM	27.5' - Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, minor clay, trace gravel (to ½"), laminated.
				29		
				30		
4	7	100		31	SM/ML	30.1' - Silty Sand to Silt, dark yellowish brown (10YR 4/1), fine-grained, trace to minor clay, oxidation mottling, massive to weakly laminated.
				32		
				33	ML	**LAKEWOOD FORMATION (Qlw)** 32.3' - Clayey Silt, dark grayish brown (10YR 4/2), trace sand, fine-grained, massive.
				34		34.5' - increase in clay content, oxidation mottling
4	8	100		35		35.0' - trace gravel (to ¼"), oxidized
				36		
				37		
				38		38.2' - becomes dark brown (7.5YR 3/4) and dark gray (7.5YR 4/1)
				39		
				40		

Figure C-11b

BORING B11-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 273.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		40' - trace gravel (to 2")
				41		41.6' - becomes dark brown (7.5YR 3/2) with some dark gray (7.5YR 4/1)
5	9	100		42, 43, 44, 45		
5	10	100		46, 47, 48		
				48	SP-SM	48.2' - Sand with Silt, dark yellowish brown (10YR 3/4), fine- to medium-grained, trace coarse, trace gravel (to ¼"), massive.
				49, 50		
				50	ML	50.2' - Clayey Silt, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), trace sand, fine-grained, trace gravel (to ½"), faint oxidation mottling, massive.
6	11	100		51, 52, 53		
				54	SP	53.9' - Sand with Gravel, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), fine-grained, trace to minor silt, trace gravel to 3/4", few to 1-1/2"), massive.
6	12	92		55, 56, 57, 58		55.0' to 56.8' - sand with gravel (to 1-1/2")
				59	SM/ML	59.2' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 3/4) and dark gray (7.5YR 4/1), minor to with clay, trace gravel (to ¼"), massive.
			■	60		59.7' - 60' - No Recovery

Figure C-11c

BORING B11-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 273.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
				61		
				62		62.0' - increase in sand and gravel content
7	13	80		**63**		
					ML	63.1' - Clayey Silt, brown (7.5YR 4/4), trace sand, very fine-grained, trace gravel (to ¼") faint oxidation mottling, massive to crudely stratified.
				64		
				65		64.0' - oxidized 65.0' - grades to dark yellowish brown (10YR 4/4)
				66		
				67		
7	14	100		**68**		68.2' - manganese nodules concentrated along beds
				69		
				70		
				71		Total depth of boring: 70 feet. Depth of fill not determined. Groundwater encountered during drilling at 48 feet; static groundwater level at 45.5 feet (after 15 minutes). Backfilled with soil cuttings and tamped. Asphalt patched.
				72		
				73		
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-11d

BORING B12-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.9 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 1.4'
						ALLUVIUM (Qal)
				1	SM	Silty Sand, dark yellowish brown (10YR 4/4), very fine-grained, trace gravel (to ¼") trace caliche stringers, massive.
				2	SM	2.1' - Silty Sand with Gravel, dark yellowish brown (10YR 4/4), slightly porous, gravel to 1/2".
				3		2.1' - 2.8'- gravel to 1½" (predominantly ¼" or less)
				4		2.8' - trace clay
1	2	100		5	ML	4.8' - Silt to Silt with Sand, brown (7.5YR 4/4), fine-grained, trace gravel (to 1/4", few 1/2"), massive.
				6		
				7		
				8		
				9		
2	3	100		10	SM	**OLDER ALLUVIUM (Qoal)** 10.0' - Silty Sand with Gravel, brown (7.5YR 4/4), fine-grained, fine-grained, trace clay, Gravel predominantly siltstone and slate clasts (to 1½"), massive.
				11		
				12		
				13		
				14	ML	14.7' - Silt with Sand, dark yellowish brown (10YR 4/4) with dark gray (10YR 4/1) mottles, trace to minor clay, massive.
2	4	100		15		15.0' - oxidized 15.5' - increase in sand content, trace gravel (to ¼")
				16		
				17	ML	17.2' - Silt with Sand, dark yellowish brown (10YR 4/4) and dark gray (10YR 4/1) , fine-grained trace to minor clay, trace gravel (to 1/4"), massive.
				18		
				19		19.3' - with gravel (to 1¼")
				20	SM	19.6' - Silty Sand with Gravel, fine- to medium-grained, gravel predominantly slate (to 1-1/4"), crudely stratified.

Figure C-12a

BORING B12-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.9 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous
				21		
				22	ML	21.9' - Silt with Sand, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4) and dark gray (7.5YR 4/1), trace clay and gravel (to 1/4"), oxidation mottling, massive.
3	5	100		23		
				24	SP-SM	23.5' - Sand with Silt/Silty Sand with Gravel, dark yellowish brown (10YR 3/4), fine- to medium-grained, trace coarse.
				25		25.3' - trace to minor gravel (to 1/2")
				26		
				27	SM/ML	26.6' - Silty Sand to Silt with Sand, dark brown (10YR 3/3), fine-grained, oxidized, crudely stratified to massive.
3	6	100		28		28.1' - increase in sand content, fine- to medium-grained, with gravel (to 1¼"), crudely stratified
				29		
				30	SP	29.2' - Sand, dark yellowish brown (10YR 4/4), trace to with silt, trace gravel (to 1/2"), laminated to crudely stratified. 30.5' to 31.4'; 33.0' to 33.5' - with gravel
				31		
				32		
4	7	100		33		
				34	SM/ML	33.5' - Silty Sand to Silt with Sand, brown (10YR 4/3), very fine-grained, trace clay, massive. 34.5' - 34.7' - caliche stringers
				35		
				36	ML	**LAKEWOOD FORMATION (Qlw)**
				37		36.2' - Silt, dark gray (7.5YR 4/1), trace clay and sand, very fine-grained, massive.
4	8	100		38		
				39	SM/SC	38.5' - Silty Sand and Clayey Sand, dark brown (7.5YR 3/4) and dark gray (7.5YR 4/1), fine-grained, trace gravel (to 1/8"), oxidized, massive.
				40		

Figure C-12b

BORING B12-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.9 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
5	9	100		41, 42, 43, 44		
5	10	100		45, 46, 47, 48, 49		
6	11	100		50, 51, 52, 53, 54		51.5' - increase in silt content, very fine-grained 53' to 54.7' - weakly laminated
6	12	100		55, 56, 57, 58, 59	SM/ML	54.7' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 3/4), very fine-grained, trace gravel (to 1/4"), massive.
					ML	56.3' - Silt with Sand, dark yellowish brown (10YR 3/4) fine-grained, trace clay and gravel (to 1/4"), minor oxidation mottling, massive.
				60	SP	59.8' - Sand with Gravel, brown (10YR 4/3), fine-grained, gravel predominantly slate (to 1-1/2"), masssive.

Figure C-12c

BORING B12-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: October 10, 2013
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.9 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
				61		
7	13	100		62	ML	61.4' - Silt with Sand, dark grayish brown (10YR 4/2), fine-grained, trace clay and gravel (to 1/4"), massive.
				63		63.0' - minor gravel (to 1/2")
				64		
				65		
7	14	100		66		
				67		67.8' - grades to clayey sand
				68		
				69		
				70		Total depth of boring: 70 feet.
				71		Depth of fill not determined.
						Groundwater encountered during drilling at 50 feet; static groundwater level not determined.
				72		Backfilled with soil cuttings and tamped.
						Asphalt patched.
				73		
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-12d

BORING B13-A

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 24, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 1.2'
				1	SM	**ALLUVIUM (Qal)** Silty Sand with disseminated gravel, (10YR 4/6), fine-grained. Gravel predominantly slate (to 1/8"), few diatomaceous siltstone clasts, massive.
				2		
				3		
				4	SM/SC	3.8' - Silty Sand to Clayey Sand, dark yellowish brown (10YR 4/6), fine-grained, trace to minor clay, trace gravel (to 1/8"), predominatly slate, few diatomaceous siltstone clasts, fine-grained, massive, porous.
1	2	100		5	SM	5.0' - Silty Sand with disseminated gravel, dark yellowish brown (10YR 4/6), fine-grained, gravel predominantly slate (to 1/8"), few roots near base of unit.
				6	SM	6.2' - Silty Sand, dark yellowish brown (10YR 4/6) to brown (7.5 YR 4/4), trace clay, very fine-grained, trace to minor gravel (to 1/2"), weakly laminated, some secondary clay films. 7.8' to 8.1' - Increase in sand and gravel content; gravel to 3/4"
				7		
				8	SM/ML	8.1' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 4/6), minor clay, laminated. 8.9' - Increase in sand content 9.5' - minor manganese staining
				9		
2	3	100		10	SP-SM	9.7' - Sand with Silt, yellowish brown (10YR 5/6), minor clay, fine- to medium-grained, massive.
				11	SM/ML	11.5' - Silty Sand to Silt with Sand, yellowish brown (10YR 5/4), fine- to medium grained, trace gravel (to 1/8"), weakly laminated.
				12	SM	12.2' - Silty Sand, dark yellowish brown (10YR 4/6), fine-grained, trace medium, massive.
				13	SM	**OLDER ALLUVIUM (Qoal)** 12.7' - Silty Sand, yellowish brown (10YR 5/6), very fine-grained, trace to minor gravel (to 1/4"), trace clay, weakly laminated. Sand becomes medium-grained at depth.
				14		
2	4	96		15		15.0' - massive
				16	SP-SM	15.5' - Sand with Silt, dark yellowish brown (10YR 4/6), minor to with gravel (to 3/4"), fine- to medium-grained, massive.
				17		
				18	SM	17.6' - Silty Sand dark yellowish brown (10YR 4/6), fine-grained, trace gravel (to 3/4"), massive.
				19	SP-SM	18.6' - Sand with Silt, dark yellowish brown (10YR 4/6), fine-grained, minor to with gravel (to 3/4"), massive.
				20	SM/ML	19.4; - Silty Sand to Silt, dark yellowish brown (10YR 4/4 to 10YR 4/6), trace to minor clay. 19.8' - 20' - No Recovery

Figure C-13a

BORING B13-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 24, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		
					SP-SM	20.0' - Sand with Silt, yellowish brown (10YR 5/4), medium- to coarse-grained, minor gravel (to 1/4", few to 3/4"), massive.
				21		
				22		22.4' - with gravel (40% to 60%)
3	5	89				
				23	SP-SM	22.7' - Sand with Silt, brown (7.5YR 5/4), minor clay, trace to with gravel (to 1"), subangular; gravel content increasing with depth, massive.
				24	SM	23.7' - Silty Sand with Gravel, dark yellowish brown (10YR 4/6), fine- to medium-grained, gravel (to 1"), crudely stratified.
				25		24.5' - 25' - No Recovery
					SP/SM	25.0' - Silty Sand to Sand with Silt, dark yellowish brown (10YR 4/6), fine-grained, minor clay, trace gravel (to 1/8"), trace manganese nodules, weakly laminated.
				26		26.6' - increase in sand and gravel content; gravel (to 1/2"), subangular to subrounded, fine-grained.
				27		to medium-grained, crudely stratified.
3	6	100				27.3' - weakly laminated
				28		
				29		
				30		
				31	ML	30.5' - Silt with Sand, dark yellowish brown (10YR 4/4), fine-grained, minor clay, trace angular gravel (to1/4"), manganese staining, varved.
				32		
4	7	100			CL	**LAKEWOOD FORMATION (Qlw)**
				33		32.1' - Clay with Sand, dark gray (10YR 4/1), very fine-grained, varved.
				34		33.7' to 34.4' - dark gray (7.5YR 4/1) and brown (7.5YR 4/4) in distinct banded pattern
						34.4' to 35.2' - dark gray (7.5YR 4/1)
				35		35.2' to 35.6' - mottled stong brown (7.5YR 5/6) and dark gray (10YR 4/1)
				36		
					SC	36.2' - Clayey Sand, dark brown (7.5YR 3/4), fine-grained, minor gravel (to 3/4"), oxidized, weakly laminated.
				37		
4	8	100				
				38		
				39		
				40		40.0' to 41.2' - increase in sand content

Figure C-13b

BORING B13-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 24, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
				41	CL	41.2' - Clay with Sand, yellowish brown (10YR 5/4), very fine-grained, massive.
5	9	100		42, 43, 44, 45		
5	10	95		46	ML/SM	45.8' - Silt with Sand to Sandy Silt, dark yellowish brown (10YR 3/4) with dark gray (7.5YR 4/1) mottles, trace clay, fine-grained.grained.
				47	SM	46.3' to 47.1' - increase in Sand content , trace gravel (to 1/4") 47.1' - Silty Sand, dark yellowish brown (10YR 3/4), very fine-grained, trace to minor clay, oxidation staining in distinct banded pattern.
				48, 49		
			■	50		49.6' - 50' - No Recovery
6	11	90		51	SP-SM	50.0' - Sand with Silt, dark yellowish brown (10YR 3/4), trace to minor clay, fine-grained, laminated.
				52	ML	51.3' - Silt with Sand, dark brown (10YR 3/3), fine-grained, trace clay, laminated, few manganese-rich layers.
				53		52.6' - increase in clay content
				54	ML/CL	**LAKEWOOD FORMATION (Qlw)**
			■	55		53.6' - Clayey Silt to Silty Clay, dark yellowish brown (10YR 3/6), trace to minor disseminated gravel (to 1/4"), trace sand, very fine-grained, massive.
6	12	97		56		54.6' - 55' - No Recovery 55.8' - very fine- to fine-grained
				57		57.9' - varved
				58		
				59	CL	58.4' - Clay with Sand, dark yellowish brown (10YR 4/6) with light gray (10YR 7/1) mottles, fine-grained, trace to minor disseminated gravel (to 1/8", few to 1/2"), massive.
			■	60		59.8' - 60' - No Recovery

Figure C-13c

BORING B13-A (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 24, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 277.8 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60	SM/SP	60.0' - Silty Sand to Sand with Gravel, dark yellowish brown (10YR 3/6), medium-grained, trace coarse, gravel subangular to subrounded (to 1-1/2"), massive.
				61	SM	61.3' - Silty Sand with Clay, dark brown (10YR 3/3), fine-grained, trace medium, trace gravel (3/4"), minor secondary clay, mottled appearance.
7	13	90		62		
				63	ML/SM	62.6' - Silt with Sand to Sandy Silt, dark yellowish brown (10YR 3/4), minor clay, laminated.
				64		64.5' to 65.0' - No Recovery
				65	SP/SM	65' - Sand and Silty Sand, dark yellowish brown (10YR 3/4), fine-grained, massive.
				66		
7	14	100		67	ML	66.5' - Silt to Silt with Sand, dark yellowish brown (10YR 3/4), minor clay, fine-grained, weakly laminated.
				68		
				69		
				70		Total depth of boring: 70 feet.
				71		Depth of fill not determined.
				72		Groundwater seepage encountered during drilling at 50 feet; static groundwater level at 48.5 feet (after 20 minutes).
				73		Backfilled with soil cuttings and tamped. Concrete patched.
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-13d

BORING B1-B

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 19, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				0		Started sampling at 1.8'
				1		**ALLUVIUM (Qal)**
					SM	Silty Sand, dark yellowish brown (10YR 4/4), very fine-grained, trace clay, massive.
1	1	100		2		
				3	ML	2.4' - Silt with Sand, dark yellowish brown (10YR 4/2), very fine- to fine-grained, trace clay and caliche stringers,massive, porous.
				4	SM	3.9' - Silty Sand, dark yellowish brown (10YR 4/2), fine-grained, trace clay and gravel (to 1/4"), predominantly slate, massive.
				5		
				6		5.0 to 6.7' - No Recovery
				7		
1	2	66		8	SP-SM	7.1' - Sand with Silt, dark yellowish brown (10YR 4/2), very fine- to fine-grained, trace gravel (to 1/2", few to 1-1/2").
				9		
				10		
				11	ML/SM	10' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/2), fine-grained, trace gravel (to 1/2").
					SM	**OLDER ALLUVIUM (Qoal)** 10.8' - Silty Sand, dark yellowish brown (10YR 4/4), minor clay and gravel (to 1").
2	3	86		12		
				13		
				14		14.2 to 15' - No Recovery
				15		
				16	SP-SM	15.5' - Sand with Silt, dark yellowish brown (10YR 4/6), trace to minor gravel (to 1/2"), subrounded to subangular, predominantly slate, few diatomaceous siltstone clasts.
				17		17.0' - increase in sand, descrease in silt
2	4	100		18		18.9 - 19.1' - gravel bed, predominantly slate, few diatmomaceous siltstone clasts (to 1/2").
				19	ML	19.1' - Silt with Sand, dark yellowish brown (10YR 3/4), fine- to coarse-grained, trace gravel (to 1/2").
				20		

Figure C-14a

BORING B1-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 19, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20	SM/ML	20'- Silty Sand to Silt with Sand, dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4), very fine- to fine-grained, trace clay, massive.
				21		
				22		
3	5	80				22.5' - grades to sand with silt
				23	ML	23.1'- Silt with Sand, dark yellowish brown (10YR 3/4), fine-grained, trace clay, massive.
				24	SP/SM	24.1' - Sand, mottled dark yellow brown (10YR 4/3, and 10YR 4/6) and gray (10YR 6/1), fine-grained, trace to minor gravel, (to 1/4"), trace silt and clay, massive.
				25		
				26		
				27		
3	6	100				
				28		28' - increase in gravel
				29	SC	29.7' - Clayey Sand, dark yellowish brown (10YR 4/4), very fine grained, trace to minor gravel (to 1/4").
				30		
				31	SM/SC	30.5- Silty Sand, dark yellowish brown (10YR 4/4 to 10YR 4/6), minor clay, fine-grained, trace to minor gravel (to 1/2"), predominantly slate, few diatomaceous siltstone clasts.
				32		
4	7	98				
				33	ML/SM	32.5' - Silt to Silty Sand, dark yellowish brown (10YR 4/6), very fine-grained, generally massive to weakly bedded.
				34		
			■			34.9' to 35.0' - No Recovery
				35		
				36	SM	35.7' - Silty Sand with Gravel, dark yellowish brown (10YR 4/6), fine-grained, gravel (to 1/2", few to 1"), subangular.
				37		
4	8	98			ML/SM	37.1' - Silt with Sand to Sandy Silt, dark yellowish brown (10YR 4/6), very fine-grained, trace clay, massive.
				38	SP	38' - Sand and Gravel, dark yellowish brown (10YR 4/6), fine- to medium-grained, predominantly slate, few siltstone (to 1").
				39	ML/SM	38.9' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/6), very fine-grained, minor clay, massive.
			■	40	SP/SM	39.5' - Sand to Silty Sand with Gravel, dark yellowish brown (10YR 4/4), 40% gravel (to 2"). 39.5' to 40' - No Recovery

Figure C-14b

BORING B1-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 19, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
				41	ML	40.9' - Sandy Silt, dark yellowish brown (10YR 4/4), very fine-grained, minor gravel (to 1/4").
5	9	90		42		
				43		
				44	SP-SM	44.1' - Sand with Silt, dark yellowish brown (10YR 4/6 to 10YR 5/4), fine- to medium-grained, trace coarse, minor gravel (to 1-1/2"), crude stratification, alternating Silty Sand and Sandy Silt beds.
			■	45		44.5 to 45' - No recovery
5	10	92		46		
				47		
				48		
				49		
			■	50		49.6 to 50' - No Recovery 50.6'- grades to Silty Sand to Silt with Sand, very fine-grained, some oxidation stringers
6	11	96		51		
				52	ML/SM	51.6 '- Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/4), trace to minor clay, fine-grained, weakly laminated.
				53	SP	52.6 '- Sand, dark yellowish brown (10YR 4/6), very fine-grained, trace silt and gravel (to 1/2").
				54	ML	**LAKEWOOD FORMATION (Qlw)** 53.6' - Clayey Silt, dark gray (10YR 4/1), massive to varved. 54.5' - increase in clay content
			■	55		54.8 to 55' - No Recovery
6	12	100		56	ML	55.9' - Silt with Sand, brown (7.5YR 4/3), very fine-grained, trace gravel (to 1/8"), massive.
				57		
				58	CL/SC	57.6' - Clay with Sand to Clayey Sand, brown (7.5YR 4/3), very fine-grained, massive.
				59		
				60		60' - increase in clay content

Figure C-14c

BORING B1-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 19, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
				61		
				62		
7	13	100		63		
				64		
				65		
				66		
				67		
7	14	90		68	SM	67.9' - Silty Sand, brown (10YR 4/3 to 7.5YR 4/3), trace to minor gravel (to 1"), subangular to subrounded, trace clay.
				69	SP-SM	68.8' - Sand with Silt, brown (10YR 4/3 to 7.5YR 4/3) minor clay, fine- to medium-grained, massive.
			■	70		69.5' to 70' - No Recovery
				71		Total depth of boring: 70 feet. Depth of fill not determined.
				72		Groundwater encountered during drilling at 57 feet; static groundwater level at 54 feet (after 20 minutes).
				73		Backfilled with soil cuttings and tamped. Concrete patched.
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-14d

BORING B2-B

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 20, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				0		Started sampling at 2.3'
				1		
				2		**ALLUVIUM (Qal)**
1	1	100			**ML**	Silt with Sand, dark yellowish brown (10YR 4/4), fine-grained, trace fine gravel (to 1/4").
				3	**SM**	3.3' - Silty Sand, 10YR 4/4, fine-grained, trace gravel (to 1/2"), predominantly slate, few siltstone siltstone clasts.
				4		4.8' - trace clay
				5		5' to 5.6' - No Recovery
				6	**SP-SM**	5.6' - Sand with Silt, dark yellowish brown (10YR 3/4 to 10YR 4/4), fine-grained, trace gravel (to 1 1/2"), few roots.
1	2	88		7		
				8	**SP**	7.3' - Sand, dark yellowish brown (10YR 5/6), very fine- to fine-grained, minor silt, trace gravel (to 1").
				9		
				10	**ML/SM**	9.7' - Silt with Sand to Silty Sand, brown (10YR 4/3), fine-grained, trace gravel (to 1/4").
				11		
				12	**SM**	**OLDER ALLUVIUM (Qoal)**
2	3	78		13		11.5' - Silty Sand with gravel, brown (10YR 4/3), minor clay, gravel (to 1/2") disseminated throughout unit (10% to 15%), massive.
				14		13.9' to 15' - No Recovery
				15		
				16	**SM**	15.4' - Silty Sand with Gravel, dark yellowish brown, gravel (to 3/4") disseminated throughout unit, trace clay, massive.
2	4	100		17		17.0' - increase in sand content and decrease in silt content
				18		
				19		
				20		

Figure C-15a

BORING B2-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 20, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
3	5	100		20	SM	20.1' - Silty Sand, brown (7.5YR 4/3 to 7.5YR 4/4), trace to minor gravel (to 1/4"), massive.
3	6	100		24	SM	23.9' - Silty Sand with Gravel, mottled brown (7.5YR 4/3) and light gray (7.5YR 7/1), oxidized.
				29	SM	29.3' - Silty Sand, brown (7.5YR 4/3 to 10YR 4/3), minor clay films, massive.
4	7	100		31	ML/SM	30.6' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/4), very fine- to very fine-grained, faintly laminated.
				34	SP-SM	33.4' - Sand with Silt and Gravel, (10YR 4/4), fine- to medium-grained, trace coarse, gravel predominantly slate, some siltstone (to 1"), massive.
4	8	100		36	ML	36.1' - Silt with Sand, brown (10YR 4/3), minor clay, trace gravel; (to 1/4"), massive.
				39	SP-SM	38.4' - Sand with Silt, brown (10YR 4/3), fine-grained, trace clay, massive. 39.2' - trace gravel (up to 1/2")

Figure C-15b

BORING B2-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 20, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
				41	ML	40.9' - Silt with Sand, (10YR 4/4), very fine-grained, trace clay, massive.
5	9	98		42		
				43		
				44	SC	44.4' - Clayey Sand , dark yellowish brown (10YR 4/4), very fine-grained, thickly laminated.
				45		44.9' - 45' - No Recovery
					SP	45' - Sand, dark yellowish brown (10YR 4/4), fine-grained, trace silt and gravel (to 1/8").
				46	SM/ML	45.3' - Silty Sand and Silt with Sand, dark yellowish brown (10YR 4/4), 'trace gravel (to 1/8"), thickly laminated.
5	10	84		47	SP-SM	46.1' - Sand with Silt, dark yellowish brown (10YR 4/6), minor gravel (to 1"), crudely stratified, to thickly laminated, gravel zones between 46.6' and 46.8' and 47.5' and 48.1'.
				48		
				49		48.1' - decrease in gravel content
				50		49.1' to 50' - No Recovery
				51		
6	11	100		52	ML	51.4' - Clayey Silt, very dark brown (10YR 3/3), fine-grained, trace sand, massive. Increase in sand content below 52.5'.
				53	CL/ML	**LAKEWOOD FORMATION (Qlw)**
				54		53.0' - Silty Clay to Clayey Silt, gray (10YR 4/1), massive.
				55	ML/SM	54.8' - Silty Sand to silt with Sand, brown (7.5YR 4/4), very fine-grained, minor clay, massive.
				56	SP/SM	56.3' - Sand to Silty Sand, brown (7.5YR 4/4) to dark yellowish brown (10YR 4/4), trace clay, massive.
				57		
6	12	96		58	ML	57.5' - Clayey Silt, brown (7.5YR 4/3), trace gravel (to 1/4"), subangular to subrounded, weakly laminated.
				59		
				60		59.4' to 60' - No Recovery

Figure C-15c

BORING B2-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 20, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 288.6 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60	SM	60.1' - Silty Sand, brown (7.5YR 4/4), minor clay, trace to minor gravel (to 1/2"), massive.
				61	CL/ML	60.5' - Clayey Silt, dark brown (7.5YR 3/3), varved.
7	13	92		62		
				63		
				64		
				65		64.6' to 65' - No Recovery
				66		
				67		
7	14	100		68	SM	67.9' - Gravelly Silty Sand, dark brown (7.5YR 3/3 to 10YR 3/3), trace to minor clay, massive.
				69	ML	68.2' - Silt with Clay, dark brown (10YR 3/3), trace gravel; with gravel below 69.5'.
				70		Total depth of boring: 70 feet.
				71		Depth of fill not determined.
				72		Groundwater encountered during drilling at 58 feet; static groundwater at 54.5 feet (after 20 minutes).
				73		Backfilled with soil cuttings and tamped. Concrete patched.
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-15d

BORING B3-B

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 21, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 290.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 2.3'
				1		
				2	SM	**ALLUVIUM (Qal)** Silty Sand, brown (10YR 4/3), minor gravel (to 1"), fine-grained, massive.
				3		
				4	ML/SM	3.4' - Silt with Sand to Silty Sand, brown (10YR 4/3) to dark yellowish brown (10YR 4/4), fine-grained, trace clay and gravel (to 1/8"), some manganese staining, massive.
1	2	100		5		
				6		
				7		
				8	ML/SM	**OLDER ALLVIUM (Qoal)** 7.0' - Sandy Silt to Silty Sand, brown (10YR 4/3), trace gravel (to 1/4"), massive.
				9	SM	7.9' - Silty Sand, brown (10YR 4/3), minor gravel (to 1/2"), gravel predominantly slate, few siltstone, subrounded to subagular very fine-grained, massive.
2	3	100		10	ML/SM	9.1' - Silty Sand to Silt with Sand, dark yellowish brown (10YR 4/4), minor gravel (to 2"), massive. 10' - Increase in gravel content, fine- to coarse-grained sand
				11		
				12		
				13		
				14	SW	13.4' - Sand and Gravel, dark grayish brown (10YR 4/2), 30% to 40% gravel (to 2"), fine- to coarse-grained, trace silt, crudely statified.
				15		
2	4	100		16	SC	15.8' - Clayey Sand to Sand with Clay, brown (7.5YR 4/2) to grayish brown (10YR 4/2), fine-grained, trace to minor gravel (to 1/8"), massive.
				17		
				18		
				19		
				20		

Figure C-16a

BORING B3-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 21, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 290.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20	SC/SP	20.0' - Clayey Sand to Sand, minor clay, brown (7.5YR 4/4), fine-grained, porous, massive.
				21		
				22	SC/SM	21.7' - Clayey Sand to Silty Sand, brown (7.5YR 4/4), very fine-grained, weakly laminated.
3	5	100		23		
				24	SC/SP	23.9' - Clayey Sand, to Sand with Clay, brown (7.5YR 4/4), minor gravel (to 3/4"), predominantly few diatomaceous siltstone clasts, fine-grained, massive.
				25		24.9' to 25.0' - No Recovery
				26		25.0' to 27.9' - laminated
				27		
3	6	97		28		27.9' - increase in gravel content, with light gray (7.5YR 7/1) mottles
				29	CL	28.8' - Clay with Sand, brown (7.5YR 4/2 to 7.5YR 4/3), very fine-grained, massive.
				30	SM	30.0' - Silty Sand, dark yellowish brown (10YR 4/4), very fine-grained, massive.
				31	CL/SC	30.4' - Clay with Sand to Clayey Sand, dark yellowish brown (10YR 4/4), very fine-grained, faintly varved, trace manganese nodules.
				32		
4	7	100		33		32.5' to 32.6' - with gravel and fine sand
				34	SC/SM	33.7' - Clayey Sand with Gravel, dark yellowish brown (10YR 4/4), fine-grained, gravel to 1/2", crudely stratified.
				35		35.0' to 35.8' - grades to Silt with Sand to Silty Sand, very fine-grained, minor clay
				36	SP-SM	35.9' - Sand with Silt, brown (10YR 4/3) to dark yellowish brown (10YR 4/4), minor clay, very fine-grained, crudely stratified.
				37		
4	8	100		38		37.8' - grades to Sand, fine-grained, trace to minor silt, minor gravel (to 1/2") 38.0' - grades to Silt with Sand, fine-grained
				39		38.6' - trace gravel (to 1-1/2"), medium- to coarse-grained, massive to crudely stratified
				40		

Figure C-16b

BORING B3-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 21, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 290.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40	MLSM	40.0' - Silt to Silty Sand, (10YR 4/3), brown very fine-grained, massive to crudely stratified.
				41		
				42		41.9' - minor Clay
5	9	100		43	ML	43.1' - Silt with Sand, brown (10YR 4/3), very fine-grained, trace gravel (to 2"), weakly laminated. Increase in sand and gravel content with depth.
				44		
				45	SP-SM	44.5' - Sand with Silt, brown (10YR 4/3), trace to minor gravel, very fine-grained, thickly laminated.
				46		
				47		
5	10	100		48	SW	48.3' - Sand with Gravel, dark yellowish brown (10YR 4/6), fine- to medium-grained, trace coarse, coarse, gravel subangular to subrounded (to 1/2", few to 1 1/2"), trace silt, crudely statified.
				49		
				50		
				51	CL	**LAKEWOOD FORMATION (Qlw)** 51.0' - Clay with Sand, dark gray (10YR 4/1), very fine-grained. Increase in sand content with depth.
				52	SM/ML	52.4' - Silty Sand to Silt with Sand, brown (10YR 4/3), minor clay, very fine-grained, (to 1/4"), laminated.
6	11	100		53		
				54		
				55		
				56	CL/ML	55.8' -Clay with Sand to Silt with Sand, dark yellowish brown (10YR 4/4), trace gravel.
				57		57.5' - increase in sand content
6	12	100		58		
				59		
				60		

Figure C-16c

BORING B3-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 21, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 290.0 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60		Same as Previous
				61	SM	60.9' - Silty Sand, dark yellowish brown (10YR 4/4 to 10YR 4/6), very fine-grained, trace to minor clay, trace gravel (to 1/4"), subrounded.
7	13	100		62	SC/CL	61.7' - Clayey Sand to Sandy Clay, dark yellowish brown (10YR 4/4), fine-grained, trace gravel (to 1/4").
				63		
				64	SM	63.6' - Silty Sand, dark yellowish brown (10YR 4/4), fine-grained.
				65		
				66	SC	65.8' - Clayey Sand, dark yellowish brown (10YR 4/4), fine-grained, massive.
				67	SP	66.9' - Sand and Gravel, dark yellowish brown (10YR 4/4), fine- to medium-grained, trace silt, gravel (to 1/2"), manganese staining, massive.
7	14	97		68		
				69	SC	68.6' - Clayey Sand, dark yellowish brown (10YR 4/4), fine-grained, massive.
					SP	69.3' - Sand, dark yellowish brown (10YR 4/4), trace gravel (to 1/4"), fine-grained, massive.
				70		Total depth of boring: 70 feet.
				71		Fill to 2.3 feet.
						Groundwater encountered during drilling at 59.4 feet; static groundwater level not determined.
				72		Backfilled with soil cuttings and tamped.
						Concrete patched.
				73		
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-16d

BORING B4-B

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 22, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 291.7 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	0		0		Hand Augered to 5'
				1		
				2		
				3		
				4		
				5		**ARTIFICIAL FILL (af)**
1	2	100			**SM**	Silty Sand, gray (10YR 5/1), fine-grained.
				6	**ML**	5.7' - Silt with Sand, dark yellowish brown (10YR 3/6), minor clay.
				7		
				8	**ML/SM**	7.5' - Silt with Sand to Silty Sand, dark gray (10YR 4/1), very fine-grained, minor roots and organics.
				9		
				10		
2	3	90		11		
				12		
				13		
				14		**ALLUVIUM (Qal)**
					SM	13.9' - Silty Sand with gravel, yellowish brown (10YR 5/4) to dark yellowish brown (10YR 4/4), fine- to medium-grained, gravel subrounded (to 1"), massive.
				15		14.5' to 15.0' - No Recovery
				16	**ML/SM**	15.6' - Silt with Sand to Silty Sand, dark grayish brown (2.5Y 4/2), very fine-grained, massive.
				17		
2	4	100			**ML**	17.0' - Silt with Sand, very dark grayish brown (10YR 3/2) to dark brown (7.5R 3/2), very fine-grained, massive.
				18		
				19	**SP-SM**	18.4' - Sand with Silt to Sand, very dark grayish brown (10YR 3/2) to dark brown (7.5R 3/2), minor to with gravel (to 2"), subrounded, massive.
				20		

Figure C-17a

BORING B4-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 22, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 291.7 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous
				21	SP	21.0' - Sand, dark yellowish brown (10YR 4/4), minor disseminated gravel (to 1/4"), fine-grained, trace medium, massive.
3	5	84		22	ML	**OLDER ALLUVIUM (Qoal)** 21.8' - Silt with Sand, dark yellowish brown (10R 4/4), trace clay, distinctive oxidation striping.
				23		
				24		24.2' to 25.0' - No Recovery
				25		
				26		
				27		
3	6	100		28		
				29		
				30	CL	30.0' - Clay with Sand to Clayey Sand, grayish brown (2.5Y 5/2), very fine-grained, massive.
				31		
4	7	100		32		
				33		
				34	SC	33.7' - Clayey Sand with Gravel, grayish brown (2.5Y 5/2), gravel subrounded (to 1/4"), fine- to medium-grained.
				35	SM	35' - Silty Sand with Gravel, grayish brown (2.5Y 5/2), gravel subrounded (to 1"), massive.
				36	SM	35.9' - Silty Sand, yellowish brown (10YR 5/6), minor clay, distinct oxidation striping.
				37		
4	8	100		38	ML/SM	37.3' - Silt with Sand to Silty Sand, dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4), very fine-grained, trace clay and gravel (to 1/4"), laminated.
				39		
				40		

Figure C-17b

BORING B4-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 22, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 291.7 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40	ML/SM	Same as Previous
				41		
				42		42.2' - increase in clay content
5	9	100		43		
				44	SW	43.7' - Sand and Gravel, yellowish brown (10YR 5/4), fine- to coarse-grained, gravel subangular to predominantly slate, few diatomaceous siltstone (to 3"), crudely stratified to massive, some manganese staining.
				45		
				46		
				47		
5	10	92		48		
				49		49.6' to 50' - No Recovery
				50		
					CL/SC	50.0' - Clay with Sand to Clayey Sand, mottled gray (10YR 5/1) and dark yellowish brown (10YR 4/6), trace gravel (to 1/4"), varved.
				51		
				52		
6	11	100		53		
				54		
				55		
				56		
					SM	55.9' - Silty Sand (10YR 4/6), fine-grained, trace gravel (to 1").
				57		
					SP-SM	57.2' - Sand with Silt and Gravel, (10YR 4/4), fine-grained, gravel subrounded to subangular (to 1"), predominantly slate, some siltstone and sandstone clasts, trace manganese nodules and staining.
6	12	100		58		
				59	CL	58.7' - Clay with Sand, dark yellowish brown (10YR 4/4), fine-grained. 59.4' - with gravel (to 3/4")
				60		

Figure C-17c

BORING B4-B (continued)

GEOCON WEST, INC.

Project No.: A9048-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 1818 N. Cherokee Avenue Los Angeles, CA

Excavation Date: January 22, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 291.7 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60	**CL/ML**	60.0' - Clay with Sand to Silt with Sand, dark yellowish brown (10YR 4/6), fine grained, trace to minor manganese nodules, varved.
				61		
				62		
7	13	100			**SM**	62.3" - Silty Sand, dark yellowish brown (10YR 4/6), fine- to medium-grained, trace silt and gravel (to 1/4"), thickly laminated. Increase in sand content with depth.
				63		
				64		
				65		
					CL	**LAKEWOOD FORMATION (Qlw)** 65.0' - Clay with Sand, dark yellowish brown (10YR 4/6), very fine-grained, distinct oxidation striping.
				66		
				67		
7	14	100		**68**		
				69		
				70		
				71		Total depth of boring: 70 feet. Fill to 13.9 feet. Groundwater encountered during drilling at 43 feet; static groundwater level at 34.3 feet (after 20 mintes). Backfilled with soil cuttings and tamped. Concrete patched.
				72		
				73		
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-17d

BORING B5-B

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 27, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 293.4 feet
Geologist: AL/SFK

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
1	1	100		0		Started sampling at 1.9'
				1		
				2	ML	**ALLUVIUM (Qal)** Silt with Sand, light yellowish brown (10YR 6/4), fine-grained, minor roots and organics.
				3		
				4		
1	2	84		5	SC	4.4' - Clayey Sand, brown (7.5YR 4/4) to dark yellowish brown (10YR 4/4), minor gravel (to 1/4"), massive to crudely stratified. 5.6' - grades to Silty Sand, minor Clay
				6		
				7		7.0' - grades to Clayey Sand
				8		8.3' to 8.5' - Gravel bed (up to 3")
				9		
						9.2' to 10' - No Recovery
2	3	54		10		
						10' - Increase in clay content
				11	SM	11.1' - Silty Sand,dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4), very fine- to fine-grained, minor clay and gravel (to 1/4"). 12.2' - trace clay
				12		
				13		12..7' to 15' - No Recovery
				14		
				15	SP	15.3' - Sand, yellowish brown (10YR 5/6), fine-grained, trace medium and coarse, trace gravel (to 1/8"), massive.
2	4	76		16	ML	**OLDER ALLUVIUM (Qoal)** 15.8' - Silt with Sand, yellowish brown (10YR 5/4 to 10YR 5/6), very fine-grained, minor clay.
				17	SP-SM	16.3' - Sand with Silt and Gravel, yellowish brown (10YR 5/6), fine- to coarse-grained, trace clay and gravel (to 1"), subrounded to subangular slate, siltstone and sandstone clasts, crudely stratified.
				18		
				19		18.8' to 20' - No Recovery
				20		

Figure C-18a

BORING B5-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 27, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 293.4 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				20		Same as Previous 20.8' - decrease in silt content
				21		
				22		
3	5	100		23	ML/CL	22.0' - Silt with Sand to Clay with Sand, dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4), massive. 23.8' - increase in clay content, distinct oxidation striping.
				24		
				25		
				26		
				27		
3	6	100		28		
				29	CL/SC	28.5' - Clayey Sand, mottled brown (7.5YR 4/2) and gray (7.5YR 5/1 and Gley 5/N), trace to minor gravel (to 1/4"), caliche nodules concentrated in weakly developed beds.
				30	SP	30.0' - Sand and Gravel, gray (Gley 1 5/N), fine- to medium-grainied, trace coarse, gravel subangular to subrounded (to 1-1/2"), crudely stratified.
				31		
				32		
4	7	83		33		
				34	SP-SM	33.7' - Sand with Silt, yellowish brown (10YR 5/6) to strong brown (7.5YR 5/6), fine-grained, massive.
				35		34.2' to 35' - No recovery
				36	ML/SM	35' - Silt with Sand to Silty Sand, yellowish brown (10YR 5/6) to strong brown (7.5YR 5/6), very fine-grained, trace clay, weakly laminated.
				37		37' - increase in clay, decrease in sand
4	8	100		38		
				39		
				40		

Figure C-18b

BORING B5-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 27, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 293.4 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				40		Same as Previous
				41		
				42		
5	9	100		43	SP/SM	42.4' - Sand and Gravel, strong brown (7.5YR 5/6) to yellowish brown (10YR 5/6), gravel subangular to subrounded (to 2"). 43.5' to 44.0' - Silty Sand, dark yellowish brown (10YR 4/6), minor gravel (to 1"), trace clay.
				44		44.0' - crudely stratified
				45		
				46		
				47		
5	10	88		48	CL	47.2' - Clay with Sand, dark yellowish brown (10YR 4/6) to strong brown (7.5YR 4/6), fine-grained, varved.
				49		
				50		49.4' to 50' - No Recovery
				51	SW	50.0' - Sand and Gravel, brown (7.5YR 4/4) to dark yellowish brown (10YR 4/4), gravel (to 3"), crudely stratified.
				52		
6	11	72		53	SM	52.3' - Silty Sand, strong brown (7.5YR 4/6) to dark yellowish brown (10YR 4/6), minor clay, few mangense nodules, masive to weakly laminated.
				54		53.6' to 55' - No Recovery
				55		
				56	SP	55.0' - Sand, dark yellowish brown (10YR 4/6), medium-grained, trace gravel at base (to 1/4"), subrounded, crudely stratified.
				57	SM	**LAKEWOOD FORMATION (Qlw)** 56.2' - Silty Sand, strong brown (7.5YR 4/6) to dark yellowish brown (10YR 4/6), minor clay, few manganese nodules, massive to crudely stratified.
6	12	87		58		58.3' - increase in Sand content, minor gravel
				59		59.4' to 60.0' - No Recovery
				60		

Figure C-18c

BORING B5-B (continued)

GEOCON WEST, INC.

Project No.: A9009-06-01A
Client: Beverly Hills Wilshire International, LLC
Location: 9900 Wilshire Blvd Los Angeles, CA

Excavation Date: January 27, 2014
Drilling Company: Martini Drilling
Excavation Method: H.S.A. - Continuous Core
Boring Diameter: 8 inches
Surface Elevation: 293.4 feet
Geologist: AL

Box	Run #	% Rec	REC.	Depth (feet)	USCS Class.	Description
				60	**ML**	60.0' - Silt, dark yellowish brown (10YR 4/4) to brown (7.5YR 4/4), massive.
				61	**ML**	60.9' - Silt with Sand, (7.5YR 4/4), fine-grained, massive.
7	13	96		**62**		62.0' - trace to minor clay.
				63	**SP-SM**	62.7' - Sand with Silt, brown (10YR 5/3) to yellowish brown (10YR 5/4), fine-grained, trace clay, massive.
				64		63.4' to 63.9' - sand bed, fine- to medium-grained. 63.9' - laminated
				65		64.8' to 65.0' - No recovery
7	14	100		**66**		
				67		
				68		
				69		69.6' to 70' - No Recovery
				70		Total depth of boring: 70 feet. Depth of fill not determined. Groundwater encountered during drilling at 45 feet; static groundwater level at 40.5 feet (after 20 minutes). Backfilled with soil cuttings and tamped. Asphalt patched.
				71		
				72		
				73		
				74		
				75		
				76		
				77		
				78		
				79		
				80		

Figure C-18d

APPENDIX D

CONE PENETRATION TESTS

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

9900 Wilshire Blvd.
Beverly Hills, CA
October 28-30, 2013

Prepared for:

Ms. Susan Kirkgard
Geocon West, Inc.
3303 N. San Fernando Blvd., Ste 100
Burbank, CA 91504
Office (818) 841-8388 / Fax (818) 841-1704

Prepared by:

KEHOE TESTING & ENGINEERING
5415 Industrial Drive
Huntington Beach, CA 92649-1518
Office (714) 901-7270 / Fax (714) 901-7289
www.kehoetesting.com

TABLE OF CONTENTS

1. **INTRODUCTION**

2. **SUMMARY OF FIELD WORK**

3. **FIELD EQUIPMENT & PROCEDURES**

4. **CONE PENETRATION TEST DATA & INTERPRETATION**

APPENDIX

- CPT Plots
- CPT Classification/Soil Behavior Chart
- Interpretation Output (CPeT-IT)
- CPeT-IT Calculation Formulas

SUMMARY
OF
CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the project located at 9900 Wilshire Blvd. in Beverly Hills, California. The work was performed by Kehoe Testing & Engineering (KTE) on October 28-30, 2013. The scope of work was performed as directed by Geocon West, Inc. personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at nine locations to determine the soil lithology. Groundwater measurements and hole collapse depths provided in **TABLE 2.1** are for information only. The readings indicate the apparent depth to which the hole is open and the apparent water level (if encountered) in the CPT probe hole at the time of measurement upon completion of the CPT. KTE does not warranty the accuracy of the measurements and the reported water levels may not represent the true or stabilized groundwater levels.

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
C-1	70	Hole open to 24.0 ft (dry)
C-2	70	Hole open to 24.3 ft (dry)
C-3	70	Hole open to 22.5 ft (dry)
C-4	70	Hole open to 55.0 ft (dry)
C-5	70	Hole open to 50.4 ft (dry)
C-6	70	Hole open to 50.7 ft (dry)
C-7	70	Hole open to 50.0 ft (dry)
C-8	70	Hole open to 50.0 ft (dry)
C-9	70	Hole open to 52.5 ft (dry)

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone and recorded the following parameters at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Inclination
- Penetration Speed

- Dynamic Pore Pressure (u)

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil classification on the CPT plots is derived from the attached CPT Classification Chart (Robertson) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

Tables of basic CPT output from the interpretation program CPeT-IT are provided for CPT data averaged over one foot intervals in the Appendix. Spreadsheet files of the averaged basic CPT output and averaged estimated geotechnical parameters are also included for use in further geotechnical analysis. We recommend a geotechnical engineer review the assumed input parameters and the calculated output from the CPeT-IT program. A summary of the equations used for the tabulated parameters is provided in the Appendix.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING

Richard W. Koester, Jr.
General Manager

11/14/13-cb-4110

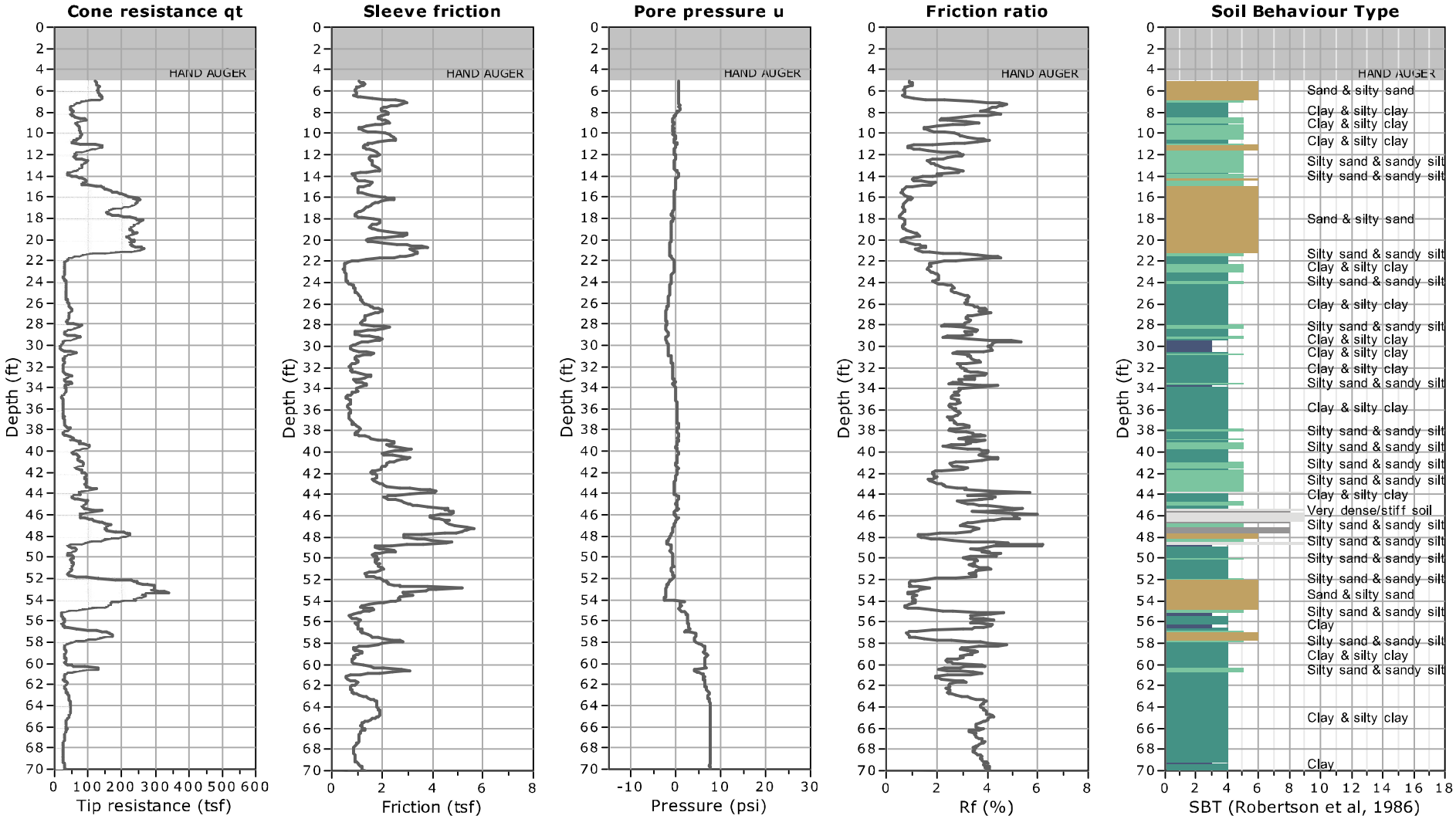
APPENDIX

Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-1

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.46 ft, Date: 10/31/2013
Cone Type: Vertek

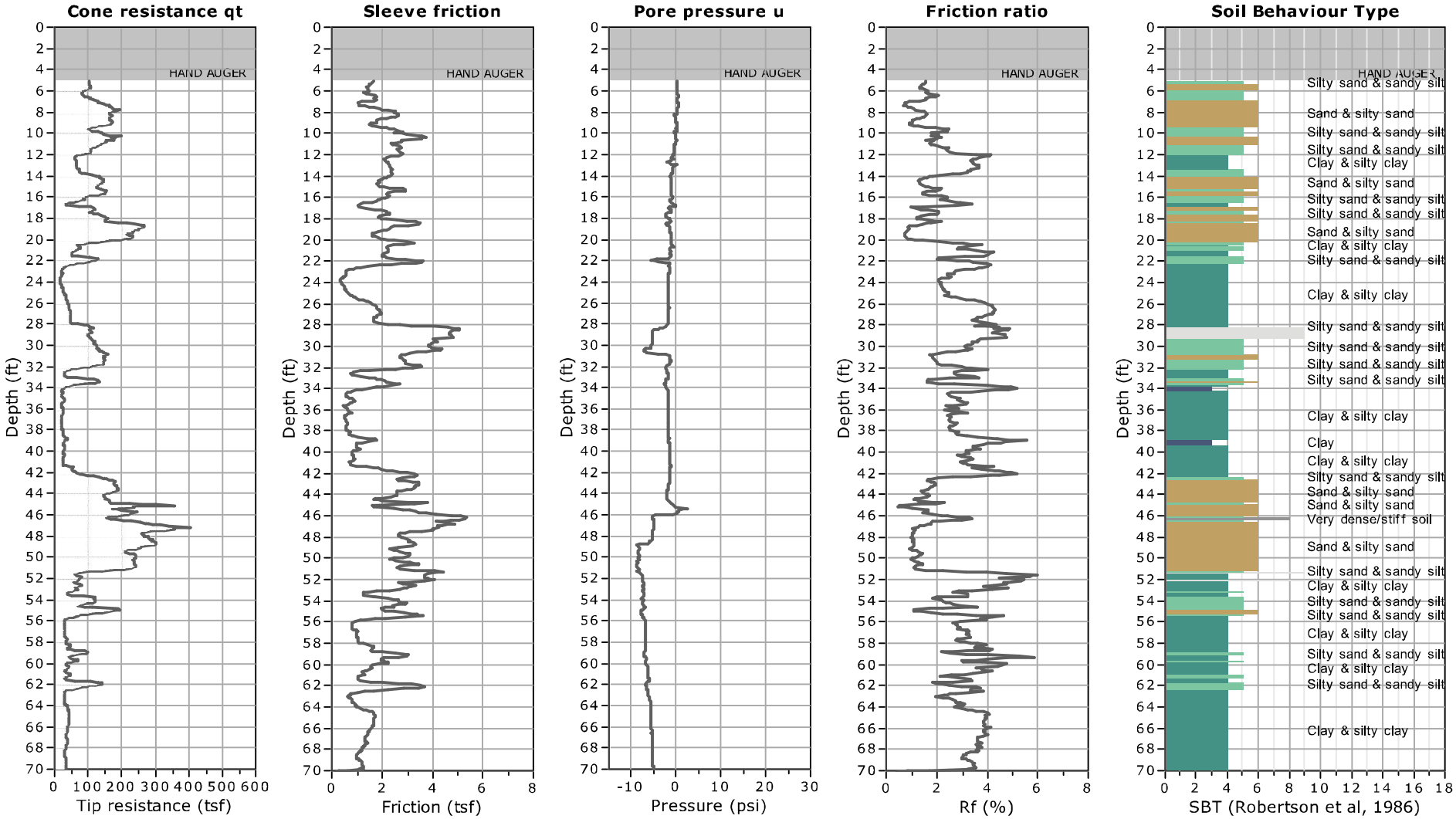


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-2

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.31 ft, Date: 10/31/2013
Cone Type: Vertek

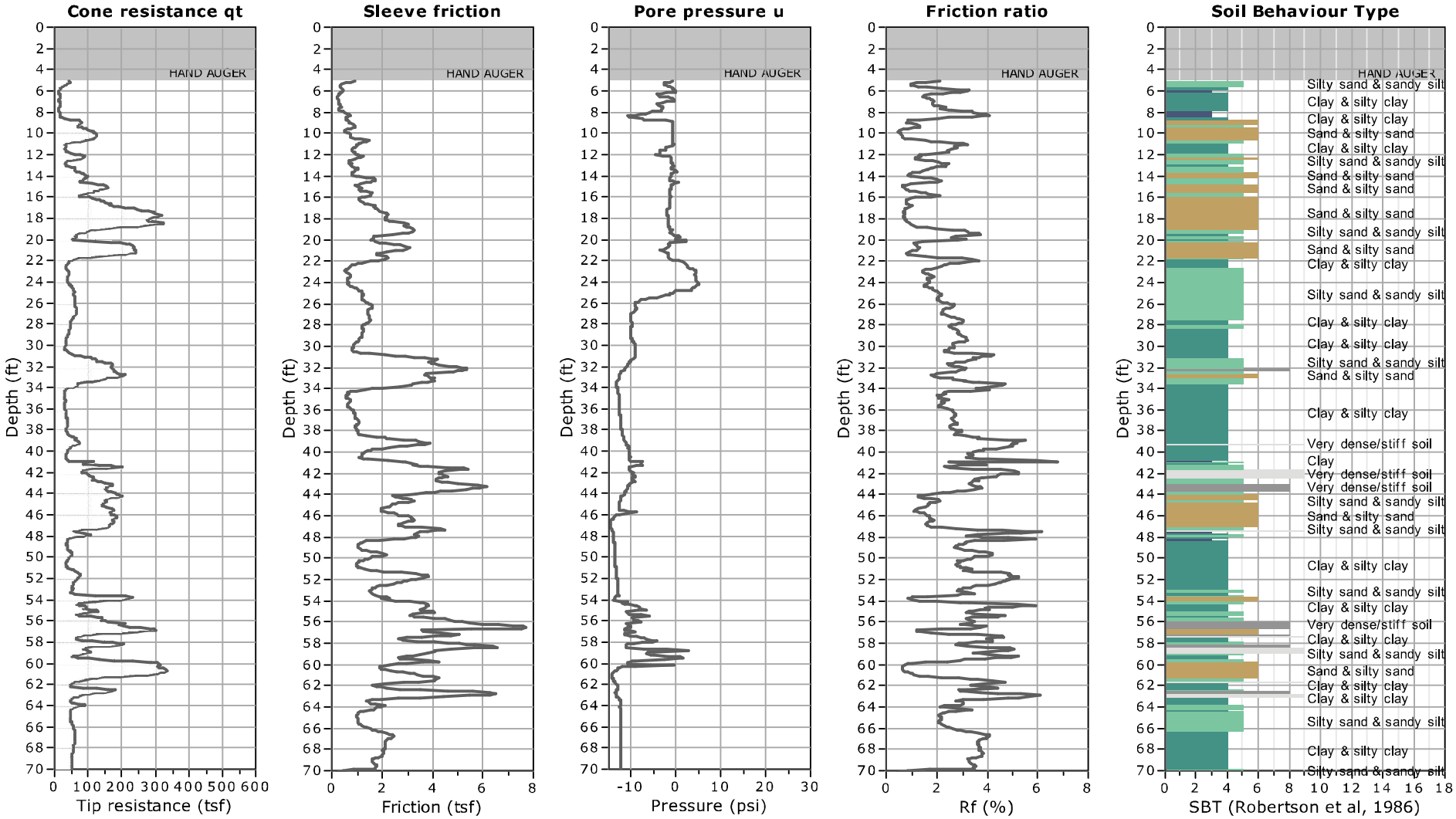


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-3

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.26 ft, Date: 10/30/2013
Cone Type: Vertek

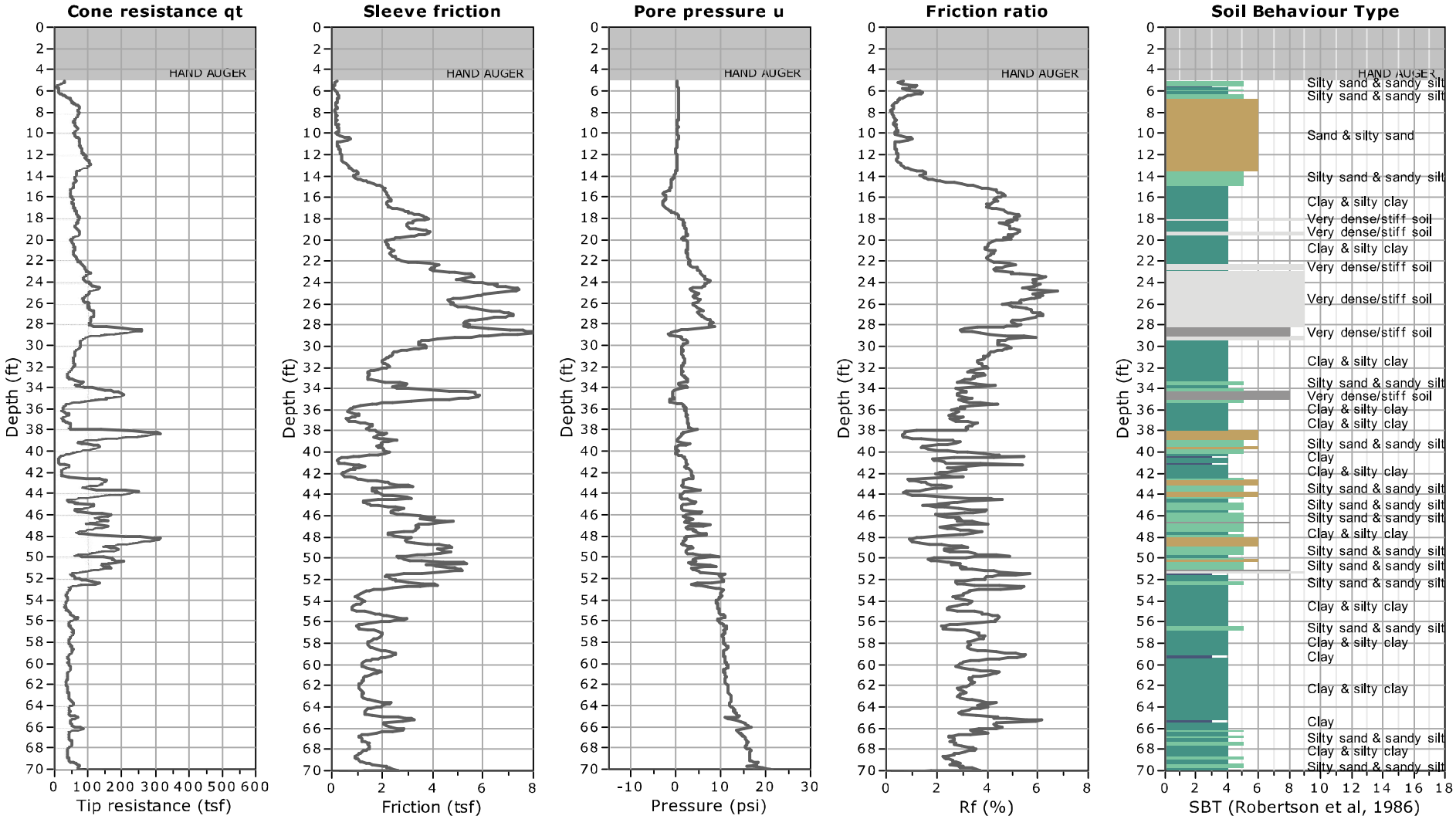


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-4

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.33 ft, Date: 10/30/2013
Cone Type: Vertek

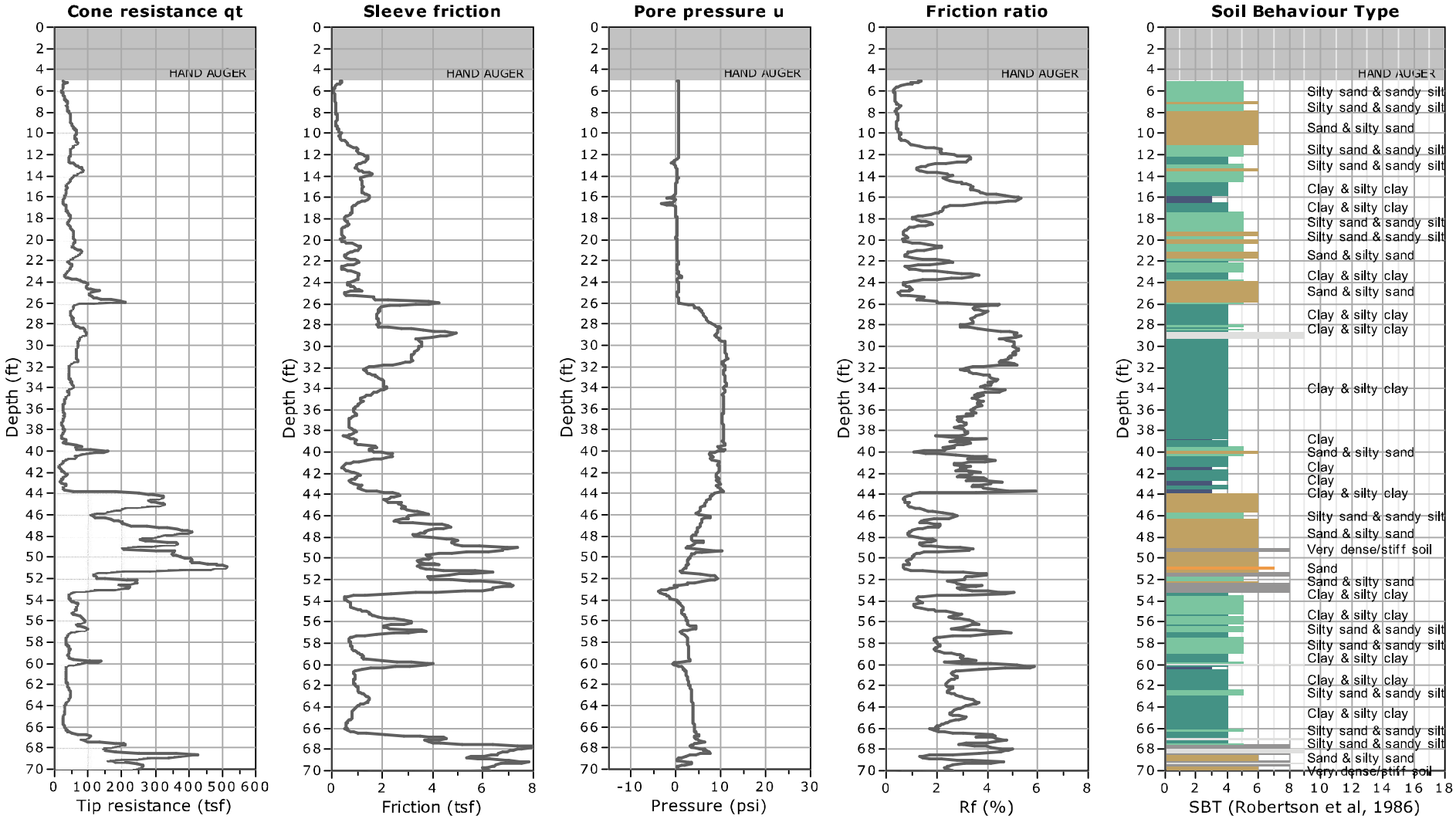


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-5

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.39 ft, Date: 10/30/2013
Cone Type: Vertek

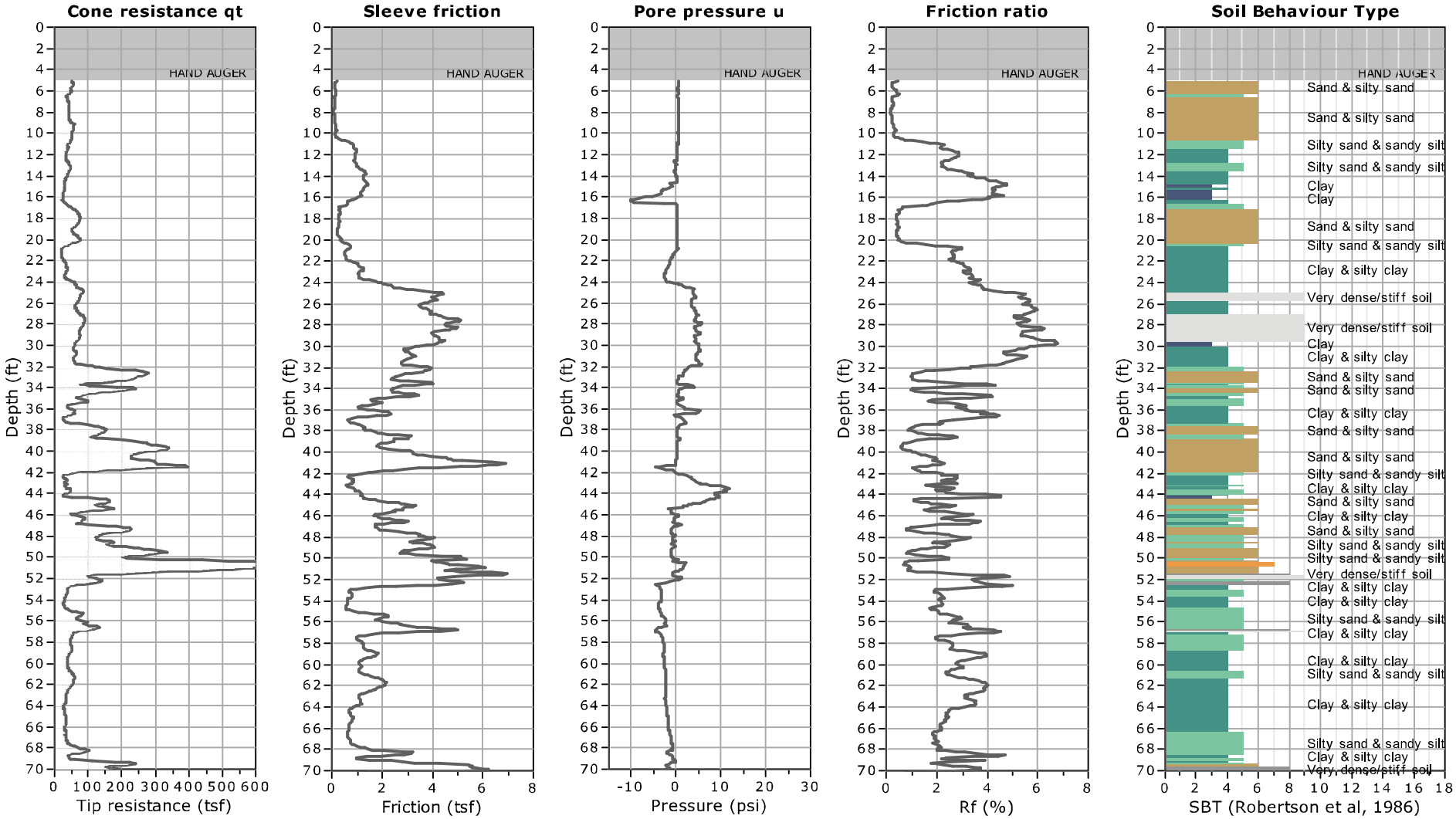


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-6

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.44 ft, Date: 10/30/2013
Cone Type: Vertek

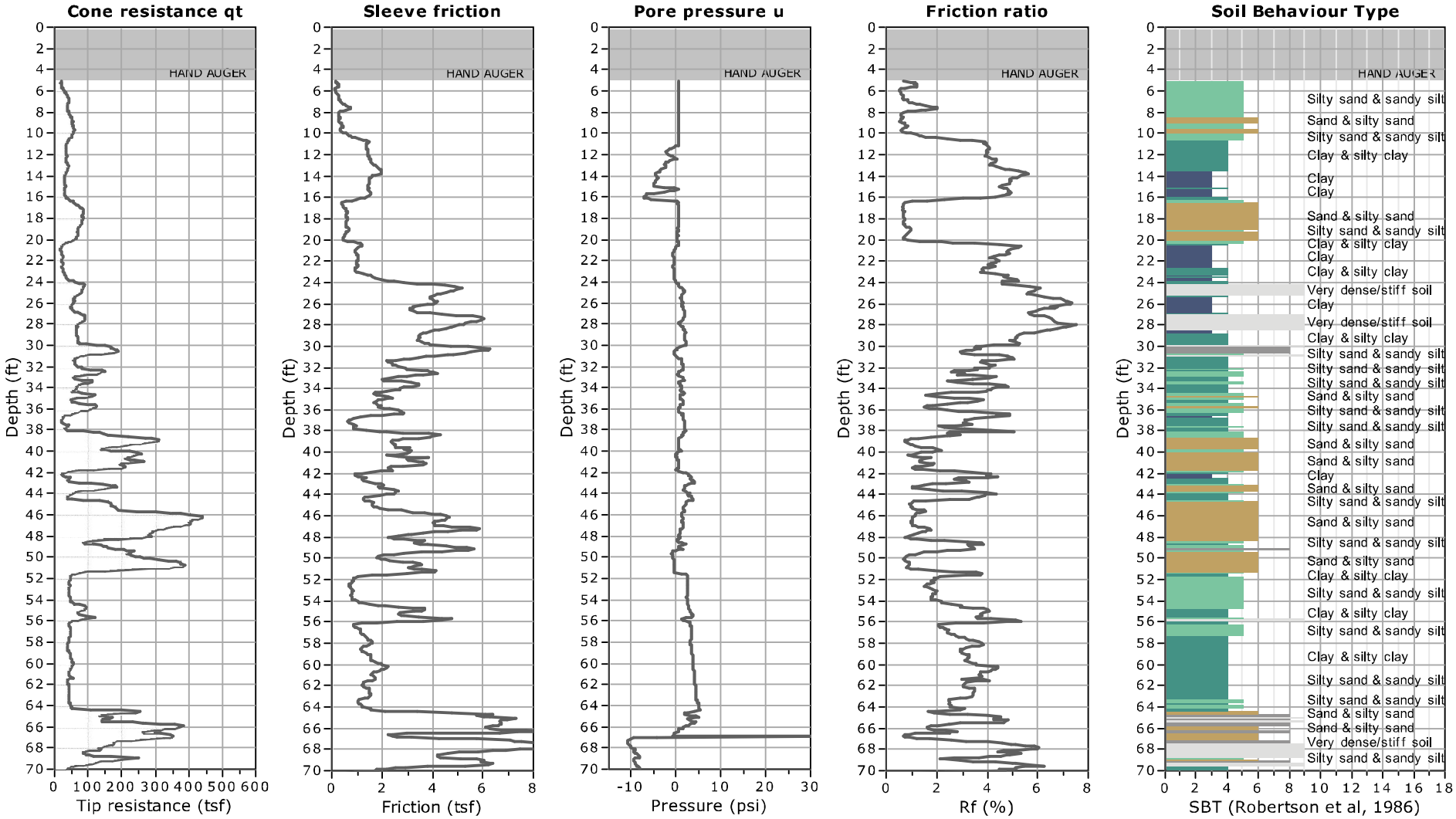


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-7

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.48 ft, Date: 10/30/2013
Cone Type: Vertek

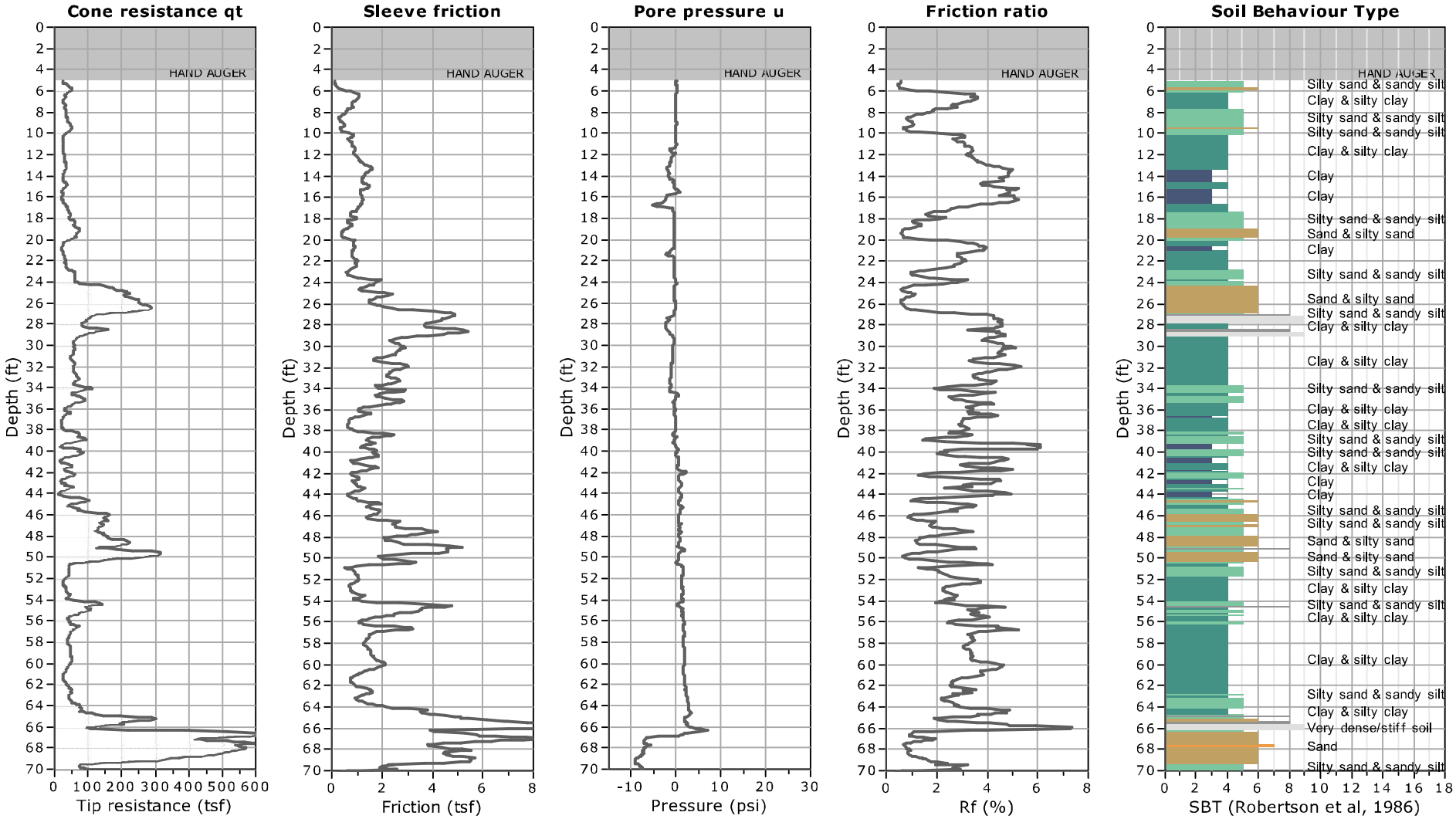


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-8

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.29 ft, Date: 10/31/2013
Cone Type: Vertek

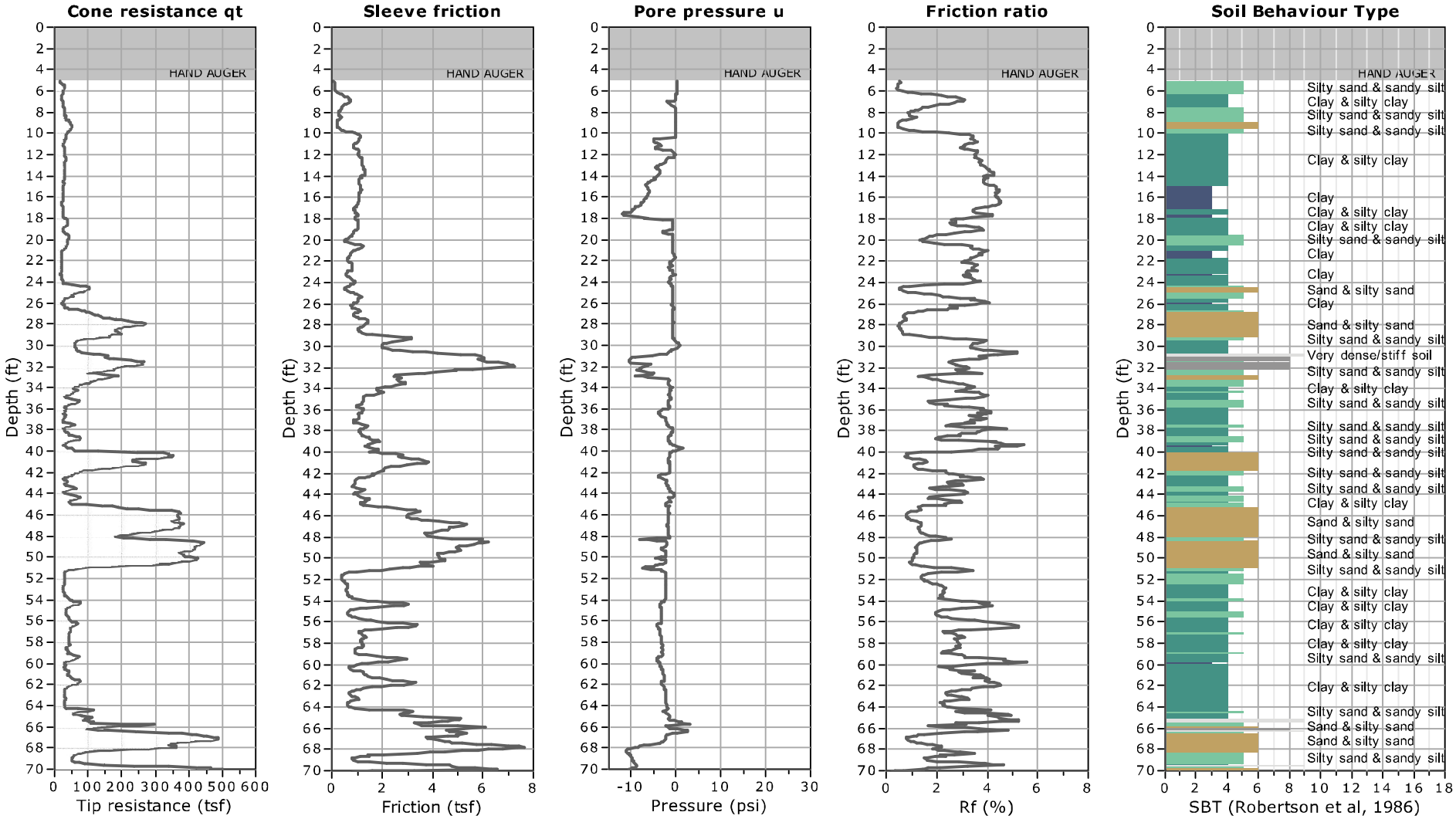


Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

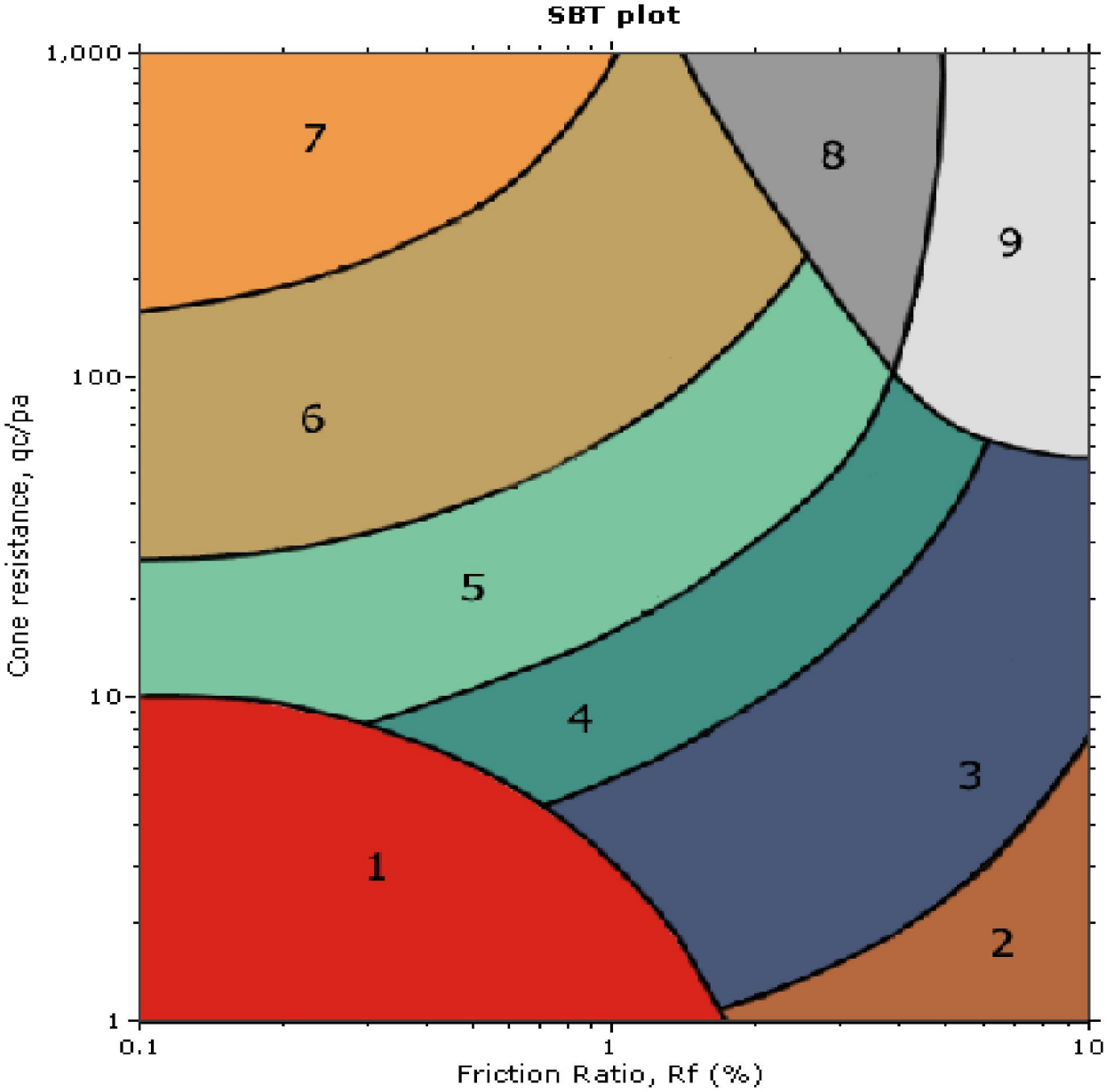
CPT: C-9

Project: **Geocon Consultants**
Location: **9900 Wilshire Blvd. Beverly Hills, CA**

Total depth: 70.31 ft, Date: 10/31/2013
Cone Type: Vertek



Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com



SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty clay
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to clayey sand
9. Very stiff fine grained

	C-1	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	47.6	0.97	0.51	2.04	47.6062	2.0376	5	2.37469	119.4703	0.05974	0	0.0597	795.96	2.0401	0.0008	5	0.6735	2	2.1539	89.8708
2	39.2	1.17	0.51	2.99	39.2062	2.9842	4	2.54694	120.3684	0.11992	0	0.1199	325.94	2.9934	0.0009	5	0.7444	2	2.3327	73.87965
3	62.6	0.92	0.51	1.46	62.6062	1.4695	5	2.19252	119.7511	0.17979	0	0.1798	347.21	1.4737	0.0006	6	0.6092	2	1.9704	117.9964
4	44.8	0.32	0.51	0.72	44.8062	0.7142	5	2.13317	111.208	0.2354	0	0.2354	189.34	0.718	0.0008	6	0.5783	2	1.8824	84.2463
5	121.5	1.08	0.46	0.89	121.506	0.8889	6	1.83141	122.5416	0.29667	0	0.2967	408.57	0.891	0.0003	6	0.4882	1.8604	1.6345	213.1098
6	126.1	0.87	0.51	0.69	126.106	0.6899	6	1.75034	121.0501	0.35719	0	0.3572	352.05	0.6919	0.0003	6	0.469	1.6642	1.5816	197.7782
7	79.7	2.95	0.61	3.7	79.7075	3.701	4	2.39496	128.8657	0.42163	0	0.4216	188.05	3.7207	0.0006	8	0.7154	1.9315	2.2183	144.7295
8	53.5	2.18	0.23	4.08	53.5028	4.0746	4	2.54332	125.6802	0.48447	0	0.4845	109.44	4.1118	0.0003	4	0.7779	1.8362	2.3732	92.00446
9	60.3	2.25	-0.57	3.73	60.293	3.7318	4	2.47985	126.2029	0.54757	0	0.5476	109.11	3.766	-7E-04	5	0.767	1.6574	2.3391	93.58521
10	80.1	2.28	-0.59	2.85	80.0928	2.8467	5	2.30965	126.9924	0.61107	0	0.6111	130.07	2.8686	-5E-04	5	0.717	1.4824	2.2001	111.3552
11	73	1.43	0.21	1.95	73.0026	1.9588	5	2.22417	123.353	0.67274	0	0.6727	107.51	1.9771	0.0002	5	0.694	1.3693	2.1318	93.5998
12	61.8	1.91	-0.12	3.1	61.7985	3.0907	5	2.41379	125.0643	0.73527	0	0.7353	83.048	3.1279	-1E-04	5	0.7753	1.326	2.3363	76.52478
13	80.7	1.6	-0.38	1.99	80.6954	1.9828	5	2.1961	124.4192	0.79748	0	0.7975	100.19	2.0026	-3E-04	5	0.7032	1.22	2.1406	92.12316
14	47.7	0.92	0.33	1.92	47.704	1.9286	5	2.35871	119.088	0.85703	0	0.857	54.662	1.9638	0.0005	5	0.773	1.1769	2.3158	52.10819
15	124.8	1.24	-0.25	0.99	124.797	0.9936	6	1.8539	123.6176	0.91884	0	0.9188	134.82	1.001	-2E-04	6	0.5913	1.087	1.8313	127.2634
16	230.5	2.12	-0.53	0.92	230.494	0.9198	6	1.63775	129.0382	0.98336	0	0.9834	233.39	0.9237	-2E-04	6	0.5172	1.0386	1.6291	225.2827
17	200.5	1.32	-0.34	0.66	200.496	0.6584	6	1.58123	125.2314	1.04597	0	1.046	190.68	0.6618	-1E-04	6	0.5024	1.0058	1.5825	189.5923
18	234.8	1.51	-0.58	0.64	234.793	0.6431	6	1.52329	126.6005	1.10927	0	1.1093	210.66	0.6462	-2E-04	6	0.4867	0.9773	1.5336	215.8324
19	220.6	1.7	-1.09	0.77	220.587	0.7707	6	1.59682	127.3155	1.17293	0	1.1729	187.06	0.7748	-4E-04	6	0.5216	0.9477	1.617	196.5158
20	228.8	1.33	-1.1	0.58	228.787	0.5813	6	1.50251	125.6086	1.23573	0	1.2357	184.14	0.5845	-4E-04	6	0.4919	0.9265	1.531	199.2491
21	257.6	2.88	-1.39	1.12	257.583	1.1181	6	1.66831	131.5509	1.30151	0	1.3015	196.91	1.1238	-4E-04	6	0.5612	0.8903	1.7046	215.6387
22	35.1	0.84	-0.46	2.39	35.0944	2.3936	4	2.52125	117.6737	1.36035	0	1.3604	24.798	2.4901	-1E-03	4	0.9138	0.7949	2.6232	25.34098
23	29.3	0.52	-0.53	1.78	29.2935	1.7751	5	2.50409	113.724	1.41721	0	1.4172	19.67	1.8654	-0.001	4	0.9189	0.7645	2.6294	20.14171
24	33.4	0.64	-1.18	1.92	33.3856	1.917	5	2.47843	115.5622	1.47499	0	1.475	21.634	2.0056	-0.003	4	0.915	0.7379	2.612	22.25368
25	34.7	0.95	-1.58	2.74	34.6807	2.7393	4	2.56273	118.5452	1.53426	0	1.5343	21.604	2.8661	-0.003	4	0.955	0.7013	2.7097	21.96841
26	41.5	1.22	-1.67	2.94	41.4796	2.9412	4	2.5245	120.8121	1.59467	0	1.5947	25.011	3.0588	-0.003	4	0.9451	0.6787	2.676	25.58146
27	40.7	1.55	-2.25	3.8	40.6725	3.8109	4	2.60726	122.5159	1.65593	0	1.6559	23.562	3.9727	-0.004	4	0.9854	0.6432	2.7745	23.71657
28	55.9	1.27	-1.96	2.28	55.876	2.2729	5	2.35344	121.8327	1.71684	0	1.7168	31.546	2.3449	-0.003	4	0.8896	0.6502	2.5145	33.27816
29	35.4	1.1	-1.81	3.09	35.3779	3.1093	4	2.59217	119.6664	1.77668	0	1.7767	18.912	3.2737	-0.004	4	0.9994	0.5957	2.7965	18.91785
30	18.5	0.74	-1.86	4.01	18.4772	4.0049	3	2.87843	115.1816	1.83427	0	1.8343	9.0734	4.4463	-0.008	3	1	0.5769	3.1306	9.07337
31	30.7	1.01	-1.37	3.28	30.6832	3.2917	4	2.65503	118.6946	1.89361	0	1.8936	15.204	3.5082	-0.003	3	1	0.5588	2.8898	15.20354
32	24.1	0.7	-0.82	2.91	24.09	2.9058	4	2.70127	115.422	1.95132	0	1.9513	11.345	3.1619	-0.003	3	1	0.5423	2.965	11.34544
33	40.3	1.36	-0.85	3.39	40.2896	3.3756	4	2.57416	121.536	2.01209	0	2.0121	19.024	3.553	-0.002	3	1	0.5259	2.8168	19.02373
34	33	0.95	0	2.89	33	2.8788	4	2.59314	118.424	2.0713	0	2.0713	14.932	3.0716	0	3	1	0.5108	2.8612	14.93199
35	24.5	0.68	0.04	2.76	24.5005	2.7755	4	2.68313	115.2511	2.12893	0	2.1289	10.508	3.0396	0.0001	3	1	0.497	2.9824	10.50836
36	26.5	0.74	0.21	2.78	26.5026	2.7922	4	2.65808	116.0614	2.18696	0	2.187	11.118	3.0433	0.0006	3	1	0.4838	2.9626	11.11845
37	28.4	0.74	0.32	2.61	28.4039	2.6053	4	2.61578	116.2303	2.24508	0	2.2451	11.652	2.8289	0.0009	3	1	0.4713	2.9277	11.65165
38	40.1	1.04	0.18	2.6	40.1022	2.5934	4	2.49935	119.5617	2.30486	0	2.3049	16.399	2.7515	0.0003	4	1	0.4591	2.8	16.399
39	68.7	2.44	0.39	3.55	68.7048	3.5514	4	2.42524	127.1146	2.36841	0	2.3684	28.009	3.6782	0.0004	4	0.9889	0.4508	2.6952	28.26059
40	54.7	2.19	0.29	4.01	54.7036	4.0034	4	2.53112	125.7679	2.4313	0	2.4313	21.5	4.1896	0.0004	3	1	0.4352	2.8218	21.49973
41	84.8	2.24	0.09	2.64	84.8011	2.6415	5	2.26901	127.0022	2.4948	0	2.4948	32.991	2.7215	8E-05	4	0.9366	0.4478	2.5408	34.83519
42	86.3	1.52	0.18	1.76	86.3022	1.7613	5	2.13953	124.2078	2.5569	0	2.5569	32.753	1.815	0.0002	5	0.8924	0.455	2.4184	36.01507
43	91.7	2.01	-0.32	2.19	91.6961	2.192	5	2.18719	126.4002	2.6201	0	2.6201	33.997	2.2565	-3E-04	5	0.9164	0.4357	2.4713	36.67553
44	77.1	2.57	-0.26	3.33	77.0968	3.3335	5	2.37102	127.7755	2.68399	0	2.684	27.725	3.4537	-3E-04	4	0.9992	0.3945	2.6832	27.74485
45	85.6	3.28	-0.11	3.83	85.5987	3.8318	4	2.38586	129.8155	2.7489	0	2.7489	30.139	3.959	-1E-04	4	1	0.3849	2.6958	30.13926
46	75.4	3.98	-0.34	5.28	75.3958	5.2788	9	2.52759	130.9214	2.81436	0	2.8144	25.79	5.4835	-3E-04	3	1	0.376	2.8418	25.7897
47	160.9	5.04	-0.51	3.13	160.894	3.1325	5	2.14551	134.4978	2.88161	0	2.8816	54.835	3.1896	-2E-04	5	0.9072	0.403	2.4144	60.17877
48	209.3	2.96	-1.23	1.41	209.285	1.4143	6	1.8045	131.2449	2.94723	0	2.9472	70.011	1.4345	-4E-04	5	0.772	0.4535	2.0533	88.43127
49	44.1	1.61	-1	3.65	44.0878	3.6518	4	2.56917	122.9905	3.00873	0	3.0087	13.653	3.9193	-0.002	3	1	0.3517	2.9562	13.6533
50	56.8	1.84	-1.03	3.24	56.7874	3.2402	4	2.45427	124.5849	3.07102	0	3.071	17.491	3.4254	-0.001	3	1	0.3446	2.8354	17.49139
51	46.6	2.06	-0.9	4.42	46.589	4.4217	4	2.61067	124.9285	3.13348	0	3.1335	13.868	4.7405	-0.001	3	1	0.3377	3.0023	13.86812
52	137	2.04	-0.85	1.49	136.99	1.4892	6	1.94526	127.4876	3.19723	0	3.1972	41.846	1.5248	-5E-04	5	0.8662	0.3837	2.2698	48.51836
53	295.9	3.84	-2.24	1.3	295.873	1.2979	6	1.68074	133.9939	3.26422	0	3.2642	89.641	1.3123	-6E-04	6	0.74	0.4345	1.9296	120.1504
54	228.9	2.47	-2.92	1.08	228.864	1.0792	6	1.69069	130.1389	3.32929	0	3.3293	67.743	1.0952	-9E-04	6	0.76	0.4185	1.9737	89.19817
55	55.8	1.35	0.68	2.42	55.8083	2.419	5	2.37204	122.2767	3.39043	0	3.3904	15.461	2.5755	0.0009	4	1	0.3121	2.8039	15.46054
56	31	1.05	2.26	3.39	31.0277	3.3841	4	2.65926	119.006	3.44993	0	3.4499	7.9937	3.8074	0.0059	3	1	0.3067	3.1358	7.9937
57	136.8	1.16	1.84	0.85	136.823	0.8478	6	1.7787	123.354	3.51161	0	3.5116	37.963	0.8702	0.001	5	0.8337	0.3679	2.1445	46.34688
58	51	2.05	4.4	4.01	51.0539	4.0154	4	2.55295	125.1161	3.57417	0	3.5742	13.284	4.3176	0.0067	3	1	0.296	2.9915	13.28412
59	32.8	1.1	5.99	3.35	32.8733	3.3462	4	2.63718	119.4873	3.63391	0	3.6339	8.0463	3.7621	0.0148	3	1	0.2912	3.1305	8.04626
60	32.3	1.15	6.46	3.56	32.3791	3.5517	4	2.65928	119.7756	3.6938	0	3.6938	7.7658	4.009	0.0162	3	1	0.2865	3.1589	7.76579
61	32.8	0.99	5.84	3	32.8715	3.0117	4	2.60717	118.7163	3.75316	0	3.7532	7.7584	3.3999	0.0144	3	1	0.2819	3.1185	7.75835
62	32.8	0.82	6.33	2.49	32.8775	2.4941	4	2.55449	117.3382	3.81183	0	3.8118	7.6251	2.8212	0.0157	3	1	0.2776	3.0801	7.62512
63	42.4	1.26	6.99	2.97	42.4856	2.9657	4	2.51919	121.1066	3.87238	0	3.8724	9.9714	3.2631	0.013	3	1	0.2732	3.0187	9.97143
64	47.7	1.78	7.54	3.73	47.7923	3.7245	4	2.55005	123.9217	3.93434	0	3.9343	11.147	4.0586	0.0124	3	1	0.2689	3.0353	11.14747
65	43	1.77	7.64	4.11	43.0935	4.1074	4	2.61189	123.6281	3.99616	0	3.9962	9.7837	4.5272	0.0141	3	1	0.2648	3.1091	9.78374

66	33.3	1.27	7.64	3.79	33.3935	3.8031	4	2.66924	120.5771	4.05644	0	4.0564	7.2322	4.329	0.0188	3	1	0.2609	3.2035	7.23221
67	29.3	1.09	7.49	3.71	29.3917	3.7085	4	2.70318	119.1475	4.11602	0	4.116	6.1408	4.3125	0.0213	3	1	0.2571	3.2607	6.1408
68	24.6	0.87	7.64	3.53	24.6935	3.5232	4	2.74595	117.0731	4.17455	0	4.1746	4.9153	4.24	0.0268	3	1	0.2535	3.3366	4.91525
69	23.8	0.91	7.54	3.79	23.8923	3.8088	4	2.77875	117.3216	4.23322	0	4.2332	4.644	4.6289	0.0276	3	1	0.25	3.3782	4.64401
70	32.4	1.3	7.52	4.01	32.492	4.001	4	2.69288	120.6812	4.29356	0	4.2936	6.5676	4.6102	0.0192	3	1	0.2464	3.2534	6.56763

	C-2	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	75.3	1.6	2.3	2.13	75.3282	2.124	5	2.23836	124.2514	0.06213	0	0.0621	1211.5	2.1258	0.0022	5	0.6271	2	2.032	142.2653
2	37.1	1.14	0.4	3.08	37.1049	3.0724	4	2.57322	120.044	0.12215	0	0.1222	302.77	3.0825	0.0008	5	0.7544	2	2.3585	69.90354
3	18	0.65	-0.09	3.61	17.9989	3.6113	3	2.85911	114.1688	0.17923	0	0.1792	99.422	3.6477	-4E-04	4	0.8628	2	2.6362	33.68213
4	34.6	0.81	-0.1	2.34	34.5988	2.3411	4	2.51995	117.3729	0.23792	0	0.2379	144.42	2.3573	-2E-04	5	0.737	2	2.2985	64.94773
5	97.5	1.69	0.09	1.73	97.5011	1.7333	5	2.09641	125.2811	0.30056	0	0.3006	323.4	1.7387	7E-05	6	0.5857	2	1.8937	183.7252
6	87	1.49	0.18	1.71	87.0022	1.7126	5	2.12865	124.0816	0.3626	0	0.3626	238.94	1.7198	0.0002	6	0.6051	1.9118	1.9352	156.5369
7	130.7	1.16	0.28	0.89	130.703	0.8875	6	1.8067	123.2424	0.42422	0	0.4242	307.1	0.8904	0.0002	6	0.5027	1.5833	1.6615	194.9389
8	168.2	2.51	0.09	1.49	168.201	1.4923	6	1.88478	129.5053	0.48897	0	0.489	342.99	1.4966	4E-05	6	0.5467	1.525	1.7684	241.7178
9	171.6	1.69	-0.03	0.98	171.6	0.9849	6	1.74926	126.6598	0.5523	0	0.5523	309.7	0.988	-1E-05	6	0.5051	1.3887	1.6515	224.4945
10	142.2	1.93	-0.29	1.35	142.196	1.3573	6	1.90518	127.1731	0.61589	0	0.6159	229.88	1.3632	-2E-04	6	0.5709	1.362	1.8159	182.2383
11	137.5	2.16	-0.1	1.57	137.499	1.5709	6	1.96083	127.9149	0.67985	0	0.6799	201.25	1.5787	-5E-05	6	0.6006	1.3043	1.8859	168.6569
12	71.5	2.76	-0.62	3.86	71.4924	3.8606	4	2.44018	128.1133	0.7439	0	0.7439	95.104	3.9011	-6E-04	4	0.7874	1.3197	2.3673	88.24068
13	62.8	2.32	0	3.69	62.8	3.6943	4	2.46447	126.5264	0.80717	0	0.8072	76.803	3.7424	0	4	0.8058	1.2438	2.4082	72.87024
14	126	2.31	-1.26	1.83	125.985	1.8336	5	2.03568	128.1929	0.87126	0	0.8713	143.6	1.8463	-7E-04	5	0.6543	1.1356	2.0025	134.2713
15	123.6	1.97	-1.05	1.59	123.587	1.594	6	1.99766	126.981	0.93475	0	0.9348	131.21	1.6062	-6E-04	6	0.6479	1.0836	1.978	125.6093
16	92.2	2.23	-0.9	2.42	92.189	2.4189	5	2.21632	127.1732	0.99834	0	0.9983	91.342	2.4454	-7E-04	5	0.7393	1.0439	2.2102	89.96784
17	111	1.16	-1.43	1.05	110.983	1.0452	6	1.90684	122.8435	1.05976	0	1.0598	103.72	1.0553	-9E-04	6	0.6289	0.999	1.913	103.7841
18	156.9	1.95	-1.78	1.25	156.878	1.243	6	1.84801	127.4881	1.12351	0	1.1235	138.63	1.252	-8E-04	6	0.6132	0.9639	1.8637	141.8863
19	249.4	2.26	-1.29	0.91	249.384	0.9062	6	1.60958	129.6982	1.18836	0	1.1884	208.86	0.9106	-4E-04	6	0.5276	0.9406	1.6308	220.6311
20	200.9	2.09	-1.05	1.04	200.887	1.0404	6	1.7177	128.5986	1.25266	0	1.2527	159.37	1.0469	-4E-04	6	0.5765	0.9073	1.7511	171.1767
21	65.2	2.21	-1.43	3.4	65.1825	3.3905	4	2.42635	126.2618	1.31579	0	1.3158	48.539	3.4603	-0.002	4	0.8633	0.8285	2.4962	50.00672
22	114.4	3.63	-5.77	3.17	114.329	3.175	5	2.24223	131.2633	1.38142	0	1.3814	81.762	3.2139	-0.004	5	0.7955	0.8089	2.3098	86.34487
23	20.7	0.56	-1.53	2.7	20.6813	2.7078	4	2.73477	113.4171	1.43813	0	1.4381	13.381	2.9101	-0.006	3	1	0.7358	2.8858	13.38071
24	18.2	0.38	-1.81	2.06	18.1779	2.0905	4	2.71432	110.2651	1.49326	0	1.4933	11.173	2.2776	-0.008	4	1	0.7086	2.8903	11.17327
25	26.8	0.66	-1.72	2.47	26.779	2.4646	4	2.6209	115.2495	1.55088	0	1.5509	16.267	2.6161	-0.005	4	0.9855	0.686	2.788	16.35708
26	40.2	1.61	-1.72	4	40.179	4.0071	4	2.62618	122.764	1.61227	0	1.6123	23.921	4.1746	-0.003	3	0.987	0.6599	2.7841	24.05258
27	46.1	1.95	-1.62	4.22	46.0802	4.2318	4	2.60043	124.5002	1.67452	0	1.6745	26.519	4.3913	-0.003	3	0.9825	0.637	2.7646	26.73254
28	70.8	2.7	-1.63	3.81	70.7801	3.8146	4	2.43926	127.9281	1.73848	0	1.7385	39.714	3.9107	-0.002	4	0.9202	0.6333	2.5925	41.31998
29	98.9	4.74	-5.33	4.8	98.8348	4.7959	9	2.42119	132.8603	1.80491	0	1.8049	53.759	4.8851	-0.004	4	0.9145	0.6136	2.5693	56.27125
30	123.6	3.85	-5.52	3.12	123.532	3.1166	5	2.21459	131.8826	1.87085	0	1.8709	65.03	3.1645	-0.003	5	0.8386	0.6201	2.3609	71.29755
31	140.5	2.72	-1.26	1.94	140.485	1.9362	5	2.02114	129.6541	1.93568	0	1.9357	71.576	1.9632	-7E-04	5	0.768	0.6289	2.1691	82.3431
32	103.5	3.26	-2.92	3.16	103.464	3.1509	5	2.26773	130.2331	2.00079	0	2.0008	50.712	3.213	-0.002	4	0.8767	0.5721	2.445	54.85498
33	52	1.6	-1.68	3.09	51.9794	3.0781	4	2.46617	123.3465	2.06247	0	2.0625	24.203	3.2053	-0.002	4	0.9772	0.5209	2.7024	24.57304
34	28	1.44	-2.16	5.15	27.9736	5.1477	3	2.81506	121.0644	2.123	0	2.123	12.176	5.5705	-0.006	3	1	0.4984	3.0904	12.17643
35	27.7	0.81	-1.7	2.92	27.6792	2.9264	4	2.65631	116.8286	2.18141	0	2.1814	11.689	3.1768	-0.005	3	1	0.4851	2.9557	11.68864
36	26.8	0.62	-1.78	2.31	26.7782	2.3153	4	2.60431	114.792	2.23881	0	2.2388	10.961	2.5266	-0.005	3	1	0.4726	2.922	10.96091
37	22	0.55	-1.62	2.52	21.9802	2.5023	4	2.693	113.4338	2.29553	0	2.2955	8.5752	2.7941	-0.006	3	1	0.4609	3.035	8.57522
38	24.3	0.65	-1.62	2.69	24.2802	2.6771	4	2.67654	114.8989	2.35298	0	2.353	9.3189	2.9644	-0.005	3	1	0.4497	3.0192	9.31892
39	30.8	1.53	-1.81	4.98	30.7779	4.9711	3	2.77453	121.741	2.41385	0	2.4139	11.751	5.3942	-0.005	3	1	0.4384	3.0935	11.75053
40	25.2	0.81	-1.39	3.21	25.183	3.2165	4	2.71408	116.5981	2.47215	0	2.4722	9.1867	3.5666	-0.004	3	1	0.428	3.07	9.18669
41	23.3	0.67	-1.24	2.9	23.2848	2.8774	4	2.71019	115.0186	2.52966	0	2.5297	8.2047	3.2281	-0.004	3	1	0.4183	3.0858	8.20474
42	63.3	3.26	-1.43	5.16	63.2825	5.1515	4	2.56894	129.0341	2.59417	0	2.5942	23.394	5.3717	-0.002	3	1	0.4079	2.8665	23.39409
43	174.4	3.46	-1.62	1.99	174.38	1.9842	6	1.96803	131.942	2.66014	0	2.6601	64.553	2.0149	-7E-04	5	0.8139	0.4722	2.1994	76.63466
44	151.3	2.57	-2.15	1.7	151.274	1.6989	6	1.95745	129.4195	2.72485	0	2.7249	54.516	1.7301	-0.001	5	0.8208	0.4601	2.2093	64.58888
45	253.1	2.1	-0.91	0.83	253.089	0.8298	6	1.57735	129.1969	2.78945	0	2.7895	89.731	0.839	-3E-04	6	0.664	0.5254	1.789	124.2799
46	208.7	5.16	-4.7	2.48	208.642	2.4731	5	1.99587	135.3038	2.8571	0	2.8571	72.026	2.5075	-0.002	5	0.8372	0.4353	2.2362	84.66693
47	293.1	4.2	-4.97	1.43	293.039	1.4333	6	1.71763	134.6261	2.92442	0	2.9244	99.204	1.4477	-0.001	6	0.7248	0.4786	1.9324	131.2252
48	268.5	2.76	-5.23	1.03	268.436	1.0282	6	1.62901	131.3402	2.99009	0	2.9901	88.775	1.0398	-0.001	6	0.6997	0.4834	1.8579	121.2752
49	258.9	2.64	-8.55	1.02	258.795	1.0201	6	1.63688	130.9257	3.05555	0	3.0556	83.697	1.0323	-0.002	6	0.7099	0.471	1.8764	113.8484
50	241.5	2.41	-8.52	1	241.396	0.9984	6	1.65008	130.089	3.12059	0	3.1206	76.356	1.0114	-0.003	6	0.7234	0.4573	1.9037	102.9832
51	231	2.63	-8.84	1.14	230.892	1.1391	6	1.70558	130.6197	3.1859	0	3.1859	71.473	1.155	-0.003	6	0.7523	0.4364	1.9715	93.91408
52	74.5	4.09	-7.74	5.5	74.4053	5.4969	9	2.54479	131.0886	3.25145	0	3.2515	21.884	5.7481	-0.008	3	1	0.3254	2.9077	21.88373
53	65.3	2.46	-7.23	3.77	65.2115	3.7723	4	2.45986	127.0471	3.31497	0	3.315	18.672	3.9744	-0.008	3	1	0.3192	2.8539	18.67181
54	114.6	2.64	-7.71	2.3	114.506	2.3056	5	2.13692	128.9369	3.37944	0	3.3794	32.883	2.3757	-0.005	4	0.9662	0.3256	2.5089	34.19791
55	186.2	2.3	-7.81	1.24	186.104	1.2359	6	1.79481	129.1127	3.444	0	3.444	53.037	1.2592	-0.003	5	0.8192	0.3803	2.1152	65.65196
56	30.3	0.83	-6.94	2.77	30.2151	2.747	4	2.60945	117.2209	3.50261	0	3.5026	7.6265	3.1072	-0.019	3	1	0.3021	3.103	7.62645
57	30.3	0.95	-6.9	3.15	30.2155	3.1441	4	2.64711	118.209	3.56171	0	3.5617	7.4834	3.5642	-0.019	3	1	0.2971	3.143	7.48343
58	31.2	1.16	-6.85	3.72	31.1162	3.728	4	2.68618	119.742	3.62158	0	3.6216	7.5919	4.219	-0.018	3	1	0.2922	3.1798	7.59187
59	98.4	2.76	-7.42	2.81	98.3092	2.8075	5	2.24479	128.8902	3.68603	0	3.686	25.671	2.9168	-0.006	4	1	0.2871	2.6617	25.67076
60	37.6	1.77	-6.8	4.72	37.5168	4.7179	4	2.69701	123.2901	3.74767	0	3.7477	9.0107	5.2415	-0.015	3	1	0.2823	3.1762	9.01068
61	46.7	1.26	-6.09	2.71	46.6255	2.7024	4	2.46215	121.3334	3.80834	0	3.8083	11.243	2.9428	-0.01	3	1	0.2778	2.9503	11.24299
62	128.6	3.63	-6.75	2.83	128.517	2.8245	5	2.17068	131.5486	3.87411	0	3.8741	32.173	2.9123	-0.004	4	1	0.2731	2.5861	32.17336
63	30.8	0.72	-6.09	2.34	30.7255	2.3433	4	2.56042	116.2215	3.93222	0	3.9322	6.8138	2.6873	-0.016	3	1	0.2691	3.11	6.81376
64	36.6	0.96	-5.61	2.63	36.5313	2.6279	4	2.53385	118.7486	3.9916	0	3.9916	8.1521	2.9502	-0.012	3	1	0.2651	3.0664	8.15206
65	42.6	1.7	-5.61	3.99	42.5313	3.9971	4	2.60769	123.3008	4.05325	0	4.0533	9.4932	4.4181	-0.011	3	1	0.2611	3.1132	9.49315
66	39.4	1.59	-5.52	4.04	39.3324	4.0425	4	2.63549	122.6206	4.11456	0	4.1146	8.5593	4.5148	-0.011	3	1	0.2572	3.1549	8.55933
67	36	1.29	-5.33	3.59	35.9348	3.5898	4	2.62882	120.8703	4.17499	0	4.175	7.6071	4.0617	-0.012	3	1	0.2534	3.1695	7.60714
68	33.1	1.16	-5.23	3.53	33.036	3.5113	4	2.64946	119.888	4.23494	0	4.2349	6.8008	4.0276	-0.013	3	1	0.2499	3.2073	6.80082
69	34.6	1.11	-5.14	3.22	34.5371	3.2139	4	2.60951	119.674	4.29478	0	4.2948	7.0417	3.6704	-0.012	3	1	0.2464	3.172	7.04165
70	35.9	0	-4.95	0	35.8394	0	0	0	769.6	4.67958	0	4.6796	6.6587	0	-0.011	0	1	0.2261	0	0

	C-3	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	41.8	0.08	-0.01	0.2	41.7999	0.1914	6	1.93943	100.8951	0.05045	0	0.0505	827.58	0.1916	-2E-05	6	0.4815	2	1.6512	78.91336
2	24.6	0.88	-0.04	3.57	24.5995	3.5773	4	2.75148	117.1474	0.10902	0	0.109	224.64	3.5932	-1E-04	4	0.8197	2	2.5315	46.2911
3	17.2	0.69	1.23	4	17.2151	4.0081	3	2.9025	114.4972	0.16627	0	0.1663	102.54	4.0472	0.0052	4	0.8793	2	2.6809	32.22504
4	11.8	0.65	0.43	5.51	11.8053	5.506	3	3.1166	113.1401	0.22284	0	0.2228	51.976	5.612	0.0027	3	0.9656	2	2.9005	21.89271
5	41.6	0.95	-0.06	2.28	41.5993	2.2837	5	2.45141	118.9888	0.28233	0	0.2823	146.34	2.2993	-1E-04	5	0.7144	2	2.2337	78.09587
6	13.4	0.45	-0.03	3.36	13.3996	3.3583	3	2.94172	110.7584	0.33771	0	0.3377	38.678	3.4451	-2E-04	4	0.9027	2	2.721	24.6892
7	15.1	0.28	-1.72	1.88	15.079	1.8569	4	2.75338	107.5748	0.3915	0	0.3915	37.516	1.9064	-0.008	4	0.8292	2	2.5214	27.76171
8	14.8	0.5	-5.7	3.42	14.7302	3.3944	3	2.91152	111.7603	0.44738	0	0.4474	31.925	3.5007	-0.029	4	0.8983	2	2.696	26.99696
9	83.4	0.69	-0.9	0.83	83.389	0.8275	6	1.94168	118.3452	0.50655	0	0.5066	163.62	0.8325	-8E-04	6	0.5606	1.5113	1.8032	118.3773
10	120	0.69	-0.9	0.57	119.989	0.5751	6	1.72138	119.2327	0.56617	0	0.5662	210.93	0.5778	-5E-04	6	0.4922	1.3604	1.6161	153.5437
11	34.4	1.06	-0.84	3.09	34.3897	3.0823	4	2.59893	119.3263	0.62583	0	0.6258	53.95	3.1395	-0.002	4	0.8214	1.5394	2.4721	49.12056
12	72.6	1.02	-4.21	1.41	72.5485	1.406	5	2.13096	120.8655	0.68627	0	0.6863	104.71	1.4194	-0.004	5	0.6608	1.3312	2.0431	90.41152
13	32.5	0.75	-0.9	2.32	32.489	2.3085	4	2.5374	116.6563	0.74459	0	0.7446	42.633	2.3626	-0.002	5	0.8209	1.3344	2.455	40.03252
14	98.7	0.94	-1.09	0.95	98.6867	0.9525	6	1.92044	121.0184	0.8051	0	0.8051	121.58	0.9603	-8E-04	6	0.6006	1.1784	1.8703	109.006
15	155.6	0.97	-1.28	0.63	155.584	0.6235	6	1.65121	122.3586	0.86628	0	0.8663	178.6	0.627	-6E-04	6	0.5082	1.107	1.62	161.8657
16	93.6	1.21	-1.34	1.29	93.5836	1.293	6	2.02328	122.7364	0.92765	0	0.9277	99.882	1.3059	-0.001	6	0.6564	1.0902	2.0013	95.46734
17	198.3	1.7	-1.51	0.86	198.282	0.8574	6	1.66229	127.0555	0.99118	0	0.9912	199.05	0.8617	-6E-04	6	0.5273	1.0351	1.6546	192.9918
18	286.7	2.07	-1.67	0.72	286.68	0.7221	6	1.49632	129.3956	1.05588	0	1.0559	270.51	0.7247	-4E-04	6	0.4707	1.001	1.4983	270.2065
19	147.9	3.27	-1.66	2.21	147.88	2.2113	5	2.05005	131.1267	1.12144	0	1.1214	130.87	2.2282	-8E-04	5	0.6902	0.9607	2.066	133.2444
20	47.5	1.47	-0.31	3.09	47.4962	3.095	4	2.4962	122.5064	1.18269	0	1.1827	39.159	3.174	-5E-04	4	0.8747	0.9072	2.5426	39.70958
21	239.9	2.74	-3.21	1.14	239.861	1.1423	6	1.69559	131.0124	1.2482	0	1.2482	191.17	1.1483	-1E-03	6	0.5667	0.9106	1.7258	205.3543
22	46.5	1.68	0.13	3.61	46.5016	3.6128	4	2.54929	123.4319	1.30992	0	1.3099	34.5	3.7175	0.0002	4	0.9133	0.8229	2.6282	35.14425
23	40.4	0.54	4.53	1.32	40.4555	1.3348	5	2.31797	114.7875	1.36731	0	1.3673	28.588	1.3815	0.0083	5	0.8349	0.8073	2.415	29.82336
24	38.2	0.66	4.65	1.72	38.2569	1.7252	5	2.40363	116.1195	1.42537	0	1.4254	25.84	1.7919	0.0091	4	0.8768	0.7701	2.5178	26.80583
25	58.5	1.22	-0.63	2.08	58.4923	2.0858	5	2.31373	121.6504	1.48619	0	1.4862	38.357	2.1401	-8E-04	5	0.844	0.7507	2.4239	40.44479
26	59.2	1.47	-9.21	2.48	59.0873	2.4879	5	2.36215	123.039	1.54771	0	1.5477	37.177	2.5548	-0.012	4	0.8703	0.7182	2.4852	39.05712
27	65.5	1.44	-10.18	2.21	65.3754	2.2027	5	2.29396	123.1348	1.60928	0	1.6093	39.624	2.2583	-0.011	5	0.8503	0.7001	2.4249	42.19059
28	48.2	1.28	-9.74	2.65	48.0808	2.6622	5	2.44789	121.5236	1.67004	0	1.67	27.79	2.758	-0.015	4	0.9228	0.6563	2.6079	28.78729
29	39.9	1.19	-10.07	2.98	39.7767	2.9917	4	2.54299	120.5277	1.73031	0	1.7303	21.988	3.1278	-0.019	4	0.9714	0.6202	2.7283	22.30026
30	32.4	0.87	-9.36	2.69	32.2854	2.6947	4	2.58196	117.727	1.78917	0	1.7892	17.045	2.8528	-0.022	4	0.9998	0.5915	2.7959	17.0469
31	74.6	2.86	-9.27	3.84	74.4865	3.8396	4	2.42648	128.4738	1.85341	0	1.8534	39.189	3.9376	-0.009	4	0.9279	0.5945	2.5985	40.80542
32	168.3	5.18	-11.06	3.08	168.165	3.0803	8	2.12818	134.8061	1.92081	0	1.9208	86.549	3.1159	-0.005	5	0.804	0.6192	2.2655	97.2793
33	177	3.88	-12.61	2.2	176.846	2.194	5	1.99808	132.8145	1.98722	0	1.9872	87.992	2.2189	-0.005	5	0.7597	0.6195	2.141	102.3802
34	45	1.6	-13.26	3.57	44.8377	3.5684	4	2.55693	122.986	2.04871	0	2.0487	20.886	3.7393	-0.022	3	1	0.5165	2.7995	20.88582
35	30.5	0.68	-12.74	2.25	30.3441	2.241	4	2.55269	115.7728	2.1066	0	2.1066	13.404	2.4082	-0.032	4	1	0.5023	2.8379	13.40431
36	31.3	0.82	-12.65	2.63	31.1452	2.6328	4	2.58758	117.2062	2.1652	0	2.1652	13.384	2.8295	-0.031	3	1	0.4887	2.8786	13.38443
37	39.1	1.04	-12.4	2.68	38.9482	2.6702	4	2.51724	119.4905	2.22494	0	2.2249	16.505	2.832	-0.024	4	1	0.4756	2.8052	16.50525
38	34.9	1.06	-12.21	3.06	34.7506	3.0503	4	2.59253	119.3518	2.28462	0	2.2846	14.211	3.265	-0.027	3	1	0.4631	2.8942	14.21064
39	59.5	3.41	-11.5	5.75	59.3592	5.7447	4	2.62288	129.2071	2.34922	0	2.3492	24.268	5.9814	-0.015	3	1	0.4504	2.8869	24.26759
40	37.8	1.31	-10.48	3.49	37.6717	3.4774	4	2.60437	121.0981	2.40977	0	2.4098	14.633	3.7151	-0.021	3	1	0.4391	2.9181	14.63289
41	98.1	3.08	-7.83	3.14	98.0042	3.1427	5	2.28233	129.6853	2.47462	0	2.4746	38.604	3.2241	-0.006	4	0.9348	0.452	2.5386	40.80375
42	79.8	4.2	-9.62	5.27	79.6823	5.2709	9	2.51179	131.4499	2.54034	0	2.5403	30.367	5.4445	-0.009	3	1	0.4165	2.7886	30.36676
43	155	5.1	-10.08	3.29	154.877	3.2929	8	2.17279	134.4915	2.60759	0	2.6076	58.395	3.3493	-0.005	4	0.8912	0.4476	2.4091	64.41562
44	184.4	2.8	-11.55	1.52	184.259	1.5196	6	1.86428	130.5277	2.67285	0	2.6729	67.937	1.542	-0.005	5	0.7735	0.4883	2.0917	83.80092
45	142.2	2.29	-12.84	1.62	142.043	1.6122	6	1.95928	128.4219	2.73706	0	2.7371	50.896	1.6439	-0.007	5	0.8248	0.4566	2.2184	60.11676
46	174.5	2.93	-13.17	1.68	174.339	1.6806	6	1.91305	130.7248	2.80242	0	2.8024	61.21	1.7081	-0.006	5	0.8064	0.4559	2.1619	73.91119
47	165.7	2.65	-14.78	1.6	165.519	1.601	6	1.91214	129.8633	2.86736	0	2.8674	56.725	1.6293	-0.007	5	0.8141	0.4442	2.174	68.27523
48	81.1	3.3	-14.11	4.08	80.9273	4.0777	4	2.42223	129.7231	2.93222	0	2.9322	26.599	4.231	-0.013	4	1	0.3609	2.7553	26.59935
49	38.2	1.03	-13.73	2.72	38.0319	2.7083	4	2.52908	119.3618	2.9919	0	2.9919	11.712	2.9395	-0.028	3	1	0.3537	2.9355	11.71165
50	43.2	1.45	-13.56	3.38	43.034	3.3694	4	2.55269	122.1656	3.05298	0	3.053	13.096	3.6267	-0.024	3	1	0.3466	2.95	13.09574
51	38.1	1.25	-13.49	3.28	37.9349	3.2951	4	2.58637	120.772	3.11337	0	3.1134	11.185	3.5897	-0.028	3	1	0.3399	3.0023	11.18452
52	65.1	3.17	-13.27	4.88	64.9376	4.8816	4	2.54398	128.8922	3.17781	0	3.1778	19.435	5.1328	-0.015	3	1	0.333	2.9129	19.43468
53	54.8	1.57	-13.07	2.88	54.64	2.8734	5	2.42984	123.3297	3.23948	0	3.2395	15.867	3.0544	-0.018	3	1	0.3266	2.8386	15.86692
54	186.2	2.68	-13.83	1.44	186.031	1.4406	6	1.84415	130.2306	3.30459	0	3.3046	55.295	1.4667	-0.005	5	0.825	0.3908	2.148	67.48864
55	115.9	3.9	-7.91	3.37	115.803	3.3678	5	2.25841	131.8195	3.3705	0	3.3705	33.358	3.4687	-0.005	4	1	0.3139	2.6246	33.35784
56	147.1	5.29	-8.29	3.6	146.999	3.5987	8	2.21725	134.6318	3.43782	0	3.4378	41.759	3.6849	-0.004	4	0.9921	0.3107	2.5683	42.15108
57	260.1	3.91	-10.54	1.51	259.971	1.504	6	1.76575	133.8106	3.50472	0	3.5047	73.177	1.5246	-0.003	5	0.799	0.3841	2.0548	93.09253
58	160.6	4.84	-6.62	3.02	160.519	3.0152	5	2.13289	134.1959	3.57182	0	3.5718	43.94	3.0838	-0.003	4	0.9679	0.308	2.4895	45.69071
59	103.4	3.78	-6.15	3.66	103.325	3.6584	5	2.31765	131.3127	3.63748	0	3.6375	27.406	3.7919	-0.004	4	1	0.2909	2.714	27.40559
60	309.6	2.45	-10.92	0.79	309.466	0.7917	6	1.503	130.8153	3.70289	0	3.7029	82.574	0.8013	-0.003	6	0.7084	0.4117	1.791	118.9823
61	296.6	3.42	-14.3	1.15	296.425	1.1538	6	1.63999	133.1509	3.76946	0	3.7695	77.639	1.1686	-0.004	6	0.7684	0.3768	1.9408	104.2057
62	45.9	1.48	-13.3	3.24	45.7372	3.2359	4	2.52139	122.464	3.83069	0	3.8307	10.94	3.5317	-0.023	3	1	0.2762	3.0059	10.93967
63	84.7	5.02	-13.41	5.95	84.5359	5.9383	9	2.53608	132.8991	3.89714	0	3.8971	20.692	6.2253	-0.012	3	1	0.2715	2.9491	20.69175
64	87.4	1.93	-12.62	2.21	87.2455	2.2122	5	2.2052	125.9816	3.96013	0	3.9601	21.031	2.3173	-0.011	4	1	0.2672	2.6688	21.03096
65	44.9	0.97	-12.4	2.17	44.7482	2.1677	5	2.41258	119.3192	4.01979	0	4.0198	10.132	2.3816	-0.022	3	1	0.2632	2.9365	10.13197
66	57	1.47	-12.36	2.58	56.8487	2.5858	5	2.38586	122.9448	4.08127	0	4.0813	12.929	2.7858	-0.017	3	1	0.2593	2.8869	12.92919
67	58.6	2.34	-12.5	4.01	58.447	4.0036	4	2.51128	126.414	4.14447	0	4.1445	13.102	4.3092	-0.017	3	1	0.2553	2.9956	13.1024
68	56.1	2.06	-12.5	3.68	55.947	3.6821	4	2.49825	125.3749	4.20716	0	4.2072	12.298	3.9815	-0.017	3	1	0.2515	2.9963	12.29804
69	50	1.63	-12.44	3.26	49.8477	3.27	4	2.49748	123.3803	4.26885	0	4.2689	10.677	3.5762	-0.02	3	1	0.2479	3.0177	10.67709
70	49.9	0	-12.4	0	49.7482	0	0	0	769.6	4.65365	0	4.6537	9.6902	0	-0.02	0	1	0.2274	0	0

	C-4	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	34.6	0.06	0.19	0.18	34.6023	0.1734	6	2.00858	98.32926	0.04916	0	0.0492	702.81	0.1737	0.0004	6	0.5068	2	1.7177	65.31122
2	34.1	0.35	0.16	1.01	34.102	1.0263	5	2.31615	111.1979	0.10476	0	0.1048	324.51	1.0295	0.0003	5	0.6433	2	2.0693	64.26035
3	41	0.68	0.19	1.67	41.0023	1.6584	5	2.36931	116.507	0.16302	0	0.163	250.52	1.6651	0.0003	5	0.6732	2	2.1405	77.19308
4	34.3	0.78	0.28	2.27	34.3034	2.2738	4	2.51488	117.0758	0.22155	0	0.2216	153.83	2.2886	0.0006	5	0.7338	2	2.2921	64.4204
5	31	0.2	0.36	0.64	31.0044	0.6451	5	2.25223	106.8709	0.27499	0	0.275	111.75	0.6508	0.0008	6	0.6229	2	1.9946	58.0837
6	14.2	0.18	0.38	1.24	14.2047	1.2672	4	2.68986	104.1962	0.32709	0	0.3271	42.428	1.2971	0.002	5	0.7975	2	2.4463	26.2309
7	53	0.21	0.57	0.41	53.007	0.3962	6	1.95001	108.536	0.38136	0	0.3814	138	0.3991	0.0008	6	0.5316	1.7203	1.7432	85.56147
8	71.3	0.15	0.38	0.21	71.3047	0.2104	6	1.72889	106.7973	0.43476	0	0.4348	163.01	0.2117	0.0004	6	0.465	1.5123	1.5628	101.29
9	58.8	0.15	0.28	0.26	58.8034	0.2551	6	1.83543	106.3271	0.48792	0	0.4879	119.52	0.2572	0.0004	6	0.5122	1.4866	1.6793	81.92892
10	57.4	0.19	0.28	0.33	57.4034	0.331	6	1.88669	107.998	0.54192	0	0.5419	104.93	0.3342	0.0004	6	0.5413	1.4365	1.7486	77.19515
11	72.2	0.24	0.27	0.34	72.2033	0.3324	6	1.79623	110.2668	0.59705	0	0.5971	119.93	0.3352	0.0003	6	0.5196	1.3463	1.6843	91.10761
12	87.7	0.39	0.01	0.45	87.7001	0.4447	6	1.77786	114.2935	0.6542	0	0.6542	133.06	0.448	1E-05	6	0.5238	1.2864	1.6877	105.8263
13	102.7	0.65	0.09	0.64	102.701	0.6329	6	1.80064	118.4163	0.71341	0	0.7134	142.96	0.6373	6E-05	6	0.5425	1.2384	1.7292	119.3669
14	62.7	0.84	-0.57	1.33	62.693	1.3399	5	2.1669	119.0888	0.77295	0	0.773	80.109	1.3566	-7E-04	5	0.6873	1.2409	2.1019	72.61676
15	55.7	2.04	-1.14	3.67	55.6861	3.6634	4	2.4981	125.2921	0.8356	0	0.8356	65.642	3.7192	-0.002	4	0.8227	1.2144	2.4491	62.9514
16	50.5	2.24	-2.38	4.43	50.4709	4.4382	4	2.58764	125.7366	0.89846	0	0.8985	55.175	4.5186	-0.003	4	0.8665	1.1523	2.5564	53.98301
17	57.9	2.34	-2.64	4.04	57.8677	4.0437	4	2.51739	126.3898	0.96166	0	0.9617	59.175	4.112	-0.003	4	0.8493	1.0846	2.5036	58.32867
18	73.8	3.83	0.82	5.19	73.81	5.189	9	2.5278	130.5884	1.02695	0	1.027	70.873	5.2622	0.0008	9	0.8622	1.0261	2.5292	70.58141
19	66.2	3.42	2.11	5.17	66.2258	5.1642	4	2.55677	129.4955	1.0917	0	1.0917	59.663	5.2507	0.0023	4	0.8826	0.9728	2.5748	59.88227
20	49	2.37	1.21	4.83	49.0148	4.8353	4	2.62335	126.078	1.15474	0	1.1547	41.447	4.9519	0.0018	4	0.9188	0.9228	2.6621	41.74164
21	57.6	2.44	2.33	4.23	57.6285	4.234	4	2.53316	126.6858	1.21808	0	1.2181	46.311	4.3254	0.003	4	0.8921	0.882	2.5839	47.01999
22	68.8	2.88	3.04	4.19	68.8372	4.1838	4	2.47711	128.3324	1.28225	0	1.2823	52.685	4.2632	0.0032	4	0.8777	0.8448	2.5382	53.93726
23	93.5	4.53	5.14	4.84	93.5629	4.8417	9	2.43923	132.395	1.34845	0	1.3485	68.386	4.9125	0.004	4	0.8687	0.8101	2.5063	70.59795
24	99.5	5.81	7.27	5.84	99.589	5.834	9	2.48657	134.3682	1.41563	0	1.4156	69.35	5.9181	0.0053	9	0.8942	0.7708	2.5649	71.51791
25	104.9	6.32	4.47	6.03	104.955	6.0216	9	2.48398	135.1118	1.48319	0	1.4832	69.763	6.108	0.0031	9	0.9006	0.7378	2.5732	72.14441
26	101.1	4.55	4.07	4.5	101.15	4.4983	9	2.39314	132.6174	1.5495	0	1.5495	64.279	4.5683	0.0029	4	0.8741	0.7165	2.4953	67.4403
27	114.3	7.2	4.72	6.29	114.358	6.296	9	2.4778	136.2749	1.61763	0	1.6176	69.694	6.3864	0.003	9	0.9125	0.6789	2.5877	72.33196
28	102.2	5.47	7.32	5.35	102.29	5.3476	9	2.44942	133.9922	1.68463	0	1.6846	59.719	5.4371	0.0052	4	0.911	0.6546	2.5753	62.24286
29	144	6.42	-1.68	4.46	143.979	4.459	9	2.29773	135.9977	1.75263	0	1.7526	81.151	4.5139	-9E-04	9	0.8548	0.6496	2.419	87.31834
30	77.3	3.75	1.43	4.85	77.3175	4.8501	4	2.49238	130.5472	1.8179	0	1.8179	41.531	4.9669	0.0014	4	0.9481	0.5986	2.6561	42.71507
31	58.9	2.3	1.34	3.91	58.9164	3.9038	4	2.50094	126.3074	1.88106	0	1.8811	30.321	4.0326	0.0017	4	0.965	0.574	2.6928	30.93753
32	56.5	2.25	1.17	3.99	56.5143	3.9813	4	2.51959	126.0451	1.94408	0	1.9441	28.07	4.1231	0.0015	4	0.9809	0.5507	2.7267	28.39881
33	40.8	1.41	2.03	3.45	40.8249	3.4538	4	2.57674	121.8324	2.00499	0	2.005	19.362	3.6322	0.0038	3	1	0.5277	2.8169	19.36158
34	99.9	2.73	2.25	2.73	99.9275	2.732	5	2.23125	128.8501	2.06942	0	2.0694	47.288	2.7898	0.0017	5	0.8712	0.5575	2.4215	51.55632
35	153.4	4.79	-0.54	3.12	153.393	3.1227	5	2.15693	134.0091	2.13642	0	2.1364	70.799	3.1668	-3E-04	5	0.8387	0.5547	2.3298	79.29777
36	25.5	0.65	1.94	2.55	25.5238	2.5467	4	2.64609	115.0207	2.19393	0	2.1939	10.634	2.7861	0.006	3	1	0.4823	2.9567	10.63378
37	23.7	0.59	2.5	2.47	23.7306	2.4862	4	2.66479	114.1344	2.251	0	2.251	9.5422	2.7468	0.0084	3	1	0.4701	2.9923	9.54224
38	148.5	1.71	4.52	1.15	148.555	1.1511	6	1.84136	126.3942	2.3142	0	2.3142	63.193	1.1693	0.0022	6	0.7361	0.5621	2.0382	77.68719
39	87	2.33	-0.19	2.68	86.9977	2.6782	5	2.26572	127.3528	2.37788	0	2.3779	35.586	2.7535	-2E-04	4	0.9218	0.4741	2.5163	37.91222
40	74.5	2.29	0.6	3.07	74.5073	3.0735	5	2.35542	126.8481	2.4413	0	2.4413	29.52	3.1776	0.0006	4	0.9678	0.4452	2.6303	30.32412
41	11.9	0.27	2.17	2.28	11.9266	2.2639	4	2.88564	106.7367	2.49467	0	2.4947	3.7808	2.8626	0.0166	3	1	0.4242	3.3433	3.78082
42	20.2	0.41	3.42	2.04	20.2419	2.0255	4	2.66812	111.0834	2.55021	0	2.5502	6.9373	2.3175	0.0139	3	1	0.4149	3.0697	6.93733
43	143.4	2.33	1.48	1.62	143.418	1.6246	6	1.95885	128.5721	2.6145	0	2.6145	53.855	1.6548	0.0008	5	0.8122	0.4797	2.2005	63.82834
44	207.1	1.88	1.09	0.91	207.113	0.9077	6	1.66614	127.8982	2.67844	0	2.6784	76.326	0.9196	0.0004	6	0.6943	0.5247	1.8826	101.3841
45	109.6	1.59	2.18	1.45	109.627	1.4504	6	2.00609	125.1207	2.741	0	2.741	38.995	1.4876	0.0015	5	0.8522	0.4443	2.2899	44.88378
46	164.9	3.65	1.79	2.21	164.922	2.2132	5	2.02006	132.1971	2.8071	0	2.8071	57.752	2.2515	0.0008	5	0.8498	0.4364	2.2755	66.8639
47	152.8	3.17	6.28	2.07	152.877	2.0736	5	2.01943	130.9805	2.87259	0	2.8726	52.219	2.1133	0.003	5	0.8586	0.4242	2.2904	60.13942
48	230.8	3.04	2.39	1.31	230.829	1.317	6	1.75334	131.6791	2.93843	0	2.9384	77.555	1.334	0.0008	6	0.7481	0.4658	1.9916	100.3141
49	134.9	4.77	3.15	3.53	134.939	3.5349	8	2.23355	133.6659	3.00527	0	3.0053	43.901	3.6155	0.0017	4	0.959	0.3675	2.5366	45.82063
50	143.2	2.75	7.83	1.92	143.296	1.9191	5	2.01255	129.7826	3.07016	0	3.0702	45.674	1.9611	0.004	5	0.8777	0.3926	2.3159	52.03014
51	165.7	5.03	3.55	3.03	165.743	3.0348	5	2.12676	134.5557	3.13744	0	3.1374	51.828	3.0934	0.0016	5	0.9234	0.3666	2.4252	56.33019
52	71.7	2.55	10.24	3.55	71.8253	3.5503	4	2.41199	127.5456	3.20121	0	3.2012	21.437	3.7159	0.0107	4	1	0.3305	2.7891	21.43695
53	45.3	1.59	9.93	3.51	45.4215	3.5005	4	2.5471	122.9717	3.26269	0	3.2627	12.921	3.7715	0.017	3	1	0.3243	2.9649	12.92149
54	38.5	1.31	8.75	3.4	38.6071	3.3932	4	2.58932	121.1579	3.32327	0	3.3233	10.617	3.7128	0.0179	3	1	0.3184	3.0292	10.61719
55	36	1.13	9.54	3.11	36.1168	3.1287	4	2.58723	119.9137	3.38323	0	3.3832	9.6752	3.4521	0.021	3	1	0.3128	3.0435	9.67523
56	47	1.95	9.41	4.14	47.1152	4.1388	4	2.58679	124.5543	3.44551	0	3.4455	12.674	4.4653	0.0155	3	1	0.3071	3.0165	12.67438
57	49.7	1.97	10.5	3.95	49.8285	3.9536	4	2.55555	124.7656	3.50789	0	3.5079	13.205	4.253	0.0163	3	1	0.3016	2.9894	13.2047
58	43.3	1.4	10.61	3.21	43.4299	3.2236	4	2.53666	121.9311	3.56886	0	3.5689	11.169	3.5122	0.0192	3	1	0.2965	2.9972	11.16913
59	48.9	2.56	10.33	5.22	49.0264	5.2217	4	2.64762	126.6428	3.63218	0	3.6322	12.498	5.6395	0.0164	3	1	0.2913	3.0851	12.49781
60	41.5	1.2	11.22	2.88	41.6373	2.882	4	2.51738	120.7004	3.69253	0	3.6925	10.276	3.1625	0.0213	3	1	0.2866	3.0002	10.27611
61	38.2	1.53	11.02	3.99	38.3349	3.9911	4	2.63971	122.2765	3.75366	0	3.7537	9.2127	4.4244	0.0229	3	1	0.2819	3.124	9.21266
62	34.1	1.11	11.28	3.24	34.2381	3.242	4	2.61484	119.6528	3.81349	0	3.8135	7.9781	3.6484	0.0267	3	1	0.2775	3.1259	7.97814
63	41.9	1.2	12.12	2.85	42.0484	2.8539	4	2.51135	120.7244	3.87385	0	3.8739	9.8544	3.1435	0.0229	3	1	0.2731	3.0136	9.8544
64	47.1	1.95	11.73	4.14	47.2436	4.1276	4	2.58512	124.561	3.93613	0	3.9361	11.003	4.5027	0.0195	3	1	0.2688	3.0672	11.00253
65	63.5	2.79	13.93	4.39	63.6705	4.3819	4	2.51474	127.9098	4.00009	0	4.0001	14.917	4.6757	0.0168	3	1	0.2645	2.974	14.91727
66	60.2	2.61	16.37	4.32	60.4004	4.3212	4	2.52573	127.2932	4.06374	0	4.0637	13.863	4.6329	0.0209	3	1	0.2604	2.9961	13.86326
67	43.8	1.17	15.22	2.66	43.9863	2.6599	4	2.4764	120.649	4.12406	0	4.1241	9.6658	2.9351	0.0275	3	1	0.2566	3.0037	9.66577
68	39.6	1.43	15.25	3.58	39.7867	3.5942	4	2.59673	121.8726	4.185	0	4.185	8.507	4.0167	0.0308	3	1	0.2528	3.1272	8.50698
69	41.2	1.06	16.48	2.56	41.4017	2.5603	4	2.48523	119.7789	4.24489	0	4.2449	8.7533	2.8528	0.0319	3	1	0.2493	3.0326	8.75332
70	73.3	0	20.8	0	73.5546	0	0	0	769.6	4.62969	0	4.6297	14.888	0	0.0217	0	1	0.2286	0	0

	C-5	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	29	0.04	0.09	0.13	29.0011	0.1379	5	2.0637	94.93178	0.04747	0	0.0475	609.99	0.1382	0.0002	6	0.5262	2	1.7689	54.72718
2	46.8	0.2	0.19	0.42	46.8023	0.4273	6	2.01289	107.8753	0.1014	0	0.1014	460.55	0.4283	0.0003	6	0.52	2	1.746	88.27251
3	32.9	0.27	0.19	0.81	32.9023	0.8206	5	2.27947	109.2117	0.15601	0	0.156	209.9	0.8245	0.0004	6	0.6296	2	2.0268	61.89598
4	22.3	0.07	0.19	0.31	22.3023	0.3139	5	2.2627	98.3859	0.2052	0	0.2052	107.68	0.3168	0.0006	6	0.6159	2	1.9847	41.76724
5	25	0.32	0.29	1.29	25.0036	1.2798	5	2.48128	109.7853	0.2601	0	0.2601	95.132	1.2933	0.0008	5	0.7154	2	2.2391	46.76924
6	21.2	0.06	0.47	0.26	21.2058	0.2829	5	2.26974	97.13501	0.30866	0	0.3087	67.702	0.2871	0.0016	6	0.6237	2	1.9924	39.49897
7	37.5	0.13	0.47	0.35	37.5058	0.3466	6	2.06529	104.1832	0.36075	0	0.3608	102.96	0.35	0.0009	6	0.5634	1.8335	1.8286	64.36338
8	37.9	0.16	0.47	0.43	37.9058	0.4221	5	2.09407	105.7284	0.41362	0	0.4136	90.644	0.4268	0.0009	6	0.5869	1.7354	1.8839	61.49093
9	46.5	0.19	0.47	0.42	46.5058	0.4086	6	2.00723	107.4845	0.46736	0	0.4674	98.507	0.4127	0.0007	6	0.5692	1.5922	1.8312	69.2781
10	64.1	0.38	0.57	0.6	64.107	0.5928	6	1.95803	113.3391	0.52403	0	0.524	121.33	0.5976	0.0007	6	0.5663	1.4887	1.8161	89.45988
11	64.3	0.62	0.57	0.97	64.307	0.9641	5	2.07206	116.9288	0.58249	0	0.5825	109.4	0.9729	0.0006	6	0.6199	1.4478	1.9491	87.19402
12	46.9	1.24	0.38	2.65	46.9047	2.6437	5	2.45384	121.2309	0.64311	0	0.6431	71.934	2.6804	0.0006	5	0.7722	1.4689	2.3409	64.22154
13	61.8	0.99	-0.35	1.6	61.7957	1.6021	5	2.22078	120.2558	0.70324	0	0.7032	86.873	1.6205	-4E-04	5	0.6964	1.3291	2.1345	76.74038
14	57.1	1.48	0.17	2.6	57.1021	2.5919	5	2.38514	123.0053	0.76474	0	0.7647	73.669	2.627	0.0002	5	0.7687	1.2835	2.3156	68.3393
15	36.2	1.24	0	3.44	36.2	3.4254	4	2.61274	120.599	0.82504	0	0.825	42.877	3.5053	0	4	0.8639	1.2398	2.5585	41.44908
16	28.8	1.5	-0.79	5.23	28.7903	5.2101	3	2.80958	121.4333	0.88576	0	0.8858	31.504	5.3755	-0.002	3	0.9496	1.1839	2.7761	31.22251
17	35.4	0.81	0	2.3	35.4	2.2881	4	2.50596	117.4287	0.94447	0	0.9445	36.481	2.3509	0	4	0.8435	1.1006	2.4903	35.83829
18	47.3	0.48	0.09	1.02	47.3011	1.0148	5	2.19434	114.307	1.00162	0	1.0016	46.224	1.0367	0.0001	5	0.7328	1.041	2.1928	45.55176
19	49.6	0.42	0.09	0.84	49.6011	0.8468	5	2.13398	113.4457	1.05835	0	1.0584	45.867	0.8652	0.0001	5	0.718	0.9998	2.147	45.86949
20	58.1	0.44	0.07	0.75	58.1009	0.7573	6	2.05	114.1719	1.11543	0	1.1154	51.088	0.7721	9E-05	5	0.6933	0.9641	2.075	51.92152
21	75.1	0.97	0.09	1.29	75.1011	1.2916	5	2.09587	120.5821	1.17572	0	1.1757	62.876	1.3121	9E-05	5	0.7175	0.9272	2.131	64.77673
22	41.3	1.03	0.09	2.49	41.3011	2.4939	4	2.47857	119.5629	1.23551	0	1.2355	32.429	2.5708	0.0002	4	0.877	0.8729	2.5422	33.05266
23	39.8	0.83	0.32	2.08	39.8039	2.0852	5	2.44101	117.8932	1.29445	0	1.2945	29.75	2.1553	0.0006	4	0.8717	0.8388	2.5209	30.52914
24	88.4	0.67	0.31	0.75	88.4038	0.7579	6	1.89885	118.2724	1.35359	0	1.3536	64.311	0.7697	0.0003	6	0.6632	0.8493	1.9664	69.87284
25	102.3	0.35	0.38	0.34	102.305	0.3421	6	1.66521	113.8774	1.41053	0	1.4105	71.529	0.3469	0.0003	6	0.5789	0.8467	1.738	80.73531
26	132.3	3.97	0.34	3	132.304	3.0007	5	2.18302	132.2745	1.47666	0	1.4767	88.597	3.0345	0.0002	5	0.7822	0.7705	2.2628	95.26759
27	47	1.8	5.91	3.81	47.0723	3.8239	4	2.56278	123.9664	1.53865	0	1.5387	29.593	3.9531	0.0094	4	0.9497	0.7008	2.6952	30.15638
28	59.2	1.8	7.99	3.04	59.2978	3.0355	5	2.42098	124.5296	1.60091	0	1.6009	36.04	3.1198	0.01	4	0.8995	0.689	2.5553	37.57178
29	90.2	4.61	8.48	5.1	90.3038	5.105	9	2.46681	132.4366	1.66713	0	1.6671	53.167	5.201	0.0069	4	0.9177	0.6589	2.5952	55.19343
30	69.9	3.54	11	5.05	70.0346	5.0546	4	2.53387	129.8842	1.73207	0	1.7321	39.434	5.1828	0.0116	4	0.9557	0.6244	2.6869	40.30457
31	63.3	3.03	11.13	4.78	63.4362	4.7765	4	2.54364	128.5046	1.79633	0	1.7963	34.314	4.9157	0.013	4	0.9693	0.5987	2.7146	34.87707
32	42	1.45	10.85	3.44	42.1328	3.4415	4	2.56568	122.114	1.85738	0	1.8574	21.684	3.6002	0.0194	4	0.9956	0.5711	2.7756	21.73774
33	44.5	1.85	10.91	4.14	44.6335	4.1449	4	2.60384	124.0372	1.9194	0	1.9194	22.254	4.3311	0.0184	3	1	0.5513	2.82	22.25389
34	53.8	2.15	10.51	3.99	53.9286	3.9868	4	2.53413	125.5982	1.9822	0	1.9822	26.206	4.1389	0.0146	4	0.9929	0.5362	2.7523	26.32438
35	32.8	1.13	10.44	3.43	32.9278	3.4318	4	2.64391	119.6883	2.04204	0	2.042	15.125	3.6587	0.0243	3	1	0.5182	2.9027	15.12491
36	25.4	0.87	10.36	3.39	25.5268	3.4082	4	2.72564	117.1541	2.10062	0	2.1006	11.152	3.7138	0.0318	3	1	0.5037	3.0121	11.15203
37	23.5	0.65	10.25	2.75	23.6255	2.7513	4	2.6932	114.8322	2.15804	0	2.158	9.9477	3.0278	0.0344	3	1	0.4903	3.001	9.94766
38	30.5	0.96	10.67	3.14	30.6306	3.1341	4	2.64171	118.3189	2.2172	0	2.2172	12.815	3.3787	0.027	3	1	0.4772	2.9391	12.81501
39	34.3	0.89	10.25	2.59	34.4255	2.5853	4	2.54902	118.0498	2.27622	0	2.2762	14.124	2.7683	0.023	4	1	0.4649	2.8541	14.12395
40	157.5	1.9	9.41	1.2	157.615	1.2055	6	1.83713	127.3095	2.33988	0	2.3399	66.36	1.2236	0.0044	6	0.7355	0.5578	2.0332	81.86236
41	24.2	0.75	9.39	3.09	24.3149	3.0845	4	2.71436	115.9495	2.39785	0	2.3979	9.1403	3.422	0.0309	3	1	0.4413	3.0615	9.1403
42	28.3	0.95	9.29	3.34	28.4137	3.3435	4	2.68475	118.0591	2.45688	0	2.4569	10.565	3.6599	0.0258	3	1	0.4307	3.0273	10.56495
43	21.3	0.89	9.67	4.13	21.4184	4.1553	3	2.83941	116.8924	2.51533	0	2.5153	7.5151	4.7082	0.0368	3	1	0.4207	3.2112	7.51514
44	274.5	2.73	7.97	0.99	274.598	0.9942	6	1.61152	131.3155	2.58098	0	2.581	105.39	1.0036	0.0021	6	0.6559	0.5572	1.7941	143.2405
45	325.2	2.73	6.36	0.84	325.278	0.8393	6	1.50778	131.7286	2.64685	0	2.6469	121.89	0.8462	0.0014	6	0.6169	0.568	1.6832	173.1994
46	103.3	2.97	4.84	2.87	103.359	2.8735	5	2.23785	129.5489	2.71162	0	2.7116	37.117	2.9509	0.0035	4	0.9409	0.4125	2.5252	39.23888
47	227.1	4.73	4.93	2.08	227.16	2.0822	6	1.91378	134.8746	2.77906	0	2.7791	80.74	2.108	0.0016	5	0.7957	0.4638	2.1368	98.35018
48	320	3.61	3.71	1.13	320.045	1.128	6	1.61167	133.7335	2.84593	0	2.8459	111.46	1.1381	0.0008	6	0.6744	0.5131	1.8096	153.8206
49	266.4	7.41	2.85	2.78	266.435	2.7812	8	1.97795	137.28	2.91457	0	2.9146	90.415	2.8119	0.0008	5	0.8272	0.4325	2.2029	107.7131
50	387	3.88	3.15	1	387.039	1.0025	6	1.52094	134.7248	2.98193	0	2.9819	128.79	1.0103	0.0006	6	0.6447	0.5127	1.7146	186.1051
51	495.7	3.76	2.05	0.76	495.725	0.7585	6	1.35969	135.0986	3.04948	0	3.0495	161.56	0.7632	0.0003	6	0.5798	0.5413	1.5354	252.0594
52	141.1	4.32	9.04	3.06	141.211	3.0593	5	2.17192	133.0516	3.116	0	3.116	44.318	3.1283	0.0047	4	0.9447	0.3605	2.4846	47.04568
53	196.1	6.3	-1.48	3.21	196.082	3.2129	8	2.1041	136.613	3.18431	0	3.1843	60.577	3.266	-6E-04	5	0.9126	0.3659	2.3907	66.70243
54	43.9	0.59	-0.62	1.34	43.8924	1.3442	5	2.29102	115.6343	3.24213	0	3.2421	12.538	1.4514	-0.001	4	1	0.3264	2.7449	12.53815
55	60.8	1.3	1.15	2.14	60.8141	2.1377	5	2.30829	122.21	3.30323	0	3.3032	17.41	2.2604	0.0014	4	1	0.3203	2.729	17.41047
56	92.3	2.84	2.47	3.07	92.3302	3.0759	5	2.29251	128.9462	3.36771	0	3.3677	26.416	3.1924	0.002	4	1	0.3142	2.6772	26.41635
57	66.4	3.22	1.08	4.85	66.4132	4.8484	4	2.53531	129.0615	3.43224	0	3.4322	18.35	5.1127	0.0012	3	1	0.3083	2.9305	18.34983
58	35.8	0.72	2.56	2.02	35.8313	2.0094	5	2.46665	116.5964	3.49054	0	3.4905	9.2653	2.2263	0.0057	3	1	0.3031	2.9535	9.26528
59	41.9	1.13	2.71	2.68	41.9332	2.6948	4	2.4957	120.2779	3.55067	0	3.5507	10.81	2.9441	0.0051	3	1	0.298	2.9644	10.80992
60	84.7	4.01	-0.79	4.73	84.6903	4.7349	9	2.45901	131.2599	3.6163	0	3.6163	22.419	4.9461	-7E-04	3	1	0.2926	2.8559	22.41903
61	33.9	0.89	2.19	2.63	33.9268	2.6233	4	2.55794	118.0142	3.67531	0	3.6753	8.231	2.942	0.0052	3	1	0.2879	3.0622	8.231
62	39.8	0.95	2.94	2.39	39.836	2.3848	4	2.47791	118.8832	3.73475	0	3.7348	9.6663	2.6315	0.0059	3	1	0.2833	2.9773	9.6663
63	47.8	1.39	3.42	2.9	47.8419	2.9054	4	2.47516	122.1147	3.79581	0	3.7958	11.604	3.1558	0.0056	3	1	0.2788	2.9566	11.60386
64	31.9	0.97	3.7	3.04	31.9453	3.0364	4	2.6189	118.4972	3.85506	0	3.8551	7.2866	3.4532	0.0095	3	1	0.2745	3.1449	7.28659
65	25.9	0.82	3.61	3.17	25.9442	3.1606	4	2.69927	116.7605	3.91344	0	3.9134	5.6295	3.7221	0.0118	3	1	0.2704	3.2562	5.62951
66	30	0.61	3.98	2.02	30.0487	2.03	4	2.52989	114.9541	3.97092	0	3.9709	6.5672	2.3392	0.011	3	1	0.2665	3.0922	6.5672
67	104	4.54	3.16	4.36	104.039	4.3638	9	2.37521	132.67	4.03725	0	4.0373	24.77	4.5399	0.0023	3	1	0.2621	2.7988	24.76968
68	144.9	7.29	4.34	5.03	144.953	5.0292	9	2.33877	136.944	4.10572	0	4.1057	34.305	5.1758	0.0022	3	1	0.2577	2.7355	34.30513
69	241.8	6.9	0.27	2.85	241.803	2.8536	8	2.01032	137.28	4.17436	0	4.1744	56.926	2.9037	8E-05	5	0.9566	0.269	2.3842	60.41866
70	237	6.29	0.38	2.65	237.005	2.654	8	1.98904	137.0637	4.2429	0	4.2429	54.859	2.7023	0.0001	5	0.9557	0.2652	2.3732	58.33887

	C-6	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	28.1	0.02	0.28	0.09	28.1034	0.0712	0	2.04705	89.78334	0.04489	0	0.0449	625.03	0.0713	0.0007	0	0.5177	2	1.747	53.0353
2	16.8	0.19	0.31	1.13	16.8038	1.1307	4	2.60199	105.0017	0.09739	0	0.0974	171.54	1.1373	0.0013	5	0.749	2	2.3476	31.57788
3	29.8	0.09	0.29	0.29	29.8036	0.302	5	2.13809	100.9319	0.14786	0	0.1479	200.57	0.3035	0.0007	6	0.5653	2	1.8591	56.05419
4	40.1	0.08	0.38	0.2	40.1047	0.1995	6	1.96149	100.7942	0.19826	0	0.1983	201.29	0.2005	0.0007	6	0.4979	2	1.6758	75.42972
5	50.3	0.25	0.38	0.49	50.3047	0.497	6	2.01351	109.6841	0.2531	0	0.2531	197.76	0.4995	0.0006	6	0.5302	2	1.7538	94.60576
6	47.1	0.2	0.28	0.43	47.1034	0.4246	6	2.00919	107.891	0.30704	0	0.307	152.41	0.4274	0.0004	6	0.5348	1.9381	1.7567	85.71458
7	41.3	0.09	0.29	0.23	41.3036	0.2179	6	1.95974	101.7278	0.35791	0	0.3579	114.4	0.2198	0.0005	6	0.525	1.7667	1.7291	68.3663
8	42.9	0.07	0.38	0.16	42.9047	0.1632	6	1.91162	99.98171	0.4079	0	0.4079	104.18	0.1647	0.0006	6	0.5192	1.6403	1.708	65.88064
9	51.2	0.12	0.38	0.24	51.2047	0.2344	6	1.88015	104.3569	0.46008	0	0.4601	110.3	0.2365	0.0005	6	0.5214	1.5438	1.7071	74.03781
10	51.7	0.13	0.3	0.25	51.7037	0.2514	6	1.88598	104.9662	0.51256	0	0.5126	99.874	0.254	0.0004	6	0.5341	1.4728	1.7337	71.25124
11	39.2	0.86	0.34	2.2	39.2042	2.1936	5	2.46004	118.1159	0.57162	0	0.5716	67.585	2.2261	0.0006	5	0.7592	1.596	2.3158	58.27103
12	32.5	0.91	0.02	2.79	32.5002	2.8	4	2.59042	118.072	0.63065	0	0.6307	50.534	2.8554	5E-05	4	0.8187	1.5276	2.4645	46.00925
13	44.8	0.99	0	2.2	44.8	2.2098	5	2.4176	119.4714	0.69039	0	0.6904	63.891	2.2444	0	5	0.7667	1.3873	2.3206	57.83376
14	37.6	1.25	0.08	3.34	37.601	3.3244	4	2.59179	120.7504	0.75076	0	0.7508	49.084	3.3921	0.0002	4	0.843	1.3355	2.5126	46.50981
15	29.8	1.35	-0.77	4.53	29.7906	4.5316	3	2.75727	120.7457	0.81114	0	0.8111	35.727	4.6585	-0.002	4	0.9162	1.2758	2.6977	34.94027
16	24.8	1.01	-6.55	4.09	24.7198	4.0858	3	2.78744	118.1675	0.87022	0	0.8702	27.406	4.2349	-0.02	4	0.9388	1.2015	2.7498	27.08068
17	48.8	0.2	0.11	0.42	48.8014	0.4098	6	1.98877	107.9773	0.92421	0	0.9242	51.803	0.4177	0.0002	6	0.6427	1.0909	1.9656	49.3587
18	76.4	0.31	0.19	0.41	76.4023	0.4058	6	1.81182	112.2773	0.98035	0	0.9804	76.934	0.411	0.0002	6	0.583	1.0455	1.8022	74.52379
19	51.7	0.25	0.19	0.49	51.7023	0.4835	6	1.9975	109.7509	1.03522	0	1.0352	48.943	0.4934	0.0003	6	0.6623	1.0146	2.0037	48.58313
20	79.1	0.35	0.19	0.44	79.1023	0.4425	6	1.81605	113.25	1.09185	0	1.0919	71.448	0.4487	0.0002	6	0.5994	0.9814	1.8314	72.35224
21	21.3	0.58	0.29	2.73	21.3036	2.7226	4	2.72596	113.7462	1.14872	0	1.1487	17.545	2.8777	0.001	4	0.9662	0.9237	2.7872	17.59425
22	28.6	0.78	-1.24	2.74	28.5848	2.7287	4	2.62626	116.631	1.20704	0	1.207	22.682	2.849	-0.003	4	0.9336	0.8843	2.6942	22.88112
23	36.2	0.95	-2.37	2.63	36.171	2.6264	4	2.53698	118.6478	1.26636	0	1.2664	27.563	2.7217	-0.005	4	0.9055	0.8499	2.6131	28.03504
24	55.9	1.86	-1.84	3.33	55.8775	3.3287	4	2.4675	124.6246	1.32867	0	1.3287	41.055	3.4098	-0.002	4	0.8825	0.818	2.5448	42.16883
25	86.1	4.41	3.87	5.12	86.1474	5.1191	9	2.48056	131.9972	1.39467	0	1.3947	60.769	5.2034	0.0033	4	0.891	0.7819	2.5591	62.62584
26	64.6	3.56	3.51	5.51	64.643	5.5072	4	2.58479	129.7301	1.45954	0	1.4595	43.29	5.6344	0.004	3	0.9426	0.7385	2.6865	44.09697
27	73.2	4.04	4.44	5.52	73.2544	5.515	9	2.55021	130.9606	1.52502	0	1.525	47.035	5.6323	0.0045	3	0.9358	0.7103	2.6605	48.15149
28	85.1	4.38	5.67	5.14	85.1694	5.1427	9	2.48523	131.9194	1.59098	0	1.591	52.533	5.2406	0.0049	4	0.9167	0.688	2.6021	54.34752
29	75.6	4.07	4.66	5.38	75.657	5.3795	9	2.53295	131.0934	1.65652	0	1.6565	44.672	5.5	0.0045	3	0.9448	0.6548	2.6676	45.79171
30	59.2	3.52	5.03	5.93	59.2616	5.9398	3	2.63431	129.4354	1.72124	0	1.7212	33.43	6.1175	0.0063	3	0.9963	0.6159	2.7946	33.49013
31	57.7	3.3	4.34	5.71	57.7531	5.714	4	2.62896	128.9003	1.78569	0	1.7857	31.342	5.8963	0.0056	3	1	0.5926	2.8033	31.34216
32	115.1	3.83	3.02	3.33	115.137	3.3265	5	2.25586	131.6729	1.85153	0	1.8515	61.185	3.3808	0.0019	4	0.8536	0.6203	2.403	66.40848
33	241.8	2.43	0.51	1.01	241.806	1.0049	6	1.65169	130.1536	1.9166	0	1.9166	125.16	1.013	0.0002	6	0.6139	0.6944	1.767	157.4289
34	234	2.42	1.89	1.03	234.023	1.0341	6	1.67044	130.0436	1.98163	0	1.9816	117.1	1.0429	0.0006	6	0.6278	0.6744	1.7954	147.8965
35	70.9	1.73	1.43	2.43	70.9175	2.4395	5	2.299	124.6758	2.04396	0	2.044	33.696	2.5119	0.0015	4	0.9028	0.5519	2.508	35.9239
36	48.9	1.54	2.28	3.15	48.9279	3.1475	4	2.49185	122.9193	2.10542	0	2.1054	22.239	3.289	0.0035	4	0.9946	0.5044	2.7417	22.32218
37	23.1	0.61	1.43	2.62	23.1175	2.6387	4	2.68953	114.3145	2.16258	0	2.1626	9.6898	2.911	0.0049	3	1	0.4893	3.0008	9.68977
38	157.2	1.53	0.28	0.97	157.203	0.9733	6	1.77336	125.7184	2.22544	0	2.2254	69.639	0.9872	0.0001	6	0.6997	0.5944	1.9535	87.05942
39	238.6	2.47	0.2	1.04	238.602	1.0352	6	1.66513	130.2405	2.29056	0	2.2906	103.17	1.0452	6E-05	6	0.654	0.6035	1.8255	134.7703
40	289.4	3.17	0.19	1.09	289.402	1.0954	6	1.629	132.537	2.35683	0	2.3568	121.79	1.1044	5E-05	6	0.6413	0.5984	1.7838	162.324
41	280.5	6.75	-0.26	2.41	280.497	2.4064	8	1.91306	137.28	2.42547	0	2.4255	114.65	2.4274	-7E-05	5	0.7573	0.5335	2.0802	140.2117
42	61.5	1.32	-0.38	2.14	61.4954	2.1465	5	2.30591	122.3489	2.48664	0	2.4866	23.73	2.237	-5E-04	4	0.9608	0.44	2.6059	24.53828
43	27.7	0.73	5.32	2.61	27.7651	2.6292	4	2.62598	116.0753	2.54468	0	2.5447	9.911	2.8945	0.0152	3	1	0.4158	2.9913	9.91104
44	29.5	1.2	7.96	4.06	29.5974	4.0544	4	2.72671	119.868	2.60462	0	2.6046	10.363	4.4456	0.0212	3	1	0.4062	3.0844	10.36345
45	123.5	3.12	3.39	2.53	123.541	2.5255	5	2.14467	130.3445	2.66979	0	2.6698	45.274	2.5813	0.002	5	0.894	0.4372	2.4086	49.94264
46	48.7	1.61	0.26	3.3	48.7032	3.3057	4	2.50803	123.2333	2.7314	0	2.7314	16.831	3.5022	0.0004	3	1	0.3874	2.8545	16.83082
47	146.3	1.64	0.32	1.12	146.304	1.121	6	1.83816	126.0511	2.79443	0	2.7944	51.356	1.1428	0.0002	5	0.783	0.4675	2.1012	63.40273
48	129	3.74	-0.5	2.9	128.994	2.8994	5	2.17841	131.7761	2.86032	0	2.8603	44.098	2.9651	-3E-04	4	0.9255	0.3984	2.4656	47.48763
49	207.2	4.06	-0.1	1.96	207.199	1.9595	6	1.91692	133.5326	2.92708	0	2.9271	69.787	1.9876	-4E-05	5	0.8136	0.437	2.1654	84.36077
50	176.9	5.12	-1.04	2.9	176.887	2.8945	5	2.09339	134.8442	2.99451	0	2.9945	58.071	2.9443	-4E-04	5	0.8934	0.3948	2.3667	64.88251
51	597.3	5.26	1.42	0.88	597.317	0.8806	6	1.36847	137.28	3.06315	0	3.0632	194	0.8851	0.0002	6	0.5777	0.5411	1.5286	303.909
52	127.2	4.28	1.17	3.37	127.214	3.3644	5	2.23244	132.729	3.12951	0	3.1295	39.65	3.4493	0.0007	4	0.9731	0.3481	2.5585	40.82514
53	37.5	0.71	-3.6	1.9	37.4559	1.8956	5	2.43588	116.6023	3.18781	0	3.1878	10.75	2.0719	-0.008	4	1	0.3319	2.8822	10.74973
54	28.8	0.61	-3.51	2.12	28.757	2.1212	4	2.55663	114.8469	3.24524	0	3.2452	7.8613	2.3911	-0.01	3	1	0.3261	3.0304	7.86131
55	43.4	0.91	-3.77	2.09	43.3539	2.099	5	2.41415	118.7748	3.30462	0	3.3046	12.119	2.2722	-0.007	4	1	0.3202	2.8602	12.11915
56	90.6	2.29	-2.18	2.53	90.5733	2.5283	5	2.23553	127.3244	3.36829	0	3.3683	25.89	2.626	-0.002	4	1	0.3141	2.6302	25.89004
57	65.2	2.78	-4.64	4.26	65.1432	4.2675	4	2.49955	127.9393	3.43225	0	3.4323	17.98	4.5049	-0.005	3	1	0.3083	2.9014	17.97971
58	47.1	1.24	-2.94	2.63	47.064	2.6347	5	2.45176	121.2392	3.49287	0	3.4929	12.474	2.8459	-0.005	3	1	0.3029	2.905	12.47429
59	46.5	1.83	-2.94	3.94	46.464	3.9385	4	2.57583	124.0557	3.5549	0	3.5549	12.07	4.2648	-0.005	3	1	0.2977	3.0209	12.07041
60	39.4	1.03	-2.78	2.62	39.366	2.6165	4	2.50796	119.4458	3.61463	0	3.6146	9.8908	2.881	-0.006	3	1	0.2927	2.9909	9.89075
61	54.6	1.37	-2.37	2.5	54.571	2.5105	5	2.39012	122.3296	3.67579	0	3.6758	13.846	2.6918	-0.003	4	1	0.2879	2.854	13.84606
62	50.8	2.03	-2.47	3.99	50.7698	3.9984	4	2.55334	125.0307	3.73831	0	3.7383	12.581	4.3163	-0.004	3	1	0.283	3.0099	12.58096
63	35.5	1.1	-2.56	3.1	35.4687	3.1013	4	2.5906	119.6727	3.79814	0	3.7981	8.3384	3.4733	-0.006	3	1	0.2786	3.0979	8.33843
64	28	0.87	-2.18	3.12	27.9733	3.1101	4	2.66965	117.3773	3.85683	0	3.8568	6.2529	3.6075	-0.007	3	1	0.2744	3.2107	6.25293
65	34.4	0.85	-1.88	2.47	34.377	2.4726	4	2.53713	117.7099	3.91569	0	3.9157	7.7793	2.7904	-0.004	3	1	0.2702	3.0702	7.7793
66	32	0.7	-1.61	2.18	31.9803	2.1889	4	2.52843	116.113	3.97374	0	3.9737	7.0479	2.4994	-0.004	3	1	0.2663	3.0809	7.0479
67	35.9	0.69	-1.14	1.93	35.8861	1.9228	5	2.45435	116.2888	4.03189	0	4.0319	7.9006	2.1661	-0.003	3	1	0.2624	3.0062	7.90056
68	76.7	1.49	-0.79	1.95	76.6903	1.9429	5	2.20609	123.7739	4.09377	0	4.0938	17.733	2.0524	-8E-04	4	1	0.2585	2.6985	17.73341
69	46.2	1.29	-0.69	2.8	46.1916	2.7927	4	2.47476	121.4828	4.15451	0	4.1545	10.118	3.0687	-0.001	3	1	0.2547	2.9982	10.1184
70	193.8	6.04	-2.19	3.12	193.773	3.1171	8	2.09627	136.2757	4.22265	0	4.2227	44.889	3.1865	-8E-04	4	1	0.2506	2.5049	44.88898

	C-7	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	38.5	0.04	0.1	0.1	38.5012	0.1039	6	1.92366	95.62289	0.04781	0	0.0478	804.27	0.104	0.0002	6	0.4718	2	1.626	72.68334
2	45.5	0.13	0.19	0.28	45.5023	0.2857	6	1.95693	104.6546	0.10014	0	0.1001	453.39	0.2863	0.0003	6	0.4944	2	1.6789	85.81768
3	44.3	0.18	0.19	0.4	44.3023	0.4063	6	2.02546	106.9705	0.15362	0	0.1536	287.38	0.4077	0.0003	6	0.5267	2	1.7572	83.44838
4	29.9	0.14	0.28	0.46	29.9034	0.4682	5	2.20645	104.173	0.20571	0	0.2057	144.37	0.4714	0.0007	6	0.5984	2	1.9389	56.13362
5	21.2	0.14	0.38	0.67	21.2047	0.6602	5	2.4045	103.3346	0.25738	0	0.2574	81.387	0.6683	0.0013	5	0.6791	2	2.1443	39.59383
6	30.1	0.15	0.38	0.5	30.1047	0.4983	5	2.21485	104.6942	0.30972	0	0.3097	96.198	0.5034	0.0009	6	0.608	2	1.9509	56.31736
7	42	0.37	0.38	0.88	42.0047	0.8809	5	2.2042	112.1129	0.36578	0	0.3658	113.84	0.8886	0.0007	6	0.6196	1.9313	1.9727	75.99975
8	42	0.33	0.42	0.79	42.0051	0.7856	5	2.17835	111.2757	0.42142	0	0.4214	98.675	0.7936	0.0007	6	0.6221	1.773	1.9749	69.67949
9	52.7	0.32	0.47	0.61	52.7058	0.6071	6	2.0369	111.6041	0.47722	0	0.4772	109.44	0.6127	0.0007	6	0.5843	1.5924	1.8692	78.60073
10	55.2	0.55	0.47	1	55.2058	0.9963	5	2.13445	115.68	0.53506	0	0.5351	102.18	1.006	0.0006	6	0.633	1.5397	1.9894	79.55359
11	35.1	1.34	0.47	3.81	35.1058	3.817	4	2.65432	121.0917	0.59561	0	0.5956	57.941	3.8829	0.001	4	0.8365	1.6172	2.5155	52.74552
12	36.6	1.43	-1.62	3.91	36.5802	3.9092	4	2.64831	121.6676	0.65644	0	0.6564	54.725	3.9807	-0.003	4	0.847	1.4984	2.5342	50.87129
13	40.9	1.71	-2.68	4.19	40.8672	4.1843	4	2.63398	123.2464	0.71806	0	0.7181	55.913	4.2591	-0.005	4	0.8535	1.3922	2.5441	52.82665
14	30.6	1.63	-4.69	5.35	30.5426	5.3368	3	2.7983	122.1855	0.77916	0	0.7792	38.2	5.4765	-0.011	3	0.926	1.3276	2.7271	37.3437
15	32.6	1.45	-5.02	4.44	32.5386	4.4563	4	2.72432	121.4837	0.8399	0	0.8399	37.741	4.5743	-0.011	4	0.9089	1.2336	2.6748	36.95486
16	33.3	1.37	-7.16	4.12	33.2124	4.125	4	2.69489	121.1184	0.90046	0	0.9005	35.884	4.2399	-0.016	4	0.9082	1.1578	2.6655	35.35604
17	75.8	0.52	0.38	0.69	75.8047	0.686	6	1.92963	116.043	0.95848	0	0.9585	78.088	0.6948	0.0004	6	0.6249	1.0638	1.9149	75.24521
18	84.7	0.63	0.38	0.74	84.7047	0.7438	6	1.90933	117.7178	1.01734	0	1.0173	82.261	0.7528	0.0003	6	0.625	1.0249	1.9079	81.05782
19	69.4	0.68	0.28	0.98	69.4034	0.9798	6	2.04933	117.7907	1.07623	0	1.0762	63.487	0.9952	0.0003	5	0.6868	0.9884	2.0629	63.82594
20	57.4	0.44	0.28	0.76	57.4034	0.7665	6	2.05724	114.1424	1.1333	0	1.1333	49.651	0.7819	0.0004	5	0.6987	0.9532	2.0868	50.68933
21	19	0.9	-0.28	4.71	18.9966	4.7377	3	2.91602	116.6815	1.19165	0	1.1917	14.941	5.0548	-0.001	3	1	0.8879	2.9951	14.94146
22	22.3	0.99	-0.57	4.45	22.293	4.4409	3	2.84505	117.7691	1.25053	0	1.2505	16.827	4.7048	-0.002	3	1	0.8461	2.9355	16.82686
23	25.4	0.77	-0.47	3.02	25.3943	3.0322	4	2.69503	116.2479	1.30865	0	1.3087	18.405	3.1969	-0.001	4	0.9778	0.8124	2.7979	18.49174
24	61	2.79	0	4.57	61	4.5738	4	2.54102	127.8053	1.37256	0	1.3726	43.443	4.6791	0	4	0.9153	0.7881	2.6257	44.41039
25	80.1	4.47	1.93	5.58	80.1236	5.5789	9	2.5294	131.9193	1.43852	0	1.4385	54.699	5.6809	0.0018	4	0.9159	0.7548	2.6191	56.12953
26	54.9	4.01	1.33	7.29	54.9163	7.302	3	2.724	130.2033	1.50362	0	1.5036	35.523	7.5076	0.0018	3	1	0.7037	2.8418	35.52276
27	76.4	4.36	1.9	5.71	76.4233	5.7051	9	2.54988	131.6216	1.56943	0	1.5694	47.695	5.8247	0.0018	3	0.9405	0.6902	2.6673	48.82672
28	68.3	5.12	0.71	7.49	68.3087	7.4954	9	2.67282	132.5236	1.63569	0	1.6357	40.761	7.6793	0.0008	3	0.9976	0.6476	2.8088	40.80471
29	66.5	3.47	1.89	5.22	66.5231	5.2162	4	2.5588	129.6126	1.7005	0	1.7005	38.12	5.3531	0.0021	3	0.9624	0.6334	2.7084	38.80645
30	128.1	4.84	2.2	3.78	128.127	3.7775	8	2.27011	133.6461	1.76732	0	1.7673	71.498	3.8303	0.0013	4	0.8479	0.6473	2.3987	77.30083
31	80.2	3.83	-0.28	4.78	80.1966	4.7758	9	2.47703	130.7908	1.83272	0	1.8327	42.758	4.8875	-3E-04	4	0.9432	0.5957	2.6414	44.11417
32	66.8	2.85	1.64	4.27	66.8201	4.2652	4	2.49197	128.1833	1.89681	0	1.8968	34.228	4.3898	0.0018	4	0.9605	0.5709	2.6789	35.02634
33	58	2.42	1.2	4.17	58.0147	4.1714	4	2.52645	126.6419	1.96013	0	1.9601	28.597	4.3172	0.0015	4	0.9847	0.5449	2.735	28.86774
34	64.6	2.66	0.78	4.12	64.6096	4.117	4	2.49045	127.5964	2.02393	0	2.0239	30.923	4.2502	0.0009	4	0.9758	0.5311	2.7035	31.41175
35	60.5	2.14	0.76	3.54	60.5093	3.5367	4	2.46197	125.8449	2.08685	0	2.0869	27.996	3.663	0.0009	4	0.9742	0.516	2.6914	28.49052
36	109.8	2.52	0.76	2.29	109.809	2.2949	5	2.1477	128.4944	2.1511	0	2.1511	50.048	2.3407	0.0005	5	0.8448	0.5492	2.3439	55.87474
37	21.8	0.68	1.71	3.13	21.8209	3.1163	4	2.7538	114.9686	2.20858	0	2.2086	8.8801	3.4672	0.0063	3	1	0.4791	3.0751	8.88007
38	37.4	1.9	2.08	5.07	37.4255	5.0768	3	2.72021	123.8027	2.27048	0	2.2705	15.483	5.4046	0.0043	3	1	0.466	3.0021	15.48349
39	309.5	2.36	0.54	0.76	309.507	0.7625	6	1.49086	130.5418	2.33575	0	2.3358	131.51	0.7683	0.0001	6	0.5847	0.6294	1.6377	182.7178
40	195.1	3.12	1	1.6	195.112	1.5991	6	1.86484	131.4591	2.40148	0	2.4015	80.247	1.619	0.0004	5	0.7463	0.5425	2.0541	98.79475
41	250.7	3.64	0.63	1.45	250.708	1.4519	6	1.76339	133.1985	2.46808	0	2.4681	100.58	1.4663	0.0002	6	0.7067	0.5496	1.9417	128.9466
42	30.1	1.22	1.55	4.04	30.119	4.0506	4	2.72082	120.0315	2.5281	0	2.5281	10.914	4.4218	0.004	3	1	0.4185	3.0652	10.91369
43	92.5	1.88	3.65	2.04	92.5447	2.0315	5	2.16091	125.9334	2.59106	0	2.5911	34.717	2.09	0.0029	5	0.9019	0.4459	2.4391	37.90666
44	54.1	2.11	2.89	3.9	54.1354	3.8976	4	2.52592	125.4701	2.6538	0	2.6538	19.399	4.0986	0.004	3	1	0.3987	2.8497	19.3992
45	168.4	1.55	2.09	0.92	168.426	0.9203	6	1.73488	125.9816	2.71679	0	2.7168	60.994	0.9354	0.0009	6	0.731	0.5019	1.9743	78.60293
46	397.9	4.53	1.04	1.14	397.913	1.1384	6	1.5587	135.9257	2.78475	0	2.7848	141.89	1.1465	0.0002	6	0.6419	0.5373	1.732	200.6497
47	384.5	4.56	1.36	1.19	384.517	1.1859	6	1.58176	135.8905	2.8527	0	2.8527	133.79	1.1948	0.0003	6	0.6575	0.5209	1.7645	187.9068
48	286.3	2.15	0.69	0.75	286.308	0.7509	6	1.50903	129.6699	2.91753	0	2.9175	97.134	0.7587	0.0002	6	0.6451	0.5198	1.7231	139.2248
49	151.5	5.21	0.64	3.44	151.508	3.4388	8	2.19358	134.594	2.98483	0	2.9848	49.759	3.5079	0.0003	4	0.9375	0.3782	2.482	53.09115
50	260.5	1.8	-0.66	0.69	260.492	0.691	6	1.51201	128.1393	3.0489	0	3.0489	84.438	0.6992	-2E-04	6	0.6613	0.4967	1.7491	120.8427
51	331.5	3.01	-0.39	0.91	331.495	0.908	6	1.52862	132.4892	3.11514	0	3.1151	105.41	0.9166	-9E-05	6	0.6645	0.488	1.7496	151.4392
52	45.8	0.89	2.28	1.94	45.8279	1.9421	5	2.37407	118.7476	3.17452	0	3.1745	13.436	2.0866	0.0039	4	1	0.3333	2.8024	13.43618
53	43.3	0.83	2.37	1.92	43.329	1.9156	5	2.38917	118.1001	3.23357	0	3.2336	12.4	2.0701	0.0043	4	1	0.3272	2.8297	12.39975
54	47.9	0.98	2.37	2.05	47.929	2.0447	5	2.37343	119.5618	3.29335	0	3.2934	13.553	2.1956	0.0038	4	1	0.3213	2.8115	13.55328
55	83.8	3.51	3.08	4.18	83.8377	4.1867	4	2.42091	130.2607	3.35848	0	3.3585	23.963	4.3614	0.0028	3	1	0.3151	2.7979	23.963
56	51	2.3	2.17	4.5	51.0266	4.5075	4	2.58922	125.9567	3.42146	0	3.4215	13.914	4.8314	0.0033	3	1	0.3093	3.0064	13.91369
57	47.1	1.13	3.58	2.39	47.1438	2.3969	5	2.42391	120.5636	3.48174	0	3.4817	12.54	2.5881	0.0059	3	1	0.3039	2.8795	12.54031
58	41.5	1.58	3.09	3.8	41.5378	3.8038	4	2.60009	122.7075	3.54309	0	3.5431	10.724	4.1585	0.0059	3	1	0.2986	3.0551	10.72361
59	45.6	1.4	3.56	3.07	45.6436	3.0672	4	2.50615	122.0524	3.60412	0	3.6041	11.664	3.3302	0.0061	3	1	0.2936	2.9684	11.66428
60	55.3	1.99	3.74	3.59	55.3458	3.5956	4	2.49418	125.0956	3.66667	0	3.6667	14.094	3.8507	0.0052	3	1	0.2886	2.9406	14.0943
61	42.4	1.57	4.02	3.71	42.4492	3.6985	4	2.58485	122.714	3.72802	0	3.728	10.387	4.0546	0.0075	3	1	0.2838	3.0596	10.38652
62	41.2	1.22	4.19	2.97	41.2513	2.9575	4	2.52789	120.7986	3.78842	0	3.7884	9.8888	3.2566	0.0081	3	1	0.2793	3.0212	9.88878
63	44.7	1.53	4.46	3.41	44.7546	3.4186	4	2.54464	122.6541	3.84975	0	3.8498	10.625	3.7404	0.0079	3	1	0.2749	3.0308	10.62532
64	48.3	1.26	5	2.6	48.3612	2.6054	5	2.43973	121.4225	3.91046	0	3.9105	11.367	2.8346	0.0081	3	1	0.2706	2.9371	11.36713
65	132.3	6.56	4.59	4.95	132.356	4.9563	9	2.35635	135.9503	3.97844	0	3.9784	32.268	5.1099	0.0026	3	1	0.266	2.7505	32.26839
66	379.5	6.07	1.9	1.6	379.523	1.5994	6	1.69275	137.28	4.04708	0	4.0471	92.777	1.6166	0.0004	6	0.8003	0.3418	1.9906	121.2794
67	339.6	4.84	-6.27	1.43	339.523	1.4255	6	1.67823	136.023	4.11509	0	4.1151	81.507	1.443	-0.001	6	0.8061	0.3346	1.9972	106.0634
68	128.8	7.31	-9.91	5.68	128.679	5.6808	9	2.41176	136.6736	4.18342	0	4.1834	29.759	5.8717	-0.006	3	1	0.2529	2.8179	29.75918
69	236.2	5.89	-9.16	2.49	236.088	2.4948	5	1.96786	136.5734	4.25171	0	4.2517	54.528	2.5406	-0.003	5	0.9488	0.2672	2.3535	58.55219
70	38.2	1.72	-8.15	4.52	38.1002	4.5144	4	2.67881	123.118	4.31327	0	4.3133	7.8333	5.0907	-0.017	3	1	0.2453	3.2169	7.83326

	C-8	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	73.8	0.32	0	0.44	73.8	0.4336	6	1.83848	112.4251	0.05621	0	0.0562	1311.9	0.4339	0	6	0.4542	2	1.5789	139.388
2	26.6	0.55	0	2.08	26.6	2.0677	4	2.57704	113.8991	0.11316	0	0.1132	234.06	2.0765	0	5	0.7487	2	2.3448	50.06453
3	35.8	0.52	0	1.45	35.8	1.4525	5	2.38251	114.2132	0.17027	0	0.1703	209.26	1.4595	0	5	0.6762	2	2.1474	67.34611
4	27.3	0.13	0	0.48	27.3	0.4762	5	2.24564	103.4086	0.22197	0	0.222	121.99	0.4801	0	6	0.6142	2	1.9782	51.18197
5	24.8	0.14	0.03	0.56	24.8004	0.5645	5	2.31397	103.7166	0.27383	0	0.2738	89.568	0.5708	9E-05	6	0.6445	2	2.0512	46.35923
6	44	0.66	0.09	1.49	44.0011	1.5	5	2.31851	116.4607	0.33206	0	0.3321	131.51	1.5114	0.0002	5	0.6623	2	2.0907	82.54174
7	27.3	0.89	0	3.26	27.3	3.2601	4	2.6909	117.4842	0.3908	0	0.3908	68.856	3.3074	0	4	0.8123	2	2.4771	50.86285
8	33	0.58	0	1.75	33	1.7576	5	2.4598	114.8136	0.44821	0	0.4482	72.626	1.7818	0	5	0.7313	1.8741	2.2549	57.65643
9	43.1	0.46	0	1.06	43.1	1.0673	5	2.24009	113.7687	0.50509	0	0.5051	84.331	1.0799	0	5	0.6637	1.6336	2.0737	65.76126
10	35.2	0.71	-0.1	2.01	35.1988	2.0171	5	2.47377	116.4507	0.56332	0	0.5633	61.484	2.0499	-2E-04	5	0.7616	1.6162	2.323	52.90427
11	26.3	0.81	0.08	3.08	26.301	3.0797	4	2.68753	116.7041	0.62167	0	0.6217	41.307	3.1543	0.0002	4	0.8522	1.5733	2.5534	38.18353
12	29.1	0.92	-0.84	3.15	29.0897	3.1626	4	2.66133	117.8816	0.68061	0	0.6806	41.74	3.2384	-0.002	4	0.8553	1.4585	2.553	39.15863
13	34.2	1.4	-1.42	4.11	34.1826	4.0957	4	2.68363	121.3472	0.74129	0	0.7413	45.113	4.1864	-0.003	4	0.8758	1.3657	2.5999	43.16209
14	26.7	1.3	-1.77	4.89	26.6783	4.8729	3	2.81386	120.2004	0.80139	0	0.8014	32.29	5.0238	-0.005	3	0.9359	1.2971	2.7506	31.7204
15	35.1	1.48	-0.52	4.22	35.0936	4.2173	4	2.68401	121.8179	0.8623	0	0.8623	39.698	4.3235	-0.001	4	0.8974	1.2016	2.6419	38.873
16	23.4	1.18	-2.19	5.05	23.3732	5.0485	3	2.86664	119.1691	0.92188	0	0.9219	24.354	5.2558	-0.007	3	0.9787	1.1444	2.8482	24.28251
17	38	1.05	-2.45	2.78	37.97	2.7653	4	2.53554	119.4985	0.98163	0	0.9816	37.681	2.8387	-0.005	4	0.8605	1.0667	2.5305	37.28833
18	41.2	0.96	-0.38	2.32	41.1954	2.3304	5	2.46031	119.0417	1.04115	0	1.0412	38.567	2.3908	-7E-04	5	0.8408	1.0137	2.4715	38.46809
19	72.2	0.56	-0.38	0.78	72.1954	0.7757	6	1.97685	116.4662	1.09938	0	1.0994	64.669	0.7877	-4E-04	6	0.6621	0.975	1.9952	65.51047
20	47.2	0.76	-0.38	1.62	47.1954	1.6103	5	2.31318	117.6639	1.15822	0	1.1582	39.748	1.6508	-6E-04	5	0.8013	0.9301	2.3532	40.46871
21	21.9	0.86	-1.05	3.95	21.8872	3.9293	3	2.81654	116.6943	1.21656	0	1.2166	16.991	4.1605	-0.004	3	1	0.8698	2.8981	16.99097
22	33.2	1.05	-0.61	3.16	33.1925	3.1634	4	2.61793	119.1705	1.27615	0	1.2762	25.01	3.2899	-0.001	4	0.939	0.8387	2.7	25.29726
23	54.1	0.67	-0.38	1.24	54.0954	1.2386	5	2.19685	117.0745	1.33469	0	1.3347	39.53	1.2699	-5E-04	5	0.7803	0.8343	2.2756	41.59977
24	58.6	1.74	-0.24	2.97	58.5971	2.9694	5	2.41795	124.2525	1.39681	0	1.3968	40.951	3.0419	-3E-04	4	0.8721	0.7849	2.509	42.43178
25	210	1.98	-0.48	0.94	209.994	0.9429	6	1.67364	128.3111	1.46097	0	1.461	142.74	0.9495	-2E-04	6	0.5804	0.8292	1.7359	163.4262
26	248.6	1.66	-0.19	0.67	248.598	0.6678	6	1.51627	127.4329	1.52468	0	1.5247	162.05	0.6719	-6E-05	6	0.5246	0.8256	1.5814	192.7819
27	133.8	4.88	-0.43	3.64	133.795	3.6474	8	2.24658	133.8119	1.59159	0	1.5916	83.064	3.6913	-2E-04	5	0.8191	0.7158	2.3452	89.43185
28	80.7	3.6	-2.5	4.46	80.6694	4.4627	4	2.45287	130.352	1.65677	0	1.6568	47.691	4.5562	-0.002	4	0.9131	0.664	2.5843	49.58547
29	82.1	3.88	-0.77	4.73	82.0906	4.7265	9	2.46707	130.9427	1.72224	0	1.7222	46.665	4.8278	-7E-04	4	0.926	0.6369	2.6099	48.37849
30	58	2.83	-0.95	4.88	57.9884	4.8803	4	2.57666	127.786	1.78613	0	1.7861	31.466	5.0354	-0.001	3	0.9826	0.5978	2.751	31.75393
31	48.5	2.13	-0.86	4.39	48.4895	4.3927	4	2.5965	125.2705	1.84876	0	1.8488	25.228	4.5668	-0.001	3	1	0.5723	2.7947	25.22804
32	56.3	2.96	-1.02	5.26	56.2875	5.2587	4	2.6094	128.042	1.91279	0	1.9128	28.427	5.4437	-0.001	3	1	0.5532	2.8091	28.42698
33	67.4	2.39	-1.05	3.55	67.3872	3.5467	4	2.43057	126.9159	1.97624	0	1.9762	33.099	3.6538	-0.001	4	0.9463	0.5537	2.6315	34.2283
34	104	1.95	-1.38	1.87	103.983	1.8753	5	2.10059	126.4851	2.03949	0	2.0395	49.985	1.9128	-1E-03	5	0.816	0.5854	2.2823	56.39838
35	88.6	2.38	-0.16	2.69	88.598	2.6863	5	2.26125	127.5527	2.10326	0	2.1033	41.124	2.7516	-1E-04	4	0.8894	0.5428	2.4652	44.37216
36	31.3	1.07	-0.21	3.42	31.2974	3.4188	4	2.65935	119.1652	2.16285	0	2.1629	13.47	3.6726	-5E-04	3	1	0.4892	2.9436	13.47049
37	23.3	0.7	-0.19	2.99	23.2977	3.0046	4	2.72168	115.3404	2.22052	0	2.2205	9.492	3.3211	-7E-04	3	1	0.4765	3.0406	9.49201
38	35.5	1.05	-0.19	2.95	35.4977	2.9579	4	2.57679	119.3343	2.28018	0	2.2802	14.568	3.161	-4E-04	3	1	0.4641	2.8772	14.56791
39	71.4	1.32	-0.57	1.86	71.393	1.8489	5	2.21436	122.7129	2.34154	0	2.3415	29.49	1.9116	-6E-04	5	0.9045	0.4875	2.4748	31.81369
40	65.8	1.62	0.09	2.47	65.8011	2.462	5	2.32512	124.0125	2.40355	0	2.4036	26.377	2.5553	0.0001	4	0.9563	0.4563	2.6043	27.34031
41	20.3	0.83	0.57	4.11	20.307	4.0873	3	2.85247	116.2517	2.46167	0	2.4617	7.2493	4.6511	0.0023	3	1	0.4298	3.2208	7.24926
42	46.7	0.77	2.09	1.65	46.7256	1.6479	5	2.32278	117.7352	2.52054	0	2.5205	17.538	1.7419	0.0034	4	0.9816	0.4266	2.6569	17.82016
43	27.2	0.99	1.11	3.62	27.2136	3.6379	4	2.72286	118.2556	2.57967	0	2.5797	9.5493	4.0189	0.0032	3	1	0.4102	3.0867	9.54926
44	13.7	0.58	0.99	4.26	13.7121	4.2298	3	2.99439	112.6716	2.636	0	2.636	4.2019	5.2365	0.0064	3	1	0.4014	3.4442	4.20186
45	46.7	1.43	0.57	3.07	46.707	3.0616	4	2.49829	122.2637	2.69713	0	2.6971	16.317	3.2493	0.0009	3	1	0.3923	2.8451	16.31726
46	162.6	1.5	0.7	0.93	162.609	0.9225	6	1.74676	125.6559	2.75996	0	2.76	57.917	0.9384	0.0003	6	0.741	0.4915	1.9949	74.24497
47	139.8	2.52	0.74	1.8	139.809	1.8025	6	1.99949	129.0835	2.8245	0	2.8245	48.499	1.8396	0.0004	5	0.8494	0.4343	2.2722	56.22507
48	155.8	1.97	0.66	1.26	155.808	1.2644	6	1.85537	127.5461	2.88828	0	2.8883	52.945	1.2883	0.0003	5	0.7965	0.4494	2.1251	64.94685
49	142.7	4.92	0.23	3.45	142.703	3.4477	8	2.21015	134.0289	2.95529	0	2.9553	47.287	3.5206	0.0001	4	0.9432	0.3796	2.5007	50.13046
50	248.8	1.86	0.53	0.75	248.806	0.7476	6	1.55021	128.2673	3.01943	0	3.0194	81.402	0.7568	0.0002	6	0.6749	0.4928	1.7887	114.4651
51	41.5	0.4	1.33	0.96	41.5163	0.9635	5	2.2293	112.6548	3.07575	0	3.0758	12.498	1.0406	0.0025	4	1	0.344	2.6763	12.49793
52	29.7	1.07	1.14	3.62	29.714	3.601	4	2.69118	119.0386	3.13527	0	3.1353	8.4773	4.0258	0.0031	3	1	0.3375	3.129	8.47731
53	33.7	0.76	1.24	2.24	33.7152	2.2542	4	2.51838	116.8436	3.19369	0	3.1937	9.5568	2.4901	0.0029	3	1	0.3313	2.9683	9.5568
54	43.8	0.59	1.33	1.35	43.8163	1.3465	5	2.29207	115.6301	3.25151	0	3.2515	12.476	1.4545	0.0024	4	1	0.3254	2.7473	12.47568
55	100.5	3.44	0.87	3.42	100.511	3.4225	5	2.3032	130.5557	3.31679	0	3.3168	29.304	3.5393	0.0006	4	1	0.319	2.6723	29.30362
56	44.4	1.07	1.71	2.42	44.4209	2.4088	5	2.44478	120.0193	3.3768	0	3.3768	12.155	2.607	0.003	3	1	0.3134	2.8925	12.15476
57	48.6	1.75	1.75	3.6	48.6214	3.5992	4	2.53431	123.8393	3.43872	0	3.4387	13.139	3.8732	0.0028	3	1	0.3077	2.9662	13.13941
58	39.1	1.27	1.71	3.26	39.1209	3.2463	4	2.57212	120.9632	3.4992	0	3.4992	10.18	3.5652	0.0035	3	1	0.3024	3.0336	10.17997
59	46.4	1.57	1.81	3.39	46.4222	3.382	4	2.52992	122.9322	3.56066	0	3.5607	12.038	3.663	0.003	3	1	0.2972	2.9819	12.0375
60	46.9	2.15	1.71	4.58	46.9209	4.5822	4	2.61961	125.2587	3.62329	0	3.6233	11.95	4.9656	0.0028	3	1	0.292	3.0652	11.9498
61	26.5	1.01	1.71	3.8	26.5209	3.8083	4	2.74435	118.339	3.68246	0	3.6825	6.202	4.4224	0.0054	3	1	0.2873	3.2634	6.20196
62	36.8	0.95	1.95	2.58	36.8239	2.5799	4	2.52603	118.6914	3.74181	0	3.7418	8.8412	2.8717	0.0042	3	1	0.2828	3.0305	8.8412
63	41.1	1.15	2.28	2.81	41.1279	2.7962	4	2.51263	120.359	3.80199	0	3.802	9.8175	3.081	0.0044	3	1	0.2783	3.01	9.81748
64	74	2.19	2.85	2.96	74.0349	2.9581	5	2.3453	126.5059	3.86524	0	3.8652	18.154	3.121	0.0029	4	1	0.2738	2.7978	18.15402
65	191.8	5.1	2.85	2.66	191.835	2.6585	5	2.04275	135.0134	3.93275	0	3.9328	47.779	2.7142	0.0011	5	0.9589	0.284	2.4203	50.4294
66	112.5	8.08	3.17	7.18	112.539	7.1798	9	2.52847	137.0795	4.00129	0	4.0013	27.126	7.4444	0.0021	3	1	0.2644	2.9195	27.12565
67	446.7	8.52	-6.35	1.91	446.622	1.9077	6	1.72187	137.28	4.06993	0	4.0699	108.74	1.9252	-0.001	5	0.8054	0.3379	2.0013	141.3368
68	568.1	5.37	-7.22	0.95	568.012	0.9454	6	1.40618	137.28	4.13857	0	4.1386	136.25	0.9523	-9E-04	6	0.6783	0.3965	1.6578	211.2977
69	339.3	5.47	-9.16	1.61	339.188	1.6127	6	1.7226	136.9159	4.20702	0	4.207	79.624	1.6329	-0.002	5	0.8309	0.3176	2.0512	100.5535
70	98.3	0	-7.73	0	98.2054	0	0	0	769.6	4.59182	0	4.5918	20.387	0	-0.006	0	1	0.2304	0	0

	C-9	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	38	0.35	0.09	0.93	38.0011	0.921	5	2.25138	111.462	0.05573	0	0.0557	680.87	0.9224	0.0002	6	0.6156	2	2.0025	71.72306
2	42.6	0.37	0.07	0.88	42.6009	0.8685	5	2.19577	112.1472	0.1118	0	0.1118	380.03	0.8708	0.0001	6	0.5975	2	1.9482	80.31137
3	21.3	0.06	0	0.29	21.3	0.2817	5	2.26733	97.14583	0.16038	0	0.1604	131.81	0.2838	0	6	0.6142	2	1.9859	39.9574
4	15.9	0.04	0.09	0.25	15.9011	0.2516	5	2.37561	93.46608	0.20711	0	0.2071	75.776	0.2549	0.0004	5	0.6575	2	2.0937	29.66425
5	15.5	0.07	0.09	0.47	15.5011	0.4516	5	2.46462	97.49864	0.25586	0	0.2559	59.584	0.4592	0.0004	5	0.6985	2	2.1953	28.81604
6	24.8	0.16	0	0.63	24.8	0.6452	5	2.33892	104.6936	0.30821	0	0.3082	79.465	0.6533	0	5	0.6572	2	2.0803	46.29356
7	25	0.72	-1.48	2.89	24.9819	2.8821	4	2.68671	115.7168	0.36607	0	0.3661	67.244	2.925	-0.004	4	0.8076	2	2.468	46.52799
8	30.4	0.27	-0.1	0.89	30.3988	0.8882	5	2.32642	109.0187	0.42057	0	0.4206	71.279	0.9007	-2E-04	5	0.6722	1.8593	2.1063	52.67602
9	47.4	0.19	-0.1	0.4	47.3988	0.4009	6	1.9963	107.5309	0.47434	0	0.4743	98.926	0.4049	-2E-04	6	0.5668	1.5758	1.8241	69.88379
10	36.7	0.97	-0.19	2.64	36.6977	2.6432	4	2.53399	118.8355	0.53376	0	0.5338	67.753	2.6822	-4E-04	5	0.7786	1.7037	2.3715	58.22994
11	27.5	0.88	-4.13	3.2	27.4495	3.2059	4	2.6844	117.4148	0.59246	0	0.5925	45.331	3.2766	-0.011	4	0.8451	1.6325	2.5385	41.43629
12	29.8	1.04	-0.33	3.5	29.796	3.4904	4	2.68135	118.8372	0.65188	0	0.6519	44.707	3.5685	-8E-04	4	0.8574	1.5148	2.5618	41.7228
13	31.9	1.22	-3.79	3.82	31.8536	3.83	4	2.68647	120.1681	0.71197	0	0.712	43.74	3.9176	-0.009	4	0.8712	1.4122	2.5912	41.56387
14	30.4	1.15	-4.25	3.79	30.348	3.7894	4	2.699	119.6176	0.77178	0	0.7718	38.322	3.8883	-0.01	4	0.8869	1.323	2.6255	36.97911
15	26.8	1.17	-6.9	4.38	26.7155	4.3795	3	2.78218	119.4329	0.83149	0	0.8315	31.13	4.5202	-0.019	4	0.9295	1.2511	2.7301	30.6052
16	24.5	1.08	-6.58	4.42	24.4195	4.4227	3	2.81414	118.628	0.89081	0	0.8908	26.413	4.5902	-0.02	3	0.9528	1.1782	2.784	26.19918
17	24	0.91	-9.19	3.82	23.8875	3.8095	4	2.77887	117.3211	0.94947	0	0.9495	24.159	3.9672	-0.029	4	0.9502	1.1084	2.7698	24.02881
18	31.9	0.9	-6.49	2.82	31.8206	2.8284	4	2.60027	117.9396	1.00844	0	1.0084	30.554	2.9209	-0.015	4	0.8905	1.0437	2.6058	30.39382
19	26.3	1.01	-0.74	3.83	26.2909	3.8416	4	2.74968	118.3178	1.0676	0	1.0676	23.626	4.0042	-0.002	3	0.9588	0.9915	2.7779	23.63499
20	39.5	0.51	-0.74	1.28	39.4909	1.2914	5	2.31825	114.3104	1.12475	0	1.1248	34.111	1.3293	-0.001	5	0.7997	0.9523	2.3531	34.5307
21	23.3	0.9	-0.74	3.88	23.2909	3.8642	3	2.79124	117.1786	1.18334	0	1.1833	18.682	4.071	-0.002	3	0.9957	0.8946	2.8602	18.69134
22	21.4	0.65	-0.86	3.02	21.3895	3.0389	4	2.75383	114.5897	1.24064	0	1.2406	16.241	3.226	-0.003	3	0.9925	0.8539	2.8444	16.26011
23	19.9	0.6	-0.78	3	19.8905	3.0165	4	2.77673	113.8268	1.29755	0	1.2976	14.329	3.227	-0.003	3	1	0.8155	2.8883	14.32925
24	25.6	0.94	-1.53	3.66	25.5813	3.6746	4	2.74607	117.7255	1.35641	0	1.3564	17.86	3.8803	-0.005	3	1	0.7801	2.8622	17.85952
25	72.2	0.85	-0.76	1.17	72.1907	1.1774	5	2.08403	119.5194	1.41617	0	1.4162	49.976	1.201	-8E-04	5	0.7444	0.805	2.1708	53.8418
26	21.4	0.79	-0.96	3.71	21.3883	3.6936	3	2.80703	116.0168	1.47418	0	1.4742	13.509	3.967	-0.003	3	1	0.7178	2.963	13.50858
27	110.6	0.82	-0.79	0.74	110.59	0.7415	6	1.81471	120.2968	1.53433	0	1.5343	71.077	0.7519	-5E-04	6	0.6495	0.7856	1.908	80.96521
28	264.9	1.29	-0.72	0.49	264.891	0.487	6	1.40415	125.7425	1.5972	0	1.5972	164.85	0.49	-2E-04	6	0.4877	0.8181	1.4755	203.5614
29	169.2	1.77	-0.76	1.04	169.191	1.0462	6	1.77193	126.9638	1.66068	0	1.6607	100.88	1.0565	-3E-04	6	0.6409	0.7491	1.8697	118.6055
30	60.4	1.98	0.86	3.27	60.4105	3.2776	4	2.43884	125.2723	1.72332	0	1.7233	34.055	3.3738	0.0011	4	0.9213	0.638	2.5975	35.38697
31	157.3	5.95	-6.76	3.79	157.217	3.7846	8	2.2176	135.656	1.79115	0	1.7912	86.775	3.8282	-0.003	4	0.8268	0.6471	2.3403	95.05791
32	215.6	6.9	-6.43	3.2	215.521	3.2015	8	2.07963	137.28	1.85979	0	1.8598	114.89	3.2294	-0.002	5	0.7748	0.646	2.1965	130.4433
33	167.3	2.72	-6.53	1.63	167.22	1.6266	6	1.91432	130.079	1.92482	0	1.9248	85.875	1.6455	-0.003	5	0.7225	0.649	2.0509	101.3896
34	51.1	1.64	-0.89	3.22	51.0891	3.2101	4	2.48422	123.485	1.98657	0	1.9866	24.717	3.34	-0.001	4	0.9753	0.541	2.7068	25.10498
35	43.5	1.22	-1.14	2.8	43.4861	2.8055	4	2.49553	120.9273	2.04703	0	2.047	20.243	2.9441	-0.002	4	0.9925	0.5195	2.7432	20.34365
36	19.7	1.24	-2.29	6.3	19.672	6.3034	3	2.98692	119.1116	2.10659	0	2.1066	8.3383	7.0593	-0.009	3	1	0.5023	3.2828	8.33831
37	26.8	0.92	-2.28	3.44	26.7721	3.4364	4	2.71215	117.6791	2.16543	0	2.1654	11.363	3.7388	-0.007	3	1	0.4886	3.0073	11.36343
38	29.5	0.99	-0.86	3.34	29.4895	3.3571	4	2.67366	118.4515	2.22465	0	2.2247	12.256	3.6311	-0.002	3	1	0.4756	2.9734	12.25577
39	43	1.89	-1.71	4.39	42.9791	4.3975	4	2.6336	124.1016	2.2867	0	2.2867	17.795	4.6446	-0.003	3	1	0.4627	2.9134	17.79521
40	118.4	1.21	-0.84	1.02	118.39	1.0221	6	1.87922	123.3099	2.34836	0	2.3484	49.414	1.0427	-5E-04	5	0.7604	0.5454	2.0976	59.81335
41	244.9	3.81	-1.59	1.55	244.881	1.5559	6	1.79331	133.4752	2.4151	0	2.4151	100.4	1.5714	-5E-04	6	0.714	0.5548	1.9675	127.124
42	67	1.57	-1.3	2.35	66.9841	2.3438	5	2.30477	123.8265	2.47701	0	2.477	26.042	2.4338	-0.001	4	0.9562	0.4434	2.595	27.02984
43	31.8	0.92	-2.62	2.88	31.7679	2.896	4	2.60743	118.0964	2.53606	0	2.5361	11.527	3.1473	-0.006	3	1	0.4172	2.9582	11.52651
44	30.9	0.88	-0.48	2.85	30.8941	2.8484	4	2.61208	117.7031	2.59491	0	2.5949	10.906	3.1096	-0.001	3	1	0.4078	2.9748	10.90567
45	63.7	1.16	-2.76	1.83	63.6662	1.822	5	2.24727	121.4881	2.65565	0	2.6557	22.974	1.9013	-0.003	4	0.9564	0.4147	2.5731	23.91337
46	365.2	2.99	-1.62	0.82	365.18	0.8188	6	1.46722	132.6765	2.72199	0	2.722	133.16	0.8249	-3E-04	6	0.6042	0.565	1.6406	193.5491
47	374	4.89	-1.9	1.31	373.977	1.3076	6	1.62347	136.3339	2.79016	0	2.7902	133.03	1.3174	-4E-04	6	0.6692	0.5226	1.8031	183.3436
48	171.4	3.97	-1.57	2.31	171.381	2.3165	5	2.02502	132.9057	2.85661	0	2.8566	58.994	2.3558	-7E-04	5	0.8552	0.4277	2.2834	68.12168
49	390.6	4.91	-2.19	1.26	390.573	1.2571	6	1.59871	136.4697	2.92485	0	2.9249	132.54	1.2666	-4E-04	6	0.6695	0.5062	1.7871	185.4672
50	420.4	4.29	-4.28	1.02	420.348	1.0206	6	1.50618	135.6612	2.99268	0	2.9927	139.46	1.0279	-7E-04	6	0.6371	0.5156	1.6933	203.3768
51	88.8	2.52	-7.93	2.84	88.7029	2.8409	5	2.27869	127.9738	3.05666	0	3.0567	28.02	2.9423	-0.007	4	0.9983	0.3468	2.6342	28.06977
52	28.2	0.41	-2.38	1.44	28.1709	1.4554	5	2.46851	111.8896	3.11261	0	3.1126	8.0506	1.6362	-0.007	3	1	0.3399	2.9378	8.05057
53	26.3	0.59	-2.47	2.24	26.2698	2.2459	4	2.60292	114.3823	3.1698	0	3.1698	7.2875	2.5541	-0.008	3	1	0.3338	3.0735	7.28752
54	47.9	1.41	-2.75	2.95	47.8663	2.9457	4	2.47907	122.2205	3.23091	0	3.2309	13.815	3.1589	-0.004	3	1	0.3275	2.8955	13.81513
55	33.9	0.69	-3.42	2.04	33.8581	2.0379	5	2.4898	116.1469	3.28898	0	3.289	9.2944	2.2572	-0.008	3	1	0.3217	2.9555	9.29441
56	48.8	2.01	-3.33	4.12	48.7592	4.1223	4	2.57509	124.8597	3.35141	0	3.3514	13.549	4.4266	-0.005	3	1	0.3157	2.9915	13.54886
57	48.3	1.03	-3.62	2.13	48.2557	2.1345	5	2.38326	119.9425	3.41138	0	3.4114	13.145	2.2968	-0.006	4	1	0.3102	2.8334	13.14549
58	41.3	1.19	-3.33	2.87	41.2592	2.8842	4	2.52055	120.6169	3.47169	0	3.4717	10.884	3.1492	-0.006	3	1	0.3048	2.9787	10.88448
59	36.6	0.95	-3.26	2.61	36.5601	2.5985	4	2.53043	118.6739	3.53103	0	3.531	9.354	2.8763	-0.007	3	1	0.2997	3.0106	9.35395
60	30	1.1	-3.74	3.66	29.9542	3.6723	4	2.69418	119.2605	3.59066	0	3.5907	7.3423	4.1724	-0.01	3	1	0.2947	3.1888	7.34226
61	35.8	1.38	-2.86	3.87	35.765	3.8585	4	2.65159	121.3523	3.65134	0	3.6513	8.795	4.2972	-0.006	3	1	0.2898	3.1327	8.79504
62	51.2	2.3	-3.2	4.5	51.1608	4.4956	4	2.5876	125.9631	3.71432	0	3.7143	12.774	4.8476	-0.005	3	1	0.2849	3.0361	12.77395
63	28.6	0.82	-2.66	2.88	28.5674	2.8704	4	2.64038	116.9955	3.77281	0	3.7728	6.5719	3.3072	-0.008	3	1	0.2805	3.1718	6.57192
64	28.9	0.65	-2.05	2.26	28.8749	2.2511	4	2.57092	115.3216	3.83048	0	3.8305	6.5382	2.5954	-0.006	3	1	0.2762	3.1172	6.5382
65	102.3	4.54	-1.24	4.44	102.285	4.4386	9	2.38558	132.6285	3.89679	0	3.8968	25.248	4.6144	-9E-04	3	1	0.2715	2.7974	25.24848
66	169.6	5.62	-2.47	3.31	169.57	3.3143	8	2.15166	135.4229	3.9645	0	3.9645	41.772	3.3936	-0.001	4	1	0.2669	2.5464	41.77203
67	474.6	3.71	-2.38	0.78	474.571	0.7818	6	1.38146	134.8943	4.03195	0	4.032	116.7	0.7885	-4E-04	6	0.6694	0.4084	1.6472	181.6265
68	321.7	6.28	-9.12	1.95	321.588	1.9528	6	1.80464	137.28	4.10059	0	4.1006	77.425	1.978	-0.002	5	0.8559	0.3137	2.1303	94.11735
69	52	0.81	-9.8	1.57	51.8801	1.5613	5	2.27259	118.361	4.15977	0	4.1598	11.472	1.6974	-0.015	4	1	0.2544	2.8128	11.47186
70	472.1	0	-10.28	0	471.974	0	0	0	769.6	4.54457	0	4.5446	102.85	0	-0.002	0	1	0.2328	0	0

Presented below is a list of formulas used for the estimation of various soil properties. The formulas are presented in SI unit system and assume that all components are expressed in the same units.

:: Unit Weight, g (kN/m³) ::

$$g = g_w \cdot \left(0.27 \cdot \log(R_f) + 0.36 \cdot \log(\frac{q_t}{p_a}) + 1.236\right)$$

where g_w = water unit weight

:: Permeability, k (m/s) ::

$I_c < 3.27$ and $I_c > 1.00$ then $k = 10^{0.952-3.04 \cdot I_c}$

$I_c \le 4.00$ and $I_c > 3.27$ then $k = 10^{-4.52-1.37 \cdot I_c}$

:: N_{SPT} (blows per 30 cm) ::

$$N_{60} = \left(\frac{q_c}{P_a}\right) \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

$$N_{1(60)} = Q_{tn} \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

:: Young's Modulus, Es (MPa) ::

$$(q_t - \sigma_v) \cdot 0.015 \cdot 10^{0.55 \cdot I_c + 1.68}$$

(applicable only to $I_c < I_{c_cutoff}$)

:: Relative Density, Dr (%) ::

$$100 \cdot \sqrt{\frac{Q_{tn}}{k_{DR}}}$$

(applicable only to SBT_n: 5, 6, 7 and 8 or $I_c < I_{c_cutoff}$)

:: State Parameter, ψ ::

$$\psi = 0.56 - 0.33 \cdot \log(Q_{tn,cs})$$

:: Peak drained friction angle, φ (°) ::

$$\varphi = 17.60 + 11 \cdot \log(Q_{tn})$$

(applicable only to SBT_n: 5, 6, 7 and 8)

:: 1-D constrained modulus, M (MPa) ::

If $I_c > 2.20$

$\alpha = 14$ for $Q_{tn} > 14$

$\alpha = Q_{tn}$ for $Q_{tn} \le 14$

$M_{CPT} = \alpha \cdot (q_t - \sigma_v)$

If $I_c \le 2.20$

$M_{CPT} = (q_t - \sigma_v) \cdot 0.0188 \cdot 10^{0.55 \cdot I_c + 1.68}$

:: Small strain shear Modulus, Go (MPa) ::

$$G_0 = (q_t - \sigma_v) \cdot 0.0188 \cdot 10^{0.55 \cdot I_c + 1.68}$$

:: Shear Wave Velocity, Vs (m/s) ::

$$V_s = \left(\frac{G_0}{\rho}\right)^{0.50}$$

:: Undrained peak shear strength, Su (kPa) ::

$N_{kt} = 10.50 + 7 \cdot \log(F_r)$ or user defined

$$S_u = \frac{(q_t - \sigma_v)}{N_{kt}}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c_cutoff}$)

:: Remolded undrained shear strength, Su(rem) (kPa) ::

$S_{u(rem)} = f_s$ (applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c_cutoff}$)

:: Overconsolidation Ratio, OCR ::

$$k_{OCR} = \left[\frac{Q_{tn}^{0.20}}{0.25 \cdot (10.50 \cdot +7 \cdot \log(F_r))}\right]^{1.25}$$ or user defined

$OCR = k_{OCR} \cdot Q_{tn}$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c_cutoff}$)

:: In situ Stress Ratio, Ko ::

$$K_O = (1 - \sin\varphi') \cdot OCR^{\sin\varphi'}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c_cutoff}$)

:: Soil Sensitivity, S_t ::

$$S_t = \frac{N_S}{F_r}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c_cutoff}$)

:: Effective Stress Friction Angle, φ' (°) ::

$$\varphi' = 29.5° \cdot B_q^{0.121} \cdot (0.256 + 0.336 \cdot B_q + \log Q_t)$$

(applicable for $0.10 < B_q < 1.00$)

References

• Robertson, P.K., Cabal K.L., Guide to Cone Penetration Testing for Geotechnical Engineering, Gregg Drilling & Testing, Inc., 5th Edition, November 2012

• Robertson, P.K., Interpretation of Cone Penetration Tests - a unified approach., Can. Geotech. J. 46(11): 1337–1355 (2009)

APPENDIX E

STRATIGRAPHIC ANALYSIS AND SOIL AGE ESTIMATES

Soil Stratigraphy Study And Relative Age Estimates
For A Fault Rupture Hazard Investigation At 9900 Wilshire Boulevard, City of Beverly Hills, California

Prepared by:

John Helms, CEG
40344 Wood Court, Palmdale, California 93551
Voice & FAX (661) 206-5860

Submitted to:

Ms. Susan Kirkgard
GEOCON, Inc.
3303 North San Fernando Boulevard, Suite 100
Burbank, CA 91504

March 26, 2014

John Helms, CEG
40344 Wood Court, Palmdale, CA 93551;(661) 206-5860

Ms. Susan Kirkgard
GEOCON Inc.
3303 North San Fernando Boulevard, Suite 100
Burbank, CA 91504

March 26, 2014

Subject: Soil Stratigraphy Study And Relative Age Estimates For A Fault Rupture Hazard Investigation At 9900 Wilshire Boulevard, California

Dear Ms. Kirkgard:

I am pleased to present to you this soil stratigraphic study and relative-age estimates to be used with your fault rupture hazard investigation at 9900 Wilshire Boulevard, in Beverly Hills, California. This information presents relative age estimates for the deposits in twelve locations along three separate trench exposures and two separate transects of borings.

Geocon retained John Helms CEG to describe and assist in correlations of the soil stratigraphy from the trench exposures and the continuously cored bore hole samples and to assign relative age dates for the deposits identified across the site. A total of five soil profiles were described across three different trench exposures. The continuously cored borehole samples were obtained from two separate transects of borings, transect A (across the project site area) and transect B (along Wilshire Boulevard). The soils within the upper portions of five boreholes from transect A are described in detail, and two boreholes from transect B are completely described in detail. The soil descriptions are used to calculate various soil development indices (or SDIs). The SDI values were then compared to the SDI values from similar described soils with known ages to estimate age ranges for the soils understudy.

The attached report classifies each described soil profile, identifies stratigraphic relationships, defines soil chronosequences, and estimates relative age for each soil profile described across the study area. Calculated soil development index (or SDI) values show strong correlations to the SDI values of other published, described, and dated soil profiles with similar parent materials.

Age estimates range from 71 to 140 ka for the entire stratigraphic section studied across the entire project site area. The youngest major stratigraphic unit observed is a young (Holocene) stream terrace deposit (Qyt) with relative age estimates that range from 4 to 16 ka across the project site area. This unit buries and truncates an older (Pleistocene) alluvial fan deposit (Qof) with relative age estimates that range from 15 to 42 ka across the project site area. The alluvial fan (Qof) unit caps a thick sequence of stacked and truncated older stream terrace deposits (Qot1 – Qot6) which have a cumulic relative age estimate that ranges from 32 to 94 ka. The top of this stream terrace sequence (unit Qot1) correlates well across the entire project site area and has an relative age estimate that ranges from 20 to 58 ka. A deeper unit within this stream terrace sequence (Qot5) and key marker bed or stratigraphic unit has an relative age estimate that ranges from 32 to 86 ka. The deepest and oldest units observed are the undifferentiated old alluvium or Lakewood Formation (Qoa). The upper surface of this

unit (Qoa) has a relative age estimate that ranges from 56 to 112 ka across the project site area.

The young stream terrace deposit (unit Qyt) can be correlated across the northern and central portions of the project site. This unit appears to pinch out to the south. The old alluvial fan deposit (Qof) can be correlated across the entire project site area, and is a well developed and truncated buried argillic soil profile that is Pleistocene in age. This unit is exhumed at or near the ground surface across the southern portions of the project site. The thick sequence of older stream terrace deposits (Units Qot1 through Qot6) can also be correlated across the entire project site area. Lateral facies changes and localized interfingering within these deposits are minimal. Please see Tables 16a through 16w in the attached report for a summary listing of all of the observed stratigraphic units and estimated relative ages at the study site.

Thank you for this opportunity to be of service. Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

REGISTERED GEOLOGIST
JOHN G. HELMS
No. 2272
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

John Helms, CEG 2272

TABLE OF CONTENTS

SUMMARY LETTER i
1.0 INTRODUCTION 1
2.0 MATERIALS AND FIELD METHODS 2
3.0 SOIL RELATIVE AGE METHODS 3
4.0 DISCUSSION AND RESULTS 3
4.1 Soil Profile 1 (Trench 1 Station 51 Feet) 5
4.2 Soil Profile 2 (Trench 1 Station 151 Feet) 10
4.3 Soil Profile 3 (Trench 1 Station 233 Feet) 16
4.4 Soil Profile 4 (Trench 2 Station 80 Feet) 24
4.5 Soil Profile 5 (Trench 3 Station 57 Feet) 30
4.6 Soil Profile 6 (Transect A, Boring 3) 37
4.7 Soil Profile 7 (Transect A, Boring 6) 43
4.8 Soil Profile 8 (Transect A, Boring 7) 47
4.9 Soil Profile 9 (Transect A, Boring 11) 53
4.10 Soil Profile 10 (Transect A, Boring 12) 60
4.11 Soil Profile 11 (Transect B, Boring 2b) 65
4.12 Soil Profile 12 (Transect B, Boring 5b) 72
5.0 CONCLUSIONS 79
6.0 LIMITATIONS 79
7.0 REFERENCES 80

Tables

Table 1.1 Soil Profile 1 Field Description
Table 1.2 Soil Development Index Calculation Sheet For Soil Profile 1
Table 2.1 Soil Profile 2 Field Description
Table 2.2 Soil Development Index Calculation Sheet For Soil Profile 2
Table 3.1 Soil Profile 3 Field Description
Table 3.2 Soil Development Index Calculation Sheet For Soil Profile 3
Table 4.1 Soil Profile 4 Field Description
Table 4.2 Soil Development Index Calculation Sheet For Soil Profile 4
Table 5.1 Soil Profile 5 Field Description
Table 5.2 Soil Development Index Calculation Sheet For Soil Profile 5
Table 6.1 Soil Profile 6 Field Description
Table 6.2 Soil Development Index Calculation Sheet For Soil Profile 6

Table 7.1 Soil Profile 1 Field Description
Table 7.2 Soil Development Index Calculation Sheet For Soil Profile 1
Table 8.1 Soil Profile 2 Field Description
Table 8.2 Soil Development Index Calculation Sheet For Soil Profile 2
Table 9.1 Soil Profile 3 Field Description
Table 9.2 Soil Development Index Calculation Sheet For Soil Profile 3
Table 10.1 Soil Profile 4 Field Description
Table 10.2 Soil Development Index Calculation Sheet For Soil Profile 4
Table 11.1 Soil Profile 5 Field Description
Table 11.2 Soil Development Index Calculation Sheet For Soil Profile 5
Table 12.1 Soil Profile 6 Field Description
Table 12.2 Soil Development Index Calculation Sheet For Soil Profile 6
Table 13 Summary of Comparative Data
Table 14 Soil Abbreviation Key
Table 15 Stratigraphic Unit Relative Ages
Table 16a-e Soil Summary Descriptions for Trench Exposures
Table 16f-r Soil Summary Descriptions for Borings 1 – 12, Transect A
Table 16s-w Soil Summary Descriptions for Borings 1b – 5b, Transect B

Soil Stratigraphy Study And Relative Age Estimates For A Fault Rupture Hazard Assessment At 9900 Wilshire Boulevard, City of Beverly Hills, California.

Introduction

Twelve soil profiles have been studied for geomorphic characteristics and relative degrees of weathering to estimate deposit relative-ages. The relative age estimates are based on index value comparisons with other published and dated soil profile descriptions. The comparative soils are from areas with a similar climate and similar parent material to this study area. The estimated relative ages in this report will be used by Geocon to assess the recency and recurrence of faulting across the study area. Alluvial units are assessed chronostratigraphically across a three separate trench exposures and 17 evenly spaced and continuously cored boreholes that span a majority of the project site area. In this study, the soil stratigraphy is defined with soil field description data, and no laboratory data. This study identifies the soil stratigraphy and estimates the relative age of 12 soil profiles. The entire project site is located across an graded alluvial fan surface that may be capped by a thin veneer of young stream terrace deposits locally.

For the Quaternary geologist, a soil can be defined as a natural body that consists of horizons of organic and/or mineral constituents which differ from it's parent material in some way (Birkland, 1984). A chronosequence is a group of soils for which all soil forming factors (such as topography, parent material, vegetation, and climate) except time is relatively equal (Jenny, 1941). Recent geologic studies in the coastal region of southern California provide age constraints for several deposits and geomorphic surfaces ranging in age from middle Pleistocene to recent (McFadden, 1982; Rockwell, 1988; and WLA, 1998). Often it has proven difficult to date older deposits due to changes in past climatic regimes. Studies on the impacts of glacial to interglacial climatic changes on soil development in specific regions (McFadden, 1982; Birkland, 1984; McFadden, 1988) indicate that soil development has occurred throughout the Quaternary.

This study is concerned with a section of alluvium along the southern range front of the Santa Monica Mountains, which is within the Transverse Ranges Geomorphic Province. A series of stacked and truncated argillic and cambic soil subsurface horizons within all of the stratigraphic sections studied indicates that the modified ground surface across the southern study area is old. Ages range from 15 to 30 ka along the southern portion of the site. A thin veneer of young stream terrace deposits occupies the ground surface across the central and northern portions of the project site area and ranges in estimated age from 4 to 16 ka. The underlying old alluvial fan is characterized by clay rich, very hard, medium-to coarse-grained sand with strong angular blocky ped structure. The soils encountered in this study classify as Inceptisols and Alfisols that relative age estimates range from 4 to 8 ka at the surface soil in profile 1 in the southern end of Trench 1 to 71 to 123 ka at the lowest buried soil in profile 12 in the northwestern corner of the site. Soil relative age estimates have broad ranges, dependant upon the pool of comparative data used. The soils across the study area fall into a great group classifications (Soil Conservation Service, 2000) of Typic Palexeralfs, Typic Haploxeralfs, and Fluventic Xerumbrepts. Soil profile locations are indicated on the trench logs and geologic map provided with the fault rupture hazard report.

Materials and Methods

Five soil profiles from three separate trench exposures were described, sampled, classified, and quantified within the study area. An additional seven soil profiles were described from seven continuously cored and samples boreholes. The soils were described in the field, using guidelines set by the Soil Survey Staff (1991 and 1999). Soil horizons from the trench exposures were sampled as to prevent contamination from adjacent horizons (Soil Survey Staff, 1991). Sample sizes varied according to the gravel content of the soil horizon. Soil horizons thicker than 2 feet were sampled on a 1-foot interval.

Soil profile field description values quantify soil properties that are used to develop a soil development index (SDI) value as outlined by Harden (1982). Points are assigned to descriptive data for each of several observed soil properties, such as dry color, moist color, texture, structure, dry, moist, and wet consistence, clay film content, and calcium carbonate stage level, for every horizon in a profile relative to the horizon's thickness, and normalized to a common depth. The maturity of a soil profile is gauged through data collected from active wash deposits (or raw alluvium).

Table 1.1 through Table 12.1 lists the soil description for each studied surface in longhand format. Table 1.2 through Table 12.2 lists the soil using soil conservation service notation and shows the SDI calculations. These tables show the calculated SDI values, the soil profile description, and the normalization values for raw alluvium. SDI values are calculated by assigning point values to described soil properties. The points are summed for each soil horizon and divided by the total number of descriptive properties used. This equals the mean horizon index value (HI). HI values are multiplied by the corresponding soil horizon thickness. The SDI value equals the sum of the normalized horizon indices. The maximum horizon index (MHI) is the value of the horizon with the largest summed descriptive value. MHI is independent of horizon thickness, and is usually the diagnostic subsurface soil horizon for most soil profiles. Tables 1.2 through Table 12.2 list all of the determined HI, SDI, and MHI values for the soils under study.

SDI values have shown significant correlations to soil age in many recent studies (Harden, 1981; Rockwell *et al.*, 1985; Reheis *et al.*, 1990; Rockwell *et al.*, 1994). The soils described in this study are compared to soils described and dated by McFadden (1982 and 1987) in San Bernardino County near Mission Creek, by Rockwell (1988) in the Ventura River basin, and by William Lettis and Associates, Inc. (1998) in West Hollywood. SDI values are calibrated to a common depth of 7 feet.

The changes in the subsurface pedogenic properties of the inceptisol and alfisol soil orders allows for relative age determinations by emphasizing specific soil properties (such as color and clay film content) that are most diagnostic. Soil properties that express themselves well through time are most often used in the assessment of soil relative ages through a specific soil property index such as the color or clay film index. MHI is a comparison of a soil pedons master (or diagnostic) subsurface horizon (typically an argillic or cambic horizon). Independent of horizon thickness, the MHI directly compares the properties of the soil profiles strongest soil horizon. The color index (Rockwell *et al.,* 1985, 1994) is used to quantify observed colors (in Mussel notation) of each profile in order to compare relative

degrees of reddening. The color index is simply the summation of an entire profile's horizon index values for dry colors. The clay film index (Rockwell *et al.,* 1985, 1994) is used to quantify field descriptions of this soil property in order to compare relative profile maturity. The clay film index is simply the summation of an entire soil profile's horizon index values for clay films.

SOIL RELATIVE AGE METHODS

Soil relative ages are calculated and compared independently for each soil profile described. The twelve soil profiles are all located across the same alluvial surface that has minor variations in relative age, facies of deposition, and degrees of preservation. A series of stacked, buried, and truncated hard, fine-grained soils with pedogenic structure and illuvial clays characterize all of the soil profiles on this project site.

All of the soil profiles described have a surface age implied by estimating the time of inception for the exposed surficial soil. All of the soils within this study area also contain a stacked or buried series of soils. In this case, a deposit age assessment is obtained by identifying and isolating the different parent materials (or deposits). Then comparing a set of abridged calculated indices to an additional suite of similar soils that have been radiometrically dated yields the equivalent to a surface age estimate. Such burial relationships are common along the southern Santa Monica Mountains range front; especially where soils have developed into alluvial fan deposits and buries or locally truncates soils that have developed previously in older sediments. A cumlic soil profile estimated age can assess landform age, and has potential to assess rates of erosion, rates of landform evolution, and rates of tectonic activity across the study area.

Each described soil profile has an SDI value, which is used to estimate the soil relative age. Cumulic relative age estimates for a stacked or buried soil profile are specifically referred to as "deposit ages". The relative age estimate for the surface profile or modern soil is referred to as the "surface age". All of the relative age estimates given are considered minimum ages given that an unknown amount of erosion has occurred after the formation of and before the burial of each truncated soil studied.

SOIL SUMMARY DESCRIPTIONS

Soil summary descriptions were generated for each exposure in this study. The summary descriptions record diagnostic pedogenic features for each soil horizon identified. This was done in order to assist with establishing stratigraphic correlations across the site. Relative age estimates were only generated for the detailed soil descriptions. The soil summary descriptions for the materials encountered are listed in Tables 16a through 16e for the trench exposures, Tables 16f through 16r for the borings in Transect A and Tables 16s through 16w for the borings in Transect B.

DISCUSSION AND RESULTS

This section is broken up by each individual soil profile described. Each section contains a brief write up with tables designated for each soil profile described. The attached Tables 1.1

through 12.1 present the soil profile descriptions in longhand format. Tables 1.2 through 12.2 present the results of the calculated SDI values. Table 13 is a compilation of the comparative data in a format that compares to the data generated for this study. Table 14 is a soil abbreviation key to be used in conjunction with the SDI calculation sheets. Table 15 lists the stratigraphic unit relative ages. Tables 16a – 16w are summary descriptions of the materials under study.

Soil descriptions, SDI calculations, and relative age determinations follow for each of the soil profiles studied.

Soil Profile 1
Trench 1 At Station 51 Feet

Soil profile 1 is located near the southern end of trench at station 51 feet. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a truncated weak Inceptisol soil (Qyt) over a sequence of two stacked and truncated Alfisol soils (Qof and Qot1). The entire section in this locality is capped by 4.9 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. This deposit contains faint mottling and gleying that decreases at depth and may faintly overprint or mask some of the original soil properties (mainly soil color). Soil profile 1 at station 51 feet in trench 1 contains a surface soil and two buried soils to a depth of approximately 12.55 feet below the ground surface. This stratigraphic section tracks across the entire trench 1 exposure. Additionally, the stratigraphic correlation units assigned to all three soil members within this profile correlate well to the adjacent trench exposures and borehole samples (Table 16a). A detailed soil description for this profile is listed in table 1.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 1.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Fluventic Xerumbrept. This is a thin and highly truncated soil that consists of a single weak to juvenile argillic or cambic diagnostic subsurface horizon (Bw / Bt) soil remnant. The deposit consists of a subtle fining upwards sequence. A majority of this soil member has been mechanically stripped away during grading and has most likely been incorporated into the overlying artificial fill (Af). This soil is characterized by a silt-rich or fine-grained deposit with slight organics and few thin and very few moderately thick clay films on ped faces. A relative age estimate of 4 to 8 ka for the surface soil in profile 1 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This very thin surficial stream terrace deposit is termed Qyt and correlates well with the surface soil at the northern end of trench 1 and the surficial deposits described in Boring 3 from transect A.

Buried soil member 1 (or first buried soil) in soil profile 1 classifies as a Typic Palexeralf. This is a highly truncated soil remnant that consists of three moderately well developed argillic diagnostic subsurface horizons (2Btb1 – 2Btb2 – 2Btb3). The deposit consists of a crudely stratified coarsening upwards sequence. This soil member is characterized by a gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films on ped faces and coating gravel. A relative age estimate of 15 to 30 ka for buried soil 1 in soil profile 1 was obtained by comparing the observed clay film index

and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well with buried soil 1 at the northern end of trench 1, the surface soil exposed in trench 3 and the Qof unit described along boring transect A.

Buried soil member 2 (or second buried soil) in soil profile 1 classifies as a Typic Haploxeralf. This is a truncated soil remnant that consists of two weakly developed argillic diagnostic subsurface horizons over a sequence of two crudely stratified transitional horizons (3Btb1 – 3Btb2 – 3BCb1 – 3BCb2). The deposit consists of a crudely stratified fining upwards sequence. This soil member is characterized by a fine-grained deposit with 7.5YR hues and many to common thin and few to common moderately thick clay films on ped faces. A relative age estimate of 8 to 12 ka for buried soil 2 in soil profile 1 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as stream terrace deposit, and is termed Qot1. This unit correlates well with buried soil 3 in the center and the northern end of trench 1, buried soil 2 exposed in trench 3 and the Qot1 unit described along boring transect A.

In conclusion, the entire stratigraphic section of soil profile 1 in trench 1 at station 51 feet is estimated to be 27 to 50 ka in age. Most of this age resides within the first buried soil (buried soil 1) of this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 5.1 feet in this locality. All three of the soil members within this soil profile correlate well to the first three buried soils within soil profile 3 at the northern end of trench 1 and with the upper three units observed in boring 3 from Transect A. Buried soil 2 in soil profile 1 is continuous across the entire trench 1 exposure.

TABLE 1.1 Soil Profile – 1, Trench 1 at Station 51 feet.
Geocon Inc.'s Fault Rupture Hazard Study at 9900 Wilshire Boulevard, Beverly Hills, California.

Soil Classification: Series of stacked and truncated Alfisols and Inceptisols
Geomorphic Surface: Alluvial Fan Remnant
Parent Material: Benedict Canyon Alluvium
Vegetation: Urban
Described By: John Helms
Date Described: 11/5/13 and 11/16/13
Exposure Type: Excavator Trench

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 51 feet
Af	0 – 4.9	4.9	Artificial fill, mixed soil and debris, crude lifts, not described; abrupt wavy boundary to:
Bt / Bw	4.9 – 5.1	0.2	Brown (10YR 5/3d; 10YR 4/2 m); silt loam; weak fine and medium sub angular blocky; very hard, firm, moderately sticky, moderately to very plastic; yellowish brown (10YR 5/4 d; 10YR 4/3 m) clay films few thin and very few moderately thick on ped faces and few moderately thick lining pores; very fine-grained very well sorted sand, slight organics; 0-3% very fine and fine rounded gravel; few fine and medium pores; faint redox with >3% faint brown (7.5YR 4/3 d; 7.5YR 3/3 m) mottles and ~10% faint light olive brown (2.5Y 5/3d; 2.5Y 4/2 m) gleying; massive; clear wavy boundary to:
2Btb1	5.1 – 6.2	1.1	Brown (7.5YR 5/3 d; 7.5YR 3/2 m); clay loam; weak fine and medium angular blocky; very hard, friable, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces, common moderately thick coating clasts; fine- to medium-grained moderately well sorted sand, slightly oxidized; 5 - 15% fine and medium sub rounded gravel; slight redox with >3% faint reddish yellow (7.5YR 6/6 d; 7.5YR 5/4 m) mottles and ~5% faint light brownish gray (2.5Y 6/2d; 2.5Y 4/1 m) gleying; massive; clear wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 51 feet (Cont.)
2Btb2	6.2 – 8.45	2.25	Brown (7.5YR 5/4 d; 7.5YR 4/3 m); clay loam to clay; weak medium and coarse angular blocky; very to extremely hard, friable, very sticky, very plastic; brown (7.5YR 4/3 d; 7.5YR 3/2 m) clay films common thin, few moderately thick, and very few thick on ped faces, and common thick coating clasts; fine- to medium grained moderately well sorted sand, moderately well oxidized; 20 - 25% fine and medium sub rounded slate rich gravel; moderate redox with localized weak strong brown (7.5YR 5/6 d; 7.5YR 4/4 m) mottles and localized moderate light olive brown (2.5Y 5/3d; 2.5Y 4/2m) gleying; massive, gradational wavy boundary to:
2Btb3	8.45 – 9.0	0.55	Brown (7.5YR 4/4 d; 7.5YR 3/3 m); sandy clay loam; weak fine sub angular to angular blocky; hard to very hard, friable, moderately to very sticky, very plastic; strong brown (7.5YR 4/6 d; 7.5YR 3/4 m) clay films common thin, few moderately thick, and very few thick on ped faces, and common moderately thick coating clasts; medium- to coarse-grained poorly sorted sand, moderately well oxidized; few fine MnO coatings on gravel and webbing on ped faces; 25 - 30% fine, medium, and large sub rounded gravel; faint redox with very localized faint strong brown (7.5YR 5/6 d; 7.5YR 4/4 m) mottles and common weak grayish brown (2.5Y 5/2d; 2.5Y 3/1 m) gleying; massive, clear irregular boundary to:
3Btb1	9.0 – 9.65	0.65	Brown (7.5YR 5/3 d; 7.5YR 3/2 m); clay loam to silty clay loam; weak fine and medium angular blocky to prismatic; very hard, firm, moderately to very sticky, very plastic; brown (7.5YR 4/3 d; 7.5YR 3/3 m) clay films many thin, common moderately thick, and few thick on ped faces, common thick coating clasts; very fine-grained very well sorted sand, slightly oxidized; very few fine MnO webbing on ped faces; >1% very fine sub rounded slate rich gravel; weak redox with very localized faint strong brown (7.5YR 5/6 d; 7.5YR 4/4 m) mottles and weak light olive brown (2.5Y 5/3d; 2.5Y 4/2 m) gleying; massive; gradational wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 51 feet (Cont.)
3Btb2	9.65 – 11.15	1.5	Dark yellowish brown (10YR 5/4-6 d; 10YR 4/3 m); silty clay; weak fine and medium sub angular blocky; very hard, firm, very sticky, very plastic; dark yellowish brown (10R 4/4 d; 10YR 3/3 m) clay films common thin and few moderately thick on ped faces; very fine-grained very well sorted sand, slightly well oxidized; few fine calcium carbonate nodules in soil matrix; 10 - 15% very fine and fine sub rounded gravel; massive; gradational smooth boundary to:
3BCb1	11.15 – 11.85	0.7	Brown (7.5YR 4/4 d; 7.5YR 3/3 m); loam to sandy clay loam; weak fine and medium sub angular blocky; hard, very friable, moderately sticky, slightly plastic; strong brown (7.5YR 4/6 d; 7.5YR 3/4 m) clay films few thin and very few moderately thick on ped faces, and common moderately thick coating clasts; medium- to coarse-grained moderately well sorted sand, moderately well oxidized; 3 - 5% fine and medium sub rounded gravel; massive to crudely stratified, scour deposit; clear wavy boundary to:
3BCb2	11.85 – 12.55	0.7	Brown (7.5YR 4/3 d; 7.5YR 3/2 m); loam to sandy loam; weak fine and medium sub angular blocky; slightly hard to hard, very friable, slightly sticky, non- to slightly plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films few thin on ped faces, and few thin coating clasts; medium- to coarse-grained moderately well sorted sand, slightly well oxidized; 10 - 15% fine and medium sub rounded gravel; crudely stratified scour deposit, undetermined lower boundary.

TABLE 1.2 - Soil Development Index Calculation Sheet
Soil Profile - 1; Trench 1 at Station 51 Feet

Unit	Thickness (Feet)	Color				Texture		Structure		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist						Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/5*	*sg*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Profile 1																	
Bt / Bw	0.2	10YR 5/3	0.2	10YR 4/2	0	sil	0.8	1 sbk	0.33	vh	0.80	s, p-vp	0.75	1npf, v1mkpf, 1mkpo	0.43	0.47	0.09
2Bt1b	1.1	7.5YR 5/3	0.3	7.5YR 3/2	0.1	cl	0.8	1 abk	0.50	vh	0.8	vs, vp	1.00	2npf, 1mkpf, 2mkcl	0.5	0.57	0.63
2Bt2b	2.25	7.5YR 5/4	0.4	7.5YR 4/3	0.1	cl-c	0.9	1 abk	0.50	vh - eh	0.9	vs, vp	1.00	2npf, 1mkpf, 2kcl	0.567	0.62	1.40
2Bt3b	0.55	7.5YR 4/4	0.4	7.5YR 3/3	0.1	scl	0.8	1 sbk-abk	0.42	h - vh	0.7	s-vs, vp	0.92	3npf, 2mkpf, 1kpf	0.4	0.53	0.29
3Bt1b	0.65	7.5YR 5/3	0.3	7.5YR 3/2	0.1	sl-scl	0.8	1 abk - pr	0.58	vh	0.8	s-vs, vp	0.92	3npf, 2mkpf, 1kpf	0.4	0.56	0.36
3Bt2b	1.5	10YR 5/4-6	0.6	10YR 4/3	0	sic	0.9	1 sbk	0.33	vh	0.8	vs, vp	1.00	2npf, 1mkpf	0.3	0.56	0.84
3BCb1	0.7	7.5YR 4/4	0.4	7.5YR 3/3	0.1	l-scl	0.7	1 sbk	0.33	h	0.6	s, ps	0.50	1npf, v1mkpf, 2mkcl	0.483	0.44	0.31
3BCb1	0.7	7.5YR 4/3	0.3	7.5YR 3/2	0.1	sl-l	0.5	1 sbk	0.33	sh-h	0.5	ss, po-ps	0.25	1npf, 1ncl	0.367	0.34	0.24

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.47**	**0.09**	**3.31**	**0.2**	**0.43**	**4 - 8**	**4 - 8**
Buried Soil 1	**0.62**	**2.33**	**4.17**	**1.4**	**1.11**	**15 - 30**	**19 - 38**
Buried Soil 2	**0.56**	**1.75**	**3.45**	**1.9**	**1.60**	**8 - 12**	**27 - 50**

Soil Profile 2
Trench 1 At Station 151 Feet

Soil profile 2 is located near the central portion of trench 1 at station 151 feet. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a truncated weak Inceptisol soil (Qyc) over a sequence of two stacked and truncated Alfisol soils (Qoc and Qot1). The entire section in this locality is capped by 6.5 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. This deposit contains weak to moderately strong mottling and gleying that increases with depth and may faintly overprint or mask some of the original soil properties (mainly soil color). Soil profile 2 at station 151 feet in trench 1 contains a surface soil and two buried soils to a depth of approximately 14.55 feet below the ground surface. This stratigraphic section contains a channel fill sequence for the surface and first buried soils. The lowest or second buried soil is a truncated stream terrace deposit which tracks across the entire trench 1 exposure. Additionally, the lowest stratigraphic correlation unit assigned to the deepest soil member within this profile correlates well to the base of the adjacent trench exposures and to terrace units within the borehole samples (Table 16b). A detailed soil description for this profile is listed in table 2.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 2.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Fluventic Xerumbrept This is a weakly developed and well-preserved soil that was deposited as a fine-grained channel infill. This soil member is well horizonated and consists of an organic-rich transitional (AB) horizon over a series of two weakly developed diagnostic subsurface juvenile argillic to cambic horizons. The deposit is massive and an unknown amount of this soil member has been mechanically stripped away during grading and has most likely been incorporated into the overlying artificial fill (Af). This soil is characterized by a silt-rich or fine-grained deposit with slight organics and few thin and very few moderately thick clay films on ped faces. A relative age estimate of 4 to 8 ka for the surface soil in profile 2 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This massive surficial channel infill deposit is termed Qyc. It has notched into or scoured out the laterally continuous Qof deposit of trench 1 and this surficial deposit is localized.

Buried soil member 1 (or first buried soil) in soil profile 2 classifies as a Typic Haploxeralf. This is a highly truncated soil remnant that consists of two moderately well developed argillic diagnostic subsurface horizons (2Btb1 – 2Btb2). The deposit is massive, and this soil member is characterized by a fine-

grained deposit with moderate to strong redox and common thin and few moderately thick clay films on ped faces. A relative age estimate of 8 to 12 ka for buried soil 1 in soil profile 2 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as an older channel infill deposit, and is termed Qoc. It has notched into or scoured out the laterally continuous Qof deposit and the top of the Qot1 deposit of trench 1 and this buried deposit is localized.

Buried soil member 2 (or second buried soil) in soil profile 2 also classifies as a Typic Haploxeralf. This is a highly truncated soil remnant that consists of a weakly developed argillic diagnostic subsurface horizon over a crudely stratified transitional horizon (3Btb – 3BCb). The deposit consists of a crudely stratified fining upwards sequence. This soil member is characterized by a fine-grained deposit with 7.5YR hues and many to common thin and few to common moderately thick clay films on ped faces. A relative age estimate of 8 to 12 ka for buried soil 2 in soil profile 1 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as stream terrace deposit, and is termed Qot1. This unit correlates well with buried soil 3 in the southern and northern ends of trench 1, buried soil 2 exposed in trench 3 and the Qot1 unit described along boring transect A.

In conclusion, the entire stratigraphic section of soil profile 2 in trench 1 at station 151 feet is estimated to be 20 to 32 ka in age. Most of this age resides within the buried soils (buried soil 1 and 2) of this exposure. The Holocene – Pleistocene boundary is represented by the Qyc and Qoc contact at a depth of approximately 10.15 feet in this locality. The lowest soil member (buried soil 3) within this soil profile correlates well to the lowest buried soils within soil profiles 1 and 3 at the southern and northern ends of trench 1 and with unit (Qot1) observed along boring transect A. The surface and first buried soil in soil profile 2 represent a channel infill sequence that is localized to this area and is not continuous across the trench 1 exposure or the project site area.

TABLE 2.1 Soil Profile – 2, Trench 1 at Station 151 feet.
Geocon Inc.'s Fault Rupture Hazard Study at 9900 Wilshire Boulevard, Beverly Hills, California.

Soil Classification: Series of stacked and truncated Alfisols and Inceptisols
Geomorphic Surface: Channel Infill, Alluvial Fan Remnant
Parent Material: Benedict Canyon Alluvium
Vegetation: Urban
Described By: John Helms
Date Described: 11/7/13 and 11/16/13
Exposure Type: Excavator Trench

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 151 feet
Af	0 – 6.5	6.5	Artificial fill, mixed soil, imported material, and debris, not described; abrupt wavy boundary to:
AB	6.5 – 7.25	0.75	Brown (10YR 4/3d; 10YR 3/2 m); loam to silt loam; weak fine and medium sub angular blocky; hard to very hard, firm to friable, slightly to moderately sticky, moderately plastic; dark yellowish brown (10YR 3/4 d; 10YR 2/2m) clay films common very thin, few thin, and very few moderately thick on ped faces, and very few moderately thick lining pores; fine-grained well sorted sand, slight organics; no gravel; few to common fine and medium pores; slight redox with >3% faint yellowish brown (10YR 5/4 d; 10YR 4/2 m) mottles and >5% weak light olive brown (2.5Y 5/3d; 2.5Y 4/2 m) gleying; massive; diffuse wavy boundary to:
Bt1 / Bw1	7.25 – 8.85	1.6	Brown (10YR 4/3 d; 10YR 3/2 m); silty clay loam; weak to moderately strong fine and medium sub angular blocky; very hard, firm, moderately to very sticky, very plastic; yellowish brown (10YR 5/4 d; 10YR 4/3 m) clay films few thin and very few moderately thick on ped faces, few moderately thick lining pores; very fine-grained very well sorted sand, slight organics; 0 - 3% very fine and fine rounded gravel; slight redox with >10% weak yellowish brown (10YR 5/6 d; 10YR 4/4 m) mottles and >3% faint light olive brown (2.5Y 5/3d; 2.5Y 4/2 m) gleying; massive; gradational wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 151 feet (Cont.)
Bt2 / Bwb2	8.85 – 10.15	1.3	Yellowish Brown (10YR 5/4 d; 10YR 4/3 m); clay loam; weak fine and medium sub angular blocky; very hard, firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 4/3 m) clay films few to common thin and few moderately thick on ped faces; fine-grained well sorted sand; no gravel; moderate redox with common moderately strong yellowish brown (10YR 5/6 d; 10YR 4/4 m) mottles and common strong grayish brown (2.5Y 5/2d; 2.5Y 4/1 m) gleying; massive, gradational wavy boundary to:
2Btb1	10.15 – 11.85	1.7	Yellowish brown (10YR 5/4 d; 10YR 4/3 m); clay loam; weak fine and medium sub angular to angular blocky; very to extremely hard, very firm to firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces; fine-grained well sorted sand; >3% very fine and fine rounded slate rich gravel; moderate redox with common strong, strong brown (7.5YR 4/6 d; 7.5YR 3/4 m) mottles and common coarse moderately strong grayish brown (2.5Y 5/2d; 2.5Y 3/1 m) gleying; massive, gradational wavy boundary to:
2Btb2	11.85 – 12.4	0.55	Dark yellowish brown (10YR 4/4 d; 10YR 3/3 m); clay loam to clay; weak fine and medium sub angular blocky; very hard to extremely hard, very firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces; very fine-grained very well sorted sand; localized MnO webbing on ped faces; 3-5% very fine and fine rounded slate rich gravel; strong redox with common strong strong brown (7.5YR 5/8 d; 7.5YR 4/6 m) mottles and common moderately strong light olive brown (2.5Y 5/3d; 2.5Y 4/2 m) gleying; massive; clear irregular boundary to:
3Btb	12.4 – 13.5	1.1	Brown (7.5YR 5/4 d; 7.5YR 4/3 m); clay loam to clay; weak to moderately strong fine and medium angular blocky to prismatic; extremely hard, very firm, very sticky, very plastic; brown (7.5YR 5/3 d; 7.5YR 4/2 m) clay films many thin, common moderately thick and few thick on ped faces; very fine-grained very well sorted sand, slightly oxidized; no gravel; strong redox with common moderate strong brown (7.5YR 5/8 d; 7.5YR 4/6 m) mottles and common strong light olive brown (2.5Y 5/3d; 2.5Y 4/2 m) gleying; truncated, massive; abrupt wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 151 feet (Cont.)
3BCb	13.5 – 14.5+	1.0+	Brown (7.5YR 4/3 d; 7.5YR 3/2 m); loam to clay loam; weak fine and medium sub angular to angular blocky; very hard, friable, moderately sticky, moderately plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films few thin on ped faces; medium-grained moderately well sorted sand; 3-5% fine sub rounded gravel; moderately strong redox with common moderate strong brown (7.5YR 5/8 d; 7.5YR 4/6m) mottles and common moderate grayish brown (2.5Y 5/2d; 2.5Y 4/1 m) gleying; crudely stratified; undetermined lower boundary.

TABLE 2.2 - Soil Development Index Calculation Sheet
Soil Profile - 2; Trench 1 at Station 151 Feet

Unit	Thickness (Feet)	Color				Texture		Structure		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist						Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/5*	*sg*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Profile 2																	
AB	0.75	10YR 4/3	0.2	10YR 3/2	0	l-sil	0.6	1 sbk	0.33	h-vh	0.70	ss-s, p	0.58	1npf, v1mkpf, v1mkpo	0.433	0.41	0.31
Bt1 / Bw1	1.6	10YR 4/3	0.2	10YR 3/2	0	sicl	0.8	1-2 sbk	0.42	vh	0.8	s-vs, vp	0.92	1npf, v1mkpf, 1mkpo	0.35	0.50	0.80
Bt2 / Bw2	1.3	10YR 5/4	0.3	10YR 4/3	0	cl	0.8	1 sbk	0.30	vh	0.8	vs, vp	1.00	1-2npf, 1mkpf	0.33	0.50	0.66
2Bt1b	1.7	10YR 5/4	0.3	10YR 4/3	0	cl	0.8	1 sbk-abk	0.42	vh-eh	0.9	vs, vp	1.00	2npf, 1mkpf	0.33	0.54	0.91
2Bt2b	0.55	10YR 4/4	0.3	10YR 3/3	0	cl-c	0.9	1 sbk	0.33	vh-eh	0.9	vs, vp	1.00	2npf, 1mkpf	0.33	0.54	0.30
3Btb	1.1	7.5YR 5/4	0.4	7.5YR 4/3	0.1	cl-c	0.9	1-2 abk-pr	0.67	eh	1	vs, vp	1.00	3npf, 2mkpf, 1kpf	0.4	0.64	0.70
3BCb	0.5	7.5YR 5/3	0.3	7.5YR 3/2	0.1	l-cl	0.6	1 sbk-abk	0.42	vh	0.8	s, p	0.67	1npf	0.27	0.45	0.23

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.50**	**1.76**	**3.37**	**0.7**	**1.11**	**4 - 8**	**4 - 8**
Buried Soil 1	**0.54**	**1.21**	**3.75**	**0.6**	**0.66**	**8 - 12**	**12 - 20**
Buried Soil 2	**0.64**	**0.93**	**4.06**	**0.9**	**0.67**	**8 - 12**	**20 - 32**

Soil Profile 3
Trench 1 At Station 233 Feet

Soil profile 3 is located near the northern end of trench at station 233 feet. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a truncated weak Inceptisol soil (Qyt) over a sequence of two stacked and truncated Alfisol soils (Qof and Qot1) over a basal weakly developed inset Inceptisol soil (Qot1a). The entire section in this locality is capped by 6.25 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. This deposit contains faint to weak mottling and gleying throughout and may overprint or mask some of the original soil properties (mainly soil color). Soil profile 3 at station 233 feet in trench 1 contains a surface soil and three buried soils to a depth of approximately 14.75 feet below the ground surface. This stratigraphic section tracks across the entire trench 1 exposure. Additionally, the stratigraphic units assigned to the upper three soil members within this profile correlate well to the adjacent trench exposures and boring transects (Table 16c). A detailed soil description for this profile is listed in table 3.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 3.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Xerumbrept. This thin and highly truncated soil consists of a single weak organic rich transitional to juvenile argillic diagnostic subsurface horizon (AB / Bt) soil remnant. The deposit is massive and a majority of this soil member has been mechanically stripped away during grading and has most likely been incorporated into the overlying artificial fill (Af). This soil is characterized by a massive deposit with slight organics and common thin and very few moderately thick clay films on ped faces. A relative age estimate of 4 to 8 ka for the surface soil in profile 3 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This very thin surficial stream terrace deposit is termed Qyt and correlates well with the surface soil at the southern end of trench 1, the surface soil exposed in trench 2, and the surficial deposits described in the adjacent borings from transect A.

Buried soil member 1 (or first buried soil) in soil profile 3 classifies as a Typic Palexeralf. This is a truncated soil remnant that consists of an organic-rich transitional horizon over three moderately well developed argillic diagnostic subsurface horizons (ABb - 2Btb1 – 2Btb2 – 2Btb3). The deposit is crudely stratified, and consists of a gross coarsening upwards sequence. This soil member is characterized by a gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films on ped faces and

coating gravel. A relative age estimate of 15 to 30 ka for buried soil 1 in soil profile 3 was obtained by comparing the observed clay film index and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well with buried soil 1 at the southern end of trench 1, the buried soil 1 exposed in trench 2, and the Qof unit described in the adjacent borings from transect A.

Buried soil member 2 (or second buried soil) in soil profile 3 classifies as a Typic Haploxeralf. This is a highly truncated soil remnant that consists of two weakly developed argillic diagnostic subsurface horizons over a crudely stratified transitional horizon (3Btb1 – 3Btb2 – 3BCb). The deposit consists of a crudely stratified fining upwards sequence. This soil member is characterized by a fine-grained deposit with 7.5YR hues and common thin and few to common moderately thick clay films on ped faces. A relative age estimate of 8 to 12 ka for buried soil 2 in soil profile 3 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as stream terrace deposit, and is termed Qot1. This unit correlates well with the buried soil 3 in the center and buried soil 2 in the northern end of trench 1, buried soil 2 exposed in trench 2 and the Qot1 unit described in the adjacent borings from transect A.

Buried soil member 3 (or the lowest buried soil) in soil profile 3 classifies as a Fluventic Xerumbrept. This is a highly truncated and thin soil remnant that consists of a weakly developed juvenile argillic to cambic diagnostic subsurface horizon over a crudely stratified transitional horizon (4Btb / 4Bwb – 4BCb). This deposit is massive and silt-rich. This soil member is characterized by a fine-grained deposit with 7.5YR hues and few thin and very few moderately thick clay films. A relative age estimate of 4 to 8 ka for the buried soil 3 in profile 3 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as an inset and laterally discontinuous stream terrace deposit, and is termed Qot1a. This unit represents a gradational lateral facies change and inset surface within buried soil 2 above. Similar fluvial sequences are recognized within the terrace sequences preserved in trench 3 and along the adjacent borings from transects A and B.

In conclusion, the entire stratigraphic section of soil profile 3 in trench 1 at station 233 feet is estimated to be 31 to 58 ka in age. Most of this age resides within the first buried soil (buried soil 1) of this exposure. The Holocene – Pleistocene

boundary is represented by the Qyt and Qof contact at a depth of approximately 7.0 feet in this locality. The uppermost three soil members within this soil profile correlate well to the first three buried soils within soil profile 3 at the southern end of trench 1 and with the upper three units observed along boring transect A. The buried soil 2 in soil profile 2 is continuous across the entire trench 1 exposure.

TABLE 3.1 Soil Profile – 3, Trench 1 at Station 233 feet.
Geocon Inc.'s Fault Rupture Hazard Study at 9900 Wilshire Boulevard, Beverly Hills, California.

Soil Classification: Series of stacked and truncated Alfisols and Inceptisols
Geomorphic Surface: Alluvial Fan Remnant
Parent Material: Benedict Canyon Alluvium
Vegetation: Urban
Described By: John Helms
Date Described: 11/5/13 and 11/17/13
Exposure Type: Excavator Trench

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 233 feet
Af	0 – 6.25	6.25	Artificial fill, mixed soil and debris, not described; clear wavy boundary to:
AB / Bt	6.25 – 7.0	0.75	Dark grayish brown (10YR 4/2d; 10YR 3/1 m); loam; weak fine and medium sub angular blocky; very hard, firm, slightly sticky, slightly to moderately plastic; dark yellowish brown (10YR 4/4 d; 10YR 3/3 m) and light yellowish brown (10YR 6/4 d; 10 4/4 m) clay films common thin and few moderately thick on ped faces, few moderately thick coating clasts, and common moderately thick lining pores; very fine-grained very well sorted sand, slight organics; >1% very fine and fine rounded gravel; common fine and very fine pores; faint redox with localized faint strong brown (7.5YR 5/4 d; 7.5YR 4/3 m) mottles and localized weak grayish brown (2.5Y 5/2d; 2.5Y 3/1 m) gleying; massive; gradational wavy boundary to:
2ABb	7.0 – 7.85	0.85	Brown (7.5YR 5/3 d; 7.5YR 4/2 m); clay; weak to moderately strong medium and coarse angular blocky; extremely hard, very firm, very sticky, very plastic; brown (7.5YR 4/3 d; 7.5YR 3/2 m) clay films few to common thin and few moderately thick on ped faces, common moderately thick coating clasts, and common moderately thick lining pores; very fine-grained very well sorted sand, slightly oxidized; 0 - 3% very fine and fine sub rounded gravel; weak redox with localized faint strong brown (7.5YR 5/6 d; 7.5YR 4/4 m) mottles and localized weak gray (2.5Y 5/1d; 2.5Y 3/1 m) gleying; massive; gradational wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 233 feet (Cont.)
2Btb1	7.85 – 9.8	1.95	Brown (7.5YR 4/4 d; 7.5YR 3/3 m); silty clay to clay; moderately strong to strong medium and coarse angular blocky; extremely hard, very firm, very sticky, very plastic; brown (7.5YR 5/4 d; 7.5YR 4/3 m) clay films common thin and few moderately thick on ped faces; very fine-grained very well sorted sand, slightly well oxidized; few fine MnO coatings on gravel and webbing on ped faces; 3 - 5% fine sub rounded gravel; weak redox with localized weak strong brown (7.5YR 5/6 d; 7.5YR 4/4 m) mottles and localized weak grayish brown (2.5Y 5/2d; 2.5Y 4/1 m) gleying; massive to crudely stratified, clear wavy boundary to:
2Btb2	9.8 – 10.8	1.0	Brown (7.5YR 4/3 d; 7.5YR 3/2 m); clay loam; weak fine and medium sub angular blocky; very hard, friable to firm, moderately to very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films few to common thin and few moderately thick on ped faces, and common moderately thick coating clasts; fine- to medium-grained moderately well sorted sand, slightly oxidized; few to common fine MnO coatings on gravel and webbing on ped faces; 30 - 35% fine and medium sub rounded slate rich gravel; weak redox with localized weak strong brown (7.5YR 5/8 d; 7.5YR 4/6 m) mottles and common coarse weak grayish brown (2.5Y 5/2d; 2.5Y 3/1 m) gleying; massive to crudely stratified, gradational wavy boundary to:
2Btb3	10.8 – 11.45	0.65	Dark brown (7.5YR 3/3 d; 7.5YR 2.5/2 m); loam to sandy clay loam; weak fine and medium sub angular to angular blocky; hard, friable, moderately sticky, moderately plastic; brown (7.5YR 4/3 d; 7.5YR 3/2 m) clay films common thin and few moderately thick on ped faces, common thin and few moderately thick coating clasts; medium- to coarse-grained moderately well sorted sand, slightly oxidized; very few fine MnO coatings on gravel and webbing on ped faces; 15 - 20% fine sub rounded slate rich gravel; faint redox with localized faint strong brown (7.5YR 5/8 d; 7.5YR 4/6 m) mottles and localized faint gray (2.5Y 5/1d; 2.5Y 3/1 m) gleying; massive, scour deposit, truncates underlying deposit; clear wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 233 feet (Cont.)
3Btb1	11.45 – 12.25	0.8	Brown (7.5YR 5/3 d; 7.5YR 4/2 m); silty clay loam; weak fine and medium angular blocky; very hard, very firm, moderately to very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces; very fine-grained very well sorted sand, slightly oxidized; few fine MnO webbing on ped faces; 0 - 1% very fine rounded gravel; moderately strong redox with strong common strong brown (7.5YR 5/8 d; 7.5YR 4/6 m) mottles and few fine faint light brownish gray (2.5Y 6/2d; 2.5Y 4/1 m) gleying; truncated, massive; gradational wavy boundary to:
3Btb2	12.25 – 12.75	0.5	Brown (7.5YR 5/4 d; 7.5YR 4/3 m); loam to silty clay loam; weak fine and medium angular blocky; extremely hard, very firm, moderately to very sticky, moderately plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces; fine-grained well sorted sand, slightly well oxidized; few fine MnO webbing on ped faces; 0 - 1% very fine rounded gravel; faint redox with few faint strong brown (7.5YR 4/6 d; 7.5YR 3/ m) mottles and few fine faint brown(2.5Y 5/3d; 2.5Y 4/2 m) gleying; massive; clear wavy boundary to:
3BCb	12.75 – 13.05	0.3	Brown (7.5YR 4/3 d; 7.5YR 3/2 m); loam to sandy clay loam; weak fine and medium sub angular to angular blocky; hard to very hard, friable, moderately sticky, moderately plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films few thin and very few moderately thick on ped faces, and common moderately thick coating clasts; medium- to coarse-grained poorly sorted sand, slightly oxidized; localized few fine MnO coatings on gravel and webbing on ped faces; 3 - 5% fine and very fine sub rounded gravel; faint redox with few faint strong brown (7.5YR 5/6-8 d; 7.5YR 4/6 m) mottles and few fine weak gray (2.5Y 5/1d; 2.5Y 3/1 m) gleying; crudely stratified scour deposit, abrupt wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-1, Station 233 feet (Cont.)
4Btb / 4Bwb	13.05–14.25	1.2	Brown (7.5YR 5/3 d; 7.5YR 4/2 m); silt loam; weak medium and coarse angular blocky; very to extremely hard, very firm, moderately sticky, very plastic; brown (7.5YR 5-4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces; very fine-grained very well sorted sand, slightly oxidized; common fine MnO webbing on ped faces; 0 - 1% very fine rounded gravel; faint redox with no mottles and localized faint grayish brown (2.5Y 5/2d; 2.5Y 3/1 m) gleying; truncated, massive; gradational wavy boundary to:
4BCb	14.25 – 14.75+	0.5	Brown (7.5YR 5/3 d; 7.5YR 4/2 m); silty clay loam; weak fine and medium sub angular blocky; very hard, very firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces; very fine-grained very well sorted sand, slightly oxidized; common fine MnO webbing on ped faces; 0 - 1% very fine rounded gravel; weak redox with weak localized strong brown (7.5YR 5/6 d; 7.5YR 4/4 m) mottles and common moderate grayish brown (2.5Y 5/2d; 2.5Y 4/1 m) gleying; massive; undetermined lower boundary.

TABLE 3.2 - Soil Development Index Calculation Sheet
Soil Profile - 3; Trench 1 at Station 233 Feet

Unit	Thickness (Feet)	Color				Texture		Structure		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist						Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/5*	*sg*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Profile 3																	
AB / Bt	0.75	10YR 4/2	0.1	10YR 3/1	0	l	0.6	1 sbk	0.33	vh	0.80	ss, ps-p	0.42	1npf, v1mkpf, 1mkcl, 2mkpo	0.533	0.40	0.30
2ABb	0.85	7.5YR 5/3	0.3	7.5YR 4/2	0.1	c	1	1-2 abk	0.75	eh	1	vs, vp	1.00	2npf, 1mkpf, 2ncl, 1mkcl, 2mkpo	0.533	0.67	0.57
2Bt1b	1.95	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sic - c	0.9	2-3 abk	0.75	eh	1	vs, vp	1.00	2-3npf, 2mkpf, 2mkpo, 2mkcl	0.633	0.68	1.33
2Bt2b	1	7.5YR 4/3	0.3	7.5YR 3/2	0.1	cl	0.8	1 sbk-abk	0.42	vh	0.8	s-vs, vp	0.92	2npf, 1mkpf	0.267	0.51	0.51
2Bt3b	0.65	7.5YR 3/3	0.3	7.5YR 2.5/2	0.1	l-scl	0.7	1 sbk-abk	0.42	vh	0.8	s, p	0.67	2npf, 1mkpf, 2ncl, 1mkcl	0.5	0.50	0.32
3Bt1b	0.8	7.5YR 5/3	0.3	7.5YR 4/2	0.1	scl	0.8	1 abk	0.5	vh	0.8	s-vs, vp	0.92	2npf, 1mkpf, 2mkcl	0.433	0.55	0.44
3Bt2b	0.5	7.5YR 5/4	0.4	7.5YR 4/3	0.1	l-sicl	0.7	1 abk	0.5	eh	1	ss-s, p	0.58	2npf, 1mkpf, 2mkcl	0.43	0.53	0.27
3BCb	0.3	7.5YR 4/3	0.3	7.5YR 3/2	0.1	l-scl	0.7	1 sbk	0.33	h-vh	0.7	s, p	0.67	1npf, v1mkpf, 3ncl, 2mkcl	0.417	0.46	0.14
4Btb /4Bwb	1.2	7.5YR 5/3	0.3	7.5YR 4/2	0.1	sil	0.8	1 abk	0.50	vh-eh	0.9	s, vp	0.833	2npf, 1mkpf, 1mkcl	0.383	0.55	0.65
4BC	0.5	7.5YR 5/3	0.3	7.5YR 4/2	0.1	sicl	0.8	1 sbk	0.33	vh	0.8	vs, vp	1	1npf, v1mkpf, 1mkcl	0.35	0.53	0.26

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.40**	**0.30**	**2.78**	**0.1**	**0.53**	**4 - 8**	**4 - 8**
Buried Soil 1	**0.68**	**2.74**	**4.31**	**1.7**	**1.92**	**15 - 30**	**19 - 38**
Buried Soil 2	**0.55**	**0.84**	**3.69**	**1.3**	**2.17**	**8 - 12**	**27 - 50**
Buried Soil 3	**0.55**	**0.92**	**3.78**	**0.8**	**0.73**	**4 - 8**	**31 - 58**

Soil Profile 4
Trench 2 At Station 80 Feet

Soil profile 4 is located near the northern end of trench 2 at station 80 feet. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a truncated weak Inceptisol soil (Qyt) over a sequence of three stacked and truncated Alfisol soils (Qof, Qot1, and Qot2). The entire section in this locality is capped by only 0.65 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 4 at station 80 feet in trench 2 contains a surface soil and two buried soils to a depth of approximately 11.4 feet below the ground surface. This stratigraphic section tracks across the entire trench 2 exposure. Additionally, the stratigraphic correlation units assigned to all four soil members within this profile correlate well to the adjacent trench exposures and borehole samples (Table 16d). A detailed soil description for this profile is listed in table 4.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 4.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Xerumbrept. This is a very thin and highly truncated soil that consists of a transitional horizon with slight organics over a weak to juvenile argillic or cambic diagnostic subsurface horizon (AB - Bw / Bt) soil remnant. The deposit is massive. A majority of this soil member has been mechanically stripped away during grading. This soil is characterized by a sandy deposit with slight organics and few thin clay films on ped faces and few moderately thick clay films coating clasts. A relative age estimate of 4 to 8 ka for the surface soil in profile 4 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This very thin surficial stream terrace deposit is termed Qyt and correlates well with the surface soil at the southern end of trench 1 and the surficial deposits described along the central and northern portions of boring transect A.

Buried soil member 1 (or first buried soil) in soil profile 4 classifies as a Typic Palexeralf. This is a highly truncated soil remnant that consists of three moderately well developed argillic diagnostic subsurface horizons (2Btb1 – 2Btb2 – 2Btb3). The deposit consists of a crudely stratified and subtle coarsening upwards sequence. This soil member is characterized by fine-grained deposit with strong angular blocky soil structure and 7.5YR hues and many thin and common moderately thick clay films on ped faces and coating gravel.
A relative age estimate of 15 to 30 ka for buried soil 1 in soil profile 4 was obtained by comparing the observed clay film index and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile

Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well with buried soil 1 in the southern end of trench 1, the surface soil exposed in trench 3 and the Qof unit described along boring transect A.

Buried soil member 2 (or second buried soil) in soil profile 4 classifies as a Typic Haploxeralf. This is a truncated soil remnant that consists of two weakly developed argillic diagnostic subsurface horizons over a crudely stratified transitional horizon (3Btb1 – 3Btb2 – 3BCb). The deposit consists of a crudely stratified fining upwards sequence. This soil member is characterized by a fine-grained deposit with 7.5YR hues and common thin and few moderately thick clay films on ped faces. A relative age estimate of 8 to 12 ka for buried soil 2 in soil profile 4 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as stream terrace deposit, and is termed Qot1. This unit correlates well with buried soil 3 in the center and the northern end of trench 1, buried soil 2 exposed in trench 3 and the Qot1 unit described along boring transect A.

Buried soil member 3 (or the lowest buried soil) in soil profile 4 also classifies as a Typic Haploxeralf. This is a highly truncated soil remnant that consists of a weakly developed argillic diagnostic subsurface horizon (4Btb). This deposit is massive. This soil member is characterized by a very fine-grained deposit with 7.5YR hues and common thin and few moderately thick clay films on ped faces. A relative age estimate of 8 to 12 ka for buried soil 3 in soil profile 4 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as stream terrace deposit, and is termed Qot2. This unit correlates well with the Qot2 unit along boring transects A and B. This unit lies beneath the observed Trench 1 exposure.

In conclusion, the entire stratigraphic section of soil profile 4 in trench 2 at station 80 feet is estimated to be 35 to 62 ka in age. Most of this age resides within the first buried soil (buried soil 1) of this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 1.7 feet in this locality. The upper three soil members within this soil profile correlate well to the upper three soils observed in soil profile 3 at the northern end of trench 1 and with the entire stratigraphic section observed in trench 3. The lowest soil members within this soil profile correlate well to the sequence of buried and stacked stream terrace deposits encountered along boring transects A and B. All of the soil members observed in soil profile 4 are continuous across the entire trench 2 exposure.

TABLE 4.1 Soil Profile – 4, Trench 2 at Station 80 feet.

Geocon Inc.'s Fault Rupture Hazard Study at 9900 Wilshire Boulevard, Beverly Hills, California.

Soil Classification: Series of stacked and truncated Alfisols and Inceptisols
Geomorphic Surface: Alluvial Fan Remnant
Parent Material: Benedict Canyon Alluvium
Vegetation: Urban
Described By: John Helms
Date Described: 10/23/13 and 11/10/13
Exposure Type: Excavator Trench

Horizon	Depth (ft)	Thickness (ft)	Description of T-2, Station 80 feet
Af	0 – 0.65	0.65	Concrete Layer and Artificial fill, concrete base material; abrupt smooth boundary to:
AB	0.65 – 1.25	0.6	Brown (10YR 4/3d; 10YR 3/2 m); sandy loam to loam; weak to moderately strong fine and medium angular blocky; extremely hard, friable, non- to slightly sticky, non- to slightly plastic; brown (10YR 5/3 d; 10YR 3/2 m) clay films very few thin on ped faces, and few moderately thick coating clasts; fine- to medium-grained moderately well sorted sand, slight organics; 10 - 25% fine sub rounded gravel; massive; artificially compacted; clear wavy boundary to:
Bt / Bw	1.25 – 1.7	0.45	Dark yellowish brown (10YR 4/4d; 10YR 3/3 m); loam; weak fine sub angular blocky; hard to very hard, friable, slightly to moderately sticky, slightly plastic; yellowish brown (10YR 5/4 d; 10YR 3/2 m) clay films few thin on ped faces, and common thin and few moderately thick coating clasts; medium-grained moderately well sorted sand, slightly oxidized; 3 - 5% fine sub rounded slate rich gravel; crudely stratified; slightly artificially compacted; clear irregular boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-2, Station 80 feet (Cont.)
2Btb1	1.7 – 3.5	1.8	Brown (10-7.5YR 5/3 d; 7.5YR 3/3 m); loam to clay loam; weak fine and medium sub angular blocky; hard to very hard, friable, moderately sticky, moderately to very plastic; brown (7.5YR 5/4 d; 7.5YR 4/3 m) clay films common thin and few moderately thick on ped faces, and common thin and few moderately thick coating clasts; fine-grained well sorted sand, slightly well oxidized; 5 - 15% fine and medium rounded gravel; massive, gradational irregular boundary to:
2Btb2	3.5 – 4.1	0.6	Yellowish brown to brown (10-7.5YR 5/4 d; 7.5YR 3/2 m); clay loam; weak fine sub angular blocky; hard, friable to firm, moderately to very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films few to common thin and few moderately thick on ped faces, and common thin and few moderately thick coating clasts; fine-grained well sorted sand, slightly well oxidized; 5 - 10% fine and medium sub rounded slate rich gravel; massive to crudely stratified, gradational smooth boundary to:
2Btb3	4.1 – 5.5	1.4	Brown (7.5YR 5/3 d; 7.5YR 3/3 m); silty clay loam; weak fine and medium sub angular to angular blocky; hard to very hard, firm, moderately sticky, very plastic; brown (7.5YR 5/4 d; 7.5YR 2.5/3 m) clay films common thin, few moderately thick, and very few thick on ped faces; very fine-grained very well sorted sand, moderately well oxidized; very few fine MnO coatings on gravel and webbing on ped faces; >3% fine and very fine sub rounded slate rich gravel; massive; clear wavy boundary to:
3Btb1	5.5 – 8.0	2.5	Brown (7.5YR 4/3 d; 7.5YR 2.5/3 m); silty clay; weak to moderately strong medium angular blocky; very hard, firm, very sticky, very plastic; brown (7.5YR 5/4 d; 7.5YR 3/2 m) clay films common thin and few moderately thick on ped faces, common moderately thick and few thick coating clasts; very fine-grained very well sorted sand, slightly well oxidized; 10 - 25% fine sub rounded slate rich gravel; massive; gradational wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-2, Station 80 feet (Cont.)
3Btb2	8.0 – 8.6	0.6	Brown (7.5YR 5/4 d; 7.5YR 3/3 m); silty clay to silty clay loam; weak fine and medium angular blocky; very hard, firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin and few moderately thick on ped faces; medium-grained moderately well sorted sand, moderately well oxidized; massive; gradational wavy boundary to:
3BCb	8.6 – 10.3	1.7	Brown (7.5YR 5/4 d; 7.5YR 3/3 m); loam; weak fine and medium sub angular blocky; hard, friable, slightly to moderately sticky, slightly plastic; brown (7.5YR 4/4 d; 7.5YR 2.5/3 m) clay films few thin and very few moderately thick on ped faces; medium-grained moderately well sorted sand, moderately well oxidized; massive, clear smooth boundary to:
4Btb	10.3–11.4+	1.1	Brown (7.5YR 4/4 d; 7.5YR 3/3 m); silty clay; weak fine and medium angular blocky; very hard, very firm, very sticky, very plastic; strong brown (7.5YR 5/6 d; 7.5YR 3/4 m) clay films common thin and few moderately thick on ped faces; very fine-grained very well sorted sand, moderately well oxidized; no gravel; massive; undetermined lower boundary.

TABLE 4.2 - Soil Development Index Calculation Sheet
Soil Profile - 4; Trench 2 at Station 80 Feet

Unit	Thickness (Feet)	Color				Texture		Structure		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist						Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/5*	*sg*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Profile 4																	
AB	0.6	10YR 4/3	0.2	10YR 3/2	0	sl-l	0.5	1-2 abk	0.58	eh	1.00	ss, po-ps	0.25	v1npf, 1mkcl	0.383	0.42	0.25
Bt / Bw	0.45	10YR 4/4	0.3	10YR 3/3	0	l	0.6	1 sbk	0.33	h-vh	0.7	ss-s, ps	0.58	1npf, 2ncl, 1mkcl	0.45	0.42	0.19
2Bt1b	1.8	10-7.5YR 5/3	0.25	7.5YR 3/3	0.1	l-cl	0.7	1 sbk	0.33	h-vh	0.7	s, p-vp	0.75	2npf, 1mkpf, 2ncl, 1mkcl	0.467	0.47	0.85
2Bt2b	0.6	10-7.5YR 5/4	0.35	7.5YR 3/2	0.1	cl	0.8	1 sbk	0.33	h	0.6	s-vs, vp	0.92	1-2npf, 1mkpf, 2ncl, 1mkcl	0.467	0.51	0.31
2Bt3b	1.4	7.5YR 5/3	0.3	7.5YR 3/3	0.1	sicl	0.8	1 sbk-abk	0.42	h-vh	0.7	s, vp	0.83	2npf, 1mkpf, 2ncl, 1mkcl	0.467	0.52	0.72
3Bt1b	2.5	7.5YR 4/3	0.3	7.5YR 2.5/3	0.1	sic	0.9	1-2 abk	0.58	vh	0.8	vs, vp	1.00	2npf, 1mkpf, 2mkcl, 1kcl	0.5	0.60	1.49
3Bt2b	0.6	7.5YR 5/4	0.4	7.5YR 3/3	0.1	sicl-sic	0.85	1 abk	0.5	vh	0.8	vs, vp	1.00	2npf, 1mkpf	0.333	0.57	0.34
3BCb	1.7	7.5YR 5/4	0.4	7.5YR 3/3	0.1	l	0.6	1 sbk	0.33	h	0.6	ss-s, ps	0.58	1npf, v1mkpf	0.267	0.41	0.70
4Btb	1.1	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sic	0.9	1 abk	0.50	vh	0.8	vs, vp	1	2npf, 1mkpf	0.333	0.58	0.63

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.42**	**0.44**	**2.94**	**0.5**	**0.83**	**4 - 8**	**4 - 8**
Buried Soil 1	**0.52**	**1.88**	**3.46**	**1.2**	**1.40**	**15 - 30**	**19 - 38**
Buried Soil 2	**0.6**	**2.53**	**3.70**	**1.4**	**1.10**	**8 - 12**	**27 - 50**
Buried Soil 3	**0.68**	**0.63**	**4.03**	**0.5**	**0.33**	**8 - 12**	**35 - 62**

Soil Profile 5
Trench 3 At Station 57 Feet

Soil profile 5 is located near the center portion of trench 3 at station 57 feet. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a sequence of two stacked and truncated Alfisol soils (Qof and Qot1) over a a basal weakly developed inset Inceptisol soil (Qot1a). The entire section in this locality is capped by only 0.55 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 5 at station 57 feet in trench 3 contains a surface soil and two buried soils to a depth of approximately 7.4 feet below the ground surface. This stratigraphic section tracks across the entire trench 3 exposure. Additionally, the stratigraphic correlation units assigned to the upper two soil members within this profile correlate well to the adjacent trench exposures and boring transects (Table 16e). A detailed soil description for this profile is listed in table 5.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 5.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Palexeralf. This is a well preserved soil remnant that consists of an organic-rich transitional horizon over a sequence of three moderately well developed argillic diagnostic subsurface horizons and a transitional (scour) horizon (AB – Bt1 – Bt2 – Bt3 - BC). The deposit is massive. This soil member is characterized by fine-grained deposit with strong angular blocky soil structure and 7.5YR hues and many thin and common moderately thick clay films on ped faces. A relative age estimate of 15 to 30 ka for this surface soil in soil profile 5 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well with buried soil 1 in the southern end of trench 1, the surface soil exposed in trench 3 and the Qof unit described along boring transect A.

Buried soil member 1 (or first buried soil) in soil profile 5 classifies as a Typic Haploxeralf. This is a truncated soil remnant that consists of two weakly developed argillic diagnostic subsurface horizons over a crudely stratified transitional horizon (2Btb1 – 2Btb2 / 2BCb1 – 2BCb2). This deposit consists of a crudely stratified fining upwards sequence. This soil member is characterized by a silty deposit with 7.5YR hues and common thin and few moderately thick clay films on ped faces. A relative age estimate of 8 to 12 ka for buried soil 1 in soil profile 5 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This

buried soil member is interpreted as stream terrace deposit Qot1. This unit correlates well with buried soil 3 in the center and the northern end of trench 1, buried soil 2 exposed in trench 3 and the Qot1 units described along boring transect A.

Buried soil member 3 (or the lowest buried soil) in soil profile 5 classifies as a Fluventic Xerumbrept. This is a highly truncated and thin soil remnant that consists of a weakly developed juvenile argillic to cambic diagnostic subsurface horizon (3Btb / 3Bwb – 3BCb). The deposit is massive and silty. This soil member is characterized by a fine-grained deposit with 7.5YR hues and few thin and very few moderately thick clay films on ped faces. A relative age estimate of 4 to 8 ka for the buried soil 3 in profile 3 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as an inset and laterally discontinuous stream terrace deposit, and is termed Qot1a. This unit represents a gradational lateral facies change and inset surface with the buried soil 2 of trench 3. Similar fluvial sequences are recognized within the terrace sequences preserved along the adjacent borings from transects A and B.

In conclusion, the entire stratigraphic section of soil profile 5 in trench 3 at station 57 feet is estimated to be 27 to 50 ka in age. Most of this age resides within the surface soil of this exposure. The Holocene – Pleistocene boundary is represented by the Af and Qof contact at a depth of approximately 0.55 feet in this locality. The upper two soil members within this soil profile correlate well to the buried soils 1 and 2 observed in soil profile 1 at the southern end of trench 1 and with the buried soils 1 and 2 observed in trench 2. The lowest soil members within this soil profile correlates well to the buried sequence of stacked stream terrace deposits encountered in the boring transects A and B. All of the soil members observed in soil profile 5 are continuous across the entire trench 3 exposure.

TABLE 5.1 Soil Profile – 5, Trench 3 at Station 57 feet.
Geocon Inc.'s Fault Rupture Hazard Study at 9900 Wilshire Boulevard, Beverly Hills, California.

Soil Classification: Series of stacked and truncated Alfisols and Inceptisols
Geomorphic Surface: Alluvial Fan Remnant
Parent Material: Benedict Canyon Alluvium
Vegetation: Urban
Described By: John Helms
Date Described: 11/11/13 and 11/15/13
Exposure Type: Excavator Trench

Horizon	Depth (ft)	Thickness (ft)	Description of T-3, Station 57 feet
Af	0 – 0.55	0.55	Concrete Layer and Artificial fill, mixed soil and concrete base, not described; abrupt smooth boundary to:
AB	0.55 – 1.6	1.05	Brown (7.5YR 4/2d; 7.5YR 3/2 m); silty clay loam to silty clay; moderately strong to strong medium angular blocky to prismatic; extremely hard, very firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/2 m) clay films common thin and few moderately thick on ped faces and common moderately thick lining pores; fine-grained well sorted sand, slight organics; 0-3% fine sub rounded gravel; few fine and medium pores; massive; abrupt planar boundary to:
Btb	1.6 – 3.35	1.75	Brown (7.5YR 5/3 d; 7.5YR 3/3 m); silty clay; moderately strong to strong medium angular blocky to prismatic; extremely hard, very firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/2 m) clay films common thin, few moderately thick, and very few thick on ped faces; very fine-grained very well sorted sand, slightly well oxidized; 3 - 5% fine and medium sub rounded gravel; massive; gradational wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-3, Station 57 feet (Cont.)
Bt2	3.35 – 3.95	0.6	Brown (7.5YR 5/3 d; 7.5YR 3/2 m); silty clay loam to clay loam; weak to moderately strong fine and medium angular blocky to prismatic; very to extremely hard, firm, very sticky, very plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films common thin, few moderately thick on ped faces; very fine-grained very well sorted sand, slightly well oxidized; 3 - 5% fine and very fine sub rounded slate rich gravel; massive, gradational wavy boundary to:
Bt3	3.95 – 5.15	1.2	Brown (7.5YR 5/4 d; 7.5YR 3/3 m); clay loam; weak fine and medium sub angular to angular blocky; very hard, friable to firm, moderately sticky, moderately to very plastic; brown (7.5YR 5/2 d; 7.5YR 3/2 m) clay films few thin,and very few moderately thick on ped faces, and common moderately thick coating clasts; fine-grained well sorted sand, moderately well oxidized; 3 - 5% fine sub rounded gravel; massive, clear planar boundary to:
BCox	5.15 – 6.15	1.0	Strong brown (7.5YR 4/6 d; 7.5YR 3/4 m); loam; weak fine and medium sub angular blocky; hard, friable, slightly sticky, non- to slightly plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films very few thin, on ped faces, and few moderately thick coating clasts; fine-grained well sorted sand, moderately well oxidized; 5 - 10% fine and medium sub rounded gravel; massive, scour deposit; clear wavy boundary to:
2Btb1	6.15 – 6.35	0.2	Brown (7.5YR 4/3 d; 7.5YR 3/2 m); loam to silt loam; weak fine and medium sub angular blocky; slightly hard to hard, friable, slightly to moderately sticky, moderately plastic; brown (7.5YR 4/4 d; 7.5YR 3/2 m) clay films few thin and very few moderately thick on ped faces; fine- to medium-grained moderately well sorted sand, slightly well oxidized; >3% fine and very fine sub rounded gravel; massive, gradational wavy boundary to:
2BCb1	6.35 – 6.55	0.2	Brown (7.5YR 4/3 d; 7.5YR 3/2 m); loam to clay loam; weak fine sub angular blocky; hard, friable, moderately sticky, moderately plastic; brown (7.5YR 5/4 d; 7.5YR 4/3 m) clay films few thin on ped faces; fine- to medium-grained moderately well sorted sand, slightly well oxidized; >3% fine and very fine sub rounded gravel; crudely stratified, gradational wavy boundary to:

Horizon	Depth (ft)	Thickness (ft)	Description of T-3, Station 57 feet (Cont.)
2BCb2	6.55 – 6.85	0.3	Brown (7.5YR 5/4 d; 7.5YR 3/2 m); loam to sandy loam; weak fine and medium sub angular blocky; slightly hard, very friable to friable, non- to slightly sticky, non- to slightly plastic; brown (7.5YR 4/4 d; 7.5YR 3/3 m) clay films very few thin on ped faces, and few thin coating clasts; medium-grained moderately well sorted sand, moderately well oxidized; 5 - 10% fine and medium sub rounded gravel; crudely stratified, scour deposit; abrupt planar boundary to:
3Btb / 3Bwb	6.85 – 7.4+	0.55	Light brown (7.5YR 6/4 d; 7.5YR 5/3 m); silty loam; weak fine and medium sub angular blocky; hard to very hard, firm, moderately to very sticky, very plastic; brown (7.5YR 5/4 d; 7.5YR 4/3 m) clay films few thin and very few moderately thick on ped faces; very fine-grained very well sorted sand, moderately well oxidized; >3% fine and very fine sub rounded gravel; massive, truncated, undetermined lower boundary.

TABLE 5.2 - Soil Development Index Calculation Sheet
Soil Profile - 5; Trench 3 at Station 57 Feet

Unit	Thickness (Feet)	Color				Texture		Structure		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist						Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/5*	*sg*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Profile 5																	
AB	1.05	7.5YR 4/2	0.2	7.5YR 3/2	0.1	sicl-sic	0.85	2-3 abk-pr	0.83	eh	1.00	vs, vp	1.00	2npf, 1mkpf, 2mkpo	0.5	0.64	0.67
Bt1	1.75	7.5YR 5/3	0.3	7.5YR 3/3	0.1	sic	0.9	2-3 abk-pr	0.83	eh	1	vs, vp	1.00	2npf, 1mkpf, v1kpf	0.367	0.64	1.12
Bt2	0.6	7.5YR 5/3	0.3	7.5YR 3/2	0.1	sicl - cl	0.8	1-2 abk-pr	0.80	eh	1	vs, vp	1.00	2npf, 1mkpf	0.333	0.62	0.37
Bt3	1.2	7.5YR 5/4	0.3	7.5YR 3/3	0.1	cl	0.8	1 sbk-abk	0.42	vh	0.8	s, p-vp	0.75	1npf, v1mkpf	0.3	0.50	0.59
BC ox	1	7.5YR 4/6	0.6	7.5YR 3/4	0.2	l	0.6	1 sbk	0.33	h	0.6	ss, po-ps	0.25	v1npf, 1mkcl	0.35	0.42	0.42
2Bt1b	0.2	7.5YR 4/3	0.3	7.5YR 3/2	0.1	l-sil	0.6	1 sbk	0.33	sh-h	0.5	ss-s, p	0.58	1npf, v1mkpf	0.3	0.39	0.08
2Bt2b / 2BC1b	0.2	7.5YR 4/3	0.3	7.5YR 3/2	0.1	l-cl	0.7	1 sbk	0.33	h	0.6	s, p	0.67	1npf	0.2	0.41	0.08
2BC2b	0.3	7.5YR 5/4	0.4	7.5YR 3/2	0.1	sl-l	0.5	1 sbk	0.33	sh	0.4	so-ss, po-ps	0.167	v1npf, 1ncl	0.283	0.31	0.09
3Btb / 3Bwb	0.55	7.5YR 6/4	0.4	7.5YR 5/3	0.1	sil	0.6	1 sbk	0.33	h-vh	0.7	s-vs, vp	0.917	1npf, v1mkpf	0.3	0.48	0.26

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.64**	**3.18**	**3.98**	**2.3**	**1.85**	**15 - 30**	**15 - 30**
Buried Soil 1	**0.41**	**0.25**	**2.54**	**1.3**	**0.78**	**8 - 12**	**23 - 42**
Buried Soil 2	**0.48**	**0.26**	**3.35**	**0.5**	**0.30**	**4 - 8**	**27 - 50**

Soil Profile 6
Transect A, Boring 3

Soil profile 6 is located near the southern end of boring transect A in Boring 3 and was described in detail to a depth of 36.4 feet below the ground surface. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a sequence of two stacked and truncated Alfisol soils (Qof and Qot1) over series of two weakly developed Inceptisol soils (Qot2 and Qot4) and a basal Entisol soil (Qot5) or scour deposit over Lakewood Formation or undifferentiated old alluvium (Qoa1). The entire section in this locality is capped by 5.8 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 6 in boring 3 contains a surface soil and four buried soils above the Lakewood Formation to a depth of approximately 23.4 feet below the ground surface. This stratigraphic section tracks across the remaining length of Transect A to the south (Borings 1 and 2), and across borings 4 and 5 to the north. The stratigraphic units assigned to the upper three soil members within this profile correlate well to the adjacent trench exposures and across the entirety of Transect A (Table 16h). A detailed soil description for this profile is listed in table 6.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 6.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Palexeralf. This is a severely truncated soil remnant that consists of single massive moderately well developed argillic diagnostic subsurface horizon (Bt). This soil member is characterized by gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films. A relative age estimate of 15 to 30 ka for this surface soil in soil profile 6 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well across the entire length of transect A (borings 1 through 12).

Buried soil member 1 (or first buried soil) in soil profile 6 classifies as a Typic Haploxeralf. This is a truncated soil remnant that consists of a weak organic transitional horizon over a weakly developed juvenile argillic to cambic diagnostic subsurface horizon over a crudely stratified transitional scour horizon (2ABb – 2Btb / 2Bwb – 2BCb). The deposit consists of a crudely stratified fining upwards sequence. This soil member is characterized by a silty deposit with 7.5YR hues and few to common thin and very few moderately thick clay films. A relative age estimate of 8 to 12 ka for buried soil 1 in soil profile 6 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the

Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as stream terrace deposit, and is termed Qot1. This unit also correlates well across the entire length of transect A (borings 1 through 12).

Buried soil members 2 and 3 in soil profile 6 both classify as a Fluventic Xerumbrepts. These are highly truncated, thin, and interfingering soil remnants that consist of a weakly developed juvenile argillic to cambic diagnostic subsurface horizon over a transitional scour horizon (3Btb / 3Bwb – 3BCb) and (4Btb / 4Bwb – 4BCb). These deposits are massive to locally crudely stratified. These soil member are characterized by sandy deposits with 10 - 7.5YR hues and few thin clay films. A relative age estimate of 4 to 8 ka for each of these buried soils in profile 6 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as stream terrace deposits, and are termed Qot2 and Qot4. These units contain gradational lateral facies changes and inset surfaces laterally along Transect A. This fluvial sequences is recognized within the stream terrace deposits preserved along the adjacent borings in transect A from boring 1 through boring 5. Unit Qot2 correlates well across the entire length of transect A (borings 1 through 12). Unit Qot4 correlates well across the southern portion of transect A (borings 1 through 5), and this unit may be faulted between borings 5 and 10 along transect A.

Buried soil member 4 in soil profile 6 classifies as a Typic Xerofluvent. This is a highly truncated, well stratified, and weakly developed soil remnant. This soil consists of a single, thick, and crudely laminated transitional (5BCb lam) horizon. This deposit is well stratified with a basal scour. A relative age estimate of 1 to 4 ka for buried soil 4 in profile 6 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the similar soil profile S-7 in the Mission Creek soil chronosequence (McFadden, 1988). This buried soil member is a strong marker bed that lies across a majority of the project site area. It is interpreted as an highly truncated and laterally continuous stream terrace deposit, and is termed Qot5. Unit Qot5 correlates well across the southern portion of transect A, however this unit may be faulted at depth along transect A.

Buried soil members 5 and 6 (or the deepest buried soils described in detail) in soil profile 6 classify as Typic Haplo to Palexeralfs. This is a sequence of well-developed and highly truncated soil remnants that consist of a set of stacked argillic horizons (6Btb – 7Btb). The deposits are massive. These soil members are characterized by fine-grained deposits with 7.5YR hues and plugged with secondary clay. A relative age estimate of 8 to 12 ka for buried soil 5 in soil profile 6 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the

Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). A relative age estimate of 15 to 30 ka for buried soil 6 in soil profile 6 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as being part of the undifferentiated Lakewood Formation alluvium and termed Qoa1. This unit does not to correlate well across the length of transect A (borings 1 through 12). It appears to be affected by faulting.

In conclusion, the entire stratigraphic section of soil profile 6 in boring 3 along Transect A to a depth of 35 feet is estimated to be 55 to 104 ka in age. Most of this age resides within the surface soil and the described Lakewood Formation in this exposure. The Holocene – Pleistocene boundary is represented by the Af and Qof contact at a depth of approximately 5.8 feet in this locality. The upper five soil members within this soil profile correlate well across the entirety of Transect A. Within this section the alluvial fan deposit (Qof) has an estimated age of 15.0 – 30.0 ka, and the underlying sequence of stream terrace deposits (Qot1, Qot2, Qot4, and Qot5) have an estimated age of 32.0 – 62.0 ka. The upper 3 soil members observed in soil profile 6 have an age estimate of 27.0 – 50.0 ka, and are continuous and appear un-faulted across the entirety of transect A.

Table 6.1
9900 Wilshire Boulevard, Core Sample Soil Description

Soil Profile 6 - Transect A; Boring 3

Date Described: 10/17/13 and 11/12/2013

Depth (Ft)	Horizon	Transect A; B-3 Description
0 - 5.8	Af	Artificial Fill - not described
5.8 - 10.5	Bt	Brown to yellowish brown (10-7.5YR 5/4d, 7.5YR 3/3m), clay loam, slightly to moderately well oxidized, hard to very hard, friable to firm, moderately to very sticky, very plastic, fine to medium grained moderately well sorted sand with ~25% fine and medium sub rounded slate-rich gravel, brown (7.5YR 4/4d, 7.5YR 3/2m) clay films few to common thin and few moderately thick on ped faces and common thin and moderately thick coating clasts, weak redox with >3% weak strong brown (7.5YR4/6d, 7.5YR 3/4m) mottles and >7% moderately strong grayish brown (2.5Y 5/2d, 2.5Y 4/1m) gleying, truncated, massive, clear lower boundary to;
10.5 - 11.1	2ABb	Brown (7.5YR 4/3d, 7.5YR 3/2m), silty clay, slight organics, moderately well oxidized, hard to very hard, firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films common to many thin and common moderately thick on ped faces, truncated, massive, clear lower boundary to;
11.1 - 12.75	2Btb / 2Bwb	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam, moderately well oxidized, hard, friable, moderately to very sticky, moderately to very plastic, fine to medium grained moderately well sorted sand with ~3% fine and very fine slate-rich well rounded gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films few to common thin and few moderately thick on ped faces and few moderately thick coating clasts, massive to crudely stratified, gradational lower boundary to;
12.75 - 13.7	2BCb	Strong brown (7.5YR 4/6d, 7.5YR 3/4m), sandy loam, moderately well oxidized, slightly hard, very friable to friable, slightly sticky, non- to slightly plastic, medium grained moderately well sorted sand with ~15-20% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films very few to few thin on ped faces and few thin coating clasts, crudely stratified, scour deposit, clear lower boundary to;
13.7 - 15.4	3Btb / 3Bwb	Brown (7.5YR 4/4d, 7.5YR 3/3m), loam, moderately well oxidized, slightly hard, friable, slightly to moderately sticky, slightly plastic, fine grained well sorted sand with ~0-3% fine and very fine slate-rich sub rounded gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films few to common thin and few moderately thick on ped faces and few thin coating clasts, truncated, massive, gradational lower boundary to;
15.4 - 16.0	3BCb	Brown (7.5YR 5/3d, 7.5YR 3/2m), sandy loam to loamy sand, slightly oxidized, soft to slightly hard, very friable to friable, non-sticky, non- plastic, medium grained moderately well sorted sand with ~15-20% fine and very fine slate-rich well rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films very few to few thin on ped faces and few thin coating clasts, crudely stratified, scour deposit, clear lower boundary to;
16.0 - 17.8	4Btb / 4Bwb	Yellowish brown to brown (10YR - 7.5YR 5/4d, 7.5YR 4/3m), silt loam, slightly oxidized, slightly hard, firm, moderately sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few to very few thin and very few moderately thick on ped faces, weak redox with >15% weak strong brown (7.5YR4/6d, 7.5YR 3/4m) mottles and >5% weak light yellowish brown (2.5Y 6/3d, 2.5Y 5/2m) gleying, truncated, massive, gradational lower boundary to;
17.8 - 18.5	4BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), sandy loam, slightly hard, friable, non- to slightly sticky, non-plastic, fine-grained well sorted sand with no gravel, brown (7.5YR 5/4d, 7.5YR 4/3m) clay films very few thin and few clay stains on ped faces, weak redox with >3% weak strong brown (7.5YR4/6d, 7.5YR 4/4m) mottles and >15% weak light brownish gray (2.5Y 6/2d, 2.5Y 5/1m) gleying, crude laminations up to 0.5' thick, massive, scour deposit, gradational lower boundary to;

Depth (Ft)	Horizon	Transect A; B-3 Description (Cont.)
18.5 - 23.4	5BCb lam	Pale brown (10YR 6/3d, 10YR 5/2m), sandy loam to loam, slightly hard, friable to very friable, slightly sticky, slightly plastic, fine-grained well sorted sand with ~5-15% localized very fine and fine sub rounded slate-rich gravel, moderately strong redox with ~30% moderate brown (7.5YR 5/4d, 7.5YR 4/3m) mottles and ~50% strong light brownish gray (2.5Y 6/2d, 2.5Y 5/1m) gleying, well stratified, stacked and truncated, basal scour deposit, abrupt lower boundary to;
23.4 - 27.5	6Btb	Brown (7.5YR 4/4d, 7.5YR 3/3m), silty clay, moderately well oxidized, very hard, firm to very firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films common thin and few moderately thick on ped faces, moderately strong redox with ~20% moderate strong brown (7.5YR 5/6d, 7.5YR 3/4m) mottles and ~40% strong light olive brown (2.5Y 5/3d, 2.5Y 4/2m) gleying, truncated, massive, clear lower boundary to;
27.5 - 35.0	7Btb	Brown (7.5YR 4/4d, 7.5YR 3/2m), clay loam to clay, moderately well oxidized, very hard, firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 4/3d, 7.5YR 3/3m) clay films common to many thin and common moderately thick on ped faces, moderately strong redox with ~20% moderate strong brown (7.5YR 4/6d, 7.5YR 3/4m) mottles and ~20% strong light olive brown (2.5Y 5/3d, 2.5Y 4/2m) gleying, truncated and stacked, crudely stratified, Lakewood Formation, Older Alluvium, gradational lower boundary.
35.0 - 75.0+	--	Lakewood Formation, Older Alluvium, Not described in detail, See Summary Description

Table 6.2 Soil Development Index Calculation Sheet
9900 Wilshire Boulevard
Soil Profile 6 - Transect A, Boring 3

Unit	Thickness (Feet)	Color				Texture		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist				Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Boring 3															
Bt	4.7	10 - 7.5YR 5/4	0.35	7.5YR 3/3	0.1	cl	1	h-vh	0.70	s-vs, vp	0.92	1-2npf, 1mkpf, 2ncl, 1mkcl	0.47	0.64	3.00
2ABb	0.6	7.5YR 4/3	0.3	7.5YR 3/2	0.1	sic	0.8	h-vh	0.7	vs, vp	1.00	1-2npf, 1mkpf	0.33	0.59	0.35
2Btb / 2Bwb	1.7	7.5YR 4/4	0.4	7.5YR 3/3	0.1	cl	1	h	0.6	s-vs, p-vp	0.83	2npf, 1mkpf, 1mkcl	0.47	0.60	0.99
2BCb	1.0	7.5YR 4/6	0.6	7.5YR 3/4	0.2	sl	0.3	sh	0.4	ss, po-ps	0.25	v1-1npf, 1ncl	0.27	0.28	0.27
3Btb / 3Bwb	1.7	7.5YR 4/4	0.4	7.5YR 3/3	0.1	l	0.5	sh	0.4	ss-s, ps	0.42	1-2npf, 1mkpf, 1ncl	0.43	0.37	0.63
3BCb	0.6	7.5YR 5/3	0.3	7.5YR 3/2	0.1	sl - ls	0.2	so-sh	0.3	so, po	0.00	v1npf, 1ncl	0.33	0.19	0.11
4Btb / 4Bwb	1.8	10-7.5YR 5/4	0.35	7.5YR 4/3	0.1	sil	0.7	sh	0.4	s, vp	0.83	v1-1npf, v1mkpf	0.3	0.47	0.84
4BCb	0.7	10YR 5/4	0.3	10YR 4/3	0	sl	0.3	sh	0.4	so-ss, po	0.01	v1npf	0.23	0.19	0.13
5BCb lam	4.9	10YR 6/3	0.2	10YR 5/2	0	sl-l	0.4	sh	0.4	ss, ps	0.33		0	0.23	1.11
6Btb	4.1	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sic	0.8	vh	0.80	vs, vp	1.00	2npf, 1mkpf	0.47	0.63	2.60
7Btb	7.5	7.5YR 4/4	0.4	7.5YR 3/2	0.1	cl-l	0.6	vh	0.80	vs, vp	1.00	2-3npf, 2mkpf	0.57	0.61	4.61

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.64**	**3.00**	**4.46**	**0.45**	**0.47**	**15 - 30**	**15 - 30**
Buried Soil 1	**0.60**	**1.61**	**3.53**	**1.7**	**1.07**	**8 - 12**	**23 - 42**
Buried Soil 2	**0.37**	**0.74**	**2.25**	**0.9**	**0.76**	**4 - 8**	**27 - 50**
Buried Soil 3	**0.47**	**0.97**	**2.72**	**0.75**	**0.53**	**4 - 8**	**31 - 58**
Buried Soil 4	**0.23**	**1.11**	**1.59**	**0.2**	**0.00**	**1 - 4**	**32 - 62**
Buried Soil 5	**0.63**	**2.60**	**4.44**	**0.5**	**0.47**	**8 - 12**	**40 - 74**
Buried Soil 6	**0.61**	**4.61**	**4.30**	**0.5**	**0.57**	**15 - 30**	**55 - 104**

Soil Profile 7
Transect A, Boring 6

Soil profile 7 is located near the center of Transect A in Boring 6 and was described in detail to a depth of 11.0 feet below the ground surface. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of highly truncated and weakly developed Inceptisol soil (Qyt) over a stacked and truncated Alfisol soils (Qof). This section appears to be a cut and is not capped by any artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 7 in boring 6 contains a weak surface soil and well-developed buried soil. Both of the horizons described in detail track across the remaining length of Transect A to the north. The stratigraphic correlation units assigned to the upper two soil members within this profile also correlate well to the adjacent trench exposures (Table 16k). A detailed soil description for this profile is listed in table 7.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 7.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Xerumbrept. This is a very thin and highly truncated soil that consists of a weak argillic diagnostic subsurface horizon (Bt) soil remnant. The deposit is massive. A majority of this soil member has been mechanically stripped away during grading. This soil is characterized by a silt-rich deposit with few to common thin and few moderately thick clay films. A relative age estimate of 8 to 12 ka for the surface soil in soil profile 7 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This very thin surficial stream terrace deposit is termed Qyt and correlates well with the surface soil in the northern portion of trench 1 and the surficial deposits described along the northern portion of boring transect A.

Buried soil member 1 (or first buried soil) in soil profile 7 classifies as a Typic Palexeralf. This is a severely truncated soil remnant that consists of a sequence of two moderately well developed argillic diagnostic subsurface horizons over a transitional scour horizon (2Btb1 – 2Btb2 – 2BCb). This soil member is characterized by gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films. A relative age estimate of 15 to 30 ka for buried soil 1 in soil profile 7 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as

debris flow deposit, and is termed Qof. This unit correlates well across the entire project site area.

In conclusion, the entire stratigraphic section of soil profile 7 in boring 6 along Transect A to a depth of 11.0 feet is estimated to be 23 to 42 ka in age. Most of this age resides within the first buried soil in this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 3.5 feet in this locality. The first buried soil member within this soil profile correlates well across the entirety of boring transect A and the project site area. Within this section the alluvial fan deposit (Qof) has an estimated age of 23.0 – 42.0 ka. The ages of the underlying sequence of stream terrace deposits (Qot1, Qot2, Qot4, and Qot5), and the upper Lakewood Formation were not assessed in this boring.

Table 7.1
9900 Wilshire Boulevard, Core Sample Soil Description

Soil Profile 7 - Transect A; Boring 6

Date Described: 11/20/2013

Depth (Ft)	Horizon	Transect A; B-6 Description
0 - 3.5	Bt /Bw	Brown (7.5YR 5/4d, 7.5YR 3/3m), silty clay loam to clay loam, slightly oxidized, very hard, very firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, common fine and few medium pores, brown (7.5YR 4/4d, 7.5YR 2.5/3m) clay films few to common thin and few moderately thick on ped faces and few moderately thick lining pores, truncated, massive, clear lower boundary to;
3.5 - 8.7	2Btb1	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam, slightly oxidized, extremely hard, very firm, very sticky, very plastic, fine grained well sorted sand with ~5-10% fine and medium sub rounded slate-rich gravel, brown (7.5YR 4/3d, 7.5YR 2.5/2m) clay films common to many thin and few moderately thick on ped faces and common moderately thick lining pores and few thick coating clasts, faint to weak redox with localized faint strong brown (7.5YR 5/6d, 7.5YR4/4m) mottles and localized weak light brownish gray (2.5Y6/2d, 2.5Y4/1m) , truncated, massive, clear lower boundary to;
8.7 - 70.0+	--	Remainder not described in detail, See Summary Description

Table 7.2 Soil Development Index Calculation Sheet
9900 Wilshire Boulevard
Soil Profile 7 - Transect A, Boring 6

Unit	Thickness (Feet)	Color				Texture		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist				Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Boring 6															
Bt / Bw	3.5	7.5YR 5/4	0.4	7.5YR 3/3	0.1	sicl - cl	0.8	vh	0.80	vs, vp	1.00	2npf, 1mkpf, 2mkpo	0.467	0.63	2.22
2Btb1	5.2	7.5YR 4/4	0.4	7.5YR 3/3	0.1	cl	0.8	eh	1	vs, vp	1.00	2-3npf, 2mkpf, 2mkcl, 1kcl	0.533	0.69	3.57

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.63**	**2.22**	**4.43**	**0.5**	**0.63**	**8 - 12**	**8 - 12**
Buried Soil 1	**0.69**	**3.57**	**4.81**	**0.5**	**0.69**	**15 - 30**	**23 - 42**

Soil Profile 8
Transect A, Boring 7

Soil profile 8 is located near the center portion of Transect A in Boring 7 and was described in detail to a depth of 27.2 feet below the ground surface. The soil profile lies across a graded and stripped surface that is geomorphically inactive. This soil profile consists of a two truncated Alfisol soils (Qyt and Qof) over a sequence of interbedded and weakly developed Inceptisol and Alfisol soils (Qot1 through Qot4) and a basal Entisol soil or scour deposit and weak terrace sequence (Qot5 and Qot6) over Lakewood Formation or undifferentiated old alluvium (Qoa1). The entire stratigraphic section in this locality is apparently cut and not capped by any artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 8 in boring 7 contains a surface soil and seven buried soils to a depth of approximately 27.2 feet below the ground surface. This entire stratigraphic section tracks across the northern portion of transect A and is truncated to the south in Borings 1 through 5. The stratigraphic correlation units assigned to the upper three soil members within this profile correlate well to the adjacent trench exposures and across the entirety of Transect A (Table 16l). A detailed soil description for this profile is listed in table 8.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 8.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Haploxeralf. This is a very thin and highly truncated soil that consists of a weak argillic to cambic diagnostic subsurface horizon (Bt / Bw) soil remnant. The deposit is massive. A majority of this soil member has been mechanically stripped away during grading. This soil is characterized by a silt-rich deposit with few to common thin and few moderately thick clay films. A relative age estimate of 8 to 12 ka for the surface soil in soil profile 8 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This very thin surficial stream terrace deposit is termed Qyt and correlates well with the surface soil in trench 1 and the surficial deposits described along adjacent borings in transect A.

Buried soil member 1 (or first buried soil) in soil profile 8 classifies as a Typic Palexeralf. This is a severely truncated soil remnant that consists of a sequence of two moderately well developed argillic diagnostic subsurface horizons over a transitional scour horizon (2Btb1 – 2Btb2 – 2BCb). This soil member is characterized by gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films. A relative age estimate of 15 to 30 ka for buried soil 1 in soil profile 8 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more

mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well across all the entire project site area.

Buried soil members 2, 3, 4, and 5 in soil profile 8 classify as a repeating stacked sequence of Fluventic Xerumbrepts and Typic Haploxeralfs. These are highly truncated, thin, and locally interfingering soil remnants that consist of a repeating sequence of weakly developed juvenile argillic to cambic diagnostic subsurface horizons over transitional scour horizons (3Btb / 3Bwb – 3BCb), (4Btb – 4BCb), (5Btb / 5Bwb – 5BCb), and (6Btb – 6BCb). These deposits are massive to locally crudely stratified. These soil members are characterized by sandy deposits with 10 - 7.5YR hues and few thin clay films. A relative age estimate of 4 to 8 ka for buried soils 2 and 4 in profile 8 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as inset stream terrace deposits, and are termed Qot1 and Qot3. These units contain gradational lateral facies changes and inset surfaces laterally along boring transect A. Relative age estimates of 8 to 12 ka for buried soils 3 and 5 in soil profile 8 were obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as stream terrace deposits, and are termed Qot2 and Qot4. This fluvial sequence recognized within buried soils 2 through 5 in soil profile 8 are stream terrace deposits. Units Qot1 and Qot2 correlate well across the entire length of transect A (borings 1 through 12). Units Qot3 and Qot4 correlates well across the most of transect A (borings 1 through 12); however, these units contain gradational lateral facies changes and localized discontinuous inset surfaces. The base of unit Qot4 may be faulted at depth along transect A.

Buried soil member 6 in soil profile 8 classifies as a Typic Xerofluvent. This is a highly truncated, well stratified, and weakly developed soil remnant. This soil consists of a single, thick, and crudely laminated transitional (7BCb lam) horizon. This deposit is well stratified with a basal scour. A relative age estimate of 1 to 4 ka for buried soil 6 in profile 8 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the similar soil profile S-7 in the Mission Creek soil chronosequence (McFadden, 1988). This buried soil member is a strong marker bed across a majority of the project site area It is interpreted as an highly truncated and laterally continuous stream terrace deposits, and is termed unit Qot5. Unit Qot5 correlates well across the entire project site area, however this unit may be faulted at depth in boring transect A.

Buried soil member 7 in soil profile 8 classifies as a Fluventic Xerumbrept. This is a highly truncated, thin, and discontinuous soil remnant that consist of a weakly developed juvenile argillic to cambic diagnostic subsurface horizon over a transitional scour horizon (8Btb / 8Bwb – 8BCb). This deposit is massive to locally crudely stratified. These soil members are characterized by sandy deposits with 7.5YR hues and few thin clay films. A relative age estimate of 4 to 8 ka for buried soil 7 in profile 8 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as a basal laterally discontinuous stream terrace deposit, and is termed Qot6. This unit contains gradational lateral facies changes across the northern portion of transect A where it directly overlies the Lakewood Formation. To the south this unit is completely scoured out by the overlying Qot5 sour deposit within Transect A. Unit Qot6 is faulted at depth in boring transect A.

In conclusion, the entire stratigraphic section of soil profile 8 in boring 7 along Transect A to a depth of 27.2 feet is estimated to be 52 to 94 ka in age. Most of this age resides within the first buried soil in this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 3.2 feet in this locality. The upper five soil members within this soil profile correlate well across the entirety of Transect A. Within this section the surfical stream terrace deposits (Qyt) have an estimated age of 8.0 – 12.0 ka, the alluvial fan deposit (Qof) has an estimated age of 23.0 – 42.0 ka, and the underlying sequence of stream terrace deposits (Qot1, Qot2, Qot4, and Qot5) have an estimated age of 52.0 – 94.0 ka. The upper 4 soil members observed in soil profile 6 have an age estimate of 35.0 – 62.0 ka, and are continuous and appear un-faulted across the entirety of transect A.

Table 8.1
9900 Wilshire Boulevard, Core Sample Soil Description

Soil Profile 8 - Transect A - Boring 7

Date Described: 11/18/2013

Depth (Ft)	Horizon	Transect A; B-7 Description
0 - 3.2	Bt / Bw	Yellowish brown (10YR 5/4d, 10YR 4/3m), silty clay loam to silty clay, very hard, very firm, moderately sticky, very plastic, very fine grained very well sorted sand with 0-3% fine and very fine rounded slate-rich gravel, dark yellowish brown (10YR 4/4d, 10YR 3/3m) clay films few to common thin and few moderately thick on ped faces and few moderately thick lining pores, truncated, massive, clear lower boundary to;
3.2 - 9.0	2Btb1	Brown (7.5YR 5/4d, 7.5YR 4/3m), clay loam to clay, slightly oxidized, very hard, firm, very sticky, very plastic, fine to medium grained moderately well sorted sand with ~10-15% fine and medium sub rounded slate-rich gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films common to many thin and common moderately thick on ped faces and common moderately thick coating clasts, weak to moderately strong redox with weak localized strong brown (7.5YR5/6d, 7.5YR 3/4m) mottles and moderately strong gray (2.5Y 6/1d, 2.5Y 4/1m) gleying, stacked and truncated, massive, gradational lower boundary to;
9.0 - 10.0	2Btb2	Yellowish brown (10YR 5/4d, 10YR 4/3m), clay loam, very hard, firm, moderately to very sticky, very plastic, very fine to fine grained very well to well sorted sand with 0-3% very fine rounded slate-rich gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films common thin and few moderately thick on ped faces and few to common moderately thick coating clasts, very faint localized redox, massive, gradational lower boundary to;
10.0 - 10.6	2BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), loam, hard, firm, moderately sticky, moderately to very plastic, very fine grained very well sorted sand with no gravel, yellowish brown to brown (10-7.5YR 4/4d, 10-7.5YR 3/3m) clay films few thin on ped faces, massive, abrupt lower boundary to;
10.6 - 13.8	3Btb / 3Bwb	Brown (7.5YR 5/4d, 7.5YR 4/3m), loam to sandy clay loam, slightly oxidized, hard, friable to firm, moderately to very sticky, moderately to very plastic, fine grained well sorted sand with ~0-3% fine and very fine slate-rich rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films very few to few thin and very few moderately thick on ped faces, truncated, massive, gradational lower boundary to;
13.8 - 16.0	3BCb	Brown (7.5YR 5/4d, 7.5YR 4/3m), sandy loam to loam, slightly oxidized, hard, friable, slightly sticky, slightly plastic, medium grained moderately well sorted sand with ~10-15% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films very few to few thin on ped faces and few thin coating clasts, crudely stratified, scour deposit, abrupt lower boundary to;
16.0 - 17.2	4Btb	Brown (7.5YR 4/3d, 7.5YR 3/2m), silty clay loam, hard, firm, moderately to very sticky, very plastic, very fine grained very well sorted sand with ~0-3% fine and very fine slate-rich rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films common thin and few moderately thick on ped faces and common moderately thick coating clasts, truncated, massive, gradational lower boundary to;
17.2 - 18.4	4BCb	Brown (7.5YR 4/4d, 7.5YR 3/3m), sandy loam, slightly hard to hard, friable, slightly sticky, non- to slightly plastic, medium to coarse grained moderately well sorted sand with ~5-15% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films very few thin and common clay stains on ped faces and few thin and common very thin coating clasts, crudely stratified, scour deposit, abrupt lower boundary to;

Depth (Ft)	Horizon	Transect A; B-7 Description (Cont.)
18.4 - 19.4	5Btb / 5Bwb	Yellowish brown (10YRYR 5/4d, 10YR 4/3m), silt loam to silty clay loam, hard to very hard, firm, moderately sticky, very plastic, very fine grained very well sorted sand with 3-5% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few thin and very few moderately thick on ped faces and few moderately thick coating clasts, truncated, massive, gradational lower boundary to;
19.4 - 20.3	5BCb	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), clay, hard, firm, very sticky, very plastic, very fine-grained very well sorted sand with no gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films very few to few thin on ped faces, massive, clear lower boundary to;
20.3 - 22.0	6Btb	Brown (7.5YR 4/4d, 7.5YR 3/3m), sandy loam to loam, slightly oxidized, hard, friable, slightly sticky, non- to slightly plastic, fine-grained well sorted sand with no gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films few to common thin and few moderately thick on ped faces, truncated and stacked, massive, gradational lower boundary to;
22.0 - 23.5	6BCb	Brown (7.5YR 5/4d, 10YR 4/3m), sandy loam to loam, slightly oxidized, hard, friable, non- to slightly sticky, slightly plastic, fine-grained well sorted sand with ~0-3% fine and very fine slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films very few thin on ped faces and few thin coating clasts, crudely stratified, scour deposit, clear lower boundary to;
23.5 - 25.5	7BCb lam	Brown (7.5YR 4/4d, 7.5YR 3/3m), laminated loam and sandy loam, slightly oxidized, hard, friable, slightly sticky, non- to slightly plastic, fine to medium grained moderately well sorted sand with no gravel, common clay stains on ped faces, truncated and stacked, well stratified, clear lower boundary to;
25.5 - 26.5	8Btb / 8Bwb	Yellowish brown to brown (10-7.5YR 5/4d, 10-7.5YR 4/3m), loam, slightly oxidized, hard, friable, slightly sticky, slightly plastic, fine-grained well sorted sand with no gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few thin and few moderately thick on ped faces, truncated, stratified, clear lower boundary to;
26.5 - 27.2	8BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), loamy sand, soft to slightly hard, very friable, non- to slightly sticky, non-plastic, fine to medium grained moderately well sorted sand with ~0-3% fine and very fine slate-rich sub rounded gravel, common clay stains on ped faces, crudely stratified, scour deposit, abrupt lower boundary to;
27.2 - 70.0+		Lakewood Formation, Older Alluvium, Not described in detail, See Summary Description

Table 8.2 Soil Development Index Calculation Sheet
9900 Wilshire Boulevard
Soil Profile 8 - Transect A, Boring 7

Unit	Thickness (Feet)	Color				Texture		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist				Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Boring 7															
Bt / Bw	3.2	10YR 5/4	0.3	10YR 4/3	0	sicl-sic	0.75	vh	0.80	s, vp	0.83	1-2npf, 1mkpf, 1mkpo	0.47	0.57	1.83
2Btb1	5.8	7.5YR 5/4	0.4	7.5YR 4/3	0.1	cl-c	0.92	vh	0.8	vs, vp	1.00	2-3npf, 2mkpf, 2mkcl	0.57	0.68	3.93
2Btb2	1.0	10YR 5/4	0.3	10YR 4/3	0	cl	0.83	vh	0.8	s, vp	0.83	2npf, 1mkpf, 1-2mkcl	0.48	0.59	0.59
2BCb	0.6	10YR 5/4	0.3	10YR 4/3	0	l	0.5	h	0.6	s, p-vp	0.75	1npf	0.27	0.42	0.25
3Btb / 3Bwb	3.2	7.5YR 5/4	0.4	7.5YR 4/3	0.1	l-scl	0.6	h	0.6	s-vs, p-vp	0.83	v1-1npf, v1mkpf	0.3	0.49	1.56
3BCb	2.2	7.5YR 5/4	0.4	7.5YR 4/3	0.1	sl-l	0.42	h	0.6	ss, ps	0.33	v1-1npf, 1ncl	0.32	0.35	0.78
4Btb	1.2	7.5YR 4/3	0.3	7.5YR 3/2	0.1	sicl	0.8	h	0.6	s-vs, vp	0.92	2npf, 1mkpf, 2mkcl	0.48	0.58	0.70
4BCb	1.2	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sl	0.33	sh-h	0.5	ss, po-ps	0.25	v1npf	0.17	0.27	0.32
5Btb / 5Bwb	1.0	10YR 5/4	0.3	10YR 4/3	0	sil-sicl	0.75	h-vh	0.7	s, vp	0.83	1npf, v1mkpf, 1mkcl	0.4	0.54	0.54
5BCb	0.9	10YR 4/4	0.3	10YR 3/3	0	c	1	h	0.60	vs, vp	1.00	v1-1npf	0.23	0.57	0.51
6Btb	1.7	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sl-l	0.42	h	0.60	ss, po-ps	0.25	1-2npf, 1mkpf	0.33	0.34	0.58
6BCb	1.5	7.5YR 5/4	0.4	7.5YR 4/3	0.1	sl-l	0.42	h	0.60	so-ss, ps	0.25	v1npf	0.23	0.32	0.48
7BCb lam	2.0	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sl-l	0.42	h	0.60	ss, po-ps	0.25	v1vnpf	0.2	0.31	0.63
8Btb / 8Bwb	1.0	10-7.5YR 5/4	0.35	10-7.5YR 4/3	0.05	l	0.5	h	0.60	ss, ps	0.33	1npf, 1mkpf	0.33	0.36	0.36
8BCb	0.7	10YR 5/4	0.3	10YR 4/3	0	sl	0.33	so-sh	0.30	so-ss, po	0.08	2vnpf	0.3	0.20	0.14

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.57**	**1.83**	**3.99**	**0.3**	**0.47**	**8 - 12**	**8 - 12**
Buried Soil 1	**0.68**	**4.78**	**4.52**	**1.1**	**1.32**	**15 - 30**	**23 - 42**
Buried Soil 2	**0.49**	**2.34**	**3.03**	**1**	**0.62**	**4 - 8**	**27 - 50**
Buried Soil 3	**0.58**	**1.02**	**2.97**	**0.9**	**0.62**	**8 - 12**	**35 - 62**
Buried Soil 4	**0.57**	**1.05**	**3.85**	**0.6**	**0.63**	**4 - 8**	**39 - 70**
Buried Soil 5	**0.34**	**1.06**	**2.31**	**1**	**0.55**	**8 - 12**	**47 - 82**
Buried Soil 6	**0.31**	**0.63**	**2.20**	**0.5**	**0.20**	**1 - 4**	**48 - 86**
Buried Soil 7	**0.36**	**0.50**	**2.07**	**0.7**	**0.63**	**4 - 8**	**52 - 94**

Soil Profile 9
Transect A, Boring 11

Soil profile 9 is located near the northern portion of Transect A in Boring 11 and was described in detail to a depth of 53.9 feet below the ground surface. The soil profile lies across a graded and stripped surface that is geomorphically inactive. This soil profile consists of a two truncated Alfisol soils (Qyt and Qof) over a sequence of weakly developed Inceptisol soils and truncated Alfisols (Qot1 through Qot4) and a basal Entisol soil or scour deposit and weak terrace sequence (Qot5 and Qot6) over Lakewood Formation or undifferentiated old alluvium (Qoa1). The entire section in this locality is apparently cut and not capped by any artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 9 in boring 11 contains a surface soil and seven buried soils to a depth of approximately 53.9 feet below the ground surface. This entire stratigraphic section tracks across the center and northern portions of Transect A and is truncated to the south. The stratigraphic correlation units assigned to the upper four soil members within this profile correlate well across the entirety of boring transect A (Table 16p). A detailed soil description for this profile is listed in table 9.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 9.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Haploxeralf. This is a truncated soil that consists of a weak argillic to cambic diagnostic subsurface horizon (Bt / Bw) soil remnant. The deposit is massive. A majority of this soil member has been mechanically stripped away during grading. This soil is characterized by a coarse-grained deposit with few to common thin and few moderately thick clay films. A relative age estimate of 8 to 12 ka for the surface soil in soil profile 9 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This surficial stream terrace deposit is termed Qyt and correlates well with the surface stream terrace soil encountered in the adjacent borings of transect A.

Buried soil member 1 (or first buried soil) in soil profile 9 classifies as a Typic Palexeralf. This is a severely truncated soil remnant that consists of a sequence of two moderately well developed argillic diagnostic subsurface horizons over a transitional scour horizon (2Btb1 – 2Btb2 – 2BCb). This soil member is characterized by gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films. A relative age estimate of 15 to 30 ka for buried soil 1 in soil profile 9 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as

a debris flow deposit, and is termed Qof. This unit correlates well across the entire project site area.

Buried soil members 2, 3, and 4 in soil profile 9 classify as a repeating stacked sequence of Fluventic Xerumbrepts over Typic Haploxeralfs. These are highly truncated, thin, and locally interfingering soil remnants that consist of a repeating sequence of weakly developed juvenile argillic to cambic diagnostic subsurface horizons over transitional scour horizons (3Btb / 3Bwb – 3BCb), (4Btb – 4BCb), and (5Btb / 5Bwb – 5BCb). These deposits are massive to locally crudely stratified. These soil member are characterized by sandy deposits with 10 - 7.5YR hues and few thin clay films. A relative age estimate of 4 to 8 ka for buried soils 2 and 4 in profile 9 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as inset stream terrace deposits, and are termed Qot1 and Qot3. These units contain gradational lateral facies changes and inset surfaces laterally along Transect A. An relative age estimate of 8 to 12 ka for buried soil 3 in soil profile 9 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as stream terrace deposit, and is termed Qot2. This fluvial sequence recognized in soil profile 9 are stream terrace deposits. Units Qot1 and Qot2 correlate well across the entire length of transect A . Unit Qot3 contains gradational lateral facies changes and discontinuous inset surfaces along the length of boring transect A. The base of unit Qot3 may be faulted at depth.

Buried soil member 5 in soil profile 9 classifies as a Typic Xerofluvent. This is a highly truncated, well stratified, and weakly developed soil remnant. This soil consists of a single, thick, and crudely laminated transitional (6BCb lam) horizon. This deposit is well stratified with a basal scour. A relative age estimate of 1 to 4 ka for buried soil 5 in profile 9 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the similar soil profile S-7 in the Mission Creek soil chronosequence (McFadden, 1988). This buried soil member is a strong marker bed across the project site area. It is interpreted as an highly truncated and laterally continuous stream terrace deposits, and is termed Qot5. Unit Qot5 correlates well across the southern portion of transect A. This unit may be faulted between to the north along boring transect A.

Buried soil member 6 in soil profile 9 classifies as a Fluventic Xerumbrept. This is a highly truncated, thin, and discontinuous soil remnant that consist of a weakly developed juvenile argillic to cambic diagnostic subsurface horizon over a

transitional scour horizon (8Btb / 8Bwb – 8BCb). This deposit is massive to locally crudely stratified. This soil member is characterized by sandy deposits with 7.5YR hues and few thin clay films. A relative age estimate of 4 to 8 ka for buried soil 6 in profile 9 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as a laterally discontinuous stream terrace deposit, and is termed Qot6. This unit contains gradational lateral facies changes across the northern portion of Transect A where it directly overlies the Lakewood Formation. To the south this unit is completely scoured out by the overlying Qot5 sour deposit within boring transect A. Unit Qot6 is faulted at depth in boring transect A.

Buried soil member 7 (or the deepest buried soil described in detail) in soil profile 9 classifies as a Typic Palexeralf. This is a well-developed and truncated soil remnant that consists of a stacked organic-rich transitional and clay rich argillic horizon (9ABb – 9Btb). The deposit is thick and massive. This soil member is characterized by a fine-grained deposit with 7.5YR hues and plugged with secondary clay. A relative age estimate of 15 to 30 ka for buried soil 7 in soil profile 9 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as being part of the undifferentiated Lakewood Formation alluvium and termed Qoa1. This unit does not to correlate well across the length of boring transect A. It appears to be severely affected by faulting.

In conclusion, the entire stratigraphic section of soil profile 9 in boring 11 along Transect A to a depth of 53.9 feet is estimated to be 59.0 to 112.0 ka in age. Most of this age resides within the first and lowest buried soil members in this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 5.5 feet in this locality. The upper five soil members within this soil profile correlate well across the entirety of Transect A. Within this section the surfical stream terrace deposits (Qyt) have an estimated age of 8.0 – 12.0 ka, the alluvial fan deposit (Qof) has an estimated age of 23.0 – 42.0 ka, and the underlying sequence of stream terrace deposits (Qot1, Qot2, Qot3, Qot5, and Qot6) have an estimated age of 44.0 – 82.0 ka. The upper 4 soil members observed in soil profile 9 have an age estimate of 35.0 – 62.0 ka, and are continuous and appear un-faulted across the entirety of transect A.

Table 9.1
9900 Wilshire Boulevard, Core Sample Soil Description

Soil Profile 9 - Transect A - Boring 11

Dates Described: 11/12/2013 and 10/15/13

Depth (Ft)	Horizon	Transect A; B-11 Description
0.5 - 5.5	Bt / Bw	Brown (7.5YR 5/4d, 7.5YR 3/2m), loam to clay loam, slightly oxidized, very hard, firm, moderately sticky, very plastic, very fine grained very well sorted sand with 0-3% fine and very fine rounded slate-rich gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few to common thin and few moderately thick on ped faces, truncated, massive, gradational lower boundary to;
5.5 - 10.3	2Btb1	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam, slightly oxidized, very hard, friable to firm, very sticky, very plastic, medium grained moderately well sorted sand with ~15% fine and medium sub rounded slate-rich gravel, dark brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films common thin and common moderately thick on ped faces and common moderately thick and few thick coating clasts, stacked and truncated, massive, clear lower boundary to;
10.3 - 11.3	2Btb2	Brown (7.5YR 4/4d, 7.5YR 3/3m), silty clay loam, slightly oxidized, hard to very hard, firm, very sticky, very plastic, very fine grained very well to well sorted sand with no gravel, dark brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films few to common thin and few moderately thick on ped faces, massive, gradational lower boundary to;
11.3 - 12.2	2BCb	Strong brown (7.5YR 4/6d, 7.5YR 3/4m), loam to clay loam, moderately well oxidized, very hard, friable, moderately sticky, moderately plastic, fine grained well sorted sand with >3% very fine slate-rich rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few to very few thin and very few moderately thick on ped faces, massive, clear lower boundary to;
12.2 - 15.0	3Btb / 3Bwb	Dark yellowish brown (10YR 5/4d, 10YR 4/3m), loam, very hard to extremely hard, friable to firm, moderately sticky, slightly to moderately plastic, fine grained well sorted sand with >3% very fine slate-rich rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few thin and very few moderately thick on ped faces, truncated, massive, gradational lower boundary to;
15.0 - 17.0	3BCb	Brown (7.5YR 5/4d, 7.5YR 4/3m), sandy loam to loam, slightly oxidized, slightly hard, friable, slightly sticky, non- to slightly plastic, fine to medium grained moderately well sorted sand with ~10% fine and medium slate-rich sub rounded gravel, dark brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films very few to few thin and very few moderately thick on ped faces and few thin and very few moderately thick coating clasts, massive, scour deposit, abrupt lower boundary to;
17.0 - 19.0	4Btb	Brown (7.5YR 4/4d, 7.5YR4/3 m), silty loam, slightly oxidized, hard, firm, moderately to very sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 4/2d, 7.5YR 3/1m) clay films common thin and few moderately thick on ped faces, truncated, massive, gradational lower boundary to;
19.0 - 20.4	4BCb	Brown (7.5YR 5/4d, 7.5YR 4/3m), sandy loam to loam, slightly oxidized, soft, friable, non-sticky, non-plastic, medium to coarse grained moderately well sorted sand with ~15-20% fine slate-rich sub rounded gravel, clay stains on ped faces and coating clasts, crudely stratified, scour deposit, clear lower boundary to;
20.4 - 22.2	5Btb / 5Bwb	Yellowish brown (10YRYR 5/4d, 10YR 4/3m), sandy loam to loam, hard, friable, non- to slightly sticky, non-plastic, fine grained well sorted sand with no gravel, brown (7.5YR 5/4d, 7.5YR 4/3m) clay films few thin and common stains on ped faces, truncated, massive, gradational lower boundary to;

Depth (Ft)	Horizon	Transect A; B11 Description (Cont.)
22.2 - 26.5	5BCb	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), loamy sand to sandy loam, soft, friable, non-sticky, non-plastic, medium to coarse-grained poorly sorted sand with 15-20% fine slate-rich sub rounded gravel, very few clay stains on ped faces and on clasts, crudely stratified, scour deposit, undetermined lower boundary to;
26.5 - 27.5	NR	no recovery
27.5 - 30.1	6BCb lam	Brown (7.5YR 5/4d, 7.5YR 4/3m), laminated loam to silt loam and sandy loam to loam, slightly oxidized, slightly hard to hard, friable, moderately sticky, moderately plastic, fine-grained well sorted sand with ~0-3% fine and very fine slate-rich rounded gravel, strong brown (7.5YR 5/6d, 7.5YR 4/4m) clay films few thin on ped faces, well stratified, scour deposit, clear lower boundary to;
30.1 - 32.3	7Btb / 7Bwb	Brown (10YR 5/3d, 10YR 4/2m), silty clay, very hard, firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 5/3d, 7.5YR4/2m) clay films few thin and very few moderately thick on ped faces, weak redox with ~30% weak strong brown (7.5YR 5/6d, 7.5YR 4/4m) mottles and ~60% weak light brownish gray (2.5Y 6/2d, 2.5Y 4/1m) gleying, truncated, massive, clear abrupt boundary to;
32.3 - 34.5	8ABb	Dark grayish brown (2.5Y 4/2d, 2.5Y 3/1m), clay, slight organics, very hard to extremely hard, very firm, very sticky, very plastic, very fine-grained very well sorted sand with no gravel, grayish brown (2.5Y 5/2d, 2.5Y 4/1m) clay films many thin and common moderately thick and few thick on ped faces, moderate redox with no mottles and ~100% moderately gleyed, truncated, massive, gradational lower boundary to;
34.5 - 53.9	8Btb	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam, hard to very hard, firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, strong brown (7.5YR 5/6d, 7.5YR 3/4m) clay films common thin and moderately thick and few thick on ped faces, weak redox with ~5%weak strong brown (7.5YR 4/6d, 7.5YR 4/4m) mottles and ~15% weak light brownish gray (2.5Y 6/2d, 2.5Y 4/1m) gleying, massive, gradational lower boundary to;
53.9 - 70.0+	--	Lakewood Formation, Older Alluvium, Not described in detail, See Summary Description

Table 9.2 Soil Development Index Calculation Sheet
9900 Wilshire Boulevard
Soil Profile 9 - Transect A, Boring 11

Unit	Thickness (Feet)	Color				Texture		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist				Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Boring 11															
Bt / Bw	5.0	7.5YR 5/4	0.4	7.5YR 3/2	0.1	l-cl	0.58	vh	0.80	s, vp	0.83	1-2npf, 1mkpf, 1mkcl	0.47	0.56	2.78
2Btb1	5.2	7.5YR 4/4	0.4	7.5YR 3/3	0.1	cl	0.67	vh	0.8	vs, vp	1.00	2npf, 2mkpf, 1ncl, 2mkcl	0.57	0.63	3.27
2Btb2	1.0	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sicl	0.83	h-vh	0.7	vs, vp	1.00	1-2npf, 1mkpf,	0.33	0.59	0.59
2BCb	0.9	7.5YR 4/6	0.6	7.5YR 3/4	0.2	l-cl	0.58	vh	0.8	s, p	0.67	v1-1npf, v1mkpf	0.23	0.50	0.45
3Btb / 3Bwb	2.8	10YR 5/4	0.3	10YR 4/3	0.1	l	0.5	vh-eh	0.9	s, ps-p	0.58	1npf, v1mkpf	0.3	0.48	1.33
3BCb	2.0	7.5YR 5/4	0.4	7.5YR 4/3	0.1	sl-l	0.42	sh-h	0.5	ss, po-ps	0.25	v1-1npf, v1mkpf	0.3	0.31	0.63
4Btb	2.0	7.5YR 4/4	0.4	7.5YR 4/3	0.1	sil	0.83	h	0.6	s-vs, vp	0.92	2npf, 1mkpf	0.33	0.56	1.11
4BCb	1.4	7.5YR 5/4	0.4	7.5YR 4/3	0.1	sl-l	0.42	sh	0.4	ss, po-ps	0.25	v1vnpf, 1vncl	0.28	0.29	0.41
5Btb / 5Bwb	1.8	10YR 5/4	0.3	10YR 4/3	0	sl-l	0.42	h	0.6	so-ss, po	0.08	1npf, 2vnpf	0.3	0.28	0.51
5BCb	4.3	10YR 4/4	0.3	10YR 3/3	0	ls-sl	0.25	so	0.20	so, po	0.00	v1vnpf	0.2	0.13	0.56
6BCb lam	2.6	7.5YR 5/4	0.4	7.5YR 4/3	0.1	l-sil	0.58	sh	0.40	s, p	0.67	1npf	0.27	0.40	1.05
7Btb / 7Bwb	2.2	10YR 5/3	0.2	7.5YR 4/2	0.1	sic	0.83	vh	0.80	vs, vp	1.00	1npf, v1mkpf	0.28	0.60	1.32
8ABb	2.2	2.5Y 4/2	0	2.5Y 3/1	0	c	1	vh-eh	0.90	vs, vp	1.00	3npf, 2mkpf, 1kpf	0.4	0.66	1.45
8Btb	19.4	7.5YR 4/4	0.4	7.5YR 3/3	0.1	cl	0.67	vh-h	0.70	vs, vp	1.00	2npf, 2mkpf, 1kpf	0.4	0.57	11.14

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.56**	**2.78**	**3.90**	**0.5**	**0.47**	**8 - 12**	**8 - 12**
Buried Soil 1	**0.63**	**4.30**	**4.24**	**1.8**	**1.13**	**15 - 30**	**23 - 42**
Buried Soil 2	**0.48**	**1.96**	**2.86**	**0.9**	**0.60**	**4 - 8**	**27 - 50**
Buried Soil 3	**0.56**	**1.52**	**3.12**	**1**	**0.61**	**8 - 12**	**35 - 62**
Buried Soil 4	**0.28**	**1.06**	**1.22**	**0.6**	**0.50**	**4 - 8**	**39 - 70**
Buried Soil 5	**0.40**	**1.05**	**2.83**	**0.5**	**0.27**	**1 - 4**	**40 - 74**
Buried Soil 6	**0.6**	**1.32**	**4.21**	**0.3**	**0.28**	**4 - 8**	**44 - 82**
Buried Soil 7	**0.66**	**12.59**	**4.08**	**0.5**	**0.80**	**15 - 30**	**59 - 112**

Soil Profile 10
Transect A, Boring 12

Soil profile 10 is located near the northern end of Transect A in Boring 12 and was described in detail to a depth of 17.2 feet below the ground surface. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of two highly truncated and weakly developed Inceptisol soils (Qyt-a and Qyt) over a stacked and truncated Alfisol soil (Qof). This section appears to be a cut and is not capped by any artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 10 in boring 12 contains a sequence of weak surface soils and well-developed buried soil. The two buried soil members described in detail track across the majority of transect A to the south and all three soil members described track across the entire length of transect A. The stratigraphic units assigned to the upper two soil members within this profile also correlate well to the adjacent boring Transect B (Table 16q). A detailed soil description for this profile is listed in table 10.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 10.2, and the individual soil profile members are briefly described below.

The uppermost or surface soils at this locality classify as Typic Xerumbrepts. This is a sequence of thin and highly truncated soils that consists of an organic-rich transitional horizon over a series of stacked weak argillic to cambic diagnostic subsurface horizon (AB – Bt / Bw – 2Btb / 2Bwb) soil remnants. The deposit is massive, and a majority of this soil member may have been mechanically stripped away during grading. This soil is characterized by a silt-rich deposit with few to common thin and very few to few moderately thick clay films. Relative age estimates of 4 to 8 ka for the surface and first buried soil in profile 10 was obtained by comparing the observed clay film index and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as inset stream terrace deposits, and are termed Qyt-a and Qyt. These units contain gradational lateral facies changes and inset surfaces laterally along boring transect A. Unit Qyt-a pinches out to the south and correlates well to the north. Unit Qyt correlates well across the entirety of boring transect A, Trench 1, and Trench 2.

Buried soil member 2 in soil profile 12 classifies as a Typic Palexeralf. This is a severely truncated soil remnant that consists of a sequence of two moderately well developed argillic diagnostic subsurface horizons over a transitional scour horizon (2Btb1 – 2Btb2 – 2BCb). This soil member is characterized by gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films. A relative age estimate of 15 to 30 ka for buried soil 2 in soil profile 12 was obtained by comparing the observed soil development index

(SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well across the entire project site area.

In conclusion, the entire stratigraphic section of soil profile 10 in boring 12 along Transect A to a depth of 17.2 feet is estimated to be 23 to 46 ka in age. Most of this age resides within the second buried soil in this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 10 feet in this locality. The first and second buried soil members within this soil profile correlates well across the entirety of Transect A. Within this section the alluvial fan deposit (Qof) has an estimated age of 23.0 – 46.0 ka. The ages of the underlying sequence of stream terrace deposits (Qot1, Qot2, Qot3, Qot5, and Qot6), and the upper Lakewood Formation were not assessed in this boring.

Table 10.1
9900 Wilshire Boulevard, Core Sample Soil Description

Soil Profile 10 - Transect A - Boring 12

Date Described: 10/15/2013 and 10/17/2013

Depth (Ft)	Horizon	Transect A; B-12 Description
1.5 - 2.1	AB	Dark yellowish brown (10YR 4/4d, 10YR 4/2m), sandy loam to loam, slight organics, hard, friable, slightly sticky, slightly plastic, coarse grained poorly sorted sand with no gravel, clay stains common on ped faces, few fine pores, few very fine CaCO3 nodules and few veinlet, truncated, massive, gradational lower boundary to;
2.1 - 4.8	Bt / Bw	Yellowish brown (10YR 5/4d, 10YR 3/3m), silty clay loam, very hard, firm, very sticky, moderately plastic, very fine grained very well sorted sand with no gravel, dark brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films few to common thin and very few moderately thick on ped faces, massive, clear lower boundary to;
4.8 - 10.0	2Btb / 2Bwb	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam, slightly oxidized, extremely hard to very hard, very firm, very sticky, very plastic, fine grained well sorted sand with no gravel, dark brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films few to common thin and few moderately thick on ped faces, truncated and stacked, massive, gradational lower boundary to;
10.0 - 14.7	3Btb1	Dark brown (7.5YR 3/4d, 7.5YR 3/3m), sandy clay loam, slightly oxidized, very hard, friable, very sticky, very plastic, coarse grained poorly sorted sand with 25-30% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films common to many thin and few to common moderately thick on ped faces and common moderately thick coating clasts, massive, clear lower boundary to;
14.7 - 15.5	3Btb2	Dark yellowish brown (10YR 5/4d, 10YR 4/3m), silty clay loam, very hard, firm, moderately sticky, very plastic, fine grained well sorted sand with >3% very fine and fine slate-rich rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few to common thin and few moderately thick on ped faces, massive, gradational lower boundary to;
15.5 - 17.2	3BCb	Dark yellowish brown (10YR 5/4d, 10YR 3/3m), loam, hard, friable, moderately sticky, moderately plastic, medium grained moderately well sorted sand with >3% very fine and fine slate-rich rounded gravel, clay stains common on ped faces, massive, gradational lower boundary to;
17.2 - 70.0+	--	Additional Old Terrace deposits over Lakewood Formation, Older Alluvium, Not described in detail, See Summary Description

Table 10.2 Soil Development Index Calculation Sheet
9900 Wilshire Boulevard
Soil Profile 10 - Transect A - Boring 12

Unit	Thickness (Feet)	Color				Texture		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist				Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Boring 12															
AB	1.4	10YR 4/4	0.3	10YR 4/3	0	sl-l	0.41667	h	0.60	ss, ps	0.33	2vnpf	0.3	0.33	0.46
Bt / Bw	2.7	10YR 5/4	0.3	10YR 3/3	0	sicl	0.83	vh	0.8	vs, p	0.83	1-2npf, v1mkpf	0.3	0.55	1.49
2Btb	5.2	7.5YR 4/4	0.4	7.5YR 3/3	0.1	cl	0.83	vh	0.8	vs, vp	1.00	1-2npf, 1mkpf	0.333	0.61	3.19
3Btb1	4.7	7.5YR 3/4	0.4	7.5YR 3/3	0.1	scl	0.67	vh	0.8	vs, vp	1.00	2-3npf, 2mkpf, 2mkcl	0.567	0.63	2.95
3Btb2	0.8	10YR 5/4	0.3	10YR 4/3	0	sicl	0.83	vh	0.8	s, vp	0.83	1-2npf, 1mkpf	0.333	0.56	0.45
3BCb	1.7	10YR 5/4	0.3	10YR 3/3	0	l	0.5	h	0.6	s, p	0.80	2vnpf	0.333	0.45	0.76

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.55**	**1.95**	**3.34**	**0.6**	**0.60**	**4 - 8**	**4 - 8**
Buried Soil 1	**0.61**	**3.19**	**4.29**	**0.5**	**0.33**	**4 - 8**	**8 - 16**
Buried Soil 2	**0.63**	**4.15**	**4.04**	**1.1**	**1.23**	**15 - 30**	**23 - 46**

Soil Profile 11
Transect B, Boring 2b

Soil profile 11 is located near the eastern end of Transect B in Boring 2b and was described in detail to a depth of 70.0 feet below the ground surface. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a sequence of four stacked and truncated Alfisol soils (Qyt, Qof, Qot1, and Qot2) over series of two weakly developed Inceptisol soils (Qot3 and Qot6) separated by an Entisol soil (Qot5) or scour deposit over Lakewood Formation or undifferentiated old alluvium (Qoa1, Qoa2, and Qoa3). The entire section in this locality is capped by 3.3 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 11 in boring 2b contains a surface soil and nine buried soils to a depth of approximately 70.0 feet below the ground surface. The upper portion of this stratigraphic section to a depth of 53.0 feet below the ground surface tracks across the length of Transect B. The upper six stratigraphic units within this profile correlate well to the adjacent trench exposures and Transect A (Table 16t). A detailed soil description for this profile is listed in table 11.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 11.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as a Typic Haploxeralf. This is a truncated soil that consists of an organic-rich transitional horizon over a weak argillic to cambic diagnostic subsurface horizon over a transitional horizon and parent material scour deposit (AB - Bt / Bw – BC - C) soil remnant. The deposit is massive. A portion of this soil member has been mechanically stripped away during grading. This soil is characterized by a silt-rich deposit with few to common thin and few moderately thick clay films. A relative age estimate of 8 to 12 ka for the surface soil in soil profile 11 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This surficial stream terrace deposit is termed Qyt and correlates well with the surface soil in trench 1 and the surficial deposits described along adjacent borings in transect A. This unit correlates well across the entire project site area however; this unit may be faulted between borings 3b and 5b along Transect B.

Buried soil member 1 (or first buried soil) in soil profile 11 classifies as a Typic Palexeralf. This is a severely truncated soil remnant that consists of a sequence of two moderately well developed argillic diagnostic subsurface horizons (2Btb1 – 2Btb2). This soil member is characterized by gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films. A relative age estimate of 15 to 30 ka for buried soil 1 in soil profile 11 was

obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well across the entire project site area however; this unit may be faulted between borings 3b and 5b along Transect B.

Buried soil members 2 and 3 in soil profile 6 both classify as Typic Haploxeralfs. These are truncated, thin, and interfingering soil remnants that consist of weakly developed argillic diagnostic subsurface horizons over transitional scour horizons (3Btb – 3BCb1 – 3BCb2) and (4Btb1 – 4Btb2 – 4BCb). These deposits are massive to locally crudely stratified. These soil members are characterized by silty deposits with 10 - 7.5YR hues and common to many thin clay films. A relative age estimate of 8 to 12 ka for each of these buried soils in profile 11 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as stream terrace deposits, and are termed Qot1 and Qot2. These units contain gradational lateral facies changes and inset surfaces laterally along Transect B. Units Qot1 and Qot2 correlate well across the entire length of transect B; however, these units may be faulted between borings 3b and 5b along Transect B.

Buried soil members 4 and 6 in soil profile 11 both classify as a Fluventic Xerumbrepts. These are highly truncated, thin, and discontinuous soil remnants that consist of weakly developed juvenile argillic to cambic diagnostic subsurface horizons over transitional scour horizons (5Btb / 5Bwb – 5BCb) and (7Btb / 7Bwb – 7BCb). These deposits are massive to locally crudely stratified. These soil members are characterized by sandy deposits with 7.5YR hues and few thin clay films. A relative age estimate of 4 to 8 ka for each buried soil 4 and 6 in profile 11 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are both interpreted as inset stream terrace deposits, and are termed Qot3 and Qot6. These units contain gradational lateral facies changes across the length of transect B. Unit Qot6 directly overlies the Lakewood Formation. These units both correlate well across the entire length of transect B; however, these units are faulted between borings 3b and 5b along Transect B.

Buried soil member 5 in soil profile 11 classifies as a Typic Xerofluvent. This is a highly truncated, well stratified, and weakly developed soil remnant. This soil consists of a single, thick, and crudely laminated transitional (6BCb - 6BCb lam) horizons. This deposit is well stratified with a basal scour. A relative age estimate

of 1 to 4 ka for buried soil 5 in profile 11 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the similar soil profile S-7 in the Mission Creek soil chronosequence (McFadden, 1988). This buried soil member is a strong marker bed across a majority of the project site area. It is interpreted as an highly truncated and laterally continuous stream terrace deposits, and is termed Qot5. This fluvial sequences is recognized within the stream terrace deposits preserved across the project site area. Unit Qot5 correlates well across the entire project site area however; this unit is faulted between borings 3b and 5b along transect B.

Buried soil members 7, 8, and 9 (or the deepest buried soils described in detail) in soil profile 11 classifies as Typic Haplo to Palexeralfs. This is a sequence of well-developed and highly truncated soil remnants that consist of a set of stacked transitional and argillic horizons (8ABb - 8Btb – 8BCb - 9Btb – 9BCb – 10Btb – 10BCb). The deposit is crudely stratified, and these soil members are characterized by a fine-grained deposits with 7.5YR hues and plugged with secondary clay. A relative age estimate of 8 to 12 ka for buried soils 7 and 8 in soil profile 11 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). A relative age estimate of 15 to 30 ka for buried soil 9 in soil profile 11 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as being part of the undifferentiated Lakewood Formation alluvium and termed Qoa1, Qal2, and Qal3. This unit does not to correlate well across the entire project site area. It appears to be severely affected by faulting.

In conclusion, the entire stratigraphic section of soil profile 11 in boring 2b along Transect B to a depth of 70 feet is estimated to be 79 to 140 ka in age. Most of this age resides within first buried soil and the described Lakewood Formation at the base of this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 11.6 feet in this locality. The upper six soil members within this soil profile correlate well across the entire project site area. Within this section the surfical stream terrace deposits (Qyt) have an estimated age of 8.0 – 12.0 ka, the alluvial fan deposit (Qof) has an estimated age of 23.0 – 42.0 ka, the underlying sequence of stream terrace deposits (Qot1, Qot2, Qot3, Qot5, and Qot6) have an estimated age of 48.0 – 86.0 ka. All of the members observed in soil profile 11 may be faulted between borings 3b and 5b in transect B.

Table 11.1
9900 Wilshire Boulevard, Core Sample Soil Description

Soil Profile 11 - Transect B - Boring 2b

Date Described: 1/28/14 and 1/30/14

Depth (Ft)	Horizon	Transect B; B-2b Description
3.3 - 4.8	AB	Dark grayish brown (10YR 4/2d, 10YR 2/1m), silty loam to silty clay loam, slight organics, slightly hard, firm, very sticky, very plastic, fine grained well sorted sand with >5% fine and very fine rounded slate-rich gravel, few fine and few to common medium pores, brown (10YR 4/3d, 10YR 3/2m) clay films few thin on ped faces and common thin lining pores, truncated, massive, gradational lower boundary to;
4.8 - 7.3	Bt / Bw	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), silty clay loam, slightly hard, firm, moderately to very sticky, moderately to very plastic, very fine grained very well sorted sand with >3% fine and very fine sub rounded slate-rich gravel, brown (10YR 4/3d, 10YR 3/2m) clay films common fine on ped faces, massive, gradational lower boundary to;
7.3 - 9.7	BC	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), loam, slightly hard, friable, slightly to moderately sticky, slightly plastic, medium grained moderately well sorted sand with 5-7% fine and medium sub rounded slate-rich gravel, brown (10YR 4/3d, 10YR 3/2m) clay films few to common fine on ped faces and few fine coating clasts, massive, gradational lower boundary to;
9.7 - 11.6	C	Dark yellowish brown (10YR 4/4d, 10YR 3/4m), sandy loam, soft to slightly hard, friable, slightly sticky, non- to slightly plastic, medium grained moderately well sorted sand with 7-10% fine and medium slate-rich sub rounded gravel, brown (10YR 4/3d, 10YR 3/2m) clay films very few thin on ped faces and few fine coating clasts, massive, clear lower boundary to;
11.6 - 15.4	2Btb1	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), clay loam, hard to very hard, friable to firm, very sticky, moderately to very plastic, fine grained well sorted sand with 10-15% fine and medium slate-rich sub rounded gravel, brown (10YR 4/3d, 10YR 3/2m) clay films common thin and few moderately thick on ped faces and common moderately thick coating clasts, truncated, massive, gradational lower boundary to;
15.4 - 20.1	2Btb2	Brown (7.5YR 4/4d, 7.5YR 3/3m), loam to clay loam, slightly oxidized, hard, firm, moderately to very sticky, moderately to very plastic, fine to medium grained moderately well sorted sand with >3% fine slate-rich sub rounded gravel, brown (7.5YR 4/3d, 7.5YR 3/3m) clay films common to many thin and few moderately thick on ped faces, massive, clear lower boundary to;
20.1 - 23.9	3Btb	Brown (7.5YR 4/4d, 7.5YR 3/3m), silt loam, slightly oxidized, slightly hard, firm, moderately sticky, moderately to very plastic, very fine grained very well sorted sand with no gravel, dark brown (10YR 3/3d, 10YR 2.5/2m) clay films common thin and few moderately thick on ped faces, few to common MnO coatings on ped faces, stacked and truncated, massive, clear lower boundary to;
23.9 - 25.2	3BCb1	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), loam to clay loam, slightly hard to hard, firm, very sticky, very plastic, very fine grained very well sorted sand with ~3-7% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few thin and very few moderately thick on ped faces and few thin coating clasts, strong redox with weak yellowish brown (10YR 5/6d, 7.5YR4/4m) >10% mottled and strong light brownish gray (2.5Y 6/2d, 2.5Y4/1m) <50% gleying, massive, gradational lower boundary to;

Depth (Ft)	Horizon	Transect B; B-2b Description (Cont.)
25.2 - 29.3	3BCb2	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), loam to clay loam, slightly hard to hard, firm, very sticky, very plastic, very fine grained very well sorted sand with ~7-10% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films very few to few thin on ped faces and very few to few thin coating clasts, strong redox with weak yellowish brown (10YR 5/6d, 7.5YR4/4m) >5% mottled and strong light brownish gray (2.5Y 6/2d, 2.5Y4/1m) >30% gleying, massive, gradational lower boundary to;
29.3 - 30.6	4Btb1	Yellowish brown to brown (10-7.5YR 5/4d, 10-7.5YR 4/3m), loam to clay loam, hard to very hard, friable to firm, moderately to very sticky, very plastic, very fine grained very well sorted sand with >3% fine slate-rich sub rounded gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films common to many thin and common moderately thick on ped faces, stacked and truncated, massive, clear lower boundary to;
30.6 - 33.4	4Btb2	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), sandy loam to loam, hard to very hard, friable, moderately to slightly sticky, slightly plastic, very fine-grained very well sorted sand with 3-7% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films common thin and few moderately thick on ped faces and few to common moderately thick coating clasts, crudely stratified, gradational lower boundary to;
33.4 - 36.1	4BCb	Dark yellowish brown to brown (10-7.5YR 4/4d, 10-7.5YR 3/3m), sandy loam, soft to slightly hard, very friable, slightly sticky, non- to slightly plastic, medium to coarse grained poorly sorted sand with ~50-60% fine and medium slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few thin and very few moderately thick coating clasts, crudely stratified, scour deposit, abrupt lower boundary to;
36.1 - 38.5	5Btb / 5Bwb	Yellowish brown (10YR 5/4d, 10YR 4/3m), loam, slightly hard to hard, friable, moderately to very sticky, very plastic, medium grained moderately well sorted sand with >5% fine slate-rich sub rounded gravel, dark yellowish brown (10YR 4/4d, 10YR 3/3m) clay films few fine and very few moderately thick on ped faces and few thin coating clasts, truncated , massive, gradational lower boundary to;
38.5 - 40.9	5BCb	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), sandy loam, slightly hard, friable, slightly sticky, non- to slightly plastic, medium-grained moderately well sorted sand with ~5-7% fine slate-rich sub rounded gravel, brown (10YR 4/3d, 10YR 3/2m) clay films very few thin on ped faces and few thin coating clasts, massive, clear lower boundary to;
40.9 - 44.5	6BCb1	Yellowish brown (10YR 5/4d, 10YR 4/3m), silt loam, hard, friable, moderately sticky, moderately to very plastic, very fine to fine grained very well sorted sand with no gravel, dark yellowish brown (4/4d, 10YR 3/3m) clay films few fine on ped faces, truncated and stacked, massive, gradational lower boundary to;
44.5 - 51.4	6BCb2 lam	Yellowish brown to dark yellowish brown (10YR 5/4-4/6d, 10YR 4/3-3/4m), laminated loamy sand to sandy loam, slightly hard to hard, friable, slightly to moderately sticky, slightly plastic, very fine to fine grained very well sorted sand with localized 5-30% fine and medium slate rich sub rounded gravel, dark yellowish brown (4/4d, 10YR 3/3m) clay films few fine on ped faces and few clay stains coating clasts, localized weak redox with weak yellowish brown (10YR 5/6d, 10YR4/4m) few mottles and weak grayish brown (2.5Y 5/2d, 2.5Y 4/1) gleyed, truncated and stacked, stratified, gradational lower boundary to;
51.4 - 52.5	7Btb / 7Bwb	Yellowish brown (10YR 5/4d, 10YR 4/3m), loam, slightly hard to hard, friable, moderately sticky, slightly plastic, fine to medium grained moderately well sorted sand with no gravel, dark yellowish brown (10YR 4/4d, 10YR 2/3m) clay films few to common fine on ped faces and few thin coating clasts, truncated , massive, gradational lower boundary to;

Depth (Ft)	Horizon	Transect B; B-2b Description (Cont.)
52.5 - 53.0	7BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), sandy loam, slightly hard, friable, slightly sticky, non- to slightly plastic, medium-grained moderately well sorted sand with >3% fine slate-rich sub rounded gravel, dark yellowish brown (10YR 4/4d, 10YR 3/3m) clay films very few to few thin on ped faces, moderate redox with moderate strong brown (7.5YR 5/6d, 7.5YR 4/4m) ~25-30% mottles and weak light olive brown (2.5Y 5/3d, 2.5Y 3/2m) ~10% gleying, massive, scour deposit,, abrupt lower boundary to;
53.0 -54.6	8ABb	Dark grayish brown (10YR 4/2d, 2.5Y 4/2m), clay loam to clay, slight organics, very hard, firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, very dark grayish brown (2.5Y 3/2d, 2.5Y 2/1m) clay films few thin and very few moderately thick on ped faces, moderately well gleyed, truncated, massive, gradational lower boundary to;
54.6 - 56.3	8Btb	Dark yellowish brown to brown (10-7.5YR 4/4d, 10YR 3/3m), clay loam, very hard, firm, very sticky, very plastic, medium grained moderately well sorted sand with >3% fine slate-rich sub rounded gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films common to many thin and common moderately thick on ped faces, strong redox with moderate to strong strong brown (7.5YR 4/6d, 7.5YR4/4m) ~30% mottles and moderate gray (2.5Y 6/1d, 2.5Y 4/1m) ~10% gleying, massive, gradational lower boundary to;
56.3 - 57.5	8BCb	Yellowish brown to strong brown (10-7.5YR 5/6d, 10-7.5YR 4/4m), sandy loam to loam, slightly oxidized, slightly hard, friable, slightly sticky, non- to slightly plastic, fine to medium-grained moderately well sorted sand with no gravel, dark yellowish brown (10YR 4/4d, 10YR 3/3m) clay films very few thin and few clay stains on ped faces, massive, scour deposit, abrupt lower boundary to;
57.5 - 60.0	9Btb	Strong brown (7.5YR 5/6d, 7.5YR 4/4m), clay loam to clay, slightly to moderately well oxidized, hard to very hard, firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 3/4d, 7.5YR 2/3m) clay films common to many thin common moderately thick and few thick on ped faces, massive, gradational lower boundary to;
60.0 - 60.6	9BCb	Brown (7.5YR 4/4d, 7.5YR 3/3m), sandy loam to loam, slightly hard to hard, friable, moderately sticky, slightly plastic, medium-grained moderately well sorted sand with ~10-15% fine and medium slate-rich sub rounded gravel, dark brown (7.5YR 3/4d, 7.5YR 2/3m) clay films few to common moderately thick coating clasts, massive, scour deposit,, abrupt lower boundary to;
60.6 - 68.0	10Btb	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam, slightly oxidized, very hard, firm, very sticky, moderately to very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 3/4d, 7.5YR 2/3m) clay films many thin common moderately thick and few thick on ped faces, massive, gradational lower boundary to;
68.0 - 70.0+	10BCb	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), sandy loam to loam, slightly hard to hard, friable, slightly sticky, non- to slightly plastic, fine grained well sorted sand with 5-7% fine slate-rich sub rounded gravel, brown (10YR 4/3d, 10YR 3/2m) clay films few thin on ped faces, crudely stratified, scour deposit, undetermined lower boundary.

Table 11.2 Soil Development Index Calculation Sheet
9900 Wilshire Boulevard
Soil Profile 11 - Transect B - Boring 2b

Horizon	Thickness (Feet)	Color Dry		Color Moist		Texture		Consistence Dry		Consistence Wet		Clay Films		Horizon Values	Mean Hor. Values
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Boring 2b															
AB	1.5	10YR 4/2	0.1	10YR 2/1	0	sil-sicl	0.75	sh	0.40	vs, vp	1.00	1npf, 2npo	0.3	0.49	0.74
Bt / Bwb	2.5	10YR 4/4	0.3	10YR 3/3	0	sicl	0.83	sh	0.4	s-vs, p-vp	0.83	2npf	0.267	0.47	1.17
BC	2.4	10YR 4/4	0.3	10YR 3/3	0	l	0.5	sh	0.4	ss-s, ps	0.42	1-2npf, 1ncl	0.32	0.33	0.79
C	1.9	10YR 4/4	0.3	10YR 3/4	0.1	sl	0.33	so-sh	0.3	ss, po-ps	0.25	v1npf, 1ncl	0.25	0.25	0.47
2Btb1	3.8	10YR 4/4	0.3	10YR 3/3	0	cl	0.67	h-vh	0.7	vs, p-vp	0.92	3npf, 1mkpf, 2mkcl	0.52	0.56	2.13
2Btb2	4.7	7.5YR 4/4	0.4	7.5YR 3/3	0.1	l-cl	0.58	h	0.6	s-vs, p-vp	0.83	2-3npf, 1mkpf	0.3	0.48	2.27
3Btb	3.8	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sil	0.67	sh	0.4	s, p-vp	0.75	2npf, 1mkpf	0.27	0.44	1.66
3BCb1	2.7	10YR 4/4	0.3	10YR 3/3	0	cl	0.67	sh-h	0.5	vs, vp	1	1npf, v1mkpf, 1ncl	0.33	0.50	1.35
3BCb2	4.1	10YR 4/4	0.3	10YR 3/3	0	cl	0.67	sh-h	0.5	vs, vp	1.00	v1-1npf, v1-1ncl	0.24	0.48	1.98
4Btb1	1.3	10-7.5YR 5/4	0.35	10-7.5YR 4/3	0.05	cl	0.67	h-vh	0.70	s-vs, vp	0.92	2-3npf, 2mkpf	0.4	0.55	0.71
4Btb2	2.8	10YR 4/4	0.3	10YR 3/3	0	sl-l	0.42	h-vh	0.70	ss-s, ps	0.42	2npf, 1mkpf, 1-2mkcl	0.4	0.39	1.09
4BCb	2.7	10-7.5YR 4/4	0.35	10-7.5YR 3/3	0.05	sl	0.33	so-sh	0.25	ss, po-ps	0.25	1ncl, v1mkcl	0.2	0.22	0.58
5Btb / 5Bwb	2.4	10YR 5/4	0.3	10YR 4/3	0	l	0.5	sh-h	0.50	s-vs, vp	0.92	1npf, v1mkpf, 1ncl	0.32	0.45	1.08
5BCb	2.4	10YR 4/4	0.3	10YR 3/3	0	sl	0.33	sh	0.40	ss, po-ps	0.25	v1npf, 1ncl	0.25	0.25	0.59
6BCb	3.6	10YR 5/4	0.3	10YR 4/3	0	sil	0.67	h	0.60	s, p-vp	0.75	1npf	0.2	0.44	1.60
6BClam	10.9	10YR 4/6	0.5	10YR 3/4	0.1	sl	0.33	sh	0.40	ss-s, ps	0.42	1npf, 1vncl	0.27	0.30	3.31
7Btb / 7Bwb	1.1	10YR 5/4	0.3	10YR 4/3	0	l	0.5	sh-h	0.50	s, ps	0.50	1-2npf, 1ncl	0.32	0.36	0.40
7BCb	0.5	10YR 5/4	0.3	10YR 4/3	0	sl	0.33	sh	0.40	ss, po-ps	0.25	v1-1npf	0.23	0.24	0.12
8ABb	1.6	10YR 4/2	0.1	2.5Y 4/2	0	cl-c	0.92	vh	0.80	vs, vp	1.00	1npf, v1mkpf	0.23	0.59	0.94
8Btb	1.7	10-7.5YR 4/4	0.35	10YR 3/3	0	cl	0.83	vh	0.80	vs, vp	1.00	2-3npf, 2mkpf	0.33	0.59	1.01
8BCb	1.2	10-7.5YR 5/6	0.55	7.5YR 4/4	0.2	sl-l	0.42	sh	0.40	ss, po-ps	0.25	v1npf	0.17	0.29	0.35
9Btb	2.5	7.5YR 5/6	0.6	7.5YR 4/4	0.2	cl-c	0.92	h-vh	0.70	vs, vp	1.00	2-3npf, 2mkpf, 1kpf	0.33	0.63	1.58
9BCb	0.6	7.5YR 4/4	0.4	7.5YR 3/3	0.1	sl-l	0.42	sh-h	0.50	s, ps	0.50	1-2mkcl	0.27	0.36	0.21
10Btb	7.4	7.5YR 4/4	0.4	7.5YR 3/3	0.2	cl	0.83	vh	0.80	vs, p-vp	0.92	3npf, 2mkpf, 1kpf	0.33	0.62	4.56
10BCb	2.0	10YR 4/4	0.3	10YR 3/3	0	sl-l	0.42	sh-h	0.50	ss, po-ps	0.25	1npf	0.2	0.27	0.55

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.49**	**3.15**	**2.66**	**1.1**	**1.14**	**8 - 12**	**8 - 12**
Buried Soil 1	**0.56**	**4.40**	**3.62**	**0.8**	**0.82**	**15 - 30**	**23 - 42**
Buried Soil 2	**0.5**	**4.99**	**3.30**	**1.1**	**0.84**	**8 - 12**	**31 - 54**
Buried Soil 3	**0.55**	**2.38**	**2.45**	**1.1**	**0.85**	**8 - 12**	**39 - 66**
Buried Soil 4	**0.45**	**1.67**	**2.43**	**0.6**	**0.57**	**4 - 8**	**43 - 74**
Buried Soil 5	**0.44**	**4.91**	**2.37**	**0.9**	**0.47**	**1 - 4**	**44 - 78**
Buried Soil 6	**0.36**	**0.52**	**2.28**	**0.6**	**0.55**	**4 - 8**	**48 - 86**
Buried Soil 7	**0.59**	**2.30**	**3.57**	**1.2**	**0.73**	**8 - 12**	**56 - 98**
Buried Soil 8	**0.63**	**1.79**	**4.04**	**1.3**	**0.60**	**8 - 12**	**64 - 110**
Buried Soil 9	**0.62**	**5.11**	**3.80**	**0.9**	**0.53**	**15 - 30**	**79 - 140**

Soil Profile 12
Transect B, Boring 5b

Soil profile 12 is located at the western end of Transect B in Boring 5b and was described in detail to a depth of 70.0 feet below the ground surface. The soil profile lies across a graded (or stripped) and artificially filled surface that is geomorphically inactive. This soil profile consists of a weak Inceptisol soil (Qty1a-) over a sequence of three stacked and truncated Alfisol soils (Qyt, Qof, and Qot1) over a thick series of five weakly developed and stacked Inceptisol soils (Qot1, Qot2, Qot3, Qot4, and Qot5) over Lakewood Formation or undifferentiated old alluvium (Qoa1 and Qoa2). The entire section in this locality is capped by 2.0 feet of artificial fill. Parent materials for these soils consist chiefly of slate-rich debris flow and/ or stream terrace deposits that have most likely emanated from Benedict Canyon. Soil profile 12 in boring 5b contains a surface soil and ten buried soils to a depth of approximately 70.0 feet below the ground surface. The upper portion of this stratigraphic section to a depth of 56.2 feet below the ground surface tracks across the length of transect B. The stratigraphic units assigned to the upper seven soil members within this profile correlate well to the adjacent trench exposures and transect A (Table 16w). A detailed soil description for this profile is listed in table 12.1, the calculated soil development indices for this soil profile and relative age estimates are listed in table 12.2, and the individual soil profile members are briefly described below.

The uppermost or surface soil at this locality classifies as Typic Xerumbrept. This is a thin and truncated soil that consists of an weak argillic to cambic diagnostic subsurface horizon over a transitional horizon and parent material scour deposit (Bt / Bw – BC - C) soil remnant. The deposit is massive, and a majority of this soil member may have been mechanically stripped away during grading. This soil is characterized by a gravel-rich deposit with few thin clay films. Relative age estimates of 4 to 8 ka for the surface soil in profile 12 was obtained by comparing the observed clay film index and master horizon index (MHI) values to the more mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This surface soil member is interpreted as an inset stream terrace deposit, and is termed Qyt-a. This unit contains gradational lateral facies changes and is not continuous along boring transect B. Unit Qyt-a pinches out to the east, and this unit may be faulted between borings 3b and 5b in transect B.

Buried soil member 1 (or first buried soil) in soil profile 12 classifies as a Typic Haploxeralf. This is a truncated soil that consists of a weak argillic to cambic diagnostic subsurface horizon over a transitional horizon scour deposit (2Btb / 2Bwb – 2BCb) soil remnant. The deposit is massive, and the soil is characterized by a sandy deposit with few to common thin and few moderately thick clay films. A relative age estimate of 8 to 12 ka for buried soil 1 in soil profile 12 was obtained by comparing the observed soil development index (SDI) and master

horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This stream terrace deposit is termed Qyt and correlates well with the surface soil in trench 1 and the surficial deposits described along adjacent borings in transect A. This unit correlates well across the entire project site area however; this unit may be faulted between borings 3b and 5b along Transect B.

Buried soil member 2 (or second buried soil) in soil profile 12 classifies as a Typic Palexeralf. This is a severely truncated soil remnant that consists of a sequence of two moderately well developed argillic diagnostic subsurface horizons over a transitional horizon scour deposit (3Btb1 – 3Btb2 – 3BCb). This soil member is characterized by gravel-rich and fine-grained deposit with 7.5YR hues and many thin and common moderately thick clay films. A relative age estimate of 15 to 30 ka for buried soil 2 in soil profile 12 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S-5b and the less mature soil profile Qt5a in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as debris flow deposit, and is termed Qof. This unit correlates well across the entire project site area however; this unit is faulted between borings 3b and 5b along Transect B.

Buried soil member 3 in soil profile 12 classifies as an Typic Haploxeralf. This is a truncated and thin soil remnant that consists of a moderately well developed argillic diagnostic subsurface horizon (4Btb). This deposit is massive, and this soil member is characterized by a fine-grained deposit with 7.5YR hues and common thin and few moderately thick clay films. A relative age estimate of 8 to 12 ka for each of this buried soil in profile 12 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). This buried soil member is interpreted as an stream terrace deposit, and is termed Qot1. Unit Qot1 correlates well across the entire length of transect B; however, this unit may be faulted between borings 3b and 5b along Transect B.

Buried soil members 4, 5, 6, 7, and 8 in soil profile 12 all classify as a Fluventic Xerumbrepts. These are highly truncated, thin, and discontinuous soil remnants that consist of a organic rich transitional horizons to weakly developed juvenile argillic to cambic diagnostic subsurface horizon over a transitional scour horizon (5ABb - 5BCb), (6Btb / 6Bwb – 6BCb), (7Btb / 7Bwb – 7BCb), (8Btb / 8Bwb – 8BCb), and (9Btb / 9Bwb – 9BCb). These deposits are massive to locally crudely stratified. These soil members are characterized by sandy deposits with 10-7.5YR hues and few thin clay films. A relative age estimate of 4 to 8 ka for each buried soil 4 through 8 in profile 12 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more

mature soil profile S-5 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as stream terrace deposits, and are termed Qot1 (base of), Qot2, Qot3, Qot4, Qot5, and Qot6. These units contain gradational lateral facies changes across the length of transect B. Unit Qot6 directly overlies the Lakewood Formation. These units correlate well across the entire length of transect B; however, these units are faulted between borings 3b and 5b along Transect B.

Buried soil members 9 and 10 (or the deepest buried soils described in detail) in soil profile 12 classifies as Typic Haploxeralfs. This is a sequence of well-developed and highly truncated soil remnants that consist of a set of stacked argillic and transitional horizons (10Btb – 10BCb lam - 11Btb). The deposit is crudely stratified, and these soil members are characterized as fine-grained with 7.5YR hues and plugged with secondary clay. A relative age estimate of 8 to 12 ka for buried soils 9 and 10 in soil profile 12 was obtained by comparing the observed soil development index (SDI) and master horizon index (MHI) values to the more mature soil profile S4 in the Mission Creek soil chronosequence (McFadden, 1988) and the less mature soil profile Qt3 in the Ventura Basin soil chronosequence (Rockwell, 1988). These buried soil members are interpreted as being part of the undifferentiated Lakewood Formation alluvium and termed Qoa1 and Qal2. These units do not to correlate well across the length of transect B. They appear to be severely affected by faulting.

In conclusion, the entire stratigraphic section of soil profile 12 in boring 5b along Transect B to a depth of 70 feet is estimated to be 71 to 123 ka in age. Most of this age resides within second buried soil and the described Lakewood Formation in this exposure. The Holocene – Pleistocene boundary is represented by the Qyt and Qof contact at a depth of approximately 15.8 feet in this locality. The upper six soil members within this soil profile correlate well across the entire project site area. Within this section the surfical stream terrace deposits (Qyt) have an estimated age of 12.0 – 20.0 ka, the alluvial fan deposit (Qof) has an estimated age of 27.0 – 50.0 ka, the underlying sequence of stream terrace deposits (Qot1, Qot2, Qot3, Qot4, Qot5, and Qot6) have an estimated age of 55.0 – 99.0 ka. All of the members observed in soil profile 12 may be faulted between borings 3b and 5b along Transect B.

Table 12.1
9900 Wilshire Boulevard, Core Sample Soil Description

Soil Profile 12 - Transect B; Boring 5b

Date Described: 1/28/14 and 2/3/2014

Depth (Ft)	Horizon	Transect B; B-5b Description
2.0 - 5.6	Bt / Bw	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam to clay, slightly oxidized, very hard, friable, very sticky, very plastic, medium to coarse grained poorly sorted sand with ~7-10% fine sub rounded slate-rich gravel, brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films few to common thin and few moderately thick on ped faces and common moderately thick coating clasts, truncated, massive, gradational lower boundary to;
5.6 - 7.2	BC	Brown (7.5YR 4/3d, 7.5YR 3/2m), loam to clay loam, slightly oxidized, hard, friable, moderately to very sticky, moderately to very plastic, coarse grained poorly sorted sand with ~10-15% fine and medium sub rounded slate-rich gravel, brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films few fine and very few moderately thick on ped faces and few to common thin and few moderately thick coating clasts, crudely stratified, gradational lower boundary to;
7.2 - 11.1	C	Brown (7.5YR 4/3d, 7.5YR 3/2m), sandy loam to loam, slightly oxidized, slightly hard to hard, friable, slightly to moderately sticky, slightly plastic, coarse grained poorly sorted sand with ~15-20% fine and medium sub rounded slate-rich gravel, brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films few fine on ped faces and very few to few moderately thick coating clasts, crudely stratified, scour deposit, abrupt lower boundary to;
11.1 - 15.4	2Btb / 2Bwb	Brown (7.5YR 4/4d, 7.5YR 3/3m), clay loam, slightly oxidized, hard to very hard, friable, very sticky, very plastic, fine to medium grained moderately well sorted sand with >5% fine slate-rich sub rounded gravel, brown (7.5YR 3/4d, 7.5YR 2.5/3m) clay films few thin and very few moderately thick on ped faces and few moderately thick coating clasts, truncated, massive, clear lower boundary to;
15.4 - 15.8	2BCb	Brown (7.5YR 4/4d, 7.5YR 3/3m), sand to loamy sand, slightly oxidized, loose to soft, very friable, non-sticky, non-plastic, medium grained moderately well sorted sand with ~5-7% fine slate-rich sub rounded gravel, few clay stains on ped faces and common clay stains coating clasts, massive, scour deposit, abrupt lower boundary to;
15.8 - 16.3	3Btb1	Brown (10YR 5/4d, 10YR 4/3m), loam, hard, friable, moderately sticky, moderately to very plastic, very fine to fine grained moderately well sorted sand with >3% fine slate-rich sub rounded gravel, strong brown (7.5YR 4/6d, 7.5YR 4/4m) clay films few to common thin and few moderately thick on ped faces, truncated, massive, gradational lower boundary to;
16.3 - 20.8	3Btb2	Yellowish brown (10YR 5/4d, 10YR 4 /3m), loamy sand to sandy loam, soft to slightly hard, very friable, non- to slightly sticky, non-plastic, coarse grained poorly sorted sand with 15-20% fine and medium slate-rich sub rounded gravel, strong brown (7.5YR 6/6d, 7.5YR 4/4m) clay films few thin on ped faces and common thin and few moderately thick coating clasts, localized weak redox with moderate strong brown (7.5YR 4/6d, 7.5YR3/4m) ~15% mottled and weak gray (2.5Y 5/1d, 2.5Y3/1m) ~7% gleying, crudely stratified, gradational lower boundary to;
20.8 - 22.0	3BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), loamy sand, soft, very friable, non- to slightly sticky, non-plastic, coarse grained poorly sorted sand with ~10-15% fine slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films very few very thin on ped faces and very few thin coating clasts, localized weak redox with faint strong brown (10YR 6/6d, 10YR4/4m) ~5% mottled and weak grayish brown (2.5Y 5/2d, 2.5Y3/1m) ~5% gleying, crudely stratified, scour deposit, abrupt lower boundary to;

Depth (Ft)	Horizon	Transect B; B-5b Description (Cont.)
22.0 - 28.5	4Btb	Dark yellowish brown to brown (10-7.5YR 4/4d, 10-7.5YR 3/3m), loam to clay loam, very hard, firm, moderately to very sticky, moderately to very plastic, fine grained well sorted sand with ~5% fine slate-rich sub rounded gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films few thin and very few moderately thick on ped faces and few moderately thick coating clasts, localized weak redox with faint yellowish brown (10YR 5/6d, 10YR4/4m) >10% mottled and weak light brownish gray (2.5Y 6/2d, 2.5Y4/1m) >10% gleying, truncated, massive, clear lower boundary to;
28.5 - 30.0	5ABb	Grayish brown (10YR 5/2d, 10YR 3/1m), clay loam, organic-rich, very hard to extremely hard, very firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, dark grayish brown (10YR 4/2d, 10YR 3/1m) clay films common to many thin and common moderately thick and few thick on ped faces, weak redox with faint yellowish brown (10YR 5/6d, 10YR4/4m) >5% mottled and weak light brownish gray (2.5Y 6/2d, 2.5Y4/1m) >10% gleying, stacked and truncated, massive, clear lower boundary to;
30.0 - 33.7	5BCb	Light olive brown (2.5Y 5/3d, 2.5Y 4/2m), clay loam, hard, friable to firm, very sticky, moderately to very plastic, fine to medium grained moderately well sorted sand with 15-20% fine and medium slate-rich sub rounded gravel, grayish brown (10YR 5/2d, 10YR 4/1m) clay films very few thin on ped faces and few thin coating clasts, moderate redox with weak yellowish brown (10YR 5/6d, 10YR4/4m) >5% mottled and strong gray (2.5Y 5/2d, 2.5Y4/1m) ~70% gleying, crudely stratified, scour deposit, abrupt lower boundary to;
33.7 - 42.4	6Btb / 6Bwb	Dark yellowish brown (10YR 4/4d, 10YR 3/3m), loam to silt loam, very hard, firm, moderately to very sticky, very plastic, fine grained poorly sorted sand with >5% fine slate-rich sub rounded gravel, yellowish brown (10YR 5/4d, 10YR 4/3m) clay films few thin on ped faces, weak redox with weak yellowish brown (10YR 5/6d, 10YR4/4m) >5% mottled and strong gray (2.5Y 5/2d, 2.5Y4/1m) ~20% gleying, truncated, massive, gradational lower boundary to;
42.4 - 43.5	6BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), sandy loam, slightly hard, friable, slightly sticky, non- to slightly plastic, fine to medium grained moderately well sorted sand with ~10-15% fine and medium slate-rich sub rounded gravel, few clay stains coating clasts, massive, scour deposit, clear lower boundary to;
43.5 - 44.0	7Btb / 7Bwb	Yellowish brown (10YR 5/4d, 10YR 4/3m), sandy loam, slightly hard to hard, friable, slightly sticky, non- to slightly plastic, fine to medium grained moderately well sorted sand with >5% fine slate-rich sub rounded gravel, dark yellowish brown (10YR 4/4d, 10YR 3/3m) clay films few thin and very few moderately thick on ped faces, truncated, massive, gradational lower boundary to;
44.0 - 47.2	7BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), loamy sand to sandy loam, slightly hard, friable, non- to slightly sticky, non-plastic, medium to coarse grained poorly sorted sand with 15-20% fine and medium slate-rich sub rounded gravel, dark yellowish brown (4/4d, 10YR 3/3m) clay films few fine on ped faces and common fine and few moderately thick coating clasts, massive to crudely stratified, scour deposit, abrupt lower boundary to;
47.2 - 50.0	8Btb / 8Bwb	Brown (7.5YR 5/4d, 7.5YR 4/3m), loam, very hard, friable to firm, slightly to moderately sticky, slightly plastic, fine-grained well sorted sand with no gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few fine and very few moderately thick on ped faces, massive, gradational lower boundary to;
50.0 - 52.3	8BCb	Yellowish brown (10YR 5/4d, 10YR 4/3m), sandy loam to loam, slightly hard, friable, slightly sticky, non- to slightly plastic, medium to coarse grained poorly sorted sand with ~30% fine and medium slate-rich sub rounded gravel, very few to few clay stains on ped faces and coating clasts , massive, scour deposit, abrupt lower boundary to;

Depth (Ft)	Horizon	Transect B; B-5b Description (Cont.)
52.3 - 53.6	9Btb / 9Bwb	Yellowish brown to brown (10-7.5YR 5/4d, 10-7.5YR 4/3m), clay loam, slightly oxidized, hard to very hard, firm, very sticky, very plastic, very fine to fine grained well sorted sand with >3% very fine slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few thin and very few moderately thick on ped faces, strong redox with moderate strong brown (7.5YR 4/6d, 7.5YR 3/4m) ~20% mottles and strong gray (2.5Y 5/1d, 2.5Y 3/1m) ~30% gleying, truncated, massive, undetermined lower boundary to;
53.6 - 55.0	NR	Zone of no recovery
55.0 - 56.2	9Cb	Yellowish brown to brown (10YR 5/4d, 10YR 4/3m), sand to loamy sand, loose to soft, very friable, non-sticky, non-plastic, medium to coarse grained poorly sorted sand with >5% fine slate-rich sub rounded gravel, massive to crudely stratified, abrupt lower boundary to;
56.2 - 60.9	10Btb	Yellowish brown (10YR 5/4d, 10YR 4/3m), clay loam, hard to very hard, firm, very sticky, very plastic, very fine grained well sorted sand with >5% fine slate-rich sub rounded gravel, brown (7.5YR 4/4d, 7.5YR 3/3m) clay films few thin and very few moderately thick on ped faces and few moderately thick coating clasts, strong redox with strong strong brown (7.5YR 4/6d, 7.5YR 3/4m) ~30% mottles and strong gray (2.5Y 5/1d, 2.5Y 3/1m) ~30% gleying, truncated, massive, gradational lower boundary to;
60.9 - 62.7	10BCb lam	Brown (7.5YR 4/4d, 7.5YR 3/3m), loamy sand to sandy loam, slightly oxidized, slightly hard, friable, slightly sticky, non- to slightly plastic, fine-grained well sorted sand with no gravel, very few clay stains on ped faces, crudely stratified, scour deposit,, abrupt lower boundary to;
62.7 - 70.0+	11Btb	Brown (7.5YR 5/4d, 7.5YR 4/3m), clay loam, slightly oxidized, very hard, very firm, very sticky, very plastic, very fine grained very well sorted sand with no gravel, brown (7.5YR 4/3d, 7.5YR 3/2m) clay films few thin and very few moderately thick on ped faces, strong redox with strong strong brown (7.5YR 4/6d, 7.5YR 3/4m) ~20% mottles and strong gray (2.5Y 6/1d, 2.5Y 4/1m) ~30% gleying, massive, undetermined lower boundary.

Table 12.2 Soil Development Index Calculation Sheet
9900 Wilshire Boulevard
Soil Profile 12 - Transect B - Boring 5b

Horizon	Thickness (Feet)	Color				Texture		Consistence				Clay Films		Horizon Values	Mean Hor. Values
		Dry		Moist				Dry		Wet					
Raw Alluvium	*3*	*2.5Y 7/2*	*X/10*	*10YR 6/3*	*X/10*	*s*	*X/6*	*lo*	*X/5*	*so*	*X/6*	*0*	*X/15*		
Boring 5b															
Bt / Bw	3.6	7.5YR 4/4	0.4	7.5YR 3/3	0.1	cl	0.67	vh	0.80	vs, vp	1.00	1-2npf, 1mkpf, 2mkcl	0.433	0.60	2.16
BC	1.6	7.5YR 4/3	0.3	7.5YR 3/2	0.1	cl	0.67	h	0.6	s-vs, p-vp	0.83	1npf, v1mkpf, 1-2ncl, 1mkcl	0.35	0.51	0.82
C	3.9	7.5YR 4/3	0.3	7.5YR 3/2	0.1	sl-l	0.42	sh-h	0.5	ss-s, ps	0.42	1npf, v1-1mkcl	0.367	0.36	1.41
2Btb / 2Bwb	4.3	7.5YR 4/4	0.4	7.5YR 3/3	0.1	cl	0.67	h-vh	0.7	vs, vp	1.00	1npf, v1mkpf, 1mkcl	0.35	0.56	2.43
2BCb	0.4	7.5YR 4/4	0.4	7.5YR 3/3	0.1	s-ls	0.1	lo-so	0.1	so, po	0.00	1vnpf, 2vncl	0.37	0.13	0.05
3Btb1	0.5	10YR 5/4	0.3	10YR 4/3	0	l	0.1	h	0.6	s, p-vp	0.75	1-2npf, 1mkpf	0.5	0.39	0.20
3Btb2	4.5	10YR 5/4	0.3	10YR 4/3	0	sl-ls	0.25	so-sh	0.3	so-ss, po	0.08	1npf, 2ncl, 1mkcl	0.35	0.20	0.89
3BCb	1.2	10YR 5/4	0.3	10YR 4/3	0	ls	0.17	so	0.2	so-ss, po	0.08	v1vnpf, v1ncl	0.2	0.13	0.16
4Btb	6.5	10-7.5YR 4/4	0.35	10-7.5YR 3/3	0.05	l-cl	0.58	vh	0.8	s-vs, p-vp	0.83	1npf, 1mkpf, 1mkcl	0.35	0.52	3.40
5ABb	1.5	10YR 5/2	0.2	10YR 4/2	0	cl	0.67	vh-eh	0.90	vs, vp	1.00	2-3npf, 2mkpf, 1kpf	0.333	0.58	0.87
5BCb	3.7	2.5Y 5/3	0.1	2.5Y 4/2	0	l-cl	0.58	h	0.60	vs, p-vp	0.92	v1npf, 1ncl	0.25	0.47	1.74
6Btb / 6Bwb	8.7	10YR 4/4	0.3	10YR 3/3	0	l-sil	0.58	vh	0.80	s-vs, vp	0.92	1npf	0.2	0.50	4.35
6BCb	1.1	10YR 5/4	0.3	10YR 4/3	0	sl	0.33	sh	0.40	ss, po-ps	0.25	1vncl	0.133	0.22	0.24
7Btb / 7Bwb	0.5	10YR 5/4	0.3	10YR 4/3	0	sl	0.33	sh-h	0.50	ss, po-ps	0.25	1npf, v1mkpf	0.233	0.26	0.13
7BCb	3.2	10YR 5/4	0.3	10YR 4/3	0	ls-sl	0.25	sh	0.40	so-ss, po	0.08	1npf, 2ncl, 1mkcl	0.35	0.22	0.69
8Btb / 8Bwb	2.8	10YR 5/4	0.3	10YR 4/3	0	l	0.5	vh	0.80	ss-s, ps	0.42	1npf, v1mkpf	0.233	0.39	1.09
8BCb	2.3	10YR 5/4	0.3	10YR 4/3	0	sl-l	0.42	sh	0.40	ss, po-ps	0.25	v1-1vnpf, v1-1vncl	0.15	0.24	0.56
9Btb / 9Bwb	1.3	10-7.5YR 5/4	0.35	10-7.5YR 4/3	0.05	l-cl	0.58	h-vh	0.70	vs, vp	1.00	1npf, v1mkpf	0.233	0.51	0.67
9Cb	1.2	10YR 5/4	0.3	10YR 4/3	0	s-ls	0.1	so-lo	0.10	so, po	0.00		0	0.04	0.05
10Btb	4.7	10YR 5/4	0.3	10YR 4/3	0	l-cl	0.58	h-vh	0.70	vs, vp	1.00	1npf, v1mkpf, 1mkcl	0.35	0.53	2.47
10BCb lam	1.8	7.5YR 4/4	0.4	7.5YR 3/3	0.1	ls-sl	0.25	sh	0.40	ss, po-ps	0.25	v1vnpf	0.133	0.23	0.41
11Btb	7.3	7.5YR 5/4	0.4	7.5YR 4/3	0.1	l-cl	0.58	vh	0.80	vs, vp	1.00	1npf, v1mkpf	0.233	0.54	3.96

INDEX VALUES AND DETERMINED AGES (ka)

Soil Member	MHI	Mean Soil Index	SDI @ 7 feet	Color Index	Clay Film Index	Soil Age Estimate ka	Section Age Estimate ka
Surface Soil	**0.60**	**4.39**	**3.37**	**1.3**	**1.15**	**4 - 8**	**4 - 8**
Buried Soil 1	**0.56**	**2.48**	**3.69**	**1**	**0.72**	**8 - 12**	**12 - 20**
Buried Soil 2	**0.39**	**1.24**	**1.40**	**0.9**	**1.05**	**15 - 30**	**27 - 50**
Buried Soil 3	**0.52**	**3.40**	**3.66**	**0.4**	**0.35**	**8 - 12**	**35 - 62**
Buried Soil 4	**0.58**	**2.61**	**3.51**	**0.3**	**0.58**	**4 - 8**	**39 - 70**
Buried Soil 5	**0.50**	**4.59**	**3.28**	**0.6**	**0.33**	**4 - 8**	**43 - 78**
Buried Soil 6	**0.26**	**0.82**	**1.56**	**0.6**	**0.58**	**4 - 8**	**47 - 86**
Buried Soil 7	**0.39**	**1.65**	**2.27**	**0.6**	**0.38**	**4 - 8**	**51 - 91**
Buried Soil 8	**0.51**	**0.71**	**2.00**	**0.7**	**0.23**	**4 - 8**	**55 - 99**
Buried Soil 9	**0.53**	**2.88**	**3.10**	**0.8**	**0.48**	**8 - 12**	**63 - 111**
Buried Soil 10	**0.54**	**3.96**	**3.80**	**0.5**	**0.23**	**8 - 12**	**71 - 123**

Table 13. Comparison Soil Data Indices Value Summary

(McFadden) Mission Creek Soils	SDI At 7'	MHI	Reddening Index	Clay Film Index
S7 0-1000 yrbp	0.84	0.12	0	0
S5 4-13 ka	1.46	0.3	0.1	0
S4 13-70 ka	4.49	0.37	3.94	7.37
S2 70-250 ka	8.01	0.61	4.80	6.24
S2 250-700 ka	10.81	0.39	6.20	10.31

(Rockwell) Ventura River Basin Soils	SDI At 7'	MHI	Reddening Index	Clay Film Index
Qt3 4 - 8 ka	2.43	0.17	0.5	0
Qt4 10 -15 ka	3.86	0.43	2	4
Qt5a 15 – 20 ka	4	0.37	3.5	4.2
Qt5b 30 ka	4.57	0.46	5	7

(WLA) West Hollywood Buried Soils	SDI At 7'	MHI	Reddening Index	Clay Film Index
Qol1 100 ka	3.1	0.42	1.05	1.99
Qol2 100-300 ka	10.5	0.8	8.2	13.2

TABLE 14. Soil Field Description Abbreviation Key

Texture		Structure		Consistence						Clay Films		Calcium Carbonate	
				Dry		Moist		Wet				(Pedogenic CaCO3)	
S	- sand	m	- massive	l	- loose	vfr	-very friable	so	non stickey	v1	veryfew	sl dis	slightly dissemenated
LS	- laomy sand	sg	- single grained	so	-soft	fr	-friable	ss	slightly stickey	1	few	I	slight coatings common on clast bottoms
SL	- sandy loam		**OR**	sh	-slightly hard	fi	-firm	s	moderately sitecke	2	common	II	bottoms; few medium common fine nooduses
L	- loam	1	- weak	h	-hard	vfi	-very firm	vs	very stickey	3	continuous	III	thick coatings common on clast bottoms, common medium nodules, common fine pendants, many fine nodules
CL	- clay loam	2	- moderate	vh	-very hard				**AND**		**AND**	VI	many thick coatings on clasts bottoms common coarse pendants few clasts completely enveloped
SCL	- sandy clay loam	3	- strong	eh	-extremely hard			po	non plastci	vn	stains	V	many thick coatings on clasts bottoms, many coarse pendants common clasts completely enveloped-petrocalcic
C	- clay		**AND**					ps	slightly plastic	n	thin	V+	many thick coatings on clasts bottoms, many coarse pendants many clasts completely enveloped, completely disseminated in matrix - petrocalcic
Si	- silt	vf	- very fine					p	moderately plastic	mk	moderately thick		
SiL	- silt loam	f	- fine					vp	very plastic	k	thick		
SiCL	- silt clay loam	m	- medium								**AND**		
SiC	- silty clay	c	- coarse							cl	coating clasts		
		vc	- very coarse							pf	ped faces		
			AND							br	brodgeing sand grains		
		gr	- granular							po	lining pores		
		pl	- platty										
		pr	-prismatic										
		abk	-angular blockey										
		sbk	- sub angular blockey										

Table 15. Stratigraphic Unit Correlation Sheet

Stratigraphic Unit	Location	Relative Age Estimates (ka)	Preferred Unit Ages (ka)
Qyt	Central Portion of site (T-1 and T-2)	4 - 8	**8 -12**
	Northern portion of site (B-7, B-11, B-2b)	8 - 12	
	Northwestern portion of site (B-13, B-5b)	12 - 20	
Qof	Southern Portion of Site (T-3, B-3)	15 - 30	**19 - 38**
	Central Portion of site (T-1 and T-2)	19 - 38	
	Northern portion of site (B-7, B-11, B-2b)	23 - 42	
	Northwestern portion of site (B-13, B-5b)	27 - 50	
Qot1	Southern Portion of Site (T-3, B-3)	23 - 48	**27 - 50**
	Central Portion of site (T-1, T-2 and B-7)	27 - 50	
	Northern portion of site (B-2b)	31 - 54	
	Northwestern portion of site (B-13, B-5b)	39 - 70	
Qot2	Southern Portion of Site (B-3)	27 - 50	**35 - 62**
	Central Portion of site (B-7)	35 - 62	
	Northern portion of site (B-2b)	39 - 66	
	Northwestern portion of site (B-5b)	43 - 78	
Qot3+4	Southern Portion of Site (B-3)	31 - 58	**39 - 70**
	Central Portion of site (B-7)	39 -70	
	Northern portion of site (B-2b)	43 - 74	
	Northwestern portion of site (B-5b)	51 - 91	
Qot5	Southern Portion of Site (B-3)	32 - 64	**40 - 86**
	Central Portion of site (B-7, B-11)	40 - 86	
	Northern portion of site (B-2b)	44 - 78	
	Northwestern portion of site (B-5b)	55 - 99	
Qot6	Central Portion of site (B-7, B-11)	44 - 94	**48 - 86**
	Northern portion of site (B-2b)	48 - 86	
Qoa1	Southern Portion of Site (B-3)	55 - 104	**59 - 112**
	Central Portion of site (B-7)	59 - 112	
	Northern portion of site (B-2b)	56 - 98	
	Northwestern portion of site (B-5b)	63 -111	
Qoa 2+3	Northern portion of site (B-2b)	79 - 140	**71 - 140**
	Northwestern portion of site (B-5b)	71 - 123	

Table 16a
9900 Wilshire Boulevard, Trench Exposure Soil Summary

Soil Profile 1 - Trench 1 south, station 51 feet

Summary Description on 11/5/13, Detailed Description on 11/16/13

Depth (Ft)	Horizon	Summary Description of T-1 South	Correlation Unit / Age Estimate (ka)
0 - 4.9	Af	zone of artificial fill	Modern Fill Af / 0
4.9 - 5.1	Bt / Bw	truncated, weak argillic or cambic, massive, slight organics, silty, thin	Holocene Alluvium Qyt2 / 4.0 - 8.0
5.1 - 6.2	2Btb1	truncated, moderate argillic, massive, gravel-rich	Pleistocene Alluvium Qof / 19.0 - 38.0 (15.0 - 30.0)
6.2 - 8.45	2Btb2	moderate argillic, massive, gravel-rich	
8.45 - 9.0	2Btb3	moderate argillic, massive, gravel-rich	
9.0 - 9.65	3Btb1	weak to moderate argillic, silty, massive	Qot1 / 27.0 - 50.0 (8.0 - 12.0)
9.65 - 11.15	3Btb2	weak to moderate argillic, massive, moderately well oxidized	
11.15 - 11.85	3BCb1	massive to crudely stratified, scour deposit, sandy	
11.85 - 12.55+	3BCb2	crudely stratified, sandy and gravel-rich, slightly oxidized, scour deposit	

Table 16b
9900 Wilshire Boulevard, Trench Exposure Soil Summary
Soil Profile 2 - Trench 1 channel, station 151 feet

Summary Description on 11/7/13, Detailed Description on 11/16/13

Depth (Ft)	Horizon	Summary Description of T-1 Center	Correlation Unit / Age Estimate (ka)
0 - 6.5	Af	zone of artificial fill	Modern Fill Af / 0
6.5 - 7.25	AB	truncated, massive, slight organics, thin	Holocene Alluvium Qyc / 4.0 - 8.0
7.25 - 8.85	Bt1 / Bw1	weak argillic to cambic, massive	
8.85 - 10.15	Bt2 / Bw2	weak argillic to cambic, massive	
10.15 - 11.85	2Bt1b	truncated moderate argillic, massive	Pleistocene Alluvium Qoc / 12.0 - 20.0 (8.0 - 12.0)
11.85 - 12.4	2Bt2b	moderate argillic, massive, with MnO	
12.4 - 13.5	3Btb	weak to moderate argillic, massive, slightly oxidized	Qot1 / 20.0 - 32.0 (8.0 - 12.0)
13.5 - 14.5+	3BCb	weak argillic or cambic, massive, slightly well oxidized	

Table 16c
9900 Wilshire Boulevard, Trench Exposure Soil Summary
Soil Profile 3 - Trench 1 north, station 233 feet

Summary Description on 11/5/13, Detailed Description on 11/17/13

Depth (Ft)	Horizon	Summary Description of T-1 North	Correlation Unit / Age Estimate (ka)
0 - 6.25	Af	zone of artificial fill	Modern Fill Af / 0
6.25 - 7.0	AB / Bt	truncated, weak argillic, massive, slight organics, silty, thin	Holocene Alluvium Qyt / 4.0 - 8.0
7.0 - 7.85	2ABb	stacked, weak to moderate argillic, massive, slight organics	Pleistocene Alluvium Qof / 19.0 - 38.0 (15.0 - 30.0)
7.85 - 9.80	2Btb1	moderate to strong argillic, massive	
9.80 - 10.8	2Btb2	moderate to strong argillic, massive, gravel-rich	
10.8 - 11.45	2Btb3	moderate argillic, massive, gravel-rich	
11.45 - 12.25	3Btb1	truncated, weak to moderate argillic, massive, silty	Qot1 / 27.0 - 50.0 (8.0 - 12.0)
12.25 - 12.75	3Btb2	weak to moderate argillic, massive, slightly oxidized	
12.75 - 13.05	3BCb	crudely stratified, scour deposit	
13.05 - 14.25	4Btb / 4Bwb	truncated weak argillic or cambic, massive, silty	Qot1a / 31.0 - 58.0 (4.0 - 8.0)
14.25 - 14.75+	4BCb	massive, silty	

Table 16d
9900 Wilshire Boulevard, Trench Exposure Soil Summary
Soil Profile 4 - Trench 2, station 80 feet

Summary Description on 10/23/13, Detailed Description on 11/10/13

Depth (Ft)	Horizon	Summary Description of T-2	Correlation Unit / Age Estimate (ka)
0 - 0.65	Af	zone of artificial fill	Modern Fill Af / 0
0.65 - 1.25	AB	truncated, massive, slight organics, thin	Holocene Alluvium
1.25 - 1.7	Bt / Bw	weak argillic to cambic, massive	Qyt1 / 4.0 - 8.0
1.7 - 3.5	2Btb1	truncated, weak to moderate argillic, massive, gravel-rich	Pleistocene Alluvium
3.5 - 4.1	2Btb2	weak to moderate argillic, massive, slightly well oxidized	Qof1 / 19.0 - 38.0 (15.0 - 30.0)
4.1 - 5.5	2Btb3	weak to moderate argillic, silty, massive	
5.5 - 8.0	3Btb1	truncated, weak argillic, massive, silty	Qot1 / 27.0 - 50.0 (8.0 - 12.0)
8.0 - 8.6	3Btb2	weak to moderate argillic, massive, slightly well oxidized	
8.6 - 10.3	3BCb	crudely stratified, slightly well oxidized, scour deposit	
10.3 - 11.4+	4Btb	truncated, weak to moderate argillic, massive, slightly well oxidized, silty	Qot2 / 35.0 - 62.0 (8.0 - 12.0)

Table 16e
9900 Wilshire Boulevard, Trench Exposure Soil Summary
Soil Profile 5 - Trench 3, station 57 feet

Summary Description on 11/7/13, Detailed Description on 11/15/13

Depth (Ft)	Horizon	Summary Description of T-3	Correlation Unit / Age Estimate (ka)
0 - 0.55	Af	zone of artificial fill	Modern Fill Af / 0
0.55 - 1.6	AB	massive, slight organics, silty, thin	Pleistocene Alluvium
1.6 - 3.35	Bt1	moderate to strong argillic, massive	Qof1 / 15.0 - 30.0
3.35 - 3.95	Bt2	moderate to strong argillic, massive, slightly oxidized	
3.95 - 5.15	Bt3	moderate argillic, massive, slightly well oxidized	
5.15 - 6.15	BC	massive, sandy, moderately well oxidized, scour deposit	
6.15 - 6.35	2Btb1	truncated, weak to moderate argillic, massive, slightly oxidized, silty	
6.35 - 6.55	2BCb1	weak argillic, massive, slightly oxidized	Qot1 / 23.0 - 42.0 (8.0 - 12.0)
6.55 - 6.85	2BCb2	crudely stratified, slightly oxidized, scour deposit	
6.85 - 7.4+	3Btb / 3Bwb	truncated, weak argillic to cambic, massive, slightly oxidized	Qot1a / 27.0 - 50.0 (4.0 - 8.0)

Table 16f
9900 Wilshire Boulevard, Core Sample Soil Summary

Summary Description - Transect A - Boring 1

Summary Description on 10/17/13

Depth (Ft)	Horizon	Summary Description of Boring 1	Correlation Unit / Age Estimate (ka)
0 - 10.0	Af	zone of no recovery over Artificial Fill	Modern Fill Af
10.0 - 14.2	Bt	truncated, moderate to strong argillic, massive, gravel-rich	Pleistocene Alluvium
14.2 - 15.0	BC	coarse-grained, gravel-rich, scour deposit	Qof
15.0 - 16.0	2Btb / 2Bwb	truncated, weak argillic to cambic, coarse-grained, slightly well oxidized	
16.0 - 16.7	2BCb	coarse-grained, gravel-rich thin scour deposit	Qot1
16.7 - 17.9	3Btb / 3Bwb	truncated, weak argillic to cambic, fine-grained, slightly well oxidized	
17.9 - 19.8	3BCb	massive, silty	Qot2
19.8 - 21.7	4BCb lam	truncated and stacked, crudely stratified, thickly laminated, scour deposit	Qot5
21.7 - 23.1	5Btb	truncated, moderate argillic, fine-grained, massive	
23.1 - 34.0	6Btb	stacked and truncated, moderate argillic, well stratified, finely laminated	Lakewood Formation
34.0 - 34.4	6BCb	fine-grained, thin scour deposit, massive	
34.4 - 34.8	7Btb	truncated, weak to moderate argillic, well stratified, finely laminated, moderate to strong redox	Qoa1
34.8 - 35.5	7BCb	sandy, thin, massive, scour deposit, slightly well oxidized	
35.5 - 37.4	8BCb ox	stacked and truncated, silty, massive, strong redox	Qoa2
37.4 - 39.5	9Btb	truncated, weak to moderate argillic, massive	
39.5 - 40.8	9BCb	sandy, thin, massive, scour deposit	
40.8 - 42.0	10ABb	organic-rich, massive, silty	
42.0 - 47.1	10Btb	moderate to strong argillic, massive, moderate redox	Qoa3

Depth (Ft)	Horizon	Summary Description of Boring 1 (Cont.)	Correlation Unit / Age Estimate (ka)
47.1 - 57.5	11Btb	stacked, moderate argillic, massive, moderate redox	
57.5 - 60.0	11BCb	sandy, massive, scour deposit	Qoa4
60.0 - 61.9	12Btb	truncated, weak to moderate argillic, massive	Qoa5
61.9 - 63.4	12BCb	massive, scour deposit	
63.4 - 70.0	13Btb	truncated, moderate to strong argillic, massive, moderate redox	
70.0 - 73.4	13BCb	massive, scour deposit	
73.4 - 75.0+	14BCb lam	stacked and truncated, crudely stratified, thick laminations	Qoa6

Table 16g
9900 Wilshire Boulevard, Core Sample Soil Summary

Summary Description - Transect A - Boring 2

Summary Description on 10/17/13

Depth (Ft)	Horizon	Summary Description of Boring 2	Correlation Unit / Age Estimate (ka)
0 - 6.2	Af	zone of no recovery and artificial fill	Modern Fill Af / 0
6.2 - 11.1	Bt	truncated, moderate to strong argillic, massive, gravel-rich, slightly well oxidized	Pleistocene Alluvium Qof
11.1 - 11.6	2AB	stacked, organic-rich, massive, fine-grained with pores	Qot1
11.6 - 12.5	2Btb / 2Bwb	weak argillic to cambic, coarse-grained	
12.5 - 13.6	2BCox b	coarse-grained, gravel-rich, thin, scour deposit	
13.6 - 15.25	3Btb / 3Bwb	truncated, weak argillic to cambic, fine-grained, slightly well oxidized	Qot2
15.25 - 16.4	3BCb	sandy, massive, scour deposit	
16.4 - 18.4	4Btb	truncated, weak to moderate argillic, massive	Qot4
18.4 - 20.0	4BCb	sandy, massive, scour deposit	Qot5
20.0 - 21.6	5BCb lam	truncated and stacked, crudely stratified, thick laminations, scour deposit	
21.6 - 24.2	6ABb	slight organics, fine-grained, massive	Lakewood Formation
24.2 - 27.5	6Btb	moderate argillic, masive, moderate to strong redox	Qoa1
27.5 - 38.3	7Btb	stacked, moderate argillic, massive, moderate redox	
38.3 - 38.8	7BCb	sandy, thin, massive, scour deposit	
38.8 - 41.4	8ABb	organic-rich, fine-grained, massive	Qoa2
41.4 - 44.8	8Btb1	moderate to strong argillic, slight organics, masive	
44.8 - 55.0	8Btb2	moderate argillic, moderately well oxidized, masive	
55.0 - 56.0	8BCb	thin, massive, scour deposit	

Depth (Ft)	Horizon	Summary Description of Boring 2 (Cont.)	Correlation Unit / Age Estimate (ka)
56.0 - 58.3	9Btb	truncated, weak to moderate argillic, masive	Qoa3
58.3 - 59.4	9BCb	sandy, thin, massive, scour deposit	
59.4 - 60.7	10Btb	truncated, thin, weak to moderate argillic, masive	
60.7 - 62.9	10BCb	coarase-grained, massive, scour deposit	
62.9 - 75.0+	11Btb	truncated, moderate to strong argillic, well stratified, finely laminated, moderate redox	Qoa4

Table 16h
9900 Wilshire Boulevard, Core Sample Soil Summary
Soil Profile 6 - Transect A - Boring 3

Summary Description on 10/17/13 and Detailed Description on 11/12/13

Depth (Ft)	Horizon	Summary Description of Boring 3	Correlation Unit / Age Estimate (ka)
0 - 5.8	Af	zone of no recovery and artificial Fill	Modern Fill Af / 0
5.8 - 10.5	Bt	truncated, moderate to strong gravel-rich argillic, 7.5YR hues	Pleistocene Alluvium Qof / 15.0 - 30.0
10.5 - 11.1	2ABb	truncated and stacked, organic-rich, massive, silty	Qot1 / 23.0 - 48.0 (8.0 - 12.0)
11.1 - 12.75	2Btb / 2Bwb	weak argillic to cambic, massive	
12.75 - 13.7	2BCb	crudely stratified, gravel-rich, slightly well oxidized, scour deposit	
13.7 - 15.4	3Btb / 3Bwb	truncated, weak argillic to cambic, mazssive, slightly well oxidized	Qot2 / 27.0 - 50.0 (4.0 - 8.0)
15.4 - 16.0	3BCb	crudely stratified, gravel-rich, scour deposit	
16.0 - 17.8	4Btb / 4Bwb	truncated, weak argillic to cambic, massive	Qot4 / 31.0 - 58.0 (4.0 - 8.0)
17.8 - 18.5	4BCb	sandy, massive, light deposit	
18.5 - 23.4	5BCb lam	well stratified, crude and thick laminations, basal scour deposit	Qot5 / 32.0 - 64.0 (1.0 - 4.0)
23.4 - 27.5	6Btb	truncated, weak to moderate argillic, masive, moderate redox	Lakewood Formation (?)
27.5 - 35.0	7Btb	stacked and truncated, moderate argillic, crudely stratified, moderate redox	Qoa1 / 55.0 - 104.0 (23.0- 42.0)
35.0 - 36.4	7BCb	sandy, massive, slightly oxidized, scour deposit	
36.4 - 47.0	8Btb1	truncated, moderate to strong argillic, masive, strong redox	Qoa2
47.0 - 49.5	9ABb	stacked, organic-rich, massive	Qoa3
49.5 - 57.0	9Btb	moderate argillic, slightly oxidized, masive	
57.0 - 61.1	9BCb	sandy, crudely stratified, scour deposit	
61.1 - 63.6	10Btb	truncated, weak to moderate argillic, masive	Qoa4

Depth (Ft)	Horizon	Summary Description of Boring 3 (Cont.)	Correlation Unit / Age Estimate (ka)
63.6 - 65.0	10BCb	sandy, massive, scour deposit	Qoa4
65.0 - 75.0+	11Btb	truncated, moderate argillic, massive, strong redox	

Table 16i
9900 Wilshire Boulevard, Core Sample Soil Summary

Summary Description - Transect A - Boring 4

Summary Description on 10/17/13

Depth (Ft)	Horizon	Summary Description of Boring 4	Correlation Unit / Age Estimate (ka)
0 - 1.0	Af	zone of no recovery over artificial fill	Modern Fill Af
1.0 - 1.1	BC ox	truncated, coarse-grained, thin, scour deposit	Holocene Alluvium Qyt
1.1 - 1.4	2Btb1	truncated, moderate argillic, massive, fine-grained	Pleistocene Alluvium
1.4 - 8.3	2Btb2	moderate to strong argillic, gravel-rich, massive, slightly well oxidized	Qof
8.3 - 10.0	3Btb	stacked, weak to moderate argillic, massive, fine-grained, slightly well oxidized	
10.0 - 10.3	3BCox b	thin, weak, scour deposit	Qot1a
10.3 - 11.3	4Btb / 4Bwb	truncated, weak argillic to cambic, gravel-rich, moderately well oxidized	
11.3 - 11.8	4BCb	coarse-grained, massive, moderately well oxidized, scour deposit	
11.8 - 13.6	5Btb / 5Bwb	truncated, weak argillic to cambic, fine-grained, massive	
13.6 - 14.1	5BCb	fine-grained, massive, thin, scour deposit	Qot1
14.1 - 15.25	6Btb	truncated, moderate argillic, massive	
15.25 - 16.3	6BCb	sandy, thin, massive, scour deposit	
16.3 - 18.9	7Btb	truncated, weak argillic to cambic, massive	
18.9 - 19.8	7BCb	fine-grained, massive	Qot2
19.8 - 23.8	8BC lam	stacked and truncated, crudely stratified and thickly laminated, scour deposit	Qot5
23.8 - 35.1	9Btb	truncated, moderate argillic, fine-grained, well stratified, fine laminations	Lakewood Formation
35.1 - 37.6	9BCb	gravel-rich, crudely stratified, scour deposit	Qoa1
37.6 - 39.25	10Btb	truncated, weak to moderate argillic, slight organics, massive	

Depth (Ft)	Horizon	Summary Description of Boring 4 (Cont.)	Correlation Unit / Age Estimate (ka)
39.25 - 39.5	10BCb	sandy, thin, massive, scour deposit	
39.5 - 40.0	11Btb	truncated, thin argillic, massive	
40.0 - 40.5	11BCb	sandy, massive, thin, moderately well oxidized, scour deposit	Qoa2
40.5 - 41.6	12Btb	truncated, moderate to strong argillic, massive, moderate redox	
41.6 - 42.0	12BCb	sandy, crudely stratified, scour deposit	
42.0 - 43.0	13Btb	truncated, moderate argillic, slight organics, massive, clayey	
43.0 - 48.0	13BCb lam	sandy, crudely stratified, thickly laminated, moderately well oxidized, scour deposit	Qoa3
48.0 - 56.7	14Btb	truncated, weak to moderate argillic, massive	
56.7 - 66.25	14BCb	massive, scour deposit	
66.25 - 67.5	NR	no recovery	
67.5 - 70.0+	15Btb ox	truncated, moderate argillic, moderately well oxidized, gravel-rich, massive	Qoa4

Table 16j
9900 Wilshire Boulevard, Core Sample Soil Summary

Summary Description - Transect A - Boring 5

Summary Description on 10/17/13

Depth (Ft)	Horizon	Summary Description of Boring 5	Correlation Unit / Age Estimate (ka)
0 - 1.3	NR	zone of no recovery	Modern Fill Af
1.3 - 1.4	BC	truncated, coarse-grained with gravel, thin, scour	Holocene Alluvium Qyt1
1.4 - 2.7	2Btjb / 2Bwb	truncated, weak argillic to cambic, massive, sandy, slightly oxidized	
2.7 - 5.4	2BCox b	coarse-grained with gravel, crudely stratified, scour, 7.5YR hues	Qyt1a
5.4 - 7.1	3Btb1	truncated, moderate argillic, massive, fine-grained	Pleistocene Alluvium
7.1 - 13.1	3Btb2	moderate to strong gravel-rich argillic, 7.5YR hues	Qof
13.1 - 13.9	4Btb	stacked, weak to moderate argillic, massive, fine-grained, 7.5YR hues	
13.9 - 15.4	5Btb / 5Bwb	truncated, weak argillic to cambic, gravel-rich, 7.5YR hues	
15.4 - 15.9	5BCox b	fine-grained, sandy, massive, scour, 7.5YR hues	Qot1
15.9 - 16.3	6Btb / 6Bwb	truncated, weak argillic to cambic, fine-grained, massive	
16.3 - 17.7	6BCox b	fine-grained, silty, massive, thin, 7.5YR hues	Qot2
17.7 - 18.1	7Btb / 7Bwb	truncated and stacked, weak argillic to cambic, fine-grained, massive	
18.1 - 19.5	7BCox b	fine-grained, sandy, massive, scour, 7.5YR hues	Qot4
19.5 - 22.9	8BCb lam	truncated and stacked, sandy, well stratified, thickly laminated, basal scour	Qot5
22.9 - 25.7	9BCb lam	truncated and stacked, fine-grained, well stratified, finely laminated	
25.7 - 40.0	10Btb	truncated and stacked, moderate argillic, fine-grained, massive, moderate redox	Lakewood Formation
40.0 - 42.1	10BCb	gravel-rich, crudely stratified, scour	Qoa1
42.1 - 45.2	11Btb	truncated, moderate argillic, fine-grained, massive, moderate redox	

Depth (Ft)	Horizon	Summary Description of Boring 5 (Cont.)	Correlation Unit / Age Estimate (ka)
45.2 - 46.5	12ABb	stacked, slight organics, silty, massive	Qoa2
46.5 - 51.9	12Btb	moderate argillic, gravel-rich, massive, weak to moderate redox	
51.9 - 52.7	13Btb	truncated, weak to moderate argillic, massive, thin	
52.7 - 53.5	13BCb	gravel-rich, massive, scour	
53.5 - 55.0	14ABb	truncated, slight organics, silty, massive	Qoa3
55.0 - 70.0+	14Btb ox	moderate to strong argillic, moderately well oxidized, crudely stratified, moderate redox	

Table 16k
9900 Wilshire Boulevard, Core Sample Soil Summary
Soil Profile 7 - Transect A - Boring 6
Summary Description on 10/15/13 and Detailed Description on 11/20/13

Depth (Ft)	Horizon	Summary Description of Boring 6	Correlation Unit / Age Estimate (ka)
0 - 3.5	Bt	truncated, weak argillic, massive, fine-grained	Holocene Alluvium Qyt1 / 8.0 - 12.0
3.5 - 8.3	2Btb1	stacked and truncated, moderate to strong argillic, gravel-rich, massive, slightly well oxidized	
8.3 - 10.0	2Btb2	moderate argillic to cambic, massive, thin	Pleistocene Alluvium Qof / 23.0 - 42.0 (15.0 - 30.0)
10.0 - 11.0	2BCb	coarse-grained, gravel-rich thin massive, scour deposit	
11.0 - 14.9	3Btb / 3Bwb	truncated, weak argillic to cambic, slightly oxidized, massive	
14.9 - 15.6	3BCb	massive, thin, scour deposit	Qot1
15.6 - 16.4	4Btb1	truncated, weak to moderate argillic, fine-grained, massive	
16.4 - 17.8	4Btb2	truncated, weak argillic, gravel-rich, massive	Qot2
17.8 - 18.6	4BCb	sandy, massive, thin, scour deposit	
18.6 - 19.4	5Btb / 5Bwb	truncated, weak argillic to cambic, massive	
19.4 - 20.0	NR	zone of no recovery	Qot3
20.0 - 20.4	5BCb	sandy, massive, thin, scour deposit	
20.4 - 21.4	6Btb / 6Bwb	truncated, weak argillic to cambic, massive, thin	
21.4 - 22.0	6BCb	thin, massive, scour deposit	Qot4
22.0 - 25.0	7BCb lam	truncated and stacked, crudely stratified, thickly laminated, scour deposit	Qot5
25.0 - 27.6	8Btb	truncated, moderate argillic, massive, moderate redox	Qot6
27.6 - 29.2	9ABb	stacked, slight organics, massive	Lakewood Formation
29.2 - 37.2	9Btb	moderate to strong argillic, crudely stratified to massive	Qoa1

Depth (Ft)	Horizon	Summary Description of Boring 6 (Cont.)	Correlation Unit / Age Estimate (ka)
37.2 - 40.3	10Btb	stacked, weak to moderate argillic, massive, moderate redox	Qoa2
40.3 - 50.0	10BCb	sandy, moderately well oxidized, scour deposit	
50.0 - 52.6	11ABb	truncated, organic-rich, massive	
52.6 - 58.8	11Btb	truncated, weak to moderate argillic, massive, moderately well oxidized	Qoa3
58.8 - 61.8	11BCb	sandy, massive, scour deposit	
61.8 - 65.0	NR	zone of no recovery	--
65.0 - 66.3	12Btb	truncated, moderate to strong argillic, massive, moderately well oxidized	
66.3 - 70.0+	12BCb lam	crudely stratified, gravel-rich, thickly laminated, scour deposit	Qoa4

Table 16l
9900 Wilshire Boulevard, Core Sample Soil Summary
Soil Profile 8 - Transect A - Boring 7

Summary Description on 10/15/13 and Detailed Description on 11/18/13

Depth (Ft)	Horizon	Summary Description of Boring 7	Correlation Unit / Age Estimate (ka)
0 - 3.2	Bt / Bw	truncated, weak argillic to cambic, massive	Holocene Alluvium Qyt / 8.0 - 12.0
3.2 - 9.0	2Btb1	truncated and stacked, moderate to strong argillic, gravel-rich, slightly well oxidized	Pleistocene Alluvium / Qof
9.0 - 10.0	2Btb2	moderate argillic, massive, thin	23.0 - 42.0 / (15.0 - 30.0)
10.0 - 10.6	2BCb	massive, gravel-rich, scour deposit	
10.6 - 13.8	3Btb / 3Bwb	truncated, weak argillic to cambic, massive, slightly oxidized	
13.8 - 16.0	3BCb	gravel-rich, crudely stratified, scour deposit	Qot1 / (27.0 - 50.0) 4.0 - 8.0
16.0 - 17.2	4Btb	truncated, weak argillic, massive, slightly well oxidized	
17.2 - 18.4	4BCb	gravel-rich, crudely stratified, scour deposit	Qot2 / 35.0 - 62.0 (8.0 - 12.0)
18.4 - 19.4	5Btb / 5Bwb	truncated, thin, weak argillic to cambic, massive	
19.4 - 20.3	5BCb	massive, thin	Qot3 / 39.0 - 70.0 (4.0 - 8.0)
20.3 - 22.0	6Btb	truncated, weak argillic, massive, sandy, slightly well oxidized	
22.0 - 23.5	6BCb	massive, thin, scour deposit	Qot4 / 47.0 - 82.0 (8.0 - 12.0)
23.5 - 25.5	7BCb lam	truncated and stacked, sandy, crudely stratified, thickly laminated	Qot5 / 48.0 - 86.0 (1.0 - 4.0)
25.5 - 26.5	8Btb / Bwb	truncated, weak argillic to cambic, massive	
26.5 - 27.2	8BCb	sandy, crudely stratified, scour deposit	Qot6 / 52.0 - 94.0 (4.0 - 8.0)
27.2 - 29.1	9ABb	truncated, organic-rich, massive	Lakewood Formation
29.1 - 37.5	9Btb	moderate to strong argillic, crudely stratified to massive	Qoa1
37.5 - 43.5	10Btb	truncated and stacked, moderate to strong argillic, massive	

Depth (Ft)	Horizon	Summary Description of Boring 7 (Cont.)	Correlation Unit / Age Estimate (ka)
43.5 - 51.4	10BCb	sandy, massive, scour deposit	Qoa2
51.4 - 53.5	11ABb	truncated, organic-rich, massive	Qoa3
53.5 - 59.3	11Btb	moderate to strong argillic, massive, moderately well oxidized	
59.3 - 62.3	11BCb	massive, gravel-rich, scour deposit	
62.3 - 70.0+	12Btb	truncated, moderate to strong argillic, massive	Qoa4

Table 16m
9900 Wilshire Boulevard, Core Sample Soil Summary
Summary Description - Transect A - Boring 8

Summary Description on 10/15/13

Depth (Ft)	Horizon	Summary Description of Boring 8	Correlation Unit
0 -1.0	NR	zone of no recovery	Modern Fill Af
1.0 - 3.5	Bt / Bw	truncated, weak argillic to cambic, coarse-grained	Holocene Alluvium Qyt
3.5 - 8.9	2Btb1	moderate to strong argillic, massive, gravel-rich, slightly oxidized	Pleistocene Alluvium
8.9 - 10.0	2Btb2	moderate argillic, massive, thin	Qof
10.0 - 10.5	2BCb	massive, thin, scour deposit	
10.5 - 14.6	3Btb / 3Bwb	truncated, weak argillic to cambic, massive, slightly oxidized	
14.6 - 16.0	3BCb	massive to crudely stratified, scour deposit	Qot1
16.0 - 17.3	4Btb	truncated, weak argillic, thin, massive, slightly well oxidized	
17.3 - 18.8	4BCb	crudely stratified, gravel-rich, scour deposit	Qot2
18.8 - 19.7	5Btb / 5Bwb	truncated, weak argillic to cambic, thin, massive	
19.7 - 20.0	5BCb	sandy, massive, thin, scour deposit	Qot3
20.0 - 20.4	NR	zone of no recovery	
20.4 - 22.3	6Btb	truncated, weak argillic, massive	
22.3 - 23.4	6BCb	massive, thin, scour deposit	Qot4
23.4 - 28.0	7BCb lam	truncated and stacked, crudely stratified, thickly laminated	Qot5
28.0 - 30.0	8Btb / Bwb	truncated, weak argillic to cambic, moderate redox, massive	
30.0 - 30.4	8BCb	massive, thin, scour deposit	Qot6
30.4 - 33.2	9ABb	truncated, organic-rich, massive	Lakewood Formation

Depth (Ft)	Horizon	Summary Description of Boring 8 (Cont.)	Correlation Unit / Age Estimate (ka)
33.2 - 40.8	9Btb	moderate to strong argillic, crudely stratified to massive	Qoa1
40.8 - 43.2	10ABb	stacked, organic-rich, massive	
43.2 - 47.3	10Btb	weak to moderate argillic, massive	Qoa2
47.3 - 48.1	10BCb	massive, scour deposit	
48.1 - 50.4	11ABb	truncated, organic-rich, massive	
50.4 - 55.0	11Btb	moderate to strong argillic, massive	
55.0 - 62.0	11BCb	massive to crudely stratified, moderately well oxidized	Qoa3
62.0 - 70.0+	11Cb	crudely stratified, gravel-rich, massive, slightly well oxidized	

Table 16n
9900 Wilshire Boulevard, Core Sample Soil Summary

Summary Description - Transect A - Boring 9

Summary Description on 10/15/13

Depth (Ft)	Horizon	Summary Description of Boring 9	Correlation Unit / Age Estimate (ka)
0 - 2.5	Bt / Bw	truncated, weak argillic to cambic, massive, coarse-grained	Holocene Alluvium Qyt
2.5 - 7.5	2Btb1	moderate to strong argillic, gravel-rich, massive, slightly well oxidized	Pleistocene Alluvium
7.5 - 11.1	2Btb2	moderate argillic, massive, thin	
11.1 - 11.7	2BCb	massive, coarse-grained, thin, scour deposit	Qof
11.7 - 13.0	3Btb / 3Bwb	truncated, weak argillic to cambic, massive, slightly well oxidized	
13.0 - 13.4	3BCb	sandy, thin, massive, scour deposit	Qot1
13.4 - 14.6	4Btb	truncated, weak argillic, massive, slightly oxidized	
14.6 - 16.6	4BCb	massive to crudely stratified, scour deposit	Qot2
16.6 - 18.1	5Btb / 5Bwb	truncated, weak argillic to cambic, massive	
18.1 - 19.3	5BCb	massive, thin, scour deposit	Qot3
19.3 - 25.5	6BCb lam	truncated and stacked, crudely stratified, thickly laminated, scour deposit	Qot5
25.5 - 26.7	7Btb	truncated, weak argillic to cambic, thin, massive	
26.7 - 27.7	7BCb	massive, thin, scour deposit	Qot6
27..7 - 29.4	8ABb	truncated, organic-rich, massive	Lakewood Formation
29.4 - 32.4	8Btb1	moderate argillic, massive	Qoa1
32.4 - 34.0	9ABb	truncated and stacked, organic-rich, massive	
34.0 - 50.0	9Btb1	moderate argillic, slightly oxidized, massive	Qoa2
50.0 - 51.0	9BCb	thin, massive, scour deposit	

Depth (Ft)	Horizon	Summary Description of Boring 9 (Cont.)	Correlation Unit / Age Estimate (ka)
51.0 - 53.2	10ABb	truncated, organic-rich, massive	
53.2 - 61.5	10Btb	moderate to strong argillic, massive, gravel-rich, moderately well oxidized	Qoa3
61.5 - 66.3	10BCb	crudely stratified, gravel-rich, scour deposit	
66.3 - 70+	11Btb	truncated, moderate to strong argillic, massive, moderately well oxidized	Qoa4

Table 16o
9900 Wilshire Boulevard, Core Sample Soil Summary

Summary Description - Transect A - Boring 10

Summary Description on 10/15/13

Depth (Ft)	Horizon	Summary Description of Boring 10	Correlation Unit
0 - 2.2	Bt / Bw	truncated, weak argillic to cambic, coarse-grained, massive	Holocene Alluvium Qyt
2.2 - 9.1	2Btb1	moderate to strong argillic, massive, gravel-rich, slightly well oxidized	Pleistocene Alluvium
9.1 - 10.2	2Btb2	moderate argillic, massive, thin	
10.2 - 11.1	2BCb	massive, thin, scour deposit	Qof
11.1 - 15.0	3Btb / 3Bwb	truncated, weak argillic to cambic, sandy, moderately well oxidized	
15.0 - 16.8	3BCb	massive, gravel-rich, scour deposit	Qot1
16.8 - 19.4	4Btb	truncated, weak argillic, fine-grained, massive, slightly oxidized	
19.4 - 20.0	NR	zone of no recovery	
20.0 - 21.1	4BCb	massive, coarse-grained, scour deposit	Qot2
21.1 - 22.4	5Btb / 5Bwb	truncated, weak argillic to cambic, massive	
22.4 - 23.4	5BCb	sandy, massive, thin, gravel-rich, scour deposit	Qot3
23.4 - 25.2	6BCb lam	truncated and stacked, crudely stratified, thickly laminated, scour deposit	Qot5
25.2 - 26.5	7Btb	truncated, weak argillic, thin, massive	
26.5 - 26.9	7BCb	massive, sandy, thin, scour deposit	Qot6
26.9 - 30.0	8ABb	truncated, organic-rich, massive	Lakewood Formation
30.0 - 32.5	8Btb1	weak to moderate argillic, thin, massive	Qoa1
32.5 - 34.2	9ABb	stacked, slight organics, massive	
34.2 - 51.5	9Btb1	moderate argillic, massive, moderately strong redox	Qoa2

Depth (Ft)	Horizon	Summary Description of Boring 10 (Cont.)	Correlation Unit
51.5 - 52.1	9BCb	thin, massive, scour deposit	
52.1 - 53.5	10ABb	truncated, organic-rich, massive	
53.5 - 55.0	10Btb1	moderate argillic, massive, moderately well oxidized	Qoa3
55.0 - 65.0	10Btb2	moderate argillic, massive to crudely stratified, gravel-rich	
65.0 - 66.0+	10BCb	massive, gravel-rich, scour deposit	

Table 16p
9900 Wilshire Boulevard, Core Sample Soil Summary

Soil Profile 9 - Transect A - Boring 11

Summary Description on 10/15/13 and Detailed Description on 11/12/13

Depth (Ft)	Horizon	Summary Description of Boring 11	Correlation Unit / Age Estimate (ka)
0 - 0.5	NR	zone of no recovery	Modern Fill Af / 0
0.5 - 5.5	Bt / Bw	truncated, weak argillic to cambic, coarse-grained	Holocene Alluvium Qyt / 8.0 - 12.0
5.5 - 10.3	2Btb1	moderate to strong gravel-rich argillic, 7.5YR hues	Pleistocene Alluvium
10.3 - 11.3	2Btb2	moderate argillic, massive, thin, sandy	Qof / 23.0 - 42.0 (15.0 - 30.0)
11.3 - 12.2	2BCb	massive, fine-grained, light scour	
12.2 - 15.0	3Btb / 3Bwb	truncated, weak argillic to cambic, fine-grained, sandy	
15.0 - 17.0	3BCb	medium-grained with gravel, massive, scour	Qot1 / 27.0 - 50.0 (4.0 - 8.0)
17.0 - 19.0	4Btb	truncated, weak to moderate argillic, fine-grained, massive, 7.5YR Hues	
.19.0 - 20.4	4BCb	coarse-grained with gravel, crudely stratified, scour	Qot2 / 35.0 - 62.0 (8.0 - 12.0)
20.4 - 22.2	5Btb / 5Bwb	truncated, weak argillic to cambic, fine-grained, sandy	
22.2 - 26.5	5BCb	medium to coarse-grained, crudely stratified, scour	Qot3 / 39.0 - 70.0 (4.0 - 8.0)
26.5 - 27.5	NR	zone of no recovery	
27.5 - 30.1	6BCb lam	truncated and stacked, sandy, well stratified, thinly laminated	Qot5 / 40.0 - 74.0 (1.0 - 4.0)
30.1 - 32.3	7Btb	truncated, weak argillic to cambic, fine-grained	Qot6 / 44.0 - 82.0 (4.0 - 8.0)
32.3 - 34.5	8ABb	truncated and stacked, organic-rich, silty, massive	Lakewood Formation
34.5 - 53.9	8Btb1	moderate argillic, massive, slight redox	Qoa1 / 59.0 - 112.0 (15.0 - 30.0)
53.9 - 56.8	8BCb	fine-grained, massive, thin, scour	

Depth (Ft)	Horizon	Summary Description of Boring 11 (Cont.)	Correlation Unit / Age Estimate (ka)
56.8 - 59.0	9ABb	truncated, slight organics, silty, massive	Qoa2
59.0 - 70.0	9Btb	moderate argillic, moderate redox, massive	

Table 16q
9900 Wilshire Boulevard, Core Sample Soil Summary

Soil Profile 10 - Transect A - Boring 12

Summary Description on 10/15/13 and Detailed Description on 10/17/13

Depth (Ft)	Horizon	Summary Description of Boring 12	Correlation Unit / Age Estimate (ka)
0 - 1.5	NR	zone of no recovery over artificial fill	Modern Fill Af / 0
1.5 - 2.1	AB	truncated, slight organics, massive	Holocene Alluvium
2.1 - 4.8	Bt / Bw	weak argillic to cambic, massive, fine-grained	Qyt-a / 4.0 - 8.0
4.8 - 10.0	2Btb / 2Bwb	truncated, weak argillic to cambic, massive, slightly oxidized	Qyt / 8.0 - 16.0 (4.0 - 8.0)
10.0 - 14.7	3Btb1	moderate to strong argillic, massive, gravel-rich, slightly well oxidized	Pleistocene Alluvium
14.7 - 15.5	3Btb2	moderate argillic, massive, thin	Qof / 23.0 - 46.0 (15.0 - 30.0)
15.5 - 17.2	3BCb	massive, thin, gravel-rich, scour deposit	
17.2 - 19.6	4Btb / 4Bwb	truncated, weak argillic to cambic, massive	
19.6 - 21.9	4BCb	crudely stratified, coarse-grained, gravel-rich, scour deposit	Qot1
21.9 - 23.5	5Btb	truncated, weak argillic, thin, massive, slightly well oxidized	
23.5 - 26.6	5BCb	coarse-grained, gravel-rich, crudely stratified, scour deposit	Qot2
26.6 - 28.2	6Btb / 6Bwb	truncated, weak argillic to cambic, massive	
28.2 - 29.2	6BCb	coarse-grained, massive, gravel-rich, scour deposit	Qot3
29.2 - 33.5	7BCb lam	truncated and stacked, crudely stratified, thickly laminations	Qot5
33.5 - 36.2	8Btb / 8Bwb	truncated, weak argillic to cambic, massive, moderate redox	Qot6
36.2 - 38.5	9ABb	stacked, organic-rich, massive, moderate redox	Lakewood Formation
38.5 - 54.7	9Btb	moderate to strong argillic, massive, slight redox	Qoa1
54.7 - 56.3	9BCb	massive, scour deposit	

Depth (Ft)	Horizon	Summary Description of Boring 12 (Cont.)	Correlation Unit / Age Estimate (ka)
56.3 - 59.8	10Btb	truncated, moderate argillic, massive	
59.8 - 61.3	10BCb / 10Cb	coarse-grained, massive, gravel-rich, scour deposit	Qoa2
61.3 - 62.0	11ABb	truncated, slight organics, silty, massive, moderate redox	
62.0 - 70+	11Btb	moderate argillic, moderately well oxidized, massive	Qoa3

Table 16r
9900 Wilshire Boulevard, Core Sample Soil Summary
Summary Description - Transect A - Boring 13

Summary Description on 1/30/14

Depth (Ft)	Horizon	Summary Description of Boring 13	Correlation Unit
0 - 1.3	NR	zone of no recovery over artificial fill	Modern Fill Af
1.3 - 3.7	AB	truncated, slight organics, massive, silty	Holocene Alluvium
3.7 - 6.1	Bt / Bw	weak argillic to cambic, massive, silty	Qyt-a
6.1 - 8.1	2ABb1	truncated and stacked, organic-rich, massive, silty	
8.1 - 8.9	2ABb2	slight organics, massive, silty	Qyt
8.9 - 12.7	2Btb / 2Bwb	truncated, weak argillic to cambic, massive, sandy	
12.7 - 15.5	3Btb1	moderate to strong argillic, massive, gravel-rich, slightly well oxidized	Pleistocene Alluvium
15.5 - 17.7	3Btb2	moderate argillic, massive, thin, sandy	
17.7 - 18.7	3BCb1	massive, sandy	Qof
18.7 - 19.4	3BCb2	massive, gravel-rich, scour deposit	
19.4 - 20.0	4Btb / 4Bwb	truncated, weak argillic to cambic, massive	
20.0 - 22.7	4BCb	coarse-grained, sandy, massive, scour	Qot1
22.7 - 23.7	5Btb	truncated, weak argillic, massive, slightly well oxidized	
23.7 - 25.0	5BCb	massive, thin, sandy, scour deposit	Qot2
25.0 - 26.6	6Btb / 6Bwb	truncated, weak argillic to cambic, massive, sandy	
26.6 - 27.3	6BCb	massive to crudely stratified, scour deposit	Qot3
27.3 - 30.6	7BCb lam	truncated and stacked, crudely stratified, thickly laminated	Qot5
30.6 - 32.1	8Btb / 8Bwb	truncated, weak argillic to cambic, massive	Qot6

Depth (Ft)	Horizon	Summary Description of Boring 13 (Cont.)	Correlation Unit / Age Estimate (ka)
32.1 - 36.2	9ABb	truncated, slight organics, massive	Lakewood Formation
36.2 - 45.7	9Btb	moderate to strong argillic, massive, moderately well oxidized	
45.7 - 47.1	9BCb	sandy, massive, scour deposit	
47.1 - 50.3	10Btb	truncated, moderate argillic, massive	Qoa1
50.3 - 53.6	10BCb lam	well stratified, thinly laminated, scour deposit	
53.6 - 58.4	11Btb1	truncated, organic-rich, massive	
58.4 - 60.0	11Btb2	moderate argillic, massive, silty	
60.0 - 61.3	11BCb	coarse-grained, gravel-rich, massive, thin, scour deposit, with MnO	Qoa2
61.3 - 62.5	12BCb	sandy, massive, scour deposit, moderate redox	
62.5 - 65.0	13Btb	truncated, weak to moderate argillic, massive	
65.0 - 65.5	13BCb	sandy, thin, massive, moderately well oxidized, scour deposit	Qoa3
65.5 - 66.3	14Btb	truncated, weak to moderate argillic, massive	
66.3 - 66.6	14BCb	sandy, thin, massive, moderately well oxidized, scour deposit	
66.6 - 70+	15Btb	truncated, moderate to strong argillic, massive	Qoa4

Table 16s
9900 Wilshire Boulevard, Core Sample Soil Summary
Summary Description - Transect B - Boring 1b

Summary Description on 1/23/14

Depth (Ft)	Horizon	Summary Description of Boring 1b	Correlation Unit
0 - 1.8	NR	zone of no recovery	Modern Fill Af
1.8 - 2.5	AB	organic-rich, massive, silty	Holocene Alluvium
2.5 - 3.9	Bt1 / Bw1	weak argillic to cambic, massive, slight organics	
3.9 - 7.5	Bt2 / Bw2	weak argillic to cambic, massive	Qyt
7.5 - 10.9	BC	massive, slightly oxidized, gravel-rich, scour deposit	
10.9 - 15.3	2Btb1	truncated, moderate to strong argillic, massive, gravel-rich, slightly well oxidized	Pleistocene Alluvium
15.3 - 19.1	2Btb2	weak to moderate argillic, massive, slightly oxidized	Qof
19.1 - 20.0	2BCb	coarse-grained, massive, thin scour deposit	
20.0 - 22.5	3Btb / 3Bwb	truncated, weak argillic to cambic, massive, slightly well oxidized	
22.5 - 23.2	3BCb	massive, slightly well oxidized, thin, scour deposit	Qot1
23.2 - 24.1	4Btb / 4Bwb	truncated, weak argillic to cambic, massive, silty, slightly well oxidized	
24.1 - 30.0	4BCb	massive, sandy, scour, moderate redox	Qot2
30.0 - 32.5	5Btb	truncated, weak argillic, massive	
32.5 - 35.7	5BCb1	massive, sandy	
35.7 - 37.1	5BCb2	massive, gravel-rich, scour deposit	
37.1 - 38.1	6Btb / 6Bwb	truncated, weak argillic to cambic, massive, slightly well oxidized	
38.1 - 39.0	6BCb	massive, gravel-rich, thin, scour deposit	Qot3

Depth (Ft)	Horizon	Summary Description of Boring 1b (Cont.)	Correlation Unit
39.0 - 39.5	7Btb / 7Bwb	truncated, weak argillic to cambic, massive, slightly well oxidized	
39.5 - 40.9	7BCb	massive, gravel-rich, thin, scour deposit	Qot4
40.9 - 44.2	8BCb	truncated and stacked, massive to crudely stratified	
44.2 - 51.6	8BCb lam	crudely stratified, sandy, thickly laminated, gravel-rich, scour deposit	Qot5
51.6 - 52.6	9Btb / 9Bwb	truncated, weak argillic to cambic, massive	
52.6 - 53.6	9BCb	massive, thin, scour deposit	Qot6
53.6 - 54.5	10ABb	organic-rich, massive	Lakewood Formation
54.5 - 55.9	10Btb	moderate to strong argillic, massive	Qoa1
55.9 - 57.6	10BCb	massive, moderately well oxidized, scour deposit	
57.6 - 65.9	11Btb1	truncated, moderate to strong argillic, massive, moderately well oxidized	
65.9 - 68.8	11Btb2	weak to moderate argillic, massive, moderately well oxidized	Qoa2
68.8 - 70.0+	11BCb	massive, slightly oxidized	

Table 16t
9900 Wilshire Boulevard, Core Sample Soil Summary

Soil Profile 11 - Transect B - Boring 2b

Summary Description on 1/23/14, Detailed Description on 1/30/14

Depth (Ft)	Horizon	Summary Description of Boring 2b	Correlation Unit / Age Estimate (ka)
0 - 3.3	NR / Af	zone of no recovery and artificial fill	Modern Fill Af / 0
3.3 - 4.8	AB	organic-rich, massive, silty	Holocene Alluvium
4.8 - 7.3	Bt / Bw	weak argillic, massive, slight organics	
7.3 - 9.7	BC	massive, slightly oxidized, sandy	Qyt1 / 8.0 - 12.0
9.7 - 11.6	C	massive, sandy, scour deposit	
11.6 - 15.4	2Btb1	truncated, moderate argillic, massive, gravel-rich, slightly well oxidized	Pleistocene Alluvium
15.4 - 20.1	2Btb2	weak to moderate argillic, massive	Qof / 23.0 - 42.0 (15.0 - 30.0)
20.1 - 23.9	3Btb	stacked, weak argillic, silty	
23.9 - 25.2	3BCb1	massive, sandy	Qot1 / 31.0 - 54.0 (8.0 - 12.0)
25.2 - 29.3	3BCb2	massive, sandy, gleyed	
29.3 - 30.6	4Btb1	truncated, weak argillic, massive	
30.6 - 33.4	4Btb2	weak argillic, massive, moderate redox, with MnO	Qot2 / 39.0 - 66.0 (8.0 - 12.0)
33.4 - 36.1	4BCb	crudely stratified, sandy with gravel, scour	
36.1 - 38.5	5Btb / 5Bwb	truncated, weak argillic to cambic, massive, sandy	
38.5 - 40.9	5BCb	massive, gravel-rich, scour deposit	Qot3 / 43.0 - 74.0 (4.0 - 8.0)
40.9 - 44.5	6BCb	truncated and stacked, massive	
44.5 - 51.4	6BCb lam	crudely stratified, thickly laminated	Qot5 / 44.0 - 78.0 (1.0 - 4.0)

Depth (Ft)	Horizon	Summary Description of Boring 2b (Cont.)	Correlation Unit / Age Estimate (ka)
51.4 - 52.5	7Btb / 7Bwb	truncated, weak argillic to cambic, massive	
52.5 - 53.0	7BCb	massive, thin, scour deposit	Qot6 / 48.0 - 86.0 (4.0 - 8.0)
53.0 - 54.6	8ABb	truncated, organic-rich, massive	Lakewood Formation
54.6 - 56.3	8Btb	weak argillic, massive, slightly well oxidized	Qoa1 / 56.0 - 98.0 (8.0 - 12.0)
56.3 - 57.5	8BCb	sandy, massive, slightly well oxidized, scour deposit	
57.5 - 60.0	9Btb	truncated, moderate argillic, massive, moderately well oxidized	
60.0 - 60.6	9BCb	sandy, massive, scour deposit	Qoa2 64.0 - 110.0 (8.0 - 12.0)
60.6 - 68.0	10Btb	truncated, moderate argillic, massive, gravel-rich	
68.0 - 70.0+	10BCb	sandy, crudely stratified, scour deposit	Qoa3 79.0 - 140.0 (15.0 - 30.0)

Table 16u
9900 Wilshire Boulevard, Core Sample Soil Summary
Summary Description - Transect B - Boring 3b

Summary Description on 1/23/14

Depth (Ft)	Horizon	Summary Description of Boring 3b	Correlation Unit
0 - 2.3	NR / Af	zone of no recovery and artificial fill	Modern Fill Af
2.3 - 3.1	AB	organic-rich, massive, thin	Holocene Alluvium
3.1 - 4.8	Bt1	weak argillic, massive	Qyt
4.8 - 7.0	BC	massive, sandy	
7.0 - 7.9	2ABb	truncated, organic-rich, massive	Pleistocene Alluvium
7.9 - 9.1	2Btb	moderate to strong argillic, gravel-rich, slightly well oxidized	
9.1 - 13.5	2BCb1	massive, slightly oxidized	Qof
13.5 - 15.8	2BCb2	crudely stratified, gravel-rich, scour deposit	
15.8 - 20.0	3Btb	truncated, weak to moderate argillic, massive, slightly well oxidized	
20.0 - 21.7	3BCb	massive, sandy, slightly oxidized	Qot1
21.7 - 24.0	4Btb / 4Bwb	truncated, weak argillic to cambic, massive	
24.0 - 28.7	4BCb	massive, sandy, slightly oxidized, scour deposit	
28.7 - 30.0	5Btb1	truncated, weak argillic, slightly well oxidized, massive	
30.0 - 33.7	5Btb2	weak argillic, massive	Qot2
33.7 - 34.8	5BCb1	massive to crudely stratified, gravel-rich	
34.8 - 35.0	5BCb2	crudely stratified, gravel-rich, scour deposit	
35.0 - 35.7	6Btb / 6Bwb	truncated, weak argillic to cambic, massive	

Depth (Ft)	Horizon	Summary Description of Boring 3b (Cont.)	Correlation Unit
35.7 - 40.0	6BCb	crudely stratified, gravel-rich, scour deposit	Qot3
40.0 - 43.1	7BCb	truncated and stacked, massive, sandy	
43.1 - 51.1	7BCb lam	crudely stratified, thickly laminated, scour deposit	Qot5
51.1 - 52.5	8ABb	organic-rich, massive	Lakewood Formation
52.5 - 55.8	8Btb1	moderate to strong argillic, massive, moderate redox	Qoa1
55.8 - 63.6	8Btb2	moderate argillic, massive, silty, moderate redox	
63.6 - 65.8	8BCb	massive, sandy, moderate redox, scour deposit	
65.8 - 66.9	9Btb	weak to moderate argillic, moderately well oxidized, massive	
66.9 - 68.6	9BCb	massive, gravel-rich, MnO, scour deposit	Qoa2
68.6 - 69.3	10Btb	moderate argillic, slight organics, massive	
69.3 - 70.0+	10BCb	sandy, massive, slightly oxidized, scour deposit	Qoa3

Table 16v
9900 Wilshire Boulevard, Core Sample Soil Summary

Summary Description - Transect B - Boring 4b

Summary Description on 1/28/14

Depth (Ft)	Horizon	Summary Description of Boring 4b	Correlation Unit
0 - 13.9	NR / Af	zone of no recovery and artificial fill	Modern Fill Af
13.9 - 14.5	Bt / Bw	truncated, weak argillic to cambic, massive, slightly oxidized	Holocene Alluvium
14.5 - 15.6	C	massive, thin, scour deposit	Qyt1-a
15.6 - 17.1	2ABb	organic-rich, massive, silty	
17.1 - 18.5	2Btb	weak argillic, massive	
18.5 - 21.0	2BCb1	massive, thick, sandy	Qyt1
21.0 - 21.7	2BCb2	massive, scour deposit, with argillic rip ups	
21.7 - 30.0	3Btb	truncated, moderate to strong argillic, massive, gravel-rich, slightly oxidized	Pleistocene Alluvium
30.0 - 33.7	3Btb	moderate argillic, massive, gleyed	Qof1
33.7 - 35.9	3BCb	massive, gravel-rich, gleyed, scour deposit	
35.9 - 43.8	4Btb	truncated, moderate argillic, moderate redox	Qot1
43.8 - 50.0	4BCb	crudely stratified, gravel-rich, MnO, scour deposit, moderate redox	
50.0 - 55.9	5BCb lam	stacked and truncated, crudely stratified, thickly laminated	
55.9 - 58.7	5BCb	massive, gravel-rich, MnO, scour	Qot5
58.7 - 62.4	6Btb / 6Bwb	truncated, weak argillic, massive	
62.4 - 65.0	6BCb lam	crudely stratified, thickly laminated	Qot6
65.0 - 70.0+	7Btb	truncated, moderate to strong argillic, thick, moderate redox	Lakewood Formation Qoa1

Table 16w
9900 Wilshire Boulevard, Core Sample Soil Summary
Soil Profile 12 - Transect B - Boring 5b

Summary Description on 1/28/14, Detailed Description on 2/3/14

Depth (Ft)	Horizon	Summary Description of Boring 5b	Correlation Unit / Age Estimate (ka)
0 - 2.0	NR	zone of no recovery	Modern Fill Af / 0
2.0 - 5.6	Bt / Bw	truncated, weak argillic to cambic, massive	Holocene Alluvium
5.6 - 7.2	BC	massive, gravel-rich	
7.2 - 11.1	C	massive, gravel-rich, scour deposit	Qyt-a / 4.0 - 8.0
11.1 - 15.4	2Btb / 2Bwb	truncated, weak argillic to cambic, massive	
15.4 - 15.8	2BCb	massive, thin, scour deposit	Qyt / 12 - 20 (8.0 - 12.0)
15.8 - 16.3	3Btb1	truncated, moderate to strong argillic, massive	Pleistocene Alluvium
16.3 - 20.8	3Btb2	moderate argillic, gravel rich, massive	Qof / 27.0 - 50.0 (15.0 - 30.0)
20.8 - 22.0	3BCb	massive, with MnO, scour deposit	
22.0 - 28.5	4Btb1	truncated, moderate argillic, slight organics, massive, moderate redox	Qot1 / 39.0 - 70.0 (8.0 - 12.0) (4.0 - 8.0)
28.5 - 30.0	5ABb	truncated and stacked, organic-rich, massive	
30.0 - 33.7	5BCb	massive, gravel-rich, scour deposit, gleyed	
33.7 - 42.4	6Btb / 6Bwb	truncated, weak argillic to cambic, massive	
42.4 - 43.5	6BCb	massive, gravel-rich, with MnO, scour deposit	Qot2 / 43.0 - 78.0 (4.0 - 8.0)
43.5 - 44.0	7Btb / 7Bwb	truncated, weak argillic to cambic, massive, moderate redox	
44.0 - 47.2	7BCb	massive, gravel-rich, with MnO, scour deposit	Qot3 / 47.0 - 86.0 (4.0 - 8.0)
47.2 - 50.0	8Btb / 8Bwb	truncated, weak argillic to cambic, massive, moderately well oxidized	

Depth (Ft)	Horizon	Summary Description of Boring 5b (Cont.)	Correlation Unit / Age Estimate (ka)
50.0 - 52.3	8BCb	massive, sandy, scour deposit	Qot4 / 51.0 - 91.0 (4.0 - 8.0)
52.3 - 53.6	9Btb / 9Bwb	truncated, weak argillic to cambic, massive, moderately well oxidized	
53.6 - 55.0	NR	zone of no recovery	Qot5 / 55.0 - 99.0 (4.0 - 8.0)
55.0 - 56.2	9Cb	massive, sandy, scour deposit	
56.2 - 60.9	10Btb	truncated, moderate argillic, massive	Lakewood Formation
60.9 - 62.7	10BCb lam	crudely stratified, thickly laminated, scour deposit	Qoa1 / 63.0 - 111.0 (15.0 - 30.0)
62.7 - 70.0+	11Btb	truncated, medium to strong argillic, massive, moderate redox	Qoa2 / 71.0 - 123.0 (8.0 - 12.0)

CONCLUSIONS

The soils observed across the study area are mainly inceptisols and alfisols that have developed in alluvial environments. All twelve of the soil profiles across the three trench exposures and boring Transects A and B consist of a series of stacked, truncated, and buried argillic and cambic diagnostic subsurface soil horizons. The truncated and buried soils are weakly, moderately well, and strongly developed. The buried inceptisol soils typically have 10-7.5YR colors with a low amount of secondary (pedogenic) clay in a series of weak argillic (Bt) to cambic (Bw) diagnostic subsurface horizons. The buried alfisol soils typically have 7.5YR colors with a moderate amount of secondary (pedogenic) clay in a series of argillic (Bt) diagnostic subsurface horizons.

The near surface buried soil profiles across the project site area are laterally continuous, and relatively flat lying. Lateral variability in the soils across the site is due to localized scouring, infilling, and stacking of these materials in an alluvial environment. In this sedimentological environment surfaces that have been stable long enough to form weak and robust soils, can suddenly be buried by a new deposit, or scoured out (truncated) and possibly in-filled with younger material. The amount of erosion that has occurred with each truncated soil under study is unknown. Thus, the relative age estimates given in this study are minimum ages.

These soil relative age determinations are consistent with the general geologic and pedogenic observations of soils in southern California. Strongly developed, well horizonated, thick, and oxidized alfisols can be as much as 130 ka in age. Erosion tends to act as a rejuvenating aspect in soil development, by decreasing the strength of the soil development properties consequent age estimates are younger. In that past magnitudes and rates of erosion is difficult to assess the soil relative age estimates are utilized as minimum ages.

The soils observed across the project site area are Holocene to Pleistocene in age. The buried and stacked soils display soil horizons that have punctuated soil horizon development. Age estimates range from 4 to 16 ka for the young and thin surfical alluvial stream terrace (Qyt). An older and thick alluvial fan deposit that underlies the entire project site area has relative age estimates that range from 15 – 42 ka in age. This is the uppermost Pleistocene aged soil that can be correlated across the entire project site area.

The buried sequence of terrace deposits observed across the project site area are also Pleistocene in age. These buried and stacked soils display soil horizons that also have weak argillic horizon development. Age estimates range from 32 to 94 ka for this thick alluvial section. The oldest alluvial section observed across the project site area is interpreted to be the Lakewood Formation and has relative age estimate that ranges from 71 – 140 ka.

LIMITATIONS

The conclusions and recommendations presented herein are the results of an inherently limited scope. Specifically, the scope of services consisted of an assessment of relative age and did not participate in many mapping or logging activities at the site. Additionally, the scope of services consisted of an assessment of relative age from core samples and did not participate in any drilling activities at the site. The conclusions and

recommendations contained in this report are professional opinions derived in accordance with current standards of professional practice. No warranty is expressed or implied.

This report has been prepared for the exclusive use of GEOCON, Inc. and applies only to the Fault Rupture Hazard Study located at 9900 Wilshire Boulevard. In the event that significant changes in the interpretations of this study to be made, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed by John Helms, CEG, and the conclusions and recommendations of this report are verified in writing.

REFERENCES

Birkland, P.W., 1984, *Soils and geomorphology*. Oxford Univ. Press, New York, p. 348.

Harden, H.W., 1982, A quantitative index of soil development from field descriptions: examples from a chronosequence in central California: *Geoderma*, v. 28, pp. 1-28.

Jenny, H., 1941, *Factors of soil formation*. McGraw-Hill, New York, pp. 187.

McFadden, L.D., 1982, The *impacts of temporal and spatial climatic changes on alluvial soils genesis in southern California:* Ph.D. Dissertation, University of Arizona, p. 430.

Munsell, 1983, Munsell Soil Color Chart, pp26.

Ponti, D. J., 1985, "The Quaternary Alluvial Sequence of the Antelope Valley, California", Geological Society of America Special Paper 203, p. 79-96.

Rockwell, T. K., 1983, "Soil Chronology, Geology, and Neotectonics of the North-Central Ventura Basin, California", unpublished Ph.D. dissertation, University of California, Santa Barbara.

Rockwell, T.K., Johnson, D.L., Keller, E.A., and Dembroff, D.R., 1985. A late Pleistocene-Holocene soil chronosequence in the central Ventura Basin, southern California, U.S.A. In Richards, K., Arnett, R., and Ellis, S, eds. *Geomorphology and soils*. George Allen and Unwin, London, England. pp. 309-327.

Rockwell, T. K., 1988, Neotectonics of the San Cayatano Fault, California", Geological Society of America Bulletin, vol. 100, p. 500-513

Rockwell, T.K., Vaughan, P., Bickner, F., and Hanson, K.L., 1994. Correlation and age estimates of soils developed in marine terraces across the San Simeon fault zone, central California. In Alterman, I.B., McMullen, R.B., Cluss, L.S., and Slemons, D.B., eds. *Seismo tectonics of the central California coast ranges.* GSA special paper no. 292, Boulder, Colorado. pp. 151-166.

Soil Survey Staff, Soil Conservation Service. 1991. *Soil survey manual*, U.S.D.A., Govt. Printing Office, Washington, DC., p. 732.

Soil Survey Staff, Soil Conservation Service. 1999. *Soil survey manual*, U.S.D.A., Govt. Printing Office, Washington, DC., p. 732.

Soil Survey Staff, 1992. *Keys to soil taxonomy.* U.S.D.A., SMSS Technical Monograph No. 19. Pocahontas Press, Inc., Blacksburg, Virginia, pp. 541.

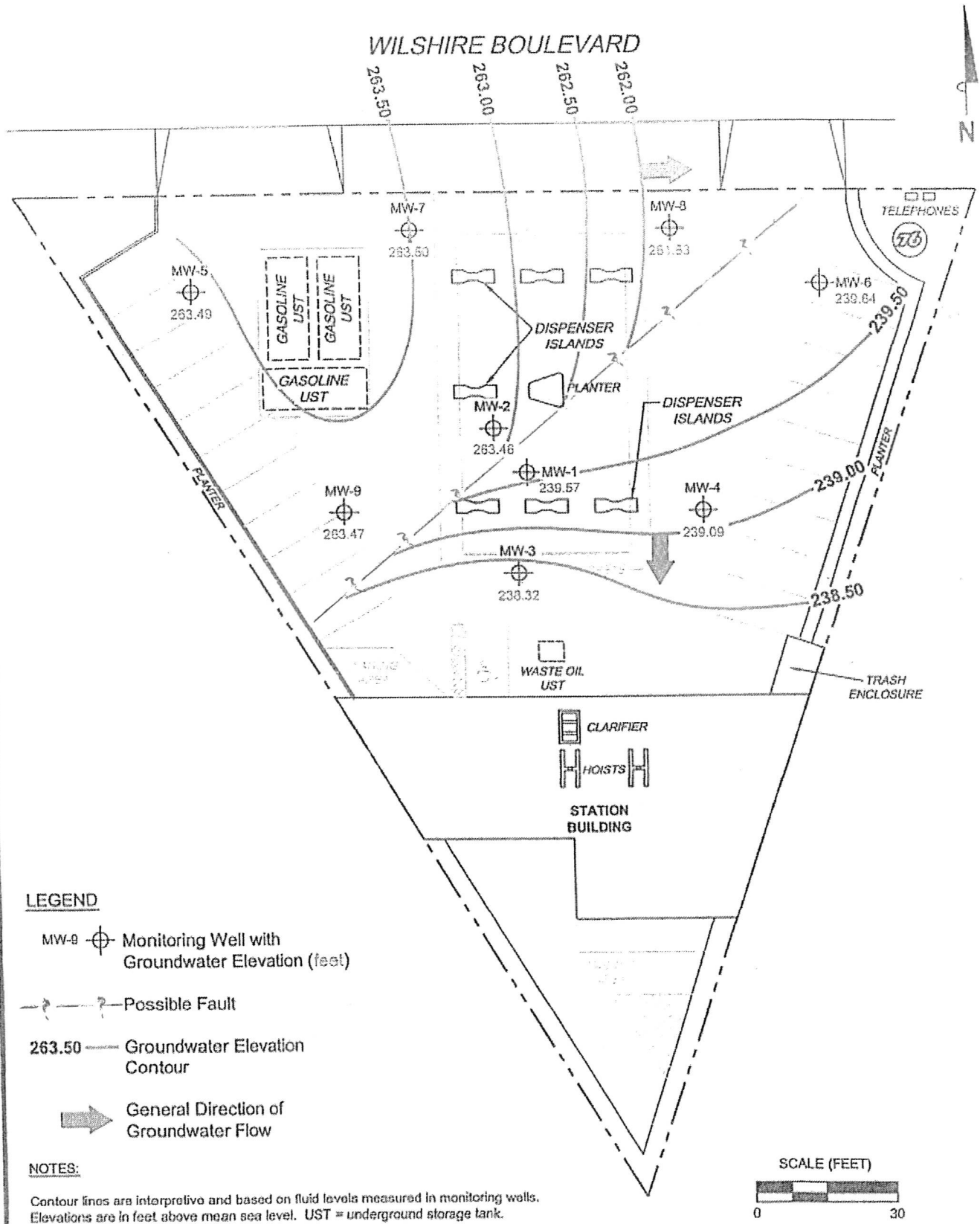
Soil Survey Staff, 1999. *Keys to soil taxonomy.* U.S.D.A., SMSS Technical Monograph No. 19. Pocahontas Press, Inc., Blacksburg, Virginia, p. 541.

William Lettis and Associates, Inc., 1998, "Supplemental Fault Rupture Hazard Investigation, After Sunset Project, SE Corner of Sunset and La Cienega Boulevards, West Hollywood, California", prepared for Griffin Realty II L.L.C., dated March 2, 1998.

APPENDIX F

GROUNDWATER ELEVATION CONTOUR MAP AND BORING LOGS

9988 WILSHIRE BOUEVARD



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells.
Elevations are in feet above mean sea level. UST = underground storage tank.

MS=1:1 0703-003 L:\Graphics\QMS NORTH-SOUTH\x-0000\0703\0703_QMS_(NEW).dwg Jun 19, 2009 - 10:15am bschmidt

TRC

PROJECT: 165520

FACILITY:
76 STATION 0703
9988 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP
June 4, 2009

FIGURE 2

LITHOLOGY
(UNIFIED SOILS CLASSIFICATION SYSTEM)

MAJOR DIVISIONS			TYPICAL NAMES	
COARSE-GRAINED SOILS MORE THAN HALF IS LARGER THAN No. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN No. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN No. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE-GRAINED SOILS MORE THAN HALF IS SMALLER THAN No. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW- TO MEDIUM-PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM- TO HIGH-PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

SYMBOLS AND NOTES

- SAMPLE INTERVAL
- SAMPLE NOT RECOVERED
- CONCRETE
- BENTONITE CHIPS
- COATED BENTONITE PELLETS
- VOLCLAY or BENTONITE GROUT
- FILTER SAND PACK
- WATER LEVEL ENCOUNTERED WHEN DRILLING
- STATIC WATER LEVEL

CLAST SIZE (Field Classification)

Gravel = >0.2 inches
Sand = 0.003 - 0.2 inches
Silt = <0.003 (not plastic)
Clay = <0.003 (plastic)

SANDS

4-10 blows per foot = Loose
10-30 blows per foot = Medium Dense
30-50 blows per foot = Dense
>50 blows per foot = Very Dense

USCS = Unified Soil Classification System
ppm = Parts Per Million (mg/kg)

DESCRIPTORS

Trace = 1% - 5%
Some = 6% - 10%
With = 11% - 25%
-ly = 26% - 40%
And = >40%

SILTS & CLAYS

2-4 blows per foot = Soft
4-8 blows per foot = Medium Stiff
8-15 blows per foot = Stiff
15-30 blows per foot = Very Stiff
>30 blows per foot = Hard

PID = Photoionization Detector
CGI = Combustible Gas Indicator

TRC

KEY TO BORING LOG

L:\LIBRARY\GEOLOGY\Standards_Figures\boring log key.DWG Jul 21, 2005 – 1:55pm rhughes

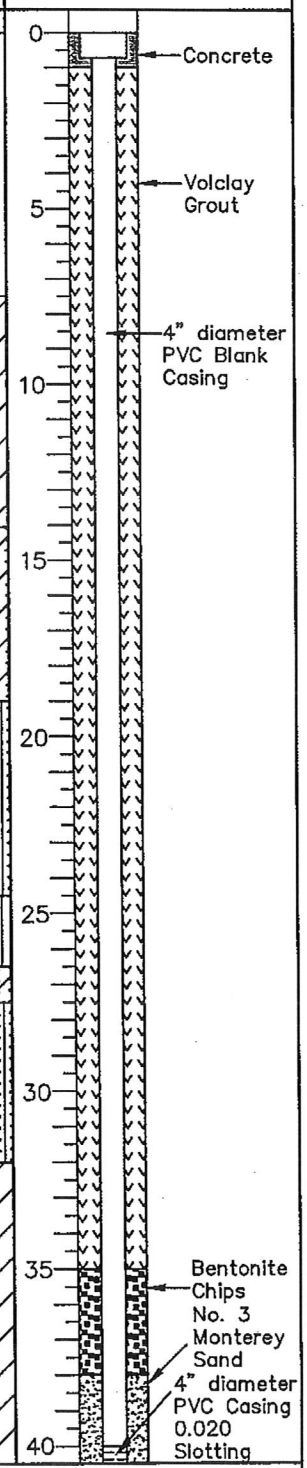
PROJECT NO.: 20-0896	DATE DRILLED: October 4 and 5, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

DRILLING METHOD: 8 and 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 60.5 feet DEPTH TO WATER: 50.0 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air Knifed to 5 feet.	
7/7/8	0.6		5	CLAYEY SILT: very dark gray (10YR 3/1), very stiff, moist, trace fine-grained sand and fine gravel.	ML
8/8/9					
7/11/13				SANDY CLAY: very dark grayish brown (10YR 3/2), very stiff, moist, fine-grained sand, some silt.	CL
8/8/9			10		
10/14/18	1.0			SILTY CLAY: very dark grayish brown (10YR 3/2), very stiff, moist, trace fine-grained sand.	
13/15/18				Trace fine gravel and medium-grained sand.	
13/15/18	0.5		15	CLAYEY SAND: dark grayish brown (10YR 4/2), dense, moist, fine-grained, trace medium-grained sand, trace silt, trace fine gravel.	SC
13/13/13				Very dark grayish brown (10YR 3/2), medium dense, trace silt.	
13/13/15					
10/12/14					
8/9/12	8.1		20	SILTY SAND: very dark gray (5Y 3/1), medium dense, moist, fine-grained, trace medium-grained sand and fine gravel, trace clay.	SM
8/9/10				Cobble @ 22.0 fbg.	
17/23/31				Greenish black (2 for GLEY 10BG) very dense, no clay.	
17/21/22	5.4		25	SANDY SILT: dark greenish gray (2 for GLEY 3/1), hard moist, fine-grained sand, trace fine gravel and clay.	ML
17/18/19				CLAYEY SAND: dark gray (5Y 4/1), dense, moist, fine-grained, some silt, trace medium-grained sand and fine gravel.	SC
50 for 6"				SILTY SAND: dark olive gray (5Y 3/2), very dense, moist, fine-grained, trace clay.	SM
22/50	12.7		30		
8/9/14					
9/11/15				SILTY CLAY: dark greenish gray (1 for GLEY 4/1), very stiff, moist, trace fine-grained sand and fine gravel.	CL
8/9/14	2.3				
10/12/16			35		
19/23/25				Hard.	
21/25/30					
20/24/26			40		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

B-1/MW-1

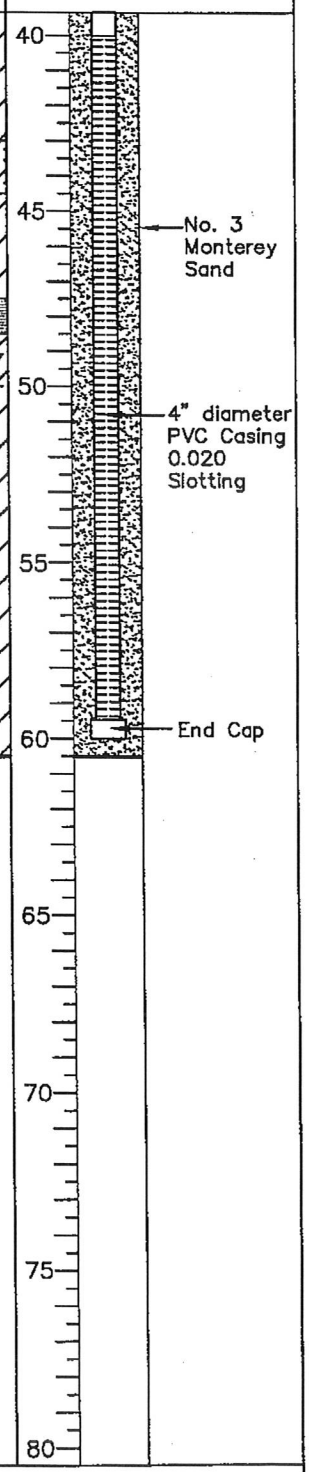
L:\Graphics\ProjectsByNumber\20-xxxx\20-0800_\20-0896_76#0703\Boring Logs\B-1_MW-1.DWG Dec 06, 2005 - 9:26am lwinters

PROJECT NO.: 20-0896	DATE DRILLED: October 4 and 5, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

DRILLING METHOD: 8 and 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 60.5 feet DEPTH TO WATER: 50.0 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
20/24/26	38.9	X	40		CL
22/25/28		X			
22/50		X		CLAYEY SAND: dark greenish gray (1 for GLEY 4/1/10GY), very dense, moist, fine-grained, trace silt.	SC
22/25/28	3.0	X	45	SANDY CLAY: dark greenish gray (1 for GLEY 4/1/10Y), hard, moist, fine-grained sand, trace fine gravel.	CL
42/50					
18/21/24		X		SAND: dark grayish brown (10YR 4/2), dense, moist, fine- to medium-grained, trace fine and coarse gravel ,trace clay.	SP
13/22/29	0.6		50	SANDY CLAY: dark yellowish brown (10YR 4/4), hard, wet, fine-grained sand, trace fine gravel.	CL
22/50					
10/20/20					
42/28/30					
21/24/32	0.3	X	55		
28/32/35		X			
50 for 6"		X		Some fine gravel.	
21/33/36			60		
			65		
			70		
			75		
			80		

GRAPHIC LOG



TRC

LOG OF EXPLORATORY BORING

B-1/MW-1

L:\Graphics\ProjectsByNumber\20-xxxx\20-0800_\20-0896_76#0703\Boring Logs\B-1_MW-1.DWG Nov 08, 2005 - 11:05am lwinters

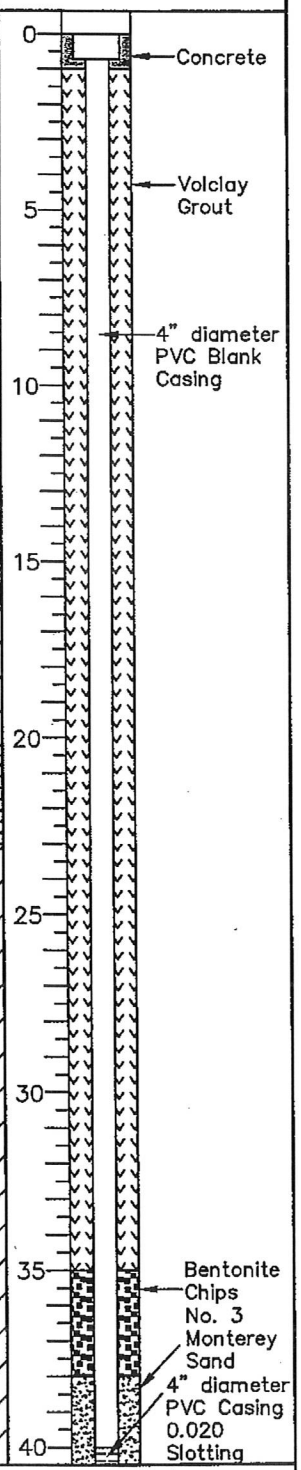
PROJECT NO.: 20–0896	DATE DRILLED: October 5, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

DRILLING METHOD: 10–inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 61.5 feet DEPTH TO WATER: 50.0 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air Knifed to 5 feet.	
10/10/10	0.6	X	5	CLAYEY SILT: very dark grayish brown (10YR 3/2), very stiff, moist, trace fine- and medium-grained sand, trace coarse-grained sand and fine gravel.	ML
12/14/16	0.0	X	10	SILTY CLAY: dark brown (10YR 3/3), hard, moist, trace fine- and medium-grained sand, trace fine gravel.	CL
15/16/20	0.0	X	15	SANDY CLAY: dark grayish brown (10YR 4/2), hard, moist, fine-grained sand, trace medium- and coarse-grained sand, trace fine gravel.	
13/17/20	3.4	X	20	SILTY SAND: dark olive gray (5Y 3/2), dense, moist, fine-grained, trace fine gravel and clay.	SM
12/14/16	198.4		25	SANDY CLAY: dark olive gray (5Y 3/2), dense, moist, fine-grained sand, some silt, trace medium-grained sand and fine gravel.	CL
17/18/20	1,347		30	Dark greenish gray (1 for GLEY 4/1/10Y), hard, trace silt.	
22/25/30	94.2		35	Dark greenish gray (1 for GLEY 3/1/5GY), trace silt and coarse gravel.	
			40		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

B-3/MW-2

L:\Graphics\ProjectsByNumber\20–xxxx\20–0800_\20–0896_76#0703\Boring Logs\B–3_MW–2.DWG Dec 06, 2005 – 9:30am lwinters

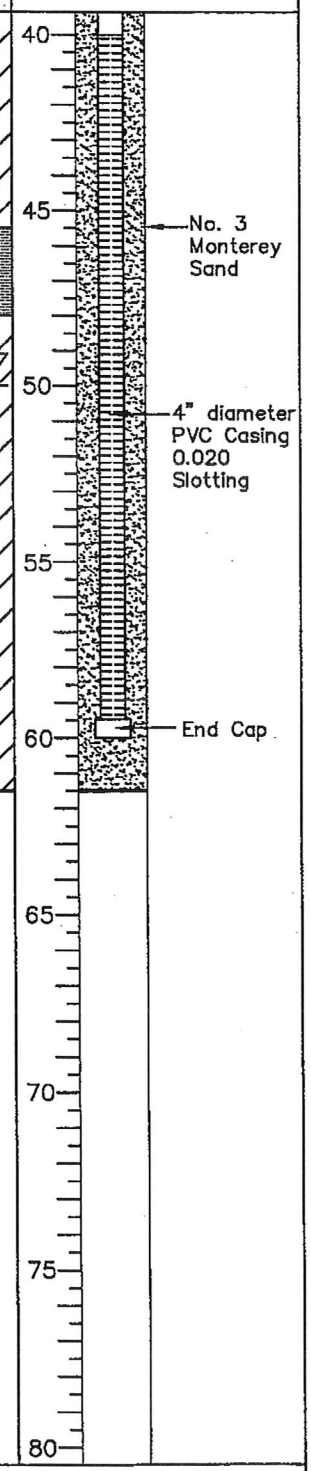
PROJECT NO.: 20-0896	DATE DRILLED: October 5, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 61.5 feet DEPTH TO WATER: 50.0 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
12/16/26	2,701	X	40	SANDY CLAY: dark greenish gray (1 for GLEY 4/1/5GY), hard, moist, fine-grained sand, trace silt and fine gravel, cobble @ 41.0 fbg.	CL
13/25/28	1.2	X	45	SAND: dark grayish brown (10YR 4/2), very dense, moist, fine- to medium-grained, trace coarse-grained sand, some fine gravel, trace coarse gravel.	SP
22/50	0.4	X	50	SANDY CLAY WITH GRAVEL: olive gray (5Y 4/2), hard, wet, fine-grained sand, fine gravel, trace silt and coarse gravel.	CL
50 for 6"	7.0	X	55		
10/12/16	3.2	X	60	Dark olive gray (5Y 3/2).	
			65		
			70		
			75		
			80		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

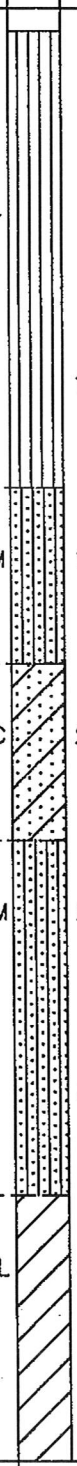
B-3/MW-2

PROJECT NO.: 20–0896	DATE DRILLED: October 6, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

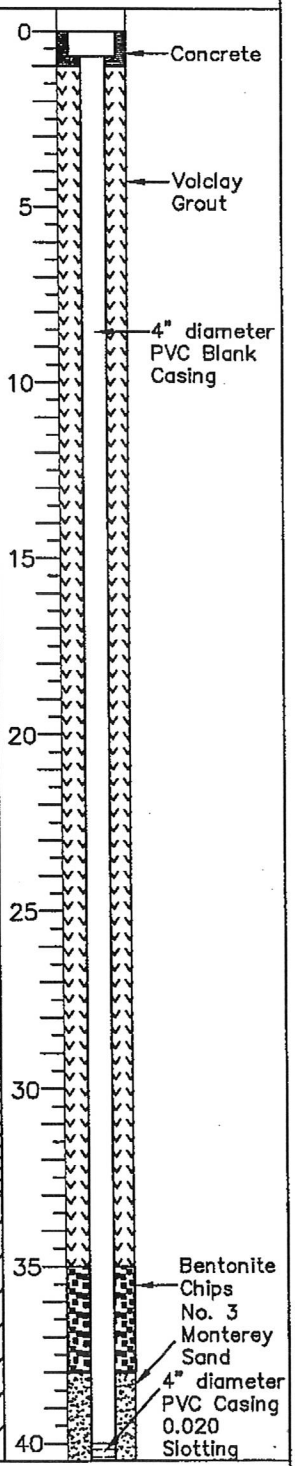
DRILLING METHOD: 10–inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 61.5 feet DEPTH TO WATER: 50.5 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air Knifed to 5 feet.	
50 for 6"	0.3	X	5	SANDY SILT: very dark grayish brown (10YR 3/2), hard, moist, fine-grained sand, trace medium-grained sand and fine gravel.	ML
50 for 6"	0.2	X	10	CLAYEY SILT: dark yellowish brown (10YR 4/4), hard, moist, trace fine- and medium-grained sand, trace fine gravel.	
50 for 6"	0.0	X	15	SILTY SAND: very dark grayish brown (10YR 3/2), very dense, moist, fine-grained, trace medium-grained sand and fine gravel, trace clay.	SM
42/50	2.2	X	20	CLAYEY SAND: dark olive gray (5Y 3/2), very dense, moist, fine-grained, trace medium-grained sand and fine gravel, trace silt.	SC
32/50	8.6	X	25	SILTY SAND: very dark gray (5Y 3/1), very dense, moist, fine-grained, trace medium-grained sand and clay.	SM
50 for 6"	2.7	X	30	Trace coarse-grained sand, trace fine and coarse gravel.	
18/25/30	3.1		35	SILTY CLAY: very dark gray (5Y 3/1), hard, moist, trace fine-grained sand and fine gravel.	CL
			40		

GRAPHIC LOG



WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

B-5/MW-3

L:\Graphics\ProjectsByNumber\20–xxxx\20–0800_\20–0896_76#0703\Boring Logs\B–5_MW–3.DWG Nov 08, 2005 – 11:06am lwinters

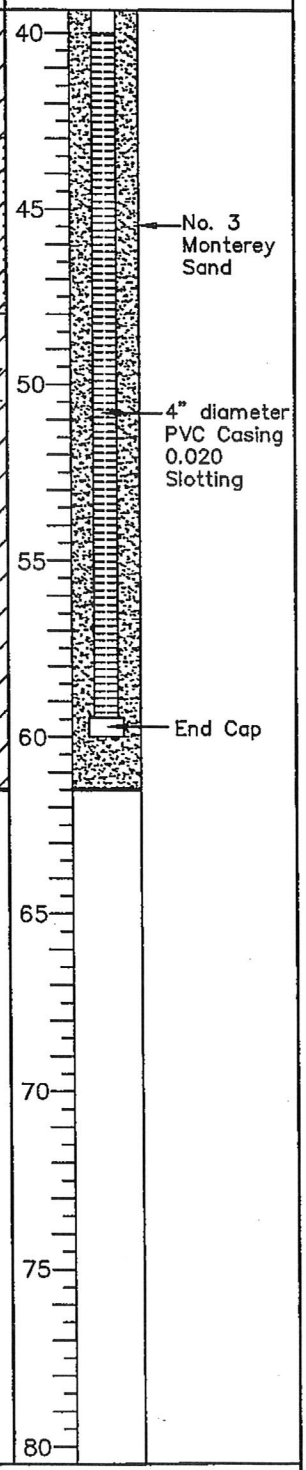
PROJECT NO.: 20–0896	DATE DRILLED: October 6, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

DRILLING METHOD: 10–inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 61.5 feet DEPTH TO WATER: 50.5 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
20/27/32	13.3		40	SANDY CLAY: very dark gray (5Y 3/1), hard, moist, fine-grained sand, some silt, trace fine gravel.	CL
17/23/29	7.2		45	CLAYEY SAND: dark olive gray (5Y 3/2), very dense, moist, fine-grained, some silt, trace fine gravel.	SC
28/32/50	33.8		50	SANDY CLAY: olive gray (5Y 4/2), hard, wet, fine-grained sand, trace silt and fine gravel.	CL
28/50	11.2		55		
36/50	0.5		60		
			65		
			70		
			75		
			80		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

B-5/MW-3

L:\Graphics\ProjectsByNumber\20-xxxx\20-0800_\20-0896_76#0703\Boring Logs\B-5_MW-3.DWG Dec 06, 2005 – 9:40am lwinters

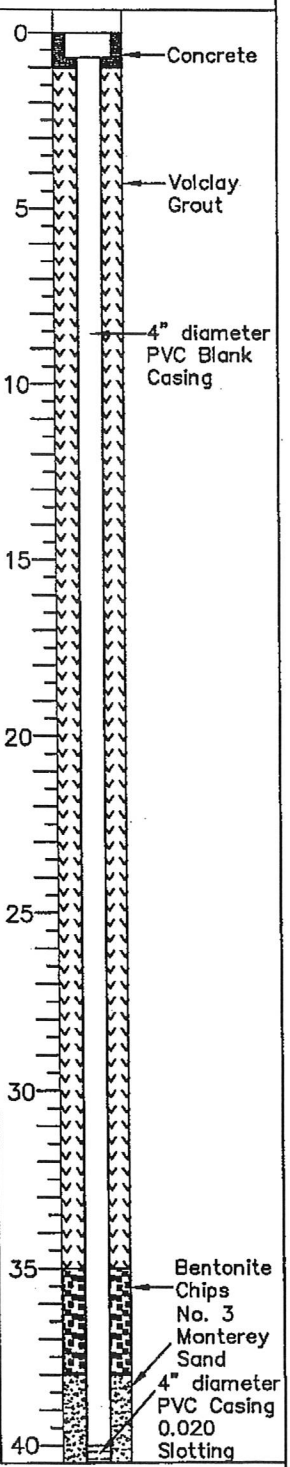
PROJECT NO.: 20-0896	DATE DRILLED: October 6, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 61.5 feet DEPTH TO WATER: 50.0 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air Knifed to 5 feet.	
7/7/8	1.6		5	CLAYEY SILT: very dark gray (10YR 3/1), stiff, moist, trace fine- and medium-grained sand, trace fine and coarse gravel.	ML
11/17/23	1.1		10	SANDY SILT: very dark grayish brown (10YR 3/2), hard, moist, fine-grained sand, trace medium-grained sand and fine gravel.	
15/20/21	5.6		15	SILTY SAND: dark olive gray (5Y 3/2), dense, moist, fine-grained, some clay, trace medium-grained sand, trace fine and coarse gravel.	SM
21/22/25	7.6		20	SAND: dark greenish gray (1 for GLEY 3/1/5GY), dense, moist, fine- to medium-grained, some silt, trace fine and coarse gravel, trace clay.	SP
15/20/23	50.3		25	SILTY SAND: dark greenish gray (1 for GLEY 4/1/5G), dense, moist, fine-grained, trace clay.	SM
14/17/22	51.8		30	Dark greenish gray (1 for GLEY 3/1/10Y), fine- to medium-grained, some fine-gravel, trace coarse-grained sand and coarse gravel.	
42/50	>1,999		35	SAND: dark greenish gray (1 for GLEY 4/1/10Y), very dense, moist, fine- to medium-grained, some fine gravel, trace coarse gravel and silt.	SP
			40		CL

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

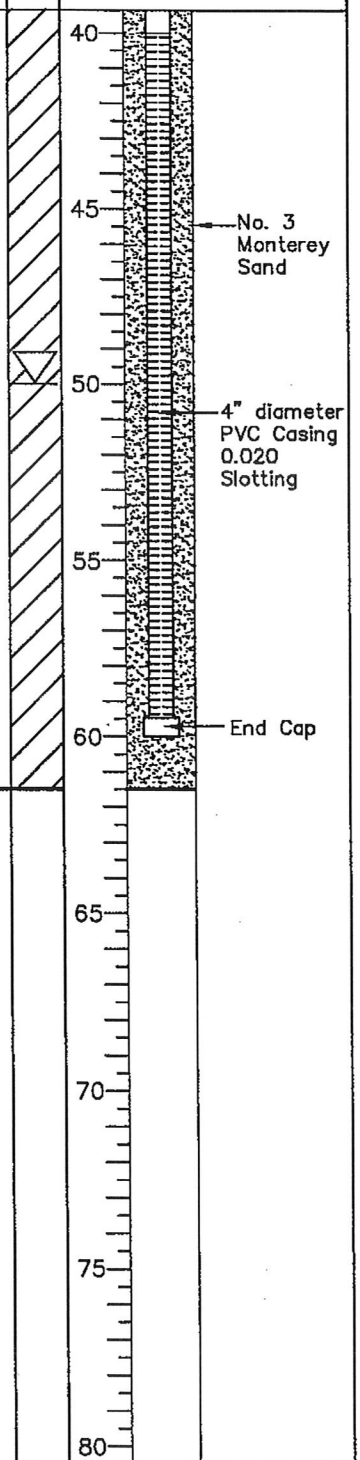
B-6/MW-4

PROJECT NO.: 20-0896	DATE DRILLED: October 6, 2005
LOCATION: 76 Station 0703	LOGGED BY: R. Ponce
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, RG
Beverly Hills, California	DRILLING CO./RIG: Cascade/LAR

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: California Modified Split Spoon
TOTAL DEPTH: 61.5 feet DEPTH TO WATER: 50.0 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
22/25/30	196.2		40	SILTY CLAY: very dark gray (5Y 3/1), hard, moist, trace fine-grained sand and fine gravel, trace coarse-grained sand.	CL
25/27/39	42.5		45	SANDY CLAY: dark olive gray (5Y, 3/2), hard, very moist, fine-grained sand, some silt, trace fine gravel.	
42/50	6.2		50	Wet.	
33/38/39	0.0		55	SANDY CLAY WITH GRAVEL: olive gray (5Y 4/2), hard, wet, fine- to medium-grained sand, fine gravel, some coarse grained sand, trace coarse gravel.	
24/50	0.0		60		
			65		
			70		
			75		
			80		

GRAPHIC LOG



TRC

LOG OF EXPLORATORY BORING

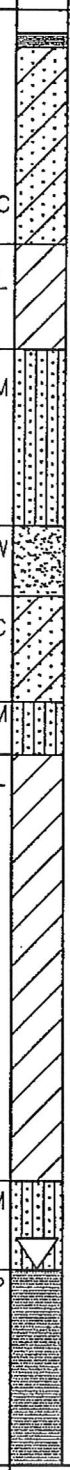
B-6/MW-4

PROJECT NO.: 20–0896	DATE DRILLED: February 27, 2007
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME–85

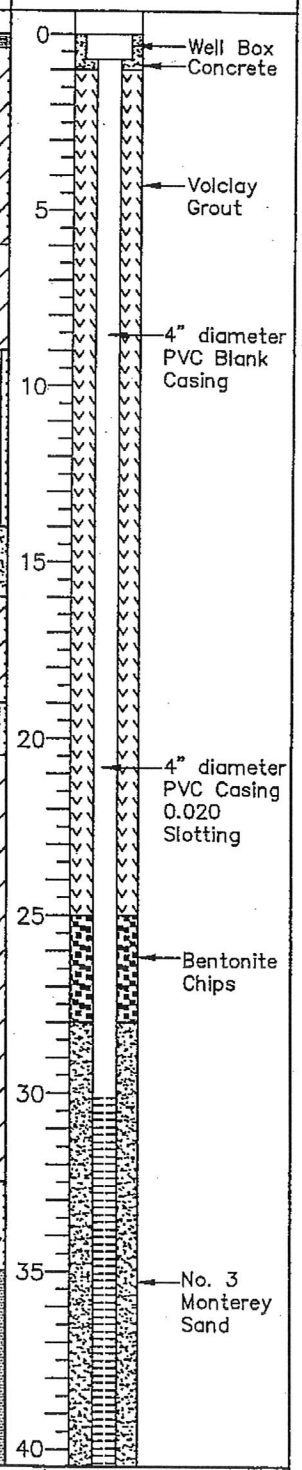
DRILLING METHOD: 10–inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5–foot Core Barrel
TOTAL DEPTH: 45 feet DEPTH TO WATER: 35 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air-Knifed to 5 feet. 5" of Asphalt.	
			5	CLAYEY SAND: brown (10YR 4/3), medium dense, dry, fine-grained, some medium-grained sand, trace fine gravel.	SC
	0.4			SANDY CLAY: dark yellowish brown (10YR 4/4), stiff, dry, fine-grained sand, trace fine gravel.	CL
			10	SILTY SAND: dark yellowish brown (10YR 4/4), medium dense, slightly moist, fine-grained, trace clay.	SM
	0.8				
			15	GRAVELLY SAND: dark yellowish brown (10YR 4/5), medium dense, slightly moist, fine- to medium-grained, some coarse-grained sand, some fine gravel.	SW
	1.6			CLAYEY SAND: yellowish brown (10YR 5/4), medium dense, slightly moist, fine-grained, trace silt at 17.5', possible shear.	SC
			20	SILTY SAND w/ GRAVEL: brown (10YR 4/3), medium dense, moist, fine-grained, some medium- to coarse-grained sand, fine gravel.	SM
	61			SANDY CLAY: light olive brown (2.5Y 5/3), medium stiff, moist, fine- to coarse-grained sand, some fine gravel.	CL
			25	With gray mottling.	
	111				
			30	SILTY CLAY: olive gray (5Y 4/2), with gray mottling, medium stiff, very moist, some fine-grained sand, trace fine gravel.	
	3.1				
				SILTY SAND: dark olive gray (5Y 3/2), very moist, loose, medium-grained, some coarse-grained sand, trace fine gravel.	SM
			35	SAND: very dark olive gray (5Y 3/2), wet, loose, medium-grained, some coarse-grained sand, some fine gravel.	SP
	0				
			40		

GRAPHIC LOG



WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-5

L:\Graphics\ProjectsByNumber\20-xxxx\20-0800_20-0899\20-0896_76#0703\Boring Logs\MW-5.dwg Mar 19, 2007 – 12:26pm aakers

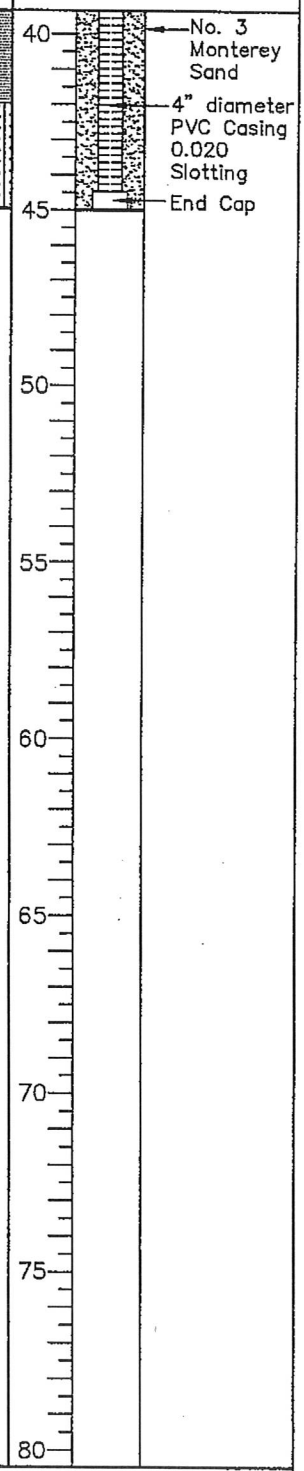
PROJECT NO.: 20–0896	DATE DRILLED: February 27, 2007
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME–85

DRILLING METHOD: 10–inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5–foot Core Barrel
TOTAL DEPTH: 45 feet DEPTH TO WATER: 35 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
	3.0		40	GRAVELLY SAND: dark olive gray, (5Y 3/2), loose, wet, medium- to coarse-grained, fine and coarse gravel, trace silt and clay.	SP
			45	SILTY SAND: very dark grayish brown (2.5Y 3/2), loose, wet, medium- to coarse-grained, some silt and fine gravel.	SM
			50		
			55		
			60		
			65		
			70		
			75		
			80		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-5

L:\Graphics\ProjectsByNumber\20-xxxx\20-0800_20-0899\20-0896_76#0703\Boring Logs\MW-5.dwg Mar 07, 2007 – 3:09pm aakers

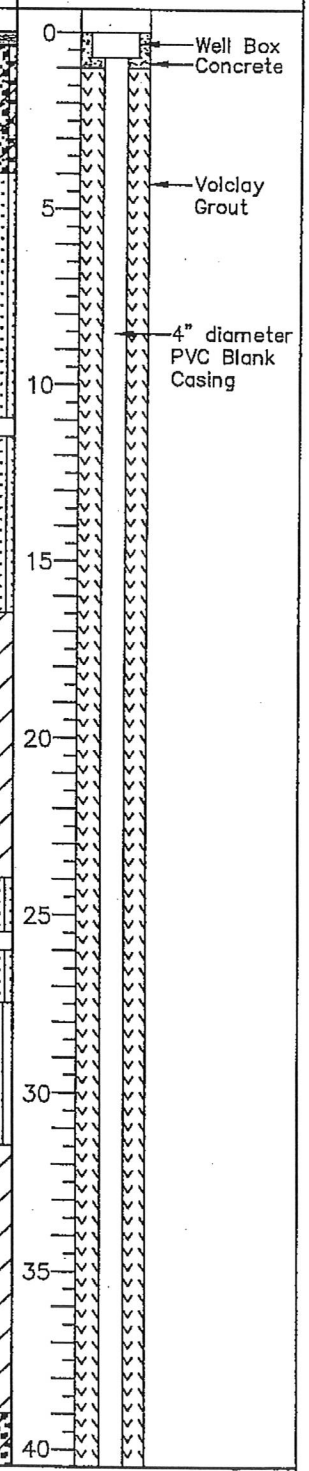
PROJECT NO.: 20-0896	DATE DRILLED: February 28, 2007
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME-85

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5-foot Core Barrel
TOTAL DEPTH: 60 feet DEPTH TO WATER: 53 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air-Knifed to 5 feet. 5" of Asphalt.	
	0		5	SILTY SAND: brown (10YR 4/3), loose, dry, fine- to coarse-grained, trace fine gravel and clay.	SM
	0		10	Cobble at 10.5'.	
				CLAY: dark brown (10YR 3/3), slightly moist, stiff, some fine-grained sand, trace fine gravel.	CL
				SILTY SAND: brown (10YR 4/3), medium dense, moist, fine- to medium-grained, some coarse-grained sand, trace fine gravel.	SM
	0		15	SILTY CLAY: dark yellowish brown (10YR 4/4), stiff, slightly moist, some fine-grained sand, trace fine gravel.	CL
	4.4		20	Dark yellowish brown (10YR 3/4), moist, no fine-grained sand or fine gravel.	
			25	SILTY SAND: dark grayish brown (10YR 4/2), medium dense, moist, fine-grained, some coarse-grained sand.	SM
	16.1			SILTY CLAY: dark grayish brown (2.5Y 4/2), medium stiff, moist.	CL
				SILTY SAND: very dark gray (5Y 3/1), medium dense, moist, fine-grained, some coarse-grained sand and fine gravel, 3-inch clay lens @27.0'.	SM
				SANDY SILT: dark olive gray (5Y 3/2), soft, moist, fine-grained sand.	ML
	0		30	CLAYEY SILT: olive gray (5Y 4/2), medium stiff, moist, some medium-grained sand, trace fine gravel.	
				CLAY: very dark grayish brown (2.5Y 3/2), very stiff, moist, trace coarse-grained sand and fine gravel.	CL
			35	SANDY CLAY: olive brown (2.5Y 4/3), medium stiff, moist, some fine-grained sand, trace fine gravel.	
	7.2			CLAY: olive brown (2.5Y 4/3), stiff, moist, trace fine and coarse gravel.	
			40		GC

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-6

L:\Graphics\ProjectsByNumber\20-xxxx\20-0800_20-0899\20-0896_76\0703\Boring Logs\MW-6.dwg May 15, 2007 - 10:53am aakers

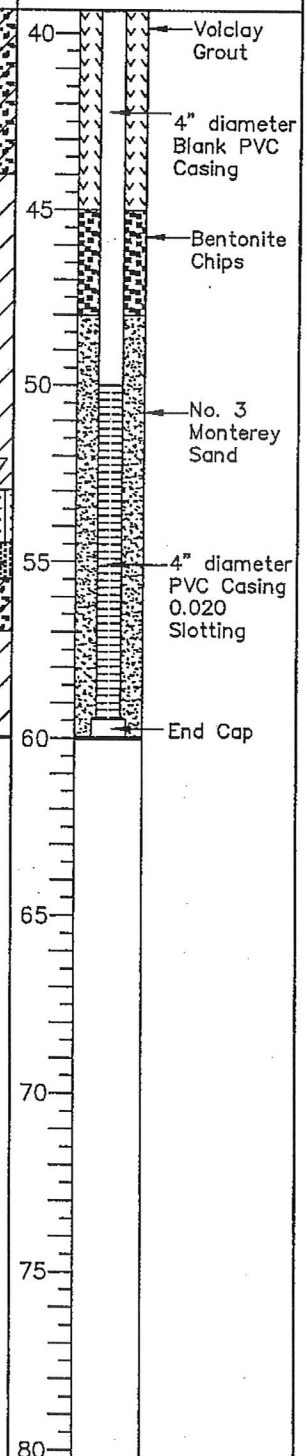
PROJECT NO.: 20–0896	DATE DRILLED: February 28, 2007
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME–85

DRILLING METHOD: 10–inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5–foot Core Barrel
TOTAL DEPTH: 60 feet DEPTH TO WATER: 53 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
	3.3		40	GRAVELLY CLAY/CLAYEY GRAVEL: dark gray (5Y 4/1), dense, moist, some silt, fine gravel, trace fine- to medium-grained sand.	GC
	5.5		45	SILTY CLAY: brown (10YR 4/3), medium stiff, very moist, some fine-grained sand.	CL
				CLAY: dark yellowish brown (10YR 4/4), stiff, moist, some silt.	
	3.3		50	SILTY CLAY: dark yellowish brown (10YR 4/4), medium stiff, moist, some fine-grained sand, trace fine gravel.	
				SILTY SAND: dark olive gray (5Y 3/2), dense, wet, fine- to coarse-grained sand, some fine and coarse gravel.	SM
			55	GRAVEL: very dark gray (5Y 3/1), dense, wet, fine and coarse gravel, trace coarse-grained sand.	GP
	45.3			CLAYEY GRAVEL: verk dark gray (5Y 3/1), dense, wet, fine and coarse gravel, some cobbles, some medium- to coarse-grained sand, trace fine-grained sand.	GC
				SANDY CLAY: olive brown (2.5Y 4/3), stiff, wet, fine-grained sand, trace coarse-grained sand.	CL
			60		
			65		
			70		
			75		
			80		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-6

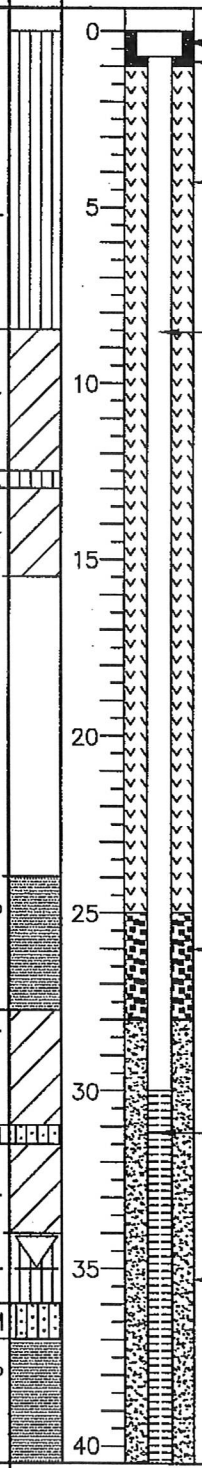
L:\Graphics\ProjectsByNumber\20-xxxx\20-0800_20-0899\20-0896_76#0703\Boring Logs\MW-6.dwg Mar 13, 2007 – 1:08pm aakers

PROJECT NO.: 157903	DATE DRILLED: March 19, 2008
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME-75

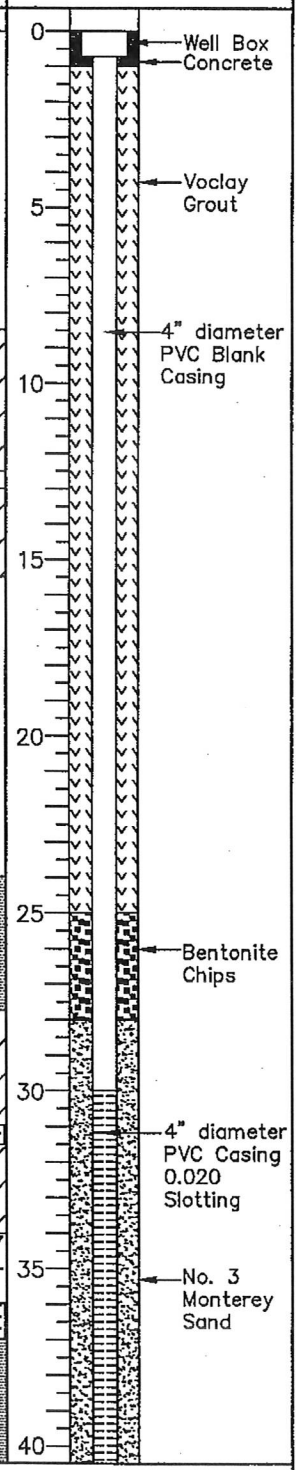
DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5-foot Core Barrel
TOTAL DEPTH: 48 feet DEPTH TO WATER: 35 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air Excavated to 5 feet.	
	0		5	SANDY SILT: brown (10YR 5/3), stiff, moist, some coarse- to fine-grained sand, fine and coarse gravel.	ML
	0		10	CLAY: dark yellowish brown (10YR 4/4), stiff, moist, some fine-grained sand, trace silt.	CL
				SANDY SILT: dark olive gray (5Y 3/2), soft, moist, some fine-grained sand.	ML
	15.2		15	SILTY CLAY: dark olive gray (5Y 3/2), medium stiff, very moist, trace fine-grained sand.	CL
	–		20	No recovery - cobbles.	
	–		25	SAND: very dark gray (5Y 3/1), medium dense, very moist, fine- to medium-grained, some coarse-grained sand, trace fine gravel, trace silt.	SP
	16		30	SILTY CLAY: brown (10YR 5/3), medium stiff, moist, trace fine-grained sand.	CL
				SILTY SAND: dark olive gray (5Y 3/2), medium dense, very moist to wet, fine-grained, trace fine gravel.	SM
	0			SILTY CLAY: light olive brown (2.5Y 5/3), moist, stiff, trace fine-grained sand.	CL
			35	CLAYEY SILT: light olive brown (2.5Y 5/3), wet, medium stiff, some fine-grained sand.	ML
				SILTY SAND: light olive brown (2.5Y 5/4), medium dense, wet, fine-grained, trace fine gravel.	SM
	0			GRAVELLY SAND: dark olive gray (5Y 3/2), dense, wet, fine- to coarse-grained, fine to coarse gravel, little silt, trace clay.	SP
			40		

GRAPHIC LOG



WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-7

L:□Graphics□ProjectsByNumber□20-xxxx□20-0800_20-0899□20-0896_76#0703□Boring Logs□MW-7.dwg Apr 03, 2008 - 3:33pm Rcollins

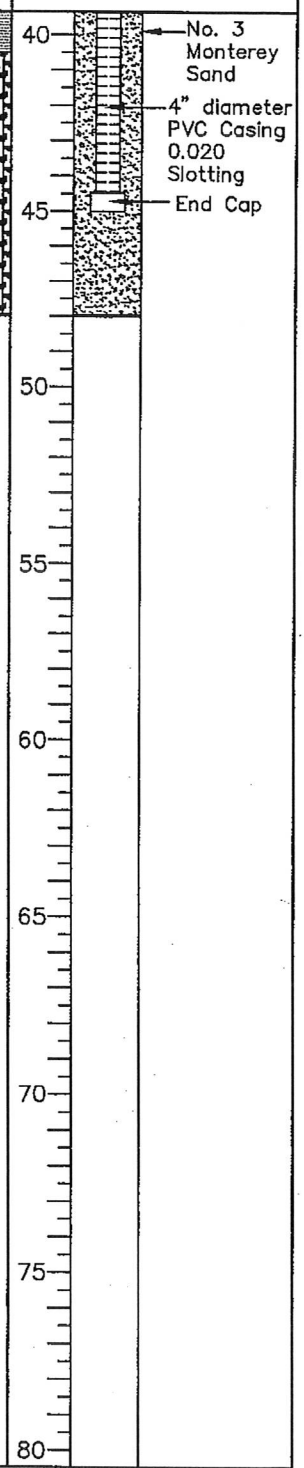
PROJECT NO.: 157903	DATE DRILLED: March 19, 2008
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME-75

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5-foot Core Barrel
TOTAL DEPTH: 48 feet DEPTH TO WATER: 35 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			40		SP
	0		45	SILTY GRAVEL: dark olive gray (5Y 3/2), very stiff, moist, some fine-grained sand, little coarse-grained sand, fine and coarse gravel, trace clay and medium-grained sand.	GM
			50		
			55		
			60		
			65		
			70		
			75		
			80		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-7

L:□Graphics□ProjectsByNumber□20-xxxx□20-0800_20-0899□20-0896_76□0703□Boring Logs□MW-7.dwg Mar 28, 2008 - 8:11am aakers

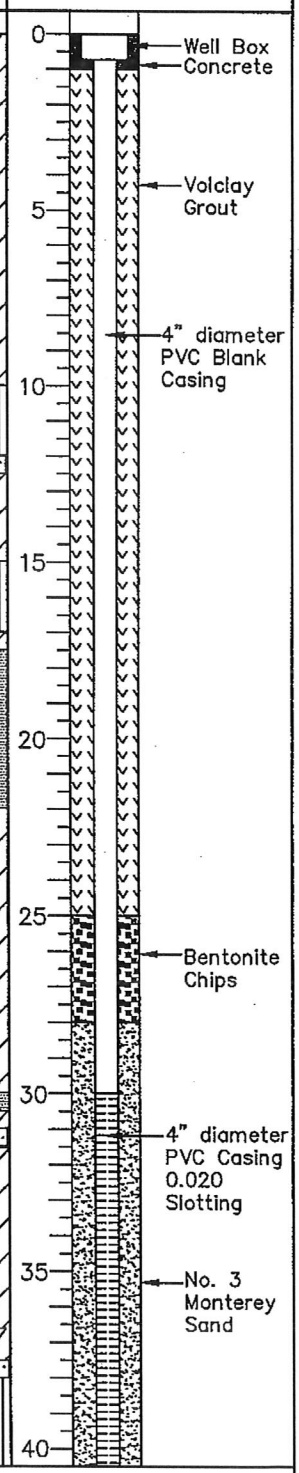
PROJECT NO.: 157903	DATE DRILLED: March 21, 2008
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME-85

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5-foot Core Barrel
TOTAL DEPTH: 47 feet DEPTH TO WATER: 37.5 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air Excavated to 5 feet.	
			5	CLAY: very dark grayish brown (10YR 3/2), very stiff, moist, some fine-grained sand and silt.	CL
				Increased sand content.	
	0		10	SILT: olive gray (5Y 4/2), soft, moist, some fine-grained sand.	ML
				SILTY SAND: olive gray (5Y 4/2), medium dense, moist, medium-grained, trace clay.	SM
	0			SILTY CLAY: olive gray (5Y 4/2), medium stiff, moist, some fine-grained sand.	CL
			15	SANDY SILT: dark gray (5Y 4/1), soft, moist, fine-grained sand, trace clay.	ML
				3-inch thick sand lense.	
				SILTY CLAY: very dark gray (5Y 3/1), medium stiff, moist, some fine-grained sand.	CL
	0			SAND: very dark gray (5Y 3/1), medium dense, moist, medium-grained, some fine-grained sand, trace coarse-grained sand and fine gravel.	SP
			20		
	0			SILTY CLAY: dark gray (5Y 4/1), stiff, moist, some fine-grained sand and fine gravel.	CL
			25		
				CLAY: dark grayish brown (10YR 4/1), very stiff, slightly moist, some coarse-grained sand.	
	0		30	SAND: dark gray (5Y 4/1), very moist to wet, medium dense, medium-grained, trace coarse-grained sand.	SP
				SILTY CLAY: light yellowish brown (10YR 6/3), medium stiff, slightly moist, fine-grained sand.	CL SM
	0			SILTY SAND: dark gray (5Y 4/1), very moist to wet, medium dense, medium-grained, trace coarse-grained sand and clay.	
				SILTY CLAY: dark gray (5Y 4/1), very moist, stiff, trave fine-grained sand.	CL
			35		
				SILTY SAND: olive (5Y 4/3), medium dense, wet, fine-grained sand, some clay.	SM
	0			CLAYEY SILT: yellowish brown (10YR 5/4), stiff, moist, some fine-grained sand.	ML
			40	Wet.	

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-8

L:□Graphics□ProjectsByNumber□20-xxxx□20-0800_20-0899□20-0896_76#0703□Boring Logs□MW-8.dwg Apr 03, 2008 - 3:35pm Rcollins

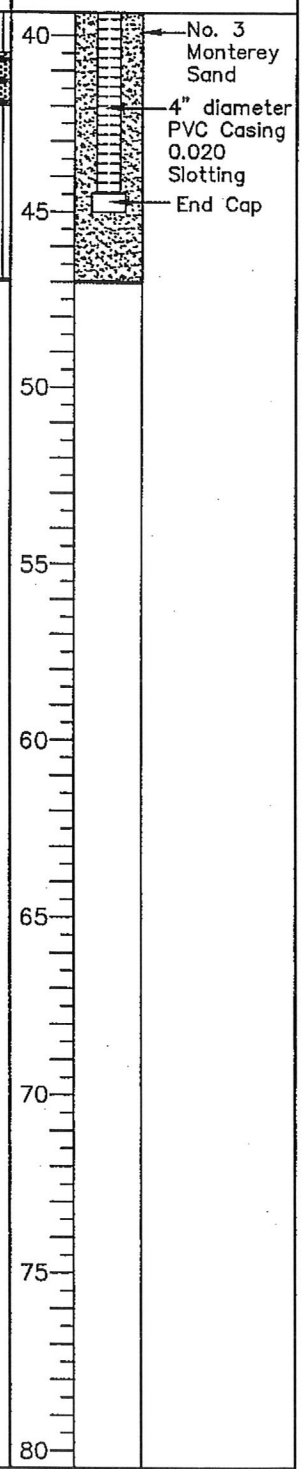
PROJECT NO.: 157903	DATE DRILLED: March 21, 2008
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME-85

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5-foot Core Barrel
TOTAL DEPTH: 47 feet DEPTH TO WATER: 37.5 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			40		ML
				SANDY GRAVEL: very dark gray (5Y 3/1), dense, wet, fine gravel, coarse-grained sand, some medium-grained sand, trace fine-grained sand.	GP
	0			GRAVELLY CLAY: yellowish brown (10YR 5/6), very stiff, very moist, fine gravel, some fine- and coarse-grained sand, some silt.	CL
			45		
			50		
			55		
			60		
			65		
			70		
			75		
			80		

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-8

L:□Graphics□ProjectsByNumber□20-xxxx□20-0800_20-0899□20-0896_76#0703□Boring Logs□MW-8.dwg Mar 28, 2008 - 8:10am oakers

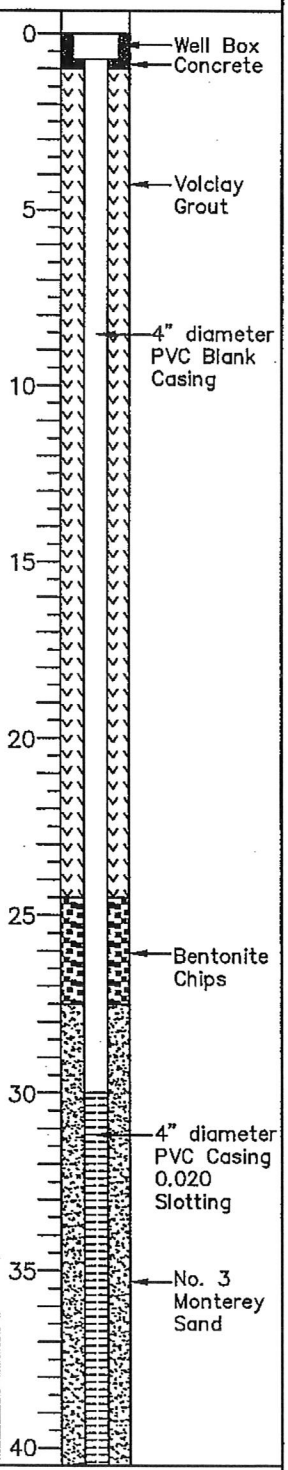
PROJECT NO.: 157903	DATE DRILLED: March 24, 2008
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME-85

DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5-foot Core Barrel
TOTAL DEPTH: 46 feet DEPTH TO WATER: 32 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
			0	Air Excavated to 5 feet.	
			5	SILTY SAND: dark yellowish brown (10YR 4/4), medium dense, dry, fine-grained, some fine and coarse gravel, trace clay.	SM
	0	X		SILTY CLAY: yellowish brown (10YR 5/4), hard, dry, some fine-grained sand.	CL
			10	SAND: dark yellowish brown (10YR 4/4), medium dense, dry, fine- to medium-grained, some coarse-grained sand, some fine to coarse gravel, some silt.	SP
	0	X	15	Fine- to coarse-grained sand.	
	0	X	20	CLAYEY SILT: olive (5Y 4/3), medium stiff, slightly moist, some fine-grained sand.	ML
	0		25	CLAY: dark yellowish brown (10YR 4/4), hard, slightly moist, trace silt and fine-grained sand.	CL
				SILTY CLAY: olive gray (5Y 4/2), medium stiff, moist, some fine-grained sand.	
	0		30	CLAY: olive gray (5Y 4/2), stiff, moist, some coarse-grained sand, and fine gravel.	
				Medium stiff, wet at 32 feet, some fine-grained sand, locally sandy, some silt.	
	0	X		Becomes gravelly clay with fine and coarse gravel (shale).	
			35	CLAYEY GRAVEL: olive gray (5Y 4/2), stiff, wet, fine and coarse gravel, some coarse-grained sand.	GC
	0	X		SILTY CLAY: yellowish brown (10YR 5/4), medium stiff, moist, some fine-grained sand, some fine and coarse gravel.	CL
				SANDY CLAY: yellowish brown (10YR 5/4), medium stiff, wet, medium- to coarse-grained sand, some fine gravel.	
			40		GP

GRAPHIC LOG

WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-9

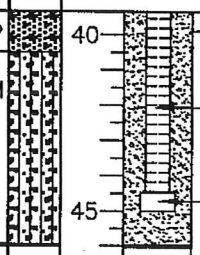
L:□Graphics□ProjectsByNumber□20-xxxx□20-0800_20-0899□20-0896_76#0703□Boring Logs□MW-9.dwg Apr 03, 2008 - 3:37pm Rcollins

PROJECT NO.: 157903	DATE DRILLED: March 24, 2008
LOCATION: 76 Station 0703	LOGGED BY: J. Nordenstam, P.G.
9988 Wilshire Boulevard	APPROVED BY: J. Nordenstam, P.G.
Beverly Hills, California	DRILLING CO./RIG: Cascade/CME-85

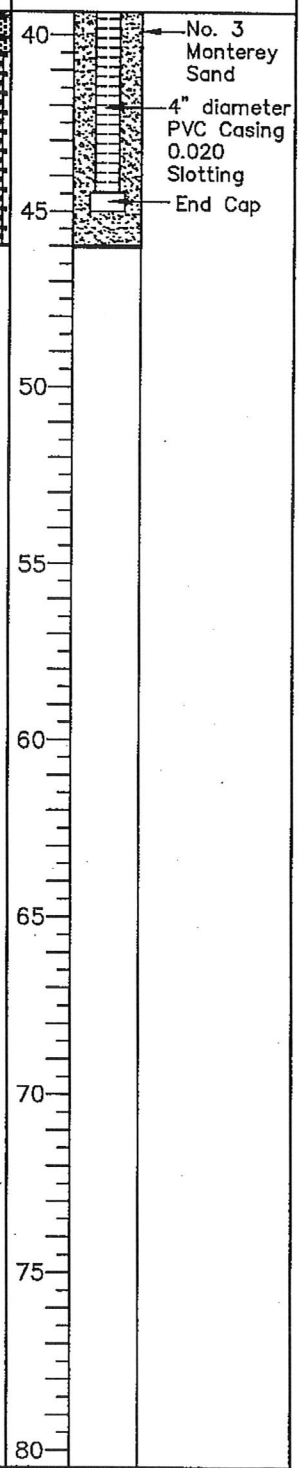
DRILLING METHOD: 10-inch Diameter Hollow Stem Auger
SAMPLER TYPE: 5-foot Core Barrel
TOTAL DEPTH: 46 feet DEPTH TO WATER: 32 feet

BLOWS PER 6 INCHES	PID (ppmv)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
	0	X	40–45	SANDY GRAVEL: very dark gray (5Y 3/1), dense, wet, coarse-grained sand, fine gravel, some medium-grained sand, trace fine-grained sand.	GP
				SILTY GRAVEL/SAND: very dark gray (5Y 3/1), medium dense, wet, medium- to coarse-grained sand, fine and coarse gravel, some clay.	GM

GRAPHIC LOG



WELL CONSTRUCTION DETAIL



TRC

LOG OF EXPLORATORY BORING

MW-9

L:□Graphics□ProjectsByNumber□20-xxxx□20-0800_20-0899□20-0896_76#0703□Boring Logs□MW-9.dwg Apr 03, 2008 - 3:38pm Rcollins

URS

July 25, 2014

Mr. Chaohui Liu
Dalian Wanda Commercial Properties Co., Ltd.
22/F Block B, Wanda Plaza
93 Jianguo Road, Chaoyang District
Beijing, China 100022
Liuzhaohui@wanda.cn

SUBJECT: DUE DILLIGENCE PEER REVIEW OF SURFACE FAULT RUPTURE HAZARD INVESTIGATIONS
9900 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA 90210

Dear Mr. Liu:

URS Corporation (URS) is pleased to present this third party due diligence peer review of Surface Fault Rupture Hazard Investigations for the 9900 Wilshire Boulevard property (Project) in Beverly Hills, California. As part of our services, we reviewed the following reports:

1. 2013, Geocon West, Inc., Fault Rupture Hazard Evaluation, 9900 Wilshire Boulevard, Beverly Hills, California, *prepared for Allen Matkins Leck Gamble Malory & Natsis LLP, Los Angeles, California*, Project No. A9009-06-01, April 22, 2013.
2. 2014, Geocon West, Inc., Phase II Site-Specific Fault Rupture Investigation, 9900 Wilshire Boulevard, Beverly Hills, California, *prepared for Allen Matkins Leck Gamble Malory & Natsis LLP, Los Angeles, California*, Project No. A9009-06-01A, May 6, 2014.

Our scope of services included the review of the above referenced reports for conformance with local and state building codes; and current standards-of-practice for surface fault rupture hazard investigations in southern California.

Background

The Alquist-Priolo Earthquake Fault Zoning Act (AP Act), which was signed into state law in December of 1972, prohibits the location of most structures for human occupancy across the trace of "active faults" (California Division of Mines and Geology, 1997). Consequently, the application for a development permit for any project within a delineated earthquake fault zone must be accompanied by a geologic report, prepared by a geologist registered in the State of California, which is directed to the problem of potential surface fault displacement through the project site. Although the Project site is not located within an earthquake fault zone, recent studies for the Westside Subway Extension has identified subsurface faults which may or may not be active. As defined by the AP Act, an "active fault" is a fault that has had surface

URS Corporation
915 Wilshire Boulevard, Suite 700
Los Angeles, CA 90017-3437
Tel: 213.996.2200
Fax: 213.996.2290
www.urs.com

displacement within Holocene time (about the last 11,000 years). An "active fault" must also be "sufficiently active and well-defined" in order to be within a mapped earthquake fault zone. Faults with displacement that occurred greater than 11,000 years ago are not considered "active" and structures for human occupancy are allowed across them.

Summary of Reviewed Reports

Brief summary of reports:

1. Desktop review (no subsurface exploration) of existing geologic studies performed for adjacent sites and previous geotechnical investigations for the Project site. Geocon West, Inc. (Geocon) re-evaluated some of the existing data and concluded there were no active faults at the Project site.
2. Investigation to collect site-specific subsurface geologic information in order to assess the age and continuity of on-site stratigraphy and to evaluate the location and activity of faults that may impact the Project site. The field investigation included the excavation and logging of 3 exploratory trenches and 18 continuous-core hollow-stem auger borings and the advancement of 9 cone penetration tests along 2 transects (A and B). Transect A was oriented in a northwest direction along the western Project boundary and Transect B was orientated in a general east-west direction within the Wilshire Boulevard right-of-way along the northern Project boundary. Utilities and structures at the Project site greatly limited the placement of explorations.

   Geocon concluded "with a high degree of certainty" that active faults do not impact the Project site; previously inferred faults projected towards or onto the site by others are greater than 27,000 years old and therefore inactive by CGS definition; and, active northwest-trending splays of the Santa Monica Fault Zone are located off-site to the north and west of the Project site. Due to the active fault, Geocon recommended a 50-foot wide, structural setback zone.

Significant Geocon Findings

The 9900 Wilshire Boulevard Project site is located at the intersection of the Santa Monica Fault Zone (SMFZ) and the West Beverly Hills Lineament (WBHL) of the Newport-Inglewood Fault Zone (NIFZ). Portions of both the SMFZ and the NIFZ are either within Earthquake Fault Zones or have studies which have shown fault activity within the Holocene (last 11,000 years). Due to urbanization within the Los Angeles and Beverly Hills area, much of the surface expression of the SMFZ and NIFZ in the area of the Project site has been destroyed, and the presence of existing under- and above-ground structures prevents studies from adequately addressing surface rupture. Given the urbanization and conflicting previous investigations, the intersection of the SMFZ and the WBHL is **complex and poorly understood**.

On the SMFZ, the Dolan et al. (2000) investigation at the Veterans Administration property in West Los Angeles identified five to six ground-rupturing events in the stratigraphic record between approximately 50,000 years and 1,000 to 3,000 years indicating a recurrence interval of about 7,000 to 8,000 years.

Geocon identified 6 faults (Faults A, B, C, D, E and J) in the subsurface of the Project site. Along Transect A, Faults A through E were interpreted to offset Lakewood Formation and the overlying marker laminated sand unit with the oldest unfaulted geologic units over these faults being a minimum age of 27,000 to 40,000 years old. Along Transect B, Fault J was determined to be inactive because it offsets the Lakewood Formation sediments (>55,000 years old) but not the overlying Older Terrace Deposits (11,000 to 55,000 years old).

Geocon identified 4 offsite faults (Faults F, G, H, and I) in Transect B which were interpreted to be active (Faults G, H, and I) with minimum estimated ages of faulted sediments (4,000 to 12,000 years old) or lacked data (Fault F).

Fault trend could not be defined due to exploration limitations. Fault geometry was also not well defined based on the spacing of the explorations and fault dip was estimated to vary from 35 degrees to near vertical. Displacement of Faults A through E was estimated to be strike-slip; however, the data was insufficient to warrant estimates of slip direction, magnitude, or offset per seismic event. Displacement of Faults F through I were interpreted as primarily reverse with the likelihood of strike-slip movement.

Opinions

URS agrees that there are no active faults through the 3 trench locations (Trenches 1, 2 and 3) excavated by Geocon. However, it is our opinion that the spacing of the borings along Transects A and B are not sufficient to preclude the presence of active faulting from Faults A through J. In addition, the 2012 Geovision Line 2 survey identified a 3rd anomaly (in the area of the B5-A boring) that was not discussed in the Geocon report.

Due to the complexity of the faulting (multiple fault trends [northwest, north and northeast], sense of movement [strike-slip and reverse] and orientation) in the area of the Project site, there are several gaps between Transect A and B; and Trenches 1, 2 and 3 which could contain active faults.

Follow-On Recommendations

The most useful and direct method of evaluating fault location and activity is in a trench or road cut exposing the youngest geologic unit faulted and the oldest unit that is not faulted (California Geological Survey, Note 49-Guidelines for Evaluating the Hazard of Surface Fault Rupture). Due to existing structures at the Project site, continuous trenching was not performed across the

entire length of the site. Consideration should be given to extending Trench 1 along the entire western boundary (northwest and southeast) and Trench 3 along the entire southern boundary (northeast and southwest) of the Project site.

Limitations

URS warrants that our services have been performed within the limits prescribed by our clients, with the usual thoroughness and competence of the geotechnical engineering profession in California at this time. No other warranty or representation, either express or implied, is included or intended in this report.

–o0o–

Closing

We appreciate the opportunity to be of assistance on this important project. Please do not hesitate to contact the undersigned at 213-996-2200 should you have any comments or wish to discuss further.

Respectfully Submitted,
URS CORPORATION

Casey Lee Jensen, PG, CEG
Engineering Geologist

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

December 9, 2015

Andre Sahakain, Associate Planner
City of Beverly Hills Community Development Department
455 North Rexford Drive
Beverly Hills, Ca 90210

Notice of Preparation of a CEQA Document for the
9900 Wilshire Boulevard (One Beverly Hills) Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft CEQA document. Please send the SCAQMD a copy of the CEQA document upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the lead agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the lead agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized analysis by either using the LSTs developed by the SCAQMD or

performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD's CEQA web pages at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies.
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at Jwong1@aqmd.gov or call me at (909) 396-3176.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Program Supervisor
Planning, Rule Development & Area Sources

LAC151201-09
Control Number

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

January 4, 2016

Andre Sahakian
City of Beverly Hills
Community Development Department
455 North Rexford Drive
Beverly Hills, CA 90210

RE: 9900 Wilshire Boulevard (One Beverly Hills) Project- City of Beverly Hills-Notice of Preparation- Supplemental Draft Environmental Impact Report

Dear Mr. Sahakian:

Thank you for the opportunity to comment on the Notice of Preparation of the Supplemental Draft Environmental Impact Report for the 9900 Wilshire Boulevard (One Beverly Hills) Project located in the City of Beverly Hills on the south side of the 9900 block of Wilshire Boulevard, north of Santa Monica Boulevard. The proposed One Beverly Hills Project is an alteration to the approved 9900 Wilshire Project. The currently proposed project involves the development of 901,514 sf of floor area. The project would include up to 193 condominiums and up to a 134-room luxury hotel. This letter conveys recommendations from the Los Angeles County Metropolitan Transportation Authority (LACMTA) concerning issues that are germane to our agency's statutory responsibility in relation to our facilities and services that may be affected by the proposed project. In addition, please note that the LACMTA submitted a comment letter (dated September 27, 2007) on the original Draft EIR for the original 9900 Wilshire Project (attached).

Metro bus lines 20 and 720 operate on Wilshire Boulevard; lines 4, 704, and 16/316 operate on Santa Monica Boulevard adjacent to the proposed project. Metro bus stops on the corner of Wilshire/Whittier and Santa Monica/Wilshire are directly adjacent to the proposed project. The following comments relate to bus operations and the bus stop:

1. Although the project is not expected to result in any long-term impacts on transit, the developer should be aware of the bus facilities and services that are present. The existing Metro bus stop must be maintained as part of the final project.

2. During construction, the stop must be maintained or relocated consistent with the needs of Metro Bus Operations. Please contact Metro Bus Operations Control Special Events Coordinator at 213-922-4632 regarding construction activities that may impact Metro bus lines at least 30 days in advance of initiating construction activities. For closures that last more than six months, Metro's Stops and Zones Department will also need to be notified at 213-922-5188, 30 days in advance of initiating construction activities. Other municipal bus may also be impacted and should be included in construction outreach efforts.

3. LACMTA encourages the installation of bus shelters, benches and other amenities that improve the transit rider experience. The City should consider requesting the installation of such amenities as part of the development of the site.

4. Final design of the bus stop and surrounding sidewalk area must be Americans with Disabilities Act (ADA) compliant and allow passengers with disabilities a clear path of travel to the bus stop from the proposed development.

Beyond impacts to Metro facilities and operations, LACMTA must also notify the applicant of state requirements. A Transportation Impact Analysis (TIA), with roadway and transit components, is required under the State of California Congestion Management Program (CMP) statute. The CMP TIA Guidelines are published in the "2010 Congestion Management Program for Los Angeles County", Appendix D (attached). The geographic area examined in the TIA must include the following, at a minimum:

1. All CMP arterial monitoring intersections, including monitored freeway on/off-ramp intersections, where the proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hour (of adjacent street traffic).

2. If CMP arterial segments are being analyzed rather than intersections, the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.

3. Mainline freeway-monitoring locations where the project will add 150 or more trips, in either direction, during either the a.m. or p.m. weekday peak hour.

4. Caltrans must also be consulted through the NOP process to identify other specific locations to be analyzed on the state highway system.

The CMP TIA requirement also contains two separate impact studies covering roadways and transit, as outlined in Sections D.8.1 – D.9.4. If the TIA identifies no facilities for study based on the criteria above, no further traffic analysis is required. However, projects must still consider transit impacts. For all CMP TIA requirements please see the attached guidelines.

If you have any questions regarding this response, please contact Elizabeth Carvajal at 213-922-3084 or by email at DevReview@metro.net. **LACMTA looks forward to reviewing the Supplemental Draft EIR. Please send it to the following address:**

LACMTA Development Review
One Gateway Plaza MS 99-23-4
Los Angeles, CA 90012-2952

Sincerely,

Elizabeth Carvajal
Transportation Planning Manager

Attachment:

- CMP Appendix D: Guidelines for CMP Transportation Impact Analysis
- Noise Easement Deed
- LACMTA 9900 Wilshire Boulevard 2007 DEIR Comment Letter

APPENDIX

D

GUIDELINES FOR CMP TRANSPORTATION IMPACT ANALYSIS

Important Notice to User: This section provides detailed travel statistics for the Los Angeles area which will be updated on an ongoing basis. Updates will be distributed to all local jurisdictions when available. In order to ensure that impact analyses reflect the best available information, lead agencies may also contact MTA at the time of study initiation. Please contact MTA staff to request the most recent release of "Baseline Travel Data for CMP TIAs."

D.1 OBJECTIVE OF GUIDELINES

The following guidelines are intended to assist local agencies in evaluating impacts of land use decisions on the Congestion Management Program (CMP) system, through preparation of a regional transportation impact analysis (TIA). The following are the basic objectives of these guidelines:

- Promote consistency in the studies conducted by different jurisdictions, while maintaining flexibility for the variety of project types which could be affected by these guidelines.
- Establish procedures which can be implemented within existing project review processes and without ongoing review by MTA.
- Provide guidelines which can be implemented immediately, with the full intention of subsequent review and possible revision.

These guidelines are based on specific requirements of the Congestion Management Program, and travel data sources available specifically for Los Angeles County. References are listed in Section D.10 which provide additional information on possible methodologies and available resources for conducting TIAs.

D.2 GENERAL PROVISIONS

Exhibit D-7 provides the model resolution that local jurisdictions adopted containing CMP TIA procedures in 1993. TIA requirements should be fulfilled within the existing environmental review process, extending local traffic impact studies to include impacts to the regional system. In order to monitor activities affected by these requirements, Notices of Preparation (NOPs) must be submitted to MTA as a responsible agency. Formal MTA approval of individual TIAs is not required.

The following sections describe CMP TIA requirements in detail. In general, the competing objectives of consistency & flexibility have been addressed by specifying standard, or minimum, requirements and requiring documentation when a TIA varies from these standards.

D.3 PROJECTS SUBJECT TO ANALYSIS

In general a CMP TIA is required for all projects required to prepare an Environmental Impact Report (EIR) based on local determination. A TIA is not required if the lead agency for the EIR finds that traffic is not a significant issue, and does not require local or regional traffic impact analysis in the EIR. Please refer to Chapter 5 for more detailed information.

CMP TIA guidelines, particularly intersection analyses, are largely geared toward analysis of projects where land use types and design details are known. Where likely land uses are not defined (such as where project descriptions are limited to zoning designation and parcel size with no information on access location), the level of detail in the TIA may be adjusted accordingly. This may apply, for example, to some redevelopment areas and citywide general plans, or community level specific plans. In such cases, where project definition is insufficient for meaningful intersection level of service analysis, CMP arterial segment analysis may substitute for intersection analysis.

D.4 STUDY AREA

The geographic area examined in the TIA must include the following, at a minimum:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic).
- If CMP arterial segments are being analyzed rather than intersections (see Section D.3), the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.
- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.
- Caltrans must also be consulted through the Notice of Preparation (NOP) process to identify other specific locations to be analyzed on the state highway system.

If the TIA identifies no facilities for study based on these criteria, no further traffic analysis is required. However, projects must still consider transit impacts (Section D.8.4).

D.5 BACKGROUND TRAFFIC CONDITIONS

The following sections describe the procedures for documenting and estimating background, or non-project related traffic conditions. Note that for the purpose of a TIA, these background estimates must include traffic from all sources without regard to the exemptions specified in CMP statute (e.g., traffic generated by the provision of low and very low income housing, or trips originating outside Los Angeles County. Refer to Chapter 5, Section 5.2.3 for a complete list of exempted projects).

D.5.1 Existing Traffic Conditions. Existing traffic volumes and levels of service (LOS) on the CMP highway system within the study area must be documented. Traffic counts must

be less than one year old at the time the study is initiated, and collected in accordance with CMP highway monitoring requirements (see Appendix A). Section D.8.1 describes TIA LOS calculation requirements in greater detail. Freeway traffic volume and LOS data provided by Caltrans is also provided in Appendix A.

D.5.2 Selection of Horizon Year and Background Traffic Growth. Horizon year(s) selection is left to the lead agency, based on individual characteristics of the project being analyzed. In general, the horizon year should reflect a realistic estimate of the project completion date. For large developments phased over several years, review of intermediate milestones prior to buildout should also be considered.

At a minimum, horizon year background traffic growth estimates must use the generalized growth factors shown in Exhibit D-1. These growth factors are based on regional modeling efforts, and estimate the general effect of cumulative development and other socioeconomic changes on traffic throughout the region. Beyond this minimum, selection among the various methodologies available to estimate horizon year background traffic in greater detail is left to the lead agency. Suggested approaches include consultation with the jurisdiction in which the intersection under study is located, in order to obtain more detailed traffic estimates based on ongoing development in the vicinity.

D.6 PROPOSED PROJECT TRAFFIC GENERATION

Traffic generation estimates must conform to the procedures of the current edition of Trip Generation, by the Institute of Transportation Engineers (ITE). If an alternative methodology is used, the basis for this methodology must be fully documented.

Increases in site traffic generation may be reduced for existing land uses to be removed, if the existing use was operating during the year the traffic counts were collected. Current traffic generation should be substantiated by actual driveway counts; however, if infeasible, traffic may be estimated based on a methodology consistent with that used for the proposed use.

Regional transportation impact analysis also requires consideration of trip lengths. Total site traffic generation must therefore be divided into work and non-work-related trip purposes in order to reflect observed trip length differences. Exhibit D-2 provides factors which indicate trip purpose breakdowns for various land use types.

For lead agencies who also participate in CMP highway monitoring, it is recommended that any traffic counts on CMP facilities needed to prepare the TIA should be done in the manner outlined in Chapter 2 and Appendix A. If the TIA traffic counts are taken within one year of the deadline for submittal of CMP highway monitoring data, the local jurisdiction would save the cost of having to conduct the traffic counts twice.

D.7 TRIP DISTRIBUTION

For trip distribution by direct/manual assignment, generalized trip distribution factors are provided in Exhibit D-3, based on regional modeling efforts. These factors indicate Regional Statistical Area (RSA)-level tripmaking for work and non-work trip purposes.

(These RSAs are illustrated in Exhibit D-4.) For locations where it is difficult to determine the project site RSA, census tract/RSA correspondence tables are available from MTA.

Exhibit D-5 describes a general approach to applying the preceding factors. Project trip distribution must be consistent with these trip distribution and purpose factors; the basis for variation must be documented.

Local agency travel demand models disaggregated from the SCAG regional model are presumed to conform to this requirement, as long as the trip distribution functions are consistent with the regional distribution patterns. For retail commercial developments, alternative trip distribution factors may be appropriate based on the market area for the specific planned use. Such market area analysis must clearly identify the basis for the trip distribution pattern expected.

D.8 IMPACT ANALYSIS

CMP Transportation Impact Analyses contain two separate impact studies covering roadways and transit. Section Nos. D.8.1-D.8.3 cover required roadway analysis while Section No. D.8.4 covers the required transit impact analysis. Section Nos. D.9.1-D.9.4 define the requirement for discussion and evaluation of alternative mitigation measures.

D.8.1 Intersection Level of Service Analysis. The LA County CMP recognizes that individual jurisdictions have wide ranging experience with LOS analysis, reflecting the variety of community characteristics, traffic controls and street standards throughout the county. As a result, the CMP acknowledges the possibility that no single set of assumptions should be mandated for all TIAs within the county.

However, in order to promote consistency in the TIAs prepared by different jurisdictions, CMP TIAs must conduct intersection LOS calculations using either of the following methods:

- The Intersection Capacity Utilization (ICU) method as specified for CMP highway monitoring (see Appendix A); or
- The Critical Movement Analysis (CMA) / Circular 212 method.

Variation from the standard assumptions under either of these methods for circumstances at particular intersections must be fully documented.

TIAs using the 1985 or 1994 Highway Capacity Manual (HCM) operational analysis must provide converted volume-to-capacity based LOS values, as specified for CMP highway monitoring in Appendix A.

D.8.2 Arterial Segment Analysis. For TIAs involving arterial segment analysis, volume-to-capacity ratios must be calculated for each segment and LOS values assigned using the V/C-LOS equivalency specified for arterial intersections. A capacity of 800 vehicles per hour per through traffic lane must be used, unless localized conditions necessitate alternative values to approximate current intersection congestion levels.

D.8.3 Freeway Segment (Mainline) Analysis. For the purpose of CMP TIAs, a simplified analysis of freeway impacts is required. This analysis consists of a demand-to-capacity calculation for the affected segments, and is indicated in Exhibit D-6.

D.8.4 Transit Impact Review. CMP transit analysis requirements are met by completing and incorporating into an EIR the following transit impact analysis:

- ❑ Evidence that affected transit operators received the Notice of Preparation.
- ❑ A summary of existing transit services in the project area. Include local fixed-route services within a ¼ mile radius of the project; express bus routes within a 2 mile radius of the project, and; rail service within a 2 mile radius of the project.
- ❑ Information on trip generation and mode assignment for both AM and PM peak hour periods as well as for daily periods. Trips assigned to transit will also need to be calculated for the same peak hour and daily periods. Peak hours are defined as 7:30-8:30 AM and 4:30-5:30 PM. Both "peak hour" and "daily" refer to average weekdays, unless special seasonal variations are expected. If expected, seasonal variations should be described.
- ❑ Documentation of the assumption and analyses that were used to determine the number and percent of trips assigned to transit. Trips assigned to transit may be calculated along the following guidelines:
  - ➢ Multiply the total trips generated by 1.4 to convert vehicle trips to person trips;
  - ➢ For each time period, multiply the result by one of the following factors:

    3.5% of Total Person Trips Generated for most cases, except:

    10% primarily Residential within 1/4 mile of a CMP transit center
    15% primarily Commercial within 1/4 mile of a CMP transit center
    7% primarily Residential within 1/4 mile of a CMP multi-modal transportation center
    9% primarily Commercial within 1/4 mile of a CMP multi-modal transportation center
    5% primarily Residential within 1/4 mile of a CMP transit corridor
    7% primarily Commercial within 1/4 mile of a CMP transit corridor
    0% if no fixed route transit services operate within one mile of the project

  To determine whether a project is primarily residential or commercial in nature, please refer to the CMP land use categories listed and defined in Appendix E, *Guidelines for New Development Activity Tracking and Self Certification*. For projects that are only partially within the above one-quarter mile radius, the base rate (3.5% of total trips generated) should be applied to all of the project buildings that touch the radius perimeter.

- ❑ Information on facilities and/or programs that will be incorporated in the development plan that will encourage public transit use. Include not only the jurisdiction's TDM Ordinance measures, but other project specific measures.

- Analysis of expected project impacts on current and future transit services and proposed project mitigation measures, and;
- Selection of final mitigation measures remains at the discretion of the local jurisdiction/lead agency. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

D.9 IDENTIFICATION AND EVALUATION OF MITIGATION

D.9.1 Criteria for Determining a Significant Impact. For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$). The lead agency may apply a more stringent criteria if desired.

D.9.2 Identification of Mitigation. Once the project has been determined to cause a significant impact, the lead agency must investigate measures which will mitigate the impact of the project. Mitigation measures proposed must clearly indicate the following:

- Cost estimates, indicating the fair share costs to mitigate the impact of the proposed project. If the improvement from a proposed mitigation measure will exceed the impact of the project, the TIA must indicate the proportion of total mitigation costs which is attributable to the project. This fulfills the statutory requirement to exclude the costs of mitigating inter-regional trips.
- Implementation responsibilities. Where the agency responsible for implementing mitigation is not the lead agency, the TIA must document consultation with the implementing agency regarding project impacts, mitigation feasibility and responsibility.

Final selection of mitigation measures remains at the discretion of the lead agency. The TIA must, however, provide a summary of impacts and mitigation measures. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the mitigation monitoring requirements contained in CEQA.

D.9.3 Project Contribution to Planned Regional Improvements. If the TIA concludes that project impacts will be mitigated by anticipated regional transportation improvements, such as rail transit or high occupancy vehicle facilities, the TIA must document:

- Any project contribution to the improvement, and
- The means by which trips generated at the site will access the regional facility.

D.9.4 Transportation Demand Management (TDM). If the TIA concludes or assumes that project impacts will be reduced through the implementation of TDM measures, the TIA must document specific actions to be implemented by the project which substantiate these conclusions.

D.10 REFERENCES

1. *Traffic Access and Impact Studies for Site Development: A Recommended Practice*, Institute of Transportation Engineers, 1991.
2. *Trip Generation*, 5th Edition, Institute of Transportation Engineers, 1991.
3. *Travel Forecast Summary: 1987 Base Model - Los Angeles Regional Transportation Study (LARTS)*, California State Department of Transportation (Caltrans), February 1990.
4. *Traffic Study Guidelines*, City of Los Angeles Department of Transportation (LADOT), July 1991.
5. *Traffic/Access Guidelines*, County of Los Angeles Department of Public Works.
6. *Building Better Communities*, Sourcebook, Coordinating Land Use and Transit Planning, American Public Transit Association.
7. *Design Guidelines for Bus Facilities*, Orange County Transit District, 2nd Edition, November 1987.
8. *Coordination of Transit and Project Development*, Orange County Transit District, 1988.
9. *Encouraging Public Transportation Through Effective Land Use Actions*, Municipality of Metropolitan Seattle, May 1987.

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
Real Estate Department
Deputy Executive Officer - Real Estate
P: 213-922-2415 F: 213-922-2400
One Gateway Plaza, Mail Stop 99-18-4
Los Angeles, CA 90012-2932

Space Above Line for Recorder's Use

[Recordation of this Public Document is Exempt from all Recording Fees and Taxes Pursuant to Government Code Section 6103]

Public Agency - No Tax Statement

NOISE EASEMENT DEED

For valuable consideration, receipt of which is hereby acknowledged, **(Name of Owner)**, a _____ , for themselves, their heirs, administrators, executors, successors, assigns, tenants, and lessees do hereby grant, bargain, sell, and convey to the **LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY,** a public agency existing under the authority of the laws of the State of California ("Grantee"), its successors and assigns, for the use and benefit of the public and its employees, a perpetual, assignable easement in that certain real property in the City of Los Angeles, County of Los Angeles, State of California described in Exhibit "A" attached hereto and incorporated herein by this reference,

Said easement shall encompass and cover the entirety of the Grantors' Property having the same boundaries as the described Property and extending from the sub-surface upwards to the limits of the atmosphere of the earth, the right to cause in said easement area such noise, vibrations, fumes, dust, fuel particles, light, sonic disturbances, and all other effects that may be caused or may have been caused by the operation of public transit vehicles traveling along the Project right of way.

Grantor hereby waives all rights to protest, object to, make a claim or bring suit or action of any purpose, including or not limited to, property damage or personal injuries, against Grantee, its successors and assigns, for any necessary operating and maintenance activities and changes related to the Project which may conflict with Grantors' use of Grantors' property for residential and other purposes, and Grantors hereby grants an easement to the Grantee for such activities.

The granting of said Easement shall also establish the Grantors' right to further modify or develop the Property for any permitted use. However, Grantor's rights of development shall not interfere with the continued operation of Grantee's Project.

It is understood and agreed that these covenants and agreements shall be permanent, perpetual, will run with the land and that notice shall be made to and shall be binding upon all heirs, administrators, executors, successors, assigns, tenants and lessees of the Grantor. The Grantee is hereby expressly granted the right of third party enforcement of this easement.

IN WITNESS WHEREOF, the undersigned has caused its/their signature to be affixed this day of _____, 20___

By: _____
Name

By: _____
Name

(ATTACH NOTARY SEAL AND CERTIFICATE HERE.)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____ before me, _____,
Date *Here Insert Name and Title of the Officer*

personally appeared _____
Name(s) of Signer(s)

_____,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____
_____

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____
_____

©2014 National Notary Association • www.NationalNotary.org • 1-800-US NOTARY (1-800-876-6827) Item #5907

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in the real property conveyed by the foregoing Grant Deed from _____, a **California Limited Partnership**, ("Grantor") to **LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY,** a public agency existing under the authority of the laws of the State of California ("LACMTA"), is hereby accepted by the undersigned on behalf of the LACMTA pursuant to authority conferred by resolution of the Board of Directors of the LACMTA, and the Grantee hereby consents to the recordation of this Deed by its duly authorized officer.

Dated this ____ day of _____, 20__

By: _____
Velma C. Marshall
Deputy Executive Officer - Real Estate

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Metro

September 27, 2007

Donna Jerex, Senior Planner
City of Beverly Hills
Department of Community Development and Planning
455 North Rexford Drive, Room G-40
Beverly Hills, CA 90210

Dear Ms. Jerex:

The Los Angeles County Metropolitan Transportation Authority (Metro) is in receipt of the Draft Environmental Impact Report (DEIR) for the Proposed Mixed Use Development, 9900 Wilshire Project. This letter conveys recommendations from Metro concerning a number of issues in relation to the proposed project:

The DEIR in the Transportation, Traffic, Parking and Circulation Chapter on page 4.11-45 discusses future transit service in the project study area and states there are few planned transit improvements.

1. The Metro Board adopted Long Range Transportation Plan includes a future Wilshire Bus Rapid Transit Project from Western Avenue in the City of Los Angeles to the City of Santa Monica. This project will enhance the present Metro Rapid Bus service on Wilshire Boulevard (Lines #720 and #920) and provide enhanced stations and segments of dedicated bus lanes. Initial improvements to the Wilshire BRT project have already been implemented. The Final EIR (FEIR) for the 9900 Wilshire Project should acknowledge the Wilshire BRT Project.

2. The Santa Monica Boulevard Metro Rapid Line #704 commenced service in June 2007. The operation of this line should be reflected in the FEIR.

3. Metro is commencing an Alternatives Analysis for the Westside Extension Transit Corridor which will evaluate possible extension of the Metro Red/Purple Line Subway and other transit options. The FEIR should include acknowledgement that the project is within the study area of this Alternatives Analysis and that a future station is being considered to serve the project area.

The DEIR in the Transportation, Traffic, Parking and Circulation Chapter page 4.11-62 describes traffic impacts of the project and describes proposed improvements at various locations in the study area including; Wilshire Boulevard and Merv Griffin Way, Santa Monica Boulevard and Merv Griffin Way, eastbound Wilshire Boulevard and Santa Monica Boulevard, and the Santa Monica Boulevard frontage to the proposed project.

4. Bus volumes along Wilshire Boulevard currently total 132 in the peak period. Bus volumes along Santa Monica Boulevard currently total 76 in the peak period. These two routes are ranked number 1 and number 2 for peak bus volumes in Los Angeles County respectively. The intersection of Wilshire and Santa Monica Boulevards is a major transfer point between these two lines and bus stops for these riders must be adequately accommodated with sidewalk transit amenities and station stops. Furthermore, such heavy bus volumes utilize a large proportion of the traffic capacity of the curb lanes. As such, the curb lane needs to accommodate the significant bus volumes and bus stop requirements as a part of the traffic calculations for the FEIR, which do not appear to be fully reflected.

5. The FEIR for the 9900 Wilshire Project description for the reconstruction of eastbound Wilshire Boulevard includes a proposed new right turn lane. It is our estimate that this lane may need to extend much farther to the west along Wilshire Boulevard, probably to the proposed new access road. This would extend approximately twice as long as currently shown on the site plan access diagrams. Because of the heavy utilization of the curb lane for bus movements, this lane will need to accommodate both buses and right turning vehicles and should also include a bus lane queue jumper at the intersection of Wilshire/Santa Monica to allow buses to merge into the adjacent through lane.

6. The curbside right turn only/bus lane on Wilshire Boulevard needs to provide enough space for two 60-foot articulated buses simultaneously at the nearside Metro Rapid/Local Bus stop such that the buses will not block the adjacent through lane.

7. The operation of buses along Wilshire and Santa Monica Boulevard may be negatively impacted by the placement of additional driveways to serve both the Beverly Hilton and 9900 Wilshire sites. The FEIR for the 9900 Wilshire Project should provide analysis regarding the location of existing bus stops, driveways, and the curb space needed to support both the Wilshire BRT and other Metro local and Rapid service in the project area.

The DEIR in the Transportation, Traffic, Parking and Circulation Chapter page 4.11-46 identifies 10-20 transit trips per hour to be generated by the project; however, the methodology used to calculate the projected number of trips is unclear.

8. The Metro Board adopted 2004 Congestion Management Program Traffic Impact Analysis Guidelines Section B.8.4 specifies the methodology to be used to assign trips to transit for daily and peak hours.

The DEIR correctly describes the project area as served by a high level of bus service provided by Metro (local, Rapid and Rapid Express), Santa Monica's Big Blue Bus,

and Antelope Valley Transit. The Mitigation Measures listed in the DEIR's Executive Summary for the project identify the employ of an Environmental Monitor and the preparation of Construction Traffic Management Plan to reduce the impacts of construction activities.

9. Considering the level of Metro passenger activity in the vicinity of the project including over 1,700 boardings and alightings at the Wilshire/Santa Monica bus stops alone, the Mitigation Measures for the FEIR for the project should identify that the Environmental Monitor and the Construction Traffic Management Plan will coordinate with the Metro Operations Westside/Central Service Sector and Metro Bus Operations Control Special Events Coordinator to mitigate impacts to bus patrons and the operation of bus service. The other Municipal Bus Service Operators including Santa Monica and Antelope Valley may also be impacted and therefore should be included in construction outreach efforts.

Metro looks forward to reviewing the Final EIR and appreciates the opportunity to comment on this draft. If you have any questions regarding this response, please contact me at 213-922-6908 or by email at chapmans@metro.net. The Final EIR should be sent to:

Metro CEQA Review Coordination
One Gateway Plaza MS 99-23-2
Los Angeles, CA 90012-2952
Attn: Susan Chapman

Sincerely,

Susan F. Chapman
Program Manager, Long Range Planning

9900 Wilshire Boulevard (One Beverly Hills) Project
Supplemental Environmental Impact Report

Public Scoping Meeting – December 7, 2015

Comment Sheet

Barbara Broide
bbroide@hotmail.com

Air Quality:

BH property owner (+ LA prop owner)
310.429.8134

Greenhouse Gas Emissions:

Land Use / Planning:

Noise:

Transportation / Traffic:

I am interested in seeing that the traffic study look at key intersections going west on S. M Blvd to 405 (+ Wilshire) outside of BH as these are key routes of transit for BH folks to get to the 405

→ Any thoughts as to once proposed study to build an underneath passage for either SM or Wilshire at that busy intersection

~~Utilities / Service Systems:~~

Traffic study must take into account the entitlements granted to Century City - including Westfield Mall, the Crescent Hts high rise condo bldg, TMB rights, etc. Also important is including changes in public transit being planned in conjunction with the opening of Phase II of EXPO with Westwood Bl. station.

Mandatory Findings of Significance:

Does Wilshire Bus Line also need to be looked at when re-evaluating traffic situation in at area?

Other:

Important to focus on all additional impacts of a hotel vs. a residential project.

Can the City create a link between traffic study projections submitted as part of the EIR process and actual "after the fact" trip generation so that if data is off, the City has a tool to assess mitigation monies above what was claimed. and/or implemented mitigations.

As a project condition, have un-announced periodic traffic counts (paid for w/ a fund established as part of the project conditions.

Appendix B

Air Quality and Greenhouse Gas Emissions Modeling Results

9900 Wilshire Boulevard – 2012 Approved Project

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Quality Restaurant	4.80	1000sqft	0.00	4,800.00	0
Condo/Townhouse High Rise	133.00	Dwelling Unit	0.00	486,408.00	380
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	399,250.00	292
Regional Shopping Center	11.66	1000sqft	0.00	11,656.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - 2008 DEIR construction schedule.

Off-road Equipment - Construction and equipment schedule provided by client

Off-road Equipment - Construction and equipment schedule provided by client

Trips and VMT - Total trips based on 14cy haul truck and closest C&D landfill

Grading - Source: 2008 DEIR

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Construction Off-road Equipment Mitigation - Tier 3 used for all equipment; information provided by client.

Mobile Land Use Mitigation - transit access available

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - Project will exceed 2008 Title 24 by 40% w. LEED Silver

Water Mitigation - See site plan, PD, and LUP

Waste Mitigation - City Diversion = 70%

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	NumDays	230.00	326.00
tblConstructionPhase	NumDays	20.00	105.00
tblConstructionPhase	NumDays	20.00	90.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	PhaseEndDate	8/26/2019	10/26/2018
tblConstructionPhase	PhaseEndDate	12/28/2018	8/31/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	3/5/2018
tblConstructionPhase	PhaseStartDate	9/30/2017	10/2/2017
tblConstructionPhase	PhaseStartDate	5/27/2017	5/29/2017
tblConstructionPhase	PhaseStartDate	10/27/2018	7/2/2018
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	199.75	0.00
tblFireplaces	NumberNoFireplace	23.50	0.00
tblFireplaces	NumberWood	11.75	0.00
tblGrading	AcresOfGrading	0.00	7.95
tblGrading	AcresOfGrading	135.00	7.95
tblGrading	MaterialExported	0.00	95,000.00
tblLandUse	LandUseSquareFeet	102,000.00	399,250.00
tblLandUse	LandUseSquareFeet	133,000.00	486,408.00
tblLandUse	LandUseSquareFeet	11,660.00	11,656.00

tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	2.08	0.00
tblLandUse	LotAcreage	0.27	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	11,875.00	6,786.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	94.36	200.00
tblVehicleTrips	ST_TR	49.97	49.70
tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	72.16	200.00
tblVehicleTrips	SU_TR	25.24	49.70
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	89.95	127.15
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	3.52
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	1.98
tblWaterMitigation	PercentReductionInFlowShower	20	2.2

tblWaterMitigation	PercentReductionInFlowToilet	20	2.2
tblWoodstoves	NumberCatalytic	11.75	0.00
tblWoodstoves	NumberNoncatalytic	11.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.9141	99.4369	65.5281	0.1737	9.2493	3.7127	12.9620	4.1614	3.4547	7.6161	0.0000	17,288.9587	17,288.9587	1.6187	0.0000	17,322.9502
2018	77.3752	50.6286	62.7206	0.1236	5.0136	2.7203	7.7340	1.3401	2.5450	3.8850	0.0000	11,057.0952	11,057.0952	1.5871	0.0000	11,090.4244
Total	**85.2893**	**150.0655**	**128.2487**	**0.2972**	**14.2629**	**6.4330**	**20.6959**	**5.5015**	**5.9997**	**11.5011**	**0.0000**	**28,346.0539**	**28,346.0539**	**3.2058**	**0.0000**	**28,413.3746**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.5804	66.8237	59.1206	0.1737	5.8200	1.9492	7.7692	2.3253	1.8996	4.2249	0.0000	17,288.9587	17,288.9587	1.6187	0.0000	17,322.9502
2018	74.0761	34.7948	65.4150	0.1236	5.0136	1.7317	6.7454	1.3401	1.7210	3.0610	0.0000	11,057.0952	11,057.0952	1.5871	0.0000	11,090.4243
Total	**77.6565**	**101.6186**	**124.5356**	**0.2972**	**10.8336**	**3.6810**	**14.5145**	**3.6653**	**3.6206**	**7.2859**	**0.0000**	**28,346.0539**	**28,346.0539**	**3.2058**	**0.0000**	**28,413.3746**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**8.95**	**32.28**	**2.90**	**0.00**	**24.04**	**42.78**	**29.87**	**33.38**	**39.65**	**36.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	29.3991	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358
Energy	0.1337	1.1605	0.6206	7.2900e-003		0.0923	0.0923		0.0923	0.0923		1,458.0758	1,458.0758	0.0280	0.0267	1,466.9494
Mobile	6.7474	16.0640	64.5134	0.1666	11.6035	0.2380	11.8415	3.1005	0.2194	3.3199		13,360.4237	13,360.4237	0.5045		13,371.0172
Total	**36.2802**	**17.4510**	**84.7098**	**0.1749**	**11.6035**	**0.4374**	**12.0409**	**3.1005**	**0.4189**	**3.5193**	**0.0000**	**14,853.6047**	**14,853.6047**	**0.5672**	**0.0267**	**14,873.8025**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	28.7004	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358
Energy	0.0991	0.8638	0.4840	5.4100e-003		0.0685	0.0685		0.0685	0.0685		1,081.2004	1,081.2004	0.0207	0.0198	1,087.7804
Mobile	6.2738	12.2666	52.6691	0.1196	8.1993	0.1741	8.3733	2.1908	0.1605	2.3514		9,583.2402	9,583.2402	0.3726		9,591.0651
Total	**35.0732**	**13.3569**	**72.7290**	**0.1260**	**8.1993**	**0.3496**	**8.5489**	**2.1908**	**0.3361**	**2.5269**	**0.0000**	**10,699.5458**	**10,699.5458**	**0.4281**	**0.0198**	**10,714.6813**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.33**	**23.46**	**14.14**	**27.98**	**29.34**	**20.07**	**29.00**	**29.34**	**19.77**	**28.20**	**0.00**	**27.97**	**27.97**	**24.52**	**25.85**	**27.96**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	5/26/2017	5	105	
2	Grading	Grading	5/29/2017	9/29/2017	5	90	
3	Building Construction	Building Construction	10/2/2017	12/31/2018	5	326	
4	Architectural Coating	Architectural Coating	3/5/2018	10/26/2018	5	170	
5	Paving	Paving	7/2/2018	8/31/2018	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,793,457; Residential Outdoor: 597,819; Non-Residential Indoor: 550,284; Non-Residential Outdoor: 183,428 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38

Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45
Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	6,786.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	322.00	85.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	64.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0803	0.0000	0.0803	8.6700e-003	0.0000	8.6700e-003			0.0000			0.0000
Off-Road	4.3801	44.6737	29.1362	0.0586		2.1826	2.1826		2.0572	2.0572		5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**4.3801**	**44.6737**	**29.1362**	**0.0586**	**0.0803**	**2.1826**	**2.2629**	**8.6700e-003**	**2.0572**	**2.0659**		**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.1336**	**0.1807**	**1.8873**	**4.6400e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**375.4961**	**375.4961**	**0.0197**		**375.9097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0361	0.0000	0.0361	3.9000e-003	0.0000	3.9000e-003			0.0000			0.0000
Off-Road	1.4439	28.9612	36.5496	0.0586		1.4829	1.4829		1.4829	1.4829	0.0000	5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**1.4439**	**28.9612**	**36.5496**	**0.0586**	**0.0361**	**1.4829**	**1.5190**	**3.9000e-003**	**1.4829**	**1.4868**	**0.0000**	**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.1336**	**0.1807**	**1.8873**	**4.6400e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**375.4961**	**375.4961**	**0.0197**		**375.9097**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2351	0.0000	6.2351	3.3384	0.0000	3.3384			0.0000			0.0000
Off-Road	5.6517	59.2299	41.7080	0.0556		3.0931	3.0931		2.8847	2.8847		5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**5.6517**	**59.2299**	**41.7080**	**0.0556**	**6.2351**	**3.0931**	**9.3283**	**3.3384**	**2.8847**	**6.2231**		**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1745	40.0882	22.5799	0.1150	2.7571	0.6175	3.3746	0.7548	0.5681	1.3229		11,427.2715	11,427.2715	0.0790		11,428.9304
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0878	0.1188	1.2402	3.0500e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		246.7546	246.7546	0.0129		247.0264
Total	**2.2623**	**40.2070**	**23.8201**	**0.1181**	**3.0142**	**0.6196**	**3.6337**	**0.8230**	**0.5700**	**1.3930**		**11,674.0261**	**11,674.0261**	**0.0919**		**11,675.9568**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8058	0.0000	2.8058	1.5023	0.0000	1.5023			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**2.8058**	**1.3296**	**4.1355**	**1.5023**	**1.3296**	**2.8319**	**0.0000**	**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1745	40.0882	22.5799	0.1150	2.7571	0.6175	3.3746	0.7548	0.5681	1.3229		11,427.2715	11,427.2715	0.0790		11,428.9304
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0878	0.1188	1.2402	3.0500e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		246.7546	246.7546	0.0129		247.0264
Total	**2.2623**	**40.2070**	**23.8201**	**0.1181**	**3.0142**	**0.6196**	**3.6337**	**0.8230**	**0.5700**	**1.3930**		**11,674.0261**	**11,674.0261**	**0.0919**		**11,675.9568**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7109	6.8873	9.6609	0.0184	0.5314	0.1080	0.6394	0.1514	0.0993	0.2507		1,809.3429	1,809.3429	0.0133		1,809.6215
Worker	1.2292	1.6626	17.3629	0.0427	3.5992	0.0290	3.6282	0.9545	0.0267	0.9812		3,454.5637	3,454.5637	0.1812		3,458.3694
Total	**1.9401**	**8.5499**	**27.0237**	**0.0611**	**4.1306**	**0.1370**	**4.2676**	**1.1059**	**0.1260**	**1.2319**		**5,263.9066**	**5,263.9066**	**0.1945**		**5,267.9909**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7109	6.8873	9.6609	0.0184	0.5314	0.1080	0.6394	0.1514	0.0993	0.2507		1,809.3429	1,809.3429	0.0133		1,809.6215
Worker	1.2292	1.6626	17.3629	0.0427	3.5992	0.0290	3.6282	0.9545	0.0267	0.9812		3,454.5637	3,454.5637	0.1812		3,458.3694
Total	**1.9401**	**8.5499**	**27.0237**	**0.0611**	**4.1306**	**0.1370**	**4.2676**	**1.1059**	**0.1260**	**1.2319**		**5,263.9066**	**5,263.9066**	**0.1945**		**5,267.9909**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6646	6.3214	9.2706	0.0183	0.5314	0.1018	0.6332	0.1514	0.0936	0.2450		1,778.9699	1,778.9699	0.0132		1,779.2471
Worker	1.1056	1.5079	15.7136	0.0427	3.5992	0.0282	3.6274	0.9545	0.0261	0.9806		3,325.5682	3,325.5682	0.1682		3,329.1004
Total	**1.7702**	**7.8293**	**24.9842**	**0.0610**	**4.1306**	**0.1300**	**4.2606**	**1.1059**	**0.1197**	**1.2256**		**5,104.5380**	**5,104.5380**	**0.1814**		**5,108.3475**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6646	6.3214	9.2706	0.0183	0.5314	0.1018	0.6332	0.1514	0.0936	0.2450		1,778.9699	1,778.9699	0.0132		1,779.2471
Worker	1.1056	1.5079	15.7136	0.0427	3.5992	0.0282	3.6274	0.9545	0.0261	0.9806		3,325.5682	3,325.5682	0.1682		3,329.1004
Total	**1.7702**	**7.8293**	**24.9842**	**0.0610**	**4.1306**	**0.1300**	**4.2606**	**1.1059**	**0.1197**	**1.2256**		**5,104.5380**	**5,104.5380**	**0.1814**		**5,108.3475**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**71.0537**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.2997	3.1232	8.4800e-003	0.7154	5.6000e-003	0.7210	0.1897	5.1800e-003	0.1949		660.9825	660.9825	0.0334		661.6846
Total	**0.2197**	**0.2997**	**3.1232**	**8.4800e-003**	**0.7154**	**5.6000e-003**	**0.7210**	**0.1897**	**5.1800e-003**	**0.1949**		**660.9825**	**660.9825**	**0.0334**		**661.6846**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**70.8145**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2197	0.2997	3.1232	8.4800e-003	0.7154	5.6000e-003	0.7210	0.1897	5.1800e-003	0.1949		660.9825	660.9825	0.0334		661.6846
Total	**0.2197**	**0.2997**	**3.1232**	**8.4800e-003**	**0.7154**	**5.6000e-003**	**0.7210**	**0.1897**	**5.1800e-003**	**0.1949**		**660.9825**	**660.9825**	**0.0334**		**661.6846**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.2738	12.2666	52.6691	0.1196	8.1993	0.1741	8.3733	2.1908	0.1605	2.3514		9,583.2402	9,583.2402	0.3726		9,591.0651
Unmitigated	6.7474	16.0640	64.5134	0.1666	11.6035	0.2380	11.8415	3.1005	0.2194	3.3199		13,360.4237	13,360.4237	0.5045		13,371.0172

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	472.15	385.70	385.70	1,529,005	1,080,425
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	828,597
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	610.32	960.00	960.00	1,011,104	714,466
Regional Shopping Center	500.68	579.50	579.50	1,131,602	799,612
Total	1,945.25	2,221.00	2,221.00	4,844,330	3,423,100

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511108	0.059746	0.180859	0.139188	0.042462	0.006666	0.016153	0.032295	0.001940	0.002496	0.004377	0.000582	0.002128

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0991	0.8638	0.4840	5.4100e-003		0.0685	0.0685		0.0685	0.0685		1,081.2004	1,081.2004	0.0207	0.0198	1,087.7804
NaturalGas Unmitigated	0.1337	1.1605	0.6206	7.2900e-003		0.0923	0.0923		0.0923	0.0923		1,458.0758	1,458.0758	0.0280	0.0267	1,466.9494

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse High Rise	5249.32	0.0566	0.4838	0.2059	3.0900e-003		0.0391	0.0391		0.0391	0.0391		617.5671	617.5671	0.0118	0.0113	621.3255
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3064.24	0.0331	0.3004	0.2524	1.8000e-003		0.0228	0.0228		0.0228	0.0228		360.4990	360.4990	6.9100e-003	6.6100e-003	362.6929
Regional Shopping Center	54.2882	5.9000e-004	5.3200e-003	4.4700e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3869	6.3869	1.2000e-004	1.2000e-004	6.4257
Condo/Townhouse High Rise	4025.79	0.0434	0.3710	0.1579	2.3700e-003		0.0300	0.0300		0.0300	0.0300		473.6229	473.6229	9.0800e-003	8.6800e-003	476.5053
Total		**0.1337**	**1.1605**	**0.6206**	**7.2900e-003**		**0.0923**	**0.0923**		**0.0923**	**0.0923**		**1,458.0758**	**1,458.0758**	**0.0280**	**0.0267**	**1,466.9494**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.82632	0.0305	0.2771	0.2328	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.5081	332.5081	6.3700e-003	6.1000e-003	334.5317
Regional Shopping Center	0.038832	4.2000e-004	3.8100e-003	3.2000e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5685	4.5685	9.0000e-005	8.0000e-005	4.5963
Condo/Townhouse High Rise	2.74534	0.0296	0.2530	0.1077	1.6100e-003		0.0205	0.0205		0.0205	0.0205		322.9814	322.9814	6.1900e-003	5.9200e-003	324.9470
Condo/Townhouse High Rise	3.57971	0.0386	0.3299	0.1404	2.1100e-003		0.0267	0.0267		0.0267	0.0267		421.1424	421.1424	8.0700e-003	7.7200e-003	423.7054
Total		**0.0991**	**0.8638**	**0.4840**	**5.4000e-003**		**0.0685**	**0.0685**		**0.0685**	**0.0685**		**1,081.2004**	**1,081.2004**	**0.0207**	**0.0198**	**1,087.7804**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.7004	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358
Unmitigated	29.3991	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.9942					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.7998					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6051	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071		35.1051	35.1051	0.0348		35.8358
Total	**29.3992**	**0.2265**	**19.5758**	**1.0300e-003**		**0.1071**	**0.1071**		**0.1071**	**0.1071**	**0.0000**	**35.1051**	**35.1051**	**0.0348**	**0.0000**	**35.8358**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.2954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.7998					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6051	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071		35.1051	35.1051	0.0348		35.8358
Total	**28.7004**	**0.2265**	**19.5758**	**1.0300e-003**		**0.1071**	**0.1071**		**0.1071**	**0.1071**	**0.0000**	**35.1051**	**35.1051**	**0.0348**	**0.0000**	**35.8358**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

9900 Wilshire Boulevard – 2012 Approved Project

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Quality Restaurant	4.80	1000sqft	0.00	4,800.00	0
Condo/Townhouse High Rise	133.00	Dwelling Unit	0.00	486,408.00	380
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	399,250.00	292
Regional Shopping Center	11.66	1000sqft	0.00	11,656.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - 2008 DEIR construction schedule.

Off-road Equipment - Construction and equipment schedule provided by client

Off-road Equipment - Construction and equipment schedule provided by client

Trips and VMT - Total trips based on 14cy haul truck and closest C&D landfill

Grading - Source: 2008 DEIR

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Construction Off-road Equipment Mitigation - Tier 3 used for all equipment; information provided by client.

Mobile Land Use Mitigation - transit access available

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - Project will exceed 2008 Title 24 by 40% w. LEED Silver

Water Mitigation - See site plan, PD, and LUP

Waste Mitigation - City Diversion = 70%

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	NumDays	230.00	326.00
tblConstructionPhase	NumDays	20.00	105.00
tblConstructionPhase	NumDays	20.00	90.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	PhaseEndDate	8/26/2019	10/26/2018
tblConstructionPhase	PhaseEndDate	12/28/2018	8/31/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	3/5/2018
tblConstructionPhase	PhaseStartDate	9/30/2017	10/2/2017
tblConstructionPhase	PhaseStartDate	5/27/2017	5/29/2017
tblConstructionPhase	PhaseStartDate	10/27/2018	7/2/2018
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	199.75	0.00
tblFireplaces	NumberNoFireplace	23.50	0.00
tblFireplaces	NumberWood	11.75	0.00
tblGrading	AcresOfGrading	0.00	7.95
tblGrading	AcresOfGrading	135.00	7.95
tblGrading	MaterialExported	0.00	95,000.00
tblLandUse	LandUseSquareFeet	102,000.00	399,250.00
tblLandUse	LandUseSquareFeet	133,000.00	486,408.00
tblLandUse	LandUseSquareFeet	11,660.00	11,656.00

tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	2.08	0.00
tblLandUse	LotAcreage	0.27	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	11,875.00	6,786.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	94.36	200.00
tblVehicleTrips	ST_TR	49.97	49.70
tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	72.16	200.00
tblVehicleTrips	SU_TR	25.24	49.70
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	89.95	127.15
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	3.52
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	1.98
tblWaterMitigation	PercentReductionInFlowShower	20	2.2

tblWaterMitigation	PercentReductionInFlowToilet	20	2.2
tblWoodstoves	NumberCatalytic	11.75	0.00
tblWoodstoves	NumberNoncatalytic	11.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.8497	97.9436	63.5334	0.1740	9.2493	3.7120	12.9613	4.1614	3.4541	7.6155	0.0000	17,318.4531	17,318.4531	1.6181	0.0000	17,352.4332
2018	77.2973	50.3121	62.8668	0.1273	5.0136	2.7194	7.7330	1.3401	2.5441	3.8842	0.0000	11,347.6949	11,347.6949	1.5867	0.0000	11,381.0153
Total	**85.1470**	**148.2557**	**126.4002**	**0.3013**	**14.2629**	**6.4314**	**20.6943**	**5.5015**	**5.9982**	**11.4997**	**0.0000**	**28,666.1479**	**28,666.1479**	**3.2048**	**0.0000**	**28,733.4485**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	3.5160	65.3304	57.1260	0.1740	5.8200	1.9486	7.7685	2.3253	1.8990	4.2243	0.0000	17,318.4531	17,318.4531	1.6181	0.0000	17,352.4332
2018	73.9982	34.4784	65.5611	0.1273	5.0136	1.7308	6.7444	1.3401	1.7201	3.0601	0.0000	11,347.6949	11,347.6949	1.5867	0.0000	11,381.0153
Total	**77.5142**	**99.8088**	**122.6871**	**0.3013**	**10.8336**	**3.6793**	**14.5129**	**3.6653**	**3.6191**	**7.2844**	**0.0000**	**28,666.1479**	**28,666.1479**	**3.2048**	**0.0000**	**28,733.4485**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**8.96**	**32.68**	**2.94**	**0.00**	**24.04**	**42.79**	**29.87**	**33.38**	**39.66**	**36.66**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	29.3991	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358
Energy	0.1337	1.1605	0.6206	7.2900e-003		0.0923	0.0923		0.0923	0.0923		1,458.0758	1,458.0758	0.0280	0.0267	1,466.9494
Mobile	6.5087	15.3305	63.7337	0.1754	11.6035	0.2368	11.8404	3.1005	0.2184	3.3188		14,030.3413	14,030.3413	0.5038		14,040.9201
Total	**36.0415**	**16.7176**	**83.9300**	**0.1837**	**11.6035**	**0.4363**	**12.0398**	**3.1005**	**0.4178**	**3.5183**	**0.0000**	**15,523.5222**	**15,523.5222**	**0.5665**	**0.0267**	**15,543.7053**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	28.7004	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358
Energy	0.0991	0.8638	0.4840	5.4100e-003		0.0685	0.0685		0.0685	0.0685		1,081.2004	1,081.2004	0.0207	0.0198	1,087.7804
Mobile	6.0171	11.7420	50.4968	0.1258	8.1993	0.1729	8.3722	2.1908	0.1595	2.3503		10,062.7482	10,062.7482	0.3719		10,070.5583
Total	**34.8166**	**12.8323**	**70.5566**	**0.1322**	**8.1993**	**0.3485**	**8.5478**	**2.1908**	**0.3350**	**2.5259**	**0.0000**	**11,179.0538**	**11,179.0538**	**0.4274**	**0.0198**	**11,194.1746**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.40**	**23.24**	**15.93**	**28.02**	**29.34**	**20.12**	**29.00**	**29.34**	**19.81**	**28.21**	**0.00**	**27.99**	**27.99**	**24.55**	**25.85**	**27.98**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	5/26/2017	5	105	
2	Grading	Grading	5/29/2017	9/29/2017	5	90	
3	Building Construction	Building Construction	10/2/2017	12/31/2018	5	326	
4	Architectural Coating	Architectural Coating	3/5/2018	10/26/2018	5	170	
5	Paving	Paving	7/2/2018	8/31/2018	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,793,457; Residential Outdoor: 597,819; Non-Residential Indoor: 550,284; Non-Residential Outdoor: 183,428 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38

Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45
Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	6,786.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	322.00	85.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	64.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0803	0.0000	0.0803	8.6700e-003	0.0000	8.6700e-003			0.0000			0.0000
Off-Road	4.3801	44.6737	29.1362	0.0586		2.1826	2.1826		2.0572	2.0572		5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**4.3801**	**44.6737**	**29.1362**	**0.0586**	**0.0803**	**2.1826**	**2.2629**	**8.6700e-003**	**2.0572**	**2.0659**		**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.1310**	**0.1646**	**2.0546**	**4.9600e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**400.4201**	**400.4201**	**0.0197**		**400.8338**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0361	0.0000	0.0361	3.9000e-003	0.0000	3.9000e-003			0.0000			0.0000
Off-Road	1.4439	28.9612	36.5496	0.0586		1.4829	1.4829		1.4829	1.4829	0.0000	5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**1.4439**	**28.9612**	**36.5496**	**0.0586**	**0.0361**	**1.4829**	**1.5190**	**3.9000e-003**	**1.4829**	**1.4868**	**0.0000**	**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.1310**	**0.1646**	**2.0546**	**4.9600e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**400.4201**	**400.4201**	**0.0197**		**400.8338**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2351	0.0000	6.2351	3.3384	0.0000	3.3384			0.0000			0.0000
Off-Road	5.6517	59.2299	41.7080	0.0556		3.0931	3.0931		2.8847	2.8847		5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**5.6517**	**59.2299**	**41.7080**	**0.0556**	**6.2351**	**3.0931**	**9.3283**	**3.3384**	**2.8847**	**6.2231**		**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1118	38.6055	20.4753	0.1151	2.7571	0.6169	3.3739	0.7548	0.5675	1.3223		11,440.3872	11,440.3872	0.0785		11,442.0346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0861	0.1081	1.3502	3.2600e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		263.1332	263.1332	0.0129		263.4051
Total	**2.1979**	**38.7136**	**21.8255**	**0.1184**	**3.0142**	**0.6189**	**3.6331**	**0.8230**	**0.5694**	**1.3924**		**11,703.5204**	**11,703.5204**	**0.0914**		**11,705.4397**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8058	0.0000	2.8058	1.5023	0.0000	1.5023			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**2.8058**	**1.3296**	**4.1355**	**1.5023**	**1.3296**	**2.8319**	**0.0000**	**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1118	38.6055	20.4753	0.1151	2.7571	0.6169	3.3739	0.7548	0.5675	1.3223		11,440.3872	11,440.3872	0.0785		11,442.0346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0861	0.1081	1.3502	3.2600e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		263.1332	263.1332	0.0129		263.4051
Total	**2.1979**	**38.7136**	**21.8255**	**0.1184**	**3.0142**	**0.6189**	**3.6331**	**0.8230**	**0.5694**	**1.3924**		**11,703.5204**	**11,703.5204**	**0.0914**		**11,705.4397**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6509	6.7215	7.9738	0.0185	0.5314	0.1070	0.6383	0.1514	0.0984	0.2497		1,824.6708	1,824.6708	0.0129		1,824.9411
Worker	1.2051	1.5140	18.9025	0.0456	3.5992	0.0290	3.6282	0.9545	0.0267	0.9812		3,683.8653	3,683.8653	0.1812		3,687.6710
Total	**1.8559**	**8.2355**	**26.8763**	**0.0641**	**4.1306**	**0.1359**	**4.2665**	**1.1059**	**0.1251**	**1.2310**		**5,508.5361**	**5,508.5361**	**0.1941**		**5,512.6120**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6509	6.7215	7.9738	0.0185	0.5314	0.1070	0.6383	0.1514	0.0984	0.2497		1,824.6708	1,824.6708	0.0129		1,824.9411
Worker	1.2051	1.5140	18.9025	0.0456	3.5992	0.0290	3.6282	0.9545	0.0267	0.9812		3,683.8653	3,683.8653	0.1812		3,687.6710
Total	**1.8559**	**8.2355**	**26.8763**	**0.0641**	**4.1306**	**0.1359**	**4.2665**	**1.1059**	**0.1251**	**1.2310**		**5,508.5361**	**5,508.5361**	**0.1941**		**5,512.6120**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6105	6.1724	7.5970	0.0185	0.5314	0.1008	0.6322	0.1514	0.0927	0.2441		1,794.0727	1,794.0727	0.0128		1,794.3413
Worker	1.0865	1.3735	17.1748	0.0456	3.5992	0.0282	3.6274	0.9545	0.0261	0.9806		3,546.7900	3,546.7900	0.1682		3,550.3222
Total	**1.6970**	**7.5458**	**24.7718**	**0.0640**	**4.1306**	**0.1290**	**4.2596**	**1.1059**	**0.1188**	**1.2247**		**5,340.8627**	**5,340.8627**	**0.1810**		**5,344.6636**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6105	6.1724	7.5970	0.0185	0.5314	0.1008	0.6322	0.1514	0.0927	0.2441		1,794.0727	1,794.0727	0.0128		1,794.3413
Worker	1.0865	1.3735	17.1748	0.0456	3.5992	0.0282	3.6274	0.9545	0.0261	0.9806		3,546.7900	3,546.7900	0.1682		3,550.3222
Total	**1.6970**	**7.5458**	**24.7718**	**0.0640**	**4.1306**	**0.1290**	**4.2596**	**1.1059**	**0.1188**	**1.2247**		**5,340.8627**	**5,340.8627**	**0.1810**		**5,344.6636**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**71.0537**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2159	0.2730	3.4136	9.0600e-003	0.7154	5.6000e-003	0.7210	0.1897	5.1800e-003	0.1949		704.9521	704.9521	0.0334		705.6541
Total	**0.2159**	**0.2730**	**3.4136**	**9.0600e-003**	**0.7154**	**5.6000e-003**	**0.7210**	**0.1897**	**5.1800e-003**	**0.1949**		**704.9521**	**704.9521**	**0.0334**		**705.6541**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.7551					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**70.8145**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2159	0.2730	3.4136	9.0600e-003	0.7154	5.6000e-003	0.7210	0.1897	5.1800e-003	0.1949		704.9521	704.9521	0.0334		705.6541
Total	**0.2159**	**0.2730**	**3.4136**	**9.0600e-003**	**0.7154**	**5.6000e-003**	**0.7210**	**0.1897**	**5.1800e-003**	**0.1949**		**704.9521**	**704.9521**	**0.0334**		**705.6541**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0171	11.7420	50.4968	0.1258	8.1993	0.1729	8.3722	2.1908	0.1595	2.3503		10,062.7482	10,062.7482	0.3719		10,070.5583
Unmitigated	6.5087	15.3305	63.7337	0.1754	11.6035	0.2368	11.8404	3.1005	0.2184	3.3188		14,030.3413	14,030.3413	0.5038		14,040.9201

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	472.15	385.70	385.70	1,529,005	1,080,425
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	828,597
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	610.32	960.00	960.00	1,011,104	714,466
Regional Shopping Center	500.68	579.50	579.50	1,131,602	799,612
Total	1,945.25	2,221.00	2,221.00	4,844,330	3,423,100

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511108	0.059746	0.180859	0.139188	0.042462	0.006666	0.016153	0.032295	0.001940	0.002496	0.004377	0.000582	0.002128

4.4 Fleet Mix

Historical Energy Use: N

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0991	0.8638	0.4840	5.4100e-003		0.0685	0.0685		0.0685	0.0685		1,081.2004	1,081.2004	0.0207	0.0198	1,087.7804
NaturalGas Unmitigated	0.1337	1.1605	0.6206	7.2900e-003		0.0923	0.0923		0.0923	0.0923		1,458.0758	1,458.0758	0.0280	0.0267	1,466.9494

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3064.24	0.0331	0.3004	0.2524	1.8000e-003		0.0228	0.0228		0.0228	0.0228		360.4990	360.4990	6.9100e-003	6.6100e-003	362.6929
Regional Shopping Center	54.2882	5.9000e-004	5.3200e-003	4.4700e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3869	6.3869	1.2000e-004	1.2000e-004	6.4257
Condo/Townhouse High Rise	4025.79	0.0434	0.3710	0.1579	2.3700e-003		0.0300	0.0300		0.0300	0.0300		473.6229	473.6229	9.0800e-003	8.6800e-003	476.5053
Condo/Townhouse High Rise	5249.32	0.0566	0.4838	0.2059	3.0900e-003		0.0391	0.0391		0.0391	0.0391		617.5671	617.5671	0.0118	0.0113	621.3255
Total		**0.1337**	**1.1605**	**0.6206**	**7.2900e-003**		**0.0923**	**0.0923**		**0.0923**	**0.0923**		**1,458.0758**	**1,458.0758**	**0.0280**	**0.0267**	**1,466.9494**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.82632	0.0305	0.2771	0.2328	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.5081	332.5081	6.3700e-003	6.1000e-003	334.5317
Regional Shopping Center	0.038832	4.2000e-004	3.8100e-003	3.2000e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.5685	4.5685	9.0000e-005	8.0000e-005	4.5963
Condo/Townhouse High Rise	2.74534	0.0296	0.2530	0.1077	1.6100e-003		0.0205	0.0205		0.0205	0.0205		322.9814	322.9814	6.1900e-003	5.9200e-003	324.9470
Condo/Townhouse High Rise	3.57971	0.0386	0.3299	0.1404	2.1100e-003		0.0267	0.0267		0.0267	0.0267		421.1424	421.1424	8.0700e-003	7.7200e-003	423.7054
Total		**0.0991**	**0.8638**	**0.4840**	**5.4000e-003**		**0.0685**	**0.0685**		**0.0685**	**0.0685**		**1,081.2004**	**1,081.2004**	**0.0207**	**0.0198**	**1,087.7804**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.7004	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358
Unmitigated	29.3991	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071	0.0000	35.1051	35.1051	0.0348	0.0000	35.8358

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.9942					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.7998					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6051	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071		35.1051	35.1051	0.0348		35.8358
Total	**29.3992**	**0.2265**	**19.5758**	**1.0300e-003**		**0.1071**	**0.1071**		**0.1071**	**0.1071**	**0.0000**	**35.1051**	**35.1051**	**0.0348**	**0.0000**	**35.8358**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.2954					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.7998					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6051	0.2265	19.5758	1.0300e-003		0.1071	0.1071		0.1071	0.1071		35.1051	35.1051	0.0348		35.8358
Total	**28.7004**	**0.2265**	**19.5758**	**1.0300e-003**		**0.1071**	**0.1071**		**0.1071**	**0.1071**	**0.0000**	**35.1051**	**35.1051**	**0.0348**	**0.0000**	**35.8358**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

9900 Wilshire Boulevard – 2012 Approved Project

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Quality Restaurant	4.80	1000sqft	0.00	4,800.00	0
Condo/Townhouse High Rise	133.00	Dwelling Unit	0.00	486,408.00	380
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	399,250.00	292
Regional Shopping Center	11.66	1000sqft	0.00	11,656.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - 2008 DEIR construction schedule.

Off-road Equipment - Construction and equipment schedule provided by client

Off-road Equipment - Construction and equipment schedule provided by client

Trips and VMT - Total trips based on 14cy haul truck and closest C&D landfill

Grading - Source: 2008 DEIR

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Construction Off-road Equipment Mitigation - Tier 3 used for all equipment; information provided by client.

Mobile Land Use Mitigation - transit access available

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - Project will exceed 2008 Title 24 by 40% w. LEED Silver

Water Mitigation - See site plan, PD, and LUP

Waste Mitigation - City Diversion = 70%

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	NumDays	230.00	326.00
tblConstructionPhase	NumDays	20.00	105.00
tblConstructionPhase	NumDays	20.00	90.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	PhaseEndDate	8/26/2019	10/26/2018
tblConstructionPhase	PhaseEndDate	12/28/2018	8/31/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	3/5/2018
tblConstructionPhase	PhaseStartDate	9/30/2017	10/2/2017
tblConstructionPhase	PhaseStartDate	5/27/2017	5/29/2017
tblConstructionPhase	PhaseStartDate	10/27/2018	7/2/2018
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	199.75	0.00
tblFireplaces	NumberNoFireplace	23.50	0.00
tblFireplaces	NumberWood	11.75	0.00
tblGrading	AcresOfGrading	0.00	7.95
tblGrading	AcresOfGrading	135.00	7.95
tblGrading	MaterialExported	0.00	95,000.00
tblLandUse	LandUseSquareFeet	102,000.00	399,250.00
tblLandUse	LandUseSquareFeet	133,000.00	486,408.00
tblLandUse	LandUseSquareFeet	11,660.00	11,656.00

tblLandUse	LotAcreage	0.11	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	2.08	0.00
tblLandUse	LotAcreage	0.27	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	11,875.00	6,786.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	94.36	200.00
tblVehicleTrips	ST_TR	49.97	49.70
tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	72.16	200.00
tblVehicleTrips	SU_TR	25.24	49.70
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	89.95	127.15
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	3.52
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	1.98
tblWaterMitigation	PercentReductionInFlowShower	20	2.2

tblWaterMitigation	PercentReductionInFlowToilet	20	2.2
tblWoodstoves	NumberCatalytic	11.75	0.00
tblWoodstoves	NumberNoncatalytic	11.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.7526	8.0024	6.0409	0.0140	0.5702	0.3441	0.9143	0.2279	0.3221	0.5499	0.0000	1,238.5115	1,238.5115	0.1673	0.0000	1,242.0252
2018	6.6628	4.6638	6.3378	0.0131	0.5927	0.2463	0.8390	0.1588	0.2316	0.3903	0.0000	1,042.9851	1,042.9851	0.1161	0.0000	1,045.4238
Total	**7.4153**	**12.6663**	**12.3787**	**0.0271**	**1.1629**	**0.5904**	**1.7533**	**0.3866**	**0.5536**	**0.9403**	**0.0000**	**2,281.4966**	**2,281.4966**	**0.2835**	**0.0000**	**2,287.4490**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3244	5.3124	6.1315	0.0140	0.4136	0.1995	0.6130	0.1450	0.1969	0.3419	0.0000	1,238.5108	1,238.5108	0.1673	0.0000	1,242.0245
2018	6.3578	3.2857	6.4276	0.0131	0.5927	0.1566	0.7493	0.1588	0.1552	0.3140	0.0000	1,042.9847	1,042.9847	0.1161	0.0000	1,045.4234
Total	**6.6822**	**8.5981**	**12.5592**	**0.0271**	**1.0062**	**0.3560**	**1.3623**	**0.3038**	**0.3521**	**0.6558**	**0.0000**	**2,281.4954**	**2,281.4954**	**0.2835**	**0.0000**	**2,287.4479**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**9.89**	**32.12**	**-1.46**	**0.00**	**13.47**	**39.70**	**22.30**	**21.43**	**36.41**	**30.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.3306	0.0283	2.4470	1.3000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	3.9809	3.9809	3.9500e-003	0.0000	4.0637
Energy	0.0244	0.2118	0.1133	1.3300e-003		0.0169	0.0169		0.0169	0.0169	0.0000	1,328.0301	1,328.0301	0.0546	0.0148	1,333.7518
Mobile	0.9993	2.6198	10.3066	0.0271	1.8360	0.0381	1.8741	0.4913	0.0351	0.5264	0.0000	1,972.1717	1,972.1717	0.0733	0.0000	1,973.7111
Waste						0.0000	0.0000		0.0000	0.0000	25.3170	0.0000	25.3170	1.4962	0.0000	56.7371
Water						0.0000	0.0000		0.0000	0.0000	5.5938	98.3671	103.9608	0.5791	0.0145	120.6165
Total	**6.3543**	**2.8599**	**12.8668**	**0.0286**	**1.8360**	**0.0683**	**1.9043**	**0.4913**	**0.0654**	**0.5567**	**30.9108**	**3,402.5497**	**3,433.4605**	**2.2071**	**0.0293**	**3,488.8802**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.2030	0.0283	2.4470	1.3000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	3.9809	3.9809	3.9500e-003	0.0000	4.0637
Energy	0.0181	0.1576	0.0883	9.9000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	985.4901	985.4901	0.0405	0.0110	989.7357
Mobile	0.9222	1.9949	8.3445	0.0195	1.2974	0.0278	1.3252	0.3472	0.0256	0.3728	0.0000	1,414.1133	1,414.1133	0.0541	0.0000	1,415.2485
Waste						0.0000	0.0000		0.0000	0.0000	7.5951	0.0000	7.5951	0.4489	0.0000	17.0211
Water						0.0000	0.0000		0.0000	0.0000	4.3766	51.4032	55.7798	0.4518	0.0111	68.7041
Total	**6.1433**	**2.1809**	**10.8798**	**0.0206**	**1.2974**	**0.0537**	**1.3510**	**0.3472**	**0.0515**	**0.3987**	**11.9717**	**2,454.9875**	**2,466.9592**	**0.9992**	**0.0220**	**2,494.7732**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.32**	**23.74**	**15.44**	**28.03**	**29.34**	**21.43**	**29.05**	**29.34**	**21.18**	**28.38**	**61.27**	**27.85**	**28.15**	**54.73**	**24.68**	**28.49**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	5/26/2017	5	105	
2	Grading	Grading	5/29/2017	9/29/2017	5	90	
3	Building Construction	Building Construction	10/2/2017	12/31/2018	5	326	
4	Architectural Coating	Architectural Coating	3/5/2018	10/26/2018	5	170	
5	Paving	Paving	7/2/2018	8/31/2018	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,793,457; Residential Outdoor: 597,819; Non-Residential Indoor: 550,284; Non-Residential Outdoor: 183,428 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38
Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45

Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	6,786.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	322.00	85.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	64.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2200e-003	0.0000	4.2200e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2300	2.3454	1.5297	3.0800e-003		0.1146	0.1146		0.1080	0.1080	0.0000	279.2103	279.2103	0.0754	0.0000	280.7945
Total	**0.2300**	**2.3454**	**1.5297**	**3.0800e-003**	**4.2200e-003**	**0.1146**	**0.1188**	**4.6000e-004**	**0.1080**	**0.1085**	**0.0000**	**279.2103**	**279.2103**	**0.0754**	**0.0000**	**280.7945**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-003	9.7700e-003	0.1016	2.5000e-004	0.0202	1.7000e-004	0.0203	5.3500e-003	1.5000e-004	5.5100e-003	0.0000	18.1625	18.1625	9.4000e-004	0.0000	18.1822
Total	**6.6000e-003**	**9.7700e-003**	**0.1016**	**2.5000e-004**	**0.0202**	**1.7000e-004**	**0.0203**	**5.3500e-003**	**1.5000e-004**	**5.5100e-003**	**0.0000**	**18.1625**	**18.1625**	**9.4000e-004**	**0.0000**	**18.1822**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9000e-003	0.0000	1.9000e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0758	1.5205	1.9189	3.0800e-003		0.0779	0.0779		0.0779	0.0779	0.0000	279.2100	279.2100	0.0754	0.0000	280.7941
Total	**0.0758**	**1.5205**	**1.9189**	**3.0800e-003**	**1.9000e-003**	**0.0779**	**0.0798**	**2.0000e-004**	**0.0779**	**0.0781**	**0.0000**	**279.2100**	**279.2100**	**0.0754**	**0.0000**	**280.7941**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-003	9.7700e-003	0.1016	2.5000e-004	0.0202	1.7000e-004	0.0203	5.3500e-003	1.5000e-004	5.5100e-003	0.0000	18.1625	18.1625	9.4000e-004	0.0000	18.1822
Total	**6.6000e-003**	**9.7700e-003**	**0.1016**	**2.5000e-004**	**0.0202**	**1.7000e-004**	**0.0203**	**5.3500e-003**	**1.5000e-004**	**5.5100e-003**	**0.0000**	**18.1625**	**18.1625**	**9.4000e-004**	**0.0000**	**18.1822**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2806	0.0000	0.2806	0.1502	0.0000	0.1502	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2543	2.6654	1.8769	2.5000e-003		0.1392	0.1392		0.1298	0.1298	0.0000	229.2202	229.2202	0.0623	0.0000	230.5290
Total	**0.2543**	**2.6654**	**1.8769**	**2.5000e-003**	**0.2806**	**0.1392**	**0.4198**	**0.1502**	**0.1298**	**0.2800**	**0.0000**	**229.2202**	**229.2202**	**0.0623**	**0.0000**	**230.5290**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0971	1.8344	1.0030	5.1800e-003	0.1221	0.0278	0.1498	0.0335	0.0256	0.0590	0.0000	466.8096	466.8096	3.2100e-003	0.0000	466.8771
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7200e-003	5.5000e-003	0.0572	1.4000e-004	0.0114	9.0000e-005	0.0115	3.0200e-003	9.0000e-005	3.1000e-003	0.0000	10.2303	10.2303	5.3000e-004	0.0000	10.2414
Total	**0.1008**	**1.8399**	**1.0602**	**5.3200e-003**	**0.1334**	**0.0279**	**0.1613**	**0.0365**	**0.0256**	**0.0621**	**0.0000**	**477.0400**	**477.0400**	**3.7400e-003**	**0.0000**	**477.1185**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1263	0.0000	0.1263	0.0676	0.0000	0.0676	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0593	1.1978	1.5885	2.5000e-003		0.0598	0.0598		0.0598	0.0598	0.0000	229.2199	229.2199	0.0623	0.0000	230.5287
Total	**0.0593**	**1.1978**	**1.5885**	**2.5000e-003**	**0.1263**	**0.0598**	**0.1861**	**0.0676**	**0.0598**	**0.1274**	**0.0000**	**229.2199**	**229.2199**	**0.0623**	**0.0000**	**230.5287**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0971	1.8344	1.0030	5.1800e-003	0.1221	0.0278	0.1498	0.0335	0.0256	0.0590	0.0000	466.8096	466.8096	3.2100e-003	0.0000	466.8771
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7200e-003	5.5000e-003	0.0572	1.4000e-004	0.0114	9.0000e-005	0.0115	3.0200e-003	9.0000e-005	3.1000e-003	0.0000	10.2303	10.2303	5.3000e-004	0.0000	10.2414
Total	**0.1008**	**1.8399**	**1.0602**	**5.3200e-003**	**0.1334**	**0.0279**	**0.1613**	**0.0365**	**0.0256**	**0.0621**	**0.0000**	**477.0400**	**477.0400**	**3.7400e-003**	**0.0000**	**477.1185**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1008	0.8582	0.5892	8.7000e-004		0.0579	0.0579		0.0544	0.0544	0.0000	77.8307	77.8307	0.0192	0.0000	78.2330
Total	**0.1008**	**0.8582**	**0.5892**	**8.7000e-004**		**0.0579**	**0.0579**		**0.0544**	**0.0544**	**0.0000**	**77.8307**	**77.8307**	**0.0192**	**0.0000**	**78.2330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0225	0.2282	0.3051	6.0000e-004	0.0170	3.4900e-003	0.0205	4.8500e-003	3.2100e-003	8.0600e-003	0.0000	53.6079	53.6079	3.8000e-004	0.0000	53.6160
Worker	0.0376	0.0556	0.5784	1.4100e-003	0.1148	9.4000e-004	0.1158	0.0305	8.7000e-004	0.0314	0.0000	103.4399	103.4399	5.3400e-003	0.0000	103.5521
Total	**0.0601**	**0.2839**	**0.8835**	**2.0100e-003**	**0.1318**	**4.4300e-003**	**0.1363**	**0.0353**	**4.0800e-003**	**0.0394**	**0.0000**	**157.0478**	**157.0478**	**5.7200e-003**	**0.0000**	**157.1681**

3.4 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0218	0.4607	0.5790	8.7000e-004		0.0293	0.0293		0.0293	0.0293	0.0000	77.8306	77.8306	0.0192	0.0000	78.2329
Total	**0.0218**	**0.4607**	**0.5790**	**8.7000e-004**		**0.0293**	**0.0293**		**0.0293**	**0.0293**	**0.0000**	**77.8306**	**77.8306**	**0.0192**	**0.0000**	**78.2329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0225	0.2282	0.3051	6.0000e-004	0.0170	3.4900e-003	0.0205	4.8500e-003	3.2100e-003	8.0600e-003	0.0000	53.6079	53.6079	3.8000e-004	0.0000	53.6160
Worker	0.0376	0.0556	0.5784	1.4100e-003	0.1148	9.4000e-004	0.1158	0.0305	8.7000e-004	0.0314	0.0000	103.4399	103.4399	5.3400e-003	0.0000	103.5521
Total	**0.0601**	**0.2839**	**0.8835**	**2.0100e-003**	**0.1318**	**4.4300e-003**	**0.1363**	**0.0353**	**4.0800e-003**	**0.0394**	**0.0000**	**157.0478**	**157.0478**	**5.7200e-003**	**0.0000**	**157.1681**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0845	0.8412	1.1737	2.4000e-003	0.0683	0.0132	0.0815	0.0195	0.0122	0.0316	0.0000	211.6450	211.6450	1.5300e-003	0.0000	211.6773
Worker	0.1356	0.2026	2.1032	5.6600e-003	0.4610	3.6800e-003	0.4647	0.1224	3.4000e-003	0.1258	0.0000	399.8479	399.8479	0.0199	0.0000	400.2661
Total	**0.2200**	**1.0438**	**3.2769**	**8.0600e-003**	**0.5293**	**0.0169**	**0.5462**	**0.1419**	**0.0156**	**0.1575**	**0.0000**	**611.4929**	**611.4929**	**0.0214**	**0.0000**	**611.9433**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0876	1.8497	2.3249	3.5000e-003		0.1177	0.1177		0.1177	0.1177	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.0876**	**1.8497**	**2.3249**	**3.5000e-003**		**0.1177**	**0.1177**		**0.1177**	**0.1177**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0845	0.8412	1.1737	2.4000e-003	0.0683	0.0132	0.0815	0.0195	0.0122	0.0316	0.0000	211.6450	211.6450	1.5300e-003	0.0000	211.6773
Worker	0.1356	0.2026	2.1032	5.6600e-003	0.4610	3.6800e-003	0.4647	0.1224	3.4000e-003	0.1258	0.0000	399.8479	399.8479	0.0199	0.0000	400.2661
Total	**0.2200**	**1.0438**	**3.2769**	**8.0600e-003**	**0.5293**	**0.0169**	**0.5462**	**0.1419**	**0.0156**	**0.1575**	**0.0000**	**611.4929**	**611.4929**	**0.0214**	**0.0000**	**611.9433**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.0142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.1705	0.1576	2.5000e-004		0.0128	0.0128		0.0128	0.0128	0.0000	21.7027	21.7027	2.0600e-003	0.0000	21.7460
Total	**6.0396**	**0.1705**	**0.1576**	**2.5000e-004**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**21.7027**	**21.7027**	**2.0600e-003**	**0.0000**	**21.7460**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0176	0.0262	0.2723	7.3000e-004	0.0597	4.8000e-004	0.0602	0.0159	4.4000e-004	0.0163	0.0000	51.7639	51.7639	2.5800e-003	0.0000	51.8181
Total	**0.0176**	**0.0262**	**0.2723**	**7.3000e-004**	**0.0597**	**4.8000e-004**	**0.0602**	**0.0159**	**4.4000e-004**	**0.0163**	**0.0000**	**51.7639**	**51.7639**	**2.5800e-003**	**0.0000**	**51.8181**

3.5 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.0142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0500e-003	0.1153	0.1558	2.5000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	21.7027	21.7027	2.0600e-003	0.0000	21.7460
Total	**6.0192**	**0.1153**	**0.1558**	**2.5000e-004**		**8.0800e-003**	**8.0800e-003**		**8.0800e-003**	**8.0800e-003**	**0.0000**	**21.7027**	**21.7027**	**2.0600e-003**	**0.0000**	**21.7460**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0176	0.0262	0.2723	7.3000e-004	0.0597	4.8000e-004	0.0602	0.0159	4.4000e-004	0.0163	0.0000	51.7639	51.7639	2.5800e-003	0.0000	51.8181
Total	**0.0176**	**0.0262**	**0.2723**	**7.3000e-004**	**0.0597**	**4.8000e-004**	**0.0602**	**0.0159**	**4.4000e-004**	**0.0163**	**0.0000**	**51.7639**	**51.7639**	**2.5800e-003**	**0.0000**	**51.8181**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0363	0.3862	0.3261	5.0000e-004		0.0211	0.0211		0.0194	0.0194	0.0000	45.8297	45.8297	0.0143	0.0000	46.1293
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0363**	**0.3862**	**0.3261**	**5.0000e-004**		**0.0211**	**0.0211**		**0.0194**	**0.0194**	**0.0000**	**45.8297**	**45.8297**	**0.0143**	**0.0000**	**46.1293**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	1.6300e-003	0.0169	5.0000e-005	3.7000e-003	3.0000e-005	3.7300e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	3.2115	3.2115	1.6000e-004	0.0000	3.2148
Total	**1.0900e-003**	**1.6300e-003**	**0.0169**	**5.0000e-005**	**3.7000e-003**	**3.0000e-005**	**3.7300e-003**	**9.8000e-004**	**3.0000e-005**	**1.0100e-003**	**0.0000**	**3.2115**	**3.2115**	**1.6000e-004**	**0.0000**	**3.2148**

3.6 Paving - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0124	0.2490	0.3809	5.0000e-004		0.0135	0.0135		0.0135	0.0135	0.0000	45.8296	45.8296	0.0143	0.0000	46.1292
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0124**	**0.2490**	**0.3809**	**5.0000e-004**		**0.0135**	**0.0135**		**0.0135**	**0.0135**	**0.0000**	**45.8296**	**45.8296**	**0.0143**	**0.0000**	**46.1292**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	1.6300e-003	0.0169	5.0000e-005	3.7000e-003	3.0000e-005	3.7300e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	3.2115	3.2115	1.6000e-004	0.0000	3.2148
Total	**1.0900e-003**	**1.6300e-003**	**0.0169**	**5.0000e-005**	**3.7000e-003**	**3.0000e-005**	**3.7300e-003**	**9.8000e-004**	**3.0000e-005**	**1.0100e-003**	**0.0000**	**3.2115**	**3.2115**	**1.6000e-004**	**0.0000**	**3.2148**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9222	1.9949	8.3445	0.0195	1.2974	0.0278	1.3252	0.3472	0.0256	0.3728	0.0000	1,414.1133	1,414.1133	0.0541	0.0000	1,415.2485
Unmitigated	0.9993	2.6198	10.3066	0.0271	1.8360	0.0381	1.8741	0.4913	0.0351	0.5264	0.0000	1,972.1717	1,972.1717	0.0733	0.0000	1,973.7111

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	472.15	385.70	385.70	1,529,005	1,080,425
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	828,597
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	610.32	960.00	960.00	1,011,104	714,466
Regional Shopping Center	500.68	579.50	579.50	1,131,602	799,612
Total	1,945.25	2,221.00	2,221.00	4,844,330	3,423,100

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511108	0.059746	0.180859	0.139188	0.042462	0.006666	0.016153	0.032295	0.001940	0.002496	0.004377	0.000582	0.002128

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	806.4852	806.4852	0.0371	7.6700e-003	809.6414
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,086.6293	1,086.6293	0.0500	0.0103	1,090.8818
NaturalGas Mitigated	0.0181	0.1576	0.0883	9.9000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	179.0049	179.0049	3.4300e-003	3.2800e-003	180.0943
NaturalGas Unmitigated	0.0244	0.2118	0.1133	1.3300e-003		0.0169	0.0169		0.0169	0.0169	0.0000	241.4008	241.4008	4.6300e-003	4.4300e-003	242.8699

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.11845e+006	6.0300e-003	0.0548	0.0461	3.3000e-004		4.1700e-003	4.1700e-003		4.1700e-003	4.1700e-003	0.0000	59.6846	59.6846	1.1400e-003	1.0900e-003	60.0479
Regional Shopping Center	19815.2	1.1000e-004	9.7000e-004	8.2000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0574	1.0574	2.0000e-005	2.0000e-005	1.0639
Condo/Townhouse High Rise	1.46942e+006	7.9200e-003	0.0677	0.0288	4.3000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	78.4136	78.4136	1.5000e-003	1.4400e-003	78.8908
Condo/Townhouse High Rise	1.916e+006	0.0103	0.0883	0.0376	5.6000e-004		7.1400e-003	7.1400e-003		7.1400e-003	7.1400e-003	0.0000	102.2452	102.2452	1.9600e-003	1.8700e-003	102.8674
Total		**0.0244**	**0.2118**	**0.1133**	**1.3300e-003**		**0.0169**	**0.0169**		**0.0169**	**0.0169**	**0.0000**	**241.4008**	**241.4008**	**4.6200e-003**	**4.4200e-003**	**242.8699**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.03161e+006	5.5600e-003	0.0506	0.0425	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	55.0505	55.0505	1.0600e-003	1.0100e-003	55.3855
Regional Shopping Center	14173.7	8.0000e-005	6.9000e-004	5.8000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7564	0.7564	1.0000e-005	1.0000e-005	0.7610
Condo/Townhouse High Rise	1.00205e+006	5.4000e-003	0.0462	0.0197	2.9000e-004		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	53.4732	53.4732	1.0200e-003	9.8000e-004	53.7986
Condo/Townhouse High Rise	1.30659e+006	7.0500e-003	0.0602	0.0256	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003	0.0000	69.7249	69.7249	1.3400e-003	1.2800e-003	70.1492
Total		**0.0181**	**0.1576**	**0.0883**	**9.7000e-004**		**0.0125**	**0.0125**		**0.0125**	**0.0125**	**0.0000**	**179.0049**	**179.0049**	**3.4300e-003**	**3.2800e-003**	**180.0943**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	448584	128.3698	5.9000e-003	1.2200e-003	128.8722
Condo/Townhouse High Rise	584918	167.3842	7.6900e-003	1.5900e-003	168.0392
Enclosed Parking with Elevator	2.3617e+006	675.8392	0.0311	6.4300e-003	678.4841
Quality Restaurant	225168	64.4356	2.9600e-003	6.1000e-004	64.6878
Regional Shopping Center	176822	50.6005	2.3300e-003	4.8000e-004	50.7985
Total		**1,086.6293**	**0.0500**	**0.0103**	**1,090.8818**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	397198	113.6650	5.2200e-003	1.0800e-003	114.1098
Condo/Townhouse High Rise	517915	148.2102	6.8100e-003	1.4100e-003	148.7902
Enclosed Parking with Elevator	1.58188e+006	452.6819	0.0208	4.3100e-003	454.4535
Quality Restaurant	187778	53.7360	2.4700e-003	5.1000e-004	53.9463
Regional Shopping Center	133461	38.1922	1.7600e-003	3.6000e-004	38.3416
Total		**806.4852**	**0.0371**	**7.6700e-003**	**809.6414**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.2030	0.0283	2.4470	1.3000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	3.9809	3.9809	3.9500e-003	0.0000	4.0637
Unmitigated	5.3306	0.0283	2.4470	1.3000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	3.9809	3.9809	3.9500e-003	0.0000	4.0637

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7290					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5260					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0756	0.0283	2.4470	1.3000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	3.9809	3.9809	3.9500e-003	0.0000	4.0637
Total	**5.3306**	**0.0283**	**2.4470**	**1.3000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**	**0.0000**	**3.9809**	**3.9809**	**3.9500e-003**	**0.0000**	**4.0637**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6014					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5260					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0756	0.0283	2.4470	1.3000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	3.9809	3.9809	3.9500e-003	0.0000	4.0637
Total	**5.2030**	**0.0283**	**2.4470**	**1.3000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**	**0.0000**	**3.9809**	**3.9809**	**3.9500e-003**	**0.0000**	**4.0637**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	55.7798	0.4518	0.0111	68.7041
Unmitigated	103.9608	0.5791	0.0145	120.6165

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	15.3112 / 9.65271	92.5988	0.5030	0.0126	107.0713
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.45696 / 0.0929976	6.1868	0.0477	1.1800e-003	7.5537
Regional Shopping Center	0.863686 / 0.529356	5.1752	0.0284	7.1000e-004	5.9914
Total		**103.9608**	**0.5791**	**0.0145**	**120.6165**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	11.9795 / 0	48.4382	0.3923	9.6300e-003	59.6615
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.13993 / 0	4.6092	0.0373	9.2000e-004	5.6772
Regional Shopping Center	0.675748 / 0	2.7323	0.0221	5.4000e-004	3.3654
Total		**55.7798**	**0.4518**	**0.0111**	**68.7041**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.5951	0.4489	0.0000	17.0211
Unmitigated	25.3170	1.4962	0.0000	56.7371

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	108.1	21.9433	1.2968	0.0000	49.1764
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	4.38	0.8891	0.0525	0.0000	1.9925
Regional Shopping Center	12.24	2.4846	0.1468	0.0000	5.5682
Total		**25.3170**	**1.4962**	**0.0000**	**56.7371**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	32.43	6.5830	0.3890	0.0000	14.7529
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.314	0.2667	0.0158	0.0000	0.5978
Regional Shopping Center	3.672	0.7454	0.0441	0.0000	1.6705
Total		**7.5951**	**0.4489**	**0.0000**	**17.0211**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Greenhouse Gas Emission Worksheet
N20 Mobile Emissions Approved Project

From URBEMIS 2007 Vehicle Fleet Mix Output:

Annual VMT: 3,423,100

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	46.0%	0.04	0.0184	0.04	0.0184
Light Truck < 3750 lbs	10.3%	0.05	0.00515	0.06	0.00618
Light Truck 3751-5750 lbs	23.2%	0.05	0.0116	0.06	0.01392
Med Truck 5751-8500 lbs	12.2%	0.12	0.01464	0.2	0.0244
Lite-Heavy Truck 8501-10,000 lbs	2.1%	0.12	0.00252	0.2	0.0042
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.09	0.00045	0.125	0.000625
Med-Heavy Truck 14,001-33,000 lbs	1.0%	0.06	0.0006	0.05	0.0005
Heavy-Heavy Truck 33,001-60,000 lbs	2.9%	0.06	0.00174	0.05	0.00145
Other Bus	0.1%	0.06	0.00006	0.05	0.00005
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	1.1%	0.09	0.00099	0.01	0.00011
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	0.4%	0.09	0.00036	0.125	0.0005
Total	**100.0%**		**0.05663**		**0.070435**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.2411	metric tons N2O	**74.74**	metric tons CO2e
		Project Total:	***74.74***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.
** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
*** From URBEMIS 2007 results for mobile sources

Proposed Project - 2.5 Month Grading

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Health Club	7.37	1000sqft	0.00	7,370.00	0
High Turnover (Sit Down Restaurant)	5.44	1000sqft	0.00	5,438.00	0
Hotel	134.00	Room	0.00	172,369.00	0
Quality Restaurant	4.25	1000sqft	0.00	4,249.00	0
Condo/Townhouse High Rise	91.00	Dwelling Unit	0.00	336,046.00	260
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	370,502.00	292

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - Applicant's construction schedule. (2.5 mo Grading)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment -

Trips and VMT - Based on 14cy trucks and distance to So Cal Disposal (C&D landfill)

Grading - See site plan, construction truck memo, PD.

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015 and updated 2016

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 3 equipment used per client provided information

Mobile Land Use Mitigation - Wilshire/Whittier metro stop across street on Wilshire; bus dist .5 m

Mobile Commute Mitigation -

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - Exceeds 2008 Title 24 by 25%.

Water Mitigation - See site plan, PD, and LUP

Waste Mitigation - City of Bev Hills Div Rate = 70% for res and com - http://www.beverlyhills.org/living/recyclingandconservation/

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	410.00
tblConstructionPhase	NumDays	230.00	630.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	20.00	56.00
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	PhaseEndDate	11/12/2021	2/28/2020
tblConstructionPhase	PhaseEndDate	10/23/2020	12/27/2019
tblConstructionPhase	PhaseStartDate	4/18/2020	8/6/2018
tblConstructionPhase	PhaseStartDate	11/18/2017	11/20/2017
tblConstructionPhase	PhaseStartDate	2/29/2020	5/6/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	164.05	0.00
tblFireplaces	NumberNoFireplace	19.30	0.00
tblFireplaces	NumberWood	9.65	0.00
tblGrading	AcresOfGrading	0.00	7.95

tblGrading	AcresOfGrading	84.00	7.95
tblGrading	MaterialExported	0.00	259,487.00
tblLandUse	LandUseSquareFeet	5,440.00	5,438.00
tblLandUse	LandUseSquareFeet	194,568.00	172,369.00
tblLandUse	LandUseSquareFeet	4,250.00	4,249.00
tblLandUse	LandUseSquareFeet	102,000.00	370,502.00
tblLandUse	LandUseSquareFeet	91,000.00	336,046.00
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	4.47	0.00
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	32,436.00	18,535.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	20.87	4.80

tblVehicleTrips	ST_TR	158.37	17.00
tblVehicleTrips	ST_TR	8.19	2.60
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	26.73	4.80
tblVehicleTrips	SU_TR	131.84	17.00
tblVehicleTrips	SU_TR	5.95	2.60
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	32.93	4.80
tblVehicleTrips	WD_TR	127.15	56.90
tblVehicleTrips	WD_TR	8.17	7.75
tblVehicleTrips	WD_TR	89.95	27.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	9.28
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	5.22
tblWaterMitigation	PercentReductionInFlowShower	20	5.8
tblWaterMitigation	PercentReductionInFlowToilet	20	5.8
tblWoodstoves	NumberCatalytic	9.65	0.00
tblWoodstoves	NumberNoncatalytic	9.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	15.2851	235.3232	142.0668	0.5636	19.0564	5.8059	24.8622	6.7874	5.3803	12.1677	0.0000	56,023.7935	56,023.7935	1.8864	0.0000	56,063.4080
2018	37.1136	35.4287	52.6982	0.1115	5.5884	1.8138	7.4022	1.4954	1.7109	3.2064	0.0000	9,706.5815	9,706.5815	0.9117	0.0000	9,725.7271
2019	38.0696	47.1594	65.1293	0.1356	5.7561	2.3861	8.1422	1.5399	2.2318	3.7717	0.0000	11,818.2497	11,818.2497	1.5892	0.0000	11,851.6228
2020	36.2031	29.0353	48.0701	0.1112	5.5885	1.3745	6.9630	1.4955	1.2963	2.7918	0.0000	9,194.3484	9,194.3484	0.8608	0.0000	9,212.4259
Total	**126.6714**	**346.9465**	**307.9644**	**0.9218**	**35.9894**	**11.3801**	**47.3696**	**11.3183**	**10.6193**	**21.9376**	**0.0000**	**86,742.9731**	**86,742.9731**	**5.2481**	**0.0000**	**86,853.1838**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	10.9514	202.7100	135.6594	0.5636	15.3732	4.0424	19.4156	4.9142	3.8252	8.7395	0.0000	56,023.7934	56,023.7934	1.8864	0.0000	56,063.4080
2018	34.8770	25.6932	52.9593	0.1115	5.5884	1.1656	6.7540	1.4954	1.1523	2.6477	0.0000	9,706.5815	9,706.5815	0.9117	0.0000	9,725.7271
2019	35.3054	36.0192	68.3781	0.1356	5.7561	1.7577	7.5138	1.5399	1.7449	3.2848	0.0000	11,818.2497	11,818.2497	1.5892	0.0000	11,851.6228
2020	34.5803	23.7987	49.0783	0.1112	5.5885	1.1474	6.7359	1.4955	1.1356	2.6311	0.0000	9,194.3484	9,194.3484	0.8608	0.0000	9,212.4259
Total	**115.7140**	**288.2211**	**306.0750**	**0.9218**	**32.3063**	**8.1130**	**40.4193**	**9.4451**	**7.8580**	**17.3031**	**0.0000**	**86,742.9731**	**86,742.9731**	**5.2481**	**0.0000**	**86,853.1838**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**8.65**	**16.93**	**0.61**	**0.00**	**10.23**	**28.71**	**14.67**	**16.55**	**26.00**	**21.13**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608
Mobile	5.7898	13.1558	56.4948	0.1672	11.6257	0.2256	11.8513	3.1066	0.2081	3.3147		12,798.4813	12,798.4813	0.4550		12,808.0360
Total	**35.8405**	**15.8449**	**74.3697**	**0.1834**	**11.6257**	**0.5077**	**12.1334**	**3.1066**	**0.4902**	**3.5968**	**0.0000**	**15,885.8243**	**15,885.8243**	**0.5420**	**0.0561**	**15,914.5882**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
Mobile	5.2314	9.1197	42.8282	0.1059	7.2075	0.1471	7.3546	1.9260	0.1357	2.0617		8,097.9466	8,097.9466	0.2988		8,104.2212
Total	**34.1786**	**11.1389**	**60.2329**	**0.1179**	**7.2075**	**0.3771**	**7.5846**	**1.9260**	**0.3658**	**2.2917**	**0.0000**	**10,364.3192**	**10,364.3192**	**0.3701**	**0.0410**	**10,384.8068**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.64**	**29.70**	**19.01**	**35.71**	**38.00**	**25.71**	**37.49**	**38.00**	**25.38**	**36.28**	**0.00**	**34.76**	**34.76**	**31.72**	**26.84**	**34.75**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	8/31/2017	5	174	
2	Grading	Grading	9/1/2017	11/17/2017	5	56	
3	Building Construction	Building Construction	11/20/2017	4/17/2020	5	630	
4	Architectural Coating	Architectural Coating	8/6/2018	2/28/2020	5	410	
5	Paving	Paving	5/6/2019	12/27/2019	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,430,760; Residential Outdoor: 476,920; Non-Residential Indoor: 809,739; Non-Residential Outdoor: 269,913 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38

Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45
Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	18,535.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	366.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0485	0.0000	0.0485	5.2300e-003	0.0000	5.2300e-003			0.0000			0.0000
Off-Road	4.3801	44.6737	29.1362	0.0586		2.1826	2.1826		2.0572	2.0572		5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**4.3801**	**44.6737**	**29.1362**	**0.0586**	**0.0485**	**2.1826**	**2.2310**	**5.2300e-003**	**2.0572**	**2.0625**		**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.1336**	**0.1807**	**1.8873**	**4.6400e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**375.4961**	**375.4961**	**0.0197**		**375.9097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0218	0.0000	0.0218	2.3500e-003	0.0000	2.3500e-003			0.0000			0.0000
Off-Road	1.4439	28.9612	36.5496	0.0586		1.4829	1.4829		1.4829	1.4829	0.0000	5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**1.4439**	**28.9612**	**36.5496**	**0.0586**	**0.0218**	**1.4829**	**1.5047**	**2.3500e-003**	**1.4829**	**1.4853**	**0.0000**	**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.1336**	**0.1807**	**1.8873**	**4.6400e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**375.4961**	**375.4961**	**0.0197**		**375.9097**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6967	0.0000	6.6967	3.4058	0.0000	3.4058			0.0000			0.0000
Off-Road	5.6517	59.2299	41.7080	0.0556		3.0931	3.0931		2.8847	2.8847		5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**5.6517**	**59.2299**	**41.7080**	**0.0556**	**6.6967**	**3.0931**	**9.7898**	**3.4058**	**2.8847**	**6.2905**		**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.5455	175.9745	99.1186	0.5049	12.1026	2.7107	14.8133	3.3134	2.4937	5.8071		50,162.1063	50,162.1063	0.3468		50,169.3881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0878	0.1188	1.2402	3.0500e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		246.7546	246.7546	0.0129		247.0264
Total	**9.6333**	**176.0932**	**100.3588**	**0.5080**	**12.3597**	**2.7128**	**15.0724**	**3.3816**	**2.4956**	**5.8772**		**50,408.8608**	**50,408.8608**	**0.3597**		**50,416.4145**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0135	0.0000	3.0135	1.5326	0.0000	1.5326			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**3.0135**	**1.3296**	**4.3431**	**1.5326**	**1.3296**	**2.8623**	**0.0000**	**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.5455	175.9745	99.1186	0.5049	12.1026	2.7107	14.8133	3.3134	2.4937	5.8071		50,162.1063	50,162.1063	0.3468		50,169.3881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0878	0.1188	1.2402	3.0500e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		246.7546	246.7546	0.0129		247.0264
Total	**9.6333**	**176.0932**	**100.3588**	**0.5080**	**12.3597**	**2.7128**	**15.0724**	**3.3816**	**2.4956**	**5.8772**		**50,408.8608**	**50,408.8608**	**0.3597**		**50,416.4145**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9116	8.8320	12.3886	0.0235	0.6814	0.1385	0.8199	0.1941	0.1274	0.3215		2,320.2162	2,320.2162	0.0170		2,320.5735
Worker	1.3972	1.8898	19.7354	0.0486	4.0910	0.0329	4.1239	1.0850	0.0304	1.1153		3,926.6159	3,926.6159	0.2060		3,930.9416
Total	**2.3088**	**10.7218**	**32.1241**	**0.0721**	**4.7724**	**0.1714**	**4.9439**	**1.2790**	**0.1577**	**1.4368**		**6,246.8321**	**6,246.8321**	**0.2230**		**6,251.5151**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9116	8.8320	12.3886	0.0235	0.6814	0.1385	0.8199	0.1941	0.1274	0.3215		2,320.2162	2,320.2162	0.0170		2,320.5735
Worker	1.3972	1.8898	19.7354	0.0486	4.0910	0.0329	4.1239	1.0850	0.0304	1.1153		3,926.6159	3,926.6159	0.2060		3,930.9416
Total	**2.3088**	**10.7218**	**32.1241**	**0.0721**	**4.7724**	**0.1714**	**4.9439**	**1.2790**	**0.1577**	**1.4368**		**6,246.8321**	**6,246.8321**	**0.2230**		**6,251.5151**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8522	8.1063	11.8882	0.0235	0.6814	0.1305	0.8119	0.1941	0.1201	0.3141		2,281.2672	2,281.2672	0.0169		2,281.6228
Worker	1.2567	1.7139	17.8608	0.0485	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		3,779.9936	3,779.9936	0.1912		3,784.0085
Total	**2.1089**	**9.8202**	**29.7489**	**0.0720**	**4.7725**	**0.1625**	**4.9350**	**1.2790**	**0.1497**	**1.4287**		**6,061.2609**	**6,061.2609**	**0.2081**		**6,065.6313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8522	8.1063	11.8882	0.0235	0.6814	0.1305	0.8119	0.1941	0.1201	0.3141		2,281.2672	2,281.2672	0.0169		2,281.6228
Worker	1.2567	1.7139	17.8608	0.0485	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		3,779.9936	3,779.9936	0.1912		3,784.0085
Total	**2.1089**	**9.8202**	**29.7489**	**0.0720**	**4.7725**	**0.1625**	**4.9350**	**1.2790**	**0.1497**	**1.4287**		**6,061.2609**	**6,061.2609**	**0.2081**		**6,065.6313**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8056	7.4742	11.4976	0.0234	0.6815	0.1238	0.8053	0.1941	0.1139	0.3080		2,236.7272	2,236.7272	0.0166		2,237.0763
Worker	1.1555	1.5716	16.3691	0.0484	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,636.0887	3,636.0887	0.1790		3,639.8470
Total	**1.9611**	**9.0458**	**27.8667**	**0.0718**	**4.7725**	**0.1553**	**4.9278**	**1.2791**	**0.1430**	**1.4221**		**5,872.8159**	**5,872.8159**	**0.1956**		**5,876.9233**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8056	7.4742	11.4976	0.0234	0.6815	0.1238	0.8053	0.1941	0.1139	0.3080		2,236.7272	2,236.7272	0.0166		2,237.0763
Worker	1.1555	1.5716	16.3691	0.0484	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,636.0887	3,636.0887	0.1790		3,639.8470
Total	**1.9611**	**9.0458**	**27.8667**	**0.0718**	**4.7725**	**0.1553**	**4.9278**	**1.2791**	**0.1430**	**1.4221**		**5,872.8159**	**5,872.8159**	**0.1956**		**5,876.9233**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7639	6.5206	11.1638	0.0234	0.6816	0.1132	0.7947	0.1941	0.1041	0.2983		2,186.3190	2,186.3190	0.0163		2,186.6612
Worker	1.0829	1.4565	15.2290	0.0484	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,488.3397	3,488.3397	0.1695		3,491.8993
Total	**1.8468**	**7.9771**	**26.3928**	**0.0718**	**4.7726**	**0.1445**	**4.9170**	**1.2791**	**0.1331**	**1.4122**		**5,674.6587**	**5,674.6587**	**0.1858**		**5,678.5605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7639	6.5206	11.1638	0.0234	0.6816	0.1132	0.7947	0.1941	0.1041	0.2983		2,186.3190	2,186.3190	0.0163		2,186.6612
Worker	1.0829	1.4565	15.2290	0.0484	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,488.3397	3,488.3397	0.1695		3,491.8993
Total	**1.8468**	**7.9771**	**26.3928**	**0.0718**	**4.7726**	**0.1445**	**4.9170**	**1.2791**	**0.1331**	**1.4122**		**5,674.6587**	**5,674.6587**	**0.1858**		**5,678.5605**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**32.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2507	0.3419	3.5624	9.6800e-003	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		753.9332	753.9332	0.0381		754.7339
Total	**0.2507**	**0.3419**	**3.5624**	**9.6800e-003**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**753.9332**	**753.9332**	**0.0381**		**754.7339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2507	0.3419	3.5624	9.6800e-003	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		753.9332	753.9332	0.0381		754.7339
Total	**0.2507**	**0.3419**	**3.5624**	**9.6800e-003**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**753.9332**	**753.9332**	**0.0381**		**754.7339**

3.5 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**32.0533**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2305	0.3135	3.2649	9.6600e-003	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		725.2308	725.2308	0.0357		725.9804
Total	**0.2305**	**0.3135**	**3.2649**	**9.6600e-003**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**725.2308**	**725.2308**	**0.0357**		**725.9804**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2305	0.3135	3.2649	9.6600e-003	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		725.2308	725.2308	0.0357		725.9804
Total	**0.2305**	**0.3135**	**3.2649**	**9.6600e-003**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**725.2308**	**725.2308**	**0.0357**		**725.9804**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**32.0290**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2160	0.2905	3.0375	9.6500e-003	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		695.7618	695.7618	0.0338		696.4717
Total	**0.2160**	**0.2905**	**3.0375**	**9.6500e-003**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**695.7618**	**695.7618**	**0.0338**		**696.4717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2160	0.2905	3.0375	9.6500e-003	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		695.7618	695.7618	0.0338		696.4717
Total	**0.2160**	**0.2905**	**3.0375**	**9.6500e-003**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**695.7618**	**695.7618**	**0.0338**		**696.4717**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447		2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4259**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**		**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0474	0.0644	0.6709	1.9800e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		149.0200	149.0200	7.3300e-003		149.1741
Total	**0.0474**	**0.0644**	**0.6709**	**1.9800e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**149.0200**	**149.0200**	**7.3300e-003**		**149.1741**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0474	0.0644	0.6709	1.9800e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		149.0200	149.0200	7.3300e-003		149.1741
Total	**0.0474**	**0.0644**	**0.6709**	**1.9800e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**149.0200**	**149.0200**	**7.3300e-003**		**149.1741**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2314	9.1197	42.8282	0.1059	7.2075	0.1471	7.3546	1.9260	0.1357	2.0617		8,097.9466	8,097.9466	0.2988		8,104.2212
Unmitigated	5.7898	13.1558	56.4948	0.1672	11.6257	0.2256	11.8513	3.1066	0.2081	3.3147		12,798.4813	12,798.4813	0.4550		12,808.0360

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	323.05	263.90	263.90	1,046,161	648,581
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	726,981
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	35.38	35.38	35.38	75,661	46,907
High Turnover (Sit Down Restaurant)	309.54	92.48	92.48	337,328	209,131
Hotel	1,038.50	348.40	348.40	2,007,554	1,244,609
Quality Restaurant	114.75	73.10	73.10	146,420	90,775
Total	2,183.31	1,109.06	1,109.06	4,785,744	2,966,985

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
NaturalGas Unmitigated	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	379.807	4.1000e-003	0.0372	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.6832	44.6832	8.6000e-004	8.2000e-004	44.9552
High Turnover (Sit Down Restaurant)	3471.53	0.0374	0.3404	0.2859	2.0400e-003		0.0259	0.0259		0.0259	0.0259		408.4153	408.4153	7.8300e-003	7.4900e-003	410.9008
Hotel	11815.5	0.1274	1.1584	0.9730	6.9500e-003		0.0880	0.0880		0.0880	0.0880		1,390.0636	1,390.0636	0.0266	0.0255	1,398.5233
Quality Restaurant	2712.49	0.0293	0.2659	0.2234	1.6000e-003		0.0202	0.0202		0.0202	0.0202		319.1167	319.1167	6.1200e-003	5.8500e-003	321.0588
Condo/Townhouse High Rise	3591.64	0.0387	0.3310	0.1409	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.5459	422.5459	8.1000e-003	7.7500e-003	425.1175
Condo/Townhouse High Rise	4025.79	0.0434	0.3710	0.1579	2.3700e-003		0.0300	0.0300		0.0300	0.0300		473.6229	473.6229	9.0800e-003	8.6800e-003	476.5053
Total		**0.2804**	**2.5039**	**1.8123**	**0.0153**		**0.1937**	**0.1937**		**0.1937**	**0.1937**		**3,058.4476**	**3,058.4476**	**0.0586**	**0.0561**	**3,077.0608**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0.263826	2.8500e-003	0.0259	0.0217	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003		31.0383	31.0383	5.9000e-004	5.7000e-004	31.2272
High Turnover (Sit Down Restaurant)	3.20198	0.0345	0.3139	0.2637	1.8800e-003		0.0239	0.0239		0.0239	0.0239		376.7040	376.7040	7.2200e-003	6.9100e-003	378.9965
Hotel	7.85625	0.0847	0.7702	0.6470	4.6200e-003		0.0585	0.0585		0.0585	0.0585		924.2645	924.2645	0.0177	0.0169	929.8894
Quality Restaurant	2.50188	0.0270	0.2453	0.2060	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.3390	294.3390	5.6400e-003	5.4000e-003	296.1302
Condo/Townhouse High Rise	2.44928	0.0264	0.2257	0.0961	1.4400e-003		0.0183	0.0183		0.0183	0.0183		288.1501	288.1501	5.5200e-003	5.2800e-003	289.9037
Condo/Townhouse High Rise	2.74534	0.0296	0.2530	0.1077	1.6100e-003		0.0205	0.0205		0.0205	0.0205		322.9814	322.9814	6.1900e-003	5.9200e-003	324.9470
Total		**0.2051**	**1.8340**	**1.3422**	**0.0112**		**0.1417**	**0.1417**		**0.1417**	**0.1417**		**2,237.4773**	**2,237.4773**	**0.0429**	**0.0410**	**2,251.0942**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Unmitigated	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5988					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**29.7704**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.5706					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**28.7421**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Proposed Project - 2.5 Month Grading

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Health Club	7.37	1000sqft	0.00	7,370.00	0
High Turnover (Sit Down Restaurant)	5.44	1000sqft	0.00	5,438.00	0
Hotel	134.00	Room	0.00	172,369.00	0
Quality Restaurant	4.25	1000sqft	0.00	4,249.00	0
Condo/Townhouse High Rise	91.00	Dwelling Unit	0.00	336,046.00	260
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	370,502.00	292

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - Applicant's construction schedule. (2.5 mo Grading)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment -

Trips and VMT - Based on 14cy trucks and distance to So Cal Disposal (C&D landfill)

Grading - See site plan, construction truck memo, PD.

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015 and updated 2016

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 3 equipment used per client provided information

Mobile Land Use Mitigation - Wilshire/Whittier metro stop across street on Wilshire; bus dist .5 m

Mobile Commute Mitigation -

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - Exceeds 2008 Title 24 by 25%.

Water Mitigation - See site plan, PD, and LUP

Waste Mitigation - City of Bev Hills Div Rate = 70% for res and com - http://www.beverlyhills.org/living/recyclingandconservation/

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	410.00
tblConstructionPhase	NumDays	230.00	630.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	20.00	56.00
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	PhaseEndDate	11/12/2021	2/28/2020
tblConstructionPhase	PhaseEndDate	10/23/2020	12/27/2019
tblConstructionPhase	PhaseStartDate	4/18/2020	8/6/2018
tblConstructionPhase	PhaseStartDate	11/18/2017	11/20/2017
tblConstructionPhase	PhaseStartDate	2/29/2020	5/6/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	164.05	0.00
tblFireplaces	NumberNoFireplace	19.30	0.00
tblFireplaces	NumberWood	9.65	0.00
tblGrading	AcresOfGrading	0.00	7.95

tblGrading	AcresOfGrading	84.00	7.95
tblGrading	MaterialExported	0.00	259,487.00
tblLandUse	LandUseSquareFeet	5,440.00	5,438.00
tblLandUse	LandUseSquareFeet	194,568.00	172,369.00
tblLandUse	LandUseSquareFeet	4,250.00	4,249.00
tblLandUse	LandUseSquareFeet	102,000.00	370,502.00
tblLandUse	LandUseSquareFeet	91,000.00	336,046.00
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	4.47	0.00
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	32,436.00	18,535.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	20.87	4.80

tblVehicleTrips	ST_TR	158.37	17.00
tblVehicleTrips	ST_TR	8.19	2.60
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	26.73	4.80
tblVehicleTrips	SU_TR	131.84	17.00
tblVehicleTrips	SU_TR	5.95	2.60
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	32.93	4.80
tblVehicleTrips	WD_TR	127.15	56.90
tblVehicleTrips	WD_TR	8.17	7.75
tblVehicleTrips	WD_TR	89.95	27.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	9.28
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	5.22
tblWaterMitigation	PercentReductionInFlowShower	20	5.8
tblWaterMitigation	PercentReductionInFlowToilet	20	5.8
tblWoodstoves	NumberCatalytic	9.65	0.00
tblWoodstoves	NumberNoncatalytic	9.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	15.0081	228.8039	132.9381	0.5642	19.0564	5.8030	24.8594	6.7874	5.3777	12.1651	0.0000	56,097.7458	56,097.7458	1.8840	0.0000	56,137.3102
2018	37.0182	35.0543	52.5442	0.1156	5.5884	1.8125	7.4010	1.4954	1.7098	3.2053	0.0000	10,027.5524	10,027.5524	0.9112	0.0000	10,046.6869
2019	37.9821	46.8139	64.9580	0.1398	5.7561	2.3849	8.1411	1.5399	2.2307	3.7707	0.0000	12,138.1448	12,138.1448	1.5887	0.0000	12,171.5066
2020	36.1224	28.7352	47.7590	0.1153	5.5885	1.3735	6.9621	1.4955	1.2955	2.7909	0.0000	9,492.8641	9,492.8641	0.8603	0.0000	9,510.9300
Total	**126.1309**	**339.4072**	**298.1993**	**0.9349**	**35.9894**	**11.3740**	**47.3635**	**11.3183**	**10.6137**	**21.9319**	**0.0000**	**87,756.3070**	**87,756.3070**	**5.2441**	**0.0000**	**87,866.4337**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	10.6745	196.1907	126.5307	0.5642	15.3732	4.0395	19.4127	4.9142	3.8226	8.7368	0.0000	56,097.7458	56,097.7458	1.8840	0.0000	56,137.3102
2018	34.7816	25.3188	52.8054	0.1156	5.5884	1.1644	6.7528	1.4954	1.1511	2.6466	0.0000	10,027.5524	10,027.5524	0.9112	0.0000	10,046.6869
2019	35.2179	35.6738	68.2068	0.1398	5.7561	1.7566	7.5127	1.5399	1.7439	3.2838	0.0000	12,138.1448	12,138.1448	1.5887	0.0000	12,171.5066
2020	34.4996	23.4985	48.7671	0.1153	5.5885	1.1464	6.7350	1.4955	1.1347	2.6302	0.0000	9,492.8641	9,492.8641	0.8603	0.0000	9,510.9300
Total	**115.1735**	**280.6818**	**296.3100**	**0.9349**	**32.3063**	**8.1069**	**40.4132**	**9.4451**	**7.8524**	**17.2974**	**0.0000**	**87,756.3070**	**87,756.3070**	**5.2441**	**0.0000**	**87,866.4337**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**8.69**	**17.30**	**0.63**	**0.00**	**10.23**	**28.72**	**14.67**	**16.55**	**26.02**	**21.13**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608
Mobile	5.6011	12.5390	56.0278	0.1761	11.6257	0.2248	11.8505	3.1066	0.2074	3.3139		13,435.4521	13,435.4521	0.4543		13,444.9919
Total	**35.6519**	**15.2281**	**73.9027**	**0.1922**	**11.6257**	**0.5068**	**12.1325**	**3.1066**	**0.4894**	**3.5960**	**0.0000**	**16,522.7951**	**16,522.7951**	**0.5413**	**0.0561**	**16,551.5441**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
Mobile	5.0221	8.7285	40.7289	0.1114	7.2075	0.1462	7.3537	1.9260	0.1349	2.0609		8,500.1620	8,500.1620	0.2981		8,506.4216
Total	**33.9693**	**10.7477**	**58.1336**	**0.1234**	**7.2075**	**0.3763**	**7.5838**	**1.9260**	**0.3650**	**2.2909**	**0.0000**	**10,766.5346**	**10,766.5346**	**0.3693**	**0.0410**	**10,787.0072**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.72**	**29.42**	**21.34**	**35.79**	**38.00**	**25.76**	**37.49**	**38.00**	**25.42**	**36.29**	**0.00**	**34.84**	**34.84**	**31.76**	**26.84**	**34.83**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	8/31/2017	5	174	
2	Grading	Grading	9/1/2017	11/17/2017	5	56	
3	Building Construction	Building Construction	11/20/2017	4/17/2020	5	630	
4	Architectural Coating	Architectural Coating	8/6/2018	2/28/2020	5	410	
5	Paving	Paving	5/6/2019	12/27/2019	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,430,760; Residential Outdoor: 476,920; Non-Residential Indoor: 809,739; Non-Residential Outdoor: 269,913 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38

Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45
Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	18,535.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	366.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0485	0.0000	0.0485	5.2300e-003	0.0000	5.2300e-003			0.0000			0.0000
Off-Road	4.3801	44.6737	29.1362	0.0586		2.1826	2.1826		2.0572	2.0572		5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**4.3801**	**44.6737**	**29.1362**	**0.0586**	**0.0485**	**2.1826**	**2.2310**	**5.2300e-003**	**2.0572**	**2.0625**		**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.1310**	**0.1646**	**2.0546**	**4.9600e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**400.4201**	**400.4201**	**0.0197**		**400.8338**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0218	0.0000	0.0218	2.3500e-003	0.0000	2.3500e-003			0.0000			0.0000
Off-Road	1.4439	28.9612	36.5496	0.0586		1.4829	1.4829		1.4829	1.4829	0.0000	5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**1.4439**	**28.9612**	**36.5496**	**0.0586**	**0.0218**	**1.4829**	**1.5047**	**2.3500e-003**	**1.4829**	**1.4853**	**0.0000**	**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.1310**	**0.1646**	**2.0546**	**4.9600e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**400.4201**	**400.4201**	**0.0197**		**400.8338**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6967	0.0000	6.6967	3.4058	0.0000	3.4058			0.0000			0.0000
Off-Road	5.6517	59.2299	41.7080	0.0556		3.0931	3.0931		2.8847	2.8847		5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**5.6517**	**59.2299**	**41.7080**	**0.0556**	**6.6967**	**3.0931**	**9.7898**	**3.4058**	**2.8847**	**6.2905**		**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.2703	169.4658	89.8800	0.5054	12.1026	2.7078	14.8104	3.3134	2.4911	5.8045		50,219.6799	50,219.6799	0.3444		50,226.9117
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0861	0.1081	1.3502	3.2600e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		263.1332	263.1332	0.0129		263.4051
Total	**9.3564**	**169.5739**	**91.2302**	**0.5087**	**12.3597**	**2.7099**	**15.0696**	**3.3816**	**2.4930**	**5.8746**		**50,482.8131**	**50,482.8131**	**0.3573**		**50,490.3167**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0135	0.0000	3.0135	1.5326	0.0000	1.5326			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**3.0135**	**1.3296**	**4.3431**	**1.5326**	**1.3296**	**2.8623**	**0.0000**	**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.2703	169.4658	89.8800	0.5054	12.1026	2.7078	14.8104	3.3134	2.4911	5.8045		50,219.6799	50,219.6799	0.3444		50,226.9117
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0861	0.1081	1.3502	3.2600e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		263.1332	263.1332	0.0129		263.4051
Total	**9.3564**	**169.5739**	**91.2302**	**0.5087**	**12.3597**	**2.7099**	**15.0696**	**3.3816**	**2.4930**	**5.8746**		**50,482.8131**	**50,482.8131**	**0.3573**		**50,490.3167**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8346	8.6193	10.2252	0.0237	0.6814	0.1372	0.8186	0.1941	0.1262	0.3202		2,339.8720	2,339.8720	0.0165		2,340.2186
Worker	1.3698	1.7208	21.4855	0.0518	4.0910	0.0329	4.1239	1.0850	0.0304	1.1153		4,187.2506	4,187.2506	0.2060		4,191.5763
Total	**2.2044**	**10.3402**	**31.7107**	**0.0755**	**4.7724**	**0.1701**	**4.9425**	**1.2790**	**0.1565**	**1.4356**		**6,527.1226**	**6,527.1226**	**0.2225**		**6,531.7949**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8346	8.6193	10.2252	0.0237	0.6814	0.1372	0.8186	0.1941	0.1262	0.3202		2,339.8720	2,339.8720	0.0165		2,340.2186
Worker	1.3698	1.7208	21.4855	0.0518	4.0910	0.0329	4.1239	1.0850	0.0304	1.1153		4,187.2506	4,187.2506	0.2060		4,191.5763
Total	**2.2044**	**10.3402**	**31.7107**	**0.0755**	**4.7724**	**0.1701**	**4.9425**	**1.2790**	**0.1565**	**1.4356**		**6,527.1226**	**6,527.1226**	**0.2225**		**6,531.7949**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7829	7.9152	9.7420	0.0237	0.6814	0.1293	0.8107	0.1941	0.1189	0.3130		2,300.6344	2,300.6344	0.0164		2,300.9789
Worker	1.2349	1.5611	19.5216	0.0518	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		4,031.4445	4,031.4445	0.1912		4,035.4594
Total	**2.0178**	**9.4763**	**29.2637**	**0.0755**	**4.7725**	**0.1613**	**4.9338**	**1.2790**	**0.1486**	**1.4276**		**6,332.0790**	**6,332.0790**	**0.2076**		**6,336.4383**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7829	7.9152	9.7420	0.0237	0.6814	0.1293	0.8107	0.1941	0.1189	0.3130		2,300.6344	2,300.6344	0.0164		2,300.9789
Worker	1.2349	1.5611	19.5216	0.0518	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		4,031.4445	4,031.4445	0.1912		4,035.4594
Total	**2.0178**	**9.4763**	**29.2637**	**0.0755**	**4.7725**	**0.1613**	**4.9338**	**1.2790**	**0.1486**	**1.4276**		**6,332.0790**	**6,332.0790**	**0.2076**		**6,336.4383**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7415	7.3020	9.3760	0.0236	0.6815	0.1227	0.8042	0.1941	0.1129	0.3070		2,255.8046	2,255.8046	0.0161		2,256.1424
Worker	1.1366	1.4319	17.9414	0.0517	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,878.5981	3,878.5981	0.1790		3,882.3564
Total	**1.8781**	**8.7339**	**27.3174**	**0.0753**	**4.7725**	**0.1541**	**4.9266**	**1.2791**	**0.1420**	**1.4211**		**6,134.4027**	**6,134.4027**	**0.1951**		**6,138.4988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7415	7.3020	9.3760	0.0236	0.6815	0.1227	0.8042	0.1941	0.1129	0.3070		2,255.8046	2,255.8046	0.0161		2,256.1424
Worker	1.1366	1.4319	17.9414	0.0517	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,878.5981	3,878.5981	0.1790		3,882.3564
Total	**1.8781**	**8.7339**	**27.3174**	**0.0753**	**4.7725**	**0.1541**	**4.9266**	**1.2791**	**0.1420**	**1.4211**		**6,134.4027**	**6,134.4027**	**0.1951**		**6,138.4988**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7042	6.3749	9.0592	0.0236	0.6816	0.1123	0.7938	0.1941	0.1033	0.2974		2,205.0188	2,205.0188	0.0158		2,205.3495
Worker	1.0654	1.3277	16.7242	0.0517	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,721.6259	3,721.6259	0.1695		3,725.1854
Total	**1.7696**	**7.7026**	**25.7834**	**0.0752**	**4.7726**	**0.1435**	**4.9161**	**1.2791**	**0.1323**	**1.4114**		**5,926.6447**	**5,926.6447**	**0.1853**		**5,930.5349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7042	6.3749	9.0592	0.0236	0.6816	0.1123	0.7938	0.1941	0.1033	0.2974		2,205.0188	2,205.0188	0.0158		2,205.3495
Worker	1.0654	1.3277	16.7242	0.0517	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,721.6259	3,721.6259	0.1695		3,725.1854
Total	**1.7696**	**7.7026**	**25.7834**	**0.0752**	**4.7726**	**0.1435**	**4.9161**	**1.2791**	**0.1323**	**1.4114**		**5,926.6447**	**5,926.6447**	**0.1853**		**5,930.5349**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**32.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2463	0.3114	3.8937	0.0103	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		804.0859	804.0859	0.0381		804.8867
Total	**0.2463**	**0.3114**	**3.8937**	**0.0103**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**804.0859**	**804.0859**	**0.0381**		**804.8867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2463	0.3114	3.8937	0.0103	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		804.0859	804.0859	0.0381		804.8867
Total	**0.2463**	**0.3114**	**3.8937**	**0.0103**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**804.0859**	**804.0859**	**0.0381**		**804.8867**

3.5 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**32.0533**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2267	0.2856	3.5785	0.0103	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		773.6002	773.6002	0.0357		774.3498
Total	**0.2267**	**0.2856**	**3.5785**	**0.0103**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**773.6002**	**773.6002**	**0.0357**		**774.3498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2267	0.2856	3.5785	0.0103	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		773.6002	773.6002	0.0357		774.3498
Total	**0.2267**	**0.2856**	**3.5785**	**0.0103**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**773.6002**	**773.6002**	**0.0357**		**774.3498**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**32.0290**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2125	0.2648	3.3357	0.0103	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		742.2915	742.2915	0.0338		743.0015
Total	**0.2125**	**0.2648**	**3.3357**	**0.0103**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**742.2915**	**742.2915**	**0.0338**		**743.0015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2125	0.2648	3.3357	0.0103	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		742.2915	742.2915	0.0338		743.0015
Total	**0.2125**	**0.2648**	**3.3357**	**0.0103**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**742.2915**	**742.2915**	**0.0338**		**743.0015**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447		2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4259**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**		**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0466	0.0587	0.7353	2.1200e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		158.9589	158.9589	7.3300e-003		159.1130
Total	**0.0466**	**0.0587**	**0.7353**	**2.1200e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**158.9589**	**158.9589**	**7.3300e-003**		**159.1130**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0466	0.0587	0.7353	2.1200e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		158.9589	158.9589	7.3300e-003		159.1130
Total	**0.0466**	**0.0587**	**0.7353**	**2.1200e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**158.9589**	**158.9589**	**7.3300e-003**		**159.1130**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0221	8.7285	40.7289	0.1114	7.2075	0.1462	7.3537	1.9260	0.1349	2.0609		8,500.1620	8,500.1620	0.2981		8,506.4216
Unmitigated	5.6011	12.5390	56.0278	0.1761	11.6257	0.2248	11.8505	3.1066	0.2074	3.3139		13,435.4521	13,435.4521	0.4543		13,444.9919

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	323.05	263.90	263.90	1,046,161	648,581
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	726,981
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	35.38	35.38	35.38	75,661	46,907
High Turnover (Sit Down Restaurant)	309.54	92.48	92.48	337,328	209,131
Hotel	1,038.50	348.40	348.40	2,007,554	1,244,609
Quality Restaurant	114.75	73.10	73.10	146,420	90,775
Total	2,183.31	1,109.06	1,109.06	4,785,744	2,966,985

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
NaturalGas Unmitigated	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	379.807	4.1000e-003	0.0372	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.6832	44.6832	8.6000e-004	8.2000e-004	44.9552
High Turnover (Sit Down Restaurant)	3471.53	0.0374	0.3404	0.2859	2.0400e-003		0.0259	0.0259		0.0259	0.0259		408.4153	408.4153	7.8300e-003	7.4900e-003	410.9008
Hotel	11815.5	0.1274	1.1584	0.9730	6.9500e-003		0.0880	0.0880		0.0880	0.0880		1,390.0636	1,390.0636	0.0266	0.0255	1,398.5233
Quality Restaurant	2712.49	0.0293	0.2659	0.2234	1.6000e-003		0.0202	0.0202		0.0202	0.0202		319.1167	319.1167	6.1200e-003	5.8500e-003	321.0588
Condo/Townhouse High Rise	3591.64	0.0387	0.3310	0.1409	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.5459	422.5459	8.1000e-003	7.7500e-003	425.1175
Condo/Townhouse High Rise	4025.79	0.0434	0.3710	0.1579	2.3700e-003		0.0300	0.0300		0.0300	0.0300		473.6229	473.6229	9.0800e-003	8.6800e-003	476.5053
Total		**0.2804**	**2.5039**	**1.8123**	**0.0153**		**0.1937**	**0.1937**		**0.1937**	**0.1937**		**3,058.4476**	**3,058.4476**	**0.0586**	**0.0561**	**3,077.0608**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0.263826	2.8500e-003	0.0259	0.0217	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003		31.0383	31.0383	5.9000e-004	5.7000e-004	31.2272
High Turnover (Sit Down Restaurant)	3.20198	0.0345	0.3139	0.2637	1.8800e-003		0.0239	0.0239		0.0239	0.0239		376.7040	376.7040	7.2200e-003	6.9100e-003	378.9965
Hotel	7.85625	0.0847	0.7702	0.6470	4.6200e-003		0.0585	0.0585		0.0585	0.0585		924.2645	924.2645	0.0177	0.0169	929.8894
Quality Restaurant	2.50188	0.0270	0.2453	0.2060	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.3390	294.3390	5.6400e-003	5.4000e-003	296.1302
Condo/Townhouse High Rise	2.44928	0.0264	0.2257	0.0961	1.4400e-003		0.0183	0.0183		0.0183	0.0183		288.1501	288.1501	5.5200e-003	5.2800e-003	289.9037
Condo/Townhouse High Rise	2.74534	0.0296	0.2530	0.1077	1.6100e-003		0.0205	0.0205		0.0205	0.0205		322.9814	322.9814	6.1900e-003	5.9200e-003	324.9470
Total		**0.2051**	**1.8340**	**1.3422**	**0.0112**		**0.1417**	**0.1417**		**0.1417**	**0.1417**		**2,237.4773**	**2,237.4773**	**0.0429**	**0.0410**	**2,251.0942**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Unmitigated	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5988					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**29.7704**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.5706					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**28.7421**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Proposed Project - 2.5 Month Grading

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Health Club	7.37	1000sqft	0.00	7,370.00	0
High Turnover (Sit Down Restaurant)	5.44	1000sqft	0.00	5,438.00	0
Hotel	134.00	Room	0.00	172,369.00	0
Quality Restaurant	4.25	1000sqft	0.00	4,249.00	0
Condo/Townhouse High Rise	91.00	Dwelling Unit	0.00	336,046.00	260
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	370,502.00	292

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - Applicant's construction schedule. (2.5 mo Grading)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment -

Trips and VMT - Based on 14cy trucks and distance to So Cal Disposal (C&D landfill)

Grading - See site plan, construction truck memo, PD.

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015 and updated 2016

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 3 equipment used per client provided information

Mobile Land Use Mitigation - Wilshire/Whittier metro stop across street on Wilshire; bus dist .5 m

Mobile Commute Mitigation -

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - Exceeds 2008 Title 24 by 25%.

Water Mitigation - See site plan, PD, and LUP

Waste Mitigation - City of Bev Hills Div Rate = 70% for res and com - http://www.beverlyhills.org/living/recyclingandconservation/

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	410.00
tblConstructionPhase	NumDays	230.00	630.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	20.00	56.00
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	PhaseEndDate	11/12/2021	2/28/2020
tblConstructionPhase	PhaseEndDate	10/23/2020	12/27/2019
tblConstructionPhase	PhaseStartDate	4/18/2020	8/6/2018
tblConstructionPhase	PhaseStartDate	11/18/2017	11/20/2017
tblConstructionPhase	PhaseStartDate	2/29/2020	5/6/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	164.05	0.00
tblFireplaces	NumberNoFireplace	19.30	0.00
tblFireplaces	NumberWood	9.65	0.00
tblGrading	AcresOfGrading	0.00	7.95

tblGrading	AcresOfGrading	84.00	7.95
tblGrading	MaterialExported	0.00	259,487.00
tblLandUse	LandUseSquareFeet	5,440.00	5,438.00
tblLandUse	LandUseSquareFeet	194,568.00	172,369.00
tblLandUse	LandUseSquareFeet	4,250.00	4,249.00
tblLandUse	LandUseSquareFeet	102,000.00	370,502.00
tblLandUse	LandUseSquareFeet	91,000.00	336,046.00
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	4.47	0.00
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	32,436.00	18,535.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	20.87	4.80

tblVehicleTrips	ST_TR	158.37	17.00
tblVehicleTrips	ST_TR	8.19	2.60
tblVehicleTrips	ST_TR	94.36	17.20
tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	26.73	4.80
tblVehicleTrips	SU_TR	131.84	17.00
tblVehicleTrips	SU_TR	5.95	2.60
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	32.93	4.80
tblVehicleTrips	WD_TR	127.15	56.90
tblVehicleTrips	WD_TR	8.17	7.75
tblVehicleTrips	WD_TR	89.95	27.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	9.28
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	5.22
tblWaterMitigation	PercentReductionInFlowShower	20	5.8
tblWaterMitigation	PercentReductionInFlowToilet	20	5.8
tblWoodstoves	NumberCatalytic	9.65	0.00
tblWoodstoves	NumberNoncatalytic	9.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.8972	11.1354	7.4019	0.0228	0.6359	0.3820	1.0179	0.2169	0.3573	0.5742	0.0000	2,038.7204	2,038.7204	0.1863	0.0000	2,042.6330
2018	2.3237	4.4695	6.4756	0.0137	0.6540	0.2244	0.8785	0.1754	0.2111	0.3865	0.0000	1,085.2210	1,085.2210	0.1033	0.0000	1,087.3911
2019	4.8870	5.4985	7.8373	0.0167	0.7301	0.2744	1.0045	0.1956	0.2572	0.4529	0.0000	1,311.3536	1,311.3536	0.1590	0.0000	1,314.6916
2020	0.8440	1.1047	1.7930	4.1500e-003	0.2000	0.0515	0.2515	0.0536	0.0485	0.1021	0.0000	312.3082	312.3082	0.0296	0.0000	312.9290
Total	**8.9518**	**22.2081**	**23.5079**	**0.0574**	**2.2200**	**0.9323**	**3.1523**	**0.6416**	**0.8741**	**1.5157**	**0.0000**	**4,747.6032**	**4,747.6032**	**0.4782**	**0.0000**	**4,757.6447**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4840	8.6717	7.8627	0.0228	0.5305	0.2585	0.7890	0.1642	0.2522	0.4164	0.0000	2,038.7196	2,038.7196	0.1863	0.0000	2,042.6322
2018	2.0503	3.2493	6.5114	0.0137	0.6540	0.1442	0.7982	0.1754	0.1425	0.3179	0.0000	1,085.2206	1,085.2206	0.1033	0.0000	1,087.3907
2019	4.5661	4.2209	8.1447	0.0167	0.7301	0.2020	0.9321	0.1956	0.2004	0.3960	0.0000	1,311.3530	1,311.3530	0.1590	0.0000	1,314.6910
2020	0.7839	0.9062	1.8323	4.1500e-003	0.2000	0.0430	0.2430	0.0536	0.0425	0.0961	0.0000	312.3081	312.3081	0.0296	0.0000	312.9289
Total	**7.8843**	**17.0481**	**24.3512**	**0.0574**	**2.1146**	**0.6476**	**2.7622**	**0.5889**	**0.6375**	**1.2264**	**0.0000**	**4,747.6013**	**4,747.6013**	**0.4782**	**0.0000**	**4,757.6428**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**11.93**	**23.23**	**-3.59**	**0.00**	**4.75**	**30.54**	**12.38**	**8.21**	**27.06**	**19.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4047	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Energy	0.0512	0.4570	0.3308	2.7900e-003		0.0354	0.0354		0.0354	0.0354	0.0000	1,999.8221	1,999.8221	0.0784	0.0235	2,008.7484
Mobile	0.8608	2.1250	8.9742	0.0269	1.8142	0.0357	1.8499	0.4855	0.0329	0.5184	0.0000	1,864.4537	1,864.4537	0.0654	0.0000	1,865.8264
Waste						0.0000	0.0000		0.0000	0.0000	55.3698	0.0000	55.3698	3.2723	0.0000	124.0874
Water						0.0000	0.0000		0.0000	0.0000	6.1392	99.9565	106.0957	0.6352	0.0158	124.3439
Total	**6.3167**	**2.6052**	**11.3128**	**0.0298**	**1.8142**	**0.0821**	**1.8963**	**0.4855**	**0.0793**	**0.5648**	**61.5090**	**3,967.5090**	**4,029.0180**	**4.0544**	**0.0393**	**4,126.3504**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.2171	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Energy	0.0374	0.3347	0.2449	2.0400e-003		0.0259	0.0259		0.0259	0.0259	0.0000	1,490.8732	1,490.8732	0.0586	0.0175	1,497.5124
Mobile	0.7711	1.4698	6.7408	0.0170	1.1247	0.0232	1.1479	0.3010	0.0214	0.3224	0.0000	1,179.6467	1,179.6467	0.0429	0.0000	1,180.5470
Waste						0.0000	0.0000		0.0000	0.0000	16.6110	0.0000	16.6110	0.9817	0.0000	37.2262
Water						0.0000	0.0000		0.0000	0.0000	4.6265	54.3386	58.9650	0.4776	0.0117	72.6274
Total	**6.0256**	**1.8276**	**8.9936**	**0.0192**	**1.1247**	**0.0601**	**1.1848**	**0.3010**	**0.0583**	**0.3593**	**21.2374**	**2,728.1351**	**2,749.3726**	**1.5640**	**0.0292**	**2,791.2574**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.61**	**29.85**	**20.50**	**35.64**	**38.00**	**26.75**	**37.52**	**38.00**	**26.46**	**36.38**	**65.47**	**31.24**	**31.76**	**61.42**	**25.83**	**32.36**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	8/31/2017	5	174	
2	Grading	Grading	9/1/2017	11/17/2017	5	56	
3	Building Construction	Building Construction	11/20/2017	4/17/2020	5	630	
4	Architectural Coating	Architectural Coating	8/6/2018	2/28/2020	5	410	
5	Paving	Paving	5/6/2019	12/27/2019	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,430,760; Residential Outdoor: 476,920; Non-Residential Indoor: 809,739; Non-Residential Outdoor: 269,913 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38
Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45

Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	18,535.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	366.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2200e-003	0.0000	4.2200e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3811	3.8866	2.5349	5.1000e-003		0.1899	0.1899		0.1790	0.1790	0.0000	462.6914	462.6914	0.1250	0.0000	465.3165
Total	**0.3811**	**3.8866**	**2.5349**	**5.1000e-003**	**4.2200e-003**	**0.1899**	**0.1941**	**4.6000e-004**	**0.1790**	**0.1794**	**0.0000**	**462.6914**	**462.6914**	**0.1250**	**0.0000**	**465.3165**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0162	0.1683	4.1000e-004	0.0334	2.7000e-004	0.0337	8.8700e-003	2.5000e-004	9.1200e-003	0.0000	30.0979	30.0979	1.5500e-003	0.0000	30.1306
Total	**0.0109**	**0.0162**	**0.1683**	**4.1000e-004**	**0.0334**	**2.7000e-004**	**0.0337**	**8.8700e-003**	**2.5000e-004**	**9.1200e-003**	**0.0000**	**30.0979**	**30.0979**	**1.5500e-003**	**0.0000**	**30.1306**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9000e-003	0.0000	1.9000e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	2.5196	3.1798	5.1000e-003		0.1290	0.1290		0.1290	0.1290	0.0000	462.6908	462.6908	0.1250	0.0000	465.3160
Total	**0.1256**	**2.5196**	**3.1798**	**5.1000e-003**	**1.9000e-003**	**0.1290**	**0.1309**	**2.0000e-004**	**0.1290**	**0.1292**	**0.0000**	**462.6908**	**462.6908**	**0.1250**	**0.0000**	**465.3160**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0162	0.1683	4.1000e-004	0.0334	2.7000e-004	0.0337	8.8700e-003	2.5000e-004	9.1200e-003	0.0000	30.0979	30.0979	1.5500e-003	0.0000	30.1306
Total	**0.0109**	**0.0162**	**0.1683**	**4.1000e-004**	**0.0334**	**2.7000e-004**	**0.0337**	**8.8700e-003**	**2.5000e-004**	**9.1200e-003**	**0.0000**	**30.0979**	**30.0979**	**1.5500e-003**	**0.0000**	**30.1306**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1875	0.0000	0.1875	0.0954	0.0000	0.0954	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1583	1.6584	1.1678	1.5600e-003		0.0866	0.0866		0.0808	0.0808	0.0000	142.6259	142.6259	0.0388	0.0000	143.4403
Total	**0.1583**	**1.6584**	**1.1678**	**1.5600e-003**	**0.1875**	**0.0866**	**0.2741**	**0.0954**	**0.0808**	**0.1761**	**0.0000**	**142.6259**	**142.6259**	**0.0388**	**0.0000**	**143.4403**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.2651	5.0104	2.7394	0.0142	0.3334	0.0759	0.4093	0.0914	0.0698	0.1612	0.0000	1,275.0245	1,275.0245	8.7700e-003	0.0000	1,275.2088
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3100e-003	3.4200e-003	0.0356	9.0000e-005	7.0700e-003	6.0000e-005	7.1200e-003	1.8800e-003	5.0000e-005	1.9300e-003	0.0000	6.3655	6.3655	3.3000e-004	0.0000	6.3724
Total	**0.2674**	**5.0138**	**2.7750**	**0.0142**	**0.3405**	**0.0759**	**0.4164**	**0.0933**	**0.0698**	**0.1632**	**0.0000**	**1,281.3901**	**1,281.3901**	**9.1000e-003**	**0.0000**	**1,281.5812**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0844	0.0000	0.0844	0.0429	0.0000	0.0429	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0369	0.7453	0.9884	1.5600e-003		0.0372	0.0372		0.0372	0.0372	0.0000	142.6257	142.6257	0.0388	0.0000	143.4401
Total	**0.0369**	**0.7453**	**0.9884**	**1.5600e-003**	**0.0844**	**0.0372**	**0.1216**	**0.0429**	**0.0372**	**0.0801**	**0.0000**	**142.6257**	**142.6257**	**0.0388**	**0.0000**	**143.4401**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.2651	5.0104	2.7394	0.0142	0.3334	0.0759	0.4093	0.0914	0.0698	0.1612	0.0000	1,275.0245	1,275.0245	8.7700e-003	0.0000	1,275.2088
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3100e-003	3.4200e-003	0.0356	9.0000e-005	7.0700e-003	6.0000e-005	7.1200e-003	1.8800e-003	5.0000e-005	1.9300e-003	0.0000	6.3655	6.3655	3.3000e-004	0.0000	6.3724
Total	**0.2674**	**5.0138**	**2.7750**	**0.0142**	**0.3405**	**0.0759**	**0.4164**	**0.0933**	**0.0698**	**0.1632**	**0.0000**	**1,281.3901**	**1,281.3901**	**9.1000e-003**	**0.0000**	**1,281.5812**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0465	0.3961	0.2719	4.0000e-004		0.0267	0.0267		0.0251	0.0251	0.0000	35.9219	35.9219	8.8400e-003	0.0000	36.1075
Total	**0.0465**	**0.3961**	**0.2719**	**4.0000e-004**		**0.0267**	**0.0267**		**0.0251**	**0.0251**	**0.0000**	**35.9219**	**35.9219**	**8.8400e-003**	**0.0000**	**36.1075**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.1351	0.1806	3.5000e-004	0.0101	2.0700e-003	0.0121	2.8700e-003	1.9000e-003	4.7700e-003	0.0000	31.7281	31.7281	2.3000e-004	0.0000	31.7329
Worker	0.0197	0.0292	0.3034	7.4000e-004	0.0602	4.9000e-004	0.0607	0.0160	4.6000e-004	0.0165	0.0000	54.2652	54.2652	2.8000e-003	0.0000	54.3240
Total	**0.0330**	**0.1643**	**0.4840**	**1.0900e-003**	**0.0703**	**2.5600e-003**	**0.0729**	**0.0189**	**2.3600e-003**	**0.0212**	**0.0000**	**85.9933**	**85.9933**	**3.0300e-003**	**0.0000**	**86.0569**

3.4 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0101	0.2126	0.2672	4.0000e-004		0.0135	0.0135		0.0135	0.0135	0.0000	35.9218	35.9218	8.8400e-003	0.0000	36.1075
Total	**0.0101**	**0.2126**	**0.2672**	**4.0000e-004**		**0.0135**	**0.0135**		**0.0135**	**0.0135**	**0.0000**	**35.9218**	**35.9218**	**8.8400e-003**	**0.0000**	**36.1075**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0133	0.1351	0.1806	3.5000e-004	0.0101	2.0700e-003	0.0121	2.8700e-003	1.9000e-003	4.7700e-003	0.0000	31.7281	31.7281	2.3000e-004	0.0000	31.7329
Worker	0.0197	0.0292	0.3034	7.4000e-004	0.0602	4.9000e-004	0.0607	0.0160	4.6000e-004	0.0165	0.0000	54.2652	54.2652	2.8000e-003	0.0000	54.3240
Total	**0.0330**	**0.1643**	**0.4840**	**1.0900e-003**	**0.0703**	**2.5600e-003**	**0.0729**	**0.0189**	**2.3600e-003**	**0.0212**	**0.0000**	**85.9933**	**85.9933**	**3.0300e-003**	**0.0000**	**86.0569**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1083	1.0787	1.5051	3.0800e-003	0.0876	0.0169	0.1045	0.0250	0.0156	0.0406	0.0000	271.4036	271.4036	1.9700e-003	0.0000	271.4450
Worker	0.1541	0.2303	2.3906	6.4300e-003	0.5240	4.1800e-003	0.5282	0.1392	3.8700e-003	0.1430	0.0000	454.4855	454.4855	0.0226	0.0000	454.9608
Total	**0.2624**	**1.3090**	**3.8957**	**9.5100e-003**	**0.6116**	**0.0211**	**0.6327**	**0.1642**	**0.0195**	**0.1836**	**0.0000**	**725.8891**	**725.8891**	**0.0246**	**0.0000**	**726.4058**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0876	1.8497	2.3249	3.5000e-003		0.1177	0.1177		0.1177	0.1177	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.0876**	**1.8497**	**2.3249**	**3.5000e-003**		**0.1177**	**0.1177**		**0.1177**	**0.1177**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1083	1.0787	1.5051	3.0800e-003	0.0876	0.0169	0.1045	0.0250	0.0156	0.0406	0.0000	271.4036	271.4036	1.9700e-003	0.0000	271.4450
Worker	0.1541	0.2303	2.3906	6.4300e-003	0.5240	4.1800e-003	0.5282	0.1392	3.8700e-003	0.1430	0.0000	454.4855	454.4855	0.0226	0.0000	454.9608
Total	**0.2624**	**1.3090**	**3.8957**	**9.5100e-003**	**0.6116**	**0.0211**	**0.6327**	**0.1642**	**0.0195**	**0.1836**	**0.0000**	**725.8891**	**725.8891**	**0.0246**	**0.0000**	**726.4058**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1024	0.9946	1.4540	3.0700e-003	0.0876	0.0161	0.1036	0.0250	0.0148	0.0398	0.0000	266.1107	266.1107	1.9300e-003	0.0000	266.1513
Worker	0.1415	0.2112	2.1921	6.4200e-003	0.5240	4.1100e-003	0.5281	0.1392	3.8100e-003	0.1430	0.0000	437.1881	437.1881	0.0212	0.0000	437.6330
Total	**0.2439**	**1.2058**	**3.6461**	**9.4900e-003**	**0.6116**	**0.0202**	**0.6318**	**0.1642**	**0.0186**	**0.1828**	**0.0000**	**703.2988**	**703.2988**	**0.0231**	**0.0000**	**703.7843**

3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0876	1.8497	2.3249	3.5000e-003		0.1177	0.1177		0.1177	0.1177	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.0876**	**1.8497**	**2.3249**	**3.5000e-003**		**0.1177**	**0.1177**		**0.1177**	**0.1177**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1024	0.9946	1.4540	3.0700e-003	0.0876	0.0161	0.1036	0.0250	0.0148	0.0398	0.0000	266.1107	266.1107	1.9300e-003	0.0000	266.1513
Worker	0.1415	0.2112	2.1921	6.4200e-003	0.5240	4.1100e-003	0.5281	0.1392	3.8100e-003	0.1430	0.0000	437.1881	437.1881	0.0212	0.0000	437.6330
Total	**0.2439**	**1.2058**	**3.6461**	**9.4900e-003**	**0.6116**	**0.0202**	**0.6318**	**0.1642**	**0.0186**	**0.1828**	**0.0000**	**703.2988**	**703.2988**	**0.0231**	**0.0000**	**703.7843**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0823	0.7443	0.6555	1.0500e-003		0.0434	0.0434		0.0408	0.0408	0.0000	89.9535	89.9535	0.0219	0.0000	90.4137
Total	**0.0823**	**0.7443**	**0.6555**	**1.0500e-003**		**0.0434**	**0.0434**		**0.0408**	**0.0408**	**0.0000**	**89.9535**	**89.9535**	**0.0219**	**0.0000**	**90.4137**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.2593	0.4214	9.2000e-004	0.0262	4.3900e-003	0.0306	7.4700e-003	4.0400e-003	0.0115	0.0000	77.7361	77.7361	5.7000e-004	0.0000	77.7480
Worker	0.0396	0.0585	0.6097	1.9200e-003	0.1566	1.2200e-003	0.1578	0.0416	1.1300e-003	0.0427	0.0000	125.3466	125.3466	6.0000e-003	0.0000	125.4726
Total	**0.0686**	**0.3178**	**1.0311**	**2.8400e-003**	**0.1828**	**5.6100e-003**	**0.1884**	**0.0491**	**5.1700e-003**	**0.0542**	**0.0000**	**203.0828**	**203.0828**	**6.5700e-003**	**0.0000**	**203.2206**

3.4 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0262	0.5528	0.6948	1.0500e-003		0.0352	0.0352		0.0352	0.0352	0.0000	89.9534	89.9534	0.0219	0.0000	90.4136
Total	**0.0262**	**0.5528**	**0.6948**	**1.0500e-003**		**0.0352**	**0.0352**		**0.0352**	**0.0352**	**0.0000**	**89.9534**	**89.9534**	**0.0219**	**0.0000**	**90.4136**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.2593	0.4214	9.2000e-004	0.0262	4.3900e-003	0.0306	7.4700e-003	4.0400e-003	0.0115	0.0000	77.7361	77.7361	5.7000e-004	0.0000	77.7480
Worker	0.0396	0.0585	0.6097	1.9200e-003	0.1566	1.2200e-003	0.1578	0.0416	1.1300e-003	0.0427	0.0000	125.3466	125.3466	6.0000e-003	0.0000	125.4726
Total	**0.0686**	**0.3178**	**1.0311**	**2.8400e-003**	**0.1828**	**5.6100e-003**	**0.1884**	**0.0491**	**5.1700e-003**	**0.0542**	**0.0000**	**203.0828**	**203.0828**	**6.5700e-003**	**0.0000**	**203.2206**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6847					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1063	0.0983	1.6000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	13.5323	13.5323	1.2900e-003	0.0000	13.5593
Total	**1.7005**	**0.1063**	**0.0983**	**1.6000e-004**		**7.9800e-003**	**7.9800e-003**		**7.9800e-003**	**7.9800e-003**	**0.0000**	**13.5323**	**13.5323**	**1.2900e-003**	**0.0000**	**13.5593**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0125	0.0187	0.1937	5.2000e-004	0.0425	3.4000e-004	0.0428	0.0113	3.1000e-004	0.0116	0.0000	36.8152	36.8152	1.8300e-003	0.0000	36.8537
Total	**0.0125**	**0.0187**	**0.1937**	**5.2000e-004**	**0.0425**	**3.4000e-004**	**0.0428**	**0.0113**	**3.1000e-004**	**0.0116**	**0.0000**	**36.8152**	**36.8152**	**1.8300e-003**	**0.0000**	**36.8537**

3.5 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6847					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e-003	0.0719	0.0971	1.6000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	13.5323	13.5323	1.2900e-003	0.0000	13.5593
Total	**1.6879**	**0.0719**	**0.0971**	**1.6000e-004**		**5.0400e-003**	**5.0400e-003**		**5.0400e-003**	**5.0400e-003**	**0.0000**	**13.5323**	**13.5323**	**1.2900e-003**	**0.0000**	**13.5593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0125	0.0187	0.1937	5.2000e-004	0.0425	3.4000e-004	0.0428	0.0113	3.1000e-004	0.0116	0.0000	36.8152	36.8152	1.8300e-003	0.0000	36.8537
Total	**0.0125**	**0.0187**	**0.1937**	**5.2000e-004**	**0.0425**	**3.4000e-004**	**0.0428**	**0.0113**	**3.1000e-004**	**0.0116**	**0.0000**	**36.8152**	**36.8152**	**1.8300e-003**	**0.0000**	**36.8537**

3.5 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1482					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0348	0.2395	0.2403	3.9000e-004		0.0168	0.0168		0.0168	0.0168	0.0000	33.3200	33.3200	2.8100e-003	0.0000	33.3791
Total	**4.1830**	**0.2395**	**0.2403**	**3.9000e-004**		**0.0168**	**0.0168**		**0.0168**	**0.0168**	**0.0000**	**33.3200**	**33.3200**	**2.8100e-003**	**0.0000**	**33.3791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0421	0.4372	1.2800e-003	0.1045	8.2000e-004	0.1053	0.0278	7.6000e-004	0.0285	0.0000	87.1987	87.1987	4.2300e-003	0.0000	87.2875
Total	**0.0282**	**0.0421**	**0.4372**	**1.2800e-003**	**0.1045**	**8.2000e-004**	**0.1053**	**0.0278**	**7.6000e-004**	**0.0285**	**0.0000**	**87.1987**	**87.1987**	**4.2300e-003**	**0.0000**	**87.2875**

3.5 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1482					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7600e-003	0.1771	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	2.8100e-003	0.0000	33.3790
Total	**4.1559**	**0.1771**	**0.2391**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**	**0.0000**	**33.3199**	**33.3199**	**2.8100e-003**	**0.0000**	**33.3790**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0421	0.4372	1.2800e-003	0.1045	8.2000e-004	0.1053	0.0278	7.6000e-004	0.0285	0.0000	87.1987	87.1987	4.2300e-003	0.0000	87.2875
Total	**0.0282**	**0.0421**	**0.4372**	**1.2800e-003**	**0.1045**	**8.2000e-004**	**0.1053**	**0.0278**	**7.6000e-004**	**0.0285**	**0.0000**	**87.1987**	**87.1987**	**4.2300e-003**	**0.0000**	**87.2875**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2100e-003	0.0362	0.0394	6.0000e-005		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	5.4895	5.4895	4.3000e-004	0.0000	5.4984
Total	**0.6886**	**0.0362**	**0.0394**	**6.0000e-005**		**2.3900e-003**	**2.3900e-003**		**2.3900e-003**	**2.3900e-003**	**0.0000**	**5.4895**	**5.4895**	**4.3000e-004**	**0.0000**	**5.4984**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3600e-003	6.4300e-003	0.0670	2.1000e-004	0.0172	1.3000e-004	0.0174	4.5700e-003	1.2000e-004	4.7000e-003	0.0000	13.7825	13.7825	6.6000e-004	0.0000	13.7964
Total	**4.3600e-003**	**6.4300e-003**	**0.0670**	**2.1000e-004**	**0.0172**	**1.3000e-004**	**0.0174**	**4.5700e-003**	**1.2000e-004**	**4.7000e-003**	**0.0000**	**13.7825**	**13.7825**	**6.6000e-004**	**0.0000**	**13.7964**

3.5 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2800e-003	0.0292	0.0394	6.0000e-005		2.0400e-003	2.0400e-003		2.0400e-003	2.0400e-003	0.0000	5.4895	5.4895	4.3000e-004	0.0000	5.4984
Total	**0.6847**	**0.0292**	**0.0394**	**6.0000e-005**		**2.0400e-003**	**2.0400e-003**		**2.0400e-003**	**2.0400e-003**	**0.0000**	**5.4895**	**5.4895**	**4.3000e-004**	**0.0000**	**5.4984**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3600e-003	6.4300e-003	0.0670	2.1000e-004	0.0172	1.3000e-004	0.0174	4.5700e-003	1.2000e-004	4.7000e-003	0.0000	13.7825	13.7825	6.6000e-004	0.0000	13.7964
Total	**4.3600e-003**	**6.4300e-003**	**0.0670**	**2.1000e-004**	**0.0172**	**1.3000e-004**	**0.0174**	**4.5700e-003**	**1.2000e-004**	**4.7000e-003**	**0.0000**	**13.7825**	**13.7825**	**6.6000e-004**	**0.0000**	**13.7964**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1212	1.2695	1.2210	1.9000e-003		0.0688	0.0688		0.0633	0.0633	0.0000	170.3355	170.3355	0.0539	0.0000	171.4672
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1212**	**1.2695**	**1.2210**	**1.9000e-003**		**0.0688**	**0.0688**		**0.0633**	**0.0633**	**0.0000**	**170.3355**	**170.3355**	**0.0539**	**0.0000**	**171.4672**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7800e-003	5.6400e-003	0.0585	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7100e-003	1.0000e-004	3.8200e-003	0.0000	11.6704	11.6704	5.7000e-004	0.0000	11.6823
Total	**3.7800e-003**	**5.6400e-003**	**0.0585**	**1.7000e-004**	**0.0140**	**1.1000e-004**	**0.0141**	**3.7100e-003**	**1.0000e-004**	**3.8200e-003**	**0.0000**	**11.6704**	**11.6704**	**5.7000e-004**	**0.0000**	**11.6823**

3.6 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0467	0.9405	1.4389	1.9000e-003		0.0509	0.0509		0.0509	0.0509	0.0000	170.3353	170.3353	0.0539	0.0000	171.4670
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0467**	**0.9405**	**1.4389**	**1.9000e-003**		**0.0509**	**0.0509**		**0.0509**	**0.0509**	**0.0000**	**170.3353**	**170.3353**	**0.0539**	**0.0000**	**171.4670**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7800e-003	5.6400e-003	0.0585	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7100e-003	1.0000e-004	3.8200e-003	0.0000	11.6704	11.6704	5.7000e-004	0.0000	11.6823
Total	**3.7800e-003**	**5.6400e-003**	**0.0585**	**1.7000e-004**	**0.0140**	**1.1000e-004**	**0.0141**	**3.7100e-003**	**1.0000e-004**	**3.8200e-003**	**0.0000**	**11.6704**	**11.6704**	**5.7000e-004**	**0.0000**	**11.6823**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7711	1.4698	6.7408	0.0170	1.1247	0.0232	1.1479	0.3010	0.0214	0.3224	0.0000	1,179.6467	1,179.6467	0.0429	0.0000	1,180.5470
Unmitigated	0.8608	2.1250	8.9742	0.0269	1.8142	0.0357	1.8499	0.4855	0.0329	0.5184	0.0000	1,864.4537	1,864.4537	0.0654	0.0000	1,865.8264

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	323.05	263.90	263.90	1,046,161	648,581
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	726,981
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	35.38	35.38	35.38	75,661	46,907
High Turnover (Sit Down Restaurant)	309.54	92.48	92.48	337,328	209,131
Hotel	1,038.50	348.40	348.40	2,007,554	1,244,609
Quality Restaurant	114.75	73.10	73.10	146,420	90,775
Total	2,183.31	1,109.06	1,109.06	4,785,744	2,966,985

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,120.4337	1,120.4337	0.0515	0.0107	1,124.8186
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,493.4618	1,493.4618	0.0687	0.0142	1,499.3065
NaturalGas Mitigated	0.0374	0.3347	0.2449	2.0400e-003		0.0259	0.0259		0.0259	0.0259	0.0000	370.4395	370.4395	7.1000e-003	6.7900e-003	372.6939
NaturalGas Unmitigated	0.0512	0.4570	0.3308	2.7900e-003		0.0354	0.0354		0.0354	0.0354	0.0000	506.3603	506.3603	9.7100e-003	9.2800e-003	509.4419

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	138630	7.5000e-004	6.8000e-003	5.7100e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.3978	7.3978	1.4000e-004	1.4000e-004	7.4428
High Turnover (Sit Down Restaurant)	1.26711e+006	6.8300e-003	0.0621	0.0522	3.7000e-004		4.7200e-003	4.7200e-003		4.7200e-003	4.7200e-003	0.0000	67.6177	67.6177	1.3000e-003	1.2400e-003	68.0292
Hotel	4.31267e+006	0.0233	0.2114	0.1776	1.2700e-003		0.0161	0.0161		0.0161	0.0161	0.0000	230.1406	230.1406	4.4100e-003	4.2200e-003	231.5412
Quality Restaurant	990059	5.3400e-003	0.0485	0.0408	2.9000e-004		3.6900e-003	3.6900e-003		3.6900e-003	3.6900e-003	0.0000	52.8333	52.8333	1.0100e-003	9.7000e-004	53.1549
Condo/Townhouse High Rise	1.31095e+006	7.0700e-003	0.0604	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.9572	69.9572	1.3400e-003	1.2800e-003	70.3830
Condo/Townhouse High Rise	1.46942e+006	7.9200e-003	0.0677	0.0288	4.3000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	78.4136	78.4136	1.5000e-003	1.4400e-003	78.8908
Total		**0.0512**	**0.4570**	**0.3308**	**2.7900e-003**		**0.0354**	**0.0354**		**0.0354**	**0.0354**	**0.0000**	**506.3603**	**506.3603**	**9.7000e-003**	**9.2900e-003**	**509.4419**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	96296.4	5.2000e-004	4.7200e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1387	5.1387	1.0000e-004	9.0000e-005	5.1700
High Turnover (Sit Down Restaurant)	1.16872e+006	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3500e-003	4.3500e-003		4.3500e-003	4.3500e-003	0.0000	62.3676	62.3676	1.2000e-003	1.1400e-003	62.7471
Hotel	2.86753e+006	0.0155	0.1406	0.1181	8.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	153.0224	153.0224	2.9300e-003	2.8100e-003	153.9536
Quality Restaurant	913187	4.9200e-003	0.0448	0.0376	2.7000e-004		3.4000e-003	3.4000e-003		3.4000e-003	3.4000e-003	0.0000	48.7311	48.7311	9.3000e-004	8.9000e-004	49.0277
Condo/Townhouse High Rise	1.00205e+006	5.4000e-003	0.0462	0.0197	2.9000e-004		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	53.4732	53.4732	1.0200e-003	9.8000e-004	53.7986
Condo/Townhouse High Rise	893986	4.8200e-003	0.0412	0.0175	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	47.7065	47.7065	9.1000e-004	8.7000e-004	47.9968
Total		**0.0374**	**0.3347**	**0.2449**	**2.0300e-003**		**0.0259**	**0.0259**		**0.0259**	**0.0259**	**0.0000**	**370.4395**	**370.4395**	**7.0900e-003**	**6.7800e-003**	**372.6939**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	400207	114.5260	5.2600e-003	1.0900e-003	114.9742
Condo/Townhouse High Rise	448584	128.3698	5.9000e-003	1.2200e-003	128.8722
Enclosed Parking with Elevator	2.3617e+006	675.8392	0.0311	6.4300e-003	678.4841
Health Club	88808.5	25.4141	1.1700e-003	2.4000e-004	25.5135
High Turnover (Sit Down Restaurant)	255097	73.0002	3.3600e-003	6.9000e-004	73.2859
Hotel	1.46514e+006	419.2736	0.0193	3.9900e-003	420.9144
Quality Restaurant	199321	57.0390	2.6200e-003	5.4000e-004	57.2622
Total		**1,493.4618**	**0.0687**	**0.0142**	**1,499.3065**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	354363	101.4070	4.6600e-003	9.6000e-004	101.8038
Condo/Townhouse High Rise	397198	113.6650	5.2200e-003	1.0800e-003	114.1098
Enclosed Parking with Elevator	1.58188e+006	452.6819	0.0208	4.3100e-003	454.4535
Health Club	74160.6	21.2223	9.8000e-004	2.0000e-004	21.3054
High Turnover (Sit Down Restaurant)	221522	63.3924	2.9100e-003	6.0000e-004	63.6405
Hotel	1.11997e+006	320.4976	0.0147	3.0500e-003	321.7519
Quality Restaurant	166223	47.5675	2.1900e-003	4.5000e-004	47.7537
Total		**1,120.4337**	**0.0515**	**0.0107**	**1,124.8185**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.2171	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Unmitigated	5.4047	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.8393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5038					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0617	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Total	**5.4047**	**0.0232**	**2.0078**	**1.1000e-004**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**3.2767**	**3.2767**	**3.2200e-003**	**0.0000**	**3.3443**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5038					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0617	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Total	**5.2171**	**0.0232**	**2.0078**	**1.1000e-004**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**3.2767**	**3.2767**	**3.2200e-003**	**0.0000**	**3.3443**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	58.9650	0.4776	0.0117	72.6274
Unmitigated	106.0957	0.6352	0.0158	124.3439

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	12.5747 / 7.92755	76.0492	0.4131	0.0104	87.9352
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0.435885 / 0.267155	2.6118	0.0143	3.6000e-004	3.0238
High Turnover (Sit Down Restaurant)	1.65122 / 0.105397	7.0117	0.0541	1.3300e-003	8.5608
Hotel	3.39915 / 0.377683	14.9450	0.1114	2.7500e-003	18.1360
Quality Restaurant	1.29002 / 0.0823416	5.4779	0.0423	1.0400e-003	6.6882
Total		**106.0957**	**0.6352**	**0.0158**	**124.3440**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	9.47631 / 0	38.3168	0.3104	7.6200e-003	47.1950
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0.328483 / 0	1.3282	0.0108	2.6000e-004	1.6360
High Turnover (Sit Down Restaurant)	1.24436 / 0	5.0315	0.0408	1.0000e-003	6.1973
Hotel	2.5616 / 0	10.3577	0.0839	2.0600e-003	12.7576
Quality Restaurant	0.972158 / 0	3.9309	0.0318	7.8000e-004	4.8417
Total		**58.9650**	**0.4776**	**0.0117**	**72.6274**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.6110	0.9817	0.0000	37.2262
Unmitigated	55.3698	3.2723	0.0000	124.0874

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	88.78	18.0215	1.0650	0.0000	40.3874
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	42.01	8.5277	0.5040	0.0000	19.1110
High Turnover (Sit Down Restaurant)	64.74	13.1416	0.7767	0.0000	29.4513
Hotel	73.36	14.8914	0.8801	0.0000	33.3726
Quality Restaurant	3.88	0.7876	0.0466	0.0000	1.7651
Total		**55.3698**	**3.2723**	**0.0000**	**124.0874**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	26.634	5.4065	0.3195	0.0000	12.1162
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	12.603	2.5583	0.1512	0.0000	5.7333
High Turnover (Sit Down Restaurant)	19.422	3.9425	0.2330	0.0000	8.8354
Hotel	22.008	4.4674	0.2640	0.0000	10.0118
Quality Restaurant	1.164	0.2363	0.0140	0.0000	0.5295
Total		**16.6110**	**0.9817**	**0.0000**	**37.2262**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Proposed Project - 5 Month Grading

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Health Club	7.37	1000sqft	0.00	7,370.00	0
High Turnover (Sit Down Restaurant)	5.44	1000sqft	0.00	5,438.00	0
Hotel	134.00	Room	0.00	172,369.00	0
Quality Restaurant	4.25	1000sqft	0.00	4,249.00	0
Condo/Townhouse High Rise	91.00	Dwelling Unit	0.00	336,046.00	260
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	370,502.00	292

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - Applicant's construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment -

Trips and VMT - Based on 14cy trucks and distance to So Cal Disposal (C&D landfill)

Grading - See site plan, construction truck memo, PD.

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015 and updated 2016

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Construction Off-road Equipment Mitigation - Tier 3 equipment used per client provided information

Mobile Land Use Mitigation - Transit access

Mobile Commute Mitigation -

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - LEED Silver -- Energy Star appliances

Water Mitigation - See site plan, PD, and LUP <http://www3.epa.gov/watersense/commercial/types.html>

Waste Mitigation - City of Bev Hills Div Rate = 70% for res and com - http://www.beverlyhills.org/living/recyclingandconservation/

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	410.00
tblConstructionPhase	NumDays	230.00	627.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	20.00	109.00
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	PhaseEndDate	1/21/2022	5/29/2020
tblConstructionPhase	PhaseEndDate	1/22/2021	3/27/2020
tblConstructionPhase	PhaseStartDate	6/27/2020	11/5/2018
tblConstructionPhase	PhaseStartDate	5/30/2020	8/5/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	164.05	0.00
tblFireplaces	NumberNoFireplace	19.30	0.00
tblFireplaces	NumberWood	9.65	0.00
tblGrading	AcresOfGrading	0.00	7.95
tblGrading	AcresOfGrading	163.50	7.95
tblGrading	MaterialExported	0.00	259,487.00
tblLandUse	LandUseSquareFeet	5,440.00	5,438.00

tblLandUse	LandUseSquareFeet	194,568.00	172,369.00
tblLandUse	LandUseSquareFeet	4,250.00	4,249.00
tblLandUse	LandUseSquareFeet	102,000.00	370,502.00
tblLandUse	LandUseSquareFeet	91,000.00	336,046.00
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	4.47	0.00
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	32,436.00	18,535.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	20.87	4.80
tblVehicleTrips	ST_TR	158.37	17.00
tblVehicleTrips	ST_TR	8.19	2.60
tblVehicleTrips	ST_TR	94.36	17.20

tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	26.73	4.80
tblVehicleTrips	SU_TR	131.84	17.00
tblVehicleTrips	SU_TR	5.95	2.60
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	32.93	4.80
tblVehicleTrips	WD_TR	127.15	56.90
tblVehicleTrips	WD_TR	8.17	7.75
tblVehicleTrips	WD_TR	89.95	27.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	9.3
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	5.2
tblWaterMitigation	PercentReductionInFlowShower	20	5.8
tblWaterMitigation	PercentReductionInFlowToilet	20	5.8
tblWoodstoves	NumberCatalytic	9.65	0.00
tblWoodstoves	NumberNoncatalytic	9.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	10.6437	149.7576	93.8715	0.3181	14.1063	4.4878	18.5941	5.4398	4.1678	9.6075	0.0000	31,633.0445	31,633.0445	1.7178	0.0000	31,669.1184
2018	37.1136	135.0095	89.9932	0.3178	30.4977	4.0124	34.5101	9.4632	3.7255	13.1887	0.0000	31,120.9840	31,120.9840	1.7091	0.0000	31,156.8747
2019	38.0696	47.1594	65.1293	0.1356	5.7561	2.3861	8.1422	1.5399	2.2318	3.7717	0.0000	11,818.2497	11,818.2497	1.5892	0.0000	11,851.6228
2020	37.5775	42.8795	63.0466	0.1355	5.7562	2.1148	7.8710	1.5400	1.9774	3.5174	0.0000	11,498.0703	11,498.0703	1.5666	0.0000	11,530.9691
Total	**123.4044**	**374.8059**	**312.0406**	**0.9069**	**56.1163**	**13.0010**	**69.1173**	**17.9828**	**12.1024**	**30.0852**	**0.0000**	**86,070.3485**	**86,070.3485**	**6.5827**	**0.0000**	**86,208.5850**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	6.3100	117.1445	87.4641	0.3181	10.6035	2.7244	13.3278	3.5921	2.6127	6.2048	0.0000	31,633.0445	31,633.0445	1.7178	0.0000	31,669.1184
2018	34.8770	110.5290	86.5547	0.3178	26.9949	2.7239	29.7188	7.6155	2.6123	10.2279	0.0000	31,120.9840	31,120.9840	1.7091	0.0000	31,156.8747
2019	35.3054	36.0192	68.3781	0.1356	5.7561	1.7577	7.5138	1.5399	1.7449	3.2848	0.0000	11,818.2497	11,818.2497	1.5892	0.0000	11,851.6228
2020	35.1737	34.9228	66.6300	0.1355	5.7562	1.7468	7.5030	1.5400	1.7350	3.2749	0.0000	11,498.0703	11,498.0703	1.5666	0.0000	11,530.9691
Total	**111.6660**	**298.6154**	**309.0268**	**0.9069**	**49.1107**	**8.9527**	**58.0635**	**14.2875**	**8.7049**	**22.9924**	**0.0000**	**86,070.3485**	**86,070.3485**	**6.5827**	**0.0000**	**86,208.5850**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**9.51**	**20.33**	**0.97**	**0.00**	**12.48**	**31.14**	**15.99**	**20.55**	**28.07**	**23.58**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608
Mobile	5.7898	13.1558	56.4948	0.1672	11.6257	0.2256	11.8513	3.1066	0.2081	3.3147		12,798.4813	12,798.4813	0.4550		12,808.0360
Total	**35.8405**	**15.8449**	**74.3697**	**0.1834**	**11.6257**	**0.5077**	**12.1334**	**3.1066**	**0.4902**	**3.5968**	**0.0000**	**15,885.8243**	**15,885.8243**	**0.5420**	**0.0561**	**15,914.5882**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
Mobile	5.2314	9.1197	42.8282	0.1059	7.2075	0.1471	7.3546	1.9260	0.1357	2.0617		8,097.9466	8,097.9466	0.2988		8,104.2212
Total	**34.1786**	**11.1389**	**60.2329**	**0.1179**	**7.2075**	**0.3771**	**7.5846**	**1.9260**	**0.3658**	**2.2917**	**0.0000**	**10,364.3192**	**10,364.3192**	**0.3701**	**0.0410**	**10,384.8068**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.64**	**29.70**	**19.01**	**35.71**	**38.00**	**25.71**	**37.49**	**38.00**	**25.38**	**36.28**	**0.00**	**34.76**	**34.76**	**31.72**	**26.84**	**34.75**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	8/31/2017	5	174	
2	Grading	Grading	9/1/2017	1/31/2018	5	109	
3	Building Construction	Building Construction	2/1/2018	6/26/2020	5	627	
4	Architectural Coating	Architectural Coating	11/5/2018	5/29/2020	5	410	
5	Paving	Paving	8/5/2019	3/27/2020	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,430,760; Residential Outdoor: 476,920; Non-Residential Indoor: 809,739; Non-Residential Outdoor: 269,913 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38

Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45
Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	18,535.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	366.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0485	0.0000	0.0485	5.2300e-003	0.0000	5.2300e-003			0.0000			0.0000
Off-Road	4.3801	44.6737	29.1362	0.0586		2.1826	2.1826		2.0572	2.0572		5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**4.3801**	**44.6737**	**29.1362**	**0.0586**	**0.0485**	**2.1826**	**2.2310**	**5.2300e-003**	**2.0572**	**2.0625**		**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.1336**	**0.1807**	**1.8873**	**4.6400e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**375.4961**	**375.4961**	**0.0197**		**375.9097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0218	0.0000	0.0218	2.3500e-003	0.0000	2.3500e-003			0.0000			0.0000
Off-Road	1.4439	28.9612	36.5496	0.0586		1.4829	1.4829		1.4829	1.4829	0.0000	5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**1.4439**	**28.9612**	**36.5496**	**0.0586**	**0.0218**	**1.4829**	**1.5047**	**2.3500e-003**	**1.4829**	**1.4853**	**0.0000**	**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.1336**	**0.1807**	**1.8873**	**4.6400e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**375.4961**	**375.4961**	**0.0197**		**375.9097**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3687	0.0000	6.3687	3.3594	0.0000	3.3594			0.0000			0.0000
Off-Road	5.6517	59.2299	41.7080	0.0556		3.0931	3.0931		2.8847	2.8847		5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**5.6517**	**59.2299**	**41.7080**	**0.0556**	**6.3687**	**3.0931**	**9.4618**	**3.3594**	**2.8847**	**6.2441**		**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9041	90.4089	50.9233	0.2594	7.4805	1.3926	8.8732	2.0122	1.2812	3.2934		25,771.3574	25,771.3574	0.1782		25,775.0985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0878	0.1188	1.2402	3.0500e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		246.7546	246.7546	0.0129		247.0264
Total	**4.9919**	**90.5277**	**52.1635**	**0.2625**	**7.7376**	**1.3947**	**9.1323**	**2.0804**	**1.2831**	**3.3635**		**26,018.1119**	**26,018.1119**	**0.1911**		**26,022.1249**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8659	0.0000	2.8659	1.5117	0.0000	1.5117			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**2.8659**	**1.3296**	**4.1955**	**1.5117**	**1.3296**	**2.8414**	**0.0000**	**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9041	90.4089	50.9233	0.2594	7.4805	1.3926	8.8732	2.0122	1.2812	3.2934		25,771.3574	25,771.3574	0.1782		25,775.0985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0878	0.1188	1.2402	3.0500e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		246.7546	246.7546	0.0129		247.0264
Total	**4.9919**	**90.5277**	**52.1635**	**0.2625**	**7.7376**	**1.3947**	**9.1323**	**2.0804**	**1.2831**	**3.3635**		**26,018.1119**	**26,018.1119**	**0.1911**		**26,022.1249**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3687	0.0000	6.3687	3.3594	0.0000	3.3594			0.0000			0.0000
Off-Road	4.9252	51.0973	38.7391	0.0556		2.6181	2.6181		2.4428	2.4428		5,539.2230	5,539.2230	1.5167		5,571.0746
Total	**4.9252**	**51.0973**	**38.7391**	**0.0556**	**6.3687**	**2.6181**	**8.9868**	**3.3594**	**2.4428**	**5.8022**		**5,539.2230**	**5,539.2230**	**1.5167**		**5,571.0746**

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.8432	83.8044	50.1318	0.2592	23.8719	1.3922	25.2642	6.0357	1.2808	7.3165		25,344.2204	25,344.2204	0.1803		25,348.0072
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0790	0.1077	1.1224	3.0500e-003	0.2571	2.0100e-003	0.2591	0.0682	1.8600e-003	0.0700		237.5406	237.5406	0.0120		237.7929
Total	**4.9222**	**83.9122**	**51.2542**	**0.2622**	**24.1290**	**1.3942**	**25.5233**	**6.1038**	**1.2827**	**7.3865**		**25,581.7610**	**25,581.7610**	**0.1923**		**25,585.8001**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8659	0.0000	2.8659	1.5117	0.0000	1.5117			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,539.2230	5,539.2230	1.5167		5,571.0746
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**2.8659**	**1.3296**	**4.1955**	**1.5117**	**1.3296**	**2.8414**	**0.0000**	**5,539.2230**	**5,539.2230**	**1.5167**		**5,571.0746**

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.8432	83.8044	50.1318	0.2592	23.8719	1.3922	25.2642	6.0357	1.2808	7.3165		25,344.2204	25,344.2204	0.1803		25,348.0072
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0790	0.1077	1.1224	3.0500e-003	0.2571	2.0100e-003	0.2591	0.0682	1.8600e-003	0.0700		237.5406	237.5406	0.0120		237.7929
Total	**4.9222**	**83.9122**	**51.2542**	**0.2622**	**24.1290**	**1.3942**	**25.5233**	**6.1038**	**1.2827**	**7.3865**		**25,581.7610**	**25,581.7610**	**0.1923**		**25,585.8001**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8522	8.1063	11.8882	0.0235	0.6814	0.1305	0.8119	0.1941	0.1201	0.3141		2,281.2672	2,281.2672	0.0169		2,281.6228
Worker	1.2567	1.7139	17.8608	0.0485	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		3,779.9936	3,779.9936	0.1912		3,784.0085
Total	**2.1089**	**9.8202**	**29.7489**	**0.0720**	**4.7725**	**0.1625**	**4.9350**	**1.2790**	**0.1497**	**1.4287**		**6,061.2609**	**6,061.2609**	**0.2081**		**6,065.6313**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8522	8.1063	11.8882	0.0235	0.6814	0.1305	0.8119	0.1941	0.1201	0.3141		2,281.2672	2,281.2672	0.0169		2,281.6228
Worker	1.2567	1.7139	17.8608	0.0485	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		3,779.9936	3,779.9936	0.1912		3,784.0085
Total	**2.1089**	**9.8202**	**29.7489**	**0.0720**	**4.7725**	**0.1625**	**4.9350**	**1.2790**	**0.1497**	**1.4287**		**6,061.2609**	**6,061.2609**	**0.2081**		**6,065.6313**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8056	7.4742	11.4976	0.0234	0.6815	0.1238	0.8053	0.1941	0.1139	0.3080		2,236.7272	2,236.7272	0.0166		2,237.0763
Worker	1.1555	1.5716	16.3691	0.0484	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,636.0887	3,636.0887	0.1790		3,639.8470
Total	**1.9611**	**9.0458**	**27.8667**	**0.0718**	**4.7725**	**0.1553**	**4.9278**	**1.2791**	**0.1430**	**1.4221**		**5,872.8159**	**5,872.8159**	**0.1956**		**5,876.9233**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8056	7.4742	11.4976	0.0234	0.6815	0.1238	0.8053	0.1941	0.1139	0.3080		2,236.7272	2,236.7272	0.0166		2,237.0763
Worker	1.1555	1.5716	16.3691	0.0484	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,636.0887	3,636.0887	0.1790		3,639.8470
Total	**1.9611**	**9.0458**	**27.8667**	**0.0718**	**4.7725**	**0.1553**	**4.9278**	**1.2791**	**0.1430**	**1.4221**		**5,872.8159**	**5,872.8159**	**0.1956**		**5,876.9233**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7639	6.5206	11.1638	0.0234	0.6816	0.1132	0.7947	0.1941	0.1041	0.2983		2,186.3190	2,186.3190	0.0163		2,186.6612
Worker	1.0829	1.4565	15.2290	0.0484	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,488.3397	3,488.3397	0.1695		3,491.8993
Total	**1.8468**	**7.9771**	**26.3928**	**0.0718**	**4.7726**	**0.1445**	**4.9170**	**1.2791**	**0.1331**	**1.4122**		**5,674.6587**	**5,674.6587**	**0.1858**		**5,678.5605**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7639	6.5206	11.1638	0.0234	0.6816	0.1132	0.7947	0.1941	0.1041	0.2983		2,186.3190	2,186.3190	0.0163		2,186.6612
Worker	1.0829	1.4565	15.2290	0.0484	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,488.3397	3,488.3397	0.1695		3,491.8993
Total	**1.8468**	**7.9771**	**26.3928**	**0.0718**	**4.7726**	**0.1445**	**4.9170**	**1.2791**	**0.1331**	**1.4122**		**5,674.6587**	**5,674.6587**	**0.1858**		**5,678.5605**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**32.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2507	0.3419	3.5624	9.6800e-003	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		753.9332	753.9332	0.0381		754.7339
Total	**0.2507**	**0.3419**	**3.5624**	**9.6800e-003**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**753.9332**	**753.9332**	**0.0381**		**754.7339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2507	0.3419	3.5624	9.6800e-003	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		753.9332	753.9332	0.0381		754.7339
Total	**0.2507**	**0.3419**	**3.5624**	**9.6800e-003**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**753.9332**	**753.9332**	**0.0381**		**754.7339**

3.5 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**32.0533**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2305	0.3135	3.2649	9.6600e-003	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		725.2308	725.2308	0.0357		725.9804
Total	**0.2305**	**0.3135**	**3.2649**	**9.6600e-003**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**725.2308**	**725.2308**	**0.0357**		**725.9804**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2305	0.3135	3.2649	9.6600e-003	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		725.2308	725.2308	0.0357		725.9804
Total	**0.2305**	**0.3135**	**3.2649**	**9.6600e-003**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**725.2308**	**725.2308**	**0.0357**		**725.9804**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**32.0290**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2160	0.2905	3.0375	9.6500e-003	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		695.7618	695.7618	0.0338		696.4717
Total	**0.2160**	**0.2905**	**3.0375**	**9.6500e-003**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**695.7618**	**695.7618**	**0.0338**		**696.4717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2160	0.2905	3.0375	9.6500e-003	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		695.7618	695.7618	0.0338		696.4717
Total	**0.2160**	**0.2905**	**3.0375**	**9.6500e-003**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**695.7618**	**695.7618**	**0.0338**		**696.4717**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447		2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4259**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**		**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0474	0.0644	0.6709	1.9800e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		149.0200	149.0200	7.3300e-003		149.1741
Total	**0.0474**	**0.0644**	**0.6709**	**1.9800e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**149.0200**	**149.0200**	**7.3300e-003**		**149.1741**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0474	0.0644	0.6709	1.9800e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		149.0200	149.0200	7.3300e-003		149.1741
Total	**0.0474**	**0.0644**	**0.6709**	**1.9800e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**149.0200**	**149.0200**	**7.3300e-003**		**149.1741**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3301**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0597	0.6241	1.9800e-003	0.1677	1.2800e-003	0.1690	0.0445	1.1900e-003	0.0457		142.9647	142.9647	6.9500e-003		143.1106
Total	**0.0444**	**0.0597**	**0.6241**	**1.9800e-003**	**0.1677**	**1.2800e-003**	**0.1690**	**0.0445**	**1.1900e-003**	**0.0457**		**142.9647**	**142.9647**	**6.9500e-003**		**143.1106**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0597	0.6241	1.9800e-003	0.1677	1.2800e-003	0.1690	0.0445	1.1900e-003	0.0457		142.9647	142.9647	6.9500e-003		143.1106
Total	**0.0444**	**0.0597**	**0.6241**	**1.9800e-003**	**0.1677**	**1.2800e-003**	**0.1690**	**0.0445**	**1.1900e-003**	**0.0457**		**142.9647**	**142.9647**	**6.9500e-003**		**143.1106**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2314	9.1197	42.8282	0.1059	7.2075	0.1471	7.3546	1.9260	0.1357	2.0617		8,097.9466	8,097.9466	0.2988		8,104.2212
Unmitigated	5.7898	13.1558	56.4948	0.1672	11.6257	0.2256	11.8513	3.1066	0.2081	3.3147		12,798.4813	12,798.4813	0.4550		12,808.0360

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	323.05	263.90	263.90	1,046,161	648,581
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	726,981
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	35.38	35.38	35.38	75,661	46,907
High Turnover (Sit Down Restaurant)	309.54	92.48	92.48	337,328	209,131
Hotel	1,038.50	348.40	348.40	2,007,554	1,244,609
Quality Restaurant	114.75	73.10	73.10	146,420	90,775
Total	2,183.31	1,109.06	1,109.06	4,785,744	2,966,985

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
NaturalGas Unmitigated	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse High Rise	3591.64	0.0387	0.3310	0.1409	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.5459	422.5459	8.1000e-003	7.7500e-003	425.1175
Condo/Townhouse High Rise	4025.79	0.0434	0.3710	0.1579	2.3700e-003		0.0300	0.0300		0.0300	0.0300		473.6229	473.6229	9.0800e-003	8.6800e-003	476.5053
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	379.807	4.1000e-003	0.0372	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.6832	44.6832	8.6000e-004	8.2000e-004	44.9552
High Turnover (Sit Down Restaurant)	3471.53	0.0374	0.3404	0.2859	2.0400e-003		0.0259	0.0259		0.0259	0.0259		408.4153	408.4153	7.8300e-003	7.4900e-003	410.9008
Hotel	11815.5	0.1274	1.1584	0.9730	6.9500e-003		0.0880	0.0880		0.0880	0.0880		1,390.0636	1,390.0636	0.0266	0.0255	1,398.5233
Quality Restaurant	2712.49	0.0293	0.2659	0.2234	1.6000e-003		0.0202	0.0202		0.0202	0.0202		319.1167	319.1167	6.1200e-003	5.8500e-003	321.0588
Total		**0.2804**	**2.5039**	**1.8123**	**0.0153**		**0.1937**	**0.1937**		**0.1937**	**0.1937**		**3,058.4476**	**3,058.4476**	**0.0586**	**0.0561**	**3,077.0608**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0.263826	2.8500e-003	0.0259	0.0217	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003		31.0383	31.0383	5.9000e-004	5.7000e-004	31.2272
High Turnover (Sit Down Restaurant)	3.20198	0.0345	0.3139	0.2637	1.8800e-003		0.0239	0.0239		0.0239	0.0239		376.7040	376.7040	7.2200e-003	6.9100e-003	378.9965
Hotel	7.85625	0.0847	0.7702	0.6470	4.6200e-003		0.0585	0.0585		0.0585	0.0585		924.2645	924.2645	0.0177	0.0169	929.8894
Quality Restaurant	2.50188	0.0270	0.2453	0.2060	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.3390	294.3390	5.6400e-003	5.4000e-003	296.1302
Condo/Townhouse High Rise	2.44928	0.0264	0.2257	0.0961	1.4400e-003		0.0183	0.0183		0.0183	0.0183		288.1501	288.1501	5.5200e-003	5.2800e-003	289.9037
Condo/Townhouse High Rise	2.74534	0.0296	0.2530	0.1077	1.6100e-003		0.0205	0.0205		0.0205	0.0205		322.9814	322.9814	6.1900e-003	5.9200e-003	324.9470
Total		**0.2051**	**1.8340**	**1.3422**	**0.0112**		**0.1417**	**0.1417**		**0.1417**	**0.1417**		**2,237.4773**	**2,237.4773**	**0.0429**	**0.0410**	**2,251.0942**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Unmitigated	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5988					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**29.7704**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.5706					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**28.7421**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Proposed Project - 5 Month Grading

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Health Club	7.37	1000sqft	0.00	7,370.00	0
High Turnover (Sit Down Restaurant)	5.44	1000sqft	0.00	5,438.00	0
Hotel	134.00	Room	0.00	172,369.00	0
Quality Restaurant	4.25	1000sqft	0.00	4,249.00	0
Condo/Townhouse High Rise	91.00	Dwelling Unit	0.00	336,046.00	260
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	370,502.00	292

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - Applicant's construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment -

Trips and VMT - Based on 14cy trucks and distance to So Cal Disposal (C&D landfill)

Grading - See site plan, construction truck memo, PD.

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015 and updated 2016

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Construction Off-road Equipment Mitigation - Tier 3 equipment used per client provided information

Mobile Land Use Mitigation - Transit access

Mobile Commute Mitigation -

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - LEED Silver -- Energy Star appliances

Water Mitigation - See site plan, PD, and LUP <http://www3.epa.gov/watersense/commercial/types.html>

Waste Mitigation - City of Bev Hills Div Rate = 70% for res and com - http://www.beverlyhills.org/living/recyclingandconservation/

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	410.00
tblConstructionPhase	NumDays	230.00	627.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	20.00	109.00
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	PhaseEndDate	1/21/2022	5/29/2020
tblConstructionPhase	PhaseEndDate	1/22/2021	3/27/2020
tblConstructionPhase	PhaseStartDate	6/27/2020	11/5/2018
tblConstructionPhase	PhaseStartDate	5/30/2020	8/5/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	164.05	0.00
tblFireplaces	NumberNoFireplace	19.30	0.00
tblFireplaces	NumberWood	9.65	0.00
tblGrading	AcresOfGrading	0.00	7.95
tblGrading	AcresOfGrading	163.50	7.95
tblGrading	MaterialExported	0.00	259,487.00
tblLandUse	LandUseSquareFeet	5,440.00	5,438.00

tblLandUse	LandUseSquareFeet	194,568.00	172,369.00
tblLandUse	LandUseSquareFeet	4,250.00	4,249.00
tblLandUse	LandUseSquareFeet	102,000.00	370,502.00
tblLandUse	LandUseSquareFeet	91,000.00	336,046.00
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	4.47	0.00
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	32,436.00	18,535.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	20.87	4.80
tblVehicleTrips	ST_TR	158.37	17.00
tblVehicleTrips	ST_TR	8.19	2.60
tblVehicleTrips	ST_TR	94.36	17.20

tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	26.73	4.80
tblVehicleTrips	SU_TR	131.84	17.00
tblVehicleTrips	SU_TR	5.95	2.60
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	32.93	4.80
tblVehicleTrips	WD_TR	127.15	56.90
tblVehicleTrips	WD_TR	8.17	7.75
tblVehicleTrips	WD_TR	89.95	27.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	9.3
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	5.2
tblWaterMitigation	PercentReductionInFlowShower	20	5.8
tblWaterMitigation	PercentReductionInFlowToilet	20	5.8
tblWoodstoves	NumberCatalytic	9.65	0.00
tblWoodstoves	NumberNoncatalytic	9.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	10.5006	146.4031	89.2350	0.3185	14.1063	4.4864	18.5926	5.4398	4.1664	9.6062	0.0000	31,679.0023	31,679.0023	1.7166	0.0000	31,715.0504
2018	37.0182	131.9025	85.3276	0.3183	30.4977	4.0109	34.5086	9.4632	3.7242	13.1874	0.0000	31,165.8892	31,165.8892	1.7078	0.0000	31,201.7533
2019	37.9821	46.8139	64.9580	0.1398	5.7561	2.3849	8.1411	1.5399	2.2307	3.7707	0.0000	12,138.1448	12,138.1448	1.5887	0.0000	12,171.5066
2020	37.4961	42.5741	62.7967	0.1397	5.7562	2.1139	7.8701	1.5400	1.9766	3.5165	0.0000	11,806.1469	11,806.1469	1.5661	0.0000	11,839.0341
Total	**122.9970**	**367.6936**	**302.3173**	**0.9163**	**56.1163**	**12.9961**	**69.1123**	**17.9828**	**12.0979**	**30.0807**	**0.0000**	**86,789.1832**	**86,789.1832**	**6.5791**	**0.0000**	**86,927.3444**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	6.1669	113.7899	82.8276	0.3185	10.6035	2.7229	13.3264	3.5921	2.6114	6.2035	0.0000	31,679.0023	31,679.0023	1.7166	0.0000	31,715.0504
2018	34.7816	107.4220	81.8891	0.3183	26.9949	2.7224	29.7174	7.6155	2.6110	10.2265	0.0000	31,165.8892	31,165.8892	1.7078	0.0000	31,201.7533
2019	35.2179	35.6738	68.2068	0.1398	5.7561	1.7566	7.5127	1.5399	1.7439	3.2838	0.0000	12,138.1448	12,138.1448	1.5887	0.0000	12,171.5066
2020	35.0923	34.6174	66.3802	0.1397	5.7562	1.7459	7.5021	1.5400	1.7341	3.2740	0.0000	11,806.1469	11,806.1469	1.5661	0.0000	11,839.0341
Total	**111.2586**	**291.5030**	**299.3036**	**0.9163**	**49.1107**	**8.9478**	**58.0585**	**14.2875**	**8.7003**	**22.9879**	**0.0000**	**86,789.1831**	**86,789.1831**	**6.5791**	**0.0000**	**86,927.3444**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**9.54**	**20.72**	**1.00**	**0.00**	**12.48**	**31.15**	**15.99**	**20.55**	**28.08**	**23.58**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608
Mobile	5.6011	12.5390	56.0278	0.1761	11.6257	0.2248	11.8505	3.1066	0.2074	3.3139		13,435.4521	13,435.4521	0.4543		13,444.9919
Total	**35.6519**	**15.2281**	**73.9027**	**0.1922**	**11.6257**	**0.5068**	**12.1325**	**3.1066**	**0.4894**	**3.5960**	**0.0000**	**16,522.7951**	**16,522.7951**	**0.5413**	**0.0561**	**16,551.5441**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Energy	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
Mobile	5.0221	8.7285	40.7289	0.1114	7.2075	0.1462	7.3537	1.9260	0.1349	2.0609		8,500.1620	8,500.1620	0.2981		8,506.4216
Total	**33.9693**	**10.7477**	**58.1336**	**0.1234**	**7.2075**	**0.3763**	**7.5838**	**1.9260**	**0.3650**	**2.2909**	**0.0000**	**10,766.5346**	**10,766.5346**	**0.3693**	**0.0410**	**10,787.0072**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.72**	**29.42**	**21.34**	**35.79**	**38.00**	**25.76**	**37.49**	**38.00**	**25.42**	**36.29**	**0.00**	**34.84**	**34.84**	**31.76**	**26.84**	**34.83**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	8/31/2017	5	174	
2	Grading	Grading	9/1/2017	1/31/2018	5	109	
3	Building Construction	Building Construction	2/1/2018	6/26/2020	5	627	
4	Architectural Coating	Architectural Coating	11/5/2018	5/29/2020	5	410	
5	Paving	Paving	8/5/2019	3/27/2020	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,430,760; Residential Outdoor: 476,920; Non-Residential Indoor: 809,739; Non-Residential Outdoor: 269,913 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38

Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45
Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	18,535.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	366.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0485	0.0000	0.0485	5.2300e-003	0.0000	5.2300e-003			0.0000			0.0000
Off-Road	4.3801	44.6737	29.1362	0.0586		2.1826	2.1826		2.0572	2.0572		5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**4.3801**	**44.6737**	**29.1362**	**0.0586**	**0.0485**	**2.1826**	**2.2310**	**5.2300e-003**	**2.0572**	**2.0625**		**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.1310**	**0.1646**	**2.0546**	**4.9600e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**400.4201**	**400.4201**	**0.0197**		**400.8338**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0218	0.0000	0.0218	2.3500e-003	0.0000	2.3500e-003			0.0000			0.0000
Off-Road	1.4439	28.9612	36.5496	0.0586		1.4829	1.4829		1.4829	1.4829	0.0000	5,862.4130	5,862.4130	1.5839		5,895.6742
Total	**1.4439**	**28.9612**	**36.5496**	**0.0586**	**0.0218**	**1.4829**	**1.5047**	**2.3500e-003**	**1.4829**	**1.4853**	**0.0000**	**5,862.4130**	**5,862.4130**	**1.5839**		**5,895.6742**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.1310**	**0.1646**	**2.0546**	**4.9600e-003**	**0.3912**	**3.1500e-003**	**0.3944**	**0.1038**	**2.9000e-003**	**0.1067**		**400.4201**	**400.4201**	**0.0197**		**400.8338**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3687	0.0000	6.3687	3.3594	0.0000	3.3594			0.0000			0.0000
Off-Road	5.6517	59.2299	41.7080	0.0556		3.0931	3.0931		2.8847	2.8847		5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**5.6517**	**59.2299**	**41.7080**	**0.0556**	**6.3687**	**3.0931**	**9.4618**	**3.3594**	**2.8847**	**6.2441**		**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.7627	87.0650	46.1769	0.2597	7.4805	1.3912	8.8717	2.0122	1.2798	3.2920		25,800.9365	25,800.9365	0.1769		25,804.6519
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0861	0.1081	1.3502	3.2600e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		263.1332	263.1332	0.0129		263.4051
Total	**4.8488**	**87.1731**	**47.5271**	**0.2629**	**7.7376**	**1.3933**	**9.1308**	**2.0804**	**1.2817**	**3.3621**		**26,064.0697**	**26,064.0697**	**0.1899**		**26,068.0569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8659	0.0000	2.8659	1.5117	0.0000	1.5117			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,614.9326	5,614.9326	1.5267		5,646.9935
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**2.8659**	**1.3296**	**4.1955**	**1.5117**	**1.3296**	**2.8414**	**0.0000**	**5,614.9326**	**5,614.9326**	**1.5267**		**5,646.9935**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.7627	87.0650	46.1769	0.2597	7.4805	1.3912	8.8717	2.0122	1.2798	3.2920		25,800.9365	25,800.9365	0.1769		25,804.6519
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0861	0.1081	1.3502	3.2600e-003	0.2571	2.0700e-003	0.2592	0.0682	1.9100e-003	0.0701		263.1332	263.1332	0.0129		263.4051
Total	**4.8488**	**87.1731**	**47.5271**	**0.2629**	**7.7376**	**1.3933**	**9.1308**	**2.0804**	**1.2817**	**3.3621**		**26,064.0697**	**26,064.0697**	**0.1899**		**26,068.0569**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3687	0.0000	6.3687	3.3594	0.0000	3.3594			0.0000			0.0000
Off-Road	4.9252	51.0973	38.7391	0.0556		2.6181	2.6181		2.4428	2.4428		5,539.2230	5,539.2230	1.5167		5,571.0746
Total	**4.9252**	**51.0973**	**38.7391**	**0.0556**	**6.3687**	**2.6181**	**8.9868**	**3.3594**	**2.4428**	**5.8022**		**5,539.2230**	**5,539.2230**	**1.5167**		**5,571.0746**

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.7153	80.7071	45.3618	0.2594	23.8719	1.3908	25.2627	6.0357	1.2795	7.3151		25,373.3241	25,373.3241	0.1791		25,377.0843
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0776	0.0981	1.2268	3.2500e-003	0.2571	2.0100e-003	0.2591	0.0682	1.8600e-003	0.0700		253.3421	253.3421	0.0120		253.5944
Total	**4.7929**	**80.8052**	**46.5885**	**0.2627**	**24.1290**	**1.3928**	**25.5218**	**6.1038**	**1.2814**	**7.3852**		**25,626.6662**	**25,626.6662**	**0.1911**		**25,630.6787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8659	0.0000	2.8659	1.5117	0.0000	1.5117			0.0000			0.0000
Off-Road	1.3181	26.6168	35.3005	0.0556		1.3296	1.3296		1.3296	1.3296	0.0000	5,539.2230	5,539.2230	1.5167		5,571.0746
Total	**1.3181**	**26.6168**	**35.3005**	**0.0556**	**2.8659**	**1.3296**	**4.1955**	**1.5117**	**1.3296**	**2.8414**	**0.0000**	**5,539.2230**	**5,539.2230**	**1.5167**		**5,571.0746**

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.7153	80.7071	45.3618	0.2594	23.8719	1.3908	25.2627	6.0357	1.2795	7.3151		25,373.3241	25,373.3241	0.1791		25,377.0843
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0776	0.0981	1.2268	3.2500e-003	0.2571	2.0100e-003	0.2591	0.0682	1.8600e-003	0.0700		253.3421	253.3421	0.0120		253.5944
Total	**4.7929**	**80.8052**	**46.5885**	**0.2627**	**24.1290**	**1.3928**	**25.5218**	**6.1038**	**1.2814**	**7.3852**		**25,626.6662**	**25,626.6662**	**0.1911**		**25,630.6787**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7829	7.9152	9.7420	0.0237	0.6814	0.1293	0.8107	0.1941	0.1189	0.3130		2,300.6344	2,300.6344	0.0164		2,300.9789
Worker	1.2349	1.5611	19.5216	0.0518	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		4,031.4445	4,031.4445	0.1912		4,035.4594
Total	**2.0178**	**9.4763**	**29.2637**	**0.0755**	**4.7725**	**0.1613**	**4.9338**	**1.2790**	**0.1486**	**1.4276**		**6,332.0790**	**6,332.0790**	**0.2076**		**6,336.4383**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7829	7.9152	9.7420	0.0237	0.6814	0.1293	0.8107	0.1941	0.1189	0.3130		2,300.6344	2,300.6344	0.0164		2,300.9789
Worker	1.2349	1.5611	19.5216	0.0518	4.0910	0.0320	4.1231	1.0850	0.0296	1.1146		4,031.4445	4,031.4445	0.1912		4,035.4594
Total	**2.0178**	**9.4763**	**29.2637**	**0.0755**	**4.7725**	**0.1613**	**4.9338**	**1.2790**	**0.1486**	**1.4276**		**6,332.0790**	**6,332.0790**	**0.2076**		**6,336.4383**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7415	7.3020	9.3760	0.0236	0.6815	0.1227	0.8042	0.1941	0.1129	0.3070		2,255.8046	2,255.8046	0.0161		2,256.1424
Worker	1.1366	1.4319	17.9414	0.0517	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,878.5981	3,878.5981	0.1790		3,882.3564
Total	**1.8781**	**8.7339**	**27.3174**	**0.0753**	**4.7725**	**0.1541**	**4.9266**	**1.2791**	**0.1420**	**1.4211**		**6,134.4027**	**6,134.4027**	**0.1951**		**6,138.4988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7415	7.3020	9.3760	0.0236	0.6815	0.1227	0.8042	0.1941	0.1129	0.3070		2,255.8046	2,255.8046	0.0161		2,256.1424
Worker	1.1366	1.4319	17.9414	0.0517	4.0910	0.0315	4.1225	1.0850	0.0292	1.1141		3,878.5981	3,878.5981	0.1790		3,882.3564
Total	**1.8781**	**8.7339**	**27.3174**	**0.0753**	**4.7725**	**0.1541**	**4.9266**	**1.2791**	**0.1420**	**1.4211**		**6,134.4027**	**6,134.4027**	**0.1951**		**6,138.4988**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7042	6.3749	9.0592	0.0236	0.6816	0.1123	0.7938	0.1941	0.1033	0.2974		2,205.0188	2,205.0188	0.0158		2,205.3495
Worker	1.0654	1.3277	16.7242	0.0517	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,721.6259	3,721.6259	0.1695		3,725.1854
Total	**1.7696**	**7.7026**	**25.7834**	**0.0752**	**4.7726**	**0.1435**	**4.9161**	**1.2791**	**0.1323**	**1.4114**		**5,926.6447**	**5,926.6447**	**0.1853**		**5,930.5349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6712	14.1741	17.8156	0.0268		0.9016	0.9016		0.9016	0.9016	0.0000	2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**0.6712**	**14.1741**	**17.8156**	**0.0268**		**0.9016**	**0.9016**		**0.9016**	**0.9016**	**0.0000**	**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7042	6.3749	9.0592	0.0236	0.6816	0.1123	0.7938	0.1941	0.1033	0.2974		2,205.0188	2,205.0188	0.0158		2,205.3495
Worker	1.0654	1.3277	16.7242	0.0517	4.0910	0.0313	4.1223	1.0850	0.0290	1.1140		3,721.6259	3,721.6259	0.1695		3,725.1854
Total	**1.7696**	**7.7026**	**25.7834**	**0.0752**	**4.7726**	**0.1435**	**4.9161**	**1.2791**	**0.1323**	**1.4114**		**5,926.6447**	**5,926.6447**	**0.1853**		**5,930.5349**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**32.0854**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2463	0.3114	3.8937	0.0103	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		804.0859	804.0859	0.0381		804.8867
Total	**0.2463**	**0.3114**	**3.8937**	**0.0103**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**804.0859**	**804.0859**	**0.0381**		**804.8867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.5 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2463	0.3114	3.8937	0.0103	0.8160	6.3900e-003	0.8224	0.2164	5.9100e-003	0.2223		804.0859	804.0859	0.0381		804.8867
Total	**0.2463**	**0.3114**	**3.8937**	**0.0103**	**0.8160**	**6.3900e-003**	**0.8224**	**0.2164**	**5.9100e-003**	**0.2223**		**804.0859**	**804.0859**	**0.0381**		**804.8867**

3.5 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		281.9473
Total	**32.0533**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2267	0.2856	3.5785	0.0103	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		773.6002	773.6002	0.0357		774.3498
Total	**0.2267**	**0.2856**	**3.5785**	**0.0103**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**773.6002**	**773.6002**	**0.0357**		**774.3498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0238		281.9473
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**281.9473**

3.5 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2267	0.2856	3.5785	0.0103	0.8160	6.2800e-003	0.8222	0.2164	5.8200e-003	0.2222		773.6002	773.6002	0.0357		774.3498
Total	**0.2267**	**0.2856**	**3.5785**	**0.0103**	**0.8160**	**6.2800e-003**	**0.8222**	**0.2164**	**5.8200e-003**	**0.2222**		**773.6002**	**773.6002**	**0.0357**		**774.3498**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**32.0290**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2125	0.2648	3.3357	0.0103	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		742.2915	742.2915	0.0338		743.0015
Total	**0.2125**	**0.2648**	**3.3357**	**0.0103**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**742.2915**	**742.2915**	**0.0338**		**743.0015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**31.8462**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.5 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2125	0.2648	3.3357	0.0103	0.8160	6.2400e-003	0.8222	0.2164	5.7800e-003	0.2222		742.2915	742.2915	0.0338		743.0015
Total	**0.2125**	**0.2648**	**3.3357**	**0.0103**	**0.8160**	**6.2400e-003**	**0.8222**	**0.2164**	**5.7800e-003**	**0.2222**		**742.2915**	**742.2915**	**0.0338**		**743.0015**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4259	14.9353	14.3652	0.0223		0.8094	0.8094		0.7447	0.7447		2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4259**	**14.9353**	**14.3652**	**0.0223**		**0.8094**	**0.8094**		**0.7447**	**0.7447**		**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0466	0.0587	0.7353	2.1200e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		158.9589	158.9589	7.3300e-003		159.1130
Total	**0.0466**	**0.0587**	**0.7353**	**2.1200e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**158.9589**	**158.9589**	**7.3300e-003**		**159.1130**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,208.9731	2,208.9731	0.6989		2,223.6499
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,208.9731**	**2,208.9731**	**0.6989**		**2,223.6499**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0466	0.0587	0.7353	2.1200e-003	0.1677	1.2900e-003	0.1690	0.0445	1.2000e-003	0.0457		158.9589	158.9589	7.3300e-003		159.1130
Total	**0.0466**	**0.0587**	**0.7353**	**2.1200e-003**	**0.1677**	**1.2900e-003**	**0.1690**	**0.0445**	**1.2000e-003**	**0.0457**		**158.9589**	**158.9589**	**7.3300e-003**		**159.1130**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3301**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0544	0.6854	2.1200e-003	0.1677	1.2800e-003	0.1690	0.0445	1.1900e-003	0.0457		152.5257	152.5257	6.9500e-003		152.6715
Total	**0.0437**	**0.0544**	**0.6854**	**2.1200e-003**	**0.1677**	**1.2800e-003**	**0.1690**	**0.0445**	**1.1900e-003**	**0.0457**		**152.5257**	**152.5257**	**6.9500e-003**		**152.6715**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5490	11.0645	16.9276	0.0223		0.5982	0.5982		0.5982	0.5982	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5490**	**11.0645**	**16.9276**	**0.0223**		**0.5982**	**0.5982**		**0.5982**	**0.5982**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0437	0.0544	0.6854	2.1200e-003	0.1677	1.2800e-003	0.1690	0.0445	1.1900e-003	0.0457		152.5257	152.5257	6.9500e-003		152.6715
Total	**0.0437**	**0.0544**	**0.6854**	**2.1200e-003**	**0.1677**	**1.2800e-003**	**0.1690**	**0.0445**	**1.1900e-003**	**0.0457**		**152.5257**	**152.5257**	**6.9500e-003**		**152.6715**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0221	8.7285	40.7289	0.1114	7.2075	0.1462	7.3537	1.9260	0.1349	2.0609		8,500.1620	8,500.1620	0.2981		8,506.4216
Unmitigated	5.6011	12.5390	56.0278	0.1761	11.6257	0.2248	11.8505	3.1066	0.2074	3.3139		13,435.4521	13,435.4521	0.4543		13,444.9919

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	323.05	263.90	263.90	1,046,161	648,581
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	726,981
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	35.38	35.38	35.38	75,661	46,907
High Turnover (Sit Down Restaurant)	309.54	92.48	92.48	337,328	209,131
Hotel	1,038.50	348.40	348.40	2,007,554	1,244,609
Quality Restaurant	114.75	73.10	73.10	146,420	90,775
Total	2,183.31	1,109.06	1,109.06	4,785,744	2,966,985

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2051	1.8340	1.3422	0.0112		0.1417	0.1417		0.1417	0.1417		2,237.4773	2,237.4773	0.0429	0.0410	2,251.0942
NaturalGas Unmitigated	0.2804	2.5039	1.8123	0.0153		0.1937	0.1937		0.1937	0.1937		3,058.4476	3,058.4476	0.0586	0.0561	3,077.0608

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse High Rise	3591.64	0.0387	0.3310	0.1409	2.1100e-003		0.0268	0.0268		0.0268	0.0268		422.5459	422.5459	8.1000e-003	7.7500e-003	425.1175
Condo/Townhouse High Rise	4025.79	0.0434	0.3710	0.1579	2.3700e-003		0.0300	0.0300		0.0300	0.0300		473.6229	473.6229	9.0800e-003	8.6800e-003	476.5053
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	379.807	4.1000e-003	0.0372	0.0313	2.2000e-004		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003		44.6832	44.6832	8.6000e-004	8.2000e-004	44.9552
High Turnover (Sit Down Restaurant)	3471.53	0.0374	0.3404	0.2859	2.0400e-003		0.0259	0.0259		0.0259	0.0259		408.4153	408.4153	7.8300e-003	7.4900e-003	410.9008
Hotel	11815.5	0.1274	1.1584	0.9730	6.9500e-003		0.0880	0.0880		0.0880	0.0880		1,390.0636	1,390.0636	0.0266	0.0255	1,398.5233
Quality Restaurant	2712.49	0.0293	0.2659	0.2234	1.6000e-003		0.0202	0.0202		0.0202	0.0202		319.1167	319.1167	6.1200e-003	5.8500e-003	321.0588
Total		**0.2804**	**2.5039**	**1.8123**	**0.0153**		**0.1937**	**0.1937**		**0.1937**	**0.1937**		**3,058.4476**	**3,058.4476**	**0.0586**	**0.0561**	**3,077.0608**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0.263826	2.8500e-003	0.0259	0.0217	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003		31.0383	31.0383	5.9000e-004	5.7000e-004	31.2272
High Turnover (Sit Down Restaurant)	3.20198	0.0345	0.3139	0.2637	1.8800e-003		0.0239	0.0239		0.0239	0.0239		376.7040	376.7040	7.2200e-003	6.9100e-003	378.9965
Hotel	7.85625	0.0847	0.7702	0.6470	4.6200e-003		0.0585	0.0585		0.0585	0.0585		924.2645	924.2645	0.0177	0.0169	929.8894
Quality Restaurant	2.50188	0.0270	0.2453	0.2060	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.3390	294.3390	5.6400e-003	5.4000e-003	296.1302
Condo/Townhouse High Rise	2.44928	0.0264	0.2257	0.0961	1.4400e-003		0.0183	0.0183		0.0183	0.0183		288.1501	288.1501	5.5200e-003	5.2800e-003	289.9037
Condo/Townhouse High Rise	2.74534	0.0296	0.2530	0.1077	1.6100e-003		0.0205	0.0205		0.0205	0.0205		322.9814	322.9814	6.1900e-003	5.9200e-003	324.9470
Total		**0.2051**	**1.8340**	**1.3422**	**0.0112**		**0.1417**	**0.1417**		**0.1417**	**0.1417**		**2,237.4773**	**2,237.4773**	**0.0429**	**0.0410**	**2,251.0942**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	28.7421	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914
Unmitigated	29.7704	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883	0.0000	28.8954	28.8954	0.0284	0.0000	29.4914

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.5988					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**29.7704**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.5706					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.6782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4933	0.1852	16.0626	8.5000e-004		0.0883	0.0883		0.0883	0.0883		28.8954	28.8954	0.0284		29.4914
Total	**28.7421**	**0.1852**	**16.0626**	**8.5000e-004**		**0.0883**	**0.0883**		**0.0883**	**0.0883**	**0.0000**	**28.8954**	**28.8954**	**0.0284**	**0.0000**	**29.4914**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Proposed Project - 5 Month Grading

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	876.00	Space	7.88	350,400.00	0
Health Club	7.37	1000sqft	0.00	7,370.00	0
High Turnover (Sit Down Restaurant)	5.44	1000sqft	0.00	5,438.00	0
Hotel	134.00	Room	0.00	172,369.00	0
Quality Restaurant	4.25	1000sqft	0.00	4,249.00	0
Condo/Townhouse High Rise	91.00	Dwelling Unit	0.00	336,046.00	260
Condo/Townhouse High Rise	102.00	Dwelling Unit	0.00	370,502.00	292

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking = approx project site. Default lot acraeage used. Commercial/Res SF from Site Plan.

Construction Phase - Applicant's construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment - Construction schedule and equipment list provided by client

Off-road Equipment -

Trips and VMT - Based on 14cy trucks and distance to So Cal Disposal (C&D landfill)

Grading - See site plan, construction truck memo, PD.

Architectural Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Vehicle Trips - Source: Fehr and Peers, 2015 and updated 2016

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - Assumed no hearths/fireplaces

Area Coating - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Use -

Construction Off-road Equipment Mitigation - Tier 3 equipment used per client provided information

Mobile Land Use Mitigation - Transit access

Mobile Commute Mitigation -

Area Mitigation - Use of low-VOC paint (150 g/L for nonflat coatings) as required by SCAQMD Rule 1113.

Energy Mitigation - LEED Silver -- Energy Star appliances

Water Mitigation - See site plan, PD, and LUP <http://www3.epa.gov/watersense/commercial/types.html>

Waste Mitigation - City of Bev Hills Div Rate = 70% for res and com - http://www.beverlyhills.org/living/recyclingandconservation/

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	410.00
tblConstructionPhase	NumDays	230.00	627.00
tblConstructionPhase	NumDays	20.00	174.00
tblConstructionPhase	NumDays	20.00	109.00
tblConstructionPhase	NumDays	20.00	170.00
tblConstructionPhase	PhaseEndDate	1/21/2022	5/29/2020
tblConstructionPhase	PhaseEndDate	1/22/2021	3/27/2020
tblConstructionPhase	PhaseStartDate	6/27/2020	11/5/2018
tblConstructionPhase	PhaseStartDate	5/30/2020	8/5/2019
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	164.05	0.00
tblFireplaces	NumberNoFireplace	19.30	0.00
tblFireplaces	NumberWood	9.65	0.00
tblGrading	AcresOfGrading	0.00	7.95
tblGrading	AcresOfGrading	163.50	7.95
tblGrading	MaterialExported	0.00	259,487.00
tblLandUse	LandUseSquareFeet	5,440.00	5,438.00

tblLandUse	LandUseSquareFeet	194,568.00	172,369.00
tblLandUse	LandUseSquareFeet	4,250.00	4,249.00
tblLandUse	LandUseSquareFeet	102,000.00	370,502.00
tblLandUse	LandUseSquareFeet	91,000.00	336,046.00
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	4.47	0.00
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	1.59	0.00
tblLandUse	LotAcreage	1.42	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblTripsAndVMT	HaulingTripLength	20.00	42.00
tblTripsAndVMT	HaulingTripNumber	32,436.00	18,535.00
tblVehicleTrips	ST_TR	7.16	2.90
tblVehicleTrips	ST_TR	20.87	4.80
tblVehicleTrips	ST_TR	158.37	17.00
tblVehicleTrips	ST_TR	8.19	2.60
tblVehicleTrips	ST_TR	94.36	17.20

tblVehicleTrips	SU_TR	6.07	2.90
tblVehicleTrips	SU_TR	26.73	4.80
tblVehicleTrips	SU_TR	131.84	17.00
tblVehicleTrips	SU_TR	5.95	2.60
tblVehicleTrips	SU_TR	72.16	17.20
tblVehicleTrips	WD_TR	6.59	3.55
tblVehicleTrips	WD_TR	32.93	4.80
tblVehicleTrips	WD_TR	127.15	56.90
tblVehicleTrips	WD_TR	8.17	7.75
tblVehicleTrips	WD_TR	89.95	27.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	9.3
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	5.2
tblWaterMitigation	PercentReductionInFlowShower	20	5.8
tblWaterMitigation	PercentReductionInFlowToilet	20	5.8
tblWoodstoves	NumberCatalytic	9.65	0.00
tblWoodstoves	NumberNoncatalytic	9.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.8478	10.4081	6.7126	0.0192	0.7118	0.3831	1.0949	0.2805	0.3584	0.6389	0.0000	1,727.5802	1,727.5802	0.1935	0.0000	1,731.6446
2018	1.3322	5.5789	6.7792	0.0158	1.1932	0.2464	1.4396	0.4060	0.2310	0.6369	0.0000	1,288.0401	1,288.0401	0.1104	0.0000	1,290.3588
2019	4.8406	5.0260	7.3632	0.0160	0.7249	0.2489	0.9738	0.1943	0.2337	0.4280	0.0000	1,243.9043	1,243.9043	0.1388	0.0000	1,246.8185
2020	2.0315	2.2861	3.5073	7.8200e-003	0.3484	0.1101	0.4585	0.0934	0.1032	0.1966	0.0000	595.1798	595.1798	0.0696	0.0000	596.6419
Total	**9.0520**	**23.2991**	**24.3622**	**0.0587**	**2.9782**	**0.9885**	**3.9667**	**0.9741**	**0.9263**	**1.9004**	**0.0000**	**4,854.7044**	**4,854.7044**	**0.5124**	**0.0000**	**4,865.4639**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4060	7.6387	7.0821	0.0192	0.5185	0.2464	0.7649	0.1795	0.2416	0.4211	0.0000	1,727.5794	1,727.5794	0.1935	0.0000	1,731.6438
2018	1.0481	4.2028	6.7728	0.0158	1.0023	0.1599	1.1622	0.3053	0.1571	0.4624	0.0000	1,288.0397	1,288.0397	0.1104	0.0000	1,290.3584
2019	4.5474	3.8702	7.5898	0.0160	0.7249	0.1831	0.9080	0.1943	0.1815	0.3757	0.0000	1,243.9038	1,243.9038	0.1388	0.0000	1,246.8180
2020	1.9048	1.8686	3.6529	7.8200e-003	0.3484	0.0913	0.4396	0.0934	0.0905	0.1839	0.0000	595.1795	595.1795	0.0696	0.0000	596.6417
Total	**7.9063**	**17.5803**	**25.0976**	**0.0587**	**2.5941**	**0.6807**	**3.2748**	**0.7724**	**0.6707**	**1.4432**	**0.0000**	**4,854.7024**	**4,854.7024**	**0.5124**	**0.0000**	**4,865.4618**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.66**	**24.55**	**-3.02**	**0.00**	**12.90**	**31.13**	**17.44**	**20.70**	**27.59**	**24.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4047	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Energy	0.0512	0.4570	0.3308	2.7900e-003		0.0354	0.0354		0.0354	0.0354	0.0000	1,999.8221	1,999.8221	0.0784	0.0235	2,008.7484
Mobile	0.8608	2.1250	8.9742	0.0269	1.8142	0.0357	1.8499	0.4855	0.0329	0.5184	0.0000	1,864.4537	1,864.4537	0.0654	0.0000	1,865.8264
Waste						0.0000	0.0000		0.0000	0.0000	55.3698	0.0000	55.3698	3.2723	0.0000	124.0874
Water						0.0000	0.0000		0.0000	0.0000	6.1392	99.9565	106.0957	0.6352	0.0158	124.3439
Total	**6.3167**	**2.6052**	**11.3128**	**0.0298**	**1.8142**	**0.0821**	**1.8963**	**0.4855**	**0.0793**	**0.5648**	**61.5090**	**3,967.5090**	**4,029.0180**	**4.0544**	**0.0393**	**4,126.3504**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.2171	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Energy	0.0374	0.3347	0.2449	2.0400e-003		0.0259	0.0259		0.0259	0.0259	0.0000	1,490.8732	1,490.8732	0.0586	0.0175	1,497.5124
Mobile	0.7711	1.4698	6.7408	0.0170	1.1247	0.0232	1.1479	0.3010	0.0214	0.3224	0.0000	1,179.6467	1,179.6467	0.0429	0.0000	1,180.5470
Waste						0.0000	0.0000		0.0000	0.0000	16.6110	0.0000	16.6110	0.9817	0.0000	37.2262
Water						0.0000	0.0000		0.0000	0.0000	4.6265	54.3386	58.9650	0.4776	0.0117	72.6274
Total	**6.0256**	**1.8276**	**8.9936**	**0.0192**	**1.1247**	**0.0601**	**1.1848**	**0.3010**	**0.0583**	**0.3593**	**21.2374**	**2,728.1351**	**2,749.3726**	**1.5640**	**0.0292**	**2,791.2574**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.61**	**29.85**	**20.50**	**35.64**	**38.00**	**26.75**	**37.52**	**38.00**	**26.46**	**36.38**	**65.47**	**31.24**	**31.76**	**61.42**	**25.83**	**32.36**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Infrastructure/Shoring	Grading	1/2/2017	8/31/2017	5	174	
2	Grading	Grading	9/1/2017	1/31/2018	5	109	
3	Building Construction	Building Construction	2/1/2018	6/26/2020	5	627	
4	Architectural Coating	Architectural Coating	11/5/2018	5/29/2020	5	410	
5	Paving	Paving	8/5/2019	3/27/2020	5	170	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.95

Acres of Paving: 0

Residential Indoor: 1,430,760; Residential Outdoor: 476,920; Non-Residential Indoor: 809,739; Non-Residential Outdoor: 269,913 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Infrastructure/Shoring	Aerial Lifts	3	8.00	62	0.31
Infrastructure/Shoring	Air Compressors	1	6.00	78	0.48
Infrastructure/Shoring	Bore/Drill Rigs	2	8.00	205	0.50
Infrastructure/Shoring	Cranes	2	7.00	226	0.29
Infrastructure/Shoring	Excavators	2	8.00	162	0.38
Infrastructure/Shoring	Forklifts	1	8.00	89	0.20
Infrastructure/Shoring	Graders	0	0.00	174	0.41
Infrastructure/Shoring	Pumps	1	8.00	84	0.74
Infrastructure/Shoring	Rubber Tired Dozers	0	0.00	255	0.40
Infrastructure/Shoring	Skid Steer Loaders	1	8.00	64	0.37
Infrastructure/Shoring	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Infrastructure/Shoring	Welders	1	8.00	46	0.45

Grading	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Infrastructure/Shoring	14	35.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	0.00	18,535.00	14.70	6.90	42.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	366.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Infrastructure/Shoring - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2200e-003	0.0000	4.2200e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3811	3.8866	2.5349	5.1000e-003		0.1899	0.1899		0.1790	0.1790	0.0000	462.6914	462.6914	0.1250	0.0000	465.3165
Total	**0.3811**	**3.8866**	**2.5349**	**5.1000e-003**	**4.2200e-003**	**0.1899**	**0.1941**	**4.6000e-004**	**0.1790**	**0.1794**	**0.0000**	**462.6914**	**462.6914**	**0.1250**	**0.0000**	**465.3165**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0162	0.1683	4.1000e-004	0.0334	2.7000e-004	0.0337	8.8700e-003	2.5000e-004	9.1200e-003	0.0000	30.0979	30.0979	1.5500e-003	0.0000	30.1306
Total	**0.0109**	**0.0162**	**0.1683**	**4.1000e-004**	**0.0334**	**2.7000e-004**	**0.0337**	**8.8700e-003**	**2.5000e-004**	**9.1200e-003**	**0.0000**	**30.0979**	**30.0979**	**1.5500e-003**	**0.0000**	**30.1306**

3.2 Infrastructure/Shoring - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9000e-003	0.0000	1.9000e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	2.5196	3.1798	5.1000e-003		0.1290	0.1290		0.1290	0.1290	0.0000	462.6908	462.6908	0.1250	0.0000	465.3160
Total	**0.1256**	**2.5196**	**3.1798**	**5.1000e-003**	**1.9000e-003**	**0.1290**	**0.1309**	**2.0000e-004**	**0.1290**	**0.1292**	**0.0000**	**462.6908**	**462.6908**	**0.1250**	**0.0000**	**465.3160**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0162	0.1683	4.1000e-004	0.0334	2.7000e-004	0.0337	8.8700e-003	2.5000e-004	9.1200e-003	0.0000	30.0979	30.0979	1.5500e-003	0.0000	30.1306
Total	**0.0109**	**0.0162**	**0.1683**	**4.1000e-004**	**0.0334**	**2.7000e-004**	**0.0337**	**8.8700e-003**	**2.5000e-004**	**9.1200e-003**	**0.0000**	**30.0979**	**30.0979**	**1.5500e-003**	**0.0000**	**30.1306**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3471	0.0000	0.3471	0.1831	0.0000	0.1831	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2430	2.5469	1.7934	2.3900e-003		0.1330	0.1330		0.1240	0.1240	0.0000	219.0326	219.0326	0.0596	0.0000	220.2833
Total	**0.2430**	**2.5469**	**1.7934**	**2.3900e-003**	**0.3471**	**0.1330**	**0.4801**	**0.1831**	**0.1240**	**0.3071**	**0.0000**	**219.0326**	**219.0326**	**0.0596**	**0.0000**	**220.2833**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.2092	3.9531	2.1614	0.0112	0.3162	0.0599	0.3761	0.0852	0.0551	0.1402	0.0000	1,005.9827	1,005.9827	6.9200e-003	0.0000	1,006.1280
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5500e-003	5.2600e-003	0.0547	1.3000e-004	0.0109	9.0000e-005	0.0109	2.8800e-003	8.0000e-005	2.9600e-003	0.0000	9.7756	9.7756	5.0000e-004	0.0000	9.7862
Total	**0.2127**	**3.9584**	**2.2160**	**0.0113**	**0.3271**	**0.0599**	**0.3870**	**0.0881**	**0.0551**	**0.1432**	**0.0000**	**1,015.7583**	**1,015.7583**	**7.4200e-003**	**0.0000**	**1,015.9143**

3.3 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1562	0.0000	0.1562	0.0824	0.0000	0.0824	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0567	1.1445	1.5179	2.3900e-003		0.0572	0.0572		0.0572	0.0572	0.0000	219.0323	219.0323	0.0596	0.0000	220.2830
Total	**0.0567**	**1.1445**	**1.5179**	**2.3900e-003**	**0.1562**	**0.0572**	**0.2134**	**0.0824**	**0.0572**	**0.1396**	**0.0000**	**219.0323**	**219.0323**	**0.0596**	**0.0000**	**220.2830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.2092	3.9531	2.1614	0.0112	0.3162	0.0599	0.3761	0.0852	0.0551	0.1402	0.0000	1,005.9827	1,005.9827	6.9200e-003	0.0000	1,006.1280
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5500e-003	5.2600e-003	0.0547	1.3000e-004	0.0109	9.0000e-005	0.0109	2.8800e-003	8.0000e-005	2.9600e-003	0.0000	9.7756	9.7756	5.0000e-004	0.0000	9.7862
Total	**0.2127**	**3.9584**	**2.2160**	**0.0113**	**0.3271**	**0.0599**	**0.3870**	**0.0881**	**0.0551**	**0.1432**	**0.0000**	**1,015.7583**	**1,015.7583**	**7.4200e-003**	**0.0000**	**1,015.9143**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3471	0.0000	0.3471	0.1831	0.0000	0.1831	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0566	0.5876	0.4455	6.4000e-004		0.0301	0.0301		0.0281	0.0281	0.0000	57.7886	57.7886	0.0158	0.0000	58.1209
Total	**0.0566**	**0.5876**	**0.4455**	**6.4000e-004**	**0.3471**	**0.0301**	**0.3772**	**0.1831**	**0.0281**	**0.2112**	**0.0000**	**57.7886**	**57.7886**	**0.0158**	**0.0000**	**58.1209**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0553	0.9800	0.5687	2.9800e-003	0.2691	0.0160	0.2851	0.0681	0.0147	0.0828	0.0000	264.5828	264.5828	1.8700e-003	0.0000	264.6222
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.2800e-003	0.0132	4.0000e-005	2.9000e-003	2.0000e-005	2.9300e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.5168	2.5168	1.3000e-004	0.0000	2.5195
Total	**0.0561**	**0.9813**	**0.5820**	**3.0200e-003**	**0.2720**	**0.0160**	**0.2880**	**0.0688**	**0.0147**	**0.0836**	**0.0000**	**267.0997**	**267.0997**	**2.0000e-003**	**0.0000**	**267.1416**

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1562	0.0000	0.1562	0.0824	0.0000	0.0824	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.3061	0.4060	6.4000e-004		0.0153	0.0153		0.0153	0.0153	0.0000	57.7886	57.7886	0.0158	0.0000	58.1209
Total	**0.0152**	**0.3061**	**0.4060**	**6.4000e-004**	**0.1562**	**0.0153**	**0.1715**	**0.0824**	**0.0153**	**0.0977**	**0.0000**	**57.7886**	**57.7886**	**0.0158**	**0.0000**	**58.1209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0553	0.9800	0.5687	2.9800e-003	0.2691	0.0160	0.2851	0.0681	0.0147	0.0828	0.0000	264.5828	264.5828	1.8700e-003	0.0000	264.6222
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.2800e-003	0.0132	4.0000e-005	2.9000e-003	2.0000e-005	2.9300e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.5168	2.5168	1.3000e-004	0.0000	2.5195
Total	**0.0561**	**0.9813**	**0.5820**	**3.0200e-003**	**0.2720**	**0.0160**	**0.2880**	**0.0688**	**0.0147**	**0.0836**	**0.0000**	**267.0997**	**267.0997**	**2.0000e-003**	**0.0000**	**267.1416**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3176	2.7680	2.0864	3.1900e-003		0.1778	0.1778		0.1672	0.1672	0.0000	281.7559	281.7559	0.0690	0.0000	283.2039
Total	**0.3176**	**2.7680**	**2.0864**	**3.1900e-003**		**0.1778**	**0.1778**		**0.1672**	**0.1672**	**0.0000**	**281.7559**	**281.7559**	**0.0690**	**0.0000**	**283.2039**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0988	0.9836	1.3725	2.8100e-003	0.0798	0.0155	0.0953	0.0228	0.0142	0.0370	0.0000	247.4868	247.4868	1.7900e-003	0.0000	247.5245
Worker	0.1405	0.2100	2.1799	5.8700e-003	0.4778	3.8100e-003	0.4817	0.1269	3.5300e-003	0.1304	0.0000	414.4350	414.4350	0.0206	0.0000	414.8685
Total	**0.2393**	**1.1936**	**3.5524**	**8.6800e-003**	**0.5577**	**0.0193**	**0.5769**	**0.1497**	**0.0177**	**0.1674**	**0.0000**	**661.9219**	**661.9219**	**0.0224**	**0.0000**	**662.3930**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0799	1.6867	2.1201	3.1900e-003		0.1073	0.1073		0.1073	0.1073	0.0000	281.7556	281.7556	0.0690	0.0000	283.2036
Total	**0.0799**	**1.6867**	**2.1201**	**3.1900e-003**		**0.1073**	**0.1073**		**0.1073**	**0.1073**	**0.0000**	**281.7556**	**281.7556**	**0.0690**	**0.0000**	**283.2036**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0988	0.9836	1.3725	2.8100e-003	0.0798	0.0155	0.0953	0.0228	0.0142	0.0370	0.0000	247.4868	247.4868	1.7900e-003	0.0000	247.5245
Worker	0.1405	0.2100	2.1799	5.8700e-003	0.4778	3.8100e-003	0.4817	0.1269	3.5300e-003	0.1304	0.0000	414.4350	414.4350	0.0206	0.0000	414.8685
Total	**0.2393**	**1.1936**	**3.5524**	**8.6800e-003**	**0.5577**	**0.0193**	**0.5769**	**0.1497**	**0.0177**	**0.1674**	**0.0000**	**661.9219**	**661.9219**	**0.0224**	**0.0000**	**662.3930**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1024	0.9946	1.4540	3.0700e-003	0.0876	0.0161	0.1036	0.0250	0.0148	0.0398	0.0000	266.1107	266.1107	1.9300e-003	0.0000	266.1513
Worker	0.1415	0.2112	2.1921	6.4200e-003	0.5240	4.1100e-003	0.5281	0.1392	3.8100e-003	0.1430	0.0000	437.1881	437.1881	0.0212	0.0000	437.6330
Total	**0.2439**	**1.2058**	**3.6461**	**9.4900e-003**	**0.6116**	**0.0202**	**0.6318**	**0.1642**	**0.0186**	**0.1828**	**0.0000**	**703.2988**	**703.2988**	**0.0231**	**0.0000**	**703.7843**

3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0876	1.8497	2.3249	3.5000e-003		0.1177	0.1177		0.1177	0.1177	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.0876**	**1.8497**	**2.3249**	**3.5000e-003**		**0.1177**	**0.1177**		**0.1177**	**0.1177**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1024	0.9946	1.4540	3.0700e-003	0.0876	0.0161	0.1036	0.0250	0.0148	0.0398	0.0000	266.1107	266.1107	1.9300e-003	0.0000	266.1513
Worker	0.1415	0.2112	2.1921	6.4200e-003	0.5240	4.1100e-003	0.5281	0.1392	3.8100e-003	0.1430	0.0000	437.1881	437.1881	0.0212	0.0000	437.6330
Total	**0.2439**	**1.2058**	**3.6461**	**9.4900e-003**	**0.6116**	**0.0202**	**0.6318**	**0.1642**	**0.0186**	**0.1828**	**0.0000**	**703.2988**	**703.2988**	**0.0231**	**0.0000**	**703.7843**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1351	1.2214	1.0757	1.7200e-003		0.0712	0.0712		0.0670	0.0670	0.0000	147.6159	147.6159	0.0360	0.0000	148.3712
Total	**0.1351**	**1.2214**	**1.0757**	**1.7200e-003**		**0.0712**	**0.0712**		**0.0670**	**0.0670**	**0.0000**	**147.6159**	**147.6159**	**0.0360**	**0.0000**	**148.3712**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0476	0.4255	0.6915	1.5000e-003	0.0429	7.2100e-003	0.0502	0.0123	6.6300e-003	0.0189	0.0000	127.5670	127.5670	9.3000e-004	0.0000	127.5865
Worker	0.0650	0.0960	1.0005	3.1500e-003	0.2570	2.0000e-003	0.2590	0.0683	1.8600e-003	0.0701	0.0000	205.6970	205.6970	9.8400e-003	0.0000	205.9037
Total	**0.1126**	**0.5215**	**1.6920**	**4.6500e-003**	**0.2999**	**9.2100e-003**	**0.3091**	**0.0805**	**8.4900e-003**	**0.0890**	**0.0000**	**333.2640**	**333.2640**	**0.0108**	**0.0000**	**333.4902**

3.4 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0430	0.9071	1.1402	1.7200e-003		0.0577	0.0577		0.0577	0.0577	0.0000	147.6158	147.6158	0.0360	0.0000	148.3710
Total	**0.0430**	**0.9071**	**1.1402**	**1.7200e-003**		**0.0577**	**0.0577**		**0.0577**	**0.0577**	**0.0000**	**147.6158**	**147.6158**	**0.0360**	**0.0000**	**148.3710**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0476	0.4255	0.6915	1.5000e-003	0.0429	7.2100e-003	0.0502	0.0123	6.6300e-003	0.0189	0.0000	127.5670	127.5670	9.3000e-004	0.0000	127.5865
Worker	0.0650	0.0960	1.0005	3.1500e-003	0.2570	2.0000e-003	0.2590	0.0683	1.8600e-003	0.0701	0.0000	205.6970	205.6970	9.8400e-003	0.0000	205.9037
Total	**0.1126**	**0.5215**	**1.6920**	**4.6500e-003**	**0.2999**	**9.2100e-003**	**0.3091**	**0.0805**	**8.4900e-003**	**0.0890**	**0.0000**	**333.2640**	**333.2640**	**0.0108**	**0.0000**	**333.4902**

3.5 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1200e-003	0.0411	0.0380	6.0000e-005		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	5.2342	5.2342	5.0000e-004	0.0000	5.2446
Total	**0.6578**	**0.0411**	**0.0380**	**6.0000e-005**		**3.0900e-003**	**3.0900e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**5.2342**	**5.2342**	**5.0000e-004**	**0.0000**	**5.2446**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8300e-003	7.2200e-003	0.0749	2.0000e-004	0.0164	1.3000e-004	0.0166	4.3600e-003	1.2000e-004	4.4800e-003	0.0000	14.2398	14.2398	7.1000e-004	0.0000	14.2547
Total	**4.8300e-003**	**7.2200e-003**	**0.0749**	**2.0000e-004**	**0.0164**	**1.3000e-004**	**0.0166**	**4.3600e-003**	**1.2000e-004**	**4.4800e-003**	**0.0000**	**14.2398**	**14.2398**	**7.1000e-004**	**0.0000**	**14.2547**

3.5 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2200e-003	0.0278	0.0376	6.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	5.2342	5.2342	5.0000e-004	0.0000	5.2446
Total	**0.6529**	**0.0278**	**0.0376**	**6.0000e-005**		**1.9500e-003**	**1.9500e-003**		**1.9500e-003**	**1.9500e-003**	**0.0000**	**5.2342**	**5.2342**	**5.0000e-004**	**0.0000**	**5.2446**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8300e-003	7.2200e-003	0.0749	2.0000e-004	0.0164	1.3000e-004	0.0166	4.3600e-003	1.2000e-004	4.4800e-003	0.0000	14.2398	14.2398	7.1000e-004	0.0000	14.2547
Total	**4.8300e-003**	**7.2200e-003**	**0.0749**	**2.0000e-004**	**0.0164**	**1.3000e-004**	**0.0166**	**4.3600e-003**	**1.2000e-004**	**4.4800e-003**	**0.0000**	**14.2398**	**14.2398**	**7.1000e-004**	**0.0000**	**14.2547**

3.5 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1482					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0348	0.2395	0.2403	3.9000e-004		0.0168	0.0168		0.0168	0.0168	0.0000	33.3200	33.3200	2.8100e-003	0.0000	33.3791
Total	**4.1830**	**0.2395**	**0.2403**	**3.9000e-004**		**0.0168**	**0.0168**		**0.0168**	**0.0168**	**0.0000**	**33.3200**	**33.3200**	**2.8100e-003**	**0.0000**	**33.3791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0421	0.4372	1.2800e-003	0.1045	8.2000e-004	0.1053	0.0278	7.6000e-004	0.0285	0.0000	87.1987	87.1987	4.2300e-003	0.0000	87.2875
Total	**0.0282**	**0.0421**	**0.4372**	**1.2800e-003**	**0.1045**	**8.2000e-004**	**0.1053**	**0.0278**	**7.6000e-004**	**0.0285**	**0.0000**	**87.1987**	**87.1987**	**4.2300e-003**	**0.0000**	**87.2875**

3.5 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1482					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7600e-003	0.1771	0.2391	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.3199	33.3199	2.8100e-003	0.0000	33.3790
Total	**4.1559**	**0.1771**	**0.2391**	**3.9000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**	**0.0000**	**33.3199**	**33.3199**	**2.8100e-003**	**0.0000**	**33.3790**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0282	0.0421	0.4372	1.2800e-003	0.1045	8.2000e-004	0.1053	0.0278	7.6000e-004	0.0285	0.0000	87.1987	87.1987	4.2300e-003	0.0000	87.2875
Total	**0.0282**	**0.0421**	**0.4372**	**1.2800e-003**	**0.1045**	**8.2000e-004**	**0.1053**	**0.0278**	**7.6000e-004**	**0.0285**	**0.0000**	**87.1987**	**87.1987**	**4.2300e-003**	**0.0000**	**87.2875**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.0909	0.0989	1.6000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	13.7876	13.7876	1.0700e-003	0.0000	13.8100
Total	**1.7296**	**0.0909**	**0.0989**	**1.6000e-004**		**5.9900e-003**	**5.9900e-003**		**5.9900e-003**	**5.9900e-003**	**0.0000**	**13.7876**	**13.7876**	**1.0700e-003**	**0.0000**	**13.8100**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0162	0.1684	5.3000e-004	0.0433	3.4000e-004	0.0436	0.0115	3.1000e-004	0.0118	0.0000	34.6165	34.6165	1.6600e-003	0.0000	34.6513
Total	**0.0109**	**0.0162**	**0.1684**	**5.3000e-004**	**0.0433**	**3.4000e-004**	**0.0436**	**0.0115**	**3.1000e-004**	**0.0118**	**0.0000**	**34.6165**	**34.6165**	**1.6600e-003**	**0.0000**	**34.6513**

3.5 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2100e-003	0.0733	0.0990	1.6000e-004		5.1300e-003	5.1300e-003		5.1300e-003	5.1300e-003	0.0000	13.7876	13.7876	1.0700e-003	0.0000	13.8100
Total	**1.7197**	**0.0733**	**0.0990**	**1.6000e-004**		**5.1300e-003**	**5.1300e-003**		**5.1300e-003**	**5.1300e-003**	**0.0000**	**13.7876**	**13.7876**	**1.0700e-003**	**0.0000**	**13.8100**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0162	0.1684	5.3000e-004	0.0433	3.4000e-004	0.0436	0.0115	3.1000e-004	0.0118	0.0000	34.6165	34.6165	1.6600e-003	0.0000	34.6513
Total	**0.0109**	**0.0162**	**0.1684**	**5.3000e-004**	**0.0433**	**3.4000e-004**	**0.0436**	**0.0115**	**3.1000e-004**	**0.0118**	**0.0000**	**34.6165**	**34.6165**	**1.6600e-003**	**0.0000**	**34.6513**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0763	0.7990	0.7685	1.1900e-003		0.0433	0.0433		0.0398	0.0398	0.0000	107.2112	107.2112	0.0339	0.0000	107.9235
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0763**	**0.7990**	**0.7685**	**1.1900e-003**		**0.0433**	**0.0433**		**0.0398**	**0.0398**	**0.0000**	**107.2112**	**107.2112**	**0.0339**	**0.0000**	**107.9235**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3800e-003	3.5500e-003	0.0368	1.1000e-004	8.8000e-003	7.0000e-005	8.8700e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.3455	7.3455	3.6000e-004	0.0000	7.3530
Total	**2.3800e-003**	**3.5500e-003**	**0.0368**	**1.1000e-004**	**8.8000e-003**	**7.0000e-005**	**8.8700e-003**	**2.3400e-003**	**6.0000e-005**	**2.4000e-003**	**0.0000**	**7.3455**	**7.3455**	**3.6000e-004**	**0.0000**	**7.3530**

3.6 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0294	0.5920	0.9056	1.1900e-003		0.0320	0.0320		0.0320	0.0320	0.0000	107.2110	107.2110	0.0339	0.0000	107.9234
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0294**	**0.5920**	**0.9056**	**1.1900e-003**		**0.0320**	**0.0320**		**0.0320**	**0.0320**	**0.0000**	**107.2110**	**107.2110**	**0.0339**	**0.0000**	**107.9234**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3800e-003	3.5500e-003	0.0368	1.1000e-004	8.8000e-003	7.0000e-005	8.8700e-003	2.3400e-003	6.0000e-005	2.4000e-003	0.0000	7.3455	7.3455	3.6000e-004	0.0000	7.3530
Total	**2.3800e-003**	**3.5500e-003**	**0.0368**	**1.1000e-004**	**8.8000e-003**	**7.0000e-005**	**8.8700e-003**	**2.3400e-003**	**6.0000e-005**	**2.4000e-003**	**0.0000**	**7.3455**	**7.3455**	**3.6000e-004**	**0.0000**	**7.3530**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0419	0.4342	0.4521	7.0000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	61.7465	61.7465	0.0200	0.0000	62.1659
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0419**	**0.4342**	**0.4521**	**7.0000e-004**		**0.0233**	**0.0233**		**0.0214**	**0.0214**	**0.0000**	**61.7465**	**61.7465**	**0.0200**	**0.0000**	**62.1659**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3100e-003	1.9400e-003	0.0202	6.0000e-005	5.1800e-003	4.0000e-005	5.2200e-003	1.3800e-003	4.0000e-005	1.4100e-003	0.0000	4.1492	4.1492	2.0000e-004	0.0000	4.1534
Total	**1.3100e-003**	**1.9400e-003**	**0.0202**	**6.0000e-005**	**5.1800e-003**	**4.0000e-005**	**5.2200e-003**	**1.3800e-003**	**4.0000e-005**	**1.4100e-003**	**0.0000**	**4.1492**	**4.1492**	**2.0000e-004**	**0.0000**	**4.1534**

3.6 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.3485	0.5332	7.0000e-004		0.0188	0.0188		0.0188	0.0188	0.0000	61.7464	61.7464	0.0200	0.0000	62.1658
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0173**	**0.3485**	**0.5332**	**7.0000e-004**		**0.0188**	**0.0188**		**0.0188**	**0.0188**	**0.0000**	**61.7464**	**61.7464**	**0.0200**	**0.0000**	**62.1658**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3100e-003	1.9400e-003	0.0202	6.0000e-005	5.1800e-003	4.0000e-005	5.2200e-003	1.3800e-003	4.0000e-005	1.4100e-003	0.0000	4.1492	4.1492	2.0000e-004	0.0000	4.1534
Total	**1.3100e-003**	**1.9400e-003**	**0.0202**	**6.0000e-005**	**5.1800e-003**	**4.0000e-005**	**5.2200e-003**	**1.3800e-003**	**4.0000e-005**	**1.4100e-003**	**0.0000**	**4.1492**	**4.1492**	**2.0000e-004**	**0.0000**	**4.1534**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7711	1.4698	6.7408	0.0170	1.1247	0.0232	1.1479	0.3010	0.0214	0.3224	0.0000	1,179.6467	1,179.6467	0.0429	0.0000	1,180.5470
Unmitigated	0.8608	2.1250	8.9742	0.0269	1.8142	0.0357	1.8499	0.4855	0.0329	0.5184	0.0000	1,864.4537	1,864.4537	0.0654	0.0000	1,865.8264

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	323.05	263.90	263.90	1,046,161	648,581
Condo/Townhouse High Rise	362.10	295.80	295.80	1,172,620	726,981
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	35.38	35.38	35.38	75,661	46,907
High Turnover (Sit Down Restaurant)	309.54	92.48	92.48	337,328	209,131
Hotel	1,038.50	348.40	348.40	2,007,554	1,244,609
Quality Restaurant	114.75	73.10	73.10	146,420	90,775
Total	2,183.31	1,109.06	1,109.06	4,785,744	2,966,985

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Condo/Townhouse High Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,120.4337	1,120.4337	0.0515	0.0107	1,124.8186
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,493.4618	1,493.4618	0.0687	0.0142	1,499.3065
NaturalGas Mitigated	0.0374	0.3347	0.2449	2.0400e-003		0.0259	0.0259		0.0259	0.0259	0.0000	370.4395	370.4395	7.1000e-003	6.7900e-003	372.6939
NaturalGas Unmitigated	0.0512	0.4570	0.3308	2.7900e-003		0.0354	0.0354		0.0354	0.0354	0.0000	506.3603	506.3603	9.7100e-003	9.2800e-003	509.4419

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse High Rise	1.31095e+006	7.0700e-003	0.0604	0.0257	3.9000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	69.9572	69.9572	1.3400e-003	1.2800e-003	70.3830
Condo/Townhouse High Rise	1.46942e+006	7.9200e-003	0.0677	0.0288	4.3000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	78.4136	78.4136	1.5000e-003	1.4400e-003	78.8908
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	138630	7.5000e-004	6.8000e-003	5.7100e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.3978	7.3978	1.4000e-004	1.4000e-004	7.4428
High Turnover (Sit Down Restaurant)	1.26711e+006	6.8300e-003	0.0621	0.0522	3.7000e-004		4.7200e-003	4.7200e-003		4.7200e-003	4.7200e-003	0.0000	67.6177	67.6177	1.3000e-003	1.2400e-003	68.0292
Hotel	4.31267e+006	0.0233	0.2114	0.1776	1.2700e-003		0.0161	0.0161		0.0161	0.0161	0.0000	230.1406	230.1406	4.4100e-003	4.2200e-003	231.5412
Quality Restaurant	990059	5.3400e-003	0.0485	0.0408	2.9000e-004		3.6900e-003	3.6900e-003		3.6900e-003	3.6900e-003	0.0000	52.8333	52.8333	1.0100e-003	9.7000e-004	53.1549
Total		**0.0512**	**0.4570**	**0.3308**	**2.7900e-003**		**0.0354**	**0.0354**		**0.0354**	**0.0354**	**0.0000**	**506.3603**	**506.3603**	**9.7000e-003**	**9.2900e-003**	**509.4419**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	96296.4	5.2000e-004	4.7200e-003	3.9700e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1387	5.1387	1.0000e-004	9.0000e-005	5.1700
High Turnover (Sit Down Restaurant)	1.16872e+006	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3500e-003	4.3500e-003		4.3500e-003	4.3500e-003	0.0000	62.3676	62.3676	1.2000e-003	1.1400e-003	62.7471
Hotel	2.86753e+006	0.0155	0.1406	0.1181	8.4000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	153.0224	153.0224	2.9300e-003	2.8100e-003	153.9536
Quality Restaurant	913187	4.9200e-003	0.0448	0.0376	2.7000e-004		3.4000e-003	3.4000e-003		3.4000e-003	3.4000e-003	0.0000	48.7311	48.7311	9.3000e-004	8.9000e-004	49.0277
Condo/Townhouse High Rise	1.00205e+006	5.4000e-003	0.0462	0.0197	2.9000e-004		3.7300e-003	3.7300e-003		3.7300e-003	3.7300e-003	0.0000	53.4732	53.4732	1.0200e-003	9.8000e-004	53.7986
Condo/Townhouse High Rise	893986	4.8200e-003	0.0412	0.0175	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	47.7065	47.7065	9.1000e-004	8.7000e-004	47.9968
Total		**0.0374**	**0.3347**	**0.2449**	**2.0300e-003**		**0.0259**	**0.0259**		**0.0259**	**0.0259**	**0.0000**	**370.4395**	**370.4395**	**7.0900e-003**	**6.7800e-003**	**372.6939**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	400207	114.5260	5.2600e-003	1.0900e-003	114.9742
Condo/Townhouse High Rise	448584	128.3698	5.9000e-003	1.2200e-003	128.8722
Enclosed Parking with Elevator	2.3617e+006	675.8392	0.0311	6.4300e-003	678.4841
Health Club	88808.5	25.4141	1.1700e-003	2.4000e-004	25.5135
High Turnover (Sit Down Restaurant)	255097	73.0002	3.3600e-003	6.9000e-004	73.2859
Hotel	1.46514e+006	419.2736	0.0193	3.9900e-003	420.9144
Quality Restaurant	199321	57.0390	2.6200e-003	5.4000e-004	57.2622
Total		**1,493.4618**	**0.0687**	**0.0142**	**1,499.3065**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	354363	101.4070	4.6600e-003	9.6000e-004	101.8038
Condo/Townhouse High Rise	397198	113.6650	5.2200e-003	1.0800e-003	114.1098
Enclosed Parking with Elevator	1.58188e+006	452.6819	0.0208	4.3100e-003	454.4535
Health Club	74160.6	21.2223	9.8000e-004	2.0000e-004	21.3054
High Turnover (Sit Down Restaurant)	221522	63.3924	2.9100e-003	6.0000e-004	63.6405
Hotel	1.11997e+006	320.4976	0.0147	3.0500e-003	321.7519
Quality Restaurant	166223	47.5675	2.1900e-003	4.5000e-004	47.7537
Total		**1,120.4337**	**0.0515**	**0.0107**	**1,124.8185**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.2171	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Unmitigated	5.4047	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.8393					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5038					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0617	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Total	**5.4047**	**0.0232**	**2.0078**	**1.1000e-004**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**3.2767**	**3.2767**	**3.2200e-003**	**0.0000**	**3.3443**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.5038					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0617	0.0232	2.0078	1.1000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2767	3.2767	3.2200e-003	0.0000	3.3443
Total	**5.2171**	**0.0232**	**2.0078**	**1.1000e-004**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**3.2767**	**3.2767**	**3.2200e-003**	**0.0000**	**3.3443**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Grey Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	58.9650	0.4776	0.0117	72.6274
Unmitigated	106.0957	0.6352	0.0158	124.3439

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	12.5747 / 7.92755	76.0492	0.4131	0.0104	87.9352
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0.435885 / 0.267155	2.6118	0.0143	3.6000e-004	3.0238
High Turnover (Sit Down Restaurant)	1.65122 / 0.105397	7.0117	0.0541	1.3300e-003	8.5608
Hotel	3.39915 / 0.377683	14.9450	0.1114	2.7500e-003	18.1360
Quality Restaurant	1.29002 / 0.0823416	5.4779	0.0423	1.0400e-003	6.6882
Total		**106.0957**	**0.6352**	**0.0158**	**124.3440**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	9.47631 / 0	38.3168	0.3104	7.6200e-003	47.1950
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0.328483 / 0	1.3282	0.0108	2.6000e-004	1.6360
High Turnover (Sit Down Restaurant)	1.24436 / 0	5.0315	0.0408	1.0000e-003	6.1973
Hotel	2.5616 / 0	10.3577	0.0839	2.0600e-003	12.7576
Quality Restaurant	0.972158 / 0	3.9309	0.0318	7.8000e-004	4.8417
Total		**58.9650**	**0.4776**	**0.0117**	**72.6274**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.6110	0.9817	0.0000	37.2262
Unmitigated	55.3698	3.2723	0.0000	124.0874

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	88.78	18.0215	1.0650	0.0000	40.3874
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	42.01	8.5277	0.5040	0.0000	19.1110
High Turnover (Sit Down Restaurant)	64.74	13.1416	0.7767	0.0000	29.4513
Hotel	73.36	14.8914	0.8801	0.0000	33.3726
Quality Restaurant	3.88	0.7876	0.0466	0.0000	1.7651
Total		**55.3698**	**3.2723**	**0.0000**	**124.0874**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	26.634	5.4065	0.3195	0.0000	12.1162
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	12.603	2.5583	0.1512	0.0000	5.7333
High Turnover (Sit Down Restaurant)	19.422	3.9425	0.2330	0.0000	8.8354
Hotel	22.008	4.4674	0.2640	0.0000	10.0118
Quality Restaurant	1.164	0.2363	0.0140	0.0000	0.5295
Total		**16.6110**	**0.9817**	**0.0000**	**37.2262**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Greenhouse Gas Emission Worksheet
N20 Mobile Emissions Proposed Project

From URBEMIS 2007 Vehicle Fleet Mix Output:

Annual VMT: 2,966,985

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	46.0%	0.04	0.0184	0.04	0.0184
Light Truck < 3750 lbs	10.3%	0.05	0.00515	0.06	0.00618
Light Truck 3751-5750 lbs	23.2%	0.05	0.0116	0.06	0.01392
Med Truck 5751-8500 lbs	12.2%	0.12	0.01464	0.2	0.0244
Lite-Heavy Truck 8501-10,000 lbs	2.1%	0.12	0.00252	0.2	0.0042
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.09	0.00045	0.125	0.000625
Med-Heavy Truck 14,001-33,000 lbs	1.0%	0.06	0.0006	0.05	0.0005
Heavy-Heavy Truck 33,001-60,000 lbs	2.9%	0.06	0.00174	0.05	0.00145
Other Bus	0.1%	0.06	0.00006	0.05	0.00005
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	1.1%	0.09	0.00099	0.01	0.00011
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	0.4%	0.09	0.00036	0.125	0.0005
Total	**100.0%**		**0.05663**		**0.070435**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.2090	metric tons N2O	**64.78**	metric tons CO2e
		Project Total:	***64.78***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.
** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
*** From URBEMIS 2007 results for mobile sources

Robinson May

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	958.00	Space	4.31	383,200.00	0
Regional Shopping Center	280.00	1000sqft	1.61	280,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2014
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2008 EIR

Vehicle Trips - 2008 EIR

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	8.62	4.31
tblLandUse	LotAcreage	6.43	1.61
tblVehicleTrips	ST_TR	49.97	15.48
tblVehicleTrips	SU_TR	25.24	15.48
tblVehicleTrips	WD_TR	42.94	10.94

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.9722	51.8464	44.0522	0.0836	18.2675	2.7558	21.0233	9.9840	2.5354	12.5194	0.0000	7,652.8646	7,652.8646	1.2367	0.0000	7,678.8347
2018	768.9533	32.5425	41.6696	0.0836	3.4870	1.6468	5.1338	0.9381	1.5452	2.4833	0.0000	7,483.4969	7,483.4969	0.7868	0.0000	7,500.0186
Total	**773.9255**	**84.3890**	**85.7218**	**0.1672**	**21.7545**	**4.4026**	**26.1571**	**10.9222**	**4.0805**	**15.0027**	**0.0000**	**15,136.3615**	**15,136.3615**	**2.0234**	**0.0000**	**15,178.8532**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.9722	51.8464	44.0522	0.0836	18.2675	2.7558	21.0233	9.9840	2.5354	12.5194	0.0000	7,652.8646	7,652.8646	1.2367	0.0000	7,678.8347
2018	768.9533	32.5425	41.6696	0.0836	3.4870	1.6468	5.1338	0.9381	1.5452	2.4833	0.0000	7,483.4969	7,483.4969	0.7868	0.0000	7,500.0186
Total	**773.9255**	**84.3890**	**85.7218**	**0.1672**	**21.7545**	**4.4026**	**26.1571**	**10.9222**	**4.0805**	**15.0027**	**0.0000**	**15,136.3615**	**15,136.3615**	**2.0234**	**0.0000**	**15,178.8532**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Energy	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Mobile	17.7291	40.6410	166.7851	0.2835	19.8656	0.5957	20.4613	5.3066	0.5468	5.8533		26,276.0125	26,276.0125	1.2716		26,302.7162
Total	**35.0987**	**40.7701**	**167.0246**	**0.2843**	**19.8656**	**0.6059**	**20.4715**	**5.3066**	**0.5570**	**5.8635**		**26,429.7081**	**26,429.7081**	**1.2754**	**2.8100e-003**	**26,457.3625**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Energy	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Mobile	17.7291	40.6410	166.7851	0.2835	19.8656	0.5957	20.4613	5.3066	0.5468	5.8533		26,276.0125	26,276.0125	1.2716		26,302.7162
Total	**35.0987**	**40.7701**	**167.0246**	**0.2843**	**19.8656**	**0.6059**	**20.4715**	**5.3066**	**0.5570**	**5.8635**		**26,429.7081**	**26,429.7081**	**1.2754**	**2.8100e-003**	**26,457.3625**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
3	Grading	Grading	2/11/2017	3/10/2017	5	20	
4	Building Construction	Building Construction	3/11/2017	1/26/2018	5	230	
5	Paving	Paving	1/27/2018	2/23/2018	5	20	
6	Architectural Coating	Architectural Coating	2/24/2018	3/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 994,800; Non-Residential Outdoor: 331,600 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
Total	**0.0573**	**0.0775**	**0.8088**	**1.9900e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**160.9269**	**160.9269**	**8.4400e-003**		**161.1042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
Total	**0.0573**	**0.0775**	**0.8088**	**1.9900e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**160.9269**	**160.9269**	**8.4400e-003**		**161.1042**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0687	0.0929	0.9706	2.3900e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		193.1123	193.1123	0.0101		193.3250
Total	**0.0687**	**0.0929**	**0.9706**	**2.3900e-003**	**0.2012**	**1.6200e-003**	**0.2028**	**0.0534**	**1.4900e-003**	**0.0549**		**193.1123**	**193.1123**	**0.0101**		**193.3250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0687	0.0929	0.9706	2.3900e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		193.1123	193.1123	0.0101		193.3250
Total	**0.0687**	**0.0929**	**0.9706**	**2.3900e-003**	**0.2012**	**1.6200e-003**	**0.2028**	**0.0534**	**1.4900e-003**	**0.0549**		**193.1123**	**193.1123**	**0.0101**		**193.3250**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**		**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
Total	**0.0573**	**0.0775**	**0.8088**	**1.9900e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**160.9269**	**160.9269**	**8.4400e-003**		**161.1042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**	**0.0000**	**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0775	0.8088	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9269	160.9269	8.4400e-003		161.1042
Total	**0.0573**	**0.0775**	**0.8088**	**1.9900e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**160.9269**	**160.9269**	**8.4400e-003**		**161.1042**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9116	8.8320	12.3886	0.0235	0.6814	0.1385	0.8199	0.1941	0.1274	0.3215		2,320.2162	2,320.2162	0.0170		2,320.5735
Worker	0.9582	1.2960	13.5344	0.0333	2.8056	0.0226	2.8282	0.7441	0.0208	0.7649		2,692.8431	2,692.8431	0.1413		2,695.8097
Total	**1.8698**	**10.1280**	**25.9231**	**0.0568**	**3.4870**	**0.1611**	**3.6481**	**0.9381**	**0.1482**	**1.0864**		**5,013.0593**	**5,013.0593**	**0.1583**		**5,016.3832**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9116	8.8320	12.3886	0.0235	0.6814	0.1385	0.8199	0.1941	0.1274	0.3215		2,320.2162	2,320.2162	0.0170		2,320.5735
Worker	0.9582	1.2960	13.5344	0.0333	2.8056	0.0226	2.8282	0.7441	0.0208	0.7649		2,692.8431	2,692.8431	0.1413		2,695.8097
Total	**1.8698**	**10.1280**	**25.9231**	**0.0568**	**3.4870**	**0.1611**	**3.6481**	**0.9381**	**0.1482**	**1.0864**		**5,013.0593**	**5,013.0593**	**0.1583**		**5,016.3832**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8522	8.1063	11.8882	0.0235	0.6814	0.1305	0.8119	0.1941	0.1201	0.3141		2,281.2672	2,281.2672	0.0169		2,281.6228
Worker	0.8618	1.1754	12.2488	0.0333	2.8056	0.0220	2.8276	0.7441	0.0203	0.7644		2,592.2907	2,592.2907	0.1311		2,595.0441
Total	**1.7140**	**9.2817**	**24.1369**	**0.0568**	**3.4870**	**0.1525**	**3.6395**	**0.9381**	**0.1404**	**1.0785**		**4,873.5579**	**4,873.5579**	**0.1480**		**4,876.6669**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8522	8.1063	11.8882	0.0235	0.6814	0.1305	0.8119	0.1941	0.1201	0.3141		2,281.2672	2,281.2672	0.0169		2,281.6228
Worker	0.8618	1.1754	12.2488	0.0333	2.8056	0.0220	2.8276	0.7441	0.0203	0.7644		2,592.2907	2,592.2907	0.1311		2,595.0441
Total	**1.7140**	**9.2817**	**24.1369**	**0.0568**	**3.4870**	**0.1525**	**3.6395**	**0.9381**	**0.1404**	**1.0785**		**4,873.5579**	**4,873.5579**	**0.1480**		**4,876.6669**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	768.4830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**768.7816**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1717	0.2341	2.4400	6.6300e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		516.3926	516.3926	0.0261		516.9411
Total	**0.1717**	**0.2341**	**2.4400**	**6.6300e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**516.3926**	**516.3926**	**0.0261**		**516.9411**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	768.4830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**768.7816**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1717	0.2341	2.4400	6.6300e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		516.3926	516.3926	0.0261		516.9411
Total	**0.1717**	**0.2341**	**2.4400**	**6.6300e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**516.3926**	**516.3926**	**0.0261**		**516.9411**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.7291	40.6410	166.7851	0.2835	19.8656	0.5957	20.4613	5.3066	0.5468	5.8533		26,276.0125	26,276.0125	1.2716		26,302.7162
Unmitigated	17.7291	40.6410	166.7851	0.2835	19.8656	0.5957	20.4613	5.3066	0.5468	5.8533		26,276.0125	26,276.0125	1.2716		26,302.7162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking Structure	0.00	0.00	0.00		
Regional Shopping Center	3,063.20	4,334.40	4334.40	7,410,769	7,410,769
Total	3,063.20	4,334.40	4,334.40	7,410,769	7,410,769

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.516610	0.060517	0.179979	0.140587	0.041566	0.006616	0.015092	0.027587	0.001923	0.002530	0.004314	0.000602	0.002075

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
NaturalGas Unmitigated	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1304.11	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Total		**0.0141**	**0.1279**	**0.1074**	**7.7000e-004**		**9.7200e-003**	**9.7200e-003**		**9.7200e-003**	**9.7200e-003**		**153.4247**	**153.4247**	**2.9400e-003**	**2.8100e-003**	**154.3584**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Regional Shopping Center	1.30411	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1279**	**0.1074**	**7.7000e-004**		**9.7200e-003**	**9.7200e-003**		**9.7200e-003**	**9.7200e-003**		**153.4247**	**153.4247**	**2.9400e-003**	**2.8100e-003**	**154.3584**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Unmitigated	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0134	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Total	**17.3556**	**1.2900e-003**	**0.1322**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**		**0.2709**	**0.2709**	**8.1000e-004**		**0.2880**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0134	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Total	**17.3556**	**1.2900e-003**	**0.1322**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**		**0.2709**	**0.2709**	**8.1000e-004**		**0.2880**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Robinson May

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	958.00	Space	4.31	383,200.00	0
Regional Shopping Center	280.00	1000sqft	1.61	280,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2014
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2008 EIR

Vehicle Trips - 2008 EIR

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	8.62	4.31
tblLandUse	LotAcreage	6.43	1.61
tblVehicleTrips	ST_TR	49.97	15.48
tblVehicleTrips	SU_TR	25.24	15.48
tblVehicleTrips	WD_TR	42.94	10.94

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.9056	51.8381	43.0889	0.0860	18.2675	2.7558	21.0233	9.9840	2.5354	12.5194	0.0000	7,851.2618	7,851.2618	1.2367	0.0000	7,877.2318
2018	768.9503	32.2466	40.6625	0.0860	3.4870	1.6455	5.1326	0.9381	1.5440	2.4822	0.0000	7,675.3072	7,675.3072	0.7862	0.0000	7,691.8178
Total	**773.8559**	**84.0847**	**83.7514**	**0.1720**	**21.7545**	**4.4014**	**26.1558**	**10.9222**	**4.0794**	**15.0016**	**0.0000**	**15,526.5690**	**15,526.5690**	**2.0229**	**0.0000**	**15,569.0496**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.9056	51.8381	43.0889	0.0860	18.2675	2.7558	21.0233	9.9840	2.5354	12.5194	0.0000	7,851.2618	7,851.2618	1.2367	0.0000	7,877.2318
2018	768.9503	32.2466	40.6625	0.0860	3.4870	1.6455	5.1326	0.9381	1.5440	2.4822	0.0000	7,675.3072	7,675.3072	0.7862	0.0000	7,691.8178
Total	**773.8559**	**84.0847**	**83.7514**	**0.1720**	**21.7545**	**4.4014**	**26.1558**	**10.9222**	**4.0794**	**15.0016**	**0.0000**	**15,526.5690**	**15,526.5690**	**2.0229**	**0.0000**	**15,569.0496**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Energy	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Mobile	16.9317	38.6818	165.7767	0.2984	19.8656	0.5901	20.4557	5.3066	0.5417	5.8482		27,636.7286	27,636.7286	1.2705		27,663.4088
Total	**34.3013**	**38.8109**	**166.0162**	**0.2992**	**19.8656**	**0.6003**	**20.4659**	**5.3066**	**0.5519**	**5.8584**		**27,790.4242**	**27,790.4242**	**1.2742**	**2.8100e-003**	**27,818.0552**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Energy	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Mobile	16.9317	38.6818	165.7767	0.2984	19.8656	0.5901	20.4557	5.3066	0.5417	5.8482		27,636.7286	27,636.7286	1.2705		27,663.4088
Total	**34.3013**	**38.8109**	**166.0162**	**0.2992**	**19.8656**	**0.6003**	**20.4659**	**5.3066**	**0.5519**	**5.8584**		**27,790.4242**	**27,790.4242**	**1.2742**	**2.8100e-003**	**27,818.0552**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
3	Grading	Grading	2/11/2017	3/10/2017	5	20	
4	Building Construction	Building Construction	3/11/2017	1/26/2018	5	230	
5	Paving	Paving	1/27/2018	2/23/2018	5	20	
6	Architectural Coating	Architectural Coating	2/24/2018	3/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 994,800; Non-Residential Outdoor: 331,600 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	**0.0561**	**0.0705**	**0.8806**	**2.1200e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**171.6086**	**171.6086**	**8.4400e-003**		**171.7859**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	**0.0561**	**0.0705**	**0.8806**	**2.1200e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**171.6086**	**171.6086**	**8.4400e-003**		**171.7859**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0674	0.0846	1.0567	2.5500e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		205.9304	205.9304	0.0101		206.1431
Total	**0.0674**	**0.0846**	**1.0567**	**2.5500e-003**	**0.2012**	**1.6200e-003**	**0.2028**	**0.0534**	**1.4900e-003**	**0.0549**		**205.9304**	**205.9304**	**0.0101**		**206.1431**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0674	0.0846	1.0567	2.5500e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		205.9304	205.9304	0.0101		206.1431
Total	**0.0674**	**0.0846**	**1.0567**	**2.5500e-003**	**0.2012**	**1.6200e-003**	**0.2028**	**0.0534**	**1.4900e-003**	**0.0549**		**205.9304**	**205.9304**	**0.0101**		**206.1431**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**		**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	**0.0561**	**0.0705**	**0.8806**	**2.1200e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**171.6086**	**171.6086**	**8.4400e-003**		**171.7859**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	**3.4555**	**35.9825**	**25.3812**	**0.0297**	**6.5523**	**2.0388**	**8.5912**	**3.3675**	**1.8757**	**5.2432**	**0.0000**	**3,043.6667**	**3,043.6667**	**0.9326**		**3,063.2507**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0705	0.8806	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.6086	171.6086	8.4400e-003		171.7859
Total	**0.0561**	**0.0705**	**0.8806**	**2.1200e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2400e-003**	**0.0457**		**171.6086**	**171.6086**	**8.4400e-003**		**171.7859**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8346	8.6193	10.2252	0.0237	0.6814	0.1372	0.8186	0.1941	0.1262	0.3202		2,339.8720	2,339.8720	0.0165		2,340.2186
Worker	0.9394	1.1801	14.7346	0.0355	2.8056	0.0226	2.8282	0.7441	0.0208	0.7649		2,871.5844	2,871.5844	0.1413		2,874.5510
Total	**1.7740**	**9.7995**	**24.9598**	**0.0592**	**3.4870**	**0.1597**	**3.6467**	**0.9381**	**0.1470**	**1.0851**		**5,211.4564**	**5,211.4564**	**0.1578**		**5,214.7695**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8346	8.6193	10.2252	0.0237	0.6814	0.1372	0.8186	0.1941	0.1262	0.3202		2,339.8720	2,339.8720	0.0165		2,340.2186
Worker	0.9394	1.1801	14.7346	0.0355	2.8056	0.0226	2.8282	0.7441	0.0208	0.7649		2,871.5844	2,871.5844	0.1413		2,874.5510
Total	**1.7740**	**9.7995**	**24.9598**	**0.0592**	**3.4870**	**0.1597**	**3.6467**	**0.9381**	**0.1470**	**1.0851**		**5,211.4564**	**5,211.4564**	**0.1578**		**5,214.7695**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7829	7.9152	9.7420	0.0237	0.6814	0.1293	0.8107	0.1941	0.1189	0.3130		2,300.6344	2,300.6344	0.0164		2,300.9789
Worker	0.8469	1.0706	13.3878	0.0355	2.8056	0.0220	2.8276	0.7441	0.0203	0.7644		2,764.7338	2,764.7338	0.1311		2,767.4872
Total	**1.6298**	**8.9858**	**23.1298**	**0.0592**	**3.4870**	**0.1513**	**3.6383**	**0.9381**	**0.1393**	**1.0774**		**5,065.3683**	**5,065.3683**	**0.1475**		**5,068.4661**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7829	7.9152	9.7420	0.0237	0.6814	0.1293	0.8107	0.1941	0.1189	0.3130		2,300.6344	2,300.6344	0.0164		2,300.9789
Worker	0.8469	1.0706	13.3878	0.0355	2.8056	0.0220	2.8276	0.7441	0.0203	0.7644		2,764.7338	2,764.7338	0.1311		2,767.4872
Total	**1.6298**	**8.9858**	**23.1298**	**0.0592**	**3.4870**	**0.1513**	**3.6383**	**0.9381**	**0.1393**	**1.0774**		**5,065.3683**	**5,065.3683**	**0.1475**		**5,068.4661**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6114**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	768.4830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	**768.7816**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1687	0.2133	2.6669	7.0800e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		550.7438	550.7438	0.0261		551.2923
Total	**0.1687**	**0.2133**	**2.6669**	**7.0800e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**550.7438**	**550.7438**	**0.0261**		**551.2923**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	768.4830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	**768.7816**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.0102**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1687	0.2133	2.6669	7.0800e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		550.7438	550.7438	0.0261		551.2923
Total	**0.1687**	**0.2133**	**2.6669**	**7.0800e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**550.7438**	**550.7438**	**0.0261**		**551.2923**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	16.9317	38.6818	165.7767	0.2984	19.8656	0.5901	20.4557	5.3066	0.5417	5.8482		27,636.7286	27,636.7286	1.2705		27,663.4088
Unmitigated	16.9317	38.6818	165.7767	0.2984	19.8656	0.5901	20.4557	5.3066	0.5417	5.8482		27,636.7286	27,636.7286	1.2705		27,663.4088

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking Structure	0.00	0.00	0.00		
Regional Shopping Center	3,063.20	4,334.40	4334.40	7,410,769	7,410,769
Total	3,063.20	4,334.40	4,334.40	7,410,769	7,410,769

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.516610	0.060517	0.179979	0.140587	0.041566	0.006616	0.015092	0.027587	0.001923	0.002530	0.004314	0.000602	0.002075

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
NaturalGas Unmitigated	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1304.11	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Total		**0.0141**	**0.1279**	**0.1074**	**7.7000e-004**		**9.7200e-003**	**9.7200e-003**		**9.7200e-003**	**9.7200e-003**		**153.4247**	**153.4247**	**2.9400e-003**	**2.8100e-003**	**154.3584**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Regional Shopping Center	1.30411	0.0141	0.1279	0.1074	7.7000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003		153.4247	153.4247	2.9400e-003	2.8100e-003	154.3584
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0141**	**0.1279**	**0.1074**	**7.7000e-004**		**9.7200e-003**	**9.7200e-003**		**9.7200e-003**	**9.7200e-003**		**153.4247**	**153.4247**	**2.9400e-003**	**2.8100e-003**	**154.3584**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Unmitigated	17.3556	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0134	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Total	**17.3556**	**1.2900e-003**	**0.1322**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**		**0.2709**	**0.2709**	**8.1000e-004**		**0.2880**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2109					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1314					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0134	1.2900e-003	0.1322	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		0.2709	0.2709	8.1000e-004		0.2880
Total	**17.3556**	**1.2900e-003**	**0.1322**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**		**0.2709**	**0.2709**	**8.1000e-004**		**0.2880**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Robinson May

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	958.00	Space	4.31	383,200.00	0
Regional Shopping Center	280.00	1000sqft	1.61	280,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2014
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2008 EIR

Vehicle Trips - 2008 EIR

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	8.62	4.31
tblLandUse	LotAcreage	6.43	1.61
tblVehicleTrips	ST_TR	49.97	15.48
tblVehicleTrips	SU_TR	25.24	15.48
tblVehicleTrips	WD_TR	42.94	10.94

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.6142	4.9059	5.4354	9.7900e-003	0.5197	0.2593	0.7790	0.1814	0.2424	0.4238	0.0000	820.2948	820.2948	0.1012	0.0000	822.4201
2018	7.7491	0.5222	0.6123	1.1800e-003	0.0414	0.0274	0.0688	0.0111	0.0256	0.0368	0.0000	97.4649	97.4649	0.0140	0.0000	97.7595
Total	**8.3633**	**5.4281**	**6.0477**	**0.0110**	**0.5611**	**0.2867**	**0.8478**	**0.1925**	**0.2680**	**0.4605**	**0.0000**	**917.7598**	**917.7598**	**0.1152**	**0.0000**	**920.1796**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.6142	4.9059	5.4354	9.7900e-003	0.5197	0.2593	0.7790	0.1814	0.2424	0.4238	0.0000	820.2944	820.2944	0.1012	0.0000	822.4197
2018	7.7491	0.5222	0.6123	1.1800e-003	0.0414	0.0274	0.0688	0.0111	0.0256	0.0368	0.0000	97.4649	97.4649	0.0140	0.0000	97.7594
Total	**8.3633**	**5.4281**	**6.0477**	**0.0110**	**0.5611**	**0.2867**	**0.8478**	**0.1925**	**0.2680**	**0.4605**	**0.0000**	**917.7593**	**917.7593**	**0.1152**	**0.0000**	**920.1791**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1666	1.6000e-004	0.0165	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0307	0.0307	9.0000e-005	0.0000	0.0327
Energy	2.5700e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	1,959.1911	1,959.1911	0.0894	0.0189	1,966.9136
Mobile	2.4038	5.9598	24.1438	0.0413	2.8061	0.0851	2.8913	0.7507	0.0782	0.8289	0.0000	3,468.7688	3,468.7688	0.1657	0.0000	3,472.2483
Waste						0.0000	0.0000		0.0000	0.0000	59.6793	0.0000	59.6793	3.5270	0.0000	133.7453
Water						0.0000	0.0000		0.0000	0.0000	6.5799	117.6969	124.2768	0.6812	0.0171	143.8766
Total	**5.5730**	**5.9833**	**24.1799**	**0.0414**	**2.8061**	**0.0870**	**2.8931**	**0.7507**	**0.0800**	**0.8307**	**66.2593**	**5,545.6875**	**5,611.9468**	**4.4633**	**0.0359**	**5,716.8164**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1666	1.6000e-004	0.0165	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0307	0.0307	9.0000e-005	0.0000	0.0327
Energy	2.5700e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	1,959.1911	1,959.1911	0.0894	0.0189	1,966.9136
Mobile	2.4038	5.9598	24.1438	0.0413	2.8061	0.0851	2.8913	0.7507	0.0782	0.8289	0.0000	3,468.7688	3,468.7688	0.1657	0.0000	3,472.2483
Waste						0.0000	0.0000		0.0000	0.0000	59.6793	0.0000	59.6793	3.5270	0.0000	133.7453
Water						0.0000	0.0000		0.0000	0.0000	6.5799	117.6969	124.2768	0.6811	0.0171	143.8661
Total	**5.5730**	**5.9833**	**24.1799**	**0.0414**	**2.8061**	**0.0870**	**2.8931**	**0.7507**	**0.0800**	**0.8307**	**66.2593**	**5,545.6875**	**5,611.9468**	**4.4632**	**0.0359**	**5,716.8059**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.08**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
3	Grading	Grading	2/11/2017	3/10/2017	5	20	
4	Building Construction	Building Construction	3/11/2017	1/26/2018	5	230	
5	Paving	Paving	1/27/2018	2/23/2018	5	20	
6	Architectural Coating	Architectural Coating	2/24/2018	3/23/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 994,800; Non-Residential Outdoor: 331,600 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	251.00	109.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0405	0.4270	0.3389	4.0000e-004		0.0213	0.0213		0.0198	0.0198	0.0000	36.6182	36.6182	0.0101	0.0000	36.8292
Total	**0.0405**	**0.4270**	**0.3389**	**4.0000e-004**		**0.0213**	**0.0213**		**0.0198**	**0.0198**	**0.0000**	**36.6182**	**36.6182**	**0.0101**	**0.0000**	**36.8292**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0405	0.4270	0.3389	4.0000e-004		0.0213	0.0213		0.0198	0.0198	0.0000	36.6182	36.6182	0.0101	0.0000	36.8291
Total	**0.0405**	**0.4270**	**0.3389**	**4.0000e-004**		**0.0213**	**0.0213**		**0.0198**	**0.0198**	**0.0000**	**36.6182**	**36.6182**	**0.0101**	**0.0000**	**36.8291**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2588	0.1970	2.0000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	18.1577	18.1577	5.5600e-003	0.0000	18.2745
Total	**0.0242**	**0.2588**	**0.1970**	**2.0000e-004**	**0.0903**	**0.0138**	**0.1041**	**0.0497**	**0.0127**	**0.0623**	**0.0000**	**18.1577**	**18.1577**	**5.5600e-003**	**0.0000**	**18.2745**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	4.8000e-004	4.9700e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8896	0.8896	5.0000e-005	0.0000	0.8906
Total	**3.2000e-004**	**4.8000e-004**	**4.9700e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8896**	**0.8896**	**5.0000e-005**	**0.0000**	**0.8906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2588	0.1970	2.0000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	18.1577	18.1577	5.5600e-003	0.0000	18.2745
Total	**0.0242**	**0.2588**	**0.1970**	**2.0000e-004**	**0.0903**	**0.0138**	**0.1041**	**0.0497**	**0.0127**	**0.0623**	**0.0000**	**18.1577**	**18.1577**	**5.5600e-003**	**0.0000**	**18.2745**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	4.8000e-004	4.9700e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8896	0.8896	5.0000e-005	0.0000	0.8906
Total	**3.2000e-004**	**4.8000e-004**	**4.9700e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8896**	**0.8896**	**5.0000e-005**	**0.0000**	**0.8906**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0346	0.3598	0.2538	3.0000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	27.6117	27.6117	8.4600e-003	0.0000	27.7893
Total	**0.0346**	**0.3598**	**0.2538**	**3.0000e-004**	**0.0655**	**0.0204**	**0.0859**	**0.0337**	**0.0188**	**0.0524**	**0.0000**	**27.6117**	**27.6117**	**8.4600e-003**	**0.0000**	**27.7893**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0346	0.3598	0.2538	3.0000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	27.6117	27.6117	8.4600e-003	0.0000	27.7893
Total	**0.0346**	**0.3598**	**0.2538**	**3.0000e-004**	**0.0655**	**0.0204**	**0.0859**	**0.0337**	**0.0188**	**0.0524**	**0.0000**	**27.6117**	**27.6117**	**8.4600e-003**	**0.0000**	**27.7893**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3258	2.7726	1.9036	2.8100e-003		0.1870	0.1870		0.1757	0.1757	0.0000	251.4531	251.4531	0.0619	0.0000	252.7527
Total	**0.3258**	**2.7726**	**1.9036**	**2.8100e-003**		**0.1870**	**0.1870**		**0.1757**	**0.1757**	**0.0000**	**251.4531**	**251.4531**	**0.0619**	**0.0000**	**252.7527**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0931	0.9456	1.2640	2.4800e-003	0.0704	0.0145	0.0849	0.0201	0.0133	0.0334	0.0000	222.0967	222.0967	1.5900e-003	0.0000	222.1302
Worker	0.0947	0.1401	1.4565	3.5500e-003	0.2892	2.3700e-003	0.2915	0.0768	2.1900e-003	0.0790	0.0000	260.5025	260.5025	0.0135	0.0000	260.7851
Total	**0.1878**	**1.0857**	**2.7205**	**6.0300e-003**	**0.3596**	**0.0168**	**0.3764**	**0.0969**	**0.0155**	**0.1124**	**0.0000**	**482.5993**	**482.5993**	**0.0151**	**0.0000**	**482.9153**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3258	2.7726	1.9036	2.8100e-003		0.1870	0.1870		0.1757	0.1757	0.0000	251.4528	251.4528	0.0619	0.0000	252.7524
Total	**0.3258**	**2.7726**	**1.9036**	**2.8100e-003**		**0.1870**	**0.1870**		**0.1757**	**0.1757**	**0.0000**	**251.4528**	**251.4528**	**0.0619**	**0.0000**	**252.7524**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0931	0.9456	1.2640	2.4800e-003	0.0704	0.0145	0.0849	0.0201	0.0133	0.0334	0.0000	222.0967	222.0967	1.5900e-003	0.0000	222.1302
Worker	0.0947	0.1401	1.4565	3.5500e-003	0.2892	2.3700e-003	0.2915	0.0768	2.1900e-003	0.0790	0.0000	260.5025	260.5025	0.0135	0.0000	260.7851
Total	**0.1878**	**1.0857**	**2.7205**	**6.0300e-003**	**0.3596**	**0.0168**	**0.3764**	**0.0969**	**0.0155**	**0.1124**	**0.0000**	**482.5993**	**482.5993**	**0.0151**	**0.0000**	**482.9153**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0267	0.2326	0.1753	2.7000e-004		0.0149	0.0149		0.0141	0.0141	0.0000	23.6770	23.6770	5.7900e-003	0.0000	23.7987
Total	**0.0267**	**0.2326**	**0.1753**	**2.7000e-004**		**0.0149**	**0.0149**		**0.0141**	**0.0141**	**0.0000**	**23.6770**	**23.6770**	**5.7900e-003**	**0.0000**	**23.7987**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3000e-003	0.0827	0.1153	2.4000e-004	6.7100e-003	1.3000e-003	8.0100e-003	1.9100e-003	1.1900e-003	3.1100e-003	0.0000	20.7972	20.7972	1.5000e-004	0.0000	20.8004
Worker	8.1000e-003	0.0121	0.1256	3.4000e-004	0.0275	2.2000e-004	0.0278	7.3100e-003	2.0000e-004	7.5200e-003	0.0000	23.8837	23.8837	1.1900e-003	0.0000	23.9087
Total	**0.0164**	**0.0948**	**0.2410**	**5.8000e-004**	**0.0343**	**1.5200e-003**	**0.0358**	**9.2200e-003**	**1.3900e-003**	**0.0106**	**0.0000**	**44.6809**	**44.6809**	**1.3400e-003**	**0.0000**	**44.7091**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0267	0.2326	0.1753	2.7000e-004		0.0149	0.0149		0.0141	0.0141	0.0000	23.6769	23.6769	5.7900e-003	0.0000	23.7986
Total	**0.0267**	**0.2326**	**0.1753**	**2.7000e-004**		**0.0149**	**0.0149**		**0.0141**	**0.0141**	**0.0000**	**23.6769**	**23.6769**	**5.7900e-003**	**0.0000**	**23.7986**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3000e-003	0.0827	0.1153	2.4000e-004	6.7100e-003	1.3000e-003	8.0100e-003	1.9100e-003	1.1900e-003	3.1100e-003	0.0000	20.7972	20.7972	1.5000e-004	0.0000	20.8004
Worker	8.1000e-003	0.0121	0.1256	3.4000e-004	0.0275	2.2000e-004	0.0278	7.3100e-003	2.0000e-004	7.5200e-003	0.0000	23.8837	23.8837	1.1900e-003	0.0000	23.9087
Total	**0.0164**	**0.0948**	**0.2410**	**5.8000e-004**	**0.0343**	**1.5200e-003**	**0.0358**	**9.2200e-003**	**1.3900e-003**	**0.0106**	**0.0000**	**44.6809**	**44.6809**	**1.3400e-003**	**0.0000**	**44.7091**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0161**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

3.6 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.2000e-004	7.5100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4273	1.4273	7.0000e-005	0.0000	1.4288
Total	**4.8000e-004**	**7.2000e-004**	**7.5100e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4273**	**1.4273**	**7.0000e-005**	**0.0000**	**1.4288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0161**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

3.6 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.2000e-004	7.5100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4273	1.4273	7.0000e-005	0.0000	1.4288
Total	**4.8000e-004**	**7.2000e-004**	**7.5100e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4273**	**1.4273**	**7.0000e-005**	**0.0000**	**1.4288**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.6848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5584
Total	**7.6878**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5584**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	2.4100e-003	0.0250	7.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	4.7577	4.7577	2.4000e-004	0.0000	4.7627
Total	**1.6100e-003**	**2.4100e-003**	**0.0250**	**7.0000e-005**	**5.4900e-003**	**4.0000e-005**	**5.5300e-003**	**1.4600e-003**	**4.0000e-005**	**1.5000e-003**	**0.0000**	**4.7577**	**4.7577**	**2.4000e-004**	**0.0000**	**4.7627**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.6848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5584
Total	**7.6878**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5584**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	2.4100e-003	0.0250	7.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	4.7577	4.7577	2.4000e-004	0.0000	4.7627
Total	**1.6100e-003**	**2.4100e-003**	**0.0250**	**7.0000e-005**	**5.4900e-003**	**4.0000e-005**	**5.5300e-003**	**1.4600e-003**	**4.0000e-005**	**1.5000e-003**	**0.0000**	**4.7577**	**4.7577**	**2.4000e-004**	**0.0000**	**4.7627**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4038	5.9598	24.1438	0.0413	2.8061	0.0851	2.8913	0.7507	0.0782	0.8289	0.0000	3,468.7688	3,468.7688	0.1657	0.0000	3,472.2483
Unmitigated	2.4038	5.9598	24.1438	0.0413	2.8061	0.0851	2.8913	0.7507	0.0782	0.8289	0.0000	3,468.7688	3,468.7688	0.1657	0.0000	3,472.2483

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking Structure	0.00	0.00	0.00		
Regional Shopping Center	3,063.20	4,334.40	4334.40	7,410,769	7,410,769
Total	3,063.20	4,334.40	4,334.40	7,410,769	7,410,769

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.516610	0.060517	0.179979	0.140587	0.041566	0.006616	0.015092	0.027587	0.001923	0.002530	0.004314	0.000602	0.002075

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,933.7899	1,933.7899	0.0889	0.0184	1,941.3579
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,933.7899	1,933.7899	0.0889	0.0184	1,941.3579
NaturalGas Mitigated	2.5700e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	25.4012	25.4012	4.9000e-004	4.7000e-004	25.5558
NaturalGas Unmitigated	2.5700e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	25.4012	25.4012	4.9000e-004	4.7000e-004	25.5558

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	476000	2.5700e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	25.4012	25.4012	4.9000e-004	4.7000e-004	25.5558
Total		**2.5700e-003**	**0.0233**	**0.0196**	**1.4000e-004**		**1.7700e-003**	**1.7700e-003**		**1.7700e-003**	**1.7700e-003**	**0.0000**	**25.4012**	**25.4012**	**4.9000e-004**	**4.7000e-004**	**25.5558**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Regional Shopping Center	476000	2.5700e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003	0.0000	25.4012	25.4012	4.9000e-004	4.7000e-004	25.5558
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.5700e-003**	**0.0233**	**0.0196**	**1.4000e-004**		**1.7700e-003**	**1.7700e-003**		**1.7700e-003**	**1.7700e-003**	**0.0000**	**25.4012**	**25.4012**	**4.9000e-004**	**4.7000e-004**	**25.5558**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking Structure	2.50996e+006	718.2675	0.0330	6.8300e-003	721.0784
Regional Shopping Center	4.2476e+006	1,215.5225	0.0559	0.0116	1,220.2795
Total		**1,933.7899**	**0.0889**	**0.0184**	**1,941.3579**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking Structure	2.50996e+006	718.2675	0.0330	6.8300e-003	721.0784
Regional Shopping Center	4.2476e+006	1,215.5225	0.0559	0.0116	1,220.2795
Total		**1,933.7899**	**0.0889**	**0.0184**	**1,941.3579**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1666	1.6000e-004	0.0165	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0307	0.0307	9.0000e-005	0.0000	0.0327
Unmitigated	3.1666	1.6000e-004	0.0165	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0307	0.0307	9.0000e-005	0.0000	0.0327

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3965					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6700e-003	1.6000e-004	0.0165	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0307	0.0307	9.0000e-005	0.0000	0.0327
Total	**3.1666**	**1.6000e-004**	**0.0165**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0307**	**0.0307**	**9.0000e-005**	**0.0000**	**0.0327**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.3965					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6700e-003	1.6000e-004	0.0165	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0307	0.0307	9.0000e-005	0.0000	0.0327
Total	**3.1666**	**1.6000e-004**	**0.0165**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0307**	**0.0307**	**9.0000e-005**	**0.0000**	**0.0327**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	124.2768	0.6811	0.0171	143.8661
Unmitigated	124.2768	0.6812	0.0171	143.8766

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	20.7403 / 12.7118	124.2768	0.6812	0.0171	143.8766
Total		**124.2768**	**0.6812**	**0.0171**	**143.8766**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	20.7403 / 12.7118	124.2768	0.6811	0.0171	143.8661
Total		**124.2768**	**0.6811**	**0.0171**	**143.8661**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.6793	3.5270	0.0000	133.7453
Unmitigated	59.6793	3.5270	0.0000	133.7453

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	294	59.6793	3.5270	0.0000	133.7453
Total		**59.6793**	**3.5270**	**0.0000**	**133.7453**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	294	59.6793	3.5270	0.0000	133.7453
Total		**59.6793**	**3.5270**	**0.0000**	**133.7453**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Greenhouse Gas Emission Worksheet
N20 Mobile Emissions Robinson May

From URBEMIS 2007 Vehicle Fleet Mix Output:

Annual VMT: 7,410,769

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	46.0%	0.04	0.0184	0.04	0.0184
Light Truck < 3750 lbs	10.3%	0.05	0.00515	0.06	0.00618
Light Truck 3751-5750 lbs	23.2%	0.05	0.0116	0.06	0.01392
Med Truck 5751-8500 lbs	12.2%	0.12	0.01464	0.2	0.0244
Lite-Heavy Truck 8501-10,000 lbs	2.1%	0.12	0.00252	0.2	0.0042
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.09	0.00045	0.125	0.000625
Med-Heavy Truck 14,001-33,000 lbs	1.0%	0.06	0.0006	0.05	0.0005
Heavy-Heavy Truck 33,001-60,000 lbs	2.9%	0.06	0.00174	0.05	0.00145
Other Bus	0.1%	0.06	0.00006	0.05	0.00005
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	1.1%	0.09	0.00099	0.01	0.00011
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	0.4%	0.09	0.00036	0.125	0.0005
Total	**100.0%**		**0.05663**		**0.070435**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N20 Emissions:	0.5220	metric tons N2O	**161.81**	metric tons CO2e
		Project Total:	***161.81***	***metric tons CO2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
Assume Model year 2000-present, gasoline fueled.
** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
*** From URBEMIS 2007 results for mobile sources

Appendix C

Noise Data and Modeling Results

- Freq Weight : A
- Time Weight : FAST
- Level Range : 70-130
- Max dB : 101.1 - 2009/04/06 09:11:17
- Level Range : 70-130
- SEL : 104.2
- Leq : 74.7
-

No.s	Date Time	(dB)
1	2009/04/06 09:04:12	70.1
2	2009/04/06 09:04:13	69.8
3	2009/04/06 09:04:14	69.7
4	2009/04/06 09:04:15	70.1
5	2009/04/06 09:04:16	69.8
6	2009/04/06 09:04:17	69.9
7	2009/04/06 09:04:18	74.4
8	2009/04/06 09:04:19	70.0
9	2009/04/06 09:04:20	70.0
10	2009/04/06 09:04:21	69.9
11	2009/04/06 09:04:22	70.1
12	2009/04/06 09:04:23	69.9
13	2009/04/06 09:04:24	69.8
14	2009/04/06 09:04:25	70.2
15	2009/04/06 09:04:26	69.7
16	2009/04/06 09:04:27	69.6
17	2009/04/06 09:04:28	71.0
18	2009/04/06 09:04:29	70.0
19	2009/04/06 09:04:30	72.8
20	2009/04/06 09:04:31	70.4
21	2009/04/06 09:04:32	70.1
22	2009/04/06 09:04:33	70.1
23	2009/04/06 09:04:34	70.2
24	2009/04/06 09:04:35	70.1
25	2009/04/06 09:04:36	70.1
26	2009/04/06 09:04:37	70.7
27	2009/04/06 09:04:38	70.4
28	2009/04/06 09:04:39	71.3
29	2009/04/06 09:04:40	72.0
30	2009/04/06 09:04:41	71.3
31	2009/04/06 09:04:42	71.2
32	2009/04/06 09:04:43	71.3
33	2009/04/06 09:04:44	71.6
34	2009/04/06 09:04:45	71.1
35	2009/04/06 09:04:46	71.3
36	2009/04/06 09:04:47	71.3
37	2009/04/06 09:04:48	71.3
38	2009/04/06 09:04:49	71.6
39	2009/04/06 09:04:50	74.9
40	2009/04/06 09:04:51	80.2
41	2009/04/06 09:04:52	80.8
42	2009/04/06 09:04:53	78.6
43	2009/04/06 09:04:54	73.8
44	2009/04/06 09:04:55	80.1
45	2009/04/06 09:04:56	79.1
46	2009/04/06 09:04:57	73.4
47	2009/04/06 09:04:58	74.4
48	2009/04/06 09:04:59	74.9
49	2009/04/06 09:05:00	75.1
50	2009/04/06 09:05:01	74.6
51	2009/04/06 09:05:02	74.2
52	2009/04/06 09:05:03	73.7
53	2009/04/06 09:05:04	74.8
54	2009/04/06 09:05:05	74.4
55	2009/04/06 09:05:06	73.8
56	2009/04/06 09:05:07	74.5
57	2009/04/06 09:05:08	76.7
58	2009/04/06 09:05:09	76.1
59	2009/04/06 09:05:10	76.8
60	2009/04/06 09:05:11	76.4
61	2009/04/06 09:05:12	75.6
62	2009/04/06 09:05:13	73.8
63	2009/04/06 09:05:14	73.0
64	2009/04/06 09:05:15	74.0
65	2009/04/06 09:05:16	72.5
66	2009/04/06 09:05:17	73.3
67	2009/04/06 09:05:18	77.5
68	2009/04/06 09:05:19	83.1
69	2009/04/06 09:05:20	84.4
70	2009/04/06 09:05:21	77.3
71	2009/04/06 09:05:22	76.2
72	2009/04/06 09:05:23	76.6
73	2009/04/06 09:05:24	77.6
74	2009/04/06 09:05:25	76.2
75	2009/04/06 09:05:26	73.7
76	2009/04/06 09:05:27	73.9
77	2009/04/06 09:05:28	77.1
78	2009/04/06 09:05:29	75.2
79	2009/04/06 09:05:30	76.8
80	2009/04/06 09:05:31	76.1
81	2009/04/06 09:05:32	72.3
82	2009/04/06 09:05:33	69.2
83	2009/04/06 09:05:34	69.8
84	2009/04/06 09:05:35	68.9
85	2009/04/06 09:05:36	67.4

- Freq Weight : A
- Time Weight : FAST
- Level Range : 70-130
- Max dB : 91.6 - 2009/04/06 09:30:35
- Level Range : 70-130
- SEL : 99.5
- Leq : 70.0
-

No.s	Date Time	(dB)
1	2009/04/06 09:22:07	66.1
2	2009/04/06 09:22:08	64.6
3	2009/04/06 09:22:09	63.8
4	2009/04/06 09:22:10	65.7
5	2009/04/06 09:22:11	66.0
6	2009/04/06 09:22:12	65.0
7	2009/04/06 09:22:13	63.7
8	2009/04/06 09:22:14	63.3
9	2009/04/06 09:22:15	64.0
10	2009/04/06 09:22:16	65.4
11	2009/04/06 09:22:17	64.8
12	2009/04/06 09:22:18	63.1
13	2009/04/06 09:22:19	63.6
14	2009/04/06 09:22:20	62.4
15	2009/04/06 09:22:21	61.3
16	2009/04/06 09:22:22	64.4
17	2009/04/06 09:22:23	66.4
18	2009/04/06 09:22:24	74.1
19	2009/04/06 09:22:25	83.1
20	2009/04/06 09:22:26	83.0
21	2009/04/06 09:22:27	73.0
22	2009/04/06 09:22:28	67.9
23	2009/04/06 09:22:29	64.8
24	2009/04/06 09:22:30	63.5
25	2009/04/06 09:22:31	62.8
26	2009/04/06 09:22:32	65.0
27	2009/04/06 09:22:33	67.4
28	2009/04/06 09:22:34	70.4
29	2009/04/06 09:22:35	72.8
30	2009/04/06 09:22:36	77.8
31	2009/04/06 09:22:37	79.4
32	2009/04/06 09:22:38	72.9
33	2009/04/06 09:22:39	73.3
34	2009/04/06 09:22:40	71.7
35	2009/04/06 09:22:41	68.0
36	2009/04/06 09:22:42	66.9
37	2009/04/06 09:22:43	69.3
38	2009/04/06 09:22:44	71.4
39	2009/04/06 09:22:45	73.1
40	2009/04/06 09:22:46	74.2
41	2009/04/06 09:22:47	74.8
42	2009/04/06 09:22:48	72.6
43	2009/04/06 09:22:49	70.4
44	2009/04/06 09:22:50	72.4
45	2009/04/06 09:22:51	73.3
46	2009/04/06 09:22:52	73.6
47	2009/04/06 09:22:53	76.8
48	2009/04/06 09:22:54	79.2
49	2009/04/06 09:22:55	71.8
50	2009/04/06 09:22:56	70.3
51	2009/04/06 09:22:57	68.9
52	2009/04/06 09:22:58	72.4
53	2009/04/06 09:22:59	75.8
54	2009/04/06 09:23:00	72.0
55	2009/04/06 09:23:01	73.8
56	2009/04/06 09:23:02	78.0
57	2009/04/06 09:23:03	78.8
58	2009/04/06 09:23:04	70.3
59	2009/04/06 09:23:05	71.3
60	2009/04/06 09:23:06	72.7
61	2009/04/06 09:23:07	79.1
62	2009/04/06 09:23:08	80.4
63	2009/04/06 09:23:09	80.7
64	2009/04/06 09:23:10	72.5
65	2009/04/06 09:23:11	69.4
66	2009/04/06 09:23:12	70.5
67	2009/04/06 09:23:13	74.8
68	2009/04/06 09:23:14	69.5
69	2009/04/06 09:23:15	68.5
70	2009/04/06 09:23:16	69.0
71	2009/04/06 09:23:17	69.2
72	2009/04/06 09:23:18	72.1
73	2009/04/06 09:23:19	74.6
74	2009/04/06 09:23:20	69.5
75	2009/04/06 09:23:21	66.4
76	2009/04/06 09:23:22	66.5
77	2009/04/06 09:23:23	64.7
78	2009/04/06 09:23:24	64.8
79	2009/04/06 09:23:25	66.4
80	2009/04/06 09:23:26	70.5
81	2009/04/06 09:23:27	77.6
82	2009/04/06 09:23:28	71.8
83	2009/04/06 09:23:29	66.9
84	2009/04/06 09:23:30	65.9
85	2009/04/06 09:23:31	64.2

- Freq Weight : A
- Time Weight : FAST
- Level Range : 70-130
- Max dB : 87.0 - 2009/04/06 09:42:48
- Level Range : 70-130
- SEL : 102.5
- Leq : 73.0
-

No.s	Date Time	(dB)
1	2009/04/06 09:39:54	76.1
2	2009/04/06 09:39:55	76.0
3	2009/04/06 09:39:56	77.1
4	2009/04/06 09:39:57	77.6
5	2009/04/06 09:39:58	77.0
6	2009/04/06 09:39:59	78.0
7	2009/04/06 09:40:00	76.0
8	2009/04/06 09:40:01	76.9
9	2009/04/06 09:40:02	77.8
10	2009/04/06 09:40:03	76.2
11	2009/04/06 09:40:04	76.0
12	2009/04/06 09:40:05	74.9
13	2009/04/06 09:40:06	75.8
14	2009/04/06 09:40:07	73.4
15	2009/04/06 09:40:08	74.7
16	2009/04/06 09:40:09	74.1
17	2009/04/06 09:40:10	74.2
18	2009/04/06 09:40:11	77.5
19	2009/04/06 09:40:12	78.6
20	2009/04/06 09:40:13	77.0
21	2009/04/06 09:40:14	74.3
22	2009/04/06 09:40:15	74.7
23	2009/04/06 09:40:16	76.1
24	2009/04/06 09:40:17	72.5
25	2009/04/06 09:40:18	70.5
26	2009/04/06 09:40:19	68.3
27	2009/04/06 09:40:20	67.8
28	2009/04/06 09:40:21	69.5
29	2009/04/06 09:40:22	71.6
30	2009/04/06 09:40:23	71.4
31	2009/04/06 09:40:24	71.9
32	2009/04/06 09:40:25	74.4
33	2009/04/06 09:40:26	71.6
34	2009/04/06 09:40:27	71.2
35	2009/04/06 09:40:28	69.4
36	2009/04/06 09:40:29	65.9
37	2009/04/06 09:40:30	65.1
38	2009/04/06 09:40:31	63.7
39	2009/04/06 09:40:32	63.4
40	2009/04/06 09:40:33	63.2
41	2009/04/06 09:40:34	64.2
42	2009/04/06 09:40:35	62.9
43	2009/04/06 09:40:36	63.5
44	2009/04/06 09:40:37	67.3
45	2009/04/06 09:40:38	71.1
46	2009/04/06 09:40:39	74.0
47	2009/04/06 09:40:40	72.7
48	2009/04/06 09:40:41	68.9
49	2009/04/06 09:40:42	65.1
50	2009/04/06 09:40:43	63.3
51	2009/04/06 09:40:44	61.9
52	2009/04/06 09:40:45	61.1
53	2009/04/06 09:40:46	61.1
54	2009/04/06 09:40:47	60.8
55	2009/04/06 09:40:48	60.8
56	2009/04/06 09:40:49	61.0
57	2009/04/06 09:40:50	60.4
58	2009/04/06 09:40:51	60.6
59	2009/04/06 09:40:52	61.3
60	2009/04/06 09:40:53	62.1
61	2009/04/06 09:40:54	63.5
62	2009/04/06 09:40:55	64.5
63	2009/04/06 09:40:56	65.9
64	2009/04/06 09:40:57	71.2
65	2009/04/06 09:40:58	74.1
66	2009/04/06 09:40:59	75.2
67	2009/04/06 09:41:00	72.8
68	2009/04/06 09:41:01	70.6
69	2009/04/06 09:41:02	66.1
70	2009/04/06 09:41:03	62.4
71	2009/04/06 09:41:04	61.4
72	2009/04/06 09:41:05	60.8
73	2009/04/06 09:41:06	61.0
74	2009/04/06 09:41:07	62.3
75	2009/04/06 09:41:08	66.0
76	2009/04/06 09:41:09	69.1
77	2009/04/06 09:41:10	73.3
78	2009/04/06 09:41:11	69.6
79	2009/04/06 09:41:12	70.0
80	2009/04/06 09:41:13	71.3
81	2009/04/06 09:41:14	72.1
82	2009/04/06 09:41:15	73.4
83	2009/04/06 09:41:16	77.0
84	2009/04/06 09:41:17	76.5
85	2009/04/06 09:41:18	75.7

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 96.3 - 2016/02/25 11:31:00
- Level Range : 50-110
- SEL : 104.2
- Leq : 74.7
-

No.s	Date Time	(dB)
1	2016/02/25 11:27:42	66.2
2	2016/02/25 11:27:43	65.1
3	2016/02/25 11:27:44	67.4
4	2016/02/25 11:27:45	70.5
5	2016/02/25 11:27:46	71.6
6	2016/02/25 11:27:47	71.1
7	2016/02/25 11:27:48	71.0
8	2016/02/25 11:27:49	69.7
9	2016/02/25 11:27:50	68.5
10	2016/02/25 11:27:51	69.3
11	2016/02/25 11:27:52	70.4
12	2016/02/25 11:27:53	70.9
13	2016/02/25 11:27:54	69.9
14	2016/02/25 11:27:55	70.0
15	2016/02/25 11:27:56	72.8
16	2016/02/25 11:27:57	74.5
17	2016/02/25 11:27:58	76.3
18	2016/02/25 11:27:59	75.0
19	2016/02/25 11:28:00	76.5
20	2016/02/25 11:28:01	75.3
21	2016/02/25 11:28:02	71.8
22	2016/02/25 11:28:03	72.4
23	2016/02/25 11:28:04	72.8
24	2016/02/25 11:28:05	73.9
25	2016/02/25 11:28:06	74.1
26	2016/02/25 11:28:07	77.0
27	2016/02/25 11:28:08	73.7
28	2016/02/25 11:28:09	72.4
29	2016/02/25 11:28:10	72.1
30	2016/02/25 11:28:11	71.5
31	2016/02/25 11:28:12	71.9
32	2016/02/25 11:28:13	71.7
33	2016/02/25 11:28:14	70.7
34	2016/02/25 11:28:15	70.5
35	2016/02/25 11:28:16	70.3
36	2016/02/25 11:28:17	70.1
37	2016/02/25 11:28:18	69.1
38	2016/02/25 11:28:19	68.8
39	2016/02/25 11:28:20	68.2
40	2016/02/25 11:28:21	67.3
41	2016/02/25 11:28:22	67.4
42	2016/02/25 11:28:23	71.0
43	2016/02/25 11:28:24	73.8
44	2016/02/25 11:28:25	71.0
45	2016/02/25 11:28:26	70.8
46	2016/02/25 11:28:27	70.1
47	2016/02/25 11:28:28	73.7
48	2016/02/25 11:28:29	73.7
49	2016/02/25 11:28:30	75.7
50	2016/02/25 11:28:31	79.7
51	2016/02/25 11:28:32	76.0
52	2016/02/25 11:28:33	72.8
53	2016/02/25 11:28:34	72.9
54	2016/02/25 11:28:35	73.8
55	2016/02/25 11:28:36	72.4
56	2016/02/25 11:28:37	73.8
57	2016/02/25 11:28:38	72.5
58	2016/02/25 11:28:39	69.4
59	2016/02/25 11:28:40	66.0
60	2016/02/25 11:28:41	66.1
61	2016/02/25 11:28:42	66.1
62	2016/02/25 11:28:43	64.8
63	2016/02/25 11:28:44	65.0
64	2016/02/25 11:28:45	64.4
65	2016/02/25 11:28:46	63.0
66	2016/02/25 11:28:47	63.9
67	2016/02/25 11:28:48	63.4
68	2016/02/25 11:28:49	63.6
69	2016/02/25 11:28:50	64.5
70	2016/02/25 11:28:51	64.0
71	2016/02/25 11:28:52	63.9
72	2016/02/25 11:28:53	63.3
73	2016/02/25 11:28:54	63.5
74	2016/02/25 11:28:55	64.9
75	2016/02/25 11:28:56	65.7
76	2016/02/25 11:28:57	69.4
77	2016/02/25 11:28:58	69.1
78	2016/02/25 11:28:59	67.5
79	2016/02/25 11:29:00	66.5
80	2016/02/25 11:29:01	68.5
81	2016/02/25 11:29:02	67.3
82	2016/02/25 11:29:03	70.6
83	2016/02/25 11:29:04	67.6
84	2016/02/25 11:29:05	70.1
85	2016/02/25 11:29:06	70.5

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 99.8 - 2016/02/25 11:48:05
- Level Range : 50-110
- SEL : 106.4
- Leq : 76.9
-

No.s	Date Time	(dB)
1	2016/02/25 11:46:52	64.2
2	2016/02/25 11:46:53	64.2
3	2016/02/25 11:46:54	63.2
4	2016/02/25 11:46:55	62.8
5	2016/02/25 11:46:56	63.2
6	2016/02/25 11:46:57	63.4
7	2016/02/25 11:46:58	63.2
8	2016/02/25 11:46:59	63.4
9	2016/02/25 11:47:00	63.2
10	2016/02/25 11:47:01	63.3
11	2016/02/25 11:47:02	64.4
12	2016/02/25 11:47:03	65.2
13	2016/02/25 11:47:04	64.5
14	2016/02/25 11:47:05	64.7
15	2016/02/25 11:47:06	65.6
16	2016/02/25 11:47:07	67.5
17	2016/02/25 11:47:08	72.8
18	2016/02/25 11:47:09	73.4
19	2016/02/25 11:47:10	74.3
20	2016/02/25 11:47:11	77.7
21	2016/02/25 11:47:12	75.3
22	2016/02/25 11:47:13	78.1
23	2016/02/25 11:47:14	75.4
24	2016/02/25 11:47:15	75.4
25	2016/02/25 11:47:16	75.0
26	2016/02/25 11:47:17	77.2
27	2016/02/25 11:47:18	77.4
28	2016/02/25 11:47:19	77.0
29	2016/02/25 11:47:20	76.6
30	2016/02/25 11:47:21	76.7
31	2016/02/25 11:47:22	76.0
32	2016/02/25 11:47:23	73.2
33	2016/02/25 11:47:24	73.5
34	2016/02/25 11:47:25	73.5
35	2016/02/25 11:47:26	76.2
36	2016/02/25 11:47:27	77.7
37	2016/02/25 11:47:28	78.6
38	2016/02/25 11:47:29	77.2
39	2016/02/25 11:47:30	78.3
40	2016/02/25 11:47:31	79.8
41	2016/02/25 11:47:32	77.6
42	2016/02/25 11:47:33	78.4
43	2016/02/25 11:47:34	79.0
44	2016/02/25 11:47:35	76.8
45	2016/02/25 11:47:36	76.9
46	2016/02/25 11:47:37	78.0
47	2016/02/25 11:47:38	77.6
48	2016/02/25 11:47:39	78.2
49	2016/02/25 11:47:40	77.1
50	2016/02/25 11:47:41	76.5
51	2016/02/25 11:47:42	77.6
52	2016/02/25 11:47:43	78.9
53	2016/02/25 11:47:44	80.2
54	2016/02/25 11:47:45	79.7
55	2016/02/25 11:47:46	78.0
56	2016/02/25 11:47:47	77.7
57	2016/02/25 11:47:48	76.8
58	2016/02/25 11:47:49	76.4
59	2016/02/25 11:47:50	78.0
60	2016/02/25 11:47:51	77.5
61	2016/02/25 11:47:52	79.4
62	2016/02/25 11:47:53	78.5
63	2016/02/25 11:47:54	77.1
64	2016/02/25 11:47:55	77.1
65	2016/02/25 11:47:56	75.1
66	2016/02/25 11:47:57	75.3
67	2016/02/25 11:47:58	75.8
68	2016/02/25 11:47:59	74.8
69	2016/02/25 11:48:00	78.4
70	2016/02/25 11:48:01	75.1
71	2016/02/25 11:48:02	75.5
72	2016/02/25 11:48:03	77.6
73	2016/02/25 11:48:04	78.0
74	2016/02/25 11:48:05	81.8
75	2016/02/25 11:48:06	83.0
76	2016/02/25 11:48:07	93.4
77	2016/02/25 11:48:08	83.3
78	2016/02/25 11:48:09	80.9
79	2016/02/25 11:48:10	79.6
80	2016/02/25 11:48:11	78.9
81	2016/02/25 11:48:12	84.2
82	2016/02/25 11:48:13	79.2
83	2016/02/25 11:48:14	79.0
84	2016/02/25 11:48:15	79.0
85	2016/02/25 11:48:16	79.1

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 95.3 - 2016/02/25 12:18:30
- Level Range : 50-110
- SEL : 99.5
- Leq : 70.0
-

No.s	Date Time	(dB)
1	2016/02/25 12:06:36	72.5
2	2016/02/25 12:06:37	74.0
3	2016/02/25 12:06:38	74.0
4	2016/02/25 12:06:39	69.3
5	2016/02/25 12:06:40	67.0
6	2016/02/25 12:06:41	63.5
7	2016/02/25 12:06:42	61.7
8	2016/02/25 12:06:43	59.4
9	2016/02/25 12:06:44	61.5
10	2016/02/25 12:06:45	64.4
11	2016/02/25 12:06:46	66.0
12	2016/02/25 12:06:47	71.7
13	2016/02/25 12:06:48	70.2
14	2016/02/25 12:06:49	73.4
15	2016/02/25 12:06:50	74.2
16	2016/02/25 12:06:51	75.6
17	2016/02/25 12:06:52	73.1
18	2016/02/25 12:06:53	71.4
19	2016/02/25 12:06:54	69.0
20	2016/02/25 12:06:55	71.5
21	2016/02/25 12:06:56	71.6
22	2016/02/25 12:06:57	71.4
23	2016/02/25 12:06:58	68.8
24	2016/02/25 12:06:59	65.8
25	2016/02/25 12:07:00	65.6
26	2016/02/25 12:07:01	63.6
27	2016/02/25 12:07:02	64.9
28	2016/02/25 12:07:03	64.9
29	2016/02/25 12:07:04	67.2
30	2016/02/25 12:07:05	68.0
31	2016/02/25 12:07:06	68.3
32	2016/02/25 12:07:07	68.7
33	2016/02/25 12:07:08	67.2
34	2016/02/25 12:07:09	65.9
35	2016/02/25 12:07:10	67.8
36	2016/02/25 12:07:11	67.2
37	2016/02/25 12:07:12	66.8
38	2016/02/25 12:07:13	65.9
39	2016/02/25 12:07:14	69.0
40	2016/02/25 12:07:15	71.5
41	2016/02/25 12:07:16	69.6
42	2016/02/25 12:07:17	69.5
43	2016/02/25 12:07:18	69.7
44	2016/02/25 12:07:19	70.8
45	2016/02/25 12:07:20	68.3
46	2016/02/25 12:07:21	66.8
47	2016/02/25 12:07:22	63.3
48	2016/02/25 12:07:23	62.9
49	2016/02/25 12:07:24	63.9
50	2016/02/25 12:07:25	63.1
51	2016/02/25 12:07:26	62.4
52	2016/02/25 12:07:27	65.1
53	2016/02/25 12:07:28	65.1
54	2016/02/25 12:07:29	67.5
55	2016/02/25 12:07:30	60.3
56	2016/02/25 12:07:31	58.1
57	2016/02/25 12:07:32	58.3
58	2016/02/25 12:07:33	59.2
59	2016/02/25 12:07:34	60.4
60	2016/02/25 12:07:35	60.0
61	2016/02/25 12:07:36	59.7
62	2016/02/25 12:07:37	60.5
63	2016/02/25 12:07:38	62.9
64	2016/02/25 12:07:39	63.4
65	2016/02/25 12:07:40	65.6
66	2016/02/25 12:07:41	67.7
67	2016/02/25 12:07:42	66.3
68	2016/02/25 12:07:43	68.5
69	2016/02/25 12:07:44	73.1
70	2016/02/25 12:07:45	66.9
71	2016/02/25 12:07:46	66.3
72	2016/02/25 12:07:47	65.4
73	2016/02/25 12:07:48	62.8
74	2016/02/25 12:07:49	61.8
75	2016/02/25 12:07:50	60.6
76	2016/02/25 12:07:51	61.1
77	2016/02/25 12:07:52	61.1
78	2016/02/25 12:07:53	61.3
79	2016/02/25 12:07:54	61.6
80	2016/02/25 12:07:55	66.6
81	2016/02/25 12:07:56	63.8
82	2016/02/25 12:07:57	64.4
83	2016/02/25 12:07:58	65.5
84	2016/02/25 12:07:59	71.7
85	2016/02/25 12:08:00	70.9

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 88.4 - 2016/02/25 12:38:38
- Level Range : 50-110
- SEL : 102.5
- Leq : 73.0
-

No.s	Date Time	(dB)
1	2016/02/25 12:28:59	77.4
2	2016/02/25 12:29:00	74.3
3	2016/02/25 12:29:01	75.6
4	2016/02/25 12:29:02	75.2
5	2016/02/25 12:29:03	73.6
6	2016/02/25 12:29:04	71.6
7	2016/02/25 12:29:05	77.3
8	2016/02/25 12:29:06	77.2
9	2016/02/25 12:29:07	73.5
10	2016/02/25 12:29:08	72.8
11	2016/02/25 12:29:09	71.5
12	2016/02/25 12:29:10	70.2
13	2016/02/25 12:29:11	70.8
14	2016/02/25 12:29:12	69.3
15	2016/02/25 12:29:13	69.2
16	2016/02/25 12:29:14	69.8
17	2016/02/25 12:29:15	69.2
18	2016/02/25 12:29:16	68.9
19	2016/02/25 12:29:17	70.1
20	2016/02/25 12:29:18	70.9
21	2016/02/25 12:29:19	72.1
22	2016/02/25 12:29:20	73.7
23	2016/02/25 12:29:21	76.3
24	2016/02/25 12:29:22	77.5
25	2016/02/25 12:29:23	79.0
26	2016/02/25 12:29:24	78.1
27	2016/02/25 12:29:25	76.8
28	2016/02/25 12:29:26	75.4
29	2016/02/25 12:29:27	73.0
30	2016/02/25 12:29:28	76.0
31	2016/02/25 12:29:29	79.8
32	2016/02/25 12:29:30	77.3
33	2016/02/25 12:29:31	74.4
34	2016/02/25 12:29:32	75.1
35	2016/02/25 12:29:33	76.1
36	2016/02/25 12:29:34	76.0
37	2016/02/25 12:29:35	77.9
38	2016/02/25 12:29:36	75.5
39	2016/02/25 12:29:37	73.8
40	2016/02/25 12:29:38	77.7
41	2016/02/25 12:29:39	80.7
42	2016/02/25 12:29:40	76.2
43	2016/02/25 12:29:41	74.4
44	2016/02/25 12:29:42	72.9
45	2016/02/25 12:29:43	73.0
46	2016/02/25 12:29:44	75.9
47	2016/02/25 12:29:45	78.7
48	2016/02/25 12:29:46	78.3
49	2016/02/25 12:29:47	78.0
50	2016/02/25 12:29:48	78.4
51	2016/02/25 12:29:49	78.5
52	2016/02/25 12:29:50	77.8
53	2016/02/25 12:29:51	77.5
54	2016/02/25 12:29:52	77.1
55	2016/02/25 12:29:53	78.5
56	2016/02/25 12:29:54	82.1
57	2016/02/25 12:29:55	85.4
58	2016/02/25 12:29:56	84.9
59	2016/02/25 12:29:57	79.6
60	2016/02/25 12:29:58	78.7
61	2016/02/25 12:29:59	77.5
62	2016/02/25 12:30:00	75.5
63	2016/02/25 12:30:01	75.4
64	2016/02/25 12:30:02	78.8
65	2016/02/25 12:30:03	76.8
66	2016/02/25 12:30:04	71.7
67	2016/02/25 12:30:05	72.8
68	2016/02/25 12:30:06	68.9
69	2016/02/25 12:30:07	73.0
70	2016/02/25 12:30:08	78.6
71	2016/02/25 12:30:09	74.1
72	2016/02/25 12:30:10	69.4
73	2016/02/25 12:30:11	67.2
74	2016/02/25 12:30:12	68.2
75	2016/02/25 12:30:13	67.3
76	2016/02/25 12:30:14	66.6
77	2016/02/25 12:30:15	68.1
78	2016/02/25 12:30:16	68.3
79	2016/02/25 12:30:17	68.8
80	2016/02/25 12:30:18	69.1
81	2016/02/25 12:30:19	69.0
82	2016/02/25 12:30:20	67.6
83	2016/02/25 12:30:21	67.4
84	2016/02/25 12:30:22	68.0
85	2016/02/25 12:30:23	67.8

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 93.6 - 2016/02/29 12:15:33
- Level Range : 50-110
- SEL : 109.0
- Leq : 79.5
-

No.s	Date Time	(dB)
1	2016/02/29 12:07:42	75.3
2	2016/02/29 12:07:43	71.0
3	2016/02/29 12:07:44	73.1
4	2016/02/29 12:07:45	81.8
5	2016/02/29 12:07:46	88.3
6	2016/02/29 12:07:47	83.0
7	2016/02/29 12:07:48	80.0
8	2016/02/29 12:07:49	78.0
9	2016/02/29 12:07:50	72.9
10	2016/02/29 12:07:51	74.4
11	2016/02/29 12:07:52	75.8
12	2016/02/29 12:07:53	81.0
13	2016/02/29 12:07:54	83.7
14	2016/02/29 12:07:55	82.1
15	2016/02/29 12:07:56	79.1
16	2016/02/29 12:07:57	75.6
17	2016/02/29 12:07:58	77.2
18	2016/02/29 12:07:59	80.5
19	2016/02/29 12:08:00	79.4
20	2016/02/29 12:08:01	80.3
21	2016/02/29 12:08:02	75.6
22	2016/02/29 12:08:03	75.4
23	2016/02/29 12:08:04	71.4
24	2016/02/29 12:08:05	70.3
25	2016/02/29 12:08:06	68.1
26	2016/02/29 12:08:07	70.4
27	2016/02/29 12:08:08	74.5
28	2016/02/29 12:08:09	81.9
29	2016/02/29 12:08:10	79.8
30	2016/02/29 12:08:11	75.9
31	2016/02/29 12:08:12	78.9
32	2016/02/29 12:08:13	82.5
33	2016/02/29 12:08:14	86.3
34	2016/02/29 12:08:15	81.1
35	2016/02/29 12:08:16	82.4
36	2016/02/29 12:08:17	80.1
37	2016/02/29 12:08:18	81.2
38	2016/02/29 12:08:19	78.6
39	2016/02/29 12:08:20	81.7
40	2016/02/29 12:08:21	84.5
41	2016/02/29 12:08:22	84.3
42	2016/02/29 12:08:23	83.9
43	2016/02/29 12:08:24	80.8
44	2016/02/29 12:08:25	78.9
45	2016/02/29 12:08:26	83.4
46	2016/02/29 12:08:27	80.9
47	2016/02/29 12:08:28	81.2
48	2016/02/29 12:08:29	83.7
49	2016/02/29 12:08:30	82.2
50	2016/02/29 12:08:31	81.7
51	2016/02/29 12:08:32	77.4
52	2016/02/29 12:08:33	74.1
53	2016/02/29 12:08:34	76.6
54	2016/02/29 12:08:35	82.8
55	2016/02/29 12:08:36	78.3
56	2016/02/29 12:08:37	74.7
57	2016/02/29 12:08:38	74.1
58	2016/02/29 12:08:39	79.3
59	2016/02/29 12:08:40	78.9
60	2016/02/29 12:08:41	74.2
61	2016/02/29 12:08:42	73.1
62	2016/02/29 12:08:43	71.9
63	2016/02/29 12:08:44	69.8
64	2016/02/29 12:08:45	70.2
65	2016/02/29 12:08:46	72.3
66	2016/02/29 12:08:47	80.7
67	2016/02/29 12:08:48	81.7
68	2016/02/29 12:08:49	74.0
69	2016/02/29 12:08:50	71.9
70	2016/02/29 12:08:51	74.7
71	2016/02/29 12:08:52	76.9
72	2016/02/29 12:08:53	71.2
73	2016/02/29 12:08:54	68.1
74	2016/02/29 12:08:55	68.6
75	2016/02/29 12:08:56	71.7
76	2016/02/29 12:08:57	78.2
77	2016/02/29 12:08:58	80.8
78	2016/02/29 12:08:59	74.0
79	2016/02/29 12:09:00	67.8
80	2016/02/29 12:09:01	66.5
81	2016/02/29 12:09:02	66.1
82	2016/02/29 12:09:03	67.9
83	2016/02/29 12:09:04	70.2
84	2016/02/29 12:09:05	70.0

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 90.9 - 2016/02/25 00:11:26
- Level Range : 50-110
- SEL : 95.8
- Leq : 66.3
-

No.s	Date Time	(dB)
1	2016/02/24 23:56:44	64.8
2	2016/02/24 23:56:45	65.8
3	2016/02/24 23:56:46	68.9
4	2016/02/24 23:56:47	70.3
5	2016/02/24 23:56:48	69.5
6	2016/02/24 23:56:49	64.9
7	2016/02/24 23:56:50	62.1
8	2016/02/24 23:56:51	61.9
9	2016/02/24 23:56:52	60.9
10	2016/02/24 23:56:53	58.5
11	2016/02/24 23:56:54	57.2
12	2016/02/24 23:56:55	56.7
13	2016/02/24 23:56:56	56.9
14	2016/02/24 23:56:57	56.1
15	2016/02/24 23:56:58	56.5
16	2016/02/24 23:56:59	56.3
17	2016/02/24 23:57:00	57.3
18	2016/02/24 23:57:01	57.7
19	2016/02/24 23:57:02	57.9
20	2016/02/24 23:57:03	57.9
21	2016/02/24 23:57:04	58.6
22	2016/02/24 23:57:05	58.7
23	2016/02/24 23:57:06	58.5
24	2016/02/24 23:57:07	64.8
25	2016/02/24 23:57:08	66.2
26	2016/02/24 23:57:09	61.5
27	2016/02/24 23:57:10	58.5
28	2016/02/24 23:57:11	59.6
29	2016/02/24 23:57:12	59.0
30	2016/02/24 23:57:13	61.1
31	2016/02/24 23:57:14	67.2
32	2016/02/24 23:57:15	61.8
33	2016/02/24 23:57:16	59.9
34	2016/02/24 23:57:17	59.0
35	2016/02/24 23:57:18	59.5
36	2016/02/24 23:57:19	57.3
37	2016/02/24 23:57:20	56.5
38	2016/02/24 23:57:21	55.9
39	2016/02/24 23:57:22	55.0
40	2016/02/24 23:57:23	56.3
41	2016/02/24 23:57:24	55.8
42	2016/02/24 23:57:25	57.7
43	2016/02/24 23:57:26	58.3
44	2016/02/24 23:57:27	60.3
45	2016/02/24 23:57:28	66.7
46	2016/02/24 23:57:29	64.1
47	2016/02/24 23:57:30	60.5
48	2016/02/24 23:57:31	60.3
49	2016/02/24 23:57:32	58.9
50	2016/02/24 23:57:33	56.6
51	2016/02/24 23:57:34	55.4
52	2016/02/24 23:57:35	54.1
53	2016/02/24 23:57:36	52.9
54	2016/02/24 23:57:37	53.3
55	2016/02/24 23:57:38	53.9
56	2016/02/24 23:57:39	55.1
57	2016/02/24 23:57:40	54.6
58	2016/02/24 23:57:41	54.9
59	2016/02/24 23:57:42	54.3
60	2016/02/24 23:57:43	54.0
61	2016/02/24 23:57:44	55.7
62	2016/02/24 23:57:45	55.9
63	2016/02/24 23:57:46	57.1
64	2016/02/24 23:57:47	59.4
65	2016/02/24 23:57:48	59.5
66	2016/02/24 23:57:49	61.5
67	2016/02/24 23:57:50	64.9
68	2016/02/24 23:57:51	66.8
69	2016/02/24 23:57:52	65.1
70	2016/02/24 23:57:53	66.6
71	2016/02/24 23:57:54	67.0
72	2016/02/24 23:57:55	71.4
73	2016/02/24 23:57:56	67.8
74	2016/02/24 23:57:57	67.7
75	2016/02/24 23:57:58	72.7
76	2016/02/24 23:57:59	68.9
77	2016/02/24 23:58:00	69.9
78	2016/02/24 23:58:01	67.5
79	2016/02/24 23:58:02	65.4
80	2016/02/24 23:58:03	65.9
81	2016/02/24 23:58:04	68.5
82	2016/02/24 23:58:05	66.5
83	2016/02/24 23:58:06	63.9
84	2016/02/24 23:58:07	64.3
85	2016/02/24 23:58:08	66.1

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 90.0 - 2016/02/25 00:16:26
- Level Range : 50-110
- SEL : 102.5
- Leq : 73.0
-

No.s	Date Time	(dB)
1	2016/02/25 00:13:44	73.7
2	2016/02/25 00:13:45	74.9
3	2016/02/25 00:13:46	75.6
4	2016/02/25 00:13:47	77.0
5	2016/02/25 00:13:48	78.6
6	2016/02/25 00:13:49	80.0
7	2016/02/25 00:13:50	80.3
8	2016/02/25 00:13:51	79.5
9	2016/02/25 00:13:52	72.5
10	2016/02/25 00:13:53	70.9
11	2016/02/25 00:13:54	70.4
12	2016/02/25 00:13:55	68.7
13	2016/02/25 00:13:56	67.5
14	2016/02/25 00:13:57	68.3
15	2016/02/25 00:13:58	74.4
16	2016/02/25 00:13:59	82.1
17	2016/02/25 00:14:00	84.5
18	2016/02/25 00:14:01	80.0
19	2016/02/25 00:14:02	77.4
20	2016/02/25 00:14:03	79.5
21	2016/02/25 00:14:04	81.2
22	2016/02/25 00:14:05	80.9
23	2016/02/25 00:14:06	78.7
24	2016/02/25 00:14:07	75.2
25	2016/02/25 00:14:08	74.3
26	2016/02/25 00:14:09	72.4
27	2016/02/25 00:14:10	70.3
28	2016/02/25 00:14:11	67.6
29	2016/02/25 00:14:12	65.7
30	2016/02/25 00:14:13	63.9
31	2016/02/25 00:14:14	63.1
32	2016/02/25 00:14:15	62.9
33	2016/02/25 00:14:16	62.5
34	2016/02/25 00:14:17	62.6
35	2016/02/25 00:14:18	62.6
36	2016/02/25 00:14:19	61.6
37	2016/02/25 00:14:20	62.9
38	2016/02/25 00:14:21	62.3
39	2016/02/25 00:14:22	60.7
40	2016/02/25 00:14:23	65.5
41	2016/02/25 00:14:24	69.7
42	2016/02/25 00:14:25	72.6
43	2016/02/25 00:14:26	76.4
44	2016/02/25 00:14:27	75.7
45	2016/02/25 00:14:28	74.5
46	2016/02/25 00:14:29	70.3
47	2016/02/25 00:14:30	68.8
48	2016/02/25 00:14:31	69.2
49	2016/02/25 00:14:32	69.0
50	2016/02/25 00:14:33	70.5
51	2016/02/25 00:14:34	72.1
52	2016/02/25 00:14:35	72.5
53	2016/02/25 00:14:36	71.9
54	2016/02/25 00:14:37	70.2
55	2016/02/25 00:14:38	69.4
56	2016/02/25 00:14:39	71.4
57	2016/02/25 00:14:40	75.6
58	2016/02/25 00:14:41	79.2
59	2016/02/25 00:14:42	78.8
60	2016/02/25 00:14:43	72.2
61	2016/02/25 00:14:44	70.9
62	2016/02/25 00:14:45	72.6
63	2016/02/25 00:14:46	74.2
64	2016/02/25 00:14:47	76.9
65	2016/02/25 00:14:48	79.1
66	2016/02/25 00:14:49	72.3
67	2016/02/25 00:14:50	70.5
68	2016/02/25 00:14:51	69.2
69	2016/02/25 00:14:52	68.3
70	2016/02/25 00:14:53	67.3
71	2016/02/25 00:14:54	65.8
72	2016/02/25 00:14:55	63.0
73	2016/02/25 00:14:56	60.9
74	2016/02/25 00:14:57	60.5
75	2016/02/25 00:14:58	61.2
76	2016/02/25 00:14:59	63.3
77	2016/02/25 00:15:00	66.7
78	2016/02/25 00:15:01	72.1
79	2016/02/25 00:15:02	76.7
80	2016/02/25 00:15:03	75.9
81	2016/02/25 00:15:04	75.4
82	2016/02/25 00:15:05	76.6
83	2016/02/25 00:15:06	74.5
84	2016/02/25 00:15:07	72.7
85	2016/02/25 00:15:08	77.8

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 78.3 - 2016/02/25 00:31:51
- Level Range : 50-110
- SEL : 96.4
- Leq : 66.9
-

No.s	Date Time	(dB)
1	2016/02/25 00:31:40	67.5
2	2016/02/25 00:31:41	74.7
3	2016/02/25 00:31:42	74.0
4	2016/02/25 00:31:43	72.2
5	2016/02/25 00:31:44	68.0
6	2016/02/25 00:31:45	64.7
7	2016/02/25 00:31:46	67.1
8	2016/02/25 00:31:47	70.3
9	2016/02/25 00:31:48	69.3
10	2016/02/25 00:31:49	67.2
11	2016/02/25 00:31:50	70.0
12	2016/02/25 00:31:51	77.1
13	2016/02/25 00:31:52	74.9
14	2016/02/25 00:31:53	73.6
15	2016/02/25 00:31:54	67.8
16	2016/02/25 00:31:55	67.3
17	2016/02/25 00:31:56	64.4
18	2016/02/25 00:31:57	66.6
19	2016/02/25 00:31:58	66.5
20	2016/02/25 00:31:59	62.5
21	2016/02/25 00:32:00	62.8
22	2016/02/25 00:32:01	63.7
23	2016/02/25 00:32:02	65.3
24	2016/02/25 00:32:03	66.8
25	2016/02/25 00:32:04	61.7
26	2016/02/25 00:32:05	65.3
27	2016/02/25 00:32:06	62.4
28	2016/02/25 00:32:07	62.6
29	2016/02/25 00:32:08	65.0
30	2016/02/25 00:32:09	68.5
31	2016/02/25 00:32:10	70.9
32	2016/02/25 00:32:11	73.0
33	2016/02/25 00:32:12	70.4
34	2016/02/25 00:32:13	66.1
35	2016/02/25 00:32:14	65.9
36	2016/02/25 00:32:15	69.5
37	2016/02/25 00:32:16	67.7
38	2016/02/25 00:32:17	66.0
39	2016/02/25 00:32:18	66.5
40	2016/02/25 00:32:19	63.9
41	2016/02/25 00:32:20	60.3
42	2016/02/25 00:32:21	61.2
43	2016/02/25 00:32:22	60.8
44	2016/02/25 00:32:23	60.7
45	2016/02/25 00:32:24	60.2
46	2016/02/25 00:32:25	58.9
47	2016/02/25 00:32:26	58.2
48	2016/02/25 00:32:27	58.6
49	2016/02/25 00:32:28	59.6
50	2016/02/25 00:32:29	67.2
51	2016/02/25 00:32:30	67.4
52	2016/02/25 00:32:31	70.9
53	2016/02/25 00:32:32	69.3
54	2016/02/25 00:32:33	66.7
55	2016/02/25 00:32:34	66.3
56	2016/02/25 00:32:35	65.9
57	2016/02/25 00:32:36	69.2
58	2016/02/25 00:32:37	69.8
59	2016/02/25 00:32:38	65.1
60	2016/02/25 00:32:39	65.6
61	2016/02/25 00:32:40	66.6
62	2016/02/25 00:32:41	68.9
63	2016/02/25 00:32:42	69.6
64	2016/02/25 00:32:43	72.1
65	2016/02/25 00:32:44	69.9
66	2016/02/25 00:32:45	66.8
67	2016/02/25 00:32:46	64.2
68	2016/02/25 00:32:47	65.0
69	2016/02/25 00:32:48	65.6
70	2016/02/25 00:32:49	66.6
71	2016/02/25 00:32:50	65.0
72	2016/02/25 00:32:51	63.0
73	2016/02/25 00:32:52	62.5
74	2016/02/25 00:32:53	63.5
75	2016/02/25 00:32:54	65.0
76	2016/02/25 00:32:55	63.0
77	2016/02/25 00:32:56	62.9
78	2016/02/25 00:32:57	64.1
79	2016/02/25 00:32:58	62.2
80	2016/02/25 00:32:59	65.6
81	2016/02/25 00:33:00	60.6
82	2016/02/25 00:33:01	62.2
83	2016/02/25 00:33:02	65.4
84	2016/02/25 00:33:03	67.8
85	2016/02/25 00:33:04	68.0

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 81.7 - 2016/02/25 01:18:25
- Level Range : 50-110
- SEL : 97.0
- Leq : 67.5
-

No.s	Date Time	(dB)
1	2016/02/25 01:14:50	55.4
2	2016/02/25 01:14:51	56.1
3	2016/02/25 01:14:52	56.0
4	2016/02/25 01:14:53	56.8
5	2016/02/25 01:14:54	56.0
6	2016/02/25 01:14:55	57.4
7	2016/02/25 01:14:56	57.9
8	2016/02/25 01:14:57	57.9
9	2016/02/25 01:14:58	59.3
10	2016/02/25 01:14:59	60.1
11	2016/02/25 01:15:00	61.5
12	2016/02/25 01:15:01	62.3
13	2016/02/25 01:15:02	62.8
14	2016/02/25 01:15:03	62.6
15	2016/02/25 01:15:04	66.5
16	2016/02/25 01:15:05	66.4
17	2016/02/25 01:15:06	69.5
18	2016/02/25 01:15:07	68.5
19	2016/02/25 01:15:08	70.6
20	2016/02/25 01:15:09	72.0
21	2016/02/25 01:15:10	74.6
22	2016/02/25 01:15:11	74.8
23	2016/02/25 01:15:12	77.4
24	2016/02/25 01:15:13	79.7
25	2016/02/25 01:15:14	79.0
26	2016/02/25 01:15:15	77.4
27	2016/02/25 01:15:16	79.2
28	2016/02/25 01:15:17	78.3
29	2016/02/25 01:15:18	75.7
30	2016/02/25 01:15:19	74.9
31	2016/02/25 01:15:20	76.3
32	2016/02/25 01:15:21	78.6
33	2016/02/25 01:15:22	75.0
34	2016/02/25 01:15:23	73.1
35	2016/02/25 01:15:24	73.0
36	2016/02/25 01:15:25	72.8
37	2016/02/25 01:15:26	70.7
38	2016/02/25 01:15:27	66.8
39	2016/02/25 01:15:28	64.3
40	2016/02/25 01:15:29	61.0
41	2016/02/25 01:15:30	60.4
42	2016/02/25 01:15:31	60.3
43	2016/02/25 01:15:32	58.3
44	2016/02/25 01:15:33	57.3
45	2016/02/25 01:15:34	57.3
46	2016/02/25 01:15:35	60.3
47	2016/02/25 01:15:36	59.6
48	2016/02/25 01:15:37	59.7
49	2016/02/25 01:15:38	59.4
50	2016/02/25 01:15:39	61.7
51	2016/02/25 01:15:40	63.5
52	2016/02/25 01:15:41	64.1
53	2016/02/25 01:15:42	65.2
54	2016/02/25 01:15:43	66.4
55	2016/02/25 01:15:44	66.8
56	2016/02/25 01:15:45	67.2
57	2016/02/25 01:15:46	68.2
58	2016/02/25 01:15:47	67.5
59	2016/02/25 01:15:48	68.6
60	2016/02/25 01:15:49	68.2
61	2016/02/25 01:15:50	72.0
62	2016/02/25 01:15:51	72.3
63	2016/02/25 01:15:52	73.8
64	2016/02/25 01:15:53	73.9
65	2016/02/25 01:15:54	70.9
66	2016/02/25 01:15:55	67.1
67	2016/02/25 01:15:56	62.8
68	2016/02/25 01:15:57	59.9
69	2016/02/25 01:15:58	58.2
70	2016/02/25 01:15:59	56.5
71	2016/02/25 01:16:00	55.6
72	2016/02/25 01:16:01	53.7
73	2016/02/25 01:16:02	52.9
74	2016/02/25 01:16:03	51.9
75	2016/02/25 01:16:04	52.1
76	2016/02/25 01:16:05	52.3
77	2016/02/25 01:16:06	51.6
78	2016/02/25 01:16:07	51.9
79	2016/02/25 01:16:08	53.5
80	2016/02/25 01:16:09	60.6
81	2016/02/25 01:16:10	53.0
82	2016/02/25 01:16:11	52.7
83	2016/02/25 01:16:12	54.7
84	2016/02/25 01:16:13	53.0
85	2016/02/25 01:16:14	59.9

- Freq Weight : A
- Time Weight : FAST
- Level Range : 50-110
- Max dB : 102.1 - 2016/02/25 01:02:48
- Level Range : 50-110
- SEL : 104.2
- Leq : 74.7
-

No.s	Date Time	(dB)
1	2016/02/25 00:56:43	65.5
2	2016/02/25 00:56:44	76.2
3	2016/02/25 00:56:45	76.4
4	2016/02/25 00:56:46	74.4
5	2016/02/25 00:56:47	74.3
6	2016/02/25 00:56:48	71.0
7	2016/02/25 00:56:49	69.2
8	2016/02/25 00:56:50	67.6
9	2016/02/25 00:56:51	64.9
10	2016/02/25 00:56:52	64.7
11	2016/02/25 00:56:53	64.8
12	2016/02/25 00:56:54	61.2
13	2016/02/25 00:56:55	58.5
14	2016/02/25 00:56:56	58.0
15	2016/02/25 00:56:57	55.5
16	2016/02/25 00:56:58	55.7
17	2016/02/25 00:56:59	54.8
18	2016/02/25 00:57:00	54.3
19	2016/02/25 00:57:01	53.4
20	2016/02/25 00:57:02	52.7
21	2016/02/25 00:57:03	53.6
22	2016/02/25 00:57:04	53.7
23	2016/02/25 00:57:05	57.0
24	2016/02/25 00:57:06	56.8
25	2016/02/25 00:57:07	56.6
26	2016/02/25 00:57:08	57.1
27	2016/02/25 00:57:09	57.8
28	2016/02/25 00:57:10	57.7
29	2016/02/25 00:57:11	58.3
30	2016/02/25 00:57:12	58.1
31	2016/02/25 00:57:13	57.1
32	2016/02/25 00:57:14	57.2
33	2016/02/25 00:57:15	58.1
34	2016/02/25 00:57:16	58.6
35	2016/02/25 00:57:17	58.4
36	2016/02/25 00:57:18	56.9
37	2016/02/25 00:57:19	57.7
38	2016/02/25 00:57:20	57.8
39	2016/02/25 00:57:21	58.5
40	2016/02/25 00:57:22	59.2
41	2016/02/25 00:57:23	60.9
42	2016/02/25 00:57:24	62.2
43	2016/02/25 00:57:25	63.7
44	2016/02/25 00:57:26	65.4
45	2016/02/25 00:57:27	66.3
46	2016/02/25 00:57:28	66.7
47	2016/02/25 00:57:29	69.6
48	2016/02/25 00:57:30	75.6
49	2016/02/25 00:57:31	77.8
50	2016/02/25 00:57:32	81.7
51	2016/02/25 00:57:33	84.1
52	2016/02/25 00:57:34	76.9
53	2016/02/25 00:57:35	68.7
54	2016/02/25 00:57:36	65.4
55	2016/02/25 00:57:37	64.1
56	2016/02/25 00:57:38	62.4
57	2016/02/25 00:57:39	62.6
58	2016/02/25 00:57:40	61.8
59	2016/02/25 00:57:41	60.5
60	2016/02/25 00:57:42	60.5
61	2016/02/25 00:57:43	60.4
62	2016/02/25 00:57:44	59.8
63	2016/02/25 00:57:45	59.5
64	2016/02/25 00:57:46	60.1
65	2016/02/25 00:57:47	59.7
66	2016/02/25 00:57:48	59.3
67	2016/02/25 00:57:49	59.1
68	2016/02/25 00:57:50	58.2
69	2016/02/25 00:57:51	58.5
70	2016/02/25 00:57:52	58.9
71	2016/02/25 00:57:53	59.1
72	2016/02/25 00:57:54	59.1
73	2016/02/25 00:57:55	59.7
74	2016/02/25 00:57:56	61.0
75	2016/02/25 00:57:57	61.6
76	2016/02/25 00:57:58	62.8
77	2016/02/25 00:57:59	64.0
78	2016/02/25 00:58:00	65.8
79	2016/02/25 00:58:01	67.7
80	2016/02/25 00:58:02	70.8
81	2016/02/25 00:58:03	77.5
82	2016/02/25 00:58:04	78.0
83	2016/02/25 00:58:05	83.6
84	2016/02/25 00:58:06	77.6
85	2016/02/25 00:58:07	75.1

HEAVY EQUIPMENT NOISE IMPACT ESTIMATION

Scenario: Shoring
Receptor Location: 50 ft - Beverly Hilton Hotel

Noise Source	Noise Level Range, dBA	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Auger/Drill Rig	72-94	81	1	1	0.5	50	78
Backhoe	72-94	85	0	1	0.5	50	#N/A
Compactor		83	0	1	0.5	50	#N/A
Concrete Mixer	75-88	85	0	1	0.5	50	#N/A
Concrete Pump	81-83	82	0	1	0.5	50	#N/A
Compressors	75-86	81	0	1	0.5	50	#N/A
Crane (mobile)	76-87	83	0	1	0.5	50	#N/A
Derrick Crane	87-89	88	1	1	0.5	50	85
D8 Dozer (no muffler or engine enc.)	76-96	90	0	1	0.5	50	#N/A
D8H Dozer (muffler & partial engine enc.)		83	0	1	0.5	50	#N/A
D8K (muffler, engine enc., lubricated tracks)		80	0	1	0.5	50	#N/A
Dump Truck		80	0	1	0.5	50	#N/A
Electrical Generator	71-82	80	0	1	0.5	50	#N/A
Forklift		67	1	1	0.5	50	64
Garbage Truck (Compacting)		90	0	1	0.5	50	#N/A
Grader	80-93	85	0	1	0.5	50	#N/A
Hoe Excavator (tracked)		85	1	1	0.5	50	82
Jackhammers	81-98	88	0	1	0.5	50	#N/A
Front-end Loader	72-85	85	2	1	0.5	50	85
Off-Highway Truck	83-95	88	0	1	0.5	50	#N/A
Paver	87-89	89	0	1	0.5	50	#N/A
Pick-up truck		79	0	1	0.5	50	#N/A
Pick-up (2.5 ton)		79	0	1	0.5	50	#N/A
Pick-up (4-wheel drive)		75	0	1	0.5	50	#N/A
Pile Driver - Sonic		96	0	1	0.5	50	#N/A
Pneumatic Tools	83-88	86	0	1	0.5	50	#N/A
Pump	69-71	66	1	1	0.5	50	63
Refrigerator Truck, idling with refrigerator o	67-80	75	0	1	0.5	50	#N/A
Rock Drill	81-98	98	0	1	0.5	50	#N/A
Scraper	80-93	88	0	1	0.5	50	#N/A
Sheepsfoot Roller	72-75	75	0	1	0.5	50	#N/A
Shredder		75	0	1	0.5	50	#N/A
Trencher		82	0	1	0.5	50	#N/A
On-road Truck		82	0	1	0.5	50	#N/A
Vacuum Truck		76	0	1	0.5	50	#N/A
Van		77	0	1	0.5	50	#N/A
Water Truck		81	0	1	0.5	50	#N/A
Water Wagon		83	0	1	0.5	50	#N/A

TOTAL Leq DURING NORMAL OPERATIONS:	**89**	**dBA**
Daytime Ambient without Equipment Operation:	70	dBA
Nighttime Ambient without Equipment Operation:	67	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
Combined Daytime Hourly Leq:	89	*dBA*
Combined Nighttime Hourly Leq:	67	*dBA*
ESTIMATED Ldn:	***85***	***dBA***
ESTIMATED CNEL:	***85***	***dBA***

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.
* Noise Measurement 3 daytime and nightime Leqs used as daytime and nighttime ambient because closest measurement to receptor (hotel)
* CNEL calculations assume a decrease in ambient evening noise levels over the assumed daytime level.

References: EPA (1971), *Noise From Construction Equipment and Operations*, EPA PB 206 717
Harris, C.M. (1979), *Handbook of Noise Control*, 2nd. Ed.
Federal transit Administration (April 1995), *Transit Noise and Vibration*

Equipment Use Source: Equipment type per applicant supplied information; quantity per 2008 FEIR

HEAVY EQUIPMENT NOISE IMPACT ESTIMATION

Scenario: Shoring
Receptor Location: 100 ft - school and residences

Noise Source	Noise Level Range, dBA	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Auger/Drill Rig	72-94	81	1	1	0.5	100	72
Backhoe	72-94	85	0	1	0.5	100	#N/A
Compactor		83	0	1	0.5	100	#N/A
Concrete Mixer	75-88	85	0	1	0.5	100	#N/A
Concrete Pump	81-83	82	0	1	0.5	100	#N/A
Compressors	75-86	81	0	1	0.5	100	#N/A
Crane (mobile)	76-87	83	0	1	0.5	100	#N/A
Derrick Crane	87-89	88	1	1	0.5	100	79
D8 Dozer (no muffler or engine enc.)	76-96	90	0	1	0.5	100	#N/A
D8H Dozer (muffler & partial engine enc.)		83	0	1	0.5	100	#N/A
D8K (muffler, engine enc., lubricated tracks)		80	0	1	0.5	100	#N/A
Dump Truck		80	0	1	0.5	100	#N/A
Electrical Generator	71-82	80	0	1	0.5	100	#N/A
Forklift		67	1	1	0.5	100	58
Garbage Truck (Compacting)		90	0	1	0.5	100	#N/A
Grader	80-93	85	0	1	0.5	100	#N/A
Hoe Excavator (tracked)		85	1	1	0.5	100	76
Jackhammers	81-98	88	0	1	0.5	100	#N/A
Front-end Loader	72-85	85	2	1	0.5	100	79
Off-Highway Truck	83-95	88	0	1	0.5	100	#N/A
Paver	87-89	89	0	1	0.5	100	#N/A
Pick-up truck		79	0	1	0.5	100	#N/A
Pick-up (2.5 ton)		79	0	1	0.5	100	#N/A
Pick-up (4-wheel drive)		75	0	1	0.5	100	#N/A
Pile Driver - Sonic		96	0	1	0.5	100	#N/A
Pneumatic Tools	83-88	86	0	1	0.5	100	#N/A
Pump	69-71	66	1	1	0.5	100	57
Refrigerator Truck, idling with refrigerator o	67-80	75	0	1	0.5	100	#N/A
Rock Drill	81-98	98	0	1	0.5	100	#N/A
Scraper	80-93	88	0	1	0.5	100	#N/A
Sheepsfoot Roller	72-75	75	0	1	0.5	100	#N/A
Shredder		75	0	1	0.5	100	#N/A
Trencher		82	0	1	0.5	100	#N/A
On-road Truck		82	0	1	0.5	100	#N/A
Vacuum Truck		76	0	1	0.5	100	#N/A
Van		77	0	1	0.5	100	#N/A
Water Truck		81	0	1	0.5	100	#N/A
Water Wagon		83	0	1	0.5	100	#N/A

TOTAL Leq DURING NORMAL OPERATIONS:	**83**	**dBA**
Daytime Ambient without Equipment Operation:	70	dBA
Nighttime Ambient without Equipment Operation:	67	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
Combined Daytime Hourly Leq:	84	*dBA*
Combined Nighttime Hourly Leq:	67	*dBA*
ESTIMATED Ldn:	***80***	***dBA***
ESTIMATED CNEL:	***80***	***dBA***

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.
* Noise Measurement 3 daytime and nightime Leqs used as daytime and nighttime ambient because closest measurement to receptor (hotel)
* CNEL calculations assume a decrease in ambient evening noise levels over the assumed daytime level.

References: EPA (1971), *Noise From Construction Equipment and Operations*, EPA PB 206 717
Harris, C.M. (1979), *Handbook of Noise Control*, 2nd. Ed.
Federal transit Administration (April 1995), *Transit Noise and Vibration*

Equipment Use Source: Equipment type per applicant supplied information; quantity per 2008 FEIR

HEAVY EQUIPMENT NOISE IMPACT ESTIMATION

Scenario: Earthmoving
Receptor Location: 50 ft - Beverly Hilton Hotel

Noise Source	Noise Level Range, dBA	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Auger/Drill Rig	72-94	81	0	1	0.5	50	#N/A
Backhoe	72-94	85	0	1	0.5	50	#N/A
Compactor		83	1	1	0.5	50	80
Concrete Mixer	75-88	85	0	1	0.5	50	#N/A
Concrete Pump	81-83	82	0	1	0.5	50	#N/A
Compressors	75-86	81	0	1	0.5	50	#N/A
Crane (mobile)	76-87	83	0	1	0.5	50	#N/A
Derrick Crane	87-89	88	0	1	0.5	50	#N/A
D8 Dozer (no muffler or engine enc.)	76-96	90	0	1	0.5	50	#N/A
D8H Dozer (muffler & partial engine enc.)		83	1	1	0.5	50	80
D8K (muffler, engine enc., lubricated tracks)		80	0	1	0.5	50	#N/A
Dump Truck		80	1	1	0.5	50	77
Electrical Generator	71-82	80	0	1	0.5	50	#N/A
Forklift		67	0	1	0.5	50	#N/A
Garbage Truck (Compacting)		90	0	1	0.5	50	#N/A
Grader	80-93	85	1	1	0.5	50	82
Hoe Excavator (tracked)		85	1	1	0.5	50	82
Jackhammers	81-98	88	0	1	0.5	50	#N/A
Front-end Loader	72-85	85	2	1	0.5	50	85
Off-Highway Truck	83-95	88	0	1	0.5	50	#N/A
Paver	87-89	89	0	1	0.5	50	#N/A
Pick-up truck		79	0	1	0.5	50	#N/A
Pick-up (2.5 ton)		79	0	1	0.5	50	#N/A
Pick-up (4-wheel drive)		75	0	1	0.5	50	#N/A
Pile Driver - Sonic		96	1	1	0.5	50	93
Pneumatic Tools	83-88	86	0	1	0.5	50	#N/A
Pump	69-71	66	1	1	0.5	50	63
Refrigerator Truck, idling with refrigerator on	67-80	75	0	1	0.5	50	#N/A
Rock Drill	81-98	98	0	1	0.5	50	#N/A
Scraper	80-93	88	1	1	0.5	50	85
Sheepsfoot Roller	72-75	75	0	1	0.5	50	#N/A
Shredder		75	0	1	0.5	50	#N/A
Trencher		82	0	1	0.5	50	#N/A
On-road Truck		82	0	1	0.5	50	#N/A
Vacuum Truck		76	0	1	0.5	50	#N/A
Van		77	0	1	0.5	50	#N/A
Water Truck		81	1	1	0.5	50	78
Water Wagon		83	0	1	0.5	50	#N/A

TOTAL Leq DURING NORMAL OPERATIONS:	**95**	**dBA**
Daytime Ambient without Equipment Operation:	70	dBA
Nighttime Ambient without Equipment Operation:	67	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
Combined Daytime Hourly Leq:	95	*dBA*
Combined Nighttime Hourly Leq:	67	*dBA*
ESTIMATED Ldn:	***90***	***dBA***
ESTIMATED CNEL:	***90***	***dBA***

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.
* Noise Measurement 3 daytime and nightime Leqs used as daytime and nighttime ambient because closest measurement to receptor (hotel)
* CNEL calculations assume a decrease in ambient evening noise levels over the assumed daytime level.

References: EPA (1971), *Noise From Construction Equipment and Operations* , EPA PB 206 717
Harris, C.M. (1979), *Handbook of Noise Control* , 2nd. Ed.
Federal transit Administration (April 1995), *Transit Noise and Vibration*

Equipment Use Source: Equipment type per applicant supplied information; quantity per 2008 FEIR

HEAVY EQUIPMENT NOISE IMPACT ESTIMATION

Scenario: Earthmoving
Receptor Location: 100 ft - school and residences

Noise Source	Noise Level Range, dBA	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Auger/Drill Rig	72-94	81	0	1	0.5	100	#N/A
Backhoe	72-94	85	0	1	0.5	100	#N/A
Compactor		83	1	1	0.5	100	74
Concrete Mixer	75-88	85	0	1	0.5	100	#N/A
Concrete Pump	81-83	82	0	1	0.5	100	#N/A
Compressors	75-86	81	0	1	0.5	100	#N/A
Crane (mobile)	76-87	83	0	1	0.5	100	#N/A
Derrick Crane	87-89	88	0	1	0.5	100	#N/A
D8 Dozer (no muffler or engine enc.)	76-96	90	0	1	0.5	100	#N/A
D8H Dozer (muffler & partial engine enc.)		83	1	1	0.5	100	74
D8K (muffler, engine enc., lubricated tracks)		80	0	1	0.5	100	#N/A
Dump Truck		80	1	1	0.5	100	71
Electrical Generator	71-82	80	0	1	0.5	100	#N/A
Forklift		67	0	1	0.5	100	#N/A
Garbage Truck (Compacting)		90	0	1	0.5	100	#N/A
Grader	80-93	85	1	1	0.5	100	76
Hoe Excavator (tracked)		85	1	1	0.5	100	76
Jackhammers	81-98	88	0	1	0.5	100	#N/A
Front-end Loader	72-85	85	2	1	0.5	100	79
Off-Highway Truck	83-95	88	0	1	0.5	100	#N/A
Paver	87-89	89	0	1	0.5	100	#N/A
Pick-up truck		79	0	1	0.5	100	#N/A
Pick-up (2.5 ton)		79	0	1	0.5	100	#N/A
Pick-up (4-wheel drive)		75	0	1	0.5	100	#N/A
Pile Driver - Sonic		96	1	1	0.5	50	93
Pneumatic Tools	83-88	86	0	1	0.5	100	#N/A
Pump	69-71	66	1	1	0.5	100	57
Refrigerator Truck, idling with refrigerator on	67-80	75	0	1	0.5	100	#N/A
Rock Drill	81-98	98	0	1	0.5	100	#N/A
Scraper	80-93	88	1	1	0.5	100	79
Sheepsfoot Roller	72-75	75	0	1	0.5	100	#N/A
Shredder		75	0	1	0.5	100	#N/A
Trencher		82	0	1	0.5	100	#N/A
On-road Truck		82	0	1	0.5	100	#N/A
Vacuum Truck		76	0	1	0.5	100	#N/A
Van		77	0	1	0.5	100	#N/A
Water Truck		81	1	1	0.5	100	72
Water Wagon		83	0	1	0.5	100	#N/A

TOTAL Leq DURING NORMAL OPERATIONS:	**94**	**dBA**
Daytime Ambient without Equipment Operation:	70	dBA
Nighttime Ambient without Equipment Operation:	67	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
Combined Daytime Hourly Leq:	94	*dBA*
Combined Nighttime Hourly Leq:	67	*dBA*
ESTIMATED Ldn:	***89***	***dBA***
ESTIMATED CNEL:	***89***	***dBA***

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.
* Noise Measurement 3 daytime and nightime Leqs used as daytime and nighttime ambient because closest measurement to receptor (hotel)
* CNEL calculations assume a decrease in ambient evening noise levels over the assumed daytime level.

References: EPA (1971), *Noise From Construction Equipment and Operations* , EPA PB 206 717
Harris, C.M. (1979), *Handbook of Noise Control* , 2nd. Ed.
Federal transit Administration (April 1995), *Transit Noise and Vibration*

Equipment Use Source: Equipment type per applicant supplied information; quantity per 2008 FEIR

HEAVY EQUIPMENT NOISE IMPACT ESTIMATION

Scenario: Building Construction
Receptor Location: 50 ft - Beverly Hilton Hotel

Noise Source	Noise Level Range, dBA	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Auger/Drill Rig	72-94	81	0	1	0.5	50	#N/A
Backhoe	72-94	85	0	1	0.5	50	#N/A
Compactor		83	0	1	0.5	50	#N/A
Concrete Mixer	75-88	85	0	1	0.5	50	#N/A
Concrete Pump	81-83	82	0	1	0.5	50	#N/A
Compressors	75-86	81	0	1	0.5	50	#N/A
Crane (mobile)	76-87	83	0	1	0.5	50	#N/A
Derrick Crane	87-89	88	2	1	0.5	50	88
D8 Dozer (no muffler or engine enc.)	76-96	90	0	1	0.5	50	#N/A
D8H Dozer (muffler & partial engine enc.)		83	1	1	0.5	50	80
D8K (muffler, engine enc., lubricated tracks)		80	0	1	0.5	50	#N/A
Dump Truck		80	0	1	0.5	50	#N/A
Electrical Generator	71-82	80	0	1	0.5	50	#N/A
Forklift		67	2	1	0.5	50	67
Garbage Truck (Compacting)		90	0	1	0.5	50	#N/A
Grader	80-93	85	0	1	0.5	50	#N/A
Hoe Excavator (tracked)		85	0	1	0.5	50	#N/A
Jackhammers	81-98	88	0	1	0.5	50	#N/A
Front-end Loader	72-85	85	2	1	0.5	50	85
Off-Highway Truck	83-95	88	0	1	0.5	50	#N/A
Paver	87-89	89	1	1	0.5	50	86
Pick-up truck		79	0	1	0.5	50	#N/A
Pick-up (2.5 ton)		79	0	1	0.5	50	#N/A
Pick-up (4-wheel drive)		75	0	1	0.5	50	#N/A
Pile Driver - Sonic		96	0	1	0.5	50	#N/A
Pneumatic Tools	83-88	86	3	1	0.5	50	88
Pump	69-71	66	0	1	0.5	50	#N/A
Refrigerator Truck, idling with refrigerator on	67-80	75	0	1	0.5	50	#N/A
Rock Drill	81-98	98	0	1	0.5	50	#N/A
Scraper	80-93	88	0	1	0.5	50	#N/A
Sheepsfoot Roller	72-75	75	1	1	0.5	50	72
Shredder		75	0	1	0.5	50	#N/A
Trencher		82	0	1	0.5	50	#N/A
On-road Truck		82	1	1	0.5	50	79
Vacuum Truck		76	0	1	0.5	50	#N/A
Van		77	0	1	0.5	50	#N/A
Water Truck		81	0	1	0.5	50	#N/A
Water Wagon		83	0	1	0.5	50	#N/A

TOTAL Leq DURING NORMAL OPERATIONS: 93 dBA

Daytime Ambient without Equipment Operation:	70	dBA
Nighttime Ambient without Equipment Operation:	67	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
Combined Daytime Hourly Leq:	93	*dBA*
Combined Nighttime Hourly Leq:	67	*dBA*
ESTIMATED Ldn:	***89***	***dBA***
ESTIMATED CNEL:	***89***	***dBA***

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.
* Noise Measurement 3 daytime and nightime Leqs used as daytime and nighttime ambient because closest measurement to receptor (hotel)
* CNEL calculations assume a decrease in ambient evening noise levels over the assumed daytime level.

References: EPA (1971), *Noise From Construction Equipment and Operations* , EPA PB 206 717
Harris, C.M. (1979), *Handbook of Noise Control* , 2nd. Ed.
Federal transit Administration (April 1995), *Transit Noise and Vibration*

Equipment Use Source: Equipment type per applicant supplied information; quantity per 2008 FEIR

HEAVY EQUIPMENT NOISE IMPACT ESTIMATION

Scenario: Building Construction
Receptor Location: 100 ft - school and residences

Noise Source	Noise Level Range, dBA	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Auger/Drill Rig	72-94	81	0	1	0.5	100	#N/A
Backhoe	72-94	85	0	1	0.5	100	#N/A
Compactor		83	0	1	0.5	100	#N/A
Concrete Mixer	75-88	85	0	1	0.5	100	#N/A
Concrete Pump	81-83	82	0	1	0.5	100	#N/A
Compressors	75-86	81	0	1	0.5	100	#N/A
Crane (mobile)	76-87	83	0	1	0.5	100	#N/A
Derrick Crane	87-89	88	2	1	0.5	100	82
D8 Dozer (no muffler or engine enc.)	76-96	90	0	1	0.5	100	#N/A
D8H Dozer (muffler & partial engine enc.)		83	1	1	0.5	100	74
D8K (muffler, engine enc., lubricated tracks)		80	0	1	0.5	100	#N/A
Dump Truck		80	0	1	0.5	100	#N/A
Electrical Generator	71-82	80	0	1	0.5	100	#N/A
Forklift		67	2	1	0.5	100	61
Garbage Truck (Compacting)		90	0	1	0.5	100	#N/A
Grader	80-93	85	0	1	0.5	100	#N/A
Hoe Excavator (tracked)		85	0	1	0.5	100	#N/A
Jackhammers	81-98	88	0	1	0.5	100	#N/A
Front-end Loader	72-85	85	2	1	0.5	100	79
Off-Highway Truck	83-95	88	0	1	0.5	100	#N/A
Paver	87-89	89	1	1	0.5	100	80
Pick-up truck		79	0	1	0.5	100	#N/A
Pick-up (2.5 ton)		79	0	1	0.5	100	#N/A
Pick-up (4-wheel drive)		75	0	1	0.5	100	#N/A
Pile Driver - Sonic		96	0	1	0.5	100	#N/A
Pneumatic Tools	83-88	86	3	1	0.5	100	82
Pump	69-71	66	0	1	0.5	100	#N/A
Refrigerator Truck, idling with refrigerator on	67-80	75	0	1	0.5	100	#N/A
Rock Drill	81-98	98	0	1	0.5	100	#N/A
Scraper	80-93	88	0	1	0.5	100	#N/A
Sheepsfoot Roller	72-75	75	1	1	0.5	100	66
Shredder		75	0	1	0.5	100	#N/A
Trencher		82	0	1	0.5	100	#N/A
On-road Truck		82	1	1	0.5	100	73
Vacuum Truck		76	0	1	0.5	100	#N/A
Van		77	0	1	0.5	100	#N/A
Water Truck		81	0	1	0.5	100	#N/A
Water Wagon		83	0	1	0.5	100	#N/A

TOTAL Leq DURING NORMAL OPERATIONS:	**87**	**dBA**
Daytime Ambient without Equipment Operation:	70	dBA
Nighttime Ambient without Equipment Operation:	67	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
Combined Daytime Hourly Leq:	87	*dBA*
Combined Nighttime Hourly Leq:	67	*dBA*
ESTIMATED Ldn:	***83***	***dBA***
ESTIMATED CNEL:	***83***	***dBA***

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.
* Noise Measurement 3 daytime and nightime Leqs used as daytime and nighttime ambient because closest measurement to receptor (hotel)
* CNEL calculations assume a decrease in ambient evening noise levels over the assumed daytime level.

References: EPA (1971), *Noise From Construction Equipment and Operations* , EPA PB 206 717
Harris, C.M. (1979), *Handbook of Noise Control* , 2nd. Ed.
Federal transit Administration (April 1995), *Transit Noise and Vibration*

Equipment Use Source: Equipment type per applicant supplied information; quantity per 2008 FEIR

Rincon Consultants, Inc. 29 March 2016
<Analysis By?> TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9900 Wilshire Boulevard
RUN: Existing Noise
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing Lden	No Barrier Lden Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated Lden	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
El Rodeo School	1	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
Residences	2	1	0.0	73.9	66	73.9	10	Snd Lvl	73.9	0.0	8	-8.0
Beverly Hills High School	9	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
Beverly Hilton Hotel	21	1	0.0	74.9	66	74.9	10	Snd Lvl	74.9	0.0	8	-8.0
1	31	1	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
4	44	1	0.0	78.2	66	78.2	10	Snd Lvl	78.2	0.0	8	-8.0
5	45	1	0.0	76.6	66	76.6	10	Snd Lvl	76.6	0.0	8	-8.0
2	48	1	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
3	50	1	0.0	74.9	66	74.9	10	Snd Lvl	74.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	9	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants, Inc. 29 March 2016
<Analysis By?> TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9900 Wilshire Boulevard
RUN: Existing Plus Approved Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing Lden	No Barrier Lden Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated Lden	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
El Rodeo School	1	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
Residences	2	1	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
1	3	1	0.0	74.5	66	74.5	10	Snd Lvl	74.5	0.0	8	-8.0
2	5	1	0.0	74.5	66	74.5	10	Snd Lvl	74.5	0.0	8	-8.0
3	7	1	0.0	75.1	66	75.1	10	Snd Lvl	75.1	0.0	8	-8.0
Beverly Hills High School	9	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
Beverly Hilton Hotel	11	1	0.0	75.1	66	75.1	10	Snd Lvl	75.1	0.0	8	-8.0
4	12	1	0.0	78.3	66	78.3	10	Snd Lvl	78.3	0.0	8	-8.0
5	13	1	0.0	76.7	66	76.7	10	Snd Lvl	76.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	9	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants, Inc. 29 March 2016
<Analysis By?> TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9900 Wilshire Boulevard
RUN: Existing Plus Project Noise
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing Lden	No Barrier Lden Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated Lden	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
El Rodeo School	1	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
Residences	2	1	0.0	73.9	66	73.9	10	Snd Lvl	73.9	0.0	8	-8.0
1	3	1	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
2	5	1	0.0	74.1	66	74.1	10	Snd Lvl	74.1	0.0	8	-8.0
3	7	1	0.0	75.0	66	75.0	10	Snd Lvl	75.0	0.0	8	-8.0
Beverly Hills High School	9	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
Beverly Hilton Hotel	11	1	0.0	75.1	66	75.1	10	Snd Lvl	75.1	0.0	8	-8.0
4	12	1	0.0	78.6	66	78.6	10	Snd Lvl	78.6	0.0	8	-8.0
5	13	1	0.0	77.5	66	77.5	10	Snd Lvl	77.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	9	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants, Inc. 29 March 2016
<Analysis By?> TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9900 Wilshire Boulevard
RUN: Cumulative 2020
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing Lden	No Barrier Lden Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated Lden	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
El Rodeo School	1	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
Residences	2	1	0.0	74.5	66	74.5	10	Snd Lvl	74.5	0.0	8	-8.0
1	3	1	0.0	74.9	66	74.9	10	Snd Lvl	74.9	0.0	8	-8.0
2	5	1	0.0	75.0	66	75.0	10	Snd Lvl	75.0	0.0	8	-8.0
3	7	1	0.0	75.5	66	75.5	10	Snd Lvl	75.5	0.0	8	-8.0
Beverly Hills High School	9	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
Beverly Hilton Hotel	11	1	0.0	75.6	66	75.6	10	Snd Lvl	75.6	0.0	8	-8.0
4	12	1	0.0	78.8	66	78.8	10	Snd Lvl	78.8	0.0	8	-8.0
5	13	1	0.0	77.3	66	77.3	10	Snd Lvl	77.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	9	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants, Inc. 30 March 2016
<Analysis By?> TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9900 Wilshire Boulevard
RUN: Cumulative Plus Project 2020
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing Lden	No Barrier Lden Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated Lden	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
El Rodeo School	1	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
Residences	2	1	0.0	74.2	66	74.2	10	Snd Lvl	74.2	0.0	8	-8.0
1	3	1	0.0	74.7	66	74.7	10	Snd Lvl	74.7	0.0	8	-8.0
2	5	1	0.0	74.8	66	74.8	10	Snd Lvl	74.8	0.0	8	-8.0
3	7	1	0.0	75.4	66	75.4	10	Snd Lvl	75.4	0.0	8	-8.0
Beverly Hills High School	9	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
Beverly Hilton Hotel	11	1	0.0	75.4	66	75.4	10	Snd Lvl	75.4	0.0	8	-8.0
4	12	1	0.0	78.7	66	78.7	10	Snd Lvl	78.7	0.0	8	-8.0
5	13	1	0.0	77.2	66	77.2	10	Snd Lvl	77.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	9	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Existing				CNEL
ML1	Traffic	74.3	dBA	74.3
ML2	Traffic	74.4	dBA	74.4
ML3	Traffic	74.9	dba	74.9
ML4	Traffic	78.2	dba	78.2
ML5	Traffic	76.6	dba	76.6

Existing Plus Approved	24-Hour On-Site Operational Sound Level (Lden)			
ML1	Rooftop Ventilation	54.2	dBA	
	Rooftop Bar	42.6	dBA	74.5
	Traffic	74.5	dBA	
ML2	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	43.1	dBA	74.6
	Traffic	74.5	dBA	
ML3	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	45.5	dBA	75.2
	Traffic	75.1	dBA	
ML4	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	49.4	dBA	78.3
	Traffic	78.3	dBA	
ML5	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	56.9	dBA	76.8
	Traffic	76.7	dBA	

Existing Plus Proposed	24-Hour On-Site Operational Sound Level (Lden)			
ML1	Rooftop Ventilation	54.2	dBA	
	Rooftop Bar	42.6	dBA	74.3
	Traffic	74.3	dBA	
	Outdoor Dining	34.8	dBA	
ML2	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	43.1	dBA	74.2
	Traffic	74.1	dBA	
	Outdoor Dining	38.9	dBA	
ML3	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	45.5	dBA	75.1
	Traffic	75.0	dBA	
	Outdoor Dining	41.4	dBA	
ML4	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	49.4	dBA	78.6
	Traffic	78.6	dBA	
	Outdoor Dining	45.9	dBA	
ML5	Rooftop Ventilation	55.5	dBA	
	Rooftop Bar	56.9	dBA	77.7
	Traffic	77.5	dBA	
	Outdoor Dining	63.1	dBA	

Cumulative Plus Approved Project	24-Hour On-Site Operational Sound Level (Lden)		
ML1	Rooftop Ventilation	54.2 dBA	
	Rooftop Bar	42.6 dBA	74.9
	Traffic	74.9 dBA	
ML2	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	43.1 dBA	75.1
	Traffic	75.0 dBA	
ML3	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	45.5 dBA	75.5
	Traffic	75.5 dBA	
ML4	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	49.4 dBA	78.8
	Traffic	78.8 dBA	
ML5	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	56.9 dBA	77.4
	Traffic	77.3 dBA	

Cumulative Plus Proposed Project	24-Hour On-Site Operational Sound Level (Lden)		
ML1	Rooftop Ventilation	54.2 dBA	
	Rooftop Bar	42.6 dBA	74.7
	Traffic	74.7 dBA	
	Outdoor Dining	34.8 dBA	
ML2	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	43.1 dBA	74.9
	Traffic	74.8 dBA	
	Outdoor Dining	38.9 dBA	
ML3	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	45.5 dBA	75.5
	Traffic	75.4 dBA	
	Outdoor Dining	41.4 dBA	
ML4	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	49.4 dBA	78.7
	Traffic	78.7 dBA	
	Outdoor Dining	45.9 dBA	
ML5	Rooftop Ventilation	55.5 dBA	
	Rooftop Bar	56.9 dBA	77.4
	Traffic	77.2 dBA	
	Outdoor Dining	63.1 dBA	

Appendix D

Transportation Impact Analysis

One Beverly Hills

Transportation Impact Study

Report

Prepared for:
Rincon Consultants, Inc.

April 6, 2016

LA15-2776

FEHR PEERS

Table of Contents

1.0 EXECUTIVE SUMMARY 6

Existing Conditions 6

Cumulative Conditions 7

Project Impacts 7

Site Access 7

2.0 ANALYSIS PARAMETERS 9

2.1 Project Study Area 9

2.2 Analysis Scenarios 11

2.3 Traffic Analysis Methods 12

2.3.1 Intersection Capacity Utilization (ICU) 12

2.3.2 Highway Capacity Manual (HCM) 13

2.3.3 Critical Movement Analysis 14

2.4 Significant Impact Criteria 15

2.4.1 City of Beverly Hills Thresholds 15

2.4.2 City of Los Angeles Thresholds 16

2.4.3 Residential Street Thresholds 17

2.4.4 Congestion Management Program (CMP) Study Facilities Thresholds 17

2.4.5 Active Transportation Thresholds 17

3.0 EXISTING CONDITIONS 18

3.1 Existing Transportation Faciliities 18

3.1.1 Existing Street System 18

3.1.2 Existing Transit Services 19

3.1.3 Existing Bicycle Facilities 21

3.1.4 Existing Pedestrian Facilities 22

3.2 Existing Intersection Volumes and Lane Configurations 23

3.3 Existing Intersection Levels of Service 26

4.0 PROPOSED PROJECT CHARACTERISTICS 29

4.1 Project Description 29

4.1.1 Project Land Uses 29

4.1.2 Project Access 30
4.2 Project Trip Generation 33
4.2.1 Trip Generation Data Sources 33
4.2.2 Trip Generation Estimate 36
4.3 Trip Distribution 42
4.4 Planned Roadway Improvements 48

5.0 EXISTING BASELINE AND PLUS PROJECT CONDITIONS 50

5.1 Existing Baseline Traffic Volumes 50
5.2 Existing Baseline plus Project Volumes 50
5.3 Existing Baseline and plus Project Intersection LOS 55

6.0 CUMULATIVE CONDITIONS 57

6.1 Traffic Forecasts 57
6.2 Cumulative (2020) Intersection LOS 63

7.0 ACTIVE TRANSPORTATION SYSTEM 65

7.1 Significance Criteria 65
7.2 Project Impacts 65

8.0 CONSTRUCTION IMPACTS 67

8.1 Significance Criteria 67
8.2 Project Impacts 67

9.0 RESIDENTIAL TRAFFIC IMPACTS 74

9.1 Significance Criteria 74
9.2 Project Impacts 74

10.0 CONGESTION MANAGEMENT PLAN (CMP) 77

10.1 Significance Criteria 77
10.2 Project Impacts 77

Appendices

Appendix A: Traffic Count Data

Appendix B: LOS Worksheets

Appendix C: Site Access Options & Analysis

List of Figures

Figure 1 One Beverly Hills Project Location and Study Intersections 10
Figure 2 Traffic Volumes & Lane Configurations – Existing (2015) Conditions 24
Figure 3 One Beverly Hills Project Site Plan 32
Figure 4 Proposed One Beverly Hills Project Trips at Project Driveways 40
Figure 5 One Beverly Hills Project Trip Distribution 43
Figure 6 Traffic Volumes & Lane Configurations – Proposed One Beverly Hills Project Only Trips 44
Figure 7 Traffic Volumes & Lane Configurations – Change in Project Trips (One Beverly Hills – 9900 Wilshire Boulevard) 46
Figure 8 Traffic Volumes & Lane Configurations – Existing (2015) plus Approved 9900 Wilshire Boulevard Project 51
Figure 9 Traffic Volumes & Lane Configurations – Existing (2015) plus Proposed One Beverly Hills Project 53
Figure 10 Traffic Volumes & Lane Configurations – Cumulative (2020) Conditions 59
Figure 11 Traffic Volumes & Lane Configurations – Cumulative (2020) plus Proposed One Beverly Hills Project 61

List of Tables

Table 1: Level of Service Definitions for Signalized INtersections 13
Table 2: Unsignalized Intersection Level of Service Definitions 14
Table 3: City of Beverly Hills Thresholds of Significance for Signalized Intersections 15
Table 4: City of Beverly Hills Thresholds of Significance for Unsignalized Intersections (TWSC) 16
Table 5: City of Los Angeles Thresholds of Significance for Signalized Intersections 16
Table 6: City of Beverly Hills Thresholds of Significance for Neighborhood Impacts 17
Table 7: Daily Traffic Volumes on Residential Streets 23
Table 8: Existing (2015) Intersection Level of Service 26
Table 9: Entitled and Proposed Project Land uses 30
Table 10: Trip Generation Rates 36
Table 11: Project Trip Generation 37
Table 12: Trip Generation Comparison 38
Table 13: Roadway Improvements 49
Table 14: Existing Baseline plus Project Intersection Level of Service 55
Table 15: Related Projects for Cumulative Conditions 58

Table 16: Cumulative (2020) Intersection Level of Service..... 63
Table 17: Residential Street Impacts Existing Baseline and Baseline plus Project Conditions..... 75
Table 18: Residential Street Impacts Cumulative and Cumulative plus Project Conditions..... 76

1.0 EXECUTIVE SUMMARY

This report summarizes the findings of the Transportation Impact Analysis conducted for the proposed One Beverly Hills Project in the City of Beverly Hills, CA. The proposed project is a revision to the original and approved 9900 Wilshire Boulevard Project study, which was conducted by Fehr & Peers in 2007. Since 2007, Wanda Beverly Hills Properties, LLC ("Wanda") has acquired the project site and has proposed a new mix of land uses. Below is a comparison of land uses for the proposed One Beverly Hills project.

Previously Approved 9900 Wilshire Boulevard Project:

- 235 luxury condominiums
- 11,656 square feet of various retail uses
- 4,800 square feet restaurant

Proposed One Beverly Hills Project:

- 193 luxury condominiums
- 134 room luxury hotel
- 7,370 square feet Spa
- 15,227 square feet of restaurant and bar usage (includes hotel dining uses)

EXISTING CONDITIONS

Fehr & Peers reviewed existing conditions within the study area, including roadways, pedestrian facilities, transit, and intersections. Traffic counts were taken at 11 intersections and 3 residential roadway segments within the project study area. Of the 11 study intersections, Fehr & Peers determined that the following locations currently operated at LOS E or F during one or more of the peak hours:

- Santa Monica Boulevard North & Beverly Drive
- Santa Monica Boulevard North & Wilshire Boulevard
- Santa Monica Boulevard South & Wilshire Boulevard
- Santa Monica Boulevard North & Merv Griffin Way
- Beverly Drive & Wilshire Boulevard
- Whittier Drive/Merv Griffin Way & Wilshire Boulevard
- Santa Monica Boulevard & Crossover
- Whittier Drive & Sunset Boulevard

CUMULATIVE CONDITIONS

Fehr & Peers determined that the majority of the study area intersections would operate at LOS E or F during one or more of the peak hours under cumulative conditions. Factors contributing to these deficient conditions include:

- There are limited future roadway improvements within the study area with only those improvements previously approved by the 9900 Wilshire project or the Beverly Hilton Revitalization project are planned to be implemented by the cumulative horizon year of 2020
- There is growth anticipated to occur from various pending and approved projects both in the City of Beverly Hills and adjacent cities of Los Angeles and West Hollywood
- Several of the roadways in the study area, such as Wilshire Boulevard and Santa Monica Boulevard are major commute routes and will continue to serve regional traffic in the future

PROJECT IMPACTS

When comparing the approved 9900 Wilshire Boulevard project to the proposed One Beverly Hills project, the proposed project will result in improved (i.e., lower) volume to capacity ratios for a majority of the study intersections during the AM, midday, PM and Saturday midday peak hours. For those intersections that will experience a worse (i.e., higher) volume to capacity ratio, the change does not exceed the established thresholds of significance and is not considered a significant impact.

Table ES-1 shows the Level of Service Summary for the One Beverly Hills project.

SITE ACCESS

The project applicant for the proposed One Beverly Hills project submitted four access options for consideration. Each of the access options were analyzed to determine operations at the project site. After reviewing the four access options with the City, a fifth option was developed to optimize access to the site based on our analysis findings. The access options and the results of our analysis are contained in Appendix C: Site Access Options for One Beverly Hills Technical Memorandum.

TABLE ES-1: EXISTING & 2020 INTERSECTION LEVEL OF SERIVCE SUMMARY

NO.	INTERSECTION	CONTROL	PEAK HOUR	EXISTING (2015)		EXISTING + APPROVED 9900 WILSHIRE BOULEVARD (BASELINE)		EXISTING BASELINE + ONE BEVERLY HILLS		V/C OR DELAY INCREASE	SIGNIFICANT IMPACT?	CUMULATIVE (2020) BASELINE		CUMULATIVE BASELINE + ONE BEVERLY HILLS		V/C OR DELAY INCREASE	SIGNIFICANT IMPACT?
				V/C or Delay	LOS[4]	V/C	LOS	V/C	LOS			V/C	LOS[4]	V/C	LOS[4]		
1	Santa Monica Boulevard North & Beverly Drive	SIGNAL	AM	0.908	E	0.926	**E**	0.916	**E**	-0.010	NO	0.975	**E**	0.974	**E**	-0.001	NO
			MD	0.920	**E**	0.945	**E**	0.929	**E**	-0.016	NO	1.036	**F**	1.036	**F**	0	NO
			PM	0.923	**E**	0.934	**E**	0.930	**E**	-0.004	NO	1.093	**F**	1.095	**F**	0.002	NO
			WKND	0.897	D	0.921	**E**	0.904	**E**	-0.017	NO	1.058	**F**	1.056	**F**	-0.002	NO
2	Santa Monica Boulevard North & Wilshire Boulevard	SIGNAL	AM	1.139	**F**	0.957	**E**	0.943	**E**	-0.014	NO	1.197	**F**	0.981	**E**	-0.216	NO
			MD	0.994	**E**	0.851	D	0.839	D	-0.012	NO	1.075	**F**	0.904	**E**	-0.171	NO
			PM	1.059	**F**	0.894	D	0.877	D	-0.017	NO	1.143	**F**	0.942	**E**	-0.201	NO
			WKND	0.946	**E**	0.816	D	0.803	D	-0.013	NO	1.041	**F**	0.881	D	-0.16	NO
3	Santa Monica Boulevard South & Beverly Drive	SIGNAL	AM	0.854	D	0.858	D	0.856	D	-0.002	NO	0.895	D	0.895	D	0	NO
			MD	0.784	C	0.792	C	0.786	C	-0.006	NO	0.815	D	0.814	D	-0.001	NO
			PM	0.885	D	0.891	D	0.887	D	-0.004	NO	0.917	**E**	0.916	**E**	-0.001	NO
			WKND	0.673	B	0.681	B	0.675	B	-0.006	NO	0.716	C	0.714	C	-0.002	NO
4	Santa Monica Boulevard South & Wilshire Boulevard	SIGNAL	AM	0.944	**E**	0.955	**E**	0.947	**E**	-0.008	NO	0.995	**E**	0.992	**E**	-0.003	NO
			MD	0.809	D	0.817	D	0.818	D	0.001	NO	0.904	**E**	0.906	**E**	0.002	NO
			PM	0.895	D	0.904	**E**	0.899	D	-0.005	NO	1.006	**F**	1.006	**F**	0	NO
			WKND	0.688	B	0.702	C	0.691	B	-0.011	NO	0.800	C	0.800	C	0	NO
5	Santa Monica Boulevard North & Merv Griffin Way	SSSC EXISTING	AM	> 50	**F**	0.809	D	0.794	C	-0.015	NO	0.826	D	0.828	D	0.002	NO
			MD	> 50	**F**	0.768	C	0.736	C	-0.032	NO	0.789	C	0.786	C	-0.003	NO
		SIGNAL + PROJECT	PM	> 50	**F**	0.963	**E**	0.942	**E**	-0.021	NO	0.990	**E**	0.995	**E**	0.005	NO
			WKND	> 50	**F**	0.685	B	0.654	B	-0.031	NO	0.722	C	0.715	C	-0.007	NO
6	Beverly Drive & Wilshire Boulevard	SIGNAL	AM	0.896	D	0.904	**E**	0.900	D	-0.004	NO	0.921	**E**	0.922	**E**	0.001	NO
			MD	0.805	D	0.820	D	0.811	D	-0.009	NO	0.857	D	0.856	D	-0.001	NO
			PM	0.968	**E**	0.982	**E**	0.975	**E**	-0.007	NO	1.028	**F**	1.029	**F**	0.001	NO
			WKND	0.751	C	0.765	C	0.756	C	-0.009	NO	0.820	D	0.818	D	-0.002	NO
7	Whittier Drive/Merv Griffin Way & Wilshire Boulevard	SIGNAL	AM	1.179	**F**	1.167	**F**	1.165	**F**	-0.002	NO	1.204	**F**	1.172	**F**	-0.032	NO
			MD	0.900	D	0.884	D	0.881	D	-0.003	NO	0.956	**E**	0.903	**E**	-0.053	NO
			PM	1.290	**F**	1.253	**F**	1.254	**F**	0.001	NO	1.334	**F**	1.277	**F**	-0.057	NO
			WKND	0.879	D	0.852	D	0.850	D	-0.002	NO	0.928	**E**	0.874	D	-0.054	NO
8	Santa Monica Boulevard & Crossover	SIGNAL	AM	0.925	**E**	0.936	**E**	0.934	**E**	-0.002	NO	0.989	**E**	0.992	**E**	0.003	NO
			MD	0.682	B	0.699	B	0.693	B	-0.006	NO	0.761	C	0.763	C	0.002	NO
			PM	0.762	C	0.778	C	0.776	C	-0.002	NO	0.858	D	0.864	D	0.006	NO
			WKND	0.598	A	0.612	B	0.606	B	-0.006	NO	0.691	B	0.691	B	0	NO
9	Santa Monica Boulevard & Century Park East	SIGNAL	AM	0.781	C	0.781	C	0.781	C	0	NO	0.862	D	0.835	D	-0.027	NO
			MD	0.388	A	0.392	A	0.395	A	0.003	NO	0.470	A	0.444	A	-0.026	NO
			PM	0.554	A	0.557	A	0.563	A	0.006	NO	0.696	B	0.671	B	-0.025	NO
			WKND	0.312	A	0.319	A	0.322	A	0.003	NO	0.418	A	0.385	A	-0.033	NO
10	Whittier Drive & Sunset Boulevard	SIGNAL	AM	0.946	**E**	0.951	**E**	0.949	**E**	-0.002	NO	0.947	**E**	0.948	**E**	0.001	NO
			MD	0.794	C	0.806	D	0.798	C	-0.008	NO	0.802	D	0.800	C	-0.002	NO
			PM	1.041	**F**	1.052	**F**	1.044	**F**	-0.008	NO	1.044	**F**	1.043	**F**	-0.001	NO
			WKND	0.712	C	0.722	C	0.715	C	-0.007	NO	0.718	C	0.716	C	-0.002	NO
11	Santa Monica Boulevard & Avenue of the Stars	SIGNAL	AM	0.532	A	0.534	A	0.540	A	0.006	NO	0.624	B	0.629	B	0.005	NO
			MD	0.390	A	0.397	A	0.400	A	0.003	NO	0.472	A	0.476	A	0.004	NO
			PM	0.575	A	0.580	A	0.584	A	0.004	NO	0.659	B	0.662	B	0.003	NO
			WKND	0.344	A	0.350	A	0.351	A	0.001	NO	0.430	A	0.432	A	0.002	NO

Notes:

* Average stopped delay per vehicle, in seconds.

>180 Indicates oversaturated conditions. Delay cannot be calculated.

SSSC Side street stop-controlled intersection

[1] Impact not significant. No mitigation required.

[2] Santa Monica Boulevard/Merv Griffin Way unsignalized under Existing Conditions; LOS calculations performed using the *2000 Highway Capacity Manual* (HCM) method. Intersection is signalized under all other scenarios; LOS calculations were performed using the ICU methodology.

[3] The vehicular delay for the worst movement is reported for side street stop-controlled intersections.

[4] Unacceptable seconds of delay per vehicle or volume-to-capacity (V/C) ratios and LOS highlighted in bold.

[5] Intersection of Santa Monica Boulevard/Avenue of the Stars under jurisdiction of City of Los Angeles; LOS results acquired using Critical Movement Analysis (CMA).

2.0 ANALYSIS PARAMETERS

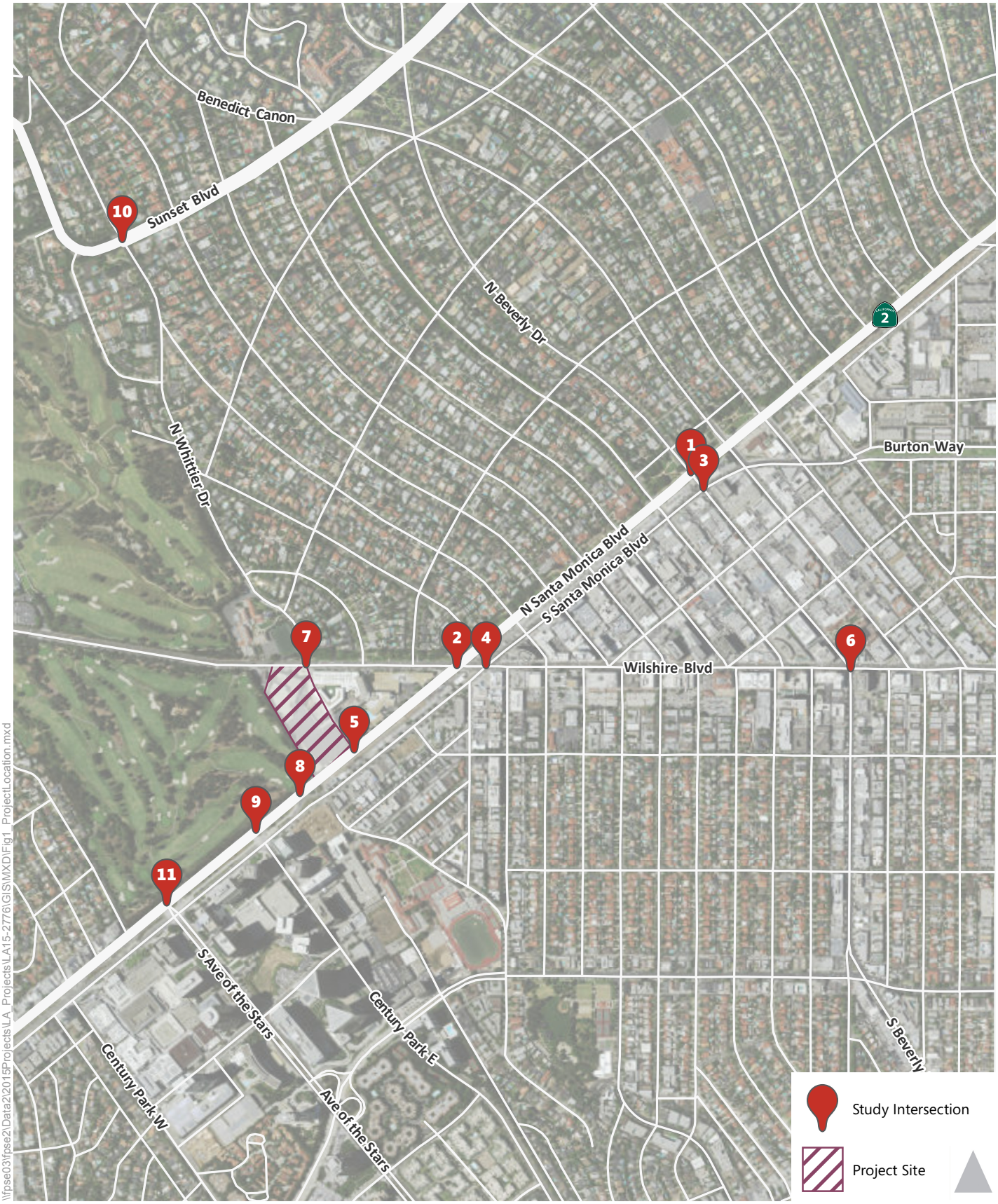
This transportation impact analysis (TIA) presents the results of the analysis conducted by Fehr & Peers for the revised project proposed at 9900 Wilshire Boulevard (hereafter referred to as One Beverly Hills) in the City of Beverly Hills. The purpose of this analysis is to identify the impacts of the proposed project on the surrounding transportation system. Specifically, this chapter outlines the geographic scope of the transportation study, the analysis methodologies, and significance criteria employed in this study. This study was conducted in accordance with the guidelines and standards of the affected agencies.

2.1 PROJECT STUDY AREA

The One Beverly Hills project is located along the western edge of the City of Beverly Hills. As shown in **Figure 1**, the project site is bordered by Santa Monica Boulevard, Merv Griffin Way, and Wilshire Boulevard. The project study area is generally bounded by Interstate 405 (I-405) to the west, Sunset Boulevard to the north, Beverly Drive to the east, and Olympic Boulevard to the south. A map of the study area roadway network is shown as **Figure 1**, which also indicates the following study intersections:

1. Santa Monica Boulevard North/Beverly Drive (S)*
2. Santa Monica Boulevard North/Wilshire Boulevard (S)
3. Santa Monica Boulevard South/Beverly Drive (S)
4. Santa Monica Boulevard South/Wilshire Boulevard (S)
5. Santa Monica Boulevard North/Merv Griffin Way (SSSC)**
6. Wilshire Boulevard/Beverly Drive (S)
7. Wilshire Boulevard/Whittier Drive/Merv Griffin Way (S)
8. Santa Monica Boulevard North/South Crossover (S)
9. Santa Monica Boulevard/Century Park East (S)
10. Sunset Boulevard/Whittier Drive (S)
11. Santa Monica Boulevard/Avenue of the Stars (S)

* (S) indicates signalized intersection
** (SSSC) indicates side-street stop-controlled intersection



\\fpse03\fpse2\Data2\2015Projects\LA_Projects\LA15-2776\GIS\MXD\Fig1_ProjectLocation.mxd

Figure 1

One Beverly Hills

Project Location and Study Intersections

These intersections were selected based on consultations with City Staff. It should be noted that intersection 11 is an additional intersection that was not studied in the approved 9900 Wilshire Boulevard Project (hereafter referred to as Original TIA or 9900 Wilshire). The intersection was included to account for vehicles exiting the proposed One Beverly Hills site via a right-only driveway onto Santa Monica Boulevard and making a U-turn at Avenue of the Stars to travel east.

Additionally, at the request of City staff, Fehr & Peers also analyzed three residential roadway segments:

1. Whittier Drive between Wilshire Boulevard and Elevado Avenue
2. Whittier Drive between Elevado Avenue and Lomitas Avenue
3. Elevado Avenue between Whittier Drive and North Beverly Drive

2.2 ANALYSIS SCENARIOS

The operations of the study locations were evaluated during the weekday morning (AM), midday (MD) and evening (PM) peak hours and the weekend Saturday midday (Sat MD) peak for the following scenarios:

- **Existing (2015) Conditions** – The analysis of existing traffic conditions was based on 2015 counts collected for the analyzed peak hours. The existing conditions analysis also includes a description of key area roadways and an assessment of bicycle, pedestrian, and transit facilities and services near the site.
- **Existing (2015) Baseline Conditions –** This scenario accounts for the trip generation of the previously approved 9900 Wilshire Boulevard project as a baseline for assessing traffic impacts of the proposed land use changes under One Beverly Hills.
- **Existing (2015) plus Project Conditions** – This traffic scenario provides an assessment of operating conditions under existing conditions with the addition of project-generated traffic. The existing plus project conditions analysis accounts for both the land use and site access changes proposed under One Beverly Hills in comparison to 9900 Wilshire Boulevard. The impacts of the proposed project on existing baseline traffic operating conditions were then identified.
- **Cumulative (2020) Baseline Conditions** – Future traffic projections with the approved 9900 Wilshire Boulevard project and without the proposed project were developed for the year 2020. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the project site by the anticipated project opening year.
- **Cumulative (2020) plus Project Conditions** – This traffic scenario provides projected traffic volumes and an analysis of operating conditions for the year 2020 and accounts for both the land use and site access changes proposed under One Beverly Hills in comparison to 9900 Wilshire Boulevard. The impacts of the proposed project on future traffic operating conditions were then identified.

2.3 TRAFFIC ANALYSIS METHODS

The analysis of intersection impacts employs a variety of methodologies, based on empirical research conducted by the Transportation Research Board and other authorities. The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the least congested operating conditions, to LOS F, with the most congested operating conditions. LOS E represents "at-capacity" operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions.

The methodologies for signalized and unsignalized intersections are described in the subsections below.

2.3.1 INTERSECTION CAPACITY UTILIZATION (ICU)

According to *Beverly Hills Traffic Thresholds of Significance* (Planning Commission of the City of Beverly Hills, October 2010), this study is required to use the Intersection Capacity Utilization (ICU) method of intersection capacity calculation to analyze signalized intersections within the City of Beverly Hills. The ICU methodology is a planning-level analysis tool that provides intersection LOS and volume to capacity (V/C) ratios. **Table 1** documents the relationship between the various ratios and the LOS for signalized intersections.

Per the City of Beverly Hills requirements, the ICU methodology was used to determine the V/C ratio and corresponding LOS for the eight (8) signalized study intersections in the City. A peak hour factor was applied to both the existing and future year analysis scenarios to account for fluctuations in traffic flows throughout the peak travel hours. The application of a peak hour factor of 0.85 under existing conditions and 0.90 under cumulative conditions was found to produce LOS results that more closely matched current travel conditions in the study area. Without the peak hour factor, LOS results would be better than those observed in the study area and would not reflect the actual peak hour congestion experienced by drivers.

TABLE 1: LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Description	Volume-to-Capacity (V/C) Ratio
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	0.000-0.600
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	0.601-0.700
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	0.701-0.800
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	0.801-0.900
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	0.901-1.000
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 1.000

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

2.3.2 HIGHWAY CAPACITY MANUAL (HCM)

Pursuant to the City of Beverly Hills' guidelines, Intersection 5: Santa Monica Boulevard North & Merv Griffin Way was analyzed using the most current edition of the *Highway Capacity Manual (HCM)* since it is unsignalized. Specifically, the operations of the unsignalized intersection was evaluated using the method provided for 2-way Stop-Controlled Intersections in the *HCM 2010*. LOS ratings for stop-sign-controlled intersections are based on the average control delay expressed in seconds per vehicle. At 2-way or side-street-controlled (SSSC) intersections, the average control delay is calculated for each minor-street stopped movement and the major-street left turns, not for the intersection as a whole. For approaches composed

of a single lane, the control delay is computed as the average of all movements in that lane. For approaches with multiple lanes, the control delay is computed for each movement and the movement with the worst (i.e., longest) delay is used to determine the LOS. As shown in the **Table 2**, LOS F is assigned to the movement if the volume-to-capacity (V/C) ratio for the movement exceed 1.0 regardless of control delay. The average control delay for unsignalized intersections is calculated using Synchro 8.0 analysis software and is correlated to a LOS designation as shown in **Table 2**.

TABLE 2: UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service (v/c ≤ 1.0)	Level of Service (v/c > 1.0)[1]	Description	Average Control Delay Per Vehicle (Seconds)
A	F	Little or no delay.	≤ 10.0
B	F	Short traffic delay.	> 10.0 to 15.0
C	F	Average traffic delays.	> 15.0 to 25.0
D	F	Long traffic delays.	> 25.0 to 35.0
E	F	Very long traffic delays.	> 35.0 to 50.0
F	F	Extreme traffic delays with intersection capacity exceeded.	> 50.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2010.

Notes:
[1] For approach-based and intersection-wide assessments, such as that used for all-way stop controlled intersections, LOS is defined solely by control delay.

2.3.3 CRITICAL MOVEMENT ANALYSIS

Since the intersections of Santa Monica Boulevard & Avenue of the Stars and Santa Monica Boulevard & Century Park East are located within the City of Los Angeles, it was analyzed using the Critical Movement Analysis (CMA) method per *Traffic Study Policies and Procedures* (Los Angeles Department of Transportation, May 2012). Additionally, signalized intersections are currently controlled with the City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system, a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC operations to manage signal timing to improve traffic flow conditions, as well as the Adaptive Traffic Control System (ATCS), which is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic

conditions. Currently, Santa Monica Boulevard & Avenue of the Stars is currently operational with both ATSAC and ATCS capability. In accordance with City of Los Angeles procedures, a credit of 0.10 V/C reduction was applied at this location where both ATSAC (0.07 base credit) and ATCS (an extra of 0.03 credit) are implemented.

2.4 SIGNIFICANT IMPACT CRITERIA

With the exception of Santa Monica Boulevard & Avenue of the Stars and Santa Monica Boulevard & Century Park East being located in the City of Los Angeles, the remaining eight (8) signalized intersections and one (1) unsignalized intersection are all within the City of Beverly Hills. Significance criteria established by the City of Beverly Hills and the City of Los Angeles to assess the potential for significant project impacts at the intersections are described below.

2.4.1 CITY OF BEVERLY HILLS THRESHOLDS

The City of Beverly Hills has established threshold criteria to determine significant traffic impact of a project in its jurisdiction. Under *Beverly Hills Traffic Thresholds of Significance* guidelines, a signalized intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.03 for intersections operating at LOS D, and equal to or greater than 0.02 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A, B, or C after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. **Table 3** below summarizes the impact criteria for a signalized intersection.

TABLE 3: CITY OF BEVERLY HILLS THRESHOLDS OF SIGNIFICANCE FOR SIGNALIZED INTERSECTIONS

LOS with Project	Final V/C Ratio	Project-Related Increase in V/C Ratio
D	> 0.800 and ≤ 0.900	equal to or greater than 0.030
E or F	> 0.900	equal to or greater than 0.020

Source: City of Beverly Hills, October 2010.

Under *Beverly Hills Traffic Thresholds of Significance* guidelines, an unsignalized, 2-way stop-controlled (TWSC) intersection would be significantly impacted with an increase in total delay equal to or greater than 4.0 seconds for intersections operating at LOS D, and equal to or greater than 3.0 seconds for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A, B, or C after

the addition of the project traffic are not considered significantly impacted regardless of the increase in total delay. **Table 4** summarizes the impact criteria for an unsignalized intersection.

TABLE 4: CITY OF BEVERLY HILLS THRESHOLDS OF SIGNIFICANCE FOR UNSIGNALIZED INTERSECTIONS (TWSC)

LOS with Project	Delay (Seconds per Vehicle)	Project-Related Increase in Seconds of Delay
D	> 25.0 and ≤ 35.0	Equal to or greater than 4.0 seconds
E or F	> 35.0	Equal to or greater than 3.0 seconds

Source: City of Beverly Hills, October 2010.

2.4.2 CITY OF LOS ANGELES THRESHOLDS

City of Los Angeles significance criteria were used to assess the potential for significant impacts at Santa Monica Boulevard & Avenue of the Stars and Santa Monica Boulevard & Century Park East . The City of Los Angeles has established threshold criteria to determine the significant traffic impacts of a proposed project. Under the LADOT guidelines, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. A summary of the impact criteria is provided in **Table 5** below.

TABLE 5: CITY OF LOS ANGELES THRESHOLDS OF SIGNIFICANCE FOR SIGNALIZED INTERSECTIONS

LOS with Project	Final V/C Ratio	Project-Related Increase in V/C Ratio
C	> 0.700 and ≤ 0.800	Equal to or greater than 0.040
D	> 0.801 and ≤ 0.900	Equal to or greater than 0.020
E or F	> 0.901	Equal to or greater than 0.010

Source: City of Los Angeles Department of Transportation Traffic Study Policies and Procedures, 2014.

2.4.3 RESIDENTIAL STREET THRESHOLDS

The residential street analysis was conducted on three residential roadway segments to the north of the project in the City of Beverly Hills. These streets were selected in conjunction with City of Beverly Hills staff as they were determined to have a greater potential likelihood of neighborhood cut-through traffic from the project. The significance of potential impacts was assessed using criteria established by the City of Beverly Hills, which is outlined in **Table 6**.

TABLE 6: CITY OF BEVERLY HILLS THRESHOLDS OF SIGNIFICANCE FOR NEIGHBORHOOD IMPACTS

Projected Average Daily Traffic with Project (Final ADT)	Project-Related Increase
0 to 2,000	16% or more of final ADT, 16% or more of peak hour, or both
2,001 to 4,000	12% or more of final ADT, 12% or more of peak hour, or both
4,001 to 6,750	8% or more of final ADT, 8% or more of peak hour, or both
6,751 or more	6.25% or more of final ADT, 6.25% or more of peak hour, or both

Source: City of Beverly Hills, October 2010.

2.4.4 CONGESTION MANAGEMENT PROGRAM (CMP) STUDY FACILITIES THRESHOLDS

A significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02), causing LOS F (V/C > 1.00); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02).

2.4.5 ACTIVE TRANSPORTATION THRESHOLDS

An impact would be considered significant for active forms of transportation if the project conflicts with adopted policies, plans, or programs supporting active transportation.

3.0 EXISTING CONDITIONS

This chapter discusses the existing traffic and transportation conditions in the project study area. This discussion addresses the roadway network, the bus and rail transit network, the existing bicycle and pedestrian facilities, and current intersection operations.

3.1 EXISTING TRANSPORTATION FACILIITIES

A comprehensive data collection effort was undertaken to identify existing transportation conditions in the vicinity of the proposed project. The assessment of existing conditions relevant to this study includes an inventory of the street system, traffic volumes on these facilities, and operating conditions at the study intersections. Existing public transit service and bicycle and pedestrian facilities are also described.

3.1.1 EXISTING STREET SYSTEM

The One Beverly Hills project is located along the western edge of the City of Beverly Hills. The project study area is generally bounded by I-405 to the west, Sunset Boulevard to the north, Beverly Drive to the east, and Olympic Boulevard to the south. Major roadways within the study area include:

- ***Santa Monica Boulevard*** is a major east-west roadway in the City of Los Angeles and the City of Beverly Hills. Within the study area, this roadway generally travels in a southwest to northeast direction. To the west, Santa Monica Boulevard continues outside of the study area past I-405 and extends into the City of Santa Monica, where it terminates. To the east, Santa Monica Boulevard continues into the City of West Hollywood and eventually terminates east of US 101. Within the study area, the roadway has two to three travel lanes in each direction. The roadway is designated as a Principal Arterial in the City of Beverly Hills.

- ***Santa Monica Boulevard South*** or "Little Santa Monica Boulevard" parallels Santa Monica Boulevard through the City of Beverly Hills. The roadway begins east of Moreno Drive and becomes Burton Way at Rexford Drive. The roadway has two travel lanes in each direction. The roadway is classified as both a Minor Arterial and Principal Arterial within the study area.

- ***Wilshire Boulevard*** is a major east-west roadway which extends through the study area. Wilshire Boulevard extends from Santa Monica in the west to downtown Los Angeles. The roadway connects to I-405 west of the project site. In the study area, the roadway has three travel lanes in each direction. Wilshire Boulevard is classified as a Principal Arterial within the study area.

- ***Sunset Boulevard*** is another major east-west roadway and extends from Pacific Coast Highway to the west past US 101 to the east and into downtown Los Angeles. Within the study area, Sunset Boulevard has four travel lanes (two in each direction) and is classified as a principal arterial within the City of Beverly Hills.

- ***Whittier Drive*** is a north-south roadway which extends north from Wilshire Boulevard into a residential neighborhood and connects to Sunset Boulevard to the north. Whittier is a two-lane roadway with parking on both sides. The roadway is classified as a local street.

- ***Merv Griffin Way*** connects Santa Monica Boulevard and Wilshire Boulevard. It is a 4-lane undivided street.

- ***Avenue of the Stars*** is a north-south roadway that runs through Century City providing a connection between Santa Monica Boulevard and Pico Boulevard. The roadway is classified as a major Class II and provides 3 travel lanes in each direction with a wide landscaped median.

3.1.2 EXISTING TRANSIT SERVICES

Several transit lines operate within the study area with service provided by the Metropolitan Transportation Authority (Metro). Transit service is described below.

- ***Metro Line 4*** – Line 4 provides service between downtown Los Angeles and the City of Santa Monica with service along Santa Monica Boulevard. It travels along Santa Monica Boulevard connecting the communities of Echo Park, Silver Lake, West Hollywood, Beverly Hills, Century City, West Los Angeles, and Santa Monica. Line 4 is a local service bus and has frequent stops along Santa Monica Boulevard. Most stops are approximately one to two blocks apart. Service is provided every eight to 16 minutes during the peak hours on weekdays. On weekends, headways are approximately every 10 to 15 minutes.

- ***Metro Line 20*** – Line 20 provides service between downtown Los Angeles and the City of Santa Monica with service along Wilshire Boulevard. It travels along Wilshire Boulevard connecting the communities of Beverly Hills, Los Angeles, Hancock Park, Park La Brea, Santa Monica, UCLA, West Los Angeles and Westwood. Line 20 is a local service bus and has frequent bus stops along Wilshire Boulevard. Most stops are approximately one to two blocks apart. Service is provided every five to 12 minutes during peak hours on weekdays and bus headways are approximately 10 minutes on Saturdays and Sundays.

- ***Metro Line 16/316***- Line 16 and 316 operate along Santa Monica Boulevard and Burton Way within the City of Beverly Hills and provide transit service between the Century City area of Los Angeles and downtown Los Angeles. Line 316 is a limited version of Line 16, and therefore only stops at selected bus stops. During peak hours, the line operates at headways of 3 to 5 minutes.

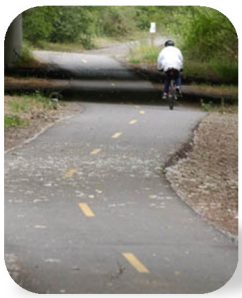
- ***Metro Rapid Line 704*** – Line 704 provides an express service between downtown Los Angeles and the City of Santa Monica with principal service along Santa Monica Boulevard as part of Metro's Rapid network. The line travels along Sunset Boulevard and Santa Monica Boulevard connecting the communities of downtown Los Angeles, Echo Park, Silver Lake, West Hollywood, Beverly Hills, Century City, Westwood, West Los Angeles, and Santa Monica. Line 704 is an express service bus route with two stops located within the study area at Santa Monica Boulevard & Wilshire Boulevard and Santa Monica Boulevard & Avenue of the Stars. Buses operate along Santa Monica Boulevard every 10 to 30 minutes on weekdays and weekends.

- ***Metro Rapid Line 720*** - Line 720 provides an express service between East Los Angeles and the City of Santa Monica with principal service along Wilshire Boulevard as part of Metro's Rapid network. The line travels along Wilshire Boulevard connecting the communities of Beverly Hills, Boyle Heights, Brentwood, Commerce, downtown Los Angeles, East Los Angeles, Hancock Park, Koreatown, Park La Brea, Santa Monica and Westwood. Line 720 is an express service bus route with one stop located within the study area at Wilshire Boulevard & Beverly Drive. Buses operate along Wilshire Boulevard every two to 10 minutes during peak hours on weekdays. On weekends headways are every four to 10 minutes.

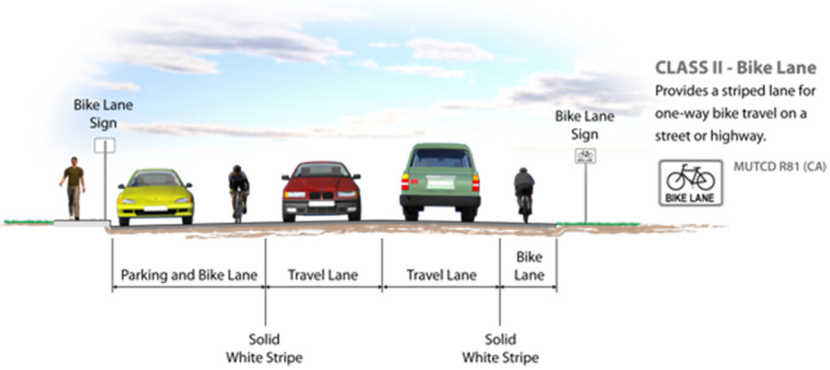
3.1.3 EXISTING BICYCLE FACILITIES

Bicycle facilities generally consist of three types of facilities, which are outlined below:

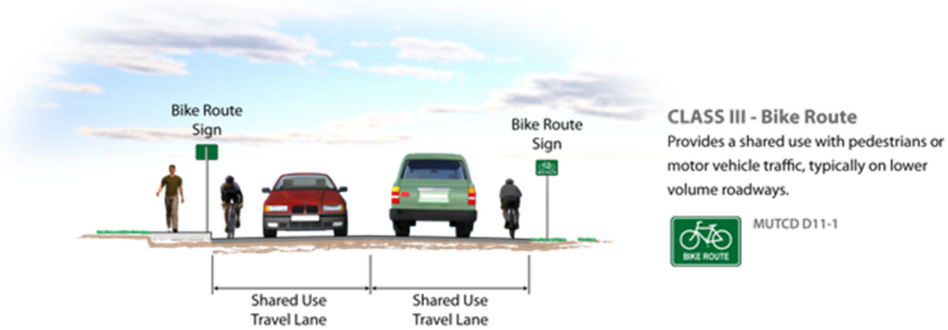
- *Bike or Shared Use Paths* provide a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized. Generally, the recommended pavement width for a two-directional shared use path is ten (10) feet.



- *Bike Lanes* provide a restricted right-of-way and are designated for the use of bicycles with a striped lane on a street or highway. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.



- *Bike Route or Signed Shared Roadways* provide for a right-of-way designated by signs or shared lane pavement markings, or "sharrows," for shared use with pedestrians or motor vehicles.



Within the study area, there is a limited amount of bicycle facilities. Class II bicycle lanes are provided along Santa Monica Boulevard between Sepulveda Boulevard and the study intersection of Avenue of the Stars.

3.1.4 EXISTING PEDESTRIAN FACILITIES

A majority of the roadways within the study area have sidewalks and crosswalks. There are sidewalks along the roadways that border the site including Santa Monica Boulevard, Wilshire Boulevard, and Merv Griffin Way. Whittier Drive north of the project site also has sidewalks. There are also cross walks and pedestrian "walk/don't walk" indicators at most of the signalized intersections. A portion of Santa Monica Boulevard south of the site lacks sidewalks. Study intersections with cross walks on at least one approach include:

- Santa Monica Boulevard North & Beverly Drive
- Santa Monica Boulevard North & Wilshire Boulevard
- Santa Monica Boulevard South & Beverly Drive
- Santa Monica Boulevard South & Wilshire Boulevard
- Santa Monica Boulevard North & Merv Griffin Way
- Wilshire Boulevard & Beverly Drive
- Santa Monica Boulevard & Century Park East
- Sunset Boulevard & Whittier Drive
- Wilshire Boulevard/Whittier Drive & Merv Griffin Way
- Santa Monica Boulevard & Avenue of the Stars

3.2 EXISTING INTERSECTION VOLUMES AND LANE CONFIGURATIONS

Fehr & Peers collected manual peak hour intersection counts on Thursday September 24, 2015 and Saturday September 26, 2015. Intersection counts were taken at all study intersections at the following times:

- Weekday morning peak hour (7:00 to 9:00 AM)
- Weekday mid-day peak hour (11:00 AM to 2:00 PM)
- Weekday evening peak hour (4:00 to 6:00 PM)
- Saturday mid-day peak hour (11:00 AM to 2:00 PM)

Existing lane configurations and signal controls were obtained through field observations. **Figures 2A** and **2B** present the existing peak periods turning movement volumes, corresponding lane configurations, and traffic control devices. Raw traffic count data sheets are provided in **Appendix A**.

Roadway segment counts were taken on Whittier Drive and Elevado Avenue on September 29 and 30, 2015. Counts were taken over a 2-day period through automatic tube counters. Results are summarized in **Table 7** below.

TABLE 7: DAILY TRAFFIC VOLUMES ON RESIDENTIAL STREETS

Roadway Segments	September 2015 ADT
Whittier Drive (between Wilshire Blvd & Elevado Ave)	14,055
Whittier Drive (between Elevado Ave & Lomitas Ave)	10,260
Elevado Avenue (between Whittier Dr & Beverly Dr)	4,570

Source: Fehr & Peers, 2016.

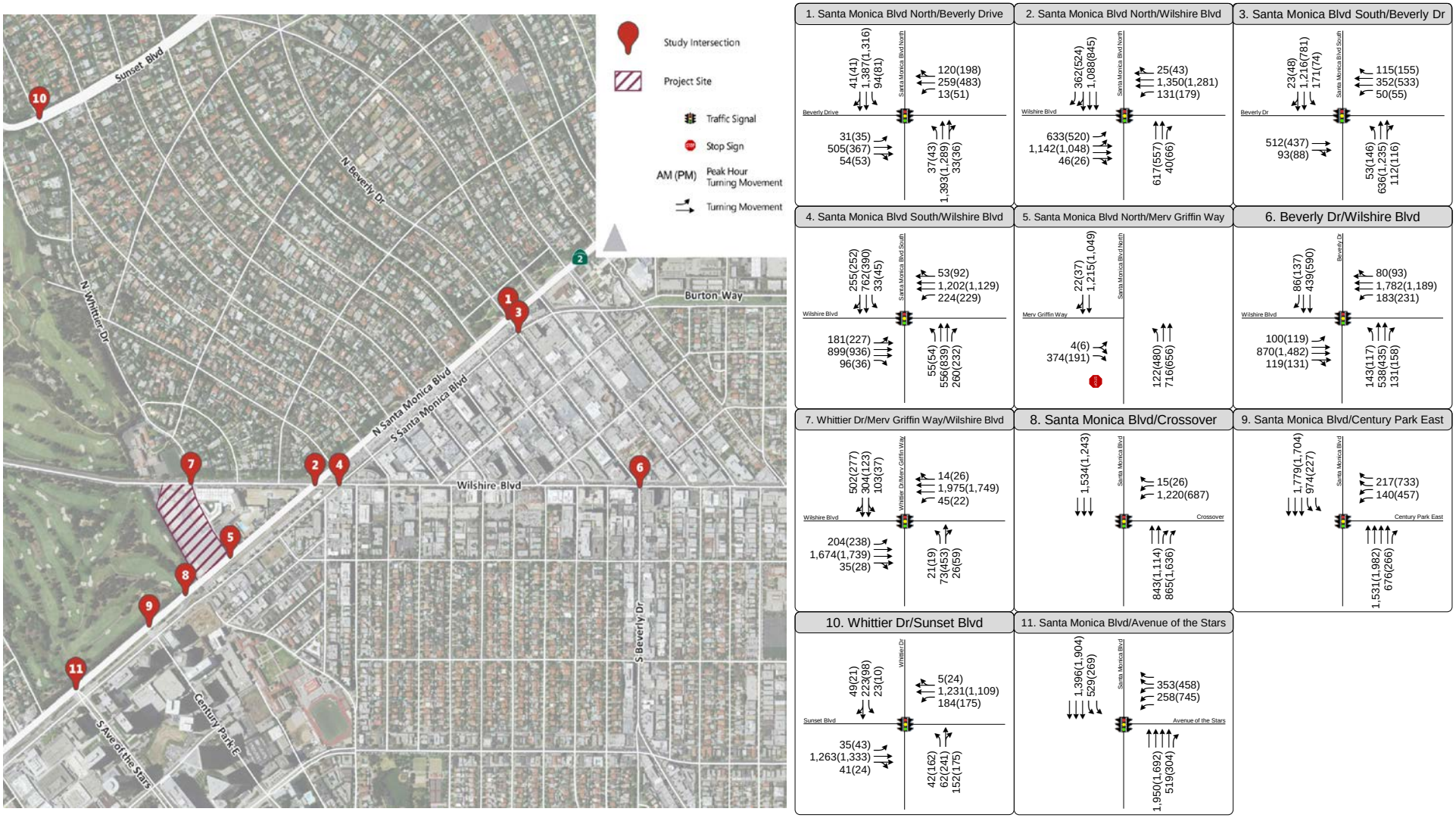


Figure 2A
Traffic Volumes & Lane Configurations
Existing (2015) Conditions - AM & PM Peak Hours

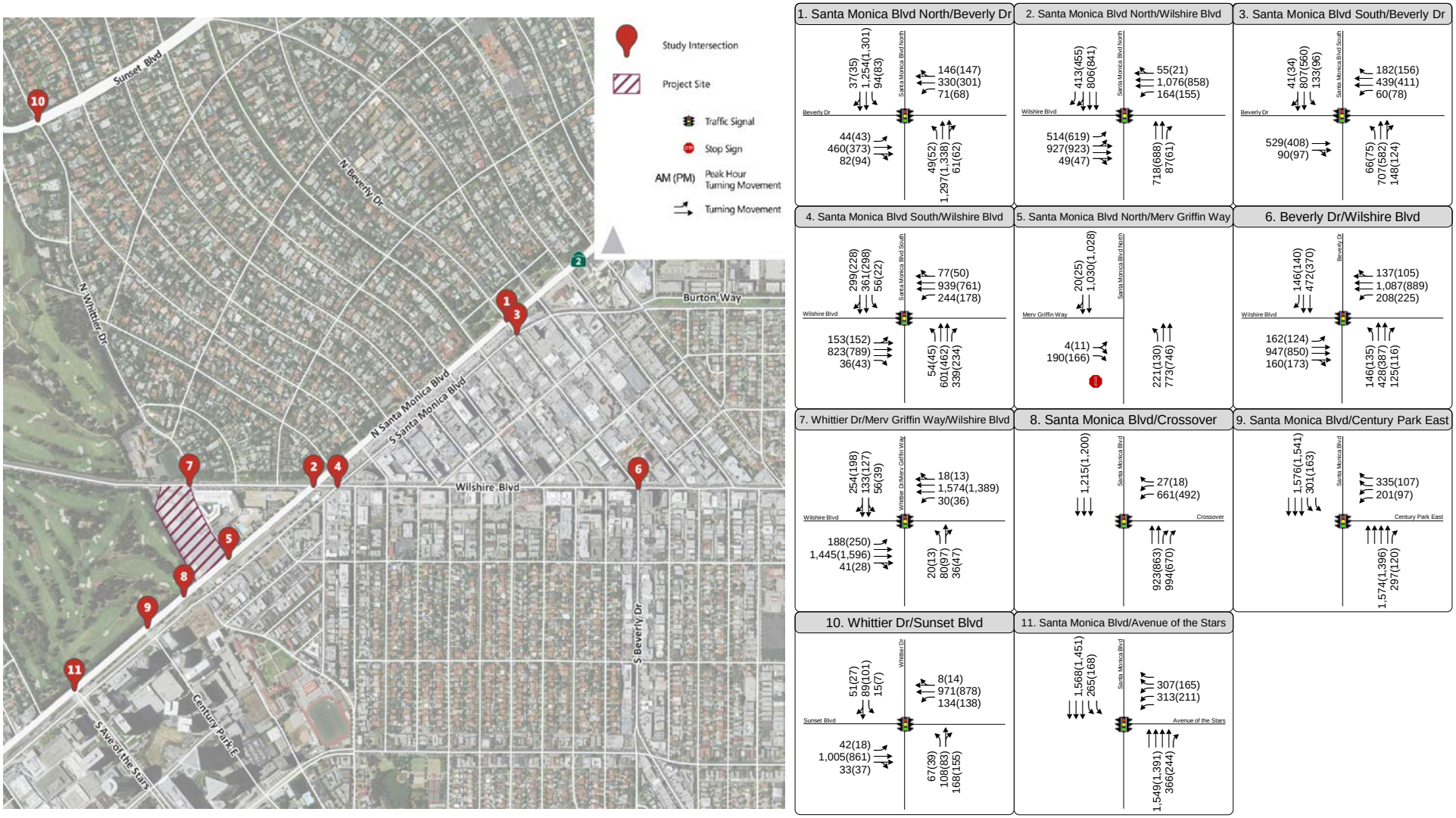


Figure 2B
Traffic Volumes & Lane Configurations
Existing (2015) Conditions - Mid-Day & Weekend Peak Hours

3.3 EXISTING INTERSECTION LEVELS OF SERVICE

Existing peak hour volumes and lane configurations were used to calculate the LOS for each of the study intersections. The results of the existing LOS analysis are presented in **Table 8** and the corresponding LOS calculation sheets are included in **Appendix B**.

The following intersections operate at LOS E or F during one or more the peak hours:

- Santa Monica Boulevard North & Beverly Drive
- Santa Monica Boulevard North & Wilshire Boulevard
- Santa Monica Boulevard South & Wilshire Boulevard
- Santa Monica Boulevard North & Merv Griffin Way
- Beverly Drive & Wilshire Boulevard
- Whittier Drive/Merv Griffin Way & Wilshire Boulevard
- Santa Monica Boulevard & Crossover
- Whittier Drive & Sunset Boulevard

TABLE 8: EXISTING (2015) INTERSECTION LEVEL OF SERVICE

INTERSECTION	CONTROL	PEAK HOUR	EXISTING (2015)	
			V/C OR DELAY	LOS[1,2]
1. Santa Monica Boulevard North & Beverly Drive	SIGNAL	AM	0.908	**E**
		MD	0.920	**E**
		PM	0.923	**E**
		WKND	0.897	D
2. Santa Monica Boulevard North & Wilshire Boulevard	SIGNAL	AM	1.139	**F**
		MD	0.994	**E**
		PM	1.059	**F**
		WKND	0.946	**E**
3. Santa Monica Boulevard South & Beverly Drive	SIGNAL	AM	0.854	D
		MD	0.784	C
		PM	0.885	D

TABLE 8: EXISTING (2015) INTERSECTION LEVEL OF SERVICE

INTERSECTION	CONTROL	PEAK HOUR	EXISTING (2015)	
			V/C OR DELAY	LOS[1,2]
		WKND	0.673	B
4. Santa Monica Boulevard South & Wilshire Boulevard	SIGNAL	AM	0.944	**E**
		MD	0.809	D
		PM	0.895	D
		WKND	0.688	B
5. Santa Monica Boulevard North & Merv Griffin Way[3,4]	SSSC	AM	> 50	**F**
		MD	> 50	**F**
		PM	> 50	**F**
		WKND	> 50	**F**
6. Beverly Drive & Wilshire Boulevard	SIGNAL	AM	0.896	D
		MD	0.805	D
		PM	0.968	**E**
		WKND	0.751	C
7. Whittier Drive/Merv Griffin Way & Wilshire Boulevard	SIGNAL	AM	1.179	**F**
		MD	0.900	D
		PM	1.290	**F**
		WKND	0.879	D
8. Santa Monica Boulevard & Crossover	SIGNAL	AM	0.925	**E**
		MD	0.682	B
		PM	0.762	C
		WKND	0.598	A
	SIGNAL	AM	0.781	C

TABLE 8: EXISTING (2015) INTERSECTION LEVEL OF SERVICE

INTERSECTION	CONTROL	PEAK HOUR	EXISTING (2015)	
			V/C OR DELAY	LOS[1,2]
9. Santa Monica Boulevard & Century Park East		MD	0.388	A
		PM	0.554	A
		WKND	0.312	A
10. Whittier Drive & Sunset Boulevard	SIGNAL	AM	0.946	**E**
		MD	0.794	C
		PM	1.041	**F**
		WKND	0.712	C
11. Santa Monica Boulevard & Avenue of the Stars	SIGNAL	AM	0.532	A
		MD	0.390	A
		PM	0.575	A
		WKND	0.344	A

Source: Fehr & Peers, 2016.

Notes:
>50 Indicates oversaturated conditions at LOS F for SSSC intersections.
SSSC indicates Side street stop-controlled intersection
[1] LOS calculations for Beverly Hills signalized intersections were performed using the ICU methodology and LOS for Los Angeles signalized intersections were performed using the CMA methodology.
[2] Unacceptable seconds of delay per vehicle or volume-to-capacity (V/C) ratios and LOS highlighted in bold.
[3] LOS calculations performed using the 2000 *Highway Capacity Manual (HCM)* method.
[4] The vehicular delay for the worst movement is reported for side street stop-controlled intersections.

4.0 PROPOSED PROJECT CHARACTERISTICS

This chapter presents the land uses and trip generation of the proposed One Beverly Hills project and describes the total number of vehicle trips that would be generated in comparison to the previously entitled uses for the 9900 Wilshire Boulevard project. In addition to the trip generation estimates, this chapter presents the project trip distribution and assignment of project trips to the surrounding roadway network.

4.1 PROJECT DESCRIPTION

Fehr & Peers prepared a transportation impact analysis report for the 9900 Wilshire Boulevard Project in 2007. This project proposed a mixed-use development and would have replaced the Robinsons-May Department Store (approximately 220,000 square feet [SF]). The 9900 Wilshire Boulevard site was ultimately entitled for 235 luxury condominiums, 11,656 SF of retail uses, and a 4,800 SF restaurant. Since the preparation of the September 2007 TIA, Wanda Beverly Hills Properties, LLC has acquired the project site and is proposing a new mix of land uses. The proposed One Beverly Hills project (previously known as 9900 Wilshire Boulevard) is located along the western edge of the City of Beverly Hills. The project site is bordered by Santa Monica Boulevard, Merv Griffin Way, and Wilshire Boulevard.

4.1.1 PROJECT LAND USES

The One Beverly Hills project is proposing to eliminate the entitled retail land use, introduce a 134-room luxury hotel, and reduce the amount of residential space to 193 condominiums. The proposed luxury hotel would be located in the previously approved South Building. **Table 9** outlines the major changes in the uses and provides a comparison of the Original TIA's project floor area summary and the One Beverly Hills project as now proposed. Buildout of the project is expected to occur in 2020.

TABLE 9:
ENTITLED AND PROPOSED PROJECT LAND USES

Land Use	Entitled Uses	Proposed One Beverly Hills Uses	Change from Entitled Uses
Retail & Restaurant (standalone)			
Retail	11,656 SF	-	- 11,656 SF
Restaurant	4,800 SF	-	- 4,800 SF
Hotel			
Hotel Rooms	-	134 Rooms	+ 134 Rooms
Spa & Fitness	-	7,370 SF	+ 7,370 SF
Ballroom and Meeting Rooms	-	7,942 SF	+ 7,942 SF
Hotel Shops	-	2,484 SF	+ 2,484 SF
Restaurant & Bar *(including hotel dining uses)*	-	15,227 SF	+ 15,227 SF
Residential			
Condominiums	235 Units	193 Units	-42 Units

4.1.2 PROJECT ACCESS

While the turning movements at each of the four project site driveways will remain the same with One Beverly Hills, the usage for some driveways has been updated with the new proposed project and is described below.

- ***Residential Access*** - Residential access would be served by two project driveways along the western boundary of the project site: the north (Wilshire Boulevard) and south (Santa Monica Boulevard North) driveways. Similar to the Original TIA, the north driveway allows for right-in, right-out access only and the south driveway allows for right-in, left-in, and right-out access. Both of these project driveways are exclusive to residents, visitors to the residential uses, residential valet, authorized staff, and occasional move-in/move-out trips.

- ***Hotel Staff & Delivery Access*** - Along Merv Griffin Way, an all-access driveway that was initially intended to serve restaurant, retail and loading dock access in the Original TIA would now

exclusively allow access for hotel staff parking, loading, deliveries, trash collection, and mail and courier for both the condominiums and hotel of the One Beverly Hills project.

- ***Hotel Visitor Access*** - The primary driveway serving the hotel uses is on the southern boundary of the project site along Santa Monica Boulevard North, and referred to as the Hotel Motor Court. The right-in, right-out only driveway was initially intended to serve restaurant, retail, and loading dock access in the Original TIA. With the new proposed project, the driveway will now serve hotel guests, hotel amenities visitors (e.g., restaurants, lounges, spa), taxis, shared ride vans, private cars and limos, and the hotel valet service. This driveway leads to the hotel porte-cochere, which will house two separate ramps that lead to the underground parking garage. It should be noted that the new signal at Merv Griffin Way & Santa Monica Boulevard North will allow eastbound traffic to make a U-turn to access the hotel driveway.

As stated, the Merv Griffin Way driveway will serve hotel staff parking. Although the One Beverly Hills employee trips are accounted for in the trip estimates of each of the land uses, the employee trips need to be separated from the other uses in order to appropriately distribute and assign employee-related traffic through the roadway network. Through the Beverly Hilton hotel trip generation study, the service driveways were counted separately and were exclusive to employee staff and delivery trips. It was found that approximately 10 to 15 percent (depending on the peak hour) of the total trips represent hotel staff and delivery trips.

The proposed site plan for this redevelopment is shown in **Figure 3**.

Source: Richard Meier & Partners Architects

Figure 3

One Beverly Hills
Project Site Plan

4.2 PROJECT TRIP GENERATION

4.2.1 TRIP GENERATION DATA SOURCES

In estimating the number of new trips generated by the proposed project uses, a variety of trip generation data sources, including previously collected local data and national data sources, were considered. Each of the land uses and data sources are described below.

4.2.1.1 Condominiums

Empirical data was gathered as part of the Original TIA from other nearby condominiums to better reflect the trip generation characteristics of luxury condominiums in the project vicinity. Trip generation counts were taken at the following sites:

- La Tour (13080 Wilshire Boulevard) – 73 units
- The Wilshire Condominiums (10580 Wilshire Boulevard) – 97 units
- The Blair House (10490 Wilshire Boulevard) – 128 units
- The Wilshire Regent (10501 Wilshire Boulevard) – 208 units
- The Remington (10727 Wilshire Boulevard) – 93 units
- 2160/2172 Century Park East – 496 units

February 2007 counts were taken for the AM, Mid-day, PM, and Saturday peak hours for each of these sites. In the Original TIA, the daily rate was estimated using the ITE *Trip Generation,* 7th Edition data for High-Rise Condominiums (ITE Code 232) since daily empirical traffic counts were unavailable. However, since then the ITE *Trip Generation* has been updated to the 9th Edition and the condominium daily rate used in the trip generation has been updated to reflect the latest rates. The 9th Edition still indicates that peak hour trips account for 17% of all daily trips at condominiums. The Condominium rate is based on the ratio of AM and PM peak hour rates to daily rates for ITE Code 232. The ratio was estimated to be 17%, which was then applied to the observed AM and PM rates.

4.2.1.2 Hotel Uses

In September 2007, a traffic impact study was prepared for the revitalization of the Beverly Hilton. As part of the Beverly Hilton study, trip generation surveys were conducted in February 2007 on a Thursday, Friday, and Saturday during peak hours at all Beverly Hilton driveways in order to derive hotel trip rates that reflected the local environment. Since the One Beverly Hills site is directly adjacent to the Beverly Hilton, these empirical trip generation rates were applied to the proposed hotel uses.

The trip generation rates for the Beverly Hilton reflect all vehicles entering/exiting the hotel and captured the trip characteristics of the following hotel uses:

- Visitors staying at the hotel (569 rooms)
- Visitors utilizing the hotel meetings rooms (37,409 SF of on-site meeting space)
- Visitors of the retail uses (13,810 SF)
- Visitors of the hotel restaurants and bar/lounge uses (20,523 SF)
- Employees of each of the above uses
- Employees of the offices uses not associated with hotel operations (13,000 SF)
- Deliveries to each of the above uses
- Pick-up/drop-off trips (by taxi)
- Visitors of the restaurant (Trader Vic's) were not included in the total trip generation

In the Beverly Hilton study, the daily hotel rate was based on the ratio between the PM peak hour trip rate and daily trip rate for the Land Use Code 310 (Hotel) in the ITE's Trip Generation (7th Edition). However, since then the ITE Trip Generation has been updated and so the hotel daily rate was also updated using information provided in the 9th Edition.

Similar to the Beverly Hilton, the proposed One Beverly Hills hotel also includes meeting room space, on-site retail uses, and restaurant and lounge uses. Since these uses were captured in the "per room" rate for the Beverly Hilton, the trip generation of these uses has not been calculated separately for the proposed project. In addition, the fitness center would only be used by hotel guests and would not generate additional vehicle trips. The hotel uses that would generate trips beyond those captured through the Beverly Hilton study are as follows:

- ***Spa Uses*** - The ITE *Trip Generation,* 9th *Edition* does not have specific trip data for a spa; however, ITE's Land Use 918: Hair Salon was described to include spa facilities and so the trip data was used to estimate trips for the hotel's spa. Additionally, it is anticipated that the spa would attract and serve both hotel and external (i.e. non-hotel) patrons. Per the project description, 33 percent of trips generated by the Spa were assumed to be new external vehicle-trips.

  ITE does not have daily and weekend rates for this land use. Therefore, the daily rates were estimated by assuming that the total PM peak hour trip rate represented 10% of the daily trip rate, and that the weekend peak would generate the same number of trips as the PM peak hour.

- ***Restaurant & Bar Uses*** - The proposed project includes a combination of restaurant and bar/lounge uses intended to serve both hotel guests, residents, and outside visitors as well as dining uses that serve as an extension of hotel operations. The dining uses that serve as an extension of hotel operations are similar to those provided at the Beverly Hilton at the time the trip generation rates were developed. The Beverly Hilton provided approximately 20,500 SF of dining uses while the proposed hotel would provide 5,540 SF of dining space, which is comprised of a 2,633 SF all-day dining restaurant, a 1,907 SF Lobby Lounge, and a 1,000 SF outdoor dining area, and is expected to be used primarily by hotel guests. Consequently, these hotel dining uses are captured in the "per room" rate applied to the proposed project.

  In addition to the food and beverage areas primarily intended to serve hotel guests, the proposed project will also provide restaurants that serve external uses. As part of the Beverly Hilton study, trip generation counts were conducted at several restaurants in the City of Beverly Hills including Spago, Mastro's, and Lawry's. The restaurant trip rates derived from these area-specific counts were applied to the One Beverly Hills trip generation estimates since the proposed restaurant uses would serve a combination of hotel guests as well as attract visitors from outside the hotel. The empirical trip generation rates were used for VIP Chinese Fine Dining and the Outdoor Rooftop Dining within the hotel. The daily rate for restaurants is based on a ratio between daily rate and PM rate for High Turnover sit-down restaurants (Code 932).

  For the Karaoke/Private Lounge and Roof Top Bar, the trip generation was based on the ITE PM peak hour rate for Drinking Places (Code 925). Since the afternoon was the only rate provided in the ITE Trip Generation manual, the PM rate was used for Saturday rates as well. Mid-day rates were assumed to be 30% of PM rates and PM rates were assumed to be 10% of daily rates.

  The project description defines the number of visitors that are expected to be hotel guests at each of the restaurant and lounge/bar establishments within the hotel. The following assumptions were applied to the trip generation estimates based on the project description:

  - The trip generation of the restaurant uses (VIP Chinese Fine Dining and Outdoor Rooftop Dining) were assumed to be 50% hotel guests and 50% new external trips.
  - The trip generated of the lounge/bar uses (Karaoke/Private Lounge and Roof Top Bar) were assumed to be 50% hotel guests and 50% new external trips.

Table 10 provides the trip generation rates applied to the One Beverly Hills project.

TABLE 10:
TRIP GENERATION RATES

Land Use	Trip Rates				
	Daily	AM	Mid-Day	PM	Saturday
Condominiums[1]	3.55	0.28	0.33	0.33	0.29
Hotel[2]	7.75	0.41	0.49	0.57	0.26
Spa[3]	14.50	1.21	1.45	1.45	1.45
Restaurants[4]	54.02	0.33	5.69	4.18	3.44
Bars[5]	113.40	-	3.40	11.34	11.34

Notes:

(1) Condominium trip rates based on counts taken at 6 local condominium projects.

(2) Hotel trip rates based on counts taken at Beverly Hilton.

(3) Spa trip rates based on ITE Code 918 (Hair Salon).

(4) Restaurant trip rates based on counts taken at three restaurants in Beverly Hills.

(5) Lounge/Bar trip rates based on ITE Code 925 (Drinking Place).

4.2.2 TRIP GENERATION ESTIMATE

Table 11 provides the detailed trip generation estimates for the entitled land uses and the proposed One Beverly Hills project. **Table 12** provides a comparison of the trip generation for the entitled land uses and the proposed project by land use type.

TABLE 11

PROJECT TRIP GENERATION ESTIMATES FOR SUPPLEMENTAL EIR & COMPARISON TO ENTITLED USES

TRIP GENERATION FOR 9900 WILSHIRE ENTITLED USES

Land Use Category		Weekday										Weekend		
		Daily	AM			Mid-Day			PM			Saturday		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Condominium (235 Units)	Rate	*3.55*	*0.09*	*0.19*	*0.28*	*0.17*	*0.17*	*0.33*	*0.18*	*0.15*	*0.33*	*0.11*	*0.19*	*0.29*
	Trips	834	21	44	65	39	39	78	43	35	78	25	44	69
Retail (11,656 SF)	Rate	*42.94*	*0.63*	*0.40*	*1.03*	*1.72*	*1.72*	*3.44*	*1.80*	*1.95*	*3.75*	*2.58*	*2.39*	*4.97*
	Trips	501	7	5	12	20	20	40	21	23	44	30	28	58
Restaurant (4,800 SF)	Rate	*127.15*	*5.99*	*5.53*	*11.52*	*8.69*	*7.48*	*16.17*	*6.66*	*4.26*	*10.92*	*12.60*	*7.40*	*20.00*
	Trips	610	29	27	56	42	36	78	32	20	52	30	18	48
Total Trip Generation		**1945**	**57**	**76**	**133**	**101**	**95**	**196**	**96**	**78**	**174**	**85**	**90**	**175**

Source: Trip rates from 9900 Wilshire Traffic Impact Study applied to entitled land uses.

UPDATED TRIP GENERATION FOR ONE BEVERLY HILLS SUPPLEMENTAL EIR

Land Use Category		Weekday										Weekend		
		Daily[6]	AM			Mid-Day			PM			Saturday		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Condominium (193 Units)[1]	Rate	*3.55*	*0.09*	*0.19*	*0.28*	*0.17*	*0.17*	*0.33*	*0.18*	*0.15*	*0.33*	*0.11*	*0.19*	*0.29*
	External Trips	685	17	36	53	32	32	64	35	29	64	20	36	56
Hotel (134 Units)[2]	Rate	*7.75*	*0.25*	*0.16*	*0.41*	*0.23*	*0.25*	*0.49*	*0.26*	*0.31*	*0.57*	*0.14*	*0.13*	*0.26*
	External Trips	1039	33	22	55	31	34	65	35	41	76	18	17	35
Spa (7,370 SF)[3]	Rate	*14.50*	*1.21*	*0.00*	*1.21*	*0.25*	*1.20*	*1.45*	*0.25*	*1.20*	*1.45*	*0.25*	*1.20*	*1.45*
	Trips	*107*	*9*	*0*	*9*	*2*	*9*	*11*	*2*	*9*	*11*	*2*	*9*	*11*
33% External Patrons	External Trips	35	3	0	3	1	3	4	1	3	4	1	3	4
Food (4,249 SF)[4]	Rate	*54.02*	*0.16*	*0.16*	*0.33*	*1.72*	*3.97*	*5.69*	*3.31*	*0.87*	*4.18*	*2.91*	*0.53*	*3.44*
VIP/Chinese Fine Dining (3,649 SF)	*Trips*	*197*	*1*	*1*	*2*	*7*	*14*	*21*	*12*	*3*	*15*	*11*	*2*	*13*
50% External Patrons	External Trips	99	1	1	2	4	7	11	6	2	8	6	1	7
Outdoor Dining - Rooftop (600 SF)	*Trips*	*32*	*0*	*0*	*0*	*1*	*2*	*3*	*2*	*1*	*3*	*2*	*0*	*2*
50% External Patrons	External Trips	16	0	0	0	1	1	2	1	1	2	1	0	1
Bar (5,438 SF)[5]	Rate	*113.40*	*0.00*	*0.00*	*0.00*	*2.25*	*1.16*	*3.40*	*7.48*	*3.86*	*11.34*	*2.25*	*1.16*	*3.40*
Karaoke/Private Lounge (3,223 SF)	*Trips*	*365*	*0*	*0*	*0*	*7*	*4*	*11*	*24*	*13*	*37*	*7*	*5*	*11*
50% External Patrons	External Trips	183	0	0	0	4	2	6	12	8	20	4	3	6
Roof Top Bar (2,215 SF)	*Trips*	*251*	*0*	*0*	*0*	*5*	*3*	*8*	*17*	*9*	*26*	*5*	*3*	*9*
50% External Patrons	External Trips	126	0	0	0	3	2	5	9	5	14	3	2	6
Total External Trip Generation of One Beverly Hills		**2,183**	**54**	**59**	**113**	**76**	**81**	**157**	**99**	**89**	**188**	**53**	**62**	**115**
Credit for Entitled 9900 Wilshire Project		**-1,945**	**-57**	**-76**	**-133**	**-101**	**-95**	**-196**	**-96**	**-78**	**-174**	**-85**	**-90**	**-175**
Total Net New External Trips		**238**	**-3**	**-17**	**-20**	**-25**	**-14**	**-39**	**3**	**11**	**14**	**-32**	**-28**	**-60**

Source: Fehr & Peers, 2016.

Trip Generation (9th Edition), Institute of Transportation Engineers.

Notes:

(1) Condominium trip rates based on counts taken at 6 condominium projects including:
La Tour (13080 Wilshire Boulevard)-73 units, The Wilshire Condominiums (10580 Wilshire Boulevard)-97 units, The Blair House (10490 Wilshire Boulevard)- 128 units, The Wilshire Regent (10501 Wilshire Boulevard)- 208 units, The Remington (10727 Wilshire Boulevard)- 93 units, 2160/2172 Century Park East-496 units

(2) Hotel trip generation based on counts taken at Beverly Hilton; Fehr & Peers summarized counts at all driveways including deliveries, taxis, and other vehicles.

(3) Based on ITE Code 918 (Hair Salon); Mid-Day and Weekend assumed to be the same as PM rate. PM rate assumed to be 10% of Daily.

(4) Based on counts taken at three existing restaurants in Beverly Hills (Mastros, Spagos, Lawrys).

(5) Based on ITE Code 925 (Drinking Place); Assumed no activity in the AM. Mid-Day and Saturday rate assumed to be 30% of PM rate. PM assumed to be 10% of Daily.

(6) Daily trips for Condominiums, Hotel, and Restaurants estimated as follows

--Condominium rate based on ratio of AM and PM rate to daily for ITE Code 232 (High Rise Condominiums). This ratio was estimated to be 17%. This ratio was then applied to the actual AM and PM rates.

--Hotel rate based on ratio between PM and daily rate for Hotels (ITE Code 310). This code was applied to PM rate.

--Restaurant rate based on ratio between daily rate and PM rate for High Turnover sit-down restaurants (Code 932). Ratio was applied to empirical counts.

TABLE 12:
TRIP GENERATION COMPARISON

Land Use	Entitled Use Trip Generation	Proposed Uses Trip Generation	Change from Entitled Uses
Daily Trips			
Condominiums	834	685	- 149
Hotel	--	1,039	+ 1,039
Restaurant/Lounge/Bar	610	424	-186
Retail	501	--	- 501
Spa	--	35	+ 35
Total Daily Trips	**1,945**	**2,183**	**+ 238**
AM Peak Hour Trips			
Condominiums	65	53	- 12
Hotel	--	55	+ 55
Restaurant/Lounge/Bar	56	2	- 54
Retail	12	--	- 12
Spa	--	3	+ 3
Total AM Peak Hour Trips	**133**	**113**	**- 20**
PM Peak Hour Trips			
Condominiums	78	64	- 14
Hotel	--	76	+ 76
Restaurant/Lounge/Bar	52	44	- 8
Retail	44	--	- 44
Spa	--	4	+ 4
Total PM Peak Hour Trips	**174**	**188**	**+ 14**
Mid-Day Peak Hour Trips			
Condominiums	78	64	- 14
Hotel	--	65	+ 65

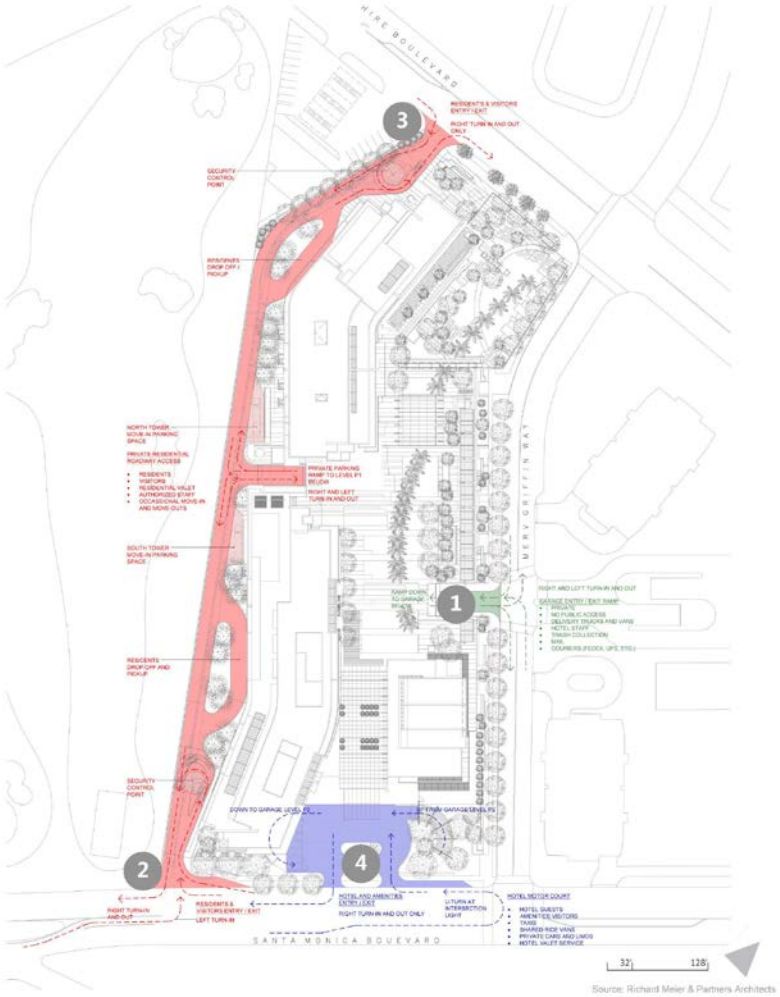
TABLE 12:
TRIP GENERATION COMPARISON

Land Use	Entitled Use Trip Generation	Proposed Uses Trip Generation	Change from Entitled Uses
Restaurant/Lounge/Bar	78	24	- 54
Retail	40	--	- 40
Spa	--	4	+ 4
Total Mid-Day Peak Hour Trips	**196**	**157**	**- 39**
Saturday Peak Hour			
Condominiums	69	56	- 13
Hotel	--	35	+ 35
Restaurant/Lounge/Bar	48	20	- 28
Retail	58	--	- 58
Spa	--	4	+ 4
Total Saturday Peak Hour Trips	**175**	**115**	**- 60**

As can be seen from **Table 12**, the One Beverly Hills project will generate an additional 238 daily trips to the site, including approximately 14 new trips during the weekday PM peak hour. The project would generate fewer vehicle trips than the uses entitled under 9900 Wilshire Boulevard during the AM, midday, and Saturday peak hours by 20, 39, and 60 trips, respectively. Since the supplemental EIR is focusing on the changes to the site with the updated project description, only the number of new vehicle trips will be considered in the analysis of potential traffic impacts. The trips generated by the entitled uses are considered as part of baseline conditions.

The trip generation estimates reported above do not assume any internalization of trips between the condominium and hotel uses within the project site. For example, there may be instances where someone from the condominiums might dine at the hotel restaurants or visit the spa. Similar to the Original TIA, no reduction in trips was made to ensure that the analysis presents a conservative (i.e., reasonably worst case) view of the project's impacts.

Figures 4A and **4B** display the proposed One Beverly Hills project trips at the project driveways.



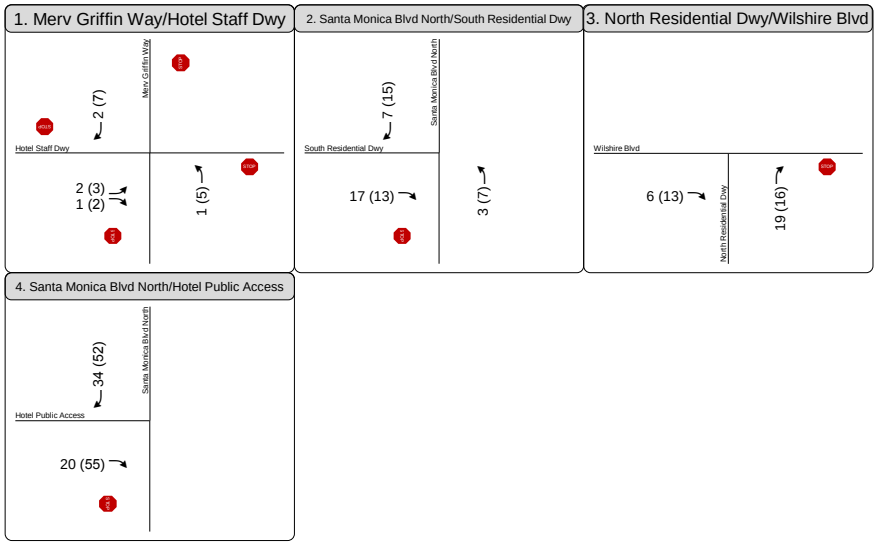
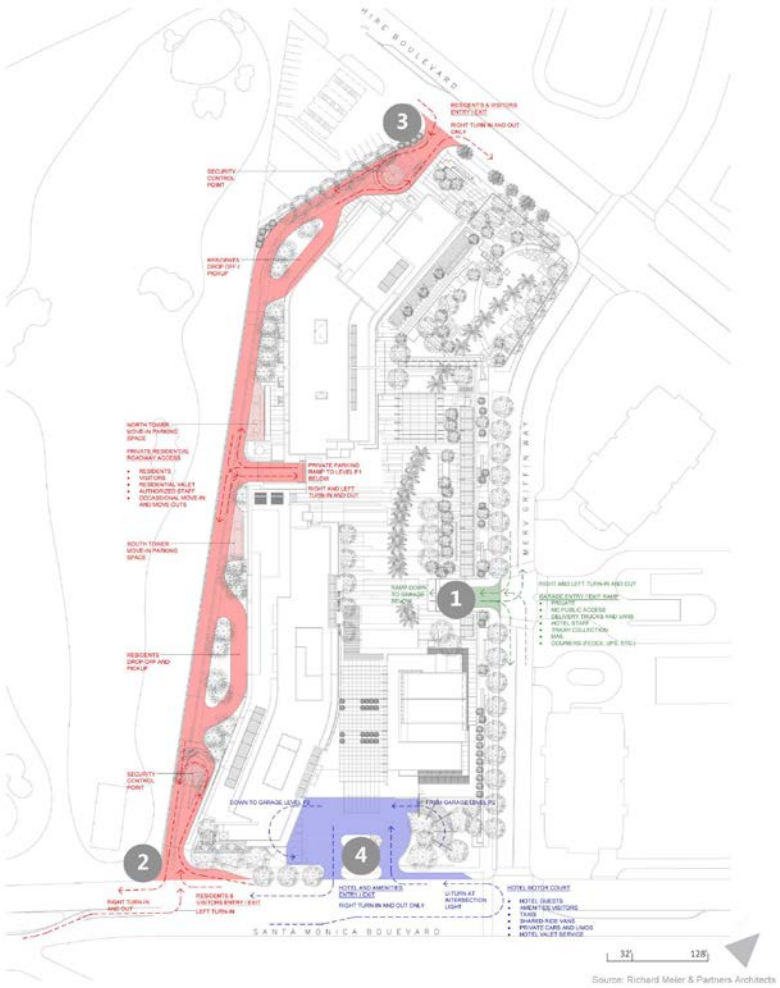


Figure 4A
Proposed One Beverly Hills Project Trips
Project Driveways - AM & PM Peak Hours



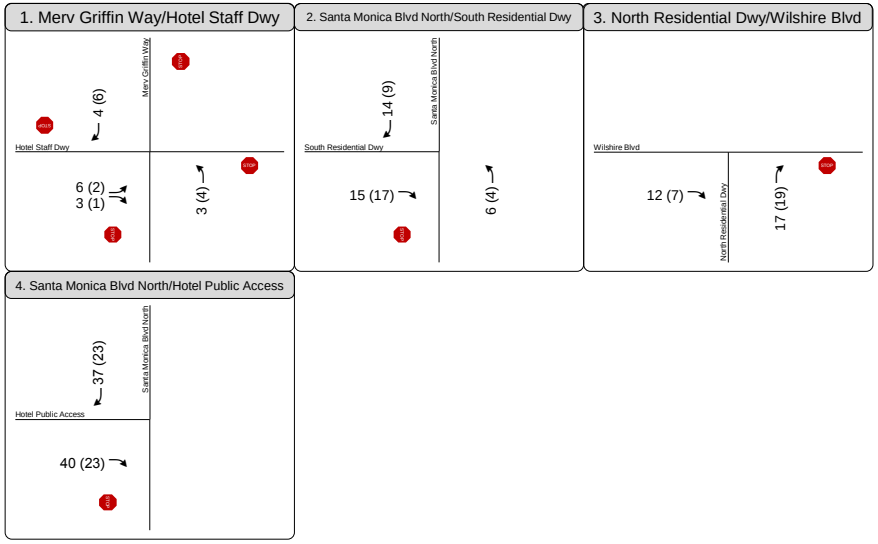


Figure 4B
Proposed One Beverly Hills Project Trips
Project Driveways - Mid-Day & Weekend Peak Hours

4.3 TRIP DISTRIBUTION

The distribution of project trips was estimated based on the trip distribution applied in the Original TIA and the trip distribution applied to the Beverly Hilton study. Since the Beverly Hilton trip distribution assumptions accounted for new hotel uses, both of the past studies were utilized to estimate the trip distribution. The project trip distribution is shown in **Figure 5**. Although the overall distribution of trips is similar to the Original TIA, the site access and circulation for the proposed One Beverly Hills project has been updated and therefore the project trip distribution at the driveways are subject to change and reflect designated access points for specific uses. Below are key trip distribution assumptions:

- The project is composed of a mixture of uses (hotel, condominiums, and restaurant) and it is expected that residents would travel to and from a wide variety of locations for various purposes. Potential trip purposes could include work, shopping, and recreation.
- A majority of the trips traveling to and from the site would be associated with major regional destinations. To the west, drivers can access I-405 which provides connectivity to destinations throughout the Westside. To the east, drivers could travel into Beverly Hills or further into the Mid-City area or Downtown Los Angeles.
- Some vehicles would travel to the north and south, although not as many as would travel to the east and west. Many of the vehicles traveling to the north or south would first travel to the west to access I-405 instead of traveling directly to the south along roadways like Beverly Drive or north to access Sunset Boulevard.

Figures 6A and **6B** provide the project trips from the proposed One Beverly Hills. **Figures 7A** and **7B** provide the difference in project trips between One Beverly Hills and 9900 Wilshire Boulevard (One Beverly Hills minus 9900 Wilshire).

Figure 5

One Beverly Hills

Project Trip Distribution

Figure 6A
Traffic Volumes & Lane Configurations
Proposed One Beverly Hills Project Only Trips - AM & PM Peak Hours

Figure 6B
Traffic Volumes & Lane Configurations
Proposed One Beverly Hills Project Only Trips - Mid-Day & Weekend Peak Hours

Figure 7A
Traffic Volumes & Lane Configurations
Change in Project Trips (One Beverly Hills - 9900 Wilshire Boulevard) - AM & PM Peak Hours

Figure 7B
Traffic Volumes & Lane Configurations
Change in Project Trips (One Beverly Hills - 9900 Wilshire Boulevard) - Mid-Day & Weekend Peak Hours

4.4 PLANNED ROADWAY IMPROVEMENTS

Several roadway improvements were previously identified in the Beverly Hilton Revitalization Project and 9900 Wilshire Boulevard Project. The roadway and intersection improvements in the project vicinity are described below:

- Reconstruct the Wilshire Boulevard eastbound approach to the Santa Monica Boulevard North & Wilshire Boulevard intersection to provide two left-turn lanes, three through lanes, and one right-turn lane.
- Signalize the intersection of Santa Monica Boulevard North & Merv Griffin Way.
- Reconstruct the Santa Monica Boulevard North southbound approach to the Santa Monica Boulevard North & Merv Griffin Way intersection to provide three through lanes.
- Reconstruct the Merv Griffin Way eastbound approach to the Santa Monica Boulevard North & Merv Griffin Way intersection to provide one left-turn lane and one right-turn lane.
- Reconstruct the Wilshire Boulevard northbound approach to the Whittier Drive/Merv Griffin Way and Wilshire Boulevard intersection to provide one left-turn lane, one through lane, and one right-turn lane.

For purpose of the impact analysis, these improvements were assumed to occur only as part of the plus Project scenarios (both 9900 Wilshire Boulevard and One Beverly Hills). For the intersection of Santa Monica Boulevard & Merv Griffin Way, the intersection was assumed to be signalized under the Cumulative (2020) Baseline scenario to allow a comparison of the intersection performance under the City's significance criteria for signalized intersections between baseline and plus project conditions.

Table 13 provides the existing and proposed plus project improvements for the study intersections.

TABLE 13:
ROADWAY IMPROVEMENTS

Intersection Number	Location	Leg	Intersection Control Improvement	Existing Lane Configuration	Existing plus Project Lane Configuration
2	Santa Monica Boulevard North & Wilshire Boulevard	West	None		
5	Santa Monica Boulevard North & Merv Griffin Way	North	SSSC[1] to Signalized		
		West			
7	Whittier Drive/Merv Griffin Way & Wilshire Boulevard	South	None		

(1) SSSC = Side-Street Stop Controlled

5.0 EXISTING BASELINE AND PLUS PROJECT CONDITIONS

This chapter presents the impact analysis for existing plus project conditions.

5.1 EXISTING BASELINE TRAFFIC VOLUMES

This scenario accounts for the trip generation of the previously approved 9900 Wilshire Boulevard project as a baseline for assessing traffic impacts of the proposed land use changes under One Beverly Hills. The traffic volumes for Existing plus Approved 9900 Wilshire Boulevard Project (i.e., existing baseline volumes) are comprised of the existing 2015 traffic count volumes with the 9900 Wilshire Project in place. Traffic volumes for the Existing Baseline Conditions are provided in **Figures 8A** and **8B**.

5.2 EXISTING BASELINE PLUS PROJECT VOLUMES

The traffic volumes for the existing baseline plus proposed One Beverly Hills are comprised of the existing traffic count volumes with the One Beverly Hills Project in place. The trip generation and trip distribution presented in the above chapter were used to generate the existing plus project traffic volumes. Traffic volumes for the Existing Baseline plus Project Conditions are provided in **Figures 9A** and **9B**.

Figure 8A
Traffic Volumes & Lane Configurations
Existing (2015) plus Approved 9900 Wilshire Boulevard Project - AM & PM Peak Hours

Figure 8B
Traffic Volumes & Lane Configurations
Existing (2015) plus Approved 9900 Wilshire Boulevard Project - Mid-Day & Weekend Peak Hours

Figure 9A
Traffic Volumes & Lane Configurations
Existing (2015) plus Proposed One Beverly Hills Project - AM & PM Peak Hours

Figure 9B
Traffic Volumes & Lane Configurations
Existing (2015) plus Proposed One Beverly Hills Project - Mid-Day & Weekend Peak Hours

5.3 EXISTING BASELINE AND PLUS PROJECT INTERSECTION LOS

As shown in **Table 14**, when comparing Existing plus 9900 Wilshire Boulevard with Existing plus One Beverly Hills, a majority of the intersections experience a decrease in V/C with the One Beverly Hills project in place. Those instances that experience an increase in V/C are not high enough to be considered a significant impact based on City of Beverly Hills or City of Los Angeles significance thresholds.

TABLE 14: EXISTING BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE

INTERSECTION	CONTROL	PEAK HOUR	EXISTING + APPROVED 9900 WILSHIRE		EXISTING + ONE BEVERLY HILLS		V/C CHANGE	SIGNIFICANT IMPACT?
			V/C	LOS[1,2]	V/C	LOS[1,2]		
1. Santa Monica Boulevard North & Beverly Drive	SIGNAL	AM	0.926	**E**	0.916	**E**	-0.010	NO
		MD	0.945	**E**	0.929	**E**	-0.016	NO
		PM	0.934	**E**	0.930	**E**	-0.004	NO
		WKND	0.921	**E**	0.904	**E**	-0.017	NO
2. Santa Monica Boulevard North & Wilshire Boulevard	SIGNAL	AM	0.957	**E**	0.943	**E**	-0.014	NO
		MD	0.851	D	0.839	D	-0.012	NO
		PM	0.894	D	0.877	D	-0.017	NO
		WKND	0.816	D	0.803	D	-0.013	NO
3. Santa Monica Boulevard South & Beverly Drive	SIGNAL	AM	0.858	D	0.856	D	-0.002	NO
		MD	0.792	C	0.786	C	-0.006	NO
		PM	0.891	D	0.887	D	-0.004	NO
		WKND	0.681	B	0.675	B	-0.006	NO
4. Santa Monica Boulevard South & Wilshire Boulevard	SIGNAL	AM	0.955	**E**	0.947	**E**	-0.008	NO
		MD	0.817	D	0.818	D	0.001	NO
		PM	0.904	**E**	0.899	D	-0.005	NO
		WKND	0.702	C	0.691	B	-0.011	NO
5. Santa Monica Boulevard North & Merv Griffin Way[3,4]	SIGNAL	AM	0.809	D	0.794	C	-0.015	NO
		MD	0.768	C	0.736	C	-0.032	NO
		PM	0.963	**E**	0.942	**E**	-0.021	NO
		WKND	0.685	B	0.654	B	-0.031	NO
6. Beverly Drive & Wilshire Boulevard	SIGNAL	AM	0.904	**E**	0.900	D	-0.004	NO
		MD	0.820	D	0.811	D	-0.009	NO
		PM	0.982	**E**	0.975	**E**	-0.007	NO
		WKND	0.765	C	0.756	C	-0.009	NO
	SIGNAL	AM	1.167	**F**	1.165	**F**	-0.002	NO

TABLE 14: EXISTING BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE

INTERSECTION	CONTROL	PEAK HOUR	EXISTING + APPROVED 9900 WILSHIRE		EXISTING + ONE BEVERLY HILLS		V/C CHANGE	SIGNIFICANT IMPACT?
			V/C	LOS[1,2]	V/C	LOS[1,2]		
7. Whittier Drive/Merv Griffin Way & Wilshire Boulevard		MD	0.884	D	0.881	D	-0.003	NO
		PM	1.253	**F**	1.254	**F**	0.001	NO
		WKND	0.852	D	0.850	D	-0.002	NO
8. Santa Monica Boulevard & Crossover	SIGNAL	AM	0.936	**E**	0.934	**E**	-0.002	NO
		MD	0.699	B	0.693	B	-0.006	NO
		PM	0.778	C	0.776	C	-0.002	NO
		WKND	0.612	B	0.606	B	-0.006	NO
9. Santa Monica Boulevard & Century Park East	SIGNAL	AM	0.781	C	0.781	C	0	NO
		MD	0.392	A	0.395	A	0.003	NO
		PM	0.557	A	0.563	A	0.006	NO
		WKND	0.319	A	0.322	A	0.003	NO
10. Whittier Drive & Sunset Boulevard	SIGNAL	AM	0.951	**E**	0.949	**E**	-0.002	NO
		MD	0.806	D	0.798	C	-0.008	NO
		PM	1.052	**F**	1.044	**F**	-0.008	NO
		WKND	0.722	C	0.715	C	-0.007	NO
11. Santa Monica Boulevard & Avenue of the Stars	SIGNAL	AM	0.534	A	0.540	A	0.006	NO
		MD	0.397	A	0.400	A	0.003	NO
		PM	0.580	A	0.584	A	0.004	NO
		WKND	0.350	A	0.351	A	0.001	NO

Source: Fehr & Peers, 2016.

Notes:

>50 Indicates oversaturated conditions at LOS F for SSSC intersections.

SSSC indicates Side street stop-controlled intersection

[1] LOS calculations for Beverly Hills signalized intersections were performed using the ICU methodology and LOS for Los Angeles signalized intersections were performed using the CMA methodology..

[2] Unacceptable seconds of delay per vehicle or volume-to-capacity (V/C) ratios and LOS highlighted in bold.

[3] LOS calculations performed using the 2000 *Highway Capacity Manual (HCM)* method.

[4] The vehicular delay for the worst movement is reported for side street stop-controlled intersections.

6.0 CUMULATIVE CONDITIONS

This chapter addresses the impacts of the proposed project under cumulative conditions, which represents conditions as they are expected to occur with the buildout of One Beverly Hills.

6.1 TRAFFIC FORECASTS

A variety of sources were consulted to develop the cumulative traffic forecasts. These sources include:

- Existing traffic counts as collected in September 2015
- Traffic from the approved 9900 Wilshire Boulevard project
- Traffic from approved and pending projects in the City of Beverly Hills, City of Los Angeles and City of West Hollywood
- Ambient growth in existing traffic volumes to reflect growth in regional traffic (a growth rate of one (1) percent per year was applied to reflect this ambient growth)

The list of related projects used to develop the cumulative traffic forecasts is provided below in **Table 15**.

The cumulative analysis evaluates the Year 2020, which is the year One Beverly Hills is expected to be built out. Traffic volumes for the Cumulative (2020) Baseline Conditions (with the approved 9900 Wilshire Boulevard project) are shown on **Figures 10A** and **10B**. The traffic volumes for the Cumulative (2020) plus Project Conditions (with the proposed One Beverly Hills Project) are shown on **Figures 11A** and **11B**.

TABLE 15
RELATED PROJECT TRIP GENERATION | Submitted to City of Beverly Hills on October 21, 2015

ID	PROJECT LAND USE DESCRIPTION	PROJECT LOCATION	TRIP GENERATION ESTIMATES												
			WEEKDAY										WEEKEND		
			DAILY	AM PEAK HOUR			MID-DAY PEAK HOUR			PM PEAK HOUR			SATURDAY MD PEAK HOUR		
				IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
	City of Beverly Hills														
1	15.899 KSF retail shopping center, 26.196 KSF office, 1.8 restaurant[23]	257 North Canon Drive	1,200	57	21	78	79	70	149	48	71	119	70	56	126
2	7.1 KSF Quality Restaurant*[, 17]	246 North Canon Drive	630	24	12	36	24	23	47	39	24	63	44	31	75
3	8 Condominiums*[, 17]	250 North Crescent Drive	46	1	3	4	2	1	3	3	1	4	2	2	4
4	23 Condominiums*[, 17]	9262 Burton Way	134	8	2	10	4	4	8	8	4	12	6	5	11
5	7.8 KSF Post Office, 3.7 KSF Retail, & 88.5 KSF Creative Office*[, 1, 17]	325 North Maple Drive	280	92	16	108	27	27	54	0	72	72	10	10	20
6	35 Condominiums*[, 17]	450-460 North Palm Drive	205	3	12	15	6	6	12	12	6	18	9	7	16
7	16 Condominiums*[, 17]	154-168 North La Peer Drive	93	5	2	7	3	2	5	6	2	8	5	3	8
8	20 Condominiums*[, 17]	425 North Palm Drive	110	2	7	9	4	3	7	7	4	11	5	3	8
9	19.8 KSF Automobile Sales*[, 17]	8955 Olympic Boulevard	660	26	18	44	21	20	41	24	30	54	30	30	60
10	13.3 KSF Office, 1 KSF Fast Food w/o Drive Thru, & 4.7 KSF Variety Store*[, 17]	9212 Olympic Boulevard	1,068	68	47	115	36	36	72	45	51	96	43	40	83
11	31 Condominiums*[, 17]	332 North Oakhurst Drive	186	3	11	14	5	5	10	10	5	15	8	6	14
12	30 Condominiums*[, 17]	305-239 South Elm Drive	174	2	11	13	5	5	10	10	6	16	8	6	14
13	27 Condominiums*[, 17]	9908 South Santa Monica Boulevard	157	4	8	12	5	4	9	10	4	14	6	7	13
14	1.7 KSF Office*[, 17]	207 South Robertson Boulevard	19	2	0	2	0	0	0	0	3	3	0	0	0
15	31.7 KSF Office*[, 17]	9000 Wilshire Boulevard	105	13	2	15	1	1	2	3	12	15	2	1	3
16	21 Apartments, 4 Townhouses, 2.9 KSF Medical Office & 1.9 KSF Retail[2, 17]	8600 Wilshire Boulevard	244	7	12	19	9	9	18	11	13	24	12	10	22
17	37.5 KSF Medical Office, 22.1 KSF Office, 12.5 KSF Retail, & 3 KSF Quality Restaurant*[, 3, 17]	8767 Wilshire Boulevard	2,543	131	33	164	86	86	172	78	151	229	156	141	297
18	53 Condominiums, 5.6 KSF Quality Restaurant, & 8.4 Retail*[, 4, 17]	9200 Wilshire Boulevard	945	9	22	31	31	31	62	51	31	82	57	44	101
19	Jim Falk Lexus Project*[, 5]	9230 Wilshire Boulevard	3,000	47	30	77	28	25	53	23	50	73	26	20	46
20	120 Condominiums, 522 Hotel Rooms, & 12.3 KSF Restaurant[6]	9876 Wilshire Boulevard	649	1	15	16	29	55	84	45	12	57	42	23	65
21	35 KSF Medical-Dental Office Building*[, 17]	121 San Vicente Boulevard	1,265	68	18	86	6	7	13	35	95	130	72	55	127
	City of West Hollywood														
22	Mixed-Use**[, 20]	8816 Beverly Boulevard	959	47	18	65	32	32	64	31	54	85	31	54	85
23	La Peer Hotel**[, 20]	623 La Peer Drive	876	28	24	52	36	32	68	36	32	68	36	32	68
24	Hotel, Restaurant, & Retail**[, 17, 20]	645 Robertson Boulevard	18,412	189	122	311	406	406	812	549	534	1,083	549	534	1,083
25	Mixed-Use**[, 21]	9001 Santa Monica Boulevard	829	8	16	24	49	9	58	31	16	47	22	29	51
26	Mixed-Use**[, 21]	9040, 9060, 9080, 9098 Santa Monica Boulevard	3,578	193	67	260	218	212	430	123	180	303	173	159	332
	City of Los Angeles														
27	483 Condominium[7, 17, 19, 20]	10131 Constellation Boulevard	(1,636)	(37)	85	48	(50)	(50)	(100)	(49)	(105)	(154)	(49)	(105)	(154)
28	West Century City - New Century Plan Project[9, 17]	10250 West Santa Monica Boulevard	5,922	(235)	58	(177)	137	136	273	290	74	364	367	353	720
29	Museum of Tolerance Expansion[10, 17, 19]	9786 West Pico Boulevard	1,713	139	103	242	94	93	187	131	118	249	131	118	249
30	YULA Boys High School Expansion[11, 13, 17]	9760 West Pico Boulevard	820	99	65	164	32	32	64	35	64	99	0	0	0
31	Century Plaza Mixed Use Development[12, 17, 19, 20]	2025 South Avenue of the Stars	(826)	69	12	81	46	46	92	(8)	131	123	(8)	131	123
32	Bellwood Avenue Senior Care & Medical Office Project***[, 18, 19]	10330 West Bellwood Avenue	958	63	17	80	6	8	14	39	101	140	50	38	88
				(7)	(15)	(22)	(9)	(9)	(18)	(15)	(12)	(27)	(21)	(22)	(43)
33	283 Condominiums[17, 19, 22]	10000 West Santa Monica Boulevard	1,189	18	78	96	35	35	70	67	41	108	49	65	114
34	71.7 KSF New Retail & Renovation of the Century City (Westfield) Shopping Center***[, 18, 19, 20]	10250 West Santa Monica Boulevard	1,350	16	10	26	54	54	108	69	75	144	75	144	219
35	Century City Center Project**[, 14, 19]	1950 South Avenue of the Stars	3,404	393	21	414	139	139	278	33	337	370	169	144	312
36	32 Apartments***[, 18, 19]	888 South Devon Avenue	213	3	13	16	5	5	10	10	6	16	8	9	17
37	140 Condominiums[15, 17, 19]	300 South Wetherly Drive	270	3	17	20	7	7	14	16	6	22	1	(2)	(1)
38	Cedars-Sinai Medical Center Project - West Tower (New medical building with 100 hospital beds)[16, 19]	8723 West Alden Drive	1,181	79	34	113	6	7	13	47	83	130	47	53	100
		TOTAL RELATED PROJECT TRIPS	**52,925**	**1,641**	**1,047**	**2,688**	**1,654**	**1,614**	**3,268**	**1,903**	**2,382**	**4,285**	**2,243**	**2,234**	**4,476**

Notes

* Daily, AM peak hour, PM peak hour, and Saturday MD peak hour trip generation estimates were provided by City of Beverly Hills staff unless noted otherwise (August 2015).

** Daily, AM peak hour, and PM peak hour trip generation estimates were provided by City of West Hollywood staff unless noted otherwise (October 2015).

*** The total net new trip generation estimates for the daily, AM peak hour, and PM peak hour were provided by Los Angeles Department of Transportation staff unless noted otherwise (August 2015).

[1] AM and PM peak hour trip estimates were obtained from the *Beverly Hills Post Office Traffic Impact Analysis* (Fehr & Peers, 2015).

[2] Daily trip estimates and AM, PM, and Saturday MD peak hour trip estimates were obtained from the *Traffic Study for the 8600-8612 Wilshire Mixed-Use Project* (Kaku Associates, 2005).

[3] Daily trip estimates and AM, PM, and Saturday MD peak hour trip estimates were obtained from the *8767 Wilshire Boulevard - Supplemental Updated Traffic Impact Analysis* (Fehr & Peers, 2013).

[4] Daily trip estimates and AM, PM, and Saturday MD peak hour trip estimates were obtained from the Option 1 trip generation provided in the *Traffic Study for the 9200 Wilshire Mixed-Use Project Beverly Hills* (Fehr & Peers, 2005).

[5] All peak hour trip estimates were obtained from the *Traffic and Parking Study for the Beverly Hills Lexus Expansion Project* (Fehr & Peers, 2010).

[6] All net new trip estimates were obtained from the *Traffic Study for Beverly Hills Revitalization Plan* (Fehr & Peers, 2007).

[7] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the *Traffic Study for 10131 Constellation Boulevard Residential Project* (Kaku Associates, 2005).

[8] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the *Traffic Impact Analysis Report of the Bellwood Avenue Residential* (Hirsch/Green Transportation Consulting, 2007).

[9] Daily trip estimates and AM, PM, and Saturday MD peak hour trip estimates were obtained from the *Traffic Impact Study for Westfield Century City New Century Plan* (Linscott, Law, & Greenspan, 2007).

[10] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the *Traffic Assessment for the Proposed Expansion Project of the Museum of Tolerance Located at 9786 West Pico Boulevard* (City of Los Angeles, 2008).

[11] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the *YULA Boys High School Expansion - Recirculated Traffic/Transportation/Parking Chapter* (Crain & Associates, 2009).

[12] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the Option B trip generation provided in the *Century Plaza Mixed Use Development Environmental Impact Report* (City of Los Angeles, 2011).

[13] Due to the type of uses it was assumed that the Saturday MD peak hour trips generated by the project would be negligible.

[14] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the *Transportation Study for the Century City Center Project* (Gibson Transportation Consulting, 2012).

[15] Daily trips estimates and AM and PM peak hour trip estimates were obtained from the *Revised Traffic Impact Analysis for the Proposed Residential Development Located at 300 South Wetherly Drive* (City of Los Angeles, 2008).

[16] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the *Traffic Impact Study for Cedars-Sinai Medical Center Project* (Linscott, Law, & Greenspan, 2008).

[17] Weekday MD peak hour trips were estimated using the approach used in the *Traffic Study for 9900 Wilshire Project* (Fehr & Peers, 2007), where a factor was applied to the total PM peak hour trips to yield the total MD peak hour trips. Both the factors and in/out split percentages used are dependent on the related project's land use type. Below is a summary of the factors and in/out split percentages used:

- Total MD peak hour trip generation estimates for retail, restaurant, and mixed uses are assumed to be 0.75 of the total PM peak hour trips with a 50%/50% in/out split
- Total MD peak hour trip generation estimates for office uses are assumed to be 0.10 of the total PM peak hour trips with a 45%/50% in/out split
- Total MD peak hour trip generation estimates for residential and educational uses are assumed to be 0.65 of the total PM peak hour trips with a 50%/50% in/out split

[18] AM and PM peak hour trip generation and directional distribution estimates were developed based on *Trip Generation, 9th Edition* (ITE, 2012).

[19] Saturday MD peak hour trip generation and directional distribution estimates were developed based on *Trip Generation, 9th Edition* (ITE, 2012).

[20] Due to limited information, Saturday MD peak hour trip generation estimates were assumed to be similar to PM peak hour trip generation estimates.

[21] Daily trip estimates and AM and PM peak hour trip estimates were obtained from the *Revised Traffic Impact Analysis for the Melrose Triangle Project* (LSA, 2013).

[22] Daily trips estimates and AM and PM peak hour trip estimates were obtained from the *Revised Traffic Assessment for the Proposed Residential Project at 10000 West Santa Monica Boulevard* (City of Los Angeles, 2011).

[23] All net new trip estimates were obtained from the *257 N. Canon Drive Traffic Impact Study* (Overland Traffic Consultants, 2009).

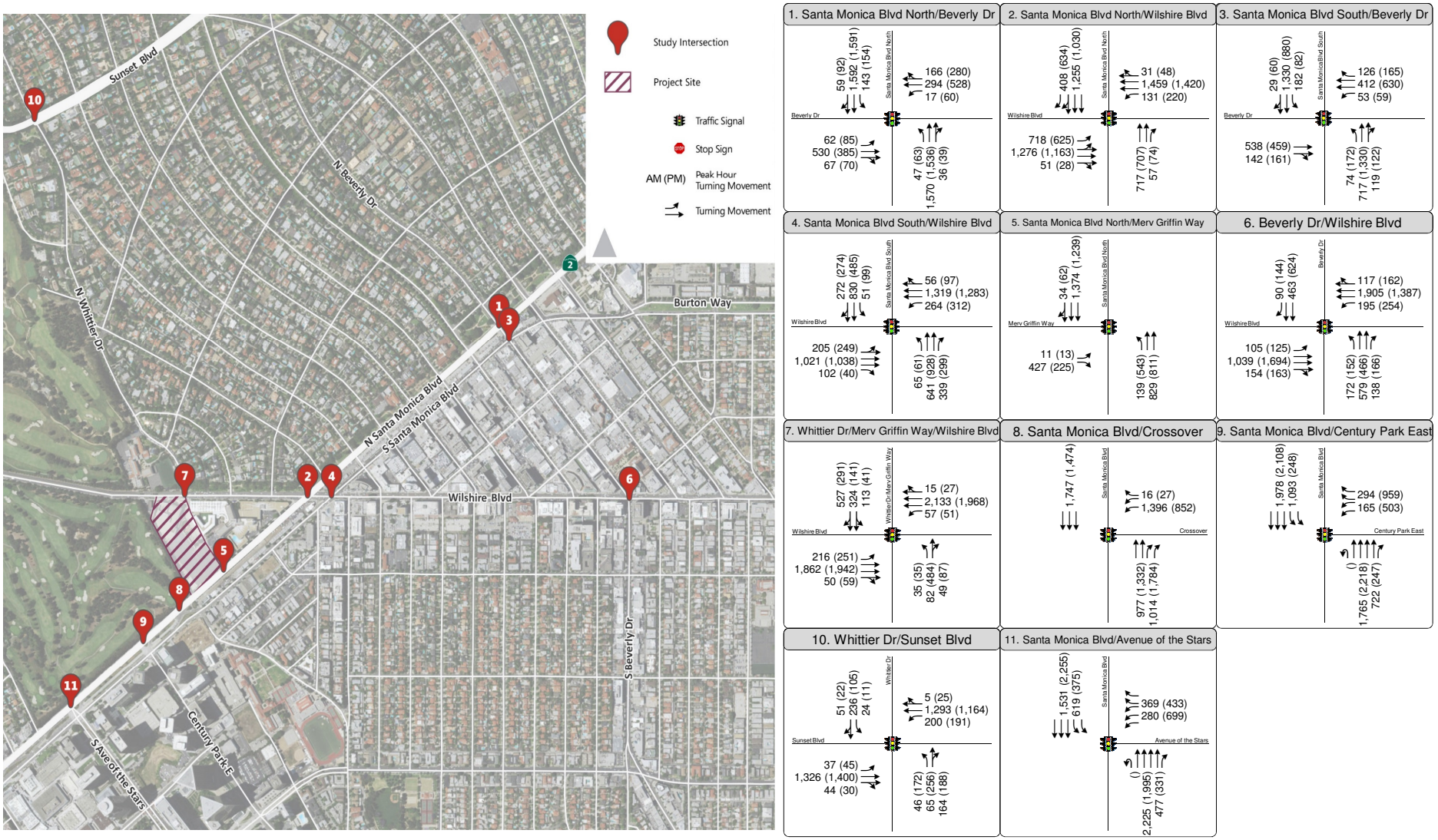


Figure 10A
Traffic Volumes & Lane Configurations
Cumulative (2020) - AM & PM Peak Hours

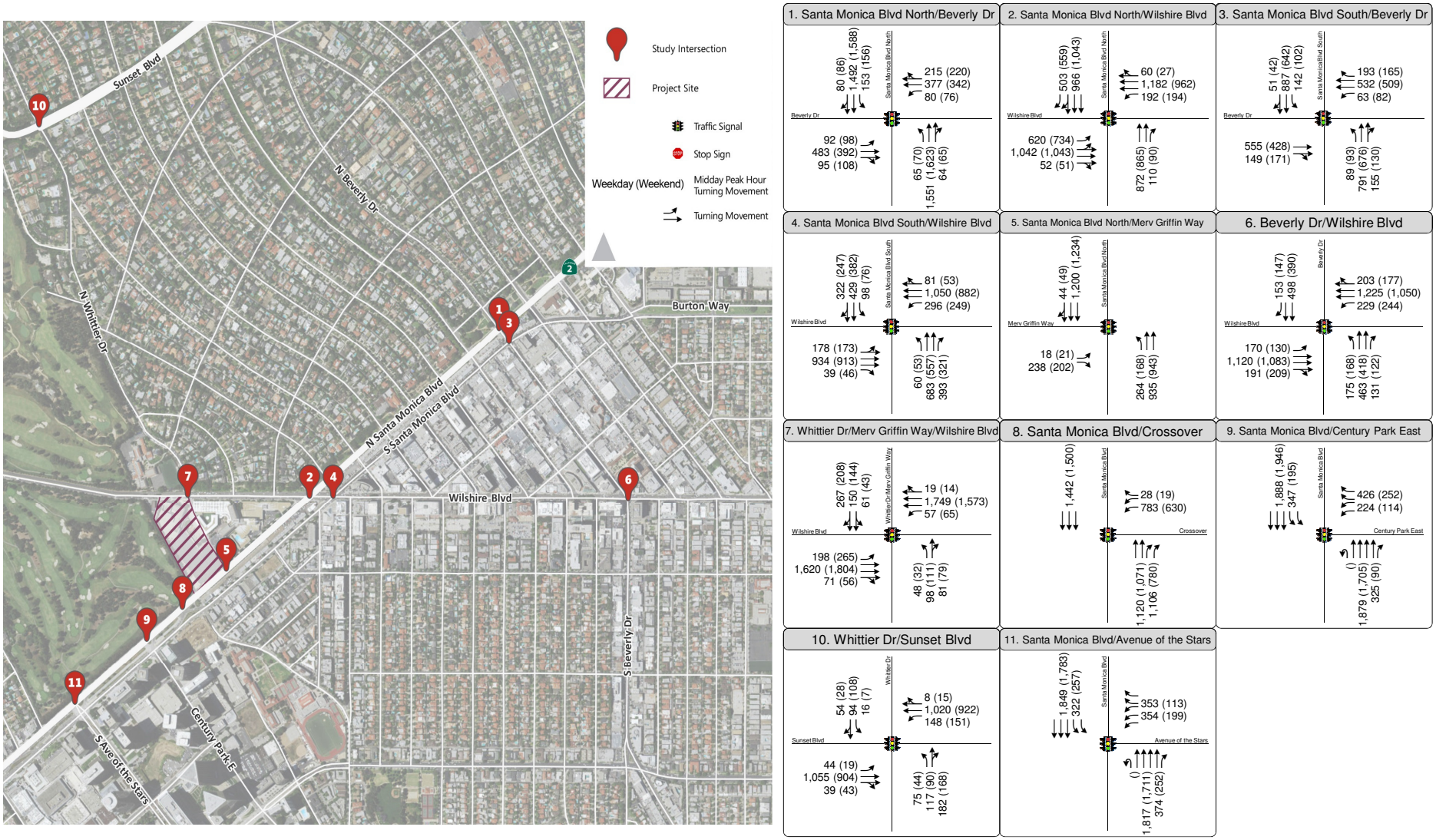


Figure 10B
Traffic Volumes & Lane Configurations
Cumulative (2020) - Mid-Day & Weekend Peak Hours

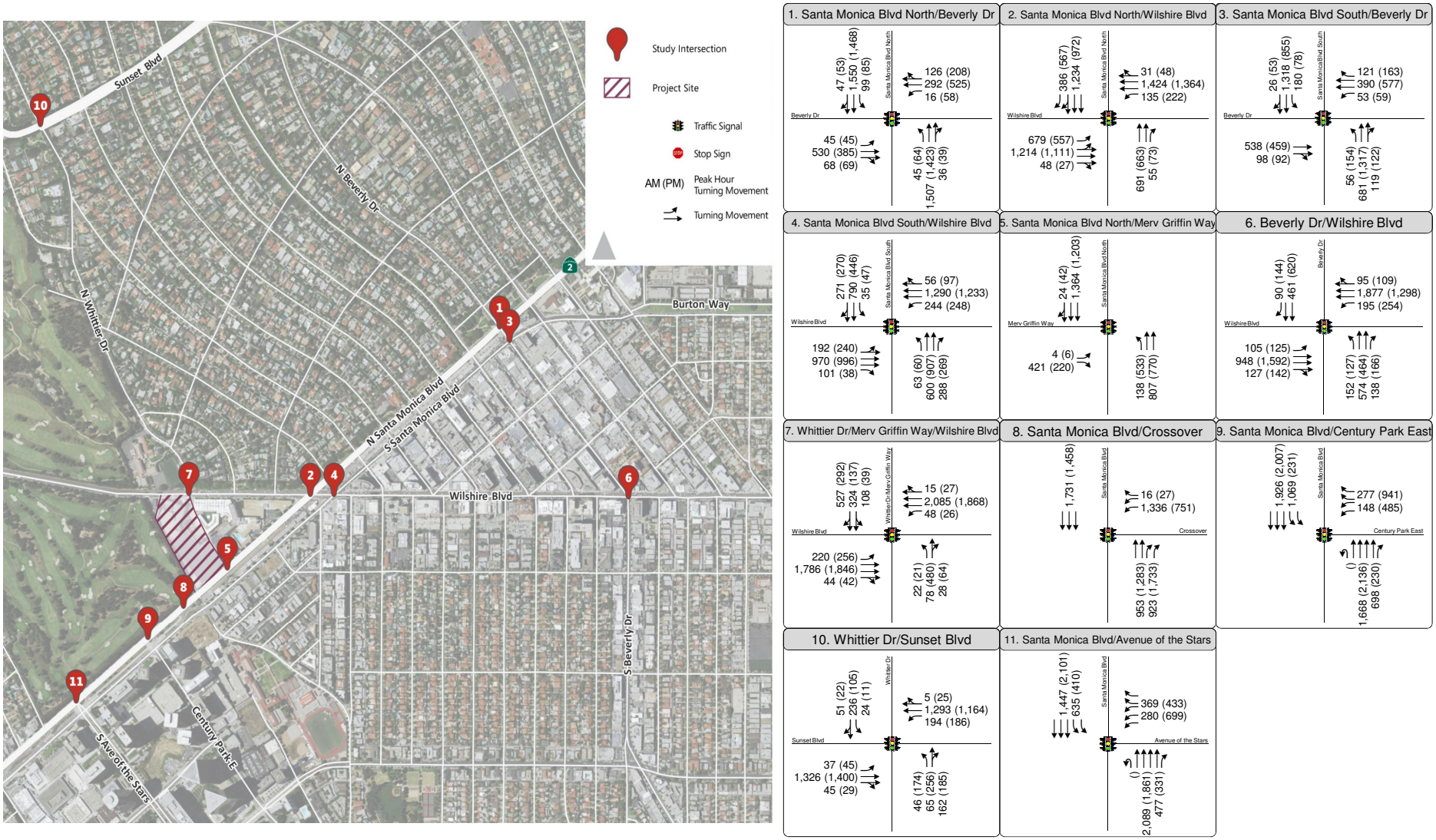


Figure 11A
Traffic Volumes & Lane Configurations
Cumulative (2020) plus Proposed One Beverly Hills Project - AM & PM Peak Hours

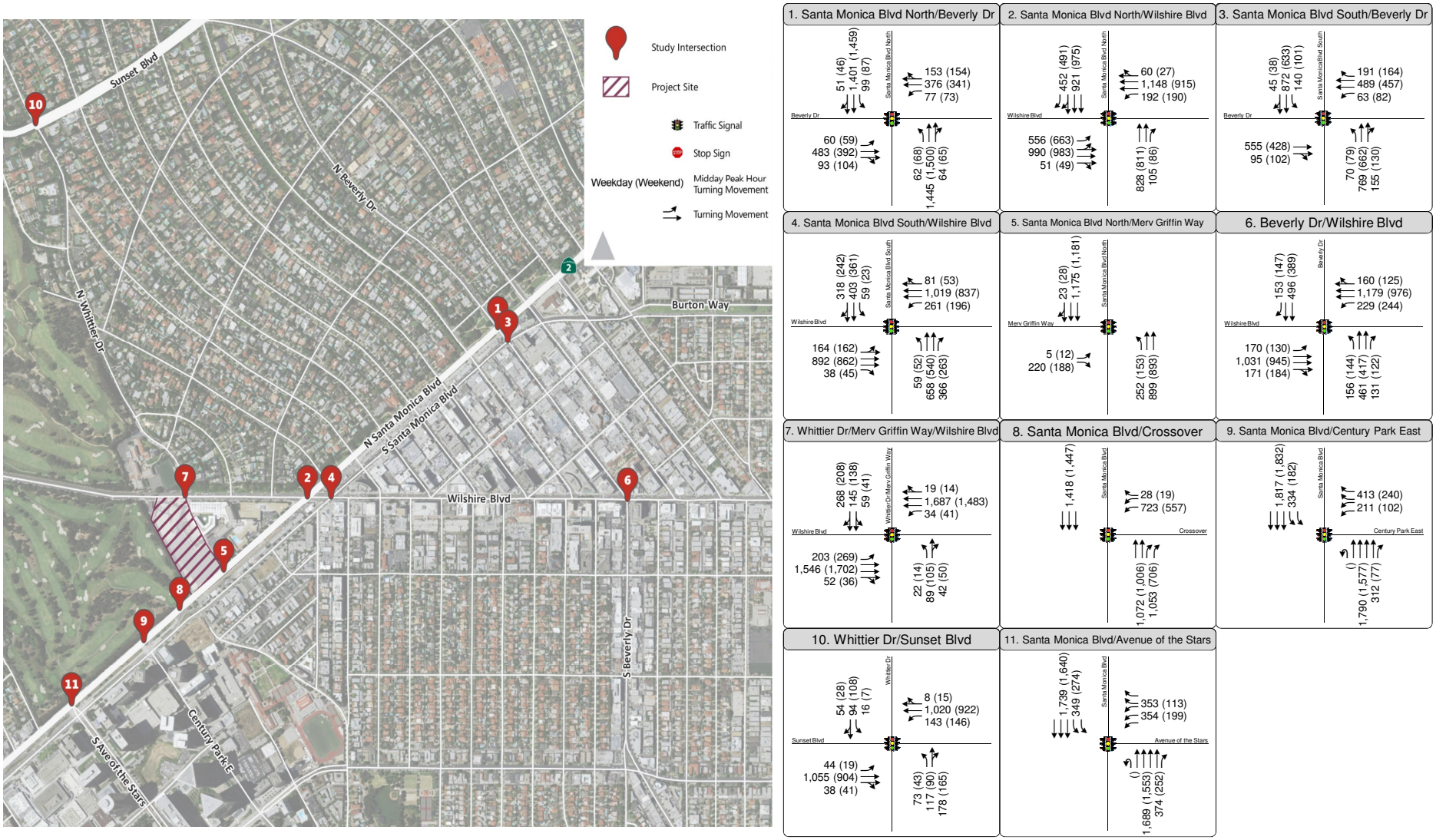


Figure 11B
Traffic Volumes & Lane Configurations
Cumulative (2020) plus Proposed One Beverly Hills Project - Mid-Day & Weekend Peak Hours

6.2 CUMULATIVE (2020) INTERSECTION LOS

As shown in **Table 16**, without the proposed project the majority of the study intersections will be operating at an LOS of E or F in Year 2020 for at least one of the peak periods. With the project in place in Year 2020, some intersections will experience a decrease in V/C. The cumulative baseline analysis assumes the implementation of the previously approved 9900 Wilshire Boulevard project. Consequently, the lower trip generation of the proposed One Beverly Hills project during most peak hours results in the a decrease in V/C at the majority of the study intersections. The instances in which there is an increase of V/C for intersections already operating at LOS E or F, the increase is not expected to cause a significant impact.

TABLE 16: CUMULATIVE (2020) INTERSECTION LEVEL OF SERVICE

INTERSECTION	CONTROL	PEAK HOUR	CUMULATIVE (2020) BASELINE		CUMULATIVE + ONE BEVERLY HILLS		V/C CHANGE	SIGNIFICANT IMPACT?
			V/C	LOS[1,2]	V/C	LOS[1,2]		
1. Santa Monica Boulevard North & Beverly Drive	SIGNAL	AM	0.975	**E**	0.974	**E**	-0.001	NO
		MD	1.036	**F**	1.036	**F**	0	NO
		PM	1.093	**F**	1.095	**F**	0.002	NO
		WKND	1.058	**F**	1.056	**F**	-0.002	NO
2. Santa Monica Boulevard North & Wilshire Boulevard	SIGNAL	AM	1.197	**F**	0.981	**E**	-0.216	NO
		MD	1.075	**F**	0.904	**E**	-0.171	NO
		PM	1.143	**F**	0.942	**E**	-0.201	NO
		WKND	1.041	**F**	0.881	D	-0.16	NO
3. Santa Monica Boulevard South & Beverly Drive	SIGNAL	AM	0.895	D	0.895	D	0	NO
		MD	0.815	D	0.814	D	-0.001	NO
		PM	0.917	**E**	0.916	**E**	-0.001	NO
		WKND	0.716	C	0.714	C	-0.002	NO
4. Santa Monica Boulevard South & Wilshire Boulevard	SIGNAL	AM	0.995	**E**	0.992	**E**	-0.003	NO
		MD	0.904	**E**	0.906	**E**	0.002	NO
		PM	1.006	**F**	1.006	**F**	0	NO
		WKND	0.800	C	0.800	C	0	NO
5. Santa Monica Boulevard North & Merv Griffin Way[3,4]	SIGNAL	AM	0.826	D	0.828	D	0.002	NO
		MD	0.789	C	0.786	C	-0.003	NO
		PM	0.990	**E**	0.995	**E**	0.005	NO
		WKND	0.722	C	0.715	C	-0.007	NO
6. Beverly Drive & Wilshire Boulevard	SIGNAL	AM	0.921	**E**	0.922	**E**	0.001	NO
		MD	0.857	D	0.856	D	-0.001	NO
		PM	1.028	**F**	1.029	**F**	0.001	NO

TABLE 16: CUMULATIVE (2020) INTERSECTION LEVEL OF SERVICE

INTERSECTION	CONTROL	PEAK HOUR	CUMULATIVE (2020) BASELINE		CUMULATIVE + ONE BEVERLY HILLS		V/C CHANGE	SIGNIFICANT IMPACT?
			V/C	LOS[1,2]	V/C	LOS[1,2]		
		WKND	0.820	D	0.818	D	-0.002	NO
7. Whittier Drive/Merv Griffin Way & Wilshire Boulevard	SIGNAL	AM	1.204	**F**	1.172	**F**	-0.032	NO
		MD	0.956	**E**	0.903	**E**	-0.053	NO
		PM	1.334	**F**	1.277	**F**	-0.057	NO
		WKND	0.928	**E**	0.874	D	-0.054	NO
8. Santa Monica Boulevard & Crossover	SIGNAL	AM	0.989	**E**	0.992	**E**	0.003	NO
		MD	0.761	C	0.763	C	0.002	NO
		PM	0.858	D	0.864	D	0.006	NO
		WKND	0.691	B	0.691	B	0	NO
9. Santa Monica Boulevard & Century Park East	SIGNAL	AM	0.862	D	0.835	D	-0.027	NO
		MD	0.470	A	0.444	A	-0.026	NO
		PM	0.696	B	0.671	B	-0.025	NO
		WKND	0.418	A	0.385	A	-0.033	NO
10. Whittier Drive & Sunset Boulevard	SIGNAL	AM	0.947	**E**	0.948	**E**	0.001	NO
		MD	0.802	D	0.800	C	-0.002	NO
		PM	1.044	**F**	1.043	**F**	-0.001	NO
		WKND	0.718	C	0.716	C	-0.002	NO
11. Santa Monica Boulevard & Avenue of the Stars	SIGNAL	AM	0.624	B	0.629	B	0.005	NO
		MD	0.472	A	0.476	A	0.004	NO
		PM	0.659	B	0.662	B	0.003	NO
		WKND	0.430	A	0.432	A	0.002	NO

Source: Fehr & Peers, 2016.

Notes:

>50 Indicates oversaturated conditions at LOS F for SSSC intersections.

SSSC indicates Side street stop-controlled intersection

[1] LOS calculations for Beverly Hills signalized intersections were performed using the ICU methodology and LOS for Los Angeles signalized intersections were performed using the CMA methodology.

[2] Unacceptable seconds of delay per vehicle or volume-to-capacity (V/C) ratios and LOS highlighted in bold.

[3] LOS calculations performed using the 2000 *Highway Capacity Manual (HCM)* method.

[4] The vehicular delay for the worst movement is reported for side street stop-controlled intersections.

7.0 ACTIVE TRANSPORTATION SYSTEM

This chapter discusses projects impacts related to the surrounding active transportation system. The transit, bicycle and pedestrian impacts of the proposed project were compared to the approved 9900 Wilshire Boulevard project.

7.1 SIGNIFICANCE CRITERIA

The following significance criteria were applied to determine if the project would disrupt existing active transportation services or facilities:

> *An impact would be considered significant for active forms of transportation if the project conflicts with adopted policies, plans, or programs supporting active transportation.*

7.2 PROJECT IMPACTS

Disruptions to Existing Transit Service

Existing transit service is provided along the project frontage on Wilshire Boulevard and Santa Monica Boulevard. The proposed One Beverly Hills project's impacts to existing transit service are as follows:

- ***Project Driveways***: Potential disruptions to existing transit service could occur with the addition of any project driveways. The proposed project would add one driveway along Wilshire Boulevard and one driveway along Santa Monica Boulevard to serve the residential uses. The hotel driveway on Santa Monica Boulevard would have separated inbound and outbound drive aisles. The hotel driveway would serve the largest volume of peak hour vehicle trips to/from the project site. However, vehicles traveling on westbound Santa Monica Boulevard would have a turn pocket to access the hotel and would not disrupt the flow of vehicles, including buses, along Santa Monica Boulevard when slowing down to access the project site.

- ***New Traffic Signal***: Another potential disruption would be the new traffic signal at Santa Monica Boulevard & Merv Griffin Way. This signal was required under the approval of the 9900 Wilshire Boulevard project and the Beverly Hilton Revitalization project and was assumed to be in place under baseline conditions. Currently, this intersection operates under side-street stop sign control, consequently the transit vehicles on Santa Monica Boulevard are not required to stop with the current traffic control system. The new traffic signal would result in some delay at this intersection for transit vehicles but this delay would be minimal as a majority of the signal cycle would be allocated to Santa Monica Boulevard to facilitate movement of traffic on the major street.

The land use and site access changes under One Beverly Hills would not result in a disruption to existing transit service. Therefore, the impact would be less than significant and no mitigation would be required.

Disruptions to Planned Transit Service

No major transit projects are planned on Wilshire Boulevard or Santa Monica Boulevard. The land use and site access changes under One Beverly Hills would not result in a disruption to planned transit service. Therefore, the impact would be less than significant and no mitigation would be required.

Disruptions to Existing Bicycle Facilities

There are no existing bicycle facilities adjacent to the project site. Therefore, the project impact is less than significant and no mitigation is required.

Project Interferes with Planned Bicycle Facilities

There are no planned bicycle facilities adjacent to the project site. Therefore, the project impact is less than significant and not mitigation is required.

Conflicts with Adopted Bicycle System Plans, Guidelines, Policies, or Standards

Since there are no existing or planned bicycle facilities along the project frontage, there is no conflict with the adopted system, plan, or other standards. The impact is therefore less than significant and no mitigation is required.

Disruptions to Existing Pedestrian Facilities

The project site plan proposes to maintain the existing sidewalks along the project frontage on Santa Monica Boulevard and Wilshire Boulevard. While the project will add additional driveways along both frontages, these driveways are not expected to result in a significant impact to pedestrians. Therefore, the impact is considered to be less than significant and no mitigation is required.

Interferes with Planned Pedestrian Facilities

There are no planned pedestrian facilities along the project frontage; therefore, the project impact is less than significant and no mitigation is required.

Conflicts with Adopted pedestrian System Plans, Guidelines, Policies, or Standards

There are no adopted plans to add pedestrian facilities along the project frontage. The impact is therefore less than significant and no mitigation is required.

8.0 CONSTRUCTION IMPACTS

This chapter reviews the potential construction impacts of the proposed One Beverly Hills project. The construction intensity and phasing of the proposed project was compared to the approved 9900 Wilshire Boulevard project.

8.1 SIGNIFICANCE CRITERIA

The following significance criteria was applied to determine if the project would result in a construction traffic-related impact:

> *An impact would be considered significant on roadway facilities if the construction of a project creates a temporary, but prolonged impact due to lane closure, need for temporary signals, emergency vehicle access, traffic hazards to bicycles and/or pedestrians, damage to the roadbed, truck traffic on roadways not designated as truck routes, and other similar impediments to circulation.*

8.2 PROJECT IMPACTS

The initial construction phase consisting of demolition of the site has already been completed. Based on information provided by the project applicant, the remaining construction elements are as follows:

- Excavation of Subterranean Parking Garage:
  - 5-month duration
  - Approximately 162 truckloads per day for up to five months or 300 trucks per day for up to 2 ½ months (compared to 225 to 275 truckloads of material per day over a 5- to 6-week period with the approved 9900 Wilshire project)
  - Fewer than 40 workers per day (same as approved 9900 Wilshire project)
  - Worker parking would occur on project site

- Parking Garage Construction:
  - 8-month duration
  - 150 workers per day at peak construction periods (same as approved 9900 Wilshire project)
  - Off-site parking in West LA with shuttle service to/from project site

- Construction and Finishing of Plaza and Buildings:
  - 21-month duration

- 500 workers per day (same as approved 9900 Wilshire project)
- Workers will parking in on-site parking garage

Like the approved 9900 Wilshire project, there are three main construction traffic impacts associated with the project:

- Trucks traveling to and from the site to remove debris, fill, and other items (haul trucks)
- Equipment and material delivery/staging
- Worker traffic
- Worker parking

Haul Truck Traffic

Similar to the approved 9900 Wilshire project, the applicant has proposed to stage haul trucks (trucks intended to carry excavated soil) off-site at a location along Sepulveda Boulevard where they would be dispatched to the site as necessary. The trucks would travel to the site along Sepulveda and Wilshire Boulevard and exit the site using Santa Monica Boulevard. From Santa Monica Boulevard, the trucks would travel to I-405, which would allow them to travel to their final landfill destination outside of the City of Beverly Hills. The applicant has proposed to route trucks onto the major roadways surrounding the site, which are the ones most suitable for truck traffic.

Even though the applicant's construction management plan provides for truck staging and designates appropriate travel routes to access the site, trucks could impact the adjacent roadway network as follows:

- The roadways designated as the truck routes for the project are already some of the most congested in the City of Beverly Hills and the City of Los Angeles.
- There is no guarantee that truck traffic will not deviate from the designated routes and impact other roadways when traveling to and from the site.
- The number of trucks required to access the site during the excavation process could be as many as 300 trucks per day for 2½ months.

These challenges were also identified in the transportation study for the 9900 Wilshire project.

Delivery and Staging of Material and Equipment

Another source of construction traffic would derive from the transportation of materials and equipment to the site. One example would be concrete, of which substantial quantities would be required for the parking garage and the buildings on-site. Other materials could include plumbing supplies, electrical fixtures, and even items used in furnishing the condominiums and hotel rooms. These materials would have to be delivered to the site and stored on site as well. These deliveries would occur through variously sized vehicles including small delivery trucks to cement mixer trucks, and possible 18-wheel trucks.

Additionally, heavy construction equipment would have to be delivered to the site. This equipment could include cranes, bulldozers, excavators, and other large items of machinery. Most of the heavy equipment would be transported to the site on large trucks such as 18-wheelers or other similar sized vehicles, and the heavy equipment would remain on-site until it's no longer needed.

The influx of this material and equipment could create impacts on the adjacent roadway network based on the following considerations:

- There may be intermittent periods when large numbers of material deliveries are required such as when concrete trucks will be needed for the parking garage and the buildings.
- Some of the materials and equipment could require the use of large trucks (18-wheelers), which can create additional congestion on the adjacent roadways.
- Delivery vehicles may need to park temporarily on adjacent roadways such as Wilshire Boulevard, Santa Monica Boulevard, and Merv Griffin Way as they deliver their items.

These challenges were also identified in the transportation study for the 9900 Wilshire project.

Worker Traffic

The number of workers on the project site would vary from 40 per day (excavation) to 500 per day (building construction and finishing). The number of vehicles associated with these workers could be estimated by applying the following process:

- Each worker would drive to and from the site daily at least once (two daily person trips per worker).
- A small percentage of the workers may carpool or travel together. This can be based on regional auto occupancy factors (1.25 persons per vehicle).
- Workers would travel to/from the site in the morning (7:00 to 9:00 AM) and afternoon peak hours (4:00 to 6:00 PM). They are not all likely to arrive at the construction site within the same hour nor would they leave the site at the same time. Fehr & Peers have assumed that no more than half of the drivers would arrive during a single peak hour either in the morning or afternoon. It is our experience that many construction workers arrive at the site outside of the peak hours, with many arriving at the site prior to 7:00 AM and leaving the site before 4:00 PM. Therefore, our estimates of peak hour traffic are likely to be conservative.

Using the maximum number of workers (500), the number of worker trips would be as follows:

- 800 daily trips
- 200 Peak Hour trips (one hour in the morning and afternoon peak period)

These work trips would also occur with the previously approved 9900 Wilshire project.

Worker Parking

Worker parking would occur as originally planned for the 9900 Wilshire project. The project applicant will provide construction parking on the project site except during construction of the parking garage. During the project excavation phase, construction workers park on those areas of the site which are not impacted by excavation. During the final construction phases, after the parking garage is completed, there will be sufficient parking for the construction workers on-site.

The project applicant has proposed to provide off-site worker parking in West Los Angeles while the parking garage is being constructed. Up to 150 workers would be accommodated and shuttles would be provided facilitate travel between these off-site locations and the construction site during the construction of the parking garage. Following the construction of the parking garage, all worker parking would occur on-site.

This need to park workers off-site could result in a specific traffic related impact because it could lead to worker parking spilling over into adjacent areas, such as residential areas along Whittier Boulevard. Workers may park in these areas because they find the off-site parking arrangement cumbersome and want to park at a location closer to the site.

Construction Impact Summary & Mitigations

Similar to the approved 9900 Wilshire project, several potential traffic-related impacts could result from construction of the proposed project:

- The addition of 160 to 300 haul trucks per day traveling on congested roadways adjacent to the site. These vehicles could create additional congestion on the roadways.
- There would be an incremental increase in truck traffic traveling to/from the site for material and equipment delivery. Some of these vehicles could be very large trucks (18-wheelers), which could increase congestion on the adjacent roadways.
- The material and equipment delivery process could require vehicles to temporarily stop and unload on the adjacent streets. This loading/unloading process could involve temporary lane closures on the adjacent streets.
- Workers needing to park off-site while the parking garage is being constructed could forgo parking in designated off-site locations and instead park along adjacent streets like Whittier Drive. This parking spillover could impact the adjacent residential areas.

The following impacts and mitigation measures are consistent with the approved 9900 Wilshire project.

Temporary Construction Impact 1: There are likely to be significant, but temporary traffic impacts, resulting from the construction activity on the project site. This impact derives from the haul truck traffic accessing the site and the delivery of materials/equipment. This project already has a Draft Construction

Traffic Management Plan, which addresses some of the issues above. If this plan is not modified, these impacts would be significant.

Mitigation Measure 1: Mitigating this impact would require the implementation of the following measures:

The Developer shall update their Construction Traffic Management Plan to include plans to accomplish the following:

- Maintain existing access for land uses in proximity of the project site during project construction.
- Schedule deliveries and pick-ups of construction materials to non-peak travel periods, to the maximum extent feasible.
- Coordinate deliveries and pick-ups to reduce the potential of trucks waiting to load or unload for protracted periods of time.
- Minimize obstruction of through traffic lanes on Wilshire Boulevard and Santa Monica Boulevard.
- Construction equipment traffic from the contractors shall be controlled by flagman.
- Identify designated transport routes for heavy trucks (in addition to haul trucks) to be used over the duration of the proposed project.
- Schedule vehicle movements to ensure that there are no vehicles waiting off-site and impeding public traffic flow on the surrounding streets.
- Establish requirements for loading/unloading and storage of materials on the project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses.
- Coordinate with adjacent businesses and emergency service providers to ensure adequate access exists to the project site and neighboring businesses.

Significance After Mitigation: Less than significant

Temporary Construction Impact 2: Construction workers could choose to park in areas adjacent to the project site including residential streets like Whittier Drive and other adjacent streets. These workers might choose to park in these areas because on-site parking could be limited due to the construction activities or off-site parking areas might be considered to be too remote or inconvenient.

Mitigation Measure 2: The Developer shall submit a Construction Workers' Parking Plan identifying parking locations for construction workers. To the maximum extent feasible, all working parking shall be accommodated on the project site. During phases when construction worker parking cannot be accommodated on the project site, the Plan shall identify alternate parking locations for construction workers and the method of transportation to and from the project site for approval by the City 30 days prior to commencement of construction. The Construction Workers Parking Plan must include appropriate

measures to ensure that the parking location requirements for construction workers will be strictly enforced. These include but are not limited to the following measures:

- Provide all construction contractors with written information on where their workers and their subcontractors are permitted to park and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets north of Wilshire or in public parking structures.
- No construction worker parking shall be permitted within 500 feet of the nearest point of the project site except within designated areas. The contractor shall be responsible for informing subcontractors and construction workers of this requirement, and if necessary, for hiring a security guard to enforce these parking provisions. Contractor shall be responsible for all costs associated with enforcement of this mitigation measure.
- In lieu of the above, the project developer/construction contractor has the option of phasing demolition and construction activities such that all construction worker parking can be accommodated on the project site throughout the entire duration of demolition and construction activities.

Significance After Mitigation: Less than significant

Cumulative Construction Traffic Impacts

Additional construction impacts could occur as the result of simultaneous construction of The Beverly Hilton Revitalization Plan project, the reconstruction of Santa Monica Boulevard and the One Beverly Hills project, since construction schedules will likely overlap. Potential impacts include:

- Simultaneous arrival and departure of haul trucks - The increased volume of haul truck traffic and number of trucks entering/exiting roadways surrounding the two project sites could result in congestion on those roadways.
- Simultaneous arrival and departure of delivery trucks - Equipment and supply delivery vehicles could impact adjacent roadways by creating additional congestion. There may also be temporary queuing of these delivery vehicles if large numbers of vehicles arrive or depart at once.
- Simultaneous construction worker parking - Construction workers for both projects could potentially park in areas adjacent to the site.

Temporary Construction Impact 3: Simultaneous construction activity on the Beverly Hilton Revitalization Plan project site, the reconstruction of Santa Monica Boulevard, and the One Beverly Hills project site could result in significant, although temporary, traffic impacts resulting from haul truck traffic, the simultaneous delivery of materials/equipment, and potential worker parking spill-over. For this reason, construction associated with the proposed project would have a cumulatively considerable, and therefore significant, contribution to cumulative traffic impacts.

Mitigation Measure 3: With implementation of the following mitigation measures, the proposed project's contribution to cumulative traffic impacts would be reduced to less than significant.

The applicant for the One Beverly Hills project shall coordinate with the applicant for The Beverly Hilton Revitalization Plan and the City of Beverly Hills regarding the following:

- All temporary roadway closures shall be coordinated to limit overlap of roadway closures.
- All major deliveries for all three projects shall be coordinated to limit the occurrence of simultaneous deliveries. The project applicants shall ensure that deliveries of items such as concrete and other high-volume items shall not be done simultaneously.
- The applicants shall coordinate regarding the loading and unloading of delivery vehicles. Any off-site staging areas for delivery vehicles shall be consolidated and shared.
- Applicants or their representatives shall meet on a regular basis during construction to address any outstanding issues related to construction traffic, deliveries, and worker parking.

Significance After Mitigation: Less than significant

9.0 RESIDENTIAL TRAFFIC IMPACTS

Fehr & Peers evaluated the impact of the project on several nearby residential streets. The purpose of this analysis is to verify the potential increases in project-related trips in comparison to the City's significance thresholds.

9.1 SIGNIFICANCE CRITERIA

To determine whether the addition of project-generated trips to a residential street segment results in a significant impact and thus requires mitigation, the City of Beverly Hills has established a threshold of significance for residential roadway segments as documented in **Table 5**.

9.2 PROJECT IMPACTS

The study residential roadway segments were analyzed under Existing and Cumulative Conditions with the implementation of the One Beverly Hills Project. The results of the residential impact analysis are presented in **Tables 17** and **18**. As shown, the project would not result in significant impacts to the study residential roadway segments based on the City's threshold of significance.

TABLE 17:
RESIDENTIAL STREET IMPACTS
EXISTING BASELINE AND BASELINE PLUS PROJECT CONDITIONS

ROADWAY SEGMENT	TIME OF DAY	EXISTING BASELINE	PLUS ONE BEVERLY HILLS	CHANGE	PERCENT CHANGE	SIGNIFICANCE ?
Whittier Drive between Wilshire Boulevard & Elevado Avenue	ADT	14,054	14,073	19	0.1%	NO
	AM	1,186	1,180	-6	-0.5%	NO
	MD	776	766	-10	-1.3%	NO
	PM	1,195	1,200	5	0.4%	NO
	WKND	771	761	-10	-1.3%	NO
Whittier Drive between Elevado Avenue & Lomitas Avenue	ADT	10,261	10,275	14	0.1%	NO
	AM	757	752	-5	-0.7%	NO
	MD	577	569	-8	-1.4%	NO
	PM	874	878	4	0.5%	NO
	WKND	461	453	-8	-1.7%	NO
Elevado Avenue between Whittier Drive & Beverly Drive	ADT	4,573	4,578	5	0.1%	NO
	AM	457	455	-2	-0.4%	NO
	MD	222	219	-3	-1.4%	NO
	PM	485	486	1	0.2%	NO
	WKND	253	250	-3	-1.2%	NO

Source: Fehr & Peers, 2016.
ADT = Average Daily Traffic

TABLE 18:
RESIDENTIAL STREET IMPACTS
CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS

ROADWAY SEGMENT	TIME OF DAY	CUMULATIVE VOLUMES	PLUS ONE BEVERLY HILLS	CHANGE	% CHANGE	SIGNIFICANCE ?
Whittier Drive between Wilshire Boulevard & Elevado Avenue	ADT	15,038	15,057	19	0.1%	NO
	AM	1,269	1,263	-6	-0.5%	NO
	MD	830	820	-10	-1.2%	NO
	PM	1,279	1,284	5	0.4%	NO
	WKND	825	815	-10	-1.2%	NO
Whittier Drive between Elevado Avenue & Lomitas Avenue	ADT	10,979	10,993	14	0.1%	NO
	AM	810	805	-5	-0.6%	NO
	MD	617	609	-8	-1.4%	NO
	PM	935	939	4	0.4%	NO
	WKND	493	485	-8	-1.7%	NO
Elevado Avenue between Whittier Drive & Beverly Drive	ADT	4,893	4,898	5	0.1%	NO
	AM	489	487	-2	-0.4%	NO
	MD	238	235	-3	-1.1%	NO
	PM	519	520	1	0.2%	NO
	WKND	271	268	-3	-1.0%	NO

Source: Fehr & Peers, 2016.
ADT = Average Daily Traffic

10.0 CONGESTION MANAGEMENT PLAN (CMP)

10.1 SIGNIFICANCE CRITERIA

A Significant project impact occurs when a proposed project increases traffic demand at a CMP study facility by two-percent of capacity (V/C > 0.02), causing or worsening LOS F (V/C > 1.00).

10.2 PROJECT IMPACTS

There is one CMP intersection located within the project study area, which is the Wilshire Boulevard & Santa Monica Boulevard North intersection. As shown in **Tables 14** and **16**, the project causes V/C ratio at this intersection to decrease as a result of proposed improvements, which would be implemented by the project. Therefore, there are no impacts at the CMP analysis location.

APPENDIX A:
INTERSECTION
TRAFFIC COUNTS

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Beverly Dr , Beverly Hills

Date:	9/24/2015
Day:	Thursday

Project #:	15-5603-001
City:	Beverly Hills

AM Peak Hour	815 AM
NOON Peak Hour	1130 AM
PM Peak Hour	545 PM

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	2	1		
AM	41	1387	94	1544	AM
NOON	37	1254	94	1487	NOON
PM	41	1316	81	1522	PM

Eastbound Approach (Beverly Dr)

Lanes	AM	NOON	PM
	337	416	567
1	31	44	35
2	505	460	367
0	54	82	53

Westbound Approach

Lanes	AM	NOON	PM
0	120	146	198
2	259	330	483
1	13	71	51
	632	615	484

CONTROL

Signalized

Northbound Approach

AM	1454	37	1393	33	AM
NOON	1407	49	1297	61	NOON
PM	1420	43	1289	36	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

	North Leg		
	1522	1544	AM
	1385	1487	NOON
	1438	1522	PM

West Leg	AM	NOON	PM
	337	416	567
	590	586	455

East Leg	AM	NOON	PM
	392	547	732
	632	615	484

	South Leg	
AM	1454	1463
NOON	1407	1407
PM	1420	1368

Total Volume Per Leg

	North Leg
AM	3066
NOON	2872
PM	2960

West Leg	AM	NOON	PM
	927	1002	1022

East Leg	AM	NOON	PM
	1024	1162	1216

	South Leg
AM	2917
NOON	2814
PM	2788

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Wilshire Blvd , Beverly Hills

Date:	9/24/2015
Day:	Thursday

Project #:	15-5603-002
City:	Beverly Hills

AM Peak Hour	745 AM
NOON Peak Hour	1145 AM
PM Peak Hour	545 PM

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	1.5	0.5	2		
AM	362	1088	0	1275	AM
NOON	413	806	0	1287	NOON
PM	524	845	0	1120	PM

Eastbound Approach (Wilshire Blvd)

Lanes	AM	NOON	PM
	1712	1489	1805
1.5	633	514	520
2.5	1142	927	1048
0	46	49	26

Westbound Approach

AM	NOON	PM	Lanes
25	55	43	0
1350	1076	1281	3
131	164	179	1
1182	1014	1114	

Northbound Approach

AM	1265	0	617	40	AM
NOON	1019	0	718	87	NOON
PM	1050	0	557	66	PM
		0	2	1	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

	North Leg	East Leg	West Leg	South Leg
AM	1450	1506	1712	1265
NOON	1219	1182	1821	1019
PM	1369	1014	1490	1050
	1275	1295	1489	657
	1287	1114	1594	805
	1120	1503	1805	623

Total Volume Per Leg

	North Leg	East Leg	West Leg	South Leg
AM	2725	2688	3533	1922
NOON	2506	2309	2979	1824
PM	2489	2617	3399	1673

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Beverly Dr , Beverly Hills

Date:	9/24/2015
Day:	Thursday

Project #:	15-5603-003
City:	Beverly Hills

AM Peak Hour	900 AM
NOON Peak Hour	1130 AM
PM Peak Hour	545 PM

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0.5	1.5	1		
AM	23	1216	171	751	AM
NOON	41	807	133	889	NOON
PM	48	781	74	1390	PM

Eastbound Approach (Beverly Dr)

Lanes	AM	NOON	PM
	428	546	727
0	0	0	0
2	512	529	437
0	93	90	88

Westbound Approach

Lanes	AM	NOON	PM
1	115	182	155
2	352	439	533
1	50	60	55
	795	810	627

Northbound Approach

Lanes	1	1.5	0.5	
AM	1359	53	636	112	AM
NOON	957	66	707	148	NOON
PM	924	146	1235	116	PM

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

	North Leg		
	1410	751	AM
	981	889	NOON
	903	1390	PM

West Leg	AM	NOON	PM
	428	546	727
	605	619	525

East Leg	AM	NOON	PM
	517	681	743
	795	810	627

	South Leg	
AM	1359	801
NOON	957	921
PM	924	1497

Total Volume Per Leg

	North Leg
AM	2161
NOON	1870
PM	2293

West Leg	AM	NOON	PM
	1033	1165	1252

East Leg	AM	NOON	PM
	1312	1491	1370

	South Leg
AM	2160
NOON	1878
PM	2421

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Wilshire Blvd , Beverly Hills

Date: 9/24/2015

Day: Thursday

Project #: 15-5603-004

City: Beverly Hills

AM Peak Hour	745 AM
NOON Peak Hour	1145 AM
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	2	1		
AM	255	762	33	790	AM
NOON	299	361	56	831	NOON
PM	252	390	45	1158	PM

Eastbound Approach (Wilshire Blvd)

Lanes	AM	NOON	PM
	1512	1292	1435
0	181	153	227
3	899	823	936
0	96	36	36

Westbound Approach

Lanes	AM	NOON	PM
0	53	77	92
3	1202	939	1129
1	224	244	229
	1192	1218	1213

Northbound Approach

Lanes	1	2	1		
AM	1082	55	556	260	AM
NOON	641	54	601	339	NOON
PM	655	54	839	232	PM

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

	North Leg		
	1050	790	AM
	716	831	NOON
	687	1158	PM

West Leg AM	NOON	PM	East Leg AM	NOON	PM
1512	1292	1435	1479	1260	1450
1176	1012	1199	1192	1218	1213

	South Leg	
AM	1082	871
NOON	641	994
PM	655	1125

Total Volume Per Leg

	North Leg
AM	1840
NOON	1547
PM	1845

West Leg AM	NOON	PM	East Leg AM	NOON	PM
2688	2304	2634	2671	2478	2663

	South Leg
AM	1953
NOON	1635
PM	1780

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Merv Griffin Wy , Beverly Hills

Date: 9/24/2015

Day: Thursday

Project #: 15-5603-005

City: Beverly Hills

AM Peak Hour	800 AM
NOON Peak Hour	100 PM
PM Peak Hour	530 PM

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	2	0		
AM	22	1215	0	720	AM
NOON	20	1030	0	777	NOON
PM	37	1049	0	662	PM

Eastbound Approach (Merv Griffin Wy)

Lanes	AM	NOON	PM
	144	241	517
0.5	4	4	6
0	0	0	0
1.5	374	190	191

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

CONTROL: 1-Way Stop (SB)

Northbound Approach

AM	1589	122	716	0	AM
NOON	1220	221	773	0	NOON
PM	1240	480	656	0	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

	North Leg		
	1237	720	AM
	1050	777	NOON
	1086	662	PM

West Leg AM	West Leg NOON	West Leg PM		East Leg AM	East Leg NOON	East Leg PM
144	241	517		0	0	0
378	194	197		0	0	0

	South Leg	
AM	1589	838
NOON	1220	994
PM	1240	1136

Total Volume Per Leg

	North Leg
AM	1957
NOON	1827
PM	1748

West Leg AM	West Leg NOON	West Leg PM	East Leg AM	East Leg NOON	East Leg PM
522	435	714	0	0	0

	South Leg
AM	2427
NOON	2214
PM	2376

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Beverly Dr and Wilshire Blvd , Beverly Hills

Date:	9/24/2015
Day:	Thursday

Project #:	15-5603-006
City:	Beverly Hills

AM Peak Hour	815 AM
NOON Peak Hour	1200 PM
PM Peak Hour	545 PM

Peak Hour Summary

Southbound Approach (Beverly Dr)

Lanes	1	2	0		
AM	86	439	0	718	AM
NOON	146	472	5	727	NOON
PM	137	590	2	647	PM

Eastbound Approach (Wilshire Blvd)

	AM	NOON	PM
	2011	1379	1443
1	100	162	119
3	870	947	1482
0	119	160	131
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
80	137	93	0
1782	1087	1189	3
183	208	231	1
1001	1077	1642	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	741	143	538	131	AM
NOON	840	146	428	125	NOON
PM	952	117	435	158	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

	North Leg		
	525	718	AM
	623	727	NOON
	729	647	PM

West Leg AM	West Leg NOON	West Leg PM		East Leg AM	East Leg NOON	East Leg PM
2011	1379	1443		2045	1432	1513
1089	1269	1732		1001	1077	1642

	South Leg	
AM	741	812
NOON	840	699
PM	952	710

Total Volume Per Leg

	North Leg
AM	1243
NOON	1350
PM	1376

West Leg AM	West Leg NOON	West Leg PM		East Leg AM	East Leg NOON	East Leg PM
3100	2648	3175		3046	2509	3155

	South Leg
AM	1553
NOON	1539
PM	1662

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Merv Griffin Wy and Wilshire Blvd , Beverly Hills

Date:	9/24/2015
Day:	Thursday

Project #:	15-5603-007
City:	Beverly Hills

AM Peak Hour	800 AM
NOON Peak Hour	1130 AM
PM Peak Hour	545 PM

Peak Hour Summary

Southbound Approach (Merv Griffin Wy)

Lanes	0	1	0		
AM	502	304	103	291	AM
NOON	254	133	56	286	NOON
PM	277	123	37	717	PM

Eastbound Approach (Wilshire Blvd)

	AM	NOON	PM
	2498	1848	2045
1	204	188	238
3	1674	1445	1739
0	35	41	28
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	14	18	26	0
	1975	1574	1749	3
	45	30	22	1
	1803	1537	1835	
	AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	384	21	73	26	AM
NOON	204	20	80	36	NOON
PM	173	19	453	59	PM
		0	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

North Leg

909	291	AM
443	286	NOON
437	717	PM

East Leg

AM	NOON	PM
2034	1622	1797
1803	1537	1835

West Leg

AM	NOON	PM
2498	1848	2045
1913	1674	2005

South Leg

384	120	AM
204	136	NOON
173	531	PM

Total Volume Per Leg

North Leg

1200	AM
729	NOON
1154	PM

East Leg

AM	NOON	PM
3837	3159	3632

West Leg

AM	NOON	PM
4411	3522	4050

South Leg

504	AM
340	NOON
704	PM

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and South Crossover , Beverly Hills

Date: 9/24/2015

Day: Thursday

Project #: 15-5603-008

City: Beverly Hills

AM Peak Hour	845 AM
NOON Peak Hour	1200 PM
PM Peak Hour	530 PM

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	3	0		
AM	0	1534	0	858	AM
NOON	0	1215	0	950	NOON
PM	0	1243	0	1140	PM

Eastbound Approach (South Crossover)

Lanes	AM	NOON	PM
	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Westbound Approach

AM	NOON	PM	Lanes
15	27	26	1
0	0	0	0
1220	661	687	2
0	0	0	

Northbound Approach

AM	2754	0	843	0	AM
NOON	1876	0	923	0	NOON
PM	1930	0	1114	0	PM
		0	3	0	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

	North Leg		
	1534	858	AM
	1215	950	NOON
	1243	1140	PM

West Leg			East Leg		
AM	NOON	PM			
0	0	0	1235	688	713
0	0	0	0	0	0
			AM	NOON	PM

	South Leg	
AM	2754	843
NOON	1876	923
PM	1930	1114

Total Volume Per Leg

	North Leg
	2392 AM
	2165 NOON
	2383 PM

West Leg			East Leg		
AM	NOON	PM			
0	0	0	1235	688	713
			AM	NOON	PM

	South Leg
AM	3597
NOON	2799
PM	3044

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and E Century Park , Beverly Hills

Date: 9/24/2015

Day: Thursday

Project #: 15-5603-009

City: Beverly Hills

AM Peak Hour	845 AM
NOON Peak Hour	1215 PM
PM Peak Hour	530 PM

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	4	2		
AM	0	1779	974	1748	AM
NOON	0	1576	301	1909	NOON
PM	0	1704	227	2715	PM

Eastbound Approach (E Century Park)

	AM	NOON	PM
	8	21	12
0	0	0	0
0	0	0	0
0	0	0	0
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
217	335	733	2
0	0	0	0
140	201	457	2
1650	598	493	
AM	NOON	PM	

Northbound Approach

AM	1919	8	1531	676	AM
NOON	1777	21	1574	297	NOON
PM	2161	12	1982	266	PM
		1	4	1	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

North Leg		
2753	1748	AM
1877	1909	NOON
1931	2715	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
8	21	12		357	536	1190
0	0	0		1650	598	493

South Leg		
1919	2215	AM
1777	1892	NOON
2161	2260	PM

Total Volume Per Leg

North Leg	
4501	AM
3786	NOON
4646	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
8	21	12		2007	1134	1683

South Leg	
4134	AM
3669	NOON
4421	PM

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Sunset Blvd and Whittier Dr , Beverly Hills

Date:	9/24/2015
Day:	Thursday

Project #:	15-5603-010
City:	Beverly Hills

AM Peak Hour	830 AM
NOON Peak Hour	100 PM
PM Peak Hour	530 PM

Peak Hour Summary

Southbound Approach (Sunset Blvd)

Lanes	0	2	1		
AM	49	223	23	102	AM
NOON	51	89	15	158	NOON
PM	21	98	10	308	PM

Eastbound Approach (Whittier Dr)

	AM	NOON	PM
	1322	1089	1292
0	35	42	43
2	1263	1005	1333
0	41	33	24
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
5	8	24	0
1231	971	1109	1
184	134	175	0
1438	1188	1518	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	448	42	62	152	AM
NOON	256	67	108	168	NOON
PM	297	162	241	175	PM
		1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs

North Leg		
295	102	AM
155	158	NOON
129	308	PM

West Leg			East Leg		
AM	NOON	PM			
1322	1089	1292	1420	1113	1308
1339	1080	1400	1438	1188	1518
			AM	NOON	PM

South Leg		
448	256	AM
256	343	NOON
297	578	PM

Total Volume Per Leg

North Leg	
397	AM
313	NOON
437	PM

West Leg			East Leg		
AM	NOON	PM			
2661	2169	2692	2858	2301	2826
			AM	NOON	PM

South Leg	
704	AM
599	NOON
875	PM

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Beverly Dr , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-001
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1200 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	2	1		
AM	0	0	0	0	AM
NOON	35	1301	83	1528	NOON
PM	0	0	0	0	PM

Eastbound Approach (Beverly Dr)

	AM	NOON	PM
	0	388	0
1	0	43	0
2	0	373	0
0	0	94	0
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
0	147	0	0
0	301	0	2
0	68	0	1
0	518	0	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	1463	52	1338	62	NOON
PM	0	0	0	0	PM
		1	2	0	Lanes

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	1419	1528	NOON
	0	0	PM

West Leg	AM	NOON	PM
	0	388	0
	0	510	0

East Leg	AM	NOON	PM
	0	516	0
	0	518	0

	South Leg	
AM	0	0
NOON	1463	1452
PM	0	0

Total Volume Per Leg

	North Leg
AM	0
NOON	2947
PM	0

West Leg	AM	NOON	PM
	0	898	0

East Leg	AM	NOON	PM
	0	1034	0

	South Leg
AM	0
NOON	2915
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Wilshire Blvd , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-002
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1200 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach

Santa Monica Blvd

Lanes	1.5	0.5	2		
AM	0	0	0	0	AM
NOON	455	841	0	1328	NOON
PM	0	0	0	0	PM

Eastbound Approach

Wilshire Blvd

	AM	NOON	PM
	0	1313	0
1.5	0	619	0
2.5	0	923	0
0	0	47	0
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
0	21	0	0
0	858	0	3
0	155	0	1
0	984	0	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	1043	0	688	61	NOON
PM	0	0	0	0	PM
		0	2	1	Lanes

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

North Leg		
0	0	AM
1296	1328	NOON
0	0	PM

West Leg			East Leg		
AM	NOON	PM			
0	1313	0	0	1034	0
0	1589	0	0	984	0
			AM	NOON	PM

South Leg		
0	0	AM
1043	749	NOON
0	0	PM

Total Volume Per Leg

North Leg	
0	AM
2624	NOON
0	PM

West Leg			East Leg		
AM	NOON	PM			
0	2902	0	0	2018	0
			AM	NOON	PM

South Leg	
0	AM
1792	NOON
0	PM

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Beverly Dr , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-003
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1245 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0.5	1.5	1		
AM	0	0	0	0	AM
NOON	34	560	96	738	NOON
PM	0	0	0	0	PM

Eastbound Approach (Beverly Dr)

	AM	NOON	PM
	0	520	0
0	0	0	0
2	0	408	0
0	0	97	0
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
0	156	0	1
0	411	0	2
0	78	0	1
0	628	0	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	735	75	582	124	NOON
PM	0	0	0	0	PM
		1	1.5	0.5	Lanes

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	690	738	NOON
	0	0	PM

West Leg			East Leg		
AM	NOON	PM			
0	520	0	0	645	0
0	505	0	0	628	0
			AM	NOON	PM

	South Leg	
AM	0	0
NOON	735	781
PM	0	0

Total Volume Per Leg

	North Leg
	0
	1428
	0

West Leg			East Leg		
AM	NOON	PM			
0	1025	0	0	1273	0
			AM	NOON	PM

	South Leg
AM	0
NOON	1516
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Wilshire Blvd , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-004
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1200 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	2	1		
AM	0	0	0	0	AM
NOON	228	298	22	664	NOON
PM	0	0	0	0	PM

Eastbound Approach (Wilshire Blvd)

Lanes	AM	NOON	PM
	0	1034	0
0	0	152	0
3	0	789	0
0	0	43	0

Westbound Approach

AM	NOON	PM	Lanes
0	50	0	0
0	761	0	3
0	178	0	1
0	1045	0	

CONTROL: Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	519	45	462	234	NOON
PM	0	0	0	0	PM
		1	2	1	Lanes

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	548	664	NOON
	0	0	PM

West Leg AM	West Leg NOON	West Leg PM	East Leg AM	East Leg NOON	East Leg PM
0	1034	0	0	989	0
0	984	0	0	1045	0

	South Leg	
AM	0	0
NOON	519	741
PM	0	0

Total Volume Per Leg

	North Leg
AM	0
NOON	1212
PM	0

West Leg AM	West Leg NOON	West Leg PM	East Leg AM	East Leg NOON	East Leg PM
0	2018	0	0	2034	0

	South Leg
AM	0
NOON	1260
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and Merv Griffin Wy , Beverly Hills

Date: 9/26/2015

Day: Saturday

Project #: 15-5603-005

City: Beverly Hills

AM Peak Hour	
NOON Peak Hour	1230 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

	Lanes 0	2	0		
AM	0	0	0	0	AM
NOON	25	1028	0	757	NOON
PM	0	0	0	0	PM

Eastbound Approach (Merv Griffin Wy)

Lanes	AM	NOON	PM
	0	155	0
0.5	0	11	0
0	0	0	0
1.5	0	166	0

Westbound Approach

AM	NOON	PM	Lanes
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

Northbound Approach

AM	0	0	0	0	AM
NOON	1194	130	746	0	NOON
PM	0	0	0	0	PM
		1	2	0	Lanes

CONTROL

1-Way Stop (SB)

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	1053	757	NOON
	0	0	PM

West Leg	AM	NOON	PM
	0	155	0
	0	177	0

East Leg	AM	NOON	PM
	0	0	0
	0	0	0

	South Leg	
AM	0	0
NOON	1194	876
PM	0	0

Total Volume Per Leg

	North Leg
AM	0
NOON	1810
PM	0

West Leg	AM	NOON	PM
	0	332	0

East Leg	AM	NOON	PM
	0	0	0

	South Leg
AM	0
NOON	2070
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Beverly Dr and Wilshire Blvd , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-006
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1215 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Beverly Dr)

Lanes	1	2	0		
AM	0	0	0	0	AM
NOON	140	370	1	616	NOON
PM	0	0	0	0	PM

Eastbound Approach (Wilshire Blvd)

	AM	NOON	PM
	0	1164	0
1	0	124	0
3	0	850	0
0	0	173	0
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
0	105	0	0
0	889	0	3
0	225	0	1
0	967	0	
AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	768	135	387	116	NOON
PM	0	0	0	0	PM
		1	2	0	Lanes

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	511	616	NOON
	0	0	PM

West Leg			East Leg		
AM	NOON	PM			
0	1164	0	0	1219	0
0	1147	0	0	967	0
			AM	NOON	PM

	South Leg	
AM	0	0
NOON	768	638
PM	0	0

Total Volume Per Leg

	North Leg
AM	0
NOON	1127
PM	0

West Leg			East Leg		
AM	NOON	PM			
0	2311	0	0	2186	0
			AM	NOON	PM

	South Leg
AM	0
NOON	1406
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Merv Griffin Wy and Wilshire Blvd , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-007
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1215 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Merv Griffin Wy)

Lanes	0	1	0		
AM	0	0	0	0	AM
NOON	198	127	39	360	NOON
PM	0	0	0	0	PM

Eastbound Approach (Wilshire Blvd)

	AM	NOON	PM
	0	1600	0
1	0	250	0
3	0	1596	0
0	0	28	0
Lanes	AM	NOON	PM

Westbound Approach

	AM	NOON	PM	Lanes
	0	13	0	0
	0	1389	0	3
	0	36	0	1
	0	1682	0	
	AM	NOON	PM	

CONTROL

Signalized

Northbound Approach

AM	0	0	0	0	AM
NOON	191	13	97	47	NOON
PM	0	0	0	0	PM
		0	2	0	Lanes

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	AM	NOON	PM
North Leg	0	364	0
	0	360	0
East Leg	0	1438	0
	0	1682	0
West Leg	0	1600	0
	0	1874	0
South Leg	0	191	0
	0	157	0

Total Volume Per Leg

	AM	NOON	PM
North Leg	0	724	0
East Leg	0	3120	0
West Leg	0	3474	0
South Leg	0	348	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and South Crossover , Beverly Hills

Date: 9/26/2015

Day: Saturday

Project #: 15-5603-008

City: Beverly Hills

AM Peak Hour	
NOON Peak Hour	1230 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	3	0		
AM	0	0	0	0	AM
NOON	0	1200	0	881	NOON
PM	0	0	0	0	PM

Eastbound Approach (South Crossover)

Lanes	AM	NOON	PM
	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Westbound Approach

AM	NOON	PM	Lanes
0	18	0	1
0	0	0	0
0	492	0	2
0	0	0	

Northbound Approach

AM	0	0	0	0	AM
NOON	1692	0	863	0	NOON
PM	0	0	0	0	PM
		0	3	0	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	1200	881	NOON
	0	0	PM

West Leg AM	West Leg NOON	West Leg PM		East Leg AM	East Leg NOON	East Leg PM
0	0	0		0	510	0
0	0	0		0	0	0

	South Leg	
AM	0	0
NOON	1692	863
PM	0	0

Total Volume Per Leg

	North Leg
AM	0
NOON	2081
PM	0

West Leg AM	West Leg NOON	West Leg PM		East Leg AM	East Leg NOON	East Leg PM
0	0	0		0	510	0

	South Leg
AM	0
NOON	2555
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd and E Century Park , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-009
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1200 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Santa Monica Blvd)

Lanes	0	4	2		
AM	0	0	0	0	AM
NOON	0	1541	163	1503	NOON
PM	0	0	0	0	PM

Eastbound Approach (E Century Park)

Lanes	AM	NOON	PM
	0	10	0
0	0	0	0
0	0	0	0
0	0	0	0

Westbound Approach

AM	NOON	PM	Lanes
0	107	0	2
0	0	0	0
0	97	0	2
0	283	0	

Northbound Approach

AM	0	0	0	0	AM
NOON	1638	10	1396	120	NOON
PM	0	0	0	0	PM
		1	4	1	Lanes

CONTROL

Signalized

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	1704	1503	NOON
	0	0	PM

West Leg			East Leg		
AM	NOON	PM			
0	10	0	0	204	0
0	0	0	0	283	0
			AM	NOON	PM

	South Leg	
AM	0	0
NOON	1638	1526
PM	0	0

Total Volume Per Leg

	North Leg
AM	0
NOON	3207
PM	0

West Leg			East Leg		
AM	NOON	PM			
0	10	0	0	487	0
			AM	NOON	PM

	South Leg
AM	0
NOON	3164
PM	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Sunset Blvd and Whittier Dr , Beverly Hills

Date:	9/26/2015
Day:	Saturday

Project #:	15-5603-010
City:	Beverly Hills

AM Peak Hour	
NOON Peak Hour	1215 PM
PM Peak Hour	

Peak Hour Summary

Southbound Approach (Sunset Blvd)

Lanes	0	2	1		
AM	0	0	0	0	AM
NOON	27	101	7	115	NOON
PM	0	0	0	0	PM

Eastbound Approach (Whittier Dr)

Lanes	AM	NOON	PM
	0	944	0
0	0	18	0
2	0	861	0
0	0	37	0

Westbound Approach

Lanes	AM	NOON	PM
0	0	14	0
1	0	878	0
0	0	138	0
	0	1023	0

Northbound Approach

Lanes	1	2	0	
AM	0	0	0	AM
NOON	39	83	155	NOON
PM	0	0	0	PM
	0			
NOON	276			
PM	0			

CONTROL

Signalized

Count Periods	Start	End
AM		
NOON	11:00 AM	2:00 PM
PM		

Total Ins & Outs

	North Leg		
	0	0	AM
	135	115	NOON
	0	0	PM

West Leg	AM	NOON	PM
	0	944	0
	0	916	0

East Leg	AM	NOON	PM
	0	1030	0
	0	1023	0

	South Leg	
AM	0	0
NOON	276	277
PM	0	0

Total Volume Per Leg

	North Leg
AM	0
NOON	250
PM	0

West Leg	AM	NOON	PM
	0	1860	0

East Leg	AM	NOON	PM
	0	2053	0

	South Leg
AM	0
NOON	553
PM	0

APPENDIX B:
TRAFFIX LOS RESULTS WORKSHEETS

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Scenario Report

Scenario:	Existing_AM
Command:	Existing_AM
Volume:	Existing_AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_AM
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.908	E	xxxxx	0.908	+ 0.000 V/C
# 2 Santa Monica Boulevard North/W	F	xxxxx	1.139	F	xxxxx	1.139	+ 0.000 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.854	D	xxxxx	0.854	+ 0.000 V/C
# 4 Santa Monica Boulevard South/W	E	xxxxx	0.944	E	xxxxx	0.944	+ 0.000 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.783	C	xxxxx	0.783	+ 0.000 V/C
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.896	D	xxxxx	0.896	+ 0.000 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.179	F	xxxxx	1.179	+ 0.000 V/C
# 8 Santa Monica Boulevard/Crossov	E	xxxxx	0.925	E	xxxxx	0.925	+ 0.000 V/C
# 9 Santa Monica Boulevard/Century	E	xxxxx	0.955	E	xxxxx	0.955	+ 0.000 V/C
# 10 Sunset Boulevard/Whittier Driv	E	xxxxx	0.946	E	xxxxx	0.946	+ 0.000 V/C

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.908
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	104	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	37	1393	33	94	1387	41	31	505	54	13	259	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	1393	33	94	1387	41	31	505	54	13	259	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	1393	33	94	1387	41	31	505	54	13	259	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	44	1639	39	111	1632	48	36	594	64	15	305	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1639	39	111	1632	48	36	594	64	15	305	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	1639	39	111	1632	48	36	594	64	15	305	141
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.94	0.06	1.00	1.81	0.19	1.00	1.37	0.63
Final Sat.:	1600	3126	74	1600	3108	92	1600	2891	309	1600	2187	1013
Capacity Analysis Module:												
Vol/Sat:	0.03	0.52	0.52	0.07	0.52	0.53	0.02	0.21	0.21	0.01	0.14	0.14
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.139
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	1 1	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	617	40	0	1088	362	633	1142	46	131	1350	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	726	47	0	1280	426	745	1344	54	154	1588	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	726	47	0	1280	426	745	1344	54	154	1588	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	726	47	0	1280	426	745	1344	54	154	1588	29
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	3.00	1.00	1.07	2.85	0.08	1.00	2.95	0.05
Final Sat.:	0	3200	1600	0	4800	1600	1712	4564	124	1600	4713	87
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.03	0.00	0.27	0.27	0.44	0.29	0.44	0.10	0.34	0.34
OvlAdjV/S:						0.00						
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.854
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	53	636	112	171	1216	23	0	512	93	50	352	115
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	636	112	171	1216	23	0	512	93	50	352	115
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	636	112	171	1216	23	0	512	93	50	352	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	62	748	132	201	1431	27	0	602	109	59	414	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	748	132	201	1431	27	0	602	109	59	414	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	748	132	201	1431	27	0	602	109	59	414	135
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	1.96	0.04	0.00	1.69	0.31	1.00	2.00	1.00
Final Sat.:	1600	2721	479	1600	3141	59	0	2708	492	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.28	0.13	0.46	0.46	0.00	0.22	0.22	0.04	0.13	0.08
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.944
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	128	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	55	556	260	33	762	255	181	899	96	224	1202	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	556	260	33	762	255	181	899	96	224	1202	53
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	556	260	33	762	255	181	899	96	224	1202	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	65	654	306	39	896	300	213	1058	113	264	1414	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	654	306	39	896	300	213	1058	113	264	1414	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	654	306	39	896	300	213	1058	113	264	1414	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.50	0.50	0.50	2.50	1.00	1.00	2.87	0.13
Final Sat.:	1600	3200	1600	1600	2398	802	804	3996	1600	1600	4597	203
Capacity Analysis Module:												
Vol/Sat:	0.04	0.20	0.19	0.02	0.37	0.37	0.13	0.26	0.07	0.16	0.31	0.31
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.783
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	122	716	0	0	1215	22	4	0	374	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	716	0	0	1215	22	4	0	374	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	122	716	0	0	1215	22	4	0	374	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	144	842	0	0	1429	26	5	0	440	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	842	0	0	1429	26	5	0	440	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	144	842	0	0	1429	26	5	0	440	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.96	0.04	0.02	0.00	1.98	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3143	57	34	0	3166	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.26	0.00	0.00	0.45	0.45	0.14	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.896
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	143	538	131	0	439	86	100	870	119	183	1782	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	143	538	131	0	439	86	100	870	119	183	1782	80
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	143	538	131	0	439	86	100	870	119	183	1782	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	168	633	154	0	516	101	118	1024	140	215	2096	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	633	154	0	516	101	118	1024	140	215	2096	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	168	633	154	0	516	101	118	1024	140	215	2096	94
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.64	0.36	1.00	2.87	0.13
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4222	578	1600	4594	206
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.10	0.00	0.16	0.06	0.07	0.24	0.24	0.13	0.46	0.46
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.179
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	21	73	26	103	304	502	204	1674	35	45	1975	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	73	26	103	304	502	204	1674	35	45	1975	14
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	73	26	103	304	502	204	1674	35	45	1975	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	25	86	31	121	358	591	240	1969	41	53	2324	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	86	31	121	358	591	240	1969	41	53	2324	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	86	31	121	358	591	240	1969	41	53	2324	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.74	0.26	0.23	0.77	1.00	1.00	2.94	0.06	1.00	2.98	0.02
Final Sat.:	1600	1180	420	363	1237	1600	1600	4702	98	1600	4766	34
Capacity Analysis Module:												
Vol/Sat:	0.02	0.07	0.07	0.33	0.29	0.37	0.15	0.42	0.42	0.03	0.49	0.49
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.925
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	114	Level Of Service:	E

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	843	865	0	1534	0	0	0	0	1220	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	843	865	0	1534	0	0	0	0	1220	0	15
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	843	865	0	1534	0	0	0	0	1220	0	15
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	992	0	0	1805	0	0	0	0	1435	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	992	0	0	1805	0	0	0	0	1435	0	18
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	992	0	0	1805	0	0	0	0	1435	0	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.31	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.45	0.00	0.01
Crit Moves:	****				****					****		

One Beverly Hills
Existing (2015) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.946
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	42	62	152	23	223	49	35	1263	41	184	1231	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	62	152	23	223	49	35	1263	41	184	1231	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	62	152	23	223	49	35	1263	41	184	1231	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	49	73	179	27	262	58	41	1486	48	216	1448	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	73	179	27	262	58	41	1486	48	216	1448	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	73	179	27	262	58	41	1486	48	216	1448	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.29	0.71	1.00	0.82	0.18	1.00	1.94	0.06	1.00	1.99	0.01
Final Sat.:	1600	464	1136	1600	1312	288	1600	3099	101	1600	3187	13
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.02	0.20	0.20	0.03	0.48	0.48	0.14	0.45	0.45
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Scenario Report

Scenario:	Existing_Midday
Command:	Existing_Mid
Volume:	Existing_Mid
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_Midday
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.920	E	xxxxx	0.920	+ 0.000 V/C
# 2 Santa Monica Boulevard North/W	E	xxxxx	0.994	E	xxxxx	0.994	+ 0.000 V/C
# 3 Santa Monica Boulevard South/B	C	xxxxx	0.784	C	xxxxx	0.784	+ 0.000 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.809	D	xxxxx	0.809	+ 0.000 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.720	C	xxxxx	0.720	+ 0.000 V/C
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.805	D	xxxxx	0.805	+ 0.000 V/C
# 7 Wilshire Boulevard/Whittier Dr	E	xxxxx	0.900	E	xxxxx	0.900	+ 0.000 V/C
# 8 Santa Monica Boulevard/Crossov	B	xxxxx	0.682	B	xxxxx	0.682	+ 0.000 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.576	A	xxxxx	0.576	+ 0.000 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.794	C	xxxxx	0.794	+ 0.000 V/C

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.920
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	111	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	49	1297	61	94	1254	37	44	460	82	71	330	146
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	1297	61	94	1254	37	44	460	82	71	330	146
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	1297	61	94	1254	37	44	460	82	71	330	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	58	1526	72	111	1475	44	52	541	96	84	388	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1526	72	111	1475	44	52	541	96	84	388	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1526	72	111	1475	44	52	541	96	84	388	172
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.94	0.06	1.00	1.70	0.30	1.00	1.39	0.61
Final Sat.:	1600	3056	144	1600	3108	92	1600	2716	484	1600	2218	982
Capacity Analysis Module:												
Vol/Sat:	0.04	0.50	0.50	0.07	0.47	0.47	0.03	0.20	0.20	0.05	0.18	0.17
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.994
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	1 1	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	0	718	87	0	806	413	514	927	49	164	1076	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	718	87	0	806	413	514	927	49	164	1076	55
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	718	87	0	806	413	514	927	49	164	1076	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	845	102	0	948	486	605	1091	58	193	1266	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	845	102	0	948	486	605	1091	58	193	1266	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	845	102	0	948	486	605	1091	58	193	1266	65
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.64	1.36	1.07	2.83	0.10	1.00	2.85	0.15
Final Sat.:	0	3200	1600	0	4232	2168	1712	4527	161	1600	4567	233
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.06	0.00	0.22	0.22	0.35	0.24	0.36	0.12	0.28	0.28
OvlAdjV/S:						0.00						
Crit Moves:	****			****			****				****	

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.784
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	66	707	148	133	807	41	0	529	90	60	439	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	707	148	133	807	41	0	529	90	60	439	182
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	707	148	133	807	41	0	529	90	60	439	182
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	78	832	174	156	949	48	0	622	106	71	516	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	832	174	156	949	48	0	622	106	71	516	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	832	174	156	949	48	0	622	106	71	516	214
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.65	0.35	1.00	1.90	0.10	0.00	1.71	0.29	1.00	2.00	1.00
Final Sat.:	1600	2646	554	1600	3045	155	0	2735	465	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.31	0.31	0.10	0.31	0.31	0.00	0.23	0.23	0.04	0.16	0.13
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	601	339	56	361	299	153	823	36	244	939	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	601	339	56	361	299	153	823	36	244	939	77
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	601	339	56	361	299	153	823	36	244	939	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	64	707	399	66	425	352	180	968	42	287	1105	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	707	399	66	425	352	180	968	42	287	1105	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	707	399	66	425	352	180	968	42	287	1105	91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.09	0.91	0.47	2.53	1.00	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	1750	1450	752	4048	1600	1600	4436	364
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.25	0.04	0.24	0.24	0.11	0.24	0.03	0.18	0.25	0.25
Crit Moves:			****	****				****		****		

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	221	773	0	0	1030	20	4	0	190	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	773	0	0	1030	20	4	0	190	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	773	0	0	1030	20	4	0	190	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	260	909	0	0	1212	24	5	0	224	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	260	909	0	0	1212	24	5	0	224	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	260	909	0	0	1212	24	5	0	224	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.96	0.04	0.04	0.01	1.95	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3139	61	66	0	3134	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.28	0.00	0.00	0.39	0.39	0.07	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.805
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	146	428	125	0	472	146	162	947	160	208	1087	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	428	125	0	472	146	162	947	160	208	1087	137
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	146	428	125	0	472	146	162	947	160	208	1087	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	172	504	147	0	555	172	191	1114	188	245	1279	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	504	147	0	555	172	191	1114	188	245	1279	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	504	147	0	555	172	191	1114	188	245	1279	161
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.57	0.43	1.00	2.66	0.34
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4106	694	1600	4263	537
Capacity Analysis Module:												
Vol/Sat:	0.11	0.16	0.09	0.00	0.17	0.11	0.12	0.27	0.27	0.15	0.30	0.30
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.900
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	20	80	36	56	133	254	188	1445	41	30	1574	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	80	36	56	133	254	188	1445	41	30	1574	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	80	36	56	133	254	188	1445	41	30	1574	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	24	94	42	66	156	299	221	1700	48	35	1852	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	94	42	66	156	299	221	1700	48	35	1852	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	94	42	66	156	299	221	1700	48	35	1852	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.69	0.31	0.25	0.75	1.00	1.00	2.92	0.08	1.00	2.97	0.03
Final Sat.:	1600	1103	497	405	1195	1600	1600	4668	132	1600	4746	54
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.16	0.13	0.19	0.14	0.36	0.36	0.02	0.39	0.39
Crit Moves:			****			****	****				****	

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	923	994	0	1215	0	0	0	0	661	0	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	923	994	0	1215	0	0	0	0	661	0	27
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	923	994	0	1215	0	0	0	0	661	0	27
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1086	0	0	1429	0	0	0	0	778	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1086	0	0	1429	0	0	0	0	778	0	32
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1086	0	0	1429	0	0	0	0	778	0	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.24	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Existing (2015) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	67	108	168	15	89	51	42	1005	33	134	971	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	108	168	15	89	51	42	1005	33	134	971	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	108	168	15	89	51	42	1005	33	134	971	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	79	127	198	18	105	60	49	1182	39	158	1142	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	127	198	18	105	60	49	1182	39	158	1142	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	127	198	18	105	60	49	1182	39	158	1142	9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.39	0.61	1.00	0.64	0.36	1.00	1.94	0.06	1.00	1.98	0.02
Final Sat.:	1600	626	974	1600	1017	583	1600	3098	102	1600	3174	26
Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.01	0.10	0.10	0.03	0.38	0.38	0.10	0.36	0.36
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Scenario Report

Scenario:	Existing_PM
Command:	Existing_PM
Volume:	Existing_PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_PM
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/C	Future LOS	Future Del/ Veh	Future V/C	Change in V/C
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.923	E	xxxxx	0.923	+ 0.000
# 2 Santa Monica Boulevard North/W	F	xxxxx	1.059	F	xxxxx	1.059	+ 0.000
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.885	D	xxxxx	0.885	+ 0.000
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.895	D	xxxxx	0.895	+ 0.000
# 5 Santa Monica Boulevard North/M	E	xxxxx	0.925	E	xxxxx	0.925	+ 0.000
# 6 Wilshire Boulevard/Beverly Dri	E	xxxxx	0.968	E	xxxxx	0.968	+ 0.000
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.290	F	xxxxx	1.290	+ 0.000
# 8 Santa Monica Boulevard/Crossov	C	xxxxx	0.762	C	xxxxx	0.762	+ 0.000
# 9 Santa Monica Boulevard/Century	C	xxxxx	0.734	C	xxxxx	0.734	+ 0.000
# 10 Sunset Boulevard/Whittier Driv	F	xxxxx	1.041	F	xxxxx	1.041	+ 0.000

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.923
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	113	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	43	1289	36	81	1316	41	35	367	53	51	483	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	1289	36	81	1316	41	35	367	53	51	483	198
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	1289	36	81	1316	41	35	367	53	51	483	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	51	1516	42	95	1548	48	41	432	62	60	568	233
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	1516	42	95	1548	48	41	432	62	60	568	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	1516	42	95	1548	48	41	432	62	60	568	233
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.94	0.06	1.00	1.75	0.25	1.00	1.42	0.58
Final Sat.:	1600	3113	87	1600	3103	97	1600	2796	404	1600	2270	930
Capacity Analysis Module:												
Vol/Sat:	0.03	0.49	0.49	0.06	0.50	0.50	0.03	0.15	0.15	0.04	0.25	0.25
Crit Moves:		****			****			****			****	

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.059
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	1 1	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	0	557	66	0	845	524	520	1048	26	179	1281	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	557	66	0	845	524	520	1048	26	179	1281	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	557	66	0	845	524	520	1048	26	179	1281	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	655	78	0	994	616	612	1233	31	211	1507	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	655	78	0	994	616	612	1233	31	211	1507	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	655	78	0	994	616	612	1233	31	211	1507	51
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.47	1.53	1.00	2.95	0.05	1.00	2.90	0.10
Final Sat.:	0	3200	1600	0	3950	2450	1600	4723	77	1600	4644	156
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.05	0.00	0.25	0.25	0.38	0.26	0.39	0.13	0.32	0.32
OvlAdjV/S:						0.00						
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.885
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	146	1235	116	74	781	48	0	437	88	55	533	155
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	1235	116	74	781	48	0	437	88	55	533	155
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	146	1235	116	74	781	48	0	437	88	55	533	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	172	1453	136	87	919	56	0	514	104	65	627	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	1453	136	87	919	56	0	514	104	65	627	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	1453	136	87	919	56	0	514	104	65	627	182
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.83	0.17	1.00	1.88	0.12	0.00	1.66	0.34	1.00	2.00	1.00
Final Sat.:	1600	2925	275	1600	3015	185	0	2664	536	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.50	0.50	0.05	0.30	0.30	0.00	0.19	0.19	0.04	0.20	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	839	232	45	390	252	227	936	36	229	1129	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	839	232	45	390	252	227	936	36	229	1129	92
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	839	232	45	390	252	227	936	36	229	1129	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	64	987	273	53	459	296	267	1101	42	269	1328	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	987	273	53	459	296	267	1101	42	269	1328	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	987	273	53	459	296	267	1101	42	269	1328	108
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.21	0.79	0.59	2.41	1.00	1.00	2.77	0.23
Final Sat.:	1600	3200	1600	1600	1944	1256	937	3863	1600	1600	4438	362
Capacity Analysis Module:												
Vol/Sat:	0.04	0.31	0.17	0.03	0.24	0.24	0.17	0.29	0.03	0.17	0.30	0.30
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.925
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	114	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	480	656	0	0	1049	37	6	0	191	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	656	0	0	1049	37	6	0	191	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	480	656	0	0	1049	37	6	0	191	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	565	772	0	0	1234	44	7	0	225	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	565	772	0	0	1234	44	7	0	225	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	565	772	0	0	1234	44	7	0	225	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.93	0.07	0.06	0.00	1.94	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3091	109	97	0	3103	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.35	0.24	0.00	0.00	0.40	0.40	0.07	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.968
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	152	Level Of Service:	E

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	117	435	158	0	590	137	119	1482	131	231	1189	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	435	158	0	590	137	119	1482	131	231	1189	93
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	435	158	0	590	137	119	1482	131	231	1189	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	138	512	186	0	694	161	140	1744	154	272	1399	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	512	186	0	694	161	140	1744	154	272	1399	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	138	512	186	0	694	161	140	1744	154	272	1399	109
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.76	0.24	1.00	2.78	0.22
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4410	390	1600	4452	348
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.12	0.00	0.22	0.10	0.09	0.40	0.40	0.17	0.31	0.31
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.290
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	19	453	59	37	123	277	238	1739	28	22	1749	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	453	59	37	123	277	238	1739	28	22	1749	26
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	453	59	37	123	277	238	1739	28	22	1749	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	22	533	69	44	145	326	280	2046	33	26	2058	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	533	69	44	145	326	280	2046	33	26	2058	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	533	69	44	145	326	280	2046	33	26	2058	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.88	0.12	0.17	0.83	1.00	1.00	2.95	0.05	1.00	2.96	0.04
Final Sat.:	1600	1416	184	271	1329	1600	1600	4724	76	1600	4730	70
Capacity Analysis Module:												
Vol/Sat:	0.01	0.38	0.38	0.16	0.11	0.20	0.17	0.43	0.43	0.02	0.44	0.44
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1114	1636	0	1243	0	0	0	0	687	0	26
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1311	0	0	1462	0	0	0	0	808	0	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1311	0	0	1462	0	0	0	0	808	0	31
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1311	0	0	1462	0	0	0	0	808	0	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.41	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.25	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Existing (2015) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.041
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	162	241	175	10	98	21	43	1333	24	175	1109	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	241	175	10	98	21	43	1333	24	175	1109	24
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	162	241	175	10	98	21	43	1333	24	175	1109	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	191	284	206	12	115	25	51	1568	28	206	1305	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	284	206	12	115	25	51	1568	28	206	1305	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	191	284	206	12	115	25	51	1568	28	206	1305	28
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.58	0.42	1.00	0.82	0.18	1.00	1.96	0.04	1.00	1.96	0.04
Final Sat.:	1600	927	673	1600	1318	282	1600	3143	57	1600	3132	68
Capacity Analysis Module:												
Vol/Sat:	0.12	0.31	0.31	0.01	0.09	0.09	0.03	0.50	0.50	0.13	0.42	0.42
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Scenario Report

Scenario:	Existing_Saturday_Midday
Command:	Existing_Sat
Volume:	Existing_Sat
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_Saturday
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	D	xxxxx	0.897	D	xxxxx	0.897	+ 0.000 V/C
# 2 Santa Monica Boulevard North/W	E	xxxxx	0.946	E	xxxxx	0.946	+ 0.000 V/C
# 3 Santa Monica Boulevard South/B	B	xxxxx	0.673	B	xxxxx	0.673	+ 0.000 V/C
# 4 Santa Monica Boulevard South/W	B	xxxxx	0.688	B	xxxxx	0.688	+ 0.000 V/C
# 5 Santa Monica Boulevard North/M	B	xxxxx	0.648	B	xxxxx	0.648	+ 0.000 V/C
# 6 Wilshire Boulevard/Beverly Dri	C	xxxxx	0.751	C	xxxxx	0.751	+ 0.000 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.879	D	xxxxx	0.879	+ 0.000 V/C
# 8 Santa Monica Boulevard/Crossov	A	xxxxx	0.598	A	xxxxx	0.598	+ 0.000 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.521	A	xxxxx	0.521	+ 0.000 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.712	C	xxxxx	0.712	+ 0.000 V/C

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.897
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	99	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	52	1338	62	83	1301	35	43	373	94	68	301	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	1338	62	83	1301	35	43	373	94	68	301	147
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	1338	62	83	1301	35	43	373	94	68	301	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	61	1574	73	98	1531	41	51	439	111	80	354	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	1574	73	98	1531	41	51	439	111	80	354	173
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	61	1574	73	98	1531	41	51	439	111	80	354	173
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.95	0.05	1.00	1.60	0.40	1.00	1.34	0.66
Final Sat.:	1600	3058	142	1600	3116	84	1600	2556	644	1600	2150	1050
Capacity Analysis Module:												
Vol/Sat:	0.04	0.51	0.51	0.06	0.49	0.49	0.03	0.17	0.17	0.05	0.16	0.16
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.946
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	1 1	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	0	688	61	0	841	455	619	923	47	155	858	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	688	61	0	841	455	619	923	47	155	858	21
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	688	61	0	841	455	619	923	47	155	858	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	809	72	0	989	535	728	1086	55	182	1009	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	809	72	0	989	535	728	1086	55	182	1009	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	809	72	0	989	535	728	1086	55	182	1009	25
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.60	1.40	1.20	2.70	0.10	1.00	2.93	0.07
Final Sat.:	0	3200	1600	0	4153	2247	1927	4318	155	1600	4685	115
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.04	0.00	0.24	0.24	0.38	0.25	0.36	0.11	0.22	0.22
OvlAdjV/S:						0.00						
Crit Moves:		****			****			****			****	

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.673
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	75	582	124	96	560	34	0	408	97	78	411	156
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	75	582	124	96	560	34	0	408	97	78	411	156
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	582	124	96	560	34	0	408	97	78	411	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	88	685	146	113	659	40	0	480	114	92	484	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	685	146	113	659	40	0	480	114	92	484	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	685	146	113	659	40	0	480	114	92	484	184
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.65	0.35	1.00	1.89	0.11	0.00	1.62	0.38	1.00	2.00	1.00
Final Sat.:	1600	2638	562	1600	3017	183	0	2585	615	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.26	0.26	0.07	0.22	0.22	0.00	0.19	0.19	0.06	0.15	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.688
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	45	462	234	22	298	228	152	789	43	178	761	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	462	234	22	298	228	152	789	43	178	761	50
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	462	234	22	298	228	152	789	43	178	761	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	53	544	275	26	351	268	179	928	51	209	895	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	544	275	26	351	268	179	928	51	209	895	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	544	275	26	351	268	179	928	51	209	895	59
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.13	0.87	0.48	2.52	1.00	1.00	2.82	0.18
Final Sat.:	1600	3200	1600	1600	1813	1387	775	4025	1600	1600	4504	296
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.17	0.02	0.19	0.19	0.11	0.23	0.03	0.13	0.20	0.20
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	746	0	0	1028	25	11	0	166	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	746	0	0	1028	25	11	0	166	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	746	0	0	1028	25	11	0	166	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	153	878	0	0	1209	29	13	0	195	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	878	0	0	1209	29	13	0	195	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	878	0	0	1209	29	13	0	195	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.95	0.05	0.12	0.00	1.88	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3124	76	199	0	3001	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.27	0.00	0.00	0.39	0.39	0.07	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.751
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	135	387	116	0	370	140	124	850	173	225	889	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	387	116	0	370	140	124	850	173	225	889	105
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	387	116	0	370	140	124	850	173	225	889	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	159	455	136	0	435	165	146	1000	204	265	1046	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	455	136	0	435	165	146	1000	204	265	1046	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	159	455	136	0	435	165	146	1000	204	265	1046	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.49	0.51	1.00	2.68	0.32
Final Sat.:	1600	3200	1600	0	3200	1600	1600	3988	812	1600	4293	507
Capacity Analysis Module:												
Vol/Sat:	0.10	0.14	0.09	0.00	0.14	0.10	0.09	0.25	0.25	0.17	0.24	0.24
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.879
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	13	97	47	39	127	198	250	1596	28	36	1389	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	97	47	39	127	198	250	1596	28	36	1389	13
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	97	47	39	127	198	250	1596	28	36	1389	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	15	114	55	46	149	233	294	1878	33	42	1634	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	114	55	46	149	233	294	1878	33	42	1634	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	15	114	55	46	149	233	294	1878	33	42	1634	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.67	0.33	0.21	0.79	1.00	1.00	2.95	0.05	1.00	2.97	0.03
Final Sat.:	1600	1078	522	343	1257	1600	1600	4717	83	1600	4755	45
Capacity Analysis Module:												
Vol/Sat:	0.01	0.11	0.11	0.13	0.12	0.15	0.18	0.40	0.40	0.03	0.34	0.34
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.598
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	863	670	0	1200	0	0	0	0	492	0	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	863	670	0	1200	0	0	0	0	492	0	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	863	670	0	1200	0	0	0	0	492	0	18
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1015	0	0	1412	0	0	0	0	579	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1015	0	0	1412	0	0	0	0	579	0	21
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1015	0	0	1412	0	0	0	0	579	0	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.18	0.00	0.01
Crit Moves:		****		****						****		

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Existing
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1531	4	383	1982	4	**496**
	Through-Right		0			0	
	Right	676	1	**599**	266	1	15
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	974	2	**536**	227	2	**125**
	Left-Through		0			0	
	Through	1779	3	593	1704	3	568
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	140	2	**77**	457	2	251
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	217	2	0	733	2	**278**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1135		*North-South:*	621
			East-West:	77		*East-West:*	278
			SUM:	1212		*SUM:*	899
VOLUME/CAPACITY *(V/C)* RATIO:				0.881			0.654
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.781**			**0.554**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1574	4	**394**	1396	4	349
	Through-Right		0			0	
	Right	297	1	186	120	1	67
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	301	2	**166**	163	2	90
	Left-Through		0			0	
	Through	1576	3	525	1541	3	**514**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	201	2	**111**	97	2	**53**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	335	2	18	107	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	560		*North-South:*	514
			East-West:	111		*East-West:*	53
			SUM:	671		*SUM:*	567
VOLUME/CAPACITY *(V/C)* RATIO:				0.488			0.412
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.388**			**0.312**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Existing (2015) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.712
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	39	83	155	7	101	27	18	861	37	138	878	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	83	155	7	101	27	18	861	37	138	878	14
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	83	155	7	101	27	18	861	37	138	878	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	46	98	182	8	119	32	21	1013	44	162	1033	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	98	182	8	119	32	21	1013	44	162	1033	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	98	182	8	119	32	21	1013	44	162	1033	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.35	0.65	1.00	0.79	0.21	1.00	1.92	0.08	1.00	1.97	0.03
Final Sat.:	1600	558	1042	1600	1262	338	1600	3068	132	1600	3150	50
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.17	0.01	0.09	0.09	0.01	0.33	0.33	0.10	0.33	0.33
Crit Moves:		****		****				****		****		

Level of Service Workheet
(Circular 212 Method)

I/S #: 11				
PROJECT TITLE:	One Beverly Hills			
North-South Street:	Santa Monica Boulevard	**East-West Street:**	Avenue of the Stars	
Scenario:	Existing			
Count Date:	9/24/2015	**Analyst:**	Fehr & Peers	**Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	21	1	21	32	1	**32**
	Left-Through		0			0	
	Through	1950	4	**488**	1692	4	423
	Through-Right		0			0	
	Right	519	1	429	304	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	529	2	**291**	269	2	148
	Left-Through		0			0	
	Through	1396	3	465	1904	3	**635**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	258	3	**90**	745	3	**261**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	353	2	0	458	2	104
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	779		*North-South:*	667
			East-West:	90		*East-West:*	261
			SUM:	869		*SUM:*	928
VOLUME/CAPACITY *(V/C)* RATIO:				0.632			0.675
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.532**			**0.575**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #: 11				
PROJECT TITLE:	One Beverly Hills			
North-South Street:	Santa Monica Boulevard	**East-West Street:**	Avenue of the Stars	
Scenario:	Existing			
Count Date:	9/24/2015	**Analyst:**	Fehr & Peers	**Date:** 9/24/2015

		WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 3	SB--	0	NB-- 3	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	41	1	**41**	52	1	**52**
	Left-Through		0			0	
	Through	1549	4	387	1391	4	348
	Through-Right		0			0	
	Right	366	1	256	244	1	170
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	265	2	146	168	2	92
	Left-Through		0			0	
	Through	1568	3	**523**	1451	3	**484**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	313	3	**110**	211	3	**74**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	307	2	23	165	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	564		*North-South:*	536
			East-West:	110		*East-West:*	74
			SUM:	674		*SUM:*	610
VOLUME/CAPACITY *(V/C)* RATIO:				0.490			0.444
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.390**			**0.344**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Scenario Report

Scenario:	EP_AM
Command:	EP_AM
Volume:	Existing_AM
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	AM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/C	Future LOS	Future Del/ Veh	Future V/C	Change in V/C
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.908	E	xxxxx	0.926	+ 0.018
# 2 Santa Monica Boulevard North/W	E	xxxxx	0.936	E	xxxxx	0.957	+ 0.021
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.854	D	xxxxx	0.858	+ 0.005
# 4 Santa Monica Boulevard South/W	E	xxxxx	0.944	E	xxxxx	0.955	+ 0.012
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.775	D	xxxxx	0.809	+ 0.033
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.896	E	xxxxx	0.904	+ 0.007
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.160	F	xxxxx	1.167	+ 0.007
# 8 Santa Monica Boulevard/Crossov	E	xxxxx	0.925	E	xxxxx	0.936	+ 0.012
# 9 Santa Monica Boulevard/Century	E	xxxxx	0.955	E	xxxxx	0.955	+ 0.000
# 10 Sunset Boulevard/Whittier Driv	E	xxxxx	0.946	E	xxxxx	0.951	+ 0.006

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.926
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	115	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	37	1393	33	94	1387	41	31	505	54	13	259	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	1393	33	94	1387	41	31	505	54	13	259	120
Added Vol:	8	30	0	0	23	0	0	0	6	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1423	33	94	1410	41	31	505	60	19	259	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	53	1674	39	111	1659	48	36	594	71	22	305	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	1674	39	111	1659	48	36	594	71	22	305	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	1674	39	111	1659	48	36	594	71	22	305	141
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.94	0.06	1.00	1.79	0.21	1.00	1.37	0.63
Final Sat.:	1600	3127	73	1600	3110	90	1600	2860	340	1600	2187	1013
Capacity Analysis Module:												
Vol/Sat:	0.03	0.54	0.54	0.07	0.53	0.53	0.02	0.21	0.21	0.01	0.14	0.14
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.957
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	140	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	2 0	3	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Added Vol:	0	5	4	0	24	11	34	32	0	13	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	622	44	0	1112	373	667	1174	46	144	1358	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	732	52	0	1308	439	785	1381	54	169	1598	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	732	52	0	1308	439	785	1381	54	169	1598	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	732	52	0	1308	439	785	1381	54	169	1598	29
OvlAdjVol:						45						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	3.00	1.00	2.00	3.00	1.00	1.00	2.95	0.05
Final Sat.:	0	3200	1600	0	4792	1608	3200	4800	1600	1600	4713	87
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.03	0.00	0.27	0.27	0.25	0.29	0.03	0.11	0.34	0.34
OvlAdjV/S:						0.03						
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.858
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	53	636	112	171	1216	23	0	512	93	50	352	115
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	636	112	171	1216	23	0	512	93	50	352	115
Added Vol:	0	17	0	0	7	6	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	653	112	171	1223	29	0	512	93	50	352	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	62	768	132	201	1439	34	0	602	109	59	414	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	768	132	201	1439	34	0	602	109	59	414	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	768	132	201	1439	34	0	602	109	59	414	135
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.71	0.29	1.00	1.95	0.05	0.00	1.69	0.31	1.00	2.00	1.00
Final Sat.:	1600	2732	468	1600	3126	74	0	2708	492	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.28	0.13	0.46	0.46	0.00	0.22	0.22	0.04	0.13	0.08
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.955
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	138	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	55	556	260	33	762	255	181	899	96	224	1202	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	556	260	33	762	255	181	899	96	224	1202	53
Added Vol:	0	0	0	0	0	7	17	20	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	556	260	33	762	262	198	919	96	224	1217	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	65	654	306	39	896	308	233	1081	113	264	1432	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	654	306	39	896	308	233	1081	113	264	1432	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	654	306	39	896	308	233	1081	113	264	1432	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.49	0.51	0.53	2.47	1.00	1.00	2.87	0.13
Final Sat.:	1600	3200	1600	1600	2381	819	851	3949	1600	1600	4600	200
Capacity Analysis Module:												
Vol/Sat:	0.04	0.20	0.19	0.02	0.38	0.38	0.15	0.27	0.07	0.16	0.31	0.31
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	122	716	0	0	1215	22	4	0	374	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	716	0	0	1215	22	4	0	374	0	0	0
Added Vol:	19	0	0	0	17	20	9	0	27	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	141	716	0	0	1232	42	13	0	401	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	166	842	0	0	1449	49	15	0	472	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	842	0	0	1449	49	15	0	472	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	166	842	0	0	1449	49	15	0	472	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.06	0.01	1.93	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	100	0	3100	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.26	0.00	0.00	0.45	0.03	0.15	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	E

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	143	538	131	0	439	86	100	870	119	183	1782	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	143	538	131	0	439	86	100	870	119	183	1782	80
Added Vol:	7	0	0	0	0	0	0	11	9	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	150	538	131	0	439	86	100	881	128	183	1790	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	176	633	154	0	516	101	118	1036	151	215	2106	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	176	633	154	0	516	101	118	1036	151	215	2106	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	176	633	154	0	516	101	118	1036	151	215	2106	94
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.62	0.38	1.00	2.87	0.13
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4191	609	1600	4595	205
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.10	0.00	0.16	0.06	0.07	0.25	0.25	0.13	0.46	0.46
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.167
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0	1 0	1 0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	21	73	26	103	304	502	204	1674	35	45	1975	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	73	26	103	304	502	204	1674	35	45	1975	14
Added Vol:	21	6	35	0	6	0	3	31	26	19	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	79	61	103	310	502	207	1705	61	64	1975	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	49	93	72	121	365	591	244	2006	72	75	2324	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	93	72	121	365	591	244	2006	72	75	2324	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	93	72	121	365	591	244	2006	72	75	2324	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.23	0.77	1.00	1.00	2.90	0.10	1.00	2.98	0.02
Final Sat.:	1600	1600	1600	360	1240	1600	1600	4634	166	1600	4766	34
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.04	0.34	0.29	0.37	0.15	0.43	0.43	0.05	0.49	0.49
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.936
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	122	Level Of Service:	E

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	843	865	0	1534	0	0	0	0	1220	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	843	865	0	1534	0	0	0	0	1220	0	15
Added Vol:	0	25	0	0	48	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	868	865	0	1582	0	0	0	0	1220	0	15
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1021	0	0	1861	0	0	0	0	1435	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1021	0	0	1861	0	0	0	0	1435	0	18
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1021	0	0	1861	0	0	0	0	1435	0	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.45	0.00	0.01
Crit Moves:	****				****					****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.951
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	135	Level Of Service:	E

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	42	62	152	23	223	49	35	1263	41	184	1231	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	62	152	23	223	49	35	1263	41	184	1231	5
Added Vol:	3	0	6	0	0	0	0	0	2	4	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	62	158	23	223	49	35	1263	43	188	1231	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	53	73	186	27	262	58	41	1486	51	221	1448	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	73	186	27	262	58	41	1486	51	221	1448	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	73	186	27	262	58	41	1486	51	221	1448	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.28	0.72	1.00	0.82	0.18	1.00	1.93	0.07	1.00	1.99	0.01
Final Sat.:	1600	451	1149	1600	1312	288	1600	3095	105	1600	3187	13
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.02	0.20	0.20	0.03	0.48	0.48	0.14	0.45	0.45
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Scenario Report

Scenario:	EP_Midday
Command:	EP_Mid
Volume:	Existing_Mid
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Midday
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.920	E	xxxxx	0.945	+ 0.025 V/C
# 2 Santa Monica Boulevard North/W	D	xxxxx	0.830	D	xxxxx	0.851	+ 0.021 V/C
# 3 Santa Monica Boulevard South/B	C	xxxxx	0.784	C	xxxxx	0.792	+ 0.008 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.809	D	xxxxx	0.817	+ 0.008 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.712	C	xxxxx	0.768	+ 0.056 V/C
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.805	D	xxxxx	0.820	+ 0.015 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.874	D	xxxxx	0.884	+ 0.010 V/C
# 8 Santa Monica Boulevard/Crossov	B	xxxxx	0.682	B	xxxxx	0.699	+ 0.016 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.576	A	xxxxx	0.589	+ 0.013 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.794	D	xxxxx	0.806	+ 0.012 V/C

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.945
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	129	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	49	1297	61	94	1254	37	44	460	82	71	330	146
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	1297	61	94	1254	37	44	460	82	71	330	146
Added Vol:	10	38	0	0	40	0	0	0	11	10	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	1335	61	94	1294	37	44	460	93	81	330	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	69	1571	72	111	1522	44	52	541	109	95	388	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	1571	72	111	1522	44	52	541	109	95	388	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	1571	72	111	1522	44	52	541	109	95	388	172
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.94	0.06	1.00	1.66	0.34	1.00	1.39	0.61
Final Sat.:	1600	3060	140	1600	3111	89	1600	2662	538	1600	2218	982
Capacity Analysis Module:												
Vol/Sat:	0.04	0.51	0.51	0.07	0.49	0.49	0.03	0.20	0.20	0.06	0.18	0.17
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.851
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	80	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	2 0	3	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	0	718	87	0	806	413	514	927	49	164	1076	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	718	87	0	806	413	514	927	49	164	1076	55
Added Vol:	0	7	6	0	42	19	41	40	0	24	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	725	93	0	848	432	555	967	49	188	1091	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	853	109	0	998	508	653	1138	58	221	1284	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	853	109	0	998	508	653	1138	58	221	1284	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	853	109	0	998	508	653	1138	58	221	1284	65
OvlAdjVol:						67						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.65	1.35	2.00	3.00	1.00	1.00	2.86	0.14
Final Sat.:	0	3200	1600	0	4240	2160	3200	4800	1600	1600	4570	230
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.07	0.00	0.24	0.24	0.20	0.24	0.04	0.14	0.28	0.28
OvlAdjV/S:						0.03						
Crit Moves:		****			****			****			****	

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.792
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	66	707	148	133	807	41	0	529	90	60	439	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	707	148	133	807	41	0	529	90	60	439	182
Added Vol:	0	21	0	0	12	10	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	728	148	133	819	51	0	529	90	60	439	182
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	78	856	174	156	964	60	0	622	106	71	516	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	856	174	156	964	60	0	622	106	71	516	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	856	174	156	964	60	0	622	106	71	516	214
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.88	0.12	0.00	1.71	0.29	1.00	2.00	1.00
Final Sat.:	1600	2659	541	1600	3012	188	0	2735	465	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.32	0.32	0.10	0.32	0.32	0.00	0.23	0.23	0.04	0.16	0.13
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.817
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	601	339	56	361	299	153	823	36	244	939	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	601	339	56	361	299	153	823	36	244	939	77
Added Vol:	0	0	0	0	0	12	21	25	0	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	601	339	56	361	311	174	848	36	244	965	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	64	707	399	66	425	366	205	998	42	287	1135	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	707	399	66	425	366	205	998	42	287	1135	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	707	399	66	425	366	205	998	42	287	1135	91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.07	0.93	0.51	2.49	1.00	1.00	2.78	0.22
Final Sat.:	1600	3200	1600	1600	1719	1481	817	3983	1600	1600	4445	355
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.25	0.04	0.25	0.25	0.13	0.25	0.03	0.18	0.26	0.26
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.768
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	221	773	0	0	1030	20	4	0	190	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	773	0	0	1030	20	4	0	190	0	0	0
Added Vol:	32	0	0	0	32	35	13	0	43	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	253	773	0	0	1062	55	17	0	233	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	298	909	0	0	1249	65	20	0	274	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	298	909	0	0	1249	65	20	0	274	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	298	909	0	0	1249	65	20	0	274	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.14	0.00	1.86	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	218	0	2982	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.28	0.00	0.00	0.39	0.04	0.09	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	146	428	125	0	472	146	162	947	160	208	1087	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	428	125	0	472	146	162	947	160	208	1087	137
Added Vol:	12	0	0	0	0	0	0	13	11	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	158	428	125	0	472	146	162	960	171	208	1101	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	186	504	147	0	555	172	191	1129	201	245	1295	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	504	147	0	555	172	191	1129	201	245	1295	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	186	504	147	0	555	172	191	1129	201	245	1295	161
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.55	0.45	1.00	2.67	0.33
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4074	726	1600	4269	531
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.09	0.00	0.17	0.11	0.12	0.28	0.28	0.15	0.30	0.30
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.884
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	92	Level Of Service:	D

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	20	80	36	56	133	254	188	1445	41	30	1574	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	80	36	56	133	254	188	1445	41	30	1574	18
Added Vol:	31	8	54	0	11	0	3	27	46	34	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	88	90	56	144	254	191	1472	87	64	1574	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	60	104	106	66	169	299	225	1732	102	75	1852	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	104	106	66	169	299	225	1732	102	75	1852	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	104	106	66	169	299	225	1732	102	75	1852	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.25	0.75	1.00	1.00	2.83	0.17	1.00	2.97	0.03
Final Sat.:	1600	1600	1600	395	1205	1600	1600	4532	268	1600	4746	54
Capacity Analysis Module:												
Vol/Sat:	0.04	0.06	0.07	0.17	0.14	0.19	0.14	0.38	0.38	0.05	0.39	0.39
Crit Moves:			****			****	****				****	

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.699
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	923	994	0	1215	0	0	0	0	661	0	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	923	994	0	1215	0	0	0	0	661	0	27
Added Vol:	0	44	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	967	994	0	1269	0	0	0	0	661	0	27
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1138	0	0	1493	0	0	0	0	778	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1138	0	0	1493	0	0	0	0	778	0	32
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1138	0	0	1493	0	0	0	0	778	0	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.36	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.24	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	67	108	168	15	89	51	42	1005	33	134	971	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	108	168	15	89	51	42	1005	33	134	971	8
Added Vol:	4	0	7	0	0	0	0	0	4	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	71	108	175	15	89	51	42	1005	37	141	971	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	84	127	206	18	105	60	49	1182	44	166	1142	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	127	206	18	105	60	49	1182	44	166	1142	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	127	206	18	105	60	49	1182	44	166	1142	9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.38	0.62	1.00	0.64	0.36	1.00	1.93	0.07	1.00	1.98	0.02
Final Sat.:	1600	611	989	1600	1017	583	1600	3086	114	1600	3174	26
Capacity Analysis Module:												
Vol/Sat:	0.05	0.21	0.21	0.01	0.10	0.10	0.03	0.38	0.38	0.10	0.36	0.36
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Scenario Report

Scenario:	EP_PM
Command:	EP_PM
Volume:	Existing_PM
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	PM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.923	E	xxxxx	0.934	+ 0.011 V/C
# 2 Santa Monica Boulevard North/W	D	xxxxx	0.867	D	xxxxx	0.894	+ 0.026 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.885	D	xxxxx	0.891	+ 0.006 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.895	E	xxxxx	0.904	+ 0.009 V/C
# 5 Santa Monica Boulevard North/M	E	xxxxx	0.911	E	xxxxx	0.963	+ 0.052 V/C
# 6 Wilshire Boulevard/Beverly Dri	E	xxxxx	0.968	E	xxxxx	0.982	+ 0.014 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.247	F	xxxxx	1.253	+ 0.007 V/C
# 8 Santa Monica Boulevard/Crossov	C	xxxxx	0.762	C	xxxxx	0.778	+ 0.015 V/C
# 9 Santa Monica Boulevard/Century	C	xxxxx	0.734	C	xxxxx	0.742	+ 0.008 V/C
# 10 Sunset Boulevard/Whittier Driv	F	xxxxx	1.041	F	xxxxx	1.052	+ 0.011 V/C

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.934
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	121	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	43	1289	36	81	1316	41	35	367	53	51	483	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	1289	36	81	1316	41	35	367	53	51	483	198
Added Vol:	8	31	0	0	38	0	0	0	11	9	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	1320	36	81	1354	41	35	367	64	60	483	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	60	1553	42	95	1593	48	41	432	75	71	568	233
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1553	42	95	1593	48	41	432	75	71	568	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	1553	42	95	1593	48	41	432	75	71	568	233
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.94	0.06	1.00	1.70	0.30	1.00	1.42	0.58
Final Sat.:	1600	3115	85	1600	3106	94	1600	2725	475	1600	2270	930
Capacity Analysis Module:												
Vol/Sat:	0.04	0.50	0.50	0.06	0.51	0.51	0.03	0.16	0.16	0.04	0.25	0.25
Crit Moves:		****			****			****			****	

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.894
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	97	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	0 1		0 0 2	1 1		2 0 3	0 1		1 0 2	1 0	
Volume Module:												
Base Vol:	0	557	66	0	845	524	520	1048	26	179	1281	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	557	66	0	845	524	520	1048	26	179	1281	43
Added Vol:	0	5	5	0	41	17	34	33	0	24	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	562	71	0	886	541	554	1081	26	203	1294	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	661	84	0	1042	636	652	1272	31	239	1522	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	661	84	0	1042	636	652	1272	31	239	1522	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	661	84	0	1042	636	652	1272	31	239	1522	51
OvlAdjVol:						142						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.48	1.52	2.00	3.00	1.00	1.00	2.90	0.10
Final Sat.:	0	3200	1600	0	3974	2426	3200	4800	1600	1600	4646	154
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.05	0.00	0.26	0.26	0.20	0.26	0.02	0.15	0.33	0.33
OvlAdjV/S:						0.06						
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	96	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	146	1235	116	74	781	48	0	437	88	55	533	155
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	1235	116	74	781	48	0	437	88	55	533	155
Added Vol:	0	17	0	0	12	9	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	146	1252	116	74	793	57	0	437	88	55	533	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	172	1473	136	87	933	67	0	514	104	65	627	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	1473	136	87	933	67	0	514	104	65	627	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	1473	136	87	933	67	0	514	104	65	627	182
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.83	0.17	1.00	1.87	0.13	0.00	1.66	0.34	1.00	2.00	1.00
Final Sat.:	1600	2929	271	1600	2985	215	0	2664	536	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.50	0.50	0.05	0.31	0.31	0.00	0.19	0.19	0.04	0.20	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	839	232	45	390	252	227	936	36	229	1129	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	839	232	45	390	252	227	936	36	229	1129	92
Added Vol:	0	0	0	0	0	12	17	20	0	0	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	839	232	45	390	264	244	956	36	229	1154	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	64	987	273	53	459	311	287	1125	42	269	1358	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	987	273	53	459	311	287	1125	42	269	1358	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	987	273	53	459	311	287	1125	42	269	1358	108
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.19	0.81	0.61	2.39	1.00	1.00	2.78	0.22
Final Sat.:	1600	3200	1600	1600	1908	1292	976	3824	1600	1600	4446	354
Capacity Analysis Module:												
Vol/Sat:	0.04	0.31	0.17	0.03	0.24	0.24	0.18	0.29	0.03	0.17	0.31	0.31
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.963
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	146	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	480	656	0	0	1049	37	6	0	191	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	656	0	0	1049	37	6	0	191	0	0	0
Added Vol:	29	0	0	0	34	31	10	0	39	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	509	656	0	0	1083	68	16	0	230	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	599	772	0	0	1274	80	19	0	271	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	599	772	0	0	1274	80	19	0	271	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	599	772	0	0	1274	80	19	0	271	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.13	0.00	1.87	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	208	0	2992	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.37	0.24	0.00	0.00	0.40	0.05	0.09	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.982
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	169	Level Of Service:	E

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	117	435	158	0	590	137	119	1482	131	231	1189	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	435	158	0	590	137	119	1482	131	231	1189	93
Added Vol:	12	0	0	0	0	0	0	11	9	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	129	435	158	0	590	137	119	1493	140	231	1202	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	152	512	186	0	694	161	140	1756	165	272	1414	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	512	186	0	694	161	140	1756	165	272	1414	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	152	512	186	0	694	161	140	1756	165	272	1414	109
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.74	0.26	1.00	2.78	0.22
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4388	412	1600	4455	345
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.12	0.00	0.22	0.10	0.09	0.40	0.40	0.17	0.32	0.32
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.253
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0	1 0	1 0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	19	453	59	37	123	277	238	1739	28	22	1749	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	453	59	37	123	277	238	1739	28	22	1749	26
Added Vol:	25	7	42	0	10	0	2	25	44	31	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	460	101	37	133	277	240	1764	72	53	1749	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	52	541	119	44	156	326	282	2075	85	62	2058	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	541	119	44	156	326	282	2075	85	62	2058	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	541	119	44	156	326	282	2075	85	62	2058	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.17	0.83	1.00	1.00	2.88	0.12	1.00	2.96	0.04
Final Sat.:	1600	1600	1600	265	1335	1600	1600	4612	188	1600	4730	70
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.07	0.16	0.12	0.20	0.18	0.45	0.45	0.04	0.44	0.44
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Added Vol:	0	42	0	0	46	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1156	1636	0	1289	0	0	0	0	687	0	26
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1360	0	0	1516	0	0	0	0	808	0	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1360	0	0	1516	0	0	0	0	808	0	31
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1360	0	0	1516	0	0	0	0	808	0	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.43	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.25	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.052
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	162	241	175	10	98	21	43	1333	24	175	1109	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	241	175	10	98	21	43	1333	24	175	1109	24
Added Vol:	3	0	6	0	0	0	0	0	4	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	241	181	10	98	21	43	1333	28	182	1109	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	194	284	213	12	115	25	51	1568	33	214	1305	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	284	213	12	115	25	51	1568	33	214	1305	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	284	213	12	115	25	51	1568	33	214	1305	28
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.57	0.43	1.00	0.82	0.18	1.00	1.96	0.04	1.00	1.96	0.04
Final Sat.:	1600	914	686	1600	1318	282	1600	3134	66	1600	3132	68
Capacity Analysis Module:												
Vol/Sat:	0.12	0.31	0.31	0.01	0.09	0.09	0.03	0.50	0.50	0.13	0.42	0.42
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Scenario Report

Scenario:	EP_Saturday_Midday
Command:	EP_Sat
Volume:	Existing_Sat
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Saturday
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	D	xxxxx	0.897	E	xxxxx	0.921	+ 0.024 V/C
# 2 Santa Monica Boulevard North/W	C	xxxxx	0.796	D	xxxxx	0.816	+ 0.020 V/C
# 3 Santa Monica Boulevard South/B	B	xxxxx	0.673	B	xxxxx	0.681	+ 0.007 V/C
# 4 Santa Monica Boulevard South/W	B	xxxxx	0.688	C	xxxxx	0.702	+ 0.014 V/C
# 5 Santa Monica Boulevard North/M	B	xxxxx	0.639	B	xxxxx	0.685	+ 0.047 V/C
# 6 Wilshire Boulevard/Beverly Dri	C	xxxxx	0.751	C	xxxxx	0.765	+ 0.013 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.844	D	xxxxx	0.852	+ 0.007 V/C
# 8 Santa Monica Boulevard/Crossov	A	xxxxx	0.598	B	xxxxx	0.612	+ 0.014 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.521	A	xxxxx	0.534	+ 0.013 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.712	C	xxxxx	0.722	+ 0.011 V/C

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.921
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	52	1338	62	83	1301	35	43	373	94	68	301	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	1338	62	83	1301	35	43	373	94	68	301	147
Added Vol:	9	36	0	0	34	0	0	0	10	9	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	1374	62	83	1335	35	43	373	104	77	301	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	72	1616	73	98	1571	41	51	439	122	91	354	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	1616	73	98	1571	41	51	439	122	91	354	173
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	72	1616	73	98	1571	41	51	439	122	91	354	173
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.95	0.05	1.00	1.56	0.44	1.00	1.34	0.66
Final Sat.:	1600	3062	138	1600	3118	82	1600	2502	698	1600	2150	1050
Capacity Analysis Module:												
Vol/Sat:	0.04	0.53	0.53	0.06	0.50	0.50	0.03	0.18	0.18	0.06	0.16	0.16
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	2 0	3	0 1	1 0	2	1 0
Volume Module:												
Base Vol:	0	688	61	0	841	455	619	923	47	155	858	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	688	61	0	841	455	619	923	47	155	858	21
Added Vol:	0	6	5	0	35	17	39	38	0	19	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	694	66	0	876	472	658	961	47	174	872	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	816	78	0	1031	555	774	1131	55	205	1026	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	816	78	0	1031	555	774	1131	55	205	1026	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	816	78	0	1031	555	774	1131	55	205	1026	25
OvlAdjVol:						13						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.60	1.40	2.00	3.00	1.00	1.00	2.93	0.07
Final Sat.:	0	3200	1600	0	4159	2241	3200	4800	1600	1600	4687	113
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.05	0.00	0.25	0.25	0.24	0.24	0.03	0.13	0.22	0.22
OvlAdjV/S:						0.01						
Crit Moves:		****		****			****				****	

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.681
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	75	582	124	96	560	34	0	408	97	78	411	156
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	75	582	124	96	560	34	0	408	97	78	411	156
Added Vol:	0	20	0	0	10	9	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	602	124	96	570	43	0	408	97	78	411	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	88	708	146	113	671	51	0	480	114	92	484	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	708	146	113	671	51	0	480	114	92	484	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	708	146	113	671	51	0	480	114	92	484	184
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.86	0.14	0.00	1.62	0.38	1.00	2.00	1.00
Final Sat.:	1600	2653	547	1600	2976	224	0	2585	615	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.27	0.27	0.07	0.23	0.23	0.00	0.19	0.19	0.06	0.15	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.702
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	45	462	234	22	298	228	152	789	43	178	761	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	462	234	22	298	228	152	789	43	178	761	50
Added Vol:	0	0	0	0	0	10	20	23	0	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	462	234	22	298	238	172	812	43	178	783	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	53	544	275	26	351	280	202	955	51	209	921	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	544	275	26	351	280	202	955	51	209	921	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	544	275	26	351	280	202	955	51	209	921	59
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.11	0.89	0.52	2.48	1.00	1.00	2.82	0.18
Final Sat.:	1600	3200	1600	1600	1779	1421	839	3961	1600	1600	4512	288
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.17	0.02	0.20	0.20	0.13	0.24	0.03	0.13	0.20	0.20
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.685
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	746	0	0	1028	25	11	0	166	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	746	0	0	1028	25	11	0	166	0	0	0
Added Vol:	30	0	0	0	22	32	11	0	34	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	160	746	0	0	1050	57	22	0	200	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	188	878	0	0	1235	67	26	0	235	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	878	0	0	1235	67	26	0	235	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	188	878	0	0	1235	67	26	0	235	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.20	0.00	1.80	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	317	0	2883	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.27	0.00	0.00	0.39	0.04	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	135	387	116	0	370	140	124	850	173	225	889	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	387	116	0	370	140	124	850	173	225	889	105
Added Vol:	10	0	0	0	0	0	0	13	11	0	12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	145	387	116	0	370	140	124	863	184	225	901	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	171	455	136	0	435	165	146	1015	216	265	1060	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	455	136	0	435	165	146	1015	216	265	1060	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	171	455	136	0	435	165	146	1015	216	265	1060	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.47	0.53	1.00	2.69	0.31
Final Sat.:	1600	3200	1600	0	3200	1600	1600	3956	844	1600	4299	501
Capacity Analysis Module:												
Vol/Sat:	0.11	0.14	0.09	0.00	0.14	0.10	0.09	0.26	0.26	0.17	0.25	0.25
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.852
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0	1 0	1 0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	13	97	47	39	127	198	250	1596	28	36	1389	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	97	47	39	127	198	250	1596	28	36	1389	13
Added Vol:	27	7	46	0	9	0	3	31	39	31	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	104	93	39	136	198	253	1627	67	67	1389	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	47	122	109	46	160	233	298	1914	79	79	1634	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	122	109	46	160	233	298	1914	79	79	1634	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	47	122	109	46	160	233	298	1914	79	79	1634	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.21	0.79	1.00	1.00	2.88	0.12	1.00	2.97	0.03
Final Sat.:	1600	1600	1600	335	1265	1600	1600	4610	190	1600	4755	45
Capacity Analysis Module:												
Vol/Sat:	0.03	0.08	0.07	0.14	0.13	0.15	0.19	0.42	0.42	0.05	0.34	0.34
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.612
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	863	670	0	1200	0	0	0	0	492	0	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	863	670	0	1200	0	0	0	0	492	0	18
Added Vol:	0	37	0	0	54	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	900	670	0	1254	0	0	0	0	492	0	18
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1059	0	0	1475	0	0	0	0	579	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1059	0	0	1475	0	0	0	0	579	0	21
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1059	0	0	1475	0	0	0	0	579	0	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.18	0.00	0.01
Crit Moves:		****		****						****		

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Existing plus Project (Approved & Entitled 9900 Wilshire Project)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1544	4	386	2003	4	**501**
	Through-Right		0			0	
	Right	676	1	**599**	266	1	15
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	974	2	**536**	227	2	**125**
	Left-Through		0			0	
	Through	1803	3	601	1727	3	576
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	140	2	**77**	457	2	251
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	217	2	0	733	2	**278**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1135		*North-South:*	626
			East-West:	77		*East-West:*	278
			SUM:	1212		*SUM:*	904
VOLUME/CAPACITY *(V/C)* RATIO:				0.881			0.657
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.781**			**0.557**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Existing plus Project (Approved & Entitled 9900 Wilshire Project)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1596	4	**399**	1415	4	354
	Through-Right		0			0	
	Right	297	1	186	120	1	67
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	301	2	**166**	163	2	90
	Left-Through		0			0	
	Through	1603	3	534	1568	3	**523**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	201	2	**111**	97	2	**53**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	335	2	18	107	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	565		*North-South:*	523
			East-West:	111		*East-West:*	53
			SUM:	676		*SUM:*	576
VOLUME/CAPACITY *(V/C)* RATIO:				0.492			0.419
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.392**			**0.319**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	39	83	155	7	101	27	18	861	37	138	878	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	83	155	7	101	27	18	861	37	138	878	14
Added Vol:	4	0	7	0	0	0	0	0	3	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	83	162	7	101	27	18	861	40	144	878	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	51	98	191	8	119	32	21	1013	47	169	1033	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	98	191	8	119	32	21	1013	47	169	1033	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	98	191	8	119	32	21	1013	47	169	1033	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.34	0.66	1.00	0.79	0.21	1.00	1.91	0.09	1.00	1.97	0.03
Final Sat.:	1600	542	1058	1600	1262	338	1600	3058	142	1600	3150	50
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.01	0.09	0.09	0.01	0.33	0.33	0.11	0.33	0.33
Crit Moves:		****		****				****		****		

Level of Service Workheet
(Circular 212 Method)

I/S #:	
11	

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Avenue of the Stars
Scenario: Existing plus Project (Approved & Entitled 9900 Wilshire Project)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	21	1	21	32	1	**32**
	Left-Through		0			0	
	Through	1963	4	**491**	1713	4	428
	Through-Right		0			0	
	Right	519	1	429	304	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	529	2	**291**	269	2	148
	Left-Through		0			0	
	Through	1420	3	473	1927	3	**642**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	258	3	**90**	745	3	**261**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	353	2	0	458	2	104
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	782		*North-South:*	674
			East-West:	90		*East-West:*	261
			SUM:	872		*SUM:*	935
VOLUME/CAPACITY *(V/C)* RATIO:				0.634			0.680
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.534**			**0.580**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Avenue of the Stars
Scenario: Existing plus Project (Approved & Entitled 9900 Wilshire Project)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY				WEEKEND_SAT			
No. of Phases				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	3	SB--	0	NB--	3	SB--	0
	EB--	0	WB--	3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2				2
Override Capacity				0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	41	1	**41**	52	1	**52**
	Left-Through		0			0	
	Through	1571	4	393	1410	4	353
	Through-Right		0			0	
	Right	366	1	256	244	1	170
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	265	2	146	168	2	92
	Left-Through		0			0	
	Through	1595	3	**532**	1478	3	**493**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	313	3	**110**	211	3	**74**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	307	2	23	165	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	573		*North-South:*	545
			East-West:	110		*East-West:*	74
			SUM:	683		*SUM:*	619
VOLUME/CAPACITY *(V/C)* RATIO:				0.497			0.450
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.397**			**0.350**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Scenario Report

Scenario:	EP_AM
Command:	EP_AM
Volume:	Existing_AM
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	AM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.908	E	xxxxx	0.916	+ 0.007 V/C
# 2 Santa Monica Boulevard North/W	E	xxxxx	0.936	E	xxxxx	0.943	+ 0.007 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.854	D	xxxxx	0.856	+ 0.002 V/C
# 4 Santa Monica Boulevard South/W	E	xxxxx	0.944	E	xxxxx	0.947	+ 0.003 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.775	C	xxxxx	0.794	+ 0.019 V/C
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.896	D	xxxxx	0.900	+ 0.003 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.160	F	xxxxx	1.165	+ 0.005 V/C
# 8 Santa Monica Boulevard/Crossov	E	xxxxx	0.925	E	xxxxx	0.934	+ 0.009 V/C
# 9 Santa Monica Boulevard/Century	E	xxxxx	0.955	E	xxxxx	0.955	+ 0.000 V/C
# 10 Sunset Boulevard/Whittier Driv	E	xxxxx	0.946	E	xxxxx	0.949	+ 0.003 V/C

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.916
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	109	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	37	1393	33	94	1387	41	31	505	54	13	259	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	1393	33	94	1387	41	31	505	54	13	259	120
Added Vol:	3	12	0	0	11	0	0	0	4	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	40	1405	33	94	1398	41	31	505	58	15	259	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	47	1653	39	111	1645	48	36	594	68	18	305	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	1653	39	111	1645	48	36	594	68	18	305	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	47	1653	39	111	1645	48	36	594	68	18	305	141
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.94	0.06	1.00	1.79	0.21	1.00	1.37	0.63
Final Sat.:	1600	3127	73	1600	3109	91	1600	2870	330	1600	2187	1013
Capacity Analysis Module:												
Vol/Sat:	0.03	0.53	0.53	0.07	0.53	0.53	0.02	0.21	0.21	0.01	0.14	0.14
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.943
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	128	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Added Vol:	0	8	1	0	15	1	7	8	0	11	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	625	41	0	1103	363	640	1150	46	142	1352	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	735	48	0	1298	427	753	1353	54	167	1591	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	735	48	0	1298	427	753	1353	54	167	1591	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	735	48	0	1298	427	753	1353	54	167	1591	29
OvlAdjVol:						51						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	3.00	1.00	2.00	3.00	1.00	1.00	2.95	0.05
Final Sat.:	0	3200	1600	0	4800	1600	3200	4800	1600	1600	4713	87
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.03	0.00	0.27	0.27	0.24	0.28	0.03	0.10	0.34	0.34
OvlAdjV/S:						0.03						
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.856
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	53	636	112	171	1216	23	0	512	93	50	352	115
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	636	112	171	1216	23	0	512	93	50	352	115
Added Vol:	0	5	0	0	3	2	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	641	112	171	1219	25	0	512	93	50	352	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	62	754	132	201	1434	29	0	602	109	59	414	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	754	132	201	1434	29	0	602	109	59	414	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	754	132	201	1434	29	0	602	109	59	414	135
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.00	1.96	0.04	0.00	1.69	0.31	1.00	2.00	1.00
Final Sat.:	1600	2724	476	1600	3136	64	0	2708	492	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.28	0.13	0.46	0.46	0.00	0.22	0.22	0.04	0.13	0.08
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.947
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	131	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	55	556	260	33	762	255	181	899	96	224	1202	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	556	260	33	762	255	181	899	96	224	1202	53
Added Vol:	0	3	5	0	0	3	2	7	0	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	559	265	33	762	258	183	906	96	224	1212	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	65	658	312	39	896	304	215	1066	113	264	1426	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	658	312	39	896	304	215	1066	113	264	1426	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	658	312	39	896	304	215	1066	113	264	1426	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.49	0.51	0.50	2.50	1.00	1.00	2.87	0.13
Final Sat.:	1600	3200	1600	1600	2391	809	807	3993	1600	1600	4599	201
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.19	0.02	0.38	0.38	0.13	0.27	0.07	0.16	0.31	0.31
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	122	716	0	0	1215	22	4	0	374	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	716	0	0	1215	22	4	0	374	0	0	0
Added Vol:	8	8	0	0	25	1	0	0	10	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	724	0	0	1240	23	4	0	384	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	153	852	0	0	1459	27	5	0	452	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	852	0	0	1459	27	5	0	452	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	852	0	0	1459	27	5	0	452	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.02	0.00	1.98	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	33	0	3167	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.27	0.00	0.00	0.46	0.02	0.14	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.900
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	143	538	131	0	439	86	100	870	119	183	1782	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	143	538	131	0	439	86	100	870	119	183	1782	80
Added Vol:	2	0	0	0	0	0	0	9	2	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	145	538	131	0	439	86	100	879	121	183	1790	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	171	633	154	0	516	101	118	1034	142	215	2106	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	633	154	0	516	101	118	1034	142	215	2106	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	171	633	154	0	516	101	118	1034	142	215	2106	94
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.64	0.36	1.00	2.87	0.13
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4219	581	1600	4595	205
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.10	0.00	0.16	0.06	0.07	0.25	0.25	0.13	0.46	0.46
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.165
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	21	73	26	103	304	502	204	1674	35	45	1975	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	73	26	103	304	502	204	1674	35	45	1975	14
Added Vol:	0	0	1	0	3	0	6	14	7	1	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	73	27	103	307	502	210	1688	42	46	1977	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	25	86	32	121	361	591	247	1986	49	54	2326	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	86	32	121	361	591	247	1986	49	54	2326	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	86	32	121	361	591	247	1986	49	54	2326	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.23	0.77	1.00	1.00	2.93	0.07	1.00	2.98	0.02
Final Sat.:	1600	1600	1600	361	1239	1600	1600	4683	117	1600	4766	34
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.02	0.34	0.29	0.37	0.15	0.42	0.42	0.03	0.49	0.49
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.934
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	120	Level Of Service:	E

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	843	865	0	1534	0	0	0	0	1220	0	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	843	865	0	1534	0	0	0	0	1220	0	15
Added Vol:	0	19	7	0	37	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	862	872	0	1571	0	0	0	0	1220	0	15
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1014	0	0	1848	0	0	0	0	1435	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1014	0	0	1848	0	0	0	0	1435	0	18
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1014	0	0	1848	0	0	0	0	1435	0	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.45	0.00	0.01
Crit Moves:	****				****					****		

One Beverly Hills
Existing plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.949
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	132	Level Of Service:	E

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	42	62	152	23	223	49	35	1263	41	184	1231	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	62	152	23	223	49	35	1263	41	184	1231	5
Added Vol:	2	0	2	0	0	0	0	0	2	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	62	154	23	223	49	35	1263	43	185	1231	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	52	73	181	27	262	58	41	1486	51	218	1448	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	73	181	27	262	58	41	1486	51	218	1448	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	73	181	27	262	58	41	1486	51	218	1448	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.29	0.71	1.00	0.82	0.18	1.00	1.93	0.07	1.00	1.99	0.01
Final Sat.:	1600	459	1141	1600	1312	288	1600	3095	105	1600	3187	13
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.02	0.20	0.20	0.03	0.48	0.48	0.14	0.45	0.45
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Scenario Report

Scenario:	EP_PM
Command:	EP_PM
Volume:	Existing_PM
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	PM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.923	E	xxxxx	0.930	+ 0.007 V/C
# 2 Santa Monica Boulevard North/W	D	xxxxx	0.867	D	xxxxx	0.877	+ 0.009 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.885	D	xxxxx	0.887	+ 0.003 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.895	D	xxxxx	0.899	+ 0.004 V/C
# 5 Santa Monica Boulevard North/M	E	xxxxx	0.911	E	xxxxx	0.942	+ 0.031 V/C
# 6 Wilshire Boulevard/Beverly Dri	E	xxxxx	0.968	E	xxxxx	0.975	+ 0.007 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.247	F	xxxxx	1.254	+ 0.007 V/C
# 8 Santa Monica Boulevard/Crossov	C	xxxxx	0.762	C	xxxxx	0.776	+ 0.014 V/C
# 9 Santa Monica Boulevard/Century	C	xxxxx	0.734	C	xxxxx	0.744	+ 0.010 V/C
# 10 Sunset Boulevard/Whittier Driv	F	xxxxx	1.041	F	xxxxx	1.044	+ 0.004 V/C

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.930
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	117	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	43	1289	36	81	1316	41	35	367	53	51	483	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	1289	36	81	1316	41	35	367	53	51	483	198
Added Vol:	6	18	0	0	20	0	0	0	7	3	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	1307	36	81	1336	41	35	367	60	54	484	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	58	1538	42	95	1572	48	41	432	71	64	569	233
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	1538	42	95	1572	48	41	432	71	64	569	233
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	1538	42	95	1572	48	41	432	71	64	569	233
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.94	0.06	1.00	1.72	0.28	1.00	1.42	0.58
Final Sat.:	1600	3114	86	1600	3105	95	1600	2750	450	1600	2271	929
Capacity Analysis Module:												
Vol/Sat:	0.04	0.49	0.49	0.06	0.51	0.51	0.03	0.16	0.16	0.04	0.25	0.25
Crit Moves:		****		****			****				****	

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.877
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	90	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	557	66	0	845	524	520	1048	26	179	1281	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	557	66	0	845	524	520	1048	26	179	1281	43
Added Vol:	0	17	2	0	26	4	7	7	0	19	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	574	68	0	871	528	527	1055	26	198	1286	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	675	80	0	1025	621	620	1241	31	233	1513	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	675	80	0	1025	621	620	1241	31	233	1513	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	675	80	0	1025	621	620	1241	31	233	1513	51
OvlAdjVol:						153						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.49	1.51	2.00	3.00	1.00	1.00	2.90	0.10
Final Sat.:	0	3200	1600	0	3985	2415	3200	4800	1600	1600	4645	155
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.05	0.00	0.26	0.26	0.19	0.26	0.02	0.15	0.33	0.33
OvlAdjV/S:						0.06						
Crit Moves:	****				****		****				****	

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.887
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	94	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	146	1235	116	74	781	48	0	437	88	55	533	155
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	1235	116	74	781	48	0	437	88	55	533	155
Added Vol:	1	7	0	0	5	3	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	147	1242	116	74	786	51	0	437	88	55	533	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	173	1461	136	87	925	60	0	514	104	65	627	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	173	1461	136	87	925	60	0	514	104	65	627	182
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	173	1461	136	87	925	60	0	514	104	65	627	182
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.83	0.17	1.00	1.88	0.12	0.00	1.66	0.34	1.00	2.00	1.00
Final Sat.:	1600	2927	273	1600	3005	195	0	2664	536	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.11	0.50	0.50	0.05	0.31	0.31	0.00	0.19	0.19	0.04	0.20	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.899
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	839	232	45	390	252	227	936	36	229	1129	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	839	232	45	390	252	227	936	36	229	1129	92
Added Vol:	0	6	10	0	0	5	2	7	0	0	19	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	845	242	45	390	257	229	943	36	229	1148	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	64	994	285	53	459	302	269	1109	42	269	1351	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	994	285	53	459	302	269	1109	42	269	1351	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	994	285	53	459	302	269	1109	42	269	1351	108
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.21	0.79	0.59	2.41	1.00	1.00	2.78	0.22
Final Sat.:	1600	3200	1600	1600	1929	1271	938	3862	1600	1600	4444	356
Capacity Analysis Module:												
Vol/Sat:	0.04	0.31	0.18	0.03	0.24	0.24	0.17	0.29	0.03	0.17	0.30	0.30
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.942
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	127	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	480	656	0	0	1049	37	6	0	191	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	480	656	0	0	1049	37	6	0	191	0	0	0
Added Vol:	13	18	0	0	42	3	0	0	16	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	493	674	0	0	1091	40	6	0	207	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	580	793	0	0	1284	47	7	0	244	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	580	793	0	0	1284	47	7	0	244	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	580	793	0	0	1284	47	7	0	244	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.06	0.00	1.94	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	90	0	3110	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.36	0.25	0.00	0.00	0.40	0.03	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.975
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	160	Level Of Service:	E

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	117	435	158	0	590	137	119	1482	131	231	1189	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	435	158	0	590	137	119	1482	131	231	1189	93
Added Vol:	4	0	0	0	0	0	0	13	4	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	435	158	0	590	137	119	1495	135	231	1204	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	142	512	186	0	694	161	140	1759	159	272	1416	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	512	186	0	694	161	140	1759	159	272	1416	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	142	512	186	0	694	161	140	1759	159	272	1416	109
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.75	0.25	1.00	2.78	0.22
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4402	398	1600	4456	344
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.12	0.00	0.22	0.10	0.09	0.40	0.40	0.17	0.32	0.32
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.254
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	19	453	59	37	123	277	238	1739	28	22	1749	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	453	59	37	123	277	238	1739	28	22	1749	26
Added Vol:	1	1	2	0	6	1	6	12	13	3	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	454	61	37	129	278	244	1751	41	25	1754	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	24	534	72	44	152	327	287	2060	48	29	2064	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	534	72	44	152	327	287	2060	48	29	2064	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	534	72	44	152	327	287	2060	48	29	2064	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.17	0.83	1.00	1.00	2.93	0.07	1.00	2.96	0.04
Final Sat.:	1600	1600	1600	267	1333	1600	1600	4690	110	1600	4730	70
Capacity Analysis Module:												
Vol/Sat:	0.01	0.33	0.04	0.16	0.11	0.20	0.18	0.44	0.44	0.02	0.44	0.44
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Added Vol:	0	39	16	0	70	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1153	1652	0	1313	0	0	0	0	687	0	26
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1356	0	0	1545	0	0	0	0	808	0	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1356	0	0	1545	0	0	0	0	808	0	31
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1356	0	0	1545	0	0	0	0	808	0	31
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.42	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.25	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Existing plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.044
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	162	241	175	10	98	21	43	1333	24	175	1109	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	162	241	175	10	98	21	43	1333	24	175	1109	24
Added Vol:	4	0	1	0	0	0	0	0	4	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	166	241	176	10	98	21	43	1333	28	177	1109	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	195	284	207	12	115	25	51	1568	33	208	1305	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	195	284	207	12	115	25	51	1568	33	208	1305	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	195	284	207	12	115	25	51	1568	33	208	1305	28
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.58	0.42	1.00	0.82	0.18	1.00	1.96	0.04	1.00	1.96	0.04
Final Sat.:	1600	925	675	1600	1318	282	1600	3134	66	1600	3132	68
Capacity Analysis Module:												
Vol/Sat:	0.12	0.31	0.31	0.01	0.09	0.09	0.03	0.50	0.50	0.13	0.42	0.42
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Scenario Report

Scenario:	EP_Midday
Command:	EP_Mid
Volume:	Existing_Mid
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Midday
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.920	E	xxxxx	0.929	+ 0.009 V/C
# 2 Santa Monica Boulevard North/W	D	xxxxx	0.830	D	xxxxx	0.839	+ 0.009 V/C
# 3 Santa Monica Boulevard South/B	C	xxxxx	0.784	C	xxxxx	0.786	+ 0.002 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.809	D	xxxxx	0.818	+ 0.009 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.712	C	xxxxx	0.736	+ 0.024 V/C
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.805	D	xxxxx	0.811	+ 0.006 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.874	D	xxxxx	0.881	+ 0.007 V/C
# 8 Santa Monica Boulevard/Crossov	B	xxxxx	0.682	B	xxxxx	0.693	+ 0.011 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.576	A	xxxxx	0.590	+ 0.014 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.794	C	xxxxx	0.798	+ 0.004 V/C

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.929
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	117	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	49	1297	61	94	1254	37	44	460	82	71	330	146
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	1297	61	94	1254	37	44	460	82	71	330	146
Added Vol:	5	16	0	0	15	0	0	0	5	2	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	1313	61	94	1269	37	44	460	87	73	331	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	64	1545	72	111	1493	44	52	541	102	86	389	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	1545	72	111	1493	44	52	541	102	86	389	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	1545	72	111	1493	44	52	541	102	86	389	172
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.94	0.06	1.00	1.68	0.32	1.00	1.39	0.61
Final Sat.:	1600	3058	142	1600	3109	91	1600	2691	509	1600	2221	979
Capacity Analysis Module:												
Vol/Sat:	0.04	0.51	0.51	0.07	0.48	0.48	0.03	0.20	0.20	0.05	0.18	0.18
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.839
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	718	87	0	806	413	514	927	49	164	1076	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	718	87	0	806	413	514	927	49	164	1076	55
Added Vol:	0	13	2	0	20	3	8	9	0	15	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	731	89	0	826	416	522	936	49	179	1080	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	860	105	0	972	489	614	1101	58	211	1271	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	860	105	0	972	489	614	1101	58	211	1271	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	860	105	0	972	489	614	1101	58	211	1271	65
OvlAdjVol:						78						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.66	1.34	2.00	3.00	1.00	1.00	2.85	0.15
Final Sat.:	0	3200	1600	0	4256	2144	3200	4800	1600	1600	4567	233
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.07	0.00	0.23	0.23	0.19	0.23	0.04	0.13	0.28	0.28
OvlAdjV/S:						0.04						
Crit Moves:		****		****			****				****	

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	66	707	148	133	807	41	0	529	90	60	439	182
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	707	148	133	807	41	0	529	90	60	439	182
Added Vol:	1	6	0	0	4	2	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	713	148	133	811	43	0	529	90	60	439	182
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	79	839	174	156	954	51	0	622	106	71	516	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	839	174	156	954	51	0	622	106	71	516	214
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	79	839	174	156	954	51	0	622	106	71	516	214
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.90	0.10	0.00	1.71	0.29	1.00	2.00	1.00
Final Sat.:	1600	2650	550	1600	3039	161	0	2735	465	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.32	0.32	0.10	0.31	0.31	0.00	0.23	0.23	0.04	0.16	0.13
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	601	339	56	361	299	153	823	36	244	939	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	601	339	56	361	299	153	823	36	244	939	77
Added Vol:	0	5	8	0	0	4	3	8	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	606	347	56	361	303	156	831	36	244	953	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	64	713	408	66	425	356	184	978	42	287	1121	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	713	408	66	425	356	184	978	42	287	1121	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	713	408	66	425	356	184	978	42	287	1121	91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.09	0.91	0.47	2.53	1.00	1.00	2.78	0.22
Final Sat.:	1600	3200	1600	1600	1740	1460	759	4041	1600	1600	4441	359
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.26	0.04	0.24	0.24	0.11	0.24	0.03	0.18	0.25	0.25
Crit Moves:			****	****				****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.736
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	221	773	0	0	1030	20	4	0	190	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	773	0	0	1030	20	4	0	190	0	0	0
Added Vol:	9	14	0	0	33	2	1	0	13	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	230	787	0	0	1063	22	5	0	203	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	271	926	0	0	1251	26	6	0	239	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	271	926	0	0	1251	26	6	0	239	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	271	926	0	0	1251	26	6	0	239	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.05	0.00	1.95	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	77	0	3123	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.17	0.29	0.00	0.00	0.39	0.02	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.811
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	146	428	125	0	472	146	162	947	160	208	1087	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	428	125	0	472	146	162	947	160	208	1087	137
Added Vol:	3	0	0	0	0	0	0	12	3	0	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	149	428	125	0	472	146	162	959	163	208	1098	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	175	504	147	0	555	172	191	1128	192	245	1292	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	504	147	0	555	172	191	1128	192	245	1292	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	175	504	147	0	555	172	191	1128	192	245	1292	161
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.56	0.44	1.00	2.67	0.33
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4103	697	1600	4268	532
Capacity Analysis Module:												
Vol/Sat:	0.11	0.16	0.09	0.00	0.17	0.11	0.12	0.28	0.27	0.15	0.30	0.30
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	20	80	36	56	133	254	188	1445	41	30	1574	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	80	36	56	133	254	188	1445	41	30	1574	18
Added Vol:	1	1	4	0	4	1	6	13	9	2	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	81	40	56	137	255	194	1458	50	32	1579	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	25	95	47	66	161	300	228	1715	59	38	1858	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	95	47	66	161	300	228	1715	59	38	1858	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	95	47	66	161	300	228	1715	59	38	1858	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.25	0.75	1.00	1.00	2.90	0.10	1.00	2.97	0.03
Final Sat.:	1600	1600	1600	400	1200	1600	1600	4641	159	1600	4746	54
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.03	0.16	0.13	0.19	0.14	0.37	0.37	0.02	0.39	0.39
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.693
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	923	994	0	1215	0	0	0	0	661	0	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	923	994	0	1215	0	0	0	0	661	0	27
Added Vol:	0	30	12	0	57	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	953	1006	0	1272	0	0	0	0	661	0	27
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1121	0	0	1496	0	0	0	0	778	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1121	0	0	1496	0	0	0	0	778	0	32
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1121	0	0	1496	0	0	0	0	778	0	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.24	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Existing plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.798
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	67	108	168	15	89	51	42	1005	33	134	971	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	108	168	15	89	51	42	1005	33	134	971	8
Added Vol:	3	0	2	0	0	0	0	0	3	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	108	170	15	89	51	42	1005	36	136	971	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	82	127	200	18	105	60	49	1182	42	160	1142	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	127	200	18	105	60	49	1182	42	160	1142	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	127	200	18	105	60	49	1182	42	160	1142	9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.39	0.61	1.00	0.64	0.36	1.00	1.93	0.07	1.00	1.98	0.02
Final Sat.:	1600	622	978	1600	1017	583	1600	3089	111	1600	3174	26
Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.01	0.10	0.10	0.03	0.38	0.38	0.10	0.36	0.36
Crit Moves:		****		****				****		****		

One Beverly Hills

Existing plus Project Conditions - Saturday Midday Peak Hour

Scenario Report

Scenario:	EP_Saturday_Midday
Command:	EP_Sat
Volume:	Existing_Sat
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Saturday
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	D	xxxxx	0.897	E	xxxxx	0.904	+ 0.007 V/C
# 2 Santa Monica Boulevard North/W	C	xxxxx	0.796	D	xxxxx	0.803	+ 0.007 V/C
# 3 Santa Monica Boulevard South/B	B	xxxxx	0.673	B	xxxxx	0.675	+ 0.002 V/C
# 4 Santa Monica Boulevard South/W	B	xxxxx	0.688	B	xxxxx	0.691	+ 0.003 V/C
# 5 Santa Monica Boulevard North/M	B	xxxxx	0.639	B	xxxxx	0.654	+ 0.015 V/C
# 6 Wilshire Boulevard/Beverly Dri	C	xxxxx	0.751	C	xxxxx	0.756	+ 0.004 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.844	D	xxxxx	0.850	+ 0.005 V/C
# 8 Santa Monica Boulevard/Crossov	A	xxxxx	0.598	B	xxxxx	0.606	+ 0.007 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.521	A	xxxxx	0.531	+ 0.010 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.712	C	xxxxx	0.715	+ 0.003 V/C

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	52	1338	62	83	1301	35	43	373	94	68	301	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	1338	62	83	1301	35	43	373	94	68	301	147
Added Vol:	4	12	0	0	11	0	0	0	3	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	1350	62	83	1312	35	43	373	97	70	301	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	66	1588	73	98	1544	41	51	439	114	82	354	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	1588	73	98	1544	41	51	439	114	82	354	173
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	1588	73	98	1544	41	51	439	114	82	354	173
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.91	0.09	1.00	1.95	0.05	1.00	1.59	0.41	1.00	1.34	0.66
Final Sat.:	1600	3059	141	1600	3117	83	1600	2540	660	1600	2150	1050
Capacity Analysis Module:												
Vol/Sat:	0.04	0.52	0.52	0.06	0.50	0.50	0.03	0.17	0.17	0.05	0.16	0.16
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	688	61	0	841	455	619	923	47	155	858	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	688	61	0	841	455	619	923	47	155	858	21
Added Vol:	0	9	1	0	13	2	7	8	0	10	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	697	62	0	854	457	626	931	47	165	861	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	820	73	0	1005	538	736	1095	55	194	1013	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	820	73	0	1005	538	736	1095	55	194	1013	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	820	73	0	1005	538	736	1095	55	194	1013	25
OvlAdjVol:						24						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.61	1.39	2.00	3.00	1.00	1.00	2.93	0.07
Final Sat.:	0	3200	1600	0	4169	2231	3200	4800	1600	1600	4686	114
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.05	0.00	0.24	0.24	0.23	0.23	0.03	0.12	0.22	0.22
OvlAdjV/S:						0.01						
Crit Moves:		****		****			****				****	

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.675
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	75	582	124	96	560	34	0	408	97	78	411	156
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	75	582	124	96	560	34	0	408	97	78	411	156
Added Vol:	0	5	0	0	3	2	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	587	124	96	563	36	0	408	97	78	411	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	88	691	146	113	662	42	0	480	114	92	484	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	691	146	113	662	42	0	480	114	92	484	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	691	146	113	662	42	0	480	114	92	484	184
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.65	0.35	1.00	1.88	0.12	0.00	1.62	0.38	1.00	2.00	1.00
Final Sat.:	1600	2642	558	1600	3008	192	0	2585	615	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.26	0.26	0.07	0.22	0.22	0.00	0.19	0.19	0.06	0.15	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

****

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	45	462	234	22	298	228	152	789	43	178	761	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	462	234	22	298	228	152	789	43	178	761	50
Added Vol:	0	3	5	0	0	3	2	7	0	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	465	239	22	298	231	154	796	43	178	771	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	53	547	281	26	351	272	181	936	51	209	907	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	547	281	26	351	272	181	936	51	209	907	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	547	281	26	351	272	181	936	51	209	907	59
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.13	0.87	0.49	2.51	1.00	1.00	2.82	0.18
Final Sat.:	1600	3200	1600	1600	1803	1397	778	4022	1600	1600	4508	292
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.18	0.02	0.19	0.19	0.11	0.23	0.03	0.13	0.20	0.20
Crit Moves:	****				****			****		****		

****

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.654
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

****

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	746	0	0	1028	25	11	0	166	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	130	746	0	0	1028	25	11	0	166	0	0	0
Added Vol:	7	9	0	0	20	2	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	755	0	0	1048	27	11	0	173	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	161	888	0	0	1233	32	13	0	204	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	888	0	0	1233	32	13	0	204	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	161	888	0	0	1233	32	13	0	204	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.12	0.00	1.88	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	191	0	3009	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.28	0.00	0.00	0.39	0.02	0.07	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****		****					

****

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.756
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	135	387	116	0	370	140	124	850	173	225	889	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	387	116	0	370	140	124	850	173	225	889	105
Added Vol:	2	0	0	0	0	0	0	9	2	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	387	116	0	370	140	124	859	175	225	897	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	161	455	136	0	435	165	146	1011	206	265	1055	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	455	136	0	435	165	146	1011	206	265	1055	124
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	161	455	136	0	435	165	146	1011	206	265	1055	124
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.49	0.51	1.00	2.69	0.31
Final Sat.:	1600	3200	1600	0	3200	1600	1600	3988	812	1600	4297	503
Capacity Analysis Module:												
Vol/Sat:	0.10	0.14	0.09	0.00	0.14	0.10	0.09	0.25	0.25	0.17	0.25	0.25
Crit Moves:	****				****			****		****		

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.850
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	80	Level Of Service:	D

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	13	97	47	39	127	198	250	1596	28	36	1389	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	97	47	39	127	198	250	1596	28	36	1389	13
Added Vol:	0	0	1	0	3	0	6	14	7	3	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	97	48	39	130	198	256	1610	35	39	1392	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	15	114	56	46	153	233	301	1894	41	46	1638	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	114	56	46	153	233	301	1894	41	46	1638	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	15	114	56	46	153	233	301	1894	41	46	1638	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.21	0.79	1.00	1.00	2.94	0.06	1.00	2.97	0.03
Final Sat.:	1600	1600	1600	340	1260	1600	1600	4698	102	1600	4756	44
Capacity Analysis Module:												
Vol/Sat:	0.01	0.07	0.04	0.13	0.12	0.15	0.19	0.40	0.40	0.03	0.34	0.34
Crit Moves:		****				****	****				****	

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.606
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	863	670	0	1200	0	0	0	0	492	0	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	863	670	0	1200	0	0	0	0	492	0	18
Added Vol:	0	20	8	0	40	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	883	678	0	1240	0	0	0	0	492	0	18
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	1039	0	0	1459	0	0	0	0	579	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1039	0	0	1459	0	0	0	0	579	0	21
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1039	0	0	1459	0	0	0	0	579	0	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.18	0.00	0.01
Crit Moves:		****		****						****		

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Existing plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1558	4	390	2037	4	**509**
	Through-Right		0			0	
	Right	676	1	**599**	266	1	15
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	974	2	**536**	227	2	**125**
	Left-Through		0			0	
	Through	1816	3	605	1774	3	591
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	140	2	**77**	457	2	251
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	217	2	0	733	2	**278**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1135		*North-South:*	634
			East-West:	77		*East-West:*	278
			SUM:	1212		*SUM:*	912
VOLUME/CAPACITY *(V/C)* RATIO:				0.881			0.663
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.781**			**0.563**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Existing plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1616	4	**404**	1424	4	356
	Through-Right		0			0	
	Right	297	1	186	120	1	67
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	301	2	**166**	163	2	90
	Left-Through		0			0	
	Through	1633	3	544	1581	3	**527**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	201	2	**111**	97	2	**53**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	335	2	18	107	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	570		*North-South:*	527
			East-West:	111		*East-West:*	53
			SUM:	681		*SUM:*	580
VOLUME/CAPACITY *(V/C)* RATIO:				0.495			0.422
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.395**			**0.322**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Existing plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.715
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	39	83	155	7	101	27	18	861	37	138	878	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	83	155	7	101	27	18	861	37	138	878	14
Added Vol:	2	0	2	0	0	0	0	0	2	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	83	157	7	101	27	18	861	39	139	878	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	48	98	185	8	119	32	21	1013	46	164	1033	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	98	185	8	119	32	21	1013	46	164	1033	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	98	185	8	119	32	21	1013	46	164	1033	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.35	0.65	1.00	0.79	0.21	1.00	1.91	0.09	1.00	1.97	0.03
Final Sat.:	1600	553	1047	1600	1262	338	1600	3061	139	1600	3150	50
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.01	0.09	0.09	0.01	0.33	0.33	0.10	0.33	0.33
Crit Moves:		****		****				****		****		

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Avenue of the Stars
Scenario: Existing plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	21	1	21	32	1	**32**
	Left-Through		0			0	
	Through	1961	4	**490**	1712	4	428
	Through-Right		0			0	
	Right	519	1	429	304	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	545	2	**300**	304	2	167
	Left-Through		0			0	
	Through	1418	3	473	1939	3	**646**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	258	3	**90**	745	3	**261**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	353	2	0	458	2	85
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	790		*North-South:*	678
			East-West:	90		*East-West:*	261
			SUM:	880		*SUM:*	939
VOLUME/CAPACITY *(V/C)* RATIO:				0.640			0.683
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.540**			**0.583**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Avenue of the Stars
Scenario: Existing plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	41	1	**41**	52	1	**52**
	Left-Through		0			0	
	Through	1564	4	391	1402	4	351
	Through-Right		0			0	
	Right	366	1	256	244	1	170
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	292	2	161	185	2	102
	Left-Through		0			0	
	Through	1598	3	**533**	1474	3	**491**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	313	3	**110**	211	3	**74**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	307	2	8	165	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	574		*North-South:*	543
			East-West:	110		*East-West:*	74
			SUM:	684		*SUM:*	617
VOLUME/CAPACITY *(V/C)* RATIO:				0.497			0.449
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.397**			**0.349**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Scenario Report

Scenario:	Cumulative_AM
Command:	Cumulative_AM
Volume:	Cumulative_AM
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_AM
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.902	E	xxxxx	0.975	+ 0.074 V/C
# 2 Santa Monica Boulevard North/W	F	xxxxx	1.130	F	xxxxx	1.197	+ 0.067 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.847	D	xxxxx	0.895	+ 0.048 V/C
# 4 Santa Monica Boulevard South/W	E	xxxxx	0.937	E	xxxxx	0.995	+ 0.058 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.770	D	xxxxx	0.826	+ 0.056 V/C
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.890	E	xxxxx	0.921	+ 0.031 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.170	F	xxxxx	1.204	+ 0.034 V/C
# 8 Santa Monica Boulevard/Crossov	E	xxxxx	0.918	E	xxxxx	0.989	+ 0.071 V/C
# 9 Santa Monica Boulevard/Century	E	xxxxx	0.948	E	xxxxx	0.981	+ 0.033 V/C
# 10 Sunset Boulevard/Whittier Driv	E	xxxxx	0.939	E	xxxxx	0.947	+ 0.008 V/C

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.975
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	160	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	37	1393	33	94	1387	41	31	505	54	13	259	120
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	39	1463	35	99	1456	43	33	530	57	14	272	126
Added Vol:	5	75	0	44	53	12	17	0	3	3	2	40
PasserByVol:	3	32	1	0	83	4	12	0	7	0	20	0
Initial Fut:	47	1570	36	143	1592	59	62	530	67	17	294	166
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	1744	40	159	1769	66	68	589	74	19	327	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	1744	40	159	1769	66	68	589	74	19	327	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	1744	40	159	1769	66	68	589	74	19	327	184
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.93	0.07	1.00	1.78	0.22	1.00	1.28	0.72
Final Sat.:	1600	3129	71	1600	3086	114	1600	2842	358	1600	2045	1155
Capacity Analysis Module:												
Vol/Sat:	0.03	0.56	0.56	0.10	0.57	0.57	0.04	0.21	0.21	0.01	0.16	0.16
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.197
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	1 1	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	648	42	0	1142	380	665	1199	48	138	1418	26
Added Vol:	0	34	3	0	36	23	46	70	3	7	37	0
PasserByVol:	0	35	12	0	77	5	7	7	0	-14	4	5
Initial Fut:	0	717	57	0	1255	408	718	1276	51	131	1459	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	797	63	0	1395	453	797	1418	57	145	1621	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	797	63	0	1395	453	797	1418	57	145	1621	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	797	63	0	1395	453	797	1418	57	145	1621	35
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	3.00	1.00	1.08	2.84	0.08	1.00	2.94	0.06
Final Sat.:	0	3200	1600	0	4800	1600	1728	4549	124	1600	4699	101
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.04	0.00	0.29	0.28	0.46	0.31	0.46	0.09	0.34	0.34
OvlAdjV/S:						0.00						
Crit Moves:	****				****		****				****	

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	98	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	53	636	112	171	1216	23	0	512	93	50	352	115
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	56	668	118	180	1277	24	0	538	98	53	370	121
Added Vol:	18	41	0	2	15	5	0	0	44	0	22	5
PasserByVol:	0	8	1	0	38	0	0	0	0	0	20	0
Initial Fut:	74	717	119	182	1330	29	0	538	142	53	412	126
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	82	796	132	202	1478	32	0	597	157	58	457	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	796	132	202	1478	32	0	597	157	58	457	140
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	796	132	202	1478	32	0	597	157	58	457	140
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	1.96	0.04	0.00	1.58	0.42	1.00	2.00	1.00
Final Sat.:	1600	2746	454	1600	3131	69	0	2533	667	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.29	0.29	0.13	0.47	0.47	0.00	0.24	0.24	0.04	0.14	0.09
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.995
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	55	556	260	33	762	255	181	899	96	224	1202	53
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	58	584	273	35	800	268	190	944	101	235	1262	56
Added Vol:	2	44	56	16	40	4	15	58	1	20	39	0
PasserByVol:	5	13	10	0	-10	0	0	19	0	9	18	0
Initial Fut:	65	641	339	51	830	272	205	1021	102	264	1319	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	72	712	377	56	922	302	228	1134	113	294	1466	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	712	377	56	922	302	228	1134	113	294	1466	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	72	712	377	56	922	302	228	1134	113	294	1466	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.51	0.49	0.50	2.50	1.00	1.00	2.88	0.12
Final Sat.:	1600	3200	1600	1600	2411	789	803	3997	1600	1600	4606	194
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.24	0.04	0.38	0.38	0.14	0.28	0.07	0.18	0.32	0.32
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.826
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	122	716	0	0	1215	22	4	0	374	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	128	752	0	0	1276	23	4	0	393	0	0	0
Added Vol:	9	30	0	0	35	11	7	0	16	0	0	0
PasserByVol:	2	47	0	0	63	0	0	0	18	0	0	0
Initial Fut:	139	829	0	0	1374	34	11	0	427	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	155	921	0	0	1526	38	12	0	474	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	921	0	0	1526	38	12	0	474	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	155	921	0	0	1526	38	12	0	474	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.05	0.00	1.95	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	82	0	3118	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.29	0.00	0.00	0.48	0.02	0.15	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.921
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	143	538	131	0	439	86	100	870	119	183	1782	80
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	150	565	138	0	461	90	105	914	125	192	1871	84
Added Vol:	22	5	0	0	2	0	0	100	29	0	36	22
PasserByVol:	0	9	0	0	0	0	0	25	0	3	-2	11
Initial Fut:	172	579	138	0	463	90	105	1039	154	195	1905	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	191	643	153	0	514	100	117	1154	171	217	2117	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	643	153	0	514	100	117	1154	171	217	2117	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	191	643	153	0	514	100	117	1154	171	217	2117	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.61	0.39	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4180	620	1600	4522	278
Capacity Analysis Module:												
Vol/Sat:	0.12	0.20	0.10	0.00	0.16	0.06	0.07	0.28	0.28	0.14	0.47	0.47
Crit Moves:	****				****		****				****	

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.204
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	21	73	26	103	304	502	204	1674	35	45	1975	14
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	22	77	27	108	319	527	214	1758	37	47	2074	15
Added Vol:	13	4	22	5	3	0	2	90	13	10	50	0
PasserByVol:	0	1	0	0	2	0	0	14	0	0	9	0
Initial Fut:	35	82	49	113	324	527	216	1862	50	57	2133	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	39	91	55	126	360	586	240	2069	55	64	2370	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	91	55	126	360	586	240	2069	55	64	2370	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	91	55	126	360	586	240	2069	55	64	2370	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.62	0.38	0.23	0.77	1.00	1.00	2.92	0.08	1.00	2.98	0.02
Final Sat.:	1600	998	602	375	1225	1600	1600	4675	125	1600	4767	33
Capacity Analysis Module:												
Vol/Sat:	0.02	0.09	0.09	0.33	0.29	0.37	0.15	0.44	0.44	0.04	0.50	0.50
Crit Moves:			****			****	****				****	

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.989
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	843	865	0	1534	0	0	0	0	1220	0	15
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	885	908	0	1611	0	0	0	0	1281	0	16
Added Vol:	0	43	98	0	53	0	0	0	0	60	0	0
PasserByVol:	0	49	8	0	83	0	0	0	0	55	0	0
Initial Fut:	0	977	1014	0	1747	0	0	0	0	1396	0	16
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1086	0	0	1941	0	0	0	0	1551	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1086	0	0	1941	0	0	0	0	1551	0	18
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1086	0	0	1941	0	0	0	0	1551	0	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.48	0.00	0.01
Crit Moves:	****				****					****		

One Beverly Hills
Cumulative (20XX) Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.947
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	42	62	152	23	223	49	35	1263	41	184	1231	5
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	44	65	160	24	234	51	37	1326	43	193	1293	5
Added Vol:	2	0	4	0	0	0	0	0	1	7	0	0
PasserByVol:	0	0	0	0	2	0	0	0	0	0	0	0
Initial Fut:	46	65	164	24	236	51	37	1326	44	200	1293	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	51	72	182	27	262	57	41	1474	49	222	1436	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	72	182	27	262	57	41	1474	49	222	1436	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	72	182	27	262	57	41	1474	49	222	1436	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.28	0.72	1.00	0.82	0.18	1.00	1.94	0.06	1.00	1.99	0.01
Final Sat.:	1600	455	1145	1600	1314	286	1600	3097	103	1600	3187	13
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.02	0.20	0.20	0.03	0.48	0.48	0.14	0.45	0.45
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Scenario Report

Scenario:	Cumulative_Midday
Command:	Cumulative_Mid
Volume:	Cumulative_Mid
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_Midday
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.913	F	xxxxx	1.036	+ 0.123 V/C
# 2 Santa Monica Boulevard North/W	E	xxxxx	0.987	F	xxxxx	1.075	+ 0.088 V/C
# 3 Santa Monica Boulevard South/B	C	xxxxx	0.778	D	xxxxx	0.815	+ 0.037 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.803	E	xxxxx	0.904	+ 0.101 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.707	C	xxxxx	0.789	+ 0.082 V/C
# 6 Wilshire Boulevard/Beverly Dri	C	xxxxx	0.799	D	xxxxx	0.857	+ 0.058 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.894	E	xxxxx	0.956	+ 0.063 V/C
# 8 Santa Monica Boulevard/Crossov	B	xxxxx	0.678	C	xxxxx	0.761	+ 0.083 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.572	B	xxxxx	0.630	+ 0.058 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.788	D	xxxxx	0.802	+ 0.013 V/C

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.036
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	49	1297	61	94	1254	37	44	460	82	71	330	146
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	51	1362	64	99	1317	39	46	483	86	75	347	153
Added Vol:	8	122	0	54	106	29	32	0	7	5	2	62
PasserByVol:	6	67	0	0	69	12	14	0	2	0	28	0
Initial Fut:	65	1551	64	153	1492	80	92	483	95	80	377	215
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	73	1723	71	170	1657	89	102	537	106	88	418	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	1723	71	170	1657	89	102	537	106	88	418	239
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	73	1723	71	170	1657	89	102	537	106	88	418	239
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.90	0.10	1.00	1.67	0.33	1.00	1.27	0.73
Final Sat.:	1600	3073	127	1600	3037	163	1600	2674	526	1600	2036	1164
Capacity Analysis Module:												
Vol/Sat:	0.05	0.56	0.56	0.11	0.55	0.55	0.06	0.20	0.20	0.06	0.21	0.21
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.075
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	1 1	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	0	718	87	0	806	413	514	927	49	164	1076	55
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	754	91	0	846	434	540	973	51	172	1130	58
Added Vol:	0	57	7	0	65	54	72	61	1	15	38	0
PasserByVol:	0	61	12	0	55	15	8	8	0	5	14	2
Initial Fut:	0	872	110	0	966	503	620	1042	52	192	1182	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	969	123	0	1074	559	689	1158	58	214	1313	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	969	123	0	1074	559	689	1158	58	214	1313	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	969	123	0	1074	559	689	1158	58	214	1313	66
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.63	1.37	1.12	2.78	0.10	1.00	2.86	0.14
Final Sat.:	0	3200	1600	0	4210	2190	1790	4457	153	1600	4569	231
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.08	0.00	0.26	0.26	0.38	0.26	0.38	0.13	0.29	0.29
OvlAdjV/S:						0.00						
Crit Moves:		****			****			****			****	

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.815
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	66	707	148	133	807	41	0	529	90	60	439	182
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	69	742	155	140	847	43	0	555	95	63	461	191
Added Vol:	20	28	0	2	19	8	0	0	54	0	43	2
PasserByVol:	0	21	0	0	21	0	0	0	0	0	28	0
Initial Fut:	89	791	155	142	887	51	0	555	149	63	532	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	99	879	173	157	986	57	0	617	165	70	591	215
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	879	173	157	986	57	0	617	165	70	591	215
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	99	879	173	157	986	57	0	617	165	70	591	215
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.89	0.11	0.00	1.58	0.42	1.00	2.00	1.00
Final Sat.:	1600	2675	525	1600	3026	174	0	2525	675	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.33	0.33	0.10	0.33	0.33	0.00	0.24	0.24	0.04	0.18	0.13
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	601	339	56	361	299	153	823	36	244	939	77
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	57	631	356	59	379	314	161	864	38	256	986	81
Added Vol:	1	30	35	39	26	8	17	50	1	35	45	0
PasserByVol:	2	22	2	0	24	0	0	20	0	5	19	0
Initial Fut:	60	683	393	98	429	322	178	934	39	296	1050	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	66	759	437	109	477	358	197	1038	43	329	1167	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	759	437	109	477	358	197	1038	43	329	1167	90
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	759	437	109	477	358	197	1038	43	329	1167	90
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.14	0.86	0.48	2.52	1.00	1.00	2.79	0.21
Final Sat.:	1600	3200	1600	1600	1828	1372	767	4033	1600	1600	4457	343
Capacity Analysis Module:												
Vol/Sat:	0.04	0.24	0.27	0.07	0.26	0.26	0.12	0.26	0.03	0.21	0.26	0.26
Crit Moves:			****	****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.789
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	221	773	0	0	1030	20	4	0	190	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	232	812	0	0	1082	21	4	0	200	0	0	0
Added Vol:	21	50	0	0	59	23	14	0	31	0	0	0
PasserByVol:	11	73	0	0	60	0	0	0	7	0	0	0
Initial Fut:	264	935	0	0	1201	44	18	0	238	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	293	1039	0	0	1334	49	20	0	264	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	293	1039	0	0	1334	49	20	0	264	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	293	1039	0	0	1334	49	20	0	264	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.14	0.00	1.86	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	228	0	2972	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.32	0.00	0.00	0.42	0.03	0.09	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.857
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	146	428	125	0	472	146	162	947	160	208	1087	137
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	153	449	131	0	496	153	170	994	168	218	1141	144
Added Vol:	22	2	0	0	2	0	0	101	23	0	57	43
PasserByVol:	0	12	0	0	0	0	0	25	0	11	27	16
Initial Fut:	175	463	131	0	498	153	170	1120	191	229	1225	203
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	195	515	146	0	553	170	189	1245	212	255	1362	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	195	515	146	0	553	170	189	1245	212	255	1362	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	195	515	146	0	553	170	189	1245	212	255	1362	225
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.56	0.44	1.00	2.57	0.43
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4101	699	1600	4118	682
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.09	0.00	0.17	0.11	0.12	0.30	0.30	0.16	0.33	0.33
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.956
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	139	Level Of Service:	E

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	20	80	36	56	133	254	188	1445	41	30	1574	18
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	21	84	38	59	140	267	197	1517	43	32	1653	19
Added Vol:	27	10	43	2	9	0	1	87	28	25	67	0
PasserByVol:	0	4	0	0	1	0	0	16	0	0	29	0
Initial Fut:	48	98	81	61	150	267	198	1620	71	57	1749	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	53	109	90	68	166	296	220	1800	79	63	1943	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	109	90	68	166	296	220	1800	79	63	1943	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	53	109	90	68	166	296	220	1800	79	63	1943	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.55	0.45	0.25	0.75	1.00	1.00	2.87	0.13	1.00	2.97	0.03
Final Sat.:	1600	877	723	408	1192	1600	1600	4598	202	1600	4749	51
Capacity Analysis Module:												
Vol/Sat:	0.03	0.12	0.12	0.17	0.14	0.19	0.14	0.39	0.39	0.04	0.41	0.41
Crit Moves:			****			****	****				****	

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.761
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	923	994	0	1215	0	0	0	0	661	0	27
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	969	1044	0	1276	0	0	0	0	694	0	28
Added Vol:	0	78	65	0	81	0	0	0	0	60	0	0
PasserByVol:	0	73	-3	0	85	0	0	0	0	29	0	0
Initial Fut:	0	1120	1106	0	1442	0	0	0	0	783	0	28
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1245	0	0	1602	0	0	0	0	870	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1245	0	0	1602	0	0	0	0	870	0	32
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1245	0	0	1602	0	0	0	0	870	0	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.39	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.27	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Cumulative (20XX) Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.802
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	67	108	168	15	89	51	42	1005	33	134	971	8
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	70	113	176	16	93	54	44	1055	35	141	1020	8
Added Vol:	5	0	6	0	0	0	0	0	4	7	0	0
PasserByVol:	0	4	0	0	1	0	0	0	0	0	0	0
Initial Fut:	75	117	182	16	94	54	44	1055	39	148	1020	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	84	130	203	18	105	60	49	1173	43	164	1133	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	130	203	18	105	60	49	1173	43	164	1133	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	130	203	18	105	60	49	1173	43	164	1133	9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.39	0.61	1.00	0.64	0.36	1.00	1.93	0.07	1.00	1.98	0.02
Final Sat.:	1600	627	973	1600	1021	579	1600	3087	113	1600	3174	26
Capacity Analysis Module:												
Vol/Sat:	0.05	0.21	0.21	0.01	0.10	0.10	0.03	0.38	0.38	0.10	0.36	0.36
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Scenario Report

Scenario:	Cumulative_PM
Command:	Cumulative_PM
Volume:	Cumulative_PM
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_PM
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.916	F	xxxxx	1.093	+ 0.177 V/C
# 2 Santa Monica Boulevard North/W	F	xxxxx	1.051	F	xxxxx	1.143	+ 0.092 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.878	E	xxxxx	0.917	+ 0.039 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.888	F	xxxxx	1.006	+ 0.118 V/C
# 5 Santa Monica Boulevard North/M	E	xxxxx	0.904	E	xxxxx	0.990	+ 0.086 V/C
# 6 Wilshire Boulevard/Beverly Dri	E	xxxxx	0.961	F	xxxxx	1.028	+ 0.067 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.280	F	xxxxx	1.334	+ 0.054 V/C
# 8 Santa Monica Boulevard/Crossov	C	xxxxx	0.757	D	xxxxx	0.858	+ 0.102 V/C
# 9 Santa Monica Boulevard/Century	C	xxxxx	0.729	D	xxxxx	0.843	+ 0.115 V/C
# 10 Sunset Boulevard/Whittier Driv	F	xxxxx	1.033	F	xxxxx	1.044	+ 0.011 V/C

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.093
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	43	1289	36	81	1316	41	35	367	53	51	483	198
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	45	1353	38	85	1382	43	37	385	56	54	507	208
Added Vol:	5	131	0	69	143	39	40	0	8	5	4	72
PasserByVol:	13	52	1	0	66	10	8	0	6	1	17	0
Initial Fut:	63	1536	39	154	1591	92	85	385	70	60	528	280
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	70	1707	43	171	1768	102	94	428	77	66	587	311
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	1707	43	171	1768	102	94	428	77	66	587	311
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	70	1707	43	171	1768	102	94	428	77	66	587	311
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.89	0.11	1.00	1.69	0.31	1.00	1.31	0.69
Final Sat.:	1600	3121	79	1600	3025	175	1600	2710	490	1600	2092	1108
Capacity Analysis Module:												
Vol/Sat:	0.04	0.55	0.55	0.11	0.58	0.58	0.06	0.16	0.16	0.04	0.28	0.28
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.143
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	2	1 1	1 1	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	0	557	66	0	845	524	520	1048	26	179	1281	43
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	585	69	0	887	550	546	1100	27	188	1345	45
Added Vol:	0	61	3	0	84	71	75	59	1	17	61	0
PasserByVol:	0	61	2	0	59	13	4	4	0	15	14	3
Initial Fut:	0	707	74	0	1030	634	625	1163	28	220	1420	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	785	83	0	1145	705	694	1293	31	244	1578	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	785	83	0	1145	705	694	1293	31	244	1578	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	785	83	0	1145	705	694	1293	31	244	1578	54
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.48	1.52	1.05	2.90	0.05	1.00	2.90	0.10
Final Sat.:	0	3200	1600	0	3961	2439	1677	4647	76	1600	4643	157
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.05	0.00	0.29	0.29	0.41	0.28	0.41	0.15	0.34	0.34
OvlAdjV/S:						0.00						
Crit Moves:	****				****		****				****	

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.917
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	109	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	146	1235	116	74	781	48	0	437	88	55	533	155
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	153	1297	122	78	820	50	0	459	92	58	560	163
Added Vol:	19	20	0	4	30	10	0	0	69	0	53	2
PasserByVol:	0	13	0	0	30	0	0	0	0	1	17	0
Initial Fut:	172	1330	122	82	880	60	0	459	161	59	630	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	191	1478	135	91	978	67	0	510	179	65	700	183
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	1478	135	91	978	67	0	510	179	65	700	183
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	191	1478	135	91	978	67	0	510	179	65	700	183
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.83	0.17	1.00	1.87	0.13	0.00	1.48	0.52	1.00	2.00	1.00
Final Sat.:	1600	2931	269	1600	2994	206	0	2367	833	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.50	0.50	0.06	0.33	0.33	0.00	0.22	0.22	0.04	0.22	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.006
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	839	232	45	390	252	227	936	36	229	1129	92
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	57	881	244	47	410	265	238	983	38	240	1185	97
Added Vol:	1	27	40	52	39	9	11	49	2	64	69	0
PasserByVol:	3	20	15	0	36	0	0	6	0	8	29	0
Initial Fut:	61	928	299	99	485	274	249	1038	40	312	1283	97
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	67	1031	332	110	538	304	277	1153	44	347	1426	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	1031	332	110	538	304	277	1153	44	347	1426	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	1031	332	110	538	304	277	1153	44	347	1426	107
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.28	0.72	0.58	2.42	1.00	1.00	2.79	0.21
Final Sat.:	1600	3200	1600	1600	2045	1155	930	3870	1600	1600	4464	336
Capacity Analysis Module:												
Vol/Sat:	0.04	0.32	0.21	0.07	0.26	0.26	0.17	0.30	0.03	0.22	0.32	0.32
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.990
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0	0	2 0	1	0 0	1! 0	1	0 0	0 0 0
Volume Module:												
Base Vol:	480	656	0	0	1049	37	6	0	191	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	504	689	0	0	1101	39	6	0	201	0	0	0
Added Vol:	23	59	0	0	78	23	7	0	21	0	0	0
PasserByVol:	16	63	0	0	60	0	0	0	3	0	0	0
Initial Fut:	543	811	0	0	1239	62	13	0	225	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	603	901	0	0	1377	69	15	0	250	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	603	901	0	0	1377	69	15	0	250	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	603	901	0	0	1377	69	15	0	250	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.11	0.00	1.89	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	179	0	3021	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.38	0.28	0.00	0.00	0.43	0.04	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.028
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	117	435	158	0	590	137	119	1482	131	231	1189	93
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	123	457	166	0	620	144	125	1556	138	243	1248	98
Added Vol:	29	2	0	0	4	0	0	115	25	0	104	53
PasserByVol:	0	7	0	0	0	0	0	23	0	11	35	11
Initial Fut:	152	466	166	0	624	144	125	1694	163	254	1387	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	169	518	184	0	693	160	139	1882	181	282	1542	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	518	184	0	693	160	139	1882	181	282	1542	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	518	184	0	693	160	139	1882	181	282	1542	180
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.74	0.26	1.00	2.69	0.31
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4380	420	1600	4299	501
Capacity Analysis Module:												
Vol/Sat:	0.11	0.16	0.12	0.00	0.22	0.10	0.09	0.43	0.43	0.18	0.36	0.36
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.334
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	19	453	59	37	123	277	238	1739	28	22	1749	26
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	20	476	62	39	129	291	250	1826	29	23	1836	27
Added Vol:	15	5	25	2	10	0	1	108	30	28	105	0
PasserByVol:	0	3	0	0	2	0	0	8	0	0	27	0
Initial Fut:	35	484	87	41	141	291	251	1942	59	51	1968	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	39	537	97	45	157	323	279	2158	66	57	2187	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	537	97	45	157	323	279	2158	66	57	2187	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	39	537	97	45	157	323	279	2158	66	57	2187	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.85	0.15	0.17	0.83	1.00	1.00	2.91	0.09	1.00	2.96	0.04
Final Sat.:	1600	1356	244	276	1324	1600	1600	4658	142	1600	4734	66
Capacity Analysis Module:												
Vol/Sat:	0.02	0.40	0.40	0.16	0.12	0.20	0.17	0.46	0.46	0.04	0.46	0.46
Crit Moves:		****				****	****				****	

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.858
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	D

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	1170	1718	0	1305	0	0	0	0	721	0	27
Added Vol:	0	88	67	0	86	0	0	0	0	101	0	0
PasserByVol:	0	74	-1	0	83	0	0	0	0	30	0	0
Initial Fut:	0	1332	1784	0	1474	0	0	0	0	852	0	27
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1480	0	0	1638	0	0	0	0	947	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1480	0	0	1638	0	0	0	0	947	0	30
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1480	0	0	1638	0	0	0	0	947	0	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.46	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.30	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Cumulative (20XX) Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.044
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	162	241	175	10	98	21	43	1333	24	175	1109	24
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	170	253	184	11	103	22	45	1400	25	184	1164	25
Added Vol:	2	0	4	0	0	0	0	0	5	7	0	0
PasserByVol:	0	3	0	0	2	0	0	0	0	0	0	0
Initial Fut:	172	256	188	11	105	22	45	1400	30	191	1164	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	191	285	209	12	117	25	50	1555	34	212	1294	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	285	209	12	117	25	50	1555	34	212	1294	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	191	285	209	12	117	25	50	1555	34	212	1294	28
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.58	0.42	1.00	0.83	0.17	1.00	1.96	0.04	1.00	1.96	0.04
Final Sat.:	1600	923	677	1600	1322	278	1600	3132	68	1600	3132	68
Capacity Analysis Module:												
Vol/Sat:	0.12	0.31	0.31	0.01	0.09	0.09	0.03	0.50	0.50	0.13	0.41	0.41
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Scenario Report

Scenario:	Cumulative_Saturday_Midday
Command:	Cumulative_Sat
Volume:	Cumulative_Sat
Geometry:	Cumulative
Impact Fee:	Default Impact Fee
Trip Generation:	No Project_Saturday
Trip Distribution:	No Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in V/C
# 1 Santa Monica Boulevard North/B	D	xxxxx	0.891	F	xxxxx	1.058	+ 0.167
# 2 Santa Monica Boulevard North/W	E	xxxxx	0.939	F	xxxxx	1.041	+ 0.102
# 3 Santa Monica Boulevard South/B	B	xxxxx	0.668	C	xxxxx	0.716	+ 0.047
# 4 Santa Monica Boulevard South/W	B	xxxxx	0.683	C	xxxxx	0.800	+ 0.117
# 5 Santa Monica Boulevard North/M	B	xxxxx	0.634	C	xxxxx	0.722	+ 0.088
# 6 Wilshire Boulevard/Beverly Dri	C	xxxxx	0.746	D	xxxxx	0.820	+ 0.074
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.872	E	xxxxx	0.928	+ 0.055
# 8 Santa Monica Boulevard/Crossov	A	xxxxx	0.594	B	xxxxx	0.691	+ 0.097
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.517	A	xxxxx	0.597	+ 0.080
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.707	C	xxxxx	0.718	+ 0.011

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.058
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	52	1338	62	83	1301	35	43	373	94	68	301	147
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	55	1405	65	87	1366	37	45	392	99	71	316	154
Added Vol:	6	135	0	69	140	40	39	0	7	5	1	66
PasserByVol:	9	83	0	0	82	9	14	0	2	0	25	0
Initial Fut:	70	1623	65	156	1588	86	98	392	108	76	342	220
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	77	1803	72	174	1765	95	109	435	120	85	380	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	1803	72	174	1765	95	109	435	120	85	380	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	77	1803	72	174	1765	95	109	435	120	85	380	245
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.90	0.10	1.00	1.57	0.43	1.00	1.22	0.78
Final Sat.:	1600	3077	123	1600	3036	164	1600	2510	690	1600	1946	1254
Capacity Analysis Module:												
Vol/Sat:	0.05	0.59	0.59	0.11	0.58	0.58	0.07	0.17	0.17	0.05	0.20	0.20
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.041
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	1 1	1 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	0	688	61	0	841	455	619	923	47	155	858	21
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	722	64	0	883	478	650	969	49	163	901	22
Added Vol:	0	63	5	0	81	70	78	68	2	14	50	0
PasserByVol:	0	80	21	0	79	11	6	6	0	17	11	5
Initial Fut:	0	865	90	0	1043	559	734	1043	51	194	962	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	962	100	0	1159	621	816	1159	57	215	1069	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	962	100	0	1159	621	816	1159	57	215	1069	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	962	100	0	1159	621	816	1159	57	215	1069	30
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.60	1.40	1.24	2.67	0.09	1.00	2.92	0.08
Final Sat.:	0	3200	1600	0	4168	2232	1982	4267	150	1600	4669	131
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.06	0.00	0.28	0.28	0.41	0.27	0.38	0.13	0.23	0.23
OvlAdjV/S:						0.00						
Crit Moves:		****			****			****				****

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.716
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	75	582	124	96	560	34	0	408	97	78	411	156
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	79	611	130	101	588	36	0	428	102	82	432	164
Added Vol:	14	19	0	1	12	6	0	0	69	0	52	1
PasserByVol:	0	46	0	0	42	0	0	0	0	0	25	0
Initial Fut:	93	676	130	102	642	42	0	428	171	82	509	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	103	751	145	113	713	46	0	476	190	91	565	183
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	751	145	113	713	46	0	476	190	91	565	183
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	751	145	113	713	46	0	476	190	91	565	183
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.68	0.32	1.00	1.88	0.12	0.00	1.43	0.57	1.00	2.00	1.00
Final Sat.:	1600	2683	517	1600	3005	195	0	2288	912	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.28	0.28	0.07	0.24	0.24	0.00	0.21	0.21	0.06	0.18	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	C

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	45	462	234	22	298	228	152	789	43	178	761	50
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	47	485	246	23	313	239	160	828	45	187	799	53
Added Vol:	1	20	63	53	21	8	13	58	1	53	55	0
PasserByVol:	5	52	12	0	48	0	0	27	0	9	28	0
Initial Fut:	53	557	321	76	382	247	173	913	46	249	882	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	59	619	356	85	424	275	192	1015	51	277	980	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	619	356	85	424	275	192	1015	51	277	980	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	619	356	85	424	275	192	1015	51	277	980	58
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.21	0.79	0.48	2.52	1.00	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	1600	1942	1258	763	4037	1600	1600	4530	270
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.22	0.05	0.22	0.22	0.12	0.25	0.03	0.17	0.22	0.22
Crit Moves:			****	****				****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	746	0	0	1028	25	11	0	166	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	137	783	0	0	1079	26	12	0	174	0	0	0
Added Vol:	22	59	0	0	73	23	9	0	21	0	0	0
PasserByVol:	9	101	0	0	82	0	0	0	7	0	0	0
Initial Fut:	168	943	0	0	1234	49	21	0	202	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	186	1048	0	0	1372	55	23	0	225	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	1048	0	0	1372	55	23	0	225	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	186	1048	0	0	1372	55	23	0	225	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.18	0.00	1.82	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	295	0	2905	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.33	0.00	0.00	0.43	0.03	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	135	387	116	0	370	140	124	850	173	225	889	105
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	142	406	122	0	389	147	130	893	182	236	933	110
Added Vol:	26	1	0	0	1	0	0	147	27	0	82	52
PasserByVol:	0	11	0	0	0	0	0	43	0	8	35	15
Initial Fut:	168	418	122	0	390	147	130	1083	209	244	1050	177
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	186	465	135	0	433	163	145	1203	232	271	1167	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	465	135	0	433	163	145	1203	232	271	1167	197
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	186	465	135	0	433	163	145	1203	232	271	1167	197
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.52	0.48	1.00	2.57	0.43
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4024	776	1600	4107	693
Capacity Analysis Module:												
Vol/Sat:	0.12	0.15	0.08	0.00	0.14	0.10	0.09	0.30	0.30	0.17	0.28	0.28
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.928
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	116	Level Of Service:	E

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	13	97	47	39	127	198	250	1596	28	36	1389	13
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	14	102	49	41	133	208	263	1676	29	38	1458	14
Added Vol:	18	6	30	2	9	0	2	116	27	27	93	0
PasserByVol:	0	3	0	0	2	0	0	12	0	0	22	0
Initial Fut:	32	111	79	43	144	208	265	1804	56	65	1573	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	35	123	88	48	160	231	294	2004	63	72	1748	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	123	88	48	160	231	294	2004	63	72	1748	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	123	88	48	160	231	294	2004	63	72	1748	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.58	0.42	0.22	0.78	1.00	1.00	2.91	0.09	1.00	2.97	0.03
Final Sat.:	1600	932	668	348	1252	1600	1600	4654	146	1600	4759	41
Capacity Analysis Module:												
Vol/Sat:	0.02	0.13	0.13	0.14	0.13	0.14	0.18	0.43	0.43	0.05	0.37	0.37
Crit Moves:			****			****	****				****	

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 2	0 0	3	0 0	0 0	0	0 0	2 0	0	0 1
Volume Module:												
Base Vol:	0	863	670	0	1200	0	0	0	0	492	0	18
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	906	704	0	1260	0	0	0	0	517	0	19
Added Vol:	0	85	82	0	93	0	0	0	0	73	0	0
PasserByVol:	0	80	-6	0	147	0	0	0	0	40	0	0
Initial Fut:	0	1071	780	0	1500	0	0	0	0	630	0	19
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1190	0	0	1667	0	0	0	0	700	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1190	0	0	1667	0	0	0	0	700	0	21
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1190	0	0	1667	0	0	0	0	700	0	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.37	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.22	0.00	0.01
Crit Moves:		****		****						****		

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Cumulative Baseline
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1765	4	441	2218	4	555
	Through-Right		0			0	
	Right	722	1	**631**	247	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	1093	2	**601**	248	2	136
	Left-Through		0			0	
	Through	1978	3	659	2108	3	**703**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	165	2	**91**	503	2	277
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	294	2	0	959	2	**391**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1232		*North-South:*	703
			East-West:	91		*East-West:*	391
			SUM:	1323		*SUM:*	1094
VOLUME/CAPACITY *(V/C)* RATIO:				0.962			0.796
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.862**			**0.696**
LEVEL OF SERVICE (LOS):				**D**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Cumulative Baseline
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1879	4	**470**	1705	4	426
	Through-Right		0			0	
	Right	325	1	202	90	1	27
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	347	2	**191**	195	2	107
	Left-Through		0			0	
	Through	1888	3	629	1946	3	**649**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	224	2	**123**	114	2	**63**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	426	2	43	252	2	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	661		*North-South:*	649
			East-West:	123		*East-West:*	63
			SUM:	784		*SUM:*	712
VOLUME/CAPACITY *(V/C)* RATIO:				0.570			0.518
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.470**			**0.418**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Cumulative (20XX) Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.718
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	39	83	155	7	101	27	18	861	37	138	878	14
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	41	87	163	7	106	28	19	904	39	145	922	15
Added Vol:	3	0	5	0	0	0	0	0	4	6	0	0
PasserByVol:	0	3	0	0	2	0	0	0	0	0	0	0
Initial Fut:	44	90	168	7	108	28	19	904	43	151	922	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	49	100	186	8	120	32	21	1005	48	168	1024	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	100	186	8	120	32	21	1005	48	168	1024	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	100	186	8	120	32	21	1005	48	168	1024	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.35	0.65	1.00	0.79	0.21	1.00	1.91	0.09	1.00	1.97	0.03
Final Sat.:	1600	559	1041	1600	1267	333	1600	3055	145	1600	3150	50
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.01	0.09	0.09	0.01	0.33	0.33	0.10	0.33	0.33
Crit Moves:		****		****				****		****		

Level of Service Workheet
(Circular 212 Method)

I/S #: 11				
PROJECT TITLE:	One Beverly Hills			
North-South Street:	Santa Monica Boulevard	**East-West Street:**	Avenue of the Stars	
Scenario:	Cumulative Baseline			
Count Date:	9/24/2015	**Analyst:**	Fehr & Peers	**Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	*NB--* 3	*SB--*	0	*NB--* 3	*SB--*	0
	EB-- 0	*WB--*	3	*EB--* 0	*WB--*	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	23.05	1	23	45.6	1	**46**
	Left-Through		0			0	
	Through	2226.5	4	**557**	1994.6	4	499
	Through-Right		0			0	
	Right	476.95	1	379	331.2	1	86
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	619.45	2	**340**	375.45	2	206
	Left-Through		0			0	
	Through	1530.8	3	510	2255.2	3	**752**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	279.9	3	**98**	699.25	3	**245**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	368.65	2	0	432.9	2	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	897		*North-South:*	798
			East-West:	98		*East-West:*	245
			SUM:	995		*SUM:*	1043
VOLUME/CAPACITY *(V/C)* RATIO:				0.724			0.759
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.624**			**0.659**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:	11

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Avenue of the Stars
Scenario: Cumulative Baseline
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

		WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 3	SB--	0	NB-- 3	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	47.05	1	**47**	64.6	1	**65**
	Left-Through		0			0	
	Through	1817.45	4	454	1710.55	4	428
	Through-Right		0			0	
	Right	374.3	1	250	252.2	1	182
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	322.25	2	177	257.4	2	141
	Left-Through		0			0	
	Through	1849.4	3	**616**	1782.55	3	**594**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	353.65	3	**124**	198.55	3	**70**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	353.35	2	17	113.25	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	663		*North-South:*	659
			East-West:	124		*East-West:*	70
			SUM:	787		*SUM:*	729
VOLUME/CAPACITY *(V/C)* RATIO:				0.572			0.530
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.472**			**0.430**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills

Cumulative plus Project Conditions - AM Peak Hour

Scenario Report

Scenario:	CP_AM
Command:	CP_AM
Volume:	Cumulative_AM
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	AM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.902	E	xxxxx	0.974	+ 0.072 V/C
# 2 Santa Monica Boulevard North/W	E	xxxxx	0.929	E	xxxxx	0.981	+ 0.052 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.847	D	xxxxx	0.895	+ 0.047 V/C
# 4 Santa Monica Boulevard South/W	E	xxxxx	0.937	E	xxxxx	0.992	+ 0.055 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.770	D	xxxxx	0.828	+ 0.058 V/C
# 6 Wilshire Boulevard/Beverly Dri	D	xxxxx	0.890	E	xxxxx	0.922	+ 0.032 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.151	F	xxxxx	1.172	+ 0.021 V/C
# 8 Santa Monica Boulevard/Crossov	E	xxxxx	0.918	E	xxxxx	0.992	+ 0.074 V/C
# 9 Santa Monica Boulevard/Century	E	xxxxx	0.948	E	xxxxx	0.981	+ 0.033 V/C
# 10 Sunset Boulevard/Whittier Driv	E	xxxxx	0.939	E	xxxxx	0.948	+ 0.009 V/C

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.974
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	158	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	37	1393	33	94	1387	41	31	505	54	13	259	120
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	39	1463	35	99	1456	43	33	530	57	14	272	126
Added Vol:	4	71	0	44	52	12	17	0	4	2	3	40
PasserByVol:	3	32	1	0	83	4	12	0	7	0	20	0
Initial Fut:	46	1566	36	143	1591	59	62	530	68	16	295	166
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	51	1740	40	159	1768	66	68	589	75	17	328	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	1740	40	159	1768	66	68	589	75	17	328	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	1740	40	159	1768	66	68	589	75	17	328	184
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.93	0.07	1.00	1.77	0.23	1.00	1.28	0.72
Final Sat.:	1600	3129	71	1600	3086	114	1600	2838	362	1600	2048	1152
Capacity Analysis Module:												
Vol/Sat:	0.03	0.56	0.56	0.10	0.57	0.57	0.04	0.21	0.21	0.01	0.16	0.16
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.981
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	168	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	617	40	0	1088	362	633	1142	46	131	1350	25
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	648	42	0	1142	380	665	1199	48	138	1418	26
Added Vol:	0	39	2	0	38	19	36	62	3	11	35	0
PasserByVol:	0	35	12	0	77	5	7	7	0	-14	4	5
Initial Fut:	0	722	56	0	1257	404	708	1268	51	135	1457	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	802	62	0	1397	449	786	1409	57	150	1618	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	802	62	0	1397	449	786	1409	57	150	1618	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	802	62	0	1397	449	786	1409	57	150	1618	35
OvlAdjVol:						56						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	3.00	1.00	2.00	3.00	1.00	1.00	2.94	0.06
Final Sat.:	0	3200	1600	0	4800	1600	3200	4800	1600	1600	4699	101
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.04	0.00	0.29	0.28	0.25	0.29	0.04	0.09	0.34	0.34
OvlAdjV/S:						0.03						
Crit Moves:	****				****		****				****	

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	97	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	53	636	112	171	1216	23	0	512	93	50	352	115
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	56	668	118	180	1277	24	0	538	98	53	370	121
Added Vol:	18	38	0	2	14	4	0	0	44	0	22	5
PasserByVol:	0	8	1	0	38	0	0	0	0	0	20	0
Initial Fut:	74	714	119	182	1329	28	0	538	142	53	412	126
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	82	793	132	202	1476	31	0	597	157	58	457	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	793	132	202	1476	31	0	597	157	58	457	140
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	793	132	202	1476	31	0	597	157	58	457	140
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	1.96	0.04	0.00	1.58	0.42	1.00	2.00	1.00
Final Sat.:	1600	2744	456	1600	3134	66	0	2533	667	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.29	0.29	0.13	0.47	0.47	0.00	0.24	0.24	0.04	0.14	0.09
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.992
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	55	556	260	33	762	255	181	899	96	224	1202	53
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	58	584	273	35	800	268	190	944	101	235	1262	56
Added Vol:	2	47	60	16	40	3	9	54	1	20	42	0
PasserByVol:	5	13	10	0	-10	0	0	19	0	9	18	0
Initial Fut:	65	644	343	51	830	271	199	1017	102	264	1322	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	72	715	381	56	922	301	221	1130	113	294	1469	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	715	381	56	922	301	221	1130	113	294	1469	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	72	715	381	56	922	301	221	1130	113	294	1469	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.51	0.49	0.49	2.51	1.00	1.00	2.88	0.12
Final Sat.:	1600	3200	1600	1600	2413	787	786	4014	1600	1600	4606	194
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.24	0.04	0.38	0.38	0.14	0.28	0.07	0.18	0.32	0.32
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	122	716	0	0	1215	22	4	0	374	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	128	752	0	0	1276	23	4	0	393	0	0	0
Added Vol:	8	38	0	0	51	1	2	0	13	0	0	0
PasserByVol:	2	47	0	0	63	0	0	0	18	0	0	0
Initial Fut:	138	837	0	0	1390	24	6	0	424	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	153	930	0	0	1544	27	7	0	471	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	930	0	0	1544	27	7	0	471	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	930	0	0	1544	27	7	0	471	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.03	0.00	1.97	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	46	0	3154	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.29	0.00	0.00	0.48	0.02	0.15	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.922
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	112	Level Of Service:	E

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	143	538	131	0	439	86	100	870	119	183	1782	80
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	150	565	138	0	461	90	105	914	125	192	1871	84
Added Vol:	21	5	0	0	2	0	0	104	27	0	40	22
PasserByVol:	0	9	0	0	0	0	0	25	0	3	-2	11
Initial Fut:	171	579	138	0	463	90	105	1043	152	195	1909	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	190	643	153	0	514	100	117	1158	169	217	2121	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	190	643	153	0	514	100	117	1158	169	217	2121	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	190	643	153	0	514	100	117	1158	169	217	2121	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.62	0.38	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4189	611	1600	4523	277
Capacity Analysis Module:												
Vol/Sat:	0.12	0.20	0.10	0.00	0.16	0.06	0.07	0.28	0.28	0.14	0.47	0.47
Crit Moves:	****				****		****				****	

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.172
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	21	73	26	103	304	502	204	1674	35	45	1975	14
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	22	77	27	108	319	527	214	1758	37	47	2074	15
Added Vol:	3	2	6	5	3	0	6	89	8	1	53	0
PasserByVol:	0	1	0	0	2	0	0	14	0	0	9	0
Initial Fut:	25	80	33	113	324	527	220	1861	45	48	2136	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	28	89	37	126	360	586	245	2067	50	54	2373	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	89	37	126	360	586	245	2067	50	54	2373	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	89	37	126	360	586	245	2067	50	54	2373	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.23	0.77	1.00	1.00	2.93	0.07	1.00	2.98	0.02
Final Sat.:	1600	1600	1600	375	1225	1600	1600	4687	113	1600	4767	33
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.02	0.33	0.29	0.37	0.15	0.44	0.44	0.03	0.50	0.50
Crit Moves:		****				****	****				****	

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.992
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	843	865	0	1534	0	0	0	0	1220	0	15
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	885	908	0	1611	0	0	0	0	1281	0	16
Added Vol:	0	50	106	0	66	0	0	0	0	60	0	0
PasserByVol:	0	49	8	0	83	0	0	0	0	55	0	0
Initial Fut:	0	984	1022	0	1760	0	0	0	0	1396	0	16
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1094	0	0	1955	0	0	0	0	1551	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1094	0	0	1955	0	0	0	0	1551	0	18
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1094	0	0	1955	0	0	0	0	1551	0	18
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.48	0.00	0.01
Crit Moves:	****				****					****		

One Beverly Hills
Cumulative plus Project Conditions - AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.948
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	131	Level Of Service:	E

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	42	62	152	23	223	49	35	1263	41	184	1231	5
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	44	65	160	24	234	51	37	1326	43	193	1293	5
Added Vol:	3	0	2	0	0	0	0	0	2	7	0	0
PasserByVol:	0	0	0	0	2	0	0	0	0	0	0	0
Initial Fut:	47	65	162	24	236	51	37	1326	45	200	1293	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	52	72	180	27	262	57	41	1474	50	222	1436	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	72	180	27	262	57	41	1474	50	222	1436	6
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	72	180	27	262	57	41	1474	50	222	1436	6
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.29	0.71	1.00	0.82	0.18	1.00	1.93	0.07	1.00	1.99	0.01
Final Sat.:	1600	459	1141	1600	1314	286	1600	3095	105	1600	3187	13
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.02	0.20	0.20	0.03	0.48	0.48	0.14	0.45	0.45
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Scenario Report

Scenario:	CP_PM
Command:	CP_PM
Volume:	Cumulative_PM
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	PM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.916	F	xxxxx	1.095	+ 0.179 V/C
# 2 Santa Monica Boulevard North/W	D	xxxxx	0.861	E	xxxxx	0.942	+ 0.081 V/C
# 3 Santa Monica Boulevard South/B	D	xxxxx	0.878	E	xxxxx	0.916	+ 0.038 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.888	F	xxxxx	1.006	+ 0.117 V/C
# 5 Santa Monica Boulevard North/M	E	xxxxx	0.904	E	xxxxx	0.995	+ 0.090 V/C
# 6 Wilshire Boulevard/Beverly Dri	E	xxxxx	0.961	F	xxxxx	1.029	+ 0.068 V/C
# 7 Wilshire Boulevard/Whittier Dr	F	xxxxx	1.237	F	xxxxx	1.277	+ 0.040 V/C
# 8 Santa Monica Boulevard/Crossov	C	xxxxx	0.757	D	xxxxx	0.864	+ 0.108 V/C
# 9 Santa Monica Boulevard/Century	C	xxxxx	0.729	D	xxxxx	0.854	+ 0.125 V/C
# 10 Sunset Boulevard/Whittier Driv	F	xxxxx	1.033	F	xxxxx	1.043	+ 0.010 V/C

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.095
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	43	1289	36	81	1316	41	35	367	53	51	483	198
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	45	1353	38	85	1382	43	37	385	56	54	507	208
Added Vol:	6	134	0	69	143	39	40	0	9	4	5	72
PasserByVol:	13	52	1	0	66	10	8	0	6	1	17	0
Initial Fut:	64	1539	39	154	1591	92	85	385	71	59	529	280
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	71	1711	43	171	1768	102	94	428	79	65	588	311
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	1711	43	171	1768	102	94	428	79	65	588	311
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	71	1711	43	171	1768	102	94	428	79	65	588	311
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.95	0.05	1.00	1.89	0.11	1.00	1.69	0.31	1.00	1.31	0.69
Final Sat.:	1600	3121	79	1600	3025	175	1600	2704	496	1600	2093	1107
Capacity Analysis Module:												
Vol/Sat:	0.04	0.55	0.55	0.11	0.58	0.58	0.06	0.16	0.16	0.04	0.28	0.28
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.942
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	126	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	557	66	0	845	524	520	1048	26	179	1281	43
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	585	69	0	887	550	546	1100	27	188	1345	45
Added Vol:	0	76	3	0	90	66	64	49	1	24	59	0
PasserByVol:	0	61	2	0	59	13	4	4	0	15	14	3
Initial Fut:	0	722	74	0	1036	629	614	1153	28	227	1418	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	802	83	0	1151	699	682	1282	31	252	1576	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	802	83	0	1151	699	682	1282	31	252	1576	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	802	83	0	1151	699	682	1282	31	252	1576	54
OvlAdjVol:						184						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.49	1.51	2.00	3.00	1.00	1.00	2.90	0.10
Final Sat.:	0	3200	1600	0	3982	2418	3200	4800	1600	1600	4642	158
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.05	0.00	0.29	0.29	0.21	0.27	0.02	0.16	0.34	0.34
OvlAdjV/S:						0.08						
Crit Moves:	****				****		****				****	

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.916
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	109	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	146	1235	116	74	781	48	0	437	88	55	533	155
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	153	1297	122	78	820	50	0	459	92	58	560	163
Added Vol:	20	18	0	4	29	9	0	0	69	0	53	2
PasserByVol:	0	13	0	0	30	0	0	0	0	1	17	0
Initial Fut:	173	1328	122	82	879	59	0	459	161	59	630	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	193	1475	135	91	977	66	0	510	179	65	700	183
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	193	1475	135	91	977	66	0	510	179	65	700	183
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	193	1475	135	91	977	66	0	510	179	65	700	183
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.83	0.17	1.00	1.87	0.13	0.00	1.48	0.52	1.00	2.00	1.00
Final Sat.:	1600	2931	269	1600	2997	203	0	2367	833	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.50	0.50	0.06	0.33	0.33	0.00	0.22	0.22	0.04	0.22	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	1.006
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	839	232	45	390	252	227	936	36	229	1129	92
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	57	881	244	47	410	265	238	983	38	240	1185	97
Added Vol:	1	33	49	52	39	7	5	45	2	64	75	0
PasserByVol:	3	20	15	0	36	0	0	6	0	8	29	0
Initial Fut:	61	934	308	99	485	272	243	1034	40	312	1289	97
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	67	1038	342	110	538	302	270	1149	44	347	1433	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	1038	342	110	538	302	270	1149	44	347	1433	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	1038	342	110	538	302	270	1149	44	347	1433	107
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.28	0.72	0.57	2.43	1.00	1.00	2.79	0.21
Final Sat.:	1600	3200	1600	1600	2051	1149	915	3885	1600	1600	4465	335
Capacity Analysis Module:												
Vol/Sat:	0.04	0.32	0.21	0.07	0.26	0.26	0.17	0.30	0.03	0.22	0.32	0.32
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.995
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	480	656	0	0	1049	37	6	0	191	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	504	689	0	0	1101	39	6	0	201	0	0	0
Added Vol:	21	77	0	0	103	10	2	0	18	0	0	0
PasserByVol:	16	63	0	0	60	0	0	0	3	0	0	0
Initial Fut:	541	829	0	0	1264	49	8	0	222	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	601	921	0	0	1405	54	9	0	246	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	601	921	0	0	1405	54	9	0	246	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	601	921	0	0	1405	54	9	0	246	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.07	0.00	1.93	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	116	0	3084	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.38	0.29	0.00	0.00	0.44	0.03	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.029
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	117	435	158	0	590	137	119	1482	131	231	1189	93
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	123	457	166	0	620	144	125	1556	138	243	1248	98
Added Vol:	28	2	0	0	4	0	0	123	24	0	112	53
PasserByVol:	0	7	0	0	0	0	0	23	0	11	35	11
Initial Fut:	151	466	166	0	624	144	125	1702	162	254	1395	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	168	518	184	0	693	160	139	1891	180	282	1551	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	518	184	0	693	160	139	1891	180	282	1551	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	168	518	184	0	693	160	139	1891	180	282	1551	180
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.74	0.26	1.00	2.69	0.31
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4384	416	1600	4302	498
Capacity Analysis Module:												
Vol/Sat:	0.10	0.16	0.12	0.00	0.22	0.10	0.09	0.43	0.43	0.18	0.36	0.36
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	1.277
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	19	453	59	37	123	277	238	1739	28	22	1749	26
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	20	476	62	39	129	291	250	1826	29	23	1836	27
Added Vol:	3	2	6	2	10	1	6	108	21	16	110	0
PasserByVol:	0	3	0	0	2	0	0	8	0	0	27	0
Initial Fut:	23	481	68	41	141	292	256	1942	50	39	1973	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	26	534	76	45	157	324	284	2158	56	43	2193	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	534	76	45	157	324	284	2158	56	43	2193	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	534	76	45	157	324	284	2158	56	43	2193	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.17	0.83	1.00	1.00	2.92	0.08	1.00	2.96	0.04
Final Sat.:	1600	1600	1600	276	1324	1600	1600	4679	121	1600	4735	65
Capacity Analysis Module:												
Vol/Sat:	0.02	0.33	0.05	0.16	0.12	0.20	0.18	0.46	0.46	0.03	0.46	0.46
Crit Moves:		****				****	****				****	

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.864
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	1114	1636	0	1243	0	0	0	0	687	0	26
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	1170	1718	0	1305	0	0	0	0	721	0	27
Added Vol:	0	105	83	0	133	0	0	0	0	101	0	0
PasserByVol:	0	74	-1	0	83	0	0	0	0	30	0	0
Initial Fut:	0	1349	1800	0	1521	0	0	0	0	852	0	27
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1499	0	0	1690	0	0	0	0	947	0	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1499	0	0	1690	0	0	0	0	947	0	30
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1499	0	0	1690	0	0	0	0	947	0	30
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.47	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.30	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Cumulative plus Project Conditions - PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.043
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	162	241	175	10	98	21	43	1333	24	175	1109	24
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	170	253	184	11	103	22	45	1400	25	184	1164	25
Added Vol:	4	0	2	0	0	0	0	0	7	6	0	0
PasserByVol:	0	3	0	0	2	0	0	0	0	0	0	0
Initial Fut:	174	256	186	11	105	22	45	1400	32	190	1164	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	193	285	206	12	117	25	50	1555	36	211	1294	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	193	285	206	12	117	25	50	1555	36	211	1294	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	193	285	206	12	117	25	50	1555	36	211	1294	28
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.58	0.42	1.00	0.83	0.17	1.00	1.96	0.04	1.00	1.96	0.04
Final Sat.:	1600	927	673	1600	1322	278	1600	3128	72	1600	3132	68
Capacity Analysis Module:												
Vol/Sat:	0.12	0.31	0.31	0.01	0.09	0.09	0.03	0.50	0.50	0.13	0.41	0.41
Crit Moves:		****		****				****		****		

One Beverly Hills

Cumulative plus Project Conditions - Midday Peak Hour

Scenario Report

Scenario:	CP_Midday
Command:	CP_Mid
Volume:	Cumulative_Mid
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Midday
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	E	xxxxx	0.913	F	xxxxx	1.036	+ 0.123 V/C
# 2 Santa Monica Boulevard North/W	D	xxxxx	0.824	E	xxxxx	0.904	+ 0.080 V/C
# 3 Santa Monica Boulevard South/B	C	xxxxx	0.778	D	xxxxx	0.814	+ 0.036 V/C
# 4 Santa Monica Boulevard South/W	D	xxxxx	0.803	E	xxxxx	0.906	+ 0.103 V/C
# 5 Santa Monica Boulevard North/M	C	xxxxx	0.707	C	xxxxx	0.786	+ 0.078 V/C
# 6 Wilshire Boulevard/Beverly Dri	C	xxxxx	0.799	D	xxxxx	0.856	+ 0.057 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.868	E	xxxxx	0.903	+ 0.036 V/C
# 8 Santa Monica Boulevard/Crossov	B	xxxxx	0.678	C	xxxxx	0.763	+ 0.086 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.572	B	xxxxx	0.637	+ 0.065 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.788	C	xxxxx	0.800	+ 0.011 V/C

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.036
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	49	1297	61	94	1254	37	44	460	82	71	330	146
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	51	1362	64	99	1317	39	46	483	86	75	347	153
Added Vol:	7	119	0	54	101	29	32	0	7	3	3	62
PasserByVol:	6	67	0	0	69	12	14	0	2	0	28	0
Initial Fut:	64	1548	64	153	1487	80	92	483	95	78	378	215
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	72	1720	71	170	1652	89	102	537	106	86	419	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	1720	71	170	1652	89	102	537	106	86	419	239
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	72	1720	71	170	1652	89	102	537	106	86	419	239
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.90	0.10	1.00	1.67	0.33	1.00	1.27	0.73
Final Sat.:	1600	3073	127	1600	3037	163	1600	2674	526	1600	2038	1162
Capacity Analysis Module:												
Vol/Sat:	0.04	0.56	0.56	0.11	0.54	0.54	0.06	0.20	0.20	0.05	0.21	0.21
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	E

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	718	87	0	806	413	514	927	49	164	1076	55
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	754	91	0	846	434	540	973	51	172	1130	58
Added Vol:	0	67	6	0	64	47	60	50	1	18	34	0
PasserByVol:	0	61	12	0	55	15	8	8	0	5	14	2
Initial Fut:	0	882	109	0	965	496	608	1031	52	195	1178	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	980	122	0	1073	551	675	1146	58	217	1309	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	980	122	0	1073	551	675	1146	58	217	1309	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	980	122	0	1073	551	675	1146	58	217	1309	66
OvlAdjVol:						93						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.64	1.36	2.00	3.00	1.00	1.00	2.86	0.14
Final Sat.:	0	3200	1600	0	4229	2171	3200	4800	1600	1600	4568	232
Capacity Analysis Module:												
Vol/Sat:	0.00	0.31	0.08	0.00	0.25	0.25	0.21	0.24	0.04	0.14	0.29	0.29
OvlAdjV/S:						0.04						
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.814
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	66	707	148	133	807	41	0	529	90	60	439	182
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	69	742	155	140	847	43	0	555	95	63	461	191
Added Vol:	20	24	0	2	16	5	0	0	54	0	43	2
PasserByVol:	0	21	0	0	21	0	0	0	0	0	28	0
Initial Fut:	89	787	155	142	884	48	0	555	149	63	532	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	99	875	173	157	983	53	0	617	165	70	591	215
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	875	173	157	983	53	0	617	165	70	591	215
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	99	875	173	157	983	53	0	617	165	70	591	215
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.90	0.10	0.00	1.58	0.42	1.00	2.00	1.00
Final Sat.:	1600	2673	527	1600	3035	165	0	2525	675	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.33	0.33	0.10	0.32	0.32	0.00	0.24	0.24	0.04	0.18	0.13
Crit Moves:		****		****				****		****		

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.906
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	103	Level Of Service:	E

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	54	601	339	56	361	299	153	823	36	244	939	77
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	57	631	356	59	379	314	161	864	38	256	986	81
Added Vol:	1	35	43	39	26	5	9	45	1	35	46	0
PasserByVol:	2	22	2	0	24	0	0	20	0	5	19	0
Initial Fut:	60	688	401	98	429	319	170	929	39	296	1051	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	66	765	446	109	477	354	189	1032	43	329	1168	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	765	446	109	477	354	189	1032	43	329	1168	90
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	765	446	109	477	354	189	1032	43	329	1168	90
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.15	0.85	0.46	2.54	1.00	1.00	2.79	0.21
Final Sat.:	1600	3200	1600	1600	1836	1364	741	4059	1600	1600	4457	343
Capacity Analysis Module:												
Vol/Sat:	0.04	0.24	0.28	0.07	0.26	0.26	0.12	0.25	0.03	0.21	0.26	0.26
Crit Moves:			****	****				****		****		

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	221	773	0	0	1030	20	4	0	190	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	232	812	0	0	1082	21	4	0	200	0	0	0
Added Vol:	14	64	0	0	76	8	9	0	23	0	0	0
PasserByVol:	11	73	0	0	60	0	0	0	7	0	0	0
Initial Fut:	257	949	0	0	1218	29	13	0	230	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	286	1054	0	0	1353	32	15	0	255	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	1054	0	0	1353	32	15	0	255	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	1054	0	0	1353	32	15	0	255	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.11	0.00	1.89	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	174	0	3026	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.33	0.00	0.00	0.42	0.02	0.08	0.00	0.08	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.856
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	82	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	146	428	125	0	472	146	162	947	160	208	1087	137
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	153	449	131	0	496	153	170	994	168	218	1141	144
Added Vol:	19	2	0	0	2	0	0	106	21	0	61	43
PasserByVol:	0	12	0	0	0	0	0	25	0	11	27	16
Initial Fut:	172	463	131	0	498	153	170	1125	189	229	1229	203
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	191	515	146	0	553	170	189	1250	210	255	1366	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	515	146	0	553	170	189	1250	210	255	1366	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	191	515	146	0	553	170	189	1250	210	255	1366	225
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.57	0.43	1.00	2.58	0.42
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4110	690	1600	4120	680
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.09	0.00	0.17	0.11	0.12	0.30	0.30	0.16	0.33	0.33
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.903
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	102	Level Of Service:	E

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	20	80	36	56	133	254	188	1445	41	30	1574	18
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	21	84	38	59	140	267	197	1517	43	32	1653	19
Added Vol:	12	7	20	2	7	1	6	86	14	10	71	0
PasserByVol:	0	4	0	0	1	0	0	16	0	0	29	0
Initial Fut:	33	95	58	61	148	268	203	1619	57	42	1753	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	37	106	64	68	164	297	226	1799	63	46	1947	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	106	64	68	164	297	226	1799	63	46	1947	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	106	64	68	164	297	226	1799	63	46	1947	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.26	0.74	1.00	1.00	2.90	0.10	1.00	2.97	0.03
Final Sat.:	1600	1600	1600	409	1191	1600	1600	4637	163	1600	4749	51
Capacity Analysis Module:												
Vol/Sat:	0.02	0.07	0.04	0.17	0.14	0.19	0.14	0.39	0.39	0.03	0.41	0.41
Crit Moves:		****				****	****				****	

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.763
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	923	994	0	1215	0	0	0	0	661	0	27
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	969	1044	0	1276	0	0	0	0	694	0	28
Added Vol:	0	85	78	0	110	0	0	0	0	60	0	0
PasserByVol:	0	73	-3	0	85	0	0	0	0	29	0	0
Initial Fut:	0	1127	1119	0	1471	0	0	0	0	783	0	28
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1252	0	0	1634	0	0	0	0	870	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1252	0	0	1634	0	0	0	0	870	0	32
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1252	0	0	1634	0	0	0	0	870	0	32
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.39	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.27	0.00	0.02
Crit Moves:		****		****						****		

One Beverly Hills
Cumulative plus Project Conditions - Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	67	108	168	15	89	51	42	1005	33	134	971	8
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	70	113	176	16	93	54	44	1055	35	141	1020	8
Added Vol:	7	0	5	0	0	0	0	0	5	5	0	0
PasserByVol:	0	4	0	0	1	0	0	0	0	0	0	0
Initial Fut:	77	117	181	16	94	54	44	1055	40	146	1020	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	86	130	202	18	105	60	49	1173	44	162	1133	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	130	202	18	105	60	49	1173	44	162	1133	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	130	202	18	105	60	49	1173	44	162	1133	9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.39	0.61	1.00	0.64	0.36	1.00	1.93	0.07	1.00	1.98	0.02
Final Sat.:	1600	629	971	1600	1021	579	1600	3084	116	1600	3174	26
Capacity Analysis Module:												
Vol/Sat:	0.05	0.21	0.21	0.01	0.10	0.10	0.03	0.38	0.38	0.10	0.36	0.36
Crit Moves:		****		****				****		****		

One Beverly Hills

Cumulative plus Project Conditions - Saturday Midday Peak Hour

---

Scenario Report

Scenario:	CP_Saturday_Midday
Command:	CP_Sat
Volume:	Cumulative_Sat
Geometry:	plus Project
Impact Fee:	Default Impact Fee
Trip Generation:	Saturday
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Santa Monica Boulevard North/B	D	xxxxx	0.891	F	xxxxx	1.056	+ 0.165 V/C
# 2 Santa Monica Boulevard North/W	C	xxxxx	0.790	D	xxxxx	0.881	+ 0.091 V/C
# 3 Santa Monica Boulevard South/B	B	xxxxx	0.668	C	xxxxx	0.714	+ 0.045 V/C
# 4 Santa Monica Boulevard South/W	B	xxxxx	0.683	D	xxxxx	0.800	+ 0.117 V/C
# 5 Santa Monica Boulevard North/M	B	xxxxx	0.634	C	xxxxx	0.715	+ 0.081 V/C
# 6 Wilshire Boulevard/Beverly Dri	C	xxxxx	0.746	D	xxxxx	0.818	+ 0.072 V/C
# 7 Wilshire Boulevard/Whittier Dr	D	xxxxx	0.838	D	xxxxx	0.874	+ 0.036 V/C
# 8 Santa Monica Boulevard/Crossov	A	xxxxx	0.594	B	xxxxx	0.691	+ 0.097 V/C
# 9 Santa Monica Boulevard/Century	A	xxxxx	0.517	B	xxxxx	0.600	+ 0.083 V/C
# 10 Sunset Boulevard/Whittier Driv	C	xxxxx	0.707	C	xxxxx	0.716	+ 0.009 V/C

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Santa Monica Boulevard North/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	1.056
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Santa Monica Boulevard North						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	52	1338	62	83	1301	35	43	373	94	68	301	147
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	55	1405	65	87	1366	37	45	392	99	71	316	154
Added Vol:	5	129	0	69	134	40	39	0	5	3	1	66
PasserByVol:	9	83	0	0	82	9	14	0	2	0	25	0
Initial Fut:	69	1617	65	156	1582	86	98	392	106	74	342	220
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	76	1797	72	174	1758	95	109	435	117	83	380	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	1797	72	174	1758	95	109	435	117	83	380	245
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	76	1797	72	174	1758	95	109	435	117	83	380	245
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.92	0.08	1.00	1.90	0.10	1.00	1.57	0.43	1.00	1.22	0.78
Final Sat.:	1600	3076	124	1600	3035	165	1600	2520	680	1600	1946	1254
Capacity Analysis Module:												
Vol/Sat:	0.05	0.58	0.58	0.11	0.58	0.58	0.07	0.17	0.17	0.05	0.20	0.20
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Santa Monica Boulevard North/Wilshire Boulevard

Cycle (sec):	100	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Street Name:	Santa Monica Boulevard North						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	2 1	1	2 0	3 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	0	688	61	0	841	455	619	923	47	155	858	21
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	722	64	0	883	478	650	969	49	163	901	22
Added Vol:	0	68	3	0	77	64	66	57	2	15	46	0
PasserByVol:	0	80	21	0	79	11	6	6	0	17	11	5
Initial Fut:	0	870	88	0	1039	553	722	1032	51	195	958	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	967	98	0	1155	614	802	1147	57	216	1064	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	967	98	0	1155	614	802	1147	57	216	1064	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	967	98	0	1155	614	802	1147	57	216	1064	30
OvlAdjVol:						57						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.61	1.39	2.00	3.00	1.00	1.00	2.92	0.08
Final Sat.:	0	3200	1600	0	4178	2222	3200	4800	1600	1600	4668	132
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.06	0.00	0.28	0.28	0.25	0.24	0.04	0.14	0.23	0.23
OvlAdjV/S:						0.03						
Crit Moves:		****		****			****				****	

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Santa Monica Boulevard South/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.714
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Santa Monica Boulevard South						Beverly Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	75	582	124	96	560	34	0	408	97	78	411	156
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	79	611	130	101	588	36	0	428	102	82	432	164
Added Vol:	14	14	0	1	10	4	0	0	69	0	52	1
PasserByVol:	0	46	0	0	42	0	0	0	0	0	25	0
Initial Fut:	93	671	130	102	640	40	0	428	171	82	509	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	103	746	145	113	711	44	0	476	190	91	565	183
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	746	145	113	711	44	0	476	190	91	565	183
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	746	145	113	711	44	0	476	190	91	565	183
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.68	0.32	1.00	1.88	0.12	0.00	1.43	0.57	1.00	2.00	1.00
Final Sat.:	1600	2680	520	1600	3013	187	0	2288	912	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.28	0.28	0.07	0.24	0.24	0.00	0.21	0.21	0.06	0.18	0.11
Crit Moves:		****		****				****		****		

One Beverly Hills

Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #4 Santa Monica Boulevard South/Wilshire Boulevard

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.800
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

****

Street Name:	Santa Monica Boulevard South						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	0 1	2 0	1	1 0	2 1	0
Volume Module:												
Base Vol:	45	462	234	22	298	228	152	789	43	178	761	50
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	47	485	246	23	313	239	160	828	45	187	799	53
Added Vol:	1	23	68	53	21	5	5	53	1	53	54	0
PasserByVol:	5	52	12	0	48	0	0	27	0	9	28	0
Initial Fut:	53	560	326	76	382	244	165	908	46	249	881	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	59	622	362	85	424	272	183	1009	51	277	979	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	622	362	85	424	272	183	1009	51	277	979	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	622	362	85	424	272	183	1009	51	277	979	58
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.22	0.78	0.46	2.54	1.00	1.00	2.83	0.17
Final Sat.:	1600	3200	1600	1600	1951	1249	736	4064	1600	1600	4530	270
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.23	0.05	0.22	0.22	0.11	0.25	0.03	0.17	0.22	0.22
Crit Moves:			****	****				****		****		

****

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Santa Monica Boulevard North/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.715
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Santa Monica Boulevard North						Merv Griffin Way					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	2 0	1	0 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	130	746	0	0	1028	25	11	0	166	0	0	0
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	137	783	0	0	1079	26	12	0	174	0	0	0
Added Vol:	14	68	0	0	83	10	4	0	12	0	0	0
PasserByVol:	9	101	0	0	82	0	0	0	7	0	0	0
Initial Fut:	160	952	0	0	1244	36	16	0	193	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	177	1058	0	0	1383	40	17	0	215	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	177	1058	0	0	1383	40	17	0	215	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	177	1058	0	0	1383	40	17	0	215	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.15	0.00	1.85	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3200	1600	238	0	2962	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.33	0.00	0.00	0.43	0.03	0.07	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****		****					

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Wilshire Boulevard/Beverly Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Beverly Drive						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Permitted			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 0	1	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	135	387	116	0	370	140	124	850	173	225	889	105
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	142	406	122	0	389	147	130	893	182	236	933	110
Added Vol:	23	1	0	0	1	0	0	150	24	0	84	52
PasserByVol:	0	11	0	0	0	0	0	43	0	8	35	15
Initial Fut:	165	418	122	0	390	147	130	1086	206	244	1052	177
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	183	465	135	0	433	163	145	1206	229	271	1169	197
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	465	135	0	433	163	145	1206	229	271	1169	197
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	183	465	135	0	433	163	145	1206	229	271	1169	197
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.00	1.00	1.00	2.52	0.48	1.00	2.57	0.43
Final Sat.:	1600	3200	1600	0	3200	1600	1600	4035	765	1600	4108	692
Capacity Analysis Module:												
Vol/Sat:	0.11	0.15	0.08	0.00	0.14	0.10	0.09	0.30	0.30	0.17	0.28	0.28
Crit Moves:	****				****			****		****		

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Wilshire Boulevard/Whittier Drive/Merv Griffin Way

Cycle (sec):	100	Critical Vol./Cap.(X):	0.874
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	D

Street Name:	Whittier Drive/Merv Griffin Way						Wilshire Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	0 1	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	13	97	47	39	127	198	250	1596	28	36	1389	13
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	14	102	49	41	133	208	263	1676	29	38	1458	14
Added Vol:	5	3	8	2	7	0	6	115	14	14	96	0
PasserByVol:	0	3	0	0	2	0	0	12	0	0	22	0
Initial Fut:	19	108	57	43	142	208	269	1803	43	52	1576	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	21	120	64	48	158	231	298	2003	48	58	1752	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	120	64	48	158	231	298	2003	48	58	1752	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	120	64	48	158	231	298	2003	48	58	1752	15
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	0.22	0.78	1.00	1.00	2.93	0.07	1.00	2.97	0.03
Final Sat.:	1600	1600	1600	350	1250	1600	1600	4687	113	1600	4759	41
Capacity Analysis Module:												
Vol/Sat:	0.01	0.07	0.04	0.14	0.13	0.14	0.19	0.43	0.43	0.04	0.37	0.37
Crit Moves:		****				****	****				****	

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Santa Monica Boulevard/Crossover

Cycle (sec):	100	Critical Vol./Cap.(X):	0.691
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Santa Monica Boulevard						Crossover					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	2	0 0	3 0	0	0 0	0 0	0	2 0	0 0	1
Volume Module:												
Base Vol:	0	863	670	0	1200	0	0	0	0	492	0	18
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	906	704	0	1260	0	0	0	0	517	0	19
Added Vol:	0	86	90	0	107	0	0	0	0	73	0	0
PasserByVol:	0	80	-6	0	147	0	0	0	0	40	0	0
Initial Fut:	0	1072	788	0	1514	0	0	0	0	630	0	19
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1191	0	0	1682	0	0	0	0	700	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1191	0	0	1682	0	0	0	0	700	0	21
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1191	0	0	1682	0	0	0	0	700	0	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3200	3200	0	4800	0	0	0	0	3200	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.37	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.22	0.00	0.01
Crit Moves:		****		****						****		

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Cumulative plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1668	4	417	2136	4	534
	Through-Right		0			0	
	Right	698	1	**617**	230	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	1069	2	**588**	231	2	127
	Left-Through		0			0	
	Through	1926	3	642	2007	3	**669**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	0	0	**0**	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	148	2	**81**	485	2	267
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	227	2	0	941	2	**391**
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1205		*North-South:*	669
			East-West:	81		*East-West:*	391
			SUM:	1286		*SUM:*	1060
VOLUME/CAPACITY *(V/C)* RATIO:				0.935			0.771
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.835**			**0.671**
LEVEL OF SERVICE (LOS):				**D**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Century Park East
Scenario: Cumulative plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	**0**
	Left-Through		0			0	
	Through	1790	4	**448**	1577	4	394
	Through-Right		0			0	
	Right	312	1	196	77	1	21
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	334	2	**184**	182	2	100
	Left-Through		0			0	
	Through	1817	3	606	1832	3	**611**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	211	2	**116**	102	2	**56**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	413	2	43	240	2	32
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	632		*North-South:*	611
			East-West:	116		*East-West:*	56
			SUM:	748		*SUM:*	667
VOLUME/CAPACITY *(V/C)* RATIO:				0.544			0.485
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.444**			**0.385**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

One Beverly Hills
Cumulative plus Project Conditions - Saturday Midday Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Sunset Boulevard/Whittier Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.716
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Whittier Drive						Sunset Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	39	83	155	7	101	27	18	861	37	138	878	14
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	41	87	163	7	106	28	19	904	39	145	922	15
Added Vol:	4	0	3	0	0	0	0	0	5	5	0	0
PasserByVol:	0	3	0	0	2	0	0	0	0	0	0	0
Initial Fut:	45	90	166	7	108	28	19	904	44	150	922	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	50	100	184	8	120	32	21	1005	49	167	1024	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	100	184	8	120	32	21	1005	49	167	1024	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	100	184	8	120	32	21	1005	49	167	1024	16
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.35	0.65	1.00	0.79	0.21	1.00	1.91	0.09	1.00	1.97	0.03
Final Sat.:	1600	564	1036	1600	1267	333	1600	3052	148	1600	3150	50
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.01	0.09	0.09	0.01	0.33	0.33	0.10	0.33	0.33
Crit Moves:		****		****				****		****		

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Avenue of the Stars
Scenario: Cumulative plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	AM			PM		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	23	1	23	46	1	**46**
	Left-Through		0			0	
	Through	2225	4	**556**	1993	4	498
	Through-Right		0			0	
	Right	477	1	379	331	1	86
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	635	2	**349**	410	2	226
	Left-Through		0			0	
	Through	1529	3	510	2267	3	**756**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	280	3	**98**	699	3	**245**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	369	2	0	433	2	12
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	905		*North-South:*	802
			East-West:	98		*East-West:*	245
			SUM:	1003		*SUM:*	1047
VOLUME/CAPACITY *(V/C)* RATIO:				0.729			0.761
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.629**			**0.661**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: One Beverly Hills
North-South Street: Santa Monica Boulevard **East-West Street:** Avenue of the Stars
Scenario: Cumulative plus Project (One Beverly Hills)
Count Date: 9/24/2015 **Analyst:** Fehr & Peers **Date:** 9/24/2015

	WEEKDAY_MIDDAY			WEEKEND_SAT		
No. of Phases			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3	SB--	0	NB-- 3	SB--	0
	EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	47	1	**47**	65	1	**65**
	Left-Through		0			0	
	Through	1810	4	453	1703	4	426
	Through-Right		0			0	
	Right	374	1	250	252	1	182
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	349	2	192	274	2	151
	Left-Through		0			0	
	Through	1852	3	**617**	1779	3	**593**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	354	3	**124**	199	3	**70**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	353	2	2	113	2	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	664		*North-South:*	658
			East-West:	124		*East-West:*	70
			SUM:	788		*SUM:*	728
VOLUME/CAPACITY *(V/C)* RATIO:				0.573			0.529
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.473**			**0.429**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

APPENDIX C: Access Options

FEHR PEERS

MEMORANDUM

Date: April 6, 2016

To: Andre Sahakian, City of Beverly Hills

From: Sarah Brandenberg, Fehr & Peers

Subject: Site Access Options for One Beverly Hills

LA15-2776

The project applicant for the proposed One Beverly Hills project submitted four access options for consideration. We have analyzed each of the access options to determine operations at the project site. After reviewing the four access options with the City, a fifth option was developed to optimize access to the site based on our analysis findings. This memo documents the access options and the results of our analysis.

PROPOSED SITE ACCESS

The traffic impact study accounted for the proposed access to the One Beverly Hills project site. In comparison to the previously approved 9900 Wilshire project, the permitted turning movements at each of the four (4) project site driveways will remain the same with One Beverly Hills. However, the land uses being served by the driveways are now different. Access to the proposed One Beverly Hills project is described below.

- ***Residential Access*** - Residential access would be served by two project driveways along the western boundary of the project site: the north (Wilshire Boulevard) and south (Santa Monica Boulevard North) driveways. Similar to the 9900 Wilshire site, the north driveway allows for right-in, right-out access only and the south driveway allows for right-in, left-in, & right-out access. Both of these project driveways are exclusive to residents, visitors to the residential uses, residential valet, authorized staff, and occasional move-in/move-out trips.

- ***Hotel Staff & Delivery Access*** - Along Merv Griffin Way, an all-access driveway that was initially intended to serve restaurant, retail and loading dock access to the 9900 Wilshire site would now exclusively allow access for hotel staff parking, loading, deliveries, trash collection, and mail and courier for both the condominiums and hotel of the One Beverly Hills project.

- ***Hotel Visitor Access*** - The primary driveway serving the hotel uses is on the southern boundary of the project site along Santa Monica Boulevard North, and referred to as the Hotel Motor Court. The right-in, right-out only driveway was initially intended to serve restaurant, retail, and loading dock access to the 9900 Wilshire site. With the new proposed project, the driveway will now serve hotel guests, hotel amenities visitors (e.g., restaurants, lounges, spa), taxis, shared ride vans, private cars and limos, and the hotel valet service. This driveway leads to the hotel porte-cochere, which will house two separate ramps that lead to the underground parking garage. It should be noted that the new signal at Merv Griffin Way & Santa Monica Boulevard North will allow eastbound traffic to make a U-turn to access the hotel driveway.

As stated above, the Merv Griffin Way driveway will serve hotel staff parking. Although the One Beverly Hills employee trips are accounted for in the trip estimates of each of the land uses, the employee trips need to be separated from the other uses in order to appropriately distribute and assign employee-related traffic through the roadway network. Through the Beverly Hilton hotel trip generation study, the service driveways were counted separately and were exclusive to employee staff and delivery trips. It was found that approximately 10 to 15 percent (depending on the peak hour) of the total trips represent hotel staff and delivery trips.

Figure 1 displays the proposed access to the project site.

SITE ACCESS OPTIONS

The project applicant provided four options for access to the site. The site access options primarily focus on the flow of vehicles from Santa Monica Boulevard North into the project site (i.e., vehicles entering the project site from Santa Monica Boulevard North). All of the access options contain the same traffic flows and turning movements for vehicles exiting the project site. In addition, no access changes are being considered for the residential project driveway on Wilshire Boulevard or for the Hotel staff parking/loading dock driveway on Merv Griffin Way. Each option is described below and displayed on Figures 2 through 5.

- **Option 1**: U-Turn at Merv Griffin Way for Vehicles Entering Hotel & Residential Uses
    - Vehicles traveling on northbound Santa Monica Boulevard North would access the hotel and residential uses by making a U-turn at the new traffic signal at Merv Griffin Way & Santa Monica Boulevard North and then turning right into the Hotel Motor Court or residential driveway.
- **Option 2**: Partial U-Turn at Merv Griffin Way for Vehicles Entering Hotel, Secondary Access from Merv Griffin Way, & Separate Left-turn for Residential Uses
    - This option shifts the driveway into the Hotel Motor Court to the intersection of Merv Griffin Way & Santa Monica Boulevard North. Instead of making a complete U-turn at Merv Griffin Way, vehicles would make a partial U-turn and pull directly into the Hotel Motor Court. Vehicles traveling on Merv Griffin Way would also be able to access the Hotel Motor Court at a secondary driveway located just before the signal at Santa Monica Boulevard North. Vehicles entering the residential uses would be able to make a left-turn from Santa Monica Boulevard North directly into the residential driveway.
- **Option 3**: Partial U-Turn at Merv Griffin Way for Vehicles Entering Hotel & Separate Left-turn for Residential Uses
    - Access to the site is the same as Option 2 except the secondary driveway providing direct access to the Hotel Motor Court from Merv Griffin Way is no longer provided. Vehicles traveling on Merv Griffin Way would make a right-turn directly into the Hotel Motor Court driveway at the intersection of Santa Monica Boulevard North.

- **Option 4**: Left-Turn/U-Turn Access at Hotel Motor Court
    - This alternative is similar to Option 1 but allows eastbound traffic to turn left into the Hotel Motor Court driveway from Santa Monica Boulevard North instead of having to make a U-turn at the intersection.

SITE ACCESS ANALYSIS

To provide a thorough analysis of the flow of vehicles entering the project site, a microsimulation model of the site access options under Existing Plus Project and Cumulative (Year 2020) Plus Project conditions were developed using the VISSIM software package. The VISSIM model was developed to simulate PM peak hour travel conditions as this reflect the period with the highest travel demand in the study area. Two performance metrics were calculated using VISSIM:

- Vehicle delays and LOS for the turning movements at the Santa Monica Boulevard North & Merv Griffin Way intersection affected by the access options
- Queuing for vehicles making a left-turn or U-turn from Santa Monica Boulevard North and entering the project site

The PM peak hour turning movement volumes are documented in the Transportation Impact Report for One Beverly Hills. Following the completion of the site access analysis, the project trip generation was updated to better reflect the dining uses associated with the proposed luxury hotel. The number of project trips entering the project site from the eastbound left-turn lane at the Santa Monica Boulevard North & Merv Griffin Way intersection was reduced with the updated trip generation (the number of project trips utilizing the eastbound left-turn lane was reduced from 20 vehicles to 13 vehicles during the PM peak hour). Due to the minimal change in PM peak hour traffic volumes at the Santa Monica Boulevard North & Merv Griffin Way intersection with the updated trip generation, the detailed LOS and queuing analysis was not updated. Applying the approved project trip generation would result in LOS and queueing results that are slightly better than those shown below.

Tables 1 and 2 display the Existing and Cumulative delay and LOS results for each of the access options. Turning movements operating worse than LOS C (i.e., LOS D or E) are highlighted. The delay and LOS results indicate the following:

- Under Existing Plus Project conditions, most of the turning movements would operate at LOS C or better under the four access options. Under Options 2 and 3, the northbound left-turn/U-turn movement would operate just over the LOS C/D threshold at LOS D.

- Under Cumulative Plus Project conditions, the northbound left-turn/U-turn movement would operate at LOS D or E under Options 1, 2 and 3. In addition, under Options 2 and 3, vehicles traveling from Merv Griffin Way and turning onto Santa Monica Boulevard North would operate at LOS D.

TABLE 1
Existing Plus Project PM Peak Hour Level of Service and Delay

Option	LOS and Delay (sec/veh)					
	NB Santa Monica Blvd Left/U-Turn		SB Santa Monica Blvd Thru/Right-Turn		EB Merv Griffin Left/Right-Turn	
1	29	C	22	C	23	C
2	36	**D**	26	C	33	C
3	39	**D**	30	C	33	C
4	29	C	23	C	27	C

Source: *Fehr & Peers, 2016.*

TABLE 2
Cumulative Plus Project PM Peak Hour Level of Service and Delay

Option	LOS and Delay (sec/veh)					
	NB Santa Monica Blvd Left/U-Turn		SB Santa Monica Blvd Thru/Right-Turn		EB Merv Griffin Left/Right-Turn	
1	39	**D**	27	C	28	C
2	57	**E**	34	C	37	**D**
3	66	**E**	35	**D**	36	**D**
4	31	C	25	C	27	C

Source: *Fehr & Peers, 2016.*

Tables 3 and 4 display the Existing and Cumulative queuing results for each of the access options. Vehicle queues that exceed the storage provided are shown in bold. The storage provided and vehicle queuing results indicate the following:

- Under Option 1, 500 feet of storage would be available for vehicles making a left-turn or U-turn at Merv Griffin Way. With all Hotel and Residential vehicles needing to make a U-turn at Merv Griffin Way, the maximum queue would exceed the available storage under Cumulative Plus Project conditions (but not under Existing Plus Project conditions).

- Under Option 2, a total of 475 feet of storage would be available for vehicles making a left-turn directly into the residential driveway (100 feet) or making a left-turn/partial U-turn at Merv Griffin Way (375 feet). Since these turn pockets are continuous, the total storage demand was analyzed to capture the impacts of vehicles stopping within the turn pocket to make a left-turn into the residential driveway and potentially delaying vehicles making the left/U-turn at Merv Griffin Way. The maximum queue would exceed the available storage under both Existing and Cumulative Plus Project conditions.

- Under Option 3, a total of 475 feet of storage would also be available for vehicles making a left-turn directly into the residential driveway (100 feet) or making a left-turn/partial U-turn at Merv Griffin Way (375 feet). Similar to Option 2, the total storage demand was analyzed to capture the impacts of vehicles stopping within the turn pocket to make a left-turn into the residential driveway and potentially delaying vehicles making the left/U-turn at Merv Griffin. The maximum queue would exceed the available storage under both Existing and Cumulative Plus Project conditions. In addition, the vehicle queue lengths under Option 3 would exceed those under Option 2. This is because Option 3 removes the secondary driveway into the Hotel Motor Court from Merv Griffin Way resulting in the need for more green-time for Merv Griffin Way vehicles (which reduces the amount of green-time available for the left/U-turn movement and results in longer vehicle queues).

- Under Option 4, a total of 500 feet of storage would be available for vehicles making a left-turn directly into the Hotel Motor Court (280 feet) or making a left-turn at Merv Griffin Way (220 feet). Similar to Options 2 and 3, the total storage demand was analyzed to capture the impacts of vehicles stopping within the turn pocket to make a left-turn into the Hotel Motor Court and potentially delaying vehicles making the left-turn at Merv Griffin Way. The maximum queue would be less than the available storage under both Existing and Cumulative Plus Project conditions.

TABLE 3
Existing Plus Project PM Peak Hour Inbound Left/U-Turn Storage Demand

Option	Total Storage Demand (ft)[1]		Total Available Storage
	Avg.	Max.	
1	70	415	500
2	90	**495**	475
3	100	**520**	475
4	70	425	500

Note: 1. Distance from the stop bar at Merv Griffin that a vehicle would be queued.
BOLD = Maximum queue exceeds total available storage.

TABLE 4
Cumulative Plus Project PM Peak Hour Inbound Left/U-Turn Storage Demand

Option	Total Storage Demand (ft)[1]		Total Available Storage
	Avg.	Max.	
1	100	**550**	500
2	160	**620**	475
3	190	**720**	475
4	80	445	500

Note: 1. Distance from the stop bar at Merv Griffin that a vehicle would be queued.
BOLD = Maximum queue exceeds total available storage.

SITE ACCESS OPPORTUNITIES AND CONTRAINTS

Based on the analysis results above and our review of the access options, we have the following observations:

- Option 4 provides the lowest delays and shortest vehicle queues of the analyzed options.
- Under Option 4, we recommend reviewing the design of the shared left-turn pocket in further detail to ensure that vehicles would not be allowed exit the turn pocket to bypass a vehicle making a left-turn into the Hotel Motor Court driveway resulting in a potential conflict area with through traffic on Santa Monica Boulevard North.

- Option 1 provides acceptable operations under Existing Plus Project conditions; however, the maximum vehicle queue for the left/U-turn movement would exceed the storage provided under Cumulative conditions. Option 1 provides the most standard design in that multiple left-turns are not able to be made from a single/shared turn pocket.

- We have the following concerns with Options 2 and 3:

    - The diagonal entrance to the Hotel Motor Court at the Merv Griffin Way & Santa Monica Boulevard North intersection could result in driver confusion. Unlike an office or residential building, most people driving to a hotel are visiting from outside the area and not familiar with the site access or surrounding roadway network. Therefore, the diagonal driveway could result in on-going driver confusion for those visiting the hotel.

    - The diagonal entrance to the Hotel Motor Court could result in high travel speeds from those entering the hotel from southbound Santa Monica Boulevard North. The diagonal entry way does not force vehicles to slow down upon entry.

    - Pedestrian access to the hotel and along Santa Monica Boulevard North would be disrupted with the diagonal driveway into the Hotel Motor Court. Pedestrian activity along Santa Monica Boulevard North is expected to increase with the development of the proposed project and the site under construction next door to the proposed project. Creating a pedestrian friendly and walkable environment between the proposed project and adjacent uses will help to encourage walking for short-distance trips.

REFINED ACCESS OPTION

After reviewing the four access options with the City, a fifth option was developed to optimize access to the site based on our analysis findings. Option 5 is described below and displayed in Figure 6.

- **Option 5**: Left-Turn Access at Hotel Motor Court & Residential Driveway and Secondary Access on Merv Griffin Way
    - This option maximizes the number of entry and exit points to the project site and is a combination of the initial site access options provided by the project applicant. Vehicles would be able to turn left into the Hotel Motor Court driveway from Santa Monica Boulevard North instead of having to make a U-turn at the intersection at Merv Griffin Way. In addition, vehicles entering the residential uses would be able to make a left-turn from Santa Monica Boulevard North directly into the residential driveway.
    - Vehicles traveling on Merv Griffin Way would also be able to access the Hotel Motor Court at a secondary driveway located just before the signal at Santa Monica Boulevard North. Under typical conditions, the Merv Griffin driveway would only allow vehicles to enter (one-way inbound) the Hotel Motor Court. To accommodate special event conditions that require a partial or full closure of Santa Monica Boulevard, the Merv Griffin driveway would be converted to allow two-way travel (inbound and outbound). The driveway width of 26 feet would permit two-way travel and allow vehicles to enter and exit the Hotel onto Merv Griffin Way.

Option 5 would operate similar to Option 4 presented above. Tables 5 and 6 present the LOS and queuing results.

TABLE 5
Option 5 PM Peak Hour Level of Service and Delay

Option 5	LOS and Delay (sec/veh)					
	NB Santa Monica Blvd Left/U-Turn		SB Santa Monica Blvd Thru/Right-Turn		EB Merv Griffin Left/Right-Turn	
Existing Plus Project	29	C	23	C	27	C
Cumulative Plus Project	31	C	25	C	27	C

Source: *Fehr & Peers, 2016.*

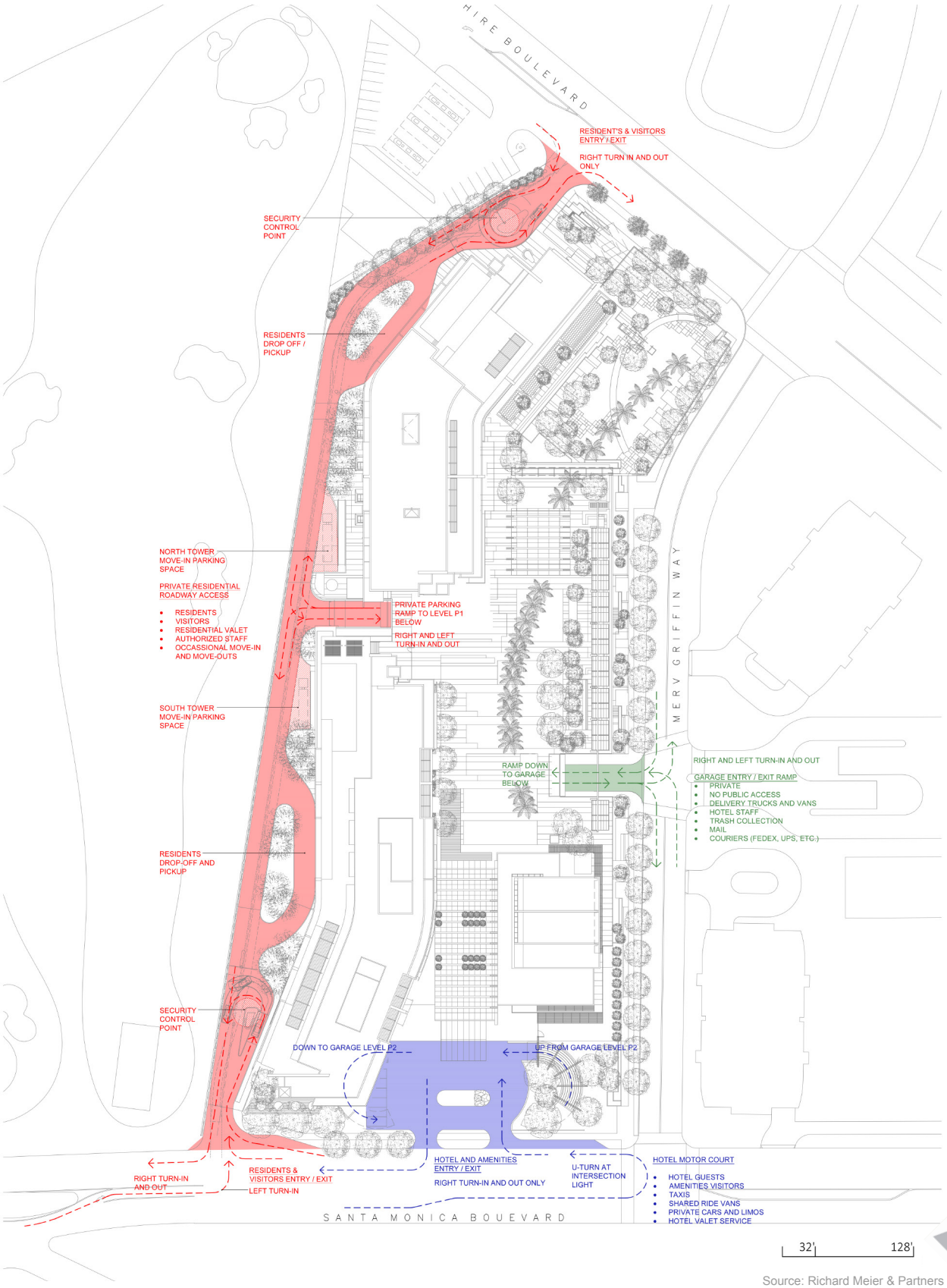
TABLE 6
Option 5 PM Peak Hour Inbound Left/U-Turn Storage Demand

Option 5	Total Storage Demand (ft)[1]		Total Available Storage
	Avg.	Max.	
Existing Plus Project	70	425	500
Cumulative Plus Project	80	445	500

Note: 1. Distance from the stop bar at Merv Griffin that a vehicle would be queued.
BOLD = Maximum queue exceeds total available storage.

The advantages of Option 5 are summarized below:

- Similar to Option 4, Option 5 would also minimize vehicle delays and vehicle queuing at the project site.
- Providing direct access from Santa Monica Boulevard North to the residential and Hotel Motor Court driveways limits the need for vehicles to make a U-turn at the Merv Griffin Way intersection.
- The secondary driveway on Merv Griffin Way allows vehicles to enter the Hotel Motor Court from the north without needing to access Santa Monica Boulevard, and allows an alternative route for vehicles during special events that require partial or full closure of Santa Monica Boulevard North.



Source: Richard Meier & Partners Architects

Figure 1

One Beverly Hills

Access Configuration and Vehicle Circulation

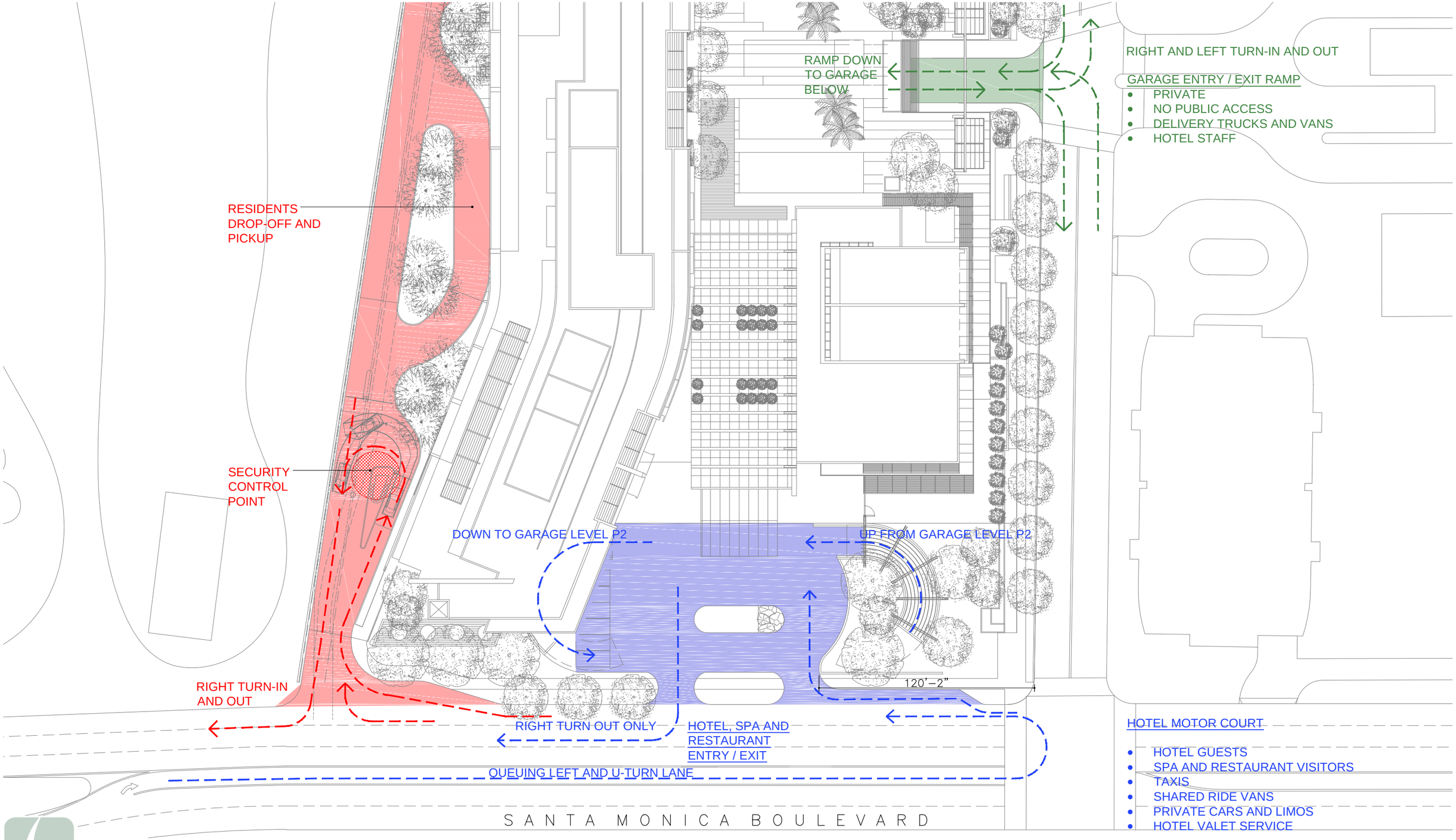


Figure 2

Option 1: U-Turn at Merv Griffin Way for Vehicles Entering Hotel & Residential Uses

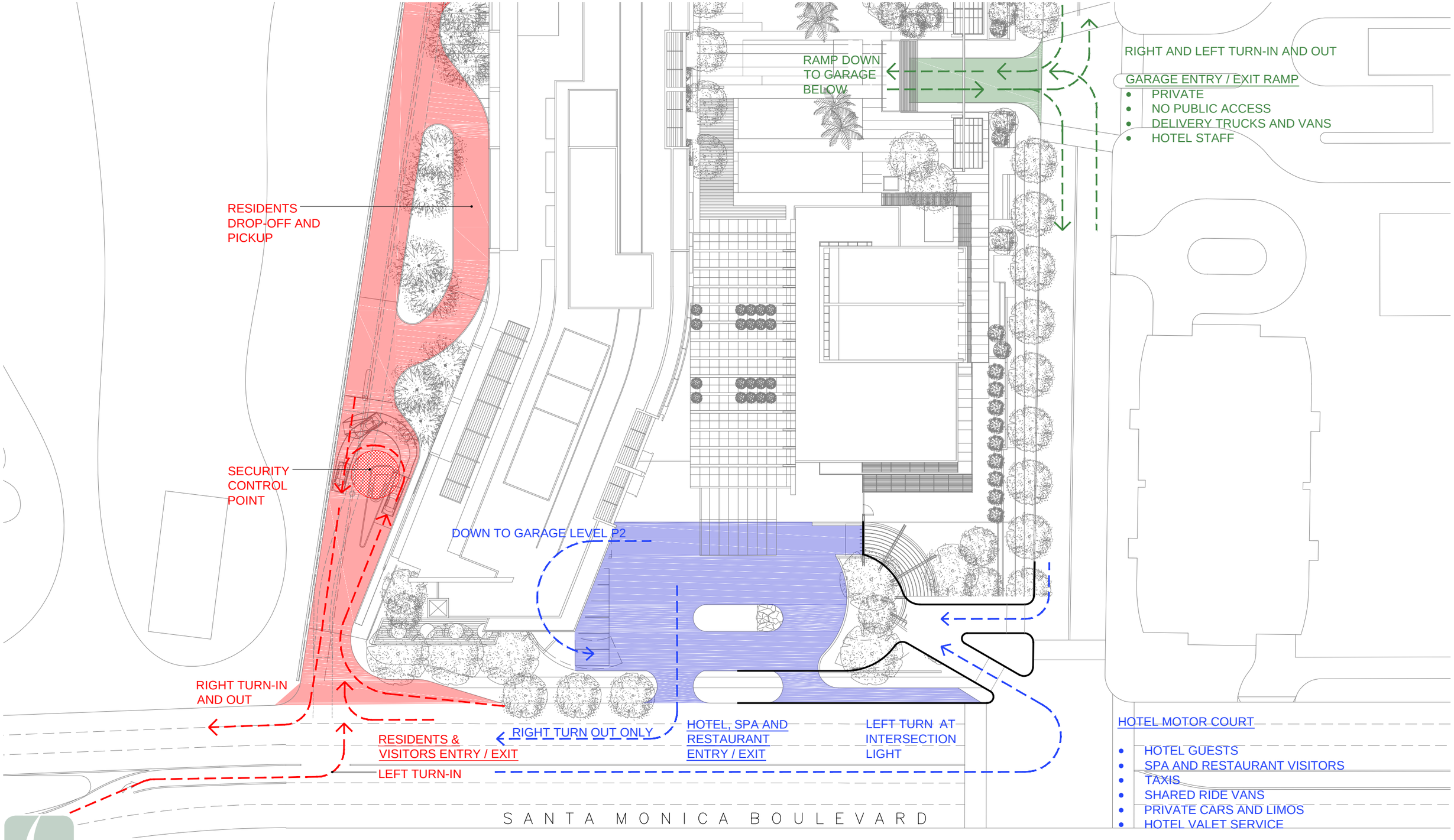


Figure 3

Option 2: Partial U-Turn at Merv Griffin Way for Vehicles Entering Hotel, Secondary Access from Merv Griffin Way & Separate Left-turn for Residential Uses

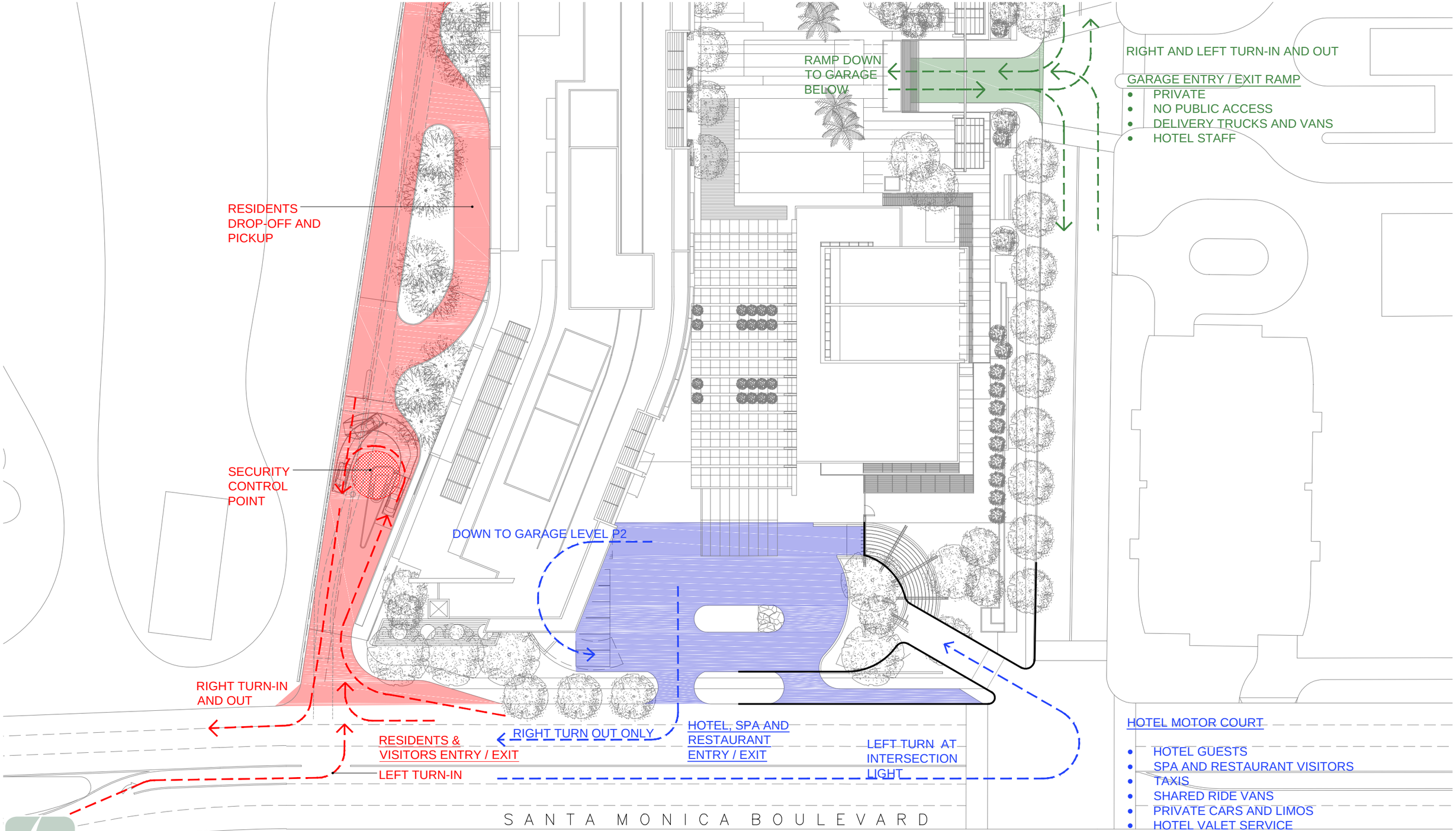


Figure 4

Option 3: Partial U-Turn at Merv Griffin Way for Vehicles Entering Hotel & Separate Left-turn for Residential Uses

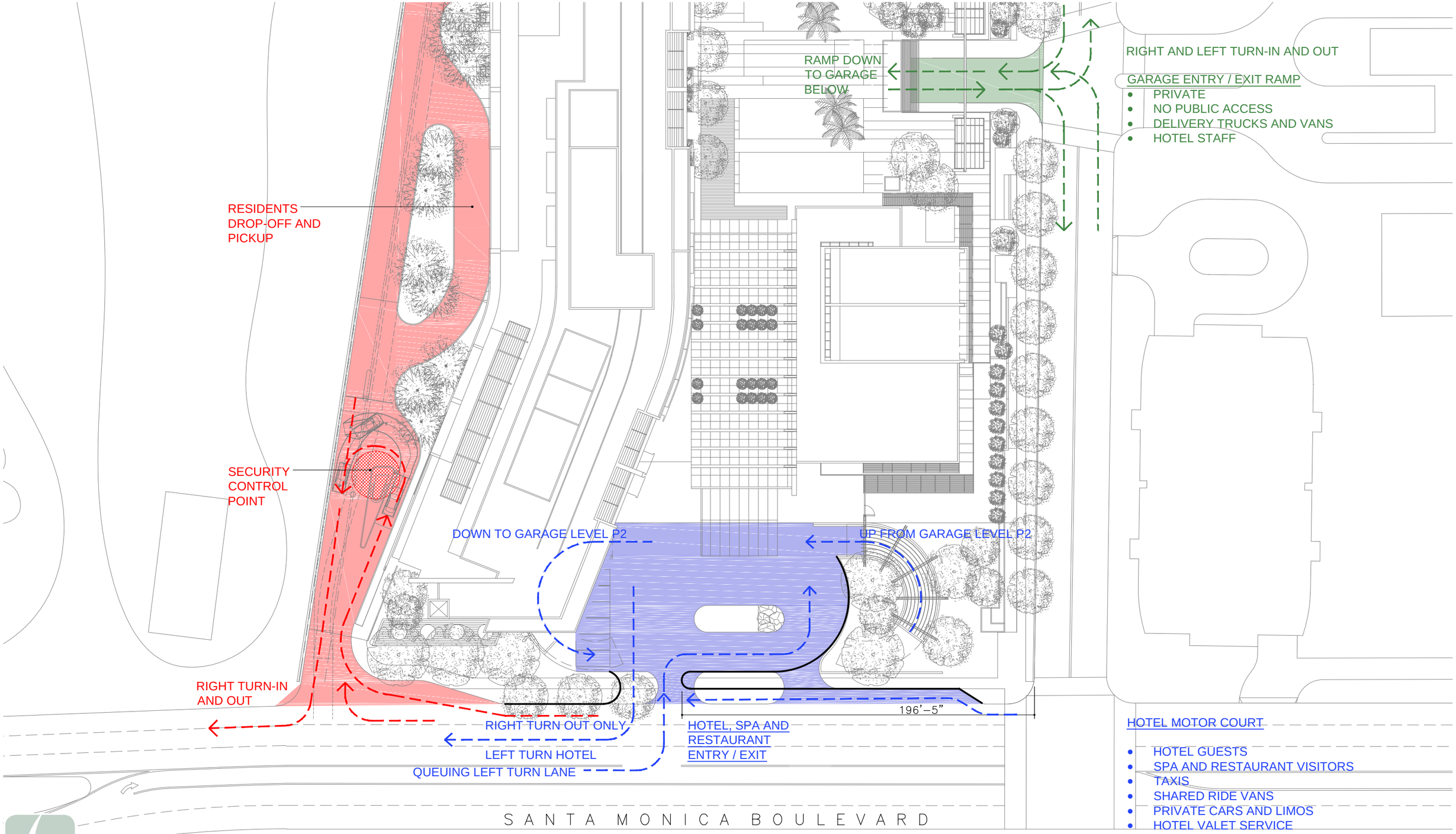


Figure 5

Option 4: Left-turn/U-Turn Access at Hotel Motor Court

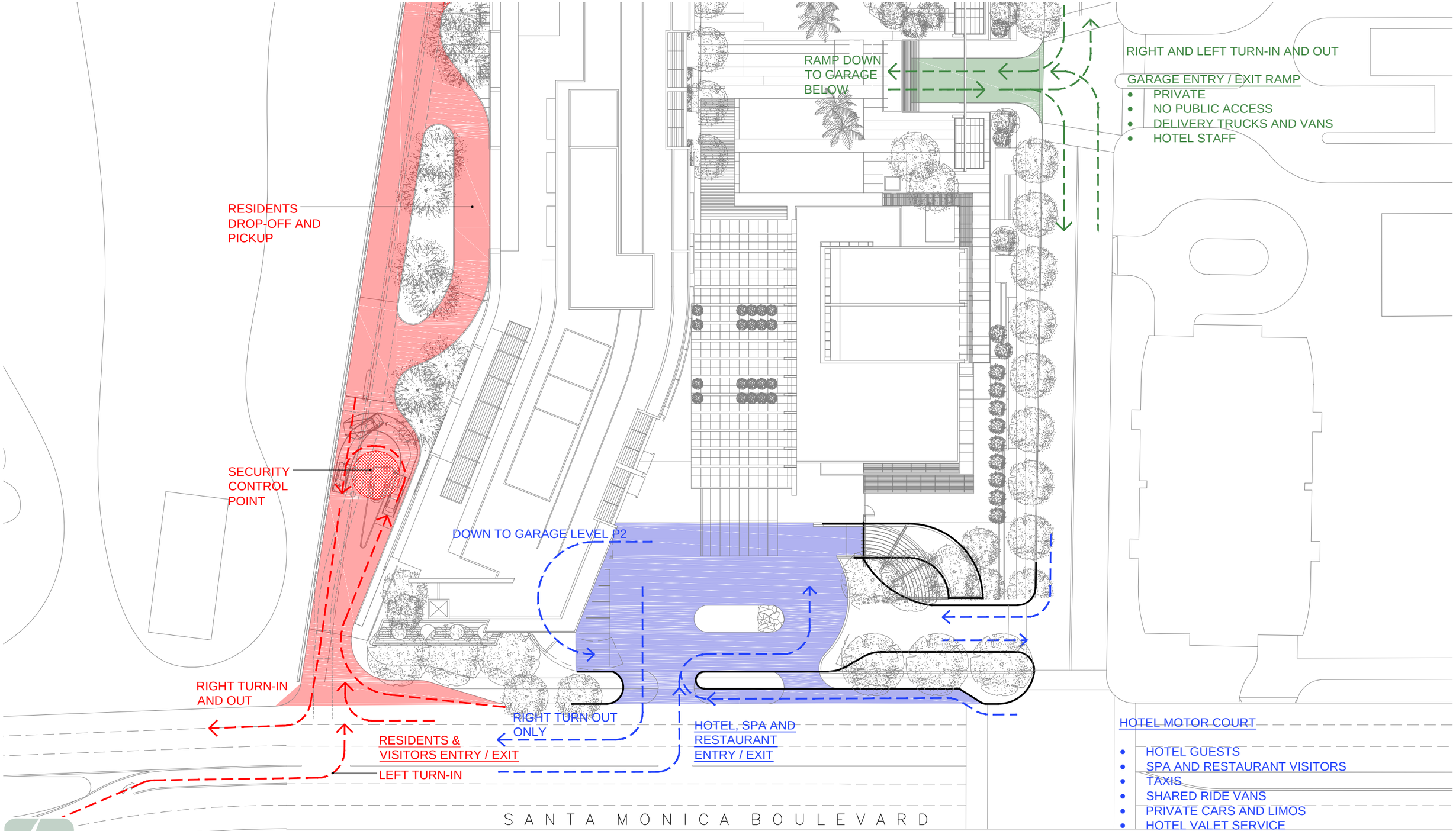


Figure 6

Option 5: Left-Turn Access at Hotel Motor Court & Residential Driveway and Secondary Access on Merv Griffin Way

Appendix E

Alternatives Trip Generation and Water Demand

ALTERNATIVES TRIP GENERATION

Reduced Hotel Trip Generation

	Trip Rates						Total Trips				
Land Use	**Daily**	**AM**	**Mid-Day**	**PM**	**Saturday**	**Units***	**Daily**	**AM**	**Mid-Day**	**PM**	**Saturday**
Condominiums	3.55	0.28	0.33	0.33	0.29	214	760	60	71	71	62
Hotel	7.75	0.41	0.49	0.57	0.26	67	519	27	33	38	17
Spa	14.5	1.21	1.45	1.45	1.45	3.685	18	1	2	2	2
Restaurants	54.02	0.33	5.69	4.18	3.44	2.1245	57	0	13	10	8
Bars	113.4	0	3.4	11.34	11.34	2.719	154	0	11	34	12
						Total	**1,508**	**89**	**129**	**155**	**101**

* Residential units/rooms for condos & hotel; 1,000 sf for other uses; 33% external trips for spa, 50% for restaurants/bars.

Office Alternative Trip Generation

	Trip Rates						Total Trips				
Land Use	**Daily**	**AM**	**Mid-Day**	**PM**	**Saturday**	**Units***	**Daily**	**AM**	**Mid-Day**	**PM**	**Saturday**
Condominiums	3.55	0.28	0.33	0.33	0.29	193	685	54	64	64	56
Office	11.03	1.56	0.75	1.49	0.43	204.291	2,253	319	153	304	88
						3.685	0	0	0	0	0
						2.1245	0	0	0	0	0
						2.719	0	0	0	0	0
						Total	**2,938**	**373**	**217**	**368**	**144**

* Residential units for condos; 1,000 sf for office.

ALTERNATIVES WATER DEMAND

Reduced Hotel Water Demand

Use	Quantity	Demand Factor (gal/day)	Daily Demand (gal/day)	Estimated Gray Water Collected (gal/day)	HVAC Gray Water Usage (gal/day) [a]	Daily Gray Water Usage (gal/day)	Daily Demand Domestic Water (gal/day)	Annual Demand (gal/year)	Annual Demand (AFY)
Condominiums	214	250	53,500	26,130	10,000	0	43,500	15,877,500	49
Hotel	67	162.5	10,888	10,720	4,000	2,073	4,814	1,757,286	5
Hotel Ancillary	45,203	0.1875	8,476	0	550	5,244	2,681	978,616	3
Restaurants	326	37.5	12,225	0	450	2,017	9,758	3,561,552	11
Retail	0	0.1	0	0	0	0	0	0	0
Landscaping	95,371	0.04958	4,728	0	0	3,658	1,071	390,750	1
Total			89,817	36,850	15,000	12,993	61,824	22,565,703	69

[a] Daily gray water usage is assumed to be proportional to the alternative's overall demand relative to the Project.

Office Alternative Water Demand

Use	Quantity	Demand Factor (gal/day)	Daily Demand (gal/day)	Estimated Gray Water Collected (gal/day)	HVAC Gray Water Usage (gal/day)[a]	Daily Gray Water Usage (gal/day)	Daily Demand Domestic Water (gal/day)	Annual Demand (gal/year)	Annual Demand (AFY)
Condominiums	193	250	48,250	26,130	10,000	0	38,250	13,961,250	43
Office [c]	204,291	0.1875	38,305	10,720	5,000	3,410	29,894	10,911,435	33
Landscaping	95,371	0.04958	4,728	0	0	6,018	0	0	0
Total			91,283	36,850	15,000	9,428	68,144	24,872,685	76

[a] HVAC gray water usage assumed to be equal to the total usage for the hotel, hotel ancillary, and restaurants.

[b] Daily gray water usage is assumed to be proportional to the alternative's overall demand relative to the Project.

[c] Water demand for office based on 125% of 150 gallons/1,000 sf/day, per the LA CEQA Thresholds Guide.