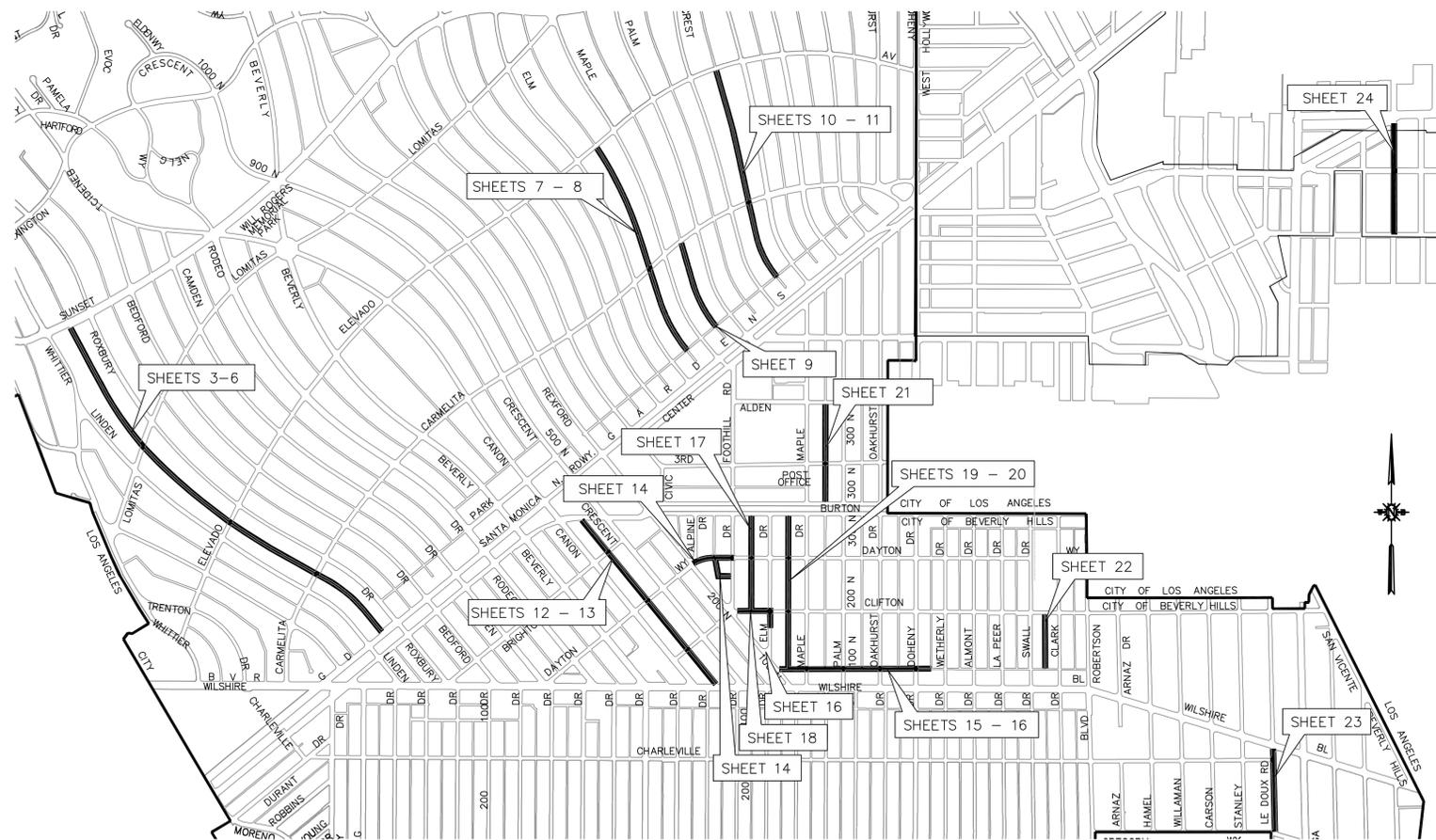


CONSTRUCTION NOTES

1. CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
2. CONSTRUCT 12-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH710.
3. CONSTRUCT 16-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH710.
4. FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
5. FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
6. FURNISH AND INSTALL DI 90° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
7. FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
8. FURNISH AND INSTALL DI 22.5° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
9. FURNISH AND INSTALL DI 11.25° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
10. FURNISH AND INSTALL PIPE REDUCER, SIZE PER PLAN.
11. FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
12. CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
13. FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
14. FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
15. REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
16. REPLACE EXISTING WATER VAULTS FOR 4-INCH AND LARGER WATER SERVICES AND FIRE SERVICES PER THE CITY OF BEVERLY HILLS STD. DWG BH 717 AND BH 718. CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING VAULT MATERIAL.
17. CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
18. REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
19. SALVAGE EXISTING HYDRANT, BLOW OFF AND RETURN TO CITY UTILITY DEPARTMENT. REMOVE AND DISPOSE OF EXISTING BURY. ABANDON EXISTING ASSEMBLY. RESTORE SITE CONDITIONS, IN-KIND TO THE SATISFACTION OF THE ENGINEER.
20. CONSTRUCT FIRE HYDRANT ASSEMBLY WITH BUTTERFLY VALVE AND TEE PER CITY OF BEVERLY HILLS STD. DWG BH703.
21. EXISTING TRAFFIC LOOP, IF DAMAGED REPLACE IN-KIND.
22. EXISTING CROSS GUTTER, PROTECT IN PLACE, IF DAMAGED REPLACE IN KIND TO NEAREST JOINT.
23. FURNISH AND INSTALL 2-INCH BLOW OFF ASSEMBLY PER DETAIL 21 ON SHEET 27.
24. FURNISH AND INSTALL AIR RELEASE VALVE ASSEMBLY PER DETAILS 13 AND 14 ON SHEET 26.
25. EXISTING CURB AND GUTTER, PROTECT IN PLACE.
26. EXISTING TRAFFIC STRIPING REPLACE IN-KIND PER MANHATTAN BEACH STANDARDS.
27. FURNISH AND INSTALL SERVICE LATERAL TO EXISTING WATER SAMPLING STATION.
28. PROTECT IN PLACE EXISTING STORM DRAIN.
29. SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
30. REMOVE TO NEAREST JOINT AND RECONSTRUCT CONCRETE AREAS OR LONGITUDINAL GUTTER PER CITY STANDARD BH 111. INSTALL (3) #4 DOWELS BY 12" LONG, SIMPSON ET EPOXIED INTO EXITING CONCRETE (6" MIN. EMBEDMENT).
31. REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
32. TEMPORARY BY PASS PIPING REQUIRED.
33. FURNISH BLIND FLANGE AND THRUST RESTRAINT ON EXISTING FITTING.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

FY 2013/2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS CITY OF BEVERLY HILLS, CALIFORNIA



SHEET INDEX

SHEET NO.	SHEET TITLE
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7-8	ALLEY W OF MAPLE DRIVE (ELEVADO AVE TO ALLEY N/O NSM)
9	ALLEY W OF PALM DRIVE (CARMELITA AVE TO ALLEY N/O NSM)
10-11	ALLEY W OF ARDEN DRIVE (ELEVADO AVE TO ALLEY N/O NSM)
12-13	ALLEY W OF CRESCENT DRIVE (SM BLVD TO WILSHIRE BLVD)
14	DAYTON WAY (REXFORD DRIVE TO FOOTHILL ROAD)
14	"L" ALLEY W OF FOOTHILL (DAYTON WAY TO FOOTHILL ROAD)
15-16	ALLEY N OF WILSHIRE (REXFORD DRIVE TO ALLEY W O WETHERLY)
16	ELM DRIVE (CLIFTON WAY TO REXFORD DRIVE)
17	ALLEY W OF ELM (BURTON WAY TO CLIFTON WAY)
18	CLIFTON WAY (REXFORD DRIVE TO ELM DRIVE)
19-20	ALLEY W OF MAPLE (BURTON WAY TO ALLEY N/O WILSHIRE BLVD)
21	ALLEY W OF PALM (ALDEN DRIVE TO BURTON WAY)
22	ALLEY W OF CLARK (CLIFTON TO ALLEY N/O WILSHIRE)
23	LEDOUX ROAD (WILSHIRE BLVD TO GREGORY WAY)
24	ORLANDO AVENUE (ROSEWOOD AVE. TO MELROSE AVE.)
25	WATER DETAILS
26	WATER DETAILS
27	WATER DETAILS

VICINITY MAP

SCALE: N.T.S.

EMERGENCY TELEPHONE NUMBERS

AGENCY	NUMBER
DIG ALERT	611
CITY OF BEVERLY HILLS	310 285-2505
SOUTHERN CALIFORNIA GAS COMPANY	310 687-2032
SOUTHERN CALIFORNIA EDISON COMPANY	714 796-9931
PACIFIC BELL TELEPHONE COMPANY	310 515-5130
AMERICAN TELEPHONE AND TELEGRAPH COMPANY	805 255-8573
ADELPHIA COMMUNICATIONS	818 779-2673
CONTINENTAL CABLE TELEVISION COMPANY	310 216-3523
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS	626 458-5100
METROPOLITAN FIBER SYSTEMS (MFS)	714 385-9860
LOS ANGELES DEPARTMENT OF WATER & POWER	213 367-1218
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	213 217-6340
MCL WORLD.COM	909 421-5033
CALTRANS	213 897-0243

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD LOCAL GOVERNMENT AGENCIES, THE OWNER AND THE ENGINEER HARMLESS OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR SUBSTRUCTURES SHOWN HEREON WAS OBTAINED FROM A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT THE UTILITIES OR SUBSTRUCTURES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

BASIS OF BEARINGS

(BEVERLY HILLS): THE BEARINGS SHOWN HEREON ARE BASED UPON THE BEARING BETWEEN A BRASS CAP IN A WELL MONUMENT AT THE INTERSECTION OF WILSHIRE BOULEVARD AND BEVERLY DRIVE AND A NAIL AND TAG AT THE INTERSECTION OF BEVERLY DRIVE AND DAYTON DRIVE, BEING N39d31'19"W

BENCHMARK

THE FOLLOWING CITY OF BEVERLY HILLS BENCHMARKS WERE USED (NAVD88):
 BM 01 EL=224.69
 BM 41 EL=136.71
 BM 26 EL=275.08
 BM 130 EL=307.78

THE FOLLOWING CITY OF LOS ANGELES BENCHMARKS WERE USED (NAVD88):
 BM 13-15238 EL=193.044

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- CENTERLINE
- CURB
- CURB & GUTTER
- FENCE
- RETAINING WALL
- CONTOURS
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- SANITARY SEWER LINE
- STORM DRAIN LINE
- SD CAL GAS LINE
- SCE ELECTRIC LINE
- OVERHEAD WRES
- FIBER OPTICS/COMM
- TIME WARNER LINE
- UNDERGROUND AT&T
- STREET LIGHT LINE
- SHARED AT&T/SCE DUCT BANK
- TYPICAL LATERALS
- WATER VALVE
- PROPOSED WATER VALVE
- EX WATER METER
- PROPOSED WATER METER
- EX WATER ISOLATION CONTROL VALVE
- EX AIR RELEASE VALVE
- EX GAS METER
- EX GAS VALVE
- EX SDMH
- EX SSMH
- EX CLEANOUT
- EX ELECTRIC MH
- EX ELECTRIC VAULT
- EX AT&T MH
- EX AT&T BOX
- EX TRAFFIC BOX
- EX TIME WARNER BOX
- EX FIRE HYDRANT
- FIRE HYDRANT
- EX STREET LIGHT
- MONUMENT
- EX STORM DRAIN INLET
- EX CURB INLET
- EX POWER POLE
- EX FOUR-WAY SIGN
- EX TWO-WAY SIGN
- BOLLARD
- TREE
- AC PAVING
- CONCRETE
- PRESSURE ZONE
- BLOW-OFF
- AIR RELEASE VALVE

ABBREVIATIONS

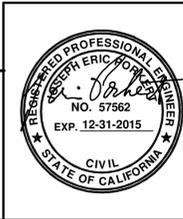
ABN	ABANDON OR ABANDONED	PB	PULL BOX
AC	ASPHALT CONCRETE	PL	PROPERTY LINE
AV/AR	AIR VACUUM/AIR RELEASE	PCC	POINT OF CONNECTION
BG	BEGIN CURVE	PCC	PORTLAND CEMENT CONCRETE
BFV	BUTTERFLY VALVE	PP	POWER POLE
BLVD	BOULEVARD	RL	RESTRAINED LENGTH
BM	BENCHMARK	ROW	RIGHT OF WAY
BO	BLOW OFF	RT	RIGHT
CL	CENTERLINE	SCE	SOUTHERN CALIFORNIA EDISON
CI	CAST IRON	SD	STORM DRAIN
CO	CLEANOUT	SDMH	STORM DRAIN MANHOLE
DI	DUCTILE IRON	SS	SANITARY SEWER
DIP	DUCTILE IRON PIPE	SSMH	SANITARY SEWER MANHOLE
E	ELECTRICAL	ST	STEEL
EC	END CURVE	STD	STANDARD
EL	ELEVATION	STA	STATION
EX	EXISTING	TBD	TO BE DETERMINED
FLG	FLANGE	TYP	TYPICAL
FM	FINISH GRADE	UNK	UNKNOWN
FG	FIRE HYDRANT	UT	UNDERGROUND TELEPHONE
G	GAS	VCP	VERTICAL CLAY PIPE
GM	GAS METER	VERT	VERTICAL
GV	GAS VALVE	VLT	VAULT
HY	HYDRANT	W/O	WEST OF
INV	INVERT	WM	WATER METER
LT	LEFT	WS	WATER SERVICE
LF	LINEAR FEET	WV	WATER VALVE
MH	MANHOLE		
MJ	MECHANICAL JOINT		
MON	MONUMENT		
N	NORTH		

**FY 2013-2014
WATER MAIN REPLACEMENT PROJECT
VARIOUS LOCATIONS**

TITLE SHEET

SCALES AS SHOWN	
F.B. NO.	PAGE TO
DESIGNED JEP	DATE 2/07/2014
DRAWN CMM	DATE 2/07/2014
CHECKED	DATE
DATE	REVISION BY

SUBMITTED	Tristan D. Malabanan, P.E.	DATE	2/10/14
APPROVED	Mark Cuneo, P.E.	DATE	2/10/14
JOB NO.	130109	DRWG.	10391
SHEET NO.	1 OF 27 SHEETS		
CITY OF BEVERLY HILLS, CALIFORNIA			
PUBLIC WORKS DEPARTMENT		ENGINEERING DIVISION	



I. GENERAL NOTES

NOTIFICATIONS:

1. ALL WATER IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE LATEST EDITIONS OF THE CITY OF BEVERLY HILLS STANDARD PLANS AND SPECIFICATIONS AND, ITS SUPPLEMENTS AND APPLICABLE SPECIAL PROVISIONS, STANDARD SPECIFICATIONS AND PLANS FOR PUBLIC WORKS CONSTRUCTION, AMERICAN WATER WORKS ASSOCIATION STANDARDS, AND ALL OTHER CONTRACTUAL REQUIREMENTS. THE CONTRACTOR SHALL HAVE A CURRENT COPY OF THE WATER SERVICES STANDARD SPECIFICATIONS AT THE JOB SITE AT ALL TIMES.

NOTIFICATIONS:

2. THE CONTRACTOR SHALL SUBMIT TO THE CITY, FOR APPROVAL, THE PROJECT SEQUENCE OF WORK AND THE REQUIRED WATER SYSTEM SHUT DOWNS TO CONSTRUCT ALL TIE-IN CONNECTIONS AT THE BEGINNING OF THE PROJECT.
3. THE CONTRACTOR IS TO NOTIFY ALL CUSTOMERS AFFECTED BY THE WATER SYSTEM SHUT DOWN 15 AND 1 DAY PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL NOT CONDUCT ANY OPERATIONS OR PERFORM ANY WORK PERTAINING TO THE PROJECT BETWEEN 5 PM AND 7:30 AM ON ANY DAY, 60 NOR SATURDAY, SUNDAY OR HOLIDAY AT ANY TIME EXCEPT AS APPROVED BY THE ENGINEER. NO WORK IS ALLOWED DURING THE WEEK OF THANKSGIVING OR FROM DECEMBER 24 THROUGH JANUARY 2.
5. THE CONTRACTOR SHALL PROVIDE A 48 HOUR WRITTEN NOTIFICATION TO THE CITY OF BEVERLY HILLS PUBLIC WORKS DEPARTMENT (310-285-2565) AND ALL AFFECTED PROPERTIES, THE POLICE DEPARTMENT AND THE FIRE DEPARTMENT OF ALL CONSTRUCTION OPERATIONS AND SERVICES DISRUPTIONS, INCLUDING ANY STREET CLOSURE TO TRAFFIC, PUBLIC SAFETY VEHICLES AND/OR PARKING RESTRICTIONS DURING THE ALL CONSTRUCTION PERIODS.
6. THE CONTRACTOR SHALL CONTACT CITY FORESTER, 48 HOURS PRIOR TO TRIMMING ANY INTERFERING TREES OR TRENCING NEAR THE TREES WHICH CAN DISTURB THE TREE ROOTS.
7. THE CONTRACTOR IS TO CONTACT UNDERGROUND SERVICE ALERT AT 811 AT LEAST 72 HOURS PRIOR TO EXCAVATION. UPON EXPOSING ANY UTILITIES UNDERGROUND FACILITY THE CONTRACTOR SHALL NOTIFY THAT UTILITY IMMEDIATELY.

PERMITS/REGULATIONS AND ORDINANCES:

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF BEVERLY HILLS AND ANY OTHER APPROPRIATE JURISDICTIONAL AGENCIES THAT MAY BE REQUIRED TO ACCOMPLISH ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY. NO WORK SHALL START UNTIL ALL NECESSARY PERMITS ARE OBTAINED.
9. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL SOUND CONTROL AND NOISE LEVEL RULES, REGULATIONS AND ORDINANCES WHICH APPLY TO ANY WORK PERFORMED PURSUANT TO THE CONTRACT.

GENERAL:

10. ALL STATIONING IS BASED ON THE CENTERLINE OF STREET OR ALLEY AS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED.
11. ALL DIMENSIONS ARE IN FEET OR DECIMALS THEREOF.
12. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
13. THE ENGINEER WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AN APPROVED COPY OF CONSTRUCTION PLANS AT THE PROJECT SITE DURING CONSTRUCTION. ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW OF THE PROJECT DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED.
15. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
16. THE CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM THE WORK SHOWN ON THE PLAN. CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED PRIOR TO PERFORMANCE OF WORK.
17. CONTRACTOR SHALL COORDINATE ALL WORK, INCLUDING SUBCONTRACTOR'S WORK, SO AS TO ELIMINATE CONFLICTS AND WORK TOWARDS THE GENERAL GOOD AND COMPLETION OF THE ENTIRE PROJECT WITHIN THE SPECIFIED PERIOD.
18. FAILURE TO COMPLY WITH ANY OF THE ABOVE ITEMS SHALL BE SUFFICIENT CAUSE FOR THE AGENCY TO ARRANGE FOR THE NECESSARY WORK TO BE PERFORMED BY OTHERS. ANY COSTS INCURRED TO COMPLETE THE NECESSARY WORK WILL BE CHARGED TO THE CONTRACTOR.

EXISTING UTILITIES/APURTANCES/LANDSCAPING:

19. EXISTING UTILITIES AND STRUCTURES (UNDERGROUND, SURFACE, OR OVERHEAD) ARE INDICATED ONLY TO THE EXTENT THAT SUCH INFORMATION WAS KNOWN, OR MADE AVAILABLE TO, OR DISCOVERED BY THE DESIGN CONSULTANT IN PREPARING THE DRAWINGS. THE LOCATIONS, CONFIGURATIONS, AND ELEVATIONS OF SUBSURFACE FACILITIES ARE APPROXIMATE AND NOT ALL UTILITIES AND FACILITIES MAY BE INDICATED. OVERHEAD UTILITIES ARE NOT INDICATED IN ELEVATIONS, PROFILE OR SECTION DRAWINGS. THE ENGINEERING INVESTIGATIONS, LOCATION, AND DESIGNATION OF SUBSURFACE UTILITIES AND STRUCTURES HAVE BEEN EVALUATED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY APPLICABLE CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR THE ENGINEER.
20. VARIOUS EXISTING UTILITIES ARE INDICATED AT THEIR HORIZONTAL LOCATION AND DEPTH BASED UPON POTHOLE INFORMATION PROVIDED BY THE POTHOLOG COMPANY, AND ARE REFERENCE ONLY AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PLANS AND SHALL VERIFY SITE CONDITIONS PRIOR TO THE ORDERING OF MATERIALS AND COMMENCING WORK.
21. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AND UTILITIES IN THE FIELD BY POTHOLOG THE NEW PIPE TRENCH. POTHOLOG SHALL BE COMPLETED A MINIMUM OF 200 FEET AHEAD OF ANY CONSTRUCTION. IF THE FIELD CONDITIONS/ AND OR UTILITIES DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY APPLICABLE CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR THE ENGINEER.
22. CONTRACTOR SHALL DETERMINE THE LOCATIONS, DEPTH, MATERIAL, CONDITIONS, ROUNDNESS AND SIZE OF ALL UTILITIES, AND SUBSTRUCTURES INCLUDING SERVICE CONNECTIONS AND LATERALS WITHIN THE ALIGNMENT AND WORK LIMITS OF THE PROPOSED IMPROVEMENTS.
23. BEFORE CONSTRUCTION IS STARTED, CONTRACTOR SHALL COORDINATE WITH THE OWNER OF EACH UTILITY AND DEFINE THE REQUIREMENTS AND METHODS TO ACCOMMODATE THE PROTECTION, TEMPORARY SUPPORT, ADJUSTMENT, OR RELOCATION OF ANY UTILITIES AFFECTED BY THE PROPOSED WORK. THE CONTRACTOR SHALL EXERCISE CARE WHEN WORKING NEAR EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE, BREAKAGE, OR LEAKS CAUSED BY HIS WORK.
24. ALL EXISTING UTILITIES SHALL BE MAINTAINED AND PROTECTED IN PLACE BY THE CONTRACTOR UNLESS OTHERWISE NOTED. EXISTING UTILITIES AND OR NEW IMPROVEMENTS SHALL BE SUPPORTED AS REQUIRED BY THE ENGINEER IN ACCORDANCE WITH A APWA STANDARD PLAN 224 - 1.
25. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE REMOVAL OR RELOCATION OF ANY AND ALL EXISTING UTILITIES WITH THE RESPECTIVE UTILITY OWNER. COST OF THIS COORDINATION IS TO BE INCLUDED IN THE PRICE IS FOR THE VARIOUS IMPROVEMENTS TO COMPLETE THE PROJECT. THE CONTRACTOR SHALL PROVIDE 72 HOUR NOTICE TO AFFECTED UTILITIES WHEN RELOCATION IS REQUIRED.
26. ANY WALLS, FENCES, STRUCTURES AND/OR APPURTENANCES ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE. IF THE CONTRACTOR'S ACTIVITIES DAMAGE OR ADVERSELY AFFECT THE SAID ITEMS IN ANY WAY, THE CONTRACTOR IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNERS AT THE CONTRACTORS COST.
27. TREES AND FOLIAGE (TO DRIP LINE), SIGNS, PARKING METERS AND OTHER IMPROVEMENTS SHALL BE PROTECTED IN PLACE AND ANY DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPAIRED OR THE IMPROVEMENTS REPLACED IN KIND AT THE CONTRACTORS EXPENSE.
28. THE CONTRACTOR IS TO BE AWARE OF ALL OVERHEAD LINES AT ALL TIMES, SO AS NOT DISTURB THEM.
29. ALL FIRE HYDRANTS, WATER CONTROL VALVES, AND MAINTENANCE HOLES SHALL BE KEPT FREE FROM OBSTRUCTIONS AND AVAILABLE FOR USE AT ALL TIMES.
30. CONTRACTOR SHALL LOCATE AND FIELD VERIFY ALL WATER SERVICE CONNECTIONS AND FIRE LINE SERVICES SIZES AND LOCATIONS PRIOR TO COMMENCING WORK ON PROJECT.
31. ANY CONCRETE CURB, GUTTER, SIDEWALK OR LANDSCAPING REQUIRED REMOVAL FOR WATER MAIN INSTALLATION OR SERVICE CONNECTIONS SHALL BE REPLACED NEW IN KIND AND SHALL BE APPROVED BY THE CITY ENGINEER.
32. SEWER AND GAS LATERALS LOCATIONS ARE NOT SHOWN AND CONTRACTOR SHALL LOCATE AND PROTECT SEWER FACILITIES IN PLACE. REFER TO APWA STANDARD PLANS 232-2 FOR HOUSE SEWER CONNECTION REMODELING.

TRAFFIC CONTROL/PARKING:

33. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR THE COMPLETION OF THE PROPOSED IMPROVEMENTS IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION AND THE STATE OF CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS, TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR WILL BE ALLOWED TO CLOSE STREETS WITHIN THE PROJECT AREA TO TRAFFIC FROM 8 AM TO 4:30 PM, EXCEPT THAT NO TWO ADJACENT STREETS SHALL BE CLOSED AT ANY ONE TIME.
34. CONTRACTOR MAY PROHIBIT PARKING WITHIN THE CONSTRUCTION LIMITS AND IN ADJACENT ALLEYS AS NECESSARY TO COMPLETE THE WORK, SUBJECT TO THE APPROVAL OF THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POST "NO PARKING - TOW-AWAY" SIGNS WITH SPECIFIC TIME FRAMES AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ACTUAL WORK.
35. TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA MANUAL OF TRAFFIC CONTROL (SAF-T) OR WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH MANUAL) LATEST EDITION.
36. DURING NON-CONSTRUCTION HOURS, ALL EXCAVATIONS MUST BE PLATED OR BACKFILLED WITH TEMPORARY ASPHALT CONCRETE. ALL PLATES NEEDED TO BE SECURED IN PLACE TO THE SATISFACTION OF THE ENGINEER. AT THE END OF EACH WORKING DAY ROADS SHALL BE OPEN TO VEHICLE TRAFFIC UNLESS OTHERWISE APPROVED BY THE ENGINEER.
37. USE OF TRENCH PLATING MAY BE APPROVED BY THE CITY ENGINEER UPON SUBMITTAL OF A PLATING PLAN AND APPROVAL OF PLAN BY THE CITY ENGINEER. ALL PLATING SHALL BE FIRMLY SUPPORTED BY ADJACENT PAVEMENT OR BEAMS. ALL PLATES IN A.C. PAVEMENT SHALL BE STUDDED INTO PAVEMENT WITH TOP PLATES FLUSH WITH PAVEMENT SURFACE. THERE SHALL BE NO OPENINGS BETWEEN PLATES. PLATES SUPPORTED ON BEAMS SHALL BE BOLTED TO OR WELDED TO BEAMS BY TACK WELDING. TACK WELDING SHALL BE REQUIRED OF CONTIGUOUS PLATES. PLATES SHALL BE SECURED SO AS NOT TO MOVE, SLIP OR SLIDE AND CAPABLE OF CARRYING H-20 WHEEL LOADING. STEEL PLATES SHALL BE STEEL OF MINIMUM A36 GRADE DESIGNED FOR H520-44 TRUCK LOADING PER CALTRANS BRIDGE DESIGN SPECIFICATION MANUAL. ALL PLATE SURFACES SHALL BE ROUGHENED OR RAISED WITH MINIMUM COEFFICIENT OF FRICTION EQUIVALENT TO 0.35 PER CALIFORNIA TEST METHOD 342, TO MINIMIZE TIRE SLIPPAGE. FOR CONCRETE SECTION OF STREETS THE PLATES MAYBE PLACE ON SURFACE AND HELD IN PLACE WITH ASPHALT CONCRETE EDGE BERMS AND STUDS INTO DRILLED HOLES.
38. THE CONTRACTOR SHALL CONTACT THE CITY TRAFFIC OPERATION MANAGER TO TURN OVER REMOVED EXISTING SIGNAGE TO THE CITY. SIGNAGE SHALL BE REMOVED AND REPLACED.
39. TRAFFIC STRIPING, MARKINGS, AND RAISED PAVEMENT MARKERS DAMAGED DURING CONSTRUCTION SHALL BE REINSTALLED IN KIND OR AS DIRECTED BY THE CITY ENGINEER AND NOTED IN THE SPECIAL PROVISIONS. ALL NEW STRIPING AND MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
40. PRIOR TO COMMENCING THE EXCAVATION OF A TRENCH 5 FEET IN DEPTH AND GREATER AND INTO WHICH A PERSON WILL BE REQUIRED TO DESCEND, THE CONTRACTOR SHALL FIRST OBTAIN A PERMIT TO DO SO FROM THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA (CAL OSHA) PURSUANT TO 7-10. 4.1. THE CONTRACTOR SHALL SUBMIT A COPY OF THE SHORING PLAN AND PERMIT TO THE ENGINEER PRIOR TO EXCAVATION. SAFETY IS STRESSED. ANY OPERATION OR SITUATION THAT THREATENS THE SAFETY OF WORKERS OR PUBLIC, INCLUDING IMPROPER TRAFFIC CONTROL, SHALL CAUSE THE SUSPENSION OF WORK.
41. HARD HATS AND HIGH VISIBILITY ORANGE VESTS SHALL BE WORN AT ALL TIMES WHEN WORKING ON THE PROJECT.
42. THE CONTRACTOR SHALL BE RESPONSIBLE DURING ALL PHASES OF THE WORK TO PROVIDE FOR PUBLIC SAFETY AND CONVENIENCE. THE CONTRACTOR SHALL ESTABLISH ADEQUATE ACCESS TO DRIVEWAYS AT THE END OF EACH WORKING DAY TO THE SATISFACTION OF THE ENGINEER.
43. PEDESTRIAN ACCESS IS TO BE PROVIDED AND MAINTAINED BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
44. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION AND UNTIL THE WORK IS FORMALLY ACCEPTED BY THE CITY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO WORKING HOURS DESCRIBED IN THE PROJECT SPECIFICATIONS.
45. IN THE CASE OF SUSPENSION OF WORK FOR ANY CAUSE WHATSOEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND SHALL PROPERLY STORE THEM IF NECESSARY AND SHALL ERECT TEMPORARY STRUCTURE WHERE NECESSARY. THE CITY WILL NOT BE HELD RESPONSIBLE FOR THE CARE OR PROTECTION OF ANY MATERIAL OR PARTS OF THE WORK PRIOR TO FINAL ACCEPTANCE, UNLESS OTHERWISE SPECIFIED.
46. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN HIS OWN STAGING AREA (LAY DOWN AREA) FOR ALL TOOLS, EQUIPMENT, MATERIAL, AND PARKING. AT THE END OF EACH DAY, CONTRACTOR SHALL REMOVE ALL MATERIALS, DEBRIS AND FOREIGN MATERIAL, AND EQUIPMENT FROM THE JOB SITE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
47. THE CONTRACTOR SHALL MAINTAIN AND CLEAN, IF NECESSARY, ALL EXISTING ONSITE AND/OR ADJACENT STORM DRAIN INLETS AFFECTED BY CONSTRUCTION DURING THE COURSE OF CONSTRUCTION AND UNTIL THE WORK IS FORMALLY ACCEPTED BY THE CITY.
48. ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED DISPOSAL SITE. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE. THE REMOVAL AND DISPOSAL OF DEMOLITION ITEMS (TREES, PAVEMENT, SOIL, ETC.), SHALL BE AT THE CONTRACTOR'S EXPENSE.
49. THE CONTRACTOR IS ADVISED THAT ALL EXCAVATED MATERIAL AND DEBRIS CREATED BY REMOVAL OPERATIONS SHALL BECOME THE CONTRACTORS PROPERTY AND SHALL BE REMOVED FROM THE JOBSITE IN A MANNER AND AT A LOCATION ACCEPTABLE TO ALL AGENCIES AFFECTED BY THE WORK UNLESS INSTRUCTED BY THE ENGINEER TO DO OTHERWISE. SALVAGE ALL EXISTING MANHOLE COVERS AND FRAMES, HYDRANTS AND BLOW-OFFS AND DELIVER THEM TO THE CITY YARD.
50. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SURVEY MONUMENTS INCLUDING PROPERTY CORNER MARKERS. PRIOR TO COMMENCEMENT OF WORK ALL SURVEY MONUMENTS IN THE PROJECT AREA SHALL BE LOCATED AND TIED OUT. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPLACING ANY SURVEY MONUMENTS THAT ARE DISTURBED DURING CONSTRUCTION. PROPERTY CORNER MARKERS AND SURVEY MONUMENTS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RE-ESTABLISHED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
51. CONSTRUCTION STAKING FOR IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE PERFORMED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF CALIFORNIA. CONSTRUCTION STAKING SHALL BE PROVIDED AT 25 FEET INTERVALS AND AT ALL ANGLE POINTS AND APPURTENANCES.
52. ALL GRADING OPERATIONS SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AVAILABLE GEOTECHNICAL INVESTIGATION AND INFILTRATION TESTING AND VISUAL INSPECTION REPORT. IF ANY UNFAVORABLE CONDITIONS ARE ENCOUNTERED AT ANY TIME DURING GRADING OPERATIONS, GRADING IN THAT AREA SHALL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED.
53. THE PROPOSED GRADE IS THE FINAL GRADE AND NOT THE ROUGH GRADE. THE CONTRACTOR SHALL SUBTRACT THE THICKNESS OF THE PAVED SECTION AND/OR LANDSCAPE TOP SOIL SECTION TO ARRIVE AT THE ROUGH GRADE ELEVATION.
54. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS OTHERWISE SHOWN ON THE PLANS.
55. ALL FILL SOILS OR SOILS DISTURBED OR OVER EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D-1557.
56. THE CONTRACTOR SHALL REPLACE ALL EXISTING IMPROVEMENTS (PAVEMENT, STRIPING, DOTS AND REFLECTORS) DAMAGED DURING CONSTRUCTION IN KIND AND DO THE SAME OR BETTER CONDITION.
57. ALL PORTLAND CEMENT CONCRETE PCC AND ASPHALTIC CONCRETE AC SHALL BE REMOVED TO A SAWCUT, COLD JOINT OR SCORE MARK. NO FLOATER SLABS LESS THAN 3 FEET WIDE WILL BE PERMITTED UNLESS OTHERWISE NOTED. P.C.C. AND A.C. REMOVALS SHALL BE SAWCUT A MINIMUM OF 2-INCH IN THE NECESSARY WORK AREA. SAWCUT SLURRY SHALL BE REMOVED WITH THE VACUUM MACHINE AND DISPOSED OF PROPERLY NO SLURRY SHALL BE ALLOWED TO ENTER THE STORM DRAIN SYSTEM.
58. SHOULD ANY LINEAR OR AREA TRENCH JOINT BE LOCATED WITHIN 36 INCHES OF AN EXISTING PAVEMENT PATCH AND/OR CURB & GUTTER ALIGNMENT, THE ADJACENT PAVEMENT SECTION/PATCH MUST BE REMOVED AND REPAVED ALONG WITH THE TRENCH PAVEMENT RESTORATION.
59. ALL DAMAGED AND/OR REMOVED DRIVEWAY APPROACH, PCC SIDEWALK OR CURB& GUTTER SHALL BE RECONSTRUCTED ACCORDING TO THE CITY OF MANHATTAN BEACH STANDARD PLAN NUMBER ST - 1, ST-2 AND ST-3 THREE RESPECTIVELY.
60. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ADJUST TO FINISHED GRADE EXISTING SEWER AND STORM DRAIN MAINTENANCE MANHOLES AND COVERS AND ALL OTHER UTILITY BOX AND VALVE COVERS AND INSTALL CONCRETE COLLAR TO MATCH FINISHED GRADE.
61. WATER SHALL BE PROVIDED ON SITE AND USED TO CONTROL DUST DURING CONSTRUCTION OPERATIONS. IT'S CONTRACTOR'S RESPONSIBILITY TO APPLY AND PAY FOR CONSTRUCTION WATER.
62. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR EXCESSIVE WEAR AND TEAR TO ROADS OR ADJACENT PUBLIC OR PRIVATE PROPERTY CAUSED BY CONSTRUCTION-RELATED WORK, AND SHALL BE RESPONSIBLE FOR ANY OTHER WORK REQUIRED TO PREVENT SUCH DAMAGE.
63. ALL EXISTING STREET IMPROVEMENTS OUTSIDE OF THE PROJECT'S LIMIT OF WORK DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE, AS DIRECTED BY THE ENGINEER, AND TO THE SATISFACTION OF THE OWNER.
64. AS REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL FURNISH AND OPERATE A SELF-LOADING MOTOR SWEEPER WITH SPRAY NOZZLES AT LEAST TWICE EACH WORKING DAY TO KEEP PAVED AREAS ACCEPTABLY CLEAN WHEREVER CONSTRUCTION, INCLUDING RESTORATION IS INCOMPLETE.
65. COLD PLANING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER TO ALLOW A MINIMUM A.C. PAVEMENT OF 1-1/2 INCHES, 1-1/4 INCH HIKE UP TO EXISTING DRIVEWAYS, AND 1-1/2 INCH CUT AT GUTTER EDGE PER DETAIL.

II. WATER NOTES

GENERAL:

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, FIRE AND POLICE DEPARTMENT AT LEAST 72 HOURS PRIOR TO SHUTTING DOWN ANY WATER MAINS, FIRE HYDRANTS OR BLOCKING ACCESS TO ANY AREA. FIRE HYDRANT SHALL NOT BE OUT OF SERVICE FOR MORE THAN FOUR HOURS AND NONE SHALL BE OUT OF SERVICE OVERNIGHT OR DURING WEEKENDS.
2. THE CONTRACTOR SHALL FIELD VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF GAS ELECTRICAL, TELEPHONE, TELEVISION, STORM DRAIN, SEWER AND WATER AT ALL INTERSECTIONS PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS. DAMAGED UTILITIES SHALL BE REPLACED IN KIND UNDER THE SUPERVISION OF THE OWNER AT CONTRACTORS EXPENSE.
3. DUE TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING SEWER, GAS LATERALS AND/OR ELECTRICAL UNDERGROUNDING MAY NOT BE AT LOCATIONS SHOWN OR SHOWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.
4. PRIOR TO SHUT DOWN AND CUTTING OF ANY EXISTING WATER MAIN, ALL EXISTING VALVES SHALL BE EXERCISED BY CITY PERSONNEL. THE CONTRACTOR SHALL NOTIFY THE CITY'S DEPARTMENT OF PUBLIC WORKS, WATER DIVISION INSPECTION SUPERVISOR AT 310 925 - 0702 OR 310 285 - 2509 A MINIMUM OF FOUR DAYS PRIOR TO COORDINATE THE SHUT DOWN OF ANY WATER MAIN.
5. CONTRACTOR SHALL PROTECT IN PLACE THE EXISTING SURVEY MONUMENTS DURING WATER MAIN CONSTRUCTION. IF MONUMENTS ARE DESTROYED, THE CONTRACTOR SHALL SURVEY AND RESET RECORDED MONUMENTS.
6. ALL D.I.P. WATER LINES AND FITTINGS SHALL BE CEMENT LINED DOUBLE THICKNESS, CLASS 52 PRESSURE CLASS WITH POLYETHYLENE ENCASEMENT AND COMPLY WITH ANSI A21.51(AWWA C 151).
7. STATIC WATER PRESSURE IN VICINITY IS SHOWN FOR LOW AND HIGH ELEVATIONS ON THE PLANS. (REFER TO TOP OR BOTTOM OF SHEETS).
8. PIPE MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THESE CONSTRUCTION DOCUMENTS AND THE MANUFACTURER'S RECOMMENDATIONS.
9. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES EXCEPT AT POINTS OF CONNECTION TO EXISTING WATER MAINS. REFER TO STD. DWG BH710.
10. THE CONTRACTOR MAY VARY THE GRADE IN THE ALIGNMENT OF THE WATERLINE IF FIELD CONDITIONS WARRANT WITH THE APPROVAL OF THE ENGINEER.
11. PIPE DEFLECTIONS SHALL NOT EXCEED 80% OF THE MANUFACTURE'S RECOMMENDED ALLOWABLE DEFLECTIONS FOR DUCTILE IRON PIPE AND FITTINGS INSTALLATION.
12. A MINIMUM OF 12-INCHES CLEARANCE BETWEEN THE EXISTING UTILITIES AND PROPOSED PIPELINES SHALL BE MAINTAINED AT CROSSINGS. UTILITIES SHALL BE SUPPORTED AS REQUIRED BY THE ENGINEER AND IN ACCORDANCE WITH APWA STD. DWG. 224 - 1.
13. THE OPEN ENDS OF ALL ABANDONED WATER LINES SHALL BE PLUGGED WITH CONCRETE PER STD DWG BH 708. THE LOCATION OF THE CONCRETE PLUGS SHALL BE APPROVED BY THE CITY ENGINEER IN THE FIELD.
14. ALL EXCAVATIONS FOR THE INSTALLATION OF THE MAIN LINE PIPE AND SERVICES, INSTALLATION OF COMBINATION AIR VACUUM AND AIR RELEASE VALVES, INSTALLATION OF END OF LINE FLUSH-OUTS, AND ABANDONMENT OF EXISTING WATER MAINS SHALL BE BACKFILLED WITH A 2-SACK CEMENT SAND SLURRY MIX. SLURRY SHALL BE USED WITHIN THE PARKWAY UP TO 4 INCHES BELOW THE FINISHED SURFACE.
15. ALL BACKFILL FOR THE ENTIRE PROJECT SHALL BE A 2 SACK CEMENT SLURRY MIX CONSISTING OF PER S.S.P.W.C. 201-1 AND 200-E-100.

FITTINGS:

11. ALL FITTINGS AND MECHANICAL JOINTS SHALL BE DUCTILE IRON UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. ALL RESTRAINED JOINTS AS SHOWN SHALL BE CONSTRUCTED WITH RESTRAINTS (MEGALUG FIELD-LOK GASKETS).
12. ALL DUCTILE IRON TEES AND CROSSES SHALL BE CLASS 350 FLANGE FITTINGS UNLESS OTHERWISE NOTED ON PLANS. ALL OTHER DUCTILE IRON FITTINGS SHALL BE CLASSED 350 WITH PUSH-ON JOINTS UNLESS OTHERWISE NOTED PLANS. PROVIDE FITTINGS WITH ENDS THAT ARE COMPATIBLE WITH MECHANICAL RESTRAINTS WHERE RESTRAINED JOINTS ARE REQUIRED.
13. ALL "TEE" INSTALLATIONS SHALL BE PER TYPICAL STD DWG BH 705, UNLESS SHOWN OTHERWISE ON PLANS.
14. CONTRACTOR SHALL FURNISH ALL FITTINGS NECESSARY FOR DEVIATION OF PIPE ALIGNMENT NOT SHOWN ON PLANS.

VALVES:

20. ALL VALVES SHALL BE BUTTERFLY VALVES. VALVE ASSEMBLIES SHALL BE PER TYPICAL STD DWG BH 706 AND 707.
21. BUTTERFLY VALVES SHALL BE PLACED WITH OPERATING NUT EITHER NORTH OR WEST OF THE WATER MAIN.
22. ALL VALVES CONNECTING TO TEES, CROSSES, AND REDUCERS SHALL HAVE FLANGED OR FLANGED X PUSH-ON ENDS.
23. NO VALVE SHALL BE LOCATED WITHIN A GUTTER OR OTHER CONCRETE DRAINAGE DEQUE, ALLEY GUTTERS, DRIVEWAY AND ALLEY APPROACHES OR SIDEWALKS, UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE CITY ENGINEER.
24. THE CONTRACTOR SHALL ADJUST ALL VALVE SLEEVES TO FINISH GRADE UPON COMPLETION OF REPAVING.
25. EXISTING PIPE, TEES, CROSSES AND OTHER FITTINGS WHICH INTERFERE WITH THE PROPOSED WATER SYSTEM IMPROVEMENTS SHALL BE REMOVED AND DISPOSED OF PROPERLY OR SALVAGED AS DIRECTED BY THE ENGINEER.
26. EXISTING VALVES SHALL BE SALVAGED UNDER DIRECTION OF THE ENGINEER. VALVE CANS SHALL BE REMOVED, BACKFILLED AND PAVED OVER.

AIR VALVES AND PUMP WELLS:

27. THE CONTRACTOR SHALL CONSTRUCT A COMBINATION AIR/VAC AIR RELEASE VALVE ASSEMBLY PER DETAIL 13 ON SHEET 26 AT ALL HIGH POINTS IN THE ALIGNMENT WHETHER OR NOT SHOWN ON THESE DRAWINGS.
28. CONTRACTOR SHALL CONSTRUCT A PUMP WELL ASSEMBLY PER DETAIL 21 OF SHEET 27 AT ALL LOW POINTS IN THE ALIGNMENT WHETHER OR NOT SHOWN ON THESE DRAWINGS.

FIRE HYDRANTS:

29. ALL FIRE HYDRANTS, VALVES AND OTHER ASSOCIATED FACILITIES SHALL BE LOCATED IN THE FIELD AS DIRECTED BY THE ENGINEER. THE LOCATION SHOWN ON THESE PLANS ARE APPROXIMATE.
30. REMOVAL OF THE EXISTING FIRE HYDRANTS WILL INCLUDE CUTTING FIRE HYDRANT BURY TO TWO FEET (2'-0") BELOW EXISTING GRADE AND BACKFILLING WITH CONCRETE. SALVAGED FIRE HYDRANTS SHALL BE DELIVERED TO THE CITY OF BEVERLY HILLS WATER DIVISION.
31. FIRE HYDRANT INSTALLATIONS SHALL INCLUDE NEW 6-INCH LATERALS, VALVES WITH 6"x 6" x 6" OR 8"x 6"x 8" TEE.
32. ALL WATER SERVICES AND FIRE LINES SHALL BE REPLACED FROM THE NEW WATER LINE UP TO THE METER PER DETAILS 18 AND 19 ON SHEET 27.
33. CONTRACTOR SHALL LOCATE AND FIELD VERIFY ALL WATER SERVICE CONNECTIONS AND FIRE LINE SERVICES SIZES AND LOCATIONS PRIOR TO COMMENCING WORK ON PROJECT.
34. THE CONTRACTOR SHALL REPLACE ALL WATER METER BOXES ALONG THE NEW WATER MAIN DURING CONSTRUCTION WITH BOXES AND COVERS AS DEFINED IN THE CONTRACT SPECIFICATIONS AND AS APPROVED BY THE CITY ENGINEER.
35. THE CONTRACTOR SHALL POTHOLE ALL TIE IN CONNECTION LOCATIONS. PRIOR TO CONSTRUCTION TO FIELD VERIFY THE ACTUAL SIZE, DEPTH, AND ROUNDNESS OF THE EXISTING WATER SYSTEM. THE TIE IN WILL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
36. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE UNLESS OTHERWISE SHOWN.
37. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS A MINIMUM DISTANCE OF 200 FEET IN ADVANCE OF WATER MAIN TRENCHING TO DETERMINE THE EXACT LOCATION AND VERIFY THE MATERIAL, SIZE, DEPTH AND ROUNDNESS OF

ALL PARALLEL AND CROSSING UTILITIES WITHIN THE ALIGNMENTS OF THE NEW WATER MAIN. PIPE JOINTS SHALL BE DEFLECTED A MAXIMUM BOX OF MANUFACTURER'S RECOMMENDATION TO CLEAR INTERFERENCES WITH KNOWN OBSTRUCTIONS OR OTHER UTILITIES WHICH ARE SHOWN OR NOT SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY INFORMATION GATHERED DEVIATING FROM PLANS SHALL BE CONVEYED TO THE ENGINEER IN WRITING.

38. FAILURE TO COMPLY WITH ANY OF THE ABOVE ITEMS SHALL BE SUFFICIENT CAUSE FOR THE AGENCY TO ARRANGE FOR THE NECESSARY WORK TO BE PERFORMED BY OTHERS. ANY COSTS INCURRED TO COMPLETE THE NECESSARY WORK WILL BE CHARGED TO THE CONTRACTOR.

CONNECTIONS:

39. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES INCLUDING WATER SERVICE AND FIRE PROTECTION SERVICE CONNECTIONS FROM THE ABANDONED OR REPLACED WATER MAIN TO THE NEW WATER MAIN. THE CONTRACTOR SHALL ALSO PROVIDE ALL REQUIRED TEES, BLIND FLANGES, CAPS, FITTINGS, PIPE AND RESTRAINED JOINT CONNECTIONS REQUIRED TO RECONNECT ALL SERVICES CONNECTIONS TO THE NEW WATER MAIN PER CITY OF BEVERLY HILLS STANDARDS. WATER AND FIRE SERVICE CONNECTIONS HAVE NOT BEEN SHOWN IN DETAIL FOR PLAN CLARITY.
40. AT CONNECTION POINTS, THE CONTRACTOR SHALL CUT THE EXISTING PIPE AND INSTALL FITTINGS, VALVES AND MAKE UP SPOOL PIECES AND JOIN PIPE ENDS WITH TRANSITION COUPLINGS.
41. WHEN CONNECTING TO EXISTING ASBESTOS CEMENT PIPE, CONTRACTOR SHALL REMOVE FULL PIPE SEGMENTS TO ACCOMMODATE INSTALLATION. CUTTING ASBESTOS PIPE WILL NOT BE ALLOWED.
42. CONNECTIONS TO EXISTING WATER MAIN SHALL BE ACCORDING TO TYPICAL DETAILS ON SHEET 25
43. REFER TO CONNECTIONS SHOWN ON SHEETS 25

RESTRAINTS/THRUST BLOCKS:

44. RESTRAINING DEVICES SHALL BE INSTALLED ON BOTH SIDES OF ALL FITTINGS, VALVES, PLUGS AND DEAD ENDS, AND ALL DIRECTION CHANGES. THE REQUIRED RESTRAINED FITTINGS SHALL BE PER TABLES 1.1, 1.2 AND 1.3 ON SHEET 25, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
45. THRUST BLOCKS SHALL ONLY BE INSTALLED AT LOCATIONS SPECIFICALLY APPROVED BY THE CITY ENGINEER. WHEN APPROVED BY THE CITY ENGINEER, CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED PER THE CITY OF BEVERLY HILLS STANDARD DRAWING BH 709.
46. ALL NEW AND EXISTING WATER MAINS SHALL BE PROPERLY RESTRAINED BY THE CONTRACTOR DURING CONSTRUCTION AND HYDROSTATIC TESTING.
47. ALL FIRE SERVICE CONNECTIONS SHALL BE RESTRAINED.

WATER SAMPLING STATIONS:

48. WATER SAMPLING STATIONS SHALL BE PROVIDED BY CITY. ALL APPURTENANCES INCLUDING CONCRETE PAD AND SERVICE LINE TO STATION SHALL BE PROVIDED BY CONTRACTOR. FINAL LOCATION OF THE WATER SAMPLING STATION SHALL BE FIELD APPROVED BY THE ENGINEER AND COORDINATED WITH CITY OF BEVERLY HILLS

TESTING/DISINFECTION:

49. THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT ALL WATER MAINS HAVE BEEN RELIEVED OF ENTRAPPED AIR BY HOLDING HYDROSTATIC PRESSURE IN PIPELINES BEING TESTED A MINIMUM OF 4 HOURS PER AWWA C600 OR C605.
50. ALL WATER LINE INSTALLATIONS SHALL BE FREE OF DEBRIS AND ORGANIC MATERIALS. THE PIPE SHALL BE PRESSURE AND LEAKAGE TESTED, FLUSHED AND CHLORINATED. CHLORINATING SHALL BE IN ACCORDANCE WITH THE STATE OF CALIFORNIA HEALTH DEPARTMENT, CONSISTING OF NOT LESS THAN 50 PPM INITIAL DOSAGE, WITH NOT LESS THAN 25 PPM RESIDUAL DOSAGE AFTER 24 HOURS. INSTALLATIONS SHALL BE FLUSHED AND A 48 HOUR BACTI TEST SHALL BE REQUIRED PRIOR TO PRESSURE TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BACTERIOLOGICAL TESTING BY A CERTIFIED LABORATORY. THE CONTRACTOR SHALL NOT HAVE CUSTODY OF THE WATER SAMPLES AT ANY TIME. ALL TESTING METHODS AND RESULTS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER PRIOR TO CONNECTING THE NEW WATER MAIN TO THE CITY'S WATER SYSTEM.
51. ALL BACTI AND PRESSURE TESTS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PLACEMENT OF PERMANENT RESURFACING.

HIGH LINING (BY-PASS):

52. THE CONTRACTOR SHALL INSTALL BY-PASS LINES PER SPECIFICATIONS SECTION 2511. THE MINIMUM BY-PASS PIPING SIZE SHALL EQUAL THE SIZE OF THE MAIN TO BE REPLACED.
53. BY-PASS WATER PLANS SHALL BE PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER FOR ALL WATER MAINS TO BE REMOVED AND REPLACED PER PLAN. ALL BYPASS PLANS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND COORDINATED AND APPROVED WITH THE CITY FIRE MARSHALL.

ABANDONMENT:

54. WHERE THE NEW WATER MAIN REPLACES AN EXISTING MAIN, THE EXISTING MAIN SHALL BE ABANDONED IN PLACE (U.N.O) AND THE ENDS SHALL BE FILLED WITH 2 FEET MINIMUM OF SLURRY, CAPPED OR PLUGGED PROPERLY AND SECURED WITH CONCRETE PRIOR TO BACKFILLING.
55. EXISTING WATER SERVICES SHALL BE REMOVED. NEW 1 INCH MINIMUM OR 2-INCH WATER SERVICES SHALL BE CONSTRUCTED TO THE EXISTING METER 3/4" AND 1-1/2" SERVICES SHALL BE REPLACED WITH 1" AND 2" PIPING RESPECTIVELY. CONTRACTOR TO PROVIDE AND CONSTRUCT NECESSARY FITTINGS TO CONNECT TO EXISTING METERS.
56. REPLACE METER BOXES AS SHOWN PER PLAN OR DIRECTED BY THE CITY OF BEVERLY HILLS.
57. ALL WATER MAIN SEPARATIONS SHALL COMPLY WITH CALIFORNIA DEPARTMENT OF PUBLIC HEALTH GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES (LATEST ADDITION) AND STANDARD DRAWING BH719.
58. WHEREVER A WATER LINE CROSSES A SEWER LINE, SEPARATION SHALL NOT BE LESS THAN 4 INCHES. WHERE THE SEPARATION IS BETWEEN 4 INCHES AND ONE FOOT, THE CONTRACTOR SHALL INSTALL THE WATER MAIN SO THAT A 20 FOOT SECTION OF PIPE IS CENTERED AT THE SEWER LINE, AND THERE SHALL NOT BE A PIPE JOINT WITHIN 8 FEET.
59. IN AREAS WHERE THE PIPELINE IS INSTALLED ABOVE AN EXISTING STORM DRAIN, THE CONTRACTOR SHALL MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 12 INCHES BETWEEN THE TOP OF STORM DRAIN AND THE BOTTOM OF THE PIPELINE. IF A 12 INCH CLEARANCE CANNOT BE MAINTAINED, PIPE SHALL BE CONCRETE ENCASED ACROSS THE STORM DRAIN, PLUS 3 FEET ON BOTH SIDES.
60. WHERE THE NEW WATER MAIN ENDOACHES WITHIN 4 FEET OF AN EXISTING SEWER OUTER DIAMETER SPECIAL CONSTRUCTION WILL BE REQUIRED BY CONSTRUCTING A CASING PIPE FOR THE NEW WATER MAIN PER BH719.

TRENCHING AND BACKFILLING:

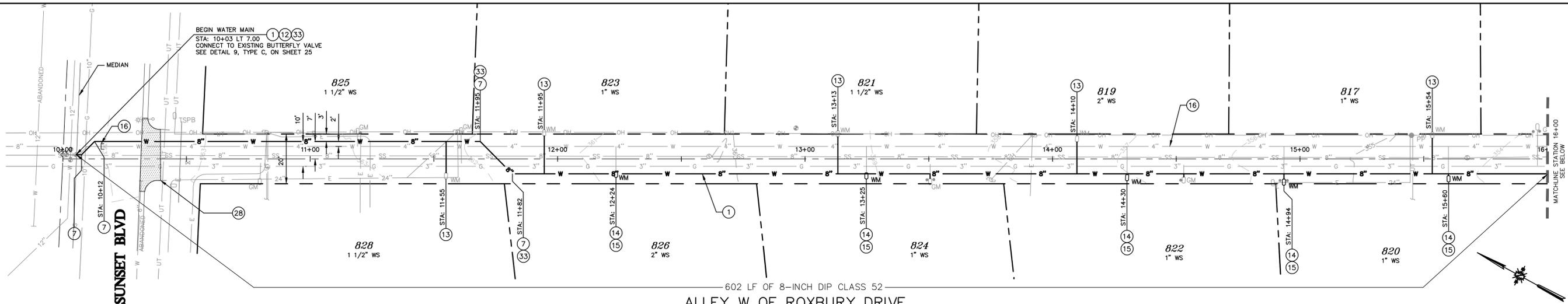
61. NO MECHANICAL EQUIPMENT IS PERMITTED TO OPERATE WITHIN THREE FEET OF A GAS LINE AND ANY CLOSER WORK MUST BE DONE BY HAND.

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS	
GENERAL AND CONSTRUCTION NOTES	
SUBMITTED _____ DATE _____	APPROVED _____ DATE _____
JOB NO. <u>130109</u> DRWG. No. <u>10391</u>	SHEET NO. <u>2</u> OF <u>27</u> SHEETS
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	



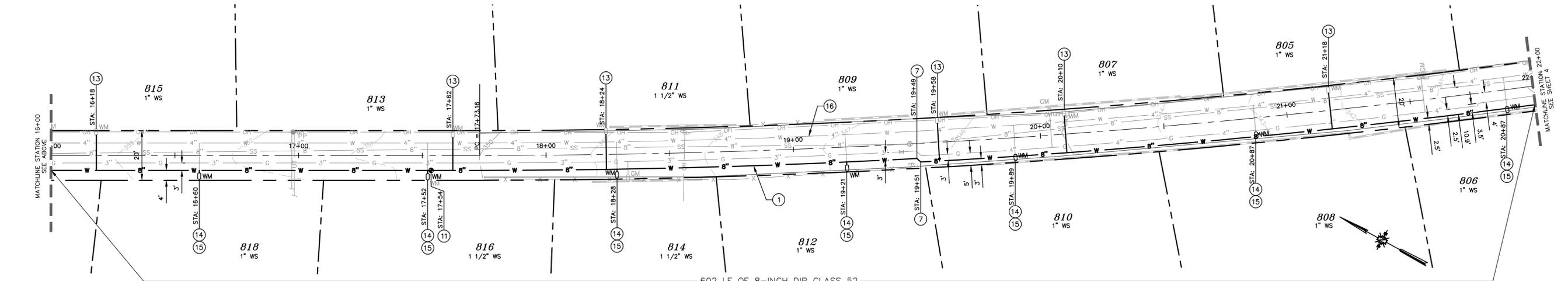
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602 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ROXBURY DRIVE

HORIZ SCALE: 1"=20'
PRESSURE_ZONE 6
 HGL 628' (118 PSI)
 WATER SERVICE MAP 26 (139-159)



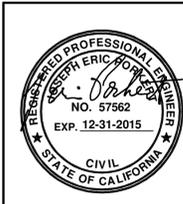
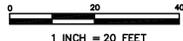
602 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ROXBURY DRIVE

HORIZ SCALE: 1"=20'
PRESSURE_ZONE 6
 HGL 628' (124 PSI)
 WATER SERVICE MAP 26 (139-159)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

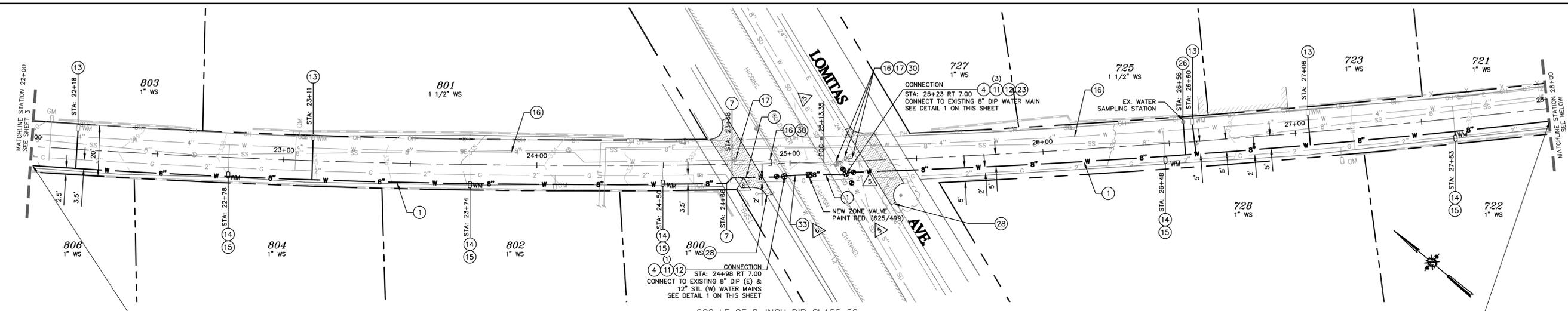


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DRAWN	CMM	DATE 2/07/2014
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DATE	REVISION	BY

FY 2013-2014
 WATER MAIN REPLACEMENT PROJECT
 VARIOUS LOCATIONS
**ALLEY W OF ROXBURY DRIVE
 (SUNSET BLVD TO NSM BLVD)**
 STA. 10+03 TO STA. 22+00

SUBMITTED	DATE
APPROVED	DATE
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 3 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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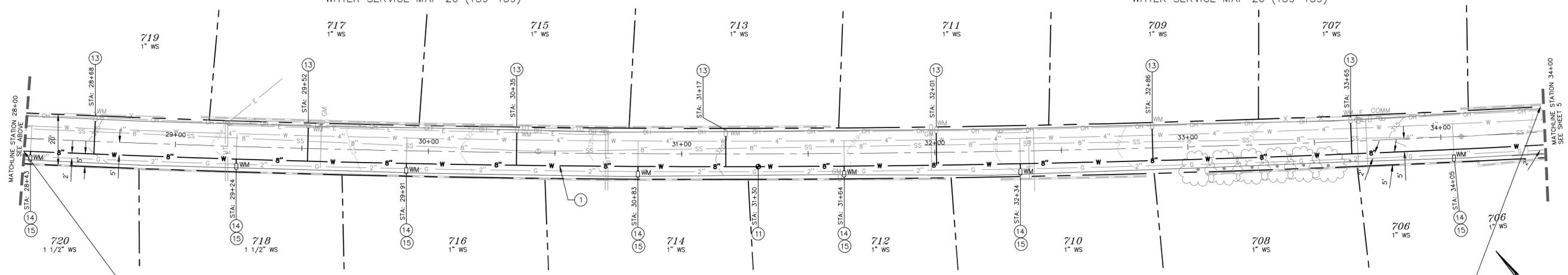
PRESSURE_ZONE 6
HGL 628' (128 PSI)

ALLEY W OF ROXBURY DRIVE
SCALE HORIZ 1"=20'

PRESSURE_ZONE 5
HGL 499' (75 PSI)

WATER SERVICE MAP 26 (139-159)

WATER SERVICE MAP 26 (139-159)



PRESSURE_ZONE 5
HGL 499' (80 PSI)

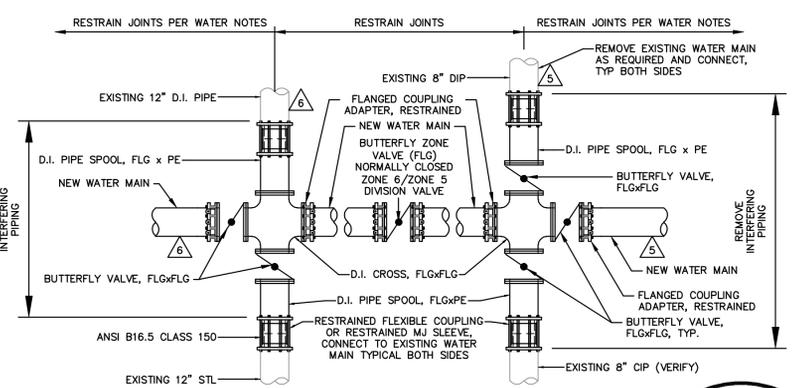
ALLEY W OF ROXBURY DRIVE
SCALE HORIZ 1"=20'

WATER SERVICE MAP 21 (137-159)

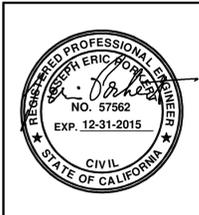
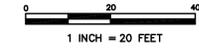
CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASUREMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707, RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 23 FURNISH AND INSTALL AIR RELEASE VALVE ASSEMBLY PER DETAILS 13 AND 14 ON SHEET 26.
- 26 FURNISH AND INSTALL SERVICE LATERAL TO EXISTING WATER SAMPLING STATION.
- 27 PROTECT IN PLACE EXISTING STORM DRAIN.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

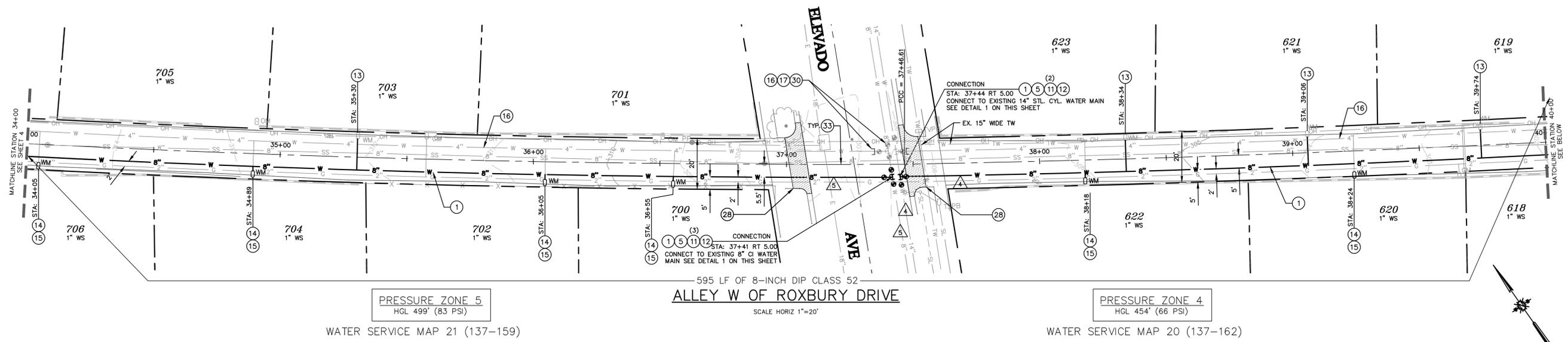


CUT-IN CONNECTION DETAIL
SHEET 4 N.T.S. 1



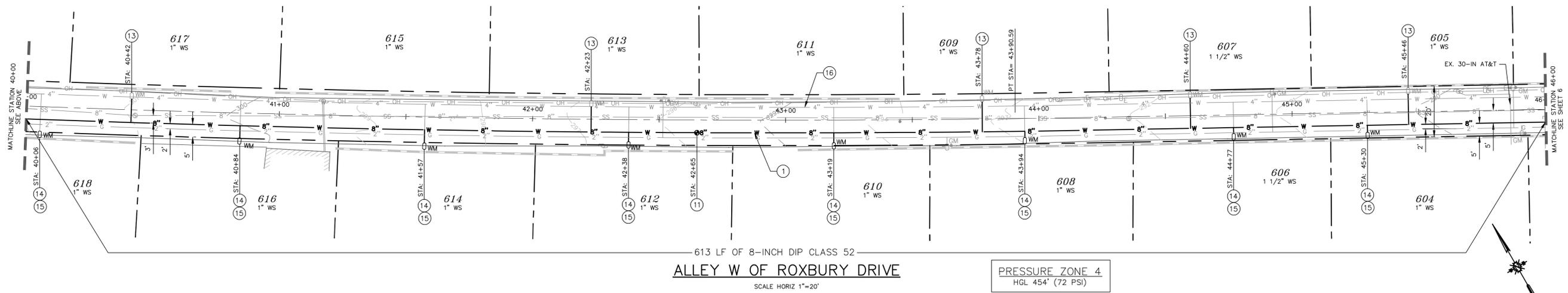
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DRAWN CMM	DATE 2/07/2014	
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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF ROXBURY DRIVE (SUNSET BLVD TO NSM BLVD) STA. 22+00 TO STA. 34+00	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 4 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	



595 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ROXBURY DRIVE
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 5
 HGL 499' (83 PSI)
 WATER SERVICE MAP 21 (137-159)

613 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ROXBURY DRIVE
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (72 PSI)
 WATER SERVICE MAP 20 (137-162)

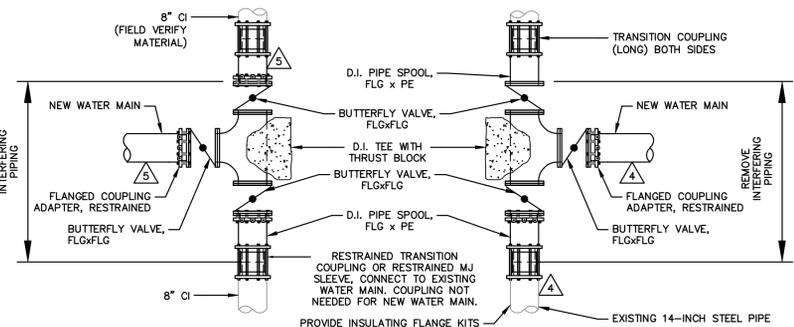


613 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ROXBURY DRIVE
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (72 PSI)
 WATER SERVICE MAP 20 (137-162)

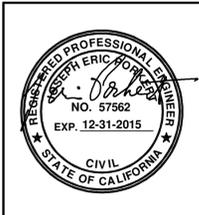
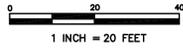
CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
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- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

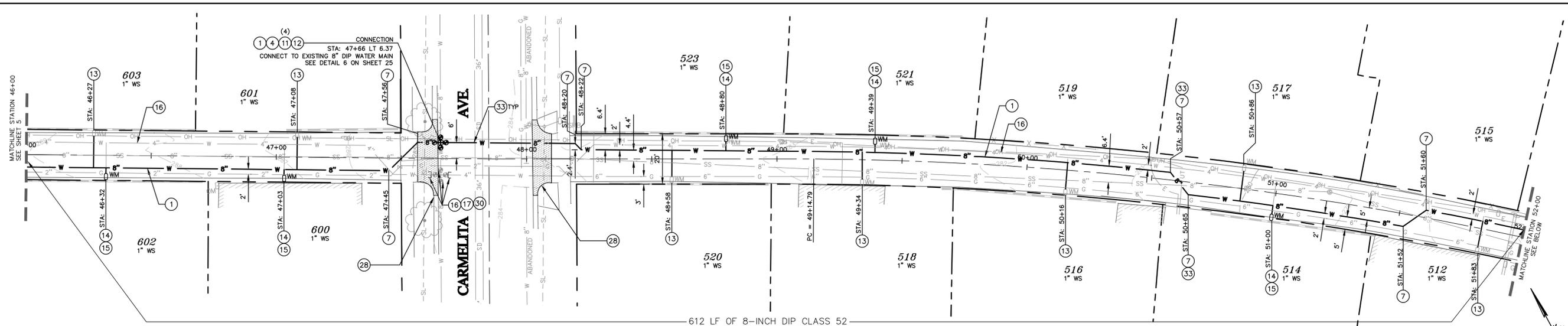


CUT-IN CONNECTION DETAIL
 SHEET 5
 N.T.S.
 1



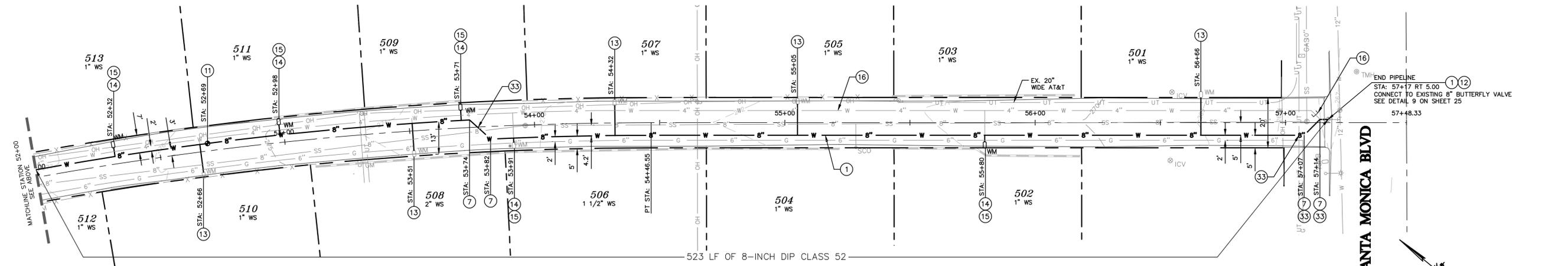
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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF ROXBURY DRIVE (SUNSET BLVD TO NSM BLVD) STA. 34+00 TO STA. 46+00	
SUBMITTED	DATE
APPROVED	DATE
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 5 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION



612 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ROXBURY DRIVE
 SCALE HORIZ 1"=20'

PRESSURE ZONE 4
 HGL 454' (77 PSI)
 WATER SERVICE MAP 20 (137-162)



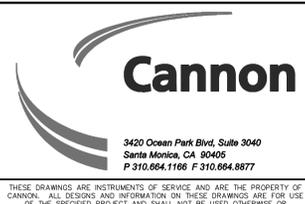
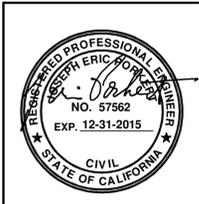
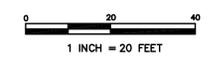
523 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ROXBURY DRIVE
 SCALE HORIZ 1"=20'

PRESSURE ZONE 4
 HGL 454' (81 PSI)
 WATER SERVICE MAP 20 (137-162)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG. BH 710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG. BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG. BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE, AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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FY 2013-2014
 WATER MAIN REPLACEMENT PROJECT
 VARIOUS LOCATIONS
**ALLEY W OF ROXBURY DRIVE
 (SUNSET BLVD TO NSM BLVD)**
 STA. 46+00 TO STA. 57+22

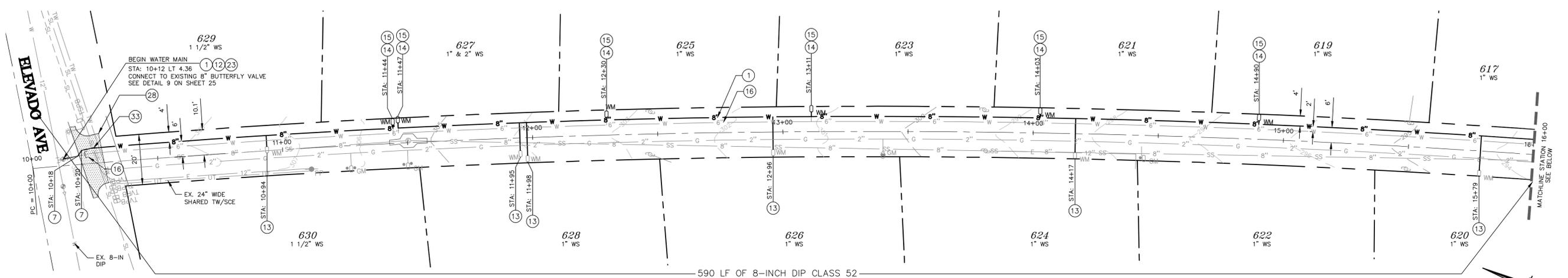
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JOB NO. 130109 DRWG. NO. 10391
 SHEET NO. 6 OF 27 SHEETS

CITY OF BEVERLY HILLS, CALIFORNIA
 PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

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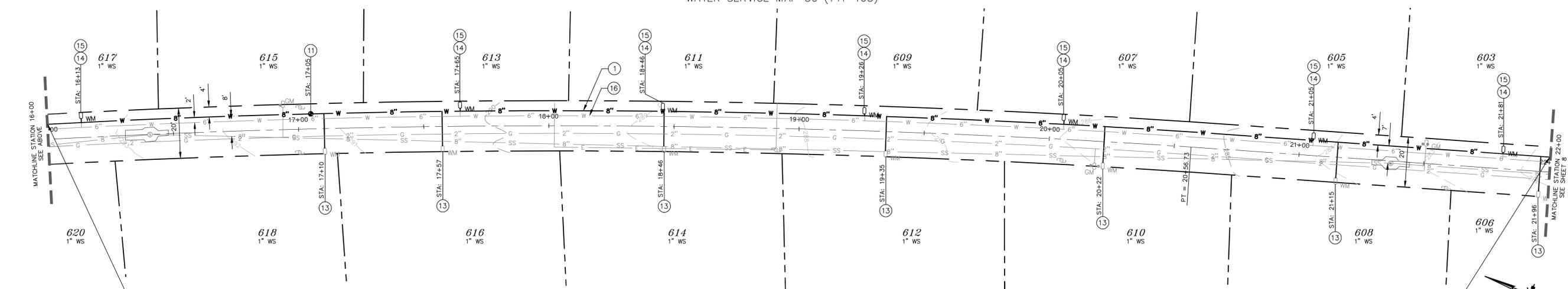
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590 LF OF 8-INCH DIP CLASS 52
ALLEY W OF MAPLE DRIVE

SCALE HORIZ 1"=20'
PRESSURE_ZONE 4
HGL 454' (70 PSI)

WATER SERVICE MAP 30 (141-165)



600 LF OF 8-INCH DIP CLASS 52
ALLEY W OF MAPLE DRIVE

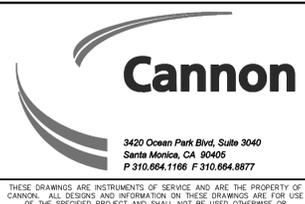
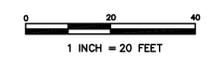
SCALE HORIZ 1"=20'
PRESSURE_ZONE 4
HGL 454' (75 PSI)

WATER SERVICE MAP 30 (141-165)

CONSTRUCTION NOTES

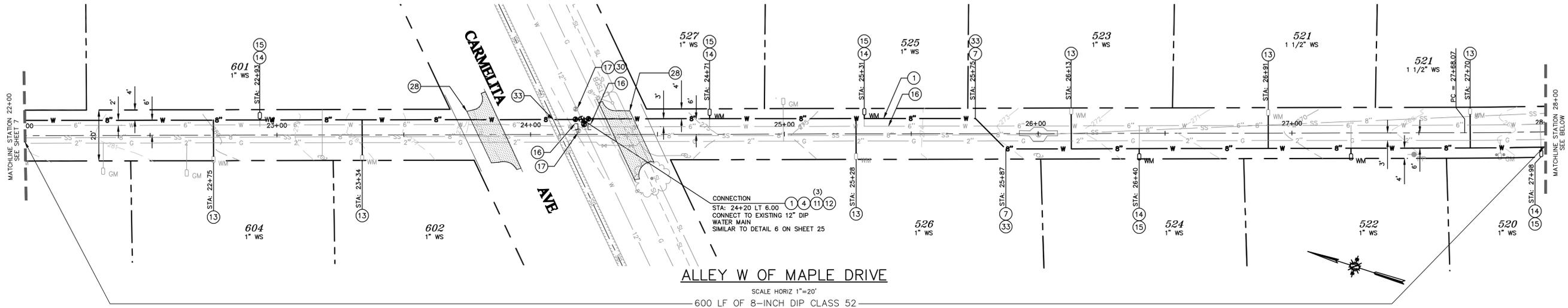
- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10 x 17 BOX), BH715 (13 x 24 BOX), OR BH716 (17 x 30 BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 23 FURNISH AND INSTALL AIR RELEASE VALVE ASSEMBLY PER DETAILS 13 AND 14 ON SHEET 26.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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DATE	REVISION	BY

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF MAPLE DRIVE (ELEVADO AVE TO ALLEY N/O NSM) STA. 10+10 TO STA. 22+00	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	

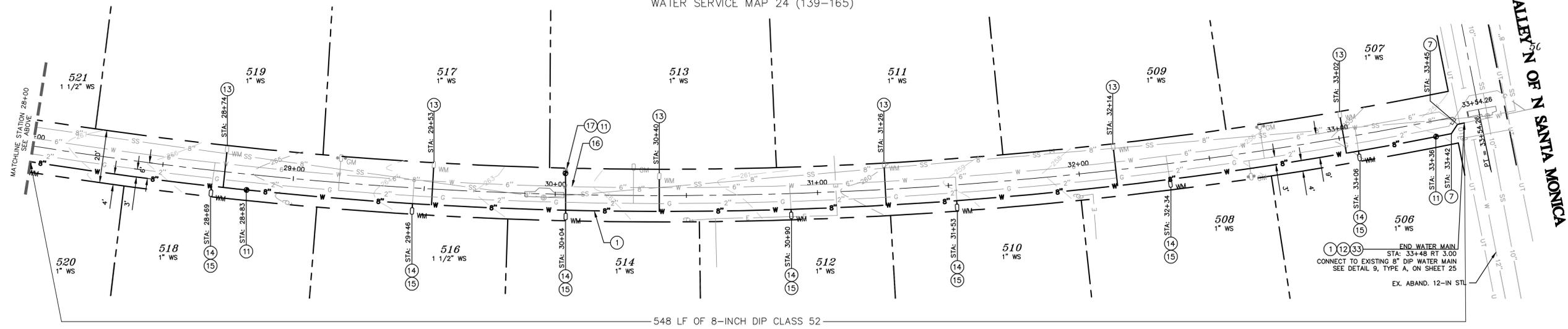


ALLEY W OF MAPLE DRIVE

SCALE HORIZ 1"=20'
600 LF OF 8-INCH DIP CLASS 52

PRESSURE_ZONE 4
HGL 454' (87 PSI)

WATER SERVICE MAP 30 (141-165)
WATER SERVICE MAP 24 (139-165)



ALLEY W OF MAPLE DRIVE

SCALE HORIZ 1"=20'
548 LF OF 8-INCH DIP CLASS 52

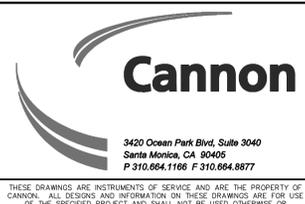
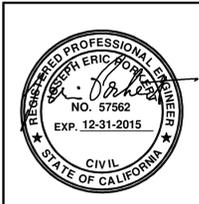
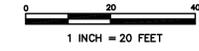
PRESSURE_ZONE 4
HGL 454' (87 PSI)

WATER SERVICE MAP 24 (139-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

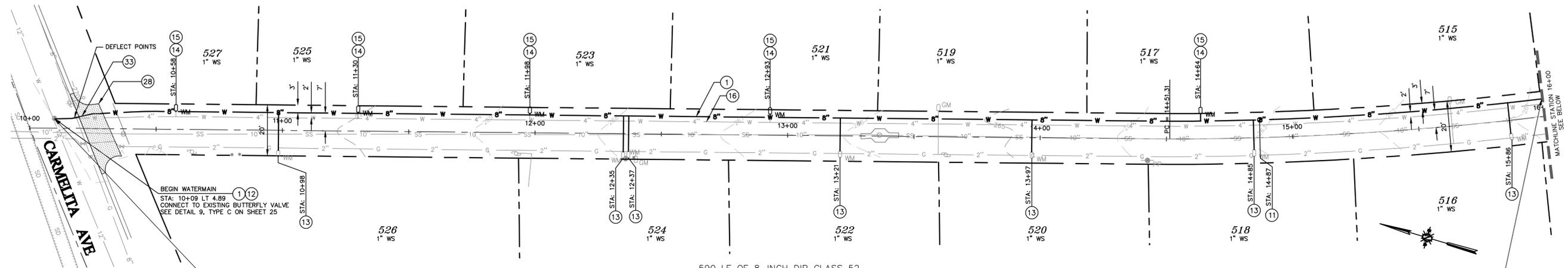


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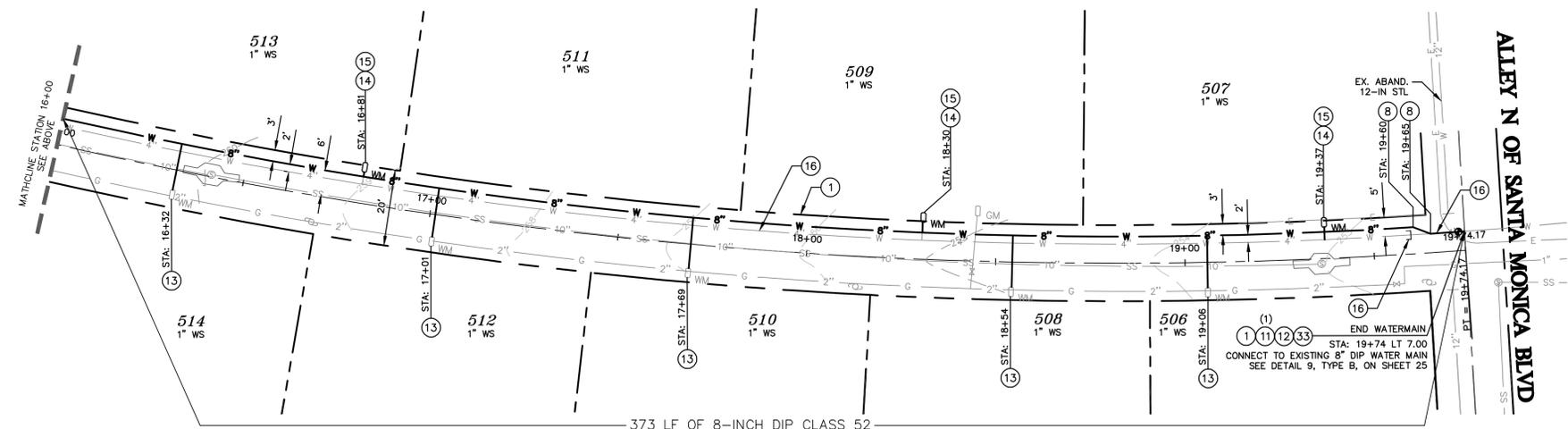
FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS	
ALLEY W OF MAPLE DRIVE (ELEVADO AVE TO ALLEY N/O NSM)	
STA. 22+00 TO STA. 33+48	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 8 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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590 LF OF 8-INCH DIP CLASS 52
ALLEY W OF PALM DRIVE
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (84 PSI)
 WATER SERVICE MAP 30 (141-165)
 WATER SERVICE MAP 24 (139-165)

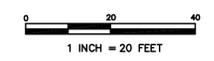


373 LF OF 8-INCH DIP CLASS 52
ALLEY W OF PALM DRIVE
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (87 PSI)
 WATER SERVICE MAP 24 (139-165)

CONSTRUCTION NOTES

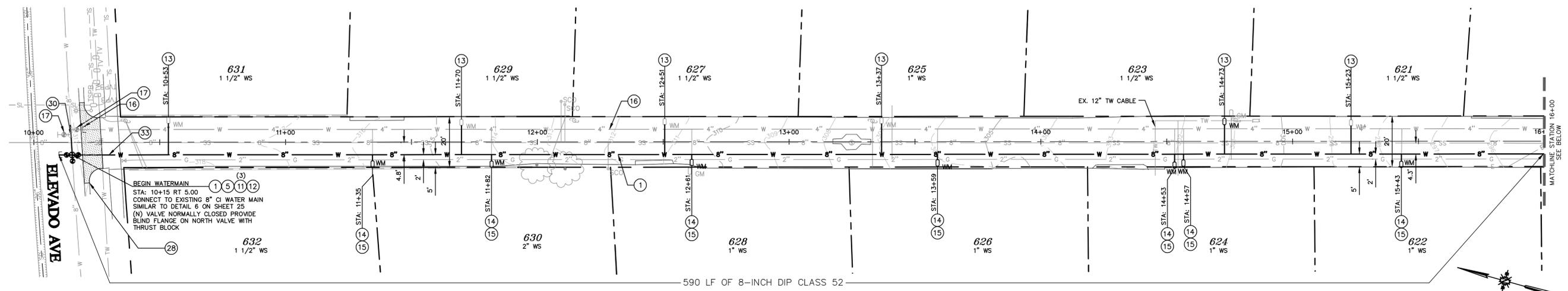
- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 8 FURNISH AND INSTALL DI 22.5° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 31 TEMPORARY BY PASS PIPING REQUIRED.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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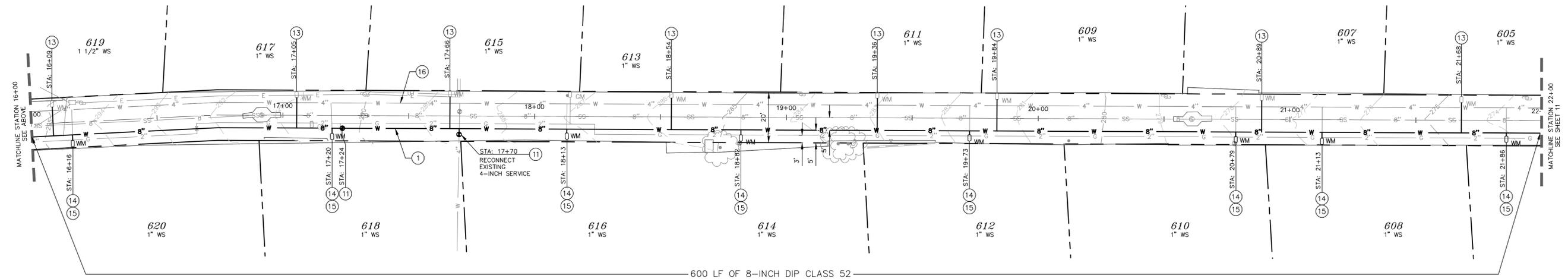
FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS	
ALLEY W OF PALM DRIVE (CARMELITA AVE TO ALLEY N/O NSM)	
STA. 10+09 TO STA. 19+74	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 9 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION



ALLEY W OF ARDEN DRIVE

SCALE HORIZ 1"=20'
PRESSURE_ZONE 4
 HGL 454' (69 PSI)

WATER SERVICE MAP 36 (143-165)



ALLEY W OF ARDEN DRIVE

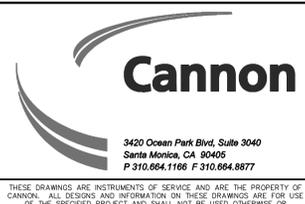
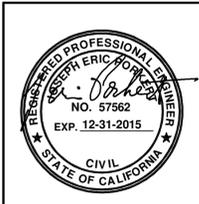
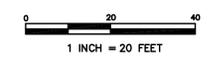
SCALE HORIZ 1"=20'
PRESSURE_ZONE 4
 HGL 454' (78 PSI)

WATER SERVICE MAP 30 (141-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

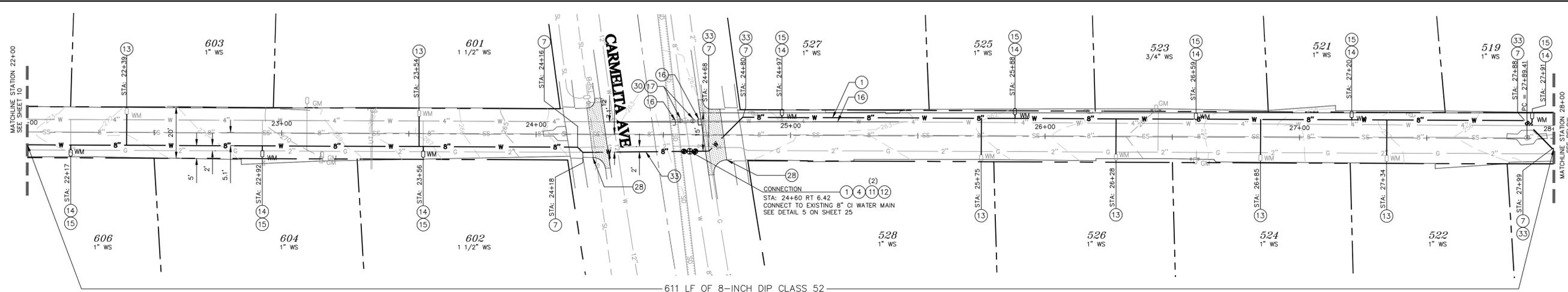
NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



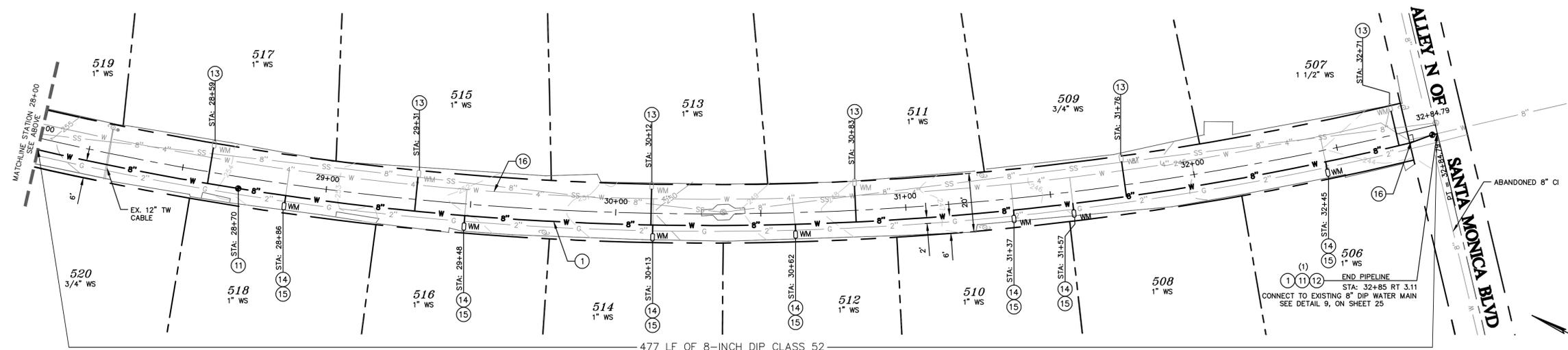
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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF ARDEN DRIVE (ELEVADO AVE TO ALLEY N/O NSM) STA. 10+15 TO STA. 22+00	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 10 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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611 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ARDEN DRIVE
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (86 PSI)
 WATER SERVICE MAP 30 (141-165)

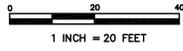


477 LF OF 8-INCH DIP CLASS 52
ALLEY W OF ARDEN DRIVE
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (91 PSI)
 WATER SERVICE MAP 30 (141-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

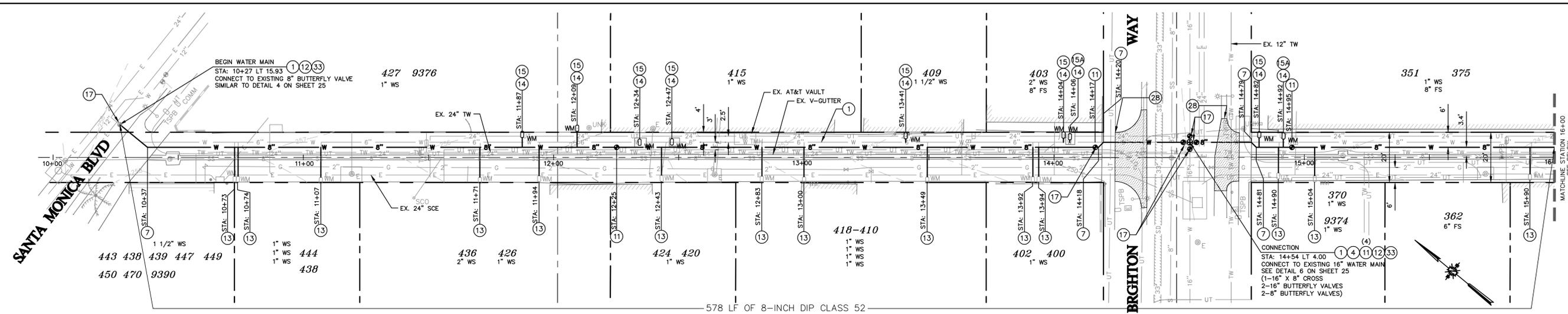


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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF ARDEN DRIVE (ELEVADO AVE TO ALLEY N/O NSM) STA. 22+00 TO STA. 32+85	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	

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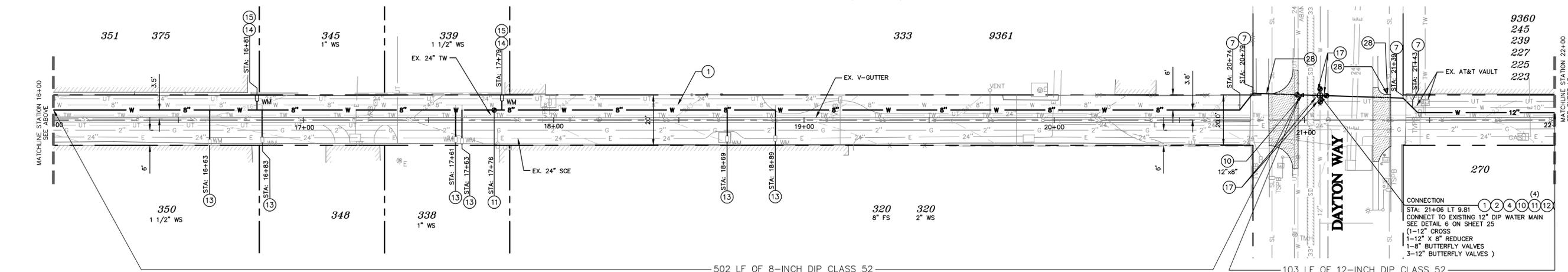


578 LF OF 8-INCH DIP CLASS 52
ALLEY W OF CRESCENT DRIVE

SCALE HORIZ 1"=20'
PRESSURE ZONE 4
HGL 454' (90 PSI)

WATER SERVICE MAP 19 (137-165)

CONTRACTOR SHALL LOCATE ALL EXISTING WATER SERVICES CONNECTED TO THE EXISTING WATER MAIN PRIOR TO CONSTRUCTING THE NEW WATER MAIN. ALL EXISTING SERVICES ARE TO BE CONNECTED TO THE NEW WATER MAIN.



502 LF OF 8-INCH DIP CLASS 52
ALLEY W OF CRESCENT DRIVE

SCALE HORIZ 1"=20'
PRESSURE ZONE 4
HGL 454' (94 PSI)

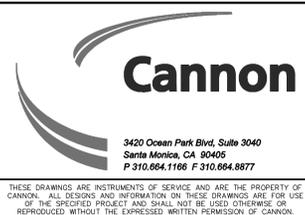
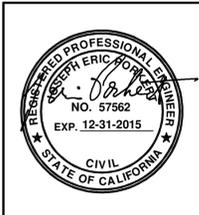
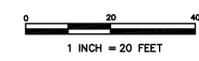
WATER SERVICE MAP 19 (137-165)

CONTRACTOR SHALL LOCATE ALL EXISTING WATER SERVICES CONNECTED TO THE EXISTING WATER MAIN PRIOR TO CONSTRUCTING THE NEW WATER MAIN. ALL EXISTING SERVICES ARE TO BE CONNECTED TO THE NEW WATER MAIN.

CONSTRUCTION NOTES

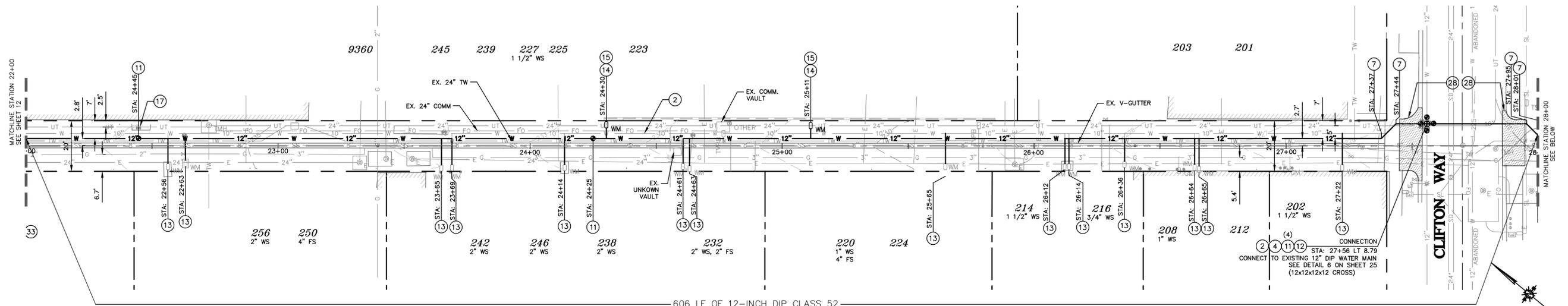
- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 2 CONSTRUCT 12-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 10 FURNISH AND INSTALL PIPE REDUCER, SIZE PER PLAN.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP. PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 15A REPLACE EXISTING WATER VAULTS FOR 4-INCH AND LARGER WATER SERVICES AND FIRE SERVICES PER THE CITY OF BEVERLY HILLS STD. DWG BH 717 AND BH 718. CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING VAULT MATERIAL.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 31 TEMPORARY BY PASS PIPING REQUIRED.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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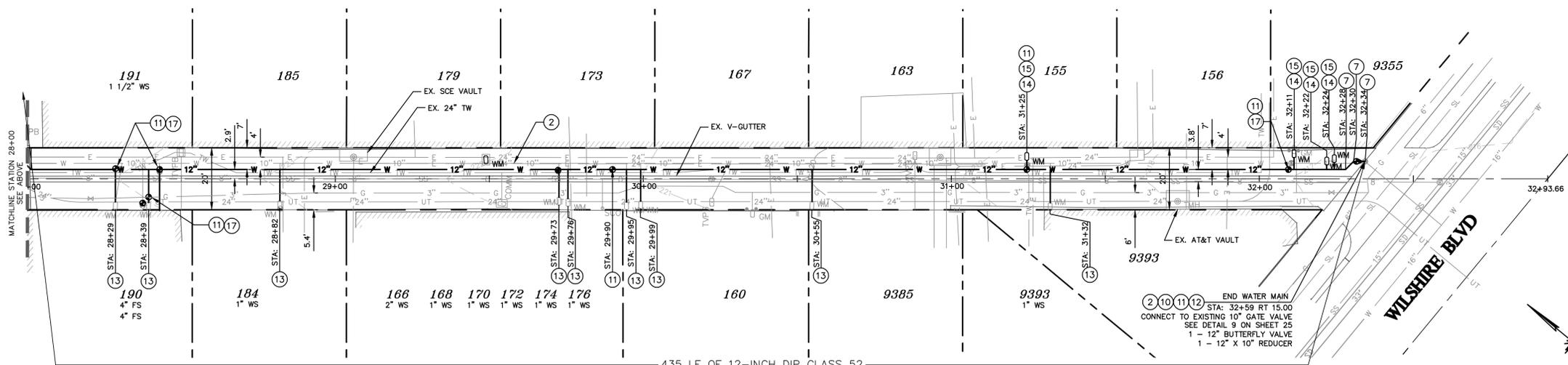
FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF CRESCENT DRIVE (SM BLVD TO WILSHIRE BLVD) STA. 10+23 TO STA. 22+00	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	



ALLEY W OF CRESCENT DRIVE

606 LF OF 12-INCH DIP CLASS 52
 SCALE HORIZ 1"=20'
 PRESSURE_ZONE 4
 HGL 454' (99 PSI)
 WATER SERVICE MAP 19 (137-165)

CONTRACTOR SHALL LOCATE ALL EXISTING WATER SERVICES CONNECTED TO THE EXISTING WATER MAIN PRIOR TO CONSTRUCTING THE NEW WATER MAIN. ALL EXISTING SERVICES ARE TO BE CONNECTED TO THE NEW WATER MAIN.



ALLEY W OF CRESCENT DRIVE

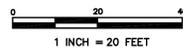
435 LF OF 12-INCH DIP CLASS 52
 SCALE HORIZ 1"=20'
 PRESSURE_ZONE 4
 HGL 454' (103 PSI)
 WATER SERVICE MAP 14 (135-165)
 WATER SERVICE MAP 19 (137-165)

CONTRACTOR SHALL LOCATE ALL EXISTING WATER SERVICES CONNECTED TO THE EXISTING WATER MAIN PRIOR TO CONSTRUCTING THE NEW WATER MAIN. ALL EXISTING SERVICES ARE TO BE CONNECTED TO THE NEW WATER MAIN.

CONSTRUCTION NOTES

- 2 CONSTRUCT 12-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASUREMENT PER CITY OF BEVERLY HILLS STD. DWG BH710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 10 FURNISH AND INSTALL PIPE REDUCER, SIZE PER PLAN.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 31 TEMPORARY BY PASS PIPING REQUIRED.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

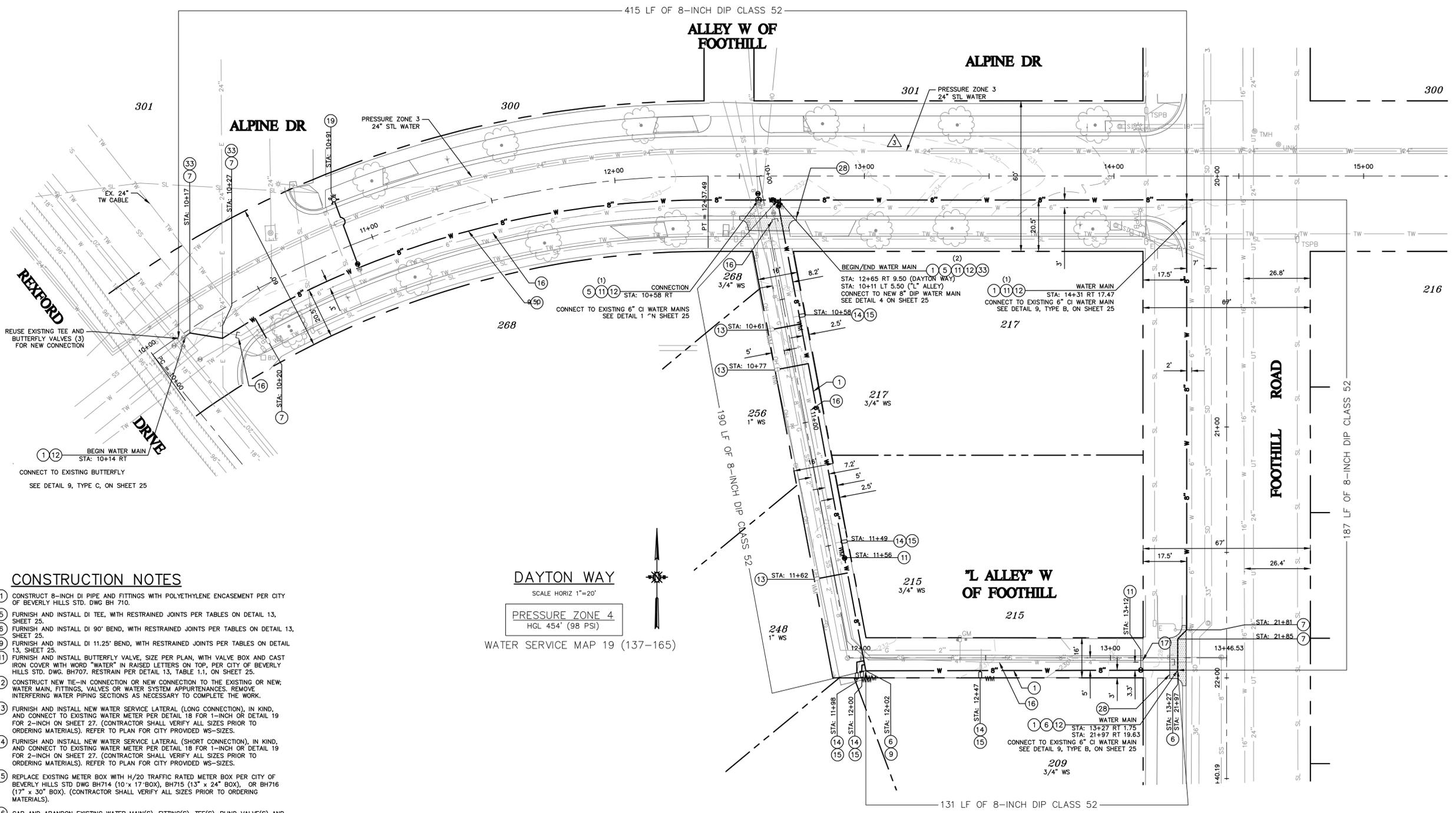
NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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DATE	REVISION	BY

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS	
ALLEY W OF CRESCENT DRIVE (SM BLVD TO WILSHIRE BLVD)	
STA. 22+00 TO STA. 32+59	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 13 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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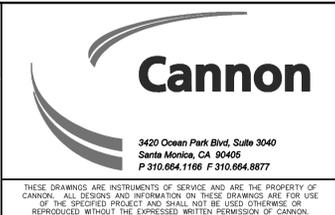
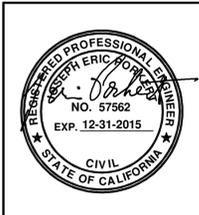
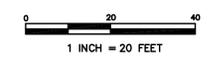


CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASUREMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 6 FURNISH AND INSTALL DI 90° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 9 FURNISH AND INSTALL DI 11.25° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 19 CONSTRUCT FIRE HYDRANT ASSEMBLY WITH BUTTERFLY VALVE AND TEE PER CITY OF BEVERLY HILLS STD. DWG BH703.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

DAYTON WAY
SCALE HORIZ 1"=20'
PRESSURE ZONE 4
HGL 454' (98 PSI)
WATER SERVICE MAP 19 (137-165)



SCALES AS SHOWN		
F.B. NO.	PAGE	TO
DESIGNED	JEP	DATE 2/07/2014
DRAWN	CMM	DATE 2/07/2014
CHECKED		DATE
DATE	REVISION	BY

FY 2013-2014
WATER MAIN REPLACEMENT PROJECT
VARIOUS LOCATIONS
DAYTON WAY
STA. 10+13 TO STA. 14+31
"L" ALLEY W OF FOOTHILL
STA. 10+11 TO STA. 13+33

SUBMITTED _____ DATE _____

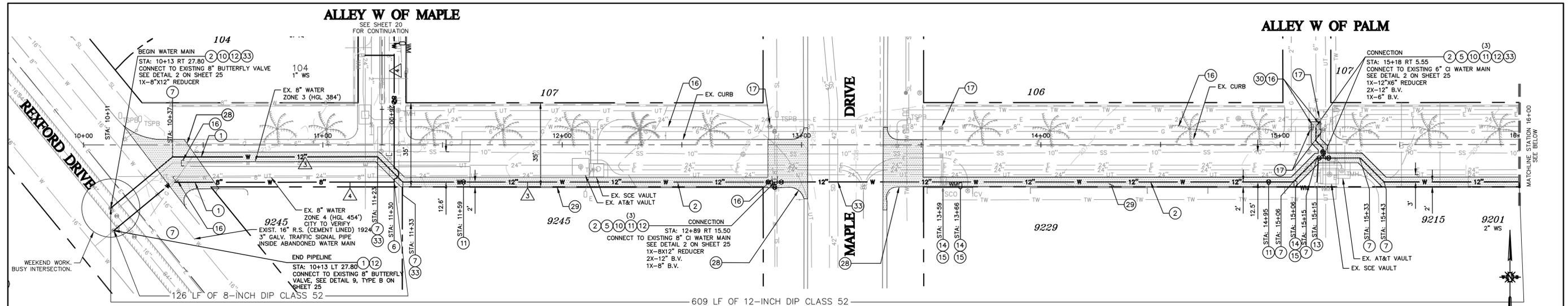
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JOB NO. 130109 DRWG. NO. 10391

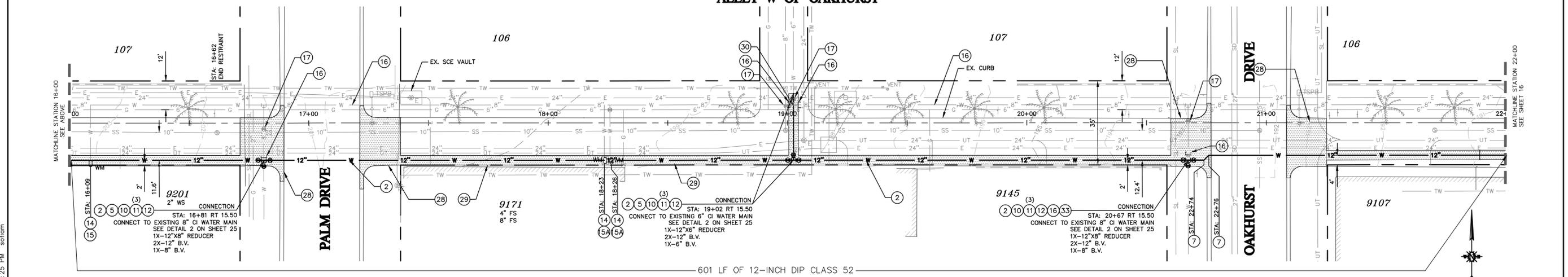
SHEET NO. 14 OF 27 SHEETS

CITY OF BEVERLY HILLS, CALIFORNIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

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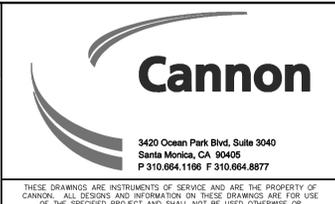
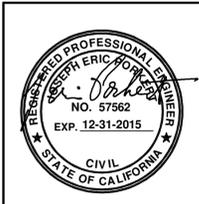
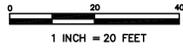
609 LF OF 12-INCH DIP CLASS 52
ALLEY N OF WILSHIRE
 HORIZ SCALE: 1"=20'
 WATER SERVICE MAP 19 (137-165)
 PRESSURE ZONE 4
 HGL 454' (106 PSI)
 PRESSURE ZONE 3
 HGL 384' (78 PSI)
 CONTRACTOR SHALL LOCATE ALL EXISTING WATER SERVICES CONNECTED TO THE EXISTING WATER MAIN PRIOR TO CONSTRUCTING THE NEW WATER MAIN. ALL EXISTING SERVICES ARE TO BE CONNECTED TO THE NEW WATER MAIN.



CONSTRUCTION NOTES

1. CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG. BH 710.
2. CONSTRUCT 12-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG. BH710.
5. FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
7. FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
10. FURNISH AND INSTALL PIPE REDUCER, SIZE PER PLAN.
11. FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
12. CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
13. FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
14. FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
15. REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD. DWG. BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 15A. REPLACE EXISTING WATER VAULTS FOR 4-INCH AND LARGER WATER SERVICES AND FIRE SERVICES PER THE CITY OF BEVERLY HILLS STD. DWG. BH 717 AND BH 718. CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING VAULT MATERIAL.
16. CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG. BH710 AND AS NOTED ON PLAN.
17. REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
26. FURNISH AND INSTALL SERVICE LATERAL TO EXISTING WATER SAMPLING STATION.
28. SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
29. REMOVE TO NEAREST JOINT AND RECONSTRUCT CONCRETE AREAS OR LONGITUDINAL GUTTER PER CITY STANDARD BH 111. INSTALL (3) #4 DOWELS BY 12" LONG, SIMPSON ET EPOXIED INTO EXISTING CONCRETE (6" MIN. EMBEDMENT).
33. FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

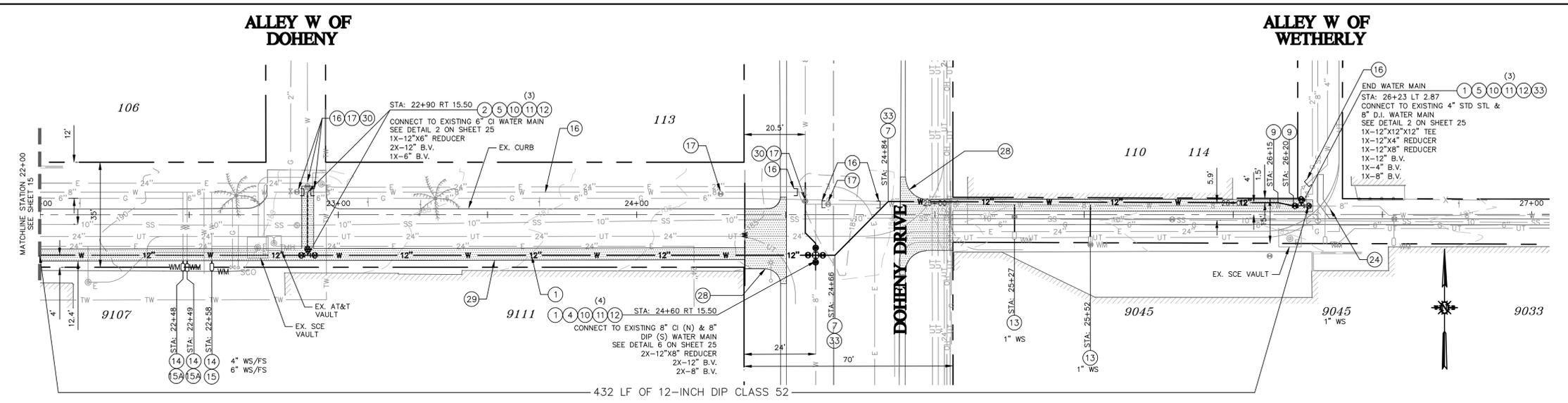


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DATE	REVISION	BY

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY N OF WILSHIRE (REXFORD TO ALLEY W/O WETHERLY) STA. 10+12 TO STA. 22+00	
SUBMITTED	DATE
APPROVED	DATE
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	

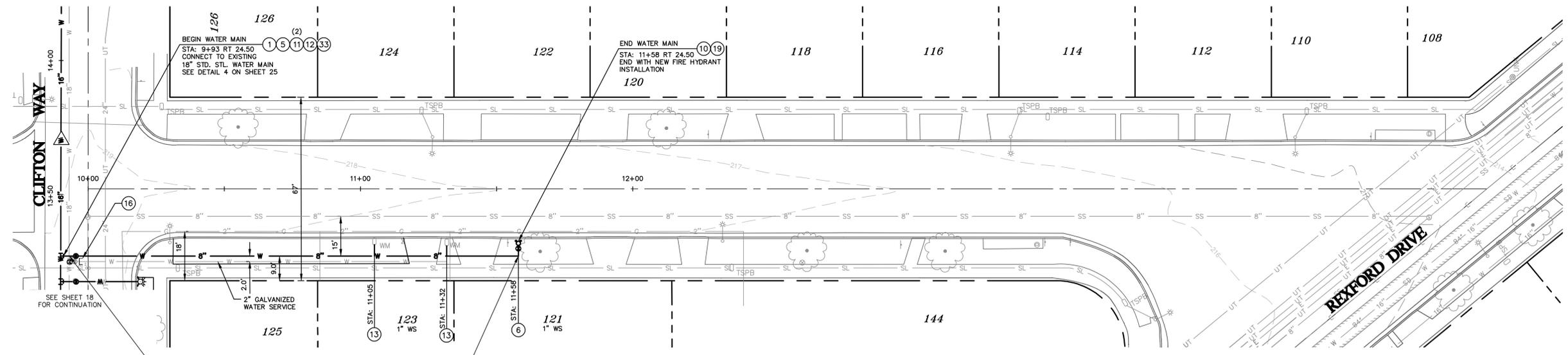
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PRESSURE ZONE 3
HGL 384' (88 PSI)
ALLEY N OF WILSHIRE
SCALE HORIZ 1"=20'
WATER SERVICE MAP 18 (137-169)

CONTRACTOR SHALL LOCATE ALL EXISTING WATER SERVICES CONNECTED TO THE EXISTING WATER MAIN PRIOR TO CONSTRUCTING THE NEW WATER MAIN. ALL EXISTING SERVICES ARE TO BE CONNECTED TO THE NEW WATER MAIN.

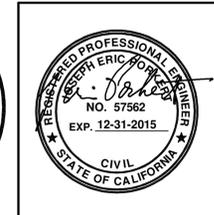
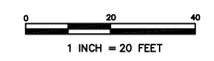


PRESSURE ZONE 4
HGL 454' (104 PSI)
ALLEY N OF WILSHIRE
SCALE HORIZ 1"=20'
WATER SERVICE MAP 19 (137-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 2 CONSTRUCT 12-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 10 FURNISH AND INSTALL PIPE REDUCER, SIZE PER PLAN.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX), (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 19 CONSTRUCT FIRE HYDRANT ASSEMBLY WITH BUTTERFLY VALVE AND TEE PER CITY OF BEVERLY HILLS STD. DWG BH703.
- 24 EXISTING CURB AND GUTTER, PROTECT IN PLACE.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 29 REMOVE TO NEAREST JOINT AND RECONSTRUCT CONCRETE AREAS OR LONGITUDINAL GUTTER PER CITY STANDARD BH 111. INSTALL (3) #4 DOWELS BY 12" LONG, SIMPSON ET EPOXIED INTO EXISTING CONCRETE (6" MIN. EMBEDMENT).
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 31 TEMPORARY BY PASS PIPING REQUIRED.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

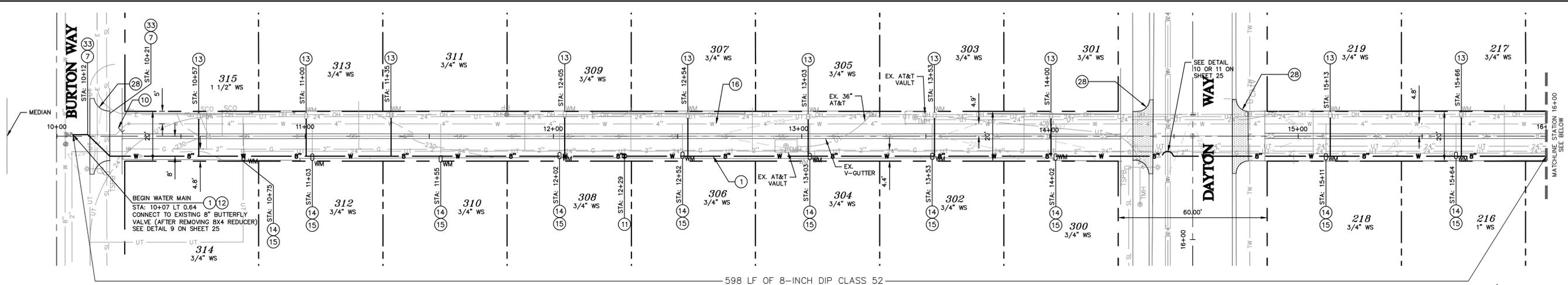
NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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DATE	REVISION	BY

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY N OF WILSHIRE STA. 22+00 TO STA. 26+23 ELM DRIVE STA. 9+93 TO STA. 15+10	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 16 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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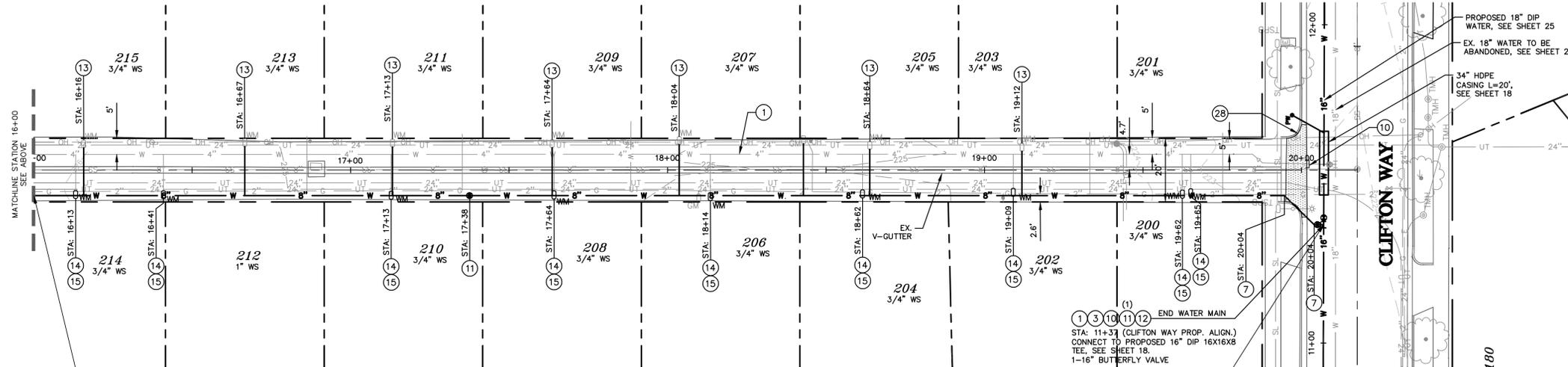
598 LF OF 8-INCH DIP CLASS 52

ALLEY W OF ELM

SCALE HORIZ 1"=20'

PRESSURE_ZONE 4
HGL 454' (99 PSI)

WATER SERVICE MAP 19 (137-165)



408 LF OF 8-INCH DIP CLASS 52

ALLEY W OF ELM

SCALE HORIZ 1"=20'

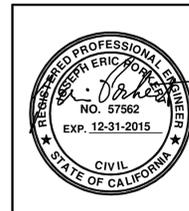
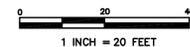
PRESSURE_ZONE 4
HGL 454' (101 PSI)

WATER SERVICE MAP 19 (137-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 3 CONSTRUCT 16-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 10 FURNISH AND INSTALL PIPE REDUCER, SIZE PER PLAN.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10" x 17" BOX), BH715 (13" x 24" BOX), OR BH716 (17" x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 31 TEMPORARY BY PASS PIPING REQUIRED.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

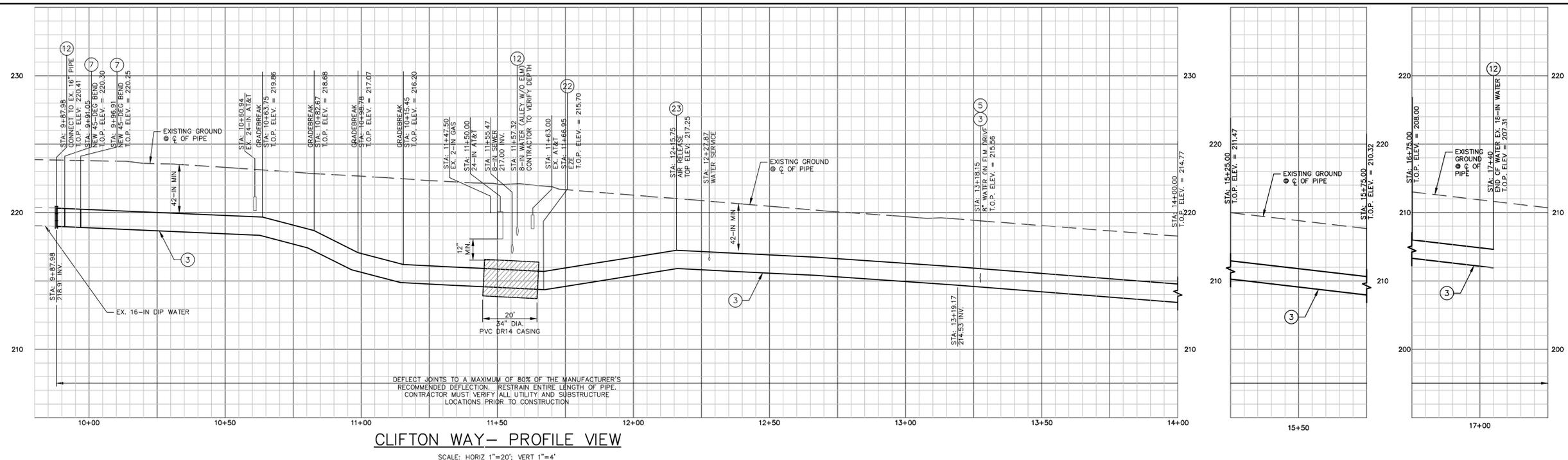
NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



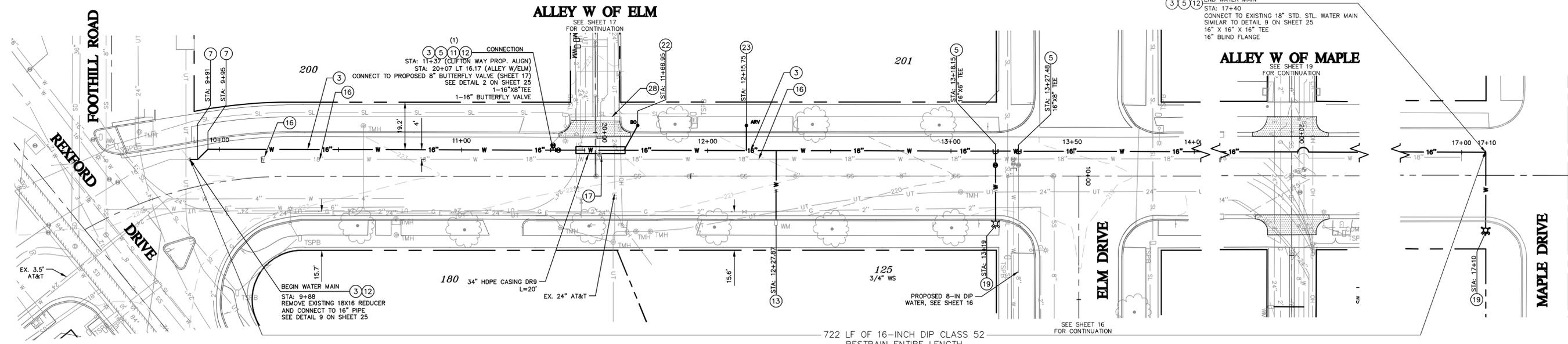
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DATE	REVISION	BY

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF ELM (BURTON WAY TO CLIFTON WAY) STA. 10+03 TO STA. 20+07	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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CLIFTON WAY - PROFILE VIEW
SCALE: HORIZ 1"=20'; VERT 1"=4'

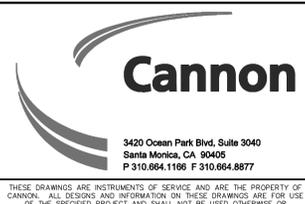
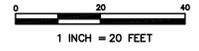


722 LF OF 16-INCH DIP CLASS 52
RESTRAIN ENTIRE LENGTH
CLIFTON WAY
HORIZ SCALE: 1"=20'
PRESSURE ZONE 4
HGL 454' (102 PSI)
WATER SERVICE MAP 19 (137-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 3 CONSTRUCT 16-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 10 FURNISH AND INSTALL PIPE REDUCER, SIZE PER PLAN.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG BH707; RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 19 CONSTRUCT FIRE HYDRANT ASSEMBLY WITH BUTTERFLY VALVE AND TEE PER CITY OF BEVERLY HILLS STD. DWG BH703.
- 22 FURNISH AND INSTALL 2-INCH BLOW OFF ASSEMBLY PER DETAIL 21 ON SHEET 27.
- 23 FURNISH AND INSTALL AIR RELEASE VALVE ASSEMBLY PER DETAILS 13 AND 14 ON SHEET 26.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



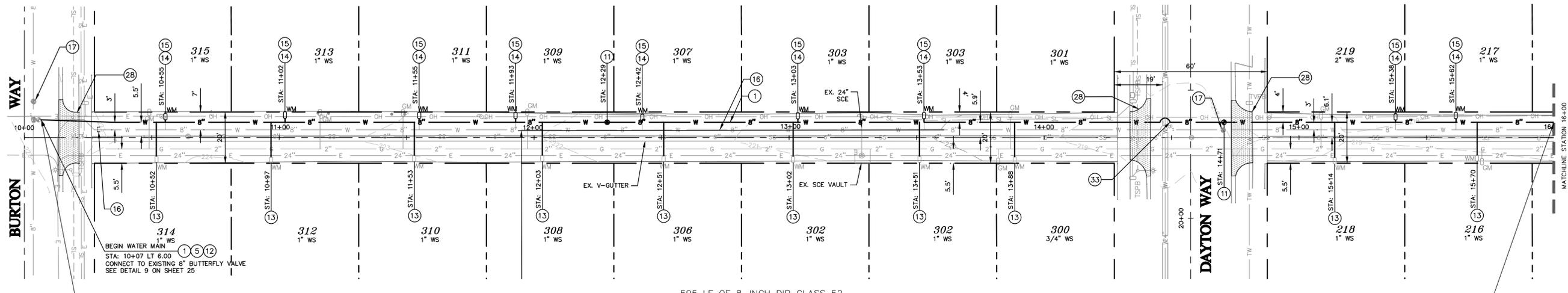
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FY 2013-2014
WATER MAIN REPLACEMENT PROJECT
VARIOUS LOCATIONS
CLIFTON WAY
(REXFORD DR. TO ELM DRIVE)
STA. 10+09 TO STA. 13+29

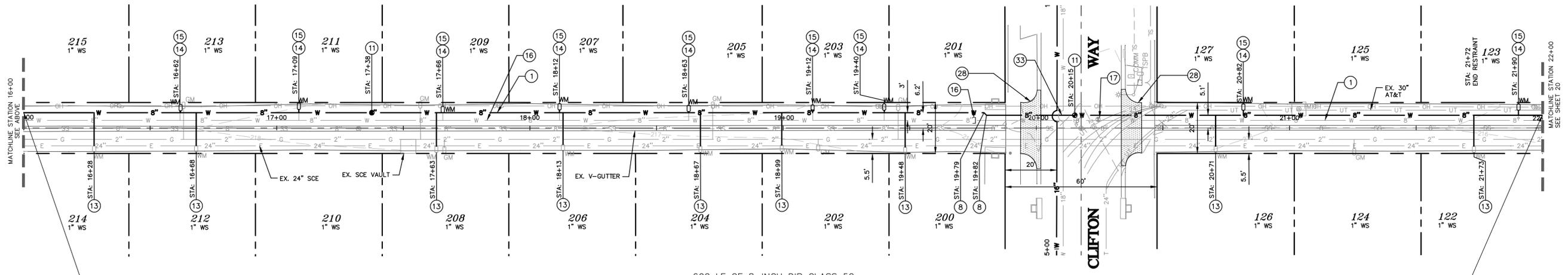
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APPROVED _____ DATE _____

JOB NO. 130109 DRWG. NO. 10391
SHEET NO. 18 OF 27 SHEETS

CITY OF BEVERLY HILLS, CALIFORNIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION



595 LF OF 8-INCH DIP CLASS 52
ALLEY W OF MAPLE
 SCALE HORIZ 1"=20'
 PRESSURE_ZONE 4
 HGL 454' (102 PSI)
 WATER SERVICE MAP 19 (137-165)

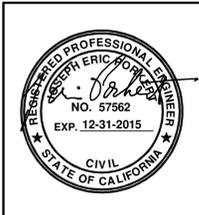
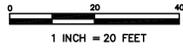


600 LF OF 8-INCH DIP CLASS 52
ALLEY W OF MAPLE
 SCALE HORIZ 1"=20'
 PRESSURE_ZONE 4
 HGL 454' (103 PSI)
 WATER SERVICE MAP 19 (137-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASUREMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 8 FURNISH AND INSTALL DI 22.5° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BUND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BUND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

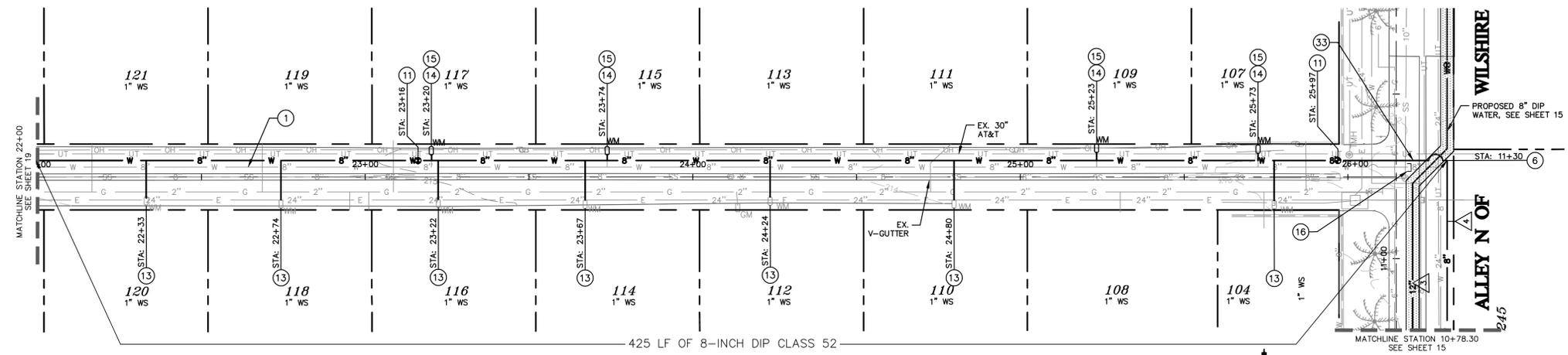
NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF MAPLE (BURTON TO ALLEY N/O WILSHIRE) STA. 10+00 TO STA. 22+00	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	

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425 LF OF 8-INCH DIP CLASS 52

ALLEY W OF MAPLE

HORIZ SCALE: 1"=20'

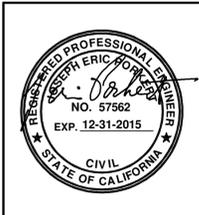
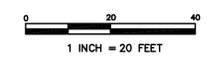
PRESSURE_ZONE 4
HGL 454' (105 PSI)

WATER SERVICE MAP 19 (137-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 6 FURNISH AND INSTALL DI 90° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 19 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

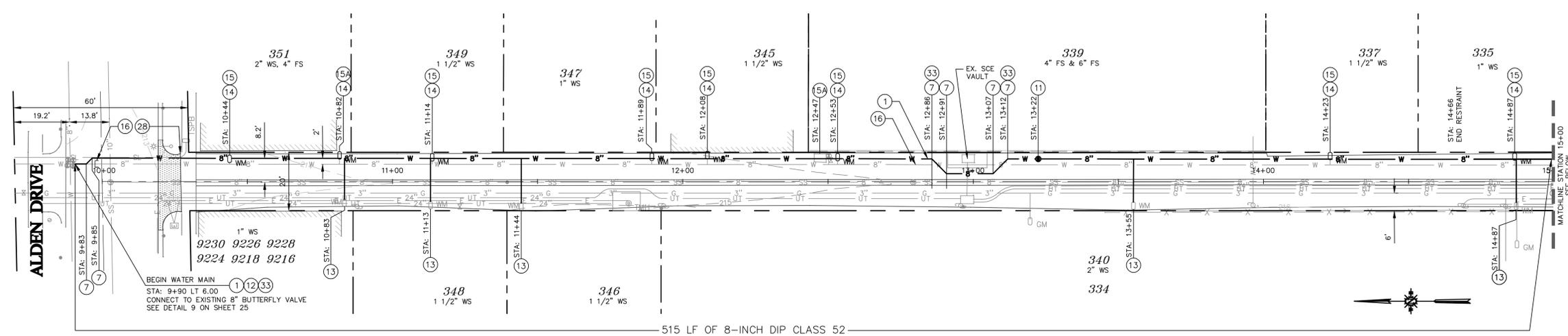
NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



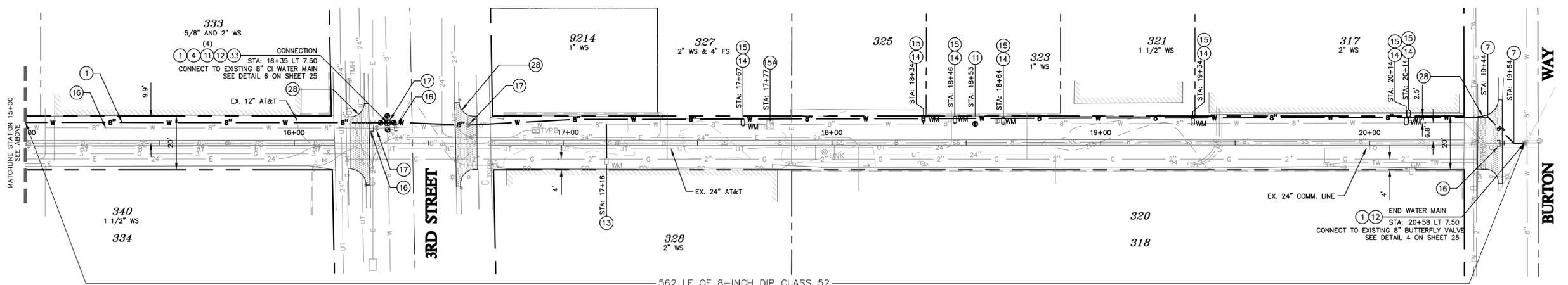
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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF MAPLE (BURTON TO ALLEY N/O WILSHIRE) STA. 22+00 TO STA. 26+15	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	

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515 LF OF 8-INCH DIP CLASS 52
ALLEY W OF PALM
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (103 PSI)
 WATER SERVICE MAP 24 (139-165)

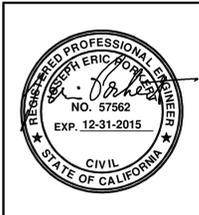
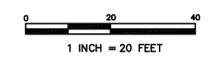


562 LF OF 8-INCH DIP CLASS 52
ALLEY W OF PALM
 SCALE HORIZ 1"=20'
 PRESSURE ZONE 4
 HGL 454' (103 PSI)
 WATER SERVICE MAP 19 (137-165)
 WATER SERVICE MAP 24 (139-165)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASUREMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG BH707. RESTRAIN PER DETAIL 13, TABLE 1-1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17' BOX), BH715 (13' x 24' BOX), OR BH716 (17' x 30' BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 15A REPLACE EXISTING WATER VAULTS FOR 4-INCH AND LARGER WATER SERVICES AND FIRE SERVICES PER THE CITY OF BEVERLY HILLS STD. DWG BH 717 AND BH 718. CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING VAULT MATERIAL.
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 31 TEMPORARY BY PASS PIPING REQUIRED.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



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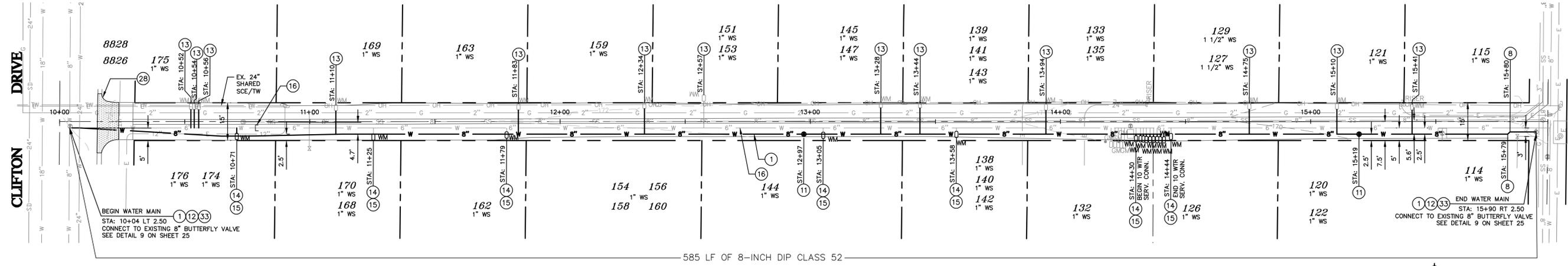
FY 2013-2014
 WATER MAIN REPLACEMENT PROJECT
 VARIOUS LOCATIONS
ALLEY W OF PALM
(ALDEN DR. TO BURTON WAY)
 STA. 10+00 TO STA. 20+59

SUBMITTED _____ DATE _____
 APPROVED _____ DATE _____

JOB NO. 130109 DRWG. NO. 10391
 SHEET NO. 21 OF 27 SHEETS

CITY OF BEVERLY HILLS, CALIFORNIA
 PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

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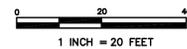


585 LF OF 8-INCH DIP CLASS 52
ALLEY W OF CLARK
 HORIZ SCALE: 1"=20'
 PRESSURE ZONE 3
 HGL 384' (93 PSI)
 WATER SERVICE MAP 18 (137-169)

CONSTRUCTION NOTES

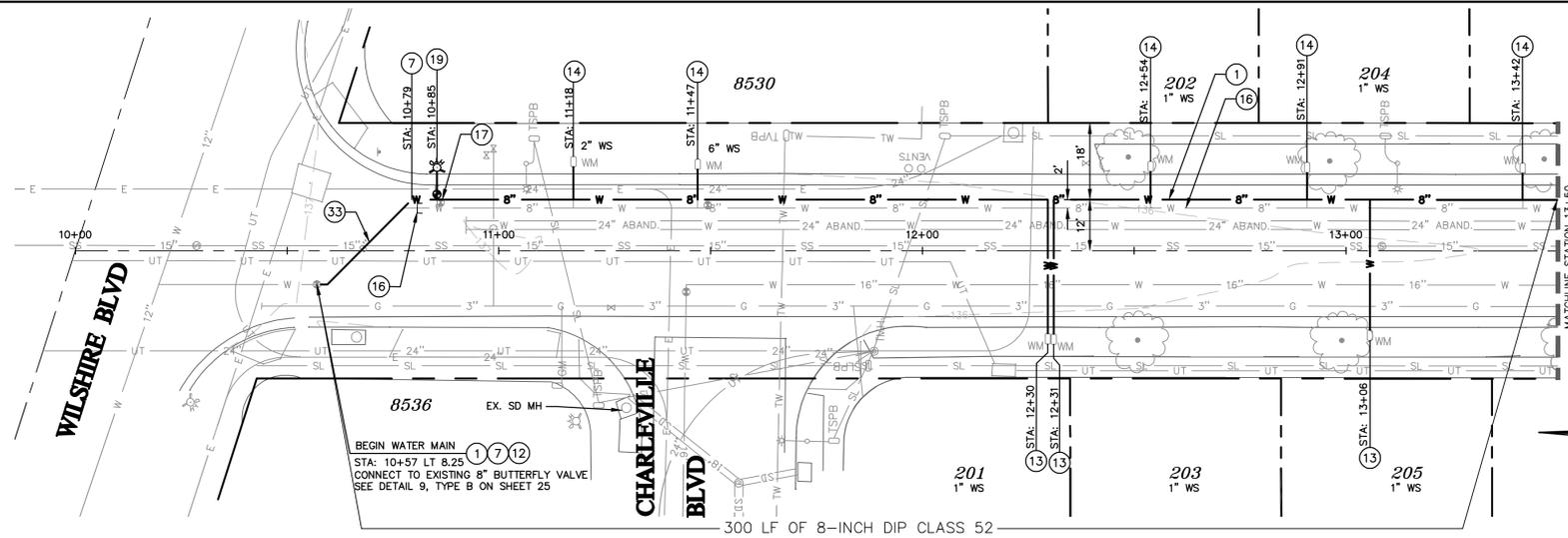
- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 15 REPLACE EXISTING METER BOX WITH H/20 TRAFFIC RATED METER BOX PER CITY OF BEVERLY HILLS STD DWG BH714 (10' x 17" BOX), BH715 (13' x 24" BOX), OR BH716 (17' x 30" BOX). (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS).
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113, LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 28 SAWCUT AND REMOVE AND RECONSTRUCT FULL CONCRETE ALLEY APPROACH PER CITY STANDARD BH 108.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.
- 33 FURNISH AND INSTALL CROSSING FOR ALL UTILITIES IN THE INTERSECTION AREAS PER DETAILS 10, 11 ON SHEET 25, AS REQUIRED.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

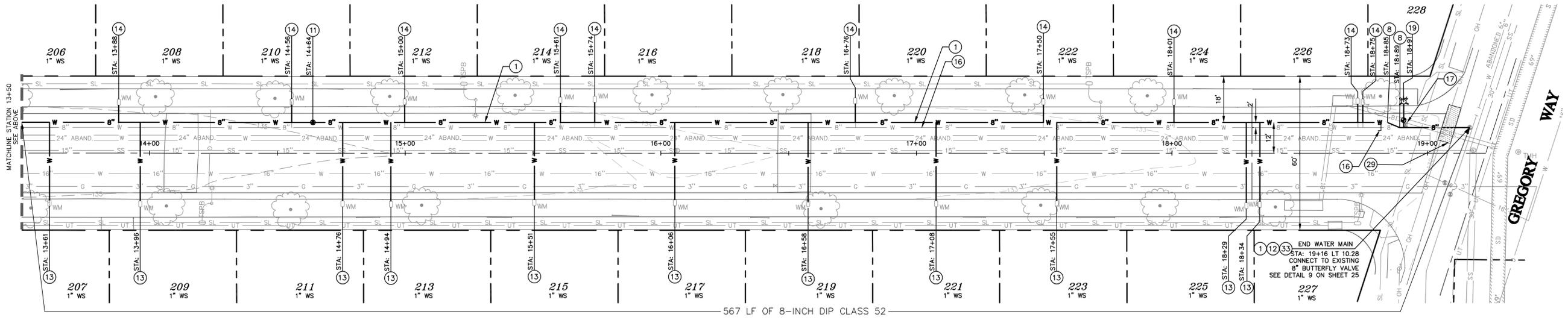


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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS ALLEY W OF CLARK (CLIFTON TO ALLEY N/O WILSHIRE) STA. 10+00 TO STA. 15+94	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
CITY OF BEVERLY HILLS, CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	



LEDoux ROAD
 SCALE HORIZ 1"=20'
PRESSURE_ZONE 3
 HGL 384' (109 PSI)
 WATER SERVICE MAP 12 (135-172)

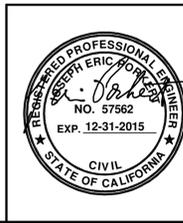
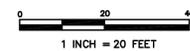


LEDoux ROAD
 HORIZ SCALE: 1"=20'
PRESSURE_ZONE 3
 HGL 384' (109 PSI)
 WATER SERVICE MAP 12 (135-172)

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 7 FURNISH AND INSTALL DI 45° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 8 FURNISH AND INSTALL DI 22.5° BEND, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG. BH707. RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 19 CONSTRUCT FIRE HYDRANT ASSEMBLY WITH BUTTERFLY VALVE AND TEE PER CITY OF BEVERLY HILLS STD. DWG BH703.
- 29 REMOVE TO NEAREST JOINT AND RECONSTRUCT CONCRETE AREAS OR LONGITUDINAL GUTTER PER CITY STANDARD BH 111. INSTALL (3) #4 DOWELS BY 12" LONG, SIMPSON ET EPOXIED INTO EXISTING CONCRETE (6" MIN. EMBEDMENT).
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2

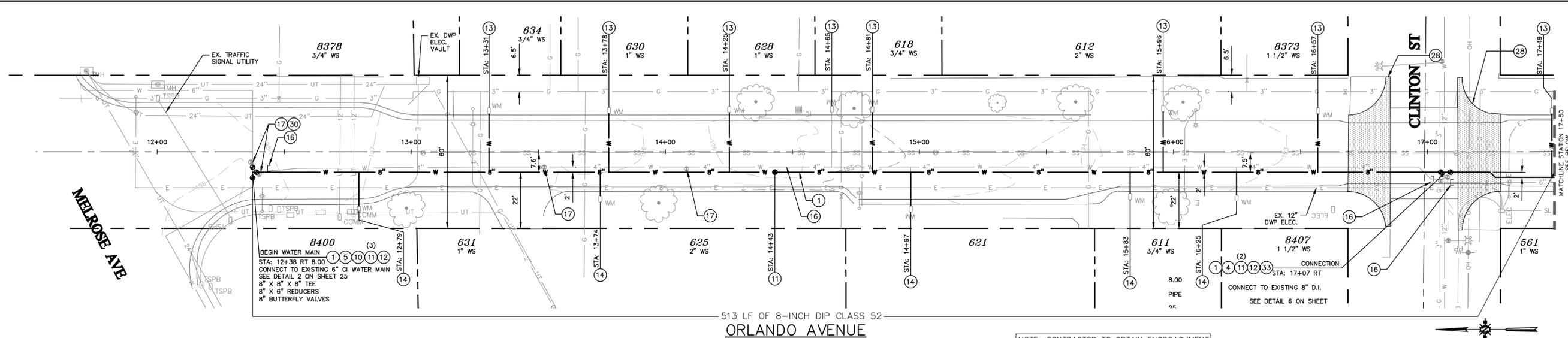


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DRAWN	CMM	DATE 2/07/2014
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DATE	REVISION	BY

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS LEDoux ROAD (WILSHIRE BLVD TO GREGORY WAY) STA. 10+00 TO STA. 19+19	
SUBMITTED _____	DATE _____
APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 23 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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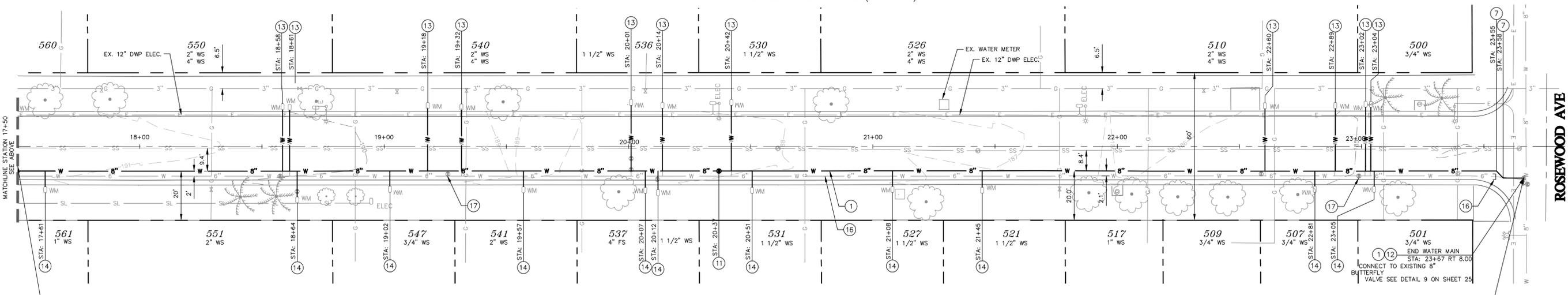


513 LF OF 8-INCH DIP CLASS 52
ORLANDO AVENUE
 HORIZ SCALE: 1"=20'

PRESSURE_ZONE 3
 HGL 384' (75 PSI)

WATER SERVICE MAP 28 (141-172)

NOTE: CONTRACTOR TO OBTAIN ENCROACHMENT PERMIT FROM THE CITY OF WEST HOLLYWOOD FOR THIS PORTION OF WORK PRIOR TO CONSTRUCTION



618 LF OF 8-INCH DIP CLASS 52
ORLANDO AVENUE
 HORIZ SCALE: 1"=20'

PRESSURE_ZONE 3
 HGL 384' (78 PSI)

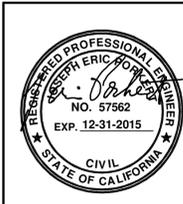
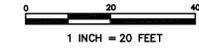
WATER SERVICE MAP 28 (141-172)

NOTE: CONTRACTOR TO OBTAIN ENCROACHMENT PERMIT FROM THE CITY OF WEST HOLLYWOOD FOR THIS PORTION OF WORK PRIOR TO CONSTRUCTION

CONSTRUCTION NOTES

- 1 CONSTRUCT 8-INCH DI PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT PER CITY OF BEVERLY HILLS STD. DWG BH 710.
- 4 FURNISH AND INSTALL DI CROSS, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 5 FURNISH AND INSTALL DI TEE, WITH RESTRAINED JOINTS PER TABLES ON DETAIL 13, SHEET 25.
- 11 FURNISH AND INSTALL BUTTERFLY VALVE, SIZE PER PLAN, WITH VALVE BOX AND CAST IRON COVER WITH WORD "WATER" IN RAISED LETTERS ON TOP, PER CITY OF BEVERLY HILLS STD. DWG: BH707; RESTRAIN PER DETAIL 13, TABLE 1.1, ON SHEET 25.
- 12 CONSTRUCT NEW TIE-IN CONNECTION OR NEW CONNECTION TO THE EXISTING OR NEW WATER MAIN, FITTINGS, VALVES OR WATER SYSTEM APPURTENANCES. REMOVE INTERFERING WATER PIPING SECTIONS AS NECESSARY TO COMPLETE THE WORK.
- 13 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (LONG CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 14 FURNISH AND INSTALL NEW WATER SERVICE LATERAL (SHORT CONNECTION), IN KIND, AND CONNECT TO EXISTING WATER METER PER DETAIL 18 FOR 1-INCH OR DETAIL 19 FOR 2-INCH ON SHEET 27. (CONTRACTOR SHALL VERIFY ALL SIZES PRIOR TO ORDERING MATERIALS). REFER TO PLAN FOR CITY PROVIDED WS-SIZES.
- 16 CAP AND ABANDON EXISTING WATER MAIN(S), FITTING(S), TEE(S), BLIND VALVE(S) AND WATER APPURTENANCES AS NECESSARY TO OPERATE THE WATER SYSTEM. FURNISH BLIND FLANGES WITH THRUST RESTRAINT ON EXISTING WATER SYSTEM PIPING, AS REQUIRED. REPAIR TRENCH PER CITY OF CITY OF BEVERLY HILLS STD. DWG BH710 AND AS NOTED ON PLAN.
- 17 REMOVE VALVE, CAN AND COVER, BACKFILL AND RESTORE ASPHALT PER BH 113. LEAVE VALVE IN OPEN POSITION JUST PRIOR TO ABANDONMENT.
- 30 REMOVE AND REPLACE EXISTING FITTINGS (TEES AND CROSSES) WITH DUCTILE IRON PIPE AND RESTRAINED COUPLINGS PER DETAIL 9 ON SHEET 25 OR PROVIDE BLIND FLANGE AND RESTRAINTS.

NOTE: PROVIDE RESTRAINED LENGTHS PER WATER NOTE 45 ON SHEET 2



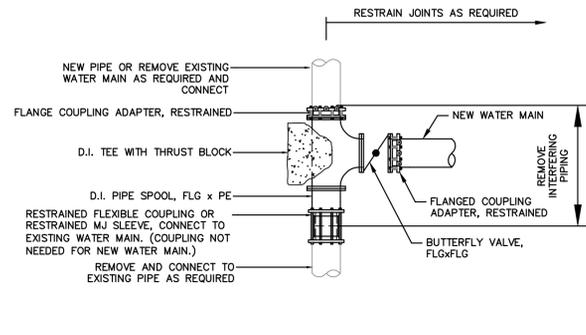
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DATE	REVISION	BY

FY 2013-2014
 WATER MAIN REPLACEMENT PROJECT
 VARIOUS LOCATIONS
ORLANDO AVENUE
 (MELROSE AVE. TO ROSEWOOD AVE.)
 STA. 10+00 TO STA. 22+28

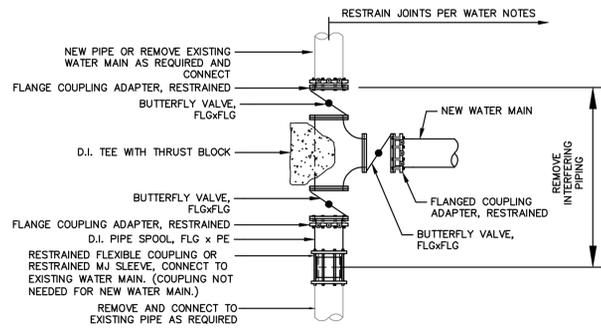
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APPROVED _____	DATE _____
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 24 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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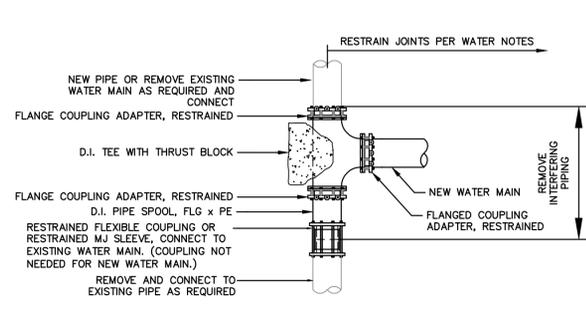
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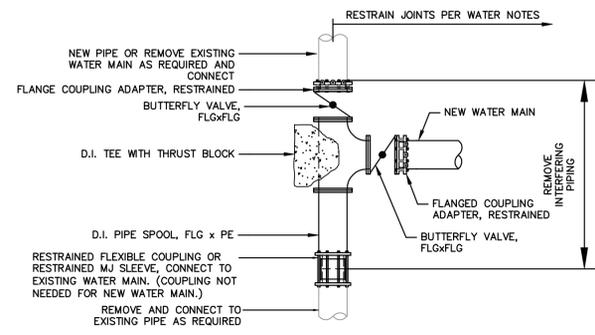
CUT-IN CONNECTION DETAIL
SHEET 25 N.T.S. 1



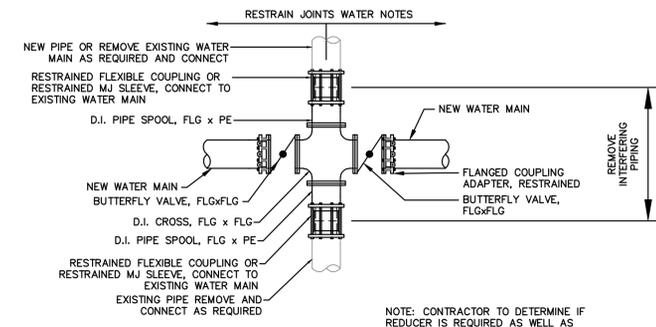
CUT-IN CONNECTION DETAIL
SHEET 25 N.T.S. 2



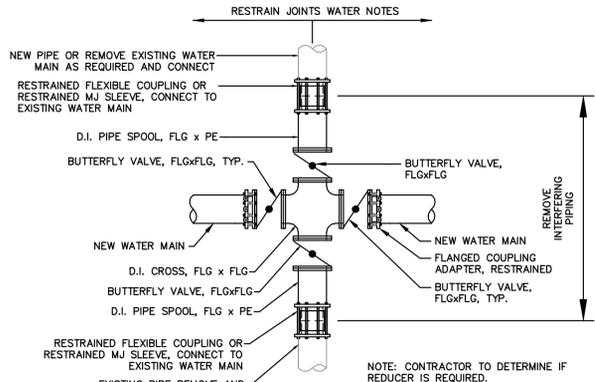
CUT-IN CONNECTION DETAIL
SHEET 25 N.T.S. 3



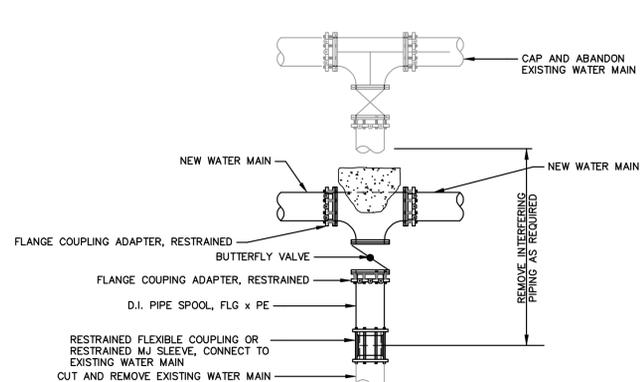
CUT-IN CONNECTION DETAIL
SHEET 25 N.T.S. 4



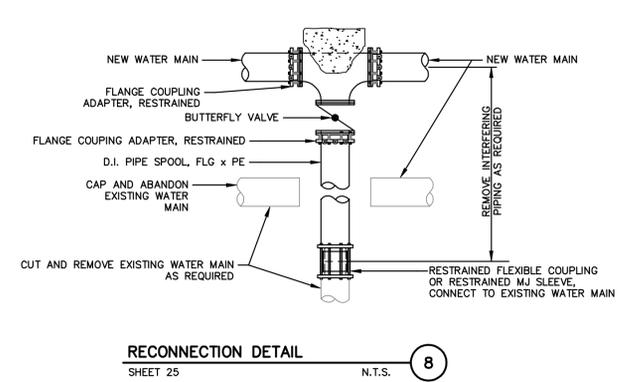
CUT-IN CONNECTION DETAIL
SHEET 25 N.T.S. 5



CUT-IN CONNECTION DETAIL
SHEET 25 N.T.S. 6



RECONNECTION DETAIL
SHEET 25 N.T.S. 7



RECONNECTION DETAIL
SHEET 25 N.T.S. 8

1.1 HORIZONTAL BENDS AND DEAD END/VALVE/TEE

SIZE (IN)	FITTING	ANGLE	RESTRAINED LENGTH (FT)	DESIGN PRESSURE (PSI)
8	DEAD END/VALVE/TEE		90	275
8	HORIZONTAL BEND	90°	36	275
8	HORIZONTAL BEND	45°	18	275
8	HORIZONTAL BEND	22.5°	18	275
8	HORIZONTAL BEND	11.25°	18	275
12	DEAD END/VALVE/TEE		126	275
12	HORIZONTAL BEND	90°	36	275
12	HORIZONTAL BEND	45°	36	275
12	HORIZONTAL BEND	22.5°	18	275
12	HORIZONTAL BEND	11.25°	18	275
16	DEAD END/VALVE/TEE		180	275
16	HORIZONTAL BEND	90°	54	275
16	HORIZONTAL BEND	45°	36	275
16	HORIZONTAL BEND	22.5°	18	275
16	HORIZONTAL BEND	11.25°	18	275

1.4 RESTRAINED LENGTH CALCULATIONS ASSUMPTION PLANS

LAYING CONDITION: TYPE 5
SOIL DESIGNATION: GOOD SAND
DEPTH OF COVER: 3FT
DESIGN PRESSURE: 275 PSI
L (OFFSETS) = 1FT
SAFETY FACTOR TESTING 1:1
PRESSURE APPROX. 2:1

1.2 VERTICAL OVERCROSSING

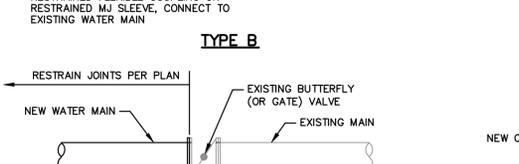
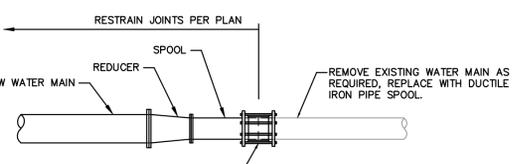
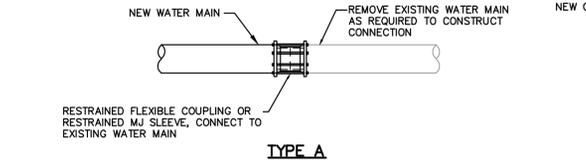
SIZE (IN)	ANGLE	RESTRAINED LENGTH (FT)	TEST PRESSURE (PSI)
8	45°	18	275
8	22.5°	18	275
8	11.25°	18	275
12	45°	36	275
12	22.5°	18	275
12	11.25°	18	275
16	45°	36	275
16	22.5°	18	275
16	11.25°	18	275

1.3 VERTICAL UNDERCROSSING

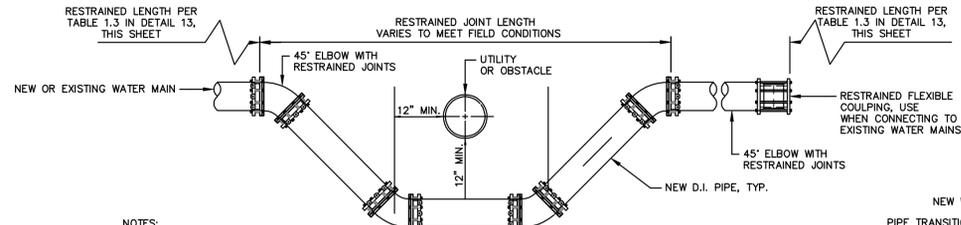
SIZE (IN)	ANGLE	RESTRAINED LENGTH (FT)	TEST PRESSURE (PSI)
8	45°	72	275
8	22.5°	36	275
8	11.25°	18	275
12	45°	108	275
12	22.5°	54	275
12	11.25°	36	275
16	45°	144	275
16	22.5°	72	275
16	11.25°	36	275

NOTE:
1. CITY PRACTICE IS TO RESTRAIN JOINTS/FITTINGS 40 FEET ON EACH SIDE FOR ANY VALVE AND FITTINGS CHANGING PIPE DIRECTION. ACTUAL RESTRAINED LENGTHS WILL BE DETERMINED IN THE FIELD DURING CONSTRUCTION BY THE CITY ENGINEER/INSPECTOR.

RESTRAINED LENGTH CHARTS
SHEET 25 N.T.S. 13

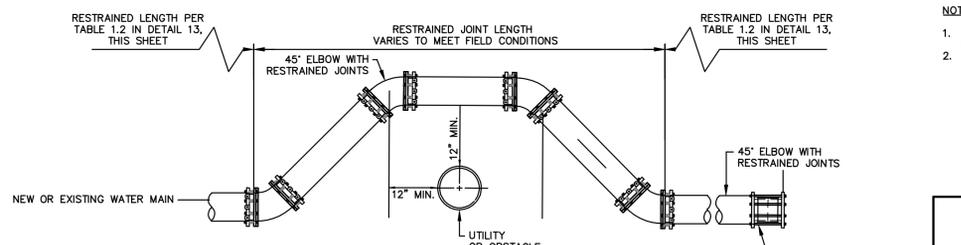


COUPLING CONNECTION DETAIL
SHEET 25 N.T.S. 9



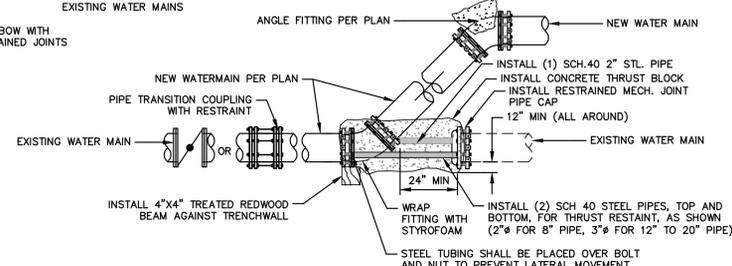
NOTES:
1. CONTRACTOR SHALL FIELD VERIFY ALL FILED CONDITIONS PRIOR TO CONSTRUCTION.
2. SIZE OF PIPE AND FITTINGS SHALL CORRESPOND TO THE PIPE SIZES AND TYPE SHOWN ON THE PLAN.
3. CONTRACTOR SHALL PROVIDE AIR VACUUM AND RELEASE VALVES AND PUMP OUTS AT HIGH POINTS AND LOW POINTS RESPECTIVELY.
4. FITTING SHALL BE MECHANICAL JOINT WITH MEGA-LUG RESTRAINTS OF FLANGED WITH FLANGED COUPLING ADAPTERS.
5. PRIOR TO CONSTRUCTION CONTRACTOR SHALL PROVIDE ENGINEER WITH ACTUAL DEPTH OF COVER AND UTILITY CLEARANCES TO ACTUAL REQUIRED RESTRAINED LENGTHS.

UNDER-CROSSING DETAIL
SHEET 25 N.T.S. 10



NOTES:
1. CONTRACTOR SHALL FIELD VERIFY ALL FILED CONDITIONS PRIOR TO CONSTRUCTION.
2. SIZE OF PIPE AND FITTINGS SHALL CORRESPOND TO THE PIPE SIZES AND TYPE SHOWN ON THE PLAN.
3. CONTRACTOR SHALL PROVIDE AIR VACUUM AND RELEASE VALVES AND PUMP OUTS AT HIGH POINTS AND LOW POINTS RESPECTIVELY.
4. FITTING SHALL BE MECHANICAL JOINT WITH MEGA-LUG RESTRAINTS OF FLANGED WITH FLANGED COUPLING ADAPTERS.
5. PRIOR TO CONSTRUCTION CONTRACTOR SHALL PROVIDE ENGINEER WITH ACTUAL DEPTH OF COVER AND UTILITY CLEARANCES TO ACTUAL REQUIRED RESTRAINED LENGTHS.

OVER-CROSSING DETAIL
SHEET 25 N.T.S. 11



NOTE:
1. VERTICAL ROTATION OF THE JOINT TO ACHIEVE VERTICAL DEFLECTIONS IS NOT ALLOWED.
2. THRUST CONNECTION SHALL NOT BE REMOVED. IT PROVIDES REQUIRED THRUST RESTRAINT.

CONNECTION DETAIL
SHEET 25 N.T.S. 12

NOTES:
1. EXISTING UTILITIES NOT SHOWN FOR CLARITY. REFER TO PLAN SHEETS.
2. SEE PLAN FOR REQUIRED SIZE OF EXISTING AND NEW PIPING.

REGISTERED PROFESSIONAL ENGINEER
ERIC J. JORDAN
NO. 57562
EXP. 12-31-2015
CIVIL
STATE OF CALIFORNIA

Cannon

3420 Ocean Park Blvd, Suite 3040
Santa Monica, CA 90405
P 310.664.1166 F 310.664.8877

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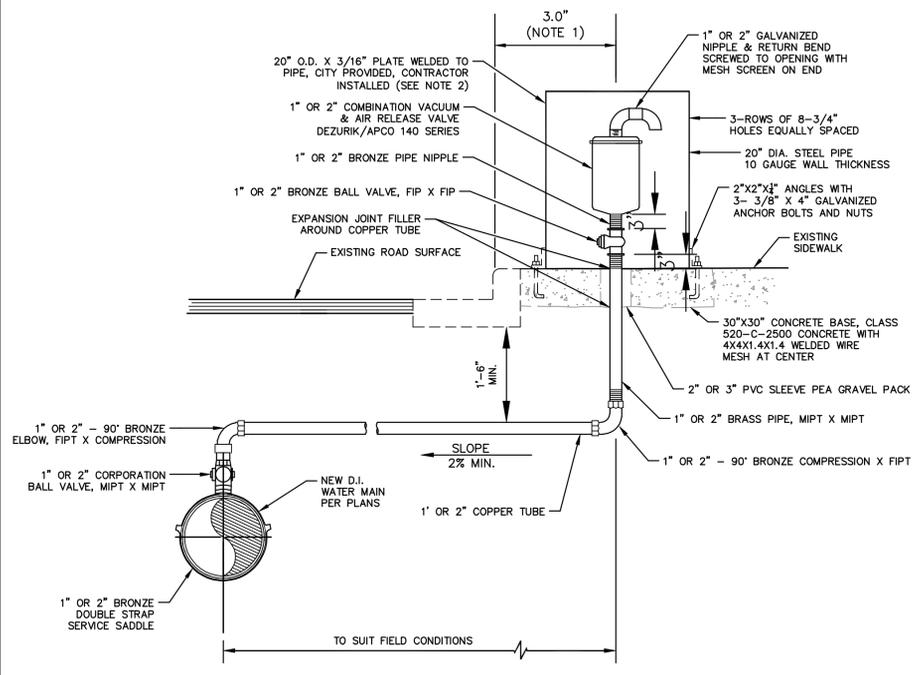
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FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS

DETAILS

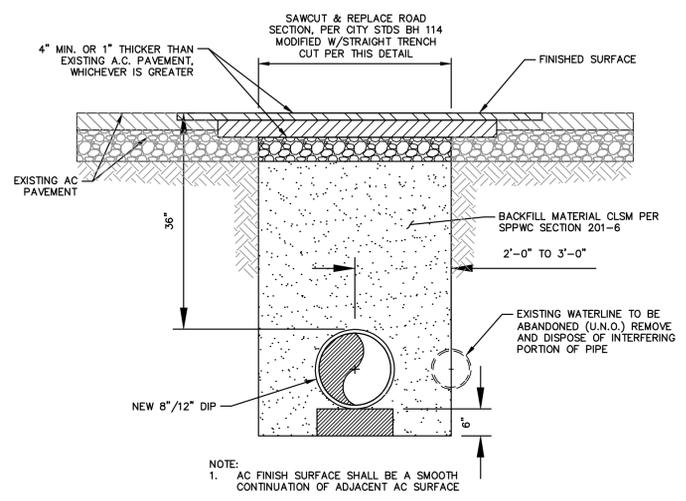
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APPROVED _____	DATE _____
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CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION

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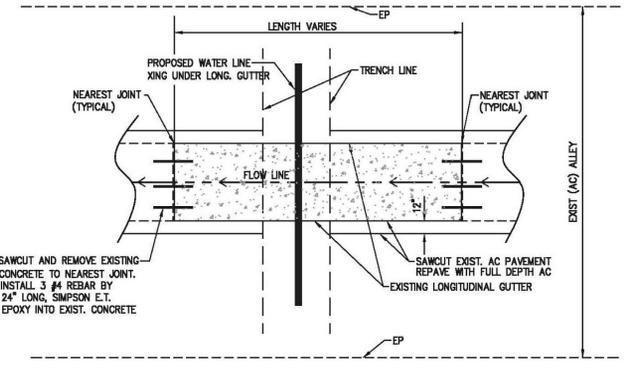


- NOTES:**
1. EXACT LOCATION OF HOUSING & AIR RELEASE VALVE TO BE DETERMINED BY THE ENGINEER/INSPECTOR
 2. FOR HOUSING DETAIL & CONCRETE BASE, SEE DETAIL 14.
 3. ALL TRENCHES FOR THE INSTALLATION OF AIR/VAC PIPING SHALL BE BACKFILLED WITH CEMENT SLURRY (25 SACK)
 4. AIR/VAC VALVES SHALL BE 2-INCH FOR PIPES SIZES 14-INCH AND LARGER

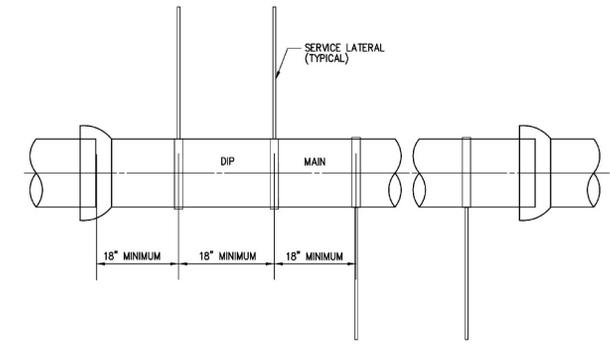
1" AIR AND VACUUM RELIEF VALVE ASSEMBLY 13
SHEET 26 N.T.S.



SEPARATION BTWN EXIST. AND PROPOSED WATER 14
SHEET 26 N.T.S.



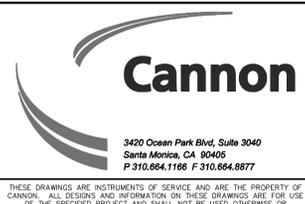
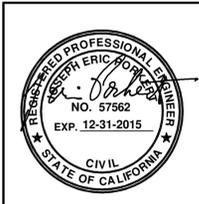
LONGITUDINAL GUTTER RECONSTRUCTION/REPLACEMENT 15
SHEET 26 N.T.S.



DOMESTIC WATER SERVICE LAYOUT 16
SHEET 26 - DETAIL APPLIES TO ENTIRE PROJECT N.T.S.

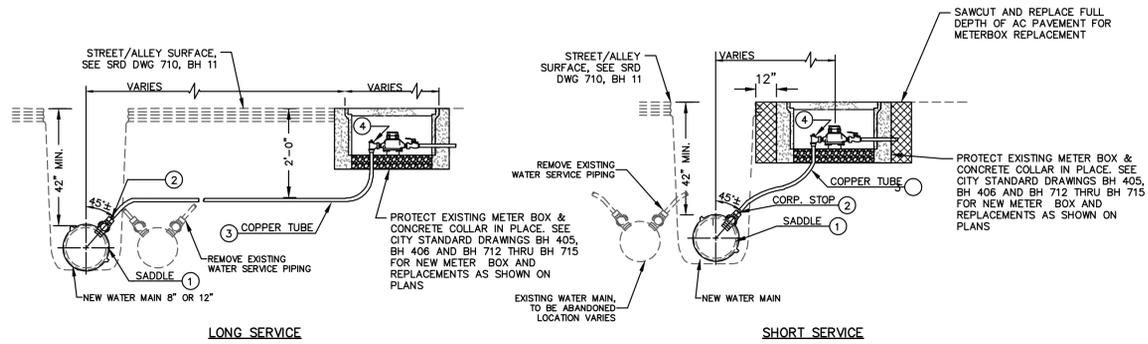
FY 2013-2014
WATER MAIN REPLACEMENT PROJECT
VARIOUS LOCATIONS

DETAILS



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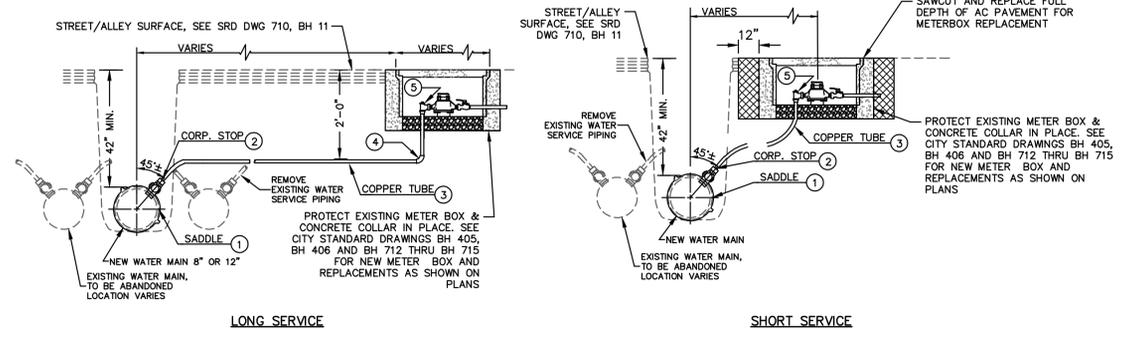
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APPROVED	DATE
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 26 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION



DETAIL	REQ'D	DESCRIPTION
①	1	1" BRONZE BODY/SILICONE BRONZE DOUBLE STRAP SERVICE SADDLE, F.I.P.T. MUELLER BR2B SERIES
②	1	1" CAST BRONZE BALL CORPORATION VALVE, M.I.P.T. x COMPRESSION CTS MUELLER B-25028-N
③	VAR.	1" ANNEALED COPPER TUBE TYPE K
④	2	1" ANGLE METER BALL VALVE WITH LOCK WING, MUELLER, COMPRESSION X METER SWIVEL NUT B24258-N

- NOTES:
- ALL SERVICE LATERAL ASSEMBLIES SHALL BE NSF 61, ANNEX G AND CALIFORNIA AB1953 COMPLIANT.
 - REFER TO SPECIFICATIONS FOR MATERIAL SPECIFICATIONS.
 - THE MINIMUM DISTANCE BETWEEN SERVICE LATERAL CONNECTIONS SHALL BE 18-INCHES ON CENTER.
 - MATERIALS AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE SECTIONS OF THE CITY OF BEVERLY HILLS SPECIFICATIONS FOR DOMESTIC WATER USE.
 - NEW SERVICES ARE NOT BE SPLICED AND SHALL BE INSTALLED NEW FROM THE WATER MAIN TO THE METER.
 - EXISTING METER BOXES DAMAGED DURING CONSTRUCTION OR AS DIRECTED BY THE CITY'S REPRESENTATIVE SHALL BE REPLACED PER CITY STANDARD DRAWINGS BH 405, 406, 714, 715, AND 716. THE NEW METER BOX SHALL INCLUDE A 6-INCH WIDE AND 6-INCH DEEP CONCRETE COLLAR, THE SURROUNDING ASPHALT SHALL BE NEATLY SAWCUT AND PATCHED.
 - ALL EXISTING 3/4" AND 1-1/2" SERVICES SHALL BE UPSIZED TO 1" AND 2" SERVICES RESPECTIVELY. CONTRACTOR SHALL PROVIDE FITTINGS REQUIRED TO CONNECT TO EXISTING METERS OR TO NEW METERS THE CITY REPLACES.

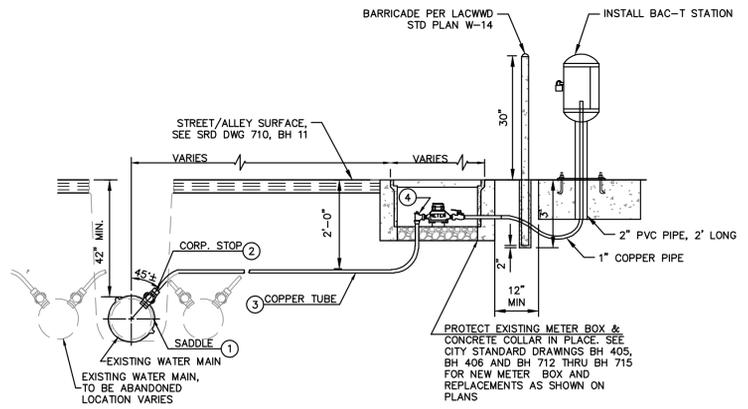
1-INCH SERVICE CONNECTION
SHEET 27 N.T.S. 18



DETAIL	REQ'D	DESCRIPTION
①	1	2" BRONZE DOUBLE STRAP SERVICE SADDLE, F.I.P.T.
②	1	2" CAST BRONZE BALL CORPORATION VALVE, M.I.P.T. x COMPRESSION CTS MUELLER B-25028-N
③	2	2" I.D. COPPER TUBE TYPE K IN 20' LENGTHS
④	2	2" x 90° CAST BRONZE ELBOW, F.I.P.x F.I.P. SOLDER JOINTS
⑤	1	2" ANGLE METER BALL VALVE WITH LOCK WING, MUELLER, COMPRESSION x METER FLANGE, MUELLER B-24276-N

- NOTES:
- ALL SERVICE LATERAL ASSEMBLIES SHALL BE NSF 61 AND NSF 372, ANNEX G AND CALIFORNIA AB1953 COMPLIANT.
 - REFER TO SPECIFICATIONS FOR MATERIAL SPECIFICATIONS.
 - THE MINIMUM DISTANCE BETWEEN SERVICE LATERAL CONNECTIONS SHALL BE 18-INCHES ON CENTER.
 - MATERIALS AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE SECTIONS OF THE CITY OF BEVERLY HILLS SPECIFICATIONS FOR DOMESTIC WATER USE.
 - NEW SERVICES ARE NOT BE SPLICED AND SHALL BE INSTALLED NEW FROM THE WATER MAIN TO THE METER.
 - EXISTING METER BOXES DAMAGED DURING CONSTRUCTION OR AS DIRECTED BY THE CITY'S REPRESENTATIVE SHALL BE REPLACED PER CITY STANDARD DRAWINGS BH 405, 406, 714, 715, AND 716. THE NEW METER BOX SHALL INCLUDE A 6-INCH WIDE AND 6-INCH DEEP CONCRETE COLLAR, THE SURROUNDING ASPHALT SHALL BE NEATLY SAWCUT AND PATCHED.
 - ALL EXISTING 3/4" AND 1-1/2" SERVICES SHALL BE UPSIZED TO 1" AND 2" SERVICES RESPECTIVELY. CONTRACTOR SHALL PROVIDE FITTINGS REQUIRED TO CONNECT TO EXISTING METERS OR TO NEW METERS THE CITY REPLACES.

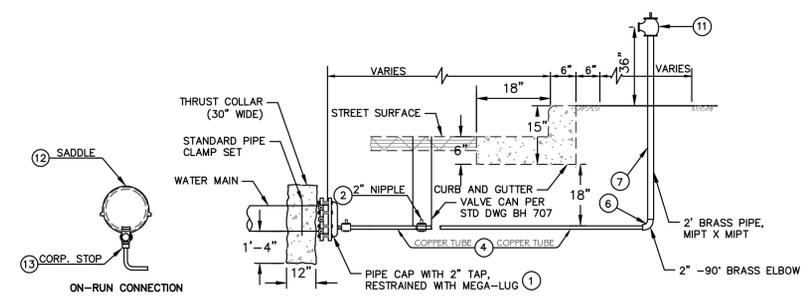
2-INCH SERVICE CONNECTION
SHEET 27 N.T.S. 19



DETAIL	REQ'D	DESCRIPTION
①	1	1" BRONZE BODY/SILICONE BRONZE DOUBLE STRAP SERVICE SADDLE, F.I.P.T. MUELLER BR2B SERIES
②	1	1" CAST BRONZE BALL CORPORATION VALVE, M.I.P.T. x COMPRESSION CTS MUELLER BR25028-N
③	VAR.	1" ANNEALED COPPER TUBE TYPE K
④	2	1" ANGLE METER BALL VALVE WITH LOCK WING, MUELLER, COMPRESSION X METER SWIVEL NUT B24258-N

- NOTES:
- ALL SERVICE LATERAL ASSEMBLIES SHALL BE NSF 61, ANNEX G AND CALIFORNIA AB1953 COMPLIANT.
 - REFER TO SPECIFICATION SECTION 15067 FOR MATERIAL SPECIFICATIONS.
 - THE MINIMUM DISTANCE BETWEEN SERVICE LATERAL CONNECTIONS SHALL BE 18-INCHES ON CENTER.

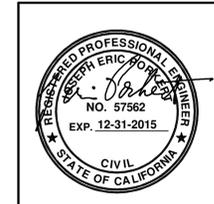
SAMPLE STATION BAC-T ASSEMBLY
SHEET 27 N.T.S. 20



DETAIL	REQ'D CODE	DESCRIPTION
1	---	PLUG, TYTON GASKET, CAST IRON WITH SET SCREWS & 2" TAPPED OUTLET
2	---	NIPPLE, 2" BRASS
3	---	2" CAST BRONZE BALL VALVE, M.I.P.T. x COMPRESSION MUELLER
4	VAR. 95T118112	2" COPPER TUBE (TYPE K-HARD)
5	VAR. 95T153636	COUPLING, C.T. x C.T., 1-1/2" ROLLED STOP SOLDER TYPE
6	1 95T153712	ELBOW, C.T. x C.T., 1-1/2" x 90° CAST BRONZE
7	1 95T153739	ELBOW, C.T. x M.I.P., 1-1/2" x 90° CAST BRONZE
8	1 ---	ELBOW, M.I.P. x F.I.P., 1-1/2" x 90° CAST BRONZE
9	1 95T153621	CAP, 1-1/2" CAST BRONZE
10	1 ---	METER BOX (CONCRETE)
11	---	2" x 2-1/2" ANGLE FIRE HYDRANT VALVE WITH CAP AND CHAIN
12	1	2" BRONZE DOUBLE STRAP SERVICE SADDLE, F.I.P.T.
13	1	2" CAST BRONZE BALL CORPORATION VALVE, M.I.P.T. x COMPRESSION CTS

2" BLOW-OFF ASSEMBLY WHARF HEAD TYPE
SHEET 27 N.T.S. 21

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SCALES AS SHOWN		
F.B. NO.	PAGE	TO
DESIGNED JEP	DATE 2/07/2014	
DRAWN CMM	DATE 2/07/2014	
CHECKED	DATE	
DATE	REVISION	BY

FY 2013-2014 WATER MAIN REPLACEMENT PROJECT VARIOUS LOCATIONS	
DETAILS	
SUBMITTED _____ DATE _____	
APPROVED _____ DATE _____	
JOB NO. 130109	DRWG. NO. 10391
SHEET NO. 27 OF 27 SHEETS	
CITY OF BEVERLY HILLS, CALIFORNIA	
PUBLIC WORKS DEPARTMENT	ENGINEERING DIVISION