

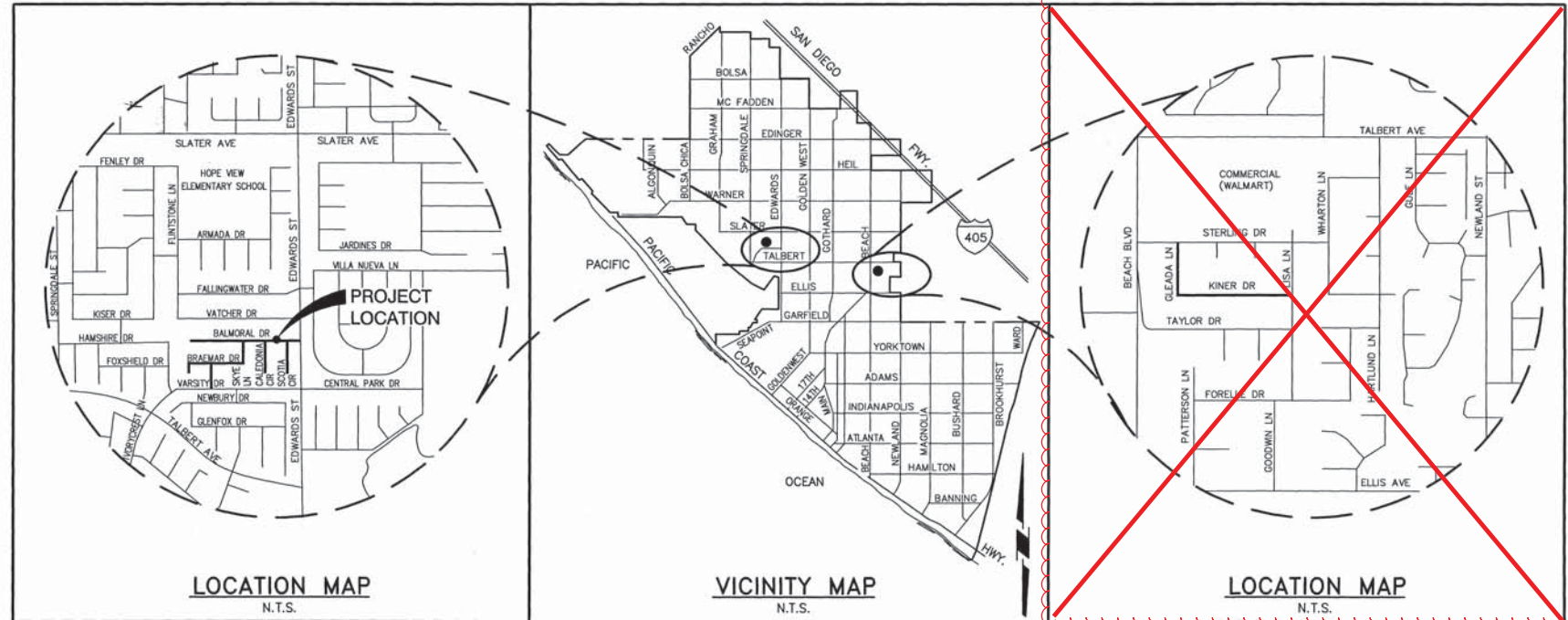
THE CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

EDWARDS/ VARSITY TRACT & BEACH/ TAYLOR TRACT - WATER MAIN REPLACEMENT

BALMORAL DR, SCOTIA CIR, CALEDONIA CIR, SKYE LN, BRAEMAR DR, ORKNEY CIR, HIGHLAND LN, GLEADA LN AND KINER DR

PROJECT C.C. NO. 1558



PUBLIC SERVICE AGENCIES

(CALL THE FOLLOWING AGENCIES AT LEAST TWO WORKING DAYS PRIOR TO ANY EXCAVATION)

CITY OF HUNTINGTON BEACH	(714) 536-5431
PUBLIC WORKS DEPARTMENT	
CHARTER COMMUNICATIONS	(714) 591-4869
DAVE DOLNEY	
FRONTIER COMMUNICATIONS	(909) 748-6640
DESIREE SERRANO	
PLAINS ALL AMERICAN PIPELINE, L.P.	(562) 728-2020
JAMES L. JACOBY	
SOUTHERN CALIFORNIA GAS	(714) 634-3039
RICHARD TYRIE	
SOUTHERN CALIFORNIA EDISON CO.	(714) 796-9932
KIM GURULE	

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS.

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 THE LOCAL GOVERNMENT AGENCIES, THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

APPROVED:

[Signature]
DIRECTOR OF PUBLIC WORKS

6/4/2020
DATE

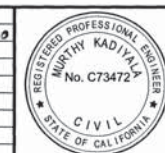
DRAWING LIST

DWG. NO.	SHEET TITLE
G-01	TITLE SHEET, VICINITY MAP, LOCATION MAP AND DRAWING LIST
G-02	BENCHMARK, BASIS OF BEARING, SHEET INDEX, ABBREVIATIONS AND LEGEND
G-03	GENERAL NOTES AND CONSTRUCTION NOTES
C-01	BALMORAL DR - PLAN AND PROFILE STA. 10+00.00 TO STA. 14+00.00
C-02	BALMORAL DR - PLAN AND PROFILE STA. 14+00.00 TO STA. 18+00.00
C-03	BALMORAL DR - PLAN AND PROFILE STA. 18+00.00 TO STA. 22+01.72
C-04	SCOTIA CIR - PLAN AND PROFILE STA. 10+00.00 TO STA. 13+68.00
C-05	CALEDONIA CIR - PLAN AND PROFILE STA. 10+00.00 TO STA. 13+58.00
C-06	SKYE LN - PLAN AND PROFILE STA. 10+00.00 TO STA. 12+36.03
C-07	BRAEMAR DR - PLAN AND PROFILE STA. 10+00.00 TO STA. 13+00.00
C-08	BRAEMAR DR - PLAN AND PROFILE STA. 13+00.00 TO STA. 15+80.22
C-09	HIGHLAND LN - PLAN AND PROFILE STA. 10+00.00 TO STA. 12+66.61
C-10	ORKNEY CIR - PLAN AND PROFILE STA. 10+00.00 TO STA. 11+40.62
C-11	GLEADA LN - PLAN AND PROFILE STA. 10+00.00 TO STA. 14+05.80
C-12	KINER DR - PLAN AND PROFILE STA. 14+05.80 TO STA. 18+00.00
C-13	KINER DR - PLAN AND PROFILE STA. 18+00.00 TO STA. 22+79.59
C-14	CIVIL DETAILS 1 OF 2
C-15	CIVIL DETAILS 2 OF 2

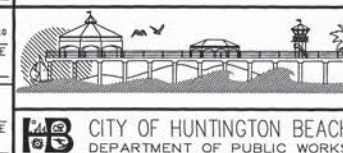


REV.	DATE	BY	DESCRIPTION	APP'VD
1	1/2021	KCO	Amendment Prior to Bid	

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2"-SCALE ACCORDINGLY)	UTIL. DIV.	REVIEWED BY	DATE
DESIGNED: RB	TRAFFIC	BAR	6/3/20
DRAWN: RB	ENG. SERVICES		
CHECKED: MK	STREET DESIGN		
DATE:	RIGHT-OF-WAY		
	P.T. & L.		
	CONSTRUCTION		



REVIEWED BY: *[Signature]* 06/04/2020
CITY ENGINEER
R.C.E. NO. 13607 EXP. DATE: 12/31/20
PREPARED UNDER THE SUPERVISION OF: *[Signature]* 5/29/20
DATE
MURTHY KADIVALA, P.E.
R.C.E. NO. C73472 EXP. DATE: 12/31/20
APPROVED BY: *[Signature]* 06-03-2020
DATE
ANDREW FERRIGNO, P.E., PRINCIPAL ENGINEER
R.C.E. NO. C65719 EXP. DATE: 09/30/21



EDWARDS/ VARSITY TRACT & BEACH/ TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
TITLE SHEET, VICINITY MAP,
LOCATION MAP AND DRAWING LIST

DRAWING NO.
G-01
SHEET NO.
1 OF 18

DWG: J:\PRG\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\01-General\114904_G01.dwg
DATE: May 29, 2020 1:26pm

PROJECT C. C. NO. 1558

1149243.001

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\01-General\114904_G02.dwg
DATE: May 29, 2020 1:27pm

BENCHMARK AND BASIS OF BEARING:
BALMORAL DR, SCOTIA CIR, CALEDONIA CIR, SKYE LN, BRAEMAR DR, ORKNEY CIR AND HIGHLAND LN

BENCHMARK
THE BENCHMARK FOR THIS PROJECT IS THE ORANGE COUNTY PUBLIC WORKS BENCH MARK NO. HB-157-69. DESCRIBED HEREON AS A 3 & 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "HB-157-69", SET IN THE SOUTHEASTERLY CORNER OF A 4 FT. BY 11 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWESTERLY PORTION OF THE INTERSECTION OF SCOTIA CIRCLE AND BALMORAL AVENUE, 48 FT. WESTERLY OF THE CENTERLINE OF SCOTIA AND 21FT. NORTHERLY OF THE CENTERLINE OF BALMORAL, MONUMENT IS SET LEVEL WITH THE SIDEWALK.
ELEVATION: -0.835 (NAVD88) 2005 LEVEL YEAR

BASIS OF BEARING
THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION No. 5081R1 AND G.P.S. No. 0564 BEING N 80°22'01" W PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.
COORDINATES SHOWN ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM (CCS NAD 83) ZONE VI, 1991.35 EPOCH ADJ.
ALL DISTANCES SHOWN ARE GROUND, UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCES MULTIPLY GROUND DISTANCE BY 0.99998084 (A MEAN VALUE).
HORIZONTAL CONTROL DATA - CCS83, ZONE VI
GPS#: 5081R1 COMBINATION FACTOR: 0.99998105
EPOCH ADJUSTMENT LATITUDE LONGITUDE NORTHING (FT) EASTING (FT)
1991.35 33 42 33.89992 118 00 54.61979 2206303.123 6024868.469
O.C.S. G.P.S. 5081 R1 DESCRIPTION:
FOUND GEAR SPIKE AND WASHER STAMPED "CITY OF HB" PER CORNER RECORD 2012-1221 B, FLUSH. STATION IS LOCATED AT THE CENTERLINE INTERSECTION OF EDWARDS ST. AND SHENLYN DR.
GPS #: 0564 COMBINATION FACTOR: 0.99998063
EPOCH ADJUSTMENT LATITUDE LONGITUDE NORTHING (FT) EASTING (FT)
1991.35 33 42 29.91876 118 00 23.36300 2205856.169 6027501.817
O.C.S. G.P.S. 0564 DESCRIPTION:
FOUND PUNCHED SPIKE AND WASHER STAMPED "O.C.S. 0564 4-03", PER CORNER RECORD 2017-0236, FLUSH. STATION IS LOCATED IN THE INTERSECTION OF GOLDENWEST ST. AND SLATER AVE. DISTANT NORTHWESTERLY 4.0'± FROM THE CENTERLINE INTERSECTION THEREOF, PER SAID CORNER RECORD.

BENCHMARK AND BASIS OF BEARING:
GLEADA LANE AND KINER DRIVE

BENCHMARK
THE BENCH MARK FOR THIS PROJECT IS THE ORANGE COUNTY PUBLIC WORKS BENCH MARK NO. HB-202-71. DESCRIBED HEREON AS A 3 & 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "HB-202-71", SET IN THE SOUTHEASTERLY CORNER OF A 6 FT. BY 7 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWESTERLY CORNER OF THE INTERSECTION OF BEACH BOULEVARD AND TALBERT AVENUE, 62 FEET WESTERLY OF THE CENTERLINE OF BEACH BOULEVARD AND 89.5 FEET NORTHERLY OF THE CENTERLINE OF TALBERT. MONUMENT IS SET LEVEL WITH THE SIDEWALK.
ELEVATION: 46.366 (NAVD88) 2005 LEVEL YEAR

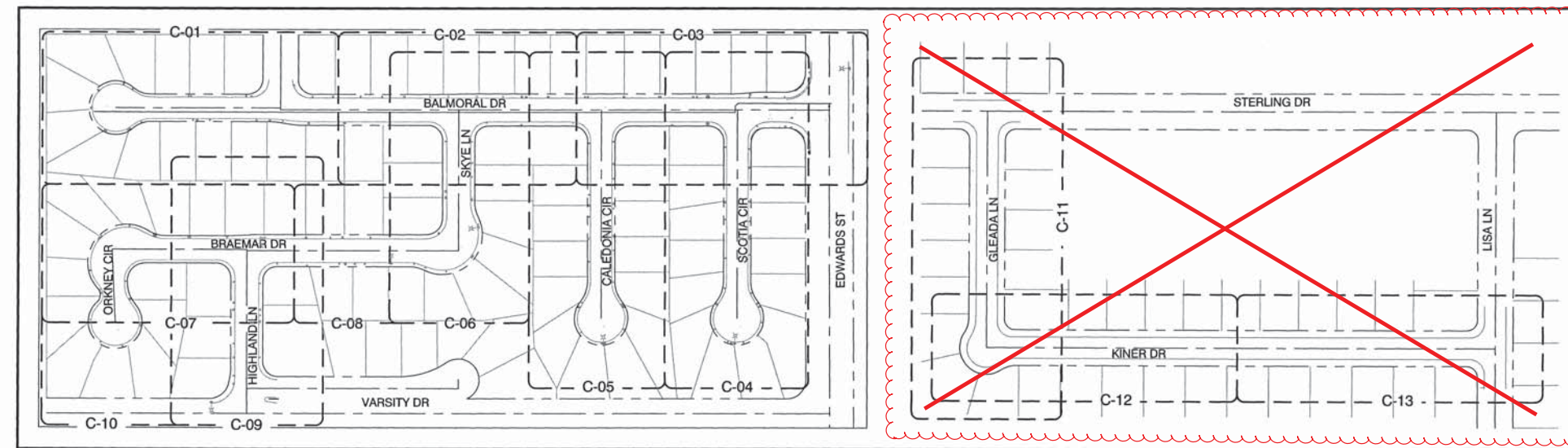
BASIS OF BEARING
THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATION No. 5072R1 AND G.P.S. No. 5070 BEING S 89°35'47" E PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.
COORDINATES SHOWN ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM (CCS NAD 83) ZONE VI, 1991.35 EPOCH ADJ.
ALL DISTANCES SHOWN ARE GROUND, UNLESS OTHERWISE NOTED. TO OBTAIN GRID DISTANCES MULTIPLY GROUND DISTANCE BY 0.99997777. (A MEAN VALUE)
HORIZONTAL CONTROL DATA - CCS83, ZONE VI
GPS#: 5072R1 COMBINATION FACTOR: 0.99997758
EPOCH ADJUSTMENT LATITUDE LONGITUDE NORTHING (FT) EASTING (FT)
1991.35 33 42 03.92650 117 59 59.50194 2203195.325 6029473.194
O.C.S. G.P.S. 5072 DESCRIPTION:
FOUND NAIL AND WASHER STAMPED "LS5411", PER CORNER RECORD 2016-0197 A, FLUSH. STATION IS LOCATED AT THE CENTERLINE INTERSECTION OF GOTHARD ST. AND TALBERT AVE.
GPS #: 5070 COMBINATION FACTOR: 0.99997795
EPOCH ADJUSTMENT LATITUDE LONGITUDE NORTHING (FT) EASTING (FT)
1991.35 33 42 04.49314 117 58 49.19878 2203153.471 6035412.936
O.C.S. G.P.S. 5070 DESCRIPTION:
FOUND A PUNCHED 2" BRASS DISK (NO STAMPING) IN STANDARD MONUMENT WELL, DOWN 1.3' PER CORNER RECORD 2016-2932 B, STATION IS LOCATED AT THE CENTERLINE INTERSECTION OF NEWLAND ST. AND TALBERT AVE.

LEGEND

DESCRIPTION	PROPOSED	EXISTING
RIGHT-OF-WAY LINE	---	---
PROPERTY LINE	---	---
STREET CENTER LINE	---	---
PIPE, SIZE AND TYPE	---	10" S --- OR 30" S ---
POWER POLE	---	---
STREET LIGHT	---	---
WATER METER	---	---
EXISTING CURB & GUTTER	---	---
WATER VALVE	---	---
TRAFFIC SIGN	---	---
STORM DRAIN MANHOLE	---	---
SEWER MANHOLE	---	---
PULL BOX	---	---
FIRE HYDRANT	---	---
BLOW OFF	---	---
REDUCER	---	---
AV/AR	---	---

ABBREVIATIONS

ABAND	ABANDONED	P/L	PROPERTY LINE
ACP	ASBESTOS CEMENT PIPE	PROP	PROPOSED
BTM	BOTTOM	PVC	POLY VINYL CHLORIDE
BEG	BEGIN	PVMT	PAVEMENT
CATV	CABLE TELEVISION	R/W	RIGHT-OF-WAY
C&G	CURB AND GUTTER	REF	REFERENCE
CL	CENTERLINE	RD	ROAD
CONC	CONCRETE	RJ	RESTRAINED JOINT
CONST.	CONSTRUCT DRAWING DWG	RT	RIGHT
ELEV	ELEVATION	S	SEWER
ENG	ENGINEERING	SD	STORM DRAIN
EX, EXIST	EXISTING	SH	SHEET
FCA	FLANGED COUPLING ADAPTER	SL	STREET LIGHT
FL	FLOWLINE	SFM	SEWER FORCE MAIN
FLG	FLANGE	ST	STREET
FT.	FEET	STA	STATION
FUT.	FUTURE	STD	STANDARD
G	GAS	STL	STEEL
GB	GRADE BREAK	T	TELEPHONE
GV	GATE VALVE	TB	THRUST BLOCK
HOR	HORIZONTAL	TBA	TO BE ABANDONED
HP	HIGH PRESSURE	TJ	PUSH ON JOINT
INTER	INTERSECTION	TYP	TYPICAL
INV	INVERT	ULT	ULTIMATE
IRR	IRRIGATION	U/O	UNKNOWN OBJECT
LF	LINEAR FEET	VER	VERTICAL
MAX	MAXIMUM	W	WATER
MH	MANHOLE	WM	WATER METER
MIN	MINIMUM	WV	WATER VALVE
MJ	MECHANICAL JOINT WITH RESTRAINT		
N	NORTH		
NO.	NUMBER		
NTS	NOT TO SCALE		
PB	PULL BOX		
PCC	PORTLAND CEMENT CONCRETE		

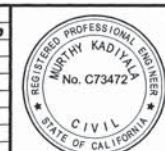


SHEET INDEX MAP
N.T.S.



REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'VD
1	1/2021	KCO	Amendment Prior to Bid	

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2"-SCALE ACCORDINGLY)	UTIL. DIV.	REVIEWED BY	DATE
DESIGNED: RB	TRAFFIC	BAR	6/3/20
DRAWN: RB	ENG. SERVICES		
CHECKED: MK	STREET DESIGN		
DATE:	MAINTENANCE		
	RIGHT-OF-WAY		
	P.T. & L		
	CONSTRUCTION		



PREPARED UNDER THE SUPERVISION OF: 5/24/20
MURPHY KADIVALA, P.E.
R.C.E. NO. C73472 EXP. DATE: 12/31/20
APPROVED BY: 6/3/20
ANDREW FERRIGNO, P.E., PRINCIPAL ENGINEER DATE
R.C.E. NO. C65719 EXP. DATE: 09/30/21



EDWARDS/ VARSITY TRACT & BEACH/ TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
BENCHMARK, BASIS OF BEARING, SHEET
INDEX, ABBREVIATIONS AND LEGEND

DRAWING NO.
G-02
SHEET NO.
2 OF 18

PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\01-General\114904_G03.dwg
DATE: May 29, 2020 1:28PM

GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AND SUPPLEMENTS THERETO (APWA/AGC, "GREEN BOOK"). UNLESS SPECIFICALLY NOTED OTHERWISE.
- ALL WORK SHALL CONFORM TO THESE PLANS, THE LANDSCAPE STANDARD PLANS, ARBORICULTURAL & LANDSCAPE STANDARDS AND SPECIFICATIONS, THE WATER DIVISION STANDARD PLANS AND CITY ORDINANCES.
- THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT AT (714) 536-5431 AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK.
- WORKING/INSPECTION HOURS ARE BETWEEN 7:00 A.M. AND 4: 00 P.M. MONDAY THROUGH FRIDAY, EXCLUDING SUNDAYS AND HOLIDAYS. ANY OTHER HOURS TO BE APPROVED PRIOR TO START OF WORK. THESE HOURS MAY BE SUBJECT TO FURTHER LIMITATIONS BY TRAFFIC CONTROL REQUIREMENTS.
- ALL WORK WITHIN PUBLIC RIGHT-OF-WAY OR EASEMENTS REQUIRE AN ENCROACHMENT PERMIT BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL KEEP A SIGNED SET OF APPROVED PLANS AND A COPY OF THE ENCROACHMENT OR GRADING PERMIT ON THE JOBSITE DURING WORKING OPERATIONS.
- ALL WORK SHALL COMPLY WITH CONDITIONS ESTABLISHED BY THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD AND THE CITY.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS.
- THE CONTRACTOR SHALL RESTORE OR REPLACE IN KIND ALL EXISTING IMPROVEMENTS DISTURBED DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO PAVING, UTILITIES, STREET STRIPING, LANDSCAPING AND SIGNS.
- ALL WORK PERFORMED SHALL BE GUARANTEED FOR A ONE-YEAR PERIOD.
- ONE SACK SLURRY BACKFILL SHALL BE USED FOR ALL TRENCH CROSSINGS OF STREETS AND ALL TRENCHES WITHIN ALLEYS.
- SURVEY MONUMENTS OR ACCESSORIES TO THE SAME (TIE POINTS) SHALL BE PRESERVED, REFERENCED AND/OR REPLACED PURSUANT TO SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE, OF THE STATE OF CALIFORNIA. EXISTING SURVEY MONUMENTS AND THEIR ACCESSORIES IN DANGER OF BEING DISTURBED, COVERED, DAMAGED OR OTHERWISE OBLITERATED SHALL HAVE A CORNER RECORD FILED WITH THE ORANGE COUNTY SURVEYOR AND THE LOCAL AGENCY PRIOR TO CONSTRUCTION. IN ADDITION A CORNER RECORD SHALL BE FILED WITH THE ORANGE COUNTY SURVEYOR'S OFFICE AND THE LOCAL AGENCY PRIOR TO THE CERTIFICATE OF COMPLETION (PUBLIC WORKS INSPECTOR'S SIGN OFF) IF THE CHARACTER OF THE MONUMENT OR ACCESSORY TO THE SAME HAS BEEN AFFECTED.
- TEMPORARY MONUMENTS SET TO ESTABLISH LINES OF CONTROL, OWNERSHIP, EASEMENTS SUBDIVISION OR TRACT BOUNDARIES OR SET AS A DIRECT REFERENCE TO THE SAME SHALL NOT BE ACCEPTED. PERMANENT MONUMENTS WHICH COMPLY WITH SECTION 8772, OF THE BUSINESS AND PROFESSIONS CODE SHALL BE REQUIRED PRIOR TO GRADING ACTIVITIES. A COPY OF THE CORNER RECORD OR RECORD OF SURVEY, SHALL BE SUBMITTED TO THE PUBLIC WORKS INSPECTOR PRIOR TO APPROVAL OF GRADING ACTIVITIES.
- ALL USA MARKINGS SHALL BE REMOVED WITHIN 24 HOURS OF COMPLETION OF THE WORK.

TRAFFIC CONTROL AND SAFETY

- BARRICADING AND DETOURING SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CURRENT STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES, AND SHALL BE APPROVED BY THE INSPECTOR PRIOR TO ANY WORK.
- NO STREET SHALL BE CLOSED TO TRAFFIC WITHOUT WRITTEN PERMISSION FROM THE CITY TRAFFIC ENGINEER EXCEPT WHEN DIRECTED BY LAW ENFORCEMENT OR FIRE OFFICIALS.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROVIDE FOR SMOOTH TRAFFIC FLOW AND SAFETY. ACCESS SHALL BE MAINTAINED FOR ALL PROPERTIES ADJACENT TO THE WORK.
- DETOURING OPERATIONS FOR A PERIOD OF SIX CONSECUTIVE CALENDAR DAYS, OR MORE, REQUIRE THE INSTALLATION OF TEMPORARY STREET STRIPING AND REMOVAL OF INTERFERING STRIPING BY SANDBLASTING. THE DETOURING STRIPING PLAN OR CONSTRUCTION TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR REVIEW AND APPROVAL.
- ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF THE WORK TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
- TRAFFIC CONTROL DEVICES (TCDS) SHALL REMAIN VISIBLE AND OPERATIONAL AT ALL TIMES.

GENERAL NOTES – CONTINUED

UTILITIES AND UNDERGROUND WORK

- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES HAVING FACILITIES WITHIN THE WORK AREA AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
- WHENEVER POSSIBLE, ALL UTILITY SERVICES SHALL BE INSTALLED BELOW WATER MAINS AND APPURTENANCES WITH A ONE FOOT MINIMUM CLEARANCE WHERE THE LINES CROSS. UTILITY CONDUITS (EXCLUDING SEWER AND RECLAIMED WATER), LATERALS AND SERVICES SHALL NOT BE ALLOWED WITHIN FIVE FEET OF PARALLEL WATER FACILITIES. SEPARATION OF SEWER, WATER, AND RECLAIMED WATER LINES SHALL CONFORM TO STATE OF CALIFORNIA, DEPARTMENT OF PUBLIC HEALTH STANDARDS AND CITY WATER DIVISION STANDARDS.
- ALL UTILITY SERVICES SHALL BE CONNECTED TO EXISTING METERS PRIOR TO PAVING OF STREETS.
- WATER FACILITIES AND APPURTENANCES SHALL COMPLY WITH CITY WATER DIVISION STANDARDS AND SPECIFICATIONS AND SHALL BE INSPECTED.
- ALL REQUIRED WATER FACILITIES INCLUDING FIRE HYDRANTS AND APPURTENANCES SHALL BE ACCESSIBLE AND FULLY OPERATIONAL PRIOR TO CONSTRUCTING ANY PERMANENT STRUCTURE USING COMBUSTIBLE MATERIALS.
- ALL UTILITY SERVICE LINES SHALL HAVE A LOCATION IDENTITY MARKING ON THE TOP OF CURB (I.E. "S" FOR SEWER, "G" FOR GAS, "W" FOR WATER).
- BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90% IN THE UPPER THREE FEET, MEASURED FROM THE PAVEMENT SURFACE, OR FROM FINISH GRADE WHERE THERE IS NO PAVEMENT. COMPACTION SHALL BE VERIFIED BY A SOILS REPORT PREPARED BY A REGISTERED ENGINEER.
- TRENCH RESURFACING AND SIDEWALK REPLACEMENT SHALL BE COMPLETED AS SOON AS POSSIBLE, BUT NO LATER THAN FIVE WORKING DAYS AFTER SUBGRADE COMPACTION HAS BEEN COMPLETED.
- ALL UTILITIES SHALL BE BORED UNDER ARTERIAL HIGHWAYS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- NO STREET SHALL BE OPEN-CUT IF PAVED OR SEALED WITHIN THE PREVIOUS THREE YEARS, EXCEPT AS ALLOWED IN HBMC CHAPTER 12.13. SUCH OPEN CUTS SHALL BE SLURRY SEALED, TYPE 1, TO THE LIMITS REQUIRED BY THE CITY ENGINEER.
- ALL EXISTING STREET LIGHTING APPURTENANCES SHALL BE PROTECTED IN PLACE UNLESS CONSTRUCTION PLANS NOTE OTHERWISE. DISRUPTED OR DAMAGED STREET LIGHTING SYSTEMS SHALL BE REPAIRED OR REPLACED TO THE CURRENT PUBLIC WORKS DEPARTMENT STANDARDS AS DIRECTED BY THE TRANSPORTATION MANAGER. DAMAGED CITY OWNED STREET LIGHT CONDUIT OR CABLE SHALL BE REPLACED FROM POLE TO POLE. SOUTHERN CALIFORNIA EDISON COMPANY OWNED STREET LIGHT CABLE AND CONDUIT SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF S.C.E.
- ALL STREETS THAT ARE SLURRY SEALED, FOG SEALED, OR CHIP SEALED SHALL HAVE ALL EXISTING STRIPING AND RAISED PAVEMENT MARKERS SAND BLASTED PRIOR TO SEALING. STRIPING AND RAISED PAVEMENT MARKERS SHALL BE REPLACED TO THE SATISFACTION OF THE TRANSPORTATION MANAGER.
- ALL TRENCHES SHALL BE SAWCUT UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

SPECIAL REQUIREMENTS

- AFTER THE A.C. SURFACING HAS BEEN COMPLETED AT LEAST ONE WEEK, AN ASPHALTIC EMULSION SEAL COAT SHALL BE APPLIED AT THE APPROXIMATE RATE OF 0.45 GALLONS PER SQUARE YARD.
- ASPHALT CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 400 OF THE "GREEN BOOK".
- FOR ASPHALT CONCRETE THE EXACT PROPORTIONS OF AGGREGATE AND THE AMOUNT OF ASPHALT BINDER FOR EACH TYPE OF MIXTURE SHALL BE REGULATED AS DIRECTED BY THE CITY ENGINEER. HOWEVER, AS A GENERAL GUIDELINE, THE REQUIRED ASPHALT CONTENT FOR THE CITY OF HUNTINGTON BEACH ASPHALT CONCRETE MIX DESIGNS WILL BE AS FOLLOWS:

ARTERIAL HIGHWAYS	
3/4" (III-B-2) BASE COURSE	5.4%
1/2" (III-C-3) SURFACE COURSE	5.8%
NON-ARTERIAL HIGHWAYS	
3/4" (III-B-3) BASE COURSE	5.7%
1/2" (III-C-3) SURFACE COURSE	6.0%

WATER IMPROVEMENT GENERAL NOTES

- THE FOLLOWING DOCUMENTS ARE INCORPORATED INTO THESE CONTRACT DOCUMENTS BY REFERENCE.
A. CITY OF HUNTINGTON BEACH PUBLIC WORKS STANDARDS
B. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
C. STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
D. AMERICAN WATER WORKS ASSOCIATION STANDARDS
E. CALIFORNIA PLUMBING CODE
- NOTIFY PUBLIC WORKS INSPECTION OFFICE 48 HOURS BEFORE START OF WORK AT (714) 536-5431.
- ARRANGE PRECONSTRUCTION CONFERENCE WITH AFFECTED AGENCIES AND UTILITIES 48 HOURS BEFORE START OF WORK.
- EXPONE EXISTING WATER PIPES AND VERIFY HORIZONTAL AND VERTICAL LOCATION BEFORE CONSTRUCTION.
- PROVIDE ACCESS TO MAIN LINE VALVES THROUGHOUT CONSTRUCTION.
- DO NOT CUT OR MILL ASBESTOS CEMENT PIPE. WHERE JOINING EXISTING ASBESTOS CEMENT PIPE, REMOVE ENTIRE PIPE SEGMENT TO NEAREST JOINT OR SNAP ACP WITH SNAP CUTTER AND JOIN TO NEW DIP WITH A PROPERLY DIMENSIONED ADAPTER.
- PROVIDE EXTENSIONS ON VALVE STEM TOPS HAVING OVER 36 INCHES COVER. SEE STANDARD PLAN NO 612A.
- INSTALL AIR AND VACUUM VALVES PER STANDARD PLAN 611 AT HIGH POINTS OF VERTICAL DEFLECTIONS AND AT AIR TRAPS AS DEEMED NECESSARY BY A CERTIFIED WATER INSPECTOR.
- THRUST BLOCKS AND RESTRAINED JOINTS ARE REQUIRED ON ALL FITTINGS OR VALVES. TIE BARS IN THRUST BLOCKS SHALL BE #4 EPOXY COATED REBAR OR 316 STAINLESS STEEL. PROVIDE ACI STANDARD HOOKED ENDS.
- DO NOT TAP EXISTING MAINS WITHOUT A CERTIFIED WATER INSPECTOR PRESENT. PRESSURE TEST TAPPING SLEEVE IN CERTIFIED WATER INSPECTOR'S PRESENCE BEFORE TAPPING EXISTING MAIN.
- DEFECTIVE WORK SHALL BE REMOVED AND CORRECTED WITHIN 24 HOURS FOLLOWING WRITTEN NOTIFICATION BY A CERTIFIED WATER INSPECTOR.
- CITY OF HUNTINGTON BEACH WORK PRIOR TO ACCEPTANCE WILL BE LIMITED TO PLAN REVIEW AND CONSTRUCTION INSPECTION. ANY ADDITIONAL WORK BY THE CITY FORCES DEEMED NECESSARY BY CERTIFIED WATER INSPECTORS TO ENSURE COMPLIANCE WITH CITY STANDARDS WILL BE BACKCHARGED TO THE CONTRACTOR. FINAL ACCEPTANCE WILL NOT OCCUR UNTIL REIMBURSEMENT IS RECEIVED.
- FINAL ACCEPTANCE WILL NOT OCCUR UNTIL ORIGINAL RECORD DRAWINGS ON MYLAR AND AUTOCAD 2010 ARE DELIVERED TO AND ACCEPTED BY THE CERTIFIED WATER INSPECTOR. SHOW ALL FIELD CHANGES ON RECORD DRAWINGS.
- FOR SHUTDOWNS LONGER THAN 6 HOURS, CONTRACTOR SHALL SUBMIT A HIGHLINING PLAN TO KEEP ALL CUSTOMERS IN SERVICE. ALL COSTS ASSOCIATED WITH MAINTAINING SERVICE TO AFFECTED CUSTOMERS SHALL BE BORNE BY THE CONTRACTOR.
- ALL CONSTRUCTION OF WATER SYSTEM SHALL BE CLEARLY STAKED BY THE CONTRACTOR'S SURVEYOR AT A MINIMUM OF 50 FOOT STATIONING WHERE THERE ARE NO EXISTING CURBS.
- EXISTING WATER SERVICES FOUND WITHIN A DRIVEWAY SHALL BE REMOVED COMPLETELY AND REINSTALLED AT THE PROPER LOCATION, PER STANDARD PLAN 600, SHEET 1 OF 8, AT NO COST TO THE CITY.
- PRIOR TO INCORPORATING A NEW MAINLINE INTO THE CITY'S WATER DISTRIBUTION SYSTEM, THE NEW MAIN SHALL BE TESTED PER SPECIFICATION 02516.
- WATER SYSTEM IMPROVEMENTS SHALL BE INSTALLED ONLY IN LOCATIONS WHERE THE LOW MOLECULAR WEIGHT VOLATILE ORGANIC COMPOUND (VOC) DO NOT EXCEED TWENTY PARTS PER MILLION. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY THE PUBLIC WORKS INSPECTOR WITH A CONFIRMATION LETTER FROM THE CITY FIRE DEPARTMENT VERIFYING THE VOC CONCENTRATIONS ARE IN CONFORMANCE WITH CITY REQUIREMENTS.
- ANY PUBLIC WATER SYSTEM IMPROVEMENTS LOCATED IN AN AREA CONTAINING REMEDIATED SOILS (I.e. >20ppm VOC's) SHALL USE SOFT COPPER TYPE "K" TUBING FOR ALL WATER SERVICES.
- FIELD TESTING OF SOILS WHERE FACILITIES ARE TO BE INSTALLED MAY BE REQUIRED BY THE CITY'S CERTIFIED WATER INSPECTOR. TESTING SHALL BE PERFORMED BY A SPECIALTY LABORATORY APPROVED BY THE PUBLIC WORKS DEPARTMENT, IN LOCATIONS DETERMINED BY THE INSPECTOR.
- THE CONTRACTOR SHALL CONSTRUCT TEMPORARY BLOW OFF VALVES ON BOTH ENDS OF NEW MAINS AS REQUIRED FOR TESTING PURPOSES. CONSULT WITH CERTIFIED WATER INSPECTOR TO WAIVE THIS REQUIREMENT ON A CASE BY CASE BASIS. REFER TO SECTION 02516 OF CITY SPECIFICATIONS.
- DISINFECTION AND FLUSHING PLANS SHALL BE SUBMITTED TO THE CERTIFIED WATER INSPECTOR. DISINFECTION AND FLUSHING PLANS SHALL BE SUBMITTED 5 WORKING DAYS PRIOR TO COMMENCEMENT.
- ALL NUTS AND BOLTS OF BURIED PIPE FITTINGS SHALL BE COATED WITH NO-OX-ID
"A" SPECIAL WW GREASE AND PROTECTIVE WRAP.

WATER IMPROVEMENT GENERAL NOTES – CONTINUED

- TRENCH PLATES SHALL BE FLUSH WITH PAVEMENT WHEN USED ON CITY COLLECTOR OR ARTERIAL STREETS OR AS DIRECTED BY INSPECTOR.
- WATER SERVICE MUST BE MAINTAINED TO ALL CUSTOMERS WITHIN THE CONSTRUCTION AREA AT ALL TIMES. IF THE PRIMARY SOURCE OF WATER IS INTERRUPTED, A TEMPORARY SECONDARY SOURCE SHALL BE SUPPLIED BY THE CONTRACTOR APPROVED BY THE PUBLIC WORKS DEPARTMENT. ANY EXPENDITURES INCIDENTAL THERE TO SHALL BE BORNE BY THE CONTRACTOR.
- ACP SHALL BE REMOVED, HANDLED, AND DISPOSED OF IN A MANNER THAT KEEPS THE MATERIAL IN A NON-FRIABLE CONDITION. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSABLE OF ALL ACP REMOVED DURING CONSTRUCTION. CONTRACTOR SHALL FOLLOW ALL STATE AND FEDERAL REGULATIONS PERTAINING TO THE PROPER HANDLING, REMOVAL AND DISPOSAL OF ACP AND SHALL BEAR ANY EXPENSES FOR HANDLING, REMOVAL, DISPOSAL, AND REMEDIAL CLEANUP ACTIVITIES. CONTRACTOR SHALL PROVIDE THE PUBLIC WORKS DEPARTMENT WITH THE MANIFEST OF PROPER ACP DISPOSAL.

TRENCH REPAIR AND DEWATERING NOTES

- FOR ALL STREETS IN EDWARDS / VARSITY TRACT, DUE TO THE PRESENCE OF GROUNDWATER IN SOIL BORINGS PER GEOTECH REPORT INCLUDED IN THE PROJECT SPECIFICATIONS, THE PIPE SAND BEDDING ENVELOPE PER CITY STD PLAN 606A SHALL ADDITIONALLY BE WRAPPED IN GEOTEXTILE FABRIC, MIRAFI 140N OR EQUIVALENT WITH 6" MINIMUM OVERLAP AT THE TOP.
- FOR ALL STREETS IN EDWARDS / VARSITY TRACT, ADDITIONALLY APPLY TACK COAT AND INSTALL PETROMAT 4598 GEOSYNTHETIC PAVING FABRIC PER MANUFACTURER'S RECOMMENDATIONS, AFTER GRINDING BUT BEFORE OVERLAY.
- ANY SOFT AND/OR UNSTABLE MATERIAL ENCOUNTERED AT PIPE INVERT SHOULD BE REMOVED AND REPLACED WITH A PROPERLY COMPACTED FILL OR AN ADEQUATE BEDDING MATERIAL.
- WITH THE MOISTURE CONTENTS MEASURED IN SOME SITE SOILS EXCEEDINGLY HIGHER THAN THE CORRESPONDING OPTIMUM MOISTURE CONTENTS, ANY PLANNED RE-USE OF THESE VERY MOIST TO WET SOILS FOR TRENCH BACKFILL WILL REQUIRE SPECIAL BLENDING WITH SUITABLE DRY SOILS AND/OR AIR DRYING, OR OTHER ALTERNATIVES APPROVED BY THE GEOTECHNICAL CONSULTANT, IN ORDER TO ACHIEVE ACCEPTABLE SOIL MOISTURE CONTENT NEAR OPTIMUM MOISTURE CONTENT TO PERMIT RECOMPACTION OF THESE SOILS TO A MINIMUM 90 PERCENT RELATIVE COMPACTION PER ASTM D-1557 TEST METHOD.
- APPROVED TRENCH BACKFILL MATERIALS SHOULD BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 8-INCHES IN LOOSE THICKNESS, MOISTURE CONDITIONED TO A MINIMUM OF ONE (1) PERCENTAGE POINT ABOVE CORRESPONDING OPTIMUM MOISTURE CONTENT FOR GRANULAR, SANDY SOILS, AND A MINIMUM OF TWO (2) PERCENTAGE POINTS ABOVE CORRESPONDING OPTIMUM MOISTURE CONTENT FOR COHESIVE, CLAYEY/SILTY SOILS, AND COMPACTED TO A MINIMUM OF 90 PERCENT RELATIVE COMPACTION.
- CONTRACTOR SHALL INSTALL SUFFICIENT NUMBER OF SUMP PUMPS BELOW THE EXCAVATION BOTTOM WITHIN THE EXCAVATION PIT TO PUMP OUT THE IN-FLOWING GROUNDWATER TO MAINTAIN A RELATIVELY DRYER AND WORKABLE CONDITION TO FACILITATE THE CONSTRUCTION WORK. SUMP PUMPS MAY NEED TO MAINTAIN NON-STOP OPERATION DURING OVERNIGHT HOURS TO KEEP THE GROUNDWATER FROM FLOWING BACK IN AND RISING UP AGAIN.

REPAVEMENT SCHEDULE

STREET NAME	EXISTING PAVEMENT SECTION	PROPOSED PAVEMENT SECTION	ADDITIONAL PROPOSED WORK
EDWARDS ST	12"AC/7.5"AB	12"AC/12"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
BALMORAL DR	5.5"AC/6.5"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
SCOTIA CIR	4"AC/7"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
CALEDONIA CIR	4.8"AC/6"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
SKYE LN	5"AC/7.5"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
BRAEMAR DR	5"AC/7"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
HIGHLAND LN, VARSITY DR	3.5"AC/21"AB	6"AC/18"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
ORKNEY CIR	4.3"AC/6.5"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., PETROMAT, FULL WIDTH SLURRY SEAL
GLEADA LN, STERLING DR	3"AC/3.5"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., FULL WIDTH SLURRY SEAL
KINER DR, LISA LN	4"AC/5"AB	6"AC/6"AB	GRIND & OVERLAY 1-1/2" MIN., FULL WIDTH SLURRY SEAL



REV.	DATE	BY	DESCRIPTION	APP'VD
1	1/2021	KCO	Amendment Prior to Bid	

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2"-SCALE ACCORDINGLY)
DESIGNED: RB
DRAWN: RB
CHECKED: MK
DATE:

UTIL. DIV.	REVIEWED BY	DATE
TRAFFIC	BAR	6/3/20
ENG. SERVICES		
STREET DESIGN		
MAINTENANCE		
RIGHT-OF-WAY		
P.T. & L		
CONSTRUCTION		



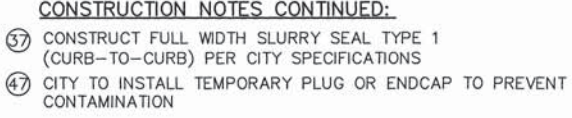
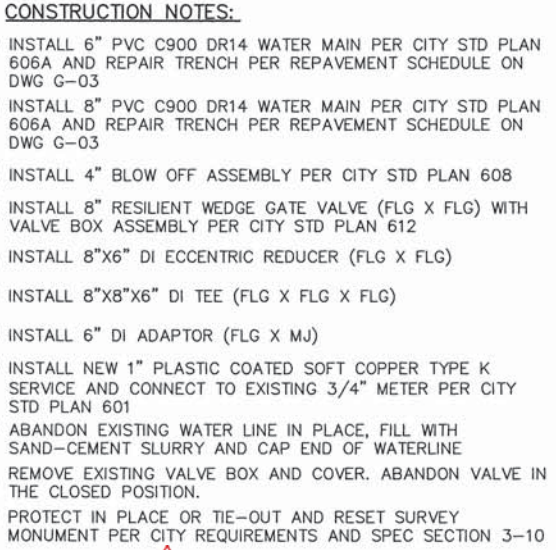
PREPARED UNDER THE SUPERVISION OF:	DATE
MURTHY KADIVALA, PE, PLS, CIVIL ENGR	5/21/20
R.C.E. NO. C73472	EXP. DATE: 12/31/20
APPROVED BY:	DATE
ANDREW FERRIGNO, P.E., PRINCIPAL ENGR	6-03-2020
R.C.E. NO. C65719	EXP. DATE: 09/30/21



EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
GENERAL NOTES AND
CONSTRUCTION NOTES

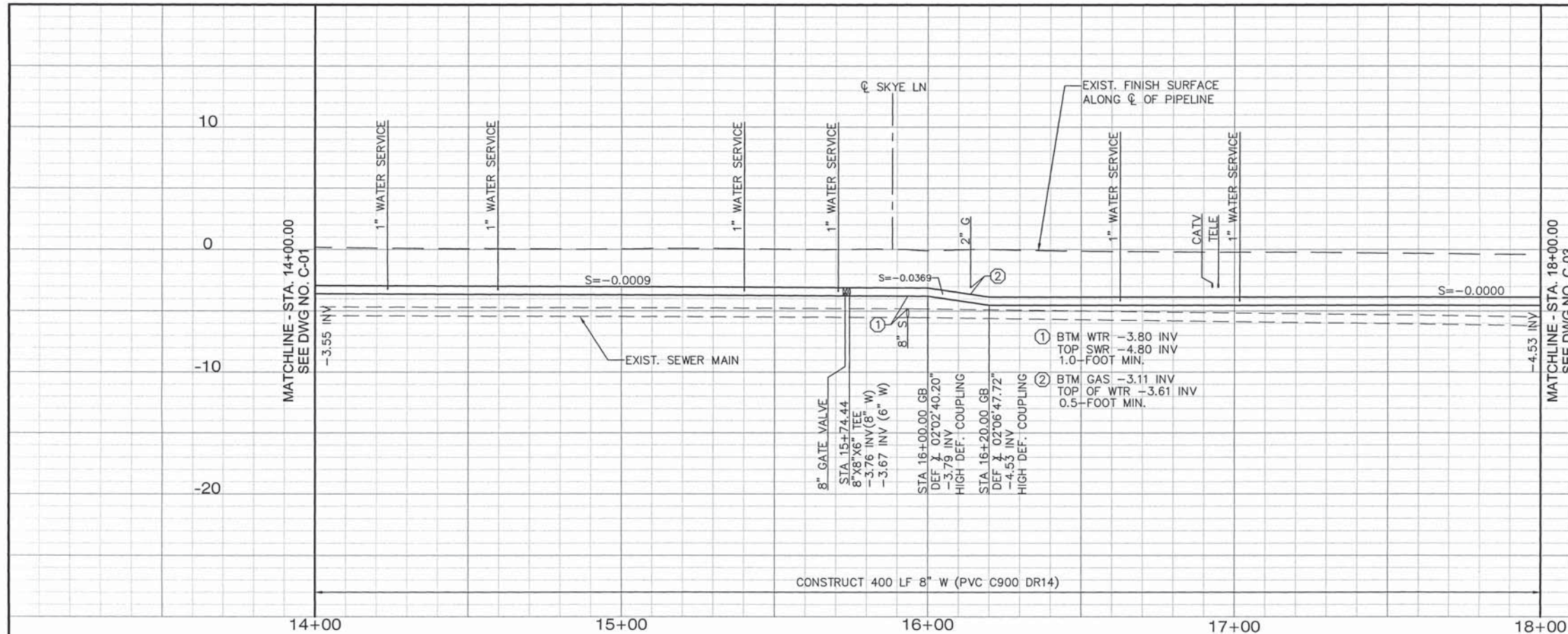
DRAWING NO.
G-03
SHEET NO.
3 OF 18

PROJECT C. C. NO. 1558



WATER MAIN DATA		
LINE #	LENGTH	DIRECTION
L1	278.64	N89° 29' 04"W
L2	121.36	N89° 29' 04"W

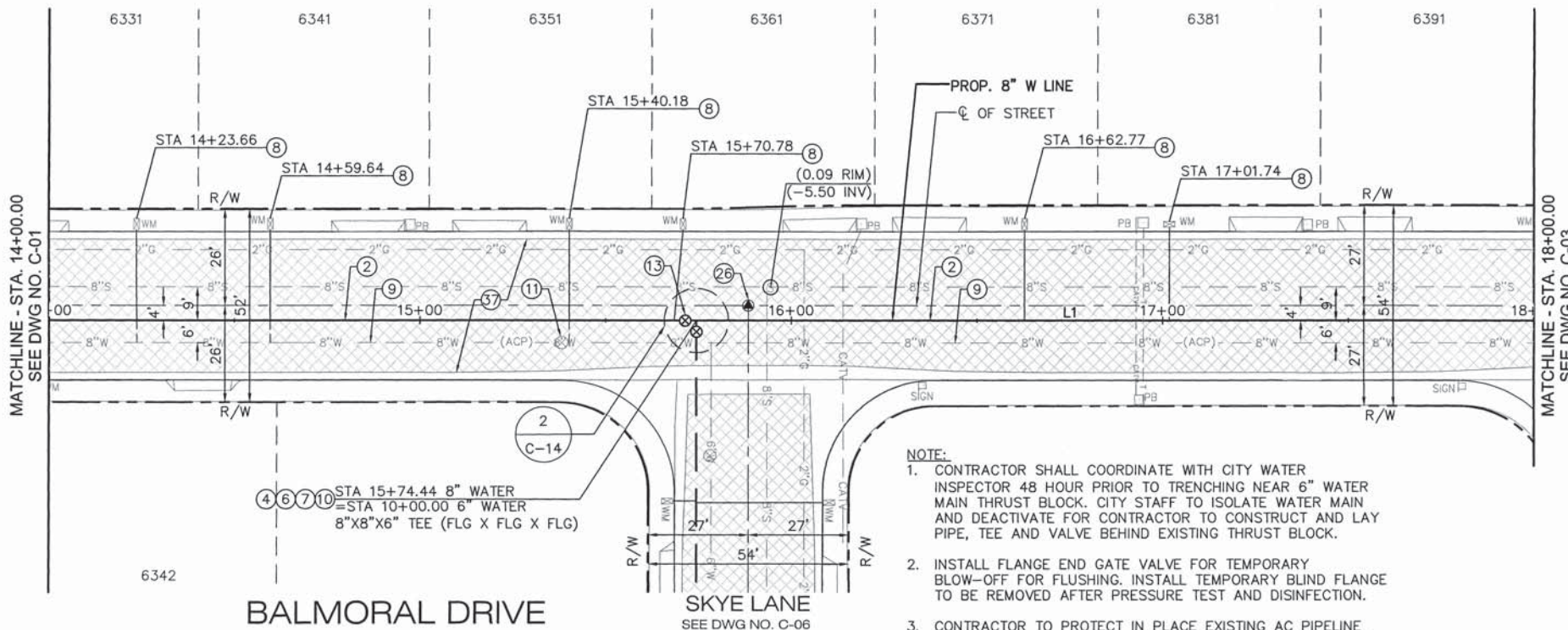
DWG: J:\PROJ\1149 City of HB On Coll\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C02.dwg
DATE: May 29, 2020 1:30pm



MATCHLINE - STA. 18+00.00
SEE DWG NO. C-03

MATCHLINE - STA. 14+00.00
SEE DWG NO. C-01

SCALE: HOR. 1"=20'
VERT. 1"=5'



NOTICE TO CONTRACTOR

1. THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
2. PROTECT IN PLACE ALL EXISTING GAS METER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE GAS COMPANY FOR RELOCATION.
3. PROTECT IN PLACE ALL SEWER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO REMOVE AND RECONSTRUCT INTERFERING PORTIONS AFTER NOTIFYING CITY OF HUNTINGTON BEACH.
4. SEWER AND GAS SERVICE LATERALS MAY OR MAY NOT BE SHOWN ON THESE PLANS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.

CONSTRUCTION NOTES:

2. INSTALL 8" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
4. INSTALL 8" RESILIENT WEDGE GATE VALVE (FLG X FLG) WITH VALVE BOX ASSEMBLY PER CITY STD PLAN 612
6. INSTALL 8"x8"x6" DI TEE (FLG X FLG X FLG)
7. INSTALL 6" DI ADAPTOR (FLG X MJ)
8. INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
9. ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
10. INSTALL 6" RESILIENT WEDGE GATE VALVE (FLG X FLG) WITH VALVE BOX ASSEMBLY PER CITY STD PLAN 612
11. REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
26. PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
37. CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS

NOTE:

1. CONTRACTOR SHALL COORDINATE WITH CITY WATER INSPECTOR 48 HOUR PRIOR TO TRENCHING NEAR 6" WATER MAIN THRUST BLOCK. CITY STAFF TO ISOLATE WATER MAIN AND DEACTIVATE FOR CONTRACTOR TO CONSTRUCT AND LAY PIPE, TEE AND VALVE BEHIND EXISTING THRUST BLOCK.
2. INSTALL FLANGE END GATE VALVE FOR TEMPORARY BLOW-OFF FOR FLUSHING. INSTALL TEMPORARY BLIND FLANGE TO BE REMOVED AFTER PRESSURE TEST AND DISINFECTION.
3. CONTRACTOR TO PROTECT IN PLACE EXISTING AC PIPELINE AND MAINTAIN ACTIVE DURING CONSTRUCTION. CONTRACTOR TO ENSURE THAT VALVE AND TEMPORARY BLIND FLANGE ON NEW WATER MAIN AT INTERSECTION ARE NOT RESTING AGAINST EXISTING 8" AC PIPELINE.

WATER MAIN DATA

LINE #	LENGTH	DIRECTION
L1	400	N89° 29' 04"W

BALMORAL DRIVE

SKYE LANE
SEE DWG NO. C-06



SCALE: 1" = 20'

LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3391
FAX: (626) 912-2015

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REV.	DATE	BY	DESCRIPTION	APP'D
1	1/2021	KCO	Amendment Prior to Bid	

DESIGNED:	RB
DRAWN:	RB
CHECKED:	MK
DATE:	

REVIEWED BY: **BQR**
DATE: **6/3/20**

PREPARED UNDER THE SUPERVISION OF:
MURTHY KADIVALA, P.E.
R.C.E. NO. C73472
EXP. DATE: 12/31/20

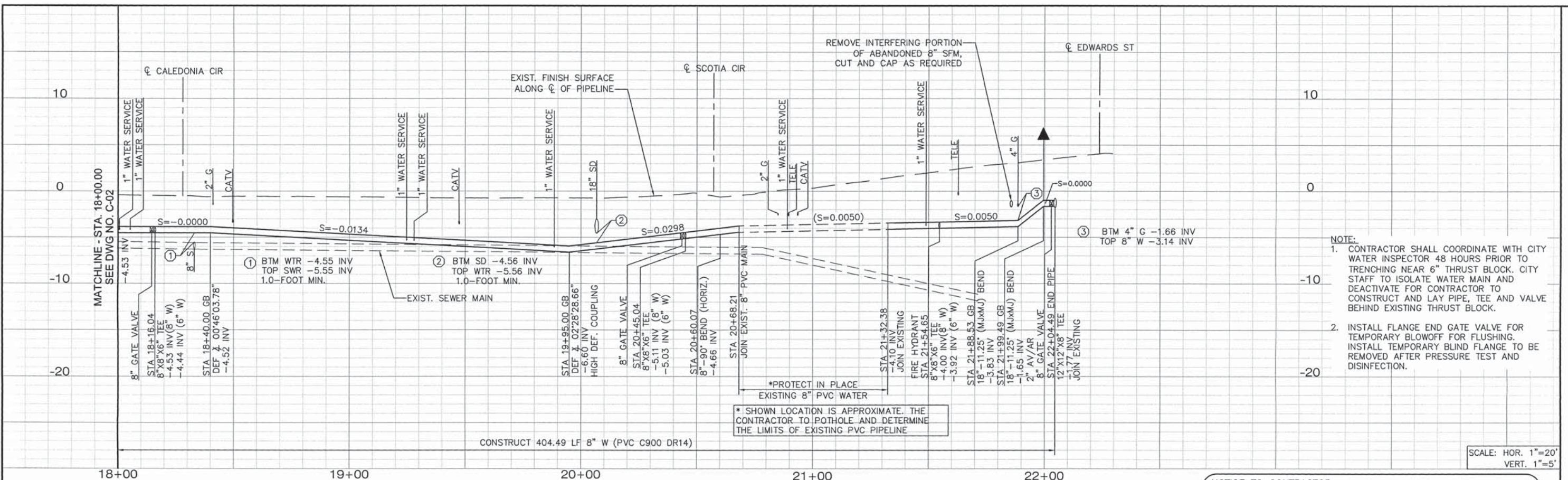
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
BALMORAL DR - PLAN AND PROFILE
STA. 14+00.00 TO STA. 18+00.00

DRAWING NO.
C-02
SHEET NO.
5 OF 18

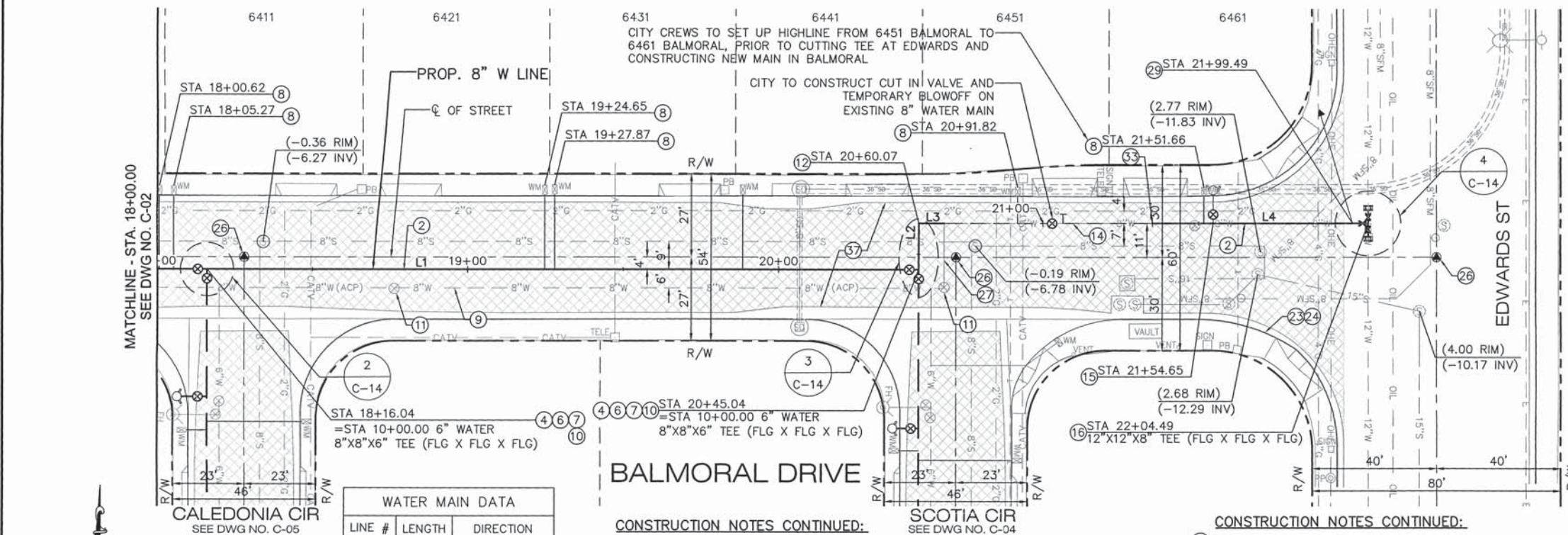
PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C03.dwg
DATE: May 29, 2020 1:31pm



- NOTE:
- CONTRACTOR SHALL COORDINATE WITH CITY WATER INSPECTOR 48 HOURS PRIOR TO TRENCHING NEAR 6" THRUST BLOCK. CITY STAFF TO ISOLATE WATER MAIN AND DEACTIVATE WATER MAIN FOR CONTRACTOR TO CONSTRUCT AND LAY PIPE, TEE AND VALVE BEHIND EXISTING THRUST BLOCK.
 - INSTALL FLANGE END GATE VALVE FOR TEMPORARY BLOWOFF FOR FLUSHING. INSTALL TEMPORARY BLIND FLANGE TO BE REMOVED AFTER PRESSURE TEST AND DISINFECTION.

SCALE: HOR. 1"=20'
VERT. 1"=5'



NOTICE TO CONTRACTOR

- THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
- PROTECT IN PLACE ALL EXISTING GAS METER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE GAS COMPANY FOR RELOCATION.
- PROTECT IN PLACE ALL SEWER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO REMOVE AND RECONSTRUCT INTERFERING PORTIONS AFTER NOTIFYING CITY OF HUNTINGTON BEACH.
- SEWER AND GAS SERVICE LATERALS MAY OR MAY NOT BE SHOWN ON THESE PLANS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.

CONSTRUCTION NOTES:

- INSTALL 8" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
- INSTALL 8" RESILIENT WEDGE GATE VALVE (FLG X FLG) WITH VALVE BOX ASSEMBLY PER CITY STD PLAN 612
- INSTALL 8"x8"x6" DI TEE (FLG X FLG X FLG)
- INSTALL 6" DI ADAPTOR (FLG X MJ)
- INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
- ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
- INSTALL 6" RESILIENT WEDGE GATE VALVE (FLG X FLG) WITH VALVE BOX ASSEMBLY PER CITY STD PLAN 612
- REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
- INSTALL 8"-90" DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
- INSTALL 8"-45" DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
- PROTECT IN PLACE EXISTING WATER MAIN
- INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT
- INSTALL 12"x12"x8" DI TEE (FLG X FLG X FLG)

CONSTRUCTION NOTES CONTINUED:

- REPLACE IN KIND ANY DAMAGED CURB & GUTTER FROM NEAREST EXPANSION JOINTS PER CITY STD PLAN 202
- REPLACE IN KIND ANY DAMAGED SIDEWALK FROM NEAREST EXPANSION JOINTS PER CITY STD PLAN 202
- PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
- REMOVE AND DISPOSE INTERFERING PORTIONS

BALMORAL DRIVE

CONSTRUCTION NOTES CONTINUED:

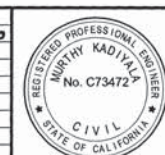
- INSTALL 2" AIR AND VACUUM RELEASE VALVE ASSEMBLY, WITH 2" PLASTIC COATED COPPER SERVICE, PER CITY STD PLAN 611
- CONNECT TO EXISTING PIPE WITH TRANSITION COUPLING
- CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS

WATER MAIN DATA		
LINE #	LENGTH	DIRECTION
L1	245.04	N89° 29' 04"W
L2	15.02	N00° 40' 26"E
L3	8.14	S89° 19' 34"W
L4	69.34	S89° 29' 04"E

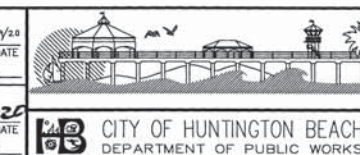


REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'D
1	1/2021	KCO	Amendment Prior to Bid	

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2"=SCALE ACCORDINGLY)	
DESIGNED:	RB
DRAWN:	RB
CHECKED:	MK
DATE:	



PREPARED UNDER THE SUPERVISION OF:	
MURTHY KADIYALA, P.E.	DATE: 6/3/20
R.C.E. No. C73472	EXP. DATE: 12/31/20
APPROVED BY:	
ANDREW FERRIGNO, P.E., PRINCIPAL ENGINEER	DATE: 06-03-2020
R.C.E. No. C65719	EXP. DATE: 09/30/21

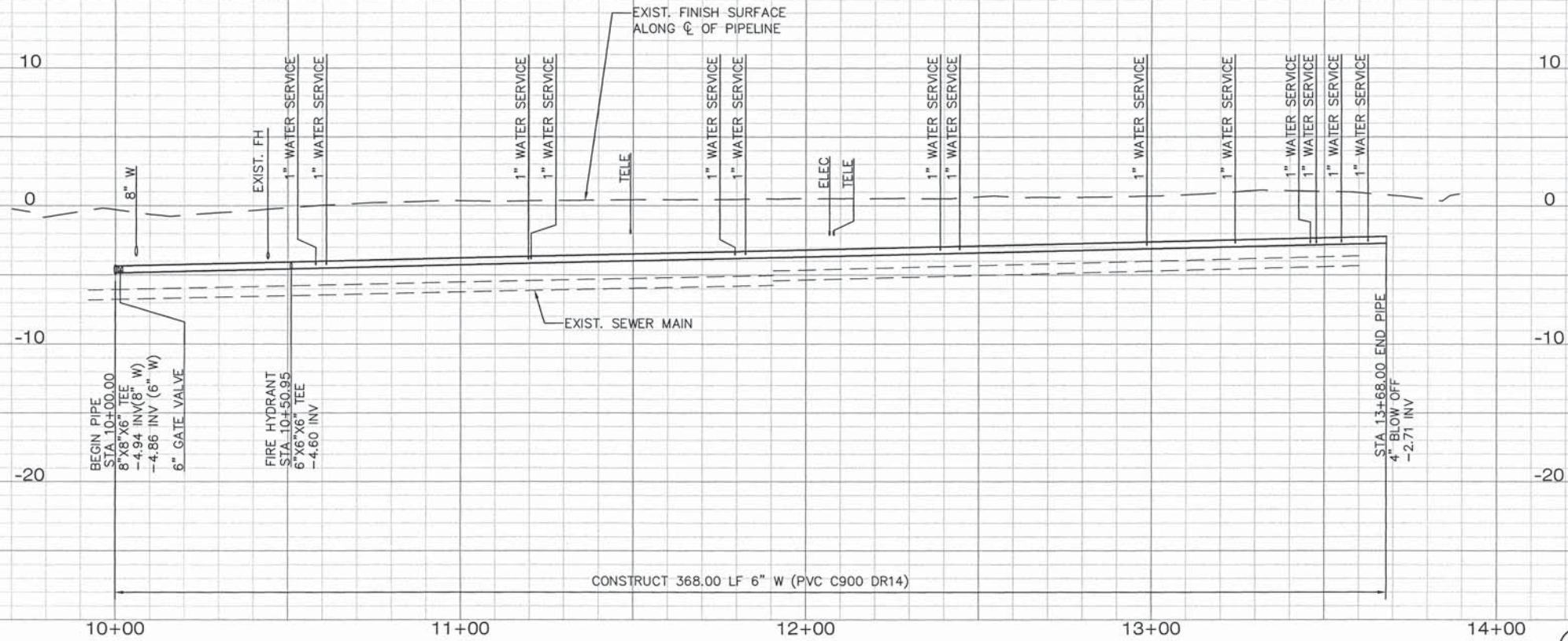


EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
BALMORAL DR - PLAN AND PROFILE
STA. 18+00.00 TO STA. 22+01.72

DRAWING NO.
C-03
SHEET NO.
6 OF 18

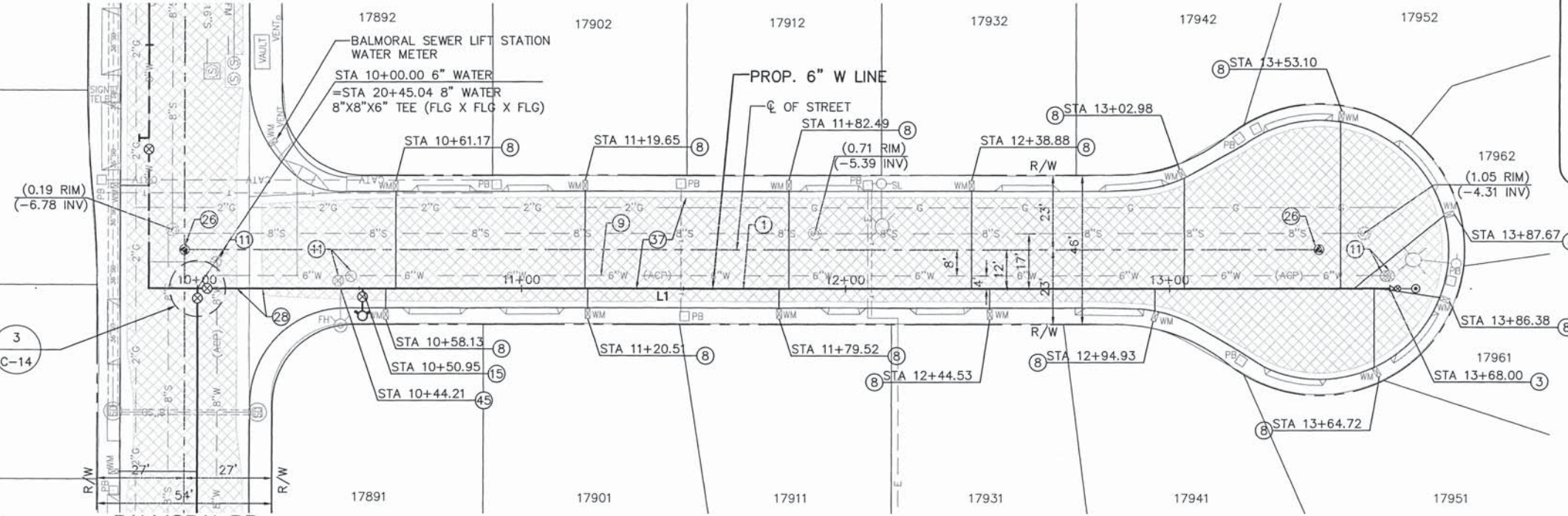
PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C04.dwg
DATE: May 29, 2020 1:32pm



SCALE: HOR. 1"=20'
VERT. 1"=5'

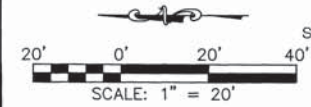
BALMORAL DR
SEE DWG NO. C-01 TO C-03



WATER MAIN DATA		
L1	368.00	S00° 30' 24"W

- NOTICE TO CONTRACTOR**
1. THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
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- CONSTRUCTION NOTES:**
1. INSTALL 6" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
 3. INSTALL 4" BLOW OFF ASSEMBLY PER CITY STD PLAN 608
 8. INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
 9. ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
 11. REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
 15. INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT
 26. PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
 28. REPLACE IN KIND ANY DAMAGED CROSS GUTTER FROM NEAREST JOINT PER CITY STD PLAN 205
 37. CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS
 45. TEMPORARILY REALIGN FIRE HYDRANT LATERAL DURING CONSTRUCTION PER DETAIL 9 ON DWG C-15



LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3391
FAX: (626) 912-2015

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below.
Call before you dig.
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'D
1	1/2021	KCO	Amendment Prior to Bid	

DESIGNED:	RB
DRAWN:	RB
CHECKED:	MK
DATE:	

REVIEWED BY: **BAR** DATE: **6/2/20**

PREPARED UNDER THE SUPERVISION OF:
MURTHY KADIVALA, P.E.
R.C.E. NO. C73472
EXP. DATE: 12/31/20

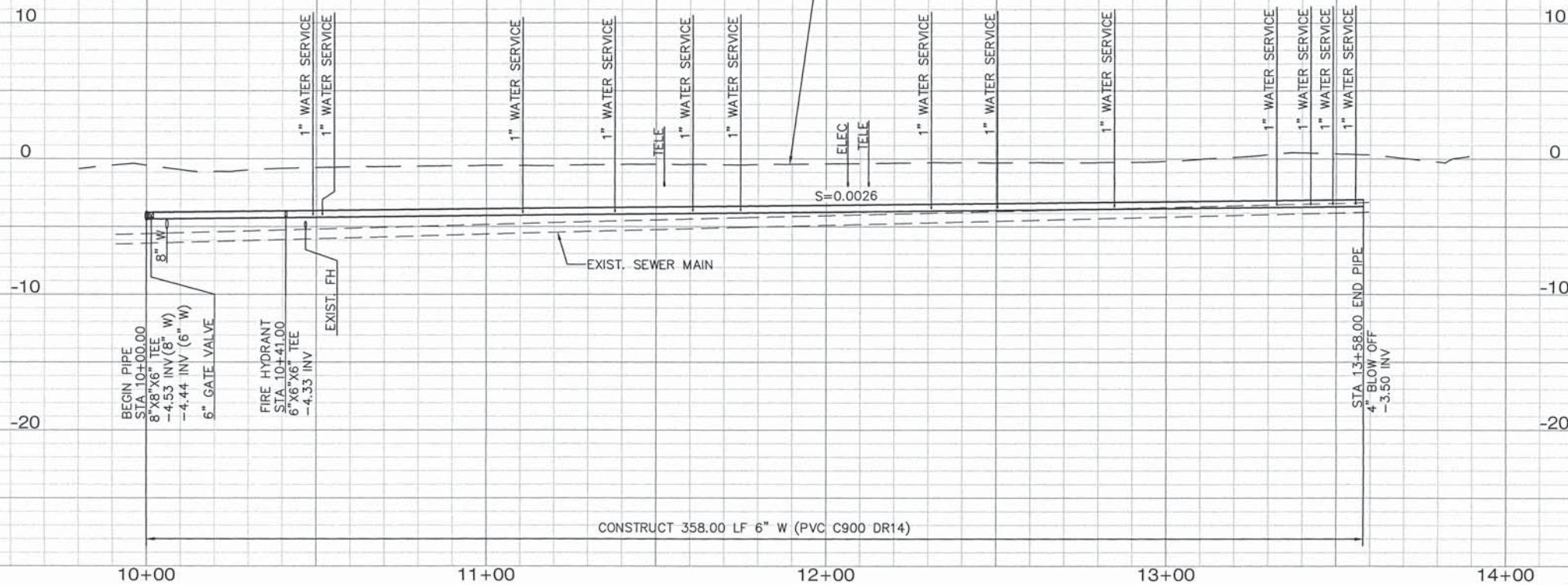
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
SCOTIA CIR - PLAN AND PROFILE
STA. 10+00.00 TO STA. 13+68.00

DRAWING NO.
C-04
SHEET NO.
7 OF 18

PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C05.dwg
DATE: May 29, 2020 1:33pm



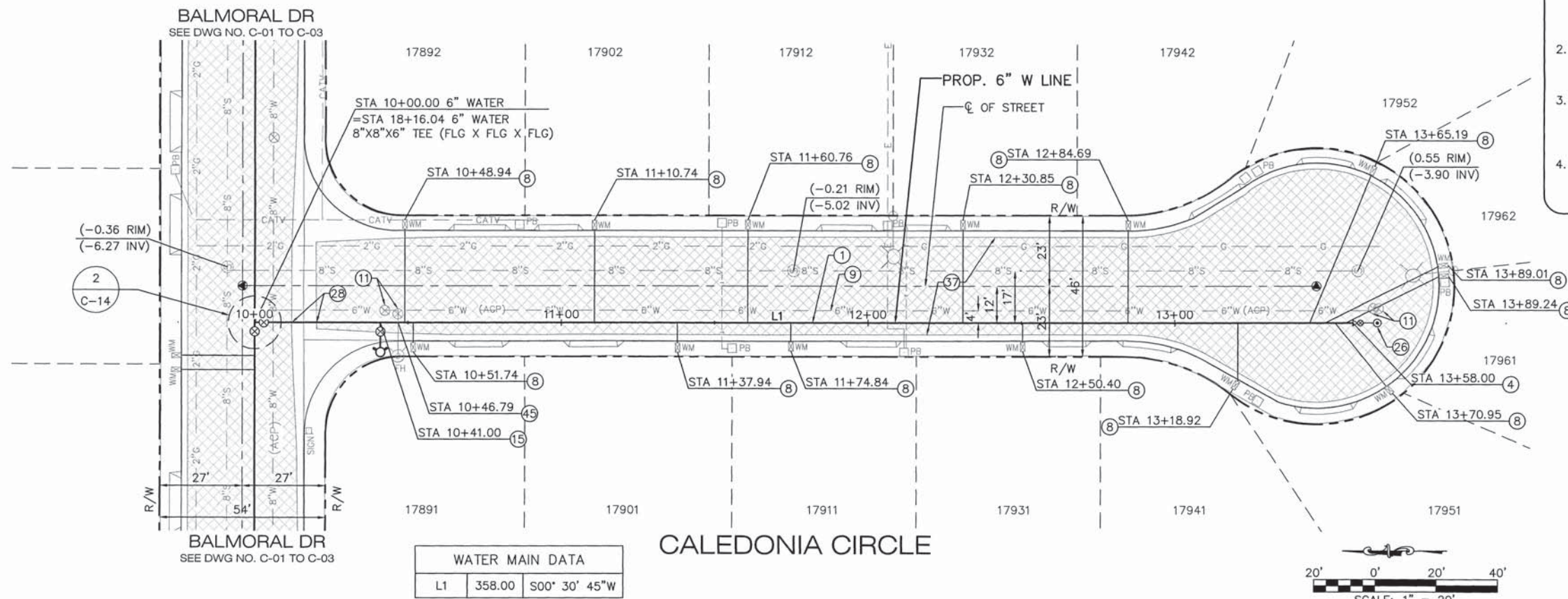
SCALE: HOR. 1"=20'
VERT. 1"=5'

NOTICE TO CONTRACTOR

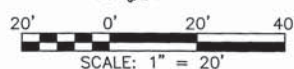
1. THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
2. PROTECT IN PLACE ALL EXISTING GAS METER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE GAS COMPANY FOR RELOCATION.
3. PROTECT IN PLACE ALL SEWER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO REMOVE AND RECONSTRUCT INTERFERING PORTIONS AFTER NOTIFYING CITY OF HUNTINGTON BEACH.
4. SEWER AND GAS SERVICE LATERALS MAY OR MAY NOT BE SHOWN ON THESE PLANS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.

CONSTRUCTION NOTES:

1. INSTALL 6" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
3. INSTALL 4" BLOW OFF ASSEMBLY PER CITY STD PLAN 608
8. INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
9. ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
11. REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
15. INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT
26. PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
28. REPLACE IN KIND ANY DAMAGED CROSS GUTTER FROM NEAREST JOINT PER CITY STD PLAN 205
37. CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS
45. TEMPORARILY REALIGN FIRE HYDRANT LATERAL DURING CONSTRUCTION PER DETAIL 9 ON DWG C-15



WATER MAIN DATA	
L1	358.00 S00° 30' 45" W



REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'D
1	7/2021	KCO	Amendment Prior to Bid	

DESIGNED:	RB
DRAWN:	RB
CHECKED:	MK
DATE:	

UTIL. DIV.	TRAFFIC
ENG. SERVICES	STREET DESIGN
MAINTENANCE	RIGHT-OF-WAY
P.T. & L.	CONSTRUCTION

REVIEWED BY	DATE
BAR	6/2/20

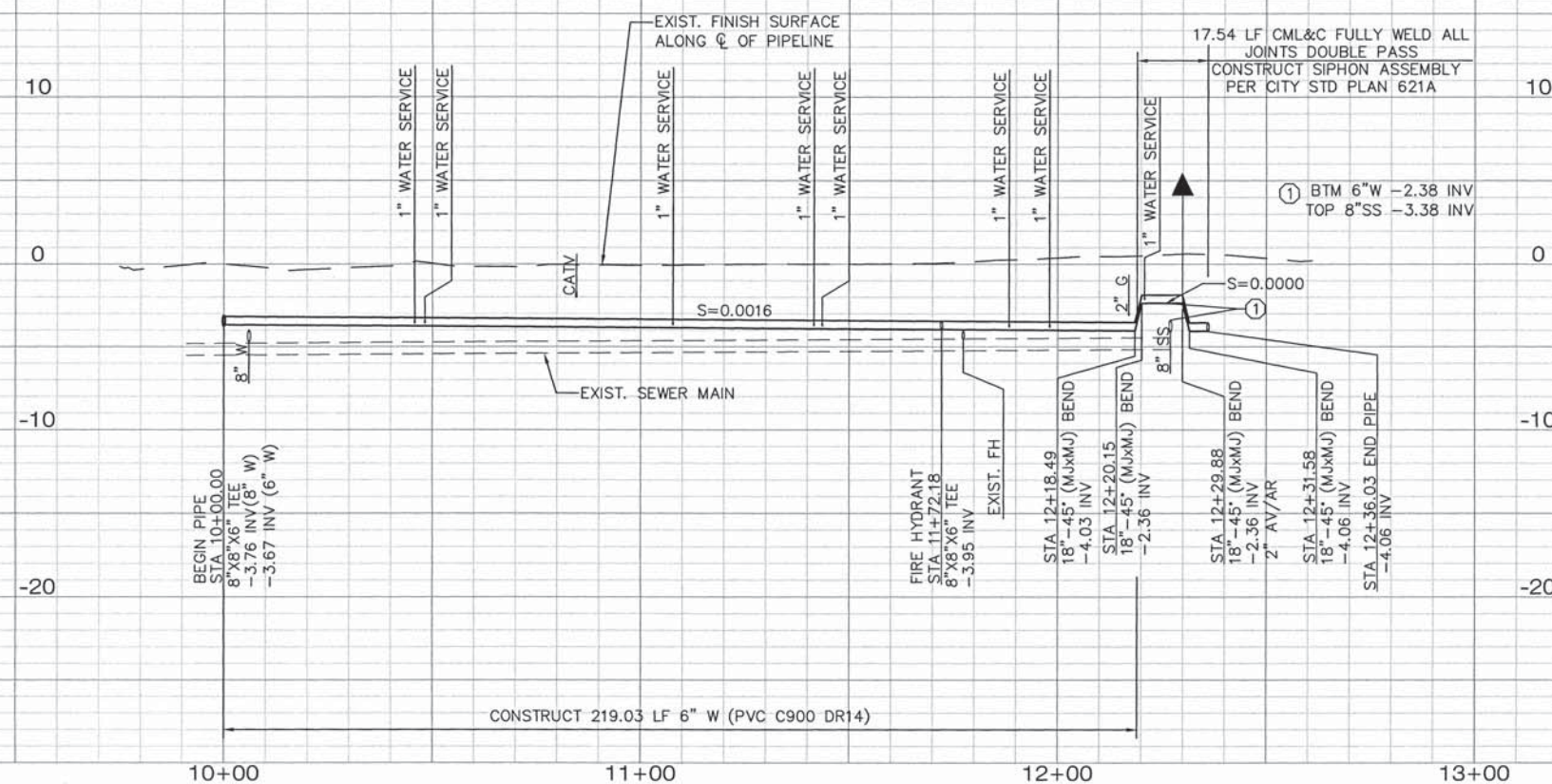
PREPARED UNDER THE SUPERVISION OF:	DATE
MURTHY KADYALA, P.E.	5/2/20
R.C.E. NO. C73472	EXP. DATE: 12/31/20
APPROVED BY:	DATE
ANDREW FERRIGNO, P.E., PRINCIPAL ENGINEER	09/30/21
R.C.E. NO. C65719	EXP. DATE: 09/30/21

EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
CALEDONIA CIR - PLAN AND PROFILE
STA. 10+00.00 TO STA. 13+58.00

DRAWING NO.
C-05
SHEET NO.
8 OF 18

PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C06.dwg
DATE: May 29, 2020 1:34pm



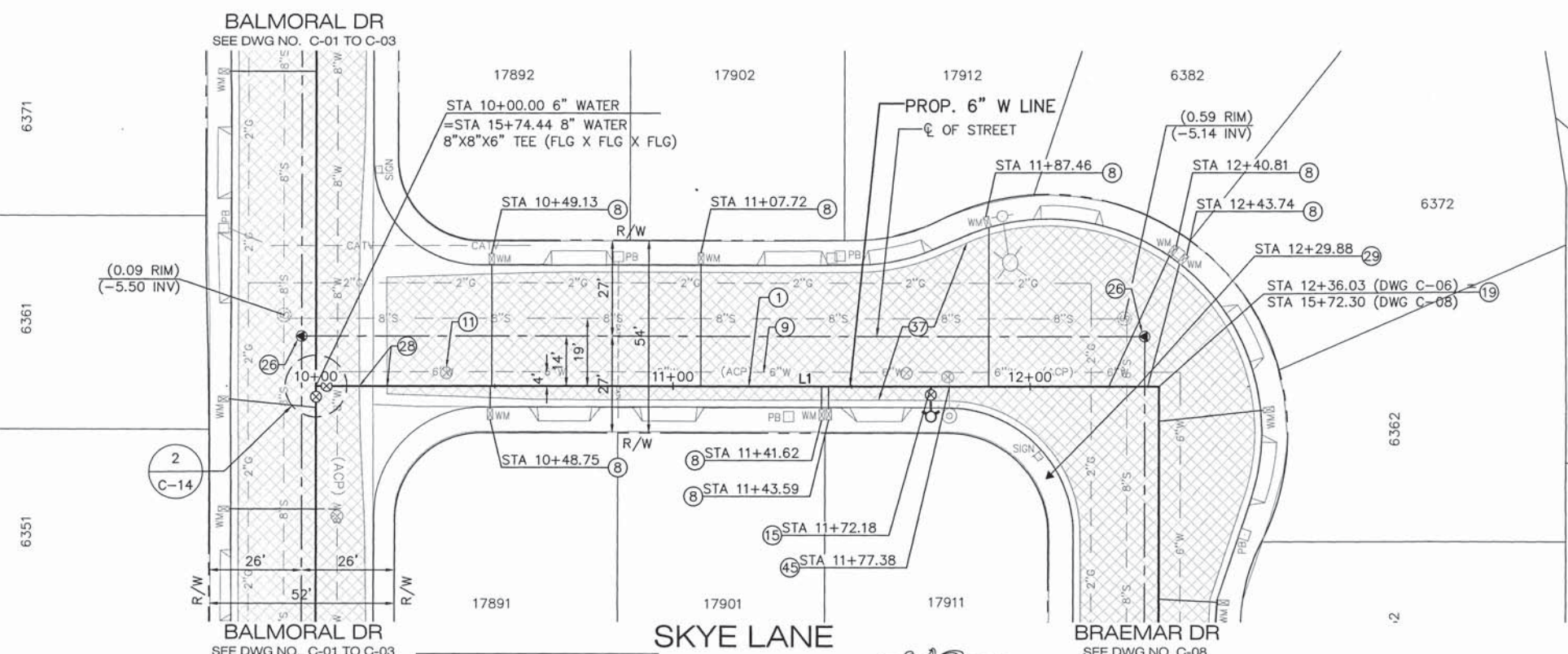
SCALE: HOR. 1"=20'
VERT. 1"=5'

NOTICE TO CONTRACTOR

1. THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
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CONSTRUCTION NOTES:

- 1) INSTALL 6" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
- 8) INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
- 9) ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
- 11) REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
- 15) INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT
- 19) INSTALL 6"-90' DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
- 26) PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
- 28) REPLACE IN KIND ANY DAMAGED CROSS GUTTER FROM NEAREST JOINT PER CITY STD PLAN 205
- 29) INSTALL 2" AIR AND VACUUM RELEASE VALVE ASSEMBLY, WITH 2" PLASTIC COATED COPPER SERVICE, PER CITY STD PLAN 611
- 37) CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS
- 45) TEMPORARILY REALIGN FIRE HYDRANT LATERAL DURING CONSTRUCTION PER DETAIL 9 ON DWG C-15

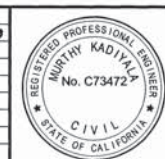


WATER MAIN DATA		
L1	236.03	S00° 30' 24"W



REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'D
1	1/2021	KCO	Amendment Prior to Bid	

DESIGNED: RB	UTIL. DIV. TRAFFIC	REVIEWED BY: BAR	DATE: 6/3/20
DRAWN: RB	ENG. SERVICES STREET DESIGN		
CHECKED: MK	MAINTENANCE RIGHT-OF-WAY		
	P.T. & L CONSTRUCTION		



PREPARED UNDER THE SUPERVISION OF:
MURTHY KADIYALA, P.E.
R.C.E. NO. C73472
EXP. DATE: 12/31/20
APPROVED BY:
ANDREW FERRIGNO, P.E., PRINCIPAL ENGINEER
R.C.E. NO. C65719
EXP. DATE: 09/30/21



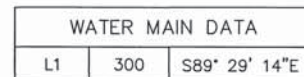
EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
SKYE LN - PLAN AND PROFILE
STA. 10+00.00 TO STA. 12+36.03

DRAWING NO.
C-06
SHEET NO.
9 OF 18

LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3391
FAX: (626) 912-2015

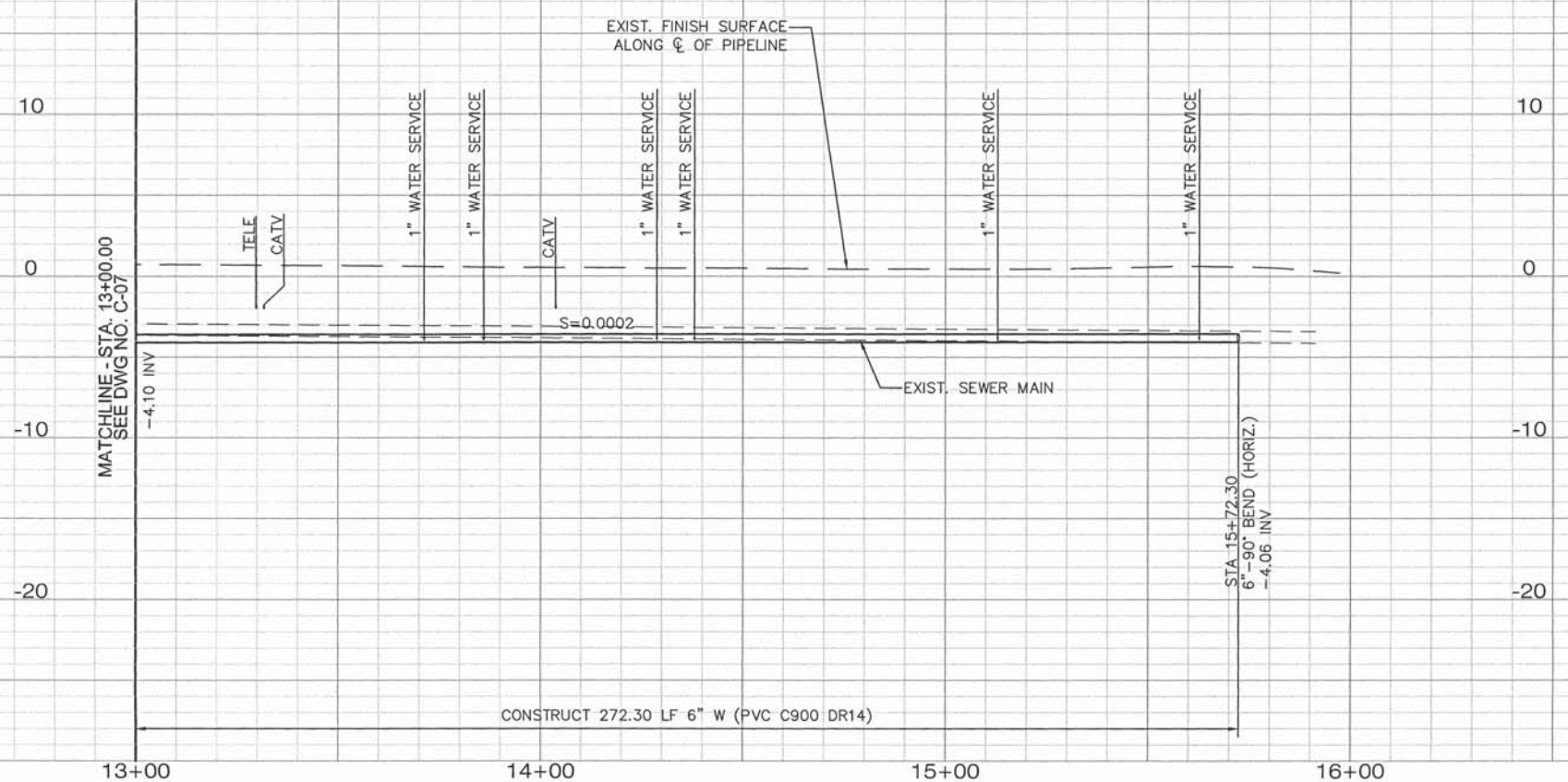


PROJECT C. C. NO. 1558

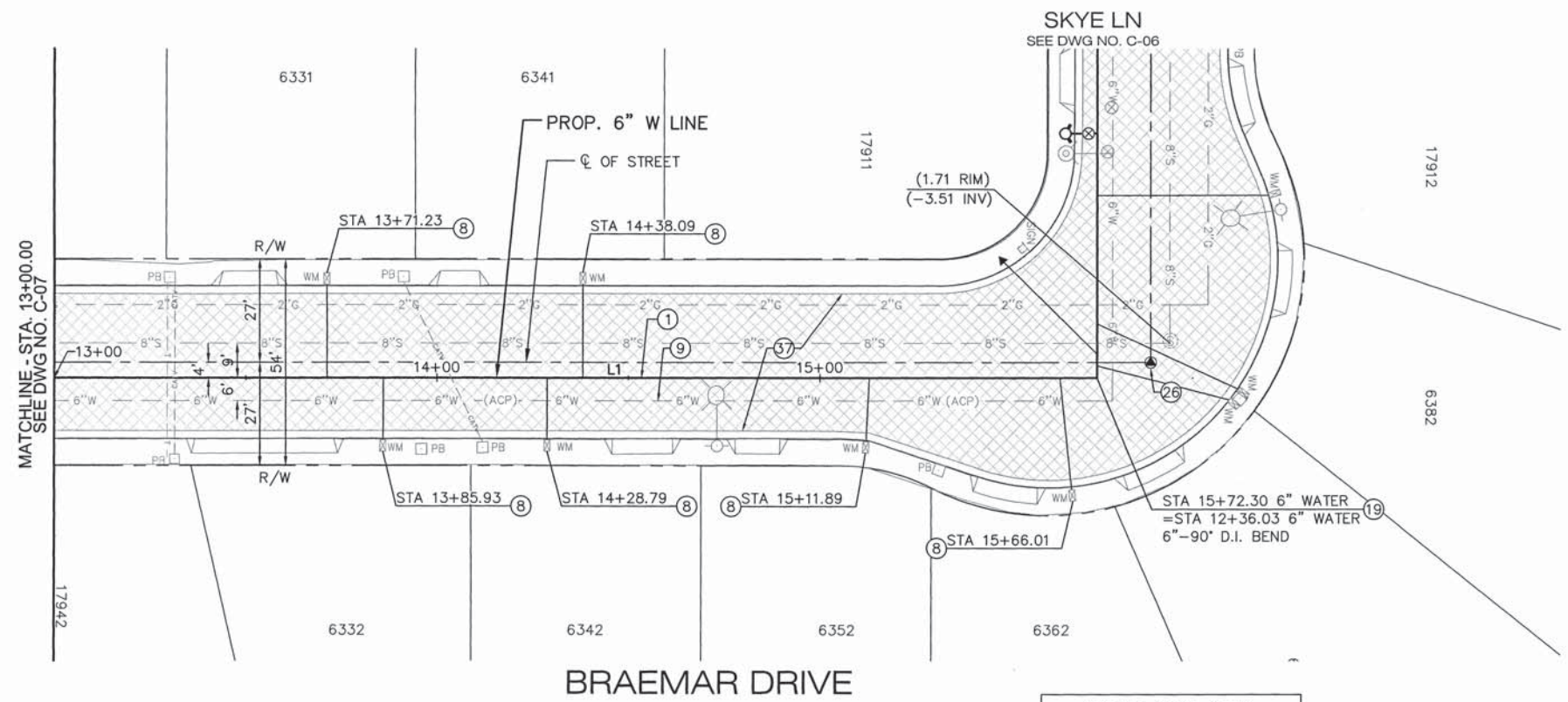


- ① INSTALL 6" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
- ⑧ INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
- ⑨ ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
- ⑩ INSTALL 6" RESILIENT WEDGE GATE VALVE (FLG X FLG) WITH VALVE BOX ASSEMBLY PER CITY STD PLAN 612
- ⑪ REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
- ⑬ INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT
- ⑮ INSTALL 6"x6"x6" DI TEE (FLG X FLG X FLG)
- ⑮ INSTALL 6"-90° DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
- ⑮ PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
- ⑮ INSTALL 2" AIR AND VACUUM RELEASE VALVE ASSEMBLY, WITH 2" PLASTIC COATED COPPER SERVICE, PER CITY STD PLAN 611
- ⑮ CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C08.dwg
DATE: May 29, 2020 1:37pm



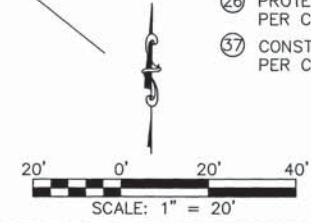
SCALE: HOR. 1"=20'
VERT. 1"=5'



- NOTICE TO CONTRACTOR**
1. THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
 2. PROTECT IN PLACE ALL EXISTING GAS METER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE GAS COMPANY FOR RELOCATION.
 3. PROTECT IN PLACE ALL SEWER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO REMOVE AND RECONSTRUCT INTERFERING PORTIONS AFTER NOTIFYING CITY OF HUNTINGTON BEACH.
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- CONSTRUCTION NOTES:**
1. INSTALL 6" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
 8. INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
 9. ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
 19. INSTALL 6"-90" DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
 26. PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
 37. CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS

WATER MAIN DATA		
L1	272.30	S89° 29' 14"E

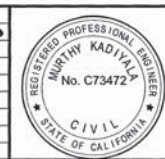


LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3391
FAX: (626) 912-2015



REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'D
1	1/2021	KCO	Amendment Prior to Bid	

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2\"/>	UTIL. DIV. TRAFFIC	DESIGNED: RB	TRAFFIC
	ENG. SERVICES	DRAWN: RB	ENG. SERVICES
	STREET DESIGN	CHECKED: MK	STREET DESIGN
	MAINTENANCE		MAINTENANCE
	RIGHT-OF-WAY		RIGHT-OF-WAY
	P.T. & L		P.T. & L
	CONSTRUCTION		CONSTRUCTION



PREPARED UNDER THE SUPERVISION OF:
MURTHY KADIVALA, P.E.
R.C.E. NO. C73472
DATE: 5/29/20
EXP. DATE: 12/31/20
APPROVED BY:
ANDREW FERRIGNO, P.E., PRINCIPAL ENGINEER
R.C.E. NO. C65719
DATE: 10-03-2020
EXP. DATE: 09/30/21

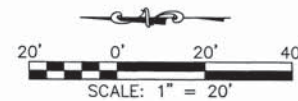


EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
BRAEMAR DR - PLAN AND PROFILE
STA. 13+00.00 TO STA. 15+80.22

DRAWING NO. **C-08**
SHEET NO. **11 OF 18**

PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C09.dwg
DATE: May 29, 2020 1:39pm

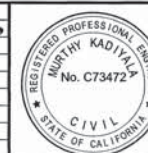


LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3591
FAX: (626) 912-2015

811
Know what's below.
Call before you dig.
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'D
1	1/2021	KCO	Amendment Prior to Bid	

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2"=SCALE ACCORDINGLY)		UTIL. DIV.	REVIEWED BY	DATE
DESIGNED:	RB	TRAFFIC	BAR	6/3/20
DRAWN:	RB	ENG. SERVICES		
CHECKED:	MK	STREET DESIGN		
DATE:		MAINTENANCE		
		RIGHT-OF-WAY		
		P.T. & L		
		CONSTRUCTION		



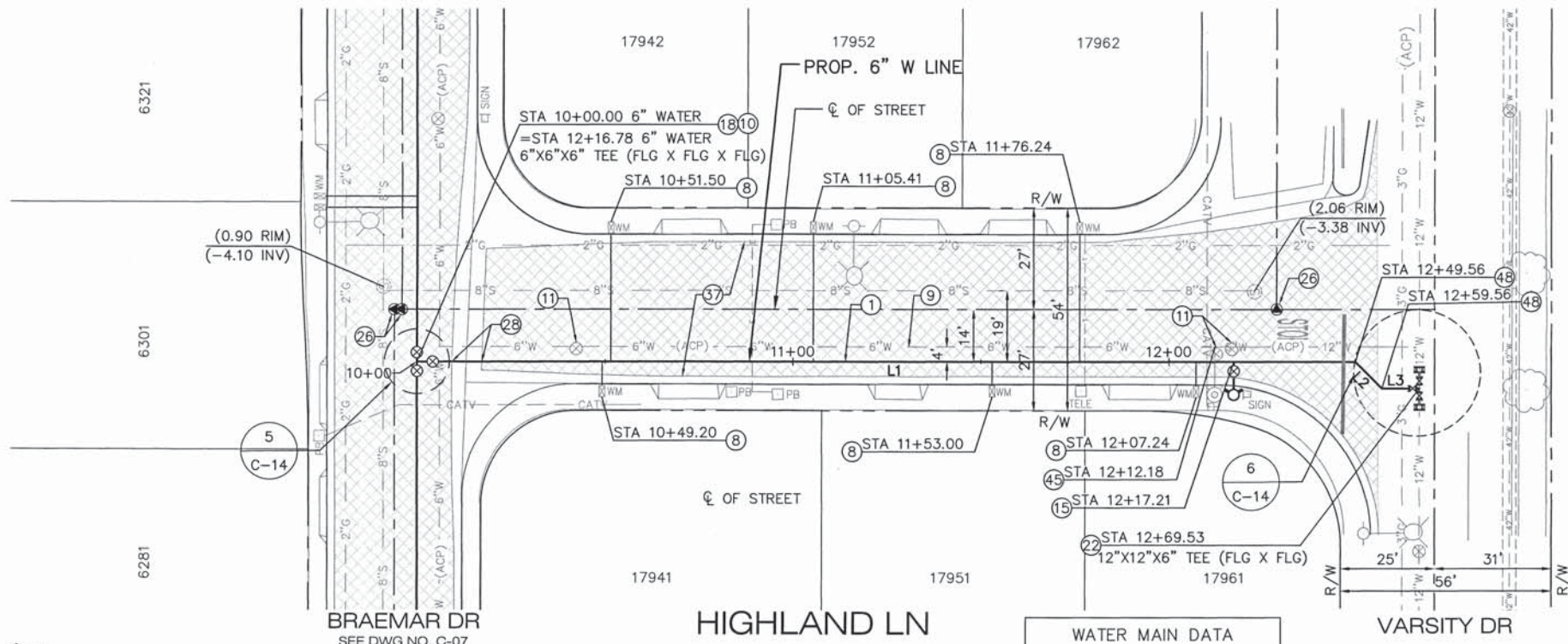
PREPARED UNDER THE SUPERVISION OF:
MURTHY KADYALA, P.E.
R.C.E. NO. C73472
EXP. DATE: 12/31/20
APPROVED BY:
Andrew Ferrigno, P.E. PRINCIPAL ENGINEER
R.C.E. NO. C65719
EXP. DATE: 09/30/21



EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
HIGHLAND LN - PLAN AND PROFILE
STA. 10+00.00 TO STA. 12+66.61

DRAWING NO.
C-09
SHEET NO.
12 OF 18

PROJECT C. C. NO. 1558



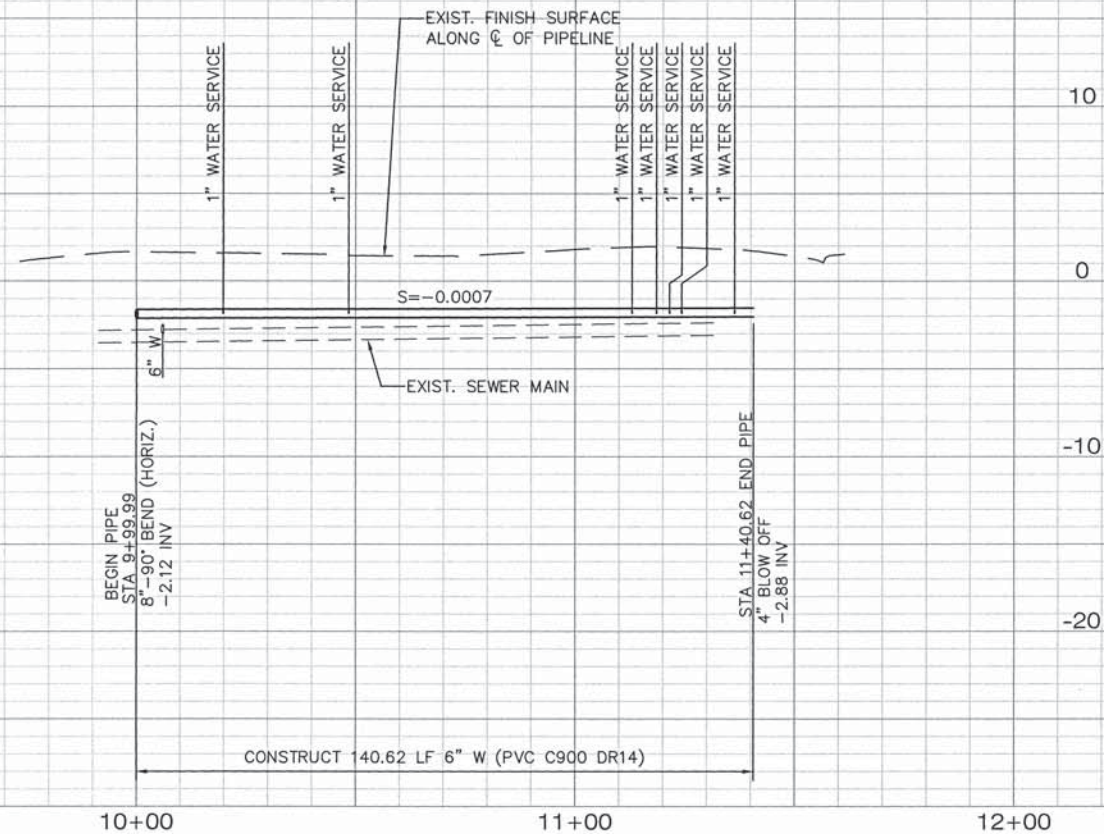
WATER MAIN DATA		
L1	249.56	N00° 29' 45"E
L2	10.00	N45° 29' 45"E
L3	9.96	N00° 29' 45"E

- NOTICE TO CONTRACTOR**
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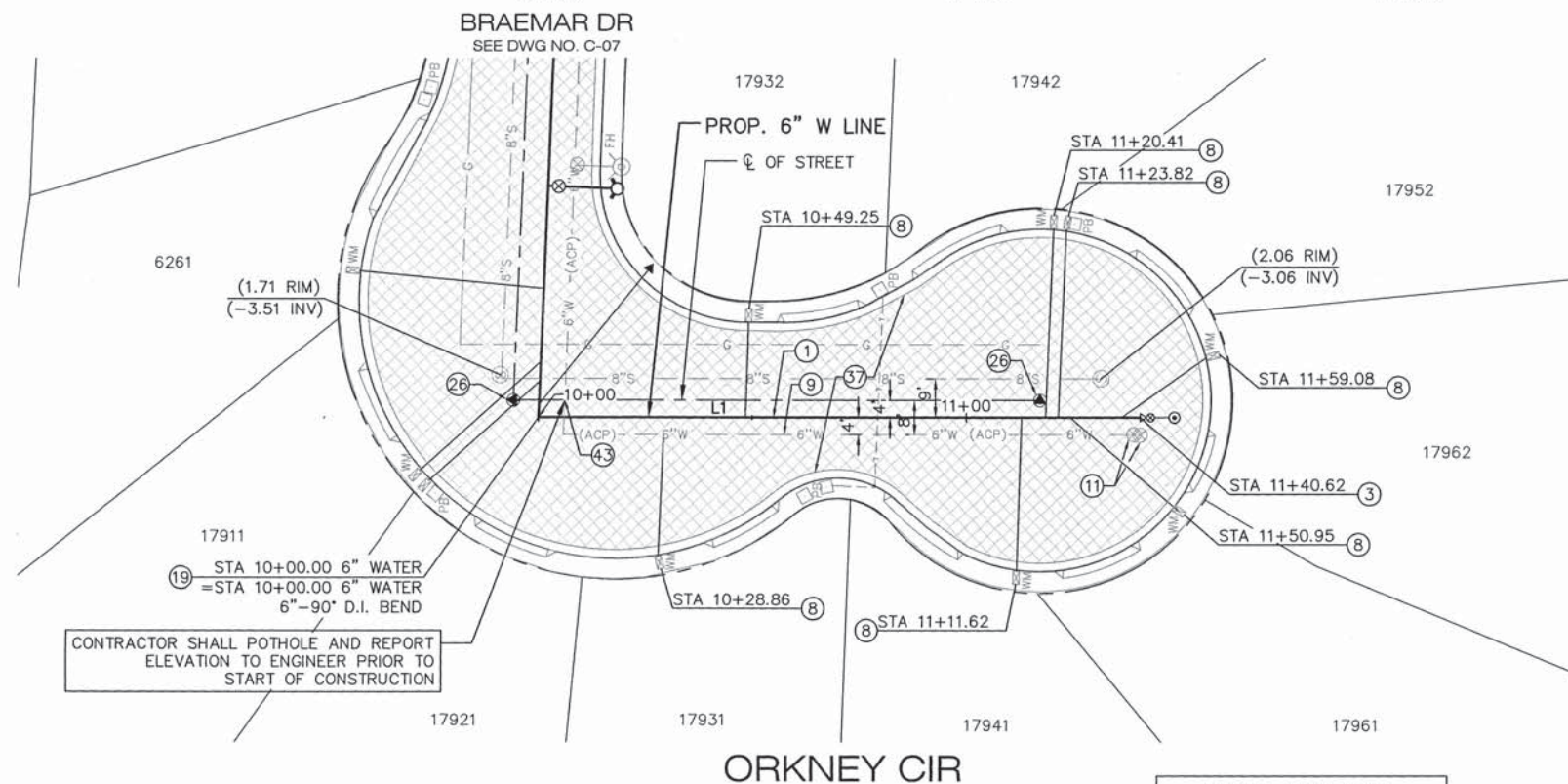
- CONSTRUCTION NOTES:**
1. INSTALL 6" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
 8. INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
 9. ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
 11. REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
 15. INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT
 22. INSTALL 12"x12"x6" DI TEE (FLG X FLG X FLG)
 26. PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
 37. CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS
 45. TEMPORARILY REALIGN FIRE HYDRANT LATERAL DURING CONSTRUCTION PER DETAIL 9 ON DWG C-15
 48. INSTALL 6"-45" DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614

SCALE: HOR. 1"=20'
VERT. 1"=5'

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C10.dwg
DATE: May 29, 2020 1:40pm



SCALE: HOR. 1"=20'
VERT. 1"=5'



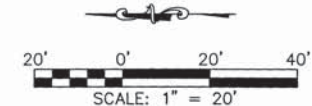
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- ⑨ ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
- ⑪ REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
- ⑲ INSTALL 6"-90" DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
- ⑳ PROTECT IN PLACE OR TIE-OUT AND RESET SURVEY MONUMENT PER CITY REQUIREMENTS AND SPEC SECTION 3-10
- ㉓ CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS
- ㉔ PROTECT EXISTING PIPELINE IN PLACE TO MAINTAIN SERVICE TO CONSUMERS DURING CONSTRUCTION. CONSTRUCT NEW PIPE OVER EXISTING PIPE.

WATER MAIN DATA		
L1	140.62	S01° 51' 19"E



LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1199 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3391
FAX: (626) 912-2015

811
CALL 811 AT LEAST TWO DAYS BEFORE YOU DIG
Know what's below.
Call before you dig.
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

REVISIONS			
REV.	DATE	BY	DESCRIPTION
1	1/2021	KCO	Amendment Prior to Bid

DESIGNED: RB	
DRAWN: RB	
CHECKED: MK	
DATE:	

REVIEWED BY: **QAR** DATE: **6/1/20**

PREPARED UNDER THE SUPERVISION OF: **fourth** DATE: **5/29/20**

MURTHY KADIYALA, P.E.
R.C.E. NO. C73472 EXP. DATE: 12/31/20

APPROVED BY: **Andrew** DATE: **06-03-2020**

ANDREW FERRIGNO, P.E., PRINCIPAL ENGINEER
R.C.E. NO. C65719 EXP. DATE: 09/30/21

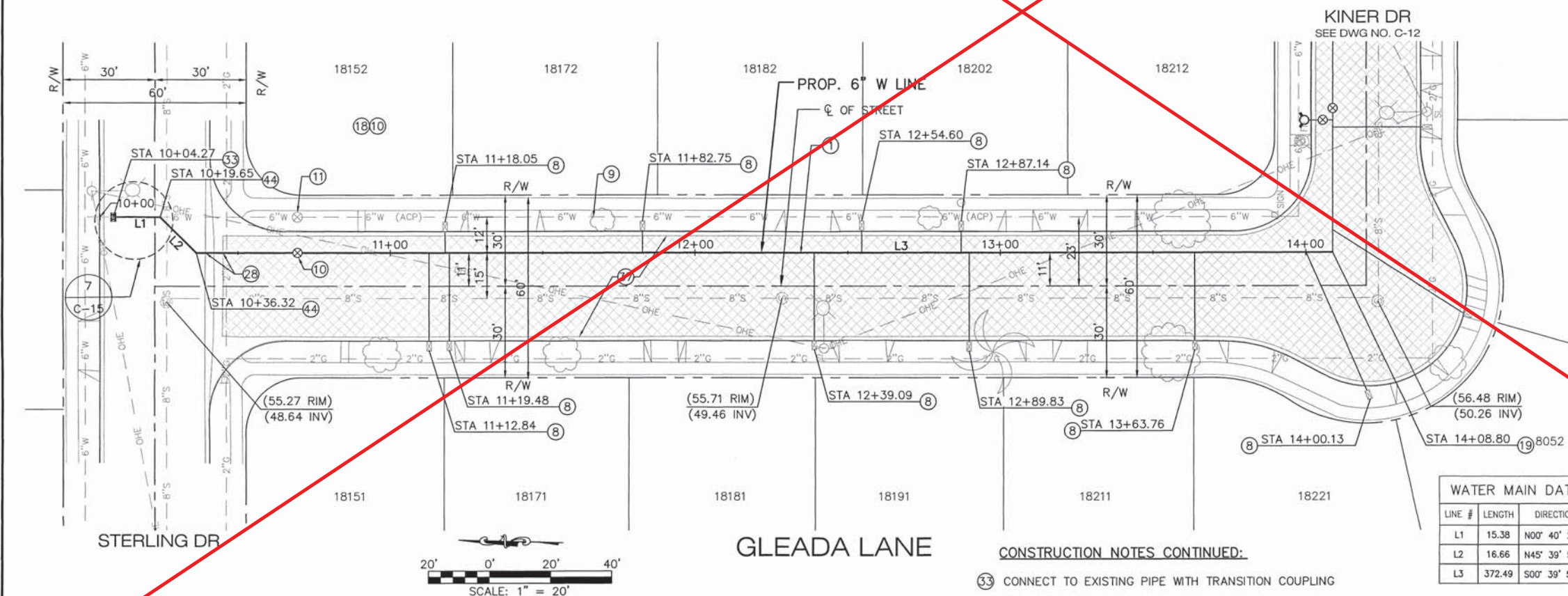
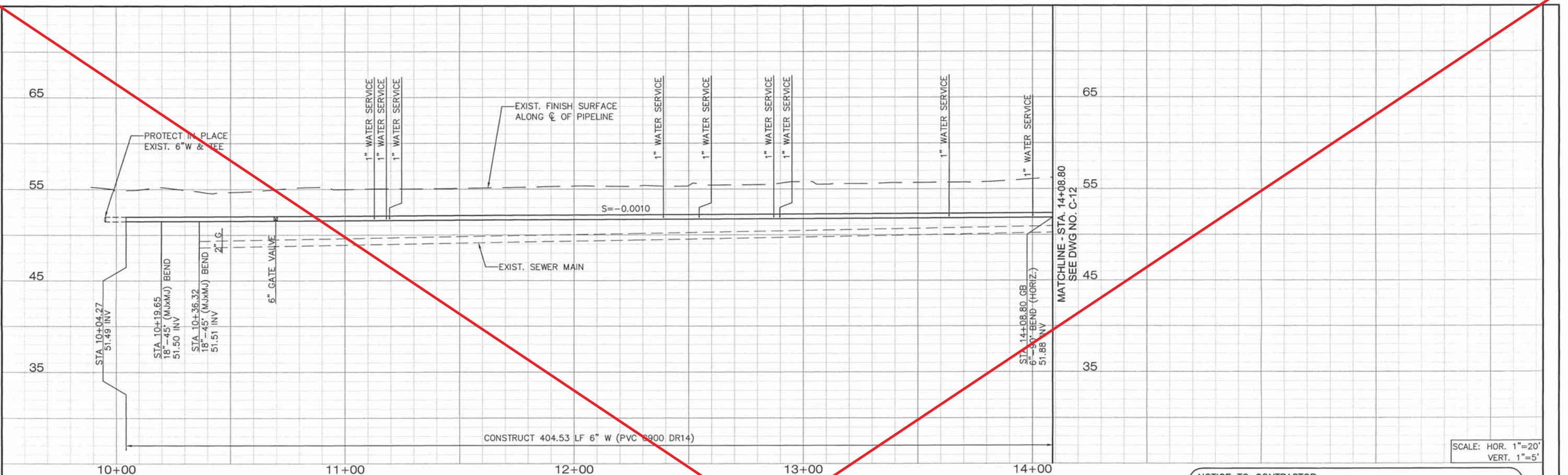
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
ORKNEY CIR - PLAN AND PROFILE
STA. 10+00.00 TO STA. 11+40.62

DRAWING NO.
C-10
SHEET NO.
13 OF 18

PROJECT C. C. NO. 1558

J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C11.dwg
DATE: May 29, 2020 2:02pm



NOTICE TO CONTRACTOR

1. THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
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 8. INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
 9. ABANDON EXISTING WATER LINE IN PLACE, FILL WITH SAND-CEMENT SLURRY AND CAP END OF WATERLINE
 10. INSTALL 6" RESILIENT WEDGE GATE VALVE (FLG X FLG) WITH VALVE BOX ASSEMBLY PER CITY STD PLAN 612
 11. REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
 15. INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT
 18. INSTALL 6"x6"x6" DI TEE (FLG X FLG X FLG)
 19. INSTALL 6" 90° DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
 28. REPLACE IN KIND ANY DAMAGED CROSS GUTTER FROM NEAREST JOINT PER CITY STD PLAN 205
 37. CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS
 44. INSTALL 6"-45" DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614

LEE+RO
WATER INFRASTRUCTURE ENGINEERS
1149 S. FULLERTON RD.
CITY OF INDUSTRY, CA 91748
TEL: (626) 912-3391
FAX: (626) 912-2015

811
CALL 811
AT LEAST TWO DAYS
BEFORE YOU DIG
Know what's
below.
Call before you dig.
UNDERGROUND SERVICE ALERT (OF SOUTHERN CALIFORNIA)

REV.	DATE	BY	DESCRIPTION	APP'D

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2"=SCALE ACCORDINGLY)	UTIL. DIV.	REVIEWED BY	DATE
DESIGNED: RB	TRAFFIC	BAR	6/2/20
DRAWN: RB	ENG. SERVICES		
CHECKED: MK	STREET DESIGN		
DATE:	MAINTENANCE		
	RIGHT-OF-WAY		
	P.T. & L.		
	CONSTRUCTION		

MURTHY KADIVALA, P.E.
No. C73472
STATE OF CALIFORNIA
CIVIL

PREPARED UNDER THE SUPERVISION OF:

MURTHY KADIVALA, P.E.
R.C.E. NO. C73472
EXP. DATE: 12/31/20

APPROVED BY:

ANDREW FERRIGNO, P.E.
R.C.E. NO. C65719
EXP. DATE: 09/30/21

5/29/20
DATE

16-07-2020
DATE

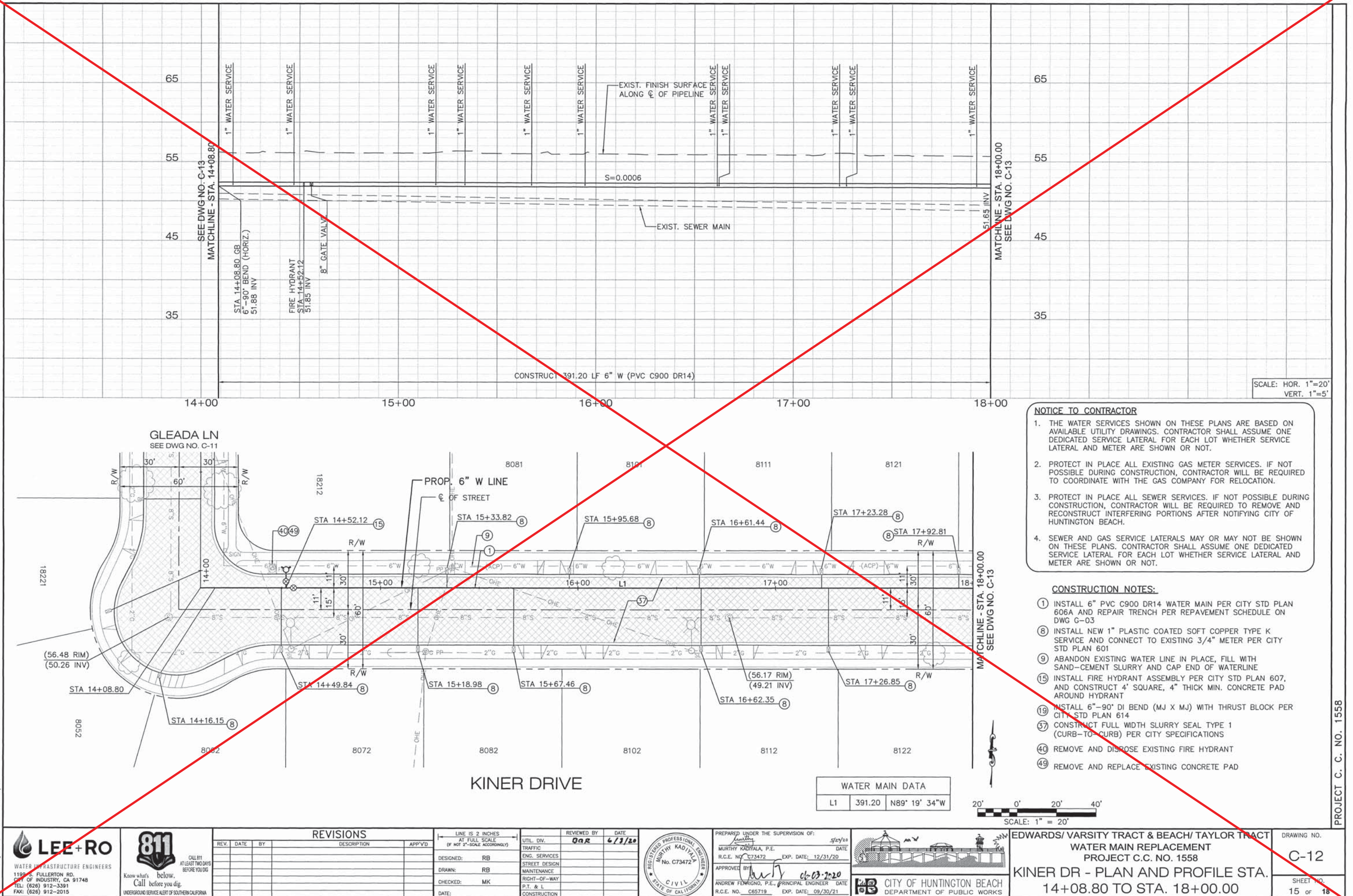
CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

EDWARDS/ VARSITY TRACT & BEACH/ TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
GLEADA LN - PLAN AND PROFILE
STA. 10+04.27 TO STA. 14+08.80

DRAWING NO.
C-11
SHEET NO.
14 OF 18

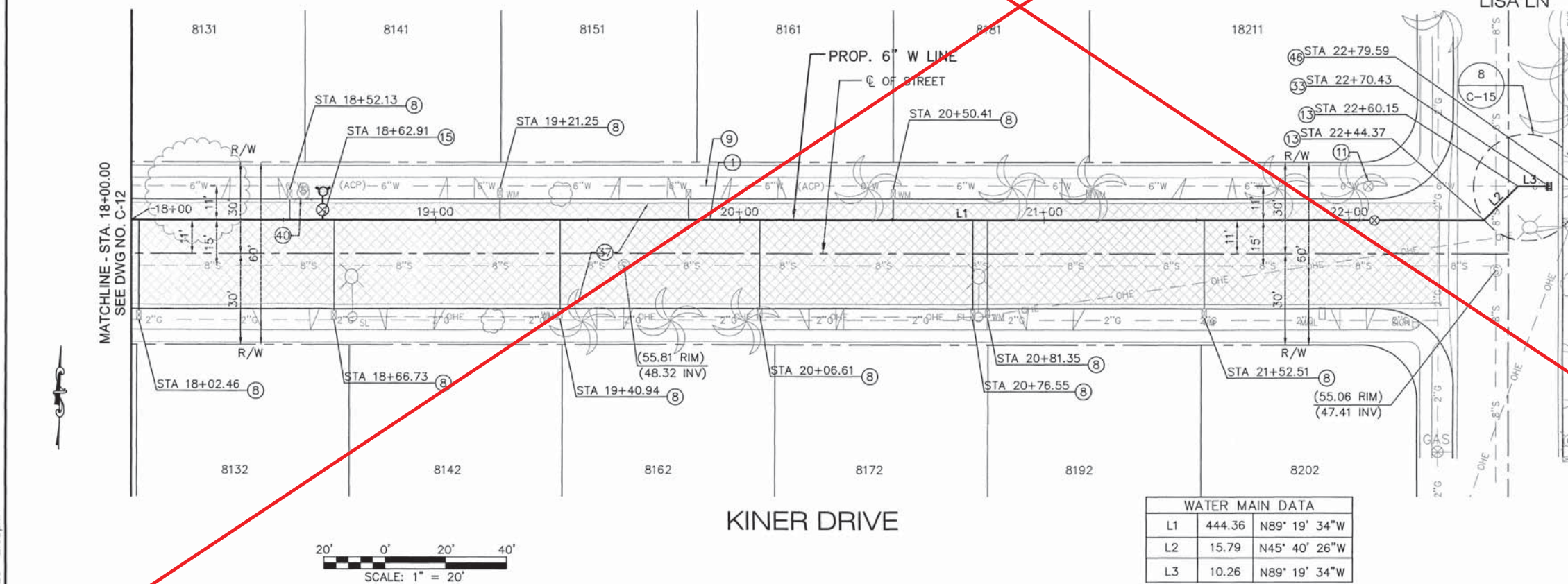
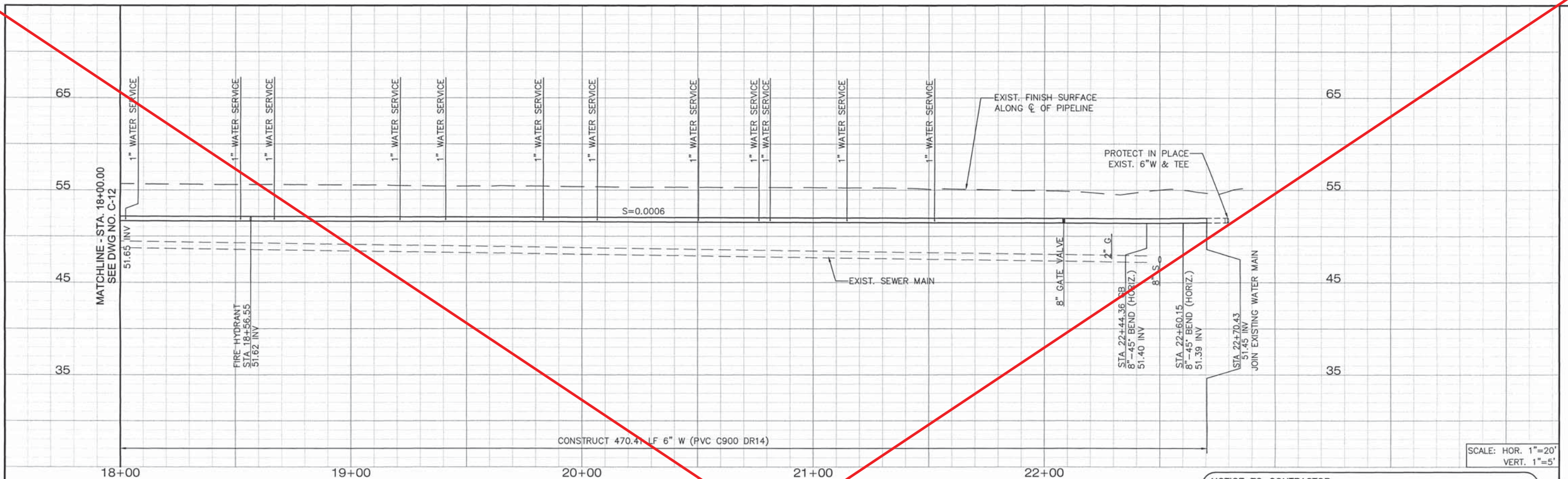
PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C12.dwg
DATE: May 29, 2020 2:03pm



PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C13.dwg
DATE: May 29, 2020 2:03pm



- NOTICE TO CONTRACTOR**
1. THE WATER SERVICES SHOWN ON THESE PLANS ARE BASED ON AVAILABLE UTILITY DRAWINGS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.
 2. PROTECT IN PLACE ALL EXISTING GAS METER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE GAS COMPANY FOR RELOCATION.
 3. PROTECT IN PLACE ALL SEWER SERVICES. IF NOT POSSIBLE DURING CONSTRUCTION, CONTRACTOR WILL BE REQUIRED TO REMOVE AND RECONSTRUCT INTERFERING PORTIONS AFTER NOTIFYING CITY OF HUNTINGTON BEACH.
 4. SEWER AND GAS SERVICE LATERALS MAY OR MAY NOT BE SHOWN ON THESE PLANS. CONTRACTOR SHALL ASSUME ONE DEDICATED SERVICE LATERAL FOR EACH LOT WHETHER SERVICE LATERAL AND METER ARE SHOWN OR NOT.

- CONSTRUCTION NOTES:**
1. INSTALL 6" PVC C900 DR14 WATER MAIN PER CITY STD PLAN 606A AND REPAIR TRENCH PER REPAVEMENT SCHEDULE ON DWG G-03
 8. INSTALL NEW 1" PLASTIC COATED SOFT COPPER TYPE K SERVICE AND CONNECT TO EXISTING 3/4" METER PER CITY STD PLAN 601
 9. ABANDON EXISTING WATER LINE IN PLACE, FILL WITH ONE (1) SACK SAND-CEMENT SLURRY
 11. REMOVE EXISTING VALVE BOX AND COVER. ABANDON VALVE IN THE CLOSED POSITION.
 13. INSTALL 8"-45° DI BEND (MJ X MJ) WITH THRUST BLOCK PER CITY STD PLAN 614
 15. INSTALL FIRE HYDRANT ASSEMBLY PER CITY STD PLAN 607, AND CONSTRUCT 4' SQUARE, 4" THICK MIN. CONCRETE PAD AROUND HYDRANT. REMOVE SEGMENTS OF INTERFERING PIPE AS NEEDED.
 33. CONNECT TO EXISTING PIPE WITH TRANSITION COUPLING
 37. CONSTRUCT FULL WIDTH SLURRY SEAL TYPE 1 (CURB-TO-CURB) PER CITY SPECIFICATIONS
 40. REMOVE AND DISPOSE EXISTING FIRE HYDRANT
 46. PROTECT EXISTING TEE, GATE VALVE AND JOIN WATER MAIN PER DETAIL 8 ON DWG C-15

WATER MAIN DATA			
L1	444.36	N89° 19' 34"W	
L2	15.79	N45° 40' 26"W	
L3	10.26	N89° 19' 34"W	

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REV.	DATE	BY	DESCRIPTION	APP'D

DESIGNED: RB	TRAFFIC
DRAWN: RB	ENG. SERVICES
CHECKED: MK	STREET DESIGN
DATE:	MAINTENANCE
	RIGHT-OF-WAY
	P.T. & L.
	CONSTRUCTION

REVIEWED BY: **GA** DATE: **6/3/20**

PREPARED UNDER THE SUPERVISION OF: **GA** DATE: **5/29/20**

MURTHY KADITALA, P.E.
R.C.E. NO. C73472 EXP. DATE: 12/31/20

APPROVED BY: **GA** DATE: **6-03-2020**

ANDREW FERRIGNO, P.E. PRINCIPAL ENGINEER DATE: **6-03-2020**
R.C.E. NO. C85719 EXP. DATE: 09/30/21

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

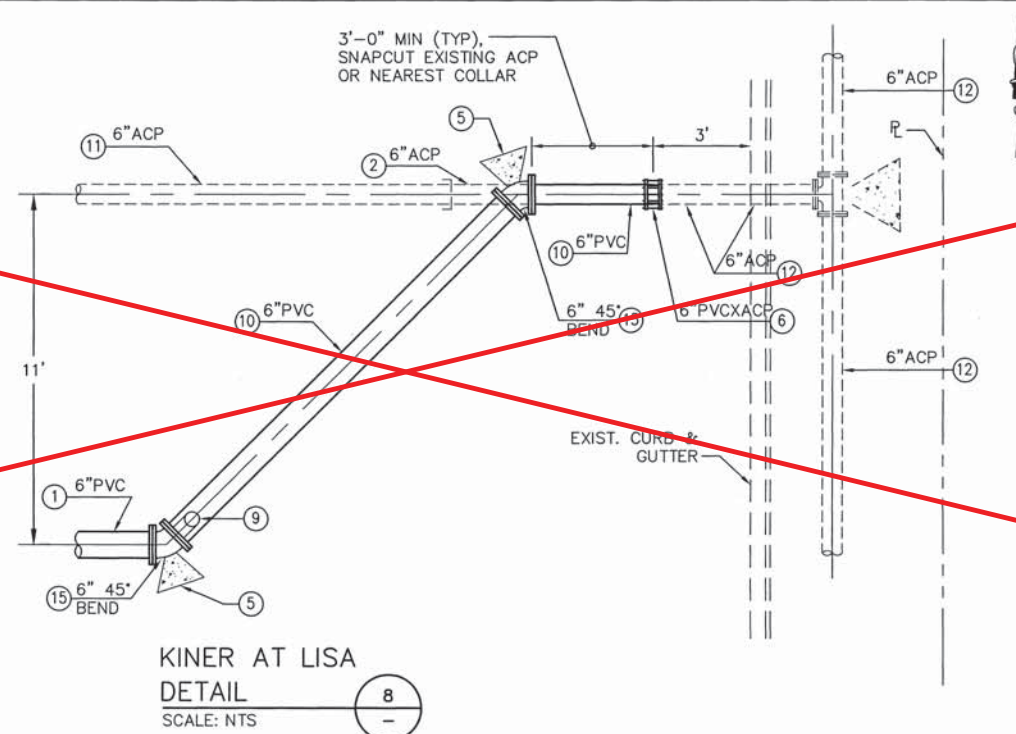
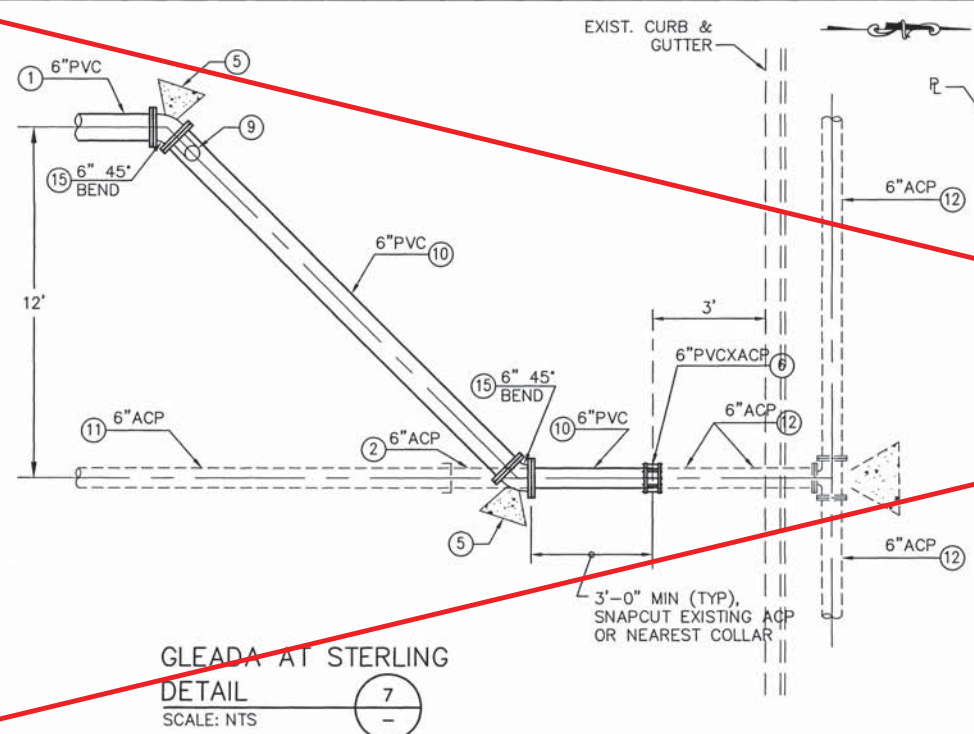
EDWARDS/ VARSITY TRACT & BEACH/ TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
KINER DR - PLAN AND PROFILE STA.
18+00.00 TO STA. 22+70.43

DRAWING NO. **C-13**

SHEET NO. **16** OF **18**

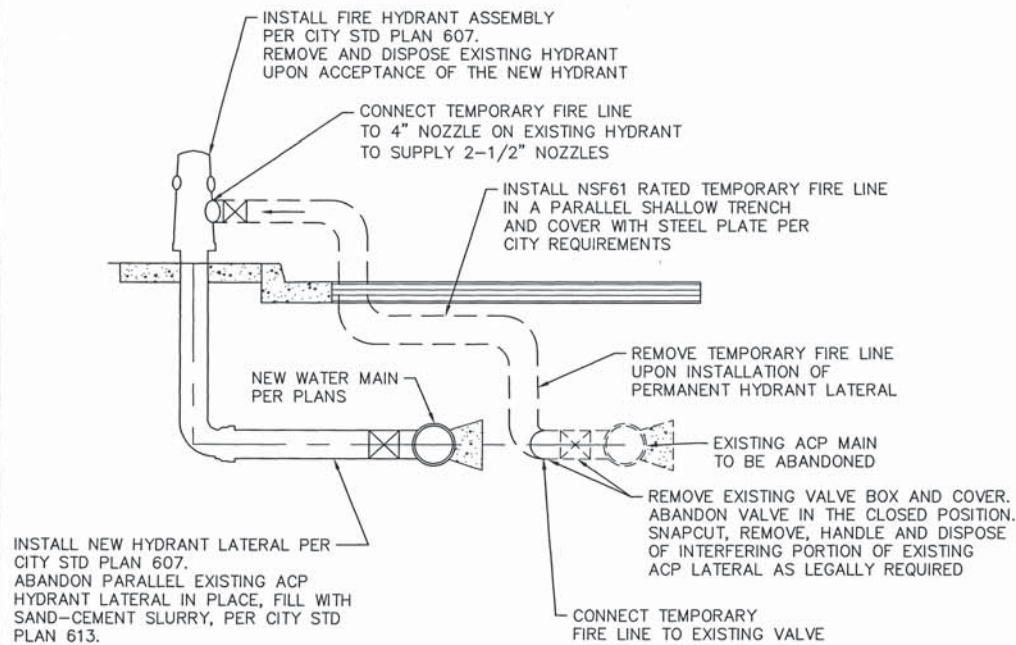
PROJECT C. C. NO. 1558

DWG: J:\PROJ\1149 City of HB On Call\1149-04 Edwards Varsity Water Main\4DWG\Current Submittal\02-Civil\114904_C15.dwg
DATE: May 29, 2020 1:46PM



SHEET NOTES:

- 1 INSTALL PVC C900 DR14 PIPE
- 2 SNAPCUT, REMOVE, HANDLE AND DISPOSE OF INTERFERING PORTION OF EXISTING ACP MAIN AS LEGALLY REQUIRED
- 5 CONSTRUCT THRUST BLOCK PER CITY STD PLAN 614
- 6 CONNECT WITH TRANSITION COUPLING PER SPEC SECTIONS 02515.1, 02510.5 AND 02088. WHEN CONNECTING TO EXISTING PIPE, CONTRACTOR SHALL VERIFY EXISTING PIPE MATERIAL AND OUTSIDE DIAMETER, PRIOR TO ORDERING TRANSITION COUPLING.
- 9 INSTALL TEMPORARY BLIND FLANGE/PLUG ON ENDS OF LINE SEGMENTS WITH PORTS FOR TEMPORARY BLOWOFF FOR FLUSHING, TO TO BE REMOVED AFTER DISINFECTING NEW MAIN PER SPEC SECTION 02516, AND PRESSURE TESTING PER SPEC SECTION 02517.
- 10 INSTALL PVC C900 DR14 CONNECTION PIPING, 3' MIN LENGTH, AFTER TESTING AND CITY ACCEPTANCE OF THE NEW MAIN SEGMENT
- 11 ABANDON EXISTING PIPE IN PLACE, OR REMOVE INTERFERING PORTIONS AS REQUIRED AND LEGALLY DISPOSE OF ACP. FILL WITH SAND-CEMENT SLURRY, PER CITY STD PLAN 613.
- 12 PROTECT EXISTING PIPE IN PLACE
- 15 INSTALL DI BEND WITH THRUST BLOCK PER CITY STD PLAN 614

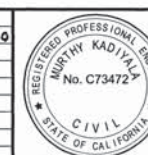


TEMPORARY FH SERVICE
DETAIL
SCALE: NTS

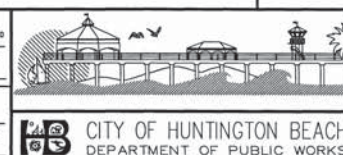


REVISIONS				
REV.	DATE	BY	DESCRIPTION	APP'D
1	1/2021	KCO	Amendment Prior to Bid	

LINE IS 2 INCHES AT FULL SCALE (IF NOT 2" SCALE ACCORDINGLY)	
DESIGNED: RB	REVIEWED BY: B&R
DRAWN: RB	DATE: 6/3/20
CHECKED: MK	
DATE:	



PREPARED UNDER THE SUPERVISION OF:	
MURTHY KADIVIA, P.E., PLS., CIVIL ENGR	DATE: 5/29/20
R.C.E. NO. C73472	EXP. DATE: 12/31/20
APPROVED BY:	
ANDREA FERRIGNO, P.E., PRINCIPAL ENGR	DATE: 6-2-2020
R.C.E. NO. C65719	EXP. DATE: 09/30/21



EDWARDS/ VARSITY TRACT & BEACH TAYLOR TRACT
WATER MAIN REPLACEMENT
PROJECT C.C. NO. 1558
CIVIL DETAILS 2 OF 2

DRAWING NO.
C-15
SHEET NO.
18 OF 18

PROJECT C. C. NO. 1558