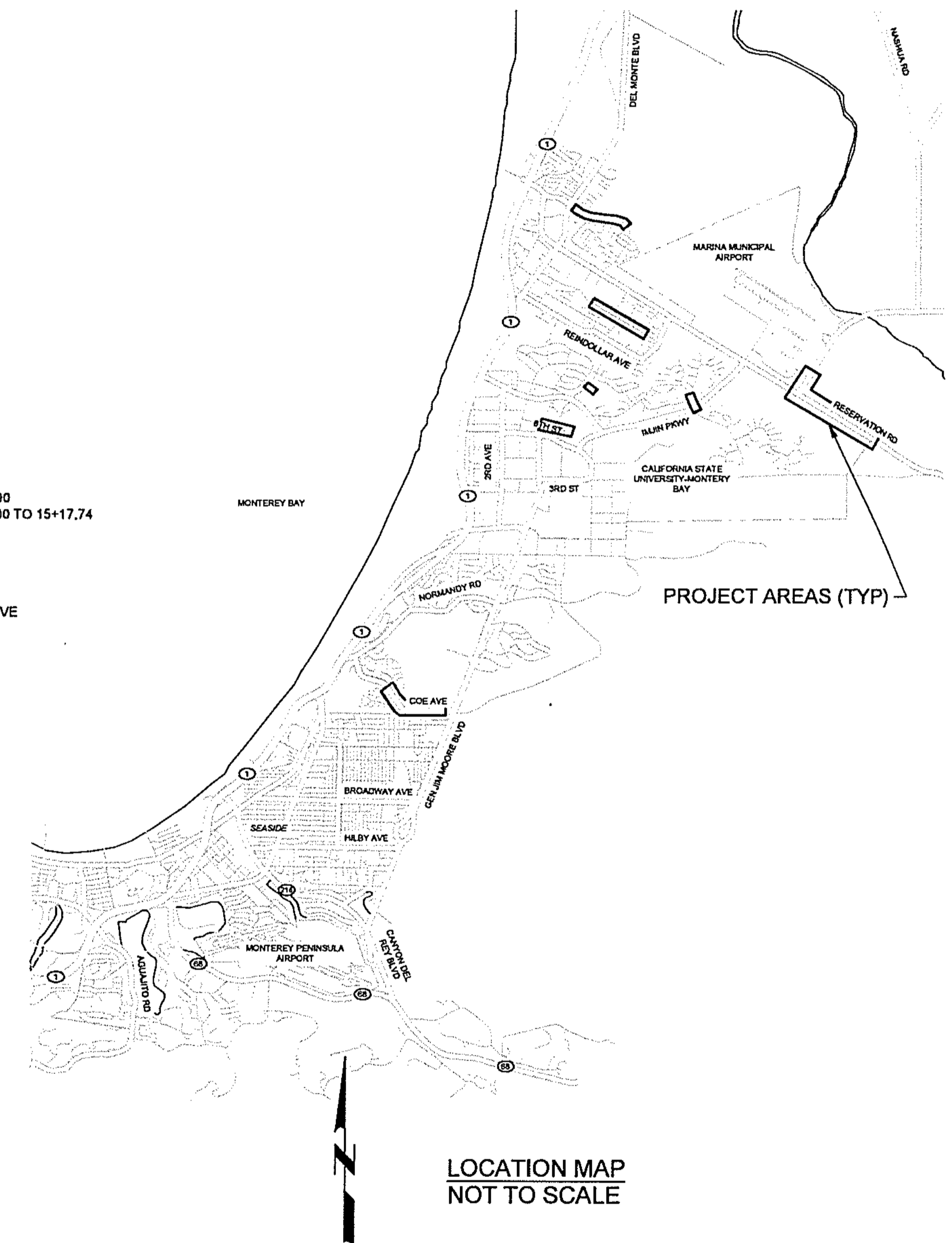
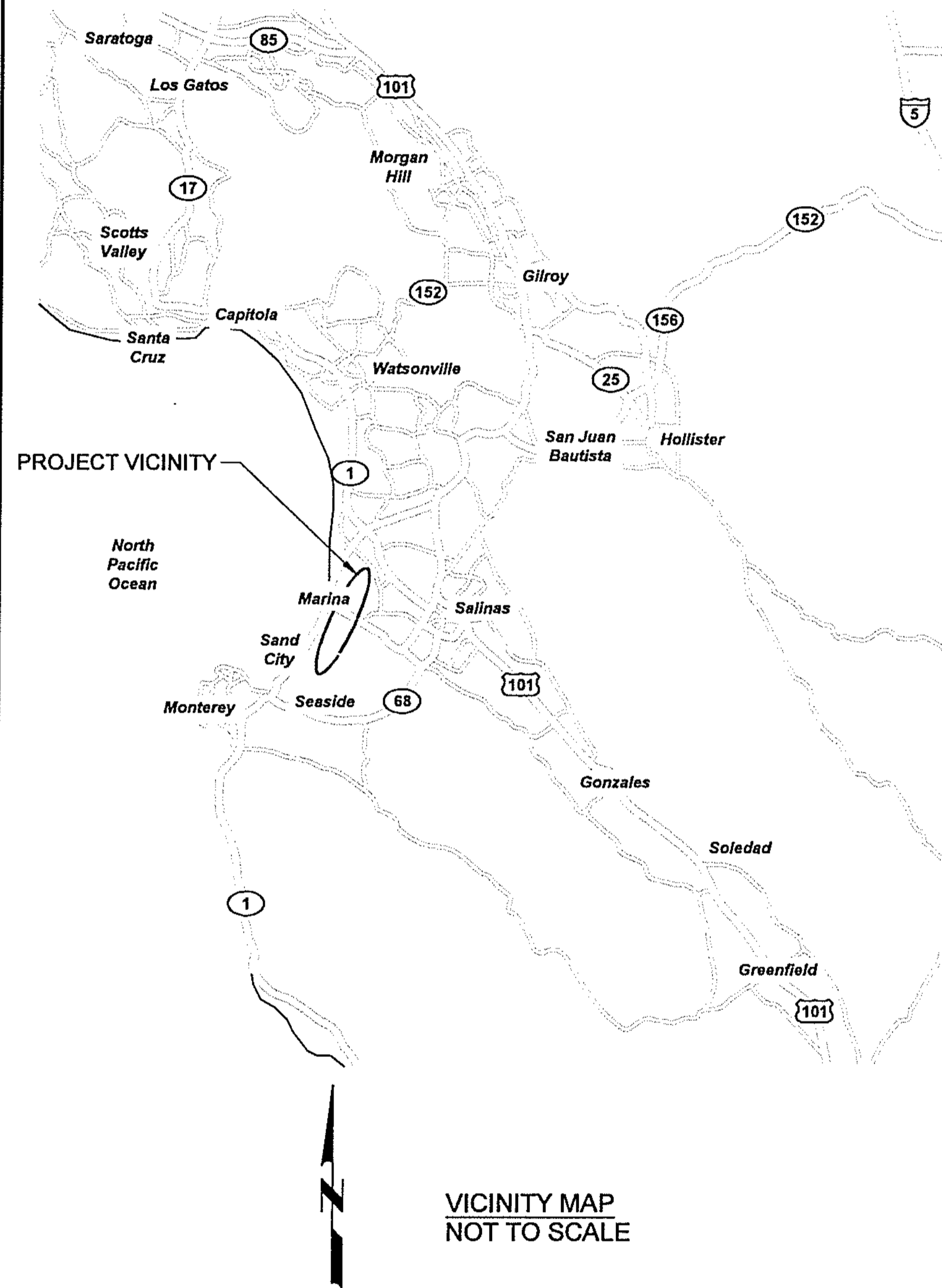


MARINA COAST WATER DISTRICT REGIONAL URBAN WATER AUGMENTATION PROJECT RECYCLED WATER DISTRIBUTION MAINS

CIP # RW-0174
VOLUME 2 OF 2

JANUARY 2020



DISTRIBUTION MAINS

SHT DWG	DESCRIPTION
GENERAL	
1 G01	COVER SHEET
2 G02	GENERAL NOTES, LEGENDS, AND SYMBOLS
3 G03	GENERAL CIVIL ABBREVIATIONS, LEGENDS AND SYMBOLS
4 G04	INDEX MAP
5 G05	SURVEY CONTROL POINTS TYPICAL
6 T01	AGENCY TYPICAL DETAILS - 1
7 T02	AGENCY TYPICAL DETAILS - 2
8 T03	AGENCY TYPICAL DETAILS - 3
9 TA01	ARCHITECTURAL TYPICAL DETAILS - 1
10 TC01	CIVIL TYPICAL DETAILS - 1
11 TP01	PIPING TYPICAL DETAILS - 1
12 TP02	PIPING TYPICAL DETAILS - 2
13 TS01	STRUCTURAL TYPICAL DETAILS - 1
14 TN01	INSTRUMENTATION TYPICAL DETAILS - 1
CIVIL	
15 CD01	YARD PIPING PLANS - 1
16 CD02	YARD PIPING PLANS - 2
17 CD03	YARD PIPING PLANS - 3
STRUCTURAL AND MECHANICAL	
18 M01	BEACH RD PRESSURE REDUCING STATION
19 M02	CARMEL AVE PRESSURE REDUCING STATION
20 M03	MARINA HEIGHTS DR PRESSURE REDUCING STATION
21 M04	9TH ST PRESSURE REDUCING STATION
22 M05	COE AVE PRESSURE REDUCING STATION
RECYCLED WATER PIPELINES	
23 P01	BEACH ROAD DISTRIBUTION MAIN - STA 10+00 TO 19+60
24 P02	BEACH ROAD DISTRIBUTION MAIN - STA 19+60 TO 29+60
25 P03	BEACH ROAD DISTRIBUTION MAIN - STA 29+60 TO 39+60
26 P04	BEACH ROAD DISTRIBUTION MAIN - STA 39+60 TO 49+83.40
27 P05	CARMEL AVENUE DISTRIBUTION MAIN - STA 10+00 TO 19+00
28 P06	CARMEL AVENUE DISTRIBUTION MAIN - STA 19+00 TO 29+00
29 P07	CARMEL AVENUE DISTRIBUTION MAIN - STA 29+00 TO 37+79.85
30 P08	MARINA HEIGHTS DR DISTRIBUTION MAIN - STA 10+00 TO 12+87.13
31 P09	ABRAMS DRIVE DISTRIBUTION MAIN - STA 11+50 TO 19+00
32 P10	ABRAMS DRIVE DISTRIBUTION MAIN - STA 19+00 TO 21+03.06
33 P11	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 10+00 TO 19+00
34 P12	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 19+00 TO 29+00
35 P13	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 29+00 TO 39+00
36 P14	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 39+00 TO 49+00
37 P15	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 49+00 TO 59+00
38 P16	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 59+00 TO 69+00
39 P17	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 69+00 TO 71+65.75
40 P18	9TH STREET DISTRIBUTION MAIN - STA 10+00 TO 19+00
41 P19	9TH STREET DISTRIBUTION MAIN - STA 19+00 TO 20+89.77
42 P20	COE AVENUE DISTRIBUTION MAIN - STA 10+00 TO 19+00
43 P21	COE AVENUE DISTRIBUTION MAIN - STA 19+00 TO 29+00
44 P22	COE AVENUE DISTRIBUTION MAIN - STA 29+00 TO 39+00
45 P23	COE AVENUE DISTRIBUTION MAIN - STA 39+00 TO 42+64.40

SHT DWG	DESCRIPTION
POTABLE WATER PIPELINES	
46 P24	BEACH RD WL DISTRIBUTION MAIN - STA 10+00 TO 19+00
47 P25	BEACH RD WL DISTRIBUTION MAIN - STA 19+00 TO 29+00
48 P26	BEACH RD WL DISTRIBUTION MAIN - STA 29+00 TO 37+47.90
49 P27	RESERVOIR 2 TO CRESCENT AVE CONNECTOR - STA 10+00 TO 15+17.74
PAVING	
50 C01	PAVING PLAN - BEACH ROAD 1
51 C02	PAVING PLAN - BEACH ROAD 2
52 C03	PAVING PLAN - CARMEL AVENUE
53 C04	PAVING PLAN - MARINA HEIGHTS DRIVE AND ABRAMS DRIVE
54 C05	PAVING PLAN - RESERVATION ROAD 1
55 C06	PAVING PLAN - RESERVATION ROAD 2
56 C07	PAVING PLAN - 9TH STREET
57 C08	PAVING PLAN - COE AVENUE 1
58 C09	PAVING PLAN - COE AVENUE 2

BID DOCUMENTS			
REV	DATE	BY	DESCRIPTION



APPROVED:

Michael Wegley
MICHAEL WEGLEY, PE
DISTRICT ENGINEER

11/31/2020
DATE

SUBMITTED:

JONATHAN P. MARSHALL, P.E.
CAROLLO ENGINEERS
R.C.E. 73265

DATE

Plot Date: 1/24/2020 6:58:38 PM

FILE NAME: 7568C1000G02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

GENERAL NOTES

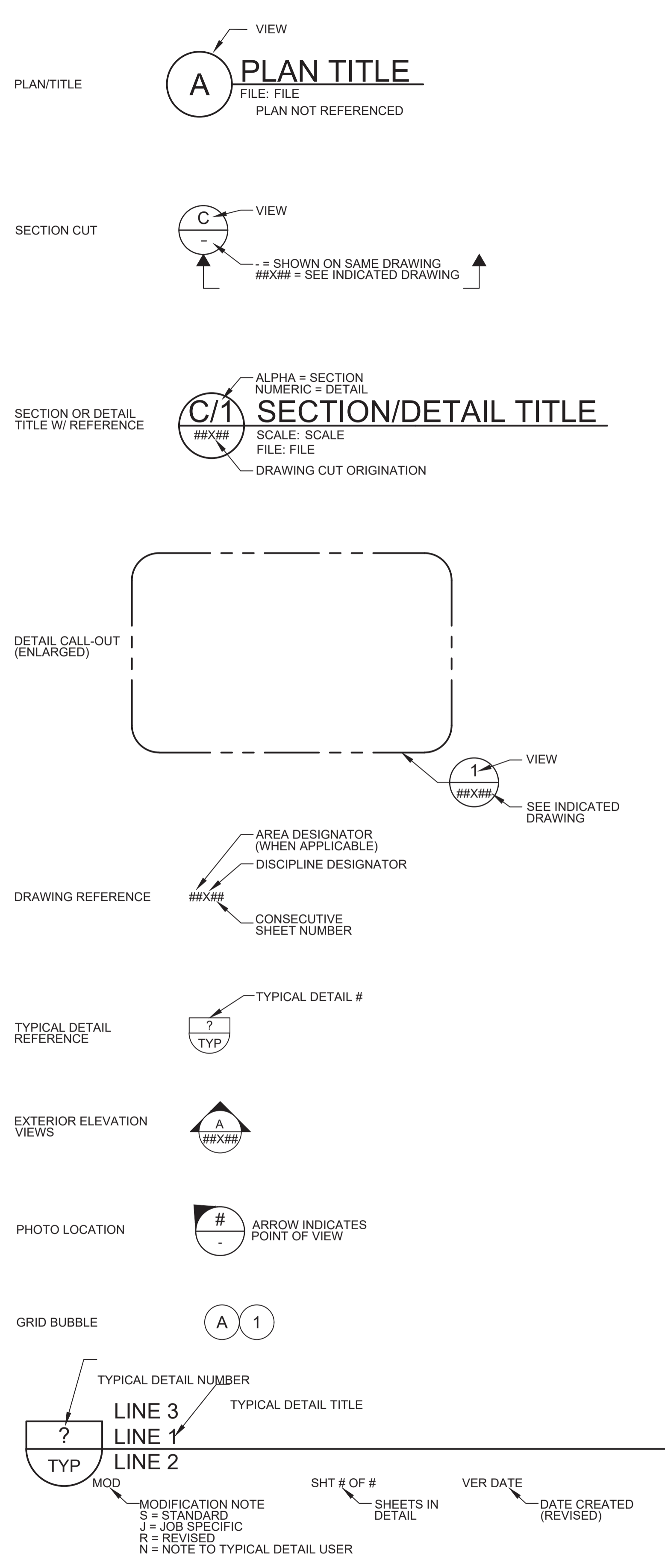
GENERAL NOTES

DETAIL REFERENCES

HATCH PATTERNS

- FOLLOWING NOTES ARE GENERAL AND APPLY TO ALL SHEETS OF THESE CONTRACT DOCUMENTS AS IF THEY WERE WRITTEN IN THEIR ENTIRETY ON EACH SHEET.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS INCLUDING LOCATION AND DIMENSIONS OF ALL EXISTING FACILITIES AND UTILITIES. CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITY CROSSINGS PRIOR TO COMMENCING FACILITIES AND FABRICATING PIPELINE TO VISUALLY CONFIRM DEPTH OF COVER. CONTRACTOR SHALL NOTIFY ENGINEER IF THERE IS A CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.
- UNLESS DETAILED, SPECIFIED, OR OTHERWISE INDICATED ON THE DRAWINGS, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS SHALL APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON DRAWINGS.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF WORK. DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- CONTRACTOR SHALL COMPLY WITH LOCAL CONSTRUCTION STORM WATER DISCHARGE REGULATIONS AND REQUIREMENTS.
- PRIOR TO EXCAVATION FOR NEW STRUCTURES, ELECTRICAL CONDUIT, FABRICATION OF NEW PIPING AND/OR OTHER PROPOSED UTILITIES, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING PIPING AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL TEMPORARILY RELOCATE CONFLICTING EXISTING UTILITIES AT TIE-IN/CONNECTION LOCATIONS AND REINSTALL THEM AS REQUIRED TO ELIMINATE THE CONFLICT.
- ALL PIPELINES 12" AND LARGER SHALL HAVE A MINIMUM COVER OF 48" UNLESS THE COVER DEPTH IS SPECIFICALLY INDICATED ON THE DRAWINGS. PIPE SMALLER THAN 12" SHALL HAVE A MINIMUM COVER OF 30" UNLESS NOTED OTHERWISE. PIPES SHALL BE ROUTED AS SHOWN UNLESS MINOR REVISIONS ARE NECESSARY TO MISS EXISTING PIPES, STRUCTURES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL FITTINGS AND ADAPTERS REQUIRED TO MAKE THE ROUTING CHANGES AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL INCLUDE COST FOR THIS IN THE BID.
- EXISTING FACILITY AND UTILITY INFORMATION SHOWN ON THE DRAWINGS WAS OBTAINED FROM AVAILABLE RECORDS OR ELECTRONIC FILES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR FACILITIES AND UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL FIELD VERIFY AND VISUALLY CONFIRM ALL LOCATIONS, SIZES, MATERIAL TYPES, AND ELEVATIONS SHOWN AROUND OR NEAR AREAS OF NEW CONSTRUCTION PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGE EXISTING FACILITIES AND UTILITIES SHOWN OR NOT SHOWN THAT ARE TO REMAIN IN PLACE. ALL FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING PIPE, EQUIPMENT, ETC. AS REQUIRED AND SHALL PROVIDE ALL FITTINGS, ADAPTERS, AND APPURTENANCES REQUIRED TO MAKE THE CONNECTIONS. PROVIDE ALL SUPPORTS REQUIRED FOR A RIGIDLY SUPPORTED COMPLETE AND WORKING SYSTEM.
- ADJUST ALL VALVE BOXES, VAULTS, PULL BOXES, AND MANHOLES TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED. MANHOLES IN OPEN FIELDS SHALL BE SET TWELVE INCHES ABOVE FINISHED GRADE AND VAULTS SHALL BE SIX INCHES ABOVE FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED.
- CONTRACTOR SHALL VERIFY THAT PIPING SHOWN TO BE ABANDONED OR AS ABANDONED PREVIOUSLY IS NO LONGER IN SERVICE. LINES IN SERVICE SHALL BE MAINTAINED UNTIL NO LONGER REQUIRED.
- CONTRACTOR SHALL REROUTE THE EXISTING PIPING IF REQUIRED TO MISS THE PROPOSED STRUCTURES. THE EXISTING PIPE SHALL REMAIN IN SERVICE UNTIL NEW PIPING IS READY TO BE PLACED INTO SERVICE. DOWNTIME SHALL BE A MAXIMUM OF 2 HOURS, UNLESS SPECIFIED OR SHOWN OTHERWISE.
- THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS IN THE VICINITY OF ANY OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL ABIDE BY THE NATIONAL ELECTRIC CODE AND CAL-OSHA AND ANY REQUIREMENT BY THE OWNER OF THE ELECTRIC LINES.
- PROVIDE ALL SHEETING/SHORING REQUIRED TO PROTECT EXISTING STRUCTURES, PIPES AND FACILITIES.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL ARCHITECTURAL, MECHANICAL, AND ELECTRICAL ITEMS BEFORE PLACING ANY STRUCTURAL STEEL OR CONCRETE. ALSO, STRUCTURAL DIMENSIONS AND OPENINGS CONTROLLED BY ARCHITECTURAL, MECHANICAL, OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES, AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS THAT ARE REQUIRED BY OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED PRIOR TO CASTING CONCRETE.
- ALL NEW AT GRADE UTILITY BOXES, VAULTS, HATCHES, AND MANHOLES SHALL BE HS-20 RATED.
- ENCROACHMENT PERMITS FROM THE APPLICABLE JURISDICTIONAL AGENCIES ARE REQUIRED PRIOR TO ANY WORK WITHIN PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF ALL ENCROACHMENT PERMITS ISSUED. DRAFT ENCROACHMENT PERMITS HAVE BEEN PROVIDED IN APPENDICES A - D.
- ALL WORK WITHIN PRIVATE EASEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH ALL CONDITIONS PROVIDED IN THE EASEMENT, RIGHT-OF-ENTRY, OR TEMPORARY PERMIT DOCUMENTS AS DESCRIBED IN SECTION 01140.
- TRENCH PAVING AC AND ABC THICKNESSES CAN BE FOUND IN SECTION 01140.
- WHERE TRENCH PAVING AND/OR OVERLAY PAVING IS REQUIRED, RAISE ALL EXISTING AND NEW VALVE CANS, MANHOLES, AND MONUMENTS TO GRADE.
- WATER, SEWER, GAS AND OTHER UTILITY SERVICE LATERALS ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL SERVICE LATERALS. CONTRACTOR SHALL BE AWARE THAT USA LOCATE MAY NOT BE ABLE TO LOCATE ALL UTILITY LATERALS AND CONTRACTOR SHALL BE PREPARED TO LOCATE THEM WHERE NEEDED.
- ALL SERVICE LATERALS DAMAGED OR BROKEN DURING CONSTRUCTION SHALL BE REPLACED IN KIND. SEWER AND WATER LATERAL REPAIRS SHALL CONFORM TO MCWD STD. DETAILS S-6, W-1 and W-2 RESPECTIVELY UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

- UNDER THE DIRECTION OF A SURVEYOR LICENSED IN THE STATE OF CALIFORNIA, THE CONTRACTOR SHALL RESET ALL MONUMENTS DISTURBED OR REMOVED DURING CONSTRUCTION ACTIVITIES PER C040/TYP.
- WHERE THE RECYCLED WATERLINES CROSS EXISTING UTILITIES, THE RECYCLED WATERLINES SHALL BE INSTALLED A MINIMUM OF 12" CLEAR VERTICALLY FROM THE EXISTING UTILITY.
- CARVS ARE REQUIRED AT ALL HIGH POINTS IN PIPELINES. BLOW-OFFS ARE REQUIRED AT ALL LOW POINTS IN PIPELINES.
- THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS IN THE VICINITY OF ANY OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL ABIDE BY THE NATIONAL ELECTRIC CODE AND ANY REQUIREMENT BY THE OWNER OF THE ELECTRIC LINES. WHERE EXCAVATING NEAR POWER POLES, CONTRACTOR SHALL COORDINATE WITH UTILITY AND PAY ALL COSTS TO TEMPORARILY SUPPORT POWER POLES.
- TRIM TREE BRANCHES AS REQUIRED FOR CONSTRUCTION BY QUALIFIED ARBORIST. PROTECT TREE PER SECTION 01562.



ABC		GRATING	
ALUMINUM		LANDSCAPING	
BRICK OR BLOCK		RUBBER	
BRONZE, BRASS, OR COPPER		SLURRY SEAL	
CAST IRON OR FIBERGLASS		SOIL	
CLASS "A", "B" AND "D" CONCRETE		STEEL	
CLASS "C" CONCRETE		TREAD PLATE	
DECOMPOSED GRANITE		WETLANDS NO SURFACE IMPACT	

REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS

DESIGNED JPM
DRAWN TLR
CHECKED
DATE JANUARY 2020

Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:51:06 -0800

Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

GENERAL NOTES, LEGENDS AND SYMBOLS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
DRAWING NO. G02
SHEET NO. 2 OF 58

2 OF 58

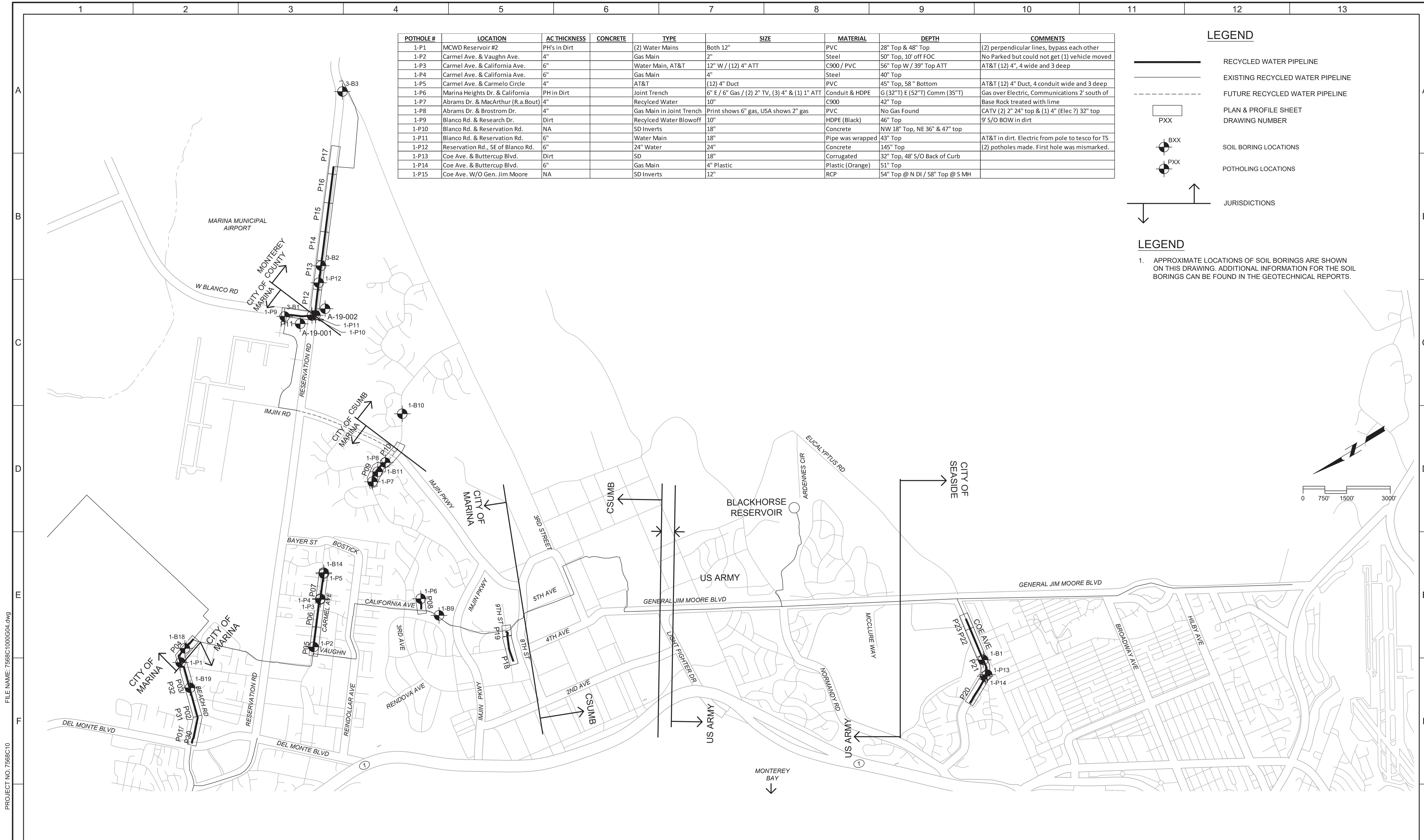
POTHOLE #	LOCATION	AC THICKNESS	CONCRETE	TYPE	SIZE	MATERIAL	DEPTH	COMMENTS
1-P1	MCWD Reservoir #2	PH's in Dirt		(2) Water Mains	Both 12"	PVC	28" Top & 48" Top	(2) perpendicular lines, bypass each other
1-P2	Carmel Ave. & Vaughn Ave.	4"		Gas Main	2"	Steel	50" Top, 10' off FOC	No Parked but could not get (1) vehicle moved
1-P3	Carmel Ave. & California Ave.	6"		Water Main, AT&T	12" W / (12) 4" ATT	C900 / PVC	56" Top W / 39" Top ATT	AT&T (12) 4", 4 wide and 3 deep
1-P4	Carmel Ave. & California Ave.	6"		Gas Main	4"	Steel	40" Top	
1-P5	Carmel Ave. & Carmelo Circle	4"		AT&T	(12) 4" Duct	PVC	45" Top, 58" Bottom	AT&T (12) 4" Duct, 4 conduit wide and 3 deep
1-P6	Marina Heights Dr. & California	PH in Dirt		Joint Trench	6" E / 6" Gas / (2) 2" TV, (3) 4" & (1) 1" ATT	Conduit & HDPE	G (32" T) E (52" T) Comm (35" T)	Gas over Electric, Communications 2' south of
1-P7	Abrams Dr. & MacArthur (R.a.Bout)	4"		Recycled Water	10"	C900	42" Top	Base Rock treated with lime
1-P8	Abrams Dr. & Brostrom Dr.	4"		Gas Main in Joint Trench	Print shows 6" gas, USA shows 2" gas	PVC	No Gas Found	CATV (2) 2" 24" top & (1) 4" (Elec ?) 32" top
1-P9	Blanco Rd. & Research Dr.	Dirt		Recycled Water Blowoff	10"	HDPE (Black)	46" Top	9' S/O BOW in dirt
1-P10	Blanco Rd. & Reservation Rd.	NA		SD Inverts	18"	Concrete	NW 18" Top, NE 36" & 47" top	
1-P11	Blanco Rd. & Reservation Rd.	6"		Water Main	18"	Pipe was wrapped	43" Top	AT&T in dirt. Electric from pole to tesco for TS
1-P12	Reservation Rd., SE of Blanco Rd.	6"		24" Water	24"	Concrete	145" Top	(2) potholes made. First hole was mismarked.
1-P13	Coe Ave. & Buttercup Blvd.	Dirt		SD	18"	Corrugated	32" Top, 48' S/O Back of Curb	
1-P14	Coe Ave. & Buttercup Blvd.	6"		Gas Main	4" Plastic	Plastic (Orange)	51" Top	
1-P15	Coe Ave. W/O Gen. Jim Moore	NA		SD Inverts	12"	RCP	54" Top @ N DI / 58" Top @ S MH	

LEGEND

- RECYCLED WATER PIPELINE
- EXISTING RECYCLED WATER PIPELINE
- FUTURE RECYCLED WATER PIPELINE
- PLAN & PROFILE SHEET DRAWING NUMBER
- SOIL BORING LOCATIONS
- POTHOLING LOCATIONS
- JURISDICTIONS

LEGEND

1. APPROXIMATE LOCATIONS OF SOIL BORINGS ARE SHOWN ON THIS DRAWING. ADDITIONAL INFORMATION FOR THE SOIL BORINGS CAN BE FOUND IN THE GEOTECHNICAL REPORTS.



PROJECT NO. 7568C10
 FILE NAME: 7568C100CG04.dwg
 LAST SAVED BY: bhawes

BID DOCUMENTS

DESIGNED	JPM
DRAWN	BH
CHECKED	
DATE	JANUARY 2020



Digitally signed by Jonathan P. Marshall
 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:50:42 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT




RECYCLED WATER DISTRIBUTION MAINS

INDEX MAP

VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. G04
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 4 OF 58

REV	DATE	BY	DESCRIPTION
1			
2			
3			

LEGEND

-  RECYCLED WATER PIPELINE
-  EXISTING RECYCLED WATER PIPELINE
-  FUTURE RECYCLED WATER PIPELINE

BASIS OF BEARINGS

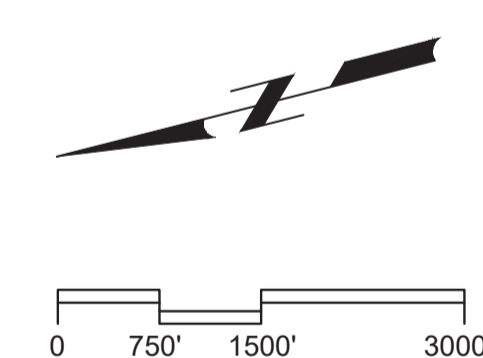
BEARINGS SHOWN HEREON ARE GRID BEARINGS PER THE CALIFORNIA COORDINATE SYSTEM, NAD 83, ZONE 4 (EPOCH 2002.00), AS DETERMINED BY GPS OBSERVATIONS AND THE NATIONAL GEODETIC SURVEY'S (NGS) ONLINE POSITIONING USER SERVICE (OPUS). ALL DISTANCES ARE GRID DISTANCES. AERIAL TOPOGRAPHY FLOWN AUGUST-SEPTEMBER 2006.

BENCHMARK:
ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). A PUBLISHED NAVD 88 ELEVATION OF 145.94 FEET FOR THE NGS BENCHMARK "L 813 RESET" (PID GU2130) WAS HELD AS THE PRIMARY VERTICAL BENCHMARK FOR THE PROJECT.

CONTROL POINT SCHEDULE

CONTROL POINTS WERE SURVEYED IN 2006 AND SOME OR ALL OF THE CONTROL POINTS MAY NO LONGER EXIST. CONTRACTOR SHALL ESTABLISH ITS OWN SURVEY CONTROL AND CONTROL POINTS, AS NEEDED TO COMPLETE THE WORK, USING A CALIFORNIA LICENSED CONTRACTOR.

PNT	NORTHING	EASTING	ELEV	DESC.
19001	2142599.8800	5742797.4330	90.9820	FX-GPS
19002	2142063.5140	5743881.6390	88.5720	FX-GPS
19003	2141389.2330	5745163.2400	114.8000	FX-GPS
19004	2141309.5600	5741695.2030	97.3480	FX-GPS
19013	2137665.4390	5741174.9930	130.8490	FX-GPS
19019	2134633.0900	5740897.8140	150.4370	FX-GPS
19021	2133173.9620	5740340.2300	206.2690	FX-GPS
19022	2132755.8840	5741832.4980	237.8680	FX-GPS
19023	2132699.1120	5739129.1190	189.7930	FX-GPS
19024	2131651.4220	5740203.1510	225.8050	FX-GPS
19025	2131261.4800	5741282.0600	263.8220	FX-GPS
19026	2131024.1060	5739056.8230	211.1530	FX-GPS
19032	2126100.9200	5737505.3680	373.2250	FX-GPS
19033	2125565.4180	5738939.3230	433.2550	FX-GPS
19034	2125051.3210	5740772.2650	475.9710	FX-GPS
19042	2122478.0950	5735365.8850	349.9050	FX-GPS
19045	2122088.4630	5734363.5160	289.7860	FX-GPS
19046	2121813.3660	5732252.8560	170.7200	FX-GPS
19055	2147339.2320	5740190.3170	33.5100	FX-GPS
19056	2148474.0510	5740967.5580	49.7520	FX-GPS
19057	2147309.2190	5742001.0490	49.8350	FX-GPS
19058	2147407.1230	5744361.0220	84.0050	FX-GPS
19070	2151072.3470	5749556.6120	163.9550	FX-GPS
19071	2150524.4820	5748702.3390	116.5200	FX-GPS
19073	2144031.8230	5743238.5390	69.4050	FX-GPS
19076	2144989.5090	5745192.5570	91.4290	FX-GPS
19077	2146208.3930	5746797.1310	97.9120	FX-GPS
19078	2145152.3510	5747219.1400	116.2950	FX-GPS
19079	2146166.4390	5748699.7140	124.8540	FX-GPS
19080	2146728.7280	5751083.0650	139.4560	FX-GPS
19081	2147265.6620	5749575.6640	138.0040	FX-GPS
19082	2148680.7490	5750348.0640	112.7270	FX-GPS
19083	2149371.8540	5749452.1470	103.1600	FX-GPS
19087	2136943.6210	5746836.0720	156.0600	FX-GPS
19088	2136465.4600	5748166.0590	165.4360	FX-GPS
19089	2135649.5720	5749491.6670	198.3320	FX-GPS
19091	2138398.3610	5746212.4750	164.3510	FX-GPS
19093	2138316.1800	5747921.7540	170.8830	FX-GPS
19099	2133805.3130	5740814.1030	205.6630	BENT
19100	2133491.2210	5740793.1420	210.2370	BENT
19101	2133534.4740	5741136.5250	220.5250	RBR/CAP
19102	2133089.9190	5741878.5170	229.4950	BENT
19103	2125194.6960	5740401.2660	481.9820	BEST
19104	2125329.3140	5740278.9840	483.8590	RBR/CAP
19105	2125290.9710	5740180.9040	486.3650	RBR/CAP
19106	2125158.0410	5740213.8580	484.4970	RBR/CAP
19109	2137468.2768	5741630.6413	155.5131	BENT
19110	2140468.2590	5743581.1930	115.2620	BENT
19111	2140820.2480	5743109.4090	111.9810	RBR/CAP
19112	2141087.1410	5742578.9350	117.6130	BENT
19113	2141089.0660	5742044.6150	100.5100	BENT
19114	2143776.3260	5743396.0700	79.2260	RBR/CAP
19115	2129615.9240	5738484.7380	252.9510	RBR/CAP
19116	2130465.2970	5738742.3010	240.0800	RBR/CAP
19117	2145943.2940	5744885.2410	93.0180	BENT
19118	2145759.7660	5744783.7430	82.6960	BENT
19119	2145533.1360	5744523.3610	78.8310	BENT
19123	2145825.1100	5745306.3140	98.1610	REBAR/CAP/FX
19124	2145535.1720	5744618.4680	78.6210	BENT/FX
19125	2146631.4730	5744166.2840	94.3930	BENT/FX
19126	2145274.2480	5745376.4540	96.5420	1/2 RBR BE CAP
19127	2146015.0830	5744902.6950	99.0380	1/2 RBR BE CAP
19128	2146210.5390	5744795.3970	105.6980	1/2 RBR BE CAP
19129	2146643.9570	5744578.8500	107.9380	BENT
19130	2146696.9600	5744264.5030	100.8720	BENT
19133	2144168.5450	5743359.2480	69.2780	BENT



FILE NAME: 7568C1000G05.dwg
PROJECT NO. 7568C10
LAST SAVED BY: bhawes

BID DOCUMENTS

DESIGNED
JPM
DRAWN
BH
CHECKED
AP
DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:46:40 -0800



**Marina
Coast
Water
District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL
SURVEY CONTROL POINTS

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
G05

SHEET NO.
5 OF 58

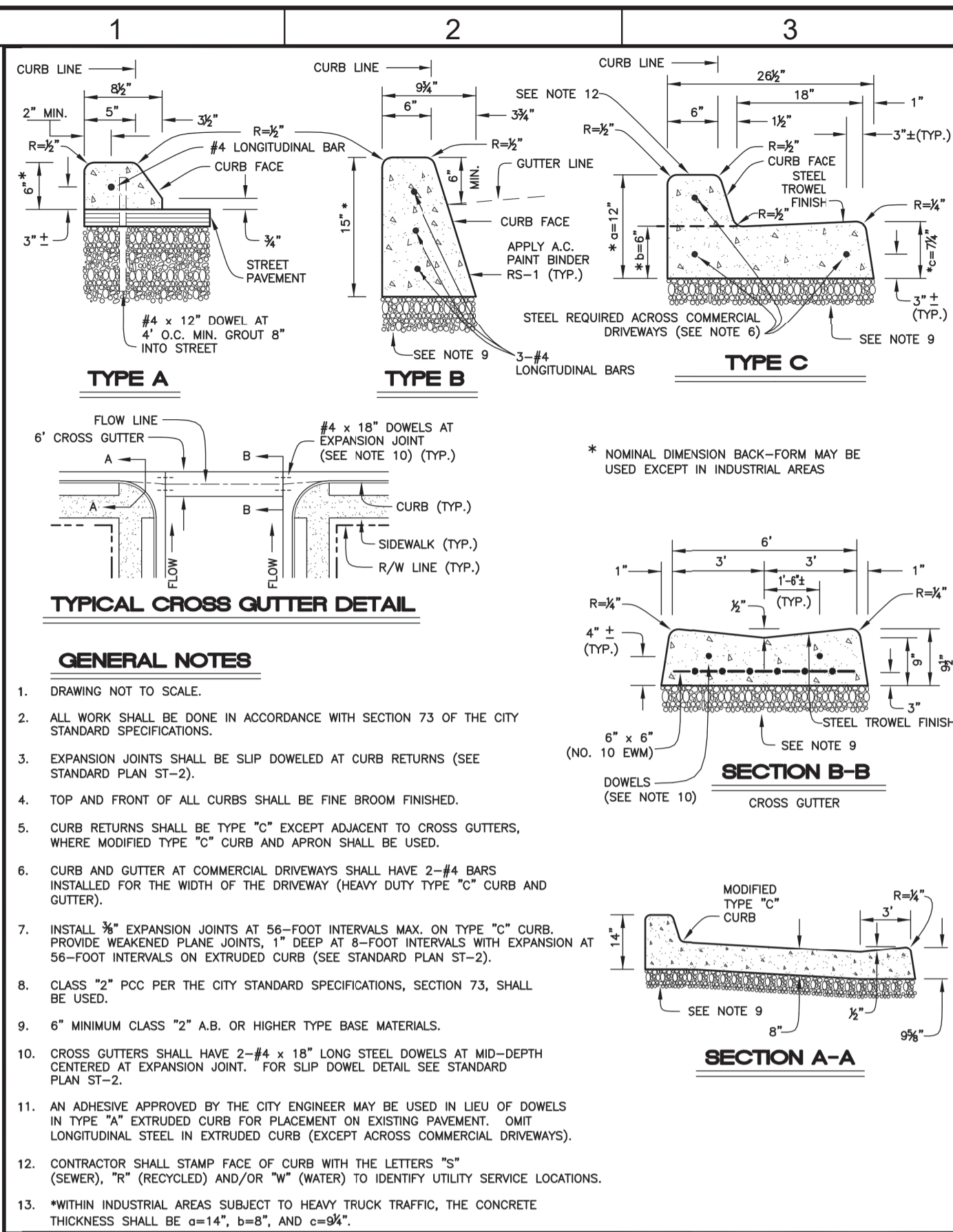
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Plot Date: 1/25/2020 6:58:32 AM

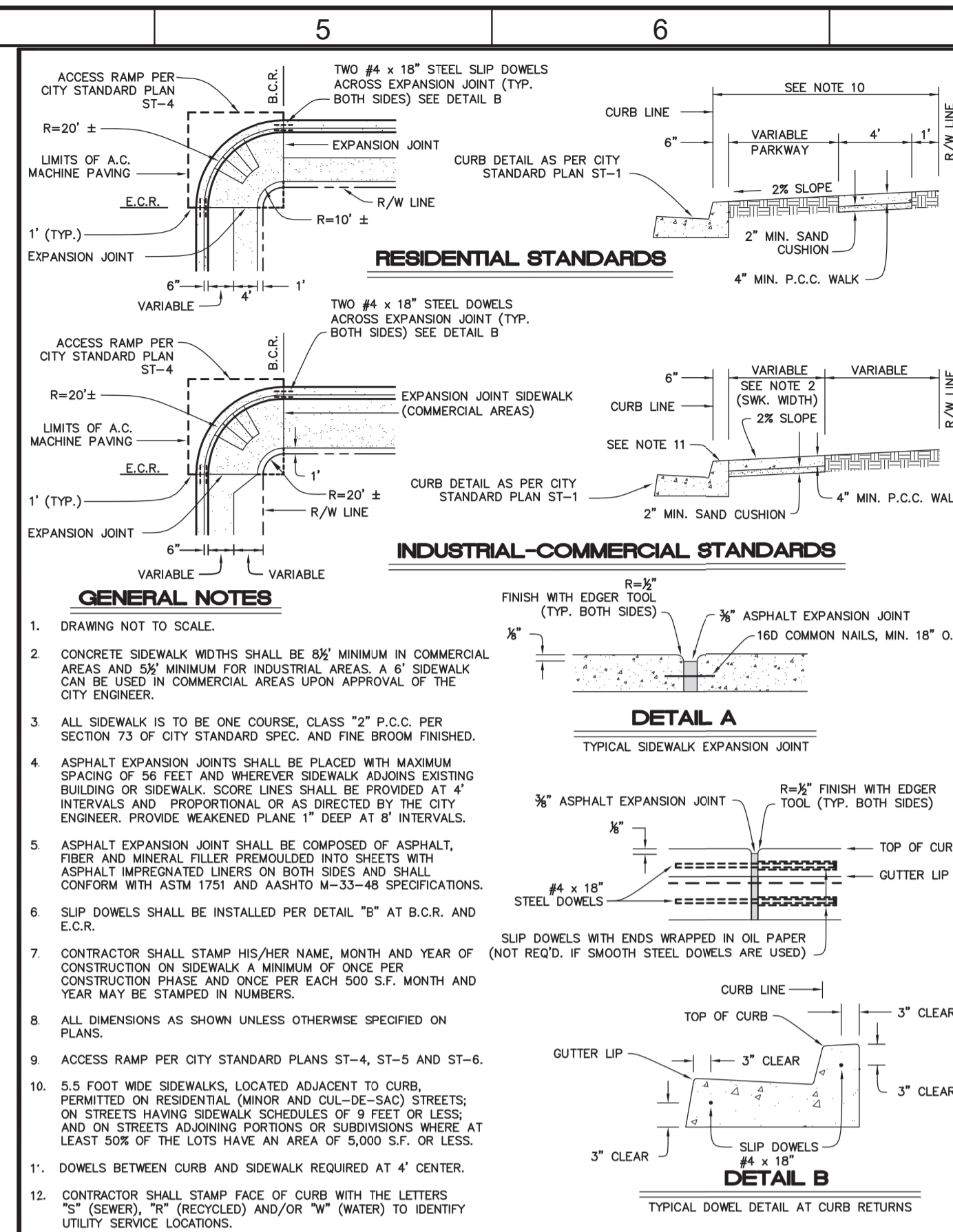
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PROJECT NO. 7569C10

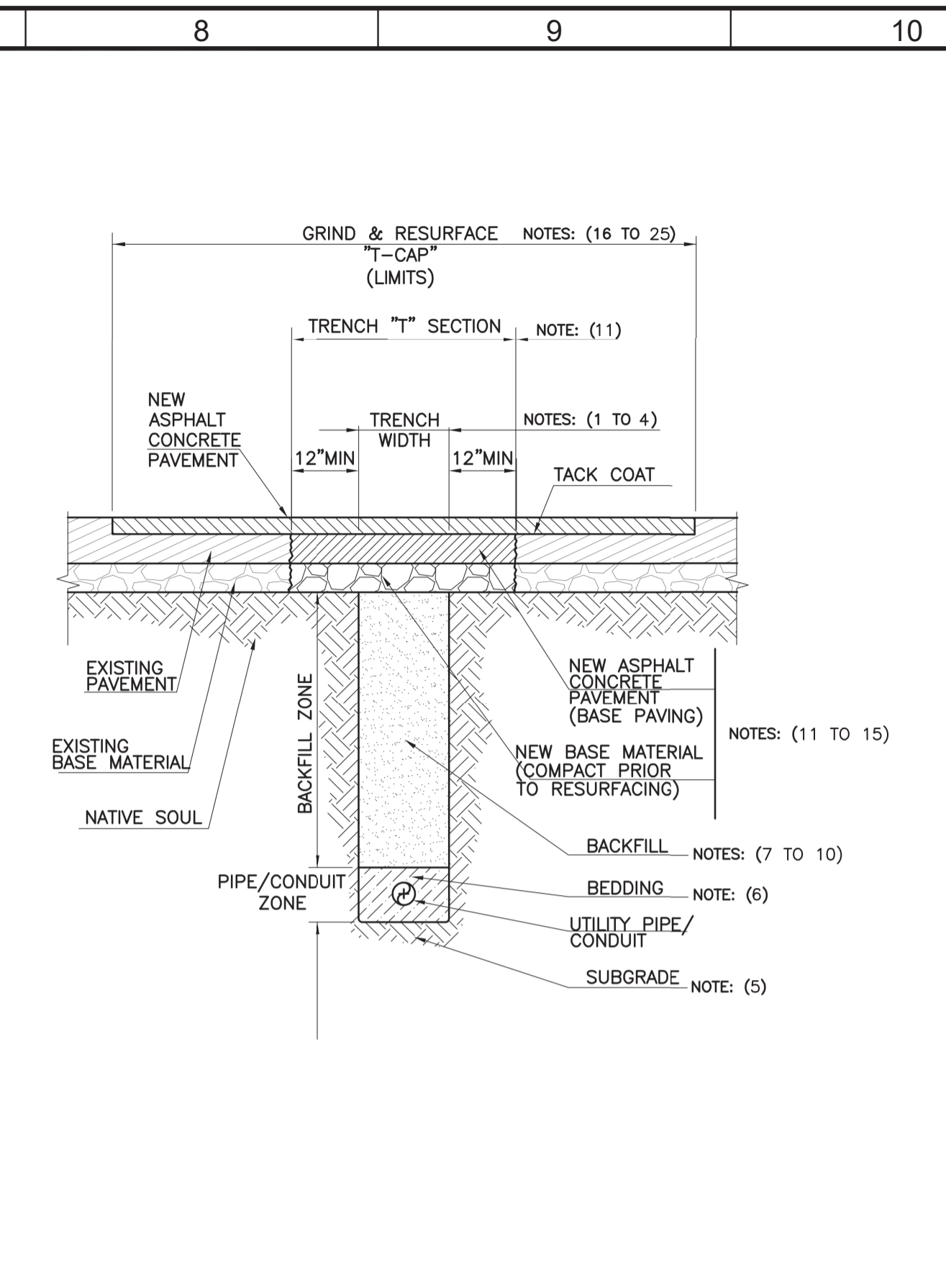
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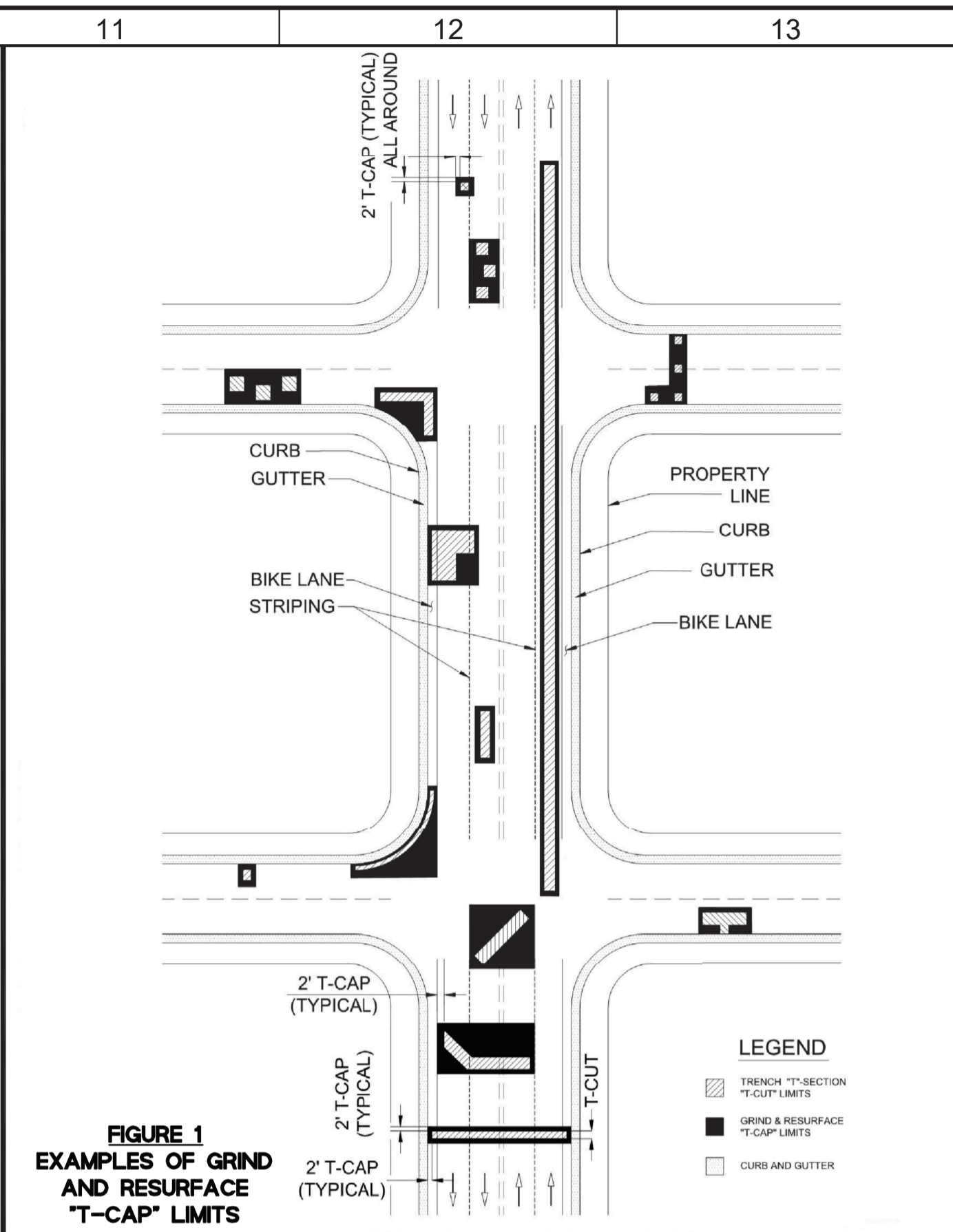
APPROVED:	COMMUNITY DEVELOPMENT DEPARTMENT PUBLIC WORKS DIVISION CITY OF MARINA	STANDARD PLAN
Acting City Engineer	TITLE	ST-1
REVISION:	CURB AND GUTTER	



APPROVED:	COMMUNITY DEVELOPMENT DEPARTMENT PUBLIC WORKS DIVISION CITY OF MARINA	STANDARD PLAN
Acting City Engineer	TITLE	ST-2
REVISION:	SIDEWALKS AND CURB RETURNS	



APPROVED:	PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION CITY OF MARINA	STANDARD PLAN
CITY ENGINEER	TITLE	SD-1
REVISION:	T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS	SH. 1 OF 4



APPROVED:	PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION CITY OF MARINA	STANDARD PLAN
CITY ENGINEER	TITLE	SD-1
REVISION:	T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS	SH. 2 OF 4

NOTES:
ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF CALTRANS SPECIFICATIONS.

LIMITS OF REMOVALS, TRENCH WIDTH:

- ALL PAVEMENT REMOVED SHALL HAVE STRAIGHT EDGES. CUTS SHALL BE MADE TO A MINIMUM DEPTH OF ONE AND A HALF (1-1/2) INCHES. ALL CUTS SHALL BE NEAT, STRAIGHT, VERTICAL CUTS WITH NO BROKEN EDGES.
- ALL LONGITUDINAL PAVEMENT CUTS SHALL BE UNINTERRUPTED APPROXIMATELY PARALLEL TO THE TRENCH (MAX. 1:6 LONGITUDINAL VARIANCE).
- WHEN SAW CUTTING PAVEMENT, THE MAXIMUM OVERRUN ALLOWED FOR ANY SAW CUT BEYOND THE BOUNDARY REMOVAL LIMITS OF EXISTING PAVEMENT SHALL BE TO THE NEAREST COMPETENT PAVEMENT SURFACE.
- TRENCH WIDTH SHALL BE MINIMUM 24 INCHES, UNLESS SLURRY BACKFILL AND BEDDING IS USED, IN WHICH CASE MINIMUM SHALL BE 4 INCHES.

BEDDING:

- FINE GRADING (SUBGRADE), BEDDING, AND BACKFILL PER P002/TYP.
- FINE GRADING (SUBGRADE), BEDDING, AND BACKFILL PER P002/TYP.

BACKFILL:

- FINE GRADING (SUBGRADE), BEDDING, AND BACKFILL PER P002/TYP.
- FINE GRADING (SUBGRADE), BEDDING, AND BACKFILL PER P002/TYP.
- FINE GRADING (SUBGRADE), BEDDING, AND BACKFILL PER P002/TYP.
- FINE GRADING (SUBGRADE), BEDDING, AND BACKFILL PER P002/TYP.

TRENCH "T" SECTION ("T-CUT"):

- AFTER THE EXCAVATION HAS BEEN BACKFILLED, THE EXISTING PAVEMENT SHALL BE REMOVED TO A CLEAN SAWCUT LINE AT LEAST 12-INCHES DEPTH OF THE FIRM BANKS OF THE TRENCH AND THIS AREA ADJACENT TO THE TRENCH SHALL BE COMPACTED TO 95% RELATIVE DENSITY (T-CUT). EXISTING CMB OR CAS BASE MATERIAL IN THIS AREA DOES NOT NEED TO BE REMOVED. IF SLURRY TRENCH WIDTH IS LESS THAN 12 INCHES, EXISTING PAVEMENT SHALL BE REMOVED TO PROVIDE AT LEAST A 12 INCH WIDE OPENING FOR PROPER COMPACTION OF THE BASE MATERIAL.
- NEW BASE MATERIAL OF CMB, OR CAS, SHALL MATCH THE EXISTING BASE THICKNESS, OR 6-INCHES, WHICHEVER IS GREATER. COMPACT TO 95% RELATIVE DENSITY. THIS REQUIREMENT SHALL ALSO APPLY OVER SLURRY BACKFILLS UNLESS OTHERWISE SPECIFIED IN THE PERMIT.

APPROVED:	PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION CITY OF MARINA	STANDARD PLAN
CITY ENGINEER	TITLE	SD-1
REVISION:	T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS	SH. 3 OF 4

NOTES: (CONTINUED)

- NEW ASPHALT CONCRETE SECTION SHALL MATCH EXISTING PAVEMENT THICKNESS, OR 4-INCHES, WHICHEVER IS GREATER. HMA SHALL BE TYPE A 1/2" GRADIENT UNLESS OTHERWISE STATED IN PERMIT.
- ASPHALT CONCRETE PAVING WILL OCCUR NO SOONER THAN 42 HOURS AFTER SLURRY BACKFILL OF TRENCH.
- IF A SAW CUT IN PAVEMENT FALLS WITHIN 2 FEET OF AN EXISTING CURB, GUTTER, OR EDGE OF PAVEMENT, THE ADDITIONAL PAVEMENT SHALL BE REMOVED AND RECONSTRUCTED.

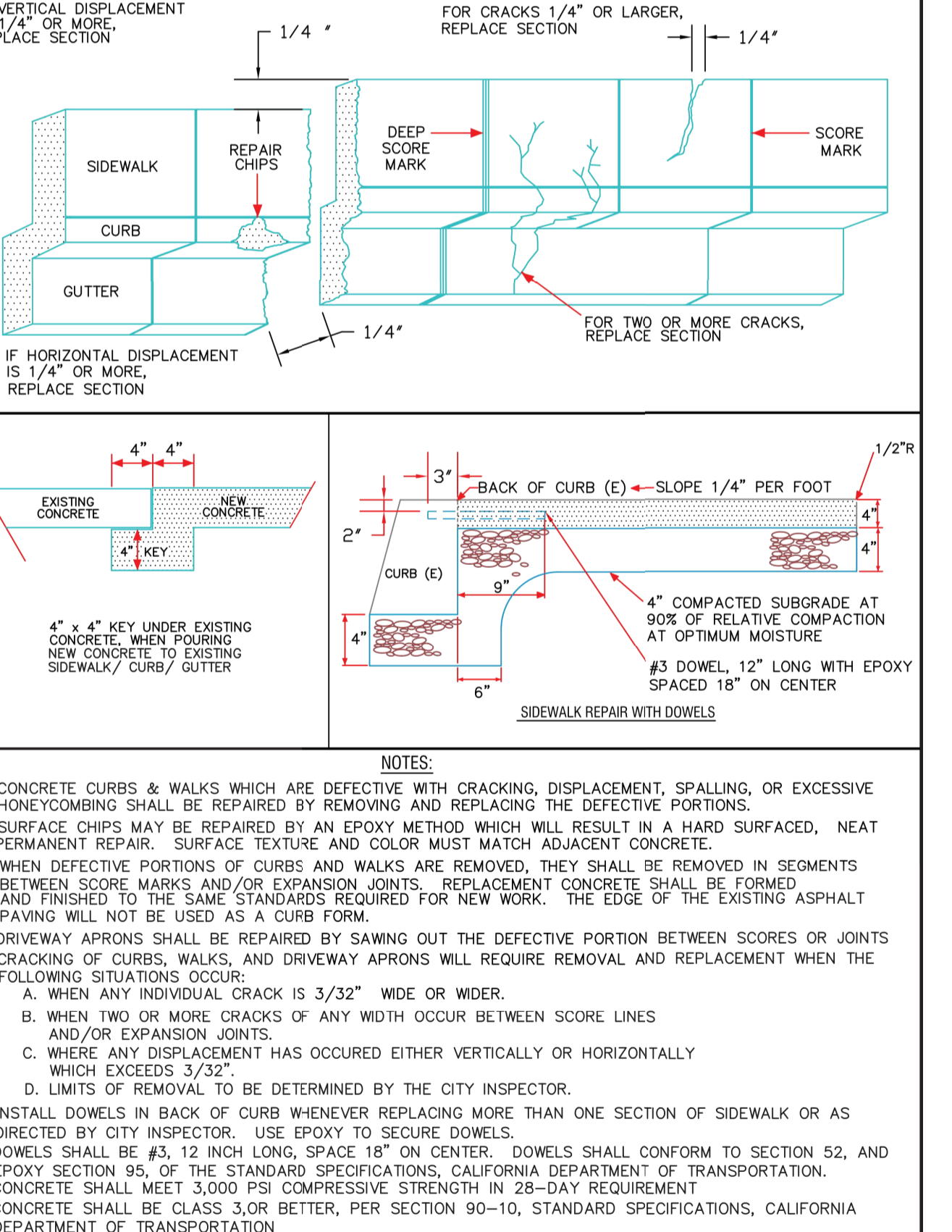
GRIND AND RESURFACE ("T-CAP"):

- WITHIN 30 CALENDAR DAYS AFTER BACKFILLING, ASPHALT CONCRETE SHALL BE COLD MILLED AND RESURFACED AS FOLLOWS:
- EXISTING ASPHALT CONCRETE SHALL BE GROUND DOWN ONE AND ONE HALF (1-1/2) INCHES, OR ONE HALF THE EXISTING PAVEMENT THICKNESS, WHICHEVER IS GREATER, TO THE "T-CAP" LIMITS.
- "T-CAP" LIMITS SHALL BE FROM FIGURE 1, "EXAMPLES OF GRIND AND RESURFACE "T-CAP" LIMITS".
- "T-CAP" LIMITS SHALL EXTEND AT LEAST 2 FEET BEYOND THE TRENCH "T-CUT" LIMITS. MINIMUM "T-CAP" DIMENSIONS SHALL BE 6 FEET x 6 FEET.
- "T-CUT" AND CORRESPONDING "T-CAP" (AS APPLICABLE) IS REQUIRED FOR ALL EXCAVATIONS WITH A SURFACE AREA OF 2 SQ. FT OR GREATER.
- WHERE LIMITS OF "T-CUTS", "T-CAPS", POT HOLES OR CORED HOLES ARE WITHIN 4FT OF EACH OTHER, THE PAVEMENT SURFACE RESTORATION SHALL BE COMBINED, BLENDED AND SQUARED USING "T-CAPS" TO ENCOMPASS ALL AREAS IN BETWEEN AS SHOWN IN FIGURE 1. "T-CAP" LIMITS FOR POT HOLES AND CORE HOLES SHALL EXTEND A MINIMUM OF 1-FOOT ALL AROUND BEYOND THE HOLES.
- IMPACTED BIKE LANES - "T-CAP" LIMITS SHALL FULLY ENCOMPASS ANY BIKE LANE IMPACTED BY THE TRENCH, AND SHALL HAVE A LENGTH THAT EXTENDS AT LEAST 2 FEET BEYOND THE ASPHALT REMOVAL LIMITS IN THE DIRECTION OF BIKE TRAFFIC.
- WHEN THE "T-CAP" LIMIT IS WITHIN 2 FEET OR LESS FROM A CURB OR GUTTER, THE "T-CAP" LIMIT SHALL EXTEND TO THE CURB OR GUTTER.
- PAVEMENT SHALL BE LEVEL WITH ADJACENT ROADWAY ELEVATIONS AND SHALL PROVIDE A SMOOTH SURFACE PER CALTRANS SECTION 39 AND SUBJECT TO ACCEPTANCE BY THE CITY PUBLIC WORKS INSPECTOR.
- "T-CAP" AND PERMANENT BASE PAVING MAY BE PERFORMED ON THE SAME DAY WHEN FEASIBLE.

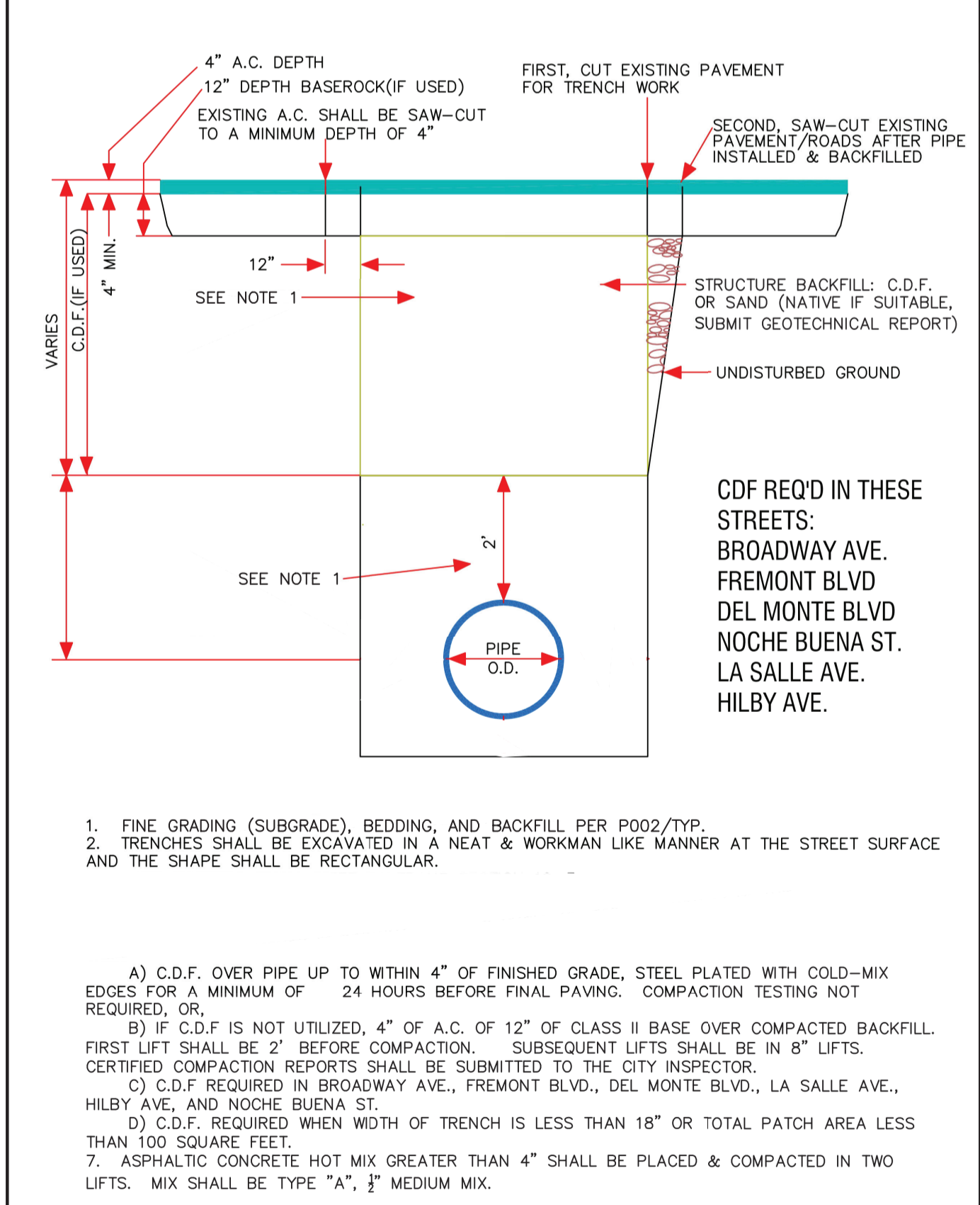
TEMPORARY RESURFACING:

- TEMPORARY SURFACING SHALL BE EITHER COLD PATCH (MIN. 3"), TEMPORARY HMA (MIN. 3"), OR IMBEDDED ANTI-SKID STEEL PLANTING FLUSH TO ADJACENT PAVEMENT SURFACE. IF STEEL PLATING IS USED, ADVANCED WARNING SIGNAGE SHALL BE INSTALLED.

APPROVED:	PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION CITY OF MARINA	STANDARD PLAN
CITY ENGINEER	TITLE	SD-1
REVISION:	T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS	SH. 4 OF 4



APPROVED:	PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION CITY OF MARINA	STANDARD DRAWING FOR
CITY ENGINEER	TITLE	REPAIR OF CURB, GUTTER & SIDEWALK
REVISION:	Drawing File No. S-102	CITY COUNCIL RESOLUTION NO.



APPROVED:	PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION CITY OF MARINA	STANDARD DRAWING FOR
CITY ENGINEER	TITLE	TRENCH BACKFILL SDR LESS THAN 26
REVISION:	Drawing File No. S-601	CITY COUNCIL RESOLUTION NO.

BID DOCUMENTS

DESIGNED

DRAWN
SDW

CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: carollo@carollo.com
Date: 2020.01.30 16:48:31 -0800



Marina
Coast
Water
District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
TYPICAL
AGENCY TYPICAL DETAILS - 1

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7569C.10

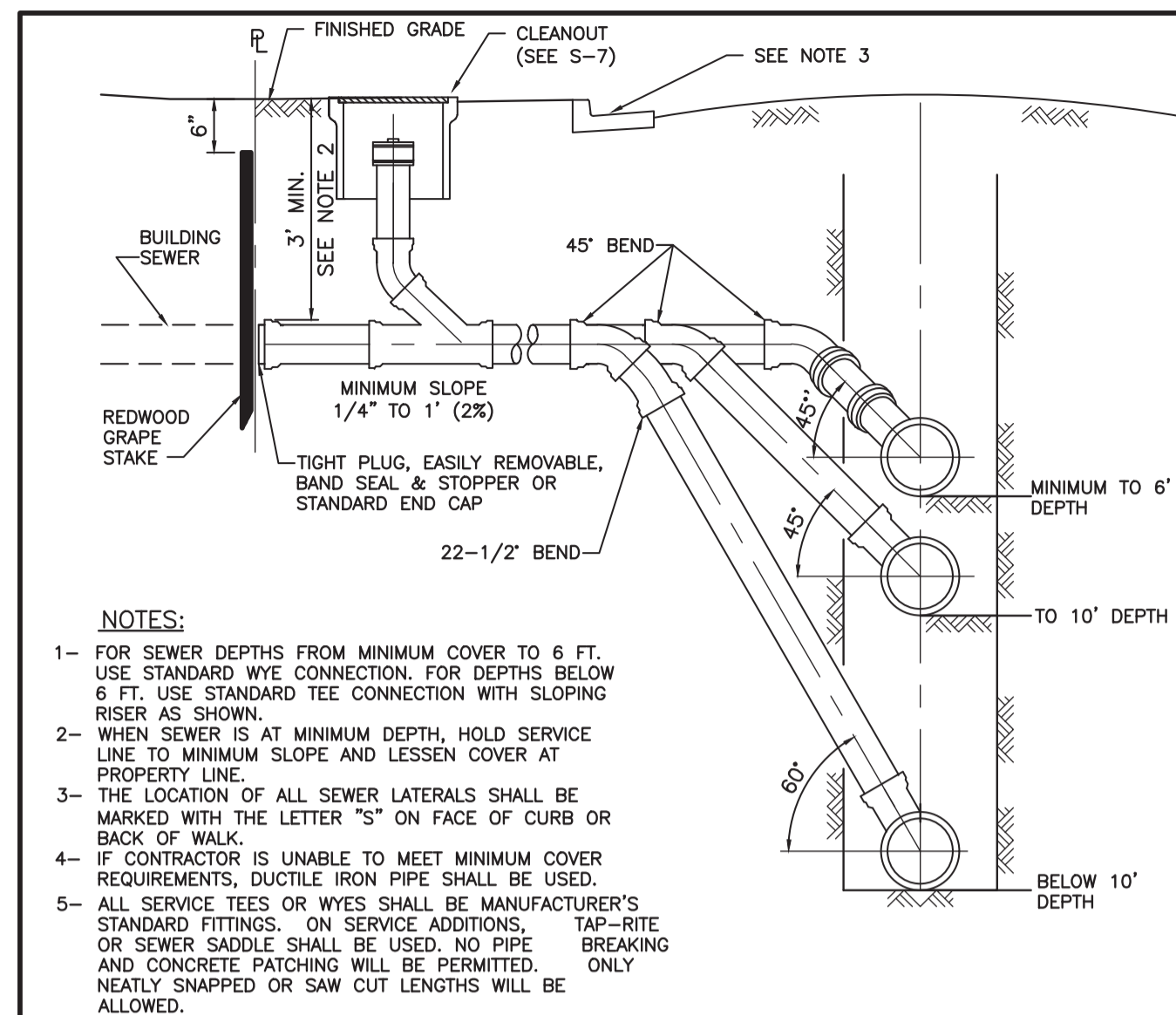
DRAWING NO.
T01

SHEET NO.
6 OF 58

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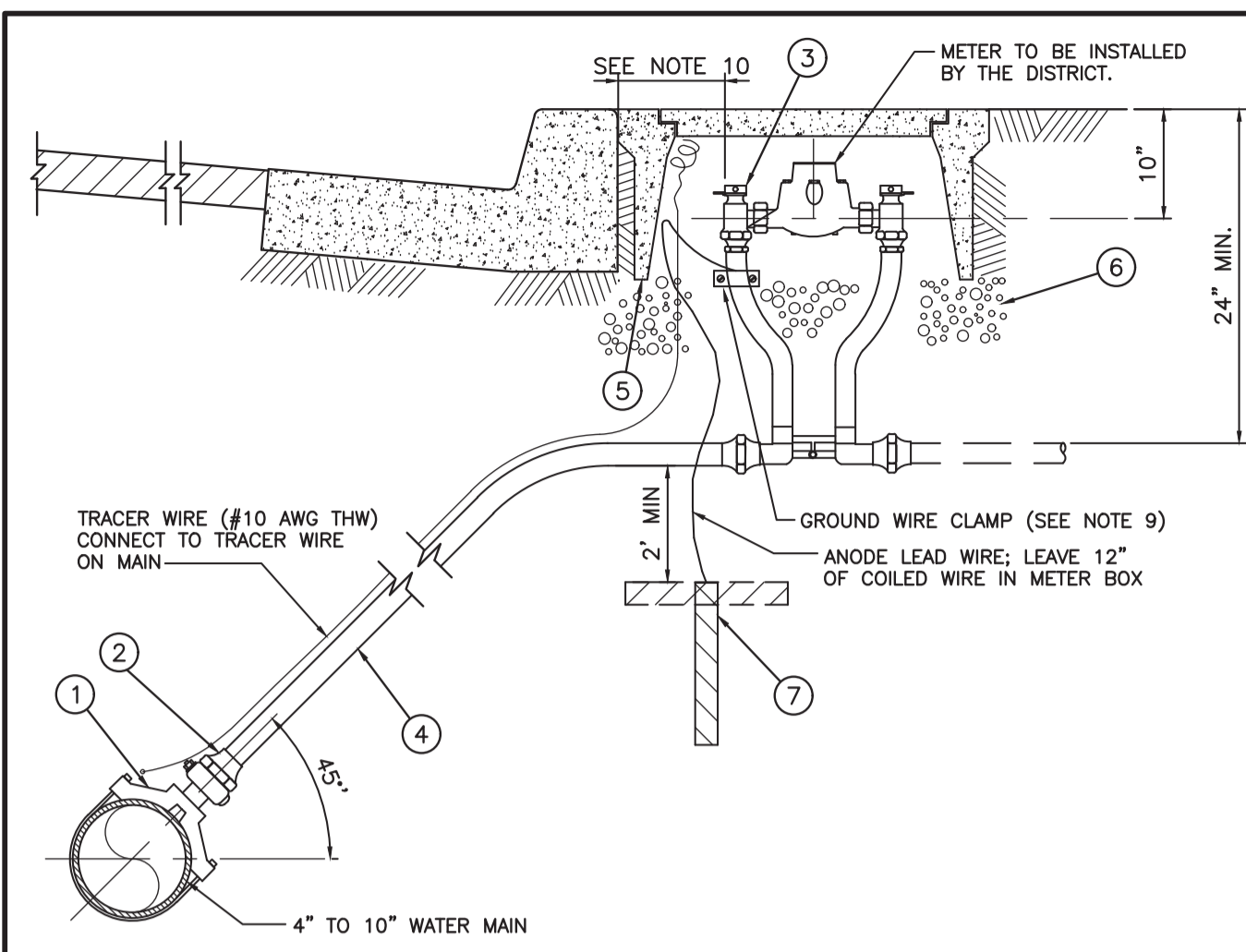


MATERIALS	
SANITARY SEWER PIPE MATERIAL	CUT-IN FITTING MATERIAL
PVC	PVC/DIP
DIP	DIP
VCP	PVC
CMLC	PVC

STANDARD WYE CUT-IN DETAIL

STANDARD TEE CUT-IN DETAIL

APPROVED BY DISTRICT ENGINEER		MARINA COAST WATER DISTRICT STANDARD PLAN	STANDARD
DATE		LATERAL CONNECTION	S-6
11/2007			SHEET 1 OF 1



MATERIALS	
ITEM NO.	SIZE & DESCRIPTION*
1	DOUBLE STRAP IRON BODY SERVICE SADDLE 1" I.P. OUTLET (FOR DUCTILE IRON PIPE MAINS)
2	3/4" BRONZE CORPORATION STOP I.P. THREAD X COMPRESSION (FOR DUCTILE IRON PIPE MAIN)
3	1" METER SIZE COPPERSETTER W/ 3/4" TO 1" METER SIZE MALE ADAPTOR (REQUIRED FOR 3/4" METERS), 15" HIGH, 1" INLET/OUTLET METERS)
4	1" COPPER OR POLYETHYLENE TUBING
5	METER BOX W/ CONCRETE LID CHRISTY BOX OR EQUAL
6	6" BASE OF 3/4" ROCK
7	ZINC ANODE AND LEAD WIRE. ANODE TO BE PLACED VERTICALLY OR HORIZONTALLY AT A MINIMUM SEPARATION OF 2 FEET FROM THE COPPER SERVICE. ANODE SHALL BE SIZED BASED ON METAL SURFACE AREA. ANODE SHALL BE BAGGED IN GYPSUM, BENTONITE AND SODIUM SULFATE.

DIELECTRICAL INSULATION FOR DIP MAINS

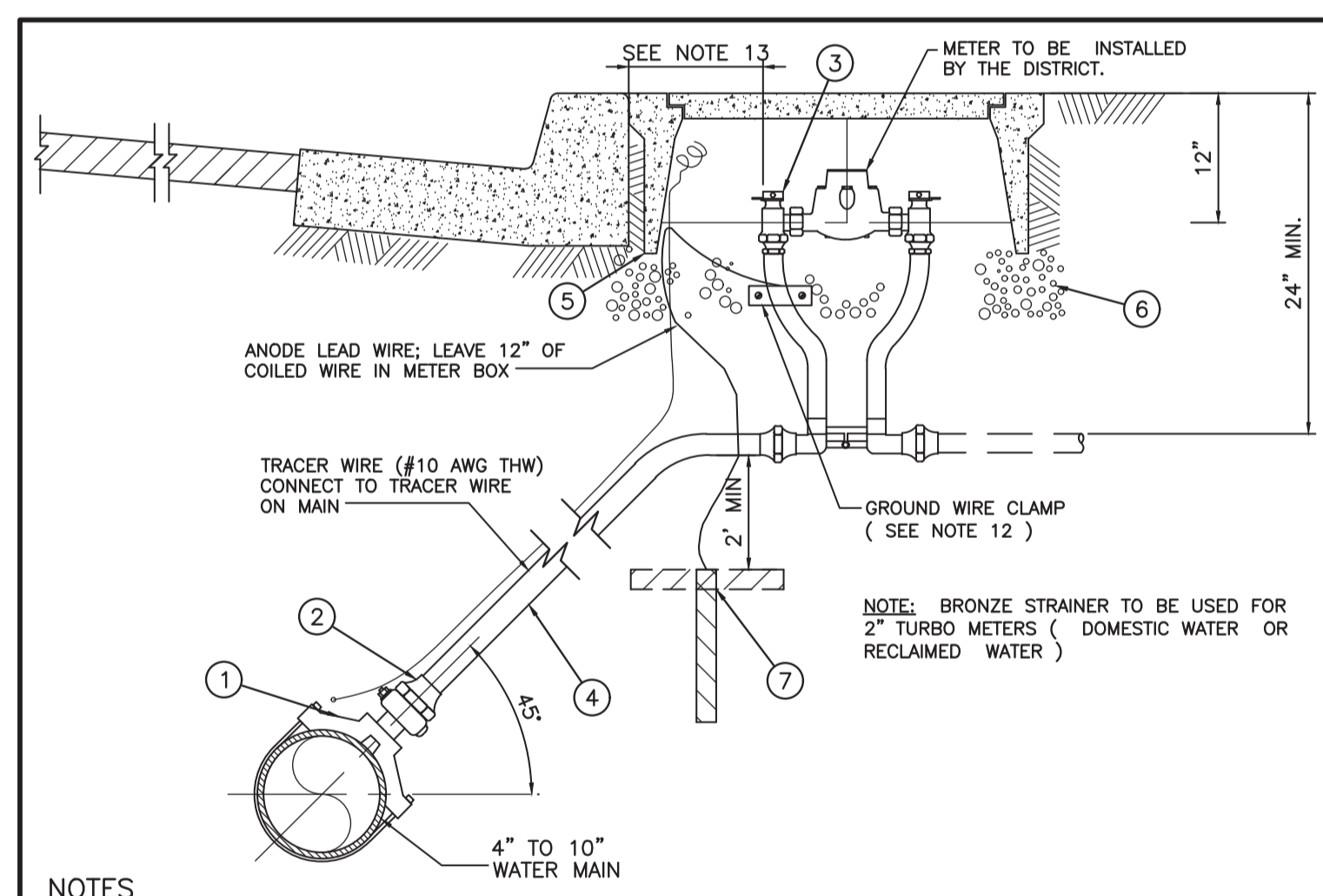
MATERIALS*:

- SERVICE SADDLE AND CORPORATION STOP
- BRONZE CORPORATION STOP MALE I.P. X F.I.P.
- NIPPLE MALE I.P. X MALE I.P., BRONZE
- DIELECTRIC UNION F.I.P. X SWEAT
- TYPE K COPPER SERVICE TUBING
- COMPRESSION ADAPTER

* SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS & MODELS.

GRIND 2" "W" IN CURB FACE TO IDENTIFY POTABLE WATER SERVICE LOCATION OR 2" "RW" TO IDENTIFY RECLAIMED WATER SERVICE LOCATION

APPROVED BY DISTRICT ENGINEER		MARINA COAST WATER DISTRICT STANDARD PLAN	STANDARD
DATE		1" WATER SERVICE INSTALLATION	W-1
11/2007			SHEET 1 OF 1



MATERIALS	
ITEM NO.	SIZE & DESCRIPTION*
1	DOUBLE STRAP IRON BODY SERVICE SADDLE 2" I.P. OUTLET (FOR DUCTILE IRON PIPE MAINS)
2	CAST BRONZE SERVICE SADDLE 2" I.P. OUTLET (FOR C900 PVC PIPE MAINS)
2A	2" BRONZE CORPORATION STOP MALE I.P. THREAD X COMPRESSION (FOR C900 PVC PIPE MAINS)
3	2" METER SIZE COPPERSETTERS, 15" HIGH
4	2" COPPER OR POLYETHYLENE TUBING
5	METER BOX W/ CONCRETE LID CHRISTY BOX OR EQUAL
6	6" BASE OF 3/4" ROCK
7	ZINC ANODE AND LEAD WIRE. ANODE IS TO BE PLACED VERTICALLY OR HORIZONTALLY AT A MINIMUM SEPARATION OF 2 FEET FROM THE COPPER SERVICE. ANODE SHALL BE SIZED BASED ON METAL SURFACE AREA. ANODE SHALL BE BAGGED IN GYPSUM, BENTONITE AND SODIUM SULFATE.

DIELECTRICAL INSULATION FOR DIP MAINS

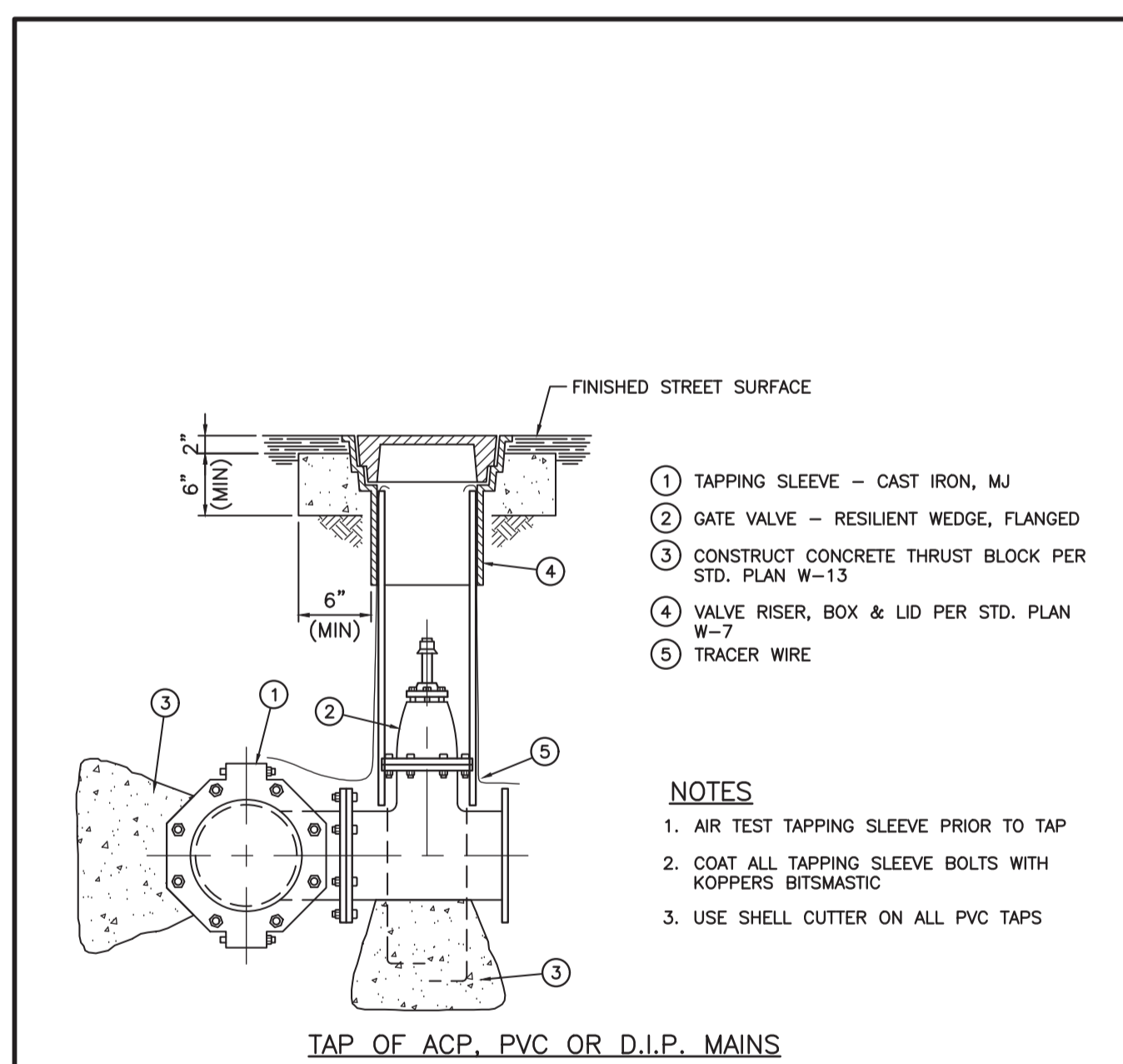
MATERIALS*:

- SERVICE SADDLE AND CORPORATION STOP
- BRONZE CORPORATION STOP MALE I.P. X F.I.P.
- NIPPLE MALE I.P. X MALE I.P., BRONZE
- DIELECTRIC UNION F.I.P. X SWEAT
- TYPE K COPPER SERVICE TUBING
- COMPRESSION ADAPTER

*SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS & MODELS.

GRIND 2" "W" IN CURB FACE TO IDENTIFY POTABLE WATER SERVICE LOCATION OR 2" "RW" TO IDENTIFY RECLAIMED WATER SERVICE LOCATION

APPROVED BY DISTRICT ENGINEER		MARINA COAST WATER DISTRICT STANDARD PLAN	STANDARD
DATE		2" WATER SERVICE INSTALLATION	W-2
11/2007			SHEET 1 OF 1



APPROVED BY DISTRICT ENGINEER		MARINA COAST WATER DISTRICT STANDARD PLAN	STANDARD
DATE		CONNECTION TO EXISTING PIPE	W-6
11/2007			SHEET 1 OF 1

PROJECT NO. 7568C10

LAST SAVED BY: immonis

BID DOCUMENTS

DESIGNED	JPM
DRAWN	TLR
CHECKED	
DATE	JANUARY 2020



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:20:38-0700



Marina Coast Water District

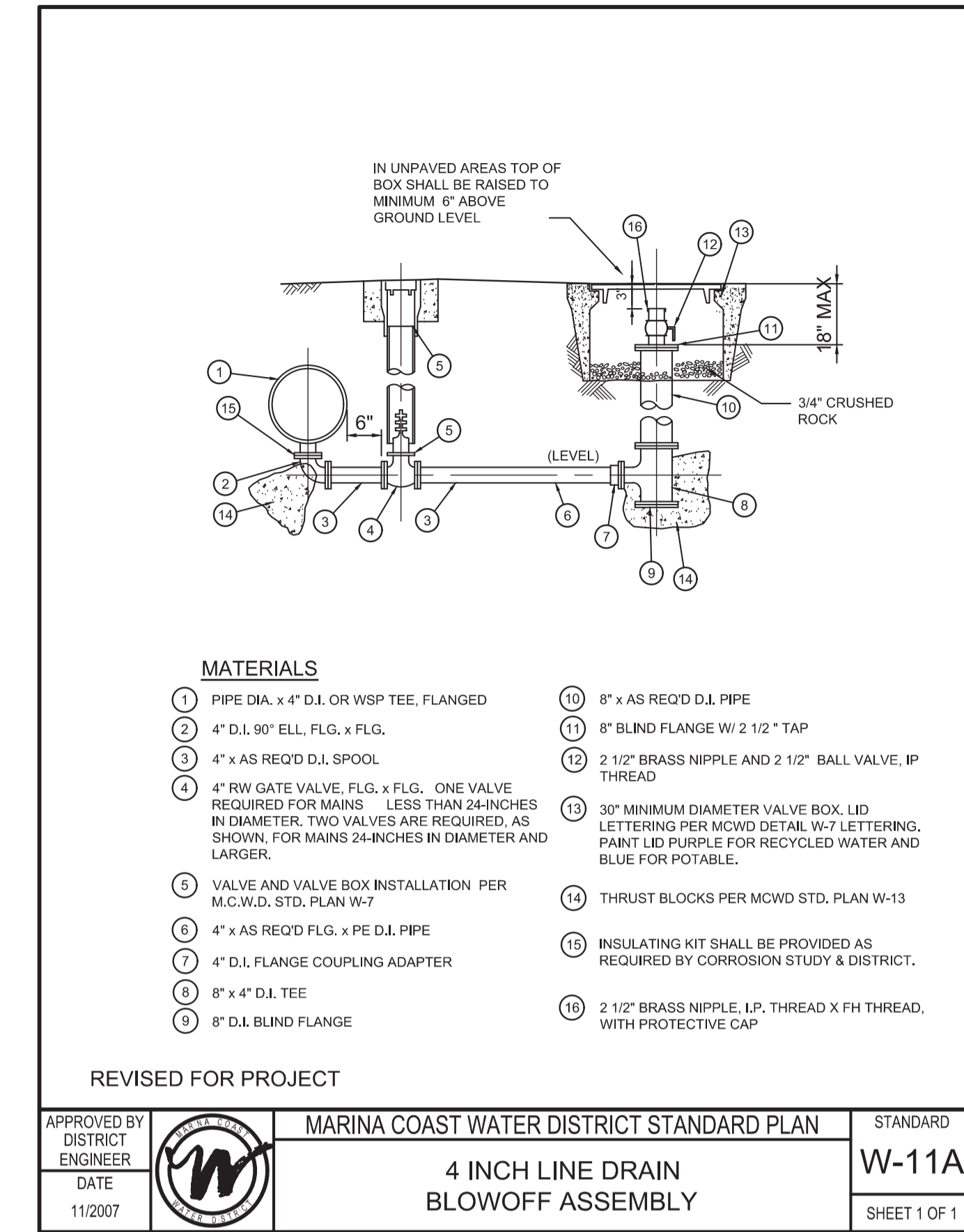
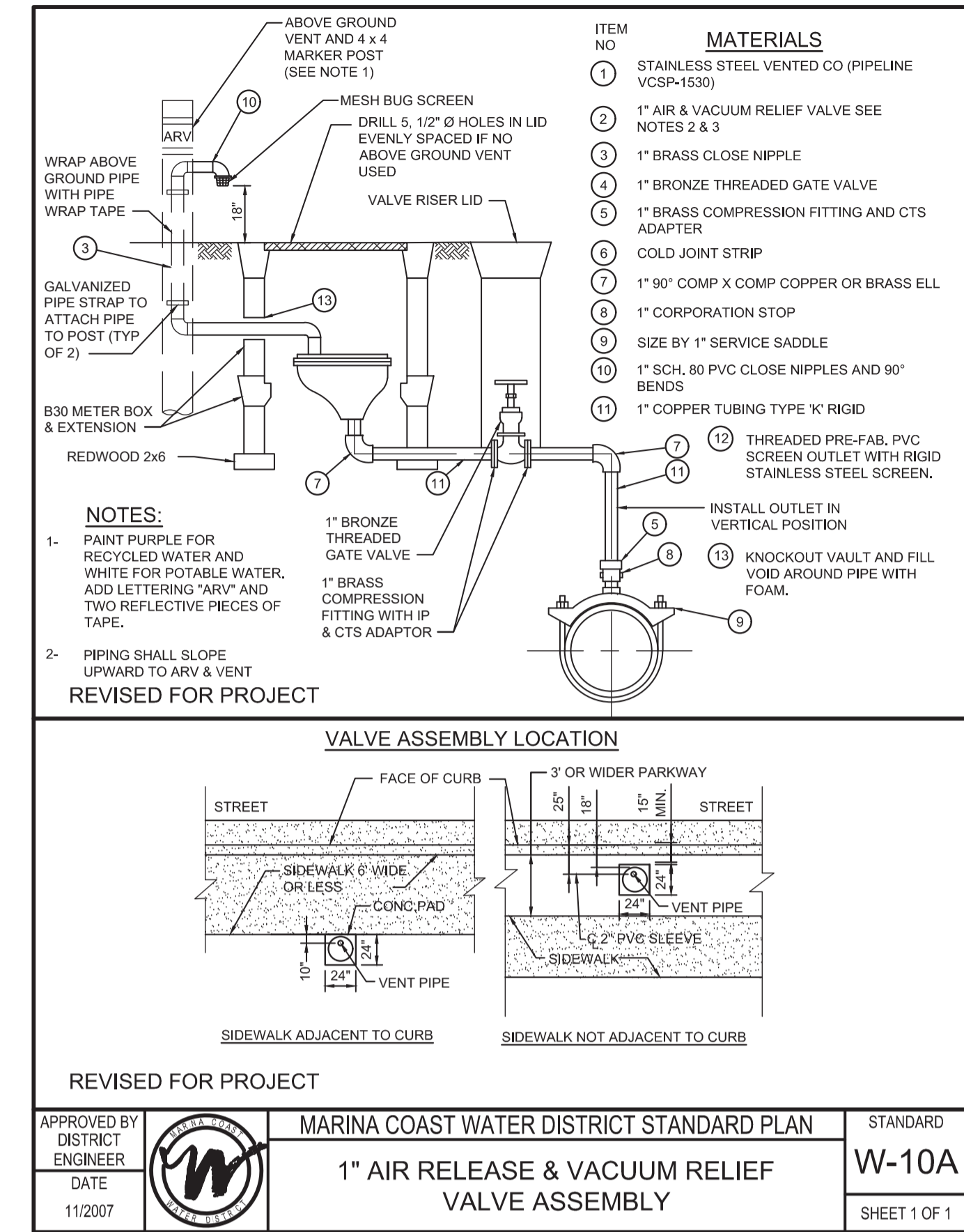
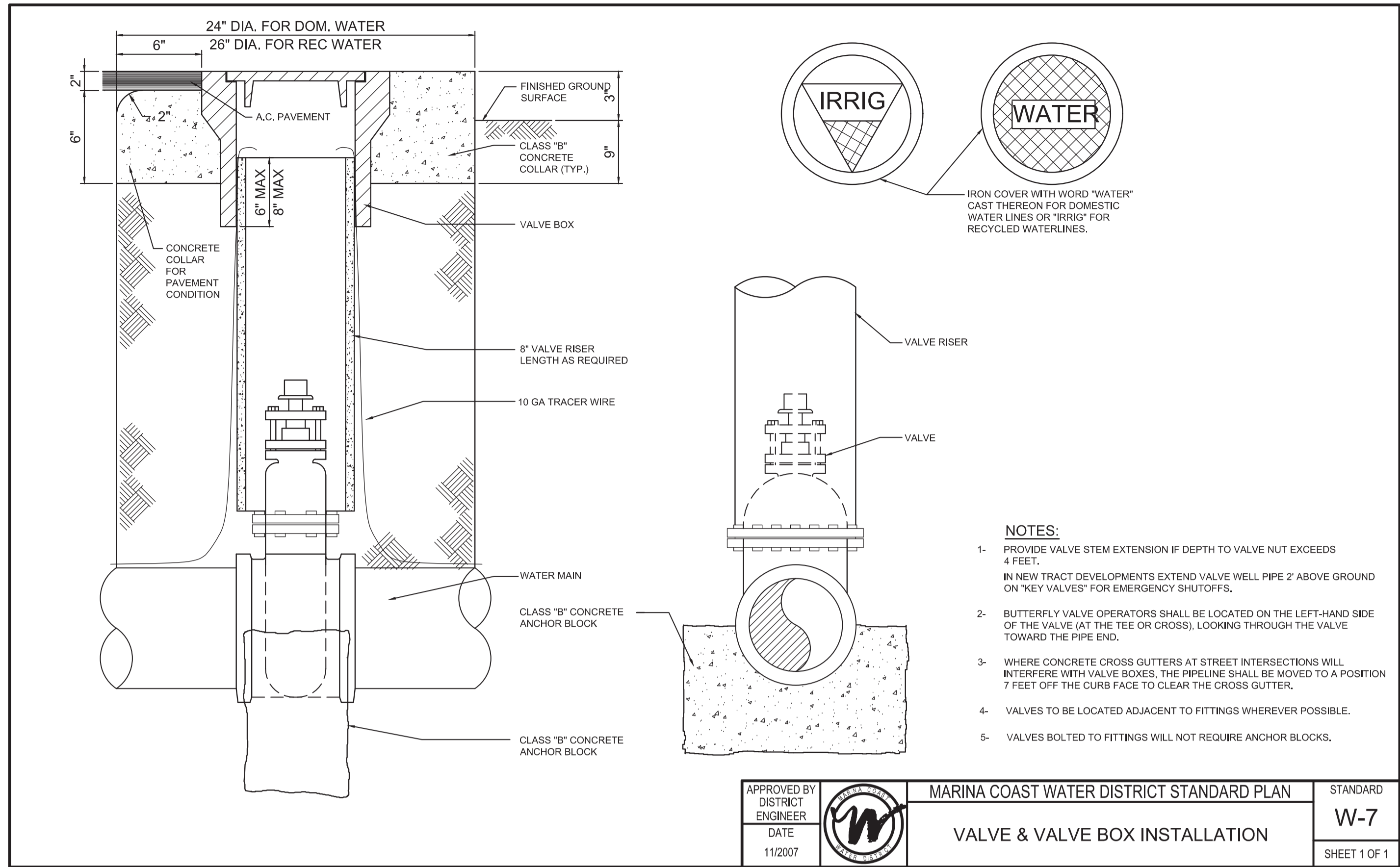
REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

TYPICALS
AGENCY TYPICAL DETAILS - 2

VERIFY SCALES	JOB NO. 7568C.10
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0 1" (Scale bar)	SHEET NO. 7 OF 58
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

Plot Date: 1/25/2020 7:17:07 AM



(A) NEW WATER MAINS AND NEW SUPPLY LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH AS, AND SHALL BE AT LEAST 10 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE, ANY PARALLEL PIPELINE CONVEYING:

- (1) UNTREATED SEWAGE,
- (2) PRIMARY OR SECONDARY TREATED SEWAGE,
- (3) DISINFECTED SECONDARY-2.2 RECYCLED WATER (DEFINED IN SECTION 60301.220),
- (4) DISINFECTED SECONDARY-23 RECYCLED WATER (DEFINED IN SECTION 60301.225), AND
- (5) HAZARDOUS FLUIDS SUCH AS FUELS, INDUSTRIAL WASTES, AND WASTEWATER SLUDGE.

(B) NEW WATER MAINS AND NEW SUPPLY LINES SHALL BE INSTALLED AT LEAST 4 FEET HORIZONTALLY FROM, AND ONE FOOT VERTICALLY ABOVE, ANY PARALLEL PIPELINE CONVEYING:

- (1) DISINFECTED TERTIARY RECYCLED WATER (DEFINED IN SECTION 60301.230), AND
- (2) STORM DRAINAGE.

(C) NEW SUPPLY LINES CONVEYING RAW WATER TO BE TREATED FOR DRINKING PURPOSES SHALL BE INSTALLED AT LEAST 4 FEET HORIZONTALLY FROM, AND ONE FOOT VERTICALLY BELOW, ANY WATER MAIN.

(D) IF CROSSING A PIPELINE CONVEYING A FLUID LISTED IN SUBSECTION (A) OR (B), A NEW WATER MAIN SHALL BE CONSTRUCTED NO LESS THAN 45-DEGREES TO AND AT LEAST ONE FOOT ABOVE THAT PIPELINE. NO CONNECTION JOINTS SHALL BE MADE IN THE WATER MAIN WITHIN EIGHT HORIZONTAL FEET OF THE FLUID PIPELINE.

(E) THE VERTICAL SEPARATION SPECIFIED IN SUBSECTIONS (A), (B), AND (C) IS REQUIRED ONLY WHEN THE HORIZONTAL DISTANCE BETWEEN A WATER MAIN AND PIPELINE IS LESS THAN TEN FEET.

(F) NEW WATER MAINS SHALL NOT BE INSTALLED WITHIN 100 HORIZONTAL FEET OF THE NEAREST EDGE OF ANY SANITARY LANDFILL, WASTEWATER DISPOSAL POND, OR HAZARDOUS WASTE DISPOSAL SITE, OR WITHIN 25 HORIZONTAL FEET OF THE NEAREST EDGE OF ANY CESSPOOL, SEPTIC TANK, SEWAGE LEACH FIELD, SEEPAGE PIT, UNDERGROUND HAZARDOUS MATERIAL STORAGE TANK, OR GROUNDWATER RECHARGE PROJECT SITE.

(G) THE MINIMUM SEPARATION DISTANCES SET FORTH IN THIS SECTION SHALL BE MEASURED FROM THE NEAREST OUTSIDE EDGE OF EACH PIPE BARREL.

(H) WITH STATE BOARD APPROVAL, NEWLY INSTALLED WATER MAINS MAY BE EXEMPT FROM THE SEPARATION DISTANCES IN THIS SECTION, EXCEPT SUBSECTION (F), IF THE NEWLY INSTALLED MAIN IS:

- (1) LESS THAN 1320 LINEAR FEET,
- (2) REPLACING AN EXISTING MAIN, INSTALLED IN THE SAME LOCATION, AND HAS A DIAMETER NO GREATER THAN SIX INCHES MORE THAN THE DIAMETER OF THE MAIN IT IS REPLACING, AND
- (3) INSTALLED IN A MANNER THAT MINIMIZES THE POTENTIAL FOR CONTAMINATION, INCLUDING, BUT NOT LIMITED TO:

- (A) SLEEVING THE NEWLY INSTALLED MAIN, OR
- (B) UTILIZING UPGRADED PIPING MATERIAL.

WATER MAIN SEPARATION REQUIREMENTS

State Water Resources Control Board
Division of Drinking Water

December 14, 2017

Separation of Water Mains and Non-Potable Pipelines – Requests for Alternatives to the Waterworks Standards

Dear Public Water System Owners and Operators:

This letter supersedes prior guidance regarding the separation of water mains and non-potable pipelines, including Guidance Memo 2003-02, dated October 16, 2003. Guidance Memo 2003-02 and previous versions should be discarded.

The California Waterworks Standards (California Code of Regulations (CCR), Title 22, Division 4, Chapter 16, Section 64572) establish criteria for the separation of raw water mains from non-potable pipelines. Public water systems should ensure that these distances are met, whenever feasible, for all new construction. The Division of Drinking Water (Division) recognizes that certain conditions may call for the installation of pipelines with less separation distance than what is required by the regulations. In these situations, the water system may propose an alternative pursuant to CCR, Title 22, Section 64551.100:

§64551.100. Waivers and Alternatives.

(a) A water system that proposes to use an alternative to a requirement in this chapter shall:

- (1) Demonstrate to the State Board that the proposed alternative would provide at least the same level of protection to public health; and
- (2) Obtain written approval from the State Board prior to implementation of the alternative.

In proposing an alternative to the Waterworks Standards, water systems should observe the following:

- The water system must accept responsibility for the adequacy of the proposed alternative. The Division may require a written statement, signed by the water system's management, certifying that the proposed alternative adequately protects public health.
- In most circumstances, the Division cannot offer technical assistance with pipeline or infrastructure design. The water system proposing an alternative must demonstrate adequate expertise on the part of its own personnel or its hired consultants.
- The water system should describe how the proposed alternative provides at least the same level of protection to public health as the minimum separation distances prescribed in the regulation.
- While exorbitant cost may present a hardship in meeting the regulatory separation requirements and can be considered, public health must be prioritized above construction costs in determining an acceptable alternative.

FELICIA MANTON, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR
1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov

WATER MAIN SEPARATION REQUIREMENTS

Public Water Systems - 2 - December 14, 2017

The Division has prepared an application checklist that may be used by water systems in proposing an alternative to the Waterworks Standards (Enclosure). The purpose of the checklist is to ensure that the Division has sufficient information to evaluate the proposal. **The water system may submit the information in a different format from the checklist, provided that the submittal provides adequate information.** The checklist may also be used to provide written certification that the proposed alternative adequately protects public health.

If you have any questions, please contact the Division office that oversees your water system.

Sincerely,

Darrin Polhemus, P.E.
Deputy Director
Division of Drinking Water

Enclosure: Waterworks Standards Main Separation Alternative Request Example Checklist

WATER MAIN SEPARATION REQUIREMENTS

REV	DATE	BY	DESCRIPTION

BID DOCUMENTS

DESIGNED JPM
DRAWN TLR
CHECKED

DATE JANUARY 2020

REGISTERED PROFESSIONAL ENGINEER
JONATHAN P. MARSHALL
No. 73265
CIVIL
STATE OF CALIFORNIA

Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:47:05-0800

Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

TYPICALS

AGENCY TYPICAL DETAILS - 3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
DRAWING NO. T03
SHEET NO. 8 OF 58

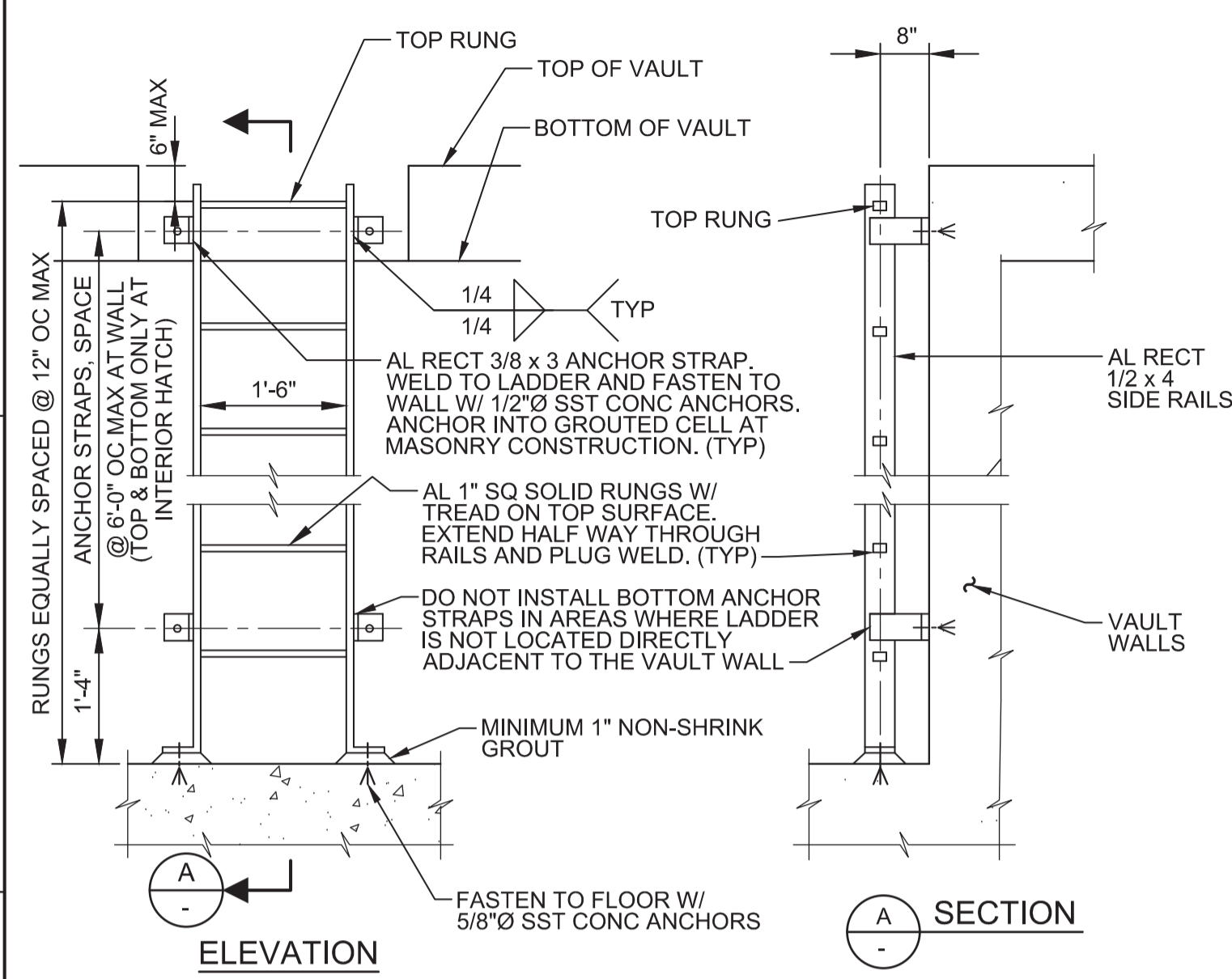
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Plot Date: 1/25/2020 7:03:13 AM

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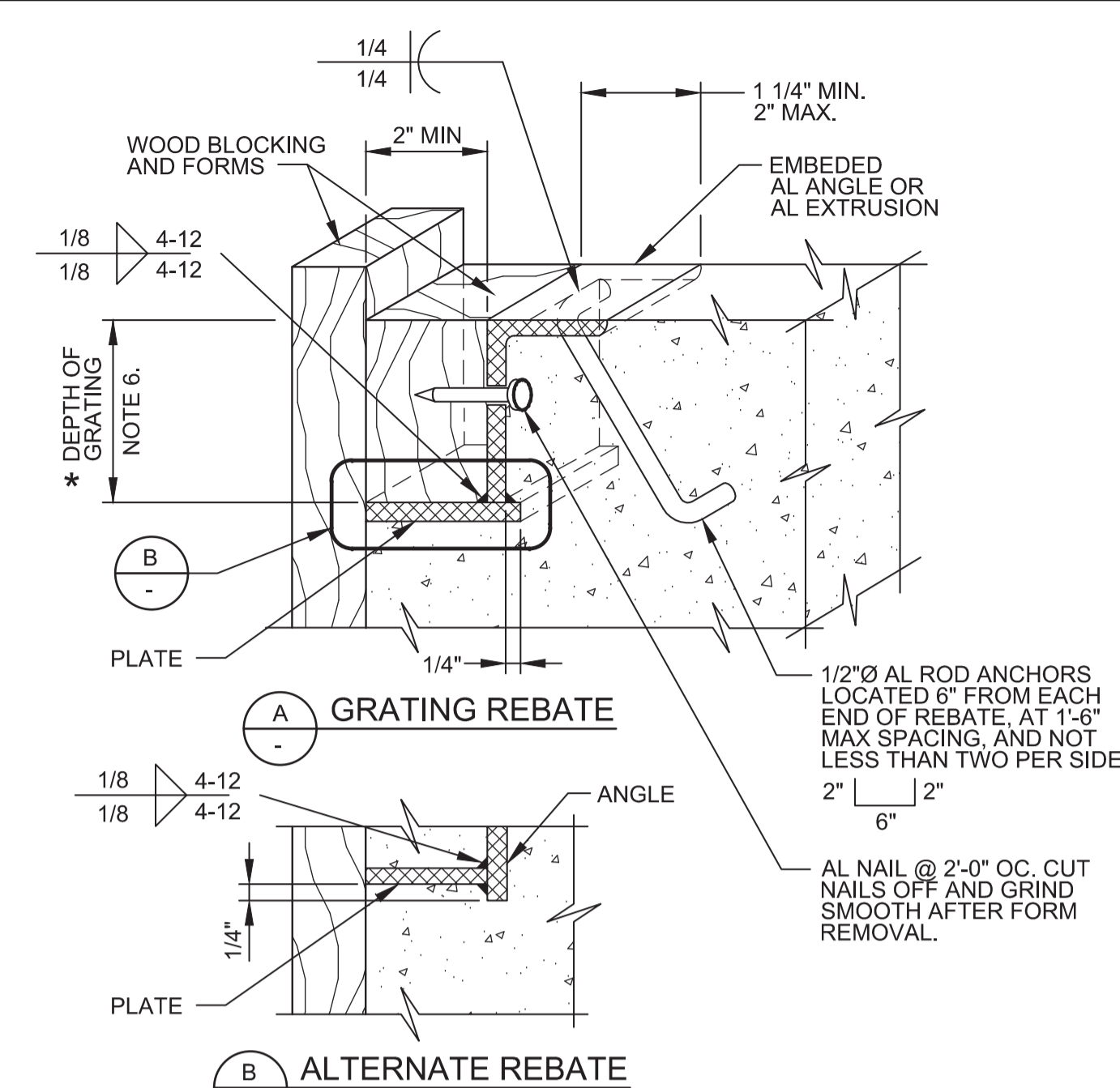
PROJECT NO. 7568C10

LAST SAVED BY: mmorris



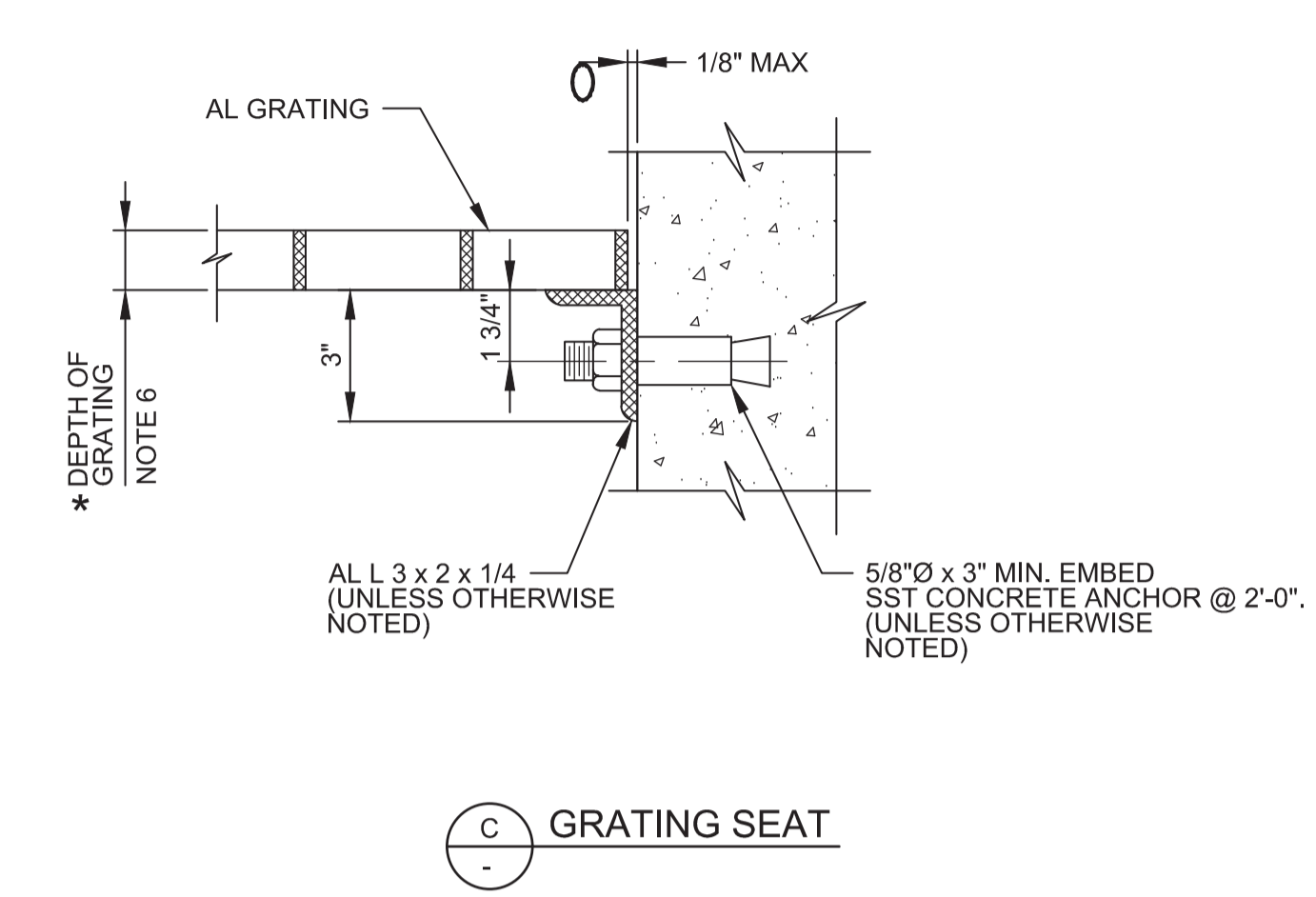
- NOTES:
1. INSTALL FALL PREVENTION SYSTEM WHERE HEIGHT OF LADDER EXCEEDS 20'-0".
 2. MINIMUM CLEARANCE TO ANY OBSTRUCTION ADJACENT TO LADDER: 2'-6" ON CLIMBING SIDE (2'-3" AT SMOOTH WALL), 1'-3" EACH SIDE OF CENTER LINE, ON EACH SIDE OF LADDER.
 3. COAT ALL AL SURFACES IN CONTACT W/ CONC AND MASONRY, AND INSTALL ISOLATION SLEEVES AND WASHERS AT DISSIMILAR METALS, AS SPECIFIED.

A250 ALUMINUM LADDER FASTENED TO WALL
TYP R 08/08/18

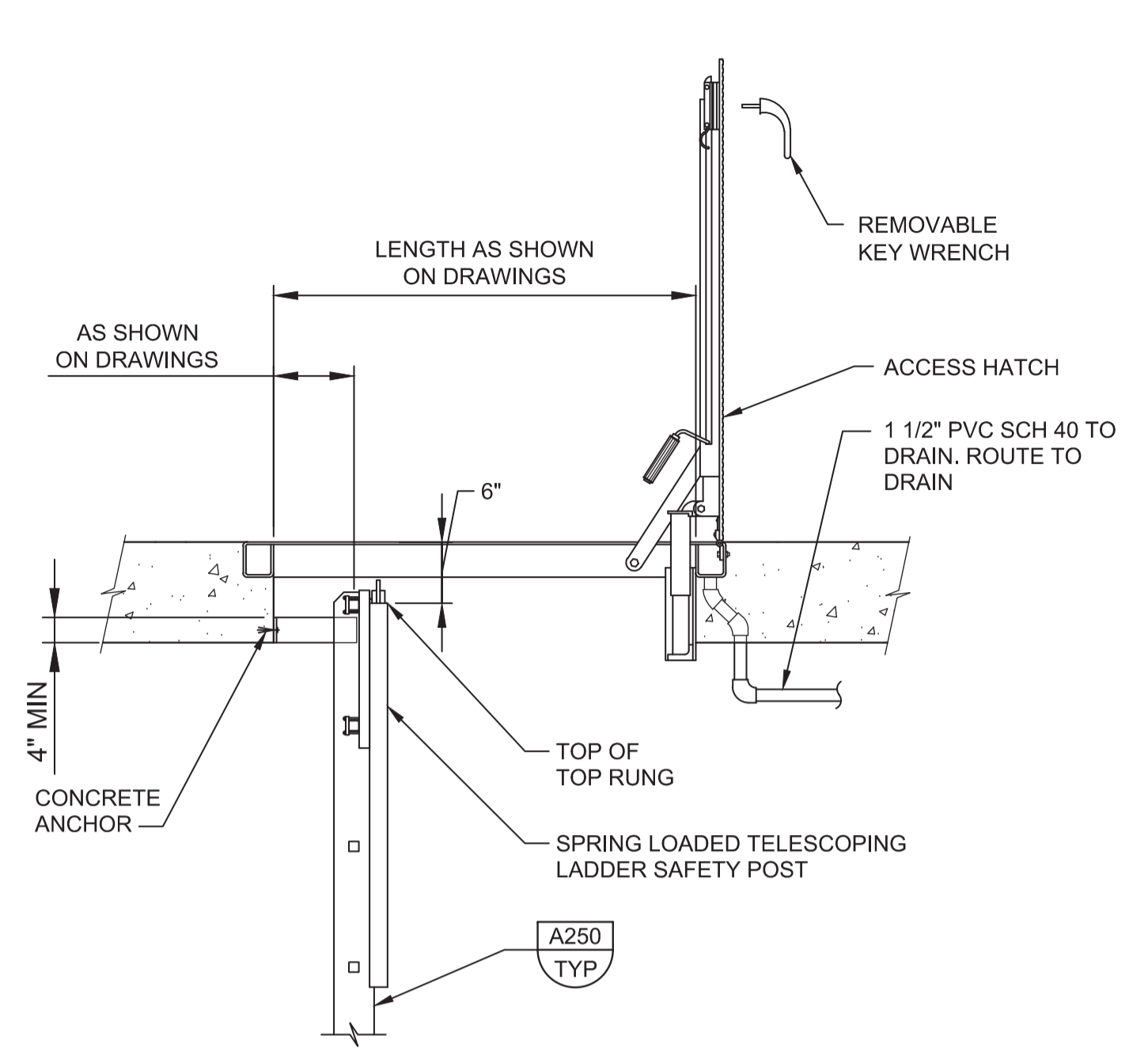


- NOTES:
1. SEE SPECIFICATIONS FOR ALUMINUM GRATING.
 2. MAKE REBATE AND/OR SEAT CONTINUOUS AROUND OPENING.
 3. EMBEDDED REBATE ANGLE AND PLATE SHALL BE 1/4" MINIMUM THICKNESS.
 4. REBATE MAY BE EXTRUDED, SUBJECT TO ENGINEER'S ACCEPTANCE.
 5. COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE AS SPECIFIED.
 6. * = DIMENSION AS REQUIRED BY GRATING MANUFACTURER. SEE SPECIFICATIONS.

A400 ALUMINUM GRATING REBATE AND SEAT
TYP NS SHEET 1 OF 2 04/03/17



A400 ALUMINUM GRATING REBATE AND SEAT
TYP NS SHEET 2 OF 2 04/03/17



A504 HATCH WITH LADDER
TYP R 08/01/05

REV	DATE	BY	DESCRIPTION
1			
2			
3			



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:47:25 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
TYPICALS
ARCHITECTURAL TYPICAL DETAILS

VERIFY SCALES
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

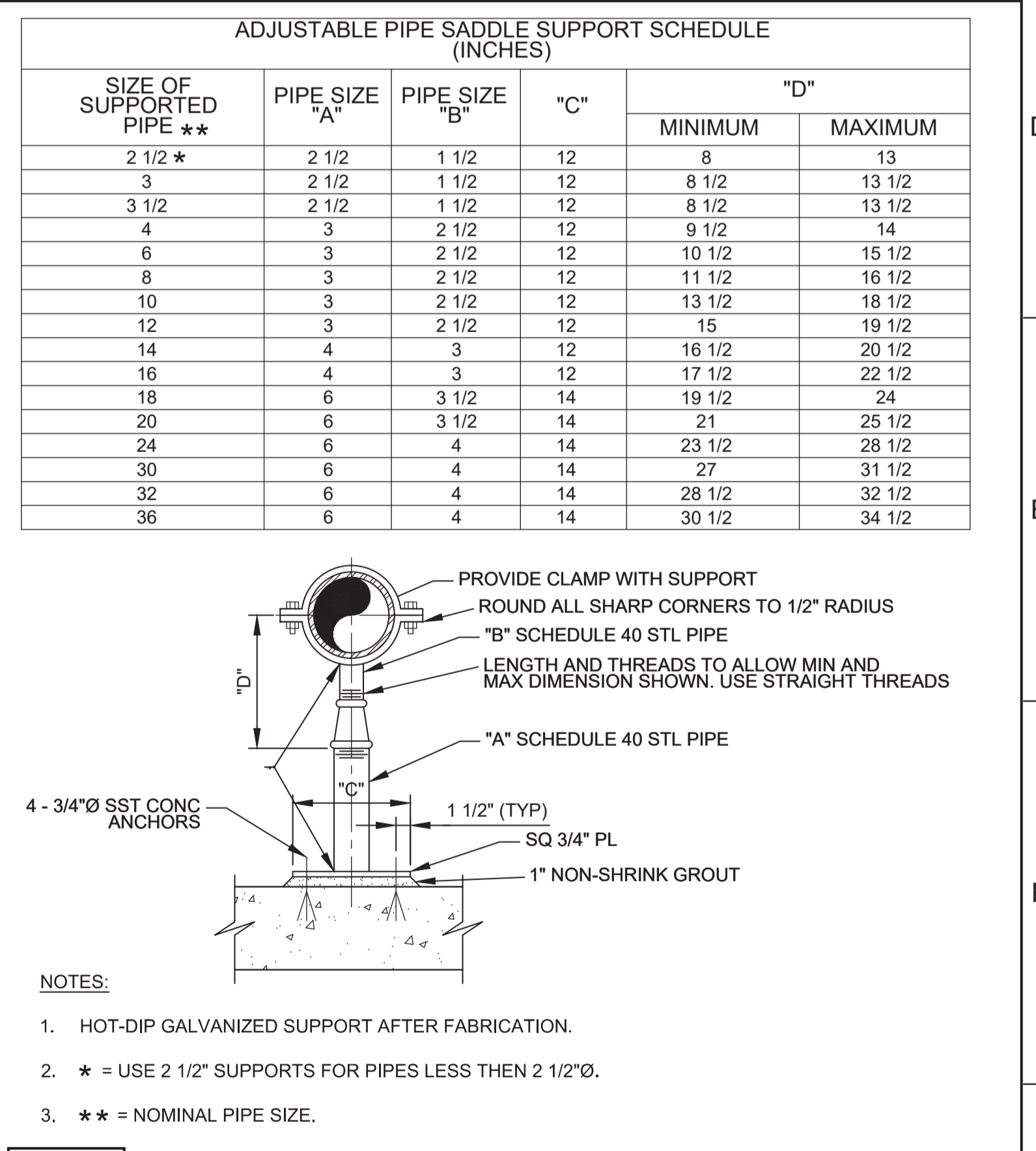
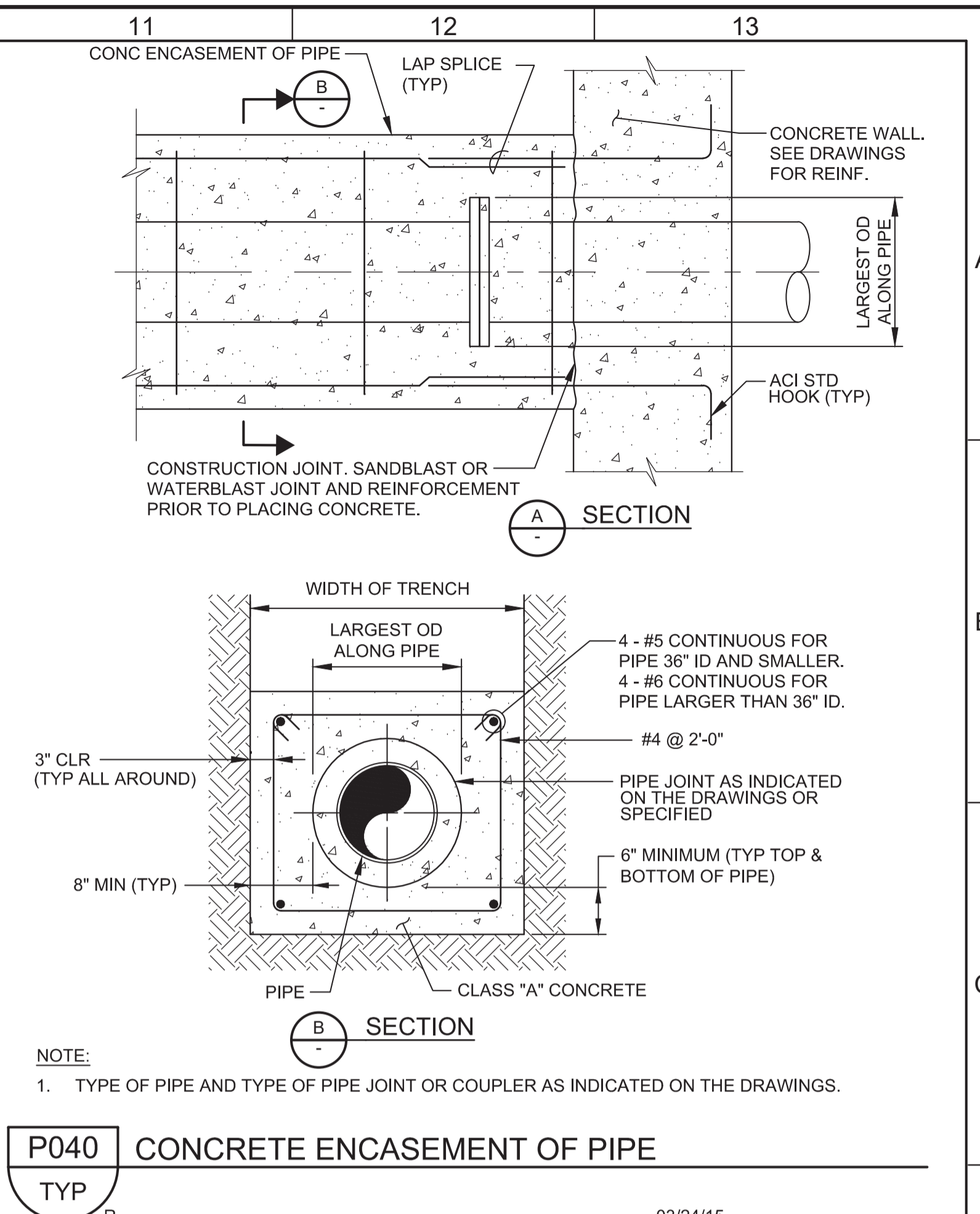
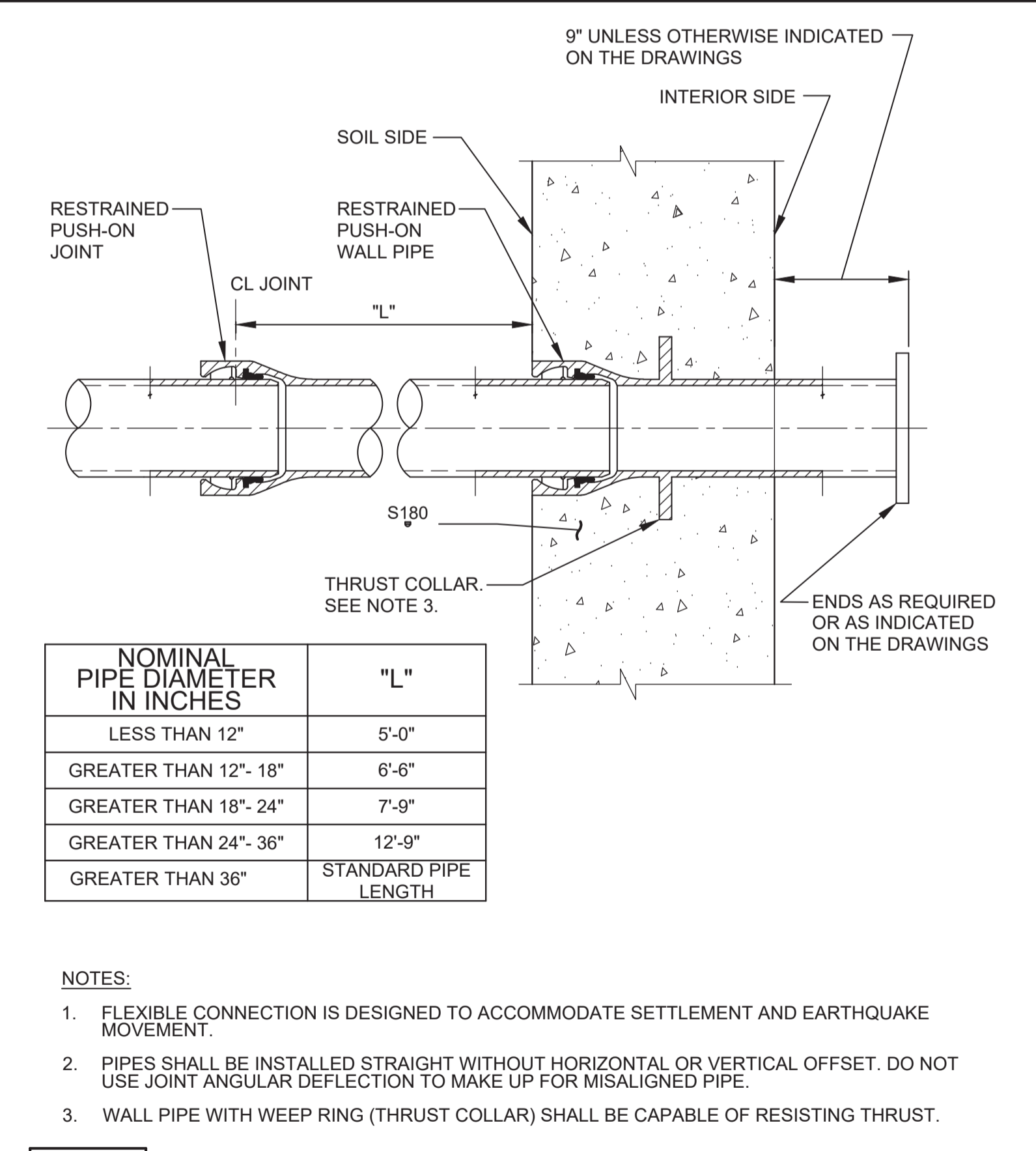
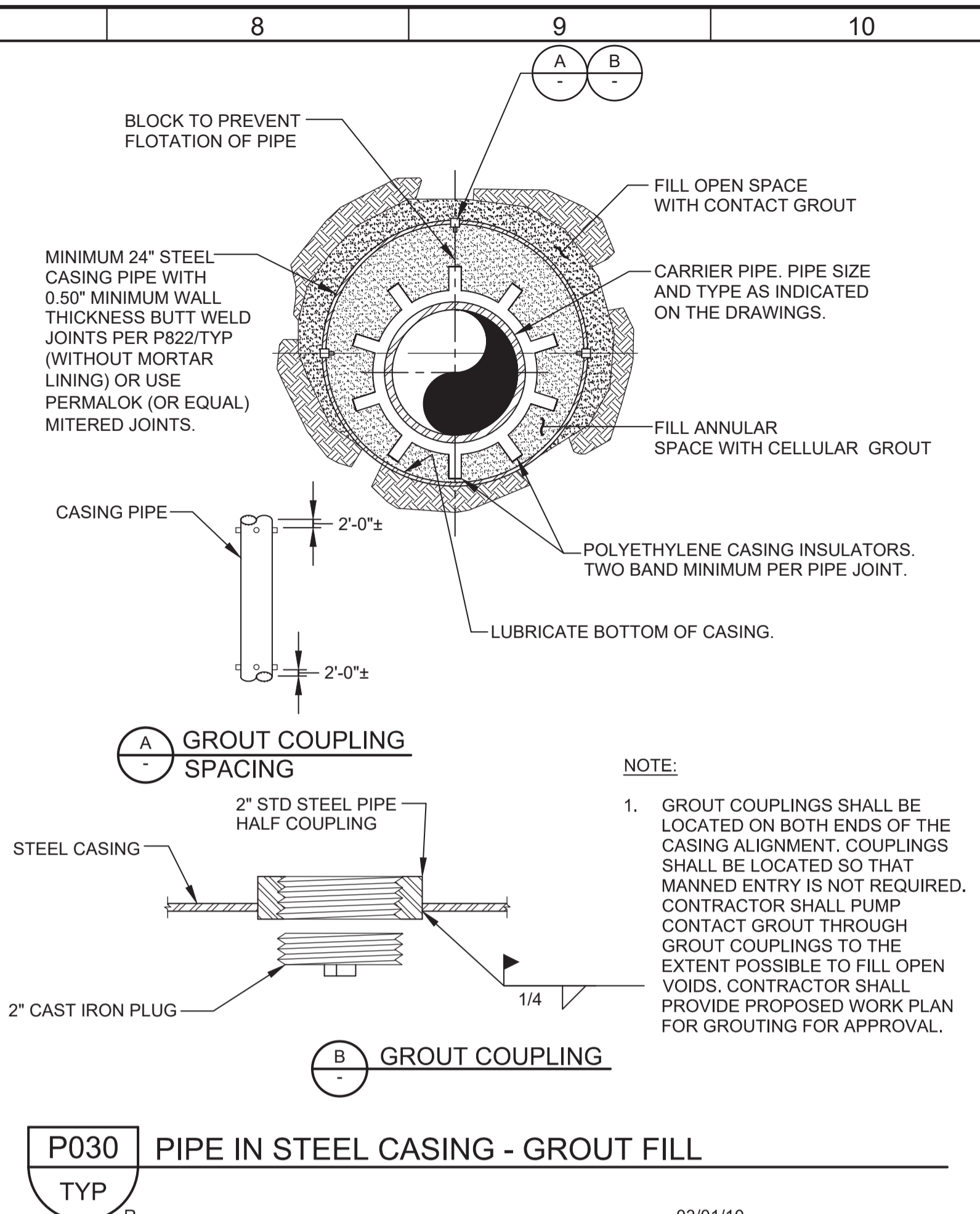
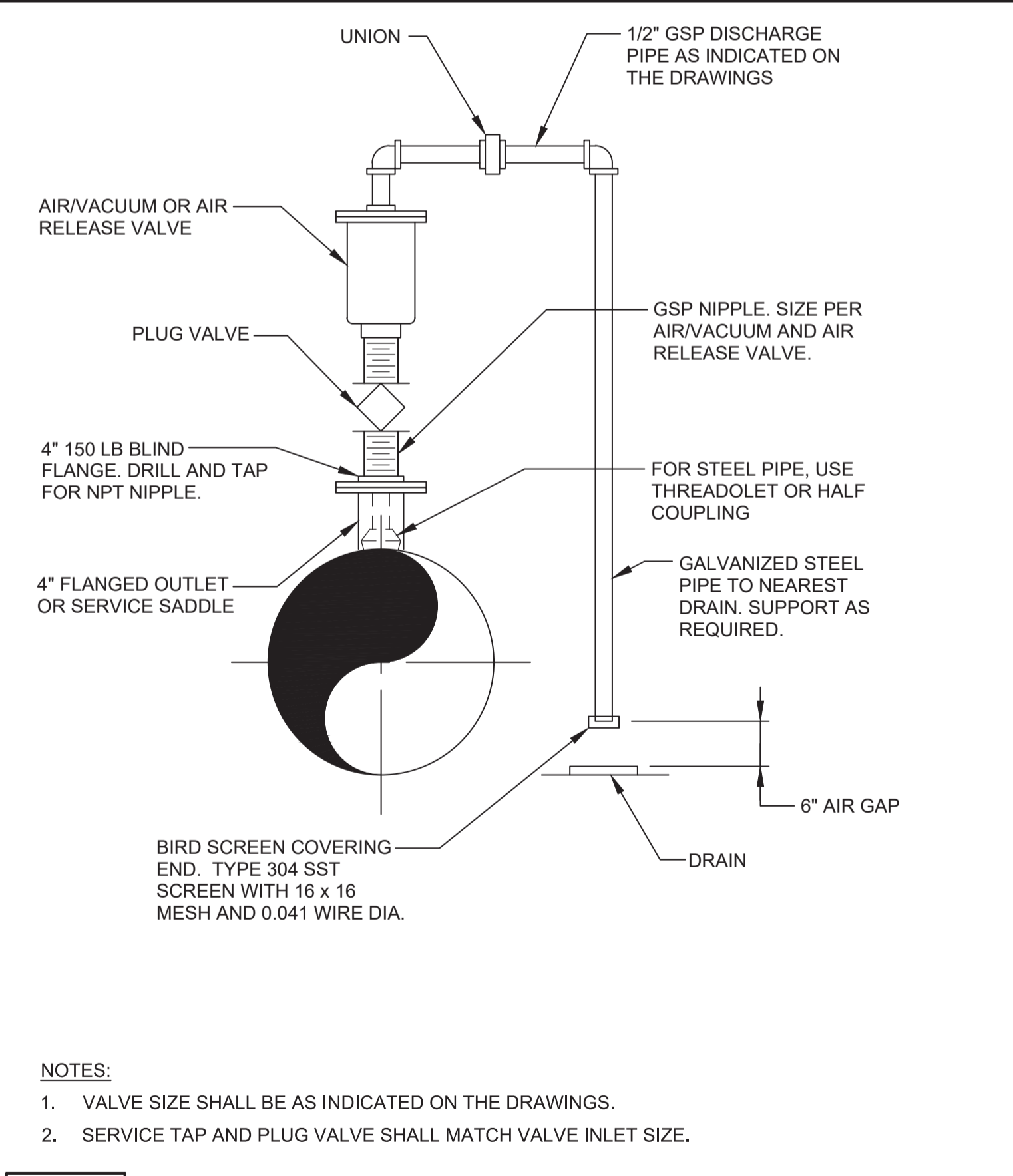
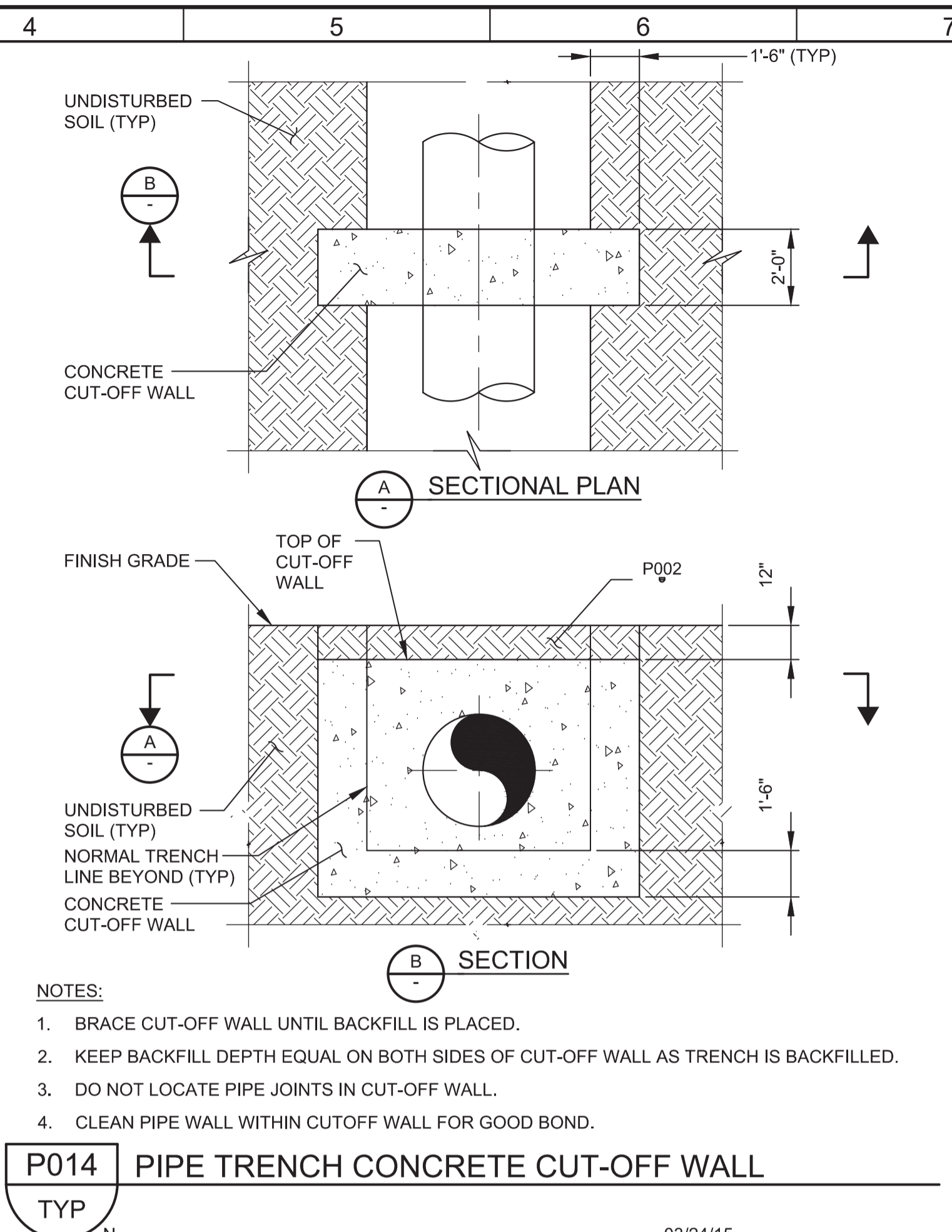
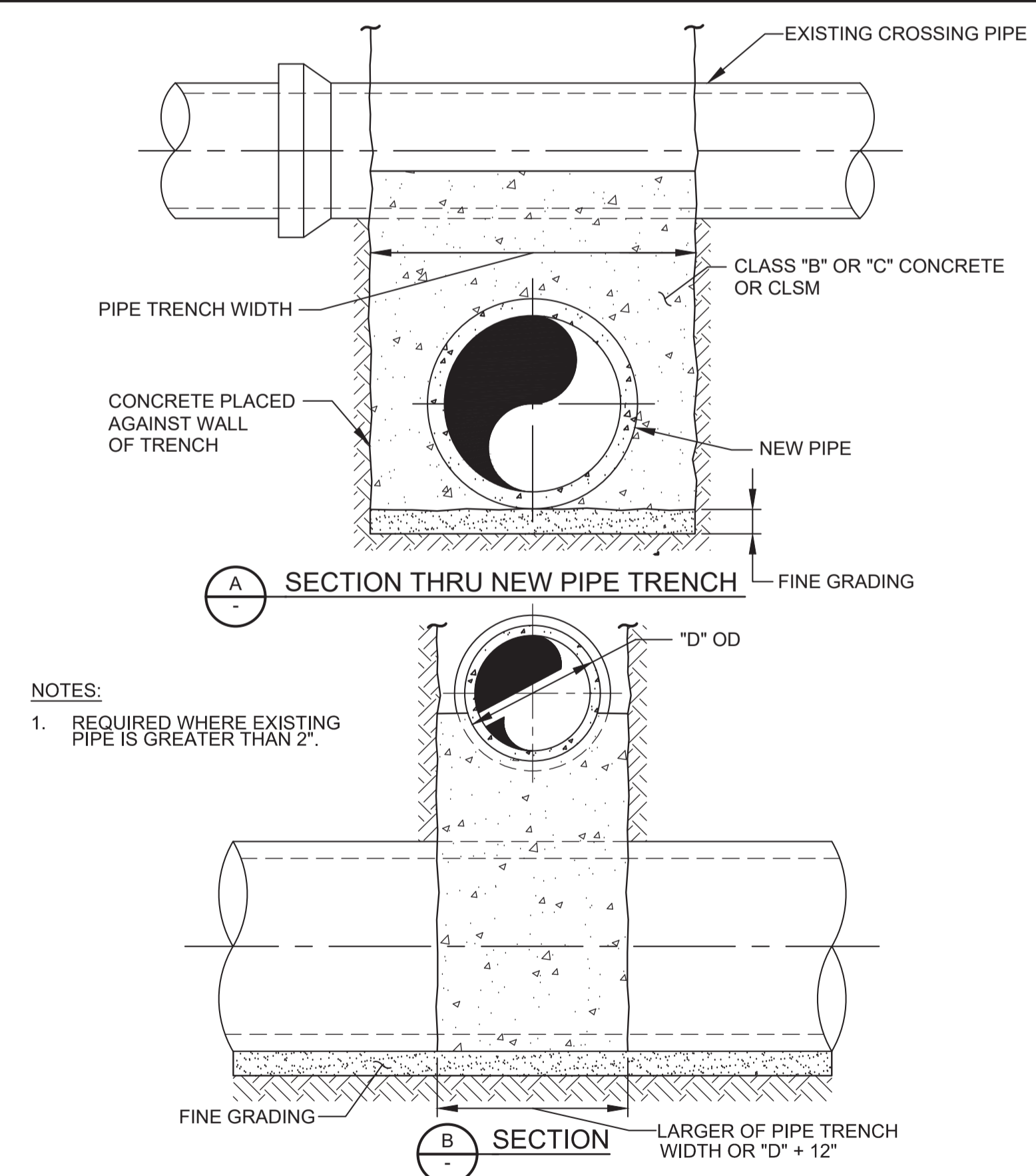
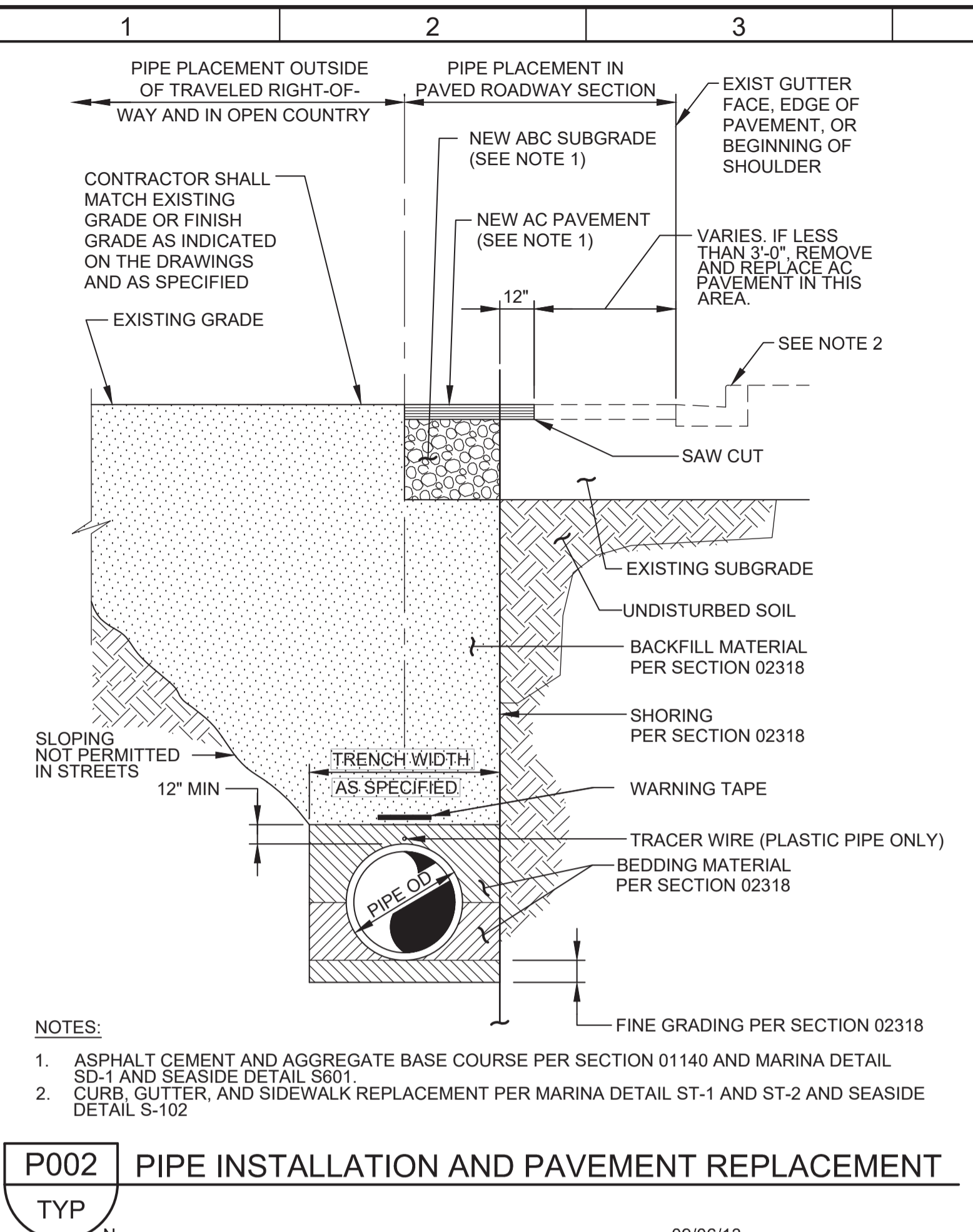
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DRAWING NO. TA01
SHEET NO. 9 OF 58

Plot Date: 1/25/2020 7:22:12 AM

FILE NAME: 7568C1000TP01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: lbawes



BID DOCUMENTS

DESIGNED JPM
 DRAWN TLR
 CHECKED
 DATE JANUARY 2020



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 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:46:03 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

PIPING TYPICAL DETAILS - 1

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
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 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

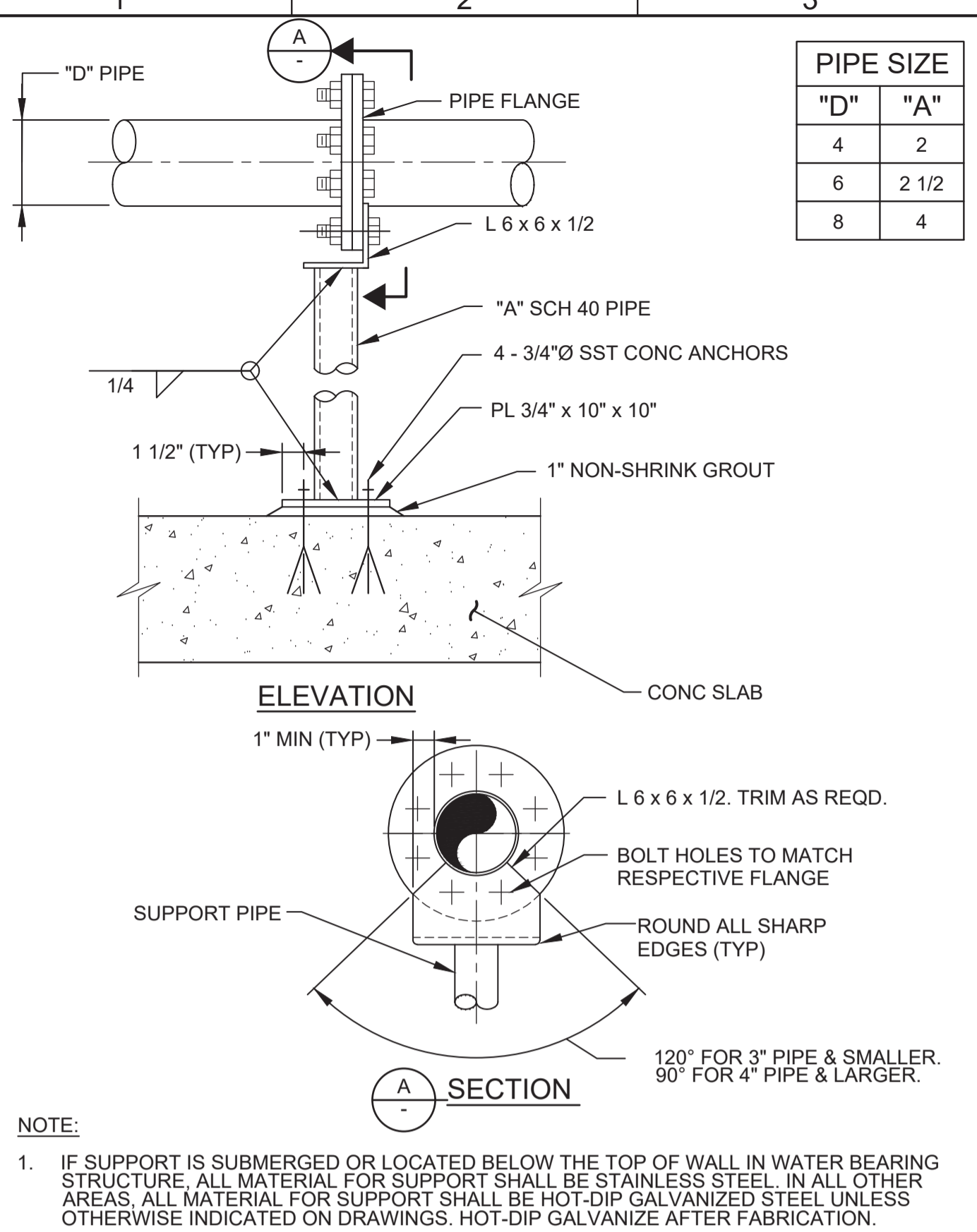
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 DRAWING NO. TP01
 SHEET NO. 11 OF 58

Plot Date: 1/25/2020 7:23:24 AM

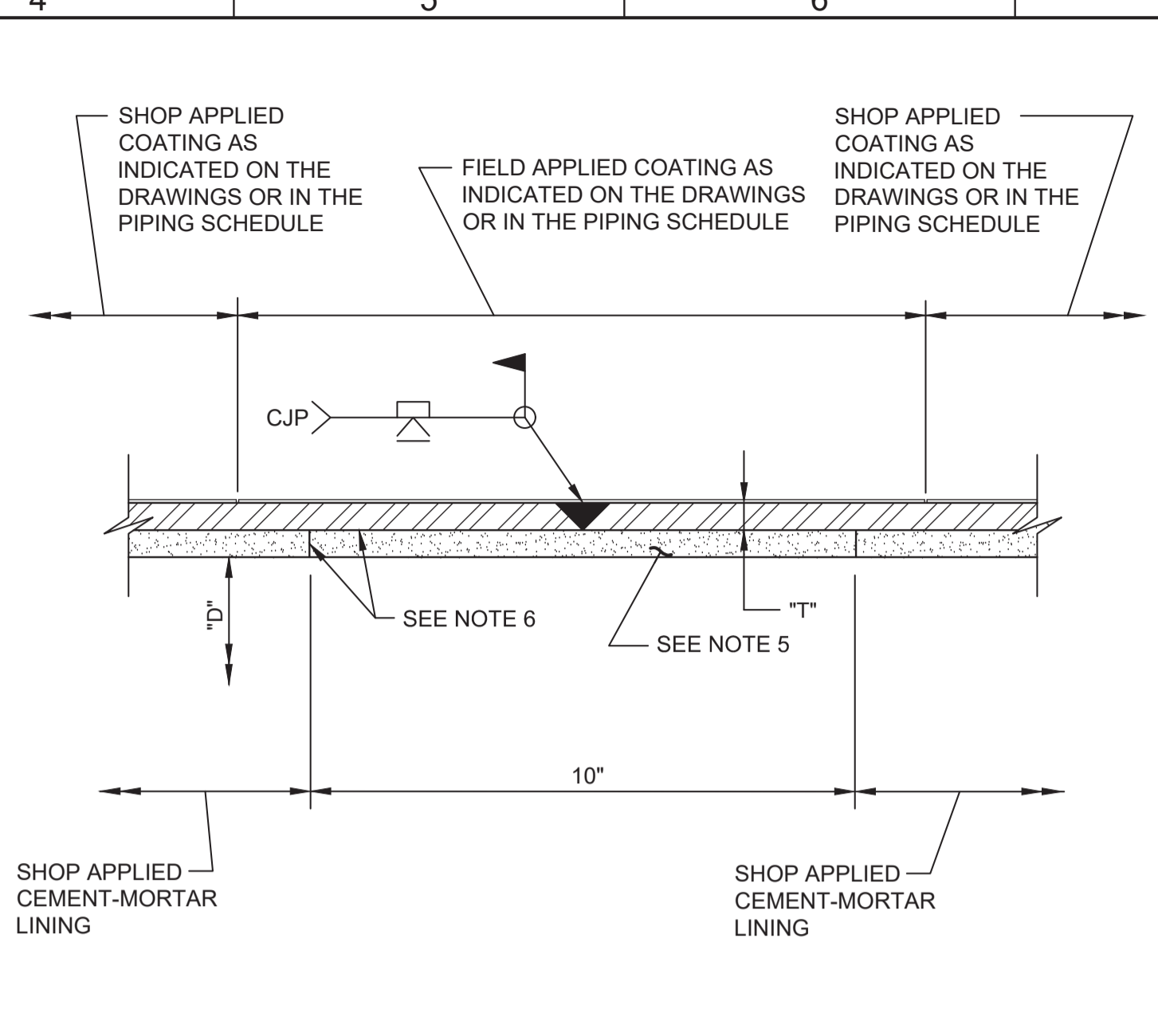
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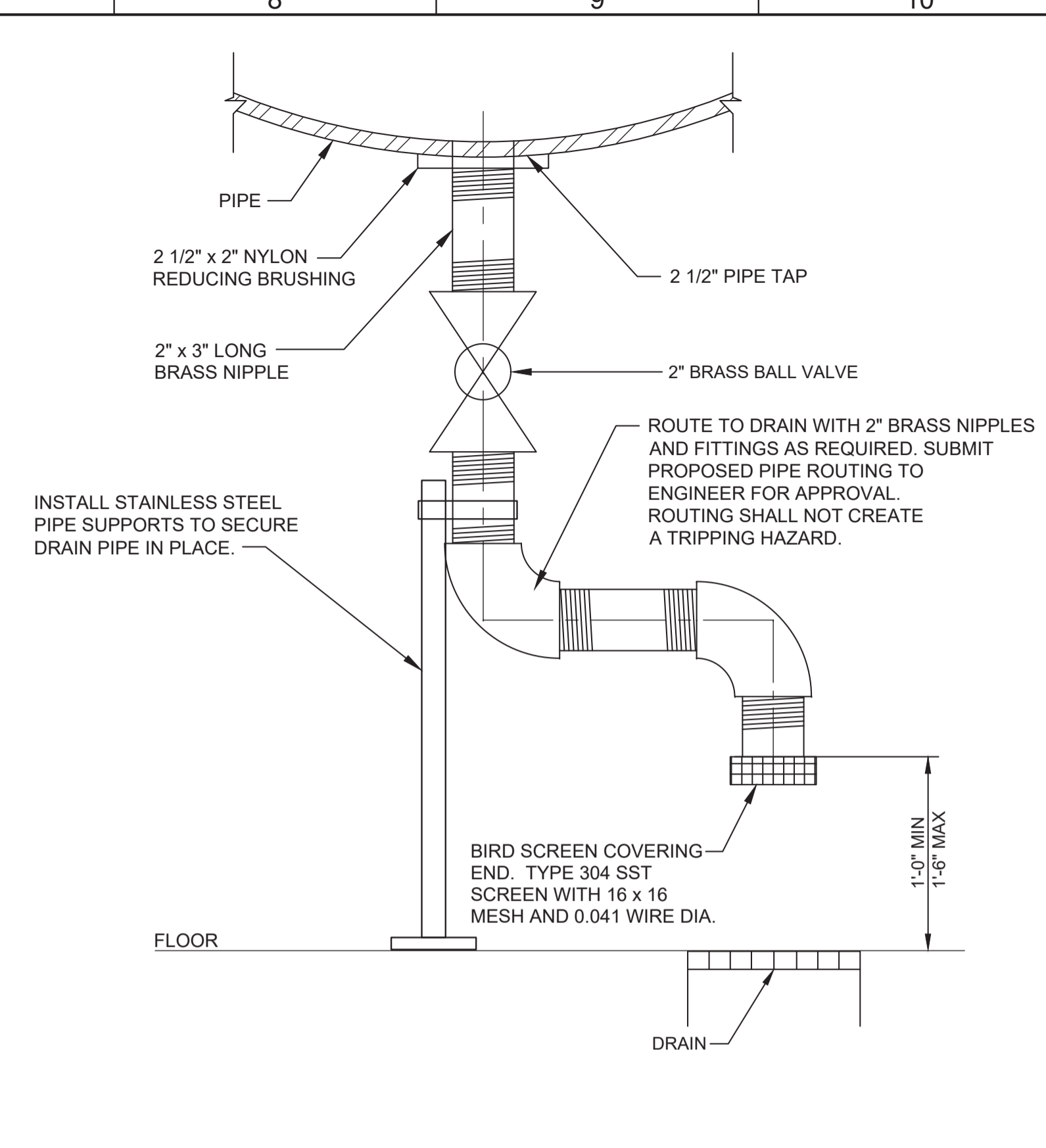
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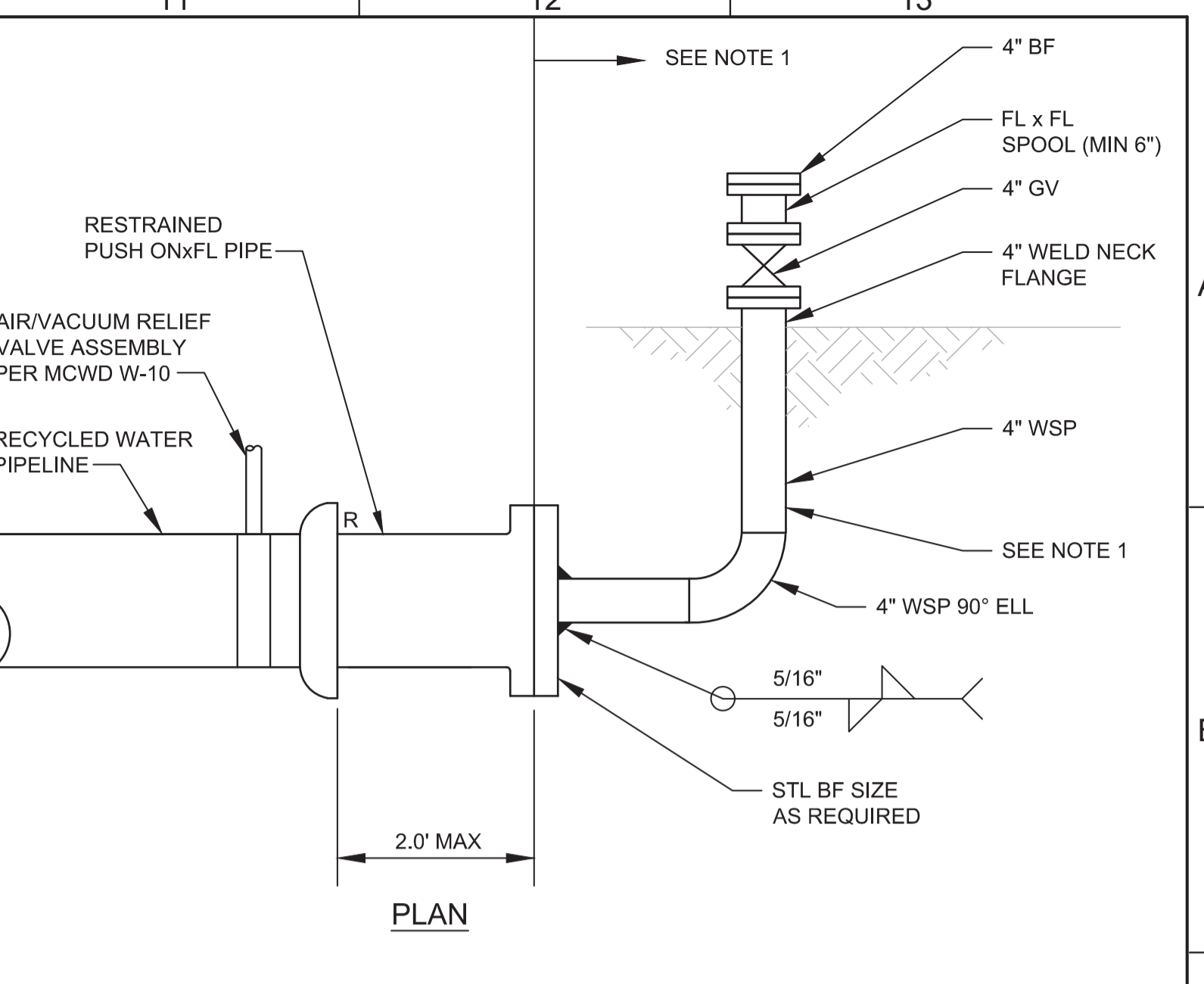
P626 PIPE SUPPORT WITH PIPE FLANGE CONNECTION
TYP NS 07/01/13



P822 STEEL PIPE - MORTAR LINED AND COATED FULL PENETRATION WELDED BUTT JOINT
TYP N 02/03/14



P871 PIPE - DRAIN CONNECTION
TYP R 07/30/18



P918 TEMPORARY BLOW OFF DETAIL
TYP J

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3			

DESIGNED	JPM
DRAWN	TLR
CHECKED	
DATE	JANUARY 2020



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:46:19 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
TYPICAL
PIPING TYPICAL DETAILS - 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
DRAWING NO. TP02
SHEET NO. 12 OF 58

Plot Date: 1/25/2020 7:06:56 AM

FILE NAME: 7568C1000TS01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: imorris

- SEE DIVISION 03 SPECIFICATIONS FOR REQUIREMENTS FOR CONCRETE CONSTRUCTION.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS, MINIMUM REINFORCEMENT OF CONCRETE WALLS OR SLABS SHALL BE:
 - 10" THICK OR LESS: #5 @ 12" EACH WAY.
 - MORE THAN 10" THICK: #5 @ 12" EACH WAY, EACH FACE.
- WALL REINFORCEMENT AT CORNERS OR JUNCTIONS OF WALLS SHALL BE CONTINUOUS, LAP SPICED, OR TERMINATED IN AN ACI STANDARD 90 DEGREE HOOK. SEE DETAIL S144/TYP.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BARS SHALL BE DOWELED. DOWELS SHALL BE THE SAME SIZE AND SPACING AS THE REINFORCEMENT WHICH IS SPICED TO THE DOWELS.
- SLAB, BEAM AND COLUMN REINFORCING BARS SHALL HAVE A MINIMUM EXTENSION OR ANCHORAGE INTO SUPPORTS IN ACCORDANCE WITH ACI 318 AND ACI 350.
- STIRRUP SUPPORT BARS SHALL BE PROVIDED TO SECURE TOP BARS AGAINST DISPLACEMENT AS REQUIRED.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS, CONCRETE COVER OVER #11 AND SMALLER REINFORCING BARS SHALL BE AS FOLLOWS:
 - A. SLABS AND JOISTS:
 - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES FOR DRY CONDITIONS
 - #7 BARS AND SMALLER: 1"
 - #8 BARS AND LARGER: 1 1/2"
 - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR LOCATED OVER FLUIDS: 2"
 - B. BEAMS AND COLUMNS:
 - FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
 - STIRRUPS, SPIRALS, AND TIES: 1 1/2"
 - PRINCIPAL REINFORCEMENT: 2"
 - FORMED CONCRETE SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR IN BEAMS LOCATED OVER FLUIDS:
 - STIRRUPS AND TIES: 2"
 - PRINCIPAL REINFORCEMENT: 2 1/2"
 - C. WALLS:
 - FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
 - #7 BARS AND SMALLER: 1"
 - #8 BARS AND LARGER: 1 1/2"
 - FORMED CONCRETE SURFACES EXPOSED TO WEATHER, OR IN CONTACT WITH SOIL OR FLUIDS: 2"

S101 REINFORCED CONCRETE NOTES

TYP

- FOOTINGS AND SLABS ON GRADE:
 - FORMED VERTICAL CONCRETE SURFACES: 2"
 - AT UNFORMED CONCRETE SURFACES CAST AGAINST SOIL, ROCK, OR CONCRETE WORK MATS: 3"
 - TOP SURFACE OF FOOTINGS AND SLABS: SAME AS SLABS
- WATERSTOPS:
 - A. PROVIDE WATERSTOPS AT JOINTS IN SLABS AND WALLS OF LIQUID-CONTAINING STRUCTURES, AND PORTIONS OF STRUCTURES BELOW THE DESIGN GROUNDWATER LEVEL. MAKE WATERSTOPS CONTINUOUS THROUGH STRUCTURE, SPlicing WATERSTOPS IN SLABS WITH WATERSTOPS IN WALLS.
 - B. END WATERSTOPS 3' BELOW TOP OF WALLS. WHERE TOP OF WALL IS COVERED BY A SLAB WITHOUT WATERSTOPS, CONTINUE WATERSTOP TO WALL/SLAB JOINT. WHERE TOP OF WALL IS COVERED BY A SLAB WITH WATERSTOPS, MAKE WATERSTOPS CONTINUOUS, SPlicing WATERSTOPS IN WALLS WITH WATERSTOPS IN SLAB.
- CURE CONCRETE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE WATER CURING IS SPECIFIED, MEMBRANE CURING IS NOT ALLOWED.
 - A. THE CONTRACTOR IS WARNED THAT WATER CURING IS DIFFICULT AT TIMES DUE TO WIND AND DRY CONDITIONS. STUDY SPECIFICATION REQUIREMENTS AND FURNISH ADEQUATE SYSTEMS TO PROVIDE WATER CURING WHERE REQUIRED.
 - B. KEEP WATER CURED SURFACES VISIBLY MOIST AT ALL TIMES. FLOOD TOPS OF WALLS NOT LESS THAN 3 TIMES DAILY.
- DO NOT PLACE BACKFILL AGAINST WALLS UNTIL:
 - A. WALLS HAVE BEEN CAST TO FULL HEIGHT OF STRUCTURE AND CONCRETE HAS REACHED THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH (f_c).
 - B. CONNECTING SLABS AND BEAMS HAVE BEEN CAST AND CONCRETE IN THOSE ELEMENTS HAS REACHED THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH (f_c).
- LAP SPLICES:
 - A. SEE TABLE 1 OF THIS DETAIL FOR LAP SPlice LENGTHS.
 - B. WHEN MULTIPLE BARS ARE SPICED AT THE SAME SECTION, THE "CLEAR BAR SPACING" IS DEFINED AS THE MINIMUM CLEAR DISTANCE BETWEEN THE BARS OUTSIDE THE SPlice LENGTH MINUS ONE BAR DIAMETER.
 - C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BARS AT A LAP SPlice SHALL BE IN CONTACT WITH EACH OTHER.
 - D. "TOP BARS" ARE HORIZONTAL REINFORCEMENT AT LOCATIONS WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
- FORM EXPOSED CONCRETE CORNERS AND EDGES WITH 3/4" CHAMFER UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

S101 REINFORCED CONCRETE NOTES

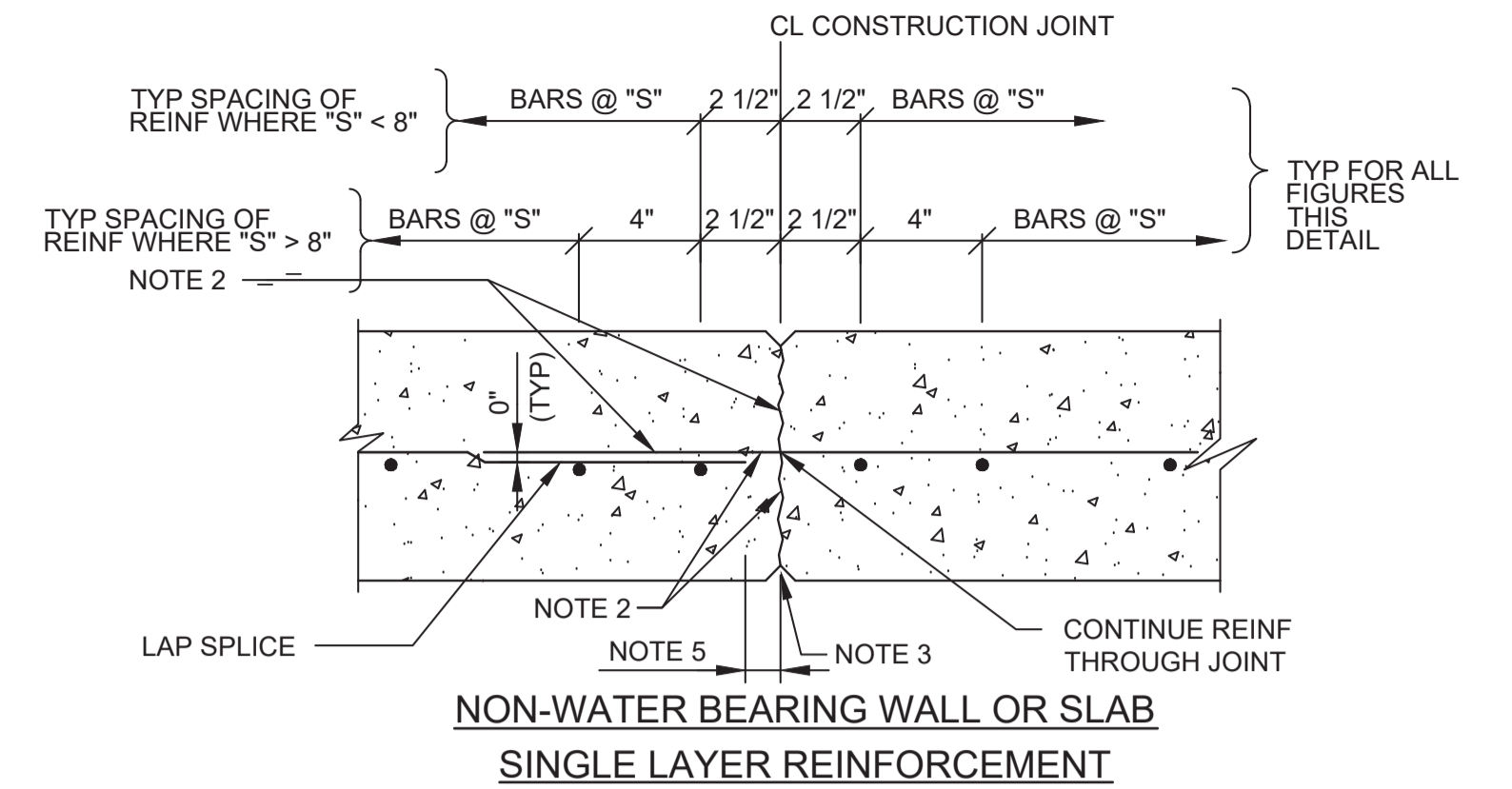
TYP

BAR SIZE	MINIMUM COVER (BAR DIA)	MINIMUM CLEAR BAR SPACING (BAR DIA)	LAP SPlice LENGTH (INCHES)	
			TOP BARS	OTHER BARS
#4	MORE THAN 1	MORE THAN 2	32 *	25 *
	MORE THAN 2	MORE THAN 4	20	16
#5	MORE THAN 1	MORE THAN 2	40 *	31 *
	MORE THAN 2	MORE THAN 4	26	20
#6	MORE THAN 1	MORE THAN 2	48 *	37 *
	MORE THAN 2	MORE THAN 4	30	24
#7	MORE THAN 1	MORE THAN 2	70 *	54 *
	MORE THAN 2	MORE THAN 4	43	33
#8	MORE THAN 1	MORE THAN 2	81 *	62 *
	MORE THAN 2	MORE THAN 4	50	38
#9	MORE THAN 1	MORE THAN 2	90 *	70 *
	MORE THAN 2	MORE THAN 4	56	42
#10	MORE THAN 1	MORE THAN 2	104 *	81 *
	MORE THAN 2	MORE THAN 4	62	48
#11	MORE THAN 1	MORE THAN 2	114 *	88 *
	MORE THAN 2	MORE THAN 4	69	54

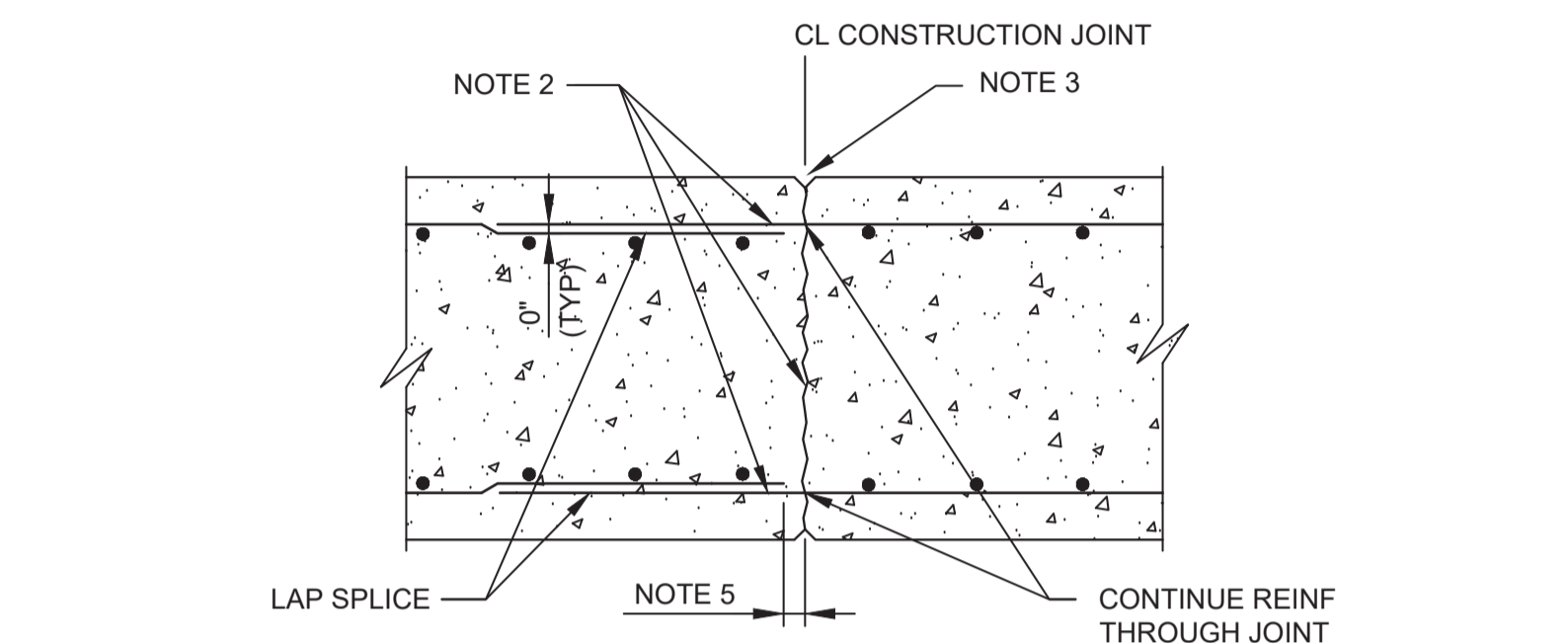
- REINFORCING BAR LAP SPlice TABLE NOTES:**
- TABULATED SPlice LENGTHS ARE APPLICABLE ONLY WHEN BOTH REQUIREMENTS FOR MINIMUM COVER AND FOR MINIMUM CLEAR BAR SPACING ARE SATISFIED.
 - * = IF THE CLEAR BAR SPACING IS LESS THAN OR EQUAL TO TWO BAR DIAMETERS, OR THE COVER IS LESS THAN OR EQUAL TO ONE BAR DIAMETER, THE LAP SPlice LENGTH SHALL BE INCREASED BY 50 PERCENT.

S101 REINFORCED CONCRETE NOTES

TYP



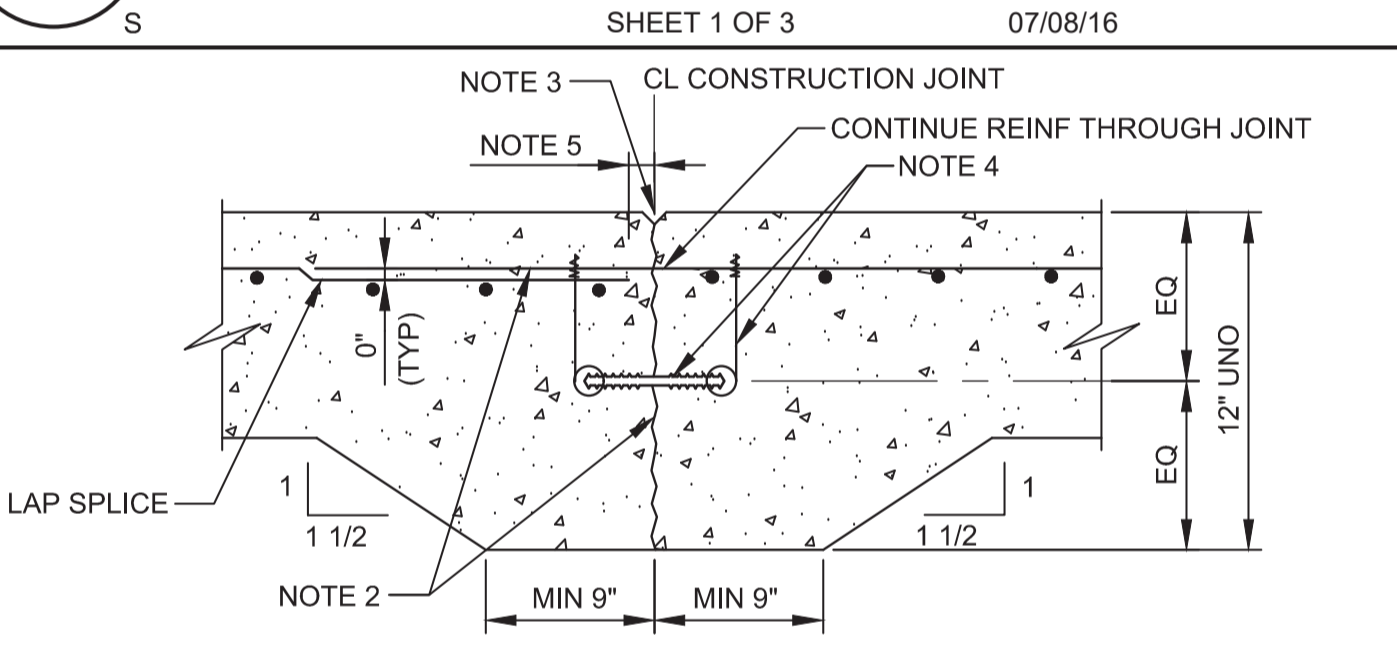
NON-WATER BEARING WALL OR SLAB SINGLE LAYER REINFORCEMENT



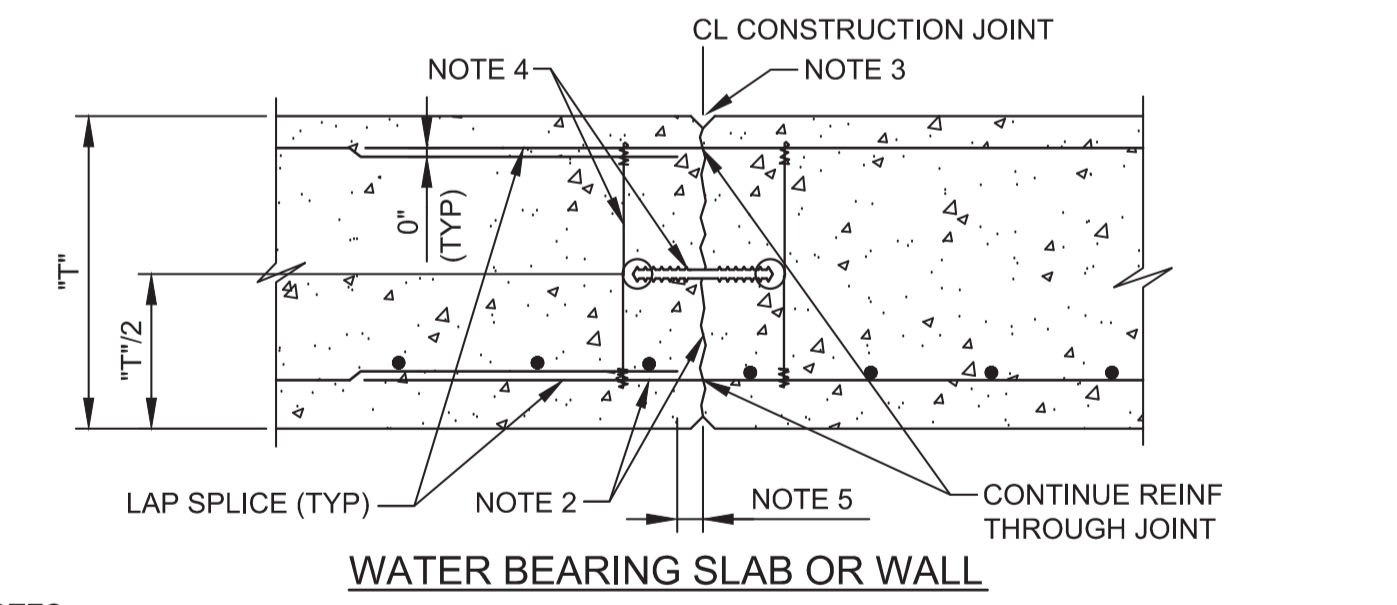
NON-WATER BEARING WALL OR SLAB DOUBLE LAYER REINFORCEMENT

S110 CONSTRUCTION JOINT

TYP



WATER BEARING SLAB LESS THAN 12" THICK

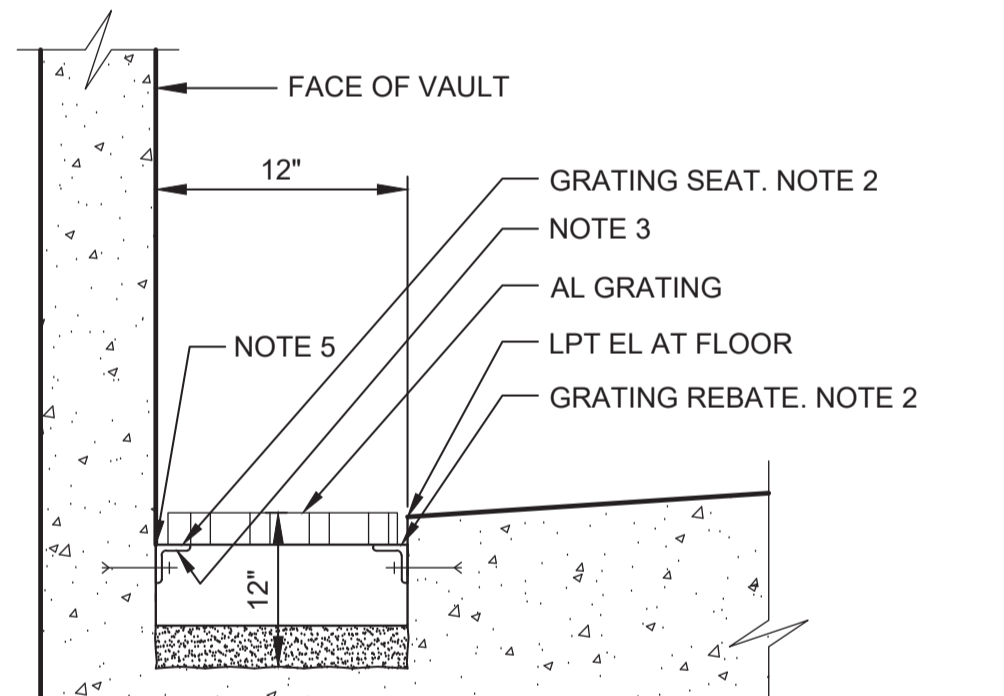


WATER BEARING SLAB OR WALL

- NOTES:**
- "S" EQUALS TYPICAL BAR SPACING INDICATED ON THE DRAWINGS. "T" EQUALS SLAB OR WALL THICKNESS.
 - WATER-BLAST EXPOSED JOINT FACE AND PROJECTING REINFORCEMENT BEFORE PLACING CONCRETE.
 - JOINT EDGES:
 - A. FOR WALLS AND BOTTOM OF EXPOSED SLABS: FORM EDGES WITH 1/2" CHAMFER.
 - B. FOR SLABS: EDGE TOP AND ENDS WITH 1/4" RADIUS.
 - 6" WATERSTOP CENTERED ON JOINT - SEE DETAIL S106/TYP. PROVIDE WIRE TIES MAX 2'-0" OC. HOG RINGS MAY BE USED IN LIEU OF WIRE LOOPS. THOROUGHLY CLEAN WATERSTOP BEFORE PLACING CONCRETE IN SECOND POUR.
 - STOP REINFORCING 2" CLEAR OF JOINT.

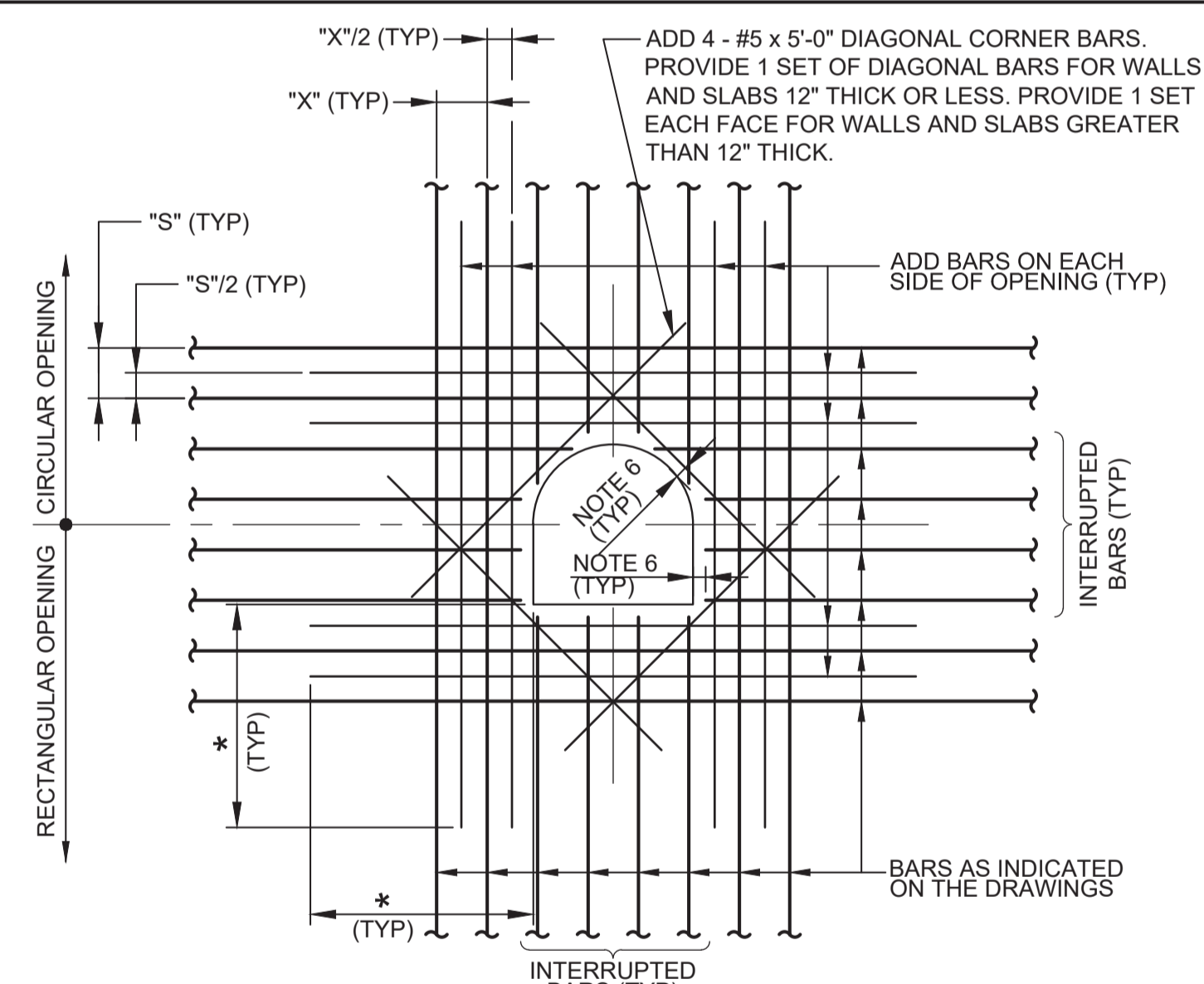
S110 CONSTRUCTION JOINT

TYP



S153 DRAINAGE TRENCH AT WALL

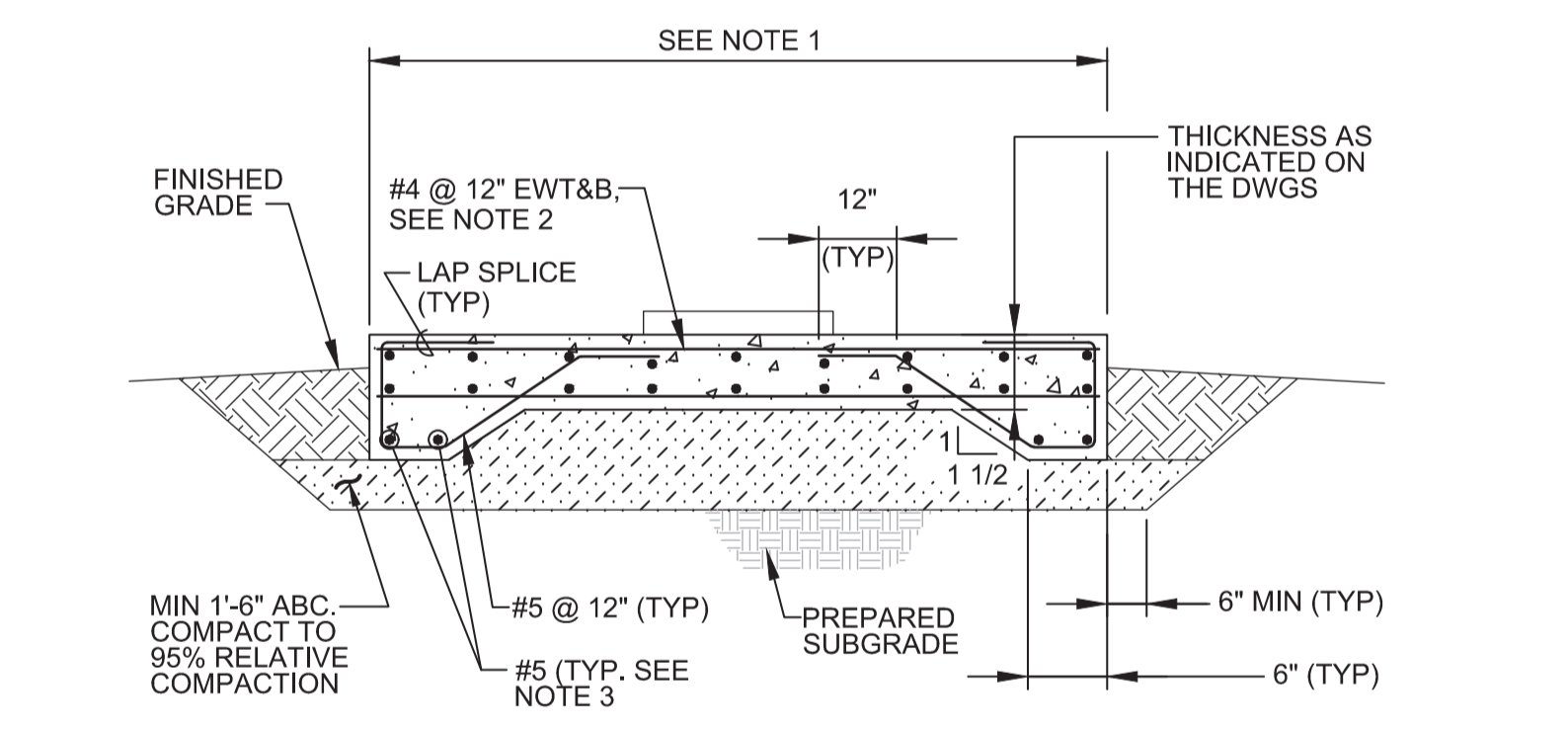
TYP



- NOTES:**
- AREA OF ADD BARS AT EACH EDGE OF OPENING IN EACH DIRECTION SHALL BE EQUAL TO OR GREATER THAN 1/2 THE CROSS SECTIONAL AREA OF THE INTERRUPTED BARS.
 - PROVIDE STANDARD ACI HOOKS ON BARS IF STRAIGHT EXTENSION PAST THE OPENING, CANNOT BE ACHIEVED.
 - PLACE ADD BARS IN SAME PLANES AS INTERRUPTED REINFORCING.
 - PLACE #5 DIAGONAL BARS ON INSIDE OF INTERRUPTED REINFORCING.
 - * DIMENSION EQUALS OPENING DIMENSION MEASURED PERPENDICULAR TO ADD BARS PLUS LAP SPlice LENGTH.
 - 2" CLEAR TO CONCRETE OPENINGS OR OUTSIDE FACE OF PIPES AND PIPE SLEEVES. DO NOT OVERCUT REINFORCING FOR EASIER PLACEMENT OF WEEP RINGS AND FLANGES.
 - ADD BARS ARE NOT REQUIRED AT SIDES OF OPENINGS PARALLEL TO AND WITHIN 6" OF A WALL OR BEAM.

S180 ADDITIONAL REINFORCING AT OPENINGS IN CONCRETE SLABS OR WALLS

TYP



- NOTE:**
- DIMENSIONS AS INDICATED ON THE DRAWINGS.
 - IF SLAB THICKNESS IS 6" T&B BARS NOT REQUIRED. CENTER SINGLE SET OF EW BARS IN SLAB.
 - IF FOOTING IS 6" WIDE, SINGLE SET OF #5 BARS REQUIRED.

S300 EQUIPMENT SLAB

TYP

BID DOCUMENTS

DESIGNED	JCT
DRAWN	JBB
CHECKED	
DATE	JANUARY 2020



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Date: 2020.01.30 16:46:37 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

STRUCTURAL TYPICAL DETAILS

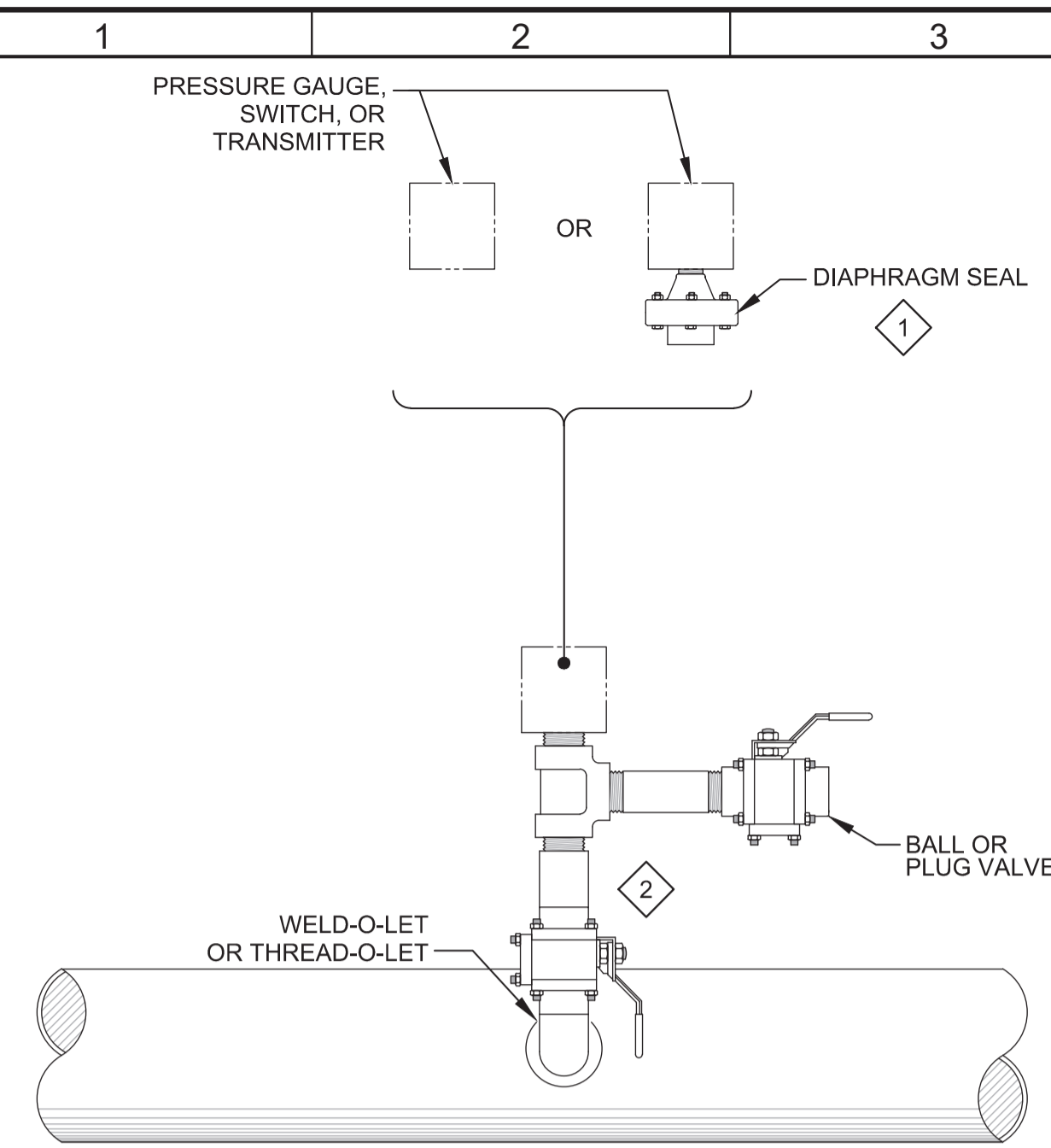
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BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. TS01
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 13 OF 58

Plot Date: 1/25/2020 7:04:56 AM

FILE NAME: 7568C1000TN01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: imorris



- NOTES:
- 1 USE THE INSTRUMENT DATA SHEETS IN DIVISION 17 OR DIVISIONS 40 SPECS TO IDENTIFY INDIVIDUAL REQUIREMENTS FOR DIAPHRAGM SEALS.
 - 2 ALL VALVE AND PIPE MATERIAL SHALL BE COMPATIBLE WITH PROCESS FLUID.

NP502 PRESSURE INSTRUMENT MOUNTING DETAIL
TYP

07/15/08

REV	DATE	BY	DESCRIPTION
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DESIGNED JCT
DRAWN SDW
CHECKED
DATE JANUARY 2020



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Date: 2020.01.30 16:45:18 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

TYPICAL INSTRUMENTATION TYPICAL DETAILS

VERIFY SCALES
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

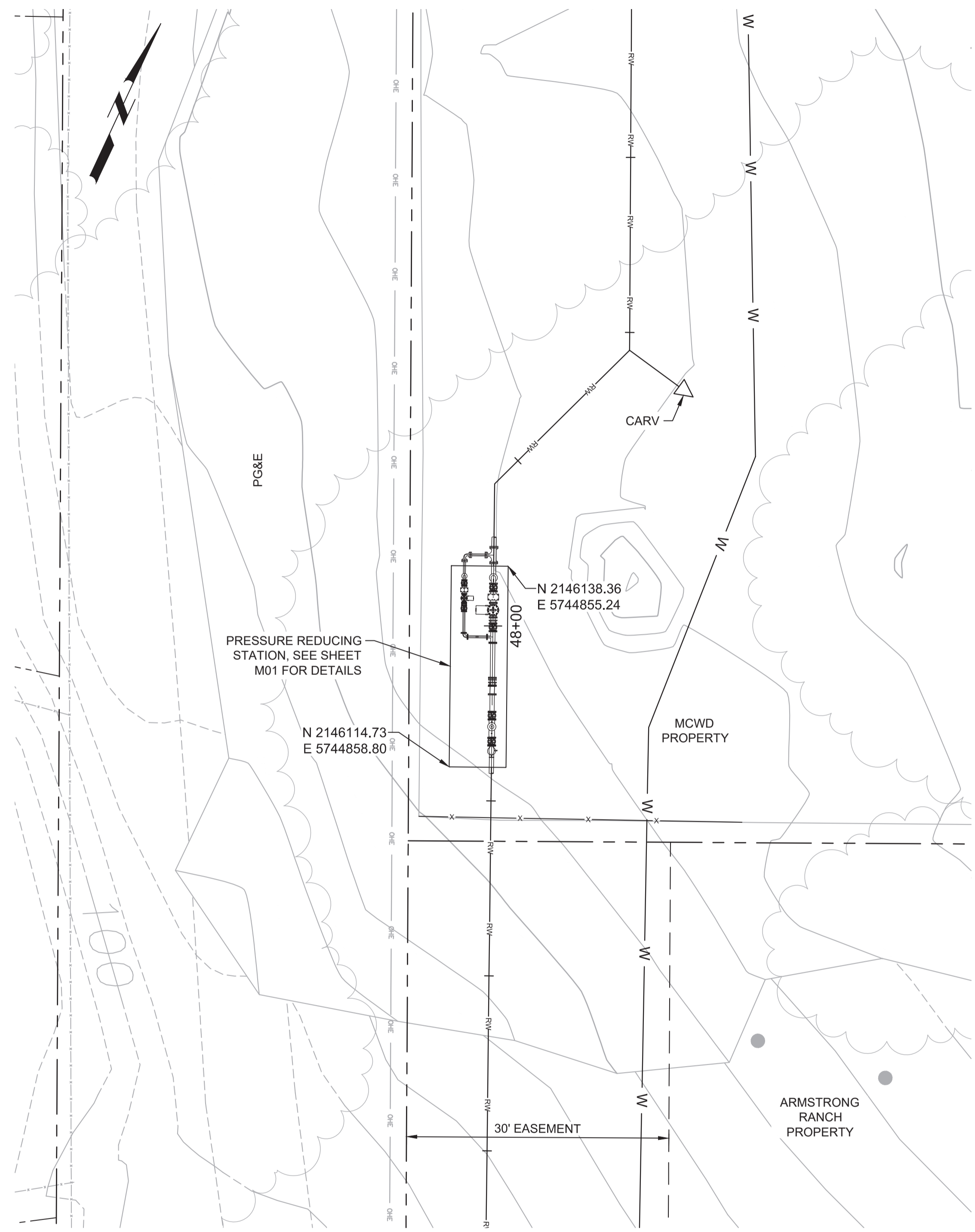
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DRAWING NO. TN01
SHEET NO. 14 OF 58

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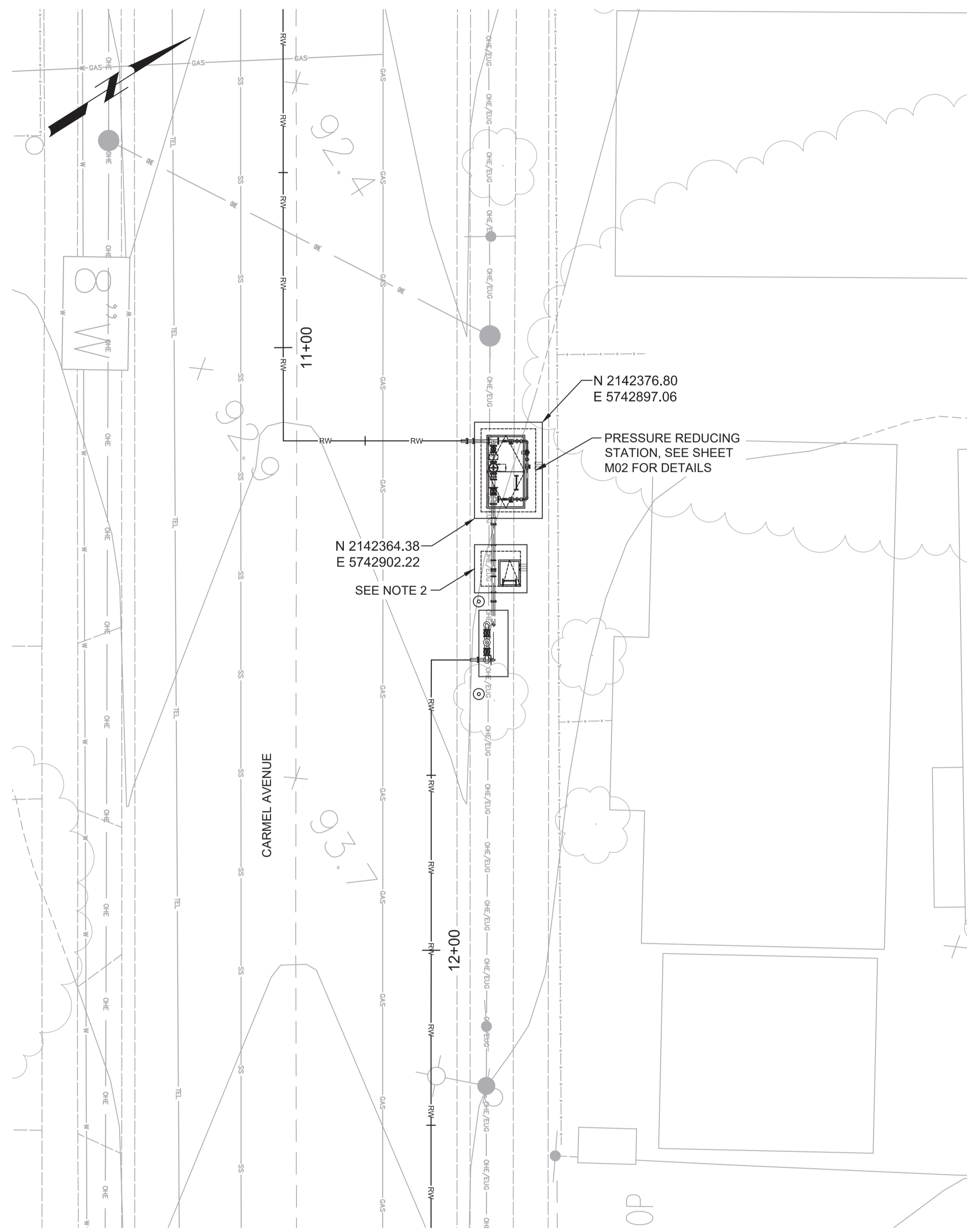
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PROJECT NO. 7568C10

LAST SAVED BY: bhawes



A PRESSURE REDUCING VAULT (BEACH ROAD)
 P04 SCALE: 1"=10'
 FILE: 7568C10C105

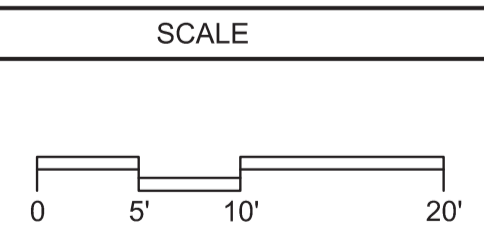
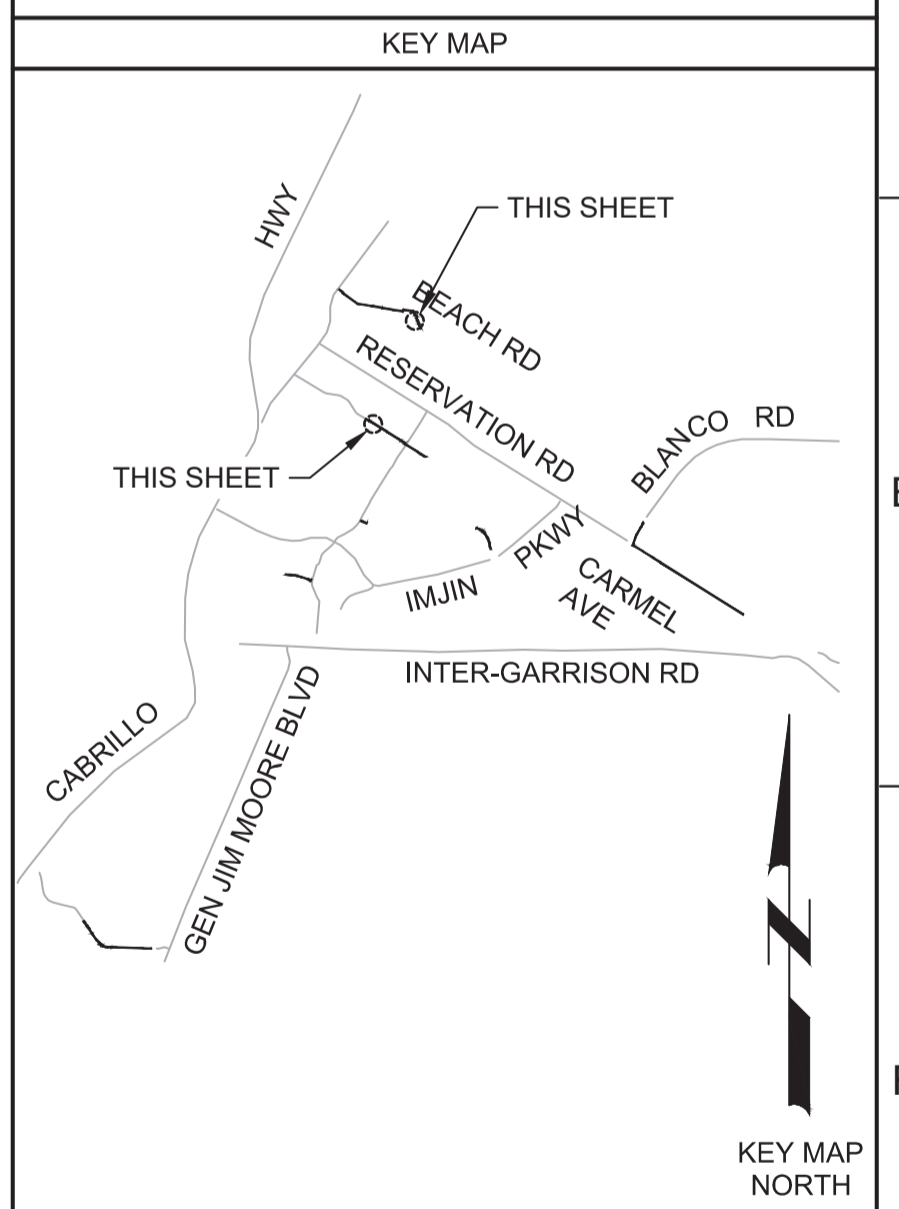


B PRESSURE REDUCING VAULT (CARMEL AVENUE)
 P05 SCALE: 1"=10'
 FILE: 7568C10C105

- GENERAL NOTES:**
- FIELD SURVEY AND MARK CORNERS OF ALL VAULTS / CONCRETE PADS. CONFIRM WITH OWNER AND ENGINEER IN THE FIELD THE FINAL LOCATION OF THE STATIONS PRIOR TO INSTALLING STATIONS OR ADJACENT FACILITIES.
 - FIELD ADJUST VAULT LOCATION SO OUTSIDE OF VAULT WALL IS ADJACENT TO BACK OF CURB. REPLACE CURB NO LESS THAN 5 FEET BEYOND EDGE OF PRESSURE REDUCING VAULT AND BACKFLOW PREVENTER PAD. LOCATE BOLLARDS BEHIND BACK OF CURB.



Know what's below.
 Call before you dig.



REV				DATE	BY	DESCRIPTION
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DESIGNED
JPM/KMM

DRAWN
BWH

CHECKED

DATE
JANUARY 2020



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 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:45:43 -0800



Marina
 Coast
 Water
 District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

YARD PIPING PLANS - 1

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 20'

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
CD01

SHEET NO.
15 OF 58

Plot Date: 1/24/2020 7:34:38 PM

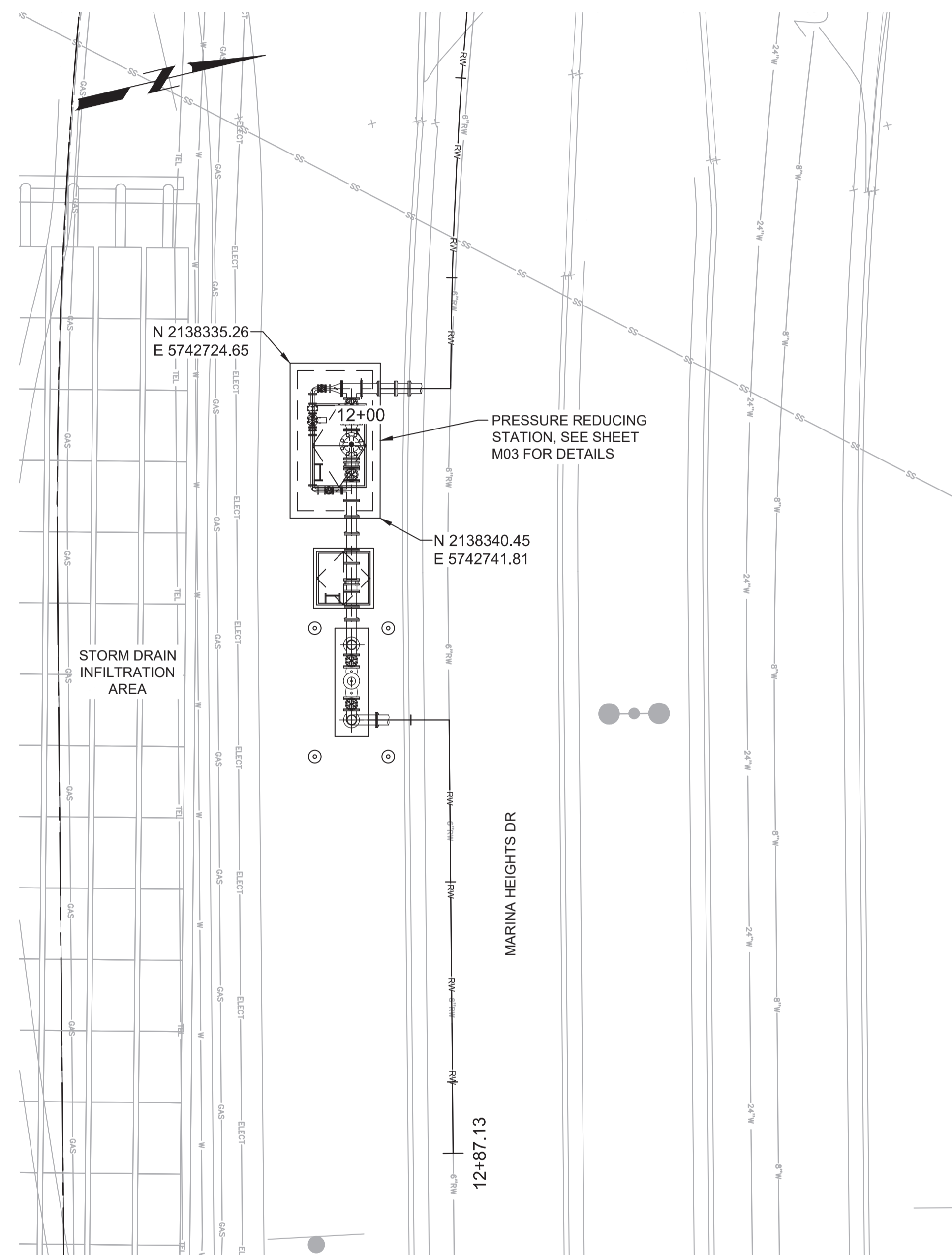
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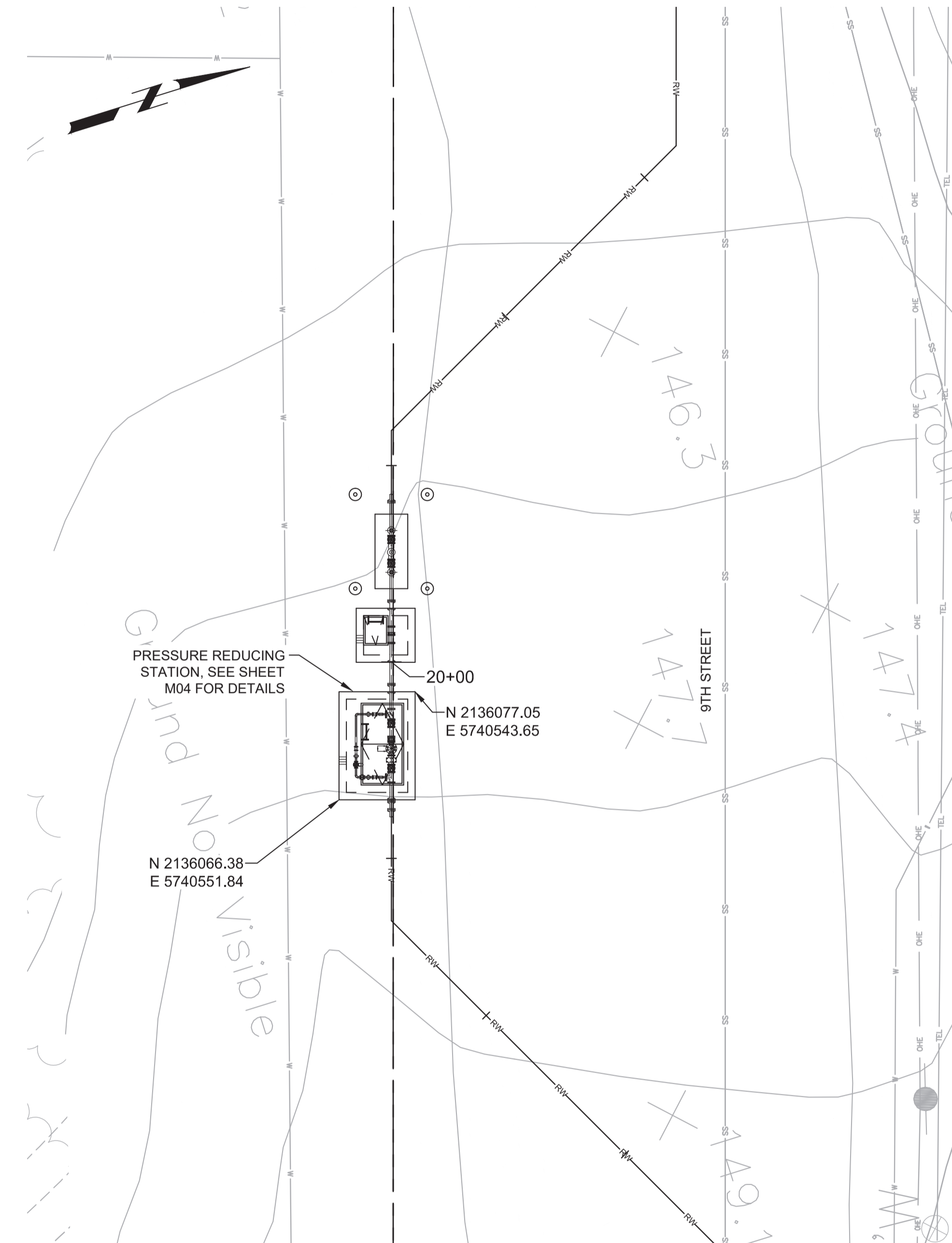
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GENERAL NOTES:

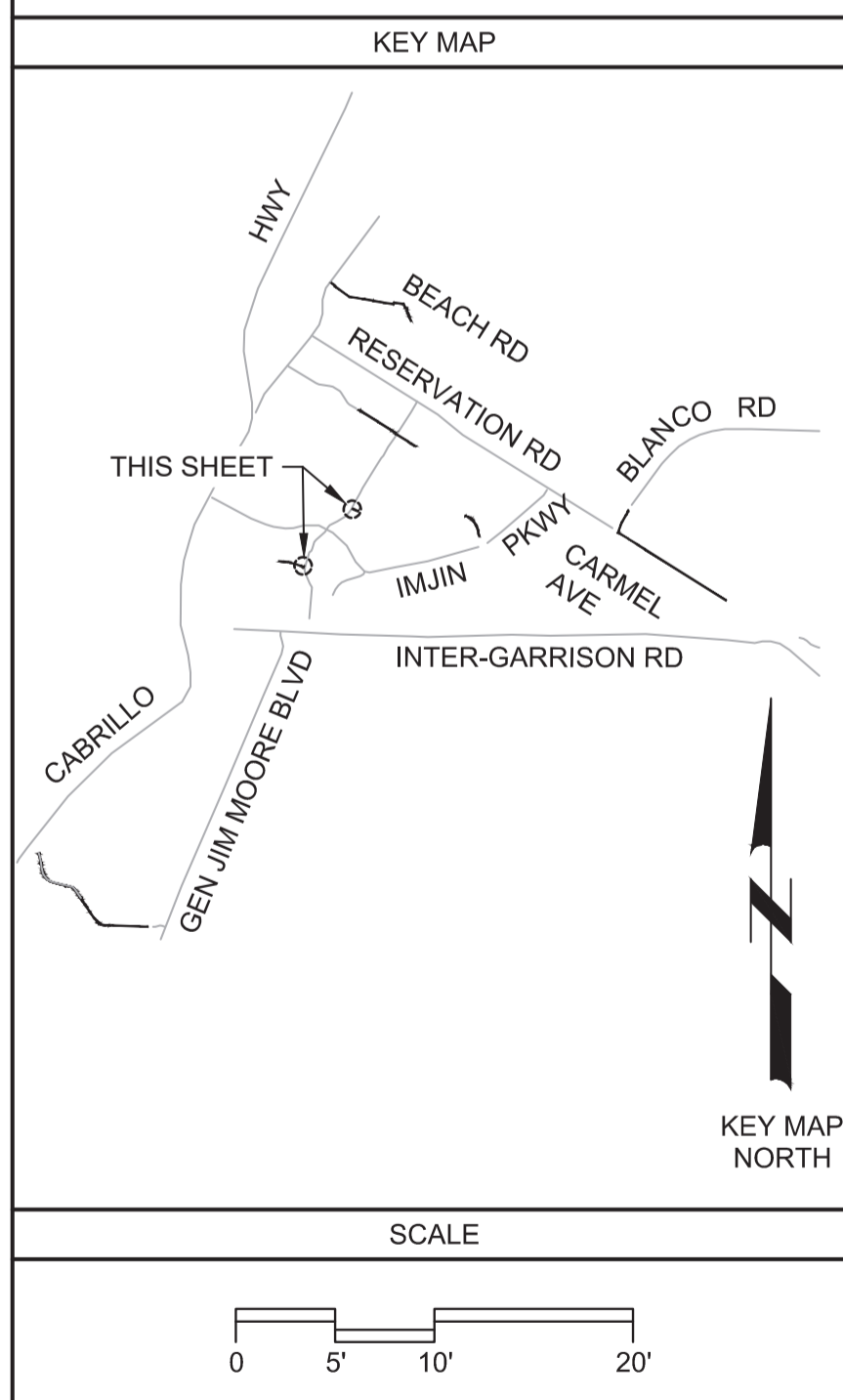
- FIELD SURVEY AND MARK CORNERS OF ALL VAULTS / CONCRETE PADS. CONFIRM WITH OWNER AND ENGINEER IN THE FIELD THE FINAL LOCATION OF THE STATIONS PRIOR TO INSTALLING STATIONS OR ADJACENT FACILITIES.



A PRESSURE REDUCING STATION (MARINA HEIGHTS DR)
 P08 SCALE: 1"=10'
 FILE: 7568C10C105



B PRESSURE REDUCING STATION (9TH STREET)
 P19 SCALE: 1"=10'
 FILE: 7568C10C105



REV	DATE	BY	DESCRIPTION
1			
2			
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BID DOCUMENTS

DESIGNED
JPM/KMM

DRAWN
BWH

CHECKED

DATE
JANUARY 2020



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 Date: 2020.01.30 16:44:59 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

YARD PIPING PLANS - 2

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1" 20'
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
CD02

SHEET NO.
16 OF 58

Plot Date: 1/24/2020 7:37:17 PM

FILE NAME: 7568C10CD03.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

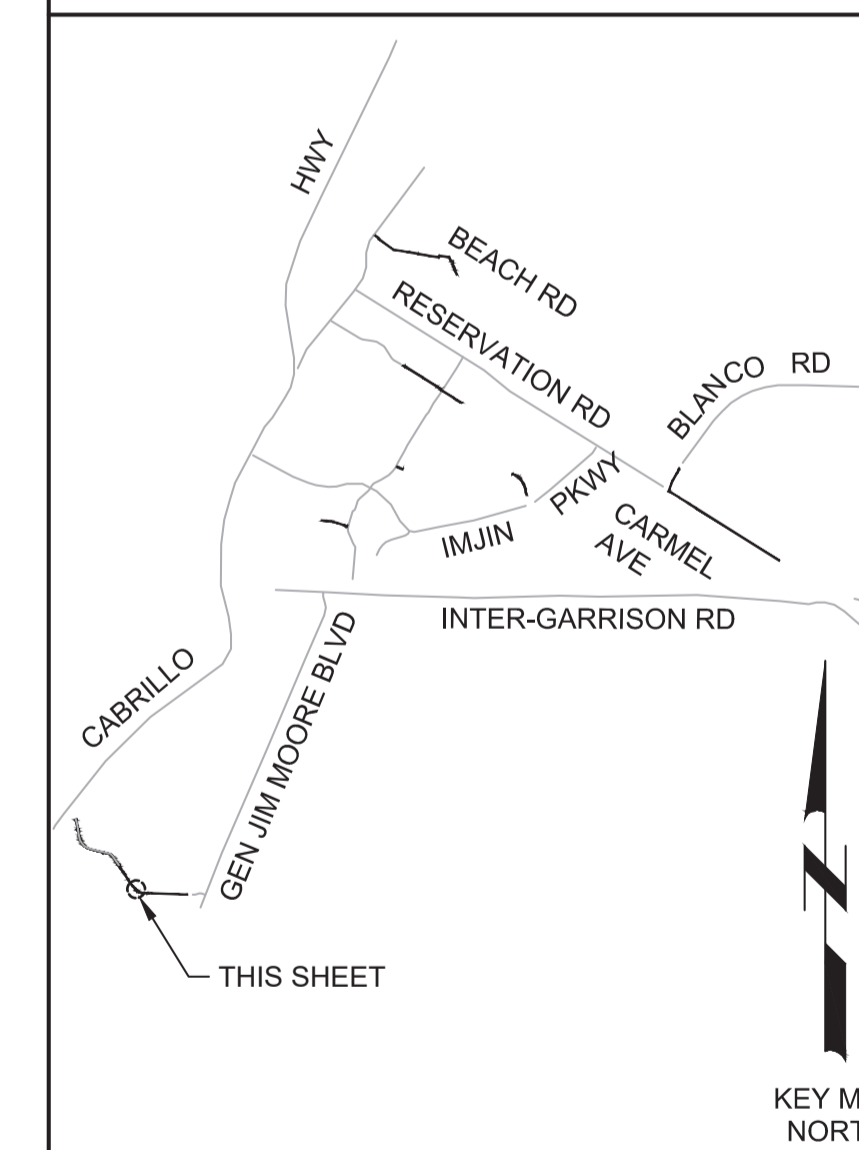
GENERAL NOTES:

1. FIELD SURVEY AND MARK CORNERS OF ALL VAULTS / CONCRETE PADS. CONFIRM WITH OWNER AND ENGINEER IN THE FIELD THE FINAL LOCATION OF THE STATIONS PRIOR TO INSTALLING STATIONS OR ADJACENT FACILITIES.

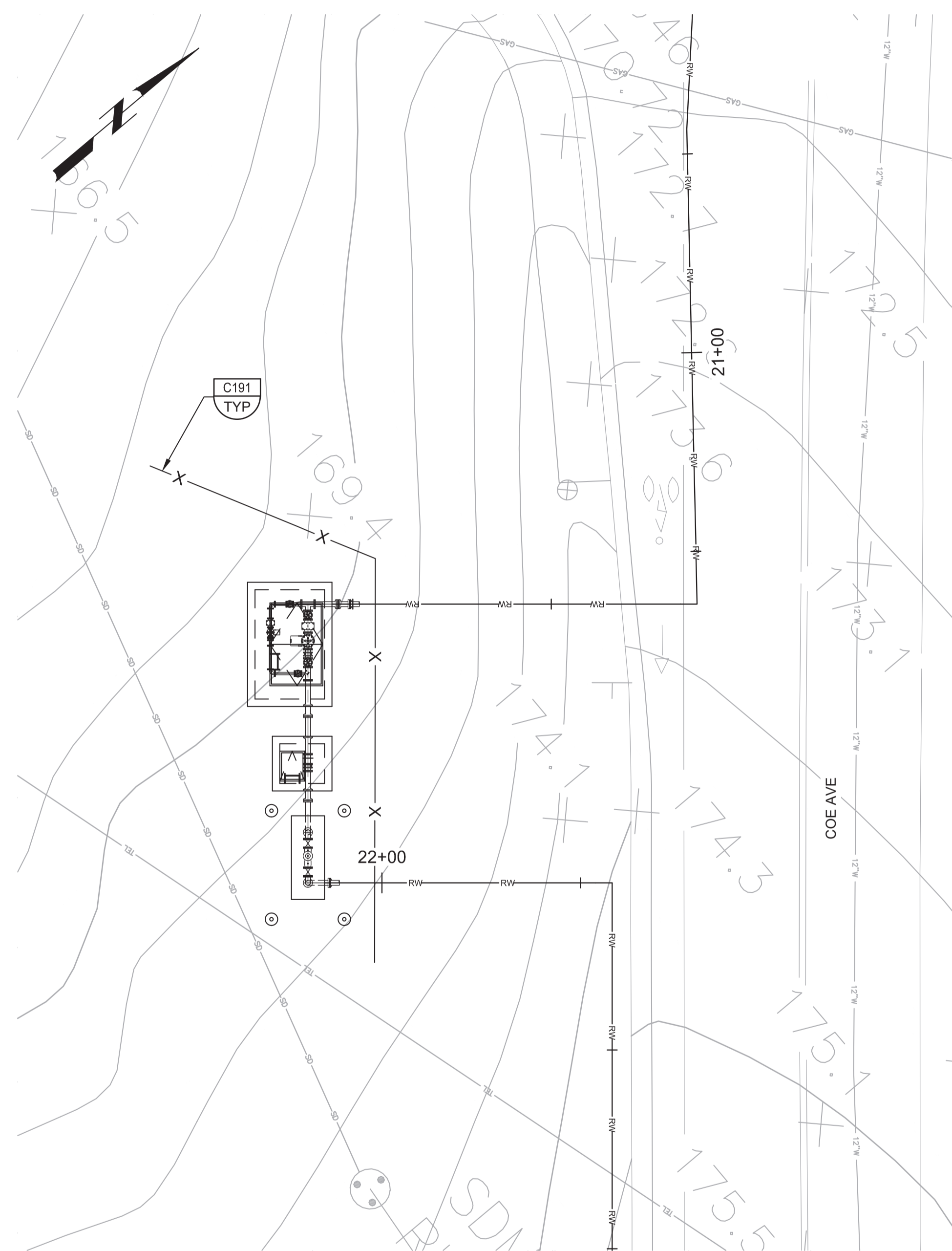
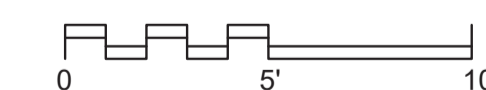


Know what's below.
Call before you dig.

KEY MAP



SCALE



A PRESSURE REDUCING STATION (COE AVE)
 P21 SCALE: 1"=10'
 FILE: 7568C10C105

BID DOCUMENTS

DESIGNED
JPM/KMM
 DRAWN
BWH
 CHECKED
 DATE
JANUARY 2020



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 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:44:28-0800



Marina
Coast
Water
District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

YARD PIPING PLANS - 3

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
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 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10
 DRAWING NO.
CD03
 SHEET NO.
17 OF 58

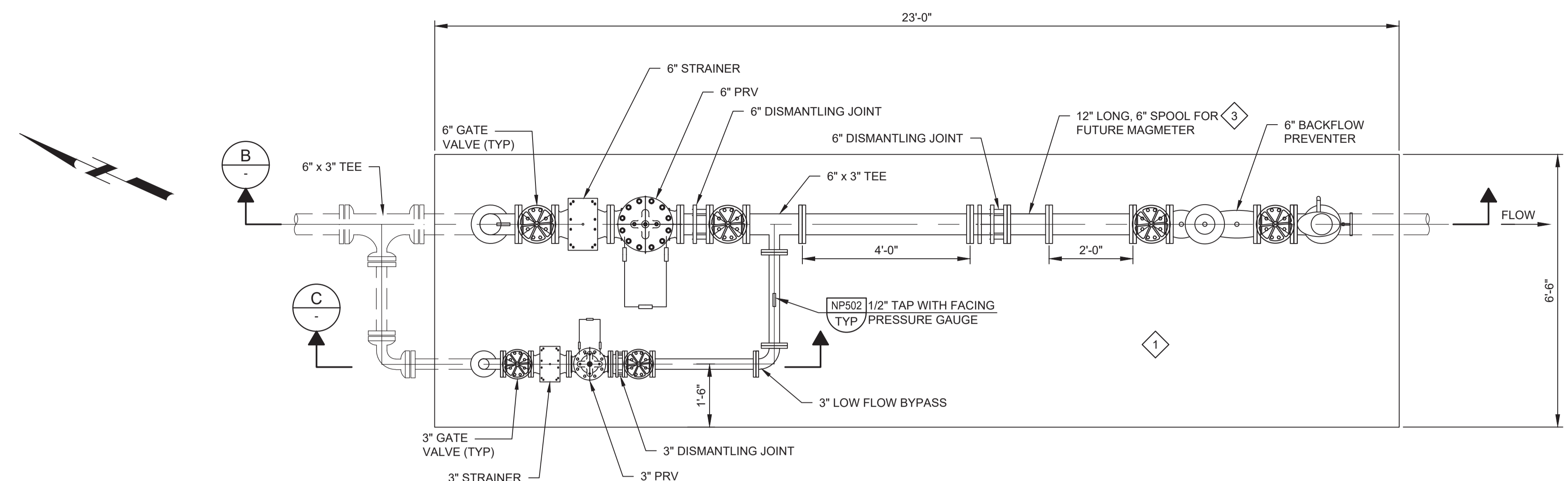
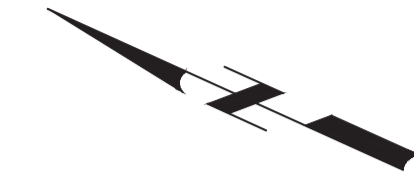
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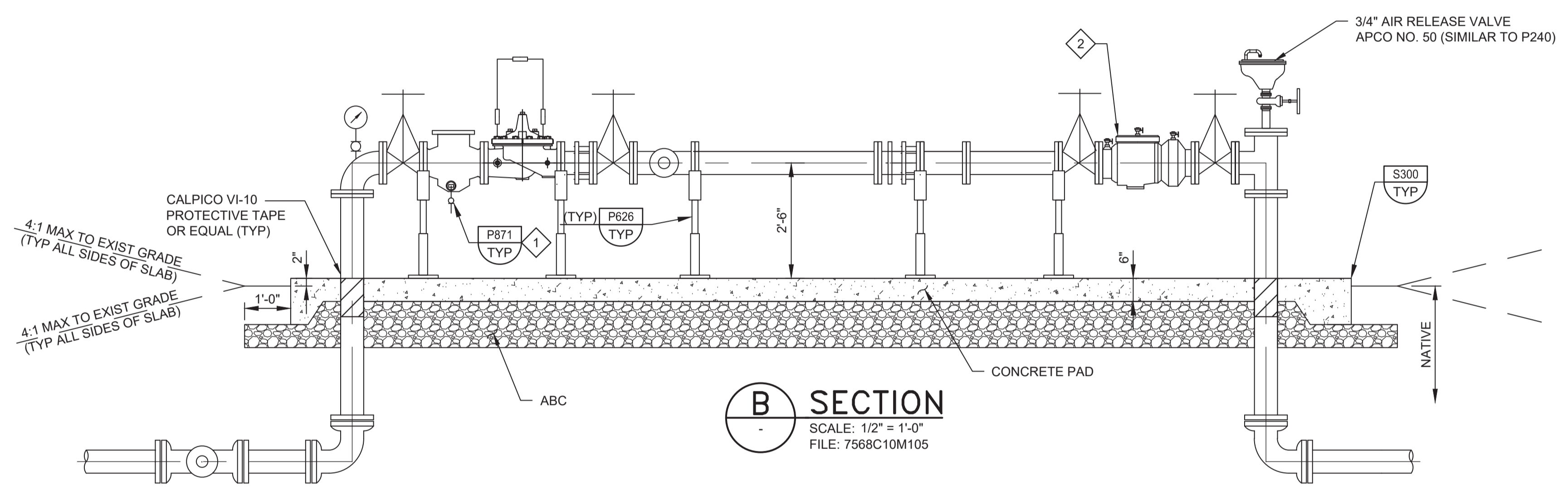
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PROJECT NO. 7568C10

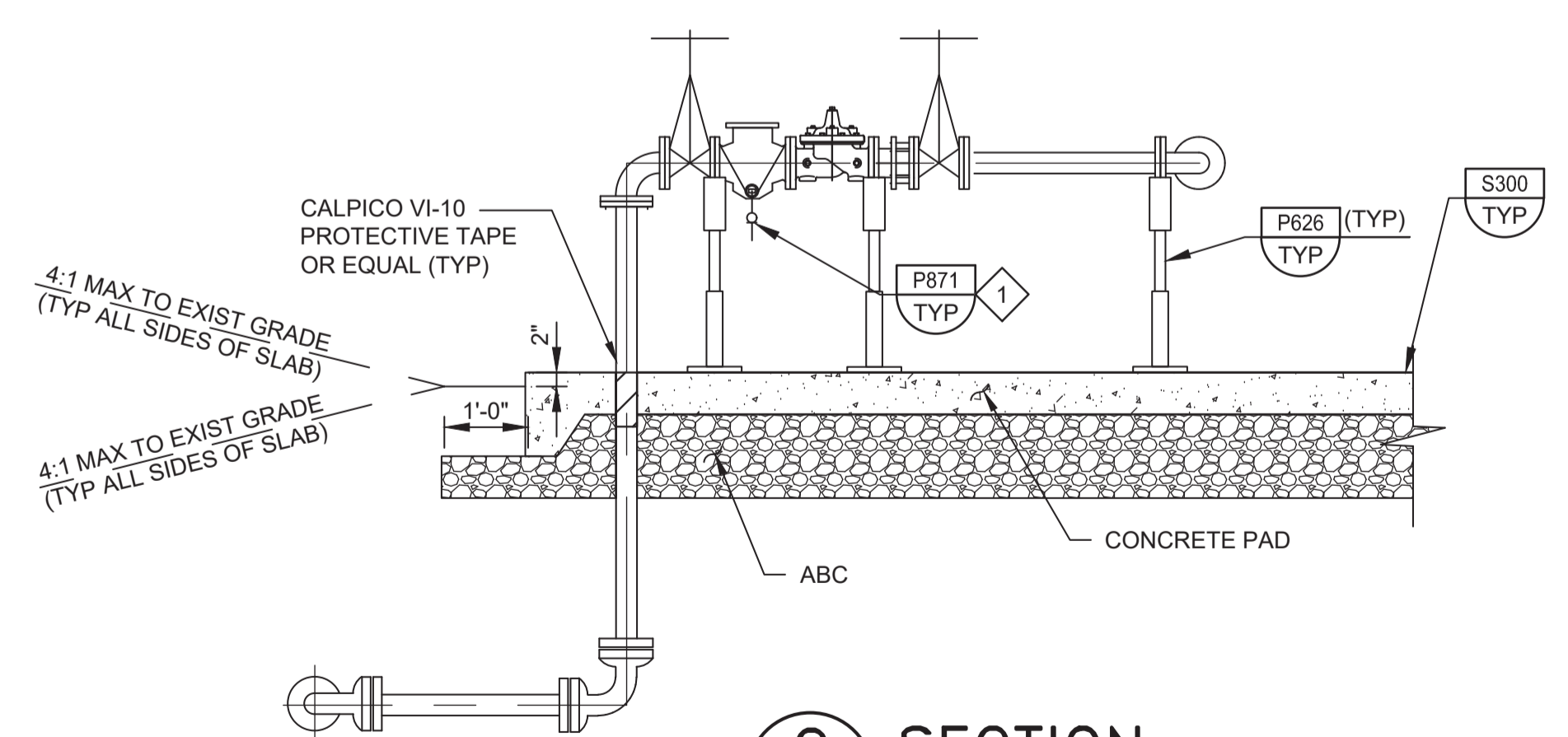
LAST SAVED BY: bbaives



A TOP PLAN
 CD01 SCALE: 1/2" = 1'-0"
 FILE: 7568C10M105



B SECTION
 SCALE: 1/2" = 1'-0"
 FILE: 7568C10M105



C SECTION
 SCALE: 1/2" = 1'-0"
 FILE: 7568C10M105

- GENERAL NOTES:**
- CONTRACTOR SHALL CONFIRM PIPE LAYOUT AND DIMENSIONS PRIOR TO PREPARING PAD. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE FOR PIPING AND APPURTENANCES.
 - WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
- KEY NOTES:**
- SLOPE PAD 0.5% TO DRAIN.
 - 6" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
 - AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.

BID DOCUMENTS

DESIGNED
KM
 DRAWN
DA
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 DATE
JANUARY 2020



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 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:44:06 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
 RECYCLED WATER DISTRIBUTION MAINS
 MECHANICAL
 BEACH RD PRESSURE REDUCING STATION

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
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 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
 DRAWING NO. M01
 SHEET NO. 18 OF 58

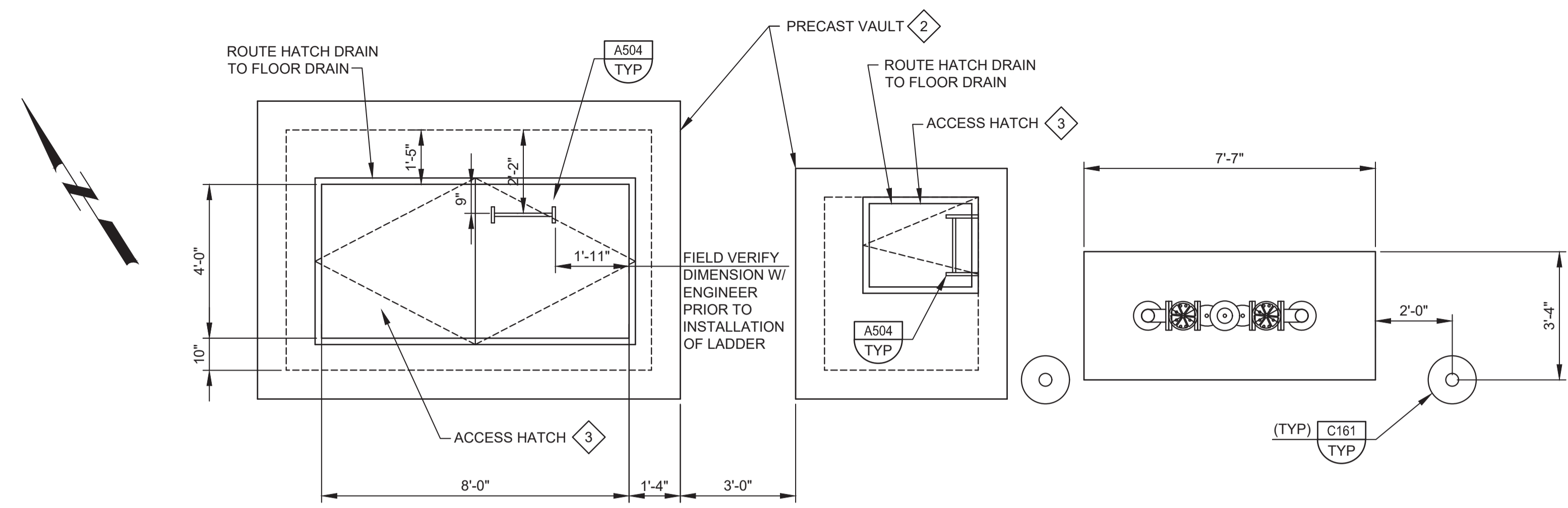
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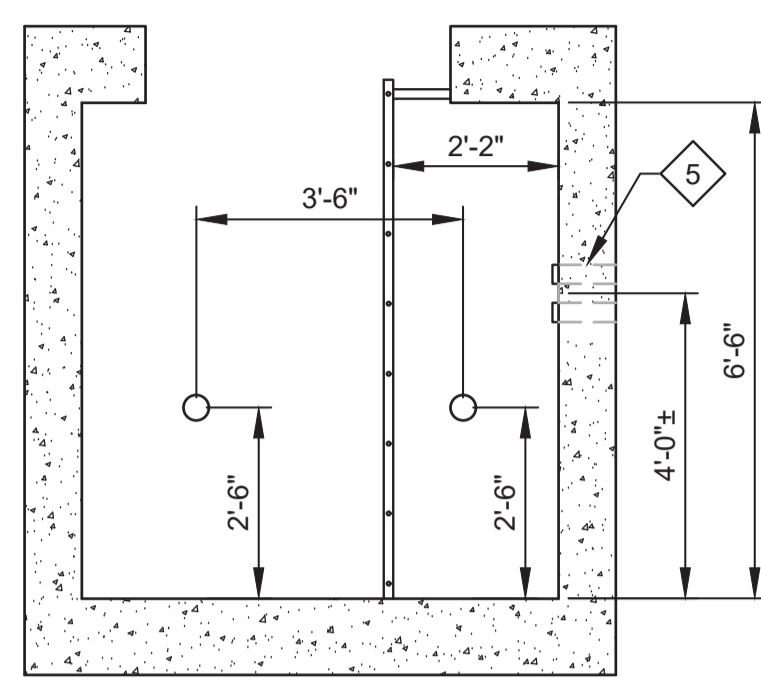
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PROJECT NO. 7568C10

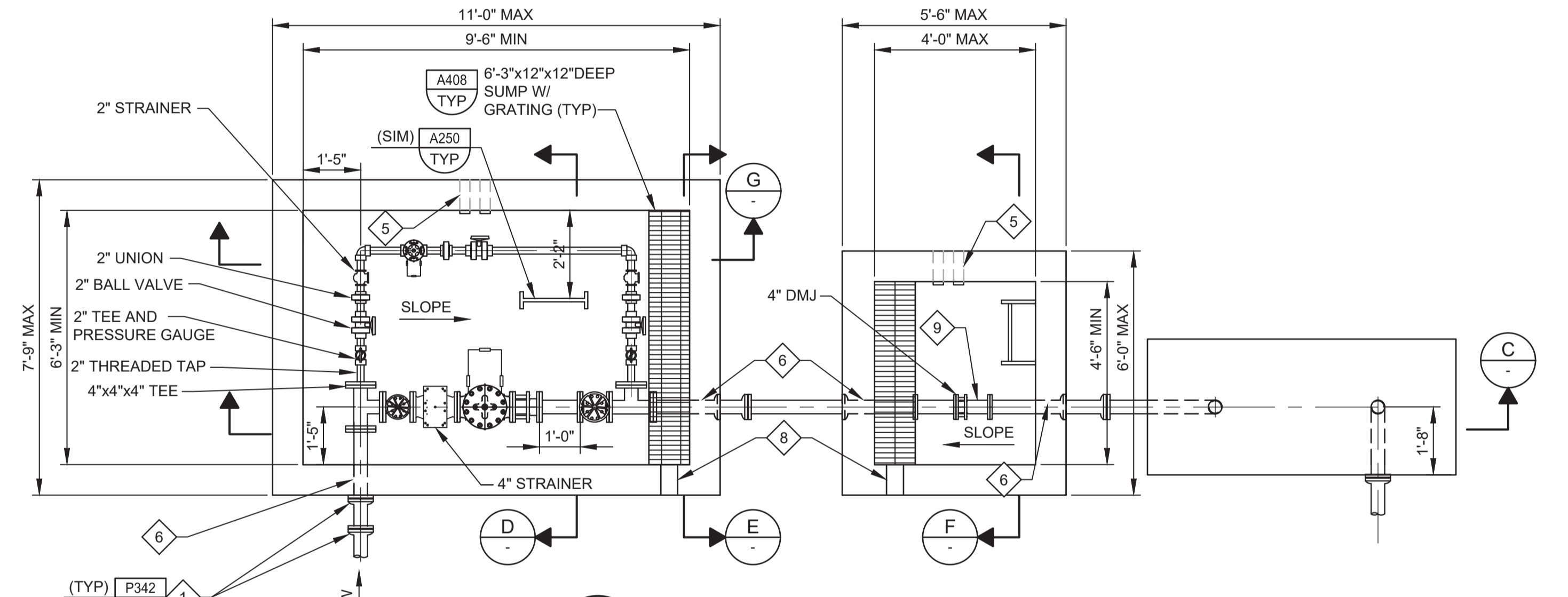
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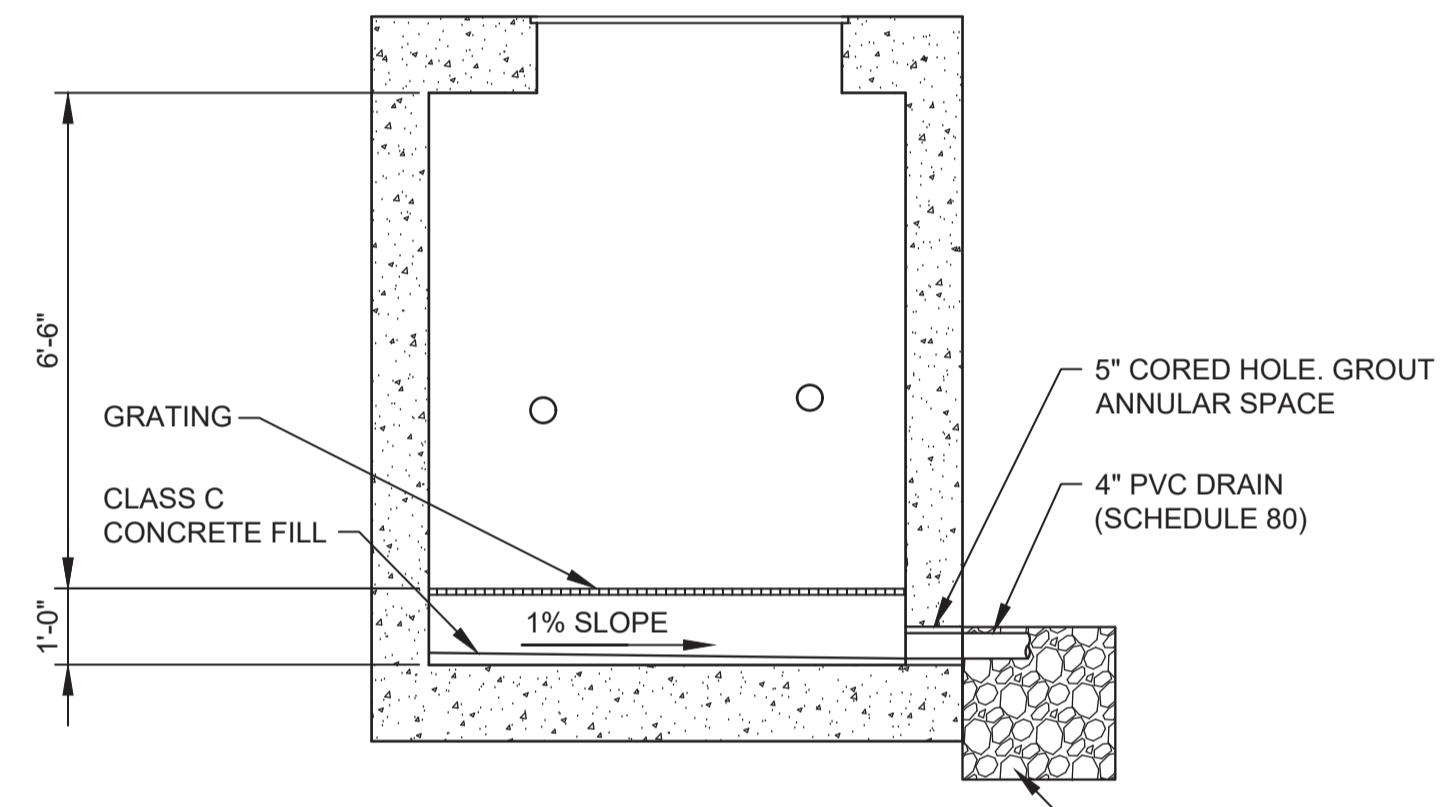
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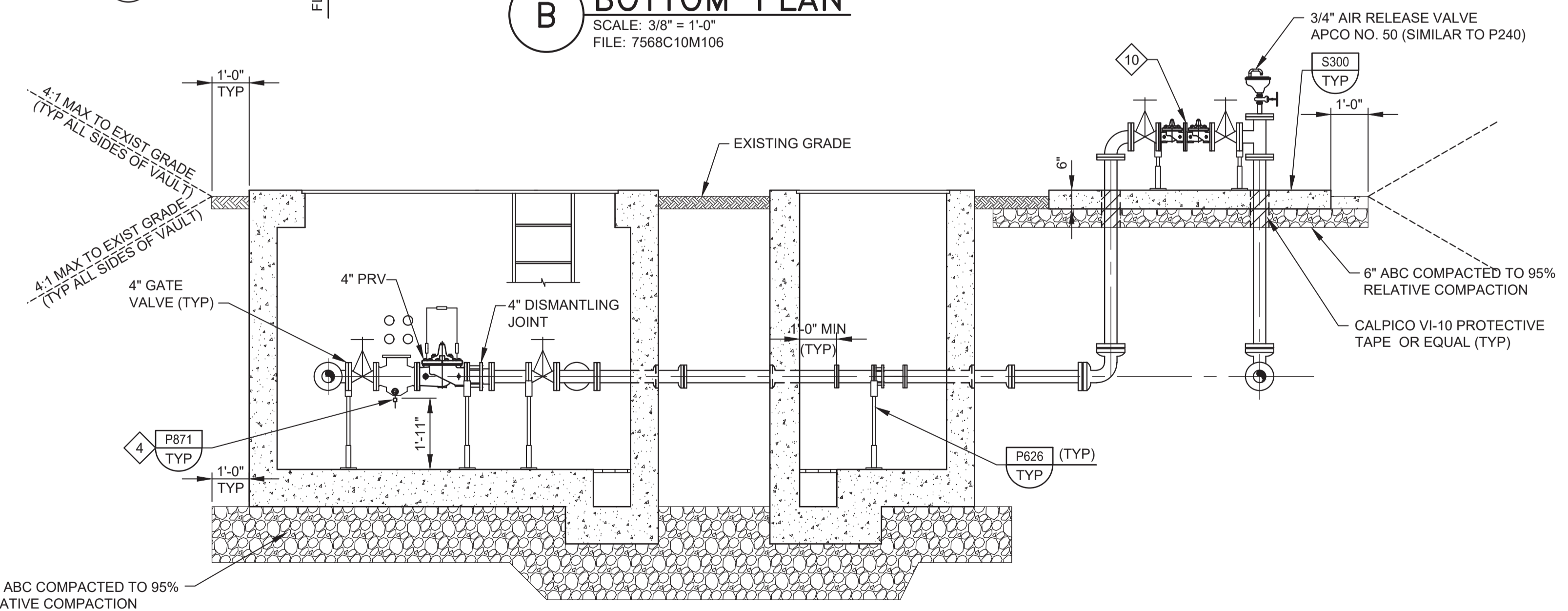
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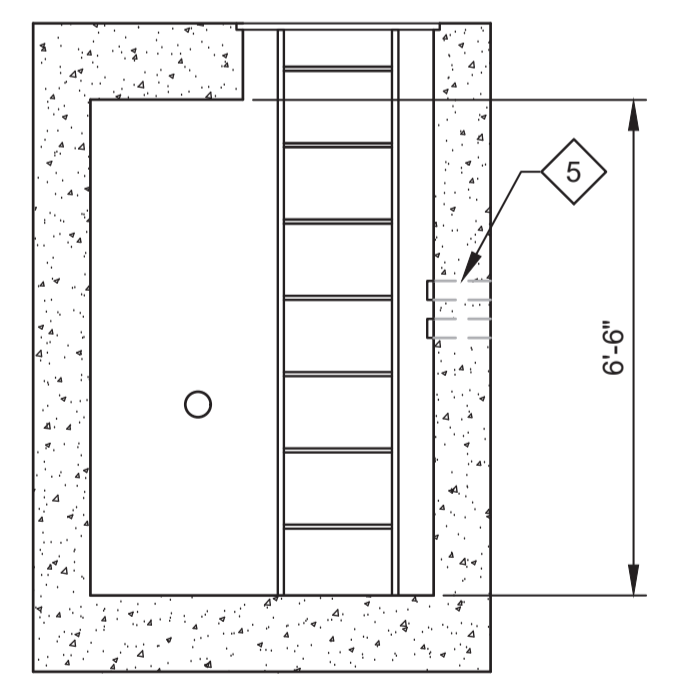
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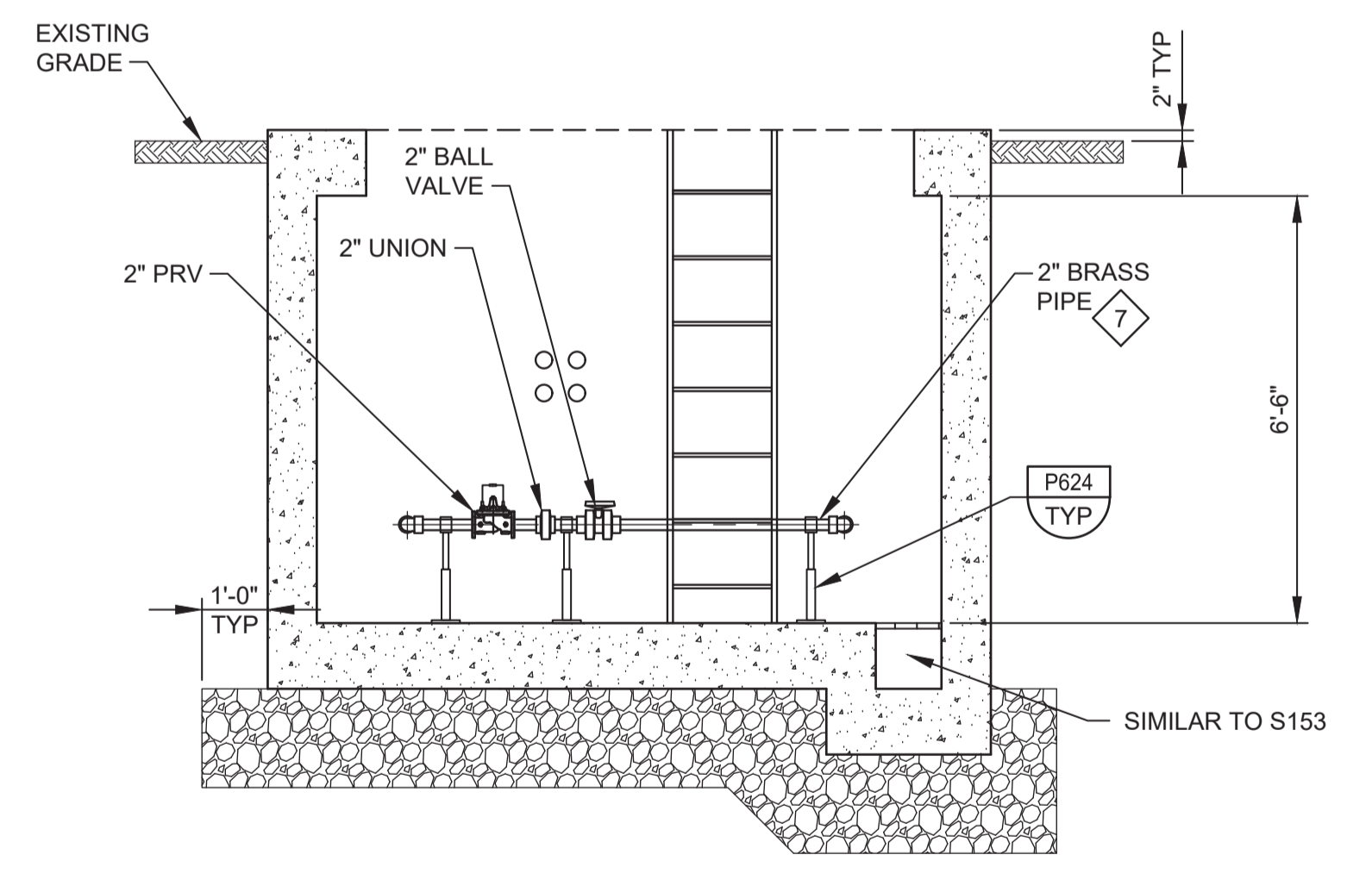
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 FILE: 7568C10M106



C SECTION
 SCALE: 3/8" = 1'-0"
 FILE: 7568C10M106



F SECTION
 SCALE: 3/8" = 1'-0"
 FILE: 7568C10M106



G SECTION
 SCALE: 3/8" = 1'-0"
 FILE: 7568C10M106

GENERAL NOTES:

- CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
- WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
- SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.

KEY NOTES:

- PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCK OUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCK OUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
- PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS AND S101/TYP.
- ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
- DIAMETER TO MATCH STRAINER.
- 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
- PROVIDE DIAGONAL REINFORCING BARS AT WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
- BRASS PIPE AND APPURTENANCES SHALL BE SEAMLESS RED BRASS, EXTRA STRONG, CONFORMING TO ASTM B43.
- 5" CORED HOLE FOR 4" PVC DRAIN.
- 10" LONG, 4" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.
- 4" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED, STRAIGHT CHAIN

BID DOCUMENTS

DESIGNED KM
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 DATE JANUARY 2020



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 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:44:24 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
 RECYCLED WATER DISTRIBUTION MAINS
 MECHANICAL
 CARMEL AVE PRESSURE REDUCING STATION

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
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 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
 DRAWING NO. M02
 SHEET NO. 19 OF 58

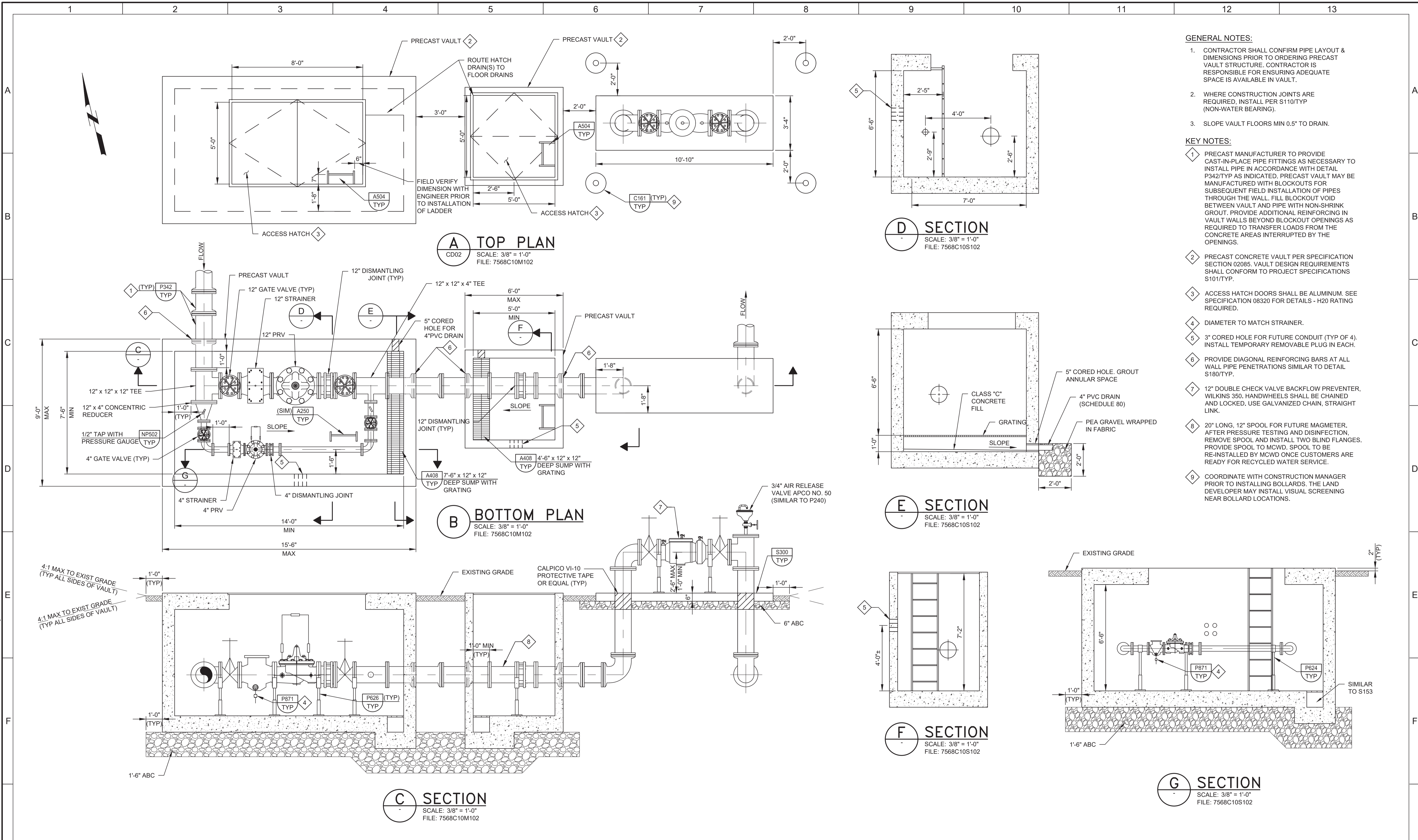
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Plot Date: 1/27/2020 6:32:14 PM

FILE NAME: 7568C10M03.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhaves



- GENERAL NOTES:**
- CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR TO ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
 - WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
 - SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.

- KEY NOTES:**
- PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCKOUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCKOUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
 - PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS S101/TYP.
 - ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
 - DIAMETER TO MATCH STRAINER.
 - 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
 - PROVIDE DIAGONAL REINFORCING BARS AT ALL WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
 - 12" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
 - 20" LONG, 12" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.
 - COORDINATE WITH CONSTRUCTION MANAGER PRIOR TO INSTALLING BOLLARDS. THE LAND DEVELOPER MAY INSTALL VISUAL SCREENING NEAR BOLLARD LOCATIONS.

BID DOCUMENTS

DESIGNED
KM

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DA

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DATE
JANUARY 2020



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:45:28-0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

MECHANICAL

MARINA HEIGHTS DR
PRESSURE REDUCING STATION

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
M03

SHEET NO.
20 OF 58

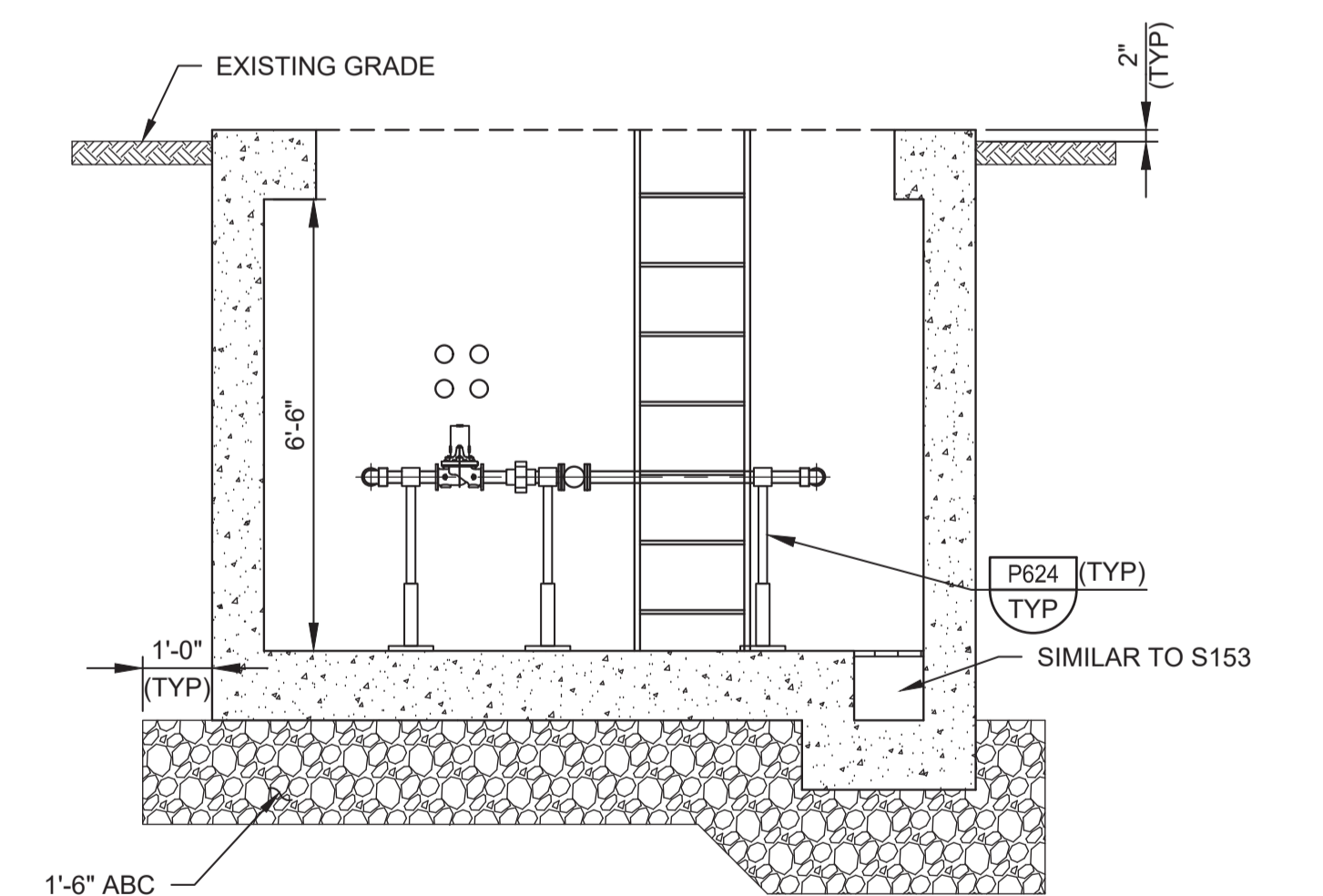
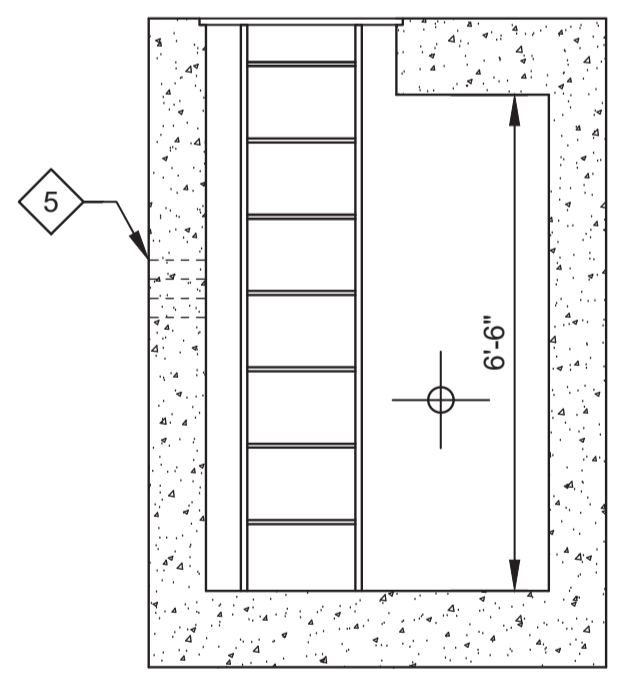
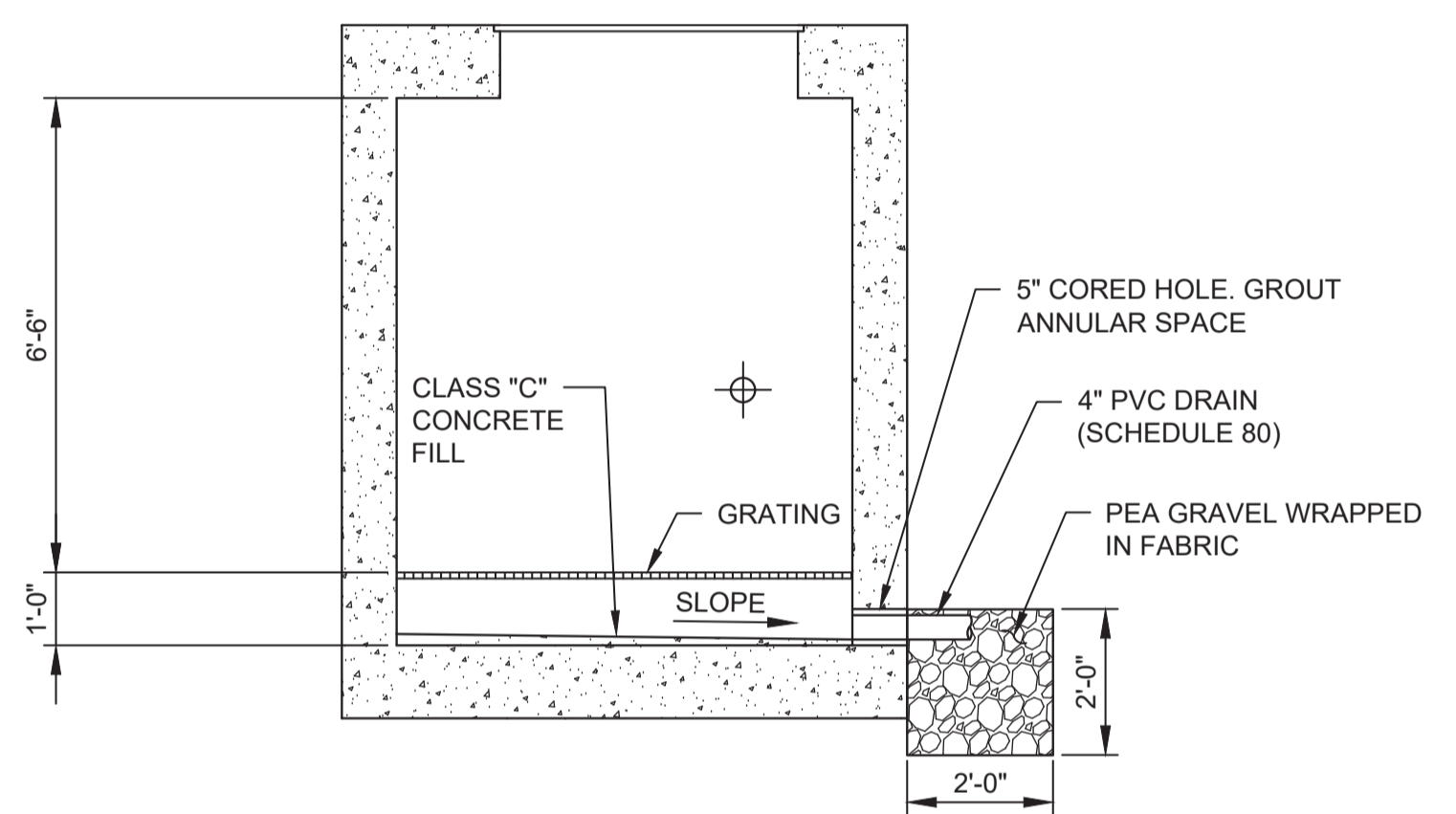
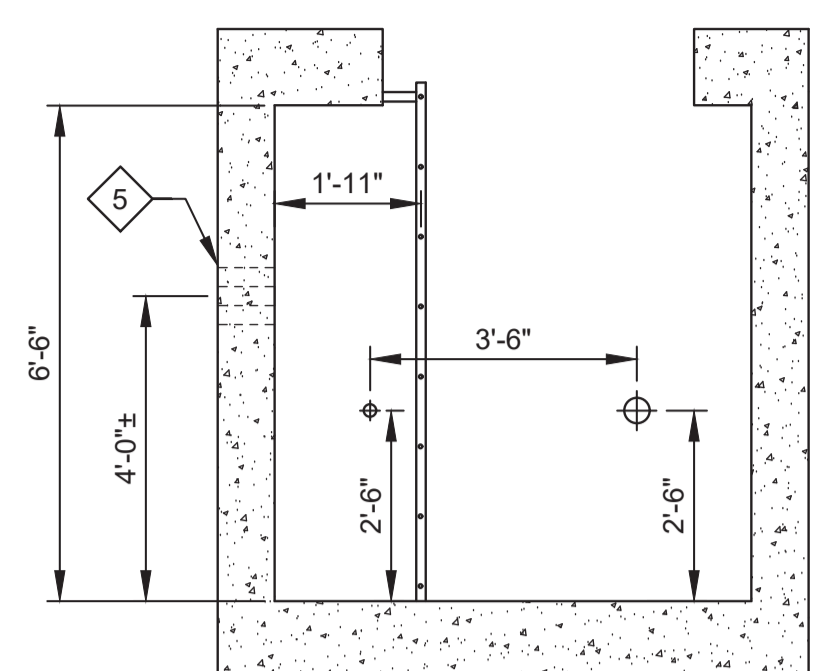
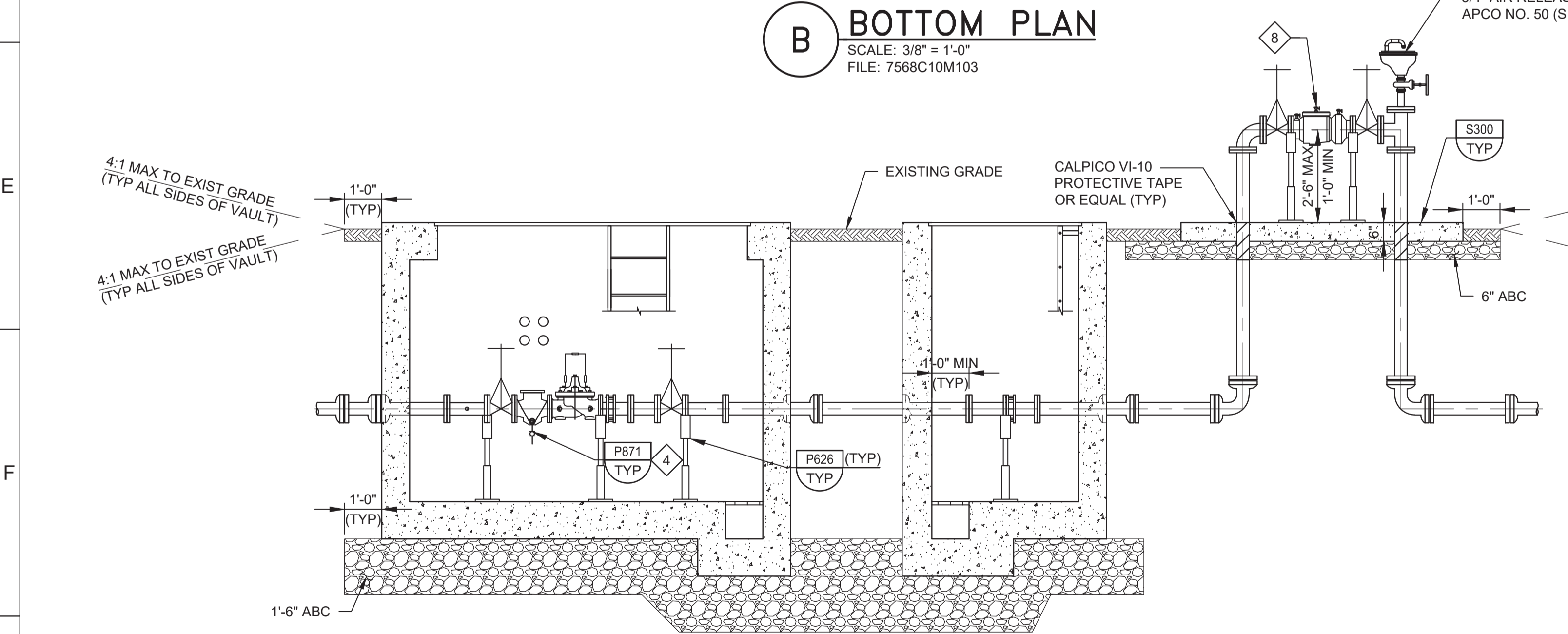
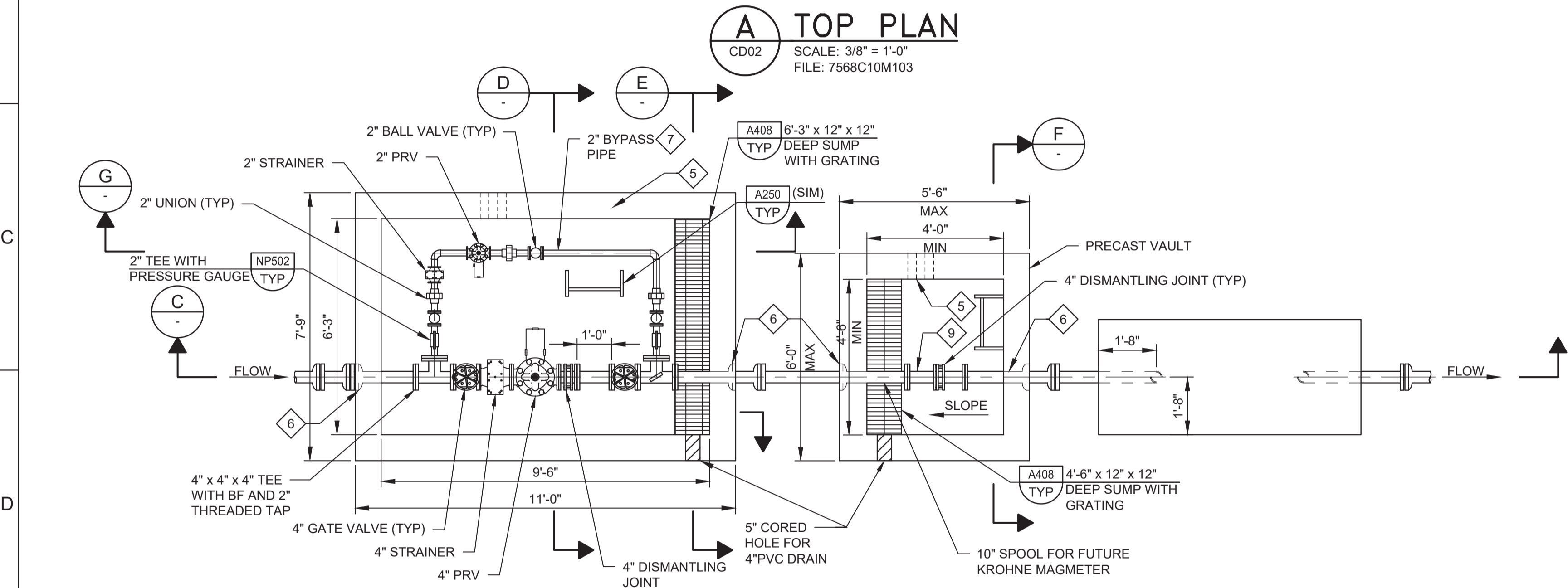
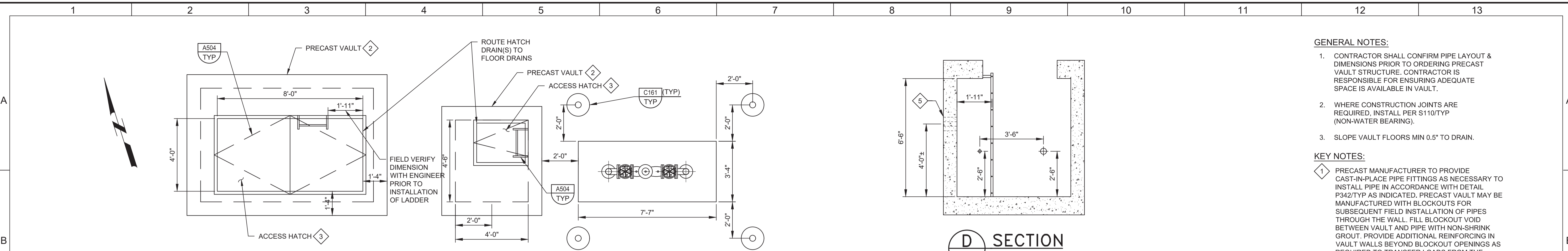
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Plot Date: 1/27/2020 6:31:49 PM

FILE NAME: 7568C10M04.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



GENERAL NOTES:

1. CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR TO ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
2. WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
3. SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.

KEY NOTES:

1. PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCKOUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCKOUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
2. PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS AND S101/TYP.
3. ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
4. DIAMETER TO MATCH STRAINER.
5. 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
6. PROVIDE DIAGONAL REINFORCING BARS AT ALL WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
7. BRASS PIPE AND APPURTENANCES SHALL BE SEAMLESS RED BRASS, EXTRA STRONG, CONFORMING TO ASTM B43.
8. 4" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 3500 HANDWHEEL SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
9. 10" LONG, 4" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.

BID DOCUMENTS

DESIGNED KM
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CHECKED
DATE JANUARY 2020



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:43:25 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
MECHANICAL
9TH ST PRESSURE REDUCING STATION

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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JOB NO. 7568C.10
DRAWING NO. M04
SHEET NO. 21 OF 58

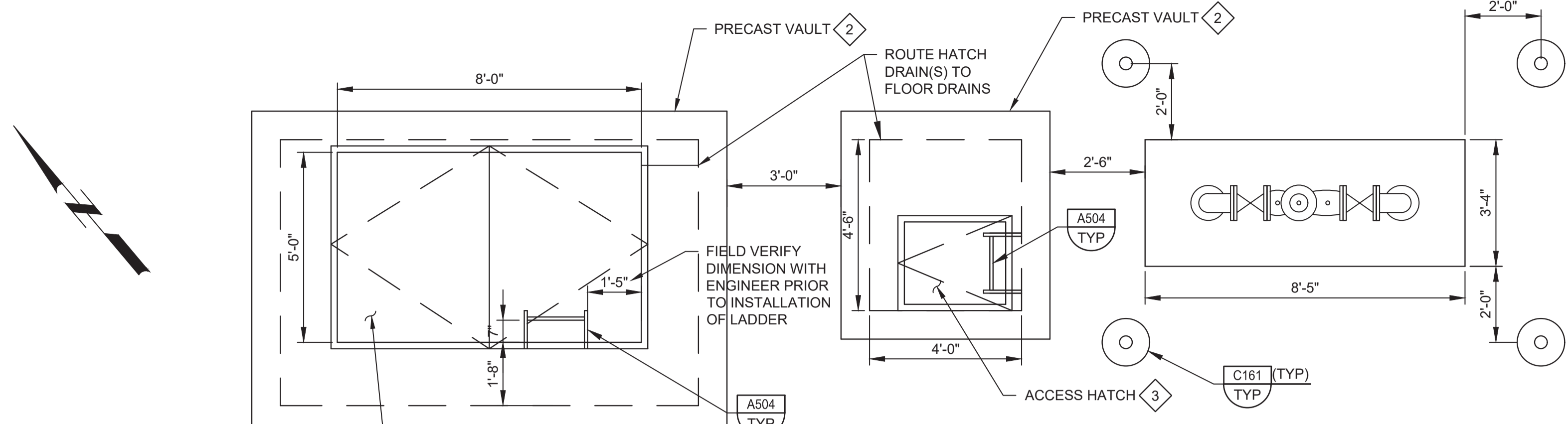
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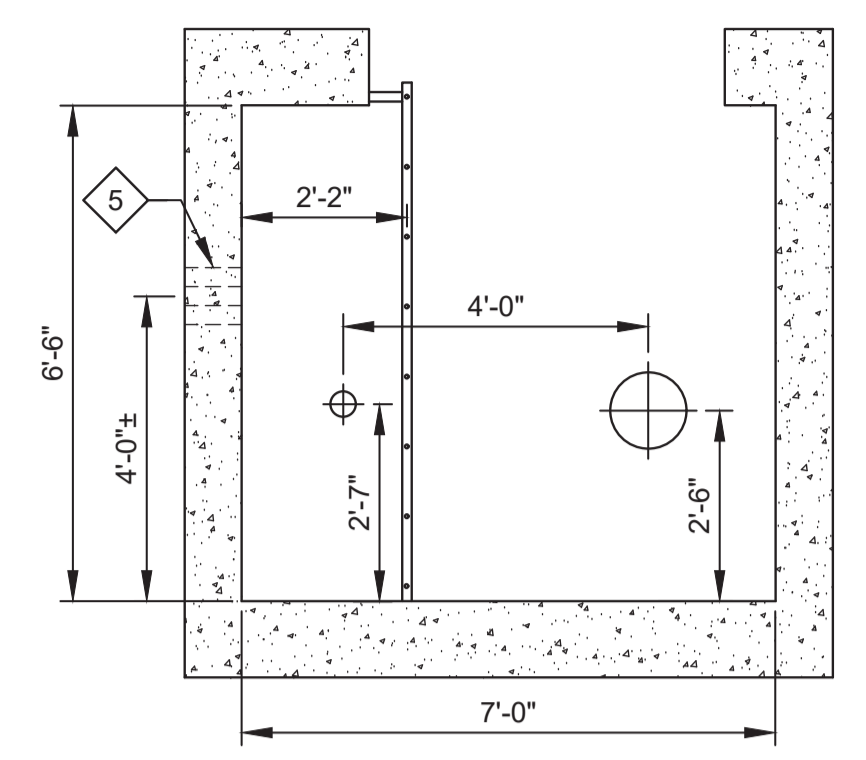
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PROJECT NO. 7568C10

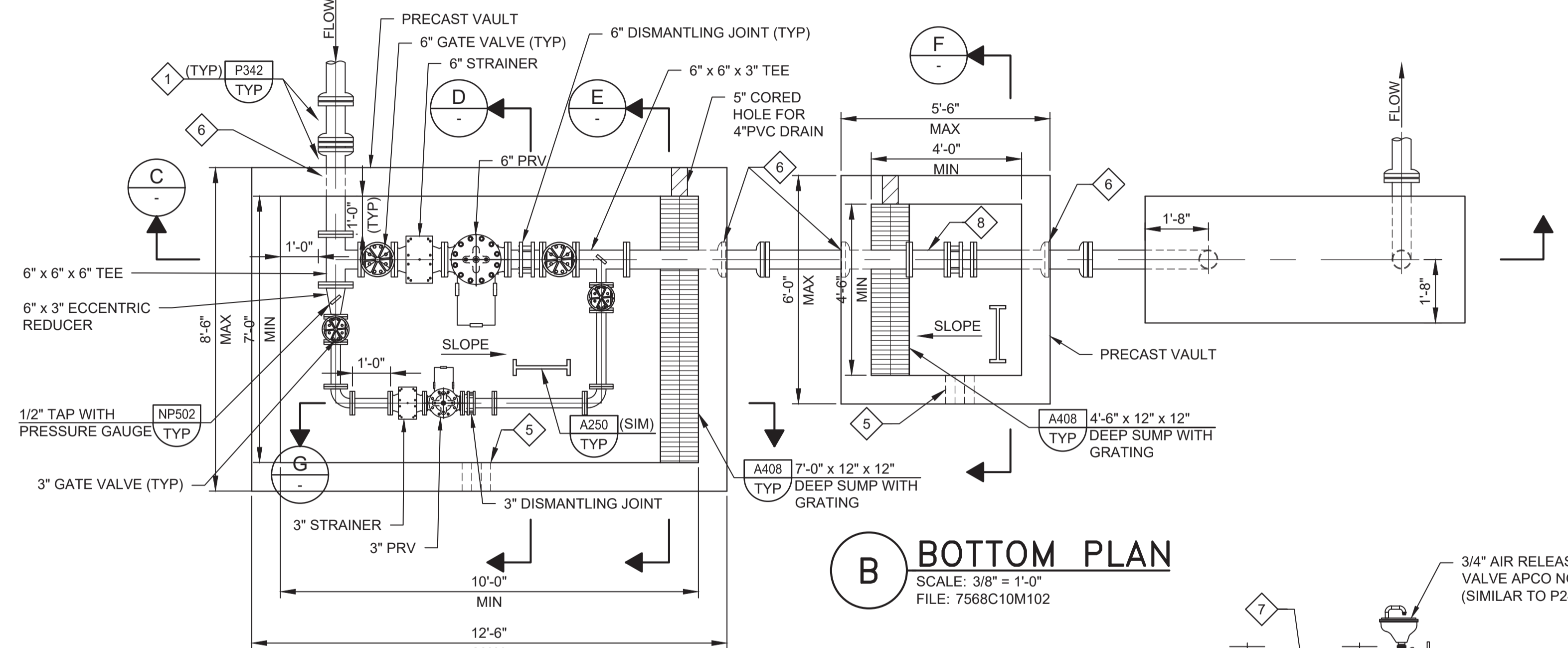
LAST SAVED BY: bbawes



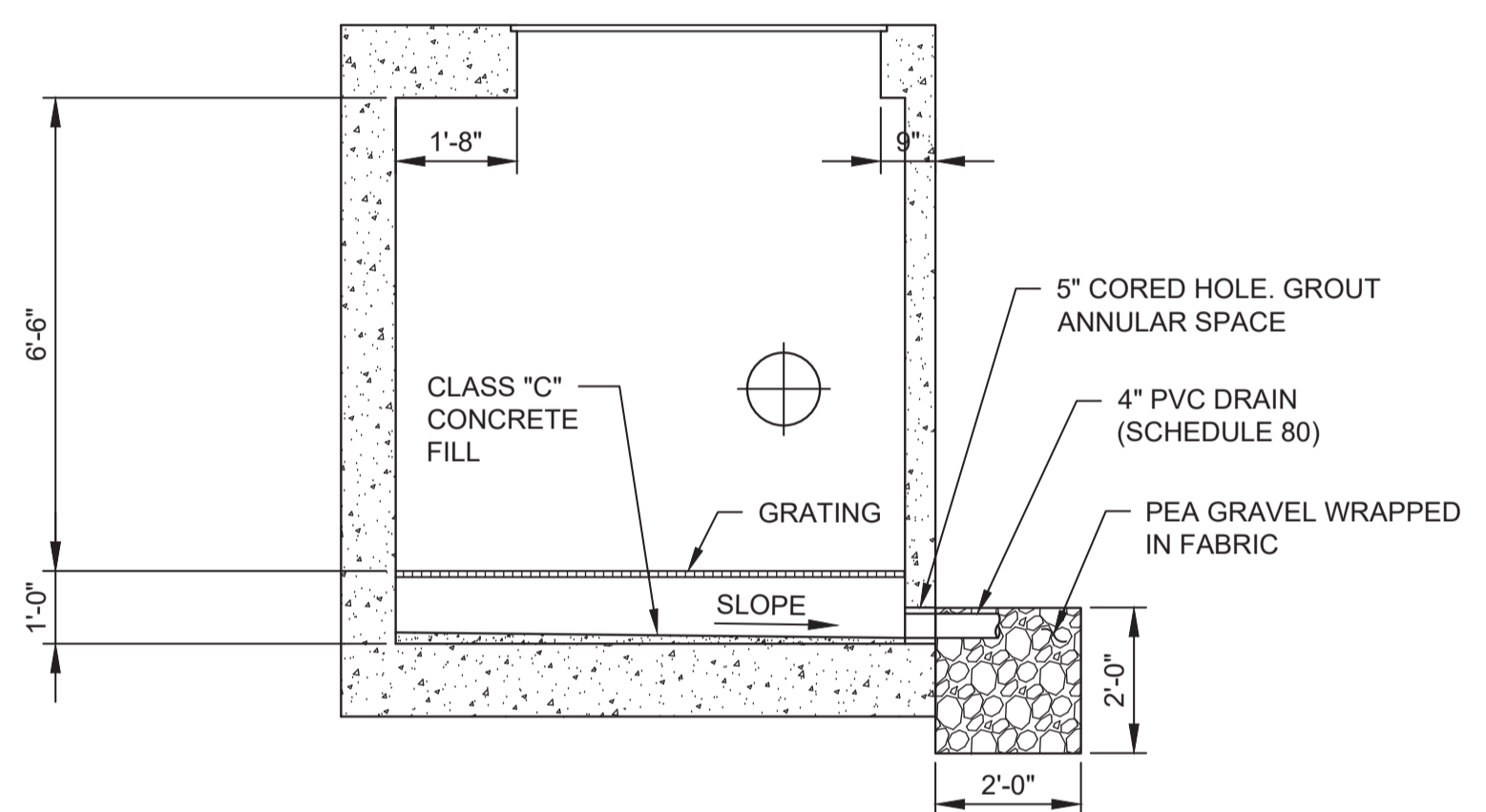
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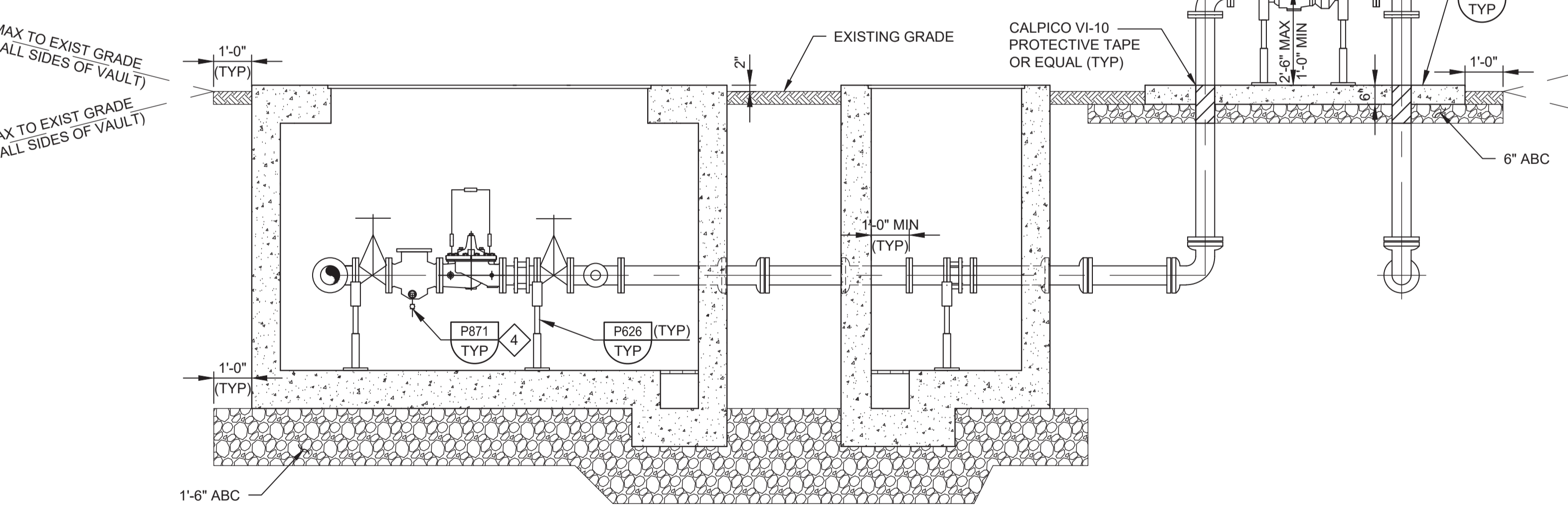
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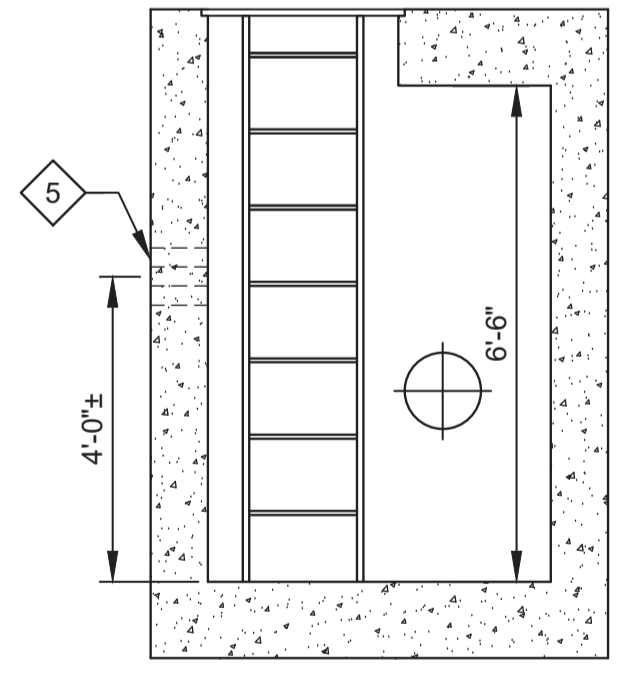
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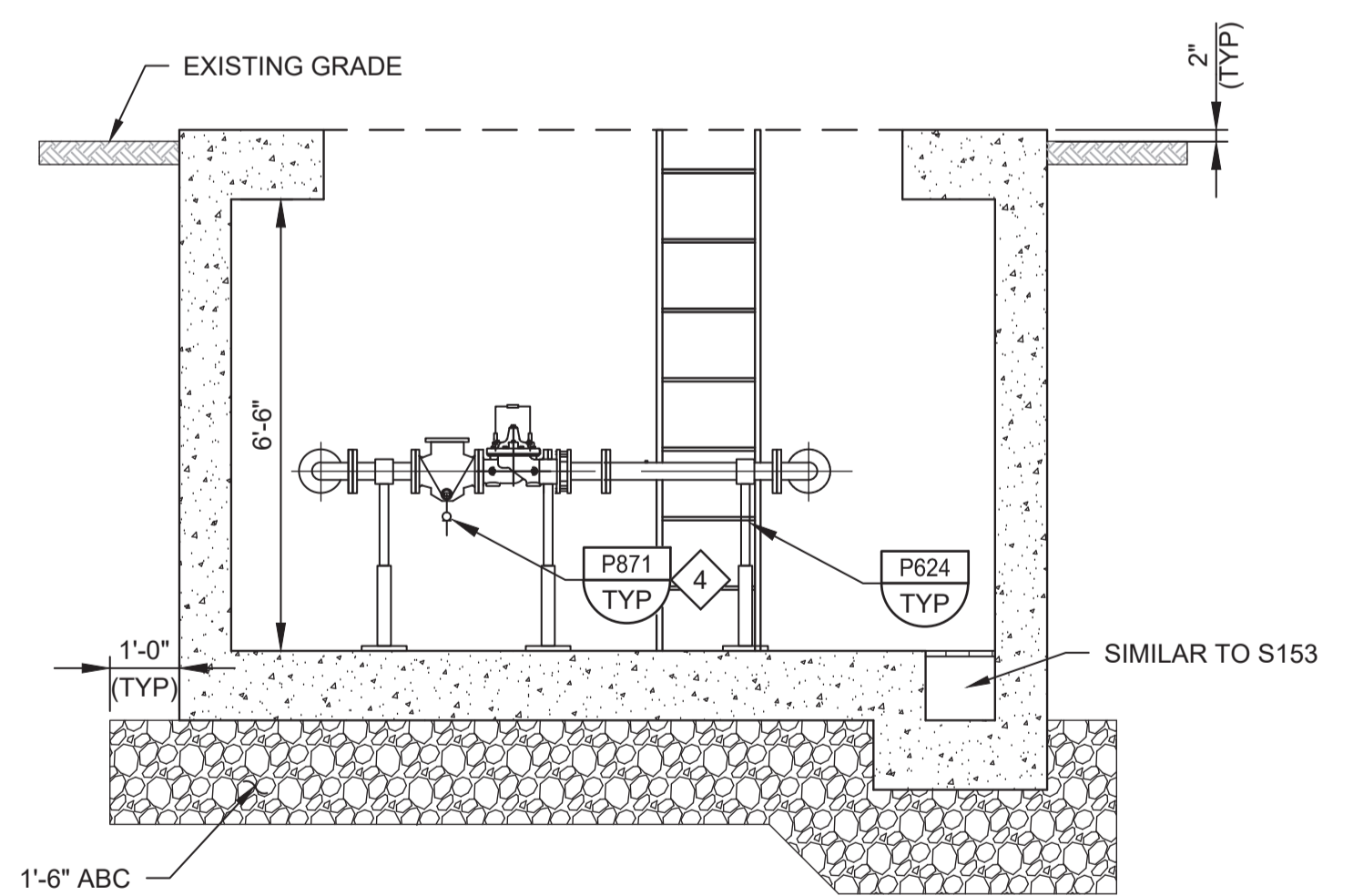
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C SECTION
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 FILE: 7568C10M102



F SECTION
 SCALE: 3/8" = 1'-0"
 FILE: 7568C10S102



G SECTION
 SCALE: 3/8" = 1'-0"
 FILE: 7568C10S102

- GENERAL NOTES:**
- CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR TO ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
 - WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
 - SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.
- KEY NOTES:**
- PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCKOUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCKOUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
 - PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS AND S101/TYP.
 - ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
 - DIAMETER TO MATCH STRAINER.
 - 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
 - PROVIDE DIAGONAL REINFORCING BARS AT ALL WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
 - 6" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
 - 12" LONG, 6" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.

BID DOCUMENTS

DESIGNED	KM
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DATE	JANUARY 2020



Digitally signed by Jonathan P. Marshall
 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:42:49-0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
 RECYCLED WATER DISTRIBUTION MAINS
 MECHANICAL
 COE AVE
 PRESSURE REDUCING STATION

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
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 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
 DRAWING NO. M05
 SHEET NO. 22 OF 58

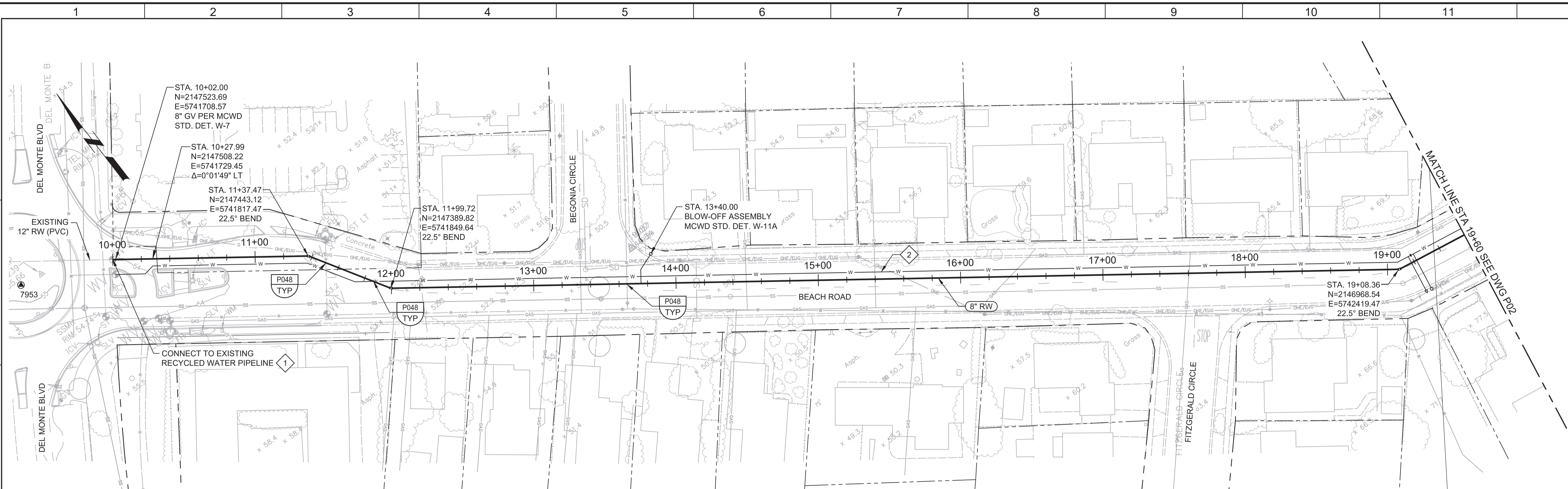
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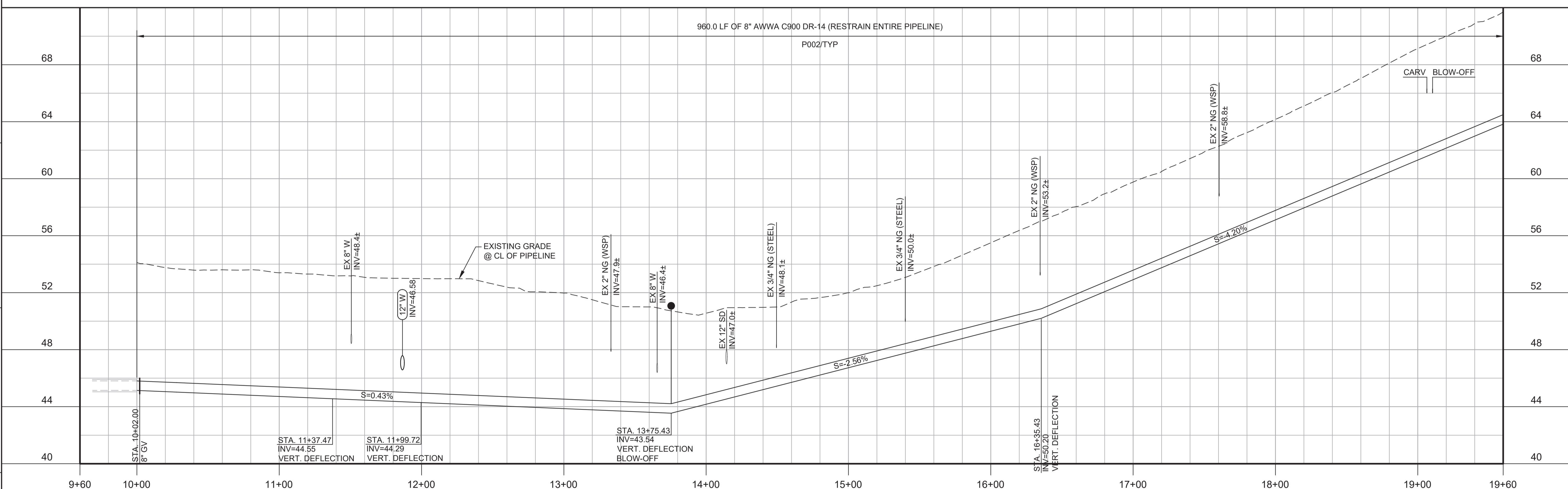
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PROJECT NO. 7568C10

LAST SAVED BY: bbawes



PLAN
 SCALE: 1"=40'
 FILE: 7568C10C101



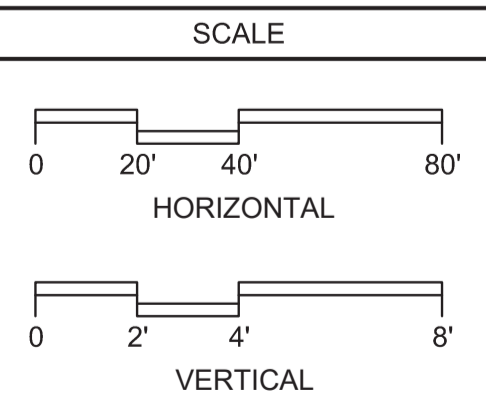
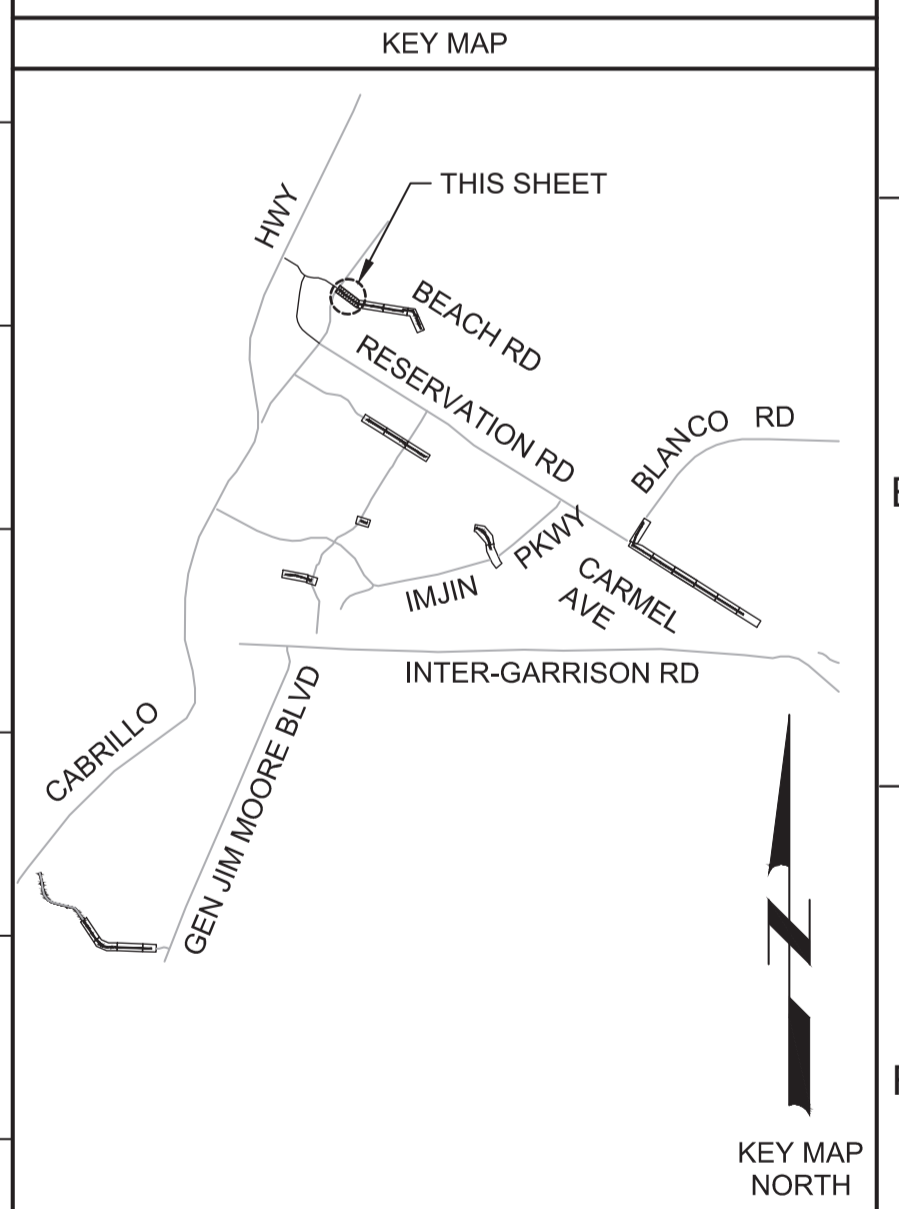
PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'
 FILE: 7568C10C101

- GENERAL NOTES:**
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 2. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 3. MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
 4. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

- KEY NOTES:**
1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 8 FT DEEP AND ENCLOSED IN A CASING. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 12"x8" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION RESTRAINTS. REMOVE A PORTION OF CASING WHERE REQUIRED.
 2. FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P24-P27.



Know what's below.
 Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
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BID DOCUMENTS

DESIGNED
JPM/KMM

DRAWN
AL/BWH

CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:43:09 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN
BEACH ROAD
STA 10+00 TO 19+00

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
P01

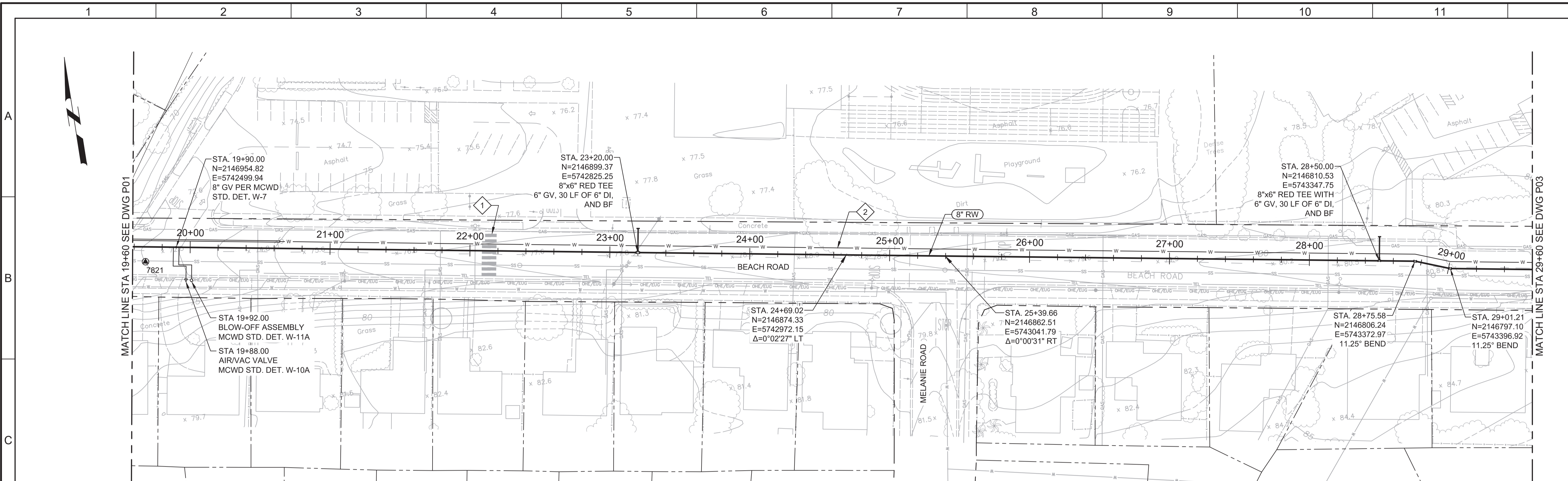
SHEET NO.
23 OF 58

Plot Date: 1/24/2020 7:44:25 PM

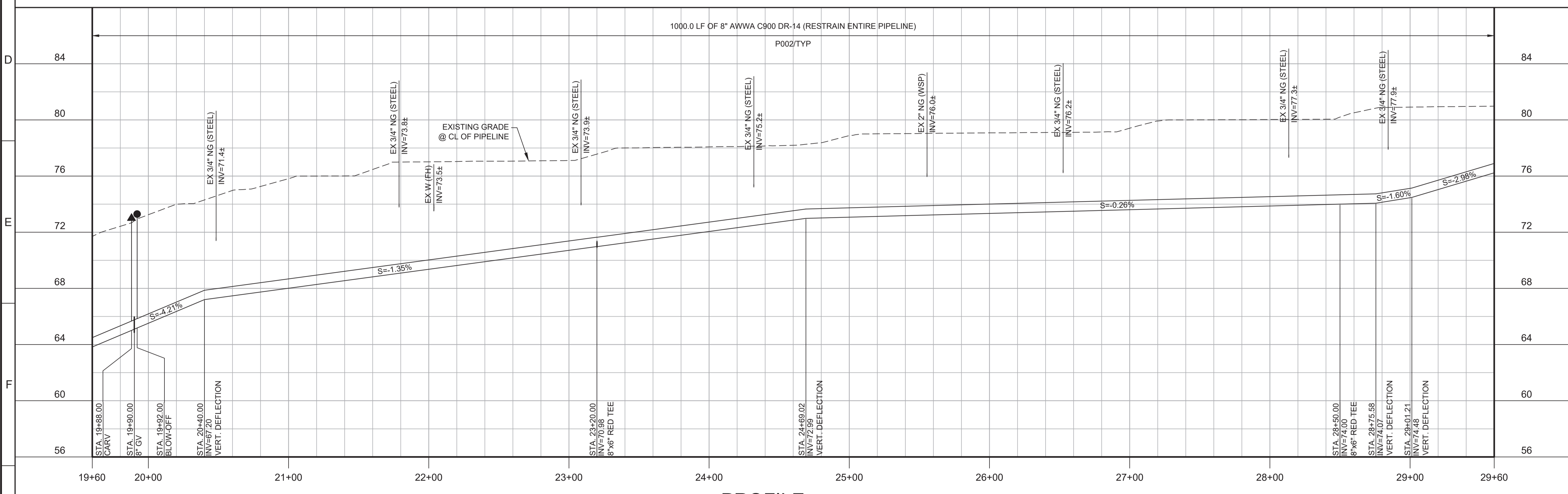
FILE NAME: 7568C10P02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



PLAN
SCALE: 1"=40'
FILE: 7568C10C101

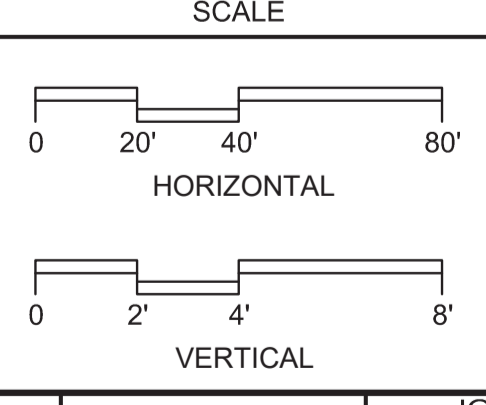
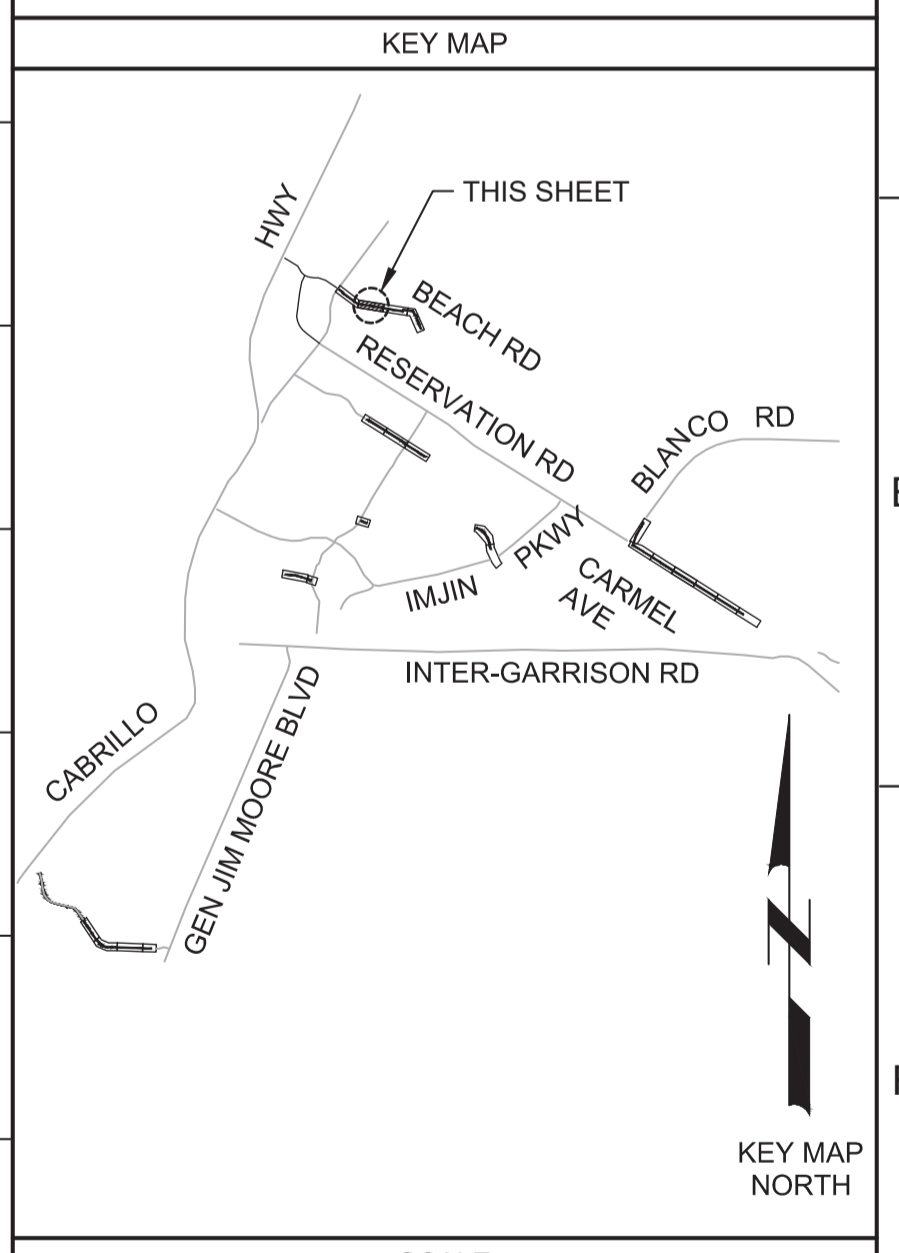


PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 - MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINE 1' LOWER THAN POTABLE WATER LINE.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- PROTECT EXISTING CROSSWALK LIGHTING IN PLACE. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGES TO THE LIGHTING SYSTEM.
 - FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P24-P27.



Know what's below.
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			

BID DOCUMENTS	DESIGNED JPM/KMM
	DRAWN AL/BWH
	CHECKED
	DATE JANUARY 2020

Digitally signed by Jonathan P. Marshall
Contact Info: Carolo Engineers, Inc.
Date: 2020.01.30 16:42:26 -0800

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN

BEACH ROAD
STA 19+60 TO 29+60

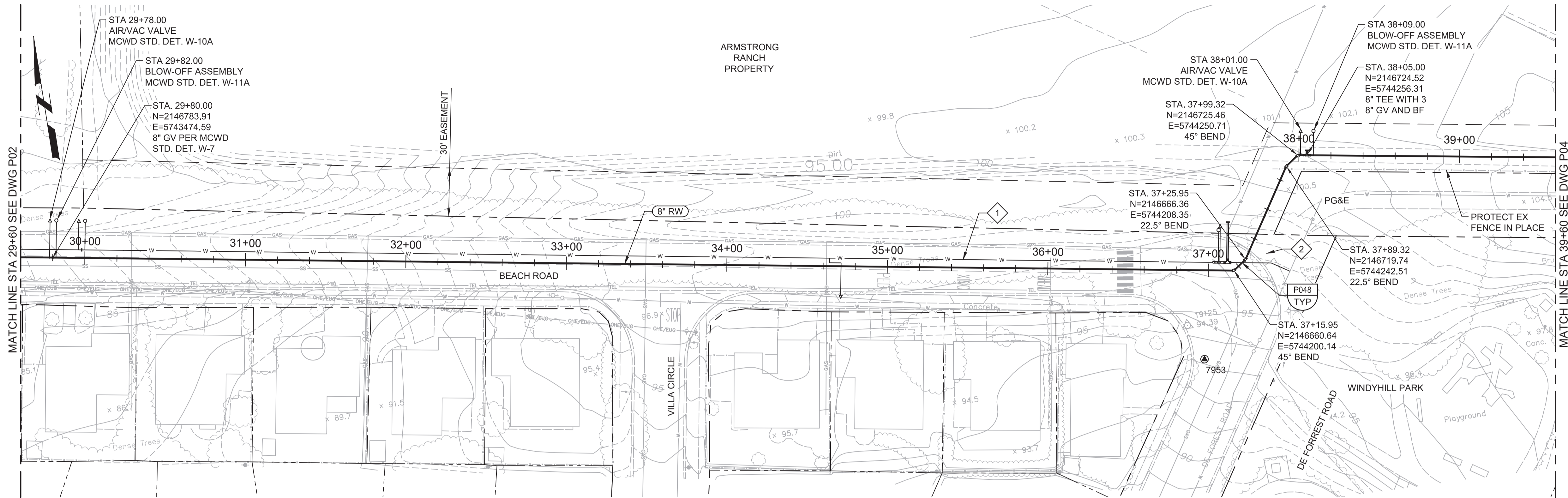
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING	JOB NO. 7568C.10
0 1"	DRAWING NO. P02
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 24 OF 58

Plot Date: 1/24/2020 7:46:42 PM

FILE NAME: 7568C10P03.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbawes

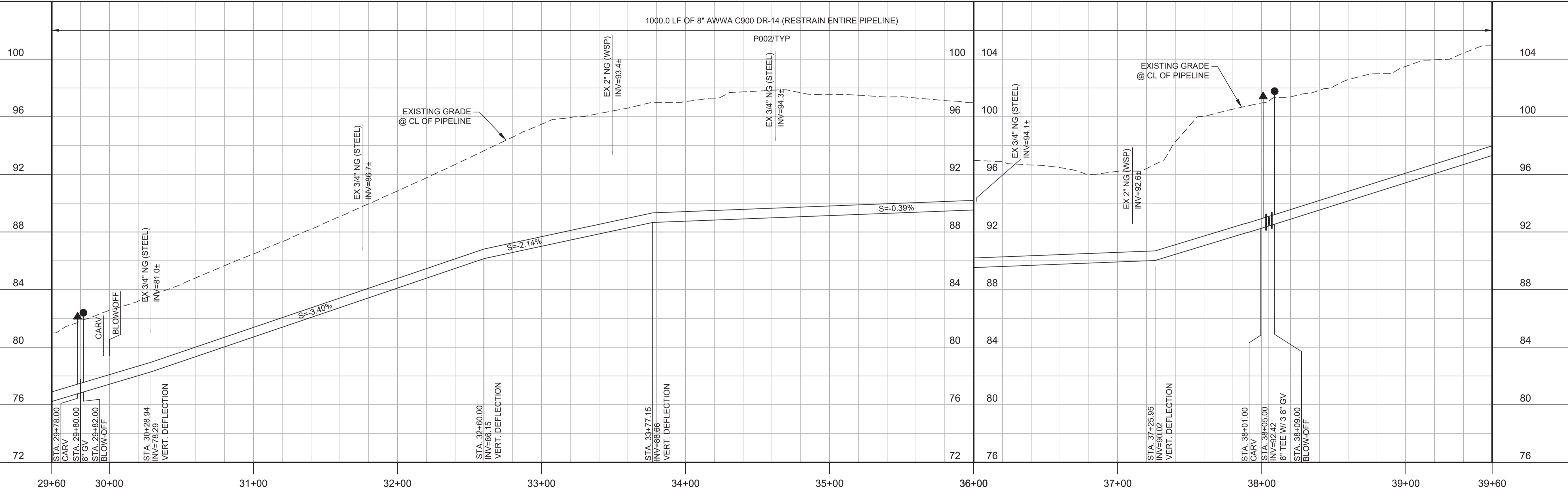
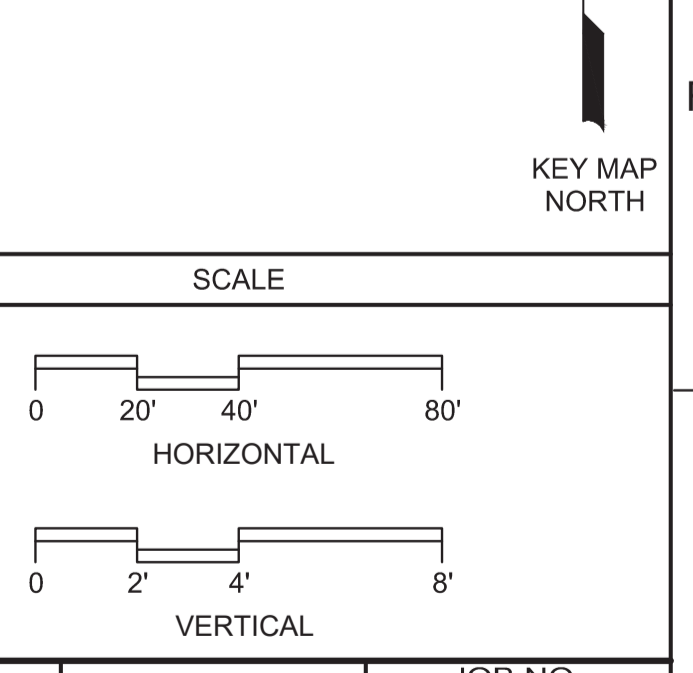
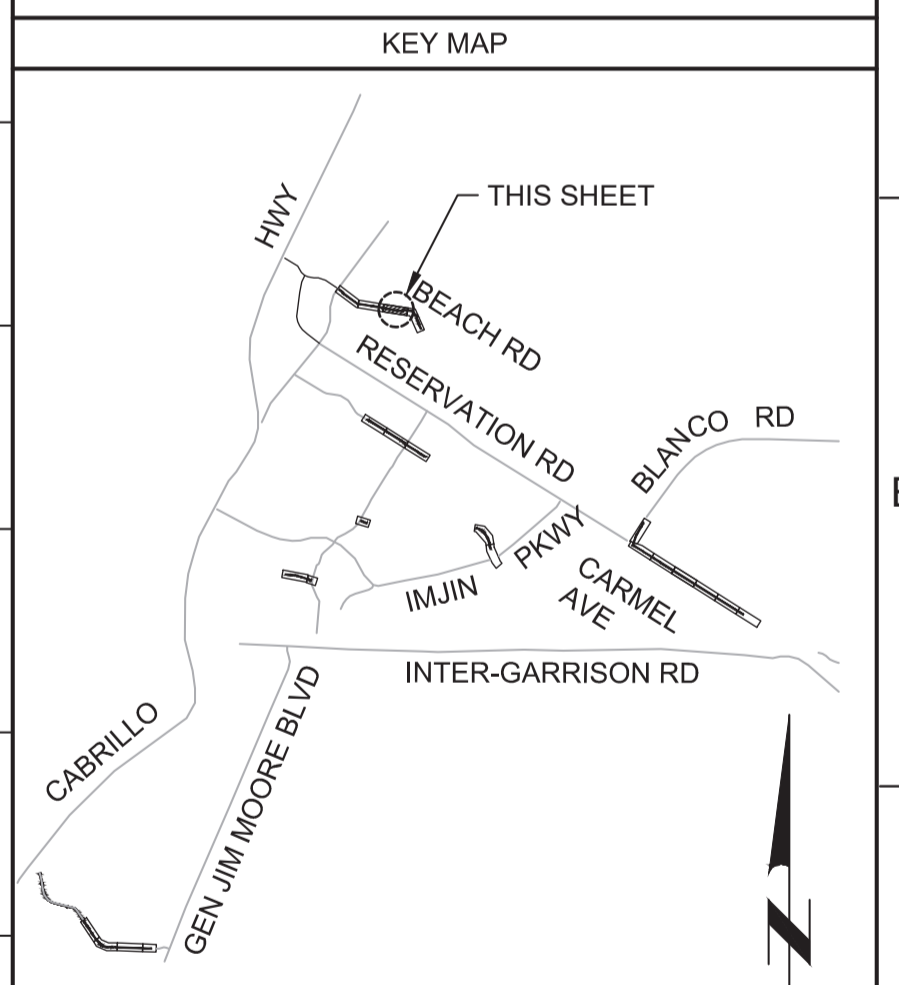


PLAN
SCALE: 1"=40'
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562 IN AREAS WHERE THE ARBORIST DETERMINES THAT TREE ROOT EXCAVATION WILL DAMAGE NEARBY TREES. CONSTRUCT PIPE WITH A CONCRETE ENCASMENT PER P040/TYP. AT THE MAXIMUM ALLOWABLE DEPTH. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ADDITIONAL APPURTENANCES REQUIRED BY CHANGES TO THE PIPE PROFILE.
 - MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- 1 FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P24-P27.
 - 2 APPROXIMATE LOCATION OF TREE TRUNK. IF NEEDED, ADJUST ALIGNMENT TO PROVIDE 5' OF CLEARANCE FROM EDGE OF PIPE TO TREE TRUNK.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
JPM/KMM
DRAWN
AL/BWH
CHECKED



DATE
JANUARY 2020



Marina
Coast
Water
District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
BEACH ROAD
STA 29+60 TO 39+60

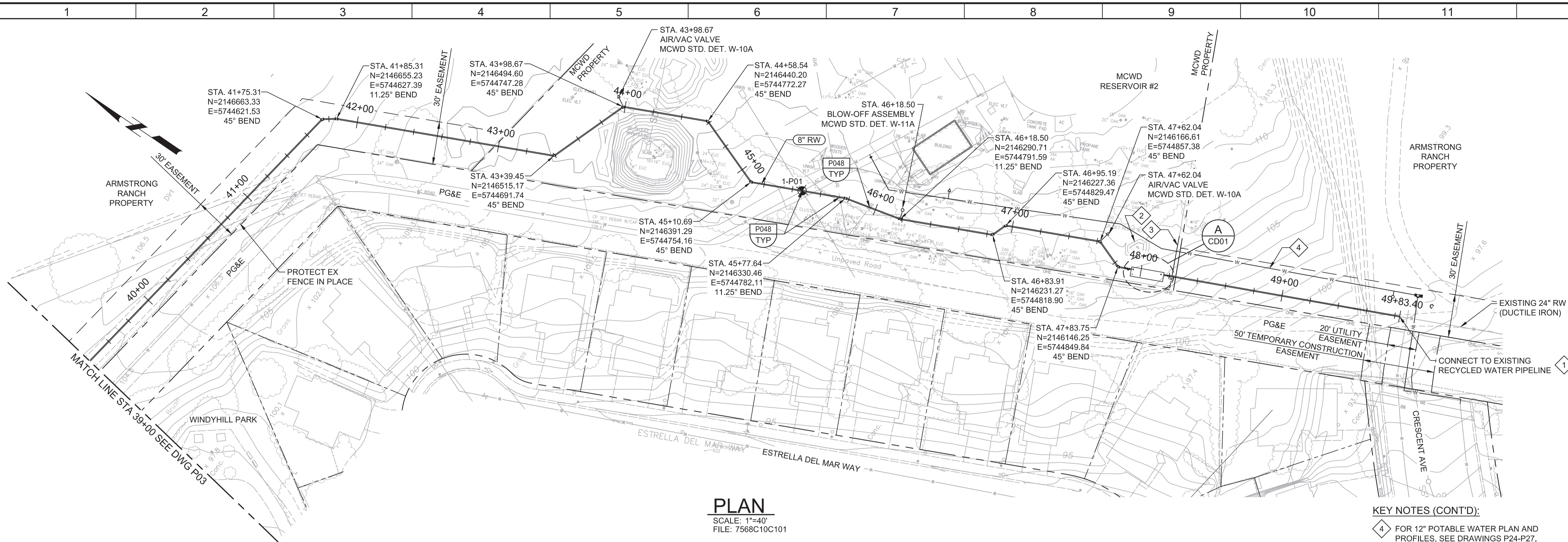
VERIFY SCALES
JOB NO. 7568C.10
DRAWING NO. P03
SHEET NO. 25 OF 58

Plot Date: 1/24/2020 7:49:47 PM

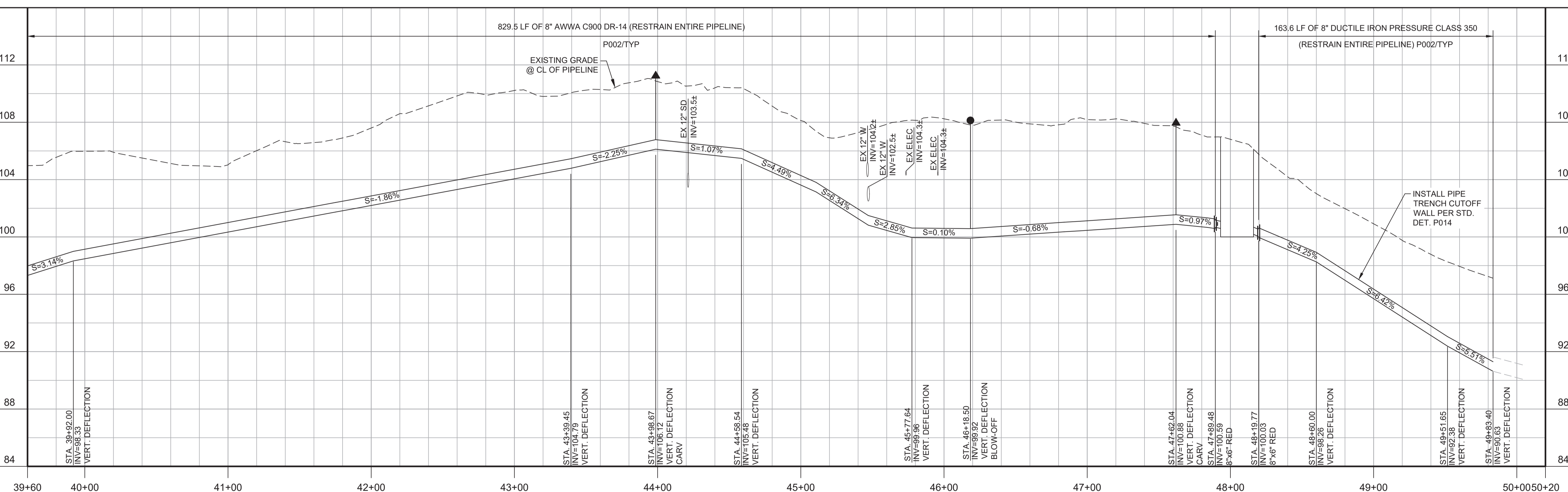
FILE NAME: 7568C10P04.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'. IN AREAS WHERE THE ARBORIST DETERMINES THAT TREE ROOT EXCAVATION WILL DAMAGE NEARBY TREES, CONSTRUCT PIPE WITH A CONCRETE ENCASEMENT PER P040/TP01, AT THE MAXIMUM ALLOWABLE DEPTH. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ADDITIONAL APPURTENANCES REQUIRED BY CHANGES TO THE PIPE PROFILE.
 - CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POT HOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 12" X 24" MJ REDUCER THEN A 8" X 12" MJ REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.
 - REMOVE EXISTING DIRT PILE AND MATCH AREA GRADE TO SURROUNDING AREA.
 - INSTALL 30" WIDE GATE PER C190/TC-01.
- KEY NOTES (CONT'D):**
- FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P24-P27.



811
Know what's below.
Call before you dig.

KEY MAP

SCALE

HORIZONTAL: 0 20' 40' 80'

VERTICAL: 0 4' 8' 16'

KEY MAP NORTH

REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS

DESIGNED: JPM/KMM
DRAWN: AL/BWH
CHECKED: []
DATE: JANUARY 2020

Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:41:37 -0800

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN
BEACH ROAD
STA 39+60 TO 49+83.40

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10

DRAWING NO. P04

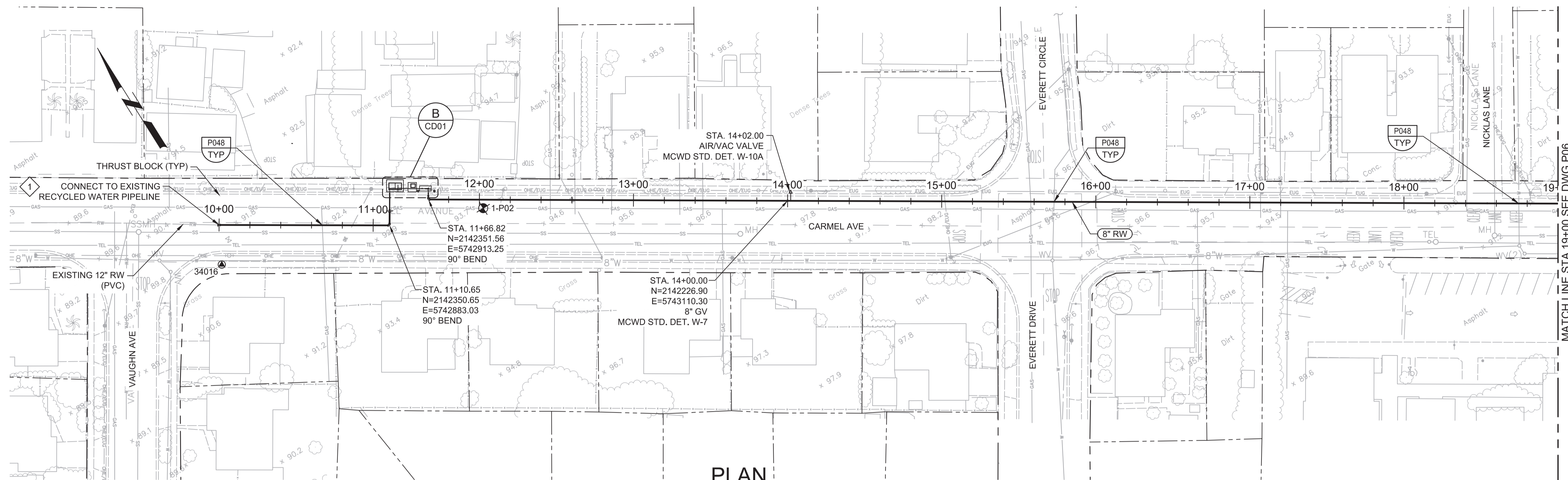
SHEET NO. 26 OF 58

Plot Date: 1/24/2020 7:52:09 PM

FILE NAME: 7568C10P05.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



PLAN
SCALE: 1"=40'
FILE: 7568C10C101

GENERAL NOTES:

1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
2. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

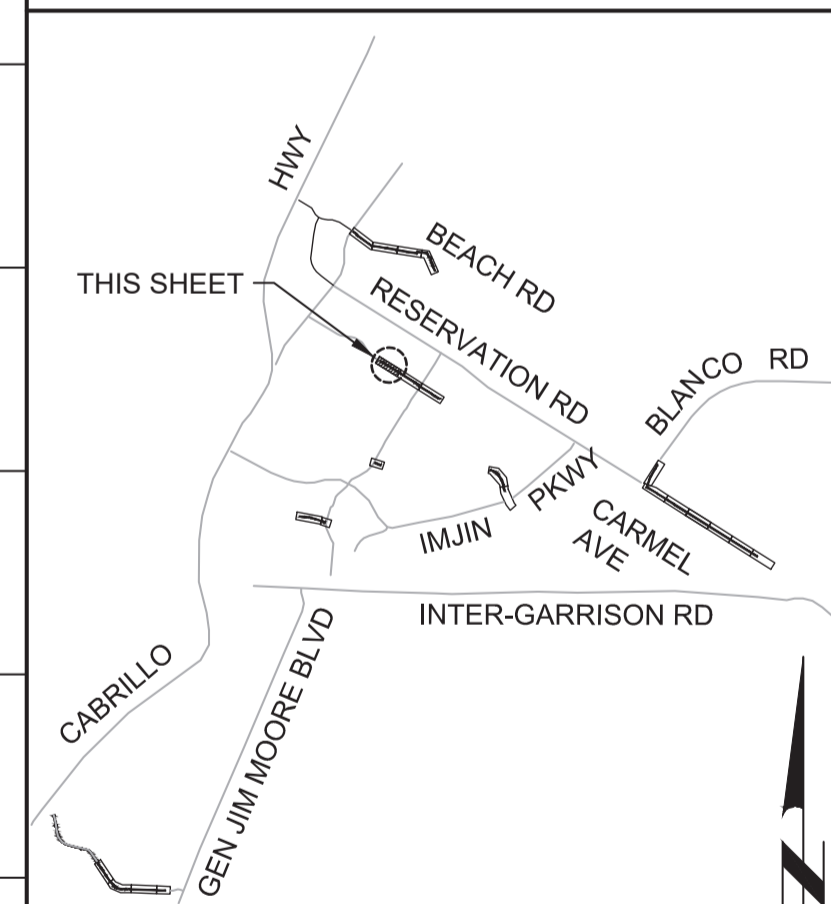
KEY NOTES:

1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 8"x12" MECHANICAL JOINT ACTION RESTRAINTS.



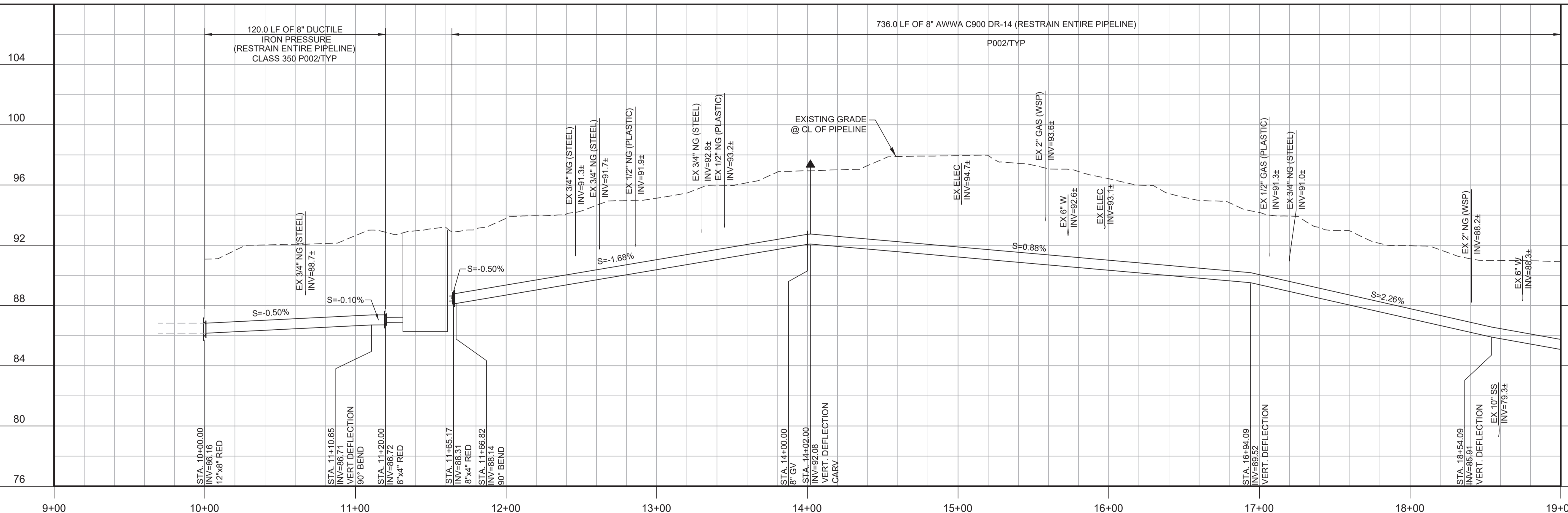
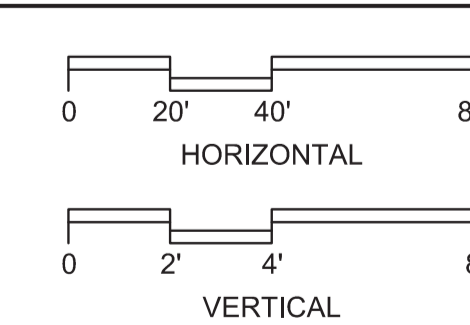
Know what's below.
Call before you dig.

KEY MAP



KEY MAP NORTH

SCALE



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

BID DOCUMENTS

DESIGNED
JPM/KMM
DRAWN
AL/BWH
CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:41:15 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
CARMEL AVENUE
STA 10+00 TO 19+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10
DRAWING NO.
P05
SHEET NO.
27 OF 58

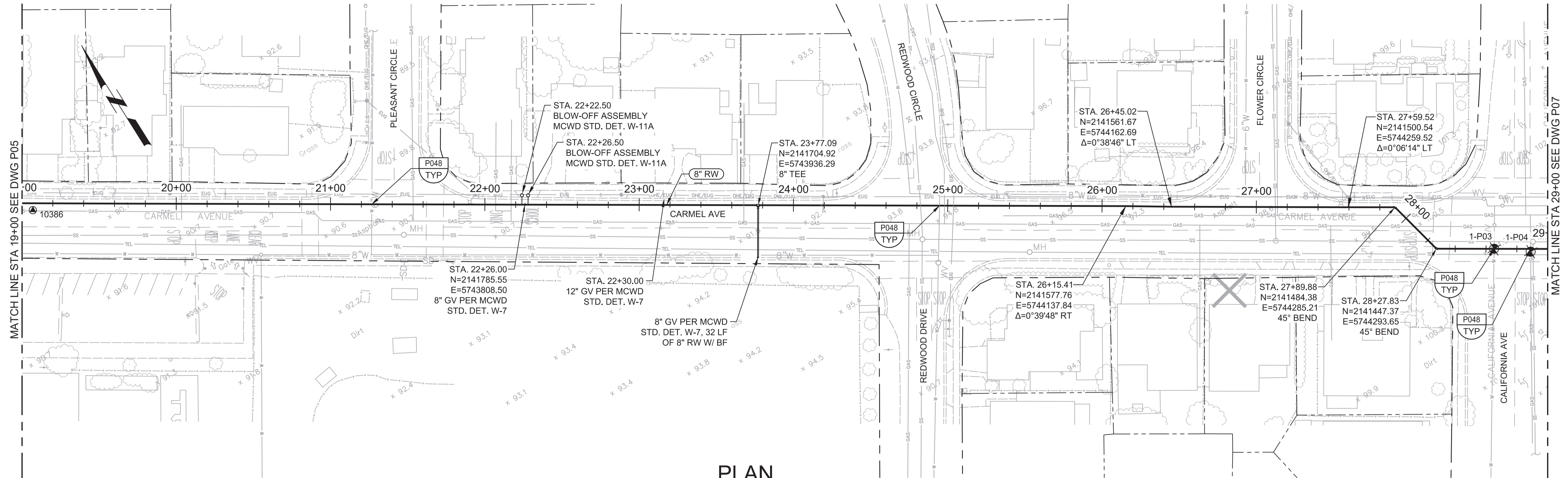
REV	DATE	BY	DESCRIPTION
1			
2			
3			

Plot Date: 1/24/2020 7:56:23 PM

FILE NAME: 7568C10P06.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



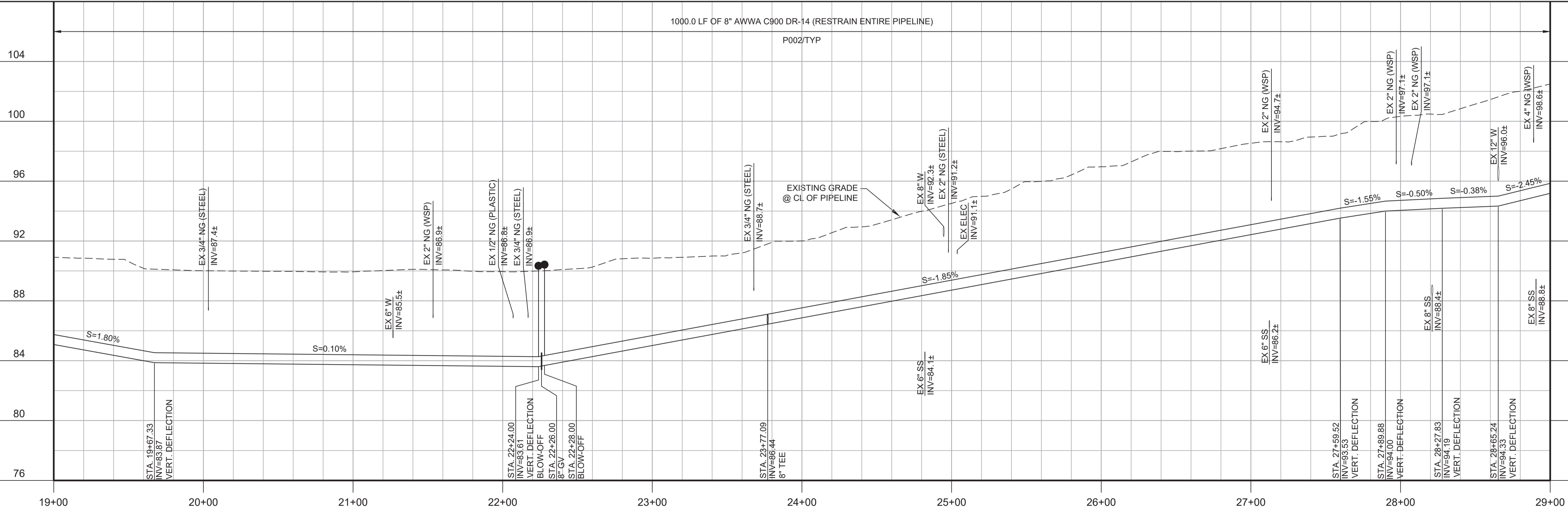
PLAN
SCALE: 1"=40'
FILE: 7568C10C101

- GENERAL NOTES:**
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 2. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

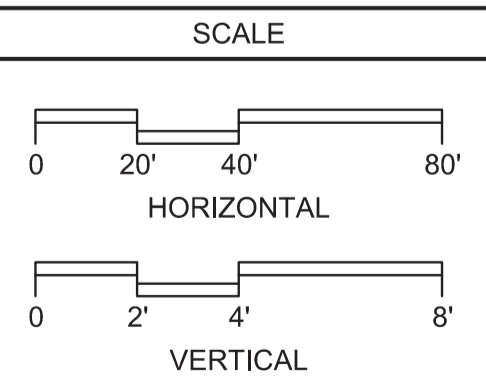
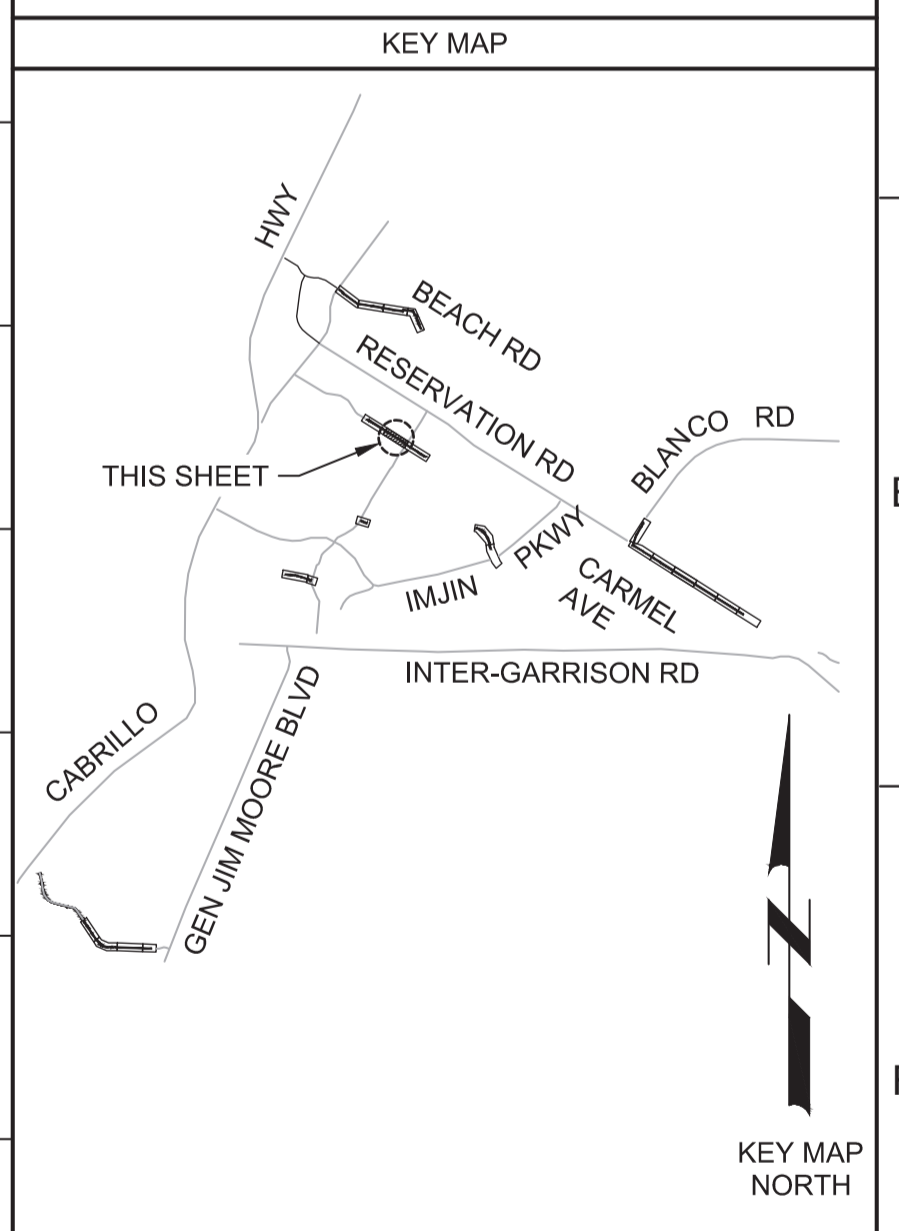


Know what's below.
Call before you dig.

1000.0 LF OF 8" AWWA C900 DR-14 (RESTRAIN ENTIRE PIPELINE)
P002/TYP



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS	
DESIGNED	JPM/KMM
DRAWN	AL/BWH
CHECKED	
DATE	JANUARY 2020



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:40:47 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
CARMEL AVENUE
STA 19+00 TO 29+00

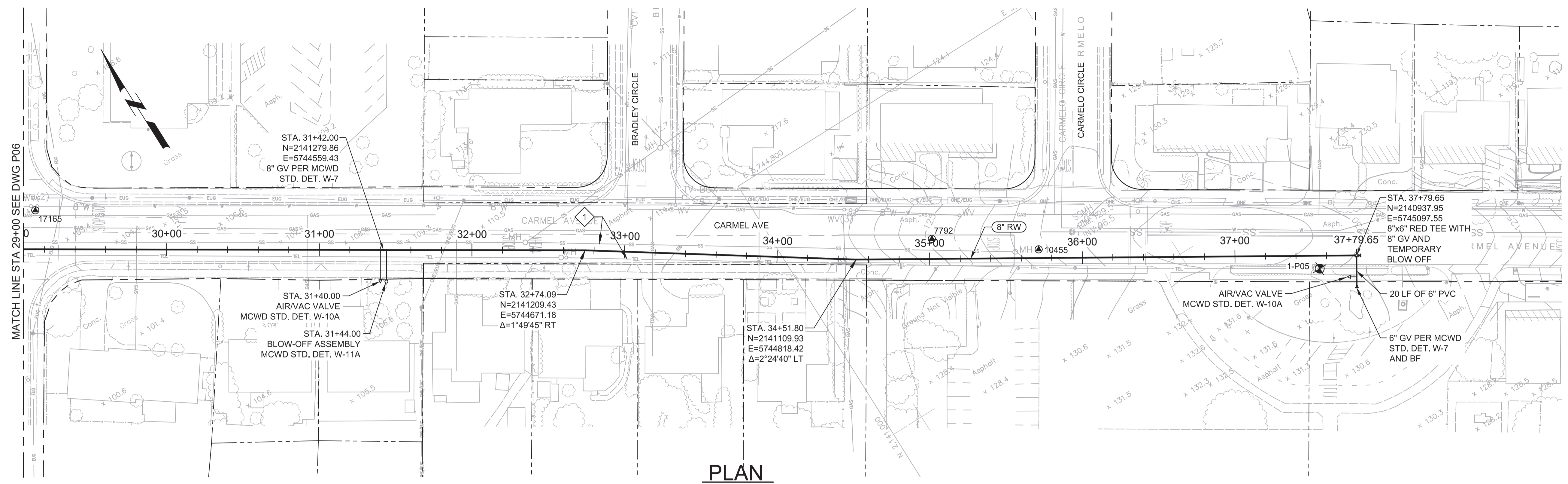
VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. P06
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 28 OF 58

Plot Date: 1/24/2020 7:58:30 PM

FILE NAME: 7568C10P07.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



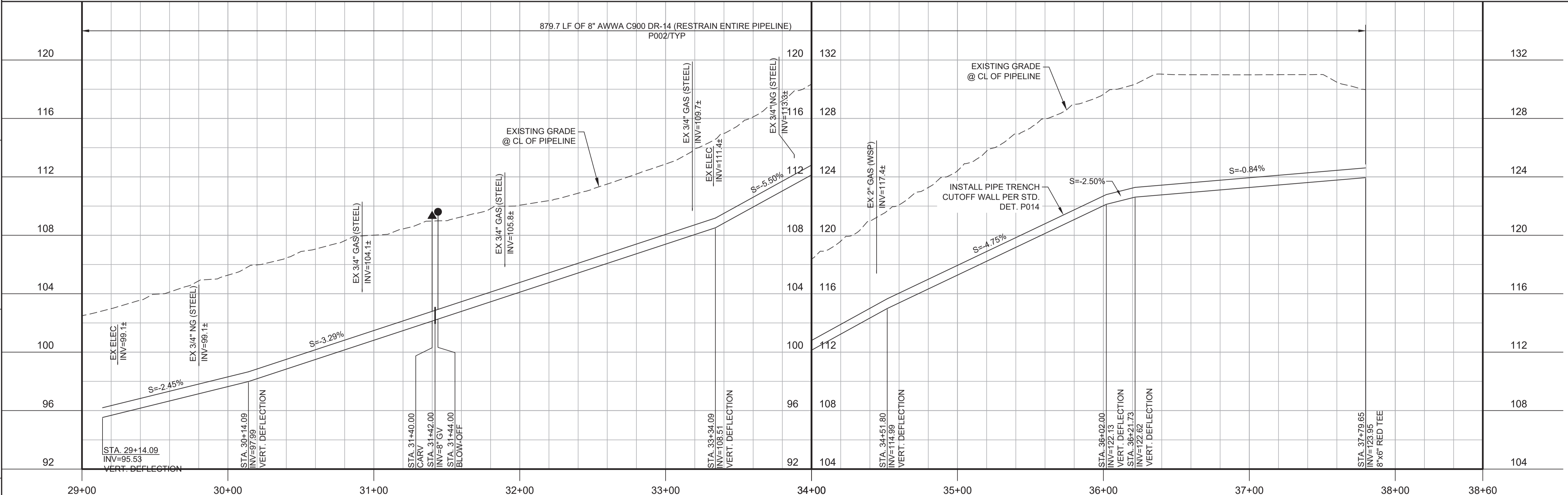
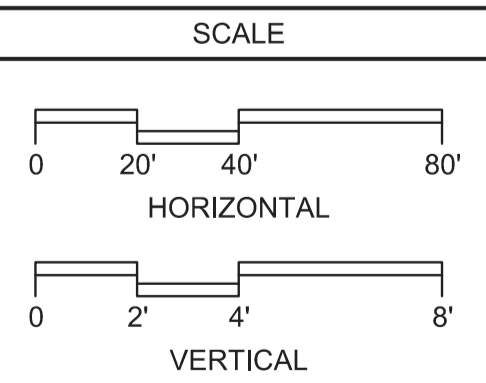
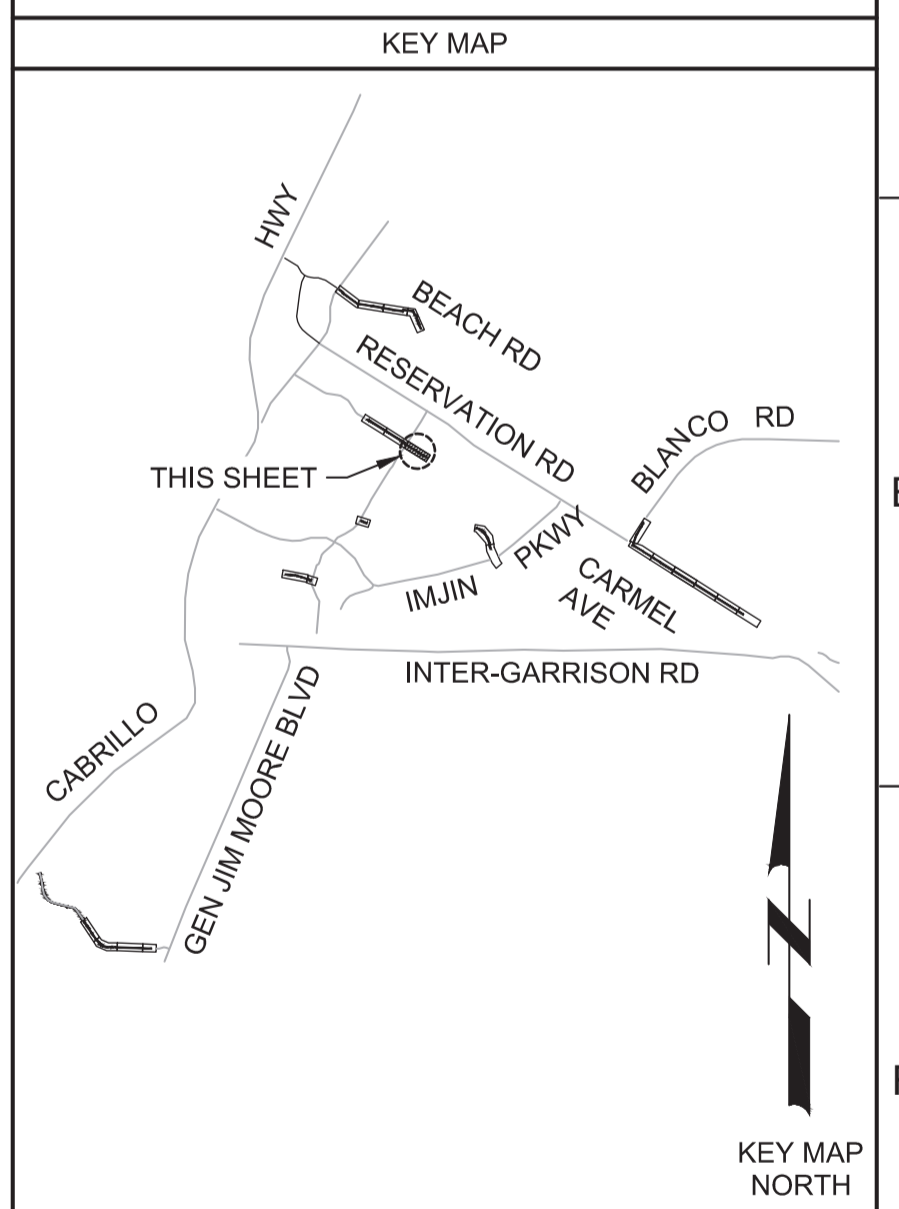
PLAN
SCALE: 1"=40'
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

- KEY NOTES:**
- CONTRACTOR TO LOCATE AND PROTECT IN PLACE EXISTING SANITARY SEWER AND TELEPHONE LINES, USING APPROPRIATE SHORING AS NECESSARY.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS	
DESIGNED JPM/KMM	
DRAWN AL/BWH	
CHECKED	
DATE JANUARY 2020	

Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:40:22 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
CARMEL AVENUE
STA 29+00 TO 37+79.55

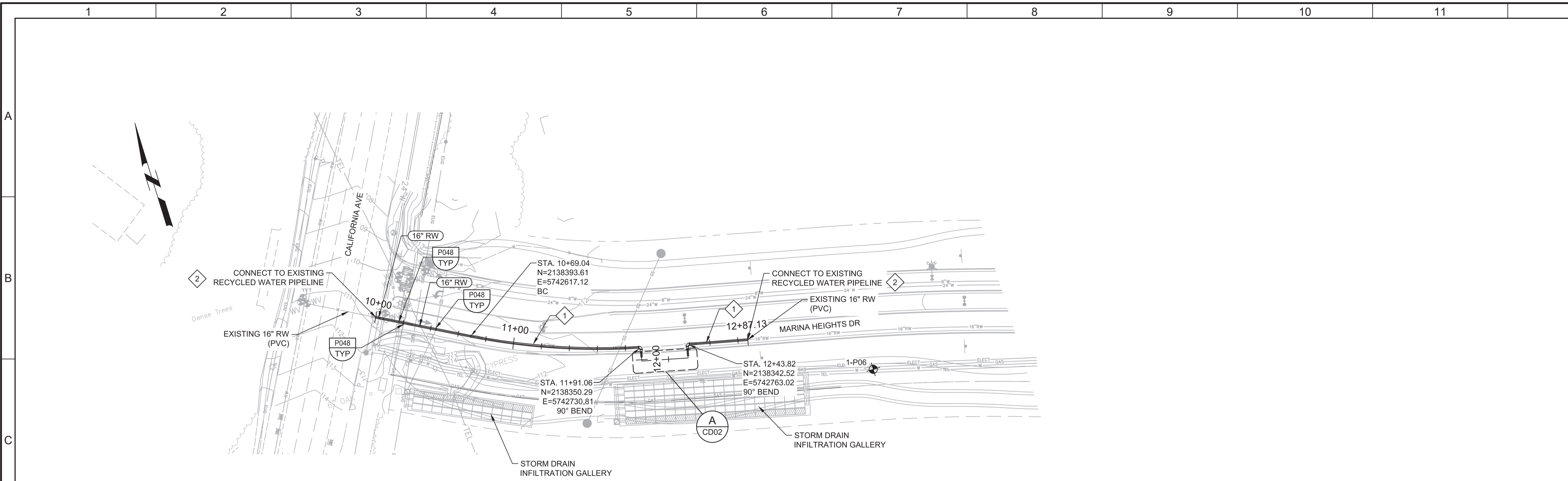
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" 1"	JOB NO. 7568C.10
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. P07
	SHEET NO. 29 OF 58

Plot Date: 1/24/2020 8:00:36 PM

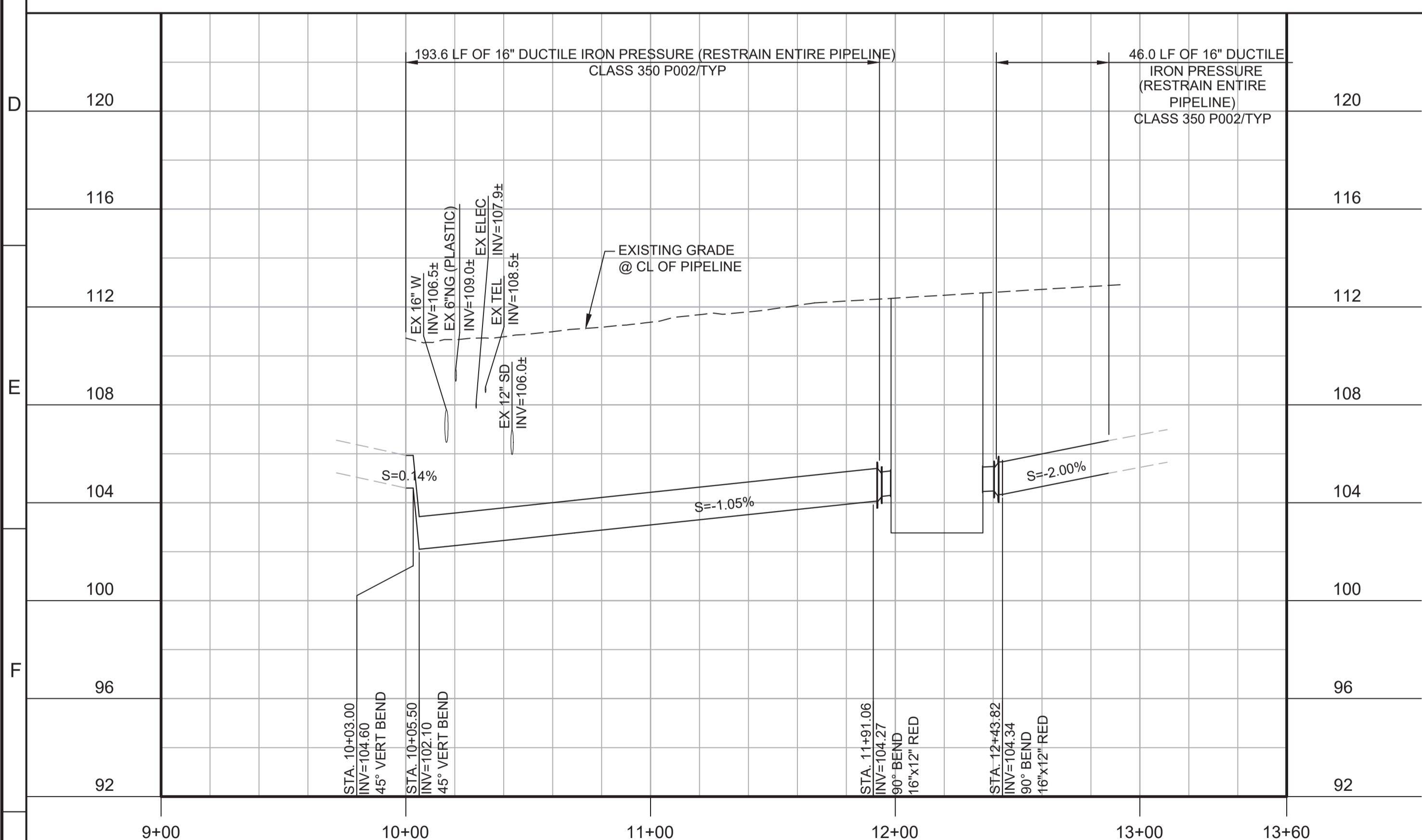
FILE NAME: 7568C10P08.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbawes



PLAN
 SCALE: 1"=40'
 FILE: 7568C10C101



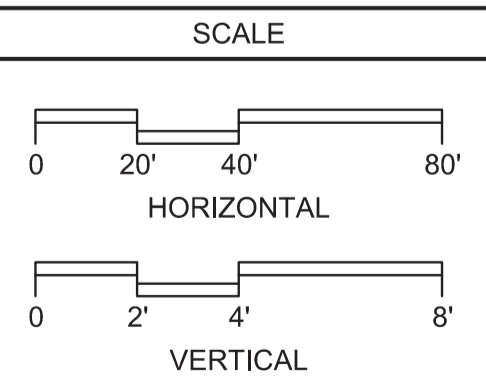
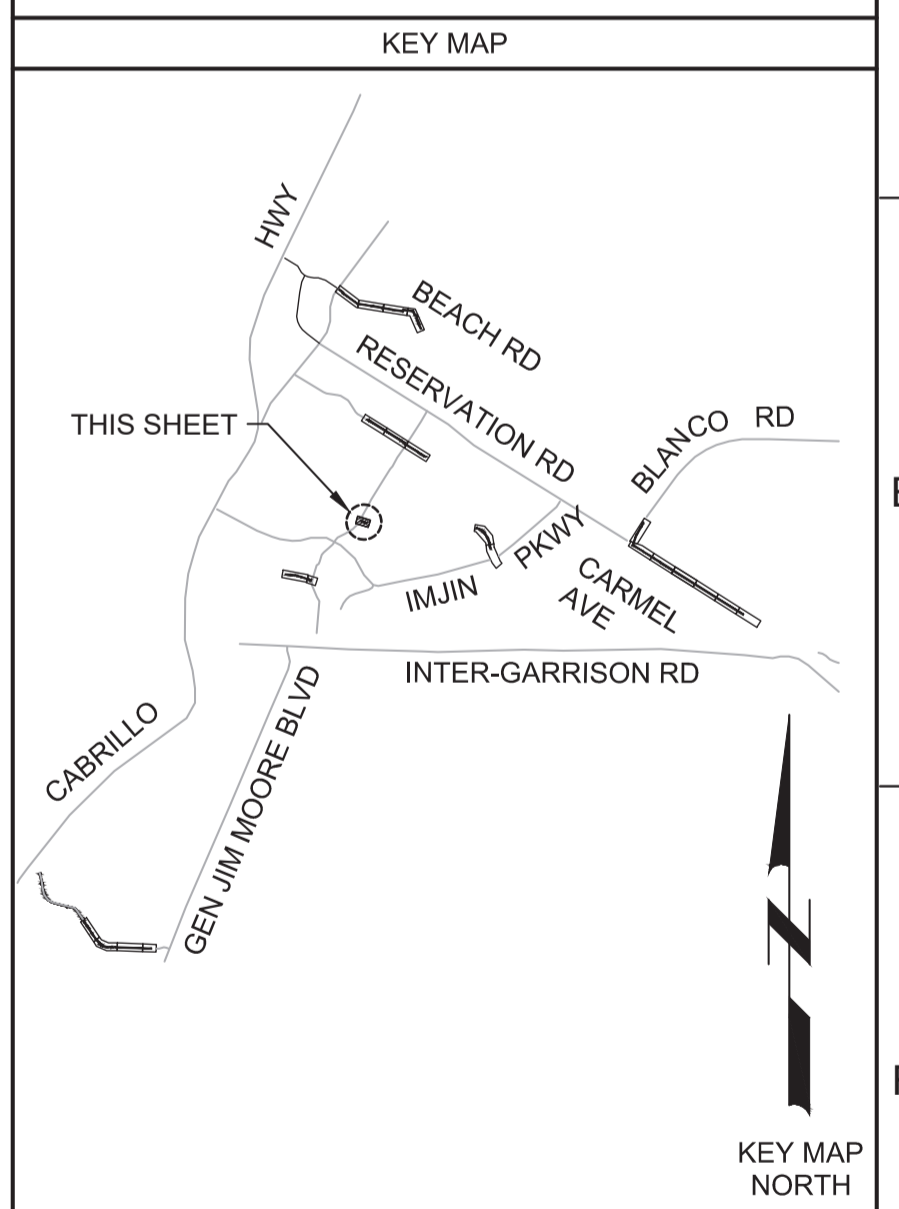
PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'
 FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.

- KEY NOTES:**
- REMOVE ALL EXISTING 16" RECYCLED WATER PIPELINE BETWEEN TIE IN LOCATIONS AT STA 10+00 AND STA 12+87.28.
 - APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH RESTRAINED TRANSITION COUPLING.

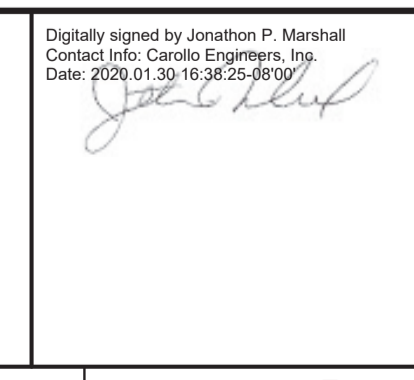


Know what's below.
 Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS	DESIGNED JPM/KMM
	DRAWN AL/BWH
	CHECKED
	DATE JANUARY 2020



Digitally signed by Jonathan P. Marshall
 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:38:25-0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
 CIVIL DISTRIBUTION MAIN
MARINA HEIGHTS DRIVE PRV VAULT
STA 10+00 TO 12+87.13

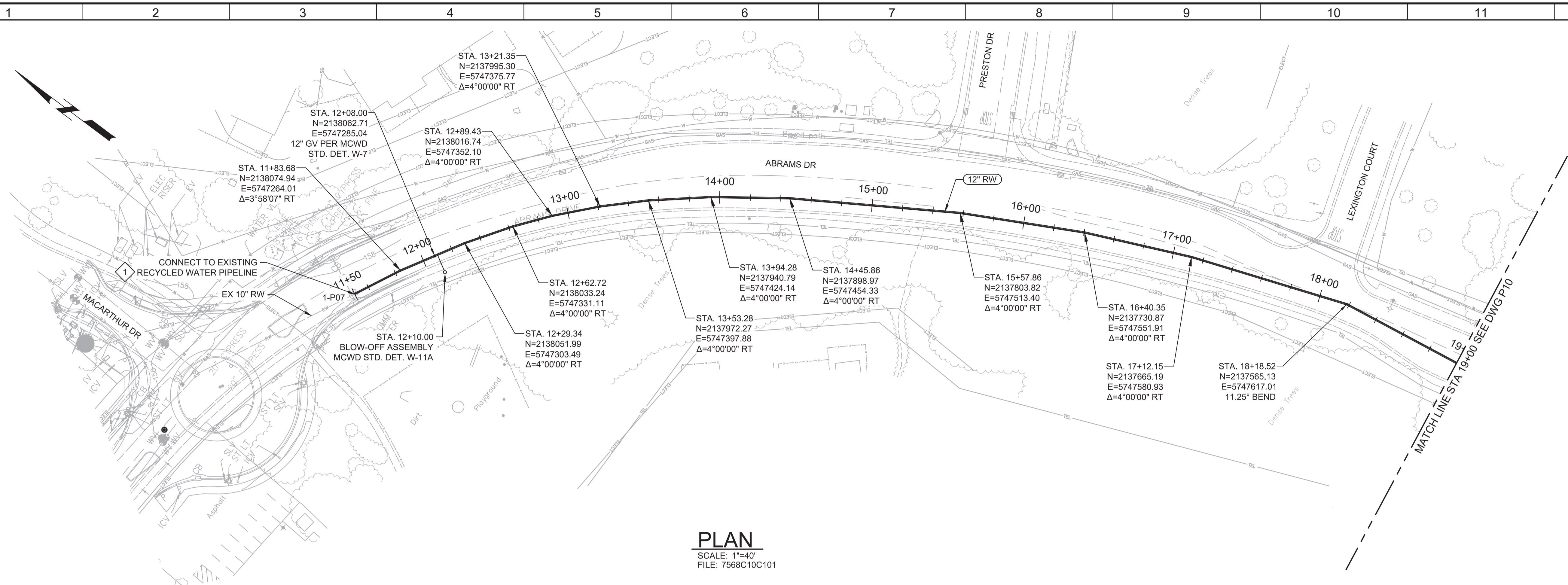
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P08 SHEET NO. 30 OF 58
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Plot Date: 1/24/2020 8:03:21 PM

FILE NAME: 7568C10P09.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



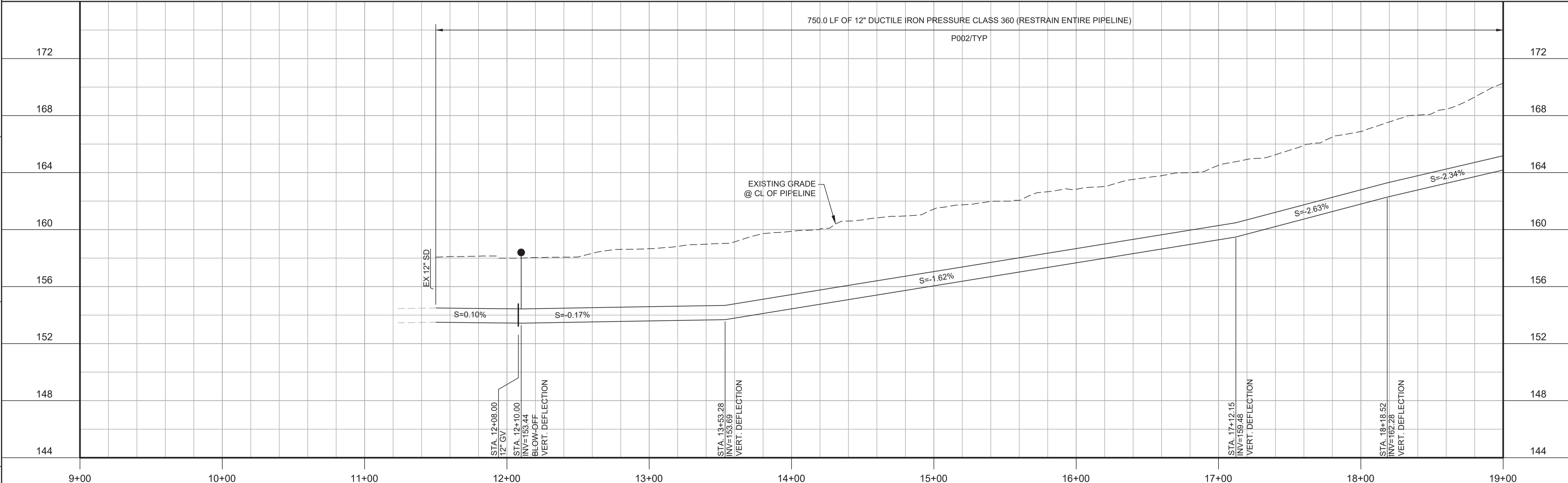
PLAN
SCALE: 1"=40'
FILE: 7568C10C101

GENERAL NOTES:
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.

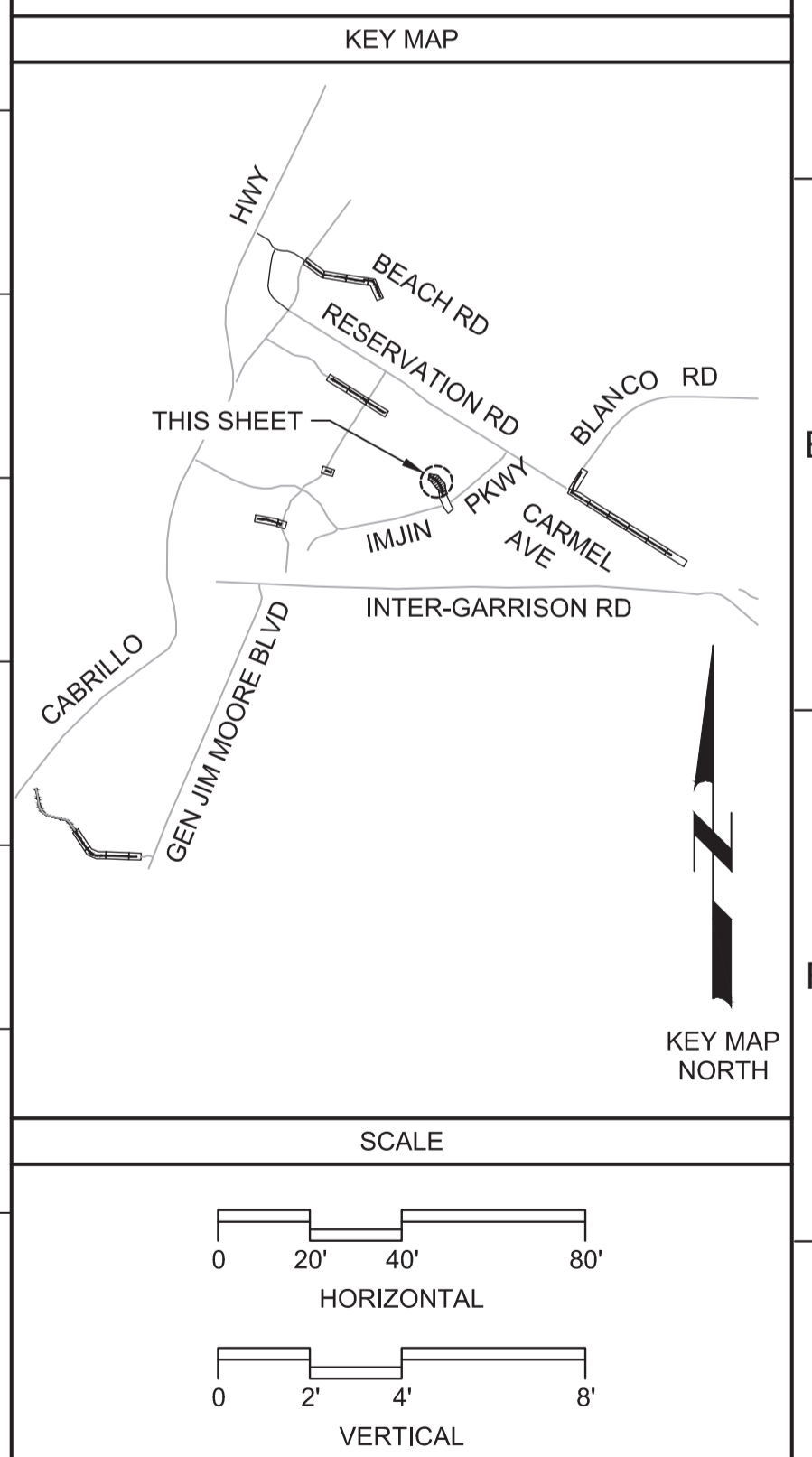
KEY NOTES:
1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 3'-6" DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 10" X 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			

DESIGNED JPM/KMM	
DRAWN AL/BWH	
CHECKED	
DATE JANUARY 2020	

Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:37:34 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
**ABRAMS DRIVE
STA 11+50 TO 19+00**

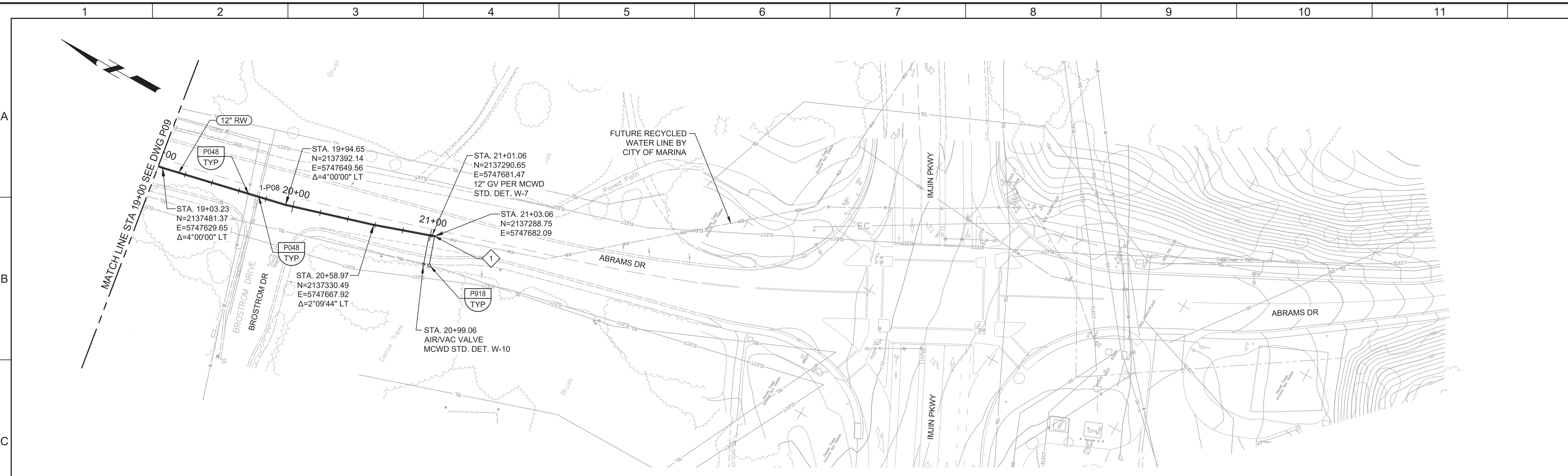
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P09 SHEET NO. 31 OF 58
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Plot Date: 1/28/2020 11:17:00 AM

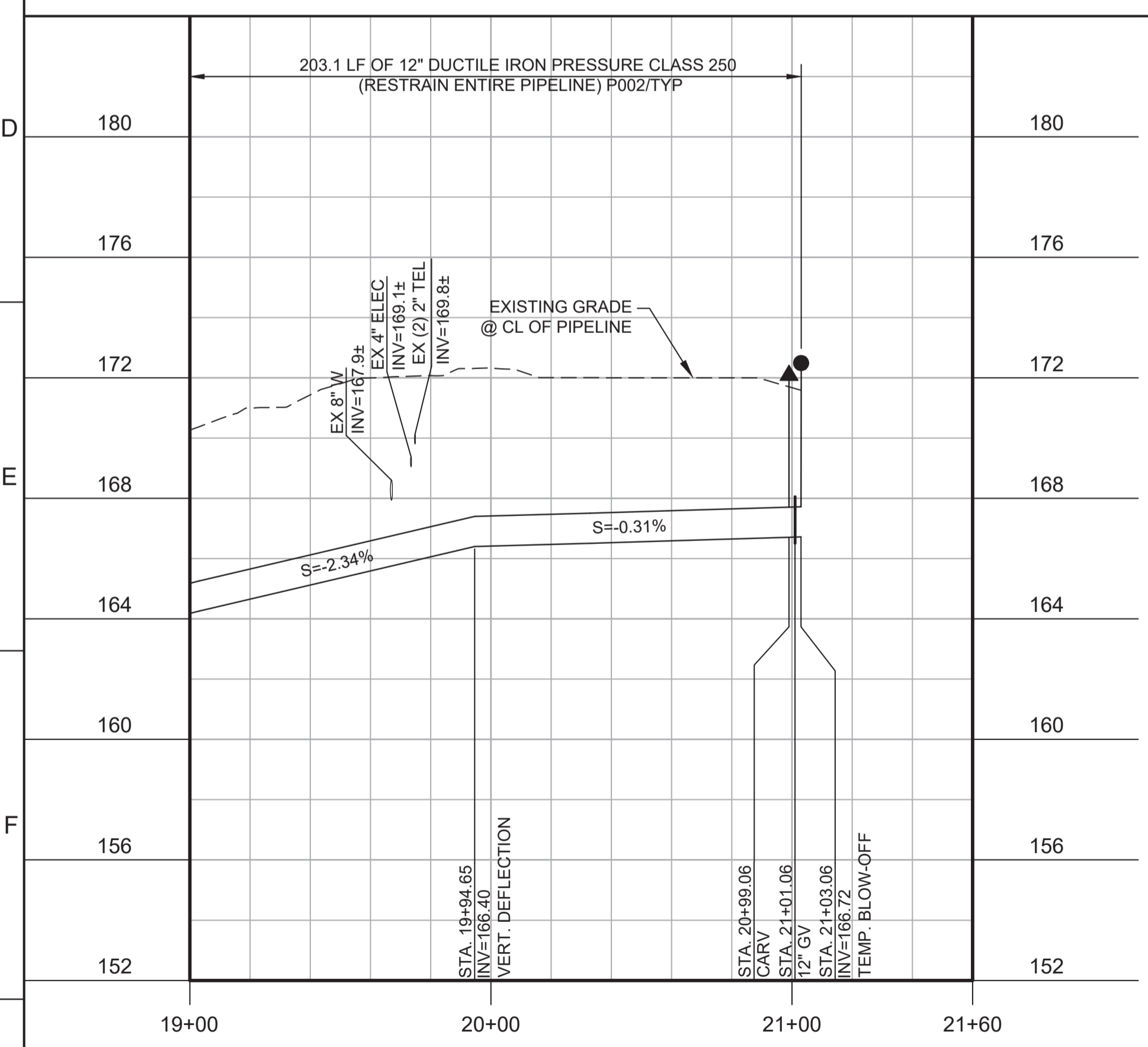
FILE NAME: 7568C10P10.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbawes



PLAN
SCALE: 1"=40'
FILE: 7568C10C101



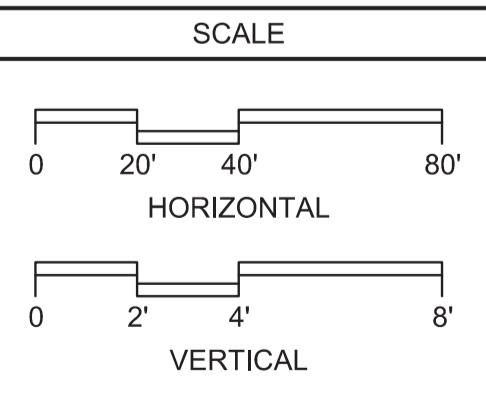
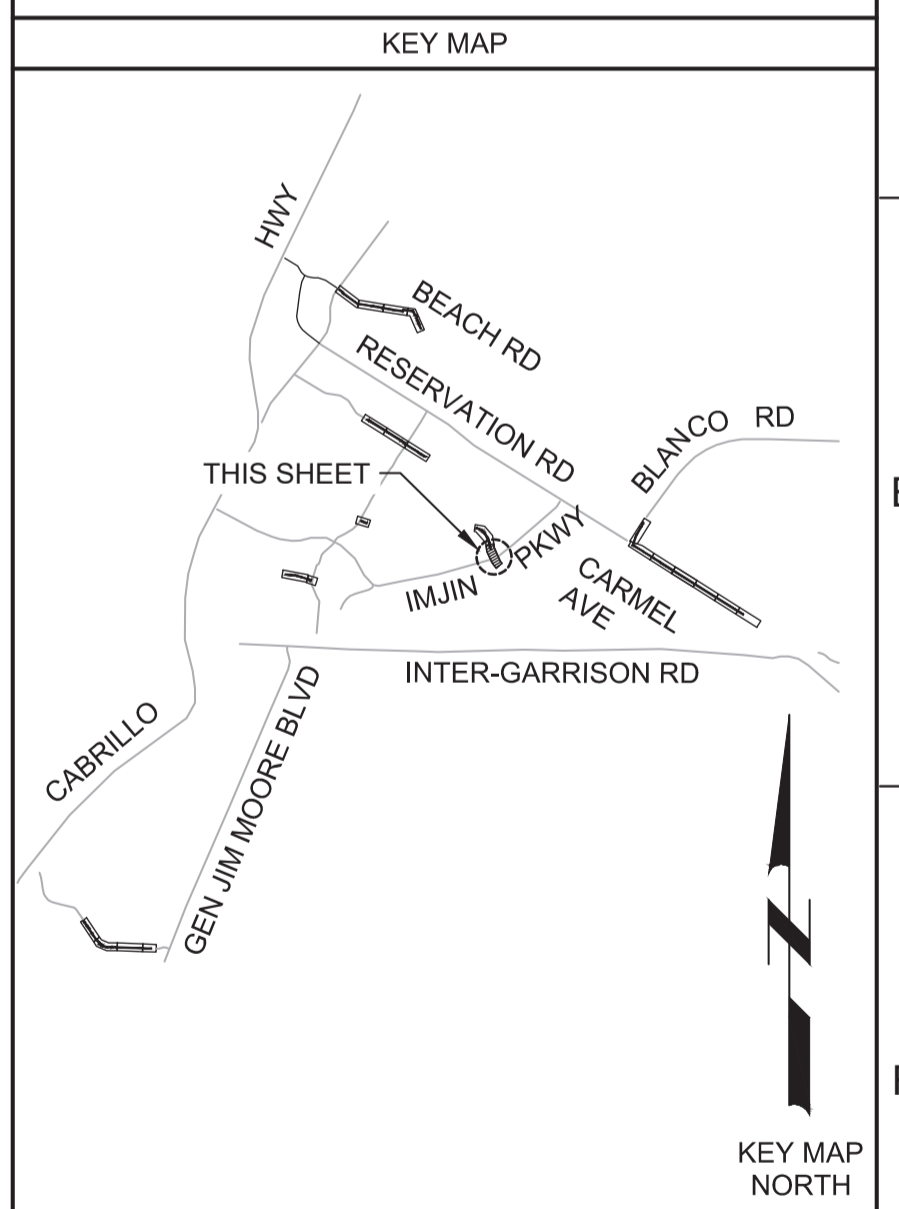
PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

- KEY NOTES:**
- INSTALL TEMPORARY CAP AND BLOW-OFF.



Know what's below.
Call before you dig.



REV				DATE	BY	DESCRIPTION
1						
2						
3						

BID DOCUMENTS

DESIGNED: JPM/KMM
DRAWN: AL/BWH
CHECKED: [Signature]
DATE: JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:37:00 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
ABRAMS DRIVE
STA 19+00 TO 21+03.06

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

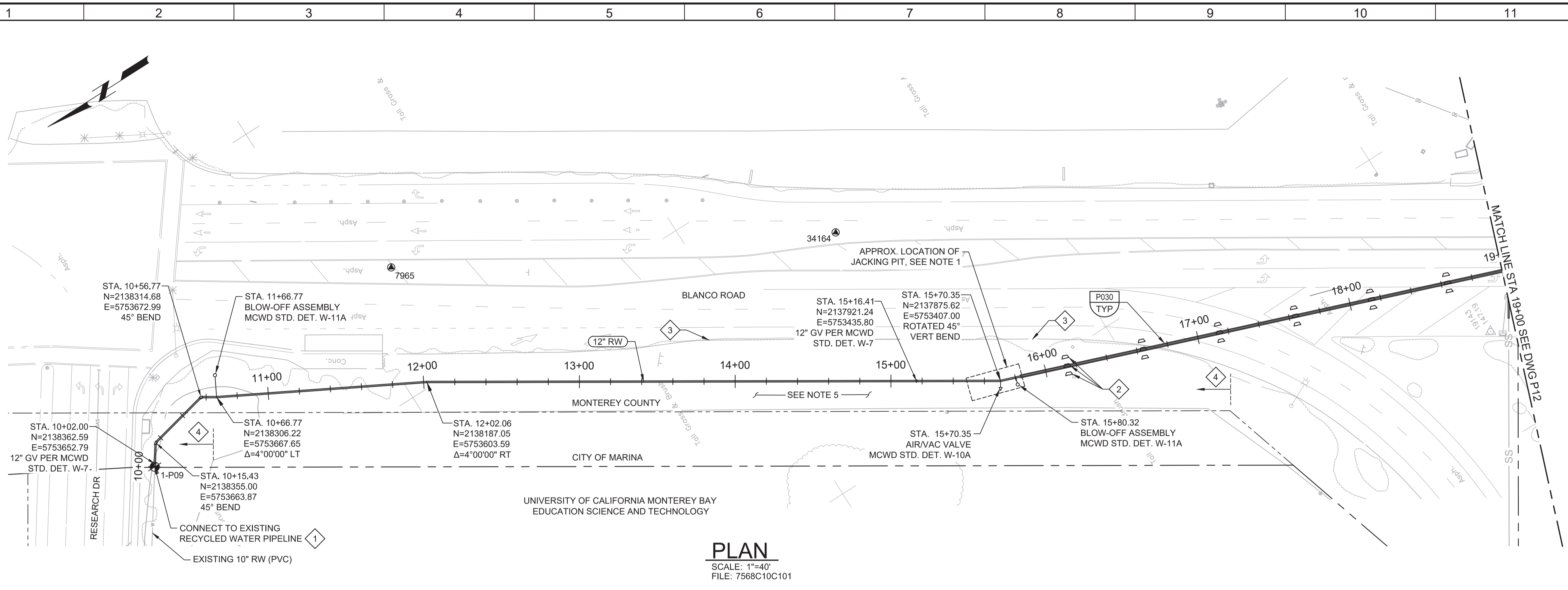
JOB NO. 7568C.10
DRAWING NO. **P10**
SHEET NO. 32 OF 58

Plot Date: 1/24/2020 8:18:22 PM

FILE NAME: 7568C10P11.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



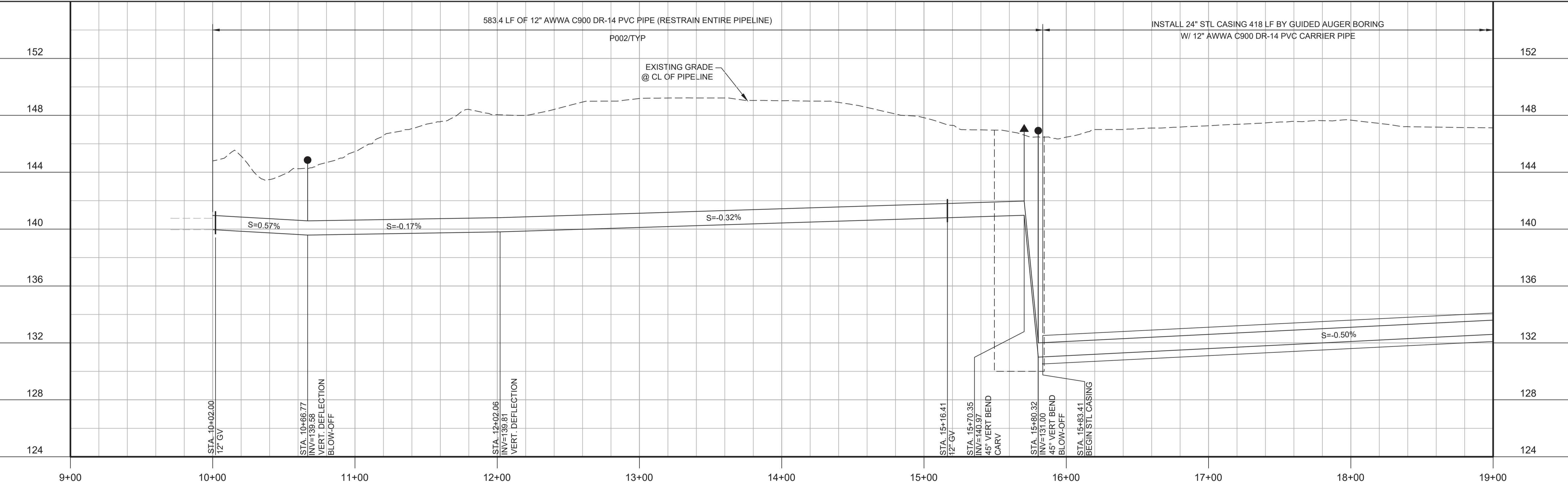
PLAN
SCALE: 1"=40'
FILE: 7568C10C101

- GENERAL NOTES:**
1. EXACT LOCATIONS AND DIMENSIONS OF JACKING PIT TO BE DETERMINED BY CONTRACTOR AND SUBMITTED TO ENGINEER FOR REVIEW
 2. CONSTRUCT PIPELINE WITH A MINIMUM OF 4' COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 3. CLEAR AND GRUB AS REQUIRED TO FACILITATE INSTALLATION OF PIPE AND APPURTENANCES.
 4. ARBORIST SHALL BE PRESENT FOR ALL TREE PRUNING PER SPECIFICATION SECTION 01562.
 5. SEE BID ITEM FOR RARE PLANT RESTORATION.
 6. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

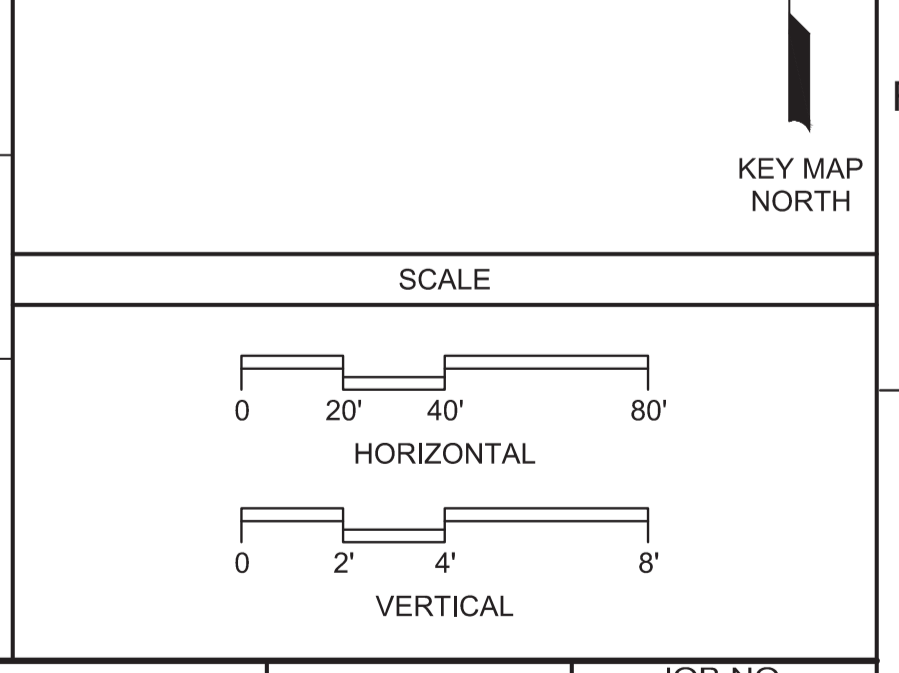
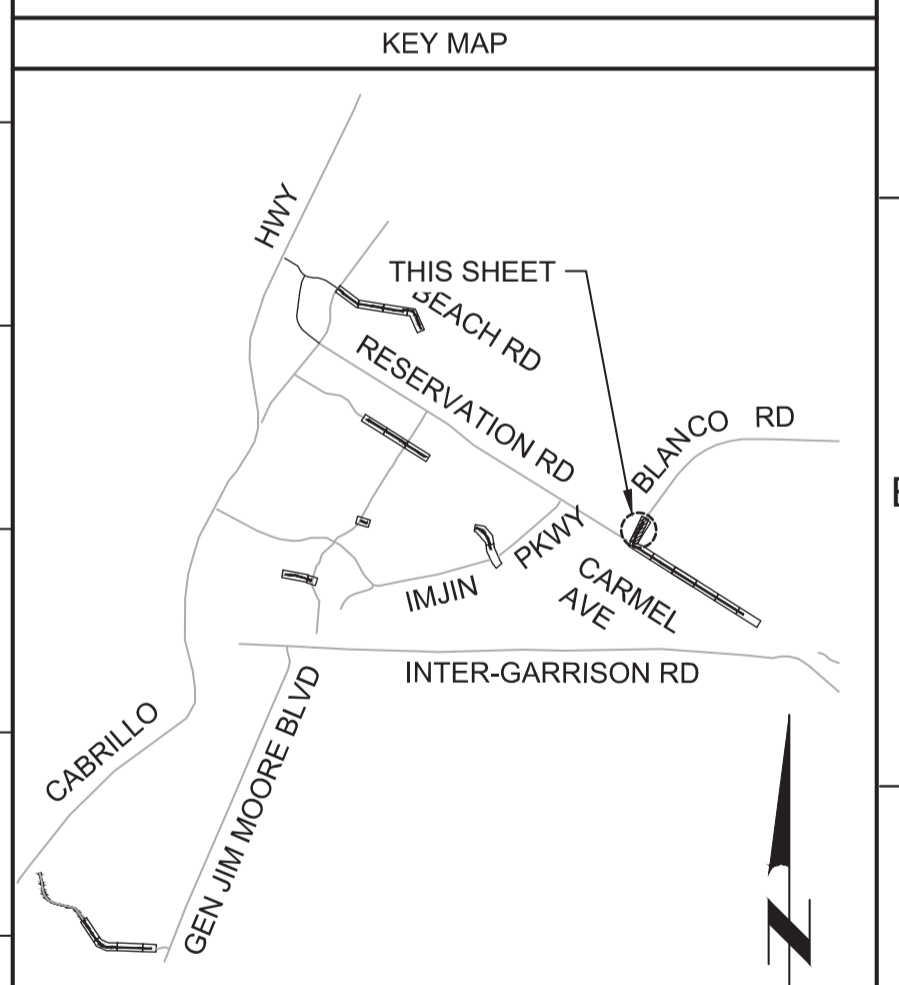
- KEY NOTES:**
- 1 APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 3'-10" DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND BLOW-OFF AND CONNECT TO THE EXISTING PIPE WITH 10" X 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.
 - 2 SETTLEMENT MONITORING LOCATION. SEE SPECIFICATION FOR MONITORING REQUIREMENTS.
 - 3 INSTALL TEMPORARY TYPE K TRAFFIC GUARDRAIL BEYOND EDGE OF PAVEMENT.
 - 4 WORK AREA LIMITED TO UNPAVED AREA IN MONTEREY COUNTY AND 40' STRIP OF MARINA AREA.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=8'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM/KMM
DRAWN AL/BWH
CHECKED
DATE JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:23:28-0800



**Marina
Coast
Water
District**

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
**BLANCO RD & RESERVATION RD
STA 10+00 TO 19+00**

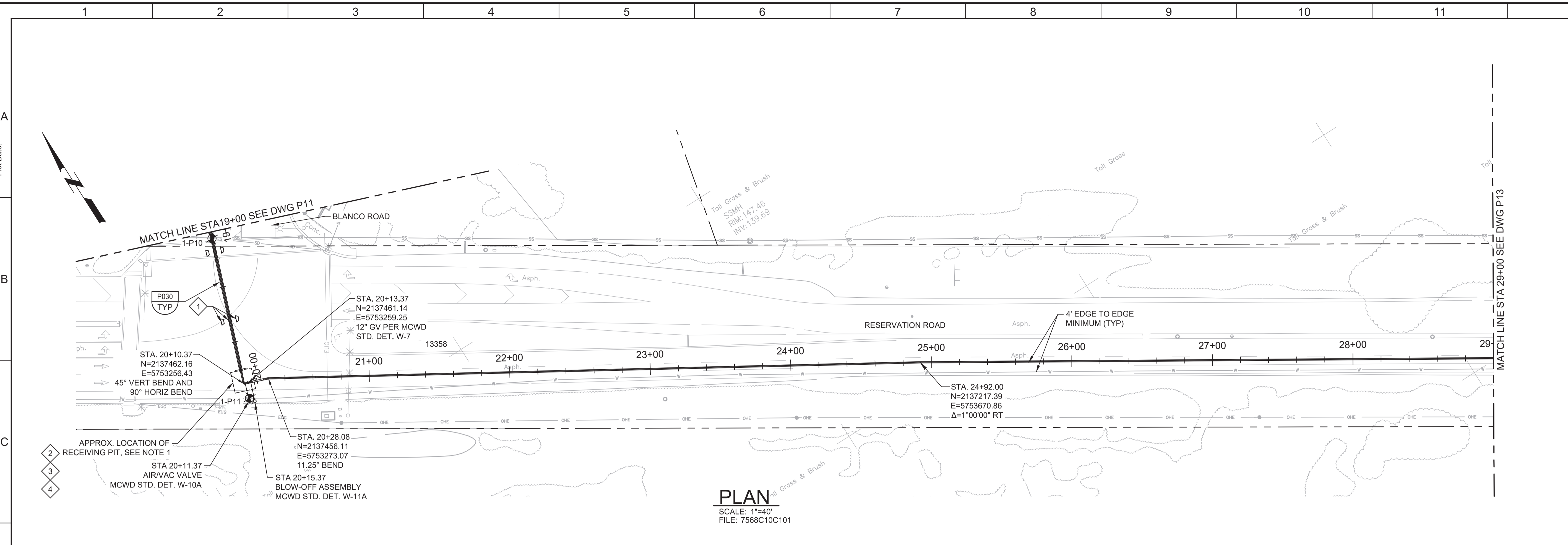
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P11 SHEET NO. 33 OF 58
--	---

1/24/2020 8:22:54 PM

FILE NAME: 7568C10P12.dwg

PROJECT NO. 7568C10

LAST SAVED BY: lbhaves

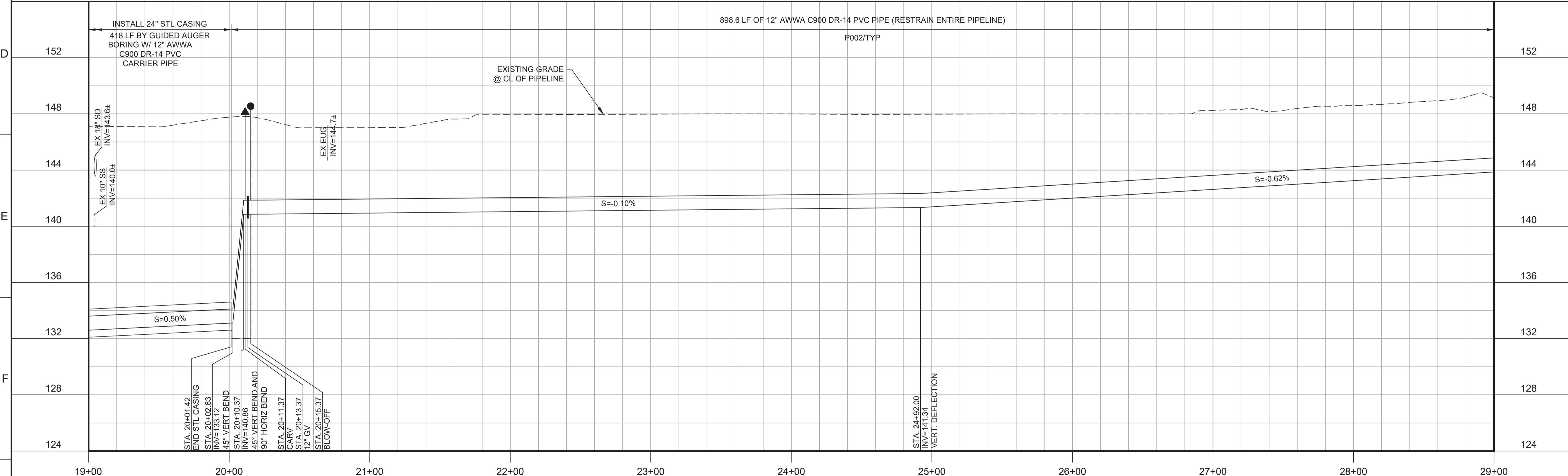


PLAN
SCALE: 1"=40'
FILE: 7568C10C101

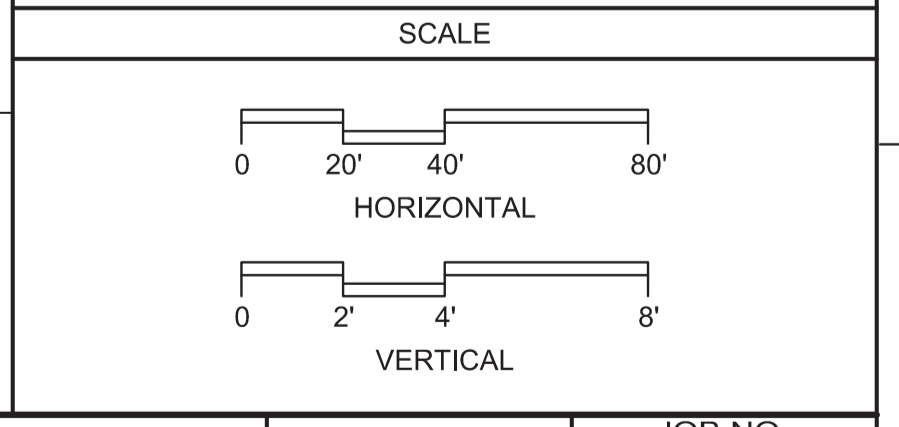
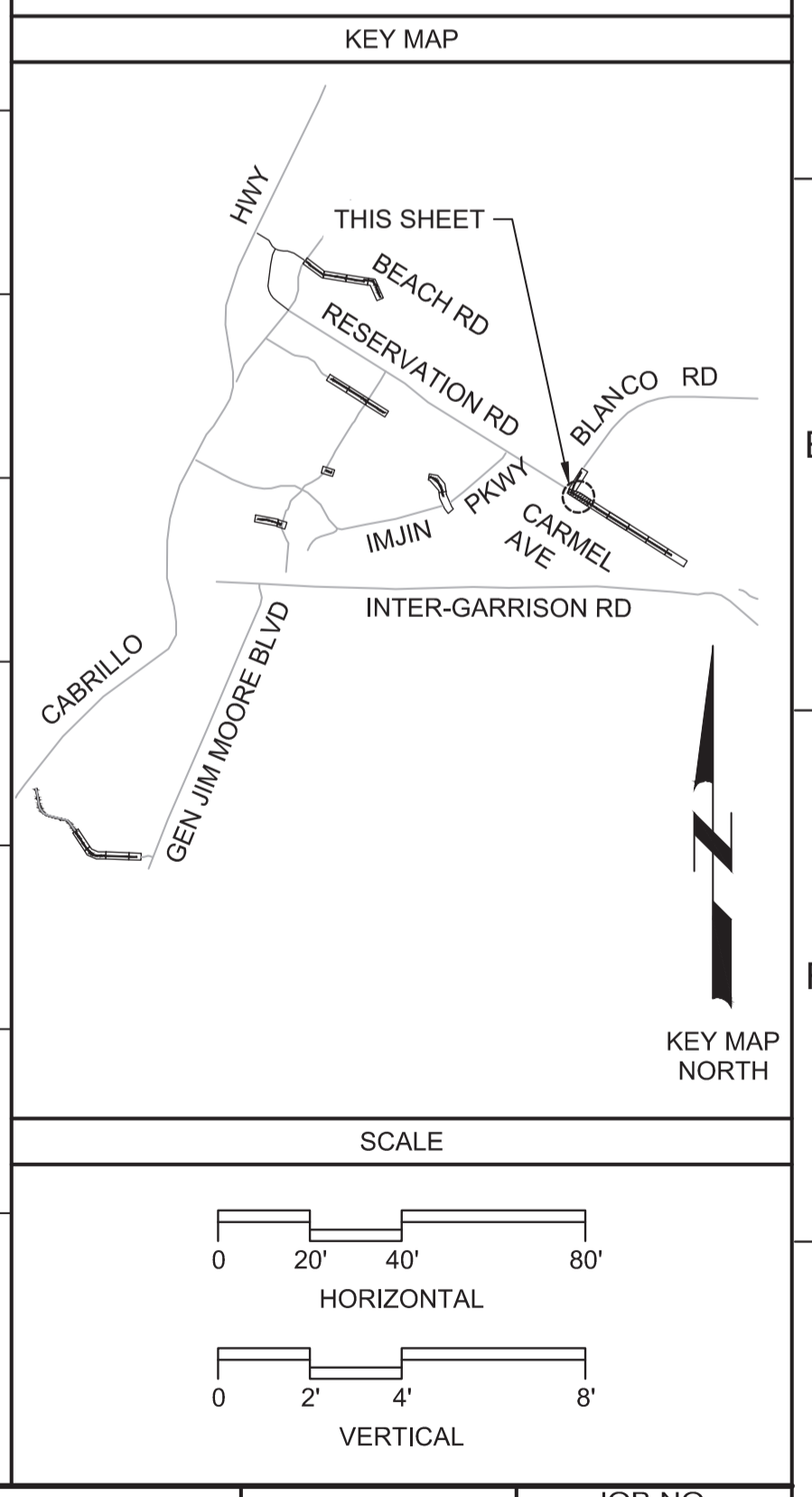
- GENERAL NOTES:**
- EXACT LOCATIONS AND DIMENSIONS OF RECEIVING PIT TO BE DETERMINED BY CONTRACTOR AND SUBMITTED TO ENGINEER FOR REVIEW. CONTRACTOR MAY PROPOSE AND ENGINEER WILL CONSIDER, AT NO COST OR TIME IMPACT, EXTENDING THE BORE AND LOCATING THE RECEIVING PIT SOUTH, BEYOND THE PAVEMENT WITHIN THE RIGHT-OF-WAY, TO MINIMIZE THE EXTENT OF WORK IN THE STREET. THIS WOULD REQUIRE RELOCATING A COUNTY ELECTRICAL CABLE AND COUNTY APPROVAL.
 - CONSTRUCT PIPELINE WITH A MINIMUM OF 4' COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 - CLEAR AND GRUB AS REQUIRED TO FACILITATE INSTALLATION OF PIPE AND APPURTENANCES.
 - ARBORIST SHALL PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- SETTLEMENT MONITORING LOCATION. SEE SPECIFICATION FOR MONITORING REQUIREMENTS.
 - INSTALL TEMPORARY TYPE K TRAFFIC GUARDRAIL AROUND RECEIVING PIT.
 - SEE SECTION 02261 FOR TIME RESTRICTIONS ON RECEIVING SHAFT CONSTRUCTION.
 - SEE SECTION 01550 FOR SPECIAL TRAFFIC CONTROL REQUIREMENTS AT INTERSECTION.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM/KMM
DRAWN AL/BWH
CHECKED
DATE JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:26:43 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
**BLANCO RD & RESERVATION RD
STA 19+00 TO 29+00**

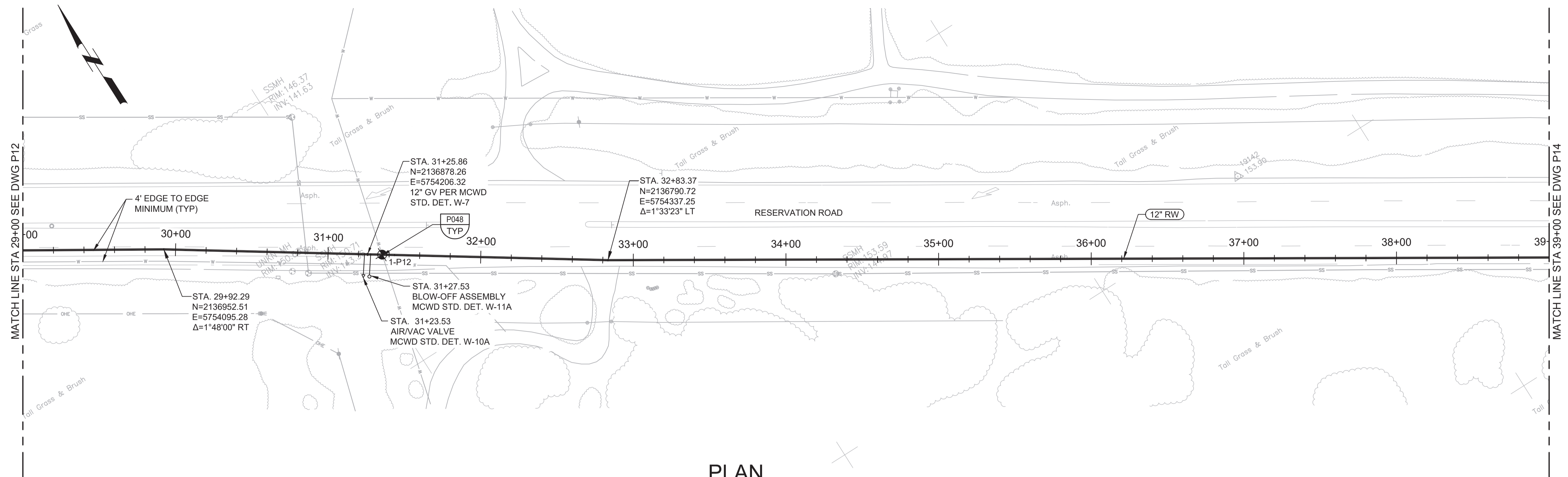
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P12 SHEET NO. 34 OF 58
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Plot Date: 1/24/2020 8:25:56 PM

FILE NAME: 7568C10P13.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

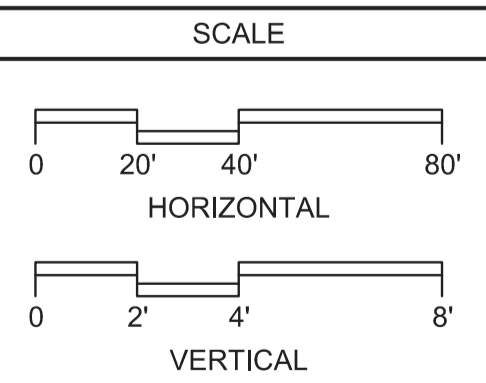
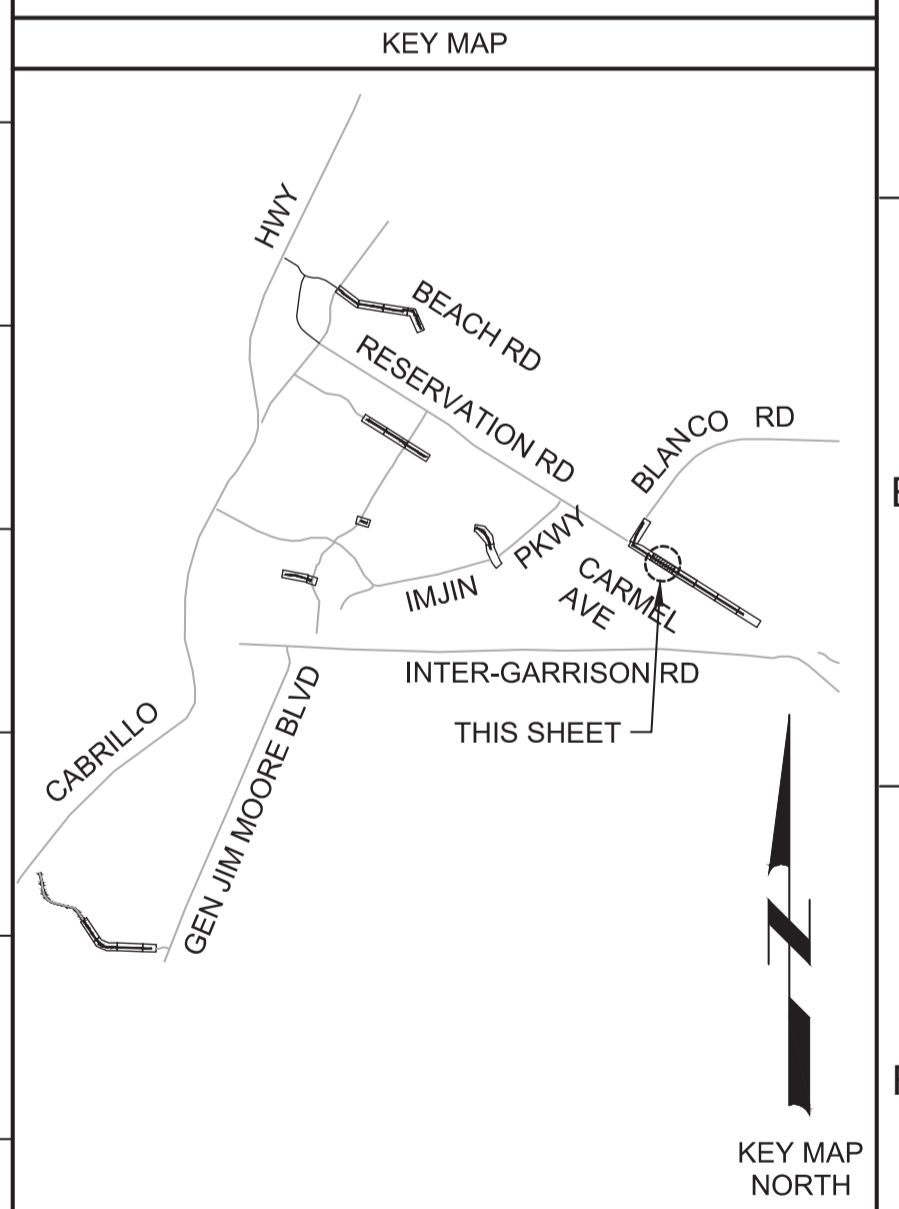
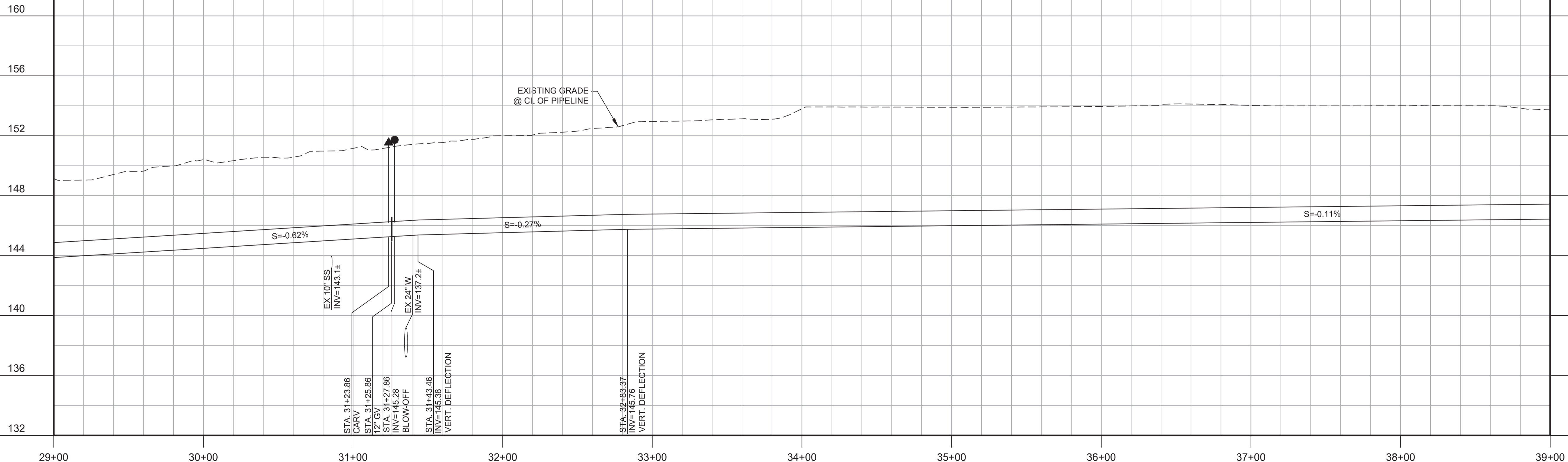


- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.
Call before you dig.

1000.0 LF OF 12" AWWA C900 DR-14 PVC PIPE (RESTRAIN ENTIRE PIPELINE)
P002/TYP



REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS

DESIGNED: JPM/KMM
DRAWN: AL/BWH
CHECKED: []
DATE: JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:26:03 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
BLANCO RD & RESERVATION RD
STA 29+00 TO 39+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

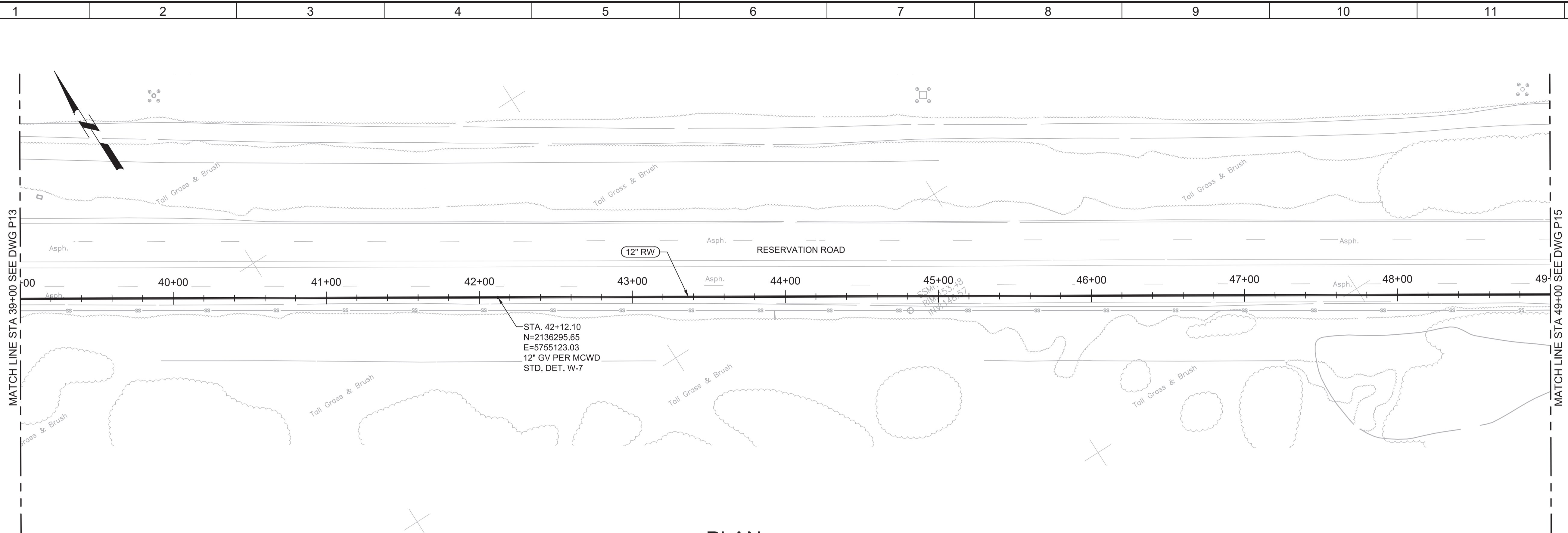
JOB NO. 7568C.10
DRAWING NO. P13
SHEET NO. 35 OF 58

Plot Date: 1/24/2020 8:28:46 PM

FILE NAME: 7568C10P14.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbawes

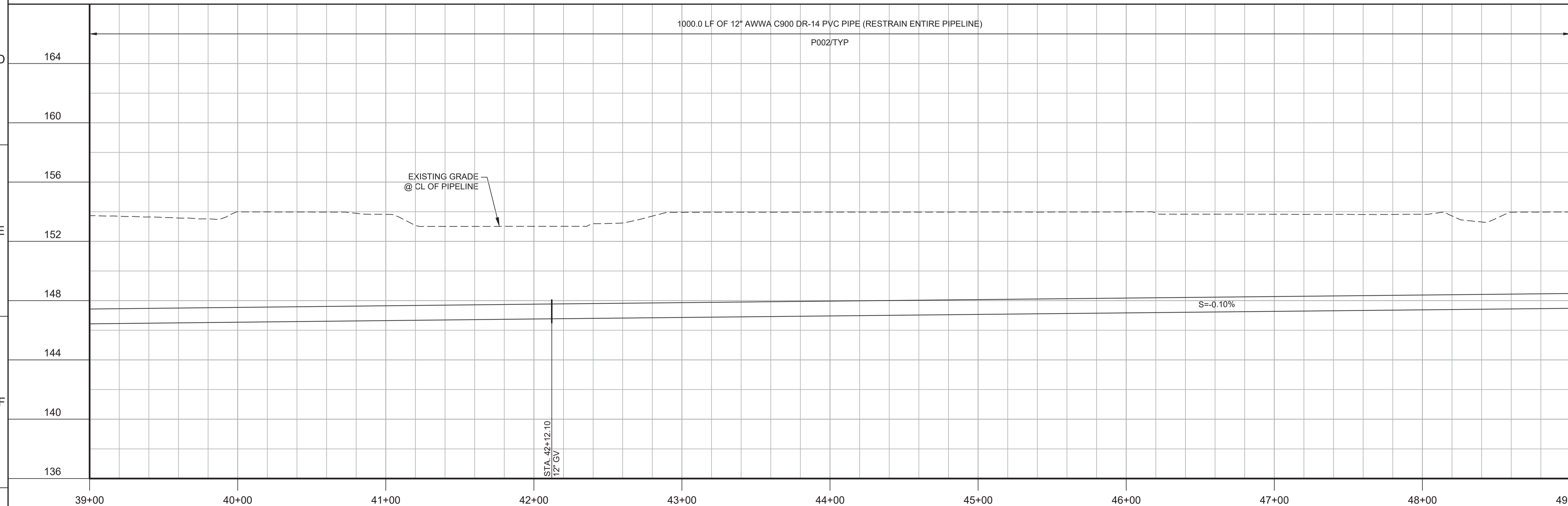


GENERAL NOTES:

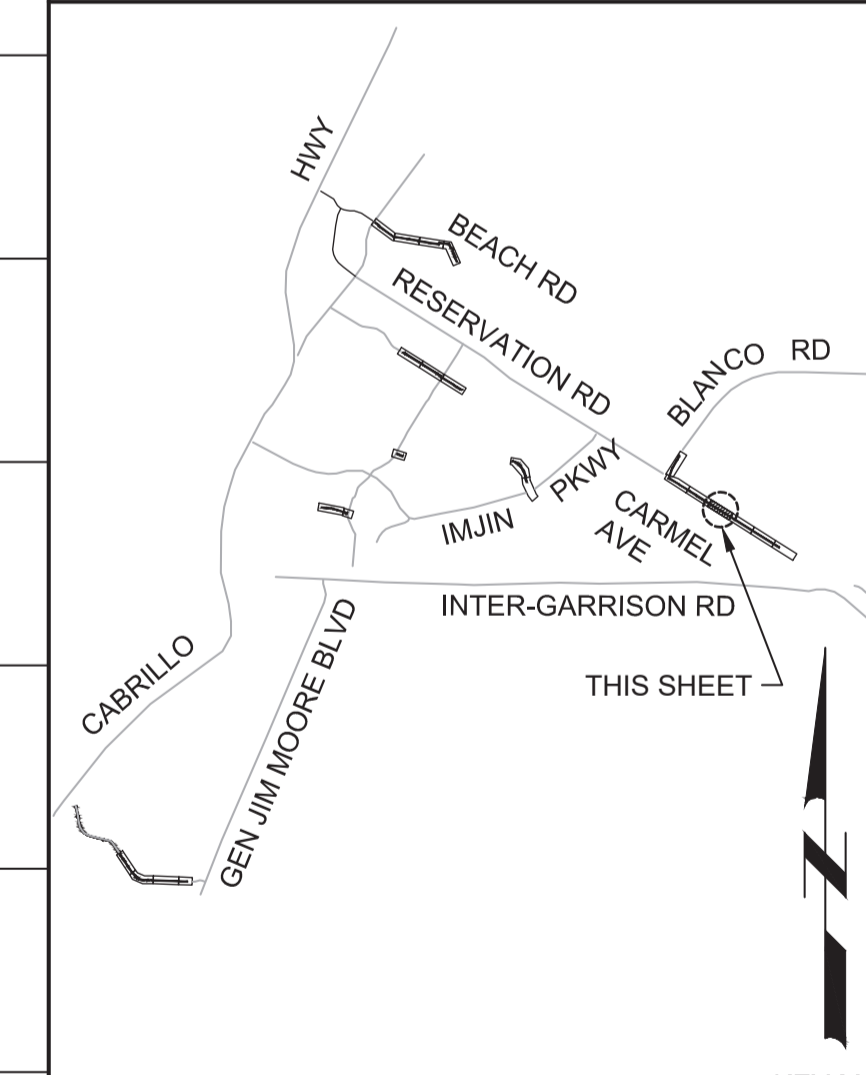
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
2. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



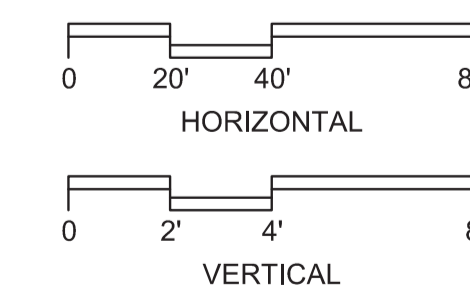
Know what's below. Call before you dig.



KEY MAP



SCALE



BID DOCUMENTS			
REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
JPM/KMM
DRAWN
AL/BWH
CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:34:24 -0800



Marina
Coast
Water
District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN

BLANCO RD & RESERVATION RD
STA 39+00 TO 49+00

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
P14

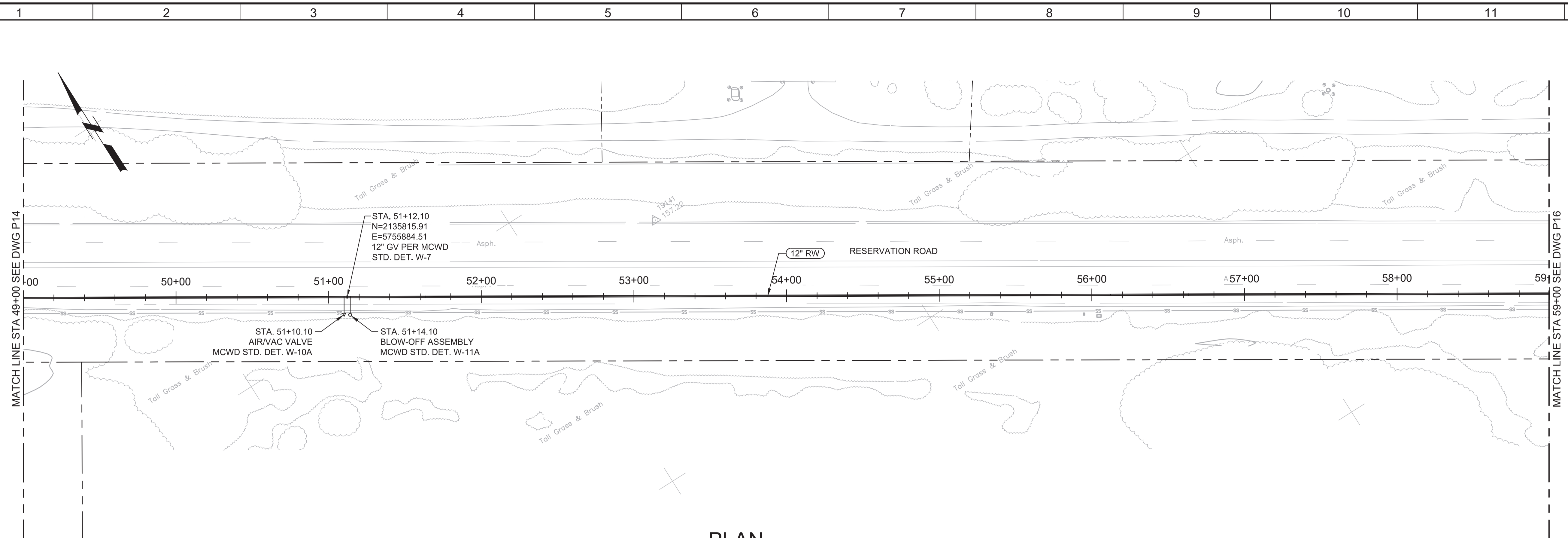
SHEET NO.
36 OF 58

Plot Date: 1/24/2020 8:31:44 PM

FILE NAME: 7568C10P15.dwg

PROJECT NO. 7568C10

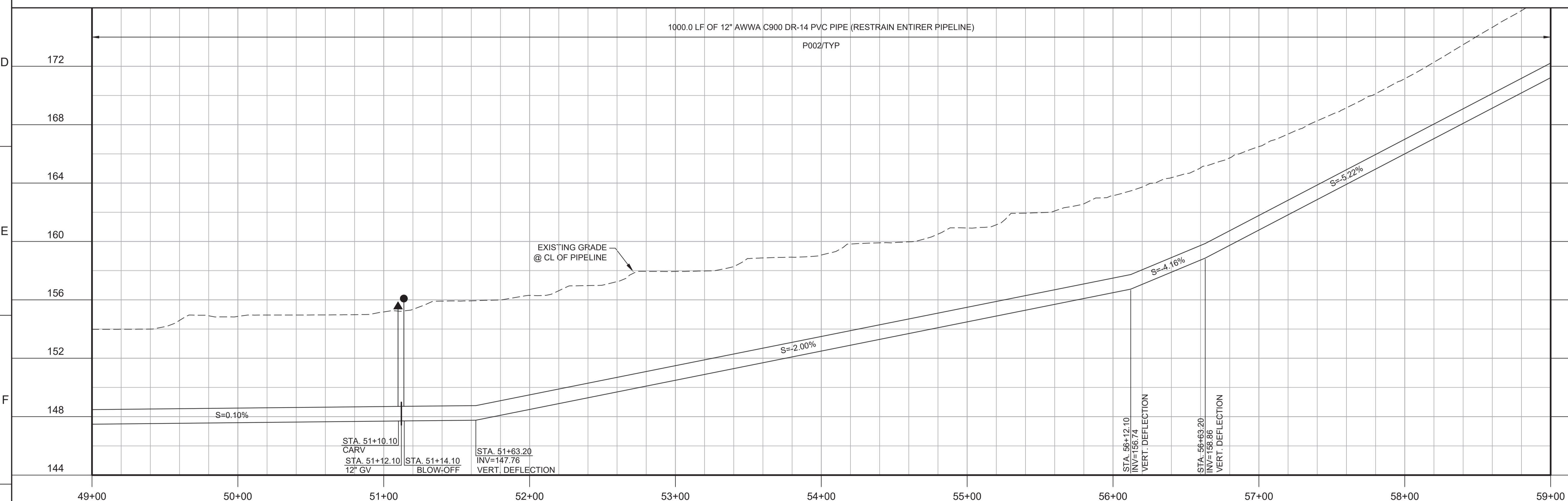
LAST SAVED BY: bbawes



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.
Call before you dig.



KEY MAP

SCALE

0 20' 40' 80'
HORIZONTAL

0 2' 4' 8'
VERTICAL

KEY MAP NORTH

REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS

DESIGNED: JPM/KMM
DRAWN: AL/BWH
CHECKED: []
DATE: JANUARY 2020



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:35:49 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN

BLANCO RD & RESERVATION RD
STA 49+00 TO 59+00

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10

DRAWING NO. P15

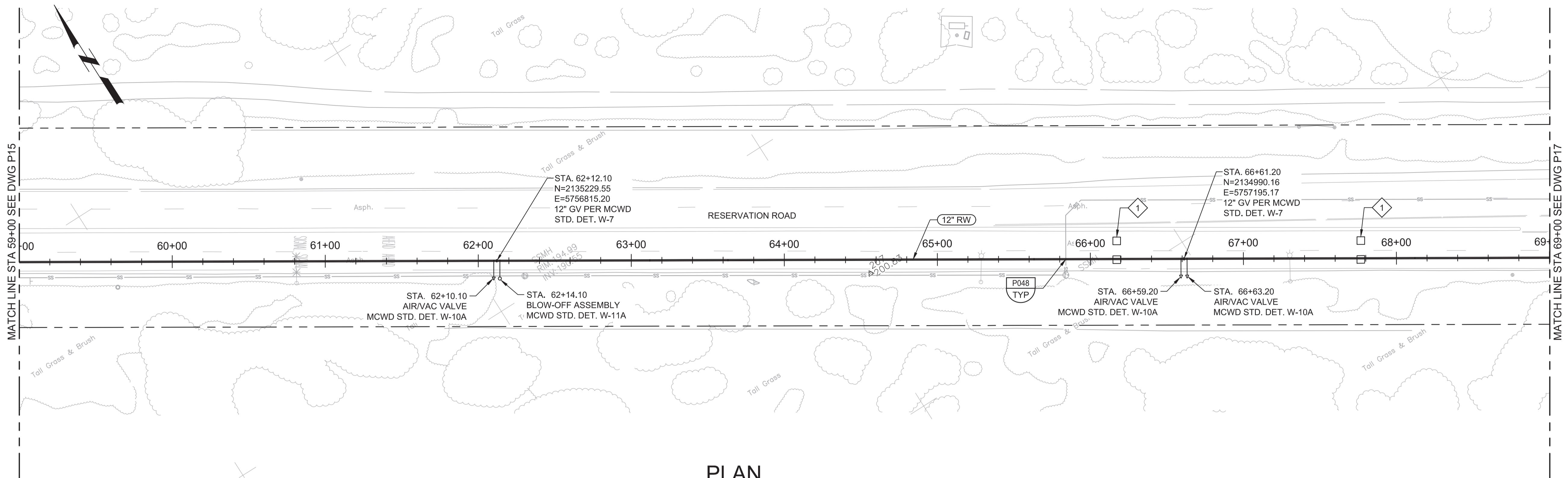
SHEET NO. 37 OF 58

Plot Date: 1/24/2020 8:34:40 PM

FILE NAME: 7568C10F16.dwg

PROJECT NO. 7568C10

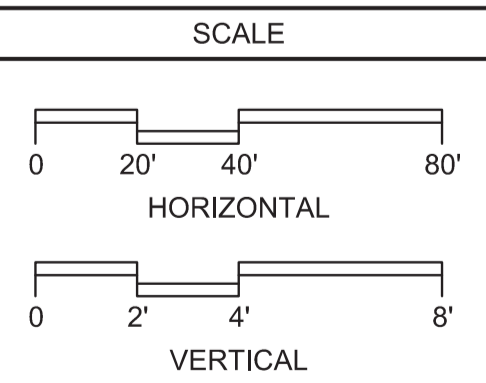
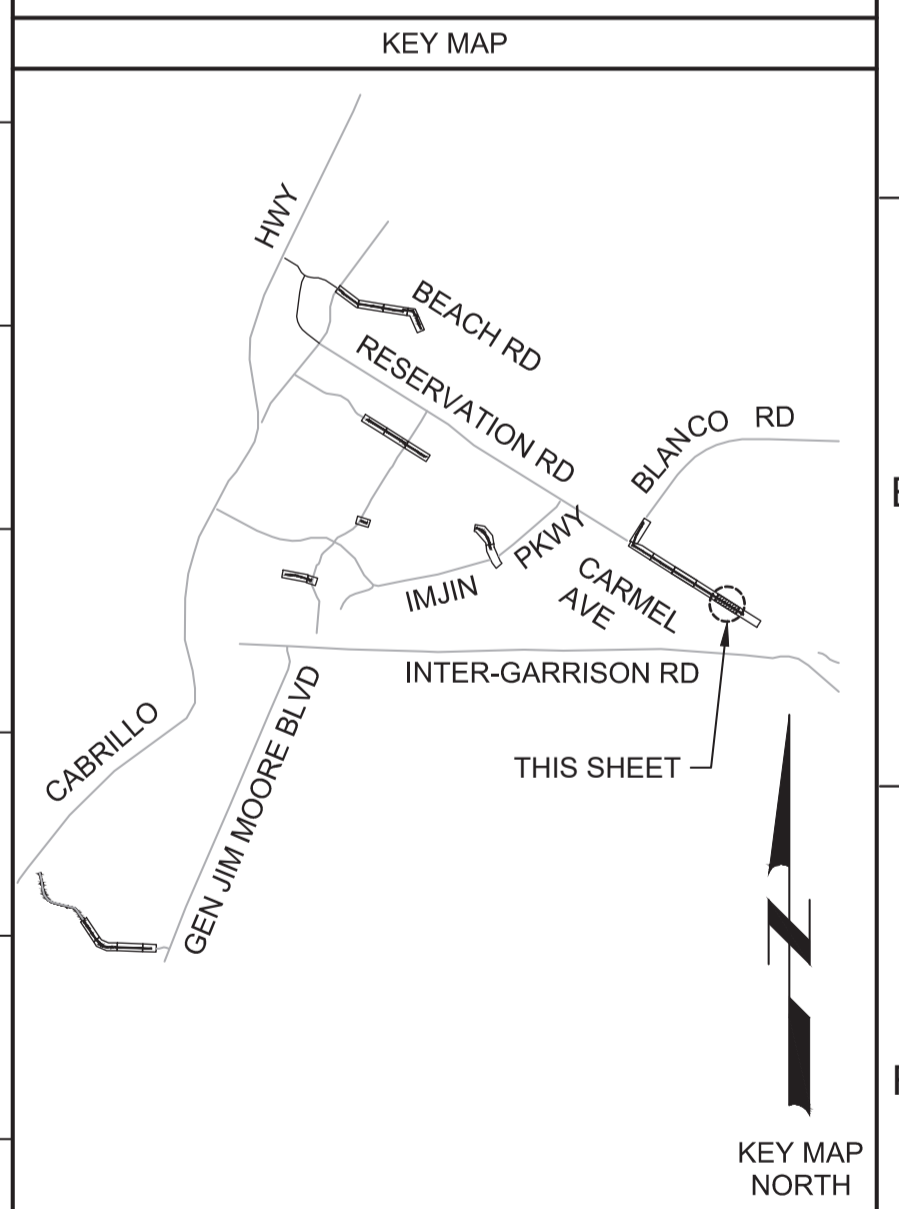
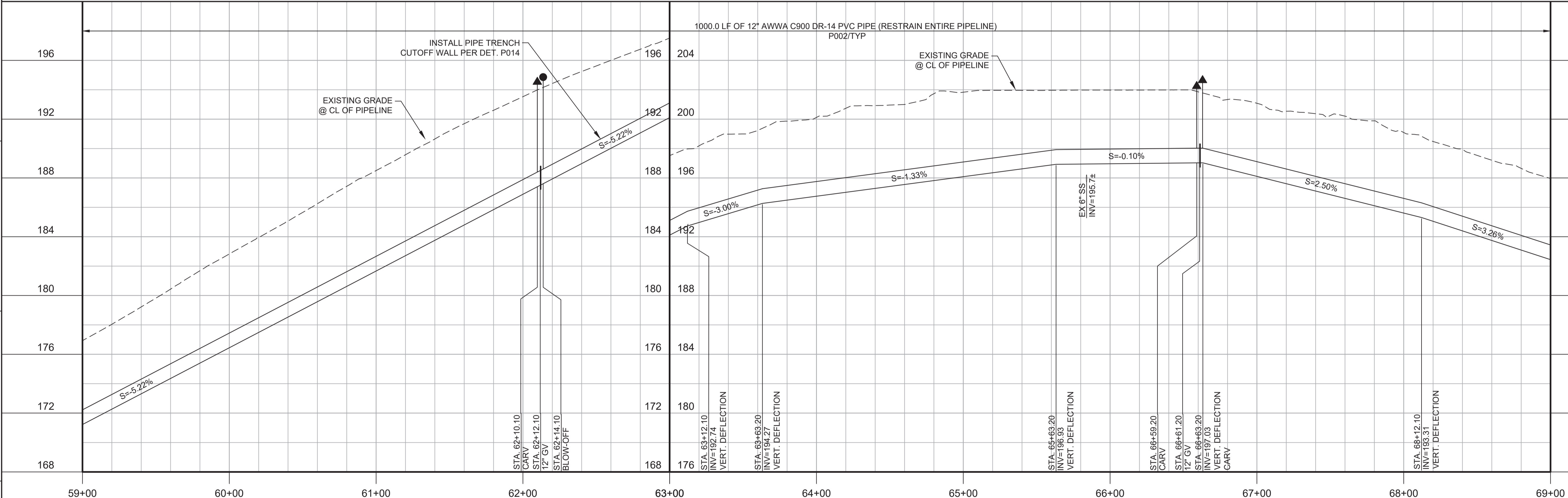
LAST SAVED BY: bbawes



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- 1 SEE SECTION 01140 FOR TRAFFIC SIGNAL REPAIR REQUIREMENTS.



Know what's below.
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
JPM/KMM
DRAWN
AL/BWH
CHECKED



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:33:20 -0800



Marina
Coast
Water
District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
BLANCO RD & RESERVATION RD
STA 59+00 TO 69+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

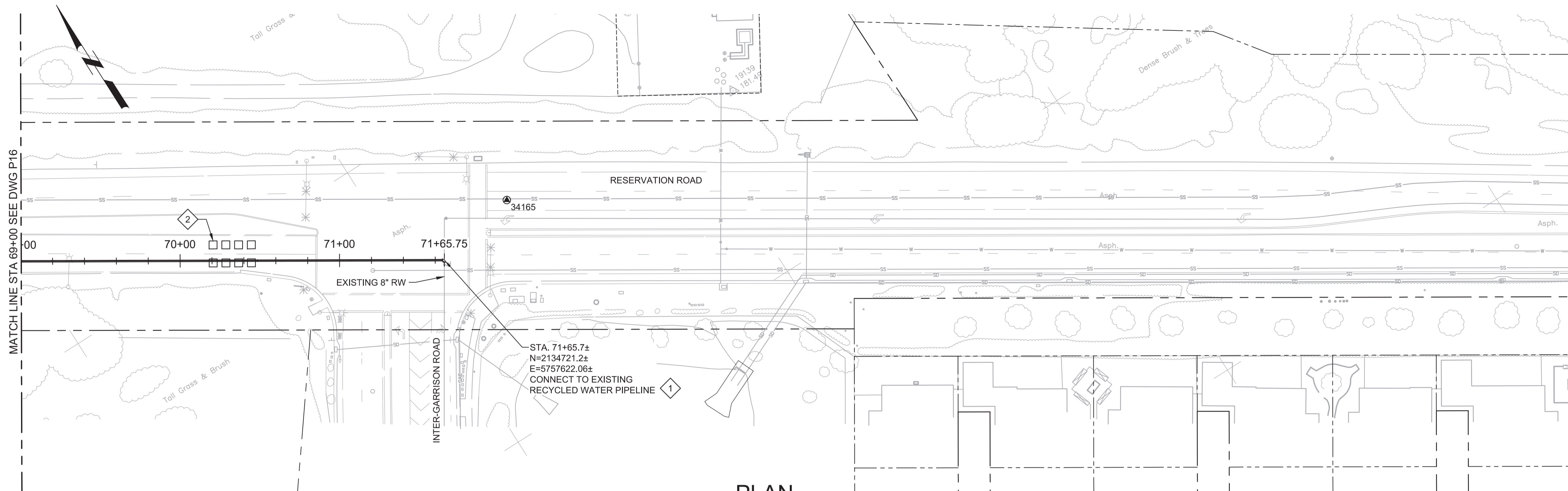
JOB NO.
7568C.10
DRAWING NO.
P16
SHEET NO.
38 OF 58

Plot Date: 1/24/2020 8:39:00 PM

FILE NAME: 7568C10P17.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

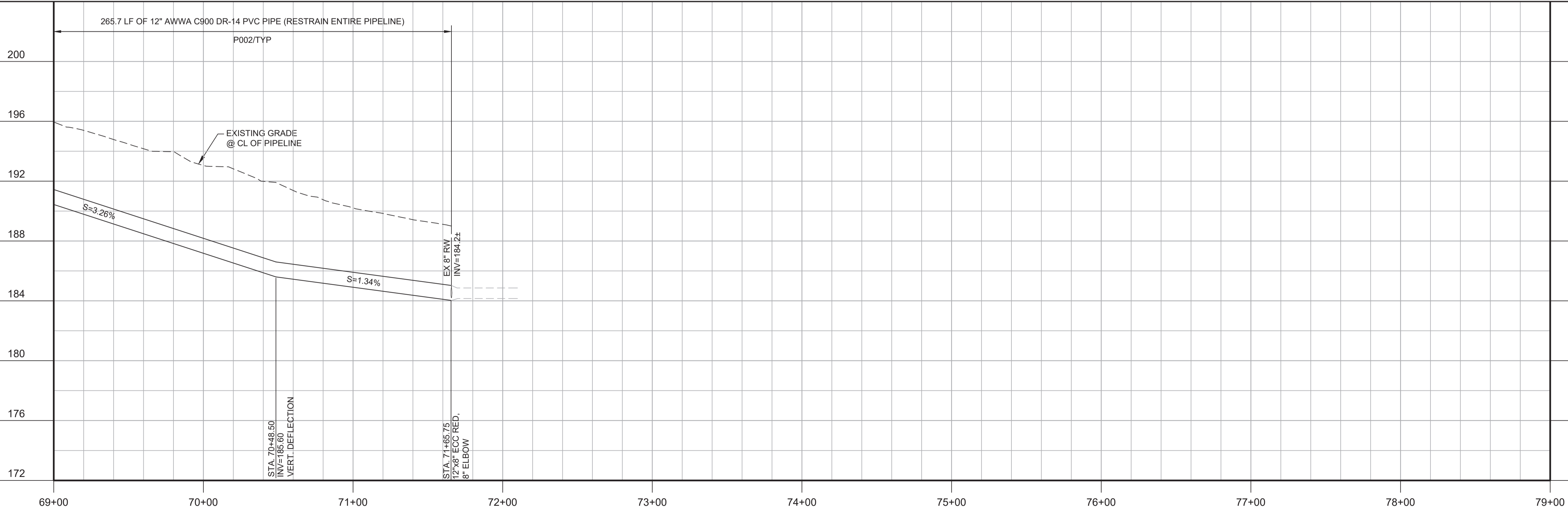


PLAN
SCALE: 1"=40'
FILE: 7568C10C101

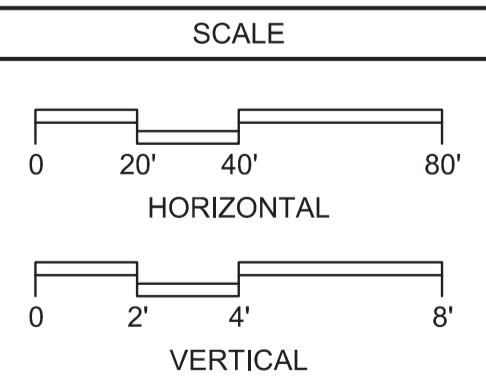
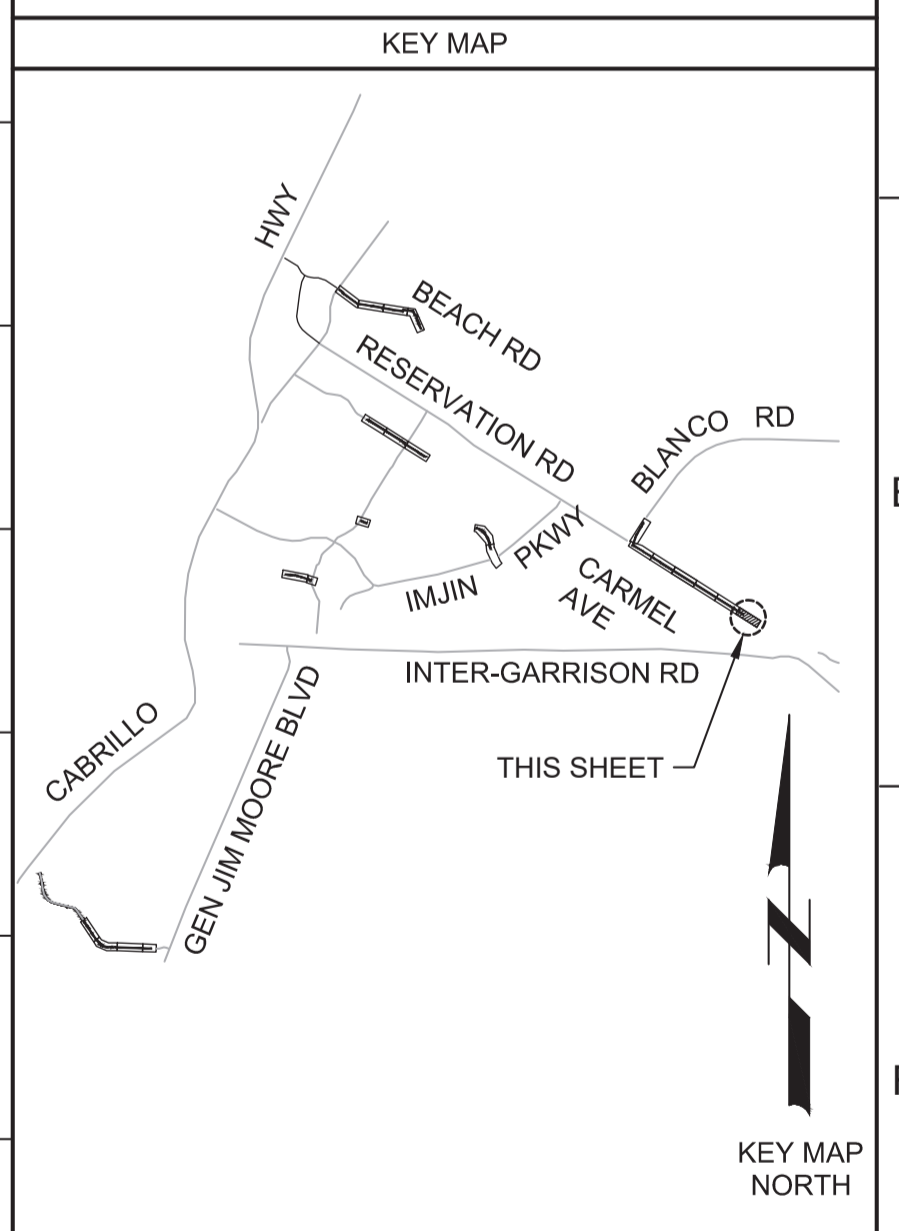
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. 12" FLANGE X MJ ADAPTOR, 8" X 12" REDUCER (FLANGE X FLANGE), 8" ELBOW (MJ X FLANGE). RESTRAIN MJS WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.
 - SEE SECTION 01140 FOR TRAFFIC SIGNAL REPAIRS.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS	
DESIGNED JPM/KMM	
DRAWN	
CHECKED AL/BWH	
DATE JANUARY 2020	

Digitally signed by Jonathan P. Marshall
Contact Info: Carolo Engineers, Inc.
Date: 2020.01.30 16:32:51 -0800

Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
**BLANCO RD & RESERVATION RD
STA 69+00 TO 71+65.75**

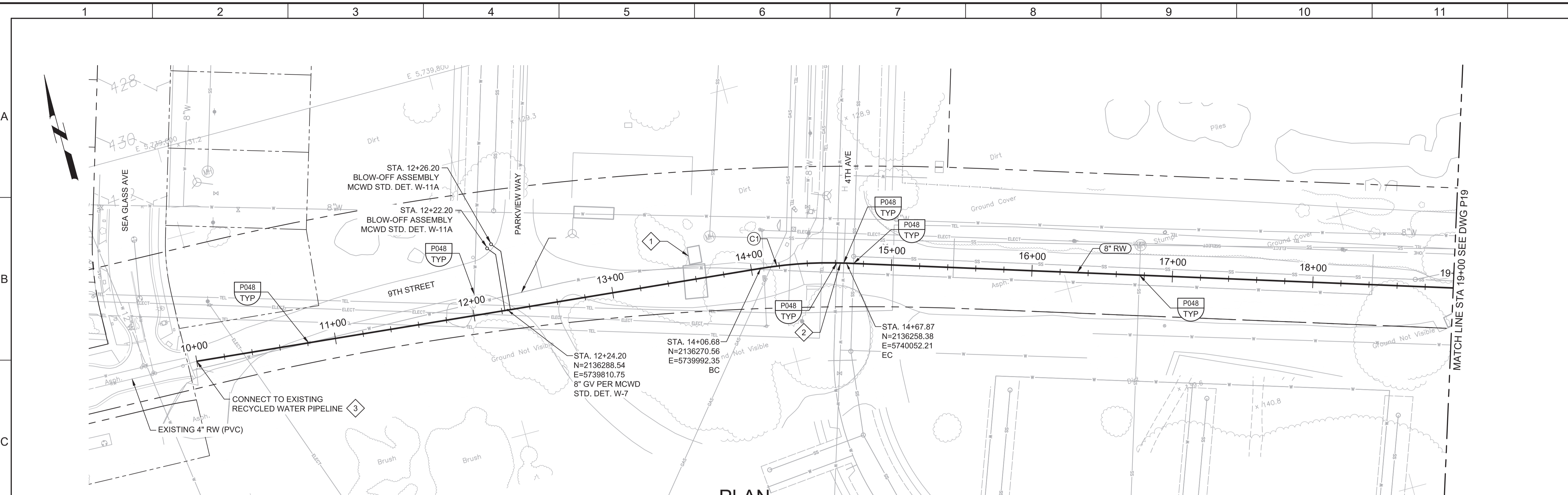
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P17 SHEET NO. 39 OF 58
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Plot Date: 1/24/2020 8:42:26 PM

FILE NAME: 7568C10P18.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



PLAN
SCALE: 1"=40'
FILE: 7568C10C101

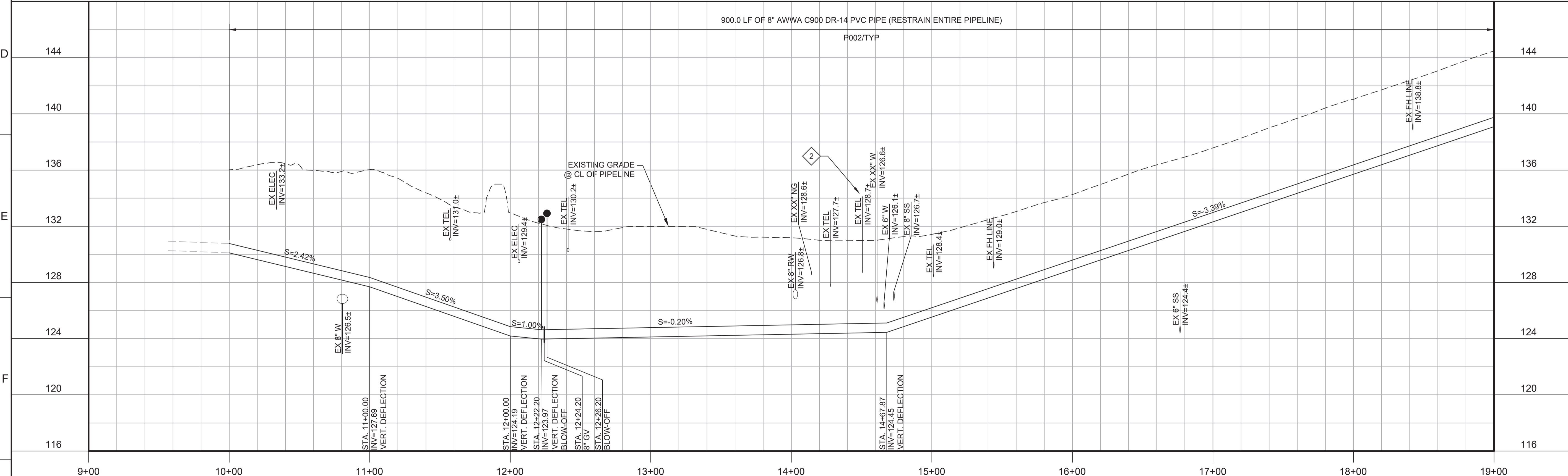
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

- KEY NOTES:**
- COORDINATE WITH RESIDENTIAL CONTRACTOR FOR TEMPORARY RELOCATION OF STORMWATER POLLUTION PREVENTION CONSTRUCTION ENTRANCE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH TEMPORARY RELOCATION DURING CONSTRUCTION AND PLACING OF EQUIPMENT BACK TO ITS ORIGINAL LOCATION AFTER CONSTRUCTION IS COMPLETE.
 - CONTRACTOR MAY PROPOSE TRENCHLESS INSTALLATION SIMILAR TO TRENCHLESS CONSTRUCTION AT BLANCO ROAD AND RESERVATION ROAD INTERSECTION AT NO ADDITIONAL COST OR TIME IMPACT TO THE OWNER.
 - APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH A 4" x 8" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.

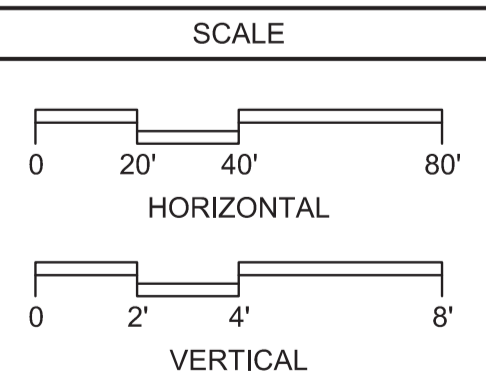
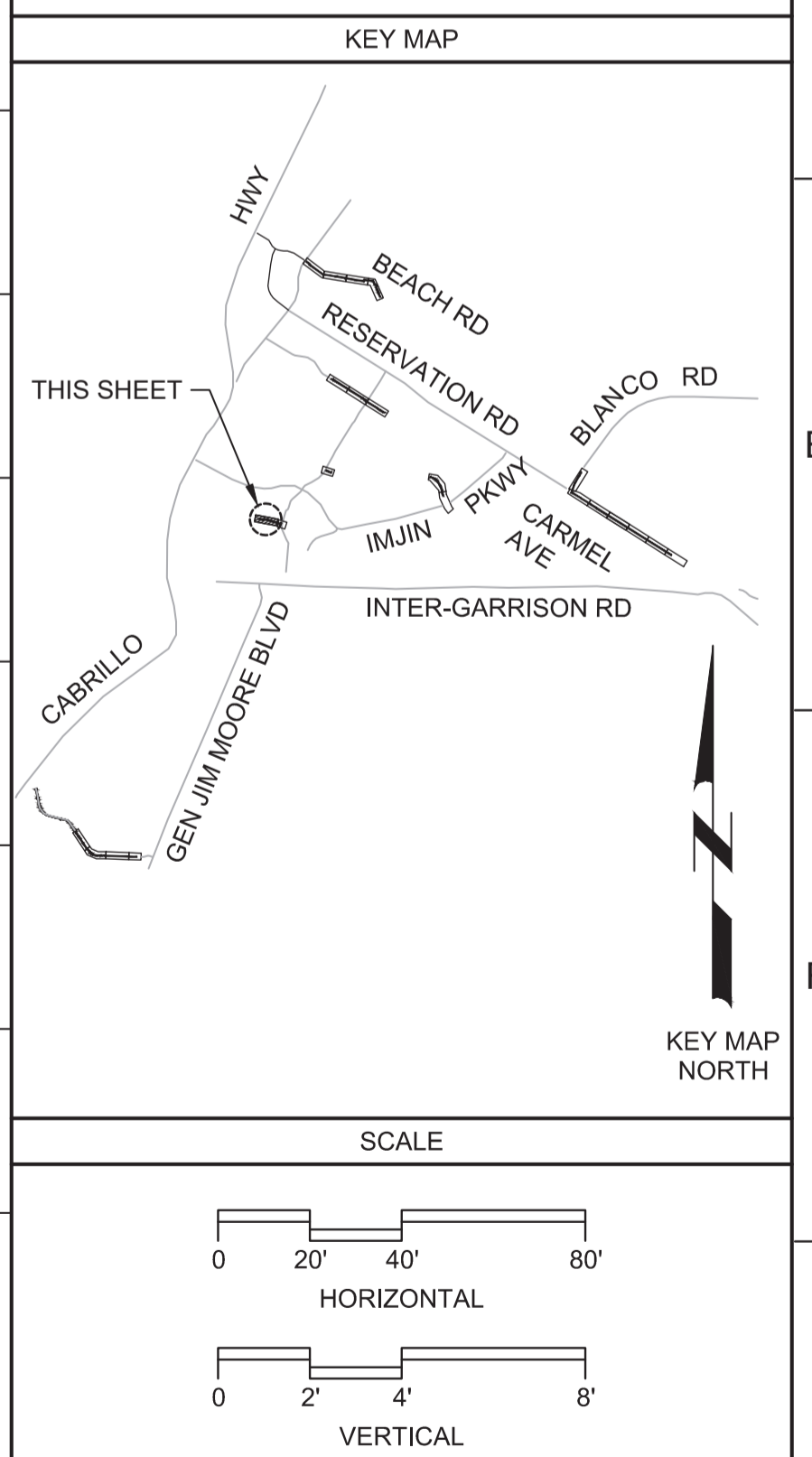
CURVE TABLE				
NO.(XX)	LENGTH	RADIUS	DELTA	TANGENT
C1	61.20'	300.00'	11°41'15"	30.70'



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

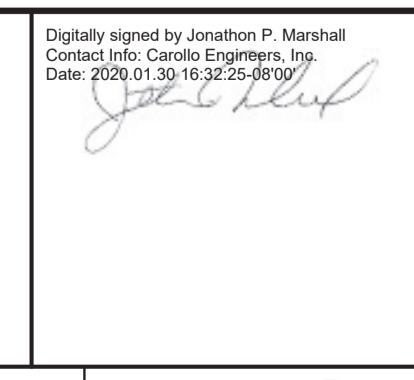
BID DOCUMENTS

DESIGNED
JPM/KMM

DRAWN
AL/BWH

CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:32:55-0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN

9TH STREET
STA 10+00 TO 19+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
P18

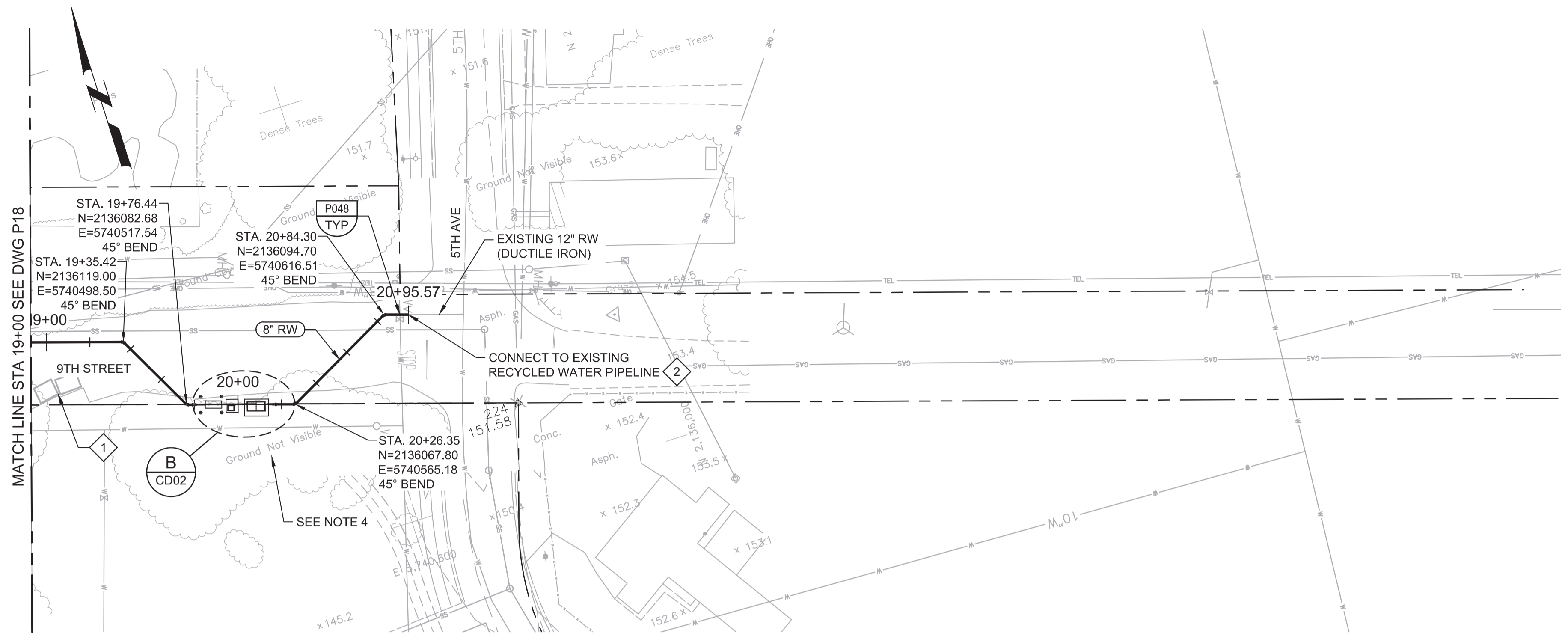
SHEET NO.
40 OF 58

Plot Date: 1/25/2020 6:29:56 AM

FILE NAME: 7568C10P19.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

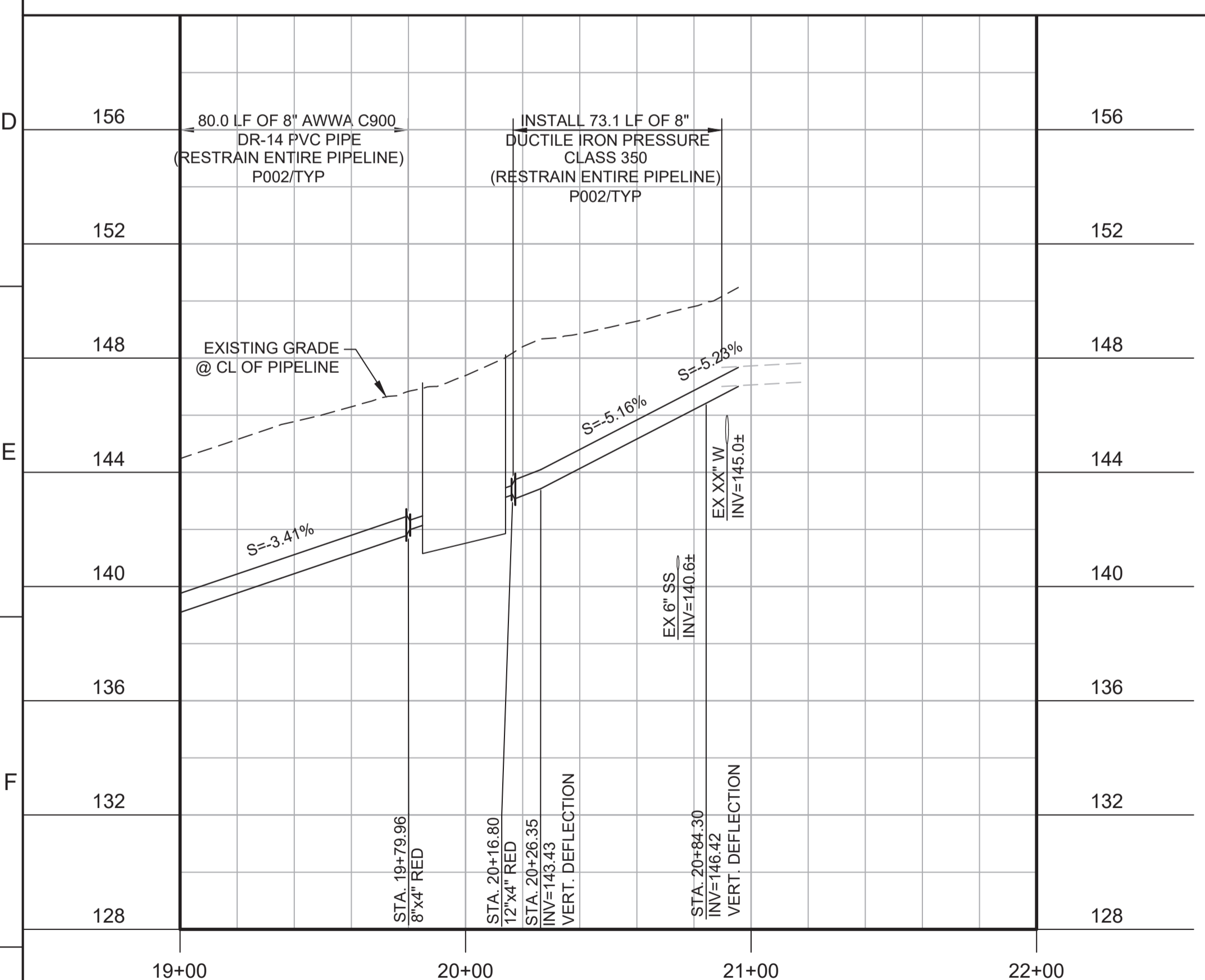


PLAN
 SCALE: 1"=40'
 FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 - CLEAR AND GRUB AS REQUIRED TO FACILITATE INSTALLATION OF PIPE AND APPURTENANCES.
 - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562. IF TREE REMOVAL CANNOT BE AVOIDED, CONTRACTOR SHALL REPLANT TREE AT A 3:1 RATIO AND MAINTAIN REPLANTED TREES FOR A 1 YEAR PERIOD.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- COORDINATE WITH RESIDENTIAL CONTRACTOR FOR TEMPORARY RELOCATION OF STORMWATER POLLUTION PREVENTION CONSTRUCTION ENTRANCE.
 - APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH AN 8" x 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION RESTRAINTS.



Know what's below.
 Call before you dig.



PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'
 FILE: 7568C10C101

KEY MAP

KEY MAP NORTH

SCALE

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED	JPM/KMM
DRAWN	AL/BWH
CHECKED	
DATE	JANUARY 2020



Digitally signed by Jonathan P. Marshall
 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:32:01 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
 RECYCLED WATER DISTRIBUTION MAINS
 CIVIL DISTRIBUTION MAIN
 9TH STREET
 STA 19+00 TO 20+89.77

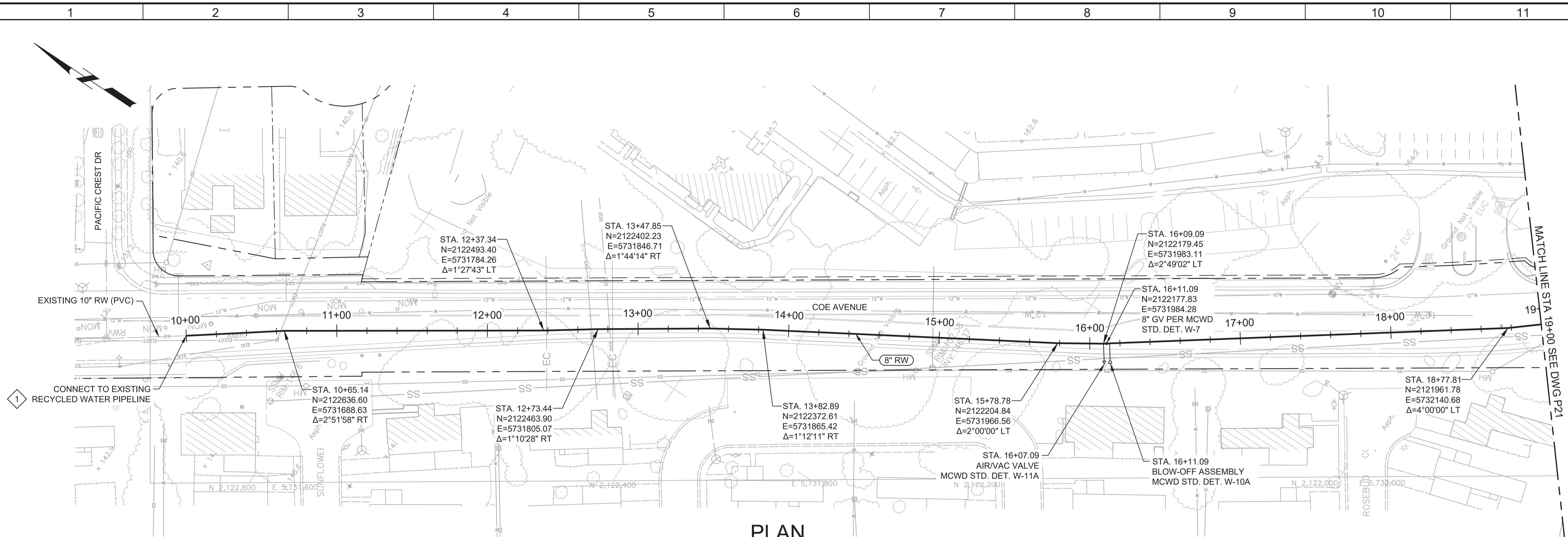
VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. P19
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 41 OF 58

Plot Date: 1/25/2020 6:33:30 AM

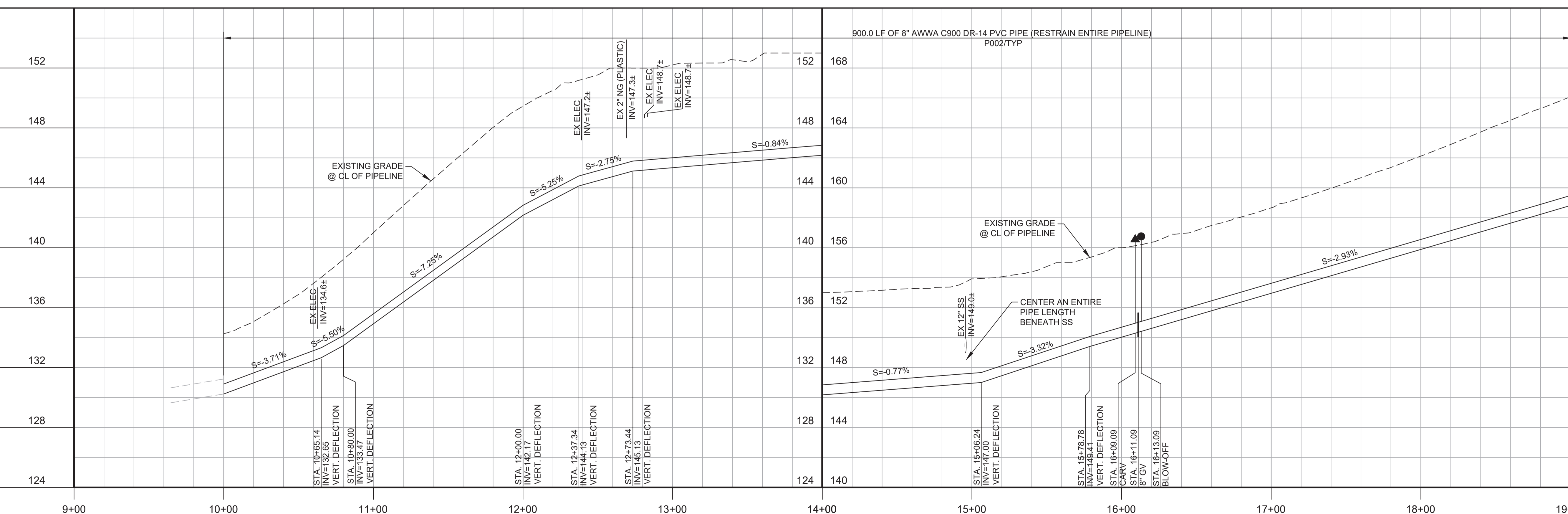
FILE NAME: 7568C10P20.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



PLAN
SCALE: 1"=40'
FILE: 7568C10C101

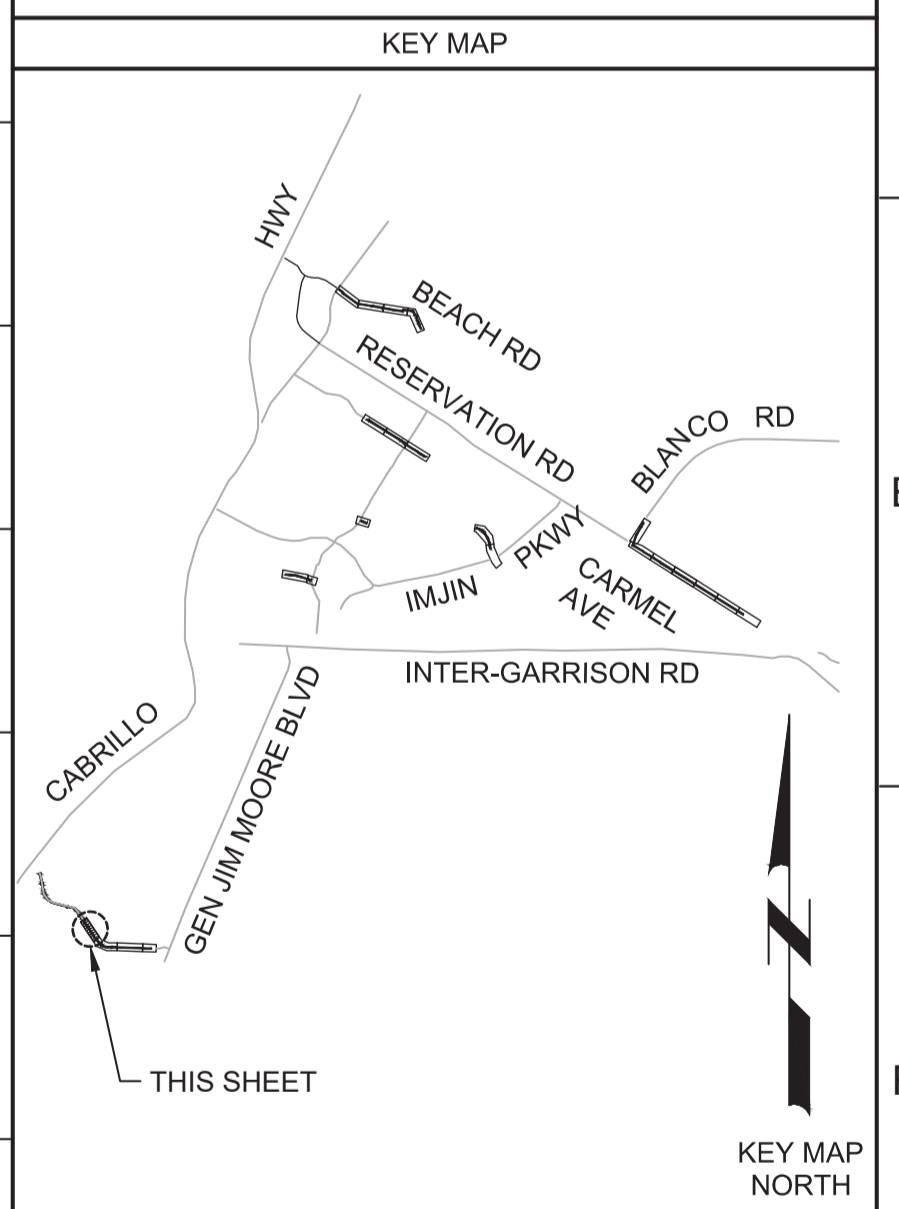


PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION OF THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH AN 8" x 10" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.



Know what's below.
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

BID DOCUMENTS

DESIGNED
JPM/KMM

DRAWN
AL/BWH

CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:31:40 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN
COE AVENUE
STA 10+00 TO 19+00

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
P20

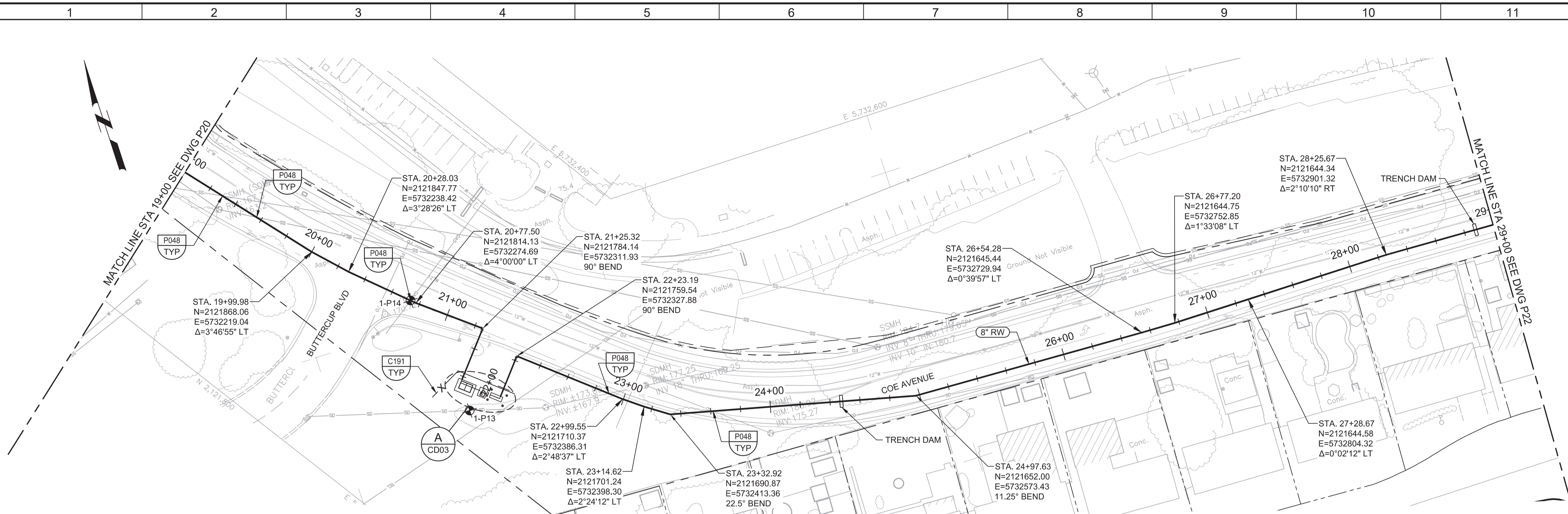
SHEET NO.
42 OF 58

Plot Date: 1/25/2020 6:36:23 AM

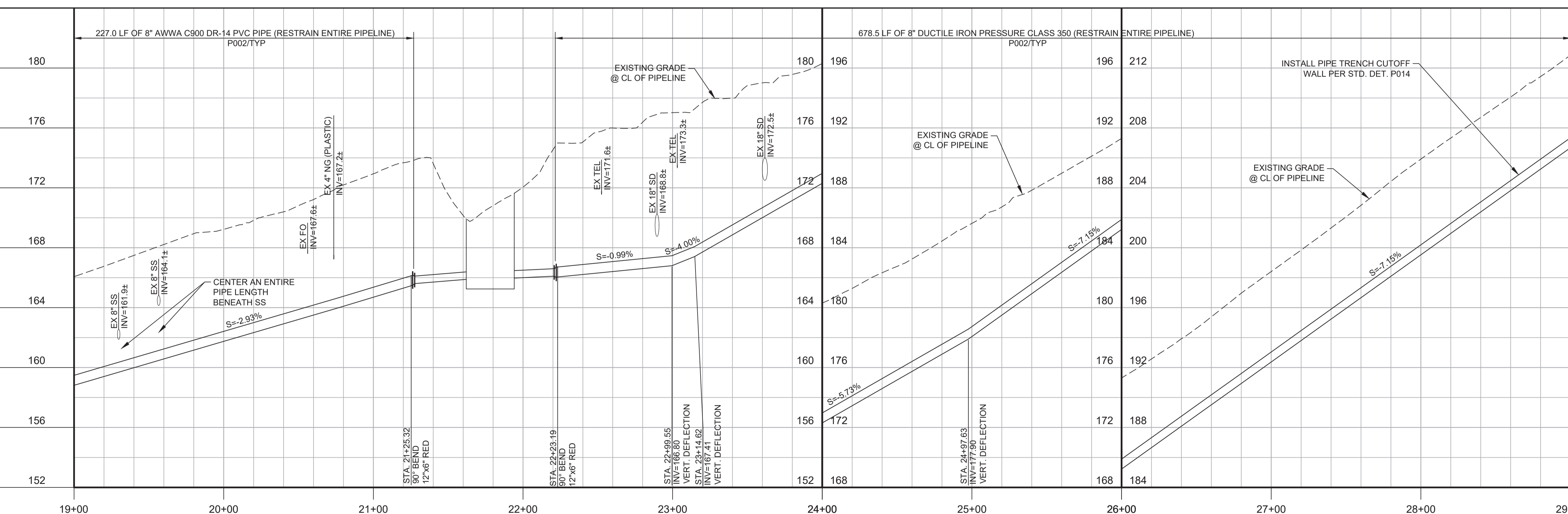
FILE NAME: 7568C10P21.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



PLAN
SCALE: 1"=40'
FILE: 7568C10C101



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

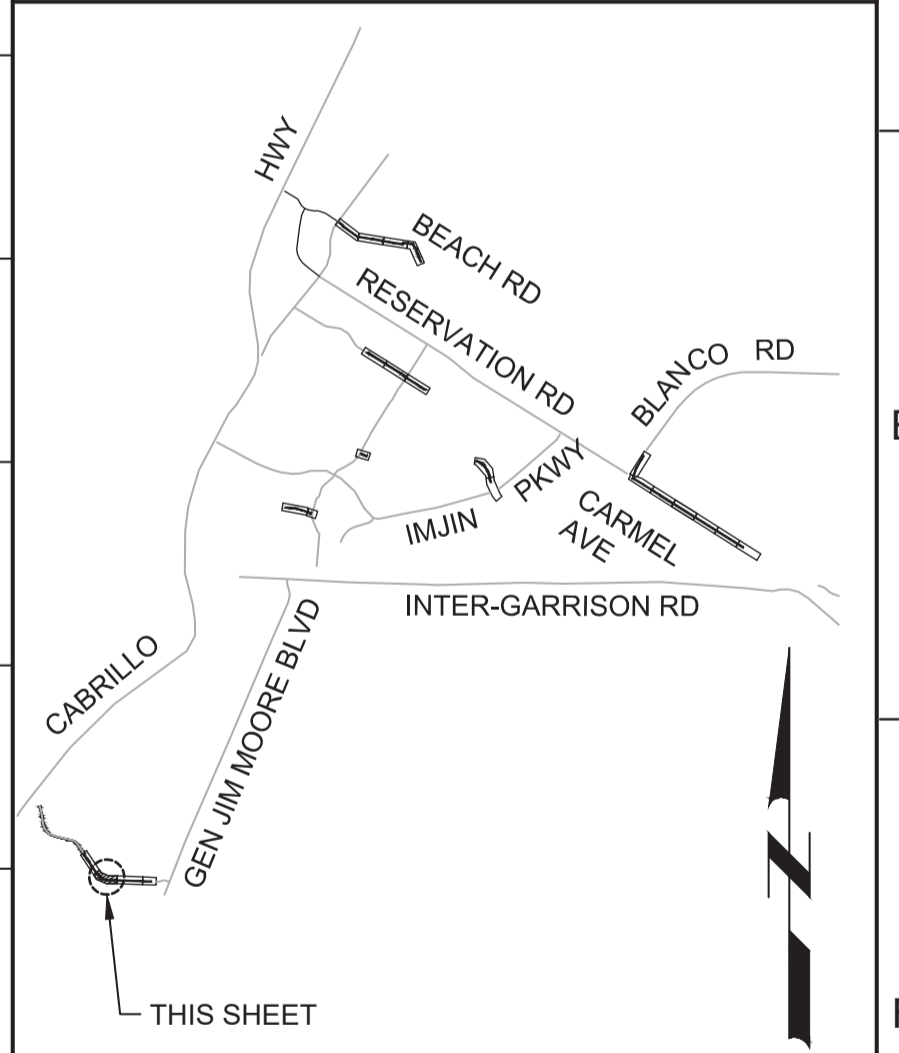
GENERAL NOTES:

- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
- CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.
- REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
- DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

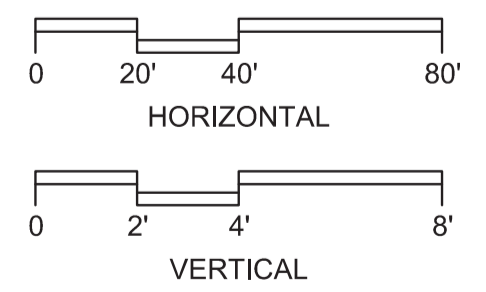


Know what's below.
Call before you dig.

KEY MAP



SCALE



BID DOCUMENTS

DESIGNED
JPM/KMM
DRAWN
AL/BWH
CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carolo Engineers, Inc.
Date: 2020.01.30 16:31:15 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN
COE AVENUE
STA 19+00 TO 29+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10
DRAWING NO.
P21
SHEET NO.
43 OF 58

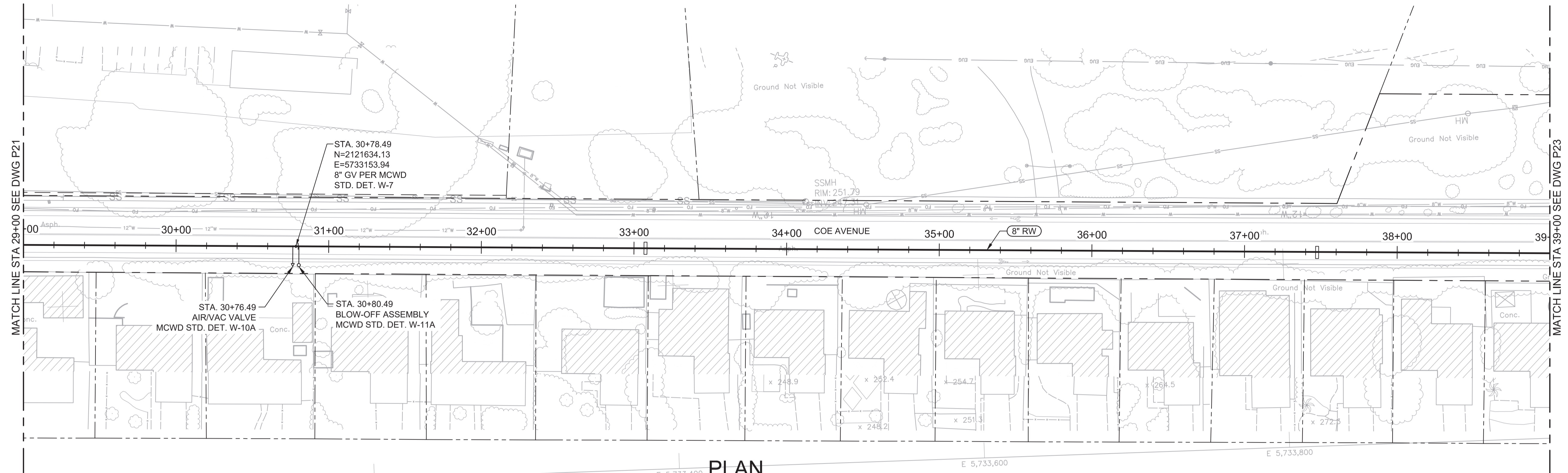
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1			
2			
3			

Plot Date: 1/25/2020 6:40:33 AM

FILE NAME: 7568C10P22.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

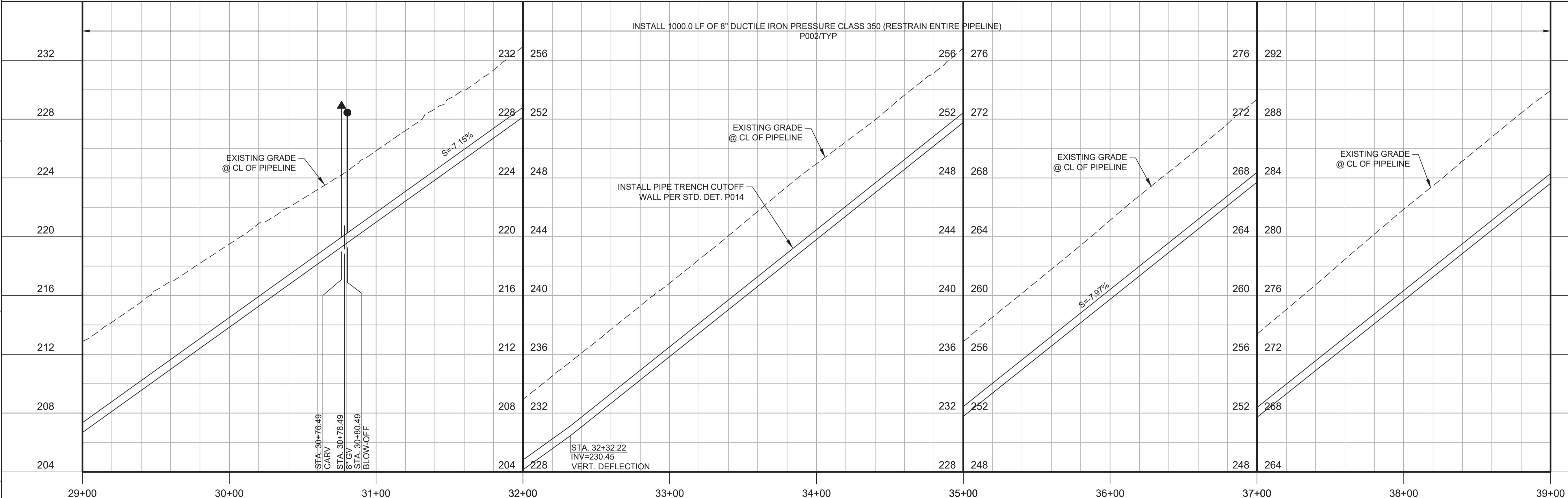


PLAN
SCALE: 1"=40'
FILE: 7568C10C101

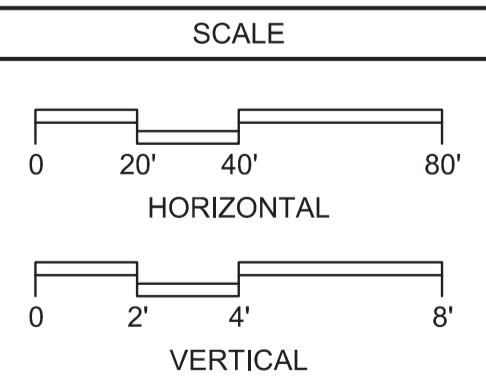
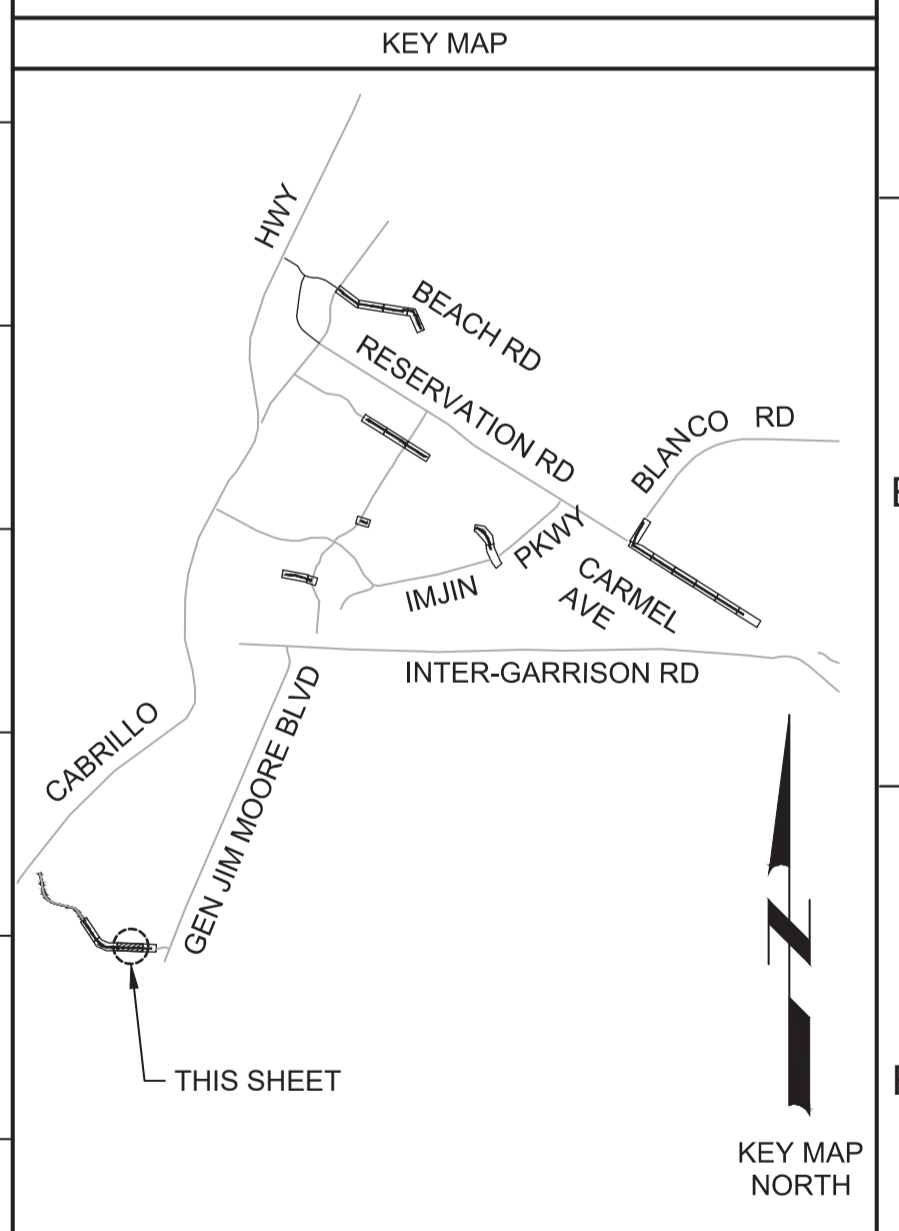
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM/KMM	
DRAWN AL/BWH	
CHECKED	
DATE JANUARY 2020	



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:30:46 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL DISTRIBUTION MAIN
COE AVENUE
STA 29+00 TO 39+00

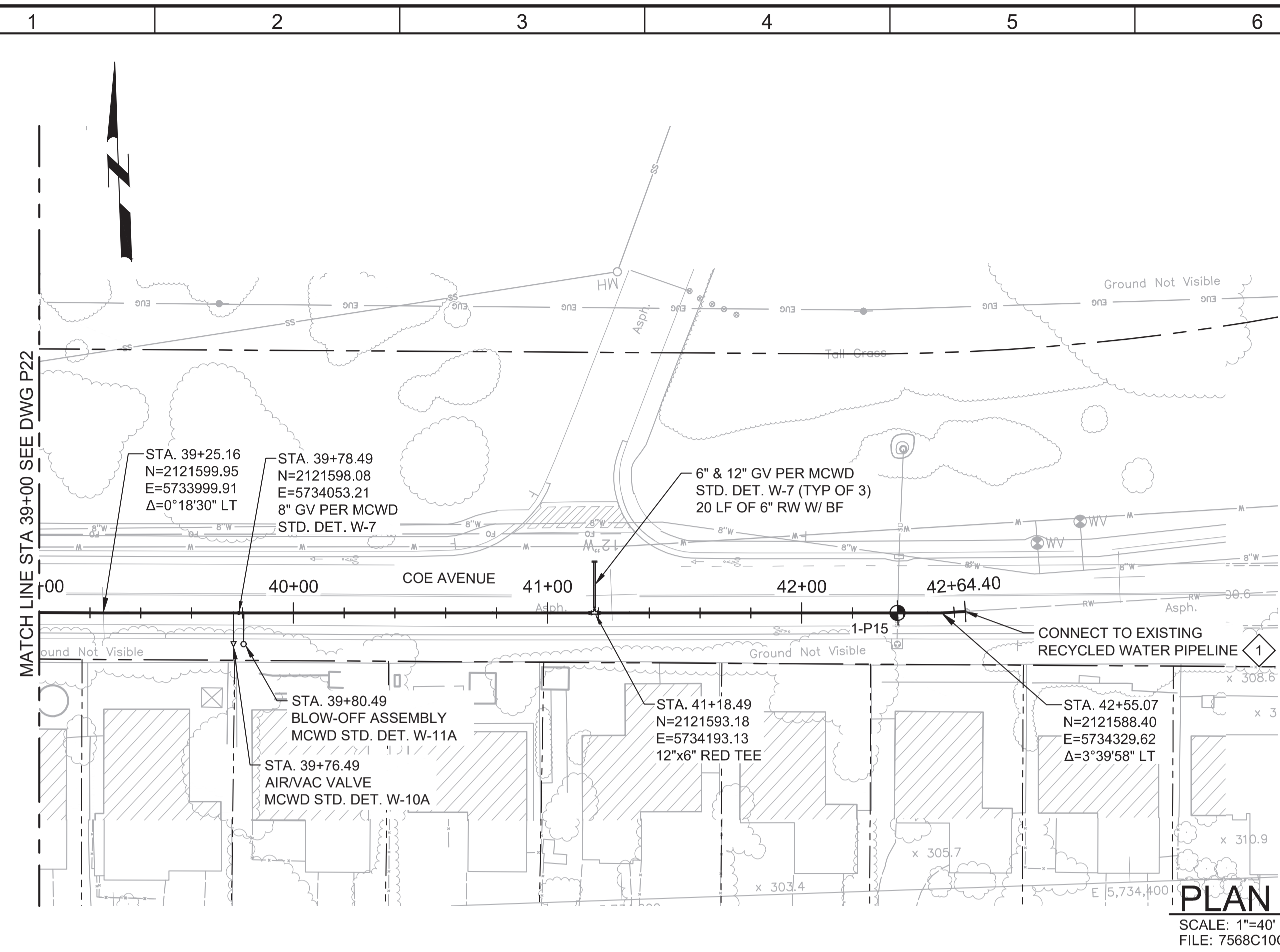
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P22 SHEET NO. 44 OF 58
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Plot Date: 1/25/2020 6:27:08 AM

FILE NAME: 7568C10P23.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



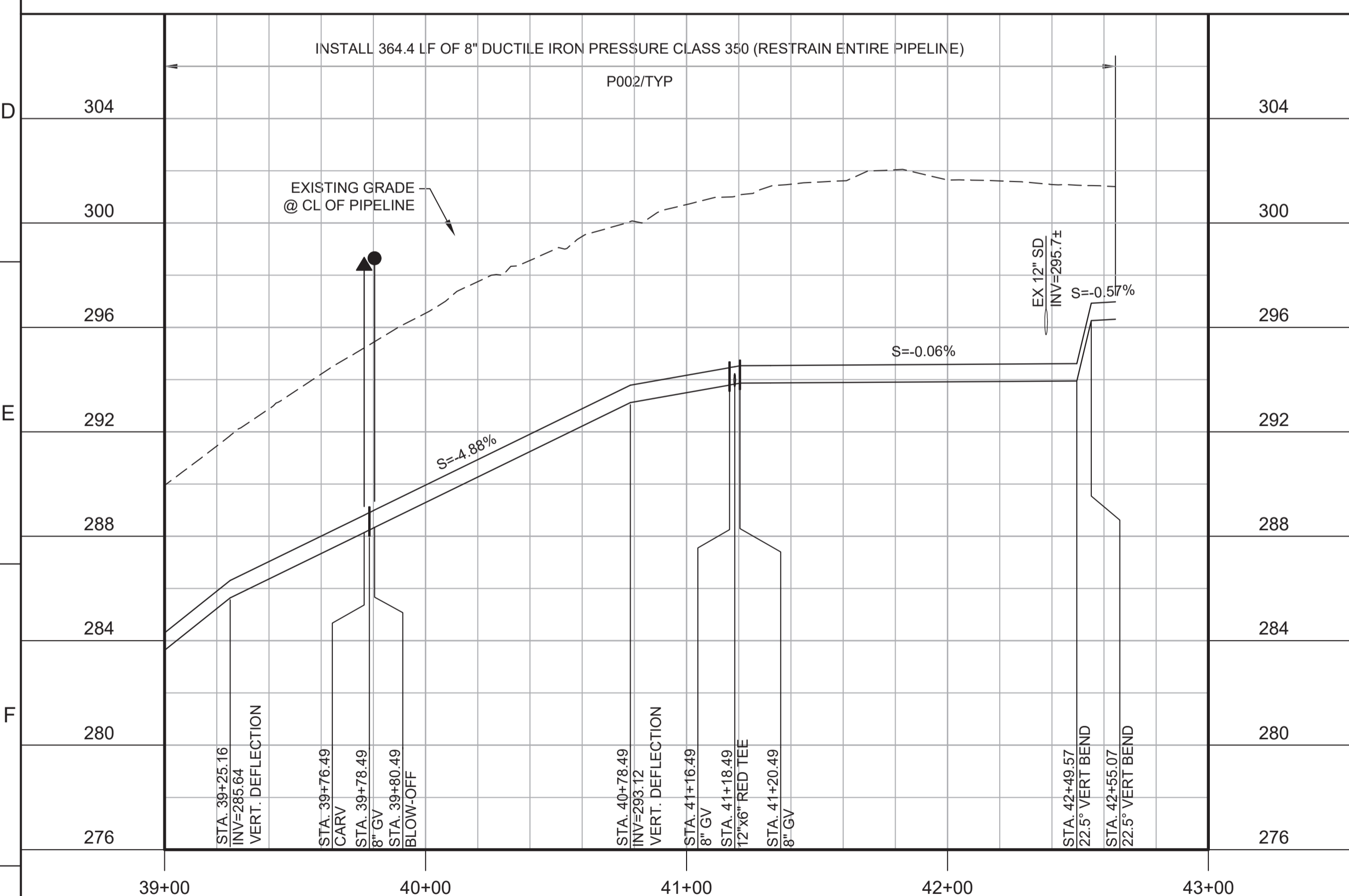
PLAN
 SCALE: 1"=40'
 FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.

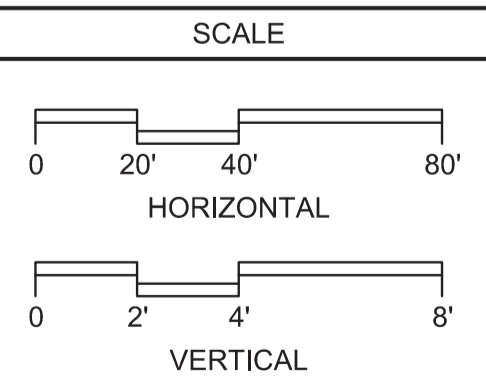
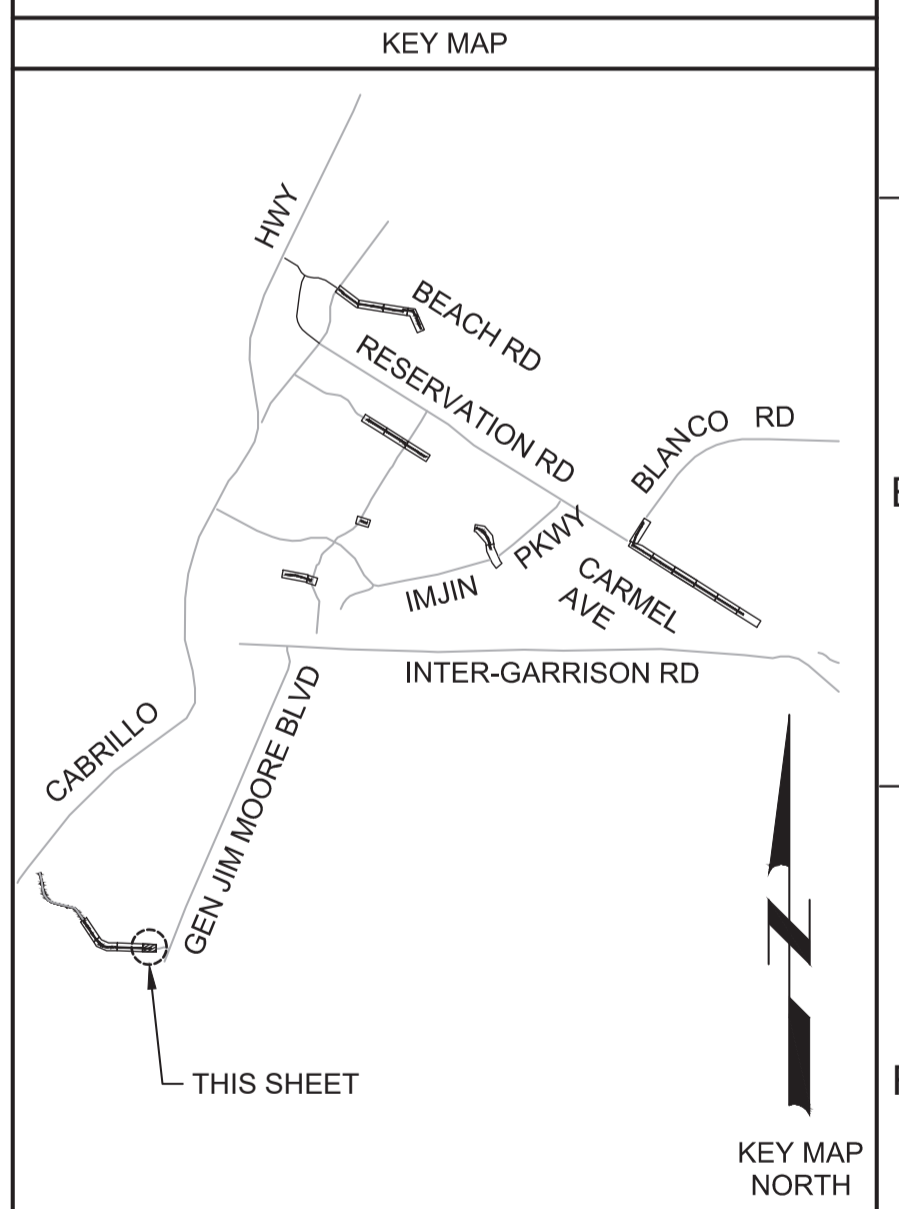
- KEY NOTES:**
- ① APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE, CAP AND CONNECT TO THE EXISTING PIPE WITH AN 8" x 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION RESTRAINTS.



Know what's below.
 Call before you dig.



PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'
 FILE: 7568C10C101



BID DOCUMENTS			
REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM/KMM	
DRAWN	
CHECKED	
DATE JANUARY 2020	

Digitally signed by Jonathan P. Marshall
 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:30:21 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
 RECYCLED WATER DISTRIBUTION MAINS
 CIVIL DISTRIBUTION MAIN
COE AVENUE
 STA 39+00 TO 42+64.40

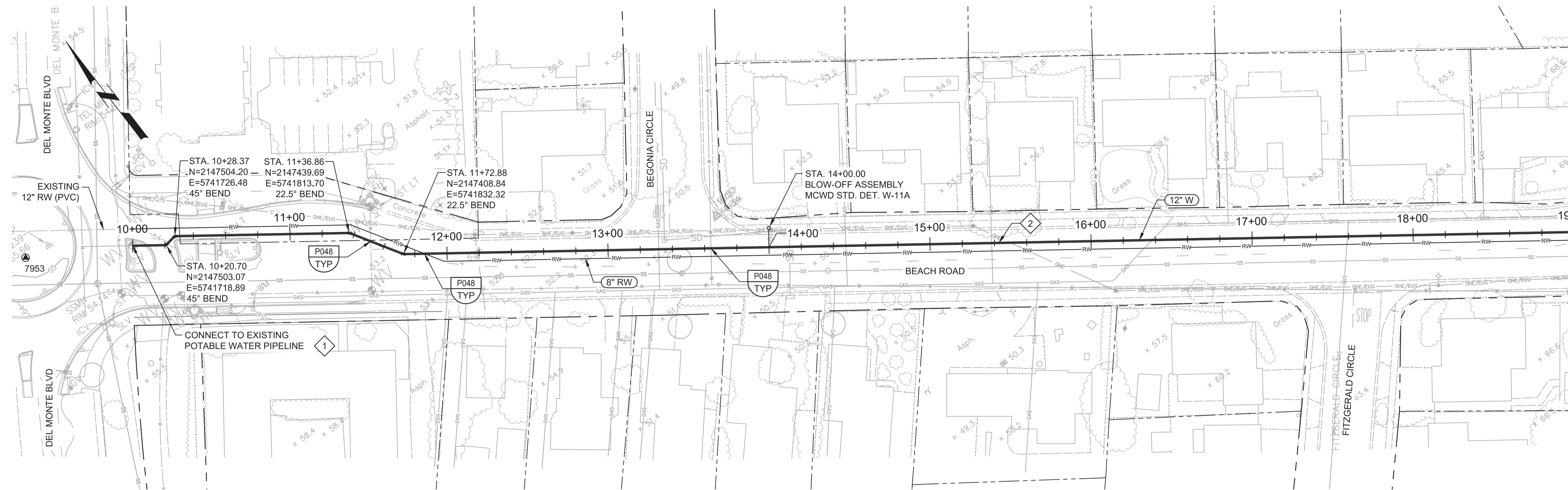
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P23 SHEET NO. 45 OF 58
--	---

Plot Date: 1/27/2020 6:07:43 PM

FILE NAME: 7568C10P24.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



PLAN
 SCALE: 1"=40'
 FILE: 7568C10C101

GENERAL NOTES:

1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
2. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
3. MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINE 1' LOWER THAN POTABLE WATER LINE.
4. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

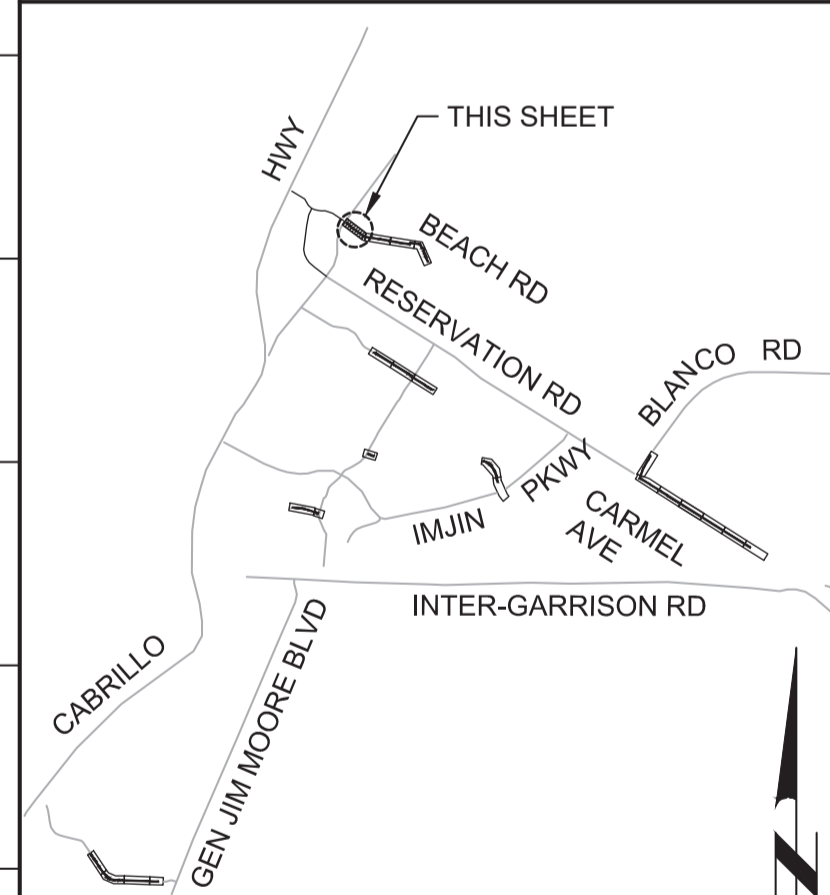
KEY NOTES:

1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 8 FT DEEP AND ENCLOSED IN A CASING. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH RESTRAINED TRANSITION COUPLING.

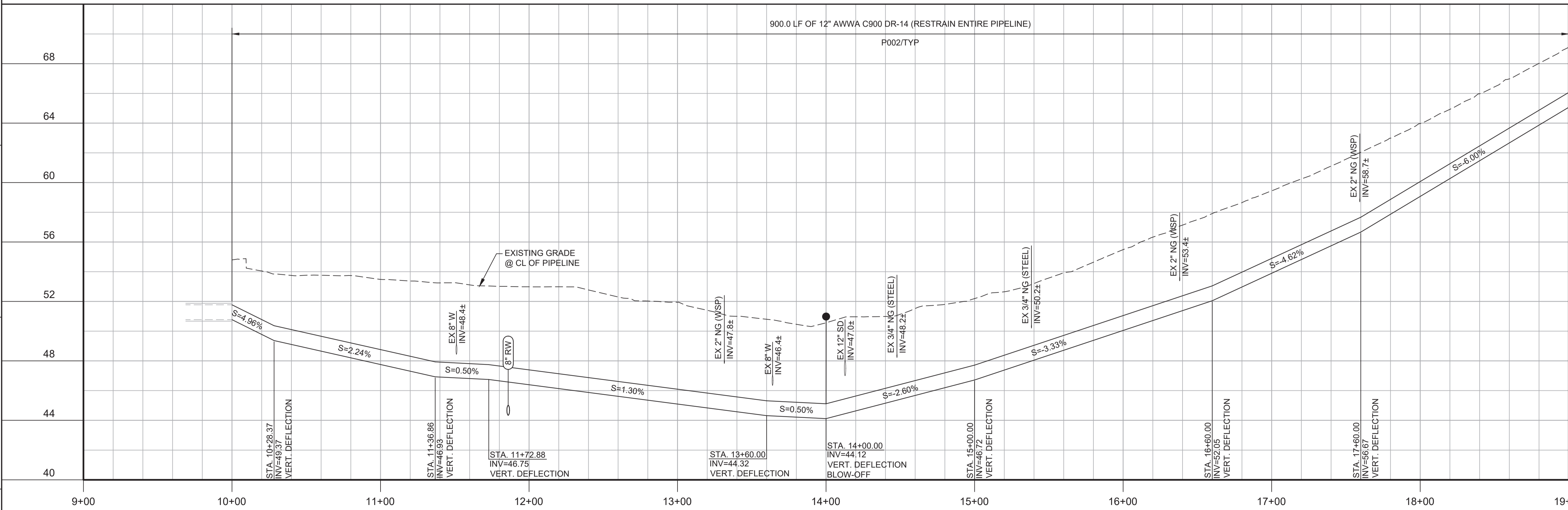
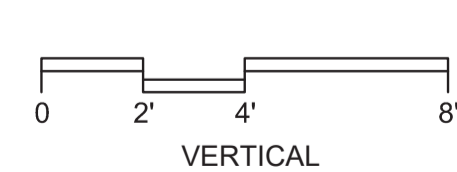
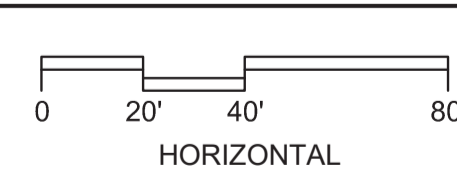


Know what's below.
 Call before you dig.

KEY MAP



SCALE



PROFILE
 HORIZ SCALE: 1"=40'
 VERT SCALE: 1"=4'
 FILE: 7568C10C101

REV	DATE	BY	DESCRIPTION
1			
2			
3			

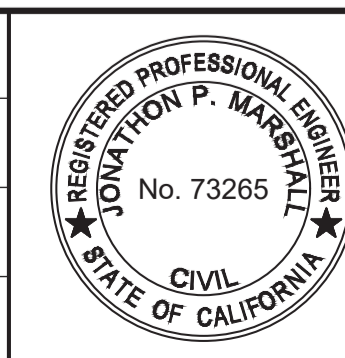
BID DOCUMENTS

DESIGNED
JPM/KMM

DRAWN
AL/BWH

CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
 Contact Info: Carollo Engineers, Inc.
 Date: 2020.01.30 16:28:52 -0800



Marina Coast Water District

CAPITAL IMPROVEMENT PROGRAM

POTABLE WATER MAINS

CIVIL WL DISTRIBUTION MAIN

BEACH ROAD

STA 10+00 TO 19+00

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.
7568C.10

DRAWING NO.
P24

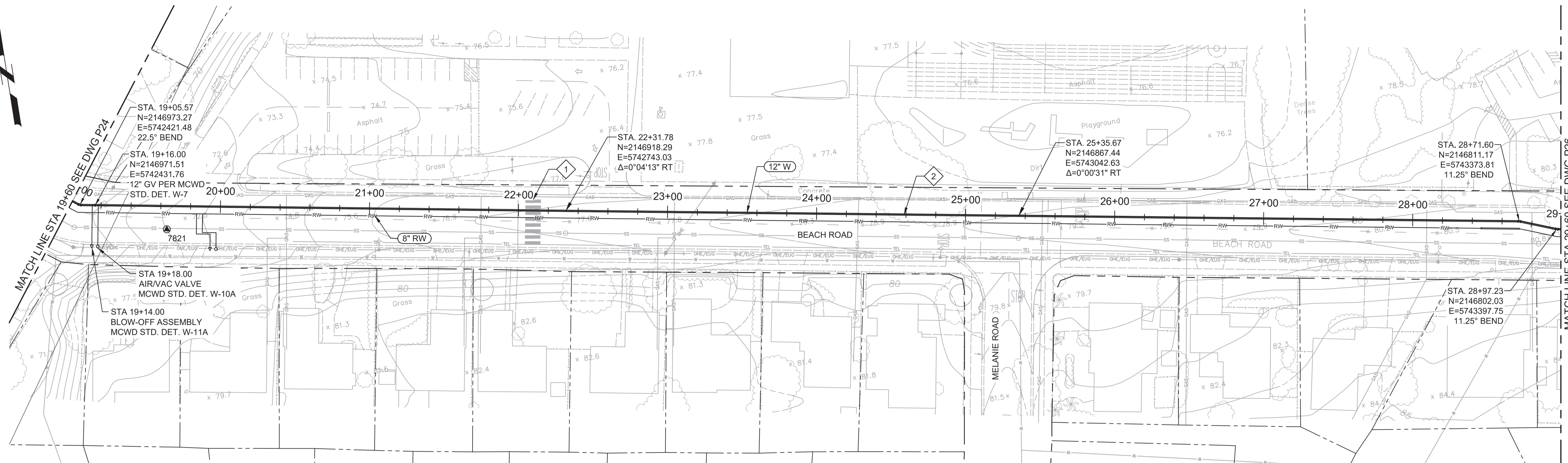
SHEET NO.
46 OF 58

Plot Date: 1/27/2020 6:10:18 PM

FILE NAME: 7568C10P25.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



PLAN
SCALE: 1"=40'
FILE: 7568C10C101

GENERAL NOTES:

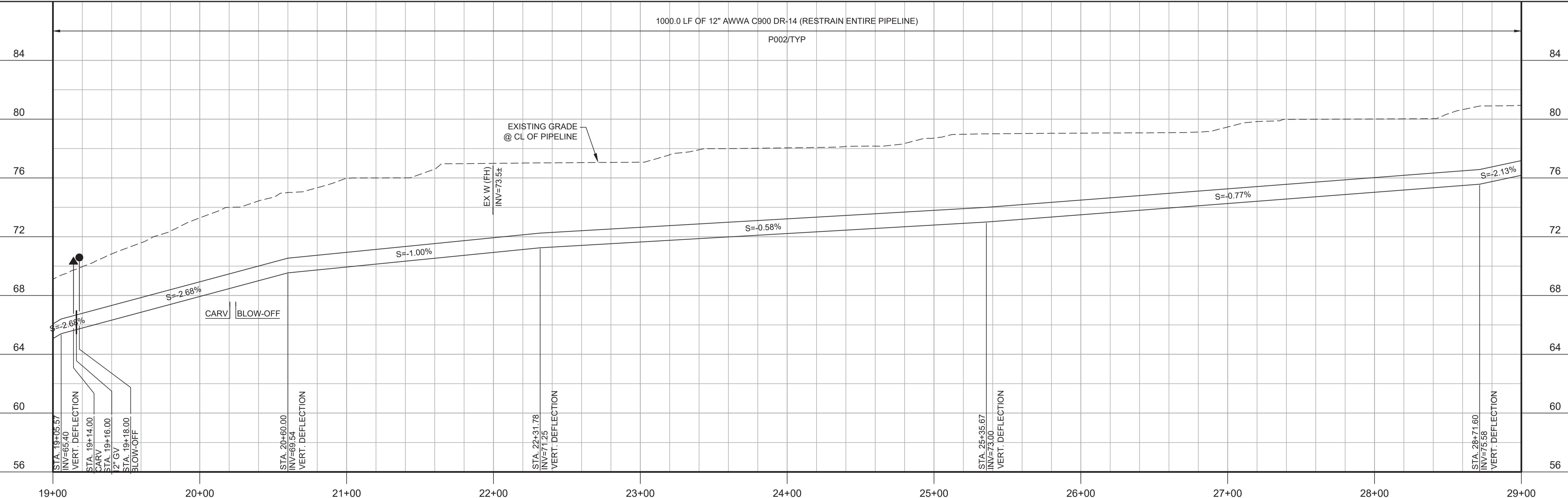
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
2. ARBORIST SHALL PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
3. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
3. MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
4. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE MANUFACTURER'S ALLOWABLE JOINT OR PIPE BARREL DEFLECTION.

KEY NOTES:

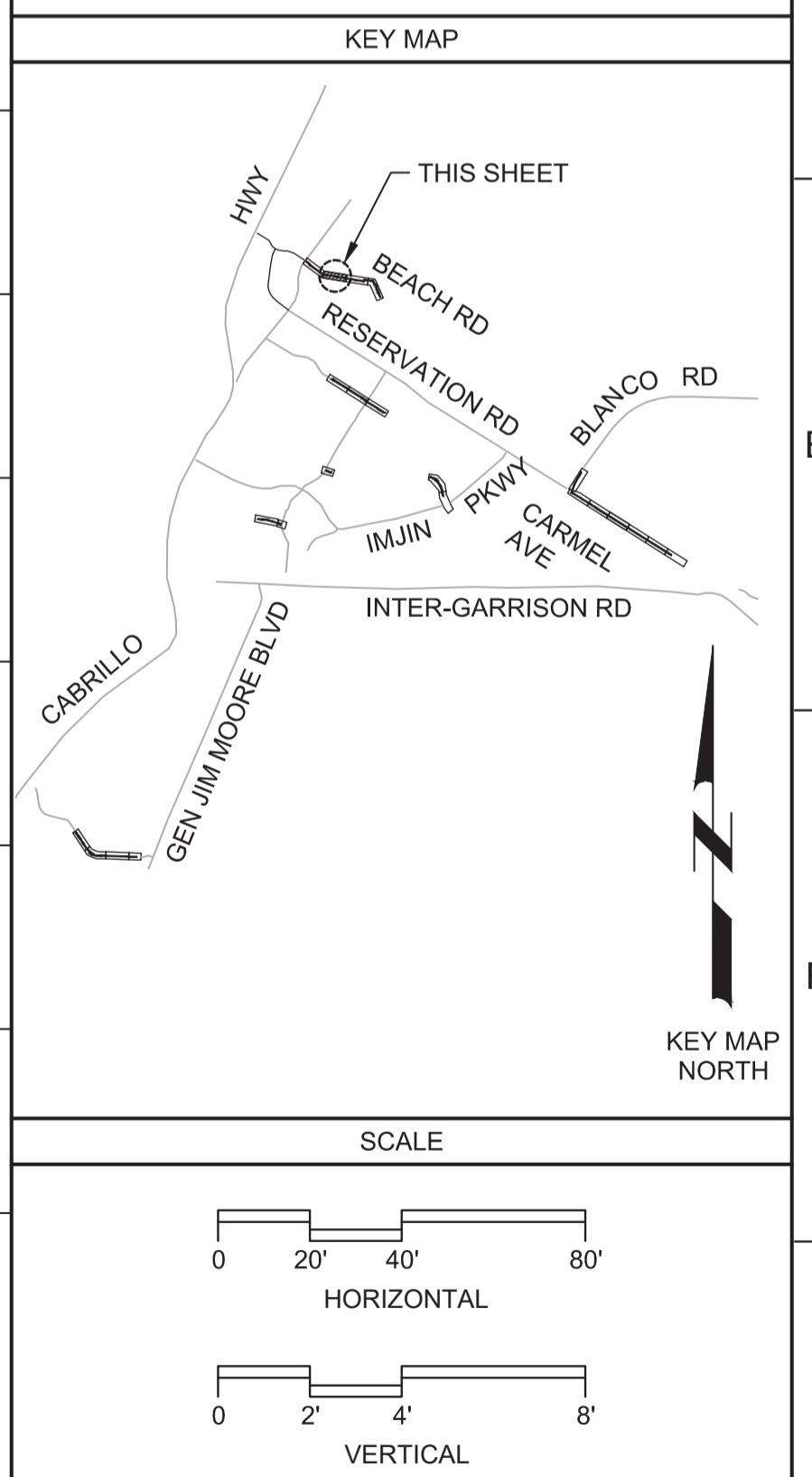
- 1. PROTECT EXISTING CROSSWALK LIGHTING IN PLACE. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGES TO THE LIGHTING SYSTEM.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



BID DOCUMENTS			
REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED
JPM/KMM
DRAWN
AL/BWH
CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:28:30 -0800



Marina Coast Water District

CAPITAL IMPROVEMENT PROGRAM
POTABLE WATER MAINS
CIVIL WL DISTRIBUTION MAIN
BEACH ROAD
STA 19+00 TO 29+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

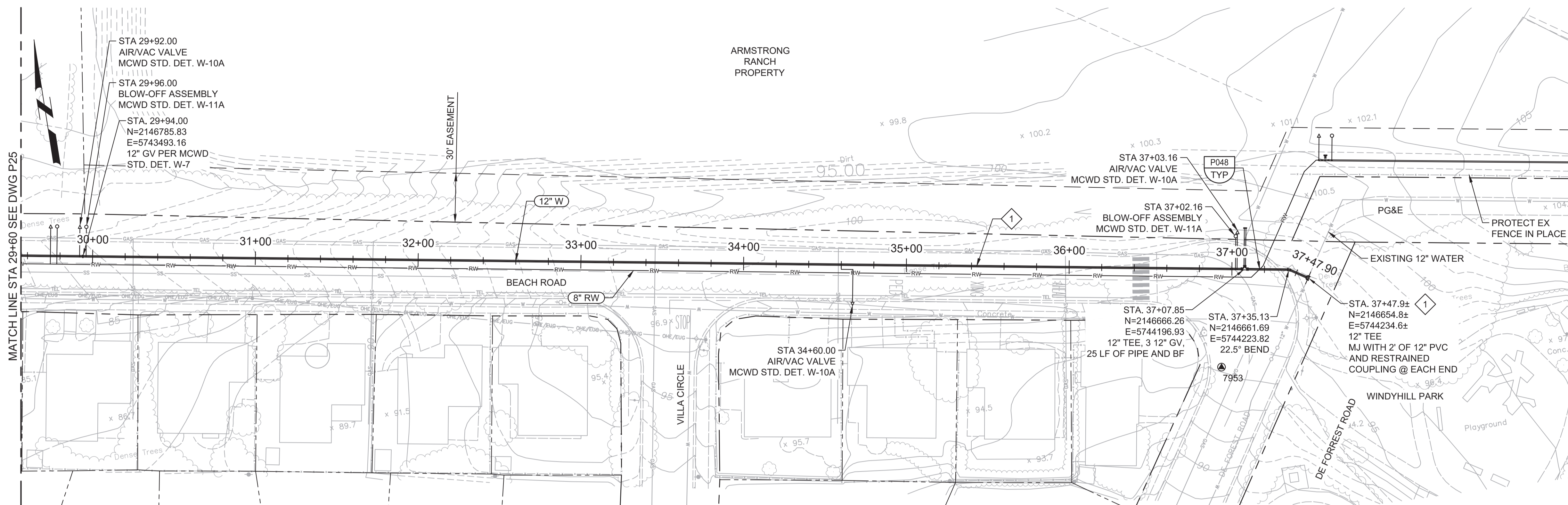
JOB NO.
7568C.10
DRAWING NO.
P25
SHEET NO.
47 OF 58

Plot Date: 1/27/2020 6:35:03 PM

FILE NAME: 7568C10P26.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



PLAN
SCALE: 1"=40'
FILE: 7568C10C101

GENERAL NOTES:

1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
2. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
3. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
4. ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562. PIPE SHALL BE INSTALLED TO THE DEPTH SHOWN ON THE DRAWINGS AS BEST POSSIBLE. IN AREAS WHERE THE ARBORIST DETERMINES THAT THE REQUIRED DEPTH CANNOT BE ACHIEVED DUE TO CONFLICTS WITH ROOTS, CONTRACTOR SHALL INSTALL THE PIPE SHALLOWER WITH A CONCRETE ENCASEMENT. THE CONTRACTOR SHALL CONFER WITH THE CONSTRUCTION MANAGER PRIOR TO ANY DESIGN CHANGES BEING MADE.

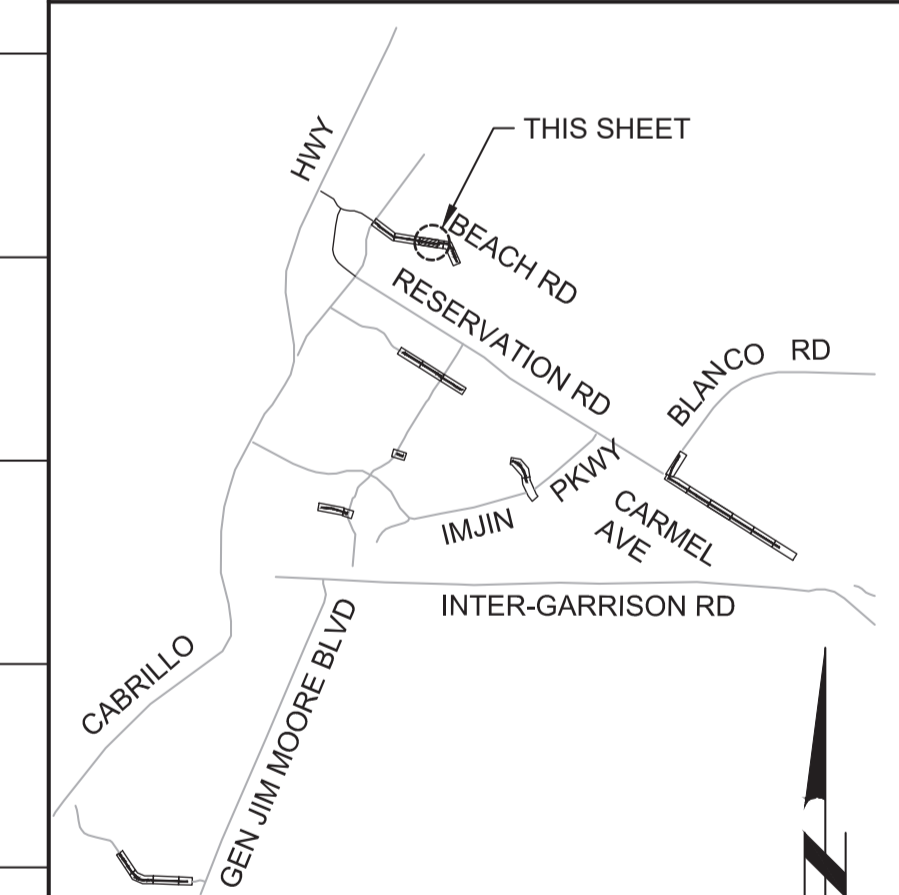
KEY NOTES:

1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. CONNECT TO THE EXISTING PIPE.
2. CONTRACTOR TO PROTECT NG PIPELINE IN PLACE.

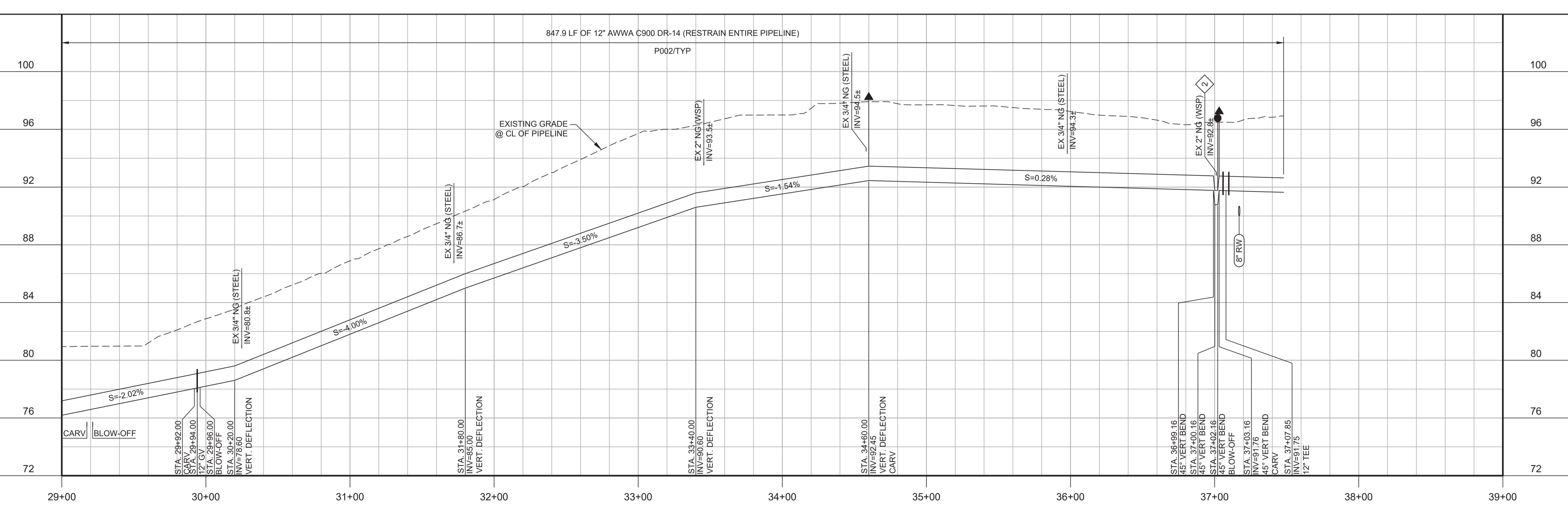
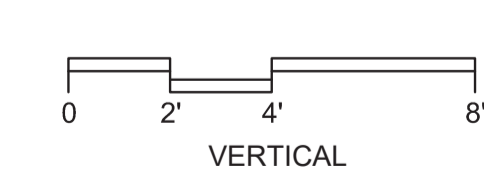
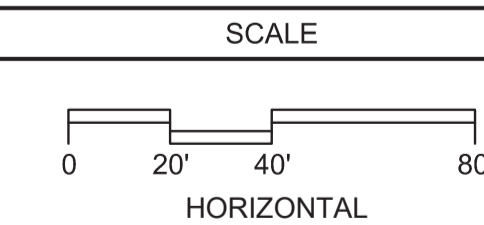


Know what's below.
Call before you dig.

KEY MAP



SCALE



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101

BID DOCUMENTS

DESIGNED
JPM/KMM
DRAWN
AL/BWH
CHECKED

DATE
JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:28:08 -0800



Marina Coast Water District

CAPITAL IMPROVEMENT PROGRAM
POTABLE WATER MAINS
CIVIL WL DISTRIBUTION MAIN
BEACH ROAD
STA 29+00 TO 37+47.90

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
DRAWING NO. P26
SHEET NO. 48 OF 58

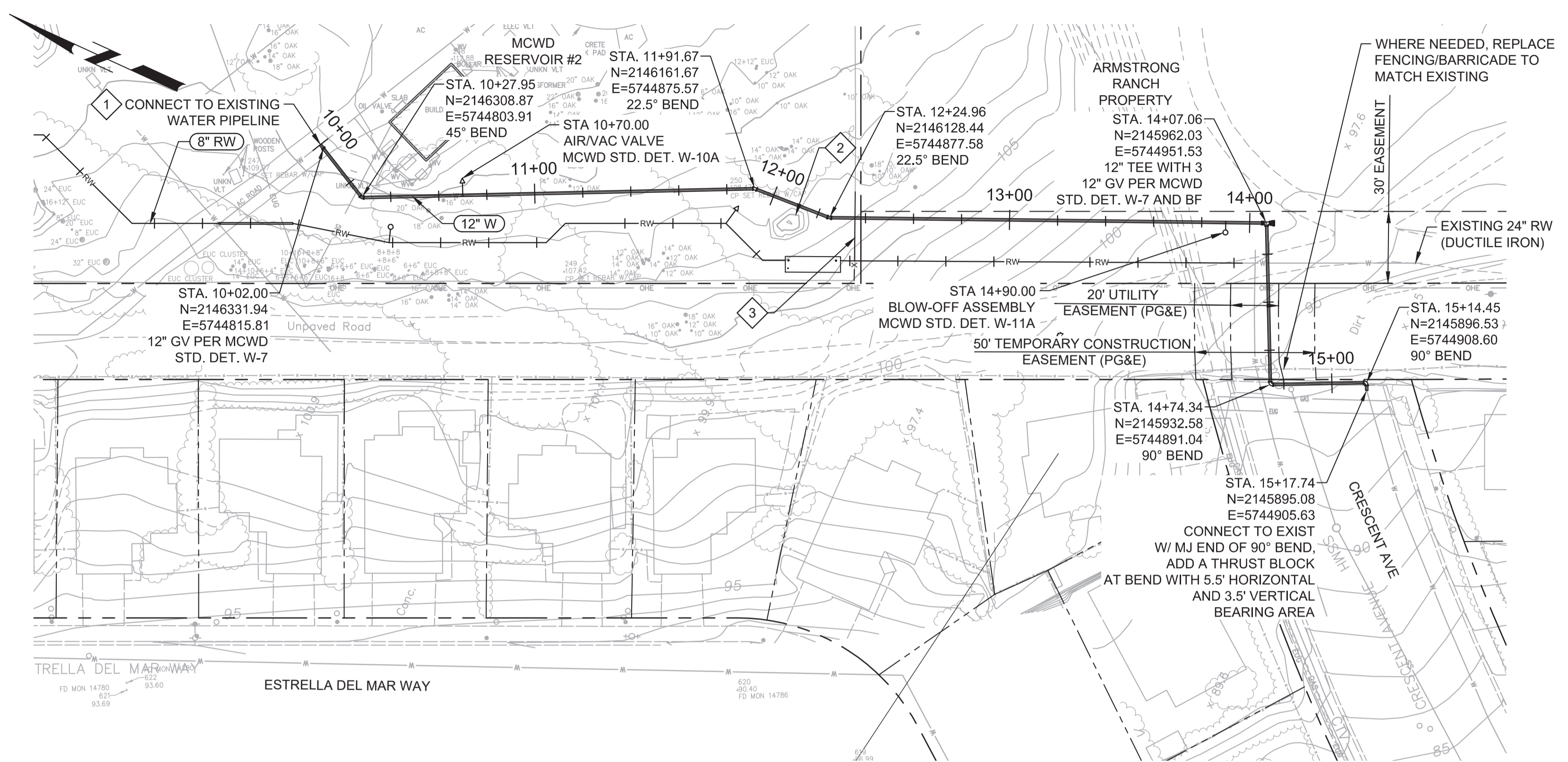
REV	DATE	BY	DESCRIPTION
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Plot Date: 1/27/2020 6:41:44 PM

FILE NAME: 7568C10P27.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



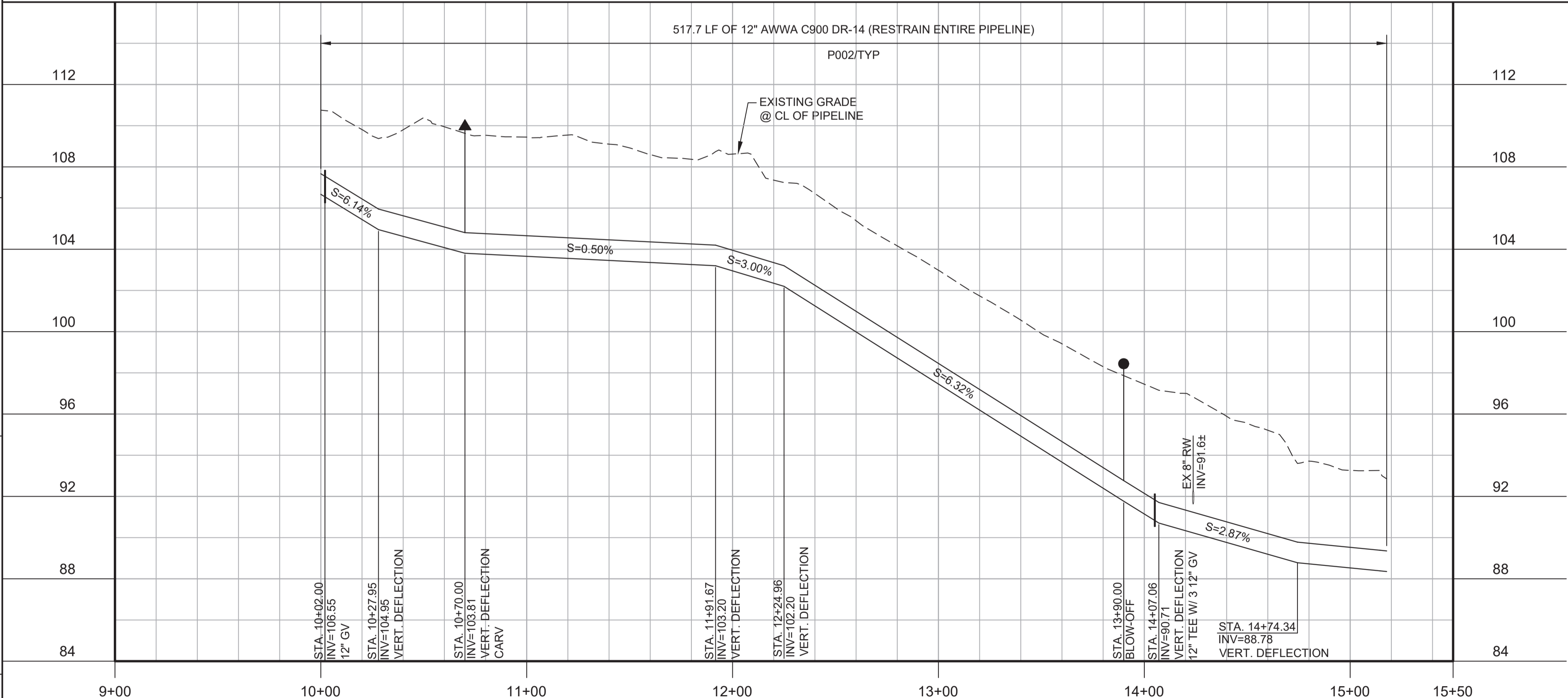
PLAN
SCALE: 1"=40'
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
 - CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
 - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
 - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
 - MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
 - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

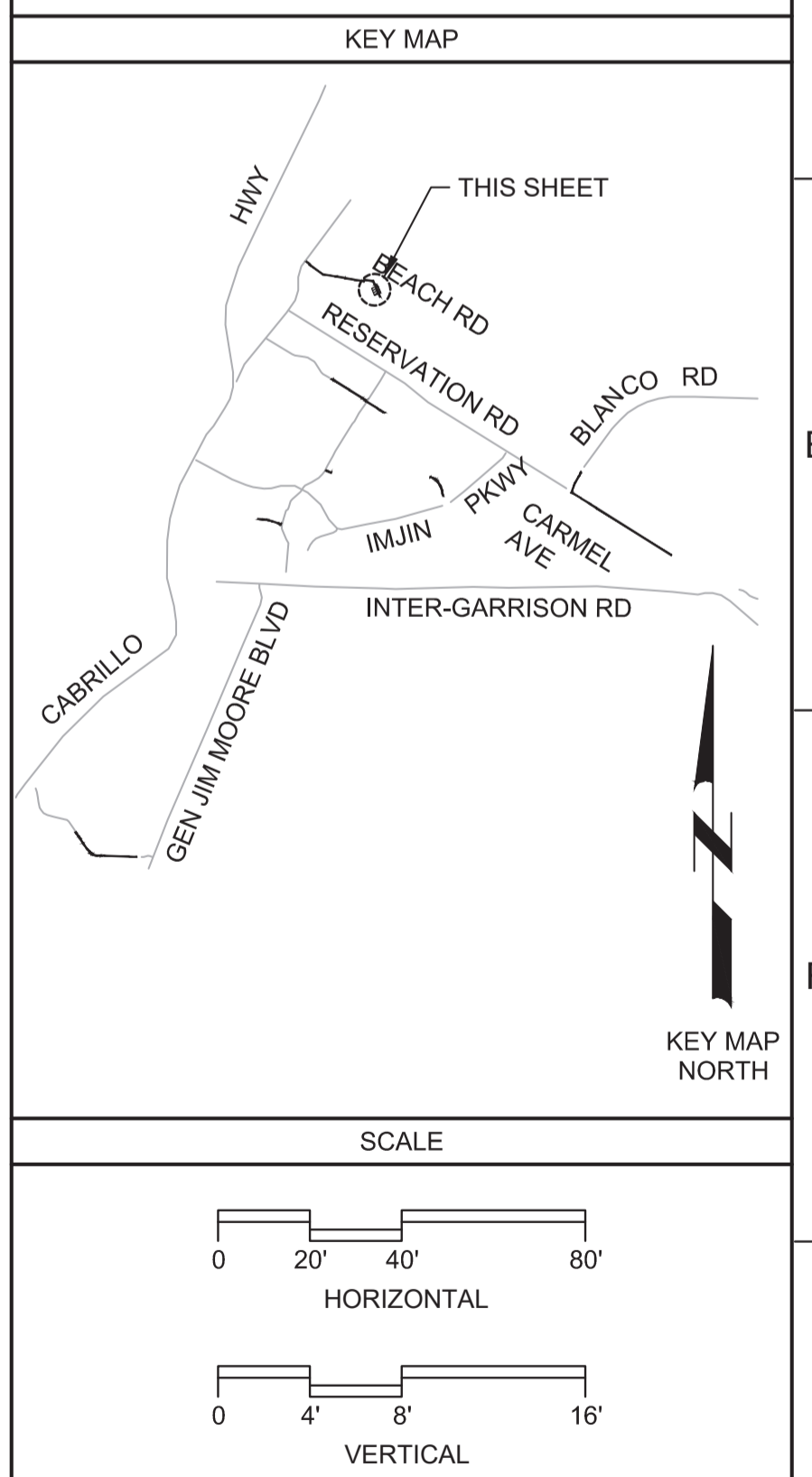
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POT HOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 8" X 24" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS AND 8" GV.
 - REMOVE EXISTING DIRT PILE AND MATCH AREA GRADE TO SURROUNDING AREA.
 - INSTALL 30" WIDE GATE PER C190/TC01.



Know what's below.
Call before you dig.



PROFILE
HORIZ SCALE: 1"=40'
VERT SCALE: 1"=4'
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
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BID DOCUMENTS

DESIGNED
JPM/KMM

DRAWN
AL/BWH

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DATE
JANUARY 2020



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:28:38 -0800



Marina Coast Water District

CAPITAL IMPROVEMENT PROGRAM

POTABLE WATER MAINS

CIVIL DISTRIBUTION MAIN

RESERVOIR 2 TO CRESCENT AVE

STA 10+00 TO 15+17.74

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10

DRAWING NO. **P27**

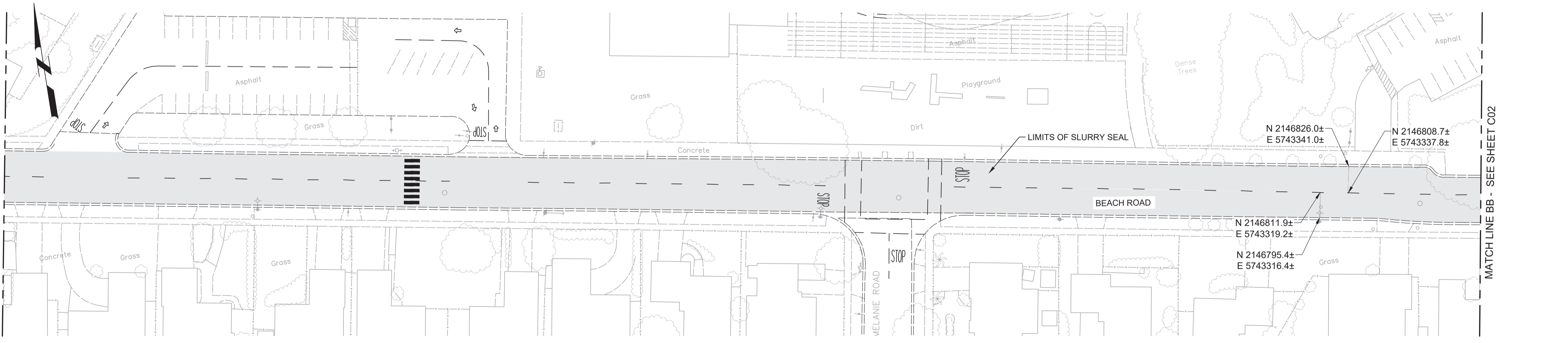
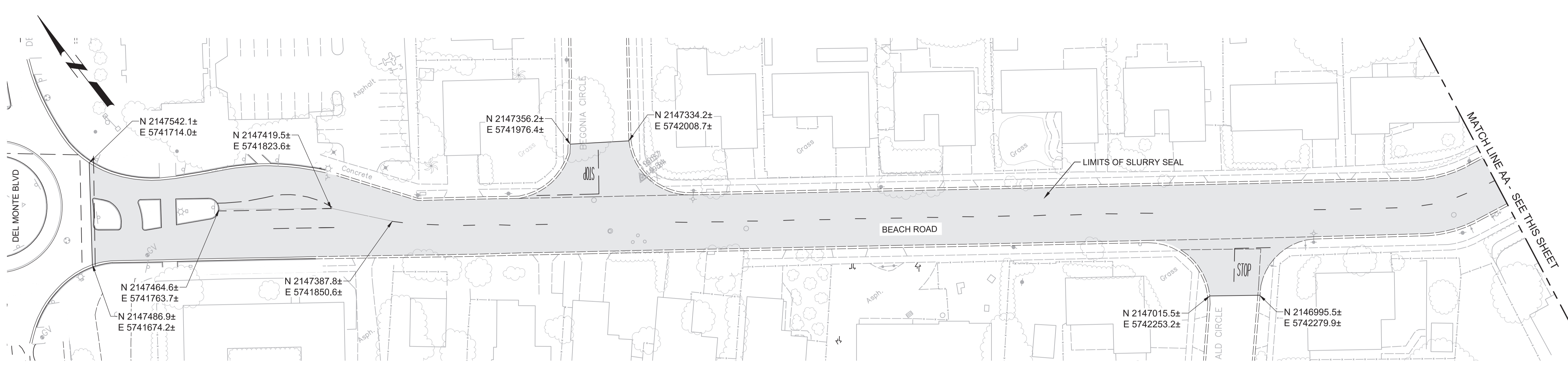
SHEET NO. 49 OF 58

Plot Date: 1/25/2020 8:38:15 AM

FILE NAME: 7568C10C01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



LEGEND

SLURRY SEAL

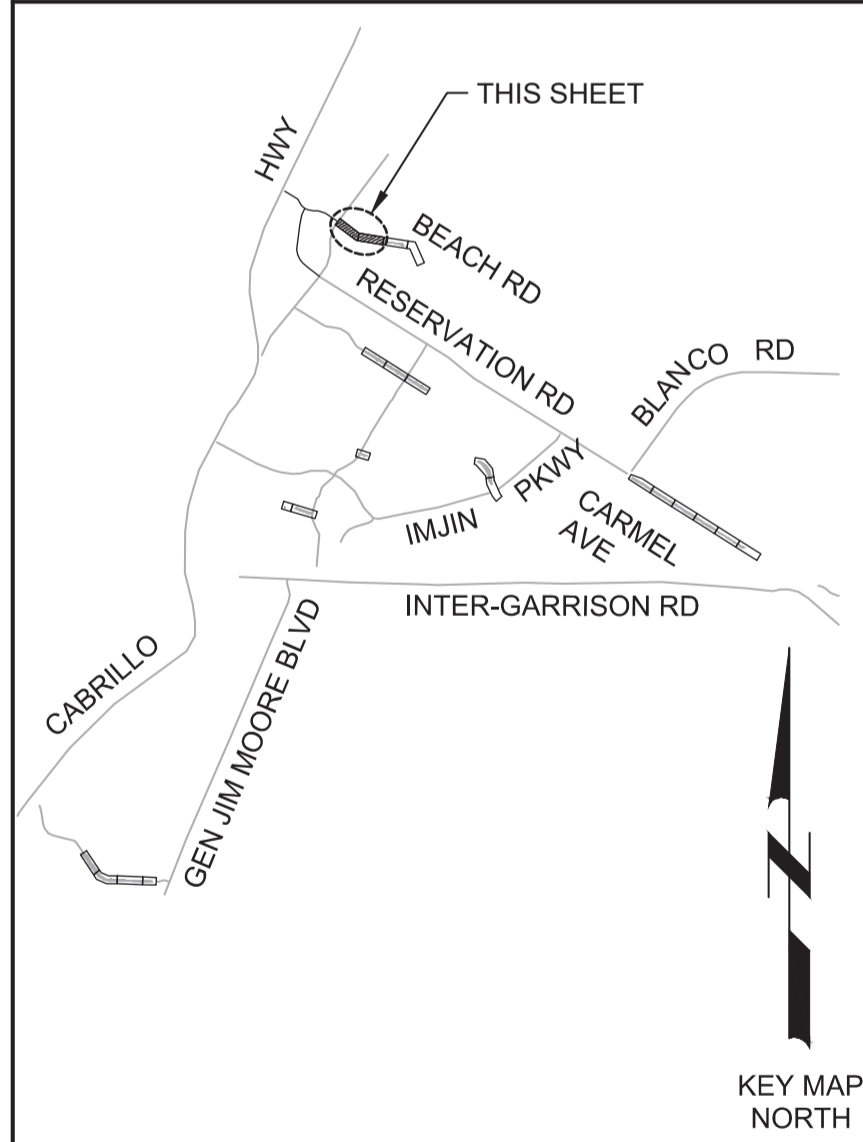
GENERAL NOTES:

1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA STANDARD SPECIFICATIONS AND PLANS.
2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.

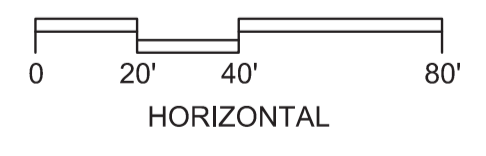


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KEY MAP



SCALE



BID DOCUMENTS

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 CHECKED AP
 DATE JANUARY 2020



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 Date: 2020.01.30 16:28:16 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
 RECYCLED WATER DISTRIBUTION MAINS
 CIVIL
 PAVING PLAN - BEACH ROAD 1

VERIFY SCALES
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JOB NO. 7568C.10
 DRAWING NO. C01
 SHEET NO. 50 OF 58

REV	DATE	BY	DESCRIPTION
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Plot Date: 1/25/2020 8:45:40 AM

FILE NAME: 7568C10C02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

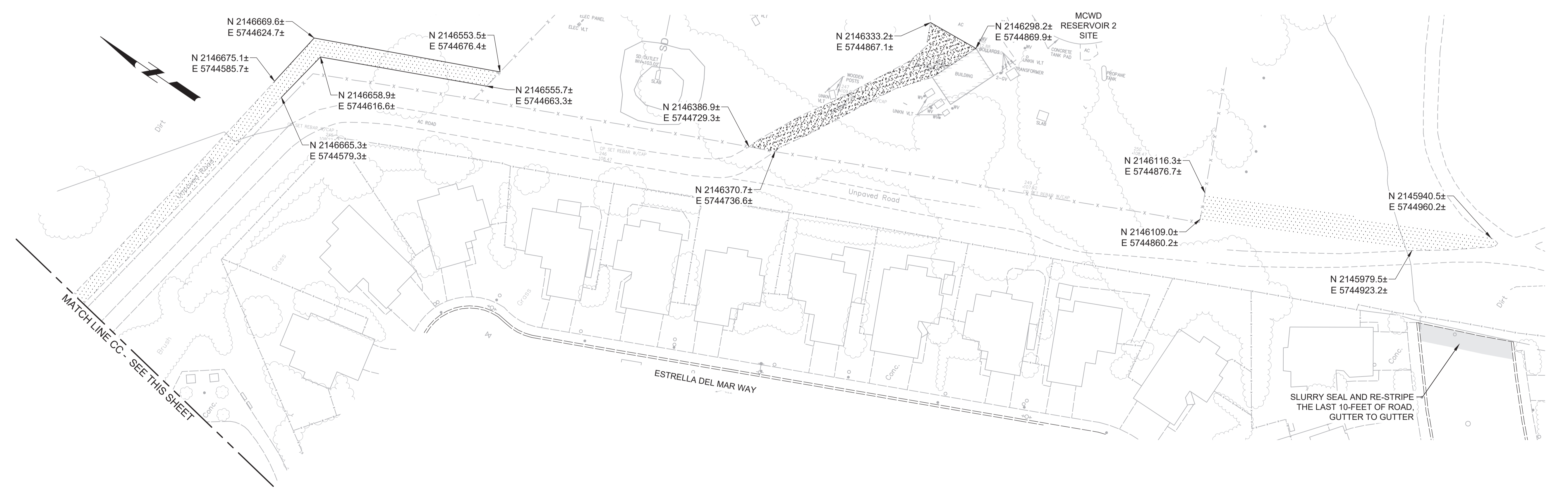
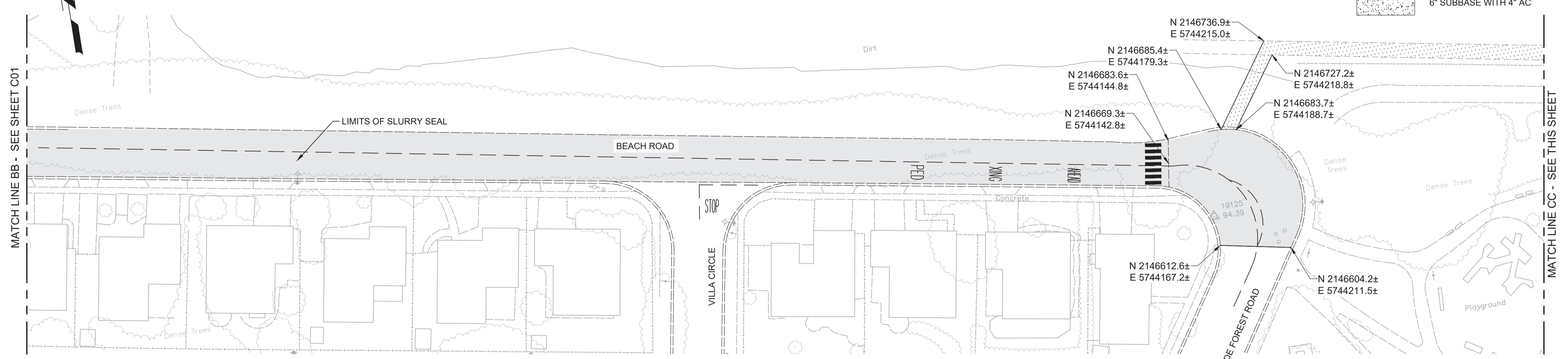
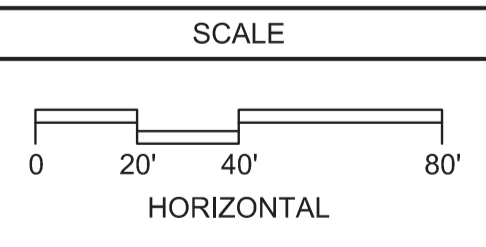
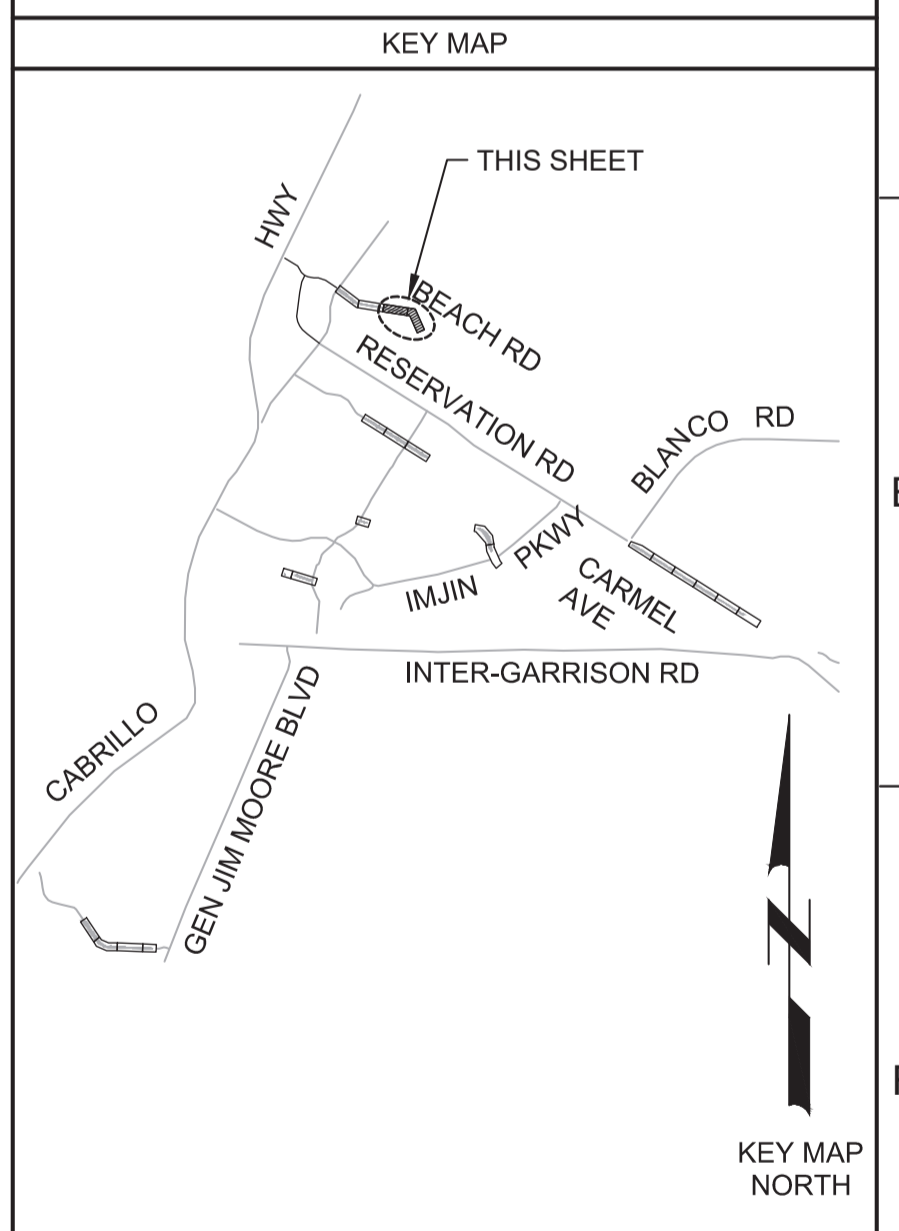
LEGEND

- SLURRY SEAL
- 2" AGGREGATE BASE COURSE
- 6" SUBBASE WITH 4" AC

- GENERAL NOTES:**
- INSTALL SLURRY SEAL AGGREGATE BASE COURSE AND AC PAVING IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA AND MCWD STANDARD SPECIFICATIONS AND PLANS.
 - PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
 - PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
 - ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK ALONG BEACH RD SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.



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Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:27:53 -0800



Marina
Coast
Water
District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL
PAVING PLAN - BEACH ROAD 2

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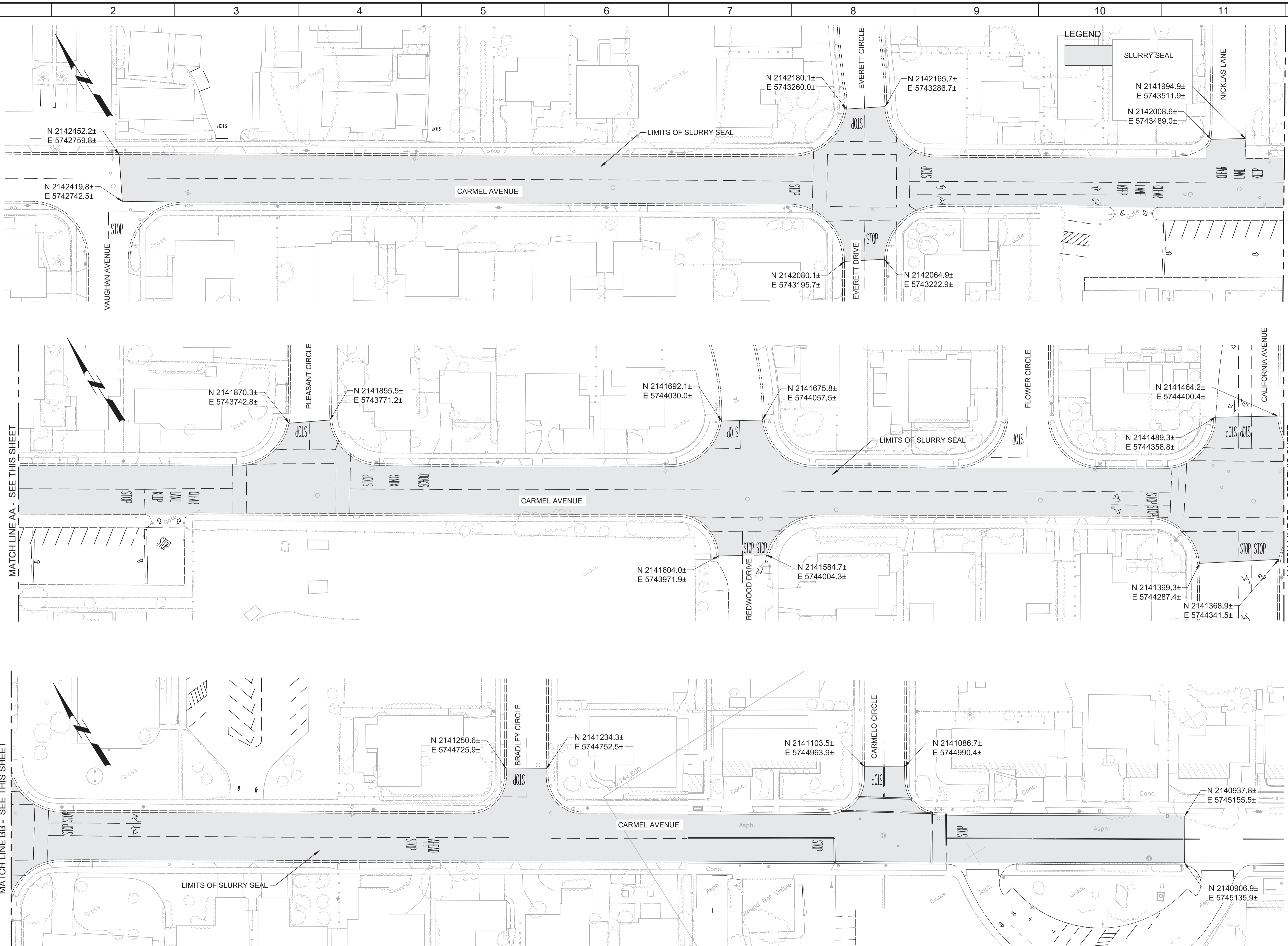
JOB NO.
7568C10
DRAWING NO.
C02
SHEET NO.
51 OF 58

Plot Date: 1/25/2020 8:48:07 AM

FILE NAME: 7568C10C03.dwg

PROJECT NO. 7568C10

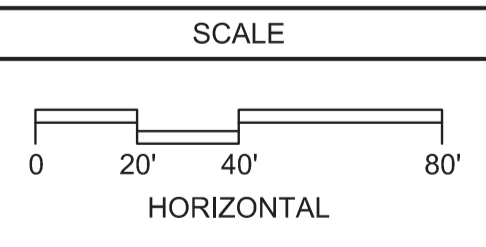
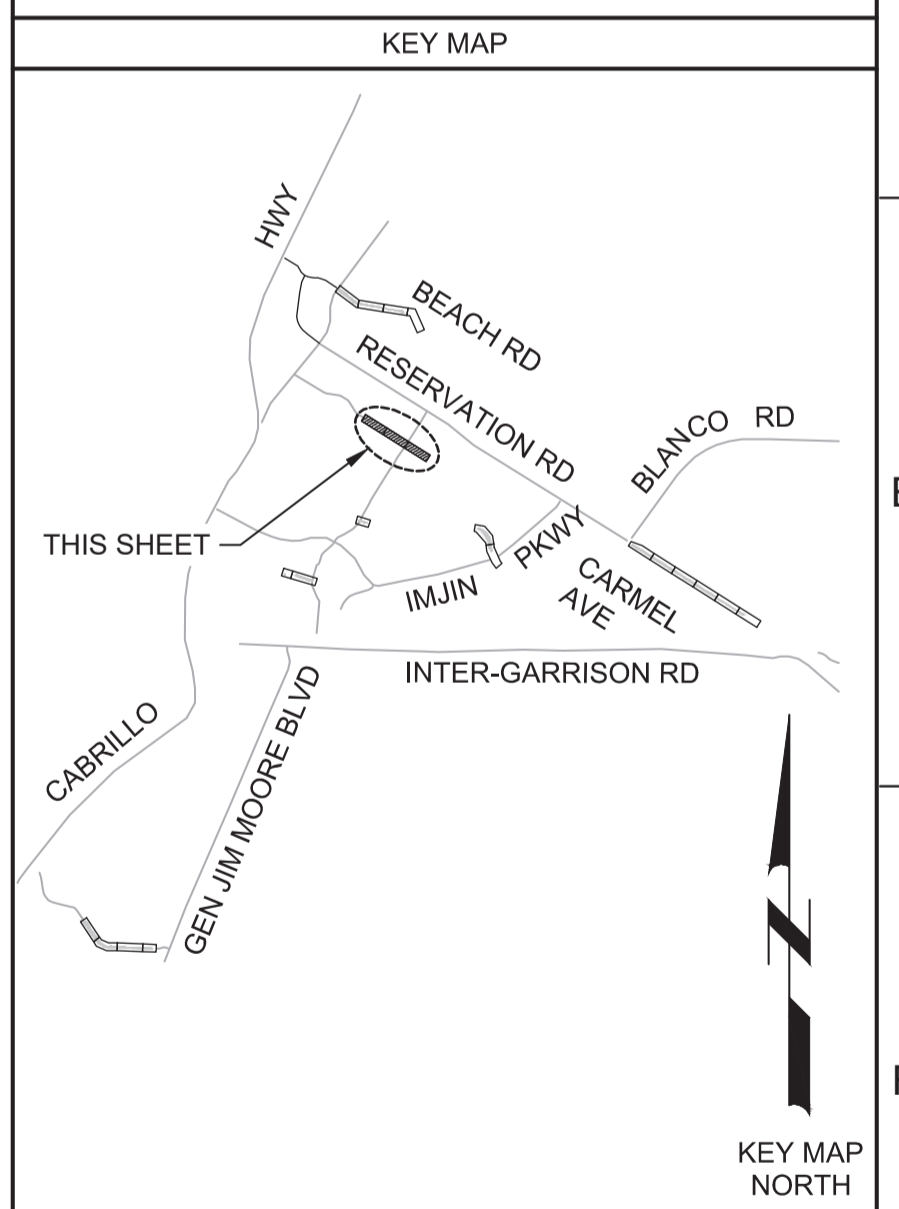
LAST SAVED BY: bhawes



- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA STANDARD SPECIFICATIONS AND PLANS.
 2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
 3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
 4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.



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Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

PAVING PLAN - CARMEL AVENUE

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JOB NO. 7568C.10

DRAWING NO. C03

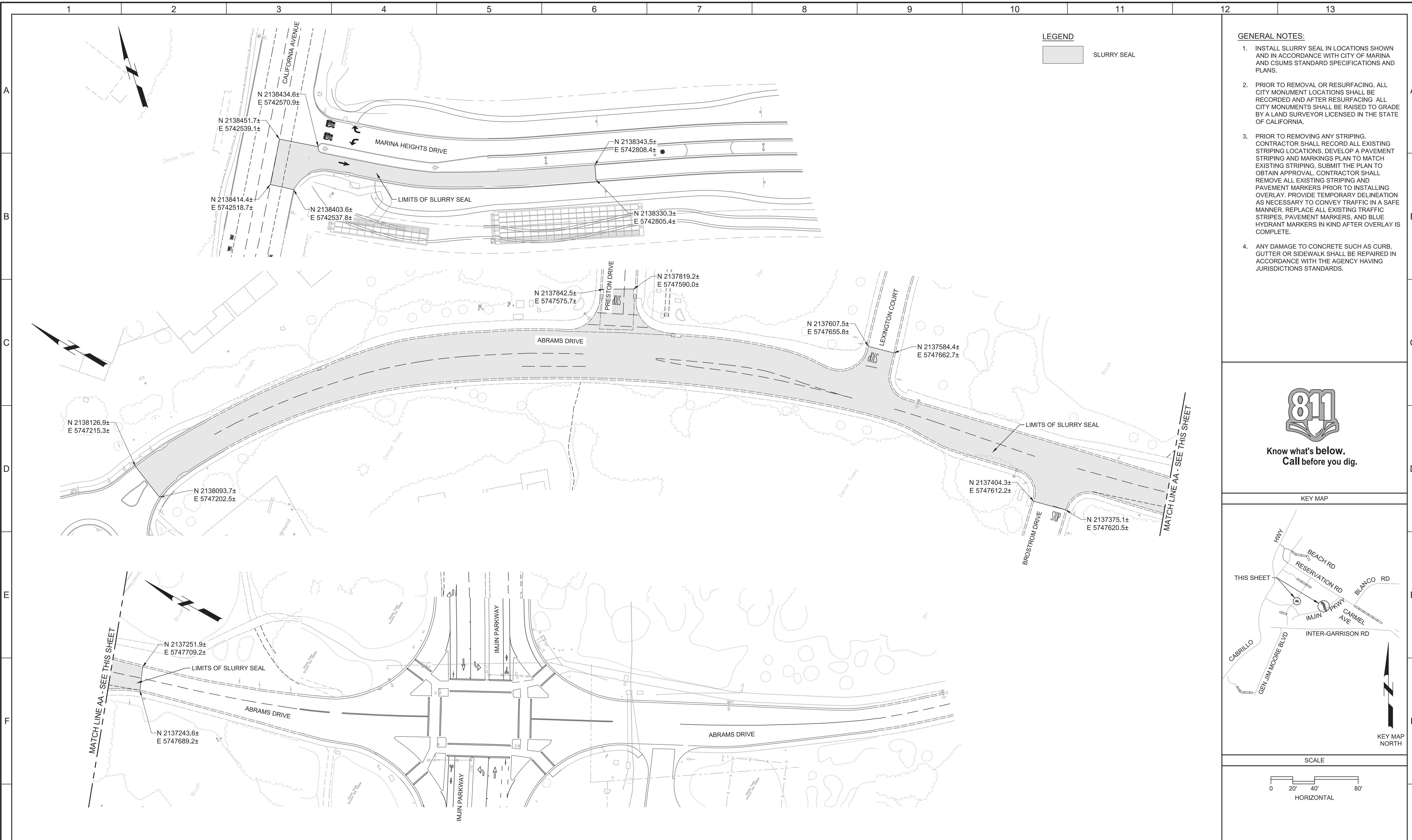
SHEET NO. 52 OF 58

Plot Date: 1/25/2020 8:51:34 AM

FILE NAME: 7568C10C04.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



LEGEND

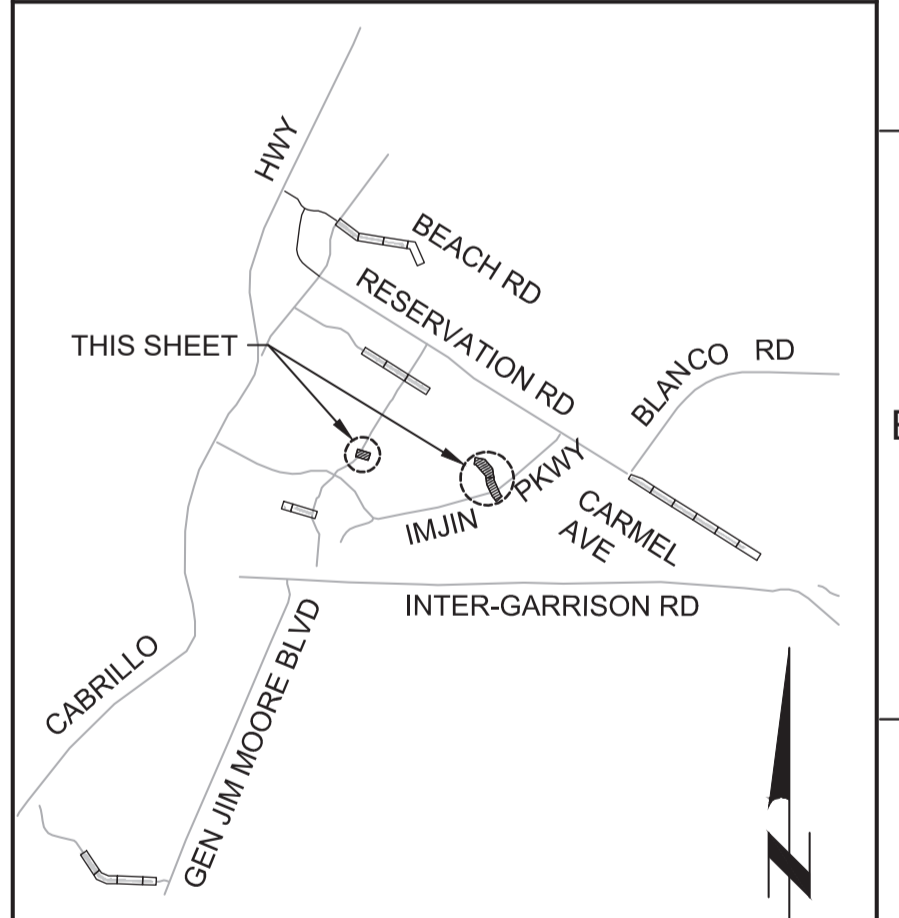
SLURRY SEAL

- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA AND CSUMS STANDARD SPECIFICATIONS AND PLANS.
 2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
 3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
 4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE AGENCY HAVING JURISDICTIONS STANDARDS.

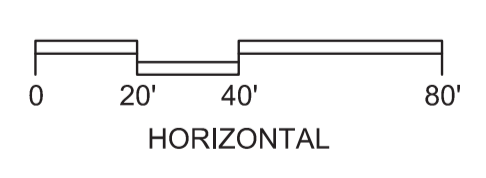


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KEY MAP



SCALE



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Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL
PAVING PLAN - MARINA HEIGHTS DRIVE AND ABRAMS DRIVE

VERIFY SCALES
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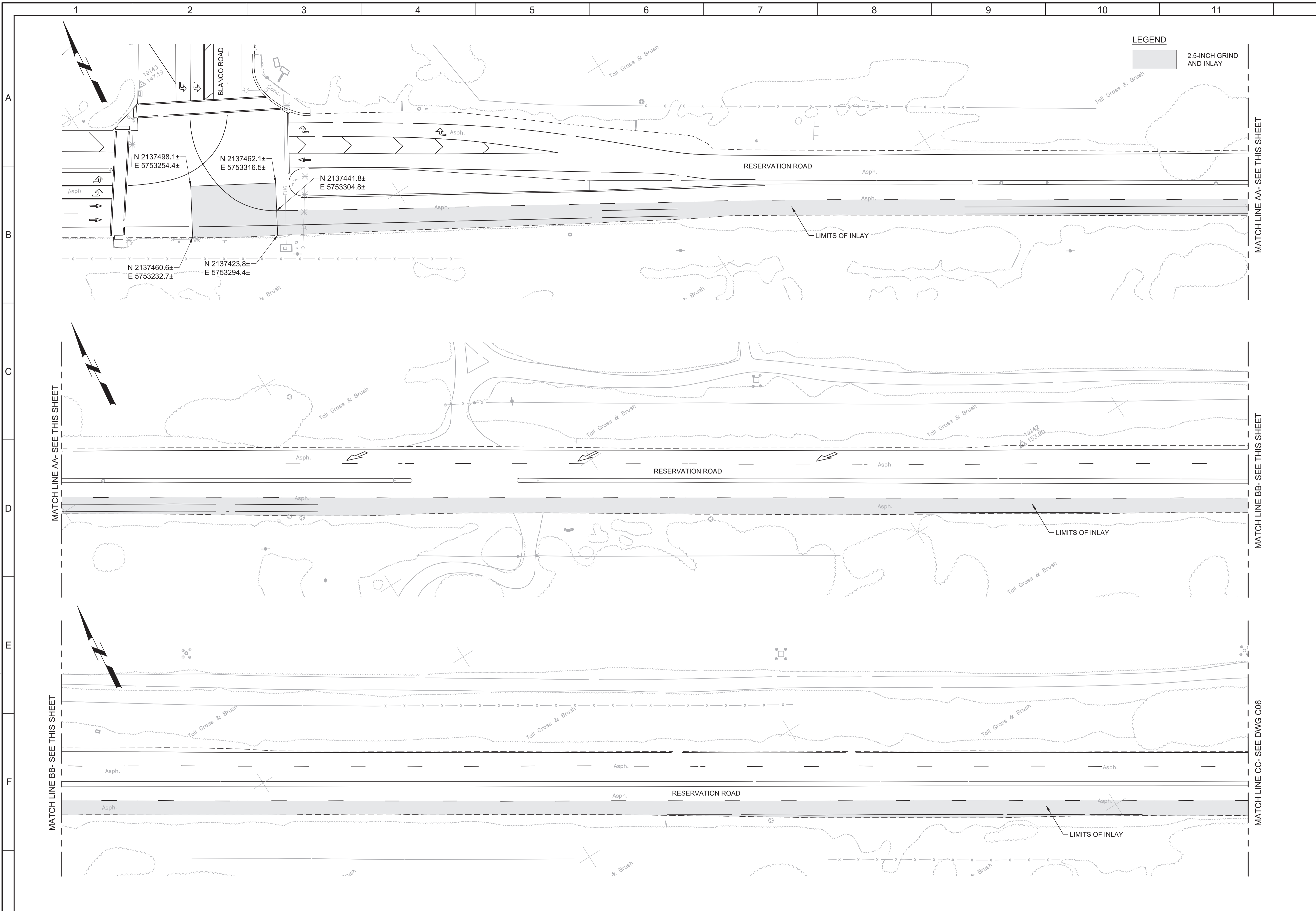
JOB NO. 7568C.10
DRAWING NO. C04
SHEET NO. 53 OF 58

Plot Date: 1/25/2020 9:06:05 AM

FILE NAME: 7568C10C05.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



LEGEND

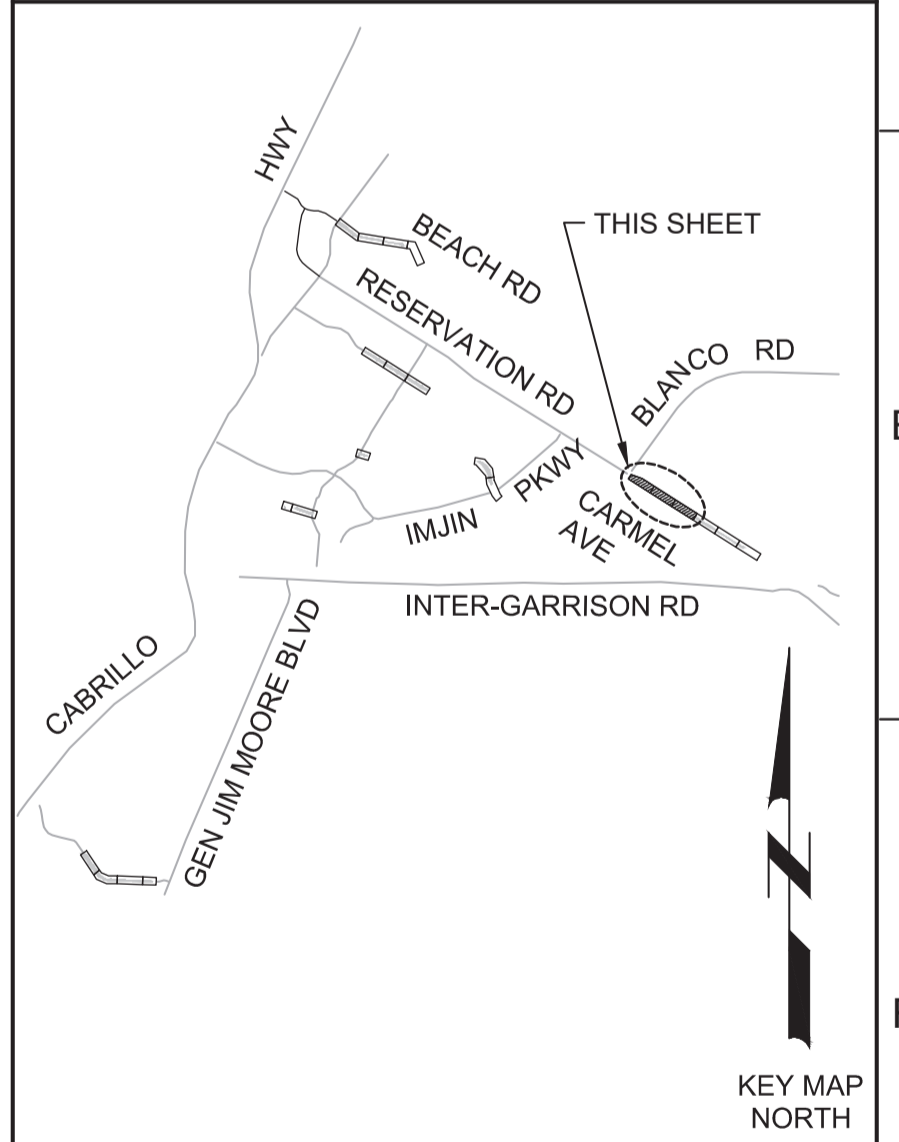
2.5-INCH GRIND AND INLAY

- GENERAL NOTES:**
1. INSTALL 2.5-INCH GRIND AND INLAY IN LOCATIONS SHOWN AND IN ACCORDANCE WITH MONTEREY COUNTY STANDARD SPECIFICATIONS AND PLANS.
 2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
 3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING INLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER WORK IS COMPLETE.
 4. TRENCH CUT SHALL FOLLOW FOG LINE FROM STA 21+25 TO 31+40.
 5. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH MONTEREY COUNTY STANDARDS. WHERE DAMAGED BY WORK, REPLACE AC DIKES PER CALTRANS STANDARDS.

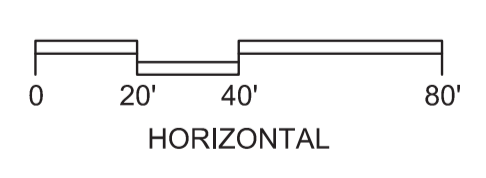


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KEY MAP



SCALE



REV				DESCRIPTION			
1				2			

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Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL
PAVING PLAN - RESERVATION ROAD 1

VERIFY SCALES
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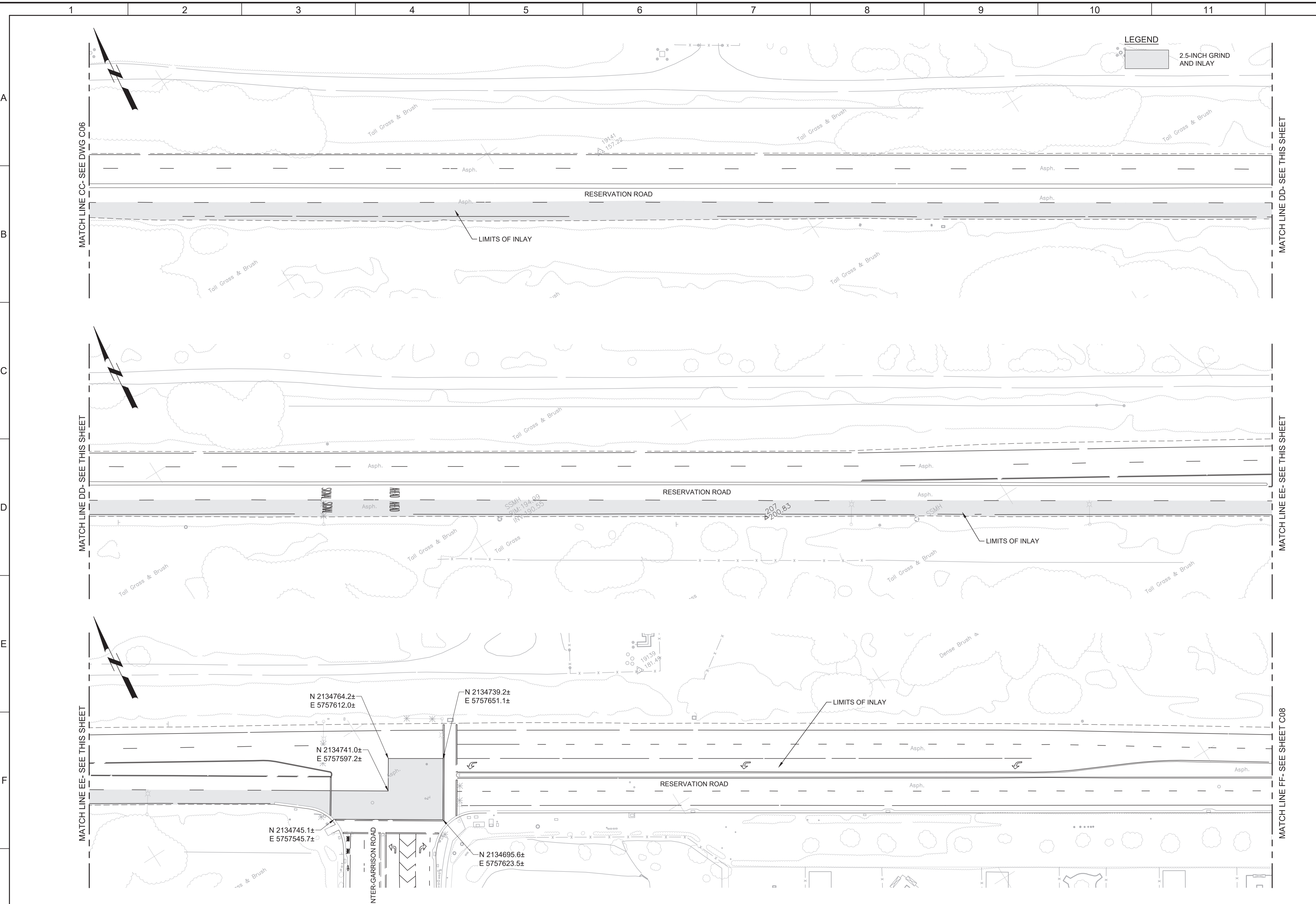
JOB NO. 7568C.10
DRAWING NO. C05
SHEET NO. 54 OF 58

Plot Date: 1/28/2020 11:21:07 AM

FILE NAME: 7568C10C06.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbawes

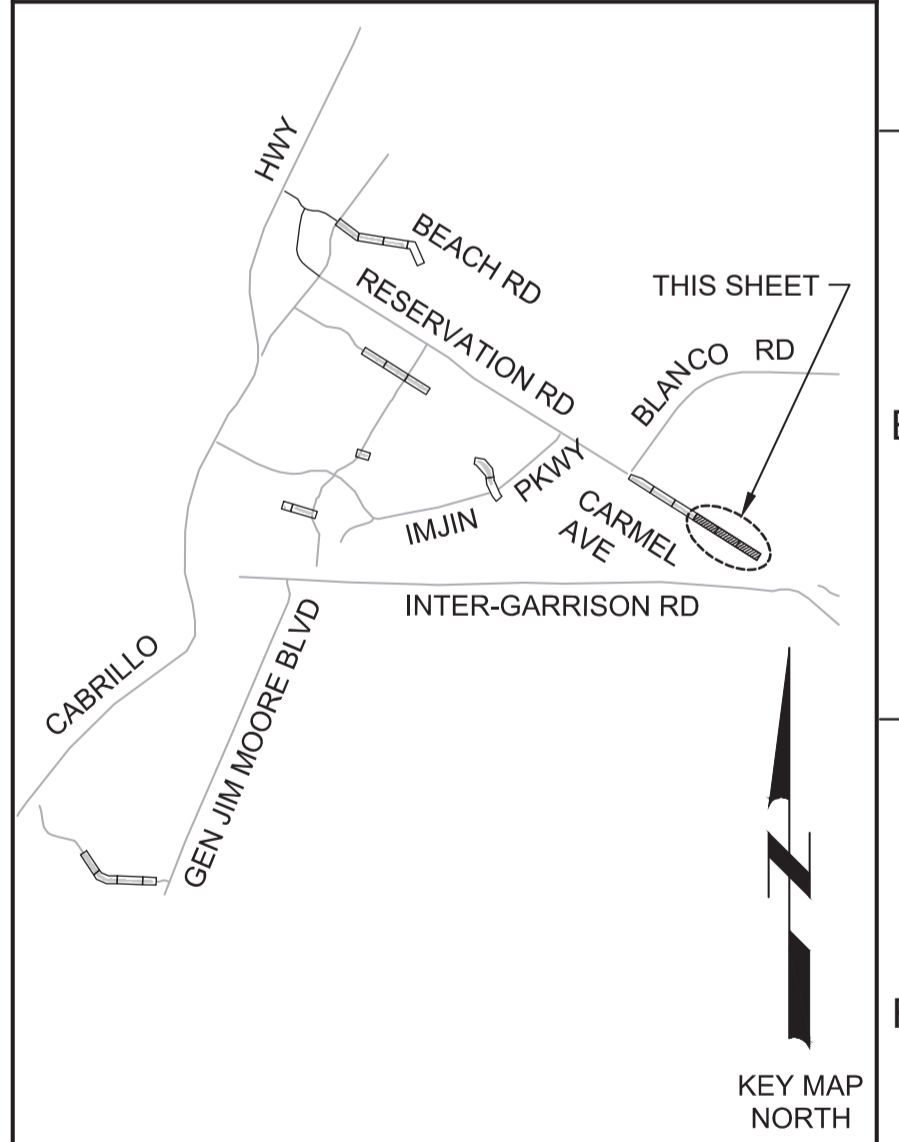


- GENERAL NOTES:**
1. INSTALL 2.5-INCH GRIND AND INLAY IN LOCATIONS SHOWN AND IN ACCORDANCE WITH MONTEREY COUNTY STANDARD SPECIFICATIONS AND PLANS.
 2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
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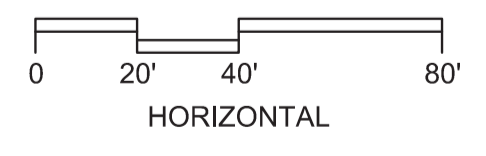


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KEY MAP



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JANUARY 2020



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Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

PAVING PLAN - RESERVATION ROAD 2

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JOB NO.
7568C.10

DRAWING NO.
C06

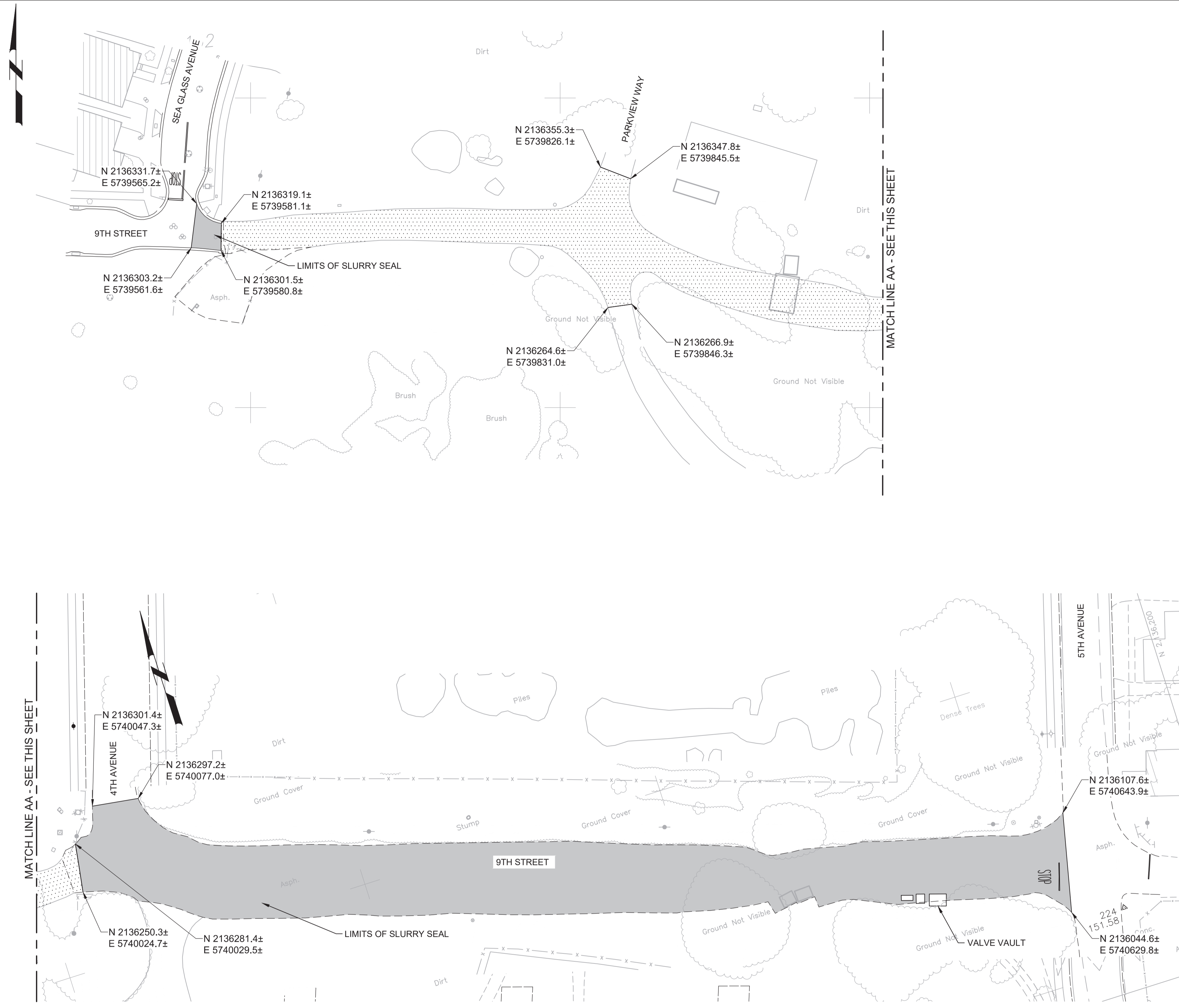
SHEET NO.
55 OF 58

Plot Date: 1/25/2020 9:09:38 AM

FILE NAME: 7568C10C07.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



LEGEND

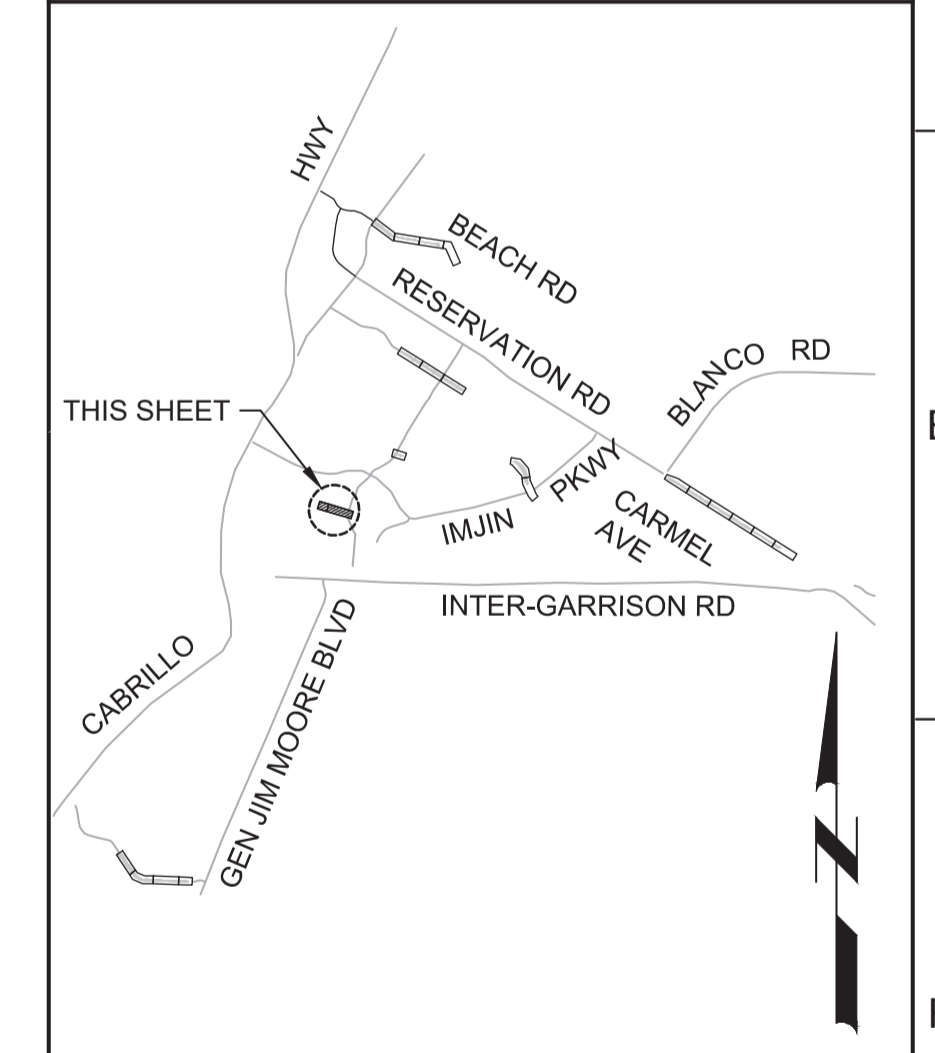
- SLURRY SEAL
- RECOMPACTED NATIVE

- GENERAL NOTES:**
1. INSTALL SLURRY SEAL AND AGGREGATE BASE COURSE IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA STANDARD SPECIFICATIONS AND PLANS.
 2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
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 4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.

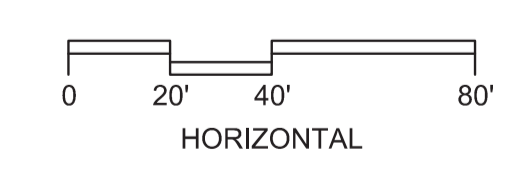


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KEY MAP



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Marina
Coast
Water
District

REGIONAL URBAN WATER AUGMENTATION PROJECT
RECYCLED WATER DISTRIBUTION MAINS
CIVIL
PAVING PLAN - 9TH STREET

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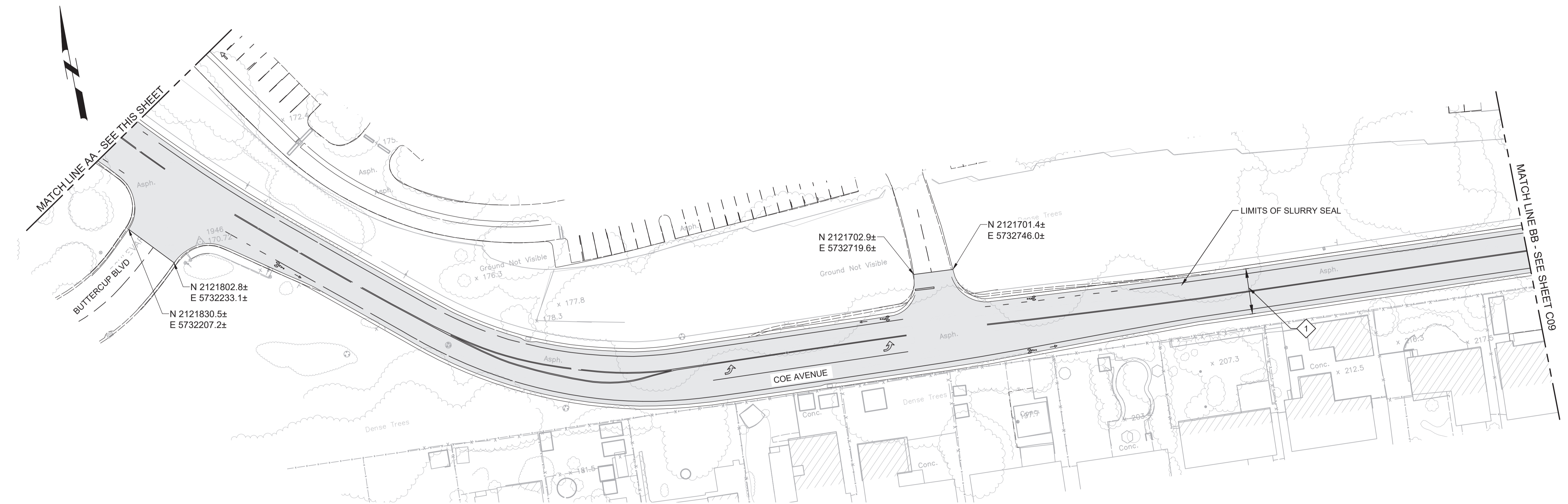
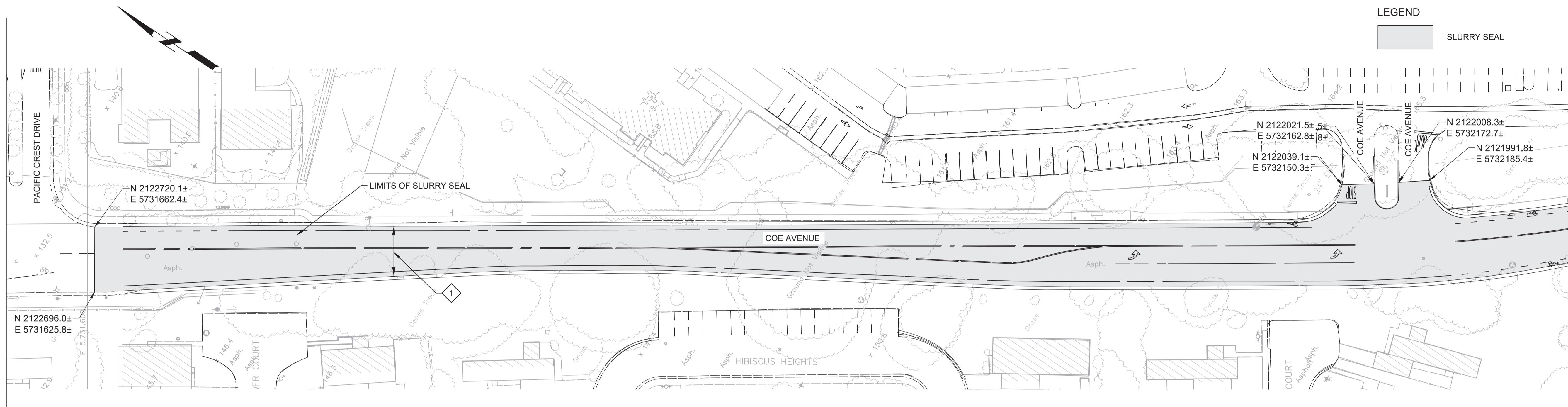
JOB NO.
7568C.10
DRAWING NO.
C07
SHEET NO.
56 OF 58

Plot Date: 1/25/2020 9:14:47 AM

FILE NAME: 7568C10C08.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



GENERAL NOTES:

1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF SEASIDE STANDARD SPECIFICATIONS AND PLANS.
2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
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4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF SEASIDE STANDARDS.

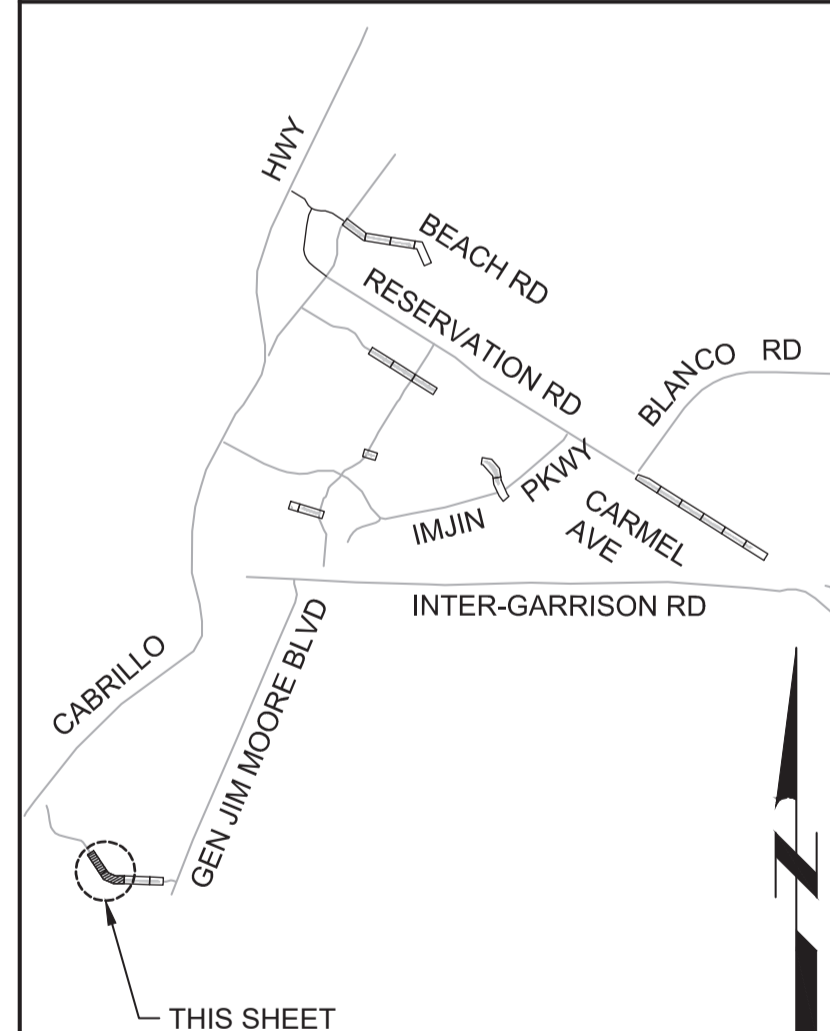
KEY NOTES:

- 1. SLURRY SEAL SHALL BE PLACED FROM GUTTER TO GUTTER.

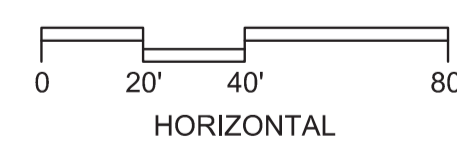


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KEY MAP



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Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT
 RECYCLED WATER DISTRIBUTION MAINS
 CIVIL
 PAVING PLAN - COE AVENUE 1

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10
 DRAWING NO. C08
 SHEET NO. 57 OF 58

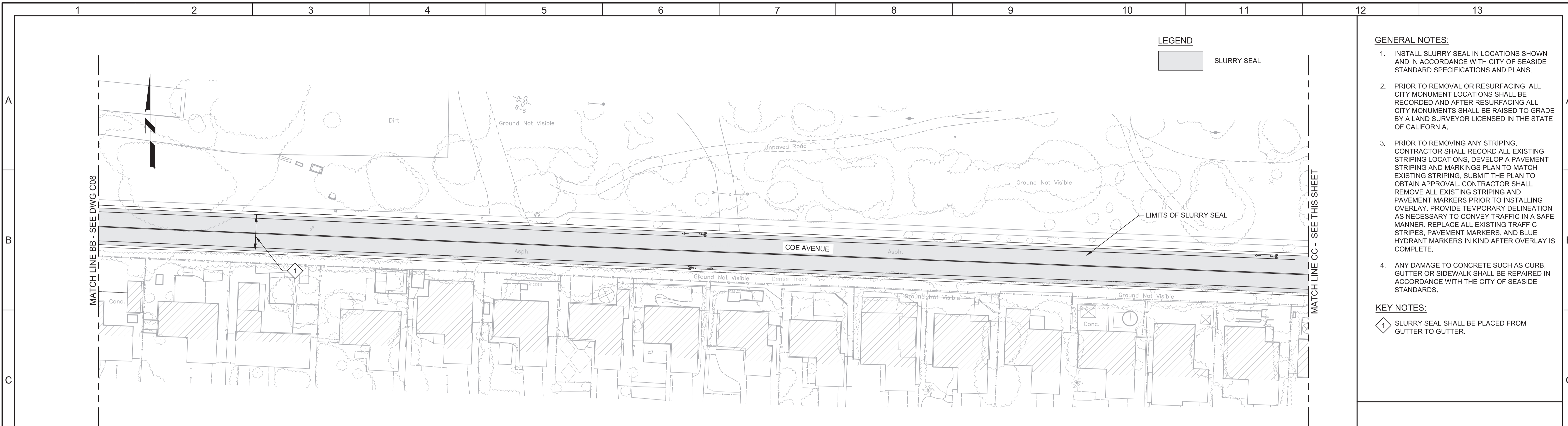
REV	DATE	BY	DESCRIPTION
1			
2			
3			

Plot Date: 1/25/2020 9:17:12 AM

FILE NAME: 7568C10C09.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



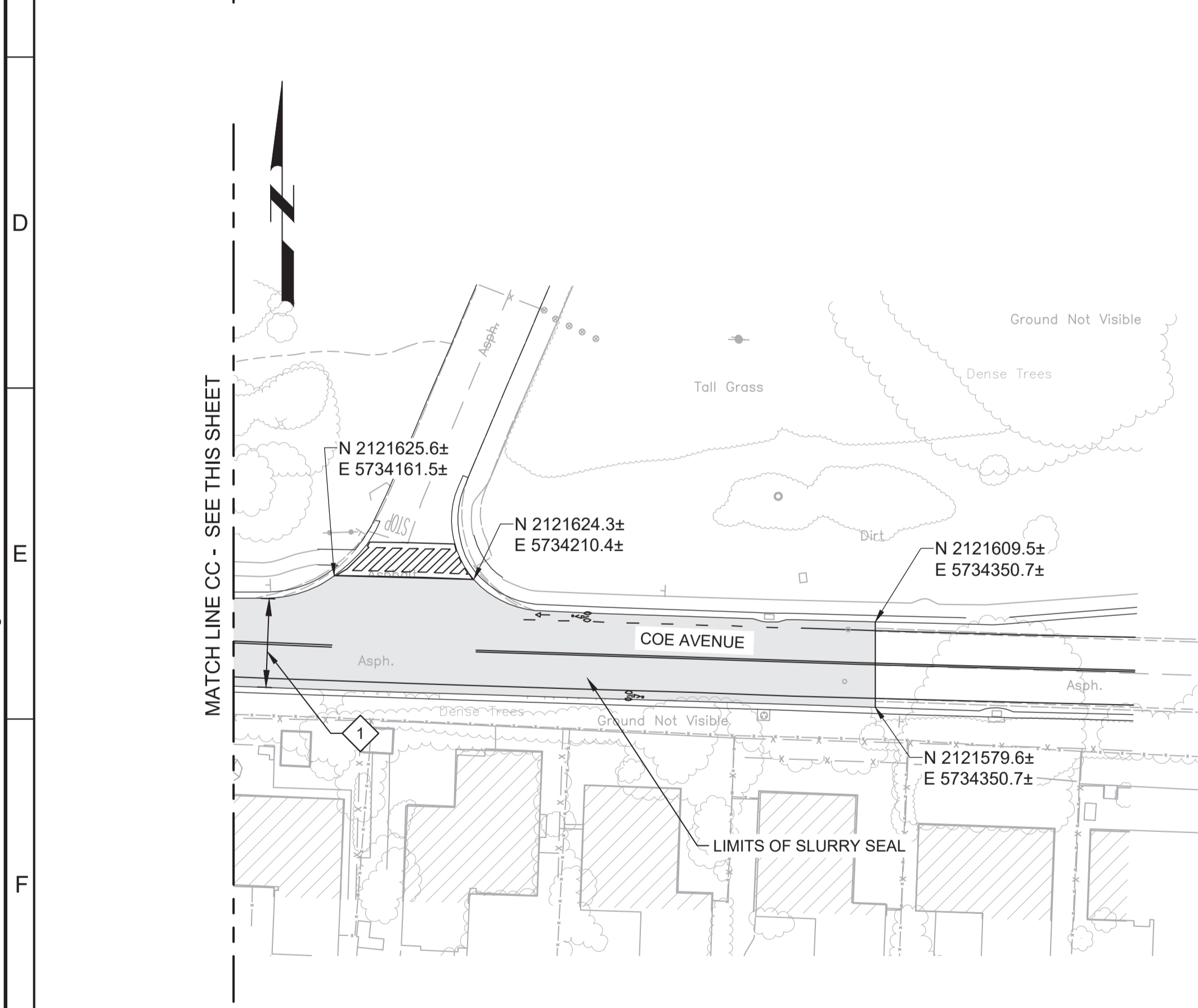
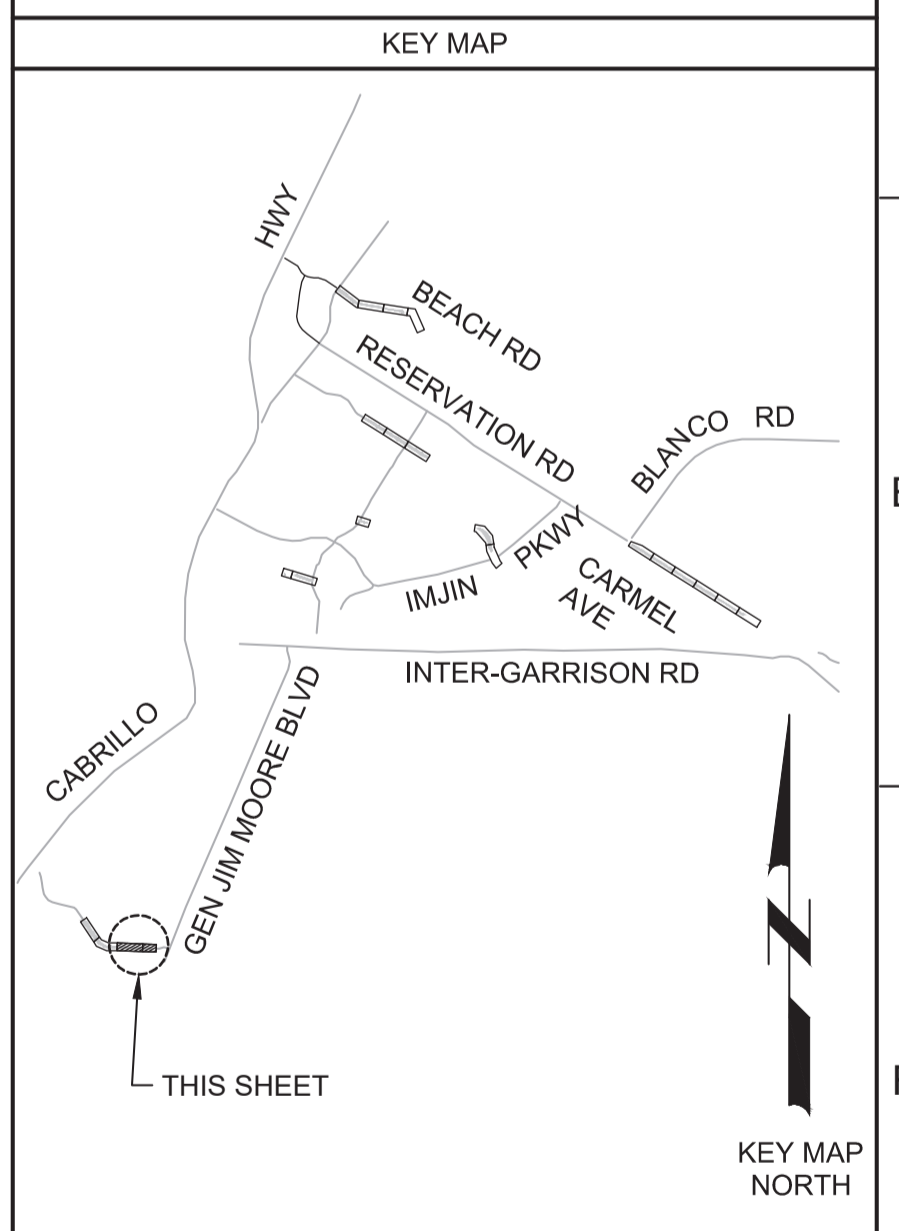
LEGEND

SLURRY SEAL

- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF SEASIDE STANDARD SPECIFICATIONS AND PLANS.
 2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
 3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
 4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF SEASIDE STANDARDS.
- KEY NOTES:**
- SLURRY SEAL SHALL BE PLACED FROM GUTTER TO GUTTER.



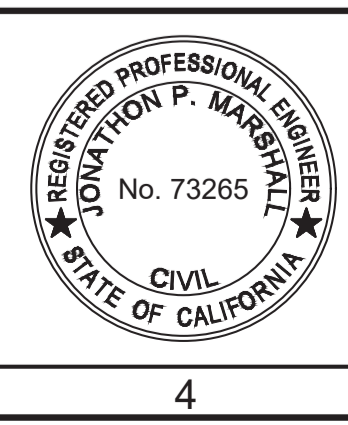
Know what's below.
Call before you dig.



REV				DESCRIPTION			
1				1			

BID DOCUMENTS

DESIGNED JPM
DRAWN EH
CHECKED AP
DATE JANUARY 2020



Digitally signed by Jonathan P. Marshall
Contact Info: Carollo Engineers, Inc.
Date: 2020.01.30 16:25:03 -0800



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

PAVING PLAN - COE AVENUE 2

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10

DRAWING NO. C09

SHEET NO. 58 OF 58