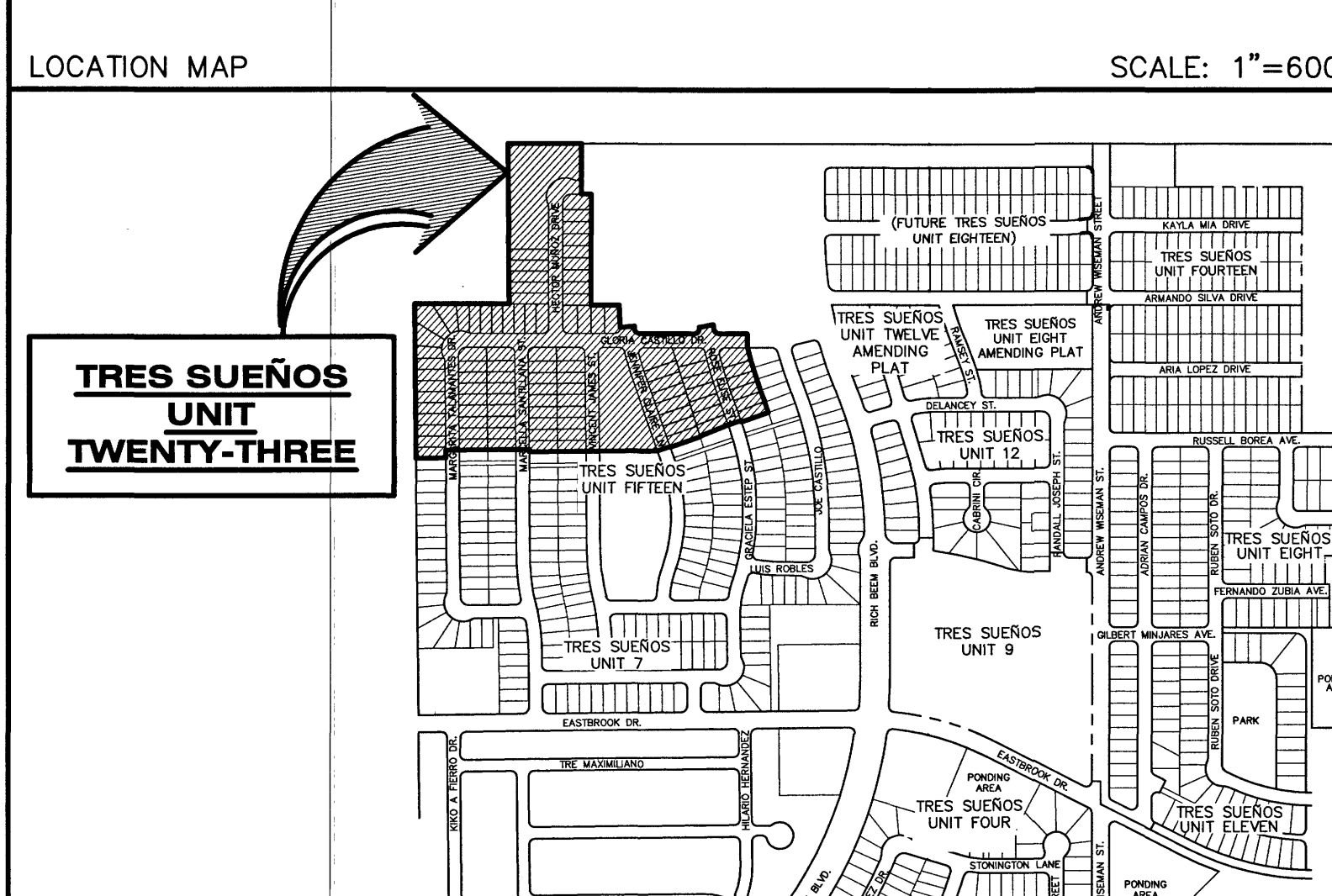
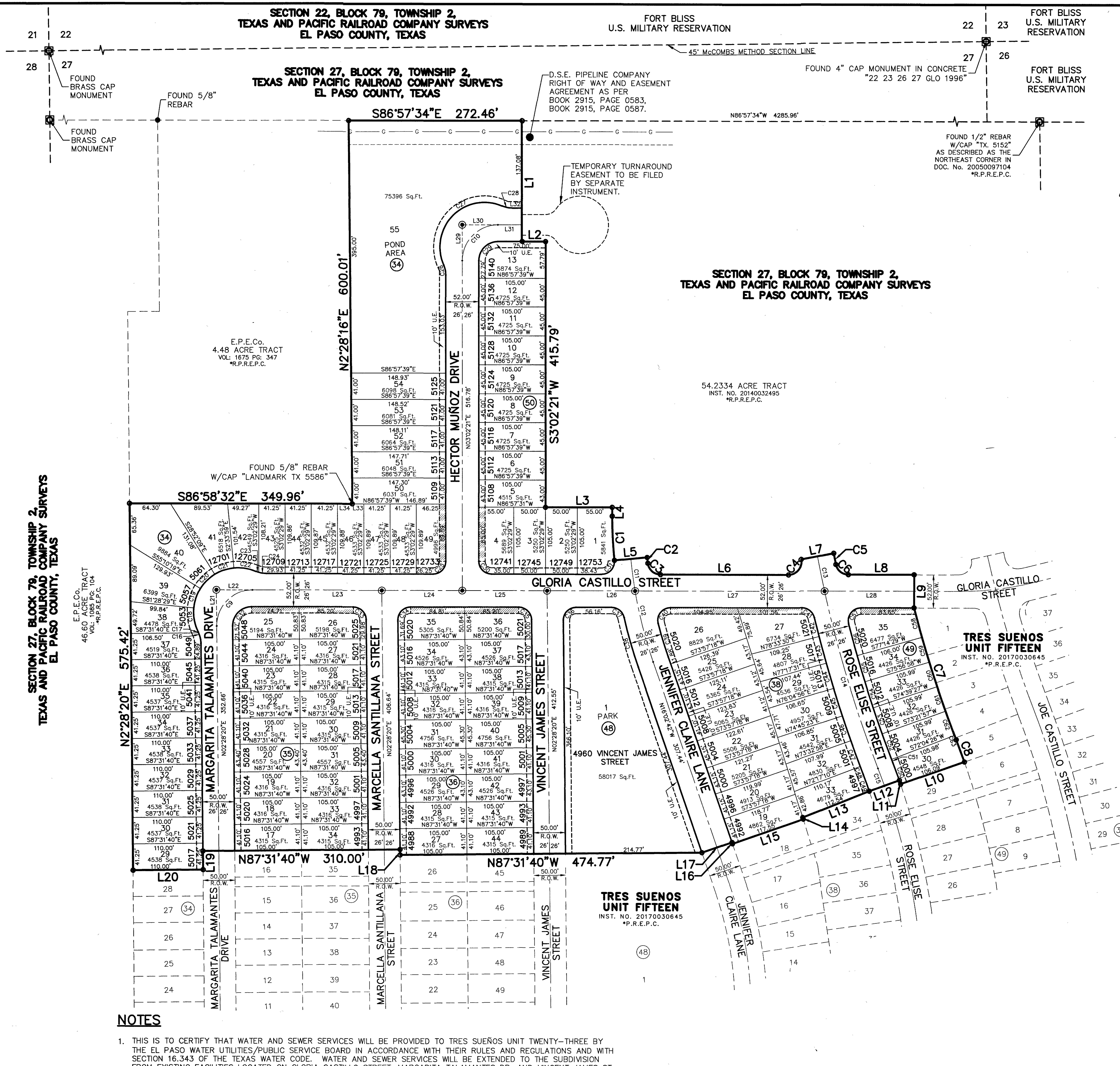


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	726.00'	69.62'	34.84'	69.59'	S00°17'31"W	005°29'40"
C2	674.00'	9.13'	4.57'	9.13'	S02°50'36"E	000°46'34"
C3	20.00'	29.23'	17.92'	26.69'	S45°05'42"E	083°43'38"
C4	20.00'	35.20'	24.20'	30.83'	N42°37'05"E	100°50'47"
C5	1904.00'	17.83'	8.92'	17.83'	S08°04'24"E	000°32'12"
C6	20.00'	27.44'	16.37'	25.34'	S47°39'00"E	078°37'01"
C7	1799.00'	217.17'	108.72'	217.04'	S14°41'39"E	006°55'00"
C8	1201.00'	37.18'	18.59'	37.18'	S17°15'56"E	001°46'26"
C9	56.00'	88.52'	56.56'	79.59'	S47°45'25"W	090°34'09"
C10	56.00'	87.96'	56.00'	79.20'	S48°02'21"W	090°00'00"
C11	700.00'	50.86'	25.44'	50.85'	S04°32'13"E	004°09'47"
C12	700.00'	115.17'	57.71'	115.04'	S11°19'54"E	009°25'36"
C13	1930.00'	55.81'	27.91'	55.81'	S08°38'01"E	001°39'25"
C14	1930.00'	290.66'	145.61'	290.39'	S13°46'35"E	008°37'44"
C15	1070.00'	29.04'	14.52'	29.04'	N17°18'48"W	001°33'19"
C16	40.00'	16.86'	8.55'	16.73'	N09°35'59"W	024°08'39"
C17	40.00'	1.27'	0.64'	1.27'	N22°35'06"W	001°49'34"
C18	70.00'	39.12'	20.09'	38.62'	S07°29'11"E	032°01'24"
C19	70.00'	32.13'	16.36'	31.85'	S21°40'36"W	026°18'10"
C20	70.00'	32.13'	16.36'	31.85'	S47°58'46"W	026°18'10"
C21	70.00'	32.13'	16.36'	31.85'	S74°16'56"W	026°18'10"
C22	70.00'	35.54'	18.16'	35.16'	N78°01'22"W	029°05'14"
C23	40.00'	4.92'	2.46'	4.91'	S67°00'02"E	007°02'32"
C24	40.00'	11.48'	5.78'	11.44'	S78°44'24"E	016°26'13"
C25	20.00'	31.42'	20.00'	28.28'	N48°02'25"E	090°00'08"
C26	40.00'	16.49'	8.36'	16.37'	N08°46'10"W	023°37'01"
C27	70.00'	167.66'	178.78'	130.36'	S48°02'21"W	137°14'03"
C28	40.00'	16.49'	8.36'	16.37'	S75°09'08"E	023°37'01"
C29	30.00'	47.12'	30.00'	42.43'	S48°02'21"W	090°00'00"
C30	20.00'	31.42'	20.00'	28.28'	S41°57'35"E	089°59'52"
C31	20.00'	33.33'	22.02'	29.61'	N45°17'35"E	095°29'48"
C32	30.00'	47.42'	30.30'	42.64'	S47°45'25"W	090°34'09"
C33	20.00'	31.22'	19.80'	28.14'	N42°14'36"W	089°25'51"
C34	20.00'	31.61'	20.20'	28.42'	S47°45'25"W	090°34'09"
C35	20.00'	31.22'	19.80'	28.14'	N42°14'36"W	089°25'51"
C36	20.00'	31.61'	20.20'	28.42'	S47°45'25"W	090°34'09"
C37	20.00'	26.99'	16.00'	24.99'	N48°17'45"W	077°19'33"
C38	725.00'	81.14'	40.61'	81.10'	S12°50'20"E	006°24'44"
C39	675.00'	54.61'	27.32'	54.59'	S13°43'39"E	004°39'07"
C40	20.00'	36.46'	25.81'	31.62'	S40°48'57"W	104°27'04"
C41	20.00'	26.67'	15.74'	24.74'	N48°45'01"W	076°25'01"
C42	1955.00'	30.71'	15.36'	30.71'	S10°59'30"E	000°54'00"
C43	1955.00'	43.21'	21.61'	43.21'	S12°04'30"E	001°15'59"
C44	1955.00'	41.28'	20.64'	41.28'	S13°18'47"E	001°12'35"
C45	1955.00'	45.24'	22.62'	45.24'	S14°34'51"E	001°19'33"
C46	1955.00'	41.18'	20.59'	41.18'	S15°50'50"E	001°12'25"
C47	1955.00'	43.11'	21.56'	43.11'	S17°04'56"E	001°15'48"
C48	1955.00'	12.86'	6.43'	12.86'	S17°54'09"E	000°22'37"
C49	1045.00'	28.36'	14.18'	28.36'	N17°18'48"W	001°33'19"
C50	1095.00'	29.73'	14.86'	29.72'	N17°18'47"W	001°33'19"
C51	1905.00'	5.48'	2.74'	5.48'	S18°00'30"E	000°09'53"
C52	1905.00'	42.95'	21.48'	42.95'	S17°16'49"E	001°17'31"
C53	1905.00'	42.95'	21.48'	42.95'	S15°59'18"E	001°17'31"
C54	1905.00'	42.95'	21.48'	42.95'	S14°41'47"E	001°17'31"
C55	1905.00'	42.95'	21.48'	42.95'	S13°24'17"E	001°17'31"
C56	1905.00'	51.71'	25.85'	51.70'	S11°58'52"E	001°33'19"
C57	20.00'	36.39'	25.71'	31.57'	S40°55'08"W	104°14'42"
C58	1799.00'	47.63'	23.82'	47.63'	S11°59'39"E	001°31'01"
C59	1799.00'	40.56'	20.28'	40.56'	S13°23'55"E	001°17'31"
C60	1799.00'	40.56'	20.28'	40.56'	S14°41'26"E	001°17'31"
C61	1799.00'	40.56'	20.28'	40.56'	S15°58'56"E	001°17'31"
C62	1799.00'	40.56'	20.28'	40.56'	S17°16'27"E	001°17'31"
C63	1799.00'	7.29'	3.65'	7.29'	S18°02'11"E	000°13'56"

LINE TABLE		
LINE	BEARING	LENGTH
L1	S03°02'21"W	189.08'
L2	S86°57'39"E	37.38'
L3	S86°57'31"E	105.00'
L4	S03°02'21"W	13.57'
L5	N87°32'41"E	52.00'
L6	S86°57'31"E	201.38'
L7	N82°11'42"E	52.00'
L8	S86°57'31"E	103.55'
L9	S03°02'29"W	52.00'
L10	S73°47'17"W	106.09'
L11	N16°22'18"W	6.10'
L12	S73°28'08"W	50.00'
L13	S71°29'29"W	112.54'
L14	S14°20'41"E	2.84'
L15	S73°57'18"W	117.55'
L16	N16°02'42"W	2.39'
L17	S73°57'18"W	50.00'
L18	N02°28'20"E	8.50'
L19	S02°28'20"W	29.07'
L20	N87°31'40"W	110.00'
L21	N02°28'20"E	56.56'
L22	N86°57'31"W	56.56'
L23	N86°57'31"W	203.45'
L24	N86°57'31"W	126.49'
L25	N86°57'31"W	133.53'
L26	N86°57'31"W	138.39'
L27	N86°57'31"W	297.84'
L28	N86°57'31"W	140.84'
L29	N03°02'21"E	56.00'
L30	S86°57'39"E	56.00'
L31	S86°57'39"E	37.62'
L32	S86°57'39"E	14.77'
L33	S86°57'39"E	18.15'
L34	S86°58'32"E	23.10'



- NOTES**
- THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO TRES SUEÑOS UNIT TWENTY-THREE BY THE EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON GLORIA CASTILLO STREET, MARGARITA TALAMANTES DR. AND VINCENT JAMES ST. WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.
 - TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION. INSTRUMENT No. 20220042360 DATE 5/13/2022
 - RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION. INSTRUMENT No. 20220042364 DATE 5/16/2022
 - SUBDIVISION IMPROVEMENTS AGREEMENT & GUARANTEE FOR THIS SUBDIVISION IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION. INSTRUMENT No. 20220042363 DATE 5/13/2022
 - INTERIOR LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES. (BY OTHERS) SET 1/2" REBAR WITH CAP STAMPED "B&A INC" AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE SHOWN.
 - "U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS."
 - THIS SUBDIVISION LIES WITHIN IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 01758, DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.
 - VEHICULAR ACCESS SHALL BE RESTRICTED TO RESIDENTIAL LOTS AS PER THE DESIGNATED 10-FOOT RESTRICTED ACCESS EASEMENT. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION. INSTRUMENT No. 20220042364 DATE 5/13/2022
 - ⊙ DENOTES PROPOSED MONUMENT. (MAY BE SUBJECT TO RELOCATION AT TIME OF CONSTRUCTION. FOR EXACT LOCATION PLEASE CONTACT THE CITY OF EL PASO.)
 - △ DENOTES PROPOSED MONUMENT AS PER TRES SUEÑOS UNIT TWENTY-THREE SUBDIVISION. (NOT IN PLACE AS OF DATE OF PREPARATION)
 - 10' U.E. = 10 FOOT UTILITY EASEMENT
 - DEED REFERENCE: INST. NO. 20050097104, INST. NO. 20120086878, INST. NO. 20140032495, REAL PROPERTY RECORDS OF EL PASO COUNTY, TEXAS.

SCHOOL DISTRICT
SOCORRO INDEPENDENT SCHOOL DISTRICT
12440 ROJAS DR, EL PASO, TX 79928

BENCHMARK:
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.55 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4005.40 (CITY DATUM)

TOTAL LOTS

RESIDENTIAL	=96
POND	=1
TOTAL	=98

TRES SUEÑOS UNIT TWENTY-THREE

A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING 18.22 ACRES ±

DEDICATION

JNC Development INC., the owners of this land, do hereby present this map and dedicate their respective portions of property to the use of the public, the streets, ponding area, park, pedestrian right-of-way, drainage right of way and utility easements as hereon laid down and designated, including easements for overhead of service wires for pole type utilities and the right for installation of service poles alongside lot lines as may be required, easements for buried service wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.

Witness my signature this 30th day of March 2022.

Carlos D. Bombach, COO

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Carlos D. Bombach, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as the act and deed for the purpose and consideration herein expressed.

Given under my hand and seal of office this 30th day of March 2022.

[Signature]
Notary Public in and for El Paso County
November 14, 2022
My Commission Expires

CITY PLAN COMMISSION

This subdivision is hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas

this 10th day of February 2022.

[Signature] Chairperson
[Signature] Executive Secretary

Approved for filing this 21st day of April 2022.

[Signature]
Planning and Inspections Director

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 3rd day of May 2022, in File No. 20220042359 of the Plat Records.

[Signature] County Clerk
[Signature] by Deputy

Subdivision improvement plans prepared by and under the supervision of CEA Group.

This plat represents a survey made on the ground by me or under my supervision and complies with the current Texas Board of Professional Land Survey Professional and Technical Standards.

3-23-2022

JORGE L. AZCARATE, P.E.
Licensed Professional Engineer
Texas License No. 85075

Benito Barragan, R.P.L.S. No. 5615

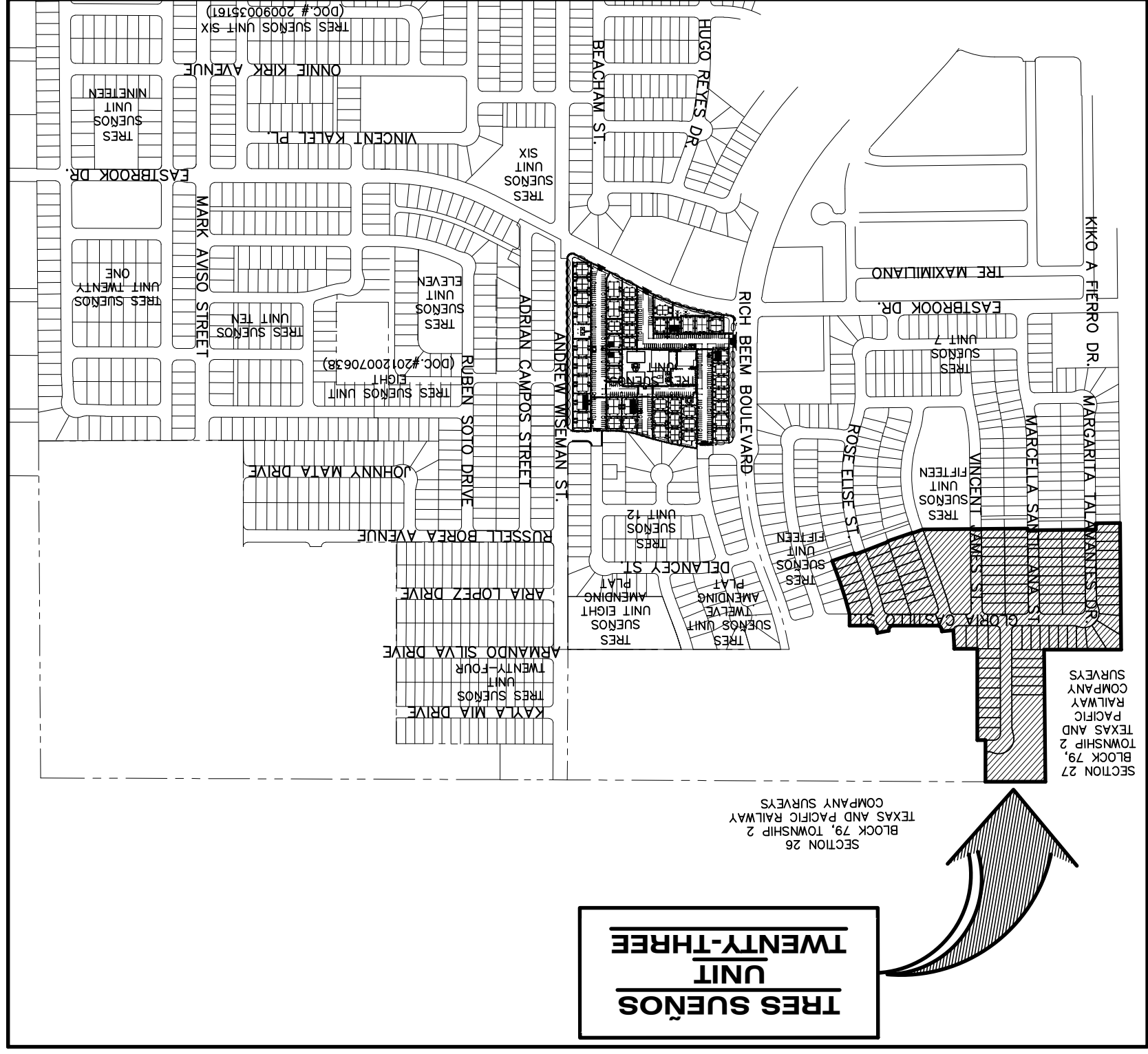
ENGINEER
ceagroup
813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5232
www.ceagroup.net
TEXAS REGISTERED ENGINEERING FIRM F-4564
CONTACT: JORGE L. AZCARATE, P.E.

SURVEYOR
Barragan & Associates Inc.
LAND PLANNING & LAND SURVEYING
10950 Pelicano Dr. Bldg. F - El Paso TX 79935
Phone (915) 591-5709 Fax (915) 591-5706
CONTACT: BENITO BARRAGAN, R.P.L.S.

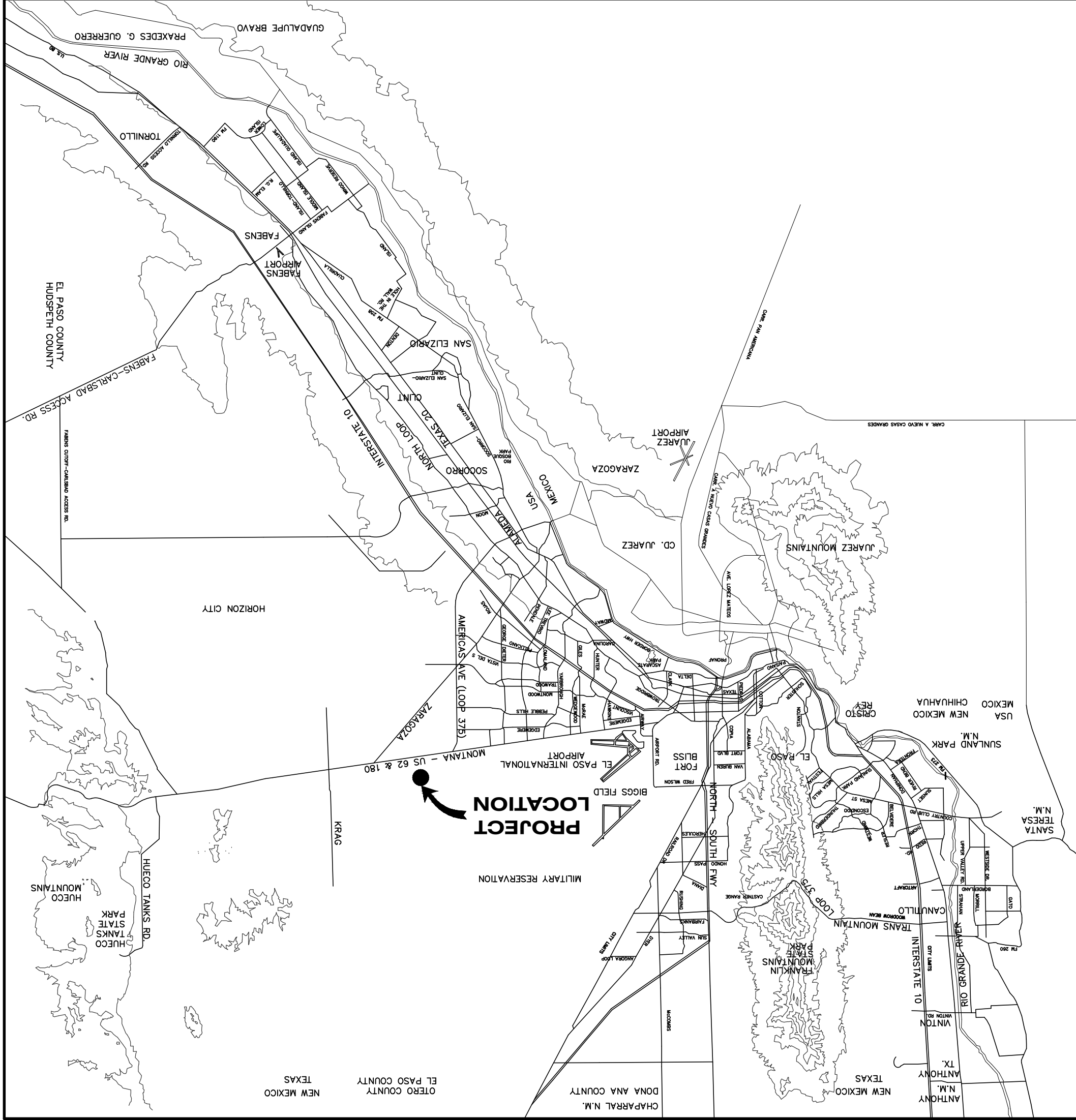
DATE OF PREPARATION: MAY 2021

TRES SUEÑOS UNIT TWENTY-THREE SUBDIVISION IMPROVEMENTS

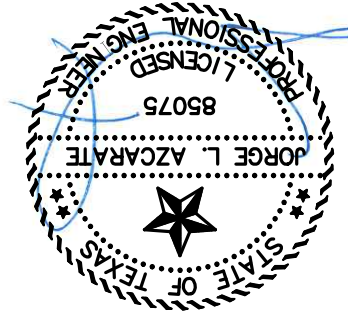
LEGAL DESCRIPTION
A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2,
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 18.22± ACRES



LOCATION MAP
 APPROXIMATE SCALE: 1" = 600'



SHEET NUMBER	SHEET TITLE
CVR	COVER SHEET
C1.1	GENERAL INFORMATION
C2.1	FINAL PLAN
C3.1	GRADING PLAN
C4.1	DRAINAGE PLAN
C5.1-C5.2	GRADING SECTIONS
C6.1-C6.8	STREET PLAN & PROFILES
C7.1-C7.2	STORM SEWER PLAN & PROFILES
C8.1	POND DESIGN PLAN
C9.1-C9.3	STANDARD DETAILS
C10.1-C10.4	DRAINAGE DETAILS
C11.1-C11.3	ILLUMINATION PLAN
C12.1	WATER INDEX / GENERAL INFORMATION
C12.2-C12.5	WATER DETAILS
C13.1	SANITARY SEWER INDEX / GENERAL INFORMATION
C13.2-C13.4	SANITARY SEWER PLAN & PROFILES
C13.5-C13.7	SANITARY SEWER DETAILS
C14.1-C14.3	STORM WATER POLLUTION PREVENTION PLAN
L1-L8	VOID DREAMS PARK PLANS



JORGE L. AZCARATE, P.E. PROJECT MANAGER
 7-19-21
 813 N. Kansas St.
 Suite 300
 El Paso, TX 79902
 915.544.5232
 www.ceagroup.net
 TEXAS REGISTERED ENGINEERING FIRM F-4564

PRINCIPAL CONTACTS:

NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	JMC DEVELOPMENT	12300 MONTWOOD DR.	EL PASO, TX 79928	(915) 849-0111
ENGINEER:	CEA GROUP	813 N. KANSAS STREET, STE. 300	EL PASO, TX 79902	(915) 544-5232
SURVEYOR:	BARRAGAN & ASSOCIATES INC.	10950 PELUCANO DR. BUILDING F	EL PASO, TX 79935	(915) 591-5709

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS.

2. CONTRACTOR SHALL WATER CONSTRUCTION AREA A MINIMUM OF TWICE A DAY TO KEEP DUST TO A MINIMUM - ONCE IN THE MORNING AND BEFORE QUITTING TIME. THIS SHALL ALSO BE DONE DURING WEEKENDS AND HOLIDAYS.

3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, PROTECT, AND REPLACE ALL UNDERGROUND UTILITY LINES AT NO EXTRA COST TO THE OWNER WHEN LINES ARE DISTURBED AS A RESULT OF THE WORK.

4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM HIS WORK SO AS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF HIS OPERATIONS. ALL SUCH PROPER PASSAGE OF RUNOFF WATER AND ANY REMOVAL OR HANDLING OF WATER IN ORDER TO MAINTAIN DRY CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

5. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE USER, ALL UTILITIES, AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT.

6. ALL EXISTING PAWENT, ADVANCED UTILITIES, STRUCTURES, ETC., DISTURBED AS A RESULT OF THE NEW CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

7. THE OWNER WILL FURNISH HORIZONTAL AND VERTICAL CONTROL REFERENCED POINTS ONLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADE BEFORE PROCEEDING WITH THE WORK. ANY DISCREPANCIES FOUND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THEIR CORRECTNESS.

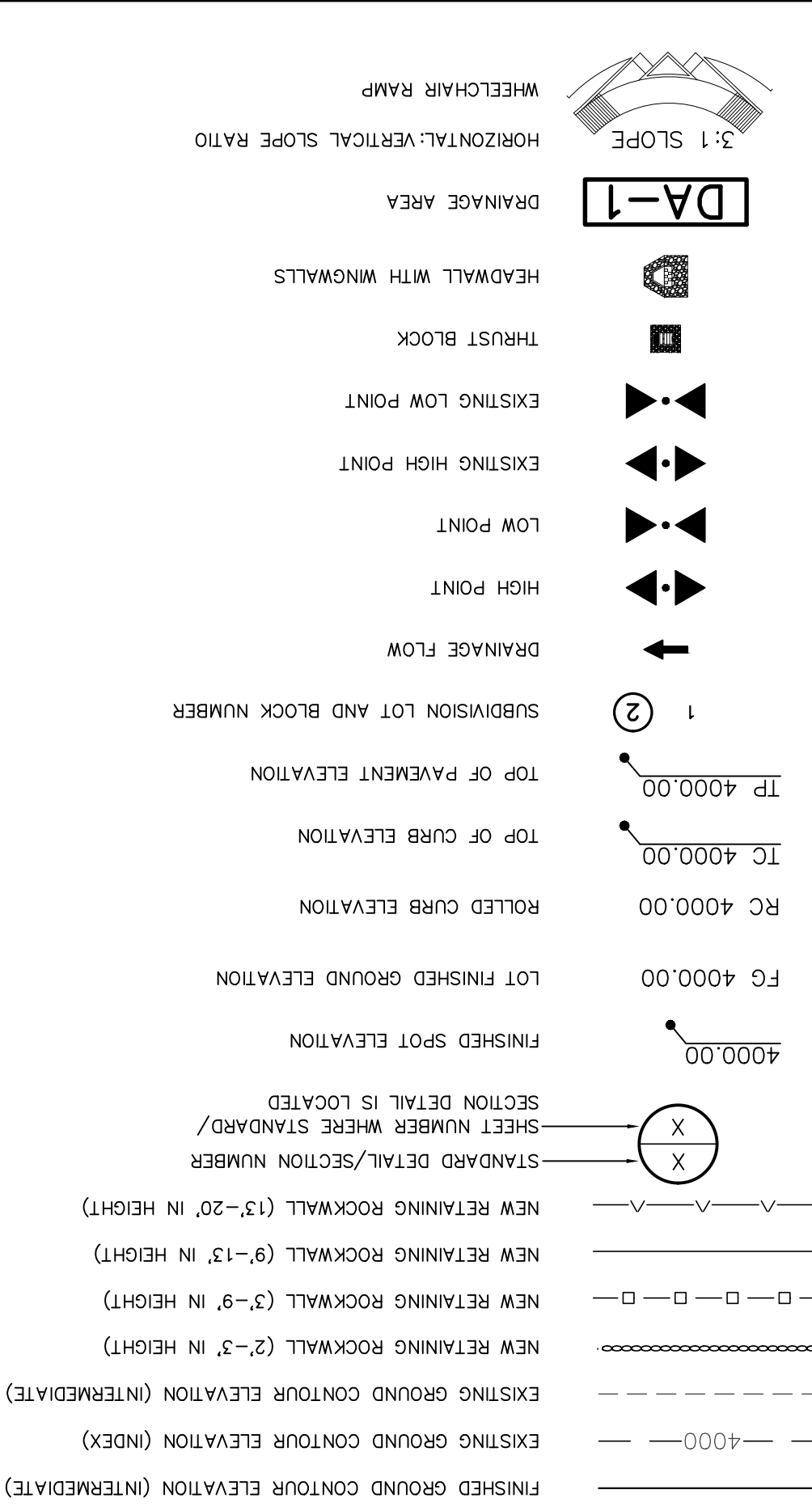
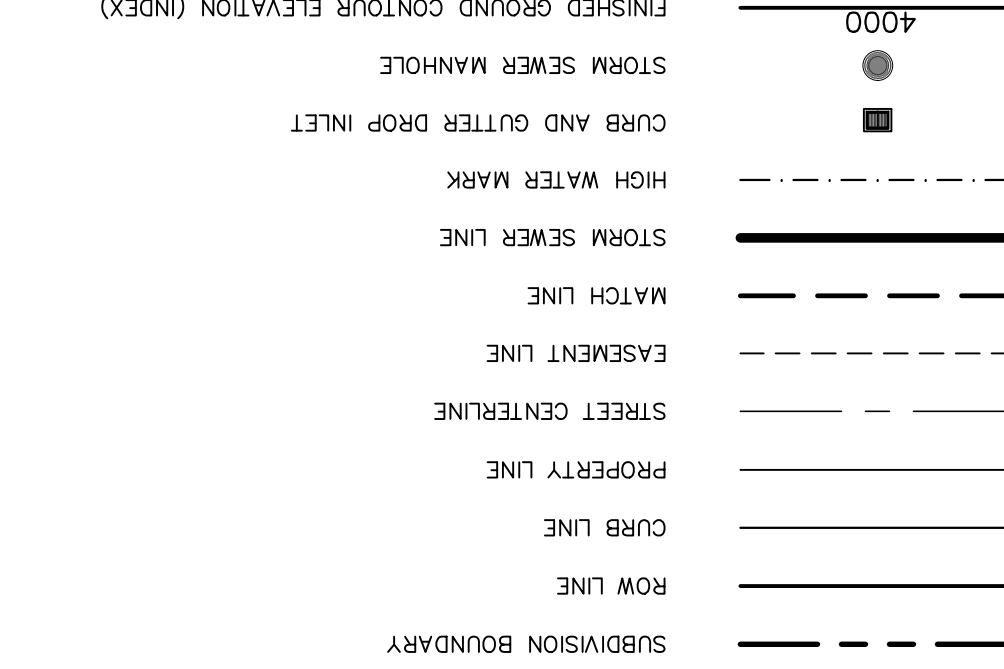
8. SEE REFERENCED BENCHMARK ON TITLE BLOCK FOR DATUM ELEVATIONS.

9. VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE ENGINEER.

10. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.

11. THE LOCATION OF THE INLETS SHALL BE AT THE FIELD LOW POINT AND APPROVED BY THE ENGINEER.

LEGEND



ABBREVIATIONS

- LP LOW POINT
- HP HIGH POINT
- ELEV ELEVATION
- STA STATION
- VCS VERTICAL CURVE STATION
- VCE VERTICAL CURVE ELEVATION
- VCS SECTION NUMBER WHERE STANDARD/SECTION DETAIL IS LOCATED
- TO TOP OF CURB
- TM TOP OF MEDIAN
- TP TOP OF PAVEMENT
- TYP TYPICAL
- PVC POINT OF VERTICAL INTERSECTION
- PVI POINT OF VERTICAL INTERSECTION
- PVT POINT OF VERTICAL TANGENT
- AD ALGEBRAIC DIFFERENCE
- CR CURVE RETURN
- ROW RIGHT OF WAY
- CL CENTER LINE
- PL PROPERTY LINE
- FG FINISH GRADE
- FF FINISH FLOOR
- EG EXISTING GRADE
- MIN. MINIMUM
- MAX. MAXIMUM
- RCP REINFORCED CONCRETE PIPE
- Q QUANTITY
- EXP EXPECTED
- INV INVERT
- CFS CUBIC FEET PER SECOND
- DA DRAINAGE AREA
- LF LINEAR FEET
- STD STANDARD
- CONC CONCRETE
- PC POINT OF CURVATURE
- PI POINT OF INTERSECTION
- PL POINT OF TANGENT
- L LENGTH
- R RADIUS
- TANGENT TANGENT
- S SLOPE
- TEMPORARY TEMPORARY
- VELOCITY IN FEET PER SECOND VELOCITY IN FEET PER SECOND
- HGL HYDRAULIC GRADE LINE
- WHEELCHAIR RAMP WHEELCHAIR RAMP

1. CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS; PRODUCE THROUGH GROUND SURFACE; FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL.
2. SATISFACTORY FILL MATERIALS: FILL MATERIALS SHALL BE FREE OF ANY ORGANIC OR DELETERIOUS SUBSTANCE AND SHALL NOT CONTAIN ROCKS OR LUMPS OVER 3 INCHES IN GREATEST DIMENSION AND SHALL BE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, GC, SM, SP, SW, AND SC.
3. UNSATISFACTORY FILL MATERIALS: ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS M, MH, CL, CH, OL, OH, AND PT, OR WHERE THE PLASTICITY INDEX EXCEEDS 12, UNLESS OTHERWISE APPROVED BY ENGINEER, OR CITY ENGINEER.
4. EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED.
5. GROUND SURFACE PREPARATION FOR FILL: REMOVE VEGETATION, DEBRIS, MUD AND OBSTRUCTIONS ENCOUNTERED.
6. ALL EXISTING PAWENT, ADVANCED UTILITIES, STRUCTURES, ETC., DISTURBED AS A RESULT OF THE NEW CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. THE OWNER WILL FURNISH HORIZONTAL AND VERTICAL CONTROL REFERENCED POINTS ONLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADE BEFORE PROCEEDING WITH THE WORK. ANY DISCREPANCIES FOUND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THEIR CORRECTNESS.
8. SEE REFERENCED BENCHMARK ON TITLE BLOCK FOR DATUM ELEVATIONS.
9. VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE ENGINEER.
10. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.
11. THE LOCATION OF THE INLETS SHALL BE AT THE FIELD LOW POINT AND APPROVED BY THE ENGINEER.

INDEX OF DRAWINGS

DRAWING NAME	SHEET NO.
COVER	CVR
GENERAL INFORMATION	C11
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GRADING PLAN	C31
GRADING SECTIONS (SHEET 1 OF 2)	C41
GRADING SECTIONS (SHEET 2 OF 2)	C52
MARGARITA TALAMANTES STREET P&P STA. 0+00.00 TO STA. 5+90.00	C61
GLORIA CASTILLO STREET P&P STA. 4+03.92 TO STA. 5+90.00	C62
GLORIA CASTILLO STREET P&P STA. 5+50.00 TO STA. 12+00.00	C62
MARCELA SANTILLANA STREET P&P STA. 0+00.00 TO STA. 4+06.64	C65
VINCENT JAMES STREET P&P STA. 0+00.00 TO STA. 4+12.55	C66
JENIFER CLAIRE LANE P&P STA. 0+00.00 TO STA. 4+73.47	C67
ROSE ELISE STREET P&P STA. 0+00.00 TO STA. 3+75.52	C68
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VIVID DREAMS PARK IRRIGATION PLANS	L3
VIVID DREAMS PARK DETAILS	L4
VIVID DREAMS PARK DETAILS	L5
VIVID DREAMS PARK NOTES	L6
VIVID BEEM LANDSCAPE PLANS	L7
RICH BEEM IRRIGATION PLANS	L8

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5220
EL PASO ENERGY CORPORATION (915) 496-5244
EL PASO WATER UTILITIES (915) 594-5500
MCI SURVEILLANCE (800) 401-WORK
TMC WARNER COMMUNICATIONS (915) 772-1123
TEXAS GAS SERVICE (915) 650-7200
AT&T (800) 452-3786
U.S. SPRINT TELECOMM (800) 521-0579

WARNING!
BEFORE YOU DIG
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S04X337E A DISTANCE OF 467.98 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTEANA AVENUE.
ELEVATION: 4014.90 (NAD 88) (4005.40 CITY DATUM)

CEEP
813 N. Kansas St.
Suite 300
El Paso, TX 79902
El Paso, TX 79902
915.544.5292
www.ceepgroup.net
TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL
Professional Engineer
State of Texas
No. 96075
Exp. 08/31/2025
19-21

SCALE
Horizontal: 1"=40.00'
Vertical: 1"=40.00'
Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: A.A.P./E.D.
CHKD. BY: F.Z.
APP'D. BY: J.L.A.
JOB NO.: 2025-021

PROJECT TITLE
TRES SUENOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

GENERAL INFORMATION
SHEET TITLE
SHEET NO.

C1.1

TRES SUENOS UNIT TWENTY-THREE

A PORTION OF SECTION 27, TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING 18.22 ACRES ±

DEDICATION

41C. Development, Inc., the owners of this land, do hereby present this map and dedicate their respective portions of property to the use of the public, the streets, parking area, park, pedestrian right-of-way, drainage right-of-way and utility easements as herein laid down and designated, including easements for crossings of right-of-way and utility easements for poles, conduits and pipes for underground utilities. The owners of this land do hereby present this map and dedicate their respective portions of property to the use of the public, the streets, parking area, park, pedestrian right-of-way, drainage right-of-way and utility easements as herein laid down and designated, including easements for crossings of right-of-way and utility easements for poles, conduits and pipes for underground utilities. and the right to ingress and egress for service and construction, and the right to trim interfering trees.

Witness my signature this _____ day of _____, 2021.

Carlos D. Bombeck, COO

ACKNOWLEDGEMENT

Before me, the undersigned authority, on this day personally appeared Carlos D. Bombeck, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as the act and deed for the purpose and consideration herein expressed.

Given under my hand and seal of office this _____ day of _____, 2021.

Notary Public in and for El Paso County My Commission Expires _____

CITY PLAN COMMISSION

This subdivision hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas

this _____ day of _____, 2021.

Executive Secretary _____

Approved for filing this _____ day of _____, 2021.

Planning and Inspections Director _____

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this _____ day of _____, 2021, in File No. _____ of _____

County Clerk _____

By Deputy _____

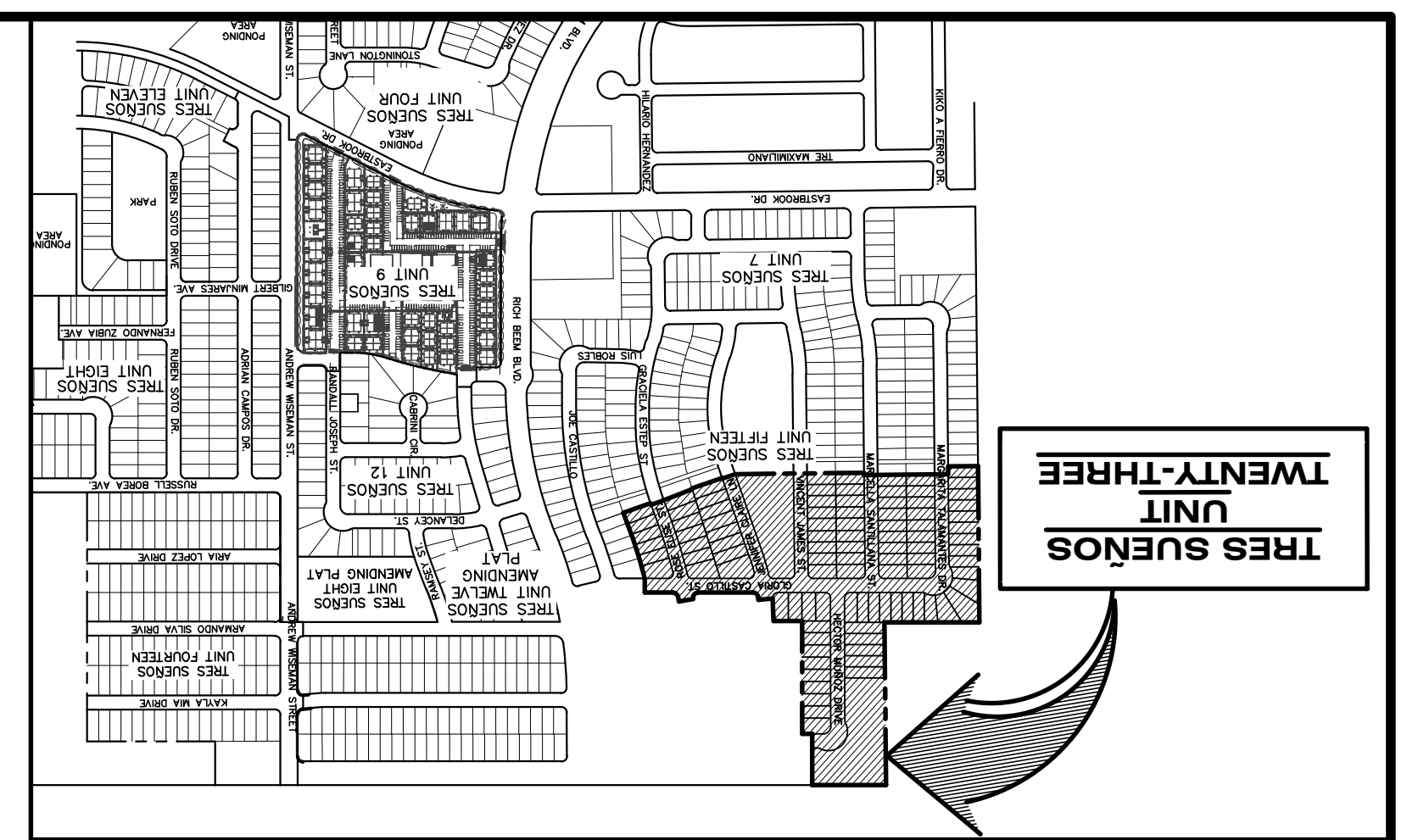
CURVE TABLE

LINE	BEARINGS	CHORD	DELTA
C1	726.00'	69.62	34.84
C2	674.00'	91.13	45.57
C3	20.00'	17.92	26.69
C4	20.00'	35.20	24.20
C5	1904.00'	17.83	8.92
C6	1798.00'	217.17	217.04
C7	20.00'	27.44	16.37
C8	1201.00'	37.18	18.59
C9	56.00'	88.52	56.56
C10	56.00'	79.20	54.75
C11	700.00'	50.85	25.44
C12	700.00'	115.17	57.71
C13	1930.00'	55.81	29.27
C14	1930.00'	290.39	145.61
C15	1070.00'	29.04	14.52
C16	70.00'	39.12	20.09
C17	70.00'	32.13	16.36
C18	70.00'	32.13	16.36
C19	70.00'	32.13	16.36
C20	70.00'	32.13	16.36
C21	70.00'	32.13	16.36
C22	40.00'	11.48	5.78
C23	40.00'	2.46	4.92
C24	40.00'	11.48	5.78
C25	40.00'	11.48	5.78
C26	40.00'	16.49	8.36
C27	70.00'	167.66	178.28
C28	40.00'	16.37	8.36
C29	30.00'	47.12	30.00
C30	30.00'	47.42	30.00
C31	30.00'	42.64	30.00
C32	30.00'	42.64	30.00
C33	20.00'	31.22	19.80
C34	20.00'	31.22	19.80
C35	20.00'	31.22	19.80
C36	20.00'	28.42	18.14
C37	20.00'	28.42	18.14
C38	725.00'	81.14	40.61
C39	675.00'	54.61	27.22
C40	20.00'	31.62	25.81
C41	20.00'	26.67	15.74
C42	1955.00'	30.71	15.36
C43	1955.00'	30.71	15.36
C44	1955.00'	30.71	15.36
C45	1955.00'	45.24	22.62
C46	1955.00'	45.24	22.62
C47	1955.00'	43.11	21.56
C48	1955.00'	12.86	6.43
C49	1095.00'	29.72	14.86
C50	1905.00'	42.95	21.48
C51	1905.00'	5.48	2.74
C52	1905.00'	42.95	21.48
C53	1905.00'	42.95	21.48
C54	1905.00'	42.95	21.48
C55	1905.00'	42.95	21.48
C56	1905.00'	51.71	25.85
C57	20.00'	36.39	25.71
C58	179.00'	47.63	23.82
C59	179.00'	40.56	20.28
C60	179.00'	40.56	20.28
C61	179.00'	40.56	20.28
C62	179.00'	40.56	20.28
C63	179.00'	3.65	7.29

LINE TABLE

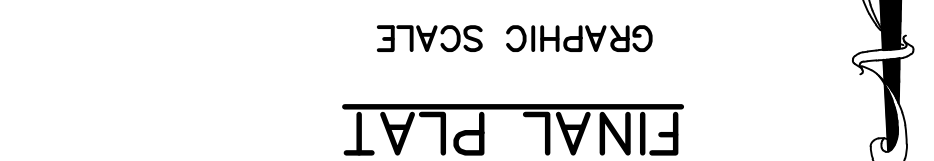
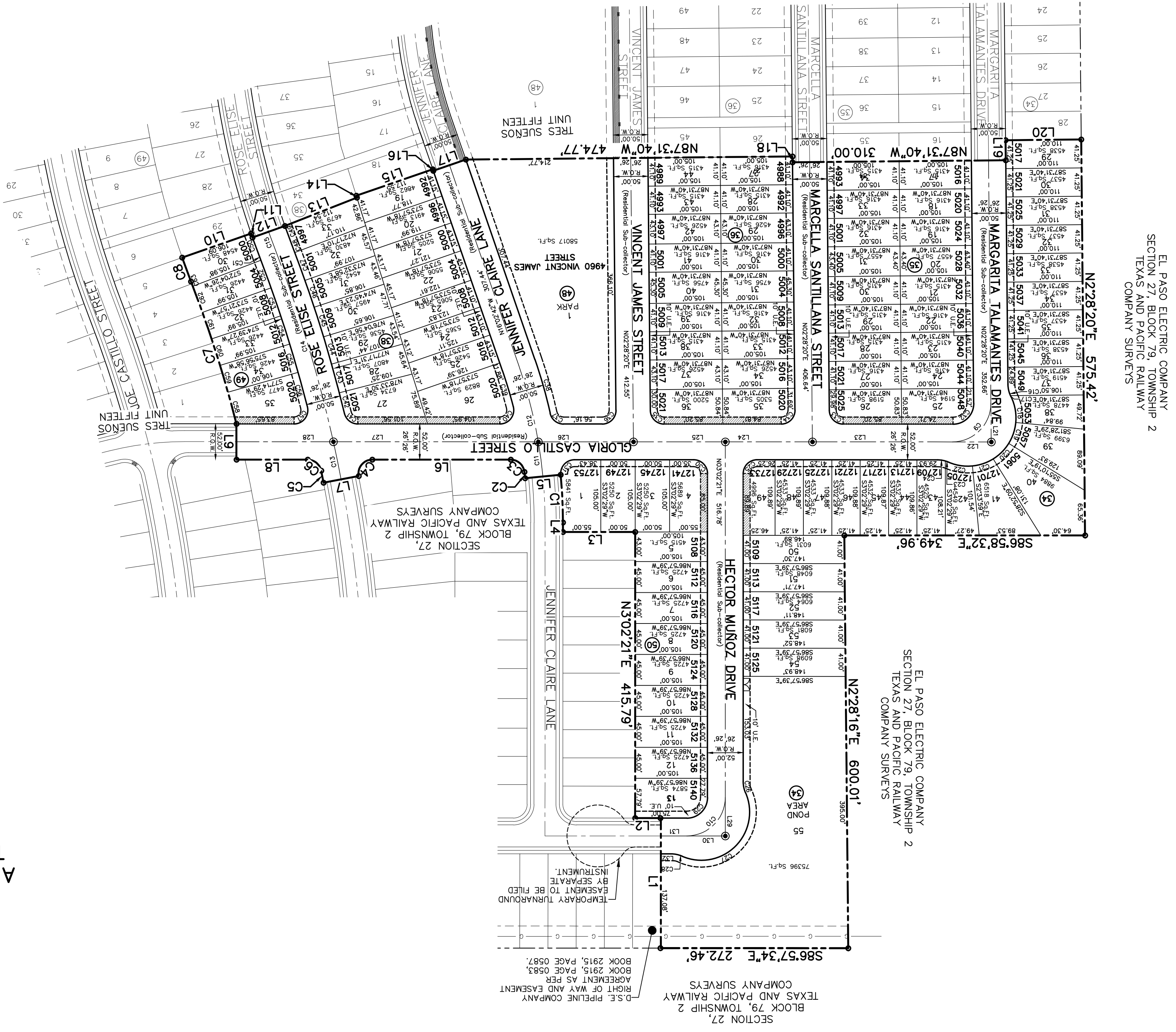
LINE	BEARINGS	LENGTH
L1	S03°02'21"W	189.08'
L2	S86°57'39"E	37.38'
L3	N03°02'21"E	13.57'
L4	N03°02'21"E	15.57'
L5	N87°32'41"E	52.00'
L6	N86°57'31"W	52.00'
L7	N82°11'42"E	52.00'
L8	N86°57'31"W	103.55'
L9	S03°02'29"W	52.00'
L10	S73°47'17"W	106.09'
L11	N16°22'18"W	6.10'
L12	S73°28'08"W	112.54'
L13	S71°29'29"W	115.54'
L14	S71°29'29"W	112.54'
L15	S73°57'18"W	117.55'
L16	N16°02'42"W	2.39'
L17	S73°57'18"W	50.00'
L18	N02°28'20"E	8.50'
L19	S02°28'20"W	29.07'
L20	N78°01'22"W	110.00'
L21	N02°28'20"E	56.56'
L22	S78°44'24"E	106.26'
L23	N86°57'31"W	203.45'
L24	N86°57'31"W	126.49'
L25	N86°57'31"W	133.53'
L26	N86°57'31"W	138.39'
L27	N86°57'31"W	297.84'
L28	N86°57'31"W	140.84'
L29	N03°02'21"E	56.00'
L30	S86°57'39"E	96.00'
L31	S86°57'39"E	37.62'

LOCATION MAP SCALE: 1"=600'



NOTES

- THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO THESE SUENOS UNIT TWENTY-THREE BY THE EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS WITH SECTION 16.543 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON GLORIA CASTILLO STREET, MARGARITA TALAAMANTES DRIVE AND VINCENT JAMES STREET.
- TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
- RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
- SUBDIVISION IMPROVEMENTS AGREEMENT & GUARANTEE FOR THIS SUBDIVISION IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
- INTERIOR LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES (BY OTHERS) SET 1/2" BEAR WITH CAP SURVEYS OR STAMPED "BKA INC" AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE SHOWN.
- U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS.
- THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 01758. DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.
- VEHICULAR ACCESS SHALL BE RESTRICTED TO RESIDENTIAL ASSUMING RELEASE OF ACCESS 10-FOOT RESTRICTED ACCESS EASEMENT. THE INSTRUMENT ASSUMING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
- INSTRUMENT NO. _____ DATE _____
- DEPOTES PROPOSED MOUNTAIN (FOR EXACT LOCATION CONTACT CITY OF EL PASO)
- DELOTES PROPOSED MOUNTAIN AS PER THESE SUENOS UNIT TWENTY-THREE SUBDIVISION (NOT IN PLACE AS OF DATE OF PREPARATION)



SCHOOL DISTRICT
 S006000 INDEPENDENT SCHOOL DISTRICT
 12440 ROJAS DR, EL PASO, TX 79928

BENCHMARK
 CITY MOUNTAIN AT POINT OF CURVE CENTERLINE RICH BEEM BLVD.
 WAY LINE OF MONTANA AVENUE.
 ELEVATION: 4014.90 (NAVD 88) (4005.40 CITY DATUM)

CEA ENGINEERS
 813 N. Kansas St.
 Suite 300
 El Paso, TX 79902
 915.544.5232
 www.ceainc.com

Barragan & Associates Inc.
 SURVEYOR
 10950 Pollicino Dr. Bldg. F - El Paso TX 79925
 Phone (915) 591-5709 Fax (915) 591-5706
 CONTACT: BENITO BARRAGAN, R.P.L.S.

DATE OF PREPARATION: MAY 2021

This plat represents a survey made on the ground under the supervision of Professional Land Surveyors Professional and Technical Standards. by the current Texas Board of Professional Land Surveyors. The survey was conducted and completed by the current Texas Board of Professional Land Surveyors. The survey was conducted and completed by the current Texas Board of Professional Land Surveyors.

JORGE L. AZCARATE, P.E.
 Licensed Professional Engineer
 Texas License No. 85075

Benito Barragan TX, R.P.L.S. No. 5615

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 945-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOM	(800) 521-0579

WARNING!
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FOR FIELD LOCATING EXISTING UTILITIES

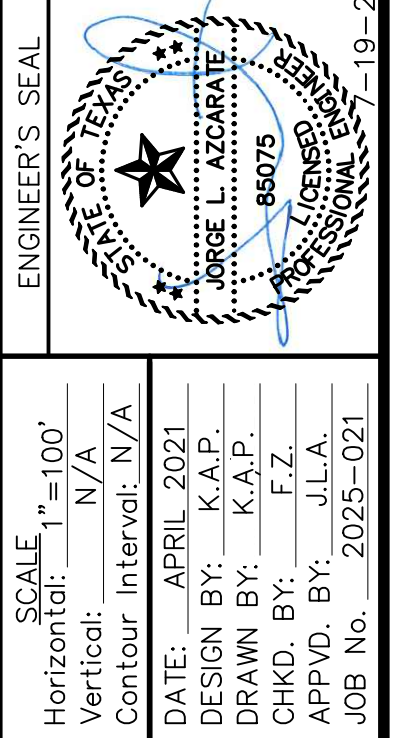
REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005-40 CITY DATUM)

DATE	REVISIONS	BY

813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5232
www.ceagroup.net

CEA GROUP
TEXAS REGISTERED ENGINEERING FIRM F-4564



SCALE: 1" = 100'

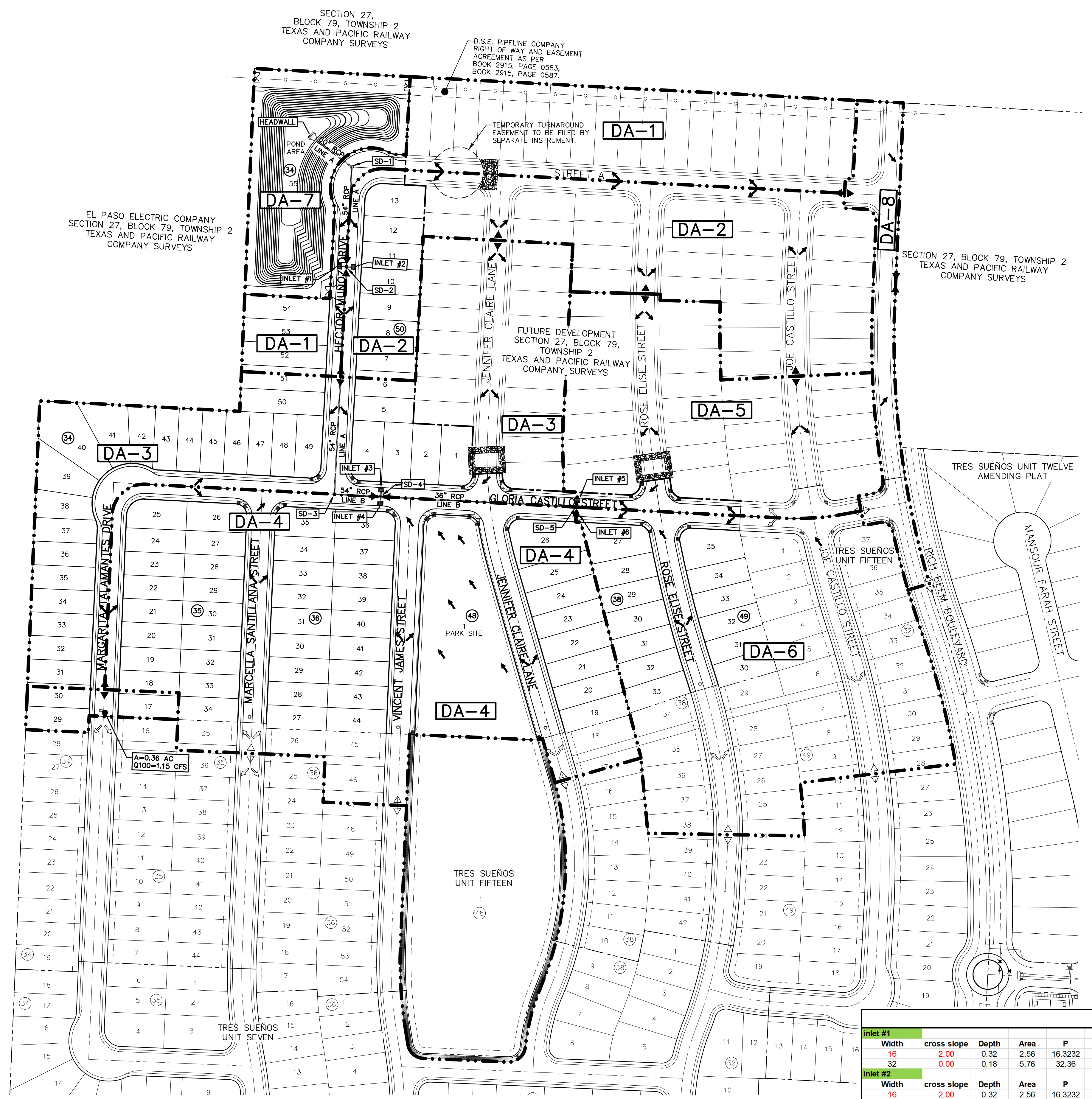
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P.
CHKD. BY: J.L.A.
APP'D. BY: J.L.A.
JOB NO.: 2025-021

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
DRAINAGE PLAN

SHEET NO.
C4.1



POND CALCULATIONS

QT = (ARC)/12
QT = 7.07 AC-FT
A = 33.96Ac
*R = 4.0'
Cw = 0.59

TOTAL_{req} = 7.07 AC-FT

*AS PER DETENTION BASIN DESIGN CRITERIA (2-4) OF THE CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION. STORM WILL BE 4" RAINFALL IN THREE (3) HOURS.

POND

BASIN NO.	REQUIRED CAPACITY (AC-FT)	AVAILABLE CAPACITY (AC-FT)	PEAK INFLOW (GFS)	OUTLET TOWER FLOW (GFS)	HIGH WATER SURFACE ELEV. (FT.)	BOTTOM ELEVATION (FT.)	FREE BOARD (FT.)	TOP ELEVATION
1	7.07	8.77	101.79	0	3999.39±	3987.00	1.61	4001.00

NOTE:
THE HGL REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO.
HWSE = HGL = QT
HWSE = 7.07 AC-FT
CONTOUR 3999.00, ACCUMULATED VOLUME = 6.68 AC-FT
CONTOUR 4000.00, ACCUMULATED VOLUME = 7.69 AC-FT
HYDRAULIC GRADE LINE ELEVATION = 3999.39±

POND AREAS

CONTOUR	ACCUMULATED VOLUME (AC-FT)
4001	8.77
4000	7.69
3999	6.68
3998	5.75
3997	4.88
3996	4.09
3995	3.37
3994	2.72
3993	2.14
3992	1.64
3991	1.20
3990	0.82
3989	0.49
3988	0.21
3987	0.00

100 YEAR STORM CALCULATIONS FOR WATERSHED AREAS

DRAINAGE AREA NO. (1)	DRAINAGE AREA (AC) (2)	DESIGN STORM INTENSITY (100) (3)	TIME OF CONCENTRATION (4)	RUNOFF COEFF. (C) (5)	Q100 (CFS) (6)
DA-1	3.69	4.50	17.52	0.60	9.96
DA-2	4.93	4.30	19.74	0.60	12.72
DA-3	6.45	4.86	14.04	0.60	18.81
DA-4	8.97	4.85	14.16	0.58	25.23
DA-5	3.83	5.10	12.00	0.60	11.72
DA-6	6.36	4.90	13.74	0.60	18.7
DA-7	1.73	5.36	10.00	0.50	4.64
DA-8	1.03	5.36	10.00	0.95	5.24

- REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS (JUNE 2008)
- WATERSHED AREA IDENTIFICATION
 - AREA FROM DRAINAGE PLAN
 - RAINFALL INTENSITY, 100 YEAR STORM => EASTSIDE INTENSITY EQUATIONS (4-25)
 $I_{100} = \frac{144.20}{(Tc + 25.94)^{0.9190}}$ EQUATION 4-25
 - TIME OF CONCENTRATION: TC= T (OVERLAND) + T (GUTTER)
 - TABLE 4-5: RATIONAL METHOD DEVELOPED CONDITION COEFFICIENT (100yr C)
SINGLE FAMILY RESIDENTIAL = 0.60
PAVEMENT AND ROOFTOPS = 0.95
GENERAL OPEN SPACE = 0.50
 - $Q_{100} = C \times A \times I_{100}$
C= RATIONAL COEFFICIENT
A= COMPUTED CONTRIBUTING WATERSHEDS AREA, ACRES
I= RAINFALL INTENSITY, INCH PER HOUR

MOMENTUM COMPUTATION

LOCATION @ INLET (1)	DEPTH (2)	VELOCITY (3)	PRODUCT NUMBER (4)
1	0.37	2.81	1.04
2	0.37	2.81	1.04
3	0.46	3.52	1.62
4	0.46	3.52	1.62
5	0.38	3.54	1.35
6	0.38	3.57	1.36

- LOCATION
- DEPTH
- VELOCITY
- PRODUCT NUMBER = DEPTH X VELOCITY

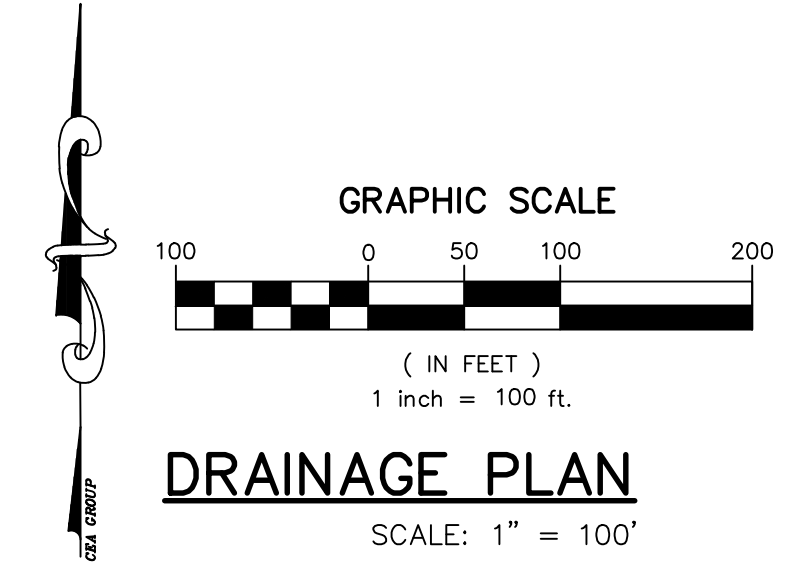
DROP INLETS

NO.	EXPECTED FLOW Q _{exp} (CFS)	ADDITIONAL FLOW Q _{add} (CFS) FROM INLET #	CROWN @ OVERTOP (CFS)	Q REQUIRED CAPACITY Q (CFS)	AVAIL FLOW CAPACITY Q _{avail} (CFS)	FLOW BYPASS O _{byp} (CFS) TO INLET #	# OF GRATES	TYPE OF INLET	INLET LOCATION
1	9.96	1.38 (FROM 1-2)	0	11.34	19.27	0	2	I	SUMP
2	12.72	0	1.38 (TO 1-1)	11.34	19.27	0	2	I	SUMP
3	18.81	3.21 (FROM 1-4)	0	22.02	29.14	0	3	I	SUMP
4	25.23	0	3.21 (TO 1-3)	22.02	29.14	0	3	I	SUMP
5	11.72	3.49 (FROM 1-6)	0	15.21	16.40	0	4	I	ON GRADE
6	18.70	0	3.49 (TO 1-5)	15.21	16.35	0	4	I	ON GRADE

THESE CAPACITIES CORRESPOND TO ACCORDING FACTOR OF 0.5 AVAILABLE FLOW CAPACITIES SHOW AT ON GRADE INLETS DEFLECTS CAPACITIES WITH INLET GRADE EFFICIENCIES.

STREET CAPACITIES

Inlet #1	Width	cross slope	Depth	Area	P	R	n	S	Q	V	Total Q	Q actual	Actual Depth	spread width	Actual Velocity
16	2.00	0.32	2.56	16.3232	0.1568	0.013	0.006	7.993	2.575	2.810	32.123	11.340	0.365	18.243	2.810
32	0.00	0.18	5.76	32.36	0.1780	0.013	0.006	16.138	2.802	2.810	32.123	11.340	0.365	18.243	2.810
Inlet #2	16	2.00	0.32	2.56	16.3232	0.1568	0.013	0.006	7.993	2.575	32.123	11.340	0.365	18.243	2.810
32	0.00	0.18	5.76	32.36	0.1780	0.013	0.006	16.138	2.802	2.810	32.123	11.340	0.365	18.243	2.810
Inlet #3	16	2.00	0.32	2.56	16.3232	0.1568	0.013	0.007	8.633	2.781	34.697	22.020	0.455	22.731	3.515
32	0.00	0.18	5.76	32.36	0.1780	0.013	0.007	17.431	3.026	3.515	34.697	22.020	0.455	22.731	3.515
Inlet #4	16	2.00	0.32	2.56	16.3232	0.1568	0.013	0.007	8.633	2.781	34.697	22.020	0.455	22.731	3.515
32	0.00	0.18	5.76	32.36	0.1780	0.013	0.007	17.431	3.026	3.515	34.697	22.020	0.455	22.731	3.515
Inlet #5	16	2.00	0.32	2.56	16.3232	0.1568	0.013	0.00915	9.870	3.180	39.669	15.210	0.376	18.817	3.543
32	0.00	0.18	5.76	32.36	0.1780	0.013	0.00915	19.929	3.460	3.543	39.669	15.210	0.376	18.817	3.543
Inlet #6	16	2.00	0.32	2.56	16.3232	0.1568	0.013	0.00936	9.983	3.216	40.122	15.210	0.375	18.737	3.573
32	0.00	0.18	5.76	32.36	0.1780	0.013	0.00936	20.156	3.499	3.573	40.122	15.210	0.375	18.737	3.573



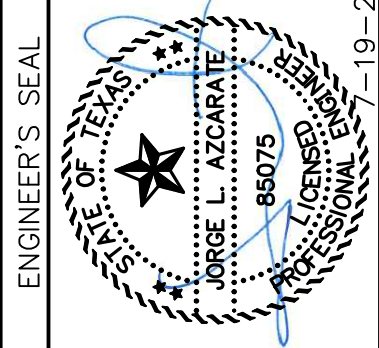
NOTES:
 1. RETAINING WALLS OVER 4 FT IN DEPTH SHALL BE CONSTRUCTED BY DEVELOPER (RETAINING PORTION OF ROCK WALL ONLY). REMAINING ROCK WALL HEIGHT SECTION TO BE BUILT BY BUILDER.

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING!
BEFORE YOU DIG
CALL 811
 FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

813 N. Kansas St.
 Suite 300
 El Paso, TX 79902
 915.544.5232
 www.ceagroup.net
CEA GROUP
 TEXAS REGISTERED ENGINEERING FIRM F-4564

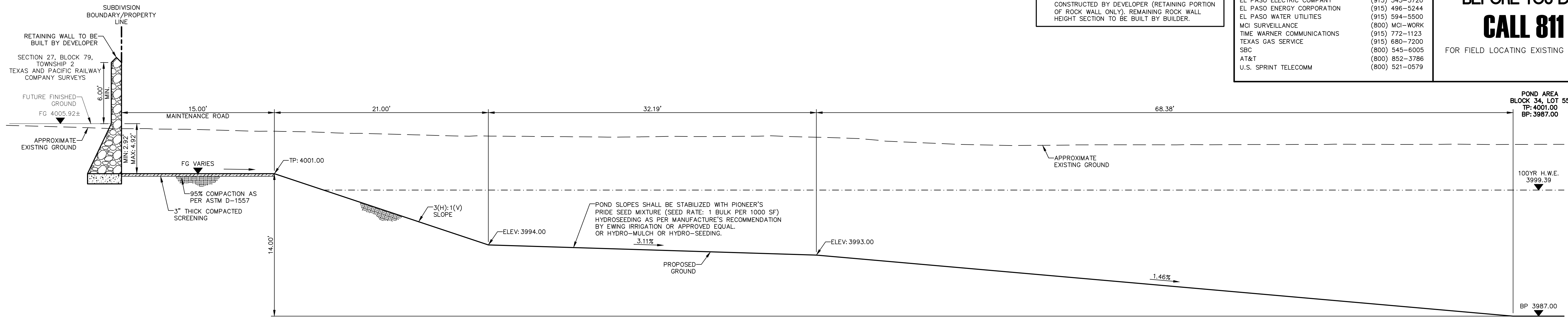


SCALE: 1"=5'
 Horizontal: 1"=5'
 Vertical: 1"=5'
 Contour Interval: N/A
 DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./C.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB No.: 2025-021

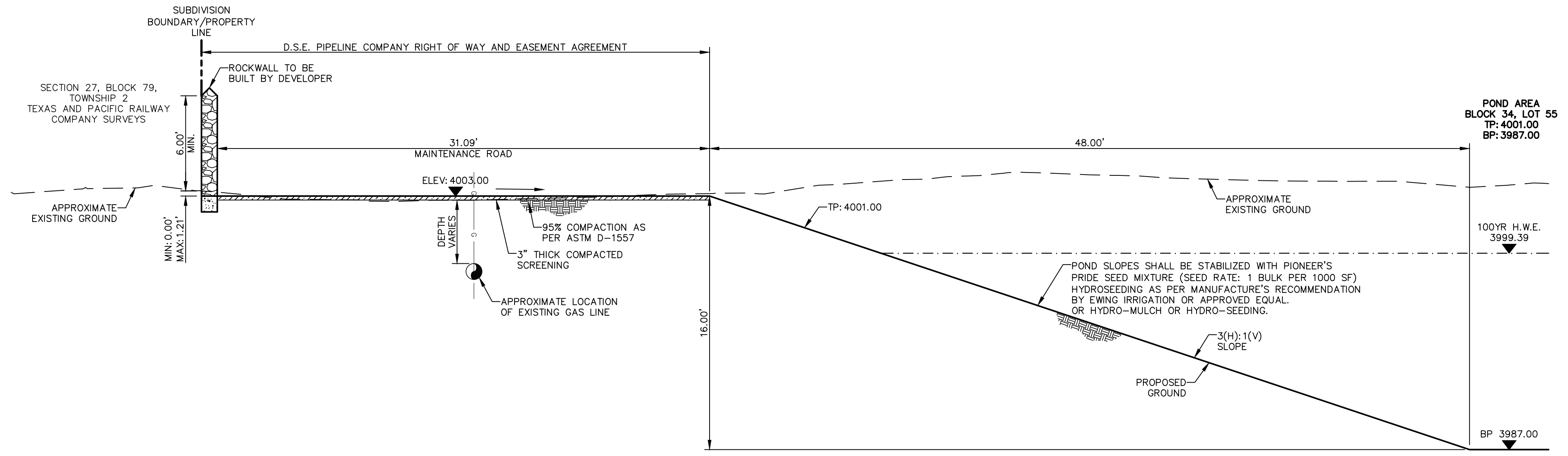
PROJECT TITLE
TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE
GRADING SECTIONS
 (SHEET 1 OF 2)
 SHEET NO.

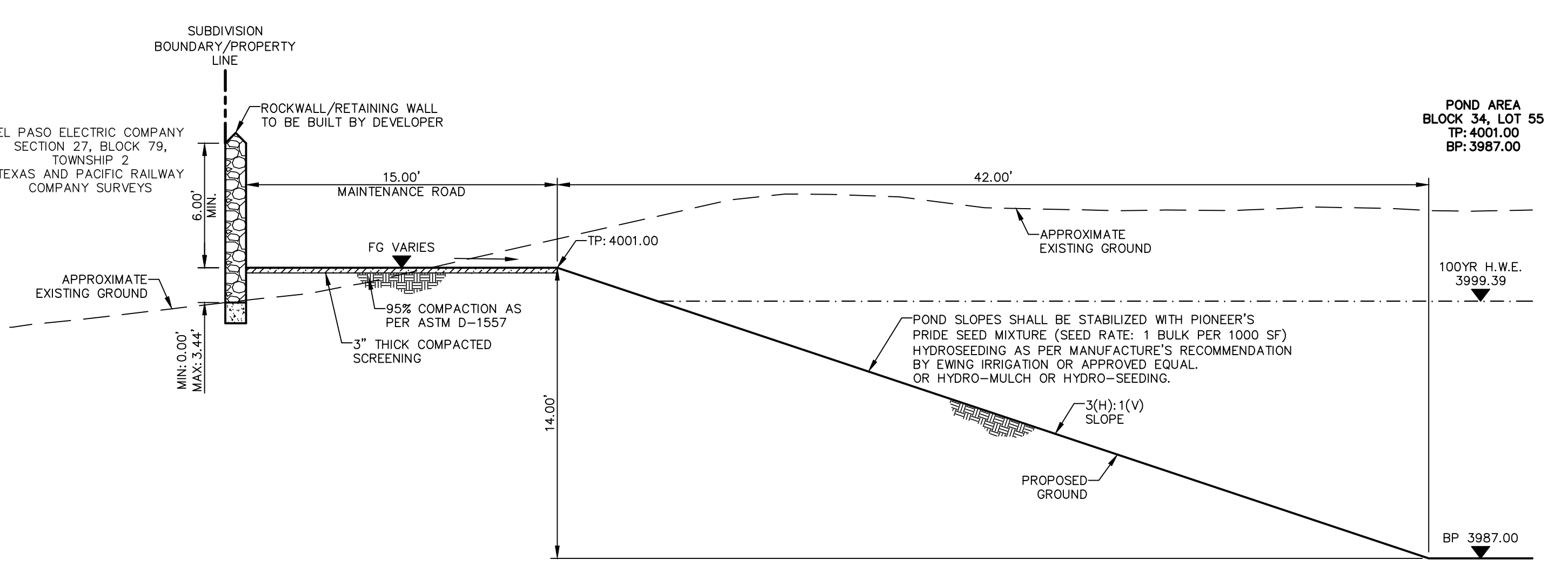
C5.1



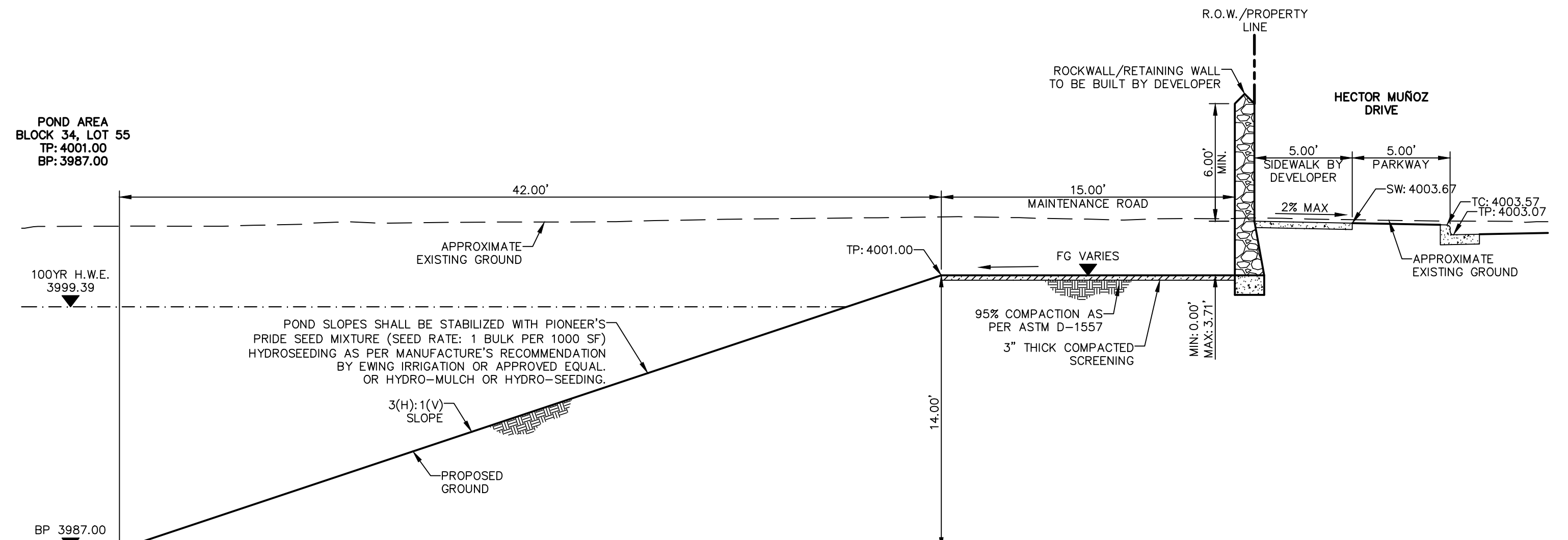
SECTION 1 (C5.1)



SECTION 2 (C5.1)



SECTION 3 (C5.1)



SECTION 4 (C5.1)

NOTES:
 1. RETAINING WALLS OVER 4 FT IN DEPTH SHALL BE CONSTRUCTED BY DEVELOPER (RETAINING PORTION OF ROCK WALL ONLY). REMAINING ROCK WALL HEIGHT SECTION TO BE BUILT BY BUILDER.

UTILITY LOCATOR SERVICES

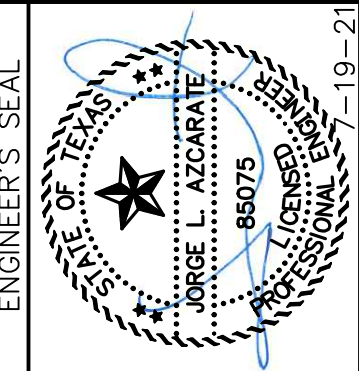
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 945-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING!
BEFORE YOU DIG
CALL 811
 FOR FIELD LOCATING EXISTING UTILITIES

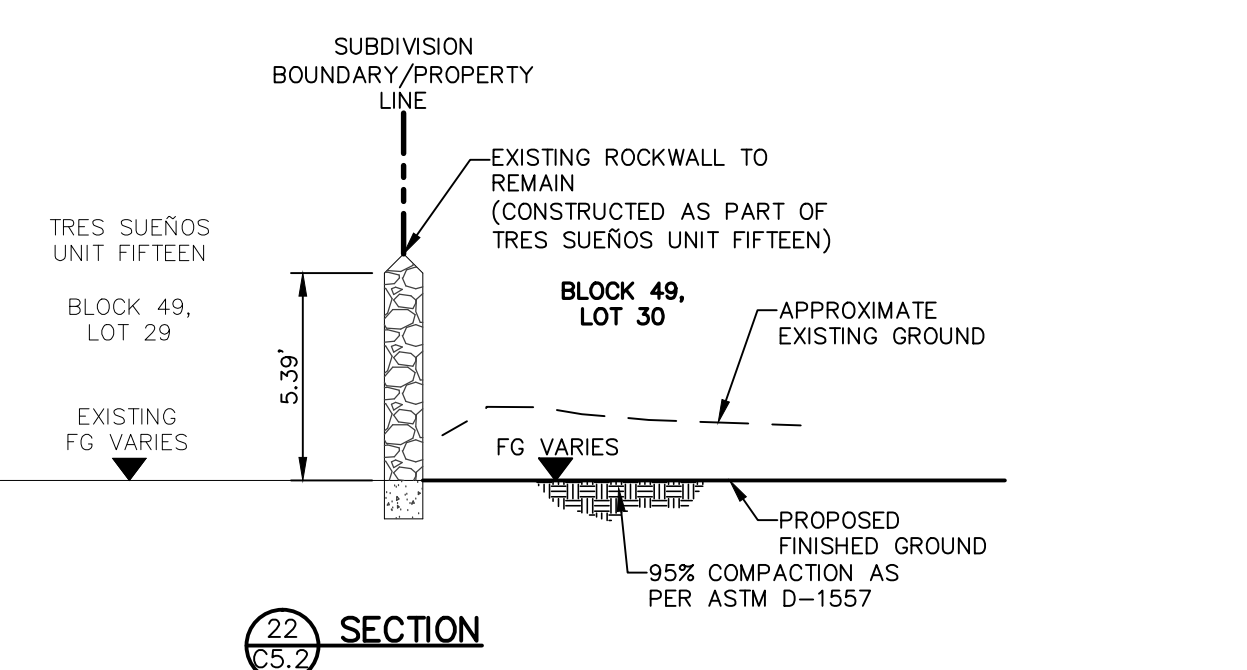
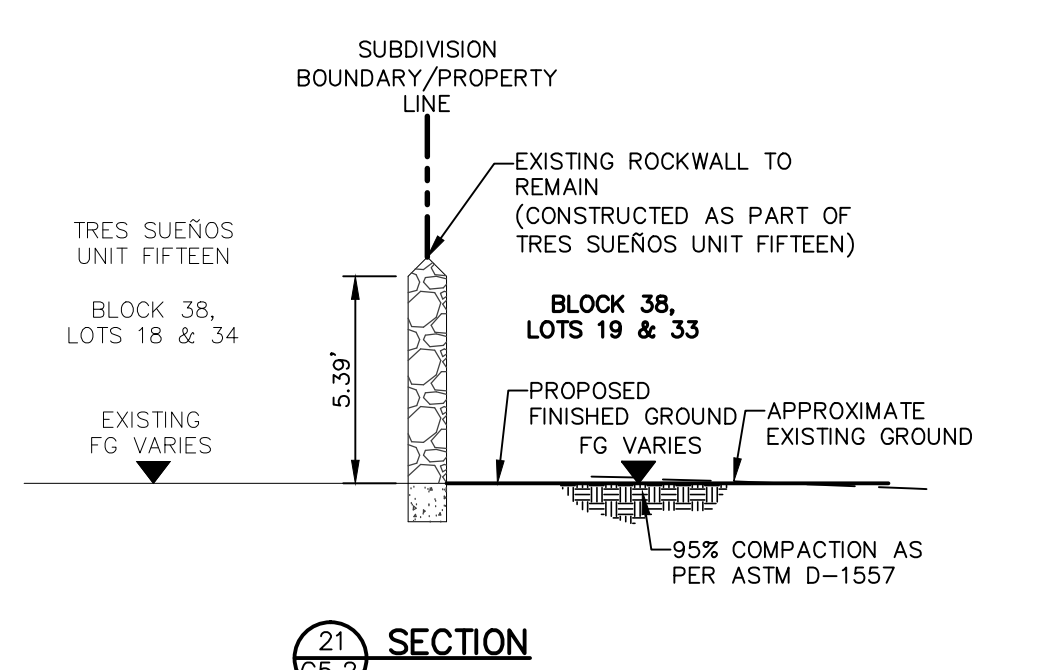
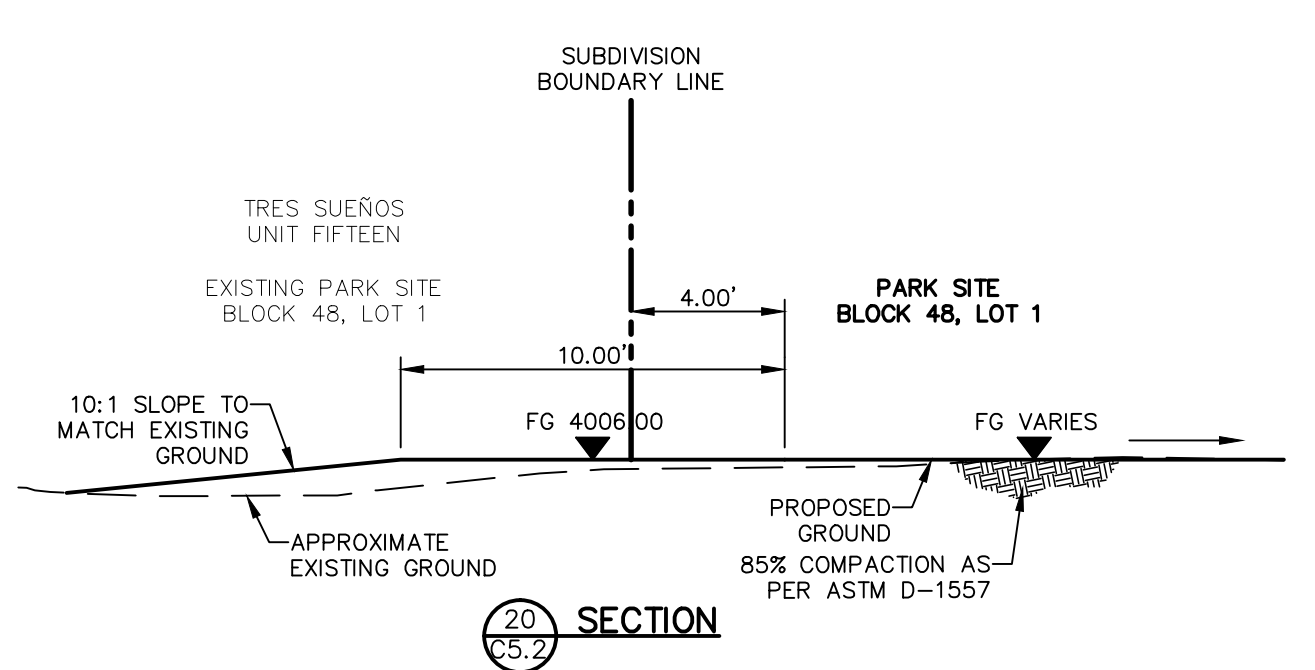
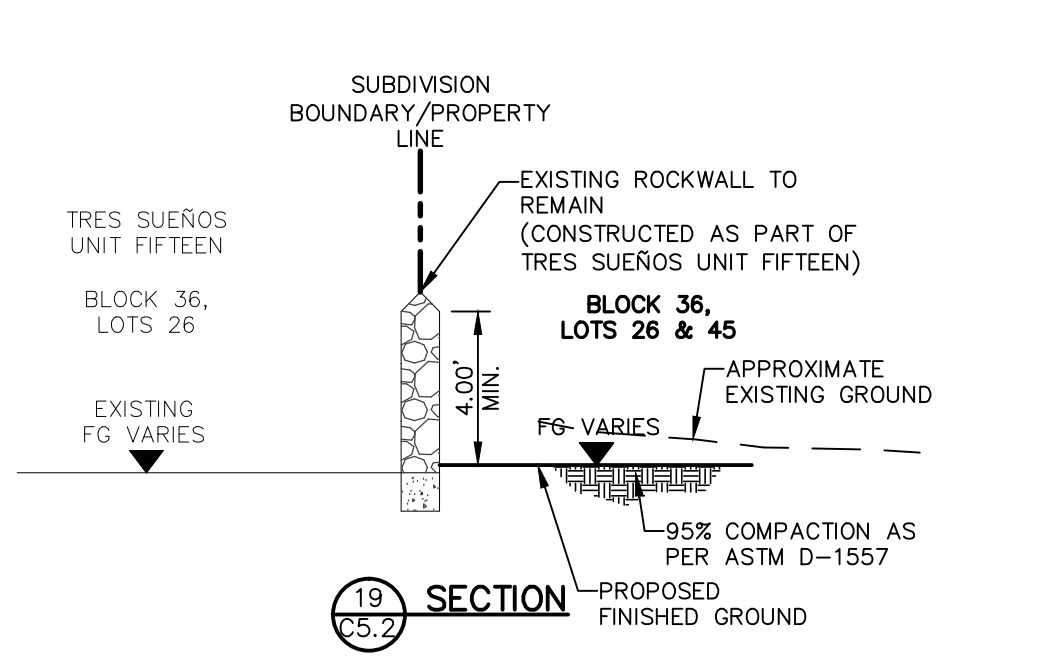
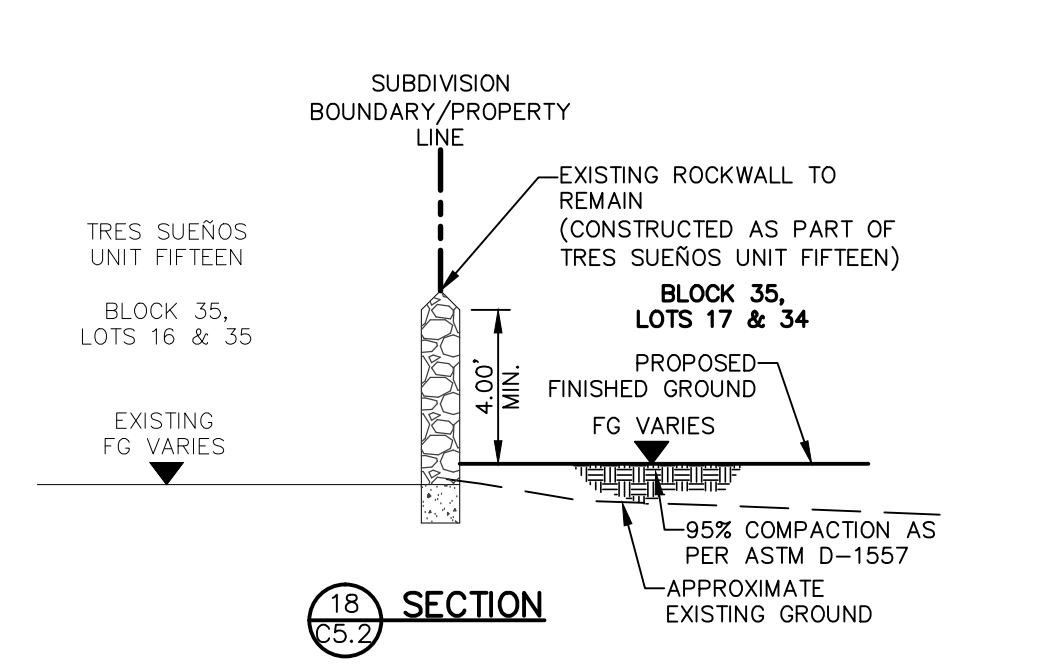
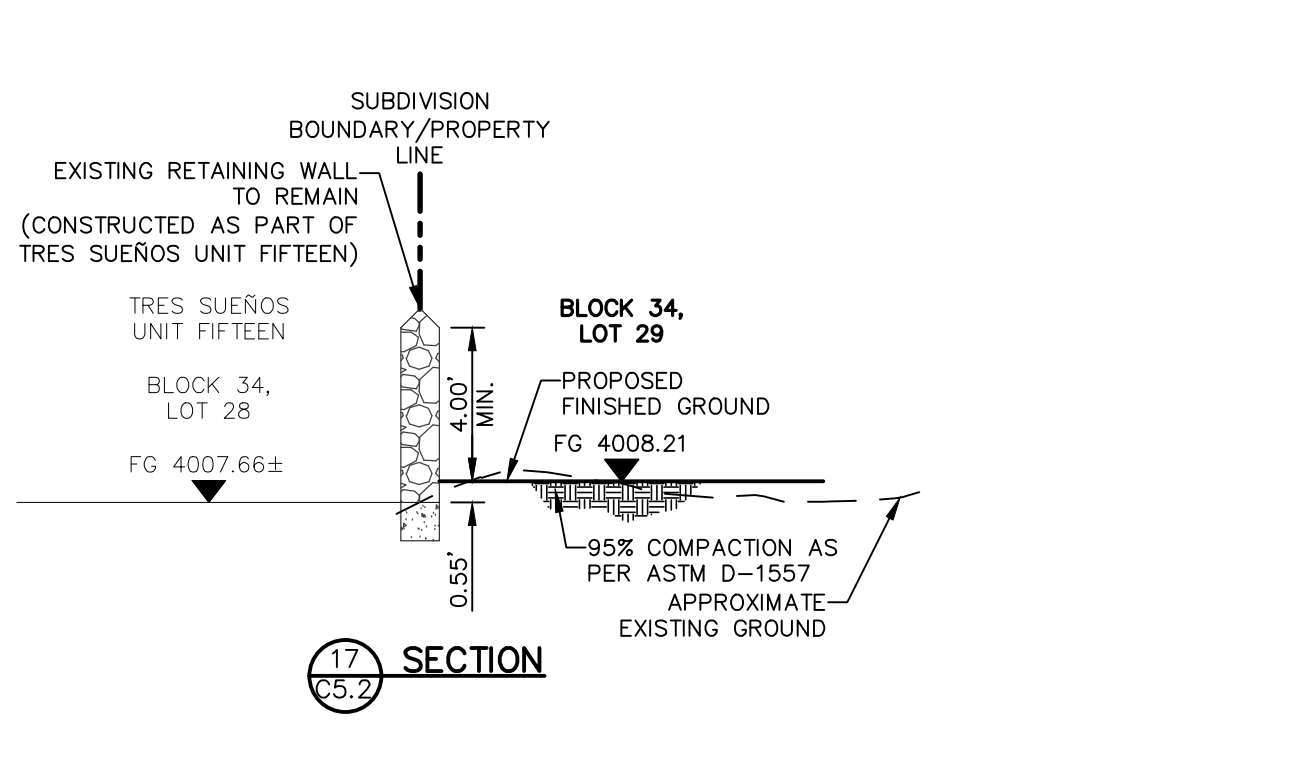
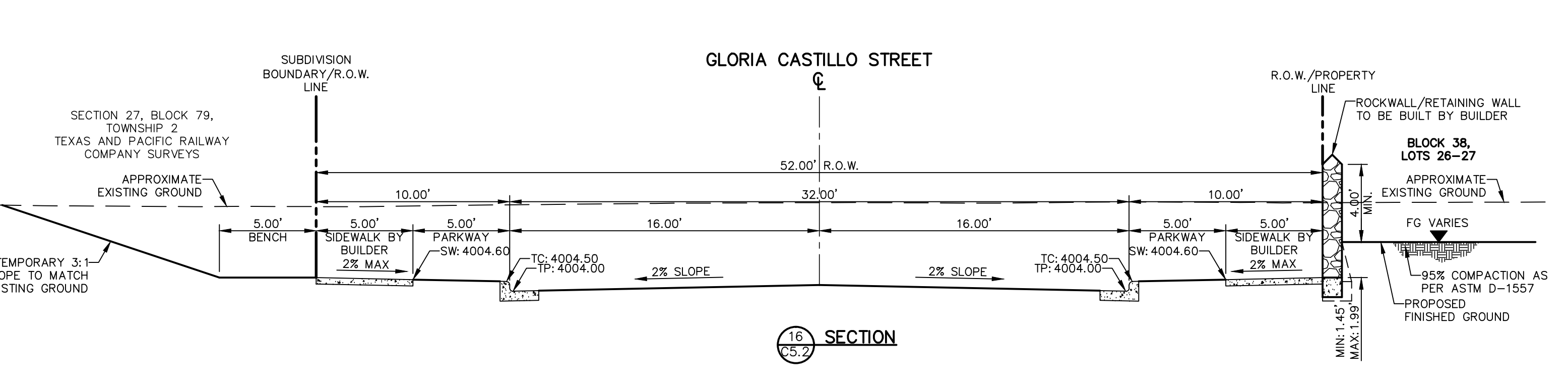
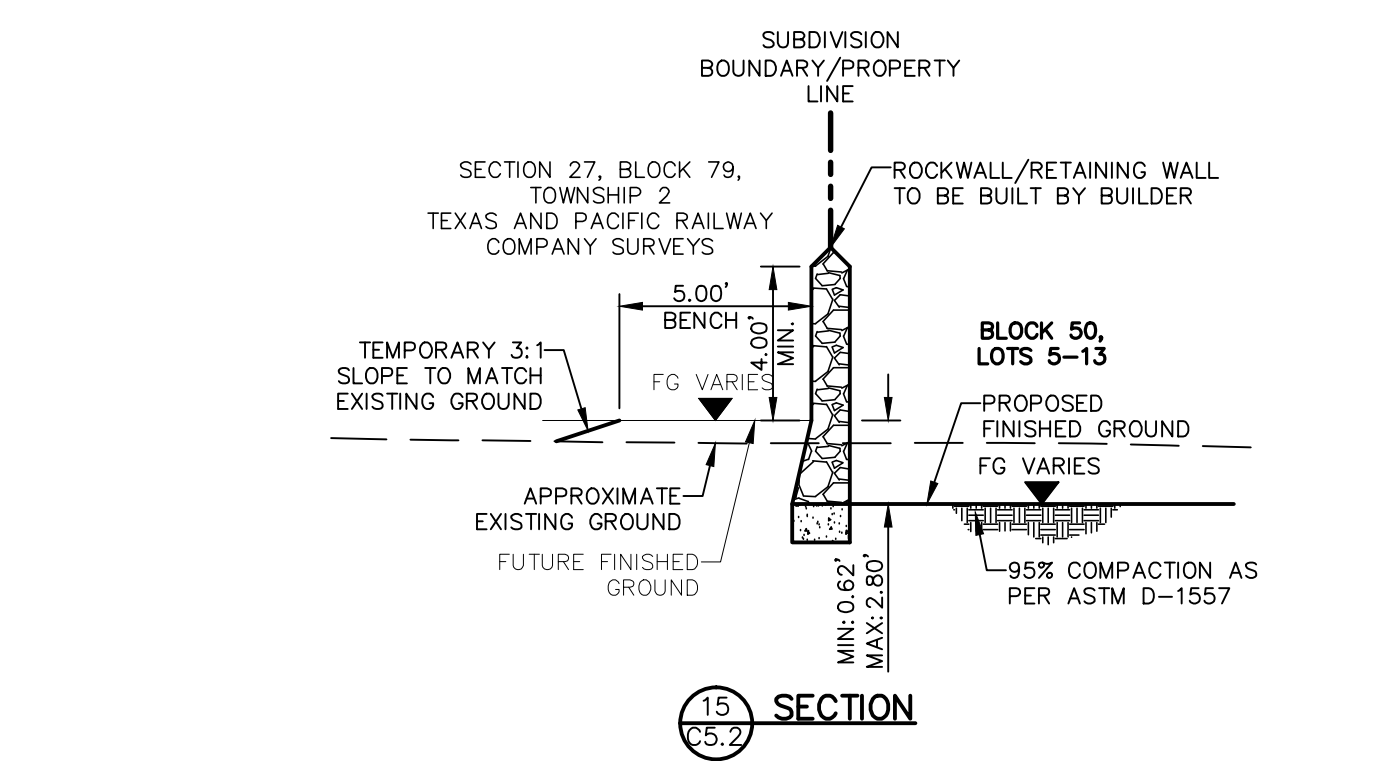
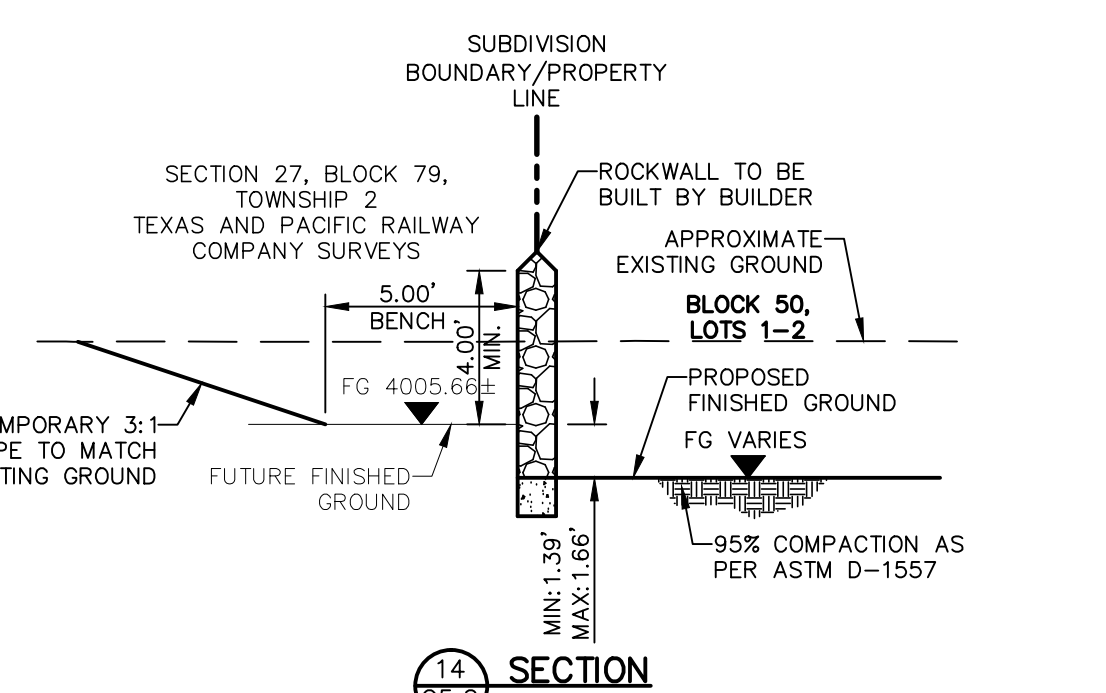
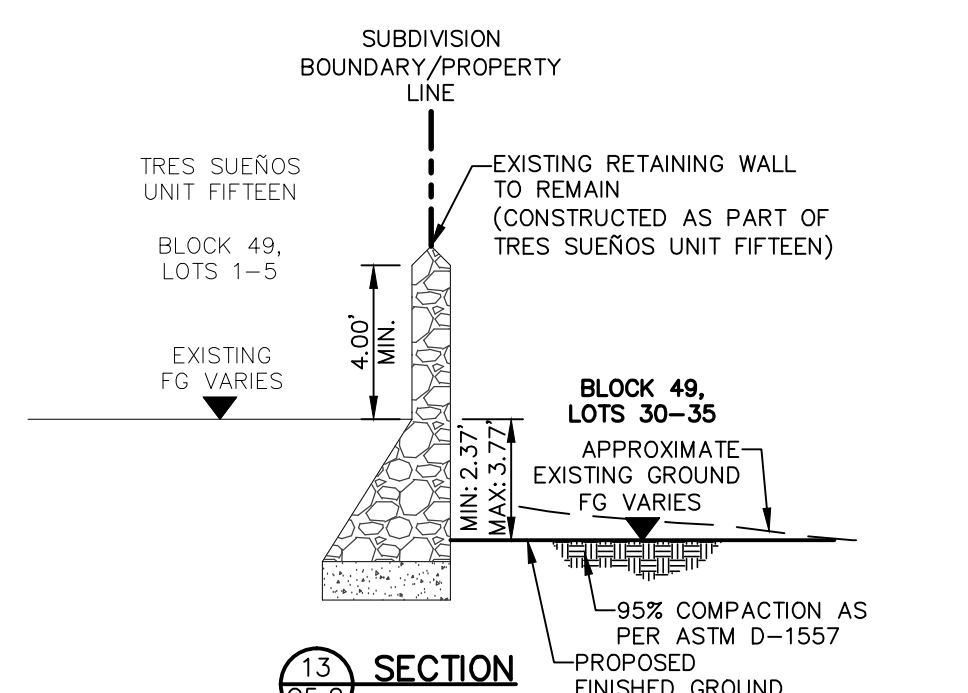
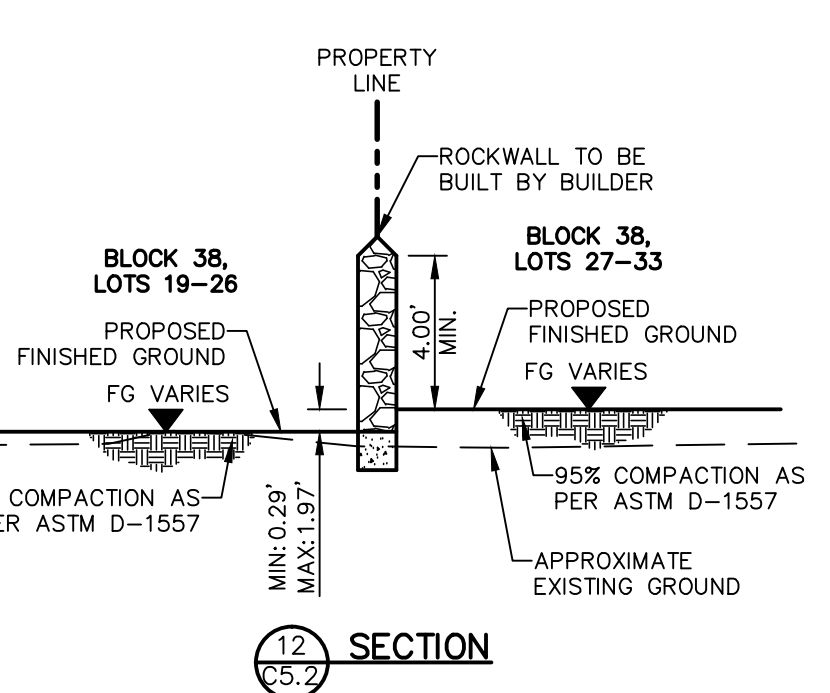
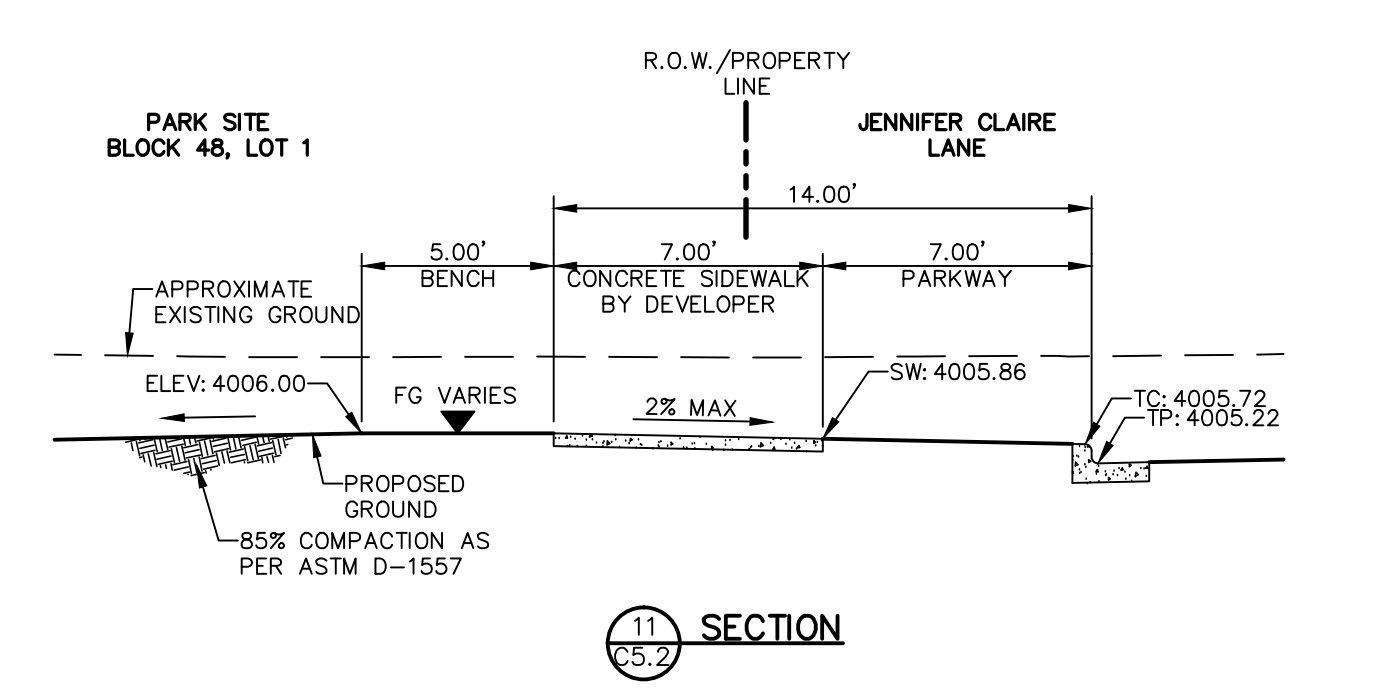
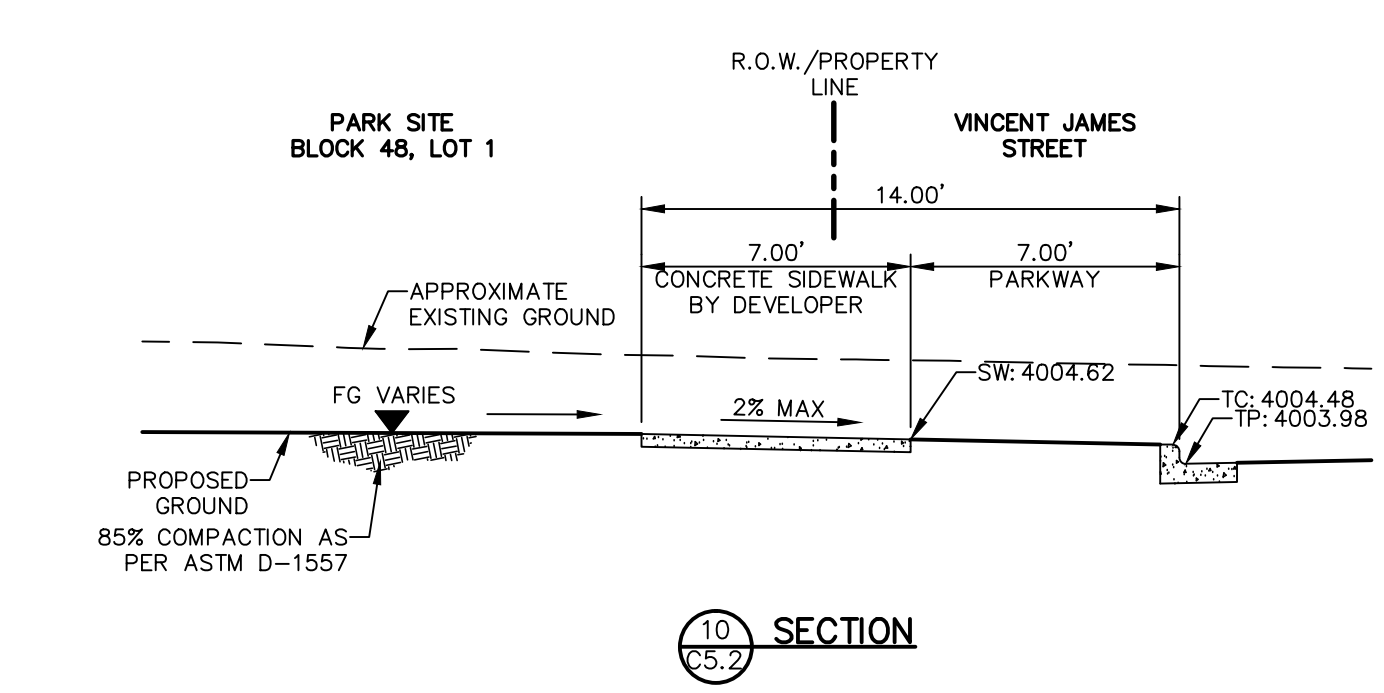
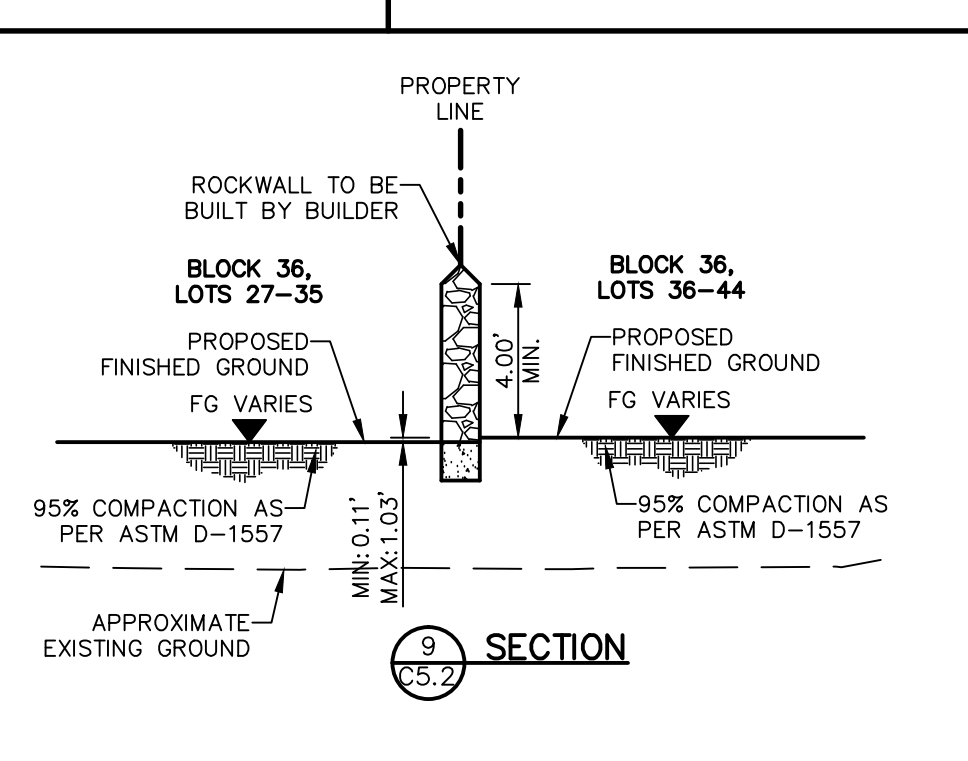
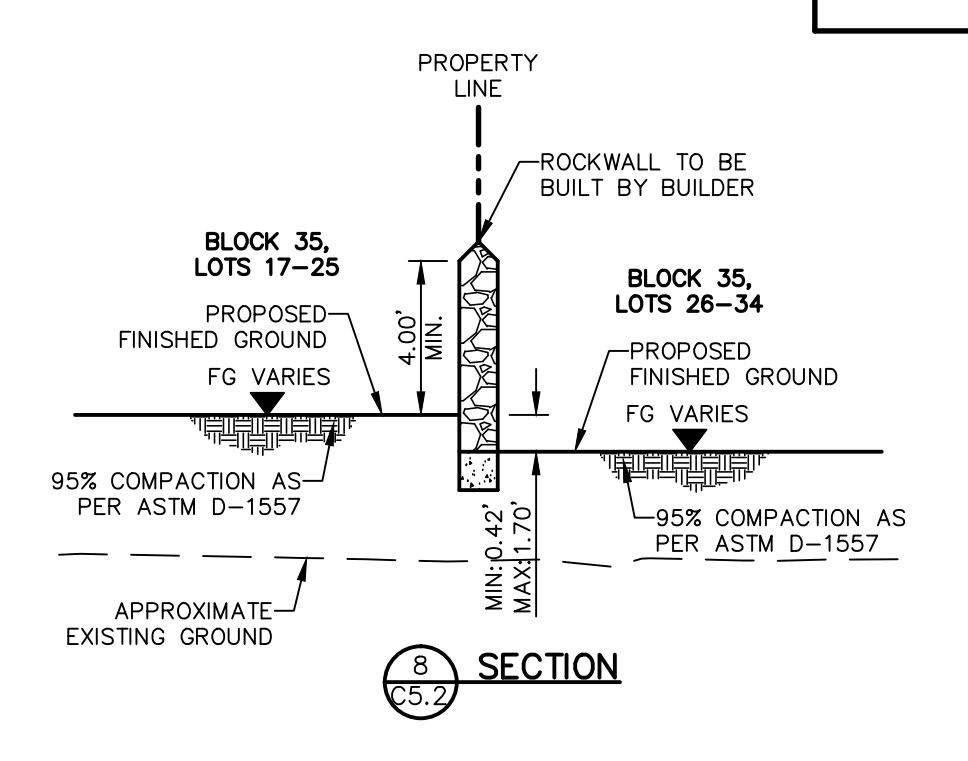
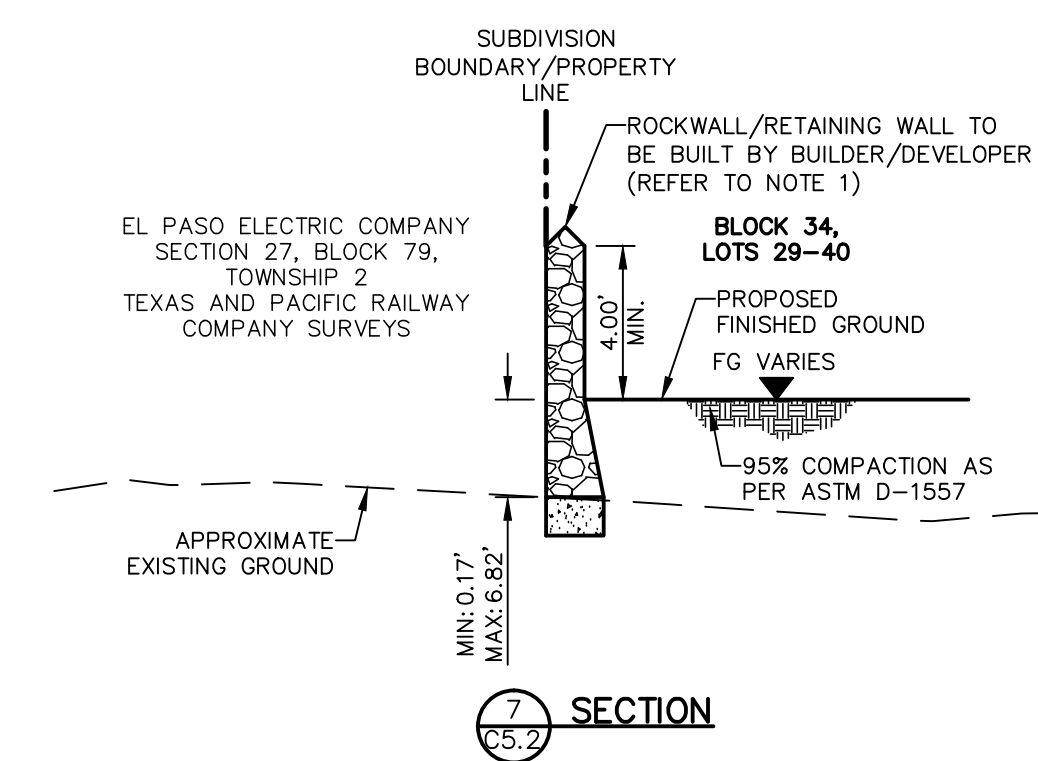
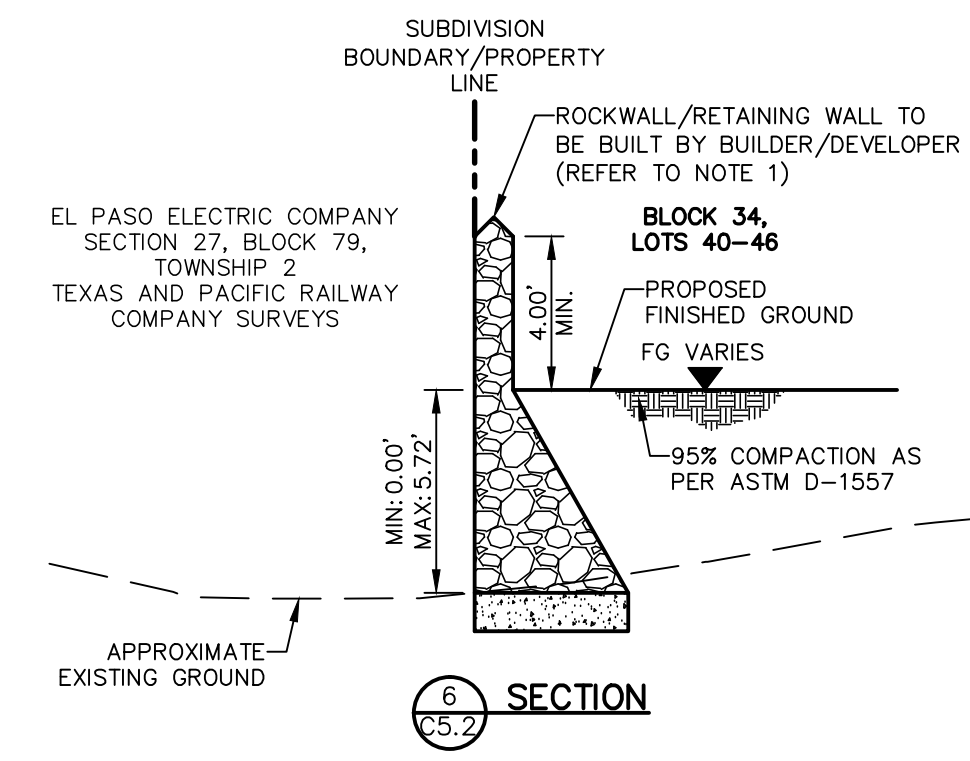
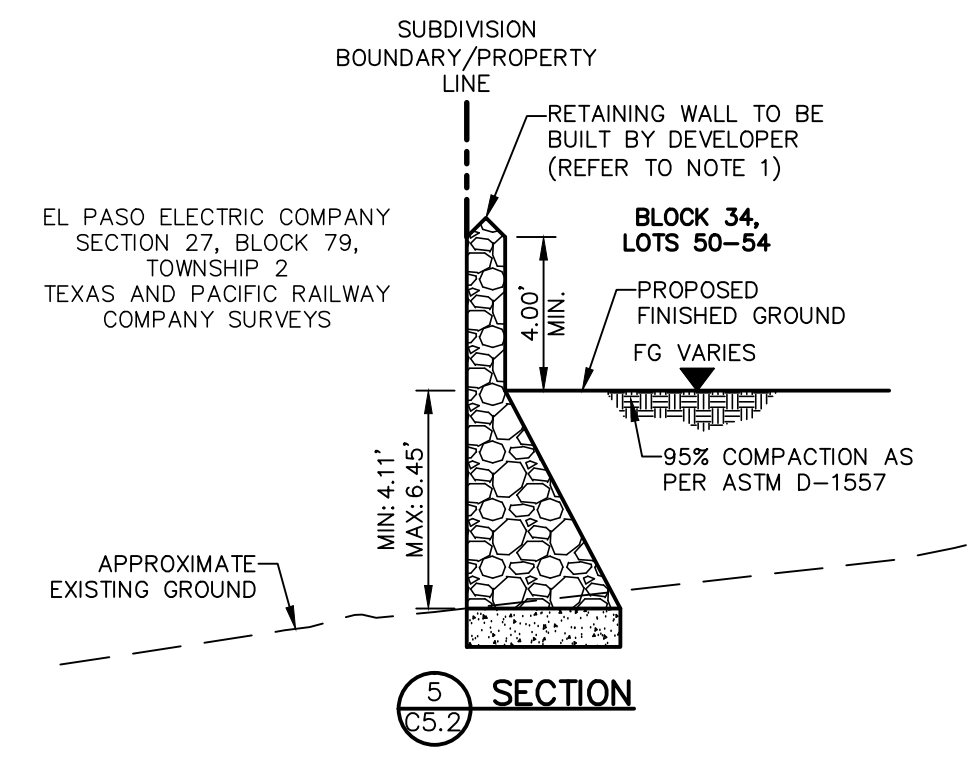
REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508+43.51'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.	4005-40 CITY DATUM
ELEVATION: 4014.90 (NAND 88)	(4005-40 CITY DATUM)

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CEA GROUP
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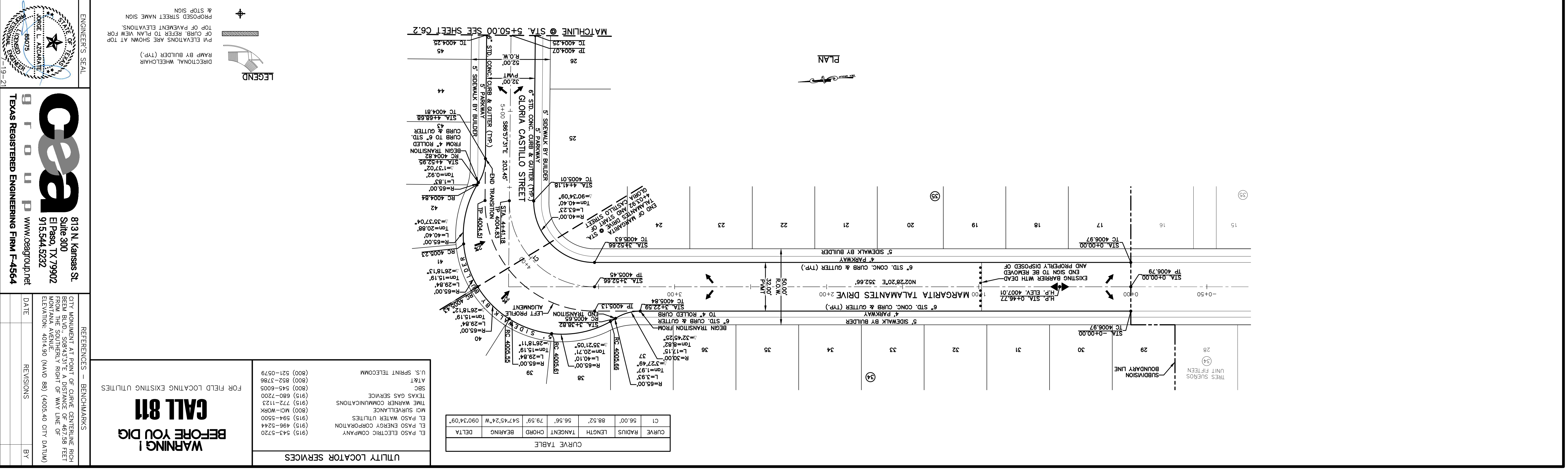
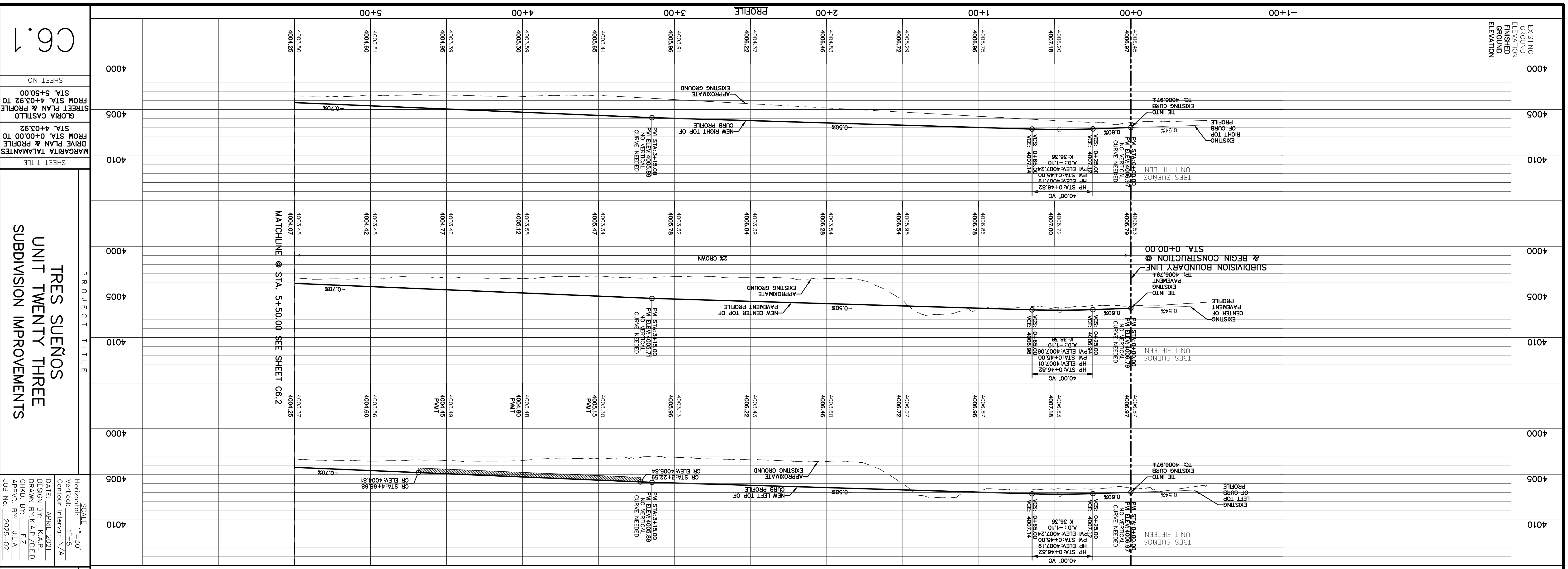
SCALE
 Horizontal: 1"=5'
 Vertical: 1"=5'
 Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
 JOB NO.: 2025-021



PROJECT TITLE
 TRES SUEÑOS
 UNIT TWENTY THREE
 SUBDIVISION IMPROVEMENTS

SHEET TITLE
 GRADING SECTIONS
 (SHEET 2 OF 2)
 SHEET NO.

C5.2



PROJECT TITLE
**TRES SUENOS
 UNIT TWENTY THREE
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
C6.1

SHEET NO.
 FROM STA. 5+50.00 TO STA. 4+03.92
 FROM STA. 0+00.00 TO STA. 4+03.92

GLORIA CASTILLO STREET PLAN & PROFILE FROM STA. 4+03.92 TO STA. 4+03.92
 MARGARITA TALAMANTES DRIVE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+03.92

SCALE: 1" = 30'

Horizontal: 1" = 50'
 Vertical: 1" = 5'
 Contour Interval: N/A

DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: A.P./C.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB NO.: 2025-021

ENGINEER'S SEAL
 JOURNAL NO. 19-21

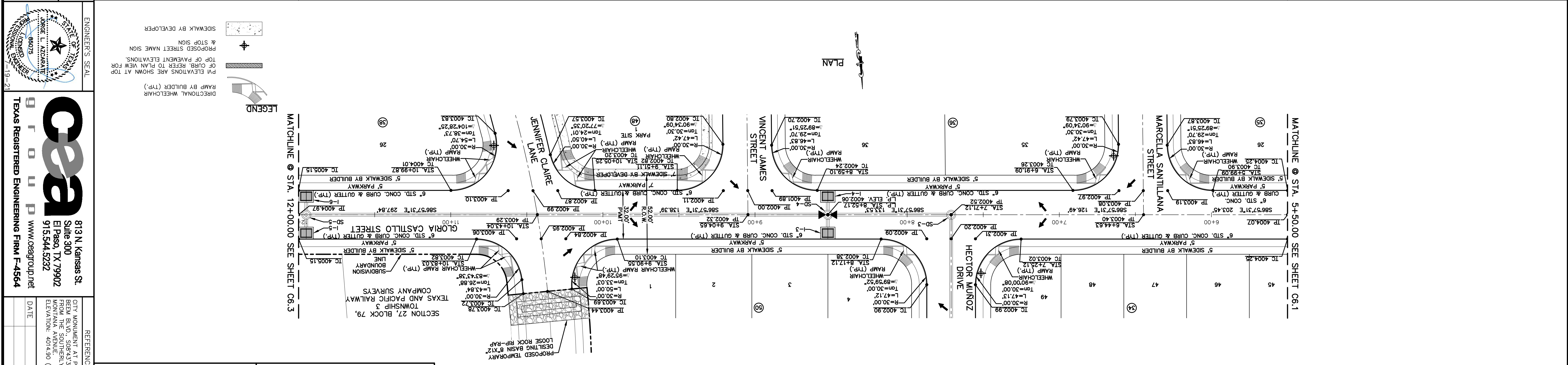
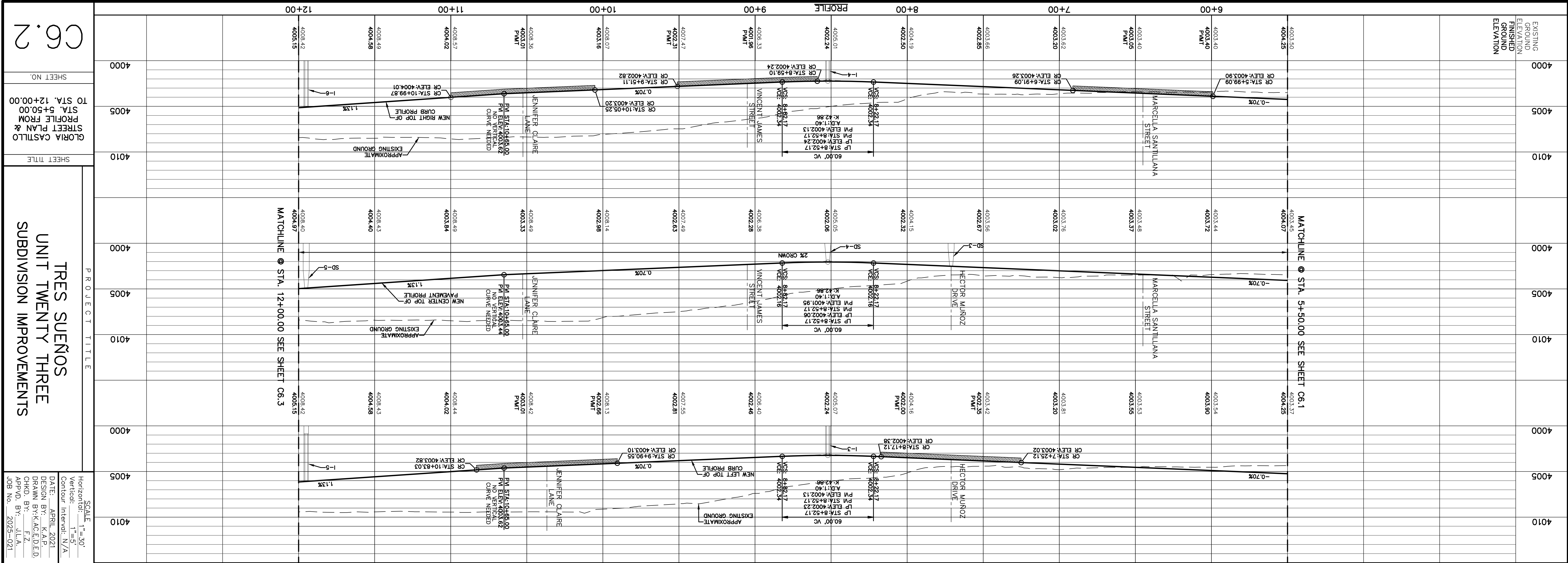
813 N. Kansas St.
 Suite 300
 El Paso, TX 79902
 915.544.5292
 www.ceagroup.net

TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEHIND BLDG., S08°43'31"E A DISTANCE OF 467.28 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONYANA AVENUE. (NAMD 88) (4005.40 CITY DATUM) ELEVATION: 4014.90

FOR FIELD LOCATING EXISTING UTILITIES
**CALL 811
 BEFORE YOU DIG!**

LEGEND
 PROPOSED STREET NAME SIGN & STOP SIGN
 TOP OF PAVEMENT ELEVATIONS.
 PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR RAMP BY BUILDER (TRP).
 DIRECTIONAL WHEELCHAIR



WARNING! BEFORE YOU DIG CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5220
 EL PASO ENERGY CORPORATION (915) 496-5244
 EL PASO WATER UTILITIES (915) 594-5500
 MCI SURVEILLANCE (800) MCI-WORK
 TIME WARNER COMMUNICATIONS (915) 772-1123
 SBC (800) 545-6000
 AT&T (800) 452-3786
 U.S. SPRINT TELECOMM (800) 521-0579

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEING BOUND. -504.337E A DISTANCE OF 467.28 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. (NAMD 88) (4005.40 CITY DATUM) ELEVATION: 4014.90

DATE: _____ BY: _____

REVISIONS

813 N. Kansas St. Suite 300 El Paso, TX 79902 915.544.5292 www.ceegroup.net TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL

SCALE: 1"=30'

Horizontal: 1"=50'
 Vertical: 1"=5'

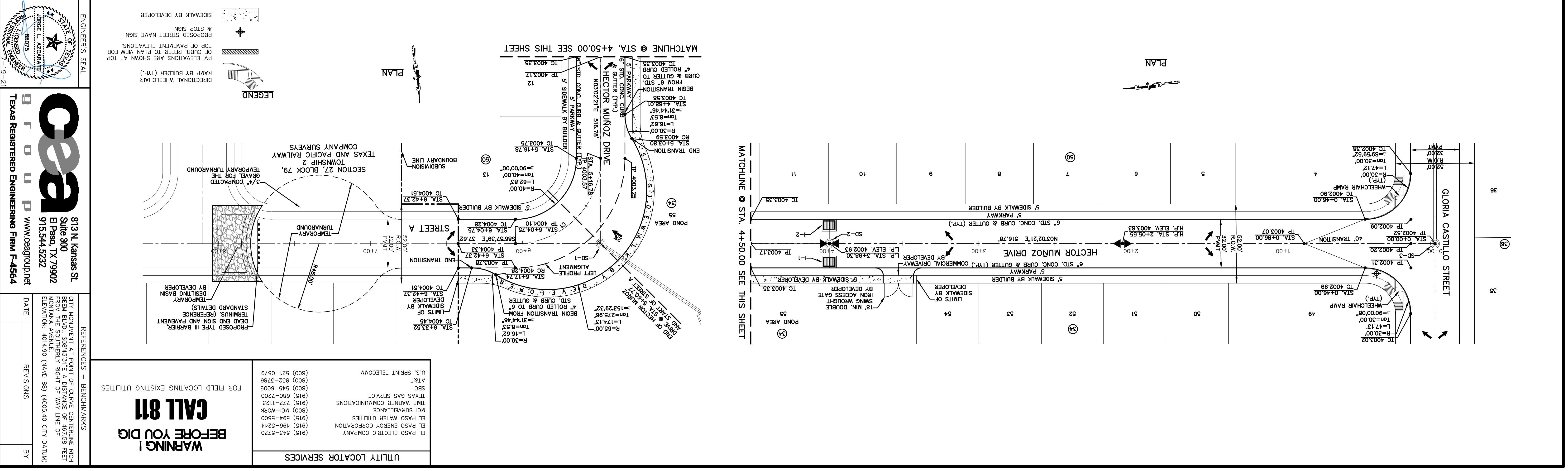
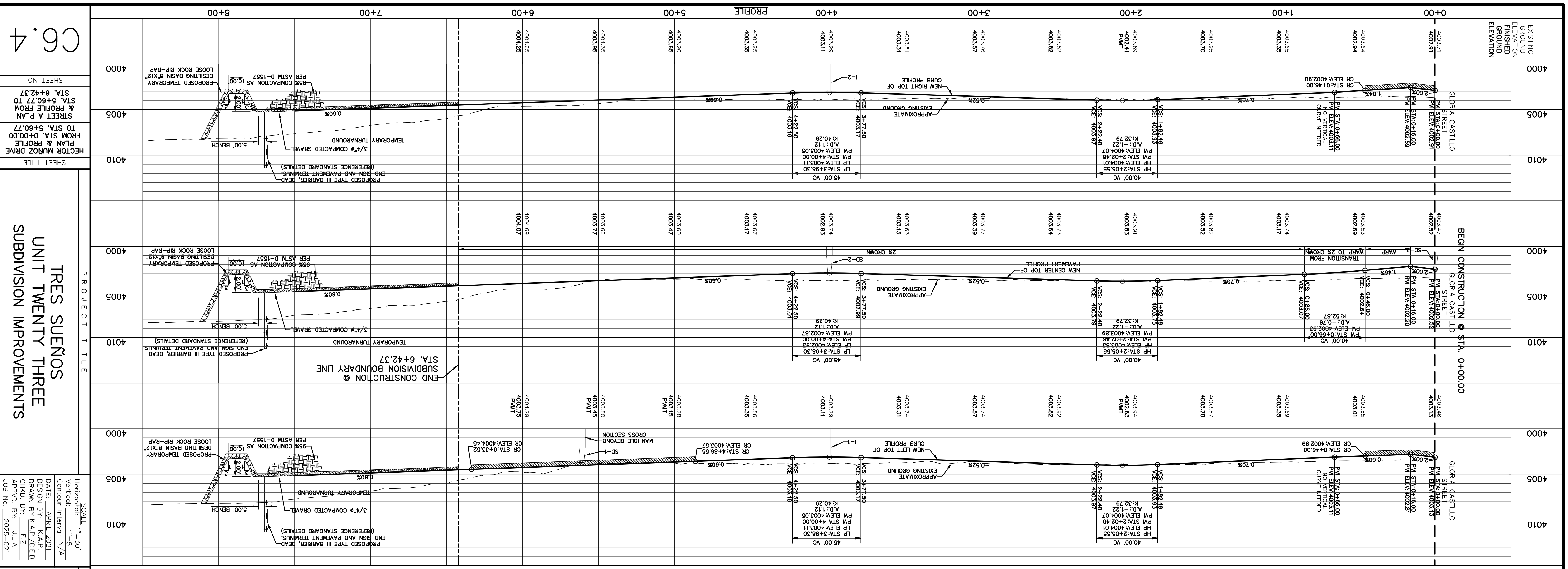
Contour Interval: N/A

DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.C.E.D.
 CKD. BY: F.Z.
 APPD. BY: J.L.A.
 JOB No. 2025-021

PROJECT TITLE
TRES SUEÑOS UNIT TWENTY THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE
GLORIA CASTILLO STREET PLAN & PROFILE FROM STA. 5+50.00 TO STA. 12+00.00

SHEET NO.
C6.2



CG.4

SHEET NO.

STREET A PLAN

FROM STA. 0+00.00 TO STA. 5+60.77

HECTOR MUNOZ DRIVE

PLAN & PROFILE

SHEET TITLE

TRES SUEÑOS

UNIT TWENTY THREE

SUBDIVISION IMPROVEMENTS

PROJECT TITLE

SCALE: 1" = 30'

Horizontal: 1" = 50'

Vertical: 1" = 5'

Contour Interval: N/A

DATE: APRIL 2021

DESIGN BY: K.A.P.

DRAWN BY: K.A.P./C.E.D.

CHKD. BY: F.Z.

APP'D. BY: J.L.A.

JOB NO.: 2025-021

ENGINEER'S SEAL

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Suite 300
El Paso, TX 79902
915.544.5232
www.ceagroup.net

TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEHIND BLDG., S04°43'37"E A DISTANCE OF 467.28 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE (NAND 88) (4005.40 CITY DATUM)

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5220

EL PASO ENERGY CORPORATION (915) 496-5244

EL PASO WATER UTILITIES (915) 594-5500

MCI SURVEILLANCE (800) MCI-WORK

TIME WARNER COMMUNICATIONS (915) 772-1123

TEXAS GAS SERVICE (800) 680-7200

AT&T (800) 452-3786

U.S. SPRINT TELECOMM (800) 521-0579

FOR FIELD LOCATING EXISTING UTILITIES

CALL 811

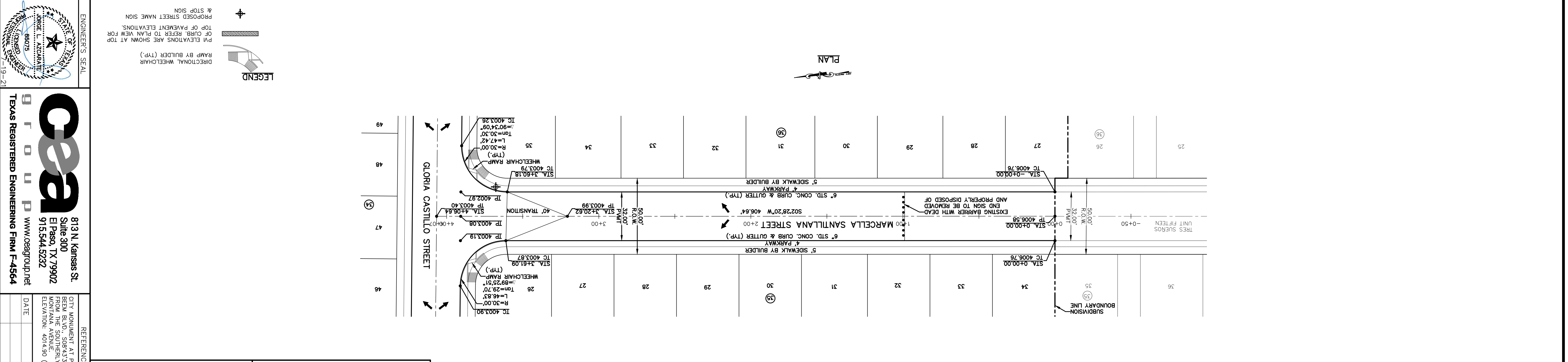
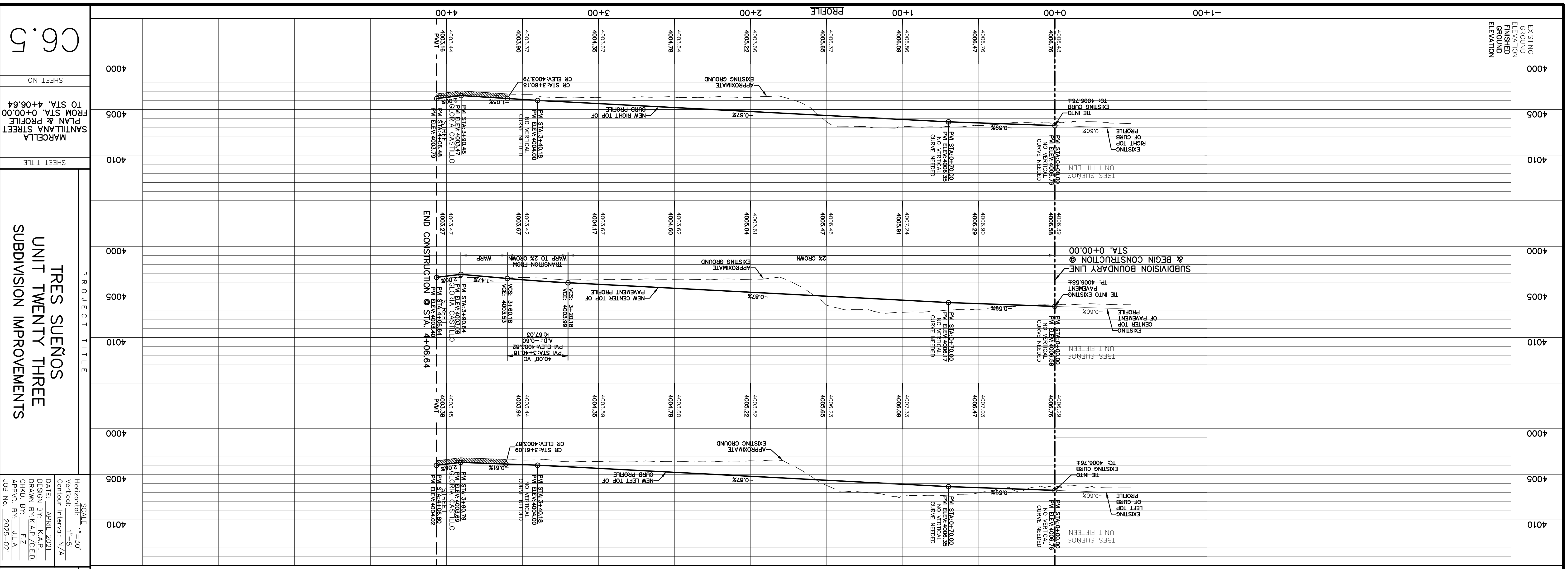
WARNING!

BEFORE YOU DIG!

REVISIONS

DATE

BY



WARNING! BEFORE YOU DIG CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5220
 EL PASO ENERGY CORPORATION (915) 496-5244
 EL PASO WATER UTILITIES (915) 594-5500
 MCI SURVEILLANCE (800) MCI-WORK
 TIME WARNER COMMUNICATIONS (915) 772-1123
 TEXAS GAS SERVICE (800) 545-6000
 AT&T (800) 452-3786
 U.S. SPRINT TELECOMM (800) 521-0579

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT FROM STA. 4000.00 TO STA. 4006.64
 FROM THE SOUTHERLY RIGHT OF WAY LINE OF FRONTANA AVENUE (NAMD 88) (4005.40 CITY DATUM) ELEVATION: 4014.90

DATE: _____ BY: _____

REVISIONS

813 N. Kansas St. Suite 300 El Paso, TX 79902 915.544.5292 www.ceagroup.net

CEAG TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL

LEGEND

PROPOSED STREET NAME SIGN & STOP SIGN
 TOP OF CURB, REFER TO PLAN VIEW FOR PVI ELEVATIONS ARE SHOWN AT TOP
 DIRECTIONAL WHEELCHAIR RAMP BY BUILDER (TYP.)

PROJECT TITLE
TRES SUEÑOS UNIT TWENTY THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE
MARCELLA SANTILLANA STREET FROM STA. 0+00.00 TO STA. 4+06.64

SHEET NO.
CG.5

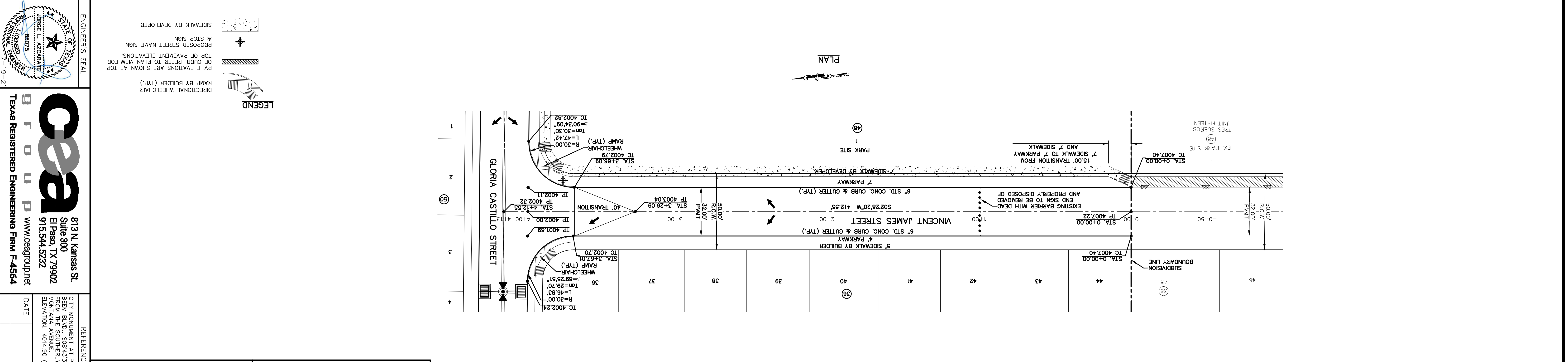
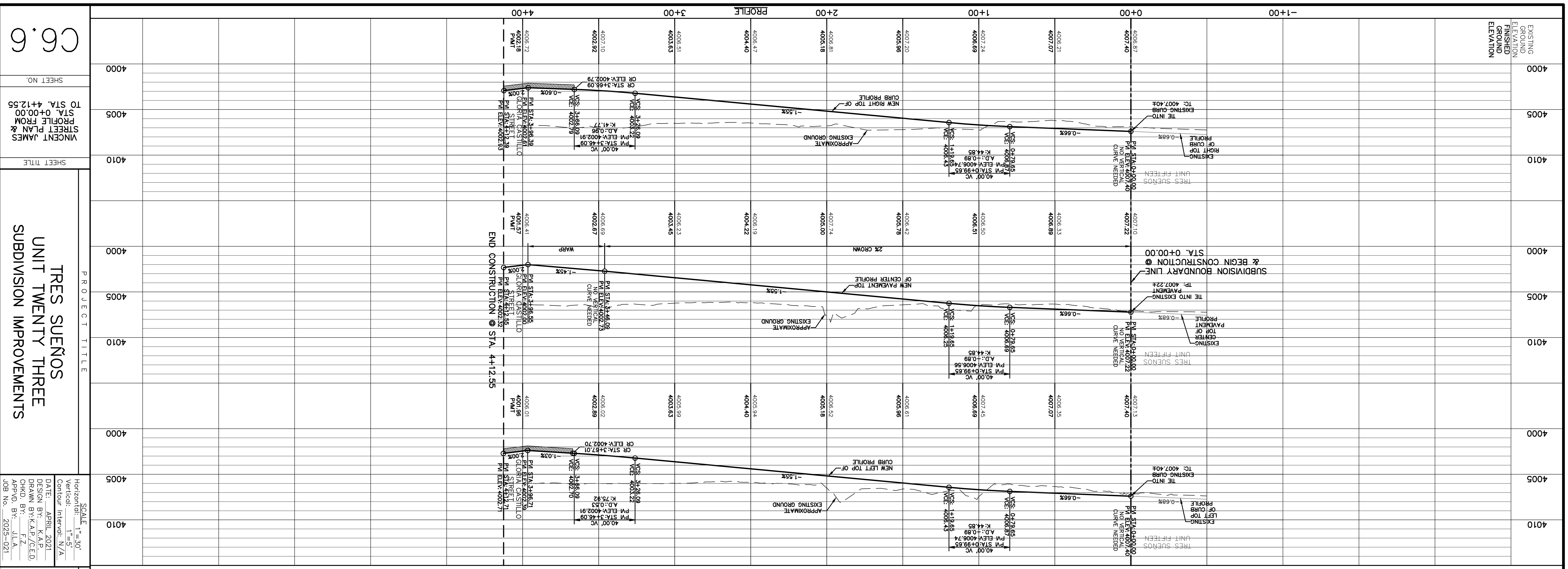
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Horizontal: 1" = 50'
 Vertical: 1" = 5'

Contour Interval: N/A

DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./C.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB NO.: 2025-021

STATION	EXISTING ELEVATION	FINISHED GROUND ELEVATION
4000	4006.43	4006.43
4005	4006.76	4006.76
4010	4006.47	4006.47
4000	4006.29	4006.29
4005	4006.47	4006.47
4010	4006.29	4006.29
4000	4006.09	4006.09
4005	4006.29	4006.29
4010	4006.09	4006.09
4000	4005.52	4005.52
4005	4005.22	4005.22
4010	4005.52	4005.52
4000	4004.78	4004.78
4005	4004.52	4004.52
4010	4004.78	4004.78
4000	4003.59	4003.59
4005	4003.22	4003.22
4010	4003.59	4003.59
4000	4003.67	4003.67
4005	4003.42	4003.42
4010	4003.67	4003.67
4000	4003.37	4003.37
4005	4003.18	4003.18
4010	4003.37	4003.37
4000	4003.44	4003.44
4005	4003.18	4003.18
4010	4003.44	4003.44



LEGEND

- Directional Wheelchair Ramp by Builder (TYP.)
- Proposed Street Name Sign & Stop Sign
- SideWalk by Developer

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720
 EL PASO ENERGY CORPORATION (915) 496-5244
 MCI SURVEILLANCE (800) MCI-WORK
 TIME WARNER COMMUNICATIONS (915) 772-1123
 TEXAS GAS SERVICE (800) 545-6003
 AT&T (800) 452-3786
 U.S. SPRINT TELECOMM (800) 521-0579

REFERENCES - BENCHMARKS

FOR FIELD LOCATING EXISTING UTILITIES

WARNING! BEFORE YOU DIG CALL 811

CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEHIND BLDG., 508+33.71E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. (NAMD 88) (4005.40 CITY DATUM) ELEVATION: 4014.90

DATE: _____ BY: _____

REVISIONS:

EXISTING ELEVATION
 FINISHED GROUND ELEVATION

4000 4005 4010 4000 4005 4010 4000 4005 4010

PROJECT TITLE
TRES SUEÑOS UNIT TWENTY THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE
06.6

SHEET NO.
 TO STA. 4+12.55
 PROFILE FROM
 STREET JAMES
 VINCENT JAMES

SCALE: 1" = 30'

Horizontal: 1" = 50'
 Vertical: 1" = 5'
 Contour Interval: N/A

DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./C.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB No.: 2025-021

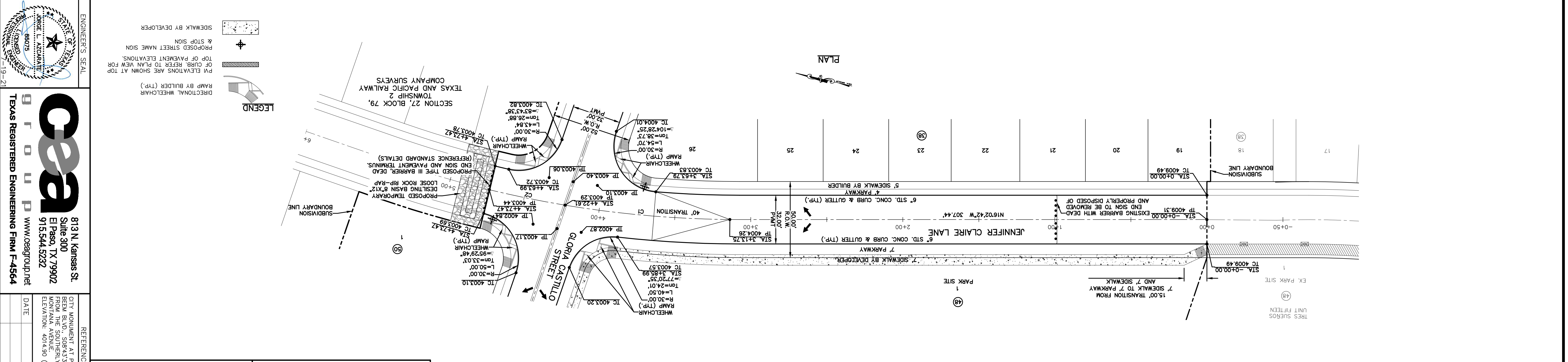
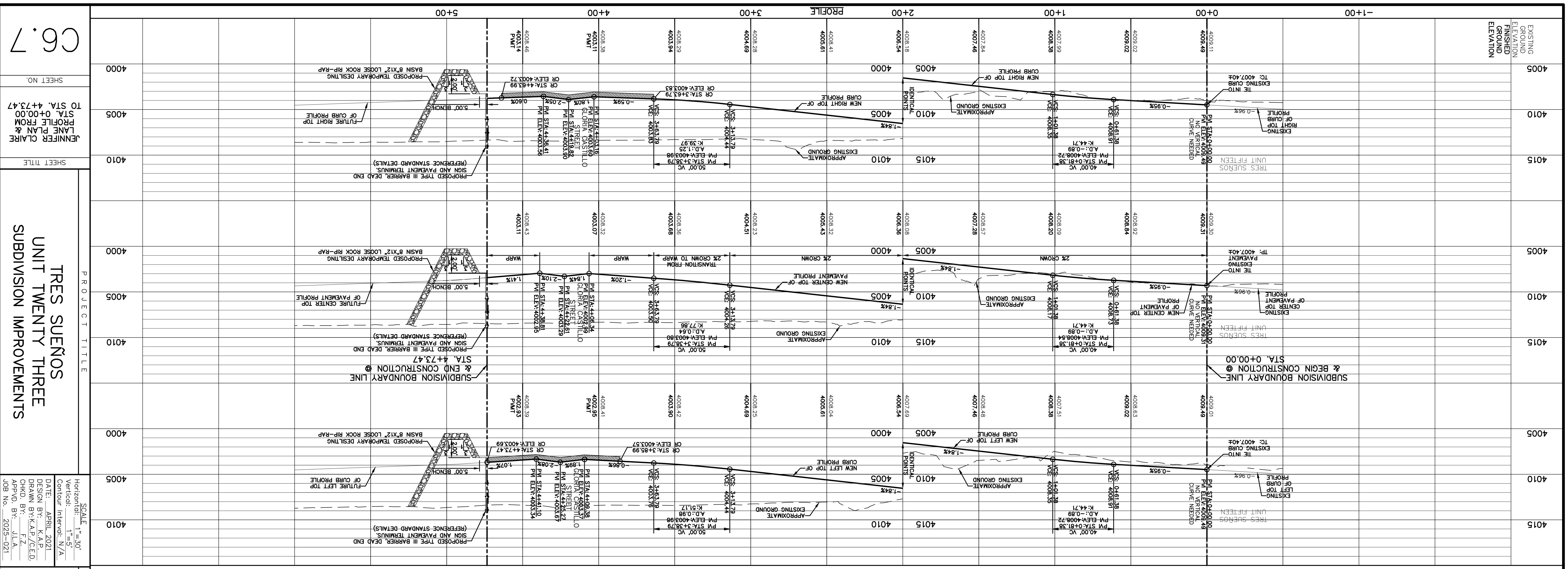
ENGINEER'S SEAL

STATE OF TEXAS
 PROFESSIONAL ENGINEER
 NO. 69075
 JAMES A. PETERSON
 19-21

813 N. Kansas St.
 Suite 300
 El Paso, TX 79902
 915.544.5292
 www.ceagroup.net
 TEXAS REGISTERED ENGINEERING FIRM F-4564

DATE: _____ BY: _____

REVISIONS:



UTILITY LOCATOR SERVICES

FOR FIELD LOCATING EXISTING UTILITIES

CALL 811 BEFORE YOU DIG

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT FROM BLVD., S06°43'37"E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. (NAMD 88) (4005.40 CITY DATUM) ELEVATION: 4014.90

BY: _____ DATE: _____

REVISIONS:

NO.	DATE	DESCRIPTION
1	APRIL 2021	ISSUED FOR PERMIT

UTILITY LOCATOR SERVICES

U.S. SPRINT TELECOMM (800) 521-0579
 AT&T (800) 452-3786
 SBC (800) 545-6000
 TEXAS GAS SERVICE (915) 650-7200
 TIME WARNER COMMUNICATIONS (915) 772-1123
 MCI SURVEILLANCE (800) MCI-WORK (800) 594-5500
 EL PASO WATER UTILITIES (915) 496-5244
 EL PASO ENERGY CORPORATION (915) 543-5220
 EL PASO ELECTRIC COMPANY (915) 543-5220

FOR FIELD LOCATING EXISTING UTILITIES

CURVE	RADIUS	LENGTH	TANGENT CHORD	BEARING	DELTA
C2	700.00'	115.17'	57.71'	115.04'	50.47°09'47"
C1	700.00'	115.17'	57.71'	115.04'	50.47°09'47"

LEGEND

- PROPOSED STREET NAME SIGN
- PROPOSED STOP SIGN
- SIDEWALK BY DEVELOPER
- RAMP BY BUILDER (TP)
- DIRECTIONAL WHEELCHAIR
- ELEVATIONS ARE SHOWN AT TOP OF CURB, REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

PROJECT TITLE
**TRES SUENOS
 UNIT TWENTY THREE
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**JENNIFER CLAIRE
 LANE PLAN &
 PROFILE FROM
 STA. 0+00.00
 TO STA. 4+73.47**

SHEET NO.
CG.7

SCALE: 1"=30'

Horizontal: 1"=30'
 Vertical: 1"=5'
 Contour Interval: N/A

DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./C.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB No.: 2025-021

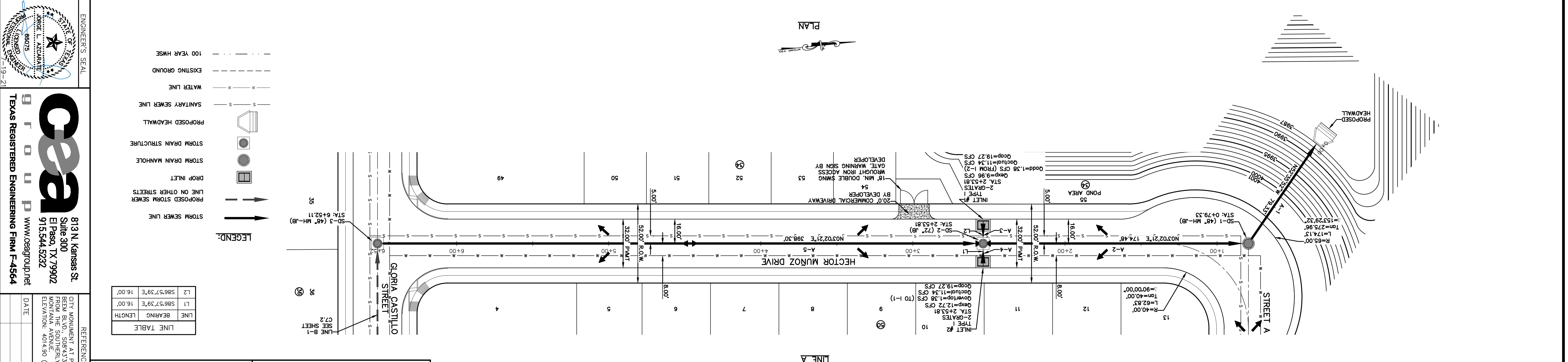
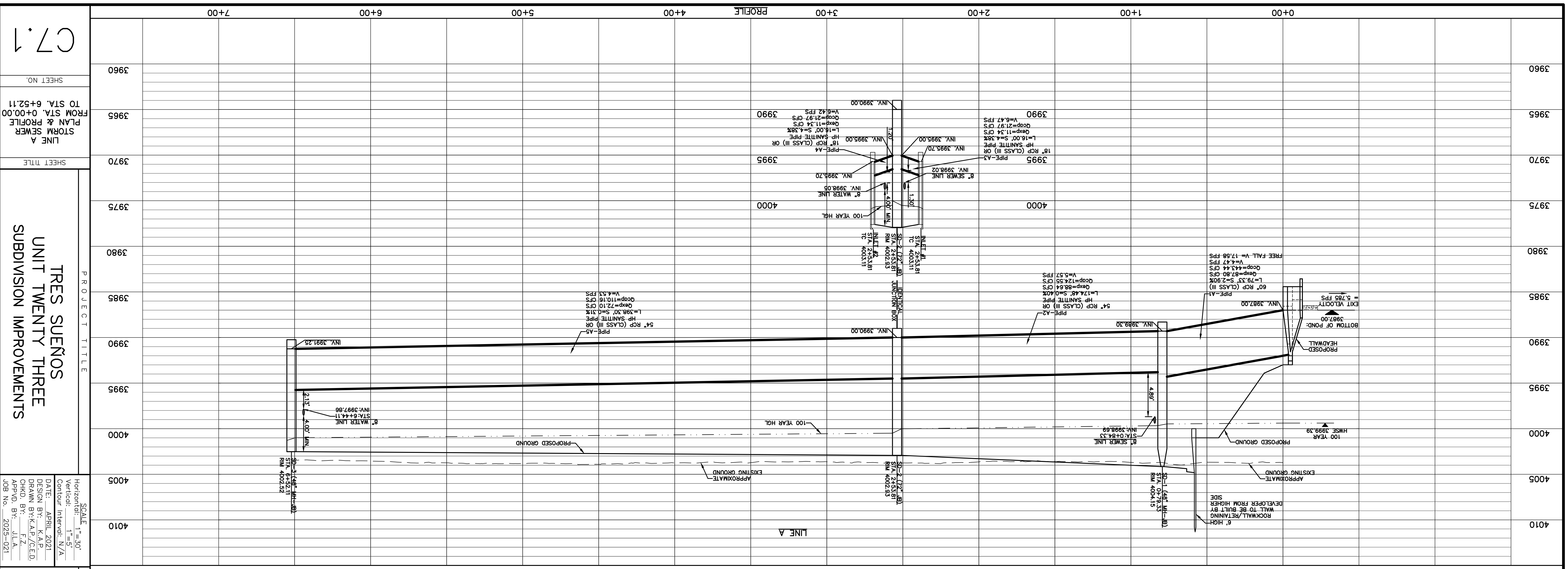
ENGINEER'S SEAL

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 Suite 300
 El Paso, TX 79902
 915.544.5292
 www.ceagroup.net

TEXAS REGISTERED ENGINEERING FIRM F-4564

DATE: _____

BY: _____



PIPE ID	DOWNSTREAM	UPSTREAM	HYDRAULIC GRADE	GRADE	UPSTREAM (ft)	DOWNSTREAM (ft)	Q(100) Expected (cfs)	Q(100) Capacity (cfs)
A-1	3,987.00	3,989.30	3,999.39	3,999.48	87.80	443.44		
A-2	3,990.00	3,990.00	3,999.67	4,000.02	88.64	124.55		
A-3	3,995.00	3,995.70	4,000.50	4,000.69	11.34	21.97		
A-4	3,995.00	3,995.70	4,000.50	4,000.69	11.34	21.97		
A-5	3,990.00	3,991.25	4,000.50	4,001.04	72.10	110.16		

LINE BEARING	LENGTH
L1	586°57'39"E 16.00'
L2	586°57'39"E 16.00'

DATE	REVISIONS

PROJECT TITLE
TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

SCALE: 1" = 30'
 Horizontal: 1" = 30'
 Vertical: 1" = 5'
 Contour Interval: N/A

DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./C.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB No.: 2025-021

SHEET TITLE
LINE A
STORM SEWER
PLAN & PROFILE
 FROM STA. 0+00.00
 TO STA. 6+52.11

SHEET NO.
 3960

ENGINEER'S SEAL

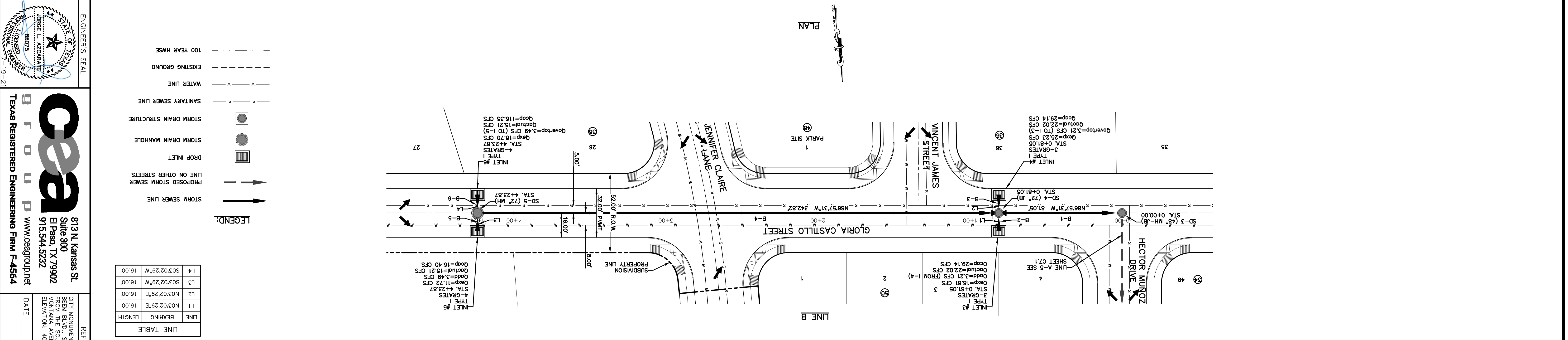
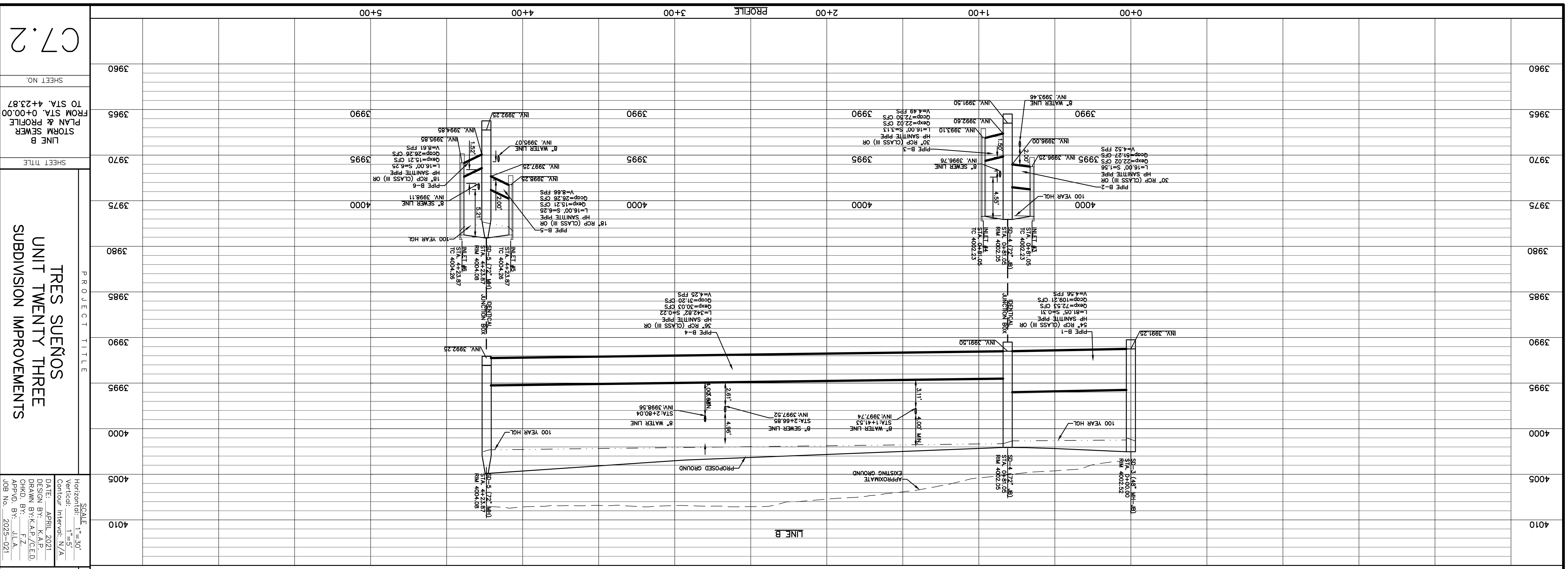
CE&A
 TEXAS REGISTERED ENGINEERING FIRM F-4564
 www.ceagroup.net
 813 N. Kansas St.
 Suite 300
 El Paso, TX 79902
 El Paso, TX 79902
 915.544.5292

REFERENCES - BENCHMARKS
 CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEING BLDG. -5064337E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.
 (NAMD 88) (4005.40 CITY DATUM) ELEVATION: 4014.90

FOR FIELD LOCATING EXISTING UTILITIES
CALL 811
BEFORE YOU DIG

UTILITY LOCATOR SERVICES
 EL PASO ELECTRIC COMPANY (915) 543-5720
 EL PASO WATER UTILITIES (915) 594-5500
 MCI SURVEILLANCE (800) MCI-WORK
 TIME WARNER COMMUNICATIONS (915) 772-1123
 TEXAS GAS SERVICE (800) 545-6000
 AT&T (800) 552-3786
 U.S. SPRINT TELECOMM (800) 521-0579

C7.1



PIPE ID	DOWNSTREAM	UPSTREAM	INVERT ELEVATION (ft)	INVERT ELEVATION (ft)	HYDRAULIC GRADE	UPSTREAM (ft)	DOWNSTREAM (ft)	Q(100) Expected (cfs)	Q(100) Capacity (cfs)
B-1	3,991.25	3,991.25	4,001.29	4,001.41	3,991.25	4,001.29	72.53	109.21	
B-2	3,960.00	3,996.25	4,001.73	4,001.78	3,996.25	4,001.73	22.02	51.27	
B-3	3,926.60	3,993.10	4,001.73	4,001.73	3,993.10	4,001.73	22.02	72.50	
B-4	3,991.50	3,992.25	4,001.73	4,002.42	3,991.50	4,001.73	30.03	31.20	
B-5	3,997.25	3,998.25	4,002.62	4,002.96	3,997.25	4,002.62	15.21	26.26	
B-6	3,994.85	3,994.85	4,002.62	4,002.96	3,994.85	4,002.62	15.21	26.26	

LINE	BEARING	LENGTH
L1	N03°02'29"E	16.00'
L2	N03°02'29"E	16.00'
L3	S03°02'29"W	16.00'
L4	S03°02'29"W	16.00'

UTILITY LOCATOR SERVICES	CONTACT
EL PASO ELECTRIC COMPANY	(915) 543-5220
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TMC WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 650-7200
SEC	(800) 545-6000
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING! BEFORE YOU DIG CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEHIND BLDG., S06°43'37"E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.

DATE: _____

REVISIONS: _____

BY: _____

SCALE: 1" = 30'
 Horizontal: 1" = 50'
 Vertical: 1" = 5'
 Contour Interval: N/A
 DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./C.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB NO.: 2025-021

PROJECT TITLE
TRES SUENOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE
LINE B
STORM SEWER
PLAN & PROFILE
 FROM STA. 0+00.00
 TO STA. 4+23.87

SHEET NO.

3960

3965

3970

3975

3980

3985

3990

3995

4000

4005

4010

3960

3965

3970

3975

3980

3985

3990

3995

4000

4005

4010

3960

3965

3970

3975

3980

3985

3990

3995

4000

4005

4010

3960

3965

3970

3975

3980

3985

3990

3995

4000

4005

4010

3960

3965

3970

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3980

3985

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3995

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4005

4010

3960

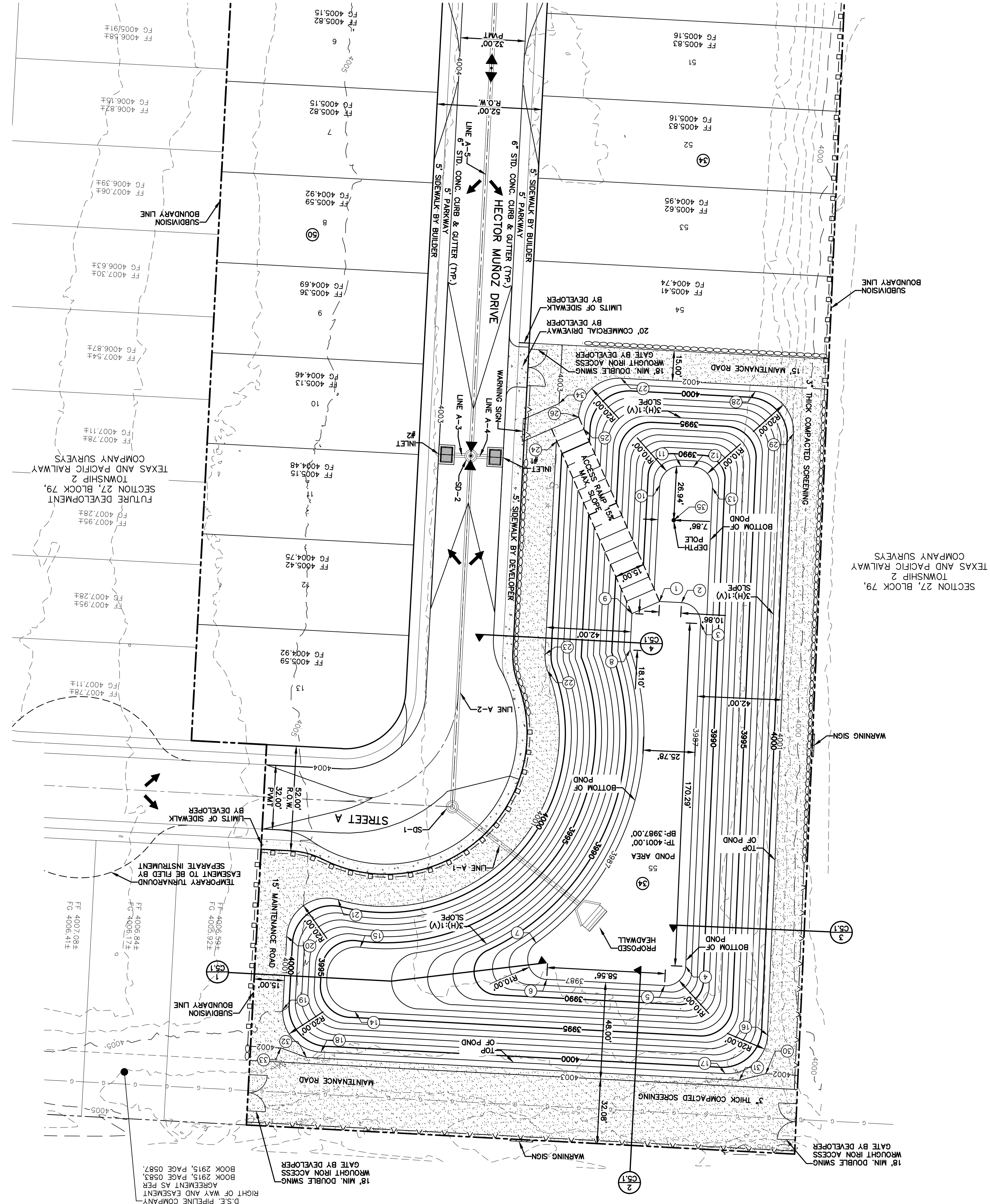
3965

3970

3975

3980

SECTION 27, BLOCK 79,
TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS



POND AREAS

CONTOUR	VOLUME (AC-FT)	ACCUMULATED
4001	8.77	4000
3999	6.68	3999
3997	4.88	3997
3996	4.09	3996
3995	3.37	3995
3994	2.72	3994
3993	2.14	3993
3992	1.64	3992
3991	1.20	3991
3990	0.82	3990
3989	0.49	3989
3988	0.21	3988
3987	0.00	3987

POND CALCULATIONS

OT = (ARC)/12
 A = 35.98AC
 H = 4.0'
 Cw = 0.59
 *AS PER DETENTION BASIN DESIGN CRITERIA (2-4) OF THE CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, STORM WILL BE 4" RAINFALL IN THREE (3) HOURS.

COORDINATE TABLE

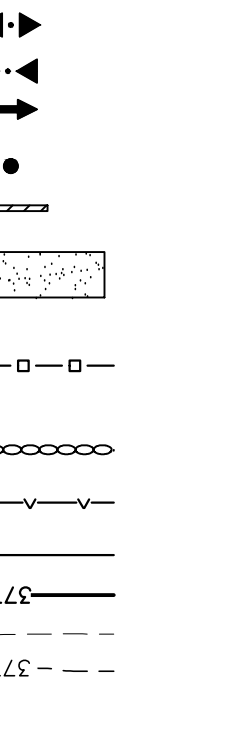
Point #	Northing	Easting
1	10678947.6701	460245.9203
2	10678948.2902	460235.0549
3	10678958.7072	460225.5944
4	10679128.8437	460232.9364
5	10679138.3985	460243.4573
6	10679135.2939	460301.9331
7	10679117.1772	460307.2245
8	10678971.7566	460260.5934
9	10678983.7443	460259.6355
10	10678880.0327	460245.8426
11	10678880.5769	460235.3265
12	10678880.9052	460229.1442
13	10678891.3222	460219.6837
14	10679151.2695	460397.1229
15	10679119.3464	460394.4503
16	10679162.9434	460192.3688
17	10679182.0530	460213.4106
18	10679171.4022	460414.0141
19	10679150.0700	460432.9256
20	10679113.9201	460430.9903
21	10679095.7585	460405.4945
22	10678982.2480	460301.4672
23	10678974.0118	460302.7707
24	10678868.2814	460297.1571
25	10678862.2514	460283.4226
26	10678856.1469	460286.1027
27	10678836.9394	460285.0547
28	10678843.4824	460198.4030
29	10678864.3165	460179.4820
30	10679182.1252	460193.1966
31	10679185.4320	460206.3514
32	10679174.0269	460421.1633
33	10679169.3433	460433.9329
34	10678849.4664	460295.7621
35	10678907.3693	460238.8936

UTILITY LOCATOR SERVICES

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EL PASO WATER UTILITIES (915) 594-5500
MCI SURVEILLANCE (800) MCI-WORK
TIME WARNER COMMUNICATIONS (915) 772-1123
TEXAS GAS SERVICE (915) 580-7200
AT&T (800) 545-6003
U.S. SPRINT TELECOM (800) 521-0579

WARNING!
BEFORE YOU DIG
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES



NOTES:

1. 15' WIDE POND ACCESS RAMP SHALL HAVE A MINIMUM P.I. OF 8 PER ASTM-01557.
2. POND ROCKWALL/RETAINING WALL SHALL BE BUILT TO A 6' MIN. HEIGHT FROM THE HIGHEST GROUND BY DEVELOPER.
3. PROPOSED ROCKWALLS & RETAINING WALL LOCATIONS SHALL BE CONSTRUCTED ACCORDING TO GRADING SECTIONS AND RELATED DETAILS.
4. POND SLOPES SHALL BE STABILIZED WITH PIONEER'S PRIDE SEED MIXTURE (SEED RATE: 1 BULK PER 1000 SF) HYDROSEEDING AS PER MANUFACTURER'S RECOMMENDATION BY ERMG IRRIGATION OR APPROVED EQUAL OR HYDRO-MULCH OR HYDRO-SEEDING.

BENCHMARKS:

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. 508+43.31 A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.
 ELEVATION: 4014.90' (NAVD 88) (4005.40 CITY DATUM)

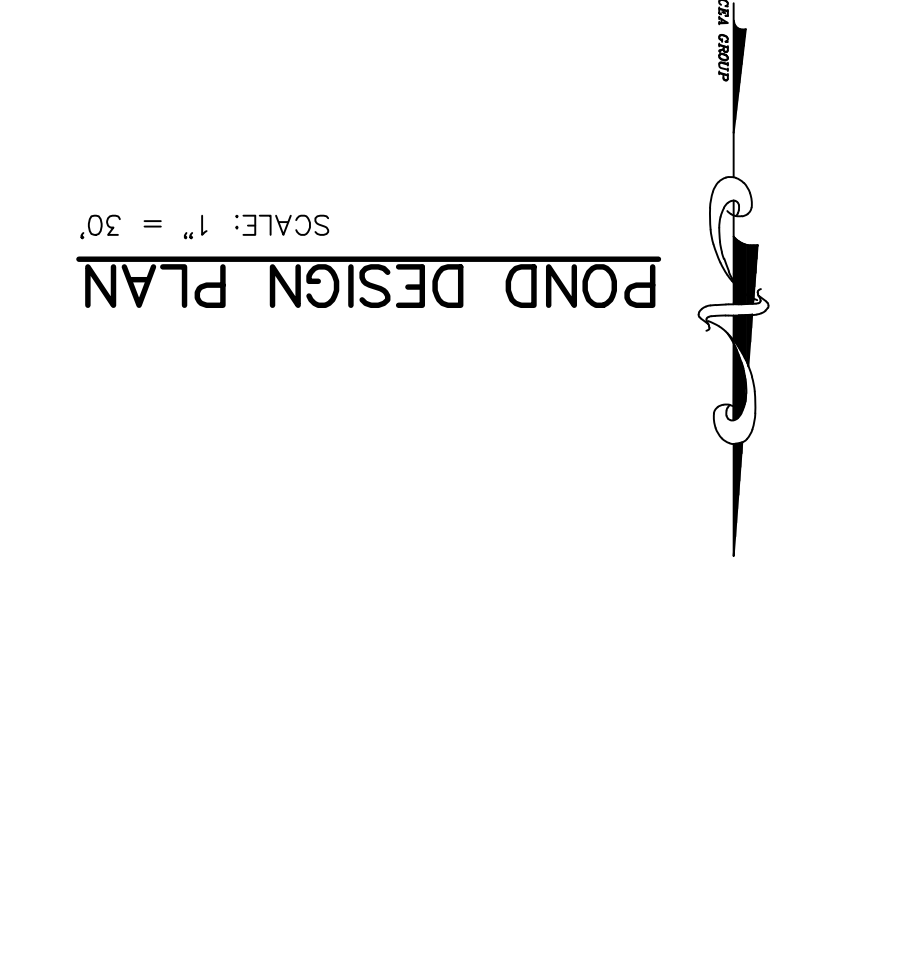
FLOOD ZONE:

THIS SUBDIVISION LIES WITHIN ZONE "X" AS DESIGNATED BY F.E.M.A.; EL PASO COUNTY, COMMUNITY PANEL NO. 480212 0250 B.

POND

NO.	REQUIRED AVAILABLE CAPACITY (CFS)	100.35	0	3999.39#	3987.00	1.61	4001.00
1	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
2	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
3	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
4	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
5	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
6	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
7	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
8	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
9	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
10	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
11	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
12	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
13	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
14	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
15	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
16	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
17	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
18	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
19	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
20	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
21	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
22	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
23	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
24	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
25	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
26	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
27	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
28	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
29	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
30	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
31	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
32	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
33	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
34	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00
35	7.07	8.77	0	3999.39#	3987.00	1.61	4001.00

NOTE: THE HGL REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO.
 HWSE = HGL = 0'
 HMSC = 7.07 AC-FT
 CONTOUR 3999.00, ACCUMULATED VOLUME = 6.68 AC-FT
 CONTOUR 4000.00, ACCUMULATED VOLUME = 7.69 AC-FT
 HYDRAULIC GRADE LINE ELEVATION = 3999.39#



PROJECT TITLE

TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

ENGINEER'S SEAL

Horizontal: 1"=30'
 Vertical: N/A
 Contour Interval: N/A
 DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./C.E.D.
 CHECK BY: F.Z.
 APPVD. BY: J.L.A.
 JOB NO.: 2025-021

813 N. Kansas St.
 Suite 300
 El Paso, TX 79902
 915.544.5292
 www.ceaengineering.net

TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS

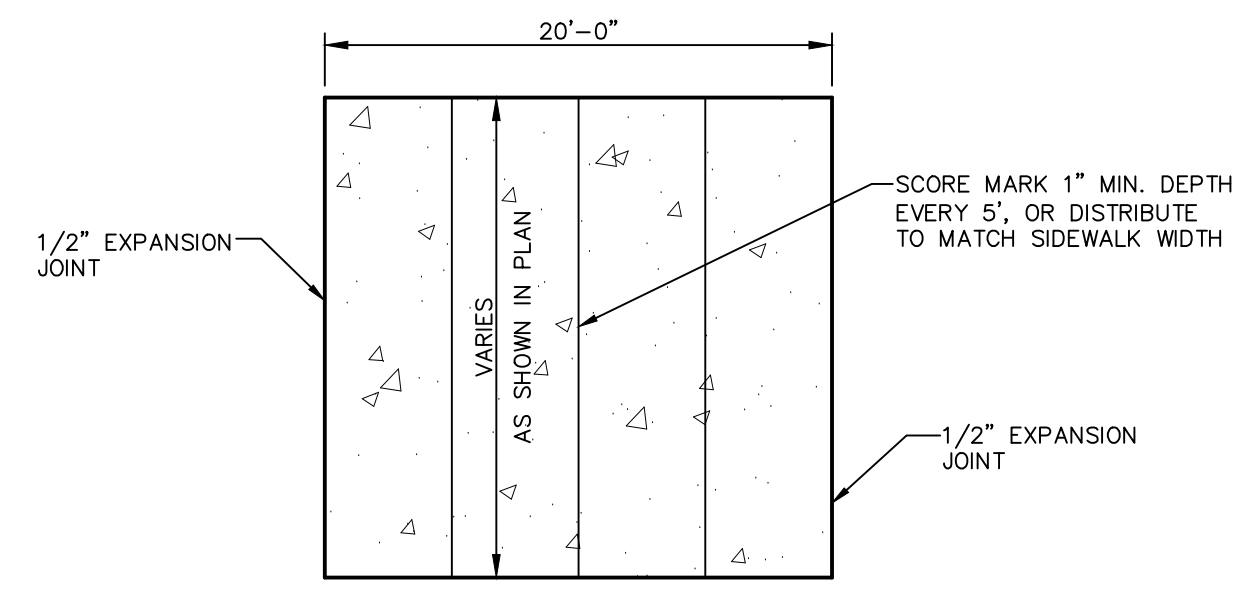
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. 508+43.31 A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. (NAVD 88) (4005.40 CITY DATUM)
DATE
REVISIONS
BY

SHEET NO.

POND PLAN DESIGN

SHEET TITLE

C8.1



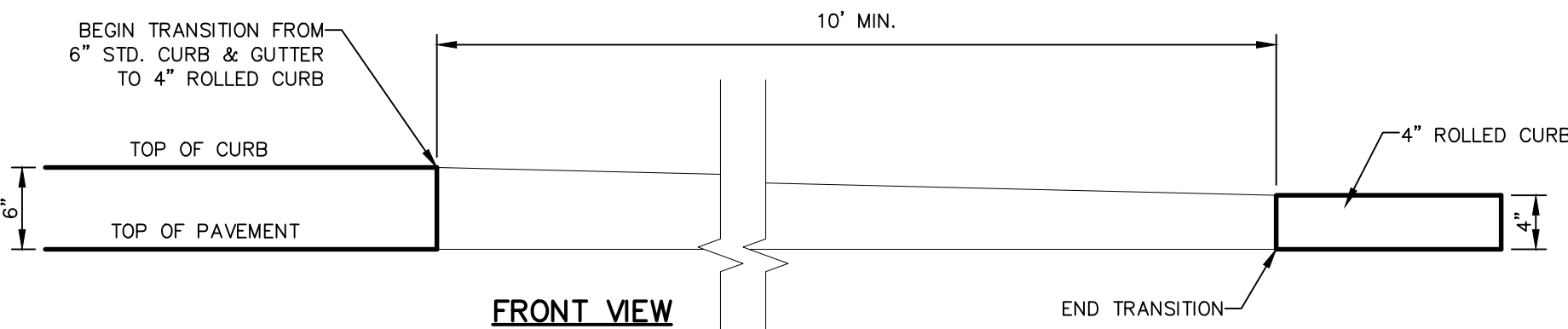
EXPANSION JOINT SECTION
SCALE: N.T.S.

- NOTES:**
- EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED JOINT FILLER (AASHTO M-33).
 - EXPANSION JOINTS SHALL BE SPACED AT 20'-0" MAX.
 - WHEREVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS, EXPANSION JOINT FILLER SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

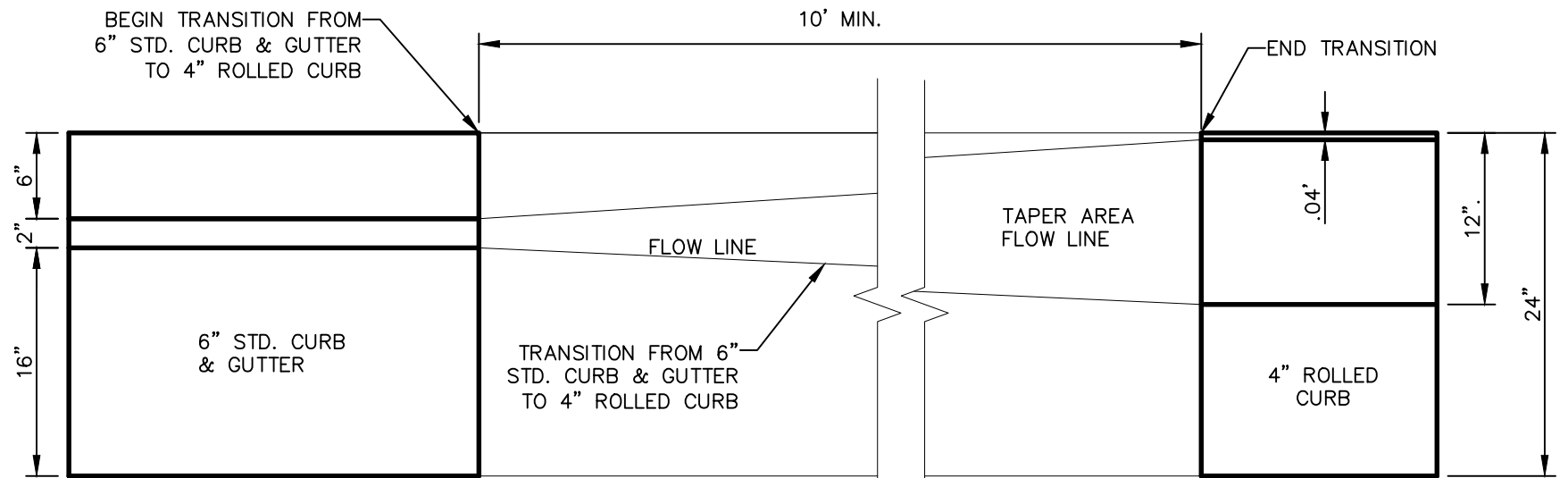
SIDWALK NOTES:

- CONCRETE SIDEWALK SHALL BE 3,000 P.S.I. AT 28 DAYS.
- DUMMY JOINTS REQUIRED AT 5' O.C.
- EXPANSION JOINTS SHALL BE AT 20' O.C. MAXIMUM, USE 1/2" PREFORMED BITUMINOUS EXPANSION JOINTS (AASHTO M-33)
- EXPANSION JOINT FILLER SHALL BE PLACED WHEREVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS.
- SUBGRADE TO BE COMPACTED TO 95% AS PER ASTM D1557.

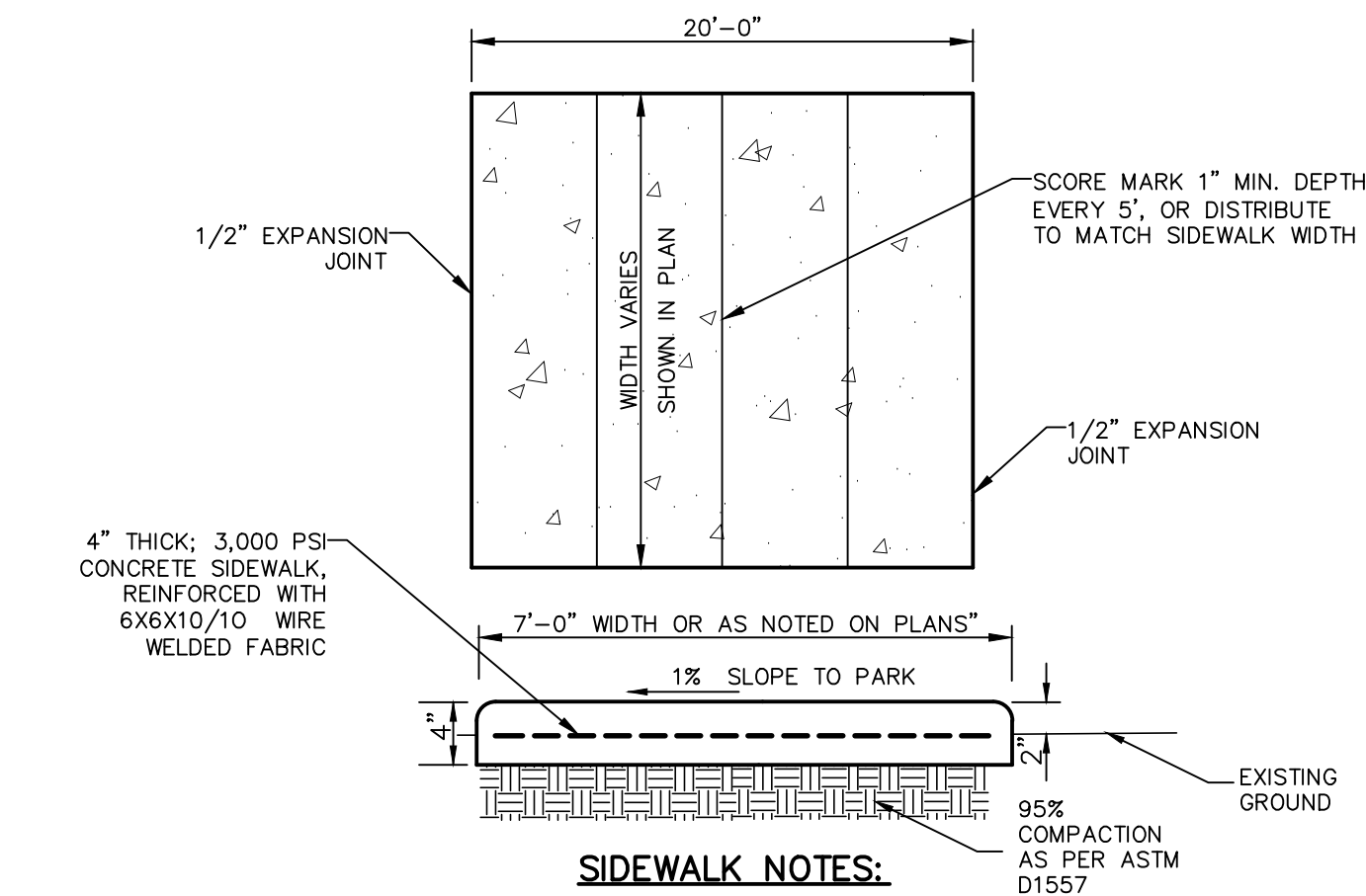
1 SECTION-SIDWALK/SLAB
SCALE: N.T.S.



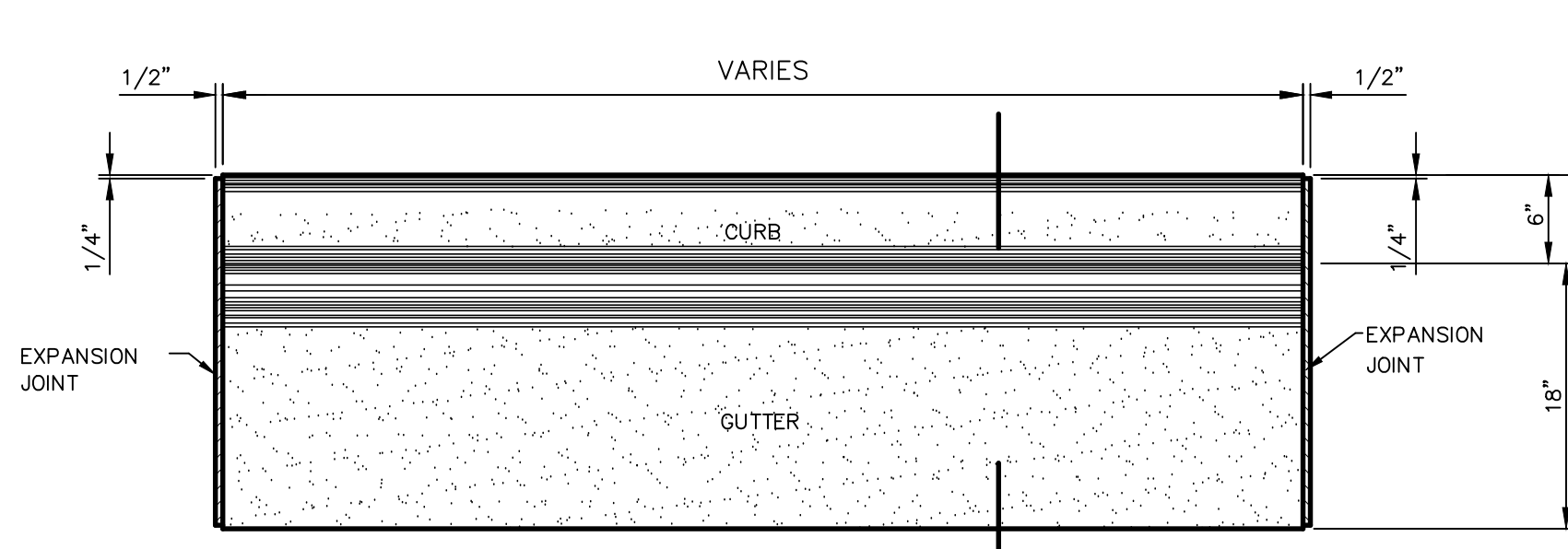
2 CURB & GUTTER DETAIL
SCALE: 1"=1'-0"



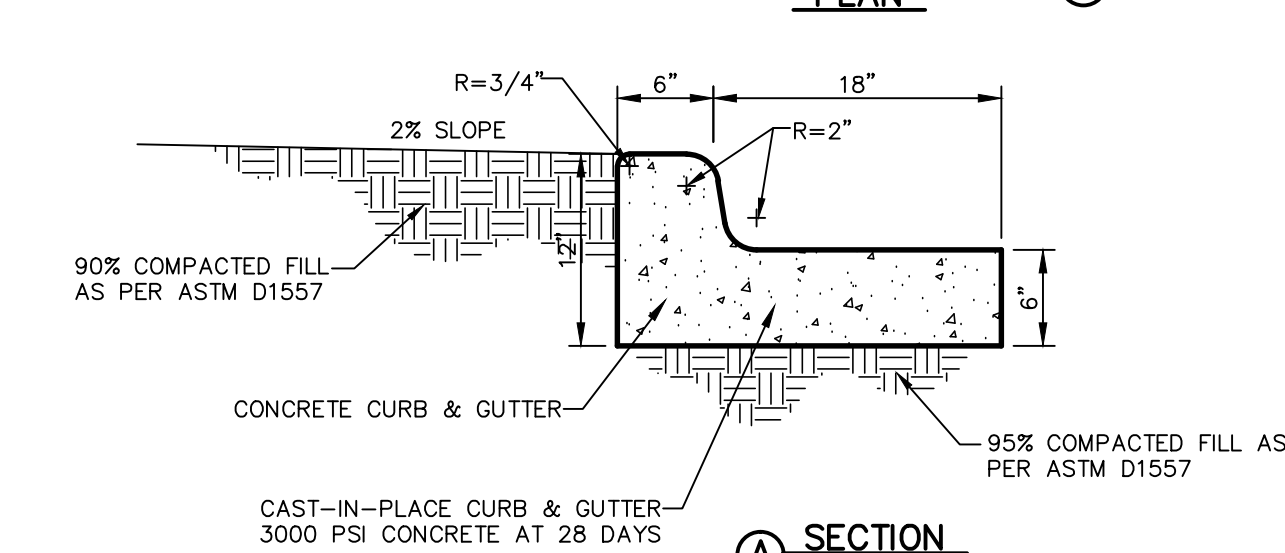
6 CURB TRANSITION DETAIL
SCALE: N.T.S.



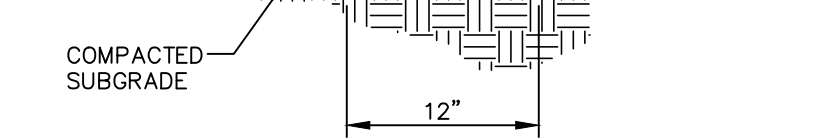
9 SIDEWALK ABUTTING PARK SITE
SCALE: N.T.S.



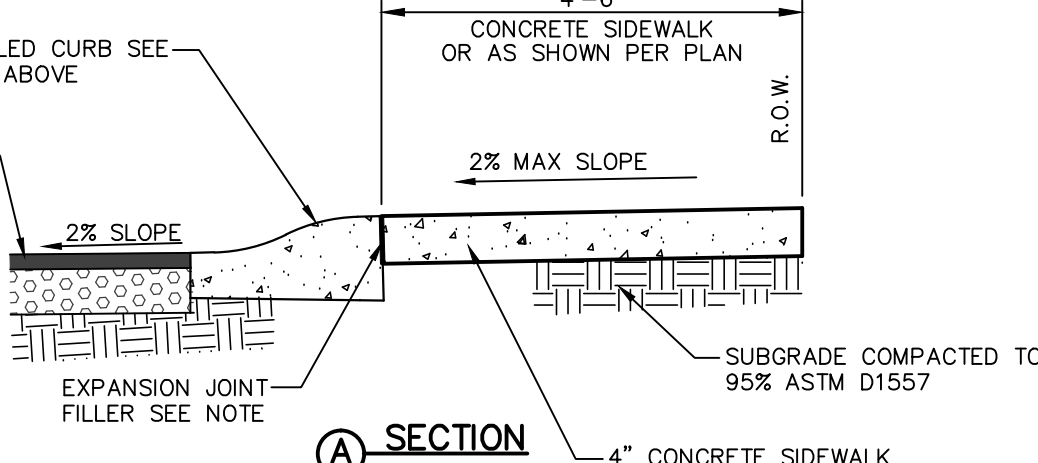
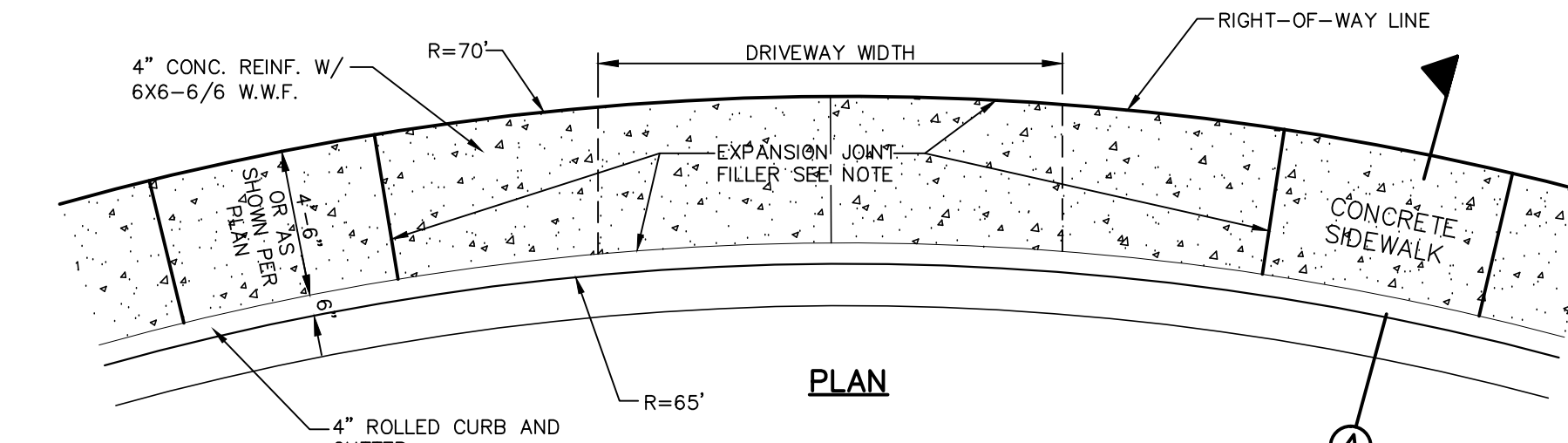
3 TYPICAL PAVEMENT JOINT SECTION
SCALE: N.T.S.



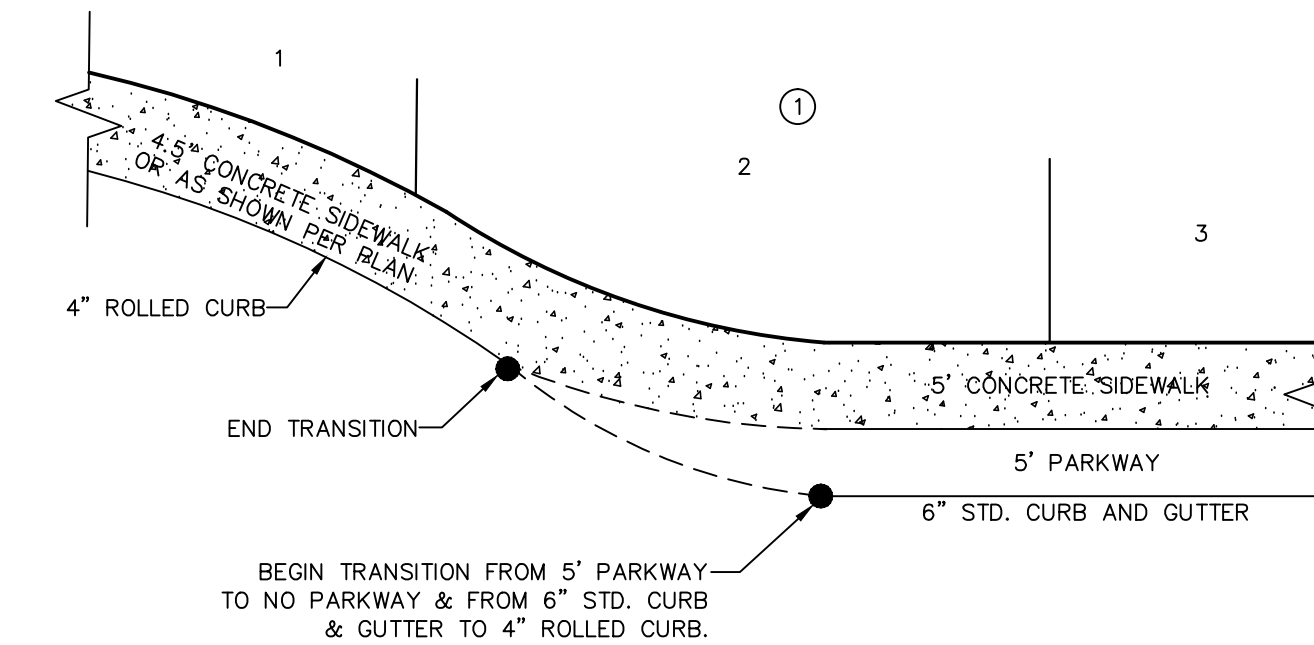
- NOTES:**
- CONCRETE CURB, GUTTER AND RETURNS SHALL BE 3,000 P.S.I. MIN. AT 28 DAYS.
 - DUMMY JOINT REQUIRED AT 10' O.C. FOR CURB & GUTTER, AND 5' O.C. FOR SIDEWALK
 - 1/2" PREFORMED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURB RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT CURB AND GUTTER DIMENSION.
 - SUBGRADE UNDER CURBS MUST BE FORMED AND COMPACTED TO 95% ASTM D1557
 - EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.



4 TERMINUS OF STREET
SCALE: 1"=1'-0"



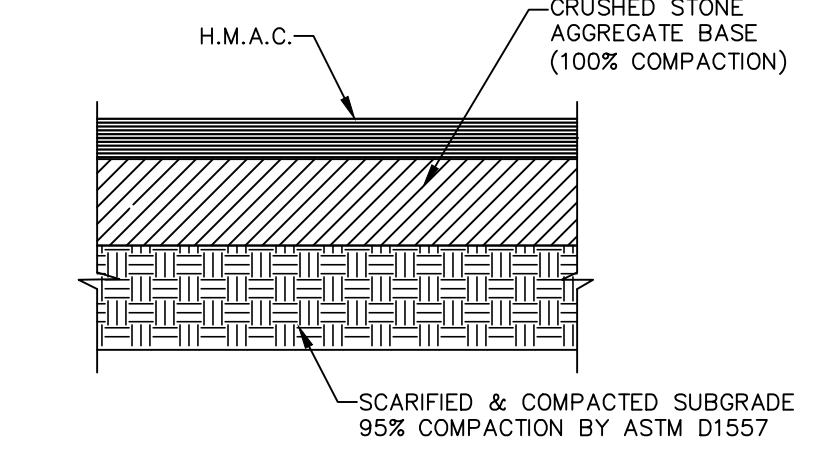
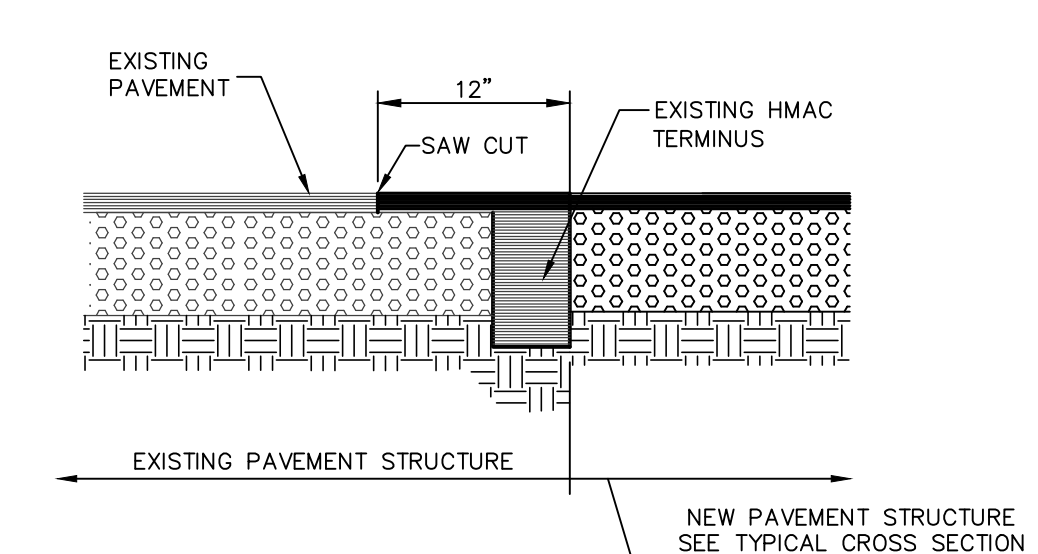
7 HEEL/DRIVEWAY DETAIL
SCALE: N.T.S.



10 4" CONCRETE ROLLED CURB DETAIL
SCALE: 1"=1'-0"

- CONCRETE TO BE 3000 PSI MIN. AT 28 DAYS.
- DUMMY JOINTS REQUIRED AT 10' O.C. FOR HEADERS AND 5' O.C. FOR SIDEWALK
- EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREFORMED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
- EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR HEADERS.
- EXPANSION JOINTS REQUIRED FOR SIDEWALK AT 20' O.C.
- * FOR CUL-DE-SAC AND HEEL ONLY.

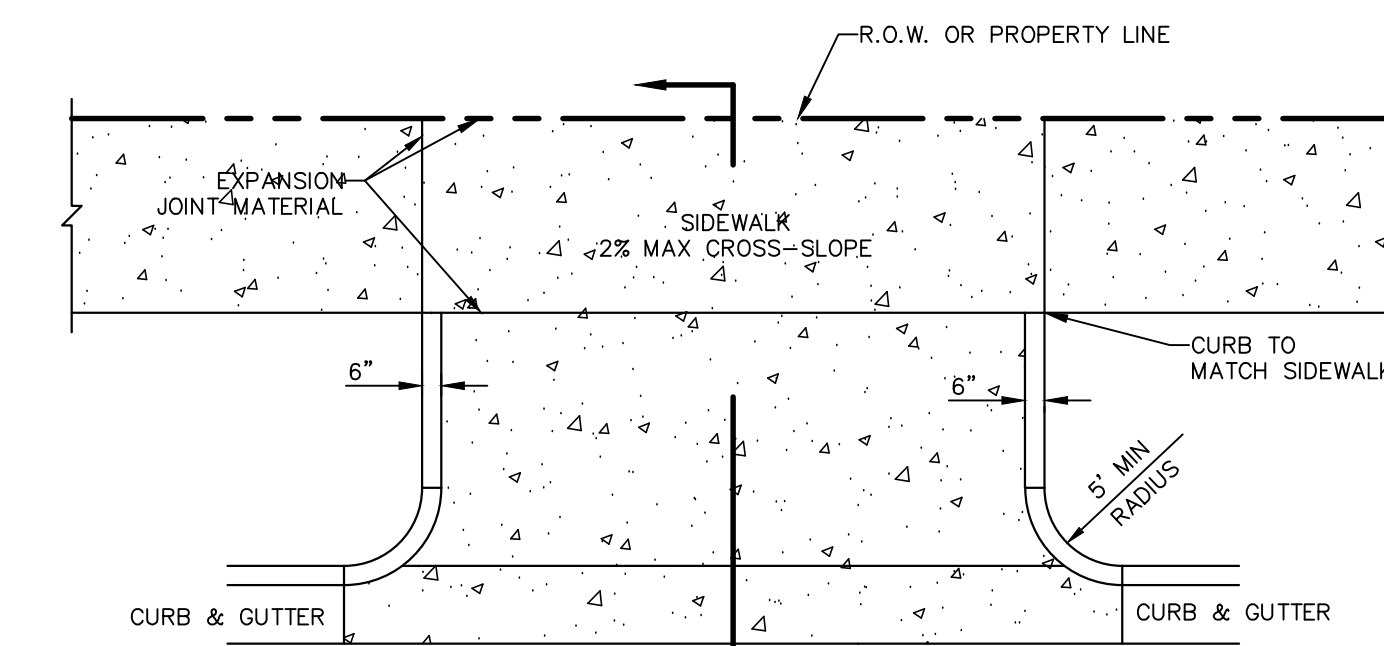
11 TYPICAL HEEL/SIDEWALK TRANSITION
SCALE: N.T.S.



PAVEMENT SECTION NOTES:

- SUBGRADE TO BE COMPACTED TO 95% OF MAXIMUM DENSITY AS PER ASTM D-1557.
- MINIMUM PAVEMENT DESIGN DETAILS ARE SHOWN, ACTUAL PAVEMENT DESIGN WILL BE DETERMINED BY CBR.
- STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS. CBR EVERY 500' RESULTS TO BE SUBMITTED TO THE CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT. THE CBR RESULTS WILL DICTATE THE REQUIRED THICKNESS OF THE PAVEMENT STRUCTURE BASED ON CITY OF EL PASO DESIGN STANDARDS. THE DEVELOPER SHALL PLACE THE HIGHER VALUE OF PAVEMENT THICKNESS BASED ON THE CBR RESULTS OR THE MINIMUM PAVEMENT THICKNESS AS SHOWN ON THE CITY OF EL PASO DESIGN STANDARDS.

5 TYPICAL PAVEMENT SECTION
SCALE: N.T.S.

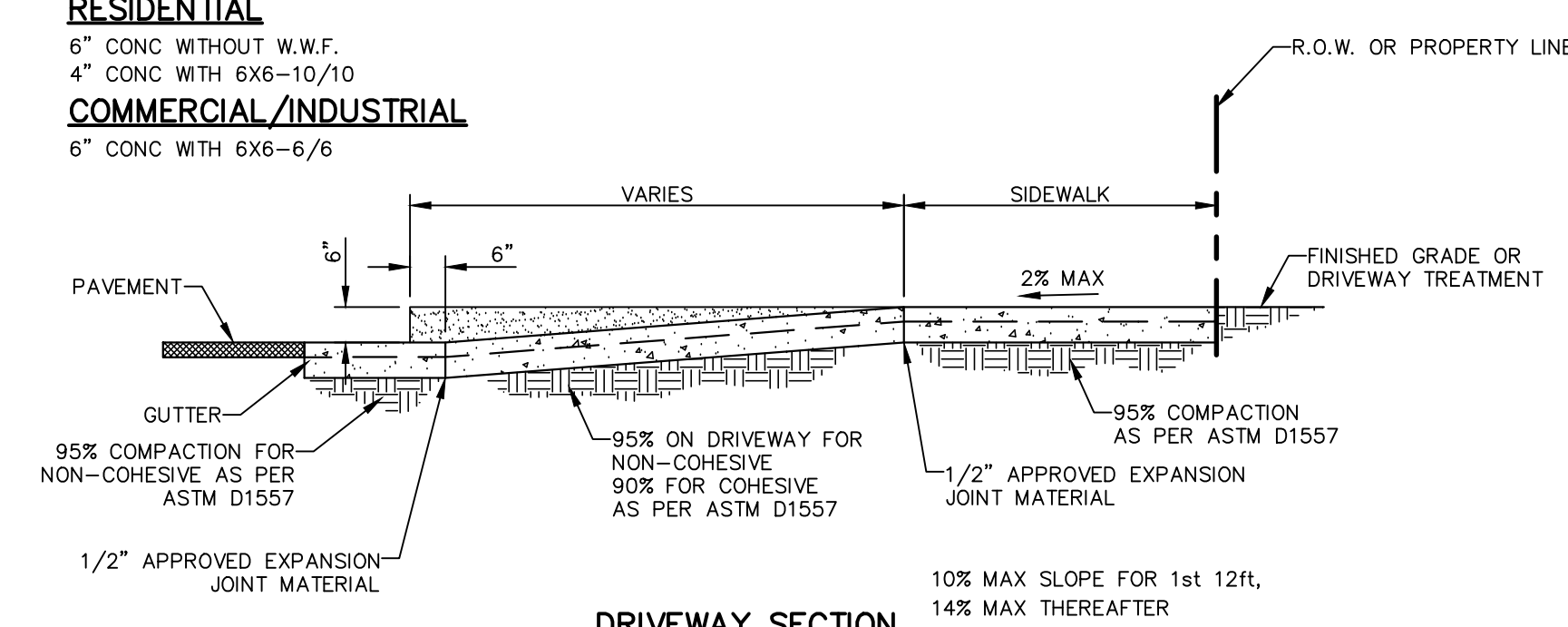


DRIVEWAY PLAN

DRIVEWAY WIDTH	MIN	MAX
COMMERCIAL/INDUSTRIAL	24'	35'
RESIDENTIAL (SINGLE FAMILY 60' LOTS)	10'	20'
LESS THAN 60' LOTS, DUPLEX AND TOWN HOMES (REFER TO PLATE 6-16)	15'	25'

RESIDENTIAL
6" CONC WITHOUT W.W.F.
4" CONC WITH 6X6-10/10

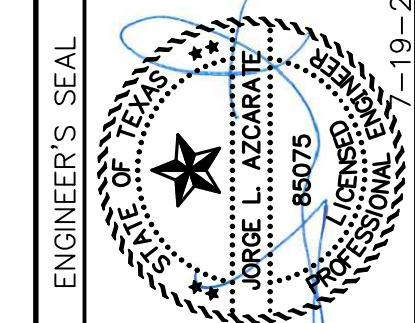
COMMERCIAL/INDUSTRIAL
6" CONC WITH 6X6-6/6



8 CONCRETE APRON FOR DRIVEWAYS/ALLEYS
SCALE: N.T.S.

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE GERMINE RICH BEEM BLVD., 508+43.51'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.
ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

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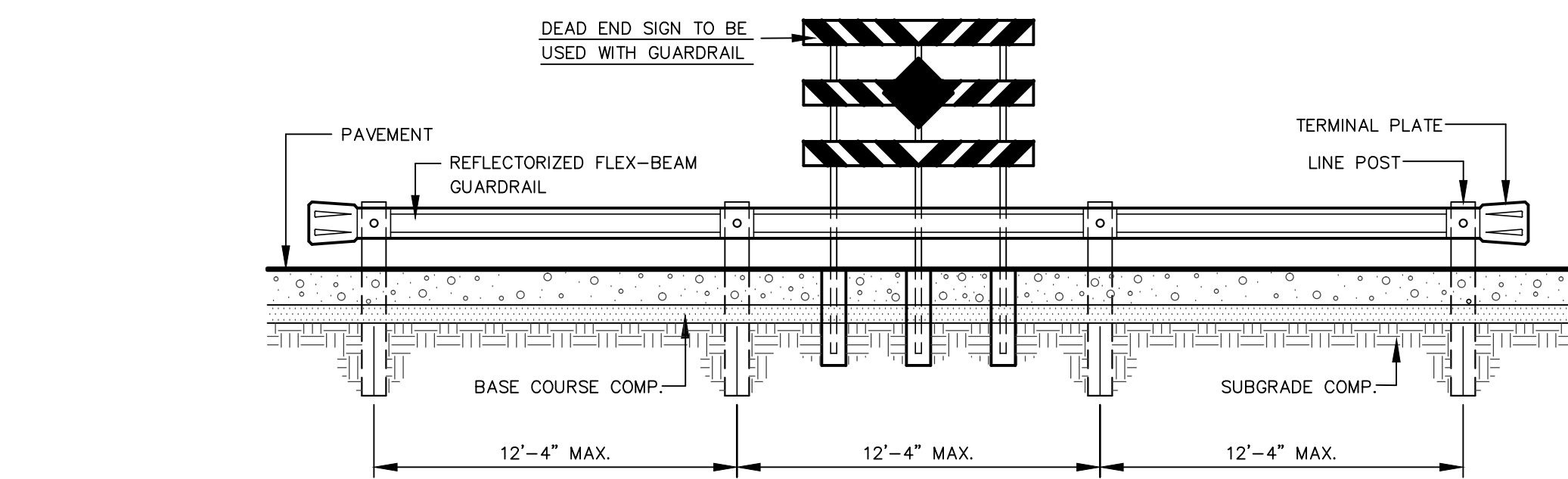


SCALE: AS SHOWN
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB NO.: 2025-021

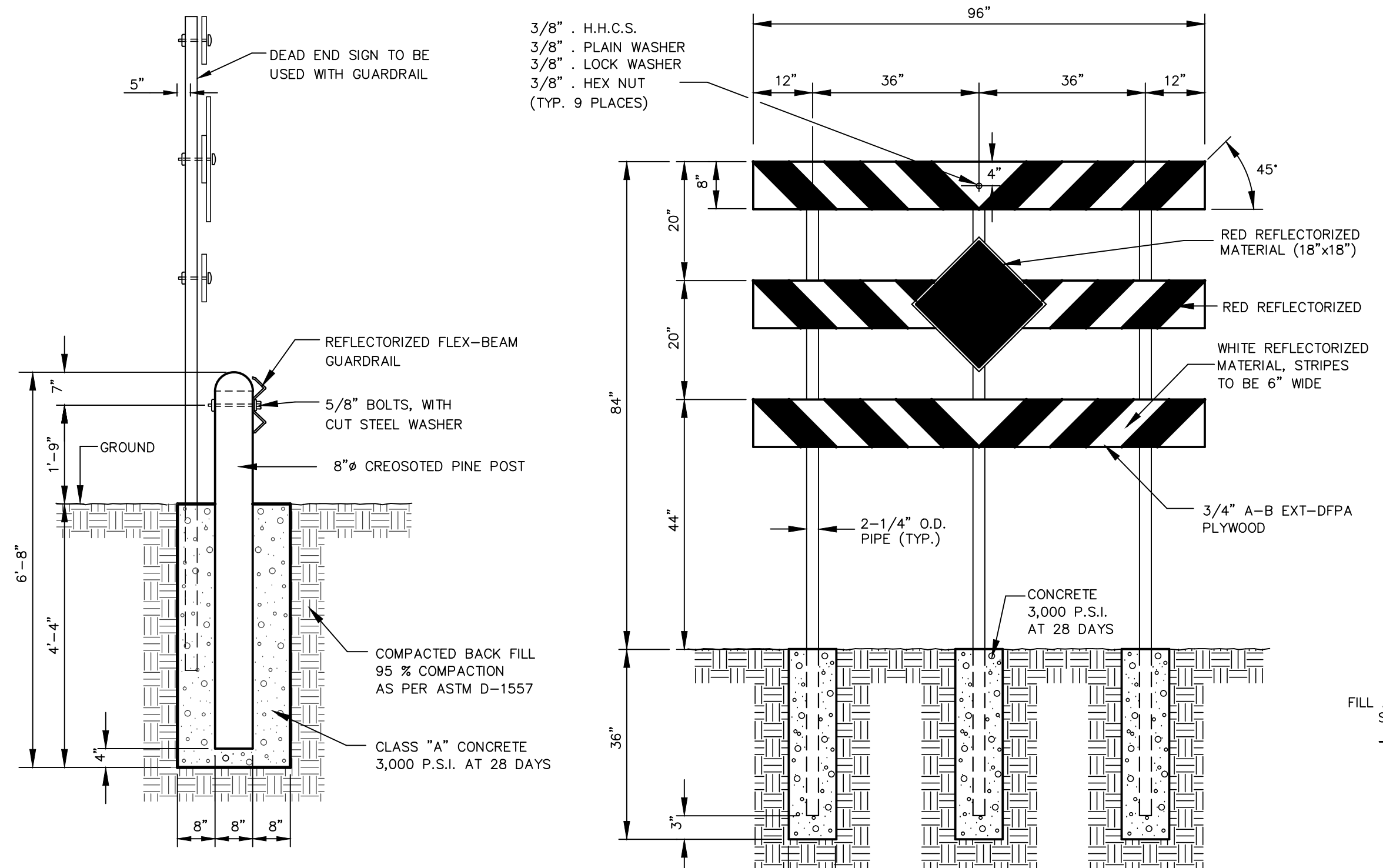
PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**STANDARD
DETAILS**
(SHEET 1 OF 3)
SHEET NO.

C9.1

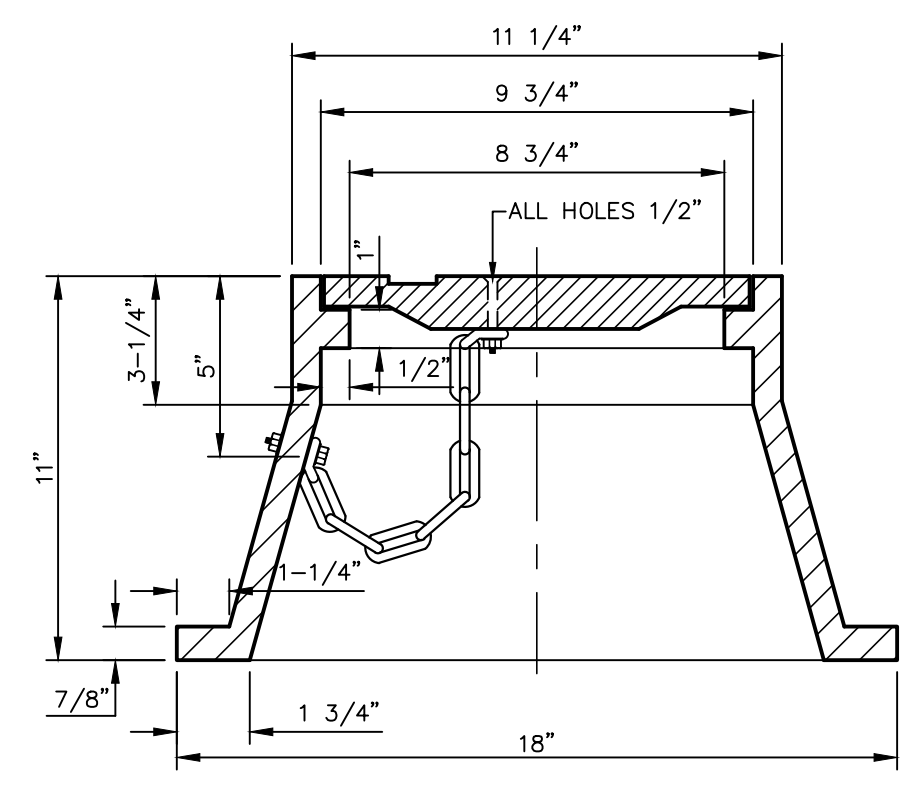


ELEVATION
SCALE: 1"=5'

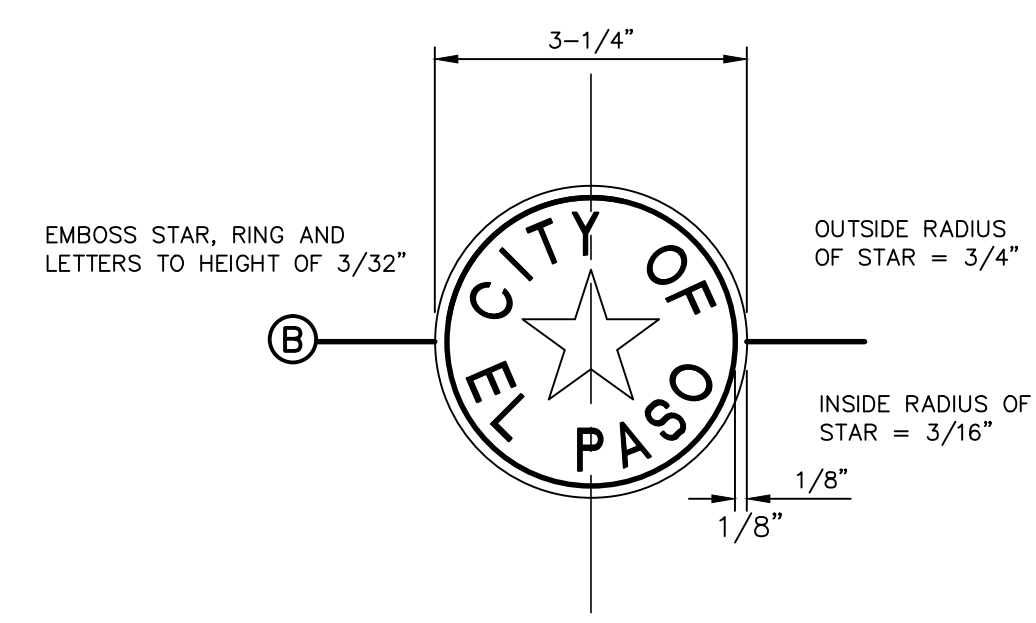


POST AND SIGN DETAIL
SCALE: N.T.S.

1
C9.2 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL
SCALE: AS SHOWN

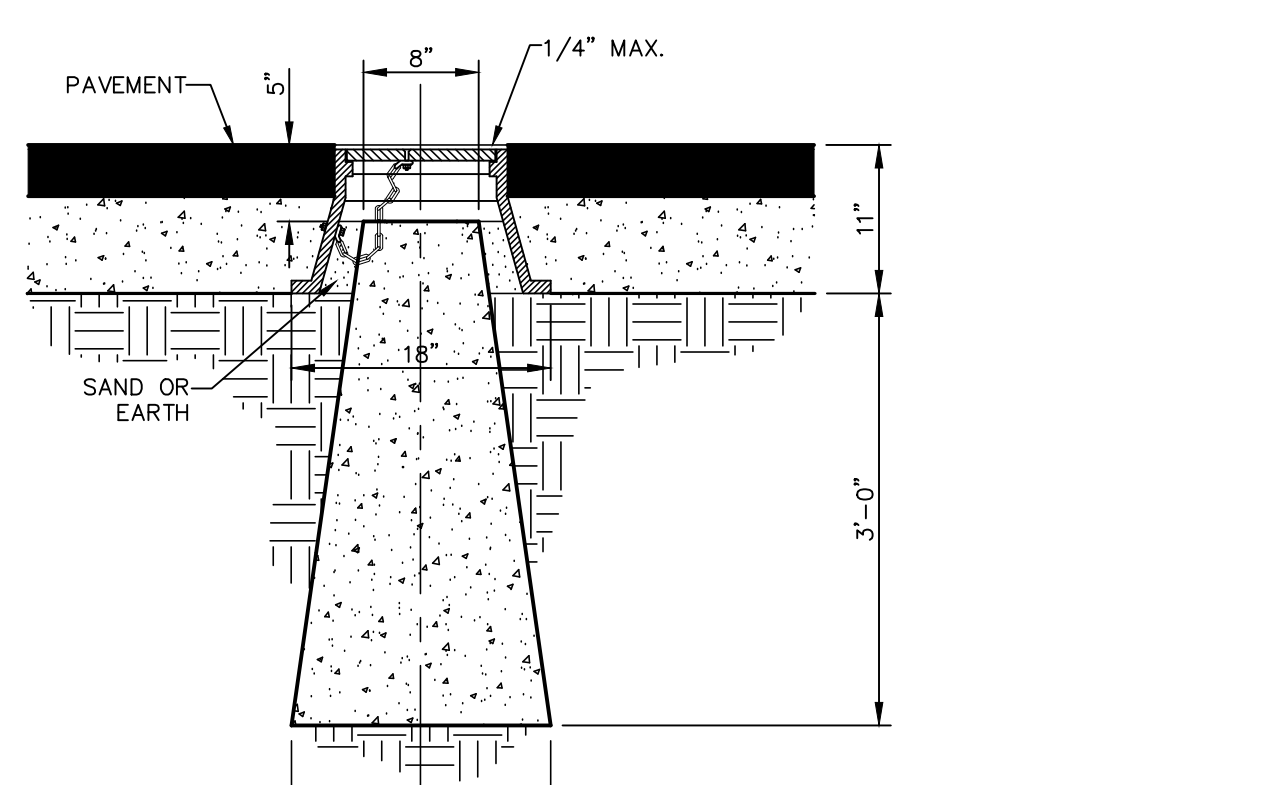


FRAME SECTION

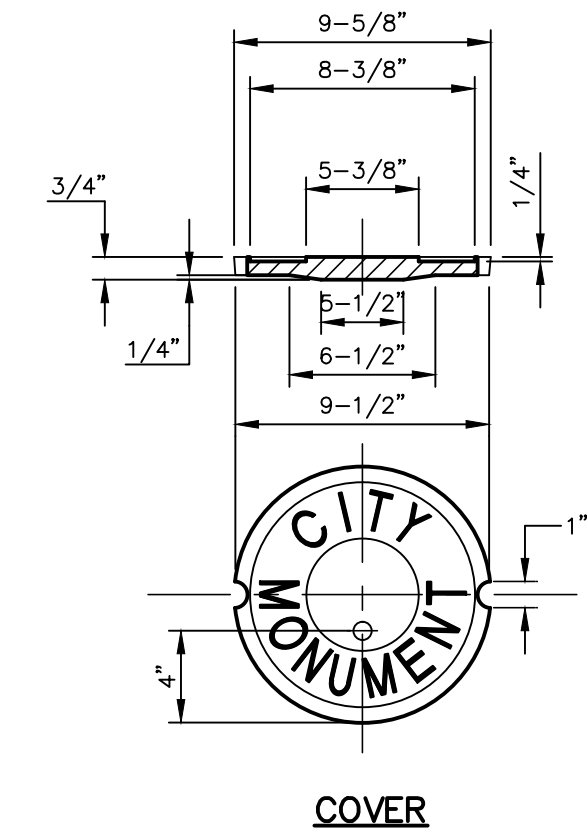


BRONZE MONUMENT CAP

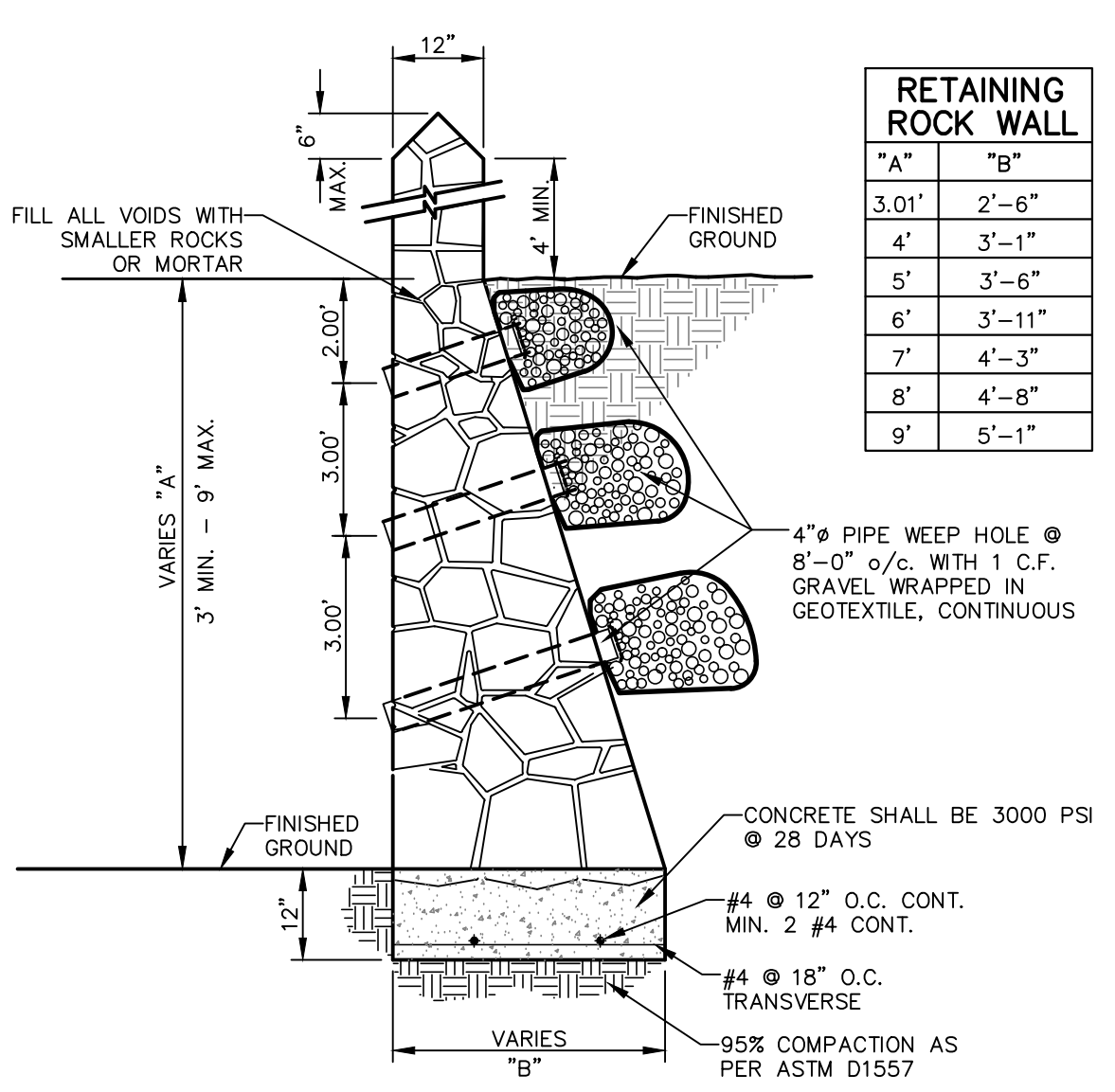
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C9.2 CITY SURVEY MONUMENT DETAILS
SCALE: N.T.S.



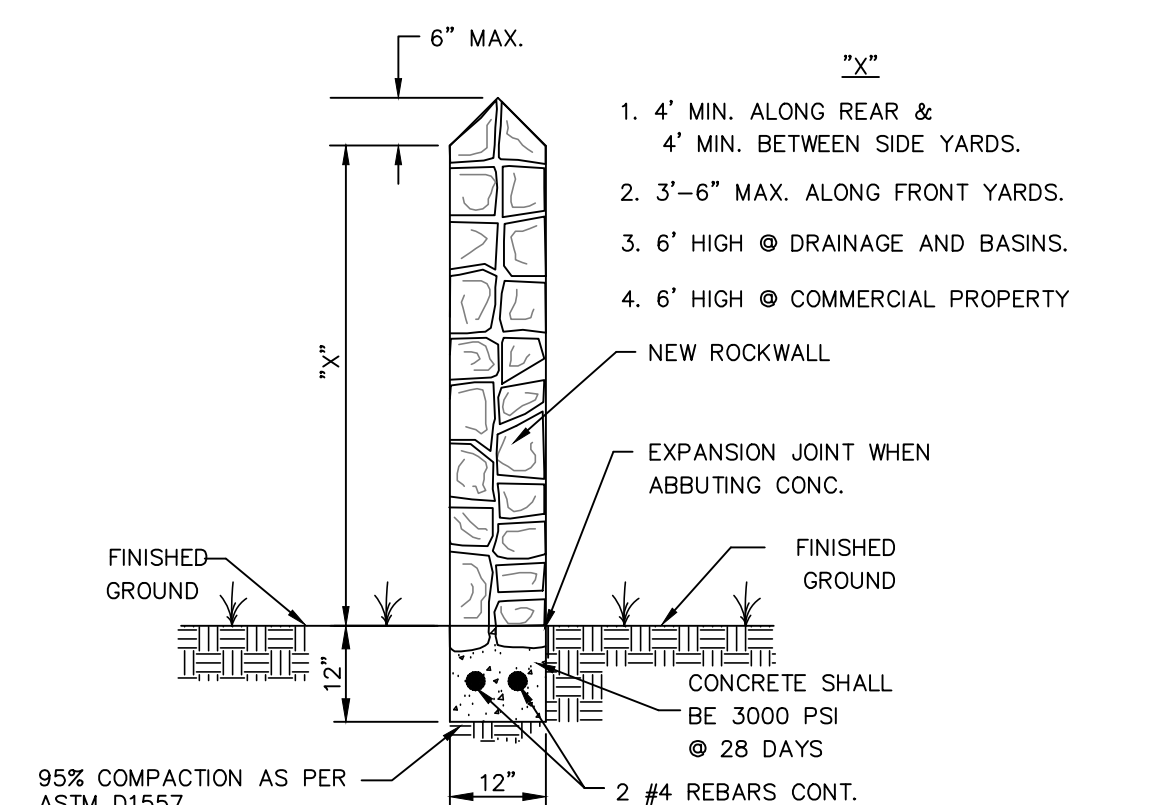
B SECTION



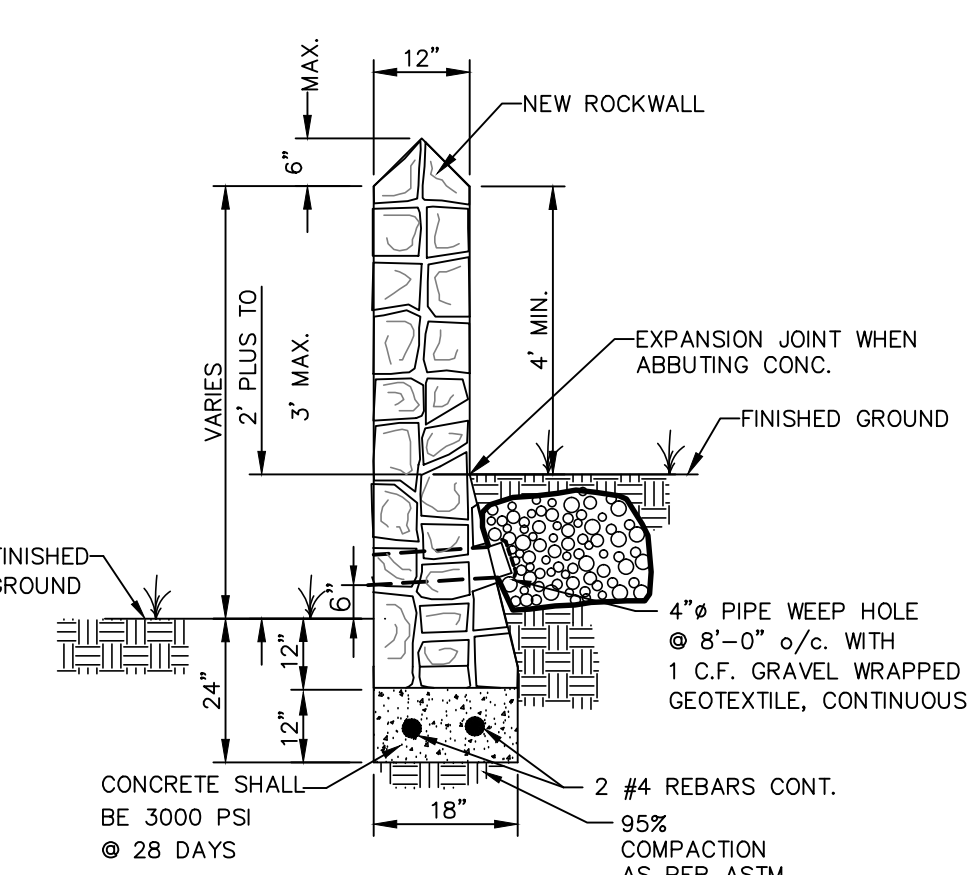
COVER



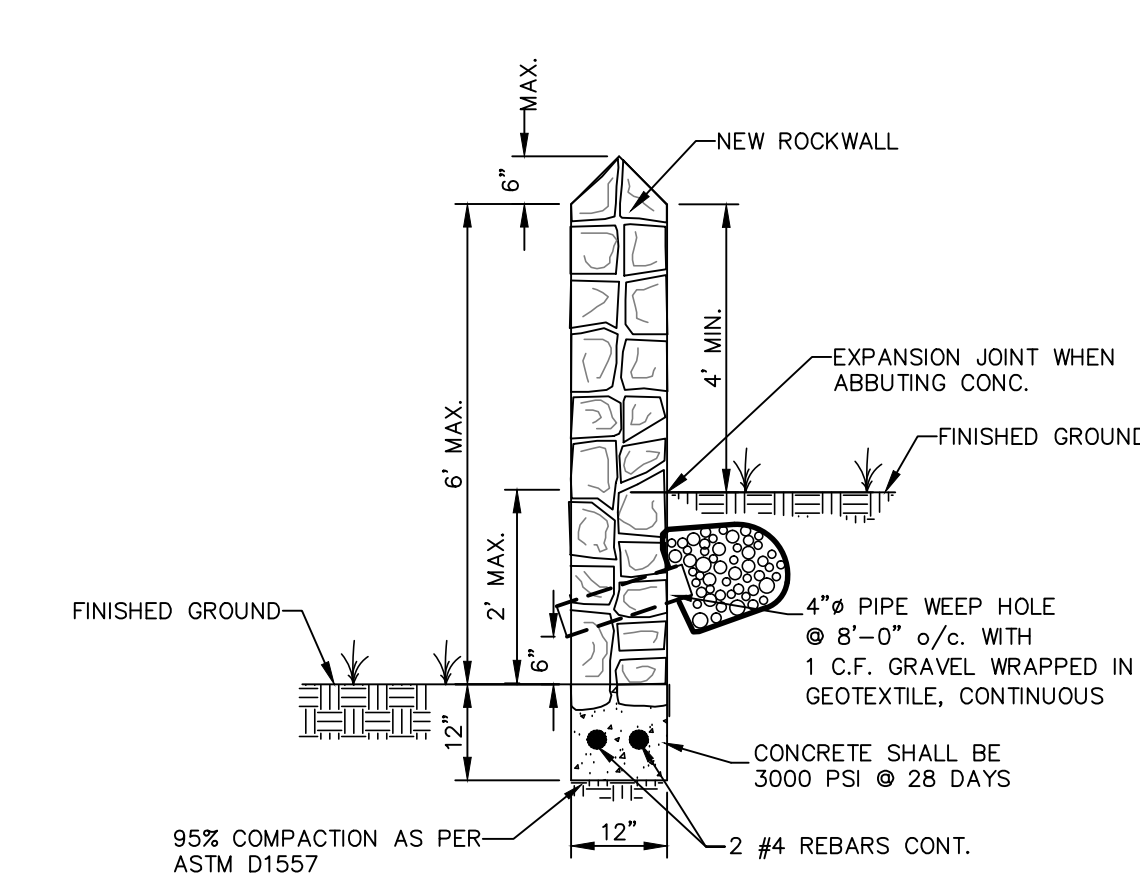
RETAINING WALL SECTION (3' MIN. TO 9' MAX.)



GARDEN WALL SECTION (2' MAX.)



RETAINING WALL SECTION (2' PLUS TO 3' MAX.)



GARDEN WALL SECTION (2' MAX.)

3
C9.2 TYPICAL ROCKWALL DETAILS
SCALE: 1/2" = 1'-0"

ROCK WALLS

MATERIALS: STONE FOR ROCK WALLS SHALL CONSIST OF QUARRIED LIMESTONE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. FIELD STONE OR SALVAGED STONE FROM ROCK WALLS SHALL BE USED ONLY WHERE DIRECTED BY THE ENGINEER. THE STONE SHALL BE DENSE, RESISTANT TO THE ACTION OF AIR AND WATER, CLEAN OF OLD MORTAR AND SUITABLE IN ALL RESPECTS FOR THE PURPOSE INTENDED.

MORTAR FOR THE ROCK WALLS SHALL CONSIST BY VOLUMES OF ONE (1) PART PORTLAND CEMENT, ONE-QUARTER TO ONE-HALF (1/4 TO 1/2) PART HYDRATED LIME, AND THREE (3) PARTS CLEAN, HARD, DURABLE SAND (2 1/4 TO 3 TIMES THE SUM OF THE VOLUMES OF CEMENT AND LIME COMBINED. SEE CITY BUILDING CODE PP. 14-3 AND 14-4). MORTAR SHALL BE TYPE S, ASTM SPECIFICATION C270-73. COMPRESSIVE STRENGTH = 1800 P.S.I. (28 DAYS). CONCRETE FOR THE FOUNDATION SHALL BE CLASS "A" (3000 P.S.I.). REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60. IF ROCK WALL IS FREQUENTLY EXPOSED TO WATER, LIME SHALL NOT BE USED AND THE PORTIONS SHALL BE ONE PART PORTLAND CEMENT AND THREE PARTS SAND.

CONSTRUCTION METHODS: PRIOR TO PLACING THE CONCRETE FOUNDATION, THE EXCAVATION FOR THE ROCK WALLS SHALL BE MADE TO THE PROPER SECTION, AND, IF CONSIDERED NECESSARY BY THE ENGINEER, THE BOTTOM OF EXCAVATION SHALL BE HAND-TAMPED AND SPRINKLED. THE EXCAVATED AREA FOR ROCK WALLS SHALL BE MOIST WHEN THE CONCRETE IS PLACED. REINFORCING STEEL SHALL BE PLACED CONTINUOUSLY AS SHOWN ON THE PLANS AND PROPERLY SUPPORTED THROUGHOUT THE PLACEMENT OF CONCRETE. THE SURFACE OF THE CONCRETE SHALL NOT BE TROWELED. THE CONCRETE SHALL BE CURED A MINIMUM OF 24 HOURS BEFORE ANY STONE OR MORTAR IS PLACED ON THE FOUNDATION. THE CONCRETE SHALL BE CURED A MINIMUM OF 48 HOURS BEFORE MORE THAN 300 POUNDS PER SQUARE FOOT OF STONE AND MORTAR IS PLACED ON THE FOUNDATION. CONTRACTOR SHALL EMBED THE FIRST FOUR INCHES OF THE FIRST LAYER INTO THE FRESH CONCRETE OF THE FOOTING.

STONE SHALL BE SELECTED AS TO SIZE AND SHAPE IN ORDER TO SECURE FAIRLY LARGE, FLAT-SURFACED STONE WHICH MAY BE ERECTED WITH TRUE AND EVEN SURFACE FACES AND A MINIMUM OF EXPOSED MORTAR. ALL STONES SHALL BE THOROUGHLY CLEANED, WETTED, HAND-PLACED AND EMBEDDED IN MORTAR SO THAT NO STONES TOUCH EACH OTHER OR THE CONCRETE FOUNDATION BUT SHALL BE FIRMLY BOUND TOGETHER WITH MORTAR. THE FINISHED SURFACE SHALL PRESENT A NEAT, CLEAN, WORKMANLIKE AND TRUE-TO-LINE APPEARANCE. THE INTERIOR OF THE ROCK WALL SHALL BE COMPLETELY FILLED WITH SPALLS AND PIECES OF THE SPECIFIED STONE, COMPLETELY EMBEDDED AND SURROUNDED BY MORTAR WITH NO VOIDS.

THE ERECTION OF THE ROCK WALL SHALL NOT BE MORE THAN THREE FEET IN HEIGHT FOR EVERY 24-HOUR PERIOD TO ALLOW FOR THE LOWER PORTIONS TO BECOME SUFFICIENTLY SET. ALL STONES SHALL BE THOROUGHLY WET BEFORE BEING PLACED IN FRESH MORTAR. THE LAST LAYER OF ROCK PRIOR TO BREAK OF CONSTRUCTION PHASE SHALL NOT HAVE ANY MORTAR ON TOP. FRESH MORTAR MUST BE USED FOR CONTINUATION OF WORK FOLLOWING ERECTION BREAK.

WEEP HOLES SHALL BE PLACED ON THE ROCK WALL AS SHOWN ON THE PLANS. THE WEEP HOLES SHALL BE NOT MORE THAN TEN FEET APART ON-CENTER. THE WEEP HOLES SHALL CONSIST OF FOUR-INCH VITRIFIED CLAY PIPE, OR OTHER PIPE AS APPROVED BY THE ENGINEER, NEATLY CUT TO THE EXPOSED SURFACE OF THE ROCK WALL. NO LESS THAN ONE CUBIC FOOT OF ONE-INCH TO 3/4-INCH OF GRADED GRAVEL SHALL BE PLACED AT THE INLET OF EACH WEEP HOLE AS SHOWN ON THE PLANS.

PROPOSED MONUMENT LOCATIONS

- A. MONUMENTS SHALL BE INSTALLED SO THAT ALL FRONT PROPERTY CORNERS OF ALL LOTS IN THE SUBDIVISION ARE WITHIN LINE OF SIGHT OF A MONUMENT, OR WITHIN SIGHT OF THE LINE BETWEEN TWO ADJACENT MONUMENTS.
- B. EACH MONUMENT SHALL BE WITHIN LINE OF SIGHT OF ANOTHER MONUMENT.
- C. MONUMENTS SHALL BE NO FARTHER THAN 2000 FEET APART.
- D. AT LEAST ONE (1) MONUMENT SHALL BE PLACED ON EACH HORIZONTAL CURVE (PI) OF THE TANGENTS LEADING INTO THE CURVE FALLS OUTSIDE THE CURB LINE.
- E. NO FEWER THAN TWO MONUMENTS SHALL BE PLACED IN ONE (1) STREET SUBDIVISIONS.

ROCK WALL NOTES

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IN PRACTICABLE THE STONE SHALL BE DENSE AND RESISTANT OF AIR AND WATER
 2. MORTAR MUST BE TYPE "S" 1800 P.S.I. AS PER ASTM C270
 3. MASONRY WALL OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED AS STRUCTURAL WALLS.
 4. WALLS ADJACENT TO PONDING AREAS OR DRAINAGE DITCHES MAY BE CONSTRUCTED OF BRICK, ROCK, STONE OR CINDER BLOCK AND SHALL NOT BE LESS THAN SIX (6) FEET HIGH.
 5. ROCKWALL MORTAR JOINTS MUST NOT EXCEED TWO (2) INCHES
 6. PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET
 7. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED
 8. ALL STONE FOR ROCKWALLS SHALL BE FRACTURED QUARRIED ROCK OR ROUND ROCK, NO RIVER ROCK SHALL BE ALLOWED.
 9. REINFORCING STEEL SHALL BE ASTM A615 GRADE 40.
 10. ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSI (MINIMUM)
 11. BACKFILL MATERIALS SHALL CONSIST OF COARSE GRAINED, WELL-DRAINED SOILS (WITH NO CLAY CONTENT).
 12. ALL THE RETAINING WALLS OVER 4' IN DEPTH SHALL BE BUILT BY DEVELOPER, REMAINING ROCKWALL TO BE BUILT BY BUILDER.
- NOTE: BUILDER SHALL SUBMIT ROCKWALL AND RETAINING ROCKWALL COMPUTATIONS TO THE CITY OF EL PASO OR FOR APPROVAL, IF IN EXCESS OF THOSE SHOWN.

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08R43.51'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

DATE	REVISIONS	BY

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ENGINEER'S SEAL

SCALE: AS SHOWN

Horizontal:	1" = 4'
Vertical:	1" = 4'
Contour Interval:	N/A
DATE:	APRIL 2021
DESIGN BY:	K.A.P.
DRAWN BY:	K.A.P./C.E.D.
CHKD. BY:	F.Z.
APPD. BY:	J.L.A.
JOB No.:	2025-021

PROJECT TITLE

**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

STANDARD
DETAILS

(SHEET 2 OF 3)
SHEET NO.

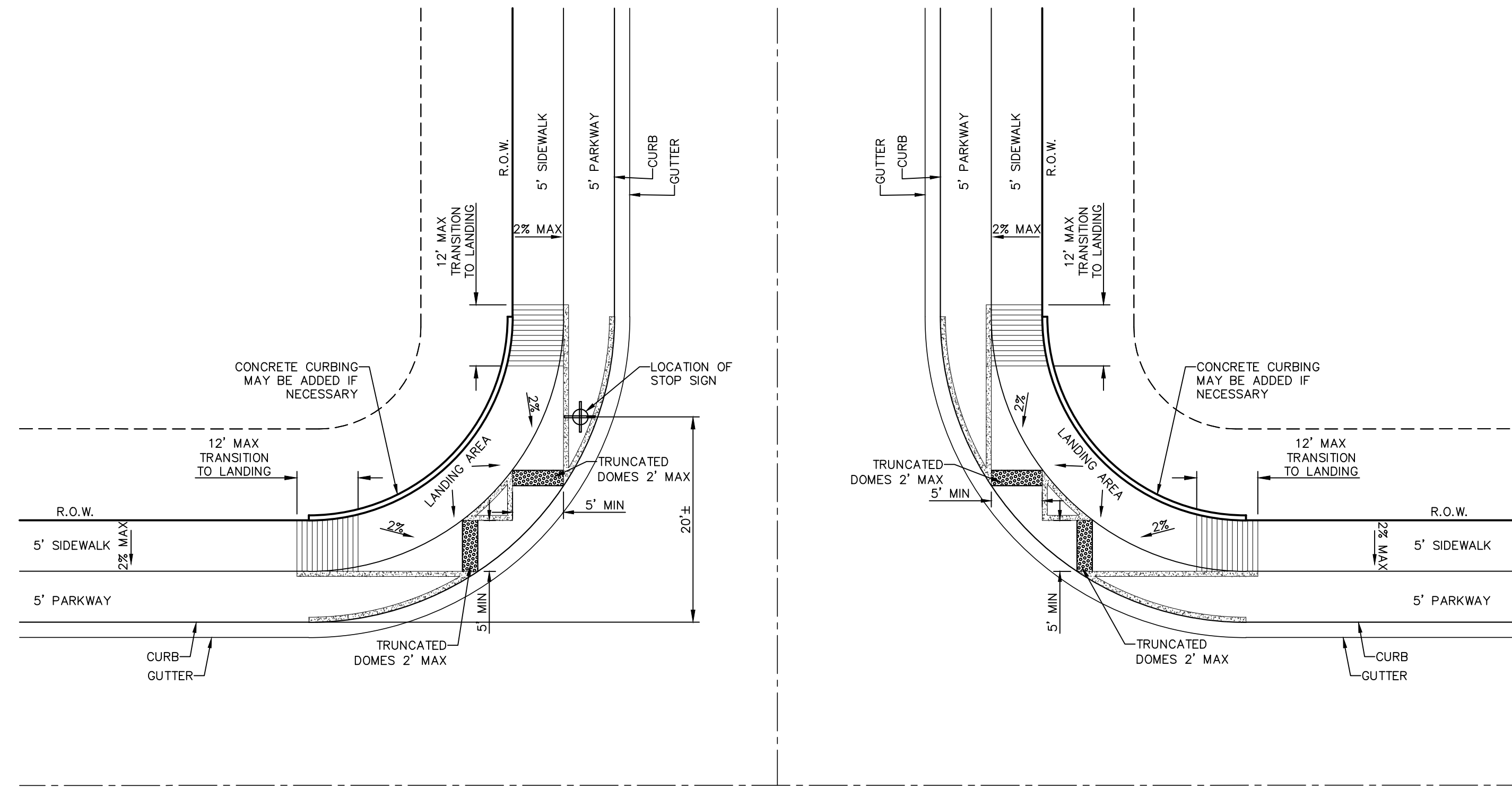
C9.2

LEGEND

DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN, A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL BE A MINIMUM OF 70% CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "RED BRICK" COLOR, UNLESS OTHERWISE DIRECTED BY THE CITY OF EL PASO ROAD AND BRIDGE DEPARTMENT. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE. ADA TILE SHALL BE PROVIDED BY PLACING AND MIXING TINT IN THE PLASTIC CONCRETE USED FOR THE DETECTABLE WARNING SURFACE. NO PAINTING OF SURFACE SHALL BE PERMITTED.

NOTES:

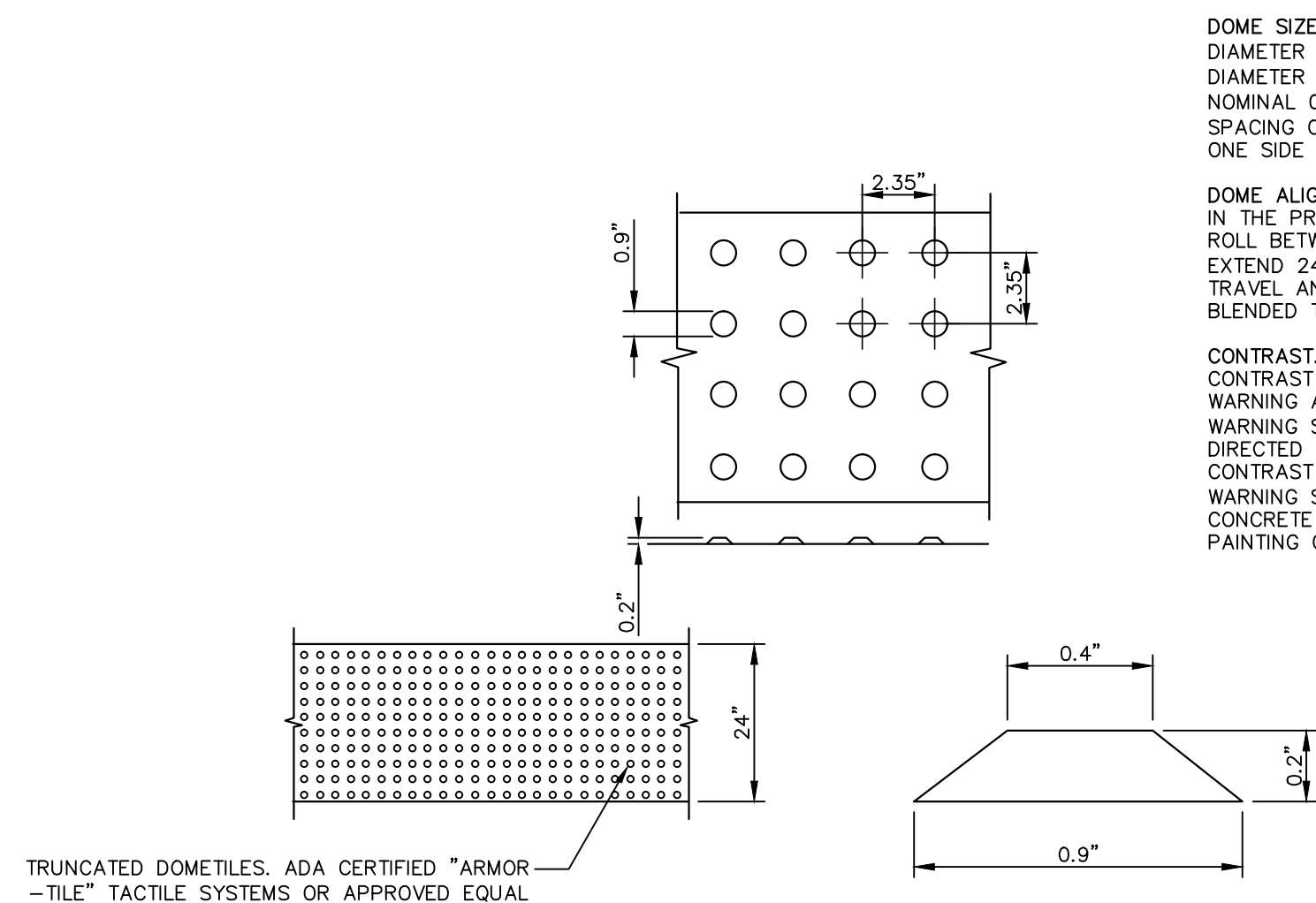
- ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- THE MINIMUM SIDEWALK WIDTH IS 5'. WHERE A 5' SIDEWALK CAN NOT BE PROVIDED DUE TO SITE CONSTRAINTS, A MINIMUM 3' SIDEWALK WITH 5' X 5' PASSING AREAS AT INTERVALS NOT TO EXCEED 200 FT IS REQUIRED.
- LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
- MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4' X 4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
- CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED.
- ALL CONCRETE SIDEWALK SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
- RAMP TEXTURES MUST CONSIST OF TRUNCATED DOMED SURFACES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED. REFER TO TRUNCATED DOME DETAIL.
- CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
- MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%.
- ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).



1 TYPICAL DIRECTIONAL RAMP @ INTERSECTION
SCALE: 1" = 10'

NOTES:

- RAMPS MAY BE PLACED AS SUGGESTED, HOWEVER EXISTING LIGHT POLES, FIREHYDRANTS, DROP INLETS, ETC., MAY AFFECT PLACEMENT.
- THE CONCRETE SURFACE SHALL HAVE A ROUGH, NONSKID TYPE FINISH.
- CONSTRUCTION METHODS SHALL CONFORM WITH THE CITY OF EL PASO SPECIFICATIONS.
- ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF EL PASO.
- CONTRACTOR SHALL CONSTRUCT LANDING AREAS WITH POSITIVE SLOPE IN ALL DIRECTIONS TO ALLOW RUNOFF TO PROPERLY DRAIN.
- IF TRANSITION AREA IS GREATER THAN 5%, A LANDING SHALL BE PROVIDED BEFORE AND AFTER TRANSITION PER ADA STANDARDS.

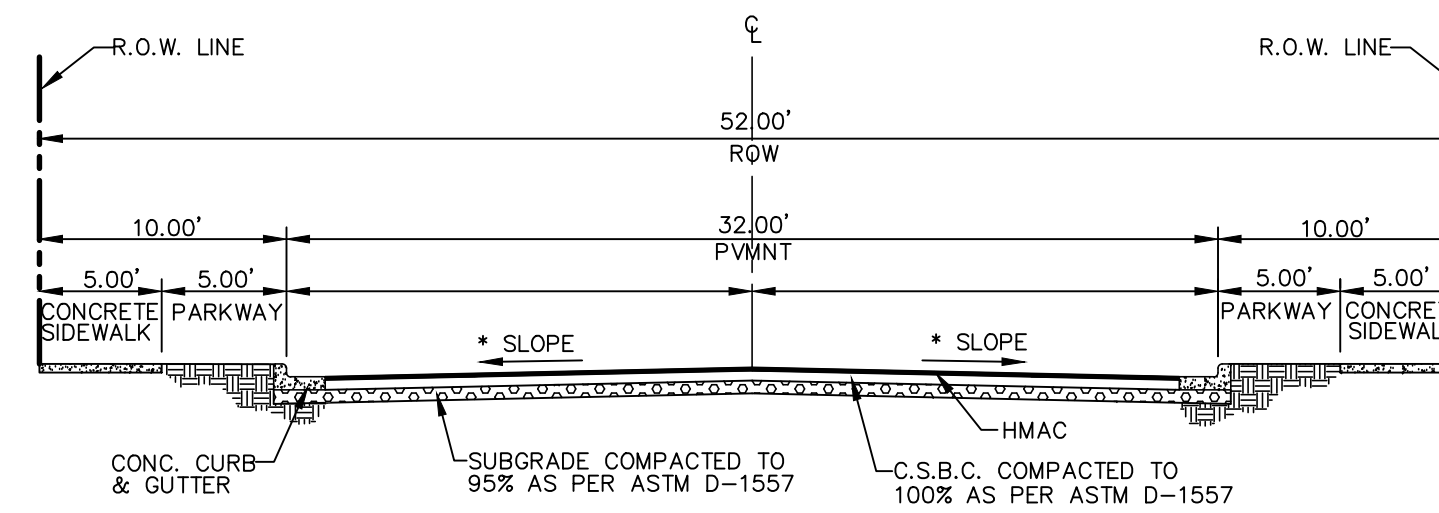


2 TRUNCATED DOME SIZE AND SPACING
SCALE: N.T.S.

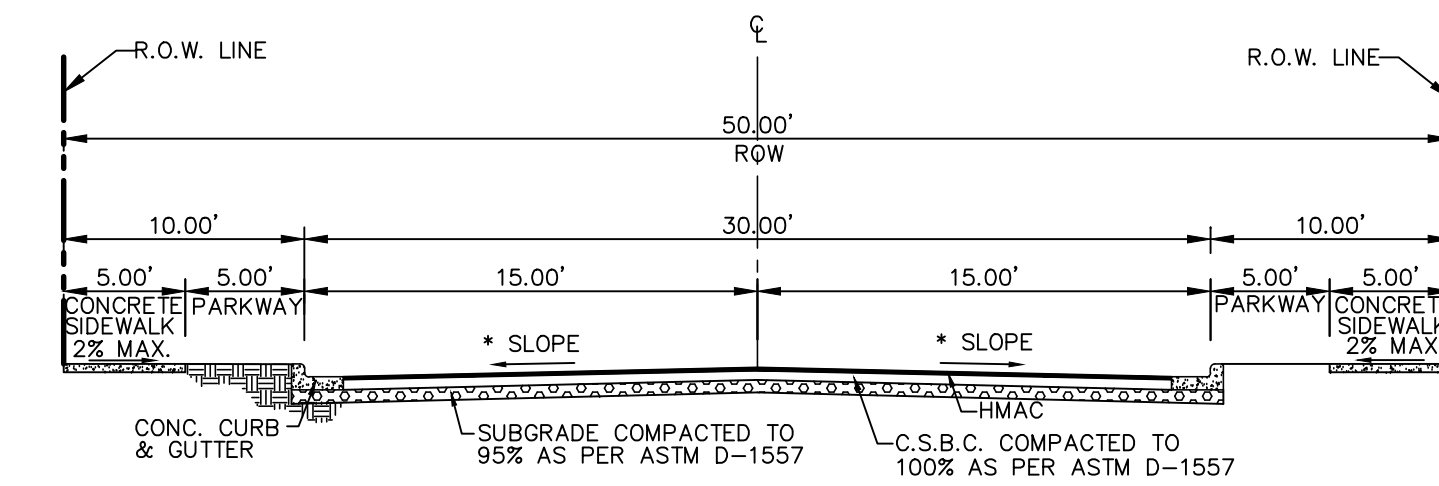
DOMES SIZE AND SPACING. TRUNCATED DOMES SHALL HAVE A DIAMETER OF NOMINAL 0.9 INCHES (23 mm) AT THE BOTTOM, A DIAMETER OF 0.4 INCH (10 mm) AT THE TOP, A HEIGHT OF NOMINAL 0.2 INCHES (5 mm), AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 mm) MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.

DOMES ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES (610 mm) MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION.

CONTRAST. THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "RED BRICK" COLOR, UNLESS OTHERWISE DIRECTED BY THE OWNER. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE. ADA CERTIFIED "ARMOR-TILE" REQUIRED. CONCRETE POURED TRUNCATED DOMES NOT ALLOWED. NO PAINTING OF SURFACE SHALL BE PERMITTED.



3 TYPICAL 52' ROW STREET SECTION DETAIL
(RESIDENTIAL SUBCOLLECTOR)
SCALE: N.T.S.



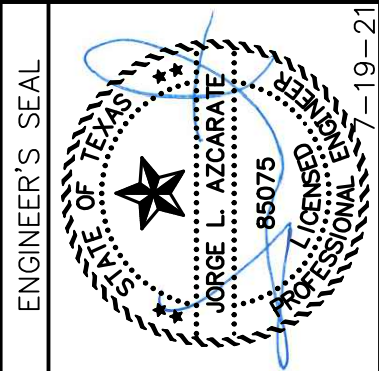
4 TYPICAL 50' ROW STREET SECTION DETAIL
SCALE: N.T.S.

***CBR NOTE:**
STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO THE CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT. THE CBR RESULTS WILL DICTATE THE REQUIRED THICKNESS OF THE PAVEMENT STRUCTURE BASED ON CITY OF EL PASO DESIGN STANDARDS. THE DEVELOPER SHALL PLACE THE HIGHER VALUE OF PAVEMENT STRUCTURE BASED ON THE CBR RESULTS OR THE MINIMUM PAVEMENT THICKNESS AS SHOWN ON THE CITY OF EL PASO DESIGN STANDARDS.

REFERENCES - BENCHMARKS	BY
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°42'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.	
ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)	
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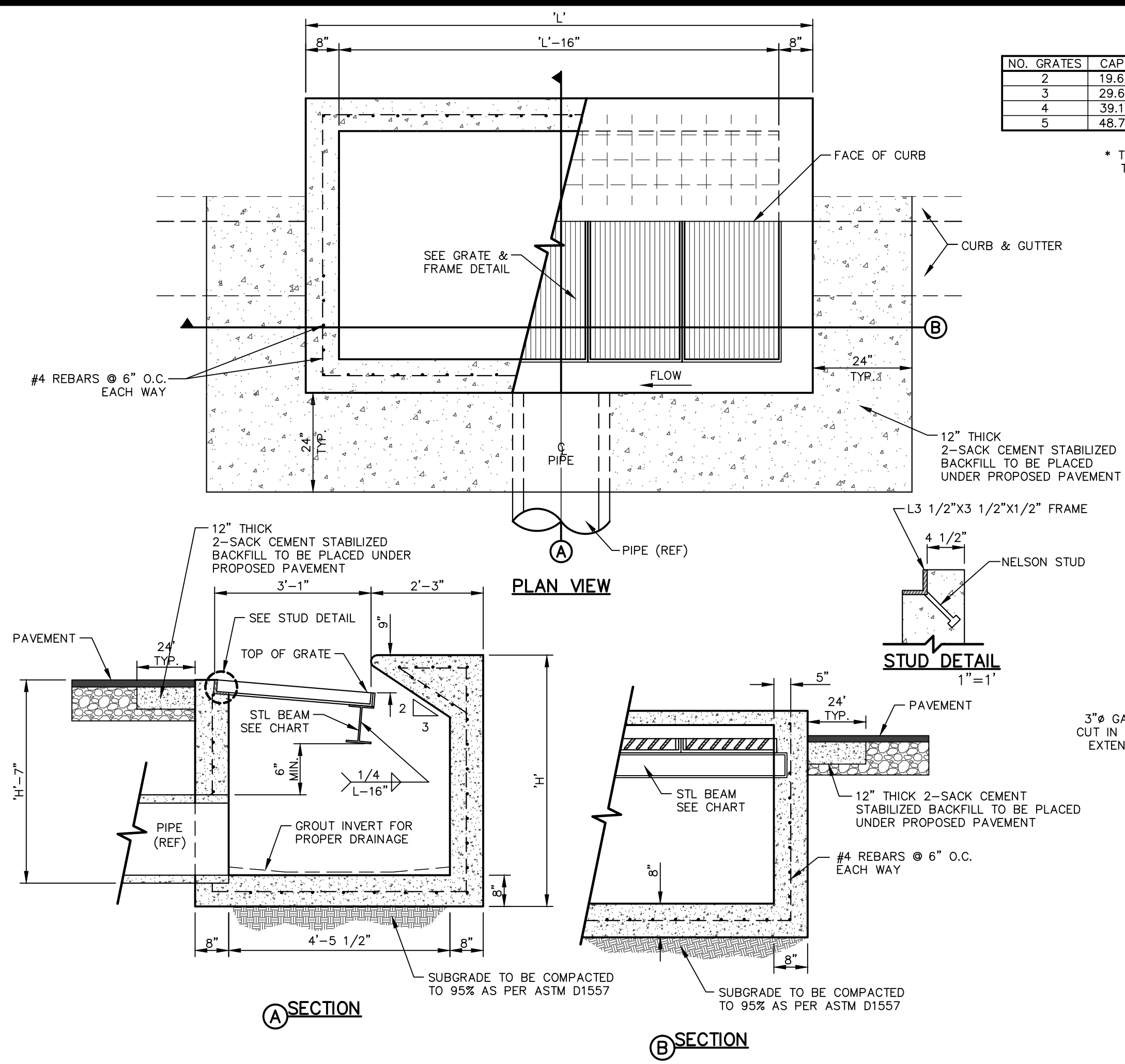
SCALE: AS SHOWN	Horizontal: N/A
Vertical: N/A	Contour Interval: N/A
DATE: APRIL 2021	DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.	CHKD. BY: F.Z.
APPVD. BY: J.L.A.	JOB No.: 2025-021

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**STANDARD
DETAILS**

(SHEET 3 OF 3)
SHEET NO.

C9.3

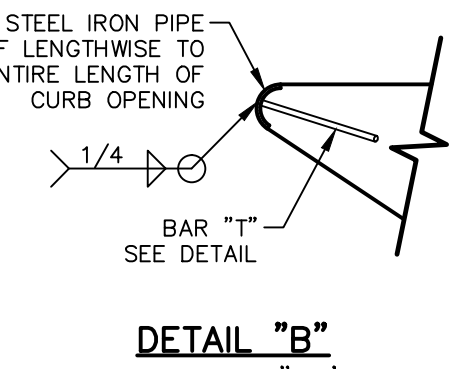
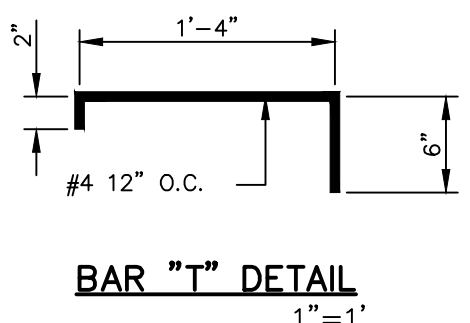


NO. GRATES	CAPACITY	"L"	BEAM LENGTH	BEAM (MIN. SIZES)
2	19.63 CFS	5'-1 1/8"	4'-7 1/8"	W6x12, S6x12.5, MC6x15.1
3	29.69 CFS	7'-0 1/4"	6'-5 1/8"	W8x15, S7x15.3, MC7x17.6
4	39.10 CFS	8'-9 7/8"	8'-3 7/8"	W9x18, S8x18.4, MC10x21.9
5	48.72 CFS	10'-8"	10'-2"	W12x18, S8x21, MC10x21.9

* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5

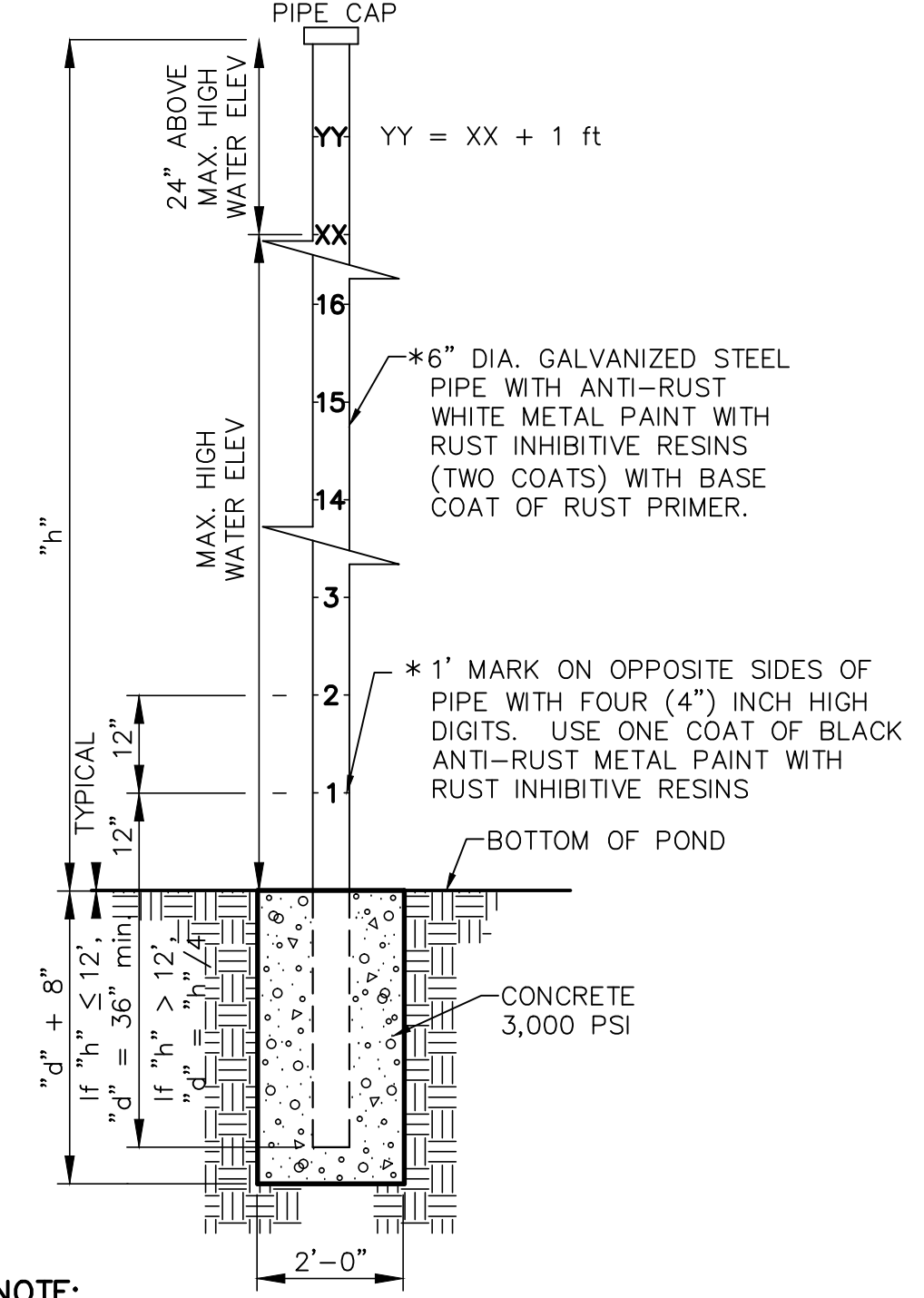
NOTES:

- GRATES TO BE PERPENDICULAR TO TRAFFIC
- CONCRETE TO BE 3,000 PSI (MIN.) CORE TEST @ 28 DAYS.
- H=20" MAXIMUM
- SEE STORM SEWER PLAN & PROFILES FOR APPROVED PIPE DIAMETER.

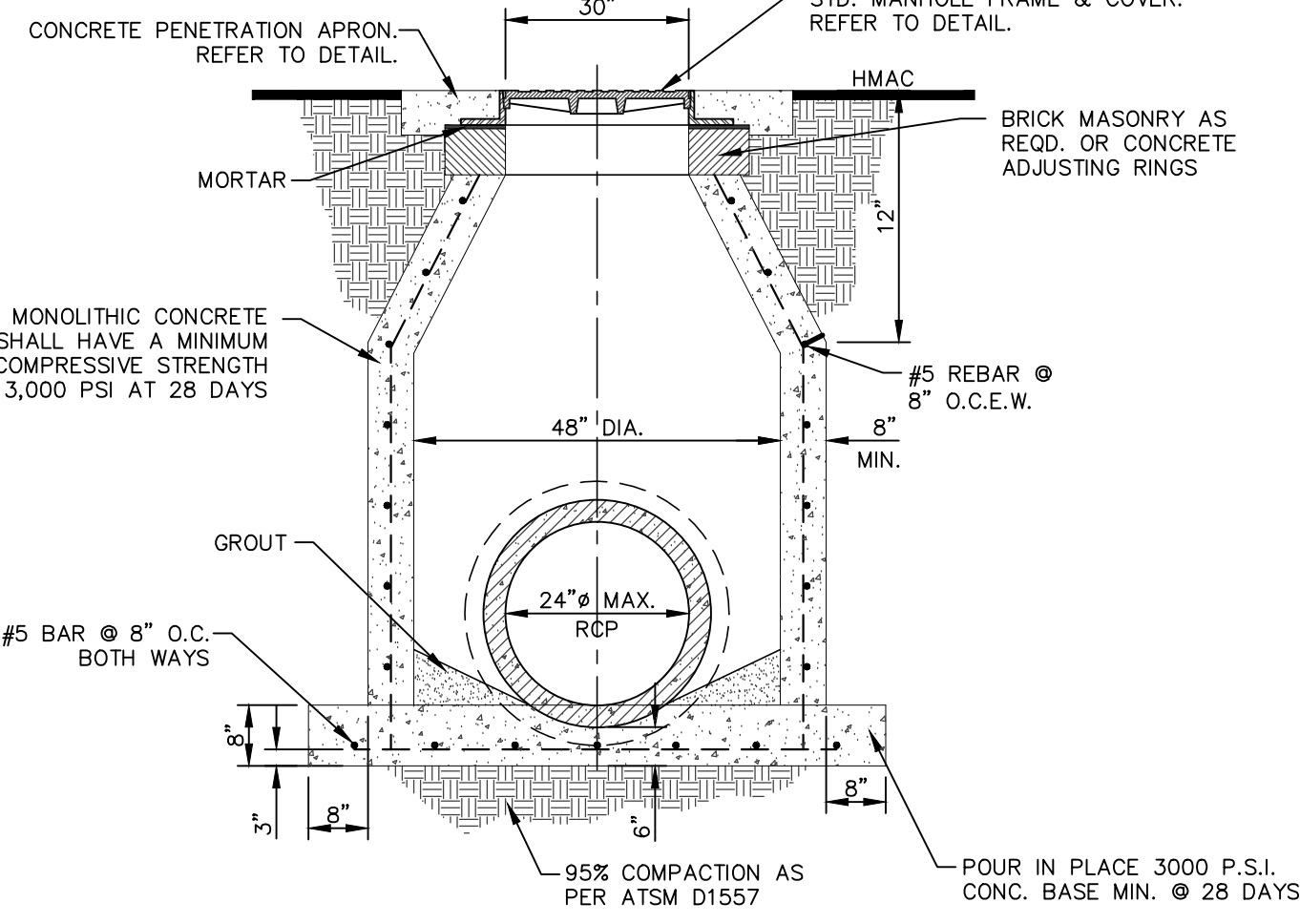


DROP INLET GENERAL NOTES:

- WELDED STEEL OR CAST GRATES AS DETAILED ARE ALL ACCEPTABLE GRATES. MIXING OF ALTERNATE TYPES OF GRATES ON THE SAME PROJECT WILL BE PERMITTED WITH THE APPROVAL OF THE CITY ENGINEER.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS.
- SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
- GRATES SHALL BE INSTALLED IN FRAME WITH FLOW ARROW POINTING DOWNSTREAM OR TOWARD THE LOW POINT IN A SUMP.
- WELDED GRATES SHALL BE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-183 OR OF CORROSION RESISTANT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-161 OR M-222 OR BE MADE OF OTHER APPROVED STEELS OF EQUAL QUALITY. MIXING GRADES OF STEEL ON THE SAME GRATE WILL NOT BE PERMITTED.
- GRATES MADE OF M-183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
- ALL WELDS SHALL HAVE A MINIMUM OF 1/4" FILLET AND SHALL CONFORM TO THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND TO THE AWS STRUCTURAL WELDING CODE. ELECTRODES SHALL BE COMPATIBLE TO THE DIFFERENT GRADES OF STEEL THAT COMPRISE THE GRATE MEMBERS.
- CAST GRATES SHALL BE CAST STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-103, GRADE 65-35 OR OF DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-536, SPECIAL GRADE 60-45, OR OF GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M-105, CLASS 35B OR ASTM A-48 CLASS 35B. THE SPECIFICATIONS OF GENERAL APPLICATION FOR CAST STEEL GRATES SHALL BE AASHTO M-103 SCOPE 1.2.1, GRADE M-1.
- FERROUS CASTINGS SHALL BE OF UNIFORM QUALITY, FREE OF BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR OTHER APPROVED CLEANING METHOD. AFTER CLEANING THEY SHALL BE COATED WITH ASPHALT BASE PAINT RESULTING IN A SMOOTH COATING, TOUGH AND TENACIOUS WHEN COLD, NOT TACKY OR BRITTLE.
- ALL CASTING SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
- ALL CONCRETE TO BE 3000 P.S.I. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
- MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCING.
- EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER AND PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
- STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH 300T. ITEM 446 "PAINT AND PAINTING"
- SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
- GRATES WILL BE DEPREESSED 1" BELOW PROPOSED OR EXISTING GRADE.
- ALL REINFORCING BARS TO BE #4 BARS AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
- INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED.
- LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
- TWO 3/8"x4" LONG CONCRETE ANCHOR STUDS REQUIRED FOR EACH SIDE OF FRAME, WHERE RESTING ON CONCRETE, USE NELSON STUDS OR EQUAL.
- THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.



- NOTE:**
- CONSULT WITH PAINT MANUFACTURER FOR PRODUCTS THAT CAN SUSTAIN LONG PERIODS OF MOISTURE.
 - GAUGE REQUIRED IN PONDS OF GREATER THAN FIVE (5') FOOT DEPTH ONLY.
 - "h" = Height
 - XX = MAXIMUM HIGH WATER ELEVATION BASED ON A 100-YR STORM EVENT ROUNDED TO NEAREST WHOLE NUMBER.
 - ALTERNATES WILL BE ALLOWED WITH THE PRIOR REVIEW AND APPROVAL OF THE CITY ENGINEER



NOTE: 95% COMPACTION AS PER ASTM D-1557 UNDER ALL CONCRETE STRUCTURES.

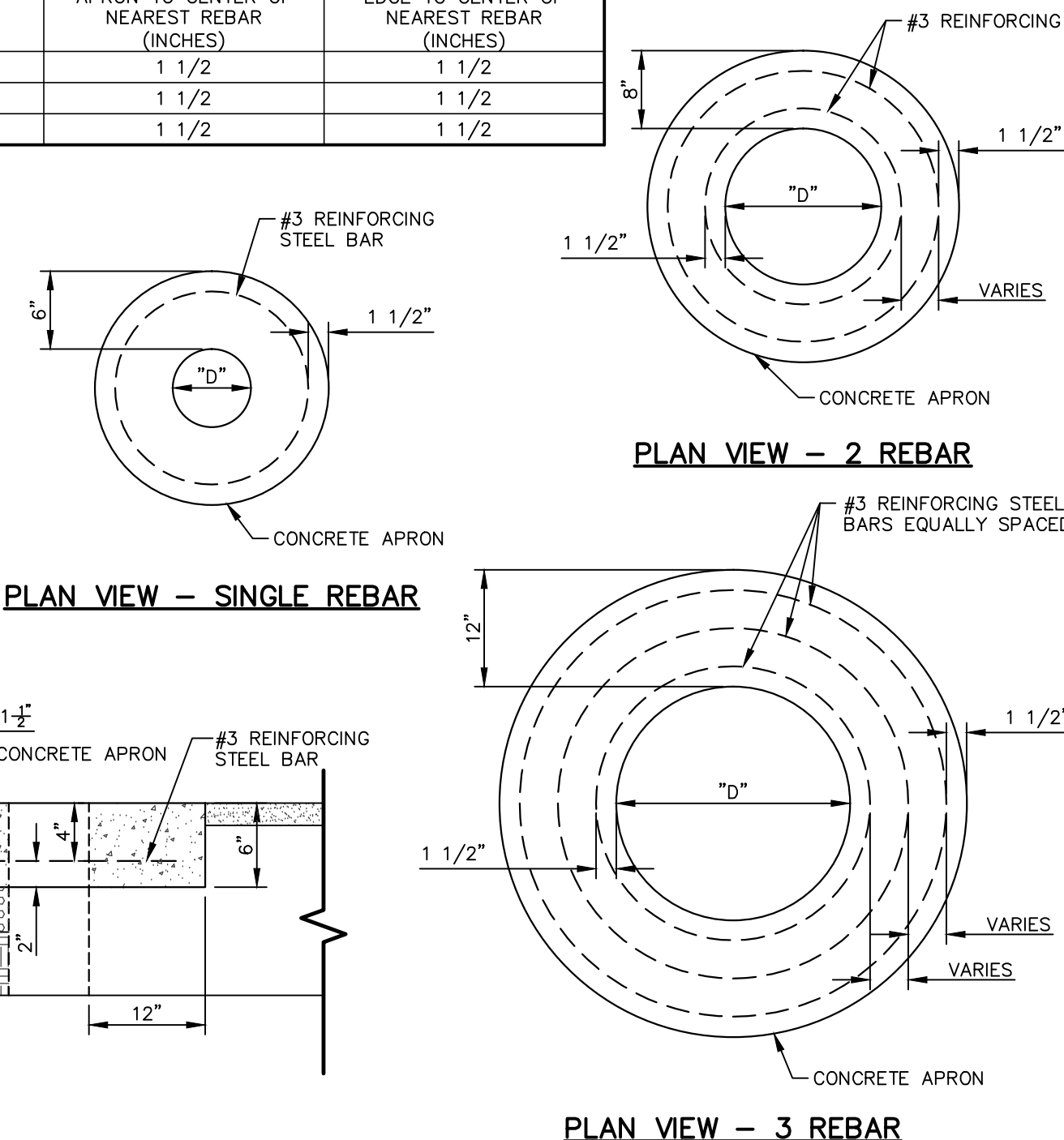
CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS				
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS (QUANTITY)	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.01	6	1	1 1/2	1 1/2
6.01 TO 18.01	8	2	1 1/2	1 1/2
18.01 AND OVER	12	3	1 1/2	1 1/2

CONSTRUCTION NOTES:

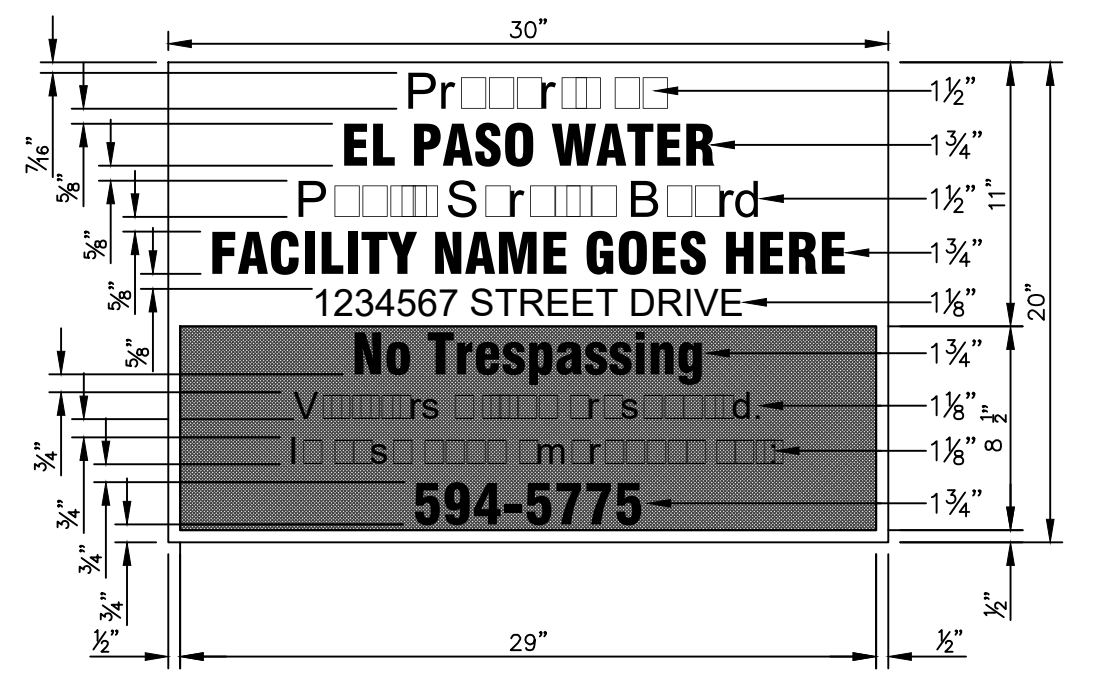
- ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
- ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
- PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
- REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
- NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

GENERAL NOTES:

- THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED).
- TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.

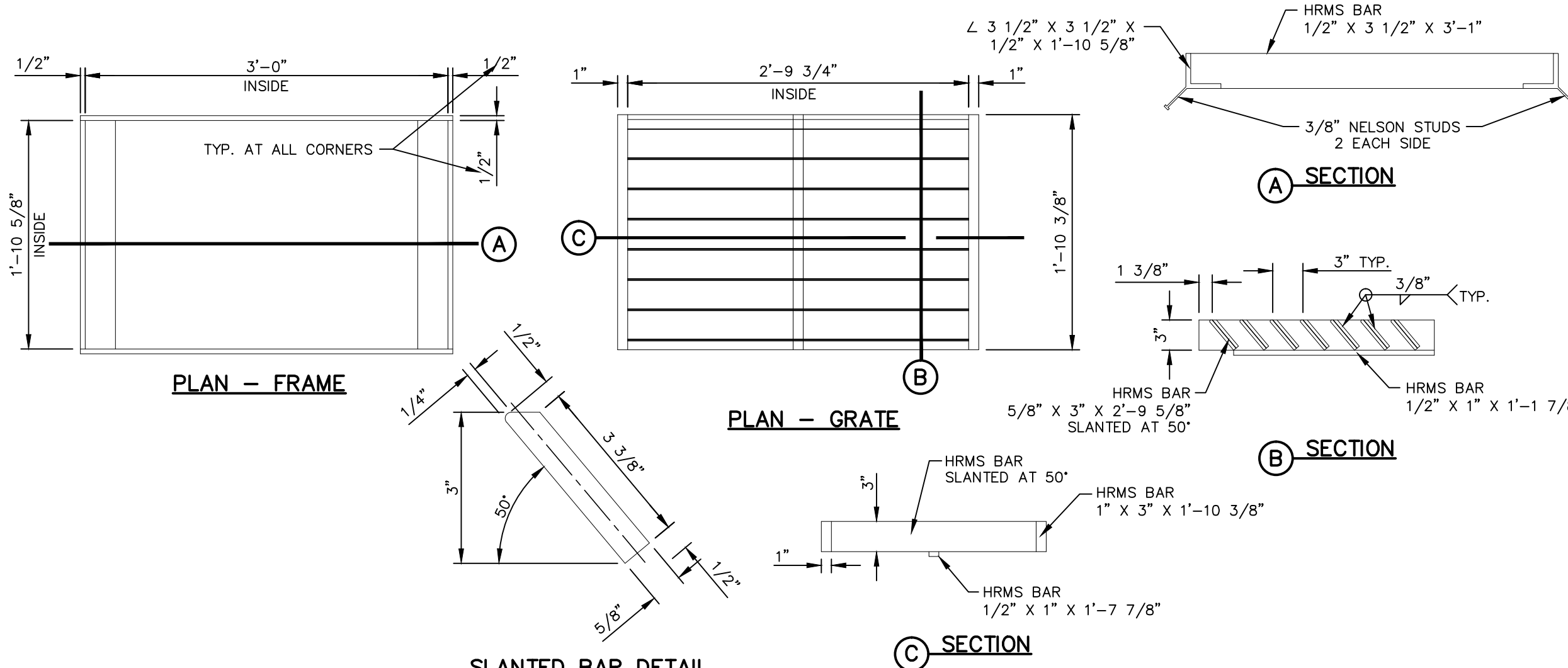


4 PENETRATION APRON DETAILS
SCALE: N.T.S.



- GENERAL NOTES:**
- SIGN MATERIAL TO BE 16 GAUGE GALVANIZED SHEET METAL.
 - TOP PART OF SIGN SHALL SHOW BLACK LETTERS ON A WHITE BACKGROUND.
 - BOTTOM PART OF SIGN SHALL SHOW WHITE LETTERS ON A BLACK BACKGROUND.

5 NO TRESPASSING WARNING SIGN
SCALE: N.T.S.



6 GRATE AND FRAME DETAILS
SCALE: 1" = 1'-0"

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08+42.51'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

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CEA GROUP TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL

SCALE: AS SHOWN

Horizontal: N/A

Vertical: N/A

Contour Interval: N/A

DATE: APRIL 2021

DESIGN BY: K.A.P.

DRAWN BY: K.A.P./C.E.D.

CHKD. BY: F.Z.

APPD. BY: J.L.A.

JOB No.: 2025-021

PROJECT TITLE

TRES SUEÑOS UNIT TWENTY THREE SUBDIVISION IMPROVEMENTS

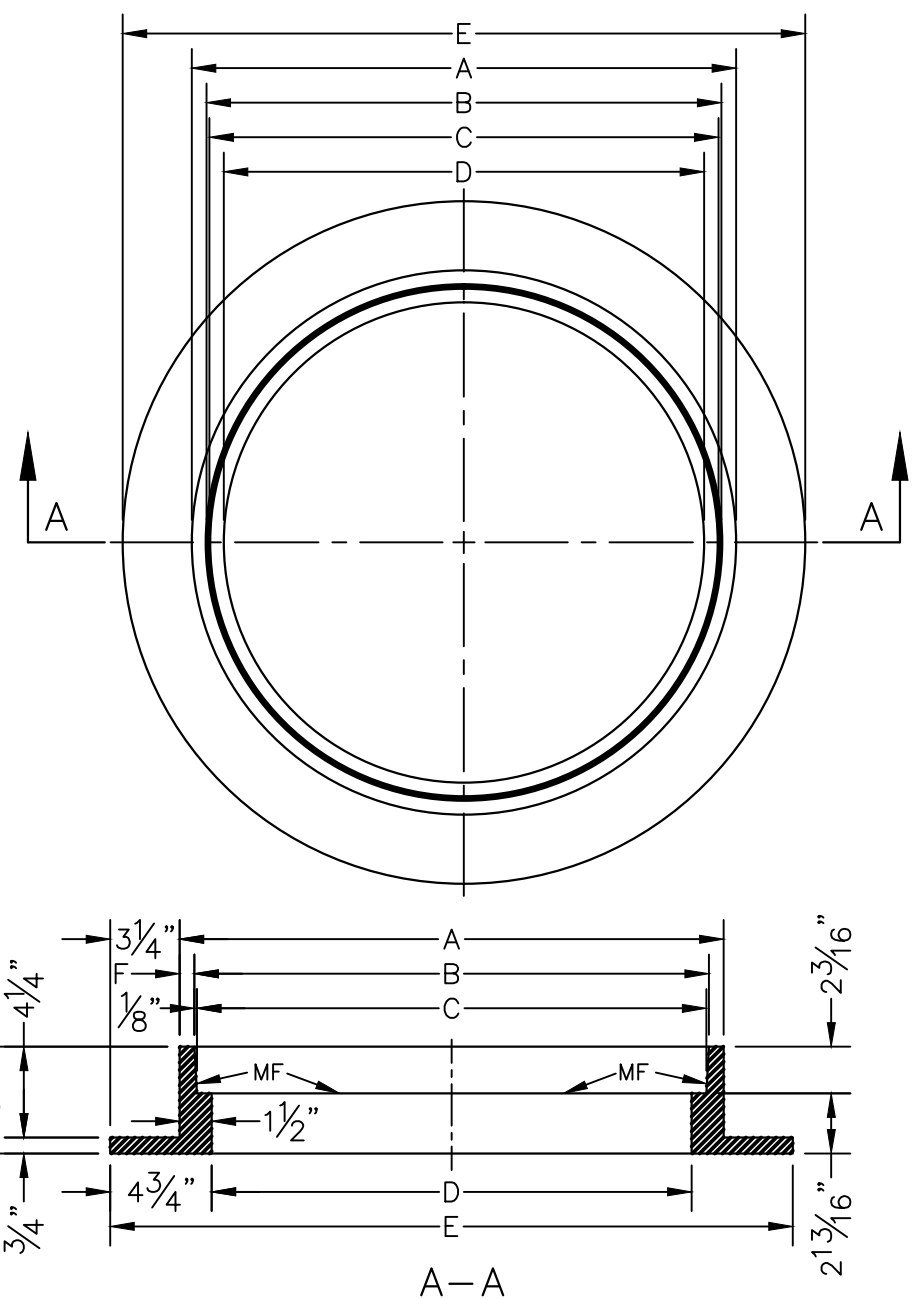
SHEET TITLE

DRAINAGE DETAILS

(SHEET 1 OF 4)

SHEET NO.

C10.1

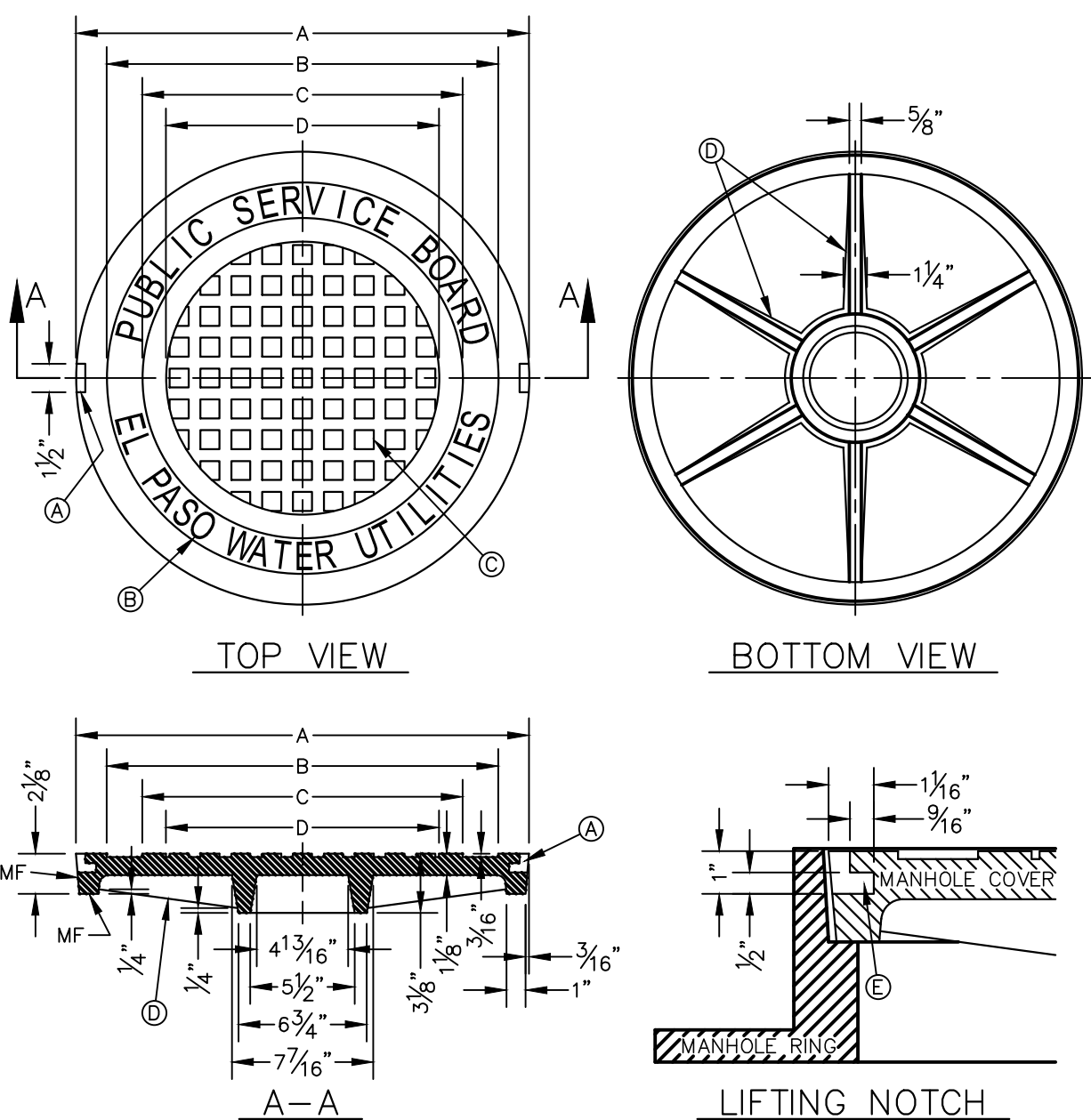


- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
 2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
 3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
 4. AS-CAST DIMENSIONS MAY VARY $\frac{1}{16}$ " \pm / PER FOOT (AASHTO M306-07).
 5. WEIGHT MAY VARY 5% \pm (AASHTO M306-07).

MANHOLE RING	MANHOLE - ALL TYPES
A	33"
B	31 $\frac{3}{4}$ "
C	31 $\frac{1}{2}$ "
D	30"
E	39 $\frac{1}{2}$ "
F	5 $\frac{1}{2}$ "
WEIGHT	205 lbs.

STANDARD DETAIL DATE: 11/1992 REV: 2/21/2011 SEWER MANHOLE RING N.T.S. el PASO WATER DETAIL No. 377

1 MANHOLE RING SCALE: N.T.S.



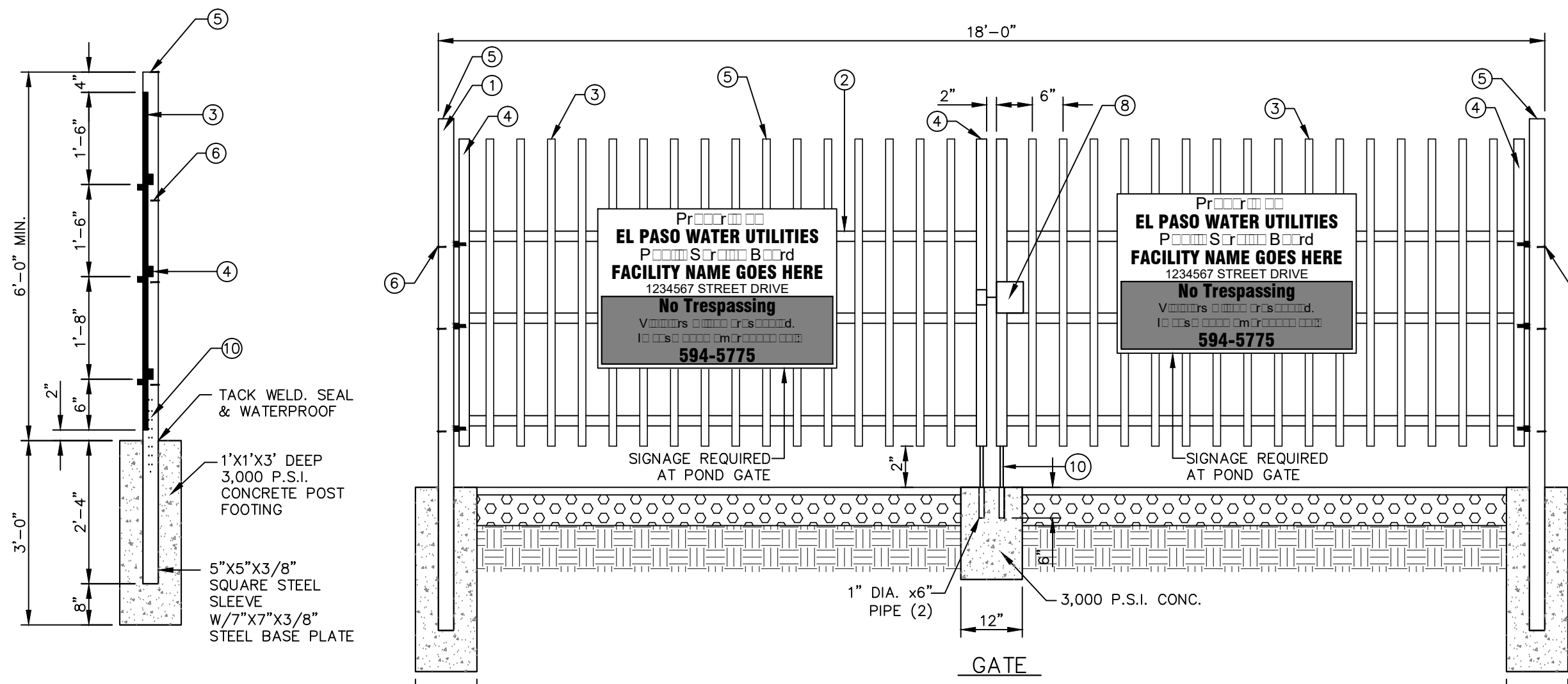
- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
 2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
 3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
 4. AS-CAST DIMENSIONS MAY VARY $\frac{1}{16}$ " \pm / PER FOOT (AASHTO M306-07).
 5. WEIGHT MAY VARY 5% \pm (AASHTO M306-07).

- CONSTRUCTION KEY NOTES:**
- A. LIFTING NOTCH.
 - B. $\frac{3}{16}$ " RAISED LETTERING.
 - C. SQUARES ($\frac{3}{16}$ " TALL) WITH $\frac{3}{16}$ " SPACE BETWEEN.
 - D. REINFORCING RIBS.
 - E. SLOT.

MANHOLE COVER	MANHOLE - ALL TYPES
A	31 $\frac{3}{8}$ "
B	28 $\frac{1}{2}$ "
C	24 $\frac{3}{8}$ "
D	21 $\frac{1}{8}$ "
WEIGHT	200 lbs.

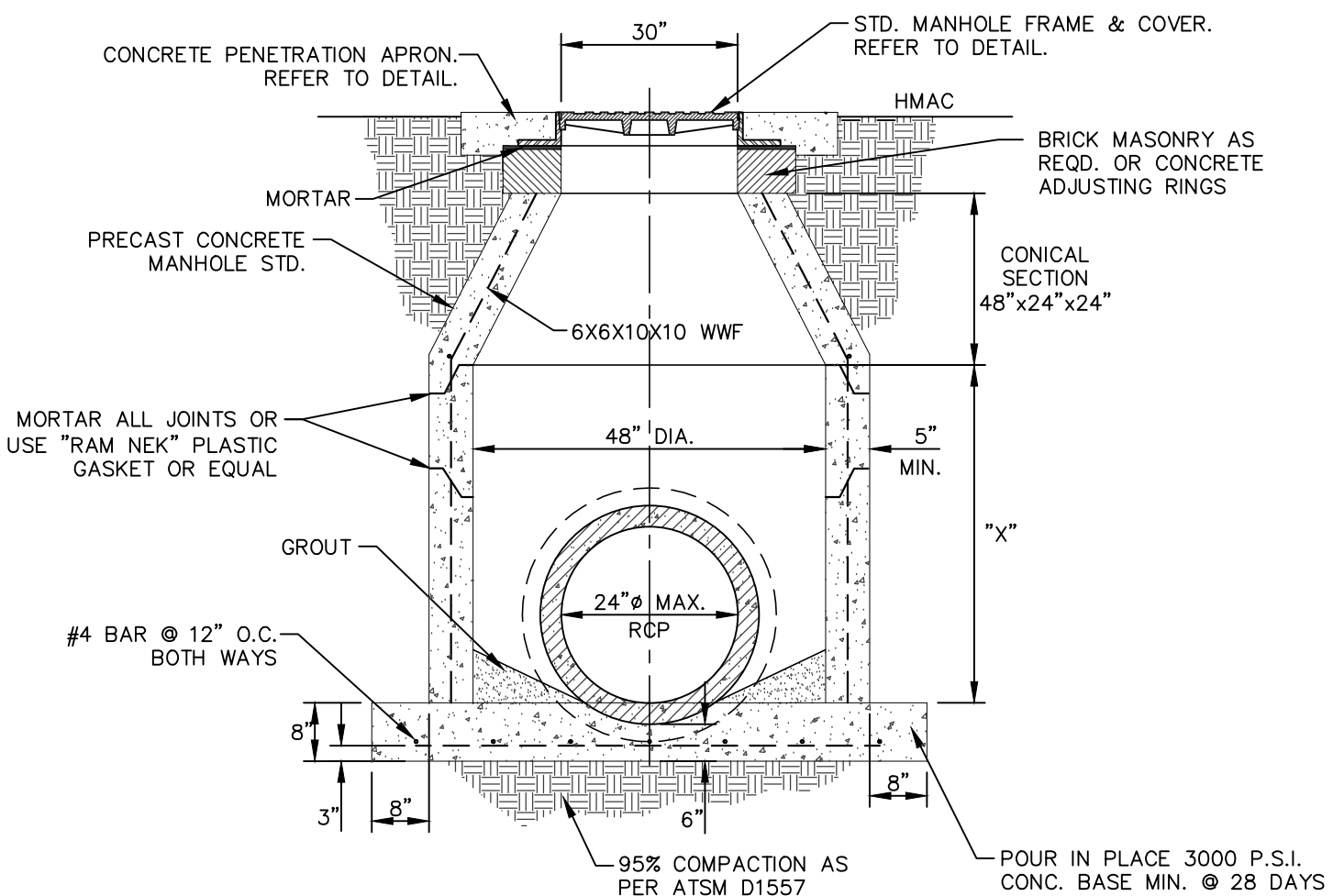
STANDARD DETAIL DATE: 11/1992 REV: 2/21/2011 SEWER MANHOLE COVER N.T.S. el PASO WATER DETAIL No. 378

2 MANHOLE COVER SCALE: N.T.S.



- NOTES:**
1. 3"x3"x3/16" SQUARE STEEL TUBING
 2. 2" x 1" x 14 GA. RECTANGULAR STEEL TUBING
 3. 1 1/2" x 1/2" x 16 GA. RECTANGULAR STEEL TUBING
 4. 2" x 1" x 10 GA. RECTANGULAR STEEL TUBING
 5. FLAT TOP POLYVINYL CAPS (TYPICAL)
 6. BOLT HOOK AND STRAP HINGE
 7. 1' x 3' DEEP 3000 PSI CONCRETE POST FOOTING
 8. DOUBLE GATE HEAVY DUTY INDUSTRIAL LATCH W/PAD LOCK
 9. 5" x 5" x 3/8" SQUARE STEEL SLEEVE W/7" x 7" x 3/8" BASE PLATE
 10. CANE BOLT LATCH W/KEEPER 5-8" x 18" LONG (2 REQUIRED)

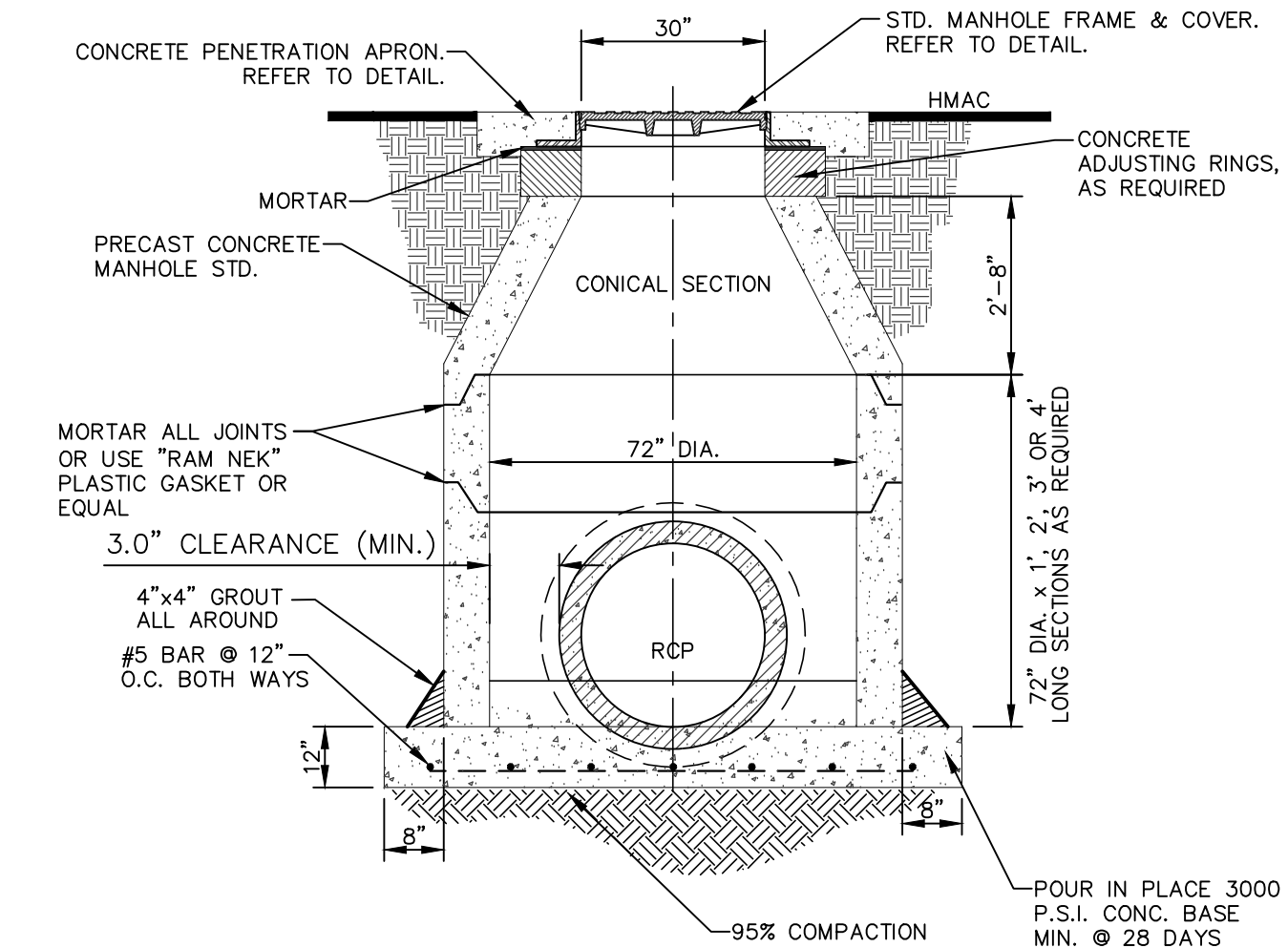
6 18' WROUGHT IRON GATE SCALE: 1" = 2'-0"



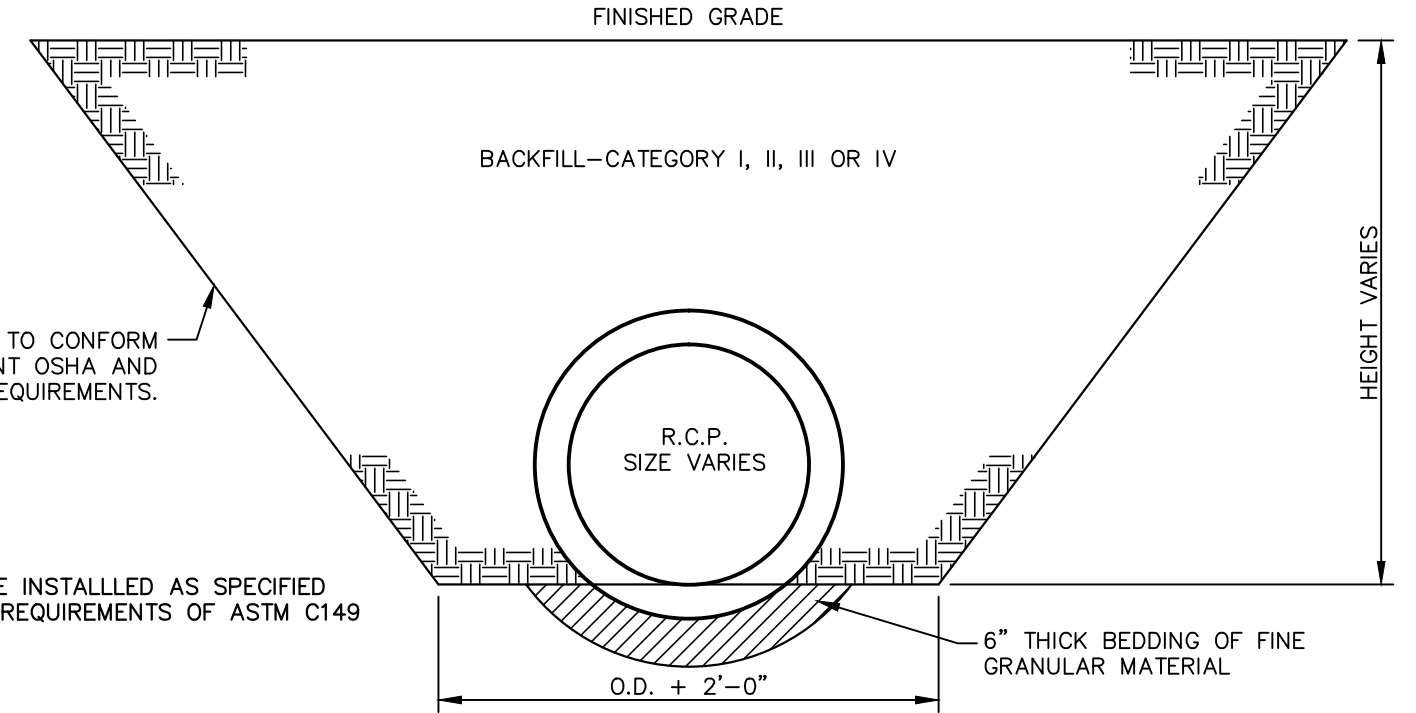
"X" = 48" DIA. x 12", 24", 36", OR 48" PRE-CAST LONG SECTIONS AS REQUIRED

NOTE: 95% COMPACTION AS PER ASTM D-1557 UNDER ALL CONCRETE STRUCTURES & AT BACKFILL.

3 48" STANDARD MANHOLE DETAIL SCALE: N.T.S.

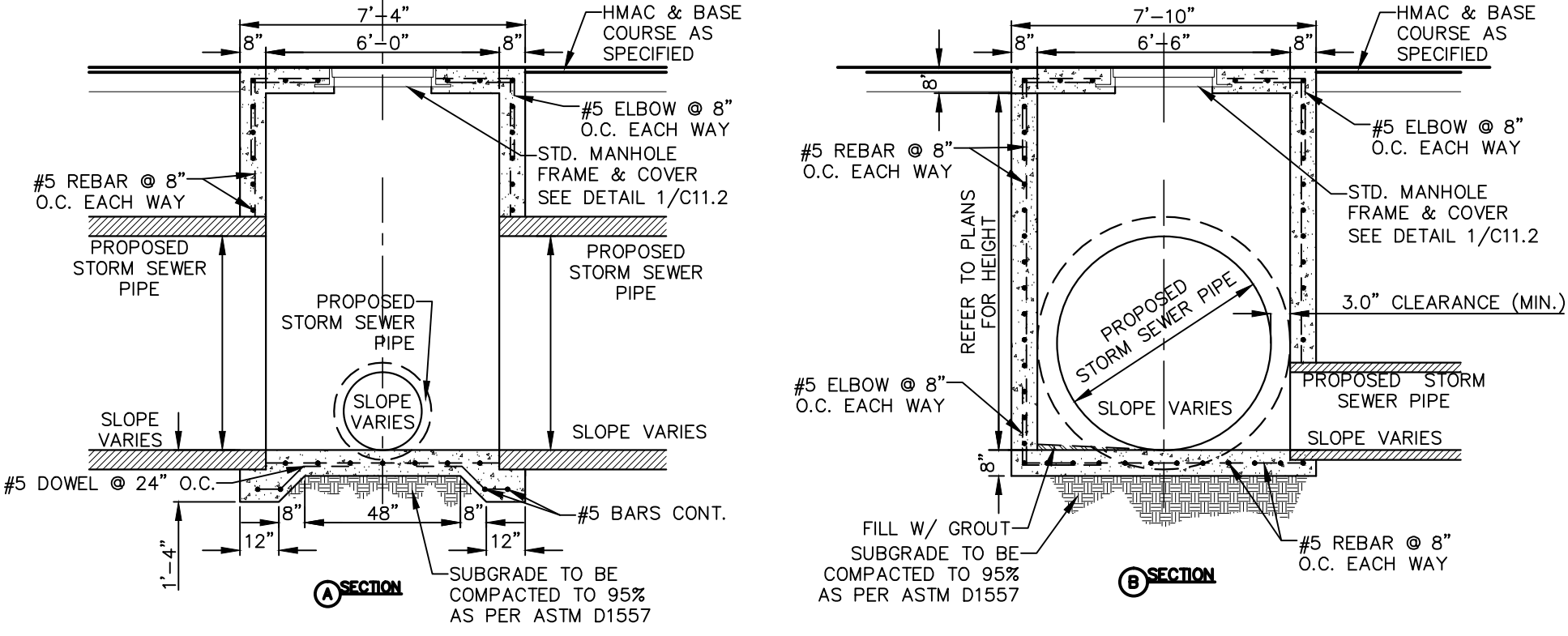


4 72" STANDARD MANHOLE DETAIL SCALE: N.T.S.



- NOTES:**
1. EXCAVATION PIPE TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN IN THE PLANS. WHEN ROCK OR OTHER UNYIELDING FOUNDATION MATERIAL IS ENCOUNTERED, IT SHALL BE REMOVED TO A DEPTH OF 0.0/12 OR 6", WHICHEVER IS GREATER AND REPLACED WITH APPROVED MATERIAL AND COMPACTED TO AT LEAST THE STANDARD PROCTOR DENSITY SPECIFIED FOR THE BEDDING MATERIAL.
 2. FOUNDATION: THE FOUNDATION SHALL BE MODERATELY FIRM TO HARD SOIL, STABILIZED SOIL OR COMPACTED FILL MATERIAL. WHEN UNSUITABLE OR UNSTABLE MATERIAL IS ENCOUNTERED, THE FOUNDATION SHALL BE STABILIZED.
 3. BEDDING: THE BEDDING SHALL BE CONSTRUCTED UNIFORMLY OVER THE FULL LENGTH OF THE PIPE BY EXERTING FORCE ON THE BARREL TO DISTRIBUTE THE LOAD-BEARING REACTION UNIFORMLY ON THE PIPE BARREL OVER ITS FULL LENGTH AND TO MAINTAIN THE REQUIRED PIPE GRADE. IF PLACED IN LAYERS, THE THICKNESS OF THE LAYERS SHALL BE REQUIRED TO ACHIEVE THE SPECIFIED COMPACTED BEDDING. THE THICKNESS OF THE BEDDING THICKNESS IS LESS THAN 6-INCHES AND 1 1/2" WHEN THE BEDDING IS 6-INCH OR GREATER.
 4. PIPE LAYING: PIPE SHALL BE INSTALLED TO THE LINE AND GRADE AS SHOWN ON THE PLANS. THE JOINT SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS UNLESS APPROVED BY THE DESIGN ENGINEER. PIPE LAYING SHALL START AT THE LOWEST END OF THE PIPE LINE AND PIPE LAD WITH THE BELL END UPGRADE. THE BEDDING GRADE UNDER THE MIDDLE THIRD OF THE PIPE OUTSIDE DIAMETER SHALL BE PREPARED BEFORE LAYING THE PIPE SECTION, MAKING ADJUSTMENTS IN GRADE BY EXERTING FORCE ON THE BARREL OF THE PIPE WITH EXCAVATING EQUIPMENT, BY LIFTING AND DROPPING THE PIPE, OR BY LIFTING AND PACKING THE BEDDING MATERIAL UNDER IT. IT SHALL BE PROHIBITED IF THE INSTALLED PIPE SECTION IS NOT ON GRADE, THE PIPE SECTION SHALL BE COMPLETELY UNJOINED, THE GRADE CORRECTED, AND THE PIPE THEN REINSTALLED.
 5. BEFORE ASSEMBLING THE PIPE JOINT, CLEAN ALL DIRT AND FOREIGN SUBSTANCE FROM THE BELL & SPOUT OR TONGUE & GROOVE ENDS OF THE PIPE. FOR TONGUE & GROOVE JOINTS, PLACE THE PERFORMED FLEXIBLE JOINT SEALANT MATERIAL AROUND THE TOP HALF OF THE SPOUT AND THE BOTTOM HALF OF THE BELL.
 6. BACKFILLING: ALL TRENCHES SHALL BE BACKFILLED AS PER PROJECT REQUIREMENTS. THE HAUNCH SHALL BE CONSTRUCTED USING THE SPECIFIED SOIL TYPE AND COMPACTION LEVEL REQUIRED FOR THE DESIGNATED INSTALLATION. THE BACKFILL SHALL BE PLACED IN LAYERS. THE THICKNESS OF THE LAYERS SHALL BE 8-INCH LIFTS AND COMPACTED TO THE SPECIFIED REQUIREMENTS. THE BACKFILL SHALL BE MATERIAL CONFORMING TO THE PROJECT PLAN SAND CONTAINING NO DEBRIS, ORGANIC MATTER OR FROZEN MATERIAL.
 7. MINIMUM COVER FOR CONSTRUCTION LOADS: IF PASSAGE OF CONSTRUCTION EQUIPMENT OVER AN INSTALLED PIPELINE IS NECESSARY DURING PROJECT CONSTRUCTION, COMPACTED OVERFILL IN THE FORM OF A RAM SHALL BE CONSTRUCTED TO A MINIMUM ELEVATION OF 3-Feet OVER THE TOP OF THE PIPE OR TO A HEIGHT SUCH THAT THE EQUIPMENT LOADS ON THE PIPE DO NOT EXCEED THE PIPE DESIGN STRENGTH.
 8. HORIZONTAL AND VERTICAL ALIGNMENTS: THE HORIZONTAL ALIGNMENT OF THE FACILITIES WILL BE ALLOWED IF THE CENTER OF 36-INCH AND SMALLER DIAMETER PIPES SHALL NOT BE MORE THAN 8-INCHES OFF THE DESIGNATED ALIGNMENT. IN ADDITION FOR PIPE GREATER THAN 36-INCH DIAMETER, THE CENTER LINE SHALL NOT BE MORE THAN 2-INCHES PER 12-INCH OF DIAMETER FROM THE DESIGNATED ALIGNMENT. PIPELINE ALIGNMENT SHALL BE STRAIGHT FROM MANHOLE TO MANHOLE WITH A LINE OF SIGHT THROUGH THE PIPE SHALL EXIST. THE VERTICAL ALIGNMENT SHALL NOT DEVIATE FROM THE DESIGNATED GRADE BY AN AMOUNT GREATER THAN THE TOTAL OF 1/4 INCH PLUS 1 INCH PER YARD OF DIAMETER OF SEWER PIPE. NO VARIANCE FROM GRADE, VERTICALLY OR HORIZONTALLY, SHALL BE PERMITTED THAT RESULTS IN INDIVIDUAL JOINT DEFLECTIONS IN EXCESS OF MANUFACTURER'S RECOMMENDATIONS.

7 STORM SEWER BEDDING DETAIL SCALE: N.T.S.



- NOTE:**
1. ALL REINFORCING BARS SHALL HAVE A MINIMUM OF 3-INCHES OF COVER WHEN ABUTTING EARTHEN MATERIAL.
 2. ALL CONCRETE SHALL HAVE 3,000 P.S.I. (MIN.) AT TWENTY-EIGHT (28) DAYS.
 3. NINETY-FIVE (95%) PERCENT COMPACTION AS PER ASTM D-1557 UNDER ALL CONCRETE STRUCTURES.
 4. REINFORCED STEEL SHALL BE DEFORMED AND HAVE A MINIMUM OF GRADE 40.
 5. STRUCTURE SHALL BE DESIGNED FOR HS-20 LOADING.
 6. IN NO MEANS IS THIS ATTEMPTING OR IMPLYING ON HOW TO CONSTRUCT ITEMS, BUT WHENEVER NEEDED A MONOLITHIC POUR MAY BE REQUIRED.

5 REINFORCED MODIFIED CAST-IN-PLACE CONCRETE JUNCTION BOX SCALE: 1" = 2'-0"

EQUIVALENT USCS AND AASHTO SOIL CONDITIONS FOR SOIL DESIGNATION

INSTALLATION TYPE	BEDDING THICKNESS	HAUNCH AND OUTER BEDDING	LOWER SIDE	
			95	80
TYPE 1	0D/24 MINIMUM; NOT LESS THAN 3-INCH. IF ROCK FOUNDATION = USE 0D/12 MINIMUM; NOT LESS THAN 6-INCH	95% CATEGORY I	95	80
			90	80
TYPE 2	0D/24 MINIMUM; NOT LESS THAN 3-INCH. IF ROCK FOUNDATION = USE 0D/12 MINIMUM; NOT LESS THAN 6-INCH	95% CATEGORY I OR 95% CATEGORY II	95	80
			90	80
TYPE 3	0D/24 MINIMUM; NOT LESS THAN 3-INCH. IF ROCK FOUNDATION = USE 0D/12 MINIMUM; NOT LESS THAN 6-INCH	100	95	80
			90	75
TYPE 4	0D/24 MINIMUM; NOT LESS THAN 3-INCH. IF ROCK FOUNDATION = USE 0D/12 MINIMUM; NOT LESS THAN 6-INCH	100	95	80
			90	80

SOIL	REPRESENTATIVE SOILS TYPE	PERCENT COMPACTION	
		SATNDARD PROCTOR	MODIFIED PROCTOR
CATEGORY I	CLEAN, COARSE GRAINED SOILS: SW, SP, GW, GP OR ANY SOIL BEGINNING WITH ONE OF THESE SYMBOLS WITH 12% OR LESS PASSING #200 SIEVE	A-1, A-3	100
		95	90
		90	85
CATEGORY II	CLEAN, COARSE GRAINED SOILS WITH FINES: GM, GC, SM, SC, OR ANY SOIL BEGINNING WITH ONE OF THESE SYMBOLS, CONTAINING MORE THAN 12% PASSING #200 SIEVE	A-2-4, A-2-5, A-2-6, A-4 OR A-6 SOILS WITH 30% OR MORE RETAINED ON A #200 SIEVE	100
		95	90
		90	85
CATEGORY III	FINE-GRAINED SOILS: CL, ML, OR (CL-ML, ML/CL) ON A #200 SIEVE	A-6 WITH LESS THAN 30% RETAINED ON A #200 SIEVE	100
		95	85
		90	80
CATEGORY IV BUT NOT ALLOWED FOR HAUNCH OR BEDDING	MH, CH, CL, OH, PT	A-5, A-7	100
		95	85
		90	80

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 508+43.51'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

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el PASO WATER UTILITIES

TRES SUEÑOS UNIT TWENTY THREE SUBDIVISION IMPROVEMENTS

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB No.: 2025-021

REVISIONS

DATE

BY

ENGINEER'S SEAL

SCALE: AS SHOWN
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

PROJECT TITLE

SHEET TITLE

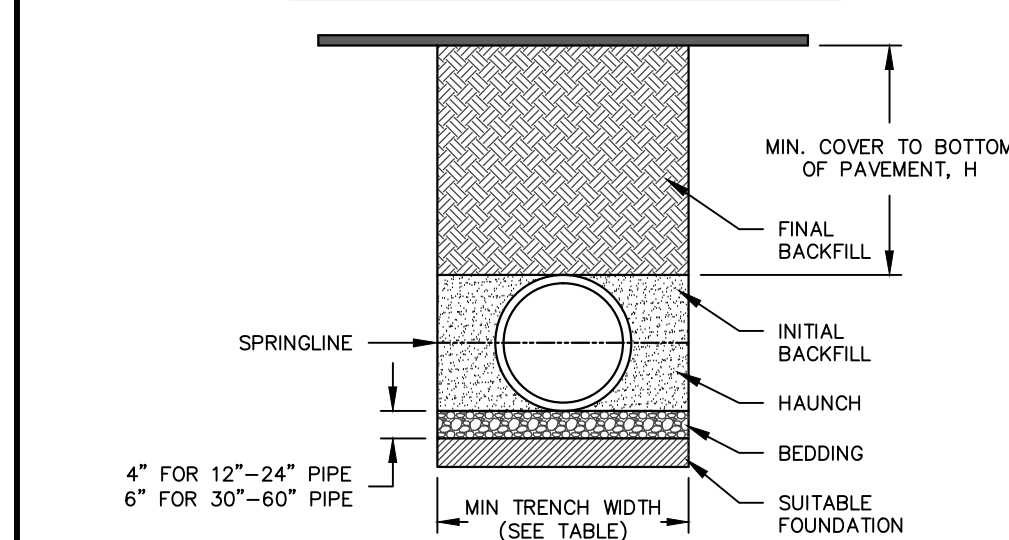
DRAINAGE DETAILS

(SHEET 2 OF 4)

SHEET NO.

C10.2

PP TRENCH INSTALLATION DETAIL FOR STORM APPLICATIONS



- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". LATEST EDITION, WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321.
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II, OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 95% PER THE CITY STANDARDS FOR BOTH COHESIVE AND COHESION LESS SOILS.
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II, OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 95% PER THE CITY STANDARDS FOR BOTH COHESIVE AND COHESION LESS SOILS.
 - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (300mm) FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF PAVEMENT OR TO TOP OF PREGO PAVEMENT.

PIPE DIAM.	CLASS I		CLASS II		CLASS III	
	95%	90%	95%	90%	95%	90%
12" (300mm)	39 (11.9)	27 (8.2)	20 (6.1)	21 (6.4)	12 (3.7)	12 (3.7)
15" (375mm)	42 (12.8)	29 (8.8)	21 (6.4)	22 (6.7)	12 (3.7)	12 (3.7)
18" (450mm)	36 (11.0)	25 (7.6)	18 (5.5)	19 (5.8)	12 (3.7)	12 (3.7)
24" (600mm)	31 (9.5)	22 (6.7)	16 (4.9)	16 (4.9)	11 (3.7)	11 (3.7)
30" (750mm)	30 (9.1)	22 (6.7)	16 (4.9)	16 (4.9)	11 (3.7)	11 (3.7)
36" (900mm)	31 (9.5)	22 (6.7)	16 (4.9)	16 (4.9)	11 (3.7)	11 (3.7)
42" (1050mm)	34 (10.4)	23 (7.0)	17 (5.2)	17 (5.2)	11 (3.7)	11 (3.7)
48" (1200mm)	34 (10.4)	24 (7.3)	17 (5.2)	18 (5.5)	11 (3.7)	11 (3.7)
60" (1500mm)	32 (9.8)	22 (6.7)	16 (4.9)	16 (4.9)	11 (3.7)	11 (3.7)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12. LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE, UNIT WEIGHT OF SOIL (γ_s) = 120 PCF

TABLE 1. RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN TRENCH WIDTH
12" (300mm)	30" (750mm)
15" (375mm)	34" (860mm)
18" (450mm)	38" (960mm)
24" (600mm)	48" (1200mm)
30" (750mm)	56" (1420mm)
36" (900mm)	64" (1620mm)
42" (1050mm)	72" (1830mm)
48" (1200mm)	80" (2030mm)
60" (1500mm)	96" (2440mm)

TABLE 2. MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

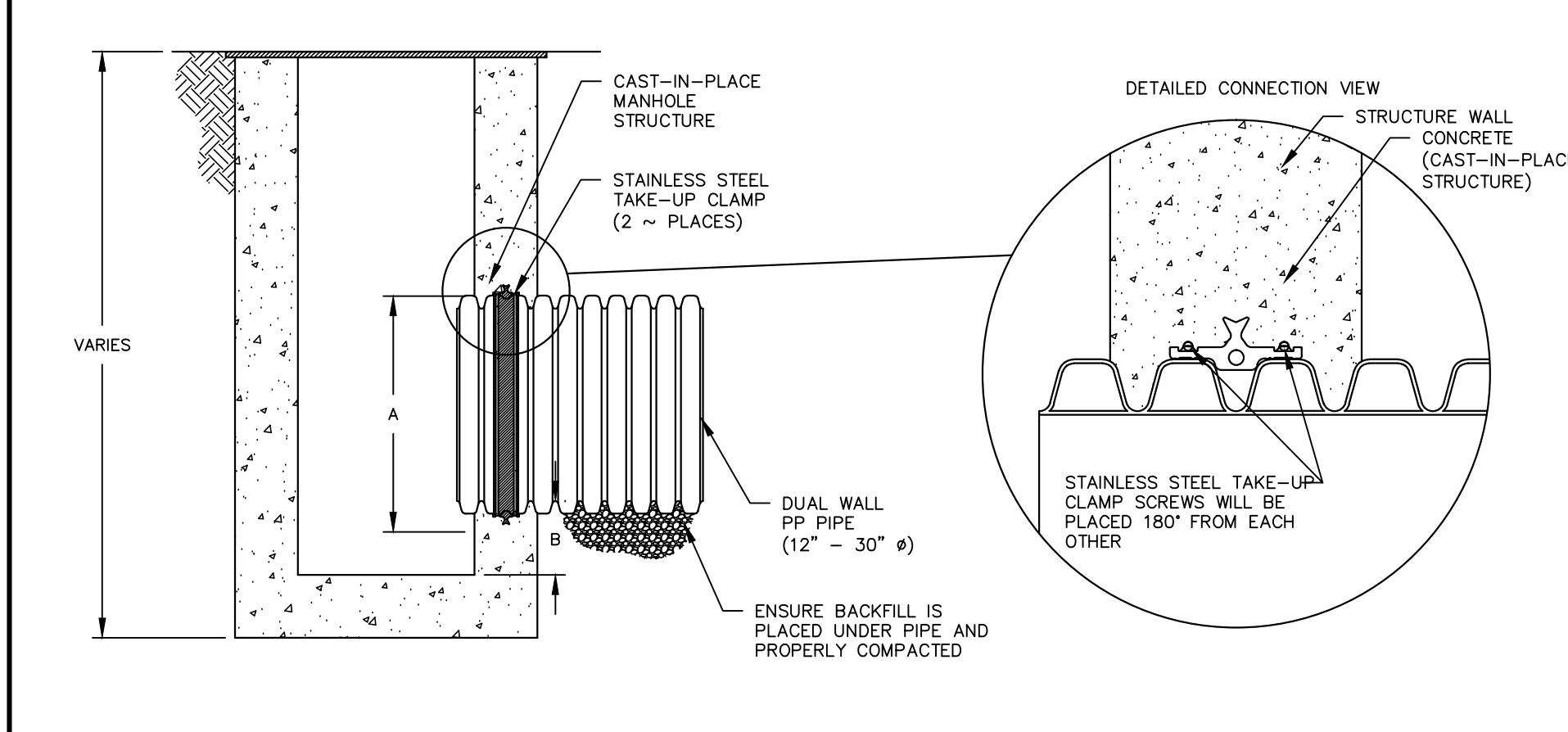
PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	#+25	HEAVY CONSTRUCTION (75T AXLE LOAD)*
12" - 48"	12" (300mm)	48" (1200mm)
60" (1500mm)	24" (600mm)	60" (1500mm)

*VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEET OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

#1 - POLYPROPYLENE PIPE DETAIL FOR STORM SEWER APPLICATIONS
INSTALLATION DETAIL

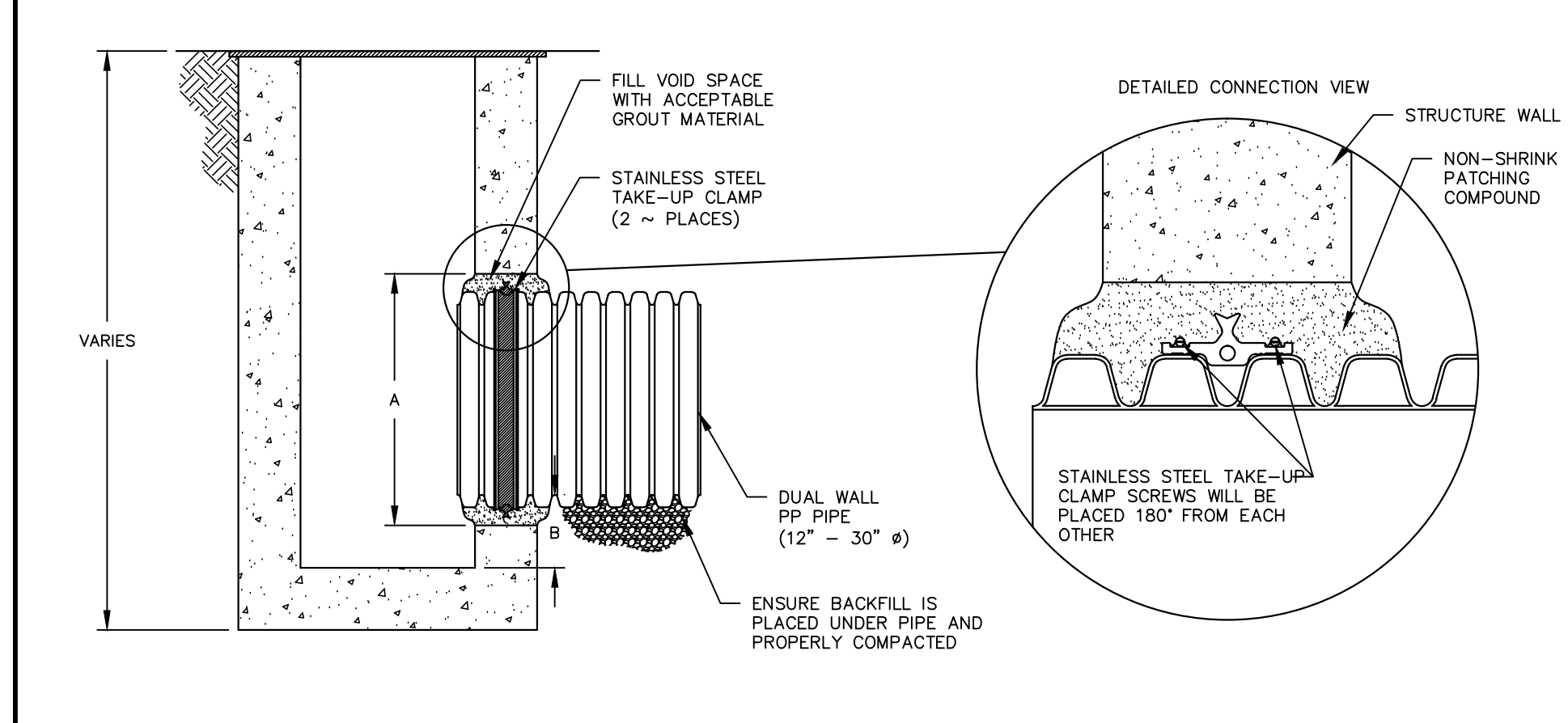
12"-30" PP WATERSTOP GROUDED MANHOLE CONNECTION (DUAL WALL)



PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE Ø (IN)	"B" MIN. DISTANCE PIPE INVERT TO STRUCTURE INVERT (IN)
12	14.5	19.50	3.7
15	17.6	23.00	4.0
18	21.2	26.50	4.2
24	27.8	33.25	4.5
30	35.1	40.50	5.2
36	41.1	47.00	5.5
42	47.7	53.00	5.7
48	53.6	59.00	5.7
60	66.3	72.00	6.4

#4 - WATERSTOP 12"-30" DUAL WALL POLYPROPYLENE STORM DETAIL
WATERSTOP GROUDED RING CONNECTION DETAIL FOR CAST-IN-PLACE STRUCTURES

12"-30" PP WATERSTOP GROUDED MANHOLE CONNECTION (DUAL WALL)



PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE Ø (IN)	"B" MIN. DISTANCE PIPE INVERT TO STRUCTURE INVERT (IN)
12	14.5	19.50	3.7
15	17.6	23.00	4.0
18	21.2	26.50	4.2
24	27.8	33.25	4.5
30	35.1	40.50	5.2
36	41.1	47.00	5.5
42	47.7	53.00	5.7
48	53.6	59.00	5.7
60	66.3	72.00	6.4

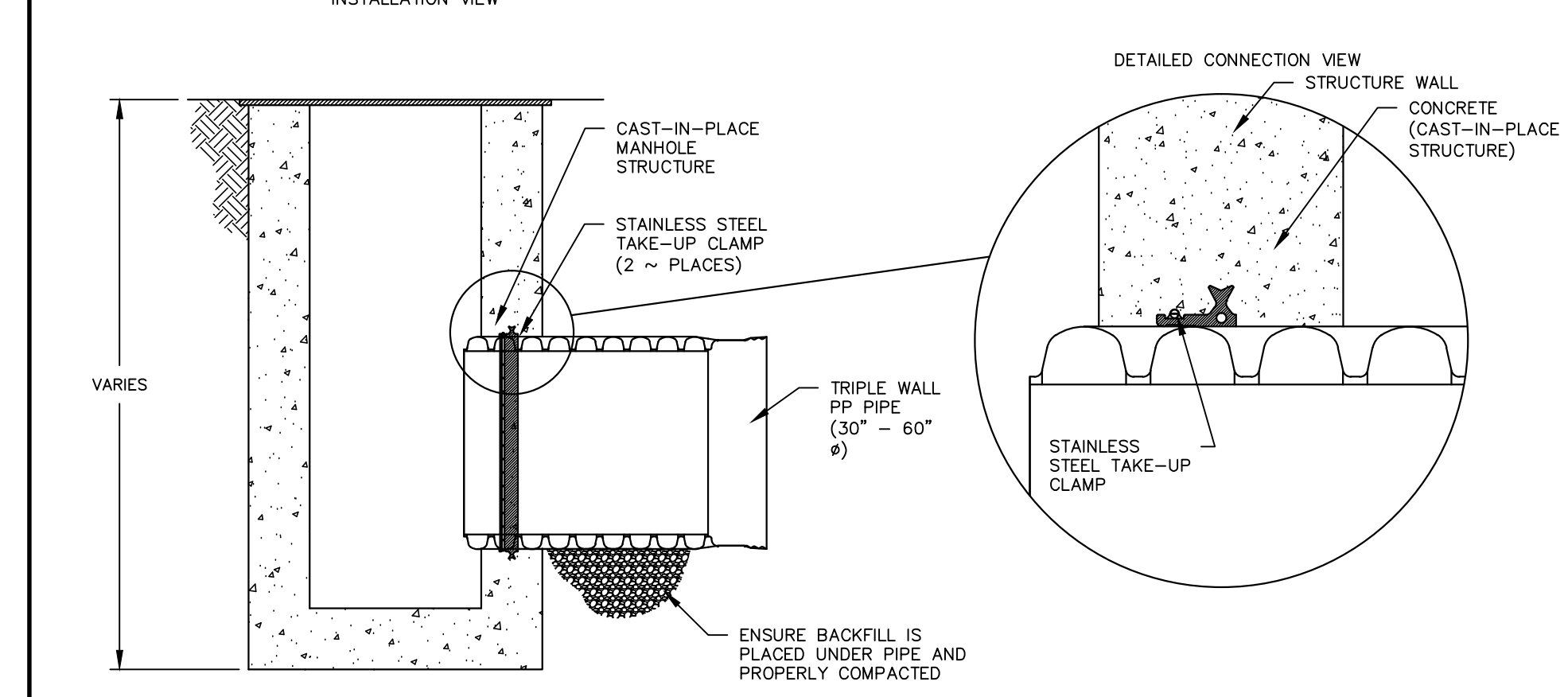
#2 - WATERSTOP 12"-30" DUAL WALL POLYPROPYLENE STORM DETAIL
WATERSTOP GROUDED RING CONNECTION DETAIL FOR PRECAST STRUCTURES

1 C10.3 #1-POLYPROPYLENE PIPE DETAIL FOR STORM SEWER APPLICATIONS (INSTALLATION DETAIL) SCALE: N.T.S.

2 C10.3 #4-WATERSTOP 12"-30" DUAL WALL POLYPROPYLENE STORM DETAIL (WATERSTOP GROUDED RING CONNECTION DETAIL FOR CAST-IN-PLACE STRUCTURES) SCALE: N.T.S.

3 C10.3 #2-WATERSTOP 12"-30" DUAL WALL POLYPROPYLENE STORM DETAIL (WATERSTOP GROUDED RING CONNECTION DETAIL FOR PRECAST STRUCTURES) SCALE: N.T.S.

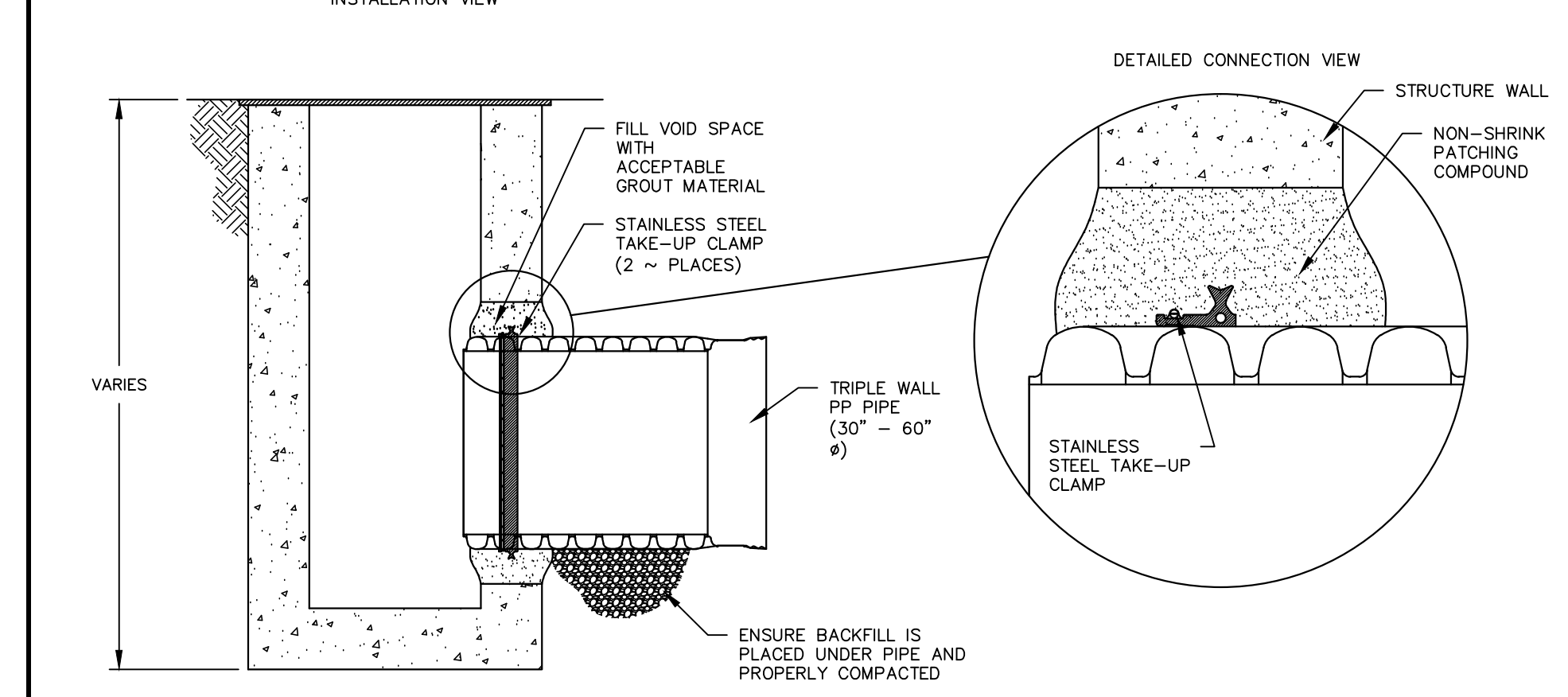
30"-60" PP WATERSTOP GROUDED MANHOLE CONNECTION (TRIPLE WALL)



PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE Ø (IN)
30	35.4	41.5
36	41.1	46.0
42	47.2	52.5
48	53.8	60.0
60	66.5	72.5

#3 - WATERSTOP TRIPLE WALL 30"-60" POLYPROPYLENE STORM DETAIL
WATERSTOP GROUDED RING CONNECTION DETAIL FOR CAST-IN-PLACE STRUCTURES

30"-60" PP WATERSTOP GROUDED MANHOLE CONNECTION (TRIPLE WALL)



PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE Ø (IN)
30	35.4	41.5
36	41.1	46.0
42	47.2	52.5
48	53.8	60.0
60	66.5	72.5

#5 - WATERSTOP TRIPLE WALL 30"-60" POLYPROPYLENE STORM DETAIL
WATERSTOP GROUDED RING CONNECTION DETAIL FOR PRECAST STRUCTURES

4 C10.3 #3-WATERSTOP TRIPLE WALL 30"-60" POLYPROPYLENE STORM DETAIL (WATERSTOP GROUDED RING CONNECTION DETAIL FOR CAST-IN-PLACE STRUCTURES) SCALE: N.T.S.

5 C10.3 #5-WATERSTOP TRIPLE WALL 30"-60" POLYPROPYLENE STORM DETAIL (WATERSTOP GROUDED RING CONNECTION DETAIL FOR PRECAST STRUCTURES) SCALE: N.T.S.

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08+43.51'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAD 88) (4005+40 CITY DATUM)

813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5232
www.cegroup.net

CE GROUP
TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL
J. L. ACOSTA
Professional Engineer
No. 10075
State of Texas

SCALE: AS SHOWN
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB NO.: 2025-021

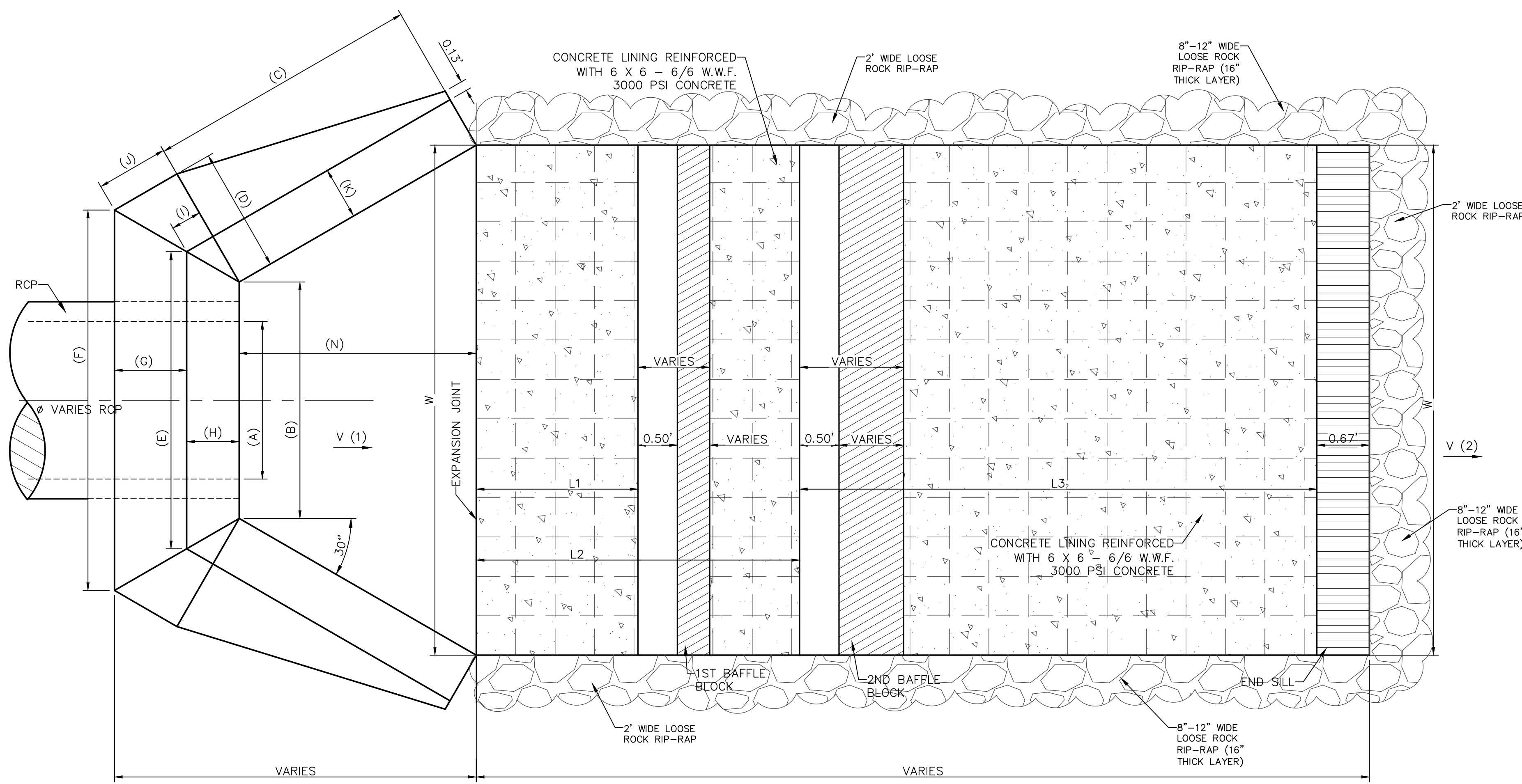
PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**DRAINAGE
DETAILS**

(SHEET 3 OF 4)
SHEET NO.

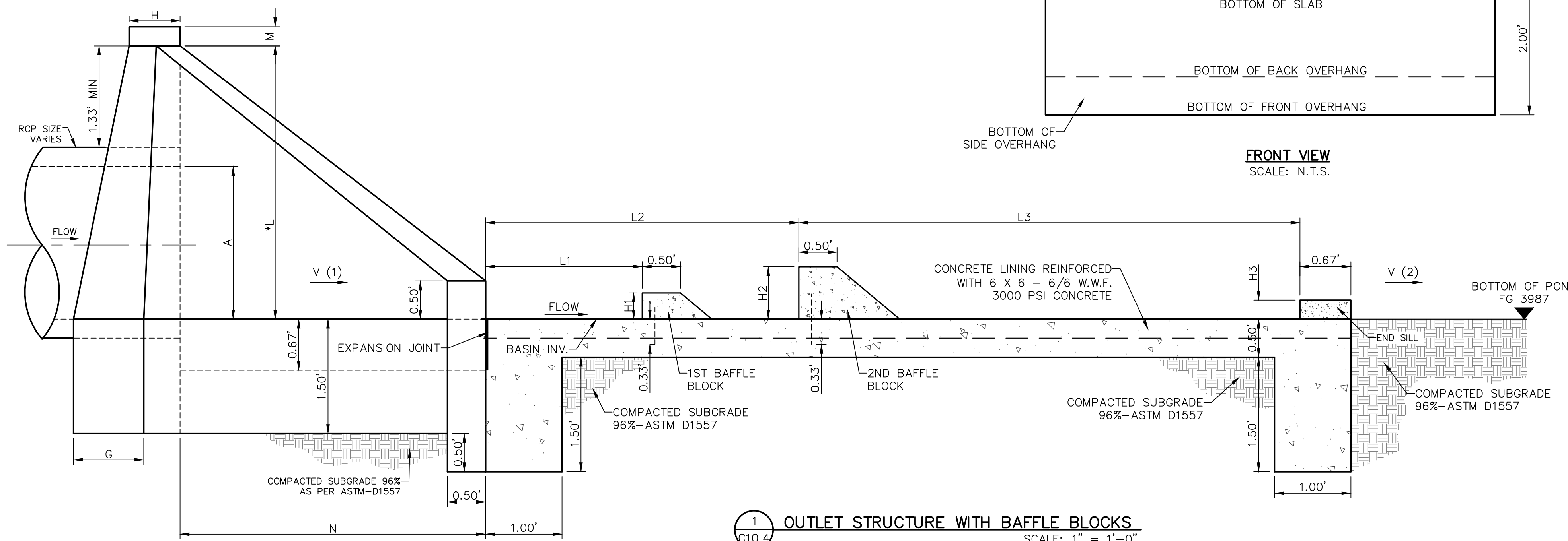
DATE: _____ BY: _____
REVISIONS

C10.3

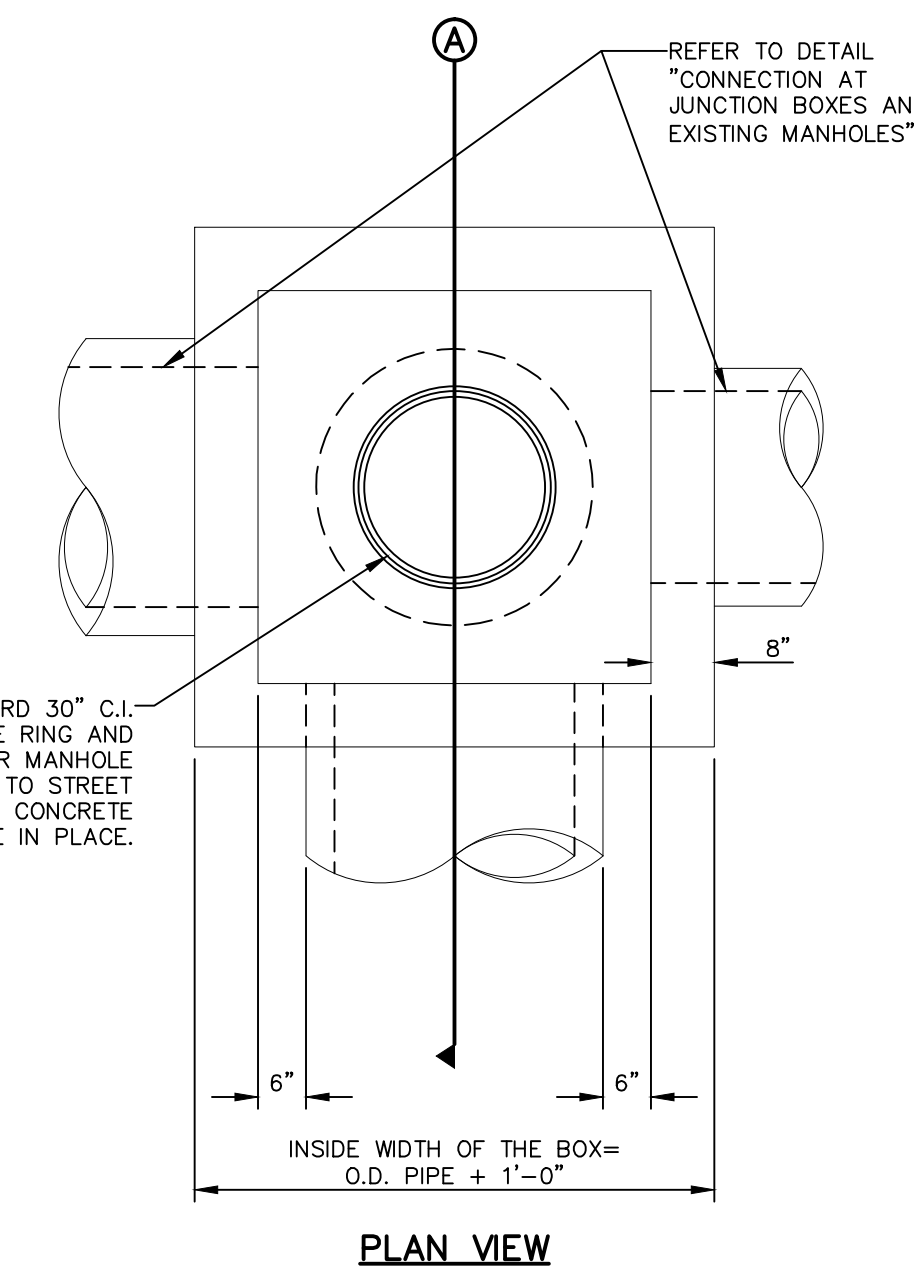
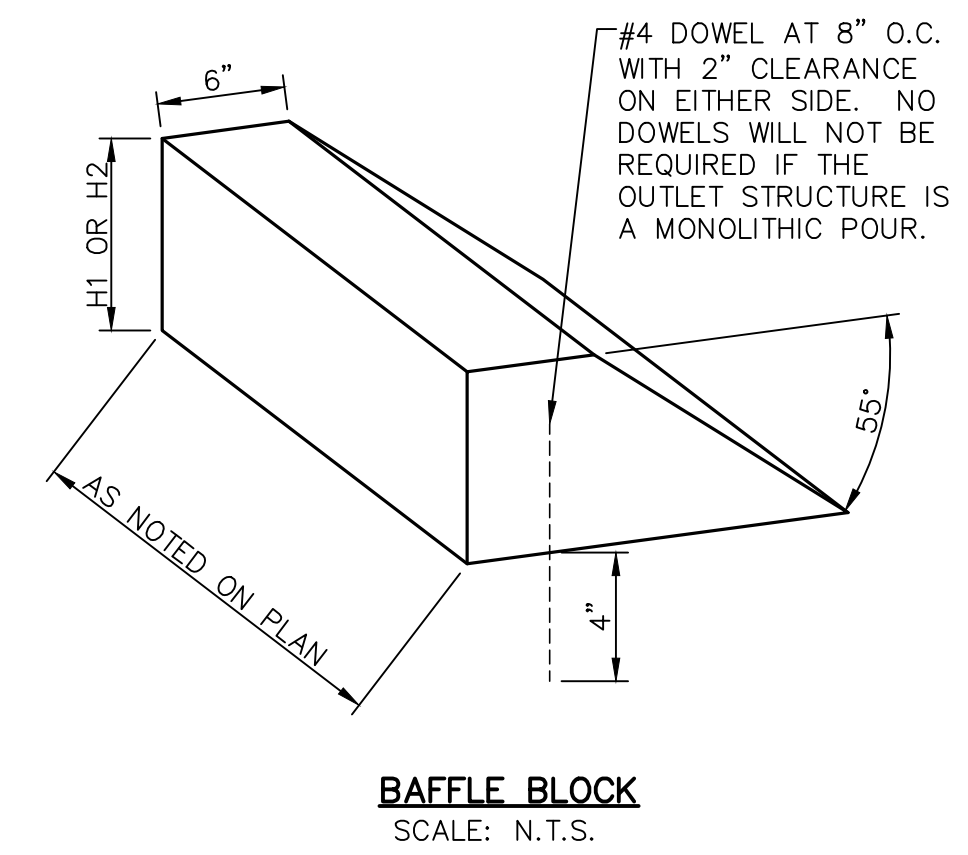
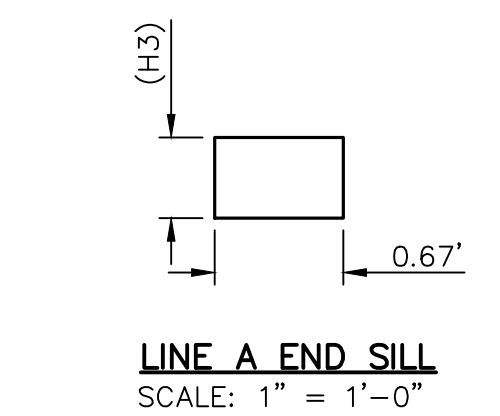
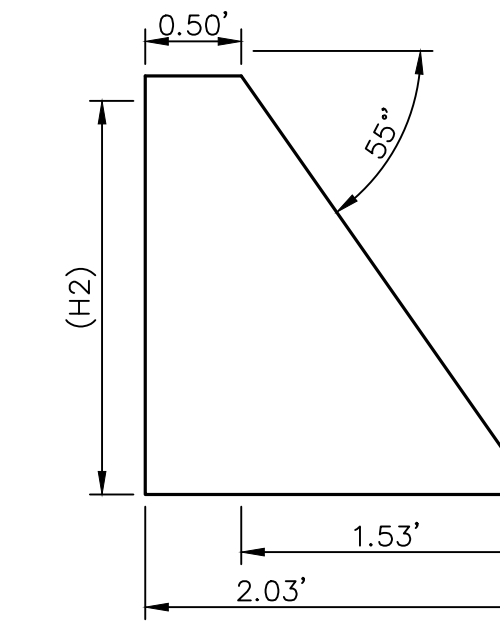
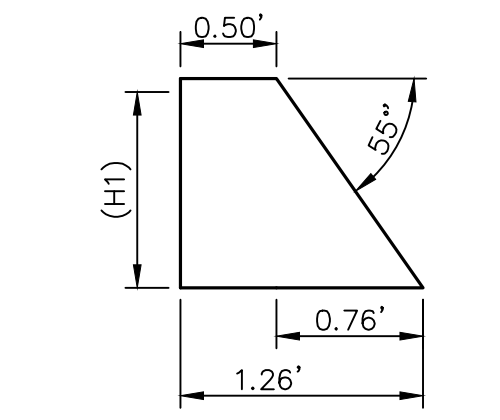


HEADWALL/WINGWALL KEYS														
PIPE I.D.	A	B	C	D	E	F	G	H	I	J	K	L	M	N
60"	60"	72"	83 1/2"	27"	84"	101 1/2"	18"	11"	6"	16 1/2"	11"	83"	42"	120"

BAFFLE BLOCK & END SILL KEYS										
PIPE I.D.	PIPE DIAMETER	FREE-FALL VELOCITY (1)	L1	L2	L3	H1	H2	H3	W	EXIT VELOCITY (2)
LINE A	60"	17.58 FPS	3.82'	7.64'	12.20'	1.09'	2.18'	0.45'	12.94'	5.75 FPS

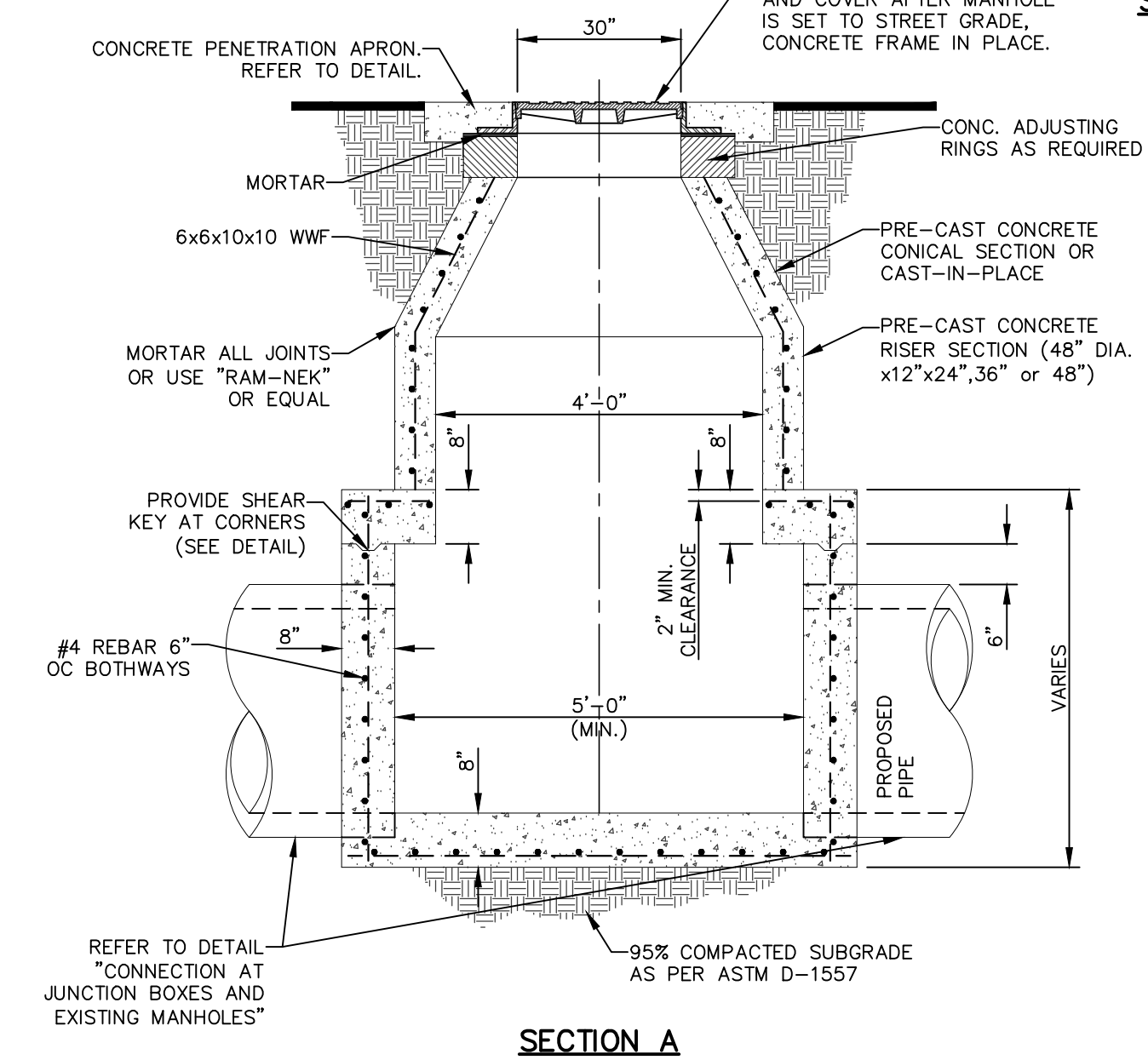
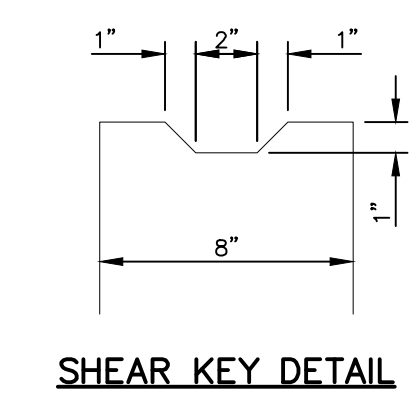


1 OUTLET STRUCTURE WITH BAFFLE BLOCKS
SCALE: 1" = 1'-0"



JUNCTION BOX NOTES

- STANDARD STRUCTURAL DESIGN SHALL BE BASED ON AASHTO HS20 WHEEL LOADING.
- THE PRE-CAST MANHOLE RISER AND CONICAL SECTIONS SHALL CONFORM TO ASTM SPECIFICATIONS C-478.
- THE CONICAL SECTIONS SHALL BE ECCENTRIC WHERE LADDER RUNGS ARE REQUIRED (IF APPLICABLE).
- THE PRE-CAST CONCRETE SHALL HAVE A MINIMUM ALLOWABLE COMPRESSIVE STRENGTH AT 28 DAYS OF 4000 POUNDS PER SQUARE INCH FOR THE RISER AND CONICAL SECTIONS.
- THE RISER SECTIONS SHALL BE REINFORCED WITH STEEL WIRE MESH 6x6, 10-10 AND THE CONICAL SECTION SHALL HAVE A 6x6, 10-10 STEEL WIRE MESH REINFORCEMENT AND 3/8" ROD AT TOP AND BOTTOM (SEE ASTM STANDARDS PART 16-C-478). REINFORCING STEEL SHALL COMPLY WITH ASTM A615 GRADE 60, A706 GRADE 60 OR A497 GRADE 70. BAR BENDING AND PLACEMENT SHALL COMPLY WITH THE LATEST ACI SPECIFICATIONS.
- REINFORCING STEEL FOR CAST IN PLACE JUNCTION BOX SHALL COMPLY WITH ASTM A615 GRADE 60, A706 GRADE 60 OR A497 GRADE 70. BAR BENDING AND PLACEMENT SHALL COMPLY WITH THE LATEST ACI SPECIFICATIONS.
- ALL CAST IN PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.



2 48" MANHOLE WITH JUNCTION BOX DETAIL
SCALE: N.T.S.

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08+43.31'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

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CEA GROUP TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL
JOSUE L. AZCARRATE
6075
19-21

SCALE AS SHOWN
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APP'D. BY: J.L.A.
JOB NO.: 2025-021

PROJECT TITLE
TRES SUEÑOS UNIT TWENTY THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE
DRAINAGE DETAILS

(SHEET 4 OF 4)
SHEET NO.

C10.4

SECTION 27,
BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS

D.S.E. PIPELINE COMPANY
RIGHT OF WAY AND EASEMENT
AGREEMENT AS PER
BOOK 2915, PAGE 0583,
BOOK 2915, PAGE 0587.

TEMPORARY TURNAROUND
EASEMENT TO BE FILED BY
SEPARATE INSTRUMENT.

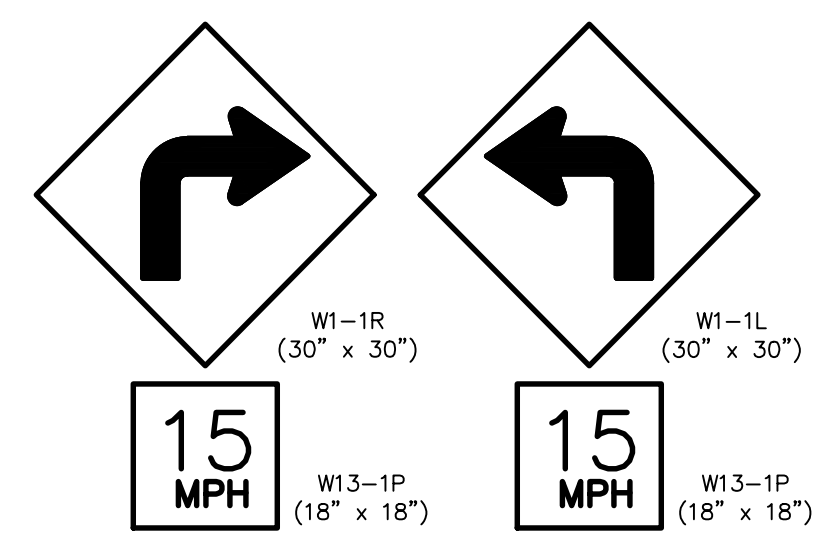
EL PASO ELECTRIC COMPANY
SECTION 27, BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS

FUTURE DEVELOPMENT
SECTION 27, BLOCK 79,
TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS

SECTION 27, BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS

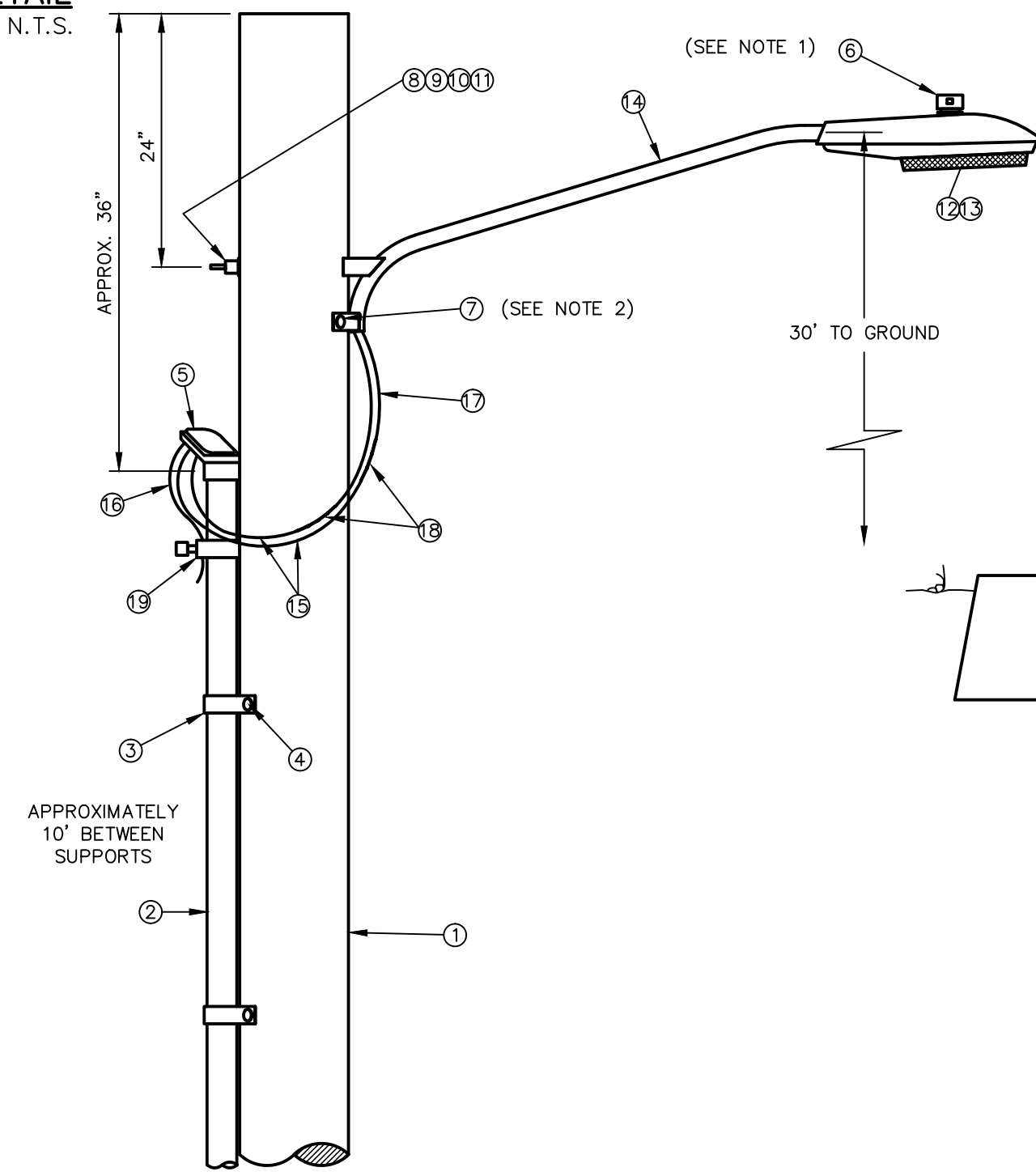
TRES SUEÑOS UNIT TWELVE
AMENDING PLAT

EX. PARK SITE
TRES SUEÑOS
UNIT FIFTEEN



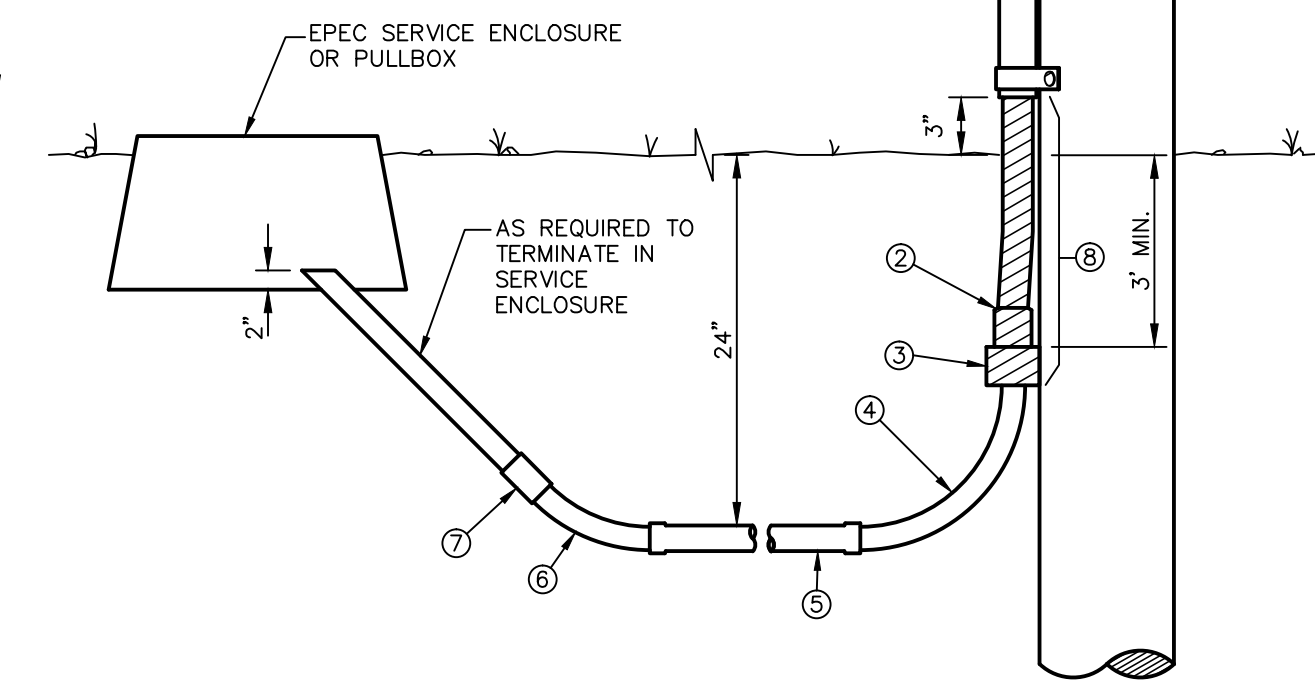
NOTE:
SIGNS SHOULD COMPLY WITH THE TEXAS MANUAL
ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).

SIGNS DETAIL
SCALE: N.T.S.



RESIDENTIAL STREET LIGHT WOOD POLE
SCALE: N.T.S.

15 RESIDENTIAL STREET LIGHTS



KEY NOTES:

- 1/2" GALVANIZED RIGID CONDUIT
- REDUCER 1" TO 1/2" BUSHING
- 1" PVC FEMALE ADAPTER
- 1" PVC 90° ELBOW
- 1" PVC CONDUIT
- 1" PVC 45° ELBOW
- 1" PVC COUPLING
- TAPE 1/2" RIGID CONDUIT (6")

RESIDENTIAL STREET LIGHT WOOD POLE
SCALE: N.T.S.

NOTES:

- MOUNT SO THAT PHOTO CELL IS FACING NORTH.
- ITEM # 17 SHALL NOT BE SPLICED INSIDE ITEM # 14.
- INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
- FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DEVELOPMENT DEPARTMENT.
- ON STREETS WHERE SIDEWALK IS ADJACENT TO CURBS, STREET LIGHT POLE SHALL BE INSTALLED IN THE SIDEWALK NEXT TO PROPERTY LINE. 36 INCHES REQUIRED FROM BACK OF CURB TO COMPLY WITH AMERICAN DISABILITY'S ACT AND LOCAL CODES.

ITEM No.	DESCRIPTION	STOCK No.	QTY.
1	POLE, 35 FT.-CLASS IV	009-035	1
2	GALVANIZED RIGID 1/2" CONDUIT	017-292	3
3	PIPE STRAP FOR 1/2" CONDUIT, 2-HOLE	017-334	7
4	LAG BOLT, 1/4" x 2"	002-330	6
5	WEATHERHEAD, 1/2" CONDUIT	017-293	1
6	PHOTOCELL, 240V-SEE NOTE 1	021-225	1
7	LAG BOLT, 1/2" x 4"	002-370	2
8	MACHINE BOLT, 5/8" x 8"	002-450	1
9	SQUARE GALV. WASHER, 2-1/4"x2"-1/4"	002-760	1
10	COIL-SPRING WASHER, 5/8"	002-786	1
11	LOCKNUT, 5/8"	002-705	1
12	LUMINAIRE, 65W LED	021-335	1
13	LED LAMP, 65W	021-085	1
14	MAST ARM, 6' x 1-1/4"	021-200	1
15	COPPER CABLE, #12, 19 STRAND, 600 V	013-665	1
16	COPPER CABLE, #12, SOLID, 600 V, GREEN	013-701	1
17	CABLE #10, 2 CONDUCTOR, 600 V, UF	013-600	8
18	SLEEVES, #12-10	005-140	2
19	GROUNDING CLAMP	021-215	1

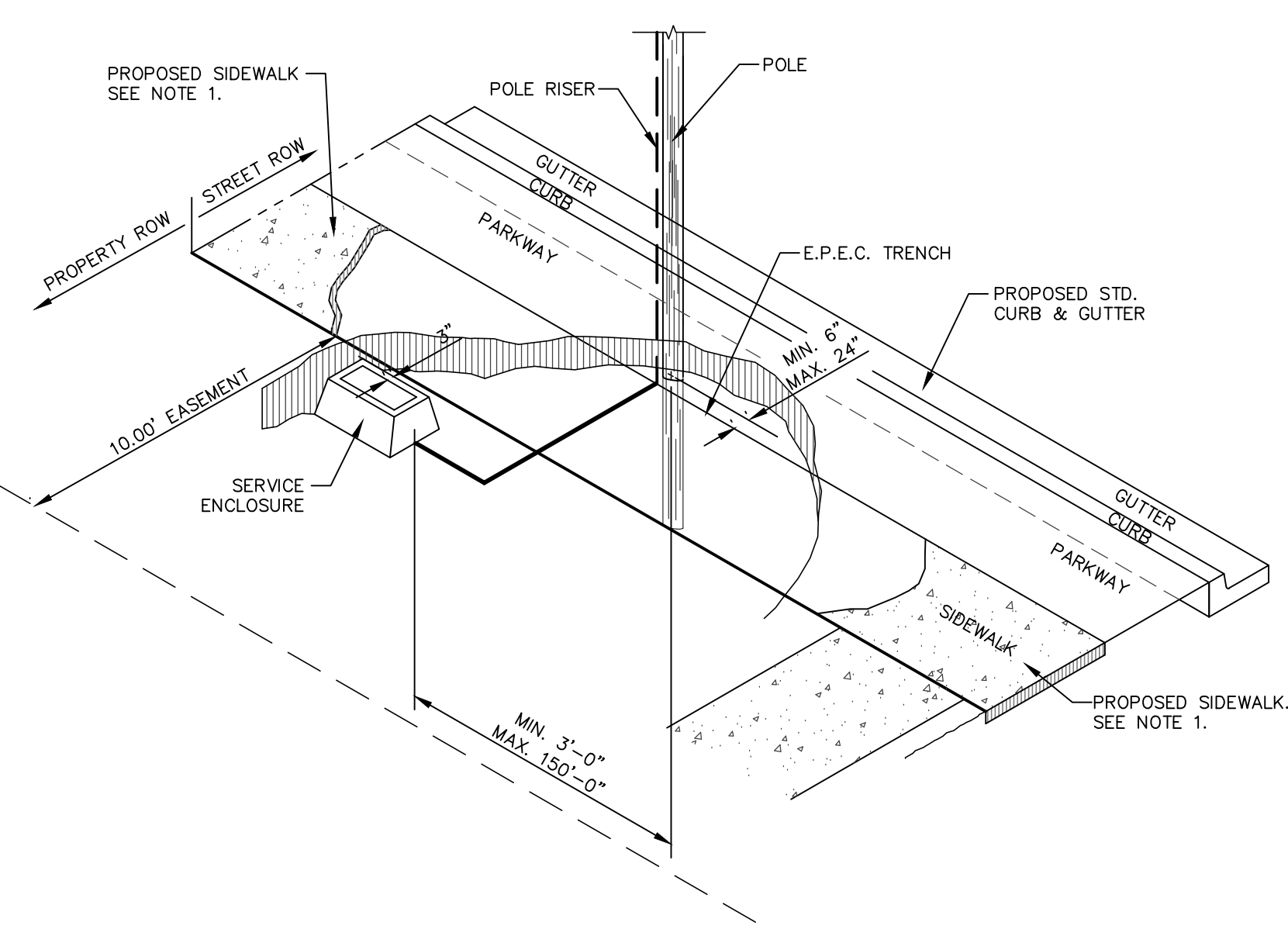
KEY NOTES:

- MOUNT SO THAT CONTROL FACES NORTH.
- ITEM 7 SHALL NOT BE SPLICED INSIDE ITEM 5.

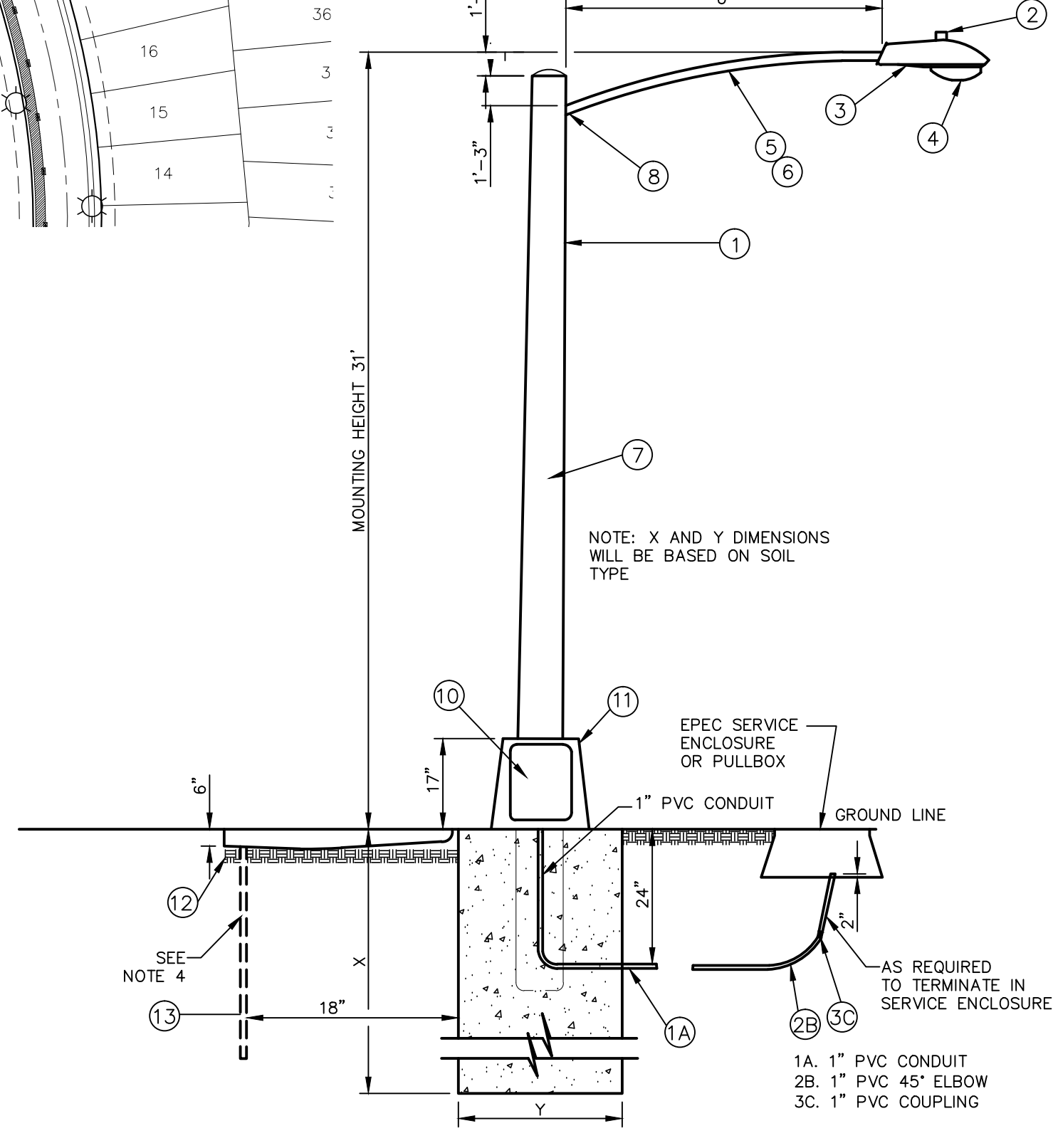
DESIGN NOTES:

- INSTALLATION SHALL COMPLY WITH ALL LOCAL CODE REQUIREMENTS.
- FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING CODE INTERPRETATION, CALL EL PASO ELECTRIC CO. DISTRIBUTION DEVELOPMENT DEPARTMENT.
- A GROUND ROD MUST BE USED.

ITEM NO.	DESCRIPTION	STOCK No.	QTY.
1	POLE, 35 FT.-CLASS IV	009-035	1
2	PHOTOCELL, 240V-SEE NOTE 1	021-225	1
3	LUMINAIRE, 65W LED	021-335	1
4	LED LAMP, 65W	021-085	1
5	MAST ARM, 6' x 1-1/4"	21-200	1
6	#10 SOLID CABLE 600 V	013-600	AS REQ
7	CABLE, #10, 3 CONDUCTOR, 600 V, UF	013-600	1
8	SLEEVES, #12	05-145	1
9	ROADWAY LUMINAIRE HPS 150 WATTS	21-340	1
10	BREAK-A-WAY FUSES 30 AMP.	21-250	1
11	ALUMINUM TRANSFORMER BASE	21-608	1
12	5/8" GROUND ROD CLAMP	07-561	1
13	5/8" x 10' CU BONDED GROUND ROD	08-626	1

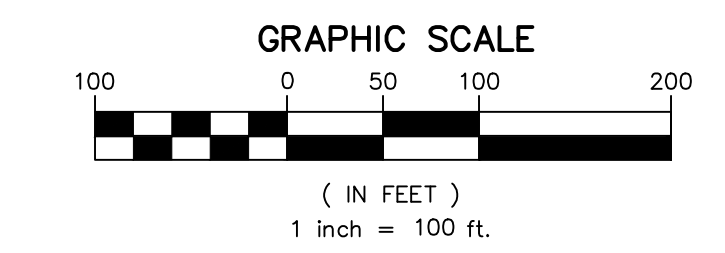


POLE LOCATION DETAIL
SCALE: 1" = 5'-0"



RESIDENTIAL STREET LIGHT STEEL POLE
SCALE: N.T.S.

ILLUMINATION AND SIGNAGE
PLAN AND DETAILS



UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 945-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

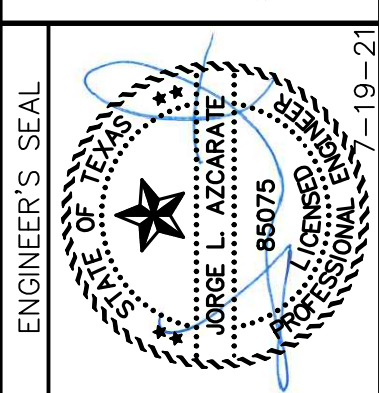
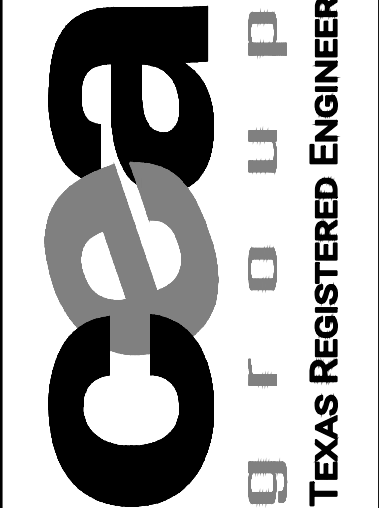
LEGEND:

- PROPOSED RESIDENTIAL STREET LIGHT WOOD POLE
- PROPOSED RESIDENTIAL STREET LIGHT STEEL POLE
- EXISTING RESIDENTIAL STREET LIGHT
- PROPOSED 9" STREET NAME SIGN (TWO SIGNS) AND 30" STOP SIGN
- EXISTING 9" STREET NAME SIGN (TWO SIGNS) AND 30" STOP SIGN
- PROPOSED TRAFFIC SIGN
- PROPOSED N.C.B.U. MAIL BOX

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE GENTRINE RICH BEEM BLVD., S08°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.	
ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)	

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Suite 300
El Paso, TX 79902
915.544.5232
www.ceagroup.net
TEXAS REGISTERED ENGINEERING FIRM F-4564



SCALE: 1" = 100'
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No.: 2025-021

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

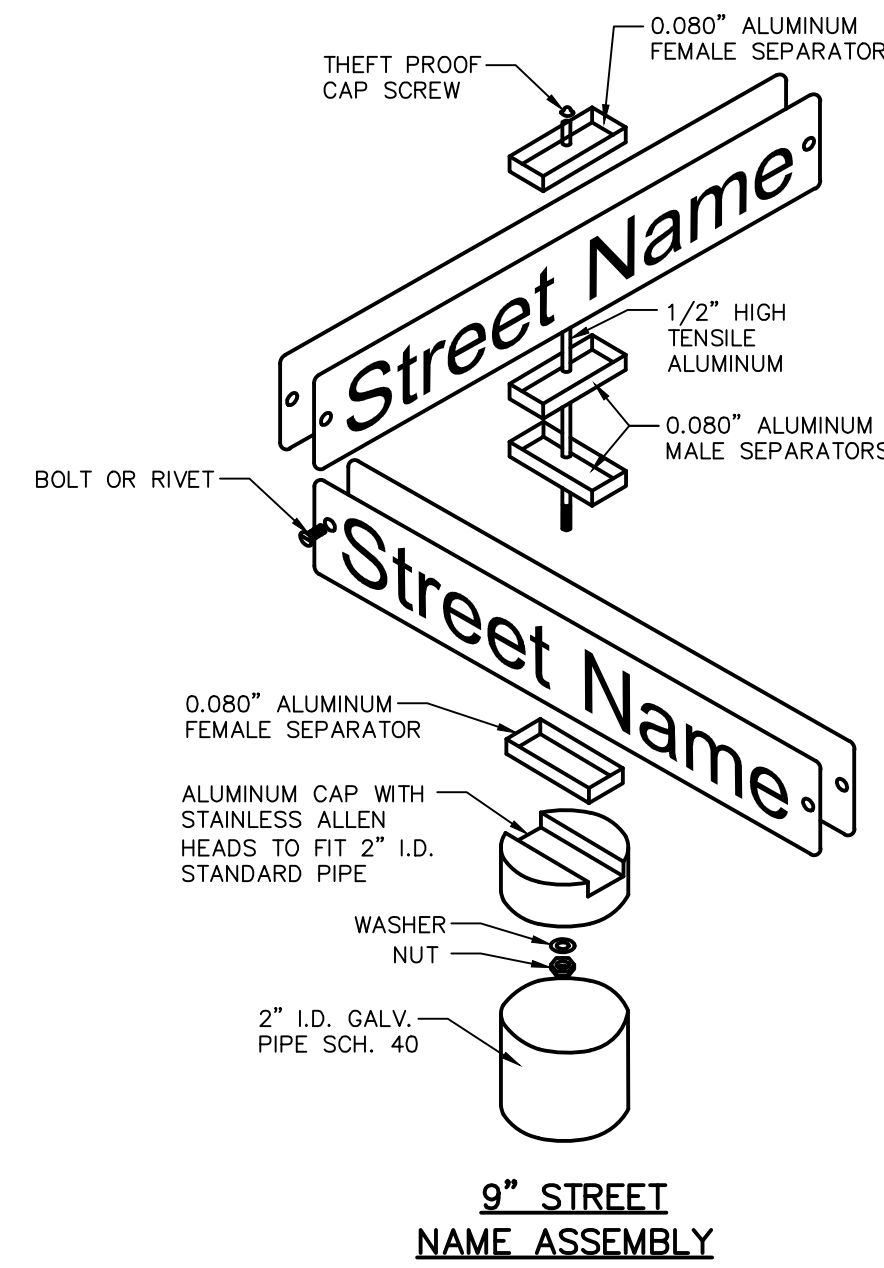
ILLUMINATION AND SIGNAGE PLAN AND DETAILS

SHEET NO.

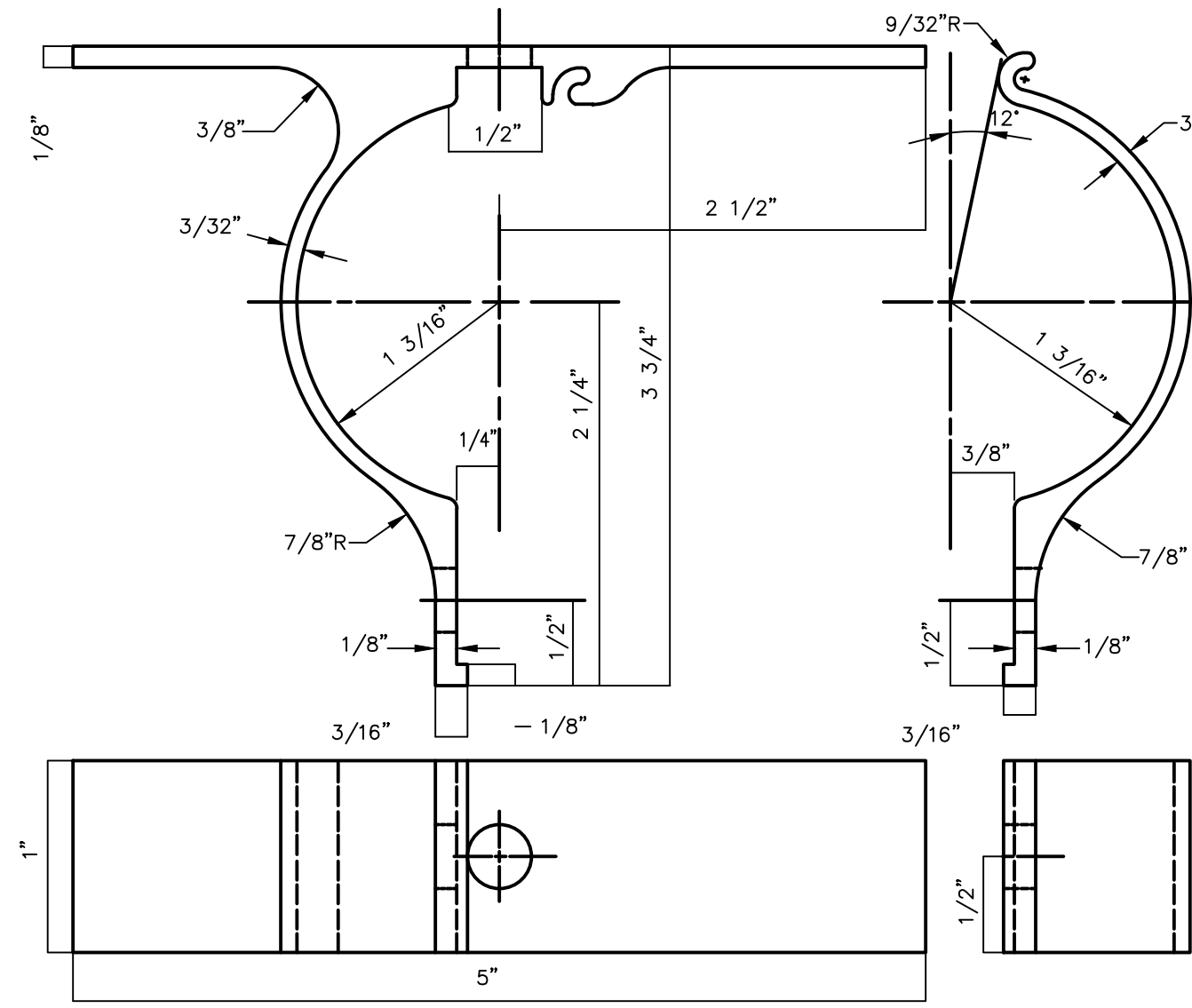
C11.1

**CITY OF EL PASO
SPECIFICATIONS FOR REFLECTORIZED
STREET NAME SIGNS**

- COLOR OF SIGNS:** THE FINISHED SIGN MUST HAVE A REFLECTORIZED GREEN BACKGROUND. THE GREEN MUST CONFORM WITH THE BUREAU OF PUBLIC ROADS HIGHWAY GREEN. THE LEGEND MUST BE REFLECTORIZED SILVER WHITE (GREEN REVERSE SCREENED BACKGROUND WITH SILVER COPY).
- LETTER DESIGN:** THE LETTERING OF ALL LEGENDS MUST BE UPPER CASE LETTERS IN ACCORDANCE WITH "STANDARD ALPHABETS FOR HIGHWAY SIGNS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
- LETTER SPACING:** THE CONTROL FOR THE SPACING VALUES IN TRAFFIC LAYOUT IS THE DISTANCE RECOGNIZED AS AESTHETIC SPACING BETWEEN TWO STRAIGHT LETTERS (HN). A SPACING CONTROL OF TWO TIMES THE WIDTH OF THE STROKE OF THE LETTER SERIES TO BE USED MUST BE THE AESTHETIC CONTROL (100%). TWO AND ONE-HALF TIMES (2-1/2) THIS CONTROL MUST BE USED AS THE AESTHETIC WORD SPACE BETWEEN ELEMENTS IN THE PRIMARY LEGEND.
- LAYOUT:** THE MAXIMUM NUMBER OF LETTERS TO BE ACCOMMODATED ON A GIVEN LENGTH STREET NAME FACE MUST BE DETERMINED BY THE WIDEST LETTER SERIES POSSIBLE FOR THAT LEGEND AND THE SPACING CONTROL (100%) FOR THE SERIES USED MUST BE EXPANDED OR CONDENSED UP TO 25% IN 5% INCREMENTS.
- THE SPACING CONTROL (100%) FOR THE SERIES USED MUST BE EXPANDED OR CONDENSED UP TO 25% IN 5% INCREMENTS FOR THE END MARGIN WITH MINIMUM OF 1".**
- THE WORD SPACE MUST BE EXPANDED UP TO 25% IN 5% INCREMENTS BUT NOT CONDENSED.**
- SPACE BETWEEN PRIMARY AND BLOCK NUMBER AREA MUST BE 1/2 THE AESTHETIC WORK SPACE USED IN THE PRIMARY LEGEND.**
- SUFFIX LETTER SIZE FOR ALL LENGTHS MUST BE 2" CAPITALS, "C" SERIES, EXCEPT THAT SERIES "A" OR "B" WHERE SUFFIX ABBREVIATION EXCEEDS TWO LETTERS, MAY BE USED.**
- SIZE OF LEGEND:** FOR 9" STREET NAME SIGNS, THE PRIMARY LEGEND, OR STREET NAME MUST HAVE CAPITAL LETTERS SIX INCHES (6") HIGH AND ALL SECONDARY LEGENDS, INCLUDING THE SUFFIX, BLOCK NUMBERS, MUST HAVE UPPER CASE LETTERS TWO AND ONE-HALF INCHES (2 1/2") HIGH.
- SUFFIX LETTER SIZE FOR ALL LENGTHS MUST BE 2 1/2" CAPITALS, "C" SERIES, EXCEPT THAT SERIES "A" OR "B" WHERE SUFFIX ABBREVIATION EXCEEDS TWO LETTERS, MAY BE USED.**
- POSITION OF LEGEND:** EACH SIGN FACE WILL CONSIST OF THE STREET NAME, SUFFIX, AND TWO ZEROS OF THE BLOCK NUMBER. THE ADDITIONAL NUMBERS OF THE BLOCK NUMBER WILL BE APPLIED BY THE CITY OF EL PASO. THE SUFFIX WILL BE LOCATED IN THE UPPER RIGHT CORNER AND THE BLOCK NUMBER IN THE LOWER RIGHT CORNER OF THE SIGN FACE AND THE STREET NAME CENTERED IN THE REMAINING SPACE.
- SIGN FABRICATION:** THE SIGN FACE MUST BE FABRICATED BY REVERSE SCREENING GREEN TRANSPARENT COLOR OVER SILVER REFLECTIVE SHEETING. TRANSPARENT PROCESS COLORS MUST BE AS RECOMMENDED BY THE SHEETING MANUFACTURER. CUT-OUT OR APPLIED LEGENDS ARE NOT PERMITTED. SIGN FACES MUST BE COMPRISED OF ONE PIECE OR PANEL OF REFLECTIVE SHEETING.
- TYPE OF SHEETING:** ENGINEER GRADE REFLECTIVE SHEETING MUST BE USED IN THE FABRICATION OF THE STREET NAME SIGN FACES.

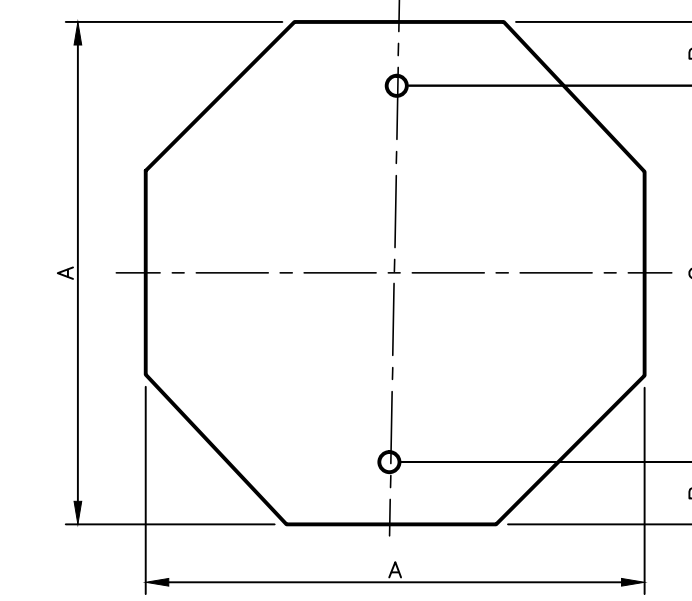


9" STREET NAME ASSEMBLY



ALUMINUM SIGN CLAMP BRACKET FOR TRAFFIC CONTROL SIGNS

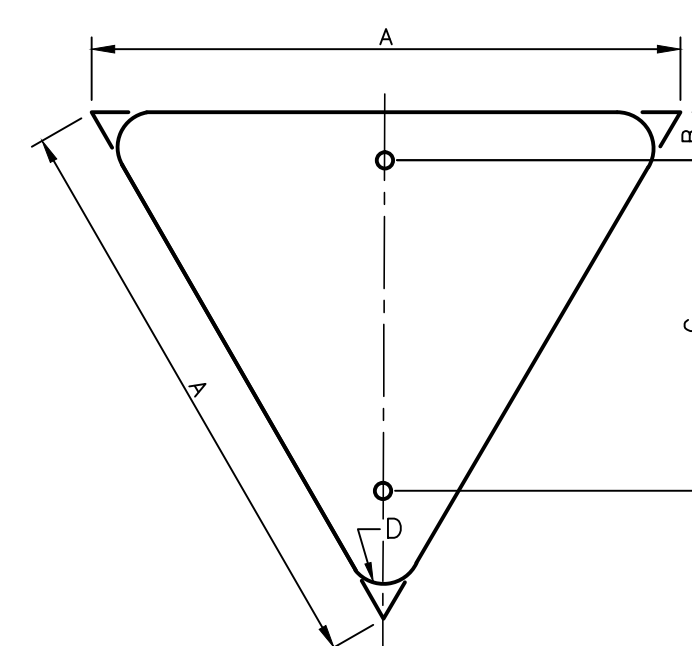
- NOTES:**
- ALL HOLES 3/8" PUNCH
 - FILLETS & ROUNDS 1/16" R
 - FURNISH THE FOLLOWING HARDWARE FOR EACH BRACKET:
 - 1 - 5/16" x 3/4" BOLTS
 - 1 - 5/16" x 1 1/4" BOLT
 - 2 - 5/16" NUTS & LOCK WASHERS
 - 2 - FLAT WASHERS
 - THE BRACKET IS TO BE MADE FROM HIGH STRENGTH ALUMINUM ALLOY. THE BRACKET IS TO EMPLOY AN EXTRUDED INTERLOCKING FEATURE OFFERING A RIGID MEANS OF ATTACHING A FLAT SIGN TO A STANDARD 2" (2/8" O.D.) TUBULAR POST.



OCTAGON
N.T.S.

3/8" HOLE DIA.

A	B	C
24	3	18
30	3	24
36	3	30



EQUILATERAL TRIANGLE
N.T.S.

3/8" HOLE DIA.

A	B	C	D
36	3	21	2
42	3	24	2 1/2
48	3	35	3

D.H.T. BLANK STANDARDS
N.T.S.

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
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SBC	(800) 945-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

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CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

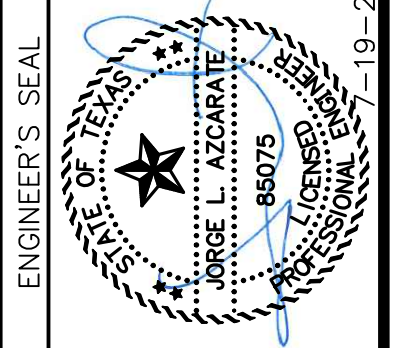
REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEEM BLVD., S08°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.
ELEVATION: +614.90 (NAND 88) (4005+40 CITY DATUM)

DATE	REVISIONS	BY

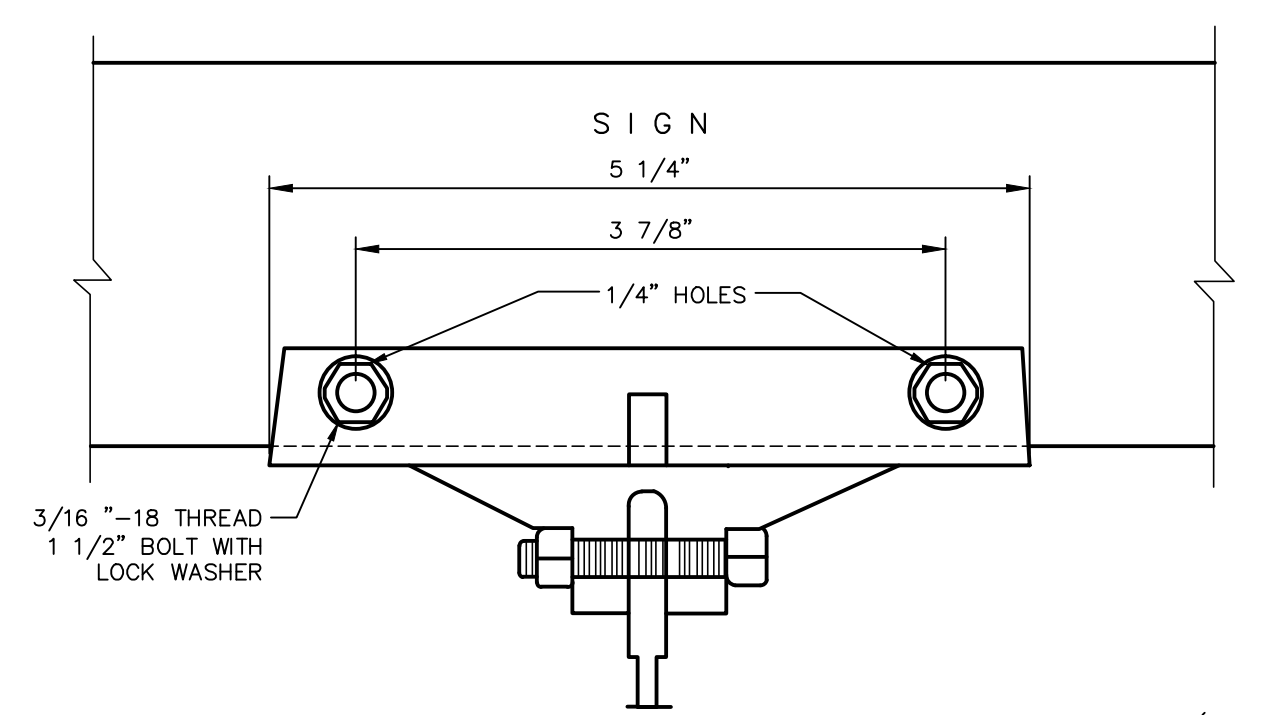
813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5232
www.ceagroup.net

CEA GROUP
TEXAS REGISTERED ENGINEERING FIRM F-4564

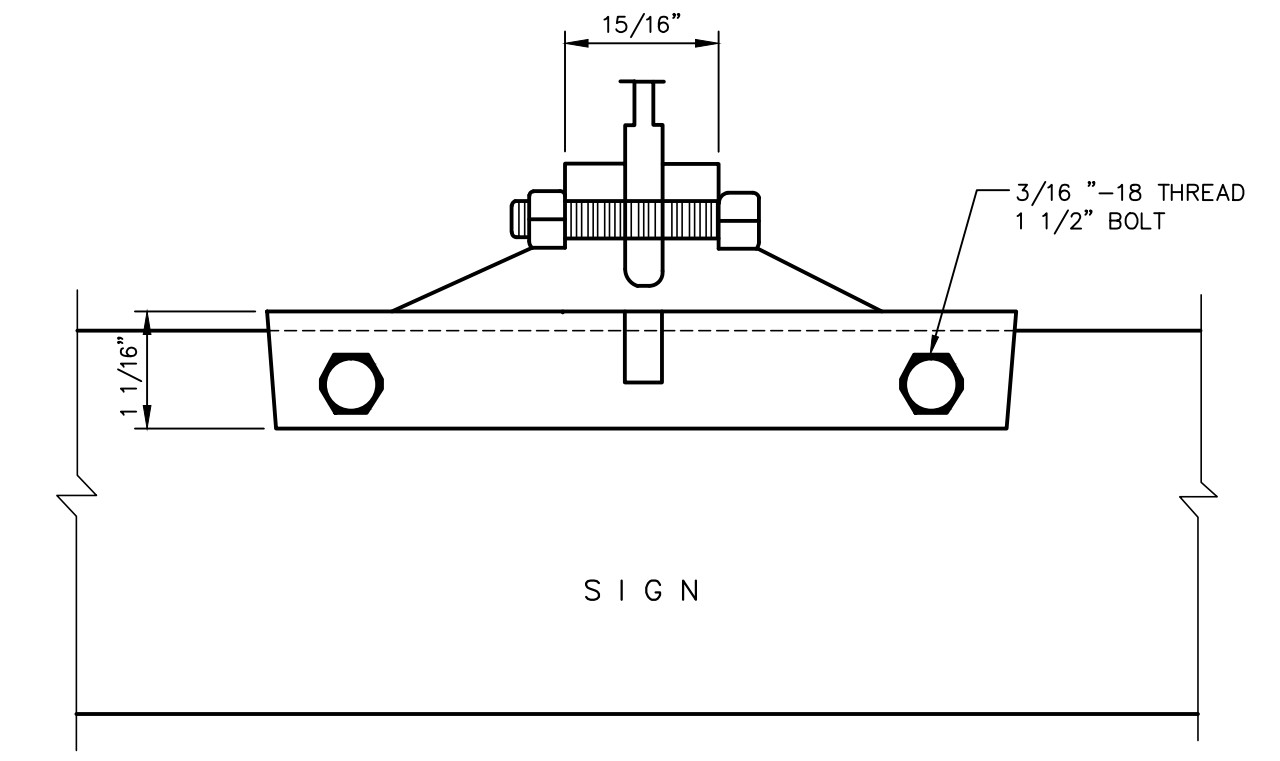


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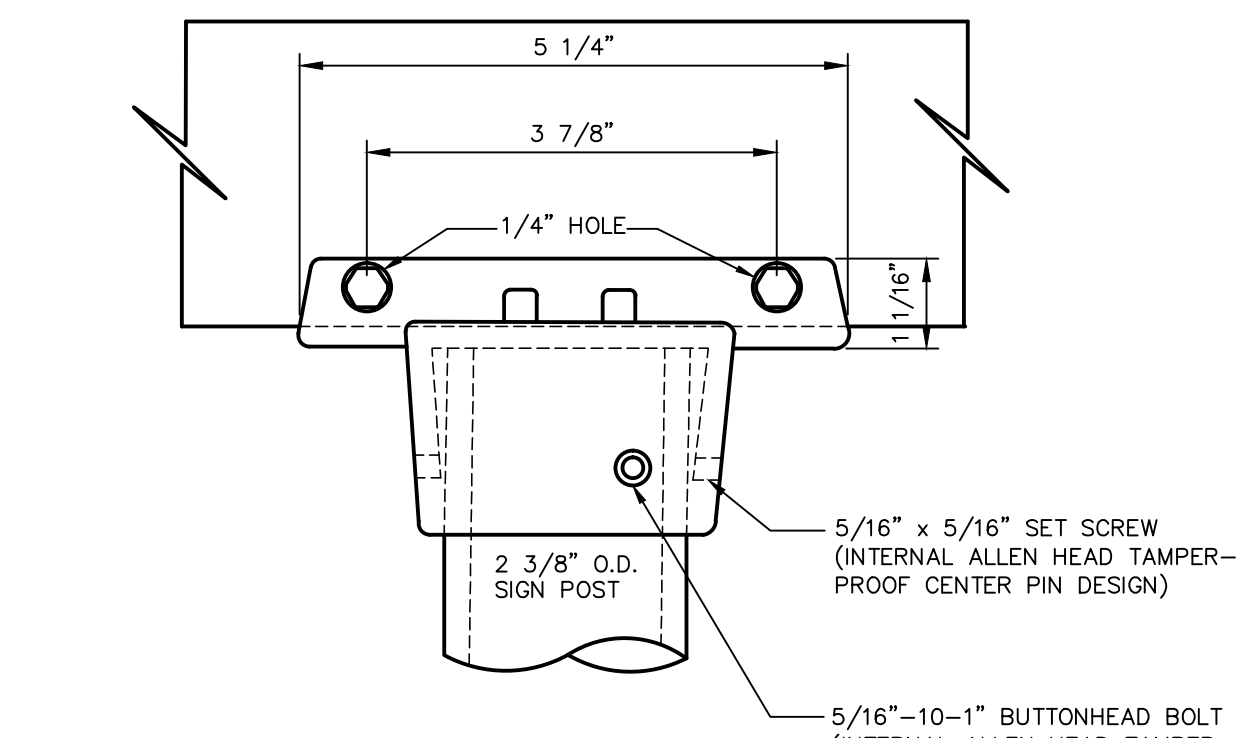
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Contour Interval:	N/A
DATE:	APRIL 2021
DESIGN BY:	K.A.P.
DRAWN BY:	K.A.P./C.E.D.
CHKD. BY:	F.Z.
APPVD. BY:	J.L.A.
JOB No.:	2025-021



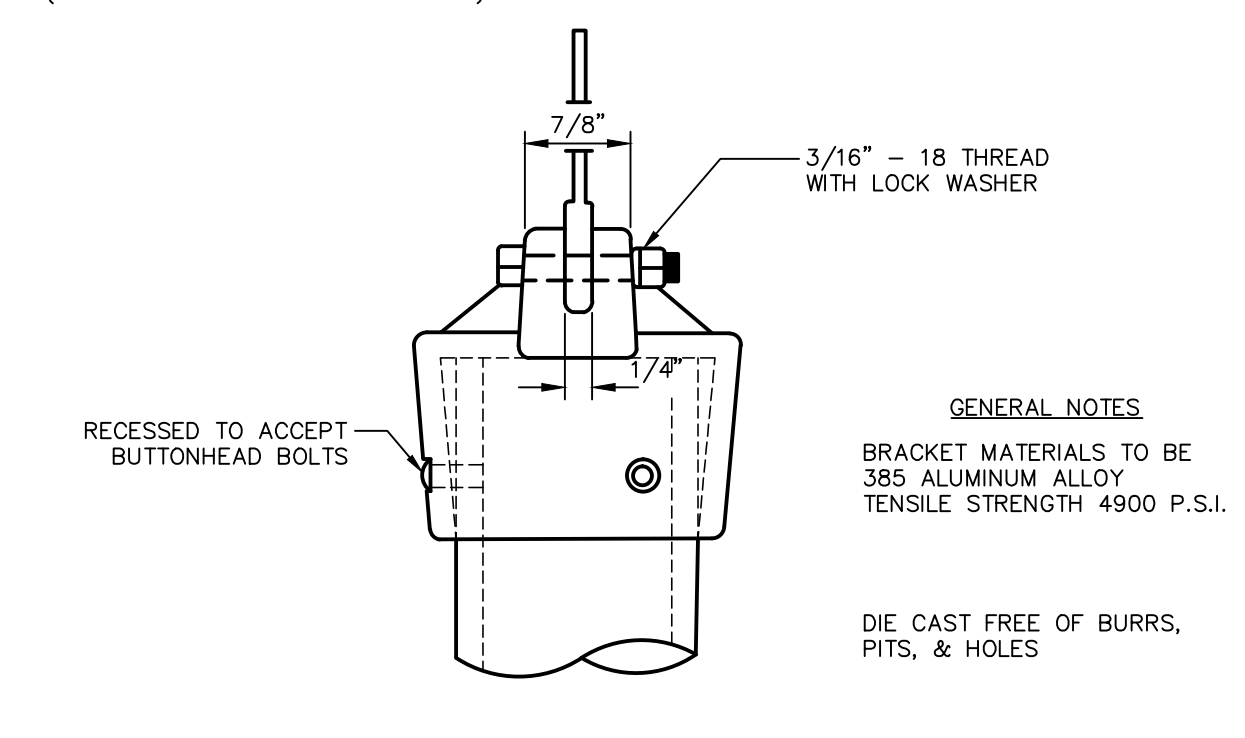
90° SIGN TO SIGN BRACK (FOR EXTRUDED BLADES)



9" STREET NAME SIGN ASSEMBLY



POST CAP BRACKET (FOR EXTRUDED BLADES)



9" STREET NAME SIGN ASSEMBLY

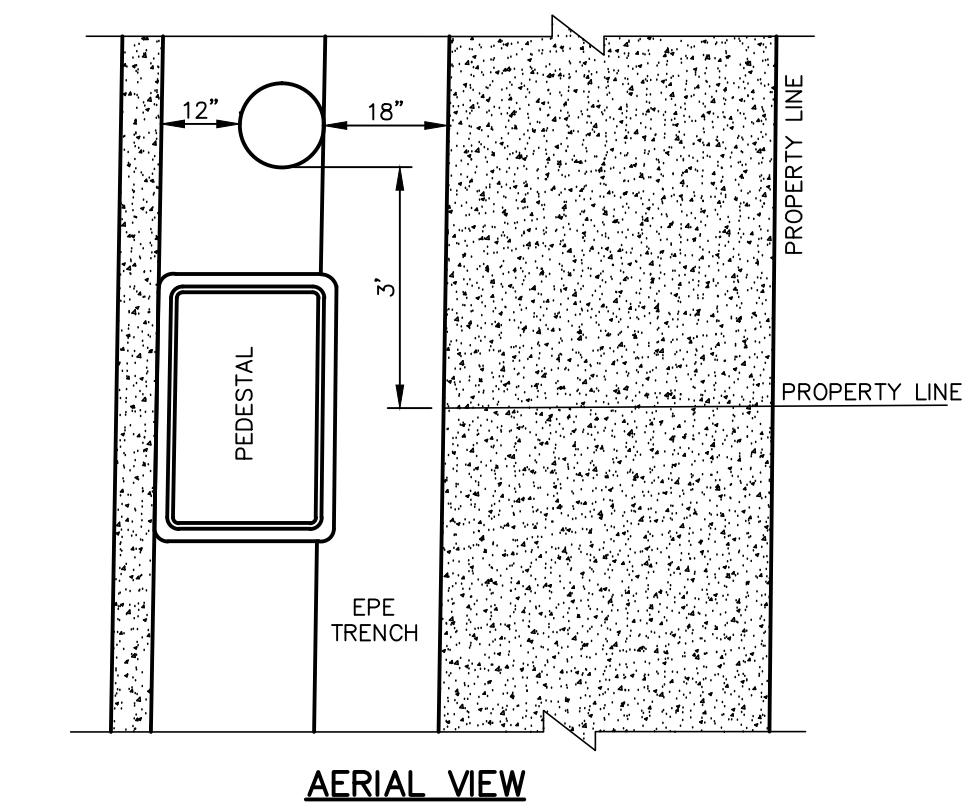
- GENERAL NOTES**
- BRACKET MATERIALS TO BE 385 ALUMINUM ALLOY TENSILE STRENGTH 4900 P.S.I.
- DIE CAST FREE OF BURRS, PITS, & HOLES



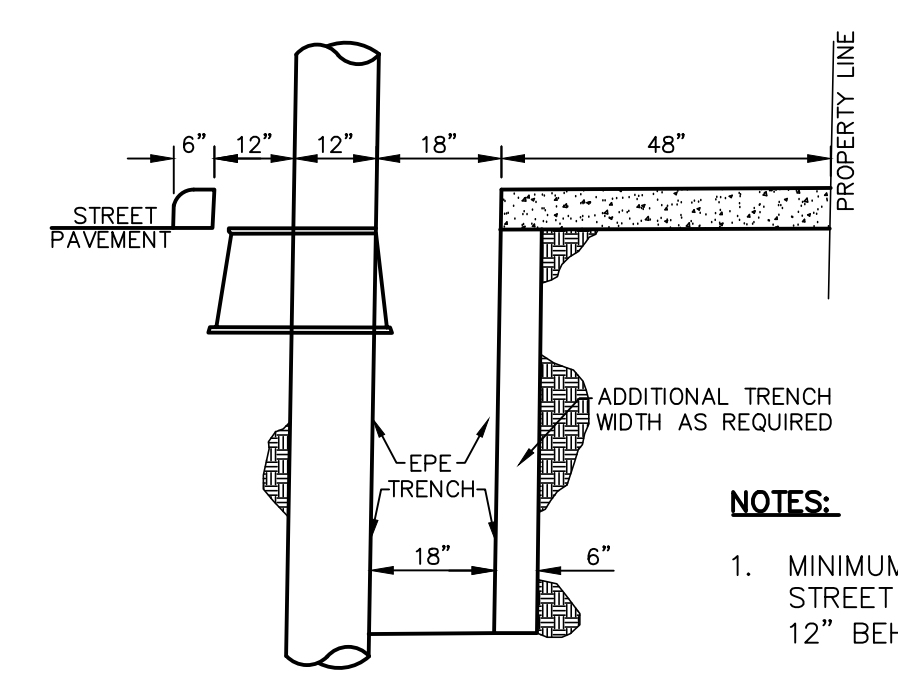
9" STREET NAME SIGN

SIGN CLASS	SIGN HEIGHT	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	LOWERCASE LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE & SERIES
STREETS	9"	24", 30", 36"	6" C.D. SERIES	4.5" C.D. SERIES	3" C SERIES
ARTERIAL	12"	30", 36", 42"	8" C.D. SERIES	6" C.D. SERIES	4" C SERIES

LAYOUT FOR STREET NAME SIGNS



AERIAL VIEW



FRONT VIEW

- NOTES:**
- MINIMUM LOCAL RESIDENTIAL STREET LIGHT POLE DISTANCE IS 12" BEHIND BACK OF CURB.

TYPICAL EL PASO ELECTRIC TRENCH LOCATION ON LOCAL RESIDENTIAL STREET
EL PASO ELECTRIC CO. DISTRIBUTION STANDARD

PROJECT TITLE

**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

ILLUMINATION AND SIGNAGE DETAILS

SHEET NO.

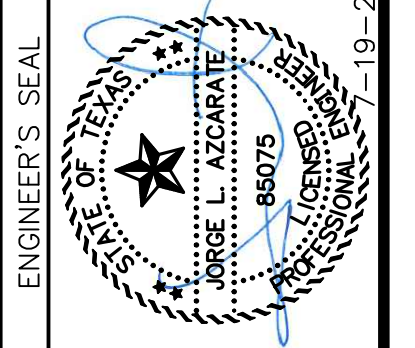
C11.2

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 945-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

**WARNING I
BEFORE YOU DIG
CALL 811**
FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5232
www.ceagroup.net
TEXAS REGISTERED ENGINEERING FIRM F-4564

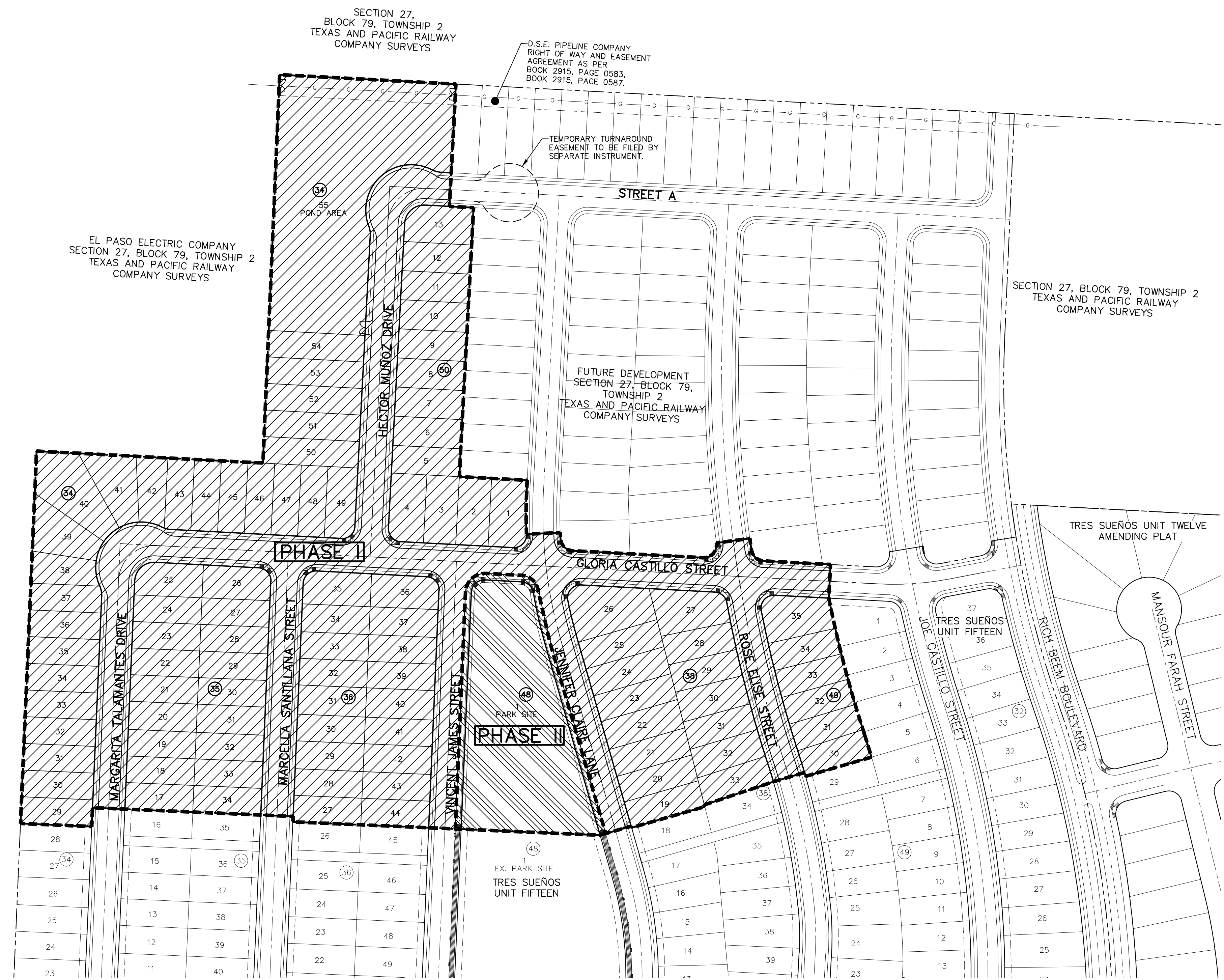


SCALE: 1" = 100'
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Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB No.: 2025-021

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**CONSTRUCTION
PHASING PLAN**

SHEET NO.
C11.3



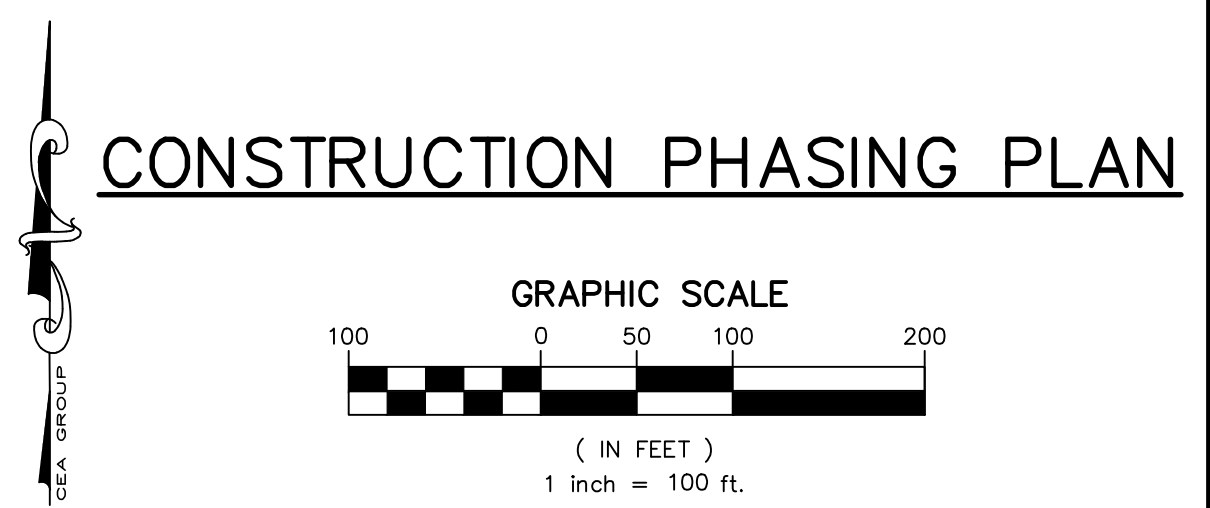
LEGEND

PHASE I	
PHASE II	

PHASE I	AREA (ACRES)	RESIDENTIAL LOTS
PHASE I	16.71	96
PHASE II	1.51	0

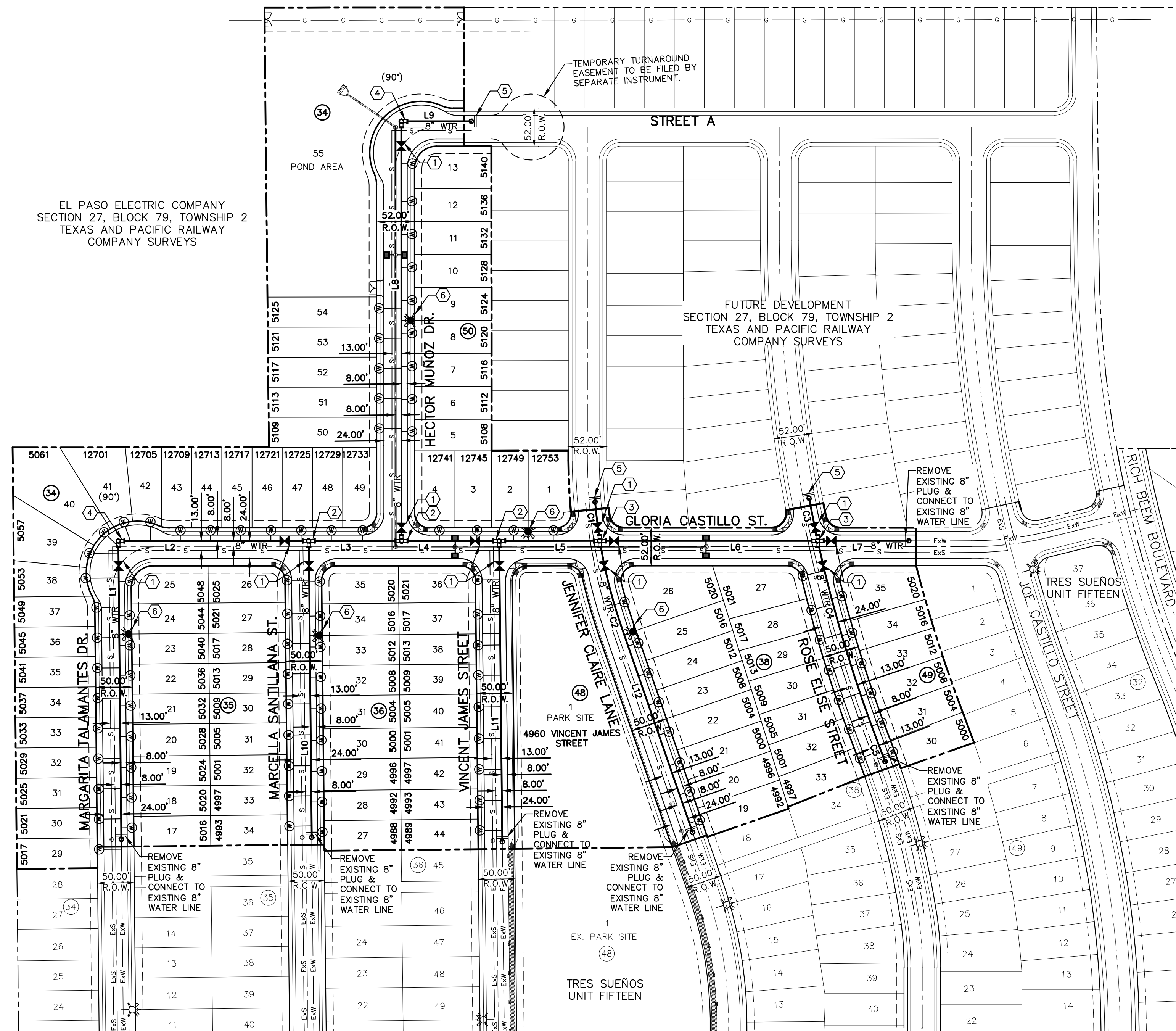
BENCHMARK
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4005.40 (CITY DATUM)

FLOOD_ZONE:
THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212.0175 B, DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS OF MINIMAL FLOODING.



SECTION 27,
BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS

EL PASO ELECTRIC COMPANY
SECTION 27, BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS



LINE	BEARING	LENGTH
L1	N02°28'20"E	407.14'
L2	N86°57'31"W	260.01'
L3	N86°57'31"W	126.57'
L4	N86°57'31"W	133.45'
L5	N86°57'31"W	137.26'
L6	N86°57'31"W	297.49'
L7	N86°57'31"W	124.41'
L8	N03°02'21"E	572.78'
L9	S86°57'39"E	95.62'
L10	N02°28'20"E	404.56'
L11	N02°28'20"E	410.47'
L12	N16°02'42"W	297.44'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	692.00'	53.53'	26.78'	53.52'	S03°50'37"E	004°25'56"
C2	692.00'	120.60'	60.45'	120.45'	S11°03'08"E	009°59'07"
C3	1922.00'	59.16'	29.58'	59.16'	S08°23'20"E	001°45'49"
C4	1922.00'	295.88'	148.23'	295.58'	S13°40'51"E	008°49'13"
C5	1078.00'	19.26'	9.63'	19.26'	N17°34'44"W	001°01'26"

WATER QUANTITIES		
DESCRIPTION	QUANTITY	UNIT
8" PVC WATER LINE	3,816	LF
8" GATE VALVE	13	EA
8" PLUG	3	EA
FIRE HYDRANT	5	EA

WATER KEYED NOTES	
(1)	8" GATE VALVE
(2)	8" TEE
(3)	8" CROSS
(4)	8" BEND
(5)	8" PLUG
(6)	FIRE HYDRANT

CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

WATER INDEX MAP
SCALE: 1" = 100'

INDEX

SHEET NO.	DESCRIPTION
C12.1	TRES SUEÑOS UNIT TWENTY THREE WATER MAIN PIPE LAYOUT
C12.2	WATER DETAILS
C12.3	WATER DETAILS
C12.4	WATER DETAILS
C12.5	WATER DETAILS

NOTES:

- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
- ALL WATER LINES SHALL BE PVC C-900, PRESSURE CLASS 235 (DR18).
- REFERENCE WATER DETAILS FOR TYPICAL VALVE AND WATER LOCATIONS AT STREET INTERSECTIONS.
- REFERENCE WATER DETAILS FOR WATER LINE CROSSING STORM SEWER.

LEGEND

SYMBOL	DESCRIPTION
8" WTR.	PROPOSED 8" C-900, PRESSURE CLASS 235 (DR18) P.V.C. PIPE
---	SUBDIVISION BOUNDARY LINE
---	PROPERTY LINE
---	STREET CENTER LINE
8" SWR	PROPOSED SEWER LINE (PLAN VIEW)
---	PROPOSED STORM SEWER
---	PROPOSED WATER CROSS CONNECTION
---	PROPOSED WATER TEE CONNECTION
---	PROPOSED WATER BEND CONNECTION
---	PROPOSED 3/4" SERVICE CONNECTION (PLAN VIEW)
---	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
---	PROPOSED 8" PLUG
---	PROPOSED GATE VALVE
---	POINT OF TANGENCY
---	EXISTING GATE VALVE
---	EXISTING FIRE HYDRANT
---	EXISTING PLUG
---	EXISTING SEWER LINE
---	EXISTING WATER LINE

GENERAL NOTES

- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED WATER MAINS SHALL BE INSTALLED NO LESS THAN TEN (10') FEET AWAY FROM EXISTING SEWER LINE. SEPARATIONS DISTANCES SHALL FOLLOW TCEQ STANDARD REQUIREMENTS (§290.44).
- THE INTENT OF THE OWNER IS TO HAVE THE WATER MAINS INSTALLED TO SUCH A DEPTH THAT THEY WILL HAVE AT LEAST SIXTY (60") INCHES FROM INVERT OF PIPELINE TO PROPOSED ELEVATIONS AT ALL LOCATIONS. THE PIPELINES SHALL HAVE NO DIPS, ELEVATIONS AT ALL LOCATIONS. THE PIPELINES SHALL HAVE NO DIPS, SAGS OR HUMPS OR OTHER IRREGULARITIES IN VERTICAL ALIGNMENT. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO INSTALLING THE WATER PIPELINE SO THAT AN ACCEPTABLE PROFILE CAN BE ESTABLISHED PRIOR TO INSTALLATION OF THE PIPELINE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN IN THE PLANS, AND COORDINATE WORK WITH ALL UTILITY COMPANIES, EL PASO WATER UTILITIES AND CITY OF EL PASO.
- TRENCH SAFETY REQUIREMENTS SHALL BE AS REQUIRED BY OSHA.
- AS-BUILT STATIONING, OFFSET FROM R.O.W. AND INVERT ELEVATIONS SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR ON A CLEAN SET OF PLANS FOR EACH VALVE, FIRE HYDRANT, ELBOW, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
- THE EL PASO WATER UTILITIES AND CITY OF EL PASO MUST BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION.
- EXISTING STREETS, DRIVEWAYS, PARKING LOTS, MAILBOXES, SIGNS, CHAIN-LINK FENCES, AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION AT NO COST TO OWNER.
- TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
- ALL TIE-INS SHALL BE CLOSELY COORDINATED WITH THE EL PASO WATER UTILITIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ACTUAL CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE THE REQUIRED COUPLINGS, ELBOWS AND NECESSARY PIPING APPURTENANCES FOR A COMPLETE AND OPERATIONAL WATER SYSTEM.
- ALL NEW VALVES SHALL BE ALIGNED PERPENDICULAR TO PROPERTY LINES.
- CONSTRUCTION OF THE PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFORM EPWU-PSB SPECIFICATIONS FOR THE INSTALLATION OF WATER MAINS, SEWER MAINS AND RELATED APPURTENANCES.
- FIRE HYDRANTS SHALL BE INSTALLED IN THE PARKWAY AREA.
- THE WATER METERS FOR THE PROPOSED WATER SERVICE CONNECTIONS SHALL BE INSTALLED ON THE PARKWAYS. SYMBOLS ARE ONLY SHOWN FOR DEPICTION PURPOSES ONLY.

GENERAL UTILITIES:
TEXAS EXCAVATION SAFETY SERVICE
11884 GREENVILLE AVENUE.
DALLAS, TX. 75243
(800) 344-8377

ENGINEER:
CEA GROUP
813 N. KANSAS ST., STE. 300
UPTOWN CENTRE
EL PASO, TX. 79902
(915) 544-5232
MR. JORGE L. AZCARATE, P.E.

FIBER OPTICS:
U.S. SPRINT
151 N. BOONE ST.
EL PASO, TX. 79905
(915) 534-7910

FIBER OPTICS:
MCI TELECOMMUNICATIONS CORPS.
4045 DONIPHAN PARK CIRCLE
EL PASO, TX. 79902
(915) 542-2770 EXT. 201

WATER & SEWER:
EL PASO WATER UTILITIES
1154 HAWKINS BOULEVARD
EL PASO, TX. 79961
(915) 594-5530

ELECTRIC:
EL PASO ELECTRIC CO.
501 W. SAN ANTONIO ST.
EL PASO, TX. 79930
(915) 543-2076

EL PASO STREETS
EL PASO STREETS DEPARTMENT.
7965 SAN PAULO DR.
EL PASO, TX. 79907
(915) 621-6750

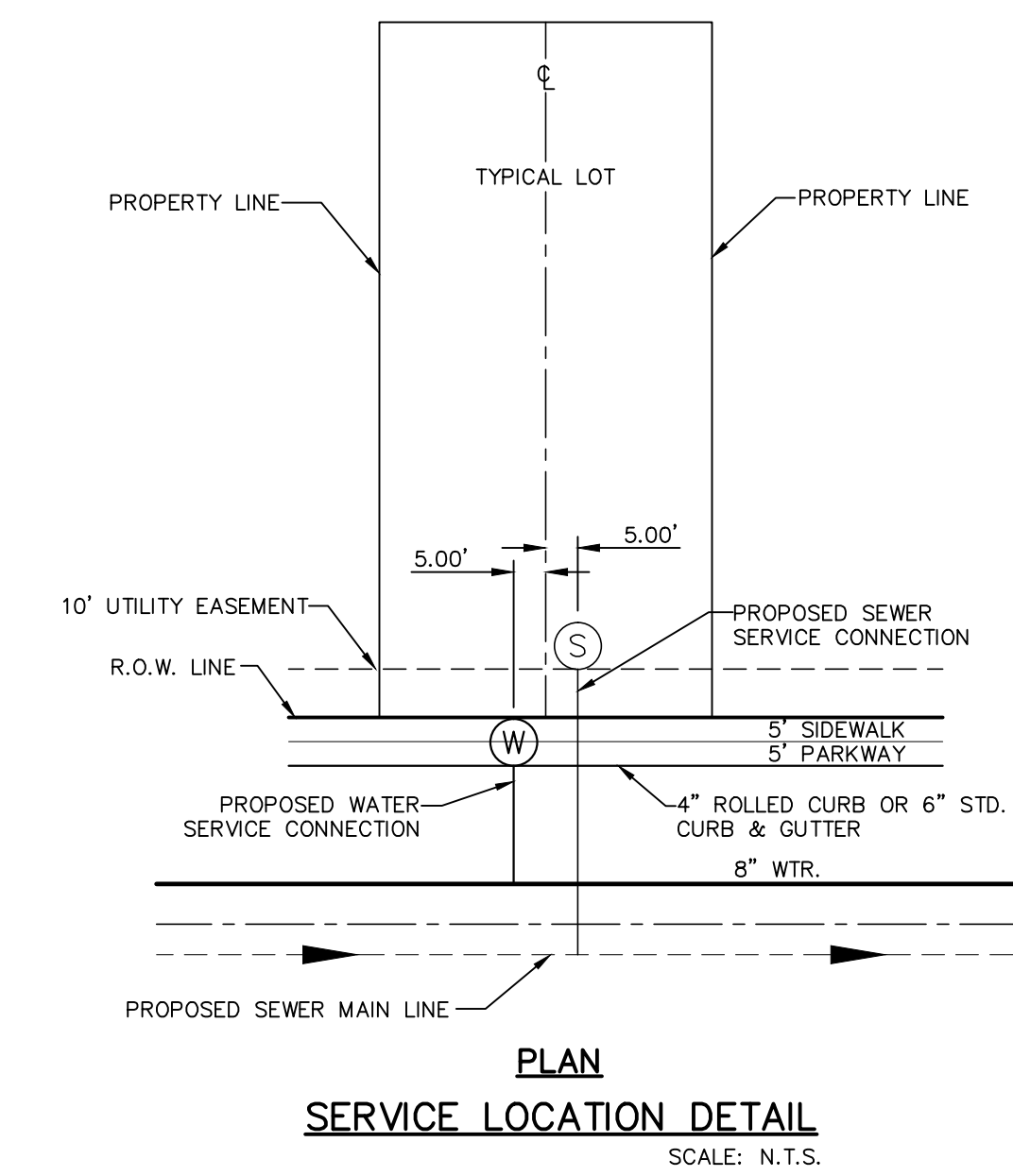
CABLE TELEVISION:
TIME WARNER COMMUNICATIONS
7010 AIRPORT ROAD
EL PASO, TX. 79906
(915) 772-1123

TELEPHONE:
SBC
11200 PELICANO
EL PASO, TX. 79935
(915) 595-5151

FIBER OPTICS:
AT&T
P.O. BOX 1650
EL PASO, TX. 79949
(800) 852-3786

RESIDENTIAL GAS LINES:
TEXAS GAS SERVICE
4700 POLLARD ST.
EL PASO, TX. 79930
(915) 680-7218

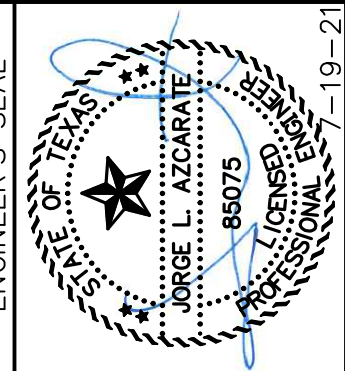
WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES



PLAN
SERVICE LOCATION DETAIL
SCALE: N.T.S.

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.
ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

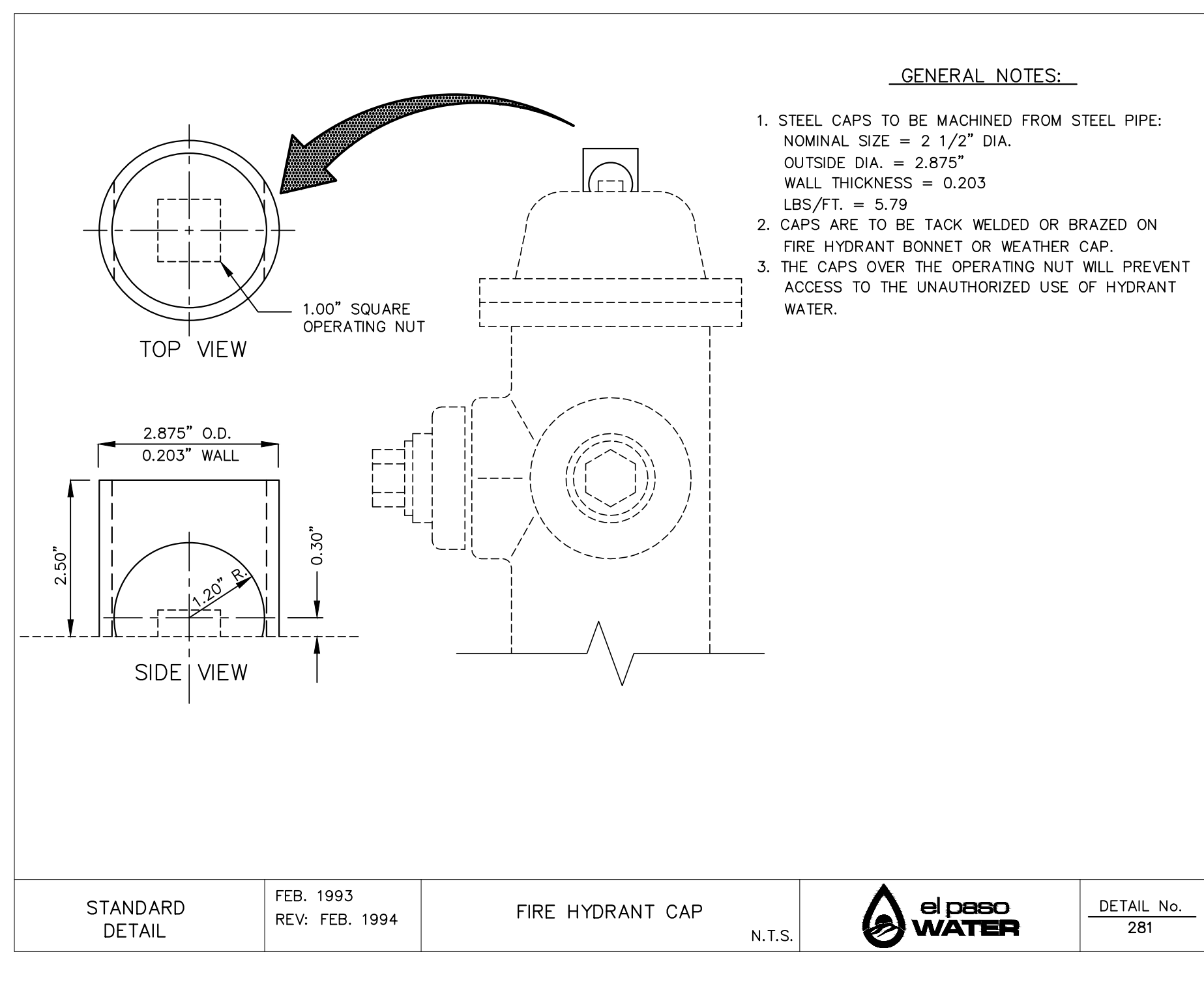
813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5232
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TEXAS REGISTERED ENGINEERING FIRM F-4564



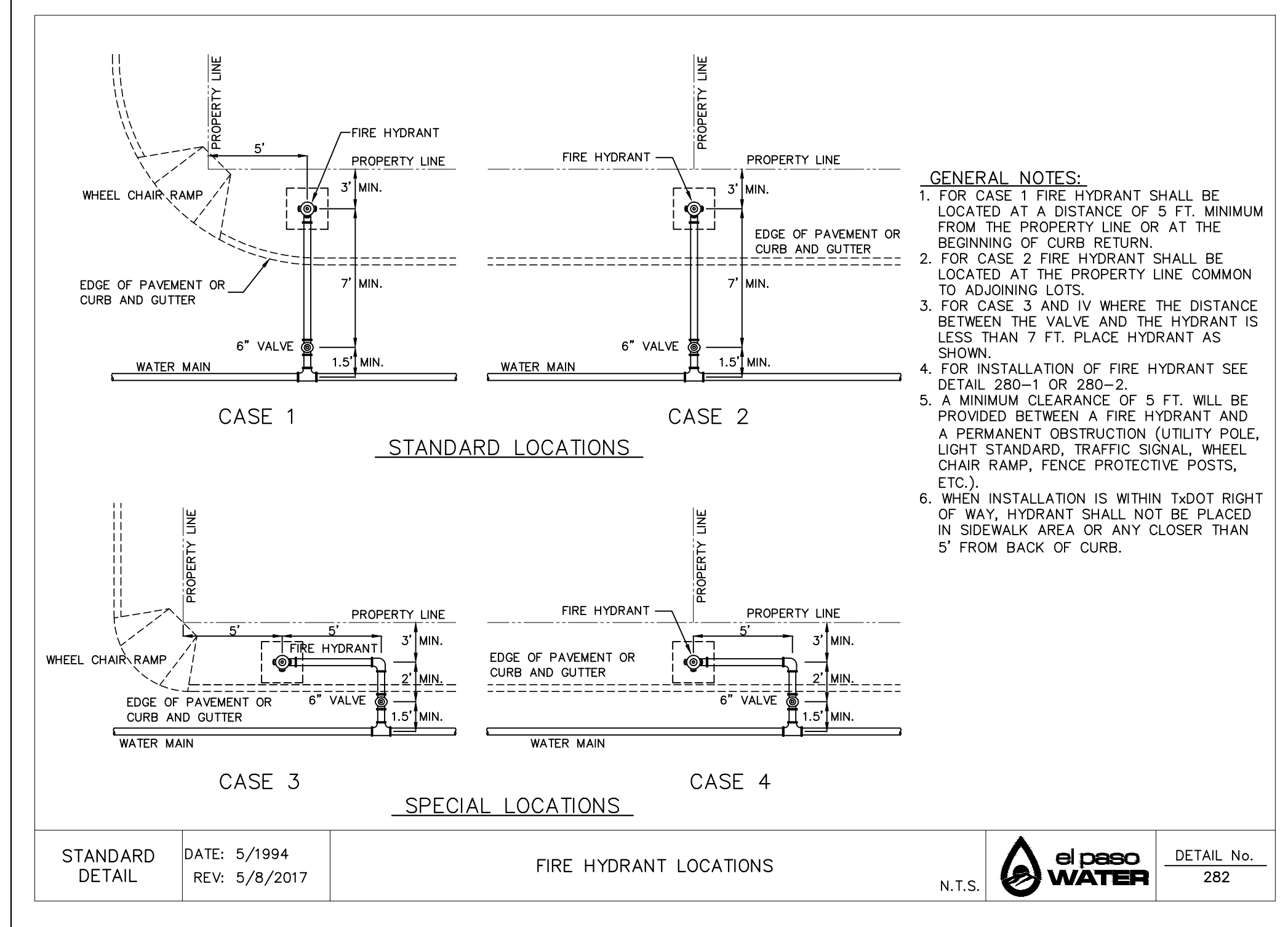
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Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPD. BY: J.L.A.
JOB No.: 2025-021

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

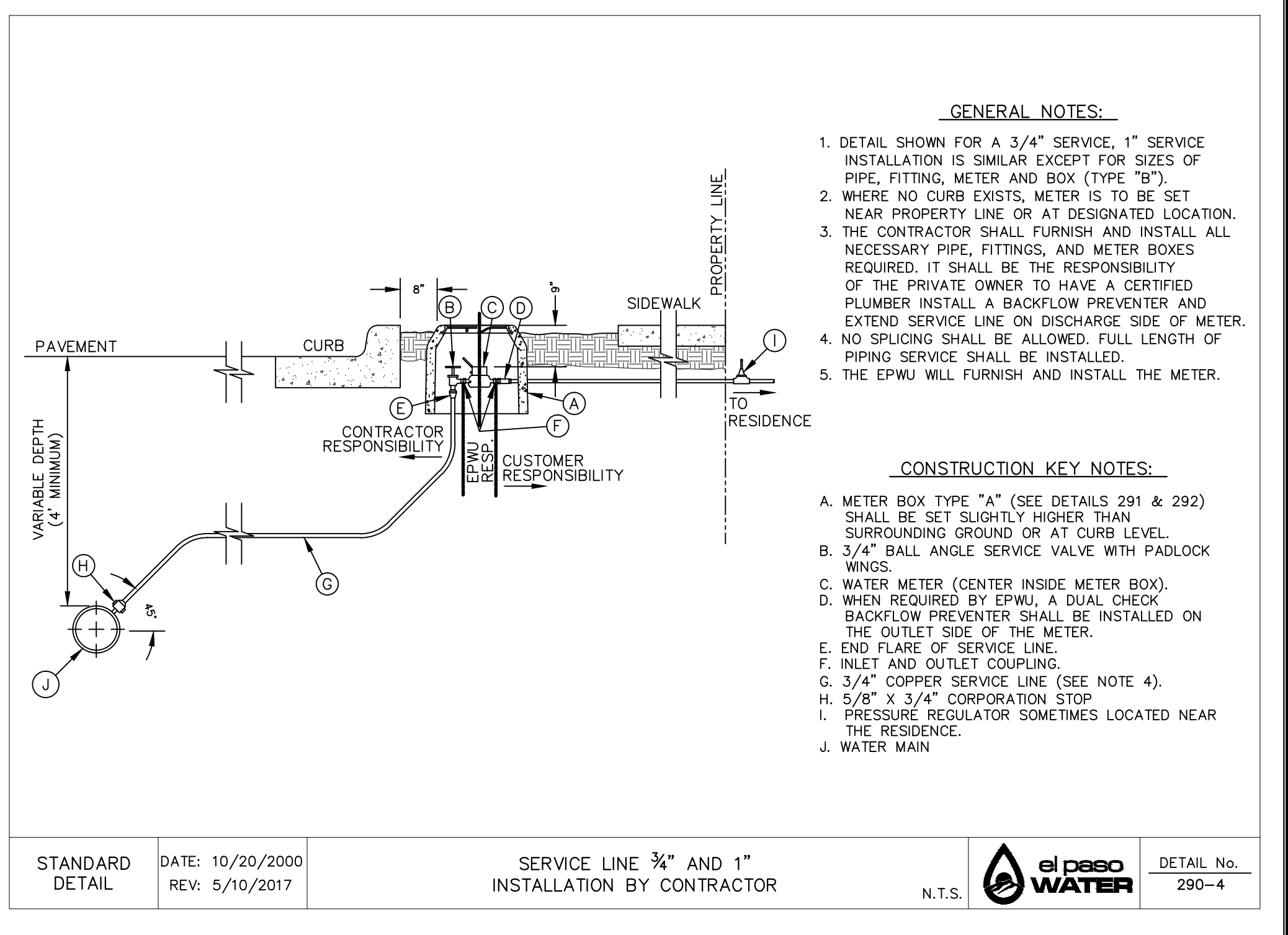
SHEET TITLE
WATER INDEX
SHEET NO.
C12.1



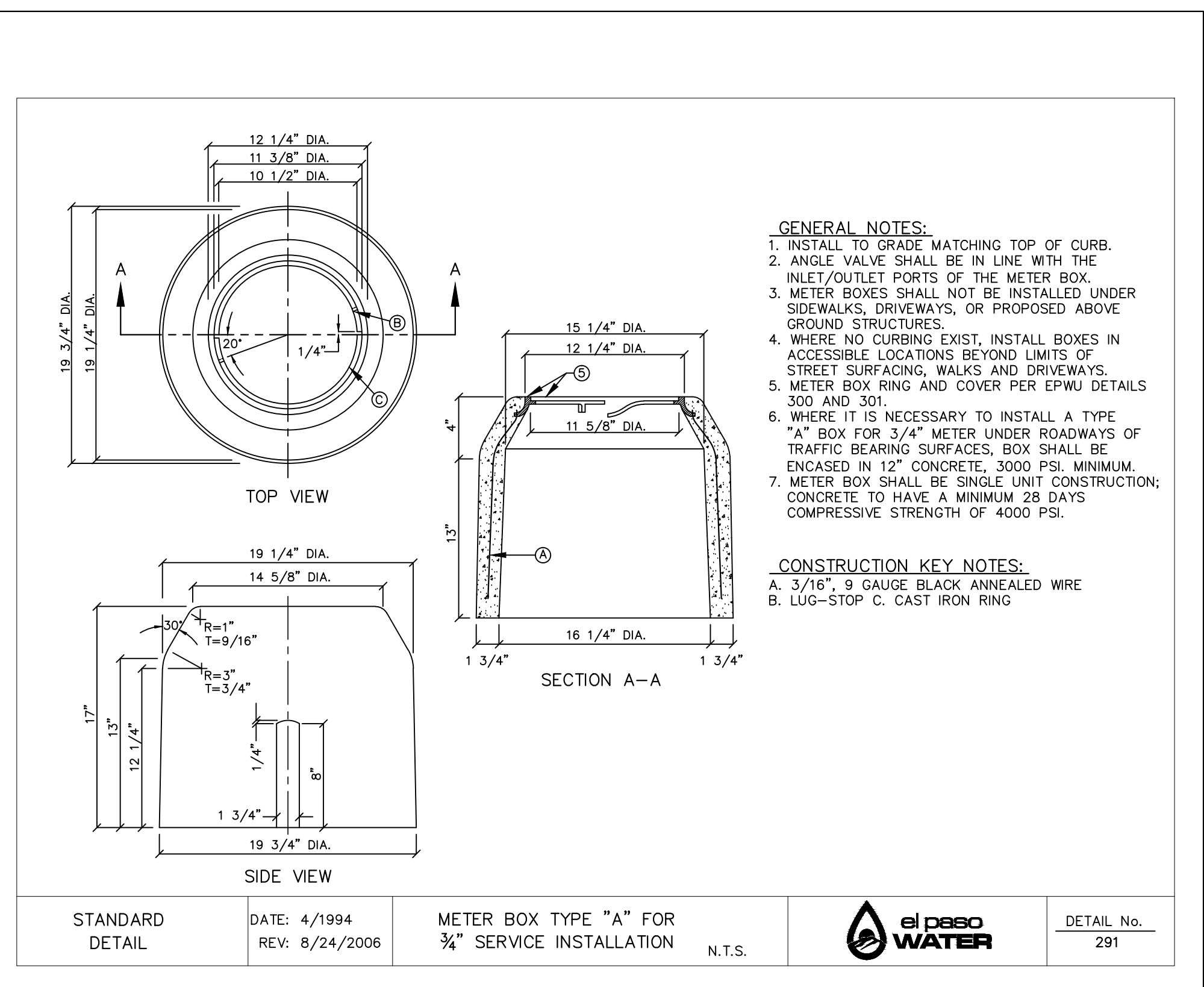
1 FIRE HYDRANT CAP
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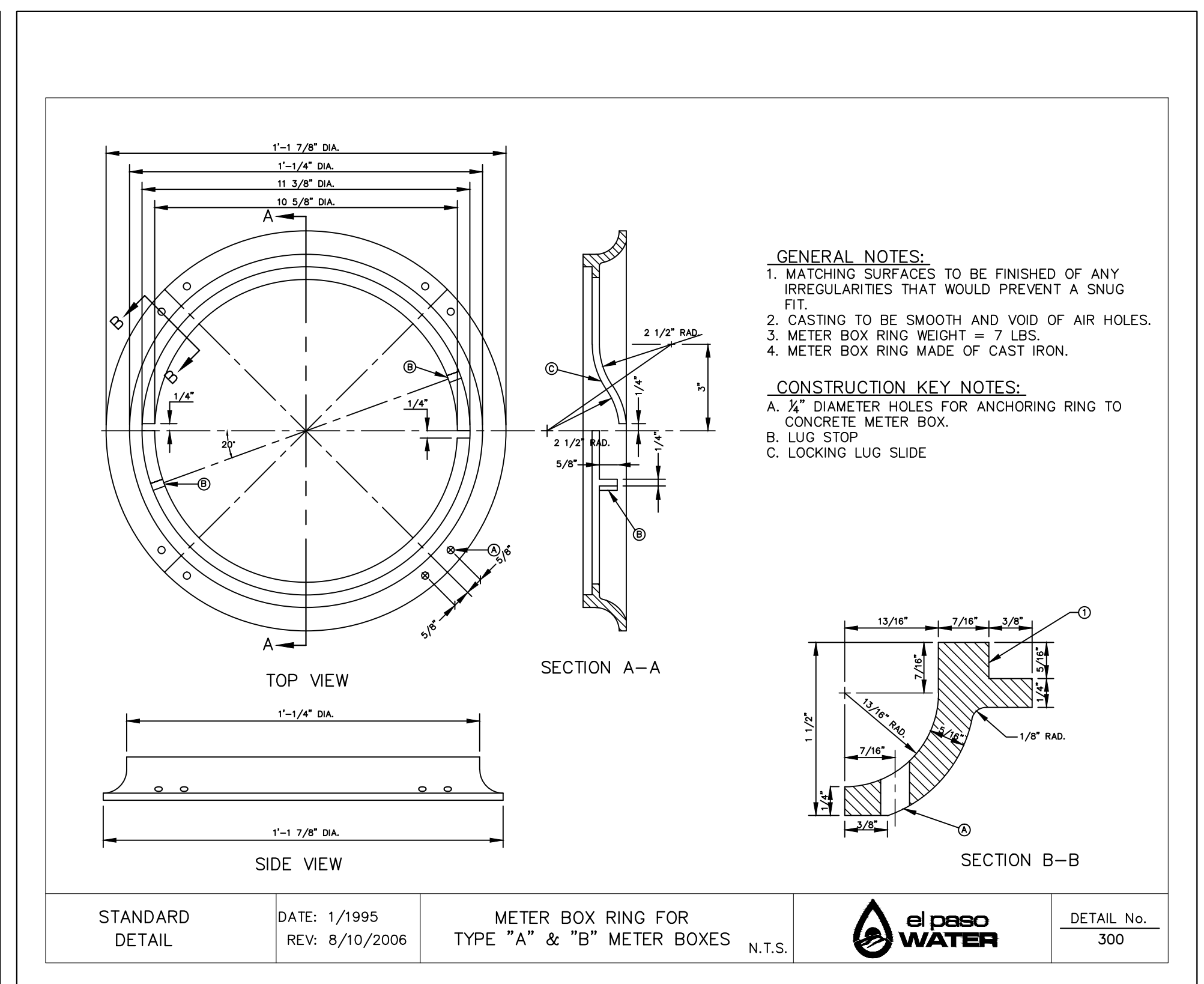
2 FIRE HYDRANT LOCATIONS
SCALE: NTS



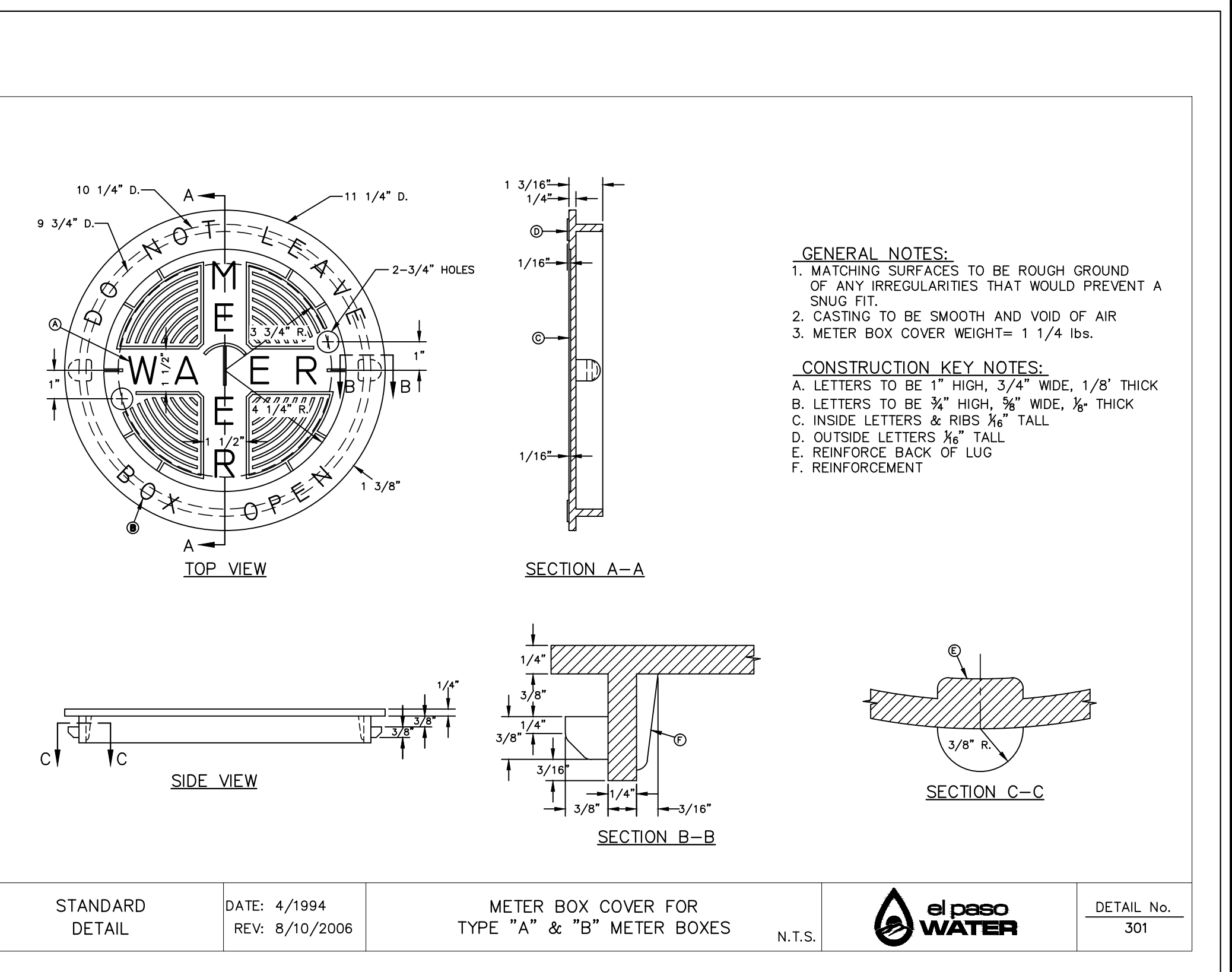
3 SERVICE LINE 3/4" AND 1" INSTALLATION
SCALE: NTS



4 METER BOX TYPE "A" FOR 3/4" SERVICE INSTALLATION
SCALE: NTS



5 METER BOX RING FOR TYPE "A" & "B" METER BOXES
SCALE: NTS



6 METER BOX COVER FOR TYPE "A" & "B" METER BOXES
SCALE: NTS

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005-40 CITY DATUM)

813 N. Kansas St. Suite 300 El Paso, TX 79902 915.544.5232 www.ceagroup.net

el paso WATER
TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL
JOSUE L. AZCARRATE
68075

SCALE: AS SHOWN
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

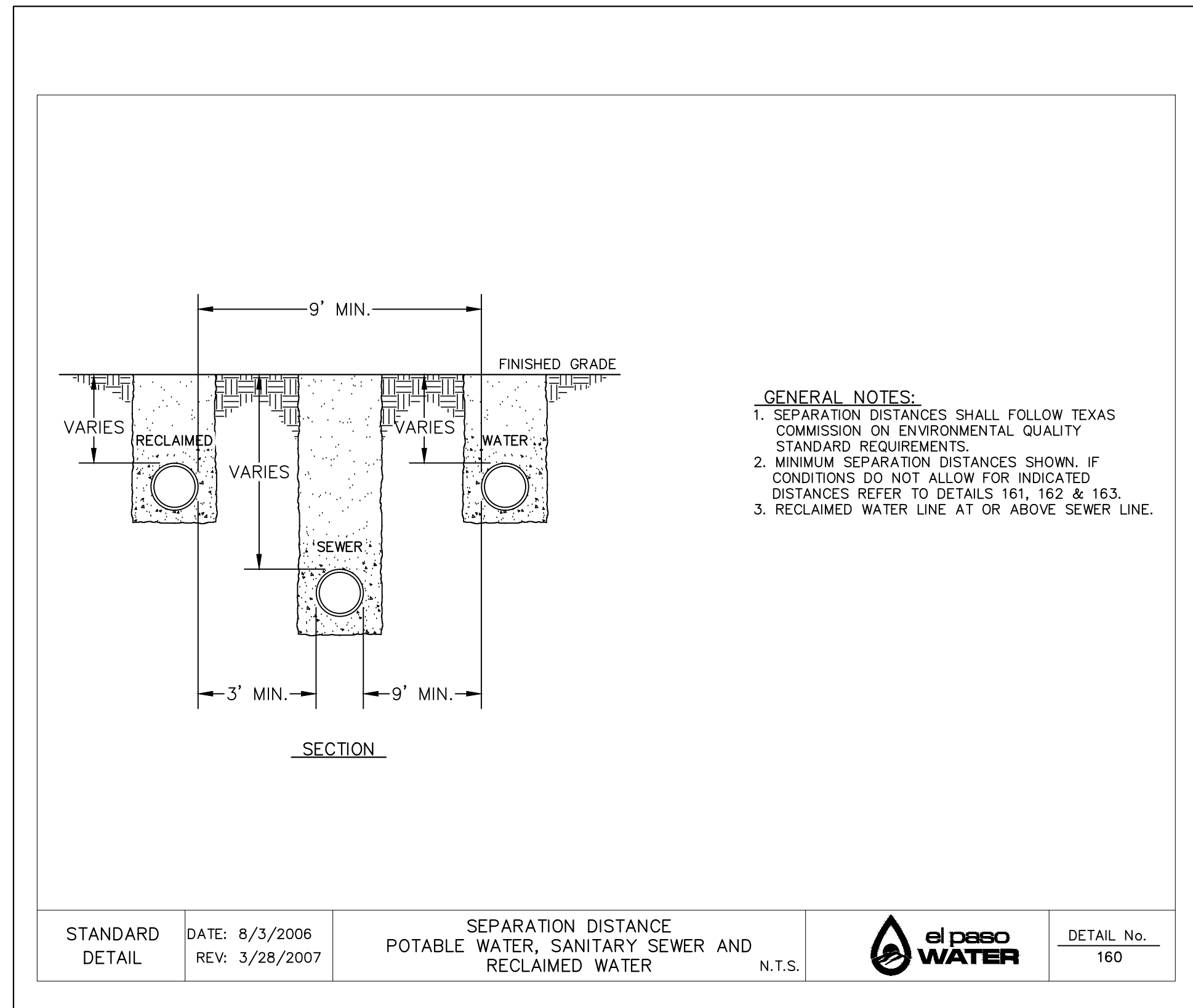
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB NO.: 2025-021

PROJECT TITLE
TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

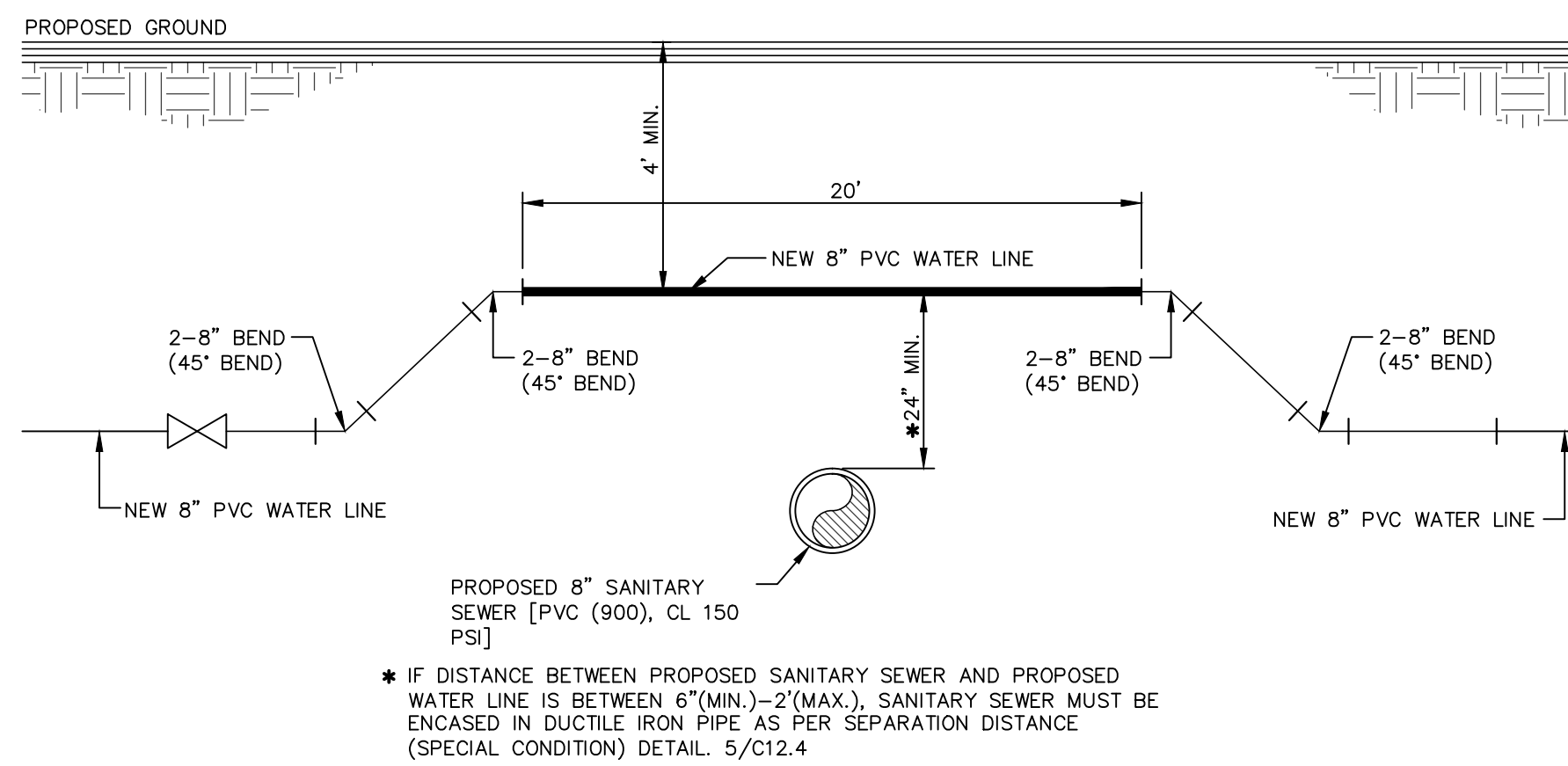
SHEET TITLE
WATER DETAILS

(SHEET 3 OF 4)
SHEET NO.

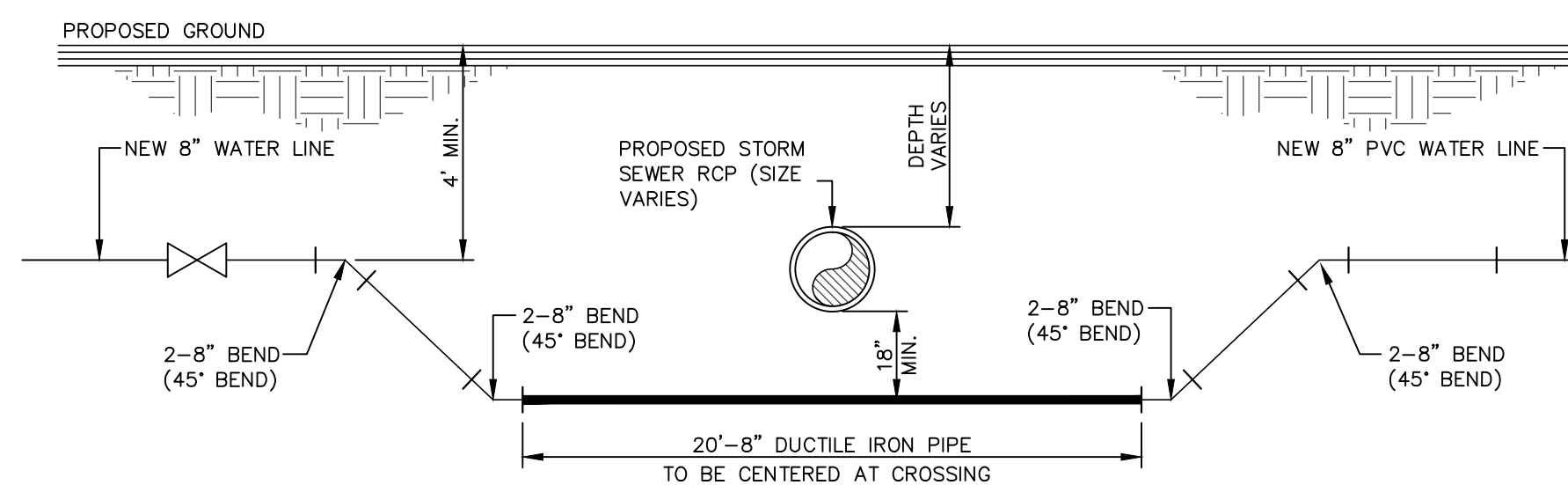
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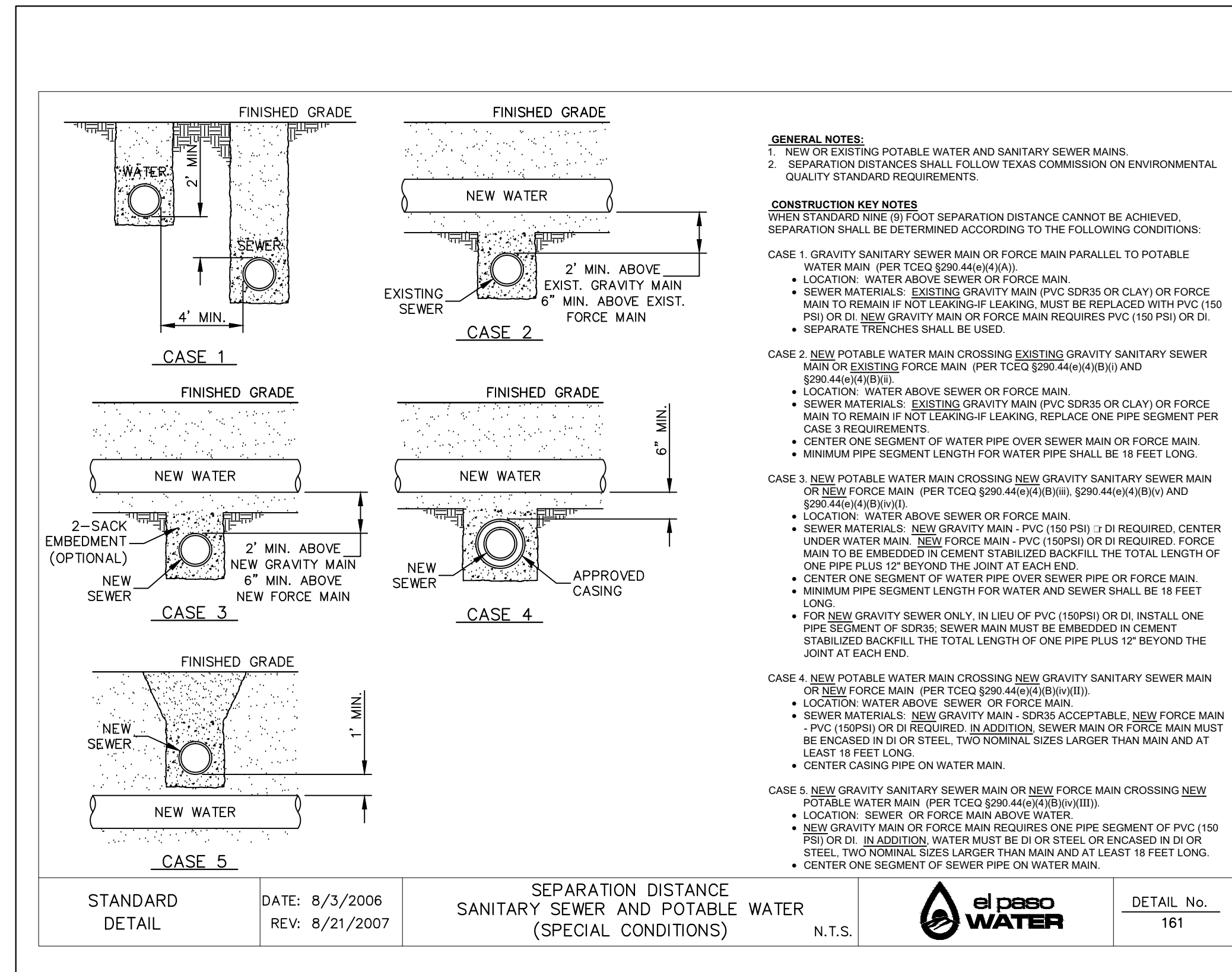
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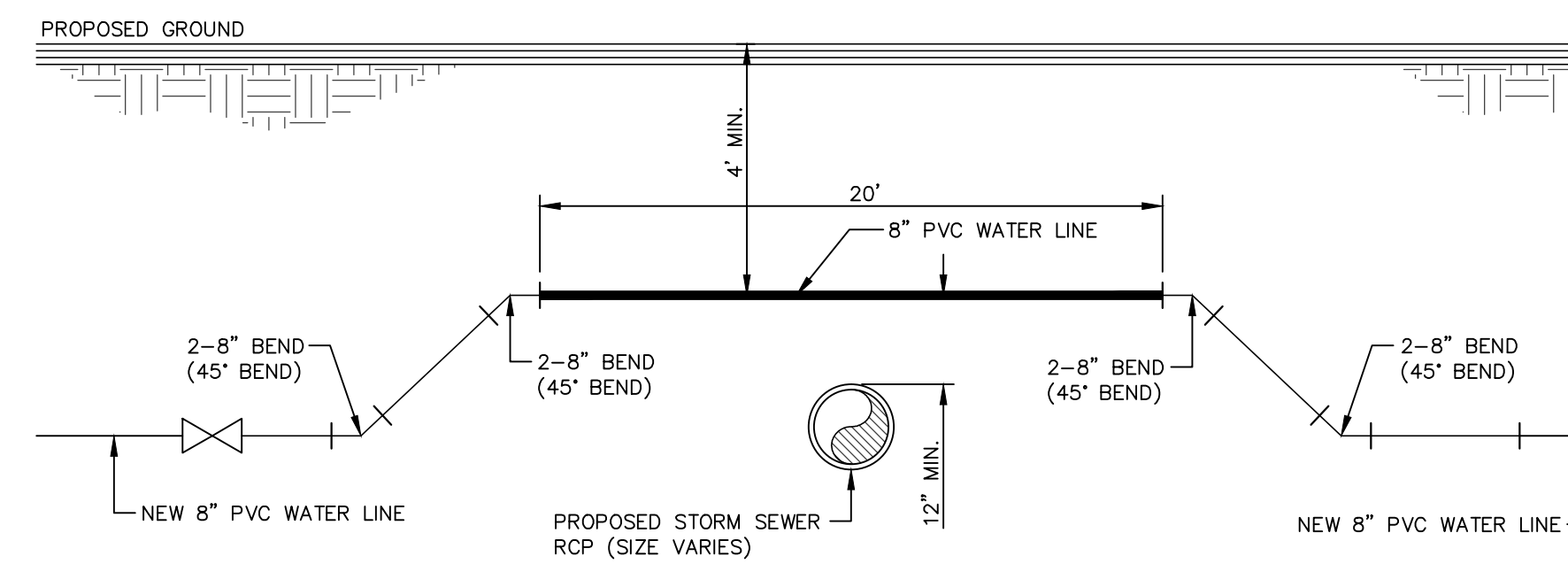
2 WATER LINE OVER SANITARY SEWER CROSSING DETAIL
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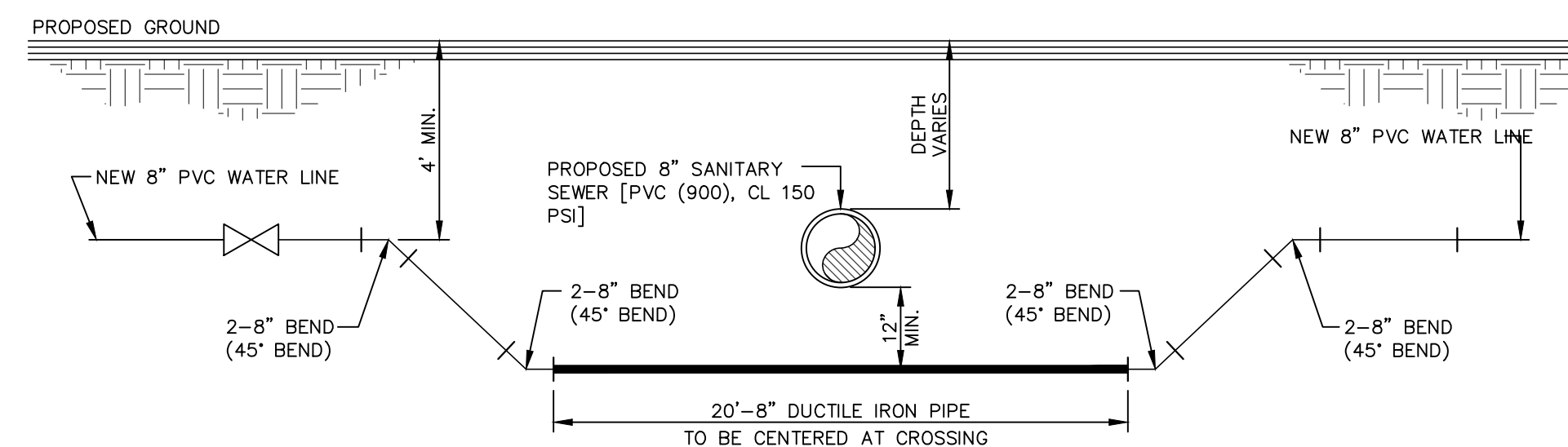
3 WATER LINE UNDER STORM SEWER CROSSING DETAIL
 SCALE: NTS



4 SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)
 SCALE: NTS



5 WATER LINE OVER STORM SEWER CROSSING DETAIL
 SCALE: NTS



6 WATER LINE UNDER SANITARY SEWER CROSSING DETAIL
 SCALE: NTS

REFERENCES - BENCHMARKS
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 ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

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 Suite 300
 El Paso, TX 79902
 915.544.5232
 www.ceagroup.net

CEA GROUP
 TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL
 JORGE L. AZCARRATE
 1919-19-21

SCALE: AS SHOWN
 Horizontal: N/A
 Vertical: N/A
 Contour Interval: N/A

DATE: APRIL 2021
 DESIGN BY: K.A.P.
 DRAWN BY: K.A.P./G.E.D.
 CHKD. BY: F.Z.
 APPVD. BY: J.L.A.
 JOB No.: 2025-021

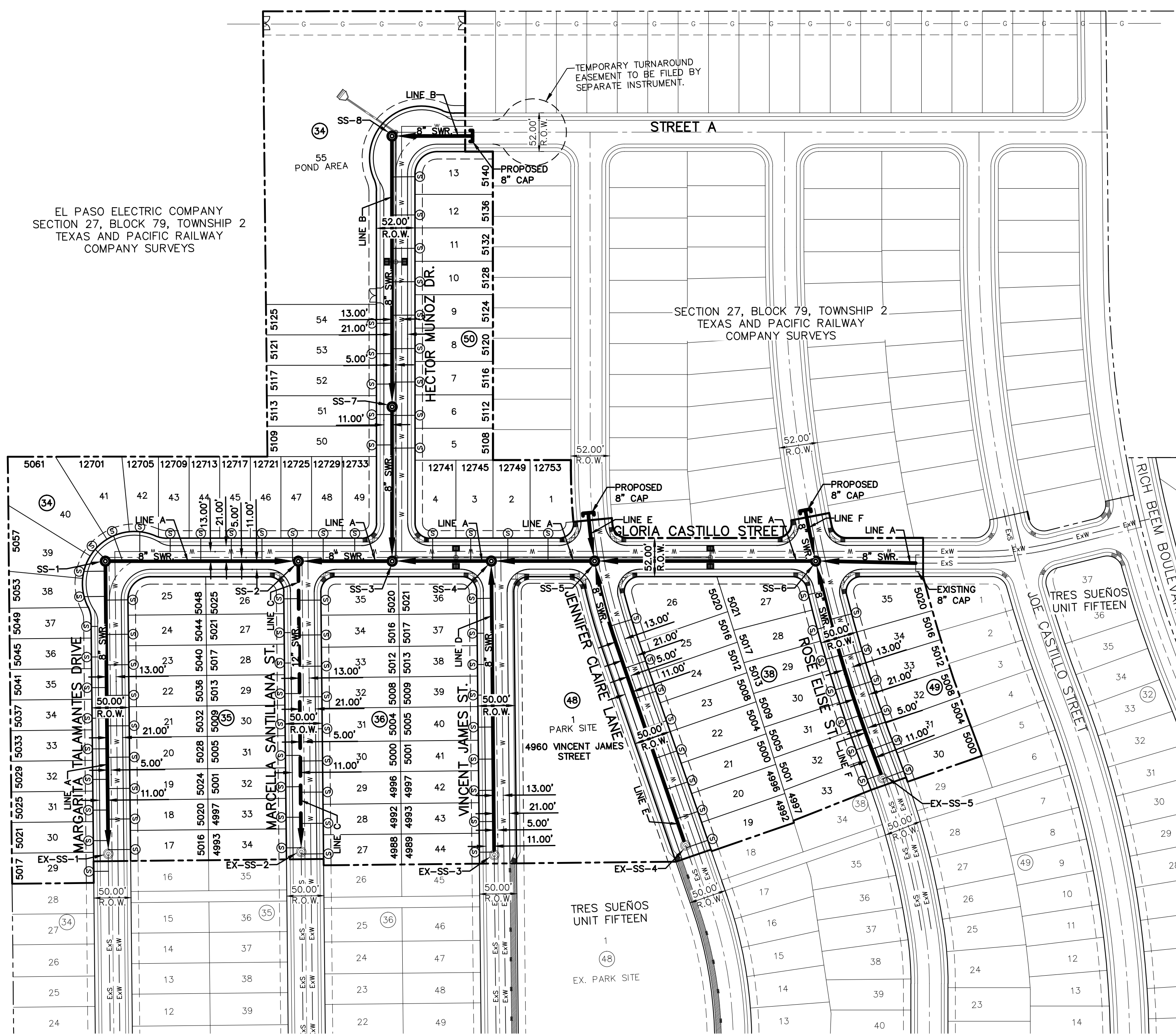
PROJECT TITLE
**TRES SUEÑOS
 UNIT TWENTY THREE
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
WATER DETAILS

(SHEET 4 OF 4)
 SHEET NO.

C12.5

SECTION 27,
BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS



EL PASO ELECTRIC COMPANY
SECTION 27, BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS

SECTION 27, BLOCK 79, TOWNSHIP 2
TEXAS AND PACIFIC RAILWAY
COMPANY SURVEYS

WASTEWATER QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	8" PVC SDR35 GRAVITY LINE	2727	LINEAR FEET
2	12" PVC SDR35 GRAVITY LINE	392	LINEAR FEET
3	8" PVC C-900, CL150	682	EACH
4	STANDARD WASTEWATER MANHOLE (0'-8" DEEP)	8	EACH
5	16" STEEL CASING	60	EACH
6	4" WASTEWATER SERVICE CONNECTION	96	EACH

CONTRACTOR SHALL VERIFY DEPTH AND
LOCATION OF ALL EXISTING UTILITIES PRIOR
TO COMMENCING CONSTRUCTION.

SANITARY SEWER INDEX MAP
SCALE: 1" = 100'

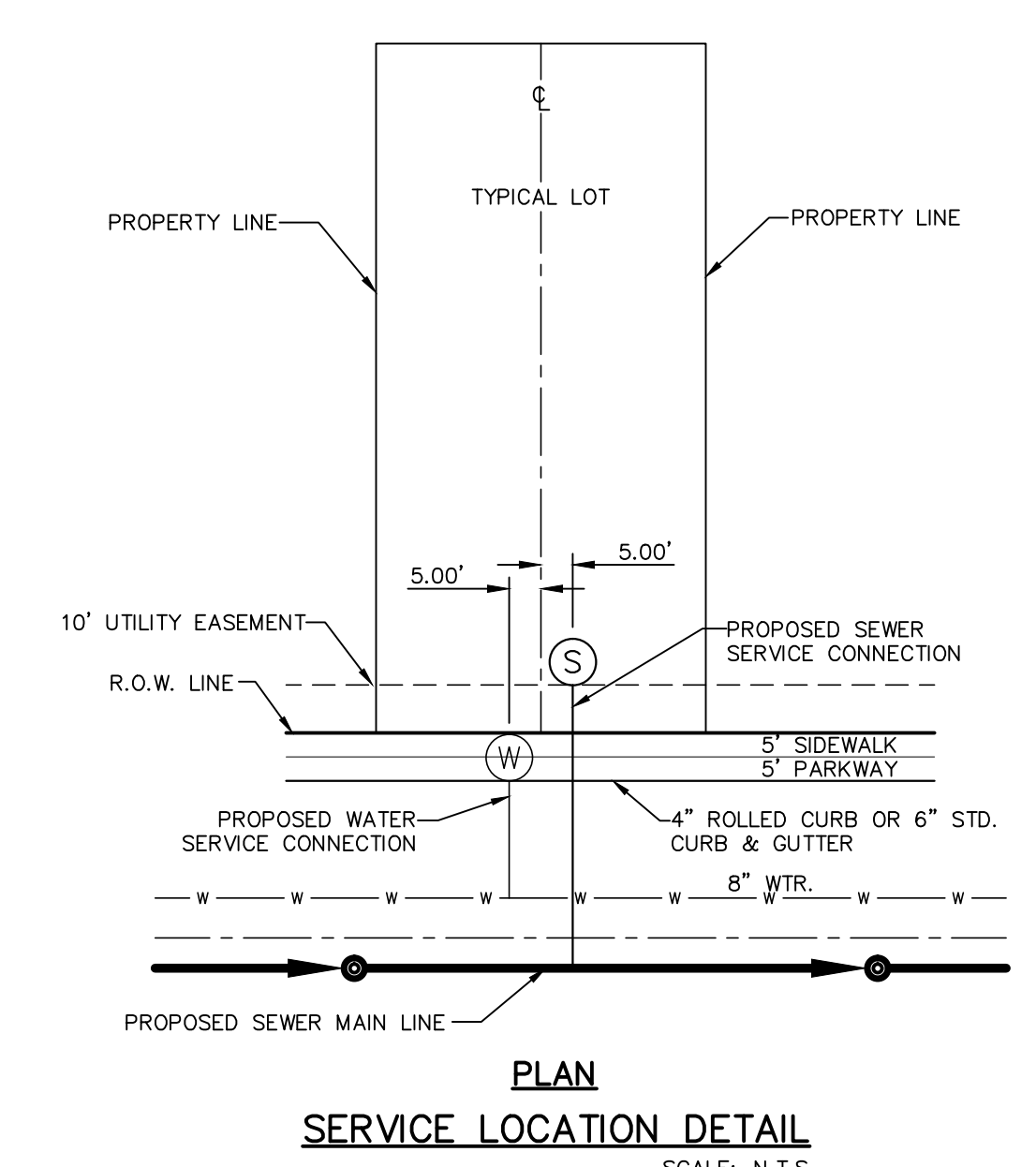
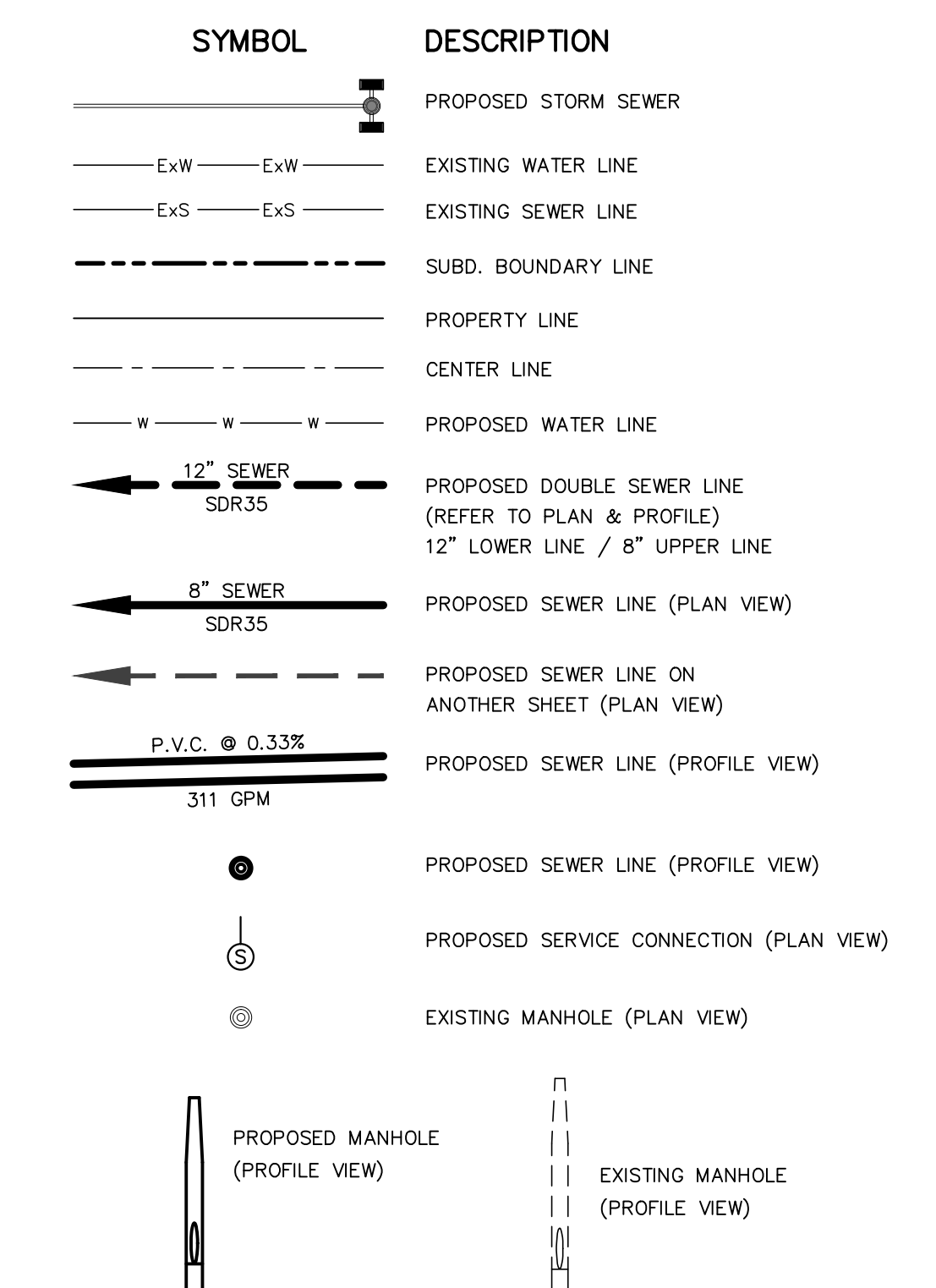
INDEX

SHEET NO.	DESCRIPTION
C13.1	TRES SUEÑOS UNIT TWENTY THREE LEGEND INDEX / GENERAL INFORMATION
C13.2	LINE A
C13.3	LINE B, E & F
C13.4	LINE C & D
C13.5	SANITARY SEWER DETAILS
C13.6	SANITARY SEWER DETAILS
C13.7	SANITARY SEWER DETAILS

NOTES:

- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
- ALL SANITARY SEWER PIPES SHALL BE PVC, SDR 35, (D 3034), UNLESS OTHERWISE SHOWN, AS REQUIRED BY THE EPWJ/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.
- REFERENCE SANITARY SEWER DETAILS FOR SEWER CROSSINGS AT STORM SEWER.

LEGEND



GENERAL NOTES

- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED SEWER MAINS AND SEWER MANHOLES SHALL BE INSTALLED NO LESS THAN TEN (10') FEET AWAY FROM EXISTING WATER LINE. SEPARATIONS DISTANCES SHALL FOLLOW TCEQ STANDARD REQUIREMENTS (§290.44).
- THE INTENT OF THE OWNER IS TO HAVE THE SANITARY SEWER PIPELINES INSTALLED TO SUCH A DEPTH THAT THEY WILL HAVE AT LEAST FORTY-EIGHT (48") INCHES OF COVER BELOW PROPOSED GROUND AT ALL LOCATIONS. THE PIPELINES SHALL HAVE NO DIPS, SAGS OR HUMPS OR OTHER IRREGULARITIES IN VERTICAL ALIGNMENT. CONSIDERING UTILITIES AND OTHER CONDITIONS, VARIANCE FROM GRADE PROFILE IS NOT RECOMMENDED IF OTHER EXISTING UTILITIES OR OBSTRUCTIONS ARE ENCOUNTERED DURING THE WORK. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO INSTALLING THE SEWER PIPELINE SO THAT AN ACCEPTABLE PROFILE CAN BE ESTABLISHED PRIOR TO INSTALLATION OF THE PIPELINE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN IN THE PLANS, AND COORDINATE HIS WORK WITH ALL UTILITY COMPANIES, EL PASO WATER UTILITIES AND CITY OF EL PASO PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY DEPTHS ARE UNKNOWN. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR ACQUIRING FIELD DEPTHS OF ALL UTILITIES WITH THE PROJECT AREAS.
- TRENCH SAFETY REQUIREMENTS SHALL COMPLY WITH CURRENT OSHA REGULATIONS.
- AS-BUILT STATIONING, OFFSET FROM R.O.W. AND INVERT ELEVATIONS SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR ON A CLEAN SET OF PLANS FOR EACH MANHOLE, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
- THE EL PASO WATER UTILITIES AND CITY OF EL PASO MUST BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION. A COPY OF ALL FIELD SOIL DENSITY TESTS WITHIN THEIR RESPECTIVE R.O.W. SHALL BE FORWARDED TO THE DEVELOPER'S ENGINEER AND THE DEVELOPER BY THE CONTRACTOR.
- EXISTING STREETS, DRIVEWAYS AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION.
- CONSTRUCTION OF THE PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFIRM TO EPWJ-PSB STANDARD SPECIFICATIONS FOR THE INSTALLATION OF WATER MAINS, SEWER MAINS AND RELATED APPURTENANCES.

GENERAL UTILITIES:

TEXAS EXCAVATION SAFETY SERVICE
11884 GREENVILLE AVENUE
DALLAS, TX. 75243
(800) 344-8377

ENGINEER:

CEA GROUP
UPTOWN CENTRE
813 NORTH KANSAS STREET STE. 300
EL PASO, TX. 79902
(915) 544-5232
MR. JORGE L. AZCARATE, P.E.

FIBER OPTICS:

U.S. SPRINT
151 N. BOONE ST.
EL PASO, TX. 79905
(915) 534-7910

FIBER OPTICS:

MCI TELECOMMUNICATIONS CORPS.
4045 DONIPHAN PARK CIRCLE
EL PASO, TX. 79922
(915) 542-2770 EXT. 201

WATER & SEWER:

EL PASO WATER UTILITIES
1154 HAWKINS BOULEVARD
EL PASO, TX. 79961
(915) 594-5530

ELECTRIC:

EL PASO ELECTRIC CO.
501 W. SAN ANTONIO ST.
EL PASO, TX. 79902
(915) 543-2078
MR. FRANK VIGEL (DISTRIBUTION)

EL PASO STREETS

CITY OF EL PASO
DEPARTMENT OF TRANSPORTATION
7969 SAN PAULO DRIVE
EL PASO, TX. 79907
(915) 621-6750

CABLE TELEVISION:

TIME WARNER COMMUNICATIONS
7010 AIRPORT ROAD
EL PASO, TX. 79906
(915) 772-1123

TELEPHONE:

SBC
11200 PELICANO
EL PASO, TX. 79935
(915) 595-5151

FIBER OPTICS:

AT&T
P.O. BOX 1650
EL PASO, TX. 79949
(800) 852-3786

RESIDENTIAL GAS LINES:

TEXAS GAS SERVICE
4700 POLLARD ST.
EL PASO, TX. 79930
(915) 680-7218

WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

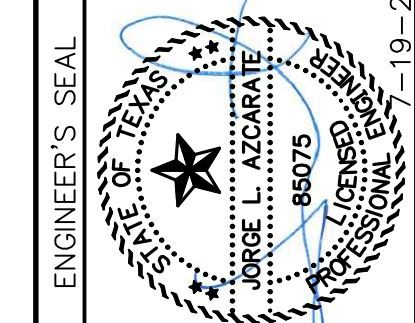
REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°42'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

DATE	REVISIONS	BY

813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5232
www.ceagroup.net

CEA GROUP
TEXAS REGISTERED ENGINEERING FIRM F-4564



SCALE: 1" = 100'

Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./S.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB NO.: 2025-021

PROJECT TITLE

**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

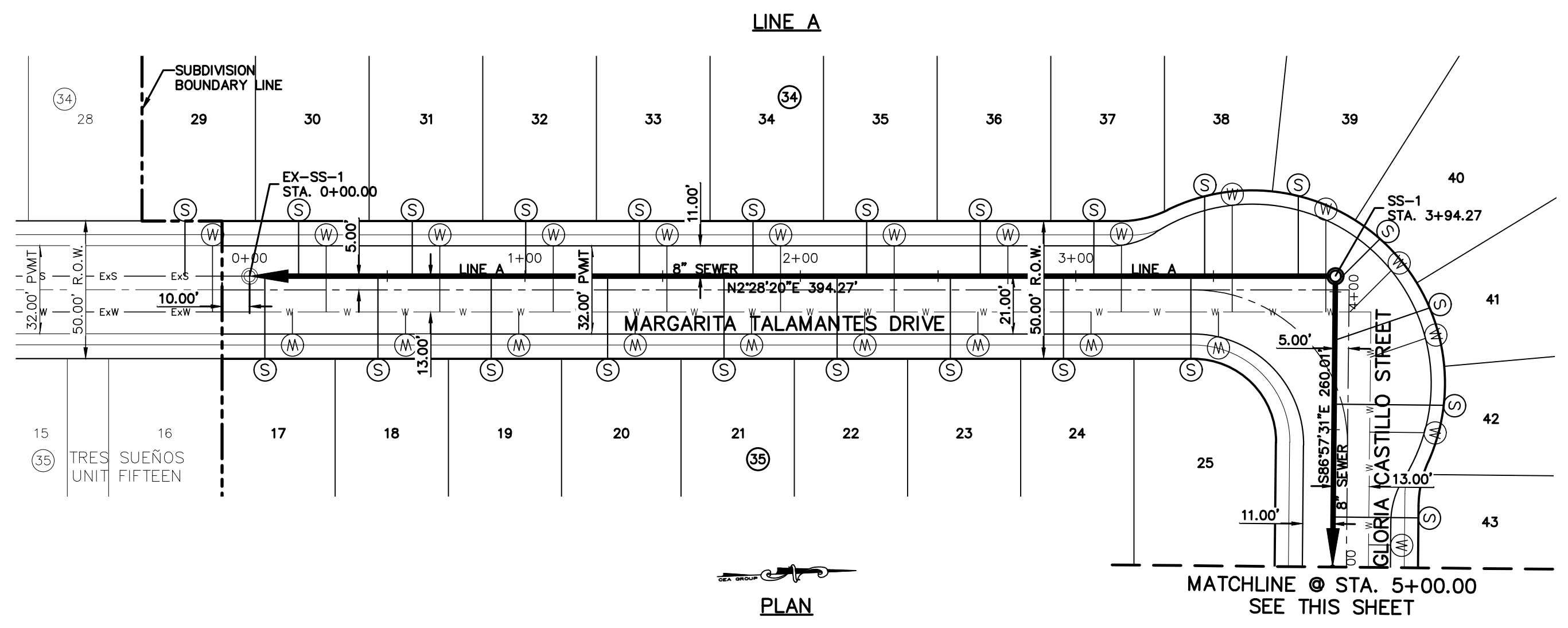
SANITARY SEWER INDEX

SHEET NO.

C13.1

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING!
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NOTE:
20" C-900, CLASS 150 SEGMENT SHALL BE CENTERED ABOVE ALL WATER CROSSINGS, ON SEWER LINE WHERE APPLICABLE

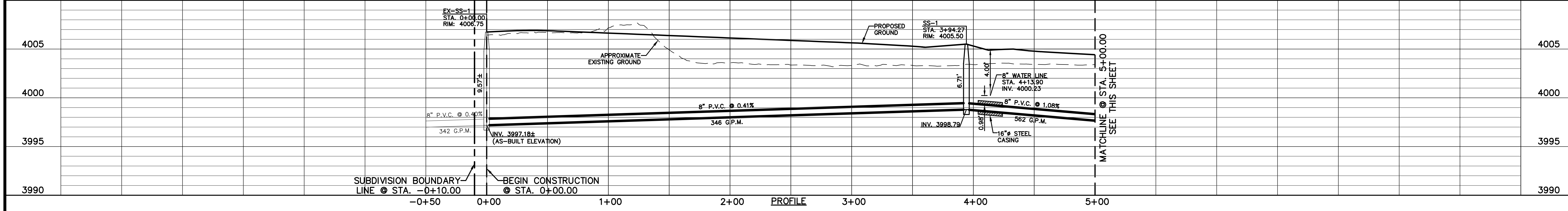
LEGEND:

- PROPOSED STORM SEWER LINE
- PROPOSED WATER LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)
- PROPOSED SEWER LINE
- PROPOSED WATER SERVICE
- PROPOSED SEWER SERVICE
- PROPOSED SEWER MANHOLE

DATE	REVISIONS	BY

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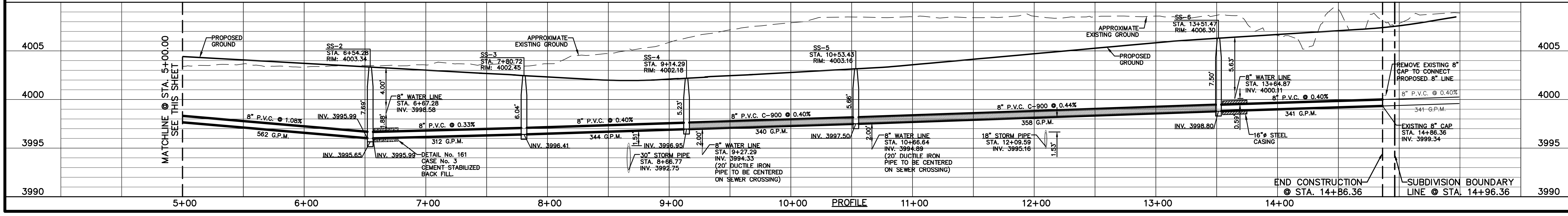
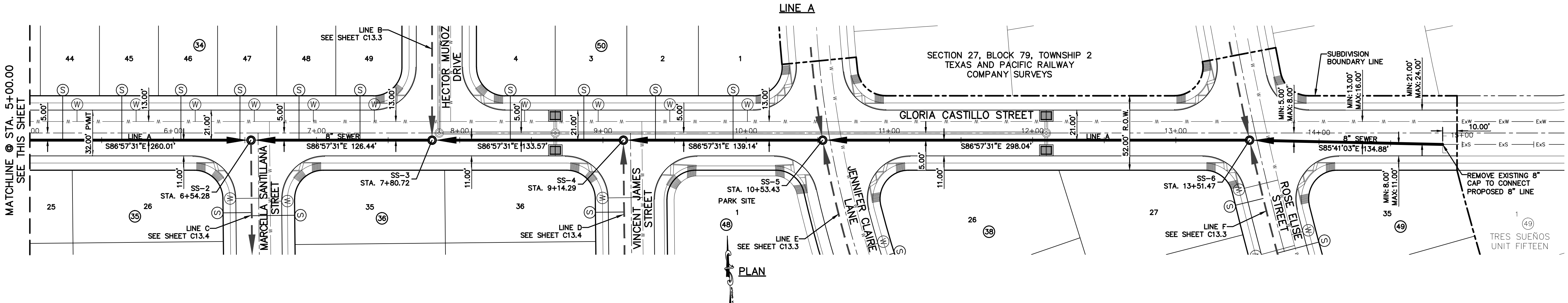
CEA
CORPORATION
TEXAS REGISTERED ENGINEERING FIRM F-4564



ENGINEER'S SEAL

SCALE: 1"=40'
Horizontal: 1"=50'
Vertical: 1"=5'
Contour Interval: 10'

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB No.: 2025-021

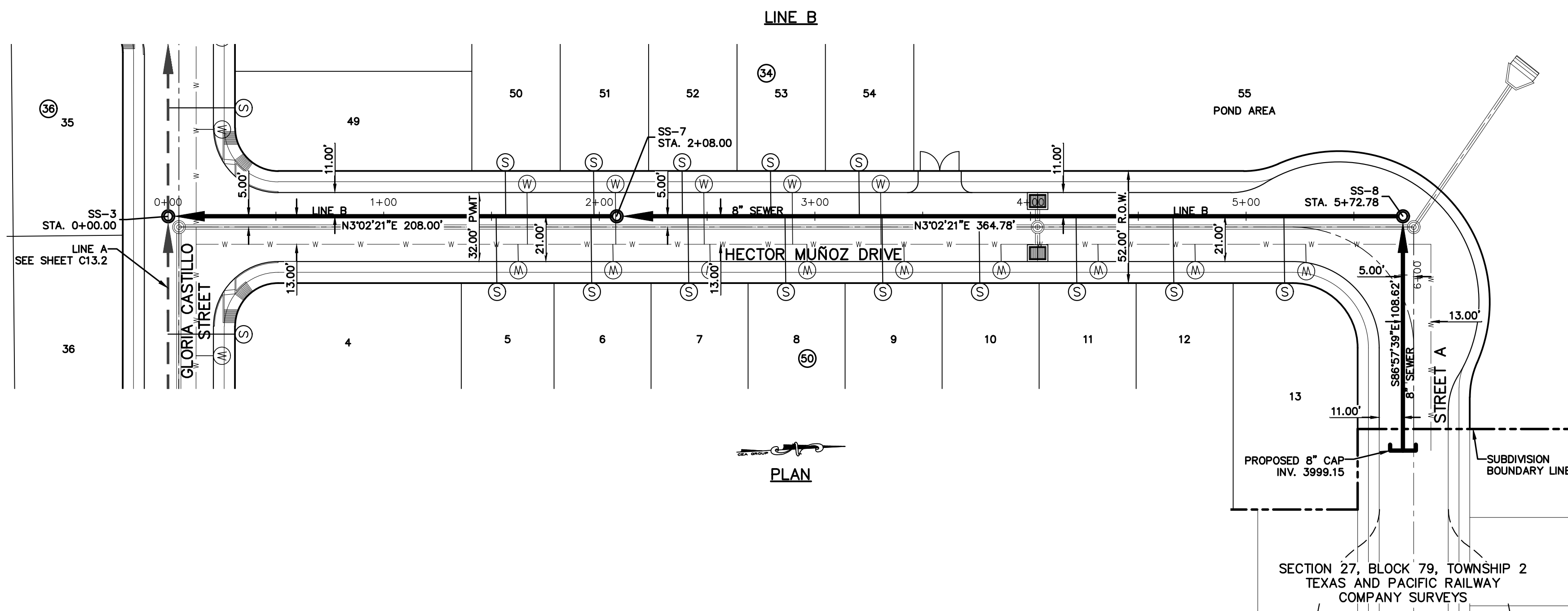


PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SANITARY SEWER
PLAN & PROFILE
LINE A**

SHEET NO.
C13.2

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	705.00'	111.77'	56.00'	111.65'	S11°30'12"E	009°05'00"
C2	705.00'	65.45'	32.75'	65.42'	S04°18'07"E	005°19'08"
C3	1065.00'	18.91'	9.45'	18.91'	N17°34'56"W	001°01'02"
C4	1935.00'	287.40'	143.97'	287.14'	S13°50'09"E	008°30'36"
C5	1935.00'	69.97'	34.99'	69.97'	S08°32'41"E	002°04'19"



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MCI SURVEILLANCE	(800) MCI-WORK
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TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 945-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

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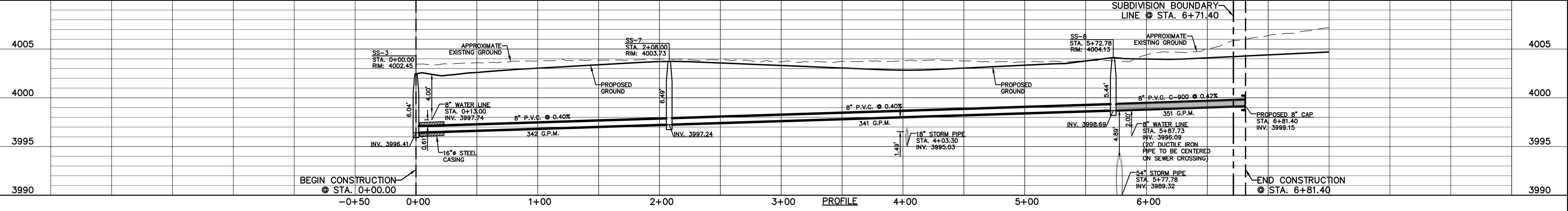
NOTE:
20" C-900, CLASS 150 SEGMENT SHALL BE CENTERED ABOVE ALL WATER CROSSINGS, ON SEWER LINE WHERE APPLICABLE

- LEGEND:**
- PROPOSED STORM SEWER LINE
 - PROPOSED WATER LINE
 - EXISTING SEWER LINE
 - EXISTING WATER LINE
 - PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)
 - PROPOSED SEWER LINE
 - PROPOSED WATER SERVICE
 - PROPOSED SEWER SERVICE
 - PROPOSED SEWER MANHOLE

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. ELEVATION: 4014.90 (NAND 88) (4005+40 CITY DATUM)

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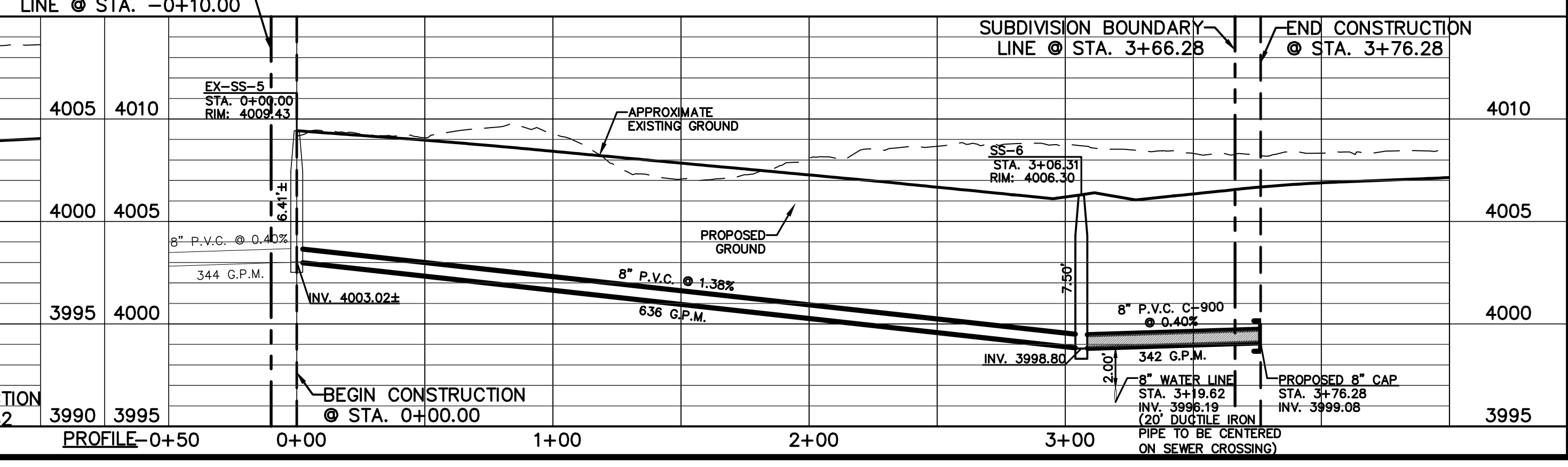
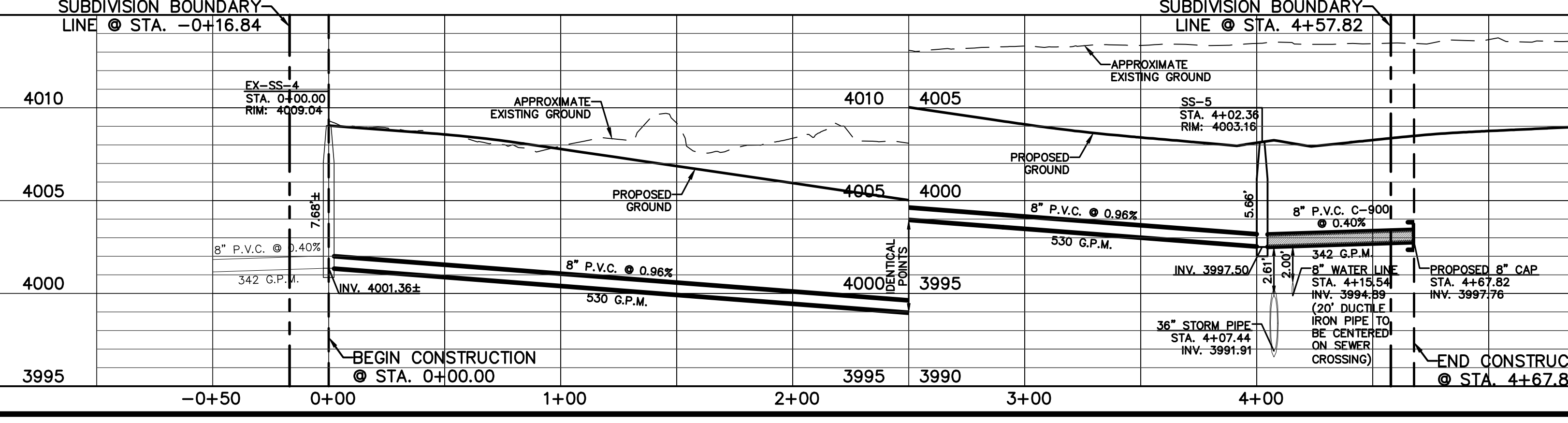
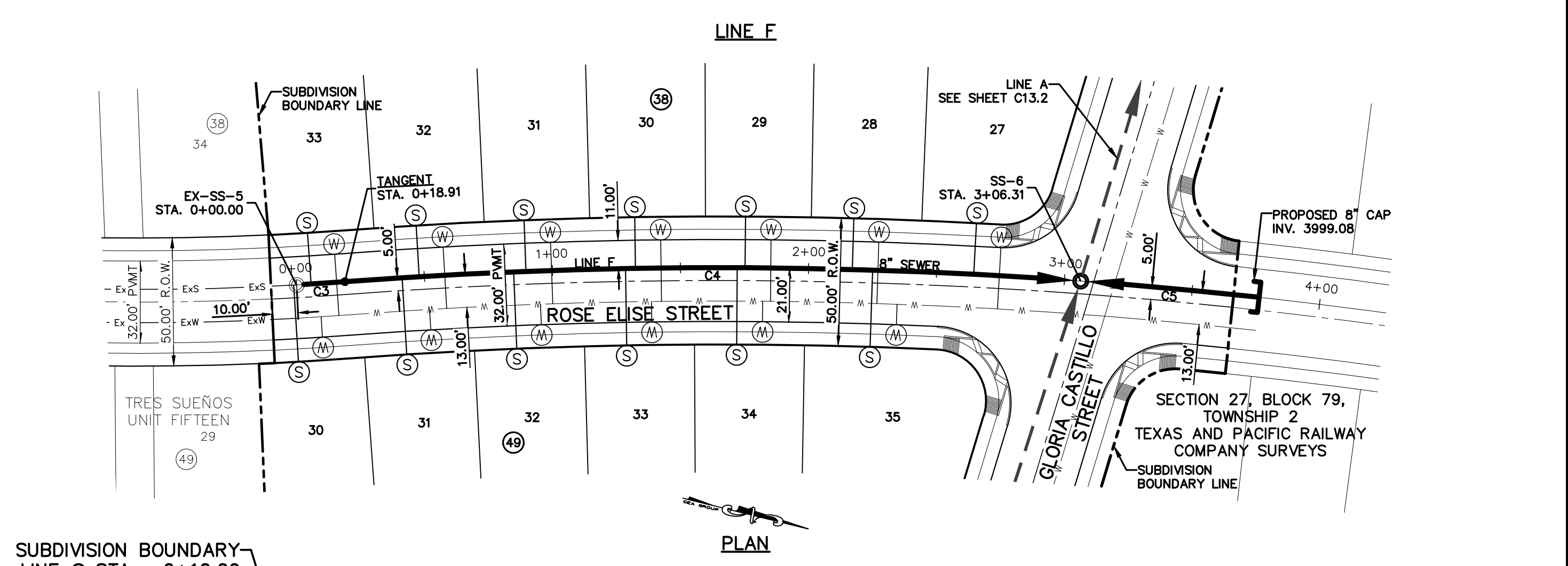
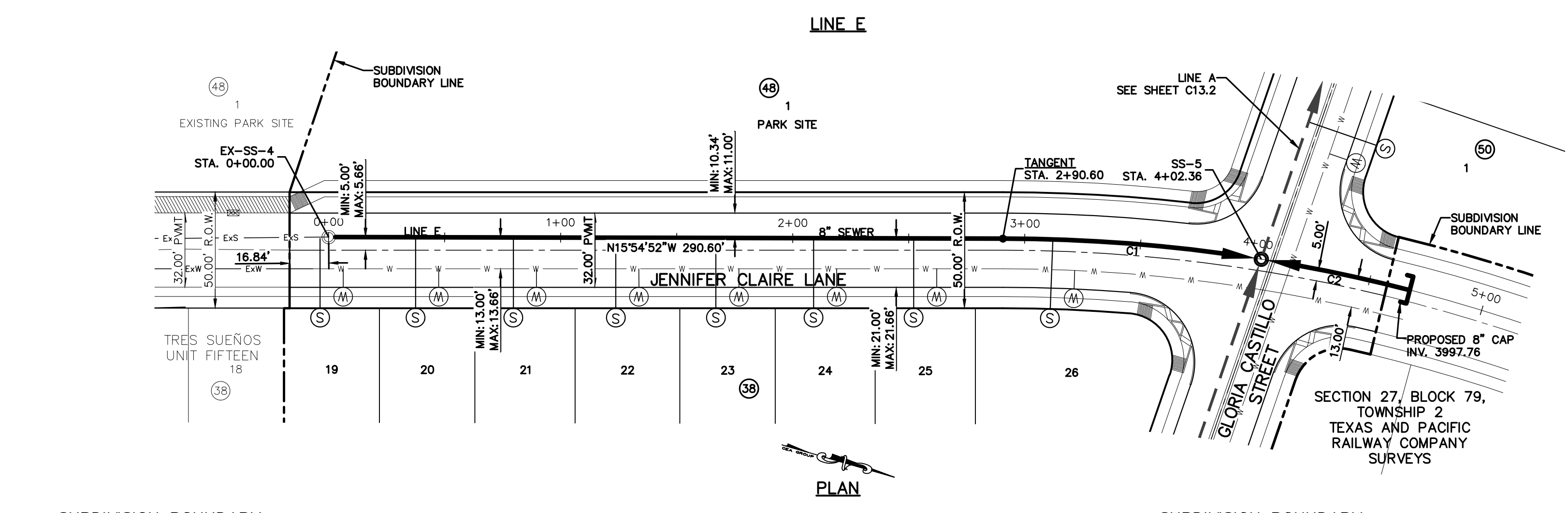
CEA
Group
TEXAS REGISTERED ENGINEERING FIRM F-4564



ENGINEER'S SEAL

SCALE: Horizontal: 1"=40'
Vertical: 1"=5'
Contour Interval: N/A

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB No.: 2025-021



PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
SANITARY SEWER
PLAN & PROFILE
LINE B, E & F

SHEET NO.
C13.3

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 945-6005
AT&T	(800) 852-3786
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DATE	REVISIONS	BY

GENERAL NOTES:

- MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
- CASTING TO BE SMOOTH & VOID OF AIR HOLES.
- CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
- AS-CAST DIMENSIONS MAY VARY $\frac{1}{8}$ " \pm / PER FOOT (AASHTO M306-07).
- WEIGHT MAY VARY 5% \pm (AASHTO M306-07).

MANHOLE RING	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	33"	25 $\frac{1}{2}$ "
B	31 $\frac{3}{4}$ "	24 $\frac{3}{8}$ "
C	31 $\frac{1}{2}$ "	23 $\frac{7}{8}$ "
D	30"	22 $\frac{1}{2}$ "
E	39 $\frac{1}{2}$ "	32"
F	$\frac{5}{8}$ "	$\frac{1}{16}$ "
WEIGHT	205 lbs.	170 lbs.

*OBSOLETE - DO NOT USE (FOR REFERENCE ONLY)

STANDARD DETAIL DATE: 11/1992 REV: 2/21/2011 SEWER MANHOLE RING N.T.S. el paso WATER DETAIL No. 377

1 STANDARD MANHOLE RING SCALE: N.T.S.

GENERAL NOTES:

- MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
- CASTING TO BE SMOOTH & VOID OF AIR HOLES.
- CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
- AS-CAST DIMENSIONS MAY VARY $\frac{1}{8}$ " \pm / PER FOOT (AASHTO M306-07).
- WEIGHT MAY VARY 5% \pm (AASHTO M306-07).

CONSTRUCTION KEY NOTES:

- LIFTING NOTCH.
- $\frac{3}{4}$ " RAISED LETTERING.
- 1" SQUARES ($\frac{3}{4}$ " TALL) WITH $\frac{3}{8}$ " SPACE BETWEEN.
- REINFORCING RIBS.
- SLOT.

MANHOLE COVER	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	31 $\frac{3}{8}$ "	23 $\frac{7}{8}$ "
B	28 $\frac{3}{8}$ "	20 $\frac{3}{8}$ "
C	24 $\frac{3}{8}$ "	16 $\frac{3}{8}$ "
D	21 $\frac{7}{8}$ "	14 $\frac{3}{8}$ "
WEIGHT	200 lbs.	165 lbs.

*OBSOLETE - DO NOT USE (FOR REFERENCE ONLY)

STANDARD DETAIL DATE: 11/1992 REV: 2/21/2011 SEWER MANHOLE COVER N.T.S. el paso WATER DETAIL No. 378

2 STANDARD COVER DETAIL SCALE: N.T.S.

GENERAL NOTES:

- IN GROUNDWATER CONDITIONS ONLY, P.V.C. SADDLES OR TEES ARE TO BE ENCASED WITH CLASS B CONCRETE.
- UNDER CERTAIN CONDITIONS FIELD INVESTIGATIONS WILL BE REQUIRED TO DETERMINE THE ADEQUACY OF THE DEPTH ON THE LATERAL.
- WHEN GROUND WATER IS ENCOUNTERED SERVICE RISER SHALL BE EXTENDED ABOVE ANTICIPATED WATER TABLE LEVEL.

CONSTRUCTION KEY NOTES:

- CONTRACTOR TO INSTALL SEWER SERVICE LINE FROM THE MAIN TO A LOCATION 6" BEHIND THE CURB OR 18" BEYOND THE EDGE OF PAVEMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.
- 18" FOR STANDARD SUBDIVISION, 3.5' FOR SUBDIVISIONS WITH ON-SITE PONDING OR FLAT TERRAIN.
- RISERS OR LATERALS EXTENDING BEYOND EXISTING PAVING SHALL BE INSTALLED TO 3.5' MINIMUM TOP OF GROUND OR PAVEMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.
- PLASTIC METALLIC MARKING TAPE RISING TO WITHIN 6" OF GROUND SURFACE OR METALLIC DISK.
- WOODEN STAKE (1"x2"x36") VERTICALLY PLACED AT PLUGGED END OF PROPOSED SERVICE LINE.

STANDARD DETAIL DATE: 11/1992 REV: 1/23/2009 SEWER SERVICE RISER AND SERVICE LINE CONNECTION N.T.S. el paso WATER DETAIL No. 391

3 SEWER SERVICE RISER AND SERVICE LINE CONNECTION SCALE: N.T.S.

GENERAL NOTES:

- MANHOLE CONNECTOR SHALL BE KOR-N-SEAL OR EQUAL MEETING THE REQUIREMENTS OF ASTM C-923. CONNECTOR SHALL BE FURNISHED BY CONTRACTOR.

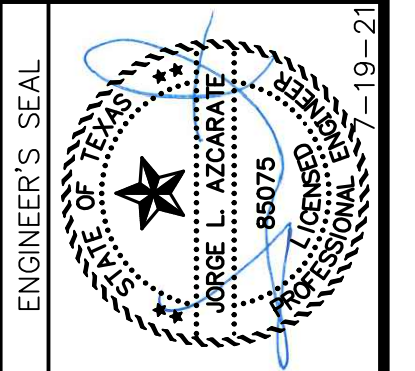
CONSTRUCTION KEY NOTES:

- PRECAST MANHOLE BARREL.
- FLEXIBLE CONNECTOR.
- PIPE CLAMP SS 316.
- APPROVED PIPE.
- PRECAST MANHOLE BASE.
- GROUT AS REQUIRED TO FORM SMOOTH CHANNEL TO MANHOLE INVERT.
- PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE.
- EXPANSION BAND SS 316.
- FILL SPACE WITH GROUT.

STANDARD DETAIL DATE: 11/1992 REV: 8/13/2009 PIPE CONNECTION TO MANHOLE N.T.S. el paso WATER DETAIL No. 376

4 PIPE CONNECTION TO MANHOLE SCALE: N.T.S.

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El Paso, TX 79902
915.544.5232
www.ceagroup.net
TEXAS REGISTERED ENGINEERING FIRM F-4564



SCALE	N/A
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2021
DESIGN BY:	K.A.P.
DRAWN BY:	K.A.P./C.E.D.
CHKD. BY:	F.Z.
APPVD. BY:	J.L.A.
JOB No.:	2025-021

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SANITARY SEWER
DETAILS**

(SHEET 1 OF 3)

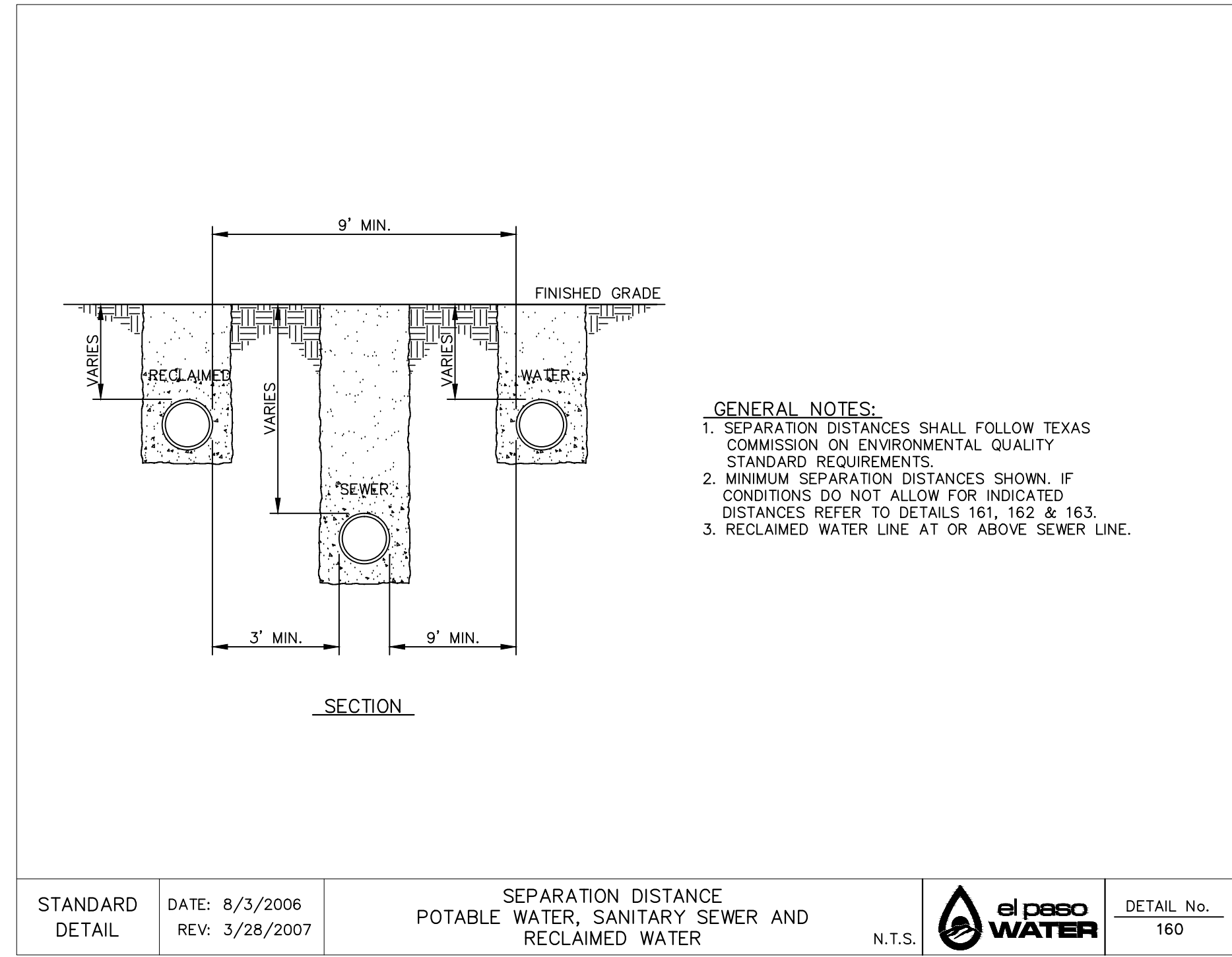
SHEET NO.

C13.5

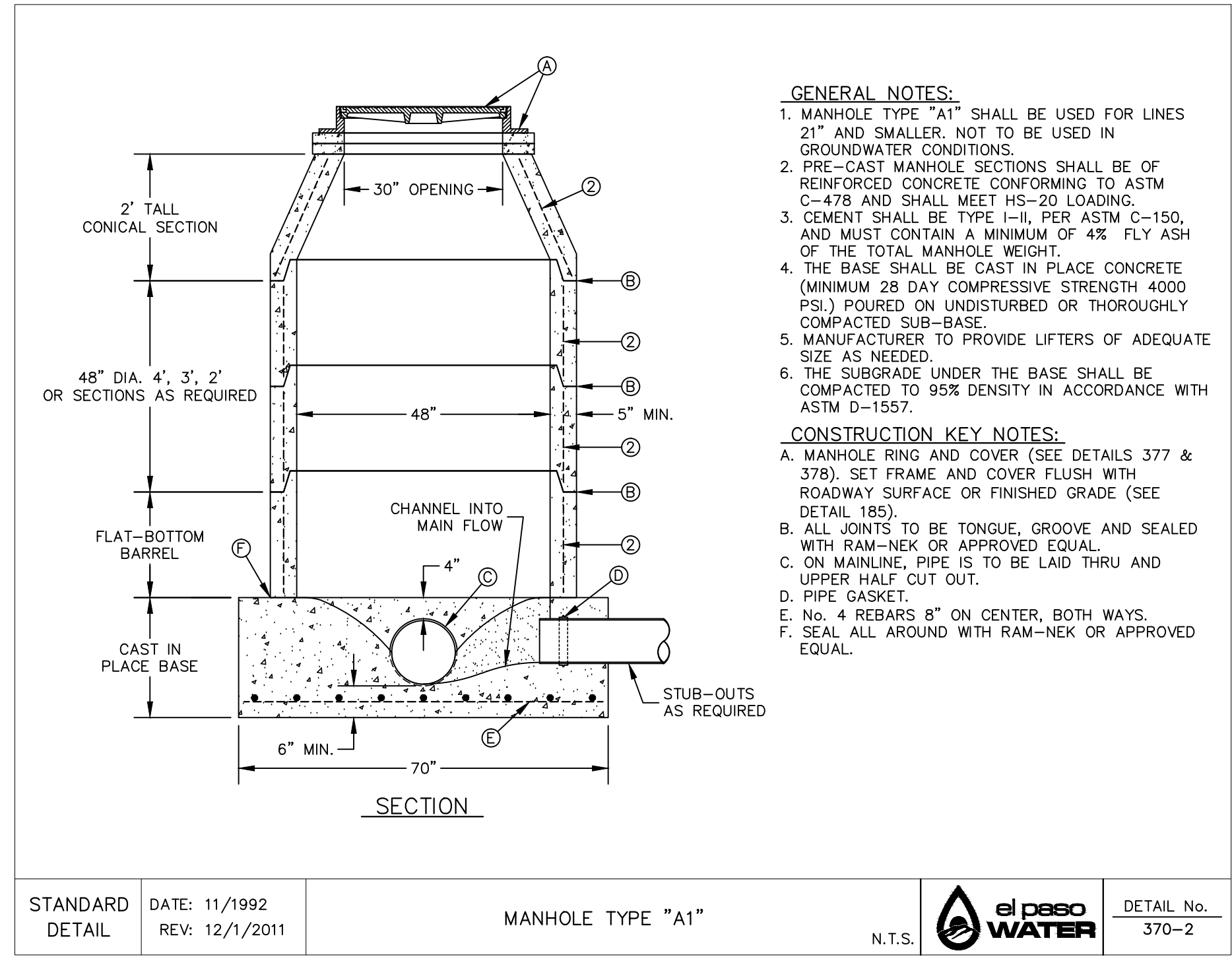
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING!
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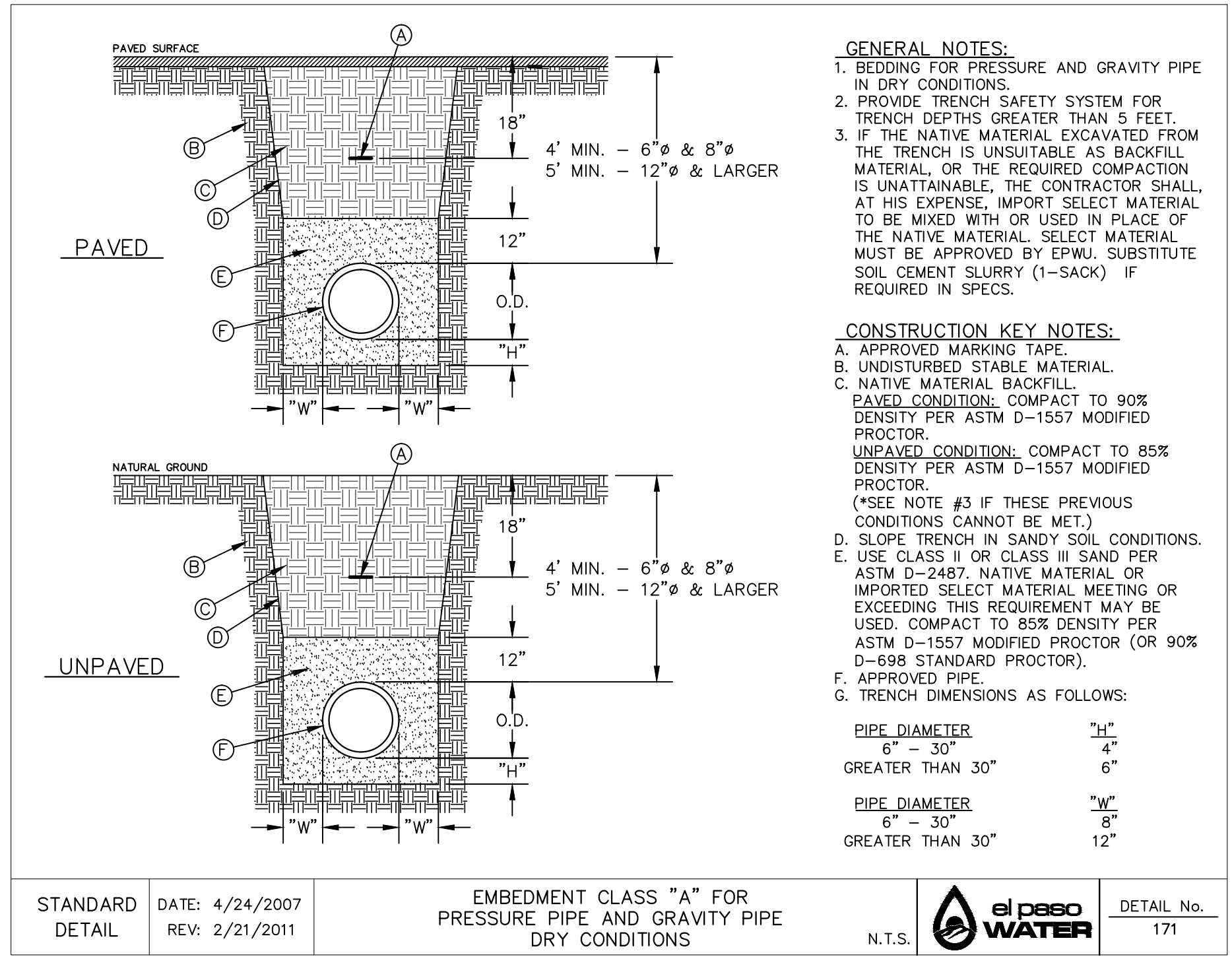
REFERENCES - BENCHMARKS	CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE.
ELEVATION: 4014.90 (NAND 88)	(4005-40 CITY DATUM)
DATE	REVISIONS
BY	



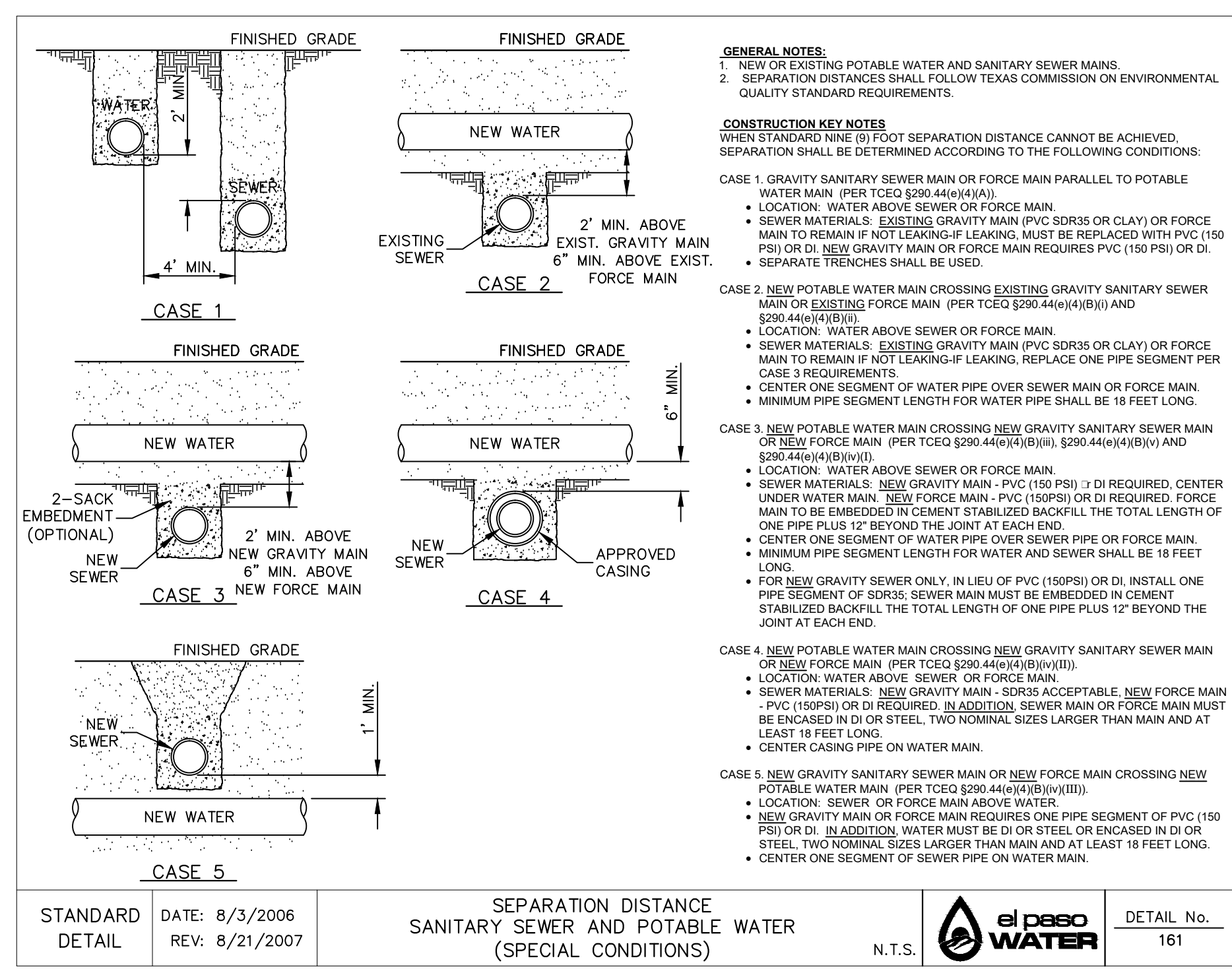
1. SEPARATION DISTANCE--POTABLE WATER, SANITARY SEWER AND RECLAIMED WATER
SCALE: N.T.S.



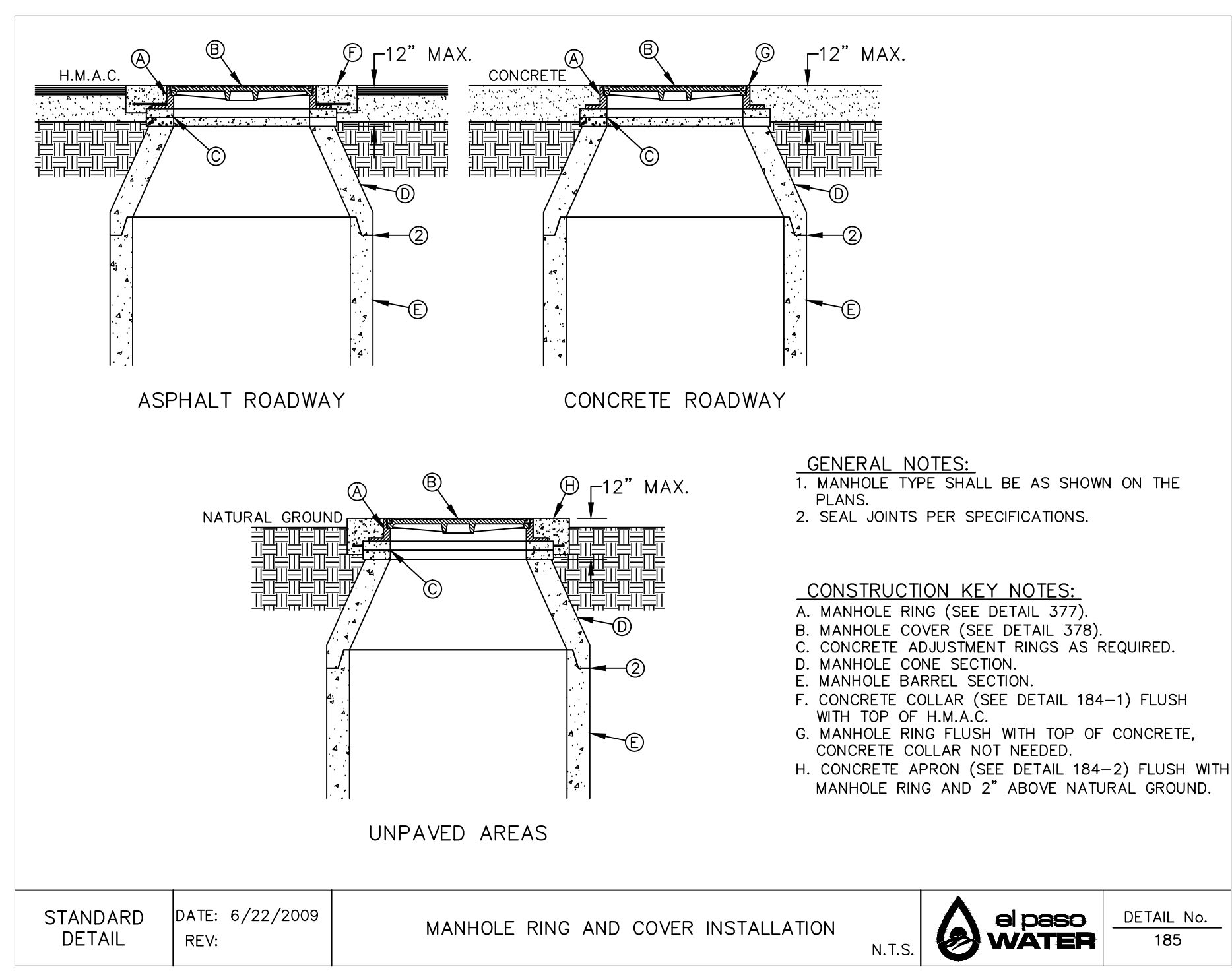
2. STANDARD MANHOLE TYPE "A1"
SCALE: N.T.S.



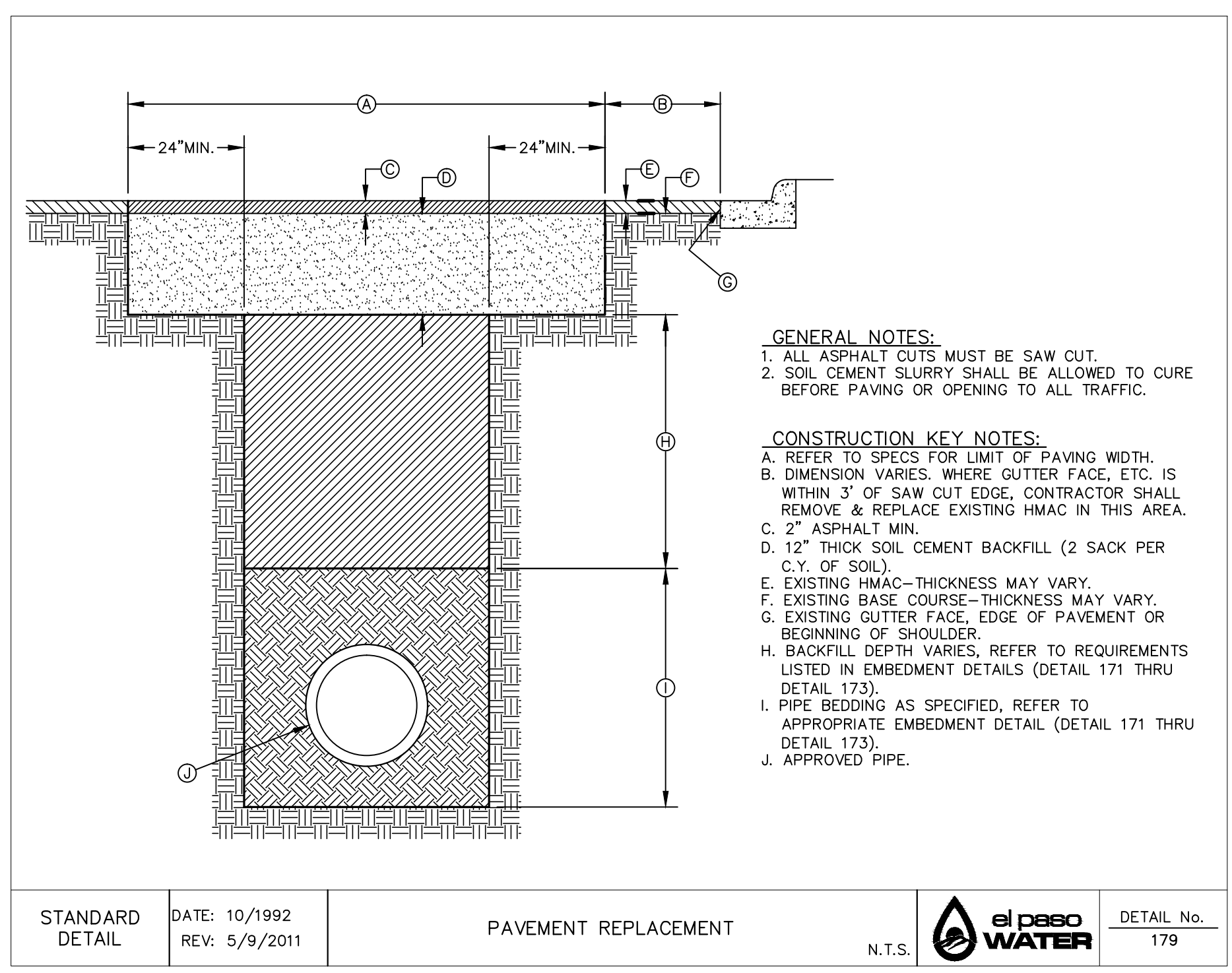
3. BEDDING CLASS DETAILS FOR FOR P.V.C. PRESSURE PIPE
SCALE: N.T.S.



4. SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)
SCALE: N.T.S.



5. STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL
SCALE: N.T.S.



6. PAVEMENT REPAIR DETAIL
SCALE: N.T.S.

813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.9292
www.ceagroup.net

CEAG
Group
Texas Registered Engineering Firm F-4564

ENGINEER'S SEAL
Jorge L. Azcarate
Professional Engineer
No. 19192
State of Texas

SCALE: N/A
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB No.: 2025-021

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SANITARY SEWER
DETAILS**

(SHEET 2 OF 3)
SHEET NO.

C13.6

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720
 EL PASO ENERGY CORPORATION (915) 496-5244
 EL PASO WATER UTILITIES (915) 594-5500
 MCI SURVEILLANCE (800) MCI-WORK
 TIME WARNER COMMUNICATIONS (915) 772-1123
 TEXAS GAS SERVICE (915) 680-7200
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 AT&T (800) 852-3786
 U.S. SPRINT TELECOMM (800) 521-0579

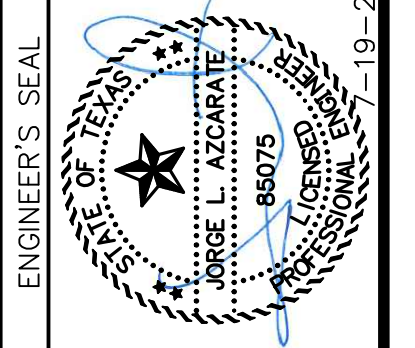
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REFERENCES - BENCHMARKS

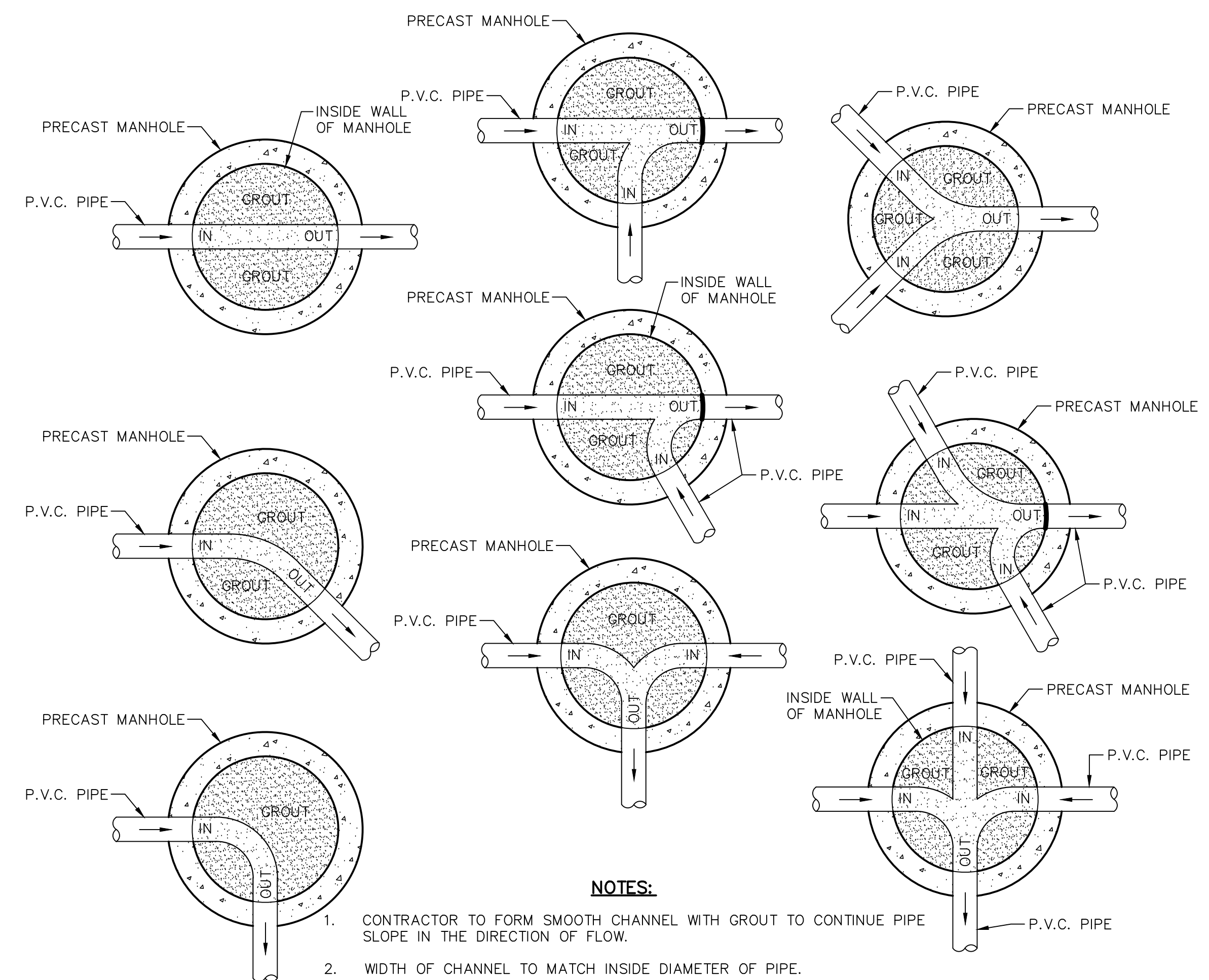
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DATE	REVISIONS	BY

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 El Paso, TX 79902
 915.544.5232
 www.ceagroup.net
CEA GROUP
 TEXAS REGISTERED ENGINEERING FIRM F-4564

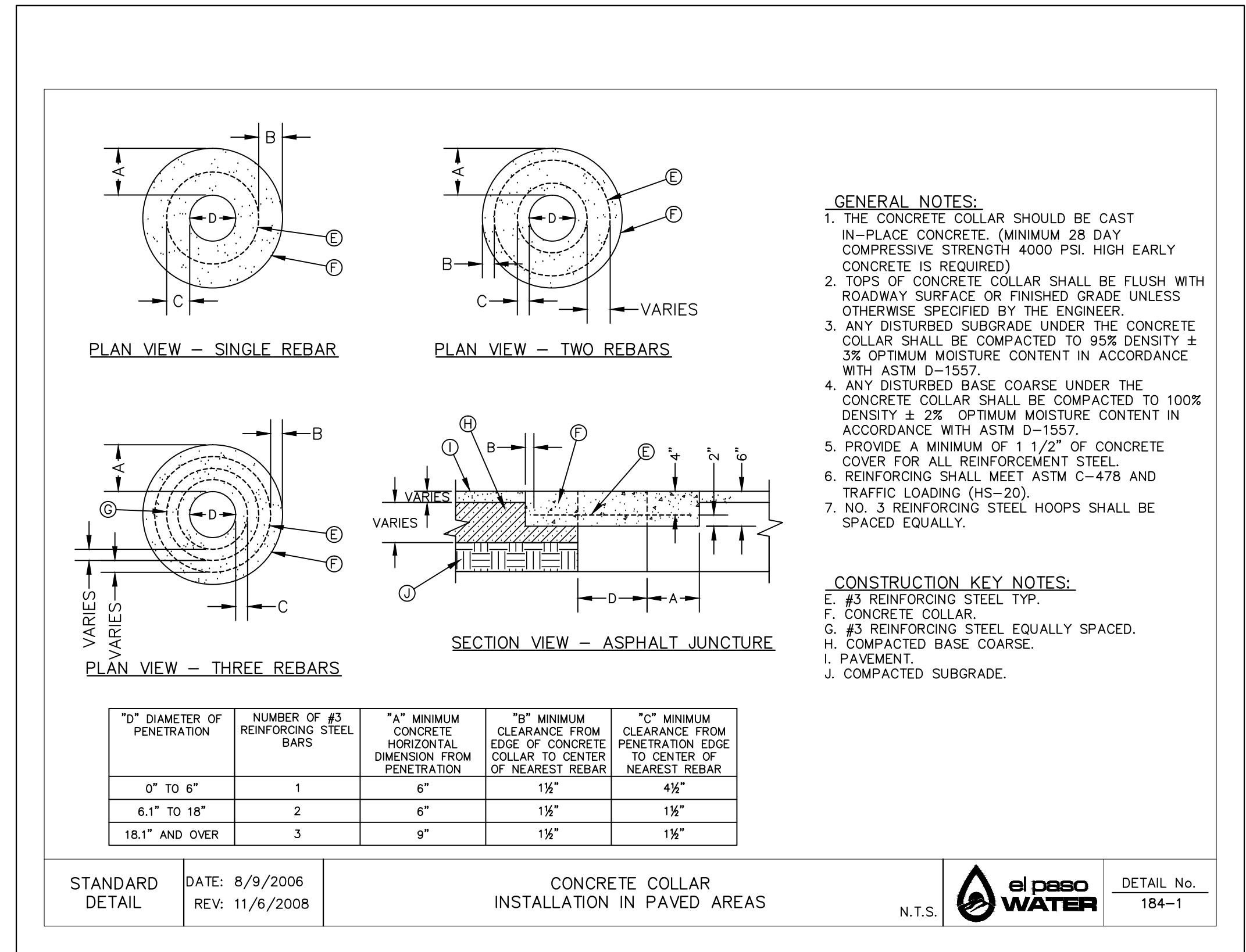


SCALE	N/A
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2021
DESIGN BY:	K.A.P.
DRAWN BY:	K.A.P./C.E.D.
CHKD. BY:	F.Z.
APPVD. BY:	J.L.A.
JOB No.:	2025-021



- NOTES:**
- CONTRACTOR TO FORM SMOOTH CHANNEL WITH GROUT TO CONTINUE PIPE SLOPE IN THE DIRECTION OF FLOW.
 - WIDTH OF CHANNEL TO MATCH INSIDE DIAMETER OF PIPE.
 - WHEN DIFFERENT SIZES OF PIPE ARE CONNECTING TO MANHOLE, TAPER WIDTH OF CHANNEL TO TOTAL LENGTH OF INSIDE DIAMETER OF MANHOLE.
 - GROUT TO BE USED FOR BOTH MANHOLES AND DROP MANHOLES. NO P.V.C. PIPE SHALL BE INSTALLED IN MANHOLE.
 - REFER TO PLAN & PROFILE SHEETS FOR SIZE OF PIPES AND MANHOLES.

1
 C13.7 **TYPICAL MANHOLE INVERT PLANS**
 SCALE: N.T.S.



2
 C13.7 **CONCRETE APRON IN PAVED AREAS**
 N.T.S.

PROJECT TITLE
TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE
SANITARY SEWER
DETAILS
 (SHEET 3 OF 3)
 SHEET NO.

C13.7



UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6000
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

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FOR FIELD LOCATING EXISTING UTILITIES

LEGEND:

- X — X — SLIT FENCE OR EARTHEN BERM
- STABILIZED CONSTRUCTION ENTRANCE
- STAGING AREA
- PORTABLE TOILETS
- WASH OUT
- LOCATION OF NOI AND SWP SIGN POSTING

NOTE:

1. SLIT FENCE AROUND THE PARK PERMETER SHALL REMAIN AND MAINTAINED UNTIL THE PARK IS COMPLETED AND ACCEPTED BY THE CITY OF EL PASO.



SITE PLAN
SCALE: 1" = 100'

PROJECT TITLE
**TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

STORM WATER
POLLUTION
PREVENTION PLAN

SHEET NO.

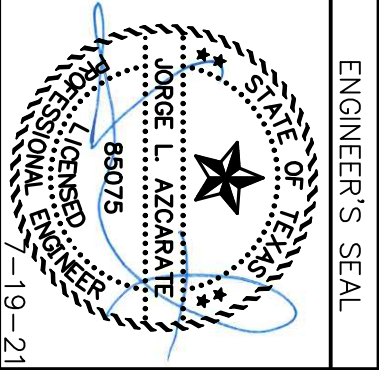
C14.2

SCALE: 1"=100'

Horizontal: N/A
Vertical: N/A

Contour Interval: N/A

DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPD. BY: J.L.A.
JOB No.: 2025-021



ENGINEER'S SEAL

ceegroup
813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5292
www.ceegroup.net

TEXAS REGISTERED ENGINEERING FIRM F-4564

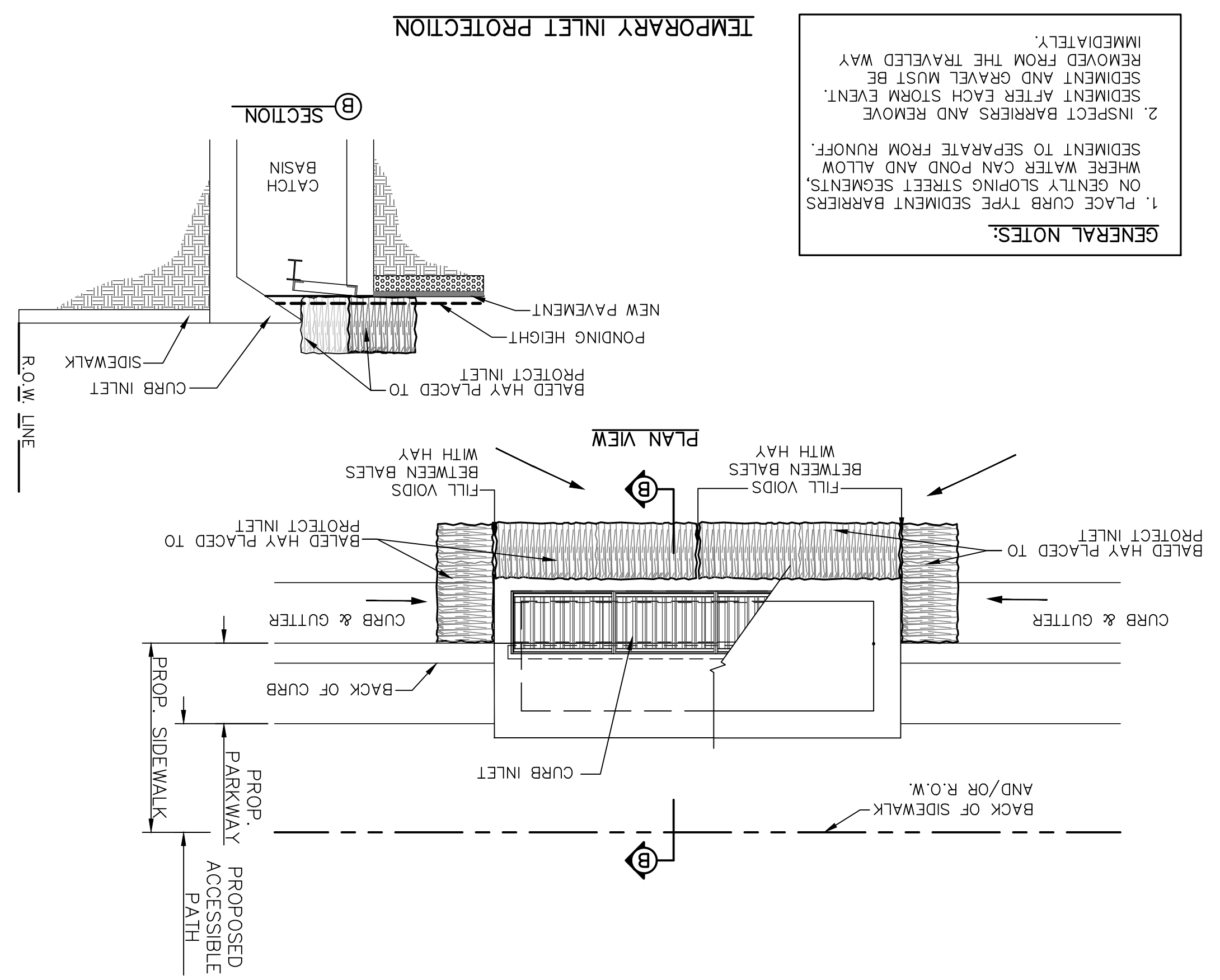
REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S68°43'37" E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. (NAND 88) (4005.40 CITY DATUM) ELEVATION: 4014.90

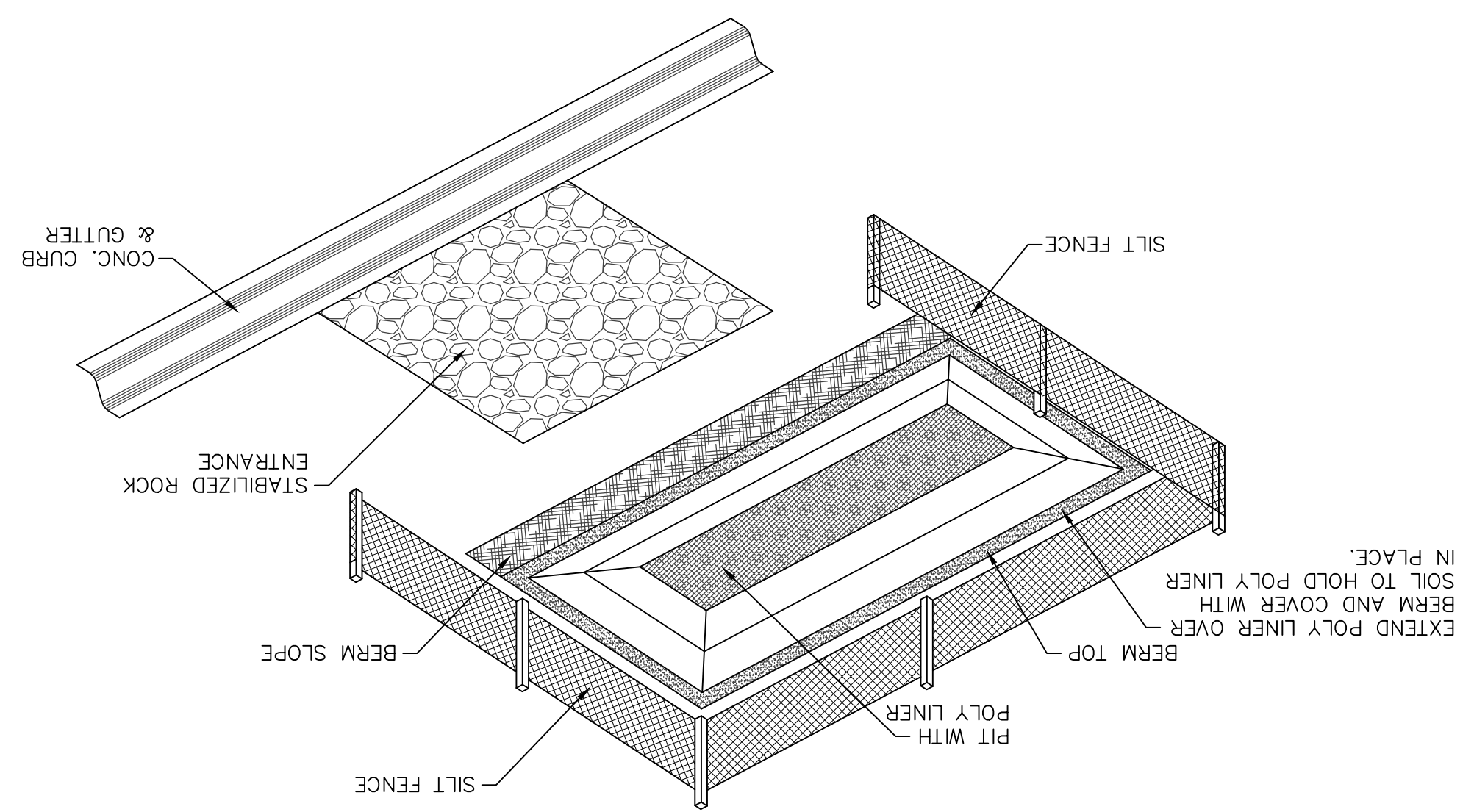
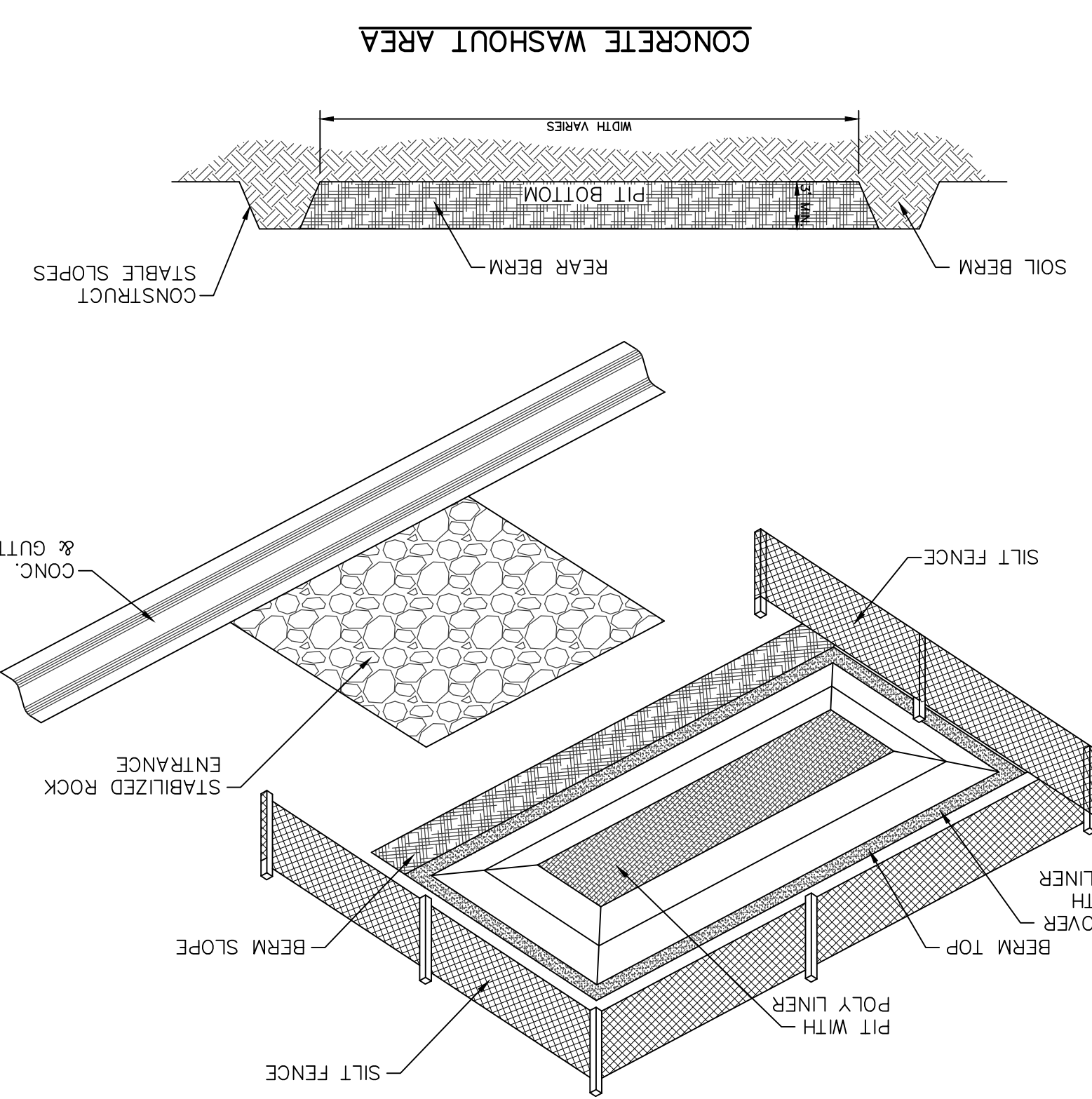
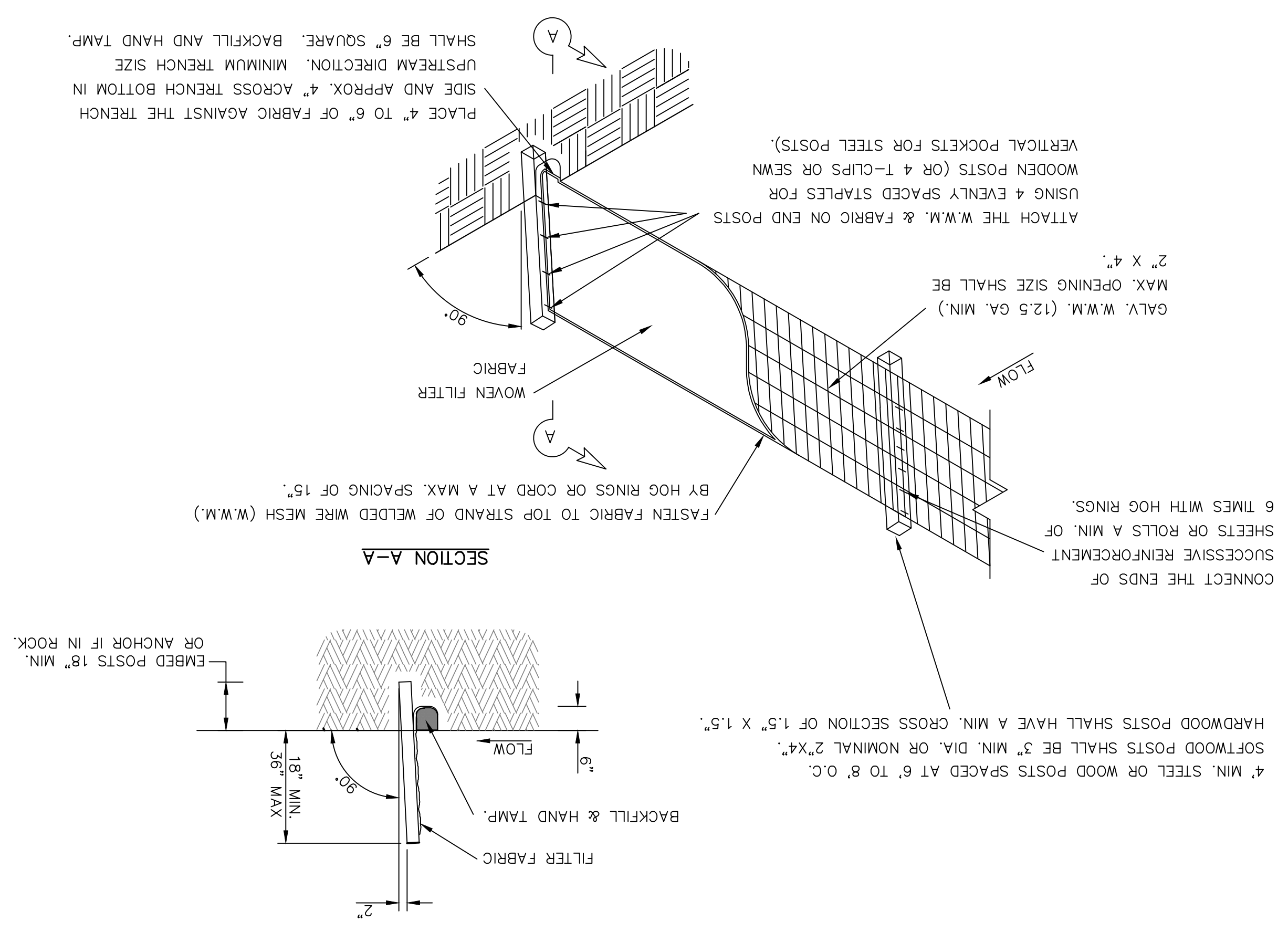
DATE	REVISIONS	BY

GENERAL NOTES:

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.



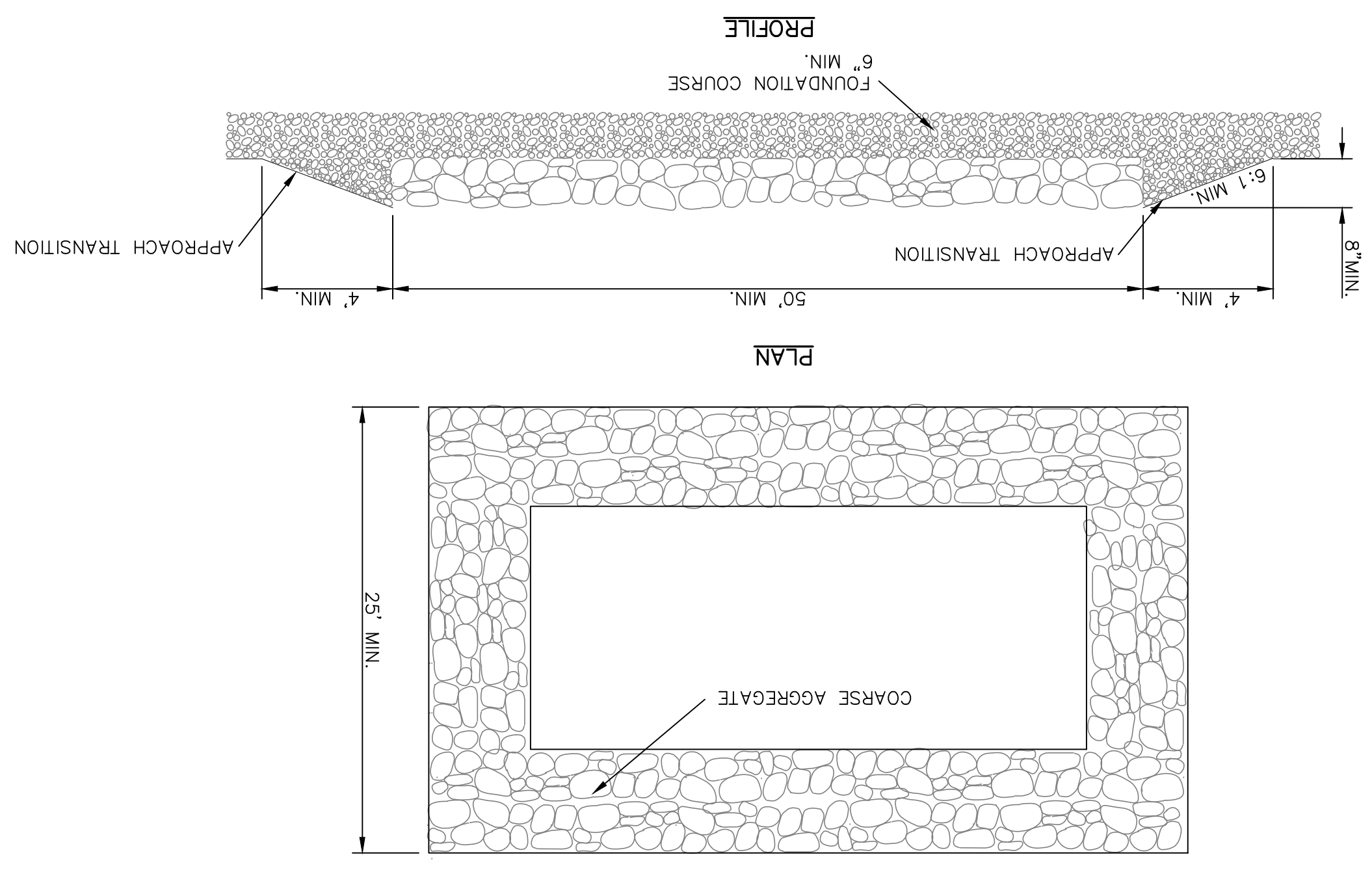
TEMPORARY SEDIMENT CONTROL FENCE



CONSTRUCTION EXIT (TYPE 1)

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

GENERAL NOTES



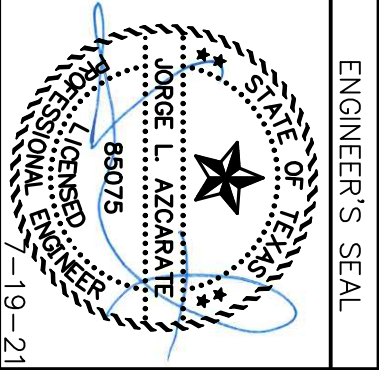
C14.3

SHEET NO.
STORM WATER
POLLUTION
PREVENTION PLAN
DETAILS

SHEET TITLE

PROJECT TITLE
TRES SUEÑOS
UNIT TWENTY THREE
SUBDIVISION IMPROVEMENTS

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2021
DESIGN BY: K.A.P.
DRAWN BY: K.A.P./C.E.D.
CHKD. BY: F.Z.
APPVD. BY: J.L.A.
JOB NO.: 2025-021



ENGINEER'S SEAL
813 N. Kansas St.
Suite 300
El Paso, TX 79902
915.544.5292
www.oceagroup.net
TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS

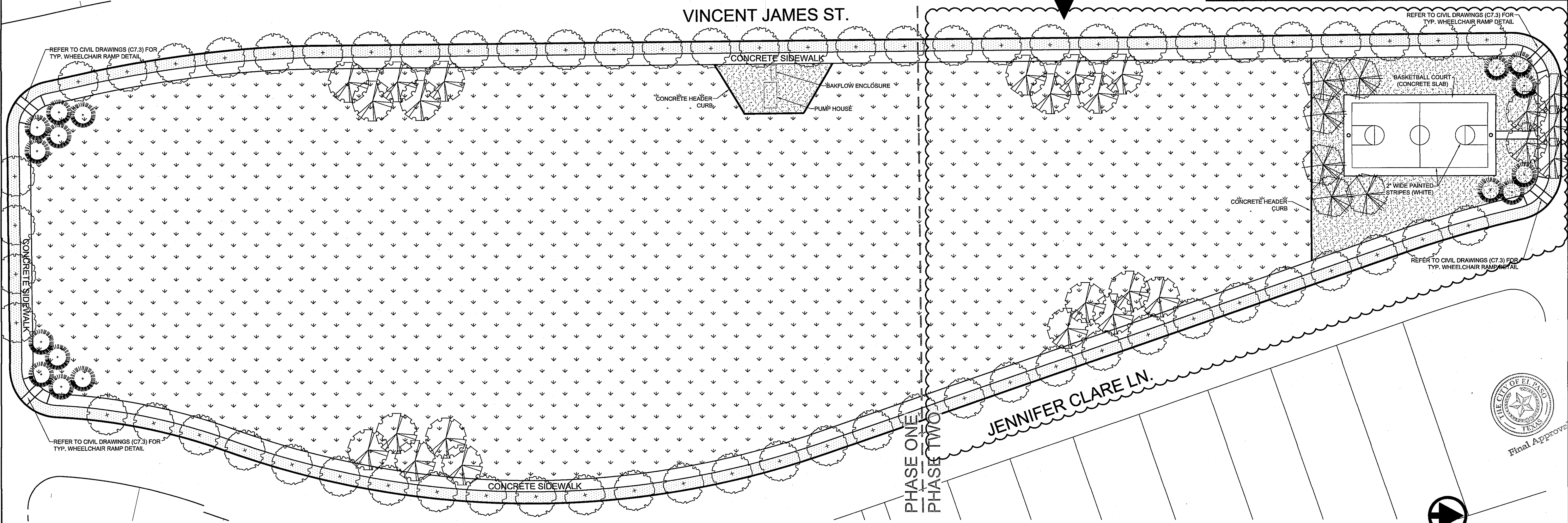
CITY MONUMENT AT POINT OF CURVE CENTERLINE RIGHT BEING BLDG. - S08+43.37E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. (NAMD 88) (4005.40 CITY DATUM) ELEVATION: 4014.90 (NAMD 88)

DATE	REVISIONS	BY

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SEC	(800) 545-8005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

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PHASE 2 PARK LANDSCAPE TO BE INSTALLED DURING FUTURE TRES SUENOS SUBDIVISION DEVELOPMENT



REFERENCES - BENCHMARKS	
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BROWN BLVD. SUBDIVISION. A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....	4005.40

IRRIGATOR'S SEAL

 CARLOS HOLGUIN
 15807
 11/22/16
 TEXAS REGISTERED ENGINEERING FIRM F4584
 4712 Woodrow Bean, Ste. F El Paso, TX 79924
 915.344.5232 | www.caegroup.net

LANDSCAPE PLAN

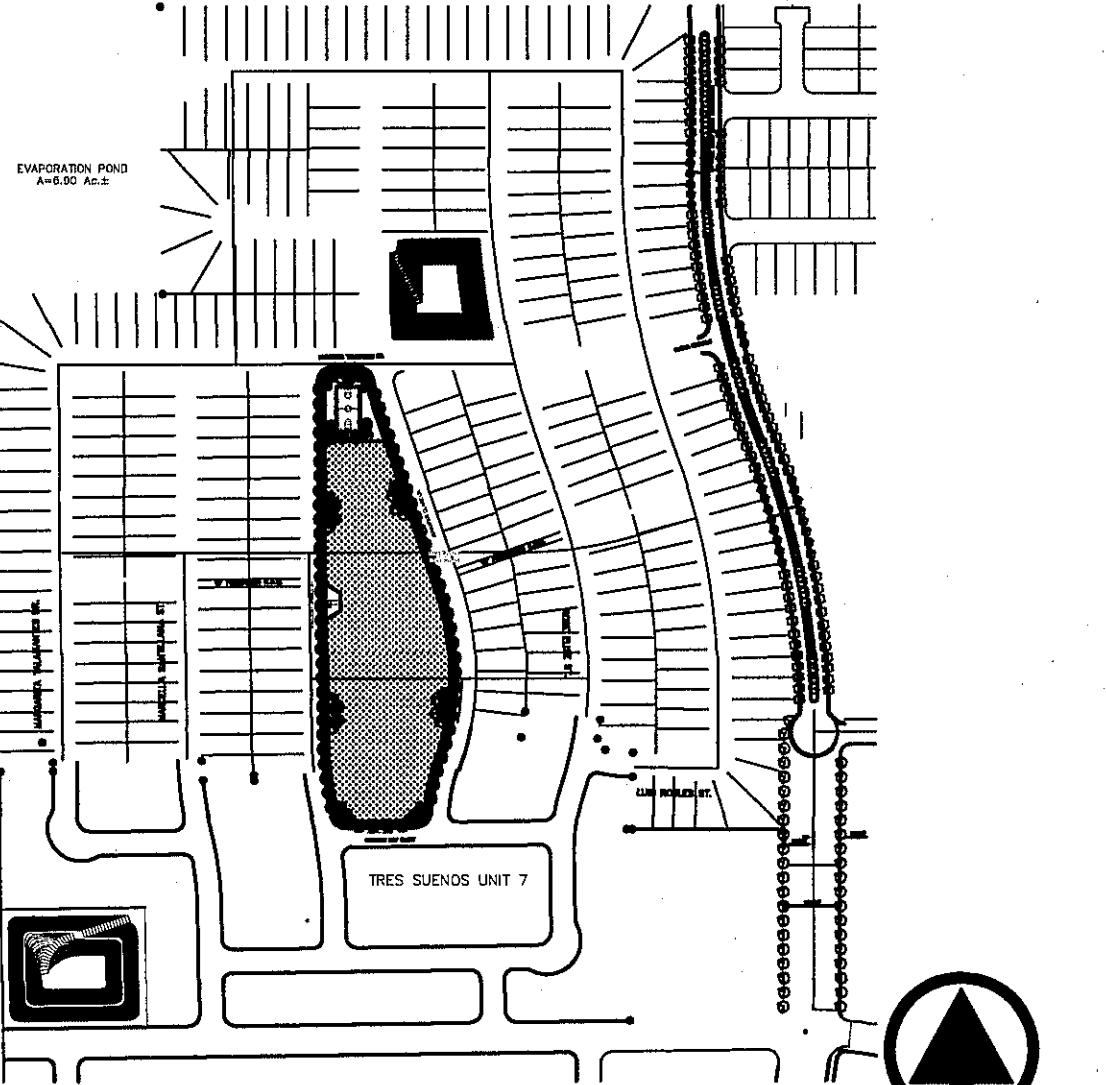
NORTH
SCALE: 1" = 30'

LANDSCAPE LEGEND

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY
2" CALIPER TREE - 10' HEIGHT MINIMUM			
	LACE BARK ELM	ULMUS PARVIFOLIA	64
	CHINQUAPIN OAK	PROSOPIS MUHLENBERGII	25
	CHINESE PISTACHE	PISTACIA CHINENSIS	6
	MONDEL PINE	PINUS ELДАРICA	16
TURF, GRAVELS, & MULCHES			
	GRASS - SANTA ANA, PER NOTES		165,000 SQ. FT.
	FRANKLIN RED SCREENINGS, 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER		11,130 SQ. FT.
	3/4" FRANKLIN RED ROCK, 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER		15,300 SQ. FT.

PLAN NOTES

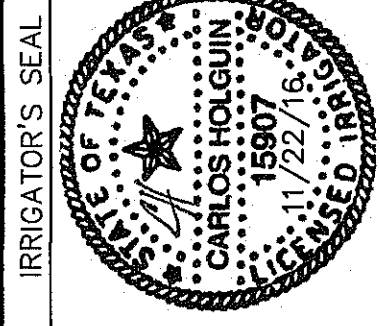
- CONTRACTOR TO FOLLOW ALL PLANS, NOTES (L-6), AND ACCOMPANYING CIVIL ENGINEERING PLANS.
- CONTRACTOR TO FOLLOW ALL ADAAG & TAS RULES AND REGULATIONS, AND IS RESPONSIBLE FOR COMPLETION OF LICENSED INSPECTION.
- CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED FOR CONSTRUCTION.
- ALL UTILITIES TO BE PLACED UNDERNEATH THE PROPOSED 7' WIDE SIDEWALK OR AS CLOSE AS POSSIBLE TO THE CURB AND GUTTER TO AVOID FUTURE CONFLICT WITH THE PROPOSED STREET TREES LINE OR DAMAGE TO THE UTILITIES; IF INSTALLATION OF UTILITIES IS NECESSARY, THEY SHALL BE AT MINIMUM FIVE (5') FEET DEEP.
- TRANSFORMERS, PEDESTAL OR JUNCTION BOXES NOT TO BE INSTALLED WITHIN "PARK SITE" OR WITHIN NEW SIDEWALKS.
- ANY UNSUITABLE SOILS, CLAY SOILS, COARSE SANDS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS.



LOCATION MAP

NORTH
SCALE: 1" = 400'

PARKS DEPARTMENT
 REVIEWED BY: *[Signature]* 01/10/2017



SCALE:
 Horizontal: per scale
 Vertical: per scale
 Contour Interval: N/A
 DATE: 8-10-16
 DESIGN BY: JBA & CH
 DRAWN BY: CH
 CHKD. BY: JBA
 APPVD. BY: JBA
 JOB No. 2025-004LD

PROJECT TITLE
VIVID DREAMS PARK
 4960 VINCENT JAMES ST.
 LOT 1, BLOCK 48
 TRES SUENOS UNIT FIFTEEN
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE
LANDSCAPE PLAN
 SHEET NO.

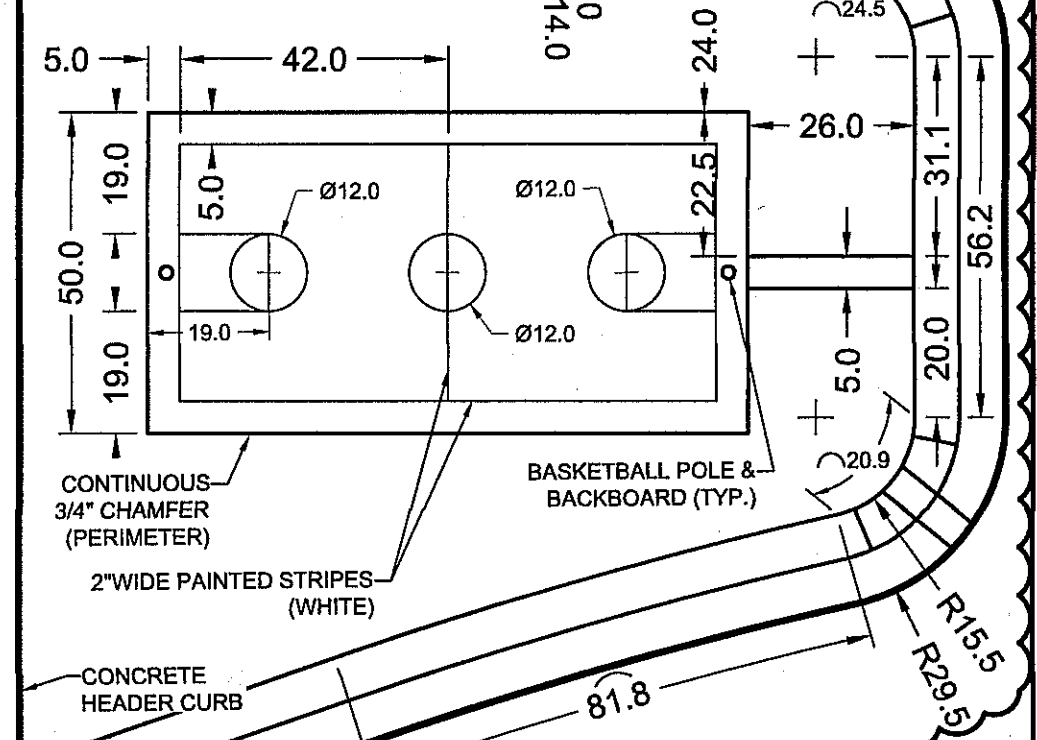
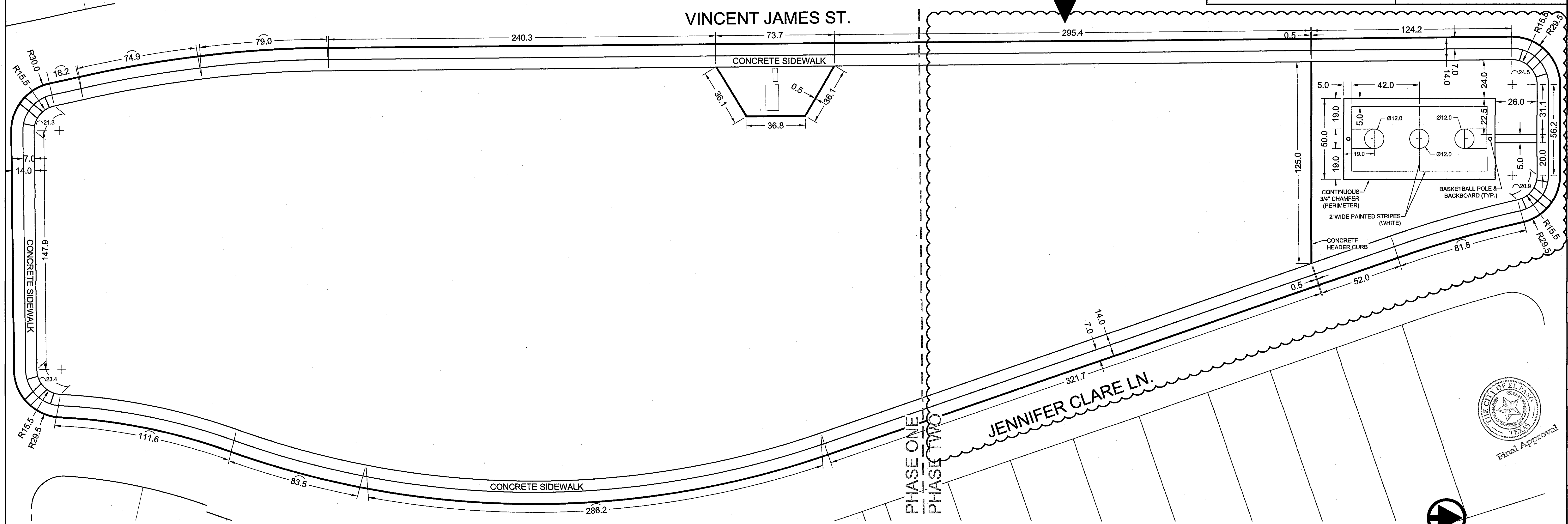
L-1
 SHEET 1 OF 8



UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 486-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6008
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

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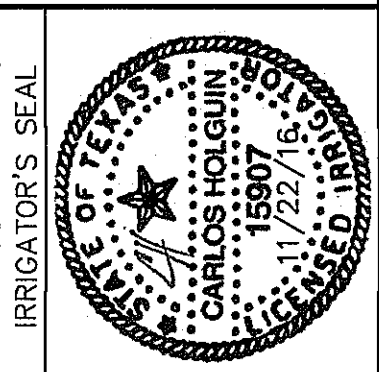
PHASE 2 PARK LANDSCAPE TO BE INSTALLED DURING FUTURE TRES SUEÑOS SUBDIVISION DEVELOPMENT



DATE	REVISIONS	BY

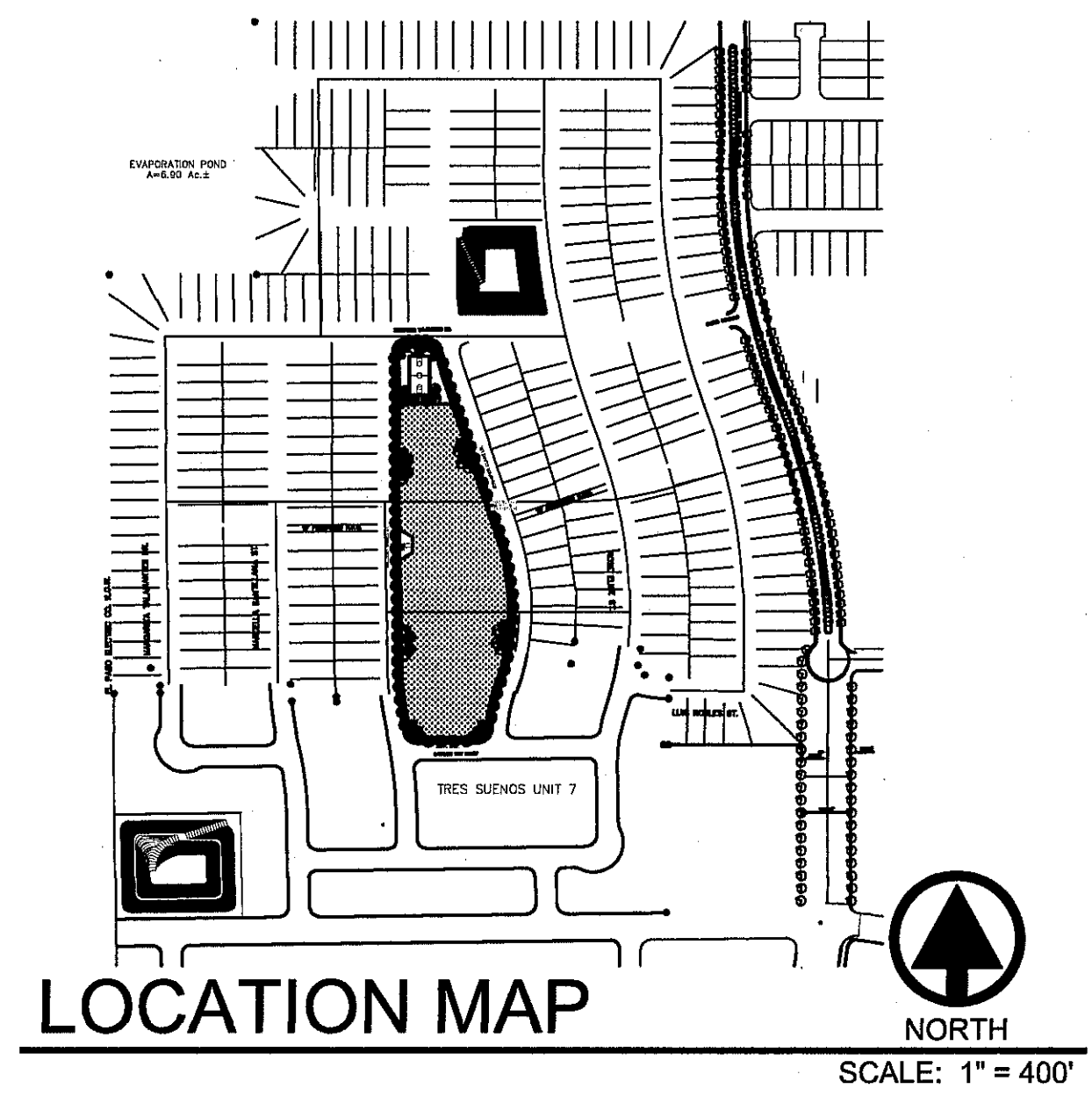
REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4005.40

ca
TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Bean, Ste. F, El Paso, TX 79924
915.544.6282 | www.caegroup.net



SCALE	
Horizontal:	1" = 30'
Vertical:	1" = 10'
Contour Interval:	N/A
DATE:	8-10-16
DESIGN BY:	JBA & CH
DRAWN BY:	CH
CHKD. BY:	JBA
APPVD. BY:	JBA
JOB No.:	2025-004LD

LANDSCAPE PLAN



IRRIGATOR'S SEAL

PROJECT TITLE
VIVID DREAMS PARK
4960 VINCENT JAMES ST.
LOT 1, BLOCK 4B
TRES SUEÑOS UNIT FIFTEEN
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE
LANDSCAPE PLAN

SHEET NO.

L-2
SHEET 2 OF 8

PARKS DEPARTMENT
REVIEWED BY *Anthony...* 01/10/2017



UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING!
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FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S88°43'31"E A DISTANCE OF 487.58 FEET FROM THE SOUTHERLY RIGHT-OF-WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION: 4688.40

IRRIGATOR'S SEAL
CARLOS HOLGUIN
15807
12/27/16

SCALE
Horizontal: 1" = 30'
Vertical: 1" = 10'
Contour Interval: N/A

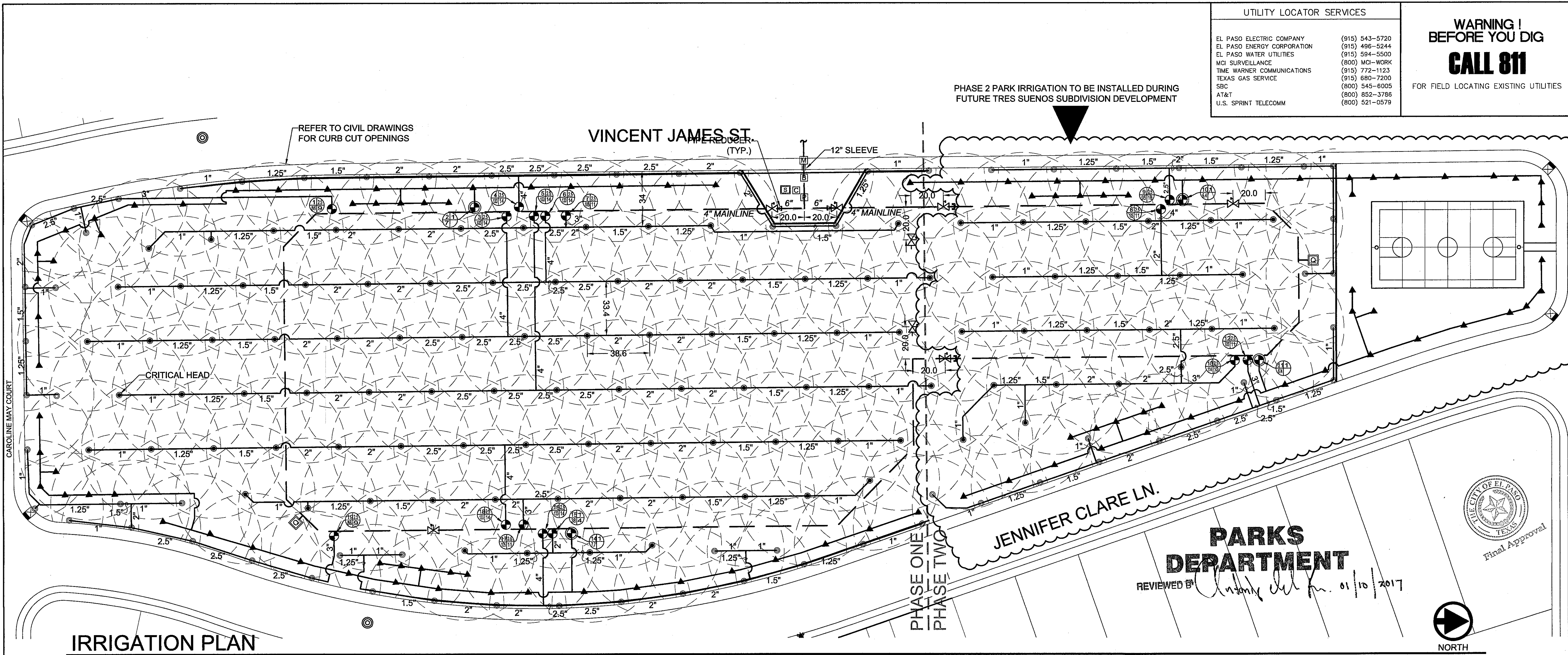
DATE: 12-21-16
DESIGN BY: JBA & CH
DRAWN BY: JBA & CH
CHKD. BY: JBA
APPVD. BY: JBA
JOB No. 2025-0044D

PROJECT TITLE
VIVID DREAMS PARK
4960 VINCENT JAMES ST.
LOT 1, BLOCK 48
TRES SUEÑOS UNIT FIFTEEN
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 132,784 S.F. OF 3.047 ACRES

TDLR# EABPRJB7805808

SHEET TITLE
IRRIGATION PLAN

SHEET NO.
L-3
SHEET 3 OF 8



PHASE 2 PARK IRRIGATION TO BE INSTALLED DURING FUTURE TRES SUEÑOS SUBDIVISION DEVELOPMENT

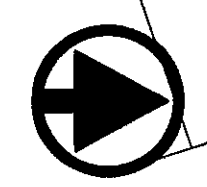
REFER TO CIVIL DRAWINGS FOR CURB CUT OPENINGS

VINCENT JAMES ST (TYP.)

JENNIFER CLARE LN.

PARKS DEPARTMENT

REVIEWED BY: [Signature] 01/10/2017



SCALE: 1" = 30'

IRRIGATION PLAN

IRRIGATION LEGEND

- | SYMBOL | ITEM |
|--------|---|
| [M] | 4" WATER METER
ASSUMED STATIC PRESSURE: MIN. 65 PSI (CONTRACTOR TO VERIFY PRIOR TO INSTALLATION). AT TIME OF DESIGN, NO PRESSURE AVAILABLE EXCEPT AT ADJACENT SUBDIVISION (70-85PSI)
METER FLOW RATE: 375 GPM PER WATER METER |
| [B] | 6" FEBCO LF860 BACKFLOW PREVENTER W/ GATE VALVE UPSTREAM OF DEVICE, COPPER PIPING FROM METER. W/ ASSE1060 CLASS I SAFE-T ENCLOSURE MODEL 600T-AL. CONTRACTOR TO PROVIDE ELECTRICAL CONNECTION FOR HEATING UNIT. |
| [P] | GRUNDFOS CR 64-1-1 MULTISTAGE CENTRIFUGAL IN-LINE PUMP, PRODUCT No. 97533269
10HP, 3 PHASE, 230V, MOUNTED ON CONCRETE BASE.
GRUNDFOS CUE-FJ VARIABLE SPEED DRIVE (240V/1 PHASE INPUT & 3 PHASE OUTPUT)
PRESSURE SENSOR 0-145 PSI. 4" ANSI FLANGED CONNECTIONS. ENCLOSURE AS PER DETAIL.
PUMP AVAILABLE AT JAMES, COOKE & HOBSON, INC. PH: 915-581-5458 |
| [C] | RAINBIRD ESP24SATLS 24 STATION CONTROLLER, ADD STATION MODULES AS NECESSARY.
PEDESTAL MOUNT CONTROLLER |
| [S] | RAINBIRD RAIN SENSOR MOUNTED ON GALVANIZED POLE. |
| [V] | 2.5" & 1" WEATHERMATIC BRASS 8200CR-25 & 8200CR-10 REMOTE CONTROL VALVES
SIZE ACCORDING TO VALVE SCHEDULE |
| [V] | 1" WEATHERMATIC BRASS 8200CR-10 REMOTE CONTROL VALVE
INSTALL AMIAD Y FILTER & PRESSURE REDUCER (30 PSI) AFTER THE VALVE ON DRIP ZONES |
| [L] | MAINLINE - 6" (CLASS 200 PVC) & 4" (PVC SCH. 40), MANUAL DRAIN AT LOW POINT |
| [L] | LATERAL LINE - CLASS 200 PVC - 1" UNLESS OTHERWISE INDICATED |
| [L] | PVC SLEEVE - 2 SIZES LARGER THAN LATERAL OR MAIN |
| [H] | HUNTER I-20-06-SS-#10 (DK. GREEN) 50 PSI, 43R, 9.5 GPM |
| [H] | HUNTER I-20-06-SS-#10 (DK. GREEN) 50 PSI, 43R, 9.5 GPM |
| [O] | PEPCO OCTABUBBLER - BLUE 2 GPH, SEE EMITTER OUTLET PLACEMENT DETAIL FOR PLACEMENT OF TUBING |
| [A] | A) STATION NUMBER |
| [B] | B) SIZE OF VALVE IN INCHES |
| [C] | C) TOTAL GPM |
| [D] | D) NUMBER OF HEADS |
| [V] | 4" ISOLATION BRASS GATE VALVE. |
| [V] | 4" ISOLATION BRASS VALVE W/ STUB-OUT AND IRRIGATION CONTROLLER WIRES W/ COMMON WIRE FOR PHASE 2 VALVES. PLACE IN CARSON 1419 VALVE BOX W/ FLAT LID AND BOLT. |
| [V] | 1" BUCKNER, DOUBLE LUG QUICK COUPLER VALVE W/ LASCO PRE ASSEMBLED SWING JOINT AND BRASS STABILIZER SNAP-LOK FITTING IN CARSON 1419 VALVE BOX W/ FLAT LID AND BOLT. QUICK COUPLER CAP & VALVE BOX LID TO BE PURPLE COLOR. 1" ISOLATION BRASS BALL VALVE SET IN SEPARATE VALVE BOX. PROVIDE PURPLE LID WEATHER PROOF TAG THAT READS "NON-POTABLE WATER, NOT SAFE FOR DRINKING". |

PRESSURE LOSS TABLE						
SECTION #	5		Section GPM 133			
STATIC PRESSURE			65		PSI	
Total GPM: 351.5 w/ sections 5, 17 & 18 running simultaneously.			01/05/17			
Pipe Losses						
Length of pipe	flow GPM	Size (in.)	Pipe Material	Pressure loss 100 ft	Pressure Loss this item	Pressure Loss accumulated
12	351.5	6	Type K copper	0.5	0.06	0.06
20	351.5	6	Class 200 pvc	0.39	0.08	0.14
20	175.75	6	Class 200 pvc	0.11	0.02	0.16
784	175.75	4	Sch. 40	0.75	5.88	6.04
110	133	4	Class 200 pvc	0.45	0.50	6.54
25.75	66.5	2.5	Class 200 pvc	1.1	0.28	6.82
38.55	57	2.5	Class 200 pvc	0.83	0.32	7.14
38.55	47.5	2	Class 200 pvc	1.4	0.54	7.68
38.55	38	2	Class 200 pvc	0.9	0.35	8.03
38.55	28.5	1.5	Class 200 pvc	1.75	0.67	8.70
38.55	19	1.25	Class 200 pvc	1.61	0.62	9.32
38.55	9.5	1	Class 200 pvc	1.42	0.55	9.87
				Total Pipe Loss 9.87		
Equipment Losses						
Item	Size (in.)	Pressure Loss this item	Pressure Loss Accumulated			
Valve	2.5	4.80	4.80			
Backflow	6	10.00	14.80			
Water Meter	4	10.00	24.80			
				Total Equipment Loss 24.80		
Note:				PUMP PROVIDES 352 GPM AT 20 PSI BOOST.		
				Total Pressure Loss 34.67		
				Minimum Head Pressure 50.00		
				Design Pressure 84.67		

PRECIPITATION RATE FORMULAS			
Valves	Triangular Spacing Method	360° Rate	180° Rate
1,3,4,5,6,7,8,9	GPM of Full Circle x 96.25 / 9.5 x 0.866 = 914.375 =		
12,13,15,16,17,18,19	(Spacing x power of 2) x .866 / 38.6	0.866 = 1290.31	0.71 in./hr. 1.42 in./hr.

VALVE SCHEDULE						TIME IN MINS. FOR 1.2" OF H2O, 1X/DAY (THEORETICAL)	
VALVE#	VALVE SIZE	MODEL	# HEADS	GPM	IN./HR.		
1	2.5"	I-20-06-SS-10	9	85.5	1.42	51	
2	1"	DRIP	9	6.93		60	
3	2.5"	I-20-06-SS-10	14	133	0.71	101	
4	2.5"	I-20-06-SS-10	14	133	1.42	51	
5	2.5"	I-20-06-SS-10	14	133	0.71	101	
6	2.5"	I-20-06-SS-10	14	133	0.71	101	
7	2.5"	I-20-06-SS-10	11	104.5	0.71	101	
8	2.5"	I-20-06-SS-10	11	104.5	0.71	101	
9	2.5"	I-20-06-SS-10	10	95	1.42	51	
10	1"	DRIP		6.4		60	
11	1"	DRIP		6.4		60	
12	2.5"	I-20-06-SS-10	11	104.5	1.42	51	
13	2.5"	I-20-06-SS-10	12	114	0.71	101	
14	1"	DRIP		7.73		60	
15	1"	I-20-06-SS-10	4	38	0.71	101	
16	2.5"	I-20-06-SS-10	14	133	1.42	51	
17	2.5"	I-20-06-SS-10	11	104.5	0.71	101	
18	2.5"	I-20-06-SS-10	14	133	0.71	101	
19	2.5"	I-20-06-SS-10	9	85.5	1.42	51	

WATER SCHEDULE			TIME IN MINS. FOR 1.2" OF WATER 1X PER WEEK	
VALVE#	GPM			
1,4,16	351.5		51	
9,12,19	285		51	
3,7,13	351.5		101	
5,17,18	351.5		101	
6,8,15	275.5		101	
2,10,11,14	28		60	
TOTAL TIME			7 hours, 45 mins.	

* RATES AND WATERING TIMES BASED ON DESIGN CALCULATIONS. FOR ONCE/WEK WATERING. ACTUAL WATERING SCHEDULE SHALL BE BASED ON IRRIGATION AUDIT PERFORMED BY CONTRACTOR

IRRIGATION NOTES

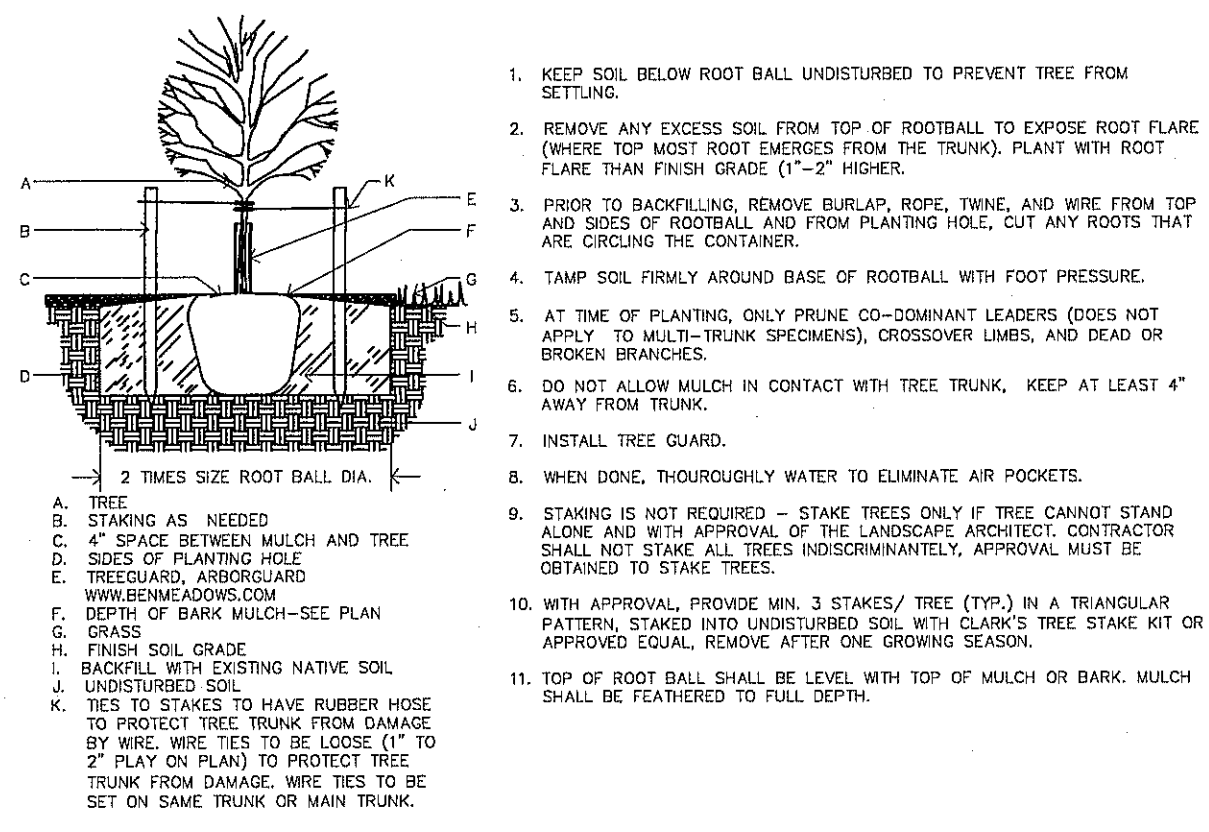
- PROVIDE FOR IRRIGATION CONTROL WIRE TO BE SET LOOSE IN TRENCH AND TO HAVE EXPANSION LOOP EVERY 200 FT.
- CALL OUT FOR SPARE WIRES TO BE PROVIDED; THESE SPARE WIRES TO BE DIFFERENT COLOR FROM MAIN WIRES.
- ANY AND ALL CHANGES IN DIRECTION OF THE MAIN LINE AND LATERAL LINES TO BE DONE WITH DIRECTIONAL FITTINGS ONLY.



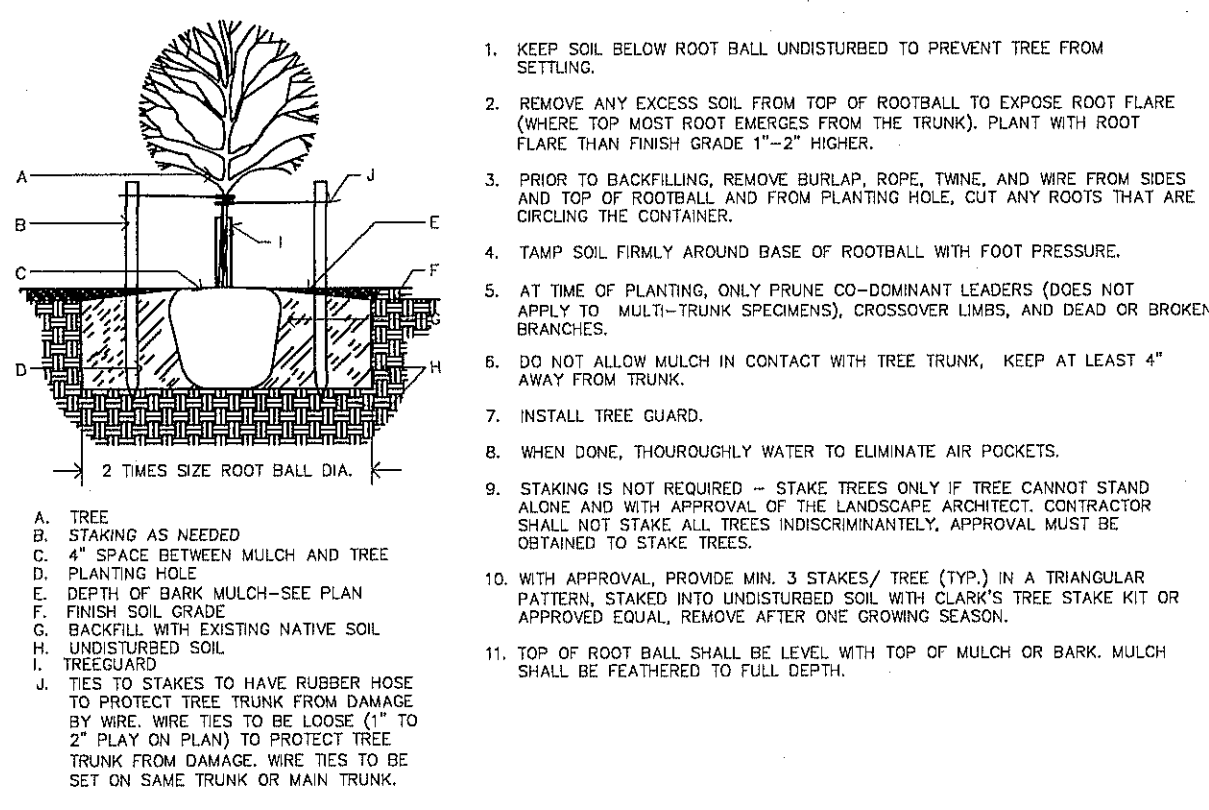
UTILITY LOCATOR SERVICES		
EL PASO ELECTRIC COMPANY	(915) 543-5720	
EL PASO ENERGY CORPORATION	(915) 496-5244	
EL PASO WATER UTILITIES	(915) 594-5500	
MCI SURVEILLANCE	(800) MCI-WORK	
TIME WARNER COMMUNICATIONS	(915) 772-1123	
TEXAS GAS SERVICE	(915) 680-7200	
SBC	(800) 545-6005	
AT&T	(800) 852-3788	
U.S. SPRINT TELECOMM	(800) 521-0579	

WARNING!
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CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

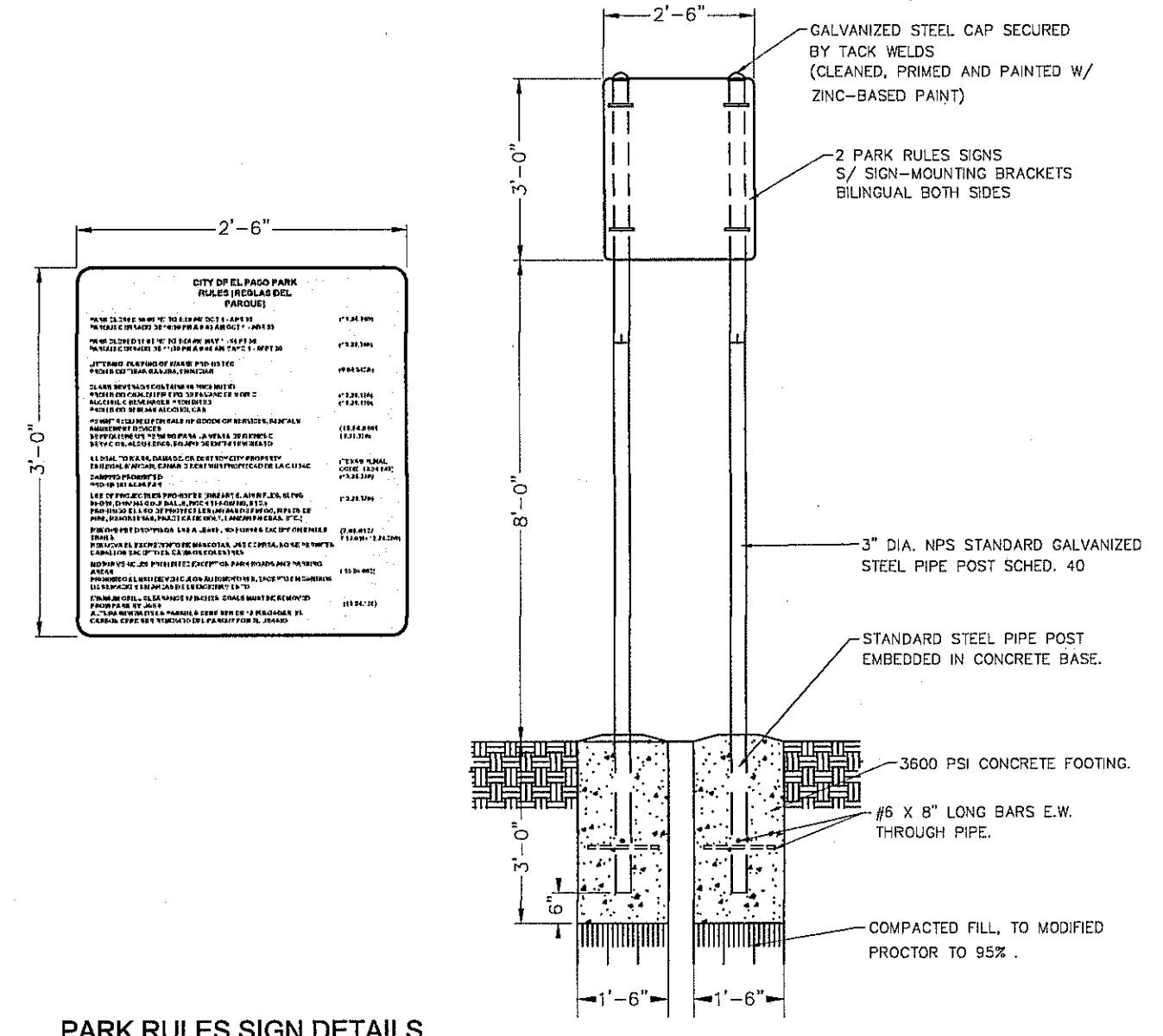
REFERENCES - BENCHMARKS	DATE	REVISIONS	BY
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEN BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4066.16			



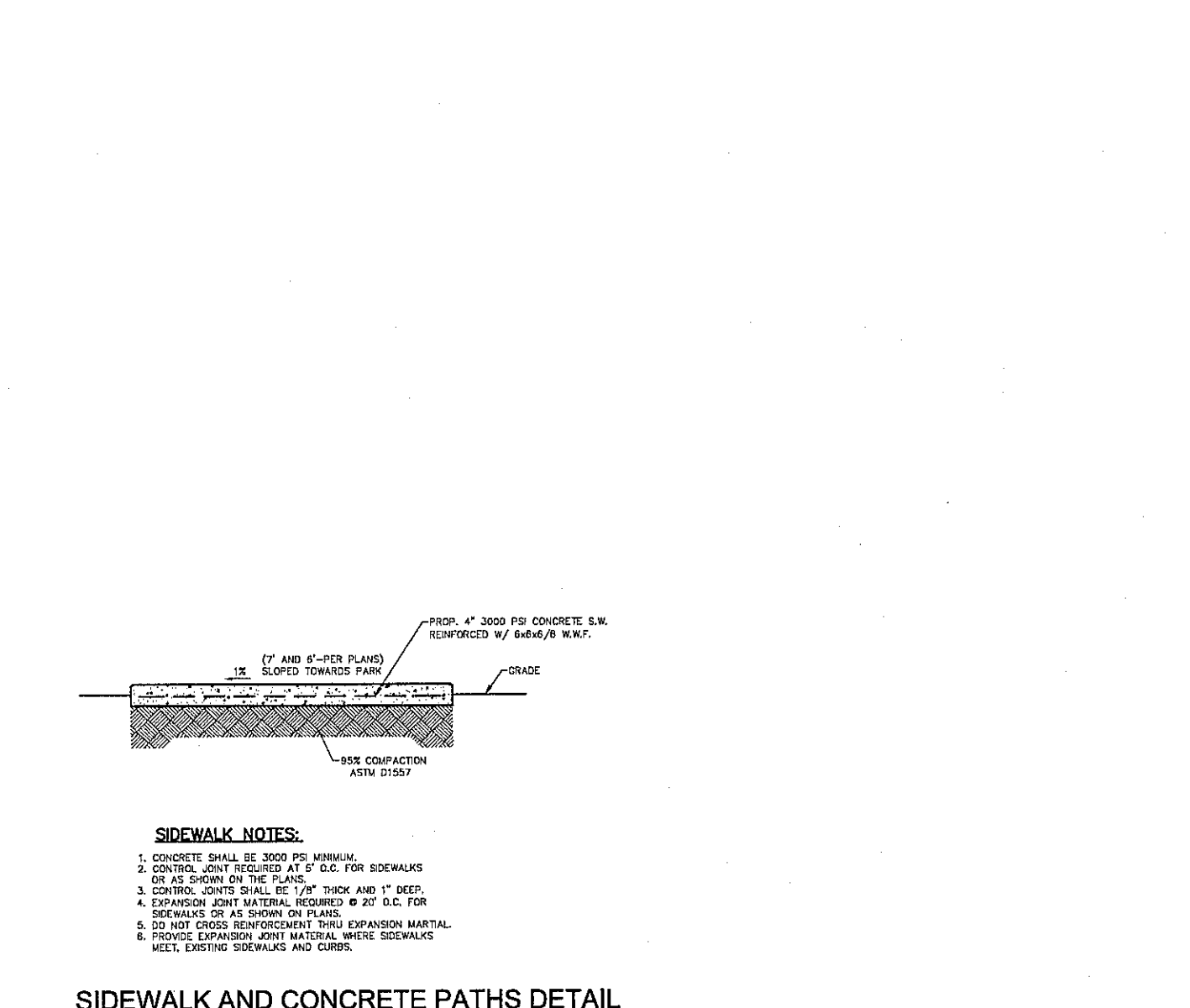
TREE PLANTING IN TURF DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
NOT TO SCALE



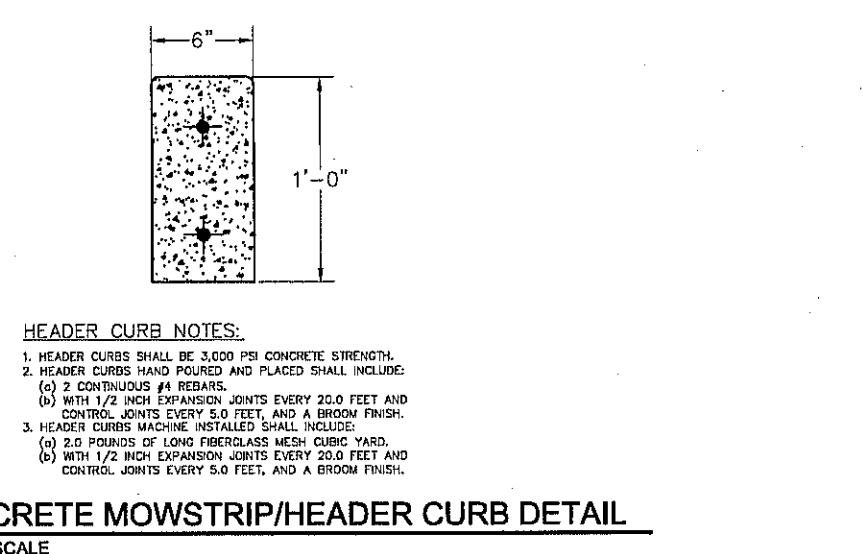
PARK RULES SIGN DETAILS
NOT TO SCALE



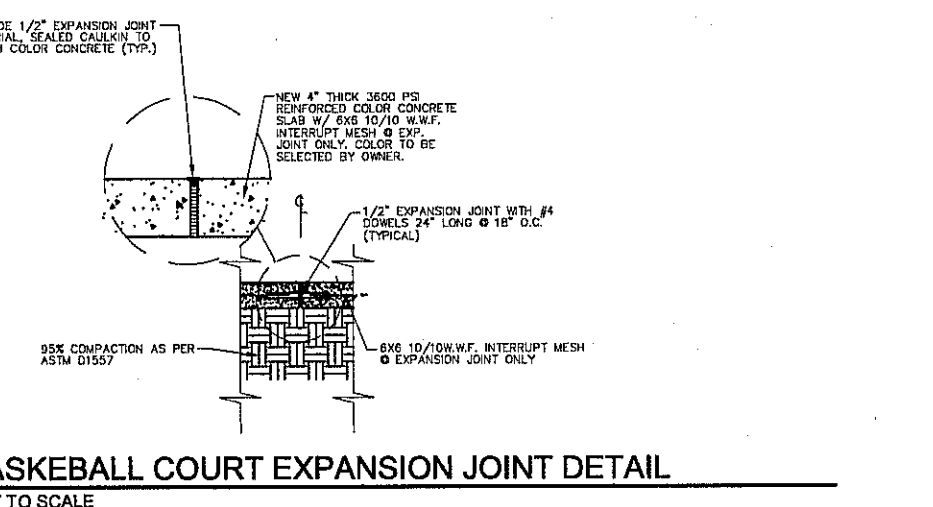
SIDEWALK AND CONCRETE PATHS DETAIL
NOT TO SCALE

- GENERAL NOTES:**
- TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE PIT EXCAVATED 3 TIMES THE SIZE OF THE ROOTBALL.
 - TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE 1/2 TO 1/2 TOP SOIL BLENDED WITH CLAY SOIL AND USED AS BACKFILL.
 - TREES PLANTED IN ROCKY SOIL ARE TO HAVE ALL ROCKY MATERIAL LARGER THAN 1" IN SIZE REMOVED.

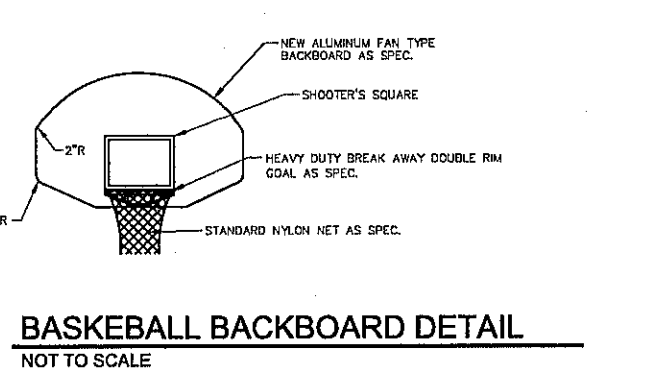
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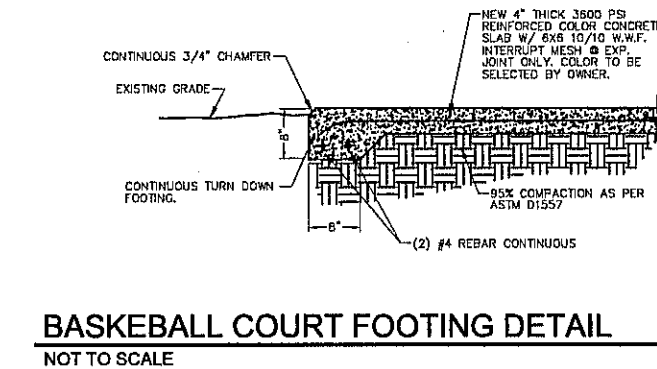
CONCRETE MOWSTRIP/HEADER CURB DETAIL
NOT TO SCALE



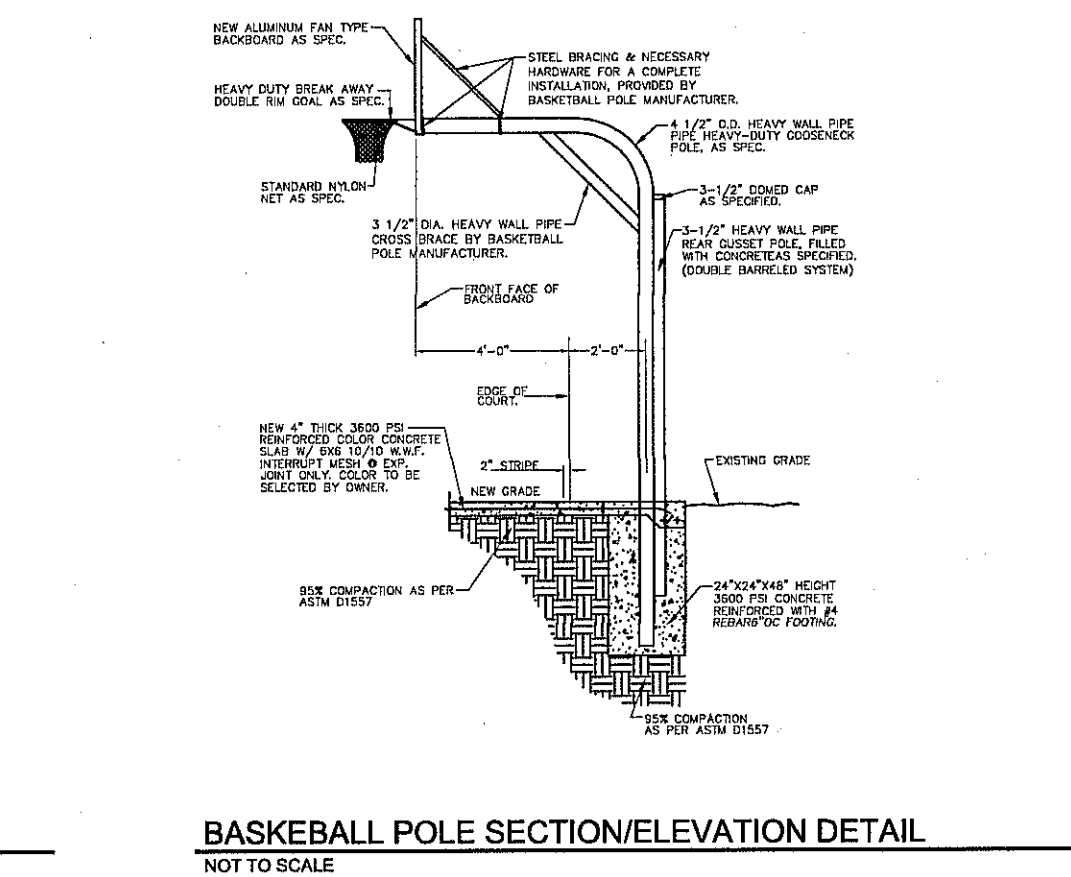
BASKETBALL COURT EXPANSION JOINT DETAIL
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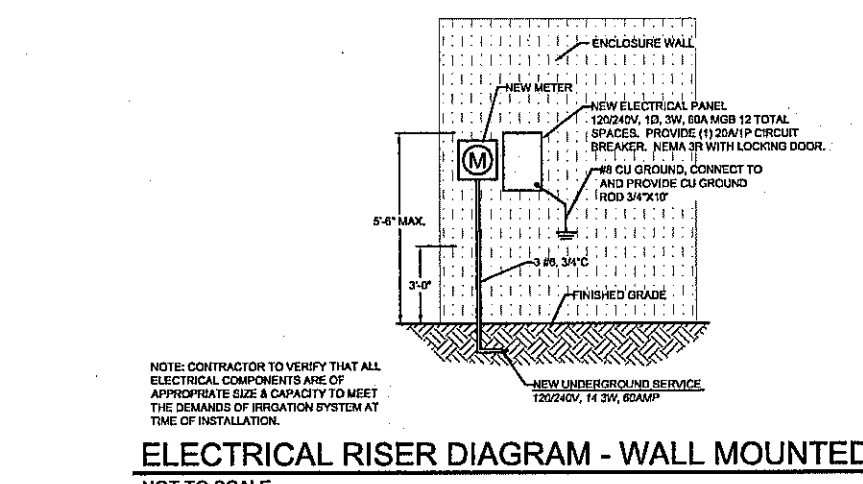
BASKETBALL BACKBOARD DETAIL
NOT TO SCALE



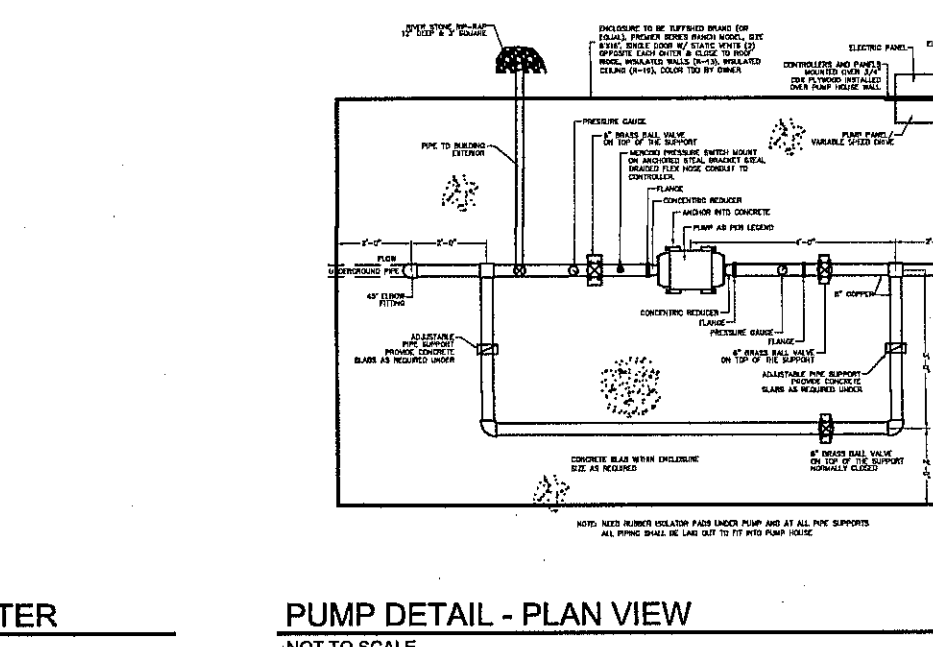
BASKETBALL COURT FOOTING DETAIL
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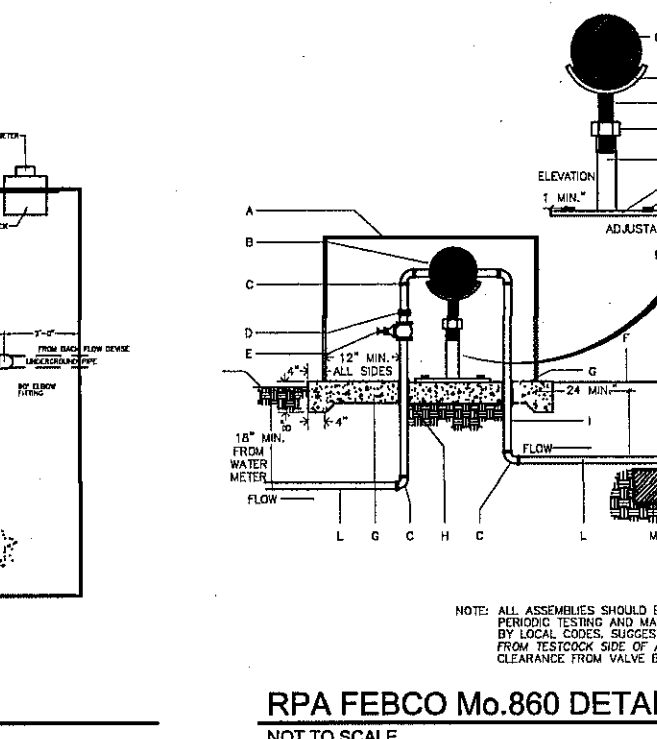
BASKETBALL POLE SECTION/ELEVATION DETAIL
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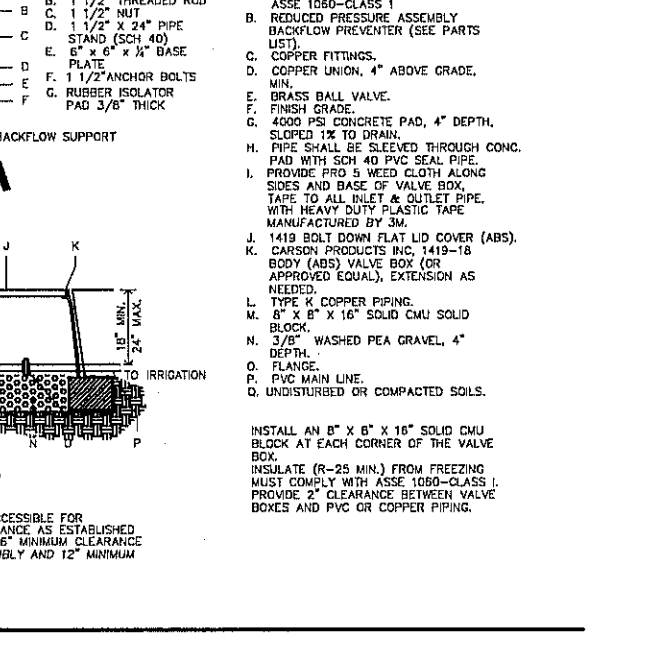
ELECTRICAL RISER DIAGRAM - WALL MOUNTED METER
NOT TO SCALE



PUMP DETAIL - PLAN VIEW
NOT TO SCALE



RPA FERCO Mo.860 DETAIL
NOT TO SCALE

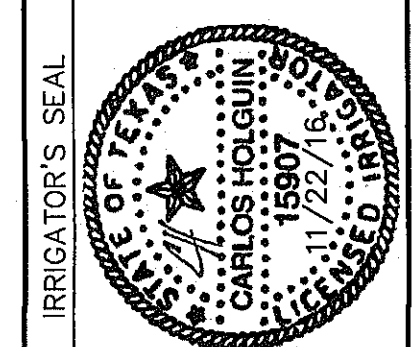


CONTROLLER PEDESTAL ENCLOSURE DETAIL
NOT TO SCALE

PARKS DEPARTMENT
REVIEWED BY *[Signature]* 01/10/2017



TEXAS REGISTERED ENGINEERING FIRM F-4584
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net



SCALE	
Horizontal: 1" = 20'	Vertical: 1" = 4'
Contour Interval: N/A	
DATE: 11-22-15	DESIGN BY: JBA & CH
	DRAWN BY: CH
	CHKD. BY: JBA
	APPROV. BY: JBA
	JOB No. 2015-004DL

PROJECT TITLE
VIVID DREAMS PARK
4960 VINCENT JAMES ST.
LOT 1, BLOCK 4B
TRES SUENOS UNIT FIFTEEN
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE
PARKS DETAILS
SHEET NO.

L-4
SHEET 4 OF 8

TDLR# EABPRJB7805808

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720
 EL PASO ENERGY CORPORATION (915) 496-5244
 EL PASO WATER UTILITIES (915) 594-5500
 MCI SURVEILLANCE (800) MCI-WORK
 TIME WARNER COMMUNICATIONS (915) 772-1123
 TEXAS GAS SERVICE (915) 680-7200
 SBC (800) 545-6005
 AT&T (800) 852-3786
 U.S. SPRINT TELECOMM (800) 521-0579

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 FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SDB4337E A DISTANCE OF 487.56 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION: 4605.40

DATE	REVISIONS

IRRIGATOR'S SEAL

SCALE

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Vertical: 1" = 1'-0"

Contour Interval: N/A

DATE: 8-10-16

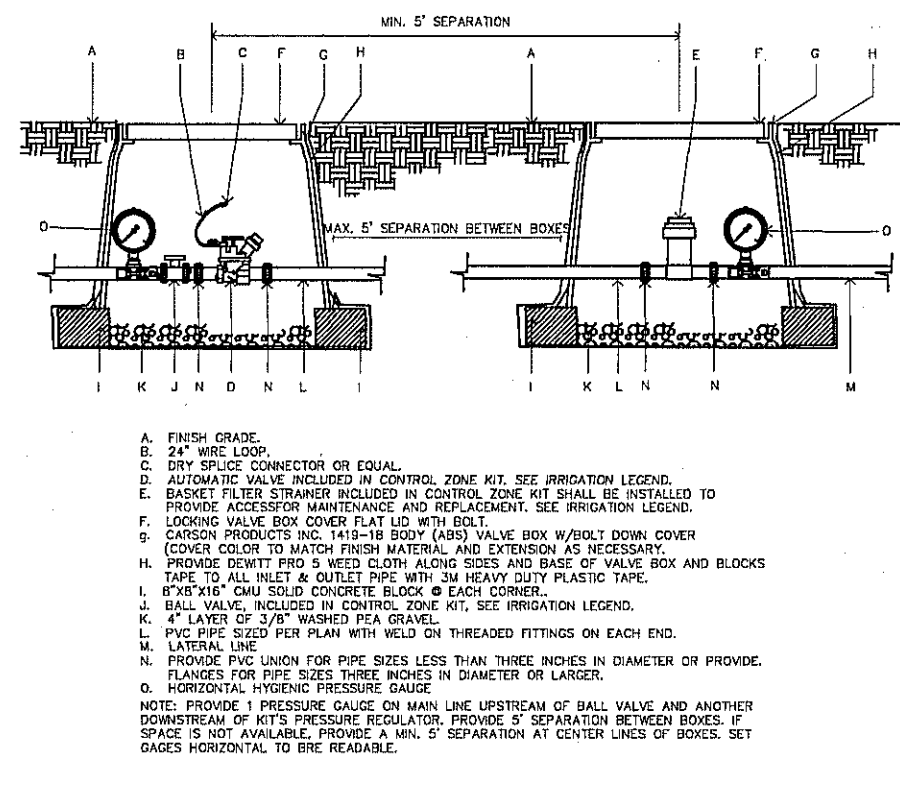
DESIGN BY: JBA & CH

CHKD BY: CH

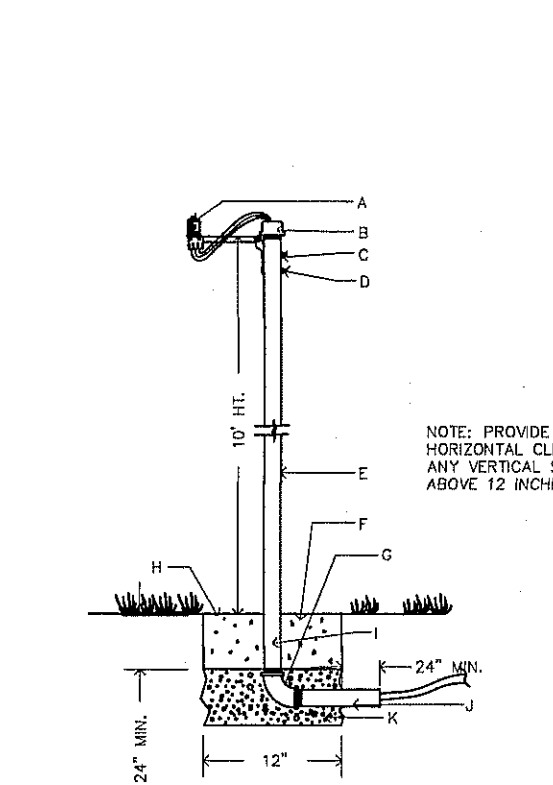
APP'D BY: JBA

JOB NO.: 2025-06ALD

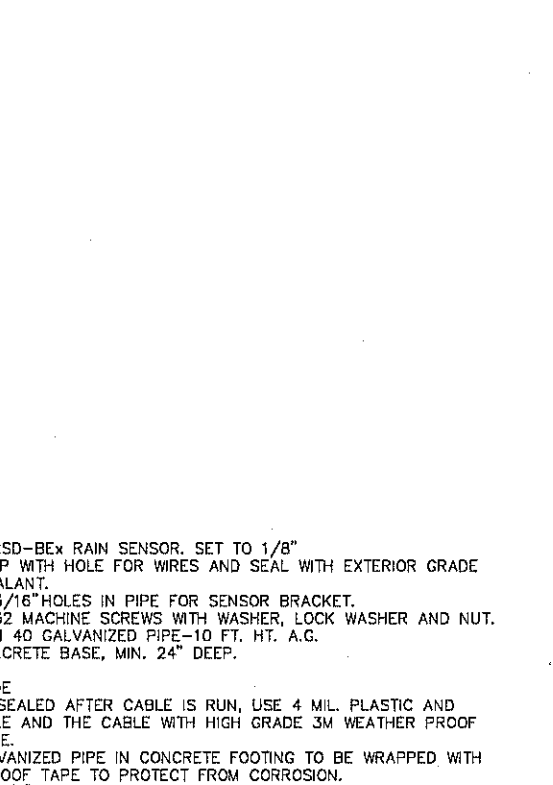
TEXAS REGISTERED ENGINEERING FIRM F-4664
 4712 Woodrow Bean, Ste. F, El Paso, TX 79924
 915-544-5232 | www.cesgroup.net



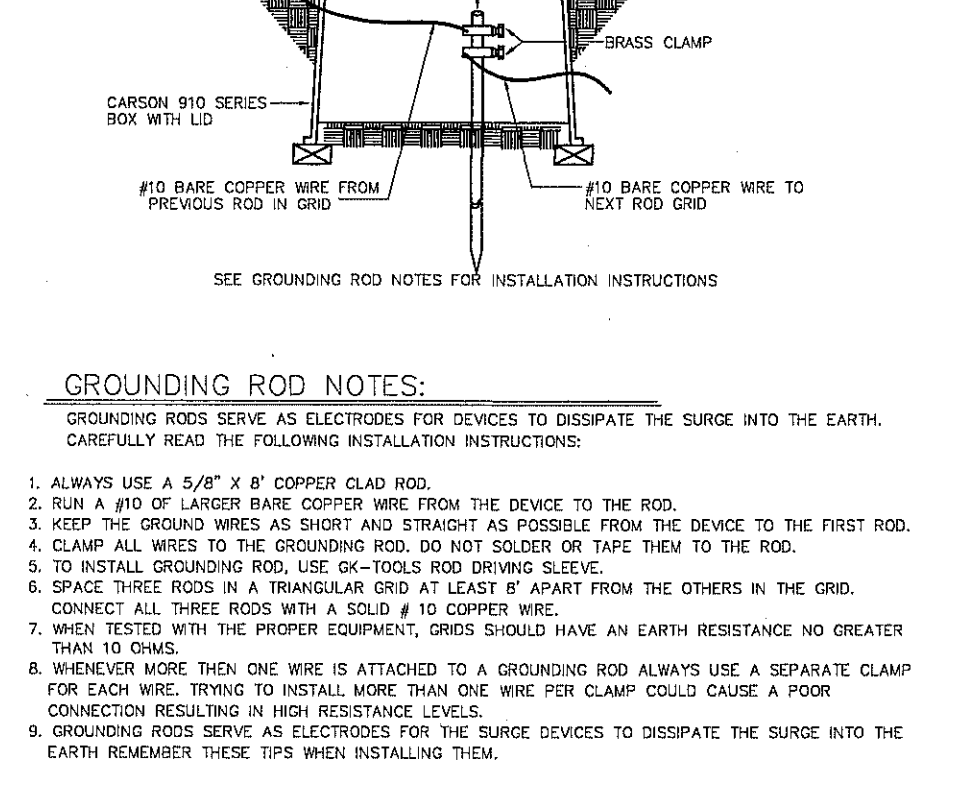
DRIP VALVE / BASKET FILTER KIT DETAIL
 NOT TO SCALE



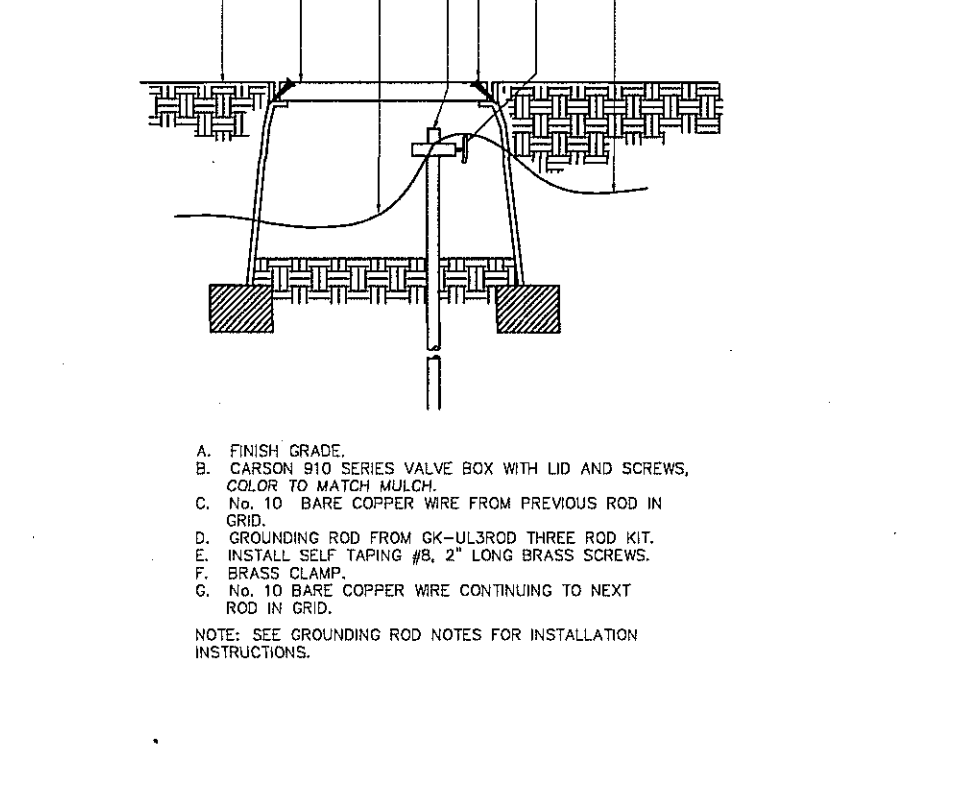
RAIN SENSOR DETAIL
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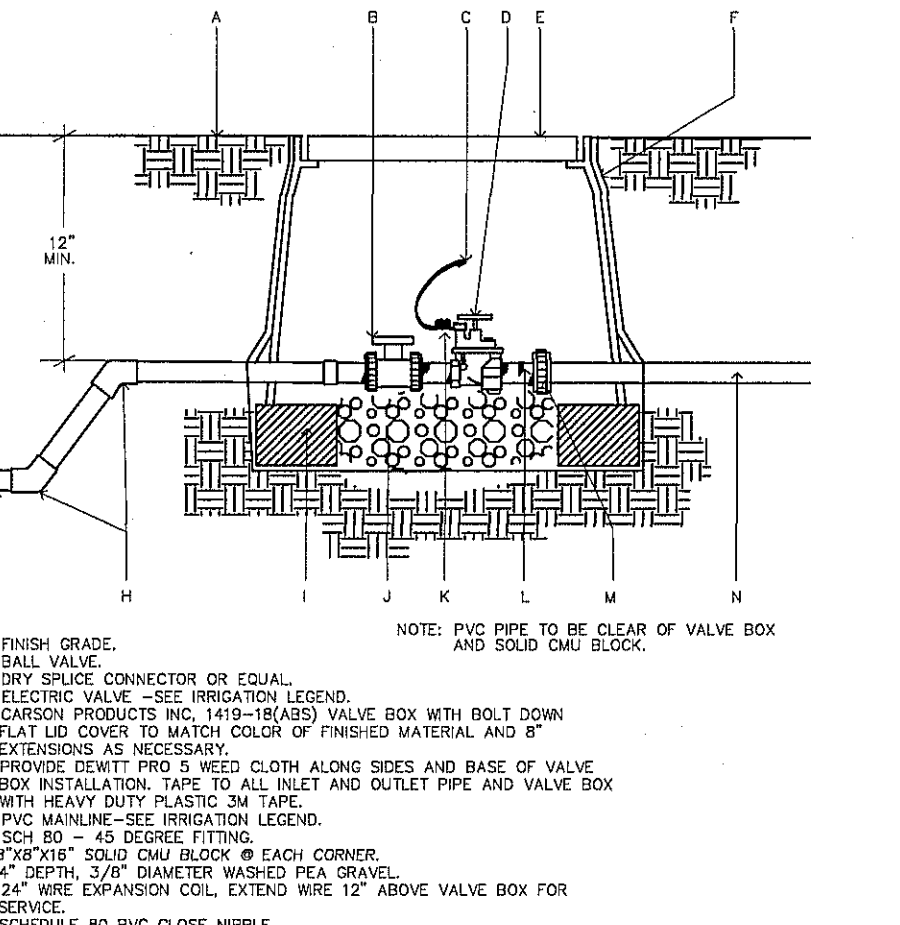
TRIANGULAR GROUNDING PLAN VIEW DETAIL
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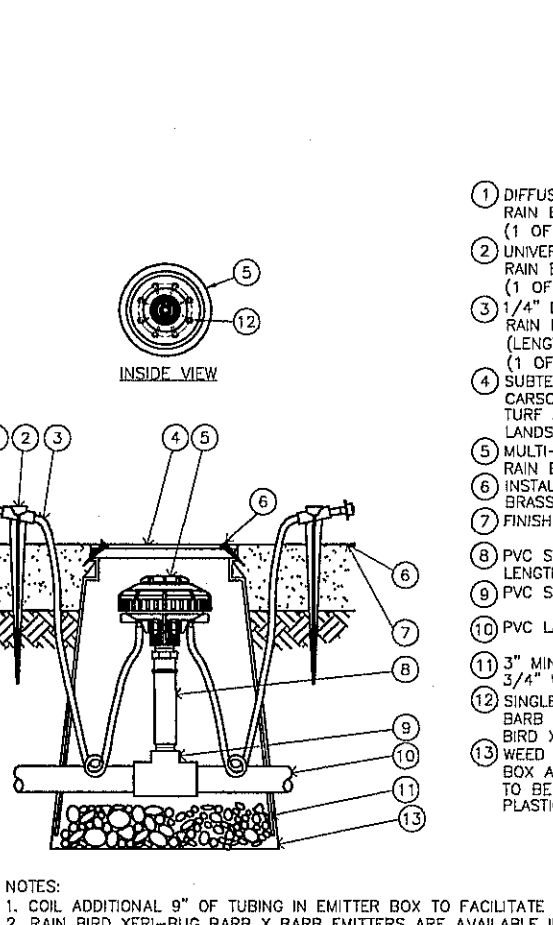
GROUNDING WIRES DETAIL - INITIAL TERMINAL
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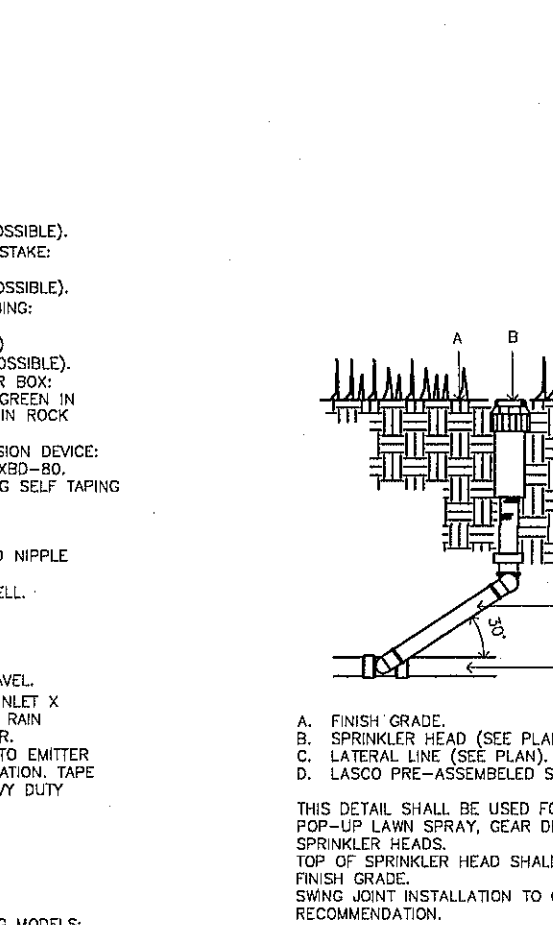
GROUNDING WIRES DETAIL - INTERMEDIATE
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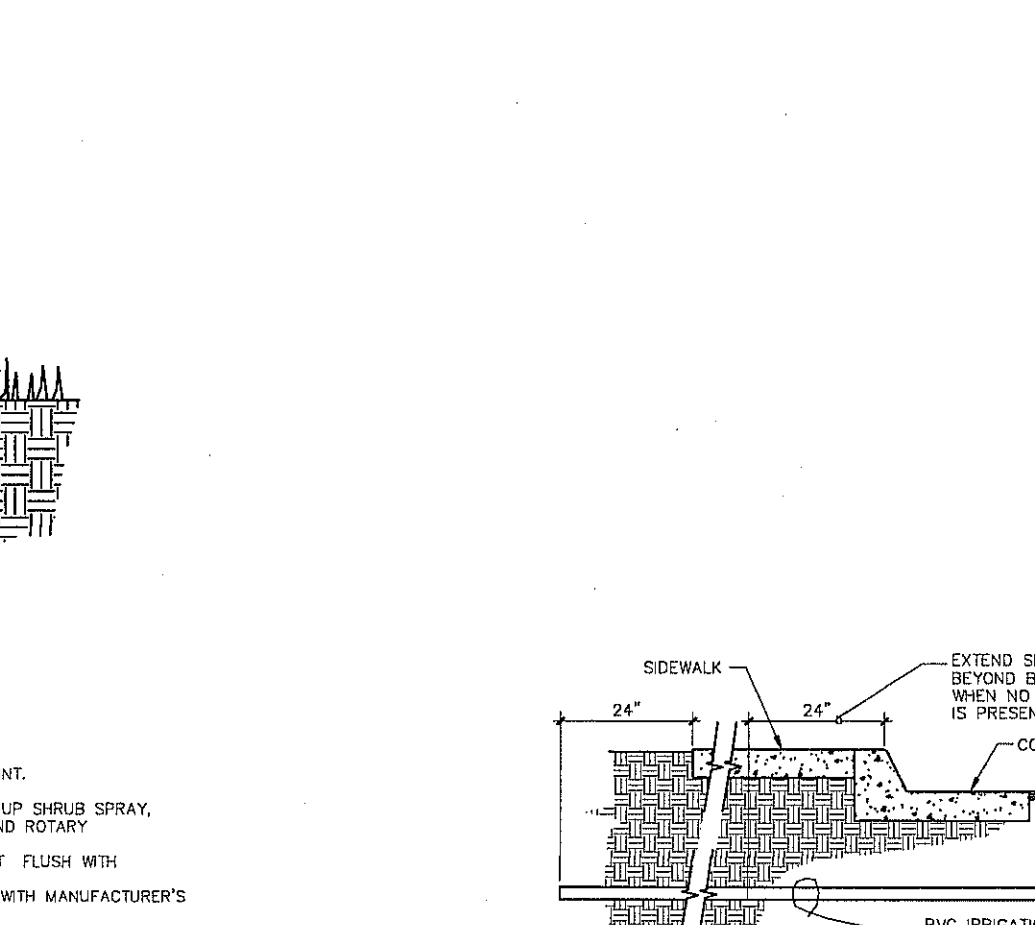
IRRIGATION CONTROL VALVE DETAIL
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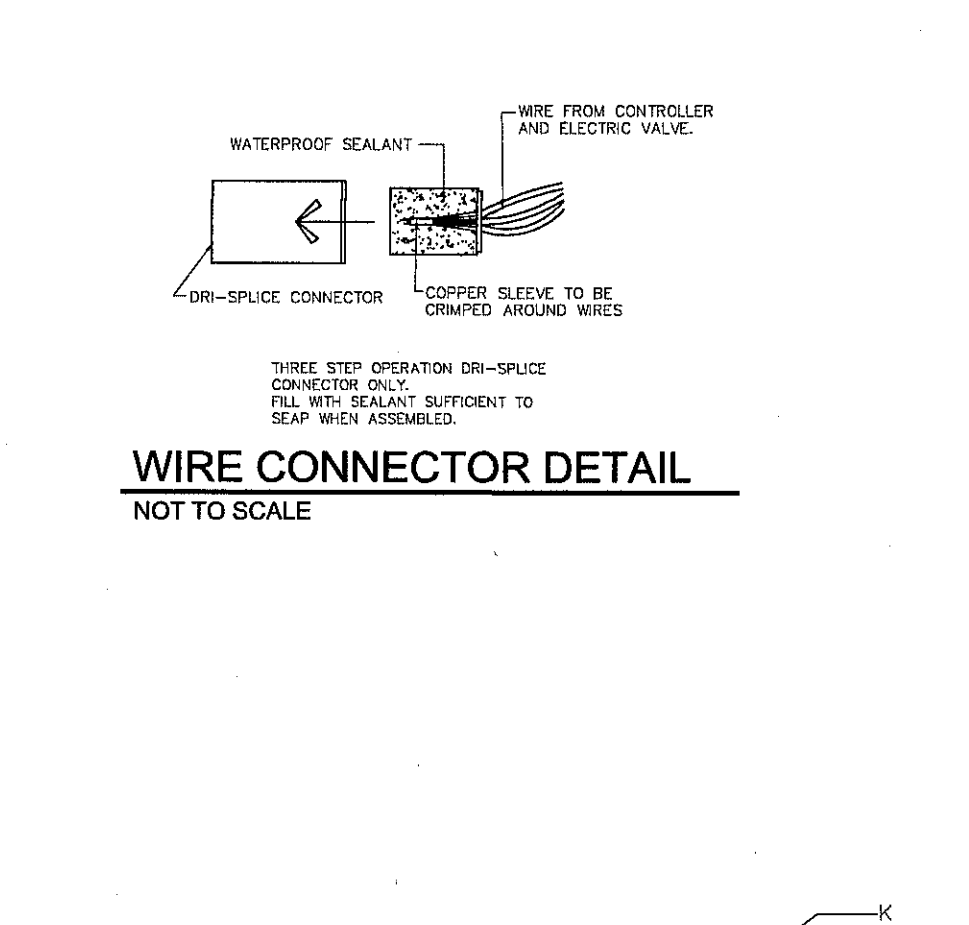
MULTI 8 OUTLET EMITTER DETAIL
 NOT TO SCALE



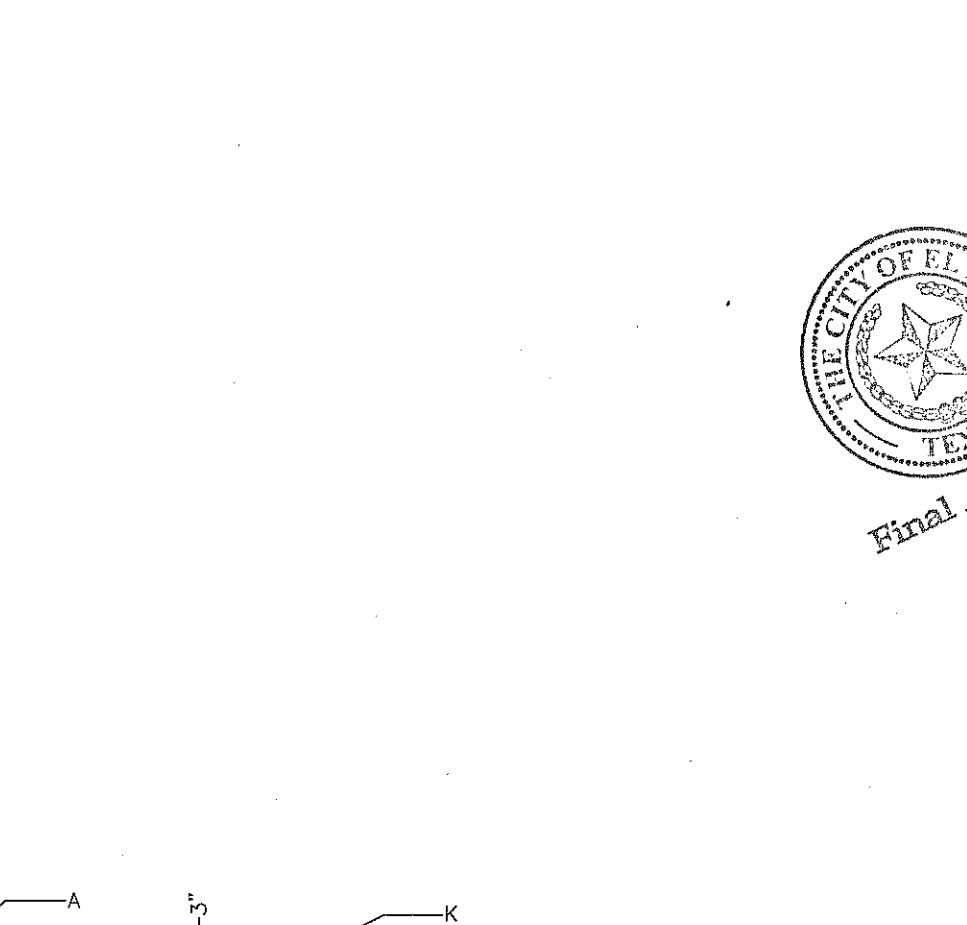
SPRINKLER HEAD DETAIL
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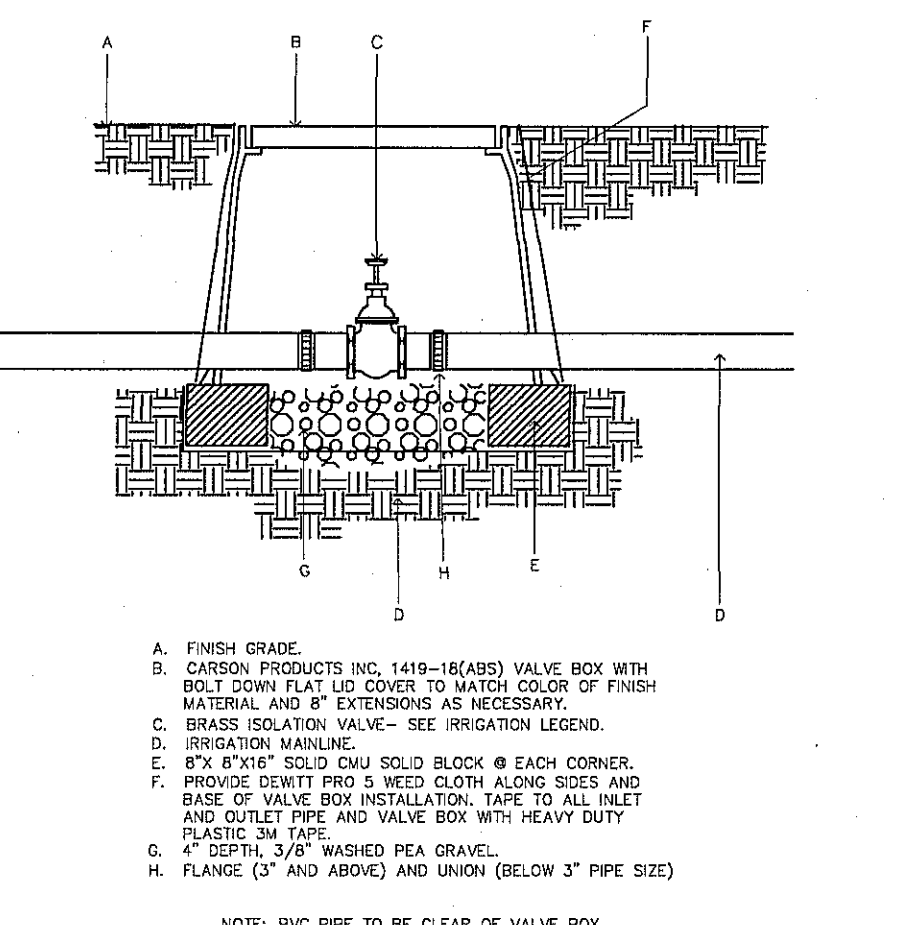
IRRIGATION SLEEVE UNDER PAVING AND SIDEWALKS
 NOT TO SCALE



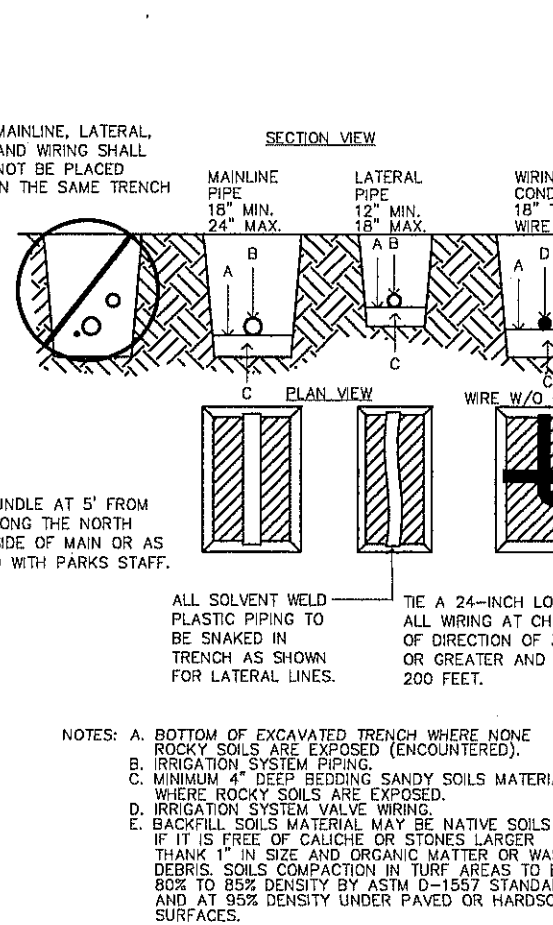
WIRE CONNECTOR DETAIL
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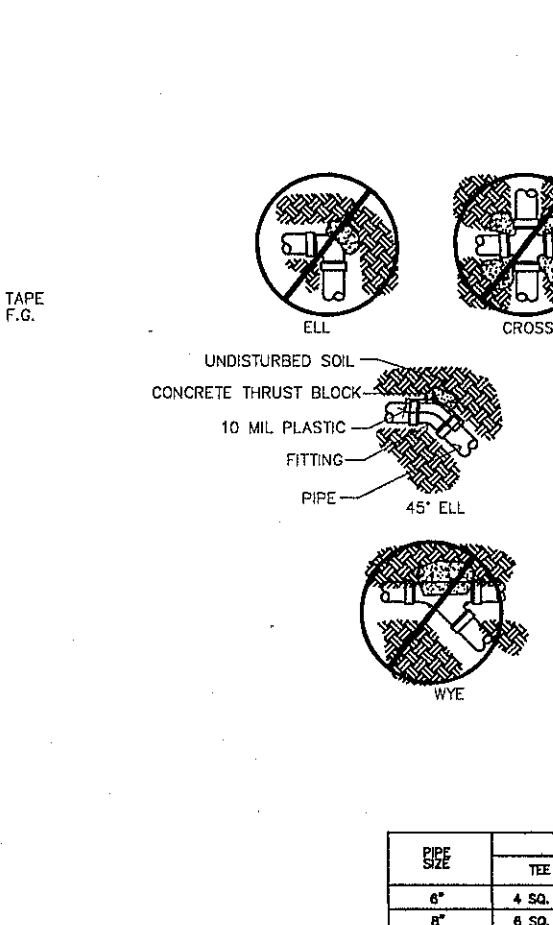
QUICK COUPLER VALVE DETAIL
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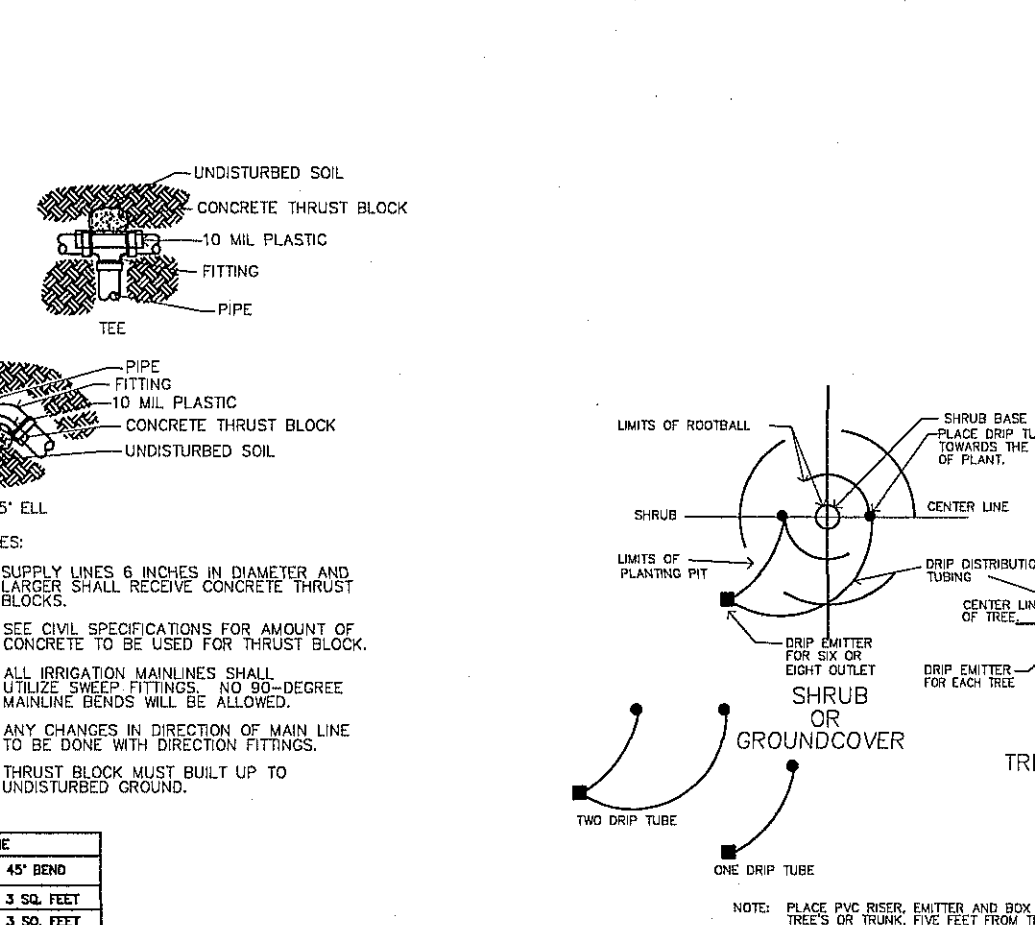
ISOLATION VALVE DETAIL
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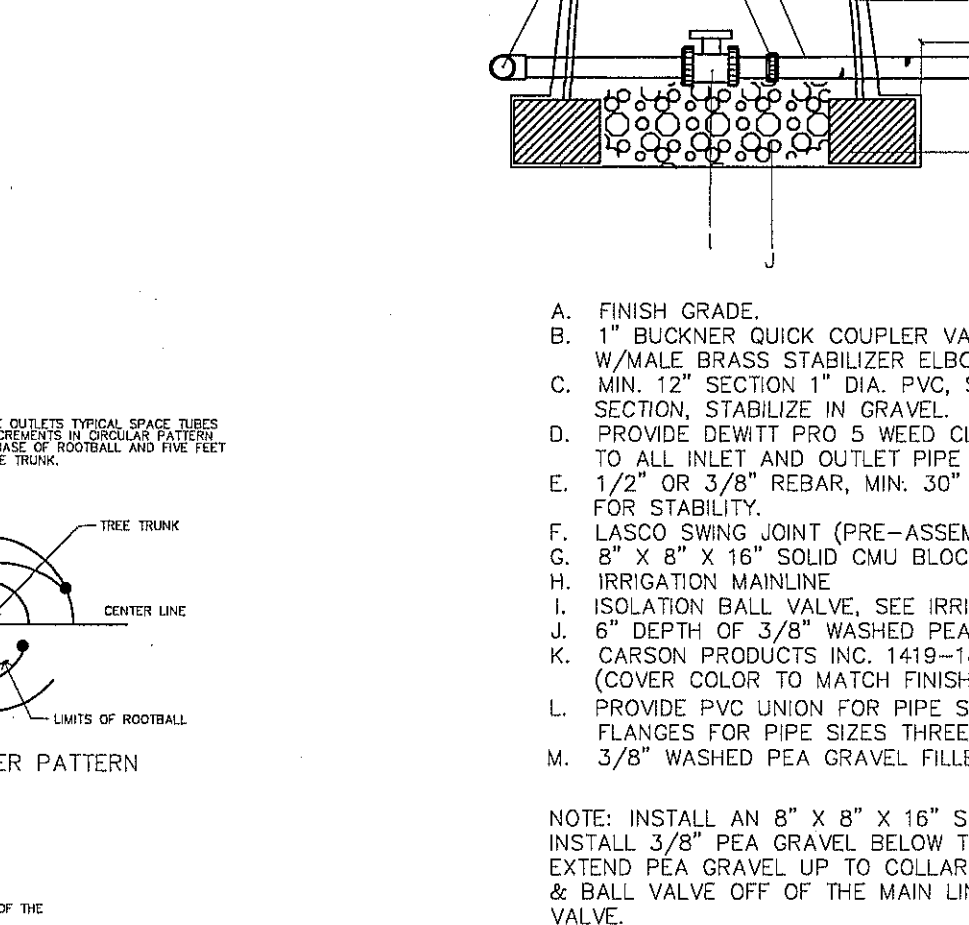
PIPE / WIRE IN TRENCH DETAIL
 NOT TO SCALE



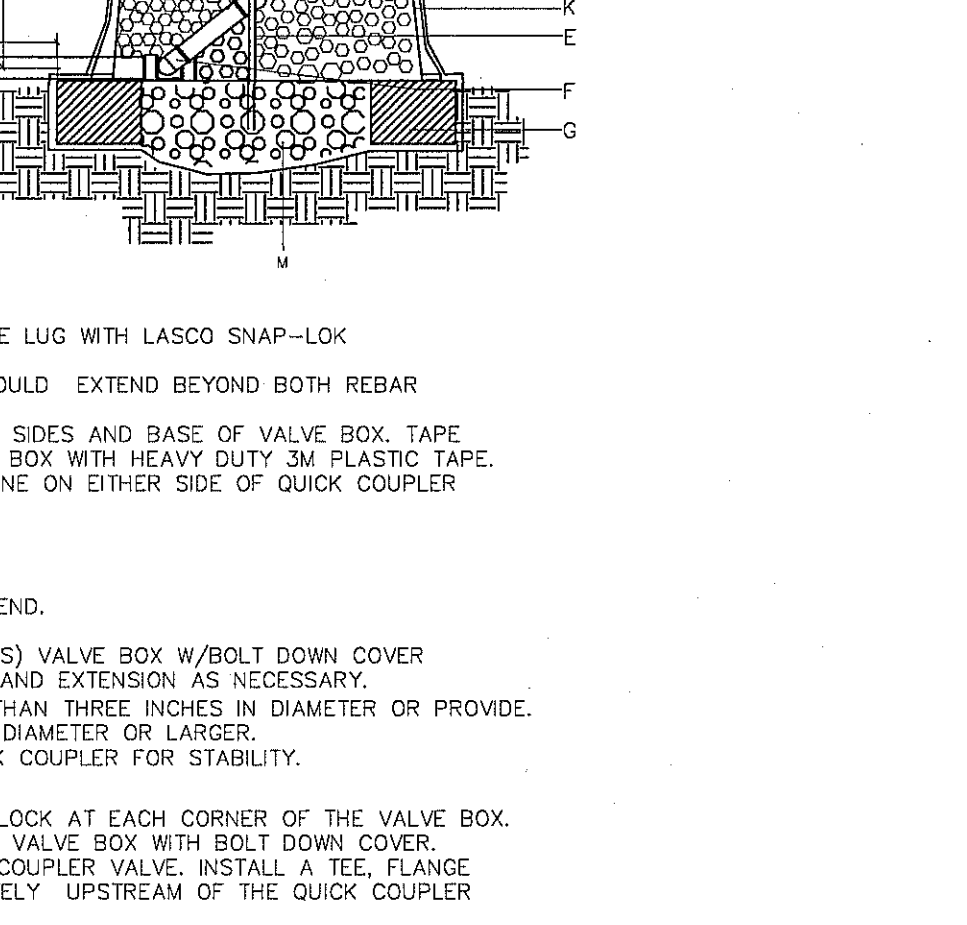
THRUST BLOCK DETAIL
 NOT TO SCALE



EMITTER OUTLET PLACEMENT DETAIL
 NOT TO SCALE



EMITTER OUTLET PLACEMENT DETAIL
 NOT TO SCALE



QUICK COUPLER VALVE DETAIL
 NOT TO SCALE

ISOLATION VALVE DETAIL
 NOT TO SCALE

PIPE / WIRE IN TRENCH DETAIL
 NOT TO SCALE

THRUST BLOCK DETAIL
 NOT TO SCALE

EMITTER OUTLET PLACEMENT DETAIL
 NOT TO SCALE

EMITTER OUTLET PLACEMENT DETAIL
 NOT TO SCALE

QUICK COUPLER VALVE DETAIL
 NOT TO SCALE

PROJECT TITLE

VIVID DREAMS PARK
 4960 VINCENT JAMES ST.
 LOT 1, BLOCK 48
 TRES SUEÑOS UNIT FIFTEEN
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE

PARKS DETAILS

SHEET NO.

L-5

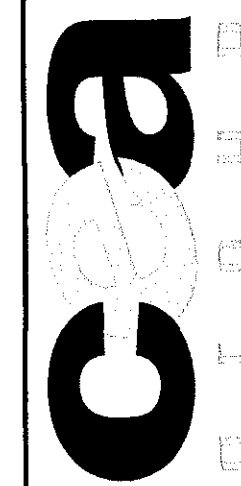
SHEET 5 OF 8

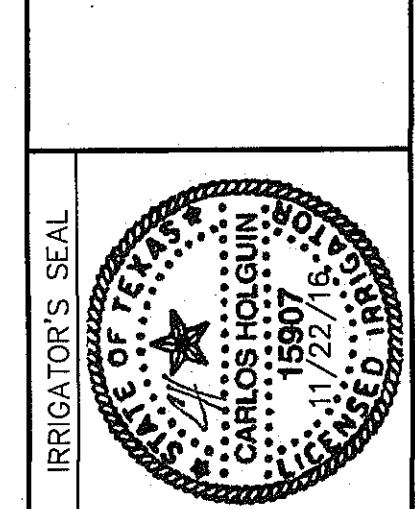
CONTRACTOR WILL FOLLOW PARK DESIGN & CONSTRUCTION STANDARDS FOR CITY OF EL PASO - ISSUED JANUARY 8, 2013 AND AVAILABLE AT WWW.ELPASOTEXAS.GOV/PARKS

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
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AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING!
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FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

TECHNICAL

 CARLOS HOLGUIN
 ENGINEER
 4712 Woodrow Bean, Ste. F El Paso, TX 79924
 915.544.5232 | www.cagroup.net



SCALE	SCALE
Horizontal: 1" = 40'	Vertical: 1" = 10'
Contour Interval: 1' / 2'	DATE: 8-10-16
DESIGN BY: JBA & CH	DRAWN BY: CH
CHKD. BY: JBA	APP'D. BY: JBA
JOB NO. 2025-0041D	

PROJECT TITLE
VIVID DREAMS PARK
 4960 VINCENT JAMES ST.
 LOT 1, BLOCK 48
 TRES SUENOS UNIT FIFTEEN
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE	PARKS NOTES
SHEET NO.	L-6
	SHEET 6 OF 8



GENERAL NOTES

- CONTRACTOR SHALL BE FAMILIAR WITH PLANS, DETAILS AND SPECIFICATIONS AS THEY PERTAIN TO THE SITE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE/LANDSCAPE DESIGNER AND PARKS DEPARTMENT IF ANY ITEMS CONTAINED WITHIN THE SCOPE OF WORK DEFINED HEREIN ARE IN CONFLICT WITH PROPOSED CONTRACT.
- EXISTING UTILITY LINES ARE TO BE BLUE STAKED PRIOR TO EXCAVATION. CHECK AND FIELD VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO EXCAVATION. CALL FOR BLUE STAKING, 1-800-DIG-TESS.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS.
- CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCING WORK, I.E. BUILDING PERMIT, GRADING, SWP3, IRRIGATION, ETC.
- CONTRACTOR SHALL MEET ALL APPLICABLE ADA AND TAS REQUIREMENTS FOR ACCESS TO SIDEWALKS, PLAZAS, PLAYGROUND, BASKETBALL COURT, ETC. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT RUNNING SLOPE $\le 5\%$, GROSS-SECTION $\le 1.5\%$ AND FINISHED SURFACE TEXTURE COMPLY WITH ACCESSIBILITY REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE TO INSURE THAT PROJECT AREA IS FENCE-IN THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT. FENCE IS REQUIRED TO BE MINIMUM OF 6 FEET HIGH CHAIN LINK FENCE MAINTAINED IN A STABLE AND SECURE CONDITION.
- CONTRACTOR SHALL PROTECT ALL CONCRETE WORK TO AVOID VANDALISM OR DAMAGE DURING CURING TIME; ANY DAMAGE DONE TO THE CONCRETE DUE TO VANDALISM DAMAGE MUST BE RESTORED TO GOOD FINISHED QUALITY APPEARANCE.
- CONTRACTOR SHALL BE RESPONSIBLE TO HAVE ANY VEGETATION TREATED AND REMOVED PRIOR TO THE EXCAVATION OF THE SITE FOR THE PLAYGROUND EQUIPMENT, CONTAINMENT ROCK WALL AND SIDEWALK.
- CONTRACTOR IS RESPONSIBLE TO MAINTAIN SITE CLEAN AND FREE OF CONSTRUCTION DEBRIS. DAILY CLEAN-UP OF SITE WILL BE REQUIRED TO BE PROVIDED BY CONTRACTOR, NO STOCK PILING OF CONSTRUCTION DEBRIS WILL BE PERMITTED ON SITE.
- CONTRACTOR IS RESPONSIBLE TO INSURE THAT CONSTRUCTION EQUIPMENT WILL NOT BE CLEANED AT THE SITE UNLESS PROPER CONTAINERS ARE PROVIDED STORE WASTE. THIS INCLUDES MORTAR, CONCRETE, WOOD FIBER SURFACING, ETC.; WASTE MATERIAL MUST BE REMOVED FROM SITE ON A DAILY BASIS.
- CONTRACTOR IS RESPONSIBLE TO INSURE THAT ANY CONSTRUCTION MASONRY MATERIALS THAT ARE HAND MIXED AT JOB SITE ARE DONE IN AN APPROPRIATE CONTAINER AND ANY SPILLAGE IS CLEANED AND REMOVED IMMEDIATELY.
- PARK FURNISHINGS WILL BE PROVIDED BY OTHERS AND INSTALL BY THE CONTRACTOR. CONTRACTOR WILL COORDINATE CORRECT INSTALLATION WITH VENDOR AND PARKS AND RECREATION DEPT.
- ALL CONCRETE SHALL BE 3600 PSI @ 28 DAYS, UNLESS OTHERWISE NOTED.
- PICNIC AREA FLOOR AND SIDEWALK SHALL BE NON SLIP BROOM FINISH WITH A 1 % SLOPE, PROVIDE MOCK UP.
- POUR CONCRETE FOOTING AND PICNIC TABLE STEEL PIPE LEGS PRIOR TO FINAL POURING OF CONCRETE SLAB. CONTRACTOR SHALL COORDINATE WITH SITE FURNISHING VENDOR.
- DAMAGED TO EXISTING UTILITY LINES, CAUSED BY CONTRACTORS ACTIVITY SHALL BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL EXPENSE.
- ALL EXPANSION JOINT MATERIAL SHALL BE 1/2" THICK. INTERRUPT WIRE MESH AT EXPANSION JOINT ONLY.
- DETAILS ARE GENERAL REPRESENTATION OF PARK FURNISHING INSTALLATION. VENDOR WILL PROVIDE ADDITIONAL INFORMATION FOR FINAL INSTALLATION.

COORDINATION WITH EL PASO WATER UTILITIES

- APPLICATION AND ALL FEES FOR TEMPORARY WATER SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. TEMPORARY SERVICE APPLICATION SHALL BEAR THE CONTRACTOR'S INFORMATION (COMPANY NAME, ADDRESS, BILLING ADDRESS, TELEPHONE, AND EMAIL). UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR USE CITY OF EL PASO INFORMATION (CITY NAME, ADDRESS, BILLING ADDRESS, TELEPHONE, EMAIL, ETC.) TO APPLY FOR TEMPORARY SERVICE.
- TERMINATION OF TEMPORARY WATER SERVICE SHALL OCCUR ONLY AFTER THE PROJECT HAS BEEN ACCEPTED. SERVICE DEACTIVATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- NOTIFY CITY OF EL PASO PROJECT MANAGER FIVE (5) WORKING DAYS PRIOR TO TEMPORARY WATER SERVICE DEACTIVATION REQUEST.

PLANTING NOTES

GENERAL

- SCOPE: WORK COVERED IN THESE NOTES CONSISTS OF THE PLANTING OF SOD, TREES, SHRUBS, GRADING AND MULCHING, INCLUDING THE FURNISHING OF ALL LABOR, EQUIPMENT, MATERIALS AND PERFORMING ALL WORK IN CONNECTION WITH THE DRAWINGS AND SPECIFICATIONS.

PROTECTION

- PROTECTION OF PERSONS AND PROPERTY: CONTRACTOR IS TO BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND POST WITH WARNING LIGHTS OR OTHER WARNING MEASURES AS NECESSARY. PROTECTION OF EXISTING SHRUBS, TREES AND OTHER PLANT MATERIALS IS ALSO TO BE INCLUDED.

- PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS. ALL DAMAGES THAT MAY OCCUR DURING THIS PHASE OF WORK SHALL BE THE CONTRACTOR'S FINANCIAL RESPONSIBILITY.

GRADING

- PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF ALL GOVERNING BODIES HAVING JURISDICTION.
- ROUGH GRADING: ROUGH GRADING SHALL BE PERFORMED TO SPECIFICATIONS BY GENERAL CONTRACTOR. GRADES TO BE +/- 2".
- FINE GRADING: SURFACE SHALL BE RAKED FREE OF STONES (1/2" AND ABOVE) AND EXTRANEOUS MATERIALS AND DEBRIS TO A SMOOTH AND EVEN TEXTURE. ALL EXTRANEOUS MATTER WILL BE DISPOSED OF BY CONTRACTOR.

PLANTINGS

- PLANT MATERIAL SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN PERMISSION OF THE PARKS DEPARTMENT/LANDSCAPE DESIGNER. THE USE OF MATERIALS DIFFERING IN KIND, QUALITY OR SIZE FROM THAT SPECIFIED WILL BE ALLOWED ONLY AFTER THE LANDSCAPE DESIGNER & PARKS DEPARTMENT IS CONVINCED THAT ALL MEANS OF OBTAINING THE SPECIFIED MATERIAL HAVE BEEN EXHAUSTED. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS SPECIFIED. ALL REQUESTS FOR SUBSTITUTIONS MUST BE SUBMITTED NO LATER THAN 2 WEEKS PRIOR TO THE INITIATION OF WORK.
- PLANT MATERIAL QUALITY, SIZE AND CONDITION SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK, 1980 EDITION, AS PUBLISHED BY THE COMMITTEE ON HORTICULTURAL STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUNSCALED INJURIES, PLANT DISEASES, INSECT EGGS, BORES AND ALL OTHER FORMS OF INFECTIONS.
- UNLESS OTHERWISE STATED ON THE DRAWINGS OR APPROVED BY OWNER'S REPRESENTATIVE, ALL PLANTS SHALL BE NURSERY GROWN AND SHALL BE TAGGED WITH NURSERY LABELS INDICATING SPECIES AND VARIETY.
- NONCONTAINER GROWN PLANTS SHALL HAVE A SOLID BALL OF EARTH OF MINIMUM SPECIFIED SIZE AND HELD IN PLACE SECURELY BY BURLAP AND A STOUT TWINE OR ROPE. BROKEN OR LOOSE BALLS WILL BE REJECTED.
- UNLESS SPECIFICALLY NOTED ON THE DRAWING, ALL TREES SHALL HAVE A SINGLE TRUNK THAT IS STRAIGHT AND FREE OF "DOG-LEGS" "CROOKS", "Y-CROTCHES", OR OTHER DISFIGURING SHAPES. THE CENTRAL LEADER OF ALL TREES SHALL NOT HAVE BEEN PRUNED. TREES WITH DOUBLE LEADERS ARE NOT ACCEPTABLE, UNLESS SPECIFIED AS MULTI-TRUNKED.
- ALL PLANT MATERIAL SHALL HAVE A UNIFORM SHAPE AROUND ITS COMPLETE CIRCUMFERENCE PLANT MATERIAL WITH IRREGULAR BRANCHING PATTERNS OR WITH BRANCHING PATTERNS MORE HIGHLY DEVELOPED ON ONE SIDE THAN ON OTHER SIDES SHALL NOT BE ACCEPTABLE.

SODDING

- SOD IS TO BE CUT, DELIVERED TO SITE AND INSTALLED WITHIN 24 HOURS.
- SITE TO BE PROPERLY PREPARED BY LOOSENING TOP 6 INCHES OF SOIL, BE LASER LEVELED, ROLLED AND MOISTENED PRIOR TO PLACEMENT OF SOD.
- FERTILIZER OR SOIL AMENDMENTS TO BE TILLED INTO SOIL PRIOR TO PLACEMENT OF SOD.
- SOILS TO BE RAKED TO REMOVE ANY STONES LARGER THAN 1 INCH, ROOTS, BRANCHES, EXTRANEOUS MATERIALS JUST PRIOR TO PLACEMENT OF SOD.
- ANY MESH USED ON SOD ROLLS BY FARM IS TO BE REMOVED AS SOD IS BEING INSTALLED.
- SOD TO BE WATERED, FERTILIZED AND MOWED AS RECOMMENDED BY SOD FARM.
- AREAS THAT ARE SODDED TO BE KEPT FREE OF WEEDS PRIOR TO AND AFTER PLACEMENT OF SOD. ANY HERBICIDE TREATMENT(S) OF SOD AREAS NEED TO BE DONE BY AN INDIVIDUAL (COMPANY) WITH PROPER LICENSE.
- FLAT SODDED AREAS NEED TO BE LASER LEVELED PRIOR TO INSTALLATION OF IRRIGATION SYSTEM AND AGAIN PRIOR TO INSTALLATION OF SOD IN FLAT AREAS.

JOB SITE

- THE LANDSCAPE DESIGNER WILL INSPECT PLANT MATERIAL AT A WHOLESALE NURSERY OF THE CONTRACTOR'S CHOICE PRIOR TO DELIVERY OF MATERIALS TO THE CONTRACTOR'S YARD. HOWEVER, AT NO ADDITIONAL EXPENSE TO THE OWNER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAVEL EXPENSES INCURRED BY THE OWNER'S REPRESENTATIVE FOR ANY TRAVEL OUTSIDE OF THE LOCAL AREA.
- THE CONTRACTOR SHALL BE LIABLE FOR ANY LOSS OR DAMAGE TO ANY WORK OR MATERIALS, SUPPLIES AND EQUIPMENT ON THE JOB SITE CAUSED BY THE CONTRACTOR, ITS EMPLOYEES OR ANY PROJECT WITH THE OWNERS REPRESENTATIVE/OWNER.
- LANDSCAPE DESIGNER AND PARKS STAFF SHALL BE THE JUDGE OF THE QUALITY AND ACCEPTABILITY OF ALL PLANT MATERIALS. ALL REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO OWNER.

MULCHING

- ALL PLANTING BEDS SHOWN ON PLANS SHALL BE MULCHED. NO BEDS WILL BE LEFT UNCOVERED OR NOT TOP DRESSED, UNLESS OTHERWISE SPECIFIED.

SOILS

- DEVELOPER SHALL ENSURE AT LEAST 1 FOOT OF TOP SOIL FOR GROWING GRASS. SOIL SAMPLES SHALL BE TAKEN TO TEXAS A&M RESEARCH & EXTENSION CENTER.

CARE AND REPLACEMENT

- ALL TREES SHALL BE GUARANTEED FOR THE PERIOD OF ONE FULL YEAR BEGINNING ON THE DATE OF FINAL ACCEPTANCE.

STEEL FABRICATION NOTES

- CAST-IN-PLACE ANCHORS IN CONCRETE SHALL BE THREADED OR WEDGE, GALVANIZED FERROUS CASTINGS, ASTM A 27/1 27M CAST STEEL. PROVIDE BOLTS, WASHERS, AND SHIMS AS NEEDED, ALL HOT-DIP GALVANIZED PER ASTM F 2329.
- SUBMIT COMPLETED SINGLE STEEL PLATE ARTWORK PIECE FOR APPROVAL.
- REMOVE BURRS AND EASE EDGES.
- WELD CORNERS AND SEAMS CONTINUOUSLY.
- FABRICATE SEAMS AND OTHER CONNECTIONS IN A MANNER TO EXCLUDE WATER.
- WHERE UNITS ARE INDICATED TO BE CAST INTO CONCRETE OR BUILT INTO MASONRY, EQUIP WITH INTEGRALLY WELDED STEEL STRAP ANCHORS NOT LESS THAN 24" O.C.

IRRIGATION NOTES

GENERAL

- IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13087, AUSTIN, TX 78711-3087.
- WORK UNDER THIS SECTION CONSISTS OF INSTALLING A COMPLETE UNDERGROUND IRRIGATION SYSTEM AS SHOWN ON THESE PLANS, DETAILS AND SPECIFICATIONS. THE CONTRACTOR PERFORMING THIS WORK SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS, INCIDENTAL WORK, AND PERMITS NECESSARY FOR THE COMPLETION OF THE IRRIGATION SYSTEM, EXCEPT FOR THOSE COMPONENTS SPECIFIED TO BE FURNISHED BY OTHERS.
- ALL ROADWAY TRENCHING, PATCHING, AND TRAFFIC CONTROL SHALL BE PERFORMED TO THE CITY OF EL PASO STANDARDS FOR PUBLIC WORK CONSTRUCTION. THE CONTRACTOR SHALL PREPARE FOR THE OWNER AND OTHER REQUIRED ENTITIES HAVING JURISDICTION A TRAFFIC CONTROL PLAN AND A PROJECTED TIME SCHEDULE.
- THE CONTRACTOR SHALL COORDINATE WATER "TAP-IN" LOCATIONS AND CONTROLLER LOCATIONS WITH THE PARK STAFF & LANDSCAPE DESIGNER PRIOR TO INSTALLATION.
- ALL PLANT MATERIALS SHALL BE IRRIGATED WITH AUTOMATIC IRRIGATION SYSTEMS AS PER PLANS, DETAILS AND SPECIFICATIONS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- WHERE TREES, LIGHT STANDARDS, ETC. ARE AN OBSTRUCTION OF PIPING AND DRIP EMITTERS, THEY SHALL BE ADJUSTED AND/OR RELOCATED AS NECESSARY TO OBTAIN FULL COVERAGE WITHOUT EXCESSIVE OVERFLOW. PLANS ARE DIAGRAMMATIC AND APPROXIMATE DUE TO SCALE OF DRAWINGS. ALL VALVES SHALL BE LOCATED IN PLANTING AREAS OR SODDEN AREAS WHERE SHOWN AND ALL PIPING SHALL BE INSTALLED PRIOR TO LANDSCAPING OR PAVING WORK. NO TEES, ELLS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER PAVING. CAP ALL ENDS HAND TIGHT, PRIOR TO BACKFILL.
- COMPLY WITH REQUIREMENTS OF THE I.P.C. AND ANY OTHER GOVERNMENTAL BODIES HAVING JURISDICTION.
- ALL BACKFILL SHALL BE IMPORTED CLEAN MATERIAL. TRENCH IS TO BE EVEN WITH EXISTING GRADES AFTER COMPACTION. NO ORGANIC MATERIAL AND NO STONES IN BACKFILL LARGER THAN 1/2" IN DIAMETER.
- TRENCH BACKFILL MATERIAL SHALL BE COMPACTED 85% PROCTOR DENSITY
- COORDINATE PROGRAMS TO AVOID STATION OVERLAP.
- CONTRACTOR TO FLUSH ALL LINES PRIOR TO INSTALLING HEADS AND EMITTERS.
- ALL VALVES TO BE IN APPROVED VALVE BOXES (SEE SPECS AND NOTES). LOCATE VALVE BOXES IN GROUPINGS OF TWO OR THREE AND LOCATE NEAR WALKWAYS WHERE POSSIBLE. ALL VALVES TO BE TAGGED WITH THE VALVE RESPECTIVE NUMBER.
- THE CONTRACTOR SHALL PREPARE AN ASBUILT MYLAR SET OF PLANS FOR THE OWNER.
- THE MAINLINE SHALL BE PRESSURE TESTED AT 50 PSI ABOVE STATIC PRESSURE OR DESIGN PRESSURE, BASED ON HIGHEST VALUE, FOR 24 HOURS WITH A PARKS DEPARTMENT REPRESENTATIVE PRESENT.

COMPONENTS AND PRODUCTS

- ALL COMPONENTS INSTALLED AS THE UNDERGROUND IRRIGATION SYSTEM ARE TO BE NEW AND IN GOOD WORKING ORDER AND WITHOUT FLAWS UNLESS OTHERWISE INDICATED ON THE PLANS, DETAILS AND SPECIFICATIONS.
- IF THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS DO NOT THOROUGHLY DESCRIBE THE METHOD OR TECHNIQUES TO BE USED FOR INSTALLATION, THE CONTRACTOR SHALL FOLLOW THE INSTALLATION METHODS RECOMMENDED BY THE PARKS DEPARTMENT AND/OR MANUFACTURER.
- ALL PLANT MATERIALS INSTALLED SHALL HAVE THE AUTOMATIC IRRIGATION SYSTEM FULLY OPERABLE AT THE TIME OF PLANT INSTALLATION.

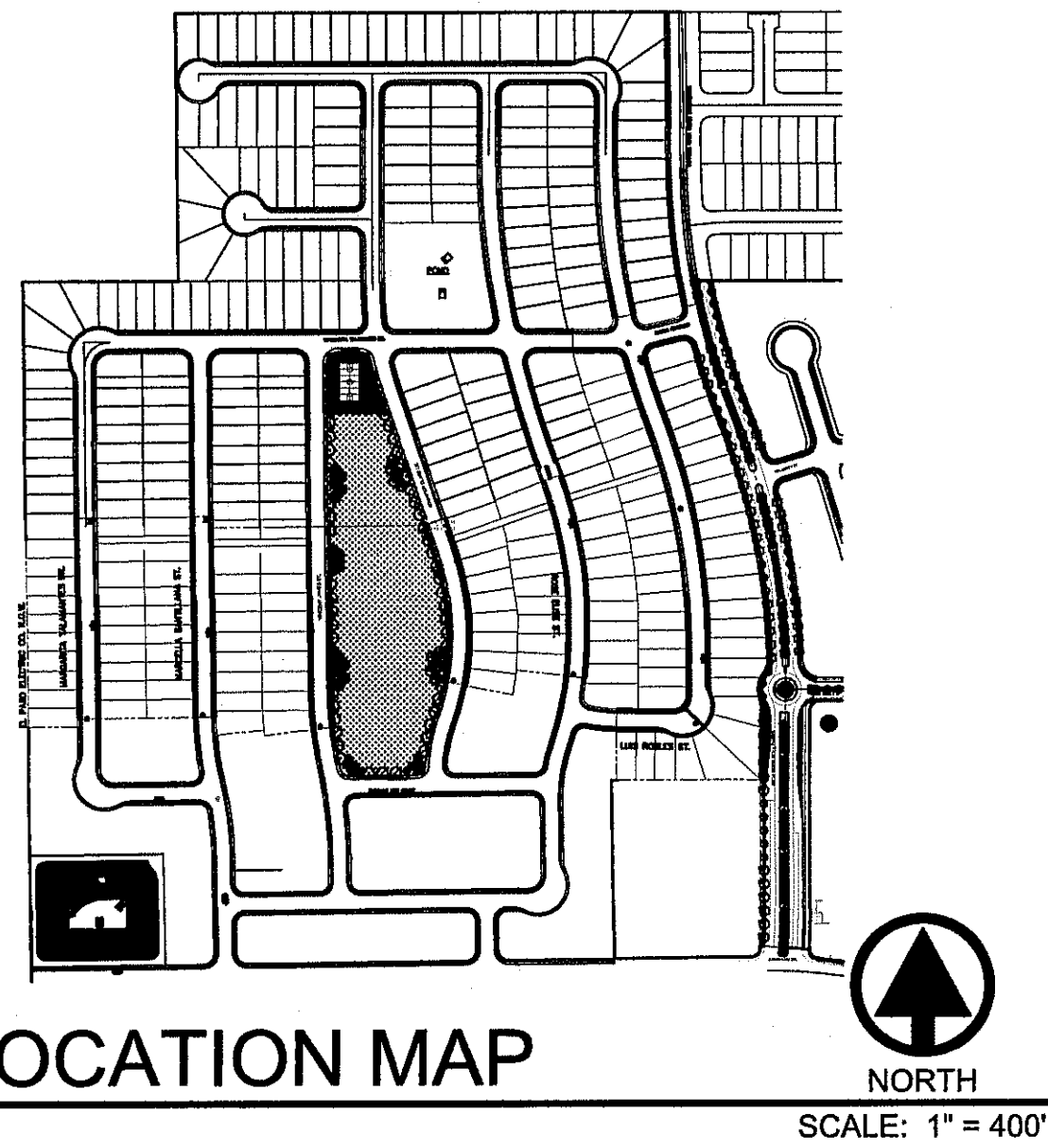
CARE AND REPLACEMENT

- THE CONTRACTOR SHALL SUPPLY ALL WARRANTIES OF COMPONENTS OF THE IRRIGATION SYSTEM TO THE OWNER.
- THE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN SATISFACTORY WORKING ORDER DURING THE TIME OF CONTRACT WORK.

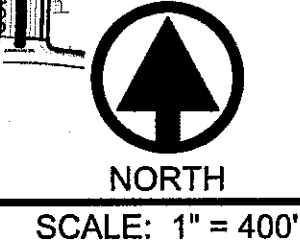


PARKS DEPARTMENT

REVIEWED BY: *Antonio...* 01/10/2017



LOCATION MAP

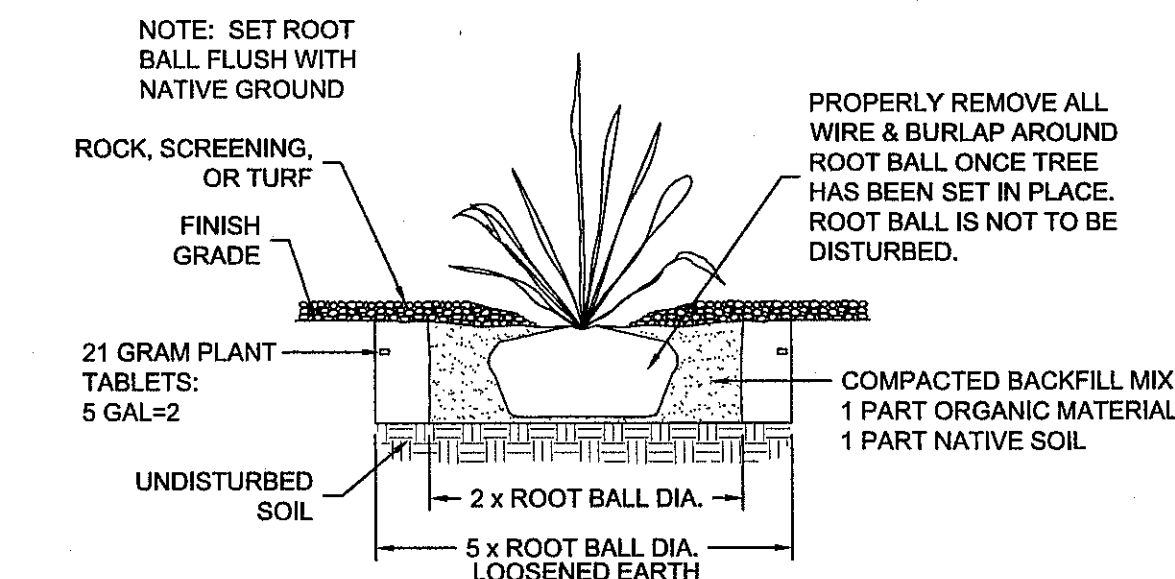


LANDSCAPE LEGEND

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY
2" CALIPER TREE - 10' HEIGHT MINIMUM			
	'BUBBA' DESERT WILLOW	CHILOPSIS LINEARIS 'BUBBA'	32
	HONEY MESQUITE	PROSOPIS GLANDULOSA	60
	CHINESE PISTACHE	PISTACIA CHINENSIS	12
5 GALLON SHRUB - 18" HEIGHT MINIMUM UNLESS OTHERWISE INDICATED			
	SILVE PESO MOUNTAIN LAUREL (MULTI LEADER)	SOPHORA SEC. 'SILVER PESO'	5
5 GALLON SHRUB - 18" HEIGHT MINIMUM UNLESS OTHERWISE INDICATED			
	FAXON YUCCA	YUCCA FAXONIANA	15
	SPINELESS PRICKLY PEAR	OPUNTIA CACANAPA	60
	CHIHUAHUAN RAIN SAGE	LEUCOPHYLLUM LAEVIGATUM	30
	BLACK DALEA	DALEA FRUTESCENS	15
	YELLOW ICE PLANT	DELOSPERMA NUBIGENUM	80
	REDOLENS ACACIA	ACACIA REDOLENS	50
	TRAILING ROSEMARY	ROSMARINUS OFFICINALIS 'PROSTATA'	12
	INDIGO BUSH	DALEA GREGII	12
	BRAKE LIGHT YUCCA	HESPERALOE PARVIFLORA 'BRAKELIGHT'	24
	PURPLE TREE AWN	ARISTIDA PURPUREA	8

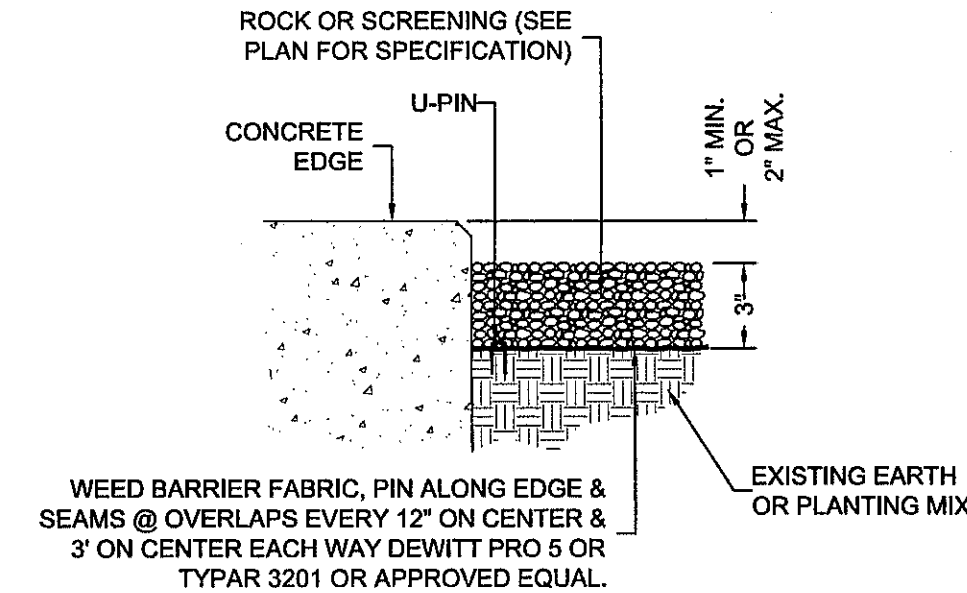
TURF, GRAVELS, & MULCHES

- 1" PADRE CANYON (OR EQUIVALENT), 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER
- 4-6" POKED RIVER ROCK, 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER



SHRUB PLANTING DETAIL

NOT TO SCALE



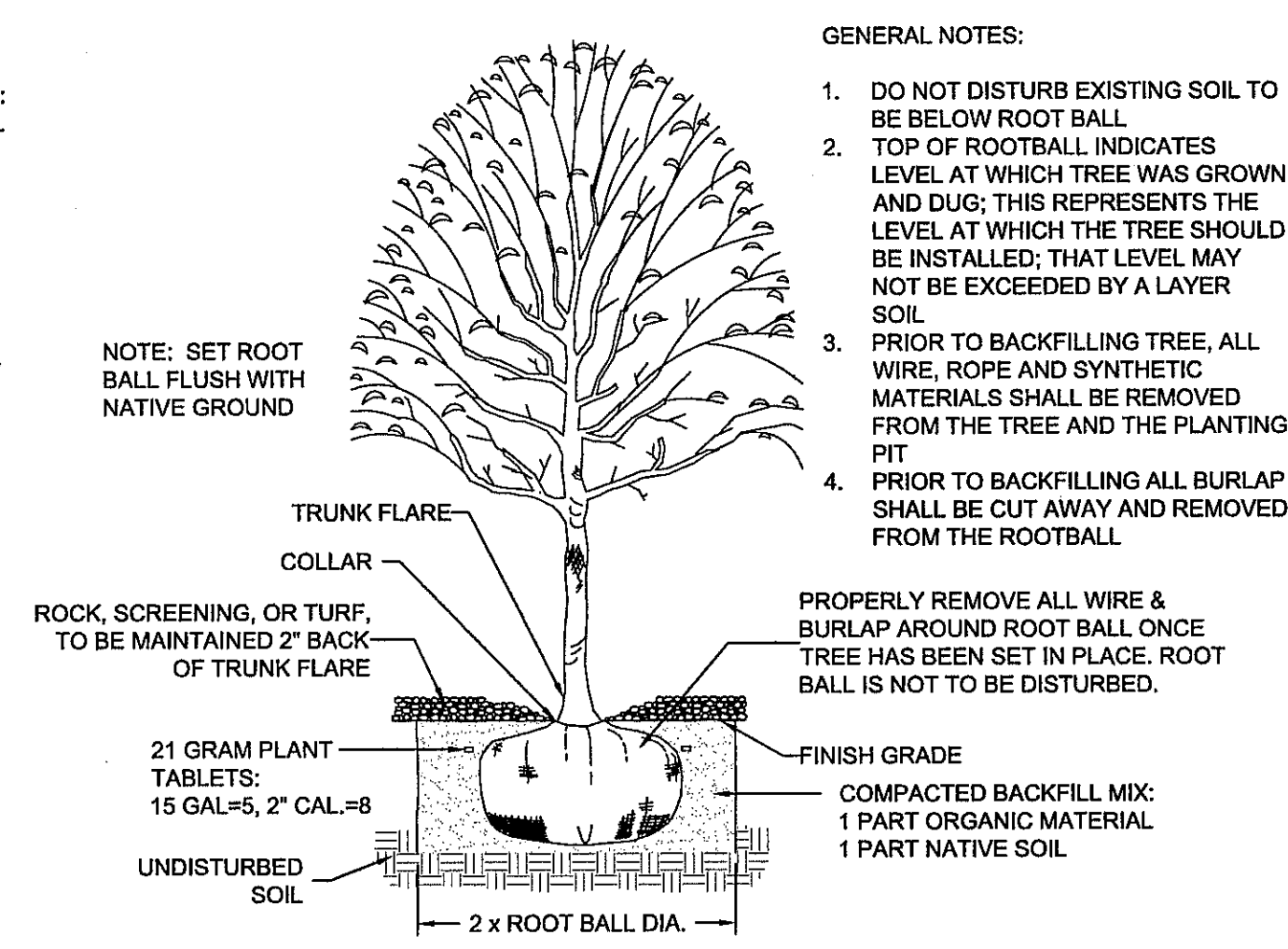
ROCK/SCREENING DETAIL

NOT TO SCALE

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SSC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

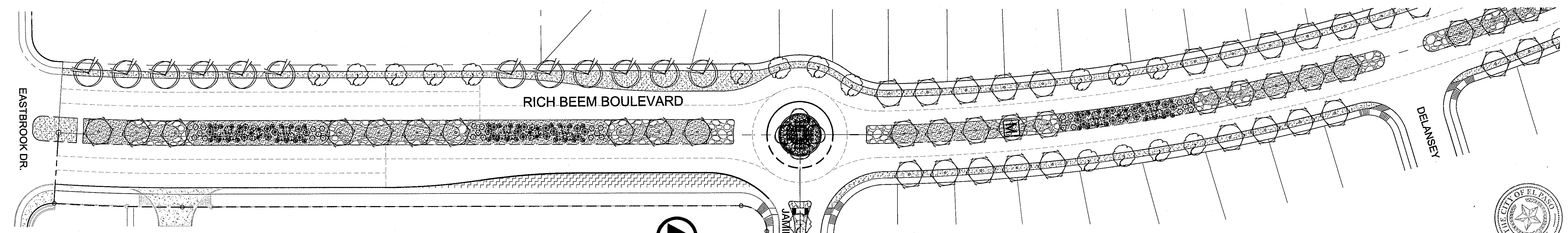
WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES



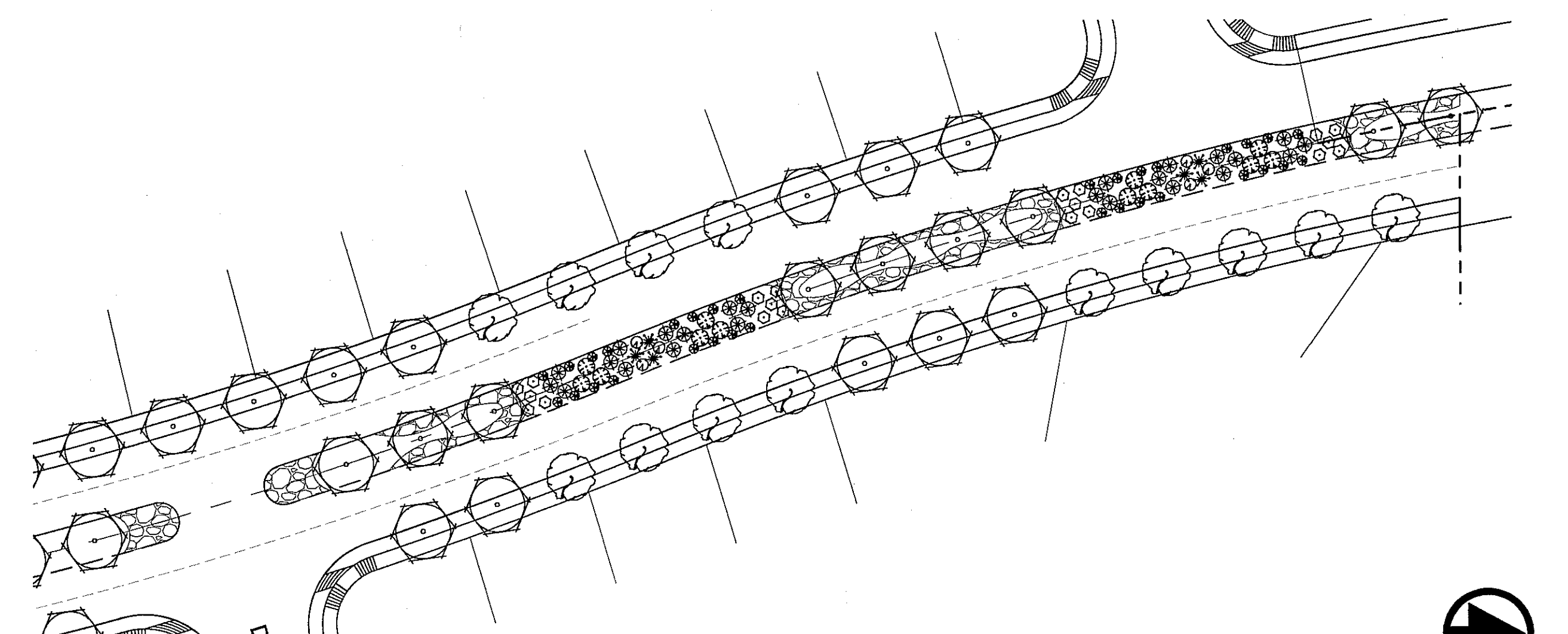
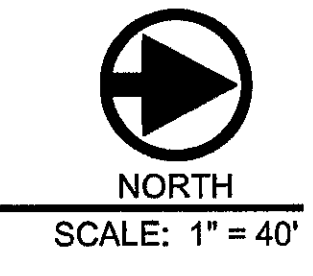
TREE PLANTING DETAIL

NOT TO SCALE

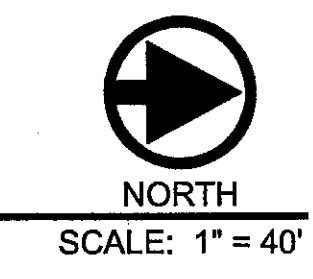
- GENERAL NOTES:
- DO NOT DISTURB EXISTING SOIL TO BE BELOW ROOT BALL
 - TOP OF ROOTBALL INDICATES LEVEL AT WHICH TREE WAS GROWN AND DUG; THIS REPRESENTS THE LEVEL AT WHICH THE TREE SHOULD BE INSTALLED; THAT LEVEL MAY NOT BE EXCEEDED BY A LAYER SOIL
 - PRIOR TO BACKFILLING TREE, ALL WIRE, ROPE AND SYNTHETIC MATERIALS SHALL BE REMOVED FROM THE TREE AND THE PLANTING PIT
 - PRIOR TO BACKFILLING ALL BURLAP SHALL BE CUT AWAY AND REMOVED FROM THE ROOTBALL



LANDSCAPE PLAN



LANDSCAPE PLAN



LANDSCAPE NOTES

- ALL UTILITY EASEMENTS SHALL BE MARKED PRIOR TO EXCAVATION.
- CONTRACTOR SHALL PROVIDE ROCK SAMPLES AND OBTAIN APPROVAL FROM OWNER.
- ALL TREES SHALL BE SINGLE LEADER TRUNK.
- ALL TREES TO BE CONTAINER GROWN. NO B&B ACCEPTED.
- TREES SHALL NOT TO BE TOPPED, HEADED OR SKINNED.
- TREES GROWN REGIONALLY IN DESERT AREAS ARE PREFERRED, AND TYPICALLY HAVE A MORE SUCCESSFUL TRANSPLANT RATE. TREES PURCHASED IN AREAS RECEIVING > 15" RAINFALL/YEAR TO BE ACCLIMATED IN EL PASO 30 DAYS PRIOR TO PLANTING. CONTRACTOR TO PROVIDE INVOICE INDICATING PROVENANCE TO OWNER.
- TREE BRANCHES TO BE AT 6 FT. ABOVE GRADE AND CLEARANCE OF 7 FT. ABOVE SIDEWALK.



REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. INTERSECTION WITH SOUTHERLY RIGHT OF WAY OF MONTANA AVENUE CITY DATUM ELEVATION: 4005.40

DATE: _____ BY: _____

REVISIONS: _____

IRRIGATOR'S SEAL

SCALE: Horizontal: per scale, Vertical: per scale, Contour interval: N/A, DATE: 12-21-16, DESIGN BY: JBA & CH, DRAWN BY: CH, CHKD. BY: JBA, APPVD. BY: JBA, JOB No.: 2025-0041D

PROJECT TITLE

RICH BEEM BLVD. LANDSCAPE
LOT 1, BLOCK 48
TRES SUEÑOS UNIT FIFTEEN
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE

LANDSCAPE PLAN

SHEET NO.

L-7
SHEET 7 OF 8

desert elements
LANDSCAPE DESIGN, LLC
1-3 arroyo drive, sandland park, new mexico 80053
DESIGN@DELLC.COM • PHONE: 375.569.9100

IRRIGATION NOTES

- IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13067, AUSTIN, TX 78711.
- DESIGN PRESSURE FOR IRRIGATION SYSTEM IS 30 PSI
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR TO COORDINATE WATER METER LOCATIONS WITH EPWU.
- IRRIGATION SHALL BE INSTALLED ACCORDING TO PLANS, DETAILS, AND SPECIFICATIONS. SHOULD CHANGES BE IMPLEMENTED IN THE FIELD, A NEW SET OF PLANS IS REQUIRED TO BE SUBMITTED TO THE CITY OF EL PASO. LANDSCAPE DESIGNER IS NOT UNDER CONTRACT TO PROVIDE THESE PLANS, EXCEPT AS PROVIDED FOR IN ORIGINAL CONTRACT.
- CONTRACTOR WILL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS DESIGNED, WHEN IT IS OBVIOUS THAT FIELD CONDITIONS EXIST, THAT WERE NOT CONSIDERED AT TIME OF DESIGNING THE SYSTEM. ANY CONDITIONS NOTED AS SUCH, SHALL BE REPORTED TO THE ARCHITECT AND IRRIGATION DESIGNER. IF THE CONTRACTOR FAILS TO DO SO, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY CORRECTIONS NEEDED.
- PLANS SCHEMATIC FOR READABILITY. CONTRACTOR TO ADJUST AS NECESSARY TO FIT SITE.
- CONTRACTOR SHALL VERIFY STATIC PRESSURE AT METER MEETS SYSTEM NEEDS. LICENSED IRRIGATOR TO AMEND AS NECESSARY.
- PROVIDE SHUTOFF VALVE BETWEEN METER AND BACKFLOW.
- CONTRACTOR IS RESPONSIBLE FOR CONNECTING AUTOMATIC CONTROLLER TO ELECTRICITY.
- 14 GA. SOLID COPPER WIRE (PVC INSULATED AND UL APPROVED) SHALL RUN FROM CONTROLLER TO VALVES. COMMON WIRE TO BE 12GA.
- ALL CONTROL WIRING FROM THE VALVES TO THE CONTROLLER MUST BE INSTALLED IN A 1" PVC CONDUIT PIPE IF BURIED BENEATH CONCRETE OR ASPHALT SURFACES.
- LOCATE VALVES AWAY FROM LOW SPOTS OR AREAS OF DRAINAGE FLOW.
- VALVE CAPS SHALL MATCH COLOR OF SURROUNDING MATERIAL, AS CLOSELY AS POSSIBLE.
- ALL MAINLINES SHALL BE BURIED MIN. 18", ALL LATERALS 12".
- MAINTAIN 4" MINIMUM CLEARANCE BETWEEN PIPE RUNNING IN THE SAME TRENCH. CONTROL WIRE SHALL ALWAYS BE TO THE SIDE AND BELOW THE TOP OF THE PIPE RUNNING IN THE SAME TRENCH.
- POLYETHYLENE TUBING TO BE PLACED UNDER WEED BARRIER FABRIC. MICROTUBING TO BE STAKED.
- ALL PIPING/WIRING RUNNING BENEATH PAVED SURFACES (DRIVES, SIDEWALKS, ETC.) SHALL BE INSTALLED IN SCH 40 PVC SLEEVES. SLEEVES SHALL BE OF THE SIZE SO THAT THE INSIDE DIAMETER OF THE SLEEVE IS 3 TIMES GREATER THAN THAT OF THE COMBINED OUTER DIAMETER OF ALL ITEMS INSTALLED IN THE SLEEVES.
- PEA GRAVEL SHALL BE INSTALLED AT THE BASE OF ALL VALVE BOXES, WITH A CLEARANCE OF MIN. 2" BETWEEN VALVE AND TOP OF GRAVEL.
- AT TIME OF WALK THROUGH INSPECTION FOR ACCEPTANCE THE FOLLOWING SHALL BE PROVIDED TO EPDOT - MEDIANS SECTION
 - AS-BUILT DRAWINGS.
 - TOBOSFTUS FIELD TRANSMITTER.
 - BACK FLOW TEST RESULTS.
 - ALL DOCUMENTATION FOR THE TRANSFER OF WATER METER(S).
 - CLARIFY THE MAINTENANCE RESPONSIBILITY DURING WARRANTY PERIOD.
 - WARRANTY AND MAINTENANCE AGREEMENT.

IRRIGATION LEGEND

SYMBOL	ITEM
	3/4" METER - CONTRACTOR TO COORDINATE WITH EPWU
	3/4" FEBCO 825Y RP BACKFLOW PREVENTER W/ ALUM. HOTBOX ENCLOSURE - MUST NOTE CLASS 2, ASSE #1060 FOR BACKFLOW
	1" BRASS PORT VALVE
	1" REMOTE CONTROL VALVE, RAINBIRD 100-PESB W/ AMIAD Y FILTER AFTER THE VALVE & RAIN BIRD TBOS4CMUS CONTROLLER/ WITH POTTED LATCHING SOLENOID & TBOSFTUS FIELD TRANSMITTER (SEE DETAIL FOR INSTALLATION)
	1" REMOTE CONTROL VALVE, RAINBIRD 100-PESB W/ AMIAD Y FILTER AFTER THE VALVE
	1.25" MAINLINE - SCHED. 40 PVC, 1.25" UNLESS OTHERWISE INDICATED
	2" PVC SLEEVE, 2" UNLESS OTHERWISE INDICATED
	1" LATERAL LINE - SCHED. 40 PVC, 1" UNLESS OTHERWISE INDICATED
	RAINBIRD XERI-BIRD 8 MULTI-OUTLET EMISSION DEVICE RAINBIRD XB-10 DRIP EMITTERS - 2 PER SHRUB & GROUND COVER RAINBIRD XB-20 DRIP EMITTERS - 8 PER TREE
	A) STATION NUMBER
	B) SIZE OF VALVE IN INCHES
	C) TOTAL GPM

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
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U.S. SPRINT TELECOMM	(800) 521-0579

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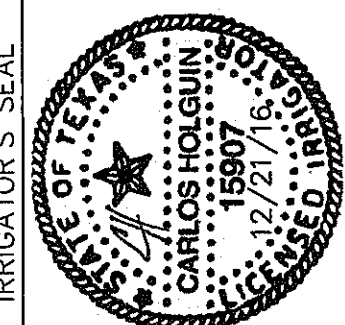
REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

ca

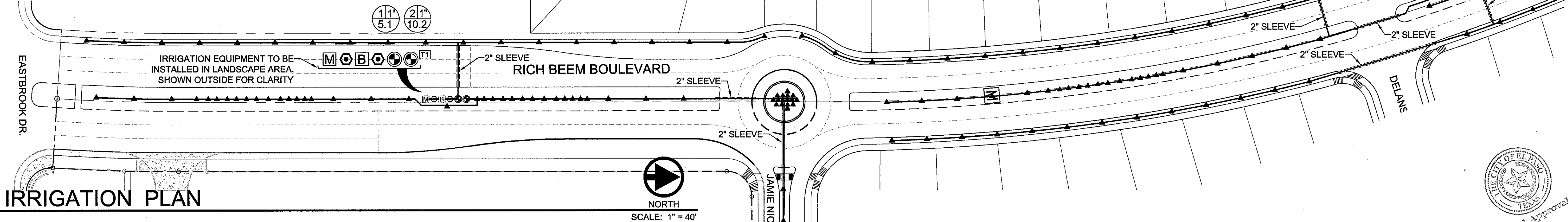
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F, El Paso, TX 79924
915.544.5232 | www.caengr.com



SCALE

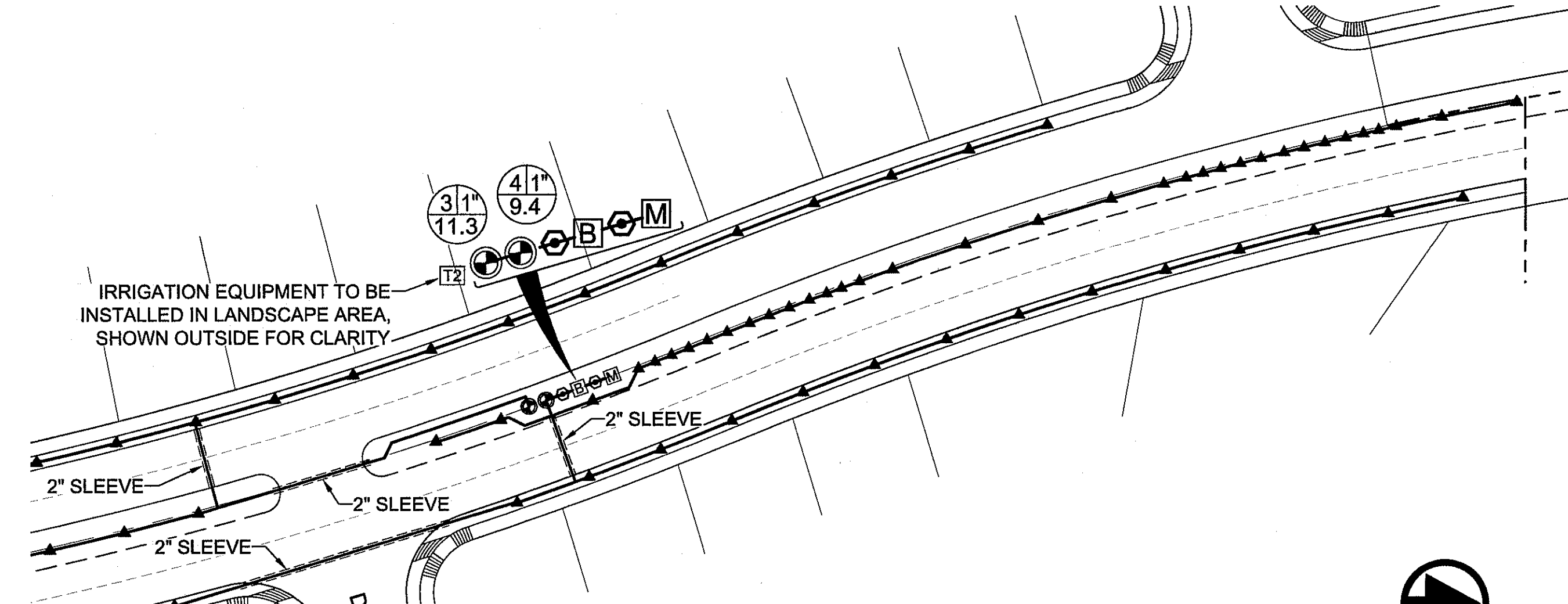
Horizontal: per scale
Vertical: per scale
Contour Interval: N/A

DATE: 12-21-16
DESIGN BY: JBA & CH
DRAWN BY: CH
CHKD. BY: JBA
APPVD. BY: JBA
JOB No. 2025-004LD



IRRIGATION PLAN

NORTH
SCALE: 1" = 40'

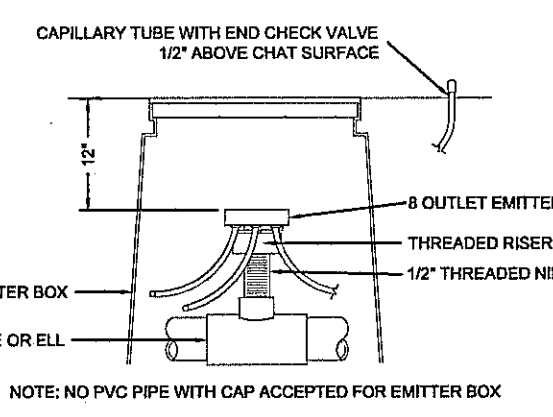


IRRIGATION PLAN

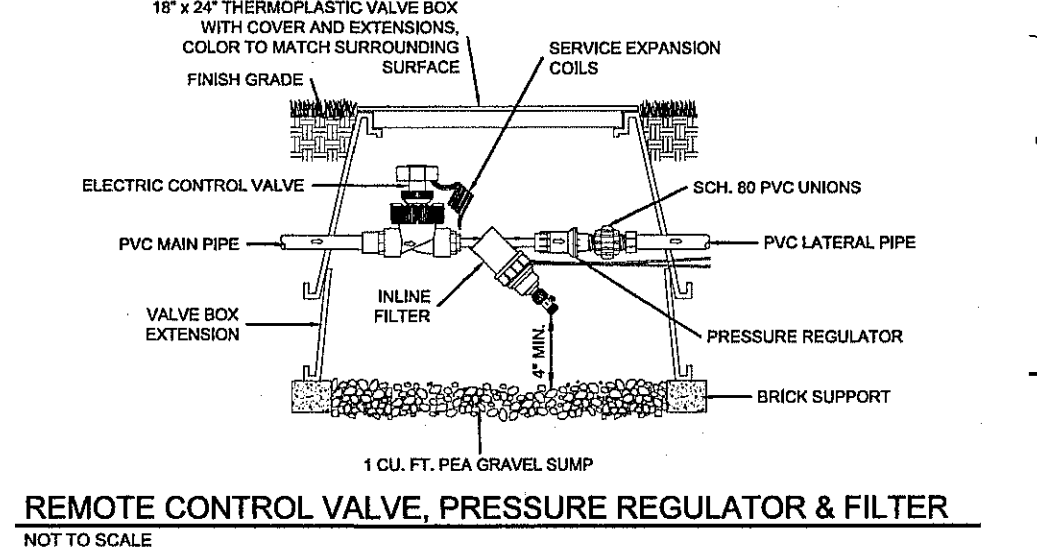
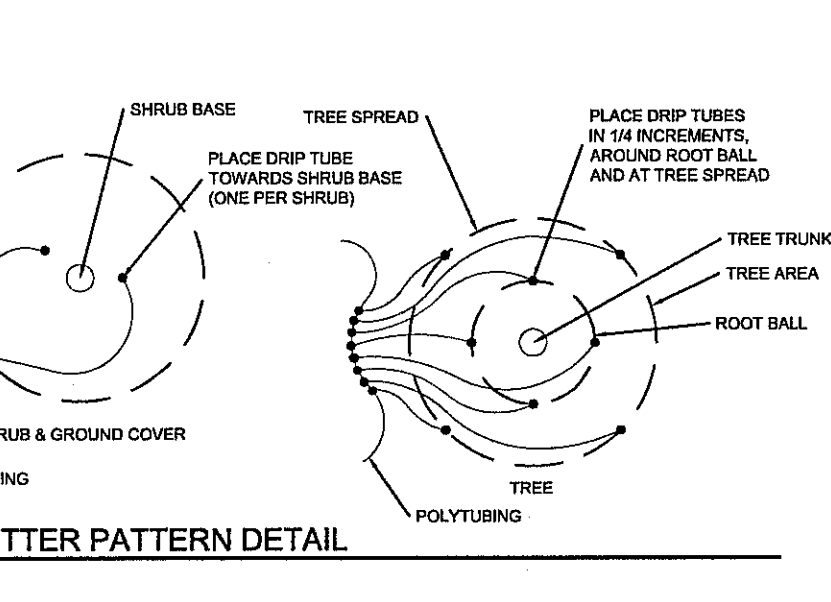
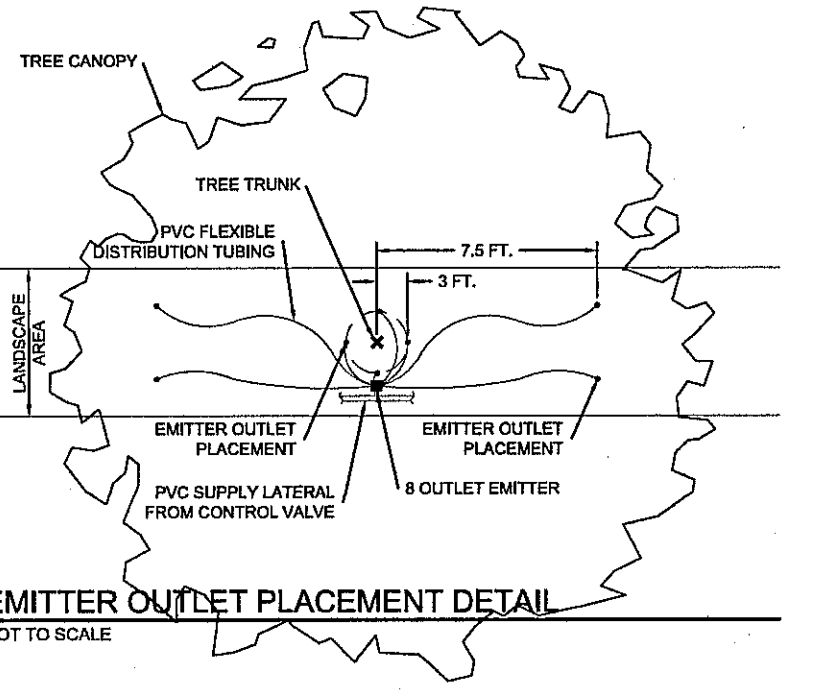
NORTH
SCALE: 1" = 40'

HYDRAULIC CALCULATIONS (STREETS)

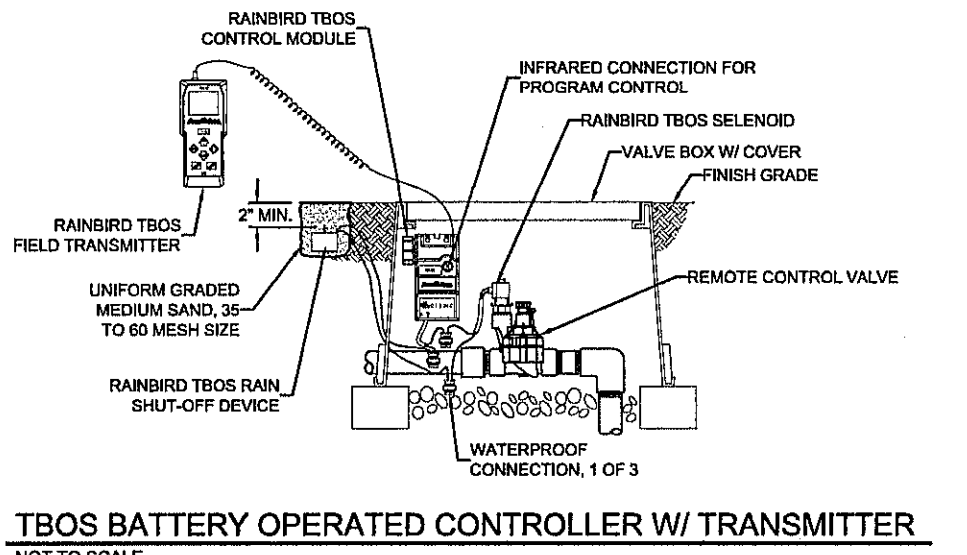
TIMER 1	VALVE #1	19 X 16 GPH = 5.1 GPM
	TREES	60 MIN.
TIMER 2	VALVE #2	18 X 16 GPH = 4.8 GPM
	TREES	60 MIN.
TIMER 2	SHRUBS	162 X 2 GPH = 5.4 GPM
		60 MIN.
TIMER 2	VALVE #3	36 X 16 GPH = 9.6 GPM
	TREES	60 MIN.
TIMER 2	SHRUBS	50 X 2 GPH = 1.7 GPM
		60 MIN.
TIMER 2	VALVE #4	23 X 16 GPH = 6.1 GPM
	TREES	60 MIN.
TIMER 2	SHRUBS	100 X 2 GPH = 3.3 GPM
		60 MIN.



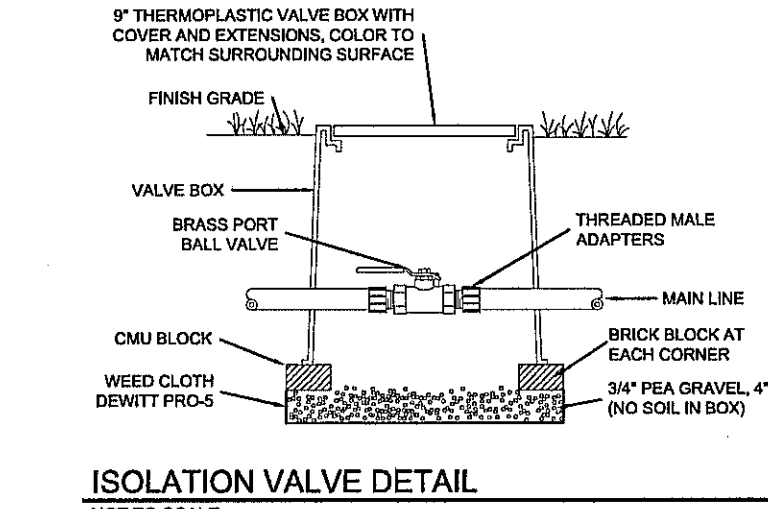
DRIP EMITTER DETAIL
NOT TO SCALE



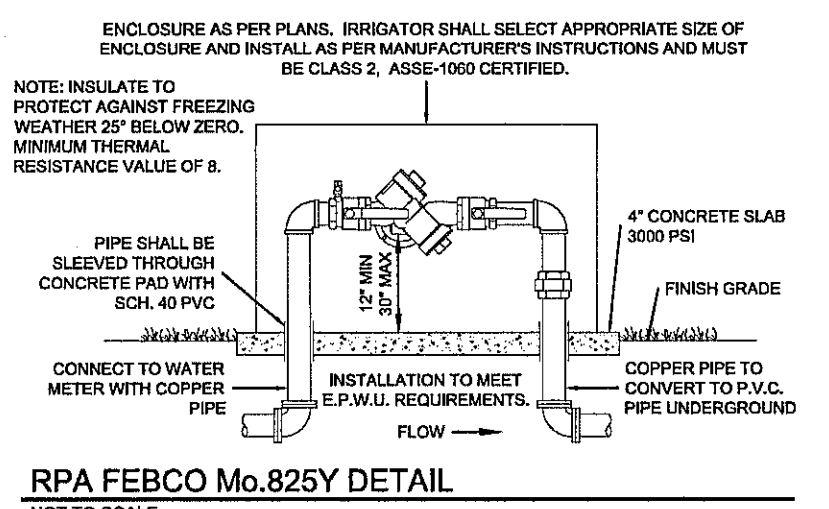
REMOTE CONTROL VALVE, PRESSURE REGULATOR & FILTER
NOT TO SCALE



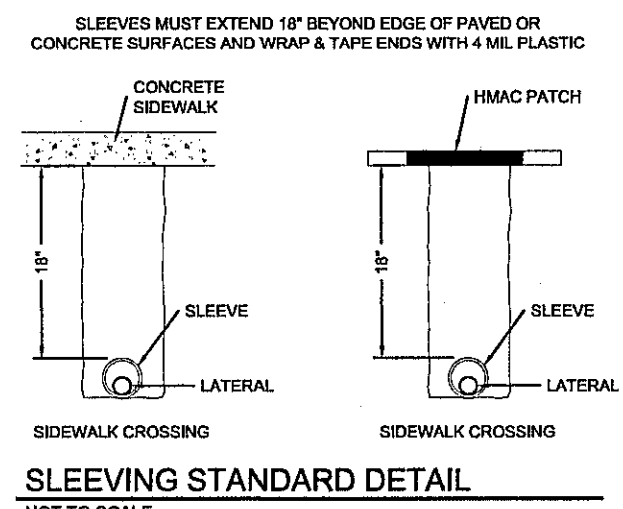
TBOS BATTERY OPERATED CONTROLLER W/ TRANSMITTER
NOT TO SCALE



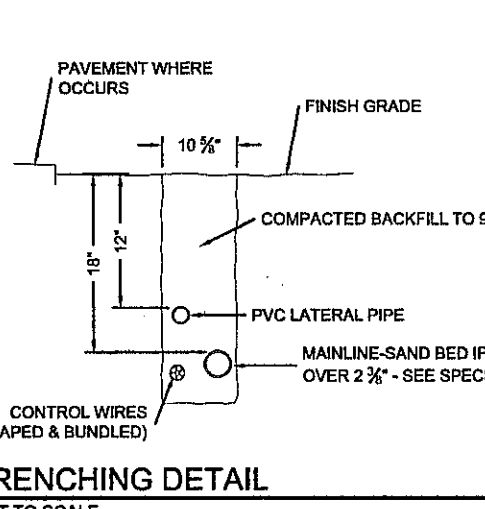
ISOLATION VALVE DETAIL
NOT TO SCALE



RPA FEBCO Mo.825Y DETAIL
NOT TO SCALE



SLEEVING STANDARD DETAIL
NOT TO SCALE



TRENCHING DETAIL
NOT TO SCALE

PROJECT TITLE

RICH BEEM BLVD. LANDSCAPE
LOT 1, BLOCK 48
TRES SUEÑOS UNIT FIFTEEN
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE

IRRIGATION LAYOUT

SHEET NO.

L-8
SHEET 8 OF 8

