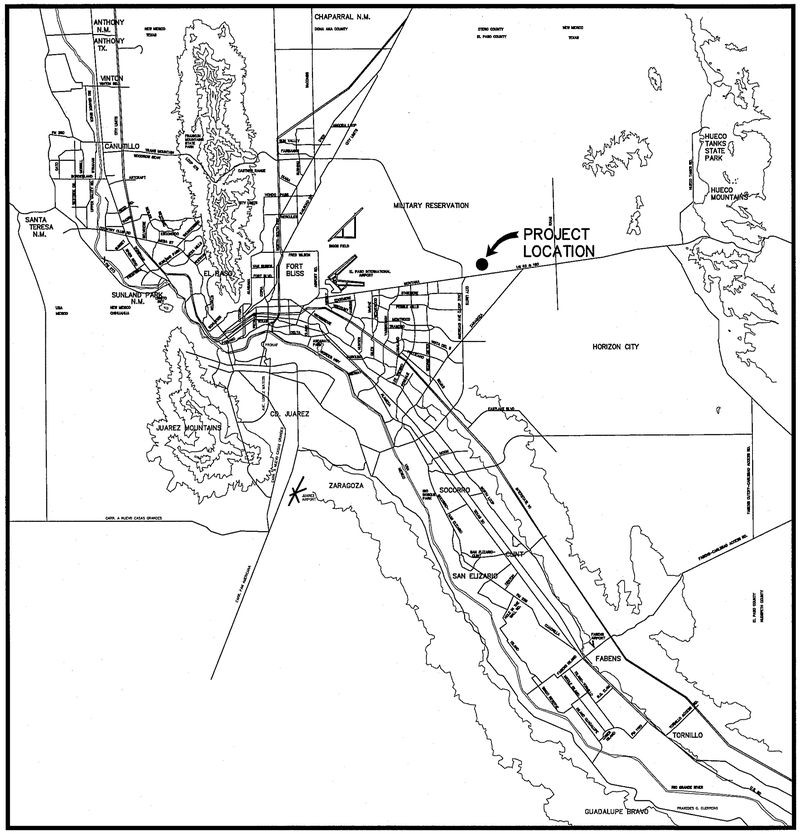
TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2,
TEXAS AND PACIFIC RAILS SURVEY
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 22.50± ACRES



VICINITY MAP
APPROXIMATE SCALE:
1" = 2 MILES

SHEET NUMBER	SHEET TITLE
CVR	COVER SHEET
C1.1	GENERAL INFORMATION
C2.1, C2.2	FINAL PLAT
C3.1, C3.2	GRADING PLAN & PARK GRADING PLAN
C4.1	DRAINAGE PLAN
C5.1, C5.2	GRADING SECTIONS
C6.1–C6.9	STREET PLAN & PROFILES
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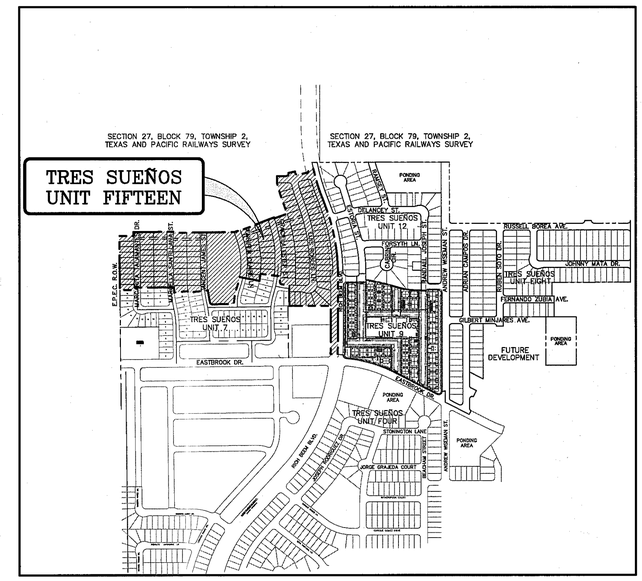
C8.1	DRAINAGE DETAILS
C9.1–C9.2	ILLUMINATION PLAN
C9.3	CONSTRUCTION PHASING PLAN
C10.1	WATER/SANITARY SEWER CONSTRUCTION PHASING PLAN
C10.2	WATER INDEX / GENERAL INFORMATION
C10.3–C10.6	WATER DETAILS
C11.1	SANITARY SEWER INDEX / GENERAL INFORMATION
C11.2–C11.3	SANITARY SEWER PLAN & PROFILES
C11.4–C11.6	SANITARY SEWER DETAILS
C12.1–C12.3	STORM WATER POLLUTION PREVENTION PLAN
L1 – L3	LANDSCAPE & IRRIGATION PLANS



LOCATION MAP
APPROXIMATE SCALE: 1" = 600'

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER

10-3-16
JORGE L. AZCARATE, P.E. PROJECT MANAGER

cea group
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

PARKS DEPARTMENT
REVIEWED BY: Antonio Julian 01/10/2017

CITY DEVELOPMENT DEPARTMENT
Reviewed For Conformance For Condition Related To:
Sidewalks — Driveways
Grading & Drainage — Retaining Rock Walls
Floodplain Ramps — On Site Ponding of Storm Waters
On Site Parking Layout.
Contractor Must Call 24 Hours Prior To Construction for Inspections
By: [illegible] Date: 11/17

PRINCIPAL CONTACTS:

	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	JNC DEVELOPMENT	12300 MONTWOOD DR.	EL PASO, TX 79928	(915) 849–0111	N/A
ENGINEER:	CEA GROUP	4712 WOODROW BEAN DR. STE. F	EL PASO, TX 79924	(915) 544–5232	(915) 544–5233
SURVEYOR:	LAND–MARK PROFESSIONAL SURVEYING	1420 BESSEMER DR, SUIT 'A'	EL PASO, TX 79936	(915) 598–1300	(915) 598–1221

S:\0025\0025-024-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\CE-G-CoverSheet.dwg, Model, 9/20/2016 2:26:22 PM

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 LABOR, TOOLS, EQUIPMENT, AND SUPERVISION REQUIRED TO ASSURE 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 PAVEMENT, ADJACENT 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 GRADES 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

- SUBDIVISION BOUNDARY
- ROW LINE
- CURB LINE
- PROPERTY LINE
- STREET CENTERLINE
- EASEMENT LINE
- MATCH LINE
- STORM SEWER LINE
- HIGH WATER MARK
- CURB AND GUTTER DROP INLET
- STORM SEWER MANHOLE
- 4000 — FINISHED GROUND CONTOUR ELEVATION (INDEX)
- FINISHED GROUND CONTOUR ELEVATION (INTERMEDIATE)
- 4000 — EXISTING GROUND CONTOUR ELEVATION (INDEX)
- EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE)
- NEW RETAINING ROCKWALL (2'–3' IN HEIGHT)
- NEW RETAINING ROCKWALL (3'–9' IN HEIGHT)
- X / X — STANDARD DETAIL/SECTION NUMBER; SHEET NUMBER WHERE STANDARD/SECTION DETAIL IS LOCATED
- 4000.00 — FINISHED SPOT ELEVATION
- FG. 56.00 — LOT FINISHED GROUND ELEVATION
- TC 4000.00 — TOP OF CURB ELEVATION
- TP 4000.00 — TOP OF PAVEMENT ELEVATION
- 1 (2) — SUBDIVISION LOT AND BLOCK NUMBER
- DRAINAGE FLOW
- HIGH POINT
- LOW POINT
- EXISTING HIGH POINT
- EXISTING LOW POINT
- HEADWALL WITH WINGWALLS
- DA–4 — DRAINAGE AREA
- 3:1 SLOPE — HORIZONTAL: VERTICAL SLOPE RATIO
- WHEELCHAIR RAMP

GRADING SPECIFICATIONS

1. CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTUDING THROUGH GROUND SURFACE; FILL DEPPRESIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL, UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED; REMOVE EXISTING ABOVE–GRADE AND BELOW–GRADE IMPROVEMENTS AS INDICATED AND AS NECCESSARY TO FACILITATE NEW CONSTRUCTION. BURNING IS NOT PERMITED ON OWNER'S PROPERTY. REMOVE WASTE MATERIALS FROM OWNER'S PROPERTY.
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, SM, AND SC.
3. UNSATISFACTORY FILL MATERIAL: ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS ML, 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, UNSATISFACTORY SOIL MATERIAL, OBSTRUCTIONS, AND DELETERIOUS MATERIAL FROM GROUND SURFACE UPON WHICH THE FILL IS TO BE PLACED. THE SURFACE SHALL THEN BE SCARIFIED TO A DEPTH OF AT LEAST 6–INCHES, AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD PREVENT UNIFORM COMPACTION. PLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH 1 VERTICAL TO 4 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE. AFTER PLOWING AND SCARIFYING FILL AREA, IT SHALL THEN BE DISCED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS, BROUGHT TO OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D–1557.
6. PLACEMENT OF FILL: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND–OPERATED TAMPERS. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. PLACE FILL MATERIALS EVENLY ADJACENT TO SITE APPURTENANCES, PIPING, OR CONDUIT TO REQUIRED ELEVATIONS. PREVENT WEDGING ACTION OF BACKFILL AGAINST SITE APPURTENANCES OR DISPLACEMENT OF PIPING OR CONDUIT BY CARRYING MATERIAL UNIFORMLY AROUND SITE APPURTENANCES, PIPING, OR CONDUIT TO APPROXIMATELY SAME ELEVATION IN EACH LIFT. COMPACT SOIL TO NOT LESS THAN 95% OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D–1557.
7. MOISTURE CONTROL: WHERE SUBGRADE OR LAYER OF SOIL MATERIAL MUST BE CONDITIONED FOR OPTIMUM MOISTURE BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. WATER CONTENT SHALL BE WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY.
8. QUALITY CONTROL: THE OWNER SHALL PROVIDE A GEOTECHNICAL ENGINEER TO PERFORM FIELD DENSITY TEST OF THE COMPACTION OF EACH LAYER OF FILL. DENSITY TESTS SHALL BE TAKEN IN THE COMPACTED MATERIAL BELOW THE DISTURBED SURFACE. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL TESTING AND WHEN REQUIRED DENSITIES ARE NOT MET, SUPERVISION BY THE GEOTECHNICAL ENGINEER DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

ABBREVIATIONS

LP	LOW POINT
HP	HIGH POINT
ELEV	ELEVATION
STA	STATION
VCS	VERTICAL CURVE STATION
VCE	VERTICAL CURVE ELEVATION
TC	TOP OF CURB
TM	TOP OF MEDIAN
TP	TOP OF PAVEMENT
TYP	TYPICAL
PVC	POINT OF VERTICAL CURVE
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
CAP	CAPACITY
EXP	EXPECTED
INV	INVERT
CFS	CUBIC FEET PER SECOND
A	AREA
DA	DRAINAGE AREA
LF	LINEAR FEET
STD	STANDARD
CONC	CONCRETE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
L	LENGTH
R	RADIUS
T	TANGENT
Δ	DELTA ANGLE
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HWE	HIGH WATER ELEVATION

SPECIAL CONDITIONS

1. CONTRACTOR SHALL HAVE A QUALIFIED PROJECT SUPERINTENDENT AT THE PROJECT SITE AT ALL TIMES DURING THE CONSTRUCTION DURATION.
2. CONTRACTOR SHALL PREPARE CURB GRADES WITHIN 0.10–FEET.
3. CONTRACTOR TO INSTALL AND MAINTAIN SW3P BEST MANAGEMENT PRACTICES AS INDICATED ON THE PLANS. CONTRACTOR SHALL COMPLY WITH THE SW3P SPECIFICATIONS, AND TCEQ RULES AND REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING TO ALL SWP3 REGULATIONS.
4. CONTRACTOR SHALL CONSTRUCT TEMPORARY SLOPES BETWEEN LOTS THAT HAVE A VERTICAL GRADE DIFFERENTIAL OF OVER 4–FEET.

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

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MARCELLA SANTILLANA STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+30.00	C6.2
VINCENT JAMES STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+50.35	C6.3
GLORIA CASTILLO STREET PLAN & PROFILE FROM STA. 0+0.00 TO STA. 2+98.22 JOE CASTILLO STREET PLAN & PROFILE FROM STA. 3+00.00 TO STA. 10+84.44	C6.4
JOE CASTILLO STREET PLAN & PROFILE FROM STA. 3+00.00 TO STA. 10+84.44	C6.5
JENNIFER CLAIR STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 3+68.62	C6.6
ROSE ELISE STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+50.24	C6.7
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THE CITY OF EL PASO TEXAS — Final Approval

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SUBF43'3'E A DISTANCE OF 467.58 FEET FROM THE SOUTHEAST CORNER OF ALAMEDA AVENUE. ELEVATION.....4005.40 CITY DATUM ELEVATION

DATE	REVISIONS	BY

cea GROUP
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL — STATE OF TEXAS — JESSE L. MCCARTY III — 85075 — LICENSED PROFESSIONAL ENGINEER — 7-19-17

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025–004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

GENERAL INFORMATION

SHEET NO.

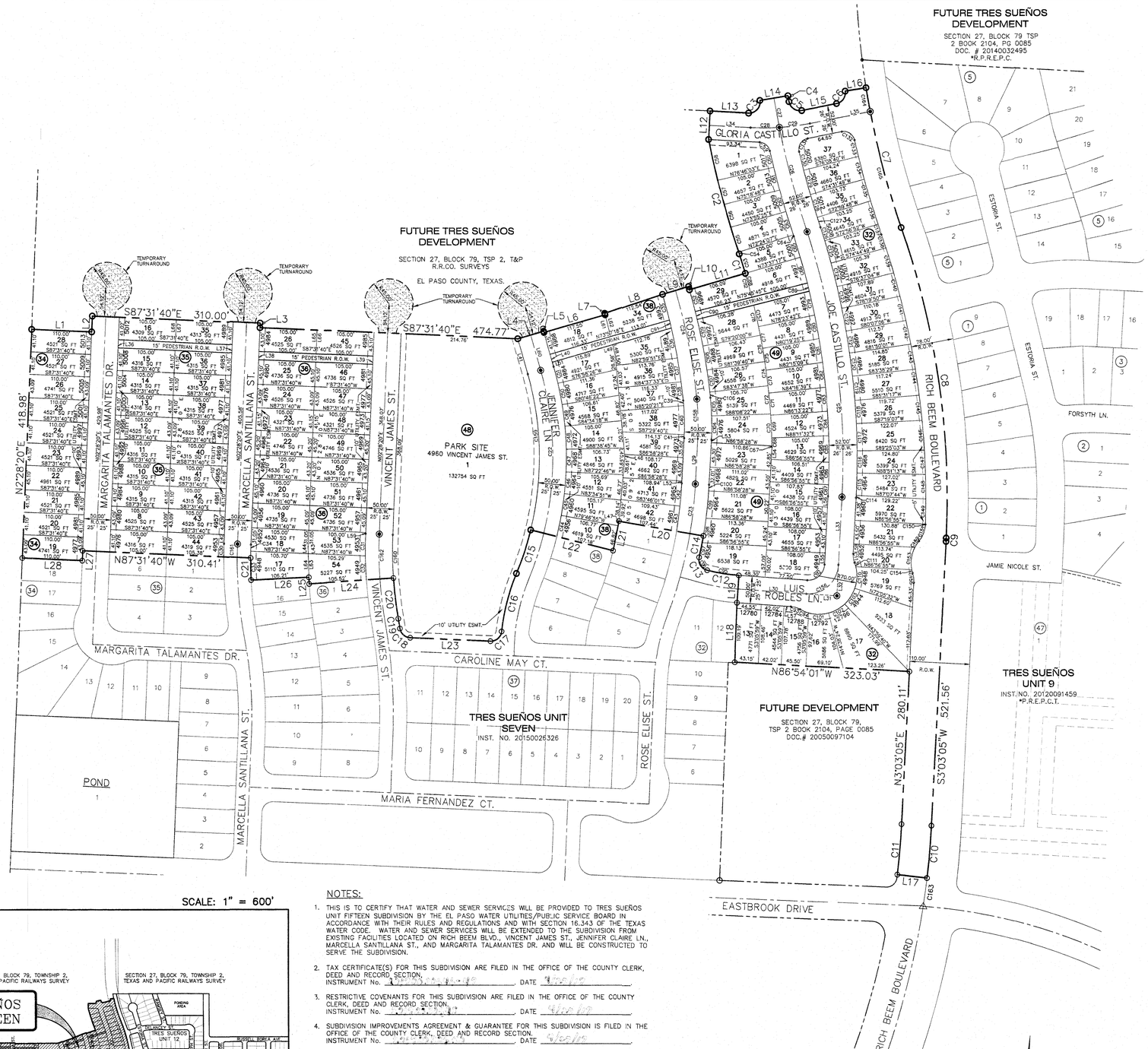
C1.1

S:\2025\2025-004-Tres Sueños Unit 15\DWG\Construction Drawings\Improvement Plans\C11-GeneralNotes.dwg, layout1, 7/11/2017 8:22:47 AM

TRES SUENOS
UNIT FIFTEEN

A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2,
TEXAS AND PACIFIC RAILWAYS SURVEY
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 22.50±A.C.

SHEET 1 OF 2



DEDICATION

JNC Development, 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, park site, pedestrian r.o.w's, and utility easements as hereon laid down and designated, including easements for overhang 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 _____ day of _____ 2017.

Carlos Bombach, President

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Carlos 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 31 day of March 2017.

Notary Public in and for El Paso County

9-15-20
My Commission Expires

LAUREN A. SANTEE
Notary Public
STATE OF TEXAS
My Comm. Exp.
September 15, 2020
Notary ID 4965-5

CITY PLANNING 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 27th day of April, 2017.

Chairperson

Executive Secretary

Approved for filing this 27th day of April, 2017.

Planning and Inspections Director

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 27th day of April 2017, in File No. 217027301645 of the Plat Records.

County Clerk

by Deputy

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

Jorge L. Azcarate, P.E.
Licensed Professional Engineer
Texas License No. 85075

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER

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.

Larry L. Drewes
Registered Professional Land Surveyor No. 4860
State of Texas

STATE OF TEXAS
REGISTERED
LARRY L. DREWES
4869
PROFESSIONAL
LAND SURVEYOR

3-29-17

ENGINEER

cea GROUP

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

CONTACT: JORGE L. AZCARATE, P.E.

SURVEYOR

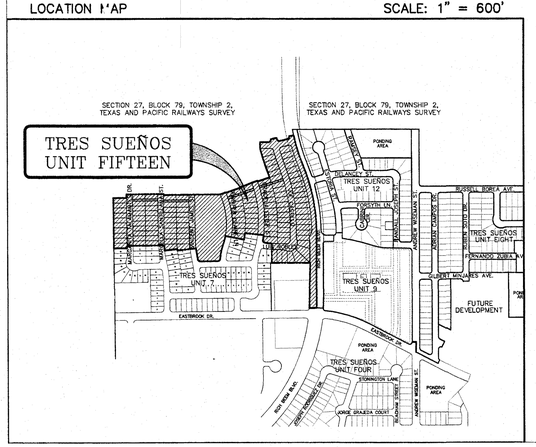
Land-Mark Professional Surveying, Inc.
1420 Bessemer Drive, Suite 'A',
El Paso, Texas 79936
(915) 598-1300
email: Larry@Land-Marksurvey.com
"Serving Texas, New Mexico and Arizona"

CONTACT: LARRY DREWES, R.P.L.S.

SHEET 1 OF 2

LOCATION MAP

SCALE: 1" = 600'



NOTES:

1. THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO TRES SUEÑOS UNIT FIFTEEN SUBDIVISION 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 RICH BEEM BLVD., VINCENT JAMES ST., JENNIFER CLAIRE LN., MARCELLA SANTILLANA ST., AND MARGARITA TALAMANTES DR. AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.
2. TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT No. _____ DATE _____
3. RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT No. _____ DATE _____
4. SUBDIVISION IMPROVEMENTS AGREEMENT & GUARANTEE FOR THIS SUBDIVISION IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT No. _____ DATE _____
5. INTERIOR LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES. (BY OTHERS) SET 5/8" REBAR WITH CAP AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE SHOWN.
6. "U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS."
7. THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0175B, 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.
8. VEHICULAR ACCESS TO THOSE RESIDENTIAL LOTS ABUTTING RICH BEEM BOULEVARD SHALL BE FROM OTHER DEDICATED STREETS ONLY. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, . DEED AND RECORD SECTION, INSTRUMENT No. _____ DATE _____
9. ◉ DENOTES PROPOSED MONUMENT.

△ DENOTES EXISTING MONUMENT

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 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4005.40

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100 ft.

CEA GROUP

FINAL PLAT
SCALE: 1" = 100'

DATE OF PREPARATION: JANUARY, 2017
DATE OF LAST REVISION: MARCH 28, 2017

TRES SUENOS
UNIT FIFTEEN

A PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2,
TEXAS AND PACIFIC RAILWAYS SURVEY
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 22.50±A.C.

SHEET 2 OF 2

LINE TABLE

LINE	BEARING	LENGTH
L1	S87°31'40"E	110.00'
L2	N02°28'20"E	29.07'
L3	S02°28'20"W	8.50'
L4	N73°57'18"E	50.00'
L5	S16°02'42"E	2.39'
L6	N73°57'18"E	117.55'
L7	N14°20'41"W	2.84'
L8	N71°29'29"E	112.54'
L9	N73°28'08"E	50.00'
L10	S16°22'18"E	6.10'
L11	N73°47'17"E	108.09'
L12	N03°02'29"E	52.00'
L13	S86°57'31"E	70.22'
L14	N80°31'06"E	52.00'
L15	N79°08'24"E	65.66'
L16	N80°49'51"E	39.00'
L17	N83°15'08"W	55.00'
L18	N02°22'04"E	109.19'
L19	N04°01'38"E	50.00'
L20	N80°12'25"W	157.44'
L21	S11°37'05"W	55.55'

LINE TABLE

LINE	BEARING	LENGTH
L22	N75°59'18"W	157.18'
L23	N87°37'56"W	147.92'
L24	S86°11'16"W	155.51'
L25	N02°41'26"W	12.10'
L26	S87°20'32"W	106.21'
L27	S02°28'20"W	18.07'
L28	N87°31'40"W	110.00'
L29	S03°01'32"W	82.85'
L30	N85°58'23"W	125.79'
L31	N85°58'23"W	56.96'
L32	N03°03'05"E	56.96'
L33	N03°03'05"E	124.37'
L34	S86°57'31"E	75.41'
L35	N79°08'24"E	113.63'
L36	S02°28'20"W	15.00'
L37	S02°28'20"W	15.00'
L38	S02°28'20"W	15.00'
L39	S02°28'20"W	15.00'
L40	S16°02'42"E	15.00'
L41	S16°02'42"E	66.97'
L42	S02°28'20"W	16.70'

LINE TABLE

LINE	BEARING	LENGTH
L43	S01°20'31"E	12.08'
L44	S01°20'31"E	12.08'
L45	S05°21'38"E	15.52'
L46	N05°21'38"W	4.56'
L47	N11°37'05"E	8.73'
L48	S14°20'41"E	19.79'
L49	S14°20'41"E	19.79'
L50	S05°21'38"E	18.48'
L51	S16°02'42"E	8.44'
L52	S03°01'32"W	4.16'
L53	N03°01'32"E	5.55'
L54	N03°03'05"E	22.48'
L55	N03°03'05"E	21.32'
L56	N03°03'05"E	19.85'
L57	S85°58'23"E	12.61'
L58	S03°03'05"W	18.23'
L59	S02°28'20"W	2.04'
L60	S16°02'42"E	66.97'
L61	S14°20'41"E	41.17'
L62	N14°20'41"W	44.01'
L63	N01°20'31"W	43.38'
L64	N01°20'31"W	43.38'
L65	N02°28'20"E	43.10'
L66	N02°28'20"E	43.10'
L67	N02°28'20"E	41.06'
L68	N02°28'20"E	41.06'

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	1201.00'	37.18'	18.59'	37.18'	N17°15'56"W	001°46'26"
C2	1799.00'	217.18'	108.72'	217.04'	N14°41'38"W	006°55'00"
C3	20.00'	35.79'	24.93'	31.20'	N41°46'48"E	102°31'23"
C4	1642.00'	11.00'	5.50'	11.00'	S09°40'25"E	000°23'02"
C5	20.00'	31.76'	20.35'	28.53'	S55°21'46"E	090°59'39"
C6	20.00'	30.83'	19.42'	27.86'	N34°59'08"E	088°18'33"
C7	1500.00'	264.48'	132.58'	264.14'	S14°13'13"E	010°06'09"
C8	1500.00'	578.05'	292.65'	574.48'	S08°13'54"E	022°04'47"
C9	1500.00'	6.37'	3.18'	6.37'	S02°55'47"W	000°14'36"
C10	1500.00'	96.63'	48.33'	96.62'	S04°53'49"W	003°41'28"
C11	1445.00'	93.09'	46.56'	93.07'	N04°53'49"E	003°41'28"
C12	325.00'	58.55'	29.36'	58.47'	N80°48'41"W	010°19'21"
C13	20.00'	30.83'	19.42'	27.87'	N31°29'35"W	088°18'51"
C14	800.00'	40.08'	20.04'	40.08'	N11°13'43"E	002°52'15"
C15	550.05'	84.22'	42.19'	84.14'	S18°23'56"W	008°46'25"
C16	375.00'	110.24'	55.52'	109.84'	S14°21'50"W	016°50'35"
C17	20.00'	30.17'	18.79'	27.39'	S49°09'16"W	086°25'36"
C18	20.00'	27.53'	16.45'	25.41'	N48°11'48"W	078°52'15"
C19	1035.00'	18.16'	9.08'	18.16'	N09°15'50"W	001°00'19"
C20	725.00'	75.34'	37.70'	75.31'	N06°47'19"W	005°57'15"
C21	725.00'	40.52'	20.26'	40.51'	N01°03'25"W	003°12'07"

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C22	575.00'	301.65'	154.38'	298.20'	N01°00'58"W	030°03'27"
C23	775.00'	91.54'	45.82'	91.49'	N06°24'33"E	006°46'03"
C24	1070.00'	203.15'	101.88'	202.84'	N11°05'31"W	010°52'41"
C25	1332.00'	492.94'	249.32'	490.13'	N07°33'02"W	021°12'14"
C26	1668.00'	198.01'	99.12'	197.89'	S14°45'06"E	006°48'06"
C27	1668.00'	54.41'	27.21'	54.41'	S10°24'58"E	001°52'09"
C28	450.00'	52.49'	26.28'	52.46'	N89°41'59"E	006°41'01"
C29	450.00'	56.69'	28.38'	56.65'	N82°44'56"E	007°13'04"
C30	775.00'	24.41'	12.21'	24.41'	S01°34'12"W	001°48'16"
C31	775.00'	41.08'	20.54'	41.07'	S00°57'14"W	003°02'13"
C32	775.00'	43.93'	21.97'	43.92'	S02°11'19"E	003°14'52"
C33	725.00'	52.86'	26.44'	52.85'	N00°34'08"W	004°10'40"
C34	725.00'	12.05'	6.03'	12.05'	N01°59'46"E	000°57'09"
C35	1045.00'	48.83'	24.42'	48.83'	N15°11'32"W	002°40'39"
C36	1045.00'	56.00'	28.01'	55.99'	S11°29'43"E	003°04'13"
C37	1045.00'	44.35'	22.18'	44.34'	S08°44'40"E	002°25'53"
C38	1045.00'	34.21'	17.11'	34.21'	S06°35'27"E	001°52'32"
C39	455.00'	9.66'	4.83'	9.66'	S05°02'41"E	001°13'00"
C40	455.00'	53.15'	26.60'	53.12'	S01°05'24"E	006°41'34"
C41	455.00'	6.11'	3.05'	6.11'	S02°38'27"W	000°46'08"
C42	750.00'	41.99'	21.00'	41.98'	S04°37'46"W	003°12'28"

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C43	750.00'	46.60'	23.31'	46.59'	S08°00'47"W	003°33'35"
C44	600.00'	39.75'	19.88'	39.74'	N12°06'57"E	003°47'43"
C45	600.00'	39.78'	19.90'	39.77'	N08°19'07"E	003°47'56"
C46	600.00'	39.78'	19.90'	39.77'	N04°31'11"E	003°47'56"
C47	600.00'	41.62'	20.82'	41.61'	N00°37'59"E	003°58'28"
C48	600.00'	42.67'	21.34'	42.66'	N03°23'28"W	004°04'27"
C49	600.00'	39.78'	19.90'	39.77'	N07°19'40"W	003°47'56"
C50	600.00'	39.78'	19.90'	39.77'	N11°07'36"W	003°47'56"
C51	600.00'	31.61'	15.81'	31.61'	N14°32'08"W	003°01'08"
C52	1095.00'	41.22'	20.61'	41.22'	N15°08'01"W	002°09'25"
C53	1201.00'	37.18'	18.59'	37.18'	N17°15'56"W	001°46'26"
C54	1799.00'	3.49'	1.75'	3.49'	N18°05'48"W	000°06'40"
C55	1799.00'	47.79'	23.89'	47.78'	N17°16'49"W	001°31'19"
C56	1799.00'	43.65'	21.83'	43.65'	N15°49'27"W	001°23'25"
C57	1799.00'	45.68'	22.84'	45.68'	N14°24'06"W	001°27'18"
C58	1799.00'	76.56'	38.29'	76.56'	N12°27'17"W	002°26'18"
C59	20.00'	25.94'	15.15'	24.16'	S49°48'21"E	074°18'19"
C60	1694.00'	30.99'	15.50'	30.99'	S13°10'38"E	001°02'54"
C61	1694.00'	43.02'	21.51'	43.02'	S14°25'44"E	001°27'18"
C62	1694.00'	41.10'	20.55'	41.10'	S15°51'06"E	001°23'25"
C63	1694.00'	45.00'	22.50'	45.00'	S17°18'28"E	001°31'19"

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C64	1694.00'	2.48'	1.24'	2.48'	S18°06'38"E	000°05'01"
C65	1306.00'	40.43'	20.22'	40.43'	S17°15'56"E	001°46'26"
C66	1306.00'	48.80'	24.40'	48.80'	S15°18'29"E	002°08'28"
C67	1201.00'	2.46'	1.23'	2.46'	N01°03'28"W	000°07'02"
C68	1201.00'	16.95'	8.48'	16.95'	N01°24'13"W	000°48'32"
C69	1201.00'	41.28'	20.64'	41.28'	N02°47'33"W	001°58'10"
C70	1201.00'	57.99'	29.00'	57.99'	N02°29'59"W	002°46'00"
C71	1201.00'	40.78'	20.39'	40.78'	N04°45'00"W	001°56'43"
C72	1201.00'	52.12'	26.06'	52.11'	N05°07'34"W	002°29'11"
C73	1201.00'	42.45'	21.22'	42.44'	N06°44'06"W	002°01'30"
C74	1201.00'	44.73'	22.37'	44.72'	N07°26'10"W	002°08'02"
C75	1201.00'	40.43'	20.22'	40.43'	N08°42'43"W	001°55'43"
C76	1201.00'	48.82'	24.41'	48.81'	N09°40'03"W	002°19'44"
C77	1201.00'	40.43'	20.22'	40.43'	N10°38'26"W	001°55'43"
C78	1201.00'	56.39'	28.20'	56.38'	N12°10'37"W	002°41'24"
C79	1306.00'	45.01'	22.51'	45.01'	S12°35'32"E	001°58'28"
C80	1306.00'	43.96'	21.98'	43.96'	S10°38'26"E	001°55'43"
C81	1306.00'	43.96'	21.98'	43.96'	S08°42'43"E	001°55'43"
C82	1306.00'	46.16'	23.08'	46.15'	S06°44'06"E	002°01'30"
C83	1306.00'	44.34'	22.17'	44.34'	S04°45'00"E	001°56'43"

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C84	1306.00'	44.89'	22.45'	44.89'	S02°47'33"E	001°58'10"
C85	1306.00'	48.39'	24.20'	48.38'	S00°44'47"E	002°07'22"
C86	1306.00'	41.12'	20.56'	41.12'	S01°13'01"W	001°48'15"
C87	1306.00'	21.25'	10.63'	21.25'	S02°35'07"W	000°55'57"
C88	1201.00'	44.88'	22.44'	44.88'	N15°18'29"W	002°08'28"
C89	1306.00'	15.00'	7.50'	15.00'	N13°54'31"W	000°39'29"
C90	1095.00'	15.00'	7.50'	15.00'	N13°39'46"W	000°47'06"
C91	1045.00'	15.02'	7.51'	15.02'	N13°26'31"W	000°49'24"
C92	30.00'	47.63'	30.52'	42.79'	S48°32'21"W	090°58'32"
C93	40.00'	18.07'	9.19'	17.91'	N73°01'59"W	025°52'48"
C94	70.00'	16.54'	8.31'	16.50'	S66°51'43"E	013°32'15"
C95	325.00'	58.56'	29.36'	58.48'	N80°48'40"W	010°19'25"
C96	20.00'	30.83'	19.42'	27.87'	N31°29'31"W	088°18'52"
C97	800.00'	27.36'	13.68'	27.36'	N11°41'03"E	001°57'34"
C98	800.00'	45.45'	22.73'	45.44'	N09°04'38"E	003°15'18"
C99	800.00'	50.28'	25.15'	50.27'	N05°38'57"E	003°36'03"
C100	800.00'	11.50'	5.75'	11.50'	N03°26'14"E	000°49'24"
C101	70.00'	37.89'	19.42'	37.42'	N89°08'07"W	031°00'34"
C102	70.00'	34.45'	17.58'	34.11'	S61°15'33"W	028°12'04"
C103	70.00'	34.44'	17.57'	34.09'	S33°03'57"W	028°11'09"

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C104	505.00'	43.07'	21.55'	43.05'	N00°34'57"E	004°53'10"
C105	505.00'	33.43'	16.72'	33.42'	N03°45'25"W	003°47'33"
C106	1095.00'	10.57'	5.28'	10.57'	N05°55'47"W	000°33'11"
C107	1095.00'	40.76'	20.38'	40.76'	N07°16'21"W	002°07'58"
C108	1095.00'	44.49'	22.25'	44.49'	N09°30'10"W	002°19'41"
C109	1095.00'	49.76'	24.88'	49.75'	N11°58'07"W	002°36'13"
C110	70.00'	40.13'	20.63'	39.58'	S02°32'57"W	032°50'50"
C111	70.00'	7.89'	3.95'	7.88'	S17°06'06"E	006°27'15"
C112	1201.00'	44.88'	22.44'	44.88'	N15°18'29"W	002°08'28"
C113	40.00'	16.32'	8.28'	16.21'	S08°38'19"E	023°22'49"
C114	1358.00'	4.28'	2.14'	4.28'	S02°57'41"W	000°10'49"
C115	1358.00'	40.88'	20.44'	40.88'	S02°00'32"W	001°43'29"
C116	1358.00'	40.98'	20.49'	40.98'	S00°16'55"W	001°43'44"
C117	1358.00'	49.75'	24.88'	49.74'	S01°37'55"E	002°05'56"
C118	1358.00'	42.60'	21.30'	42.60'	S03°34'48"E	001°47'50"
C119	1358.00'	44.56'	22.28'	44.56'	S05°25'07"E	001°52'48"
C120	1358.00'	42.85'	21.43'	42.85'	S07°15'45"E	001°48'29"
C121	1358.00'	40.65'	20.33'	40.65'	S09°01'27"E	001°42'55"
C122	1358.00'	42.37'	21.19'	42.37'	S10°46'32"E	001°47'16"
C123	1358.00'	40.59'	20.30'	40.59'	S12°31'33"E	001°42'46"

CURVE TABLE

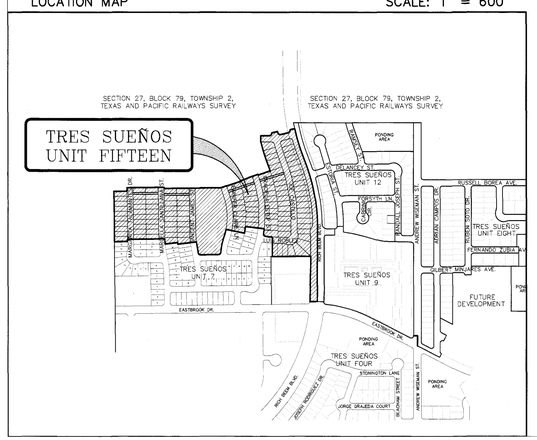
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C124	1358.00'	44.35'	22.18'	44.35'	S14°19'04"E	001°52'16"
C125	1358.00'	42.64'	21.32'	42.64'	S16°09'10"E	001°47'57"
C126	1358.00'	26.07'	13.04'	26.07'	S17°36'08"E	001°06'00"
C127	1642.00'	19.02'	9.51'	19.02'	S17°49'14"E	000°39'49"
C128	1642.00'	43.96'	21.98'	43.96'	S16°43'18"E	001°32'02"
C129	1642.00'	46.28'	23.14'	46.28'	S15°08'50"E	001°36'54"
C130	1642.00'	35.07'	17.54'	35.07'	S13°43'41"E	001°13'26"
C131	20.00'	32.20'	20.80'	28.84'	S33°00'43"W	092°15'22"
C132	20.00'	30.83'	19.42'	27.86'	N56°42'19"W	088°18'33"
C133	1539.00'	30.98'	15.49'	30.98'	N13°07'39"W	001°09'12"
C134	1539.00'	43.35'	21.68'	43.35'	N14°30'40"W	001°36'50"
C135	1539.00'	41.19'	20.60'	41.19'	N16°05'05"W	001°32'00"
C136	1539.00'	45.01'	22.51'	45.01'	N17°41'21"W	001°40'32"
C137	1539.00'	20.00'	10.00'	20.00'	N18°53'57"W	000°44'40"
C138	1461.00'	25.97'	12.98'	25.97'	N18°45'45"W	001°01'06"
C139	1461.00'	47.90'	23.95'	47.89'	N17°18'51"W	001°52'42"
C140	1461.00'	43.91'	21.96'	43.91'	N15°30'50"W	001°43'20"
C141	1461.00'	45.91'	22.96'	45.91'	N13°45'09"W	001°48'02"
C142	1461.00'	44.11'	22.06'	44.11'	N11°59'15"W	001°43'48"
C143	1461.00'	46.57'	23.29'	46.57'	N10°12'33"W	001°49'35"
C144	1461.00'	48.51'	24.26'	48.51'	N08°20'41"W	001°54'09"

CURVE TABLE

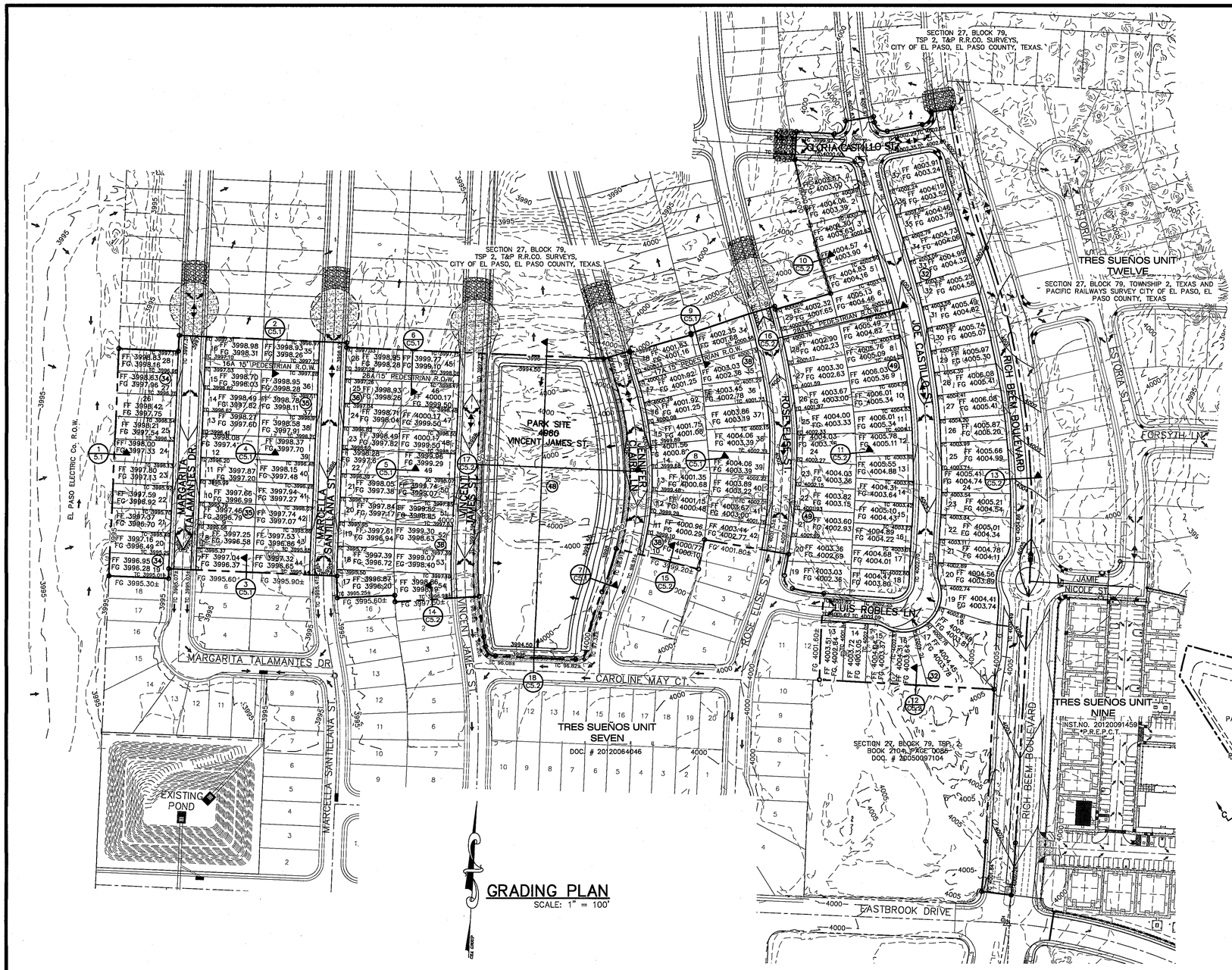
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C145	1461.00'	46.45'	23.23'	46.45'	N06°28'58"W	001°49'18"
C146	1461.00'	54.34'	27.17'	54.33'	N04°30'23"W	002°07'51"
C147	1461.00'	44.83'	22.42'	44.83'	N02°33'43"W	001°45'29"
C148	1461.00'	44.79'	22.40'	44.79'	N00°48'17"W	001°45'23"
C149	1461.00'	46.10'	23.05'	46.10'	N00°58'39"E	001°48'28"
C150	1461.00'	0.52'	0.26'	0.52'	N01°53'30"E	000°01'14"
C151	50.00'	33.41'	17.36'	32.79'	N21°02'45"E	038°17'17"
C152	62.00'	13.75'	6.90'	13.72'	N33°50'14"E	012°42'20"
C153	62.00'	42.47'	22.11'	41.65'	N07°51'35"E	039°14'59"
C154	62.00'	6.00'	3.00'	6.00'	N14°32'20"W	005°32'51"
C155	50.00'	17.77'	8.98'	17.68'	N07°07'50"W	020°21'51"
C156	56.00'	88.92'	56.96'	79.87'	N48°32'21"E	090°58'32"
C157	1201.00'	40.18'	20.09'	40.18'	N12°33'49"W	001°55'01"
C158	480.00'	72.71'	36.42'	72.64'	N01°18'50"W	008°40'43"
C159	550.00'	288.53'	147.67'	285.23'	N01°00'58"W	030°03'26"
C160	725.00'	79.52'	39.81'	79.48'	N00°40'12"W	006°17'05"
C161	750.00'	24.41'	12.21'	24.41'	S01°32'24"W	001°51'53"
C162	750.00'	82.27'	41.17'	82.23'	S00°40'12"E	006°17'05"
C163	1500.00'	52.33'	26.17'	52.32'	N07°44'31"E	001°59'55"
C164	1500.00'	44.27'	22.13'	44.26'	N10°00'52"W	001°41'27"
C165	1500.00'	220.22'	110.31'	220.02'	S15°03'56"E	008°24'42"

LOCATION MAP

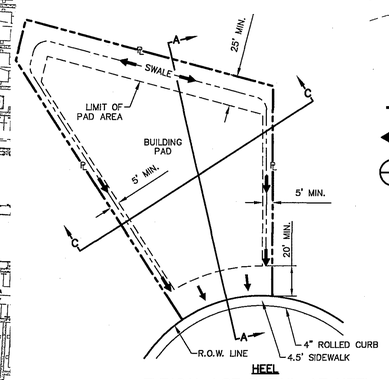
SCALE: 1" = 600'



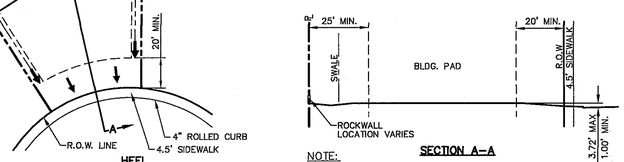
DATE OF PREPARATION: JANUARY, 2017
DATE OF LAST REVISION: MARCH 28, 2017



GRADING PLAN
SCALE: 1" = 100'

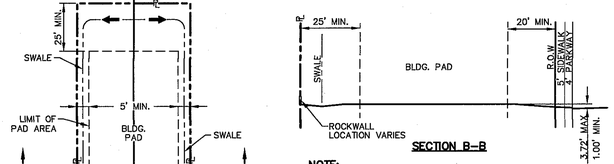


TYPICAL LOT DETAIL AT HEEL
SCALE: NTS



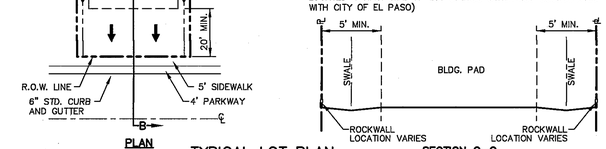
SECTION A–A

NOTE:
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)

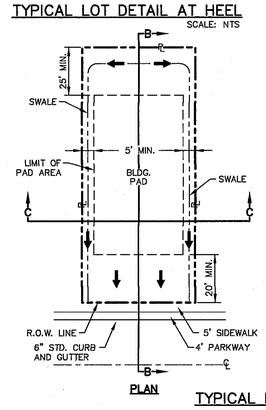


SECTION B–B

NOTE:
DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)



SECTION C–C



TYPICAL LOT PLAN
SCALE: 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
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

NOTES:

1. RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2–FEET.
2. SLOPED AREAS SHALL BE MAINTAINED BY THE PROPERTY OWNERS.
3. ALL RETAINING WALLS NOT SPECIFIED TO BE CONSTRUCTED BY DEVELOPER, SHALL BE BUILT BY BUILDER.
4. RETAINING ROCKWALLS (RETAINING PORTIONS ONLY) IN EXCESS OF 4' HIGH TO BE BUILT BY DEVELOPER,
5. DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 (EXCESSIVE PAVING CUTS) OF THE EL PASO MUNICIPAL CODE.
6. IMPROVEMENTS SHALL NOT BE PLACED ON SIDEWALK (NDRCU's, SIGNS, POLES, FIRE HYDRANTS, ETC.) REFER TO STANDARD DETAIL SHEETS.
7. IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A.
8. WHEELCHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS.
9. ANY UNSUITABLE SOIL CONDITIONS TO BE REMEDIED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS, COURSE SANDS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AS REQUIRED FOR PROPER PLANTING PER THE DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED BY THE MAYOR AND CITY COUNCIL JANUARY 08, 2013.

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 CITY DATUM ELEVATION.....4005.40

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.

LEGEND:

- NEW 6' HIGH RETAINING ROCKWALL (2'–3' RETAINING HEIGHT)
- NEW 6' HIGH RETAINING ROCKWALL (3'–9' RETAINING HEIGHT)
- 4000 PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- 4000 EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- PROPOSED TEMPORARY DESILTING BASIN
- DRAINAGE FLOW
- HIGH POINT
- X/X GRADING SECTION SHEET NUMBER

THE CITY OF EL PASO TEXAS
Final Approval

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

DATE	REVISIONS	BY

cea group
TEXAS REGISTERED ENGINEERING FIRM F-4364
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL
STATE OF TEXAS
ANDREW L. MCADAMS
85075
LICENSED PROFESSIONAL ENGINEER
F-3-16

SCALE
Horizontal: 1"=100'
Vertical: N/A
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025–004.D

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

GRADING PLAN

SHEET NO.

C3.1

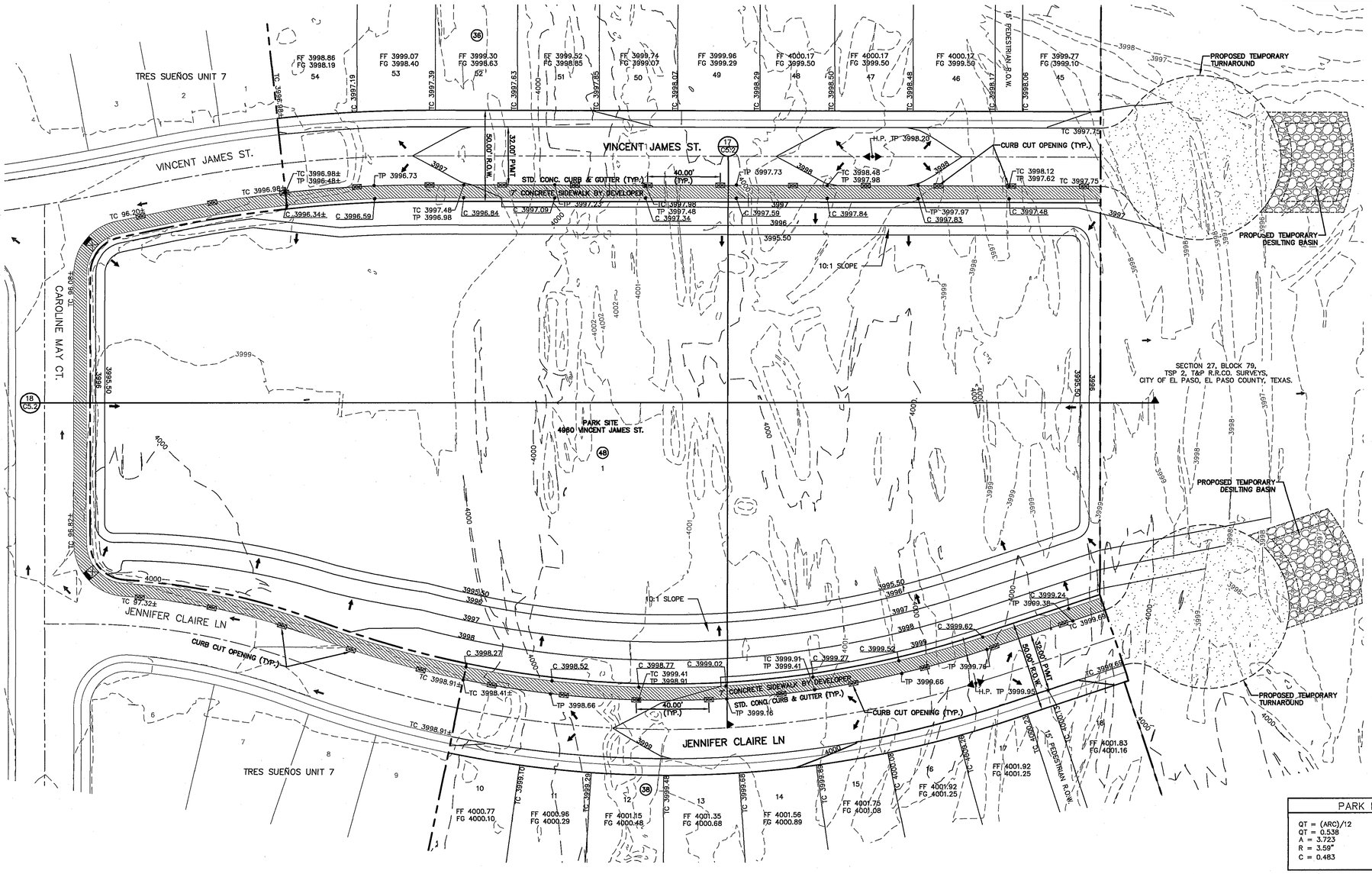
S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C3.1-GRADING PLAN SHEET.dwg, GRADING PLAN, 12/6/2016 2:29:02 PM

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



LEGEND:

- SUBDIVISION BOUNDARY LINE
- STREET RIGHT OF WAY
- PROPERTY LINE
- STREET CENTERLINE
- 1 (9) LOT AND BLOCK NUMBER
- PROPOSED DRAINAGE FLOW
- EXISTING DRAINAGE FLOW
- HIGH POINT
- 4000 PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- 4000 EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- CONCRETE SIDEWALK BY DEVELOPER
- PROPOSED TEMPORARY DESILTING BASIN
- CURB CUT OPENINGS 40' O.C.

PARK GRADING PLAN

SCALE: 1" = 30'

PARKS DEPARTMENT
REVIEWED BY Antonio Allen 01/10/2017

Final Approval

PARK POND CALCULATIONS

QT = (ARC)/12
QT = 0.538
A = 3.723
R = 3.59"
C = 0.483

SILT VOLUME = 0.012 AC-FT/AC
3.723 X 0.012 = 0.045 AC-FT
0.538 + 0.045 = 0.583 AC-FT

TOTAL$_{req}$ = 0.583 AC-FT

PARK POND

REQUIRED CAPACITY (AC.-FT.)	AVAILABLE CAPACITY (AC.-FT.)	PEAK INFLOW (CFS)	OUTLET PIPE FLOW (CFS)	HIGH WATER SURFACE ELEV. (FT.)	BOTTOM ELEVATION
0.583	1.198	10.016	0	3995.75±	3995.50

NOTES FOR PARK POND

1. THE TOTAL STORAGE HWSE REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO.
   HWSE = QT + SILT VOLUME
   HWSE = 0.538 + 0.045 = 0.583 AC-FT
   CONTOUR 3995.50, ACCUMULATED VOLUME = 0.000 AC-FT
   CONTOUR 3996.00, ACCUMULATED VOLUME = 1.198 AC-FT
   HIGH WATER SURFACE ELEVATION = 3995.75±
2. PROPOSED / EXISTING TOP OF CURB ELEVATIONS AROUND PARK SITE AS NOTED ON PLANS. COORDINATE WITH TRES SUEÑOS UNIT 7 SUBDIVISION.

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE PC OF THE SOUTHWEST LINE OF VINCENT AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

cea group
TEXAS REGISTERED ENGINEERING FIRM F-4364
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL
STATE OF TEXAS
ANDREW L. MORRISON
85075
LICENSED PROFESSIONAL ENGINEER
11-21-16

SCALE
Horizontal: 1"=100'
Vertical: N/A
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004.D

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

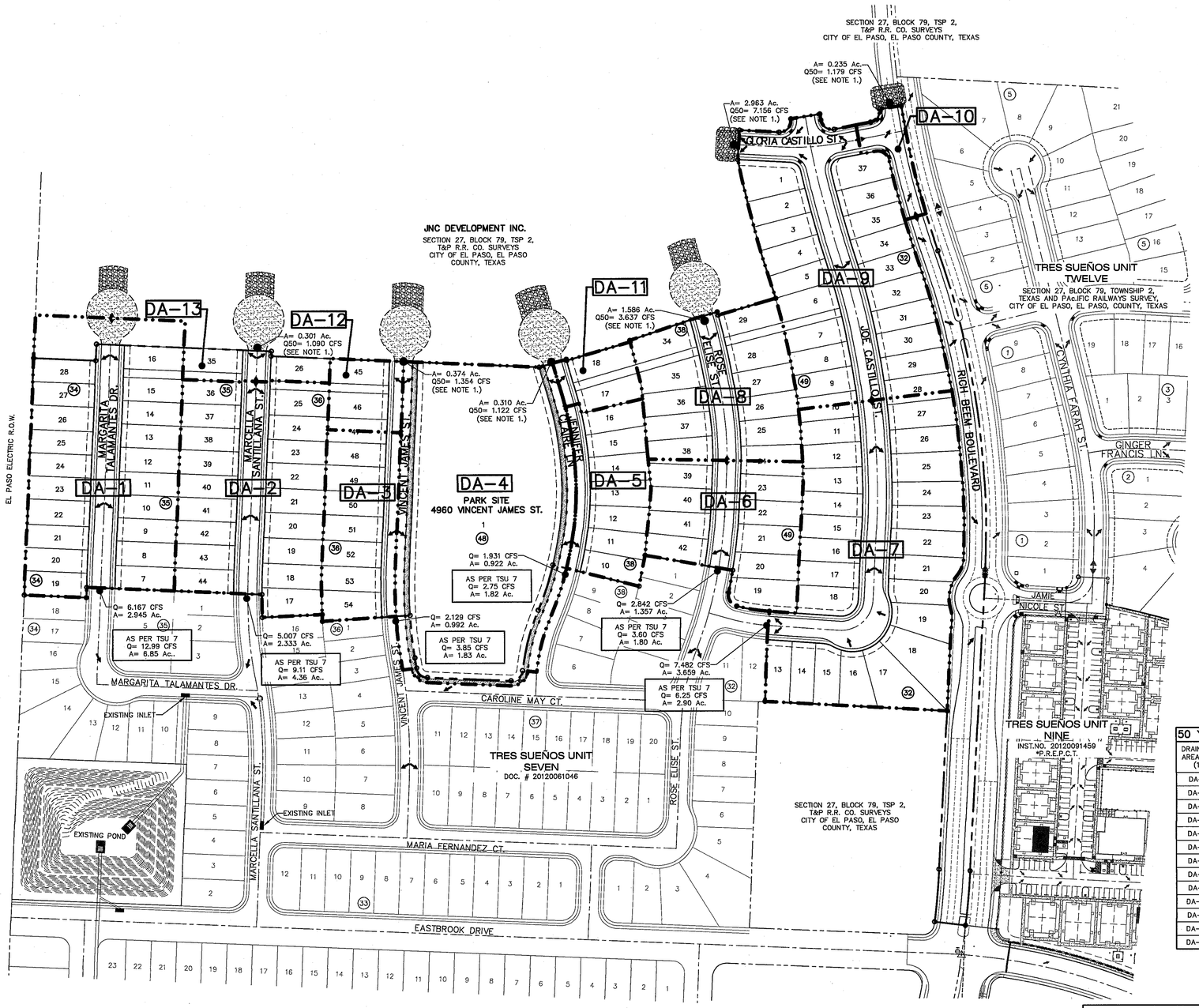
SHEET TITLE

PARK GRADING PLAN

SHEET NO.

C3.2

S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C-3.2-PARK GRADING PLAN.dwg, PARK GRADING, 12/22/2016 9:37:02 AM



DRAINAGE PLAN

SCALE: 1" = 100'

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

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.

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 CITY DATUM ELEVATION.....4005.40

NOTES:

1. JNC DEVELOPMENT INC., ABUTTING PROPERTY OWNER AND DEVELOPER OF SAID DEVELOPMENT, ACKNOWLEDGES AND ACCEPTS RUNOFF AS SHOWN ON THE DRAINAGE PLAN ON TO THE VACANT AND UNDEVELOPED LAND. JNC WILL BE RESPONSIBLE FOR ANY MAINTENANCE RESULTING OF THE DISCHARGE RUNOFF INTO THE ADJACENT LAND.

LEGEND:

- DRAINAGE AREA BOUNDARY
- DRAINAGE FLOW
- HIGH POINT
- LOW POINT
- DA-10 DRAINAGE AREA

THE CITY OF EL PASO TEXAS
Final Approval

SHOWN FOR INFORMATION ONLY. REFERENCE TRES SUEÑOS UNIT SEVEN

50 YEAR STORM CALCULATIONS FOR WATERSHED AREAS

DRAINAGE AREA NO. (1)	DRAINAGE AREA (Ac.) (2)	DESIGN STORM INTENSITY (I50) (3)	TIME OF CONCENTRATION (4)	RUNOFF COEFF. (C) (5)	Q50 (CFS) (6)
DA-1	2.945	3.490	25.00	0.600	6.167
DA-2	2.333	3.577	24.00	0.600	5.007
DA-3	0.992	3.577	24.00	0.600	2.129
DA-4	3.723	5.570	10.00	0.483	10.016
DA-5	0.922	3.490	25.00	0.600	1.931
DA-6	1.357	3.490	25.00	0.600	2.842
DA-7	3.659	3.408	26.00	0.600	7.482
DA-8	1.586	3.490	26.00	0.657	3.637
DA-9	2.963	3.490	25.00	0.692	7.156
DA-10	0.235	5.573	10.00	0.900	1.179
DA-11	0.310	5.570	10.00	0.650	1.122
DA-12	0.374	5.570	10.00	0.650	1.354
DA-13	0.301	5.570	10.00	0.650	1.090

PARK POND CALCULATIONS

QT = (ARC)/12
QT = 0.538
A = 3.723
R = 3.59"
C = 0.483

SILT VOLUME = 0.012 AC-FT/AC
3.723 X 0.012 = 0.045 AC-FT
0.538 + 0.045 = 0.583 AC-FT

$TOTAL_{req}$ = 0.583 AC-FT

POND AREAS

CONTOUR	ACCUMULATED VOLUME (AC-FT.)
3996	3.358
3995	1.041
3994.50	0

PARK POND

REQUIRED CAPACITY (AC.-FT.)	AVAILABLE CAPACITY (AC.-FT.)	PEAK INFLOW (CFS)	OUTLET PIPE FLOW (CFS)	HIGH WATER SURFACE ELEV. (FT.)	BOTTOM ELEVATION	FREE BOARD (FT.)
0.583	3.358	10.016	0	3994.79±	3994.50	1.22

NOTES FOR PARK POND

1. THE TOTAL STORAGE HWSE REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO.
   HWSE = QT + SILT VOLUME
   HWSE = 0.538 + 0.045 = 0.583 AC-FT
   CONTOUR 3994.50, ACCUMULATED VOLUME = 0.000 AC-FT
   CONTOUR 3995.00, ACCUMULATED VOLUME = 1.041 AC-FT
   HIGH WATER SURFACE ELEVATION = 3994.79±
2. PROPOSED / EXISTING TOP OF CURB ELEVATIONS AROUND PARK SITE AS NOTED ON PLANS. COORDINATE WITH TRES SUEÑOS UNIT 7 SUBDIVISION.

EXISTING POND CALCULATIONS

WATERSHED - POND

$Q = \frac{A\ R\ C}{12}$ = AC-FT

POND CALC.
Q=ARC/12
A=TOTAL RUNOFF IN AC/FT.(100%)
R=RAINFALL IN INCHES
C=RUNOFF FACTOR

FUTURE RESIDENTIAL & POND $= \frac{52.10(4).60}{12} = 10.42$ ac-ft

RESIDENTIAL $= \frac{24.30(4).60}{12} = 4.86$ ac-ft

25% EMERG. =	3.82	ac-ft
SILT & DEBRIS =	0.92	ac-ft
Qreq (TOTAL) =	20.02	ac-ft
Qcap (TOTAL) =	21.34	ac-ft

100 YR HW ELEV = 3989.02
100 YR PONDED DEPTH = 3992.99

ELEVATION FT	AREA SQ-FT	CONIC VOL. AC-FT	VOLUME CAP. AC-FT
3994	57754.74	1.31	21.34
3993	55796.88	1.26	20.03
3992	53850.75	1.21	18.77
3991	51932.99	1.17	17.56
3990	50050.99	1.13	16.39
3989	48214.87	1.09	15.26
3988	46391.84	1.04	14.22
3987	44605.77	1.00	13.13
3986	42850.97	0.96	12.13
3985	41126.88	0.92	11.16
3984	39435.95	0.89	10.24
3983	37773.93	0.85	9.35
3982	36144.91	0.81	8.50
3981	34546.74	0.78	7.69
3980	32979.95	0.70	6.92
3979	27694.85	0.62	6.22
3978	26186.92	0.58	5.60
3977	24708.95	0.55	5.02
3976	23224.91	0.52	4.47
3975	21759.90	0.48	3.95
3974	20360.52	0.45	3.47
3973	18999.83	0.42	3.02
3972	17676.28	0.39	2.60
3971	16427.54	0.36	2.20
3970	15220.78	0.34	1.84
3969	14059.02	0.31	1.50
3968	12940.71	0.28	1.19
3967	11871.82	0.26	0.91
3966	10855.38	0.24	0.65
3965	9887.32	0.22	0.41
3964	8920.79	0.20	0.20
3963	8076.69	0.00	0.00

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

DATE	REVISIONS	BY

caa group
TEXAS REGISTERED ENGINEERING FIRM F-4664
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.caagroup.net

ENGINEER'S SEAL
STATE OF TEXAS
JORGE L. LAZARUTE
85075
REGISTERED PROFESSIONAL ENGINEER
7-3-15

SCALE
Horizontal: 1"=100'
Vertical: N/A
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
DRAINAGE PLAN

SHEET NO.
C4.1

S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C4.1-DRAINAGE PLAN SHEET.dwg, DRAINAGE PLAN, 10/8/2016 2:38:32 PM

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
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AT&T	(800) 852-3786
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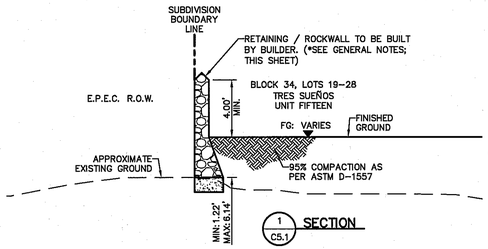
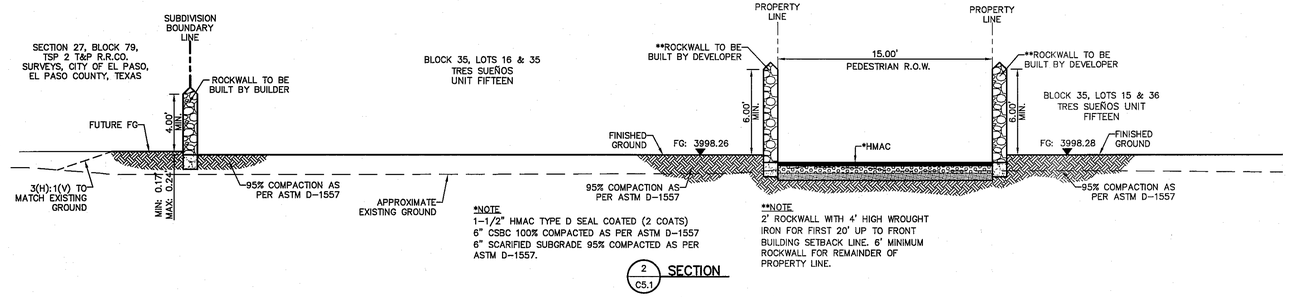


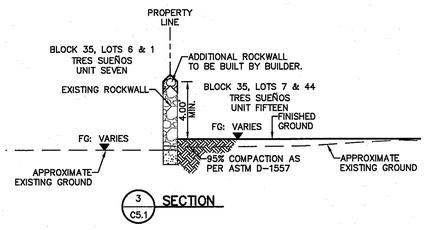
1 C5.1 SECTION



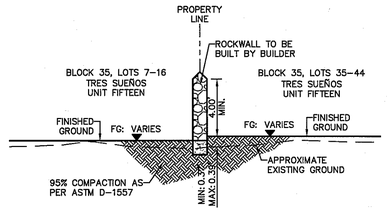
*NOTE
1-1/2" HMAC TYPE D SEAL COATED (2 COATS)
6" CSBC 100% COMPACTED AS PER ASTM D-1557
6" SCARIFIED SUBGRADE 95% COMPACTED AS PER ASTM D-1557.

**NOTE
2' ROCKWALL WITH 4' HIGH WROUGHT IRON FOR FIRST 20' UP TO FRONT BUILDING SETBACK LINE. 6' MINIMUM ROCKWALL FOR REMAINDER OF PROPERTY LINE.

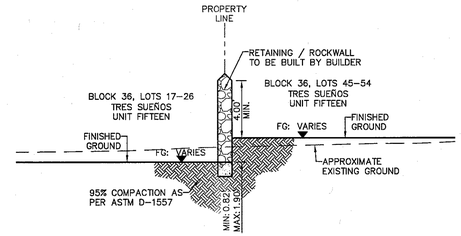
2 C5.1 SECTION



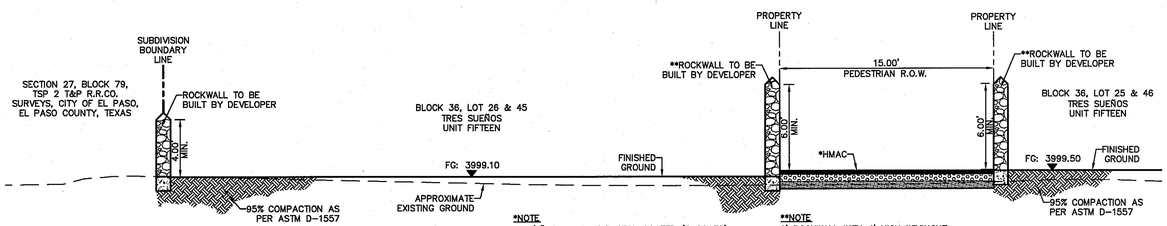
3 C5.1 SECTION



4 C5.1 SECTION



5 C5.1 SECTION



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6" CSBC 100% COMPACTED AS PER ASTM D-1557
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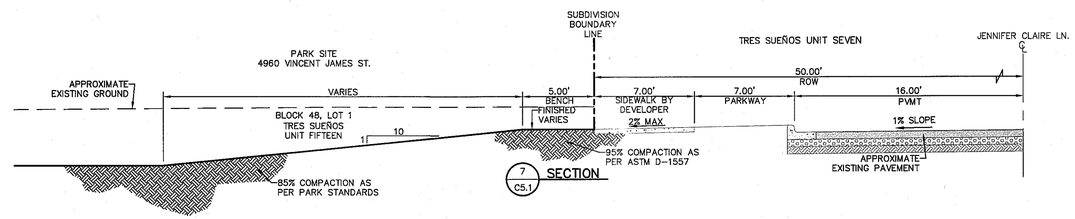
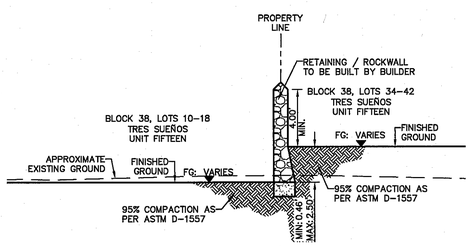
**NOTE
2' ROCKWALL WITH 4' HIGH WROUGHT IRON FOR FIRST 20' UP TO FRONT BUILDING SETBACK LINE. 6' MINIMUM ROCKWALL FOR REMAINDER OF PROPERTY LINE.

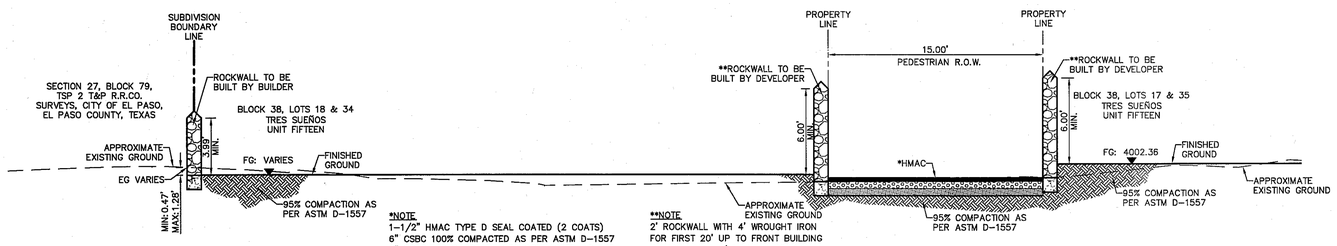
6 C5.1 SECTION



7 C5.1 SECTION



8 C5.1 SECTION



*NOTE
1-1/2" HMAC TYPE D SEAL COATED (2 COATS)
6" CSBC 100% COMPACTED AS PER ASTM D-1557
6" SCARIFIED SUBGRADE 95% COMPACTED AS PER ASTM D-1557.

**NOTE
2' ROCKWALL WITH 4' WROUGHT IRON FOR FIRST 20' UP TO FRONT BUILDING SETBACK LINE. 6' MINIMUM ROCKWALL FOR REMAINDER OF PROPERTY LINE.

9 C5.1 SECTION

THE CITY OF EL PASO TEXAS
Final Approval

GENERAL NOTES:

1. WHENEVER THE RETAINING HEIGHT OF A ROCKWALL/RETAINING WALL EXCEEDS FOUR (4') FEET OR MORE, THE DEVELOPER SHALL BUILD THE RETAINING PORTION OF THE WALL (INCLUDING NECESSARY REINFORCED CONCRETE FOOTING) TO HIGHEST FINISHED GROUND. THE BUILDER SHALL FINISH THE REMAINING OF THE STEM WALL. IF THE RETAINING HEIGHT DOES NOT EXCEED THE FOUR (4') FEET, THEN THE DEVELOPER SHALL CONSTRUCT A TEMPORARY SLOPE AT 3(H):1(V).

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SUBA3'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHEAST CORNER OF PARKWAY AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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

ENGINEER'S SEAL
JORGE L. LAZCANO
85075
TEXAS
PROFESSIONAL ENGINEER
7/1/16

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

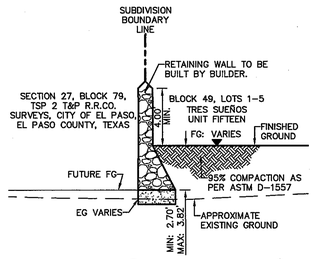
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

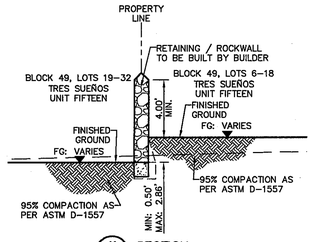
SHEET TITLE
GRADING SECTIONS

SHEET NO.
C5.1

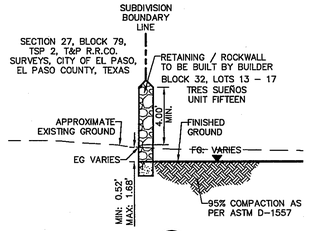
S:\2025\2025-004-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C5.1-C5.2-SEC-DRNS.dwg, Layout1, 11/9/2016 8:37:52 AM



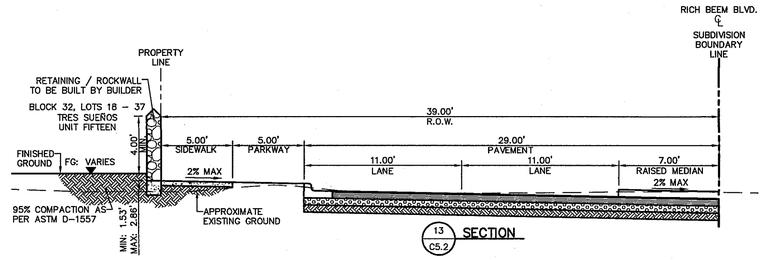
10 C5.2 SECTION



11 C5.2 SECTION



12 C5.2 SECTION



13 C5.2 SECTION

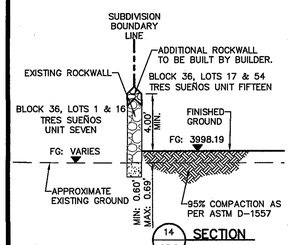
UTILITY LOCATOR SERVICES

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

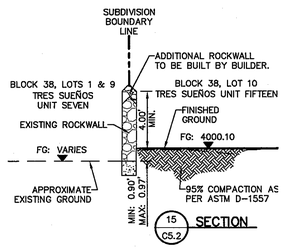
WARNING ! BEFORE YOU DIG

CALL 811

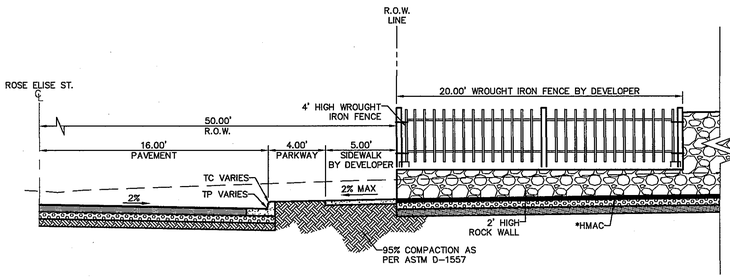
FOR FIELD LOCATING EXISTING UTILITIES



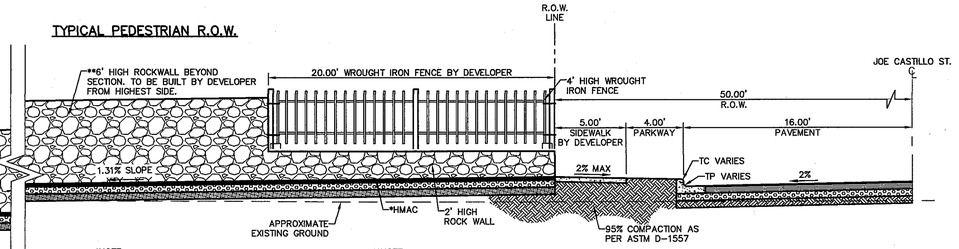
14 C5.2 SECTION



15 C5.2 SECTION



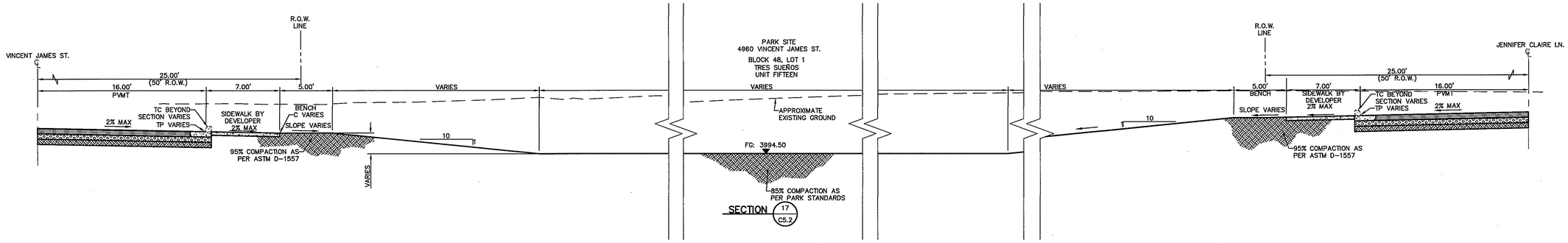
TYPICAL PEDESTRIAN R.O.W.



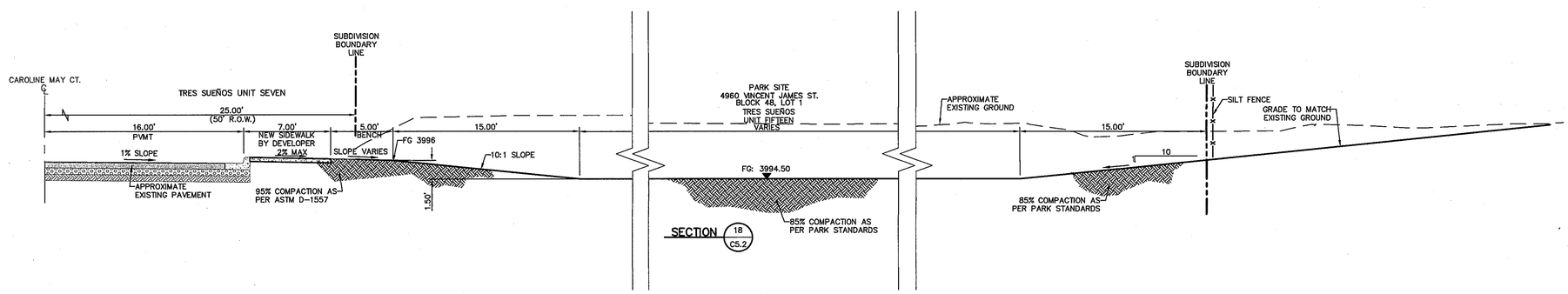
*NOTE
1-1/2" HMAC TYPE D SEAL COATED (2 COATS)
6" CSBC 100% COMPACTED AS PER ASTM D-1557
6" SCARIFIED SUBGRADE 95% COMPACTED AS PER ASTM D-1557.

**NOTE
2' ROCKWALL WITH 4' WROUGHT IRON FOR FIRST 20' UP TO FRONT BUILDING SETBACK LINE. 6' MINIMUM ROCKWALL FOR REMAINDER OF PROPERTY LINE.

16 C5.2 SECTION



SECTION 17 C5.2



SECTION 18 C5.2

THE CITY OF EL PASO TEXAS

Final Approval

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SUBFA3316 A DISTANCE OF 46/36 FEET FROM A MAG NAIL WITH SHINER LOCATED ON ALAMEDA AVENUE CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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

ENGINEER'S SEAL

65075 LICENSED PROFESSIONAL ENGINEER JORGE L. ACEVEDO STATE OF TEXAS

12-2-16

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

GRADING SECTIONS

SHEET NO.

C5.2

S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C5.1-C5.2-SEC ROWS.dwg, Layout2, 12/8/2016 2:39:31 PM

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

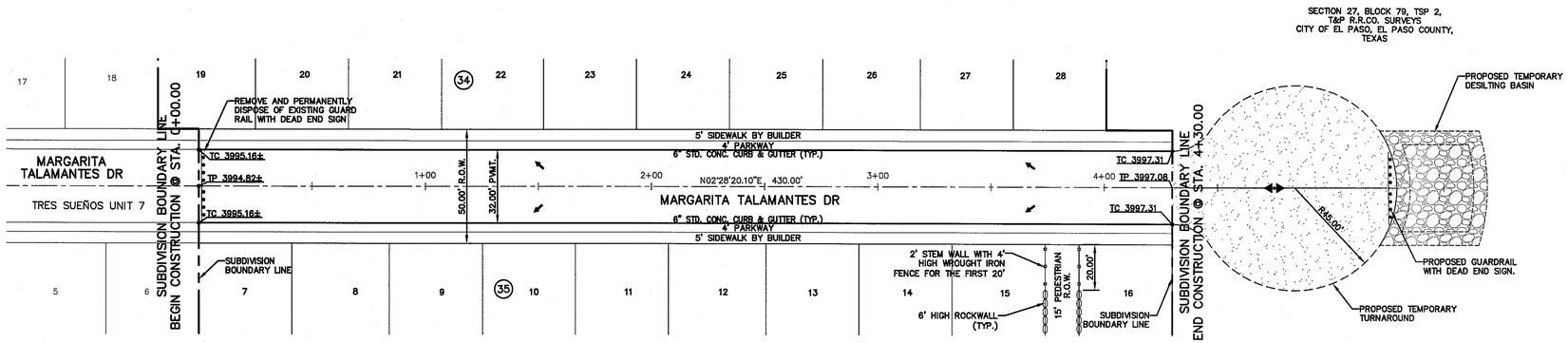
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

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.....4006.40

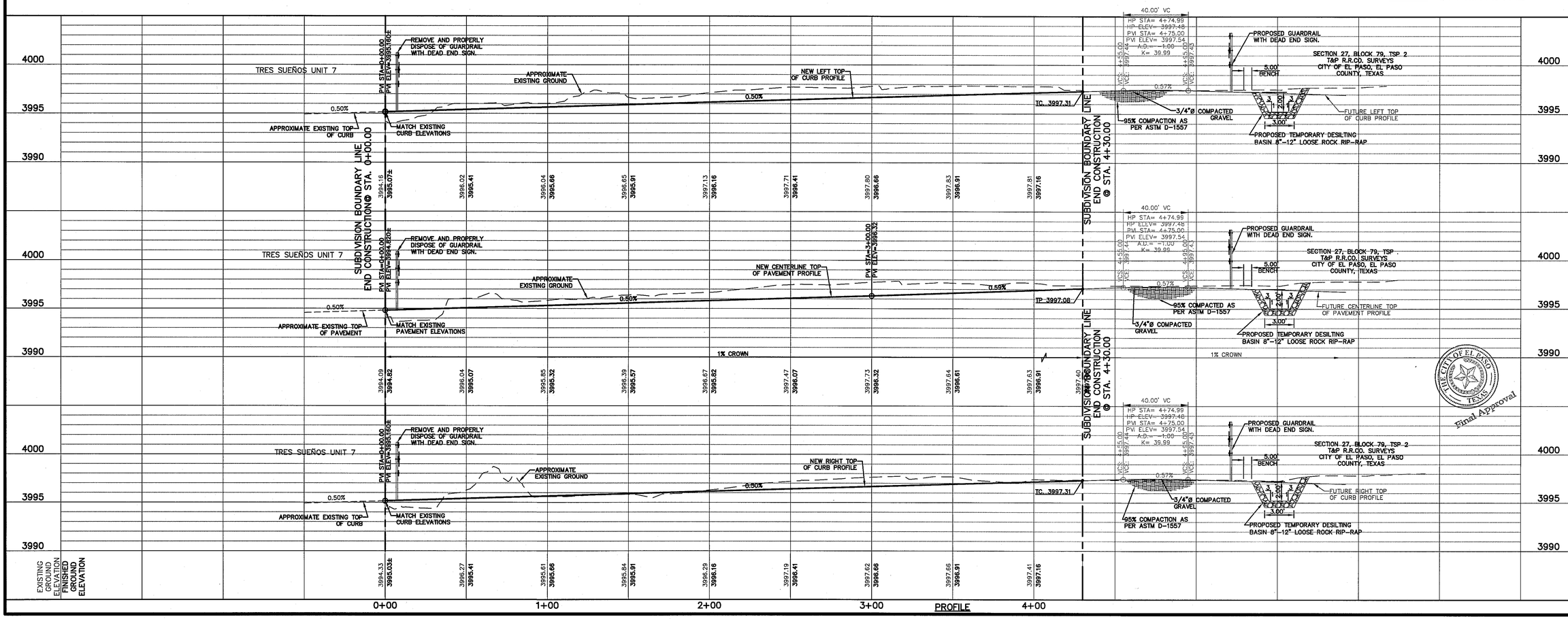
DATE	REVISIONS	BY



PLAN

LEGEND

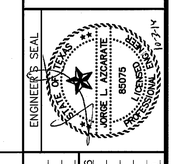
- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- 3/4" ø COMPACTED GRAVEL



PROFILE

Final Approval

ENGINEER'S SEAL



cea group
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O./G.M.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE

MARGARITA TALAMANTES PLAN & PROFILE FROM STA. 0+0.00 TO STA. 4+30.00

SHEET NO.

C6.1

S:\2025\2025-004-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\CE 16\WS26\16-STREET P&P SHEET.dwg, ST P&P1, 9/29/2016 3:36:13 PM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	750.00'	24.41'	12.21'	24.41'	S01°32'24"W	001°51'53"

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

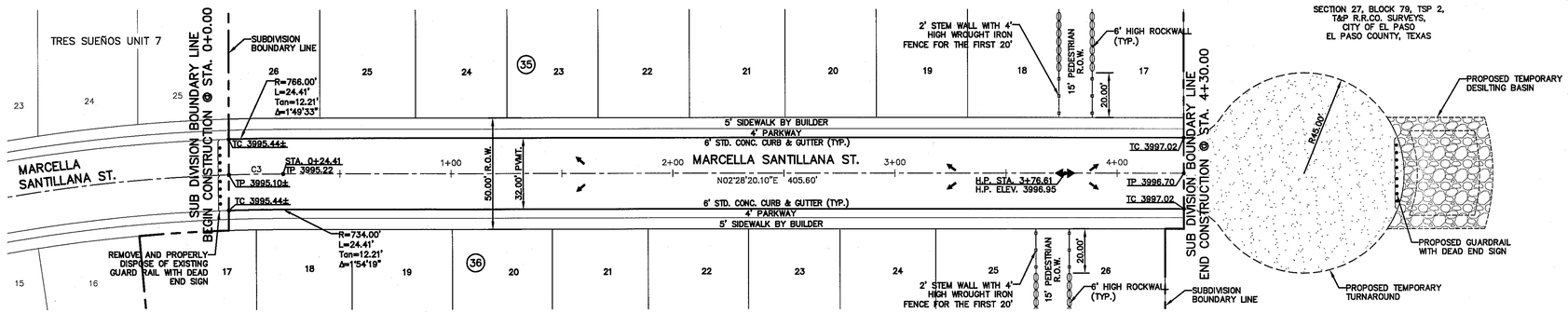
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

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

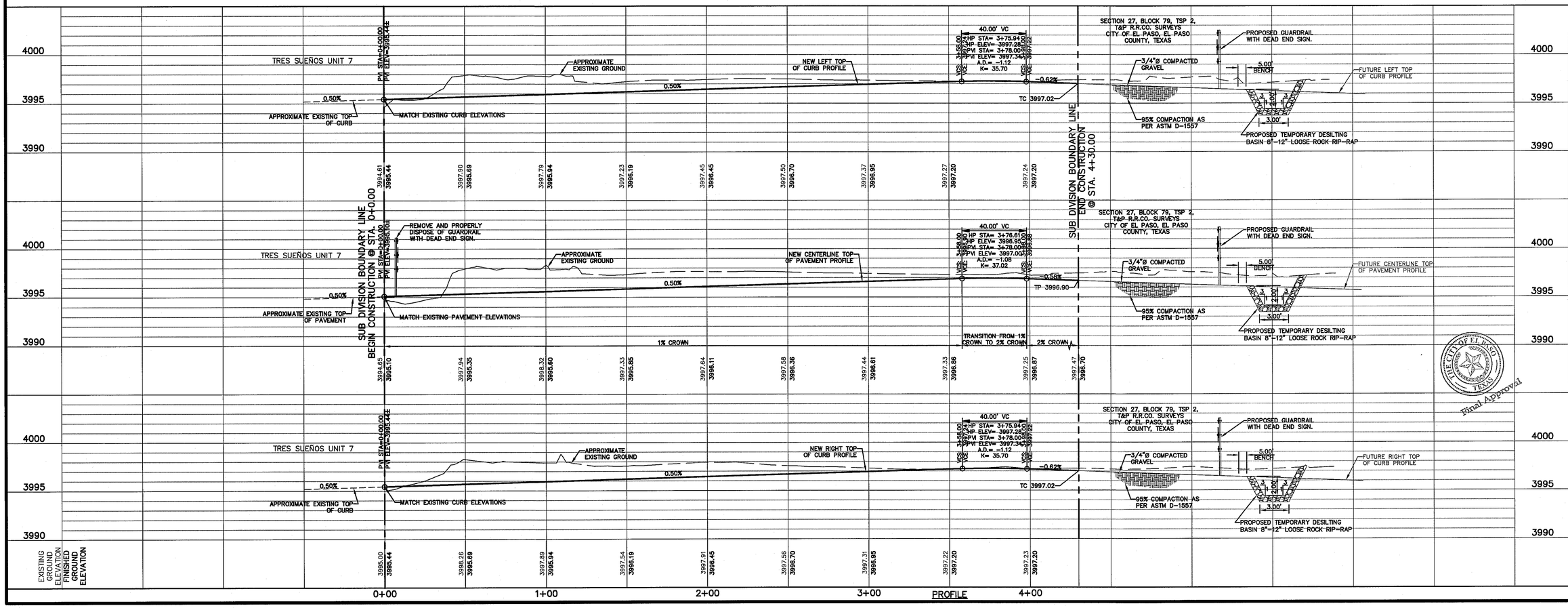
DATE	REVISIONS	BY



PLAN

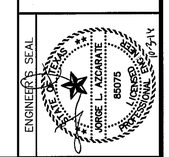
LEGEND

- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- 3/4" ø COMPACTED GRAVEL



PROFILE

ENGINEER'S SEAL



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

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O./G.M.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

Final Approval

SHEET TITLE

MARCELLA SANTILLANA PLAN & PROFILE FROM STA. 0+0.00 TO STA. 4+30.00

SHEET NO.

C6.2

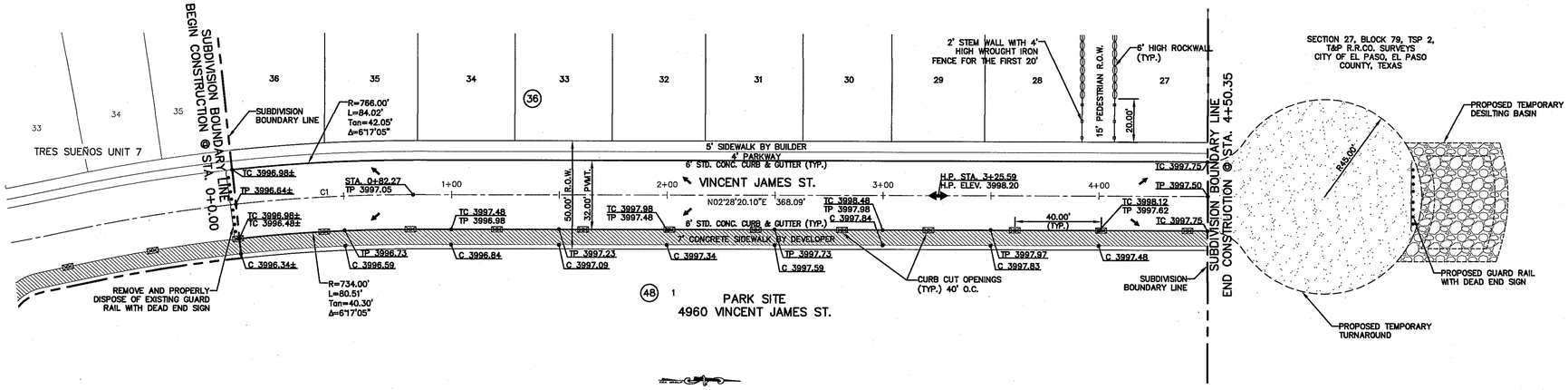
S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C6.2MARCELLA SANTILLANA-STREET P&P SHEET.dwg, S1 T&P, 9/29/2016 3:38:58 PM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	750.00'	82.27'	41.17'	82.23'	N00°40'12"W	006°17'05"

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

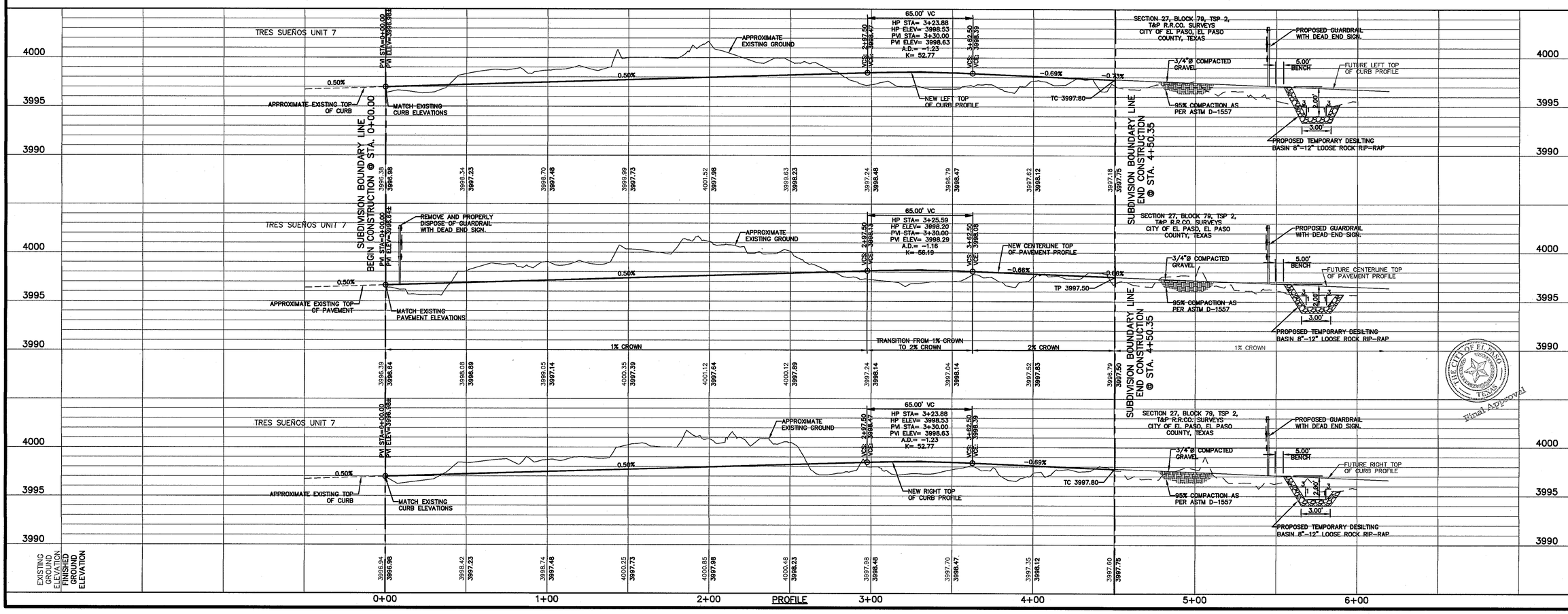
WARNING !
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES



PLAN

LEGEND

- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- 3/4" ø COMPACTED GRAVEL
- SIDEWALK BY DEVELOPER
- CURB CUT OPENINGS 40' O.C.



PROFILE

TEXAS REGISTERED ENGINEERING FIRM F-4504
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL: STATE OF TEXAS — JORGE L. AZCARATE — 85075 — REGISTERED PROFESSIONAL ENGINEER — 12-12-16

REFERENCES — BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., 308+43.31'±, A DISTANCE OF 467.58 FEET FROM A WHITE STONE POST ON THE WEST RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

Final Approval — THE CITY OF EL PASO — TEXAS

SHEET TITLE

VINCENT JAMES ST. PLAN & PROFILE FROM STA. 0+0.00 TO STA. 4+50.35

SHEET NO.

C6.3

S:\2025\2025-004-Tres Sueños Unit 15\ENGR\Construction Drawings\Improvement Plans\C6.3VINCENT JAMES-STREET P&P SHEET.dwg, ST P&P, 12/22/2016 8:50:27 AM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	450.00'	109.18'	54.86'	108.91'	N86°05'27"E	013°54'05"
C2	56.00'	88.92'	56.96'	79.87'	N48°32'21"E	090°58'32"

LEGEND

WHEELCHAIR RAMP BY DEVELOPER (TYP.)

PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

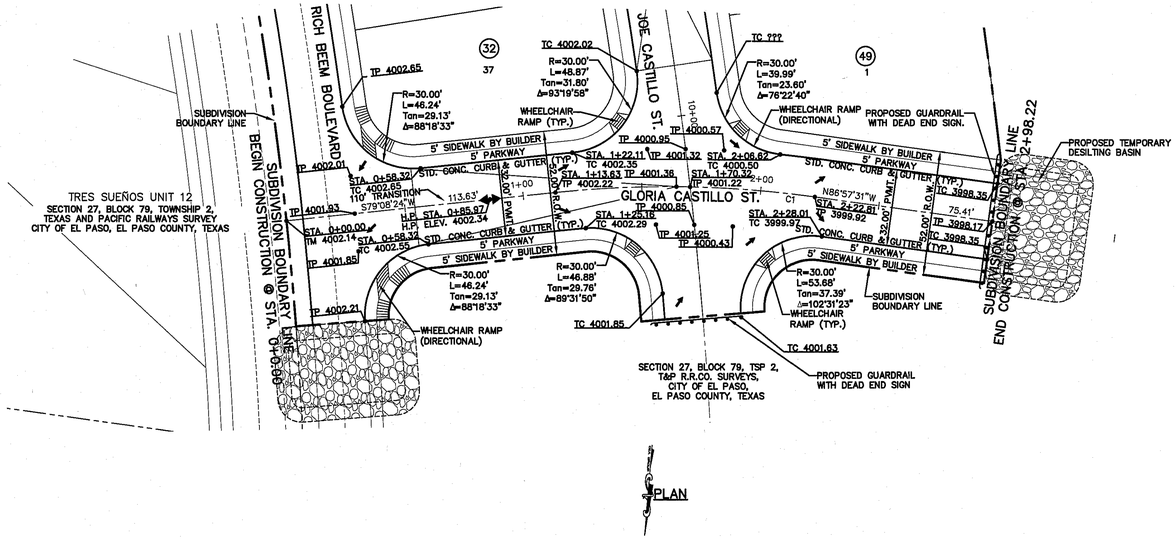
UTILITY LOCATOR SERVICES

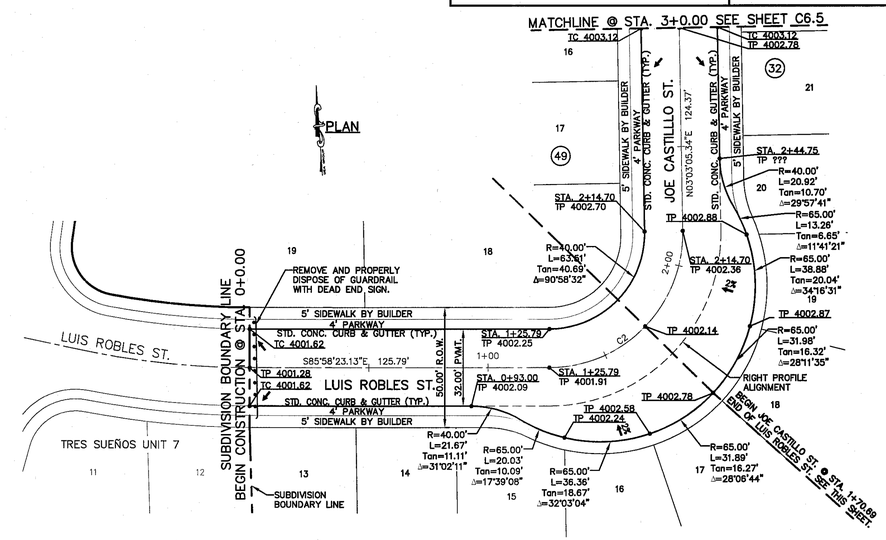
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

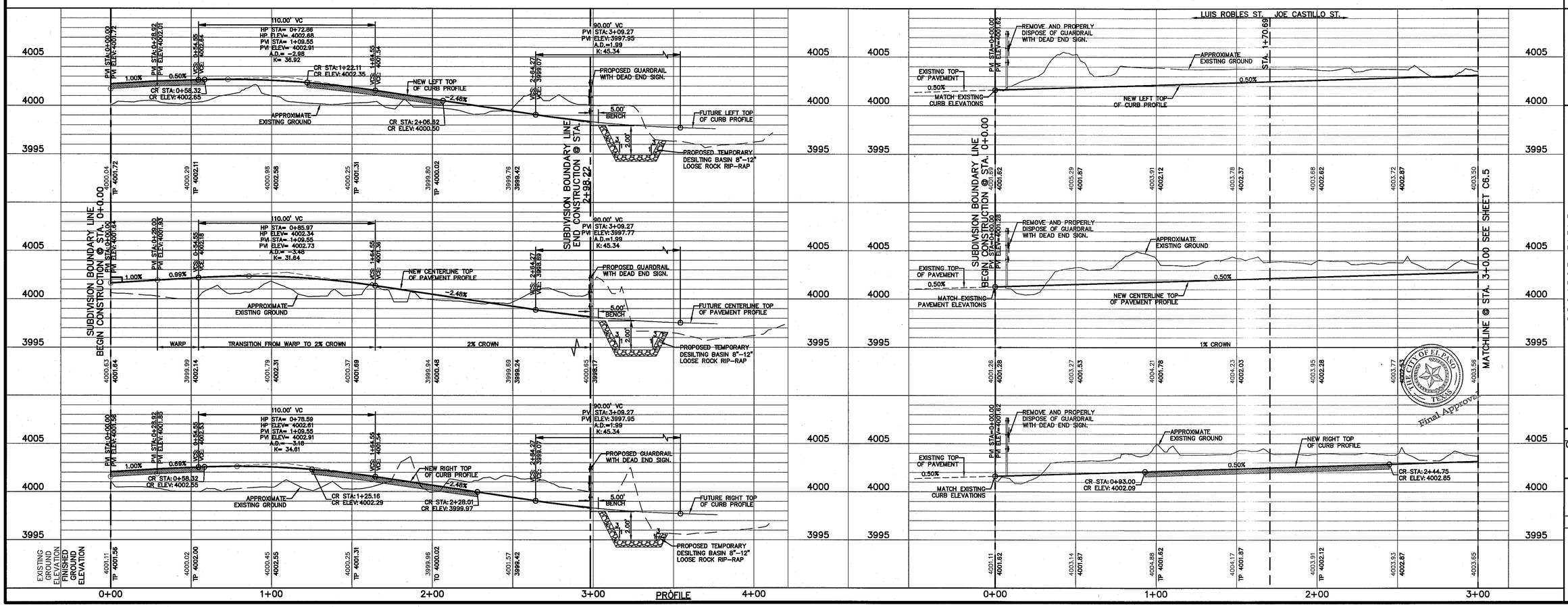
WARNING ! BEFORE YOU DIG

CALL 811

FOR FIELD LOCATING EXISTING UTILITIES







REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BOULEVARD AND SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

cea group
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS JORGE L. AZCARATE 85075 PROFESSIONAL ENGINEER

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

THE CITY OF EL PASO TEXAS

Final Approval

SHEET TITLE

GLORIA CASTILLO ST. PLAN & PROFILE FROM STA. 0+0.00 TO STA. 2+98.22

JOE CASTILLO PLAN & PROFILE FROM STA. 0+0.00 TO STA. 3+0.00

SHEET NO.

C6.4

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	1332.00'	492.94'	249.32'	490.13'	N07°33'02"W	021°12'14"
C4	1668.00'	252.42'	126.45'	252.18'	N13°49'01"W	008°40'14"

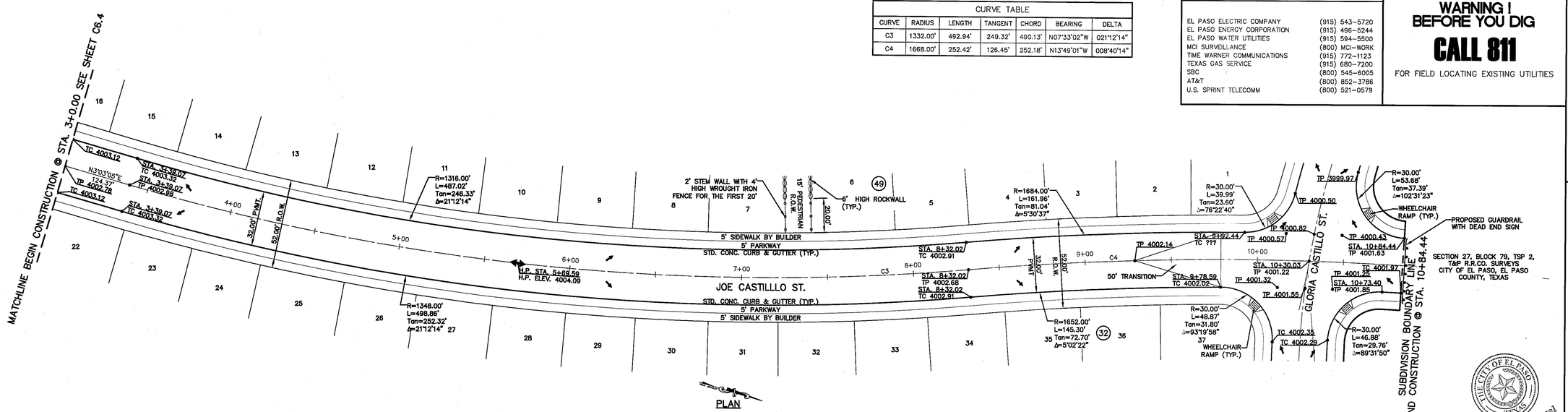
UTILITY LOCATOR SERVICES

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

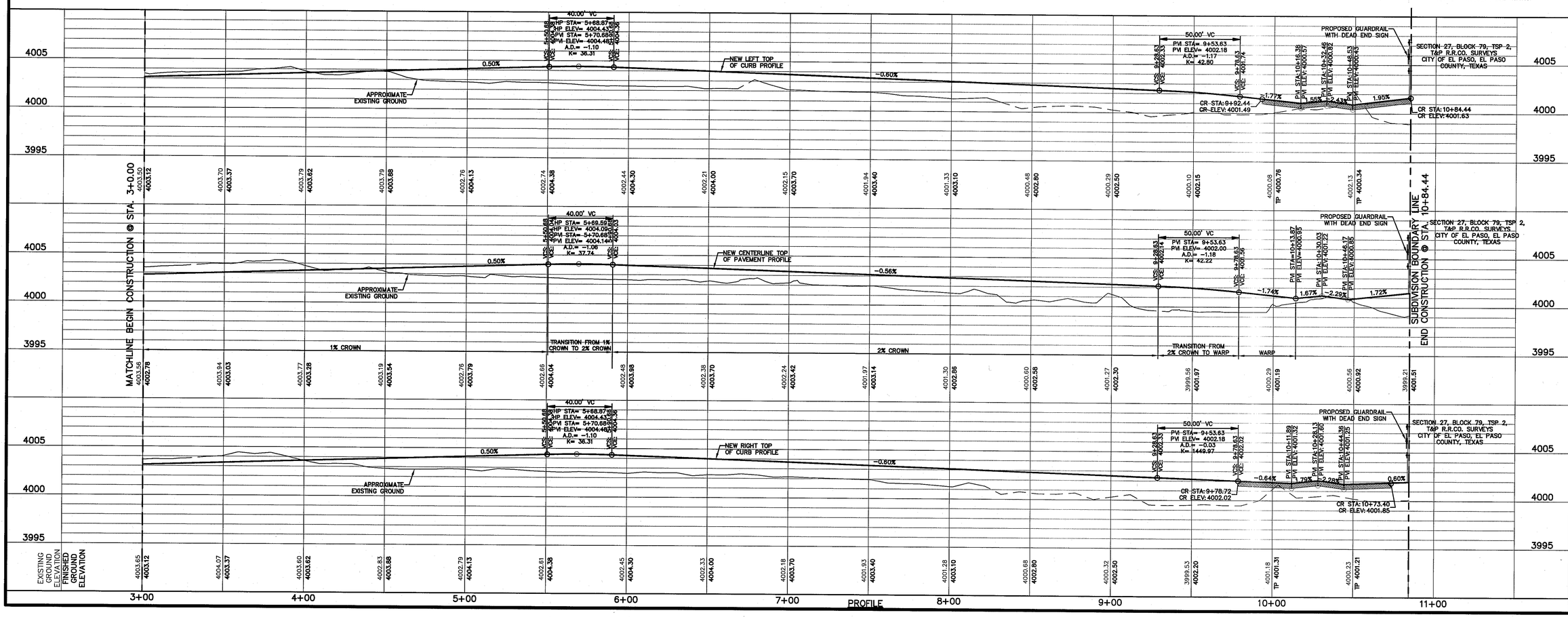


Final Approval

LEGEND

WHEELCHAIR RAMP BY DEVELOPER (TYP.)

PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.



REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SOUTHWEST, DISTANCE OF 467.38 FEET FROM THE SOUTHEAST CORNER OF RICH BEEM BLVD. AND GLORIA CASTILLO AVENUE. CITY DATUM ELEVATION.....4005.40'

DATE	REVISIONS	BY

cea group
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS — JORGE L. AZCARATE — 85075 — REGISTERED PROFESSIONAL ENGINEER

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

JOE CASTILLO PLAN & PROFILE FROM STA. 3+00.00 TO STA. 10+84.44

SHEET NO.

C6.5

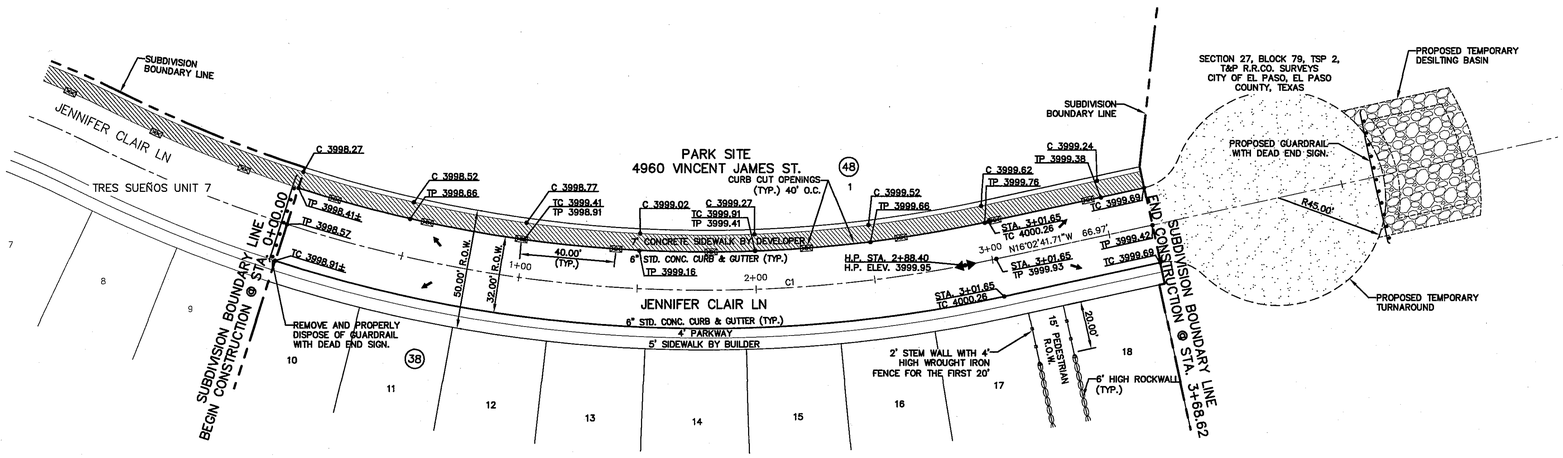
S:\2025\2025-004-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C6.4-C6.5_JOE CASTILLO - GLORIA CASTILLO 1"=5'FILE1 P&P SHEET.dwg, 3' P&P (2), 10/28/2016 11:35:14 AM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	575.00'	301.65'	154.38'	298.20'	N01°00'58"W	030°03'27"

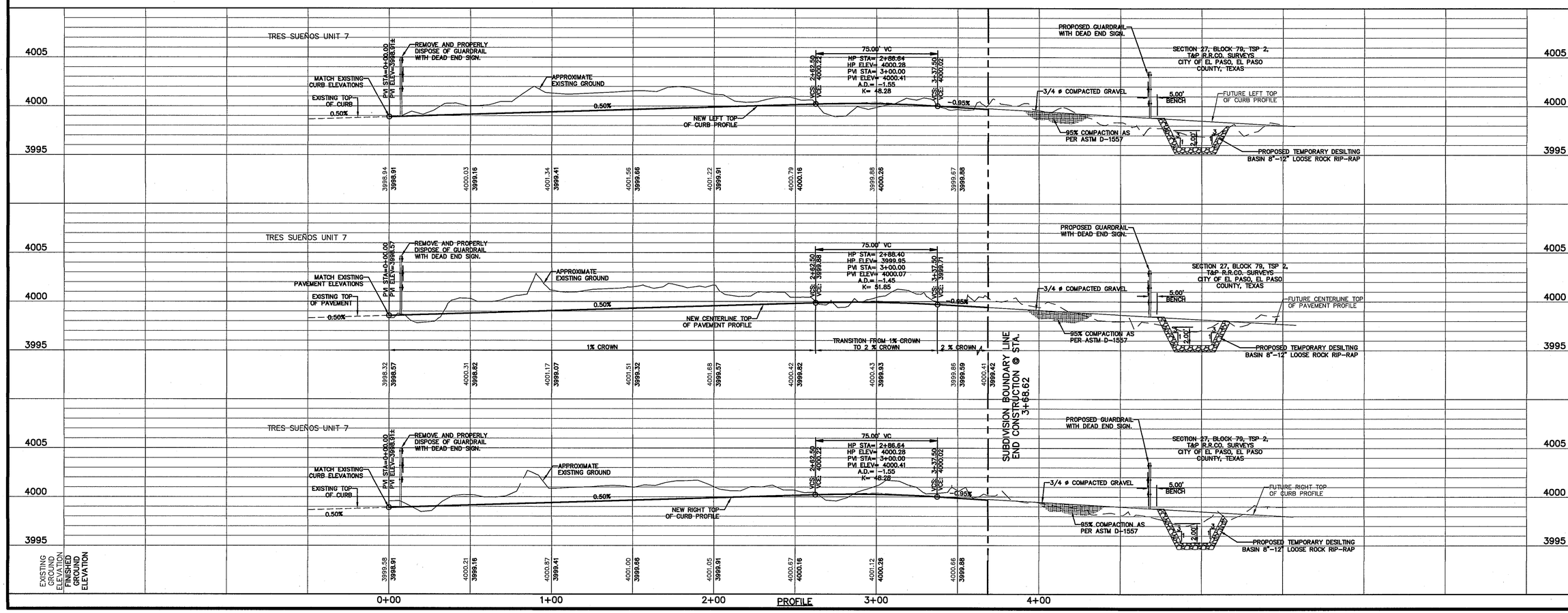
UTILITY LOCATOR SERVICES

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



PLAN



PROFILE

LEGEND

- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- 3/4" ø COMPACTED GRAVEL
- SIDEWALK BY DEVELOPER
- CURB CUT OPENINGS 40' O.C.

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE INTERSECTION OF RICH BEEM BLVD. AND JAMES AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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

ENGINEER'S SEAL

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE

JENNIFER CLAIRE LN.
PLAN & PROFILE
FROM STA. 0+0.00 TO
STA. 3+68.62

SHEET NO.

C6.6

S:\2025\2025-004 - Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C6.6_JENNIFER CLAIRE-STREET PLAN SHEET.dwg, ST PLAN, 10/22/2016 1:38:42 PM

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

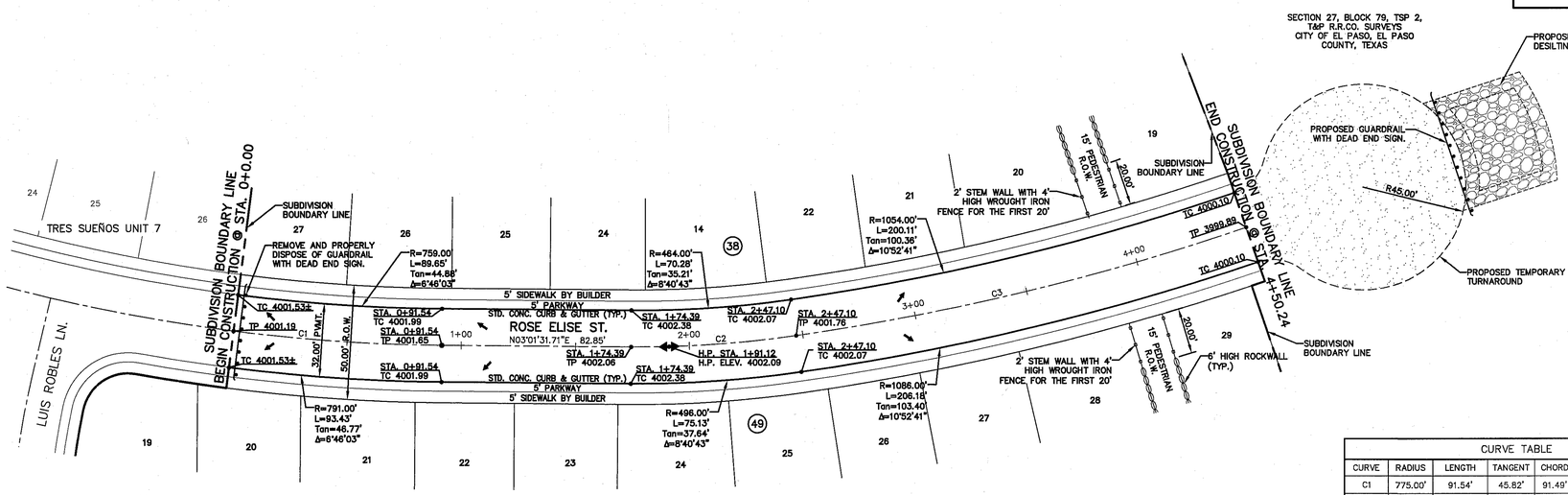
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHWEST CORNER OF ROSE ELISE ST. AND AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY



PLAN

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	775.00'	91.54'	45.82'	91.49'	N06°24'33"E	006°46'03"
C2	480.00'	72.71'	36.42'	72.64'	N01°18'50"W	008°40'43"
C3	1070.00'	203.15'	101.88'	202.84'	N11°05'31"W	010°52'41"

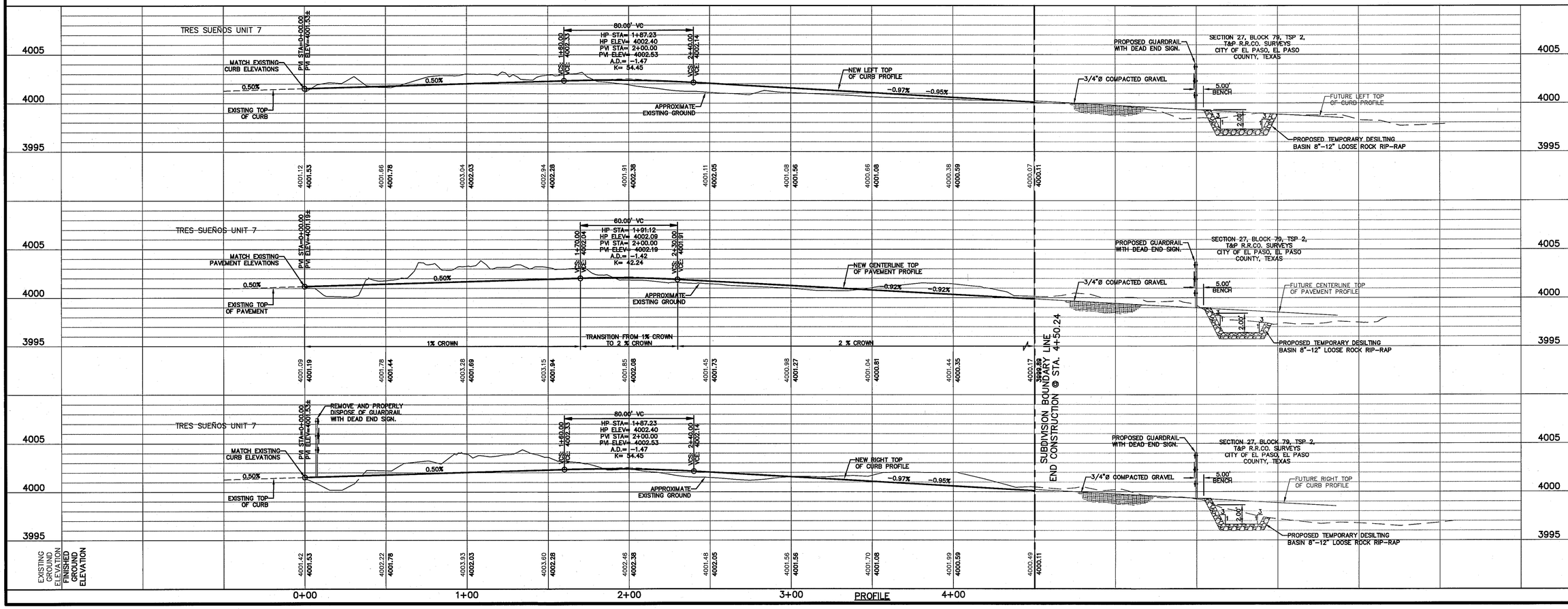
LEGEND

- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- 3/4" ø COMPACTED GRAVEL

THE CITY OF EL PASO TEXAS — Final Approval

TEXAS REGISTERED ENGINEERING FIRM F-4504
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL



PROFILE

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

DATE: SEPTEMBER 2016
DESIGN BY: R.Q.
DRAWN BY: R.Q./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

ROSE ELISE ST. PLAN & PROFILE FROM STA. 0+0.00 TO STA. 4+50.24

SHEET NO.

C6.7

S:\2025\2025-004-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C6.7-ROSE ELISE ST-STREET P&P SHEET.dwg, ST PAVE, 10/31/2016 5:03:44 PM

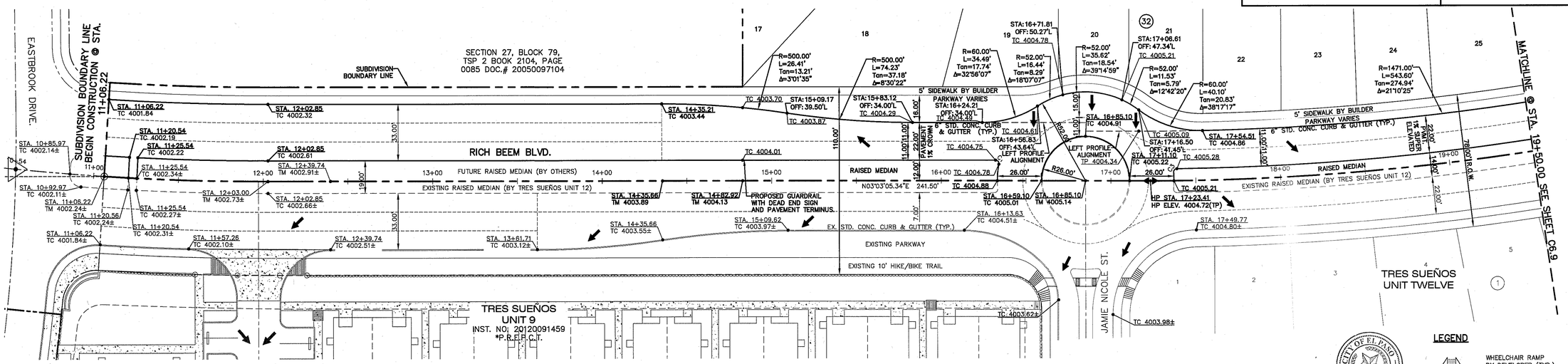
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	2.00'	3.51'	2.41'	3.08'	N53°23'15"E	100°40'19"
C3	2.00'	3.31'	2.18'	2.95'	S44°55'08"E	094°50'00"

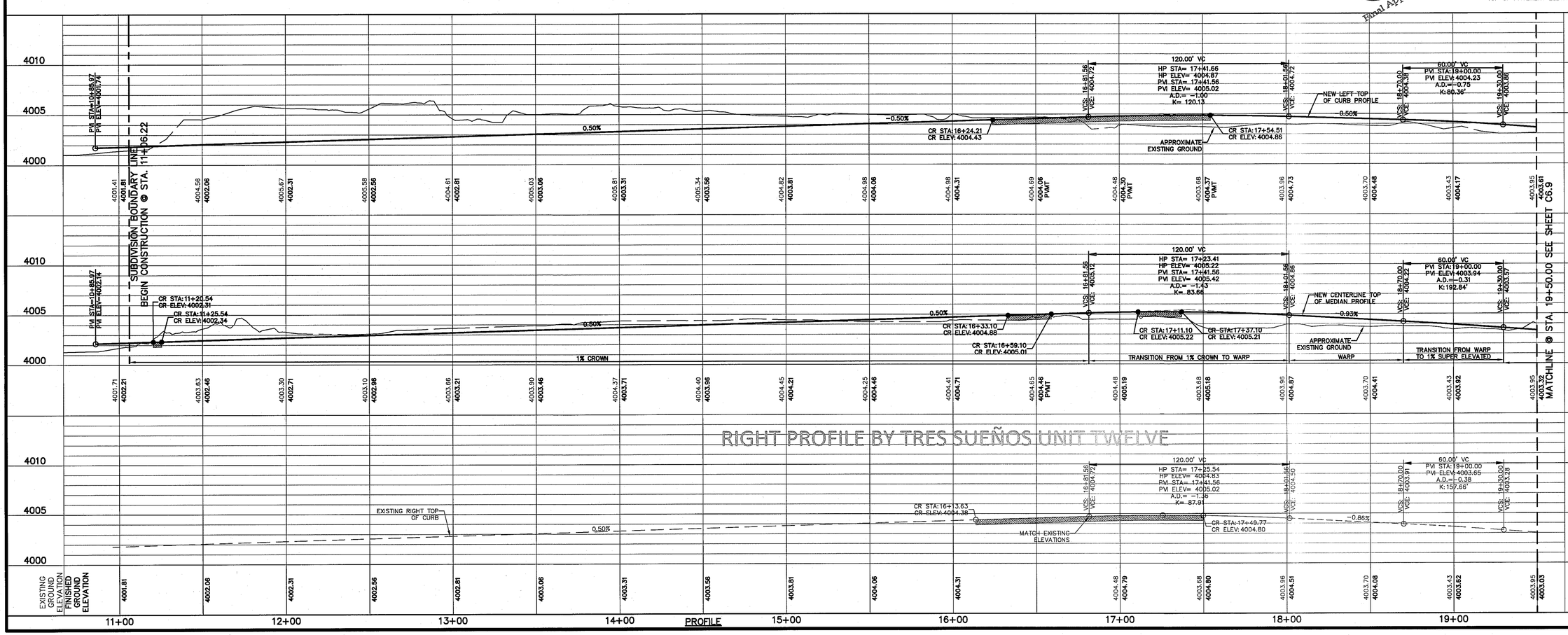
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

WARNING ! BEFORE YOU DIG

CALL 811

FOR FIELD LOCATING EXISTING UTILITIES





REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. SOUTH 1,300 FEET FROM THE INTERSECTION OF RICH BEEM BLVD. AND MONTANA AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

caa group
TEXAS REGISTERED ENGINEERING FIRM F-4594
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS — JORGE L. LAZCANO — 85075 — LICENSED PROFESSIONAL ENGINEER — 1-31-19

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004.D

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE

RICH BEEM BLVD. PLAN & PROFILE FROM STA. 11+06.22 TO STA. 19+50.00

SHEET NO.

C6.8

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	2.00'	3.51'	2.41'	3.08'	N53°23'15"E	100°40'19"
C3	2.00'	3.31'	2.18'	2.95'	S44°55'08"E	094°50'00"

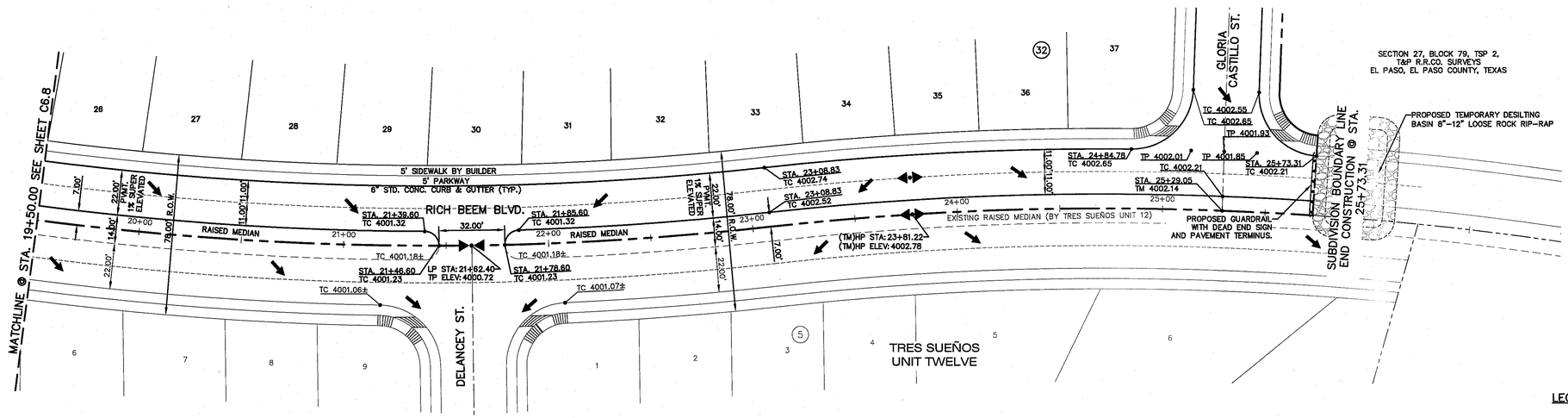
UTILITY LOCATOR SERVICES

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



LEGEND

WHEELCHAIR RAMP BY DEVELOPER (TYP.)

P.V.I ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

THE CITY OF EL PASO TEXAS

Final Approval

REFERENCES – BENCHMARKS

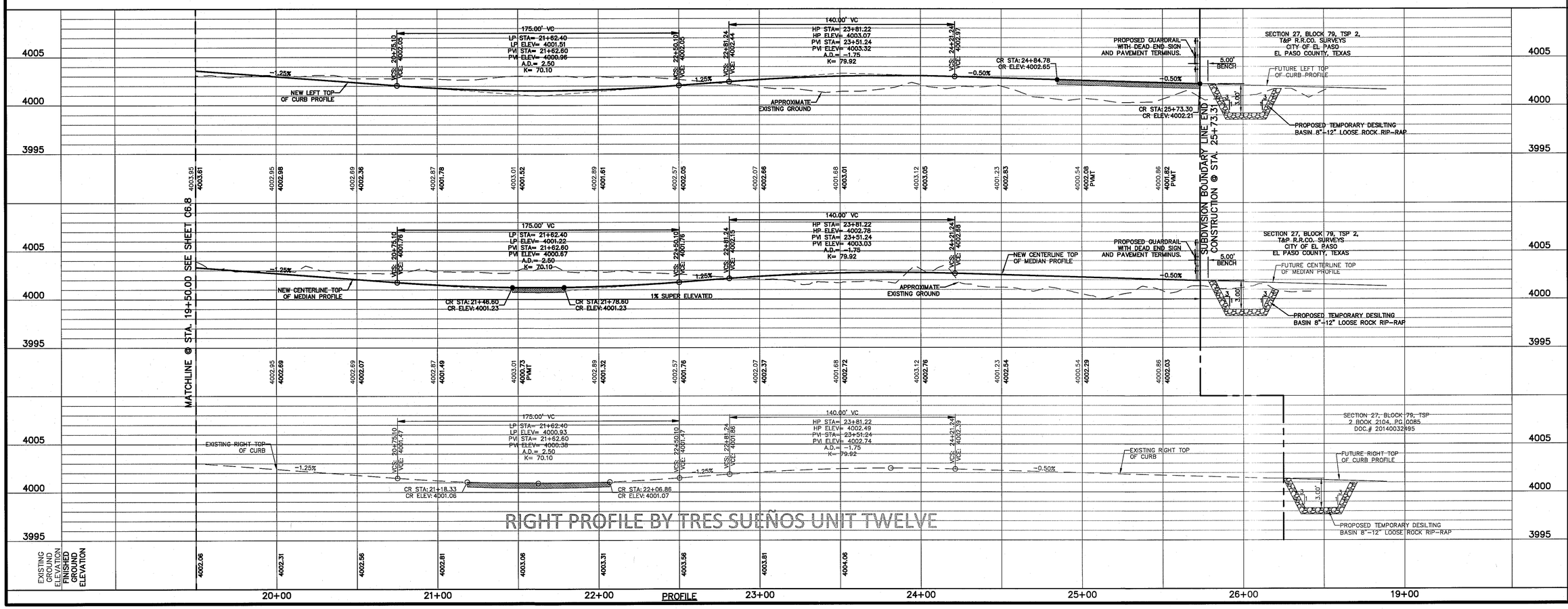
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'3"E A DISTANCE OF 467.28 FEET FROM THE SOUTHWEST CORNER OF MONUMENT LINE AVENUE CITY DATUM ELEVATION..... 4005.40

DATE	REVISIONS	BY

caa group
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

STATE OF TEXAS — JOSEPH A. CARRILLO — 85075 — LICENSED PROFESSIONAL ENGINEER



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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

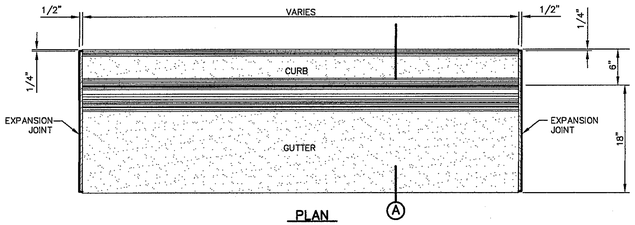
SHEET TITLE

RICH BEEM BLVD. PLAN & PROFILE FROM STA. 19+50.00 TO STA. 25+73.31

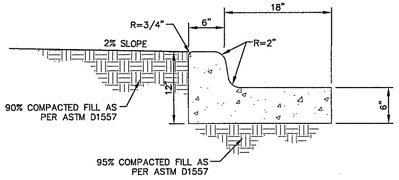
SHEET NO.

C6.9

S:\2025\2025-004 - Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C6.8-RICH BEEM BLVD-STREET P&P SHEET.dwg, S1 P&P (2), 10/27/2016 5:12:28 PM



PLAN

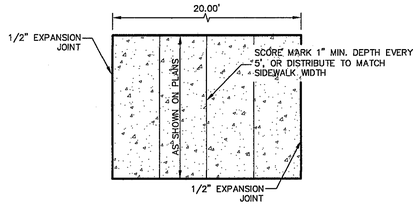


A SECTION

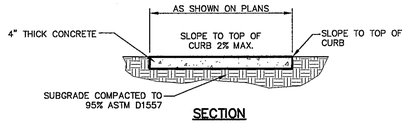
NOTES:

1. CONCRETE SHALL BE 3,000 P.S.I. MIN.
2. DUMMY JOINT REQUIRED AT 10' O.C. FOR CURB & GUTTER, AND 5' O.C. FOR SIDEWALK
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS AND AT 20' ON CENTER FOR SIDEWALKS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.

1 / C7.1 CURB & GUTTER DETAIL
SCALE: 1" = 1'-0"



PLAN

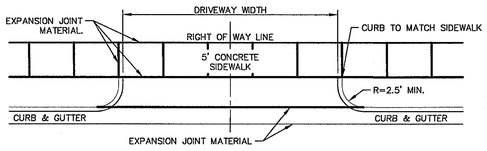


SECTION

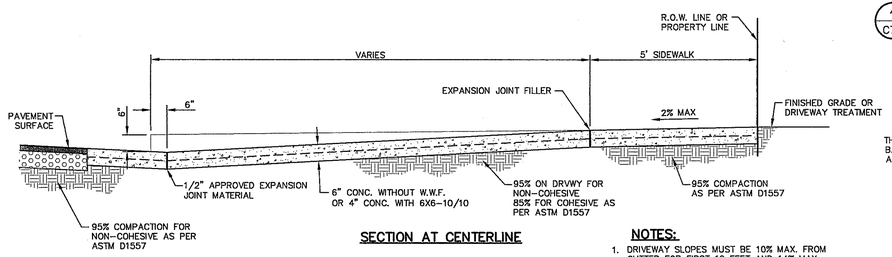
SIDEWALK NOTES:

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

2 / C7.1 SECTION-SIDEWALK/SLAB
SCALE: 1" = 2'-0"



DRIVEWAY PLAN

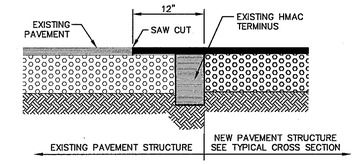


SECTION AT CENTERLINE

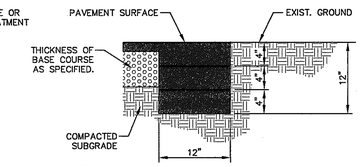
3 / C7.1 TYPICAL DRIVEWAY DETAIL
SCALE: N.T.S.

NOTES:

1. DRIVEWAY SLOPES MUST BE 10% MAX. FROM GUTTER FOR FIRST 12 FEET AND 14% MAX. THEREAFTER (DRIVEWAY SHALL BE LOCATED @ HIGH SIDE OF LOT UNLESS OTHERWISE COORDINATED WITH CITY OF EL PASO)
2. RESIDENTIAL
   6" CONCRETE WITHOUT W.W.F.
   4" CONCRETE WITH 6X6-10/10

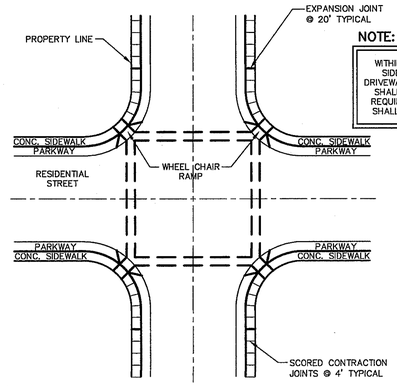


4 / C7.1 TYPICAL PAVEMENT JOINT SECTION
SCALE: N.T.S.



NOTE:
TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS. FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE.

5 / C7.1 TERMINUS OF STREET
SCALE: 1" = 1'-0"



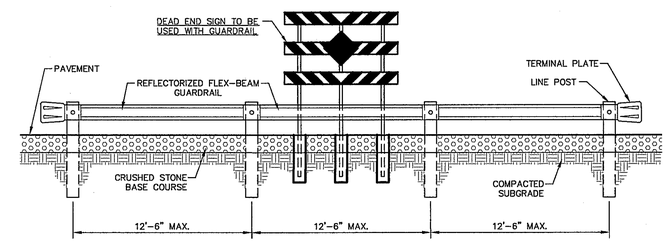
NOTE:

WITHIN SUBDIVISION LIMITS: ALL EXISTING AND PROPOSED SIDEWALKS, BARRIE FREE RAMPS, HANDICAP PARKING, DRIVEWAY CROSSWALKS, DRIVEWAYS AND ACCESSIBLE ROUTES SHALL COMPLY WITH A.D.A., T.A.S AND CITY OF EL PASO REQUIREMENTS. EXISTING INFRASTRUCTURE NOT COMPLYING SHALL BE REMOVED AND REPLACED TO MEET STANDARDS.

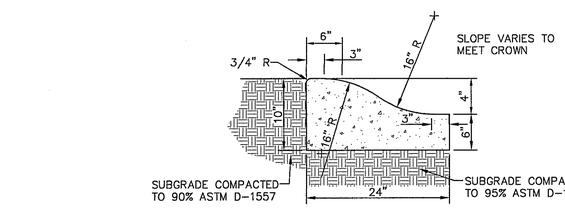
NOTES:

1. RAMPS MAY BE PLACED AS SUGGESTED, HOWEVER EXISTING LIGHT POLES, FIREHYDRANTS, DROP INLETS, ETC., MAY AFFECT PLACEMENT.
2. THE CONCRETE SURFACE SHALL HAVE A ROUGH, NONSKID TYPE FINISH.
3. CONSTRUCTION METHODS SHALL CONFORM WITH THE CITY OF EL PASO SPECIFICATIONS.
4. ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF EL PASO STANDARDS.

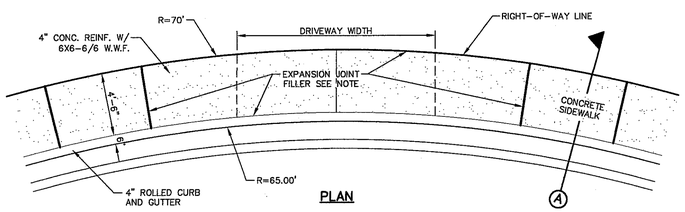
7 / C7.1 WHEELCHAIR RAMP STREET PLAN
SCALE: 1" = 30'-0"



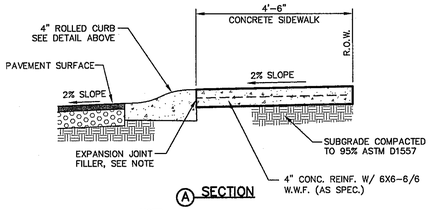
ELEVATION
SCALE: 1"=5'



6 / C7.1 4" CONCRETE ROLLED CURB DETAIL
SCALE: 1" = 1'-0"



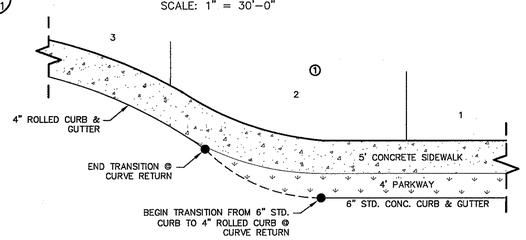
PLAN



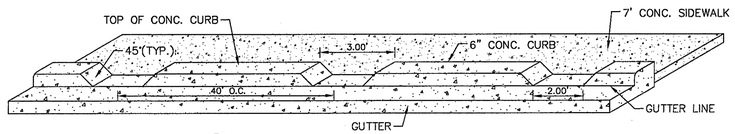
A SECTION

NOTE:
EXPANSION MATERIAL SHALL BE 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.

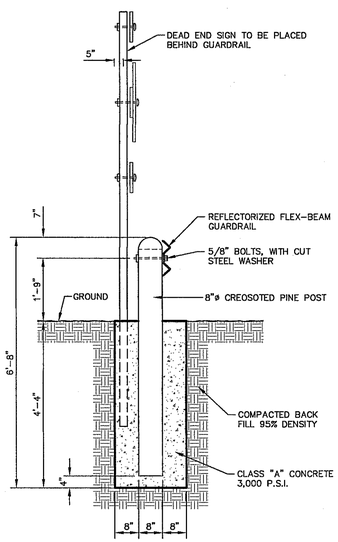
8 / C7.1 HEEL (70' R) DRIVEWAY DETAIL
SCALE: N.T.S.



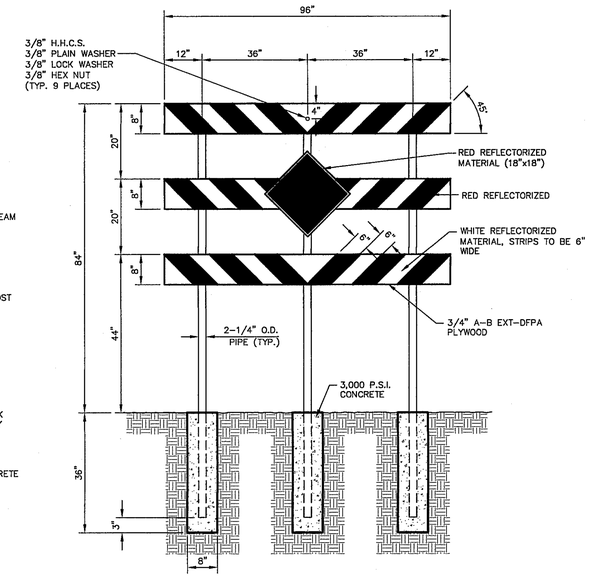
9 / C7.1 TYPICAL HEEL/CUL-DE-SAC SIDEWALK TRANSITION
SCALE: N.T.S.



10 / C7.1 CURB CUT OPENINGS @ 40' O.C.



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



DEAD END SIGN DETAIL
SCALE: 1" = 2'-0"

11 / C7.1 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL
SCALE: AS SHOWN

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.....4605.40

DATE	REVISIONS	BY

CEA GROUP
TEXAS REGISTERED ENGINEERING FIRM F-4864
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915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
LICENSED
TEXAS
PROFESSIONAL ENGINEER
7-9-17

THE CITY OF EL PASO TEXAS
Final Approval

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

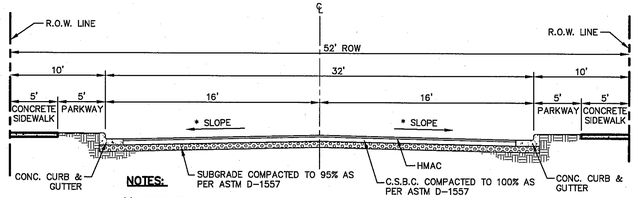
SHEET TITLE

STANDARD DETAILS

(SHEET 1 OF 3)

SHEET NO.

C7.1

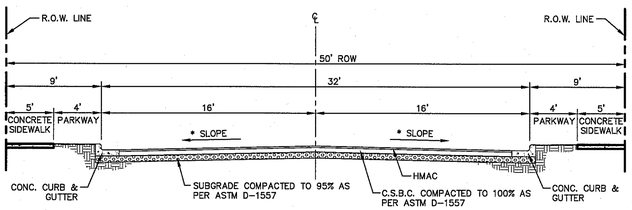


NOTES:

1. (*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS
2. SIDEWALK WIDTH IS REQUIRED TO COMPLY WITH ADA/TAS REGULATIONS.
3. STREET IMPROVEMENTS 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.

1 / C7.2 TYPICAL 52' ROW STREET SECTIONS DETAIL

SCALE: N.T.S.

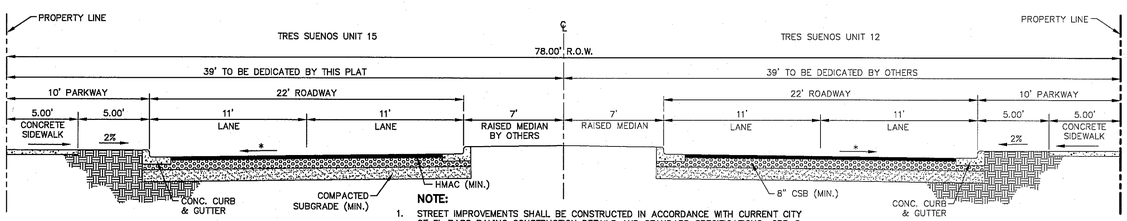


NOTES:

1. (*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS
2. SIDEWALK WIDTH IS REQUIRED TO COMPLY WITH ADA/TAS REGULATIONS.
3. STREET IMPROVEMENTS 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.

2 / C7.2 TYPICAL 50' ROW STREET SECTIONS DETAIL

SCALE: N.T.S.

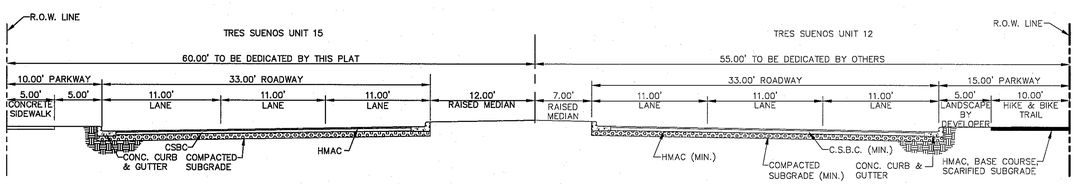


NOTE:

1. STREET IMPROVEMENTS 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 DEVELOPMENT SERVICES FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT
2. SHALL COMPLY WITH THE CURRENT MUTCD MANUAL AND TRAFFIC DEPARTMENT.

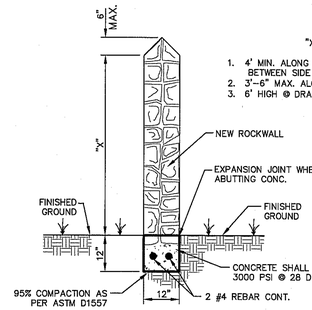
4 / C7.2 TYPICAL 78' ROW STREET SECTION DETAIL @RICH BEEM BOULEVARD(MINOR ARTERIAL STREET)

SCALE: 1' = 5'-0"



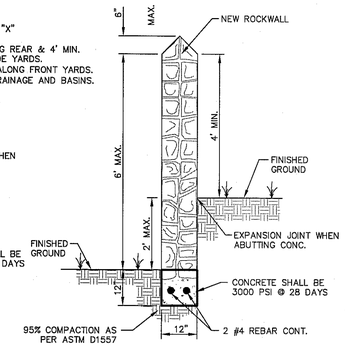
5 / C7.2 TYPICAL 110' ROW STREET SECTION DETAIL @RICH BEEM BOULEVARD (MAJOR ARTERIAL STREET)

SCALE: N.T.S.

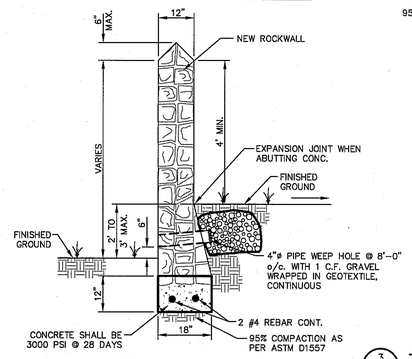


1. 4' MIN. ALONG REAR & 4' MIN. BETWEEN SIDE YARDS.
2. 3'-6" MAX. ALONG FRONT YARDS.
3. 6' HIGH @ DRAINAGE AND BASINS.

GARDEN WALL SECTION



GARDEN WALL SECTION (2' MAX.)



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

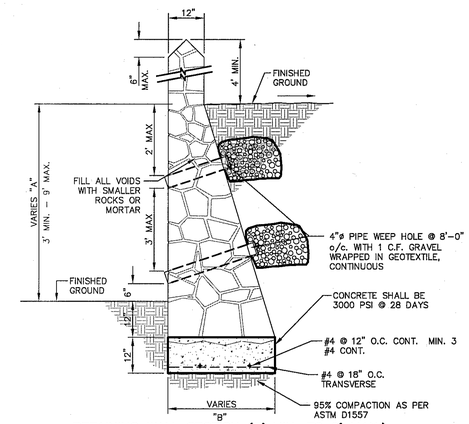
RETAINING ROCK WALL	
"A"	"B"
3.01'	2'-6"
4'	2'-10"
5'	3'-3"
6'	3'-8"
7'	4'-0"
8'	4'-5"
9'	4'-10"

3 / C7.2 TYPICAL ROCKWALL DETAILS

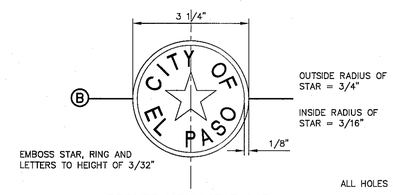
SCALE: 1" = 2'-0"

ROCK WALL NOTES

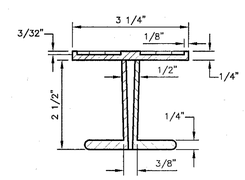
1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IN PRACTICABLE THE STONE SHALL BE DENSE AND RESISTANT OF AIR AND WATER.
2. MORTAR MUST BE TYPE "S: 1800 P.S.I. AS PER ASTM C270.
3. MASONRY WALL OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED 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).



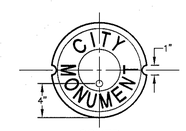
RETAINING WALL SECTION (3' MIN. TO 9' MAX.)



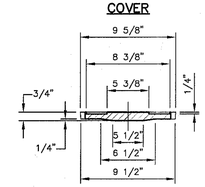
BRONZE MONUMENT CAP

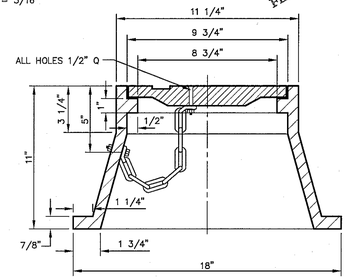


B SECTION



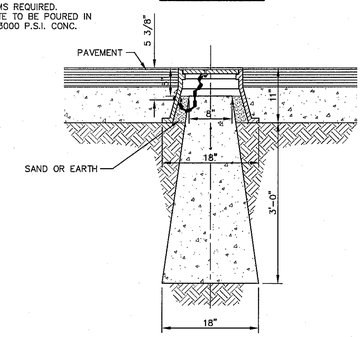
COVER





MONUMENT BOX

NO FORMS REQUIRED. CONCRETE TO BE POURED IN PLACE. 3000 P.S.I. CONC.



6 / C7.2 CITY SURVEY MONUMENT DETAILS

SCALE: N.T.S.

Final Approval

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BOULEVARD, APPROXIMATELY 1,320 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

caa
TEXAS REGISTERED ENGINEERING FIRM F-4564
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915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 TEXAS REGISTERED PROFESSIONAL ENGINEER 8-4-17

SCALE Horizontal: N/A Vertical: N/A Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

STANDARD DETAILS

(SHEET 2 OF 3)

SHEET NO.

C7.2

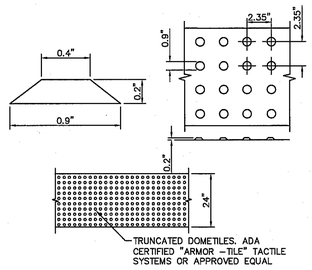
S:\2025\2025-004-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C7.1-C7.5\ANDARD DETAILS.dwg, Layout2, 10/28/2016 12:28:33 PM

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 HAVE A COLOR CONTRAST VISUALLY WITH ADJOINING SURFACES.

GENERAL NOTES:

1. 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.
2. 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.
3. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
4. 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.
5. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED.
6. ALL CONCRETE SIDEWALK SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
7. 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.
8. 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.
9. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%.
10. 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).



DOME 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.

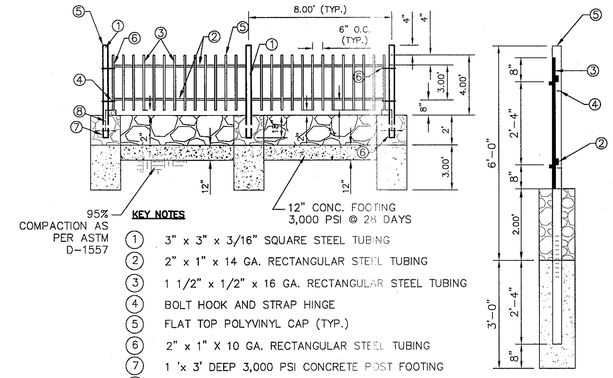
DOME ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES (610 mm) MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION.

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. CONTRAST 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.

1 / C7.3 TRUNCATED DOME SIZE AND SPACING
SCALE: N.T.S.

NOTE:

WITHIN SUBDIVISION LIMITS: ALL EXISTING AND PROPOSED SIDEWALKS, BARRIE FREE RAMPS, HANDICAP PARKING, DRIVEWAY CROSSWALKS, DRIVEWAYS AND ACCESSIBLE ROUTES SHALL COMPLY WITH A.D.A., T.A.S AND CITY OF EL PASO REQUIREMENTS. EXISTING INFRASTRUCTURE NOT COMPLYING SHALL BE REMOVED AND REPLACED TO MEET STANDARDS.



KEY NOTES

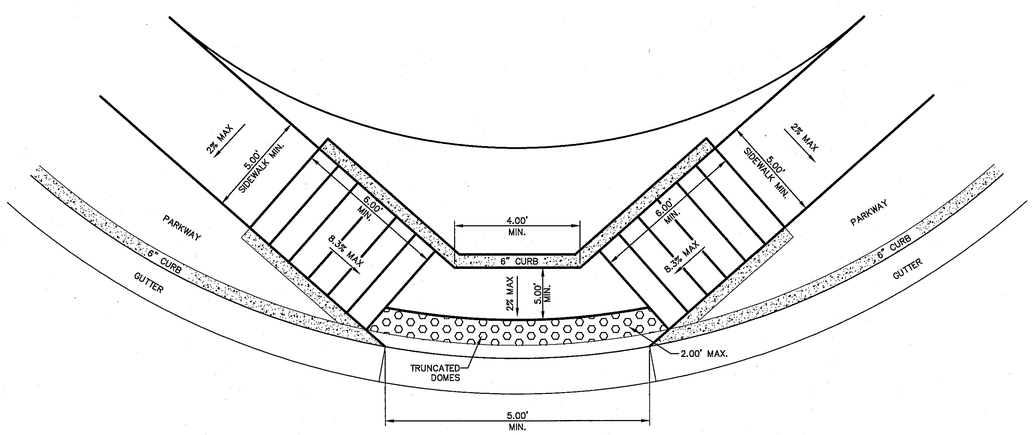
1. 3" x 3" x 3/16" SQUARE STEEL TUBING
2. 2" x 1" x 14 GA. RECTANGULAR STEEL TUBING
3. 1 1/2" x 1/2" x 16 GA. RECTANGULAR STEEL TUBING
4. BOLT HOOK AND STRAP HINGE
5. FLAT TOP POLYVINYL CAP (TYP.)
6. 2" x 1" X 10 GA. RECTANGULAR STEEL TUBING
7. 1 'x 3' DEEP 3,000 PSI CONCRETE POST FOOTING
8. 5" x 5" x 3/8" SQUARE STEEL SLEEVE W/7" x 7" x 3/8" BASE PLATE

NOTE: REFER TO PLANS IF ROCKWALL IS DESIRED FOR A 2' ROCKWALL/ 4' FENCE OR ONLY A 6' WROUGHT IRON FENCE.

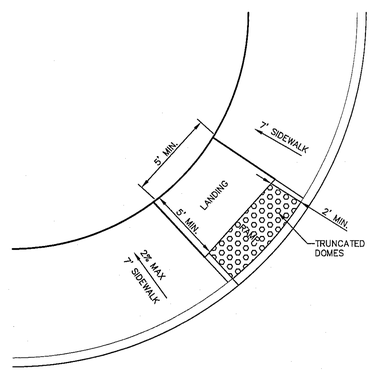
POST

2 / C7.3 TYPICAL ROCKWALL W/ WROUGHT IRON FENCE DETAILS
SCALE: N.T.S.

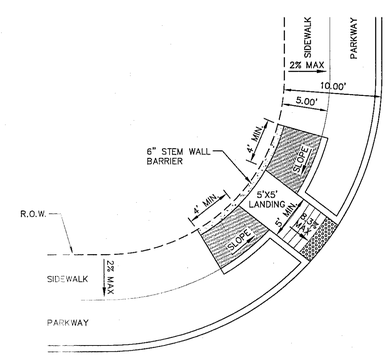
THE CITY OF EL PASO TEXAS
Final Approval



3 / C7.3 DIRECTIONAL RAMP @ INTERSECTION
SCALE: N.T.S.



4 / C7.3 DIAGONAL COMBINATION CURB RAMP (TYPE III)
SCALE: N.T.S.



5 / C7.3 DIAGONAL CURB RAMP (FLARED SIDES) (TYPE V)
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. CITY DATUM ELEVATION.....4205.140

DATE	REVISIONS	BY

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ENGINEER'S SEAL
JORGE L. ALCARATE
85075
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

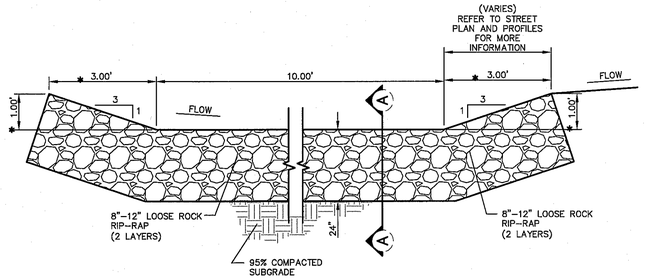
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: SEPTEMBER 2016
DESIGN BY: R.O./O.M.
DRAWN BY: R.O./O.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
STANDARD DETAILS
(SHEET 1 OF 3)

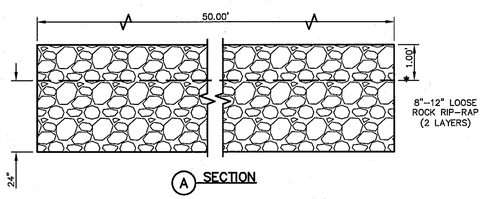
SHEET NO.
C7.3



* MINIMUM DIMENSION UNLESS OTHERWISE PROVIDED IN THE PLANS.

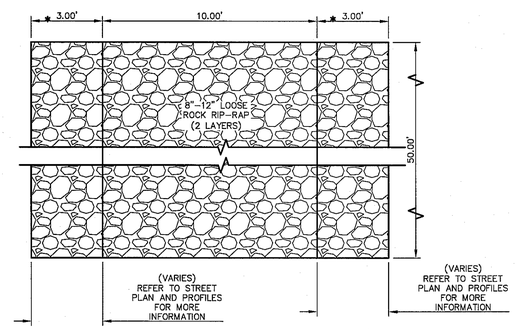
NOTE:

1. SUBGRADE TO BE COMPACTED TO NINETY-FIVE (95%) PERCENT OF MAXIMUM DENSITY AS PER ASTM D-1557.
2. TYPICAL THICKNESS IS SHOWN, ACTUAL THICKNESS WILL VARY, BUT IN NO EVENT SHALL BE LESS THAN TWELVE (12") INCHES.



A SECTION

* MINIMUM DIMENSION UNLESS OTHERWISE PROVIDED IN THE PLANS.



* MINIMUM DIMENSION UNLESS OTHERWISE PROVIDED IN THE PLANS.

PLAN VIEW

1 / C8.1 TEMPORARY DESILTING BASIN DETAIL
SCALE: 1" = 2'-0"

THE CITY OF EL PASO TEXAS
Final Approval

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SIDEWALK CORNER, ADJACENT TO CURB, SOUTHEAST OF THE SOUTHEAST CORNER OF A WHITMAN AVENUE. A DISTANCE OF 467.58 FEET FROM THE SOUTHEAST R.O.W. LINE OF A WHITMAN AVENUE CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

caa group
TEXAS REGISTERED ENGINEERING FIRM F-4604
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

REGISTERED TEXAS PROFESSIONAL ENGINEER 85075 JOSEPH L. ACCARDI

SCALE
Horizontal: 1"=30'
Vertical: 1"=5'
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE

DRAINAGE DETAILS

SHEET NO.

C8.1

S:\JOB\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C8-1-C8.2DRAINAGE DETAILS.dwg, DRAINAGE DETAILS (2), 10/23/2016 4:44:13 PM

NOTE:

SIGNS SHOULD COMPLY WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

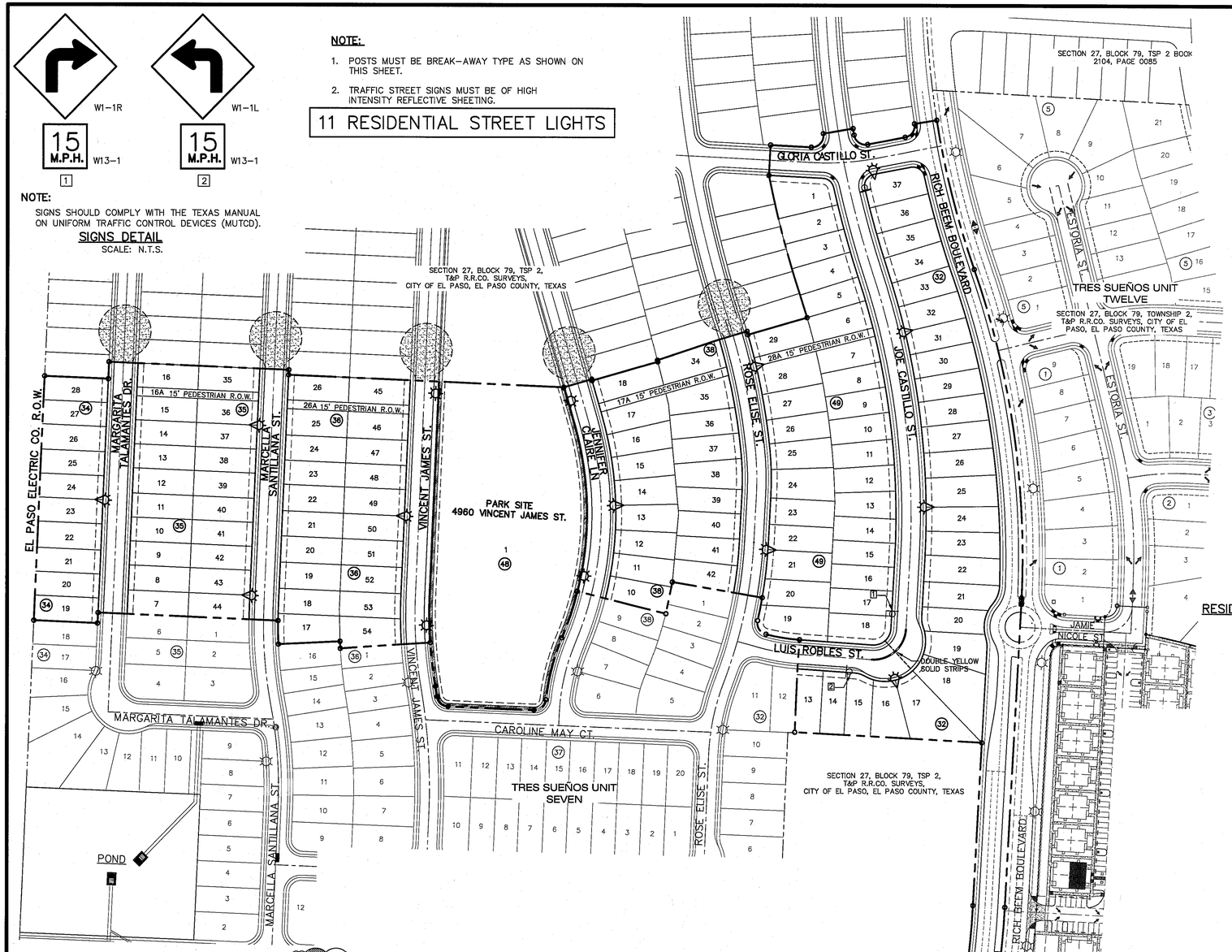
SIGNS DETAIL

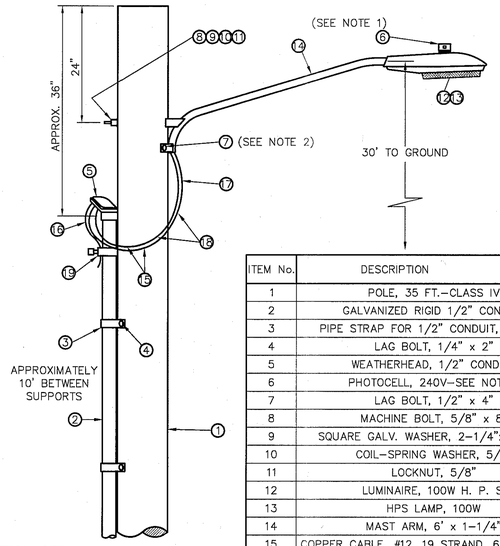
SCALE: N.T.S.

NOTE:

1. POSTS MUST BE BREAK-AWAY TYPE AS SHOWN ON THIS SHEET.
2. TRAFFIC STREET SIGNS MUST BE OF HIGH INTENSITY REFLECTIVE SHEETING.

11 RESIDENTIAL STREET LIGHTS

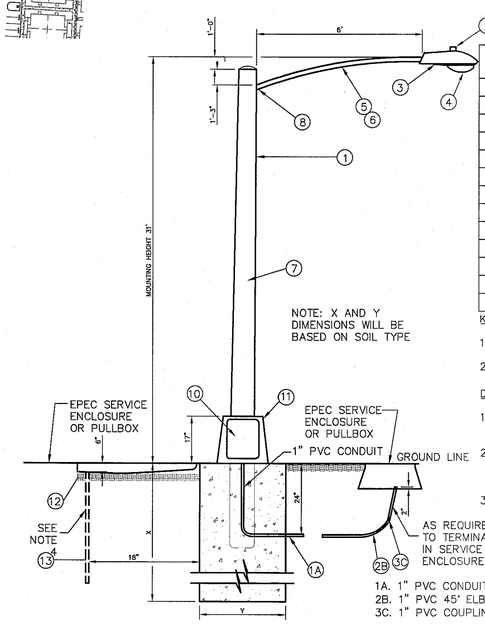




RESIDENTIAL STREET LIGHT WOOD POLE

SCALE: N.T.S.

ITEM No.	DESCRIPTION	STOCK No.	QTY.
1	POLE, 35 FT.-CLASS IV	ITEM NO.	1
2	GALVANIZED RIGID 1/2" CONDUIT	ITEM NO.	1
3	PIPE STRAP FOR 1/2" CONDUIT, 2-HOLE	ITEM NO.	1
4	LAG BOLT, 1/4" x 2"	ITEM NO.	1
5	WEATHERHEAD, 1/2" CONDUIT	ITEM NO.	1
6	PHOTOCELL, 240V-SEE NOTE 1	ITEM NO.	1
7	LAG BOLT, 1/2" x 4"	ITEM NO.	1
8	MACHINE BOLT, 5/8" x 8"	ITEM NO.	1
9	SQUARE GALV. WASHER, 2-1/4"x2"-1/4"	ITEM NO.	1
10	COIL-SPRING WASHER, 5/8"	ITEM NO.	1
11	LOCKNUT, 5/8"	ITEM NO.	1
12	LUMINAIRE, 100W H. P. S.	ITEM NO.	1
13	HPS LAMP, 100W	ITEM NO.	1
14	MAST ARM, 6' x 1-1/4"	ITEM NO.	1
15	COPPER CABLE, #12, 19 STRAND, 600 V GREEN	ITEM NO.	1
16	COPPER CABLE, #12, SOLID, 600 V, UF	ITEM NO.	1
17	CABLE #10, 2 CONDUCTOR, 600 V, UF	ITEM NO.	1
18	SLEEVES, #12-10	ITEM NO.	1
19	GROUNDING CLAMP	ITEM NO.	1



RESIDENTIAL STREET LIGHT STEEL POLE

SCALE: N.T.S.

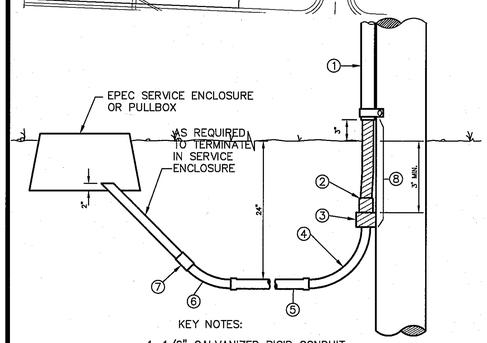
ITEM NO.	DESCRIPTION	STOCK/DSO NO.	QTY.
1	POLE, 35 FT.-CLASS IV		1
2	PHOTOCELL, 240V-SEE NOTE 1	021-225	1
3	LUMINAIRE, 100W H. P. S.	021-335	1
4	HPS LAMP, 100W	021-085	1
5	MAST ARM, 6' X 1-1/4"	21-200	1
6	#10 SOLID CABLE 600 V	013-600	AS REQ
7	CABLE, #10, 3 CONDUCTOR, 600 V, UF	013-600	1
8	SLEEVES, #12	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

KEY NOTES

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

DESIGN NOTES

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

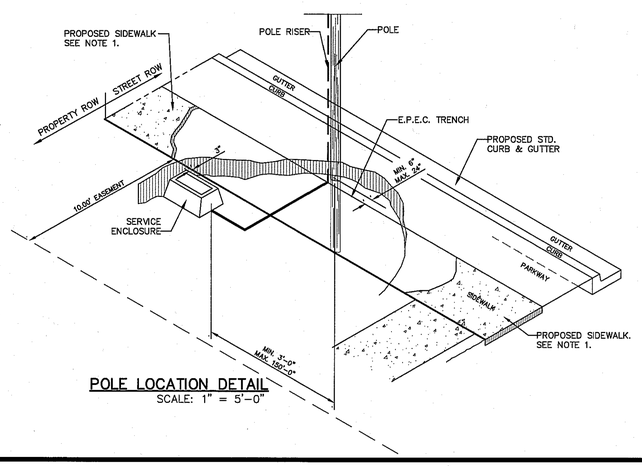


KEY NOTES:

1. 1/2" GALVANIZED RIGID CONDUIT
2. REDUCER 1" TO 1/2" BUSHING
3. 1" PVC FEMALE ADAPTER
4. 1" PVC 90° ELBOW
5. 1" PVC CONDUIT
6. 1" PVC 45° ELBOW
7. 1" PVC COUPLING
8. TAPE 1/2" RIGID CONDUIT (6")

RESIDENTIAL STREET LIGHT WOOD POLE

SCALE: N.T.S.



POLE LOCATION DETAIL

SCALE: 1" = 5'-0"

ILLUMINATION AND SIGNAGE PLAN

SCALE: 1" = 100'

CEA GROUP

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

LEGEND:

- PROPOSED RESIDENTIAL STREET LIGHT
- PROPOSED RESIDENTIAL STREET LIGHT (STEEL)
- EXISTING RESIDENTIAL STREET LIGHT
- PROPOSED 9" STREET NAME SIGN (TWO SIGNS)
- PROPOSED 6" STREET NAMES AND 30" STOP SIGN
- NO OUTLET SIGN
- PROPOSED N.D.B.C.U. MAIL BOX

REFERENCES - BENCHMARKS

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

DATE	REVISIONS	BY

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

ENGINEER'S SEAL

SCALE
Horizontal: 1"=100'
Vertical: N/A
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

ILLUMINATION PLAN

SHEET NO.

C9.1

THE CITY OF EL PASO TEXAS
Final Approval

S:\2025\2025-004-tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C9.1-C9.2ILLUMINATION SHEET.dwg, ILLUMINATION, 11/6/2016 8:52:03 AM

CITY OF EL PASO
SPECIFICATIONS FOR REFLECTORIZED STREET NAME SIGNS

1. COLOR OF SIGNS : THE FINISHED SIGN MUST HAVE A REFLECTORIZED BLUE BACKGROUND. THE BLUE MUST CONFORM WITH THE BUREAU OF PUBLIC ROADS HIGHWAY BLUE. THE LEGEND MUST BE REFLECTORIZED SILVER WHITE (BLUE REVERSE SCREENED BACKGROUND WITH SILVER COPY).

2. LETTER DESIGN: THE LETTERING OF ALL LEGENDS MUST BE MIXED CASE LETTERS IN ACCORDANCE WITH "STANDARD ALPHABETS FOR HIGHWAY SIGNS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

3. 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.

4. 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.

5. 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".

6. THE WORD SPACE MUST BE EXPANDED UP TO 25% IN 5% INCREMENTS BUT NOT CONDENSED.

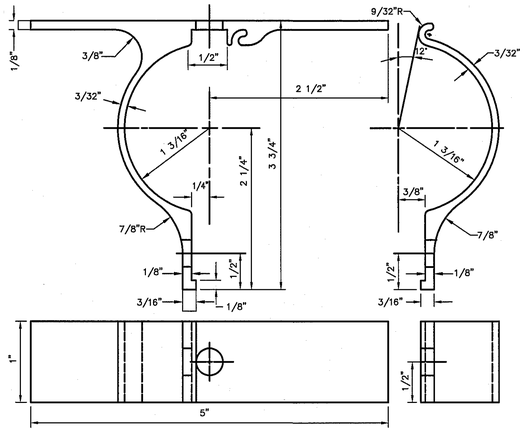
7. SPACE BETWEN PRIMARY AND BLOCK NUMBER AREA MUST BE 1/2 THE AESTHETIC WORK SPACE USED IN THE PRIMARY LEGEND.

8. SIZE OF LEGEND: FOR 9" STREET NAME SIGNS, THE PRIMARY LEGEND, OR STREET NAME MUST HAVE 6" INITIAL UPPER–CASE LETTERS AND 4.5" LOWER CASE LETTERS ON ALL OTHER STREETS. LETTERING TO INDICATE THE TYPE OF STREET MAY BE IN SMALLER LETTERING COMPOSED OF INITIAL UPPER–CASE LETTERS 3" IN HEIGHT AND LOWERCASE LETTERS 2.25" IN HEIGHT.

9. POSITION OF LEGEND: EACH SIGN FACE WILL CONSIST OF THE STREET NAME, SUFFIX, AND BLOCK NUMBER. 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.

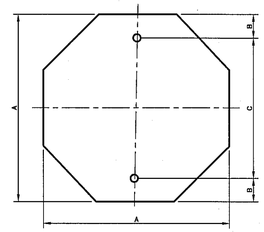
10. SIGN FABRICATION: THE SIGN FACE MUST BE FABRICATED BY REVERSE SCREENING GREEN TRANSPARENT COLOR OVER SILVER REFLECTIVE SHEETING. TRANSPARENT PROCESS COLORS MUST BE AS RECOMMENDED BY THE SHEETING MANUFACTURER. CUT–OUT OR APPLIED LEGENDS ARE NOT PERMITTED. SIGN FACES MUST BE COMPRISED OF ONE PIECE OR PANEL OF REFLECTIVE SHEETING.

11. TYPE OF SHEETING: ENGINEER GRADE REFLECTIVE SHEETING MUST BE USED IN THE FABRICATION OF THE STREET NAME SIGN FACES.



NOTES:
1. ALL HOLES 3/8" PUNCH
2. FILLETS & ROUNDS 1/16"=R
3. FURNISH THE FOLOWING HARDWARE FOR EACH BRACKET:
   1 – 5/16"x 3/4" BOLTS
   1 – 5/16"x 1 1/4" BOLT
   2 – 5/16"x NUTS & LOCK WASHERS
   2 – FLAT WASHERS
4. 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.

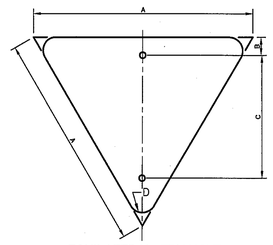
1 / C9.2 ALUMINUM SIGN CLAMP BRACKET FOR TRAFFIC CONTROL SIGNS
SCALE: N.T.S.



3/8" HOLE DIA.

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

OCTAGON
N.T.S.

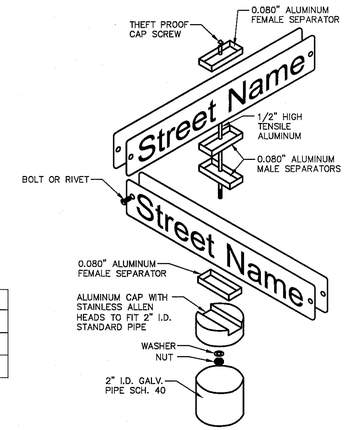


3/8" HOLE DIA.

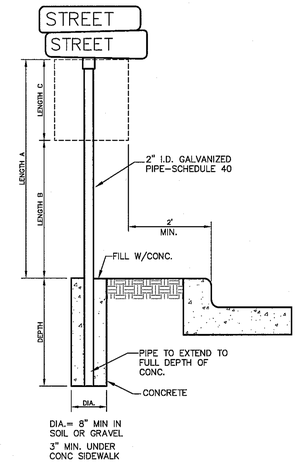
A	B	C	D
36	3	21	2
42	3	24	2 1/2
48	3	35	3

EQUILATERAL TRIANGLE
N.T.S.

2 / C9.2 D.H.T. BLANK STANDARDS
SCALE: N.T.S.



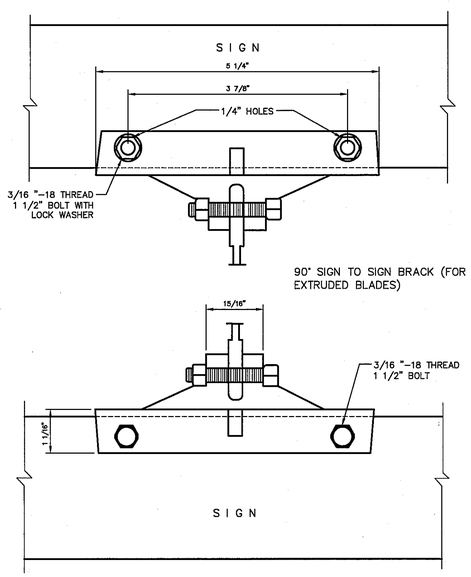
3 / C9.2 9" STREET NAME ASSEMBLY
SCALE: N.T.S.

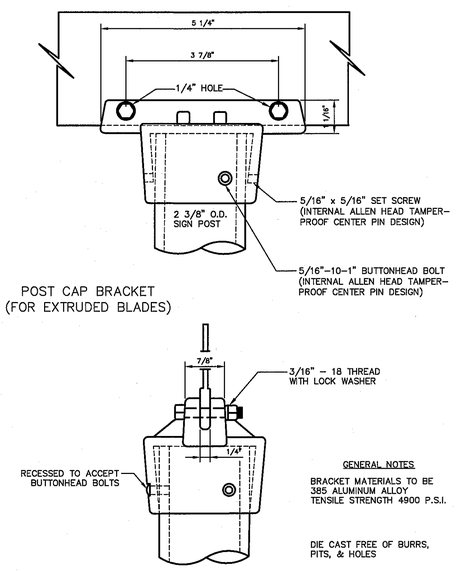


SIGN POST INSTALLATION

LENGTH A	LENGTH B	LENGTH C	DEPTH
10 FT	7 FT	LARGER THAN 24"	2 FT
9 FT	7 FT	SMALLER THAN 24"	1 1/2 FT

4 / C9.2 SIGN POST INSTALLATION
SCALE: N.T.S.

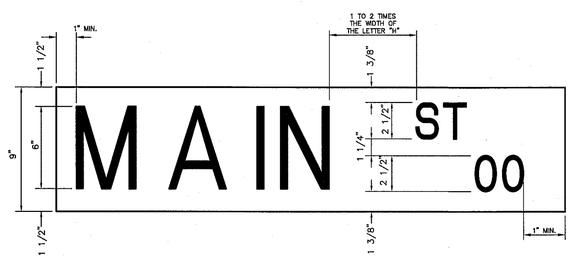




GENERAL NOTES
BRACKET MATERIALS TO BE 385 ALUMINUM ALLOY TENSILE STRENGTH 4900 P.S.I.

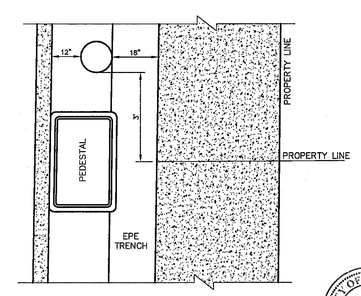
DIE CAST FREE OF BURRS, PITS, & HOLES

5 / C9.2 9" STREET NAME SIGN ASSEMBLY
SCALE: N.T.S.

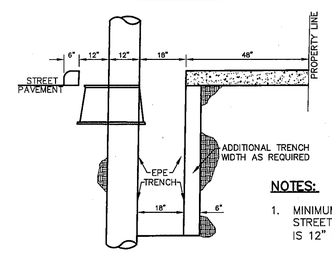


SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE & SERIES
9" ARTERIAL STREETS	36"	6" C,D SERIES	3" C SERIES
	42"	6" C,D SERIES	3" C SERIES
	48"	6" A,B,C,D SERIES	3" C SERIES

6 / C9.2 LAYOUT FOR 9" STREET NAME SIGNS
SCALE: N.T.S.



AERIAL VIEW



FRONT VIEW

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

7 / C9.2 TYPICAL EL PASO ELECTRIC TRENCH LOCATION ON LOCAL RESIDENTIAL STREET
EL PASO ELECTRIC CO. DISTRIBUTION STANDARD

THE CITY OF EL PASO TEXAS
Final Approval

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

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

DATE	REVISIONS	BY

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

ENGINEER'S SEAL

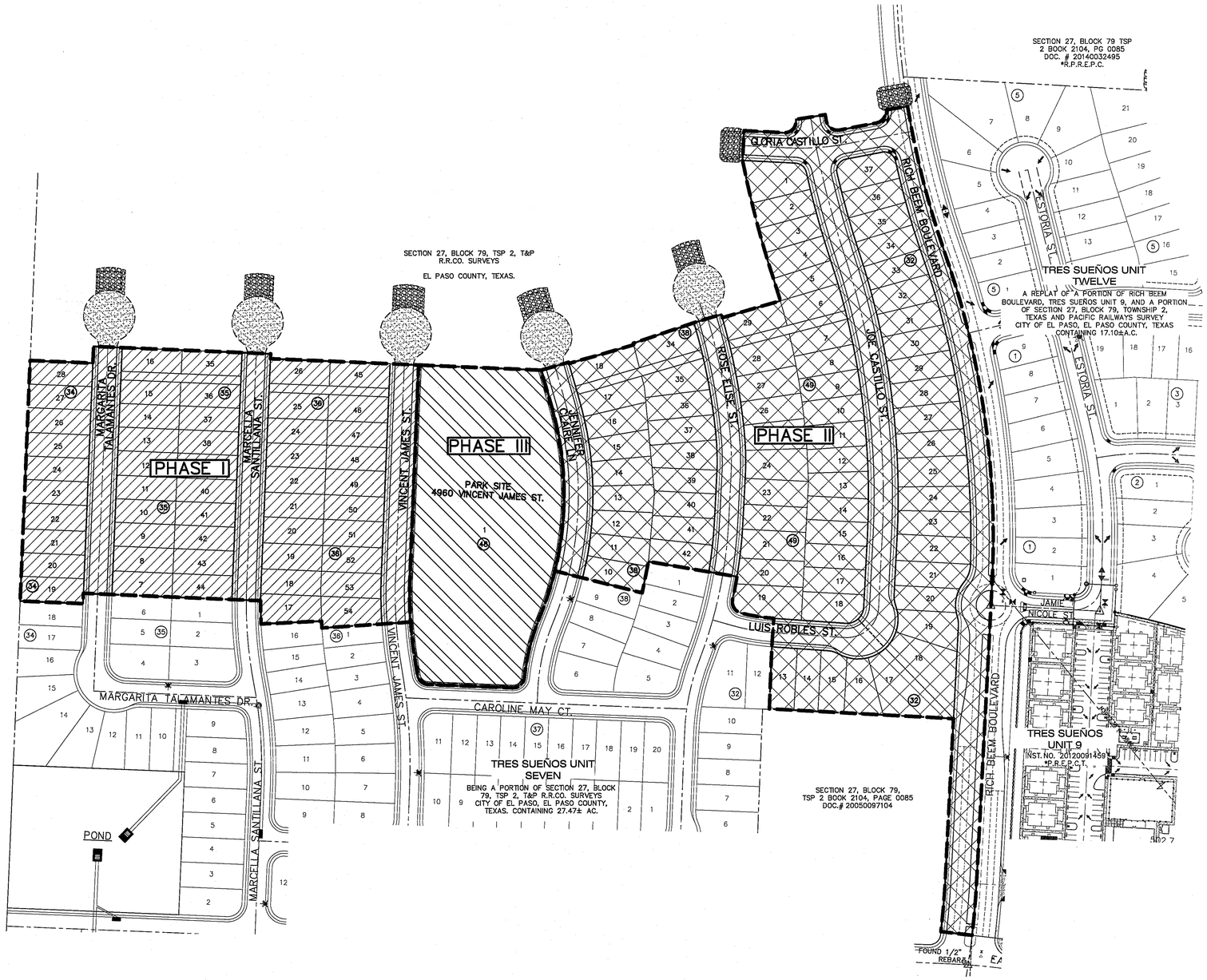
SCALE N/A
Horizontal: N/A
Vertical:
Contour Interval: N/A
DATE: SEPTEMBER, 2016
DESIGN BY: R.O./G.M.
DRAWN BY: R.O./G.M.
CHK'D. BY: J.L.A.
APP'V'D. BY: J.L.A.
JOB No. 2025–004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
ILLUMINATION PLAN

SHEET NO.
C9.2

S:\2025\2025-0024-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C03-C12_ILLUMINATION SHEET.dwg, ILLUMINATION (3), 9/30/2016 2:01:23 PM



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DATE	REVISIONS	BY

cea group
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
STATE OF TEXAS
PROFESSIONAL ENGINEER

BENCHMARK

BENCHMARK IS CITY MONUMENT AT THE CENTERLINE INTERSECTION OF SUN TRAIL DRIVE AND SETTING SUN DRIVE ELEVATION = 3970.52 (CITY DATUM).

FLOOD ZONE:

THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 48012 0175 B, 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.

PHASE I
PHASE II
PHASE III

PHASE I	AREA (ACRES)	RESIDENTIAL LOTS	COMMERCIAL LOTS
PHASE I	6.85	50	0
PHASE II	12.61	72	0
PHASE III	3.05	0	0

SCALE
Horizontal:
Vertical:
Contour Interval: N/A

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

THE CITY OF EL PASO TEXAS
Final Approval

SHEET TITLE

CONSTRUCTION PHASING PLAN

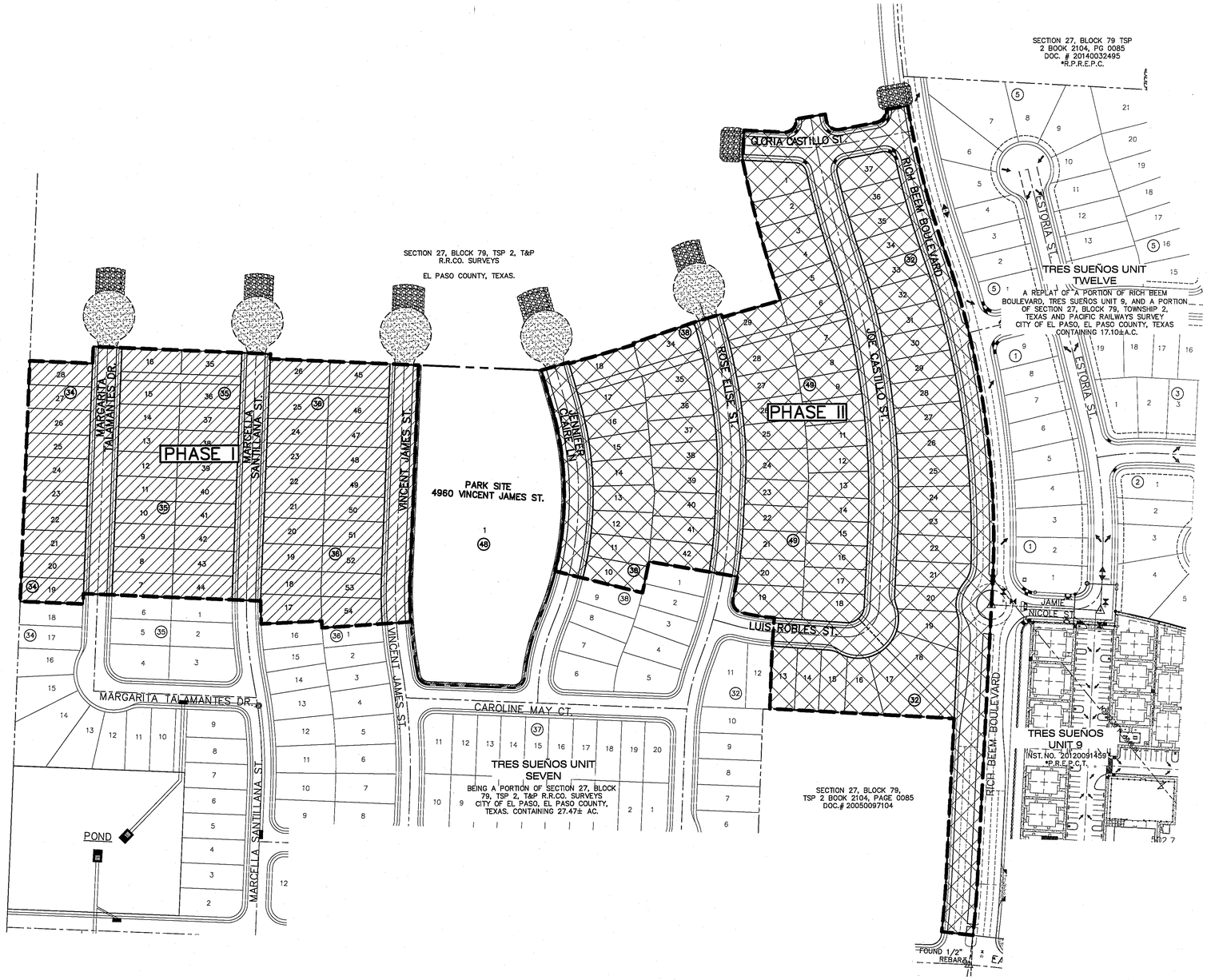
SHEET NO.

C9.3

CONSTRUCTION PHASING PLAN

SCALE: 1" = 100'

S:\2025\2025-004-Tres Sueños Unit 15\NW02\Construction Drawings\Improvement Plans\C9.3-CONSTRUCTION PHASING PLAN.dwg, Layout1, 9/29/2016 3:17:10 PM



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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

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

DATE	REVISIONS	BY

cea group
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

BENCHMARK

BENCHMARK IS CITY MONUMENT AT THE CENTERLINE INTERSECTION OF SUN TRAIL DRIVE AND SETTING SUN DRIVE ELEVATION = 3970.52 (CITY DATUM).

FLOOD ZONE:

THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 48012 0175 B, 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.

PHASE I

PHASE II

PHASE I	AREA (ACRES)	RESIDENTIAL LOTS	COMMERCIAL LOTS
PHASE I	6.85	50	0
PHASE II	12.61	72	0

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
CONVERSE COUNTY, WYOMING
PROFESSIONAL ENGINEER

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

THE CITY OF EL PASO
TEXAS
Final Approval

SHEET TITLE

WATER/ SANITARY SEWER CONSTRUCTION PHASING PLAN

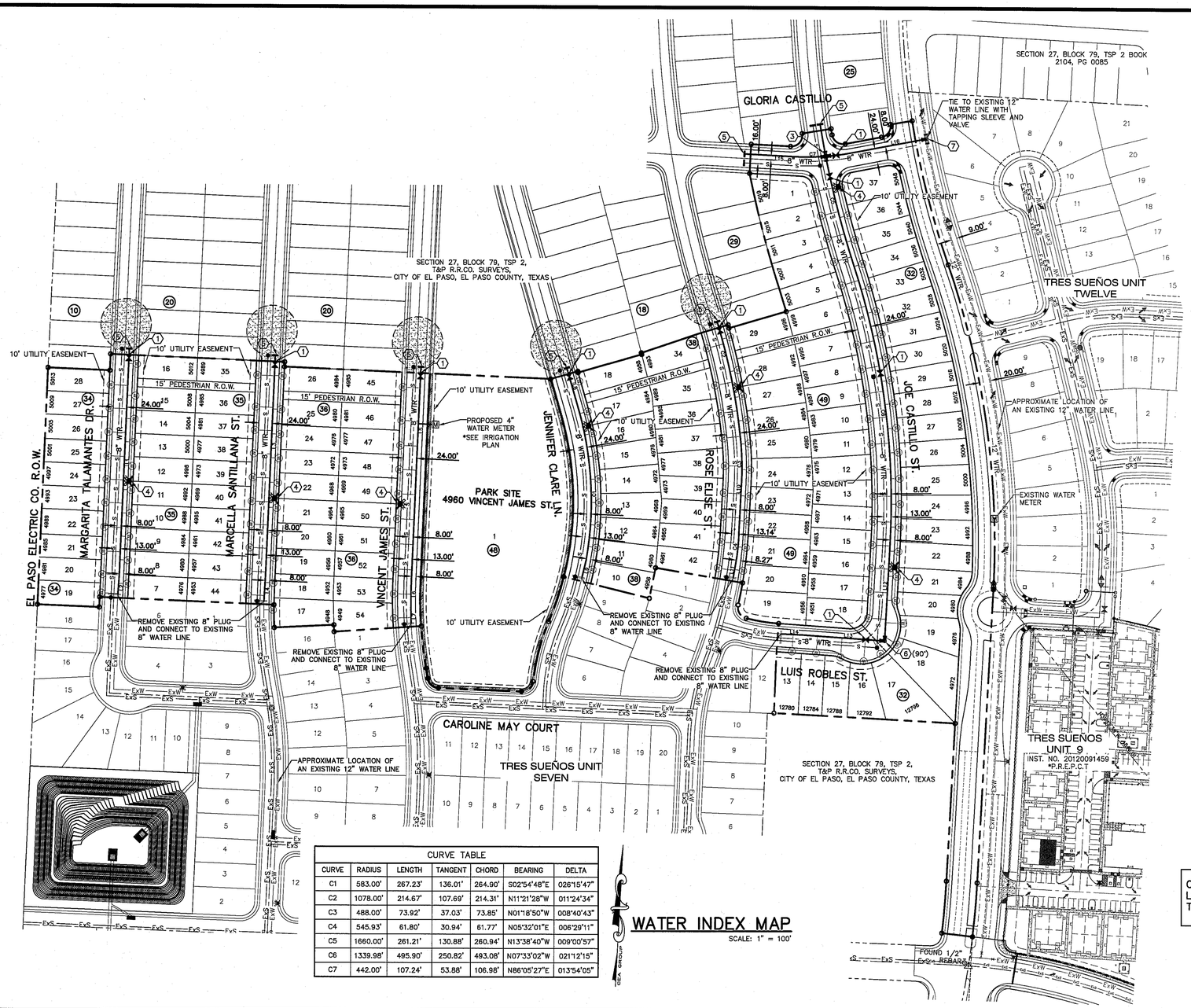
SHEET NO.

C10.1

WATER/SANITARY SEWER CONSTRUCTION PHASING PLAN

SCALE: 1" = 100'

S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C10.1WATER&SEWER PHASING PLAN.dwg, Layout1, 9/29/2016 2:18:31 PM



WATER INDEX MAP

SCALE: 1" = 100'

WATER KEYED NOTES	
1	8" ø GATE VALVE
2	8" TEE
3	8" CROSS
4	FIRE HYDRANT
5	8" PLUG
6	8" BEND
7	12" X 8" TEE

WATER QUANTITIES		
DESCRIPTION	QUANTITY	UNIT
8" PVC WATER LINE	3604	LF
8" GATE VALVE	9	EA
FIRE HYDRANT	7	EA
3/4" WATER CONNECTION	122	EA
4" WATER METER	1	EA

LINE TABLE		
LINE	BEARING	LENGTH
L1	S02°28'20"W	398.90'
L2	S04°03'39"W	34.31'
L3	S02°28'20"W	384.55'
L4	S03°19'12"W	48.66'
L5	S02°28'20"W	378.09'
L6	S00°53'10"W	41.07'
L7	S00°27'14"E	33.68'
L8	S16°02'42"E	76.97'
L9	S13°34'30"W	31.78'
L10	N03°01'32"E	82.85'
L11	N10°07'26"E	23.87'
L12	N03°03'05"E	173.47'
L13	S85°58'23"E	146.60'
L14	S87°23'16"E	37.23'
L15	S86°57'31"E	85.41'
L16	N79°08'24"E	133.65'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	583.00'	267.23'	136.01'	264.90'	S02°54'48"E	026°15'47"
C2	1078.00'	214.67'	107.69'	214.31'	N11°21'28"W	011°24'34"
C3	488.00'	73.92'	37.03'	73.85'	N01°18'50"W	008°40'43"
C4	545.93'	61.80'	30.94'	61.77'	N05°32'01"E	006°29'11"
C5	1660.00'	261.21'	130.88'	260.94'	N13°38'40"W	009°00'57"
C6	1339.98'	495.90'	250.82'	493.08'	N07°33'02"W	021°12'15"
C7	442.00'	107.24'	53.88'	106.98'	N86°05'27"E	013°54'05"

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

INDEX

SHEET NO.	DESCRIPTION
C10.2	(TRES SUEÑOS UNIT FIFTEEN) WATER MAIN PIPE LAYOUT
C10.3	WATER DETAILS
C10.4	WATER DETAILS
C10.5	WATER DETAILS
C10.6	WATER DETAILS

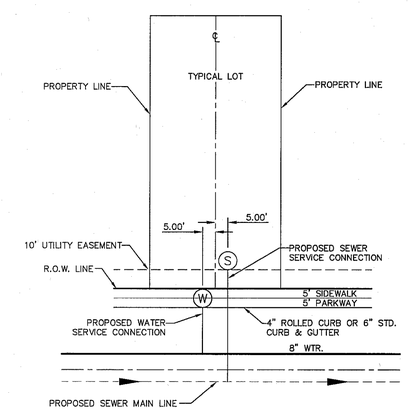
NOTES:

1. ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
2. ALL WATER LINES SHALL BE PVC C-900, CLASS 150.
3. REFERENCE WATER DETAILS FOR TYPICAL VALVE AND WATER LOCATIONS AT STREET INTERSECTIONS.
4. REFERENCE WATER DETAILS FOR WATER LINE CROSSING STORM SEWER.

LEGEND

SYMBOL	DESCRIPTION
8" WTR.	PROPOSED 8" C-900, CLASS 150 P.V.C. PIPE
12" WTR.	PROPOSED 12", C-900 P.V.C. PIPE, UNLESS OTHERWISE SPECIFIED
	SUBDIVISION BOUNDARY LINE
	PROPERTY LINE
	STREET CENTER LINE
8" SWR	PROPOSED SEWER LINE (PLAN VIEW)
ExS ExS	EXISTING SEWER LINE
ExW ExW	EXISTING WATER LINE
	PROPOSED STORM SEWER
	PROPOSED WATER CROSS CONNECTION
	PROPOSED WATER TEE CONNECTION
	PROPOSED WATER BEND CONNECTION
	PROPOSED SERVICE CONNECTION (PLAN VIEW)
	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
	PROPOSED 8" PLUG
	PROPOSED GATE VALVE
	POINT OF TANGENCY
	REDUCER
	EXISTING GATE VALVE
	EXISTING FIRE HYDRANT
	EXISTING PLUG
M	4" METER-CONTRACTOR TO COORDINATE WITH EPWU. (REFER TO IRRIGATION PLANS FOR MORE INFORMATION.

THE CITY OF EL PASO TEXAS Final Approval



PLAN

SERVICE LOCATION DETAIL

SCALE: N.T.S.

GENERAL NOTES

1. 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).
2. 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.
3. 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.
4. TRENCH SAFETY REQUIREMENTS SHALL BE AS REQUIRED BY OSHA.
5. 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.
6. 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.
7. 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.
8. TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
9. ALL TIE-INS SHALL BE CLOSELY COORDINATED WITH THE EL PASO WATER UTILITIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ACTUAL CONSTRUCTION.
10. CONTRACTOR SHALL PROVIDE THE REQUIRED COUPLINGS, ELBOWS AND NECESSARY PIPING APPURTENANCES FOR A COMPLETE AND OPERATIONAL WATER SYSTEM.
11. ALL NEW VALVES SHALL BE ALIGNED PERPENDICULAR TO PROPERTY LINES.
12. 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.
13. FIRE HYDRANTS SHALL BE INSTALLED IN THE PARKWAY AREA.
14. 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
CASTNER CENTER @ TRANSMOUNTAIN
4712 WOODROW BEAN, STE. F
EL PASO, TX. 79924
(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) 594-5785

ELECTRIC:
EL PASO ELECTRIC CO.
501 W. SAN ANTONIO ST.
EL PASO, TX. 79902
(915) 543-2076

EL PASO STREETS
CITY OF EL PASO
DEPARTMENT OF TRANSPIRATION
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
1(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°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHWEST CORNER OF RICH BEEM BLVD. AND VIA AVENUE CITY DATUM ELEVATION. 4005.40

DATE	REVISIONS	BY

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

ENGINEER'S SEAL
JORGE L. AZCARATE 85075 Licensed STATE OF TEXAS
7-11-16

SCALE
Horizontal:
Vertical:
Contour Interval: N/A

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

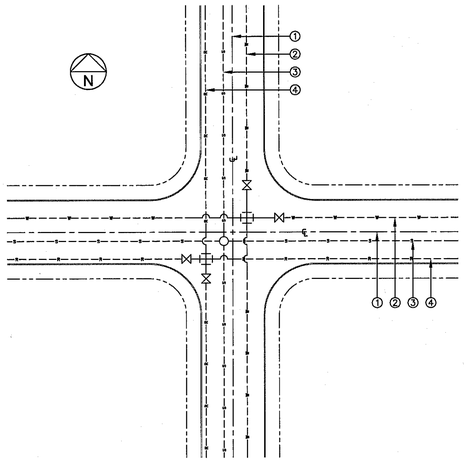
SHEET TITLE

WATER INDEX

SHEET NO.

C10.2

S:\2025\2025-004- Tres Suenos Unit 15\PWDS\Construction Drawings\Improvement Plans\C10.2WATER INDEX SHEET.dwg, Layout1, 11/3/2016 8:31:06 AM



GENERAL NOTES:
1. REFERENCE CENTERLINE SHALL BE CENTERLINE OF RIGHT OF WAY.
2. WATER LINES SHALL BE LOCATED ON NORTH OR EAST SIDES OF DEDICATED STREETS OR ALLEYS.
3. SEWER LINES SHALL BE LOCATED ON SOUTH OR WEST SIDES OF DEDICATED STREETS OR ALLEYS.
4. RECLAIMED LINES SHALL BE LOCATED ON SOUTH OR WEST SIDES OF DEDICATED STREETS OR ALLEYS.

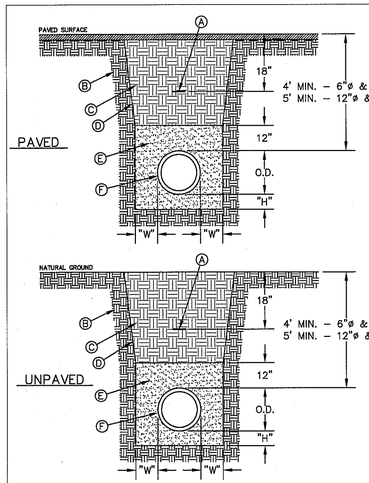
CONSTRUCTION KEY NOTES:
A. DISTANCES FROM CENTERLINE VARY AND SHALL BE ACCORDING TO THE FOLLOWING:

PIPELINE LOCATION WITHIN NEW RIGHT-OF-WAY			
RIGHT-OF-WAY WIDTH*	OFFSET FROM CENTERLINE**		
	WATER	SEWER	RECLAIMED
36 FT.	9 FT.	1 FT.	6 FT.
44 FT.	8 FT.	3 FT.	8 FT.
52 FT.	8 FT.	5 FT.	10 FT.
64 FT.	10 FT.	5 FT.	10 FT.
72 FT.	10 FT.	5 FT.	10 FT.
76 FT.	10 FT.	5 FT.	10 FT.
84 FT.	20 FT.	5 FT.	10 FT.
110 FT.	25 FT.	15 FT.	20 FT.

*RIGHT OF WAY WIDTH SUBJECT TO CHANGE. VERIFY WITH CITY SUBDIVISION ORDINANCE.
**DISTANCES MAY BE MODIFIED AS NEEDED TO MEET TCEQ SEPARATION REQUIREMENTS. REFER TO DETAILS 160 THRU 163 FOR ADDITIONAL INFORMATION.

STANDARD DETAIL	DATE: 03/1994 REV: 3/28/2007	LOCATION FOR UTILITY LINES N.T.S.	el paso WATER	DETAIL No. 140

1 C10.3 LOCATION FOR UTILITY LINES
SCALE: N.T.S.



GENERAL NOTES:
1. BEDDING FOR PRESSURE AND GRAVITY PIPE IN DRY CONDITIONS.
2. PROVIDE TRENCH SAFETY SYSTEM FOR TRENCH DEPTHS GREATER THAN 5 FEET.
3. IF THE NATIVE MATERIAL EXCAVATED FROM THE TRENCH IS UNSUITABLE AS BACKFILL MATERIAL, OR THE REQUIRED COMPACTION IS UNATTAINABLE, THE CONTRACTOR SHALL, AT HIS EXPENSE, IMPORT SELECT MATERIAL TO BE MIXED WITH OR USED IN PLACE OF THE NATIVE MATERIAL. SELECT MATERIAL MUST BE APPROVED BY EPWU. SUBSTITUTE SOIL CEMENT SLURRY (1-SACK) IF REQUIRED IN SPECS.

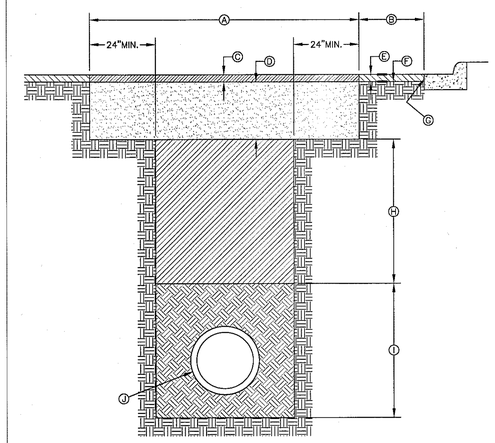
CONSTRUCTION KEY NOTES:
A. APPROVED MARKING TAPE.
B. UNDISTURBED STABLE MATERIAL.
C. NATIVE MATERIAL BACKFILL.
PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
(*SEE NOTE #3 IF THESE PREVIOUS CONDITIONS CANNOT BE MET.)
D. SLOPE TRENCH IN SANDY SOIL CONDITIONS.
E. USE CLASS II OR CLASS III SAND PER ASTM D-2487. NATIVE MATERIAL OR IMPORTED SELECT MATERIAL MEETING OR EXCEEDING THIS REQUIREMENT MAY BE USED. COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR (OR 90% D-698 STANDARD PROCTOR).
F. APPROVED PIPE.
G. TRENCH DIMENSIONS AS FOLLOWS:

PIPE DIAMETER	"H"
6" – 30"	4"
GREATER THAN 30"	6"

PIPE DIAMETER	"W"
6" – 30"	8"
GREATER THAN 30"	12"

STANDARD DETAIL	DATE: 4/24/2007 REV: 2/21/2011	EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS N.T.S.	el paso WATER	DETAIL No. 171

2 C10.3 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE
SCALE: N.T.S.

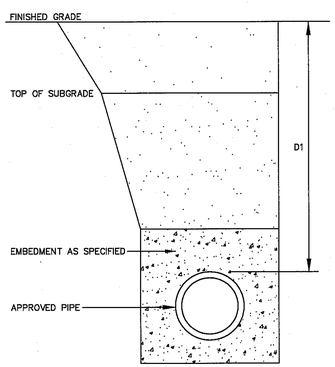


GENERAL NOTES:
1. ALL ASPHALT CUTS MUST BE SAW CUT.
2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.

CONSTRUCTION KEY NOTES:
A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.
B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3' OF SAW CUT EDGE, CONTRACTOR SHALL REMOVE & REPLACE EXISTING HMAC IN THIS AREA.
C. 2" ASPHALT MIN.
D. 12" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y. OF SOIL).
E. EXISTING HMAC-THICKNESS MAY VARY.
F. EXISTING BASE COURSE-THICKNESS MAY VARY.
G. EXISTING GUTTER FACE, EDGE OF PAVEMENT OR BEGINNING OF SHOULDER.
H. BACKFILL DEPTH VARIES, REFER TO REQUIREMENTS LISTED IN EMBEDMENT DETAILS (DETAIL 171 THRU DETAIL 173).
I. PIPE BEDDING AS SPECIFIED, REFER TO APPROPRIATE EMBEDMENT DETAIL (DETAIL 171 THRU DETAIL 173).
J. APPROVED PIPE.

STANDARD DETAIL	DATE: 10/1992 REV: 5/9/2011	PAVEMENT REPLACEMENT N.T.S.	el paso WATER	DETAIL No. 179

3 C10.3 PAVEMENT REPLACEMENT
SCALE: N.T.S.



GENERAL NOTES:
1. REFER TO UTILITY DETAIL FOR PAVEMENT REPLACEMENT AND BACKFILL REQUIREMENTS.
2. TRENCH SAFETY SYSTEMS SHALL BE USED WHEN TRENCH DEPTH EXCEEDS 5 FEET.

CONSTRUCTION KEY NOTES:
A. COVER FOR WATER MAINS SHALL DEPEND ON THE PIPE SIZE AND THE FOLLOWING INSTALLATION CONDITIONS,

CONDITION A – NORMAL LINE INSTALLATION, STREET AND DRAINAGE PROJECTS, WATERLINE RELOCATION

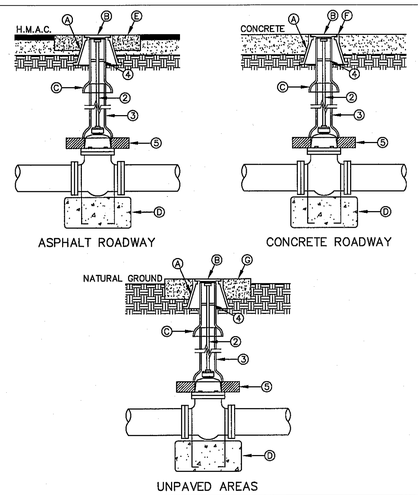
CONDITION B – NEW SUBDIVISIONS, NON-PAVED AREA

AND SHALL BE AS FOLLOWS.

PIPE SIZE	CONDITION	DIMENSION
6", 8"	A	D1 = 4'
6", 8"	B	D1 = 4'
12" & LARGER	A OR B	D1 = 5'

STANDARD DETAIL	FEB. 1994 REV: 8/3/2006	COVER FOR WATER MAINS N.T.S.	el paso WATER	DETAIL No. 250

4 C10.3 COVER FOR WATER MAINS
SCALE: N.T.S.

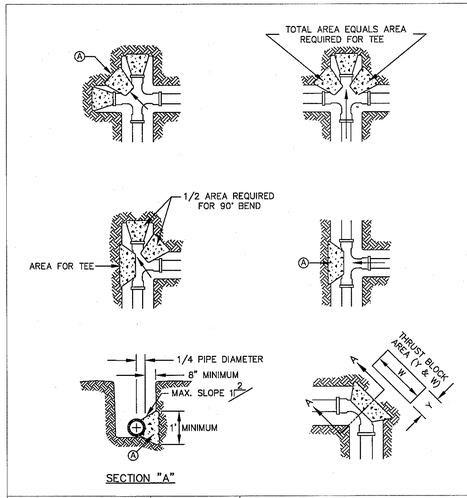


GENERAL NOTES:
1. VALVE TYPE AND VALVE ENDS SHALL BE AS SHOWN ON THE PLANS.
2. ALL BURIED VALVES 5' AND DEEPER SHALL BE PROVIDED WITH SOLID STEEL EXTENSION STEM OPERATOR WITH 2" SQUARE AWWA NUT WITHIN 36" OF VALVE BOX COVER. NUT IS TO INDICATE DIRECTION OF ROTATION TO OPEN VALVE.
3. 8" DIA. MINIMUM VITRIFIED CLAY OR SDR 35 P.V.C. PIPE, PIPE SHALL NOT REST ON VALVE BODY.
4. ¼" THICK STEEL TRASH RING VALVE BOX INSIDE DIAMETER MINUS ⅛".
5. MINIMUM 2½" CONCRETE OR BRICK ALL AROUND.
6. CLEAN BONNET BOX OF ALL DEBRIS AND SOIL.
7. COAT BURIED PIPE AND BONNET BOX PER SPECIFICATIONS, VALVE SHALL BE WRAPPED IN POLYETHYLENE IN ACCORDANCE WITH SPECIFICATIONS.

CONSTRUCTION KEY NOTES:
A. BONNET BOX (SEE DETAIL 268).
B. BONNET BOX COVER (SEE DETAILS 269-1 & 269-2).
C. FINAL EXTENSION TO BONNET BOX SHALL BE WITH BELL AND SPIGOT ENDS (CLAY OR SDR 35 P.V.C. SPOOL).
D. CONCRETE VALVE ANCHOR (SEE DETAIL 271).
E. CONCRETE COLLAR (SEE DET 184-1) FLUSH WITH TOP OF H.M.A.C.
F. BONNET BOX FLUSH WITH TOP OF CONCRETE, CONCRETE COLLAR NOT NEEDED.
G. CONCRETE APRON (SEE DETAIL 184-2) FLUSH WITH BONNET BOX AND 2" ABOVE NATURAL GROUND.

STANDARD DETAIL	DATE: 5/1994 REV: 6/22/2009	GATE VALVE INSTALLATION N.T.S.	el paso WATER	DETAIL No. 260

5 C10.3 GATE VLAVE INSTALLATION
SCALE: N.T.S.



GENERAL NOTES:
1. TABLE IS BASED ON 2000#/SQ. FT. SOIL. IF CONDITIONS ARE FOUND TO INDICATE SOIL BEARING IS LESS, THE AREAS SHALL BE INCREASED ACCORDINGLY.
2. AREAS FOR PIPE LARGER THAN 18" SHALL BE CALCULATED.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2500 PSI.
4. THRUST BLOCK IS TO EXTEND TO UNDISTURBED SOIL.
5. SIZE MAY BE DECREASED FOR LESSER DEGREE BENDS AS DETERMINED BY ENGINEER.
6. KEEP CONCRETE CLEAR OF M.J. OR BELL AND SPIGOT JOINTS.
7. BLOCK IN A SIMILAR MANNER AT TEES, HYDRANTS, PLUG OR OTHER LOCATIONS AS REQUIRED.
8. WHEN NECESSARY ADDITIONAL THRUST RESTRAINT METHODS MAY BE USED, SUCH AS MECHANICAL JOINT RESTRAINTS, TIE-RODS (INSTALLED PER MANUFACTURERS' RECOMMENDATIONS) OR OTHER APPROVED METHODS.

CONSTRUCTION KEY NOTES:
A. LENGTH "Y & W" AS REQUIRED TO OBTAIN BEARING AREA AGAINST UNDISTURBED SOIL.
B. ADDITIONAL EXCAVATION IF NECESSARY TO OBTAIN REQUIRED BEARING AREA.
C. MINIMUM THRUST BLOCK AREA REQUIREMENTS FOR (Y & W) AS FOLLOWS:

PIPE SIZE	WATER PIPE	
	TEE, DEAD END 90° BEND	45° AND 22 1/2° BENDS
4" & LESS	3 SQ. FEET	3 SQ. FEET
6"	4 SQ. FEET	3 SQ. FEET
8"	6 SQ. FEET	3 SQ. FEET
10"	9 SQ. FEET	5 SQ. FEET
12"	13 SQ. FEET	7 SQ. FEET
16"	23 SQ. FEET	12 SQ. FEET
18"	29 SQ. FEET	15 SQ. FEET

STANDARD DETAIL	DATE: 2/1994 REV: 8/7/2006	CONCRETE THRUST BLOCKING N.T.S.	el paso WATER	DETAIL No. 270

6 C10.3 CONCRETE THRUST BLOCKING
SCALE: N.T.S.

THE CITY OF EL PASO TEXAS
Final Approval

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.....4065.40

DATE	REVISIONS	BY

caa
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ENGINEER'S SEAL
JORGE L. AZCARATE
85075
TEXAS
PROFESSIONAL ENGINEER
9-9-16

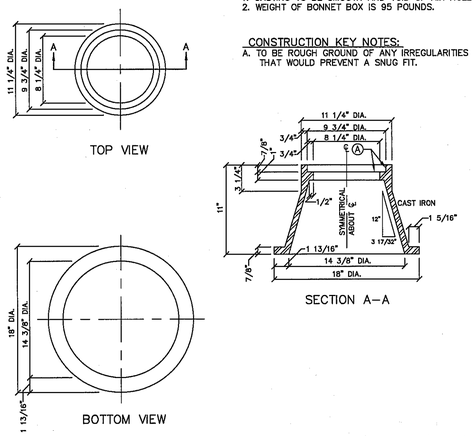
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APP'VD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
WATER DETAILS
(SHEET 1 OF 4)

SHEET NO.
C10.3

S:\2025\2025-004 - Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C10.3-C10.6 - Water Details.dwg, Layout1, 9/29/2016 8:56:13 PM

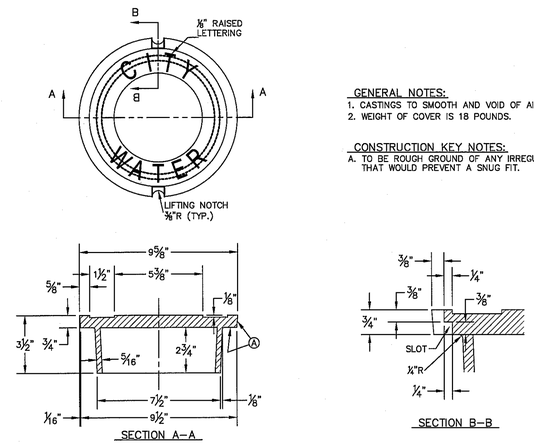


GENERAL NOTES:
1. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
2. WEIGHT OF BONNET BOX IS 95 POUNDS.

CONSTRUCTION KEY NOTES:
A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.

STANDARD DETAIL	DATE: 2/1994 REV:	BONNET BOX N.T.S.	el paso WATER	DETAIL No. 268

1 C10.4 BONNET BOX
SCALE: N.T.S.

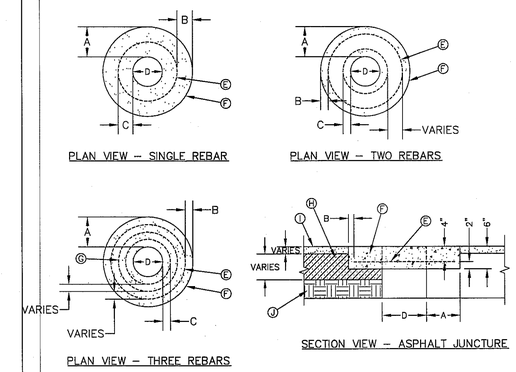


GENERAL NOTES:
1. CASTINGS TO SMOOTH AND VOID OF AIR HOLES.
2. WEIGHT OF COVER IS 18 POUNDS.

CONSTRUCTION KEY NOTES:
A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.

STANDARD DETAIL	DATE: 2/16/2006 REV: 12/14/2007	BONNET BOX COVER (FLIP RESISTANT) N.T.S.	el paso WATER	DETAIL No. 269–2

2 C10.4 BONNET BOX COVER
SCALE: N.T.S.



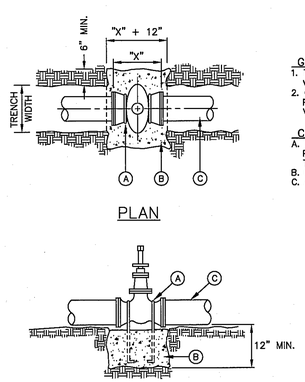
GENERAL NOTES:
1. THE CONCRETE COLLAR SHOULD BE CAST IN–PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED)
2. TOPS OF CONCRETE COLLAR SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
3. ANY DISTURBED SUBGRADE UNDER THE CONCRETE COLLAR SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D–1557.
4. ANY DISTURBED BASE COARSE UNDER THE CONCRETE COLLAR SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D–1557.
5. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
6. REINFORCING SHALL MEET ASTM C–478 AND TRAFFIC LOADING (HS–20).
7. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

CONSTRUCTION KEY NOTES:
E. #3 REINFORCING STEEL TYP.
F. CONCRETE COLLAR.
G. #3 REINFORCING STEEL EQUALLY SPACED.
H. COMPACTED BASE COARSE.
I. PAVEMENT.
J. COMPACTED SUBGRADE.

"D" DIAMETER OF PENETRATION	NUMBER OF #3 REINFORCING STEEL BARS	"A" MINIMUM CONCRETE HORIZONTAL DIMENSION FROM PENETRATION	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE COLLAR TO CENTER OF NEAREST REBAR	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR
0" TO 6"	1	6"	1½"	4½"
6.1" TO 18"	2	6"	1½"	1½"
18.1" AND OVER	3	9"	1½"	1½"

STANDARD DETAIL	DATE: 8/9/2006 REV: 11/6/2008	CONCRETE COLLAR INSTALLATION IN PAVED AREAS N.T.S.	el paso WATER	DETAIL No. 184–1

3 C10.4 CONCRETE COLLAR INSTALLATION IN PAVED AREAS
SCALE: N.T.S.

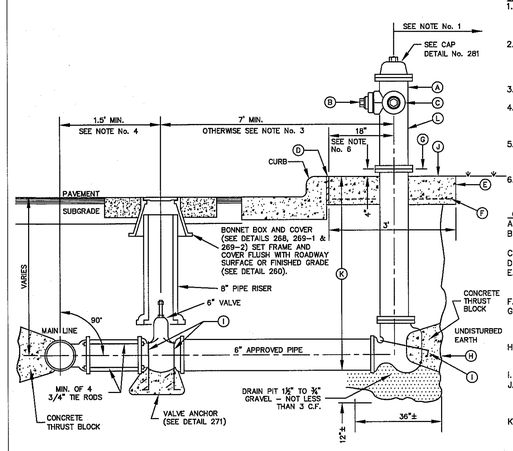


GENERAL NOTES:
1. THE ENGINEER SHALL PROVIDE DESIGN FOR ALL VALVES GREATER THAN 12".
2. COMPLY WITH REQUIREMENTS OF AWWA C–550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES.

CONSTRUCTION KEY NOTES:
A. TWO No. 5 REBAR HAIR PINS. PAINT UNEMBEDDED PORTION OF REBARS WITH TWO COATS OF COAL TAR EPOXY.
B. CONCRETE VALVE SUPPORT, 2500 PSI. CONCRETE.
C. APPROVED PIPE.

STANDARD DETAIL	DATE: 2/1994 REV: 12/12/2011	VALVE ANCHOR N.T.S.	el paso WATER	DETAIL No. 271

4 C10.4 VALVE ANCHOR
SCALE: N.T.S.

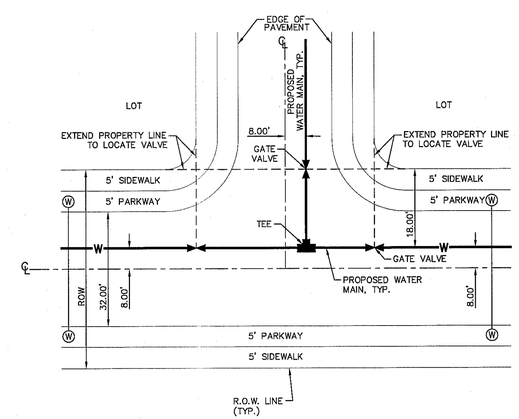


GENERAL NOTES:
1. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 5 FT. IN ALL DIRECTIONS OF FIRE HYDRANT (PER EL PASO MUNICIPAL CODE, TITLE 12). FIRE HYDRANT SHALL NOT BE PLACED IN WHEEL CHAIR RAMP OR DRIVEWAY.
2. FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB RETURN OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE SHOWN ON PLANS. REFER TO DETAIL No. 282 FOR SPECIAL CASES.
3. WHERE DISTANCE IS LESS THAN 7', HYDRANT SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL No. 282.
4. VALVE MAY BE CONNECTED TO TEE AT MAIN LINE. USE FLANGED MECHANICAL JOINT ENDS. WHERE SPOOL IS REQUIRED BETWEEN TEE AND VALVE, USE FLANGED MECHANICAL ENDS WITH ¾" DIAMETER TIE RODS.
5. COMPLY WITH REQUIREMENTS OF AWWA C–502, DRY BARREL FIRE HYDRANTS AND AWWA C–550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES AND HYDRANTS.
6. WHEN INSTALLATION IS WITHIN TxDOT RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.

CONSTRUCTION KEY NOTES:
A. FIRE HYDRANT PER SPEC'S.
B. PUMPER NOZZLE 4" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.
C. HOSE NOZZLE 2½".
D. ½" PREMOLDED EXPANSION JOINT WITH 1" TOP FILLER.
E. 3'x3'x6" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.
F. #10; 6/6 WWF.
G. CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE HYDRANT TO CONTROLLED ELEVATION.
H. CONC. THRUST BLOCK. APPROX. 2'x2'x3' TO BE POURED AGAINST UNDISTURBED EARTH, F.H. WEEP HOLE MUST BE UNOBSTRUCTED.
I. 2"x1/4" STEEL ANCHOR PINS.
J. TOP OF SLAB SHALL BE AT CURB LEVEL 4" BELOW THE BREAK LINE OF THE HYDRANT. UNDER SPECIAL CONDITIONS THE ENGINEER MAY ALLOW VARIATIONS TO THIS CONSTRUCTION.
K. MAXIMUM OF ONE (1) SPOOL EXTENSION ALLOWED TO MAINTAIN THE CONTROLLED ELEVATION LINE TO TOP OF SLAB. ADDITIONAL ADJUSTMENT MUST ME MADE WITH OFFSETS & FITTINGS AS NEEDED.
L. REQUIRED – DAVIDSON ANTI TERRORISM CORROSION RESISTANT VALVE KIT (DATV).

STANDARD DETAIL	DATE: 2/1993 REV: 10/1/2013	FIRE HYDRANT INSTALLATION N.T.S.	el paso WATER	DETAIL No. 280–1

5 C10.4 FIRE HYDRANT INSTALLATION
SCALE: N.T.S.



6 C10.4 TYPICAL VALVE AND WATER LOCATION AT STREET INTERSECTIONS ON R.O.W.
SCALE: N.T.S.

Final Approval

REFERENCES – BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S08°43'31"E A DISTANCE OF 467.58 FEET FROM THE SOUTHEASTERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4065.49

DATE	REVISIONS	BY

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85075

SCALE	
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE: SEPTEMBER 2016	
DESIGN BY:	R.O.
DRAWN BY:	R.O./G.M.
CHKD. BY:	J.L.A.
APPROD. BY:	J.L.A.
JOB No.	2025–004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
WATER DETAILS
(SHEET 2 OF 4)

SHEET NO.
C10.4

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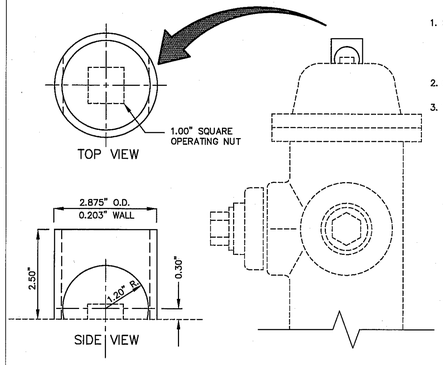
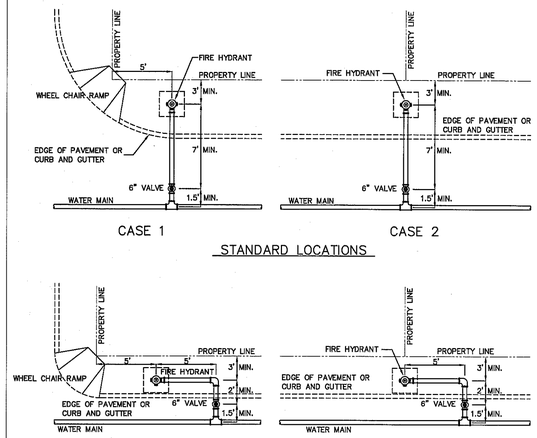


GENERAL NOTES:

1. STEEL CAPS TO BE MACHINED FROM STEEL PIPE:
   NOMINAL SIZE = 2 1/2" DIA.
   OUTSIDE DIA. = 2.875"
   WALL THICKNESS = 0.203
   LBS/FT. = 5.79
2. CAPS ARE TO BE TACK WELDED OR BRAZED ON FIRE HYDRANT BONNET OR WEATHER CAP.
3. THE CAPS OVER THE OPERATING NUT WILL PREVENT ACCESS TO THE UNAUTHORIZED USE OF HYDRANT WATER.

STANDARD DETAIL	FEB. 1993 REV: FEB. 1994	FIRE HYDRANT CAP N.T.S.	el paso WATER	DETAIL No. 281

1 / C10.5 FIRE HYDRANT CAP
SCALE: N.T.S.

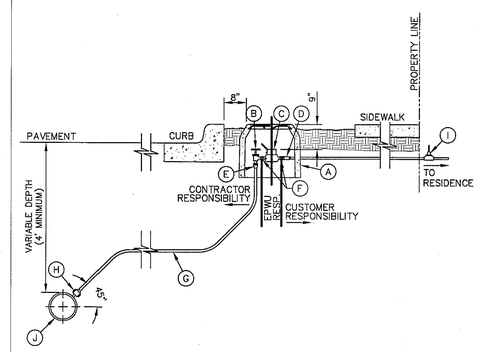


GENERAL NOTES:

1. FOR CASE 1 FIRE HYDRANT SHALL BE LOCATED AT A DISTANCE OF 5 FT. MINIMUM FROM THE PROPERTY LINE OR AT THE BEGINNING OF CURB RETURN.
2. FOR CASE 2 FIRE HYDRANT SHALL BE LOCATED AT THE PROPERTY LINE COMMON TO ADJOINING LOTS.
3. FOR CASE 3 AND IV WHERE THE DISTANCE BETWEEN THE VALVE AND THE HYDRANT IS LESS THAN 7 FT. PLACE HYDRANT AS SHOWN.
4. FOR INSTALLATION OF FIRE HYDRANT SEE DETAIL 280–1 OR 280–2.
5. A MINIMUM CLEARANCE OF 3 FT. WILL BE PROVIDED BETWEEN A FIRE HYDRANT AND A PERMANENT OBSTRUCTION (UTILITY POLE, LIGHT STANDARD, TRAFFIC SIGNAL, WHEEL CHAIR RAMP, FENCE PROTECTIVE POSTS, ETC.).
6. WHEN INSTALLATION IS WITHIN TxDOT RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.

STANDARD DETAIL	DATE: 5/1994 REV: 6/25/2007	FIRE HYDRANT LOCATIONS N.T.S.	el paso WATER	DETAIL No. 282

2 / C10.5 FIRE HYDRANT LOCATIONS
SCALE: N.T.S.



GENERAL NOTES:

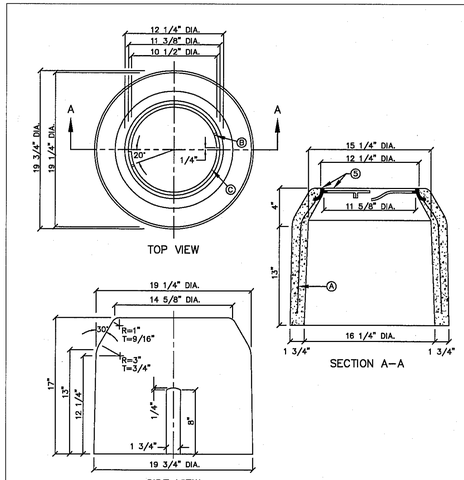
1. DETAIL SHOWN FOR A 3/4" SERVICE. 1" SERVICE INSTALLATION IS SIMILAR EXCEPT FOR SIZES OF PIPE, FITTING, METER AND BOX (TYPE "B").
2. WHERE NO CURB EXISTS, METER IS TO BE SET NEAR PROPERTY LINE OR AT DESIGNATED LOCATION.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, AND METER BOXES REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE PRIVATE OWNER TO HAVE A CERTIFIED PLUMBER INSTALL A BACKFLOW PREVENTER AND EXTEND SERVICE LINE ON DISCHARGE SIDE OF METER.
4. NO SPLICING SHALL BE ALLOWED. FULL LENGTH OF PIPING SERVICE SHALL BE INSTALLED.
5. THE EPWU WILL FURNISH AND INSTALL THE METER.

CONSTRUCTION KEY NOTES:

A. METER BOX TYPE "A" (SEE DETAILS 300 & 301) SHALL BE SET SLIGHTLY HIGHER THAN SURROUNDING GROUND OR AT CURB LEVEL.
B. 3/4" ANGLE SERVICE VALVE.
C. WATER METER (CENTER INSIDE METER BOX).
D. WHEN REQUIRED BY EPWU, A DUAL CHECK BACKFLOW PREVENTER SHALL BE INSTALLED ON THE OUTLET SIDE OF THE METER.
E. END FLARE OF SERVICE LINE.
F. INLET AND OUTLET COUPLING.
G. 3/4" COPPER SERVICE LINE (SEE NOTE 4).
H. 5/8" X 3/4" CORPORATION STOP.
I. PRESSURE REGULATOR SOMETIMES LOCATED NEAR THE RESIDENCE.
J. WATER MAIN

STANDARD DETAIL	DATE: 10/20/2000 REV: 5/24/2007	SERVICE LINE 3/4" AND 1" INSTALLATION BY CONTRACTOR N.T.S.	el paso WATER	DETAIL No. 290–4

3 / C10.5 SERVICE LINE 3/4" AND 1" INSTALLATION
SCALE: N.T.S.



GENERAL NOTES:

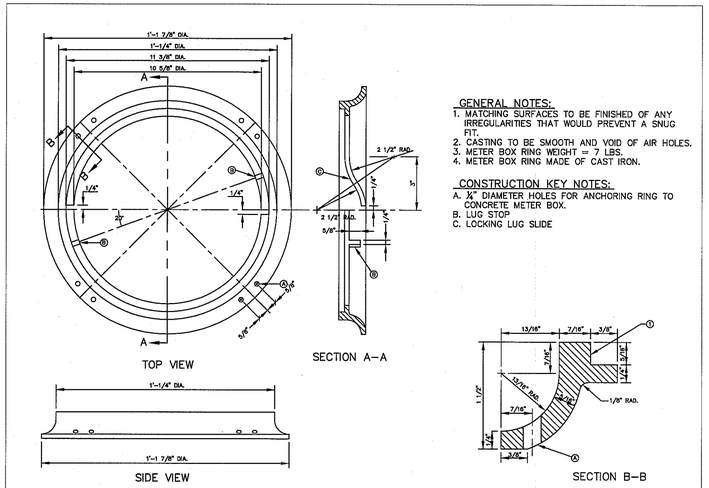
1. INSTALL TO GRADE MATCHING TOP OF CURB.
2. ANGLE VALVE SHALL BE IN LINE WITH THE INLET/OUTLET PORTS OF THE METER BOX.
3. METER BOXES SHALL NOT BE INSTALLED UNDER SIDEWALKS, DRIVEWAYS, OR PROPOSED ABOVE GROUND STRUCTURES.
4. WHERE NO CURBING EXIST, INSTALL BOXES IN ACCESSIBLE LOCATIONS BEYOND LIMITS OF STREET SURFACING, WALKS AND DRIVEWAYS.
5. METER BOX RING AND COVER PER EPWU DETAILS 300 AND 301.
6. WHERE IT IS NECESSARY TO INSTALL A TYPE "A" BOX FOR 3/4" METER UNDER ROADWAYS OF TRAFFIC BEARING SURFACES, BOX SHALL BE ENCASED IN 12" CONCRETE, 3000 PSI. MINIMUM.
7. METER BOX SHALL BE SINGLE UNIT CONSTRUCTION; CONCRETE TO HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 4000 PSI.

CONSTRUCTION KEY NOTES:

A. 3/16", 9 GAUGE BLACK ANNEALED WIRE
B. LUG–STOP C. CAST IRON RING

STANDARD DETAIL	DATE: 4/1994 REV: 8/24/2006	METER BOX TYPE "A" FOR ¾" SERVICE INSTALLATION N.T.S.	el paso WATER	DETAIL No. 291

4 / C10.5 METER BOX TYPE "A" FOR 3/4" SERVICE INSTALLATION
SCALE: N.T.S.



GENERAL NOTES:

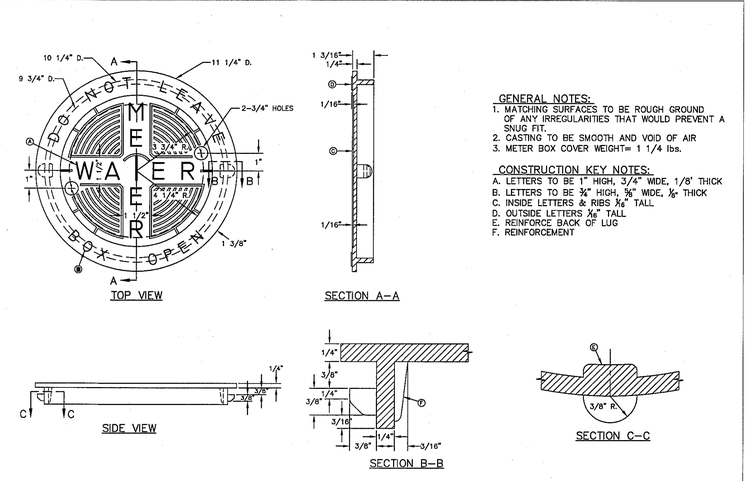
1. MATCHING SURFACES TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
3. METER BOX RING WEIGHT = 7 LBS.
4. METER BOX RING MADE OF CAST IRON.

CONSTRUCTION KEY NOTES:

A. ¼" DIAMETER HOLES FOR ANCHORING RING TO CONCRETE METER BOX.
B. LUG STOP
C. LOCKING LUG SLIDE

STANDARD DETAIL	DATE: 1/1995 REV: 8/10/2006	METER BOX RING FOR TYPE "A" & "B" METER BOXES N.T.S.	el paso WATER	DETAIL No. 300

5 / C10.5 METER BOX RING FOR TYPE "A" & "B" METER BOXES
SCALE: N.T.S.



GENERAL NOTES:

1. MATCHING SURFACES TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH AND VOID OF AIR
3. METER BOX COVER WEIGHT= 1 1/4 lbs.

CONSTRUCTION KEY NOTES:

A. LETTERS TO BE 1" HIGH, 3/4" WIDE, 1/8' THICK
B. LETTERS TO BE ¾" HIGH, ⅝" WIDE, 1/8" THICK
C. INSIDE LETTERS & RIBS 1/16" TALL
D. OUTSIDE LETTERS 1/16" TALL
E. REINFORCE BACK OF LUG
F. REINFORCEMENT

STANDARD DETAIL	DATE: 4/1994 REV: 8/10/2006	METER BOX COVER FOR TYPE "A" & "B" METER BOXES N.T.S.	el paso WATER	DETAIL No. 301

6 / C10.5 METER BOX COVER FOR TYPE "A" & "B" METER BOXES
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 CITY DATUM ELEVATION.....4003.40

DATE	REVISIONS	BY

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ENGINEER'S SEAL

THE STATE OF TEXAS — JORGE L. AZCARATE — 85075 — LICENSED PROFESSIONAL ENGINEER — 01-25-17

THE CITY OF EL PASO — TEXAS — Final Approval

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.C.M.
DRAWN BY: R.O.C.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025–004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

WATER DETAILS

(SHEET 3 OF 4)

SHEET NO.

C10.5

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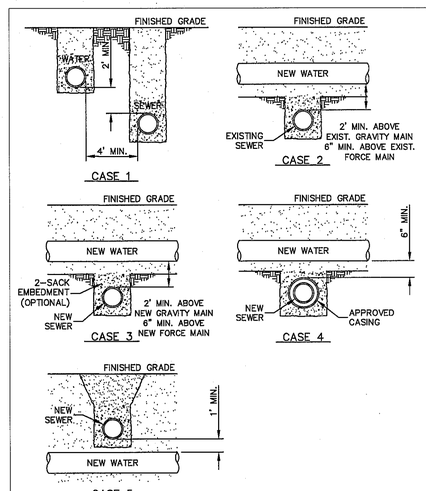


GENERAL NOTES:
1. NEW OR EXISTING POTABLE WATER AND SANITARY SEWER MAINS.
2. SEPARATION DISTANCES SHALL FOLLOW TEXAS COMMISSION ON ENVIRONMENTAL QUALITY STANDARD REQUIREMENTS.

CONSTRUCTION KEY NOTES
WHEN STANDARD NINE (9) FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, SEPARATION SHALL BE DETERMINED ACCORDING TO THE FOLLOWING CONDITIONS:

CASE 1. GRAVITY SANITARY SEWER MAIN OR FORCE MAIN PARALLEL TO POTABLE WATER MAIN (PER TCEQ §290.44(e)(4)(A)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, MUST BE REPLACED WITH PVC (150 PSI) OR DI. NEW GRAVITY MAIN OR FORCE MAIN REQUIRES PVC (150 PSI) OR DI.
- SEPARATE TRENCHES SHALL BE USED.

CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING GRAVITY SANITARY SEWER MAIN OR EXISTING FORCE MAIN (PER TCEQ §290.44(e)(4)(B)(i) AND §290.44(e)(4)(B)(ii).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.
- CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.

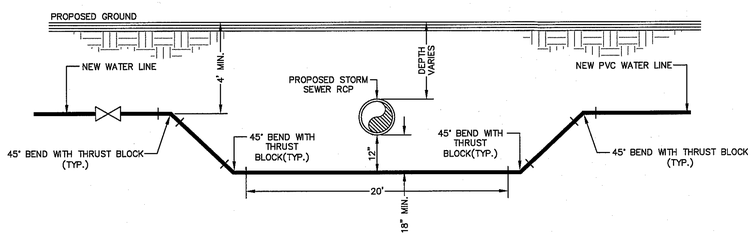
CASE 3. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(e)(4)(B)(iii), §290.44(e)(4)(B)(v) AND §290.44(e)(4)(B)(iv)(I).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: NEW GRAVITY MAIN - PVC (150 PSI) or DI REQUIRED, CENTER UNDER WATER MAIN. NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED. FORCE MAIN TO BE EMBEDDED IN CEMENT STABILIZED BACKFILL THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.
- CENTER ONE SEGMENT OF WATER PIPE OVER SEWER PIPE OR FORCE MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR WATER AND SEWER SHALL BE 18 FEET LONG.
- FOR NEW GRAVITY SEWER ONLY, IN LIEU OF PVC (150PSI) OR DI, INSTALL ONE PIPE SEGMENT OF SDR35; SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.

CASE 4. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(e)(4)(B)(iv)(II)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: NEW GRAVITY MAIN - SDR35 ACCEPTABLE. NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED. IN ADDITION, SEWER MAIN OR FORCE MAIN MUST BE ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER CASING PIPE ON WATER MAIN.

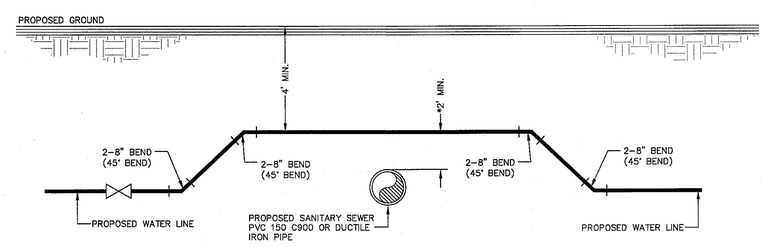
CASE 5. NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN CROSSING NEW POTABLE WATER MAIN (PER TCEQ §290.44(e)(4)(B)(iv)(III)).
- LOCATION: SEWER OR FORCE MAIN ABOVE WATER.
- NEW GRAVITY MAIN OR FORCE MAIN REQUIRES ONE PIPE SEGMENT OF PVC (150 PSI) OR DI. IN ADDITION, WATER MUST BE DI OR STEEL OR ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER ONE SEGMENT OF SEWER PIPE ON WATER MAIN.

STANDARD DETAIL	DATE: 8/3/2006 REV: 8/21/2007	SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS) N.T.S.	el paso WATER	DETAIL No. 161

1 / C10.6 SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS) SCALE: N.T.S.

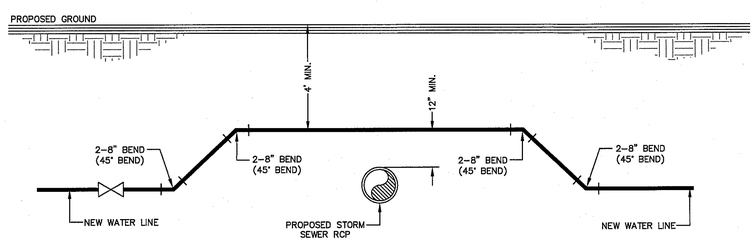


2 / C10.6 STORM SEWER CROSSING DETAIL SCALE: N.T.S.

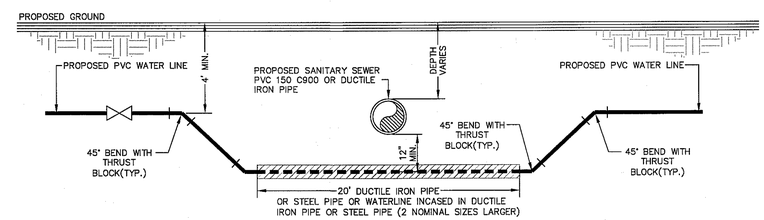


***NOTE:**
IF DISTANCE BETWEEN PROPOSED SANITARY SEWER AND PROPOSED WATER LINE IS BETWEEN 6"(MIN.)-2'(MAX.), SANITARY SEWER MUST BE ENCASED IN DUCTILE IRON PIPE AS PER SEPARATION DISTANCE (SPECIAL CONDITION) DETAIL. REFER TO CASE NO. 3 AND 4 OF 2/C10.5 (DETAIL NO. 161)

3 / C10.6 SANITARY SEWER CROSSING WATER LINE DETAIL SCALE: N.T.S.



4 / C10.6 STORM SEWER CROSSING DETAIL SCALE: N.T.S.



5 / C10.6 SANITARY SEWER CROSSING WATER LINE DETAIL SCALE: N.T.S.

Final Approval

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.....4065.49

DATE	REVISIONS	BY

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

ENGINEER'S SEAL
JORGE L. ACCARATE 85075 TEXAS PROFESSIONAL ENGINEER 9/21/16

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

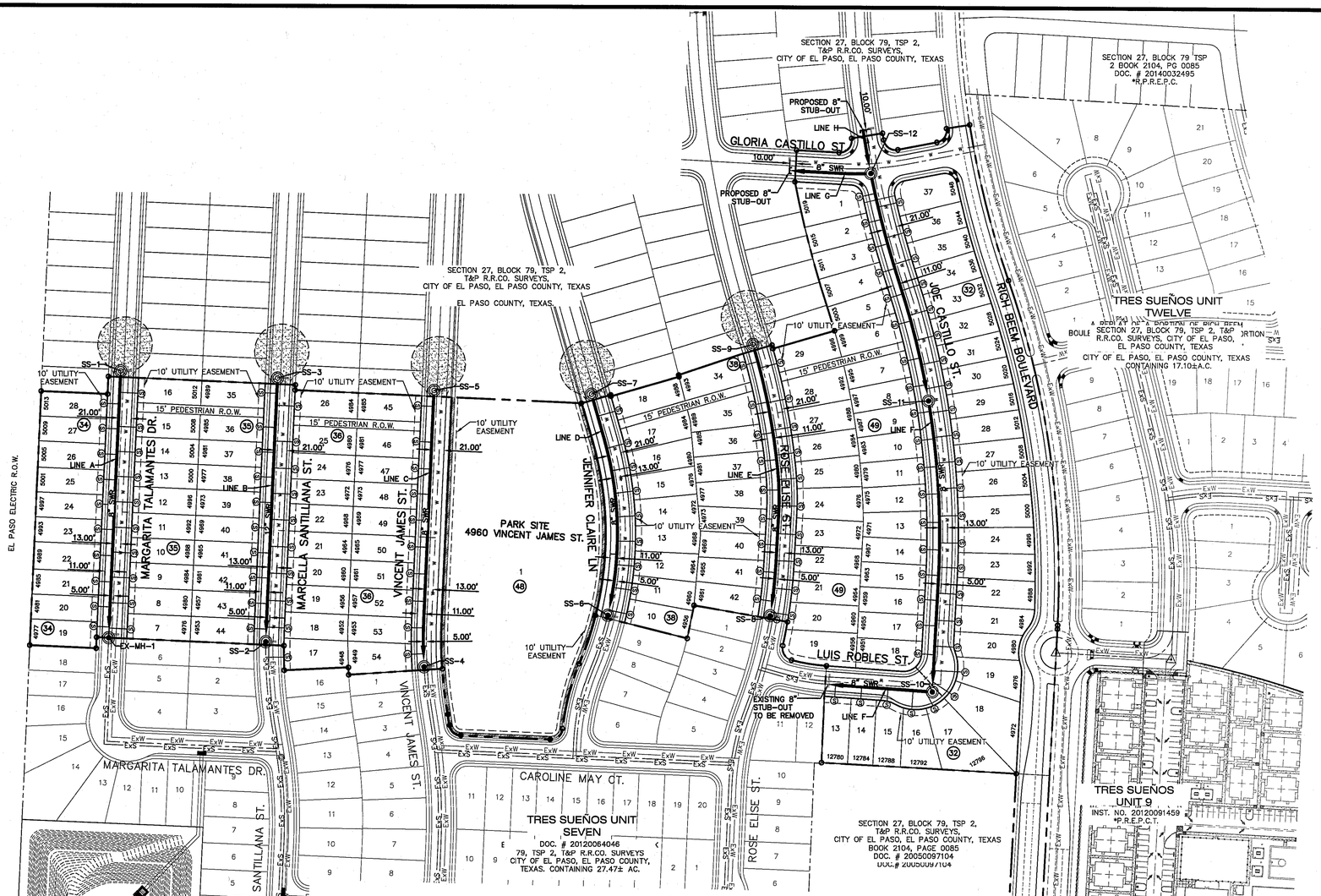
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./C.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
WATER DETAILS
(SHEET 4 OF 4)

SHEET NO.
C10.6

S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C10.3-C10.6 - Water Details.dwg, Layout4, 9/29/2016 3:50:54 PM



WASTEWATER QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	8" PVC SDR35 GRAVITY LINE	2970	LINEAR FEET
2	12" PVC SDR35 GRAVITY LINE	435	LINEAR FEET
3	WASTEWATER MANHOLE	12	EACH
5	4" WASTEWATER SERVICE CONNECTION	122	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
C11.1	LEGEND INDEX / GENERAL INFORMATION
C11.2	LINE A – D
C11.3	LINE E, F, G & H
C11.4	SANITARY SEWER DETAILS
C11.5	SANITARY SEWER DETAILS
C11.6	SANITARY SEWER DETAILS

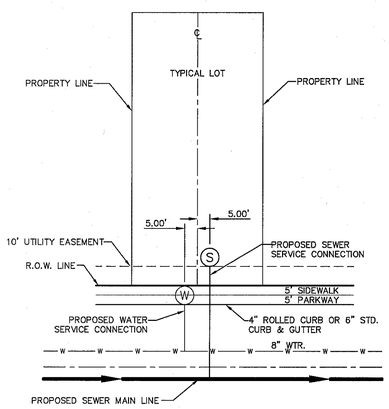
NOTES:

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

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED STORM SEWER
ExW ExW	EXISTING WATER LINE
ExS ExS	EXISTING SEWER LINE
	SUBD. BOUNDARY LINE
	PROPERTY LINE
	CENTER LINE
W W W	PROPOSED WATER LINE
	PROPOSED DOUBLE SEWER LINE (REFER TO PLAN & PROFILE) 12" LOWER LINE / 8" UPPER LINE
8" SEWER SDR35	PROPOSED SEWER LINE (PLAN VIEW)
	PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)
P.V.C. @ 0.33% 311 GPM	PROPOSED SEWER LINE (PROFILE VIEW)
	PROPOSED SEWER LINE (PROFILE VIEW)
	PROPOSED SERVICE CONNECTION (PLAN VIEW)
	EXISTING MANHOLE (PLAN VIEW)
	PROPOSED MANHOLE (PROFILE VIEW)
	EXISTING MANHOLE (PROFILE VIEW)

THE CITY OF EL PASO TEXAS Final Approval



PLAN

SERVICE LOCATION DETAIL

SCALE: N.T.S.

GENERAL NOTES

1. 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)
2. 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.
3. 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.
4. TRENCH SAFETY REQUIREMENTS SHALL COMPLY WITH CURRENT OSHA REGULATIONS.
5. 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.
6. 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.
7. EXISTING STREETS, DRIVEWAYS AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION.
8. CONSTRUCTION OF THE PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFIRM TO EPWU-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
CASTNER CENTER @ TRANSMOUNTAIN
4712 WOODROW BEAN, STE. F
EL PASO, TX. 79924
(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) 594-5785

ELECTRIC:
EL PASO ELECTRIC CO.
501 W. SAN ANTONIO ST.
EL PASO, TX. 79902
(915) 543-2076

EL PASO STREETS
CITY OF EL PASO
DEPARTMENT OF TRANSPIRATION
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
1(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., SUB-43'1E A DISTANCE OF 467.58 FEET FROM THE SOUTHWEST CORNER OF RICH BEEM BLVD. AND VINCENT JAMES AVENUE CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 TEXAS REGISTERED PROFESSIONAL ENGINEER

SCALE
Horizontal:
Vertical:
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

SEWER INDEX

SHEET NO.

C11.1

S:\2025\2025-004-Tres Sueños Unit 15\DWGS\Construction Drawings\Improvement Plans\C11\SEWER INDEX SHEET.dwg, layout1, 10/28/2016 11:02:13 AM

LEGEND:

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

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	753.36'	77.82'	38.94'	77.78'	N00°28'49"W	005°55'05"
C2	570.00'	294.02'	150.36'	290.77'	N01°16'03"W	029°33'18"
C3	755.01'	19.41'	9.70'	19.41'	S01°44'09"W	001°28'22"

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

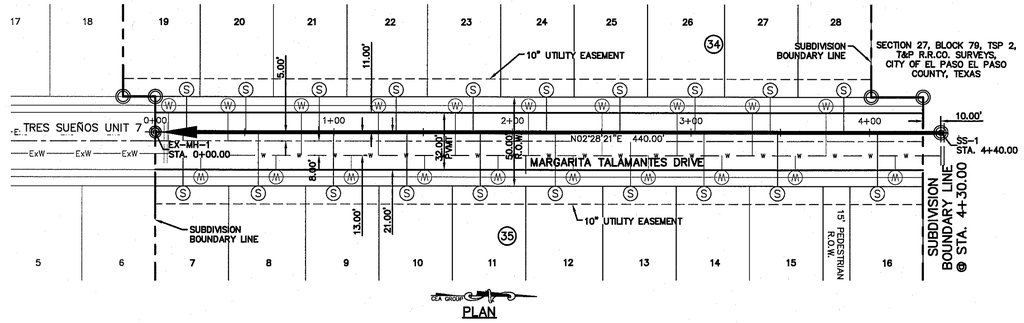
CALL 811

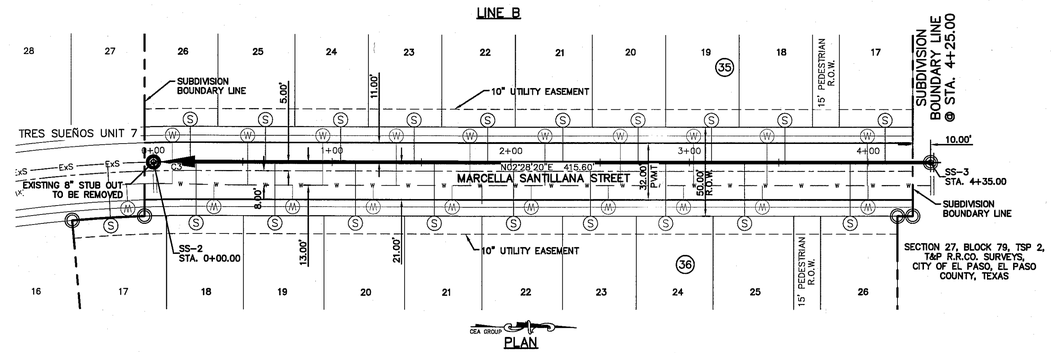
FOR FIELD LOCATING EXISTING UTILITIES

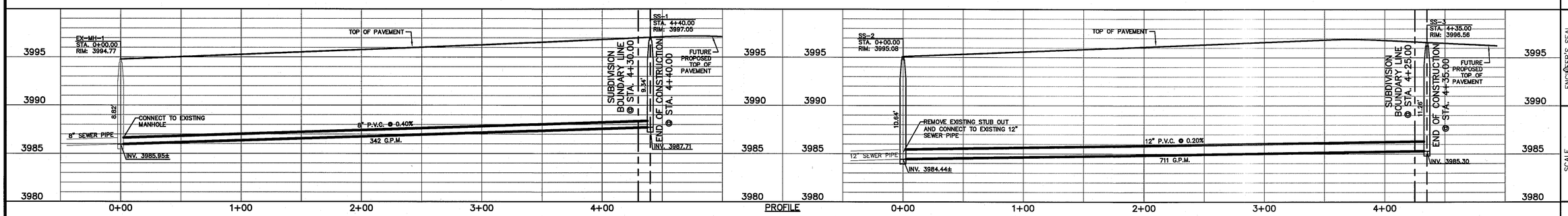
REFERENCES – BENCHMARKS

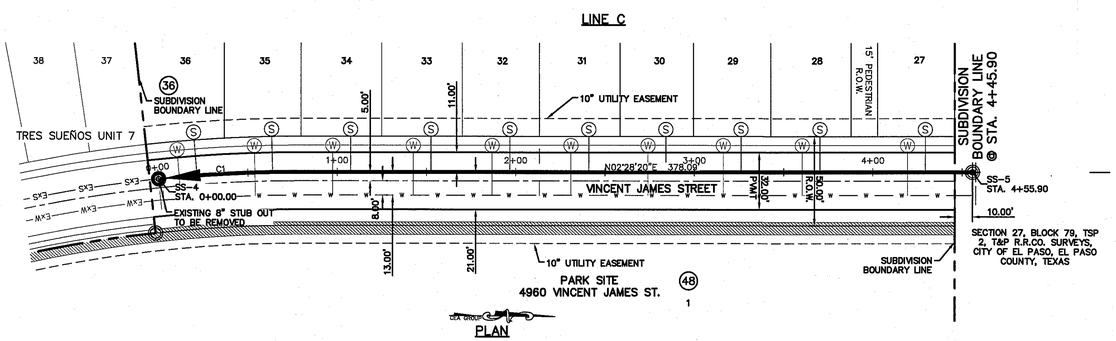
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. STA. 3+35 A DISTANCE OF 45.5 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. CITY DATUM ELEVATION.....4005.40

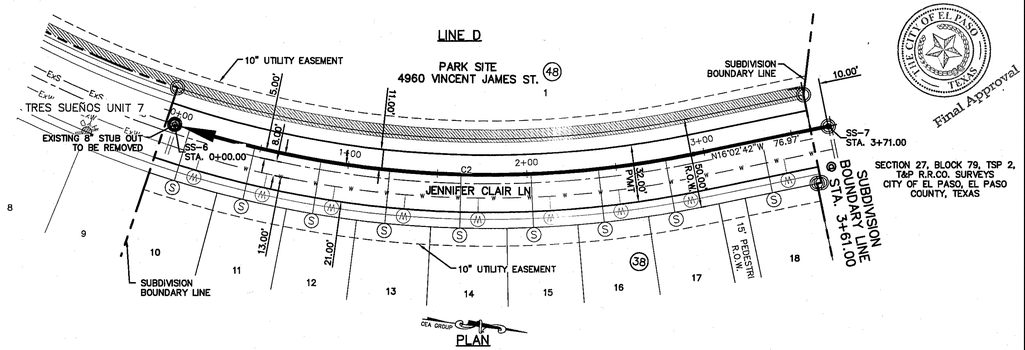
DATE	REVISIONS	BY

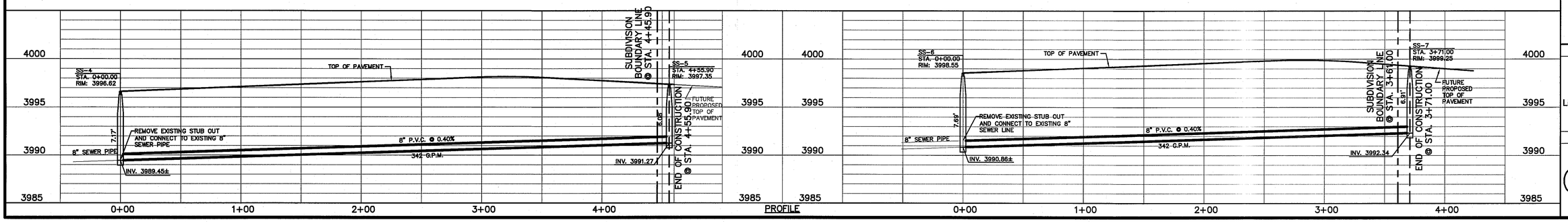












TEXAS REGISTERED ENGINEERING FIRM F-4464
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2025–004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE

SANITARY SEWER AND PROFILE LINE "A, B, C, & D"

SHEET NO.

C11.2

Final Approval

S:\2025\2025-004-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C11.2-SEWER P&P SHEET LINE A-D.dwg, Layout1, 10/31/2016 9:32:57 AM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	770.00'	85.95'	43.02'	85.90'	N06°13'24"E	006°23'44"
C2	475.00'	71.95'	36.04'	71.88'	N01°18'50"W	008°40'43"
C3	1065.00'	212.20'	106.45'	211.85'	N11°21'40"W	011°24'58"
C4	1327.00'	294.78'	148.00'	294.18'	N03°18'45"W	012°43'40"
C5	1326.76'	196.31'	98.34'	196.13'	N13°54'52"W	008°28'39"
C6	1673.00'	191.22'	95.72'	191.12'	N14°52'41"W	006°32'56"
C7	458.00'	49.48'	24.76'	49.45'	S89°56'48"W	006°11'23"
C8	1673.00'	71.96'	35.98'	71.95'	N10°22'17"W	002°27'52"

LEGEND:

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

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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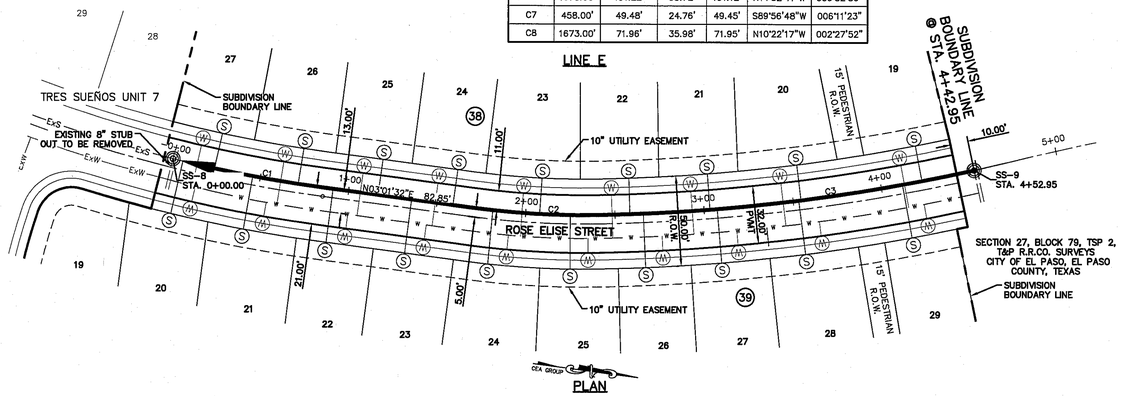
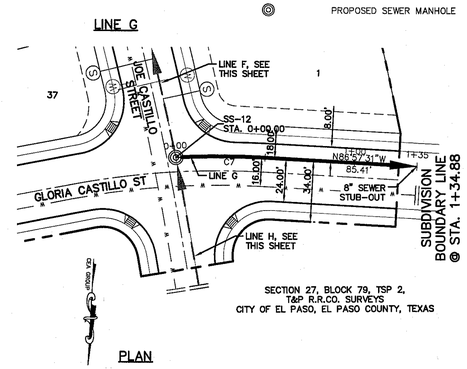
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

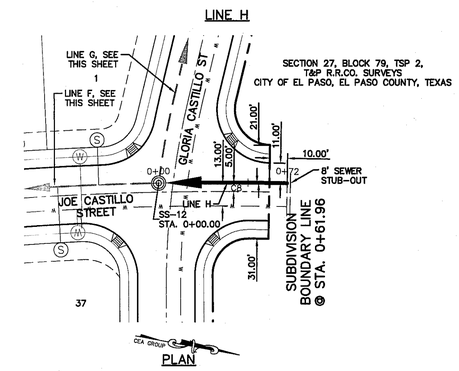
WARNING ! BEFORE YOU DIG

CALL 811

FOR FIELD LOCATING EXISTING UTILITIES





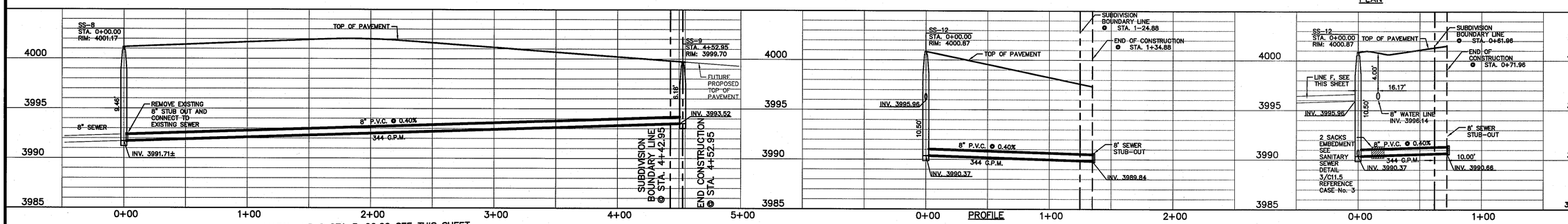


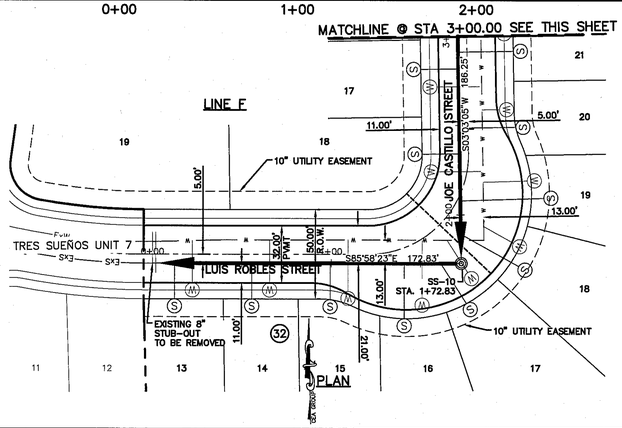
REFERENCES - BENCHMARKS

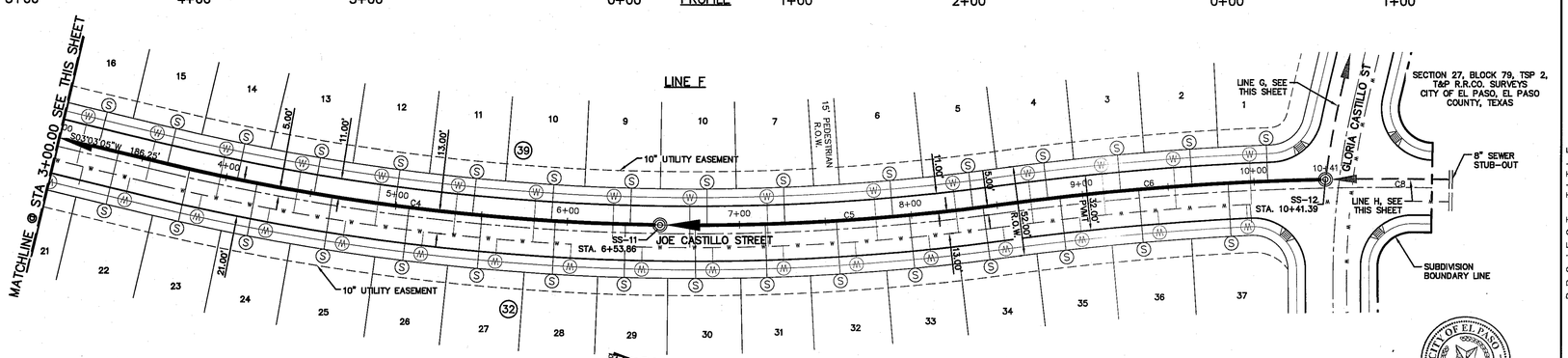
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SUBFA'31'E A DISTANCE OF 467.38 FEET FROM THE TANGENT INTERSECTION OF CENTERLINE AVENUE CITY DATUM ELEVATION..... 4005.40

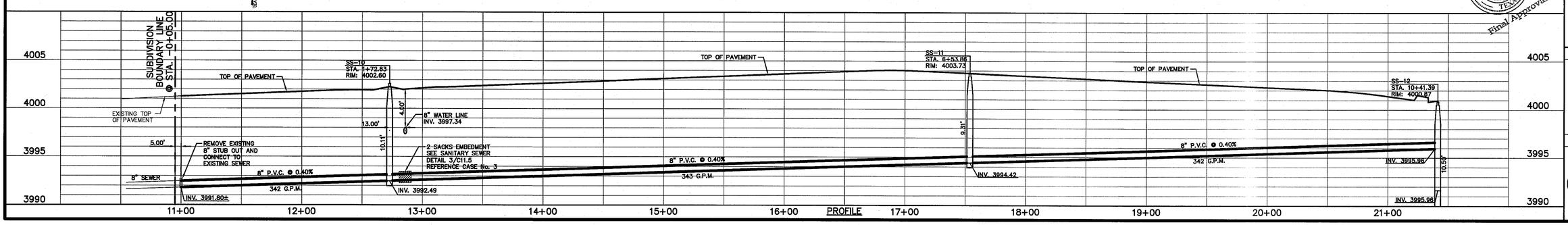
DATE	REVISIONS	BY

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









ENGINEER'S SEAL

JORGE L. AZCARATE 85075 Licensed PROFESSIONAL ENGINEER TEXAS 5-31-14

SCALE	
Horizontal:	1"=30'
Vertical:	1"=5'
Contour Interval:	N/A
DATE: SEPTEMBER 2016	
DESIGN BY:	R.O.
DRAWN BY:	R.O./G.M.
CHKD. BY:	J.L.A.
APPV'D. BY:	J.L.A.
JOB No.	2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE

SANITARY SEWER AND PROFIILE LINE "E, F, G & H"

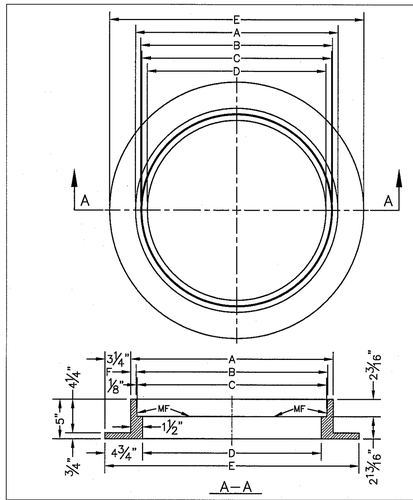
SHEET NO.

C11.3

THE CITY OF EL PASO TEXAS

Final Approval

S:\2022\2023-024- Tres Sueños Unit 15\DWG\Construction Drawings\Improvement Plans\C11.3-SEWER PAP SHEET LINE E&F.dwg, Layout1, 12/28/2016 11:42:29 AM



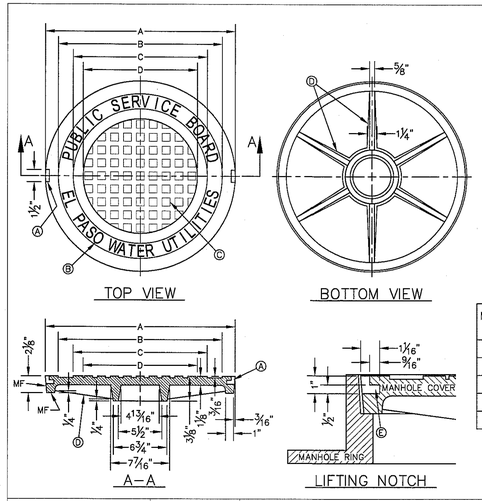
GENERAL NOTES:
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306–07.
4. AS–CAST DIMENSIONS MAY VARY 1/16"±/ PER FOOT (AASHTO M306–07).
5. WEIGHT MAY VARY 5%±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

MANHOLE RING	MANHOLE – ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	33"	25½"
B	31¾"	24⅛"
C	31½"	23⅞"
D	30"	22½"
E	39½"	32"
F	⅝"	1 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 C11.4 STANDARD 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 1/16"±/ PER FOOT (AASHTO M306–07).
5. WEIGHT MAY VARY 5%± (AASHTO M306–07).

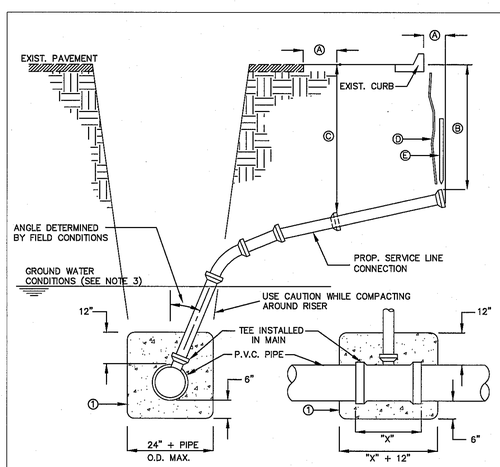
CONSTRUCTION KEY NOTES:
A. LIFTING NOTCH.
B. ⅜" RAISED LETTERING.
C. 1" SQUARES (¾" TALL) WITH ⅝" SPACE BETWEEN.
D. REINFORCING RIBS.
E. SLOT.

MANHOLE COVER	MANHOLE – ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	31⅜"	23⅞"
B	28⅛"	20⅝"
C	24⅜"	16⅞"
D	21⅞"	14⅜"
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 C11.4 STANDARD COVER DETAIL
SCALE: N.T.S.

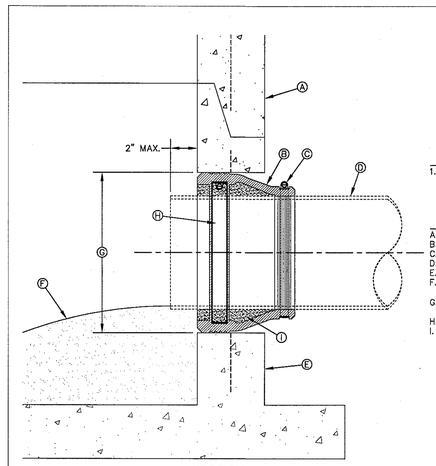


GENERAL NOTES:
1. IN GROUNDWATER CONDITIONS ONLY, P.V.C. SADDLES OR TEES ARE TO BE ENCASED WITH CLASS B CONCRETE.
2. UNDER CERTAIN CONDITIONS FIELD INVESTIGATIONS WILL BE REQUIRED TO DETERMINE THE ADEQUACY OF THE DEPTH ON THE LATERAL.
3. WHEN GROUND WATER IS ENCOUNTERED SERVICE RISER SHALL BE EXTENDED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

CONSTRUCTION KEY NOTES:
A. CONTRACTOR TO INSTALL SEWER SERVICE LINE FROM THE MAIN TO A LOCATION 6" BEHIND THE CURB OR 18" BEYOND THE EDGE OF PAVMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.
B. 18" FOR STANDARD SUBDIVISION, 3.5' FOR SUBDIVISIONS WITH ON–SITE PONDING OR FLAT TERRAIN.
C. RISERS OR LATERALS EXTENDING BEYOND EXISTING PAVING SHALL BE INSTALLED TO 3.5' MINIMUM TOP OF GROUND OR PAVEMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.
D. PLASTIC METALLIC MARKING TAPE RISING TO WITHIN 6" OF GROUND SURFACE OR METALLIC DISK.
E. 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	el paso WATER	DETAIL No. 391

3 C11.4 SEWER SERVICE RISER AND SERVICE LINE CONNECTION
SCALE: N.T.S.



GENERAL NOTES:
1. 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:
A. PRECAST MANHOLE BARREL.
B. FLEXIBLE CONNECTOR.
C. PIPE CLAMP SS 316.
D. APPROVED PIPE.
E. PRECAST MANHOLE BASE.
F. GROUT AS REQUIRED TO FORM SMOOTH CHANNEL TO MANHOLE INVERT.
G. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE.
H. EXPANSION BAND SS 316.
I. 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 C11.4 PIPE CONNECTION TO MANHOLE
SCALE: N.T.S.

THE CITY OF EL PASO TEXAS
Final Approval

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

DATE	REVISIONS	BY

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ENGINEER'S SEAL
STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
9/29/16

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O./C.M.
DRAWN BY: R.O./C.M.
CHKD. BY: J.L.A.
APPD. BY: J.L.A.
JOB No. 2025–004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
SANITARY SEWER DETAILS
(SHEET 1 OF 3)

SHEET NO.
C11.4

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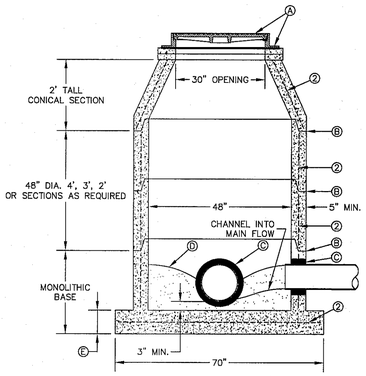
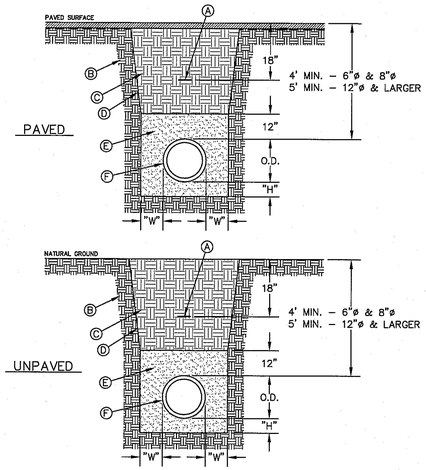


GENERAL NOTES:
1. MANHOLE TYPE "A" SHALL BE USED FOR LINES 21" AND SMALLER.
2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING. PROVIDE REINFORCEMENT WITHIN 3" Ø OPENINGS OR KNOCKOUTS, OPENINGS (UP TO 8") MADE IN FIELD SHALL BE CORE DRILLED.
3. CEMENT SHALL BE TYPE I-II, PER ASTM C-150, AND MUST CONTAIN A MINIMUM OF 4% FLY ASH OF THE TOTAL MANHOLE WEIGHT.
4. THE BASE & RISER SHALL BE INTEGRALLY CAST. CONCRETE SHALL BE MIN. 28 DAY COMPRESSIVE STRENGTH 4000psi.
5. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.
6. THE SUBGRADE UNDER THE BASE SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.
7. MANHOLES BELOW GROUNDWATER TO BE EXTERNALLY AND INTERNALLY COATED WITH BITUMINOUS COATING.

CONSTRUCTION KEY NOTES:
A. MANHOLE RING AND COVER (SEE DETAILS 377 & 378). SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE (SEE DETAIL 185).
B. ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH RAM-NEK OR APPROVED EQUAL.
C. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE AND SHALL HAVE FLEXIBLE PIPE TO MANHOLE CONNECTORS (COMPRESSION TYPE ASTM-923), "KOR-N-SEAL" OR APPROVED EQUAL.
D. GROUT AS REQUIRED.
E. CONCRETE BASE SHALL BE 8" FOR MH's UP TO 12' DEEP AND 12" FOR DEPTHS GREATER THAN 12'.

STANDARD DETAIL	DATE: 11/1992 REV: 2/8/2013	MANHOLE TYPE "A" N.T.S.	el paso WATER	DETAIL No. 370-1

1 C11.5 STANDARD MANHOLE TYPE "A"
SCALE: N.T.S.



GENERAL NOTES:
1. BEDDING FOR PRESSURE AND GRAVITY PIPE IN DRY CONDITIONS.
2. PROVIDE TRENCH SAFETY SYSTEM FOR TRENCH DEPTHS GREATER THAN 5 FEET.
3. IF THE NATIVE MATERIAL EXCAVATED FROM THE TRENCH IS UNSUITABLE AS BACKFILL MATERIAL, OR THE REQUIRED COMPACTION IS UNATTAINABLE, THE CONTRACTOR SHALL, AT HIS EXPENSE, IMPORT SELECT MATERIAL TO BE MIXED WITH OR USED IN PLACE OF THE NATIVE MATERIAL. SELECT MATERIAL MUST BE APPROVED BY EPWU. SUBSTITUTE SOIL CEMENT SLURRY (1-SACK) IF REQUIRED IN SPECS.

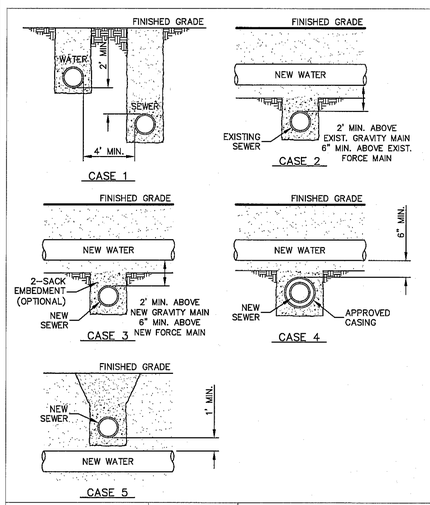
CONSTRUCTION KEY NOTES:
A. APPROVED MARKING TAPE.
B. UNDISTURBED STABLE MATERIAL.
C. NATIVE MATERIAL BACKFILL.
PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
(*SEE NOTE #3 IF THESE PREVIOUS CONDITIONS CANNOT BE MET.)
D. SLOPE TRENCH IN SANDY SOIL CONDITIONS.
E. USE CLASS II OR CLASS III SAND PER ASTM D-2487. NATIVE MATERIAL OR IMPORTED SELECT MATERIAL MEETING OR EXCEEDING THIS REQUIREMENT MAY BE USED. COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR (OR 90% D-698 STANDARD PROCTOR).
F. APPROVED PIPE.
G. TRENCH DIMENSIONS AS FOLLOWS:

PIPE DIAMETER	"H"
6" – 30"	4"
GREATER THAN 30"	6"

PIPE DIAMETER	"W"
6" – 30"	8"
GREATER THAN 30"	12"

STANDARD DETAIL	DATE: 4/24/2007 REV: 2/21/2011	EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS N.T.S.	el paso WATER	DETAIL No. 171

2 C11.5 BEDDING CLASS DETAILS FOR FOR P.V.C. PRESSURE PIPE
SCALE: N.T.S.



GENERAL NOTES:
1. NEW OR EXISTING POTABLE WATER AND SANITARY SEWER MAINS.
2. SEPARATION DISTANCES SHALL FOLLOW TEXAS COMMISSION ON ENVIRONMENTAL QUALITY STANDARD REQUIREMENTS.

CONSTRUCTION KEY NOTES
WHEN STANDARD NINE (9) FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, SEPARATION SHALL BE DETERMINED ACCORDING TO THE FOLLOWING CONDITIONS:

CASE 1. GRAVITY SANITARY SEWER MAIN OR FORCE MAIN PARALLEL TO POTABLE WATER MAIN (PER TCEQ §290.44(e)(4)(A)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, MUST BE REPLACED WITH PVC (150 PSI) OR DI. NEW GRAVITY MAIN OR FORCE MAIN REQUIRES PVC (150 PSI) OR DI.
- SEPARATE TRENCHES SHALL BE USED.

CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING GRAVITY SANITARY SEWER MAIN OR EXISTING FORCE MAIN (PER TCEQ §290.44(e)(4)(B)(i)) AND §290.44(e)(4)(B)(ii)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.
- CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.

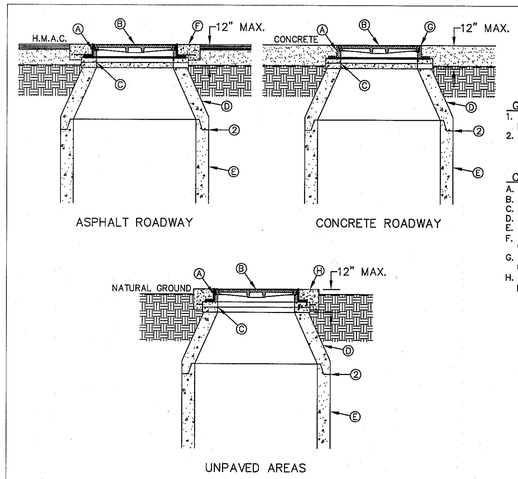
CASE 3. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(e)(4)(B)(iii), §290.44(e)(4)(B)(iv) AND §290.44(e)(4)(B)(v)(I)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: NEW GRAVITY MAIN - PVC (150 PSI) or DI REQUIRED, CENTER UNDER WATER MAIN. NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED. FORCE MAIN TO BE EMBEDDED IN CEMENT STABILIZED BACKFILL THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.
- CENTER ONE SEGMENT OF WATER PIPE OVER SEWER PIPE OR FORCE MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR WATER AND SEWER SHALL BE 18 FEET LONG.
- FOR NEW GRAVITY SEWER ONLY, IN LIEU OF PVC (150PSI) OR DI, INSTALL ONE PIPE SEGMENT OF SDR35; SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.

CASE 4. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(e)(4)(B)(iv)(II)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: NEW GRAVITY MAIN - SDR35 ACCEPTABLE. NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED. IN ADDITION, SEWER MAIN OR FORCE MAIN MUST BE ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER CASING PIPE ON WATER MAIN.

CASE 5. NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN CROSSING NEW POTABLE WATER MAIN (PER TCEQ §290.44(e)(4)(B)(iv)(III)).
- LOCATION: SEWER OR FORCE MAIN ABOVE WATER.
- NEW GRAVITY MAIN OR FORCE MAIN REQUIRES ONE PIPE SEGMENT OF PVC (150 PSI) OR DI. IN ADDITION, WATER MUST BE DI OR STEEL OR ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER ONE SEGMENT OF SEWER PIPE ON WATER MAIN.

STANDARD DETAIL	DATE: 8/3/2006 REV: 8/21/2007	SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS) N.T.S.	el paso WATER	DETAIL No. 161

3 C11.5 SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)
SCALE: N.T.S.

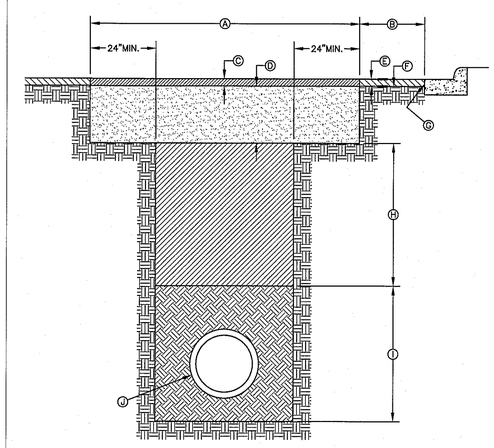


GENERAL NOTES:
1. MANHOLE TYPE SHALL BE AS SHOWN ON THE PLANS.
2. SEAL JOINTS PER SPECIFICATIONS.

CONSTRUCTION KEY NOTES:
A. MANHOLE RING (SEE DETAIL 377).
B. MANHOLE COVER (SEE DETAIL 378).
C. CONCRETE ADJUSTMENT RINGS AS REQUIRED.
D. MANHOLE CONE SECTION.
E. MANHOLE BARREL SECTION.
F. CONCRETE COLLAR (SEE DETAIL 184-1) FLUSH WITH TOP OF H.M.A.C OR SEE PENETRATION DETAIL.
G. MANHOLE RING FLUSH WITH TOP OF CONCRETE, CONCRETE COLLAR NOT NEEDED.
H. CONCRETE APRON (SEE DETAIL 184-2) FLUSH WITH MANHOLE RING AND 2" ABOVE NATURAL GROUND.

STANDARD DETAIL	DATE: 6/22/2009 REV:	MANHOLE RING AND COVER INSTALLATION N.T.S.	el paso WATER	DETAIL No. 185

4 C11.5 STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL
SCALE: N.T.S.



GENERAL NOTES:
1. ALL ASPHALT CUTS MUST BE SAW CUT.
2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.

CONSTRUCTION KEY NOTES:
A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.
B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3' OF SAW CUT EDGE, CONTRACTOR SHALL REMOVE & REPLACE EXISTING HMAC IN THIS AREA.
C. 2" ASPHALT MIN.
D. 12" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y. OF SOIL).
E. EXISTING HMAC-THICKNESS MAY VARY.
F. EXISTING BASE COURSE-THICKNESS MAY VARY.
G. EXISTING GUTTER FACE, EDGE OF PAVEMENT OR BEGINNING OF SHOULDER.
H. BACKFILL DEPTH VARIES, REFER TO REQUIREMENTS LISTED IN EMBEDMENT DETAILS (DETAIL 171 THRU DETAIL 173).
I. PIPE BEDDING AS SPECIFIED, REFER TO APPROPRIATE EMBEDMENT DETAIL (DETAIL 171 THRU DETAIL 173).
J. APPROVED PIPE.

STANDARD DETAIL	DATE: 10/1992 REV: 5/9/2011	PAVEMENT REPLACEMENT N.T.S.	el paso WATER	DETAIL No. 179

5 C11.5 PAVEMENT REPAIR DETAIL
SCALE: N.T.S.

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BOULEVARD, ELEVATION 3,937.17 FEET, 1.5 MILES EAST FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER
05-31-14

THE CITY OF EL PASO TEXAS
Final Approval

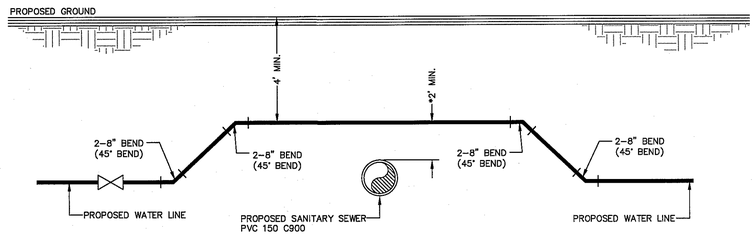
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

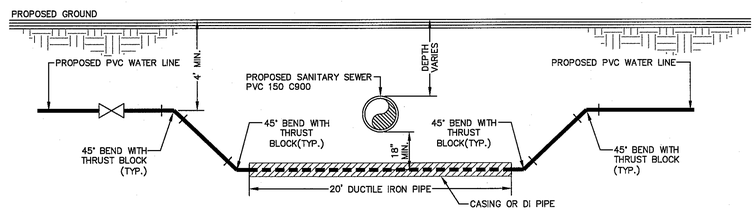
SHEET TITLE
SANITARY SEWER DETAILS
(SHEET 2 OF 3)

SHEET NO.
C11.5

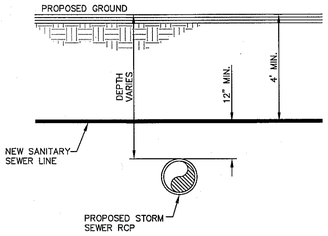


***NOTE:**
IF DISTANCE BETWEEN PROPOSED SANITARY SEWER AND PROPOSED WATER LINE IS BETWEEN 6"(MIN.)-2'(MAX.), SANITARY SEWER MUST BE ENCASED IN DUCTILE IRON PIPE AS PER SEPARATION DISTANCE (SPECIAL CONDITION) DETAIL.

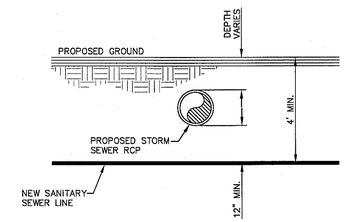
1 / C11.6 **SANITARY SEWER CROSSING WATER LINE DETAIL**
SCALE: N.T.S.



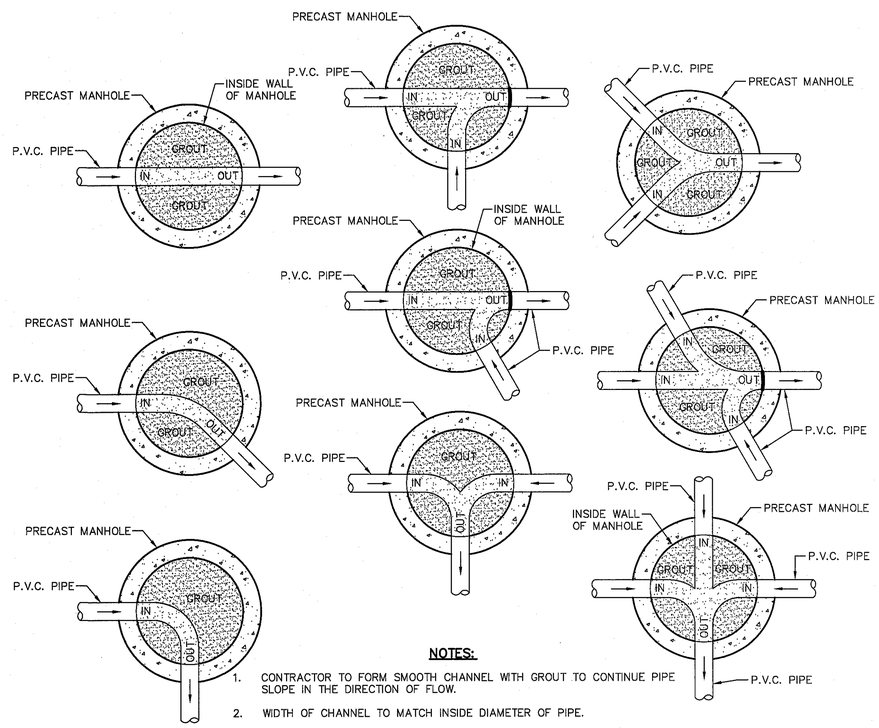
3 / C11.6 **SANITARY SEWER CROSSING WATER LINE DETAIL**
SCALE: N.T.S.



2 / C11.6 **STORM SEWER CROSSING UNDER SANITARY LINE DETAIL**
SCALE: N.T.S.



4 / C11.6 **STORM SEWER CROSSING OVER SANITARY LINE DETAIL**
SCALE: N.T.S.



NOTES:

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

5 / C11.6 **TYPICAL MANHOLE INVERT PLANS**
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. CITY DATUM ELEVATION.....4068.49

DATE	REVISIONS	BY

cea group
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ENGINEER'S SEAL
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85075
TEXAS REGISTERED PROFESSIONAL ENGINEER

THE CITY OF EL PASO TEXAS
Final Approval

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APPD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
SANITARY SEWER DETAILS
(SHEET 3 OF 3)

SHEET NO.
C11.6

S:\2025\2025-004-Tres Suenos Unit 15\DWGS\Construction Drawings\Improvement Plans\C11.4-C11.6 - Sewer Details.dwg, Layout3, 9/29/2016 3:32:09 PM

SITE DESCRIPTION

PROJECT NAME AND LIMITS: TRES SUEÑOS UNIT FIFTEEN IS BORDERED BY A PORTION OF SECTION 27, BLOCK 79 TOWNSHIP 2, TEXAS AND PACIFIC RAILWAYS SURVEY TO THE NORTH, EL PASO ELECTRIC R.O.W. TO THE WEST, TRES SUEÑOS UNIT SEVEN TO THE SOUTH AND TRES SUEÑOS UNIT TWELVE SUBDIVISION TO THE EAST.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 22.02± ACRES, AND WILL CONTAIN A TOTAL OF 122 RESIDENTIAL LOTS

EXISTING CONDITIONS: THE SITE IS CLEAR OF SITE IMPROVEMENTS AND IS COVERED WITH ITS NATURAL SURROUNDINGS. EXISTING RUNOFF IS TO THE NORTH EAST.

MAJOR SOIL DISTURBING ACTIVITIES: MAJOR SOIL DISTURBING ACTIVITIES WILL CONSIST OF CLEARING AND GRUBBING, GRADING FOR BUILDING PAD ELEVATIONS, CONSTRUCTION OF STREETS AND EXCAVATION FOR UTILITIES.

TOTAL PROJECT AREA: 22.02±

TOTAL AREA TO BE DISTURBED: 22.02±

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.658

EXISTING CONDITION OF SOIL AND VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: HUECO-WINK ASSOCIATION: NEARLY LEVEL AND GENTLY SLOPING SOILS THAT HAVE A FINE SANDY LOAM SUBSOIL AND ARE MODERATELY DEEP OVER CALICHE; IN THE HUECO BOLSON.

NAME OF RECEIVING WATERS: TRES SUEÑOS UNIT FIFTEEN SUBDIVISION WILL DISCHARGE INTO EXISTING ON-SITE STORM INLETS AND CONVEYED VIA STREET FLOW ON PROPOSED PAVED STREETS TO ULTIMATELY BE DISCHARGED INTO AN EXISTING OFF-SITE RETENTION BASIN.

EROSION AND SEDIMENT CONTROL

SOIL STABILIZATION PRACTICES

- ____ TEMPORARY SEEDING
- ____ PERMANENT PLANTING, SODDING, OR SEEDING
- ____ MULCHING
- ____ SOIL RETENTION BLANKET
- ____ BUFFER ZONES
- ____ PRESERVATION OF NATURAL RESOURCES

OTHER: ____

STRUCTURAL PRACTICES:

- X SILT FENCES OR EARTHEN BERM
- ____ HAY BALES
- ____ ROCK BERMS
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- ____ DIVERSION DIKE AND SWALE COMBINATION
- ____ PIPE SLOPE DRAINS
- ____ CONCRETE FLUMES
- X ROCK BEDDING AT CONSTRUCTION EXIT
- ____ TIMBER MATTING AT CONSTRUCTION EXIT
- ____ CHANNEL LINERS
- ____ SEDIMENT TRAPS
- ____ SEDIMENT BASINS
- ____ STORM INLET SEDIMENT TRAP
- ____ STONE OUTLET STRUCTURES
- X CURBS AND GUTTERS
- ____ STORM DRAINS
- ____ VELOCITY CONTROL DEVICES
- ____ VEGETATED SWALES & NATURAL DEPRESSIONS

OTHER: ____

NARRATIVE – SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:

1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS (e.g. SILT FENCE AND/OR EARTHEN BERM, AND STABILIZED CONSTRUCTION ENTRANCE) ;
2. PERFORM CLEARING AND GRUBBING;
3. EXCAVATION FOR UTILITIES;
4. COMPLETE STREET AND LOT GRADING;
5. CONSTRUCTION OF SUBDIVISION IMPROVEMENTS; AND,
6. WHEN ALL CONSTRUCTION ACTIVITY RELATED IN DEVELOPMENT OF THE SITE IS COMPLETE, REMOVE TEMPORARY CONTROLS IN 1. ABOVE.

SWPPP GENERAL NOTES:

1. PLACEMENT OF SILT FENCE SHALL BE ADJUSTED AS NECESSARY TO PREVENT THE BLOCKING OF DRIVEWAYS OR DRIVING LANES.
2. THE SWPPP MANUAL IDENTIFIES THE DUTIES AND RESPONSIBILITIES OF THE GENERAL CONTRACTOR IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. THIS ITEM SHALL BE SUBSIDIARY TO THE SWPP BEST MANAGEMENT PRACTICES (COMPLETE IN PLACE) ITEMS. THE SWPPP PROJECT MANUAL IS AVAILABLE FOR REVIEWING AT THE CITY OF EL PASO–ENGINEERING DEPARTMENT. UPON SELECTION, THE CONTRACTOR WILL BE PROVIDED AN SWPPP MANUAL. THE CONTRACTOR SHALL MAINTAIN THIS MANUAL AT THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL COMPLETE AND SUBMIT ALL REGULATORY FORMS AND APPLICATIONS, AS PROVIDED IN THE SWPPP MANUAL, INCLUDING, BUT NOT LIMITED TO; NOI, NOT, SDPCP, AND ANY OTHER FORM REQUIRED BY THE CITY OF EL PASO AND TCEQ.
4. ALLOWABLE STORM WATER AND NON–STORMWATER DISCHARGE SHALL COMPLY WITH 15.20.080 (GENERAL PROHIBITION) AND 15.20.090 (SPECIFIC PROHIBITIONS AND REQUIREMENTS) OF THE CITY OF EL PASO STORM DRAIN POLLUTION CONTROL PLAN ORDINANCE. NON–STORMWATER DISCHARGES MAY CONSIST OF, BUT ARE NOT LIMITED TO, THE DISCHARGE RESULTING FROM FIREFIGHTING, LAWN WATERING, LANDSCAPE IRRIGATION, NATURAL SPRING, AND/OR AGRICULTURAL STORM WATER RUNOFF.
5. REFER TO DRAINAGE PLAN SHEET C4.1, FOR DETAILED INFORMATION ON WATERSHED AREAS AND RUNOFF QUANTITIES (Q).
6. THE FOLLOWING HAVE BEEN IDENTIFIED AS POTENTIAL CONTAMINATION SOURCES: CLEARED AND GRADED AREAS; CONSTRUCTION SITE ENTRANCE AND ASPHALT PARKING AREA CONSTRUCTION; ASPHALT LOADING/UNLOADING AREAS; CONCRETE LOADING/UNLOADING AREAS; AND, ALL UNDISTURBED AREAS.
7. THE FOLLOWING IS A LIST OF POTENTIAL CONSTRUCTION SITE STORM WATER POLLUTANTS: ASPHALT; CONCRETE; GLUE/ADHESIVE; PAINTS; CURING COMPOUNDS; WASTEWATER FROM CONSTRUCTION EQUIPMENT WASHING; HYDRAULIC OIL/FLUIDS; ;GASOLINE; DIESEL FUEL; KEROSENE; ANTIFREEZE/COOLANT; AND EROSION.

BEST MANAGEMENT PRACTICES CONTROLS

I. **WASTE MATERIALS:**

ALL WASTE MATERIALS, INCLUDING CONSTRUCTION DEBRIS, SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ON SITE. THE TRANSIT DUMPSTER SHALL COMPLY WITH ORDINANCE 18.52.010 (ENCLOSURE AND REMOVAL OF WASTE MATERIALS DURING CONSTRUCTION). THE DUMPSTER SHALL BE EMPTIED AS NECESSARY OR AS REQUIRED BY ORDINANCE 9.04 (SOLID WASTE MANAGEMENT) AND THE TRASH SHALL BE HAULED TO A LICENSED LANDFILL.

II. **HAZARDOUS WASTE:**

AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES SHALL BE CONSIDERED HAZARDOUS: PAINT, ACIDS FOR CLEANING MASONRY SURFACES, CLEANING SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SPILL STABILIZATION, CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION AND CONTACT THE FIRE DEPT. AND TNRCC.

III. **SANITARY WASTE:**

ALL SANITARY WASTE SHALL BE COLLECTED FROM THE CONSTRUCTION PORTABLE UNITS AS NECESSARY OR AS REQUIRED, CHAPTER 18.08 (BUILDING CODE), BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR. ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

IV. **SPILL PREVENTION:**

THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURES OF MATERIALS TO STORM WATER RUNOFF.

V. **GOOD HOUSEKEEPING:**

A. STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE JOB
B. NEATLY STORE MATERIALS ON–SITE IN AN ORDERLY MANNER
C. KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER
D. DO NOT MIX SUBSTANCES WITH ONE ANOTHER, UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER
E. USE ENTIRE CONTENTS OF A PRODUCT BEFORE DISPOSING THE CONTAINER
F. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL

VI. **HAZARDOUS PRODUCTS:**

PRACTICES USED TO REDUCE RISKS:

A. KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER IF AT ALL POSSIBLE
B. RETAIN ORIGINAL LABELS, PRODUCT INFORMATION AND MATERIAL SAFETY DATA SHEETS (MSDS)
C. DISPOSE SURPLUS PRODUCT IN ACCORDANCE WITH MANUFACTURER'S OR LOCAL & STATE RECOMMENDED METHODS

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Final Approval

VII. **PETROLEUM PRODUCTS:**

ALL ON–SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON–SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

VIII. **SPILL CONTROL PRACTICES:**

A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES:
B. MATERIALS AND EQUIPMENT NECESSARY FOR CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON–SITE:
C. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY
D. SPILL AREA SHALL BE WELL VENTILATED AND APPROPRIATE CLOTHING WILL BE WORN:
E. ANY SPILL SHALL BE REPORTED TO THE APPROPRIATE GOVERNMENTAL AGENCY
F. MEASURES SHALL BE TAKEN TO PREVENT A SPILL FROM REOCCURRING

IX. **MAINTENANCE AND INSPECTION PROCEDURES:**

ALL POLLUTION PREVENTION MEASURES SHALL BE INSPECTED AT LEAST ONCE A MONTH OR WITHIN 24–HOURS PRIOR TO ANTICIPATED STORM EVENT AND FOLLOWING A STORM EVENT OF 0.5 INCHES OR MORE. INSPECTION IN FINAL STABILIZED AREAS OR DURING ARID PERIODS WILL BE CONDUCTED MONTHLY, BEST MANAGEMENT PRACTICES AND POLLUTION CONTROL PROCEDURES SHALL BE INSPECTED FOR ADEQUACY.

X. **REMARKS:**

DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, WATERBODY OR STREAMBED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS. ALL WATERWAYS SHALL BE CLEANED AS SOON AS PRACTICABLE OF TEMPORARY EMBANKMENT, TEMPORARY BRIDGES, MATTING, FALSEWORK, PILING DEBRIS OR OTHER OBSTRUCTIONS PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT A PART OF THE FINISHED WORK.

XI. **OFFSITE VEHICLE TRACKING:**

IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCES, THE FOLLOWING MEASURES SHALL BE OBSERVED DURING CONSTRUCTION:

- HAUL ROADS SHALL BE DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPAULIN
- EXCESS DIRT ON ROAD SHALL BE REMOVED IMMEDIATELY
- STABILIZED CONSTRUCTION ENTRANCE
- OTHER: ____

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

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS JORGE L. ACCIARITE 85075 LICENSED PROFESSIONAL ENGINEER

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

DATE: SEPTEMBER 2016
DESIGN BY: R.O.A.M.
DRAWN BY: R.O.A.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
STORM WATER POLLUTION PREVENTION PLAN: GENERAL NOTES

SHEET NO.
C12.1

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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

—X—X— SILT FENCE OR EARTHEN BERM (SILT FENCE ALONG PARK PERIMETER SHALL BE KEPT AND MAINTAINED UNTIL COMPLETION AND ACCEPTANCE OF PARK IMPROVEMENTS)

STABILIZED CONSTRUCTION ENTRANCE

S — STAGING AREA

P — PORTABLE TOILETS

W — WASH OUT

LOCATION OF NOTICE OF INTENT (NOI)

OUTFALL

SITE PLAN

SCALE: 1" = 100"

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SOB#43,3'E, A DISTANCE OF 467.28 FEET FROM THE SOUTHWEST CORNER OF JOE CASTILLO AVENUE. CITY DATUM ELEVATION.....4005.40

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THE CITY OF EL PASO TEXAS Final Approval

SCALE
Horizontal:
Vertical:
Contour Interval: N/A

DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
CHKD. BY: J.L.A.
APP'VD. BY: J.L.A.
JOB No. 2025-004LD

PROJECT TITLE

TRES SUEÑOS UNIT FIFTEEN SUBDIVISION IMPROVEMENTS

SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN: SITE PLAN

SHEET NO.

C12.2

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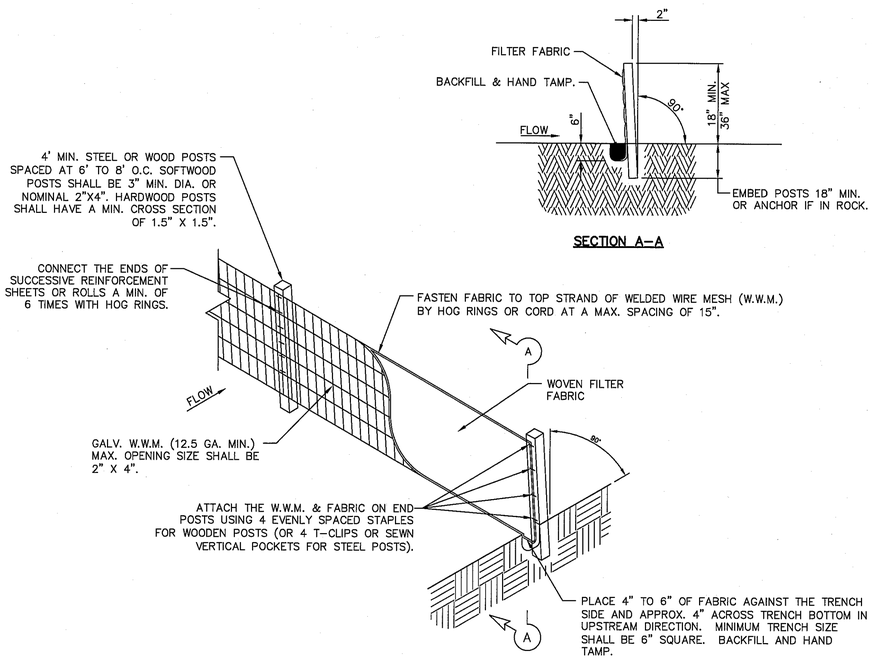
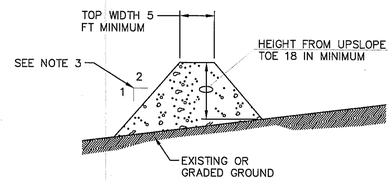


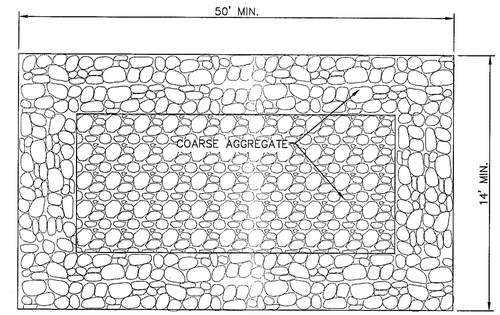
TEMPORARY SEDIMENT CONTROL FENCE



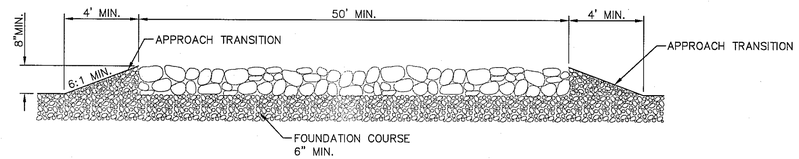
GENERAL NOTES:

1. SOIL USED IN BERM CONSTRUCTION SHALL BE MACHINE COMPACTED.
2. TOP WIDTH AND HEIGHT OF BERM MAY BE MODIFIED WITH PRIOR APPROVAL OF THE ENGINEER.
3. SIDE SLOPES WITHIN THE SAFETY CLEAR ZONE OF A ROADWAY SHALL BE 6:1 OR FLATTER.
4. GRADING SHALL BE SHOWN ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. THE ENGINEER RESERVES THE RIGHT TO MODIFY THE DIMENSIONS SHOWN FOR THE BERM DEPENDENT ON RUNOFF VOLUME CHARACTERISTICS.
6. BERM THAT ARE IN PLACE FOR MORE THAN 14 CALENDAR DAYS SHOULD BE STABILIZED TO PREVENT SEDIMENT RUNOFF.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

TYPICAL BERM CONFIGURATION



PLAN

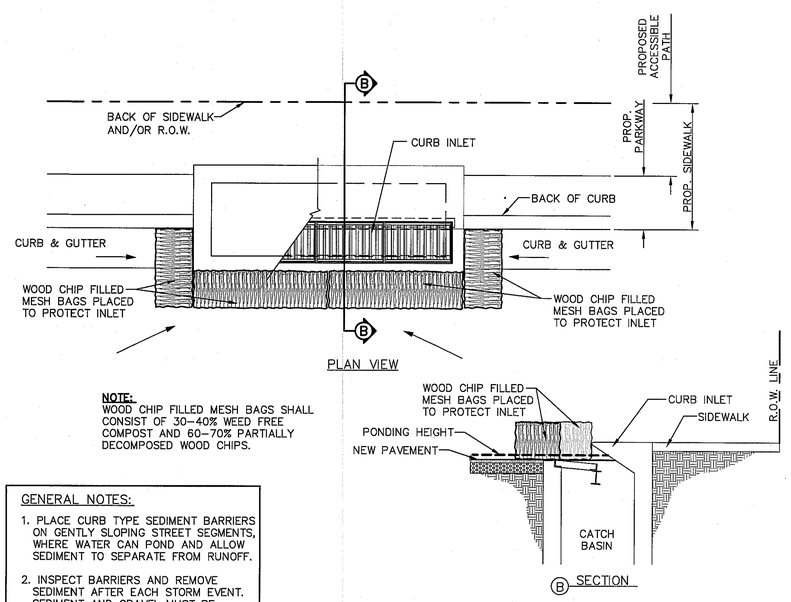


PROFILE

GENERAL NOTES

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.

THE CITY OF EL PASO TEXAS
Final Approval



NOTE:
WOOD CHIP FILLED MESH BAGS SHALL CONSIST OF 30–40% WEED FREE COMPOST AND 60–70% PARTIALLY DECOMPOSED WOOD CHIPS.

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 INLET PROTECTION

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S09°43'31"E A DISTANCE OF 467.58 FEET FROM PK NAIL, SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. CITY DATUM ELEVATION.....1026.40

DATE	REVISIONS	BY

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PROFESSIONAL ENGINEER

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: SEPTEMBER 2016
DESIGN BY: R.O.
DRAWN BY: R.O./G.M.
ChkD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2025–004LD

PROJECT TITLE
TRES SUEÑOS UNIT FIFTEEN
SUBDIVISION IMPROVEMENTS

SHEET TITLE
STORM WATER POLLUTION PREVENTION PLAN: DETAILS

SHEET NO.
C12.3

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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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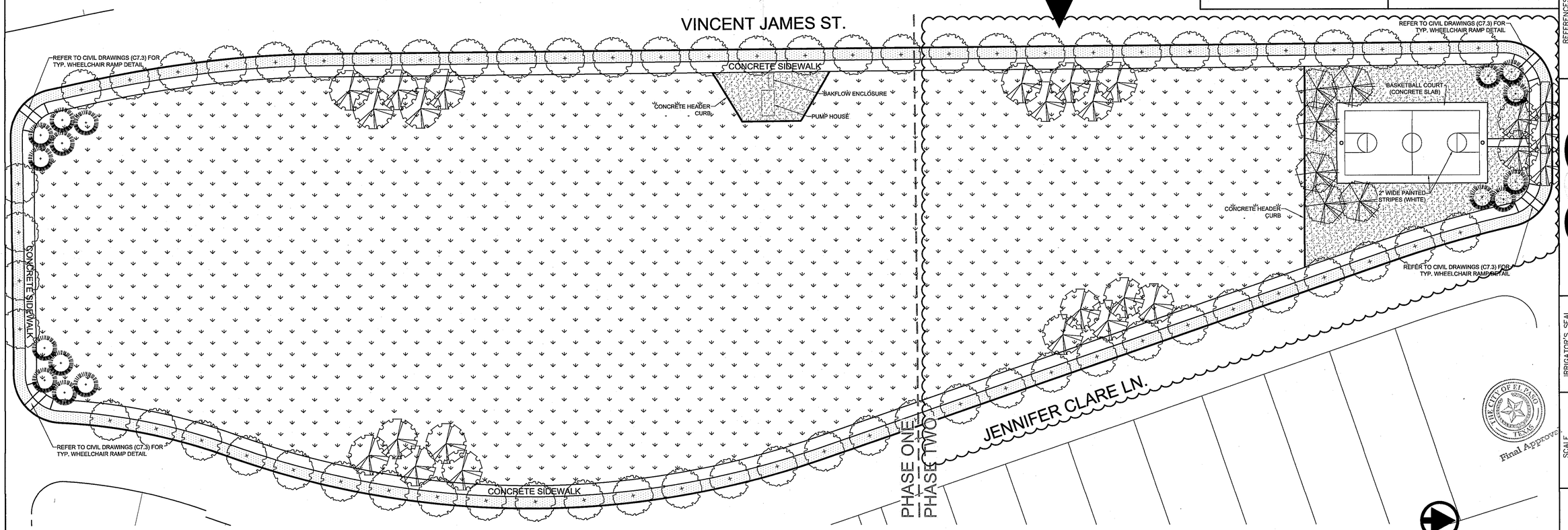


LANDSCAPE PLAN

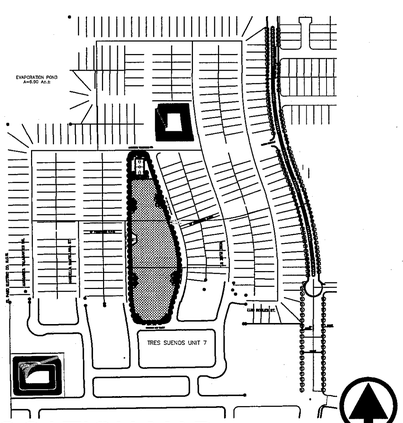
SCALE: 1" = 30'

LANDSCAPE LEGEND

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY
2" CALIPER TREE - 10' HEIGHT MINIMUM			
	LACE BARK ELM	ULMUS PARVIFOLIA	64
	CHINKAPIN OAK	PROSOPIS MUHLENBERGII	25
	CHINESE PISTACHE	PISTACIA CHINENSIS	6
	MONDEL PINE	PINUS ELDARICA	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, COURSE 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 Antonio Delgado 01/10/2017

desert elements
APL DESIGN, LLC
1-3 arboviro drive, sunland park, new mexico 88063
DE-jennifer@elp.rr.com • phone: 575.589.9100

REFERENCES – BENCHMARKS
CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., SUBTA43'31"E A DISTANCE OF 467.98 FEET FROM THE WEST RIGHT OF WAY LINE OF MONTANA AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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IRRIGATOR'S SEAL
STATE OF TEXAS
JAMES BRIAN ALVAREZ
15907
LICENSED IRRIGATOR

THE CITY OF EL PASO TEXAS
Final Approval

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

DATE: 8-10-16
DESIGN BY: JBA & CH
DRAWN BY: CH
CHKD. BY:
APPV'D. BY: JBA
JOB No. 2025-004LD

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

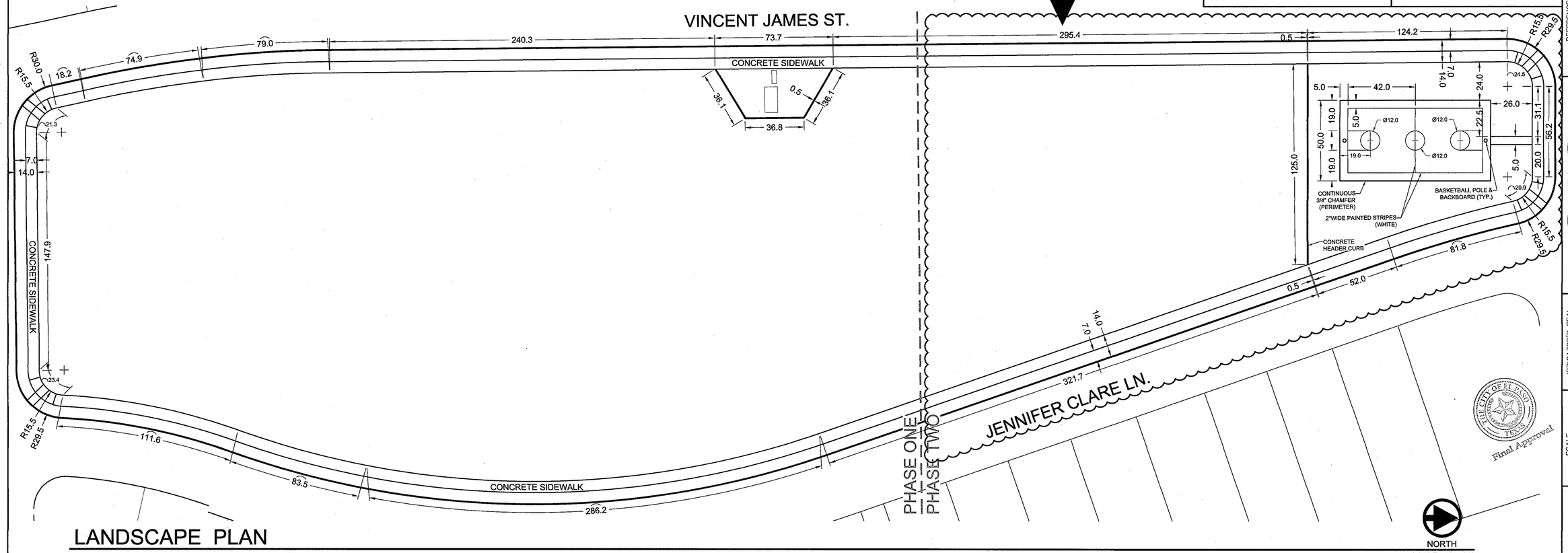
SHEET TITLE
LANDSCAPE PLAN

SHEET NO.
L-1
SHEET 1 OF 8

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 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

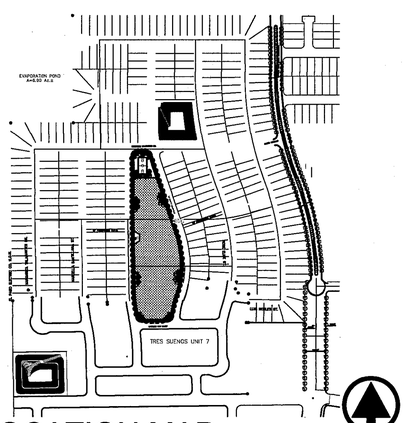
WARNING !
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

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



LANDSCAPE PLAN

SCALE: 1" = 30'



LOCATION MAP

SCALE: 1" = 400'

PARKS DEPARTMENT
REVIEWED BY Antonio Cruz Jr. 01/10/2017

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD. 3984.37 FEET, DISTANCE OF 467.38 FEET FROM THE PC OF THE RICH BEEM BLVD. RIGHT OF WAY OF VINCENT AVENUE CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

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

IRRIGATOR'S SEAL

STATE OF TEXAS
CARLOS HOLGUIN
15907
11/22/16
LICENSED IRRIGATOR

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

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CONTAINING 132,754 S.F. OF 3.047 ACRES

SHEET TITLE

LANDSCAPE PLAN

SHEET NO.

L-2

SHEET 2 OF 8

desert elements
LANDSCAPE DESIGN, LLC
1-3 arrovino drive, sunland park, new mexico 88063
DE-jennifer@elp.rr.com • phone: 575.589.8100

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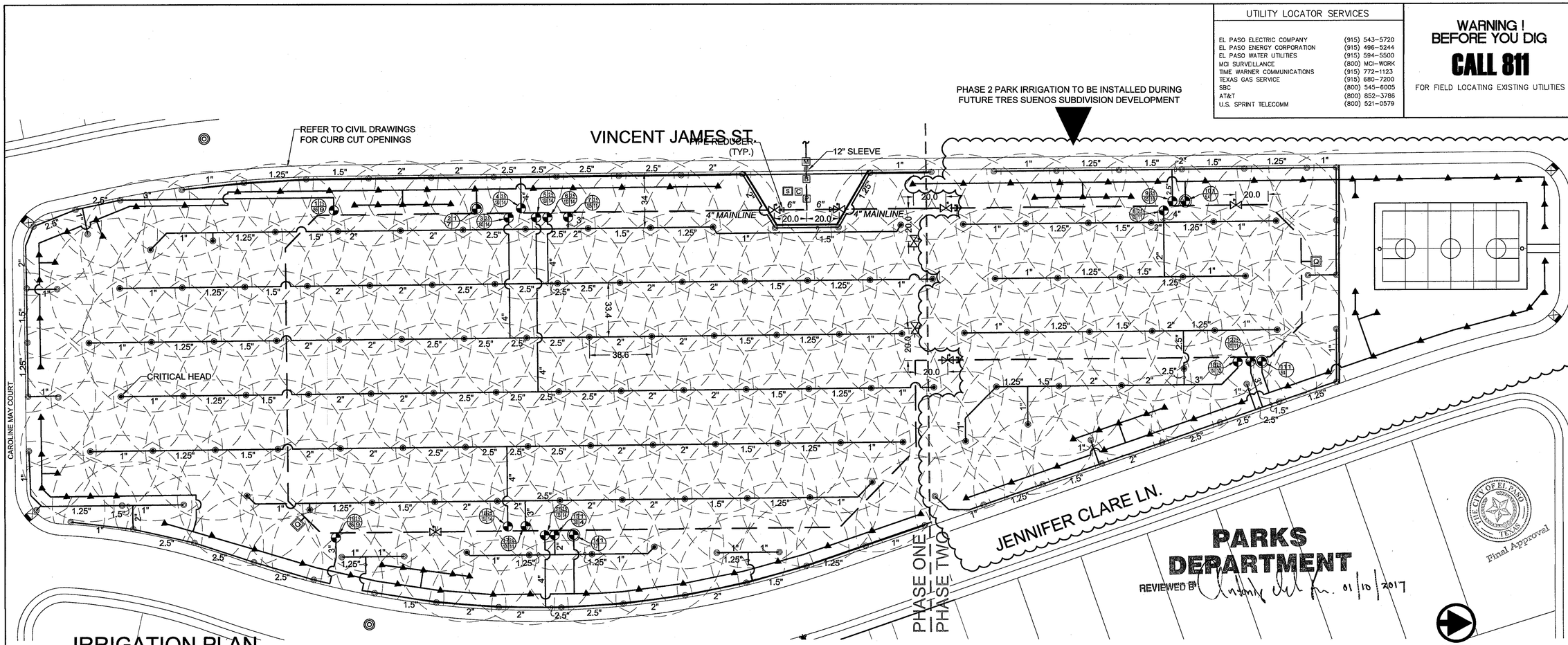
REFERENCES - BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BERM BLVD., SOPA3,3"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE. CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY



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.
	2.5" & 1" WEATHERMATIC BRASS 8200CR-25 & 8200CR-10 REMOTE CONTROL VALVES SIZE ACCORDING TO VALVE SCHEDULE
	1" WEATHERMATIC BRASS 8200CR-10 REMOTE CONTROL VALVE INSTALL AMIAD Y FILTER & PRESSURE REDUCER (30 PSI) AFTER THE VALVE ON DRIP ZONES
	MAINLINE - 6" (CLASS 200 PVC) & 4" (PVC SCH. 40), MANUAL DRAIN AT LOW POINT
	LATERAL LINE - CLASS 200 PVC - 1" UNLESS OTHERWISE INDICATED
	PVC SLEEVE - 2 SIZES LARGER THAN LATERAL OR MAIN
	HUNTER I-20-06-SS- #10 (DK. GREEN) 50 PSI, 43'R, 9.5 GPM
	HUNTER I-20-06-SS- #10 (DK. GREEN) 50 PSI, 43'R, 9.5 GPM
	PEPCO OCTABUBBLER - BLUE 2 GPH, SEE EMITTER OUTLET PLACEMENT DETAIL FOR PLACEMENT OF TUBING
A B C D	A) STATION NUMBER B) SIZE OF VALVE IN INCHES C) TOTAL GPM D) NUMBER OF HEADS
	4" ISOLATION BRASS GATE VALVE,
	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.
Q	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
Total GPM: 351.5 w/ sections 5, 17 &18 running simultaneously.

STATIC PRESSURE 65 PSI 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	0.91	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	96.25	=	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

VALVE#	VALVE SIZE	MODEL	# HEADS	GALLONAGE GPM	GALLONAGE IN./HR.	TIME IN MINS. FOR 1.2" OF H2O, 1X/DAY (THEORETICAL)
1	2.5"	I-20-06-SS-10	9	85.5	1.42	51
2	1"	DRIP		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

VALVE#	GALLONAGE GPM	TIME IN MINS. FOR 1.2" OF WATER 1X PER WEEK
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/WEEK 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.

desert elements
LANDSCAPE DESIGN, LLC
1-3 ardovino drive, sunland park, new mexico 88063
DE-jennifer@elp.rr.com • phone: 575.589.9100

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

IRRIGATOR'S SEAL

STATE OF TEXAS — CARLOS HOLGUIN — 15807 — 12/21/16 — LICENSED IRRIGATOR

SCALE	
Horizontal:	per scale
Vertical:	per scale
Contour Interval:	N/A
DATE:	12-21-16
DESIGN BY:	JBA & CH
DRAWN BY:	CH
CHKD. BY:	
APPVD. BY:	JBA
JOB No.	2025-004LD

PROJECT TITLE

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CONTAINING 132,754 S.F. OF 3.047 ACRES

TDLR# EABPRJB7805808

SHEET TITLE

IRRIGATION PLAN

SHEET NO.

L-3

SHEET 3 OF 8

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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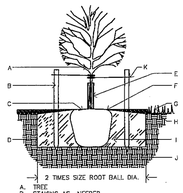
REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S89°43'31"E A DISTANCE OF 467.38 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4005.40

DATE	REVISIONS	BY

CEA GROUP
TEXAS REGISTERED ENGINEERING FIRM F-4594
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

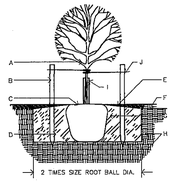


A. TREE
B. STAKING AS NEEDED
C. 4" SPACE BETWEEN MULCH AND TREE
D. SIDES OF PLANTING HOLE
E. TREEGUARD, ARBORGUARD WWW.BENMEADOWS.COM
F. DEPTH OF BARK MULCH–SEE PLAN
G. GRASS
H. FINISH SOIL GRADE
I. BACKFILL WITH EXISTING NATIVE SOIL
J. UNDISTURBED SOIL
K. TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE (1" TO 2" PLAY ON PLAN) TO PROTECT TREE TRUNK FROM DAMAGE. WIRE TIES TO BE SET ON SAME TRUNK OR MAIN TRUNK.

1. KEEP SOIL BELOW ROOT BALL UNDISTURBED TO PREVENT TREE FROM SETTLING.
2. REMOVE ANY EXCESS SOIL FROM TOP OF ROOTBALL TO EXPOSE ROOT FLARE (WHERE TOP MOST ROOT EMERGES FROM THE TRUNK). PLANT WITH ROOT FLARE THAN FINISH GRADE (1"–2" HIGHER.
3. PRIOR TO BACKFILLING, REMOVE BURLAP, ROPE, TWINE, AND WIRE FROM TOP AND SIDES OF ROOTBALL AND FROM PLANTING HOLE, CUT ANY ROOTS THAT ARE CIRCLING THE CONTAINER.
4. TAMP SOIL FIRMLY AROUND BASE OF ROOTBALL WITH FOOT PRESSURE.
5. AT TIME OF PLANTING, ONLY PRUNE CO–DOMINANT LEADERS (DOES NOT APPLY TO MULTI–TRUNK SPECIMENS), CROSSOVER LIMBS, AND DEAD OR BROKEN BRANCHES.
6. DO NOT ALLOW MULCH IN CONTACT WITH TREE TRUNK. KEEP AT LEAST 4" AWAY FROM TRUNK.
7. INSTALL TREE GUARD.
8. WHEN DONE, THOUROUGHLY WATER TO ELIMINATE AIR POCKETS.
9. STAKING IS NOT REQUIRED – STAKE TREES ONLY IF TREE CANNOT STAND ALONE AND WITH APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT STAKE ALL TREES INDISCRIMINANTELY, APPROVAL MUST BE OBTAINED TO STAKE TREES.
10. WITH APPROVAL, PROVIDE MIN. 3 STAKES/ TREE (TYP.) IN A TRIANGULAR PATTERN, STAKED INTO UNDISTURBED SOIL WITH CLARK'S TREE STAKE KIT OR APPROVED EQUAL. REMOVE AFTER ONE GROWING SEASON.
11. TOP OF ROOT BALL SHALL BE LEVEL WITH TOP OF MULCH OR BARK. MULCH SHALL BE FEATHERED TO FULL DEPTH.

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

TREE PLANTING IN TURF DETAIL
NOT TO SCALE



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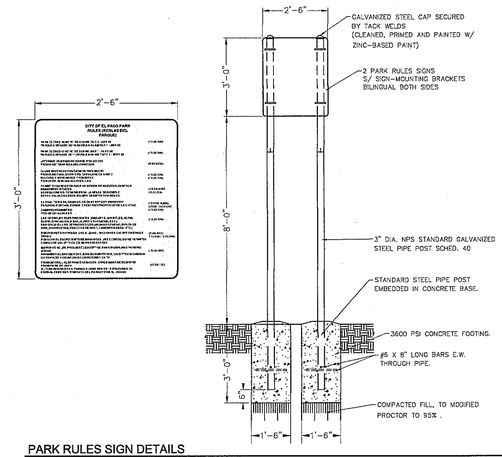
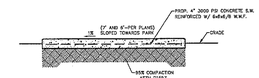
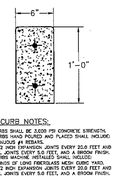


PARK RULES SIGN DETAILS
NOT TO SCALE



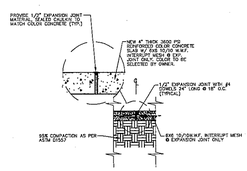
SIDEWALK NOTES:
1. CONCRETE SHALL BE 3000 PSI MINIMUM.
2. CONTROL JOINT REQUIRED AT 5' O.C. FOR SIDEWALKS OR AS SHOWN ON THE PLANS.
3. EXPANSION JOINT TO BE 1/2" THICK AND 1" DEEP.
4. EXPANSION JOINT MATERIAL REQUIRED @ 20' O.C. FOR SIDEWALKS OR AS SHOWN ON PLANS.
5. FILL ALL JOINTS BETWEEN NEW AND EXISTING WITH HEAVY DUTY PLASTIC TAPE.
6. FINISH EXPANSION JOINT MATERIAL WHERE SIDEWALKS MEET EXISTING SIDEWALKS AND CURBS.

SIDEWALK AND CONCRETE PATHS DETAIL
NOT TO SCALE

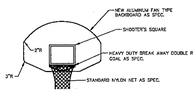


HEADER CURB NOTES:
1. HEADER CURBS SHALL BE 3000 PSI CONCRETE STRENGTH.
2. HEADER CURBS HAVE POURED AND PLACED SHALL INCLUDE:
   (a) 3 CONTINUOUS #4 REBARS.
   (b) WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.
3. HEADER CURBS MACHINE INSTALLED SHALL INCLUDE:
   (a) 3.0 POUNDS OF LONG FIBERGLASS MESH CURBS TAKE.
   (b) WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.

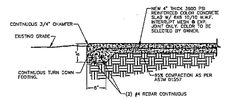
CONCRETE MOWSTRIP/HEADER CURB DETAIL
NOT TO SCALE



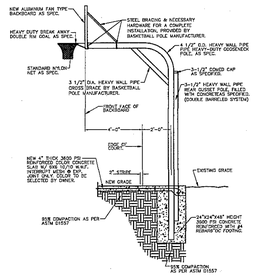
BASKEBALL COURT EXPANSION JOINT DETAIL
NOT TO SCALE



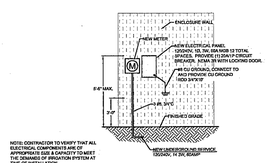
BASKEBALL BACKBOARD DETAIL
NOT TO SCALE



BASKEBALL COURT FOOTING DETAIL
NOT TO SCALE

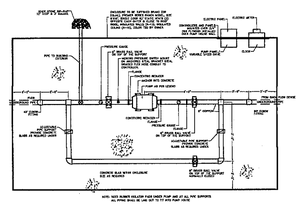


BASKEBALL POLE SECTION/ELEVATION DETAIL
NOT TO SCALE

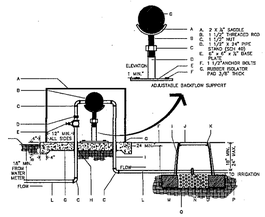


NOTE: CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN HEREON IS APPROPRIATE SIZE & CAPACITY TO MEET THE DEMANDS OF IRRIGATION SYSTEM AT TIME OF INSTALLATION.

ELECTRICAL RISER DIAGRAM - WALL MOUNTED METER
NOT TO SCALE



PUMP DETAIL - PLAN VIEW
NOT TO SCALE

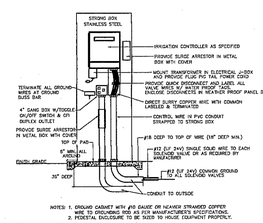


A. STAINLESS STEEL, UNINSULATED/INSULATED SADDLE, SIZE AS SHOWN ON PLAN. R=1.5 (SEE IRRIGATION LEGEND)
B. ASSE 1060–CLASS.
C. ASSE 1060–CLASS 1 ASSEMBLY, BACKFLOW PREVENTER (SEE PARTS LIST).
D. CORPORATION FITTINGS.
E. COPPER UNION, 4" ABOVE GRADE.
F. BRASS BALL VALVE.
G. 1" COPPER.
H. 4000 PSI CONCRETE PAD, 4" DEPTH, SLOPED 1% TO DRAIN.
I. PVC SCHED. 80 ELBOWS, SURROUND CONC. PAD, SHALL BE SCALED, SEALED.
J. PREFORM PVC & MESH CLOTH ALONG SIDES AND BASE OF VALVE BOX.
K. 1" PVC SCHED. 80 NIPPLE, SEALED WITH HEAVY DUTY PLASTIC TAPE, SEALED WITH PVC CEMENT.
J. 1418 BOLT DOWN FLAT LID COVER (MBS).
K. CARSON PRODUCTS INC. 1419–18 BODY (ABS) VALVE BOX COV (PRESSED SQUALL EXTENSION AS NEEDED).
L. TYPE K COPPER SERVICE.
M. 3/4" X 8" X 16" SOLID CMU SOLID BLOCK.
N. 3/4" WASHED PEA GRAVEL, 4" DEPTH.
O. PLASTIC.
P. PVC MAIN LINE.
Q. UNDISTURBED OR COMPACTED SOILS.

INSTALL AN 8" X 8" X 16" SOLID CMU BLOCK AT EACH CORNER OF THE VALVE BOX.
INSULATE (R–25 MIN.) FROM FREEZING MUST COMPLY WITH ASSE 1060–CLASS 1.
PROVIDE 3" CLEARANCE BETWEEN VALVE BOXES AND PVC OR COPPER PIPING.

NOTE: ALL ASSEMBLIES SHOULD BE ACCESSIBLE FOR PERIODIC TESTING AND MAINTENANCE AS ESTABLISHED. ALL PIPING TO BE PLACED ON THE PASSENGER SIDE OF FRONT TO DRIVER SIDE OF ASSEMBLY AND 12" MINIMUM CLEARANCE FROM VALVE BOXT.

RPA FEBCO Mo.860 DETAIL
NOT TO SCALE



NOTES: 1. GROUND CABINET WITH #10 GAUGE OR HEAVIER STRANDED COPPER WIRE TO GROUNDING ROD AS PER MANUFACTURER'S SPECIFICATIONS.
2. PEDESTAL ENCLOSURE TO BE SIZED TO HOUSE EQUIPMENT PROPERLY.

CONTROLLER PEDESTAL ENCLOSURE DETAIL
NOT TO SCALE

PARKS DEPARTMENT
REVIEWED BY Antonio Ortiz Jr. 01/10/2017

THE CITY OF EL PASO TEXAS
Final Approval

IRRIGATOR'S SEAL
STATE OF TEXAS
CARLOS HOLGUIN
15807
LICENSED IRRIGATOR
01/22/16

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

DATE:	11–22–16
DESIGN BY:	JBA & CH
DRAWN BY:	CH
CHKD. BY:	
APPV'D. BY:	JBA
JOB No.	2025–004LD

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

TDLR# EABPRJB7805808

SHEET TITLE
PARKS DETAILS

SHEET NO.
L-4
SHEET 4 OF 8

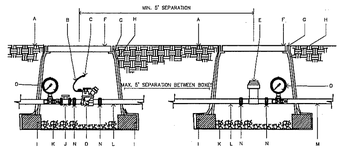
desert elements LANDSCAPE DESIGN, LLC
1-3 andovino drive, sunland park, new mexico 88063
DE-jennifer@elp.rr.com • phone: 575.589.9100

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

REFERENCES - BENCHMARKS
CITY MONUMENT AT POINT OF CURVE (CENTERLINE RICH BEEM BLVD., SIDE"A"3.31'E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4005.40

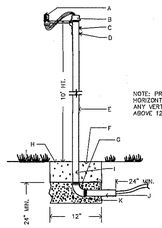
DATE	REVISIONS	BY



A. FINISH GRADE.
B. 24" WIRE LOOP.
C. DRY SPLICE CONNECTOR OR EQUAL.
D. AUTOMATIC VALVE INCLUDED IN CONTROL ZONE KIT. SEE IRRIGATION LEGEND.
E. 18"X24" PRECAST CONCRETE VALVE BOX WITH 24"X24" OPENING INSTALLED TO PROVIDE ACCESSFOR MAINTENANCE AND REPLACEMENT. SEE IRRIGATION LEGEND.
F. LOCKING VALVE BOX COVER FLAT LID WITH BOLTS.
G. CARSON PRODUCTS INC. 1419-18 BODY (ABS) VALVE BOX W/BOLT DOWN COVER COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY.
H. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX AND BLOCKS TAPE TO ALL INLET & OUTLET PIPE WITH 3M HEAVY DUTY PLASTIC TAPE.
I. 6"X6"X16" CMU SOLID CONCRETE BLOCK @ EACH CORNER.
J. 1/2" SCH 40 GALVANIZED PIPE, MIN. 24" DEEP. SEE IRRIGATION LEGEND.
K. 4"LAYER OF 3/8" WASHED PEA GRAVEL.
L. PVC PIPE SLEEV FOR PLAN WITH WELD ON THREADED FITTINGS ON EACH END.
M. FLANGE.
N. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
O. HORIZONTAL HYDENE PRESSURE GAUGE

NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTROM OF BALL VALVE AND ANOTHER ON THE OUTLET SIDE OF THE VALVE. PLACE THE GAUGES 2' SEPARATION BETWEEN BOXES. IF SPACE IS NOT AVAILABLE PROVIDE A MINIMUM OF 1' SEPARATION AT CENTER LINES OF BOXES. SET GAGES HORIZONTAL TO ERE READABLE.

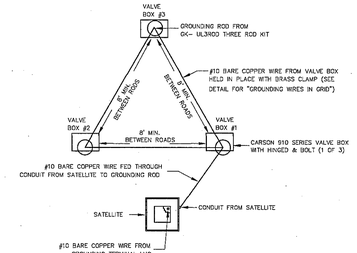
DRIP VALVE / BASKET FILTER KIT DETAIL
NOT TO SCALE



NOTE: PROVDE A 7 FT. HORIZONTAL CLEARANCE FROM ANY VERTICAL STRUCTURES ABOVE 12 INCHES.

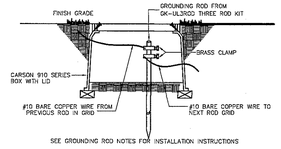
A. RAIN BIRD RSD-BEx RAIN SENSOR, SET TO 1/8"
B. 2" PIPE CAP WITH HOLE FOR WIRES AND SEAL WITH EXTERIOR GRADE SILICONE SEALANT.
C. DRILL TWO 3/16"HOLES IN PIPE FOR SENSOR BRACKET.
D. (2) NO. 6-32 MACHINE SCREWS WITH WASHER, LOCK WASHER AND NUT.
E. 2 1/2" SCH 40 GALVANIZED PIPE-10 FT. HT. A.G.
F. 12"X12" CONCRETE BASE, MIN. 24" DEEP.
G. PIPE ELBOW.
H. FINISH GRADE.
I. PIPE SHE BE SEALED AFTER CABLE IS RUN, USE 4 MIL. PLASTIC AND TAPED NIPPLE AND THE CABLE WITH HIGH GRADE 3M WEATHER PROOF PLASTIC TAPE.
J. NIPPLE GALVANIZED PIPE IN CONCRETE FOOTING TO BE WRAPPED WITH WEATHER PROOF TAPE TO PROTECT FROM CORROSION.
K. 6" THICK, 3/8" DIAMETER WASHED PEA GRAVEL.

RAIN SENSOR DETAIL
NOT TO SCALE



PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

TRIANGULAR GROUNDING PLAN VIEW DETAIL
NOT TO SCALE

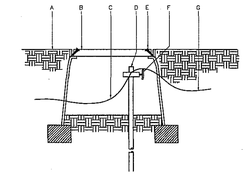


GROUNDING ROD NOTES:

GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:

1. ALWAYS USE A 5/8" X 8' COPPER CLAD ROD.
2. RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
5. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
6. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID # 10 COPPER WIRE.
7. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 10 OHMS.
8. WHENEVER MORE THEN ONE WIRE IS ATTACHED TO A GROUNDING ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE FOR CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
9. GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH REMEMBER THESE TIPS WHEN INSTALLING THEM.

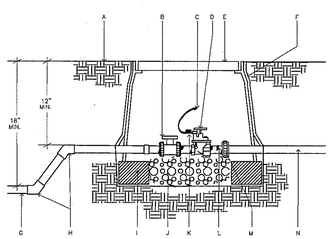
GROUNDING WIRES DETAIL - INITIAL TERMINAL
NOT TO SCALE



A. FINISH GRADE.
B. CARSON 910 SERIES VALVE BOX WITH LID AND SCREWS, COLOR TO MATCH MULCH.
C. No. 10 BARE COPPER WIRE FROM PREVOUS ROD IN GRID.
D. GROUNDING ROD FROM GK-UL3ROD THREE ROD KIT.
E. INSTALL SELF TAPING #8, 2" LONG BRASS SCREWS.
F. BRASS CLAMP.
G. No. 10 BARE COPPER WIRE CONTINUING TO NEXT ROD IN GRID.

NOTE: SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

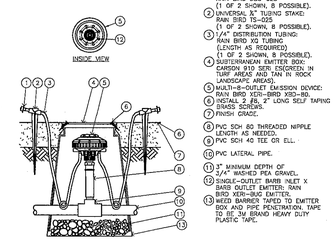
GROUNDING WIRES DETAIL - INTERMEDIATE
NOT TO SCALE



NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

A. FINISH GRADE.
B. BALL VALVE.
C. DRY SPLICE CONNECTOR OR EQUAL.
D. ELECTRIC VALVE -SEE IRRIGATION LEGEND.
E. CARSON PRODUCTS INC. 1419-18(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISHED MATERIAL AND 8" EXTENSIONS AS NECESSARY.
F. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
G. PVC MAINLINE-SEE IRRIGATION LEGEND.
H. SCH 80 - 45 DEGREE FITTING.
I. 8"X8"X16" SOLID CMU BLOCK @ EACH CORNER.
J. 4" DEPTH, 3/8" DIAMETER WASHED PEA GRAVEL.
K. 24" WIRE EXPANSION COIL. EXTEND WIRE 12" ABOVE VALVE BOX FOR SERVICE.
L. SCHEDULE 80 PVC CLOSE NIPPLE.
M. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)
N. LATERAL LINE.

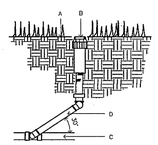
IRRIGATION CONTROL VALVE DETAIL
NOT TO SCALE



1. DIFFUSER BUG CAP: RAIN BIRD DBC-025 (1 OF 2 SHOWN, 8 POSSIBLE).
2. UNIVERSAL 3/4" TUBING STAKE: RAIN BIRD TS-025 (1 OF 2 SHOWN, 8 POSSIBLE).
3. 1/4" DISTRIBUTION TUBING: RAIN BIRD XQ TUBING (LENGTH AS REQUIRED) (1 OF 2 SHOWN, 8 POSSIBLE).
4. SUBTERRANEAN EMITTER BOX: CARSON 910 SER (SEGREEN IN TURF AREAS AND TAN IN ROCK LANDSCAPE AREAS).
5. MULTI-8-OUTLET EMISSION DEVICE: RAIN BIRD XERI-BIRD XRD-80
6. DRIPLINE: 1/4" 2" LONG SELF TAPING BRASS SCREWS.
7. FINISH GRADE.
8. PVC SCH 80 THREADED NIPPLE LENGTH AS NEEDED.
9. PVC SCH 40 TEE OR ELL.
10. PVC LATERAL PIPE.
11. 3" MINIMUM DEPTH OF 3/4" WASHED PEA GRAVEL.
12. SINGLE-OUTLET BARB INLET X BARB OUTLET EMITTER: RAIN BIRD XER-BOC EMITTER.
13. WEED BARRIER TAPED TO EMITTER BOX AND PIPE PENETRATION. TAPE TO BE 3M BRAND HEAVY DUTY PLASTIC TAPE.

NOTES:
1. COIL ADDITIONAL 9" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.
2. RAIN BIRD XER-BUG BARB X BARB EMITTERS ARE AVAILABLE IN THE FOLLOWING MODELS:
XB-05PC 0.5 GPH XB-10PC 1.0 GPH XB-20PC 2.0 GPH

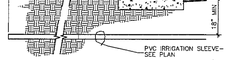
MULTI 8 OUTLET EMITTER DETAIL
NOT TO SCALE



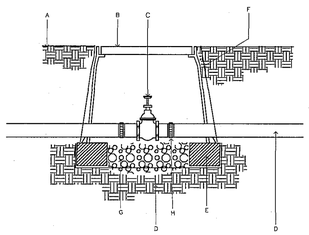
A. FINISH GRADE.
B. SPRINKLER HEAD (SEE PLAN).
C. LATERAL LINE (SEE PLAN).
D. LASCO PRE-ASSEMBLED SWING JOINT.

THIS DETAIL SHALL BE USED FOR POP-UP SHRUB SPRAY, POP-UP LAWN SPRAY, GEAR DRIVEN AND ROTARY SPRINKLER HEADS.
TOP OF SPRINKLER HEAD SHALL BE SET FLUSH WITH FINISH GRADE.
SWING JOINT INSTALLATION TO COMPLY WITH MANUFACTURER'S RECOMMENDATION.

SPRINKLER HEAD DETAIL
NOT TO SCALE



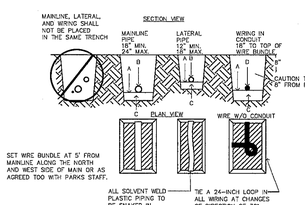
IRRIGATION SLEEVE UNDER PAVING AND SIDEWALKS
NOT TO SCALE



A. FINISH GRADE.
B. CARSON PRODUCTS INC. 1419-18(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISH MATERIAL AND 8" EXTENSIONS AS NECESSARY.
C. BRASS ISOLATION VALVE- SEE IRRIGATION LEGEND.
D. IRRIGATION MAINLINE.
E. 8"X 8"X16" SOLID CMU SOLID BLOCK @ EACH CORNER.
F. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
G. 4" DEPTH, 3/8" WASHED PEA GRAVEL.
H. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)

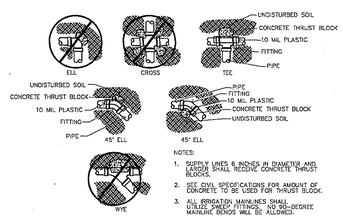
NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

ISOLATION VALVE DETAIL
NOT TO SCALE



NOTES: A. BOTTOM OF EXCAVATED TRENCH WHERE NONE ROCKY SOILS ARE EXPOSED (ENCOUNTERED).
B. IRRIGATION SYSTEM PIPING.
C. MINIMUM 24" DEEP BEFORE SANDY SOILS MATERIAL WHERE ROCKY SOILS ARE EXPOSED.
D. BACKFILL SOIL MATERIAL MAY BE NATIVE SOILS IF IT IS FREE OF CALICHE OR STONES LARGER THANK 1" IN SIZE AND ORGANIC MATTER OR WASTE DEBRIS. SOILS COMPACTION IN TURF AREAS TO BE NOT TO BSS DENSITY BY ASTM D-1557 STANDARD AND 90% DENSITY UNDER PAVED OR HARDSCAPE SURFACES.

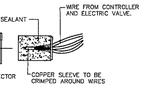
PIPE / WIRE IN TRENCH DETAIL
NOT TO SCALE



NOTES:
1. SUPPLY LINES 6 INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
2. SEE CIVIL SPECIFICATIONS FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK.
3. ALL IRRIGATION MAINLINES SHALL UTILIZE SWEEP FITTINGS. NO 90-DEGREE MAINLINE BENDS WILL BE ALLOWED.
4. ANY CHANGES IN DIRECTION OF MAIN LINE TO BE DONE WITH DIRECTION FITTINGS.
5. THRUST BLOCK MUST BUILT UP TO UNDISTURBED GROUND.

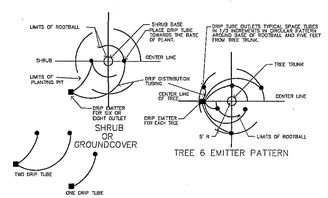
PIPE SIZE	MAIN LINE	
	TEE	45° BEND
4"	4 SQ. FEET	3 SQ. FEET
6"	6 SQ. FEET	3 SQ. FEET

THRUST BLOCK DETAIL
NOT TO SCALE



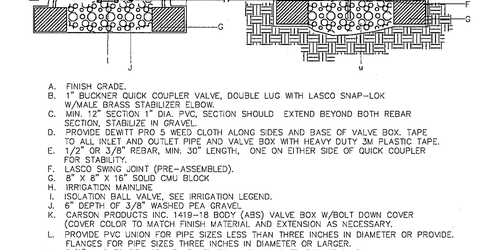
THREE STEP OPERATION DRI-SPLICE CONNECTOR ONLY. FILL WITH SEALANT SUFFICIENT TO SEAP WHEN ASSEMBLED.

WIRE CONNECTOR DETAIL
NOT TO SCALE



NOTE: PLACE PVC BASTIC EMITTER AND BOW ON THE WEST SIDE OF THE TREES OR TRUNK, FIVE FEET FROM THE BASE OF TRUNK.

EMITTER OUTLET PLACEMENT DETAIL
NOT TO SCALE



A. FINISH GRADE.
B. 1" BUCKNER QUICK COUPLER VALVE, DOUBLE LUG WITH LASCO SNAP-LOK W/MALE BRASS STABILIZER ELBOW.
C. MIN. 12" SECTION 1" DIA. PVC, SECTION SHOULD EXTEND BEYOND BOTH REBAR SECTION, STABILIZE IN GRAVEL.
D. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY 3M PLASTIC TAPE.
E. 1/2" OR 3/8" REBAR, MIN. 30" LENGTH, ONE ON EITHER SIDE OF QUICK COUPLER FOR STABILITY.
F. LASCO SWING JOINT (PRE-ASSEMBLED).
G. 8" X 8" X 16" SOLID CMU BLOCK
H. IRRIGATION MAINLINE
I. ISOLATION BALL VALVE, SEE IRRIGATION LEGEND.
J. 6" DEPTH OF 3/8" WASHED PEA GRAVEL.
K. CARSON PRODUCTS INC. 1419-18 BODY (ABS) VALVE BOX W/BOLT DOWN COVER (COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY.
L. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE. FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
M. 3/8" WASHED PEA GRAVEL FILLED TO QUICK COUPLER FOR STABILITY.

NOTE: INSTALL AN 8" X 8" X 16" SOLID CMU BLOCK AT EACH CORNER OF THE VALVE BOX. INSTALL 3/8" PEA GRAVEL BELOW THE 1419-18 VALVE BOX WITH BOLT DOWN COVER. EXTEND PEA GRAVEL UP TO COLLAR OF QUICK COUPLER VALVE. INSTALL A TEE, FLANGE & BALL VALVE OFF OF THE MAIN LINE IMMEDIATELY UPSTREAM OF THE QUICK COUPLER VALVE.

QUICK COUPLER VALVE DETAIL
NOT TO SCALE

PARKS DEPARTMENT
REVIEWED BY Antonio Ortiz Jr. 01/10/2017

THE CITY OF EL PASO TEXAS
Final Approval

IRRIGATOR'S SEAL
STATE OF TEXAS
CARLOS HOLGUIN
15907
01/22/16
LICENSED IRRIGATOR

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

DATE: 8-10-16
DESIGN BY: JBA & CH
DRAWN BY: CH
CHKD. BY:
APPVD. BY: JBA
JOB No. 2025-0041D

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

CSA DESIGN
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F, El Paso, TX 79924
915.544.5232 | www.csagroup.net

SHEET TITLE
PARKS DETAILS

SHEET NO.
L-5
SHEET 5 OF 8

desert elements LANDSCAPE DESIGN, LLC
1-3 ardovino drive, sunland park, new mexico 88063
DE-jennifer@elp.rr.com • phone: 575.589.9100

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
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

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 «5%), CROSS-SECTION «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 EXCAVA TION 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 PILLING 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 LAGER 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.

THE CITY OF EL PASO TEXAS
Final Approval

PARKS DEPARTMENT
REVIEWED BY Antonio [illegible] 01/10/2017

desert elements LANDSCAPE DESIGN, LLC
1-3 ardovino drive, sunland park, new mexico 88063
DE-jeweller@elp.rr.com • phone: 575.589.9100

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

DATE	REVISIONS	BY

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

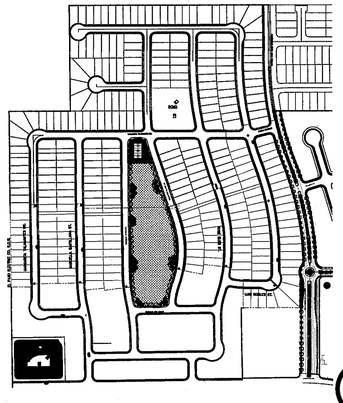
IRRIGATOR'S SEAL
STATE OF TEXAS
CARLOS HOLGUIN
15807
11/22/16
LICENSED IRRIGATOR

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

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 NOTES

SHEET NO.
L-6
SHEET 6 OF 8



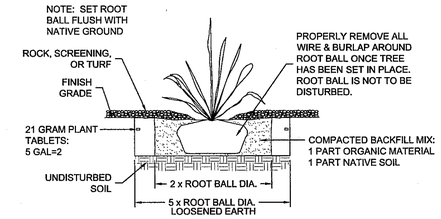
LOCATION MAP

NORTH

SCALE: 1" = 400'

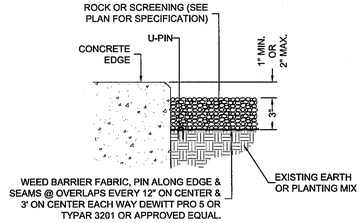
LANDSCAPE LEGEND

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" POCKED RIVER ROCK, 3" DEPTH W/ DEWITT PRO-5 WEED BARRIER		



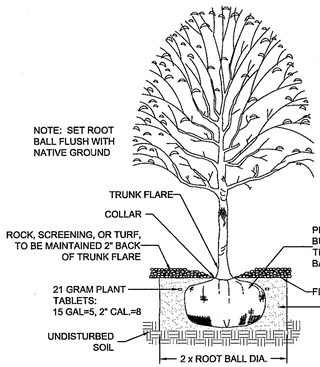
SHRUB PLANTING DETAIL

NOT TO SCALE



ROCK/SCREENING DETAIL

NOT TO SCALE



GENERAL NOTES:

1. DO NOT DISTURB EXISTING SOIL TO BE BELOW ROOT BALL
2. 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
3. PRIOR TO BACKFILLING TREE, ALL WIRE, ROPE AND SYNTHETIC MATERIALS SHALL BE REMOVED FROM THE TREE AND THE PLANTING PIT
4. PRIOR TO BACKFILLING ALL BURLAP SHALL BE CUT AWAY AND REMOVED FROM THE ROOTBALL

TREE PLANTING DETAIL

NOT TO SCALE

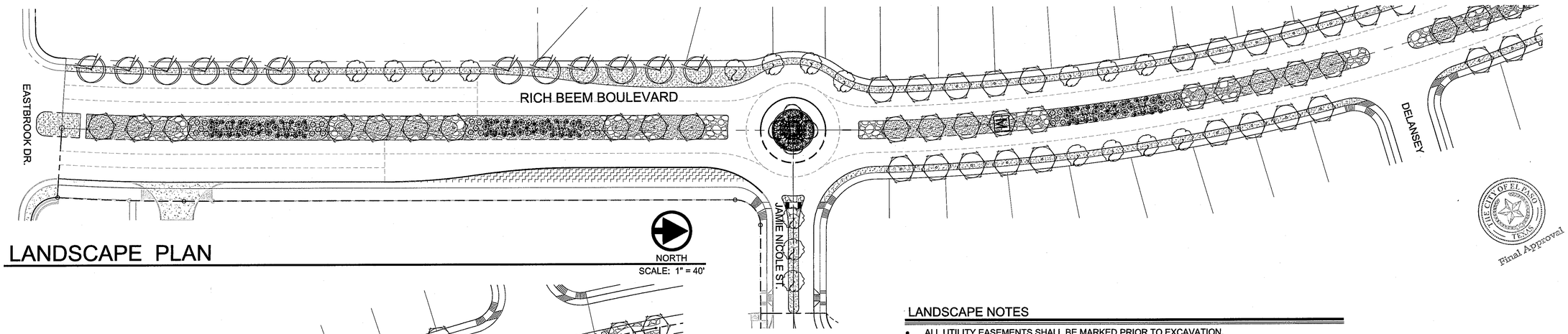
UTILITY LOCATOR SERVICES

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
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

WARNING ! BEFORE YOU DIG

CALL 811

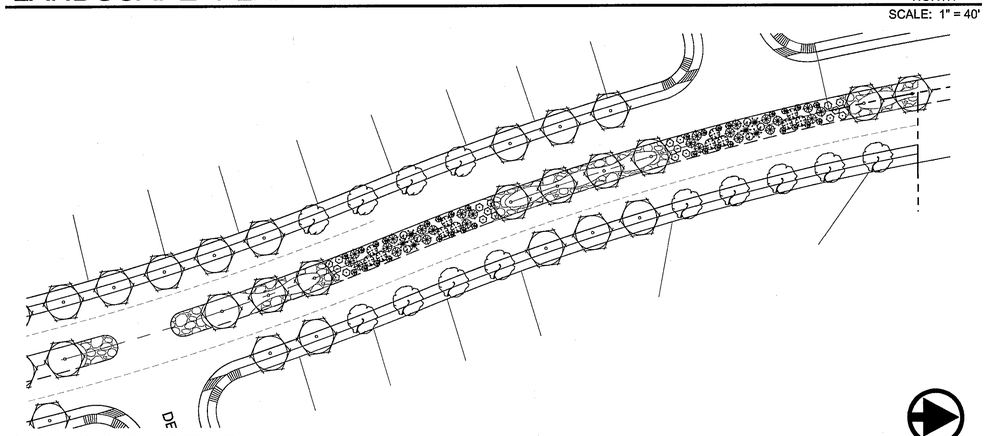
FOR FIELD LOCATING EXISTING UTILITIES



LANDSCAPE PLAN

NORTH

SCALE: 1" = 40'



LANDSCAPE PLAN

NORTH

SCALE: 1" = 40'

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.

THE CITY OF EL PASO TEXAS

Final Approval

desert elements LANDSCAPE DESIGN, LLC

1-3 ardovino drive, sunland park, new mexico 88063

DE-jennifer@ubp.nr.com • phone: 575.589.9100

REFERENCES – BENCHMARKS

CITY MONUMENT AT POINT OF CURVE CENTERLINE RICH BEEM BLVD., S09°43'31"E, A DISTANCE OF 467.58 FEET FROM THE SOUTHERLY RIGHT OF WAY LINE OF MONTANA AVENUE CITY DATUM ELEVATION.....4002.40

DATE	REVISIONS	BY

cea

TEXAS REGISTERED ENGINEERING FIRM F-4594

4712 Woodrow Bean, Ste. F El Paso, TX 79924

915.544.5232 | www.ceagroup.net

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

APPROV. BY:

JOB No. 2025-004LD

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

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
  - a. AS-BUILT DRAWINGS.
  - b. TOBOSFTUS FIELD TRANSMITTER.
  - c. BACK FLOW TEST RESULTS.
  - d. ALL DOCUMENTATION FOR THE TRANSFER OF WATER METER(S).
  - e. CLARIFY THE MAINTENANCE RESPONSIBILITY DURING WARRANTY PERIOD.
  - f. WARRANTY AND MAINTENANCE AGREEMENT.

IRRIGATION LEGEND

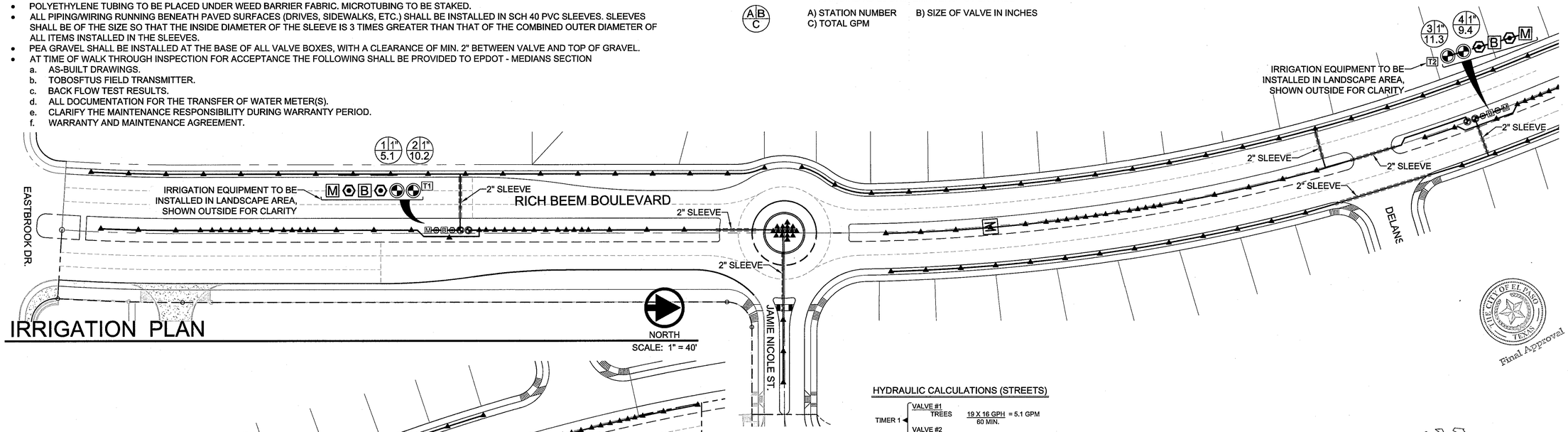
SYMBOL	ITEM
M	3/4" METER - CONTRACTOR TO COORDINATE WITH EPWU
B	3/4" FEBCO 825Y RP BACKFLOW PREVENTER W/ ALUM. HOTBOX ENCLOSURE - MUST NOTE CLASS 2, ASSE #1060 FOR BACKFLOW
	1" BRASS PORT VALVE
T1	1" REMOTE CONTROL VALVE, RAINBIRD 100-PESB W/ AMIAD Y FILTER AFTER THE VALVE & RAIN BIRD TBOS4CMUS CONTROLLER/ 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 B C	A) STATION NUMBER B) SIZE OF VALVE IN INCHES C) TOTAL GPM

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

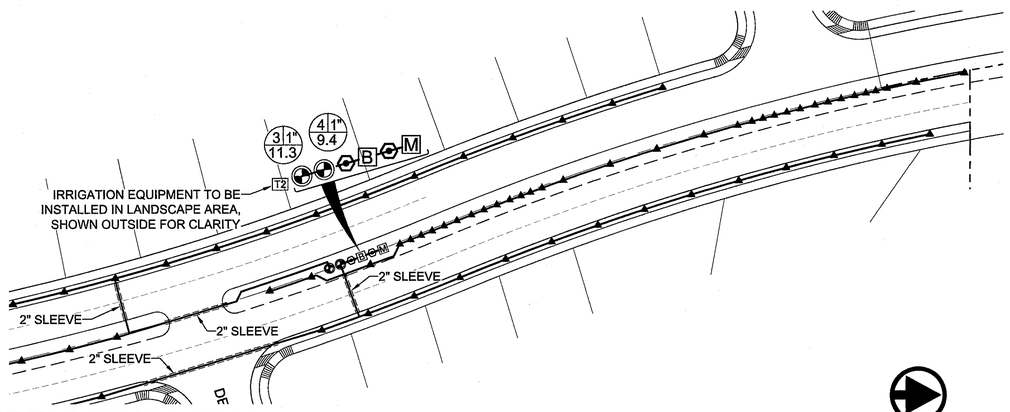
WARNING ! BEFORE YOU DIG

CALL 811

FOR FIELD LOCATING EXISTING UTILITIES



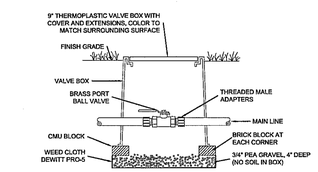
IRRIGATION PLAN



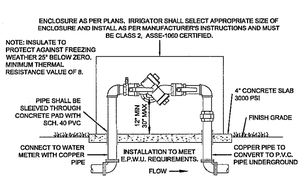
IRRIGATION PLAN

HYDRAULIC CALCULATIONS (STREETS)

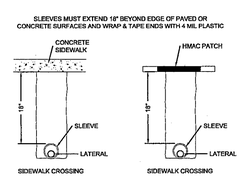
TIMER 1	VALVE #1 TREES	19 X 16 GPH / 60 MIN.	= 5.1 GPM
	VALVE #2 TREES	18 X 16 GPH / 60 MIN.	= 4.8 GPM
	SHRUBS	162 X 2 GPH / 60 MIN.	= 5.4 GPM
TIMER 2	VALVE #3 TREES	36 X 16 GPH / 60 MIN.	= 9.6 GPM
	SHRUBS	50 X 2 GPH / 60 MIN.	= 1.7 GPM
	VALVE #4 TREES	23 X 16 GPH / 60 MIN.	= 6.1 GPM
	SHRUBS	100 X 2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



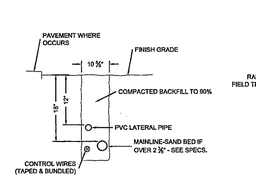
ISOLATION VALVE DETAIL
NOT TO SCALE



RPA FEBCO Mo.825Y DETAIL
NOT TO SCALE



SLEEVING STANDARD DETAIL
NOT TO SCALE



TRENCHING DETAIL
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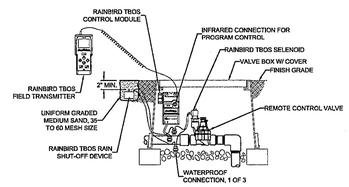
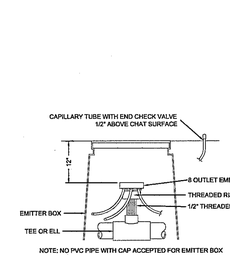


TBOS BATTERY OPERATED CONTROLLER W/ TRANSMITTER
NOT TO SCALE



DRIP EMITTER DETAIL
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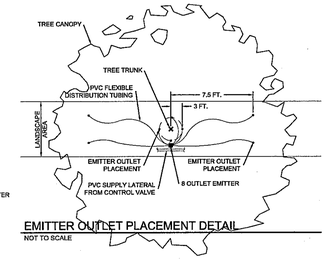
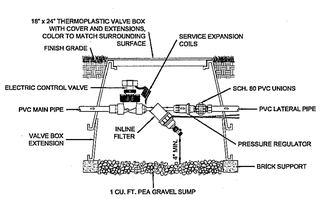
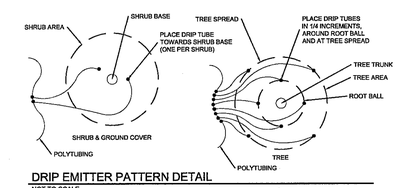


EMITTER OUTLET PLACEMENT DETAIL
NOT TO SCALE



REMOTE CONTROL VALVE, PRESSURE REGULATOR & FILTER
NOT TO SCALE



DRIP EMITTER PATTERN DETAIL
NOT TO SCALE

desert elements LANDSCAPE DESIGN, LLC
1-3 antolvino drive, sunland park, new mexico 88063
DE-jennifer@elp.rr.com • phone: 575.589.9100

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DATE	REVISIONS	BY

CEA
TEXAS REGISTERED ENGINEERING FIRM F-4964
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.ceagroup.net

IRRIGATOR'S SEAL

STATE OF TEXAS — CARLOS HOLGUIN — 15907 — 12/21/16 — LICENSED IRRIGATOR

THE CITY OF EL PASO TEXAS — Final Approval

SCALE
Horizont'l: 1" = 40' per scale
Vertical: per scale
Contour Interval: N/A

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

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