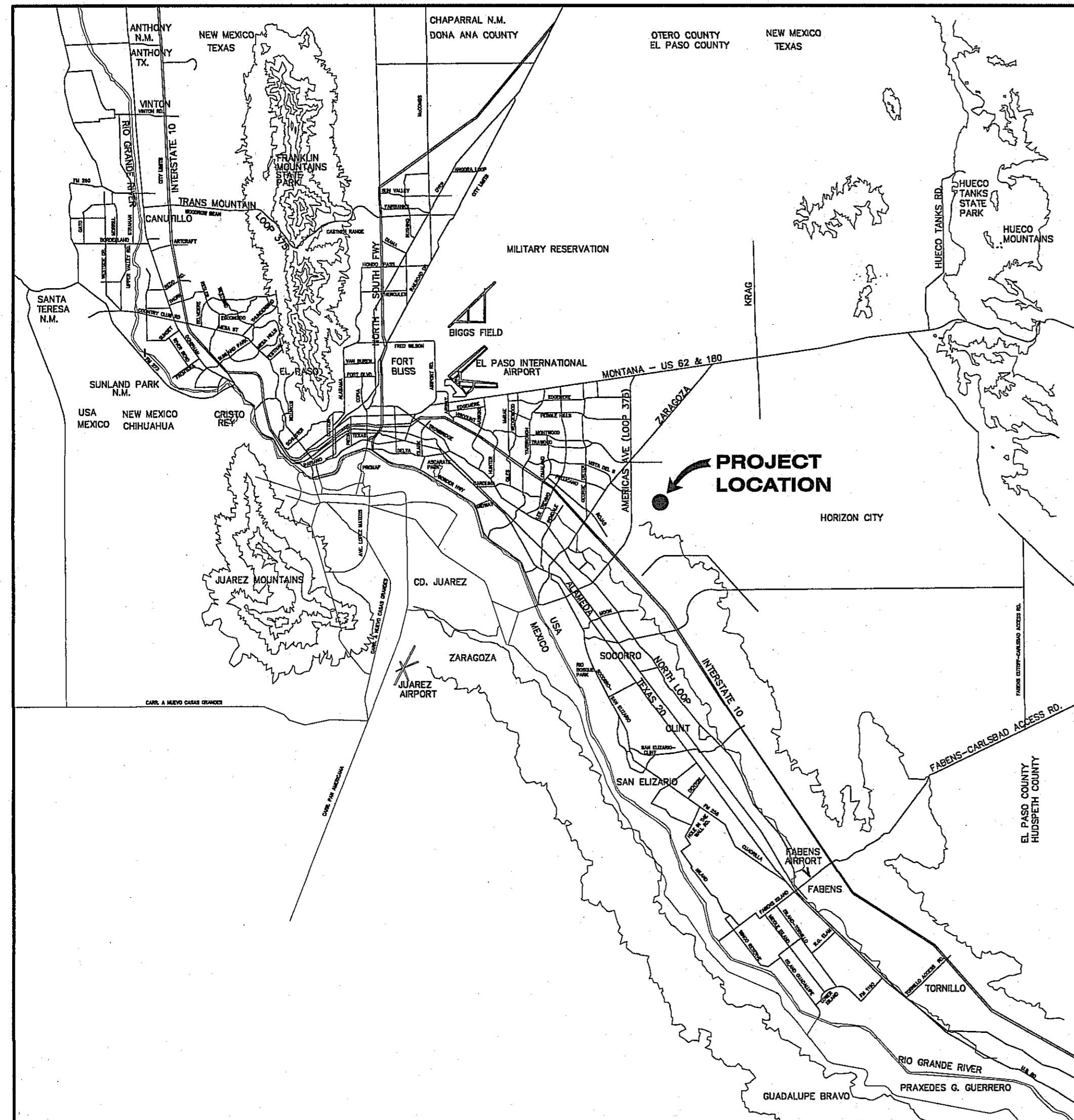


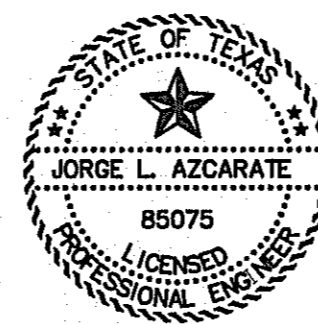
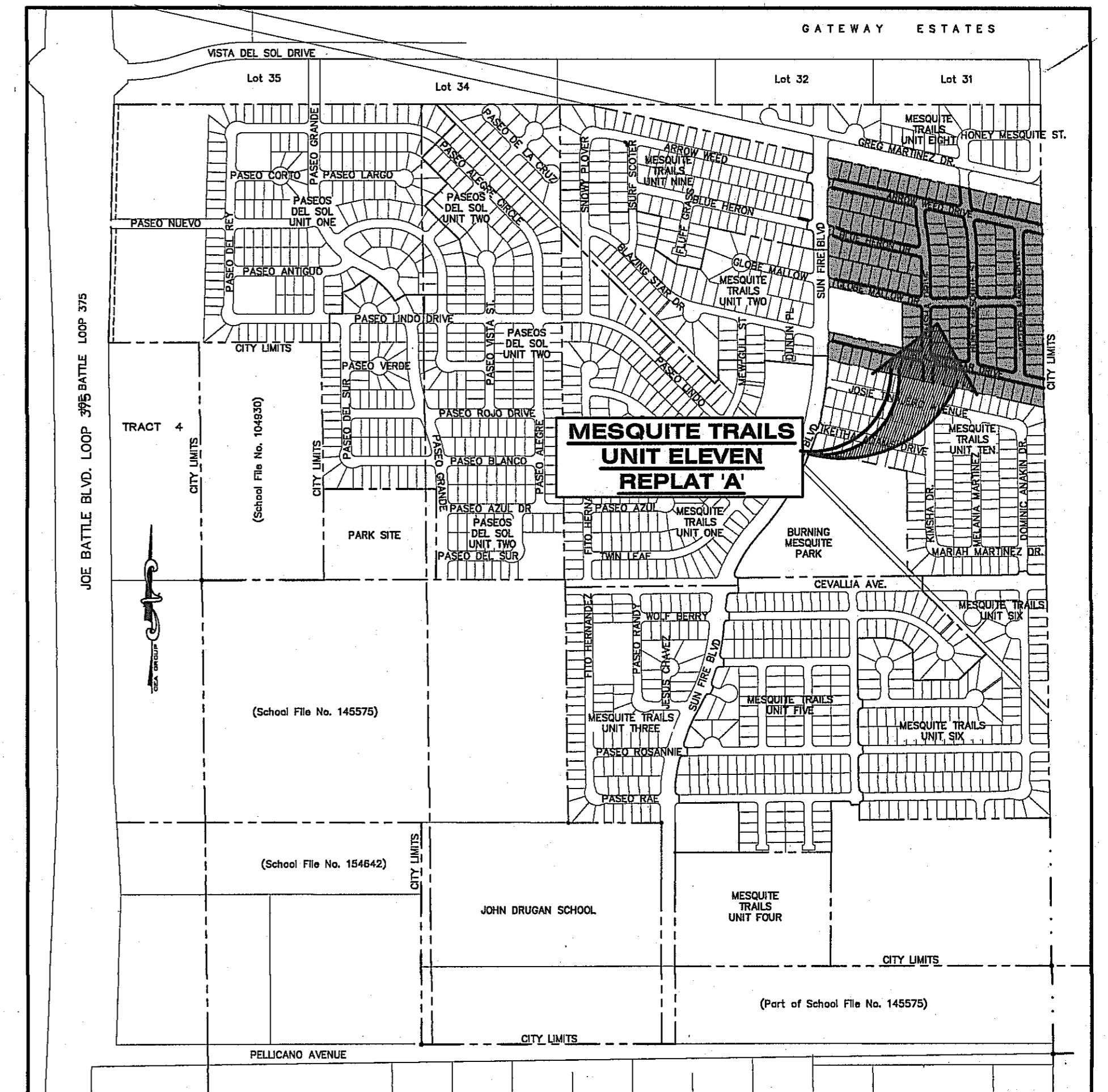
MESQUITE TRAILS UNIT ELEVEN REPLAT 'A'

BEING A REPLAT OF ALL MESQUITE TRAILS UNIT ELEVEN, AND A PORTION OF
SUN FIRE BOULEVARD, WITHIN MESQUITE TRAILS UNIT TWO AND EIGHT
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 28.00± ACRES



VICINITY MAP
APPROXIMATE SCALE:
1" = 2 MILES

SHEET NUMBER	SHEET TITLE
CVR	COVER SHEET
C1.1	GENERAL INFORMATION
C2.1	FINAL PLAT
C3.1	GRADING PLAN
C4.1	DRAINAGE PLAN
C5.1	GRADING SECTIONS
C6.1-C6.12	STREET PLAN & PROFILES
C7.1-C7.2	STORM SEWER PLAN & PROFILES
C8.1-C8.3	STANDARD DETAILS
C9.1-C9.3	DRAINAGE DETAILS
C10.1-C10.2	ILLUMINATION PLAN
C11.1	WATER INDEX / GENERAL INFORMATION
C12.1-C12.4	WATER DETAILS
C13.1	SANITARY SEWER INDEX / GENERAL INFORMATION
C14.1-C14.4	SANITARY SEWER PLAN & PROFILES
C15.1-C15.3	SANITARY SEWER DETAILS
C16.1-C16.3	STORM WATER POLLUTION PREVENTION PLAN



JORGE L. AZCARATE, P.E. PROJECT MANAGER

cea
group
engineers • architects • planners
TEXAS REGISTERED ENGINEERING FIRM F-4564
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.ceagroup.net



Reviewed For Conformance For Condition Related To:

- Sidewalks
- Grading & Drainage
- Wheelchair Ramps
- On Site Parking Layout
- Detonations
- Retaining Bank Walls
- On Site Parking of Storm Water

Contractor Must Call 24 Hours Prior To Construction for Inspections
[Signature] 8/2/2016

LOCATION MAP
APPROXIMATE SCALE: 1" = 600'

PRINCIPAL CONTACTS:

	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	AMERICAS LOOP 375 JOINT VENTURE	4655 COHEN AVENUE	EL PASO, TX 79924	(915) 821-3550	(915) 821-3556
ENGINEER:	CEA GROUP	4712 WOODROW BEAN DR. STE. F	EL PASO, TX 79924	(915) 544-5232	(915) 544-5233
SURVEYOR:	BARRAGAN & ASSOCIATES	10950 PELLICANO DR. BUILDING F	EL PASO, TX 79936	(915) 591-5709	(915) 591-5706

GENERAL NOTES

- THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS.
- 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.
- 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.
- 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.
- THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE USER, ALL UTILITIES, AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT.
- 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.
- 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.
- SEE REFERENCED BENCHMARK ON TITLE BLOCK FOR DATUM ELEVATIONS.
- VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE CITY ENGINEER.
- ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.
- THE LOCATION OF THE INLETS SHALL BE AT THE FIELD LOW POINT AND APPROVED BY THE ENGINEER.

GRADING SPECIFICATIONS

- CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE; FILL DEPRESSIONS 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 NECESSARY TO FACILITATE NEW CONSTRUCTION. BURNING IS NOT PERMITTED ON OWNER'S PROPERTY. REMOVE WASTE MATERIALS FROM OWNER'S PROPERTY.
- 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.
- 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.
- EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED.
- 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.
- 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.
- 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.
- 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
∇	TANGENT
Δ	DELTA ANGLE
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HWE	HIGH WATER ELEVATION

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
	FINISHED GROUND CONTOUR ELEVATION (INDEX)
	FINISHED GROUND CONTOUR ELEVATION (INTERMEDIATE)
	EXISTING GROUND CONTOUR ELEVATION (INDEX)
	EXISTING GROUND CONTOUR ELEVATION (INTERMEDIATE)
	NEW RETAINING ROCKWALL (2'-3" IN HEIGHT)
	NEW RETAINING ROCKWALL (3'-9" IN HEIGHT)
	STANDARD DETAIL/SECTION NUMBER
	SHEET NUMBER WHERE STANDARD/SECTION DETAIL IS LOCATED
	FINISHED SPOT ELEVATION
	LOT FINISHED GROUND ELEVATION
	TOP OF CURB ELEVATION
	TOP OF PAVEMENT ELEVATION
	SUBDIVISION LOT AND BLOCK NUMBER
	DRAINAGE FLOW
	HIGH POINT
	LOW POINT
	EXISTING HIGH POINT
	EXISTING LOW POINT
	HEADWALL WITH WINGWALLS
	DRAINAGE AREA
	3:1 SLOPE
	WHEELCHAIR RAMP

INDEX OF DRAWINGS

DRAWING NAME	SHEET NO.
COVER	CVR
GENERAL INFORMATION	C1.1
PLAT	C2.1
GRADING PLAN	C3.1
DRAINAGE PLAN	C4.1
GRADING SECTIONS	C5.1
ARROW WEED DRIVE PLAN & PROFILE FROM STA. 0+37.88 TO STA. 7+00.00	C6.1
ARROW WEED DRIVE PLAN & PROFILE FROM STA. 7+00.00 TO STA. 12+45.03	C6.2
VICTORIA MARIE DRIVE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 8+52.10	C6.3
BLUE HERON DRIVE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 5+88.81	C6.4
GLOBE MALLOW DRIVE PLAN & PROFILE FROM STA. 0+37.88 TO STA. 7+00.00	C6.5
GLOBE MALLOW DRIVE PLAN & PROFILE FROM STA. 7+00.00 TO STA. 11+04.57	C6.6
BLAZING STAR DRIVE PLAN & PROFILE FROM STA. 0+37.88 TO STA. 7+00.00	C6.7
BLAZING STAR DRIVE PLAN & PROFILE FROM STA. 7+00.00 TO STA. 12+55.69	C6.8
KIMSHA DRIVE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 6+50.00	C6.9
KIMSHA DRIVE PLAN & PROFILE FROM STA. 6+50.00 TO STA. 9+92.31	C6.10
HONEY MESQUITE STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 5+50.00	C6.11
HONEY MESQUITE STREET PLAN & PROFILE FROM STA. 5+50.00 TO STA. 9+98.61	C6.12
LINE A PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+65.90	C7.1
LINE B PLAN & PROFILE FROM STA. 0+00.00 TO STA. 1+50.75	C7.2
STANDARD DETAILS (SHEET 1 OF 3)	C8.1
STANDARD DETAILS (SHEET 2 OF 3)	C8.2
STANDARD DETAILS (SHEET 3 OF 3)	C8.3
DRAINAGE DETAILS (SHEET 1 OF 3)	C9.1
DRAINAGE DETAILS (SHEET 2 OF 3)	C9.2
DRAINAGE DETAILS (SHEET 3 OF 3)	C9.3
ILLUMINATION AND SIGNAGE PLAN	C10.1
ILLUMINATION AND SIGNAGE DETAILS	C10.2
WATER LINE INDEX	C11.1
WATER DETAILS (SHEET 1 OF 4)	C12.1
WATER DETAILS (SHEET 2 OF 4)	C12.2
WATER DETAILS (SHEET 3 OF 4)	C12.3
WATER DETAILS (SHEET 4 OF 4)	C12.4
SANITARY SEWER INDEX	C13.1
SANITARY SEWER PLAN & PROFILE: LINE A & B	C14.1
SANITARY SEWER PLAN & PROFILE: LINE B & C	C14.2
SANITARY SEWER PLAN & PROFILE: LINE C & D	C14.3
SANITARY SEWER PLAN & PROFILE: LINE E & F	C14.4
SANITARY SEWER DETAILS (SHEET 1 OF 3)	C15.1
SANITARY SEWER DETAILS (SHEET 2 OF 3)	C15.2
SANITARY SEWER DETAILS (SHEET 3 OF 3)	C15.3
STORM WATER POLLUTION PREVENTION PLAN: GENERAL NOTES	C16.1
STORM WATER POLLUTION PREVENTION PLAN: SITE PLAN	C16.2
STORM WATER POLLUTION PREVENTION PLAN: DETAILS	C16.3

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 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

EXISTING CITY MONUMENT	ELEVATION=60310 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASADO ALLEGRE CIRCLE AND PASADO LINDO DRIVE.	
DATE	REVISIONS
BY	

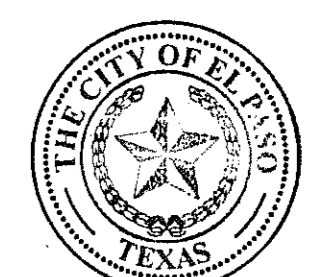
SCALE

Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APPD. BY:	J.L.A.
JOB No.:	2000-1196

PROJECT TITLE
MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE
GENERAL INFORMATION

SHEET NO.
C1.1



S:\2000\2000-1196-Subdivision\11-Redesign\010525\Construction\Drawings\Improvement_Plan\2000-1196-Sub-01-1-Subdivision.dwg, General Notes, 7/17/2016 8:12:28 AM



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 13.08.070 (EXCAVATION AND CUT LOCATION LIMITATIONS) OF THE EL PASO MUNICIPAL CODE.
6. IMPROVEMENTS SHALL NOT BE PLACED ON SIDEWALK (NDBCU'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.

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

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

BENCHMARK

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASO ALEGRE CIRCLE AND PASO LINDO DRIVE.

FLOOD ZONE:

THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0250B, 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.

LEGEND:

- NEW RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
- NEW RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
- EXISTING RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
- EXISTING RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- TC 4075.00 TOP OF CURB ELEVATION
- FG 4075.00 FINISH GROUND ELEVATION
- FF 4075.00 FINISH FLOOR ELEVATION
- FG 4075.00 EXISTING FINISH GROUND ELEVATION
- FF 4075.00 EXISTING FINISH FLOOR ELEVATION
- DRAINAGE FLOW
- HIGH POINT
- LOW POINT
- CITY MONUMENT
- PROPOSED TEMPORARY DESILTING BASIN

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT	ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASO ALLEGRE CIRCLE AND PASO LINDO DRIVE.	

ENGINEER'S SEAL

 C. J. ADAMS
 TEXAS REGISTERED ENGINEERING FIRM #4584
 4712 Woodrow Branch, Ste. F, El Paso, TX 79924
 915.544.5232 | www.ceagroup.net

SCALE: 1" = 100'

Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APP'D. BY:	J.L.A.
JOB No.	2000-196

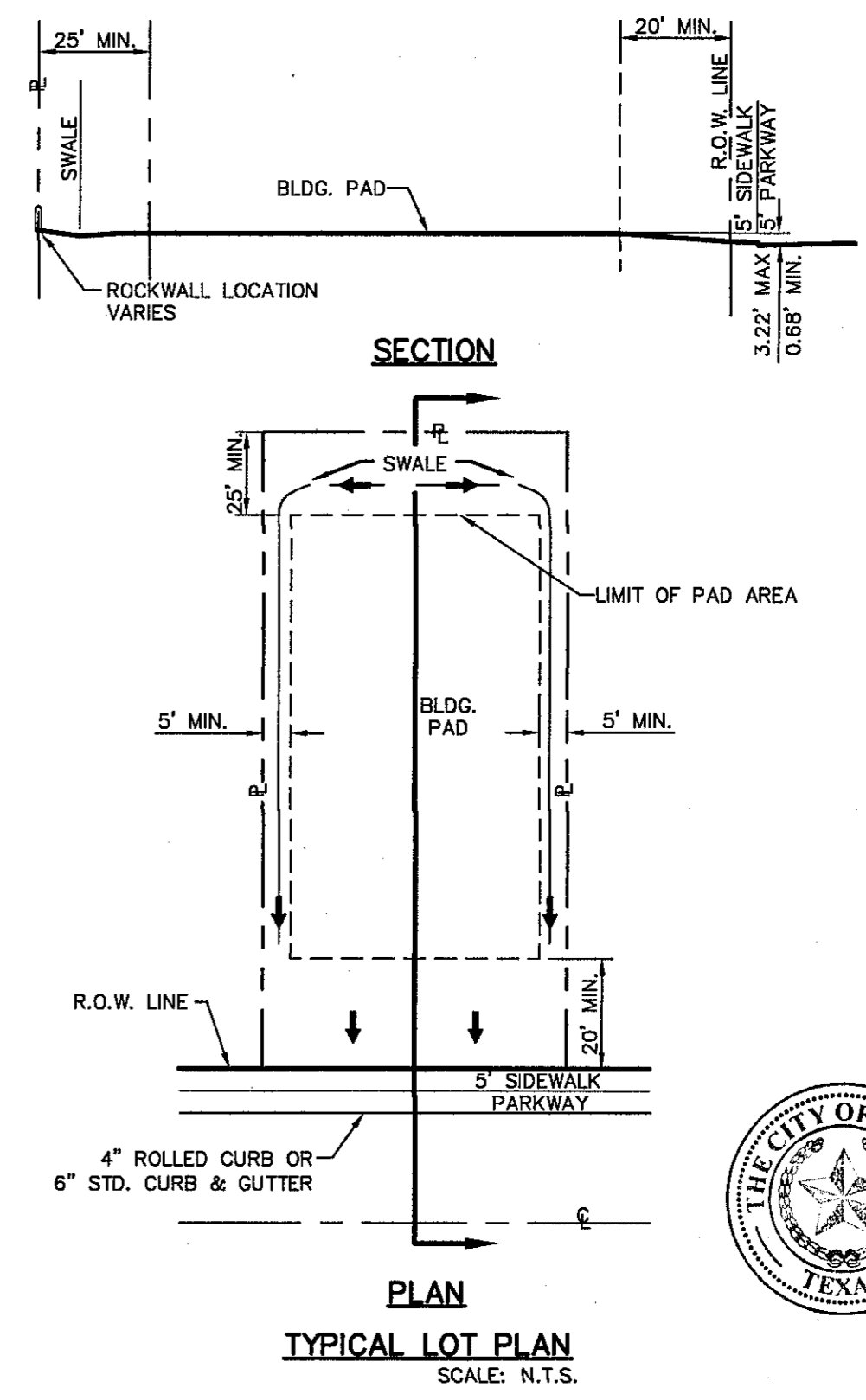
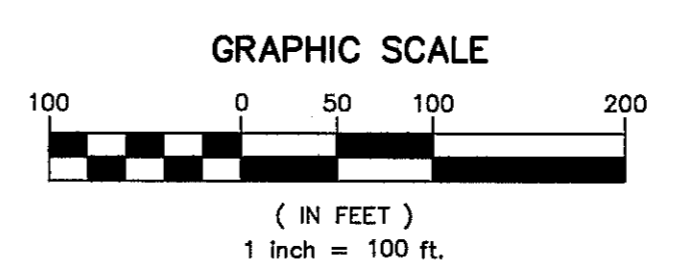
PROJECT TITLE
MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE
GRADING PLAN

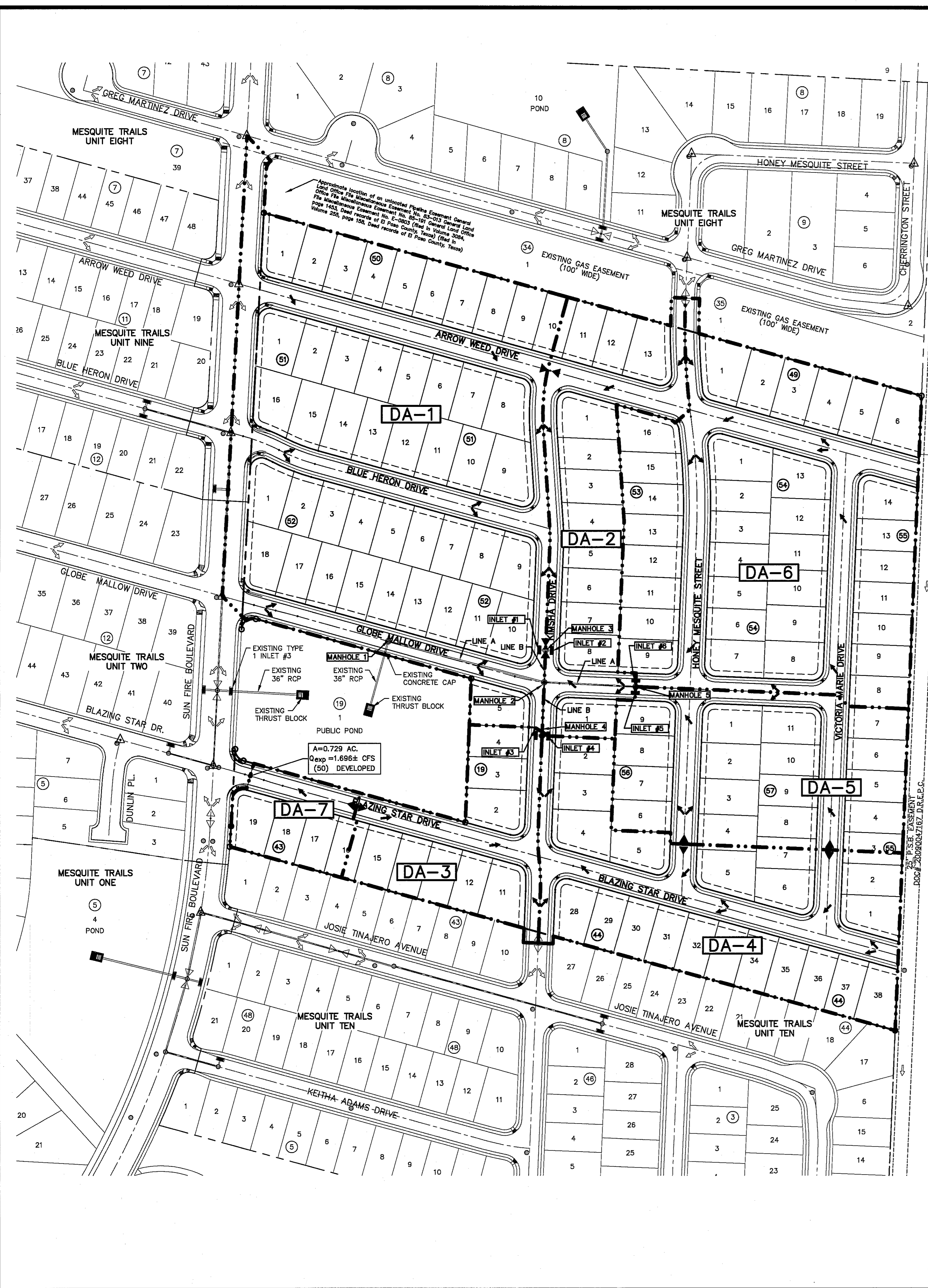
SHEET NO.
C3.1



GRADING PLAN
SCALE: 1" = 100'



S:\2005\2005-108-Mesquite Trails Unit 11 Replat\0505\Construction\Drawings\Improvements\Drawings\Drainage\Drainage PLAN 7/26/2016 2:02:55 PM



A PORTION OF SECTION 15, BLOCK 79, PACIFIC RAILWAY 3, TOWNSHIP 3, TEXAS AND PACIFIC RAILWAY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, VOLUME 1033, PAGE 744 D.R.E.P.C.

A PORTION OF SECTION 15, BLOCK 79, PACIFIC RAILWAY 3, TOWNSHIP 3, TEXAS AND PACIFIC RAILWAY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, VOLUME 1033, PAGE 744 D.R.E.P.C.

A PORTION OF SECTION 15, BLOCK 79, PACIFIC RAILWAY 3, TOWNSHIP 3, TEXAS AND PACIFIC RAILWAY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, VOLUME 1033, PAGE 744 D.R.E.P.C.

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) 772-1233
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

BENCHMARK:
EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASEO ALLEGRO CIRCLE AND PASEO LINDO DRIVE.

FLOOD ZONE:
THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0250B, 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.

EXISTING POND #1 CALCULATIONS	
QT = (ARC)/12	SILT VOLUME = 0.995
QT = 15.007	0.012 AC-FT/AC
A = 82.913	18.759 + 0.995 = 19.754 AC-FT
R = 4"	
C = 0.543	TOTAL_{req} = 19.754 AC-FT
QT X 25% = 3.752	
15.007 + 3.752 = 18.759	

EXISTING POND CALCULATIONS								
BASIN NO.	REQUIRED CAPACITY (AC-FT)	AVAILABLE CAPACITY (AC-FT)	PEAK INFLOW (CFS)	OUTLET TOWER FLOW (CFS)	HIGH WATER SURFACE ELEV. (FT.)	BOTTOM ELEVATION (FT.)	FREE BOARD (FT.)	TOP ELEVATION
1	17.429	21.696	145.085	0	3970.30	3948	2.70	3973

NOTE:
THE HGL REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO. THE HGL DOES NOT INCLUDE 25% FREEBOARD. HOWEVER, THE TOTAL POND CAPACITY SHALL HOLD TOTAL REQUIRED STORM WATER RUNOFF.

HGL = QT
HGL = 3967.92 AC-FT
CONTOUR 3967, ACCUMULATED VOLUME=12.935 AC-FT
CW = 0.800
QT X 25% = 3.326
13.305 + 3.326 = 16.631

HWSE = QT+SILT VOLUME+25% EMERGENCY
HWSE = 13.305+0.798+3.326=17.429 AC-FT
CONTOUR 3970, ACCUMULATED VOLUME=16.980 AC-FT
CONTOUR 3971, ACCUMULATED VOLUME=18.475 AC-FT
HYDRAULIC GRADE LINE ELEVATION=3967.92
HIGH WATER SURFACE ELEVATION=3970.30

EXISTING POND CALCULATIONS	
QT = (ARC)/12	SILT VOLUME = 0.798
QT = 13.305 AC-FT	0.012 AC-FT/AC
A = 66.525	16.631 + 0.798 = 17.429 AC-FT
R = 4"	
Cw = 0.800	TOTAL_{req} = 17.429 AC-FT
QT X 25% = 3.326	
13.305 + 3.326 = 16.631	

EXISTING POND AREAS	
CONTOUR	ACCUMULATED VOLUME (AC-FT)
3948	0.000
3949	0.239
3950	0.517
3951	0.837
3952	1.199
3953	1.607
3954	2.061
3955	2.563
3956	3.115
3957	3.718
3958	4.374
3959	5.084
3960	5.851
3961	6.676
3962	7.561
3963	8.506
3964	9.515
3965	10.588
3966	11.728
3967	12.935
3968	14.212
3969	15.559
3970	16.980
3971	18.475
3972	20.047
3973	21.696

MOMENTUM COMPUTATION			
LOCATION @ INLET	DEPTH (2)	VELOCITY (3)	PRODUCT NUMBER (4)
1	0.392	2.948	1.156
2	0.392	2.948	1.156
3	0.283	2.806	0.794
4	0.283	2.806	0.794
5	0.335	2.926	0.980
6	0.335	2.926	0.980

- (1) LOCATION
- (2) DEPTH, FT
- (3) VELOCITY, FPS
- (4) PRODUCT NUMBER = DEPTH X VELOCITY

50 YEAR STORM CALCULATIONS FOR WATERSHED AREAS					
DRAINAGE AREA NO. (1)	DRAINAGE AREA (AC) (2)	DESIGN STORM INTENSITY (ISO) (3)	TIME OF CONCENTRATION (4)	RUNOFF COEFF. (C) (5)	Q50 (CFS) (6)
DA-1	9.537	3.800	21.63	0.600	21.744
DA-2	2.761	3.465	25.30	0.600	5.740
DA-3	1.732	3.613	23.60	0.600	3.755
DA-4	4.106	3.997	19.82	0.600	9.847
DA-5	3.110	3.613	23.60	0.600	6.742
DA-6	6.765	3.233	28.27	0.600	13.123
DA-7	0.729	3.879	20.90	0.600	1.696

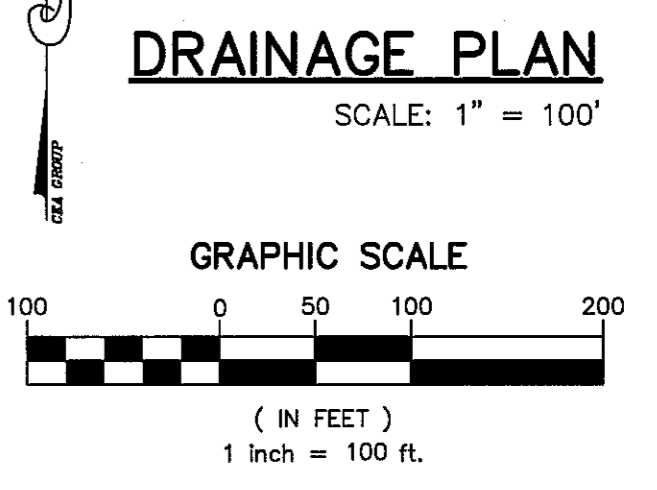
- REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS (3-11-97)
- (1) WATERSHED AREA IDENTIFICATION
 - (2) AREA FROM DRAINAGE PLAN
 - (3) RAINFALL INTENSITY, 50 YEAR STORM => PLATE NO. 2-14
 - (4) TIME OF CONCENTRATION: TC= T (OVERLAND) + T (GUTTER)
 - (5) RUNOFF COEFFICIENT => PLATE NO. 2-10 TABLE A
RESIDENTIAL AREA = 0.60
PAVEMENT AREA = 0.90
 - (6) Q₅₀ = C X A X I^{0.50}

DROP INLETS									
NO.	REQ. FLOW Q REQ. (CFS)	ADDITIONAL FLOW Q (CFS) FROM INLET	Q(CFS) OVERTOP AT CROWN	Q EXP. (CFS)	AVAIL. FLOW CAPACITY Q AVAIL. (CFS)	Q(CFS) BYPASS TO INLET	# OF GRATES	TYPE OF INLET	INLET LOCATION
1	21.744	0	8.002	13.742	29.141	0	3	I	SUMP
2	5.740	8.002 FROM INLET #1	0	13.742	24.588	0	3	II	SUMP
3	3.755	3.046 FROM INLET #4	0	6.801	8.900	0	3	I	ON-GRADE
4	9.847	0	3.046	6.801	8.900	0	3	I	ON-GRADE
5	6.742	3.191 FROM INLET #6	0	9.933	10.819	0	3	I	ON-GRADE
6	13.123	0	3.191	9.933	10.819	0	3	I	ON-GRADE
#3	7.205	1.696 DISCHARGE FROM U11	0	8.901	19.630	0	2	I	SUMP

THESE CAPACITIES CORRESPOND TO A CLOGGIN FACTOR OF 0.5 AVAILABLE FLOW CAPACITIES SHOWN AT ON-GRADE INLETS REFLECTS CAPACITIES WITH INLET GRATE EFFICIENCIES.

* EXISTING INLET (REFERENCE MESQUITE TRAILS UNIT TWO FOR DRAINAGE CALCULATIONS)

- LEGEND:**
- DRAINAGE AREA BOUNDARY
 - EXISTING DRAINAGE AREA BOUNDARY
 - DRAINAGE FLOW
 - EXISTING FLOW
 - ▲ HIGH POINT
 - ▼ LOW POINT
 - DROP INLET
 - STORM DRAIN MANHOLE
 - RCP
 - DA-1 PROPOSED WATERSHED
 - WS-1 EXISTING WATERSHED AREA
 - ▨ PROPOSED TEMPORARY DESILTIN BASIN



REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASEO ALLEGRO CIRCLE AND PASEO LINDO DRIVE.

DATE _____ REVISIONS _____ BY _____

ENGINEER'S SEAL

SCALE: 1" = 100'
Horizontal: N/A
Vertical: Interval: N/A

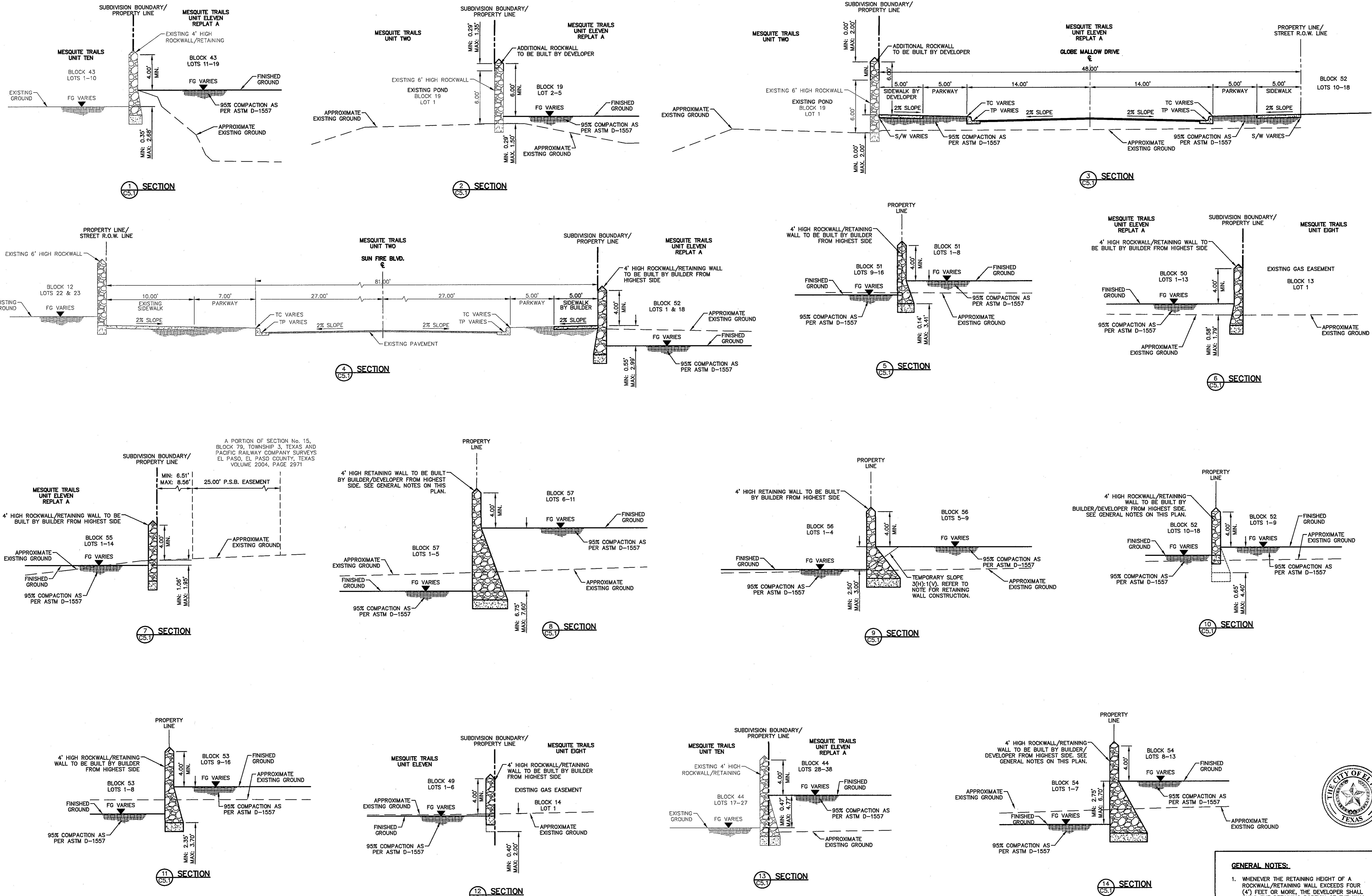
DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB NO.: 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
DRAINAGE PLAN

SHEET NO.
C4.1

THE CITY OF EL PASO, TEXAS



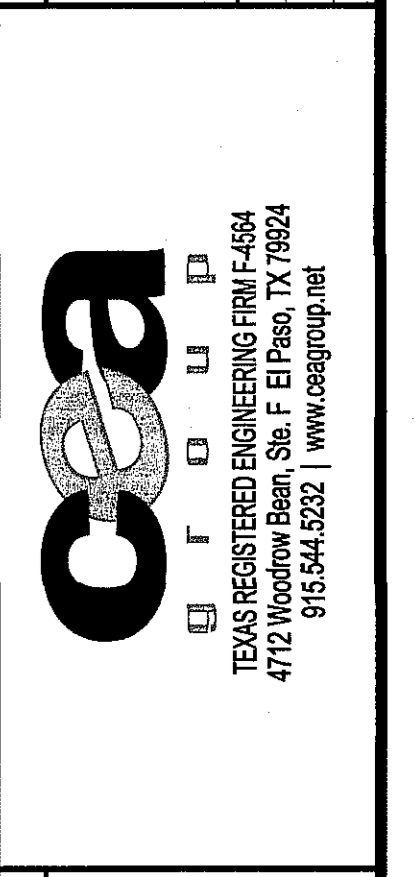
GENERAL NOTES:

- 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 MUST BUILD A TEMPORARY SLOPE AT 3(H):1(V).

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT ELEVATION 4033.10 FEET (CITY DATUM)
 LOCATED AT THE CENTERLINE INTERSECTION OF PASADO ALGEE CIRCLE AND PASADO LINDO DRIVE.

DATE	REVISIONS	BY



SCALE: 1" = 5'

Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APPD. BY:	J.L.A.
JOB No.	2000-196

PROJECT TITLE

MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

GRADING SECTIONS

SHEET NO.

C5.1

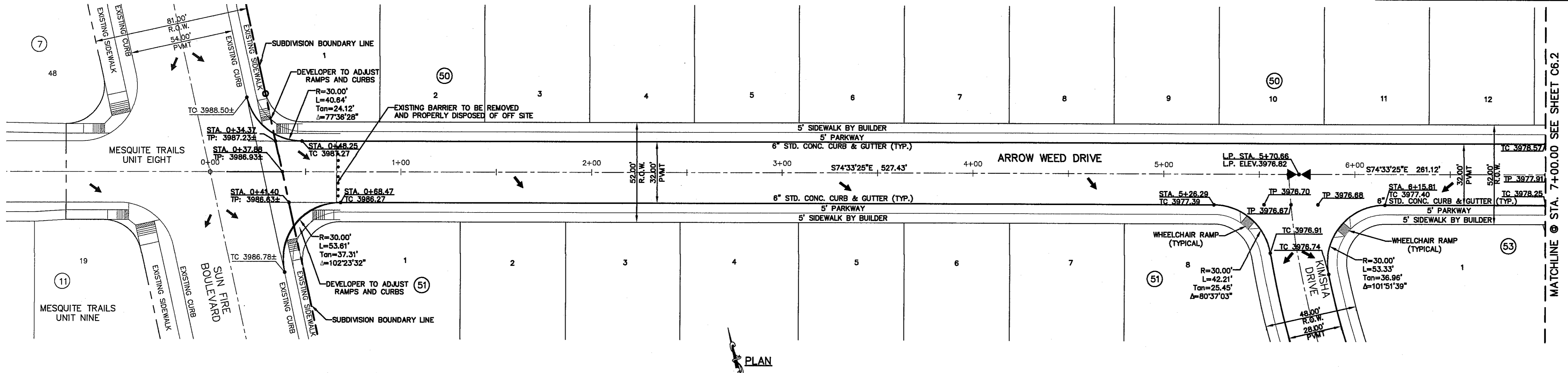
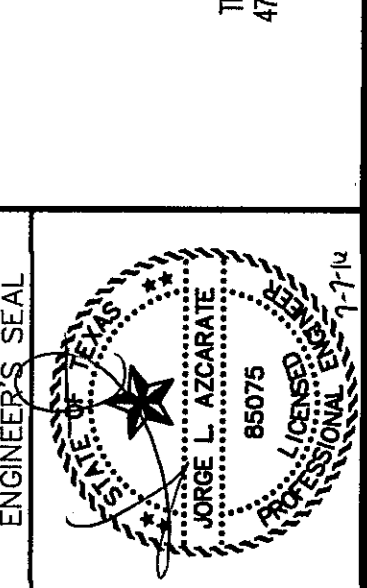
S:\2015\2000-196-Mesquite Trails Unit 11 Replat\Units\Construction Drawings\Improvement Plans\2000-196-UD-C5.1-Grading Sections.dwg, Created: 7/7/2016 4:32:25 PM

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) 543-6005	
AT&T	(800) 852-3786	
U.S. SPRINT TELECOMM	(800) 521-0579	

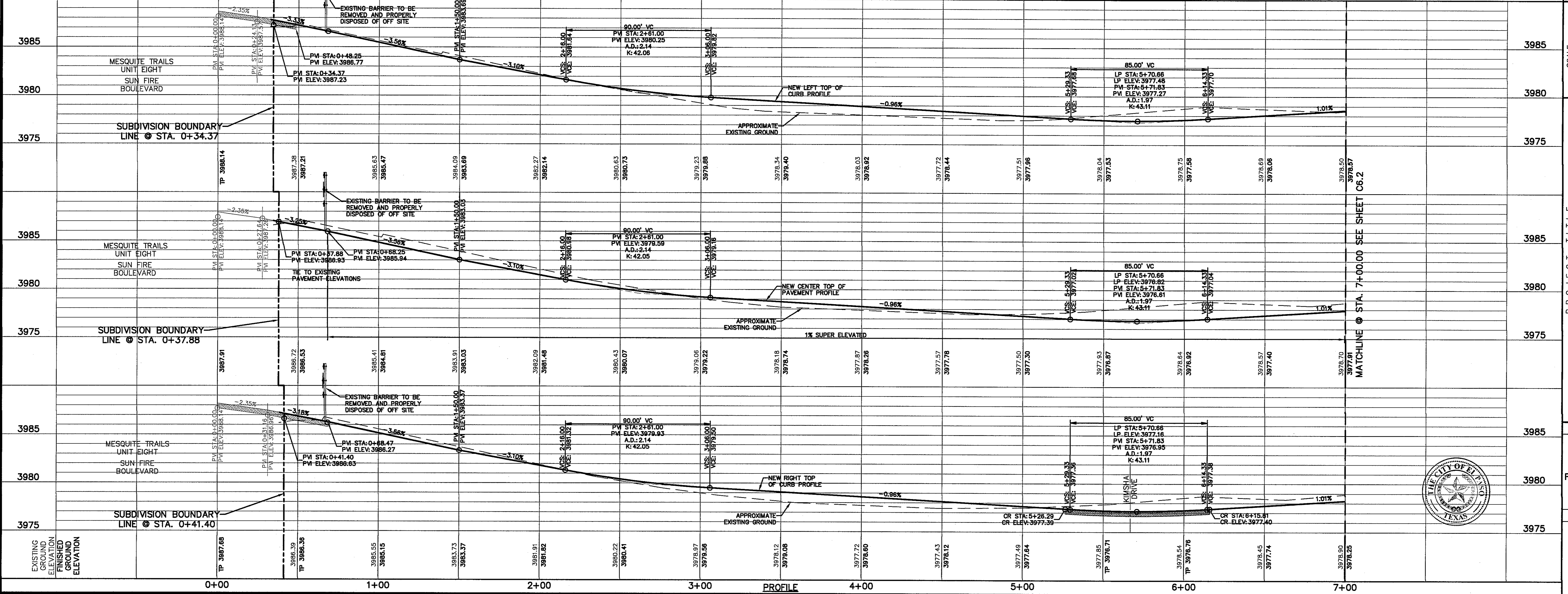
WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS	
EXISTING CITY MONUMENT	ELEVATION=400.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASO ALEGRE CIRCLE AND PASO LINDO DRIVE.	
DATE	REVISIONS
BY	

ce
TEXAS REGISTERED ENGINEERING FIRM #4684
4712 Woodrow Bean, Ste F, El Paso, TX 79904
915.544.5232 | www.cegroup.net



LEGEND
 WHEELCHAIR RAMP BY DEVELOPER (TYP.)
 PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.



SCALE: 1"=30'
 Horizontal: 1"=50'
 Vertical: 1"=5'
 Contour Interval: N/A
 DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHKD. BY: J.L.A.
 APP'D. BY: J.L.A.
 JOB No. 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
 REPLAT 'A'
 SUBDIVISION IMPROVEMENTS**

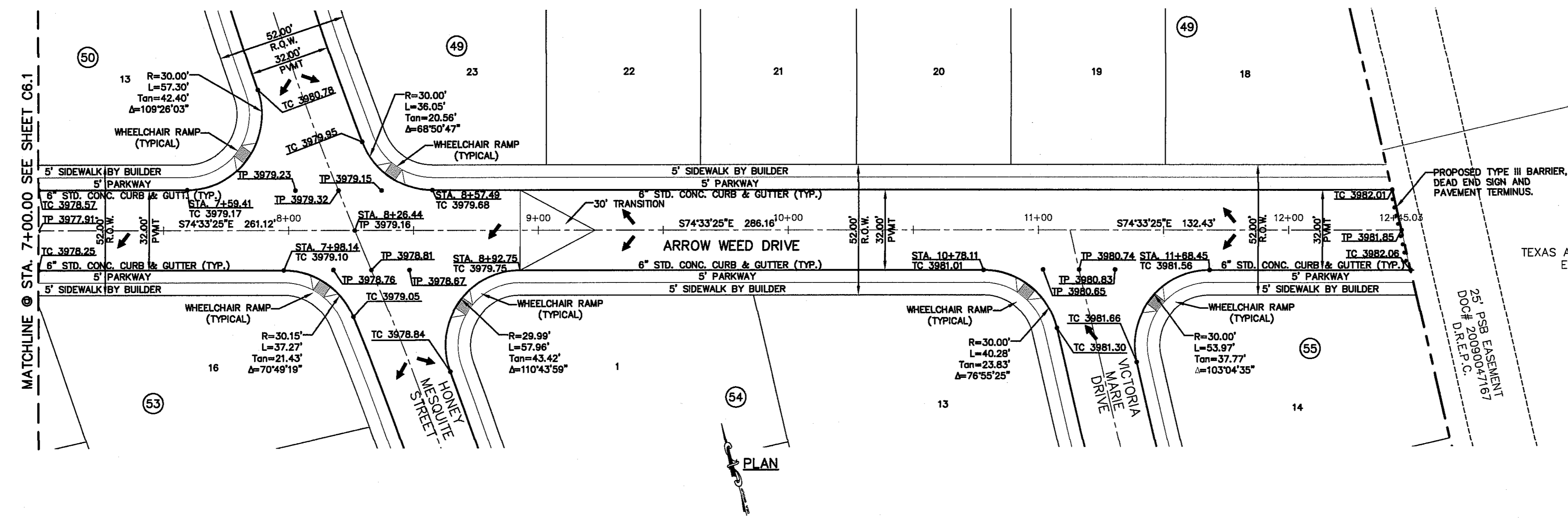
SHEET TITLE
**ARROW WEED DR.
 PLAN & PROFILE
 FROM STA. 0+37.88
 TO STA. 7+00.00**

SHEET NO.
C6.1

S:\2000\2000-196-Mesquite Trails Unit 11-Repplat\Drawings\Construction\Drawings\Improvement Plans\2000-196-01-C6.1-Arrow Weed P&P.dwg, Arrow Weed Sheet 1, 7/5/2016, 4:02:35 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



A PORTION OF SECTION No. 15,
BLOCK 79, TOWNSHIP 3,
TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS
EL PASO, EL PASO COUNTY, TEXAS
VOLUME 546, PAGE 823

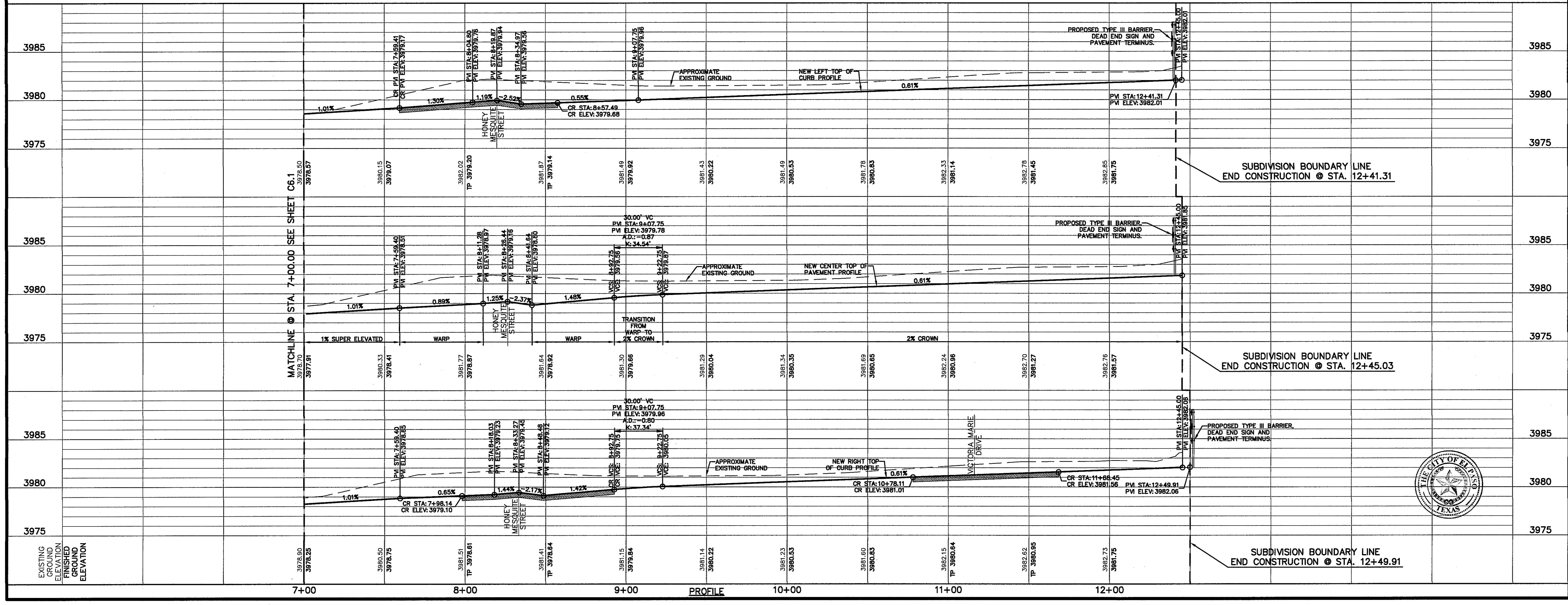
LEGEND
 WHEELCHAIR RAMP BY DEVELOPER (TYP.)
 PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

DATE	REVISIONS	BY

ENGINEER'S SEAL

TEXAS REGISTERED ENGINEERING FIRM #484
4712 Woodrow Bean, Ste. F, El Paso, TX 79924
915.544.3232 | www.cesgroup.net

S:\2005\1008-18-Mesquite Trails Unit 11 Redesign\Drawings\Improvement Plans\1008-18-01-C6.2-Arrow Weed Sheet 2.dwg 7/2/2016 4:52:11 PM



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

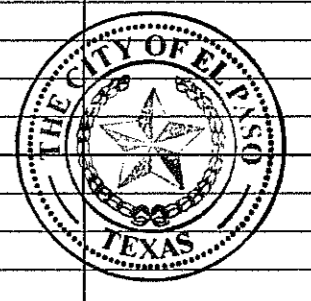
DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APPD. BY: J.L.A.

JOB No. 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**ARROW WEED DR.
PLAN & PROFILE
FROM STA. 7+00.00
TO STA. 12+45.03**

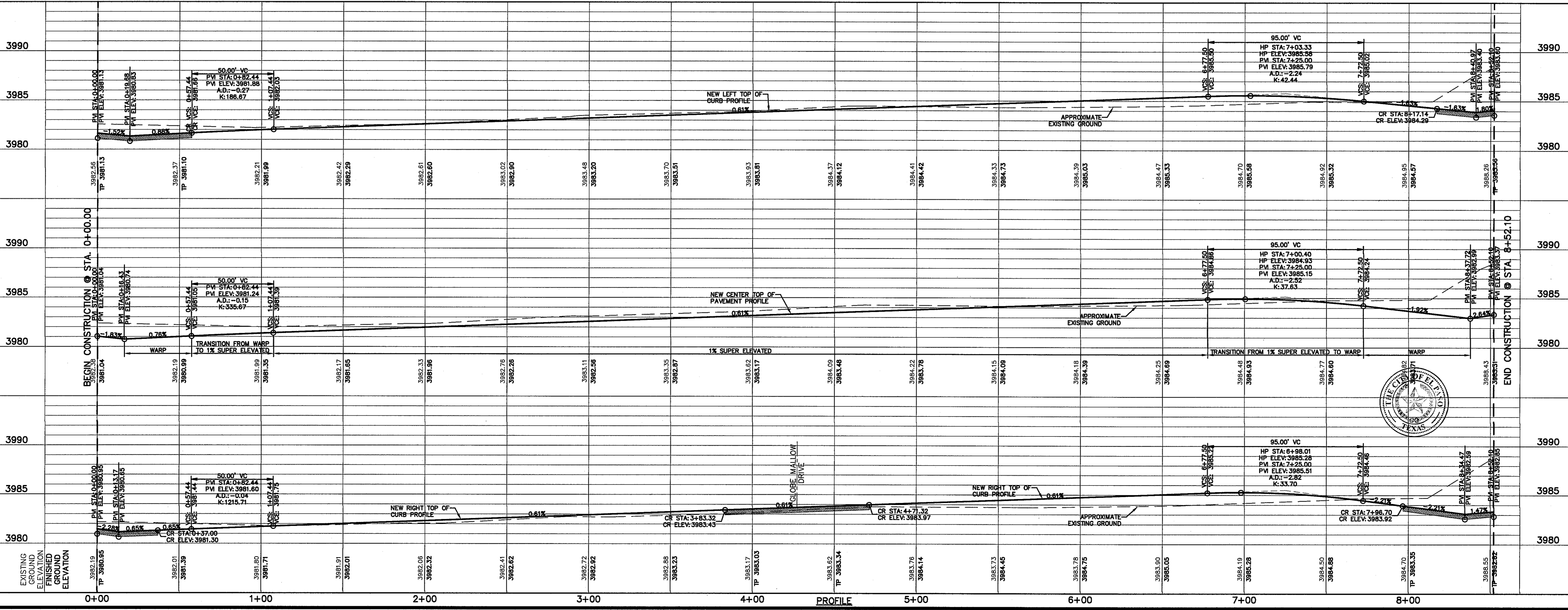
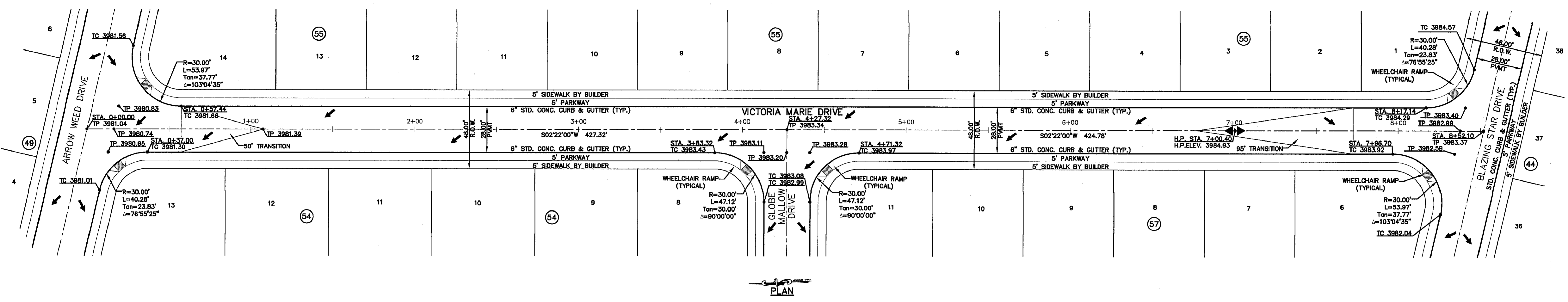
SHEET NO.
C6.2



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

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

DATE	REVISIONS	BY



ENGINEER'S SEAL

SEAL OF THE STATE ENGINEER OF TEXAS
JOSE L. ACOSTA
89075
4712 Woodrow Bean, Ste. F, El Paso, TX 79924
915.544.5232 | www.caei.org.net

SCALE: Horizontal: 1"=30' Vertical: 1"=5'

Contour Interval: N/A

DATE: APRIL 2016

DESIGN BY: F.Z.

DRAWN BY: R.O.

CHKD. BY: J.L.A.

APPVD. BY: J.L.A.

JOB No.: 2000-196

PROJECT TITLE

**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

VICTORIA MARIE DR.
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 8+52.10

SHEET NO.

C6.3

S:\2000\2000-196-Mesquite Trails Unit 11 Replat(A)\DWG\Construction\Replat(A)\Profile\Profile.dwg - User: Jose L. Acosta - Date: 1/7/2016 11:44:59 AM

CURVE TABLE					
CURVE	RADIUS	LENGTH	TANGENT	BEARING	DELTA
C1	330.00'	16.02'	8.01'	16.02'	N73°09'57"W 002°46'55"
C2	330.00'	52.07'	26.09'	52.01'	N67°15'17"W 009°02'25"
C3	330.00'	68.09'	34.17'	67.97'	S68°38'45"E 011°49'20"

LINE TABLE		
LINE	BEARING	LENGTH
L1	S74°33'25"E	21.95'

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

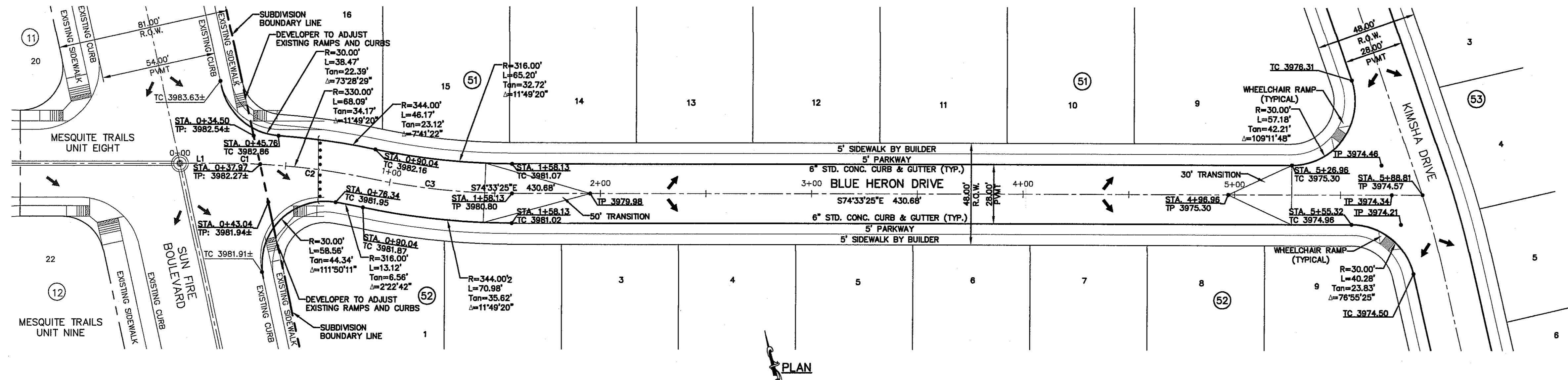
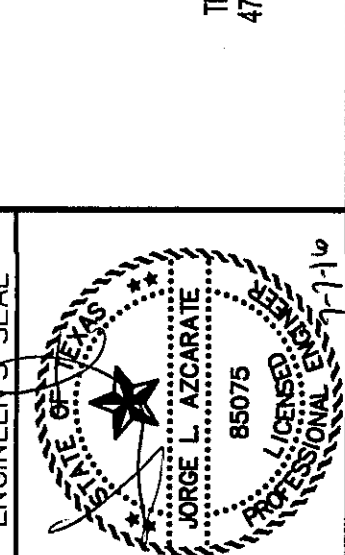
WARNING!
BEFORE YOU DIG
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT	ELEVATION=603.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASCO ALEGRE CIRCLE AND PASCO LINDO DRIVE.	

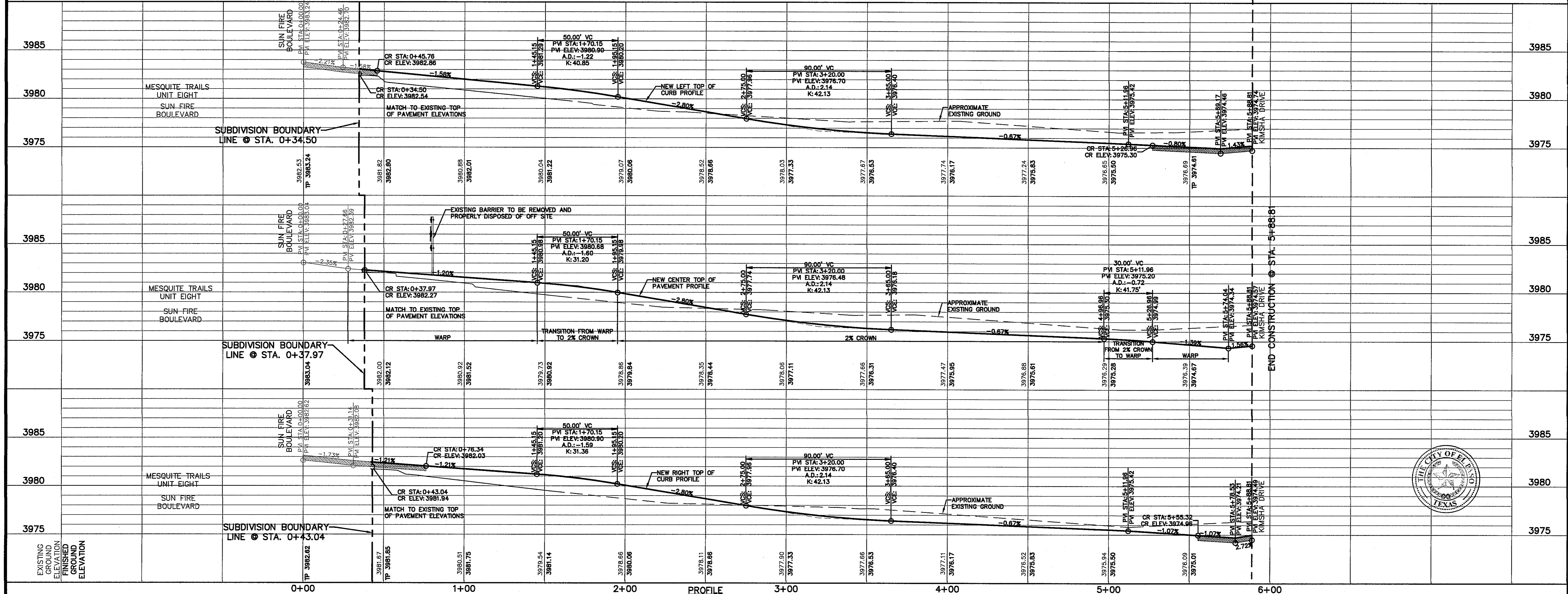
DATE	REVISIONS	BY



LEGEND

- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURBS. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

S:\2005\2005-188-Ampulph\Tms\Unit_11_Mesquite\050520\050520\Drawings\Improvement_Plan\2005-188-C6.4-Blue Heron 188.dwg, Blue Heron, Sheet 1, 7/5/2016 4:48:38 PM



SCALE: Horizontal: 1"=30' Vertical: 1"=5'

Contour Interval: 1/4'

DATE: APRIL 2016

DESIGN BY: F.Z.

DRAWN BY: R.O.

CHKD. BY: J.L.A.

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

JOB No.: 2000-188

PROJECT TITLE

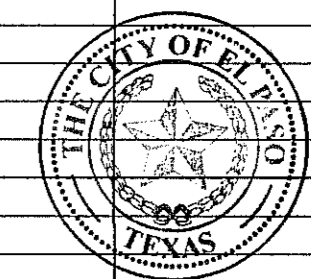
MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

BLUE HERON DR. PLAN & PROFILE FROM STA. 0+00.00 TO STA. 5+88.81

SHEET NO.

C6.4

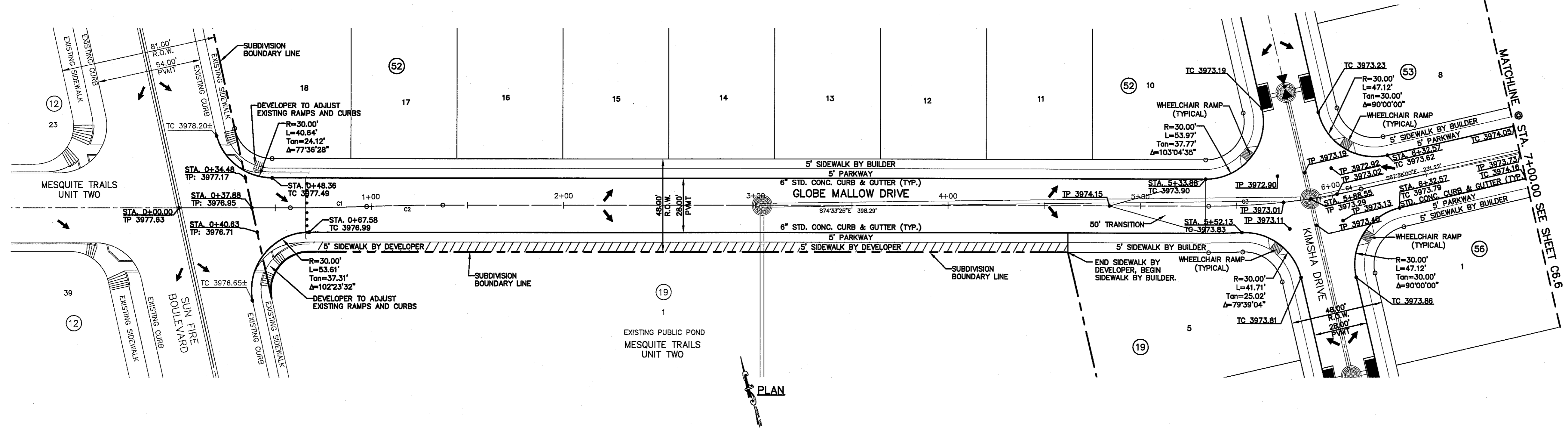


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	1048.00'	39.65'	19.83'	39.65'	S75°38'27"E	002°10'04"
C2	1048.00'	39.65'	19.83'	39.65'	N75°38'27"W	002°10'04"
C3	350.00'	53.07'	26.59'	53.02'	S78°54'04"E	008°41'18"
C4	350.00'	26.81'	13.41'	26.80'	S85°26'21"E	004°23'17"

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

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

DATE	BY	REVISIONS



LEGEND

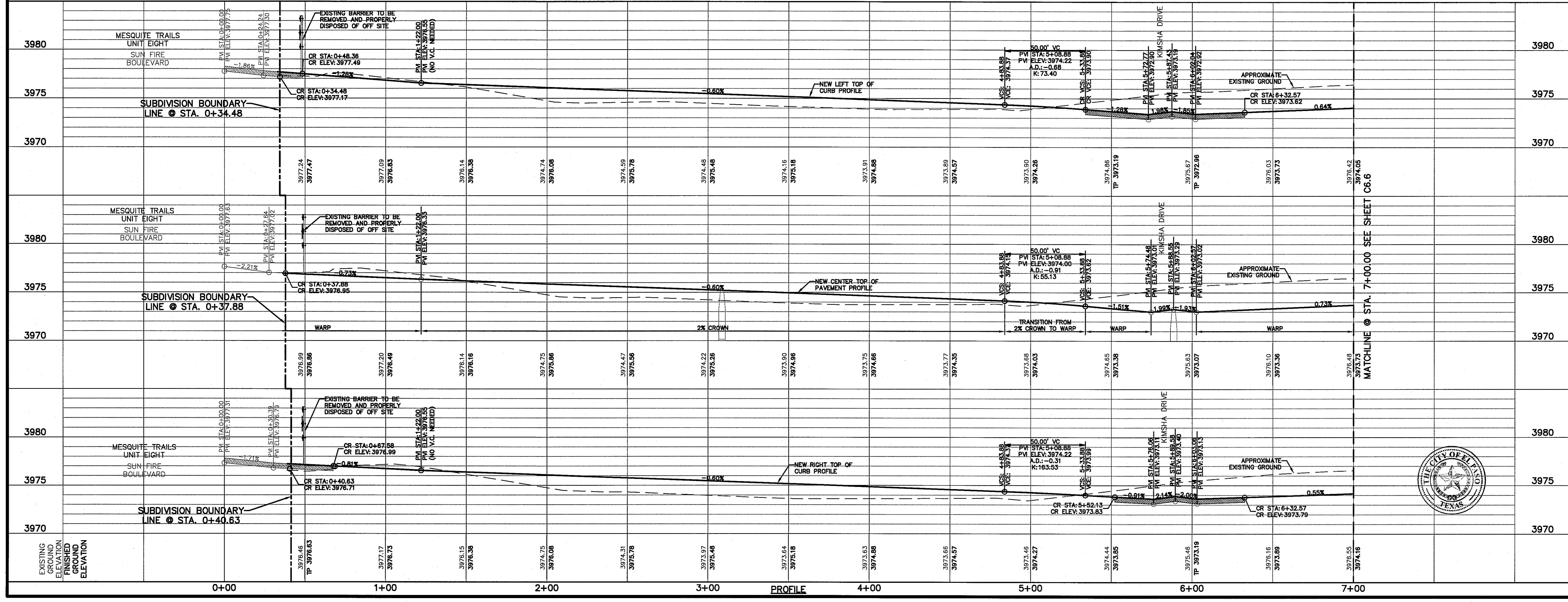
- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASCO ALLEGRE CIRCLE AND PASCO LINDO DRIVE.

ENGINEER'S SEAL

TEXAS REGISTERED ENGINEERING FIRM F-4564
ORVILLE L. ALLEN, INC.
4712 Woodrow Blvd. Ste. F El Paso, TX 79924
915.544.5232 | www.oalgroup.net



SCALE: Horizontal: 1"=30'
Vertical: 1"=5'

Contour Interval: N/A

DATE: APRIL 2016

DESIGN BY: F.Z.

DRAWN BY: R.O.

CHECKED BY: J.L.A.

APP'D BY: J.L.A.

JOB No. 2000-196

PROJECT TITLE

**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**GLOBE MALLOW DR.
PLAN & PROFILE
FROM STA. 0+37.88
TO STA. 7+00.00**

SHEET NO.

C6.5

S:\2000\2000-196-Mesquite Trails Unit 11 Replat\Units\Construction Drawings\Improvement Plans\2000-196-Unit 11-C6.5.dwg CDS, 7/29/2016 7:52:21 AM

UTILITY LOCATOR SERVICES

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

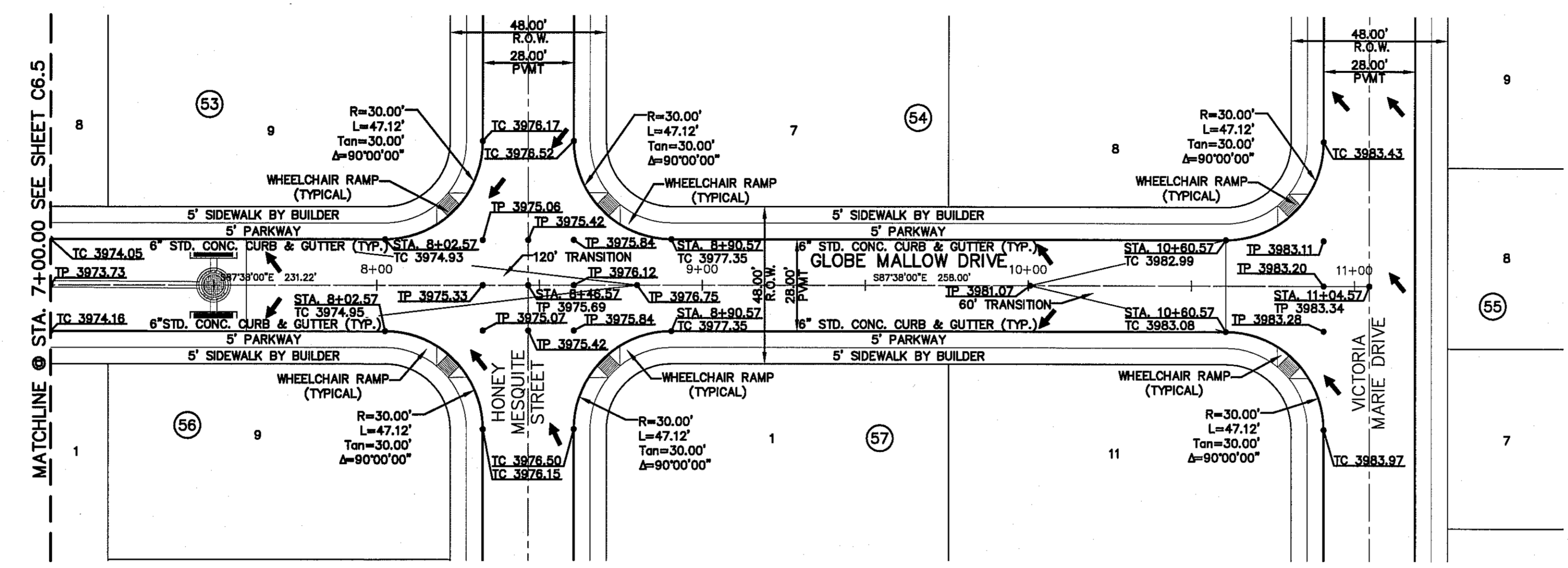
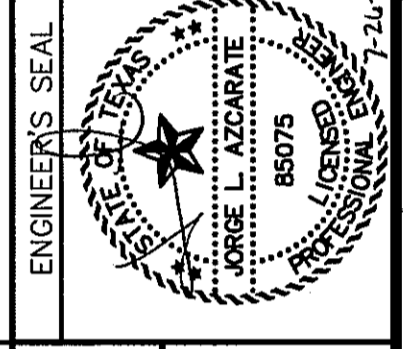
WARNING!
BEFORE YOU DIG
CALL 811
 FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT ELEVATION=4003.10 FEET (CITY DATUM) LOCATED AT THE CENTERLINE INTERSECTION OF PASO ALGRE CIRCLE AND PASO LINDO DRIVE.	BY
DATE	REVISIONS

CS&E

TEXAS REGISTERED ENGINEERING FIRM #494
 4712 Woodrow Bean, Ste. F El Paso, TX 79924
 915.544.5232 | www.csandep.com

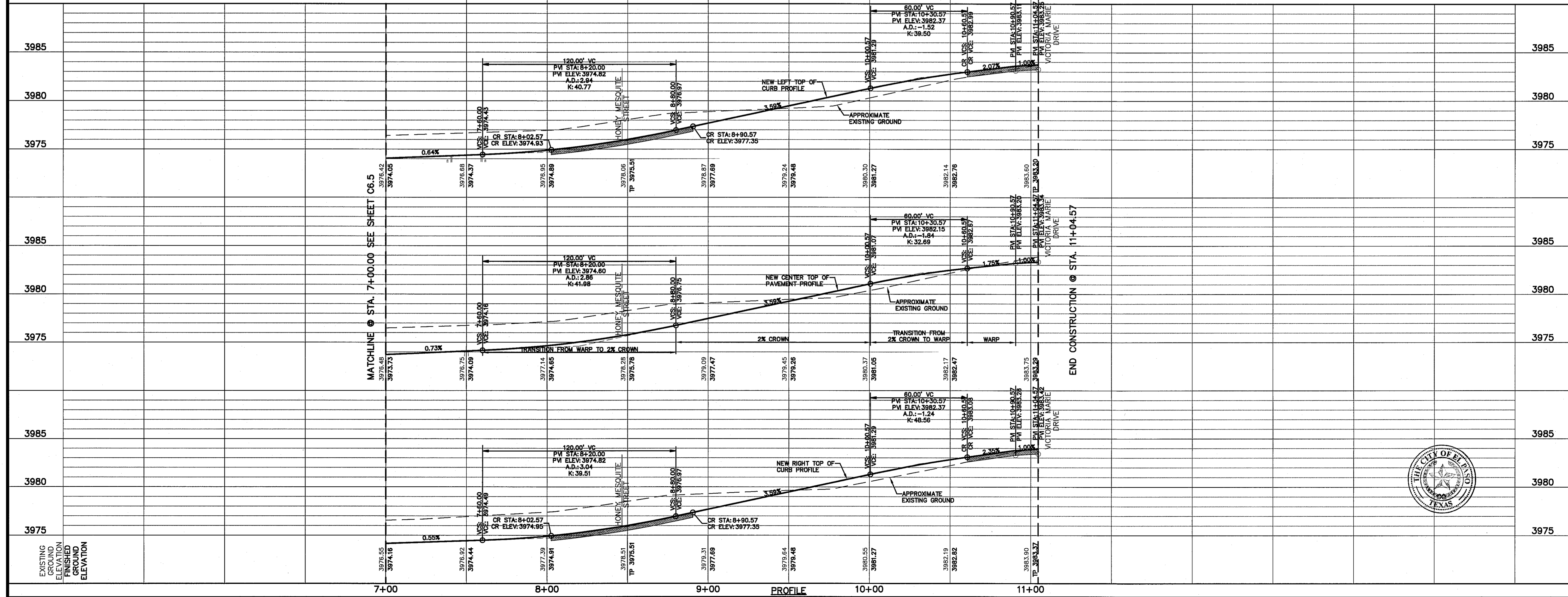


PLAN

LEGEND

WHEELCHAIR RAMP BY DEVELOPER (TYP.)

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



SCALE: 1"=30'
 Horizontal: 1"=50'
 Vertical: 1"=5'

DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHKD. BY: J.L.A.
 APP'D. BY: J.L.A.
 JOB No.: 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
 REPLAT 'A'
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**GLOBE MALLOW DR.
 PLAN & PROFILE
 FROM STA. 7+00.00
 TO STA. 11+04.57**

SHEET NO.
C6.6



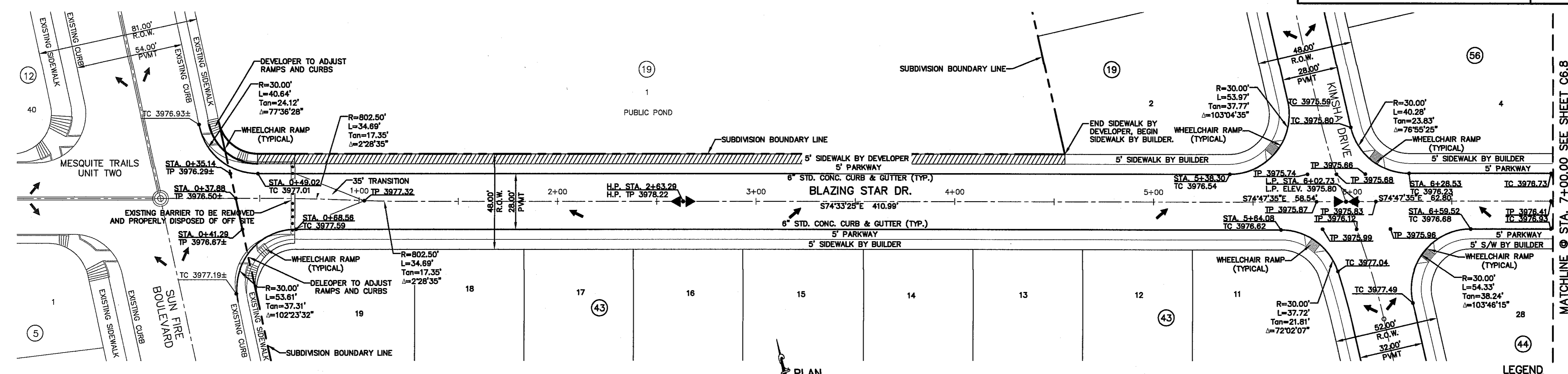
S:\2000\2000-196-Mesquite Trails Unit 11 Replat\GIS\Construction Drawings\Improvement Plans\2000-196-UD-CE-3&C6.6 EDR\Map_C6.6_7/20/2018 11:43:39 AM

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) 690-7200	
SBC	(800) 545-8005	
AT&T	(800) 852-3786	
U.S. SPRINT TELECOMM	(800) 521-0579	

WARNING!
BEFORE YOU DIG
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY



LEGEND

- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB; REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
- 5' SIDEWALK BY DEVELOPER

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
ELEVATION=6003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASO ALGRE CIRCLE AND PASO LINDO DRIVE.

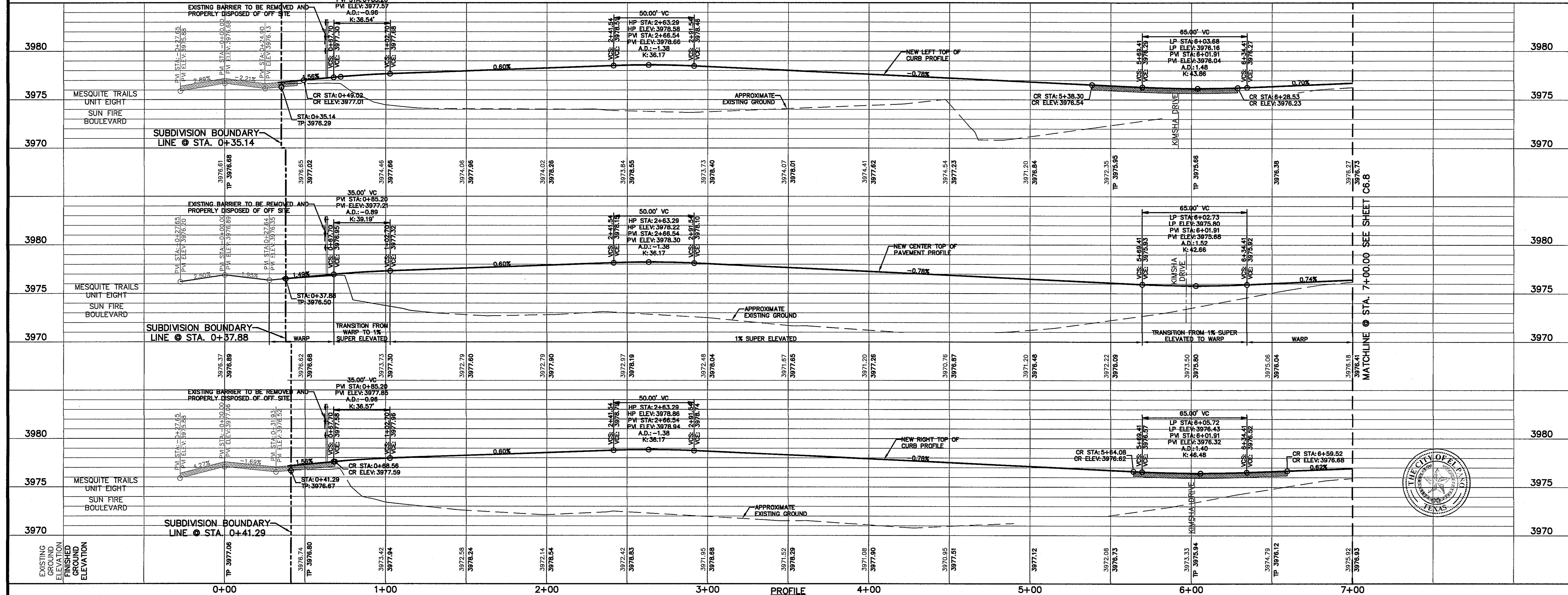
ENGINEER'S SEAL

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

DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.

JOB No. 2000-196

S:\0000\000-196-Mesquite Trails Unit 11 Resign\Units\Construction Drawings\Improvement Plans\000-196-10-C6.7a-Blazing Star Plan Sheet 1 - 7/9/2016 4:52:07 PM



PROJECT TITLE

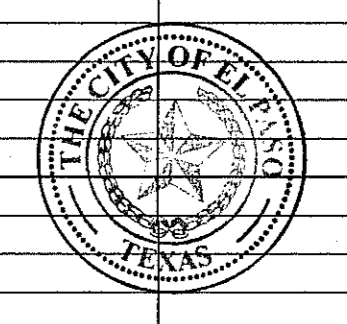
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

BLAZING STAR DR.
PLAN & PROFILE
FROM STA. 0+37.88
TO STA. 7+00.00

SHEET NO.

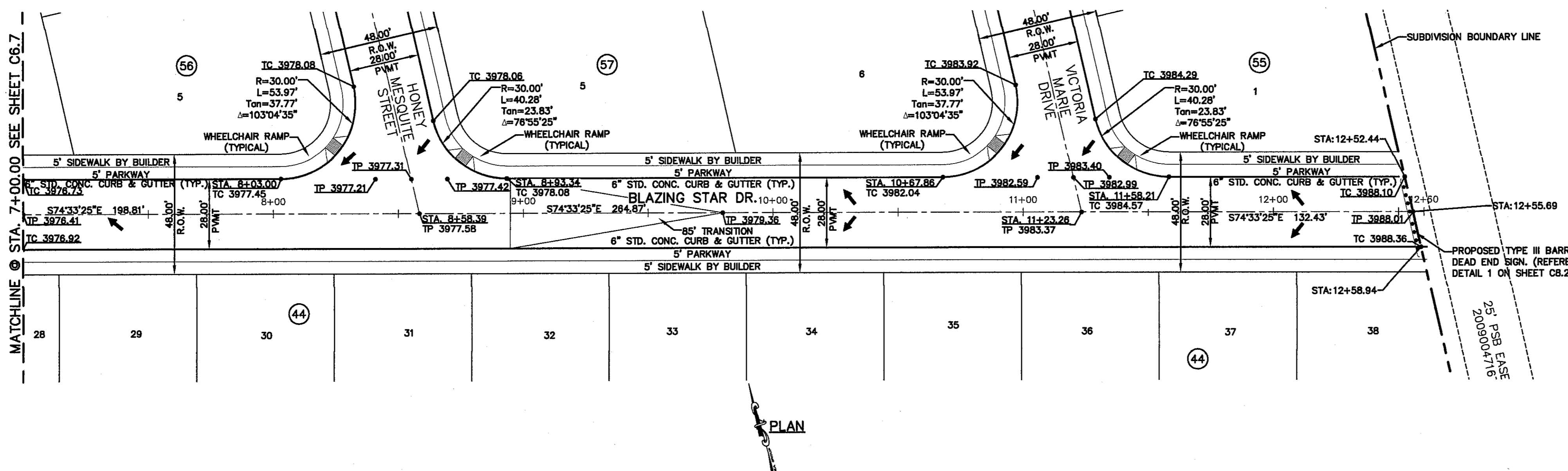
C6.7



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

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

DATE	REVISIONS	BY



A PORTION OF SECTION No. 15, BLOCK 79, TOWNSHIP 3, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS EL PASO, EL PASO COUNTY, TEXAS VOLUME 2004, PAGE 2971

LEGEND

- WHEELCHAIR RAMP BY DEVELOPER (TYP.)
- PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

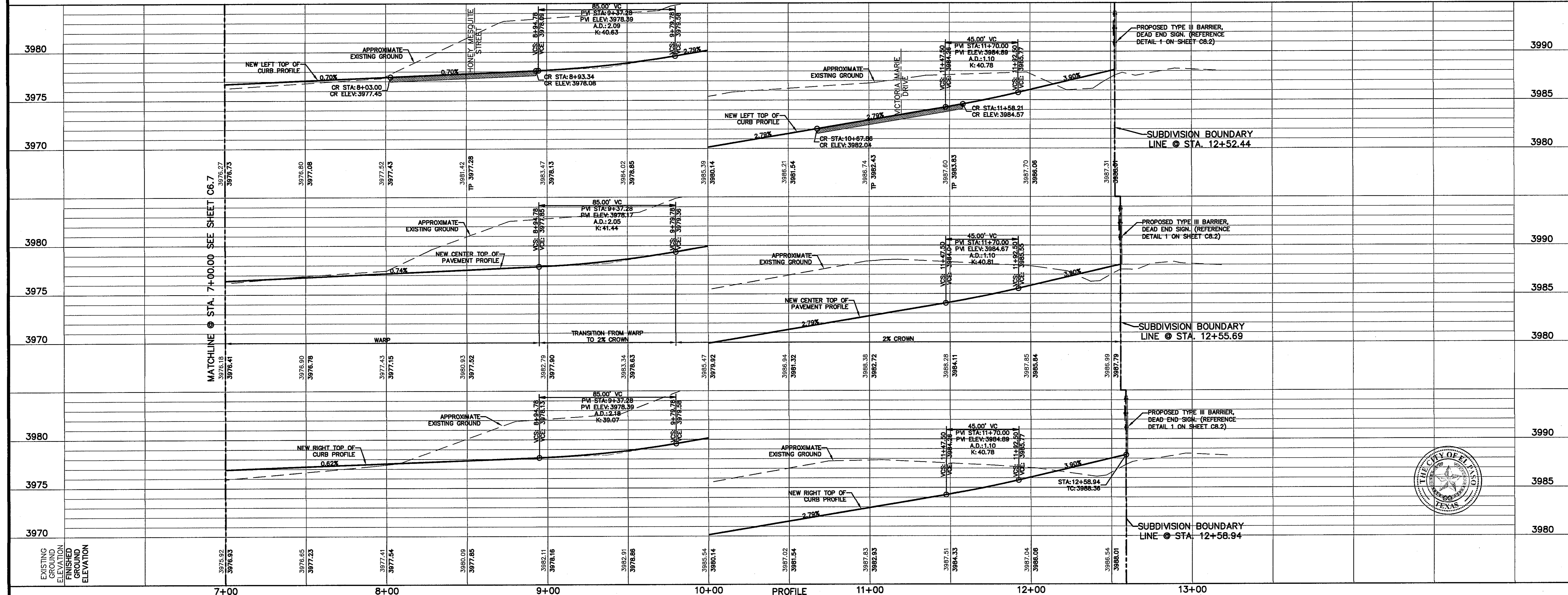
REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
 ELEVATION=4003.10 FEET (CITY DATUM)
 LOCATED AT THE CENTERLINE INTERSECTION OF
 PASSED ALLEGRE CIRCLE AND PASSED LINDO DRIVE.

ENGINEER'S SEAL

TEXAS REGISTERED ENGINEERING FIRM #4584
 4712 Woodrow Bea, Ste. F El Paso, TX 79904
 915.544.5232 | www.cesgroup.net

S:\300\300-18-Mesquite Trails Unit 11 Redesign\DWG\Construction\Drawings\Improvement_Plan\300-18-01-C6.7-Blazing Star R&P.dwg, Blazing Star Sheet 2, 7/2/2016 4:53:57 PM



SCALE
 Horizontal: 1"=30'
 Vertical: 1"=5'

Contour Interval: N/A
 DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
 REPLAT 'A'
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**BLAZING STAR DR.
 PLAN & PROFILE
 FROM STA. 7+00.00
 TO STA. 12+55.69**

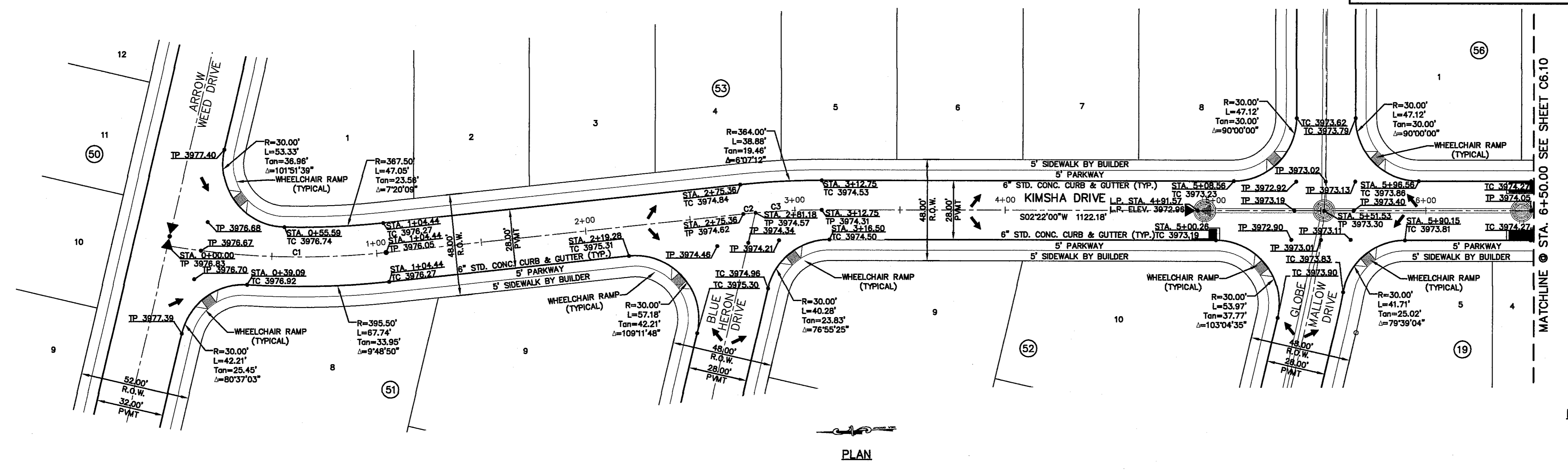
SHEET NO.
C6.8



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	381.50'	104.44'	52.55'	104.11'	S04°05'20"W	015°41'05"
C2	350.00'	5.81'	2.91'	5.81'	N03°16'39"W	000°57'08"
C3	350.00'	31.57'	15.80'	31.56'	N00°13'03"W	005°10'06"

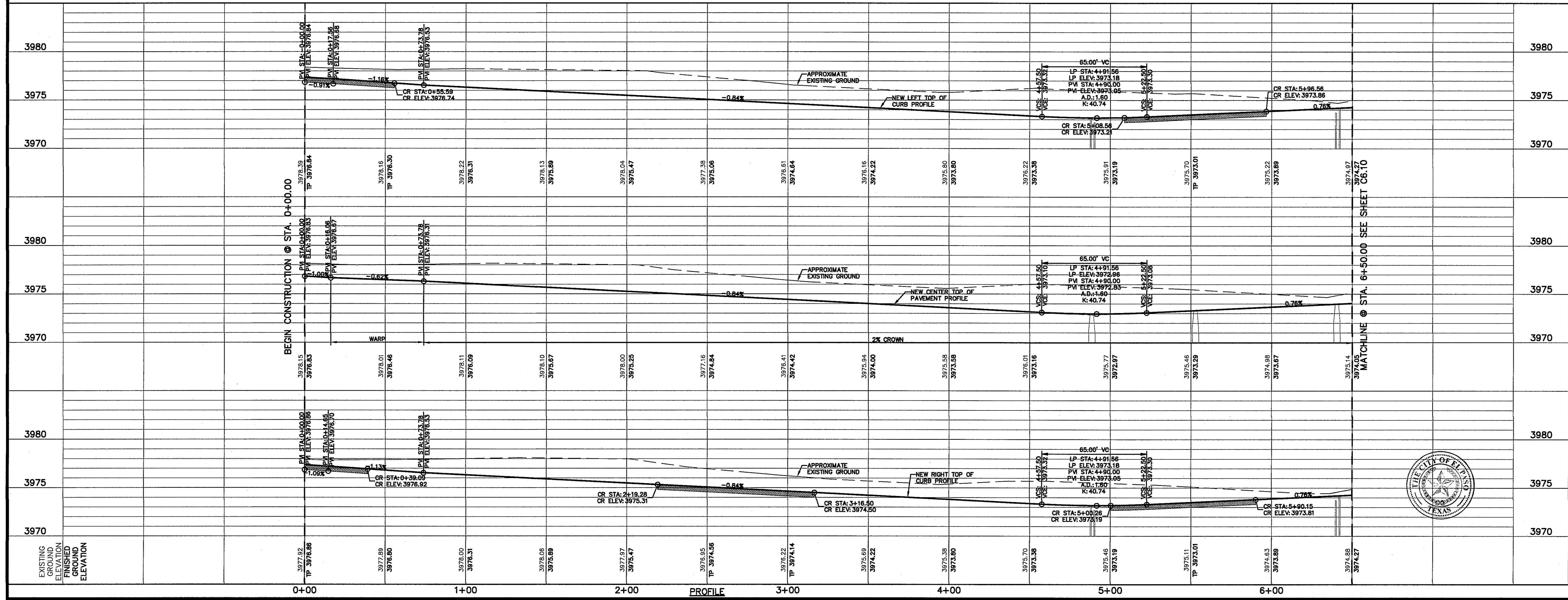
UTILITY LOCATOR SERVICES		
EL PASO ELECTRIC COMPANY	(915) 543-5720	
EL PASO ENERGY CORPORATION	(915) 496-5244	
EL PASO WATER UTILITIES	(915) 594-5500	
MCI SURVEILLANCE	(800) MCI-WORK	
TIME WARNER COMMUNICATIONS	(915) 772-1123	
TEXAS GAS SERVICE	(915) 690-7200	
SBC	(800) 545-6005	
AT&T	(800) 852-3788	
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.



DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
 EXISTING CITY MONUMENT
 ELEVATION=600.310 FEET (CITY DATUM)
 LOCATED AT THE CENTERLINE INTERSECTION OF
 PASO ALERE CIRCLE AND PASO LINDO DRIVE.

ENGINEER'S SEAL

SCALE: Horizontal: 1"=30'
 Vertical: 1"=5'
 Contour Interval: N/A
 DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No.: 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
 REPLAT 'A'
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**KIMSHA DR.
 PLAN & PROFILE
 FROM STA. 0+00.00
 TO STA. 6+50.00**

SHEET NO.
C6.9

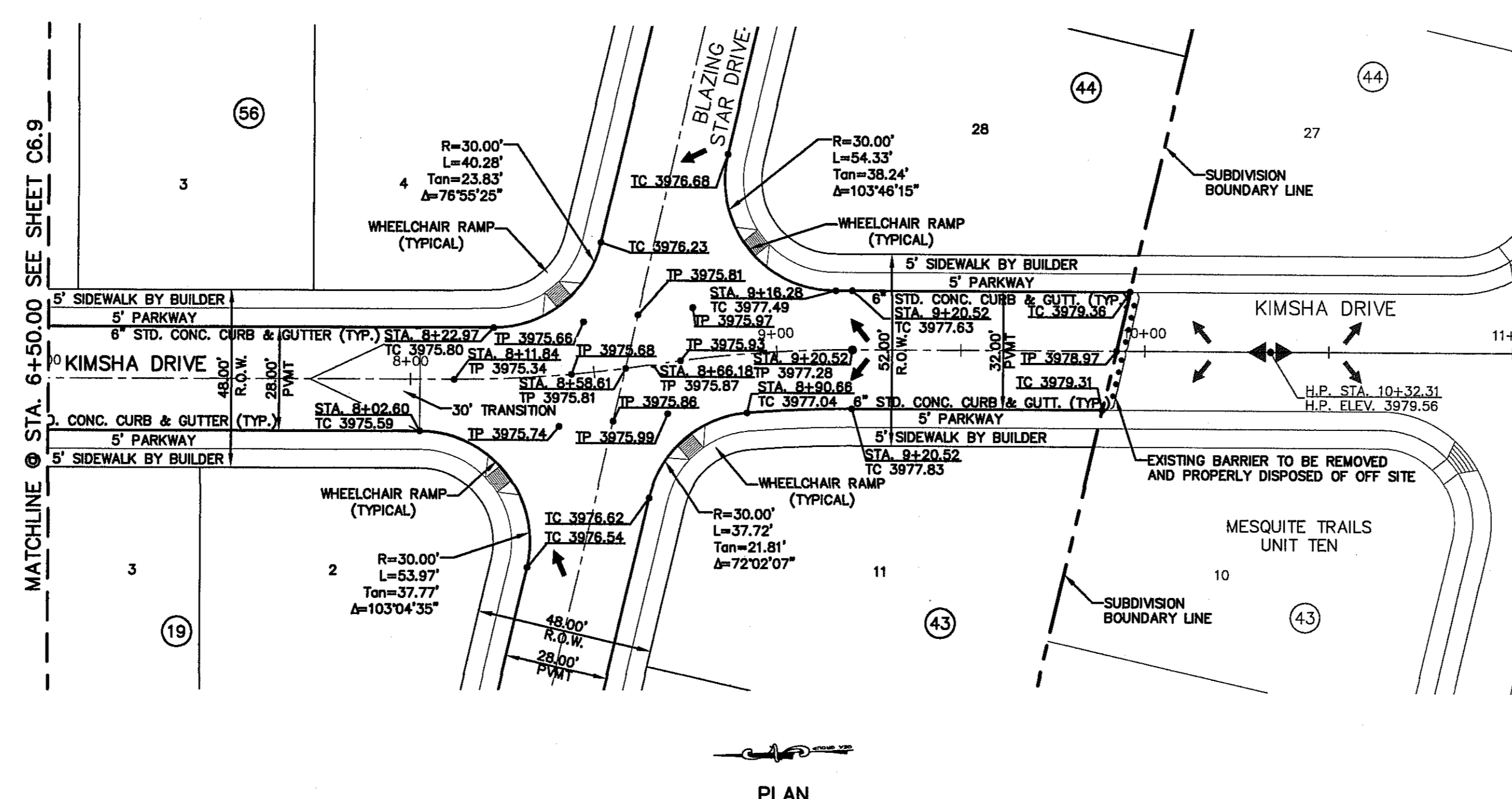
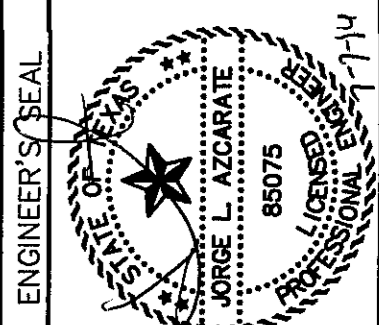
S:\2005\2005-196-Mesquite Trails Unit 11-Resubdiv\Drawings\Construction Drawings\Improvements_Plan\2005-196-10-C6.9A0-D-Kimsha Dr.dwg, Kimsha Sheet 1, 7/2/2016, 4:56:34 PM

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

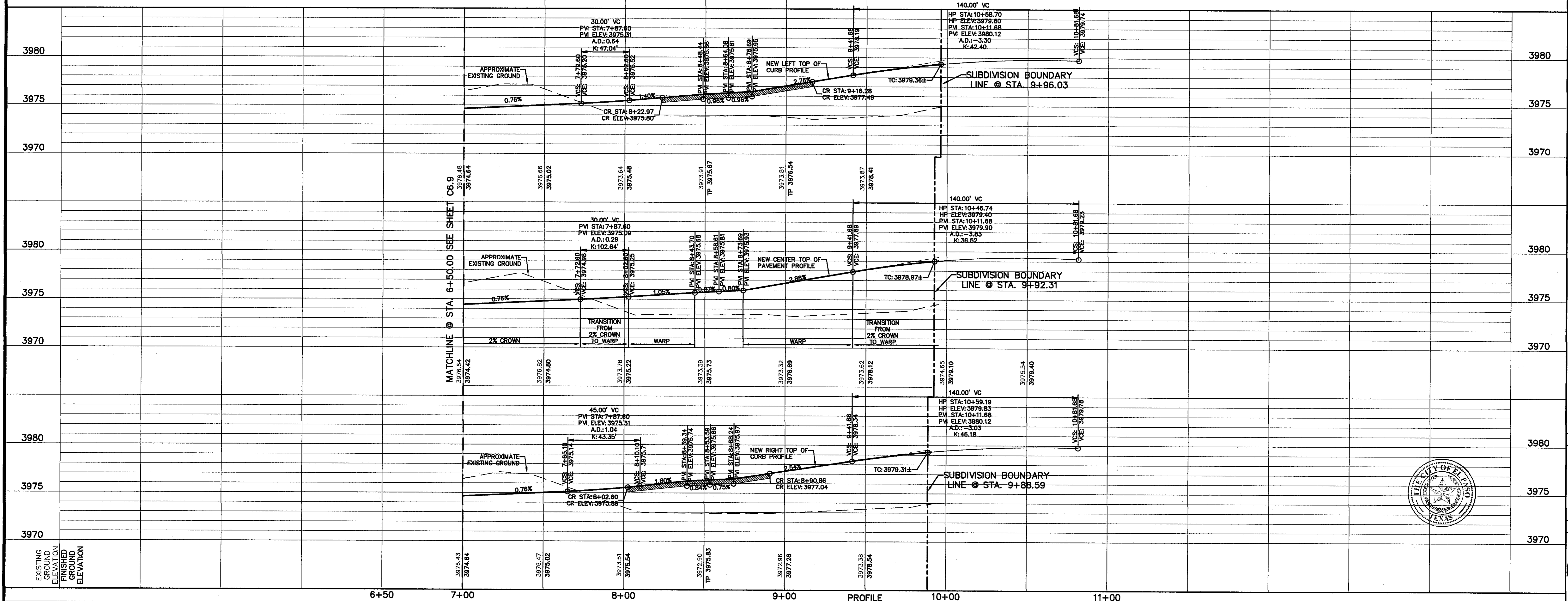
WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASEO ALFREO CIRCLE AND PASEO LINDO DRIVE.



LEGEND
 WHEELCHAIR RAMP BY DEVELOPER (TYP.)
 PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.



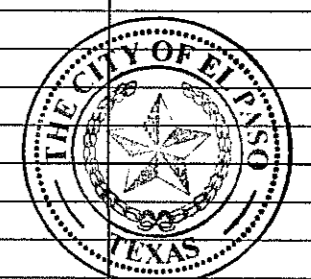
EXISTING GROUND ELEVATION	FINISHED GROUND ELEVATION	STATIONING	PROFILE
3976.43	3974.64	6+50	
3976.47	3975.02	7+00	
3972.51	3975.54	8+00	
3972.96	3977.28	9+00	
3973.38	3978.54	10+00	
3972.96	3978.54	11+00	

SCALE: Horizontal: 1"=30'
Vertical: 1"=5'
Contour Interval: 1' / A
DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-196

PROJECT TITLE
MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS

SHEET TITLE
KIMSHA DR.
PLAN & PROFILE
FROM STA. 6+50.00
TO STA. 9+92.31

SHEET NO.
C6.10



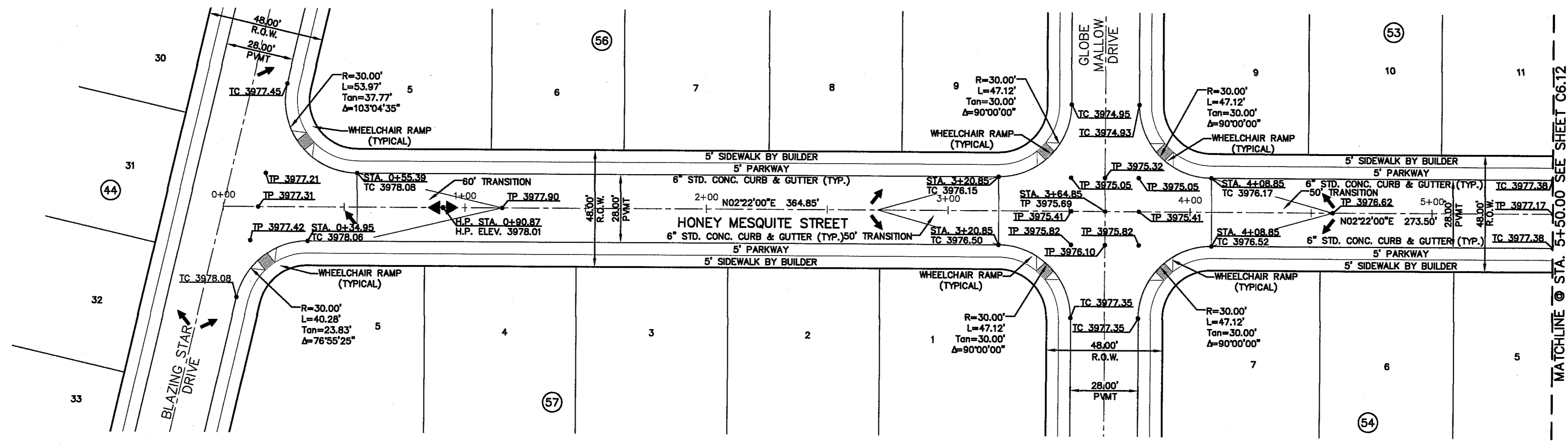
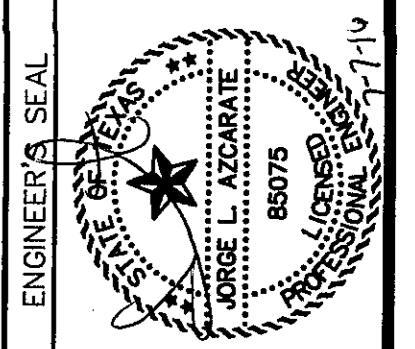
S:\2000\2000-196-Mesquite Trails Unit 11-Repalant\Subdiv\Improvements\Plan\2000-196-Dr-C6.8A-C6.10-draws\2000-196-Kimsha Sheet 2 - 7/2/2016 4:52:28 PM

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SRG	(800) 545-6005
AT&T	(800) 852-3766
U.S. SPRINT TELECOMM	(800) 521-0579

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

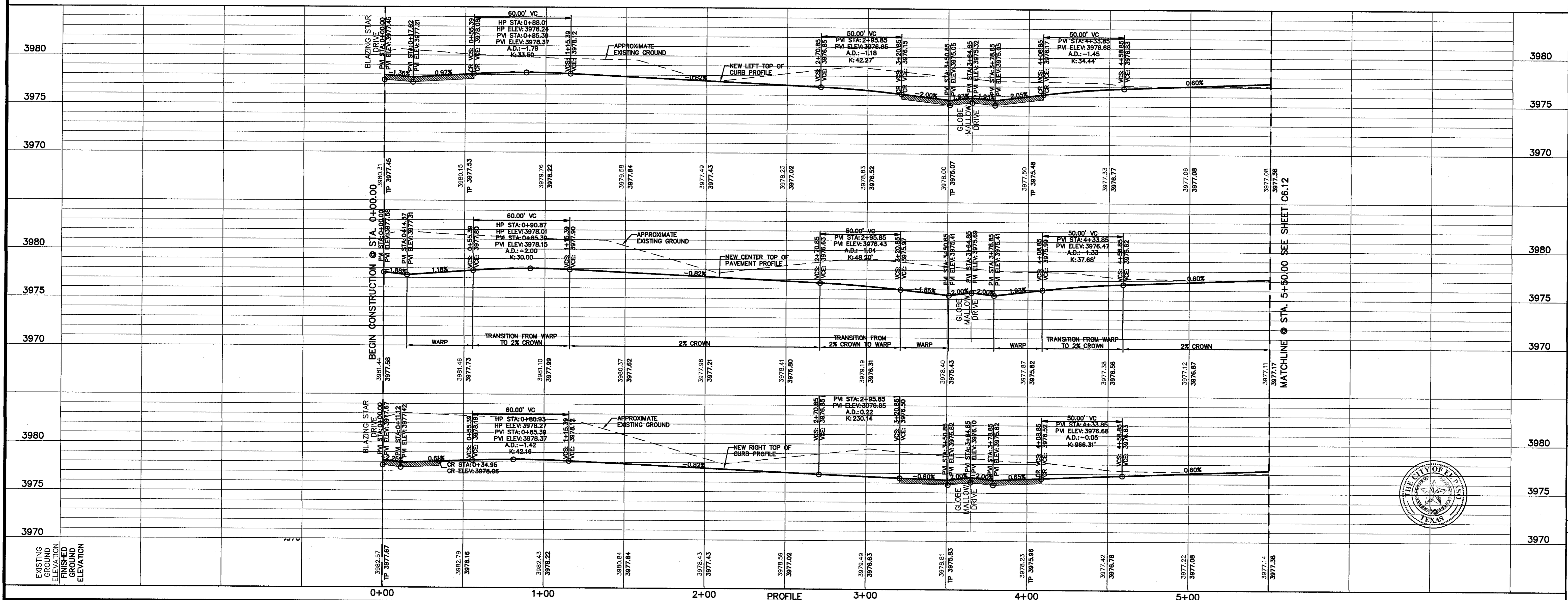
REFERENCES - BENCHMARKS	
EXISTING CITY MONUMENT ELEVATION=4003.10 FEET (GTY DATUM) LOCATED AT THE CENTERLINE INTERSECTION OF PASO ALERE CIRCLE AND PASO LINCO DRIVE.	
DATE	REVISIONS
BY	

CS&A
REGISTERED ENGINEERING FIRM #4584
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915.544.5232 | www.csandagroup.net



PLAN

LEGEND
 WHEELCHAIR RAMP BY DEVELOPER (TYP.)
 PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.

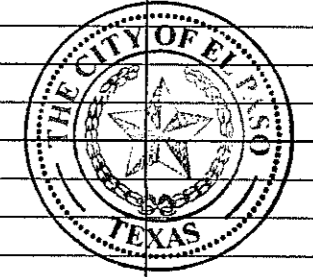


SCALE
Horizontal: 1"=30'
Vertical: 1"=5'
Contour Interval: N/A
DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**HONEY MESQUITE ST.
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 5+50.00**

SHEET NO.
C6.11



S:\3200\2006-196-Mesquite Trails Unit 11 Replat\GIS\Construction\Drawings\Profile\Profile_2006-196-UD-C&A\11-Mesquite Trails Unit 11 Replat Sheet 11.dwg, Honey Mesquite Street 1, 7/25/2016 3:54:14 PM

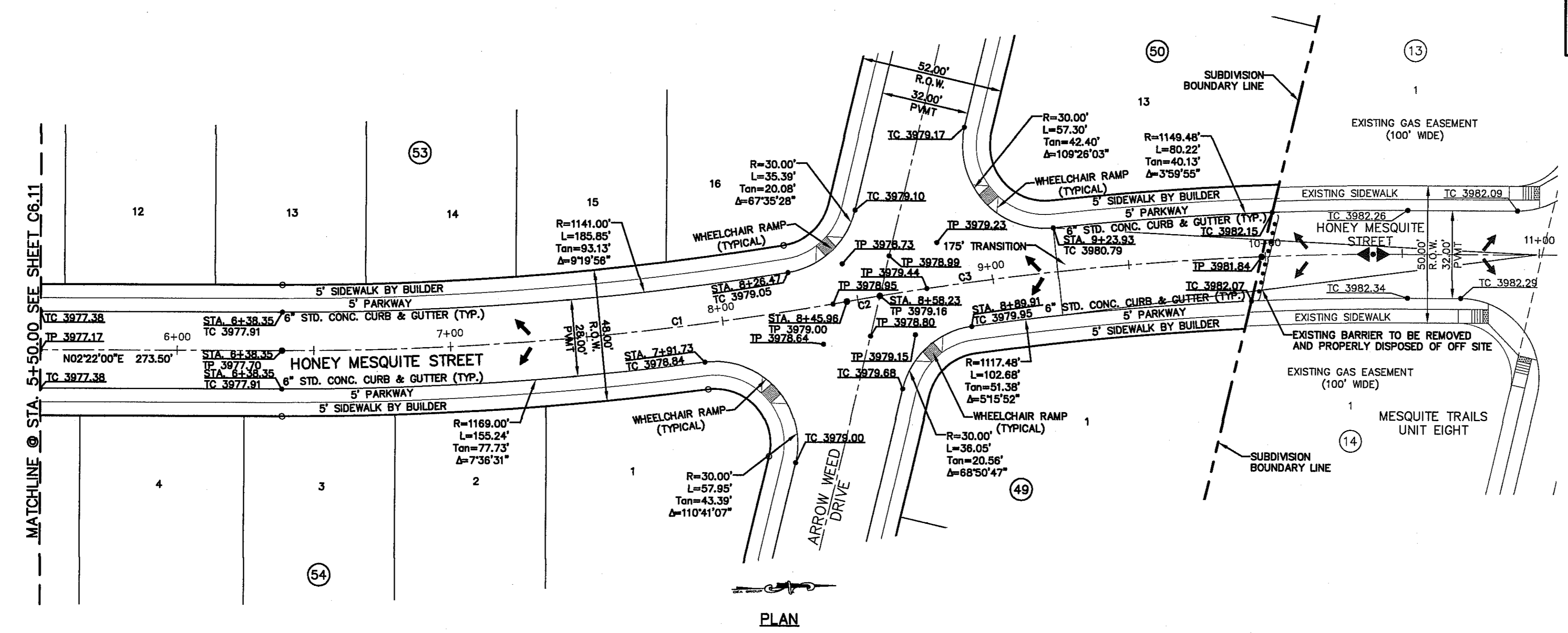
UTILITY LOCATOR SERVICES

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

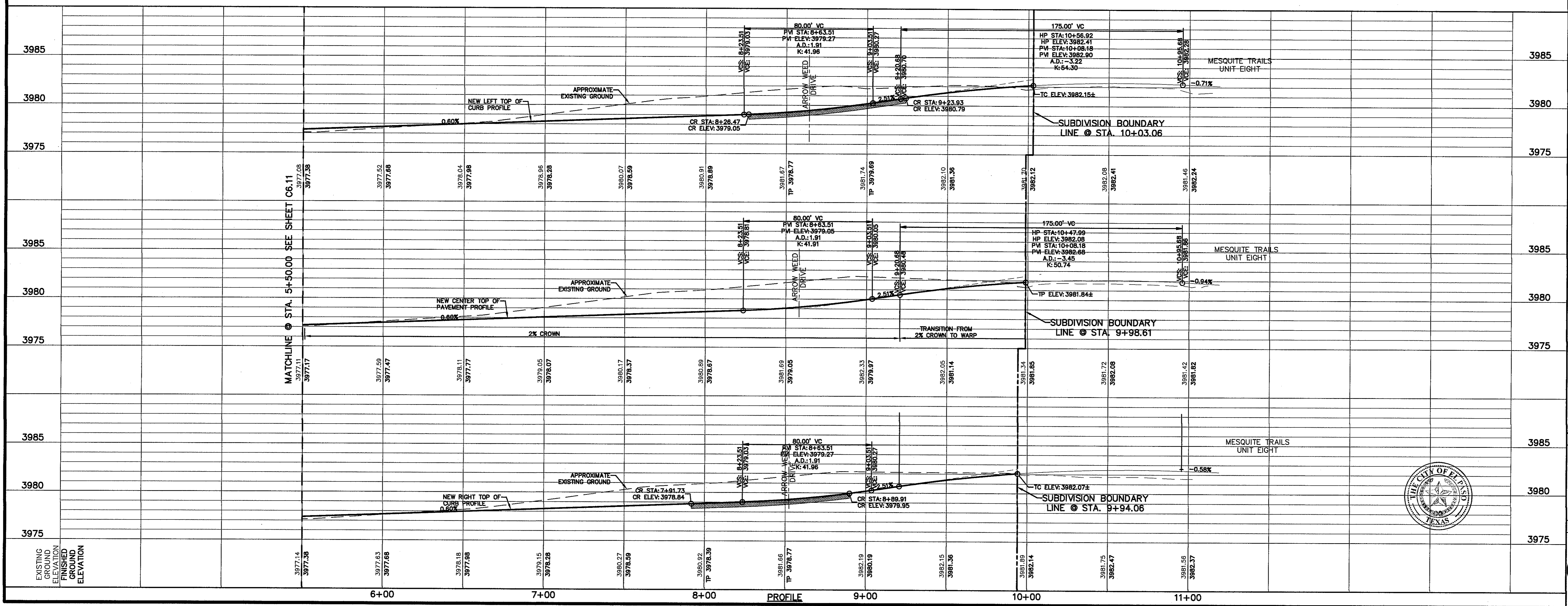
CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	1155.00'	207.61'	104.09'	207.33'	N02°46'58"W	010°17'56"
C2	1133.59'	12.25'	6.13'	12.25'	S07°37'21"E	000°37'10"
C3	1133.48'	140.40'	70.29'	140.31'	S03°45'52"E	007°05'49"



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

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASO ALERE CIRCLE AND PASO LINDO DRIVE.

DATE: _____ REVISIONS: _____ BY: _____

SCALE
Horizontal: 1"=30'
Vertical: 1"=5'

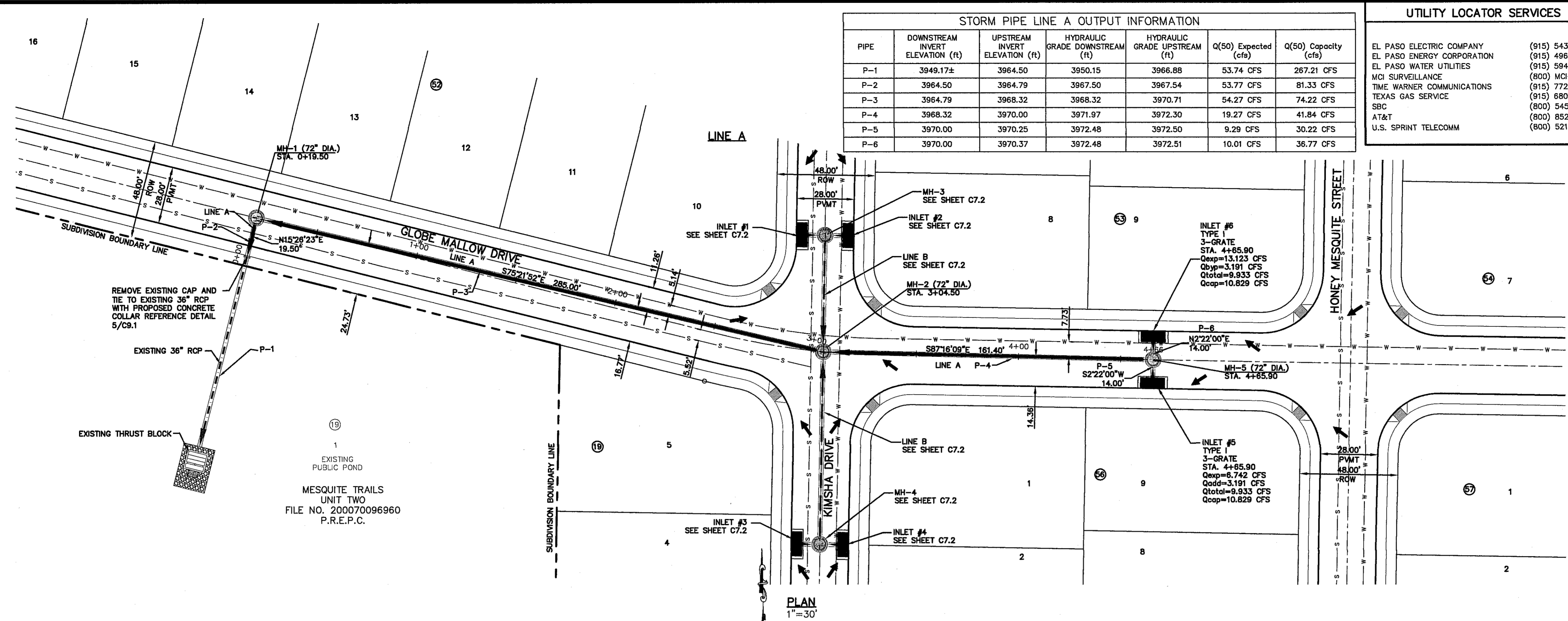
DESIGN BY: APRIL 2016
DRAWN BY: F.Z.
CHECKED BY: J.L.A.
APP'D. BY: J.L.A.
JOB No. 2000-196

PROJECT TITLE
MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS

SHEET TITLE
HONEY MESQUITE ST.
PLAN & PROFILE
FROM STA. 5+50.00
TO STA. 9+98.61

SHEET NO.
C6.12

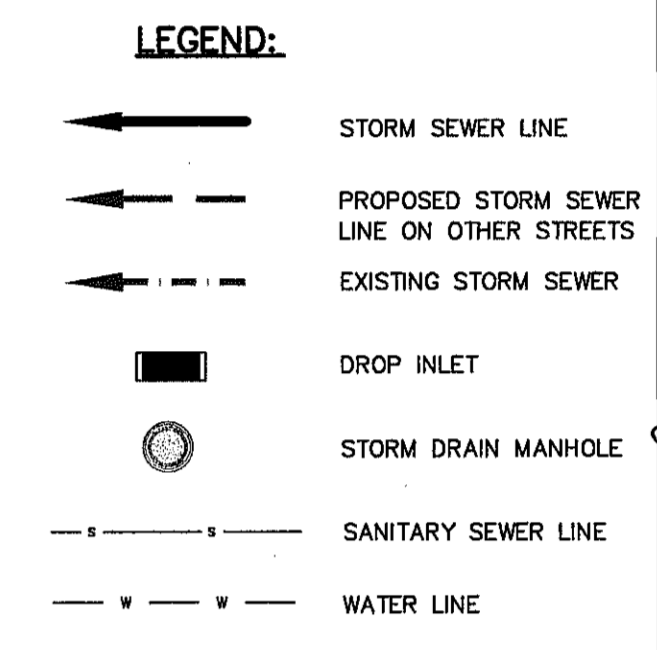
S:\2000\2000-196-Mesquite Trails Unit 11 Replat\11000\Construction\Drawings\Improvements\Plan\2000-196-UD-C6.12-A-Honey Mesquite P&P.dwg, Honey Mesquite Sheet 2, 7/2/2016 3:05:00 PM



STORM PIPE LINE A OUTPUT INFORMATION						
PIPE	DOWNSTREAM INVERT ELEVATION (ft)	UPSTREAM INVERT ELEVATION (ft)	HYDRAULIC GRADE DOWNSTREAM (ft)	HYDRAULIC GRADE UPSTREAM (ft)	Q(50) Expected (cfs)	Q(50) Capacity (cfs)
P-1	3949.17±	3964.50	3950.15	3966.88	53.74 CFS	267.21 CFS
P-2	3964.50	3964.79	3967.50	3967.54	53.77 CFS	81.33 CFS
P-3	3964.79	3968.32	3968.32	3970.71	54.27 CFS	74.22 CFS
P-4	3968.32	3970.00	3971.97	3972.30	19.27 CFS	41.84 CFS
P-5	3970.00	3970.25	3972.48	3972.50	9.29 CFS	30.22 CFS
P-6	3970.00	3970.37	3972.48	3972.51	10.01 CFS	36.77 CFS

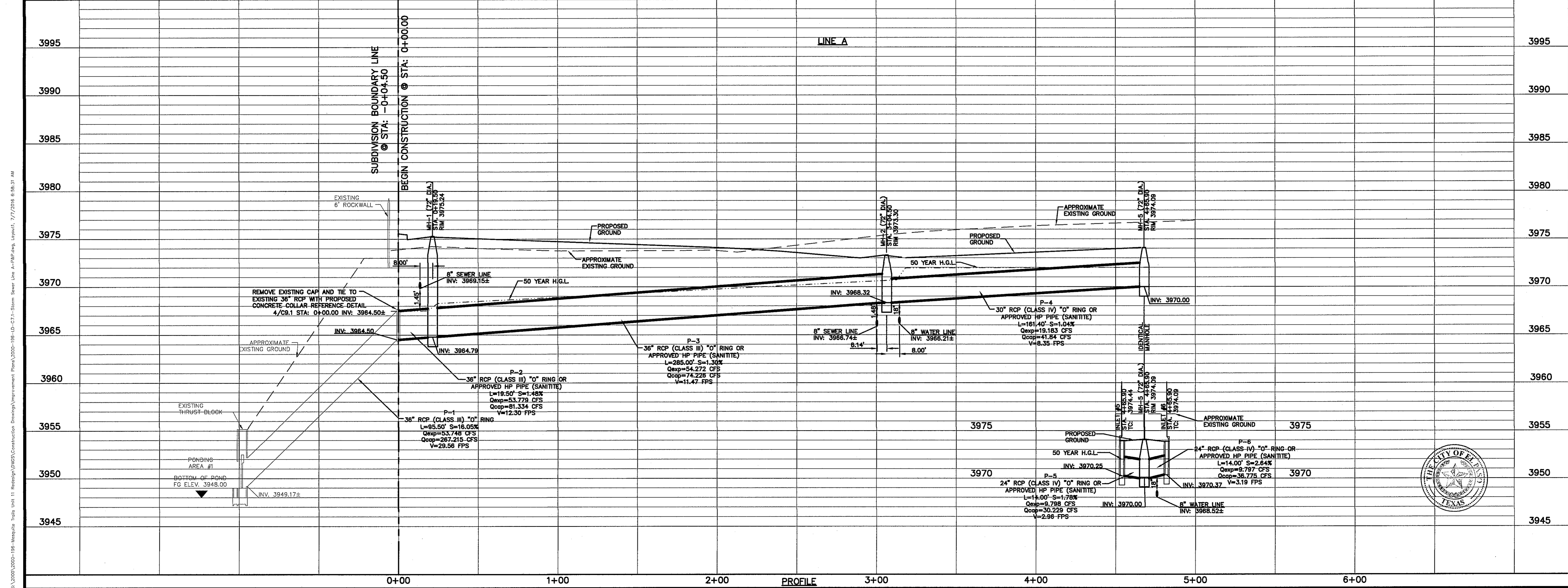
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 690-7200
SEC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

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



REFERENCES - BENCHMARKS	
EXISTING CITY MONUMENT	ELEVATION=603.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASSED ALLEGRE CIRCLE AND PASSED LINDO DRIVE.	
DATE	REVISIONS
BY	

TEXAS REGISTERED ENGINEERING FIRM #484
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: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: J.L.A.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-186

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**LINE A
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 4+65.90**

SHEET NO.
C7.1

S:\2005\2000-186 - Mesquite Trails Unit 11 - Redesign\Utilities\Construction Drawings\Improvement Plans\2000-186-D-C7-Storm Sewer Line A-789.dwg, Layout1, 7/7/2016, 6:38:37 AM

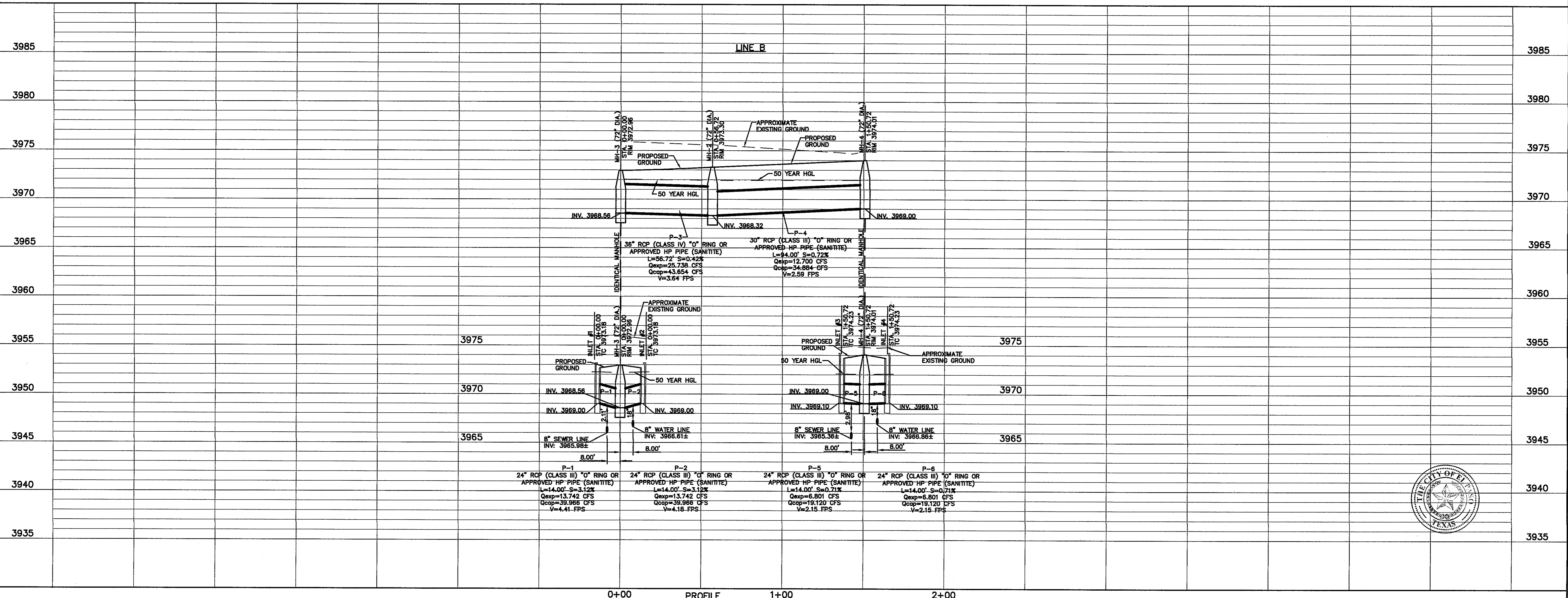
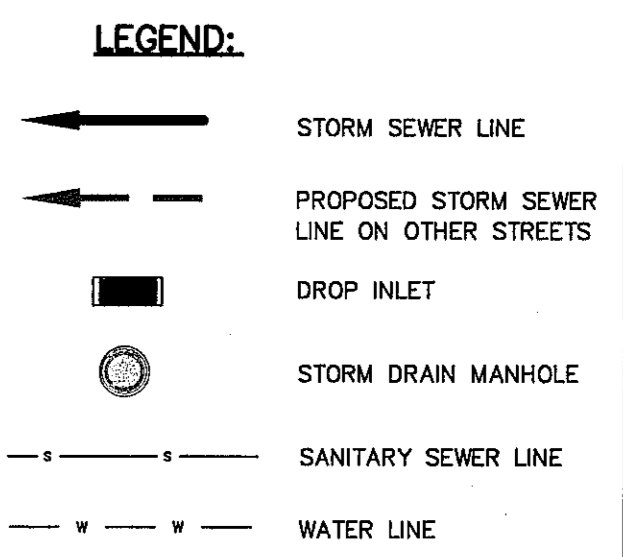
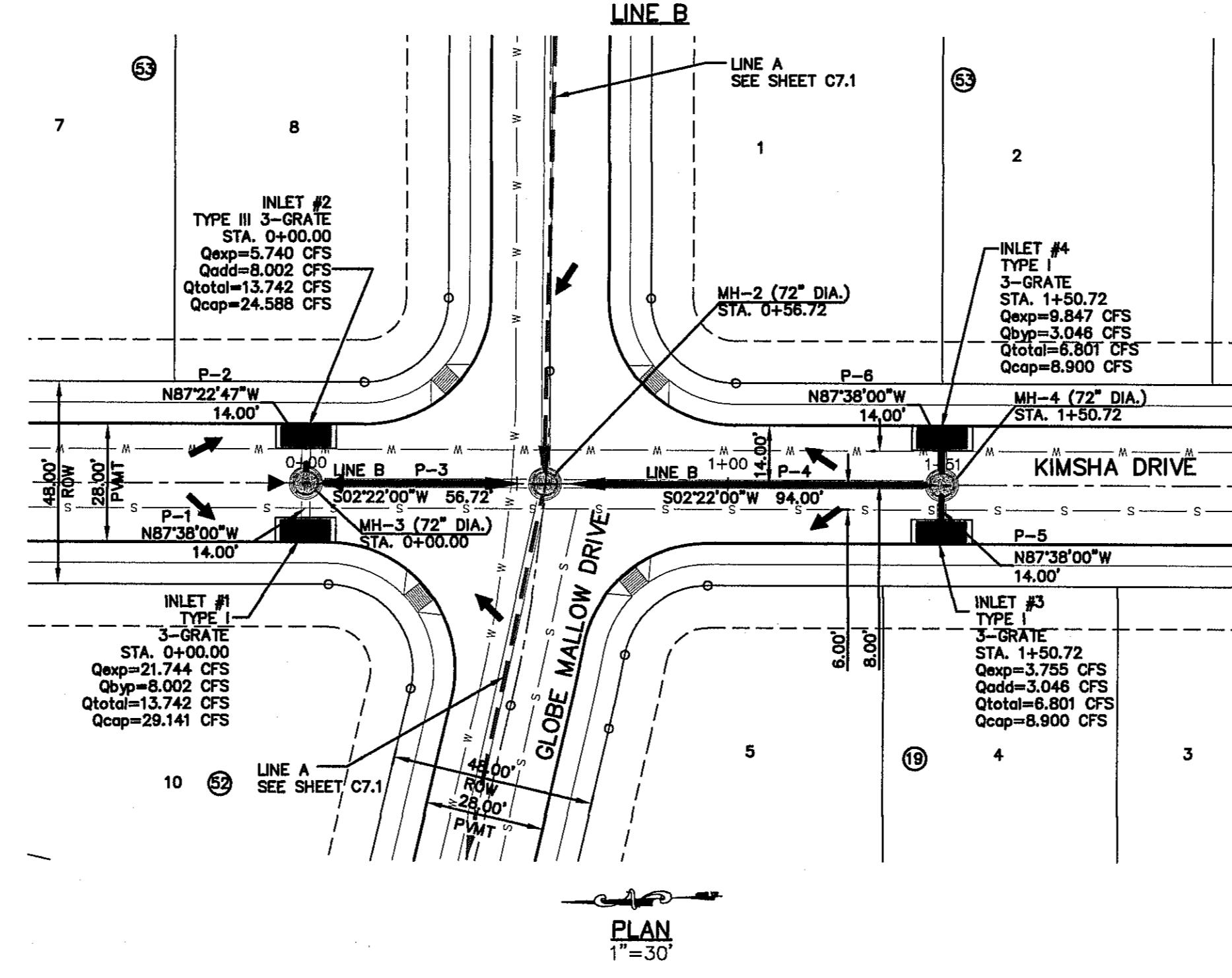
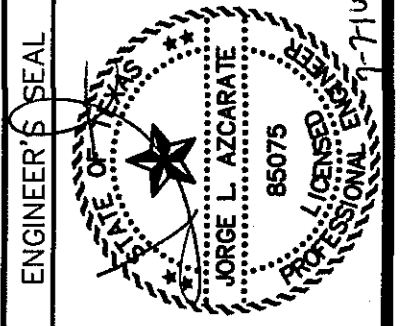
STORM PIPE LINE A OUTPUT INFORMATION						
PIPE	DOWNSTREAM INVERT ELEVATION (ft)	UPSTREAM INVERT ELEVATION (ft)	HYDRAULIC GRADE DOWNSTREAM (ft)	HYDRAULIC GRADE UPSTREAM (ft)	Q(50) Expected (cfs)	Q(50) Capacity (cfs)
P-1	3968.56	3969.00	3972.27	3972.42	13.74 CFS	39.96 CFS
P-2	3968.56	3969.00	3972.26	3972.40	13.74 CFS	39.96 CFS
P-3	3968.32	3968.56	3971.97	3972.05	25.73 CFS	43.65 CFS
P-4	3968.32	3969.00	3971.97	3972.05	12.69 CFS	34.88 CFS
P-5	3969.00	3969.10	3972.13	3972.14	6.80 CFS	19.12 CFS
P-6	3969.00	3969.10	3972.13	3972.15	6.80 CFS	19.12 CFS

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) 880-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

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

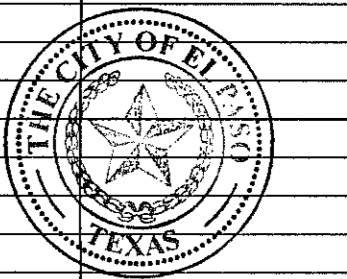
DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASO ALGRE CIRCLE AND PASO LINDO DRIVE.



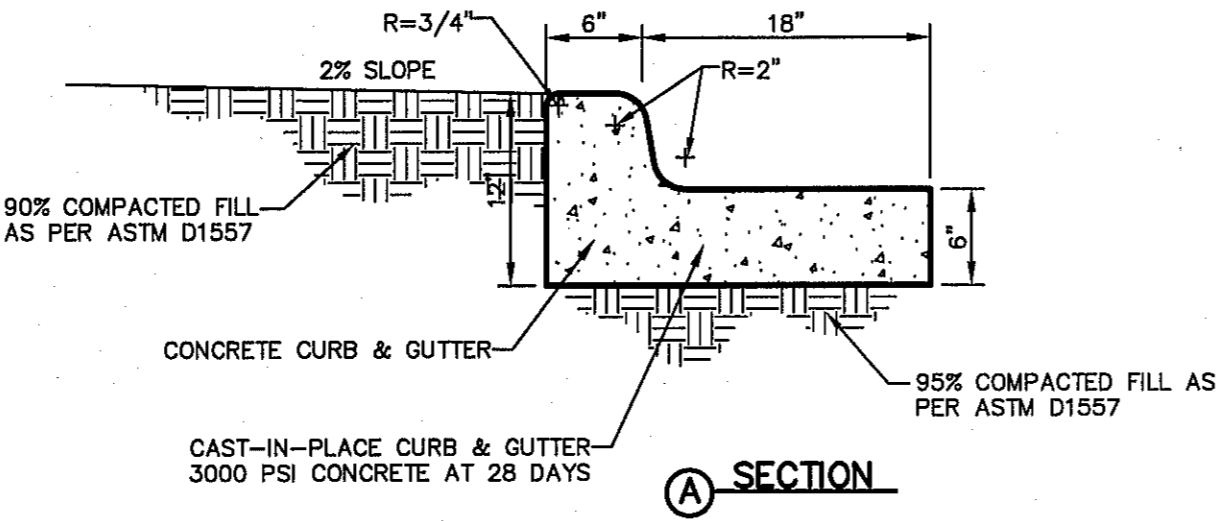
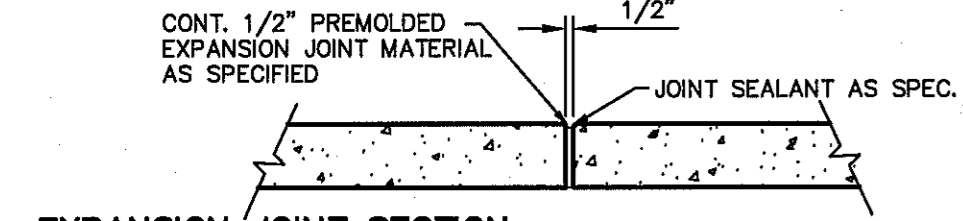
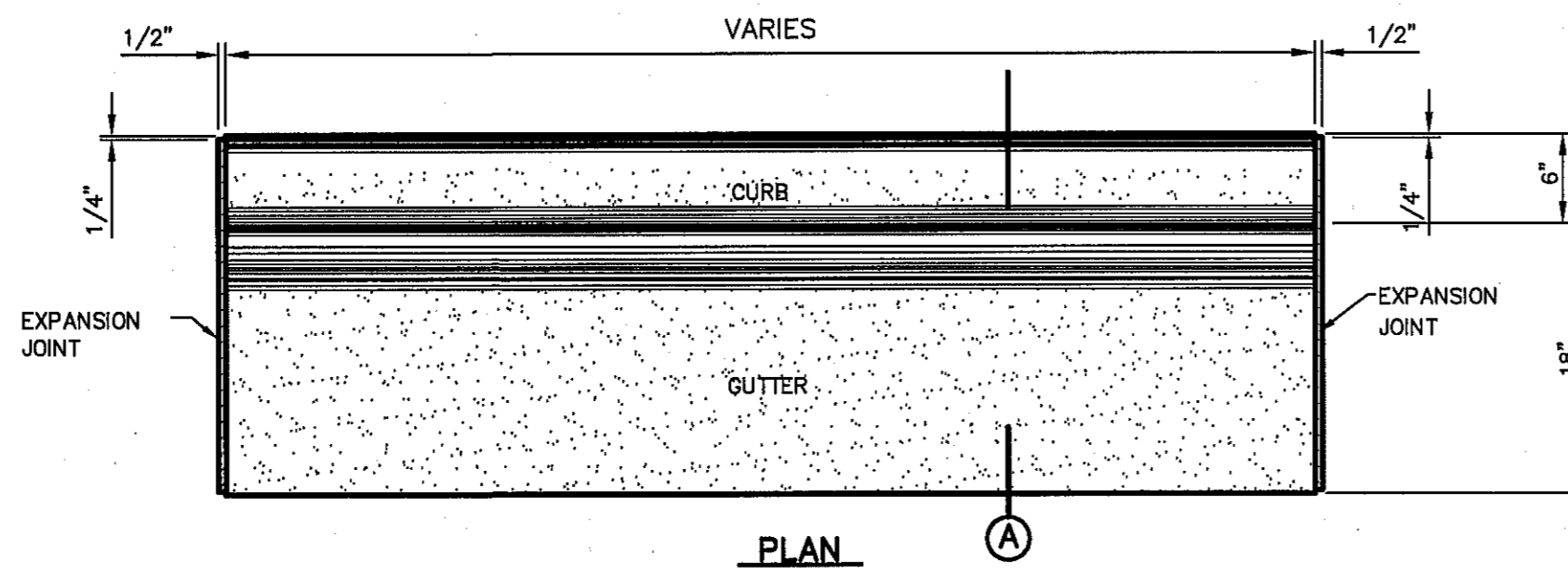
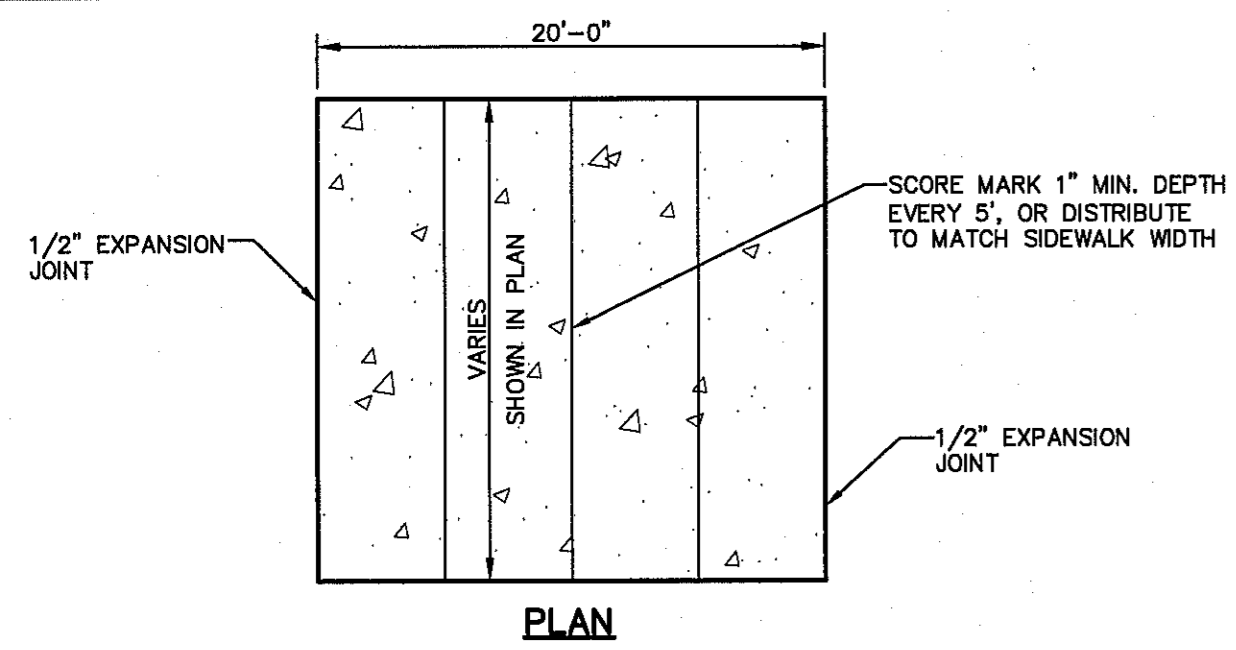
SCALE	PROJECT TITLE
Horizontal: 1"=30' Vertical: 1"=5'	MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE
LINE B
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 1+50.75



SHEET NO.
C7.2

S:\2000\2000-108-Mesquite Trails Unit 11 Replat\GIS\DWG\Construction\Drawings\Improvement Plans\2000-108-UP-C7.2.dwg User: jls Date: 7/7/2016 8:58:19 AM

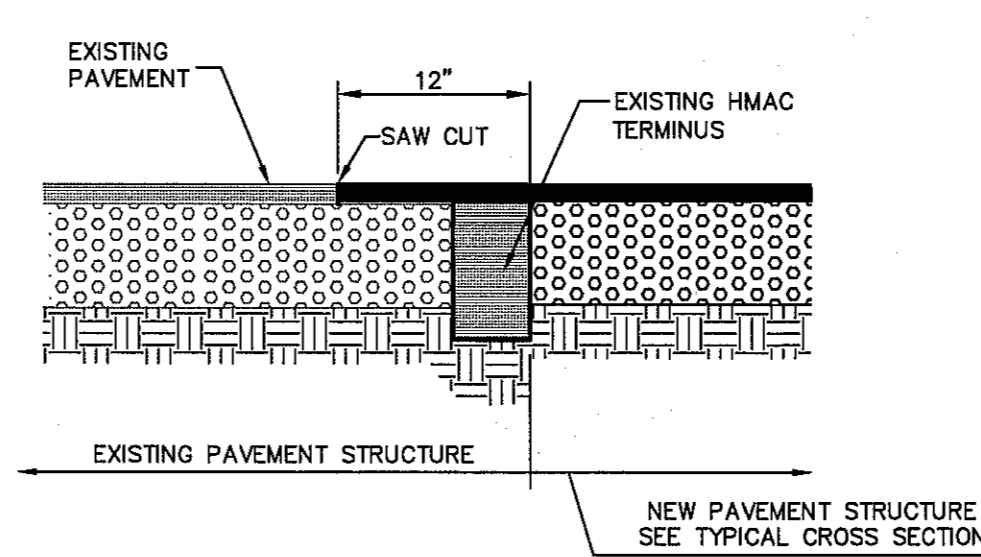


- EXPANSION JOINT SECTION**
SCALE: N.T.S.
- NOTES:**
1. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED JOINT FILLER (AASHTO M-33).
 2. EXPANSION JOINTS SHALL BE SPACED AT 20'-0" MAX.
 3. WHEREVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS, EXPANSION JOINTS FILLER SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
- 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" PREFORMED 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% AS PER ASTM D1557.
 6. REINFORCEMENT (6X6-10/10 W.W.F.) SHALL BE PLACED WHEREVER SIDEWALK ABUTS A PEDESTRIAN WALKWAY AND/OR PARK.

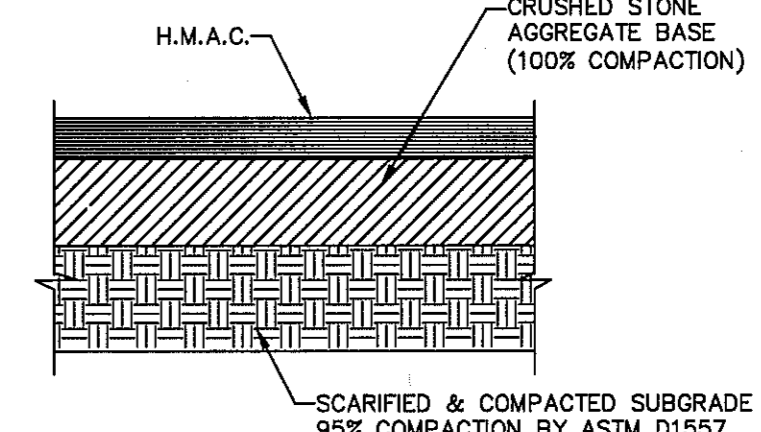
1 SECTION-SIDEWALK/SLAB
SCALE: N.T.S.

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

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



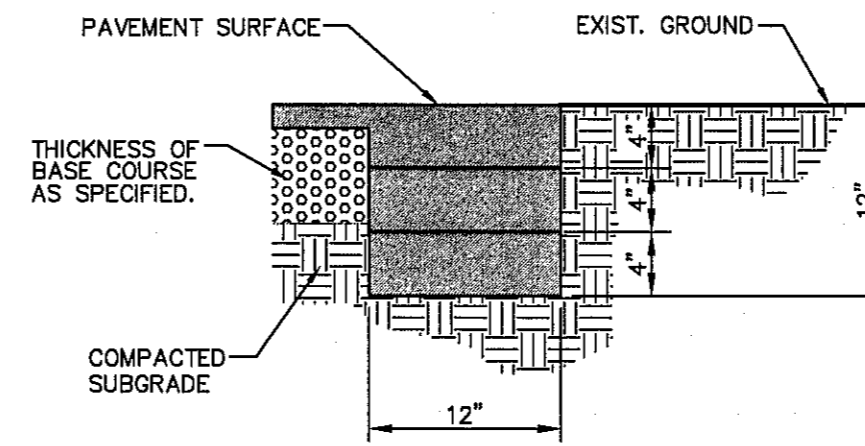
3 TYPICAL PAVEMENT JOINT SECTION
SCALE: N.T.S.



PAVEMENT SECTION NOTES:

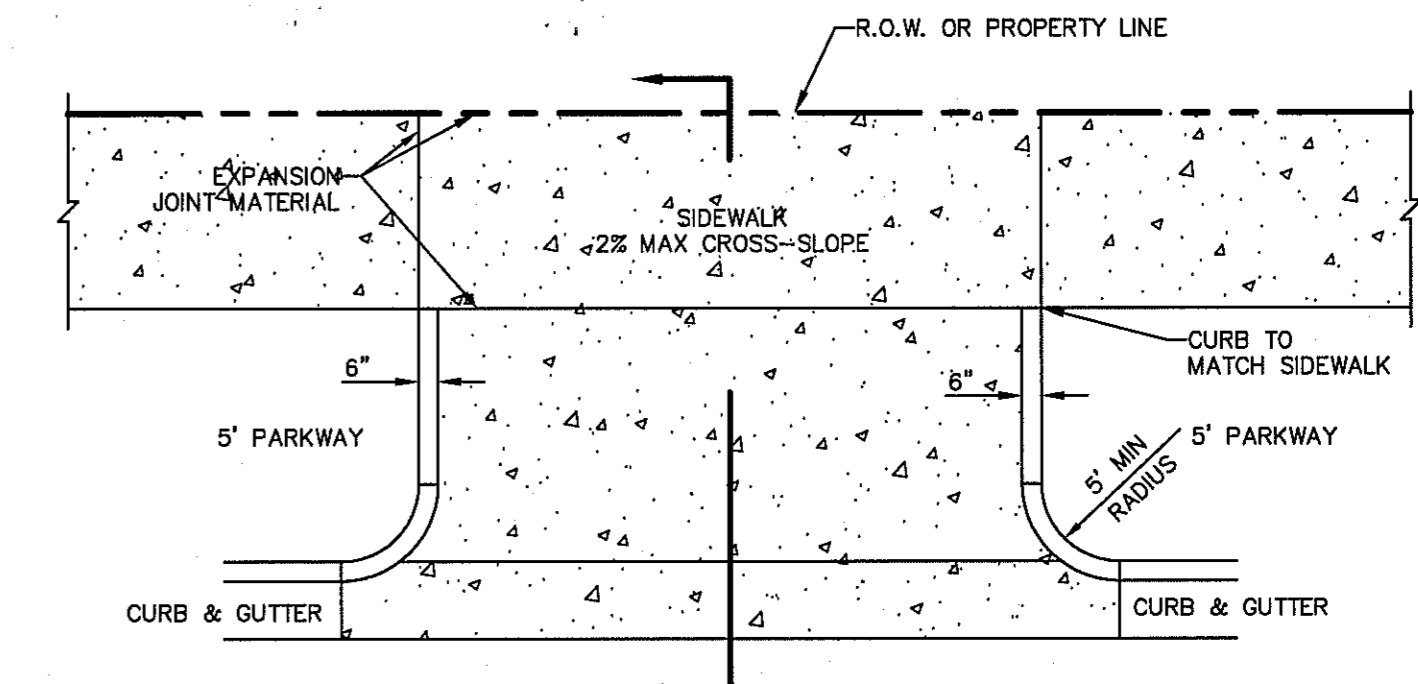
1. SUBGRADE TO BE COMPACTED TO 95% OF MAXIMUM DENSITY AS PER ASTM D-1557.
2. MINIMUM PAVEMENT DESIGN DETAILS ARE SHOWN, ACTUAL PAVEMENT DESIGN WILL BE DETERMINED BY CBR.
3. STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING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

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



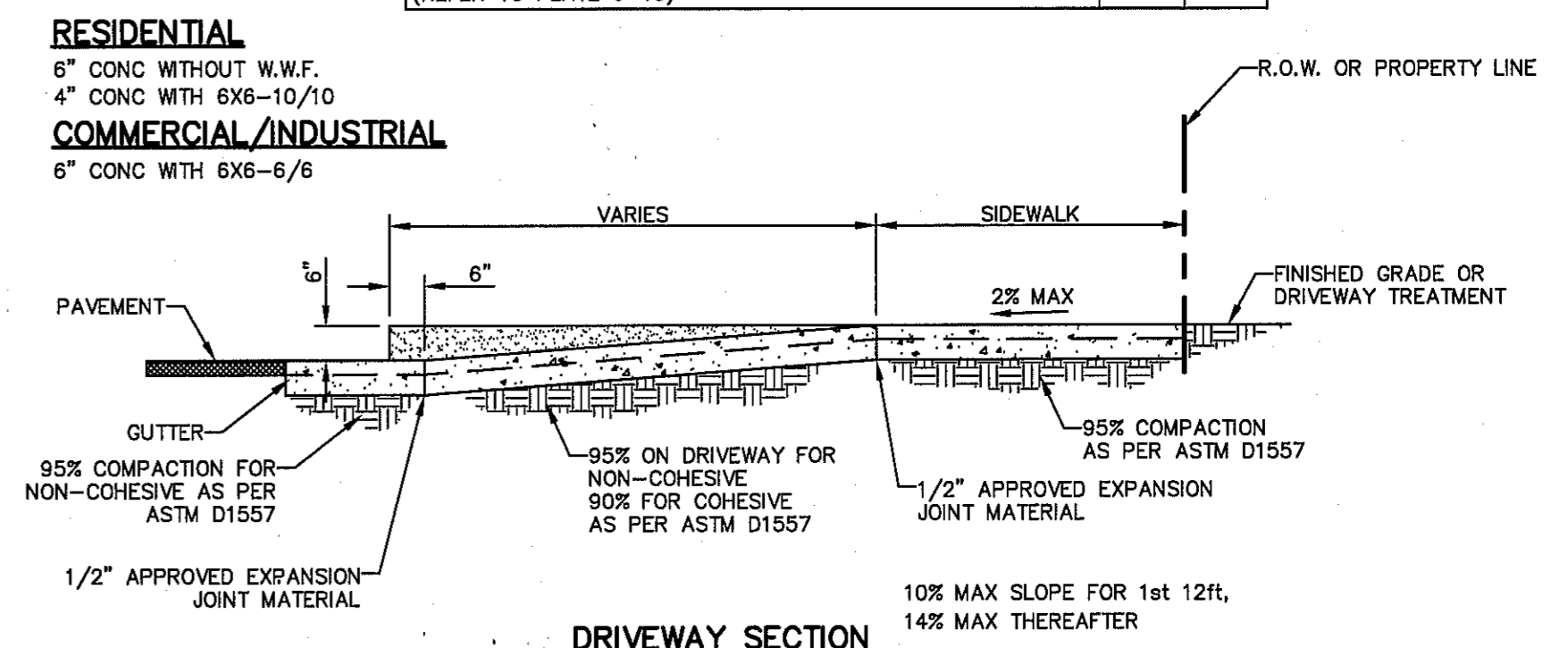
NOTE:
TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS.
FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE.

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



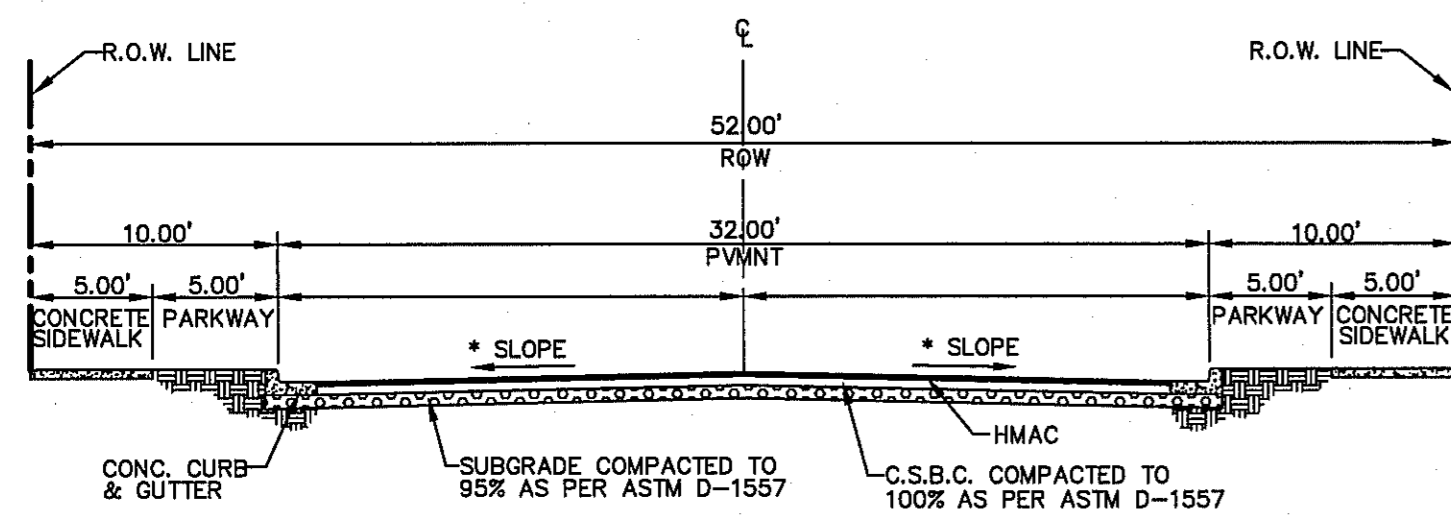
DRIVEWAY PLAN

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



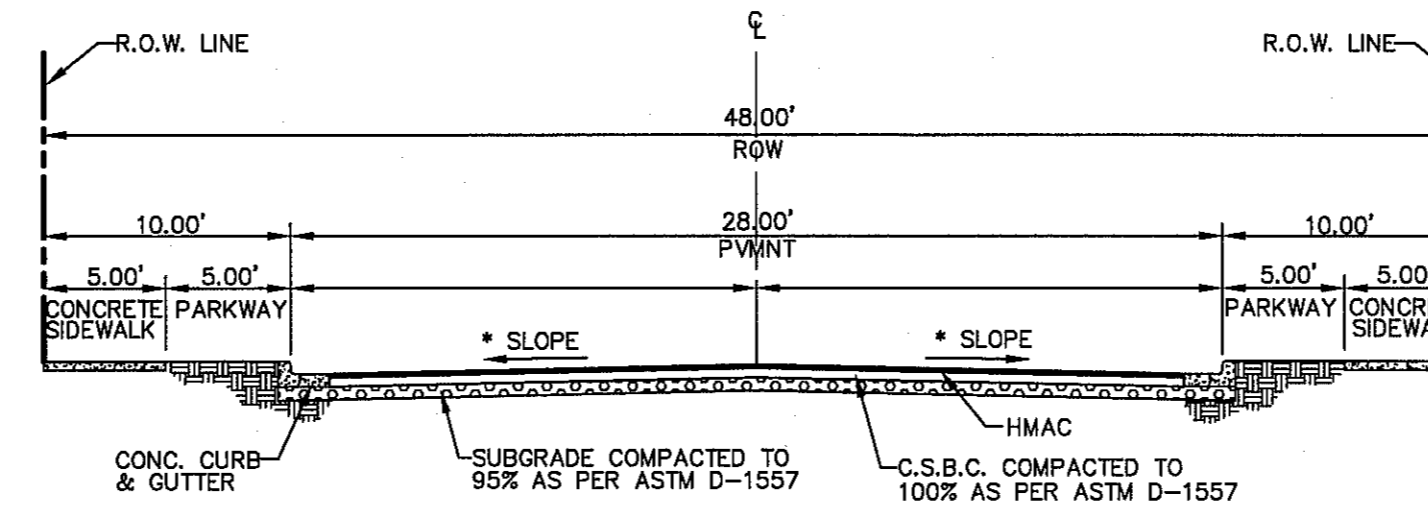
DRIVEWAY SECTION

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



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

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



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

7 TYPICAL 48' ROW STREET SECTION DETAIL (RESIDENTIAL SUBCOLLECTOR)
SCALE: N.T.S.

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASEO ALERRE CIRCLE AND PASEO LINDO DRIVE

DATE	REVISIONS	BY

osa

TEXAS REGISTERED ENGINEERING FIRM 4664
4712 W. NEWBERRY ST. F. EL PASO, TX 79924
915.544.3232 | www.osainc.com

ENGINEER'S SEAL

JOSÉ L. AZARATE
85075
15250

SCALE

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

DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APP'D. BY: J.L.A.
JOB NO.: 2000-196

PROJECT TITLE

MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

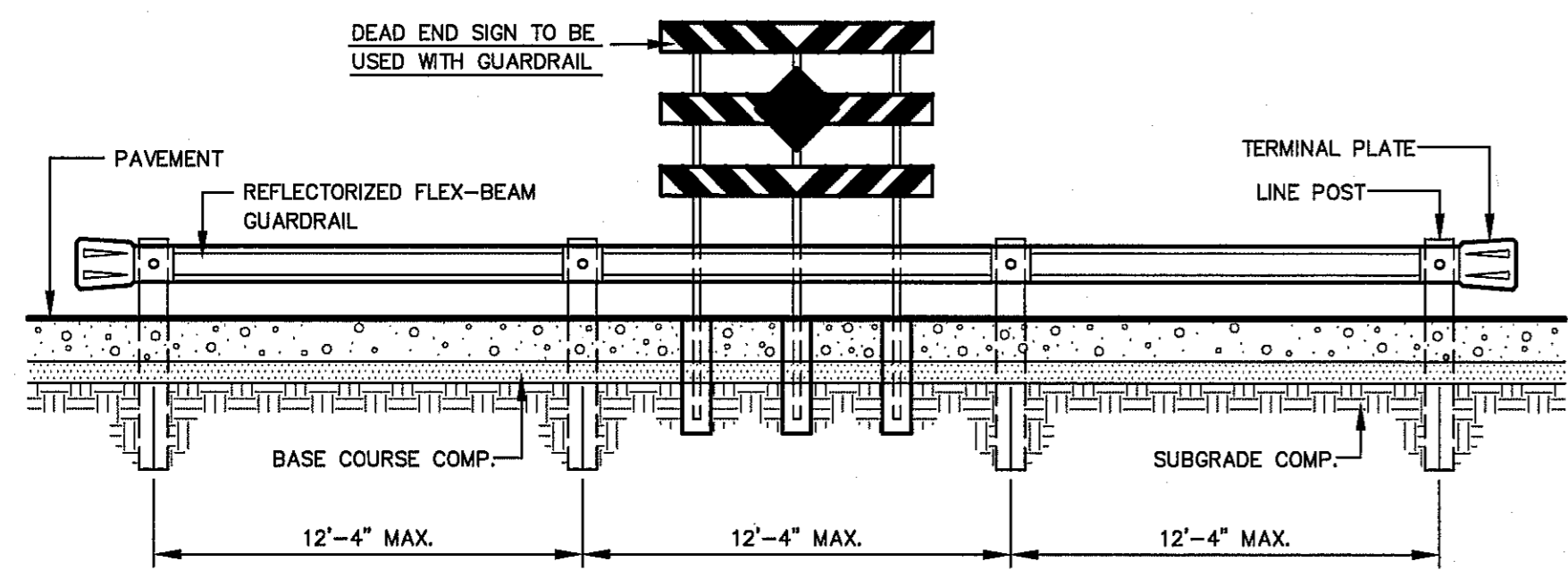
STANDARD DETAILS

(SHEET 1 OF 3)
SHEET NO.

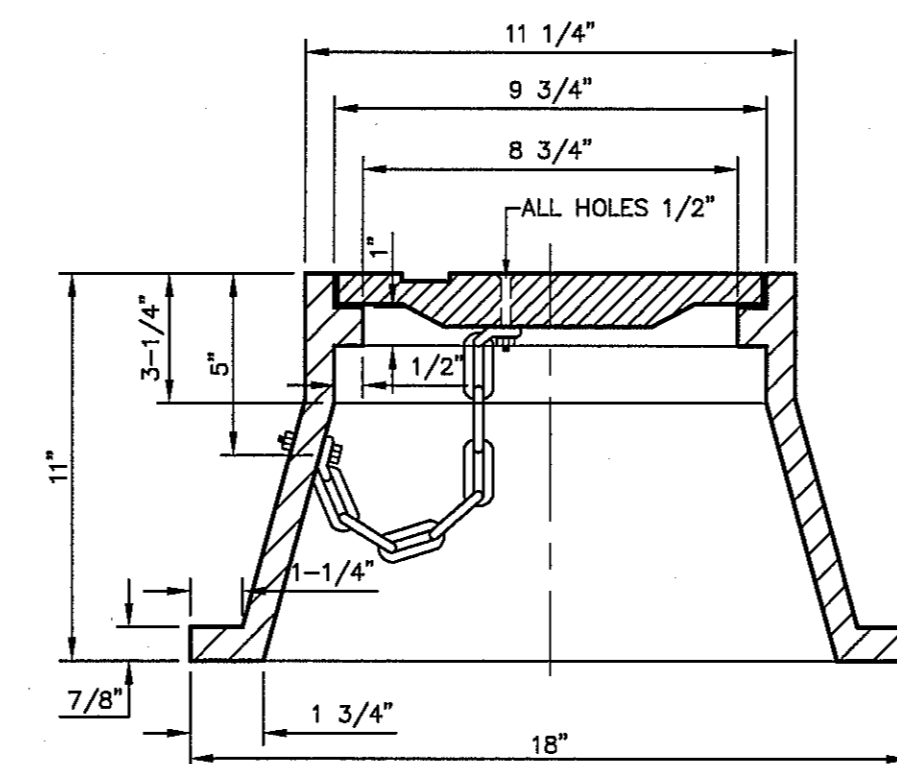
C8.1



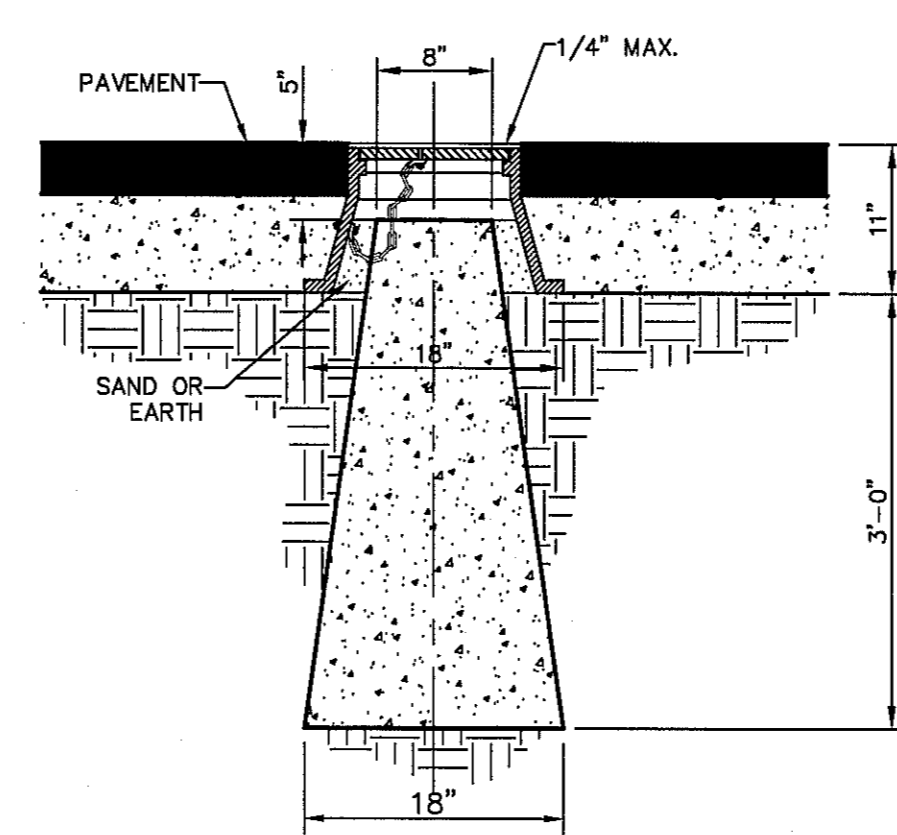
S:\2005\2005-196-Mesquite Trails Unit 11 Redesign\0825\Construction Drawings\0825\Construction Drawings\0825\0825-196-C8.1-Subdivision Details.dwg, User: J.L.A., 5/27/2016 10:20:56 AM



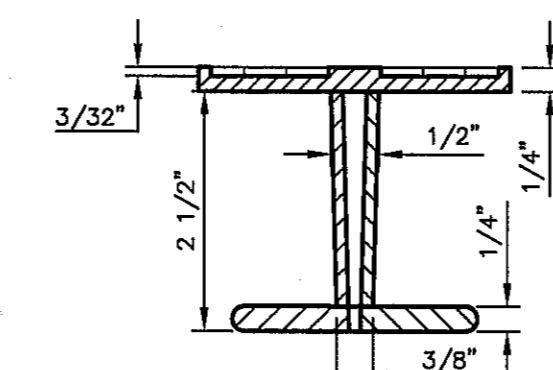
ELEVATION
SCALE: 1"=5'



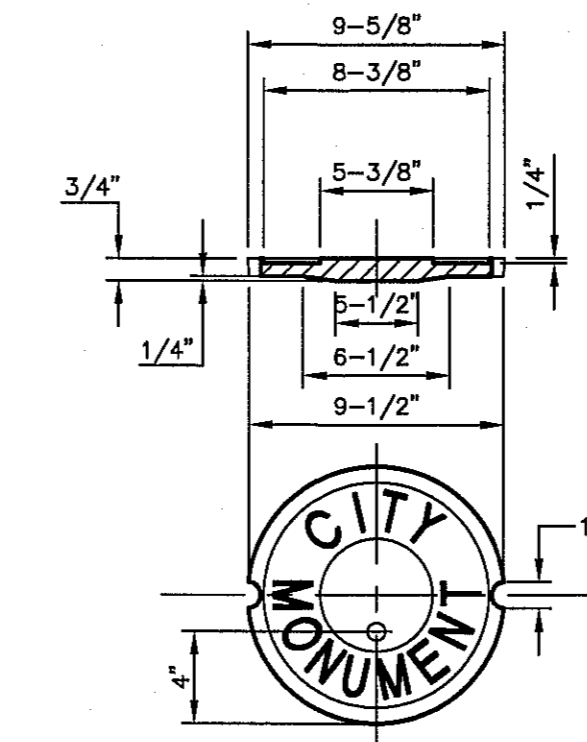
FRAME SECTION



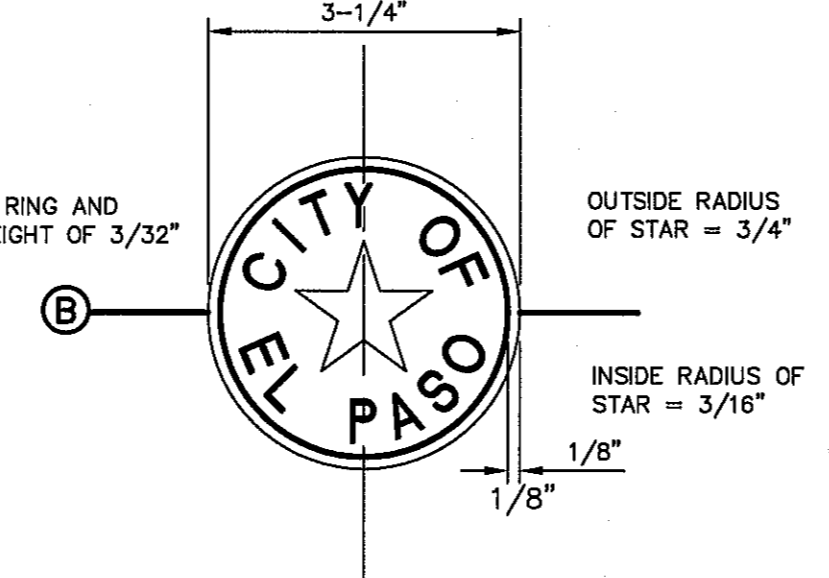
NO FORMS REQUIRED.
CONCRETE TO BE
POURED IN PLACE
3000 P.S.I. CONC.



B SECTION

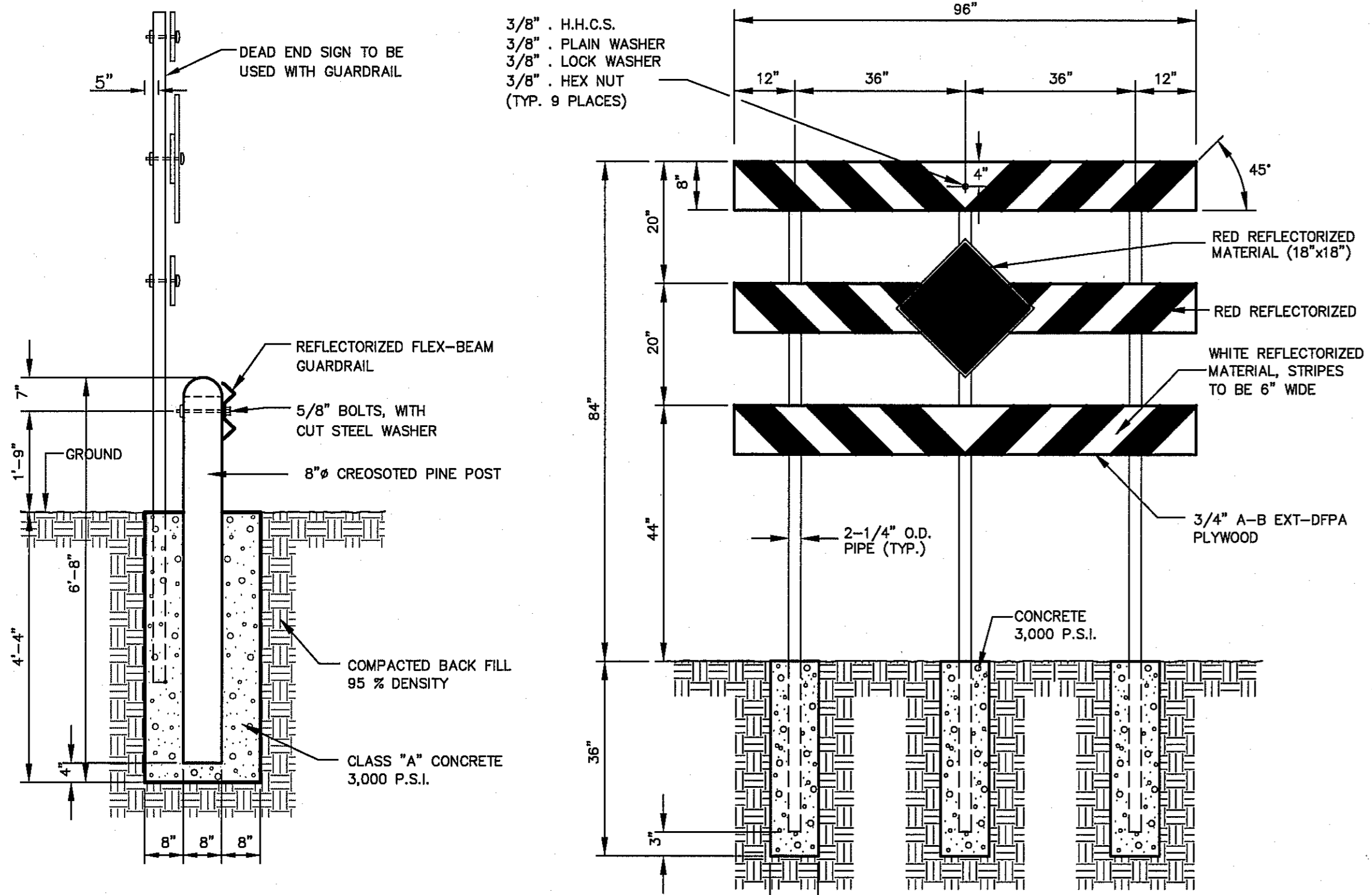


COVER



BRONZE MONUMENT CAP

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



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

DEAD END SIGN DETAIL
SCALE: AS SHOWN

1 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL
SCALE: N.T.S.

ROCK WALLS

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

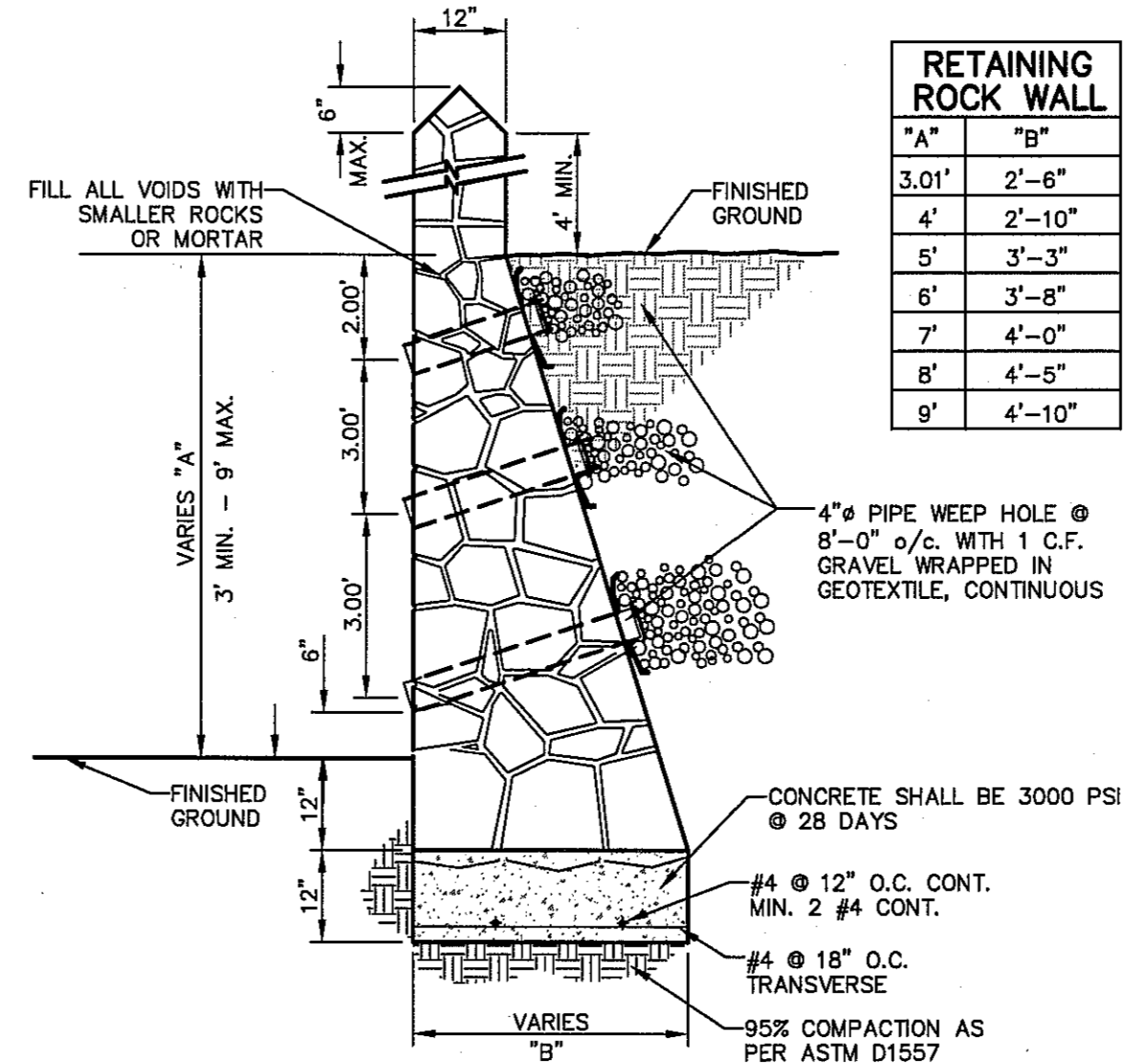
MORTAR FOR THE ROCK WALLS SHALL CONSIST BY VOLUMES OF ONE (1) PART PORTLAND CEMENT, ONE-QUARTER TO ONE-HALF (1/4 TO 1/2) PART HYDRATED LIME, AND THREE (3) PARTS CLEAN, HARD, DURABLE SAND (2 1/4 TO 3 TIMES THE SUM OF THE VOLUMES OF CEMENT AND LIME COMBINED. SEE CITY BUILDING CODE PP. 14-3 AND 14-4). MORTAR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

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

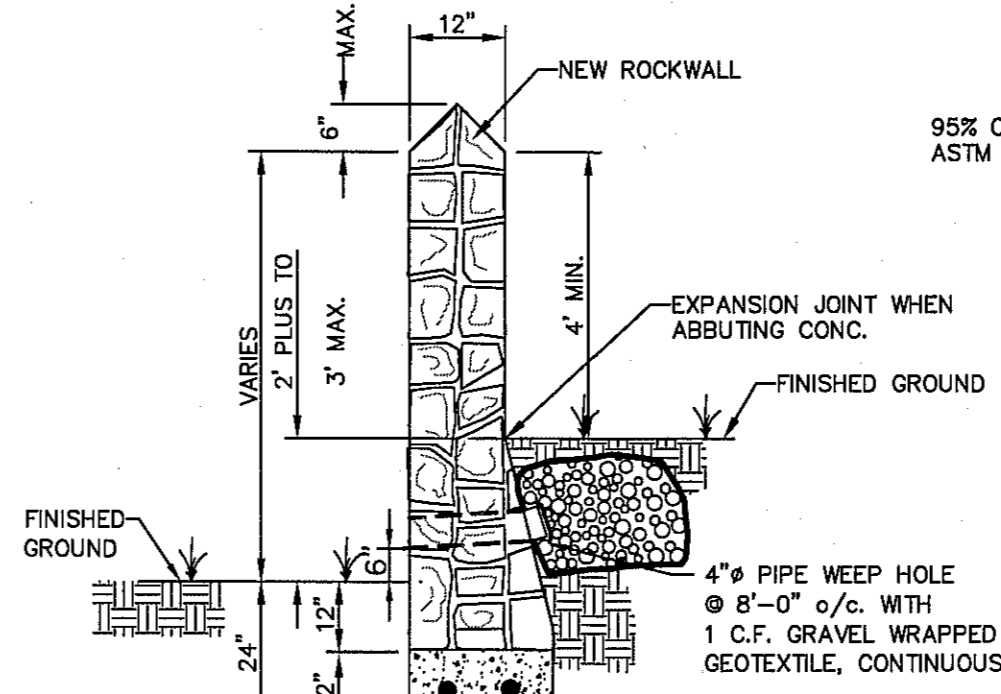
STONE SHALL BE SELECTED AS TO SIZE AND SHAPE IN ORDER TO SECURE FAIRLY LARGE, FLAT-SURFACED STONE WHICH MAY BE ERECTED WITH TRUE AND EVEN SURFACE FACES AND A MINIMUM OF EXPOSED MORTAR. ALL STONES SHALL BE THOROUGHLY CLEANED, WETTED, HAND-PLACED AND EMBEDDED IN MORTAR SO THAT NO STONES SHALL TOUCH EACH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

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

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



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



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

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

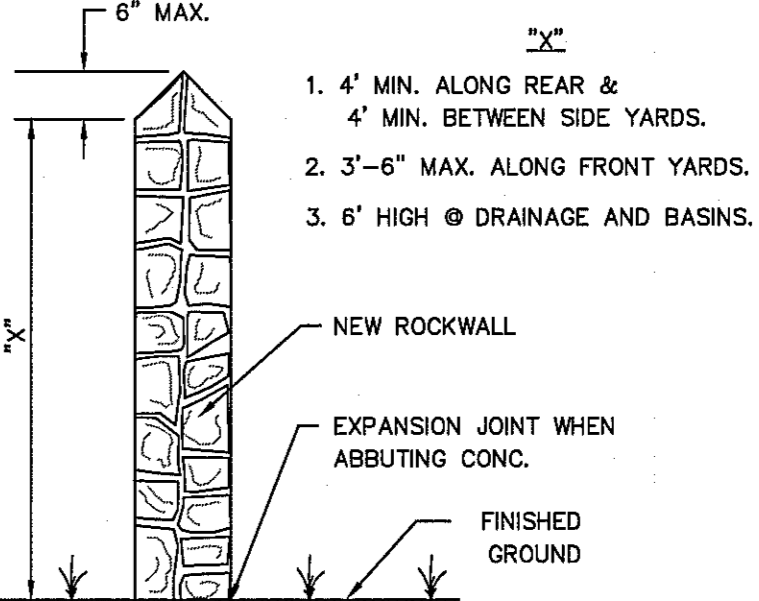
PROPOSED MONUMENT LOCATIONS

- A. MONUMENTS SHALL BE INSTALLED SO THAT ALL FRONT PROPERTY CORNERS OF ALL LOTS IN THE SUBDIVISION ARE WITHIN LINE OF SIGHT OF A MONUMENT, OR WITHIN SIGHT OF THE LINE BETWEEN TWO ADJACENT MONUMENTS.
- B. EACH MONUMENT SHALL BE WITHIN LINE OF SIGHT OF ANOTHER MONUMENT.
- C. MONUMENTS SHALL BE NO FARTHER THAN 2000 FEET APART.
- D. AT LEAST ONE (1) MONUMENT SHALL BE PLACED ON EACH HORIZONTAL CURVE (90°) OF THE TANGENTS LEADING INTO THE CURVE FALLS OUTSIDE THE CURB LINE.
- E. NO FEWER THAN TWO MONUMENTS SHALL BE PLACED IN ONE (1) STREET SUBDIVISIONS.

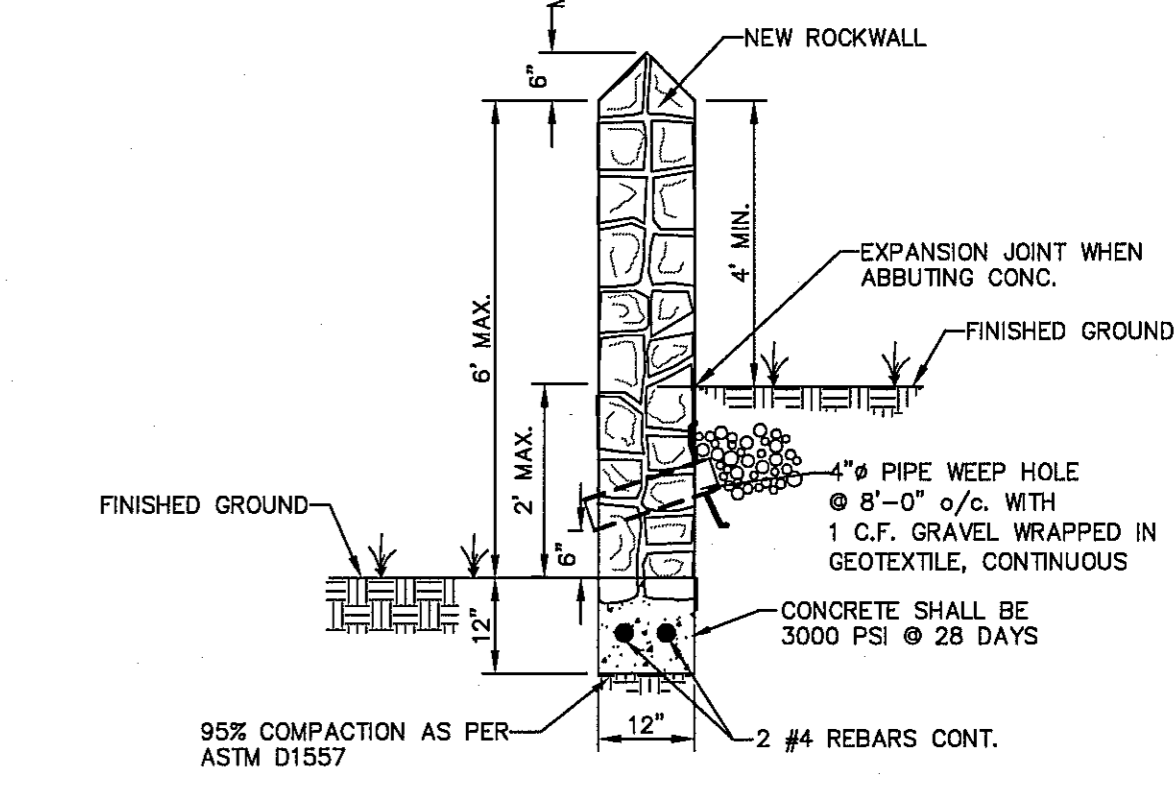
ROCK WALL NOTES

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

NOTE: BUILDER SHALL SUBMIT ROCKWALL AND RETAINING ROCKWALL COMPUTATIONS TO THE COUNTY OF EL PASO OR FOR APPROVAL, IF IN EXCESS OF THOSE SHOWN.



GARDEN WALL SECTION



GARDEN WALL SECTION (2' MAX.)

REFERENCES - BENCHMARKS
EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASCO ALGEE CIRCLE AND PASCO LINDO DRIVE

DATE: _____ BY: _____
REVISIONS: _____

CSA
CONSTRUCTION SERVICES ASSOCIATES
TEXAS REGISTERED ENGINEERING FIRM # 4564
4772 Woodloch Blvd. Ste. F El Paso, TX 79924
916.544.6232 | www.csaengineers.net

ENGINEER'S SEAL
JOSUE L. ALZARRATE
REGISTERED PROFESSIONAL ENGINEER
NO. 88075
EXPIRES 12/31/2014

SCALE: Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2016
DESIGN BY: R.D.
DRAWN BY: J.L.A.
CHECKED BY: J.L.A.
APPROVED BY: J.L.A.
JOB No.: 2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**STANDARD
DETAILS**

(SHEET 2 OF 3)
SHEET NO.

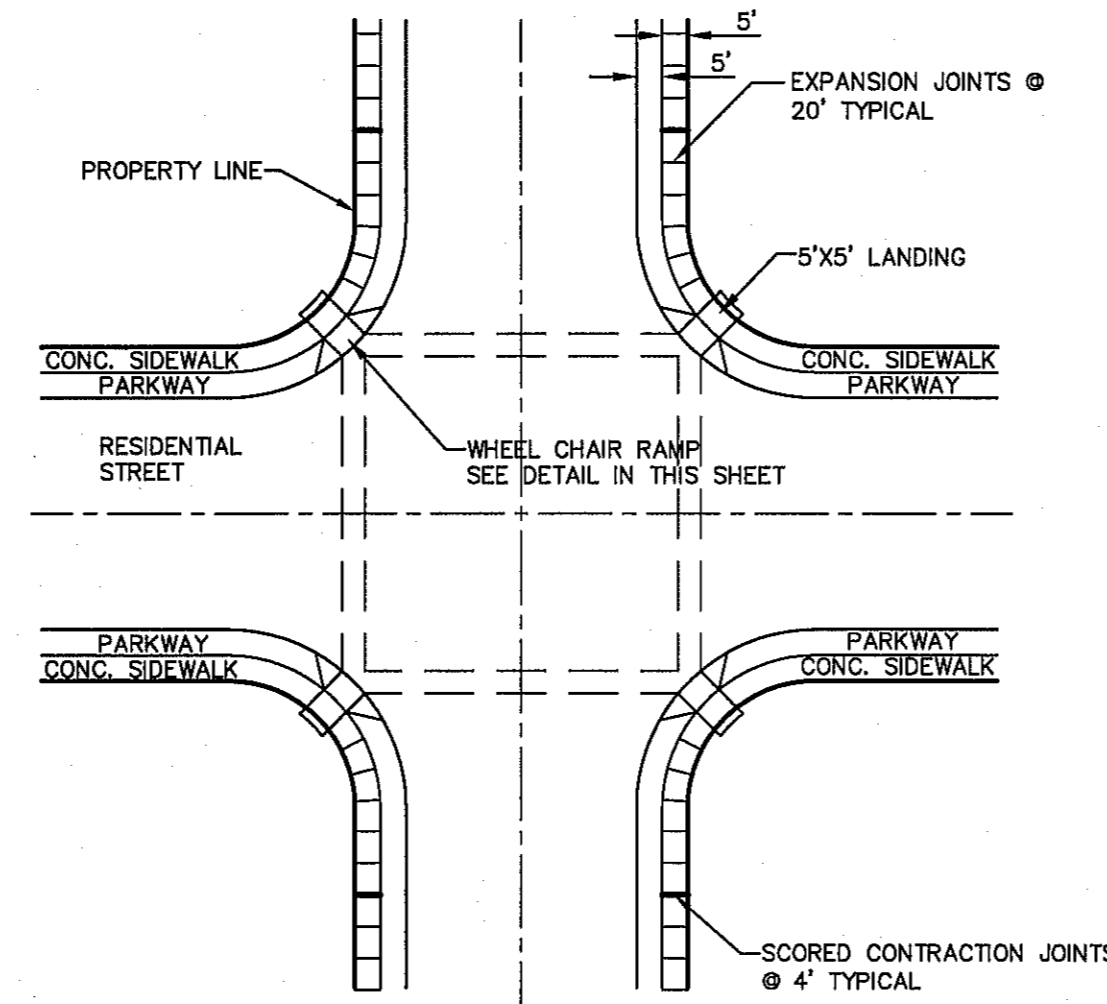
C8.2

LEGEND

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

NOTES:

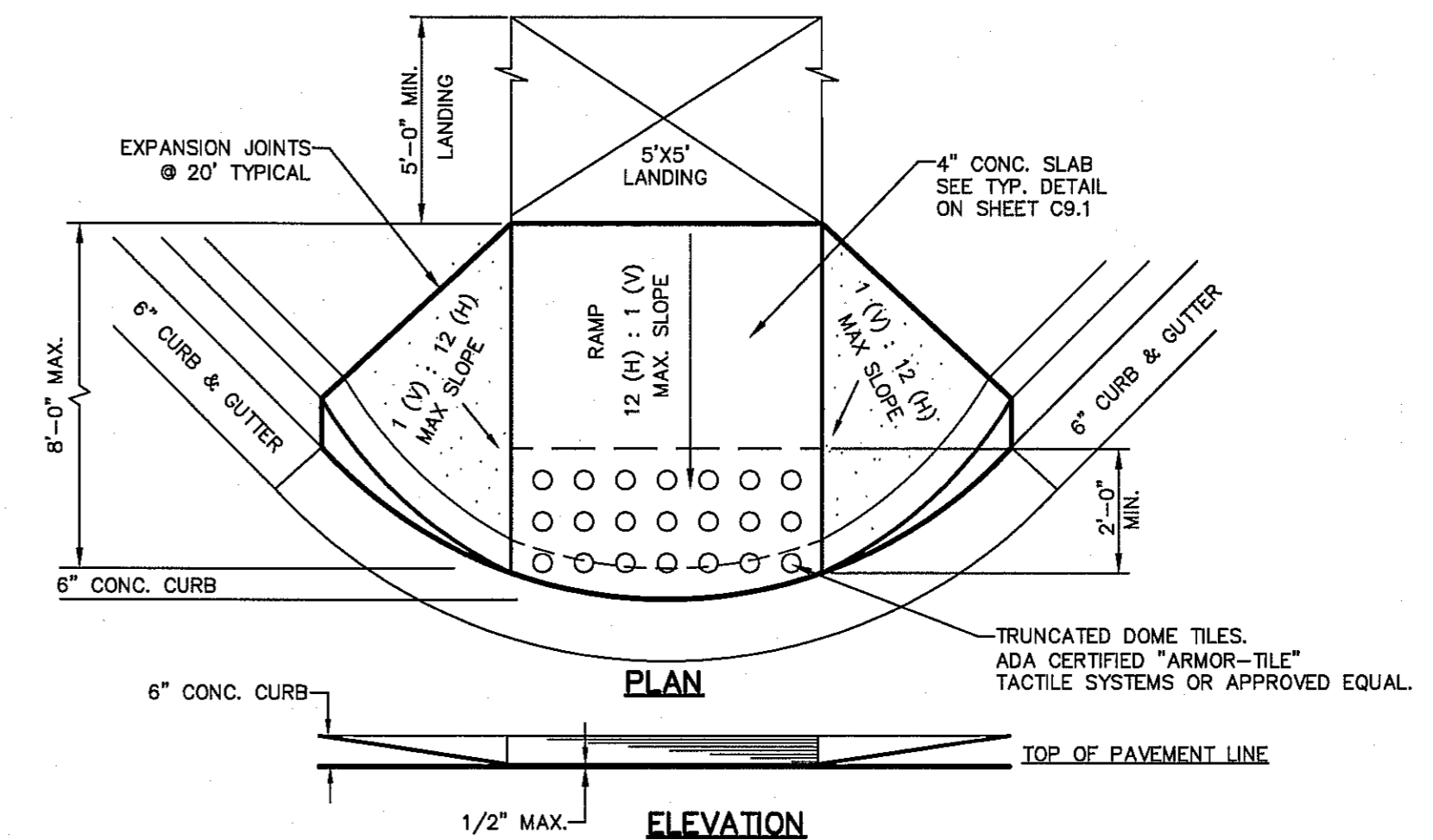
1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
2. THE MINIMUM SIDEWALK WIDTH IS 5'. WHERE A 5' SIDEWALK CAN NOT BE PROVIDED DUE TO SITE CONSTRAINTS, A 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).



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.

2 WHEELCHAIR RAMP STREET PLAN
SCALE: N.T.S.



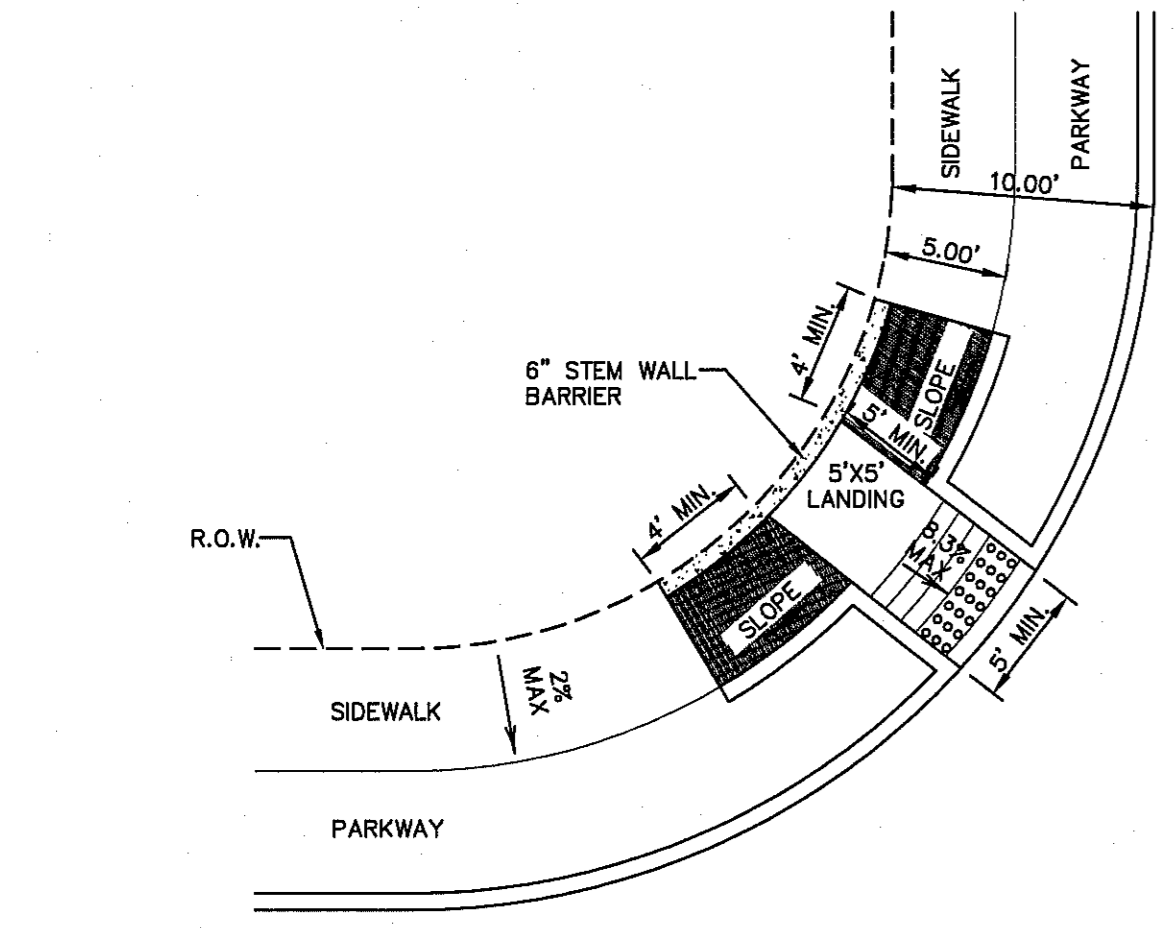
LEGEND

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

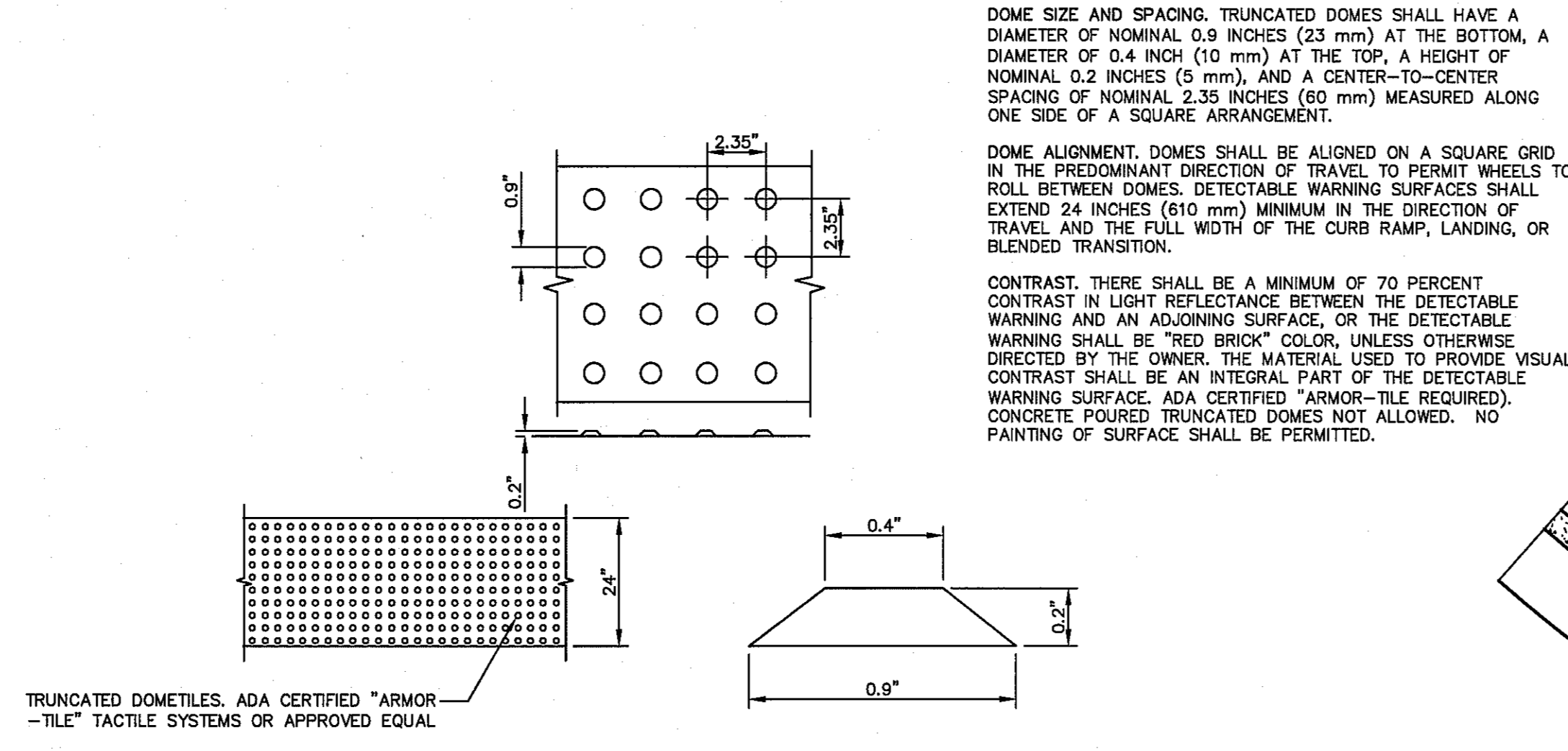
NOTES:

1. ALL CONCRETE SHALL BE 3,000 P.S.I. MIN. AT 28 DAYS.
2. CONCRETE SLABS SHALL BE A MIN. 4" THICK.
3. ALL NEW RAMPS SHALL COMPLY WITH T.A.S. AND A.D.A. REQUIREMENTS. ANY SECTIONS NOT CONFORMING WILL BE REMOVED AT THE CONTRACTORS EXPENSE.
4. ALL ADA RAMPS SHALL BE BUILT BY DEVELOPER.

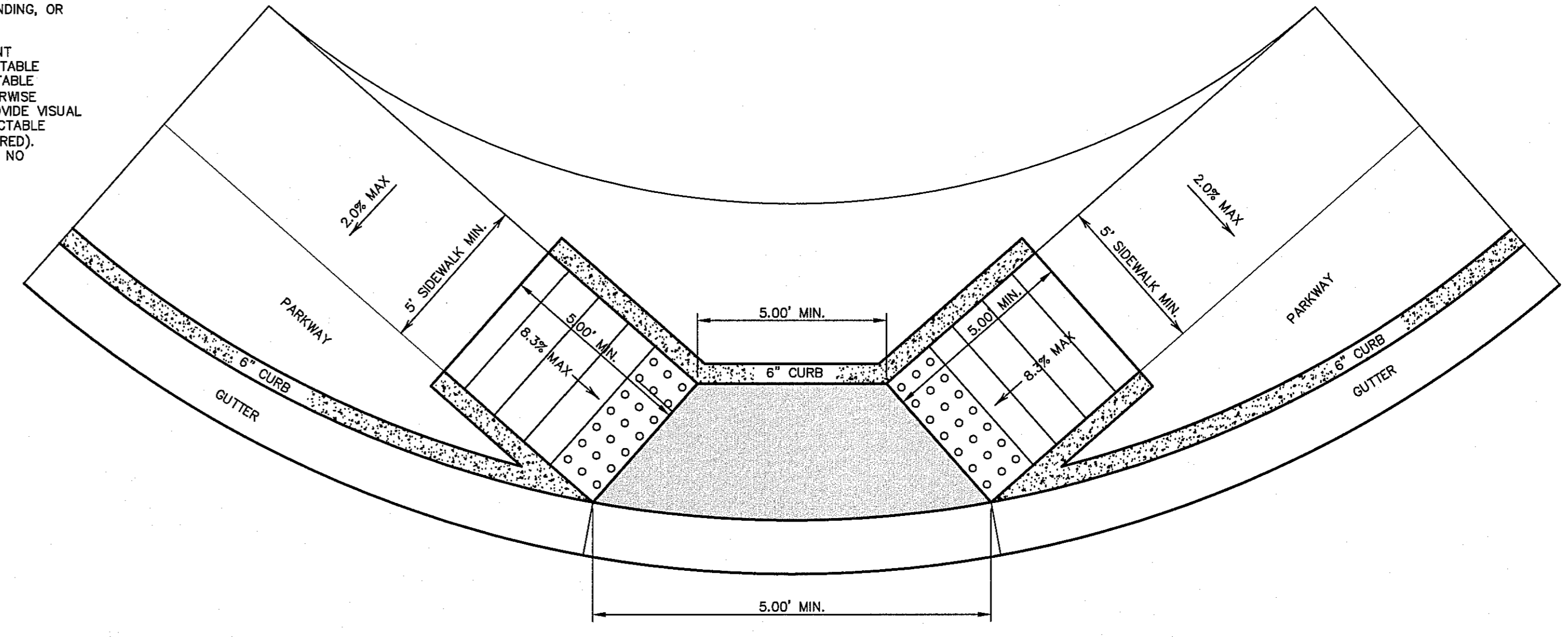
3 TYPICAL WHEELCHAIR RAMP DETAIL
SCALE: N.T.S.



1 DIAGONAL CURB RAMP (FLARED SIDES) (TYPE V)
SCALE: N.T.S.



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

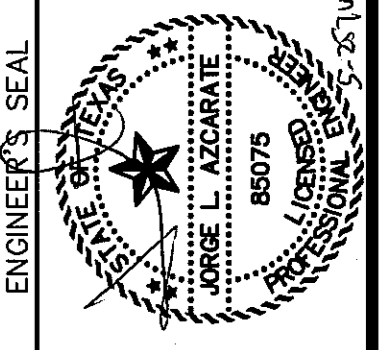


6 DIRECTIONAL RAMP @ INTERSECTION
SCALE: N.T.S.

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT	
ELEVATION=4003.10 FEET (CITY DATUM)	
LOCATED AT THE CENTERLINE INTERSECTION OF	
PASEO ALFREY CIRCLE AND PASEO UNDO DRIVE	
DATE	REVISIONS
BY	

osa
OFFICE
TEXAS REGISTERED ENGINEERING FIRM #466
4712 W. NEW BRASS, Ste. F EL PASO, TX 79924
915.544.5232 | www.osaengineers.com



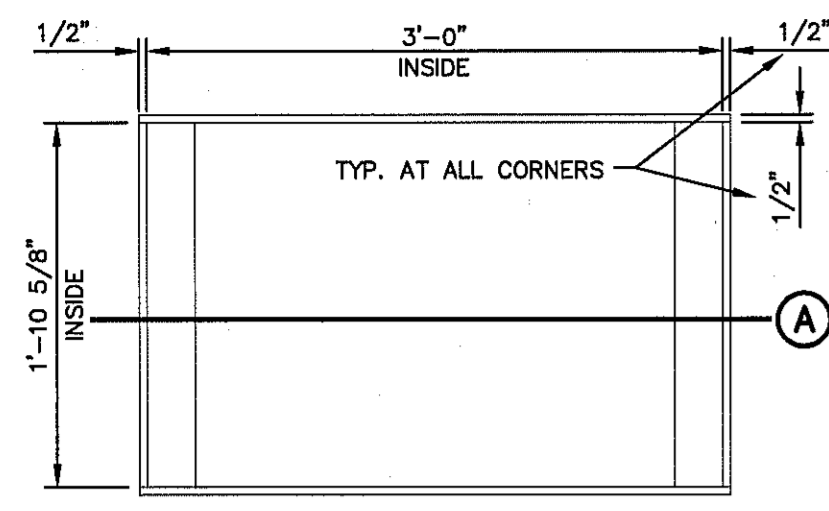
SCALE	N/A
Horizontal Interval	N/A
Vertical Interval	N/A
Contour Interval	N/A
DATE	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHECKED BY:	J.L.A.
APP'D. BY:	J.L.A.
JOB NO.	2000-196

PROJECT TITLE
MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS

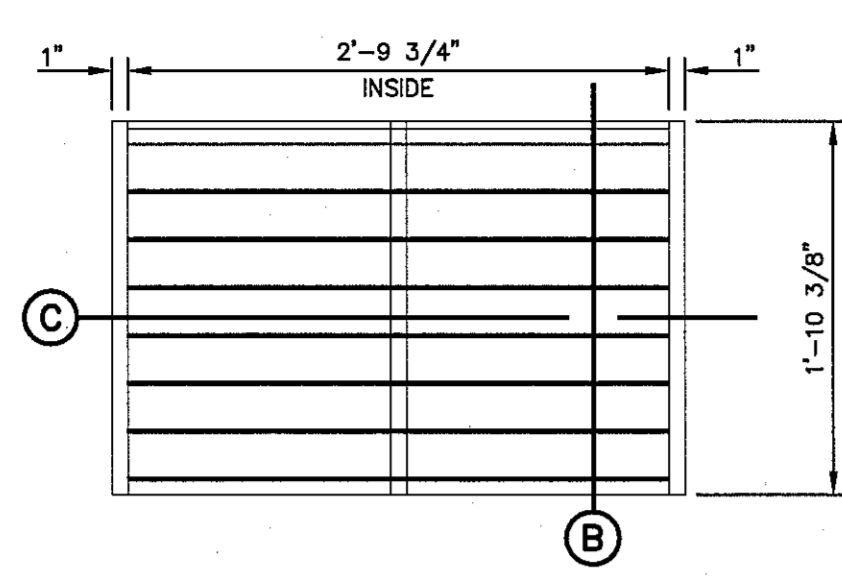
SHEET TITLE
STANDARD
DETAILS
(SHEET 3 OF 3)
SHEET NO.

C8.3



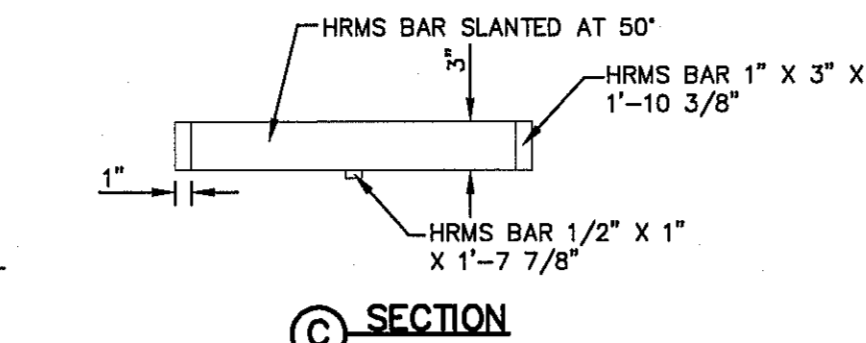


PLAN - FRAME

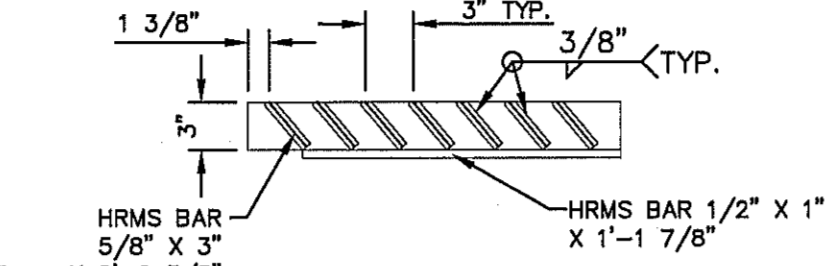


PLAN - GRATE

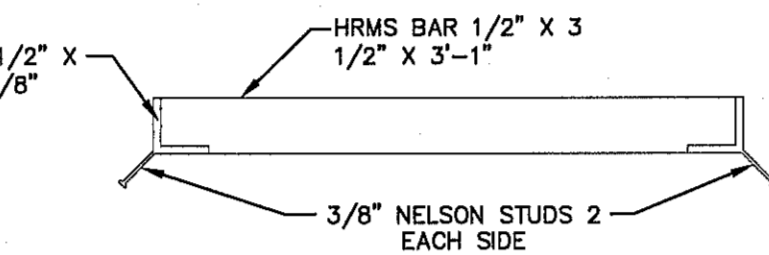
L 3 1/2" X 3 1/2" X 1/2" X 1'-10 5/8"



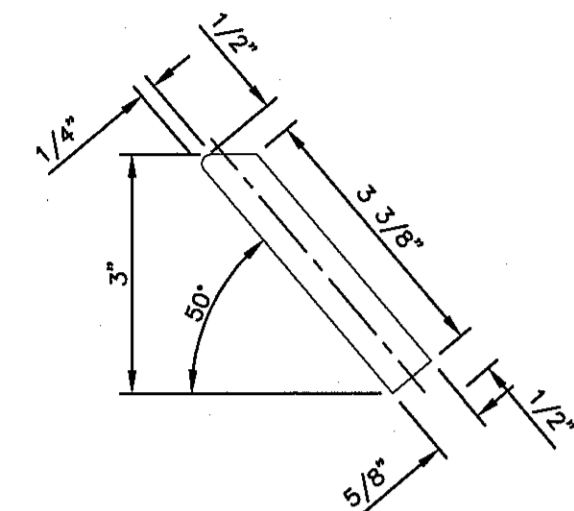
SECTION C



SECTION B

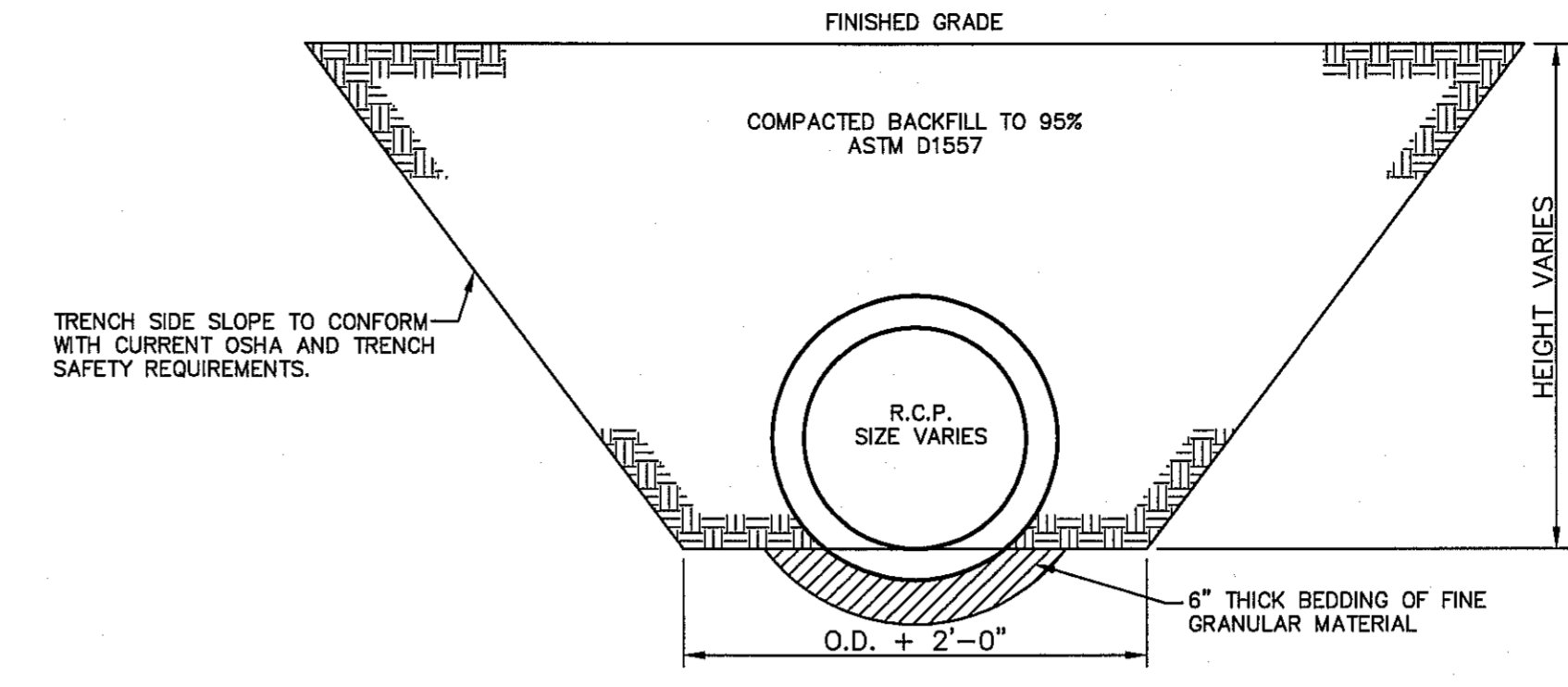


SECTION A

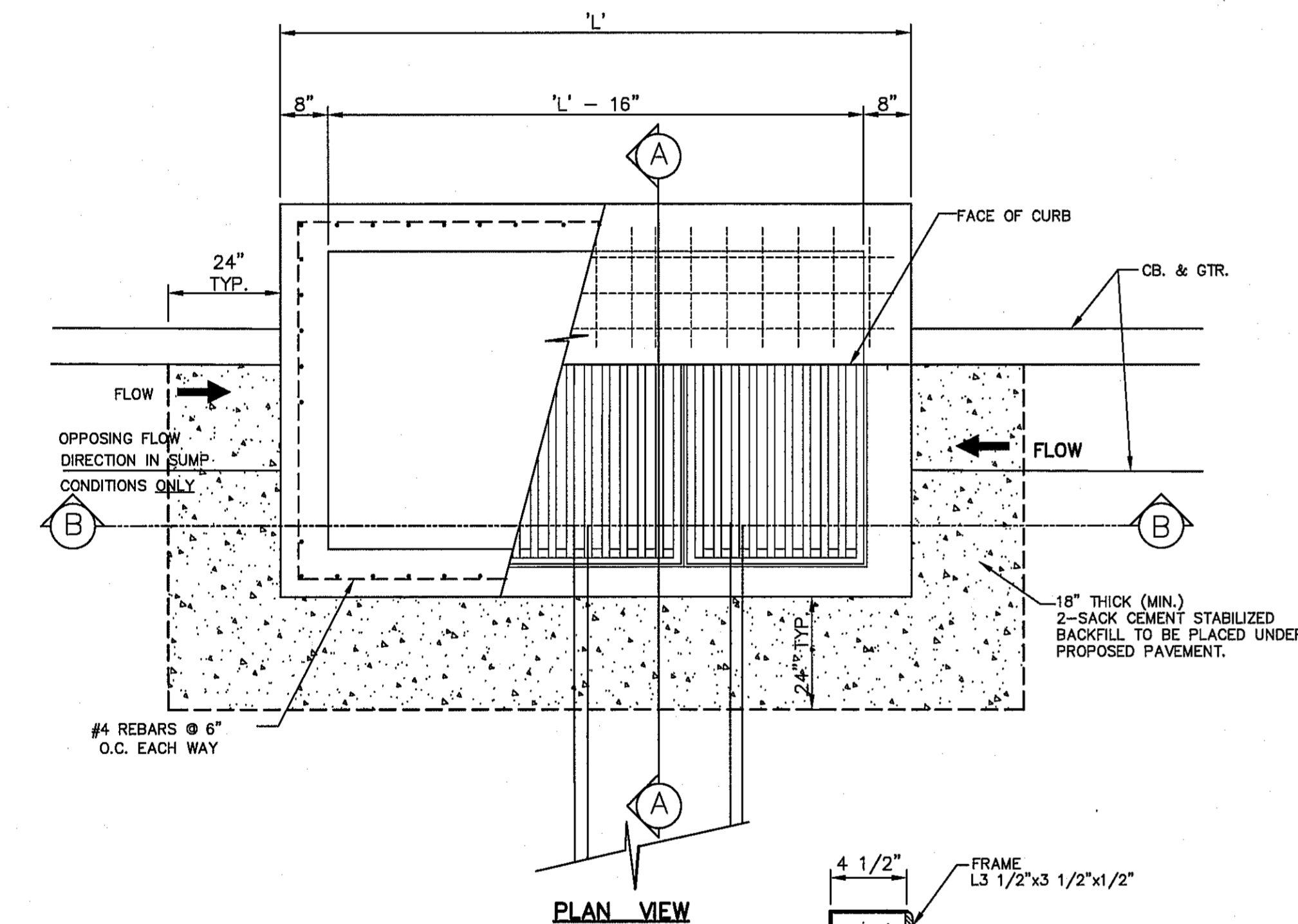


SLANTED BAR DETAIL

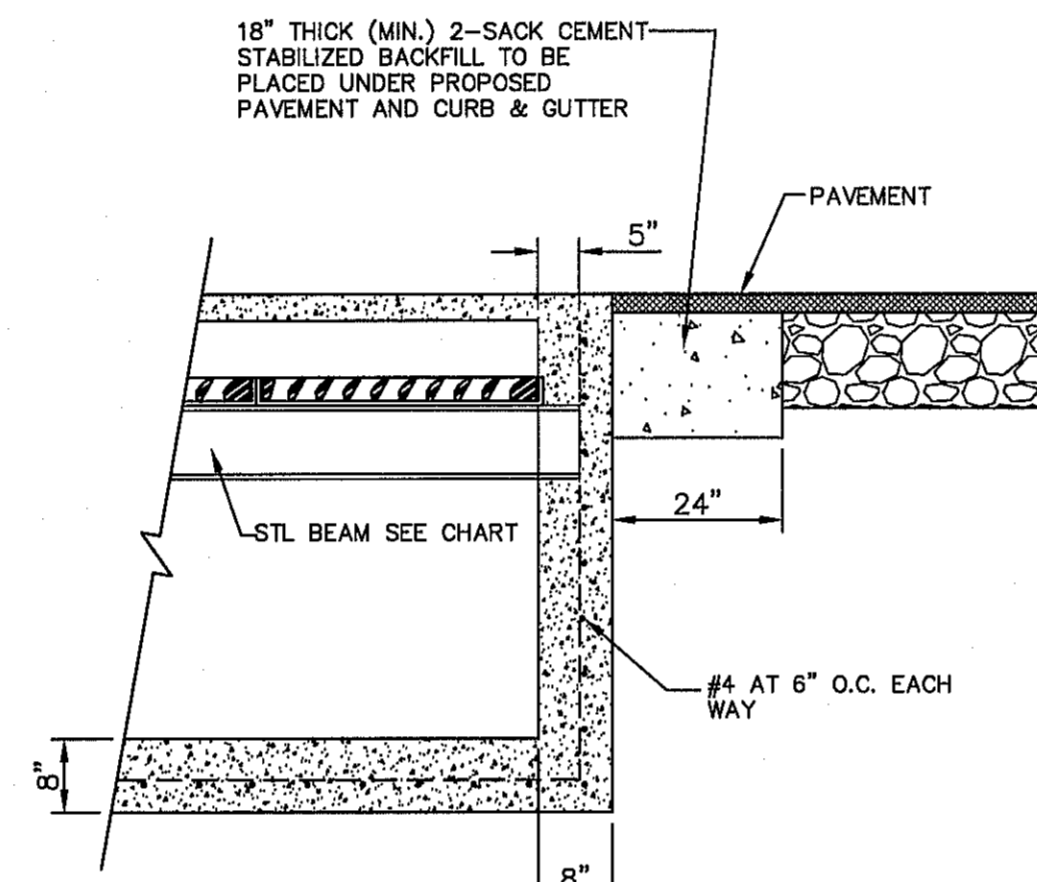
1 GRATE AND FRAME DETAILS
SCALE: 1" = 1'-0"



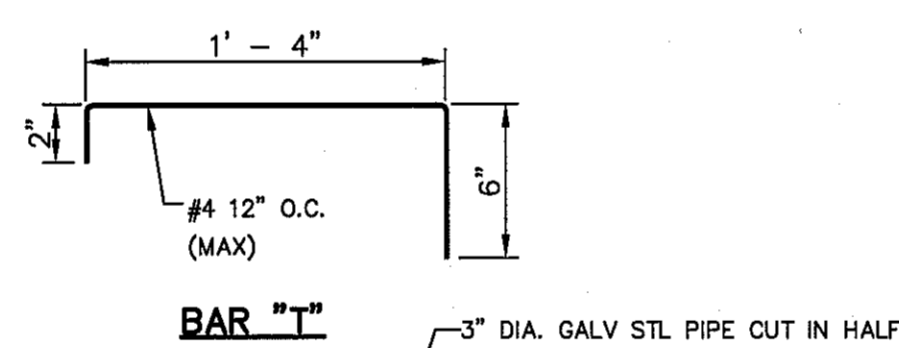
2 STORM SEWER BEDDING DETAIL
SCALE: 1/2" = 1'-0"



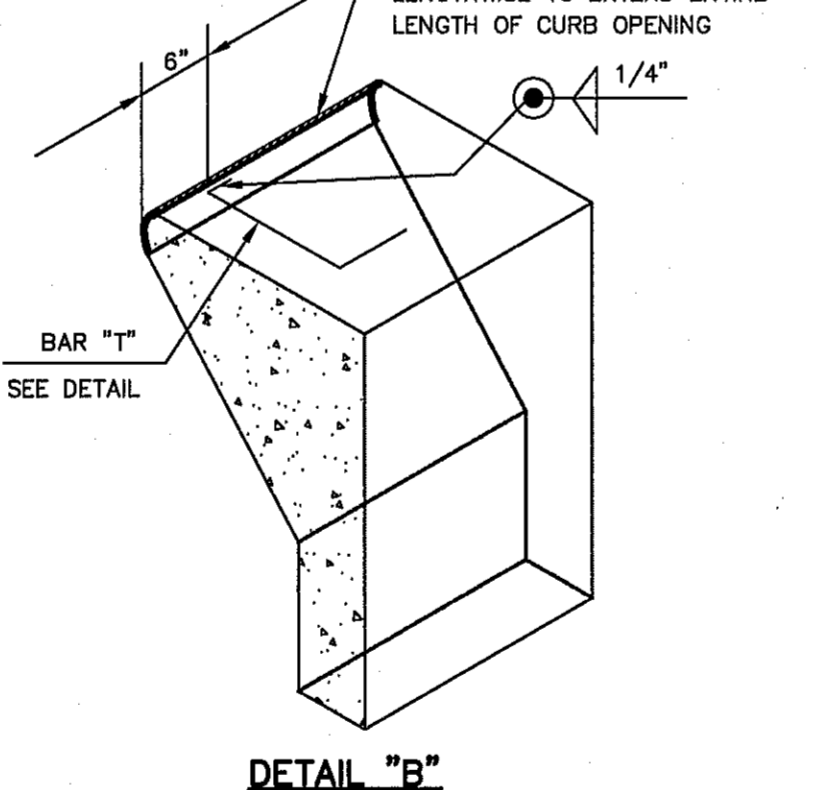
PLAN VIEW



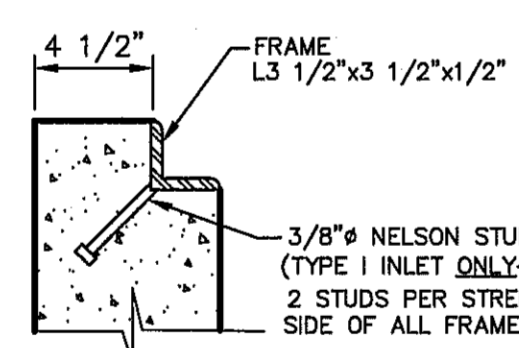
SECTION B



BAR "T"

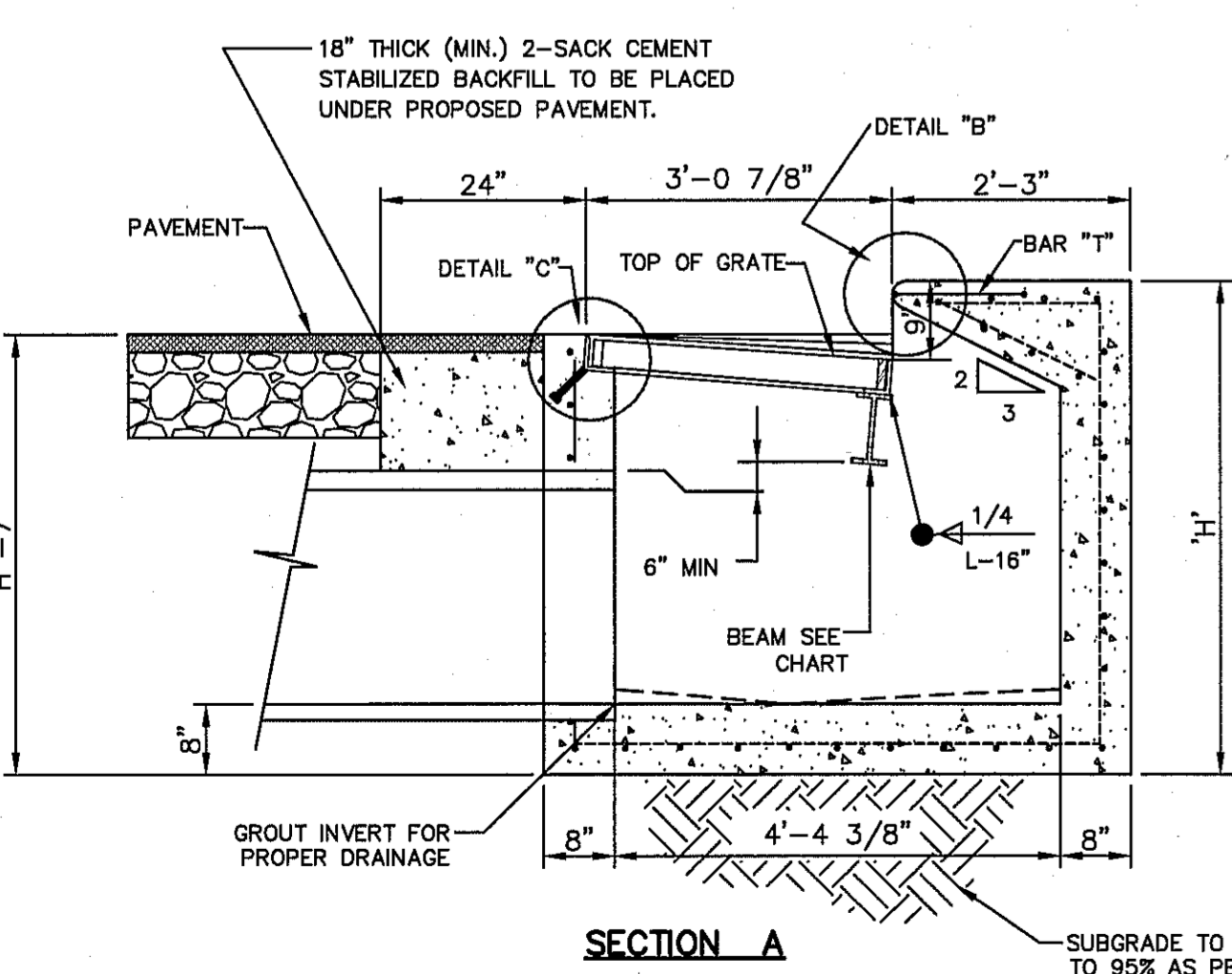


DETAIL "B"



DETAIL "C"

- NOTES:
- H = 20" MAXIMUM
 - CONCRETE TO BE 3000 PSI MIN CORE TEST @ 28 DAYS.
 - GRATE TO BE PERPENDICULAR TO TRAFFIC.

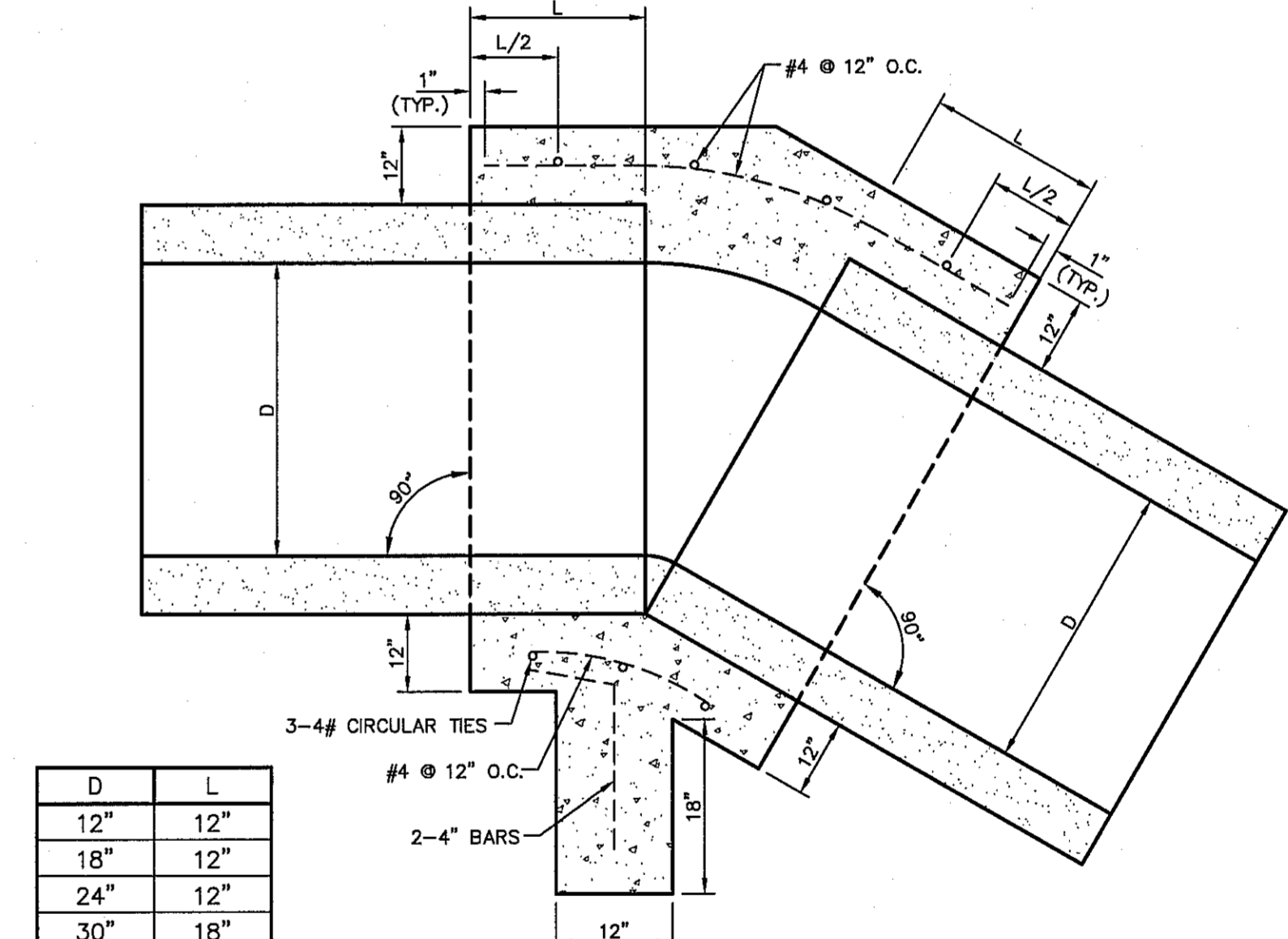


SECTION A

3 DROP INLET (TYPE I) DETAILS
SCALE: N.T.S.

DROP INLET GENERAL NOTES:

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS.
- SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
- GRATES SHALL BE INSTALLED IN FRAME WITH FLOW ARROW POINTING DOWNSTREAM OR TOWARD THE LOW POINT IN A SUMP.
- WELDED GRATES SHALL BE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-183 OR OF CORROSION RESISTANT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-181 OR M-222 OR BE MADE OF OTHER APPROVED STEELS OF EQUAL QUALITY. MIXING GRADES OF STEEL ON THE SAME GRATE WILL NOT BE PERMITTED.
- GRATED MADE OF M-183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
- ALL WELDS SHALL HAVE A MINIMUM OF 1/4" FILLET AND SHALL CONFORM TO THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND TO THE AWS STRUCTURAL WELDING CODE. ELECTRODES SHALL BE COMPATIBLE TO THE DIFFERENT GRADES OF STEEL THAT COMPRISE THE GRATE MEMBERS.
- CAST GRATES SHALL BE CAST STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M-103, GRADE 65-35 OR OF DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-536, SPECIAL GRADE 60-45, OR OF GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M-105, CLASS 35B OR ASTM A-48 CLASS 35B. THE SPECIFICATIONS OF GENERAL APPLICATION FOR CAST STEEL GRATES SHALL BE AASHTO M-103 SCOPE 1.2.1, GRADE N-1.
- FERROUS CASTINGS SHALL BE OF UNIFORM QUALITY, FREE OF BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR OTHER APPROVED CLEANING METHOD. AFTER CLEANING THEY SHALL BE COATED WITH ASPHALT BASE PAINT RESULTING IN A SMOOTH COATING, TOUGH AND TENACIOUS WHEN COLD, NOT TACKY OR BRITTLE.
- ALL CASTING SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
- ALL CONCRETE TO BE 3000 PSI. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO THE REINFORCING STEEL ARE TO CENTER OF BARS.
- MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCING.
- EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR APPROVED CONCRETE OR MASONRY STRUCTURE.
- STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH TxDOT ITEM 446 "PAINT AND PAINTING".
- SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
- GRATES WILL BE DEPRESSED 1" BELOW PROPOSED OR EXISTING GRADE.
- ALL REINFORCED BARS TO BE #4 BARS AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
- INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED.
- LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
- THE GRATED OF ALL INLETS WITH THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.



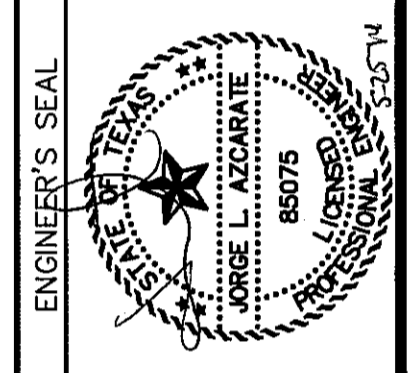
4 CONCRETE ANCHOR COLLAR
SCALE: 3/4" = 1'-0"

D	L
12"	12"
18"	12"
24"	12"
30"	18"
36"	18"
48"	18"
54"	18"
60"	21"
66"	21"

NO. OF GRATES	L'	BEAM	
		LENGTH	MINIMUM SIZES
2	5'-2 1/4"	4'-8 1/4"	W6X12, S6X12.5, MC6X15.1
3	7'-1 7/8"	6'-7 7/8"	W8X15, S7X18.4, MC7X19.1
4	9'-1 1/2"	8'-7 1/2"	W10X19, S8X18.4, MC10X22
5	11'-1 1/8"	10'-7 1/8"	W12X18, S8X23, MC10X22
6	13'-0 3/4"	12'-6 3/4"	W12X19, S8X23, MC10X25

REFERENCES - BENCHMARKS
EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASCO ALEGRE CIRCLE AND PASCO UNDO DRIVE.
DATE _____ REVISIONS _____ BY _____

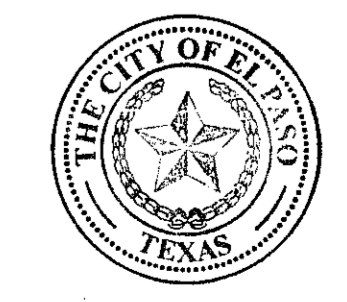
CSA
CONSTRUCTION SERVICES ASSOCIATES
TEXAS REGISTERED ENGINEERING FIRM #454
4772 Macomber Bay, Suite F, El Paso, TX 79924
915.544.6232 | www.csaengr.com



PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2016
DESIGN BY: R.G.
CHECKED BY: J.L.A.
APPROVED BY: J.L.A.
JOB No. 2000-196

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



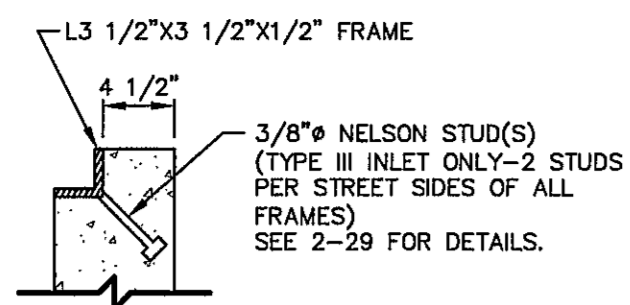
C9.1

NUMBER OF GRATES	"L"
2	5'-2 1/4"
3	7'-1 7/8"
4	9'-1 1/2"
5	11'-1 1/8"

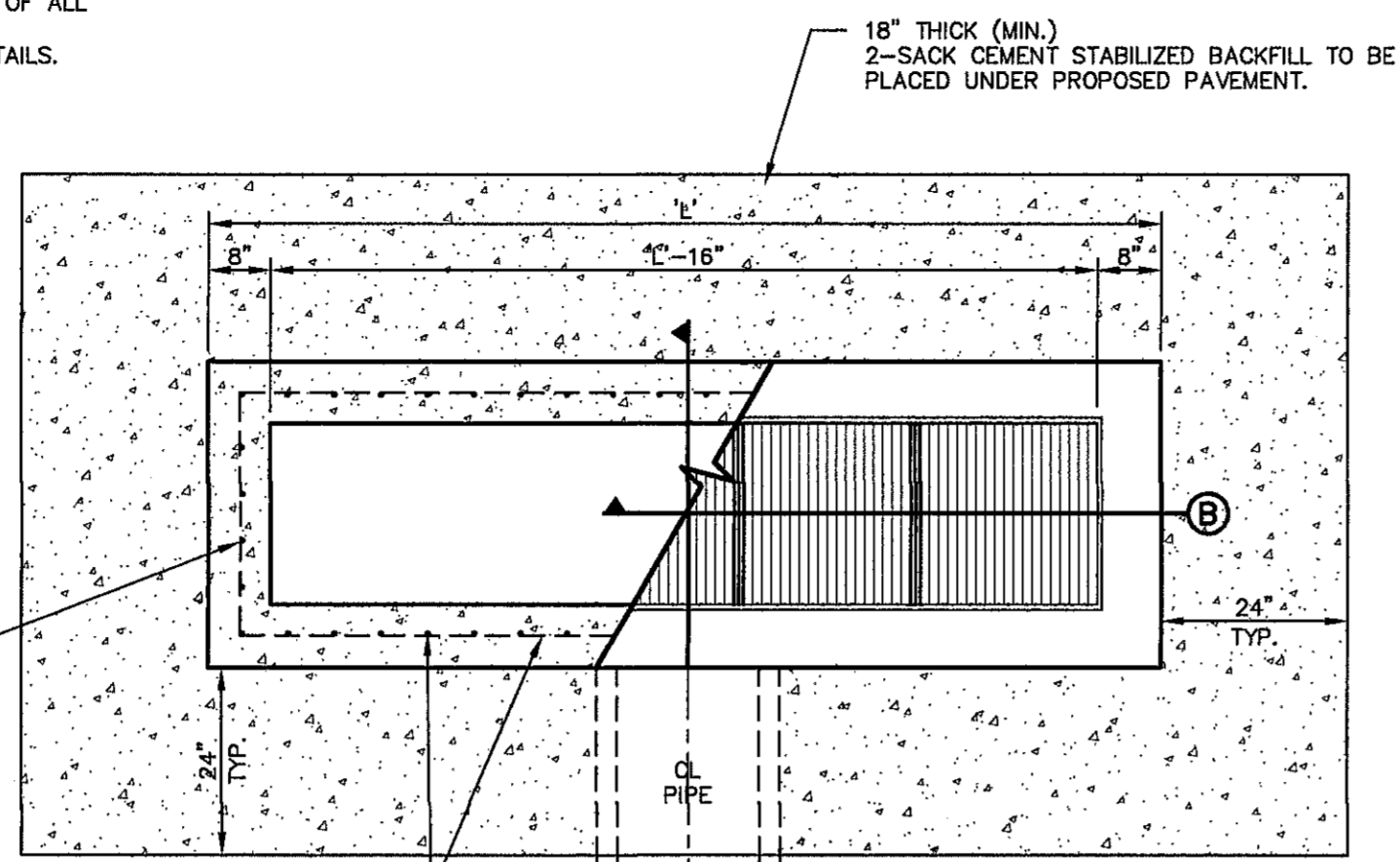
* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5

NOTES:

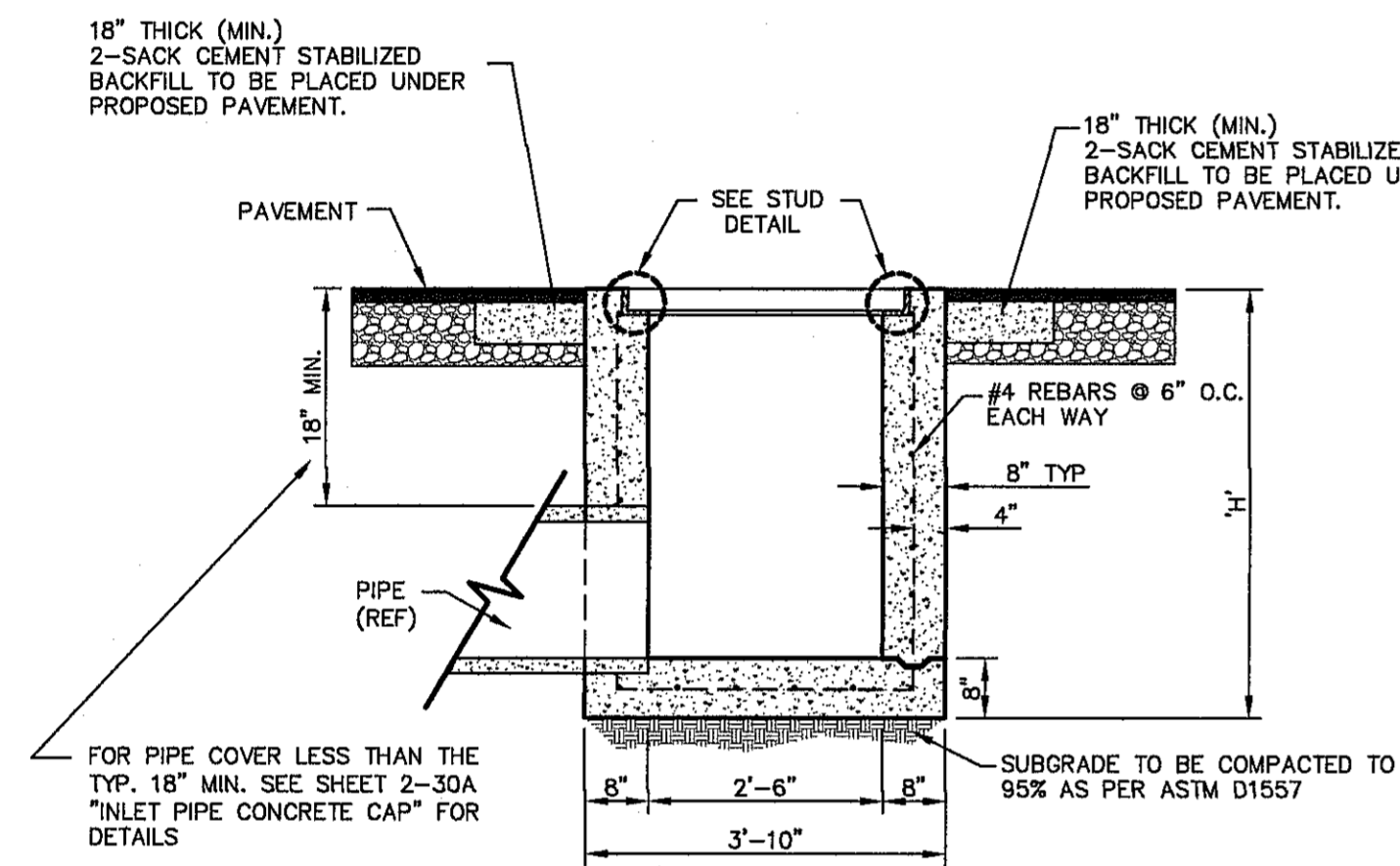
1. GRATES TO BE PERPENDICULAR TO TRAFFIC
2. CONCRETE TO BE 3,000 PSI (MIN.) CORE TEST @ 28 DAYS.
3. H=20' MAXIMUM
4. SEE STORM SEWER PLAN & PROFILES FOR APPROVED PIPE DIAMETER.



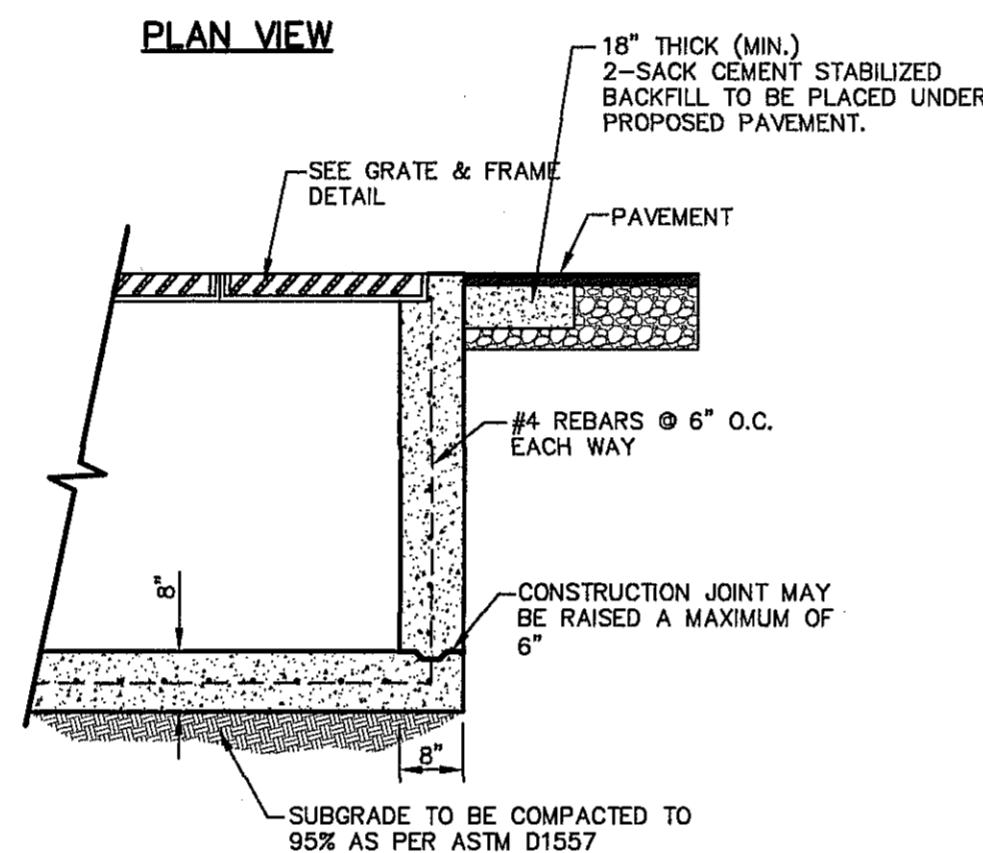
STUD DETAIL
N.T.S.



PLAN VIEW

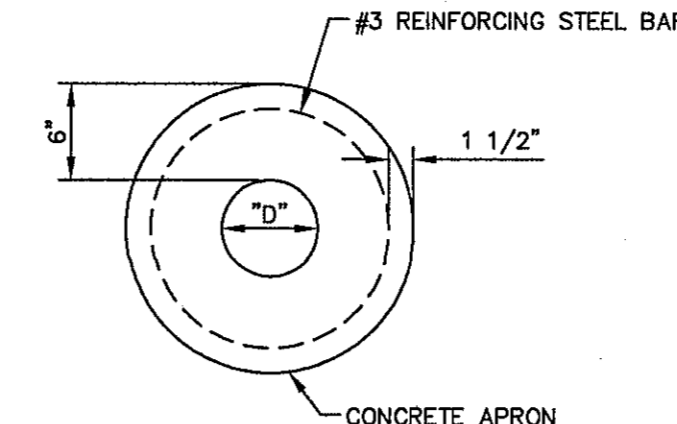


A SECTION

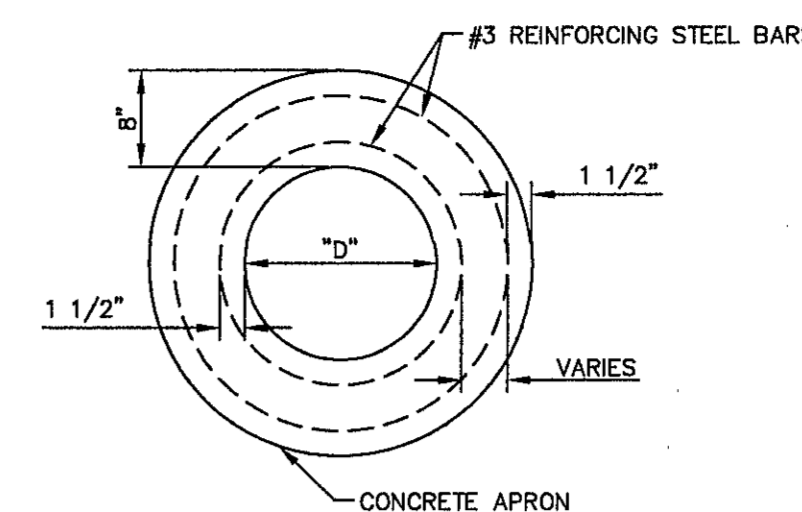


B SECTION

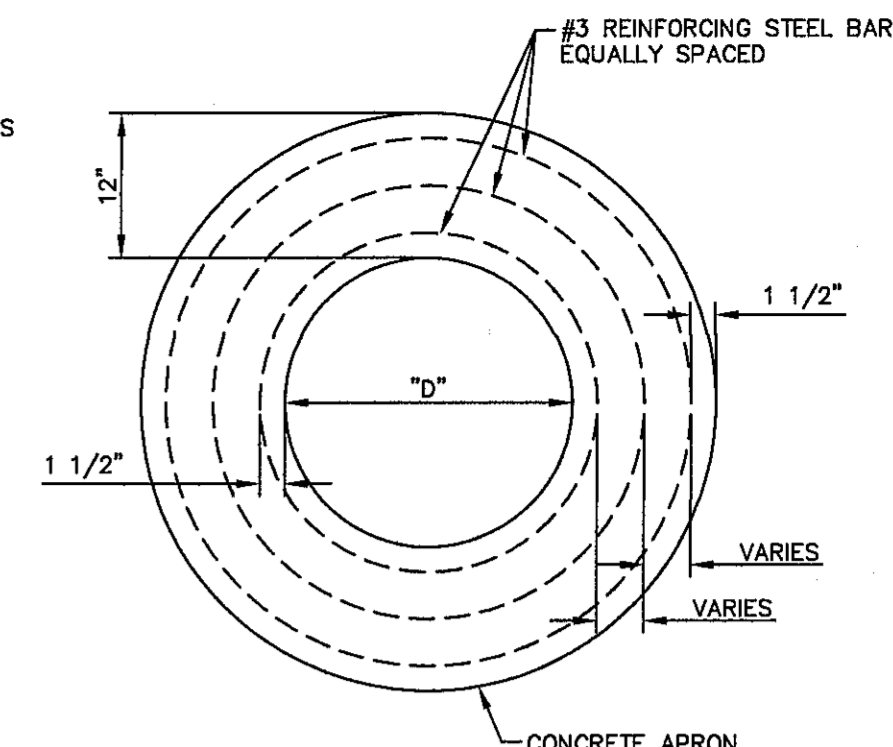
1 DROP INLET (TYPE III) DETAILS
SCALE: 1" = 2'-0"



PLAN VIEW - SINGLE REBAR



PLAN VIEW - 2 REBAR



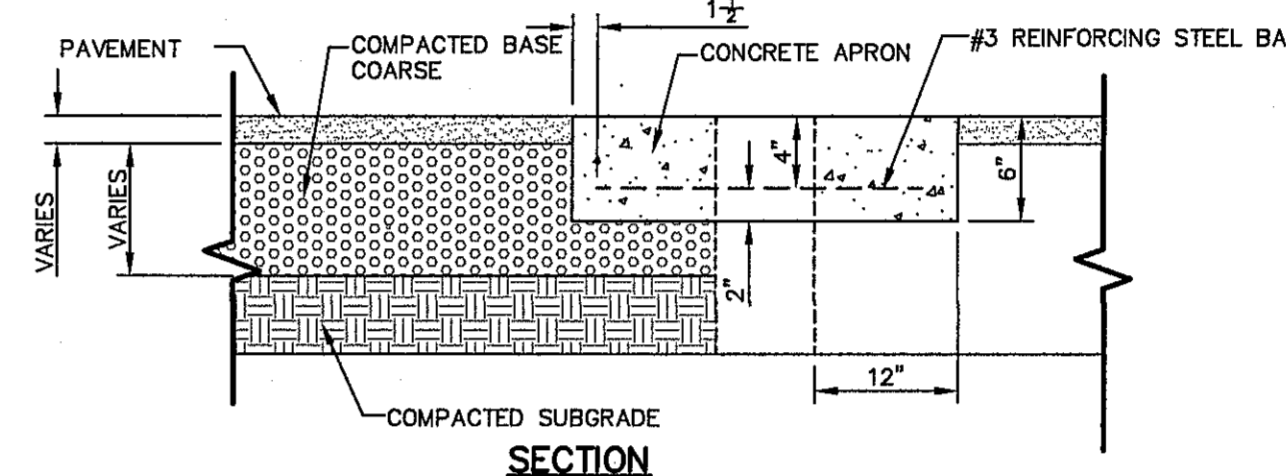
PLAN VIEW - 3 REBAR

CONSTRUCTION NOTES:

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

GENERAL NOTES:

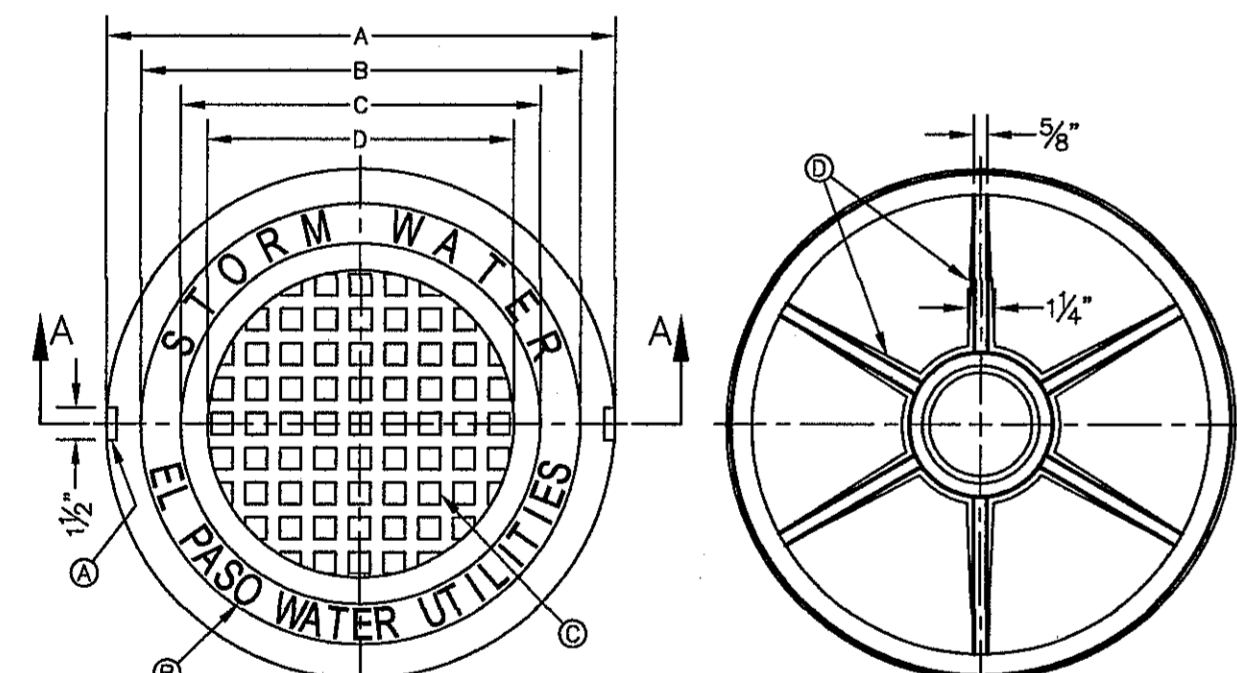
1. THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED).
2. TOPS OF PENETRATION APRON SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.



SECTION

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

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



TOP VIEW

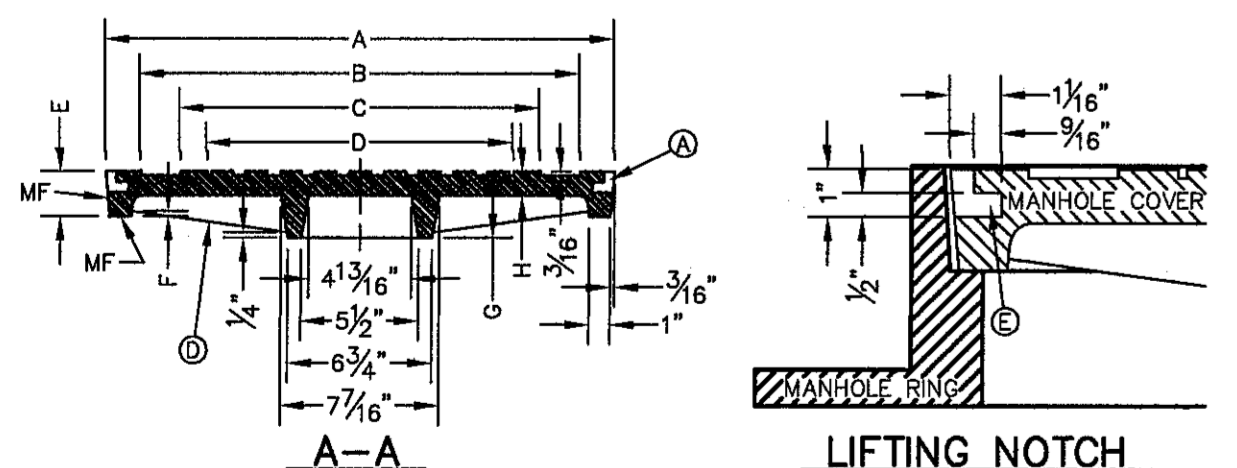
BOTTOM VIEW

- 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 1/8" ± PER FOOT (AASHTO M306-07).
 5. WEIGHT MAY VARY 5% ± (AASHTO M306-07).
 6. SHADED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-17.

CONSTRUCTION KEY NOTES:

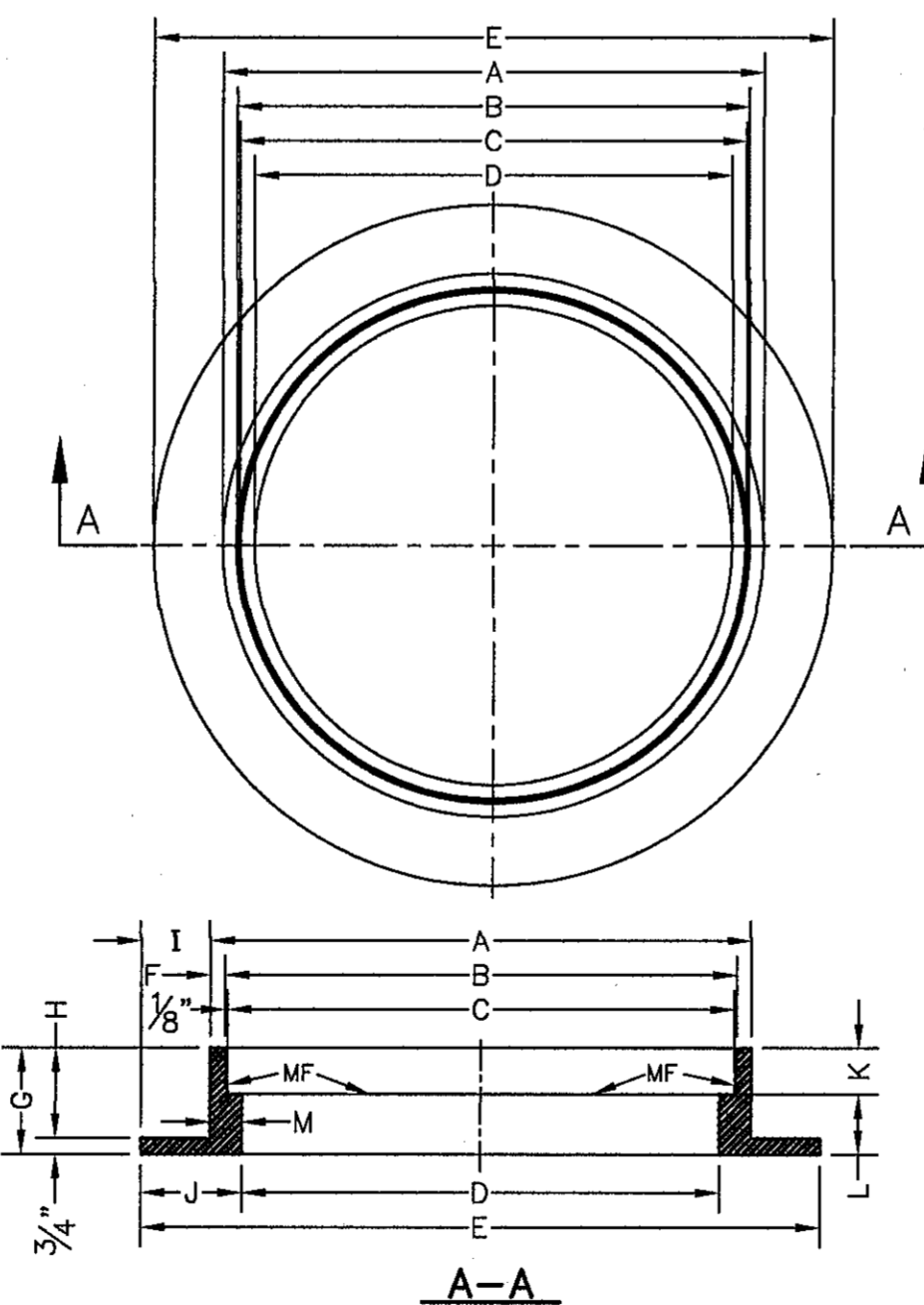
- A. LIFTING NOTCH.
- B. 3/8" RAISED LETTERING.
- C. 1" SQUARES (3/8" TALL) WITH 5/8" SPACE BETWEEN.
- D. REINFORCING RIBS.
- E. SLOT.

MANHOLE COVER	SEE NOTE 6		
	MANHOLE - ALL TYPES	MANHOLE TYPE 48	MANHOLE TYPE 72
A	31 3/8"	23 3/8"	31 3/8"
B	28 1/8"	20 3/8"	28 1/8"
C	24 3/8"	16 3/8"	24 3/8"
D	21 1/8"	14 3/8"	21 1/8"
E	2 1/2"	3"	3"
F	7/4"	1 1/4"	1 1/4"
G	3 3/8"	3"	3"
H	1 1/4"	1"	1"
WEIGHT	265 lbs.	175 lbs.	310 lbs.



LIFTING NOTCH

STORMWATER MANHOLE COVER

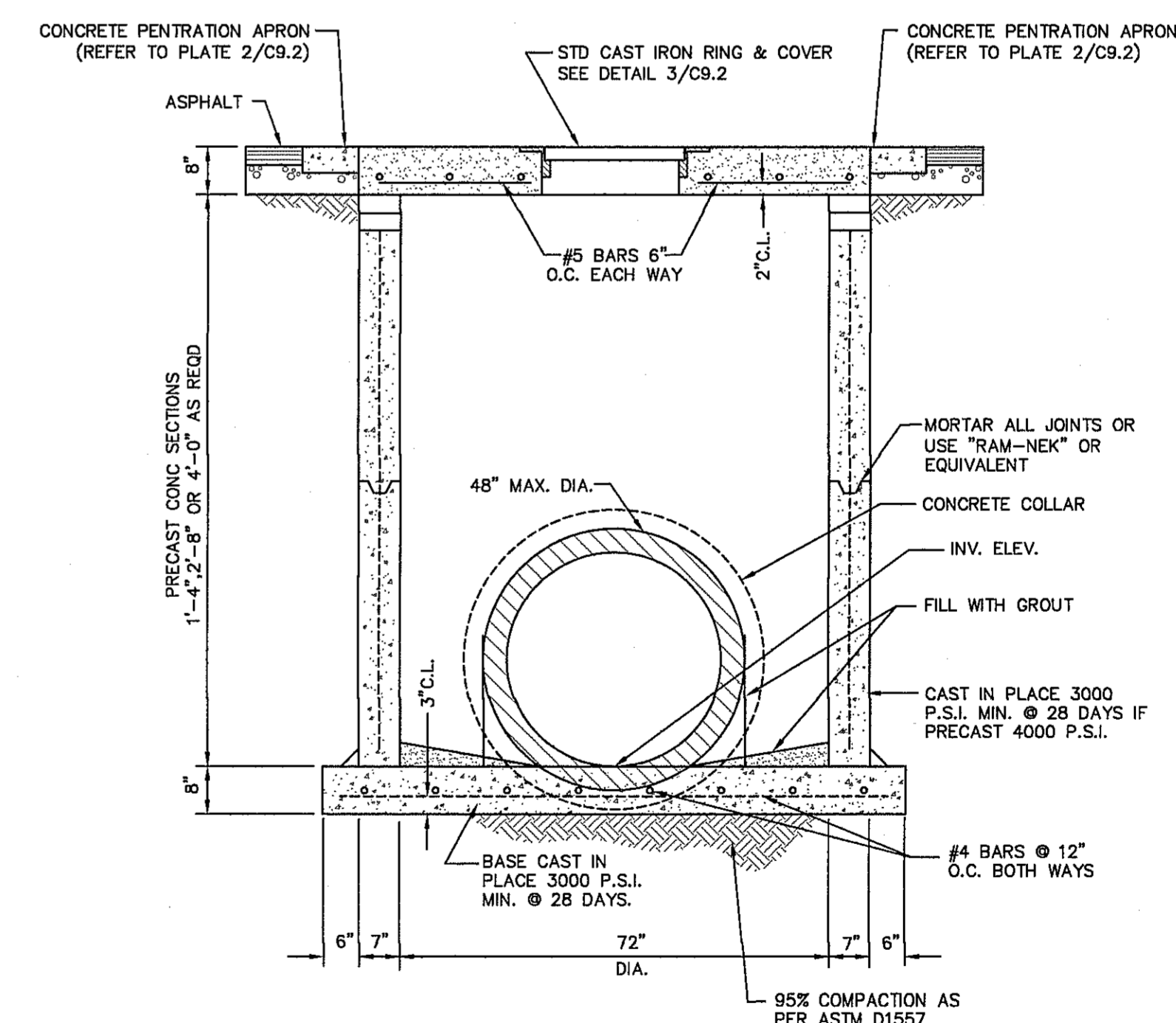


A-A

STORMWATER MANHOLE RING

- 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 1/8" ± PER FOOT (AASHTO M306-07).
 5. WEIGHT MAY VARY 5% ± (AASHTO M306-07).
 6. SHADED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-16.

MANHOLE RING	MANHOLE - ALL TYPES	SEE NOTE 6	
		MANHOLE TYPE 48	MANHOLE TYPE 72
A	33"	25 1/2"	32 1/2"
B	31 1/4"	23 3/8"	31 3/8"
C	31 1/2"	23 3/8"	31 3/8"
D	30"	22 1/2"	30"
E	36 1/2"	34 1/2"	42"
F	5"	1 1/2"	1 1/2"
G	5"	5"	5"
H	4 1/4"	5 1/4"	6 1/4"
I	3 1/4"	4 1/4"	4 1/4"
J	4 3/4"	5"	5"
K	2 3/4"	3 3/4"	3 3/4"
L	2 1/8"	2 1/8"	2 1/8"
M	1 1/2"	1 3/8"	1 3/8"
WEIGHT	220 lbs.	165 lbs.	225 lbs.

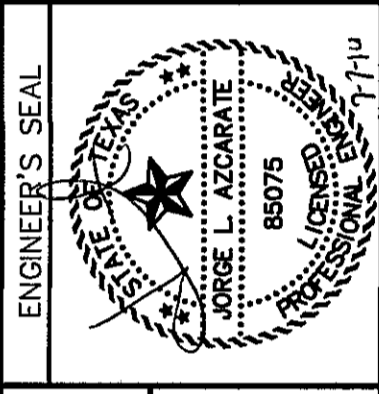


4 72" DIAMETER PRECAST MANHOLE SECTIONS
SCALE: N.T.S.

3 MANHOLE RING AND COVER DETAILS
SCALE: N.T.S.

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT	ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASSED ALBERTA DRIVE AND PASSED LINDO DRIVE.	
DATE	REVISIONS
BY	



SCALE: N/A

Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.:	2000-196

PROJECT TITLE

MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

DRAINAGE DETAILS

(SHEET 2 OF 3)

SHEET NO.

C9.2



S:\2020\2000-196-Mesquite Trails Unit 11 Redevelopment\Drawings\Improvement Plans\2020-196-UC-C9.2-Subdivision Improvements.dwg, Layout 1, 7/7/2016 8:10:09 AM

PP TRENCH INSTALLATION DETAIL FOR STORM APPLICATIONS

PIPE DIAM.	CLASS I		CLASS II		CLASS III	
	COMPACTED	85%	80%	85%	80%	85%
12\"/>						

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

PIPE DIAM.	MIN TRENCH WIDTH
12\"/>	

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-20	HEAVY CONSTRUCTION (75T AXLE LOAD)
12\"/>		

NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS," LATEST EDITION, WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, OR III IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. COMPACTION SHALL BE 90% OF MAXIMUM DENSITY PER ASTM D-1557 OR AS SHOWN ON THE PLANS. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4\"/>

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

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

PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE #	"B" MIN. DISTANCE PIPE INVERT TO STRUCTURE INVERT
12	14.5	19.60	4.0
15	17.6	23.00	4.0
18	21.2	26.50	4.2
24	27.8	33.25	4.5
30	35.1	40.50	5.2
36	41.1	47.00	5.5
42	47.7	53.00	5.7
48	53.6	59.00	5.7
60	66.3	72.00	6.4

NOTES:
PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.
INSTALLATION RECOMMENDATIONS ARE ALSO SPECIFIED IN INSTALLATION GUIDE 1.05: WATERSTOP INSTALLATION

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

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

PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE #	"B" MIN. DISTANCE PIPE INVERT TO STRUCTURE INVERT
12	14.5	19.60	4.0
15	17.6	23.00	4.0
18	21.2	26.50	4.2
24	27.8	33.25	4.5
30	35.1	40.50	5.2
36	41.1	47.00	5.5
42	47.7	53.00	5.7
48	53.6	59.00	5.7
60	66.3	72.00	6.4

NOTES:
PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.
INSTALLATION RECOMMENDATIONS ARE ALSO SPECIFIED IN INSTALLATION GUIDE 1.05: WATERSTOP INSTALLATION

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

1 C9.3 #1-POLYPROPYLENE PIPE DETAIL FOR STORM SEWER APPLICATIONS (INSTALLATION DETAIL) SCALE: N.T.S.

2 C9.3 #4-WATERSTOP 12"-30" DUAL WALL POLYPROPYLENE STORM DETAIL (WATERSTOP GROUT RING CONNECTION DETAIL FOR CAST-IN-PLACE STRUCTURES) SCALE: N.T.S.

3 C9.3 #2-WATERSTOP 12"-30" DUAL WALL POLYPROPYLENE STORM DETAIL (WATERSTOP GROUT RING CONNECTION DETAIL FOR PRECAST STRUCTURES) SCALE: N.T.S.

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

PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE #
30	35.4	49.5
36	41.1	46.0
42	47.2	52.5
48	53.6	60.0
60	66.5	72.5

NOTES:
PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

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

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

PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE #
30	35.4	49.5
36	41.1	46.0
42	47.2	52.5
48	53.6	60.0
60	66.5	72.5

NOTES:
PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

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

4 C9.3 #3-WATERSTOP TRIPLE WALL 30"-60" POLYPROPYLENE STORM DETAIL (WATERSTOP GROUT RING CONNECTION DETAIL FOR CAST-IN-PLACE STRUCTURES) SCALE: N.T.S.

5 C9.3 #5-WATERSTOP TRIPLE WALL 30"-60" POLYPROPYLENE STORM DETAIL (WATERSTOP GROUT RING CONNECTION DETAIL FOR PRECAST STRUCTURES) SCALE: N.T.S.

REFERENCES - BENCHMARKS
EXISTING CITY MONUMENT ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASEO ALFREGE CIRCLE AND PASEO UNDO DRIVE

BY: _____
DATE: _____
REVISIONS: _____

CSA
TEXAS REGISTERED ENGINEERING FIRM #664
4712 MACDONALD BLVD., SUITE 100, FORT WORTH, TEXAS 76134
915.544.5232 | www.csaengr.com

ENGINEER'S SEAL
JAMES L. AZOVATE
80075
CIVIL ENGINEER
EXPIRES 08/31/2024

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

DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APP'D. BY: J.L.A.
JOB No. 2000-196

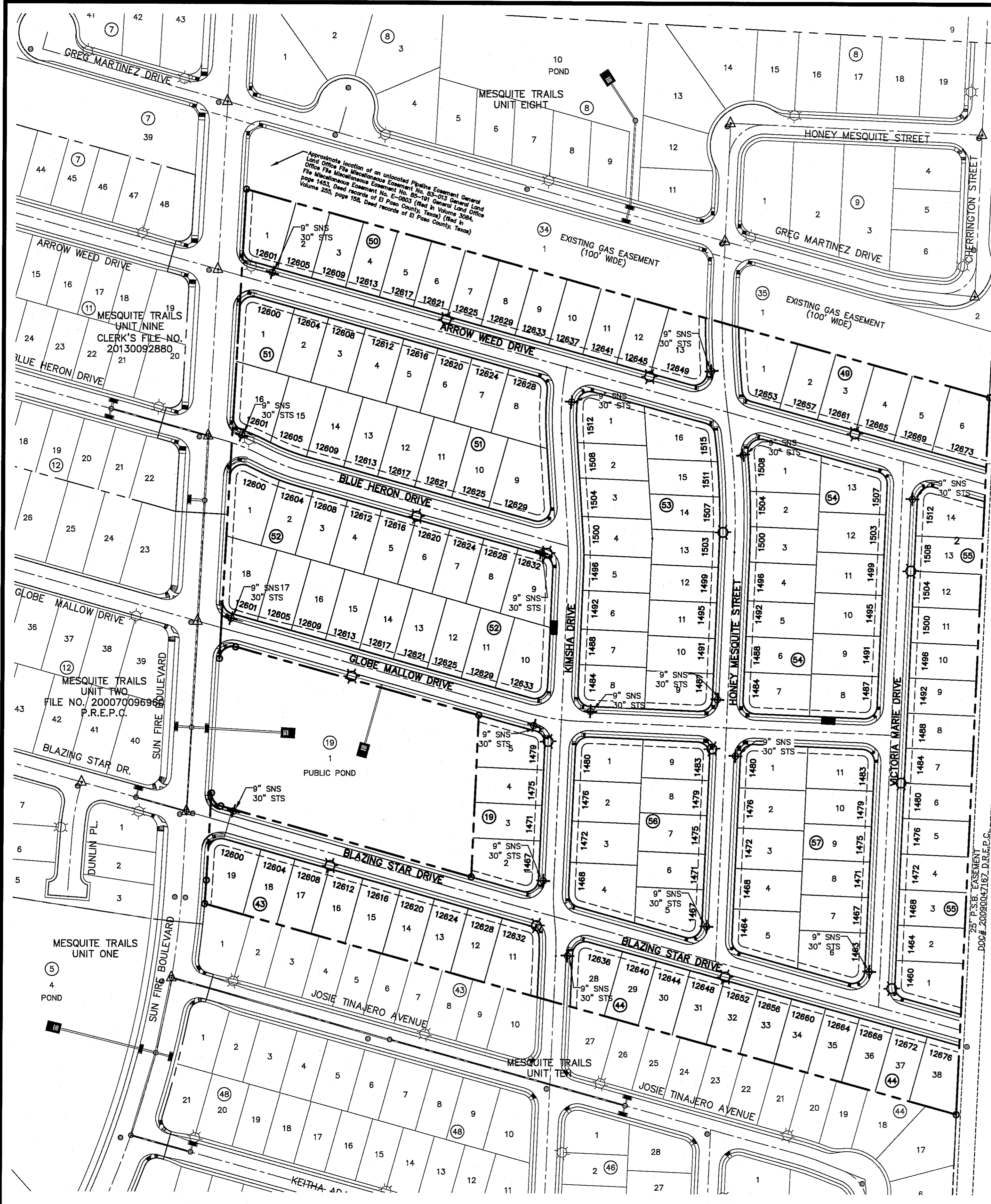
PROJECT TITLE
MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE
DRAINAGE DETAILS
(SHEET 3 OF 3)
SHEET NO.

C9.3



S:\2020\2000-196-Mesquite Trails Unit 11 Replat\GIS\Construction Drawings\Measurements Plans\2000-196-DB-C9.3-C9.3-Drainage Details.dwg, Layout: A, 3/29/2016 11:55:11 AM



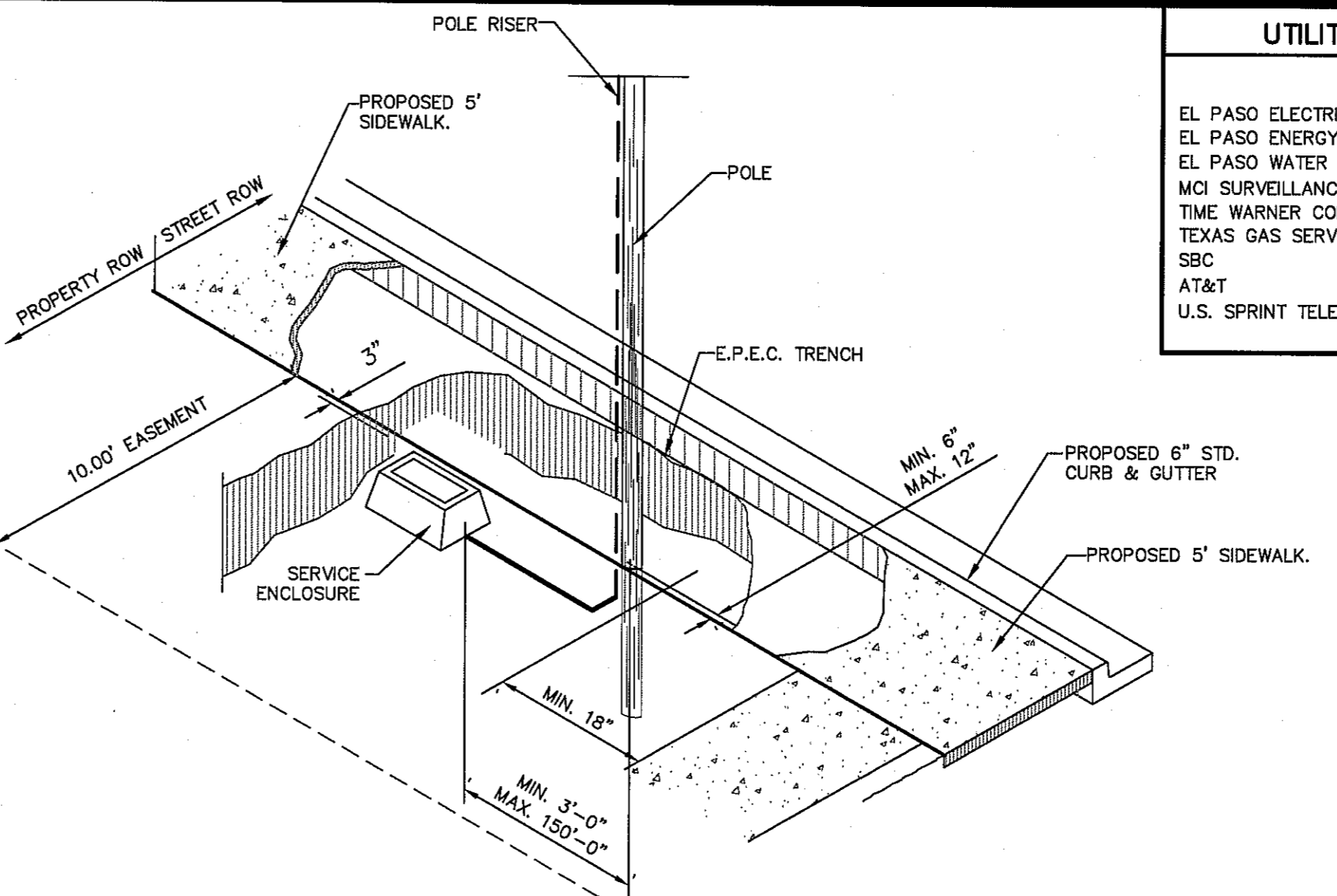
A PORTION OF SECTION No. 15, BLOCK 78, TOWNSHIP 35S AND RANGE 10E, PACIFIC RAILWAY COMPANY SURVEY, EL PASO COUNTY, TEXAS. VOLUME 1033, PAGE 744. D.R.E.P.C.

A PORTION OF SECTION No. 15, BLOCK 79, TOWNSHIP 35S AND RANGE 10E, PACIFIC RAILWAY COMPANY SURVEY, EL PASO COUNTY, TEXAS. VOLUME 1034, PAGE 2371. D.R.E.P.C.

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

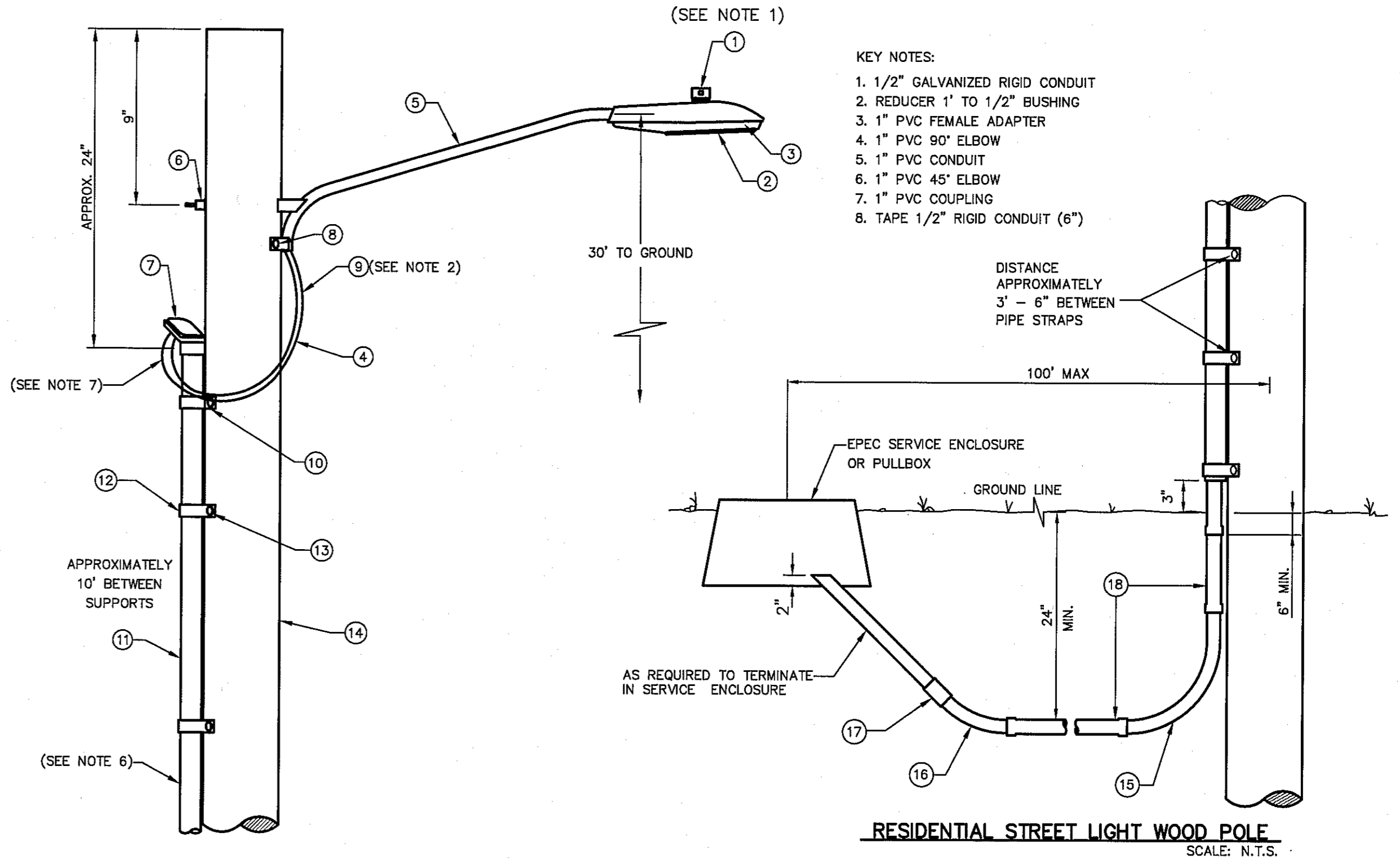
WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

- LEGEND:**
- EXISTING RESIDENTIAL STREET LIGHT
 - PROPOSED RESIDENTIAL STREET LIGHT
 -
 - PROPOSED N.D.B.C.U. MAIL BOX



POLE LOCATION DETAIL
SCALE: N.T.S.

15 STREET LIGHTS



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

- 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

1. MOUNT SO THAT PHOTO CELL IS FACING NORTH.
2. ITEM # 9 SHALL NOT BE SPliced INSIDE ITEM # 5.
3. INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
4. FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.
5. ON STREETS WHERE SIDEWALK IS ADJACENT TO CURBS, STREET LIGHT POLE SHALL BE INSTALLED IN THE SIDEWALK NEXT TO PROPERTY LINE, 36 INCHES REQUIRED FROM BACK OF CURB TO COMPLY WITH AMERICAN DISABILITY'S ACT AND LOCAL CODES.
6. THE CONDUIT RISER SHALL BE INSTALLED ON THE BACK OF THE WOOD POLE (AWAY FROM THE STREET).
7. THE WIRE LEADS FROM THE WEATHER HEAD TO THE MAST ARM SHALL HAVE A MINIMUM 4" DRIP LOOP BELOW THE WEATHER HEAD.

ITEM NO.	DESCRIPTION	STOCK NO.	QTY.	MANUFACTURER
1	PHOTO CELL, 240 V-SEE NOTE 1	21-225	1	LCOBRAHD
2	HPS LASMP, 100W	21-085	1	
3	LUMINARE, 100W H.P.S.	21-335	1	
4	SLEEVES, #12-10	05-140	2	LSLV1210
5	MAST ARM, 6' X 1 1/4"	21-200	1	LBKRT1*6
6	MACHINE BOLT, 5/8" X 12"	02-470	1	
	SQUARE GALV. WASHER, 2 1/4" X 2 1/4"	02-760	1	
	COIL SPRING WASHER, 5/8"	02-786	1	
	LOCK NUT, 5/8"	02-705	1	LMB5/812
7	SERVICE ENTRANCE CAP FOR 1" PVC CONDUIT	17-281	1	LSVCCAP1
8	LAG BOLT, 3/8" X 3"	02-343	1	LLAG38*3
9	CABLE, #10, 2 CONDUCTOR, 600V, UF	13-600	8'	L2C#10S
10	COPPER CABLE, #12, SOLID, 600V, BLUE	13-702	60'	LC#12CU
11	SCHEDULE 80 1" PVC CONDUIT	17-280	30'	LSC801
12	PIPE STRAP FOR 1" PVC CONDUIT, 2-HOLE	17-283	9'	LPVCSTRP
13	NAIL, STAINLESS STEEL SCREW 2.5 IN.	14-427	.25#	LNAL14*2
14	POLE, 35 FT. - CLASS 4	09-035	1	L354UG
15	1" PVC 90 DEGREE ELBOW	17-297	1	LEL901
16	1" PVC 45 DEGREE ELBOW	17-298	1	LEL451
17	1" PVC COUPLING	17-296	1	LCPLG1
18	1" PVC CONDUIT	17-299	AS REQ.	LPVC1

ILLUMINATION AND SIGNAGE PLAN
SCALE: 1" = 100'

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)

LOCATED AT THE CENTERLINE INTERSECTION OF
PASSED ALERE CIRCLE AND PASSED LINDO DRIVE.

DATE: _____ BY: _____

REVISIONS: _____

BY: _____

ENGINEER'S SEAL

SCALE: 1"=100'
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHECKED BY: J.L.A.
APPROVED BY: J.L.A.
JOB NO.: 2000-196

PROJECT TITLE

**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

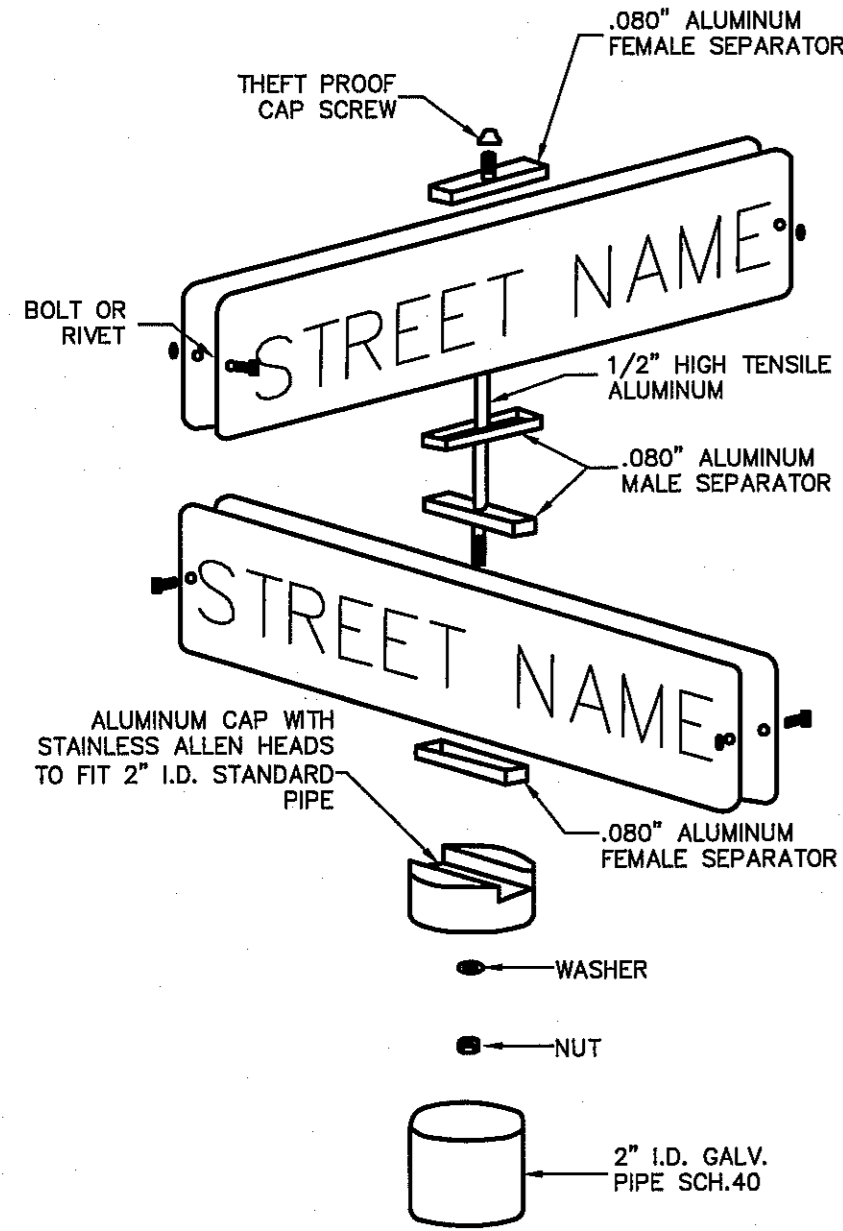
SHEET TITLE

ILLUMINATION AND SIGNAGE PLAN

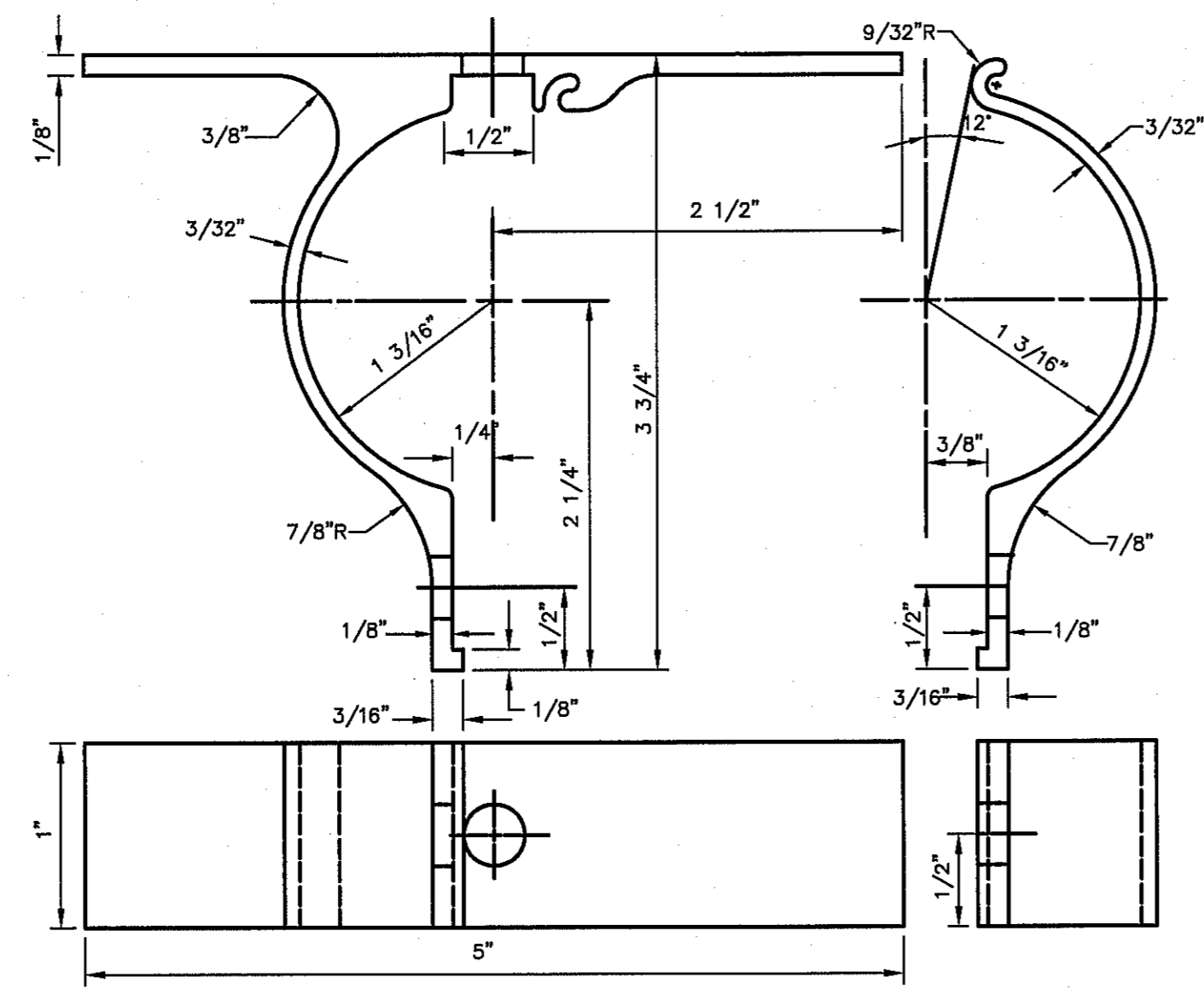
SHEET NO.

C10.1

S:\2005\2005-196-Mesquite Trails Unit 11 Redesign\Drawings\Construction\Drawings\Improvement Plan\C10.1-ILLUMINATION AND SIGNAGE PLAN.dwg, Layer: 1, 5/17/2016 7:24:39 AM

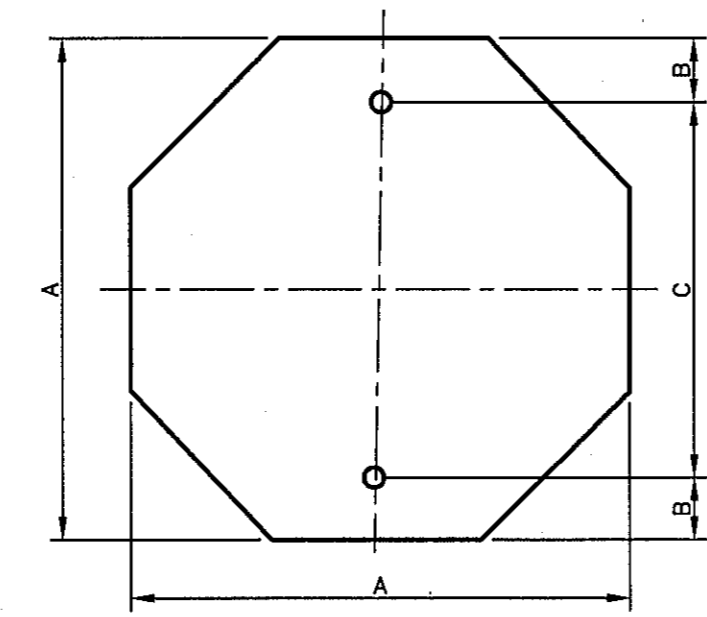


1 9" STREET NAME ASSEMBLY
SCALE: N.T.S.

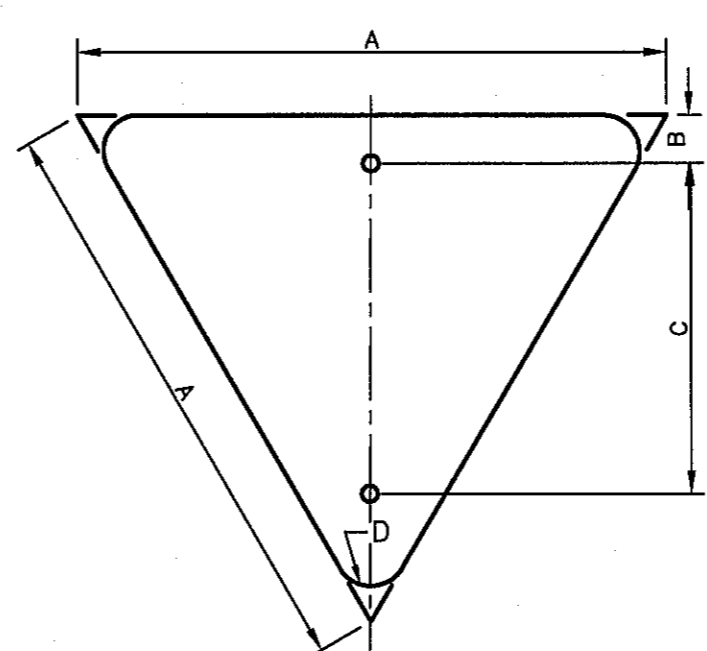


- NOTES:**
- ALL HOLES 3/8" PUNCH
 - FILLETS & ROUNDS 1/16"=R
 - FURNISH THE FOLLOWING HARDWARE FOR EACH BRACKET:
 - 1 - 5/16" x 3/4" BOLTS
 - 1 - 5/16" x 1 1/4" BOLT
 - 2 - 5/16" x NUTS & LOCK WASHERS
 - 2 - FLAT WASHERS
 - THE BRACKET IS TO BE MADE FROM HIGH STRENGTH ALUMINUM ALLOY. THE BRACKET IS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

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



OCTAGON
N.T.S.



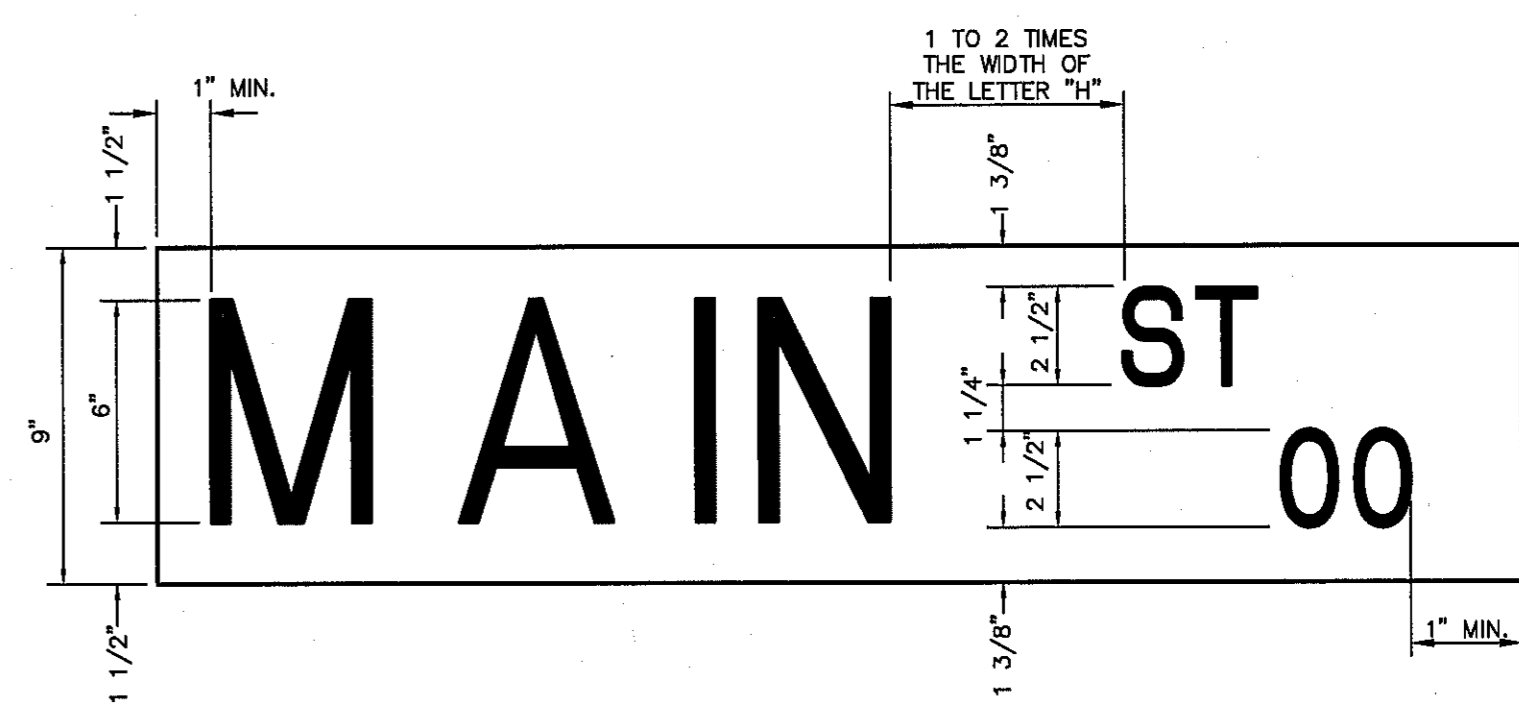
EQUILATERAL TRIANGLE
N.T.S.

3 D.H.T. BLANK STANDARDS
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
MC SURVEILLANCE	(800) MC-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

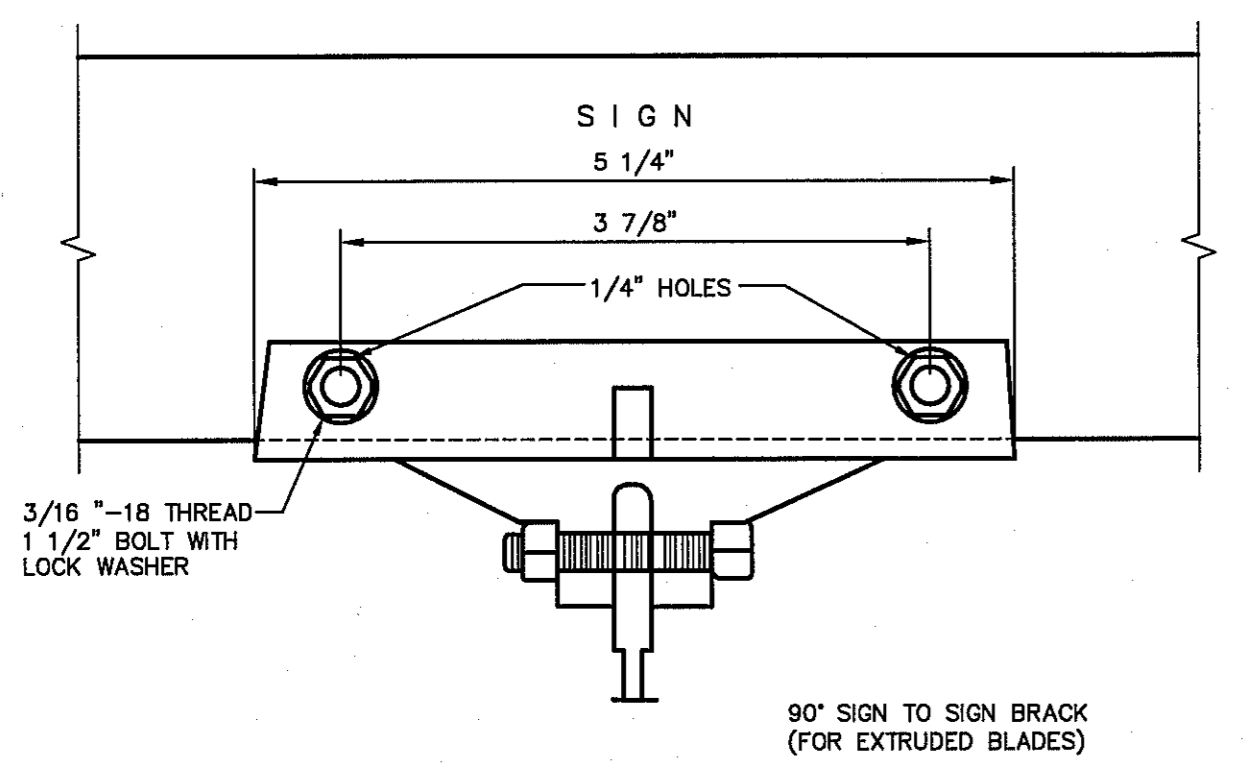


SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE & SERIES
6" ARTERIAL STREETS	36"	6" C,D SERIES	4" C SERIES
	42"	6" C,D SERIES	4" C SERIES
	48"	6" A,B,C,D SERIES	4" C SERIES

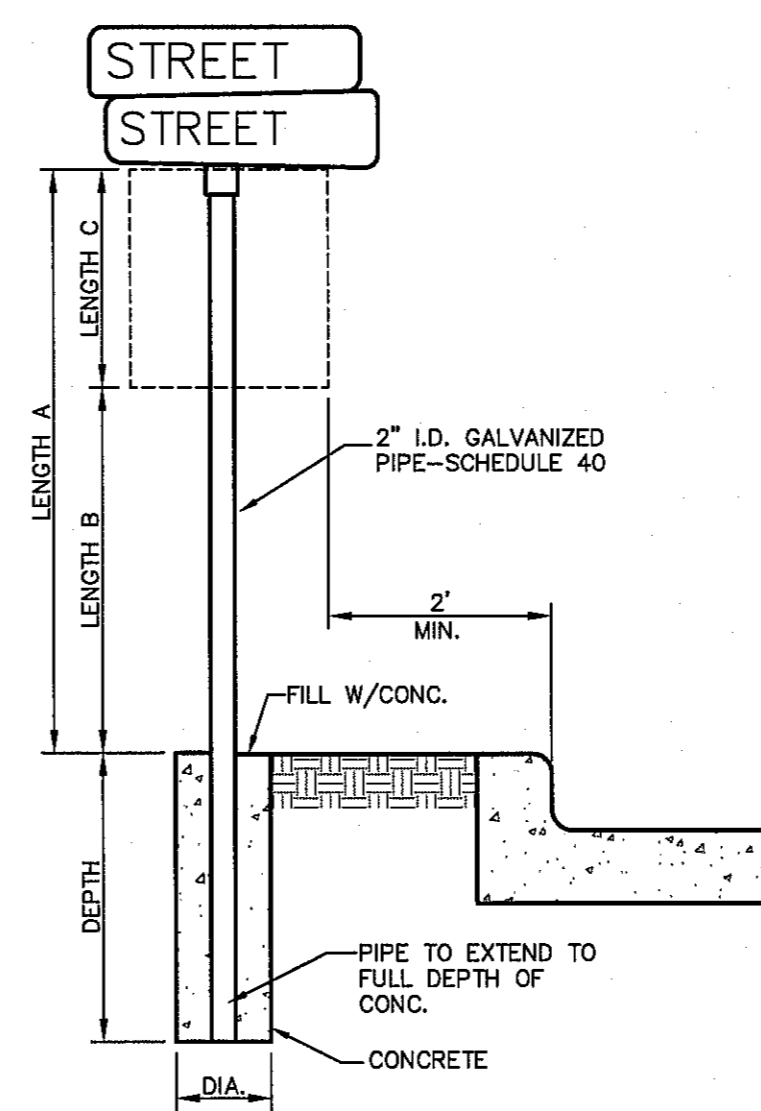
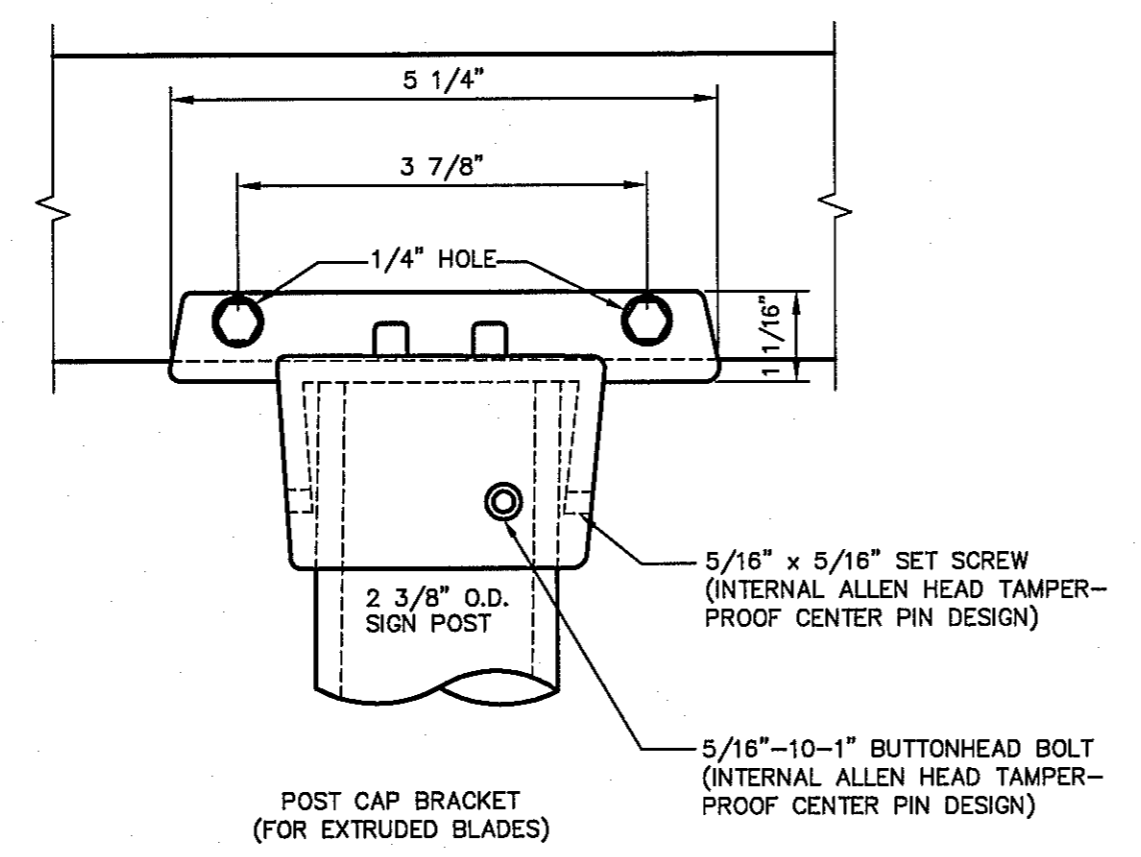
4 LAYOUT FOR 9" STREET NAME SIGNS
SCALE: N.T.S.

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

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



5 9" STREET NAME SIGN ASSEMBLY
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

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

6 SIGN POST INSTALLATION
SCALE: N.T.S.

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT ELEVATION=4003.10 FEET (CITY DATUM) LOCATED AT THE CENTERLINE INTERSECTION OF PASSED ALLEGRE CIRCLE AND PASSED UNDO DRIVE.	BY
DATE	REVISIONS

CEA
CONSULTING ENGINEERS ASSOCIATES
TEXAS REGISTERED ENGINEERING FIRM #4584
4710 Woodloch Blvd. Ste. F El Paso, TX 79924
915.544.6202 | www.ceagroup.net

ENGINEER'S SEAL

SCALE: 1"=100'
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHECKED BY: J.L.A.
APP'D. BY: J.L.A.
JOB No. 2000-196

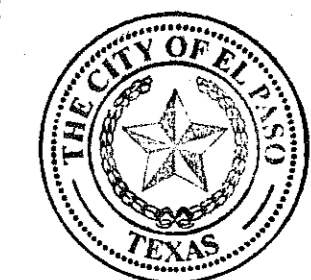
PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

ILLUMINATION AND SIGNAGE DETAILS

SHEET NO.

C10.2





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

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	322.00'	79.73'	40.07'	79.53'	S67°27'47"E	01°41'16"
C2	1040.00'	45.44'	22.72'	45.43'	S75°48'30"E	002°30'11"
C3	1056.00'	46.14'	23.07'	46.13'	N75°48'30"W	002°30'11"
C4	342.00'	59.27'	29.71'	59.19'	S79°31'17"E	009°55'44"
C5	342.00'	18.79'	9.40'	18.79'	S86°03'34"E	003°08'52"
C6	810.00'	30.72'	15.36'	30.72'	N73°28'13"W	002°10'23"
C7	810.00'	30.72'	15.36'	30.72'	S73°28'13"E	002°10'23"
C8	373.50'	109.77'	55.28'	109.37'	S04°39'57"W	016°50'18"
C9	358.00'	38.24'	19.14'	38.22'	N00°41'36"W	006°12'12"
C10	342.00'	53.10'	26.60'	53.05'	S02°04'53"E	008°53'46"
C11	358.00'	55.59'	27.85'	55.53'	N02°04'53"W	008°53'46"
C12	1125.48'	121.85'	60.99'	121.79'	S03°56'27"E	006°12'12"
C13	1125.48'	17.48'	8.74'	17.48'	S07°29'14"E	000°53'24"
C14	1163.00'	209.05'	104.81'	208.77'	N02°46'58"W	010°17'56"

LINE TABLE		
LINE	BEARING	LENGTH
L1	S74°33'25"E	494.67'
L2	S74°33'25"E	252.35'
L3	S74°33'25"E	287.18'
L4	S74°33'25"E	117.82'
L5	N74°33'25"W	436.42'
L6	S74°33'25"E	366.21'
L7	S87°38'00"E	239.22'
L8	S87°38'00"E	258.00'
L9	N74°33'25"W	463.30'
L10	S74°33'25"E	262.48'

LINE TABLE		
LINE	BEARING	LENGTH
L11	S74°33'25"E	264.87'
L12	S74°33'25"E	126.08'
L13	N03°45'12"W	170.93'
L14	N02°22'00"E	231.30'
L15	N02°22'00"E	267.79'
L16	S02°22'00"W	63.64'
L17	N02°22'00"E	265.50'
L18	N02°22'00"E	366.50'
L19	N02°22'00"E	425.67'
L20	N02°22'00"E	426.42'

WATER QUANTITIES		
DESCRIPTION	QUANTITY	UNIT
8" WATER LINE	6,708	LF
8" GATE VALVE	21	EA
8" PLUG	2	EA
FIRE HYDRANT	9	EA

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

WATER INDEX MAP
SCALE: 1" = 100'

GENERAL NOTES

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

- GENERAL UTILITIES:**
TEXAS EXCAVATION SAFETY SERVICE
11884 CREEKVIEW 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 CORP.
4045 DONIPHAN PARK CIRCLE
EL PASO, TX 79922
(915) 542-2770 EXT. 201

- WATER & SEWER:**
EL PASO WATER UTILITIES
1154 HAWKINS BOULEVARD
EL PASO, TX 79961
(915) 594-5530
- ELECTRIC:**
EL PASO ELECTRIC CO.
501 W. SAN ANTONIO ST.
EL PASO, TX 79902
(915) 543-2076
MR. FRANK WIGEL (DISTRIBUTION)
- EL PASO STREETS:**
CITY OF EL PASO
STREET & MAINTENANCE DEPT.
7969 SAN PAULO DRIVE
EL PASO, TX 79907
(915) 621-6750
MR. TED MARQUEZ, PE.
- CABLE TELEVISION:**
TIME WARNER COMMUNICATIONS
7010 HARPPOUT ROAD
EL PASO, TX 79906
(915) 772-1123

- TELEPHONE:**
SBC
11200 PELICANO
EL PASO, TX 79935
(915) 595-5151
- FIBER OPTICS:**
AT&T
P.O. BOX 1650
EL PASO, TX 79949
(800) 852-3786
- RESIDENTIAL GAS LINES:**
TEXAS GAS SERVICE
4700 POLLARD ST.
EL PASO, TX 79930
(915) 680-7218
- WARNING I BEFORE YOU DIG**
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

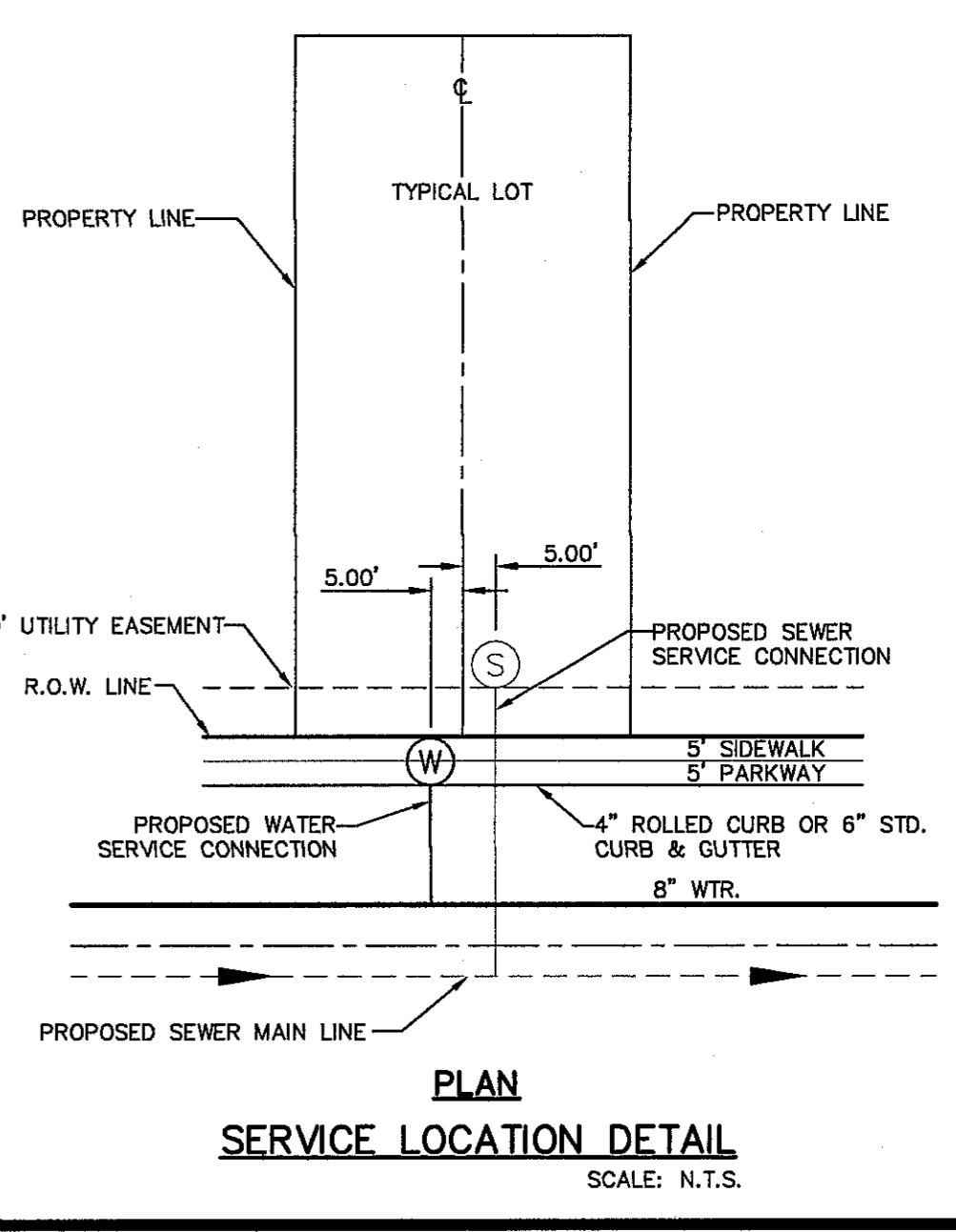
INDEX

SHEET NO.	DESCRIPTION
C11.1	WATER MAIN PIPE LAYOUT
C12.1-C12.4	WATER DETAILS

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

LEGEND

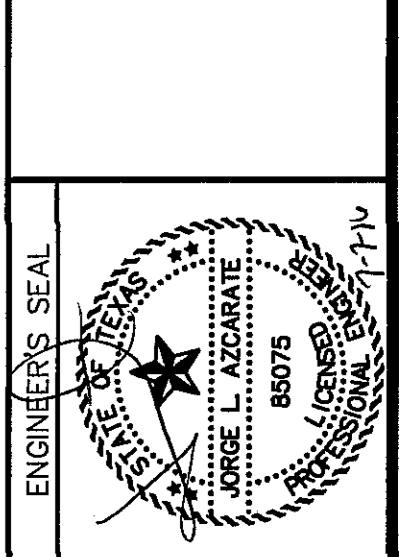
SYMBOL	DESCRIPTION
	PROPOSED 8" C-900, CLASS 150 P.V.C. PIPE
	SUBDIVISION BOUNDARY LINE
	PROPERTY LINE
	STREET CENTER LINE
	PROPOSED SEWER LINE (PLAN VIEW)
	PROPOSED STORM SEWER
	PROPOSED SERVICE CONNECTION (PLAN VIEW)
	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
	PROPOSED 8" PLUG
	PROPOSED GATE VALVE
	POINT OF TANGENCY
	EXISTING GATE VALVE
	EXISTING FIRE HYDRANT
	EXISTING PLUG
	EXISTING SEWER LINE
	EXISTING WATER LINE



REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT	ELEVATION	TO FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF PASSED ALLEGRE CIRCLE AND PASSED LINDO DRIVE.		

TEXAS REGISTERED ENGINEERING FIRM #4584
4712 WOODROW BEAN, STE. F EL PASO, TX 79924
915.544.5232 | www.ceagroup.net



SCALE: 1" = 100'

Horizontal:	Vertical:
N/A	N/A
Interval: N/A	Interval: N/A
DATE: APRIL 2016	DESIGN BY: F.Z.
DRAWN BY: R.O.	CHKD. BY: J.L.A.
APPROV. BY: J.L.A.	JOB NO. 2000-196

**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

PROJECT TITLE

SHEET TITLE

**WATER INDEX/
GENERAL
INFORMATION**

SHEET NO.

C11.1

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	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 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.
 D. PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
 E. UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
 (*SEE NOTE #3 IF THESE PREVIOUS CONDITIONS CANNOT BE MET.)
 F. 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).
 G. APPROVED PIPE.
 H. TRENCH DIMENSIONS AS FOLLOWS:

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

PIPE DIAMETER	"W"
6" - 30"	6"
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 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 HMA/C IN THIS AREA.
 C. 2" ASPHALT MIN.
 D. 12" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y. OF SOIL).
 E. EXISTING HMA/C-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 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 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. 1/2" THICK STEEL TRASH RING VALVE BOX INSIDE DIAMETER MINUS 1/2".
 5. MINIMUM 2 1/2" 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 GATE VALVE 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 CONCRETE THRUST BLOCKING SCALE: N.T.S.

REFERENCES - BENCHMARKS
 EXISTING CITY MONUMENT ELEVATION=603.10 FEET (CITY DATUM)
 LOCATED AT THE CENTERLINE INTERSECTION OF PASEO ALFREGE CIRCLE AND PASEO LINDO DRIVE.

DATE: _____ REVISIONS: _____ BY: _____

el paso WATER

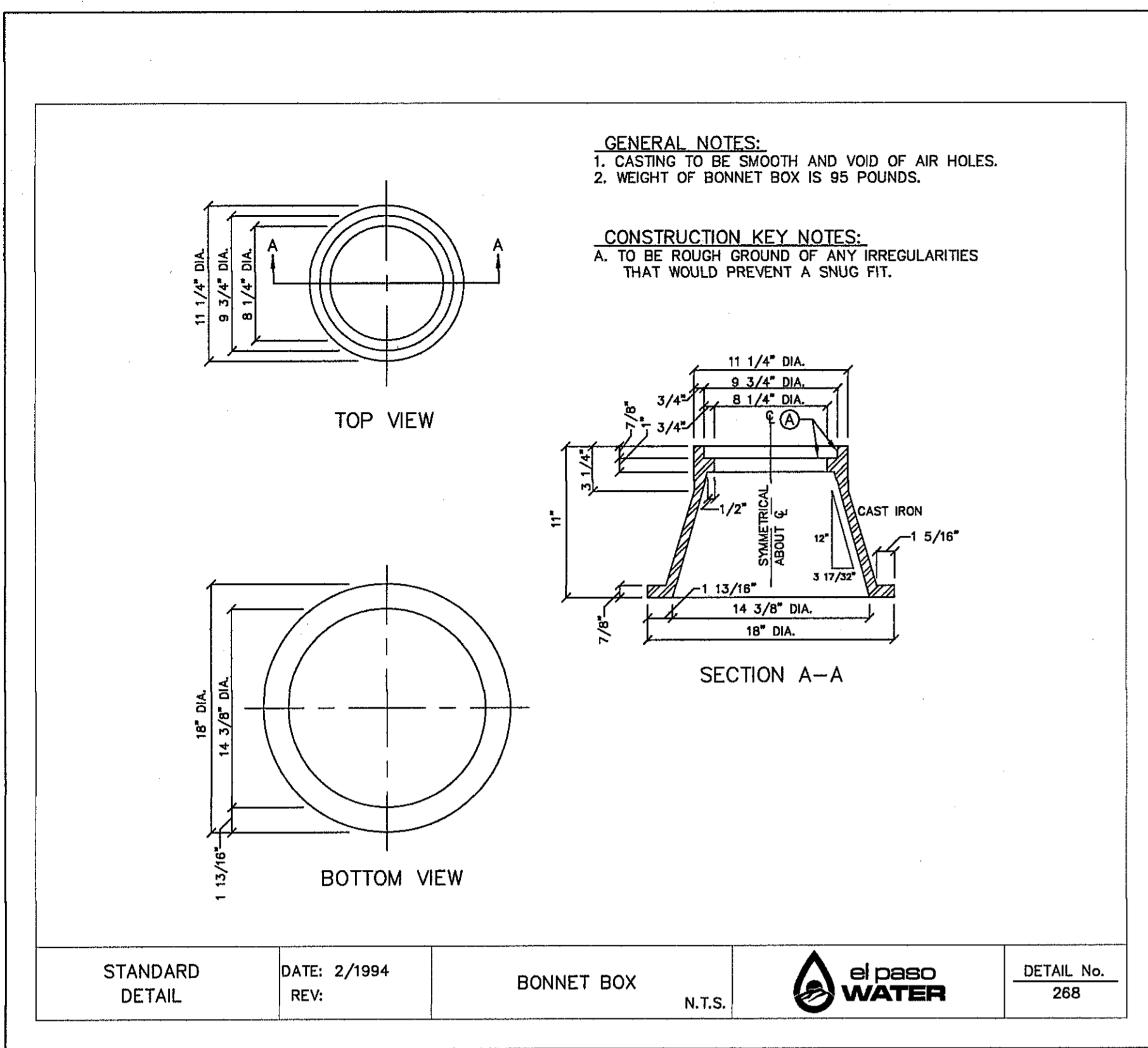
DESIGN: APRIL 2016
 DRAWN BY: F.Z.
 CHECKED BY: J.L.A.
 APP'D BY: J.L.A.
 JOB No. 2000-196

PROJECT TITLE
 MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

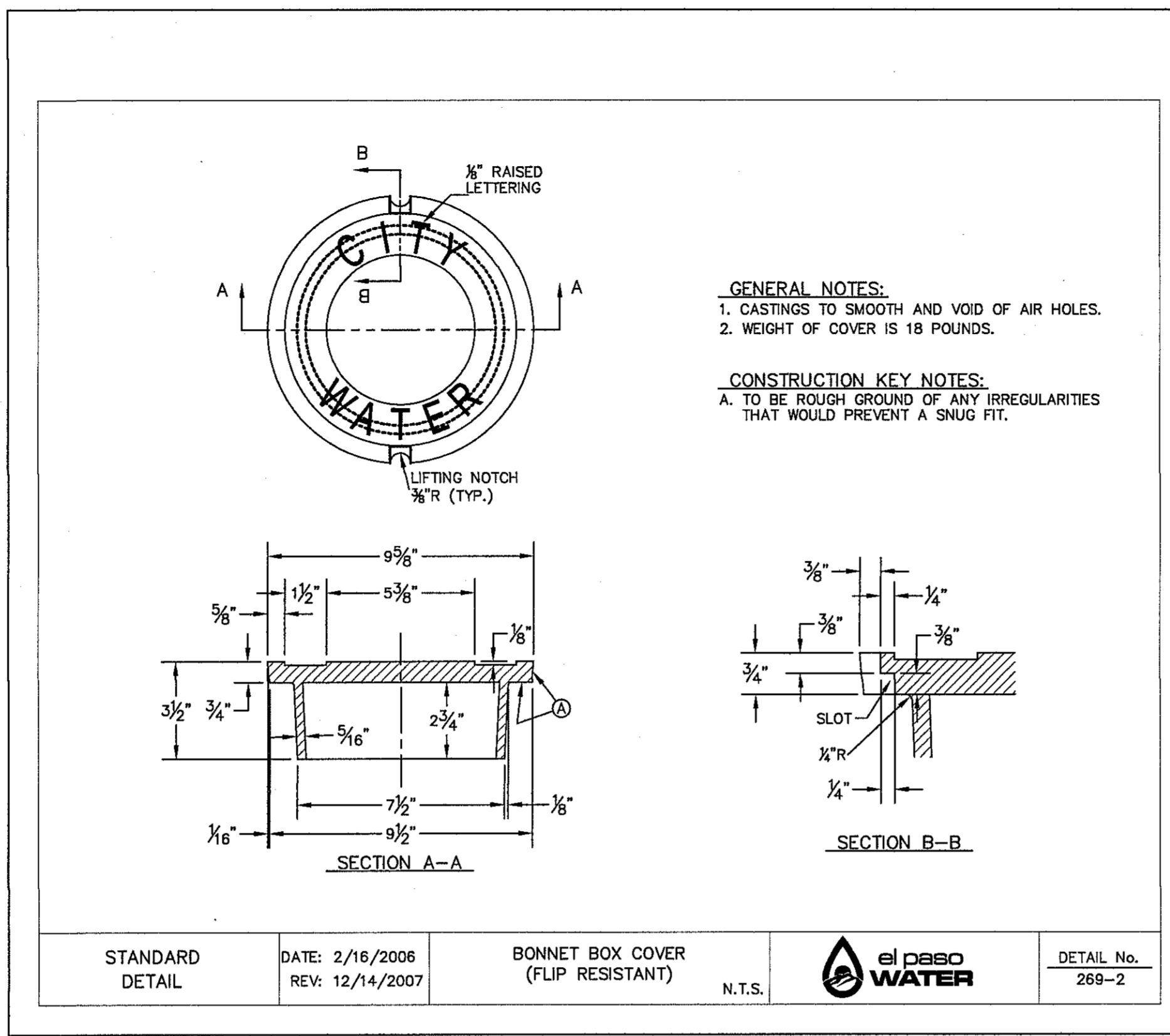
SHEET TITLE
 WATER DETAILS

(SHEET 1 OF 4)
 SHEET NO.

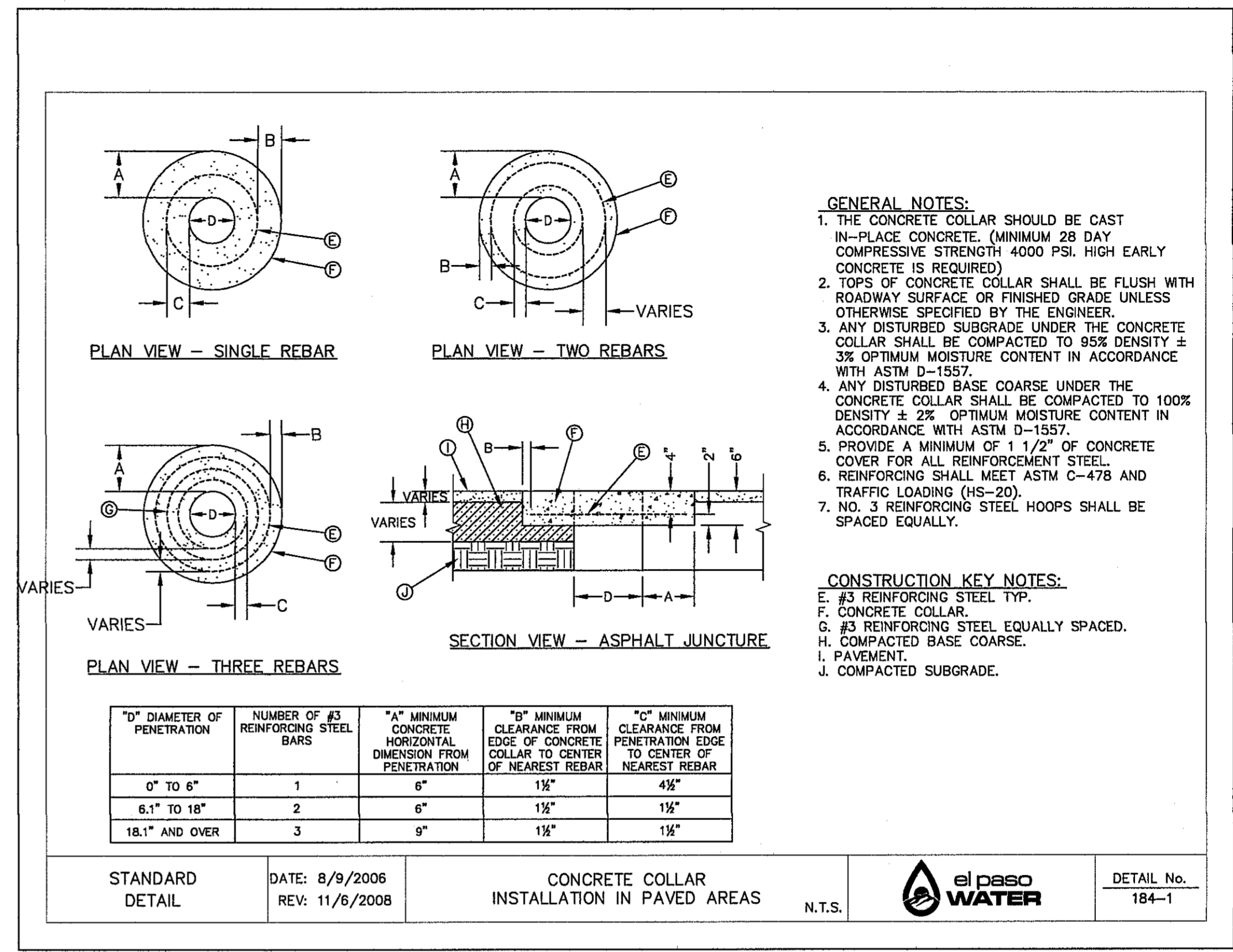
C12.1



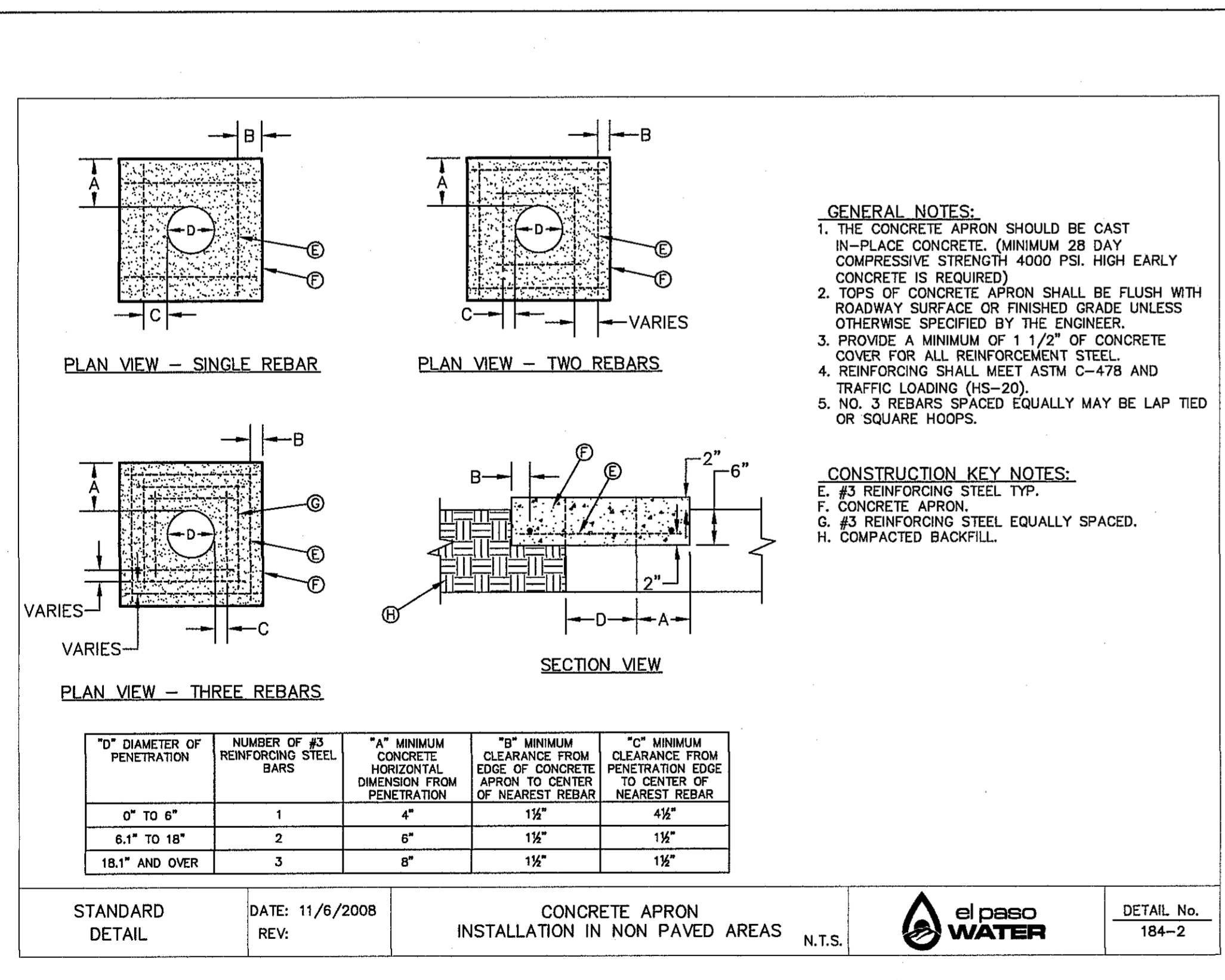
1 BONNET BOX SCALE: N.T.S.



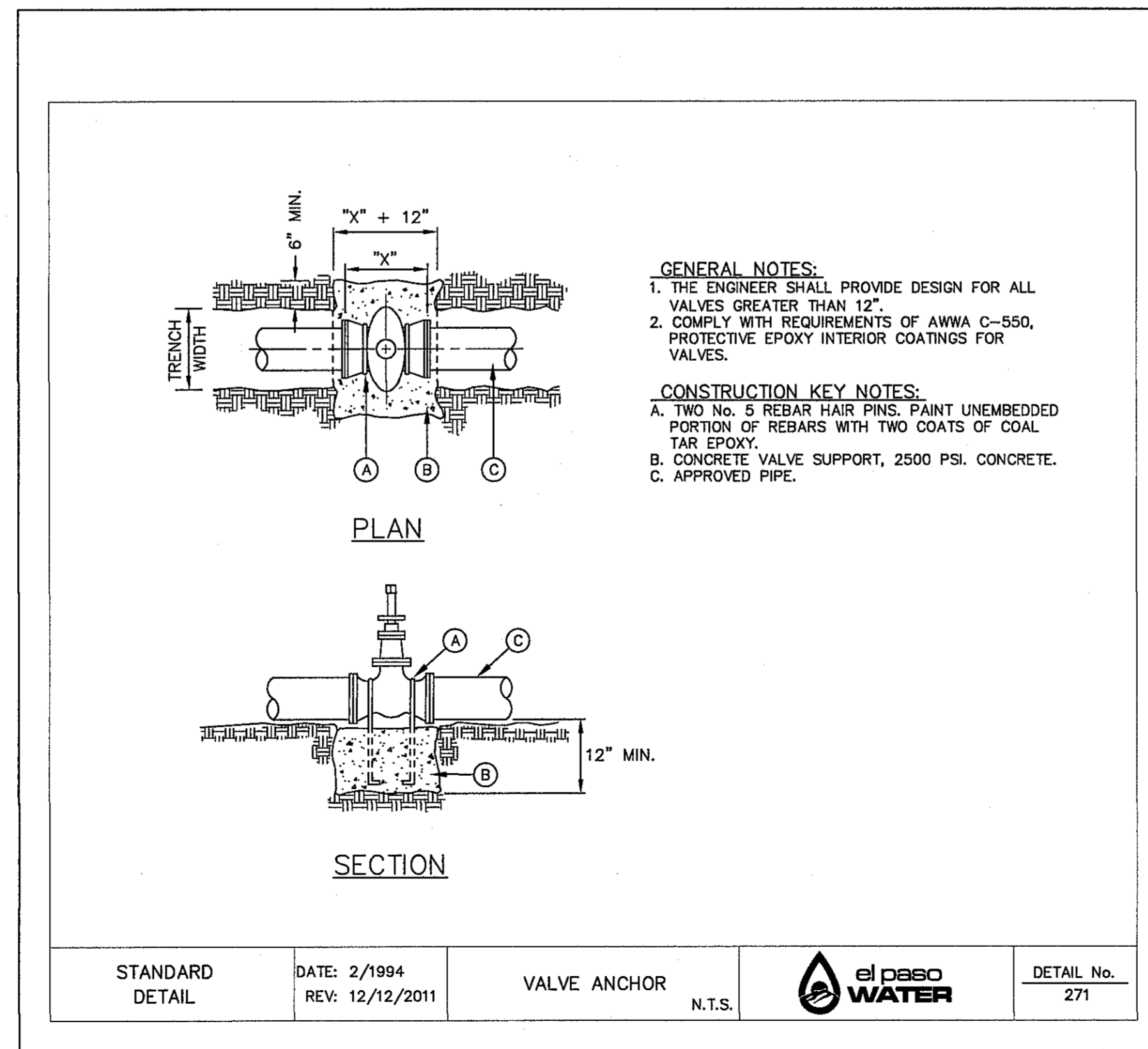
2 BONNET BOX COVER SCALE: N.T.S.



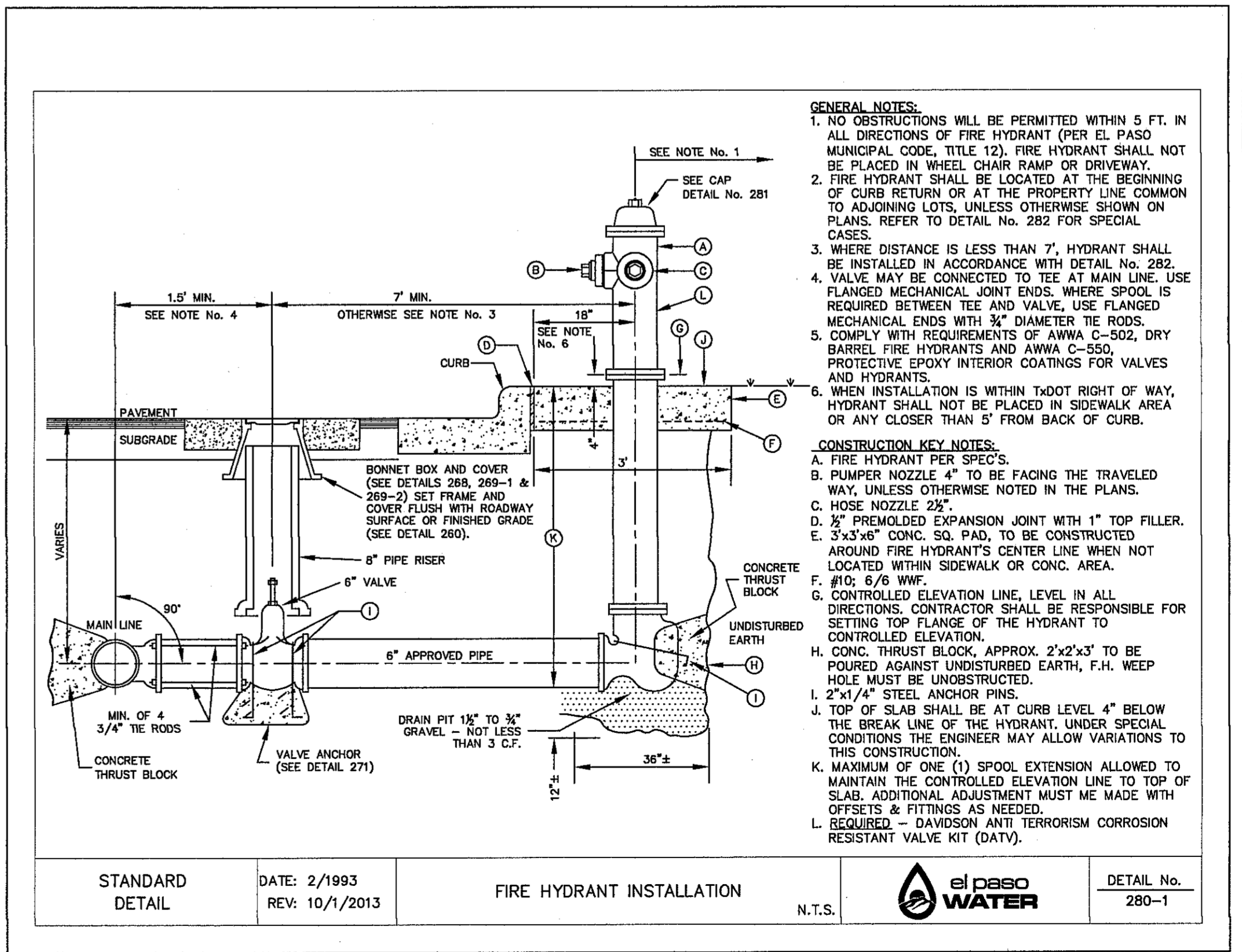
3 CONCRETE COLLAR INSTALLATION IN PAVED AREAS SCALE: N.T.S.



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



5 VALVE ANCHOR SCALE: N.T.S.



6 FIRE HYDRANT INSTALLATION SCALE: N.T.S.

REFERENCES - BENCHMARKS
 EXISTING CITY MONUMENT
 ELEVATION=4003.10 FEET (CITY DATUM)
 LOCATED AT THE CENTERLINE INTERSECTION OF
 PASSED ALGIRE CIRCLE AND PASSED LINDO DRIVE.

DATE: REVISIONS: BY:

el PASO WATER
 TEXAS REGISTERED ENGINEERING FIRM #454
 4712 Woodrow Bean, Ste. F El Paso, TX 79904
 915.544.5232 | www.cesagroup.net

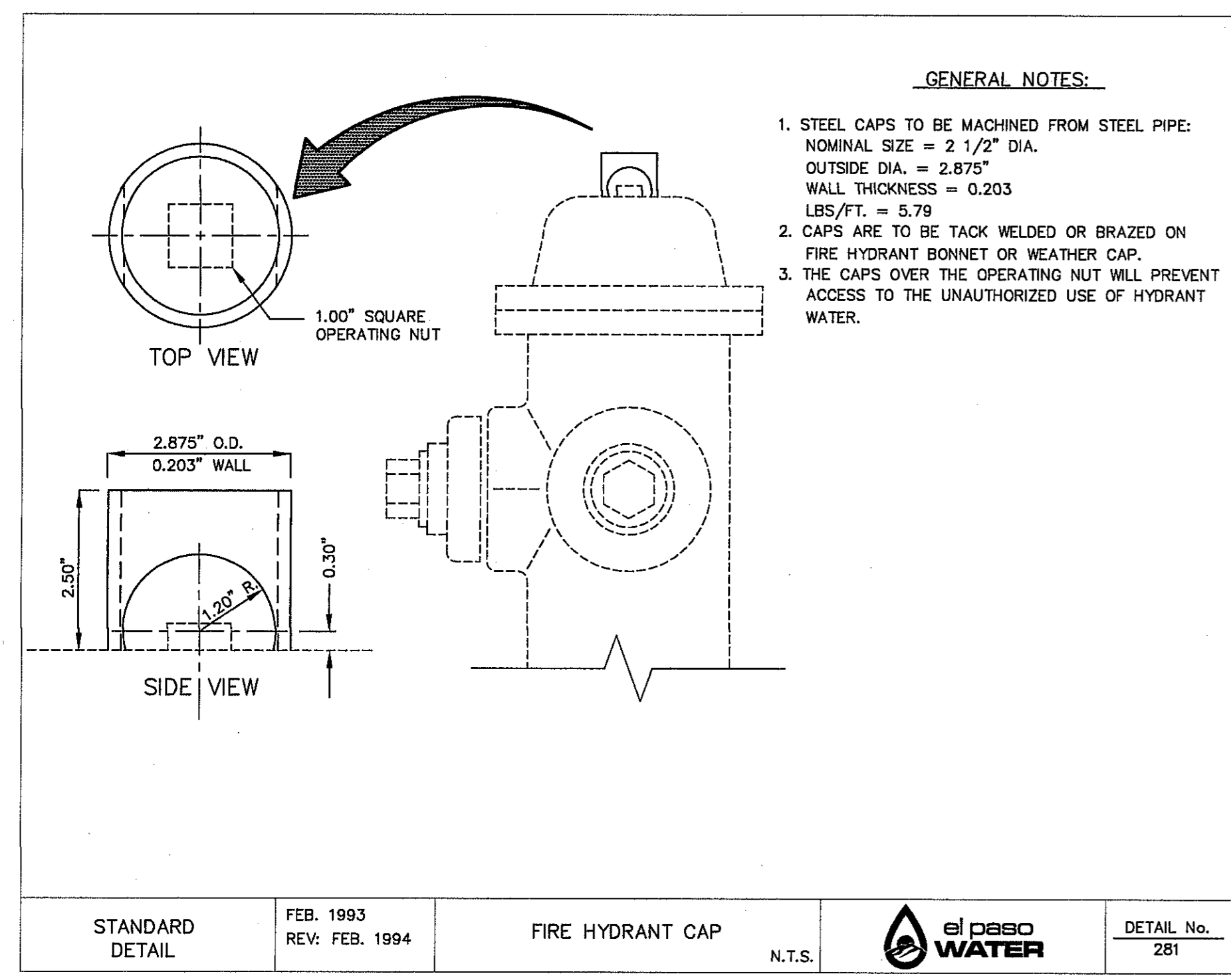
ENGINEER'S SEAL
 N/A
 N/A
 N/A
 DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHKD. BY: J.L.A.
 APPROV. BY: J.L.A.
 JOB No. 2000-196

PROJECT TITLE
 MESQUITE TRAILS UNIT ELEVEN
 REPLAT 'A'
 SUBDIVISION IMPROVEMENTS

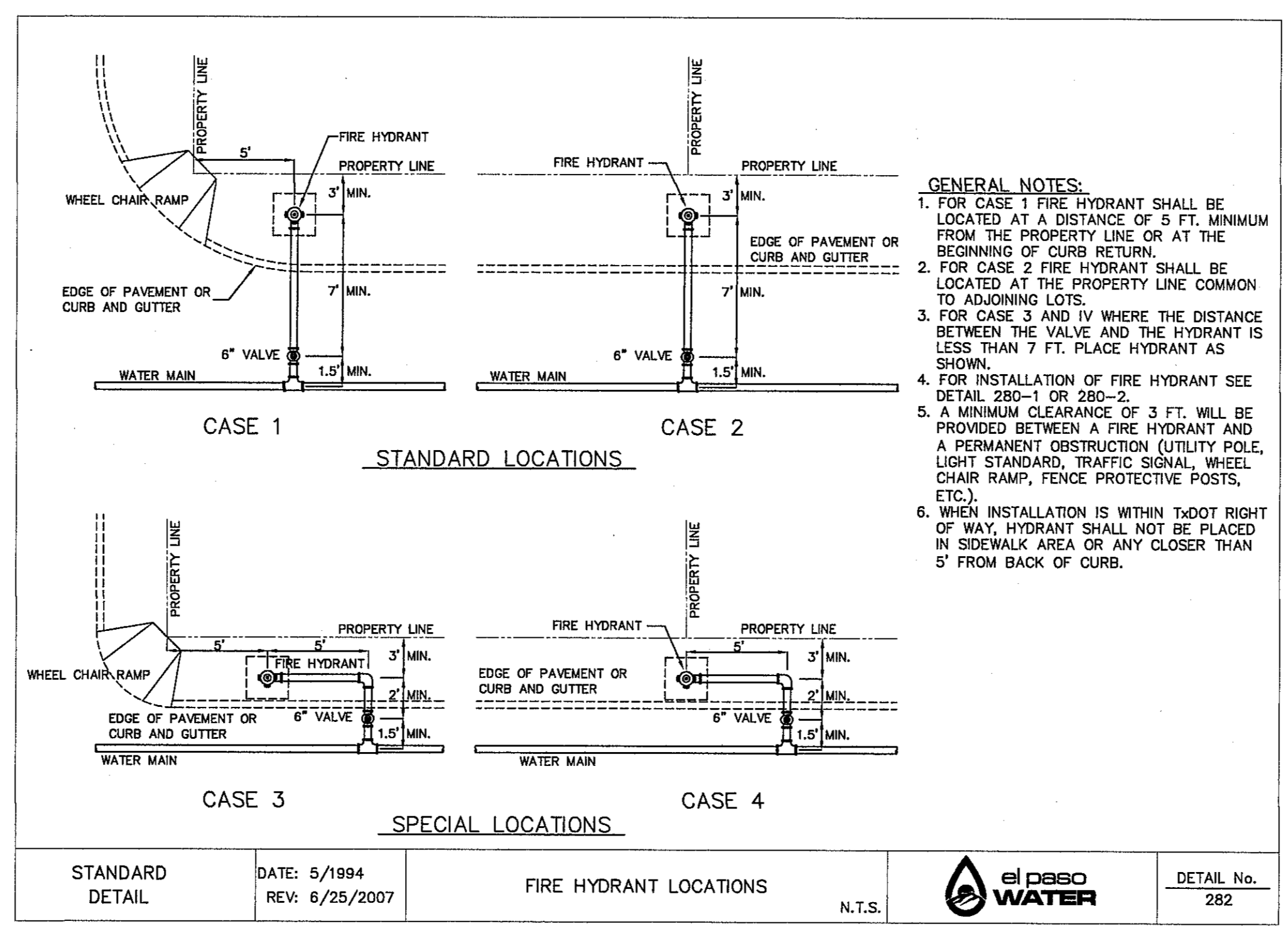
SHEET TITLE
 WATER DETAILS
 (SHEET 2 OF 4)
 SHEET NO.

C12.2

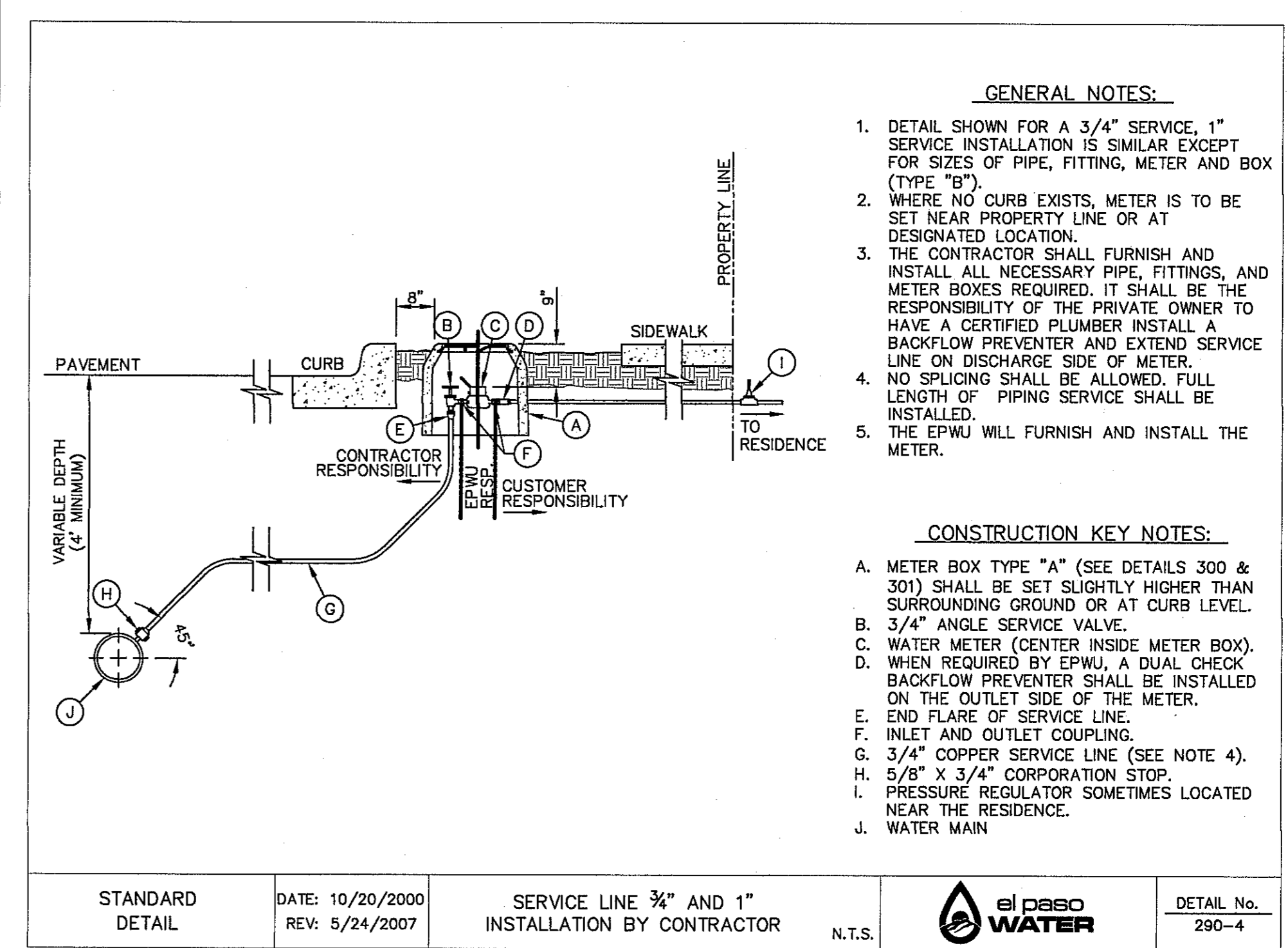
S:\2000\2000-196-Mesquite Trails Unit 11 - Redesign\Drawings\Improvements - Plans\3000-196-D-12.1-C12.1-C12.2-1-11.dwg, 7/9/2016 7:11:53 AM



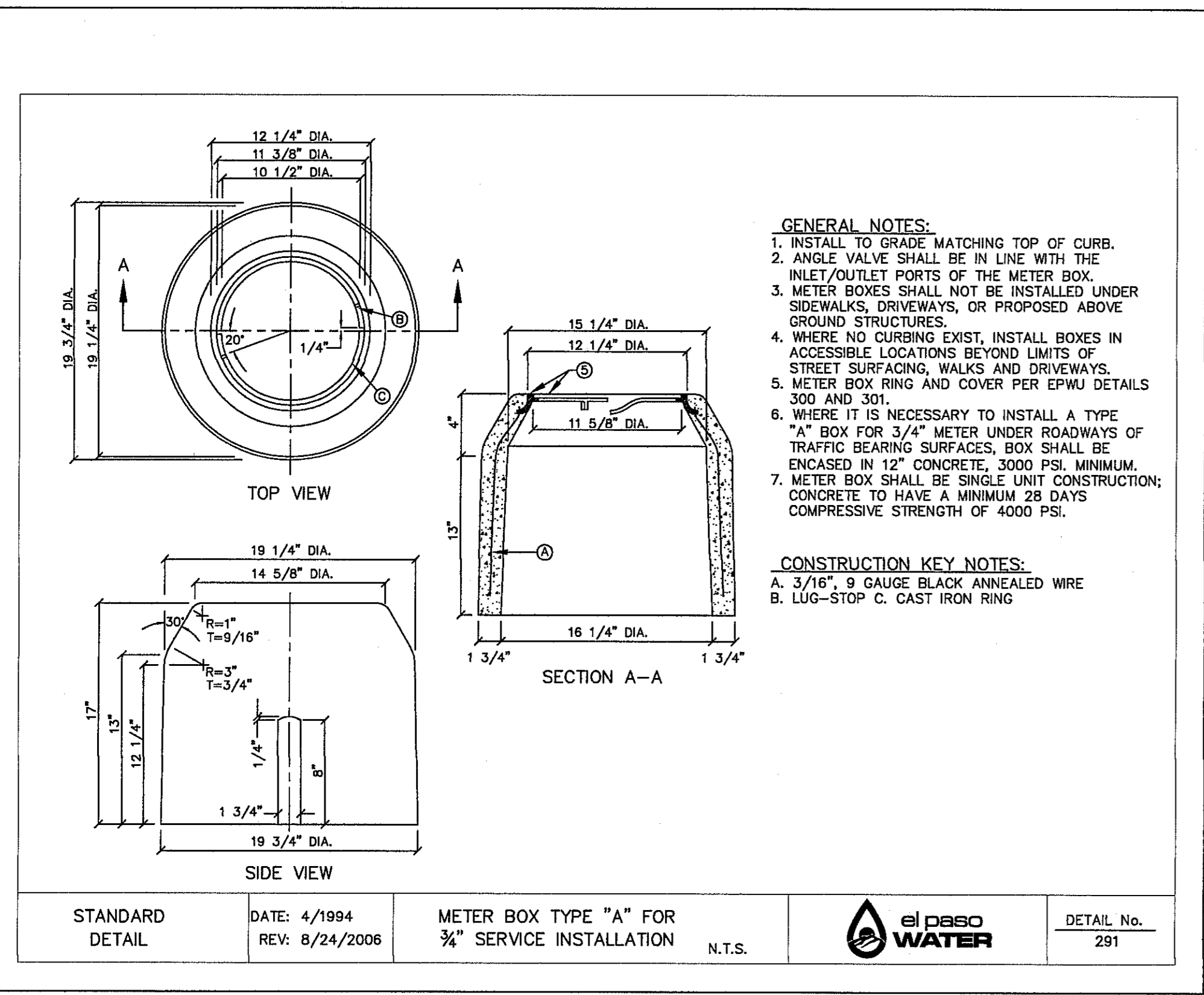
1 FIRE HYDRANT CAP
SCALE: N.T.S.



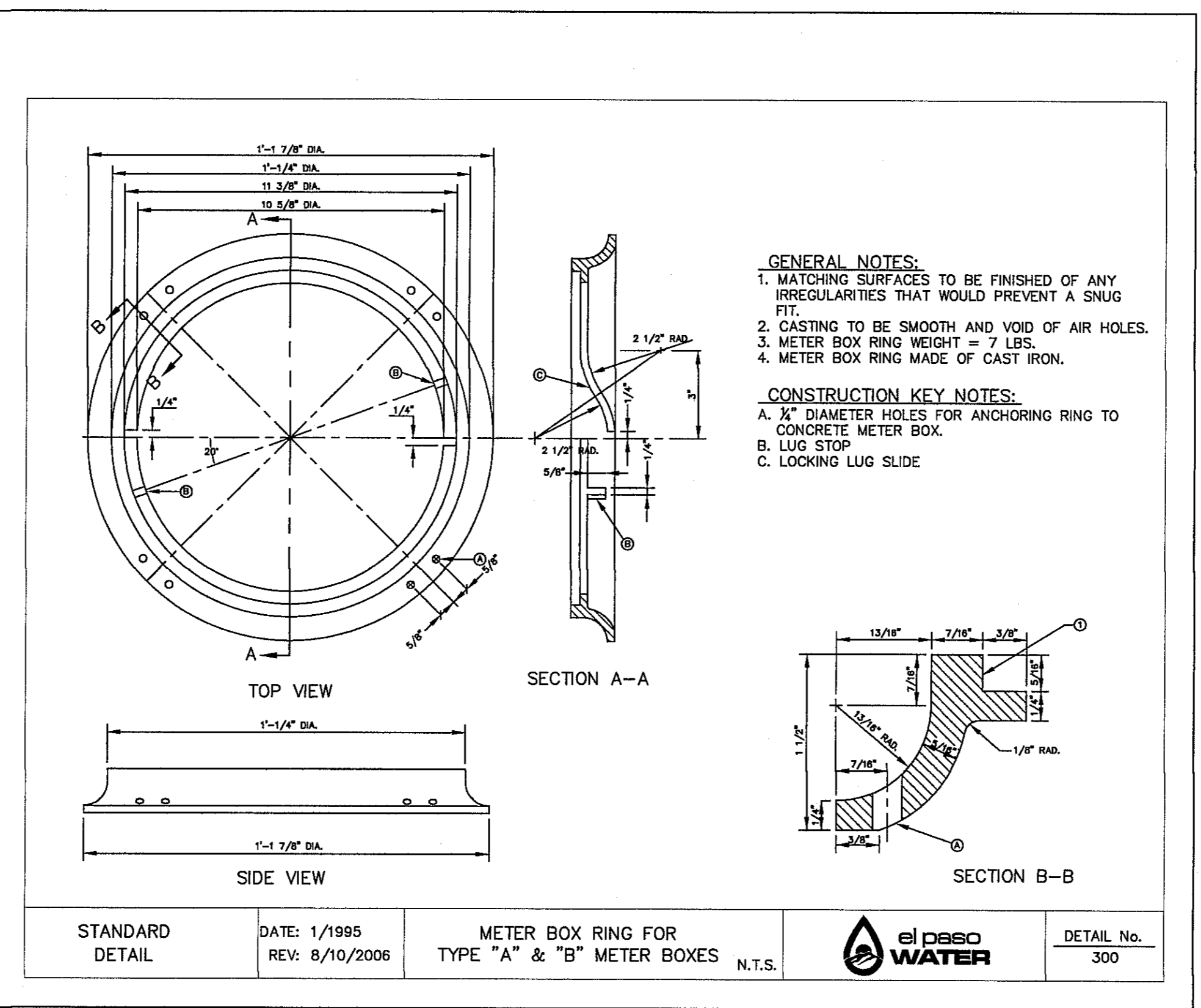
2 FIRE HYDRANT LOCATIONS
SCALE: N.T.S.



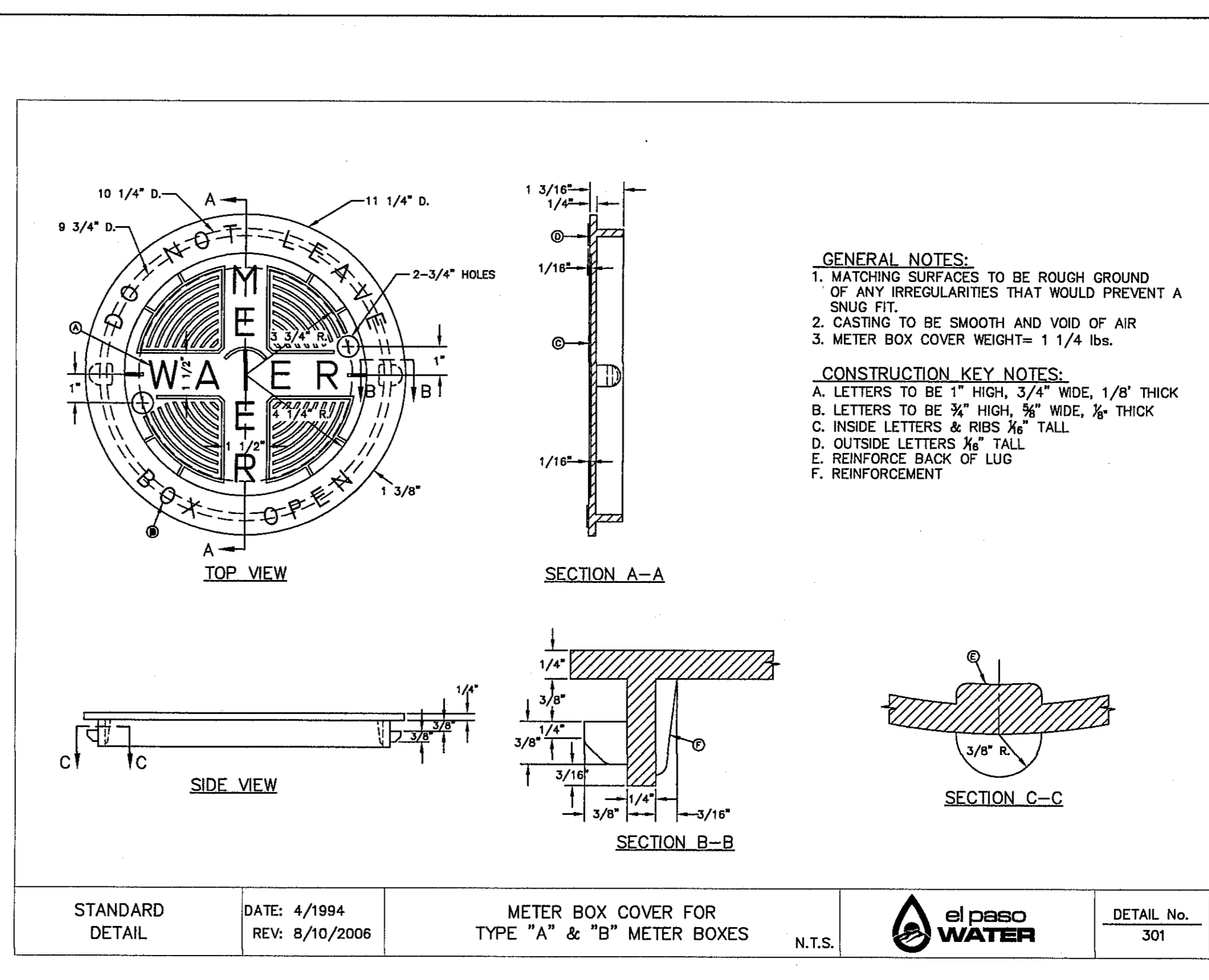
3 SERVICE LINE 3/4" AND 1" INSTALLATION
SCALE: N.T.S.



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



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



6 METER BOX COVER FOR TYPE "A" & "B" METER BOXES
SCALE: N.T.S.

REFERENCES - BENCHMARKS
EXISTING CITY MONUMENT
ELEVATION=4005.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASO ALEGRE CIRCLE AND PASO LINDO DRIVE.

DATE: _____ REVISIONS: _____ BY: _____

TEXAS REGISTERED ENGINEERING FIRM #6894
4712 Woodrow Bann, Ste. F, El Paso, TX 79924
915.544.5232 | www.eppgroup.net

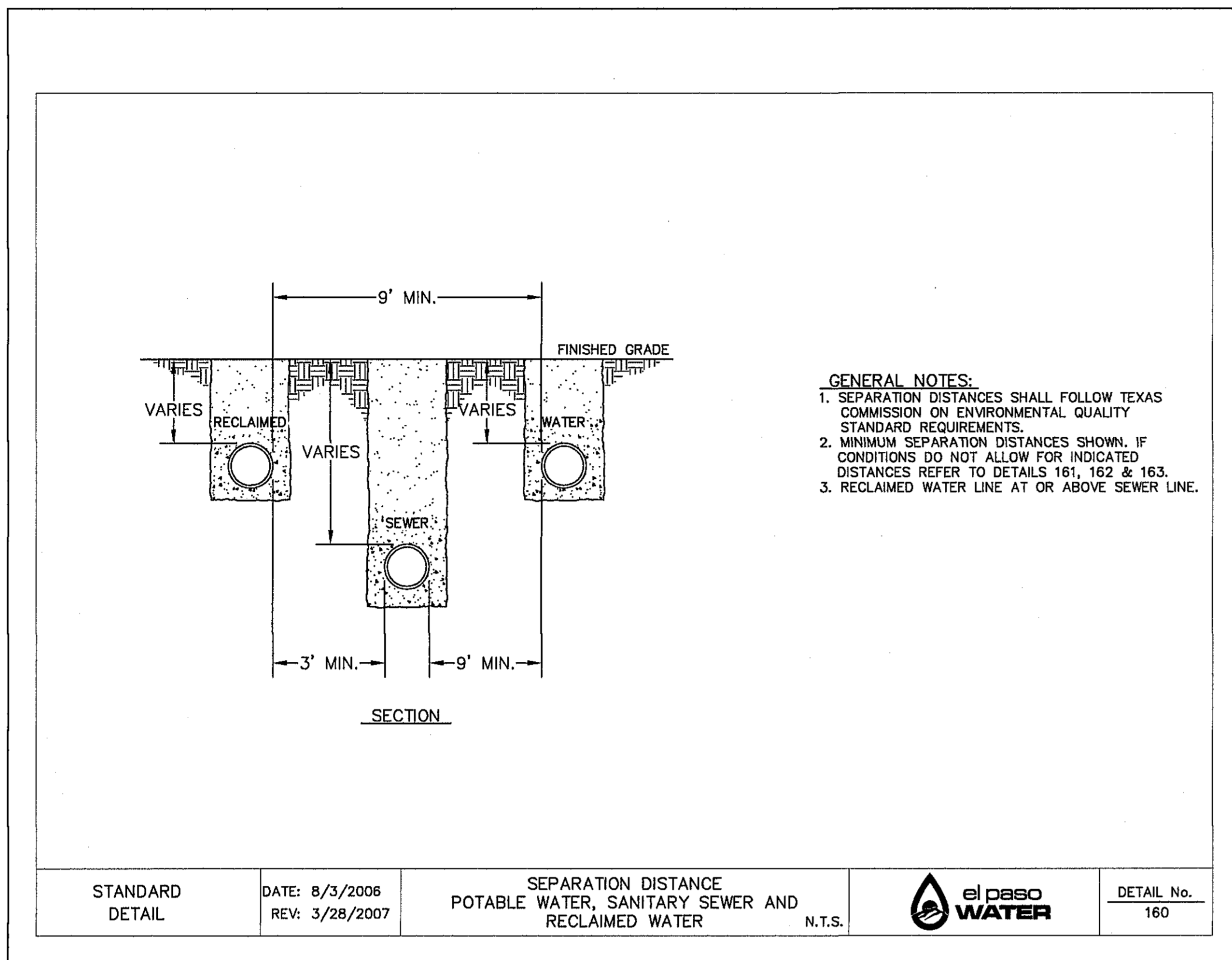
ENGINEER'S SEAL

SCALE: N/A
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APP'D. BY: J.L.A.
JOB No. 2000-196

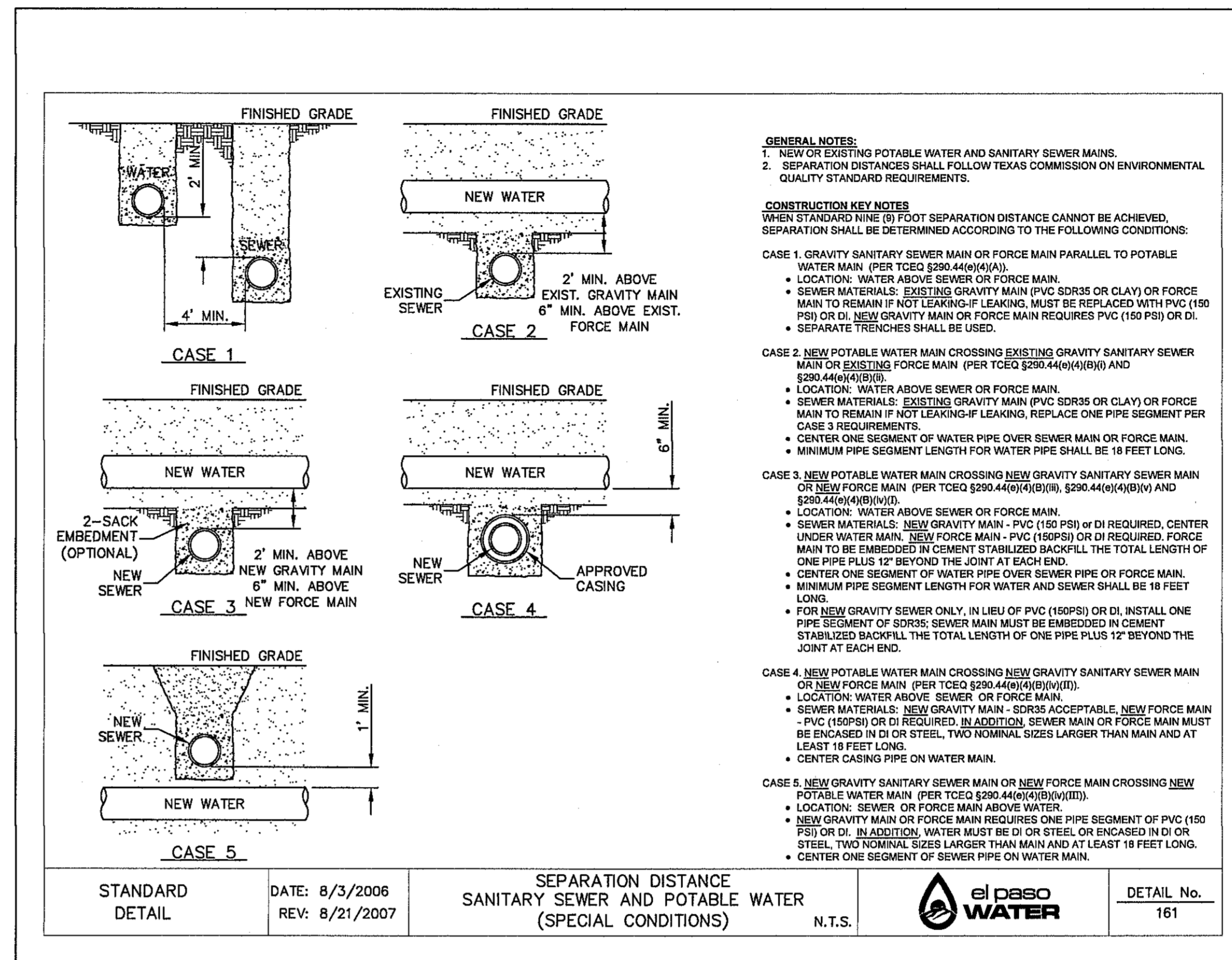
PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**WATER
DETAILS**

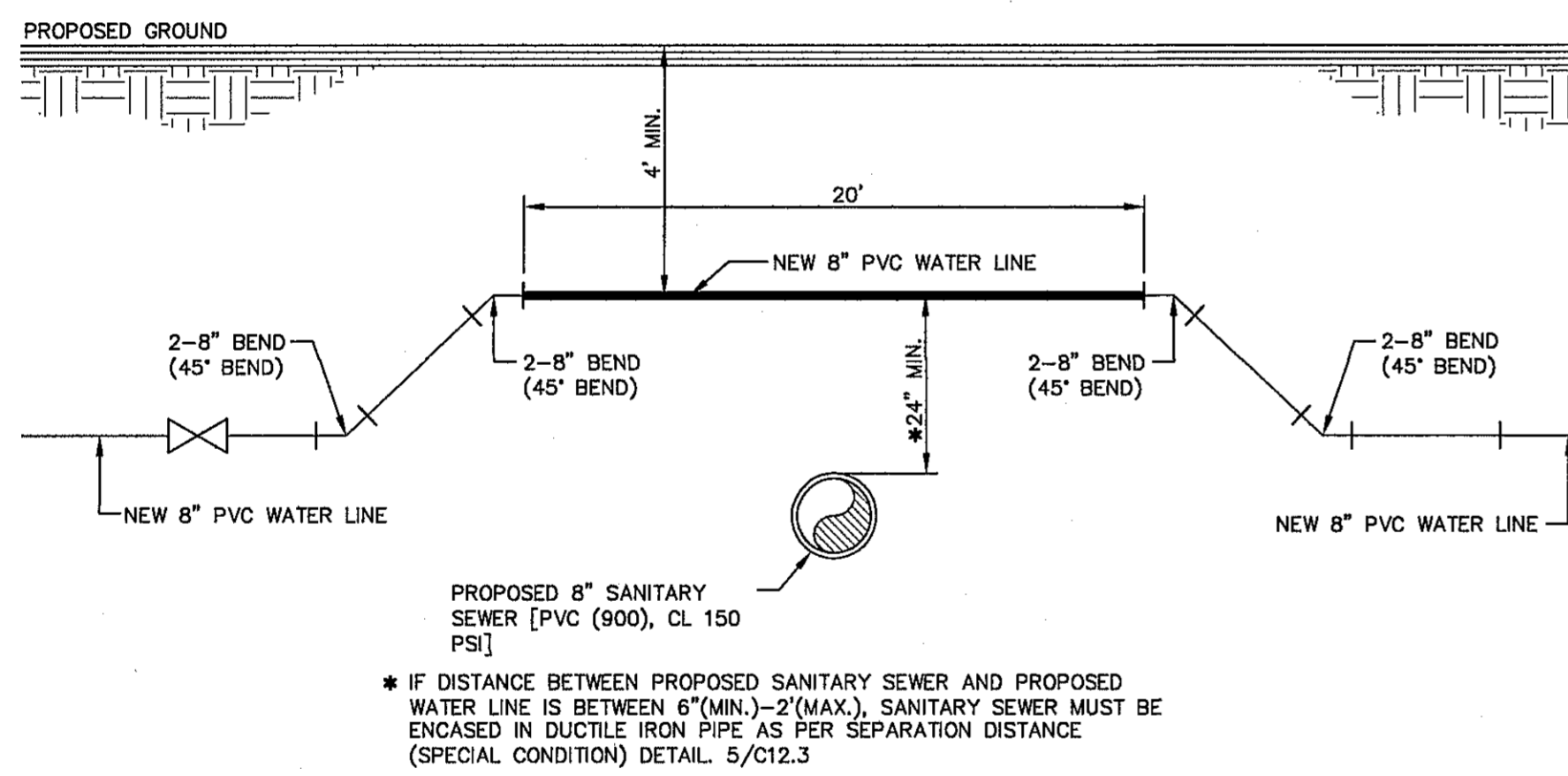
(SHEET 3 OF 4)
SHEET NO.
C12.3



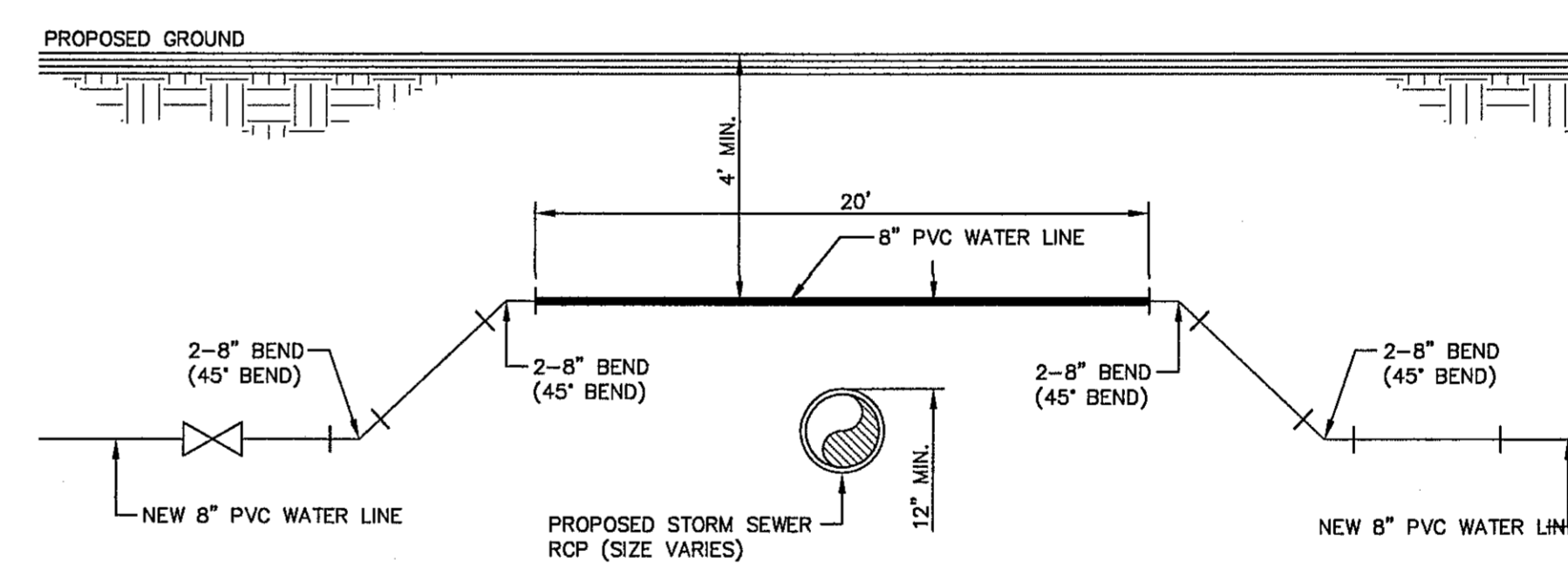
1 SEPARATION DISTANCE POTABLE WATER, SANITARY SEWER AND RECLAIMED WATER
 SCALE: N.T.S.



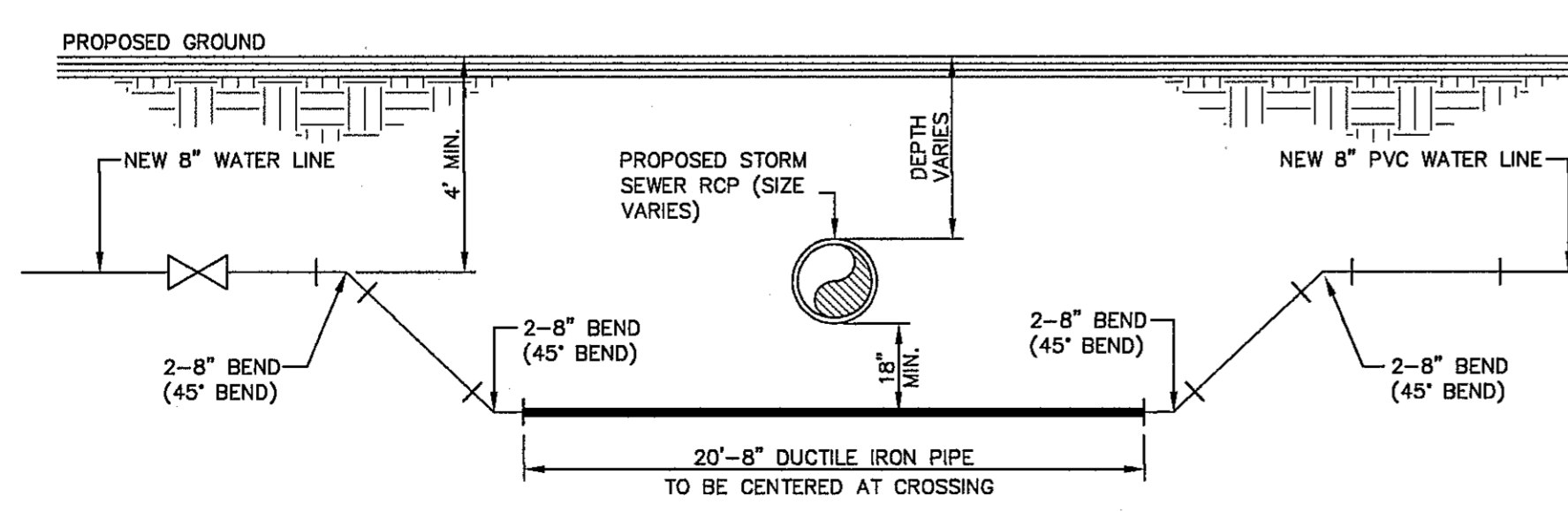
2 SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)
 SCALE: N.T.S.



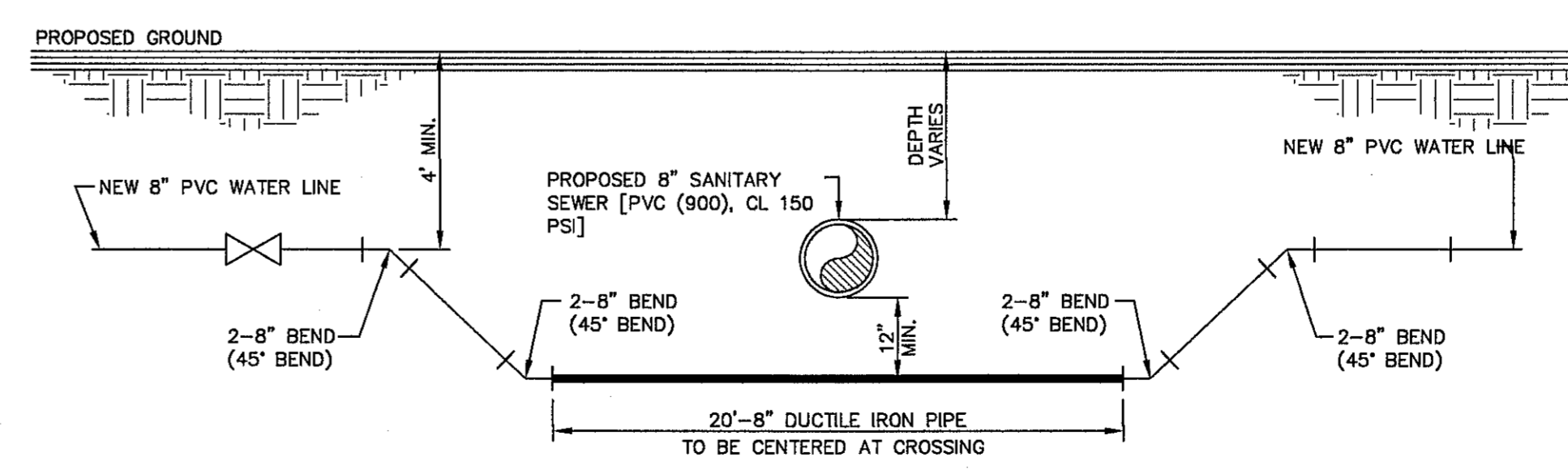
3 WATER LINE OVER SANITARY SEWER CROSSING DETAIL
 SCALE: N.T.S.



4 WATER LINE OVER STORM SEWER CROSSING DETAIL
 SCALE: N.T.S.



5 WATER LINE UNDER STORM SEWER CROSSING DETAIL
 SCALE: N.T.S.



6 WATER LINE UNDER SANITARY SEWER CROSSING DETAIL
 SCALE: N.T.S.

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT ELEVATION=60310 FEET (CITY DATUM) LOCATED AT THE CENTERLINE INTERSECTION OF PASSE ALLEGRE CIRCLE AND PASSE LINDO DRIVE.

DATE: _____ REVISIONS: _____ BY: _____

TEXAS REGISTERED ENGINEERING FIRM #484
 4712 Woodrow Bean, Ste. F, El Paso, TX 79904
 915.544.5232 | www.ceaengr.com

ENGINEER'S SEAL

SCALE: N/A
 Horizontal: N/A
 Vertical: N/A
 Contour Interval: N/A
 DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHKO. BY: J.L.A.
 APP'D. BY: J.L.A.
 JOB No. 2000-196

PROJECT TITLE

MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

WATER DETAILS

(SHEET 4 OF 4)
 SHEET NO.

C12.4

S:\2005\1005-196-Mesquite Trails Unit 11 Replat\1005\Construction Drawings\Improvements_Plan\2005-196-UP-C12.1-C12.4-Repl-Drawings.dwg, Layout, 7/12/2016 8:44:38 AM



A PORTION OF SECTION No. 15, TOWNSHIP 2S, RANGE 10E, COUNTY OF EL PASO, TEXAS. SURVEY VOLUME 2084, PAGE 2971.

A PORTION OF SECTION No. 15, TOWNSHIP 2S, RANGE 10E, COUNTY OF EL PASO, TEXAS. SURVEY VOLUME 1033, PAGE 744. D.R.E.P.C.

APPROXIMATE LOCATION OF AN EXISTING 42" SEWER LINE INTERCEPTOR

APPROXIMATE LOCATION OF AN EXISTING 42" SEWER LINE INTERCEPTOR

CONNECT NEW 18" SEWER LINE TO EXISTING 42" INTERCEPTOR MANHOLE

WASTEWATER QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	8" PVC SDR35 GRAVITY LINE	3,902.46	LINEAR FEET
2	8" PVC C-900, CL150	1,920.99	LINEAR FEET
3	18" PVC SDR35 GRAVITY LINE (BY E.P.W.U.)	1,211.88	LINEAR FEET
4	16" STEEL CASING	30.00	LINEAR FEET
5	STANDARD WASTEWATER MANHOLE (0'-8" DEEP)	12	EACH
6	STANDARD WASTEWATER MANHOLE (8'-12" DEEP)	2	EACH
7	STANDARD WASTEWATER MANHOLE (12'-25" DEEP)	5	EACH
8	DROP CONNECTION MANHOLE (12'-25" DEEP)	4	EACH
9	4" WASTEWATER SERVICE CONNECTION	140	EACH

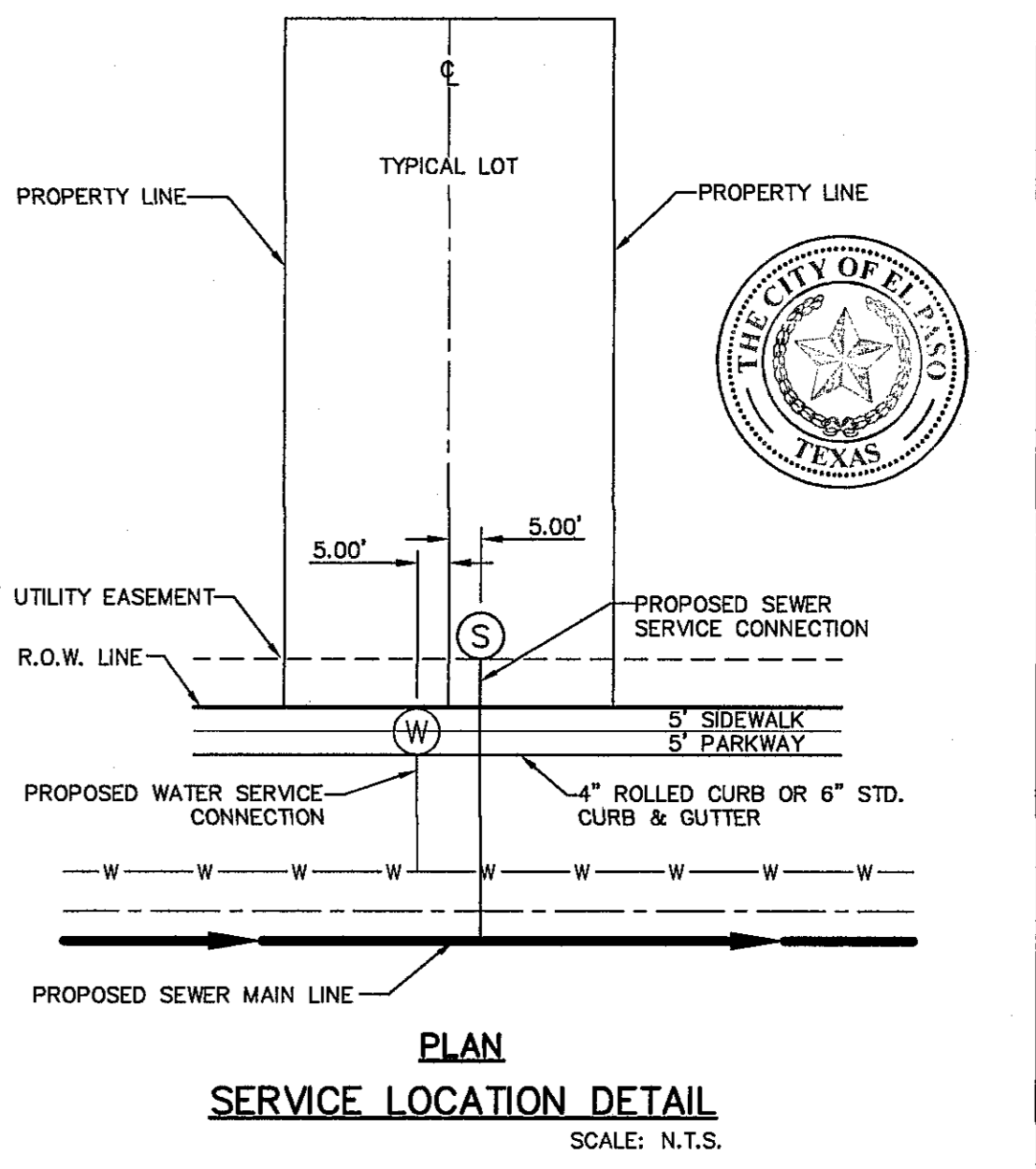
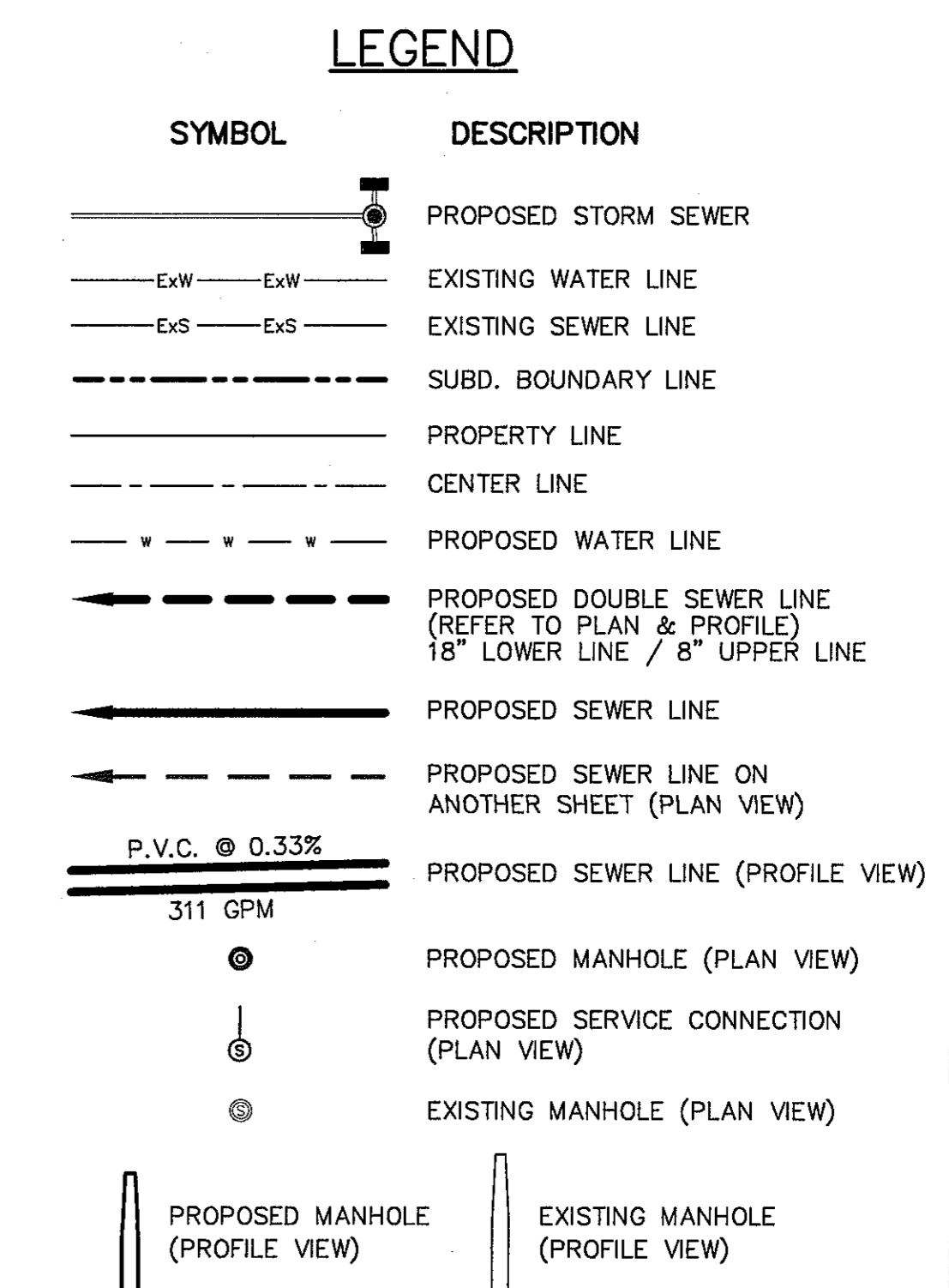
CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

SANITARY SEWER INDEX MAP
SCALE: 1" = 100'

INDEX

SHEET NO.	DESCRIPTION
C13.1	MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' LEGEND INDEX / GENERAL INFORMATION
C14.1	LINE A & B
C14.2	LINE B & G
C14.3	LINE C & D
C14.4	LINE E & F
C15.1	SANITARY SEWER DETAILS
C15.2	SANITARY SEWER DETAILS
C15.3	SANITARY SEWER DETAILS

- NOTES:**
- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
 - ALL SANITARY SEWER PIPES SHALL BE PVC, SDR 35, (D 3034), UNLESS OTHERWISE SHOWN, AS REQUIRED BY THE EPWU/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.
 - REFERENCE SANITARY SEWER DETAILS FOR SEWER CROSSINGS AT STORM SEWER.
 - EPWU SHALL DESIGN THE 18" INCH SANITARY SEWER LINE WITHIN BLAZING STAR DRIVE.



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

GENERAL UTILITIES:
TEXAS EXCAVATION SAFETY SERVICE
1184 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
1571 N. BOONE ST.
EL PASO, TX. 79905
(915) 534-7910

FIBER OPTICS:
MCI TELECOMMUNICATIONS CORP.
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. 79935
(915) 594-5530
MR. FELIPE LOPEZ, JR., P.E.

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

EL PASO STREETS
CITY OF EL PASO
STREET & MAINTENANCE DEPT.
7969 SAN PAULO DRIVE
EL PASO, TX. 79907
(915) 621-6750
MR. TED MARQUEZ, PE.

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

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

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

RESIDENTIAL GAS LINES:
TEXAS GAS SERVICE
4700 POLLARD ST.
STREET & MAINTENANCE DEPT.
EL PASO, TX. 79907
(915) 680-7218

WARNING!
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE.

DATE: _____ REVISIONS: _____ BY: _____

ENGINEER'S SEAL

SCALE: 1"=100'

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

DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No.: 2000-1196

PROJECT TITLE

**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**SEWER INDEX/
GENERAL
INFORMATION**

SHEET NO.

C13.1

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 486-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

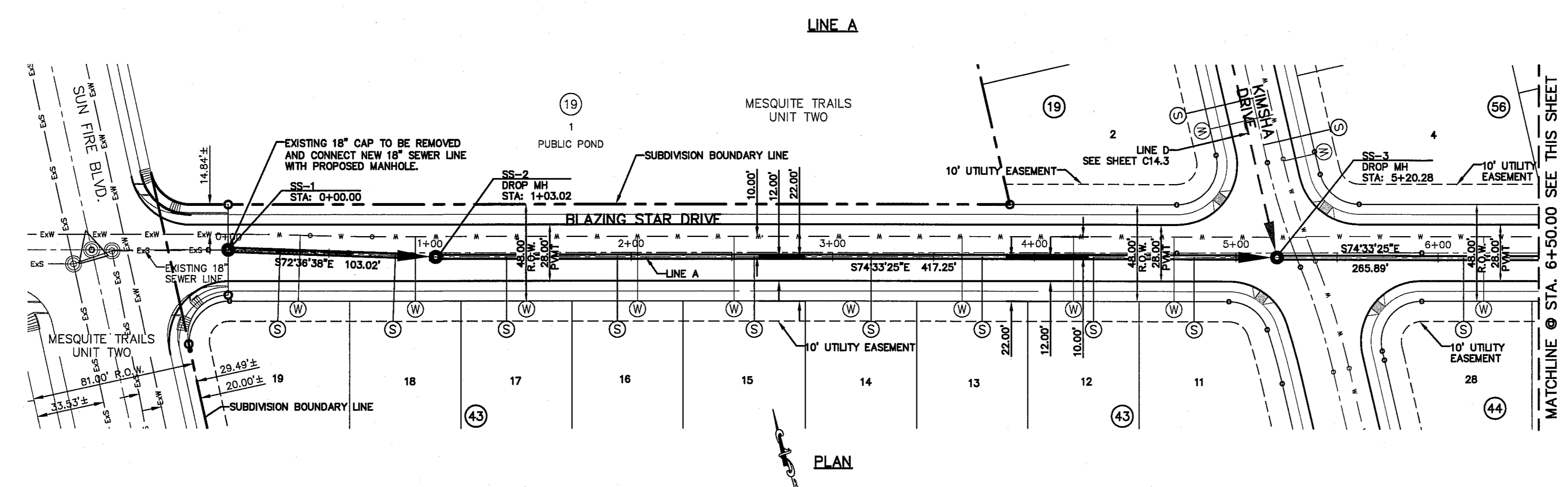
**WARNING !
BEFORE YOU DIG
CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

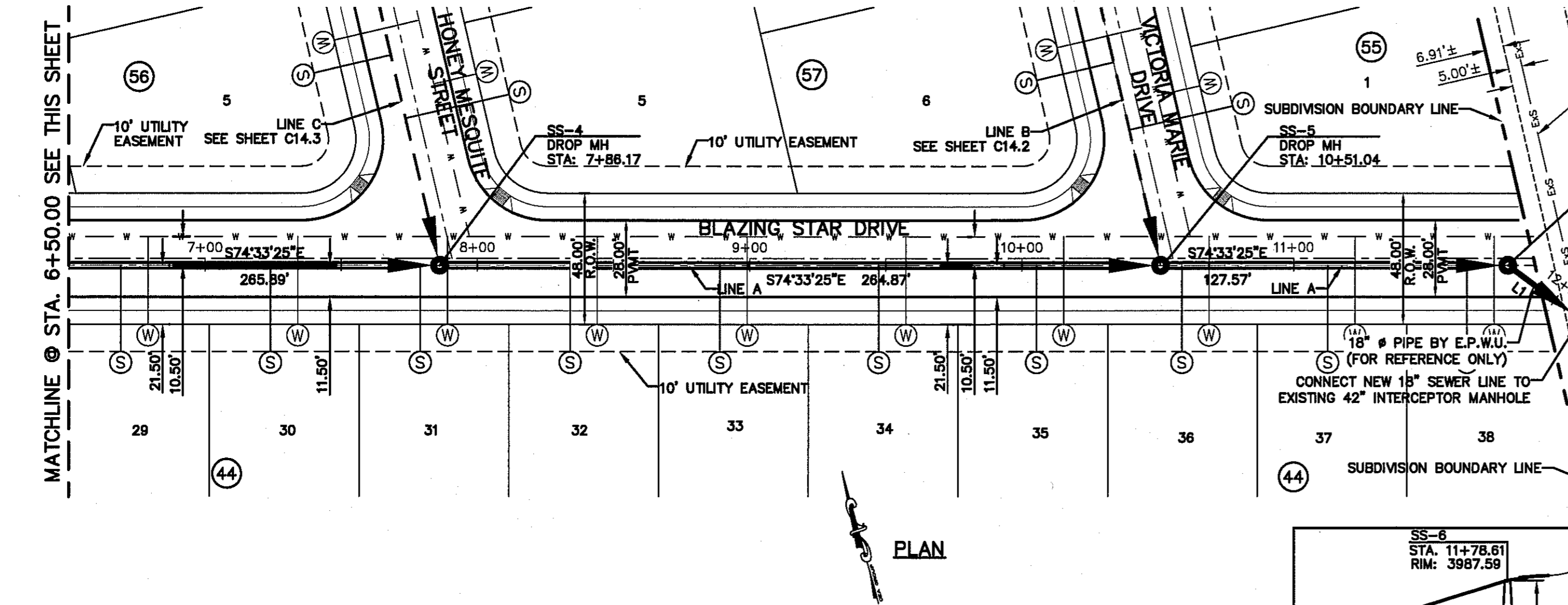
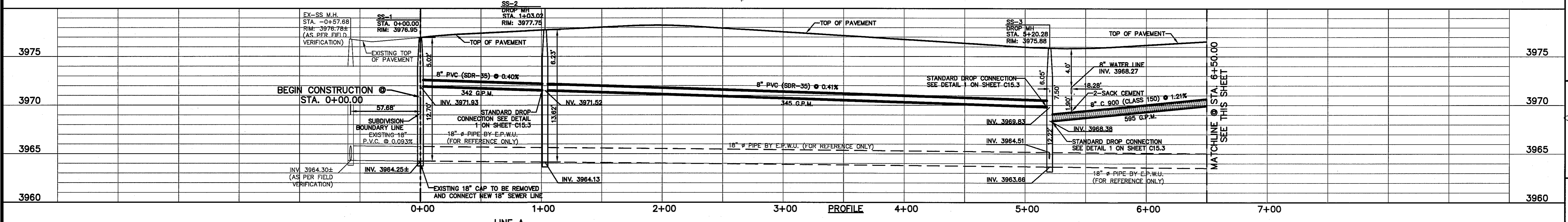
EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASEO ALBERTO CIRCLE AND PASEO UNDO DRIVE

DATE	BY



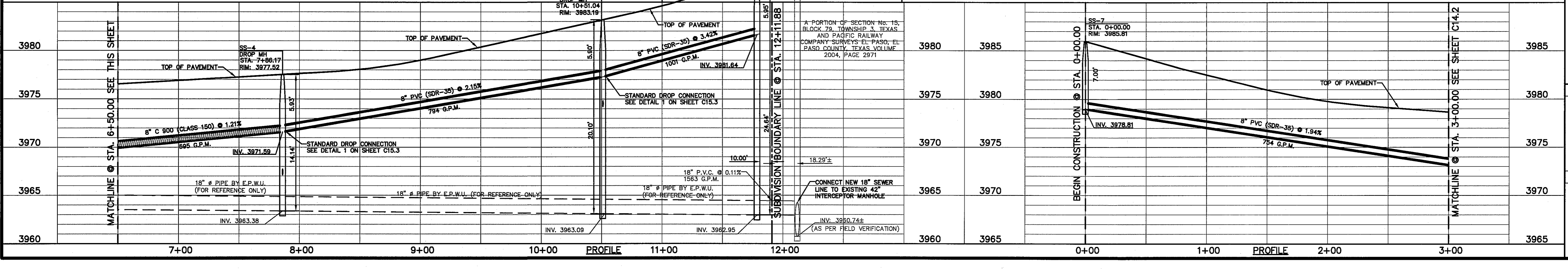
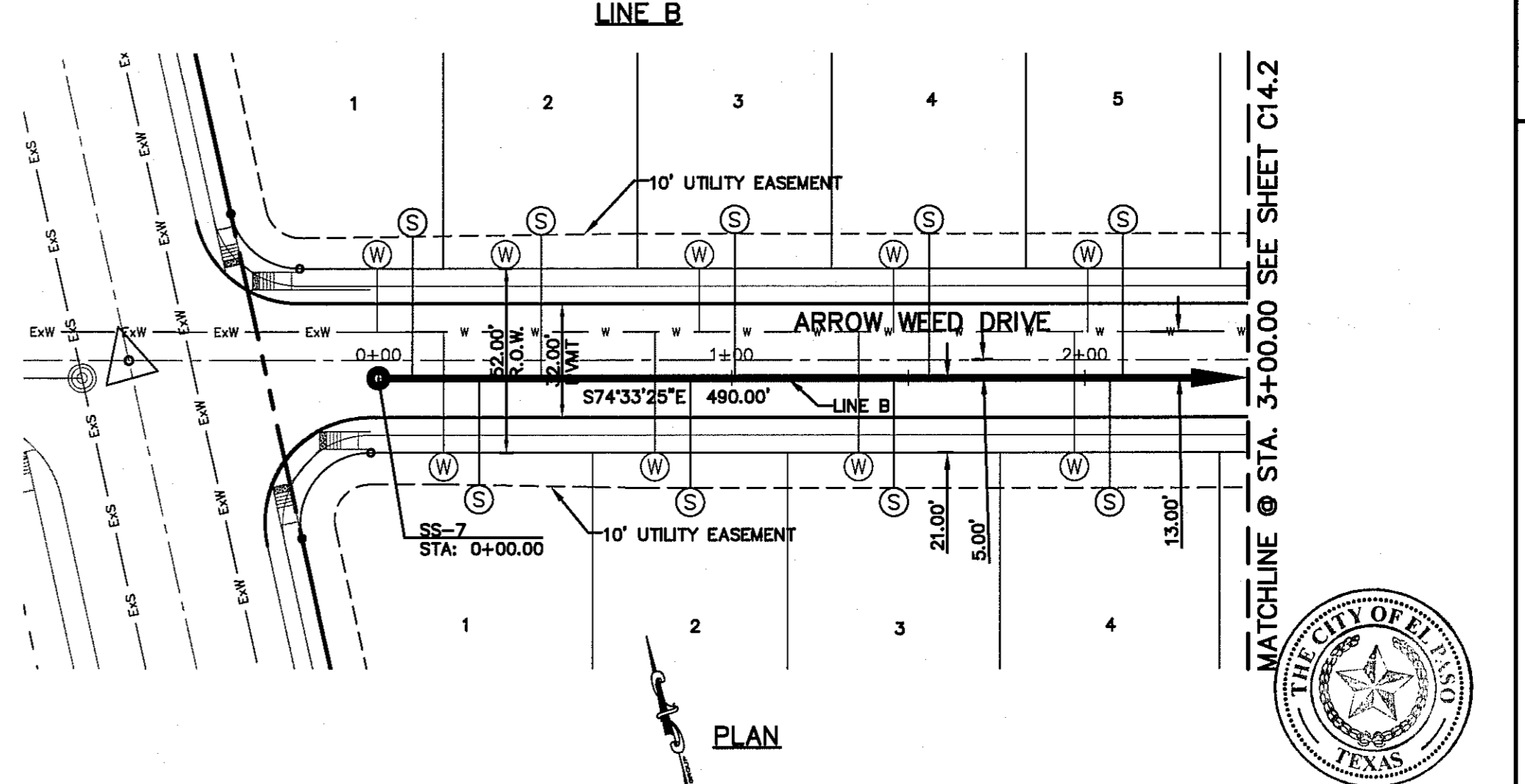
LEGEND:

- - - - - PROPOSED WATER LINE
- - - - - PROPOSED STORM SEWER LINE
- - - - - PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)
- ← ← ← ← ← PROPOSED DOUBLE PIGGY SEWER LINE
- — — — — PROPOSED SEWER LINE
- ○ ○ ○ ○ PROPOSED WATER SERVICE
- ○ ○ ○ ○ PROPOSED SEWER SERVICE
- PROPOSED SEWER MANHOLE
- ▨ C-900, CLASS 150 PIPE



LINE TABLE

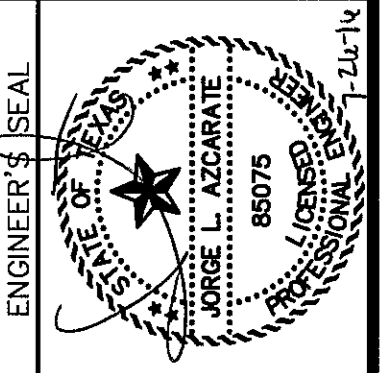
LINE	BEARING	LENGTH
L1	S38°11'00"E	33.27'



CSA

CITY SURVEYORS ASSOCIATION
OF TEXAS

TEXAS REGISTERED ENGINEERING FIRM #4684
4712 Woodrow Bessin, Ste. F El Paso, TX 79924
915.344.3232 | www.csaonline.net



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

DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APP'D. BY: J.L.A.
JOB NO. 2000-196

**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

SANITARY SEWER
PLAN & PROFILE
LINE A & B

SHEET NO.

C14.1

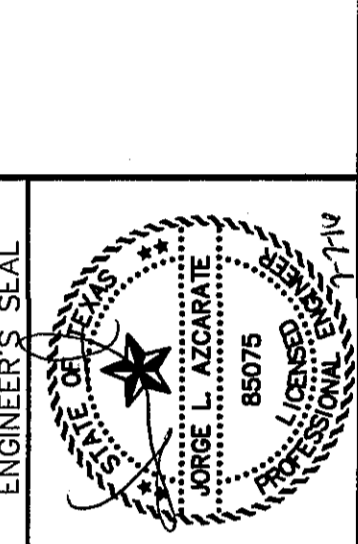
S:\2000\2000-196-Mesquite Trails Unit 11 Subdivision\Drawings\Improvements Drawings\Construction Drawings\Sanitary Sewer P&P Line A & B.dwg, Lysenell, 7/26/2016 2:27:29 PM

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

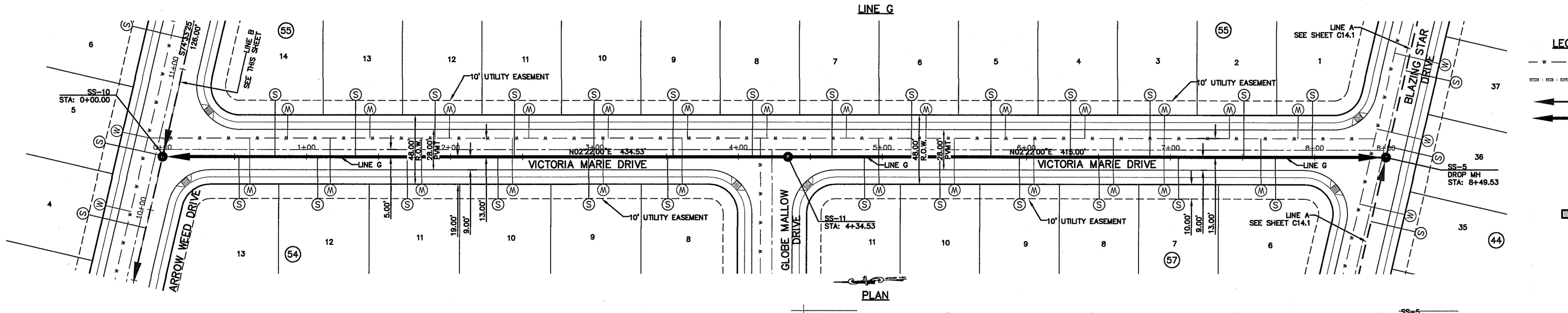
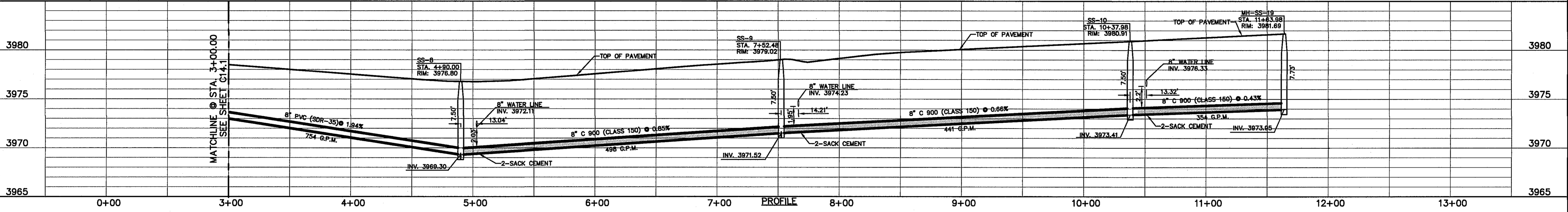
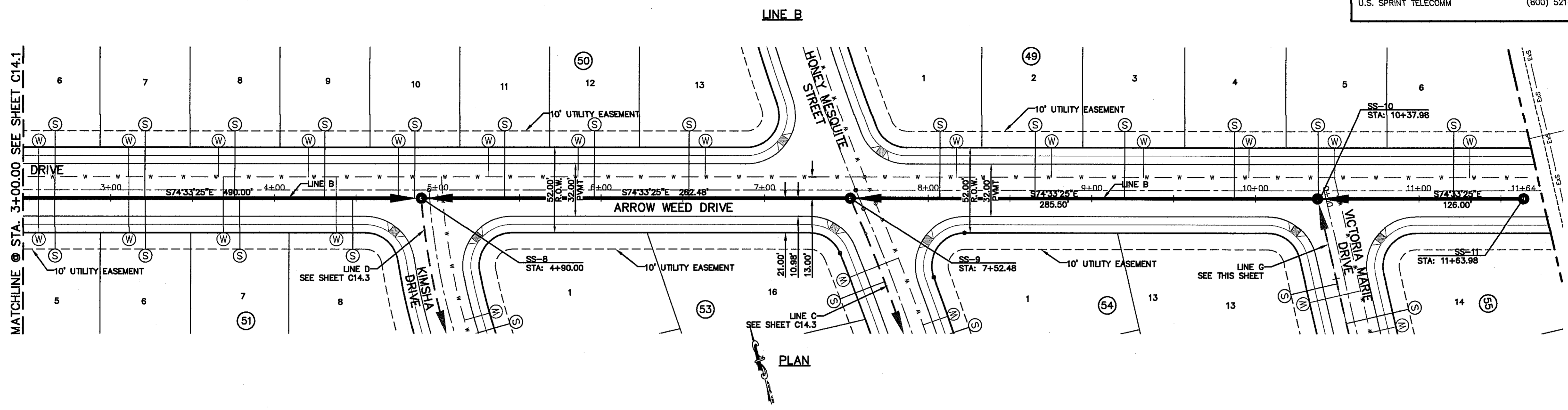
WARNING!
BEFORE YOU DIG
CALL 811
 FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
 EXISTING CITY MONUMENT
 ELEVATION=403.10 FEET (CITY DATUM)
 LOCATED AT THE CENTERLINE INTERSECTION OF
 PASO ALFREGE CIRCLE AND PASO LINDO DRIVE.

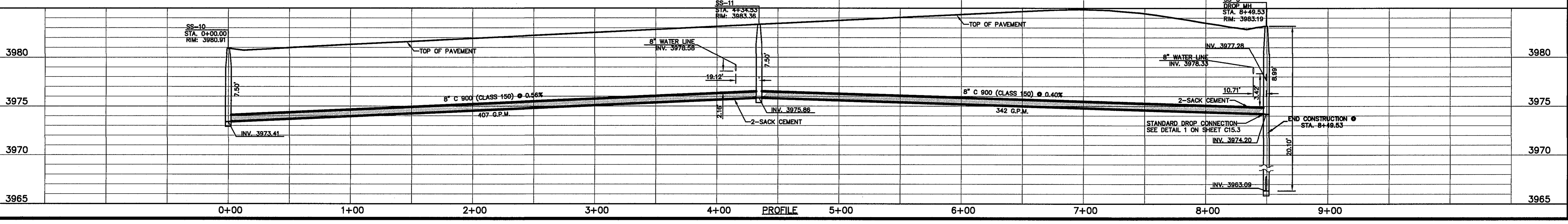


SCALE
 Horizontal: 1"=40'
 Vertical: 1"=5'
 Contour Interval: 1' N/A
 DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No. 2000-196



LEGEND:

- - - - - PROPOSED WATER LINE
- - - - - PROPOSED STORM SEWER LINE
- - - - - PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)
- - - - - PROPOSED SEWER LINE
- (W) PROPOSED WATER SERVICE
- (S) PROPOSED SEWER SERVICE
- (M) PROPOSED SEWER MANHOLE
- (D) PROPOSED SEWER DROP
- C-900, CLASS 150 PIPE



PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
 REPLAT 'A'
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE
**SANITARY SEWER
 PLAN & PROFILE
 LINE B & G**

SHEET NO.
C14.2

P:\2000\2000-196-Mesquite Trails Unit 11 Replat\GIS\Drawings\Improvements - Plan\2000-196-C14.2-Sanitary Sewer - Plan Line B & G.dwg, 17/2016, 2:40:00 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) 860-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579

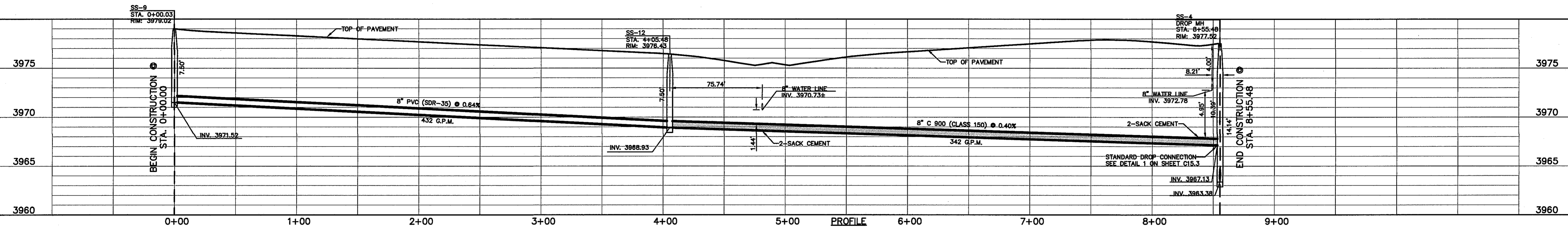
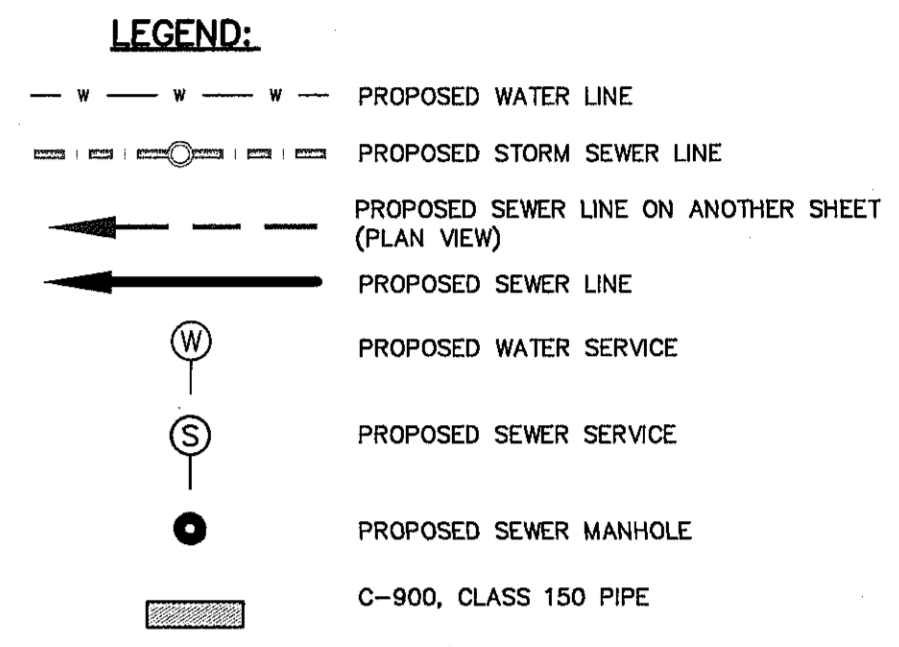
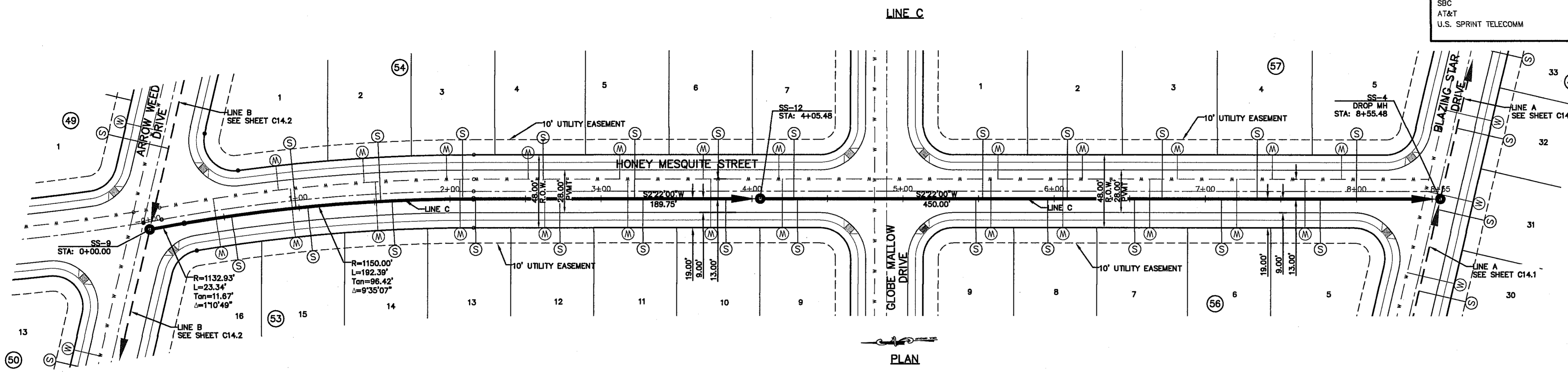
WARNING!
BEFORE YOU DIG
CALL 811
FOR FIELD LOCATING EXISTING UTILITIES

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASSED ALFREY CIRCLE AND PASO LINDO DRIVE.

TEXAS REGISTERED ENGINEERING FIRM #484
4712 Woodrow Bean, Ste. F El Paso, TX 79924
915-544-5252 | www.caeengr.com



ENGINEER'S SEAL

SCALE: 1"=40'

Horizontal: 1"=40'
Vertical: 1"=5'

Contour Interval: N/A

DATE: APRIL 2016

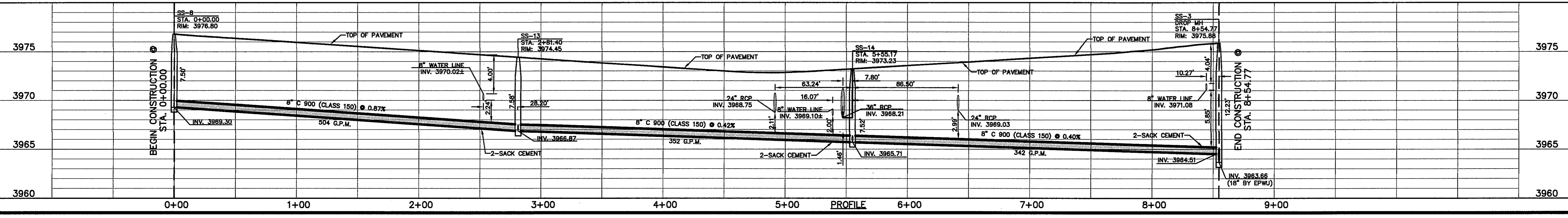
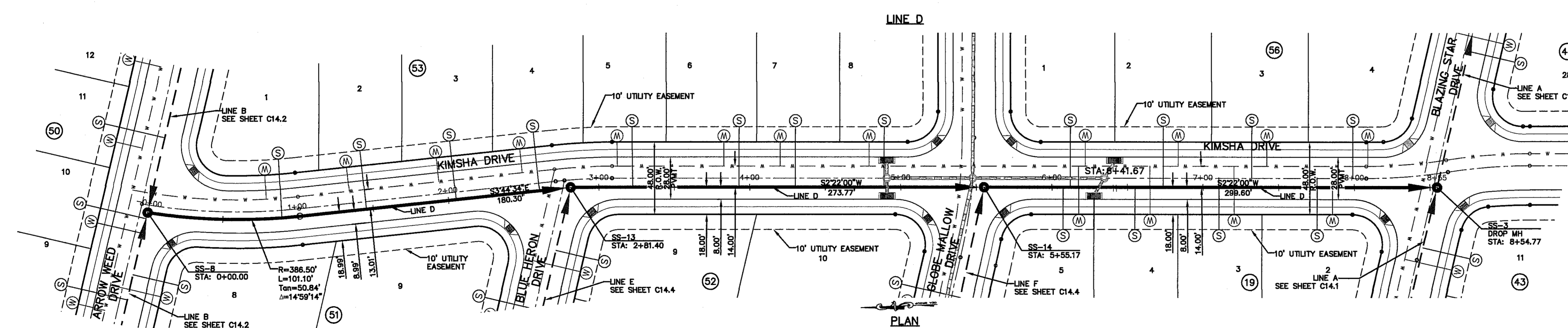
DESIGN BY: F.Z.

DRAWN BY: R.O.

CHKD. BY: J.L.A.

APPRD. BY: J.L.A.

JOB No. 2000-196



PROJECT TITLE

**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**SANITARY SEWER
PLAN & PROFILE
LINE C & D**

SHEET NO.

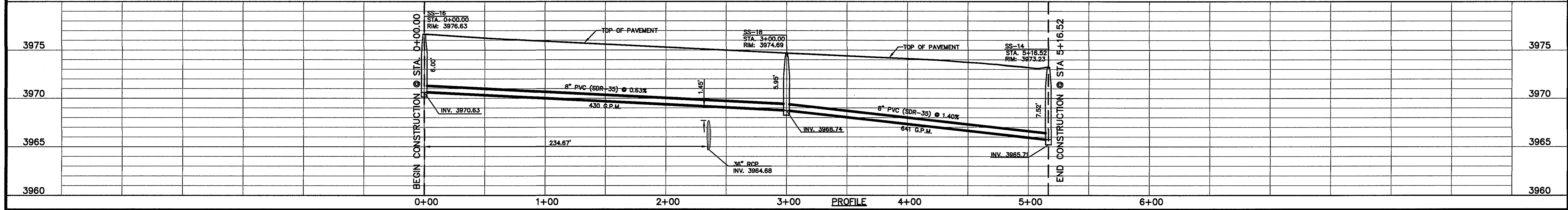
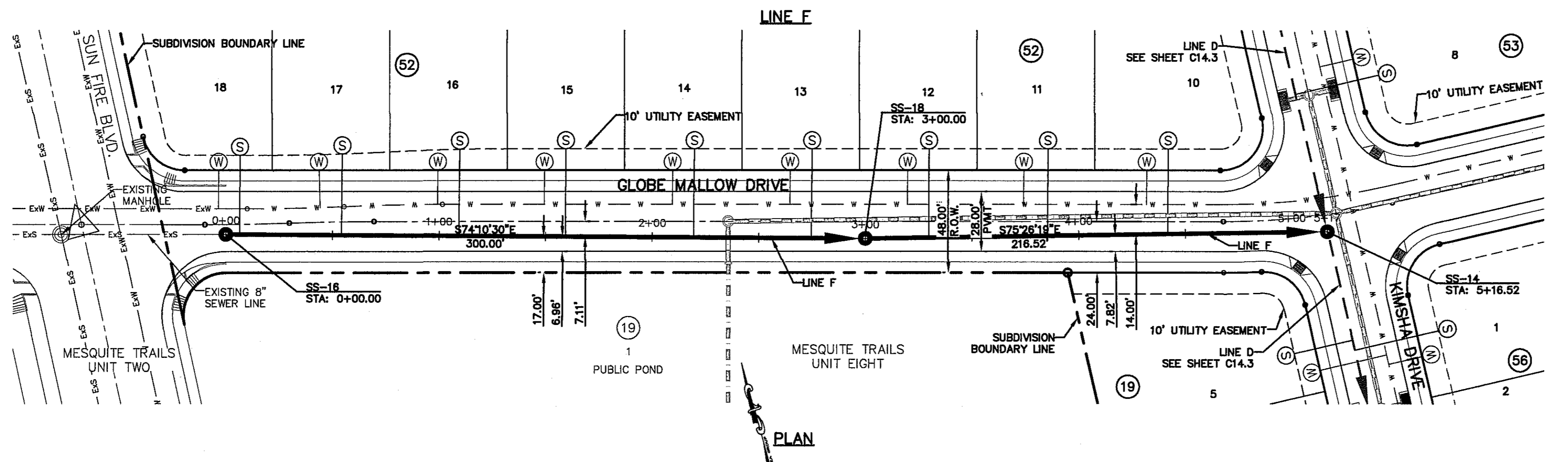
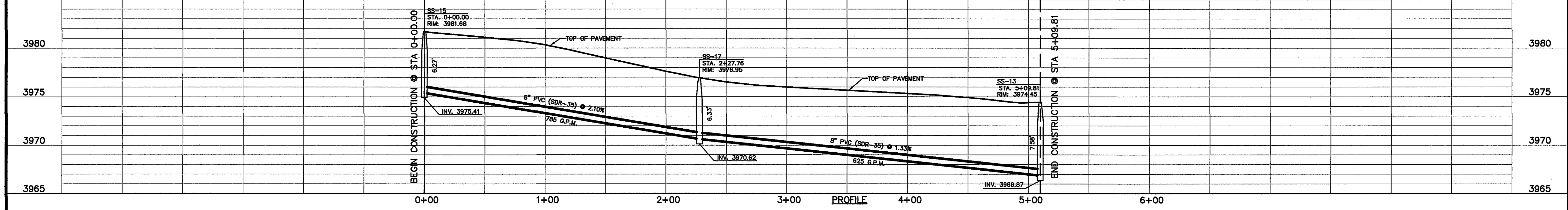
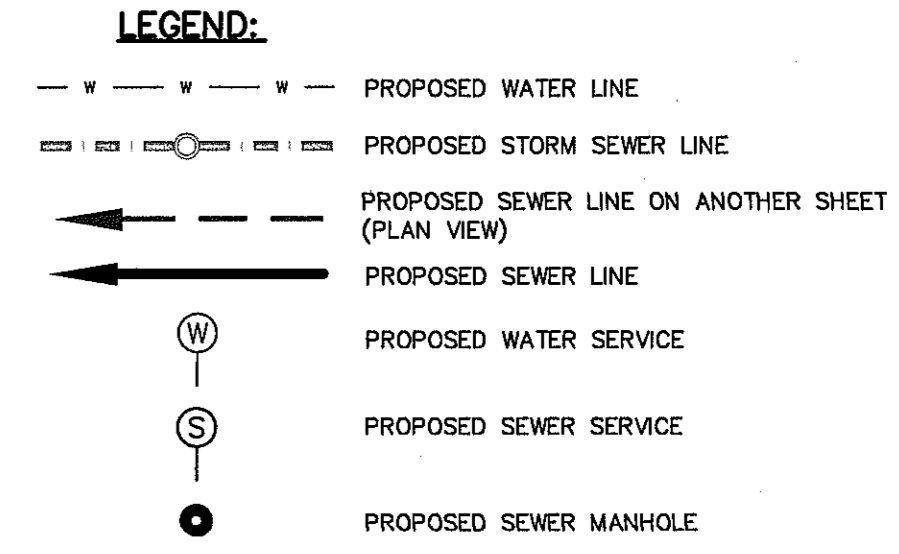
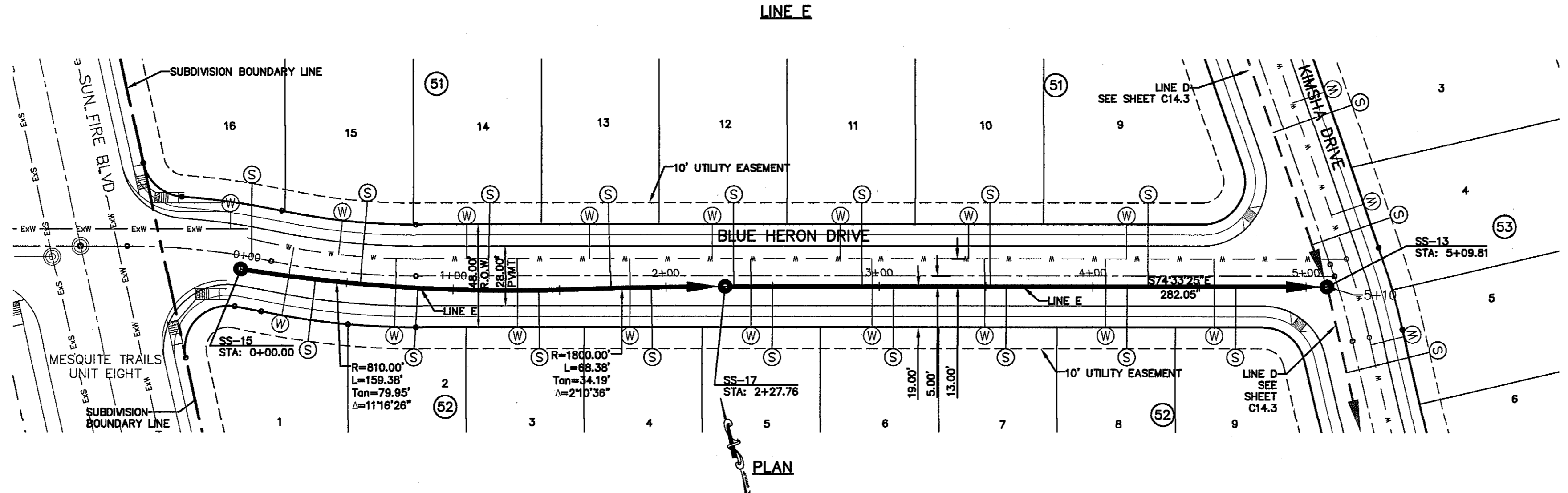
C14.3

SA_300012000-196-Mesquite Trails Unit 11 Redesign Sanitary Sewer Improvements (Plan) 2020-196-D-11A-3-Sanitary Sewer Reg. Line C & D.dwg, Ispv.dwg, 7/7/2016, 2:38:52 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

DATE	REVISIONS	BY

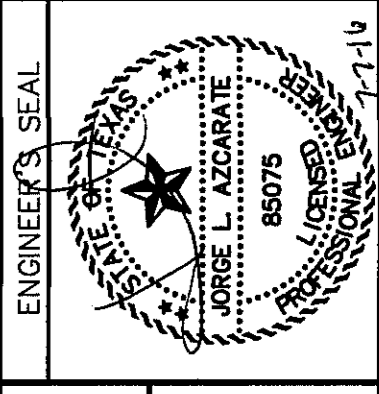


REFERENCES - BENCHMARKS

EXISTING CITY MONUMENT
 ELEVATION=403.10 FEET (CITY DATUM)
 LOCATED AT THE CENTERLINE INTERSECTION OF
 PASSED ALGEE CIRCLE AND PASSED LINDO DRIVE.

DATE: _____
 REVISIONS: _____
 BY: _____

CSA
 TEXAS REGISTERED ENGINEERING FIRM #484
 4712 Woodrow Blvd, Ste. F, El Paso, TX 79924
 915.544.5232 | www.csaengr.com



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

DATE: APRIL 2016
 DESIGN BY: F.Z.
 DRAWN BY: R.O.
 CHKD. BY: J.L.A.
 APPVD. BY: J.L.A.
 JOB No.: 2000-196

PROJECT TITLE

**MESQUITE TRAILS UNIT ELEVEN
 REPLAT 'A'
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**SANITARY SEWER
 PLAN & PROFILE
 LINE E & F**

SHEET NO.

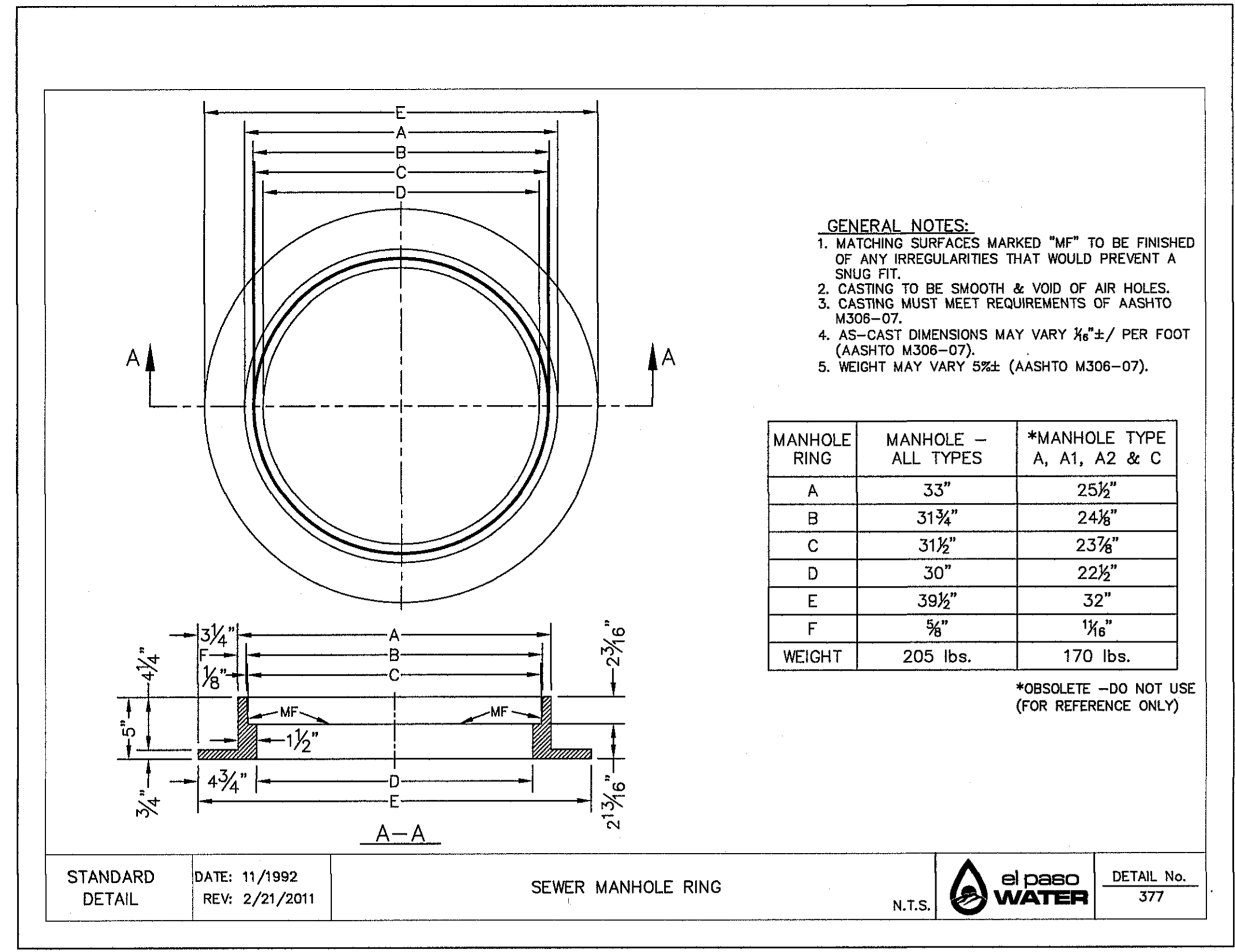
C14.4

S:\2000\2000-196-Mesquite Trails Unit 11 Replat\Utilities\Construction Drawings\Improvements_Plan\2000-196-UC-C14-Sanitary Sewer Plan Line E & F.dwg, Copied, 7/7/2016 2:31:14 PM

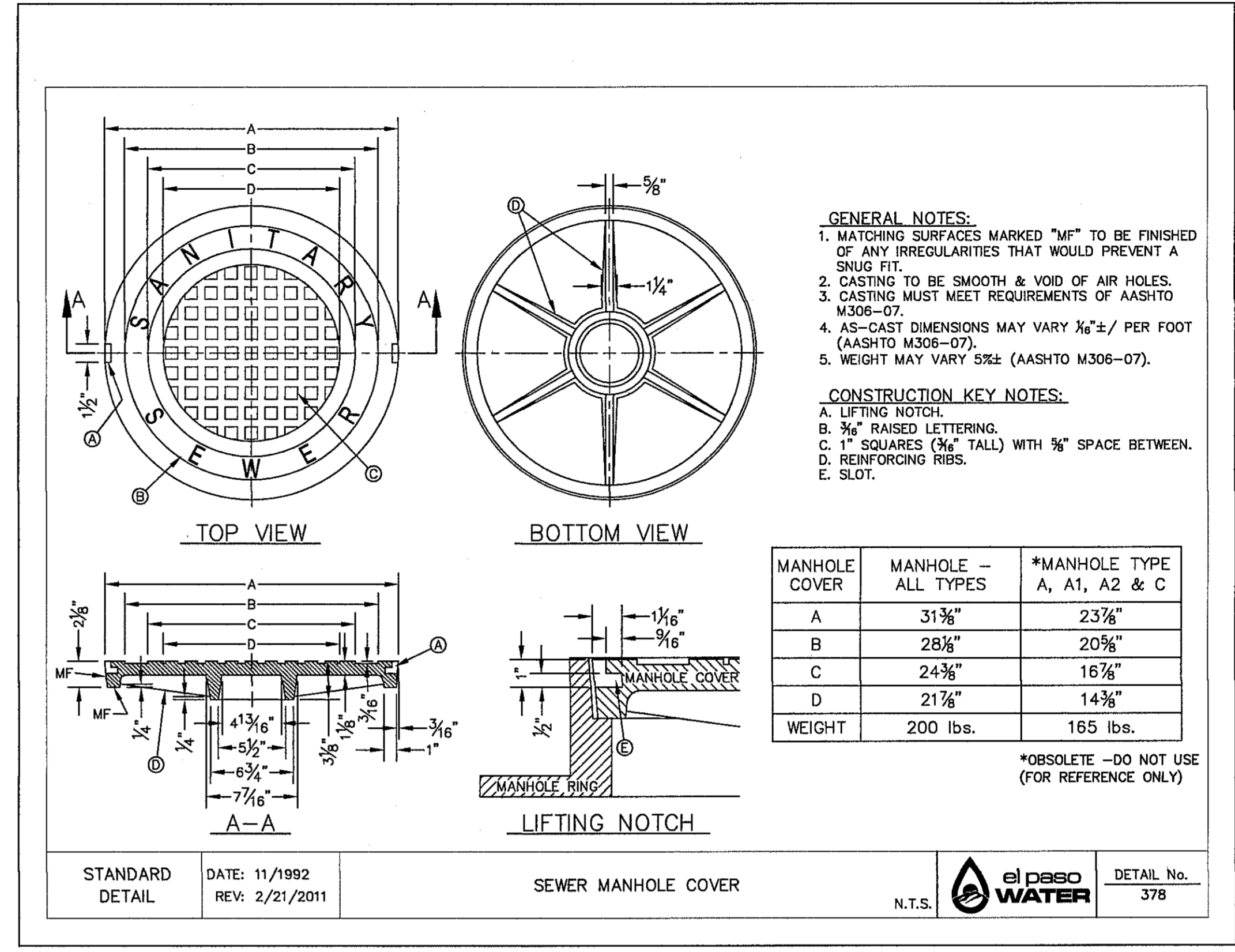
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

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

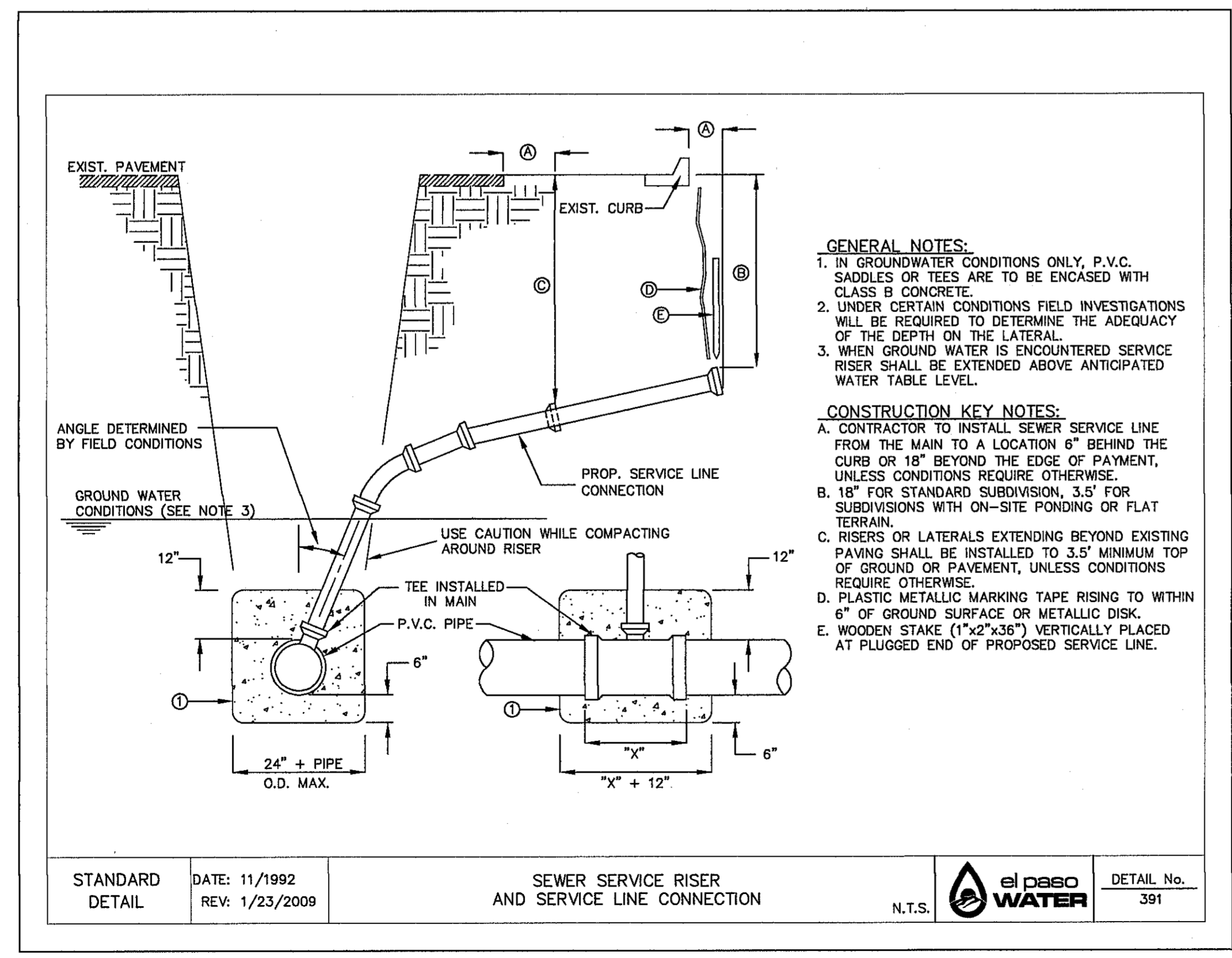
DATE	REVISIONS	BY



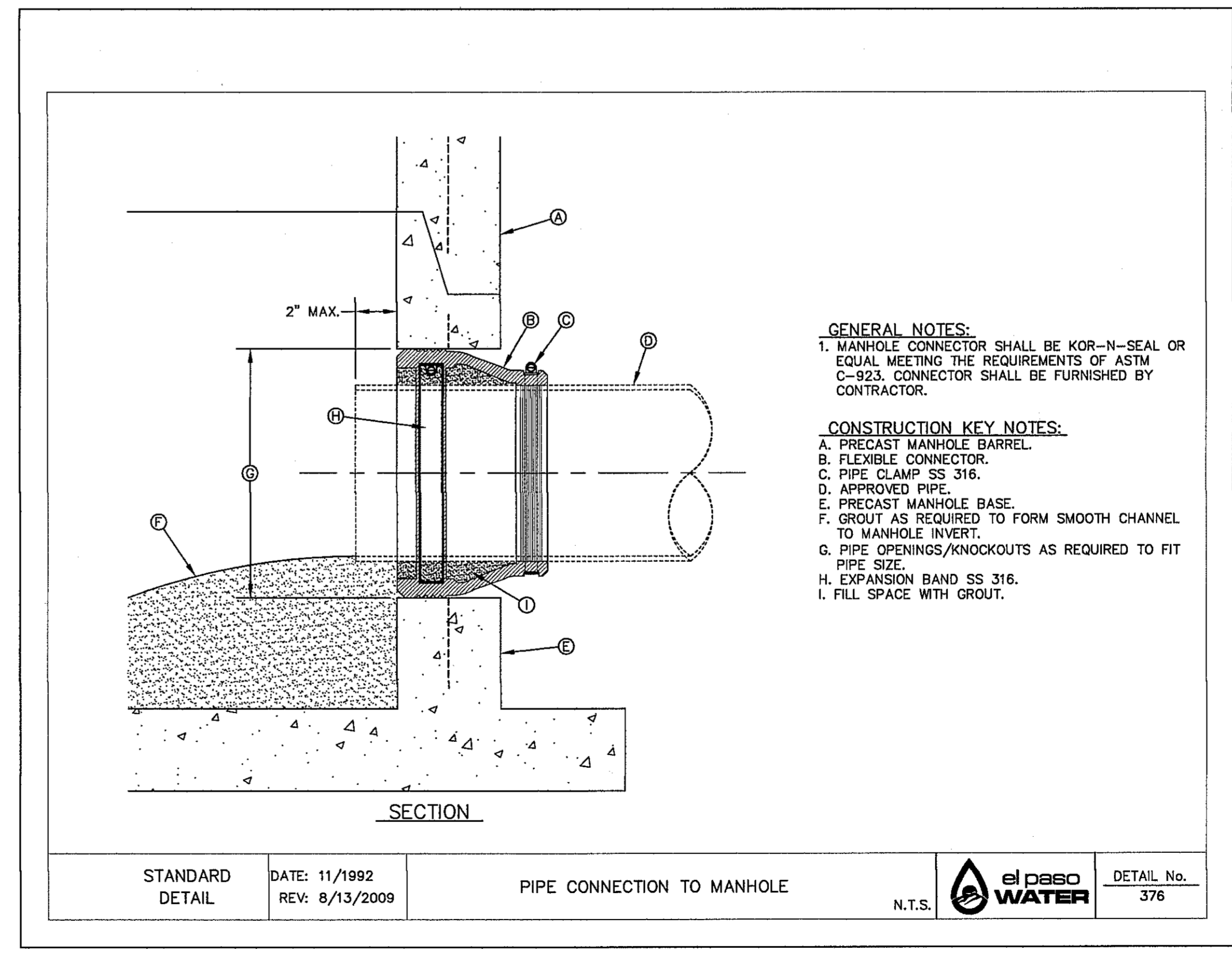
1 STANDARD MANHOLE RING SCALE: N.T.S.



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

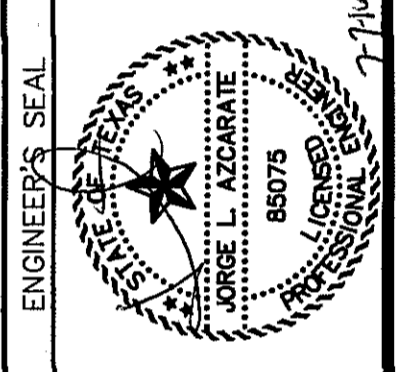


3 SEWER SERVICE RISER AND SERVICE LINE CONNECTION SCALE: N.T.S.



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

EXISTING CITY MONUMENT ELEVATION=4003.10 FEET (CITY DATUM) LOCATED AT THE CENTERLINE INTERSECTION OF PASSED ALLEGRE CIRCLE AND PASSED LINDO DRIVE.



SCALE	N/A
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APPROV. BY:	J.L.A.
JOB No.	2000-198

PROJECT TITLE
MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE
SANITARY SEWER DETAILS
 (SHEET 1 OF 3)
 SHEET NO.



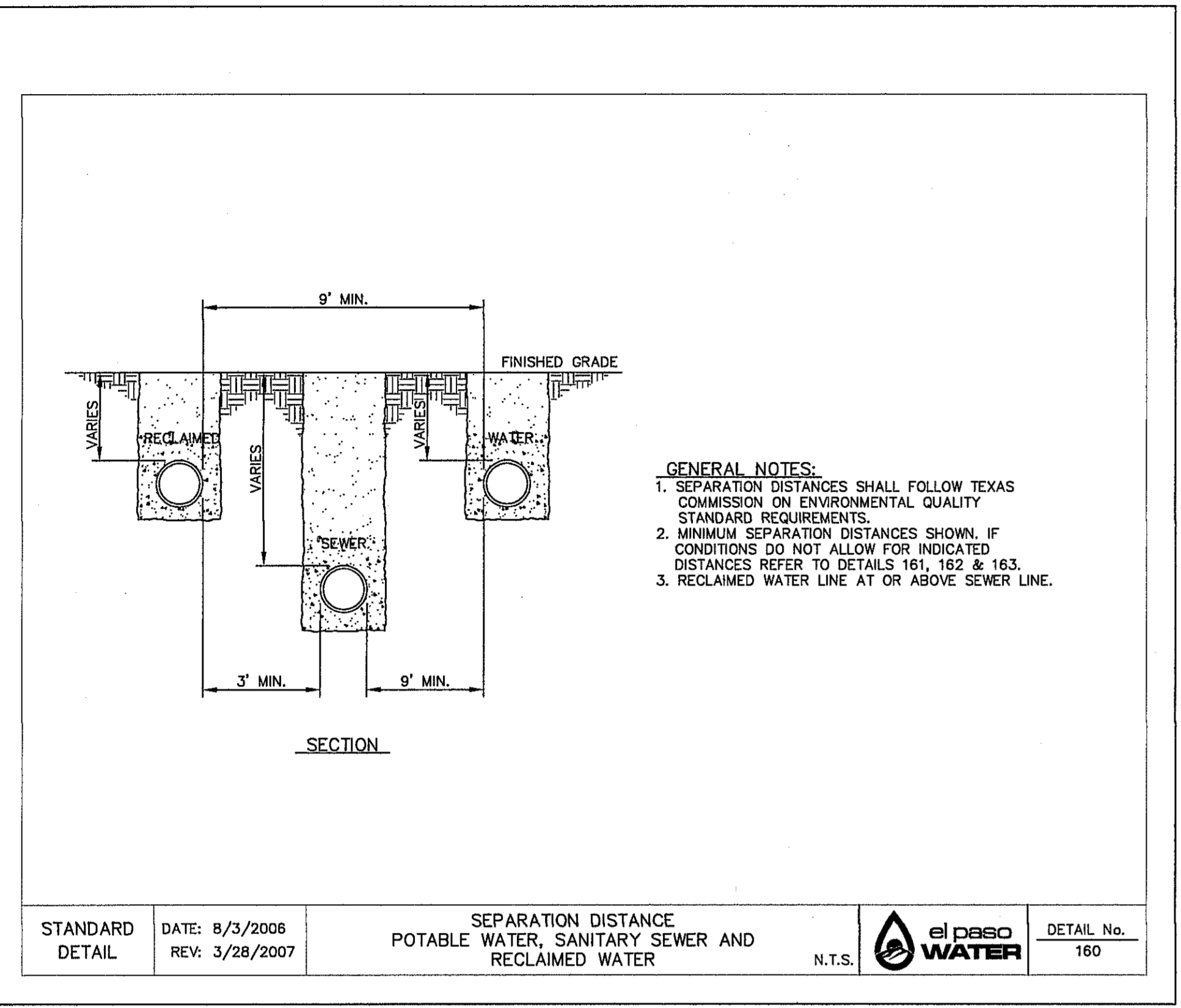
C15.1

S:\2000\2000-198-Mesquite Trails Unit 11 Redesign\DWG\Construction Drawings\Improvement Plans\2000-198-UD-C15.1-C15.3-Sanitary Sewer Details.dwg, layout, 7/6/2016 7:28:06 AM

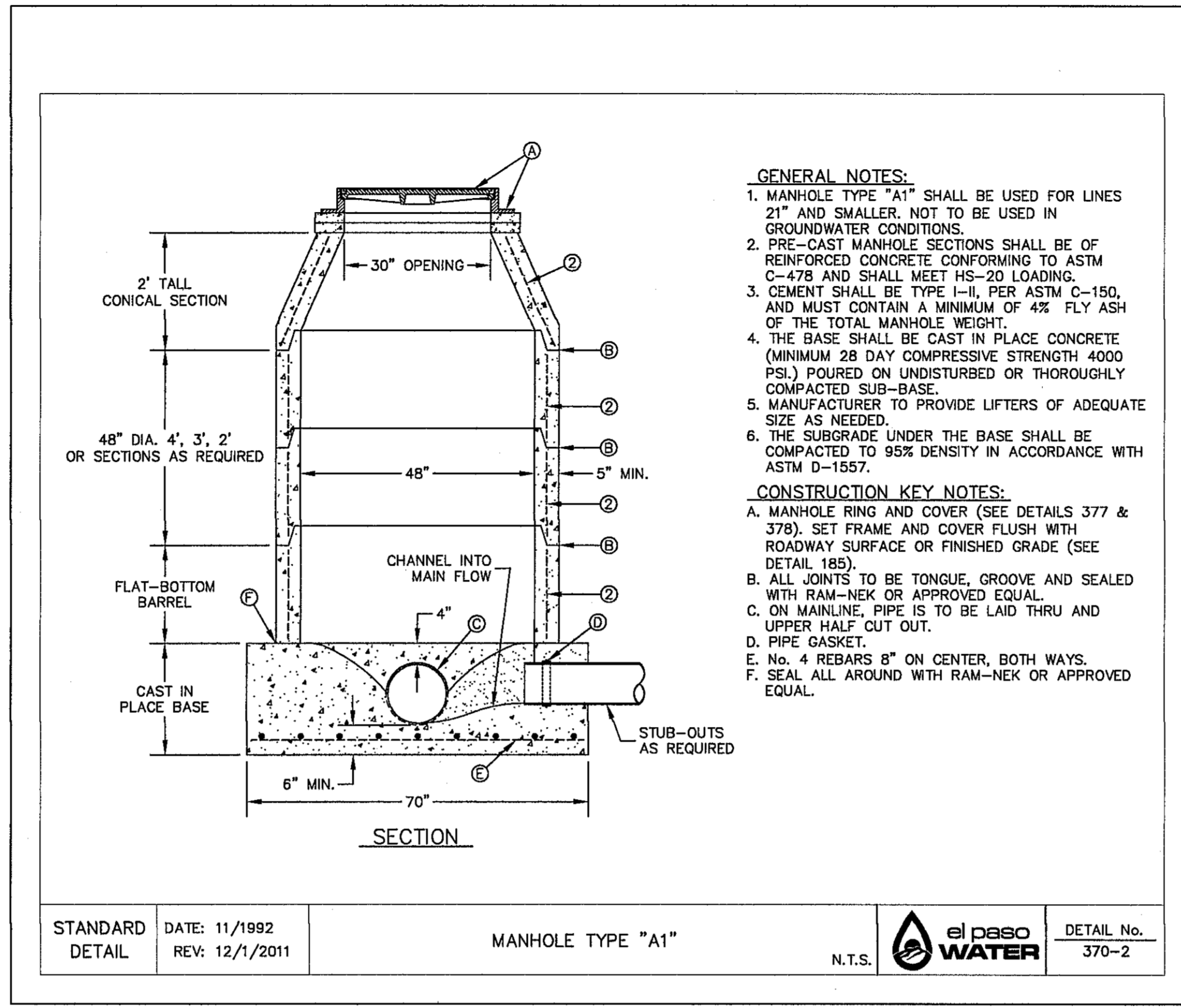
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

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

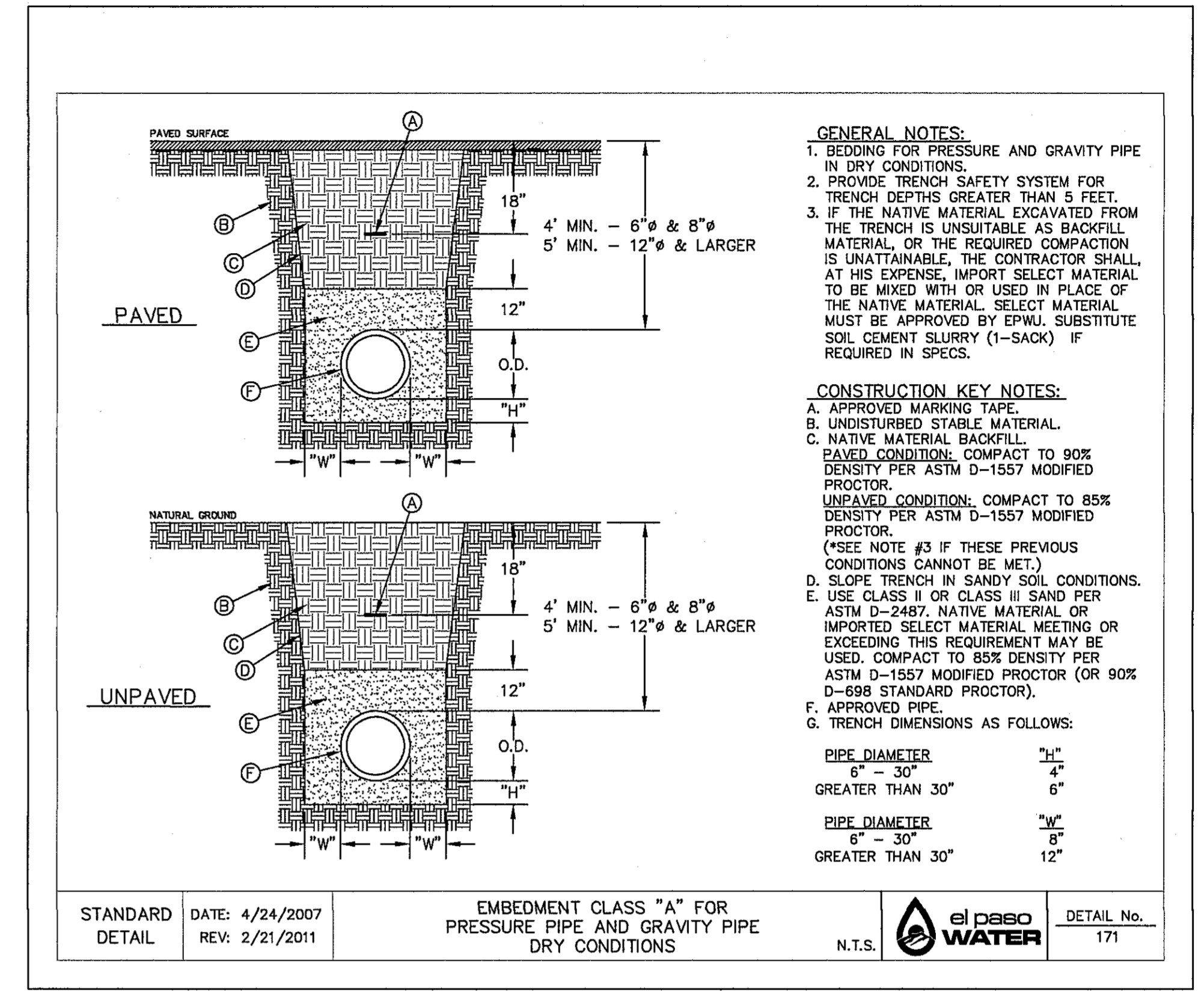
EXISTING CITY MONUMENT ELEVATION=6031.0 FEET (CITY DATUM)	REFERENCES - BENCHMARKS
LOCATED AT THE CENTERLINE INTERSECTION OF PASO ALGRE CIRCLE AND PASO LINDO DRIVE.	
DATE	REVISIONS
BY	



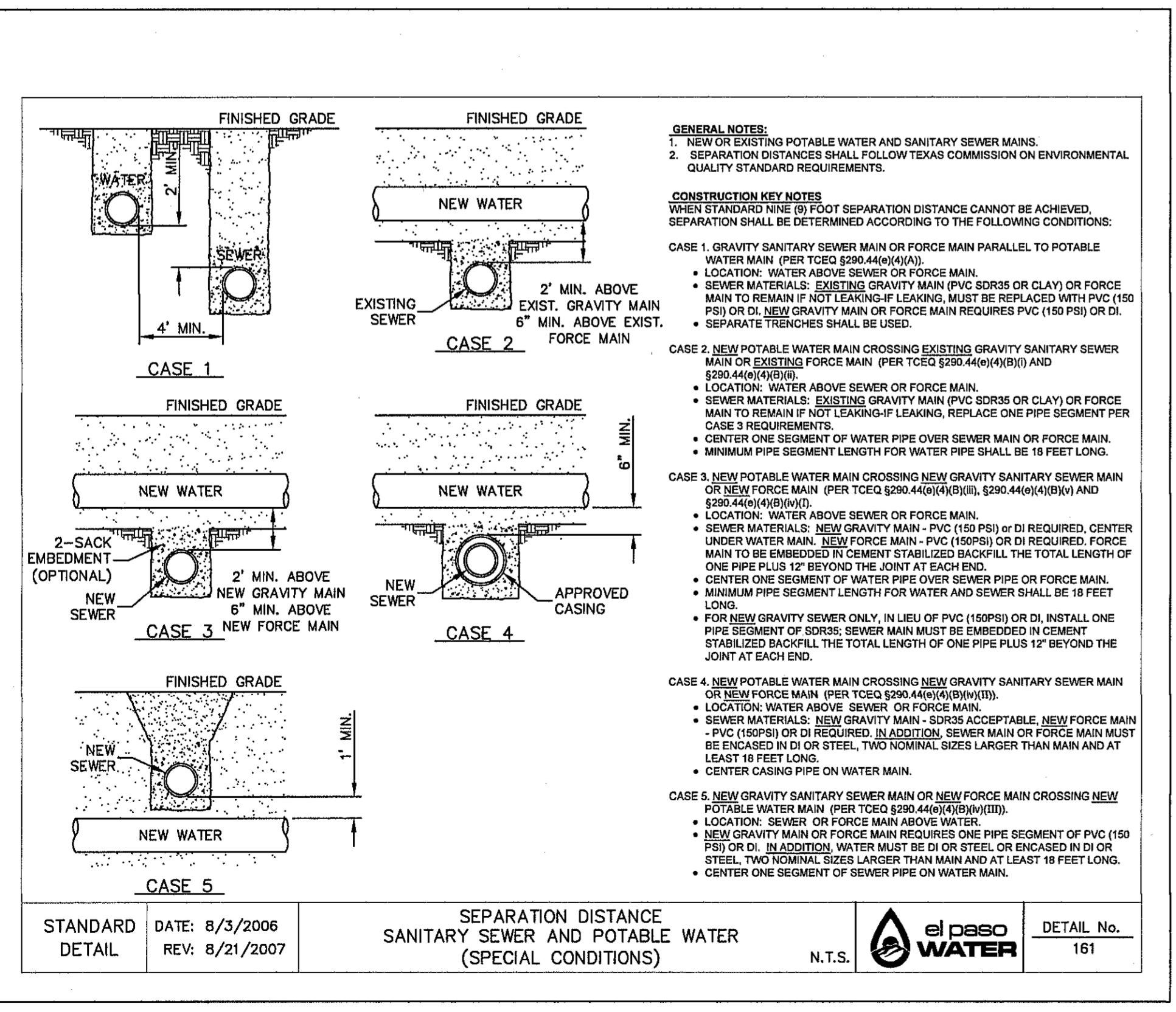
1 SEPARATION DISTANCE-POTABLE WATER, SANITARY SEWER AND RECLAIMED WATER
SCALE: N.T.S.



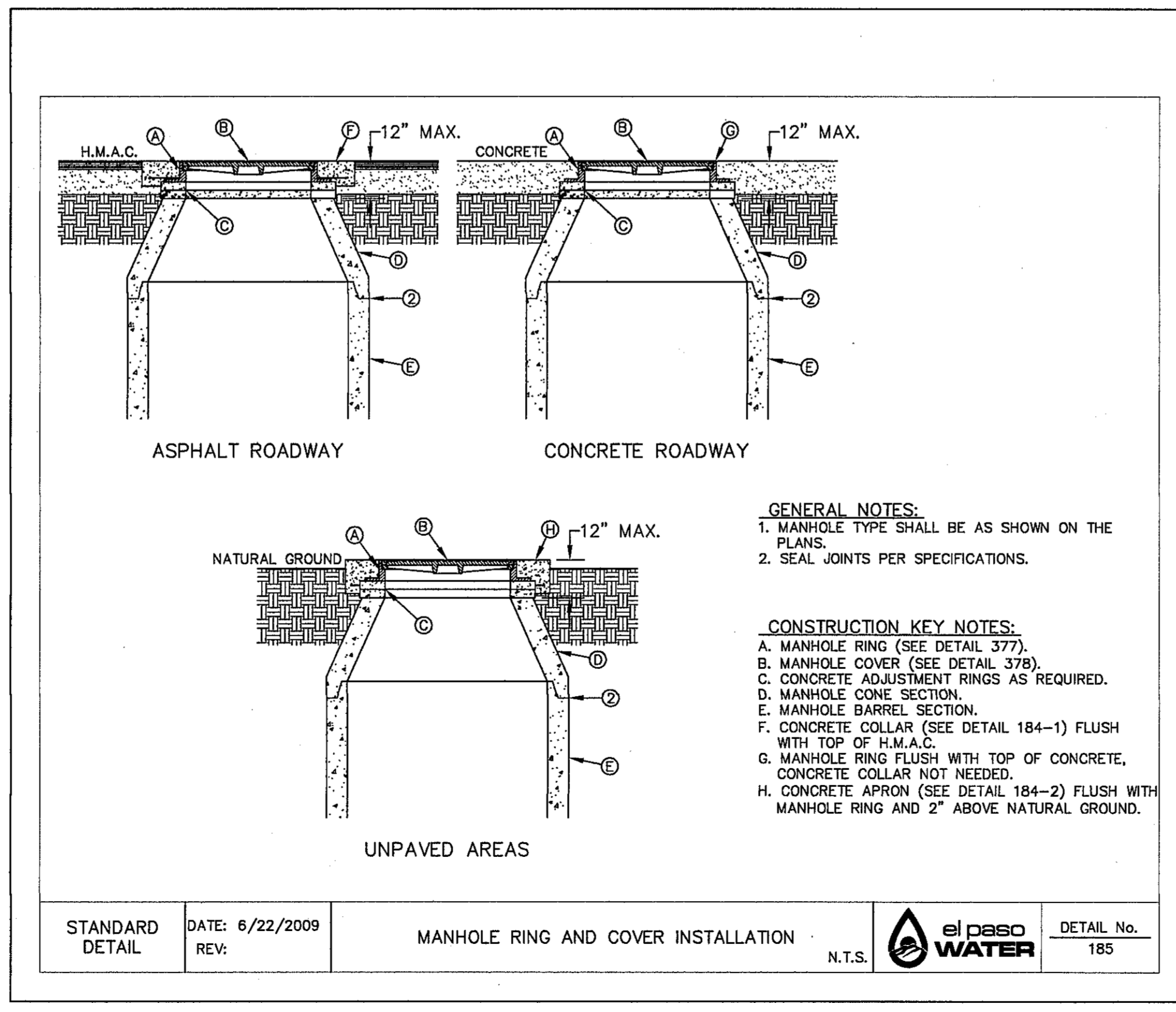
2 STANDARD MANHOLE TYPE "A1"
SCALE: N.T.S.



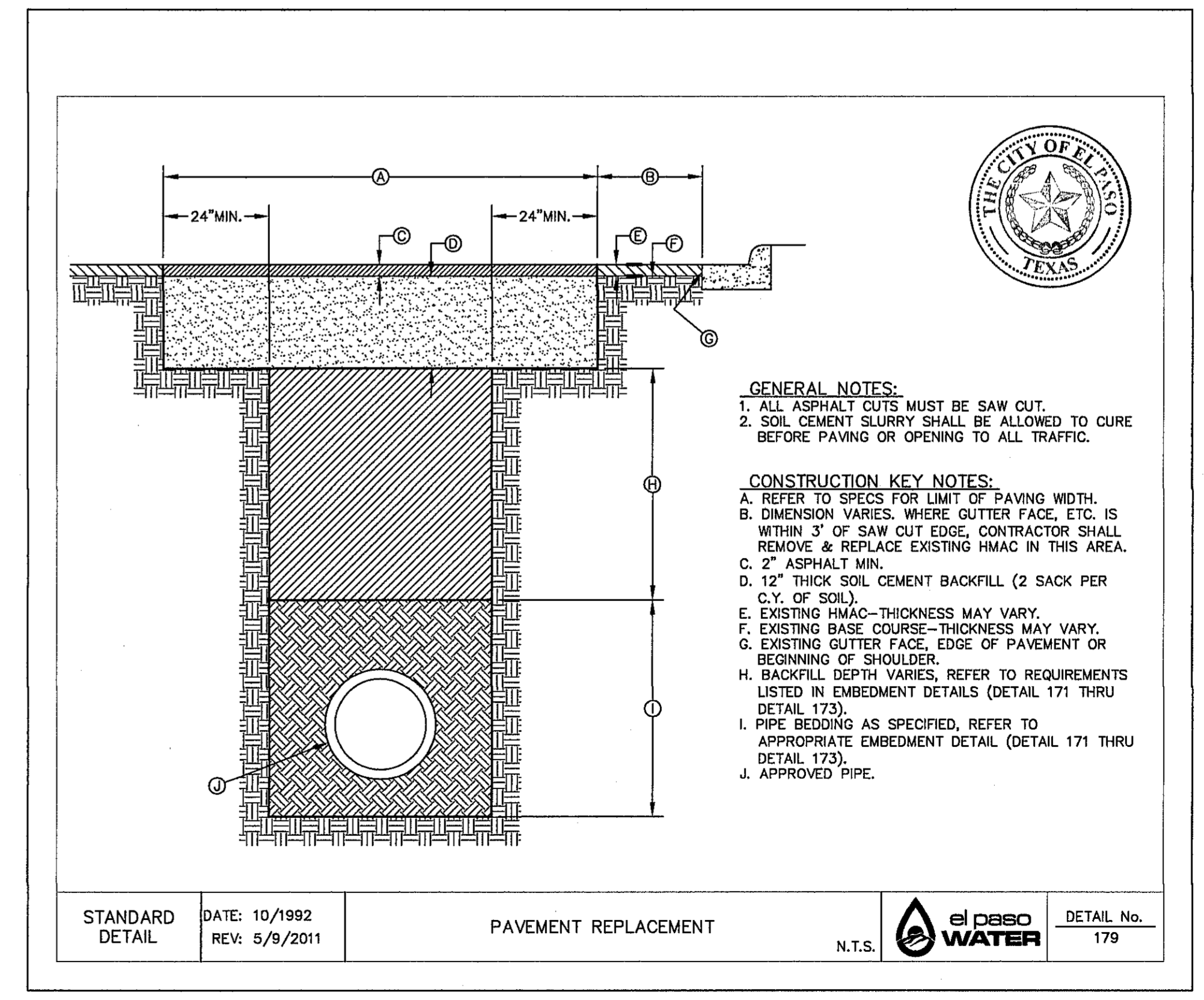
3 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE
SCALE: N.T.S.



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



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



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

ENGINEER'S SEAL

SCALE: N/A
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: APRIL 2016
DESIGN BY: F.Z.
DRAWN BY: R.O.
CHKD. BY: J.L.A.
APPRO. BY: J.L.A.
JOB No. 2000-196

PROJECT TITLE

MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS

SHEET TITLE

SANITARY SEWER DETAILS

(SHEET 2 OF 3)

SHEET NO.

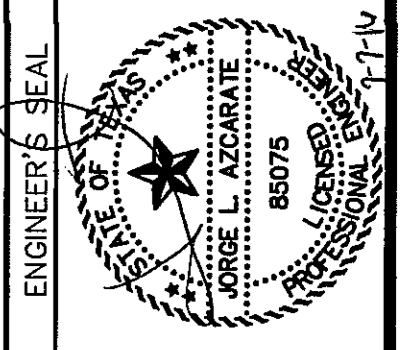
C15.2

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

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

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASO ALEGRE CIRCLE AND PASO LINDO DRIVE.

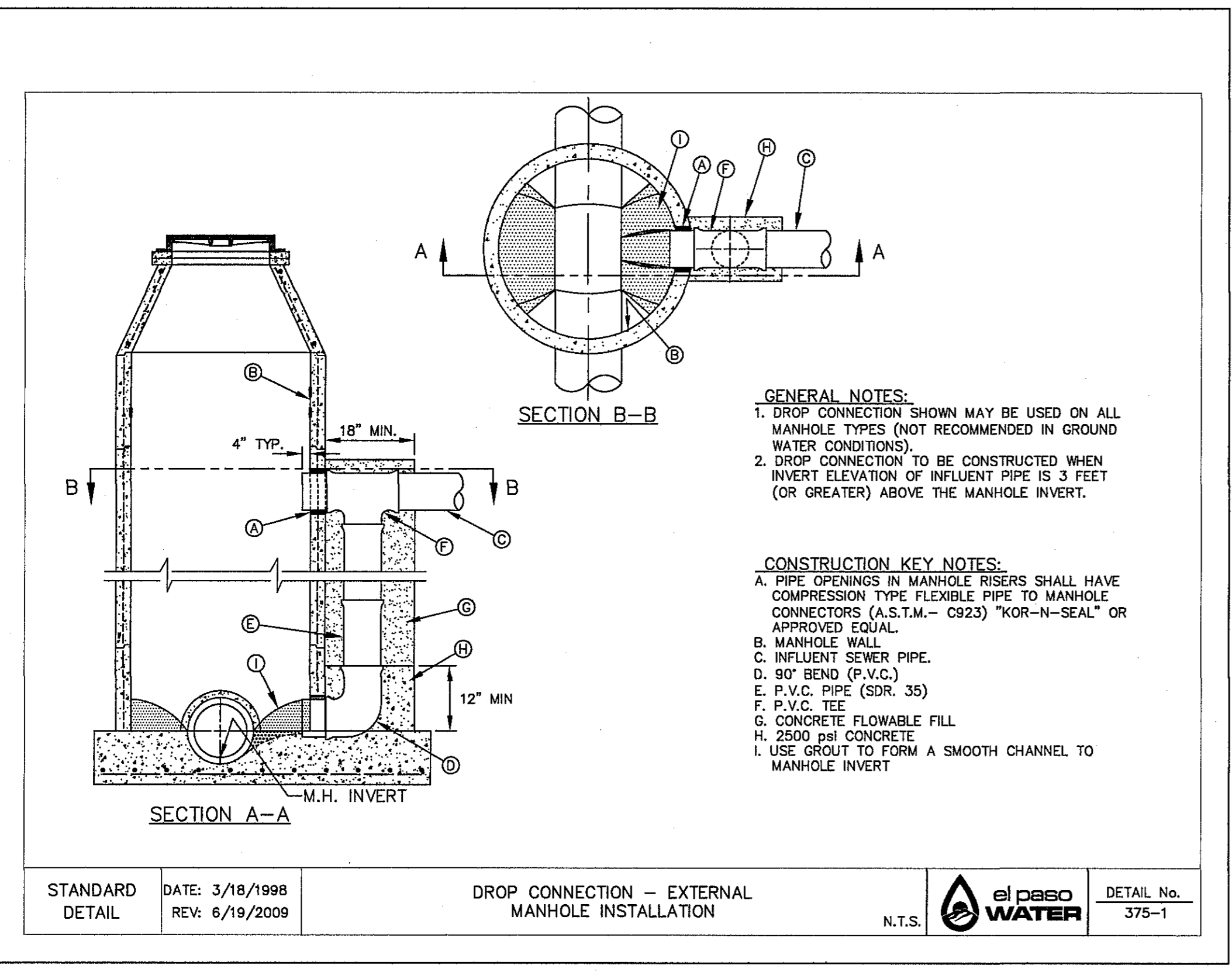


SCALE	N/A
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APP'VD. BY:	J.L.A.
JOB No.	2000-196

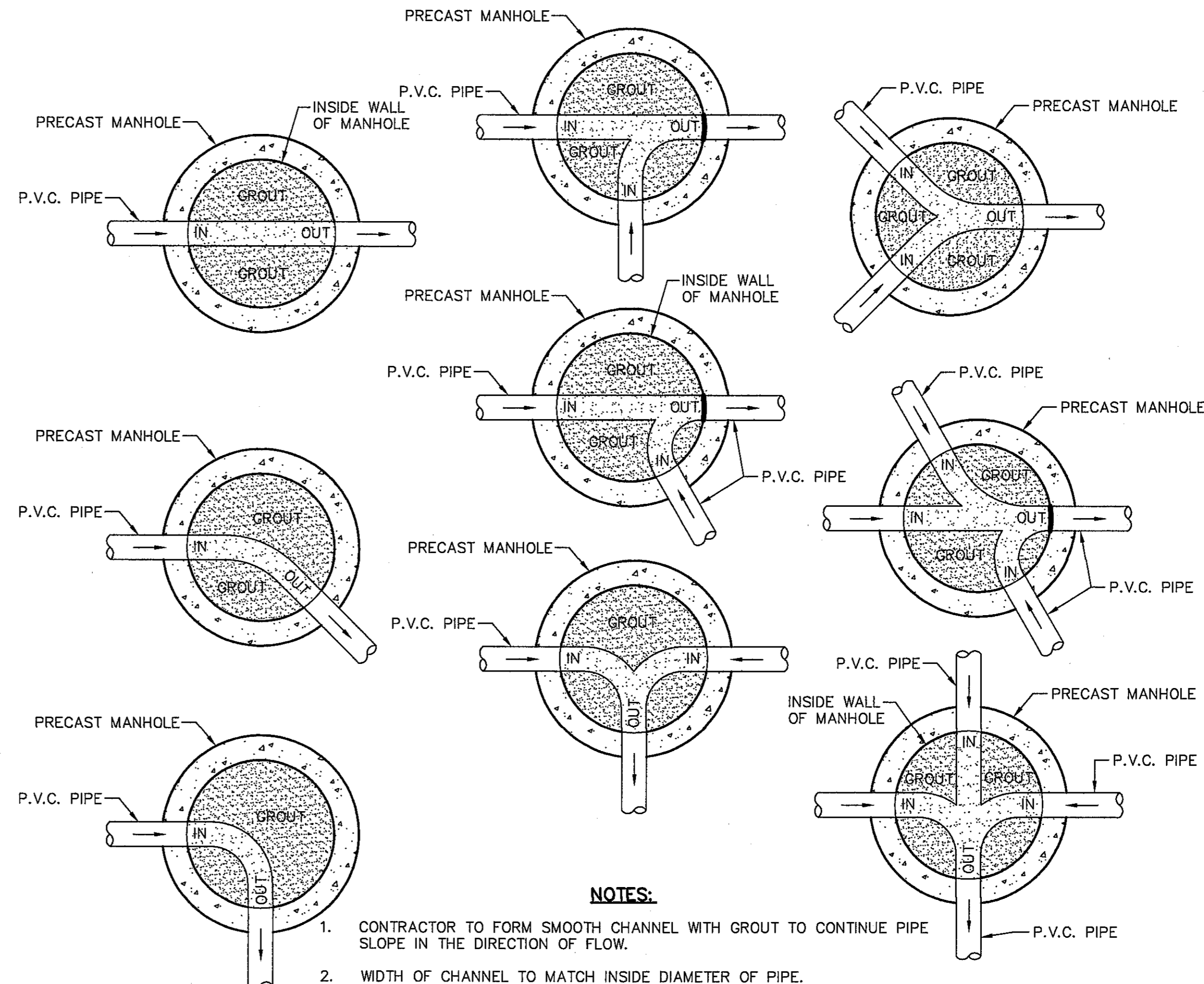
PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

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

C15.3



1 DROP CONNECTION MANHOLE
C15.3 SCALE: N.T.S.



2 TYPICAL MANHOLE INVERT PLANS
C15.3 SCALE: N.T.S.



S:\0000\000-196-Mesquite Trails Unit 11 Replat\0005\Construction Drawings\Improvement Plans\000-196-Dr-C15.3-Sanitary Sewer Details.dwg, Lyrpt.dwg, 7/19/2016 10:27 AM

SITE DESCRIPTION

PROJECT NAME AND LIMITS: MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' IS BORDERED BY MESQUITE TRAILS UNIT EIGHT TO THE NORTH, MESQUITE TRAILS UNITS ONE, TWO AND NINE TO THE WEST, MESQUITE TRAILS UNIT TEN TO THE SOUTH AND A PORTION OF SECTION NO. 15, BLOCK 79, TOWNSHIP 3, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS TO THE EAST.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 28.00± ACRES, AND WILL CONTAIN A TOTAL OF 140 RESIDENTIAL LOTS

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

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: 28.00±

TOTAL AREA TO BE DISTURBED: 28.00±

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.60

EXISTING CONDITION OF SOIL AND VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: THE PROJECT SITE IS LOCATED IN THE VICINITY OF THE HUECO-WINK ASSOCIATION. THE SOILS IN THESE AREA ARE GENERALLY DESCRIBED AS 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: MESQUITE TRAILS UNIT ELEVEN REPLAT A WILL DISCHARGE INTO AN ON-SITE STORM SEWER INFRASTRUCTURE AND ULTIMATELY DISCHARGE INTO AN OFF-SITE RETENTION BASIN, LOCATED AT MESQUITE TRAILS UNIT TWO.

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:

- SILT FENCES
HAY BALES
ROCK BERMS
DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
DIVERSION DIKE AND SWALE COMBINATION
PIPE SLOPE DRAINS
CONCRETE FLUMES
ROCK BEDDING AT CONSTRUCTION EXIT
TIMBER MATTING AT CONSTRUCTION EXIT
CHANNEL LINERS
SEDIMENT TRAPS
SEDIMENT BASINS
STORM INLET SEDIMENT TRAP
STONE OUTLET STRUCTURES
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 SWPPP 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 TNRC.

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

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 TARPULIN
- EXCESS DIRT ON ROAD SHALL BE REMOVED IMMEDIATELY
- STABILIZED CONSTRUCTION ENTRANCE
- OTHER:

XII. REFER TO SWPPP (BOUNDED REPORT) FOR ADDITIONAL REQUIREMENTS.

Table with columns: DATE, REVISIONS, BY

References - Benchmarks: EXISTING CITY MONUMENT ELEVATION=4003.10 FEET (CITY DATUM) LOCATED AT THE CENTERLINE INTERSECTION OF PASEO ALFREO CIRCLE AND PASEO LINDO DRIVE.

Engineer's Seal: JAMES L. ADKINIE, 88075, LICENSED PROFESSIONAL ENGINEER, CIVIL, STATE OF TEXAS

Scale: Horizontal: N/A, Vertical: N/A, Contour interval: N/A, Date: APRIL 2016, Design by: FZ, Check by: JLA, App'd. by: JLA, Job No.: 2000-196

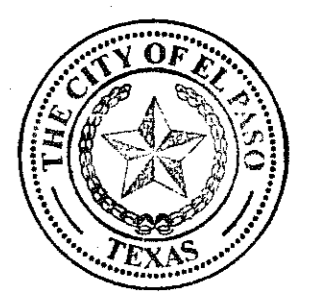
PROJECT TITLE: MESQUITE TRAILS UNIT ELEVEN REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN: GENERAL NOTES

SHEET NO.

C16.1



S:\2002\2002-156-Mesquite Subd. Unit 11-Resatpna\2002-156-Mesquite Subd. Unit 11-Resatpna\2002-156-Mesquite Subd. Unit 11-Resatpna\2002-156-Mesquite Subd. Unit 11-Resatpna.dwg, 5/27/2016 1:44:42 PM



A PORTION OF SECTION No. 15, BLOCK 78, TOWNSHIP 33, TEXAS AND PACIFIC RAILWAY COMPANY SURVEY, EL PASO COUNTY, TEXAS VOLUME 2084, PAGE 2971

A PORTION OF SECTION No. 15, BLOCK 78, TOWNSHIP 33, TEXAS AND PACIFIC RAILWAY COMPANY SURVEY, EL PASO COUNTY, TEXAS VOLUME 2084, PAGE 2971

A PORTION OF SECTION No. 15, BLOCK 78, TOWNSHIP 33, TEXAS AND PACIFIC RAILWAY COMPANY SURVEY, EL PASO COUNTY, TEXAS VOLUME 2084, PAGE 2971

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 498-5244
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:

	SILT FENCE OR EARTHEN BERM
	STABILIZED CONSTRUCTION ENTRANCE
	STAGING AREA
	PORTABLE TOILETS
	WASH OUT
	LOCATION OF NOTICE OF INTENT (NOI)

REFERENCES - BENCHMARKS

DATE	REVISIONS	BY

EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASSED ALLEGRE CIRCLE AND PASSED LINDO DRIVE.

ceag

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

ENGINEER'S SEAL

SCALE: 1" = 100'

Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APPROV. BY:	J.L.A.
JOB No.:	2000-136

PROJECT TITLE

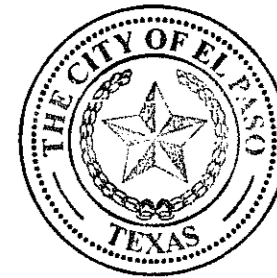
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**STORM WATER
POLLUTION
PREVENTION PLAN
SITE PLAN**

SHEET NO.

C16.2



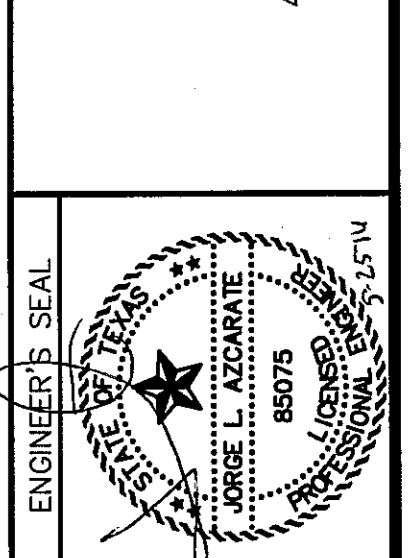
SITE PLAN
SCALE: 1" = 100'

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

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

DATE	REVISIONS	BY

REFERENCES - BENCHMARKS
EXISTING CITY MONUMENT
ELEVATION=4003.10 FEET (CITY DATUM)
LOCATED AT THE CENTERLINE INTERSECTION OF
PASO ALGRE CIRCLE AND PASO LINDO DRIVE.

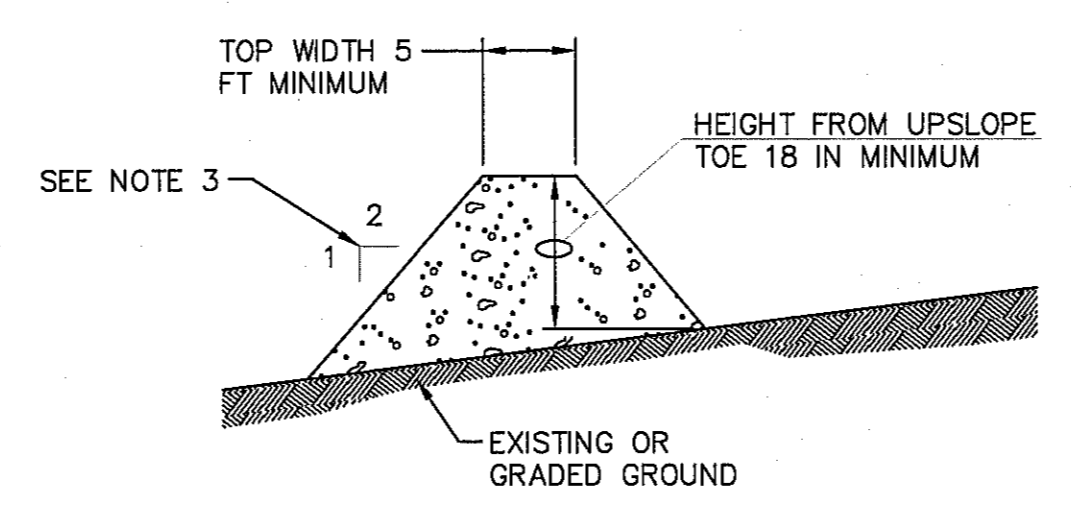
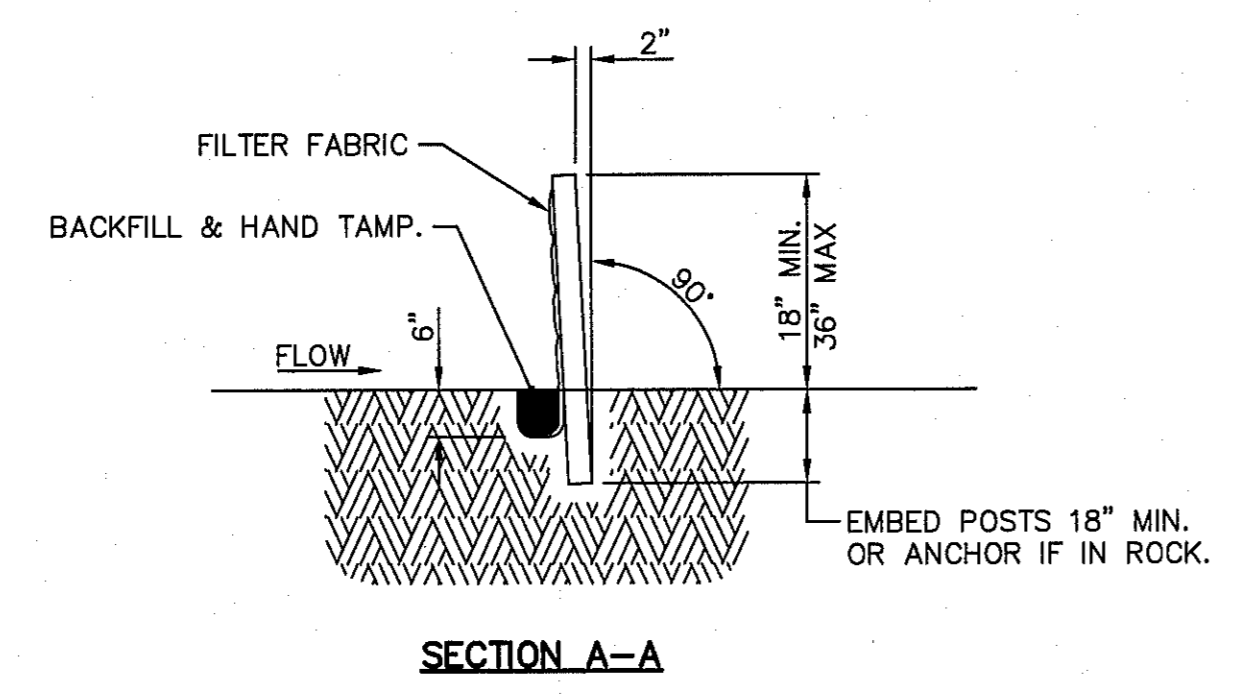


SCALE:	N/A
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	APRIL 2016
DESIGN BY:	F.Z.
DRAWN BY:	R.O.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.:	2000-196

PROJECT TITLE
**MESQUITE TRAILS UNIT ELEVEN
REPLAT 'A'
SUBDIVISION IMPROVEMENTS**

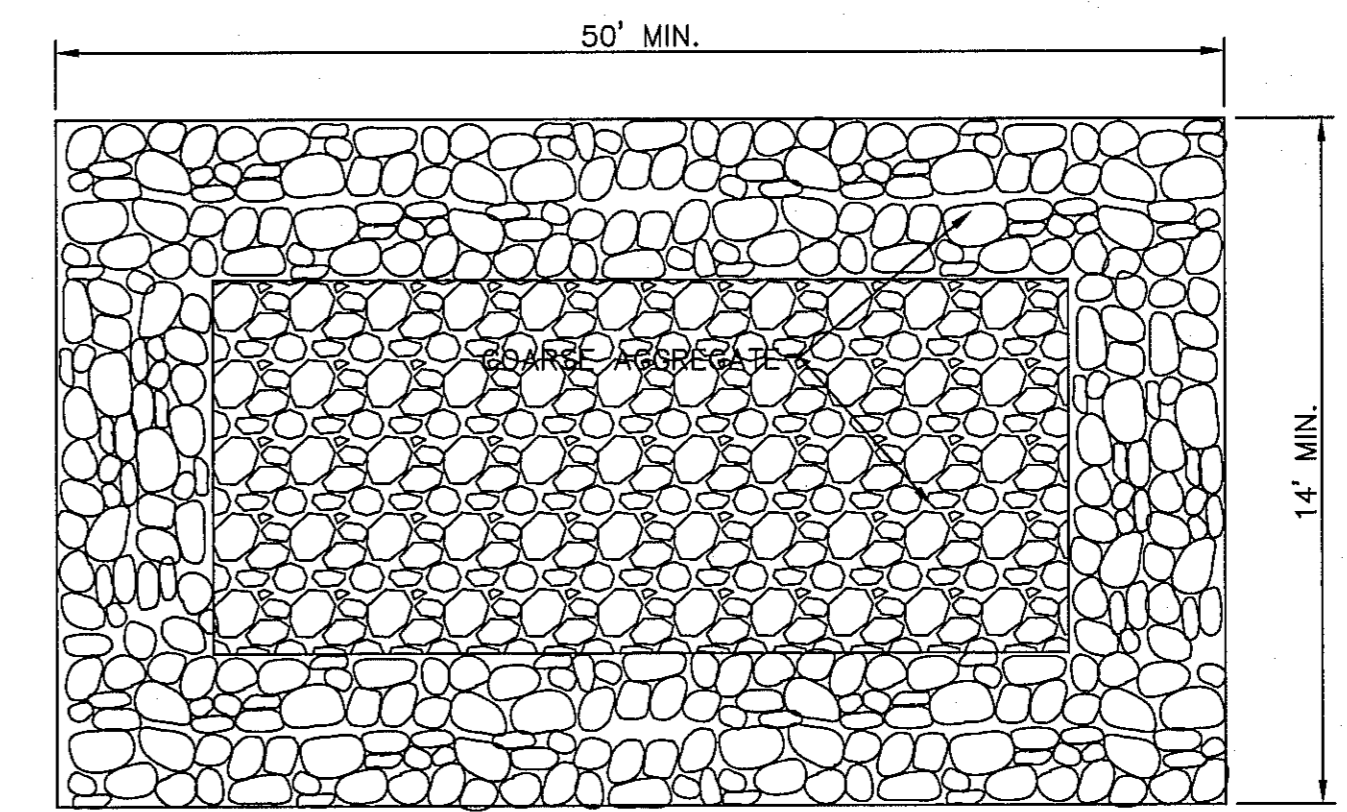
SHEET TITLE
**STORM WATER
POLLUTION
PREVENTION PLAN:
DETAILS**

SHEET NO.
C16.3

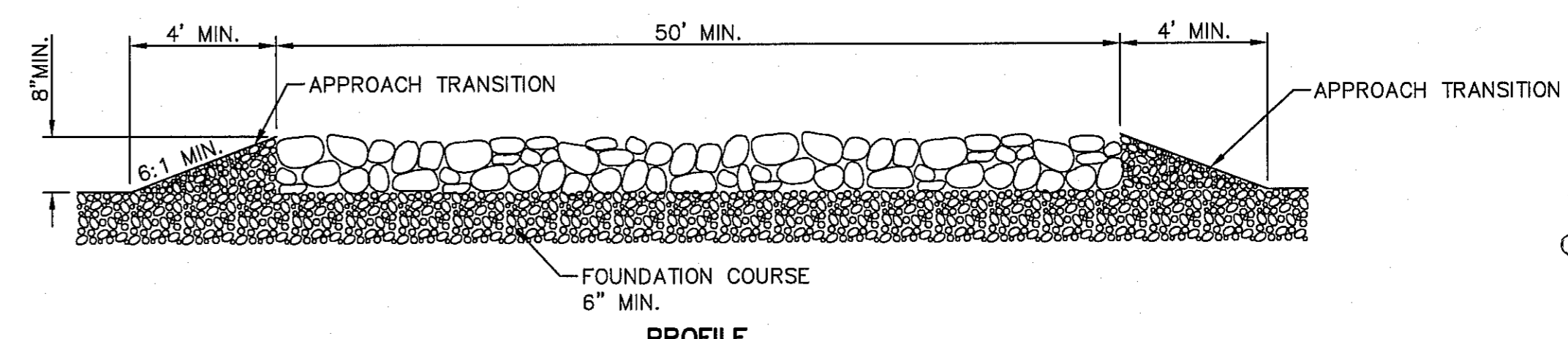


- GENERAL NOTES:**
- SOIL USED IN BERM CONSTRUCTION SHALL BE MACHINE COMPACTED.
 - TOP WIDTH AND HEIGHT OF BERM MAY BE MODIFIED WITH PRIOR APPROVAL OF THE ENGINEER.
 - SIDE SLOPES WITHIN THE SAFETY CLEAR ZONE OF A ROADWAY SHALL BE 6:1 OR FLATTER.
 - GRADING SHALL BE SHOWN ELSEWHERE IN THE PLANS OR AS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

TYPICAL BERM CONFIGURATION



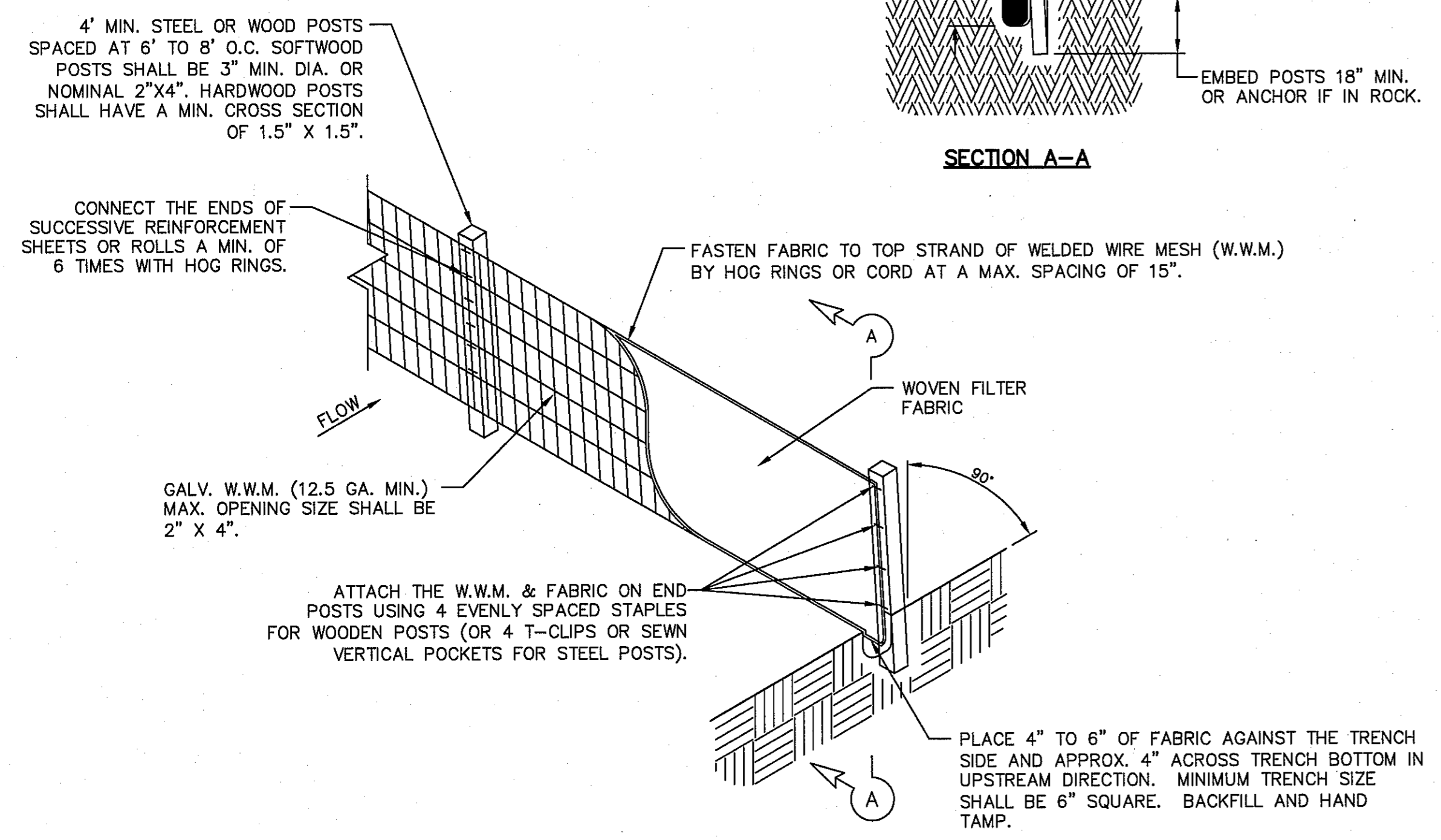
PLAN



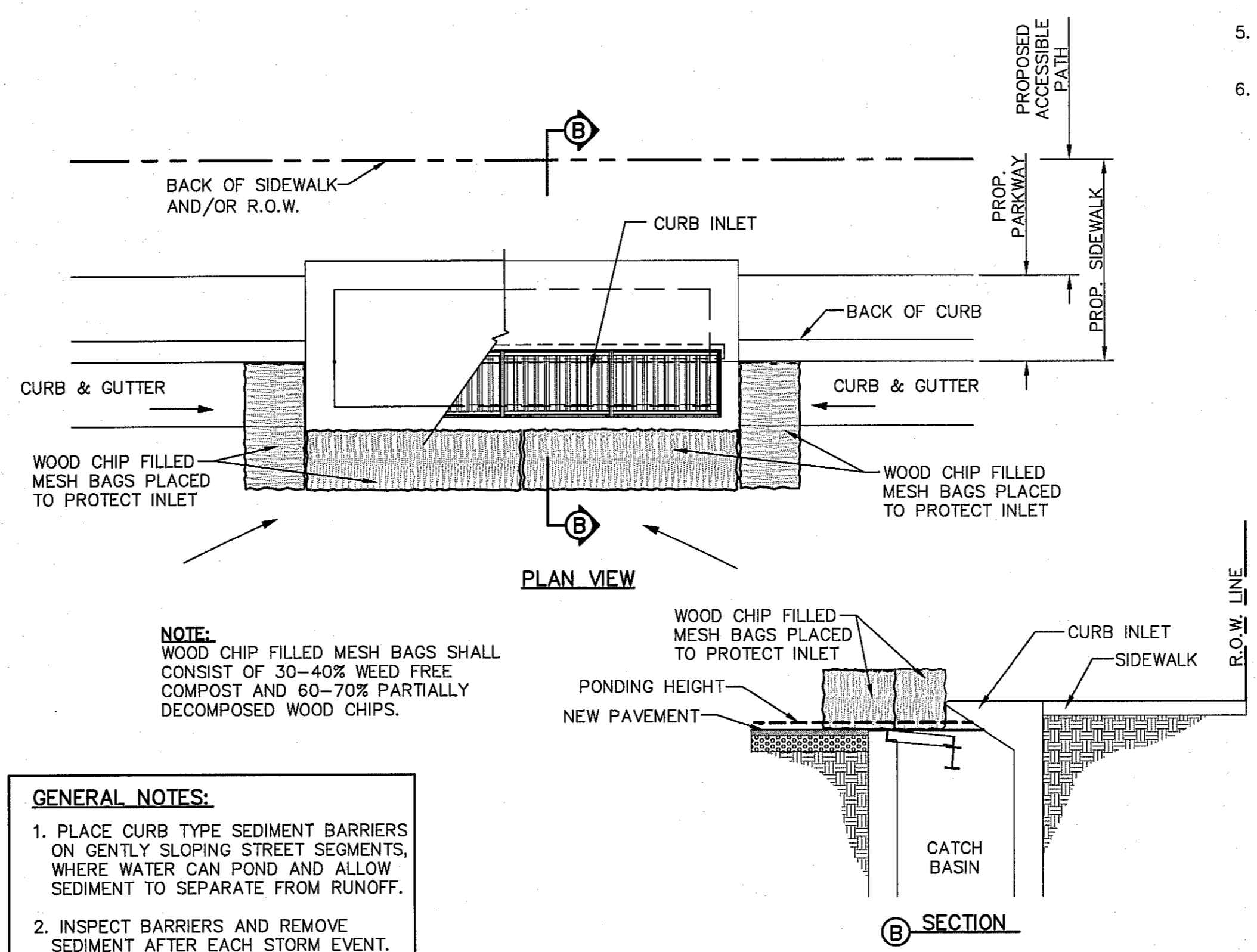
PROFILE

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

CONSTRUCTION EXIT (TYPE 1)



TEMPORARY SEDIMENT CONTROL FENCE



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

TEMPORARY INLET PROTECTION

S:\2005\2005-196-Mesquite Trls Unit 11 Replat\GIS\Construction Drawings\Improvements\Plan\2005-196-UB-C16.3 Storm Water Pollution Prevention Plan.dwg, 5/21/2016 1:42:34 PM