SITE DESCRIPTION

PROJECT NAME AND LIMITS: MESQUITE TRAILS UNIT FIVE REPLAT 'A'
THE PROJECT IS BORDERED BY MESQUITE TRAILS UNIT THREE TO THE WEST, AND PORTION OF SECTION 16, BLOCK 79, TOWNSHIP 3, T&P R.R Co. SURVEYS TO THE NORTH, AND EAST, AND MESQUITE TRAILS UNIT FOUR TO THE SOUTH, AND IT IS ALL A PORTION OF SECTION 16, BLOCK 79, TOWNSHIP 3, T&P R.R Co. SURVEYS

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 32.810± ACRES, AND WILL CONTAIN 169 RESIDENTIAL LOTS, PROJECT IMPROVEMENTS SHALL CONSIST OF GRADING AND PAVING.

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

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: 32.810± ac.

TOTAL AREA TO BE DISTURBED: 32.810± ac.

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.670

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: STORM RUNOFF FROM THE NEW SUBDIVISION WILL BE DISCHARGED INTO AN EXISTING RETENTION BASIN.

EROSION AND SEDIMENT CONTROL

SOIL STABILIZATION PRACTICES

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

OTHER:

STRUCTURAL PRACTICES:

- X SILT FENCES OR EARTHERN BERMS
- X 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
- X CURBS AND GUTTERS
- X STORM DRAINS
- X 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 EARTHERN BERM, AND STABILIZED CONSTRUCTION ENTRANCE) ;
2. PERFORM CLEARING AND GRUBBING;
3. EXCAVATION FOR UTILITIES;
4. COMPLETE STREET AND LOT GRADING;
5. CONSTRUCTION OF SUBDIVISION IMPROVEMENTS; AND,
6. WHEN ALL CONSTRUCTION ACTIVITY RELATED IN DEVELOPMENT OF THE SITE IS COMPLETE, REMOVE TEMPORARY CONTROLS IN 1. ABOVE.

SWPPP GENERAL NOTES:

1. PLACEMENT OF SILT FENCE SHALL BE ADJUSTED AS NECESSARY TO PREVENT THE BLOCKING OF DRIVEWAYS OR DRIVING LANES.
2. THE SWPPP MANUAL IDENTIFIES THE DUTIES AND RESPONSIBILITIES OF THE GENERAL CONTRACTOR IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. THIS ITEM SHALL BE SUBSIDIARY TO THE SWPP BEST MANAGEMENT PRACTICES (COMPLETE IN PLACE) ITEMS. THE SWPPP PROJECT MANUAL IS AVAILABLE FOR REVIEWING AT THE CITY OF EL PASO – ENGINEERING DEPARTMENT. UPON SELECTION, THE CONTRACTOR WILL BE PROVIDED AN SWPPP MANUAL. THE CONTRACTOR SHALL MAINTAIN THIS MANUAL AT THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL COMPLETE AND SUBMIT ALL REGULATORY FORMS AND APPLICATIONS, AS PROVIDED IN THE SWPPP MANUAL, INCLUDING, BUT NOT LIMITED TO; NOI, NOT, SDPCP, AND ANY OTHER FORM REQUIRED BY THE CITY OF EL PASO AND TCEQ.
4. ALLOWABLE STORM WATER AND NON–STORMWATER DISCHARGE SHALL COMPLY WITH 15.20.080 (GENERAL PROHIBITION) AND 15.20.090 (SPECIFIC PROHIBITIONS AND REQUIREMENTS) OF THE CITY OF EL PASO STORM DRAIN POLLUTION CONTROL PLAN ORDINANCE. NON–STORMWATER DISCHARGES MAY CONSIST OF, BUT ARE NOT LIMITED TO, THE DISCHARGE RESULTING FROM FIREFIGHTING, LAWN WATERING, LANDSCAPE IRRIGATION, NATURAL SPRING, AND/OR AGRICULTURAL STORM WATER RUNOFF.
5. REFER TO DRAINAGE PLAN SHEET 4, FOR ADDITIONAL 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 TCEQ.

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

SDPCP #: 08–002209
SDPCP DATE: 07–11–08

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
STATE OF TEXAS — 85075 — ACCURATE — PROFESSIONAL ENGINEER — 12/31/11

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000–099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

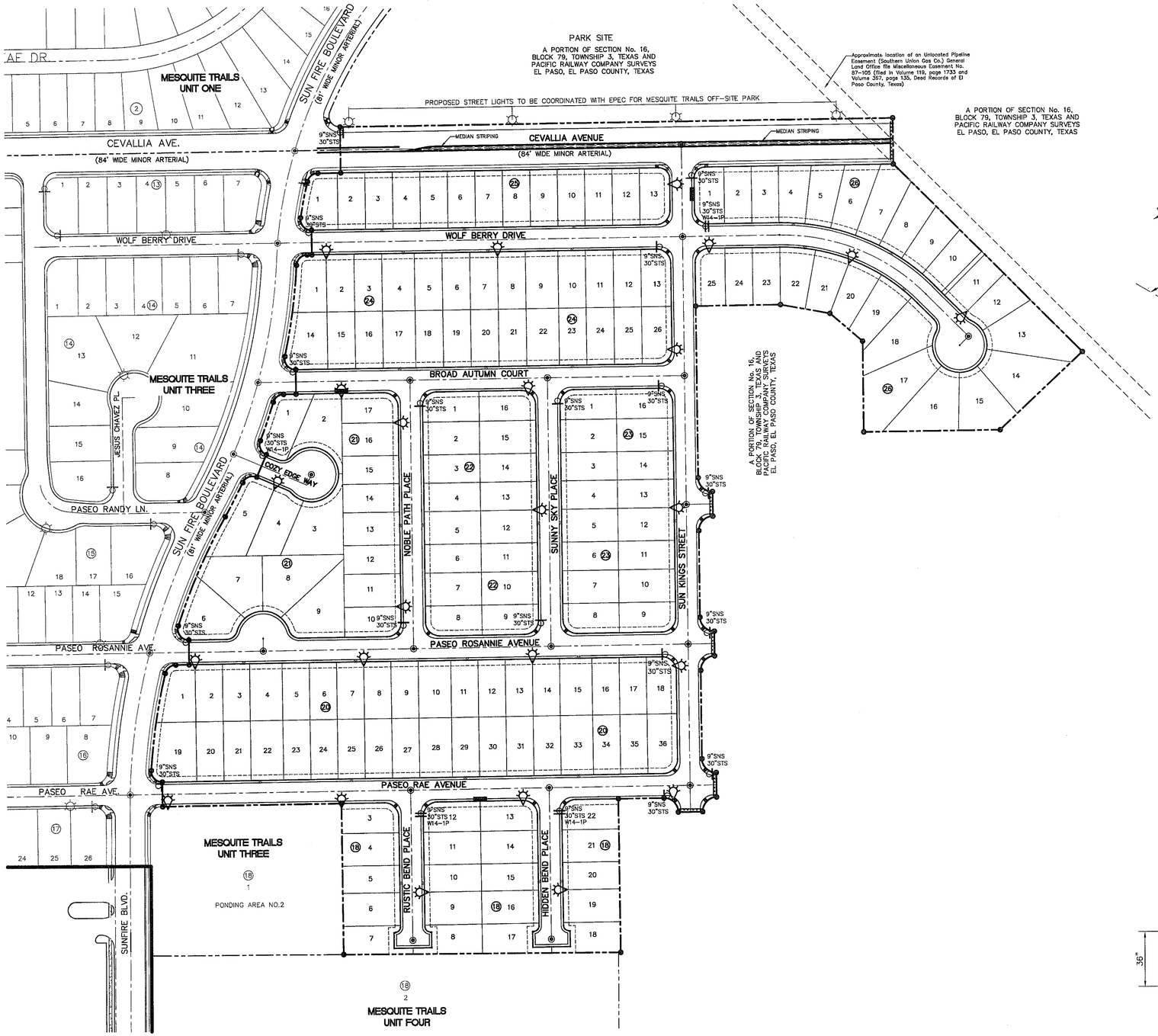
STORM WATER POLLUTION PREVENTION PLAN GENERAL NOTES

SHEET NO.

26

OF 28

103145



ILLUMINATION AND SIGNAGE 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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

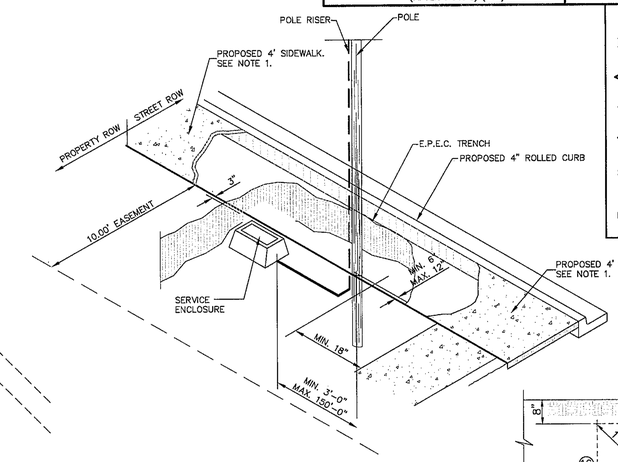
REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

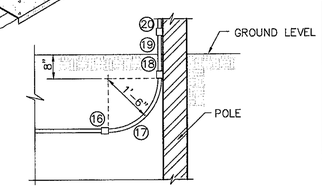
DATE	REVISIONS	BY

LEGEND:

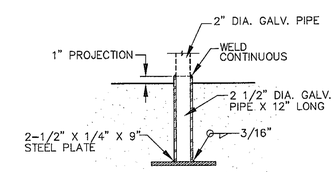
- EXISTING RESIDENTIAL STREET LIGHT
- PROPOSED RESIDENTIAL STREET LIGHT
- PROPOSED 9" STREET NAME AND 30" STOP SIGN
- PROPOSED 9" STREET NAME SIGN (TWO SIGNS)
- PROPOSED 9" STREET NAME AND 30" STOP SIGN AND DEAD END SIGN
- PROPOSED N.D.B.C.U. MAIL BOX



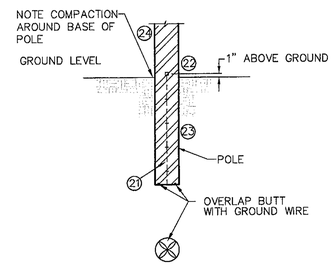
POLE LOCATION DETAIL
SCALE: 1" = 5'-0"



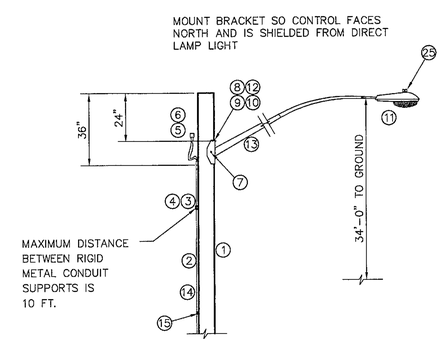
POLE RISER DETAIL
SCALE: 1"=2'-0"



POST SLEEVE DETAIL
SCALE: 1"=1'-0"



(BUTT GROUNDING) DISTRIBUTION DETAIL
SCALE: 1"=2'-0"



STREET LIGHT DETAIL
SCALE: 1"=3'-0"

ITEM	QTY.	DESCRIPTION
1	1	POLE, PENTA TREATED PINE 40' CLASS III
2	27	1/2" RIGID GALVANIZED STEEL CONDUIT
3	4	TWO HOLE STEEL PIPE STRAP FOR 1/2" CONDUIT
4	8	1/4" x 1" LAG BOLT
5	1	PHOTO CELL RECEPTACLE WITH 1/2" THREADED BASE AND MOUNTING BRACKET
6	1	PHOTO CELL 240V.
7	4	1/2" x 4" LAG BOLT
8	1	WASHER, SQ. GALV. 2-1/4" x 2-1/4"
9	1	MACHINE BOLT 5/8" x 8"
10	1	LOCKNUT 5/8"
11	1	LUMINARE 100W H.P.S.
12	1	WASHER, COIL SPRING 5/8"
13	1	STEEL LUMINAIRE SUPPORT (10' OR 8') UNION METAL MANUF. CO. DESIGN 348 OR EQUIVALENT
14		2 - #12 COPPER WIRES WITH THW INSULATION
15	1	GROUND CLAMP FOR 1/2" RIGID CONDUIT
16	1	1/2" SCHEDULE 40 PVC COUPLING
17	1	1/2" SCHEDULE 40 PVC 18" RADIAL BEND
18	1	1/2" SCHEDULE 40 PVC FEMALE ADAPTER
*19	1	1/2" x 8" PVC COATED RIGID STEEL CONDUIT NIPPLE
*20	1	1/2" PVC COATED RIGID STEEL COUPLING
21		COPPER WIRE, #6 BARE SOLID HARD DRAWN
22		ALUMINUM WIRE, #4 BARE SOLID HARD DRAWN
23	1/2#	STAPLE, GALV. 1-1/2" NO. 9
24	1	SPLICE, #4 SOLID ALUM. TO #6 SOLID CU.
25	1	PHOTOCELL, 240V

* MUST MEET OCCIDENTAL COATING CO. SPECS.

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4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.geagroup.net

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: J.M.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

ILLUMINATION PLAN

SHEET NO.

25

OF 28

103145

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
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(AFTER HOURS)	(915) 240-3220

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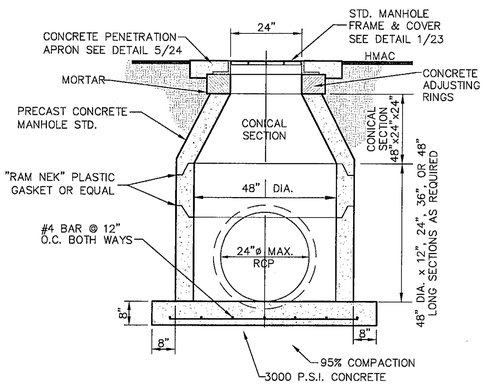
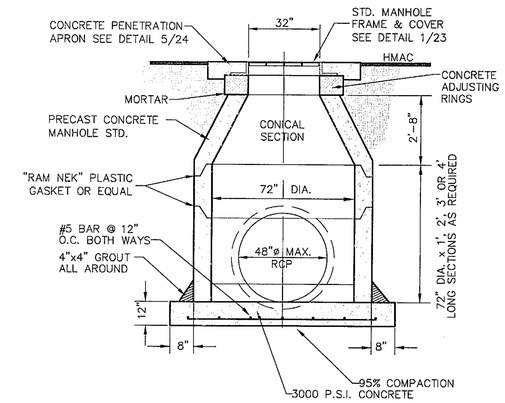
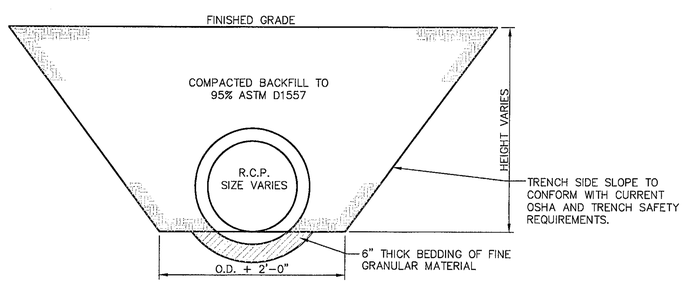


1/24 48" STANDARD MANHOLE DETAIL
N.T.S.



2/24 72" STANDARD MANHOLE DETAIL
N.T.S.

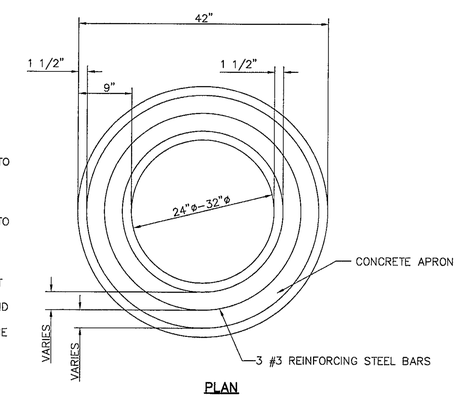
NOTE: 95% COMPACTION AS PER ASTM D-1557 UNDER ALL CONCRETE STRUCTURES.



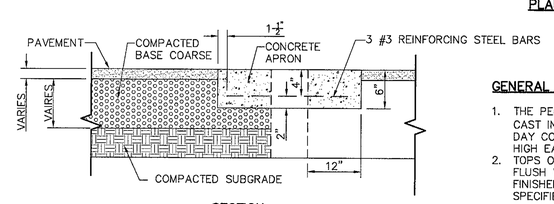
3/24 STORM SEWER BEDDING DETAIL
SCALE: 1/2" = 1'-0"

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,



PLAN



SECTION

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.

4/24 PENETRATION APRON DETAILS
SCALE: N.T.S.

REFERENCES - BENCHMARKS
BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. F-9364
STATE OF TEXAS
JORGE L. VAZQUEZ
85075
REGISTERED PROFESSIONAL ENGINEER
5/1/01

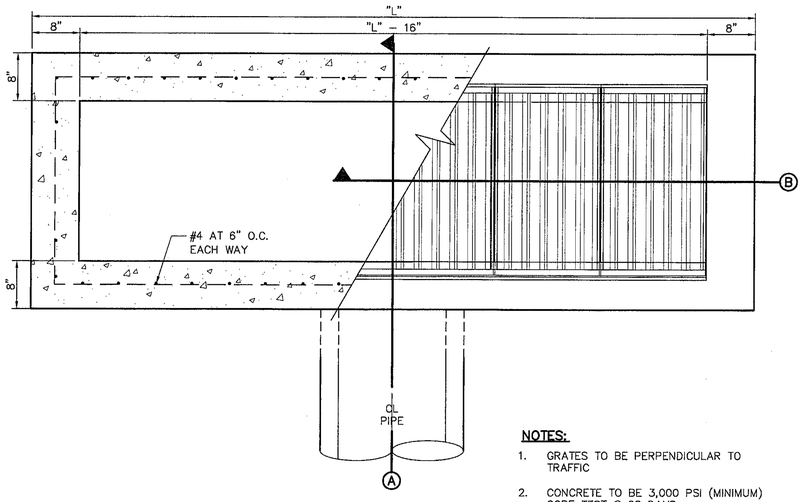
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-099(03)

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

SHEET TITLE
DRAINAGE DETAILS
(SHEET 2 OF 2)

SHEET NO.
24
OF 28

103145



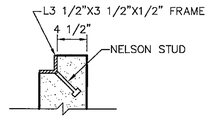
PLAN

NUMBER OF GRATES	"L"	CAPACITY*
2	5'–1 1/8"	9.436 CFS
3	7'–1/8"	14.155 CFS
4	8'–9 7/8"	18.873 CFS
5	10'–8"	23.592 CFS

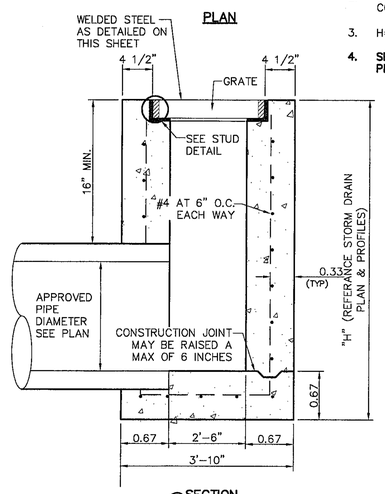
* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5

NOTES:

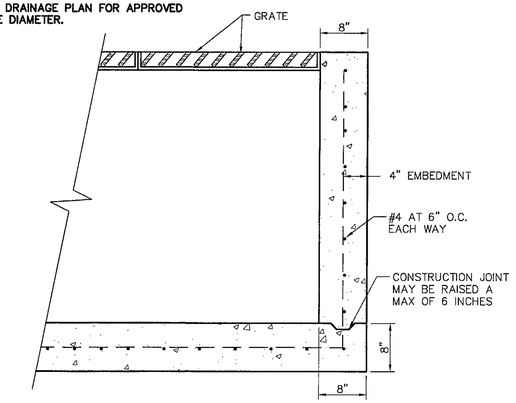
1. GRATES TO BE PERPENDICULAR TO TRAFFIC
2. CONCRETE TO BE 3,000 PSI (MINIMUM) CORE TEST @ 28 DAYS.
3. H=20' MAXIMUM
4. **SEE DRAINAGE PLAN FOR APPROVED PIPE DIAMETER.**



STUD DETAIL
N.T.S.

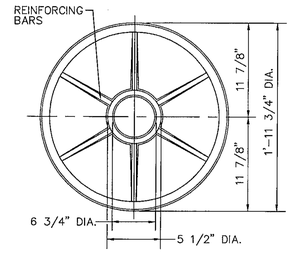


A SECTION

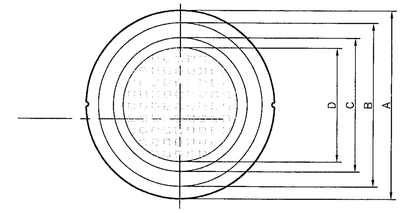


B SECTION

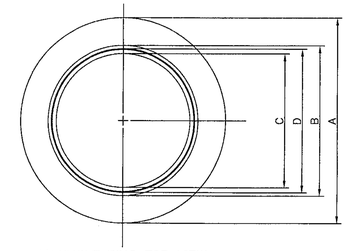
2/23 DROP INLET (TYPE III) DETAILS
SCALE: N.T.S.



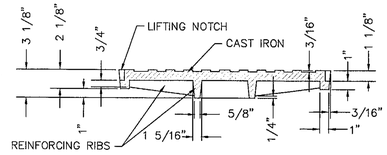
MANHOLE COVER BOTTOM VIEW
SCALE: 3/4" = 1'–0"



MANHOLE COVER TOP VIEW
SCALE: 3" = 4'–0"

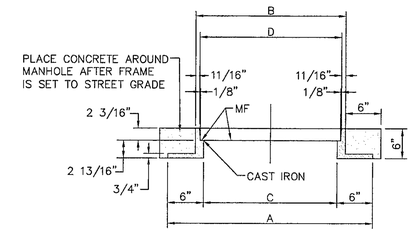


MANHOLE RING TOP VIEW
SCALE: 1" = 1'



MANHOLE COVER SECTION
SCALE: 2" = 3'

MANHOLE COVER	48" MANHOLE	72" MANHOLE
WEIGHT	175 LBS.	310 LBS.
A	1'–11" 3/4"	2'–7 1/4"
B	1'–8 5/8"	2'–4 1/8"
C	1'–4 7/8"	2'–3/8"
D	1'–2 3/8"	1'–9 7/8"
E	11 7/8"	1'–3 5/8"



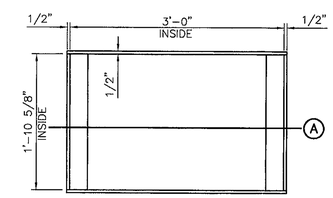
MANHOLE RING SECTION
SCALE: 1" = 1'

MANHOLE RING	48" MANHOLE	72" MANHOLE
WEIGHT	165 LBS.	225 LBS.
A	2'–10" 1/2"	3'–6"
B	2'–1 1/4"	2'–8 3/4"
C	1'–10 1/2"	2'–6"
D	1'–11 7/8"	2'–7 3/8"

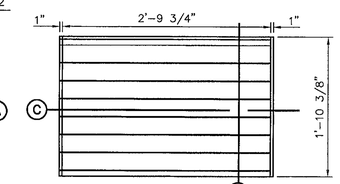
GENERAL NOTES:

1. MATCHING SURFACES MARKED "MF" TO BE MACHINE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.

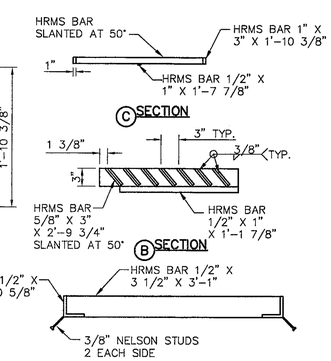
1/23 MANHOLE RING AND COVER DETAILS
SCALE: AS SHOWN

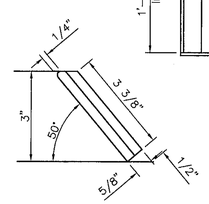


PLAN – FRAME

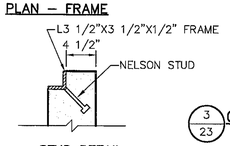


PLAN – GRATE





SLANTED BAR DETAIL



STUD DETAIL

3/23 GRATE AND FRAME DETAILS
SCALE: 1"=1'–0"

DROP INLET GENERAL NOTES:

1. WELDED STEEL OR CAST GRATES AS DETAILED ARE ALL ACCEPTABLE GRATES. MIXING OF ALTERNATE TYPES OF GRATES ON THE SAME PROJECT WILL BE PERMITTED WITH THE APPROVAL OF THE COUNTY ENGINEER.
2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS.
3. SHARP EDGES RESULTING FROM FABRICATION SHALL BE DULLED BY ANY ACCEPTABLE METHOD FOR SAFETY IN HANDLING.
4. GRATES SHALL BE INSTALLED IN FRAME WITH FLOW ARROW POINTING DOWNSTREAM OR TOWARD THE LOW POINT IN A SUMP.
5. WELDED GRATES SHALL BE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M–183 OR OF CORROSION RESISTANT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M–161 OR M–222 OR BE MADE OF OTHER APPROVED STEELS OF EQUAL QUALITY. MIXING GRADES OF STEEL ON THE SAME GRATE WILL NOT BE PERMITTED.
6. GRATES MADE OF M–183 STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M–111 SPECIFICATIONS OR SHALL BE PAINTED WITH INORGANIC ZINC PAINTS, MEETING THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.
7. 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.
8. 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.
9. 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.
10. ALL CASTING SHALL BE MANUFACTURED TRUE TO PATTERN. COMPONENT PARTS SHALL FIT TOGETHER IN A SATISFACTORY MANNER.
11. ALL CONCRETE TO BE 3000 PSI. CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
12. MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCING.
13. EXPANSION MATERIAL TO BE 1/2" BITUMINOUS FIBER AND PLACED WHERE PROPOSED CONCRETE COMES IN CONTACT WITH ANY EXISTING OR PROPOSED CONCRETE OR MASONRY STRUCTURE.
14. STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH TxDOT. ITEM 446 "PAINT AND PAINTING"
15. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
16. GRATES WILL BE DEPRESSED 1" BELOW PROPOSED OR EXISTING GRADE.
17. ALL REINFORCING BARS TO BE #4 BARS AT 6" O.C. GRADE 60. BEND BARS AROUND PIPE OPENINGS.
18. INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED.
19. LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
20. TWO 3/8"øX4" LONG CONCRETE ANCHOR STUDS REQUIRED FOR EACH SIDE OF FRAME, WHERE RESTING ON CONCRETE, USE NELSON STUDS OR EQUAL.
21. THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALBERT DRIVE AND RASED LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO.–4564
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
12/11/09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPROV. BY: J.L.A.
JOB No. 2000–099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE
REPLAT 'A'
SUBDIVISION IMPROVEMENTS

SHEET TITLE

DRAINAGE DETAILS

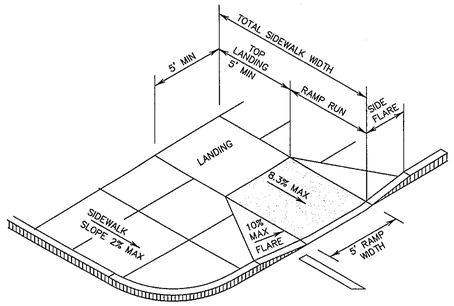
(SHEET 1 OF 2)

SHEET NO.

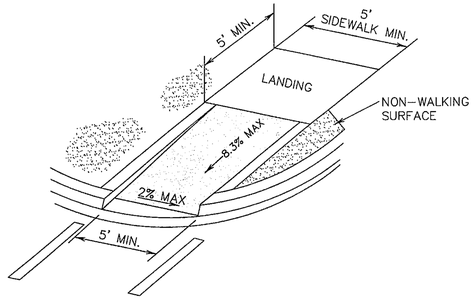
23

OF 28

102145



1/22 PERPENDICULAR CURB RAMP (TYPE I)
SCALE: N.T.S.



4/22 DIRECTIONAL RAMP WITHIN RADIUS (TYPE IV)
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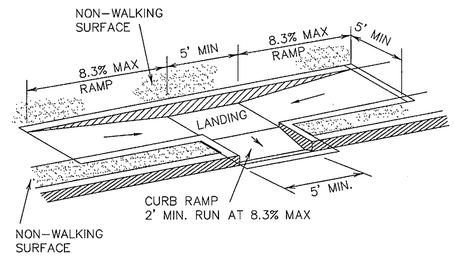

7/22 COMBINATION CURB RAMPS (TYPE VII)
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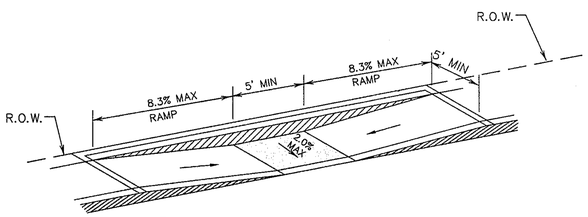
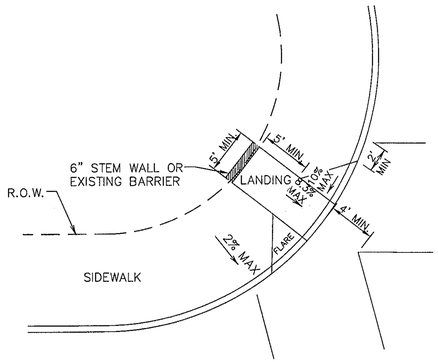
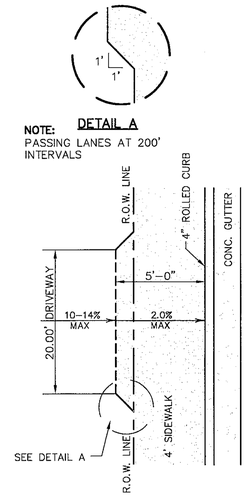


2/22 PARALLEL CURB RAMP (TYPE II)
SCALE: N.T.S.



5/22 DIAGONAL CURB RAMP (FLARED SIDES) (TYPE V)
SCALE: N.T.S.



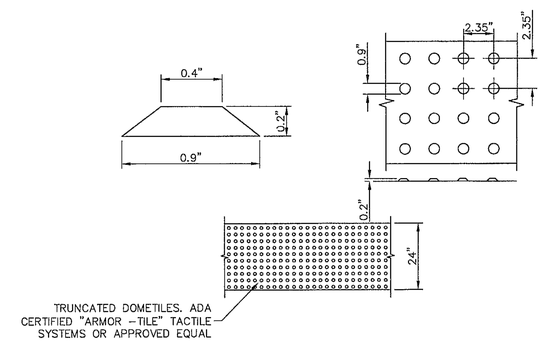
8/22 DRIVEWAY ACCESSIBLE PASSING SPACE DETAIL
SCALE: N.T.S.

GENERAL NOTES:

LEGEND

DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN, A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL HAVE A COLOR CONTRAST VISUALLY WITH ADJOINING SURFACES.

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

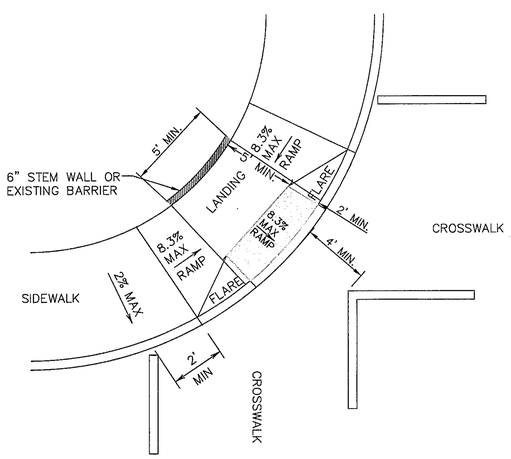


DOME SIZE AND SPACING. TRUNCATED DOMES SHALL HAVE A DIAMETER OF NOMINAL 0.9 INCHES (23 mm) AT THE BOTTOM, A DIAMETER OF 0.4 INCH (10 mm) AT THE TOP, A HEIGHT OF NOMINAL 0.2 INCHES (5 mm), AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 mm) MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.

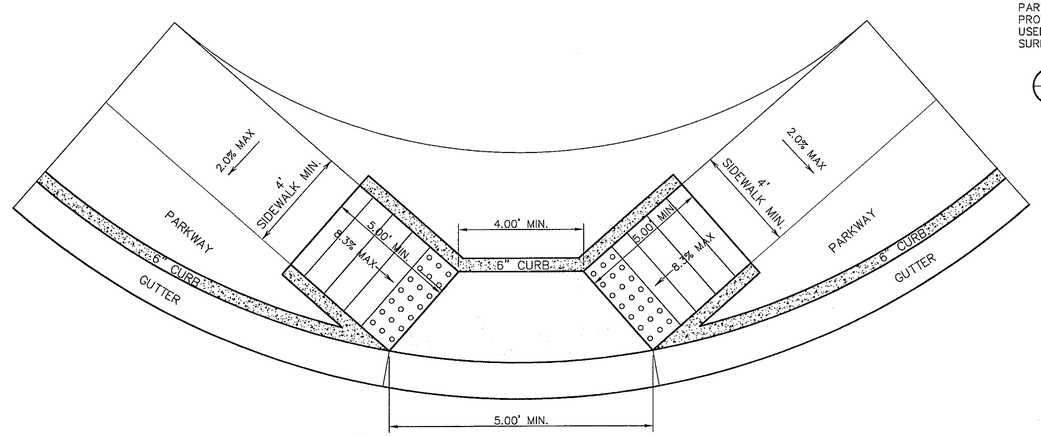
DOME ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES (610 mm) MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION.

CONTRAST. THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "RED BRICK" COLOR, UNLESS OTHERWISE DIRECTED BY THE OWNER. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE. CONTRAST SHALL BE PROVIDED BY PLACING AND MIXING TINT IN THE PLASTIC CONCRETE USED FOR THE DETECTABLE WARNING SURFACE. NO PAINTING OF SURFACE SHALL BE PERMITTED.

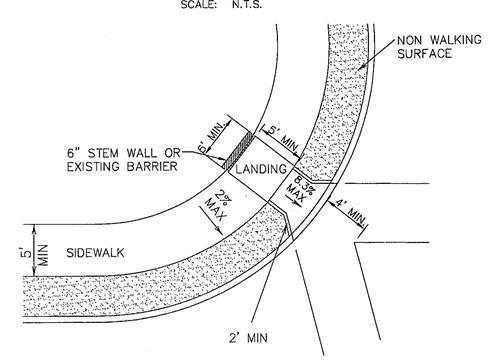
9/22 TRUNCATED DOME SIZE AND SPACING
SCALE: N.T.S.



3/22 DIAGONAL COMBINATION CURB RAMP (TYPE III)
SCALE: N.T.S.



6/22 DIRECTIONAL RAMP @ INTERSECTION
SCALE: N.T.S.



10/22 DIAGONAL CURB RAMP (RETURNED CURB) (TYPE VI)
SCALE: N.T.S.

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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LICENSED
PROFESSIONAL ENGINEER
TEXAS
7/16/01

SCALE	
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	OCTOBER 2009
DESIGN BY:	F.Z.
DRAWN BY:	A.B.
CHKD. BY:	J.L.A.
APPV'D. BY:	J.L.A.
JOB No.	2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

STANDARD DETAILS

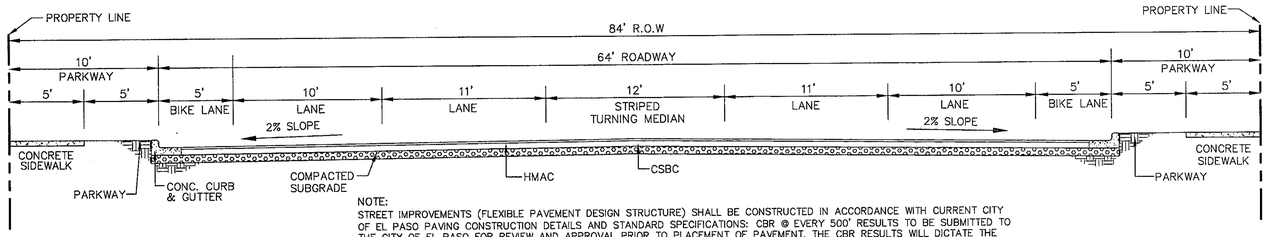
(SHEET 3 OF 3)

SHEET NO.

22

OF 28

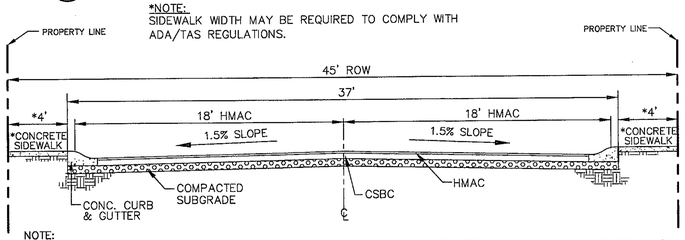
103145



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 SHOW ON THE CITY OF EL PASO DESIGN STANDARDS.

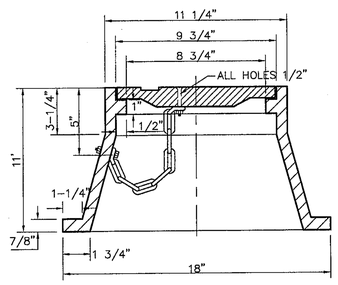
1/21 TYPICAL 84' ROW STREET W/BIKE LANES SECTION DETAIL
SCALE: N.T.S.

*NOTE:
SIDEWALK WIDTH MAY BE REQUIRED TO COMPLY WITH ADA/TAS REGULATIONS.

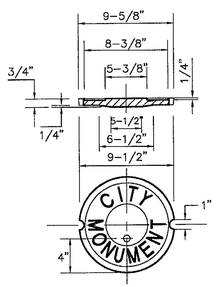


NOTE:
STREET IMPROVEMENTS (FLEXIBLE PAVEMENT DESIGN STRUCTURE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO THE CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT. 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 SHOW ON THE CITY OF EL PASO DESIGN STANDARDS.

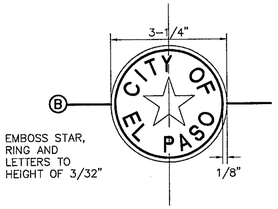
2/21 TYPICAL 45' ROW STREET SECTION DETAIL
SCALE: N.T.S.



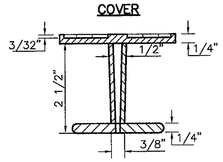
FRAME SECTION



COVER



BRONZE MONUMENT CAP



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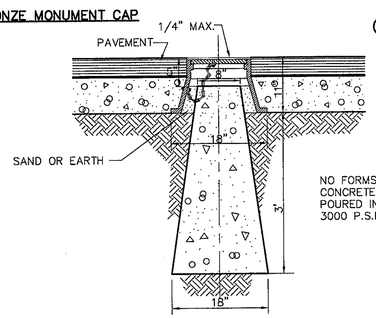
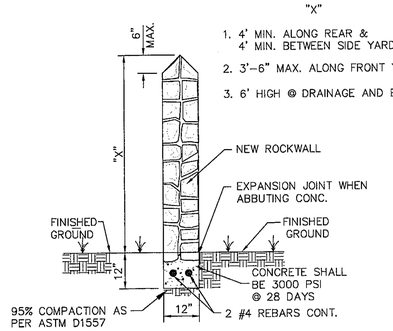


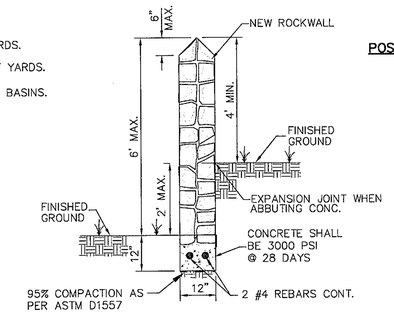
NO FORMS REQUIRED. CONCRETE TO BE POURED IN PLACE 3000 P.S.I. CONC.

4/21 CITY SURVEY MONUMENT DETAILS
SCALE: N.T.S.

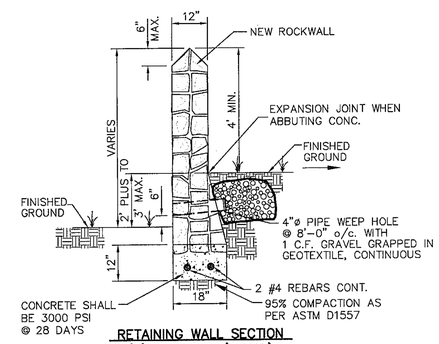


"X"
1. 4' MIN. ALONG REAR & 4' MIN. BETWEEN SIDE YARDS.
2. 3'-6" MAX. ALONG FRONT YARDS.
3. 6' HIGH @ DRAINAGE AND BASINS.

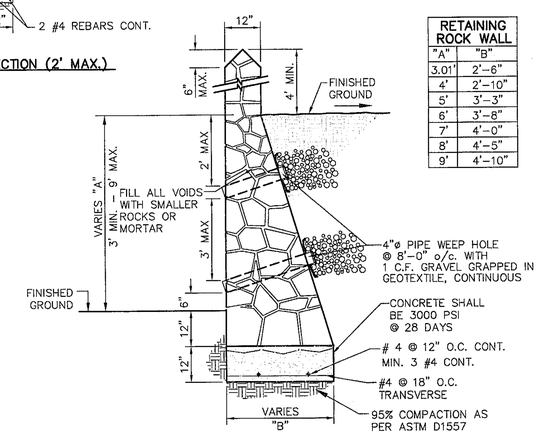
GARDEN WALL SECTION



GARDEN WALL SECTION (2' MAX.)

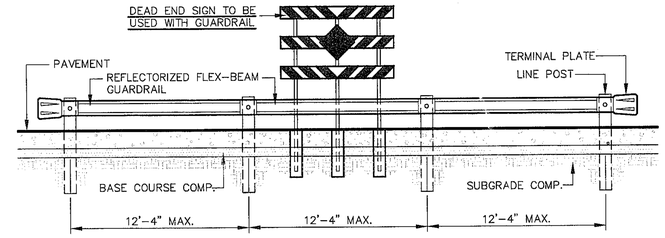


RETAINING WALL SECTION (2' PLUS TO 3' MAX.)

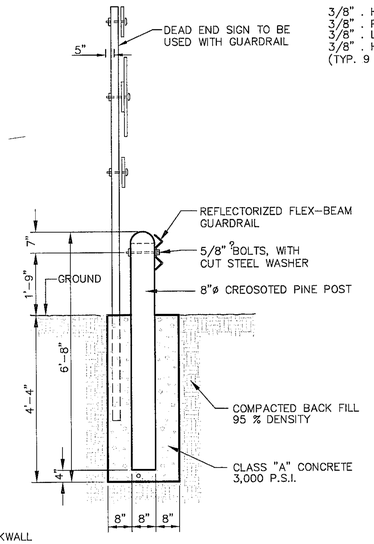


RETAINING WALL SECTION (3' MIN. TO 9' MAX.)

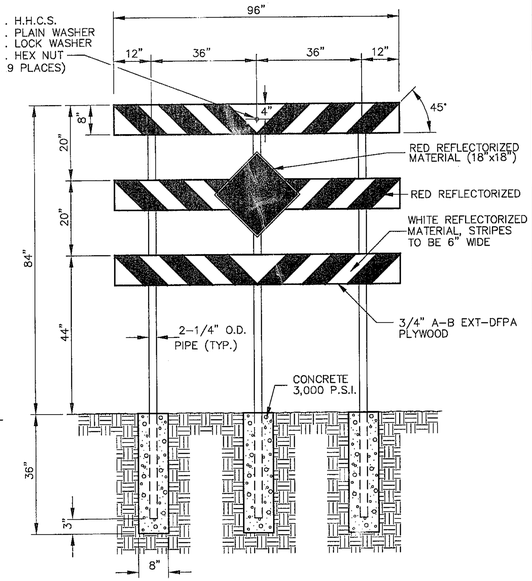
5/21 TYPICAL ROCKWALL DETAILS
SCALE: 1" = 2'-0"



ELEVATION
SCALE: 1'=5'



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



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

3/21 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL
SCALE: AS SHOWN

ROCK WALL NOTES

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

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

5/21 TYPICAL ROCKWALL DETAILS
SCALE: 1" = 2'-0"

REFERENCES – BENCHMARKS
BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4000.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 4984
86075
CONRAD L. LAZARATTO
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
6/16/14

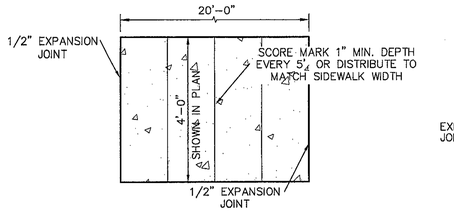
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: E.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-099(03)

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

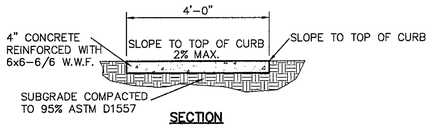
SHEET TITLE
STANDARD DETAILS
(SHEET 2 OF 3)

SHEET NO.
21
OF 28

103145



PLAN

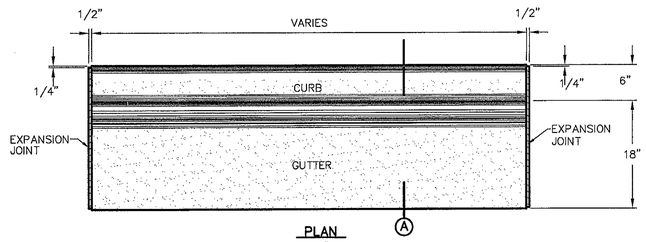


SECTION

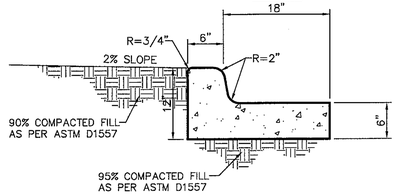
SIDEWALK NOTES:

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

1/20 SECTION-SIDEWALK/SLAB
SCALE: 1/2"=1'-0"



PLAN

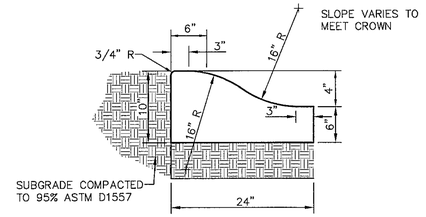


A SECTION

NOTES:

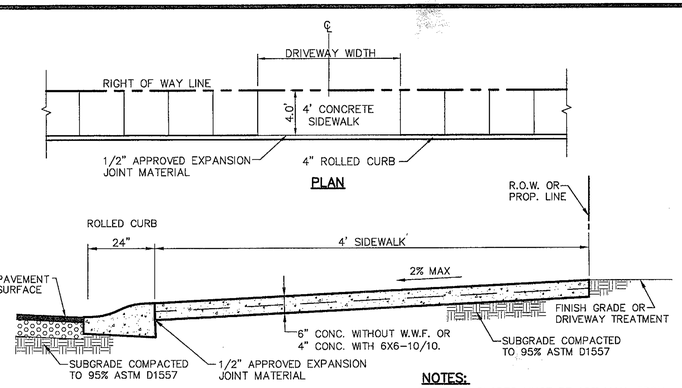
1. CONCRETE SHALL BE 3,000 P.S.I. MIN.
2. DUMMY JOINT REQUIRED AT 10' O.C. FOR CURB & GUTTER, AND 5' O.C. FOR SIDEWALK
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS AND AT 20' ON CENTER FOR SIDEWALKS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT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

2/20 CURB & GUTTER DETAIL
SCALE: 1"=1'-0"



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

3/20 4" CONCRETE ROLLED CURB DETAIL
SCALE: 1"=1'-0"

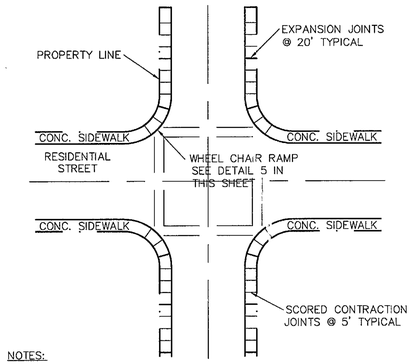


SECTION AT CENTERLINE

NOTES:

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

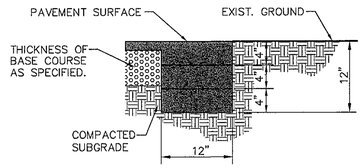
4/20 TYPICAL DRIVEWAY DETAIL
SCALE: N.T.S.



NOTES:

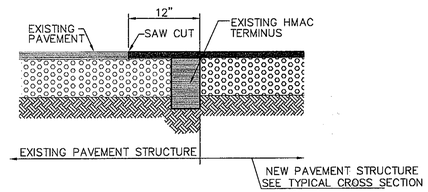
1. RAMPS MAY BE PLACED AS SUGGESTED, HOWEVER EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC., MAY AFFECT PLACEMENT.
2. THE CONCRETE SURFACE SHALL HAVE A ROUGH, NONSKID TYPE FINISH.
3. CONSTRUCTION METHODS SHALL CONFORM WITH THE CITY OF EL PASO SPECIFICATIONS.
4. ALL PARKING AND PAVEMENT MARKINGS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

6/20 WHEELCHAIR RAMP STREET PLAN
SCALE: 1"=30'-0"

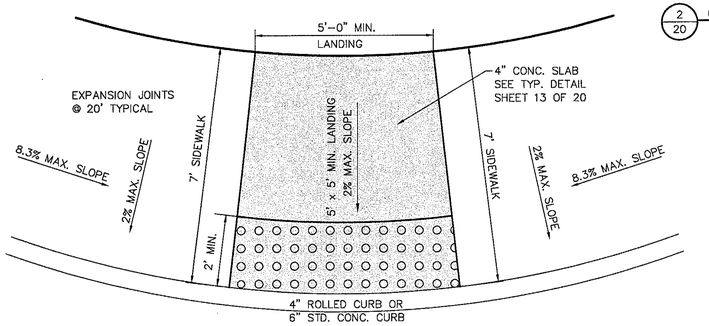


NOTE :
TERMINUS MUST BE CONSTRUCTED IN 4" LIFTS.
FINAL LIFT MUST BE PLACED WITH FINAL PAVEMENT COURSE.

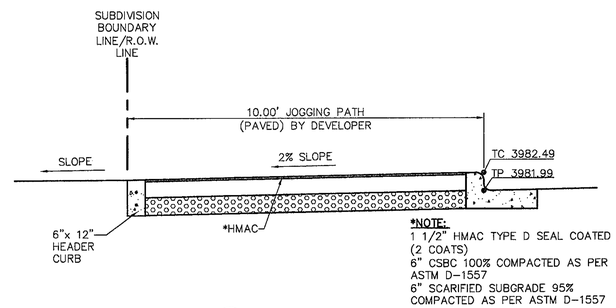
7/20 TERMINUS OF STREET
SCALE: 1"=1'-0"



8/20 TYPICAL PAVEMENT JOINT SECTION
SCALE: N.T.S.

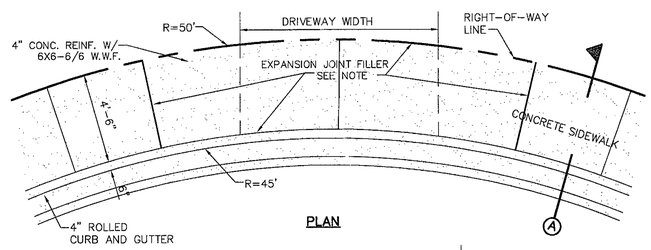


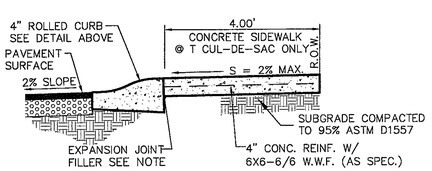
5/20 TYPICAL WHEELCHAIR RAMP DETAIL
SCALE: 1" = 2'-0"



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

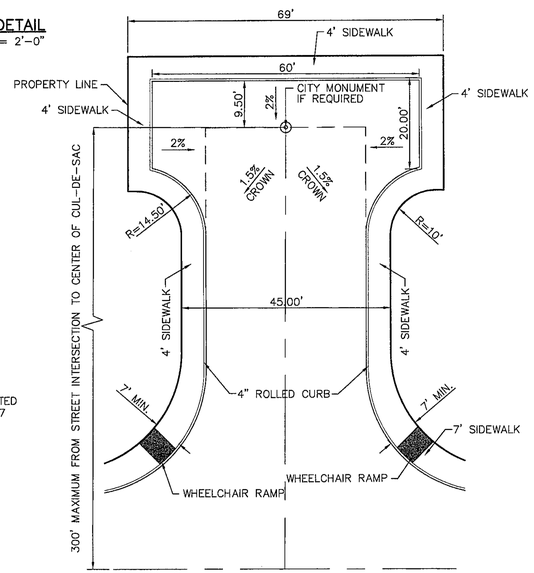
11/20 JOGGING PATH DETAIL
SCALE: 1"=6"





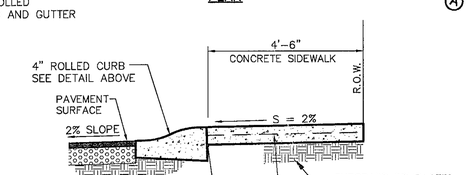
A SECTION

NOTE: EXPANSION JOINT FILLER SHALL CONSIST OF 1/2" BITUMINOUS TYPE PREFORMED (AASHTO M-33)



"T" CUL-DE-SAC
SCALE: N.T.S.

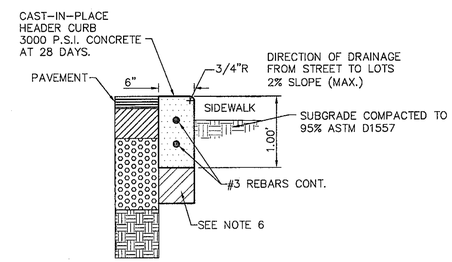
9/20 "T" CUL-D-SAC W/SIDEWALK DETAIL
SCALE: N.T.S.



A SECTION

NOTE: EXPANSION JOINT FILLER SHALL CONSIST OF 1/2" BITUMINOUS TYPE PREFORMED (AASHTO M-33)

10/20 CUL-DE-SAC (50' R) DRIVEWAY DETAIL
SCALE: N.T.S.



NOTES:

1. EXPANSION JOINTS WILL BE REQUIRED EVERY 50', AT THE END OF CURB RETURNS AND AT POINT OF TANGENCY WITH STRAIGHT RUNS.
2. CONTRACTION JOINTS (1/2 INCH MIN. SCORED JOINTS) MUST BE INSTALLED EVERY 10' O.C. IN HEADER CURB AND 5' O.C. FOR SIDEWALKS.
3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURBS RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT HEADER CURB DIMENSION.
4. CONCRETE TO BE CLASS "A", 3000 P.S.I. MIN. @ 28 DAYS.
5. SUBGRADE COMPACTED TO 95% ASTM D1557.
6. HEADER CURB SHALL BEAR ON 6" (MIN.) OF CSBC OR 8" (MIN.) OF SUITABLE NATIVE OR IMPORTED SOIL MATERIAL AS APPROVED BY THE DESIGN ENGINEER AND/OR THE CITY OF EL PASO.

12/20 HEADER CURB DETAIL
SCALE: 1" = 1'-0"

REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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Office 915.544.5232 Fax 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
10/13/11

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

STANDARD DETAILS

(SHEET 1 OF 3)

SHEET NO.

20

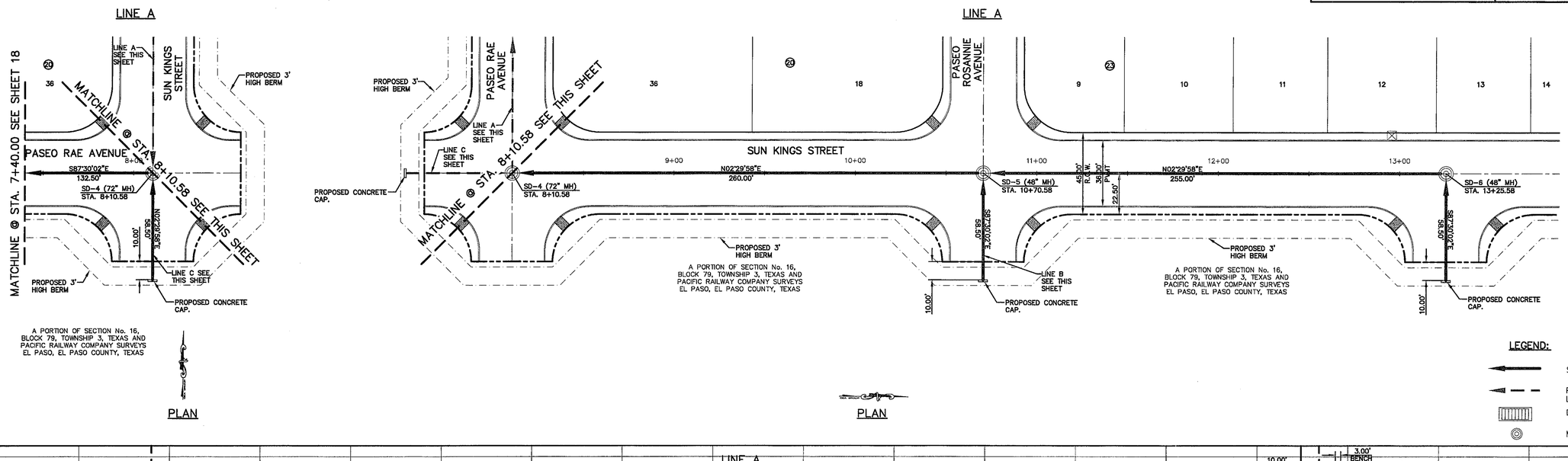
OF 28

103145

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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

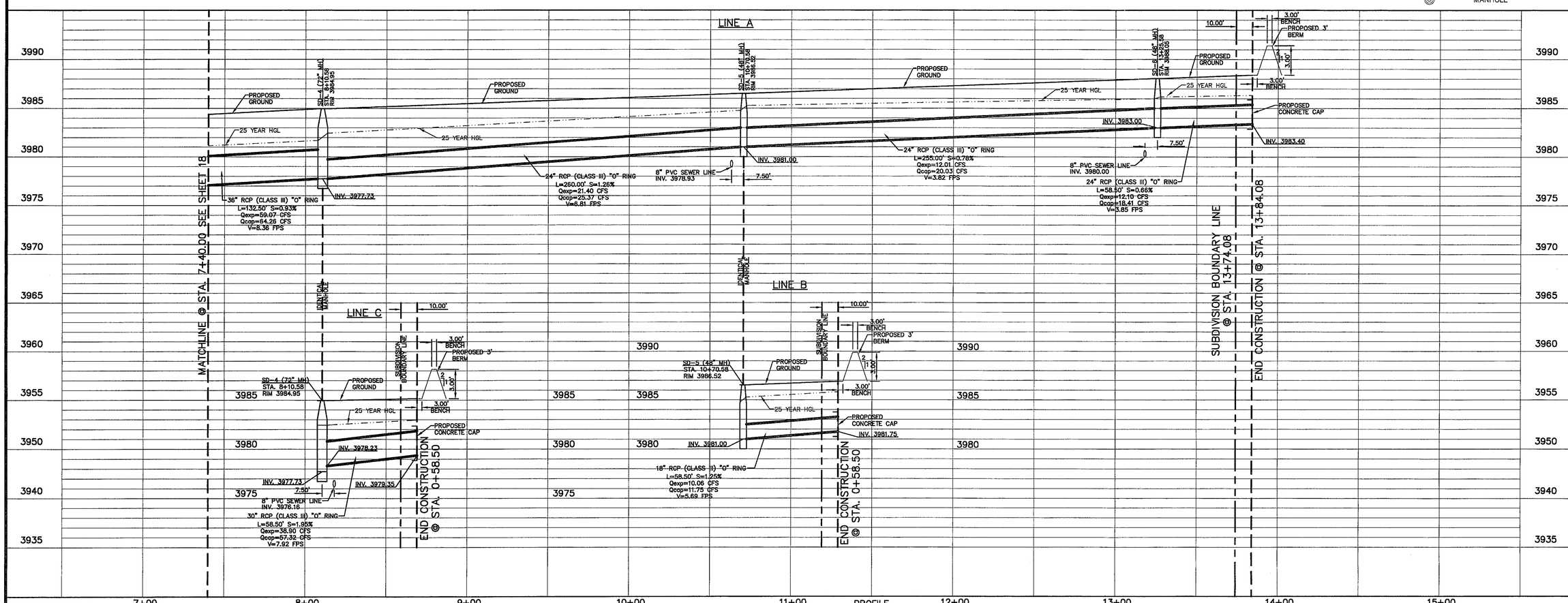
WARNING ! BEFORE YOU DIG

CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



LEGEND:

- STORM SEWER LINE
- PROPSED STORM SEWER LINE ON OTHER STREETS
- DROP INLET
- MANHOLE



REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 4564

STATE OF TEXAS — JORGE L. AZCARATE — 85075 — LICENSED PROFESSIONAL ENGINEER — SEAL

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.L.A.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE A
PLAN & PROFILE
FROM STA. 7+40.00
TO STA. 13+80.01

LINE B
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 0+84.43

LINE C
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 0+84.43

SHEET NO.

19

OF 28

103145

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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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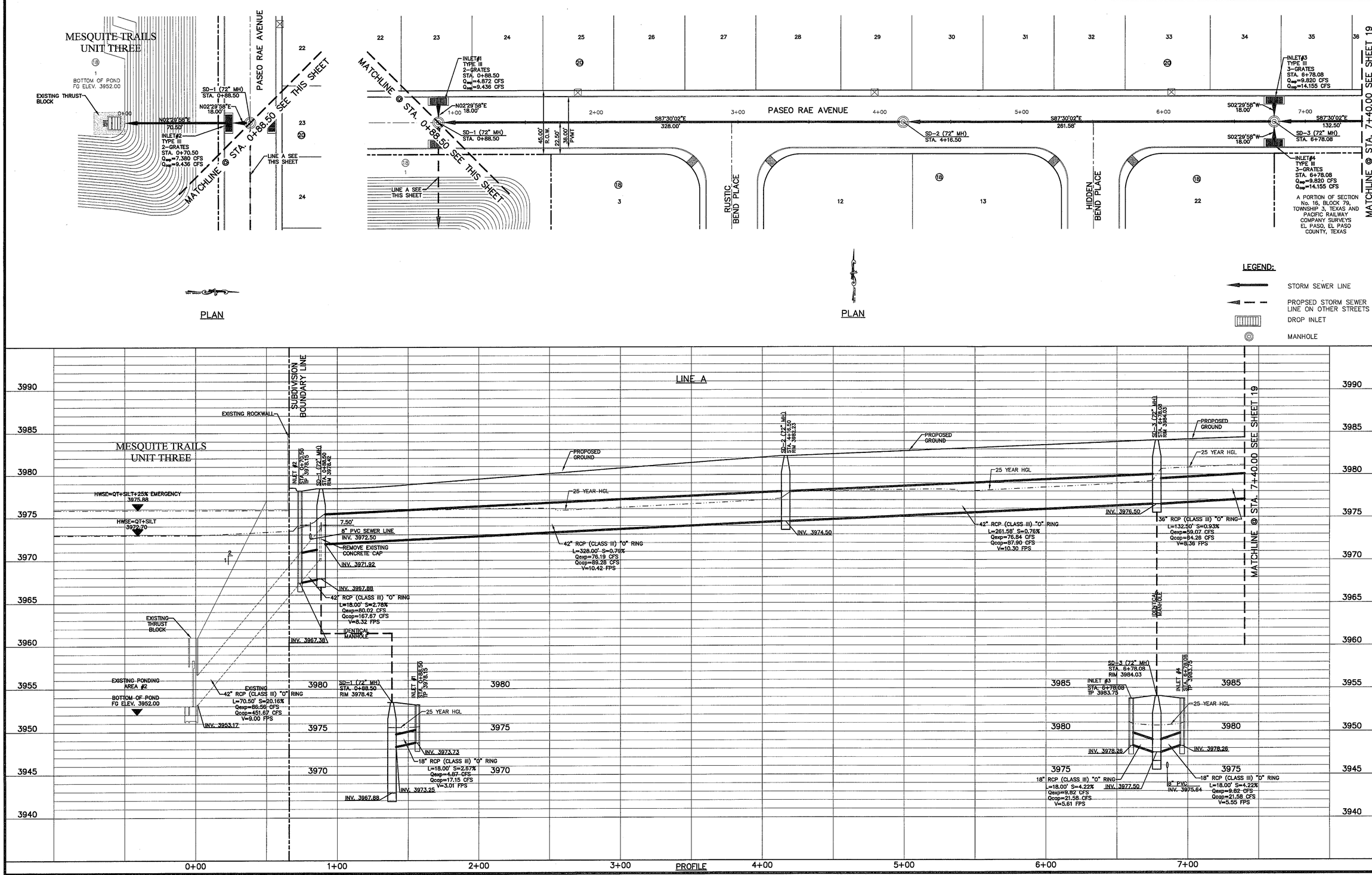
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY



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4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5222 Fax: 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL/ TEXAS FIRM REGISTRATION NO. 4984

JORGE L. AZCARATE 85075 LICENSED PROFESSIONAL ENGINEER 11/12/09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE A
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 7+40.00

SHEET NO.

18

OF 28

103145

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
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U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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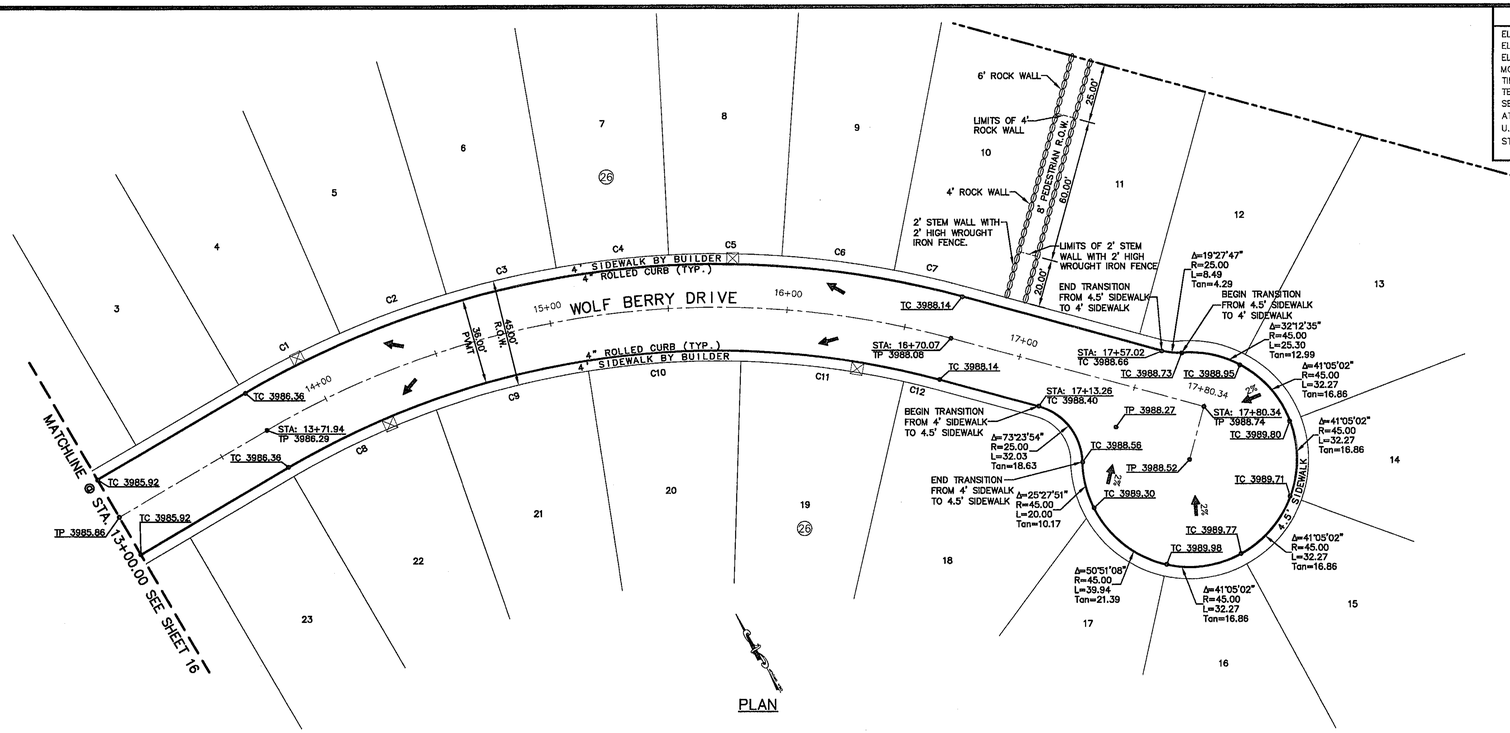
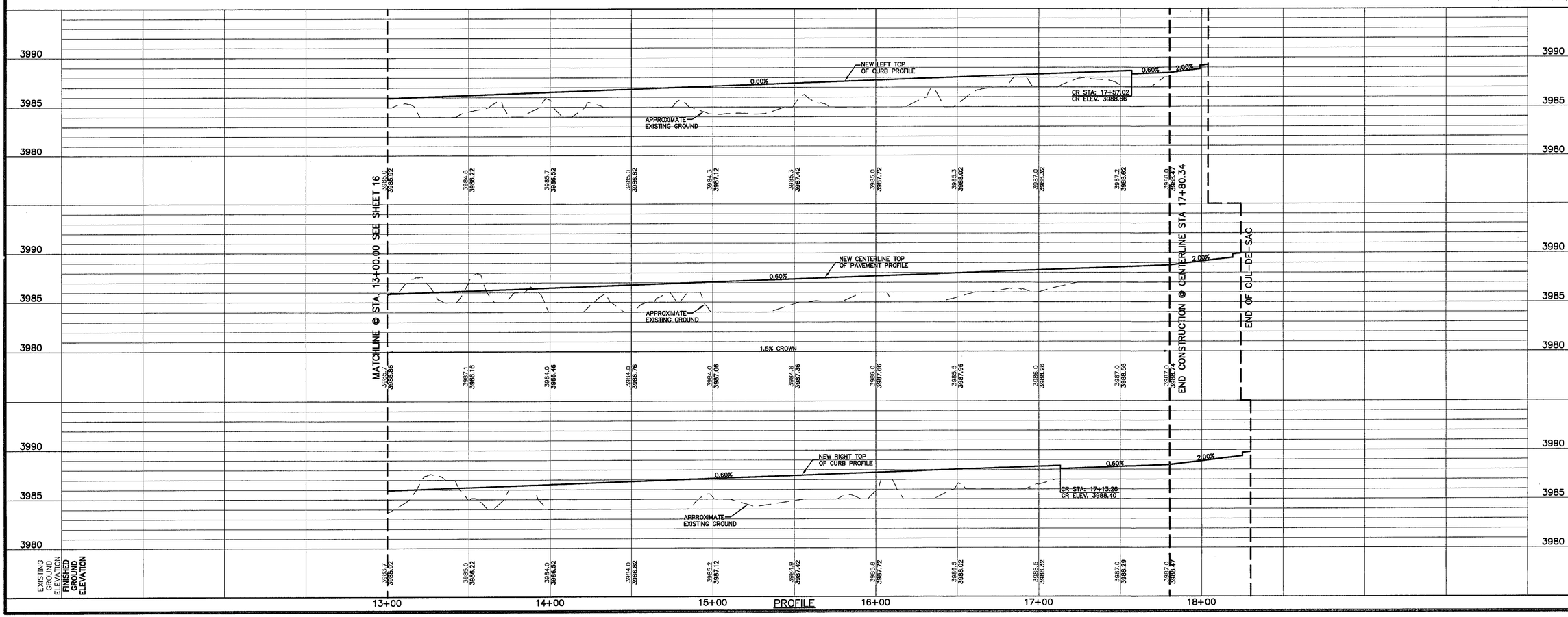
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
C1	393.00'	46.53'	23.29'	6°47'02"
C2	393.00'	47.14'	23.60'	6°52'23"
C3	393.00'	47.14'	23.60'	6°52'23"
C4	393.00'	47.14'	23.60'	6°52'23"
C5	393.00'	47.14'	23.60'	6°52'23"
C6	393.00'	47.14'	23.60'	6°52'23"
C7	393.00'	30.20'	15.11'	4°24'10"
C8	357.00'	67.02'	33.61'	10°45'22"
C9	357.00'	67.12'	33.66'	10°46'22"
C10	357.00'	65.02'	32.60'	10°26'04"
C11	357.00'	70.07'	35.15'	11°14'47"
C12	357.00'	14.59'	7.30'	2°20'31"

LEGEND:

⊠ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 1454
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER
10/1/09

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

DATE: OCTOBER 2009
DESIGN BY: F.G.
DRAWN BY: A.B.
CHKD BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

WOLF BERRY DRIVE PLAN & PROFILE FROM STA. 13+00.00 TO STA. 17+80.34

SHEET NO.

17 OF 28

108145

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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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CALL
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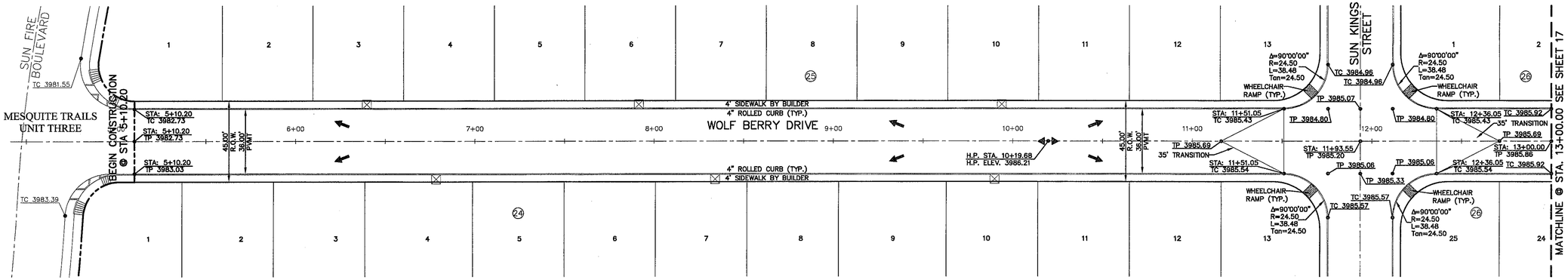
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

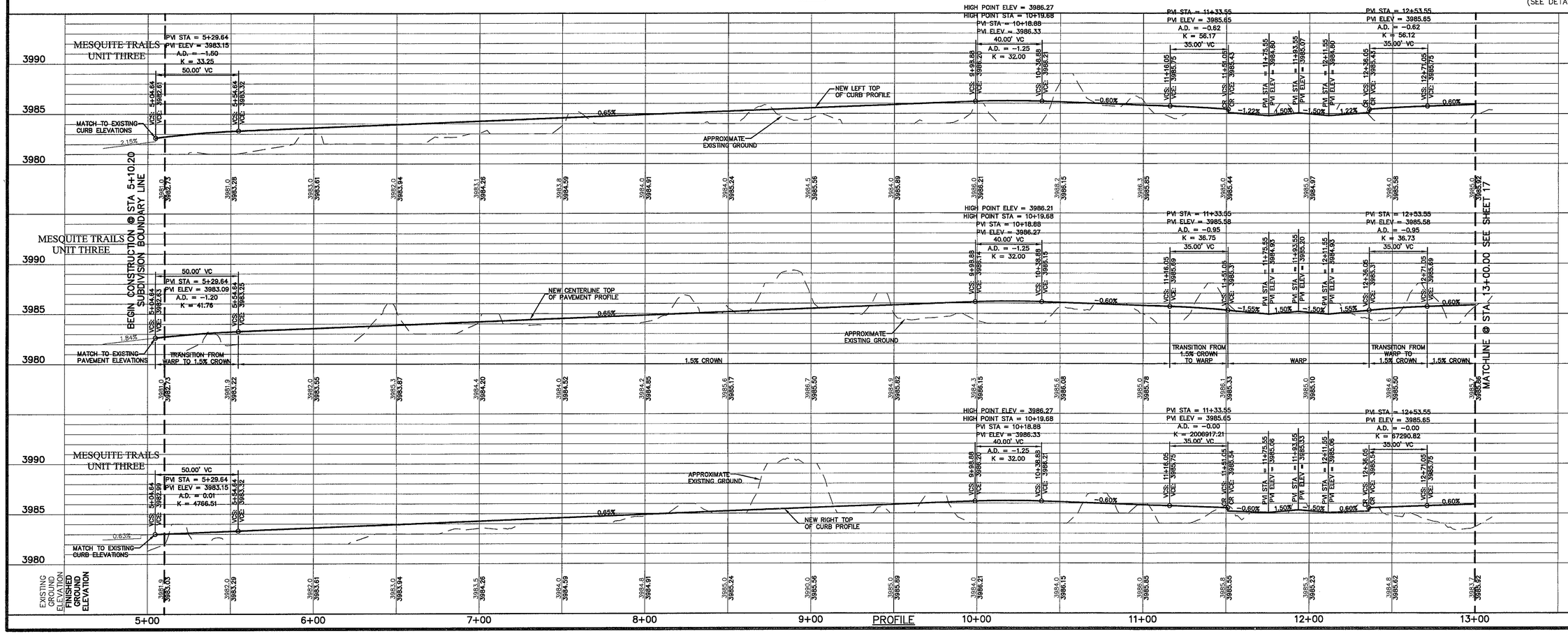
DATE	REVISIONS	BY



PLAN

LEGEND:

⊠ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



PROFILE

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4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. A564
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER
7/12/11

SCALE
Horizontal: 1" = 30'
Vertical: 1" = 5'
Contour Interval: N/A
DATE: OCTOBER 2009
DRAWN BY: A.G.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

WOLF BERRY DRIVE PLAN & PROFILE FROM STA. 5+10.20 TO STA. 13+00.00

SHEET NO.

16

OF 28

103145

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
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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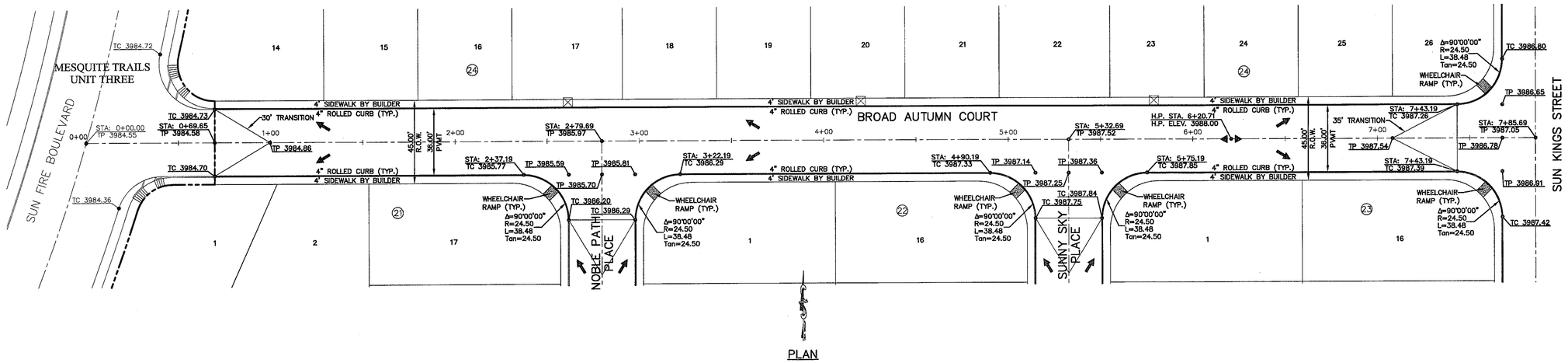
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALCOR DRIVE & PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

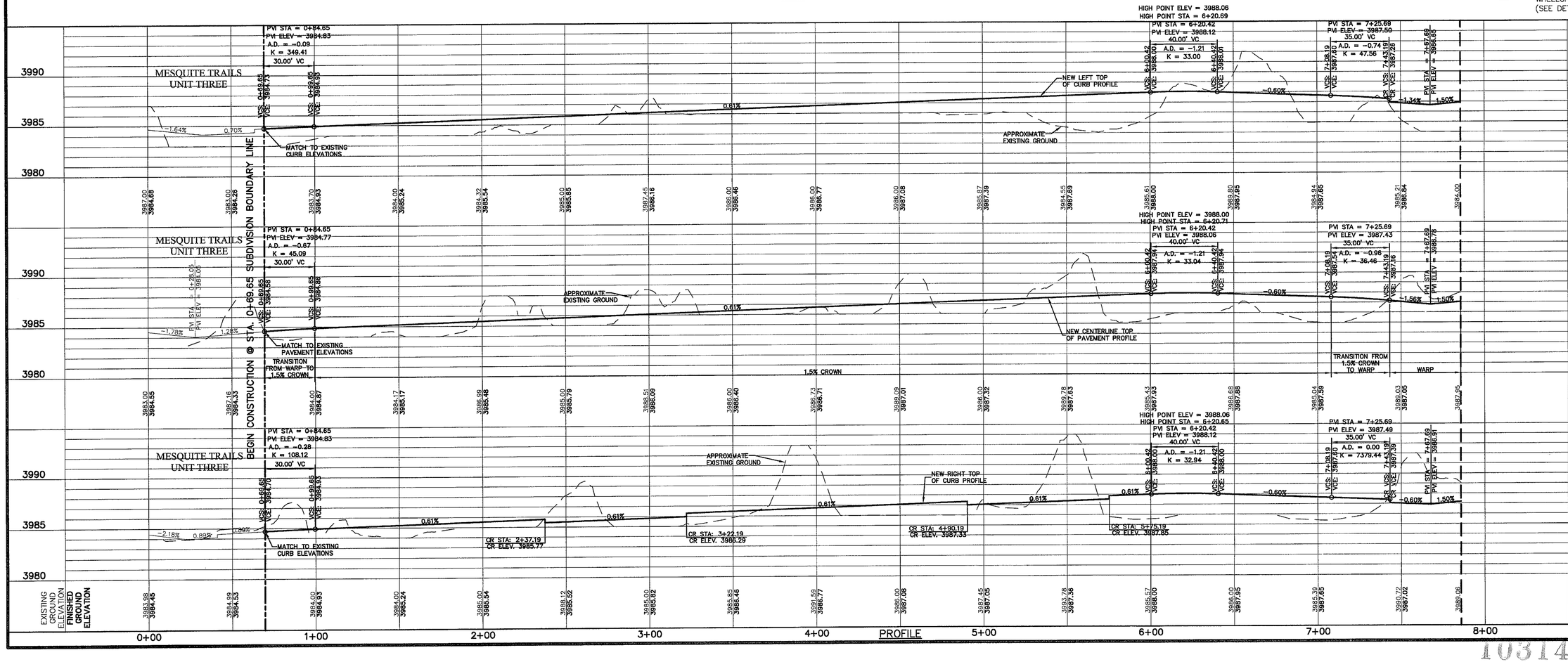
DATE	REVISIONS	BY



PLAN

LEGEND:

⊠ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



PROFILE

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. F-3864

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER

cea group
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Castner Center @ Transmountain
6440 Viscount Blvd., Suite 112, El Paso, TX 79925
Office: 915.544.5202 Fax: 915.544.5203 www.ceagroup.net

SCALE Horizontal:	1"=30'
Vertical:	1"=5'
Contour Interval:	N/A
DATE:	OCTOBER 2009
DESIGN BY:	F.Z.
DRAWN BY:	A.B.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.	2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

BROAD AUTUMN CT PLAN & PROFILE FROM STA. 0+69.65 TO STA. 7+85.69

SHEET NO.

15

OF 28

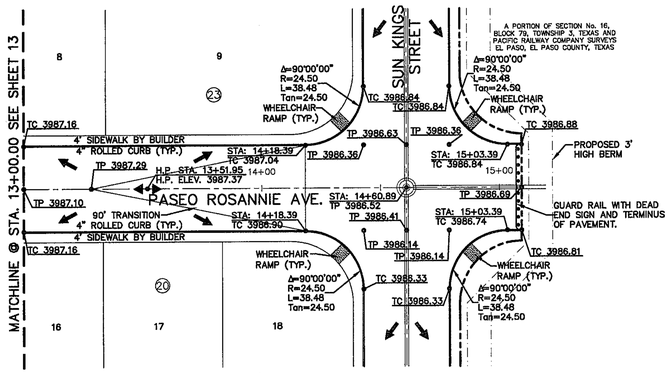
103145

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) 545-5005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

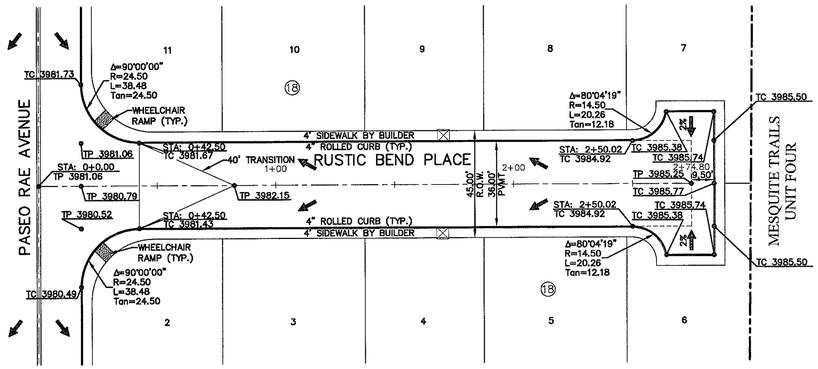
WARNING!
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS
BENCHMARK 18, CITY MONUMENT AT THE INTERSECTION OF PASEO ROSANNIE AND PASEO LINDO DRIVE
ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY



PLAN



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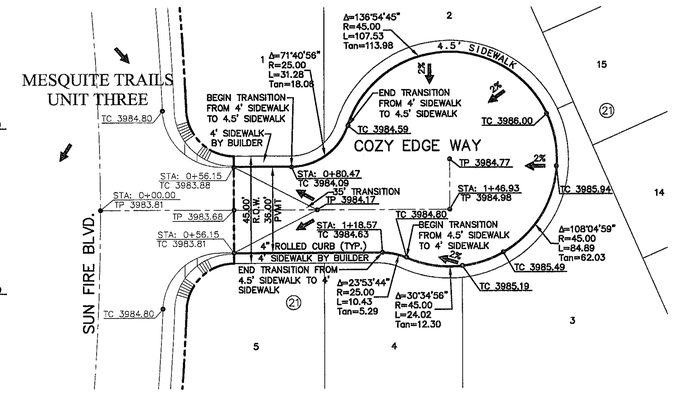
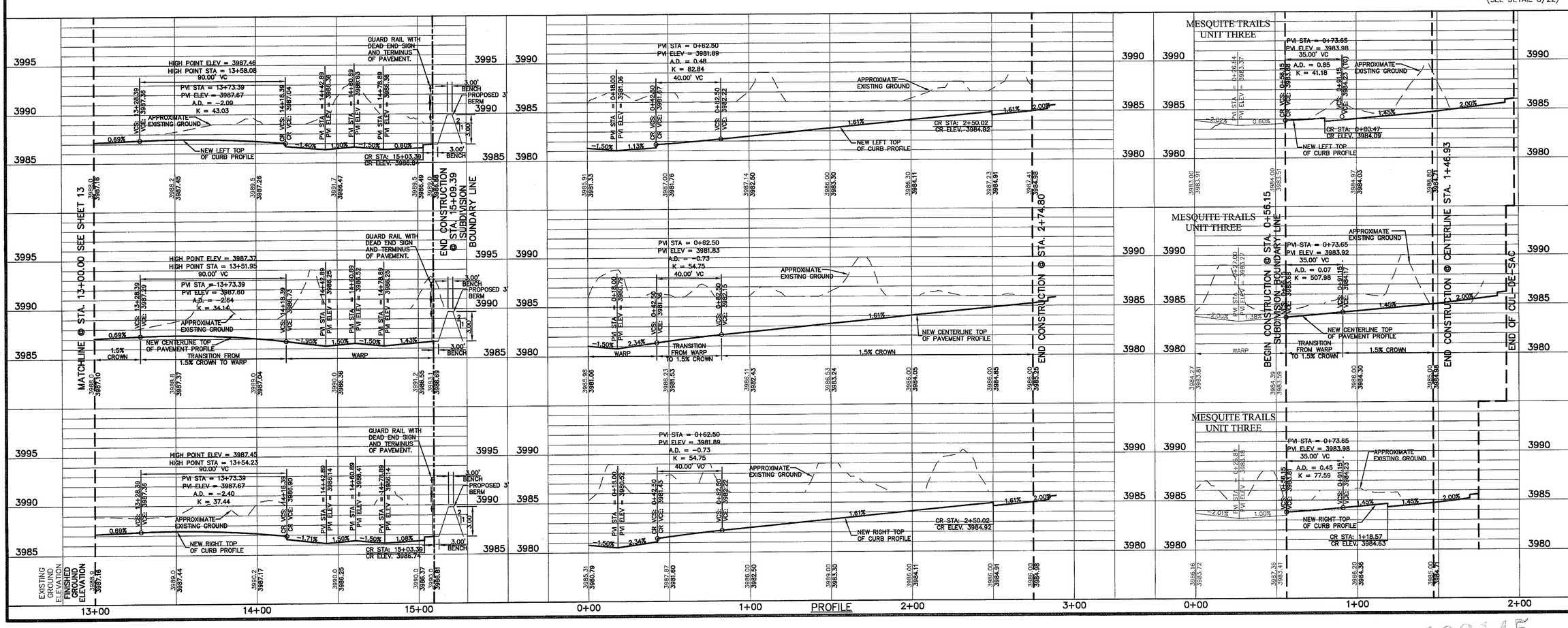


PLAN

LEGEND:

⊠ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



PROFILE

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. F-3864
STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER

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

DATE: OCTOBER, 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE
PASEO ROSANNIE AVE PLAN & PROFILE FROM STA. 13+00.00 TO STA. 15+09.39
RUSTIC BEND PLACE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 2+74.80
COZY EDGE WAY PLAN & PROFILE FROM STA. 0+56.50 TO STA. 1+46.93

SHEET NO.
14
OF 28

103145

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
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AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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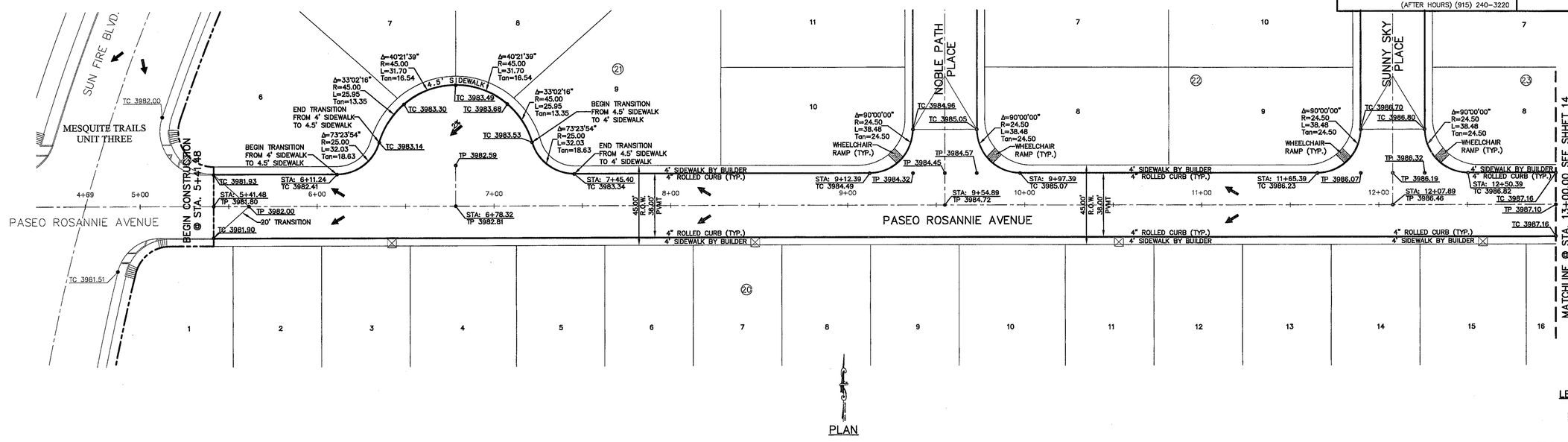
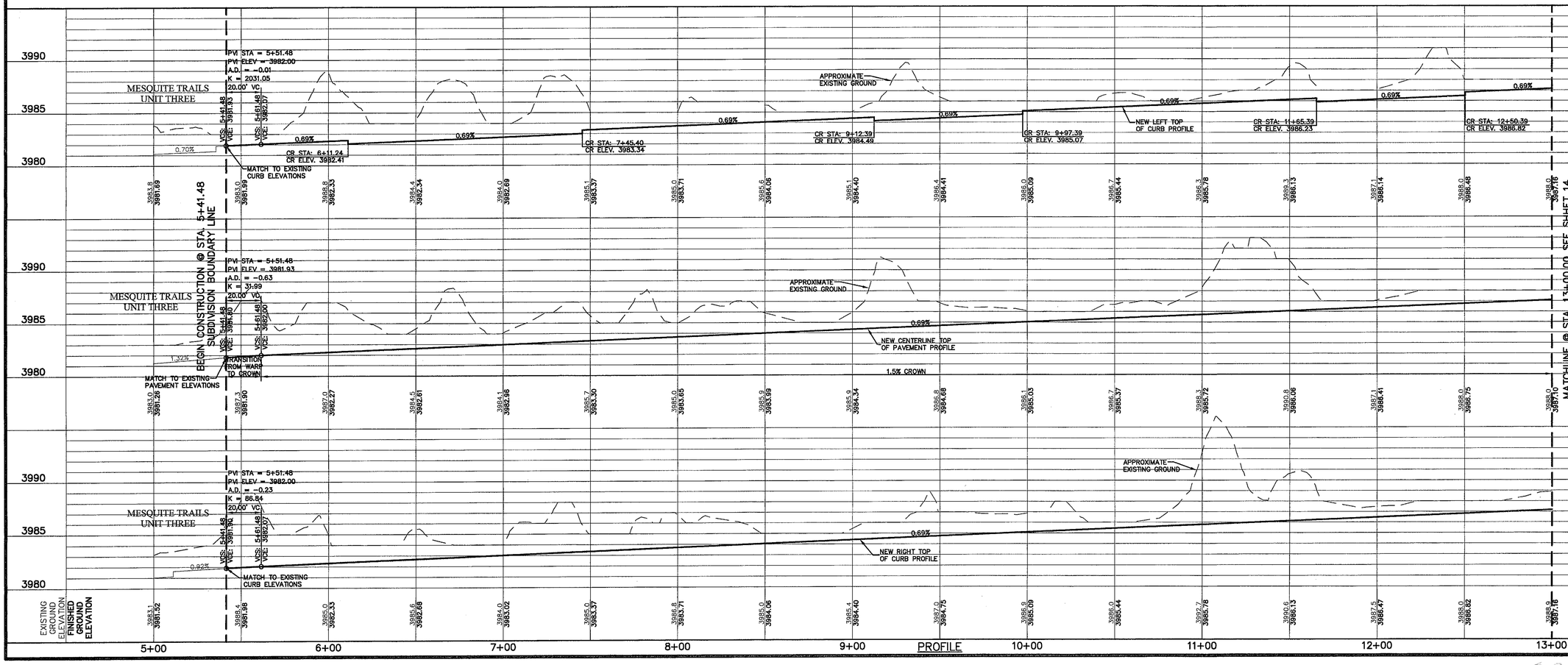
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



LEGEND:

⊠ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALTO AVENUE AND PASEO LINDO DRIVE ELEVATION = 4005.10 (CITY DATUM).

DATE	REVISIONS	BY

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4277 Westside Drive, El Paso, Texas 79903
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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. F-4564
STATE OF TEXAS
JORGE L. AZCARATE
85075
REGISTERED PROFESSIONAL ENGINEER
10/13/09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

PASEO ROSANNIE AVE PLAN & PROFILE FROM STA. 5+41.48 TO STA. 13+00.00

SHEET NO.

13

OF 28

103145

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) 852-3785
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

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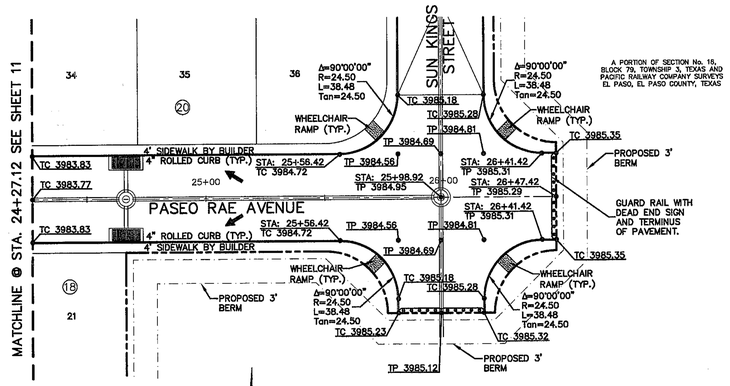
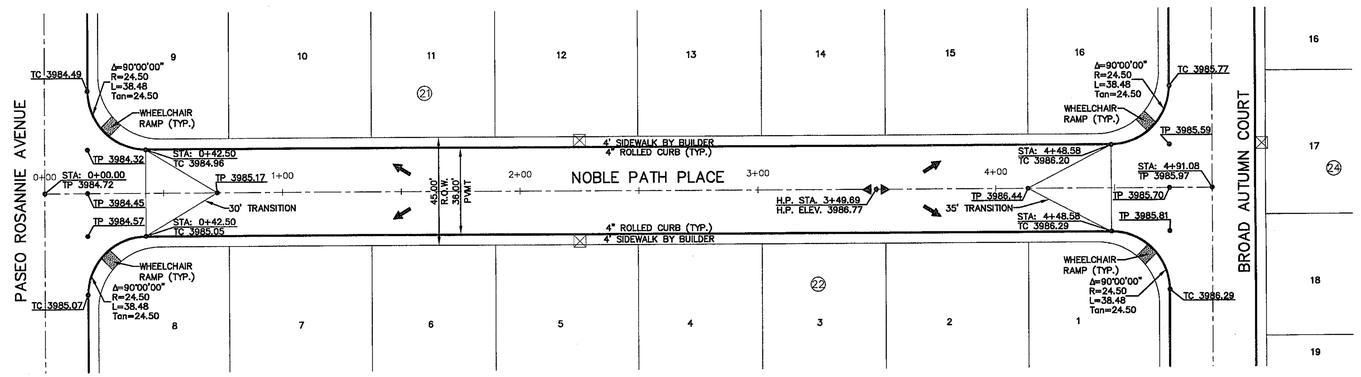
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES – BENCHMARKS

BENCHMARK A (S. CITY MONUMENT AT THE INTERSECTION OF PASEO ALTO STREET AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

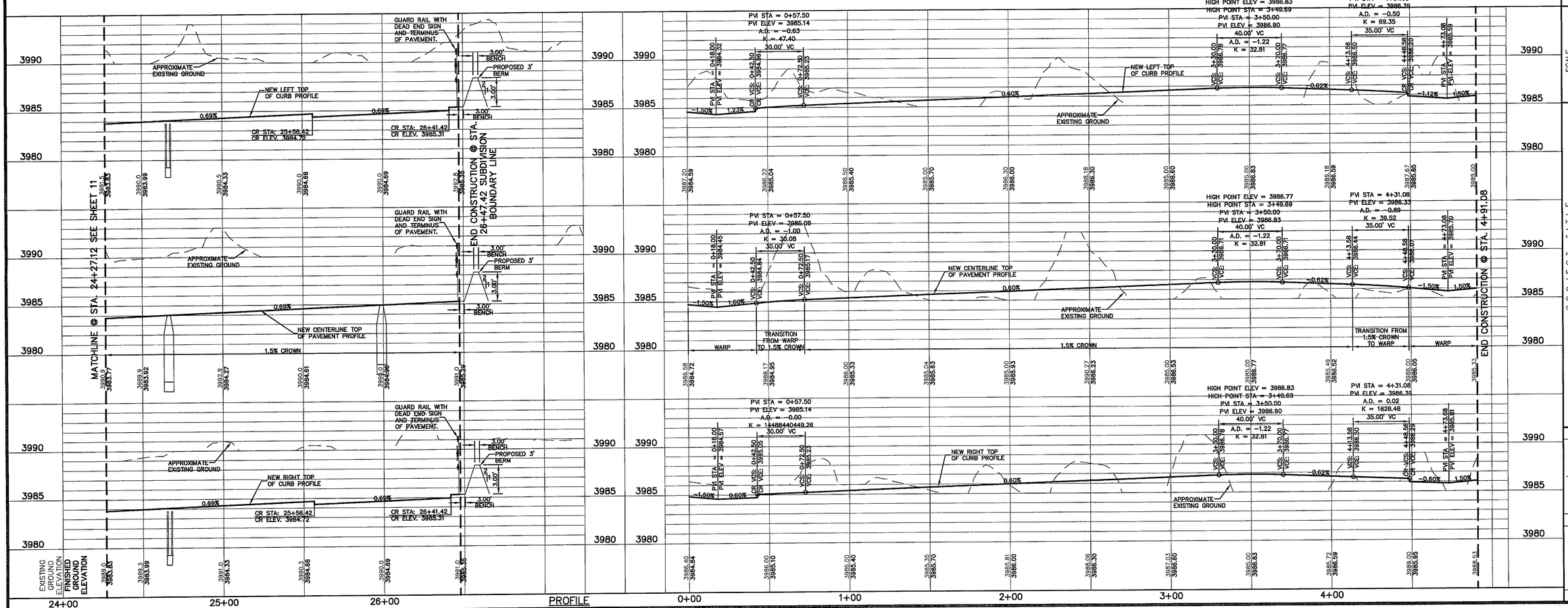
DATE	REVISIONS	BY





LEGEND:

⊠ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 4564
STATE OF TEXAS
JORGE L. VAZQUEZ
85075
REGISTERED PROFESSIONAL ENGINEER

SCALE
Horizontal: 1" = 30'
Vertical: 1" = 5'
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

PASEO RAE AVE PLAN & PROFILE FROM STA. 24+27.12 TO STA. 26+47.42

NOBLE PATH PLACE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+91.08

SHEET NO.

12

OF 28

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6440 Gateway East, El Paso, Texas 79905
Office: 915.544.5202 Fax: 915.544.5203 www.ceagroup.net

103145

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
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AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES – BENCHMARKS

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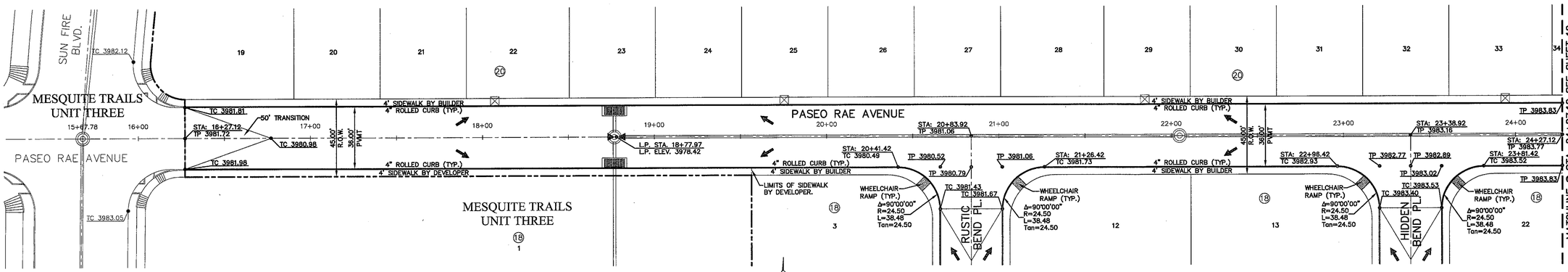
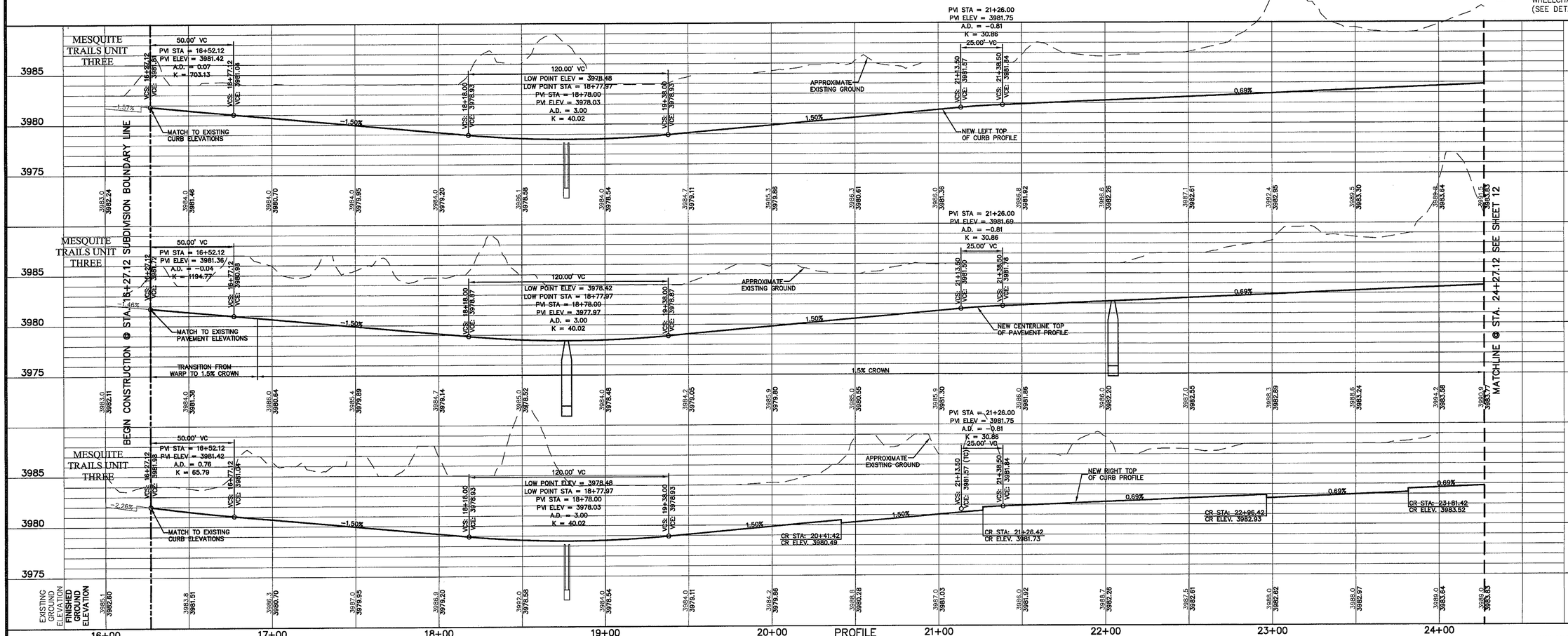
DATE	REVISIONS	BY



PLAN

LEGEND:

APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



PROFILE

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564

JORGE L. ACCARATE
85075
9/12/11

SCALE	
Horizontal:	1"=30'
Vertical:	1"=5'
Contour Interval:	N/A
DATE:	OCTOBER 2009
DESIGN BY:	F.Z.
DRAWN BY:	A.B.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.	2006-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

PASEO RAE AVE PLAN & PROFILE FROM STA. 16+27.12 TO STA. 24+27.12

SHEET NO.

11

OF 28

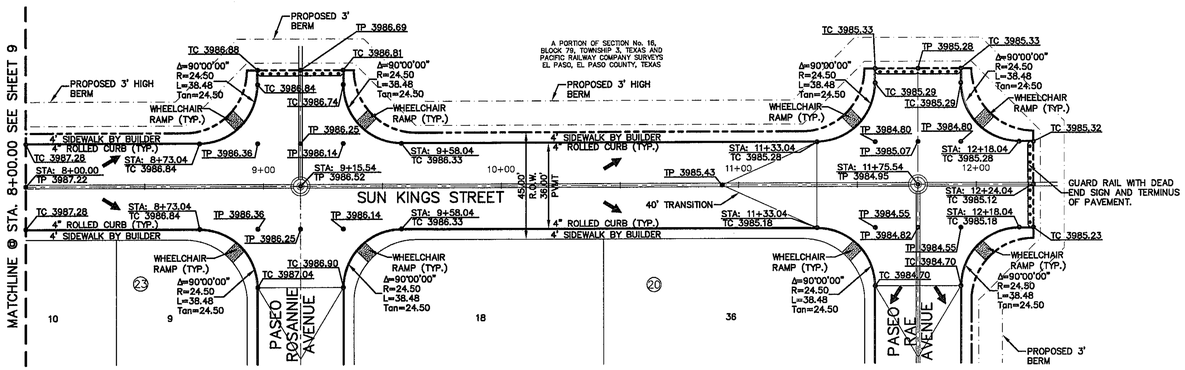
103145

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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

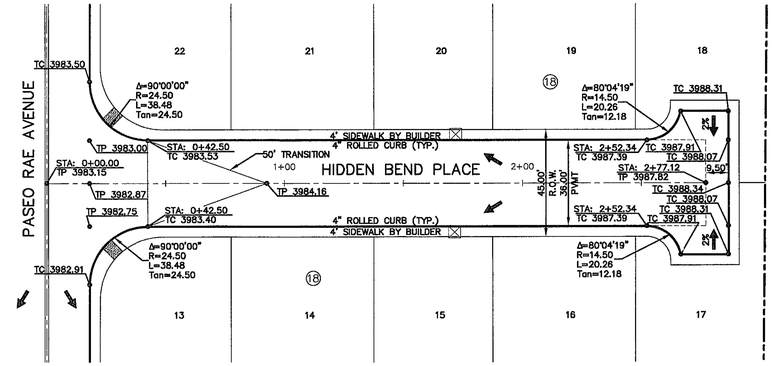
WARNING !
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS
BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY



PLAN

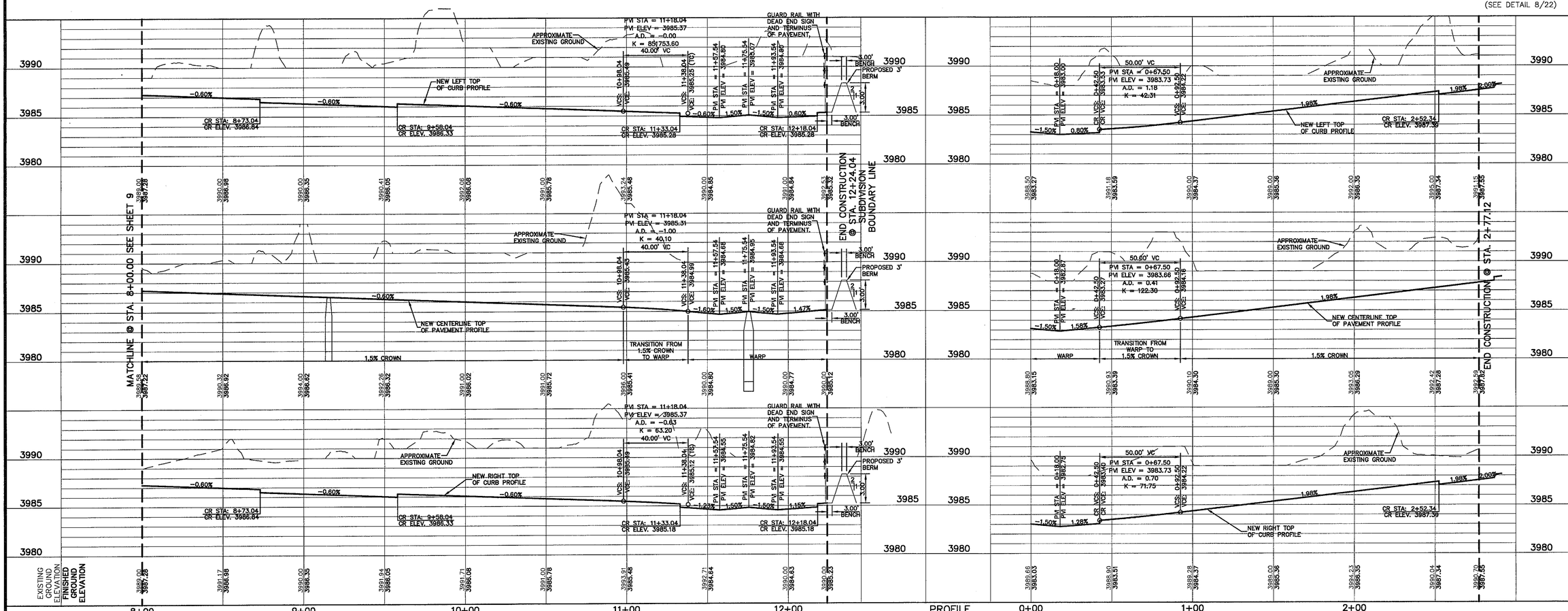


MESQUITE TRAILS
UNIT FOUR

PLAN

LEGEND:

☒ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



PROFILE

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 4564

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.ceagroup.net

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

SUN KINGS STREET PLAN & PROFILE FROM STA. 8+00.00 TO STA. 12+24.04

HIDDEN BEND PLACE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 2+77.12

SHEET NO.

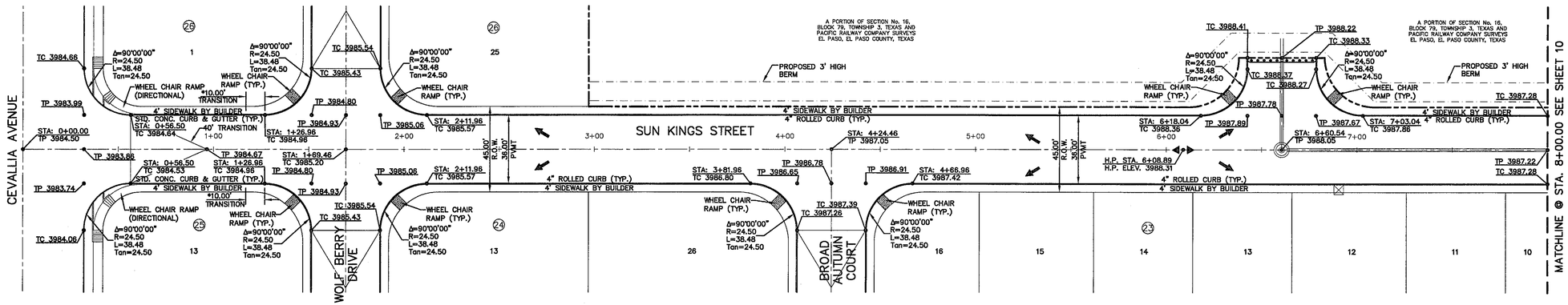
10

OF 28

103145

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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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



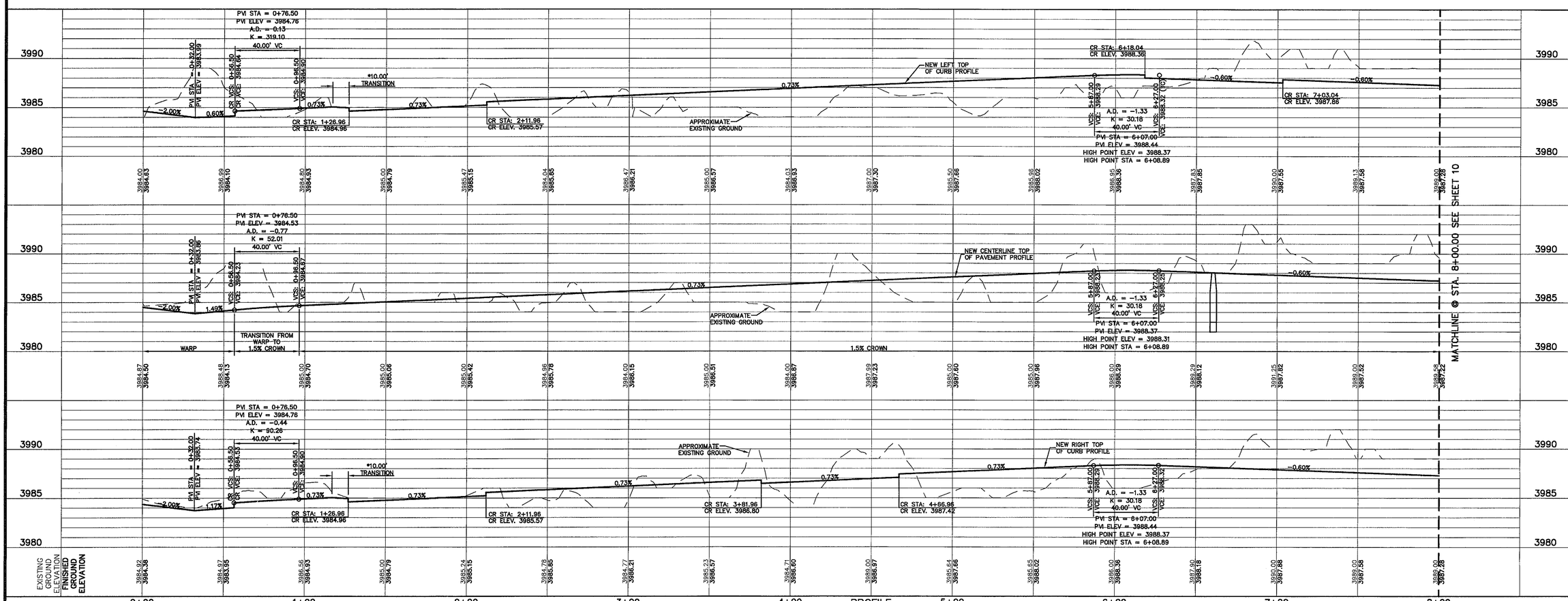
PLAN

LEGEND:

☒ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)

KEYED NOTE:

* TRANSITION FROM STD. CONC. CURB TO 4" ROLLED CURB



PROFILE

REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5202 Fax: 915.544.5203 www.ceagroup.net

ENGINEER'S SEAL, TEXAS FIRM REGISTRATION No. 4664
STATE OF TEXAS
85075
DANIEL L. MCKINNEY
LICENSED PROFESSIONAL ENGINEER
10/1/09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

SUN KINGS STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 8+00.00

SHEET NO.

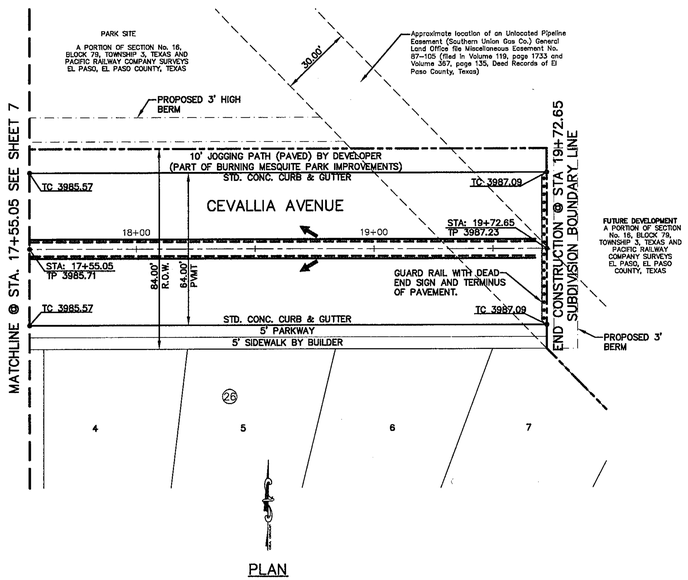
9

OF 28

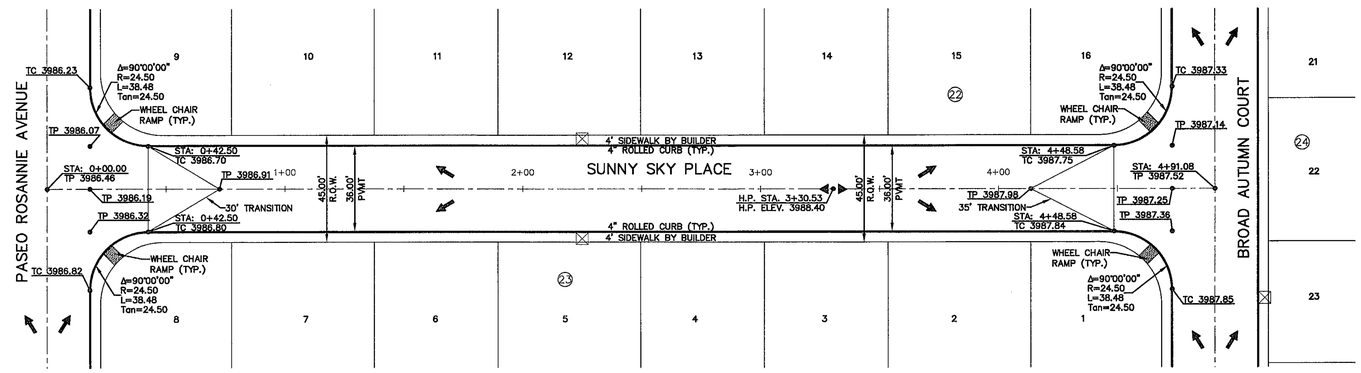
103145

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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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



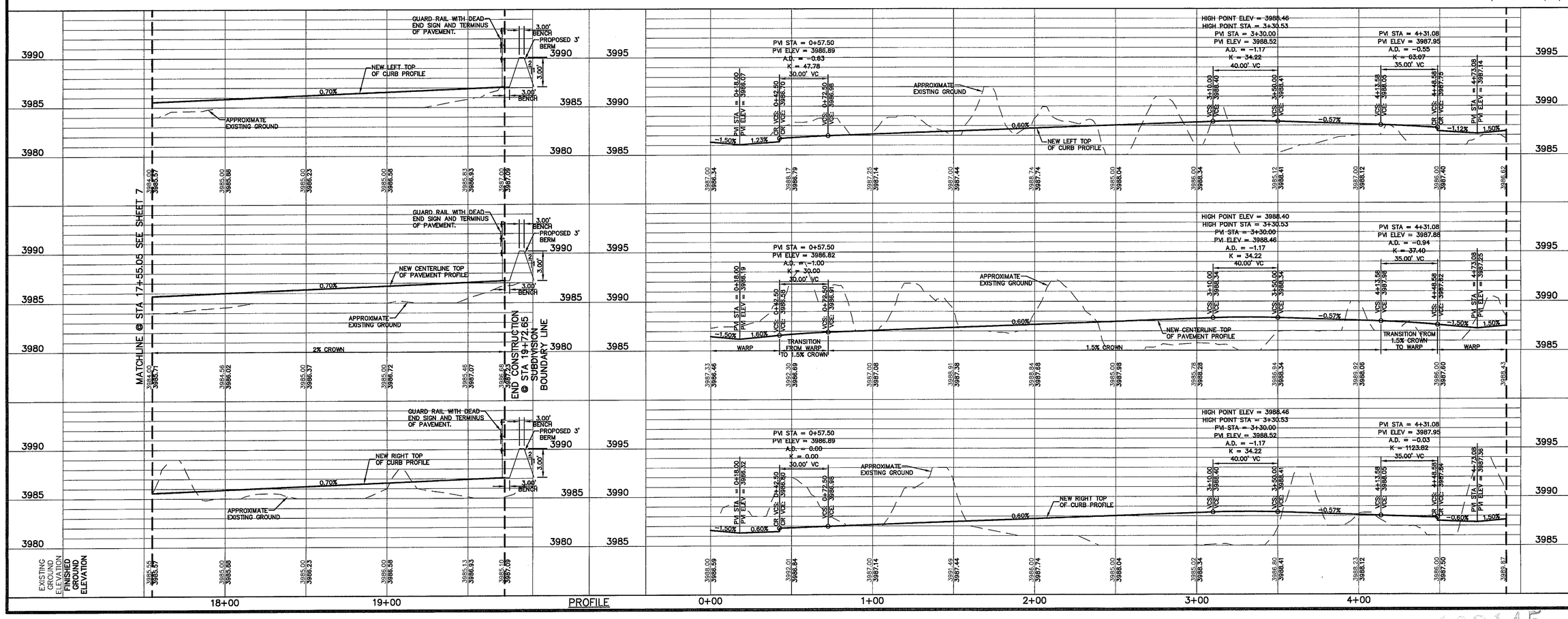
PLAN



PLAN

LEGEND:

⊠ APPROXIMATE 5' X 5' WHEELCHAIR PASSING (SEE DETAIL 8/22)



PROFILE

REFERENCES - BENCHMARKS

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DATE	REVISIONS	BY

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office 915.544.3232 Fax 915.544.3233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
85075 DANIEL L. KACHELL REGISTERED PROFESSIONAL ENGINEER 8/8/09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

CEVALLIA AVE PLAN & PROFILE FROM STA. 17+55.05 TO STA. 19+72.65

SUNNY SKY PLACE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+91.08

SHEET NO.

8 OF 28

103145

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
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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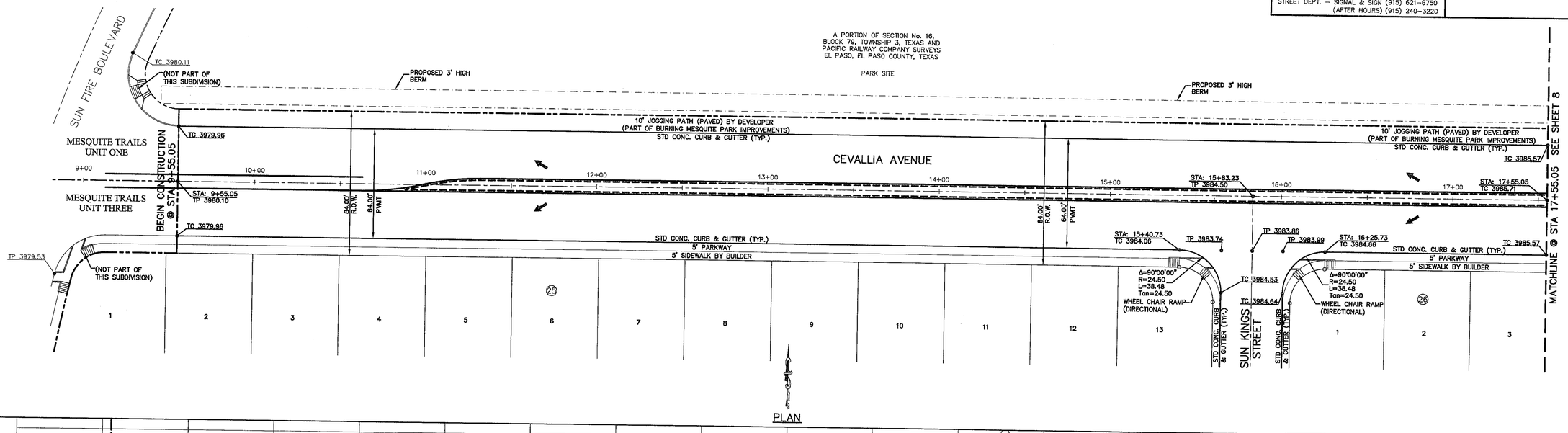
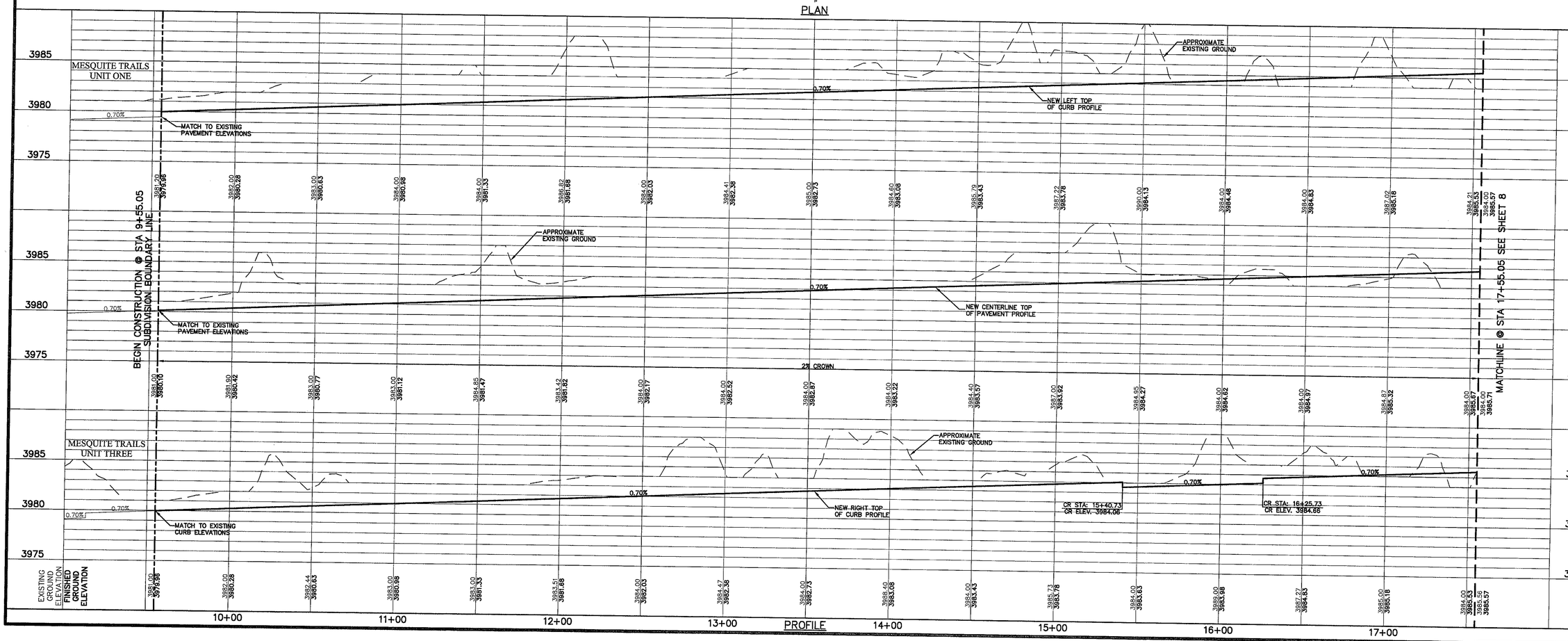
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES – BENCHMARKS
BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE
ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY





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4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5822 Fax: 915.544.5535 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. F-3544
STATE OF TEXAS
JORGE L. AZCARATE
85075
PROFESSIONAL ENGINEER
12/1/09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

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

SHEET TITLE
CEVALLIA AVE PLAN & PROFILE FROM STA. 9+55.05 TO STA. 17+55.05

SHEET NO.
7
OF 28

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
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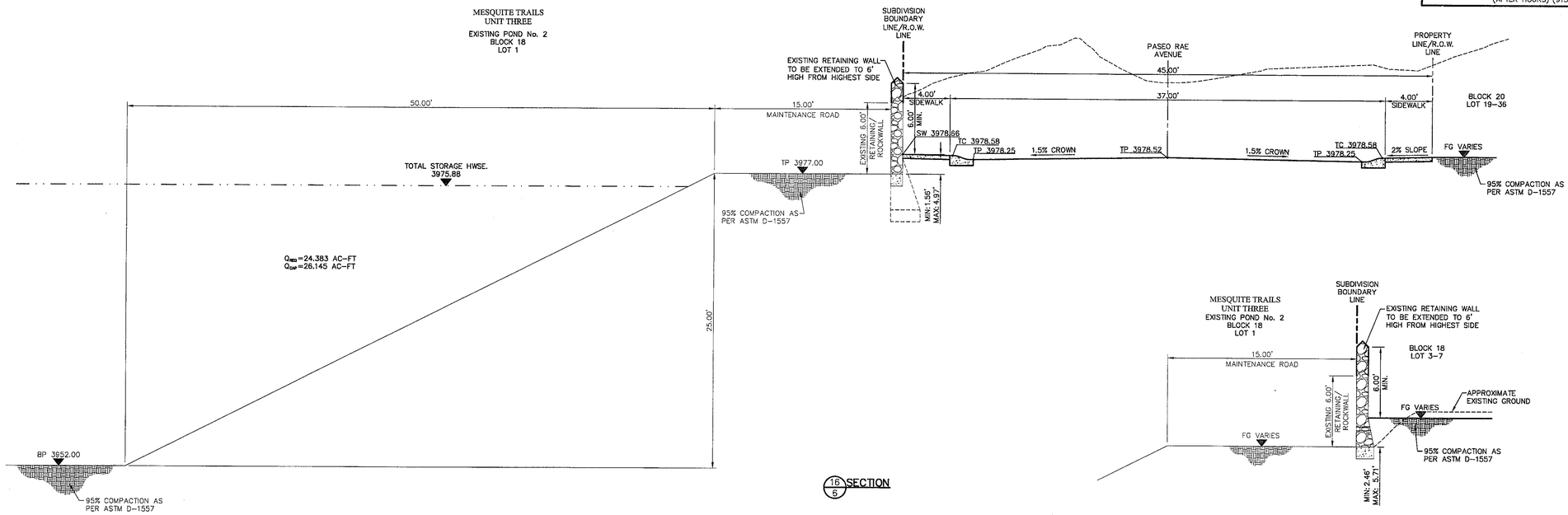
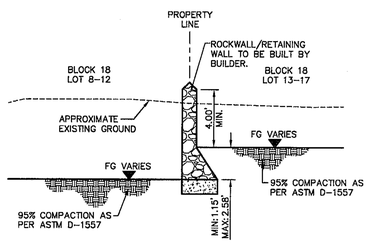
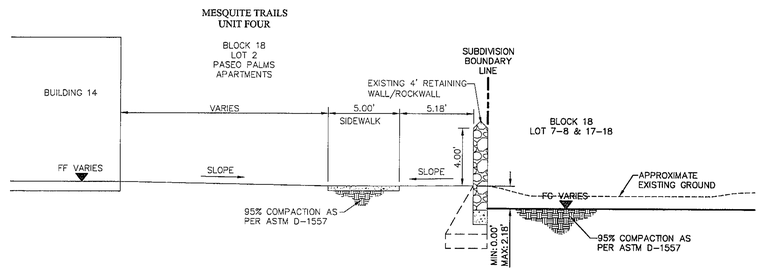
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

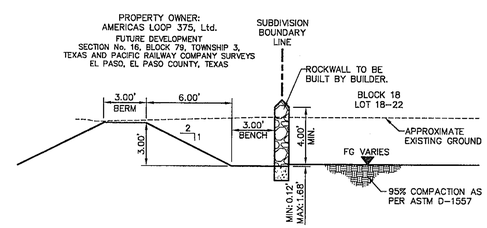
WARNING ! BEFORE YOU DIG

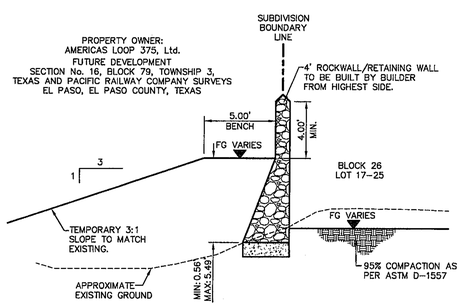
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

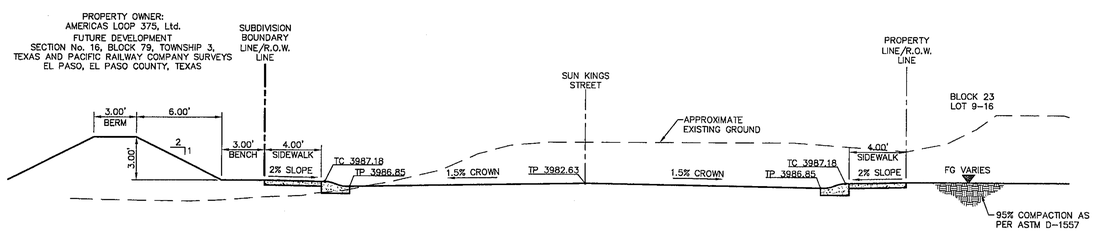


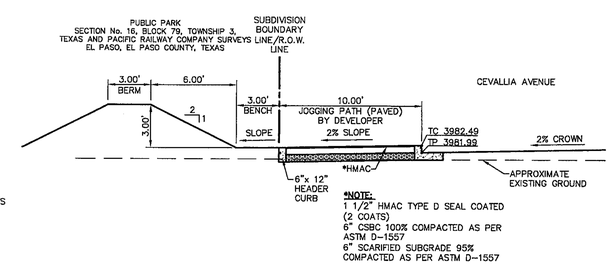












***NOTE:**
1 1/2" HMAC TYPE D SEAL COATED (2 COATS)
6" CSBC 100% COMPACTED AS PER ASTM D-1557
6" SCARIFIED SUBGRADE 95% COMPACTED AS PER ASTM D-1557

103145

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALTO CIRCLE AND PASEO LINDO DRIVE
ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5222 Fax: 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 3584
TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
7-1-09

SCALE
Horizontal: 1"=5'
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

TYPICAL GRADING SECTIONS

(SHEET 2 OF 2)

SHEET NO.

6

OF 28

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543–5720
EL PASO ENERGY CORPORATION	(915) 496–5244
EL PASO WATER UTILITIES	(915) 594–5500
MCI SURVEILLANCE	(800) MCI–WORK
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U.S. SPRINT TELECOMM	(800) 521–0579
STREET DEPT. – SIGNAL & SIGN	(915) 621–6750
(AFTER HOURS)	(915) 240–3220

WARNING ! BEFORE YOU DIG

CALL
1–800–DIG–TESS
1–800–344–8377
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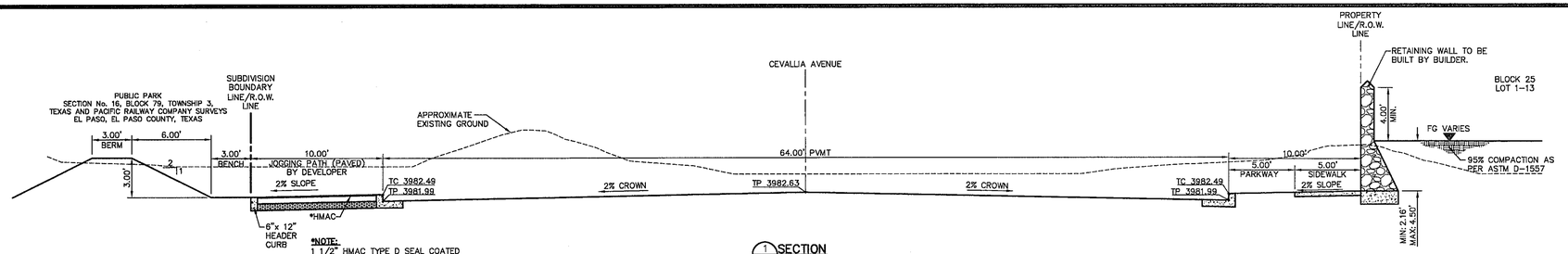
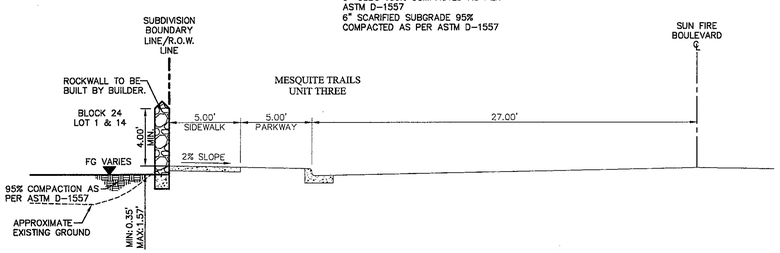


1/5 SECTION



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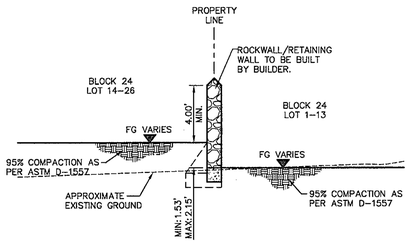

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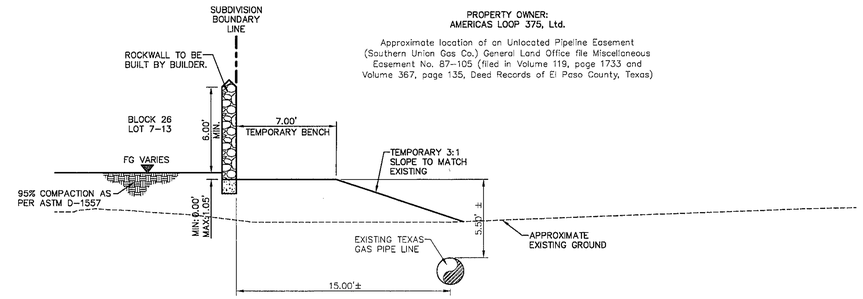

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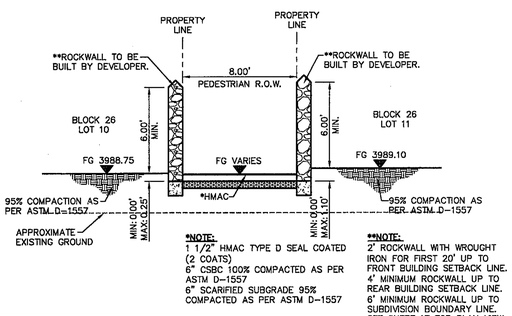
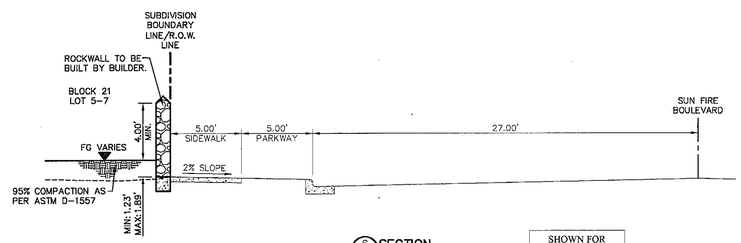


5/5 SECTION



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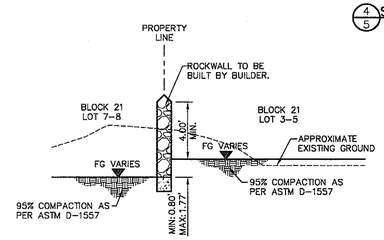
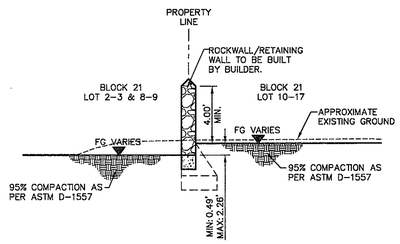
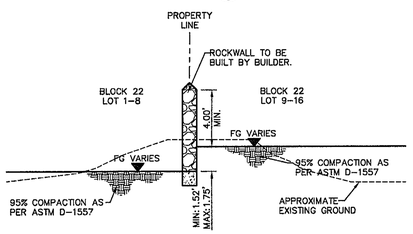


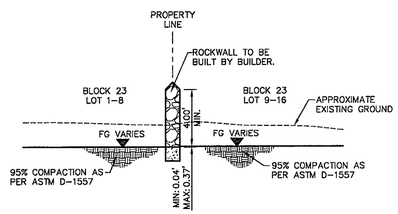
7/5 SECTION



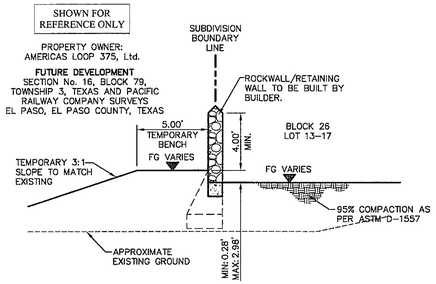
8/5 SECTION



9/5 SECTION



10/5 SECTION



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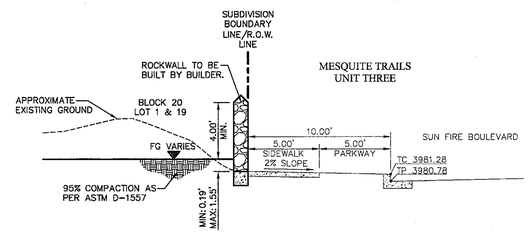

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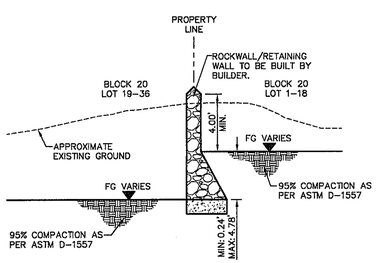
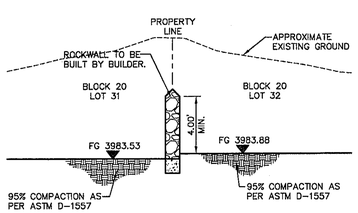
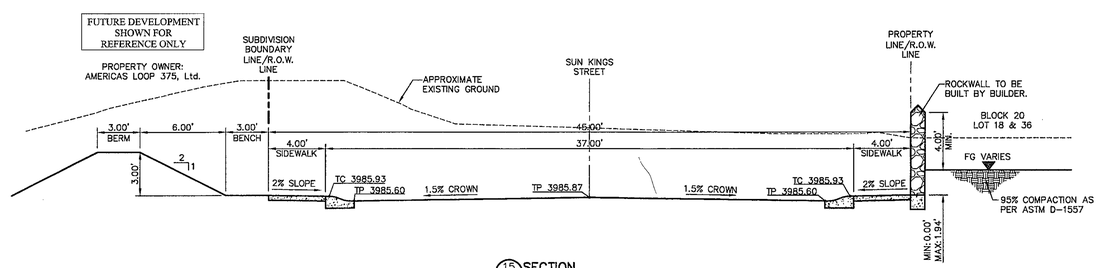


13/5 SECTION



14/5 SECTION



15/5 SECTION

103145

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 7284
STATE OF TEXAS
JOHN L. ACUAFRE
86075
LICENSED PROFESSIONAL ENGINEER
7/9/11

SCALE
Horizontal: 1"=5'
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000–099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

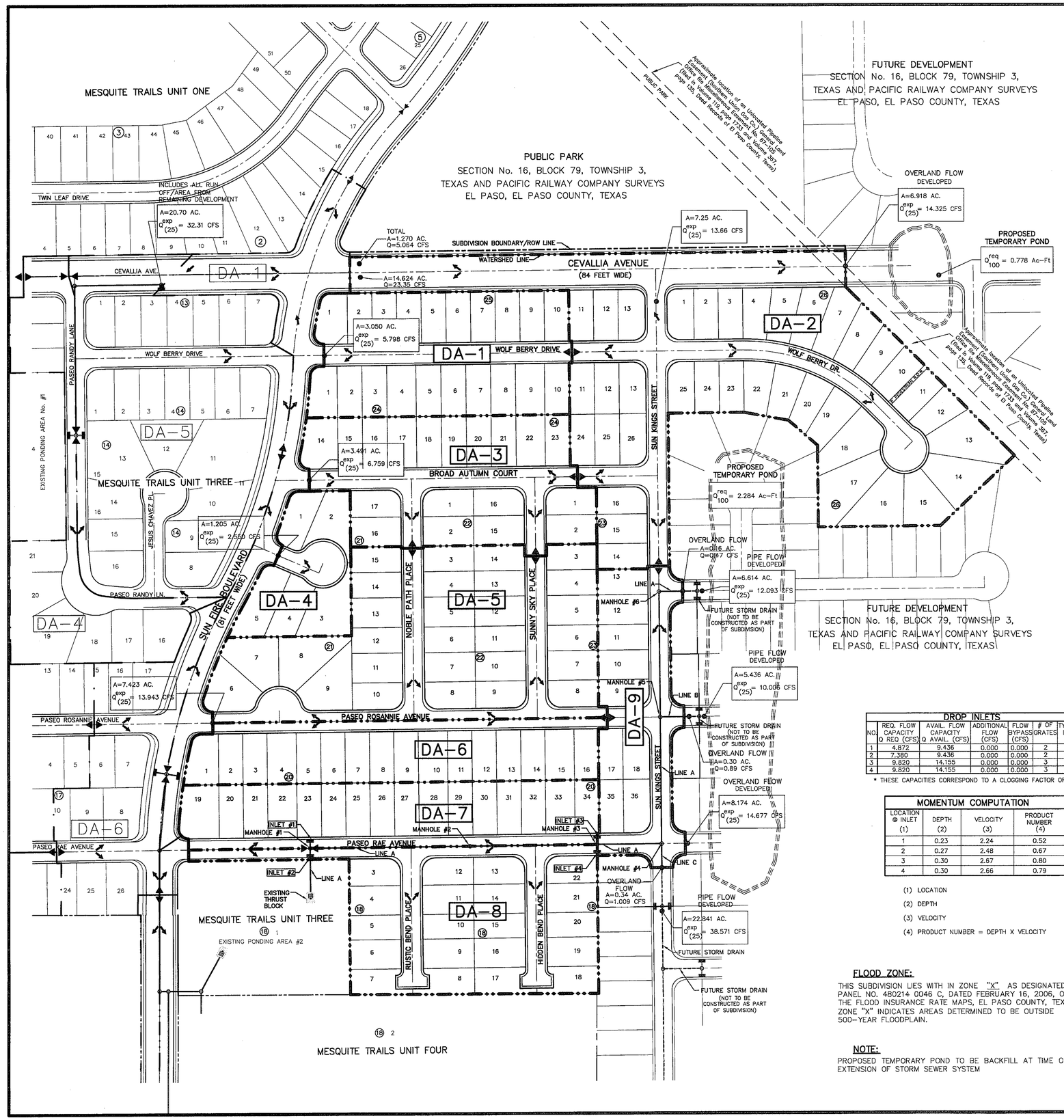
TYPICAL GRADING SECTIONS

(SHEET 1 OF 2)

SHEET NO.

5

OF 28



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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

EXISTING POND #1 CALCULATIONS

QT = (ARC)/12
QT = 10.972
A = 51.753
R = 4"
C = 0.636
QT X 25% = 2.743
10.972 + 2.743 = 13.715

SILT VOLUME = 0.621
0.012 AC-FT/AC
13.715 + 0.621 = 14.336 AC-FT

$TOTAL_{req}$ = 14.336 AC-FT

EXISTING RETENTION BASIN #1

BASIN NO.	REQUIRED CAPACITY (AC.-FT.)	AVAILABLE CAPACITY (AC.-FT.)	PEAK INFLOW (CFS)	OUTLET TOWER FLOW (CFS)	HIGH WATER SURFACE ELEV. (FT.)	BOTTOM ELEVATION	FREE BOARD (FT.)
1	14.336 (2)	15.728	93.575	0	3971.68± (2)	3948.75	1.070

NOTES FOR EXISTING POND #1:

1. THE HWSE REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO. THE HWSE DOES NOT INCLUDE 25% EMERGENCY STORAGE. HOWEVER, THE TOTAL POND CAPACITY SHALL HOLD TOTAL REQUIRED STORM WATER RUNOFF.
   HWSE = QT + SILT VOLUME
   HWSE = 10.972 + 0.621 = 11.593 AC-FT
   CONTOUR 3969.75, ACCUMULATED VOLUME = 12.029 AC-FT
   CONTOUR 3970.75, ACCUMULATED VOLUME = 13.195 AC-FT
   HIGH WATER SURFACE ELEVATION = 3970.01
2. THE TOTAL STORAGE HWSE REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO AND INCLUDES 25% EMERGENCY STORAGE.
   HWSE = QT + SILT VOLUME + 25% EMERGENCY STORAGE
   HWSE = 10.972 + 0.621 + 2.743 = 14.336 AC-FT
   CONTOUR 3970.75, ACCUMULATED VOLUME = 13.195 AC-FT
   CONTOUR 3971.75, ACCUMULATED VOLUME = 14.427 AC-FT
   HIGH WATER SURFACE ELEVATION = 3971.68

EXISTING POND#1 AREAS

CONTOUR	ACCUMULATED VOLUME (AC-FT.)
3972.75	15.728
3971.75	14.427
3970.75	13.195
3969.75	12.029
3968.75	10.927
3967.75	9.889
3966.75	8.913
3965.75	7.997
3964.75	7.139
3963.75	6.337
3962.75	5.591
3961.75	4.898
3960.75	4.257
3959.75	3.666
3958.75	3.123
3957.75	2.628
3956.75	2.177
3955.75	1.770
3954.75	1.404
3953.75	1.079
3952.75	0.793
3951.75	0.543
3950.75	0.329
3949.75	0.149
3948.75	0.000

EXISTING POND #2 CALCULATIONS

QT = (ARC)/12
QT = 18.696
A = 84.345
R = 4"
C = 0.665
QT X 25% = 4.674
18.696 + 4.674 = 23.370

SILT VOLUME = 1.012
0.012 AC-FT/AC
23.370 + 1.012 = 24.383 AC-FT

$TOTAL_{req}$ = 24.383 AC-FT

EXISTING RETENTION BASIN #2

BASIN NO.	REQUIRED CAPACITY (AC.-FT.)	AVAILABLE CAPACITY (AC.-FT.)	PEAK INFLOW (CFS)	OUTLET TOWER FLOW (CFS)	HIGH WATER SURFACE ELEV. (FT.)	BOTTOM ELEVATION	FREE BOARD (FT.)
1	24.383 (2)	26.145	129.712	0	3975.88± (2)	3952.00	1.120

NOTES FOR EXISTING POND #2:

1. THE HWSE REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO. THE HWSE DOES NOT INCLUDE 25% EMERGENCY STORAGE. HOWEVER, THE TOTAL POND CAPACITY SHALL HOLD TOTAL REQUIRED STORM WATER RUNOFF.
   HWSE = QT + SILT VOLUME
   HWSE = 18.696 + 1.012 = 19.708 AC-FT
   CONTOUR 3972, ACCUMULATED VOLUME = 18.746 AC-FT
   CONTOUR 3973, ACCUMULATED VOLUME = 20.1203 AC-FT
   HIGH WATER SURFACE ELEVATION = 3972.70
2. THE TOTAL STORAGE HWSE REFLECTS THE ELEVATION AS REQUIRED BY THE CITY OF EL PASO AND INCLUDES 25% EMERGENCY STORAGE.
   HWSE = QT + SILT VOLUME + 25% EMERGENCY STORAGE
   HWSE = 18.696 + 1.012 + 4.674 = 24.383 AC-FT
   CONTOUR 3975, ACCUMULATED VOLUME = 23.034 AC-FT
   CONTOUR 3976, ACCUMULATED VOLUME = 24.564 AC-FT
   HIGH WATER SURFACE ELEVATION = 3975.88

EXISTING POND#2 AREAS

CONTOUR	ACCUMULATED VOLUME (AC-FT.)
3977	26.145
3976	24.564
3975	23.034
3974	21.553
3973	20.120
3972	18.736
3971	17.399
3970	16.109
3969	14.865
3968	13.666
3967	12.511
3966	11.400
3965	10.332
3964	9.306
3963	8.321
3962	7.377
3961	6.473
3960	5.607
3959	4.780
3958	3.991
3957	3.238
3956	2.522
3955	1.840
3954	1.193
3953	0.580
3952	0.000

DROP INLETS

NO.	REQ. FLOW CAPACITY Q REQ (CFS)	AVAIL. FLOW CAPACITY Q AVAIL. (CFS)	ADDITIONAL FLOW (CFS)	FLOW BYPASS (CFS)	# OF GRATES	TYPE OF INLET
1	4.872	9.436	0.000	0.000	2	III
2	7.380	9.436	0.000	0.000	2	III
3	9.820	14.155	0.000	0.000	3	III
4	9.820	14.155	0.000	0.000	3	III

* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5

MOMENTUM COMPUTATION

LOCATION @ INLET (1)	DEPTH (2)	VELOCITY (3)	PRODUCT NUMBER (4)
1	0.23	2.24	0.52
2	0.27	2.48	0.67
3	0.30	2.67	0.80
4	0.30	2.66	0.79

(1) LOCATION
(2) DEPTH
(3) VELOCITY
(4) PRODUCT NUMBER = DEPTH X VELOCITY

WATERSHED AREAS

DRAINAGE AREA NO. (1)	DRAINAGE AREA (AC) (2)	DESIGN STORM INTENSITY (I25) (3)	TIME OF CONCENTRATION (4)	RUNOFF COEFF. (C) (5)	Q25 (CFS) (6)
DA-1	3.050	2.925	24.00	0.650	5.798
DA-2	8.993	2.672	28.08	0.717	17.229
DA-3	3.491	2.890	24.50	0.670	6.759
DA-4	1.205	3.256	19.70	0.650	2.550
DA-5	4.978	2.921	24.06	0.670	9.742
DA-6	2.445	2.846	25.20	0.651	4.523
DA-7	2.593	2.891	24.50	0.650	4.872
DA-8	3.693	2.939	23.80	0.680	7.380
DA-9	2.141	2.858	25.00	0.733	4.485

REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS (3-11-97)

(1) WATERSHED AREA IDENTIFICATION
(2) AREA FROM DRAINAGE PLAN
(3) RAINFALL INTENSITY, 25 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) Q_{25}= C X A X I_{25}

FLOOD ZONE:

THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480214 0046 C, DATED FEBRUARY 16, 2006, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

NOTE:

PROPOSED TEMPORARY POND TO BE BACKFILL AT TIME OF EXTENSION OF STORM SEWER SYSTEM

DRAINAGE PLAN

SCALE: 1" = 100'

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5232 Fax: 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
JORGE L. AZCARATE
85075
12/6/11

SCALE
Horizontal: 1" = 100'
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: F.Z.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

DRAINAGE PLAN

SHEET NO.

4

OF 28

103145

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
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STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

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1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

NOTES:

1. RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2-FEET.
2. SLOPED AREAS SHALL BE MAINTAINED BY THE PROPERTY OWNERS.
3. ALL RETAINING WALLS NOT SPECIFIED TO BE CONSTRUCTED BY DEVELOPER, SHALL BE BUILT BY BUILDER.
4. RETAINING WALL DESIGN REQUIRED AT THE TIME OF BUILDING PERMIT.
5. DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 (EXCESSIVE PAVING CUTS) OF THE EL PASO MUNICIPAL CODE.
6. IMPROVEMENTS SHALL NOT BE PLACED ON SIDEWALK (NDBCU's, SIGNS, POLES, FIRE HYDRANTS, ETC.) REFER TO STANDARD DETAILS SHEET FOR SPECIFICATIONS.
7. IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A. STANDARDS REFER TO DETAIL 8-22 FOR PASSING SPACE DETAIL.
8. WHEELCHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS.
9. MAINTENANCE OF BASINS, SLOPED AREAS, FENCING AND LOOSE ROCK RIP-RAP OUTSIDE SUBDIVISION BOUNDARIES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER UNTIL ADJACENT SUBDIVISIONS ARE FULLY DEVELOPED AND DEDICATED TO THE CITY OF EL PASO FOR MAINTENANCE.
10. TEMPORARY BERMS SHALL BE CONSTRUCTED AS SHOWN ON THE GRADING PLAN. THE HEIGHT OF THE BERM SHALL BE 3-FEET.

BENCHMARK

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

FLOOD ZONE:

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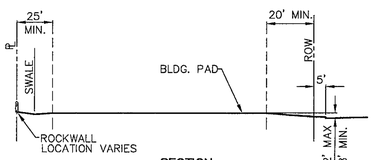
LEGEND:

NEW RETAINING ROCKWALL (2'-3' IN HEIGHT)
NEW RETAINING ROCKWALL (3'-9' IN HEIGHT)
EXISTING FLOW DIRECTION



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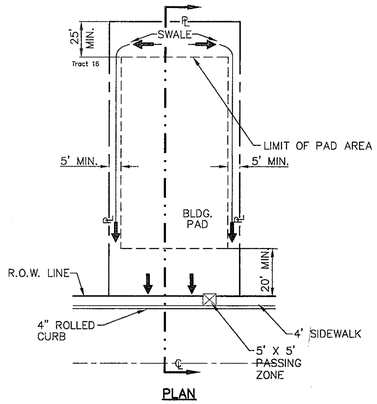

PLAN

TYPICAL LOT PLAN
SCALE: 1"=30'

GRADING PLAN
SCALE: 1" = 100'

REFERENCES - BENCHMARKS

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4984
JOHN L. ALCARAZ
85075
LICENSED
PROFESSIONAL ENGINEER
7-17-07

SCALE
Horizontal: 1" = 100'
Vertical: N/A
Contour Interval: N/A
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DESIGN BY: F.Z.
DRAWN BY: F.Z.
CHKD. BY: J.L.A.
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PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

GRADING PLAN

SHEET NO.

3

OF 28

103145

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS.
2. CONTRACTOR SHALL WATER CONSTRUCTION AREA A MINIMUM OF TWICE A DAY TO KEEP DUST TO A MINIMUM – ONCE IN THE MORNING AND BEFORE QUITTING TIME. THIS SHALL ALSO BE DONE DURING WEEKENDS AND HOLIDAYS.
3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, PROTECT, AND REPLACE ALL UNDERGROUND UTILITY LINES AT NO EXTRA COST TO THE OWNER WHEN LINES ARE DISTURBED AS A RESULT OF THE WORK.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM HIS WORK SO AS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF HIS OPERATIONS. ALL LABOR, TOOLS, EQUIPMENT, AND SUPERVISION REQUIRED TO ASSURE SUCH PROPER PASSAGE OF RUNOFF WATER AND ANY REMOVAL OR HANDLING OF WATER IN ORDER TO MAINTAIN DRY CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE USER, ALL UTILITIES, AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT.
6. ALL EXISTING PAVEMENT, ADJACENT UTILITIES, STRUCTURES, ETC., DISTURBED AS A RESULT OF THE NEW CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. THE OWNER WILL FURNISH HORIZONTAL AND VERTICAL CONTROL REFERENCED POINTS ONLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES BEFORE PROCEEDING WITH THE WORK. ANY DISCREPANCIES FOUND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THEIR CORRECTNESS.
8. SEE REFERENCED BENCHMARK ON TITLE BLOCK FOR DATUM ELEVATIONS.
9. VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE ENGINEER.
10. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.
11. THE LOCATION OF THE INLETS SHALL BE AT THE FIELD LOW POINT AND APPROVED BY THE ENGINEER.

LEGEND

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

GRADING SPECIFICATIONS

1. CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTUDING THROUGH GROUND SURFACE; FILL DEPPRESIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL, UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED; REMOVE EXISTING ABOVE–GRADE AND BELOW–GRADE IMPROVEMENTS AS INDICATED AND AS NECCESSARY TO FACILITATE NEW CONSTRUCTION. BURNING IS NOT PERMITED ON OWNER'S PROPERTY. REMOVE WASTE MATERIALS FROM OWNER'S PROPERTY.
2. SATISFACTORY FILL MATERIALS: FILL MATERIALS SHALL BE FREE OF ANY ORGANIC OR DELETERIOUS SUBSTANCE AND SHALL NOT CONTAIN ROCKS OR LUMPS OVER 3 INCHES IN GREATEST DIMENSION AND SHALL BE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP,GM, GC, SM, SP, SM, AND SC.
3. UNSATISFACTORY FILL MATERIAL: ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS ML, MH, CL, CH, OL, OH, AND PT, OR WHERE THE PLASTICITY INDEX EXCEEDS 12, UNLESS OTHERWISE APPROVED BY ENGINEER, M.U.D. ENGINEER OR COUNTY ENGINEER.
4. EXCAVATION: IS UNCLASSIFIED AND INCLUDES EXCAVATION TO ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIAL AND OBSTRUCTIONS ENCOUNTERED.
5. GROUND SURFACE PREPARATION FOR FILL: REMOVE VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIAL, OBSTRUCTIONS, AND DELETERIOUS MATERIAL FROM GROUND SURFACE UPON WHICH THE FILL IS TO BE PLACED. THE SURFACE SHALL THEN BE SCARIFIED TO A DEPTH OF AT LEAST 6–INCHES, AND UNTIL THE SURFACE IS FREE FROM RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH WOULD PREVENT UNIFORM COMPACTION. PLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE. AFTER PLOWING AND SCARIFYING FILL AREA, IT SHALL THEN BE DISCED OR BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS, BROUGHT TO OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D–1557.
6. PLACEMENT OF FILL: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND–OPERATED TAMPERS. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. PLACE FILL MATERIALS EVENLY ADJACENT TO SITE APPURTENANCES, PIPING, OR CONDUIT TO REQUIRED ELEVATIONS. PREVENT WEDGING ACTION OF BACKFILL AGAINST SITE APPURTENANCES OR DISPLACEMENT OF PIPING OR CONDUIT BY CARRYING MATERIAL UNIFORMLY AROUND SITE APPURTENANCES, PIPING, OR CONDUIT TO APPROXIMATELY SAME ELEVATION IN EACH LIFT. COMPACT SOIL TO NOT LESS THAN 95% OF MAXIMUM DENSITY, IN ACCORDANCE WITH ASTM D1557.
7. MOISTURE CONTROL: WHERE SUBGRADE OR LAYER OF SOIL MATERIAL MUST BE CONDITIONED FOR OPTIMUM MOISTURE BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUBGRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. WATER CONTENT SHALL BE WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY.
8. QUALITY CONTROL: THE OWNER SHALL PROVIDE A GEOTECHNICAL ENGINEER TO PERFORM FIELD DENSITY TEST OF THE COMPACTION OF EACH LAYER OF FILL. DENSITY TESTS SHALL BE TAKEN IN THE COMPACTED MATERIAL BELOW THE DISTURBED SURFACE. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL TESTING AND WHEN REQUIRED DENSITIES ARE NOT MET, SUPERVISION BY THE GEOTECHNICAL ENGINEER DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

ABBREVIATIONS

LP	LOW POINT
HP	HIGH POINT
ELEV	ELEVATION
STA	STATION
VCS	VERTICAL CURVE STATION
VCE	VERTICAL CURVE ELEVATION
TC	TOP OF CURB
TM	TOP OF MEDIAN
TP	TOP OF PAVEMENT
TYP	TYPICAL
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
AD	ALGEBRAIC DIFFERENCE
CR	CURVE RETURN
ROW	RIGHT OF WAY
CL	CENTER LINE
PL	PROPERTY LINE
FG	FINISH GRADE
FF	FINISH FLOOR
EG	EXISTING GRADE
MIN.	MINIMUM
MAX.	MAXIMUM
RCP	REINFORCED CONCRETE PIPE
Q	QUANTITY
CAP	CAPACITY
EXP	EXPECTED
INV	INVERT
CFS	CUBIC FEET PER SECOND
A	AREA
DA	DRAINAGE AREA
LF	LINEAR FEET
STD	STANDARD
CONC	CONCRETE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
L	LENGTH
R	RADIUS
T	TANGENT
Δ	DELTA ANGLE
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HWE	HIGH WATER ELEVATION

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
STREET DEPT. – SIGNAL & SIGN	(915) 621–6750
(AFTER HOURS)	(915) 240–3220

WARNING ! BEFORE YOU DIG

CALL
1–800–DIG–TESS
1–800–344–8377
FOR FIELD LOCATING EXISTING UTILITIES

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103145

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
JORGE L. ACCARATE
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LICENSED PROFESSIONAL ENGINEER
10/23/09

SCALE
Horizontal: N/A.
Vertical: N/A.
Contour Interval: N/A.
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000–099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

GENERAL INFORMATION

SHEET NO.

1

OF 28

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

BEING A PORTION OF SECTION No. 16, BLOCK 79, TOWNSHIP 3, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, EL PASO, EL PASO COUNTY, TEXAS CONTAINING 32.810± ACRES

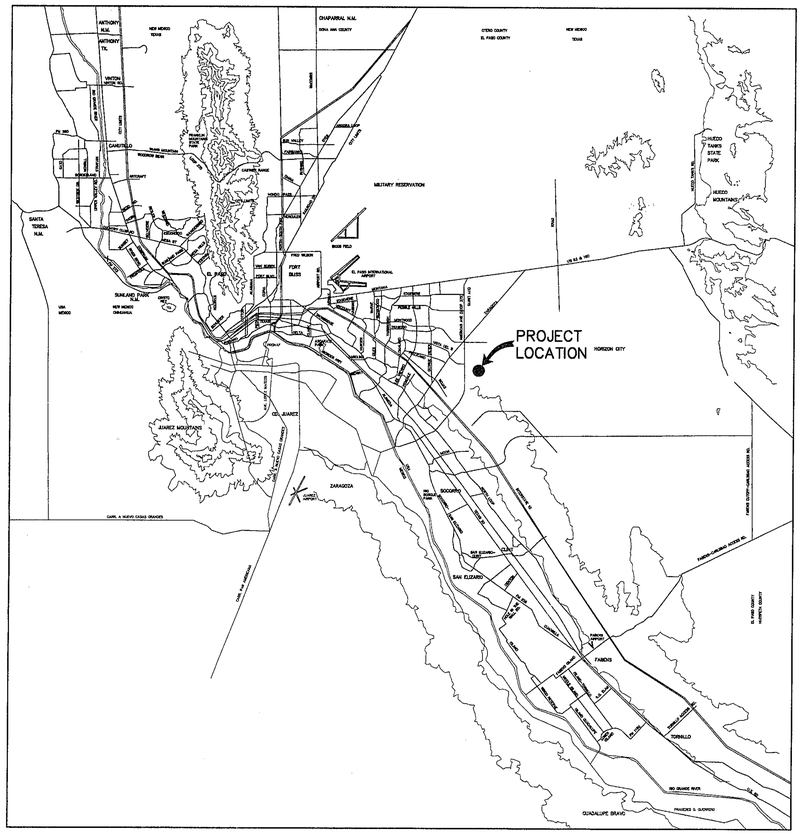
DEVELOPMENT SERVICES DEPARTMENT

SITE PLAN REVIEW
Reviewed For Conformance For Conditions Related To:

- Demolition Only
- Grading & Drainage
- Wheelchair Ramps
- On Site Parking Layout
- Sidewalks
- Driveways
- Retaining Rock Walls
- On-Site Ponding of Storm Waters

Contractor Must Call 24 Hours Prior To Construction For Inspection

BY: [signature] DATE: 1-13-10



VICINITY MAP
APPROXIMATE SCALE: 1" = 2 MILES

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2	PLAT
3	GRADING PLAN
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5,6	GRADING SECTIONS
7-17	STREET PLAN & PROFILES
18,19	STORM DRAIN PLAN & PROFILES
20-22	STANDARD DETAILS
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SS-1	SANITARY SEWER INDEX
SS-2 - SS-6	SANITARY SEWER PLAN & PROFILES
SS-7 - SS-9	SANITARY SEWER DETAILS

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER

JORGE L. AZCARATE, P.E. PROJECT MANAGER

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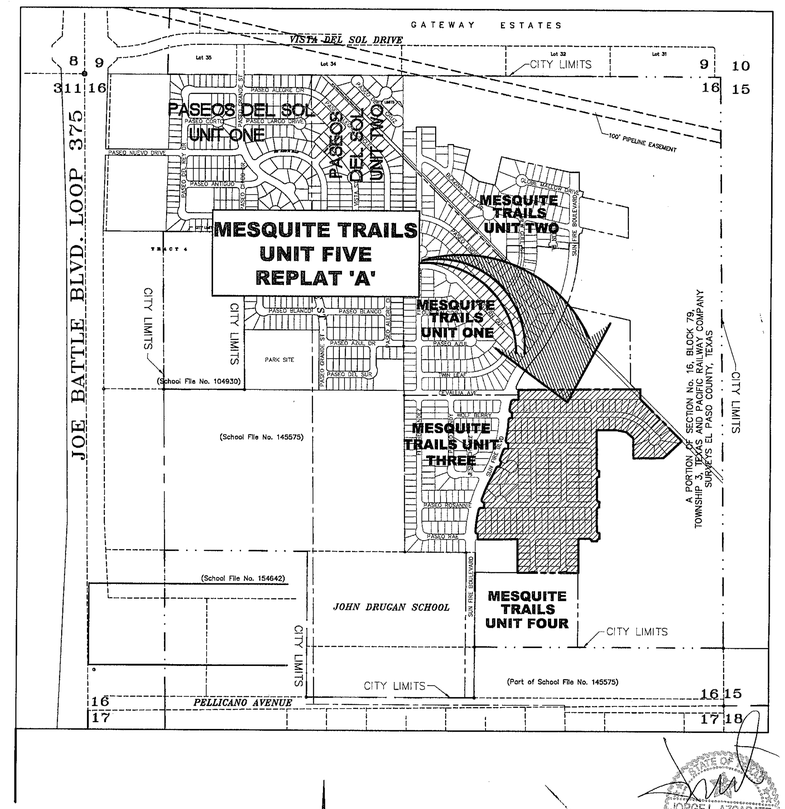
TEXAS FIRM REGISTRATION NO. 4564



LOCATION MAP
APPROXIMATE SCALE: 1" = 600'

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER

PRINCIPAL CONTACTS:

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

MESQUITE TRAILS UNIT FIVE REPLAT 'A'

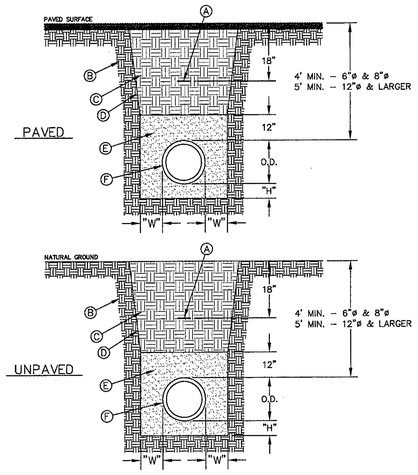
COVER SHEET

DATE PREPARED	DRAWN BY:	DESIGN BY:	CHECKED BY:	APPROVED BY:
OCTOBER 2009	A.B.	F.Z.	J.L.A.	J.L.A.

REVISION NUMBER	SHEET NAME OR NUMBER	DESCRIPTION OF REVISION	DATE OF REVISION	REVISION APPROVED BY:

103145

OCTOBER 2009



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

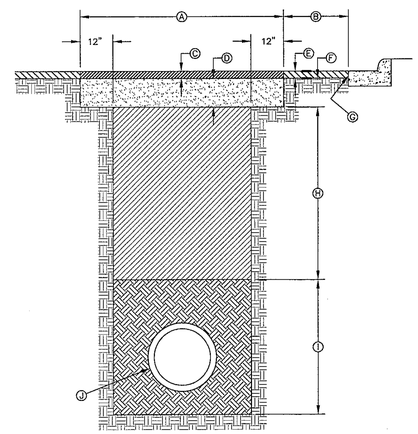
CONSTRUCTION KEY NOTES:
A. APPROVED MARKING TAPE.
B. UNDISTURBED STABLE MATERIAL.
C. NATIVE MATERIAL BACKFILL.
PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D-1557 MODIFIED PROCTOR.
(*SEE NOTE #3 IF THESE PREVIOUS CONDITIONS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

PIPE DIAMETER	"H"
8" – 30"	4"
GREATER THAN 30"	6"

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

STANDARD DETAIL	DATE: 4/24/2007 REV: 6/24/2008	EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 171

1 SS-9 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE
SCALE: N.T.S.

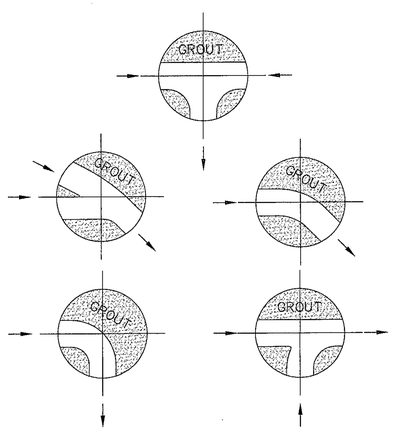


GENERAL NOTES:
1. ALL ASPHALT CUTS MUST BE SAW CUT.
2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.

CONSTRUCTION KEY NOTES:
A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.
B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3' OF SAW CUT EDGE, CONTRACTOR SHALL REMOVE & REPLACE EXISTING HMAC IN THIS AREA.
C. 2" ASPHALT MIN.
D. 6" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y.).
E. EXISTING HMAC-THICKNESS MAY VARY.
F. EXISTING BASE COURSE-THICKNESS MAY VARY.
G. EXISTING GUTTER FACE, EDGE OF PAVEMENT OR BEGINNING OF SHOULDER.
H. BACKFILL DEPTH VARIES, REFER TO REQUIREMENTS LISTED IN EMBEDMENT DETAILS (DETAIL 171 THRU DETAIL 173).
I. PIPE BEDDING AS SPECIFIED, REFER TO APPROPRIATE EMBEDMENT DETAIL (DETAIL 171 THRU DETAIL 173).
J. APPROVED PIPE.

STANDARD DETAIL	DATE: 10/1992 REV: 6/26/2008	PAVEMENT REPLACEMENT N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 179

2 SS-9 PAVEMENT REPLACEMENT DETAIL
N.T.S.



3 SS-9 TYPICAL INVERT PLANS
SCALE: N.T.S.

REFERENCES – BENCHMARKS
BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
JORGE L. AZCARATE
85075
9/12/01

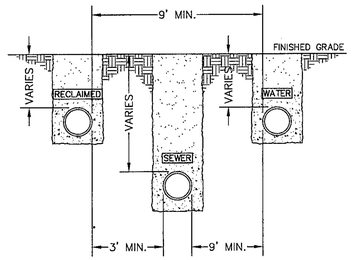
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

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

SHEET TITLE
SANITARY SEWER DETAILS (SHEET 3 OF 3)

SHEET NO.
SS-9

103145

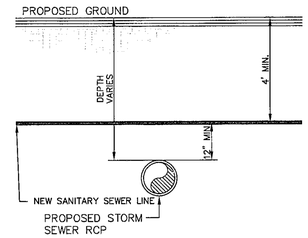


SECTION

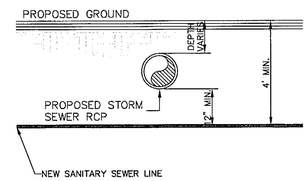
GENERAL NOTES:
1. SEPARATION DISTANCES SHALL FOLLOW TEXAS COMMISSION ON ENVIRONMENTAL QUALITY STANDARD REQUIREMENTS.
2. MINIMUM SEPARATION DISTANCES SHOWN. IF CONDITIONS DO NOT ALLOW FOR INDICATED DISTANCES REFER TO DETAILS 161, 162 & 163.
3. RECLAIMED WATER LINE AT OR ABOVE SEWER LINE.

STANDARD DETAIL	DATE: 8/3/2006 REV: 3/28/2007	SEPARATION DISTANCE POTABLE WATER, SANITARY SEWER AND RECLAIMED WATER N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 160

1 / SS-8 SEPARATION DISTANCE–NEW WATER AND NEW SEWER
SCALE: N.T.S.



2 / SS-8 STORM SEWER CROSSING DETAIL
N.T.S.



3 / SS-8 STORM SEWER CROSSING DETAIL
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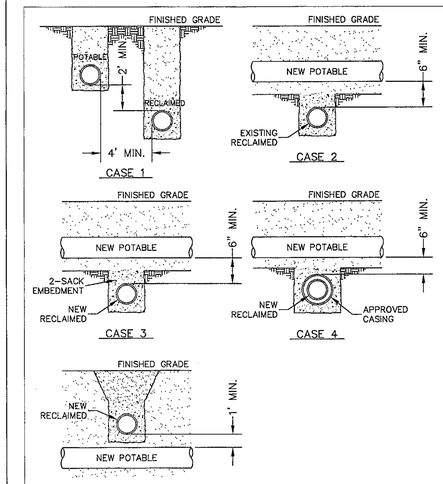


GENERAL NOTES:
1. NEW OR EXISTING POTABLE WATER AND RECLAIMED WATER MAINS.
2. SEPARATION DISTANCES SHALL FOLLOW TEXAS COMMISSION ON ENVIRONMENTAL QUALITY STANDARD REQUIREMENTS.

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

CASE 1. POTABLE WATER MAIN PARALLEL TO RECLAIMED WATER MAIN.
- LOCATION: POTABLE WATER ABOVE RECLAIMED WATER MAIN.
- EXISTING RECLAIMED WATER MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, MUST BE REPLACED.
- SEPARATE TRENCHES SHALL BE USED.

CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING RECLAIMED WATER MAIN.
- LOCATION: POTABLE WATER ABOVE RECLAIMED WATER MAIN.
- EXISTING RECLAIMED WATER MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.
- CENTER ONE SEGMENT OF WATER PIPE OVER RECLAIMED WATER MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.

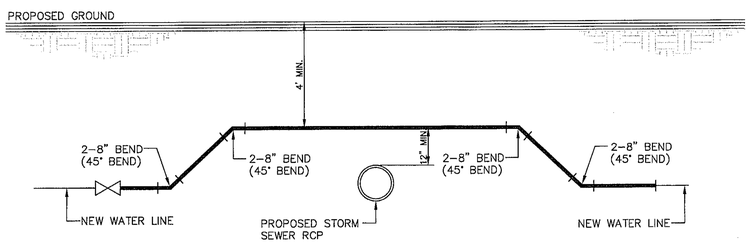
CASE 3. NEW POTABLE WATER MAIN CROSSING NEW RECLAIMED WATER MAIN.
- LOCATION: POTABLE WATER ABOVE RECLAIMED WATER MAIN.
- NEW RECLAIMED WATER MAIN - PVC (150PSI) OR DI REQUIRED. MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.
- CENTER ONE SEGMENT OF POTABLE WATER PIPE OVER RECLAIMED WATER MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR POTABLE WATER AND RECLAIMED WATER SHALL BE 18 FEET LONG.

CASE 4. NEW POTABLE WATER MAIN CROSSING NEW RECLAIMED WATER MAIN.
- LOCATION: POTABLE WATER ABOVE RECLAIMED WATER MAIN.
- NEW RECLAIMED WATER MAIN - PVC (150PSI) OR DI REQUIRED. IN ADDITION, RECLAIMED WATER MAIN MUST BE ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER CASING PIPE ON WATER MAIN.

CASE 5. NEW RECLAIMED WATER MAIN CROSSING NEW POTABLE WATER MAIN.
- LOCATION: RECLAIMED WATER MAIN ABOVE POTABLE WATER.
- NEW RECLAIMED WATER MAIN REQUIRES ONE PIPE SEGMENT OF PVC (150 PSI) OR DI. IN ADDITION, POTABLE WATER MUST BE DI OR STEEL OR ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER ONE SEGMENT OF RECLAIMED PIPE ON POTABLE WATER MAIN.

STANDARD DETAIL	DATE: 8/3/2006 REV: 5/2/2007	SEPARATION DISTANCE POTABLE WATER AND RECLAIMED WATER (SPECIAL CONDITIONS) N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 162

4 / SS-8 SEPARATION DISTANCE–EXISTING WATER AND NEW SEWER
SCALE: N.T.S.



5 / SS-8 STORM SEWER CROSSING DETAIL
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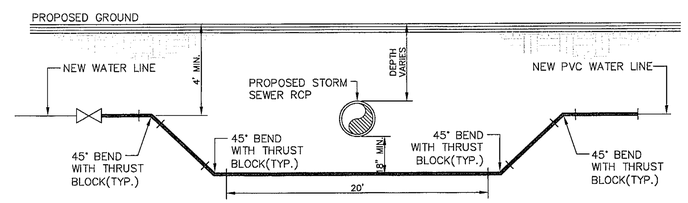

6 / SS-8 STORM SEWER CROSSING DETAIL
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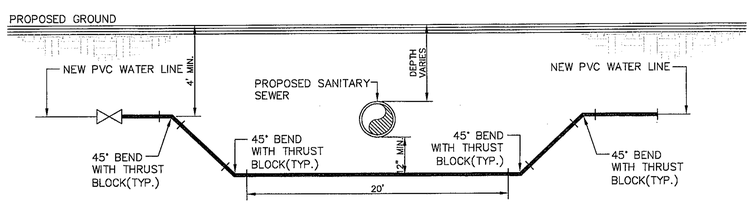

7 / SS-8 SANITARY SEWER CROSSING DETAIL
N.T.S.

103145

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASO ALTO CIRCLE AND PASEO LUNDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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Castner Center @ Transmountain
10700 Gateway Blvd. East, El Paso, TX 79935
Office: 915.544.5202 Fax: 915.544.5233 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 2564
STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER
9/23/04

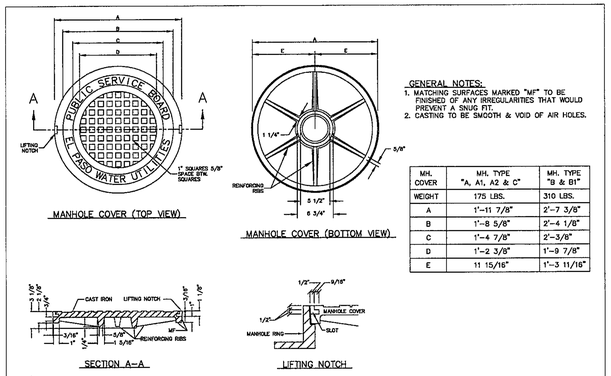
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-099(03)

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

SHEET TITLE
SANITARY SEWER DETAILS (SHEET 2 OF 3)

SHEET NO.
SS-8

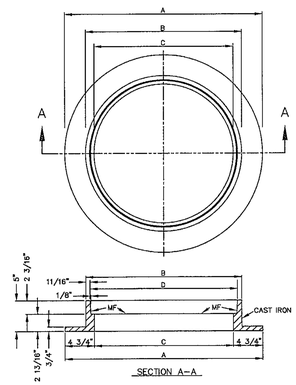


GENERAL NOTES:
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.

MH. COVER	MH. TYPE "A, A1, A2 & C"	MH. TYPE "B & B1"
WEIGHT	175 LBS.	310 LBS.
A	1'-11 7/8"	2'-7 3/8"
B	1'-8 5/8"	2'-4 1/8"
C	1'-4 7/8"	2'-3/8"
D	1'-2 3/8"	1'-9 7/8"
E	11 15/16"	1'-3 11/16"

STANDARD DETAIL | DATE: 11/1992 REV: 8/14/2006 | SEWER MANHOLE COVER N.T.S. | EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD | DETAIL No. 378

1 SS-7 STANDARD MANHOLE COVER DETAIL
SCALE: N.T.S.

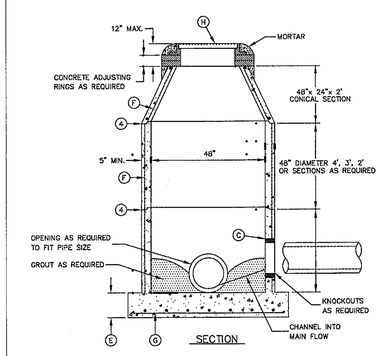


GENERAL NOTES:
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.

MH. RING	MH. TYPE "A, A1, A2 & C"	MH. TYPE "B & B1"
WEIGHT	165 LBS.	225 LBS.
A	2'-8"	3'-3 1/2"
B	2'-1 1/4"	2'-8 3/4"
C	1'-10 1/2"	2'-6"
D	1'-11 7/8"	2'-7 3/8"

STANDARD DETAIL | DATE: 11/1992 REV: 8/14/2006 | SEWER MANHOLE RING N.T.S. | EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD | DETAIL No. 377

2 SS-7 STANDARD MANHOLE RING DETAIL
SCALE: N.T.S.

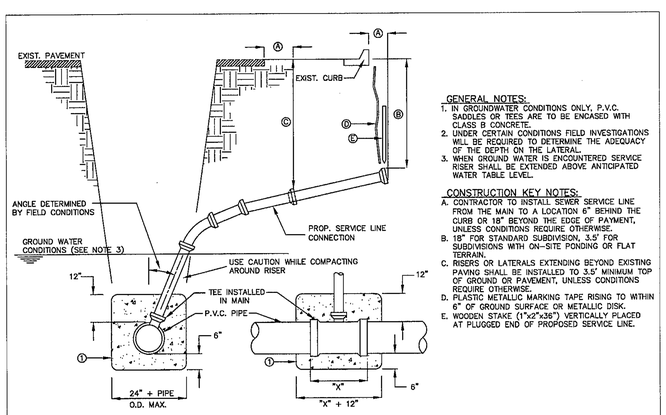


GENERAL NOTES:
1. MANHOLE TYPE "A" SHALL BE USED FOR LINES 21" AND SMALLER UNDER GROUND WATER CONDITIONS OR AS REQUIRED BY THE PROJECT ENGINEER.
2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478. CEMENT SHALL BE TYPE I-II, PER ASTM C-150, AND MUST CONTAIN A MINIMUM OF 4% FLY ASH OF THE TOTAL MANHOLE WEIGHT.
3. THE BASE & RISER SHALL BE INTEGRALLY CAST. CONCRETE SHALL BE MIN. 28 DAY COMPRESSIVE STRENGTH 4000psi.
4. ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH RAM-NEK OR APPROVED EQUAL.
5. TOP 6" MANHOLE SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY ENGINEER.
6. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.

CONSTRUCTION KEY NOTES:
A. MANHOLES BELOW GROUNDWATER TO BE EXTERNALLY AND INTERNALLY COATED WITH BITUMINOUS COATING.
B. THE SUBGRADE UNDER THE BASE SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM D-1557.
C. PIPE OPENINGS IN MANHOLE RISERS SHALL HAVE FLEXIBLE PIPE TO MANHOLE CONNECTORS (COMPRESSION TYPE ASTM-923), "KOR-N-SEAL" OR APPROVED EQUAL.
D. PROVIDE REINFORCEMENT WITHIN 3" Φ OPENINGS OR KNOCKOUTS. OPENINGS (UP TO 8") MADE IN FIELD SHALL BE CORE DRILLED.
E. CONCRETE BASE SHALL BE 8" FOR MH's UP TO 12' AND 12" FOR DEPTHS GREATER THAN 12'.
F. REINFORING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
G. No. 4 REBARS 8" ON CENTER, BOTH WAYS.
H. MANHOLE RING AND COVER (SEE DETAIL 377 & 378). SET FRAME AND COVER FLUSH WITH FINISHED GRADE. CIRCULAR CONCRETE COLLAR REQUIRED (SEE DETAIL 184).

STANDARD DETAIL | DATE: 11/1992 REV: 9/1/2005 | MANHOLE TYPE "A" N.T.S. | EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD | DETAIL No. 370-1

3 SS-7 STANDARD MANHOLE TYPE "A"
SCALE: N.T.S.



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

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

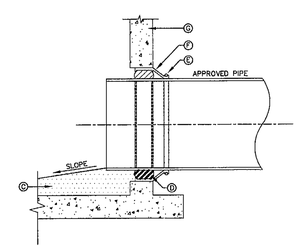
STANDARD DETAIL | DATE: 11/1992 REV: 1/23/2009 | SEWER SERVICE RISER AND SERVICE LINE CONNECTION N.T.S. | EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD | DETAIL No. 391

4 SS-7 SEWER SERVICE RISER AND SERVICE LINE CONNECTION
SCALE: N.T.S.

GENERAL NOTES:

1. DEVELOPER SHALL ENSURE RESIDENTIAL SEWER SERVICE LINES HAVE BEEN EXTENDED TO THE PROPERTY LINE.

2. BUILDER SHALL ENSURE SIDEWALKS ARE NOT CONSTRUCTED UNTIL THE RESIDENTIAL SEWER SERVICE LINES HAVE BEEN EXTENDED 10 PLUS FEET INTO PRIVATE PROPERTY FROM PROPERTY LINE.



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

CONSTRUCTION KEY NOTES:
A. AN EPOXY COATING SHALL BE APPLIED TO THE MANHOLE INTERIOR WHEN SPECIFIED.
B. ON MAINLINE MANHOLES PIPE IS TO BE LAID THRU AND UPPER 1/2 CUT OUT.
C. GROUT AS REQUIRED TO FORM SMOOTH CHANNEL TO MANHOLE INVERT.
D. KOR-N-SEAL, CAVITY-O-RING OR EQUAL
E. PIPE CLAMP SS 316
F. FLEXIBLE CONNECTOR
G. PRECAST MANHOLE

STANDARD DETAIL | NOV. 1992 REV: 08-26-97 | PIPE CONNECTION TO MANHOLE N.T.S. | EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD | DETAIL No. 376

5 SS-7 PIPE CONNECTION TO MANHOLE
SCALE: N.T.S.

103145

REFERENCES – BENCHMARKS
BENCHMARK (E. CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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TEXAS ENGINEER'S SEAL No. 85075
JORGE L. AZCARATE
85075
10-30-09

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: JLA.
APPV'D. BY: JLA.
JOB No. 2000-099(03)

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

SHEET TITLE
SANITARY SEWER DETAILS (SHEET 1 OF 3)

SHEET NO.
SS-7

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
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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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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1-800-344-8377
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REFERENCES - BENCHMARKS

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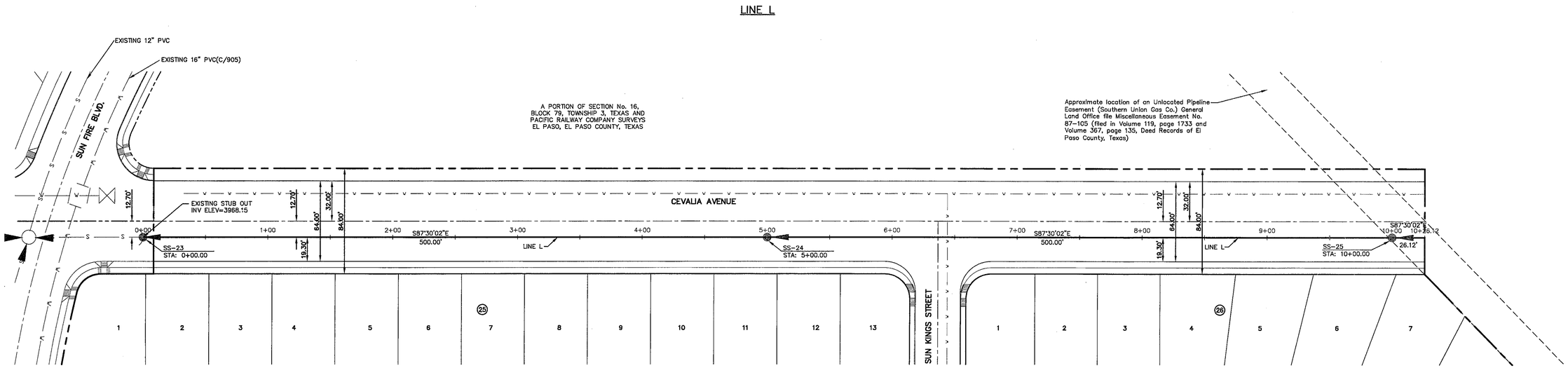
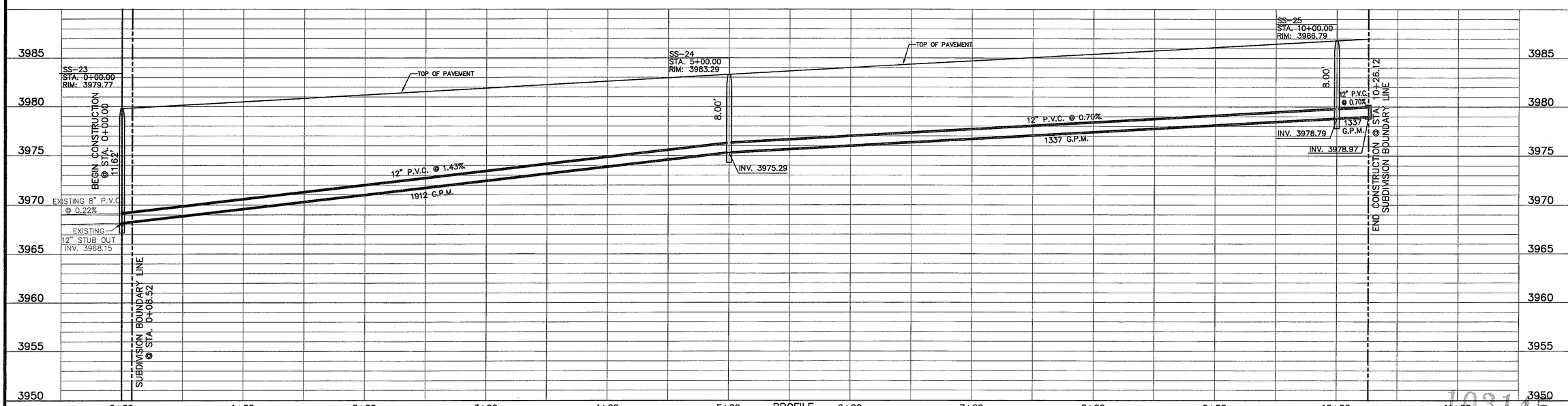
DATE	REVISIONS	BY



PLAN

LEGEND:

- PROPOSED STORM SEWER LINE
- PROPOSED WATER LINE
- PROPOSED WASTE WATER FLOW
- PROPOSED 5' PASSING LANE
- PROPOSED WATER SERVICE
- PROPOSED SEWER SERVICE



PROFILE

103145

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 4564
STATE OF TEXAS
DANIEL L. ACUNA
85075
LICENSED PROFESSIONAL ENGINEER
10/13/01

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

DATE: OCTOBER 2009
DESIGN BY: E.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

SANITARY SEWER PLAN & PROFILE LINE L

SHEET NO.

SS-6

UTILITY LOCATOR SERVICES	
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1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

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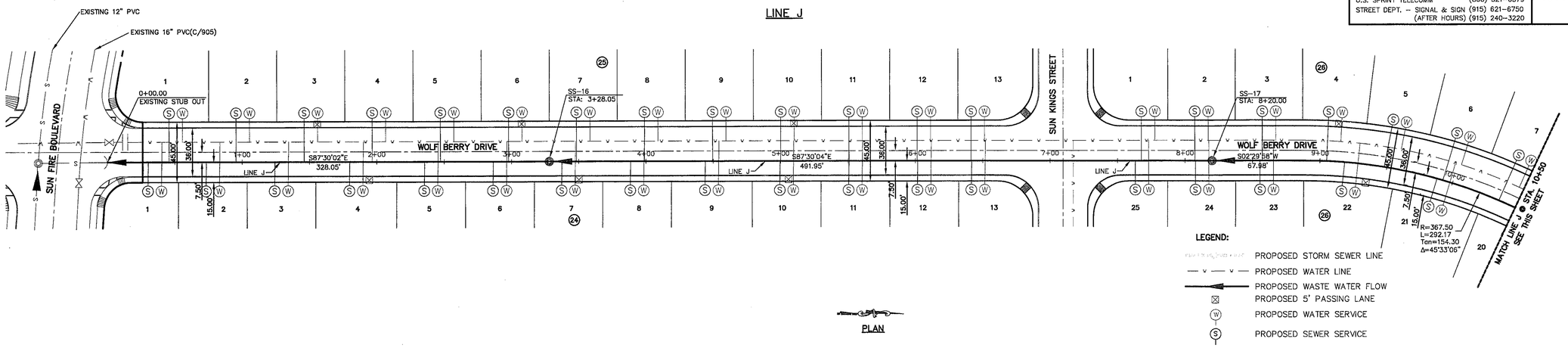
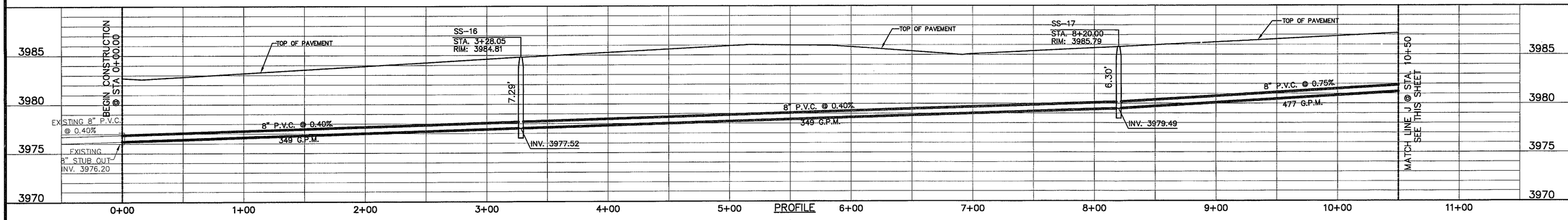
DATE	REVISIONS	BY



PLAN



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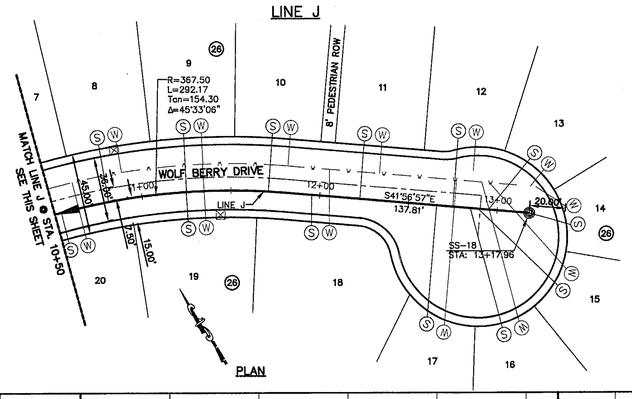

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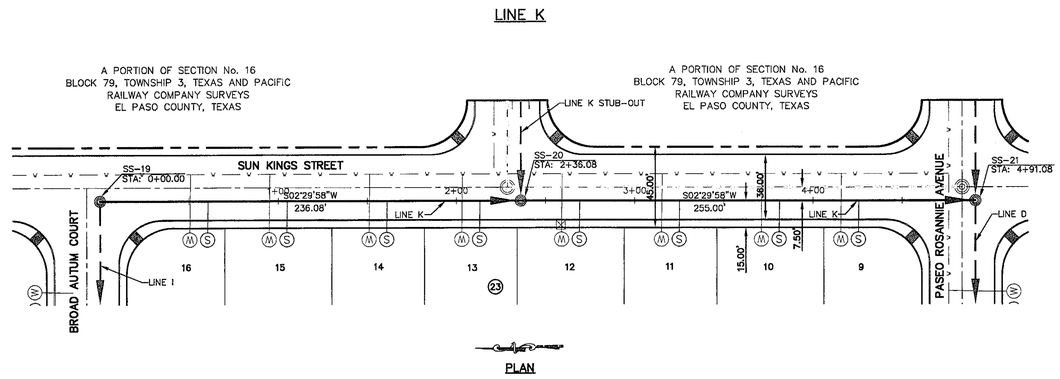

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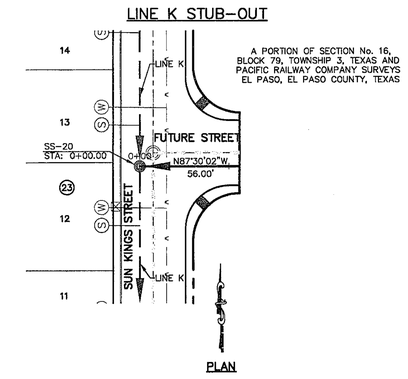

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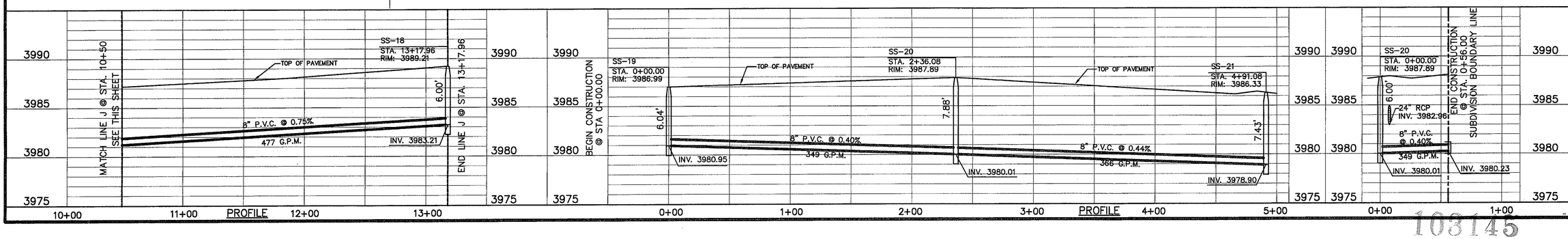

PROFILE

PROFILE

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

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Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. A-2564
STATE OF TEXAS
CHARLES L. ZACHARIE
85075
LICENSED PROFESSIONAL ENGINEER
Jan 23 '09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

SHEET TITLE

SANITARY SEWER PLAN & PROFILE LINE J, K

SHEET NO.

SS-5

103145

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
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REFERENCES – BENCHMARKS

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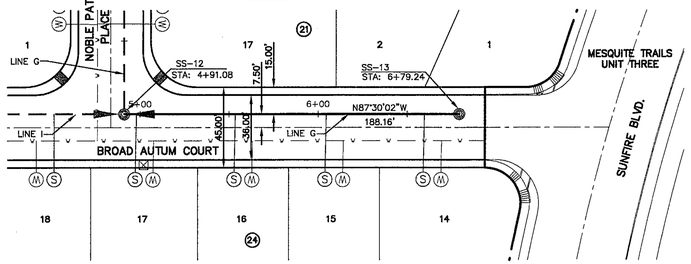
DATE	REVISIONS	BY

LINE G



PLAN

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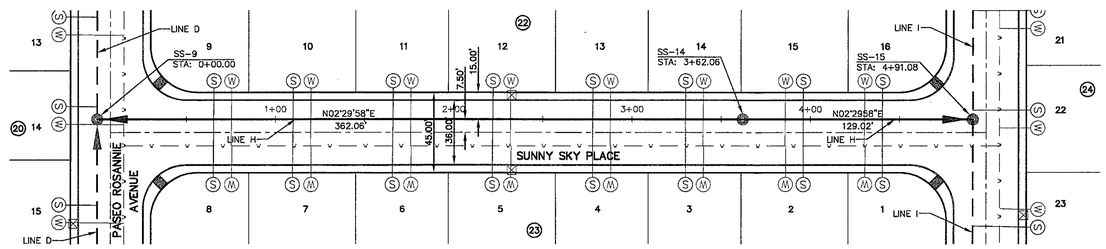

PLAN

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- PROPOSED STORM SEWER LINE
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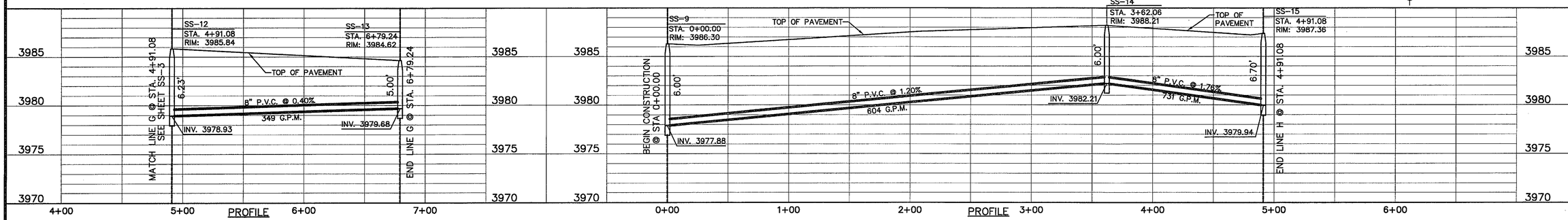

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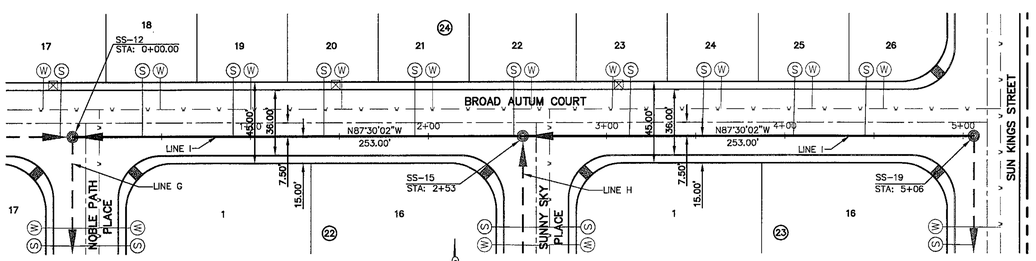

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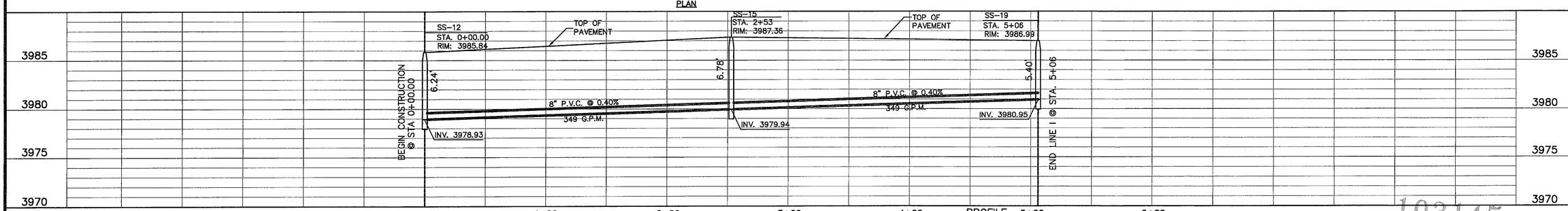

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4584
STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER
4/23/07

SCALE	1"=40'
Horizontal:	1"=5'
Vertical:	
Contour Interval:	N/A
DATE:	OCTOBER 2009
DESIGN BY:	F.Z.
DRAWN BY:	A.B.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.	2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

SANITARY SEWER PLAN & PROFILE LINE G, H, I

SHEET NO.

SS-4

103145

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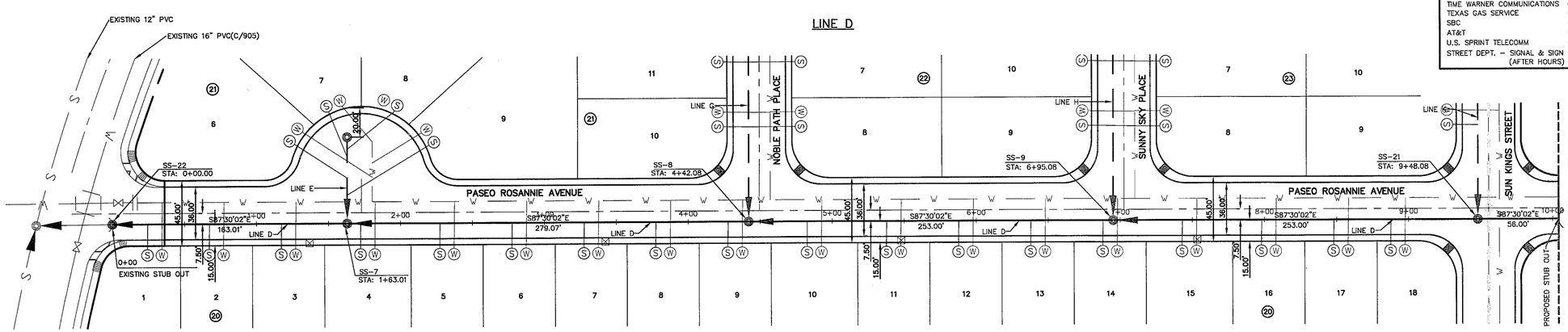
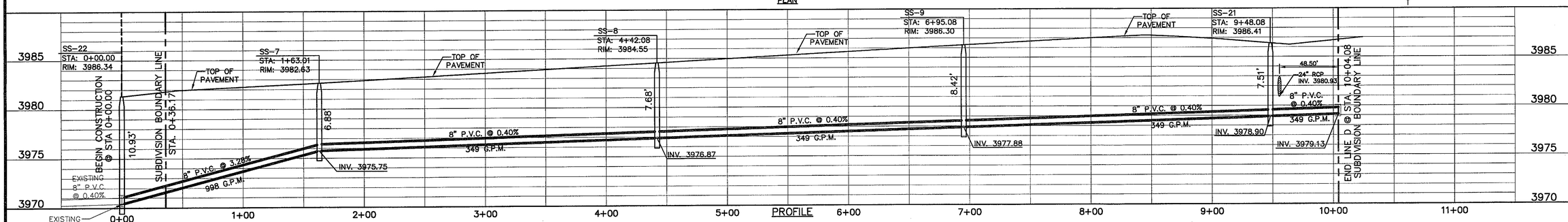


PLAN

LEGEND:

- PROPOSED STORM SEWER LINE
- PROPOSED WATER LINE
- PROPOSED WASTE WATER FLOW
- PROPOSED 5' PASSING LANE
- PROPOSED WATER SERVICE
- PROPOSED SEWER SERVICE



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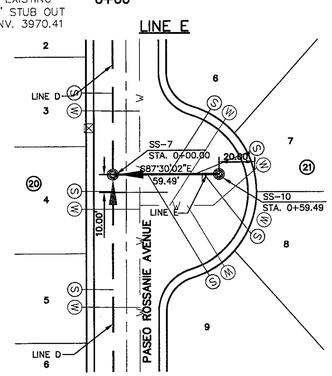

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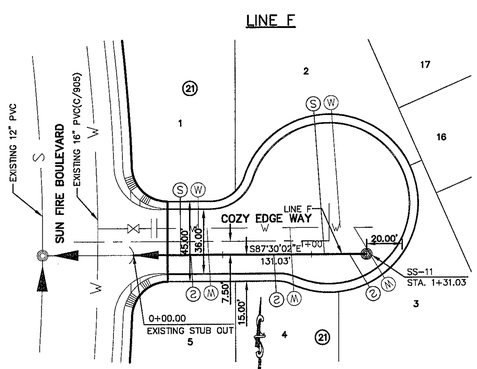

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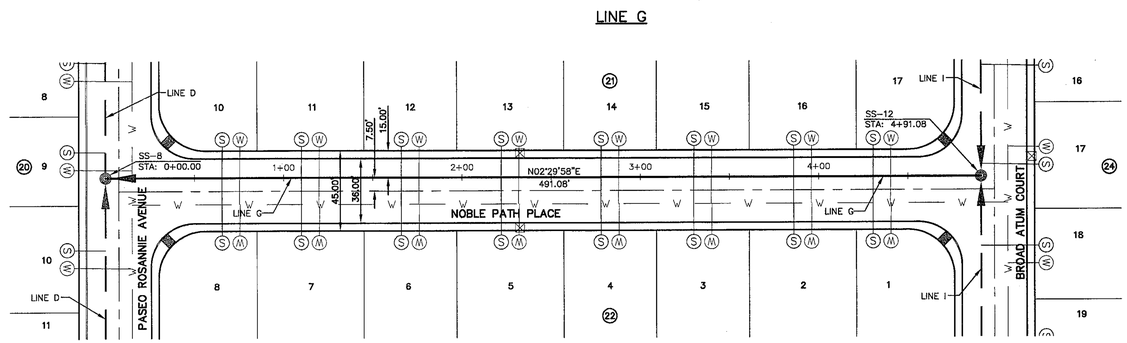

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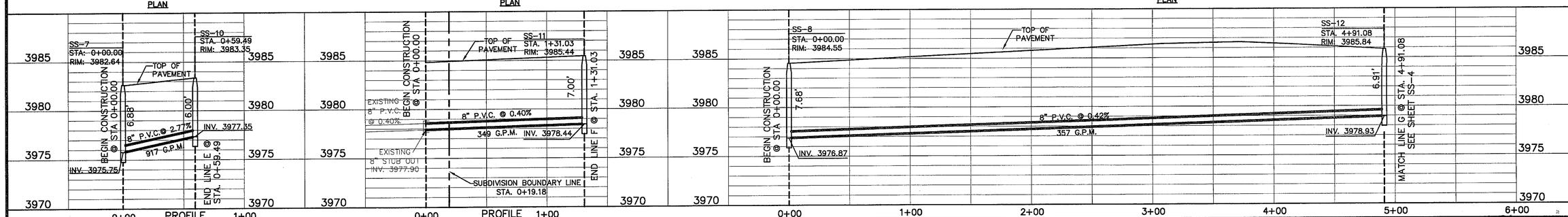

PROFILE

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No.F-4594
STATE OF TEXAS
MICHAEL L. MCDANIEL
85075
LICENSED
PROFESSIONAL ENGINEER
4/23/09

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

DATE: OCTOBER 2009
DESIGN BY: E.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

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engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915.544.5202 Fax: 915.544.5203 www.ceagroup.net

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

SANITARY SEWER PLAN & PROFILE LINE D, E, F, G

SHEET NO.

SS-3

103145

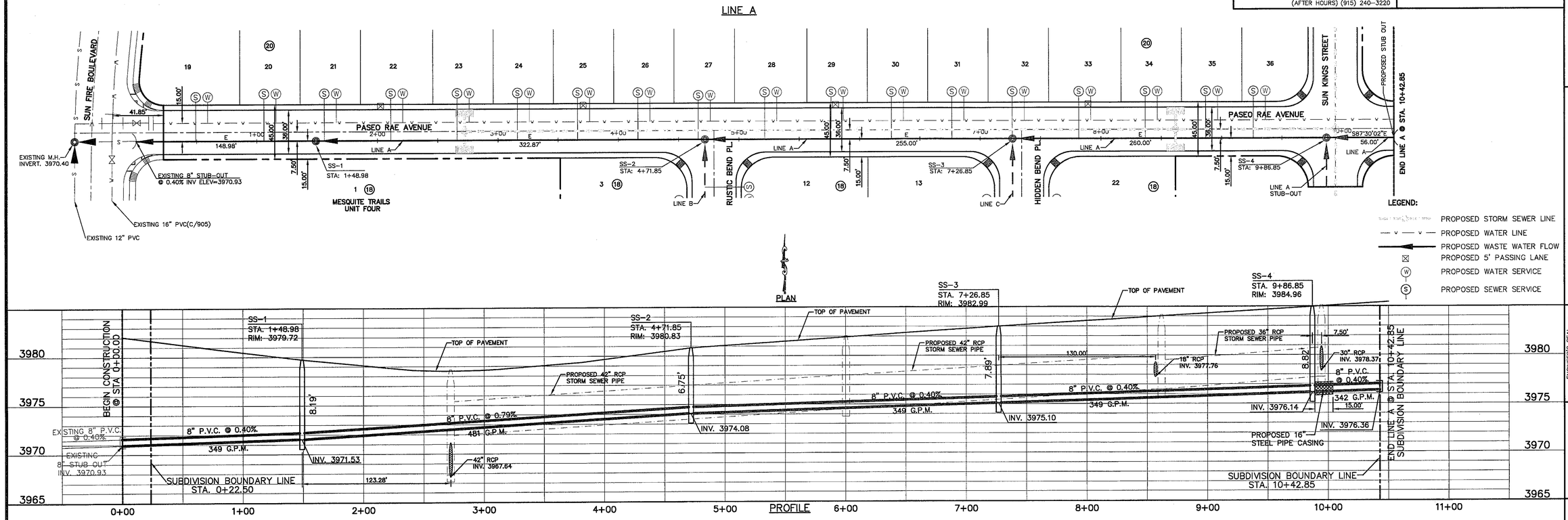
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

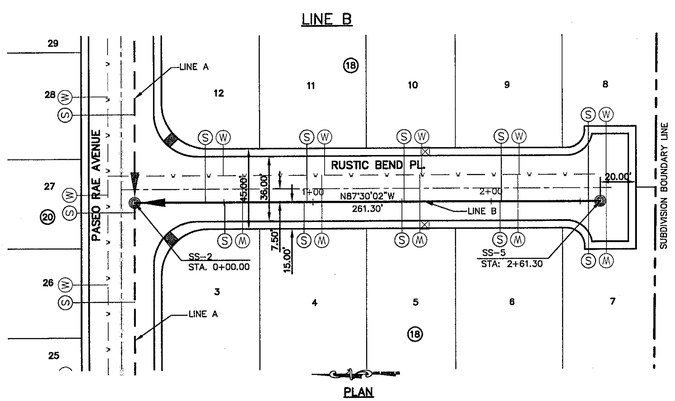
WARNING!
BEFORE YOU DIG
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

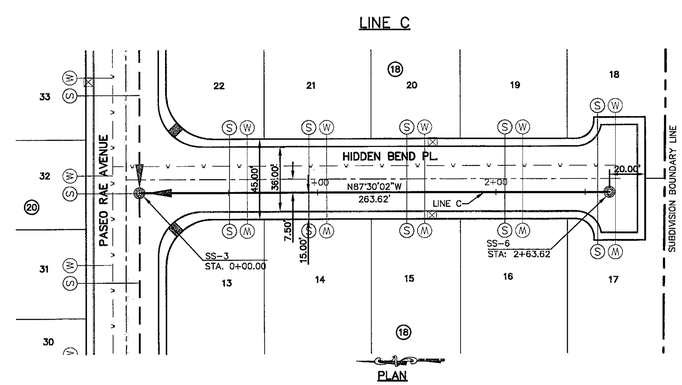
REFERENCES - BENCHMARKS

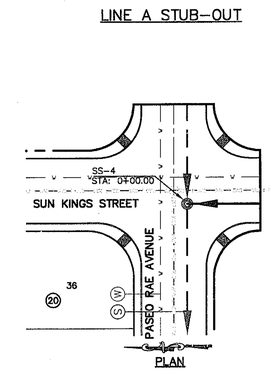
BENCHMARK (S. CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

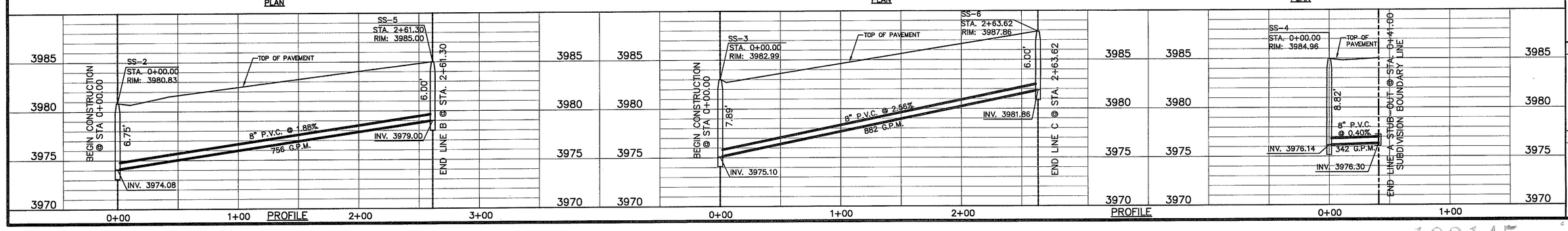








A PORTION OF SECTION No. 16, BLOCK 79, TOWNSHIP 3, TEXAS AND PACIFIC RAILWAY COMPANY SURVEYS EL PASO, EL PASO COUNTY, TEXAS



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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. F-864
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7/23/07

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

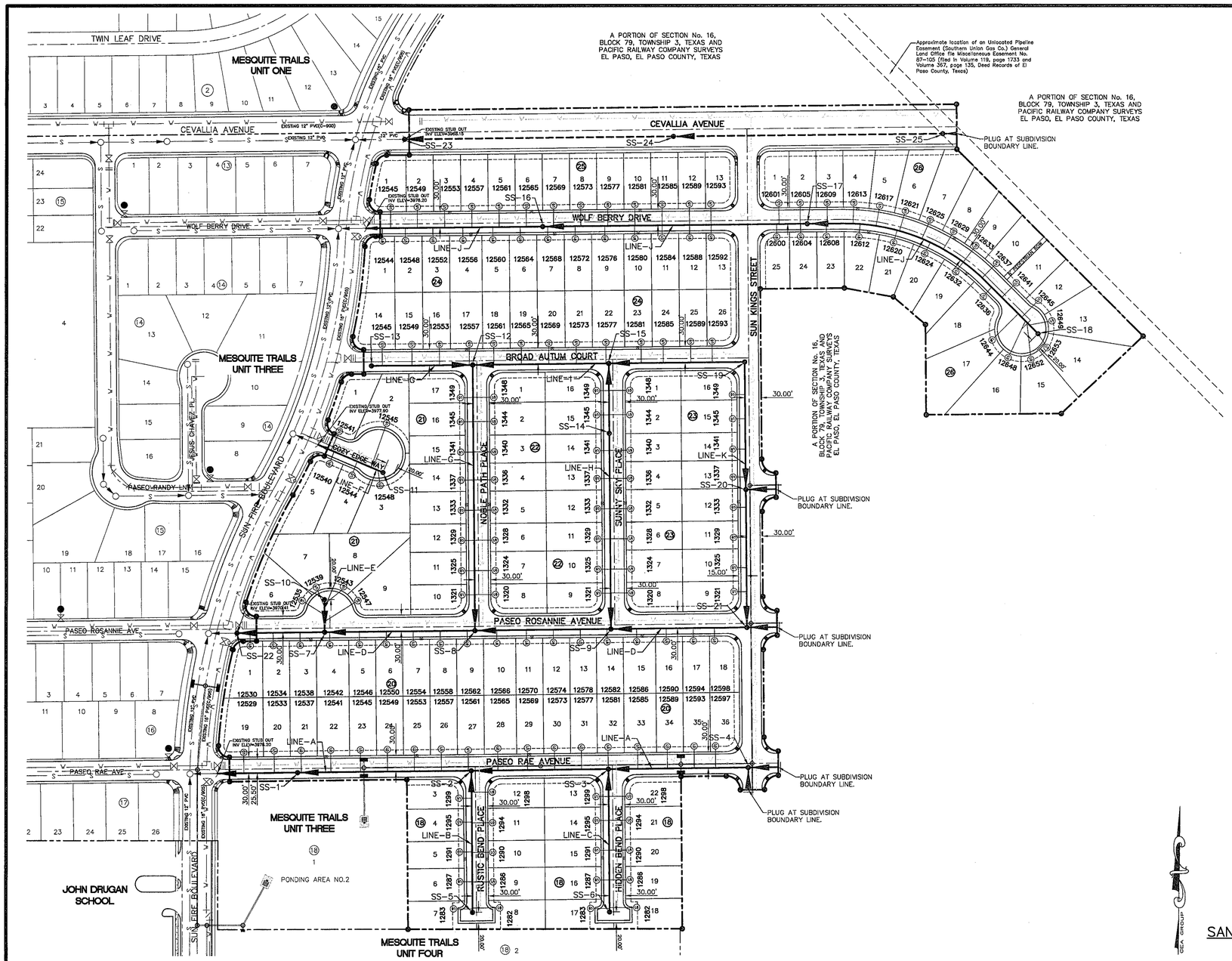
SHEET TITLE

SANITARY SEWER PLAN & PROFILE LINE A, B, C

SHEET NO.

SS-2

102145



NOTES:

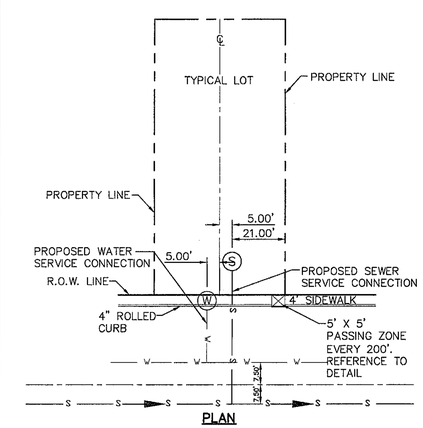
ALL SEWER LINES SHALL BE PVC SDR35 PIPE UNLESS OTHERWISE REQUIRED BY THE EPWU/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.

LEGEND

SYMBOL	DESCRIPTION
	10' UTILITY EASEMENT
—S—S—	EXISTING SWEWER LINE
—W—W—	EXISTING WATER LINE
	PROPOSED WATER LINE
	SUBD. BOUNDARY LINE
	PROPERTY LINE
	CENTER LINE
8" SWR SDR35	PROPOSED SEWER LINE (PLAN VIEW)
12" SWR SDR35	PROPOSED SEWER LINE (PLAN VIEW)
P.V.C. @ 0.40% Q=348 GPM	PROPOSED SEWER LINE (PROFILE VIEW)
	PROPOSED STORM SEWER
	PROPOSED MANHOLE (PLAN VIEW)
	PROPOSED 8" CAP
	PROPOSED SERVICE CONNECTION (PLAN VIEW)
	PROPOSED MANHOLE (PROFILE VIEW)
	EXISTING MANHOLE (PROFILE VIEW)

SANITARY INDEX MAP

SCALE: 1" = 100'



SERVICE LOCATION DETAIL

SCALE: N.T.S.

GENERAL NOTES

1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED SEWER MAINS AND SEWER MANHOLES SHALL BE INSTALLED NO LESS THAN 10' AWAY FROM EXISTING WATER LINE.
2. 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, SAGS OR HUMPS OR OTHER IRREGULARITIES IN VERTICAL ALIGNMENT. CONSIDERING UTILITIES AND OTHER CONDITIONS, VARIANCE FROM GRADE PROFILE IS NOT RECOMMENDED IF OTHER EXISTING UTILITIES OR OBSTRUCTIONS ARE ENCOUNTERED DURING THE WORK. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO INSTALLING THE SEWER PIPELINE SO THAT AN ACCEPTABLE PROFILE CAN BE ESTABLISHED PRIOR TO INSTALLATION OF THE PIPELINE.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN IN THE PLANS, AND COORDINATE HIS WORK WITH ALL UTILITY COMPANIES, EL PASO WATER UTILITIES AND CITY OF EL PASO PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY DEPTHS ARE UNKNOWN. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR ACQUIRING FIELD DEPTHS OF ALL UTILITIES WITH THE PROJECT AREAS.
4. TRENCH SAFETY REQUIREMENTS SHALL COMPLY WITH CURRENT OSHA REGULATIONS.
5. AS-BUILT STATIONING, OFFSET FROM R.O.W. AND INVERT ELEVATIONS SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR ON A CLEAN SET OF PLANS FOR EACH MANHOLE, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
6. THE EL PASO WATER UTILITIES AND CITY OF EL PASO MUST BE NOTIFIED 48 HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION. A COPY OF ALL FIELD SOIL DENSITY TESTS WITHIN THEIR RESPECTIVE R.O.W. SHALL BE FORWARDED TO THE DEVELOPER'S ENGINEER AND THE DEVELOPER BY THE CONTRACTOR.
7. EXISTING STREETS, DRIVEWAYS AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION.

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

ENGINEER:
CEA GROUP
CASTNER CENTER @ TRANSMOUNTAIN
4712 WOODROW BEAN, STE. F
EL PASO, TX. 79924
(915) 544-5232
MR. JORGE L. AZCARATE, P.E.

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

FIBER OPTICS:
MCI TELECOMMUNICATIONS CORPS.
4045 DONIPHAN PARK CIRCLE
EL PASO, TX. 79922
(915) 542-2770 EXT. 201
MR. DANIEL HERNANDEZ

WATER & SEWER:
EL PASO WATER UTILITIES
1154 HAWKINS BOULEVARD
EL PASO, TX. 79961
(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
MR. FRANK VIGEL (DISTRIBUTION)

EL PASO STREETS
CITY OF EL PASO
STREETS DEPARTMENT
7969 SAN PAULO DRIVE
EL PASO, TX. 79907
(915) 621-6750
MR. DARYL W. COLE

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

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

FIBER OPTICS:
AT&T
P.O. BOX 1650
EL PASO, TX. 79949
1(800) 852-3786
MS. DARLENE NORIS

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

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

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER
TEXAS
10/21/14

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: F.Z.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

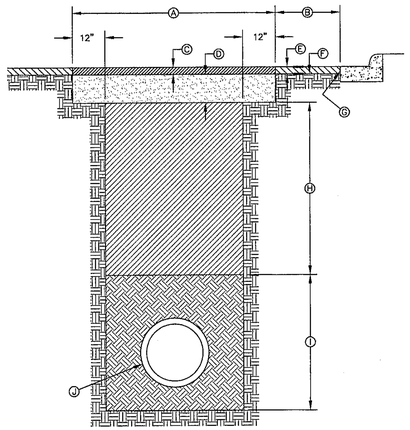
SHEET TITLE

SANITARY SEWER INDEX

SHEET NO.

SS-1

103145

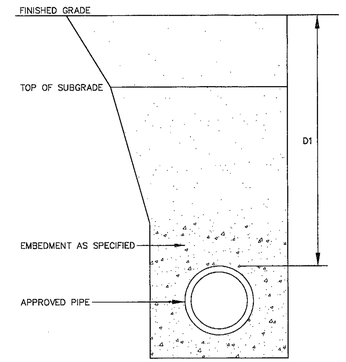


GENERAL NOTES:
1. ALL ASPHALT CUTS MUST BE SAW CUT.
2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.

CONSTRUCTION KEY NOTES:
A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.
B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3' OF SAW CUT EDGE, CONTRACTOR SHALL REMOVE & REPLACE EXISTING HMAC IN THIS AREA.
C. 2" ASPHALT MIN.
D. 6" THICK SOIL CEMENT BACKFILL (2 SACK PER C.Y.).
E. EXISTING HMAC–THICKNESS MAY VARY.
F. EXISTING BASE COURSE–THICKNESS MAY VARY.
G. EXISTING GUTTER FACE, EDGE OF PAVEMENT OR BEGINNING OF SHOULDER.
H. BACKFILL DEPTH VARIES, REFER TO REQUIREMENTS LISTED IN EMBEDMENT DETAILS (DETAIL 171 THRU DETAIL 173).
I. PIPE BEDDING AS SPECIFIED, REFER TO APPROPRIATE EMBEDMENT DETAIL (DETAIL 171 THRU DETAIL 173).
J. APPROVED PIPE.

STANDARD DETAIL	DATE: 10/1992 REV: 6/26/2008	PAVEMENT REPLACEMENT N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 179

1 / W-5 PAVEMENT REPAIR DETAIL
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

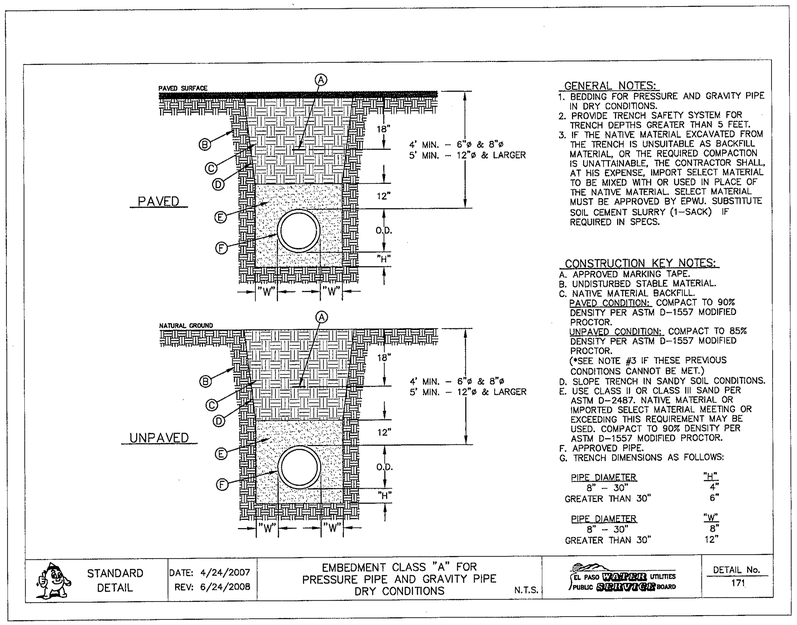
CONDITION B – NEW SUBDIVISIONS, NON–PAVED AREA

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 UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 250

2 / W-5 STANDARD COVER FOR WATER MAINS
N.T.S.



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

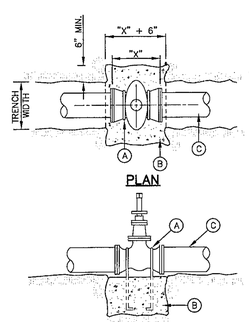
CONSTRUCTION KEY NOTES:
A. APPROVED MARKING TAPE.
B. UNDISTURBED STABLE MATERIAL.
C. NATIVE MATERIAL BACKFILL.
PAVED CONDITION: COMPACT TO 90% DENSITY PER ASTM D–1557 MODIFIED PROCTOR.
UNPAVED CONDITION: COMPACT TO 85% DENSITY PER ASTM D–1557 MODIFIED PROCTOR.
(*SEE NOTE #3 IF THESE PREVIOUS CONDITIONS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

PIPE DIAMETER	"H"
8" – 30"	4"
GREATER THAN 30"	6"

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

STANDARD DETAIL	DATE: 4/24/2007 REV: 6/24/2008	EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 171

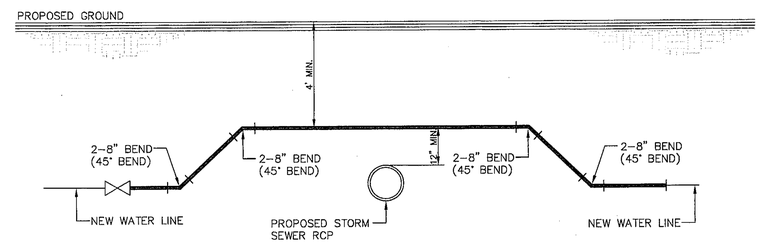
3 / W-5 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE
SCALE: N.T.S.



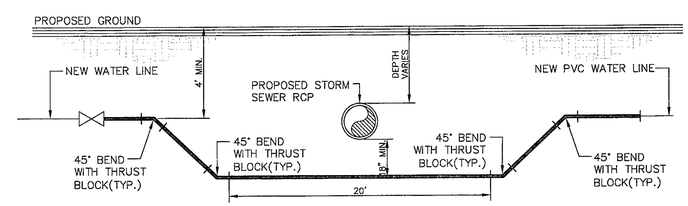
GENERAL NOTES:
1. COMPLY WITH REQUIREMENTS OF AWWA C–550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES.

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

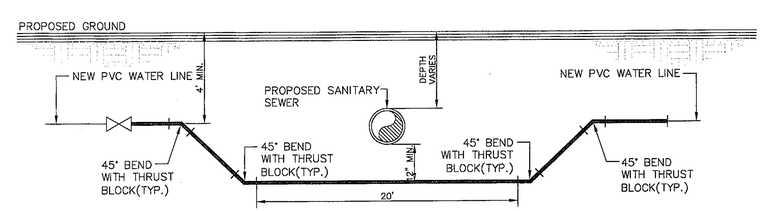
4 / W-5 VALVE ANCHOR
N.T.S.



5 / W-5 STORM SEWER CROSSING DETAIL
N.T.S.



6 / W-5 STORM SEWER CROSSING DETAIL
N.T.S.



7 / W-5 SANITARY SEWER CROSSING DETAIL
N.T.S.

103145

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASO ALAMO CIRCLE AND PASO LINDO DRIVE
ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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TEXAS REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS
JORGE L. AZCARATE
85075
10/13/09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
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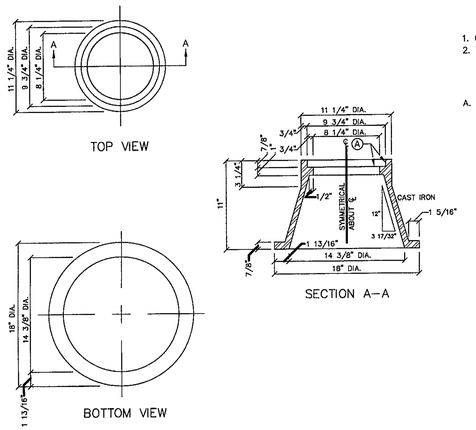
PROJECT TITLE
MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE
WATER DETAILS (SHEET 4 OF 4)

SHEET NO.
W–5



GENERAL NOTES:

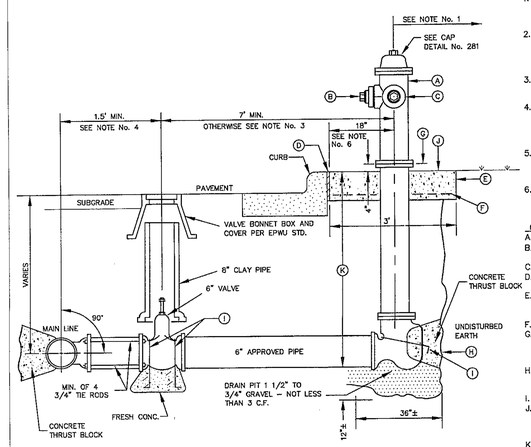
1. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
2. WEIGHT OF BONNET BOX IS 95 POUNDS.

CONSTRUCTION KEY NOTES:

A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.

STANDARD DETAIL	FEB. 1994 REV:	BONNET BOX N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 268

1 / W–4 BONNET BOX
N.T.S.



GENERAL NOTES:

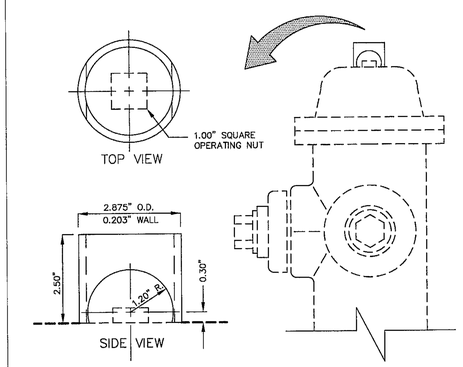
1. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 3 FT. IN ALL DIRECTIONS OF FIRE HYDRANT. FIRE HYDRANT SHALL NOT BE PLACED IN WHEEL CHAIR RAMP OR DRIVEWAY.
2. FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB RETURN OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE SHOWN ON PLANS. REFER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

CONSTRUCTION KEY NOTES:

A. FIRE HYDRANT PER SPEC'S.
B. PUMPER NOZZLE 4½" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.
C. HOSE NOZZLE 2½".
D. ½" PREMOLDED EXPANSION JOINT WITH 1" TOP FILLER.
E. 3'x3'x6" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.
F. #10; 6/6 WWF.
G. CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE HYRANT TO CONTROLLED ELEVATION.
H. CONC. THRUST BLOCK, APPROX. 2'x2'x3' TO BE POURED AGAINST UNDISTURBED EARTH, F.H. WEEP HOLE MUST BE UNOBSTRUCTED.
I. 2"x1/4" STEEL ANCHOR PINS.
J. TOP OF SLAB SHALL BE AT CURB LEVEL 4" BELOW THE BREAK LINE OF THE HYDRANT. UNDER SPECIAL CONDITIONS THE ENGINEER MAY ALLOW VARIATIONS TO THIS CONSTRUCTION.
K. CONTRACTOR IS TO PROVIDE ADDITIONAL SPOOLS IF NEEDED TO MAINTAIN THE 4' MIN. CLEARANCE FROM THE CONTROLLED ELEV. LINE TO TOP OF SLAB.

STANDARD DETAIL	DATE: 2/1993 REV: 6/25/2007	FIRE HYDRANT INSTALLATION N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 280–1

2 / W–4 STANDARD FIRE HYDRANT INSTALLATION
N.T.S.

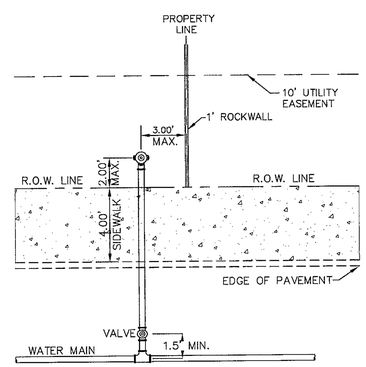


GENERAL NOTES:

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

STANDARD DETAIL		FIRE HYDRANT CAP N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 281–R

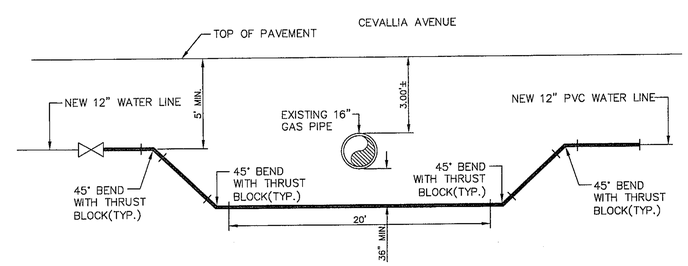
3 / W–4 FIRE HYDRANT CAP
N.T.S.



GENERAL NOTES:

1. FOR INSTALLATION OF FIRE HYDRANT SEE DETAIL 280–1 OR 280–2.
2. A MINIMUM CLEARANCE OF 3 FT. WILL BE PROVIDED BETWEEN A FIRE HYDRANT AND A PERMANENT OBSTRUCTION (UTILITY POLE, LIGHT STANDARD, TRAFFIC SIGNAL, WHEEL CHAIR RAMP, FENCE PROTECTIVE POSTS, ETC.).
3. FIRE HYDRANT SHALL BE LOCATED AT A DISTANCE OF 2 FT. MINIMUM FROM THE PROPERTY LINE AND INSIDE THE 10 FEET UTILITY EASEMENT.

4 / W–4 FIRE HYDRANT LOCATIONS
N.T.S.



5 / W–4 EXISTING GAS LINE CROSSING DETAIL
N.T.S.

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

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

DATE: OCTOBER 2008
DESIGN BY: F.Z.
DRAWN BY:
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No.: 2000–099

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE SUBDIVISION IMPROVEMENTS

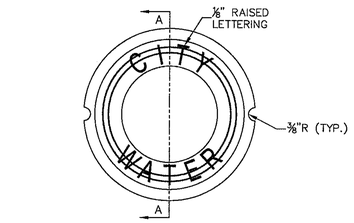
SHEET TITLE

WATER DETAILS (SHEET 3 OF 4)

SHEET NO.

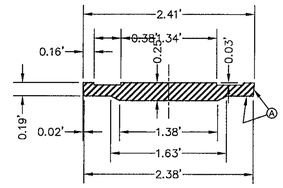
W–4

103145



GENERAL NOTES:
1. CASTINGS TO SMOOTH AND VOID OF AIR HOLES.
2. WEIGHT OF COVER IS 10 POUNDS.

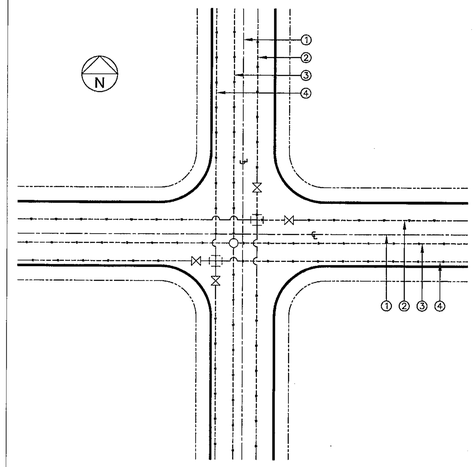
CONSTRUCTION KEY NOTES:
A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.



SECTION A–A

STANDARD DETAIL	DATE: 2/1994 REV: 11/1/2007	BONNET BOX COVER N.T.S.	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 269–1

1 / W–3 BONNET BOX COVER & EXTENSION
N.T.S.



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

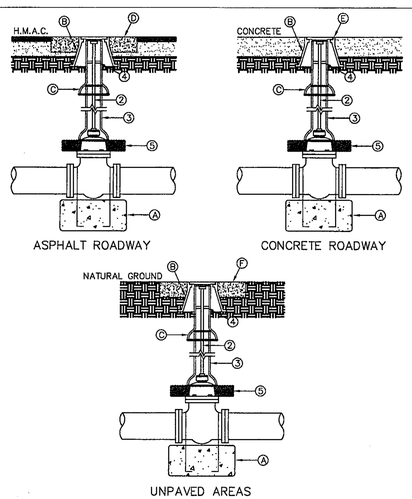
CONSTRUCTION KEY NOTES:
A. DISTANCES FROM CENTERLINE VARY AND SHALL BE ACCORDING TO THE FOLLOWING:

PIPELINE LOCATION WITHIN NEW RIGHT–OF–WAY			
RIGHT–OF–WAY WIDTH*	OFFSET FROM CENTERLINE**		
	WATER	SEWER	RECLAIMED
36 FT.	9 FT.	1 FT.	6 FT.
45 FT.	7.5 FT.	7.5 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.	22 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 UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 140

2 / W–3 STANDARD LOCATION FOR EXTENSIONS DETAIL
N.T.S.



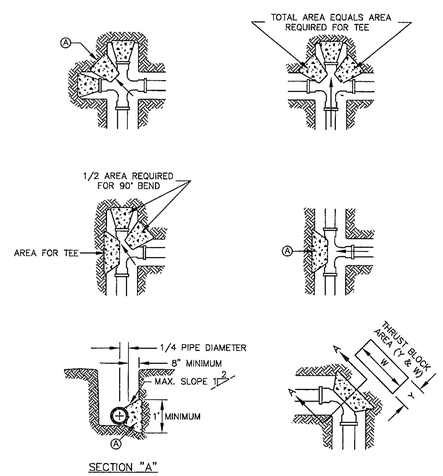
ASPHALT ROADWAY
CONCRETE ROADWAY
UNPAVED AREAS

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

CONSTRUCTION KEY NOTES:
A. CONCRETE VALVE SUPPORT, SEE DET 271.
B. BONNET BOX, SEE DET 268.
C. FINAL EXTENSION TO BONNET BOX SHALL BE WITH BELL AND SPIGOT ENDS (CLAY OR SDR 35 P.V.C. SPOOL).
D. CIRCULAR CONCRETE COLLAR (SEE DET 184) FLUSH WITH TOP OF H.M.A.C.
E. BONNET BOX (SEE DET 268) FLUSH WITH TOP OF CONCRETE, CIRCULAR CONCRETE COLLAR NOT NEEDED.
F. CIRCULAR CONCRETE COLLAR (SEE DET 184) FLUSH WITH BONNET BOX.

STANDARD DETAIL	DATE: 5/1994 REV: 8/4/2005	GATE VALVE INSTALLATION N.T.S.	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 260

3 / W–3 GATE VALVE INSTALLATION
N.T.S.



SECTION "A"

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 UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 270

4 / W–3 THRUST BLOCKING
N.T.S.

103145

REFERENCES – BENCHMARKS
BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

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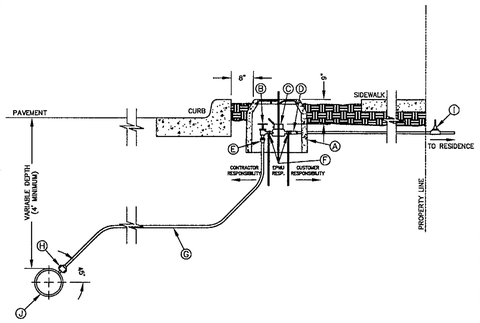
STATE OF TEXAS
10/01/07

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD BY: J.L.A.
APPVD BY: J.L.A.
JOB No. 2000–099(03)

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

SHEET TITLE
WATER DETAILS (SHEET 2 OF 4)

SHEET NO.
W–3



GENERAL NOTES:

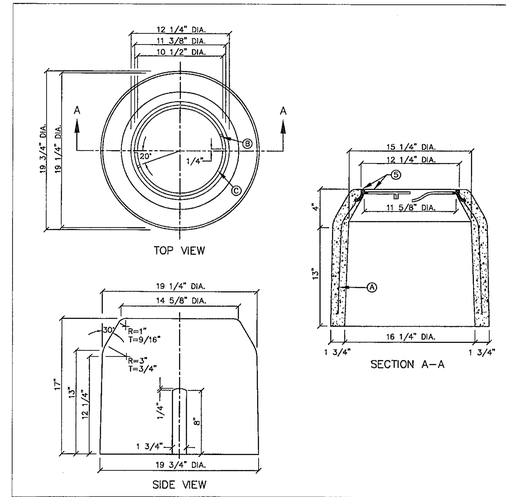
1. DETAIL SHOWN FOR A 3/4" SERVICE, 1" SERVICE INSTALLATION IS SIMILAR EXCEPT FOR SIZES OF PIPE, FITTING, METER AND BOX (TYPE "B").
2. WHERE NO CURB EXISTS, METER IS TO BE SET NEAR PROPERTY LINE OR AT DESIGNATED LOCATION.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, AND METER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

CONSTRUCTION KEY NOTES:

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

STANDARD DETAIL	DATE: 10/20/2000 REV: 5/24/2007	SERVICE LINE ¾" AND 1" INSTALLATION BY CONTRACTOR N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 290–4

1 / W–2 TYPICAL SERVICE LINE INSTALLATION
N.T.S.



GENERAL NOTES:

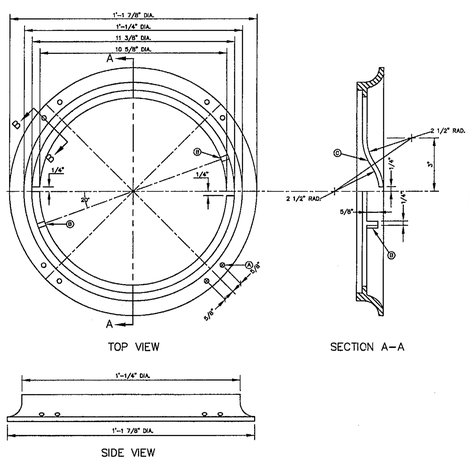
1. INSTALL TO GRADE MATCHING TOP OF CURB.
2. ANGLE VALVE SHALL BE IN LINE WITH THE INLET/OUTLET PORTS OF THE METER BOX.
3. METER BOXES SHALL NOT BE INSTALLED UNDER SIDEWALKS, DRIVEWAYS, OR PROPOSED ABOVE GROUND STRUCTURES.
4. WHERE NO CURBING EXIST, INSTALL BOXES IN ACCESSIBLE LOCATIONS BEYOND LIMITS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

CONSTRUCTION KEY NOTES:

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

STANDARD DETAIL	DATE: 4/1994 REV: 8/24/2006	METER BOX TYPE "A" FOR ¾" SERVICE INSTALLATION N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 291

2 / W–2 METER BOX DETAIL
N.T.S.



GENERAL NOTES:

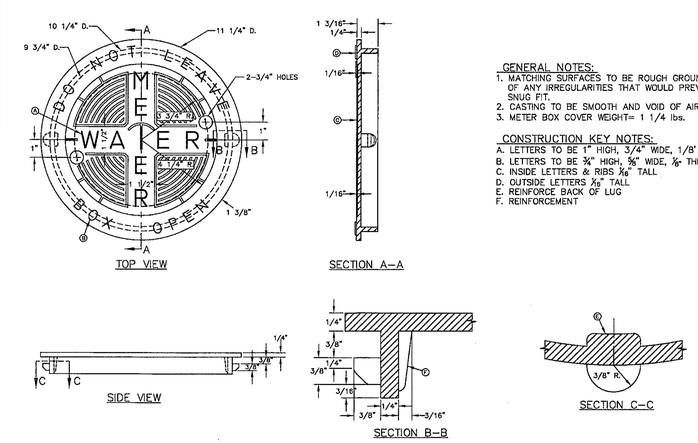
1. MATCHING SURFACES TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
3. METER BOX RING WEIGHT = 7 LBS.
4. METER BOX RING MADE OF CAST IRON.

CONSTRUCTION KEY NOTES:

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

STANDARD DETAIL	DATE: 1/1995 REV: 8/10/2006	METER BOX RING FOR TYPE "A" & "B" METER BOXES N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 300

4 / W–2 METER BOX RING DETAIL
N.T.S.



GENERAL NOTES:

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

CONSTRUCTION KEY NOTES:

A. LETTERS TO BE 1" HIGH, 3/4" WIDE, 1/8' THICK
B. LETTERS TO BE ¾" HIGH, ⅝" WIDE, ⅛" THICK
C. INSIDE LETTERS & RIBS ⅛" TALL
D. OUTSIDE LETTERS ⅛" TALL
E. REINFORCE BACK OF LUG
F. REINFORCEMENT

STANDARD DETAIL	DATE: 4/1994 REV: 8/10/2006	METER BOX COVER FOR TYPE "A" & "B" METER BOXES N.T.S.	EL PASO WATER UTILITIES / PUBLIC SERVICE BOARD	DETAIL No. 301

4 / W–2 METER BOX COVER DETAIL
N.T.S.

REFERENCES – BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

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P-131-1

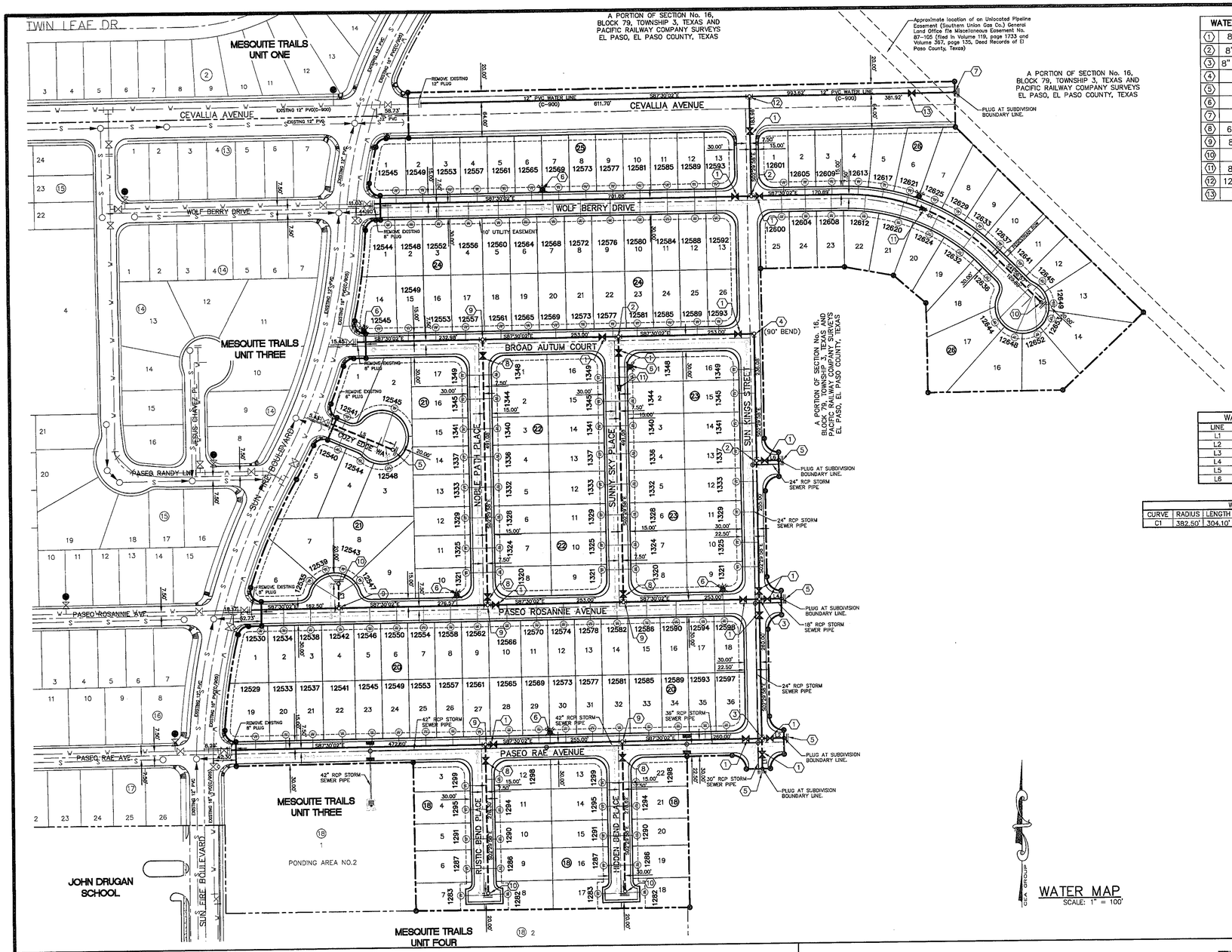
SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: OCTOBER 2009
DESIGN BY: E.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

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

SHEET TITLE
WATER DETAILS (SHEET 1 OF 4)

SHEET NO.
W–2

103145



WATER KEYED NOTES	
1	8" ø GATE VALVE
2	8" X 8" X 8" TEE
3	8" X 8" X 8" CROSS
4	8" BEND
5	8" PLUG
6	FIRE HYDRANT
7	12" PLUG
8	6" ø GATE VALVE
9	8" X 8" X 6" TEE
10	6" PLUG
11	8" X 6" REDUCER
12	12" X 12" X 8" TEE
13	12" GATE VALVE

WATER LINE TABLE		
LINE	BEARING	LENGTH
L1	N02°29'58"E	56.00'
L2	S87°30'02"E	41.00'
L3	N02°29'58"E	44.93'
L4	S87°30'02"E	41.00'
L5	S63°41'12"E	124.35'
L6	S87°30'02"E	41.00'

WATER LINE CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	382.50'	304.10'	160.60'	296.15'	S64°43'30"E	45°33'05"

NOTES:

ALL WATER LINES SHALL COMPLY WITH DR-18, PRESSURE RATING OF 165 OR UNLESS OTHERWISE REQUIRED BY THE EPWU/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.

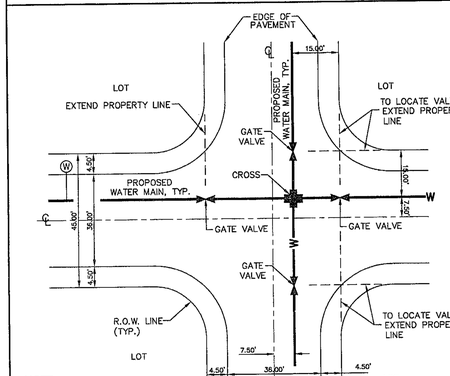
LEGEND

SYMBOL	DESCRIPTION
	PROPERTY LINE
	SUBDIVISION BOUNDARY
	STREET R.O.W. LINE
	10' UTILITY EASEMENT
8" WTR.	PROPOSED 8", C-900 P.V.C. PIPE, UNLESS OTHERWISE SPECIFIED
6" WTR.	PROPOSED 6", C-900 P.V.C. PIPE, UNLESS OTHERWISE SPECIFIED
	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
S S	EXISTING SEWER LINE
W W	EXISTING WATER LINE
W	PROPOSED SERVICE CONNECTION
	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
	EXISTING FIRE HYDRANT
	PROPOSED GATE VALVE
	EXISTING GATE VALVE
	REDUCER
	PLUG
O	POINT OF TANGENCY

REFERENCES – BENCHMARKS

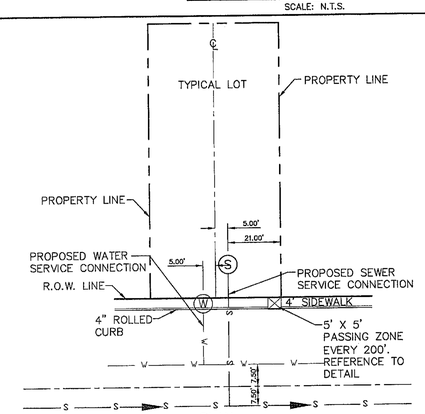
BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY



NOTE
SEE PLANS FOR SIZE AND LOCATION OF WATER MAIN AND LOTS TO BE SERVICED.

TYPICAL VALVE AND WATER LOCATION AT STREET INTERSECTIONS
SCALE: N.T.S.



PLAN

SERVICE LOCATION DETAIL
SCALE: N.T.S.

WATER MAP
SCALE: 1" = 100'

GENERAL NOTES

1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, THE PROPOSED WATER MAINS SHALL BE INSTALLED NO LESS THAN 10' AWAY FROM EXISTING SEWER LINE.
2. 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, SAGS OR HUMPS OR OTHER IRREGULARITIES IN VERTICAL ALIGNMENT. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO INSTALLING THE WATER PIPELINE SO THAT AN ACCEPTABLE PROFILE CAN BE ESTABLISHED PRIOR TO INSTALLATION OF THE PIPELINE.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN IN THE PLANS, AND COORDINATE WORK WITH ALL UTILITY COMPANIES, EL PASO WATER UTILITIES AND CITY OF EL PASO PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY DEPTHS ARE UNKNOWN. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR AQCUIRING FIELD DEPTHS OF ALL UTILITIES WITHIN THE PROJECT AREAS.
4. TRENCH SAFETY REQUIREMENTS SHALL BE AS REQUIRED BY OSHA.
5. AS-BUILT STATIONING, OFFSET FROM R.O.W. AND INVERT ELEVATIONS SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR ON A CLEAN SET OF PLANS FOR EACH VALVE, FIRE HYDRANT, ELBOW, SERVICE CONNECTION AND/OR STUB-OUT, WITH RESPECT TO THE APPROPRIATE PROJECT CONTROL POINT.
6. THE EL PASO WATER UTILITIES AND CITY OF EL PASO MUST BE NOTIFIED 48 HOURS PRIOR TO COMMENCING ANY WORK IN AREAS WITHIN THEIR JURISDICTION.
7. EXISTING STREETS, DRIVEWAYS, PARKING LOTS, MAILBOXES, SIGNS, CHAIN-LINK FENCES, AND ALL OTHER MISCELLANEOUS STRUCTURES DAMAGE OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER THAN ORIGINAL CONDITION AT NO COST TO OWNER.
8. TRAFFIC CONTROL SHALL BE IN PLACE PRIOR TO INITIATING WORK.
9. ALL TIE-INS SHALL BE CLOSELY COORDINATED WITH THE EL PASO WATER UTILITIES AT LEAST 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
10. CONTRACTOR SHALL PROVIDE THE REQUIRED COUPLINGS, ELBOWS AND NECESSARY PIPING APPURTENANCES FOR A COMPLETE AND OPPERATIONAL WATER SYSTEM.
11. ALL NEW VALVES SHALL BE ALIGNED PERPENDICULAR TO PROPERTY LINES.

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

ENGINEER:
CEA GROUP
CASTNER CENTER @ TRANSMOUNTAIN
4712 WOODROW BEAN, STE. F
EL PASO, TX. 79924
(915) 544-5232
MR. JORGE L. AZCARATE, P.E.

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

FIBER OPTICS:
MCI TELECOMMUNICATIONS CORPS.
4045 DONIPHAN PARK CIRCLE
EL PASO, TX. 79922
(915) 542-2770 EXT. 201
MR. DANIEL HERNANDEZ

WATER & SEWER:
EL PASO WATER UTILITIES
1154 HAWKINS BOULEVARD
EL PASO, TX. 79961
(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
MR. FRANK VIGEL (DISTRIBUTION)

EL PASO STREETS
CITY OF EL PASO
STREETS DEPARTMENT
7969 SAN PAULO DRIVE
EL PASO, TX. 79907
(915) 621-6750
MR. DARYL W. COLE

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

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

FIBER OPTICS:
AT&T
P.O. BOX 1650
EL PASO, TX. 79949
1(800) 852-3786
MS. DARLENE NORIS

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

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4584
JORGE L. AZCARATE
85075
REGISTERED PROFESSIONAL ENGINEER
9/9/09

SCALE	
Horizontal:	1"=100'
Vertical:	N/A
Contour Interval:	N/A
DATE:	OCTOBER 2009.
DESIGN BY:	F.Z.
DRAWN BY:	A.B.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.	2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

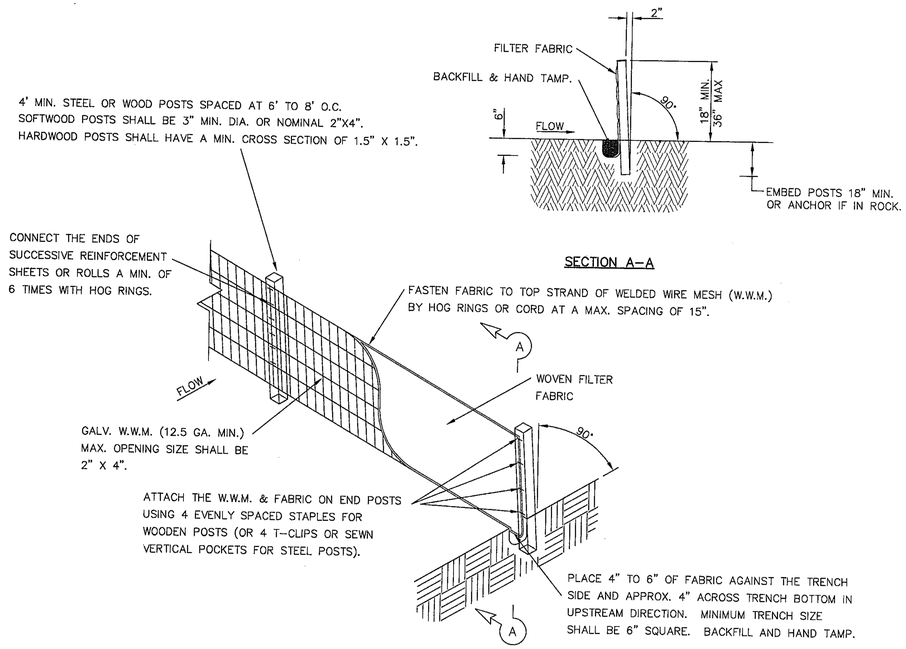
SHEET TITLE

WATER INDEX

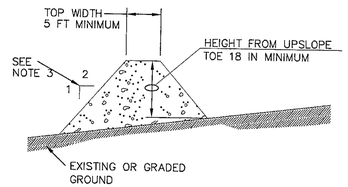
SHEET NO.

W-1

170145



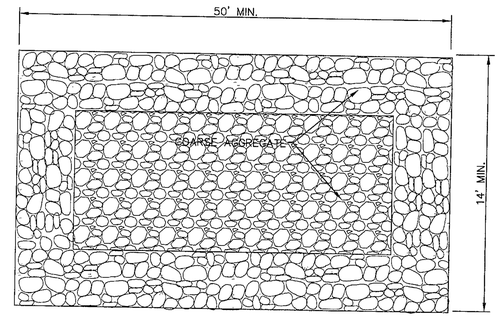
TEMPORARY SEDIMENT CONTROL FENCE



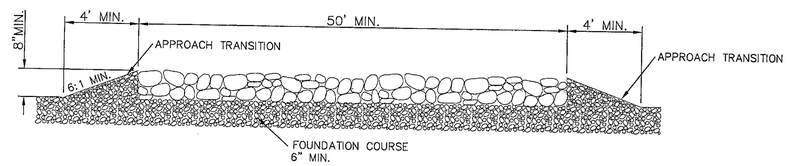
GENERAL NOTES:

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

TYPICAL BERM CONFIGURATION



PLAN

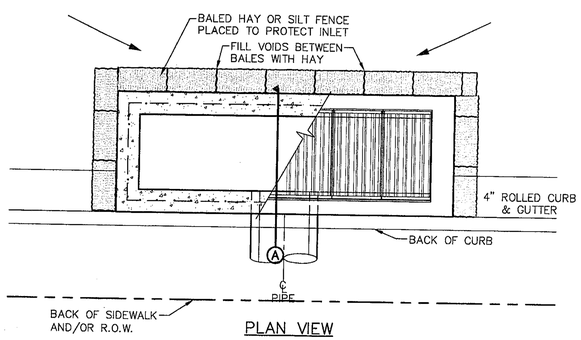


PROFILE

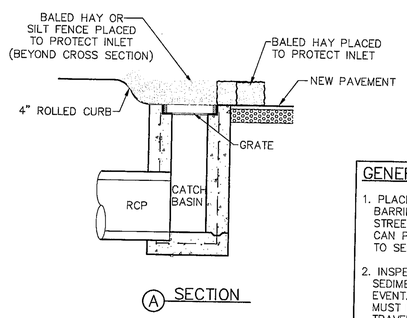
GENERAL NOTES

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

CONSTRUCTION EXIT (TYPE 1)



PLAN VIEW



SECTION

GENERAL NOTES:

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

TEMPORARY INLET PROTECTION

REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE. ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

cea group
engineers • architects • planners
Castner Center @ Transmountain
4712 Woodrow Bean, Ste. F El Paso, TX 79924
Office: 915-544-2288 Fax: 915-544-3230 www.ceagroup.net

ENGINEER'S SEAL
TEXAS FIRM REGISTRATION No. 4564
JORGE L. ACUARTE
85075
LICENSED
STATE OF TEXAS
9/23/10

SCALE	
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	OCTOBER 2009
DESIGN BY:	F.Z.
DRAWN BY:	A.B.
CHKD. BY:	J.L.A.
APPVD. BY:	J.L.A.
JOB No.	2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE
REPLAT 'A'
SUBDIVISION IMPROVEMENTS

SHEET TITLE

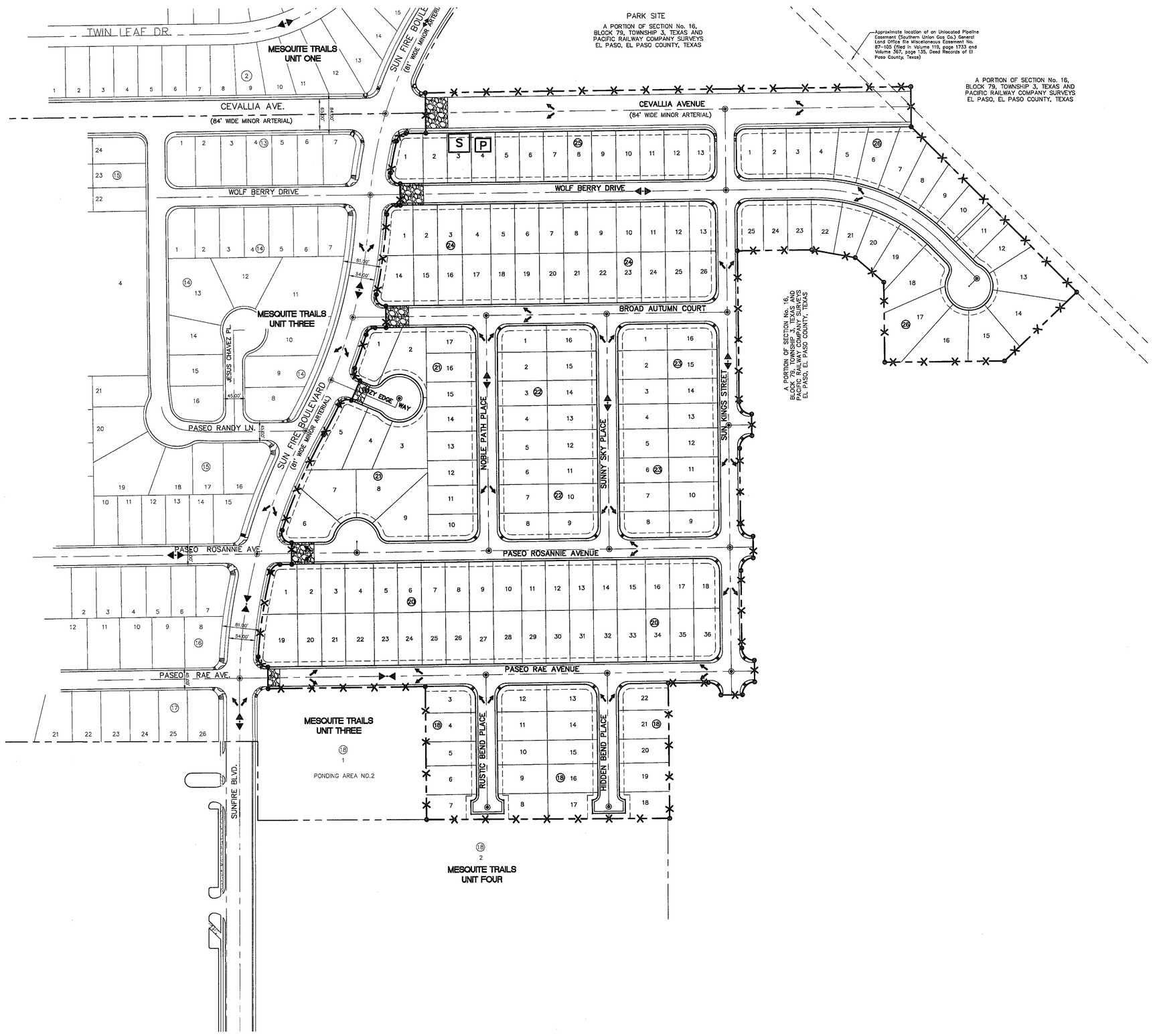
STORM WATER POLLUTION PEVENTION PLAN DETAILS

SHEET NO.

28

OF 28

103145



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
STREET DEPT. - SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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1-800-344-8377
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LEGEND

—X—X— SILT FENCE OR EARTHERN BERM

STABILIZED CONSTRUCTION ENTRANCE

S STAGING AREA

P PORTABLE TOILETS

SITE PLAN

SCALE: 1" = 100'

SDPCP #: 08-00209
SDPCP DATE: 07-11-08

REFERENCES - BENCHMARKS

BENCHMARK IS CITY MONUMENT AT THE INTERSECTION OF PASEO ALEGRE CIRCLE AND PASEO LINDO DRIVE ELEVATION = 4003.10 (CITY DATUM).

DATE	REVISIONS	BY

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ENGINEER'S SEAL
TEXAS FIRM REGISTRATION NO. 4564
STATE OF TEXAS
JORGE L. ACUARTE
85075
LICENSED PROFESSIONAL ENGINEER
21 JAN 09

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

DATE: OCTOBER 2009
DESIGN BY: F.Z.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-099(03)

PROJECT TITLE

MESQUITE TRAILS UNIT FIVE REPLAT 'A' SUBDIVISION IMPROVEMENTS

SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN SITE PLAN

SHEET NO.

27

OF 28

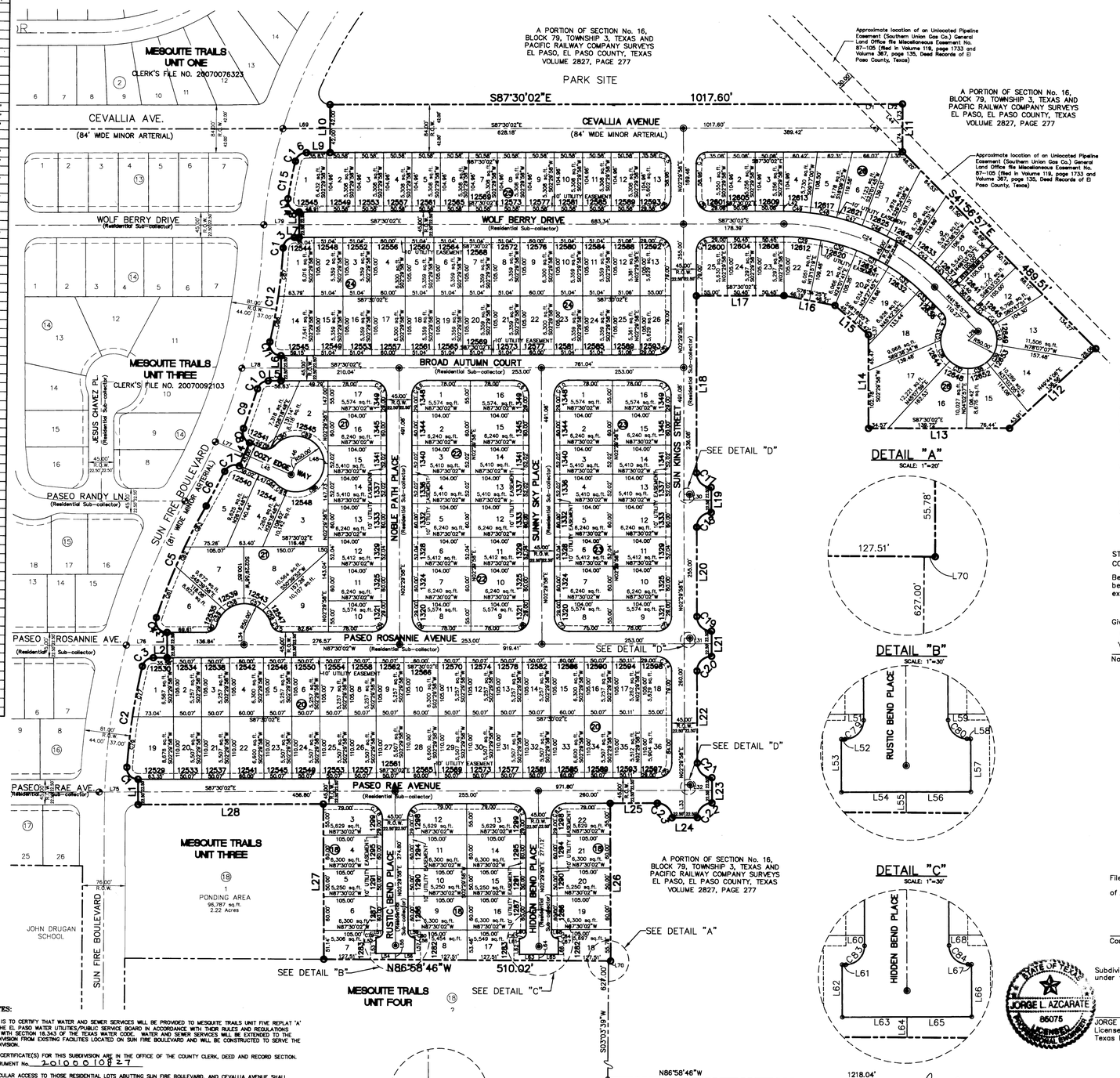
103145

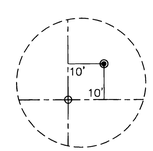
MESQUITE TRAILS UNIT FIVE REPLAT 'A'

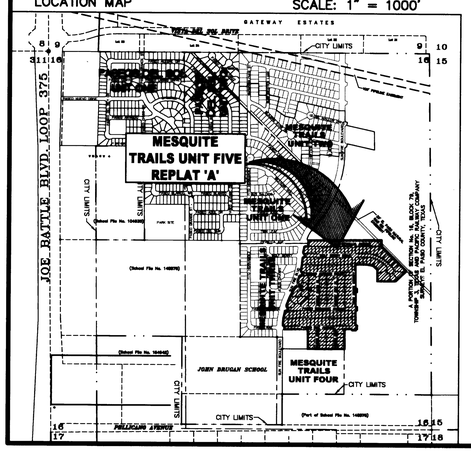
BEING ALL OF LOTS 3 TO 22, BLOCK 18, LOTS 1 TO 36, BLOCK 20, LOTS 1 TO 17, BLOCK 21, LOTS 1 TO 16, BLOCK 22, LOTS 1 TO 16, BLOCK 23, LOTS 1 TO 26, BLOCK 24, LOTS 1 TO 13, BLOCK 25, LOTS 1 TO 25, BLOCK 26, ALL R.O.W. OUT OF BROAD AUTUMN COURT, COZY EDGE WAY, NOBLE PATH PLACE, SUNNY SKY PLACE, SUN KINGS STREET, RUSTIC BEND PLACE, HIDDEN BEND PLACE, AND PORTIONS OF R.O.W. OUT OF CEVALLIA AVENUE, WOLF BERRY DRIVE, PASEO ROSANNIE AVENUE AND PASEO RAE AVENUE ALL WITHIN MESQUITE TRAILS UNIT FIVE, AN ADDITION TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING 32.81 ACRES ±

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	20.00'	32.90'	21.54'	29.31'	S40°22'25"E	94°15'15"
C2	1087.00'	180.72'	90.57'	180.51'	S11°30'59"W	9°31'33"
C3	20.00'	26.61'	15.69'	24.69'	S54°23'22"W	76°13'13"
C4	20.00'	37.89'	27.80'	32.47'	S33°14'02"E	108°32'00"
C5	1087.00'	216.77'	108.75'	216.41'	S26°44'45"W	11°25'34"
C6	1044.00'	70.26'	35.15'	70.25'	N30°31'51"E	3°51'22"
C7	20.00'	30.62'	19.22'	27.71'	S72°27'29"W	87°42'39"
C8	20.00'	30.62'	19.22'	27.71'	S19°49'52"E	87°42'39"
C9	1044.00'	74.36'	37.20'	74.34'	N21°59'02"E	4°04'51"
C10	20.00'	25.33'	14.68'	23.67'	S56°13'17"W	72°33'22"
C11	20.00'	35.85'	25.01'	31.24'	S36°08'58"E	102°42'08"
C12	1044.00'	168.66'	84.51'	168.47'	N10°34'25"E	9°15'22"
C13	20.00'	30.21'	18.83'	27.42'	S49°13'21"W	86°33'14"
C14	20.00'	34.53'	23.38'	30.40'	S38°02'41"E	98°54'42"
C15	788.00'	68.01'	34.02'	67.99'	S13°53'01"W	4°56'41"
C16	20.00'	26.58'	15.67'	24.67'	S54°25'40"W	76°08'36"
C17	26.00'	40.84'	26.00'	36.77'	S42°30'02"E	90°00'00"
C18	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C19	26.00'	40.84'	26.00'	36.77'	S42°30'02"E	90°00'00"
C20	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C21	26.00'	40.84'	26.00'	36.77'	S42°30'02"E	90°00'00"
C22	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C23	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C24	375.00'	298.13'	157.45'	290.34'	N64°43'29"W	45°33'05"
C25	20.00'	31.42'	20.00'	28.28'	N42°30'02"W	90°00'00"
C26	26.00'	40.84'	26.00'	36.77'	N47°29'58"E	90°00'00"
C27	20.00'	31.42'	20.00'	28.28'	S47°29'58"W	90°00'00"
C28	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C29	352.50'	66.17'	33.18'	66.08'	N82°07'22"W	10°45'22"
C30	352.50'	66.28'	33.24'	66.18'	N71°21'30"W	10°46'22"
C31	352.50'	64.20'	32.19'	64.11'	N60°45'17"W	10°26'04"
C32	352.50'	69.19'	34.71'	69.08'	N49°54'52"W	11°14'47"
C33	352.50'	14.41'	7.21'	14.41'	N43°07'13"W	2°20'31"
C34	20.00'	25.77'	15.02'	24.02'	N05°02'12"W	73°49'30"
C35	50.00'	25.04'	12.79'	24.78'	S17°31'42"W	28°41'41"
C36	50.00'	41.93'	22.29'	40.71'	S20°50'34"E	48°02'52"
C37	50.00'	35.85'	18.74'	35.09'	S65°24'32"E	41°05'02"
C38	50.00'	35.85'	18.74'	35.09'	N73°30'26"E	41°05'02"
C39	50.00'	35.85'	18.74'	35.09'	N32°25'24"E	41°05'02"
C40	50.00'	35.85'	18.74'	35.09'	N08°39'38"W	41°05'02"
C41	50.00'	29.15'	15.00'	28.74'	N45°54'14"W	33°24'10"
C42	20.00'	7.21'	3.64'	7.17'	S52°16'38"E	20°39'22"
C43	397.50'	30.54'	15.28'	30.54'	N44°09'02"W	4°24'10"
C44	397.50'	47.68'	23.87'	47.65'	N49°47'18"W	6°52'23"
C45	397.50'	47.68'	23.87'	47.65'	N56°39'41"W	6°52'23"
C46	397.50'	47.68'	23.87'	47.65'	N63°32'03"W	6°52'23"
C47	397.50'	47.68'	23.87'	47.65'	N70°24'26"W	6°52'23"
C48	397.50'	47.68'	23.87'	47.65'	N77°16'49"W	6°52'23"
C49	397.50'	47.06'	23.56'	47.04'	N84°06'31"W	6°47'02"
C50	26.00'	40.84'	26.00'	36.77'	S42°30'02"E	90°00'00"
C51	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C52	26.00'	40.84'	26.00'	36.77'	N47°29'58"E	90°00'00"
C53	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C54	26.00'	40.84'	26.00'	36.77'	N47°29'58"E	90°00'00"
C55	25.00'	25.77'	15.02'	24.02'	S50°35'57"E	73°49'30"
C56	50.00'	28.52'	14.66'	28.13'	N30°00'55"W	32°40'47"
C57	50.00'	35.91'	18.77'	35.14'	N66°55'40"W	41°08'43"
C58	50.00'	35.91'	18.77'	35.14'	S71°55'36"W	41°08'43"
C59	50.00'	28.52'	14.66'	28.13'	S35°00'51"W	32°40'47"
C60	20.00'	25.77'	15.02'	24.02'	N55°35'13"E	73°49'30"
C61	1087.00'	97.09'	48.58'	97.05'	S23°35'29"W	5°07'03"
C62	1087.00'	37.90'	18.95'	37.90'	S27°08'56"W	1°59'52"
C63	1087.00'	81.79'	40.91'	81.77'	S30°18'12"W	4°18'40"
C64	20.00'	8.69'	4.41'	8.62'	N51°14'36"W	24°53'12"
C65	50.00'	26.97'	13.82'	26.64'	S54°15'04"E	30°54'07"
C66	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C67	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C68	26.00'	40.84'	26.00'	36.77'	N47°29'58"E	90°00'00"
C69	26.00'	40.84'	26.00'	36.77'	S42°30'02"E	90°00'00"
C70	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C71	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C72	26.00'	40.84'	26.00'	36.77'	N47°29'58"E	90°00'00"
C73	26.00'	40.84'	26.00'	36.77'	S42°30'02"E	90°00'00"
C74	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C75	26.00'	40.84'	26.00'	36.77'	N47°29'58"E	90°00'00"
C76	1087.00'	89.13'	44.59'	89.11'	S09°06'10"W	4°41'53"
C77	1087.00'	91.59'	45.82'	91.56'	S13°51'56"W	4°49'39"
C78	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C79	10.00'	15.71'	10.00'	14.14'	N47°29'58"E	90°00'00"
C80	10.00'	15.71'	10.00'	14.14'	S42°30'02"E	90°00'00"
C81	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C82	26.00'	40.84'	26.00'	36.77'	N42°30'02"W	90°00'00"
C83	10.00'	15.71'	10.00'	14.14'	N47°29'58"E	90°00'00"
C84	10.00'	15.71'	10.00'	14.14'	S42°30'02"E	90°00'00"
C85	26.00'	40.84'	26.00'	36.77'	S47°29'58"W	90°00'00"
C86	1044.00'	81.98'	41.01'	81.96'	N12°57'07"E	4°29'58"
C87	1044.00'	86.67'	43.36'	86.65'	N08°19'26"E	4°45'24"
C88	50.00'	94.82'	69.66'	81.24'	N55°58'07"E	108°39'31"
C89	50.00'	119.94'	128.37'	93.18'	N67°04'48"W	137°26'19"
C90	20.00'	9.86'	5.03'	9.76'	N58°19'49"E	28°15'34"
C91	20.00'	15.31'	8.05'	14.94'	S85°36'48"E	43°51'12"

LINE TABLE		
LINE	BEARING	LENGTH
L1	N02°29'58"E	45.00'
L2	S87°30'02"E	24.62'
L3	N02°29'58"E	45.00'
L4	N26°18'48"E	45.00'
L5	S87°30'02"E	22.89'
L6	N02°29'58"E	45.00'
L7	S87°30'02"E	8.58'
L8	N02°29'58"E	45.00'
L9	S87°30'02"E	42.09'
L10	N02°29'58"E	84.00'
L11	S02°29'58"W	84.00'
L12	S49°44'06"W	208.53'
L13	N87°30'02"W	250.73'
L14	N02°29'58"E	166.64'
L15	N46°16'05"W	78.79'
L16	N76°34'39"W	92.40'
L17	N87°30'02"W	155.89'
L18	S02°29'58"W	315.08'
L19	S02°29'58"W	45.00'
L20	S02°29'58"W	158.00'
L21	S02°29'58"W	45.00'
L22	S02°29'58"W	163.00'
L23	S02°29'58"W	45.00'
L24	N87°30'02"W	45.00'
L25	N87°30'02"W	84.00'
L26	S02°29'58"W	280.78'
L27	N02°29'58"E	276.14'
L28	N87°30'02"W	329.30'
L29	N48°03'03"E	23.00'
L30	N87°30'02"W	48.50'
L31	N87°30'02"W	48.50'
L32	S87°30'02"E	48.50'
L33	N02°29'58"E	48.50'
L34	S02°29'58"W	23.00'
L35	S87°30'02"E	22.87'
L36	S41°56'57"E	8.00'
L37	N02°29'58"E	18.39'
L38	N41°56'57"W	43.04'
L39	N41°56'57"W	9.38'
L40	N41°56'57"W	8.00'
L41	N41°56'57"W	18.00'
L42	N87°30'02"W	0.65'
L43	N41°56'57"W	117.67'
L44	S41°56'57"E	57.66'
L45	N63°41'12"W	90.78'
L46	S26°18'48"W	21.00'
L47	S63°41'12"E	23.30'
L48	S87°30'02"E	7.34'
L49	N63°41'12"W	24.16'
L50	S02°29'58"W	8.31'
L51	S02°29'58"W	3.19'
L52	S87°30'02"E	2.00'
L53	N02°29'58"E	28.11'
L54	S87°30'02"E	34.50'
L55	S02°29'58"W	11.00'
L56	S87°30'02"E	34.50'
L57	N02°29'58"E	28.11'
L58	N87°30'02"W	2.00'
L59	N02°29'58"E	3.19'
L60	S02°29'58"W	5.51'
L61	N87°30'02"W	2.00'
L62	S02°29'58"W	28.11'
L63	S87°30'02"E	34.50'
L64	S02°29'58"W	11.00'
L65	S87°30'02"E	34.50'
L66	N02°29'58"E	28.11'
L67	N87°30'02"W	2.00'
L68	N02°29'58"E	5.51'
L69	S87°30'02"E	83.93'
L70	S86°58'46"E	3.86'
L71	S87°30'02"E	42.02'
L72	S87°30'02"E	40.37'
L73	S02°29'58"W	41.16'
L74	S02°29'58"W	42.84'
L75	N87°30'02"W	69.34'
L76	N87°30'02"W	72.48'
L77	N63°41'12"W	56.15'
L78	N87°30'02"W	69.65'
L79	N87°30'02"W	62.72'







GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NOTES:

THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO MESQUITE TRAILS UNIT FIVE REPLAT 'A' BY THE EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS AND WITH SECTION 18.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON SUN FIRE BOULEVARD AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.

TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No. 20100010827

VEHICULAR ACCESS TO THOSE RESIDENTIAL LOTS ABUTTING SUN FIRE BOULEVARD, AND CEVALLIA AVENUE SHALL BE FROM OTHER DEDICATED STREETS ONLY. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No. 20100010829

RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No. 20100010828

SUBDIVISION IMPROVEMENTS AGREEMENT & GUARANTEE FOR THIS SUBDIVISION IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
INSTRUMENT No. 20100010830

INTERIOR LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.

SET 5/8 REBAR WITH CAP STAMPED "B&A" AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE SHOWN.

"U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS."

THIS SUBDIVISION LIES WITH IN ZONE "X" AS DESIGNATED IN PANEL NO. 480212 0250 B, DATED SEPTEMBER 4, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "X" INDICATES AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

(●) PROPOSED CITY MONUMENT (FOR EXACT LOCATION CONTACT CITY OF EL PASO)
(⊗) EXISTING CITY MONUMENT

FOUND CONCRETE MON. IN CENTERLINE OF LOOP 375 (NO BRASS CAP) AT STATION 240+24.50 (ORIGINAL 2" PIPE McCOMBS CORNER REPLACED WITH MKR. & G.P. NOTED ON TxDOT PLANS (NOW DISTURBED)

(BEARING BASIS) S42°39'59"E 7497.16' (McCOMBS LINE)

FOUND REBAR WITH CAP "LANDMARK"

REPLAT REASON:

ADJUSTED LOT WIDTHS ON BLOCKS 18, 20, 21, 22, 23, & 24

DEDICATION

Americas Loop 375 Joint Venture, L.P. the owners of this land, do hereby present this map and dedicate their respective portions of property to the use of the public, the streets, pedestrian right-of-way and utility easements as hereon laid down and designated, including easements for overhang of service wires for pole type utilities and the right for installation of service poles alongside lot lines as may be required, easements for buried service wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.

Witness my signature this 5th day of February 2010.

R. L. Bowling III, Managing Partner
Americas Loop 375 Joint Venture, L.P.

MICHELLE RODRIGUEZ
My Commission Expires
January 8, 2011

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

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

Given under my hand and seal of office this 5th day of February 2010.

Notary Public in and for El Paso County

My Commission Expires January 8, 2011

CITY PLANNING COMMISSION

This subdivision is hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas this 17 day of February 2010.

Chairperson

Executive Secretary

Approved for filing this 17 day of Feb, 2010.

Development Services Director

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 19th day of Feb 2010, in File No. 20100010826 of the Plat Records.

County Clerk

MICHELLE RODRIGUEZ
by Deputy

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER

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

2/2/10

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

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

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

ENGINEER

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
CONTACT: JORGE L. AZCARATE, P.E.

SURVEYOR

Barragan & Associates Inc.
LAND PLANNING & LAND SURVEYING
10950 Pellicano Drive Bldg. F-El Paso Tx 79936
Phone (915) 591-5709 Fax (915) 591-5706
CONTACT: BENITO BARRAGAN, R.P.L.S.

DATE OF PREPARATION: JANUARY, 2010

284-M