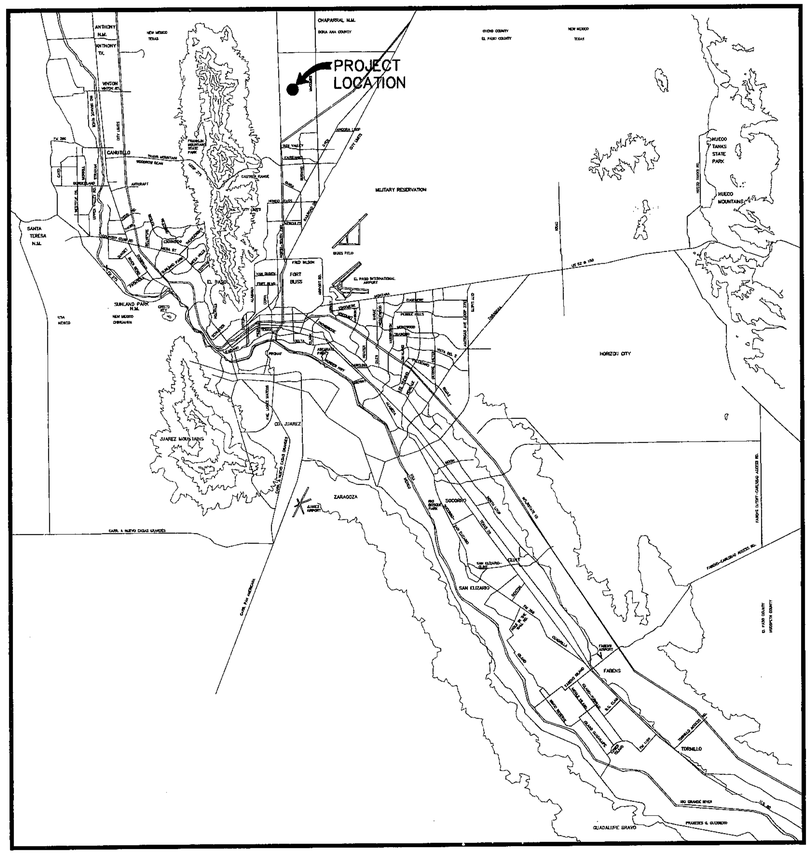
SANDSTONE RANCH UNIT THREE

SUBDIVISION IMPROVEMENTS

BEING A PORTION OF SECTION 22, BLOCK 81, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS; CONTAINING 21.97± ACRES

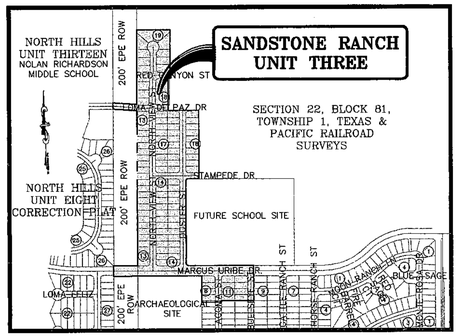
DEVELOPMENT SERVICES DEPARTMENT

Reviewing by the City of El Paso shall neither constitute approval nor have responsibility of the adequacy of design and pl ans.



VICINITY MAP
APPROXIMATE SCALE:
1" = 2 MILES

SHEET NUMBER	SHEET TITLE
CVR,1	COVER SHEET, GENERAL INFORMATION
2	FINAL PLAT
3,5	GRADING PLAN AND GRADING SECTIONS
4	DRAINAGE PLAN
6-14	STREET PLAN & PROFILES
15,16,16A	STORM SEWER PLAN & PROFILES
17-19	STANDARD DETAILS
21	DRAINAGE DETAILS
22	ILLUMINATION PLAN
23-25	SWPPP



LOCATION MAP
APPROXIMATE SCALE:
1" = 600'

SANDSTONE RANCH UNIT 3

JORGE L. AZCARATE, P.E. PROJECT MANAGER

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

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 _____ DATE 02/19/2007

PRINCIPAL CONTACTS:

	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	NORTHTOWNE VILLAGE JOINT VENTURE	4655 COHEN AVE.	EL PASO, 79924	(915) 821-3550	(915) 821-3556
ENGINEER:	CEA ENGINEERING GROUP	1204 MONTANA AVE.	EL PASO, 79902	(915) 544-5232	(915) 544-5233
SURVEYOR:	CAD CONSULTING COMPANY	1790 N. LEE TREVINO SUITE 503	EL PASO, 79936	(915) 633-6422	(915) 633-6424

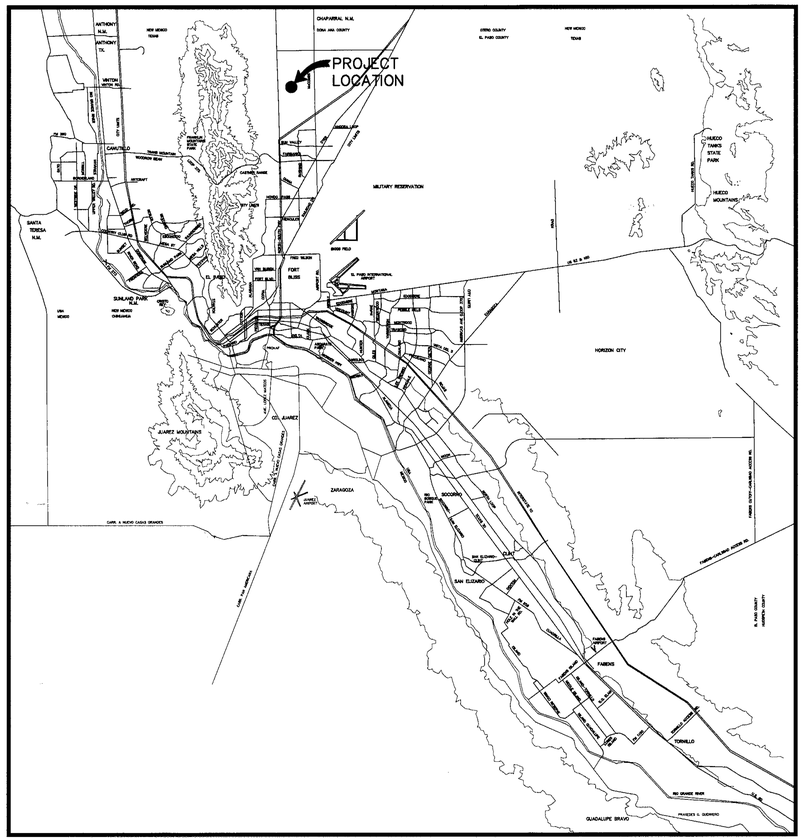
SANDSTONE RANCH UNIT THREE				
COVER SHEET				
DATE PREPARED	DRAWN BY:	DESIGN BY:	CHECKED BY:	APPROVED BY:
JANUARY 2007	A.B.	A.H.	J.L.A.	J.L.A.
REVISION NUMBER	SHEET NAME OR NUMBER	DESCRIPTION OF REVISION	DATE OF REVISION	REVISION APPROVED BY:

JANUARY 2007

SANDSTONE RANCH UNIT THREE

SUBDIVISION IMPROVEMENTS

BEING A PORTION OF SECTION 22, BLOCK 81, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS; CONTAINING 21.97± ACRES



VICINITY MAP
APPROXIMATE SCALE:
1" = 2 MILES

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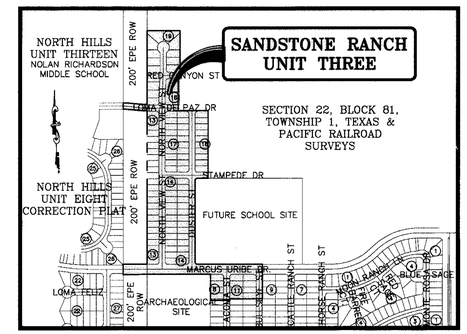

LOCATION MAP
APPROXIMATE SCALE:
1" = 600'

JORGE L. AZCARATE, P.E. PROJECT MANAGER 2/11/08

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
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RECORD DRAWINGS

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2/7/08

PRINCIPAL CONTACTS:

	NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER:	NORTHTOWNE VILLAGE JOINT VENTURE	4655 COHEN AVE.	EL PASO, 79924	(915) 821-3550	(915) 821-3556
ENGINEER:	CEA ENGINEERING GROUP	1204 MONTANA AVE.	EL PASO, 79902	(915) 544-5232	(915) 544-5233
SURVEYOR:	CAD CONSULTING COMPANY	1790 N. LEE TREVINO SUITE 503	EL PASO, 79936	(915) 633-6422	(915) 633-6424

SANDSTONE RANCH UNIT THREE

COVER SHEET

DATE PREPARED	DRAWN BY:	DESIGN BY:	CHECKED BY:	APPROVED BY:
JANUARY 2007	A.B.	A.H.	J.L.A.	J.L.A.

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

JANUARY 2007

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING BIDS.
2. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AUTOMOBILE AND PEDESTRIAN ACCESS TO THE USER AT ALL TIMES, INCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS. THIS INCLUDES, BUT IS NOT LIMITED TO DRIVEWAYS, STREETS, PARKING, AND WALKWAYS. THIS REQUIREMENT SHALL BE FULFILLED AT NO EXTRA COST TO THE OWNER.
3. 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.
4. 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. SERVICE SHALL BE PROVIDED TO USER AT ALL TIMES.
5. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM WORK SO AS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF THE 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.
6. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE USER, ALL UTILITIES, AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT.
7. 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.
8. 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.
9. FOR ELEVATIONS, REFERENCE BENCHMARK IN TITLE BLOCK FOR ADDITIONAL INFORMATION.
10. VIBRATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE ENGINEER.
11. ALL WORK REQUIRED BY THESE PLANS SHALL BE CONDUCTED IN CONFORMANCE WITH CURRENT SAFETY CODES AND STANDARDS WITH JURISDICTION OVER THE PROJECT.
12. THE LOCATION OF THE FLUMES AND INLETS SHALL BE AT THE FIELD LOW POINT AND APPROVED BY THE ENGINEER.
13. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE FINAL APPROVED SUBDIVISION PLANS PRIOR TO COMMENCING ANY CONSTRUCTION WORK.

GRADING SPECIFICATIONS

1. CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STUMPS, ROOTS AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE; FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY FILL MATERIAL, UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED; REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION. BURNING IS NOT PERMITTED ON OWNER'S PROPERTY. REMOVE WASTE MATERIALS FROM OWNER'S PROPERTY.
2. SATISFACTORY FILL MATERIALS: FILL MATERIALS SHALL BE FREE OF ANY ORGANIC OR DELETERIOUS SUBSTANCE AND SHALL NOT CONTAIN ROCKS OR LUMPS OVER THREE (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. OR UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER, GEOTECHNICAL ENGINEER OR CITY ENGINEER.
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 TWELVE (12)
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 SIX (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 ONE (1) VERTICAL TO FOUR (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 EIGHT (8) INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN FOUR (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 TWO (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 IS REQUIRED DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

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 (3'–9' IN HEIGHT)
- EXISTING RETAINING ROCKWALL
- NEW RETAINING ROCKWALL (2'–3' IN HEIGHT)
- EXISTING ELECTRICAL LINE
- 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
- STORM SEWER LINE FLOW
- HIGH POINT
- LOW POINT
- EXISTING HIGH POINT
- EXISTING LOW POINT
- HEADWALL WITH WINGWALLS
- DA–4 — DRAINAGE AREA
- 2:1 SLOPE — HORIZONTAL: VERTICAL SLOPE RATIO
- 3980 — APPROXIMATE BASE FLOOD ELEVATION (NATIONAL GEODETIC VERTICAL DATUM, NGVD). TO CONVERT TO CITY OF EL PASO DATUM FROM NGVD, SUBTRACT 8.462–FEET.
- APPROXIMATE AREA OF 100 YEAR FLOOD, AS PER FIRM PANEL NO. 480214–0016–C (FEBRUARY 5, 1986)
- WHEELCHAIR RAMP

ABBREVIATIONS

LP	LOW POINT
HP	HIGH POINT
ELEV	ELEVATION
STA	STATION
VCS	VERTICAL CURVE STATION
VCE	VERTICAL CURVE ELEVATION
TC	TOP OF CURB
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
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
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HWE	HIGH WATER ELEVATION

RECORD DRAWINGS

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2/7/08

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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REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
1/18/08

SCALE N/A
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2006–082–LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

GENERAL INFORMATION

SHEET NO.

1

OF 25

SANDSTONE RANCH UNIT THREE

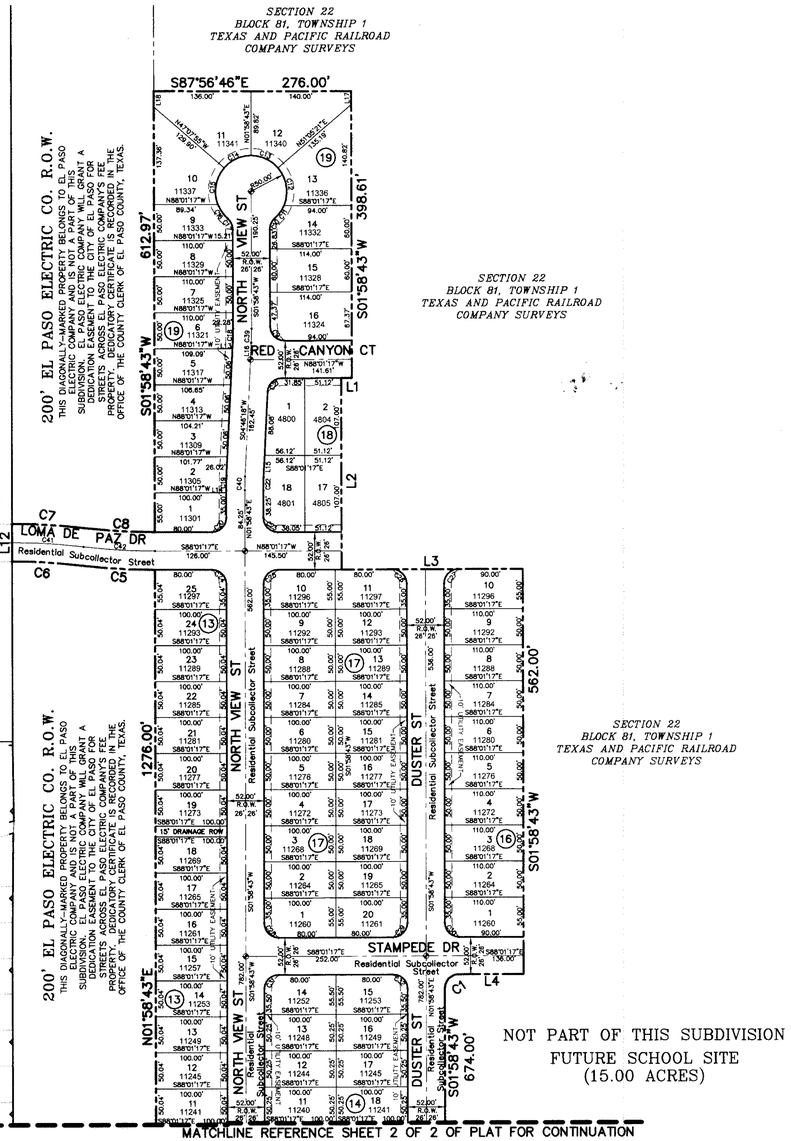
BEING A PORTION OF SECTION 22,
BLOCK 81, TOWNSHIP 1,
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
CITY OF EL PASO, EL PASO COUNTY, TEXAS;
CONTAINING APPROX. 21.97± ACRES

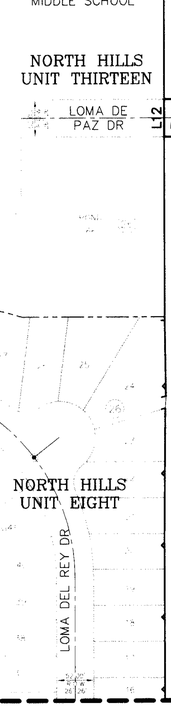
CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C2	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C3	100.04'	2088.06'	50.03'	100.03'	N89°23'38"W	2°44'42"
C4	100.04'	2088.06'	50.03'	100.03'	S89°23'38"E	2°44'42"
C5	103.36'	866.96'	51.74'	103.29'	S84°36'22"E	6°49'50"
C6	97.12'	815.02'	48.62'	97.06'	N84°36'17"W	6°49'39"
C7	103.32'	867.02'	51.72'	103.26'	N84°36'17"W	6°49'39"
C8	97.16'	814.96'	48.64'	97.10'	S84°36'22"E	6°49'50"
C9	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C10	17.08'	20.00'	9.10'	16.56'	S26°26'15"W	48°55'04"
C11	22.55'	50.00'	11.47'	22.36'	N37°58'28"E	25°50'37"
C12	55.82'	50.00'	31.22'	52.96'	N06°55'45"W	63°57'48"
C13	42.86'	50.00'	22.84'	41.56'	N63°27'58"W	49°06'38"
C14	42.86'	50.00'	22.84'	41.56'	S67°25'24"W	49°06'38"
C15	54.06'	50.00'	30.01'	51.47'	S11°53'30"W	61°57'10"
C16	24.31'	50.00'	12.40'	24.07'	S33°00'43"E	27°51'16"
C17	17.08'	20.00'	9.10'	16.56'	N22°28'49"W	48°55'04"
C18	18.23'	374.00'	9.12'	18.23'	N03°22'31"E	2°47'35"
C19	20.77'	426.00'	10.39'	20.77'	S03°22'31"W	2°47'35"
C20	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C21	30.44'	20.00'	19.05'	27.59'	S48°22'31"W	87°12'25"
C22	18.23'	374.00'	9.12'	18.23'	S03°22'31"W	2°47'35"
C23	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C24	31.42'	20.00'	20.00'	28.28'	N43°01'17"W	90°00'00"
C25	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C26	31.42'	20.00'	20.00'	28.28'	N43°01'17"W	90°00'00"
C27	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C28	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C29	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C30	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C31	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C32	31.42'	20.00'	20.00'	28.28'	N43°01'17"W	90°00'00"
C33	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C34	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C35	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C36	31.42'	20.00'	20.00'	28.28'	N43°01'18"W	89°59'59"
C37	31.42'	20.00'	20.00'	28.28'	S46°58'42"W	90°00'01"
C38	31.42'	20.00'	20.00'	28.28'	N43°01'18"W	89°59'59"
C39	19.50'	400.00'	9.75'	19.50'	N03°22'31"E	2°47'35"
C40	19.50'	400.00'	9.75'	19.50'	S03°22'31"W	2°47'35"
C41	100.24'	840.67'	50.18'	100.18'	N84°36'19"W	6°49'53"
C42	100.24'	840.61'	50.18'	100.18'	S84°36'19"E	6°49'55"
C43	100.06'	1660.17'	50.05'	100.05'	S89°44'53"E	3°27'12"
C44	100.06'	1660.17'	50.05'	100.05'	N89°44'53"W	3°27'12"
C45	49.87'	471.31'	24.96'	49.85'	N88°56'50"E	6°03'47"

LINE TABLE

LINE	LENGTH	BEARING
L1	14.83'	S88°01'17"E
L2	266.00'	S01°58'43"W
L3	252.83'	S88°01'17"E
L4	90.00'	S88°01'17"E
L5	289.00'	N01°58'42"E
L6	272.00'	S88°01'18"E
L7	13.33'	N01°58'42"E
L8	162.00'	S88°01'18"E
L9	218.33'	S01°58'43"W
L10	88.79'	S01°58'43"W
L11	200.00'	N88°01'17"W
L12	52.00'	S01°58'43"W
L13	9.51'	S04°46'18"W
L14	3.25'	S01°58'43"W
L15	30.56'	S04°46'18"W
L16	23.26'	S04°46'18"W
L17	18.41'	S01°58'43"W
L18	22.24'	S01°58'43"W
L19	26.00'	N88°01'17"W





LEGEND

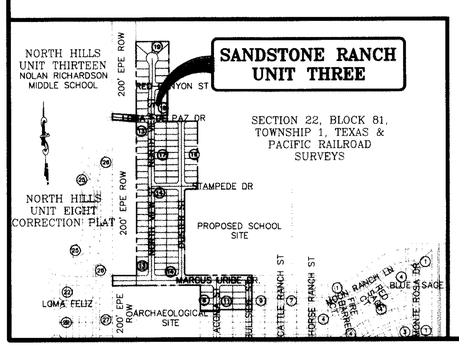
- = PROPOSED CITY MONUMENT
- = EXISTING CITY MONUMENT
- =SECTION CORNER

SCHOOL DISTRICT

EL PASO INDEPENDENT SCHOOL DISTRICT
6531 BOEING DR, EL PASO, TX 79925

LOCATION MAP

SCALE 1"= 600'



GENERAL NOTES:

1. RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
   INSTRUMENT NO. 20070050528
2. TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORDS SECTION.
   INSTRUMENT NO. 20070050526
3. THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO SANDSTONE RANCH UNIT THREE SUBDIVISION BY THE EL PASO WATER UTILITIES COMPANY IN ACCORDANCE WITH ITS REGULATIONS AND WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON MARCUS URIBE DRIVE AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.
4. SET 5/8" REBAR AT ALL EXTERIOR BOUNDARY CORNERS.
5. ALL UTILITY EASEMENTS ARE 10-FEET WIDE UNLESS OTHERWISE SPECIFIED.
6. THIS SUBDIVISION LIES WITHIN ZONE "C" AS DESIGNATED IN PANEL NO. 480214-0014 D, DATED AUGUST 5, 1991, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "C" INDICATES AREAS OF MINIMAL FLOODING.
7. LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.
8. VEHICULAR ACCESS TO THESE RESIDENTIAL LOTS ABUTTING MARCUS URIBE DRIVE 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. 20070050527
9. U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

DEDICATION

EL PASO ELECTRIC COMPANY, property owner of this land, hereby presents this plat and by separate recorded document (Titled Dedicatory Certificate, which is fully incorporated herein by this reference, and is recorded in the El Paso County Real Property Records Document Number 20060091487), provides a dedication to the City of El Paso for use of two (2) designated areas as streets, as hereon laid down and designated; including use for overhang service wires for pole type utilities, and the right to ingress and egress for service and construction and the right to trim interfering trees and shrubs.

Witness our signature this 2nd day of April, 2007.

EL PASO ELECTRIC COMPANY

HECTOR R. PUENTE
VICE PRESIDENT–TRANSMISSION AND DISTRIBUTION

ATTEST: NOT REQUIRED

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Hector R. Puente, Vice President–Transmission & Distribution of El Paso Electric Company, 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 of said corporatoin for the purposes and considerations herein expressed.

Given under my hand and seal of office this 2nd day of April, 2007.

Martha A. Velasco
Notary Public in and for El Paso County

My Commission Expires June 29, 2007

MARTHA A. VELASCO
NOTARY PUBLIC
State of Texas
06-29-2007

DEDICATION

THE CITY OF EL PASO, property owner of this land does hereby present this plat and dedicates, if not previously dedicated, its respective portion of said property to the use of the public, the streets, drives and utility easements, as hereon laid down and designated, including easements for overhang of service wires, conduits and pipes for underground utilities, the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.

Witness our signature this 31st day of May, 2007.

THE CITY OF EL PASO

JOYCE WILSON, City Manager

ATTEST: NOT REQUIRED

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Joyce Wilson, City Manager of The City of El Paso, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations herein expressed.

Given under my hand and seal of office this 31st day of May, 2007.

Martha R. Calderon
Notary Public in and for El Paso County

My Commission Expires February 24, 2009

MARTHA R. CALDERON
Notary Public, State of Texas
My Commission Expires
February 24, 2009

DEDICATION

NORTHTOWNE VILLAGE JOINT VENTURE, property owner of this land does hereby present this plat and dedicates, if not previously dedicated, its respective portion of said property to the use of the public, the streets, drives, drainage right-of-way and utility easements, as hereon laid down and designated, including easements for overhang of service wires, conduits and pipes for underground utilities, the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.

Witness our signature this 9th day of April, 2007.

NORTHTOWNE VILLAGE JOINT VENTURE

ROBERT L. BOWLING III, Managing Partner

ATTEST: NOT REQUIRED

ACKNOWLEDGEMENT

STATE OF TEXAS
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Robert L. Bowling III, Managing Partner of Northtowne Village Joint Venture, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations herein expressed.

Given under my hand and seal of office this 9th day of April, 2007.

Martha L. Aranda
Notary Public in and for El Paso County

My Commission Expires 6/26/09

MARTHA L. ARANDA
NOTARY PUBLIC
State of Texas
06-26-2007

CITY PLAN COMMISSION

This subdivision is hereby approved as to the platting and to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas this ____ day of _____, 2007, A.D.

Secretary — Chairperson

Approved for filing this 16th day of May, 2007.

DEVELOPMENT SERVICES DIRECTOR

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 1 day of June, 2007, A.D. in File No. 20070050525

County Clerk — By Deputy

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

Jorge L. Azcarate, P.E. TX 85075 — 3-27-07

STATE OF TEXAS
JORGE L. AZCARATE
85075
LICENSED
PROFESSIONAL ENGINEER

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

Carlos M. Jimenez, R.P.L.S.
Registered Professional Land Surveyor
Texas License No. 3950

ENGINEER

cea engineering group
1204 Montana., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net
CONTACT: JORGE L. AZCARATE, P.E.

SURVEYOR

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CONSULTING COMPANY
1790 N. LEE TREVINO DR. SUITE 503
EL PASO, TEXAS 79936
TEL (915) 633-6422
CONTACT: CARLOS M. JIMENEZ R.P.L.S.

SHEET 1 OF 2

DATE OF REVISION: JANUARY 5, 2007
DATE OF PREPARATION: JUNE 13, 2006

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

2/7/08

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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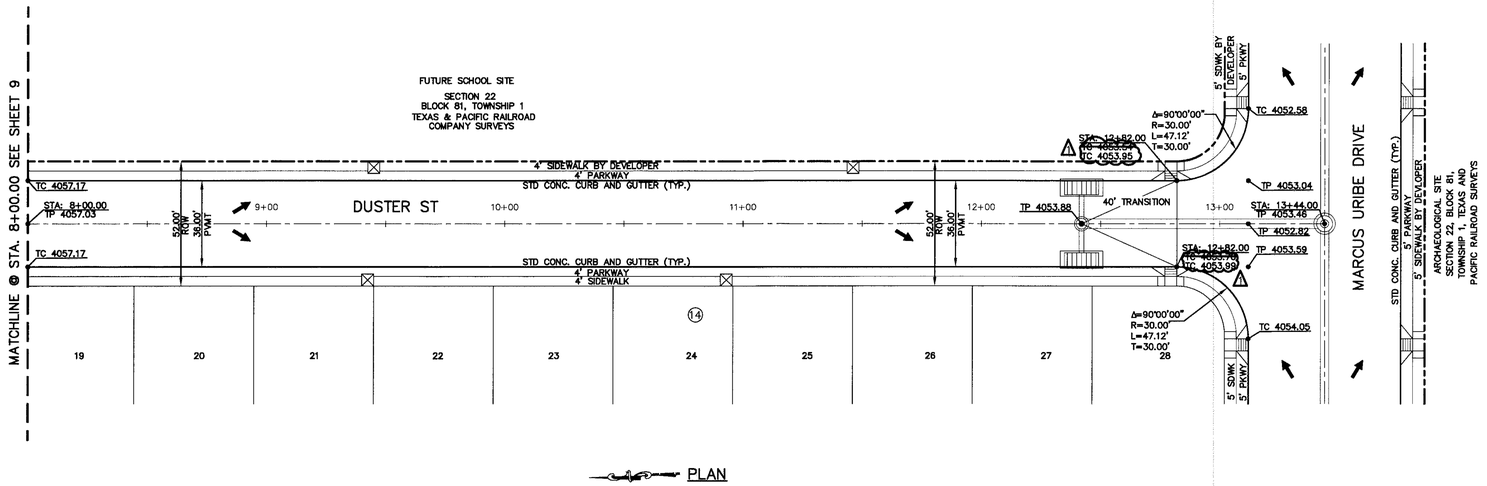
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. – SIGNAL & SIGN	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

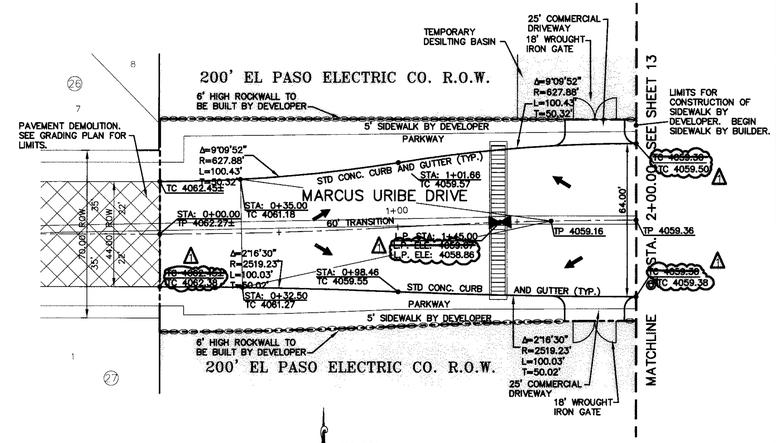
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)
- TC XXXX.XX — DENOTE AS-BUILT ELEVATIONS



PLAN



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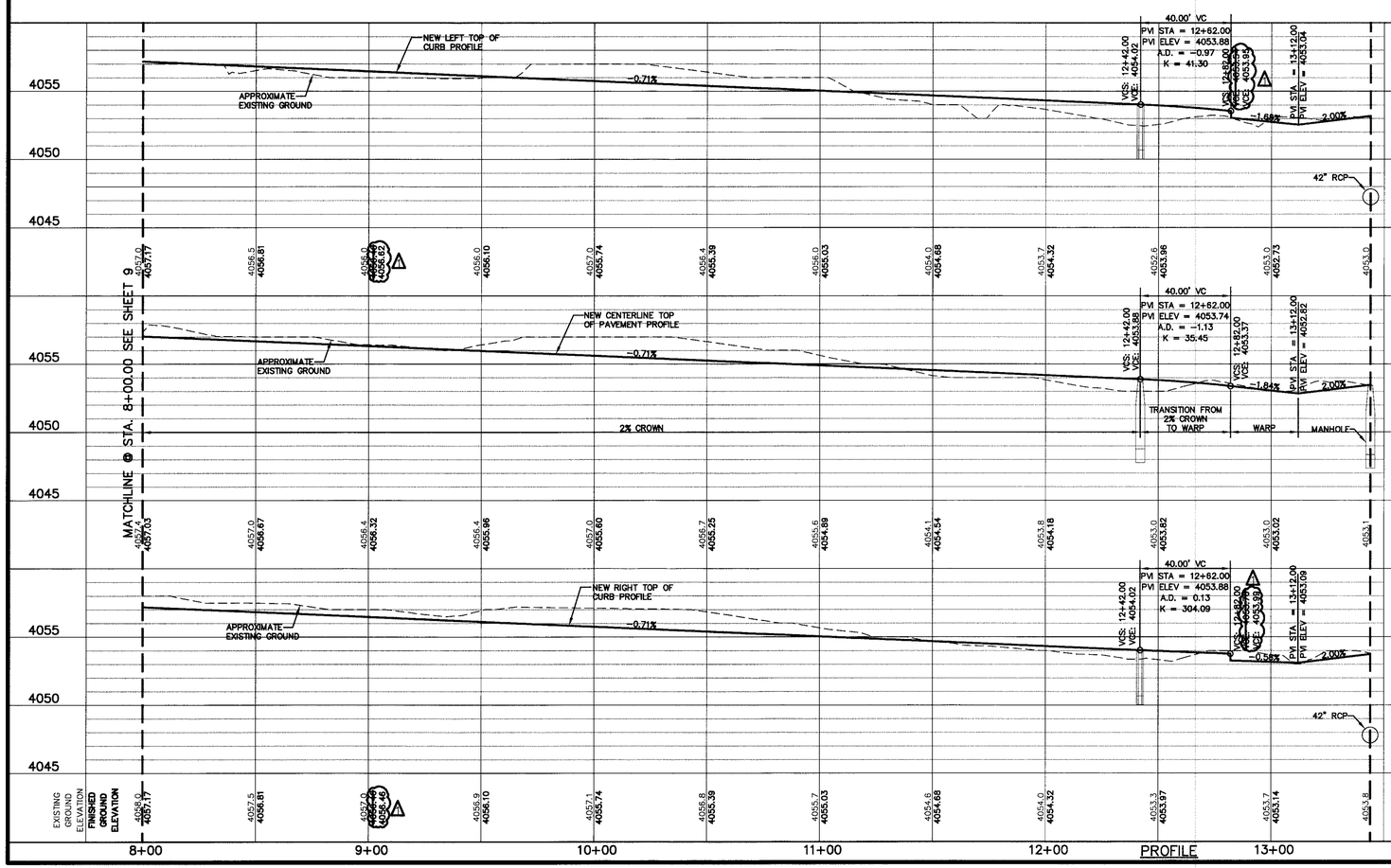
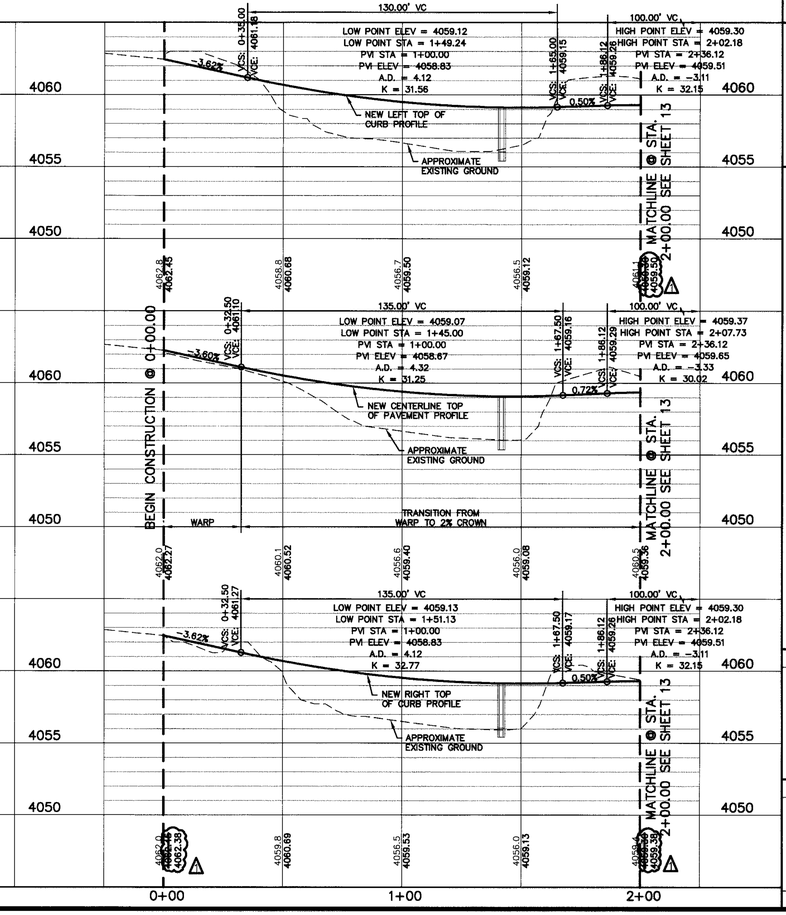


PROFILE



REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 27 ELEVATIONS 4037.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
PROFESSIONAL ENGINEER
STATE OF TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-092-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

DUSTER ST
PLAN & PROFILE
FROM STA. 8+00.00
TO STA. 13+44.00

MARCUS URIBE DR
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 2+00.00

SHEET NO.

10

OF 25

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

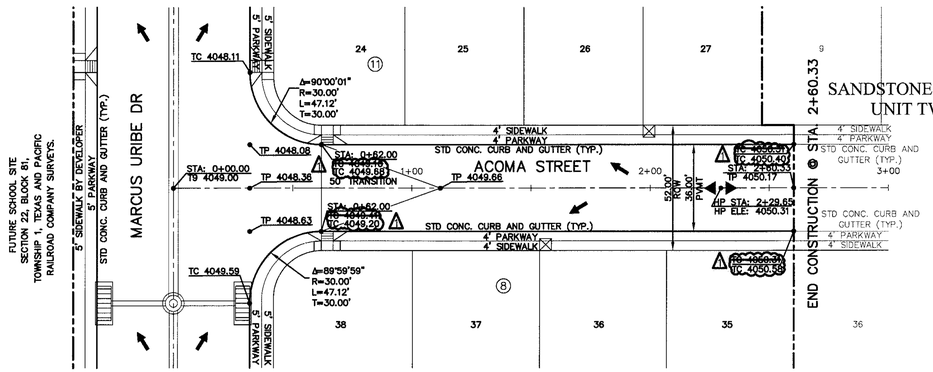
2/7/08

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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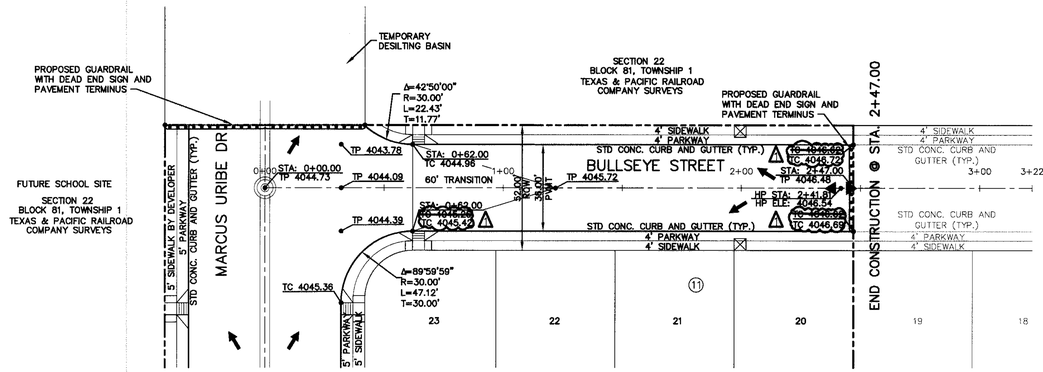
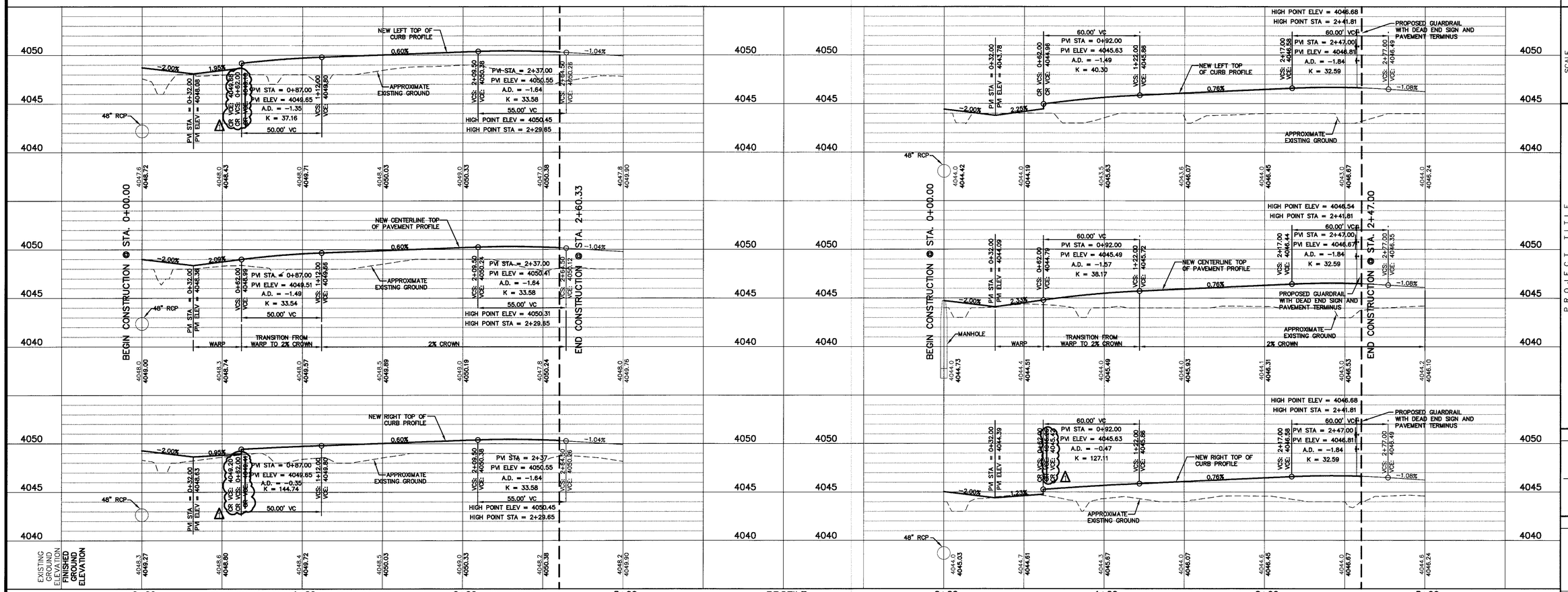


PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)
- TC XXXX.XX — DENOTE AS-BUILT ELEVATIONS



REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22' (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
1	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. ACCARATE 85075 TEXAS REGISTERED PROFESSIONAL ENGINEER

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

ACOMA ST
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 2+60.33

BULLSEYE ST
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 2+47.00

SHEET NO.

11

OF 25

RECORD DRAWINGS

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

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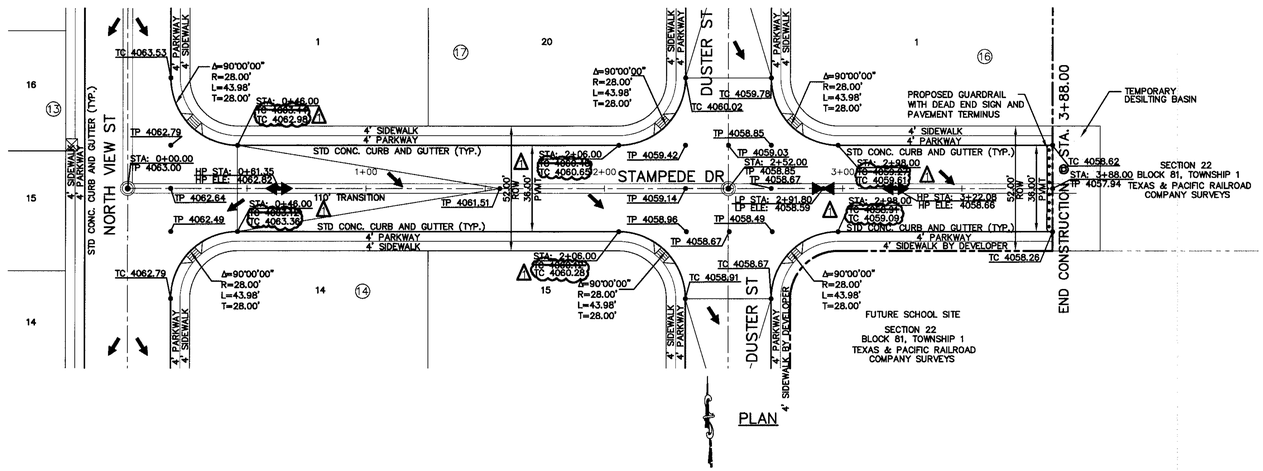
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



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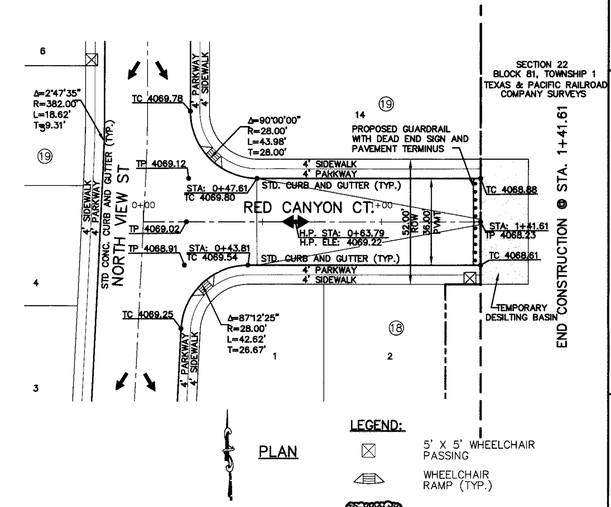
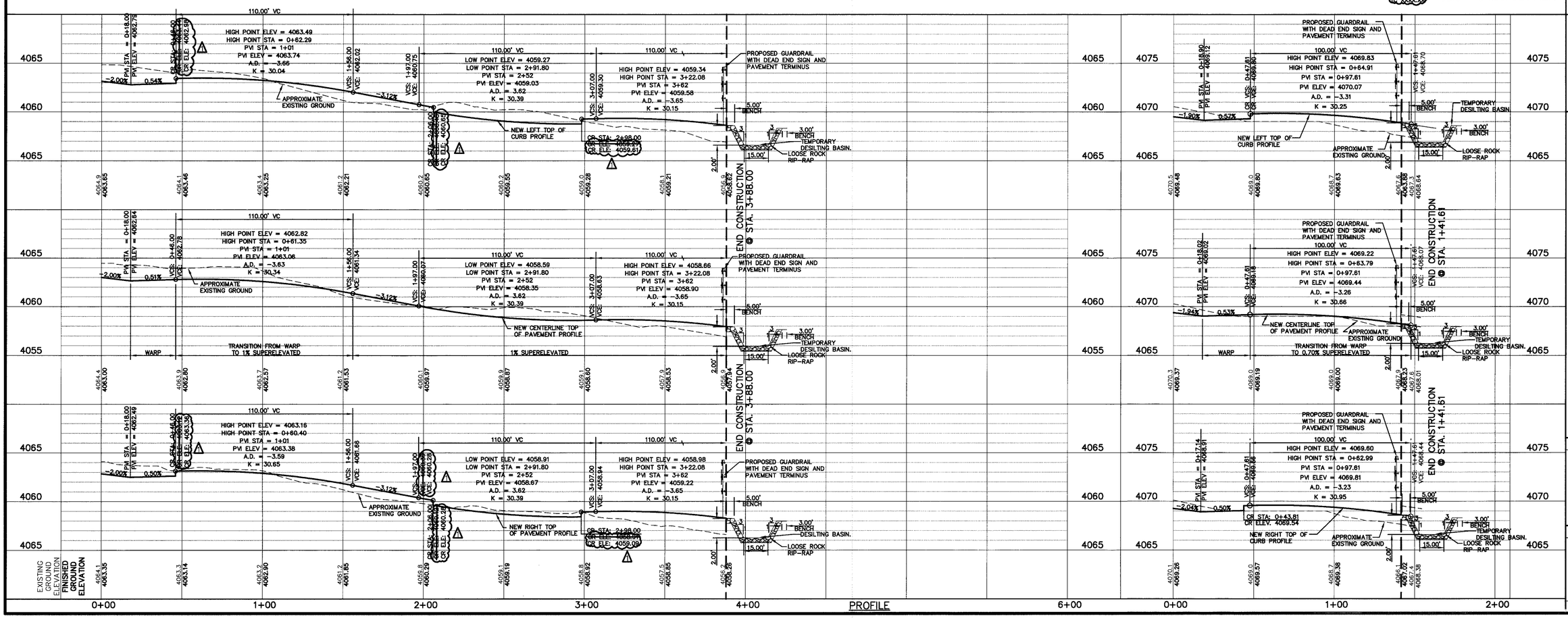


PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)
- TC XXXX.XX — DENOTE AS-BUILT ELEVATIONS



PROFILE

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 27 ELEVATION 4137 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL: STATE OF TEXAS, JORGE L. AZCARATE, 85075, LICENSED PROFESSIONAL ENGINEER, 2/7/08

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-062-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STAMPEDE DR PLAN & PROFILE FROM STA. 0+00.00 TO STA. 3+88.00

RED CANYON PLACE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 1+41.61

SHEET NO.

12 OF 24

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

2/7/08

UTILITY LOCATOR SERVICES	
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U.S. SPRINT TELECOMM	(800) 521-0579
STREET DEPT. - SIGNAL & SIGN (AFTER HOURS)	(915) 521-6750 (915) 240-3220

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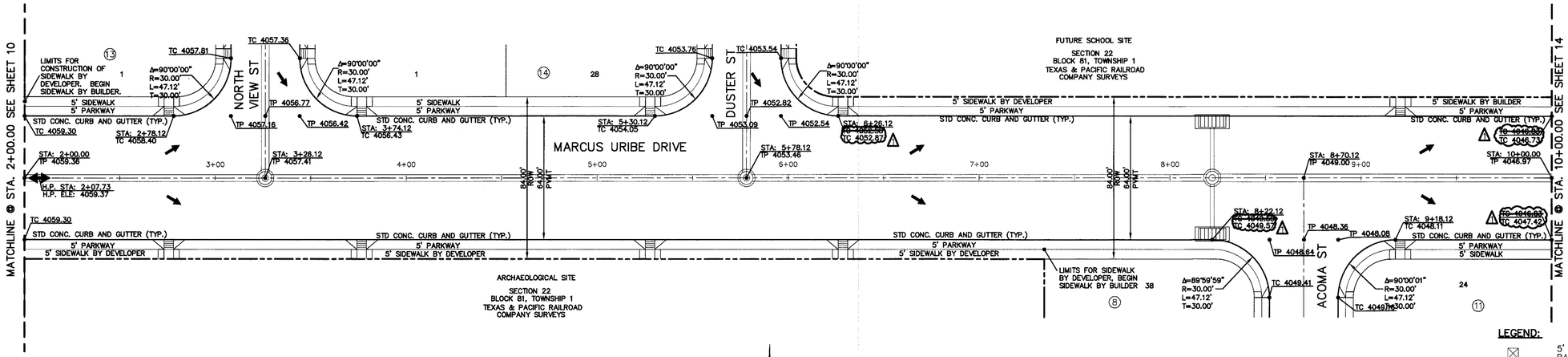
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
1	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net



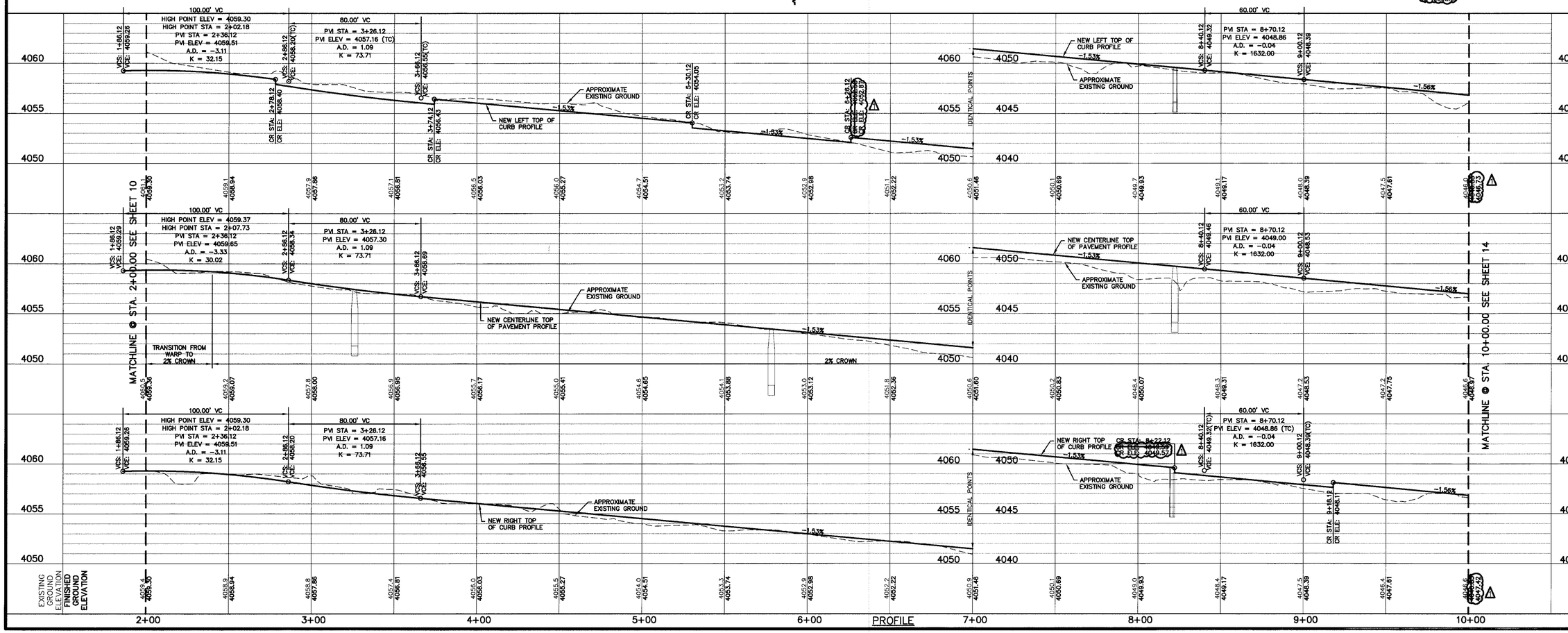
PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)
- TC XXXX.XX / TC XXXX.XX — DENOTE AS-BUILT ELEVATIONS

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 CIVIL



PROFILE

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

DATE: JANUARY 2007
DESIGN BY: A.B.
DRAWN BY: A.B.
CHKD BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

MARCUS URIBE DR
PLAN & PROFILE
FROM STA. 2+00.00
TO STA. 10+00.00

SHEET NO.

13

OF 25

RECORD DRAWINGS

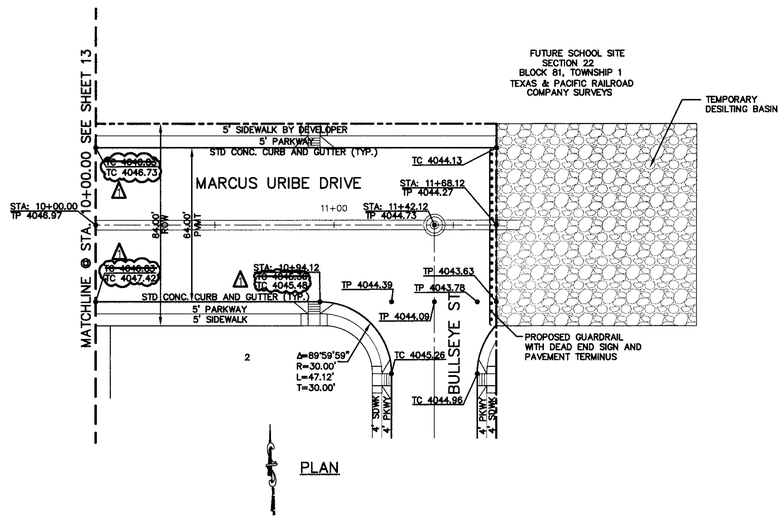
THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

2/7/08

UTILITY LOCATOR SERVICES

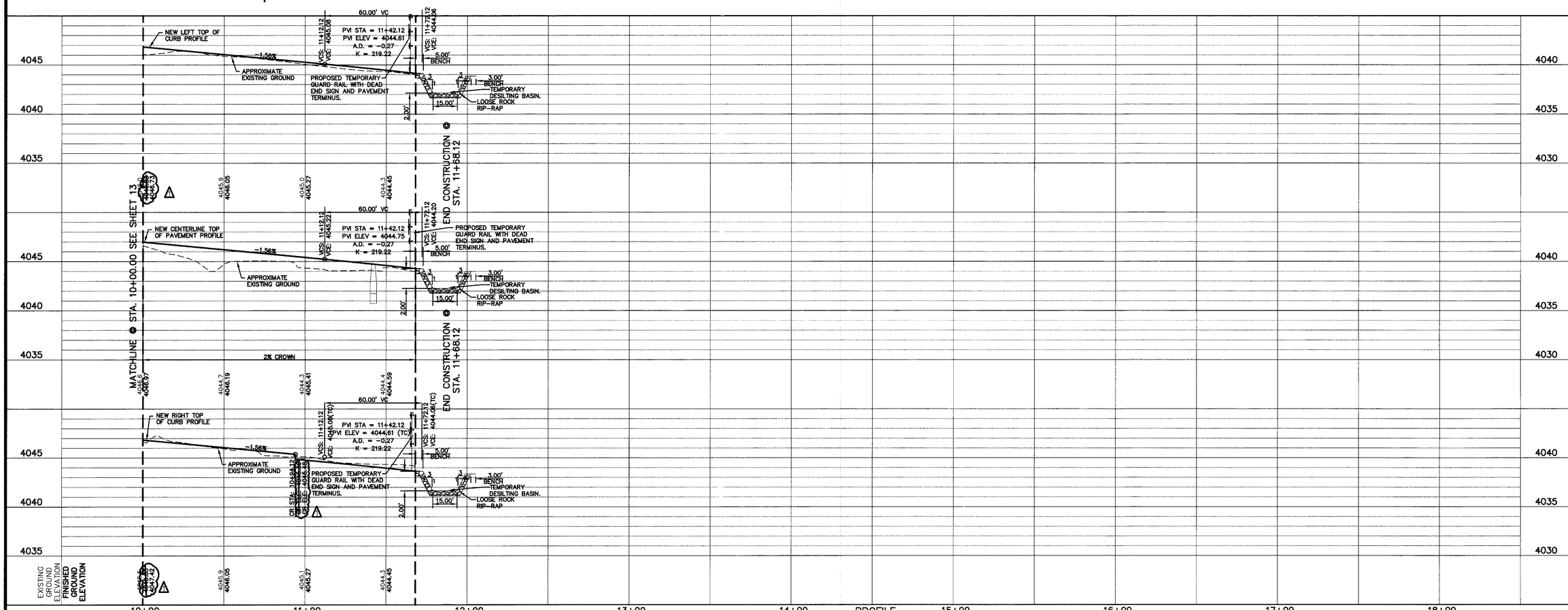
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579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

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)
- TC XXXX.XX / FG XXXX.XX — DENOTE AS-BUILT ELEVATIONS



PROFILE

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22' (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
4	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 LICENSED PROFESSIONAL ENGINEER TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-092-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

MARCUS URIBE DR
PLAN & PROFILE
FROM STA. 10+00.00
TO STA. 11+68.12

SHEET NO.

14

OF 25

RECORD DRAWINGS

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2/7/08

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(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

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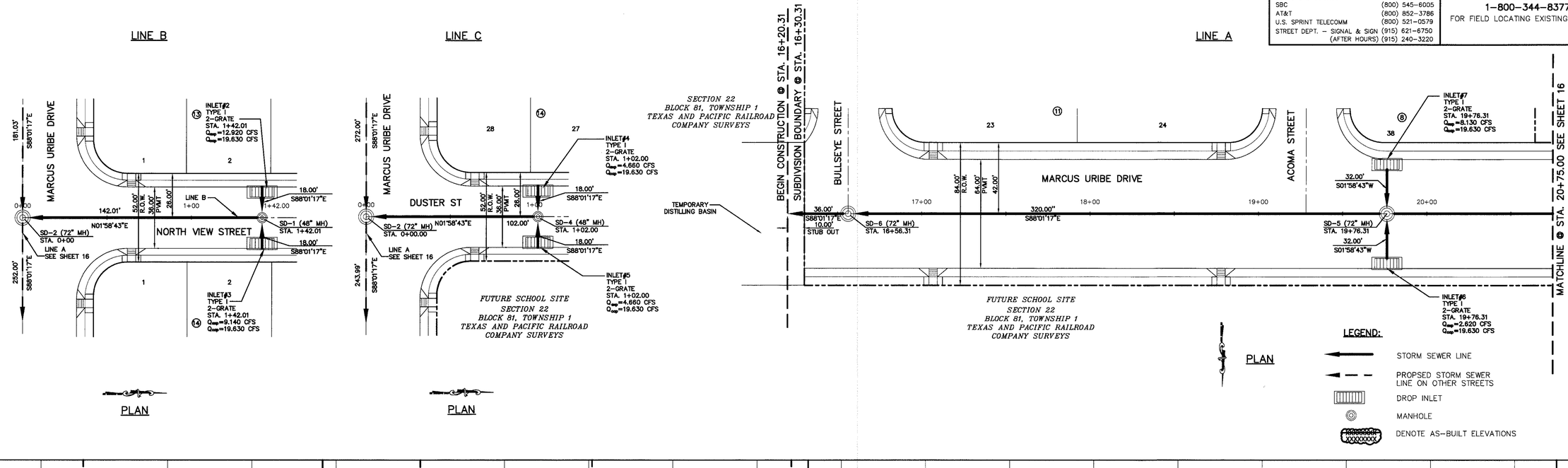
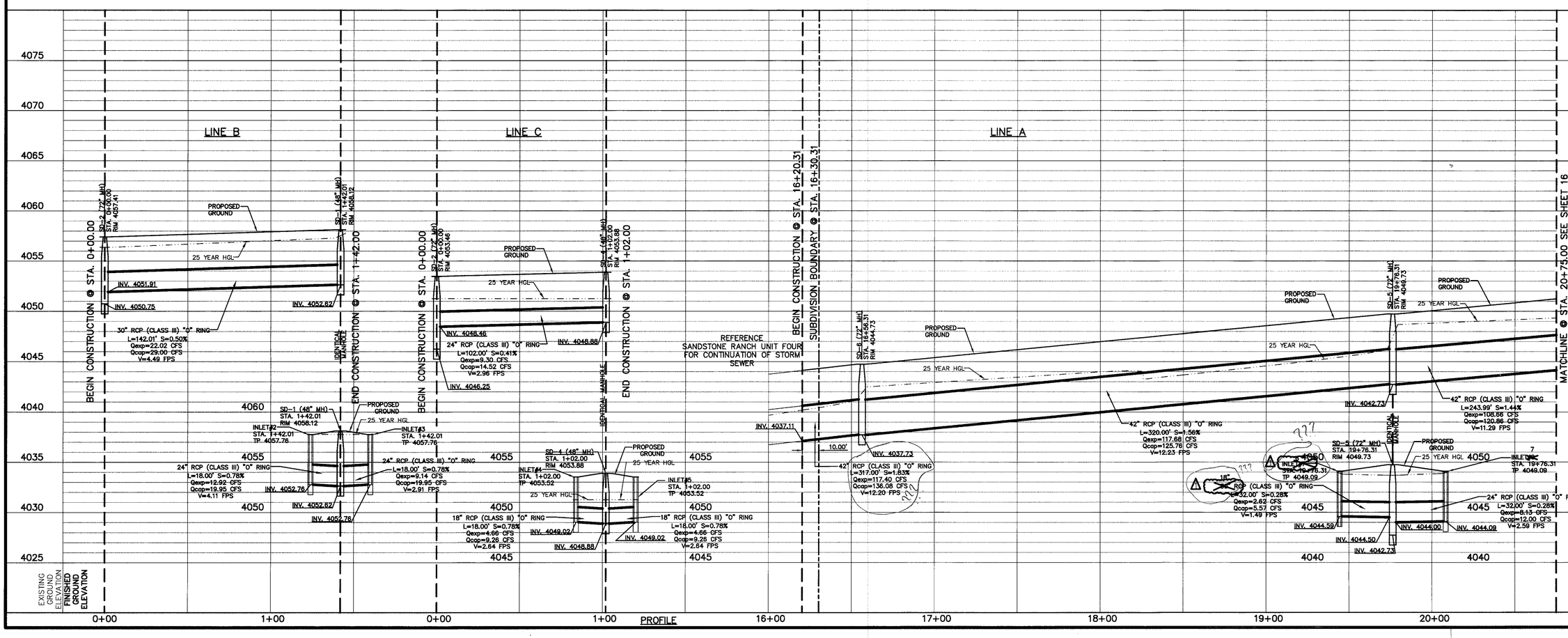
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES





REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 & 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.482 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
4	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL: JORGE L. AZCARATE 85075

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE B
PLAN & PROFILE FROM STA. 0+00.00 TO STA. 1+42.01
LINE C
PLAN & PROFILE FROM STA. 0+00.00 TO STA. 1+02.00
LINE A
PLAN & PROFILE FROM STA. 16+20.31 TO STA. 20+75.00

SHEET NO.

15

RECORD DRAWINGS

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2/7/08

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U.S. SPRINT TELECOMM	(800) 521-0579
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(AFTER HOURS)	(915) 240-3220

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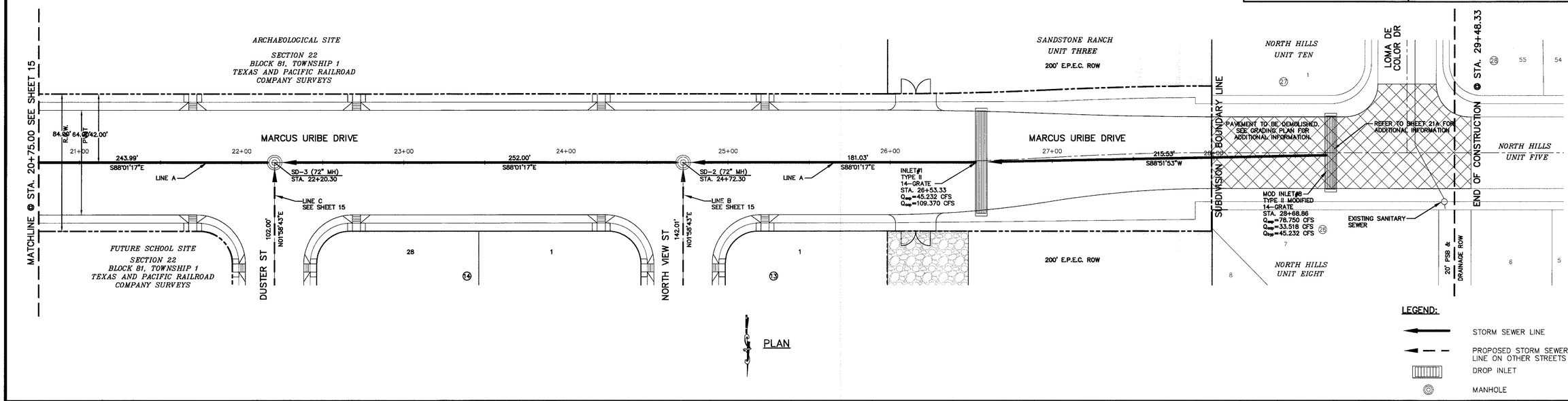
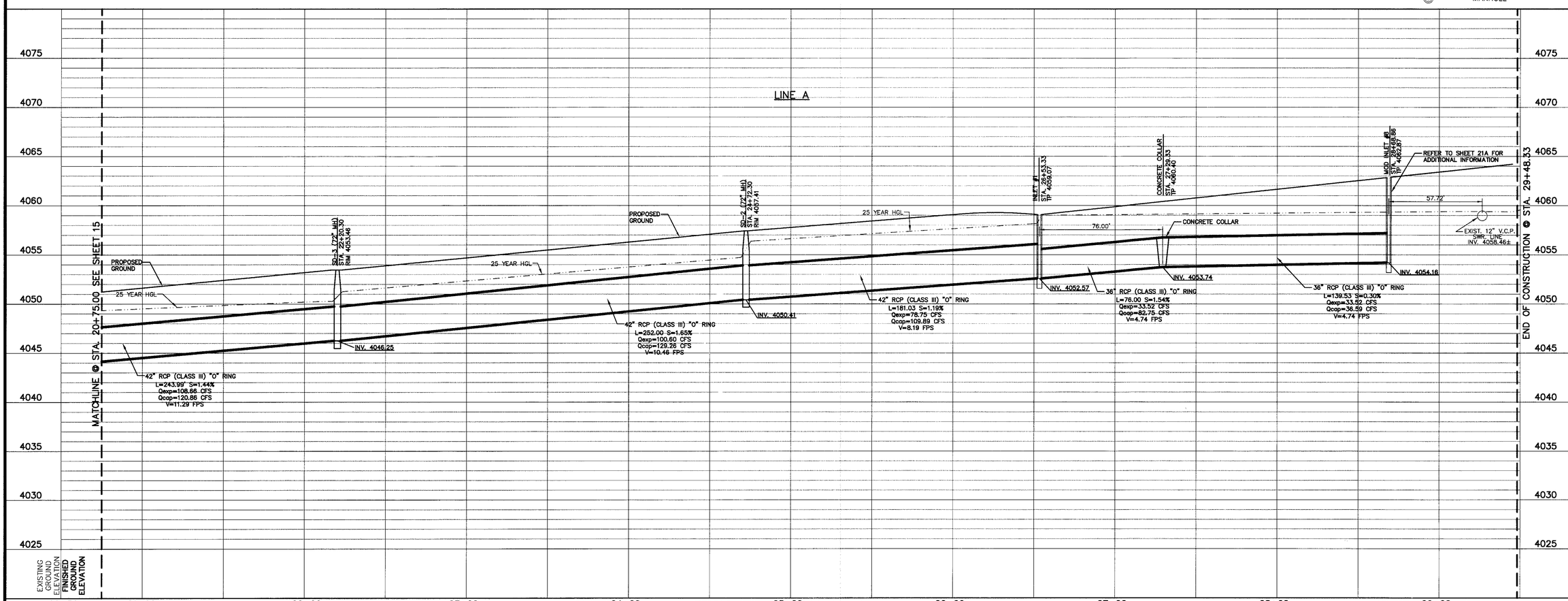
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



PLAN



PROFILE

REFERENCES - BENCHMARKS

FOUND 7000T BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
4	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE
85075
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

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

DATE: AUGUST 2007
DESIGN BY: A.H.
DRAWN BY: A.H.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

LINE A
PLAN & PROFILE
FROM STA. 20+75.00
TO STA. 29+48.33

SHEET NO.

16

OF 25

RECORD DRAWINGS

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1-800-344-8377
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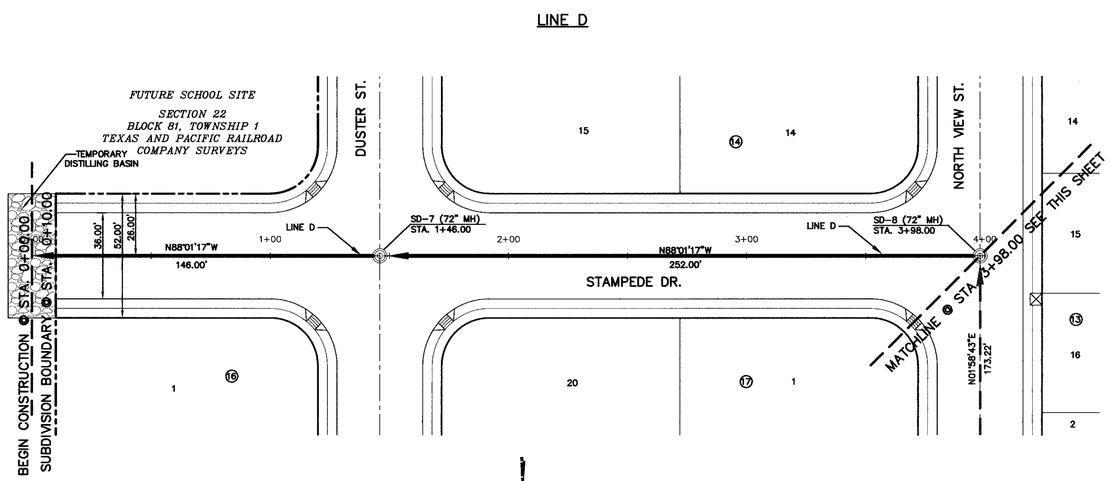

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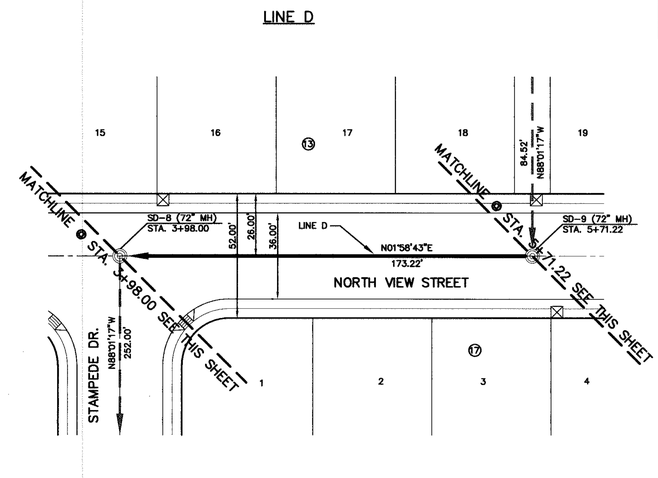

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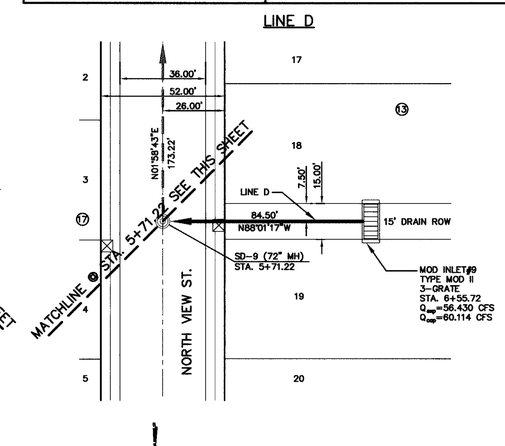
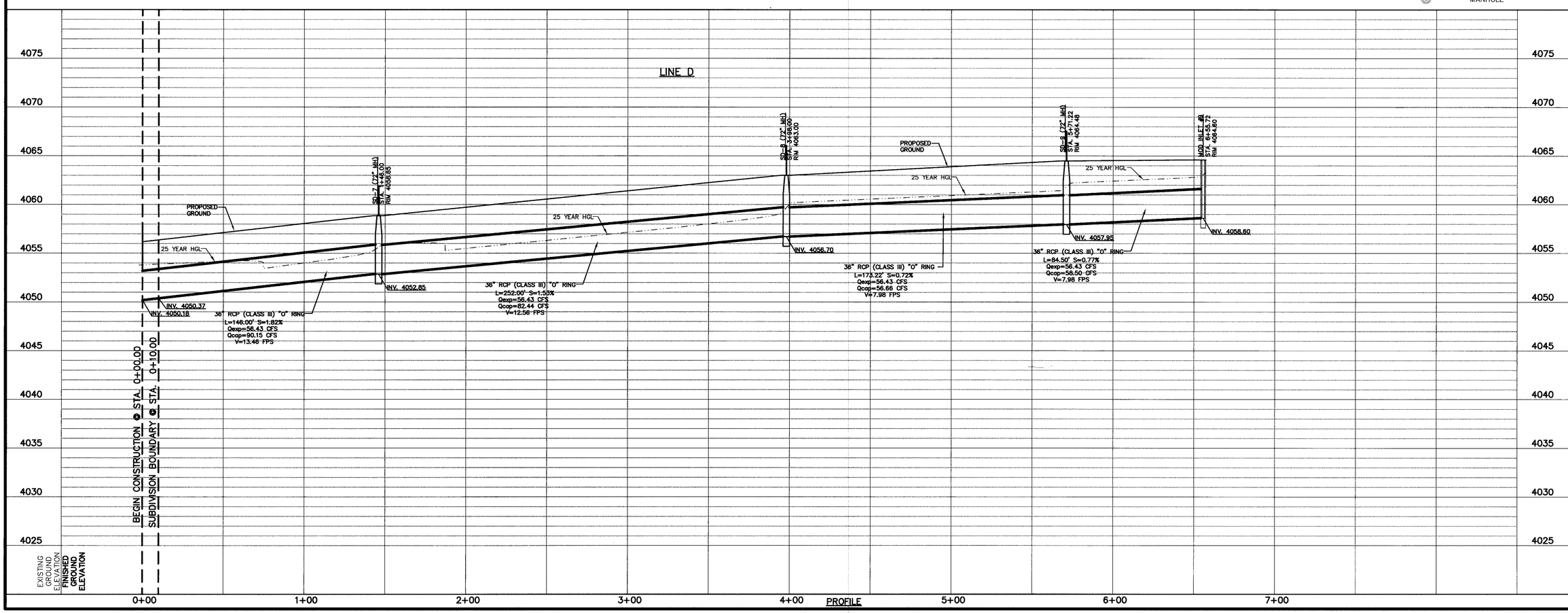


PLAN

LEGEND:

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



PROFILE

REFERENCES - BENCHMARKS

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DATE	REVISIONS	BY
	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 LICENSED PROFESSIONAL ENGINEER TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: D.N.
CHKD. BY: J.L.A.
APPD. BY: J.L.A.
JOB No. 2006-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

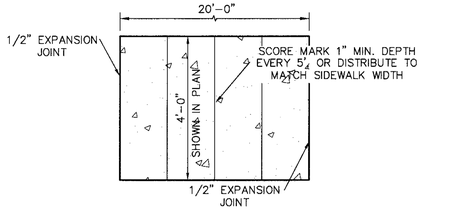
SHEET TITLE

LINE D
PLAN & PROFILE
FROM STA. 0+00.00
TO STA. 6+55.72

SHEET NO.

16A

OF 25



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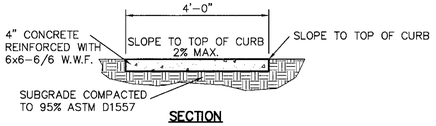
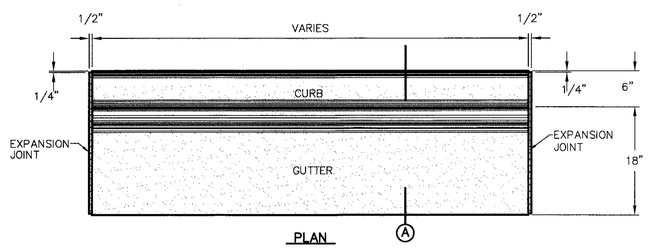


SECTION

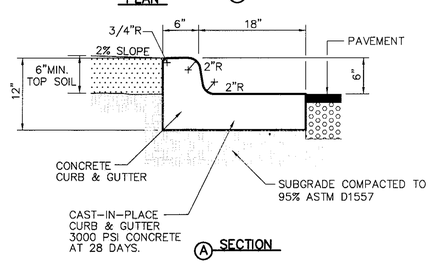
SIDEWALK NOTES:

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.

1/17 SECTION-SIDEWALK/SLAB
SCALE: 1" = 2'-0"



PLAN

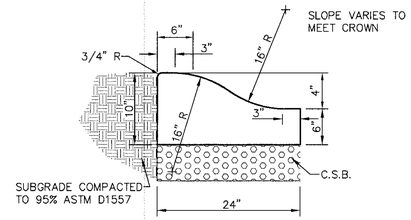


A SECTION

NOTES:

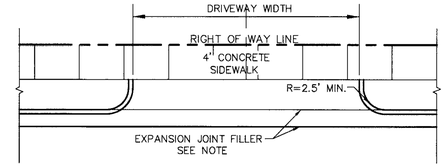
1. CONCRETE CURB, GUTTER, AND RETURNS SHALL BE 3,000 P.S.I. MIN.
2. DUMMY JOINTS REQUIRED AT 10' O.C.
3. 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT (AASHTO M-33) IS REQUIRED FOR ALL CURBS RETURNS. TRIM BITUMINOUS MATERIAL 1/4" LESS THAN NEAT CURB & GUTTER DIMENSION.
4. SUBGRADE UNDER CURBS MUST BE FORMED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

2/17 CURB & GUTTER DETAIL
SCALE: 1" = 1'-0"

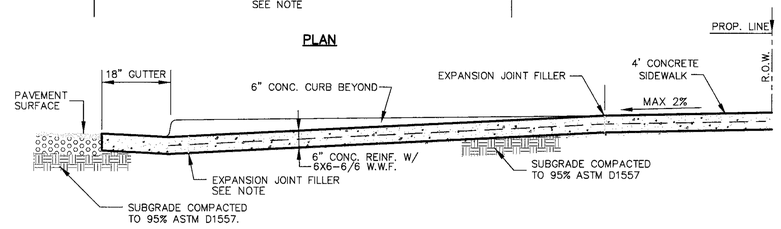


1. CONCRETE TO BE 3000 PSI MIN.
2. DUMMY JOINTS REQUIRED AT 10' O.C. FOR HEADERS AND 5' O.C. FOR SIDEWALK
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR HEADERS.
5. EXPANSION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

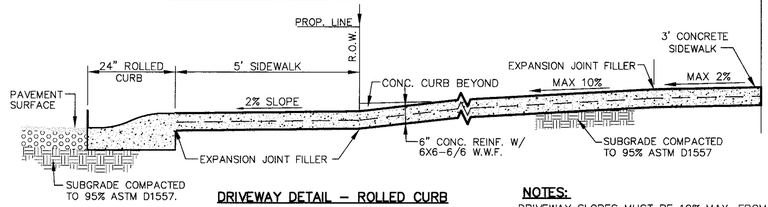
3/17 4" CONCRETE ROLLED CURB DETAIL
SCALE: 1" = 1'-0"



PLAN



DRIVEWAY DETAIL - STANDARD CURB & GUTTER

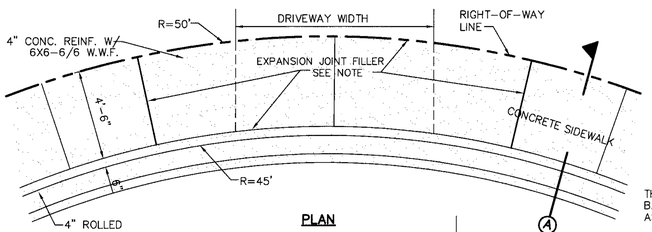


DRIVEWAY DETAIL - ROLLED CURB SECTION AT CENTERLINE

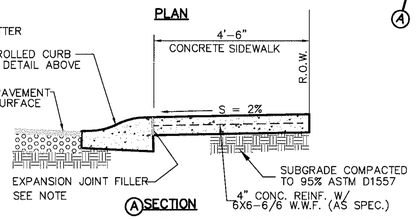
4/17 TYPICAL DRIVEWAY DETAIL
SCALE: N.T.S.

NOTES:

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



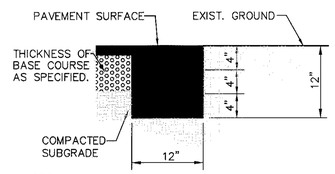
PLAN



A SECTION

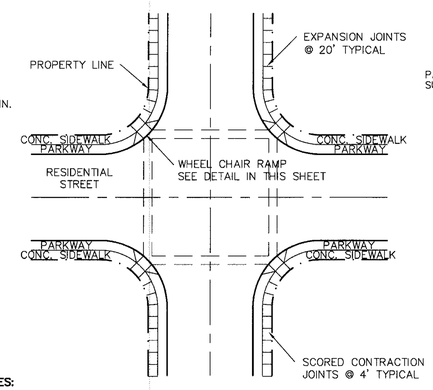
NOTE: EXPANSION JOINT FILLER SHALL CONSIST OF 1/2" BITUMINOUS TYPE PREFORMED (AASHTO M-33)

5/17 CUL-DE-SAC (50' R) DRIVEWAY DETAIL
SCALE: N.T.S.



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

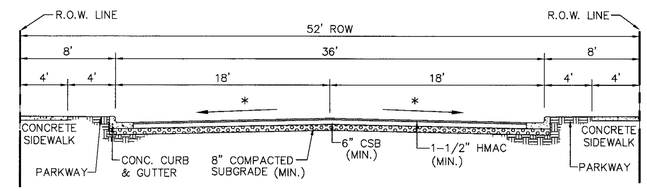
6/17 TERMINUS OF STREET
SCALE: 1" = 1'-0"



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 COUNTY OF EL PASO SPECIFICATIONS.
4. ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF EL PASO STANDARDS.

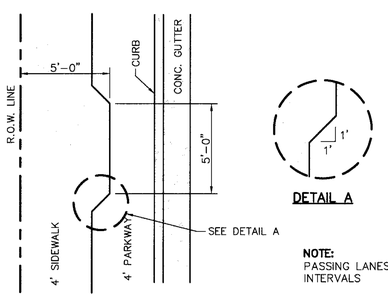
7/17 WHEELCHAIR RAMP STREET PLAN
SCALE: 1" = 30'-0"



(*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS

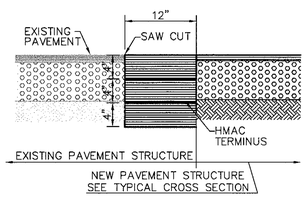
NOTE:
STREET IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO DEVELOPMENT SERVICES OF CITY OF EL PASO FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT

8/17 TYPICAL 52' ROW STREET SECTIONS DETAIL
SCALE: 1" = 6'-0"



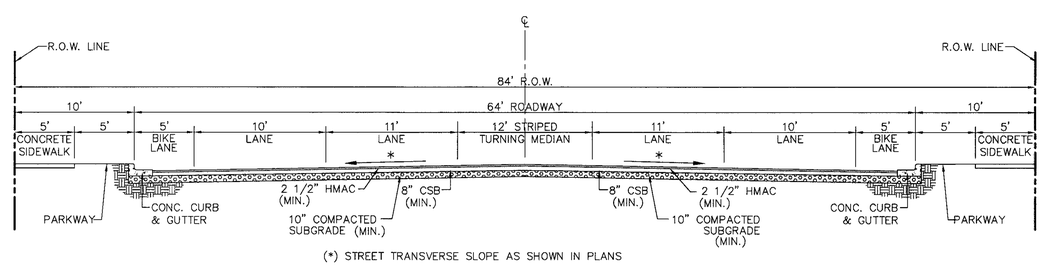
NOTE:
PASSING LANES AT 200' MAX. INTERVALS

9/17 ACCESSIBLE PASSING SPACE DETAIL
SCALE: 1" = 4'-0"



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

10/17 TYPICAL PAVEMENT JOINT SECTION
SCALE: 1" = 1'-0"



(*) STREET TRANSVERSE SLOPE AS SHOWN IN PLANS

NOTE:
STREET IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF EL PASO PAVING CONSTRUCTION DETAILS AND STANDARD SPECIFICATIONS: CBR @ EVERY 500' RESULTS TO BE SUBMITTED TO THE CITY OF EL PASO ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF PAVEMENT.

11/17 TYPICAL 84' ROW STREET SECTION DETAIL
MINOR ARTERIAL STREET W/ BIKE LANES
SCALE: N.T.S.

RECORD DRAWINGS

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2/7/08

REFERENCES - BENCHMARKS
FOUND TIDBIT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATIONS 4,082.22 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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ENGINEER'S SEAL
JORGE L. ACCARATE
85075
REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS
2/11/08

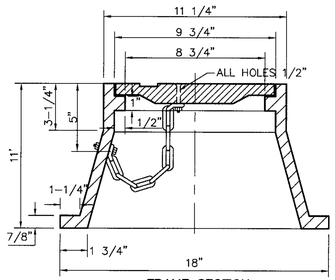
SCALE
Horizontal: AS SHOWN
Vertical: N/A
Contour Interval: N/A

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-092-LD

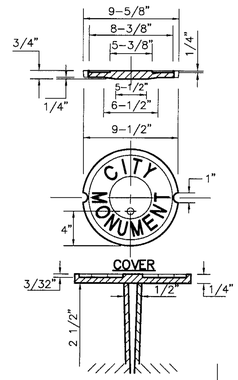
PROJECT TITLE
SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

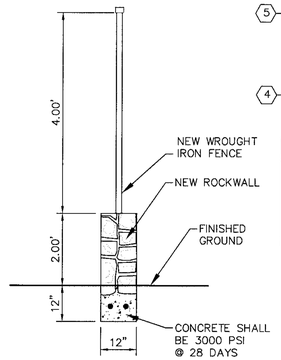
SHEET TITLE
STANDARD DETAILS
(SHEET 1 OF 3)

SHEET NO.
17
OF 25

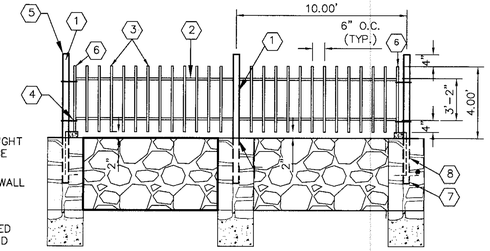


FRAME SECTION





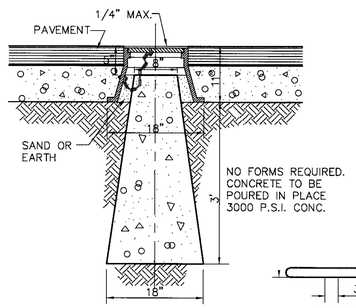
ROCKWALL SECTION
SCALE: N.T.S.

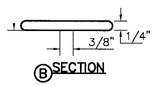


KEY NOTES

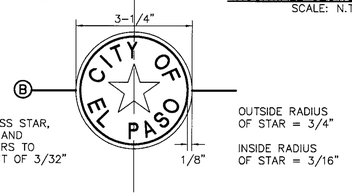
1. 3" x 3" x 3/16" SQUARE STEEL TUBING
2. 2" x 1" x 14 GA. RECTANGULAR STEEL TUBING
3. 1 1/2" x 1/2" x 16 GA. RECTANGULAR STEEL TUBING
4. BOLT HOOK AND STRAP HINGE
5. FLAT TOP POLYVINYL CAP (TYP.)
6. 2" x 1" X 10 GA. RECTANGULAR STEEL TUBING
7. 1 'x 3' DEEP 3000 PSI CONCRETE POST FOOTING
8. 5" x 5" x 3/8" SQUARE STEEL SLEEVE W/7" x 7" x 3/8" BASE PLATE

2/18 TYPICAL ROCKWALL W/ WROUGHT IRON FENCE DETAILS
SCALE: N.T.S.



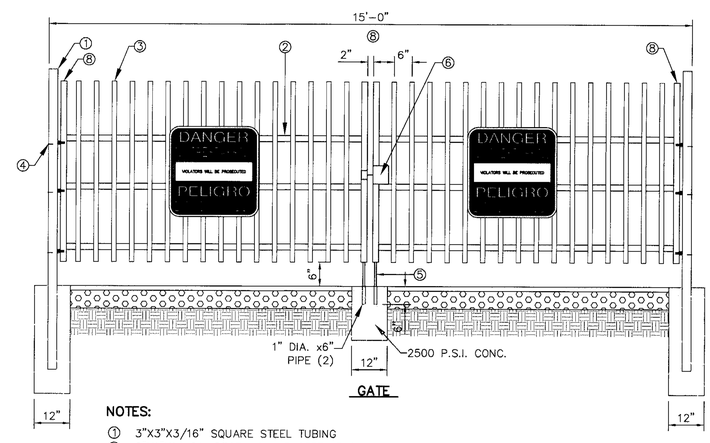


B SECTION

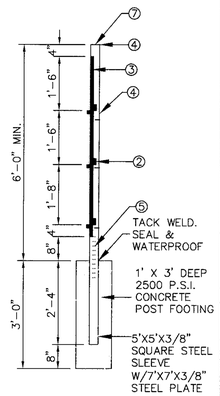


BRONZE MONUMENT CAP

1/18 CITY SURVEY MONUMENT DETAILS
SCALE: N.T.S.



GATE

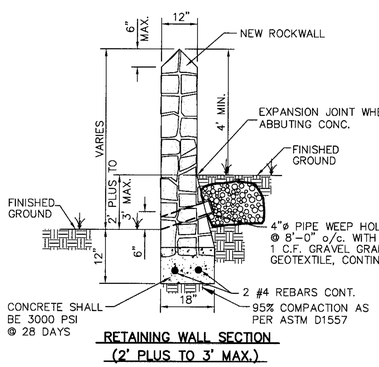


GATE POST

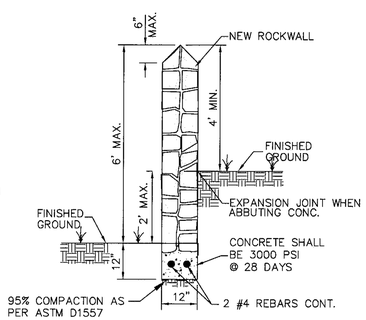
NOTES:

1. 3"X3"X3/16" SQUARE STEEL TUBING
2. 2"X1"X14 GA. RECTANGULAR STEEL TUBING
3. 1 1/2"X 1/2" X16 GA. RECTANGULAR STEEL TUBING
4. BOLT HOOK AND STRAP HINGE
5. CANE BOLT LATCH W/KEEPER 5-8"X18" LONG (2 REQUIRED)
6. DOUBLE GATE HEAVY DUTY INDUSTRIAL LATCH W/PAD LOCK
7. FLAT TOP POLYVINYL CAP
8. 2"X1"X10 GA. RECT. STL. TUBING

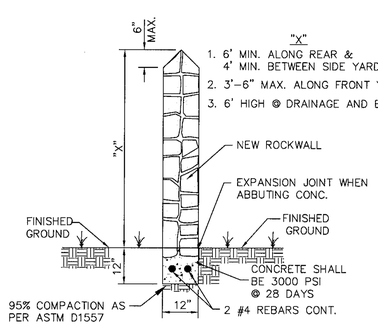
3/18 TYPICAL WROUGHT IRON GATE DETAILS
SCALE: N.T.S.



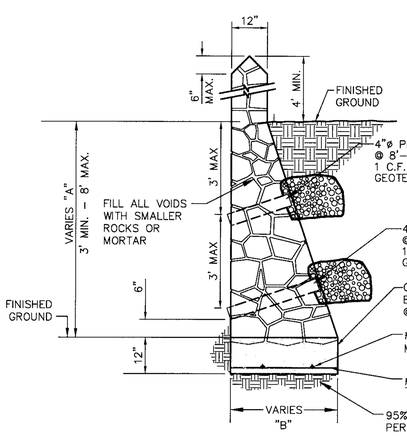
RETAINING WALL SECTION
(2' PLUS TO 3' MAX.)



GARDEN WALL SECTION (2' MAX.)



GARDEN WALL SECTION



RETAINING WALL SECTION (3' MIN. TO 8' MAX.)

NOTES

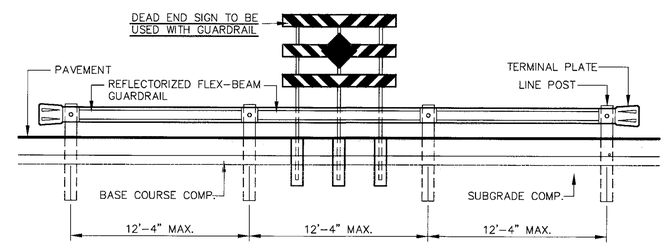
1. 4' MIN. ALONG REAR & 4' MIN. BETWEEN SIDE YARDS.
2. 3'-6" MAX. ALONG FRONT YARDS.
3. 6' HIGH @ DRAINAGE AND BASINS.

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

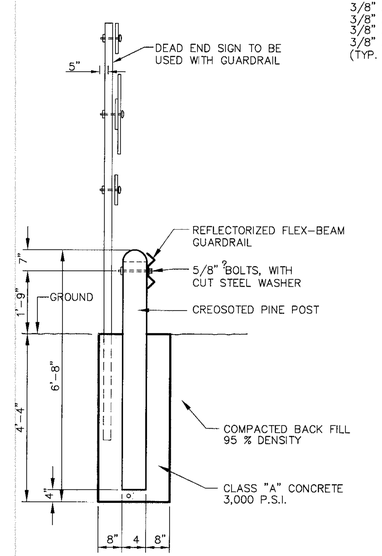
ROCKWALL/RETAINING WALL NOTES

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 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).

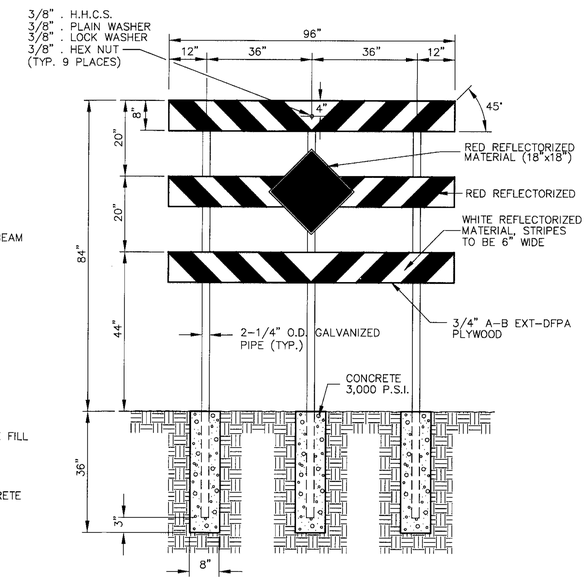
4/18 TYPICAL ROCKWALL/RETAINING WALL DETAILS
SCALE: 1" = 2'-0"



ELEVATION
SCALE: 1" = 5'-0"



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



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

5/18 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL
SCALE: AS SHOWN

RECORD DRAWINGS

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2/7/08

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21; ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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www.ceagroup.net

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JORGE L. AZCARATE
85075
REGISTERED PROFESSIONAL ENGINEER
2/7/08

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STANDARD DETAILS

(SHEET 2 OF 3)

SHEET NO.

18

25

RECORD DRAWINGS

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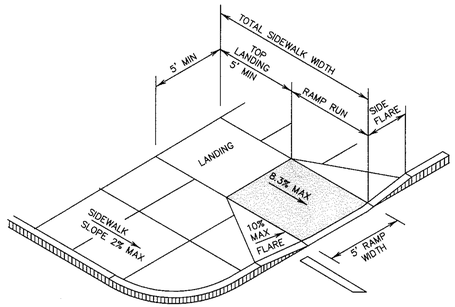
2/7/08

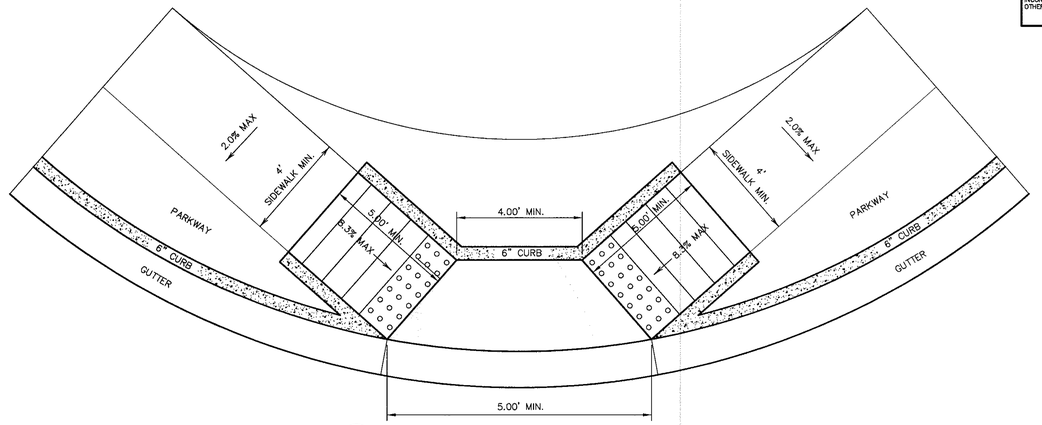
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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



1/19 PERPENDICULAR CURB RAMP (TYPE I)
SCALE: N.T.S.



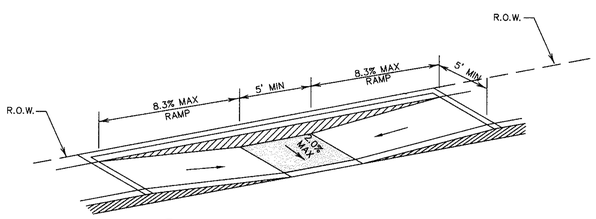
4/19 DIRECTIONAL RAMP @ INTERSECTION
SCALE: N.T.S.

LEGEND

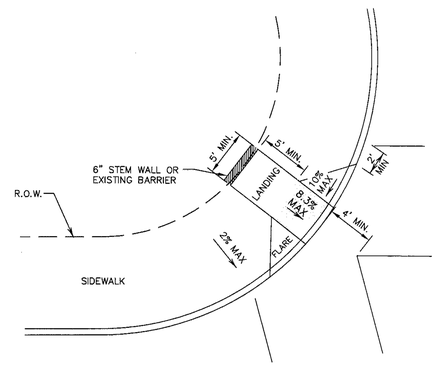
DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN, A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL HAVE A COLOR CONTRAST VISUALLY WITH ADJOINING SURFACES.

GENERAL NOTES:

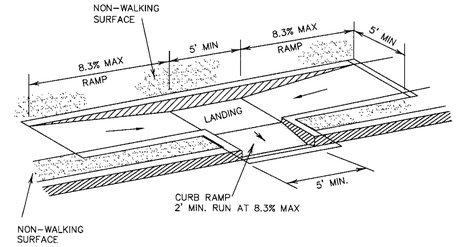
1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
2. THE MINIMUM SIDEWALK WIDTH IS 4'. WHERE A 5' SIDEWALK CAN NOT BE PROVIDED DUE TO SITE CONSTRAINTS, A 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).



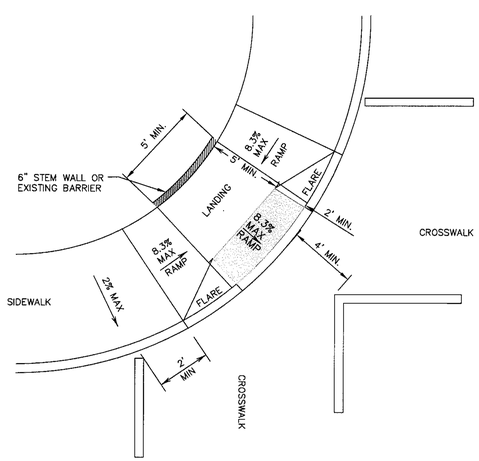
2/19 PARALLEL CURB RAMP (TYPE II)
SCALE: N.T.S.



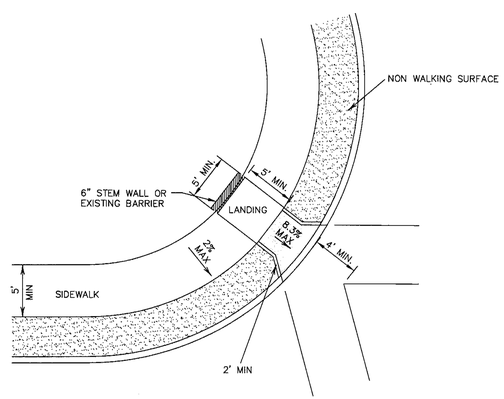
5/19 DIAGONAL CURB RAMP (FLARED SIDES) (TYPE V)
SCALE: N.T.S.



7/19 COMBINATION CURB RAMPS (TYPE VII)
SCALE: N.T.S.



3/19 DIAGONAL COMBINATION CURB RAMP (TYPE III)
SCALE: N.T.S.



6/19 DIAGONAL CURB RAMP (RETURNED CURB) (TYPE VI)
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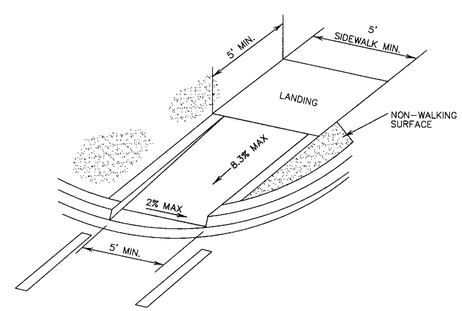
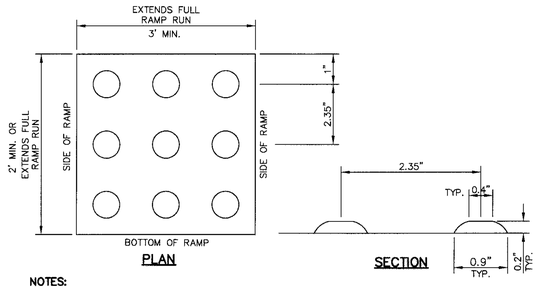


8/19 DIRECTIONAL RAMP WITHIN RADIUS (TYPE IV)
SCALE: N.T.S.



NOTES:

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

9/19 TRUNCATED DOME
SCALE: N.T.S.

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

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Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL
STATE OF TEXAS
DONALD L. MCGARITY
85075
LICENSED PROFESSIONAL ENGINEER
2/7/08

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: JLA
APPVD. BY: JLA
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STANDARD DETAILS

(SHEET 3 OF 3)

SHEET NO.

19

OF 25

SANDSTONE RANCH UNIT THREE

BEING A PORTION OF SECTION 22,
BLOCK 81, TOWNSHIP 1,
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS
CITY OF EL PASO, EL PASO COUNTY, TEXAS;
CONTAINING APPROX. 21.97± ACRES

CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
C1	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C2	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C3	100.04'	2088.06'	50.03'	100.03'	N89°23'38"E	2°44'42"
C4	100.04'	2088.06'	50.03'	100.03'	S89°23'38"E	2°44'42"
C5	103.36'	866.96'	51.74'	103.29'	S84°36'22"E	6°49'50"
C6	97.12'	815.02'	48.62'	97.06'	N84°36'17"W	6°49'39"
C7	103.32'	867.02'	51.72'	103.26'	N84°36'17"W	6°49'39"
C8	97.16'	814.96'	48.64'	97.10'	S84°36'22"E	6°49'50"
C9	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C10	17.08'	20.00'	9.10'	16.56'	S26°28'15"W	48°55'04"
C11	22.55'	50.00'	11.47'	22.36'	N37°58'28"E	25°50'37"
C12	55.82'	50.00'	31.22'	52.96'	N06°55'45"W	63°57'48"
C13	42.86'	50.00'	22.84'	41.56'	N63°27'58"W	49°06'38"
C14	42.86'	50.00'	22.84'	41.56'	S67°25'24"W	49°06'38"
C15	54.06'	50.00'	30.01'	51.47'	S11°53'30"W	61°57'10"
C16	24.31'	50.00'	12.40'	24.07'	S33°00'43"E	27°51'16"
C17	17.08'	20.00'	9.10'	16.56'	N22°28'49"W	48°55'04"
C18	18.23'	374.00'	9.12'	18.23'	N03°22'31"E	2°47'35"
C19	20.77'	426.00'	10.39'	20.77'	S03°22'31"W	2°47'35"
C20	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C21	30.44'	20.00'	19.05'	27.59'	S48°22'31"W	87°12'25"
C22	18.23'	374.00'	9.12'	18.23'	S03°22'31"W	2°47'35"
C23	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C24	31.42'	20.00'	20.00'	28.28'	N43°01'17"W	90°00'00"
C25	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C26	31.42'	20.00'	20.00'	28.28'	N43°01'17"W	90°00'00"
C27	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C28	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C29	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C30	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C31	31.42'	20.00'	20.00'	28.28'	S46°58'43"W	90°00'00"
C32	31.42'	20.00'	20.00'	28.28'	N43°01'17"W	90°00'00"
C33	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C34	31.42'	20.00'	20.00'	28.28'	S43°01'17"E	90°00'00"
C35	31.42'	20.00'	20.00'	28.28'	N46°58'43"E	90°00'00"
C36	31.42'	20.00'	20.00'	28.28'	N43°01'18"W	89°59'59"
C37	31.42'	20.00'	20.00'	28.28'	S46°58'42"W	90°00'01"
C38	31.42'	20.00'	20.00'	28.28'	N43°01'18"W	89°59'59"
C39	19.50'	400.00'	9.75'	19.50'	N03°22'31"E	2°47'35"
C40	19.50'	400.00'	9.75'	19.50'	S03°22'31"W	2°47'35"
C41	100.24'	840.67'	50.18'	100.18'	N84°36'19"W	6°49'53"
C42	100.24'	840.61'	50.18'	100.18'	S84°36'19"E	6°49'55"
C43	100.06'	1660.17'	50.05'	100.05'	S89°44'53"E	3°27'12"
C44	100.06'	1660.17'	50.05'	100.05'	N89°44'53"W	3°27'12"
C45	49.87'	471.31'	24.96'	49.85'	N88°56'50"E	6°03'47"

LINE TABLE

LINE	LENGTH	BEARING
L1	14.83'	S88°01'17"E
L2	266.00'	S01°58'43"W
L3	252.83'	S88°01'17"E
L4	90.00'	S88°01'17"E
L5	289.00'	N01°58'42"E
L6	272.00'	S88°01'18"E
L7	13.33'	N01°58'42"E
L8	162.00'	S88°01'18"E
L9	218.33'	S01°58'43"W
L10	88.79'	S01°58'43"W
L11	200.00'	N88°01'17"W
L12	52.00'	S01°58'43"W
L13	9.51'	S04°46'18"W
L14	3.25'	S01°58'43"W
L15	30.56'	S04°46'18"W
L16	23.26'	S04°46'18"W
L17	18.41'	S01°58'43"W
L18	22.24'	S01°58'43"W
L19	26.00'	N88°01'17"W

LOT AREA TABLE

BLOCK 19	AREA: 106,928
LOT	SQUARE FEET
1	5,414
2	5,033
3	5,150
4	5,272
5	5,394
6	5,491
7	5,500
8	5,500
9	5,175
10	8,681
11	9,949
12	10,005
13	9,383
14	6,546
15	6,840
16	7,595

LOT AREA TABLE

BLOCK 18	AREA: 22,676
LOT	SQUARE FEET
1	5,649
2	5,470
15	5,470
16	6,087

LOT AREA TABLE

BLOCK 11	AREA: 44,928
LOT	SQUARE FEET
20	5,500
21	5,500
22	5,500
23	5,964
24	5,964
25	5,500
26	5,500
27	5,500

LOT AREA TABLE

BLOCK 8	AREA: 23,932
LOT	SQUARE FEET
35	5,867
36	5,867
37	5,867
38	6,331

LOT AREA TABLE

BLOCK 14	AREA: 142,456
LOT	SQUARE FEET
1	5,464
2	5,025
3	5,025
4	5,025
5	5,025
6	5,025
7	5,025
8	5,025
9	5,025
10	5,025
11	5,025
12	5,025
13	5,025
14	5,464
15	5,464
16	5,025
17	5,025
18	5,025
19	5,025
20	5,025
21	5,025
22	5,025
23	5,025
24	5,025
25	5,025
26	5,025
27	5,025
28	5,464

LOT AREA TABLE

BLOCK 16	AREA: 55,928
LOT	SQUARE FEET
1	5,964
2	5,500
3	5,500
4	5,500
5	5,500
6	5,500
7	5,500
8	5,500
9	5,500
10	5,964

LOT AREA TABLE

BLOCK 13	AREA: 127,417
LOT	SQUARE FEET
1	5,418
2	5,004
3	5,004
4	5,004
5	5,004
6	5,004
7	5,004
8	5,004
9	5,004
10	5,004
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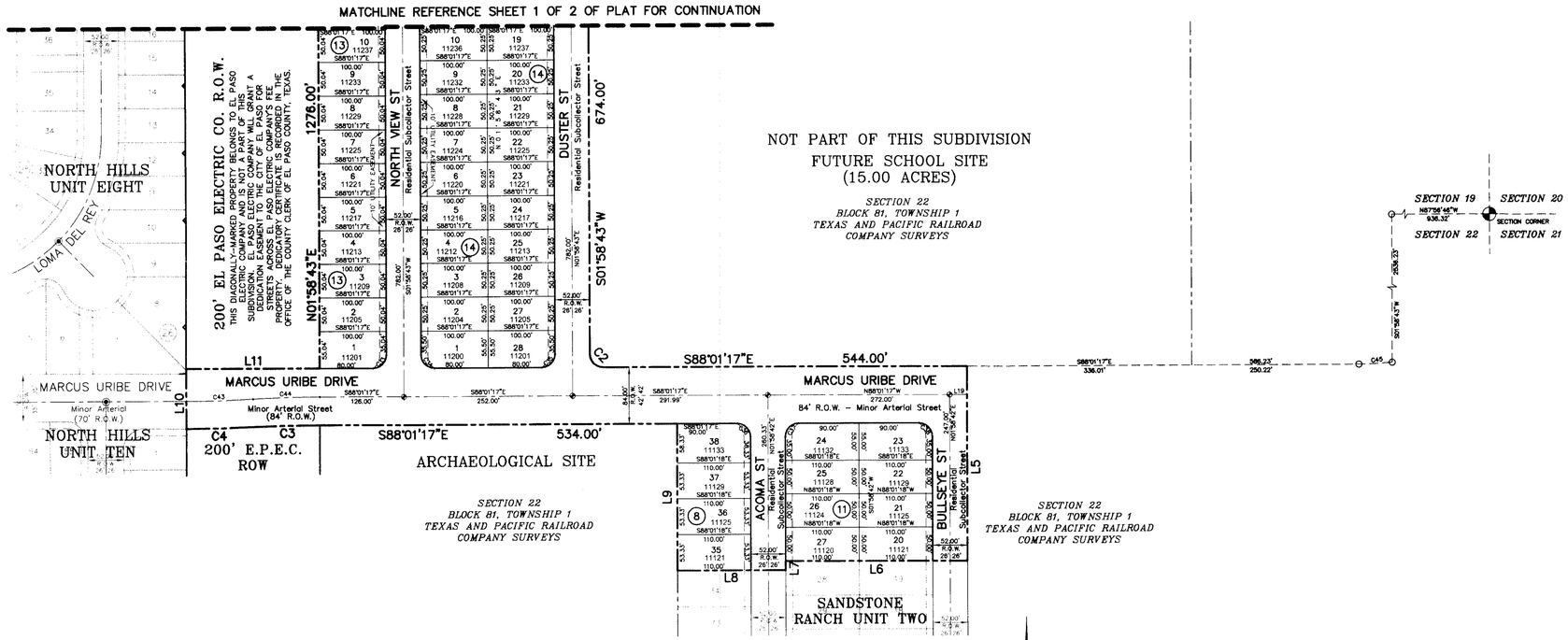
12	5,004
13	5,004
14	5,004
15	5,004
16	5,004
17	5,004
18	5,004
19	5,004
20	5,004
21	5,004
22	5,004
23	5,004
24	5,004
25	5,418
DRN ROW	1,500

LOT AREA TABLE

BLOCK 17	AREA: 101,656
LOT	SQUARE FEET
1	5,414
2	5,000
3	5,000
4	5,000
5	5,000
6	5,000
7	5,000
8	5,000
9	5,000
10	5,414
11	5,414
12	5,000
13	5,000
14	5,000
15	5,000
16	5,000
17	5,000
18	5,000
19	5,000
20	5,414

MATCHLINE REFERENCE SHEET 1 OF 2 OF PLAT FOR CONTINUATION



LEGEND

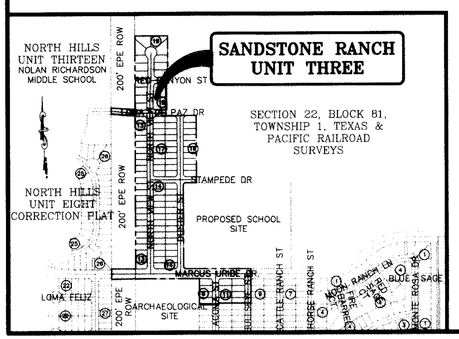
- = PROPOSED CITY MONUMENT
- = EXISTING CITY MONUMENT
- = SECTION CORNER

SCHOOL DISTRICT

EL PASO INDEPENDENT SCHOOL DISTRICT
6531 BOEING DR, EL PASO, TX 79925

LOCATION MAP

SCALE 1"= 600'



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

ENGINEER

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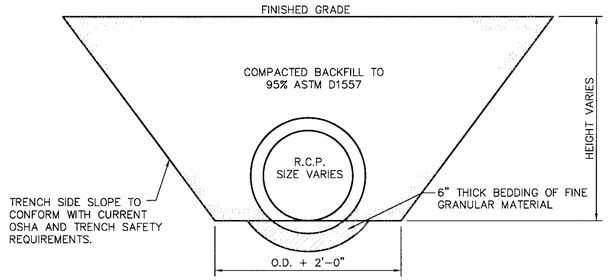
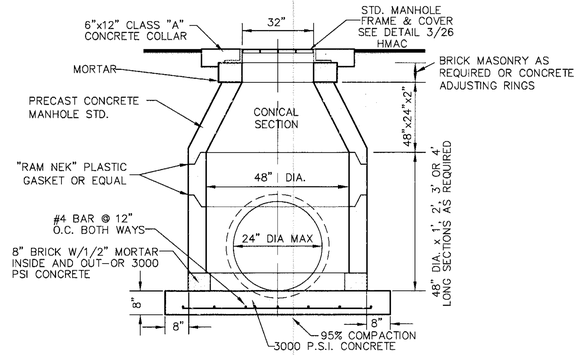
SHEET 2 OF 2

DATE OF REVISION: JANUARY 5, 2007
DATE OF PREPARATION: JUNE 13, 2006

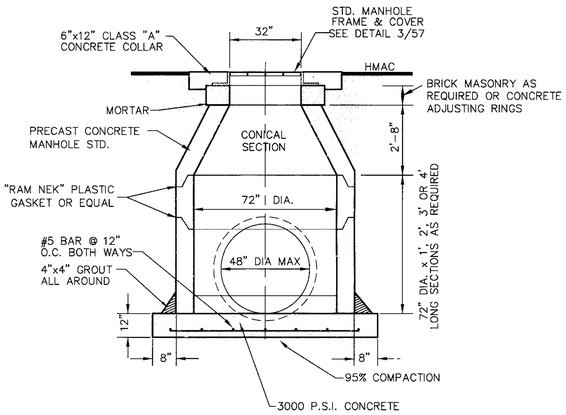
RECORD DRAWINGS
THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.
2/7/08



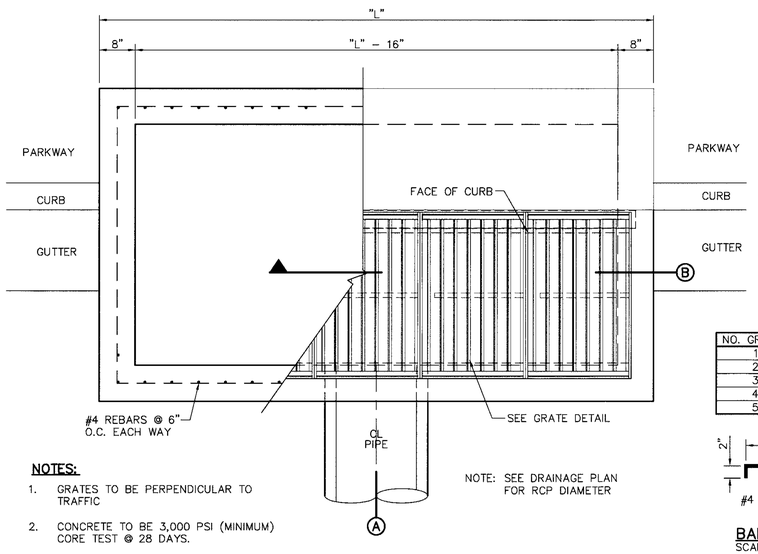
1/20 STORM SEWER BEDDING DETAIL
SCALE: 1" = 2'-0"



2/20 48" STANDARD MANHOLE DETAIL
SCALE: N.T.S.



3/20 72" STANDARD MANHOLE DETAIL
SCALE: N.T.S.



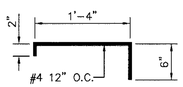
NOTE: SEE DRAINAGE PLAN FOR RCP DIAMETER

NOTES:

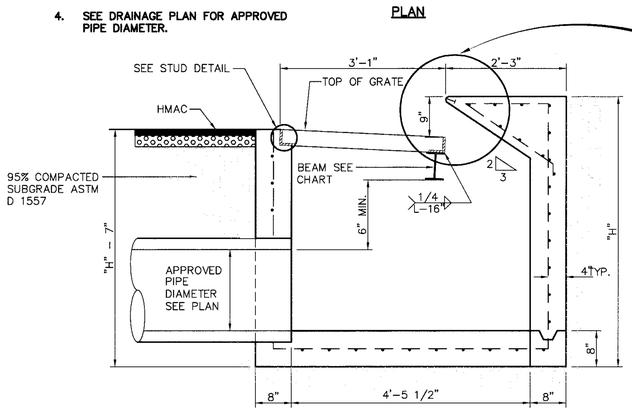
1. GRATES TO BE PERPENDICULAR TO TRAFFIC
2. CONCRETE TO BE 3,000 PSI (MINIMUM) CORE TEST @ 28 DAYS.
3. H=20' MAXIMUM
4. **SEE DRAINAGE PLAN FOR APPROVED PIPE DIAMETER.**

PLAN

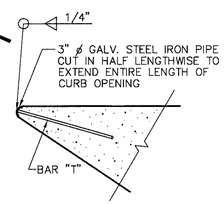
NO. GRATES	CAPACITY	"L"	BEAM LENGTH	BEAM (MIN. SIZES)
1	9.84 CFS	3'-2 5/8"	2'-10"	W6x12, S4x13, MC6x8.2
2	19.63 CFS	5'-1 1/8"	4'-7 1/8"	W6x12, S6x12.5, MC6x15.1
3	29.69 CFS	7'-0 1/4"	6'-5 1/8"	W8x15, S7x15.3, MC7x17.6
4	39.10 CFS	8'-9 7/8"	8'-3 7/8"	W9x18, S8x18.4, MC10x21.9
5	48.72 CFS	10'-8"	10'-2"	W12x16, S8x21, MC10x21.9



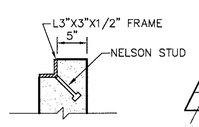
BAR "T" DETAIL
SCALE: 1" = 1' - 0"



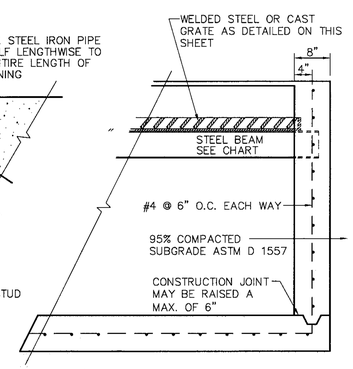
SECTION



DETAIL
N.T.S.

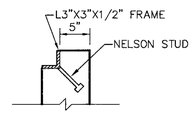


STUD DETAIL
SCALE: N.T.S.

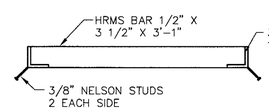


B SECTION

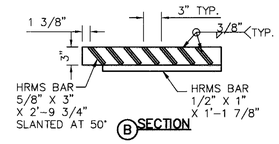
4/20 DROP INLET (TYPE 1) DETAILS
SCALE: 3" = 4'-0"



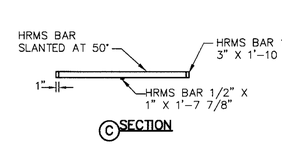
STUD DETAIL



A SECTION

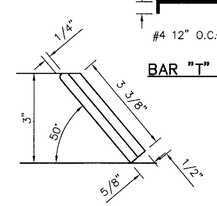


B SECTION

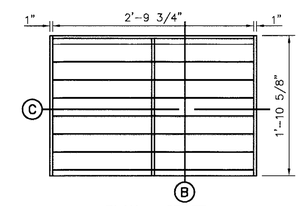


C SECTION

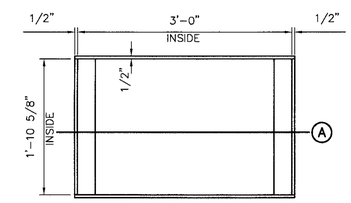
BAR "T" DETAIL
N.T.S.



SLANTED BAR DETAIL



PLAN - GRATE



PLAN - FRAME

5/20 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 CITY 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 1/2"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
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21; ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.42' TO CONVERT TO 'CITY DATUM')

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

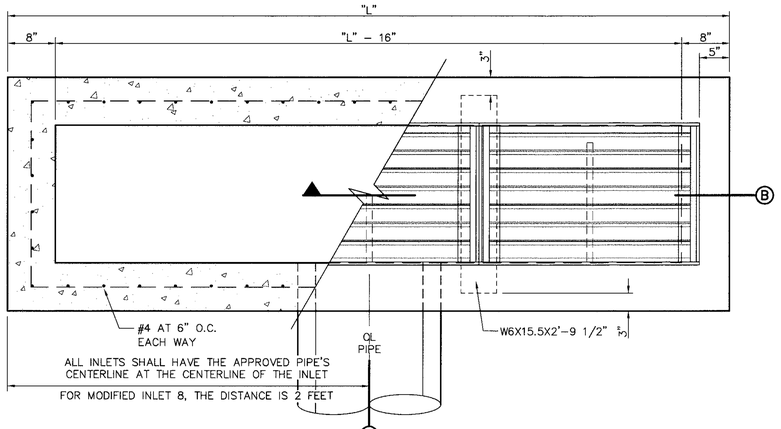
ENGINEER'S SEAL
JORGE L. AZCARATE 85075 LICENSED PROFESSIONAL ENGINEER

SCALE
Horizontal: AS SHOWN
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

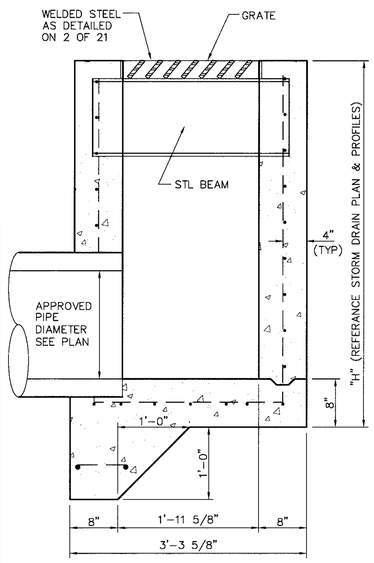
PROJECT TITLE
SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE
DRAINAGE DETAILS
(SHEET 1 OF 3)

SHEET NO.
20
OF 25



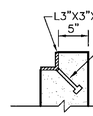
PLAN



A SECTION

NOTES:

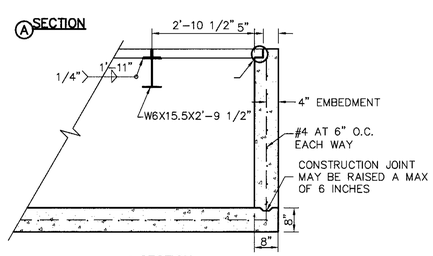
1. GRATES TO BE PERPENDICULAR TO TRAFFIC
2. CONCRETE TO BE 3,000 PSI (MINIMUM) CORE TEST @ 28 DAYS.
3. H=20' MAXIMUM
4. **SEE DRAINAGE PLAN FOR APPROVED PIPE DIAMETER.**



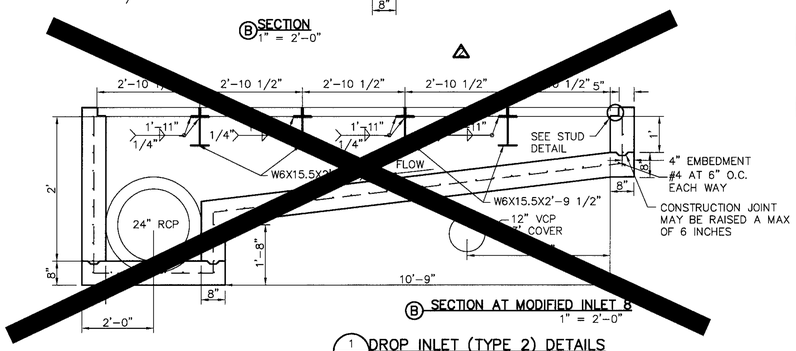
STUD DETAIL
N.T.S.

NUMBER OF GRATES	"L"	CAPACITY*
1	4'–0"	6.96 CFS
2	7'–1"	15.00 CFS
3	10'–2"	23.05 CFS
4	13'–3"	31.09 CFS
5	16'–4"	39.14 CFS

* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5

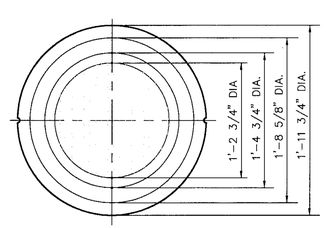


B SECTION
1" = 2'–0"

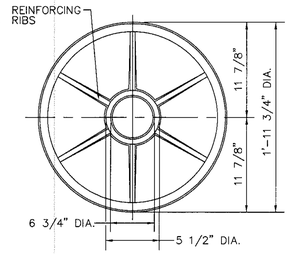


B SECTION AT MODIFIED INLET 8
1" = 2'–0"

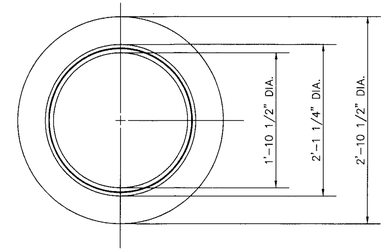
1/21 DROP INLET (TYPE 2) DETAILS
SCALE: 1" = 1'–0"



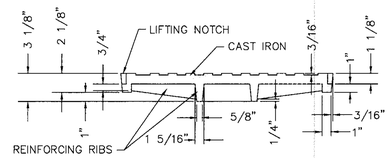
MANHOLE COVER TOP VIEW
SCALE: 3" = 4'–0"



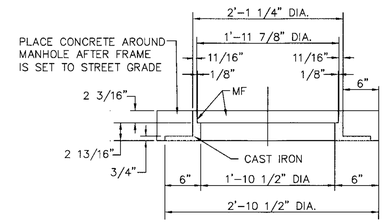
MANHOLE COVER BOTTOM VIEW
SCALE: 3" = 4'–0"



MANHOLE RING TOP VIEW
SCALE: 1" = 1' – 0"



MANHOLE COVER SECTION
SCALE: 2" = 3' – 0"

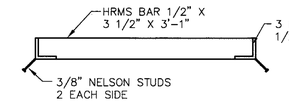


MANHOLE RING SECTION
SCALE: 1" = 1' – 0"

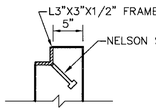
MANHOLE RING NOTES:

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

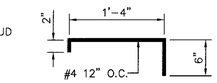
2/21 MANHOLE RING AND COVER DETAILS
SCALE: AS SHOWN



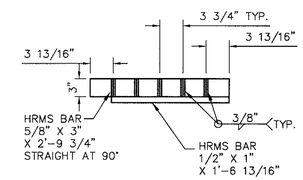
A SECTION



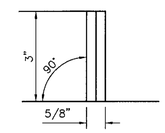
STUD DETAIL



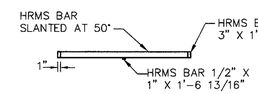
BAR "T" DETAIL
N.T.S.



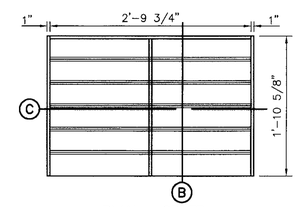
B SECTION



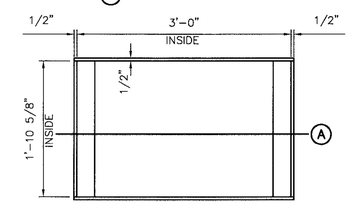
STRAIGHT BAR DETAIL



C SECTION

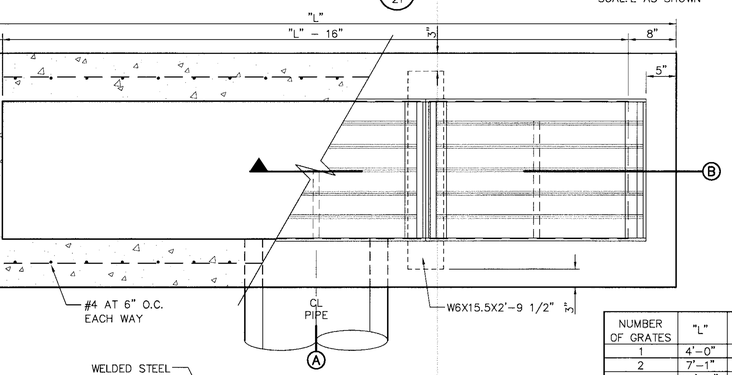


PLAN – GRATE



PLAN – FRAME

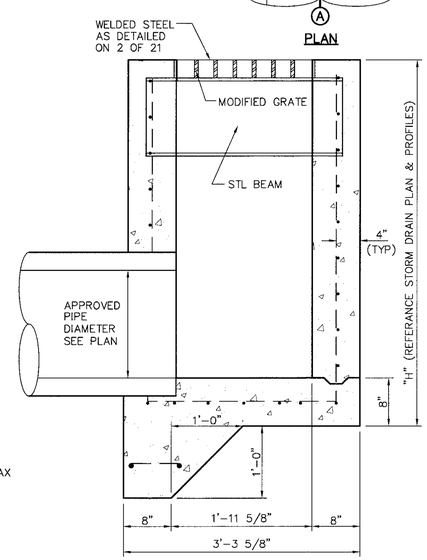
3/21 MODIFIED GRATE AND FRAME DETAILS
SCALE: 1" = 1'–0"



PLAN

NUMBER OF GRATES	"L"	CAPACITY*
1	4'–0"	20.04 CFS
2	7'–1"	40.08 CFS
3	10'–2"	60.11 CFS
4	13'–3"	80.15 CFS
5	16'–4"	100.91 CFS

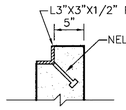
* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5 AND A DEPTH OF FLOW OF TWO FEET



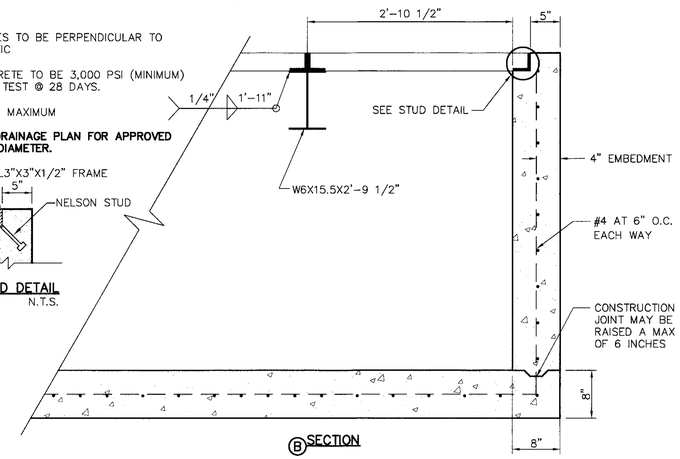
A SECTION

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.



B SECTION

4/21 MODIFIED DROP INLET (TYPE 2) DETAILS
SCALE: 1" = 1'–0"

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. CEA GROUP HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.

2/7/08

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
4	DELETE INLET	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL
JORGE L. AZCARATE
85075
TEXAS
REGISTERED
PROFESSIONAL ENGINEER
2/11/08

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

DATE: JANUARY 2007
DESIGN BY: A.B.
DRAWN BY: A.B.
CHKD BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-D

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

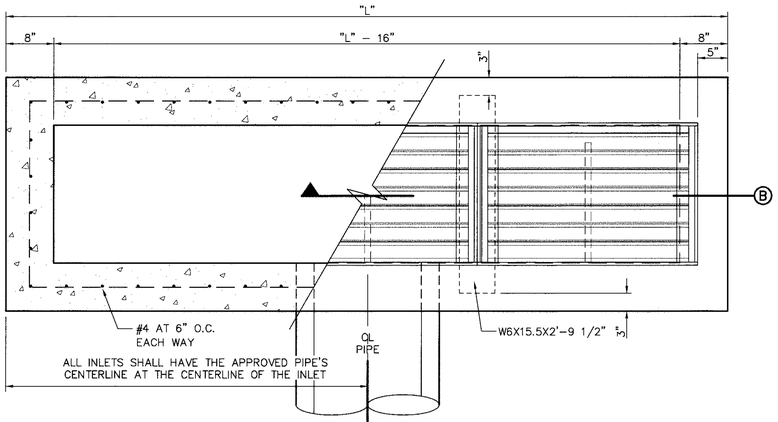
DRAINAGE DETAILS

(SHEET 2 OF 3)

SHEET NO.

21

OF 25



A PLAN

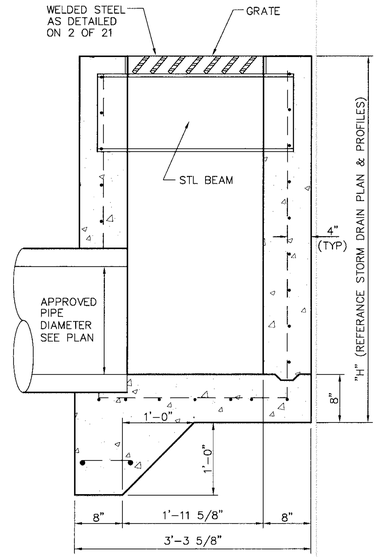
NOTES:

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.**

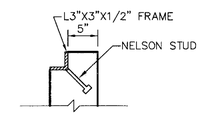
NUMBER OF GRATES	"L"	CAPACITY*	
1	4'–0"	6.96 CFS	
2	7'–1"	15.00 CFS	
3	10'–2"	23.05 CFS	
4	13'–3"	31.09 CFS	
5	16'–4"	39.14 CFS	
14	44'–1"	111.50 CFS	** 33.518 CFS

* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5 AT SAGGING CONDITIONS

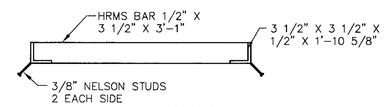
** THIS CAPACITY CORRESPONDS TO A CLOGGING FACTOR OF 0.5 AT EXISTING CONDITIONS. FOR ADDITIONAL INFORMATION ON BYPASS RUNOFF REFER TO SHEET 16.



A SECTION



STUD DETAIL



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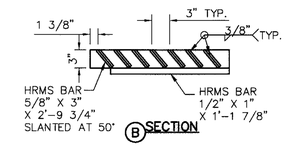
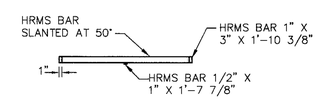
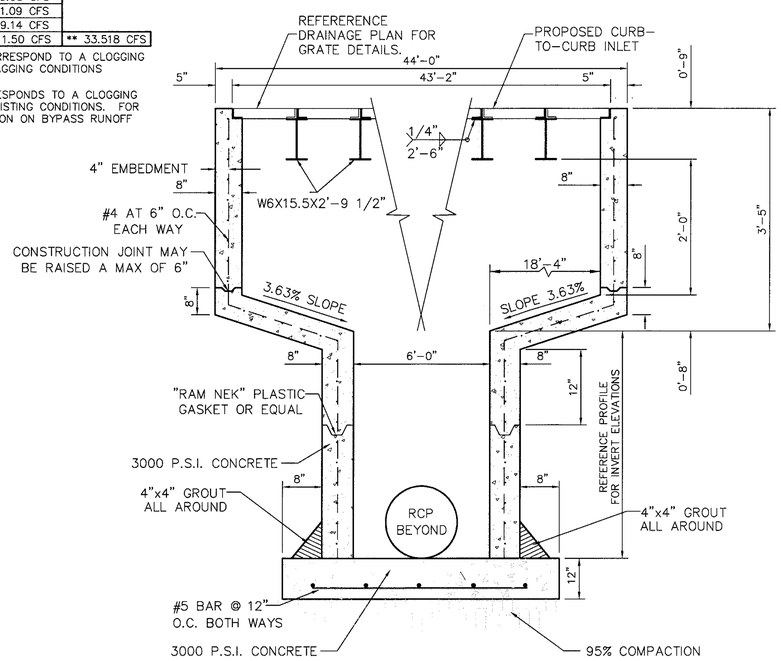


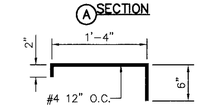
B SECTION



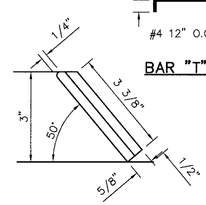
C SECTION



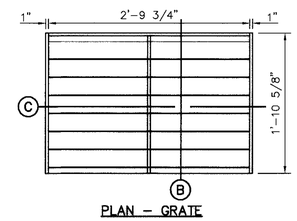
1/21A MODIFIED DROP INLET 8 (TYPE 2) DETAILS
SCALE: 1" = 1'–0"



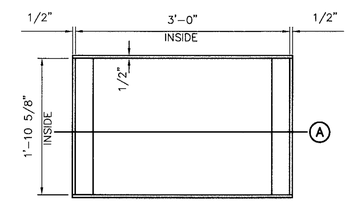
BAR "T" DETAIL
N.T.S.



SLANTED BAR DETAIL



PLAN – GRATE



PLAN – FRAME

2/21A 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 CITY 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 1/2"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.

RECORD DRAWINGS

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2/7/08

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.482 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS 3/11/08

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

DATE: AUGUST 2007
DESIGN BY: A.H.
DRAWN BY: A.H.
CHKD BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE SUBDIVISION IMPROVEMENTS

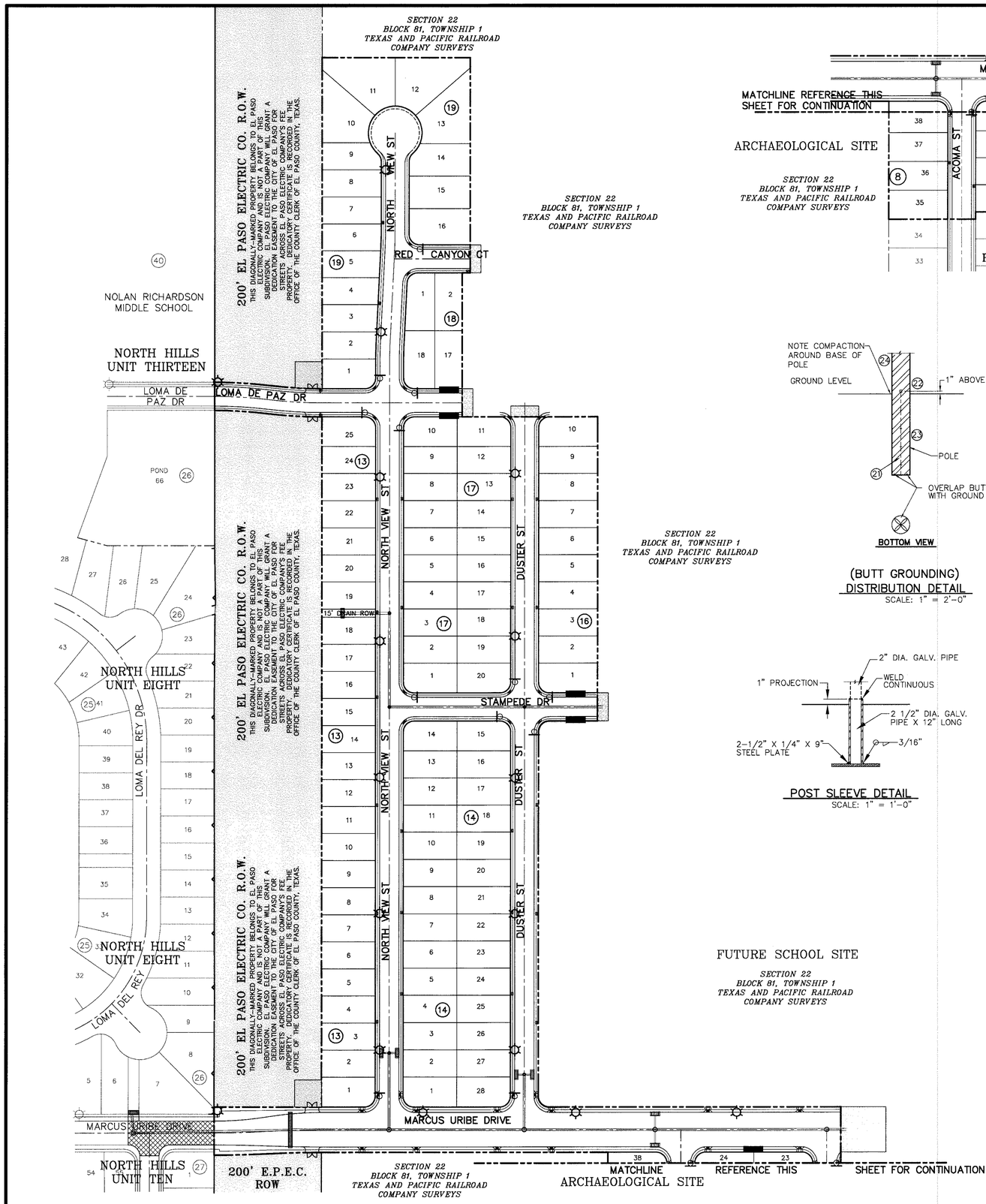
SHEET TITLE

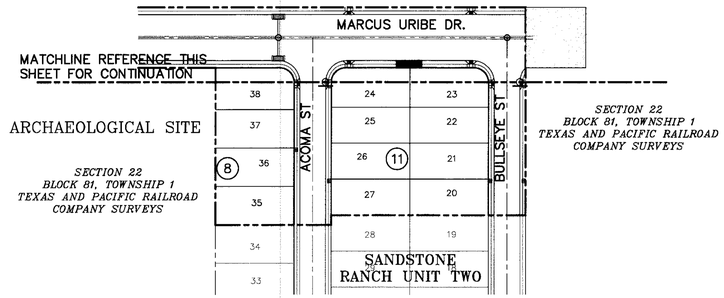
DRAINAGE DETAILS

(SHEET 3 OF 3)

SHEET NO.

21A





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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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

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION= 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

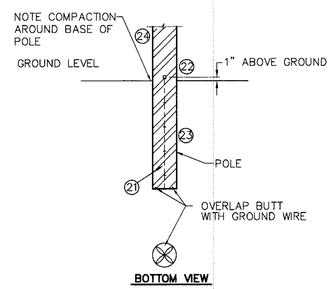
DATE	REVISIONS	BY

GENERAL NOTES:

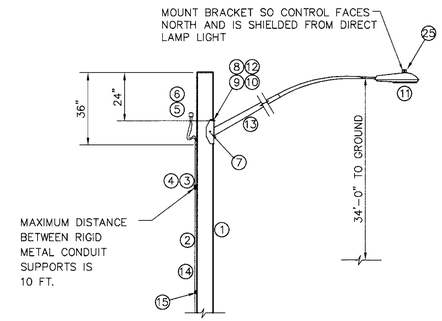
1. A MINIMUM 3' CLEARANCE SHALL BE PROVIDED ON THE SIDEWALK AFTER THE LIGHT POLES & FIRE HYDRANTS ARE PLACED. SIDEWALK SHALL COMPLY WITH A.D.A AND T.D.L.R. STANDARDS.
2. U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) THAT WILL BE PLACED OUTSIDE SUBDIVISION BOUNDARY LIMITS DUE TO THE SUBDIVISION PRIVATE LOCATION.

LEGEND:

- EXISTING RESIDENTIAL STREET LIGHT
- PROPOSED RESIDENTIAL STREET LIGHT
- PROPOSED 9" STREET NAME AND 30" STOP SIGN
- PROPOSED 9" STREET NAME SIGN (TWO SIGNS)
- NDCBU



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

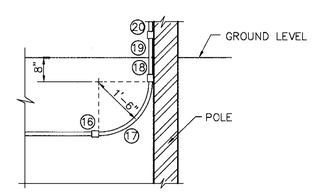


STREET LIGHT DETAIL
SCALE: 1" = 3'-0"

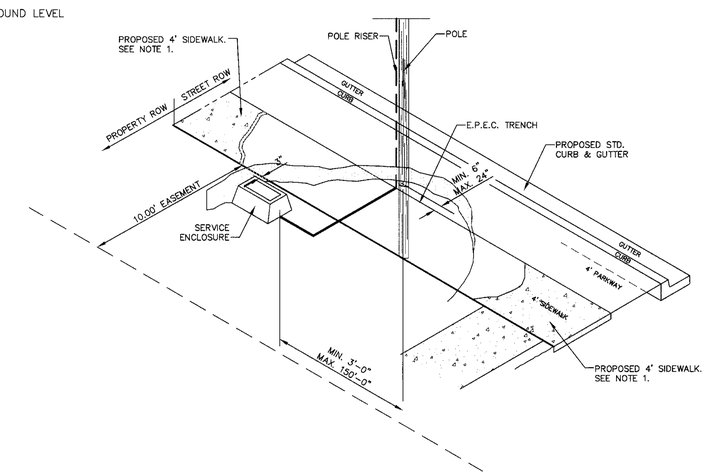
ITEM	QTY.	DESCRIPTION
1	1	POLE, PENTA TREATED PINE 40' CLASS III
2	27	1/2" RIGID GALVANIZED STEEL CONDUIT
3	4	TWO HOLE STEEL PIPE STRAP FOR 1/2" CONDUIT
4	8	1/4" x 1" LAG BOLT
5	1	PHOTO CELL RECEPTACLE WITH 1/2" THREADED BASE AND MOUNTING BRACKET
6	1	PHOTO CELL 240V.
7	4	1/2" x 4" LAG BOLT
8	1	WASHER, 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.

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



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



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

ILLUMINATION PLAN
SCALE: 1" = 100'

RECORD DRAWINGS

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2/7/08

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

ILLUMINATION PLAN

SHEET NO.

22

SITE DESCRIPTION

PROJECT NAME AND LIMITS: SANDSTONE RANCH UNIT THREE
SECTION 22, BLOCK 81, TOWNSHIP 1, TEXAS & PACIFIC RAILROAD COMPANY SURVEYS TO THE NORTH AND EAST, AN ARCHAEOLOGIGAL SITE AND SRV2 TO THE SOUTH, AND A 200' EPEC R.O.W TO THE WEST.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 21.97± ACRES, AND WILL CONTAIN 115 RESIDENTIAL LOTS

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, EXCAVATION FOR UTILITIES, AND CONSTRUCTION STORM SEWER SYSTEM.

TOTAL PROJECT AREA: 21.97± A.C.

TOTAL AREA TO BE DISTURBED: 36.97± A.C.

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.631

EXISTING CONDITION OF SOIL AND VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: THE PROJECT SITE IS LOCATED IN THE VICINITY OF THE TURNEY-BERINO ASSOCIATION: NEARLY LEVEL AND GENTLY SLOPING SOILS THAT HAVE A CLAY LOAM SUBSOIL AND ARE MODERRATELY DEEP OVER; IN THE HUECO BOLSON. THIS ASSOCIATION IS MADE UP OF MOSTLY SOILS THAT HAVE A MODERATELY ALKALINE, CALCAREOUS SURFACE LAYER ABOUT TEN INCHES THICK.

NAME OF RECEIVING WATERS: STORM RUNOFF FROM THE NEW SUBDIVISION WILL BE CONVEYED BY STREET SHEET FLOW TO PROPOSED INLET STRUCTURES TO ULTIMATELY BE DISCHARGED TO THE NORTH-EAST FREEWAY CHANNEL.

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 BERM
- ____ HAY BALES
- ____ ROCK BERMS
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- ____ DIVERSION DIKE AND SWALE COMBINATION
- ____ PIPE SLOPE DRAINS
- ____ CONCRETE FLUMES
- X ROCK BEDDING AT CONSTRUCTION EXIT
- ____ TIMBER MATTING AT CONSTRUCTION EXIT
- ____ CHANNEL LINERS
- ____ SEDIMENT TRAPS
- ____ SEDIMENT BASINS
- ____ STORM INLET SEDIMENT TRAP
- ____ STONE OUTLET STRUCTURES
- X CURBS AND GUTTERS
- ____ STORM DRAINS
- 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 TNRCC.

III. SANITARY WASTE:

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

IV. SPILL PREVENTION:

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

V. GOOD HOUSEKEEPING:

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

VI. HAZARDOUS PRODUCTS:

PRACTICES USED TO REDUCE RISKS:

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

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:

XII. REFER TO SWPPP REPORT FOR ADDITIONAL INFORMATION.

RECORD DRAWINGS

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2/7/08

SDPCP #: ___-____
SDPCP DATE: ___-___-___

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 REGISTERED PROFESSIONAL ENGINEER

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

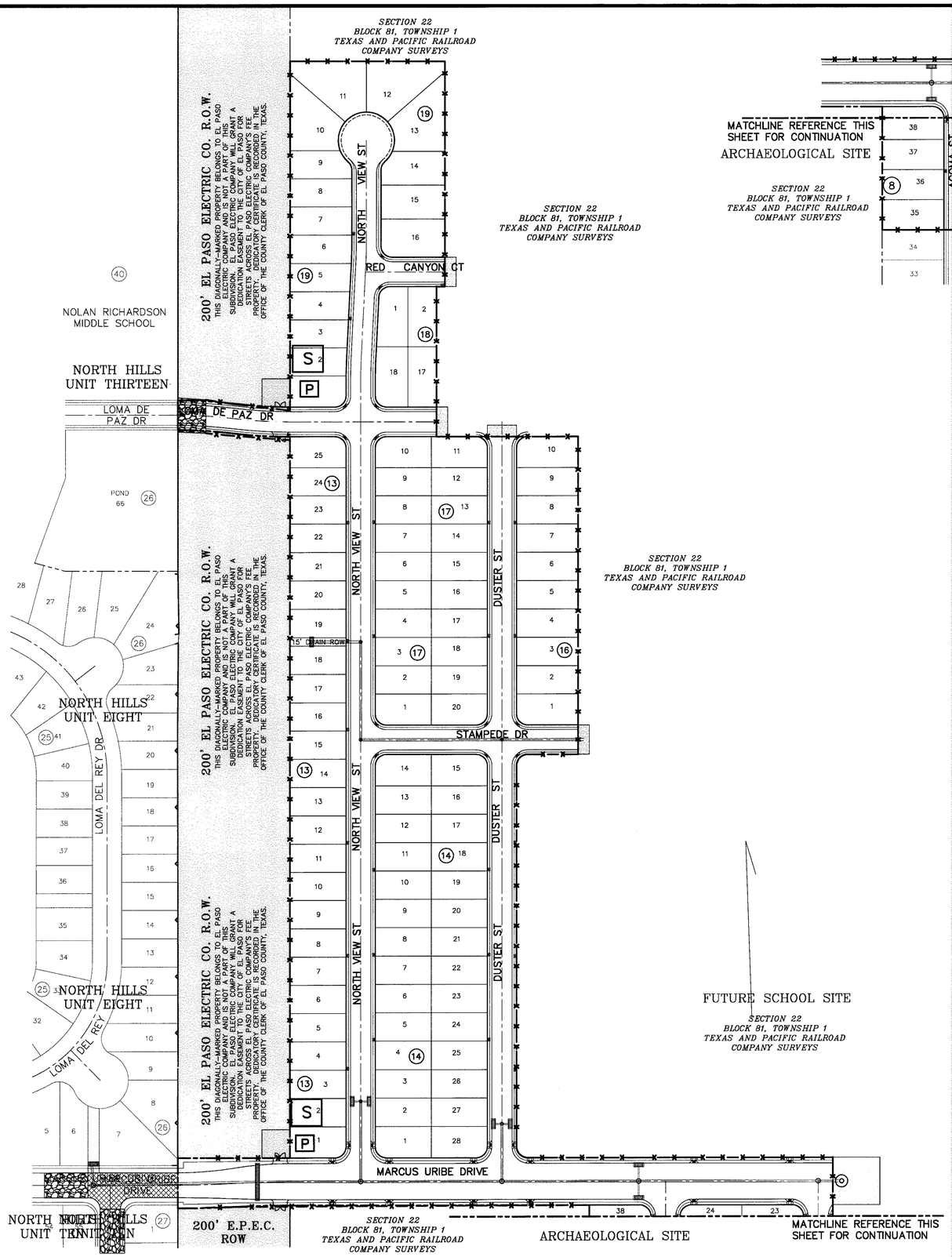
SHEET TITLE

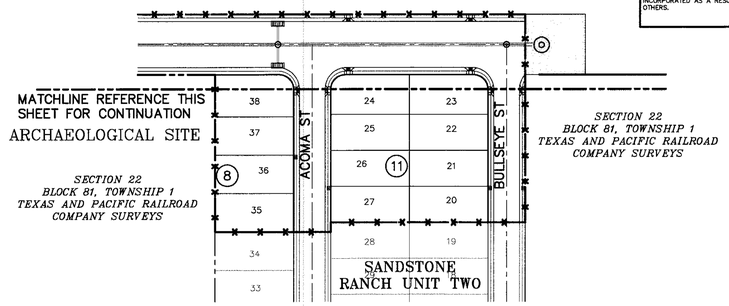
STORM WATER POLLUTION PREVENTION PLAN: GENERAL NOTES

SHEET NO.

23

OF 25





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(AFTER HOURS)	(915) 240-3220

WARNING ! BEFORE YOU DIG

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

LEGEND

- —x—x—x—x—x— SILT FENCE OR EARTHERN BERM
- STABILIZED CONSTRUCTION ENTRANCE
- S STAGING AREA
- P PORTABLE TOILETS
- OUTFALL

SWPPP SITE PLAN

SCALE: 1" = 100'

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

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ENGINEER'S SEAL

JORGE L. AZCARATE 85075 LICENSED PROFESSIONAL ENGINEER

SCALE
Horizontal: 1"=100'
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

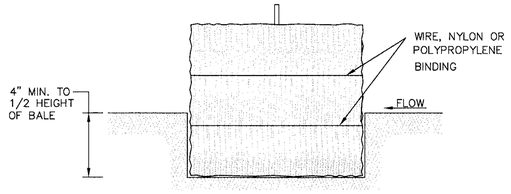
SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN: SITE PLAN

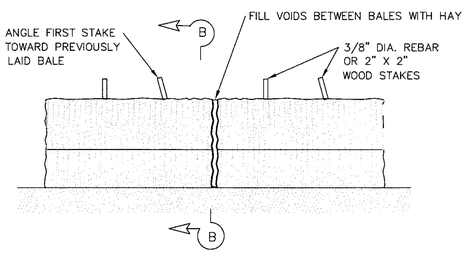
SHEET NO.

24

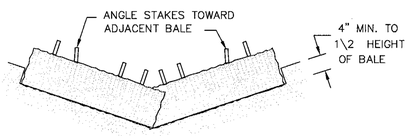
OF 25



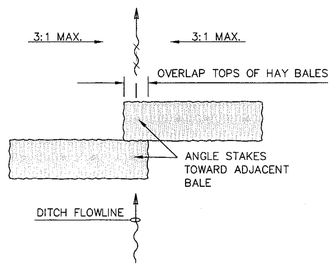
SECTION B–B



BALED HAY FOR EROSION CONTROL



PROFILE VIEW



PLAN VIEW

BALED HAY FOR EROSION CONTROL

BALED HAY USAGE GUIDELINES

A BALED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. THE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 5 GPM/FT^2 OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10%, THE LENGTH OF SLOPE UPSTREAM THE BALED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1/2 ACRE.

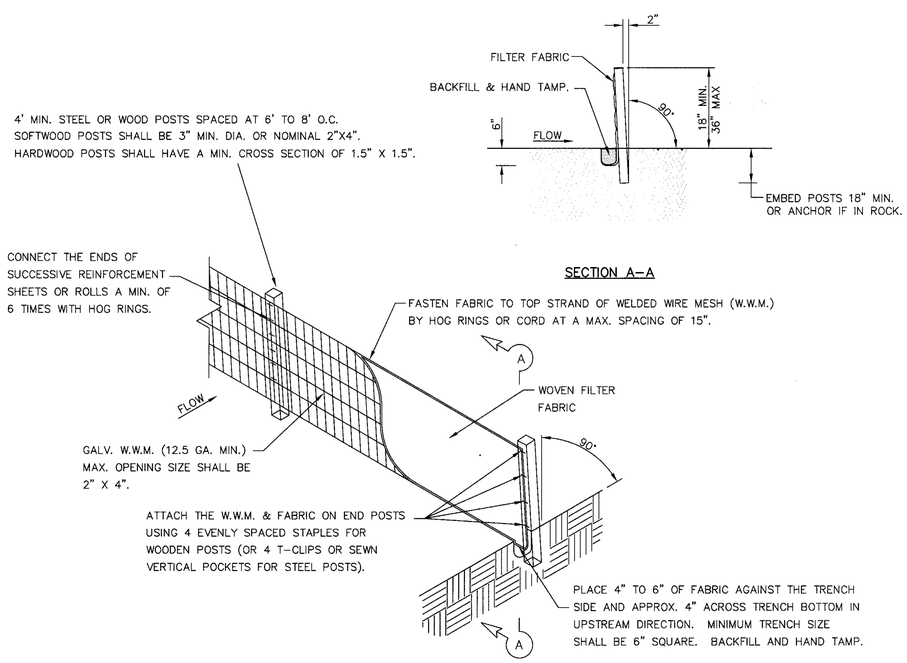
FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE ADDITIONAL FOLLOWING CONSIDERATIONS APPLY:

1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOWRATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERTOPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BALED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTEGRITY IS ACCELERATED.

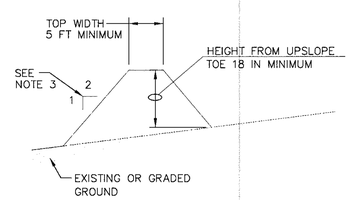
GENERAL NOTES

1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND WHERE POSSIBLE 1/2 THE HIEGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3/8" DIA. REBAR OR 2" X 2" WOOD STAKES, DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



SECTION A–A

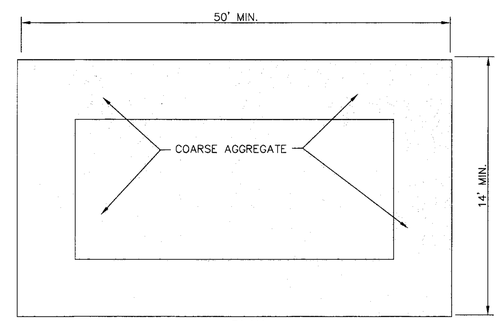
TEMPORARY SEDIMENT CONTROL FENCE



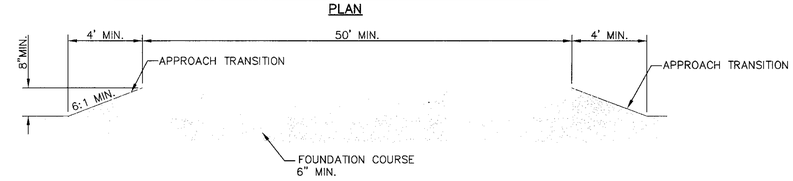
GENERAL NOTES:

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)

RECORD DRAWINGS

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2/7/08

REFERENCES – BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. LAZCANO III
85075
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

SCALE
Horizontal: N/A
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000–082–LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN: DETAILS

SHEET NO.

25

OF 25

RECORD DRAWINGS

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UTILITY LOCATOR SERVICES

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EL PASO ENERGY CORPORATION	(915) 496–5244
EL PASO WATER UTILITIES	(915) 594–5500
MCI SURVEILLANCE	(800) MCI–WORK
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1–800–344–8377
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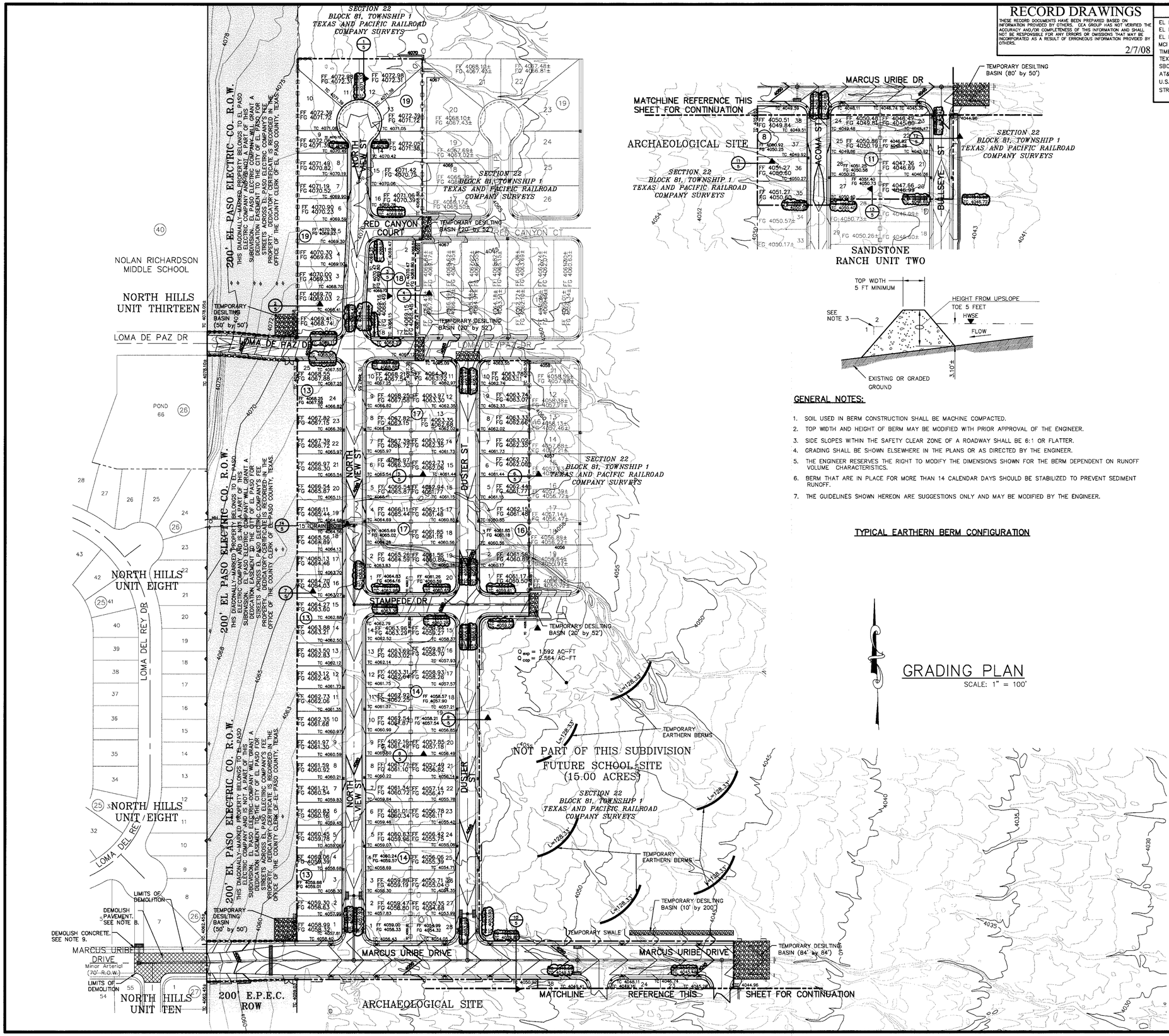

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TYPICAL EARTHERN BERM CONFIGURATION

GRADING PLAN
SCALE: 1" = 100'

LEGEND:

- NEW RETAINING ROCKWALL (2'–3' IN HEIGHT)
- NEW RETAINING ROCKWALL (3'–9' IN HEIGHT)
- 5' X 5' WHEELCHAIR PASSING
- EXISTING MINOR CONTOUR
- 4075 EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 4075 PROPOSED MAJOR CONTOUR
- DENOTE AS–BUILT ELEVATIONS

NOTES:

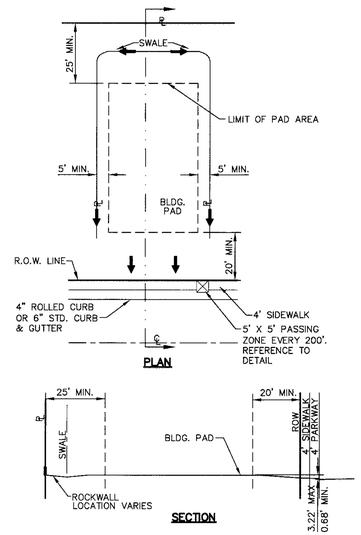
1. RETAINING WALLS SHALL BE CONSTRUCTED FOR VERTICAL GRADES GREATER THAN 2–FEET.
2. SLOPED AREAS WITHIN RESIDENTIAL LOTS SHALL BE MAINTAINED BY THE PROPERTY OWNERS.
3. ALL RETAINING WALLS NOT SPECIFIED TO BE CONSTRUCTED BY DEVELOPER, SHALL BE BUILT BY BUILDER.
4. DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 (EXCESSIVE PAVING CUTS) OF THE EL PASO MUNICIPAL CODE.
5. IMPROVEMENTS SHALL NOT BE PLACED ON SIDEWALK (NDBCU's, SIGNS, POLES, FIRE HYDRANTS, ETC.)
6. IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A. STANDARDS
7. U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS.
8. EXISTING PAVEMENT SHALL BE DEMOLISHED TO THE CURB RETURNS. CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO NOT DAMAGE ADJACENT PROPERTY. ANY DAMAGE SHALL BE REPAIRED AT ORIGINAL OR BETTER CONDITION AT CONTRACTOR'S EXPENSE.
9. EXISTING CONCRETE SIDEWALK AND CONCRETE FLUME SHALL BE DEMOLISHED TO CONSTRUCT AN DROP INLET. CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO NOT DAMAGE ADJACENT PROPERTY. ANY DAMAGE SHALL BE REPAIRED AT ORIGINAL OR BETTER CONDITION AT CONTRACTOR'S EXPENSE.

BENCHMARK:

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

FLOOD ZONE:

THIS SUBDIVISION LIES WITHIN ZONE "C" AS DESIGNATED IN PANEL NO. 480214–0014 D, DATED OCTOBER 15, 1982, OF THE FLOOD INSURANCE RATE MAPS, EL PASO COUNTY, TEXAS. ZONE "C" INDICATES AREAS OF MINIMAL FLOODING.



TYPICAL LOT PLAN
SCALE: 1" = 30'

NOTES:

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

REFERENCES – BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21. ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
	AS–BUILT REVISIONS	

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Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

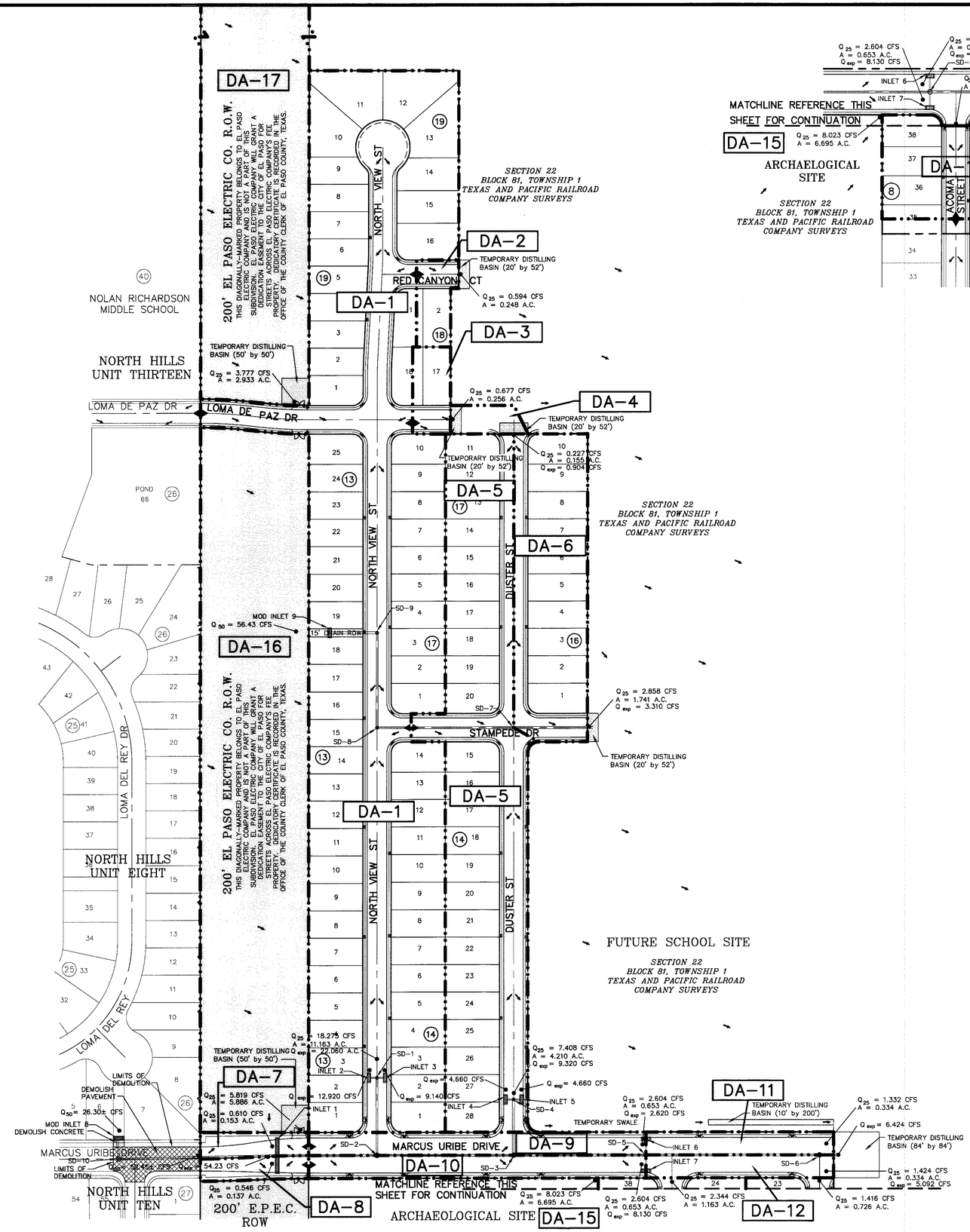
ENGINEER'S SEAL
85075 LICENSED JAMES L. ACKERMAN PROFESSIONAL ENGINEER

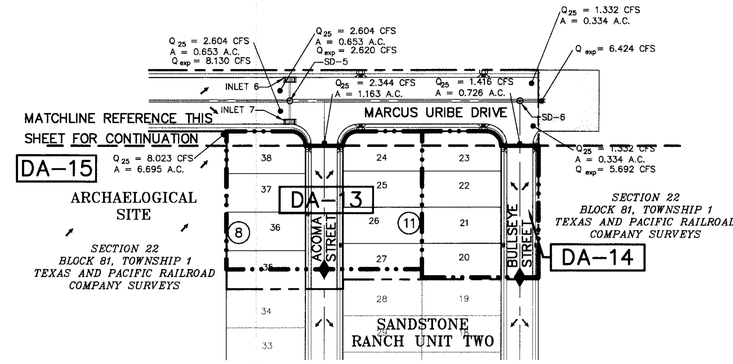
SCALE
Horizontal: 1"=100'
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPV'D. BY: J.L.A.
JOB No. 2000–082–LD

PROJECT TITLE
SANDSTONE RANCH UNIT THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE
GRADING PLAN

SHEET NO.
3
OF 25





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(AFTER HOURS)	(915) 240-3220

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

RECORD DRAWINGS

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LEGEND

TEMPORARY DESILTING BASINS

RUNOFF FLOW

DA-19 DRAINAGE AREA

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	11.163	2.426	32.96	0.675	18.275
DA-2	0.248	3.364	18.50	0.713	0.594
DA-3	0.256	3.788	14.50	0.698	0.677
DA-4	0.155	4.431	10.00	0.330	0.227
DA-5	4.210	2.513	31.12	0.700	7.408
DA-6	1.741	2.418	33.12	0.679	2.858
DA-7	0.153	4.431	10.00	0.900	0.610
DA-8	0.137	4.431	10.00	0.900	0.546
DA-9	0.653	4.431	10.00	0.900	2.604
DA-10	0.653	4.431	10.00	0.900	2.604
DA-11	0.334	4.431	10.00	0.900	1.332
DA-12	0.334	4.431	10.00	0.900	1.332
DA-13	1.163	3.089	21.75	0.653	2.344
DA-14	0.726	2.826	25.50	0.690	1.416
DA-15	6.695	2.996	23.00	0.400	8.023
DA-16	5.886	2.996	23.00	0.330	5.819
DA-17	2.933	3.902	13.58	0.330	3.777

* Q25 IS BASED ON DEVELOPED RUNOFF

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) $Q_{25} = C \times A \times I_{25}$

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	# OF GRATES	TYPE OF INLET
1	54.230	160.100	0	0	18	II	2	I
2	12.920	19.630	0	0	2	I		
3	9.140	19.630	0	0	2	I		
4	4.660	19.630	0	0	2	I		
5	4.660	19.630	0	0	2	I		
6	2.620	19.630	0	0	2	I		
7	8.130	19.630	0	0	2	I		
8	26.300	39.150	0	0	5	MOD II		
9	56.430	60.114	0	0	3	MOD II		

MOMENTUM COMPUTATION

LOCATION @ INLET (1)	DEPTH (2)	VELOCITY (3)	PRODUCT NUMBER (4)
1	0.524	3.286	1.720
2	0.367	3.173	1.163
3	0.322	2.910	0.937
4	0.253	2.397	0.607
5	0.253	2.397	0.607
6	0.177	2.768	0.489
7	0.270	3.673	0.993
8	0.270	3.000	0.811
9	0.410	2.800	1.147

(1) LOCATION

(2) DEPTH

(3) VELOCITY

(4) PRODUCT NUMBER = DEPTH X VELOCITY

DRAINAGE PLAN

SCALE: 1" = 100'

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21, ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 PROFESSIONAL ENGINEER 2/19/08

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: JL.A.
APPVD. BY: JL.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE SUBDIVISION IMPROVEMENTS

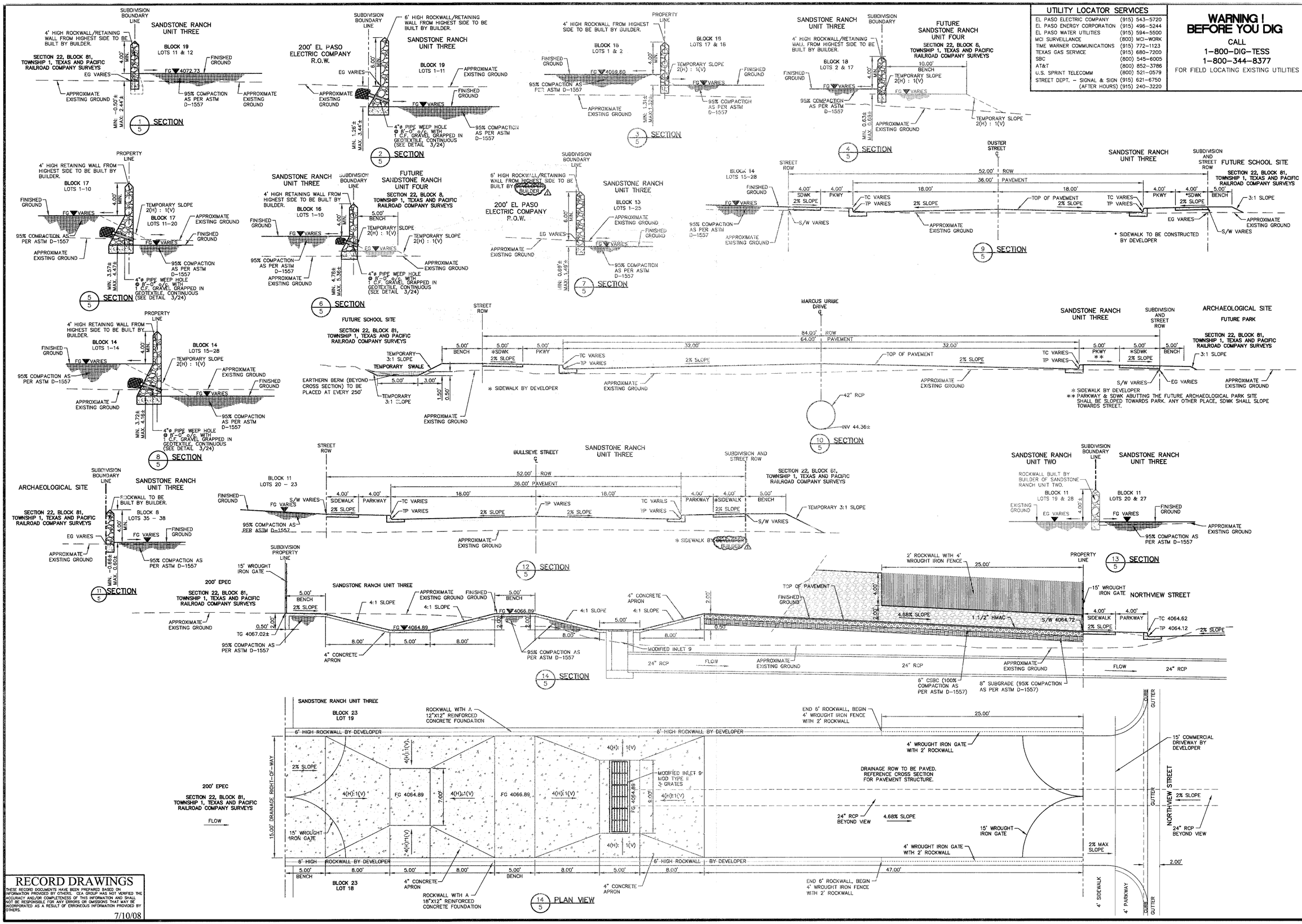
SHEET TITLE

DRAINAGE PLAN

SHEET NO.

4

OF 25



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cea engineering group
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Office 915.544.5232 Fax 915.544.5233
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ENGINEER'S SEAL
JORGE L. AZCARATE 85075 CERTIFIED PROFESSIONAL ENGINEER

SCALE
Horizontal: 1"=5'
Vertical: N/A
Contour Interval: N/A
DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE
SANDSTONE RANCH UNIT THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE
TYPICAL GRADING SECTIONS

SHEET NO.
5
OF 25

RECORD DRAWINGS

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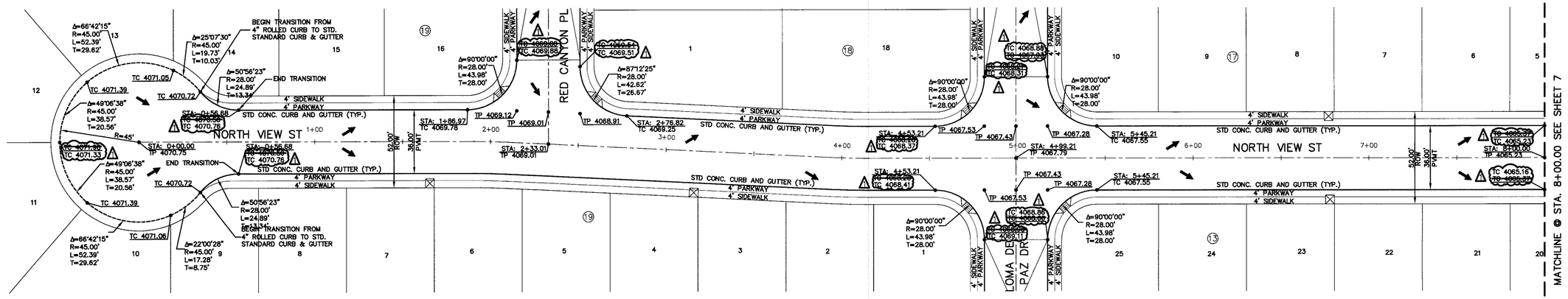
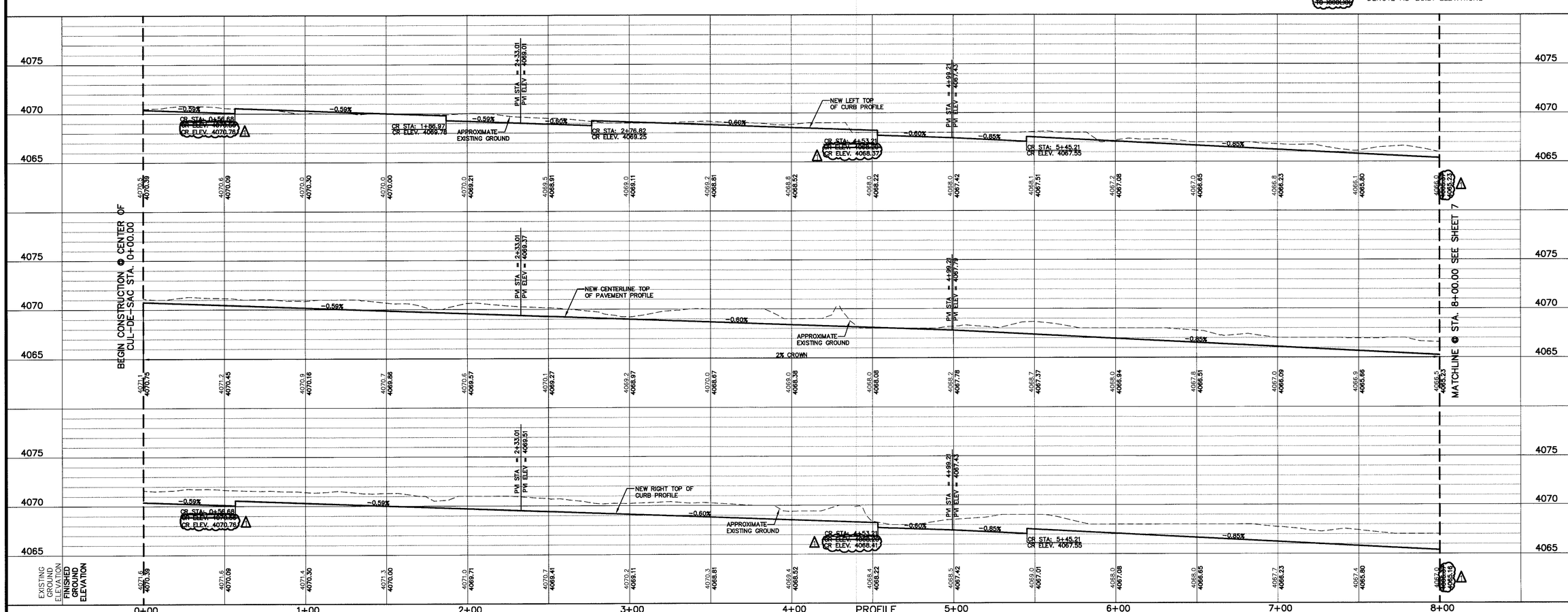


PLAN

LEGEND:

- 5' X 5' WHEELCHAIR PASSING
- WHEELCHAIR RAMP (TYP.)
- TC XXXX.XX / FG XXXX.XX — DENOTE AS-BUILT ELEVATIONS



PROFILE

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 & 23 ELEVATION: 4077.2 (NGVD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
	AS-BUILT REVISIONS	

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Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

JORGE L. AZCARATE 85075 PROFESSIONAL ENGINEER STATE OF TEXAS

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE

NORTH VIEW ST PLAN & PROFILE FROM STA. 0+00.00 TO STA. 8+00.00

SHEET NO.

6

OF 25

RECORD DRAWINGS

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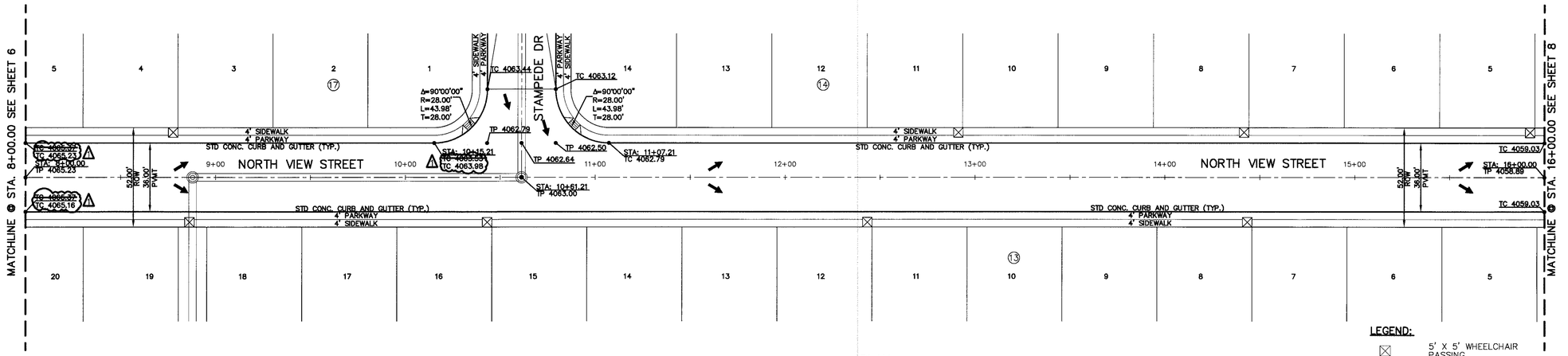
2/7/08

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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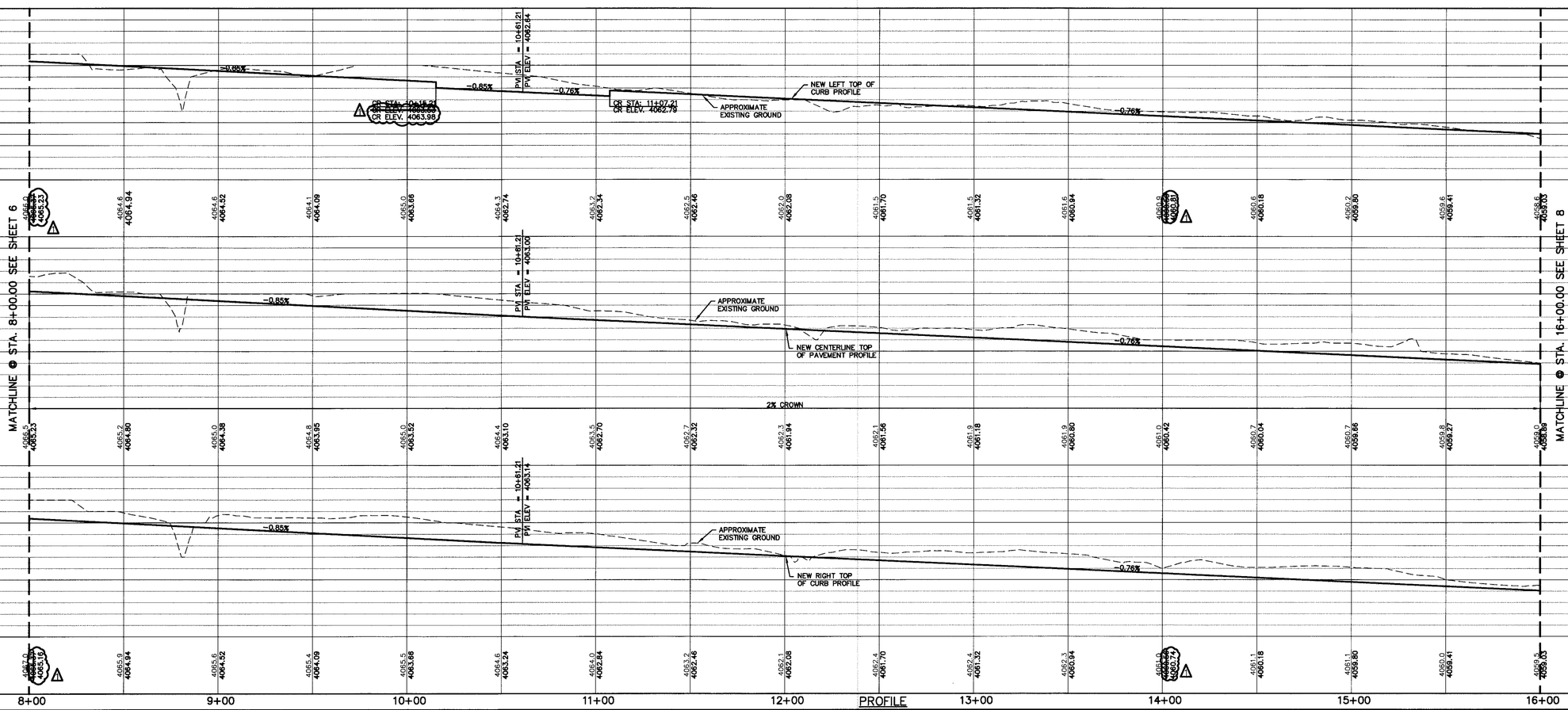

PROFILE

REFERENCES - BENCHMARKS

FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 AND 21; ELEVATION: 4033.22 (NVGD DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
Δ	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

ENGINEER'S SEAL

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE

SANDSTONE RANCH UNIT THREE SUBDIVISION IMPROVEMENTS

SHEET TITLE

NORTH VIEW ST
PLAN & PROFILE
FROM STA. 8+00.00
TO STA. 16+00.00

SHEET NO.

7

OF 25

RECORD DRAWINGS

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AT&T	(800) 852-3786
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(AFTER HOURS)	(915) 240-3220

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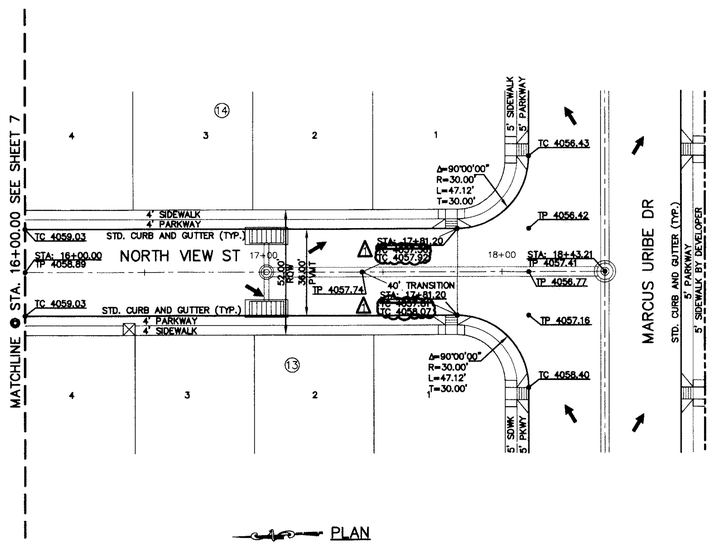
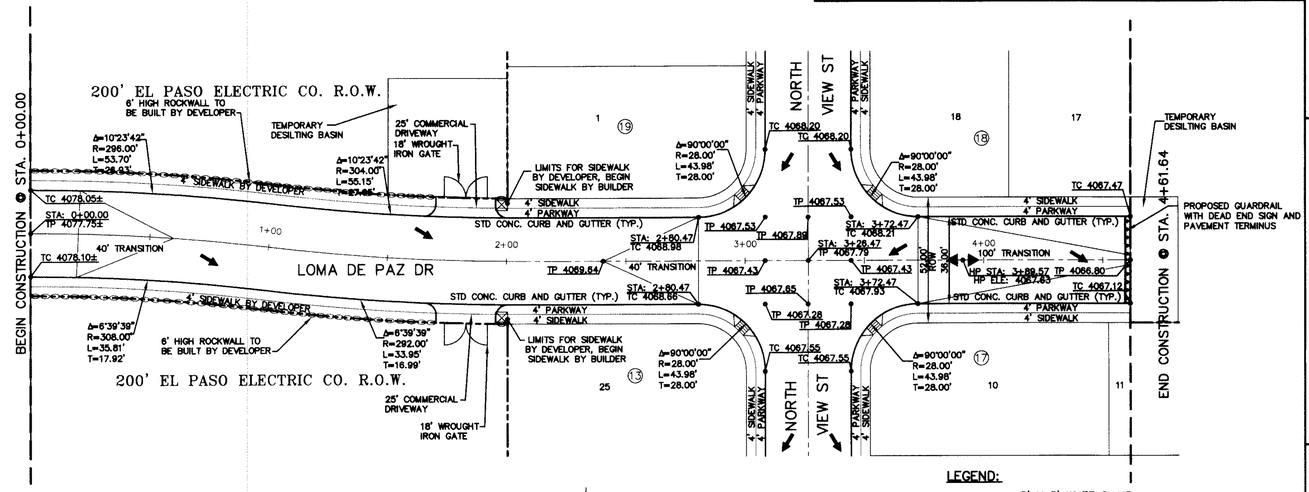


PLAN



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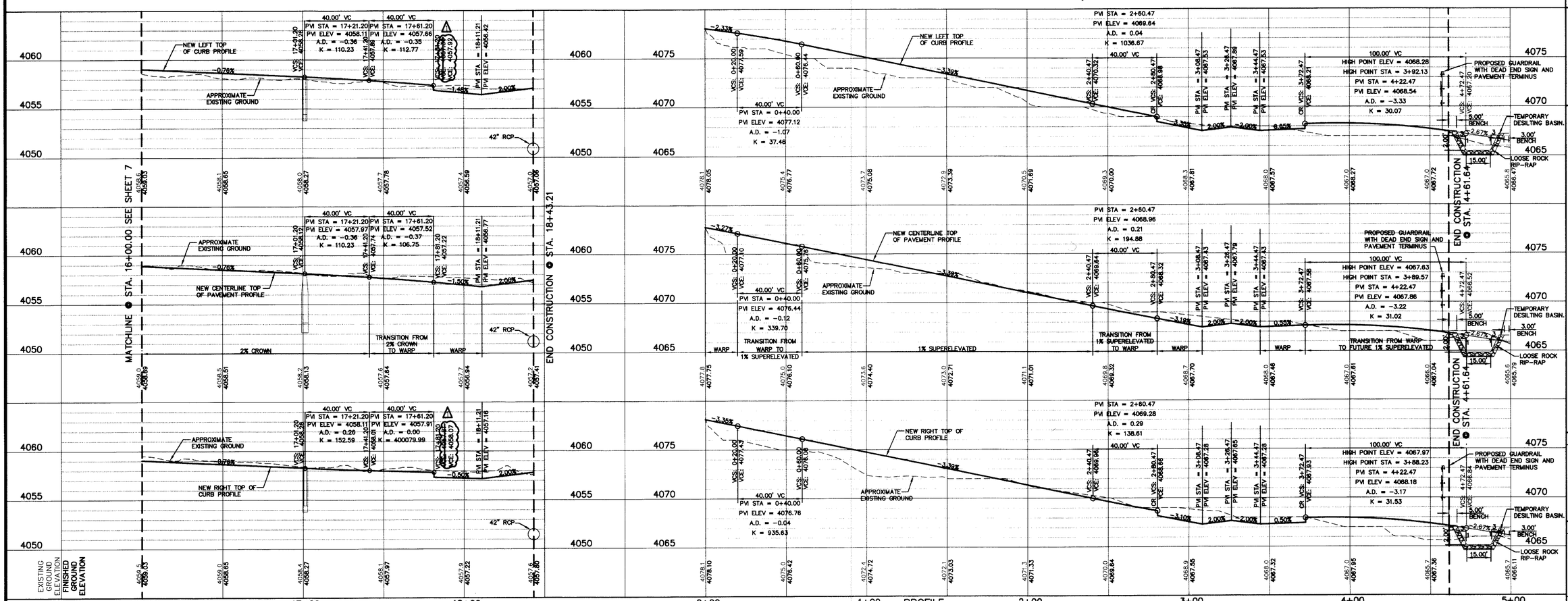

PROFILE

REFERENCES - BENCHMARKS
FOUND TXDOT BRASS CAP SECTION CORNERS 19, 20, 22 WARD 21 (EWING ADDITION) (NAVD 27 DATUM) (SUBTRACT 8.462 TO CONVERT TO CITY DATUM)

DATE	REVISIONS	BY
1	AS-BUILT REVISIONS	

cea engineering group
1204 Montana Ave., El Paso, Texas 79902
Office 915.544.5232 Fax 915.544.5233
www.ceagroup.net

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

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

DATE: JANUARY 2007
DESIGN BY: A.H.
DRAWN BY: A.B.
CHKD. BY: J.L.A.
APPVD. BY: J.L.A.
JOB No. 2000-082-LD

PROJECT TITLE
SANDSTONE RANCH UNIT THREE
SUBDIVISION IMPROVEMENTS

SHEET TITLE
NORTH VIEW ST PLAN & PROFILE FROM STA. 16+00.00 TO STA. 18+43.21
LOMA DE PAZ DR PLAN & PROFILE FROM STA. 0+00.00 TO STA. 4+61.64

SHEET NO.
8
OF 25

RECORD DRAWINGS

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(AFTER HOURS)	(915) 240-3220

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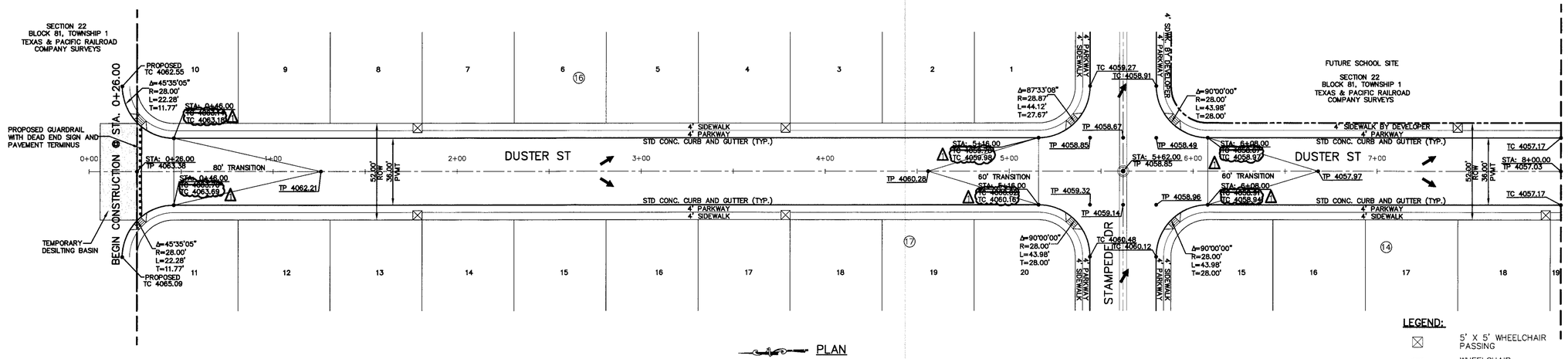

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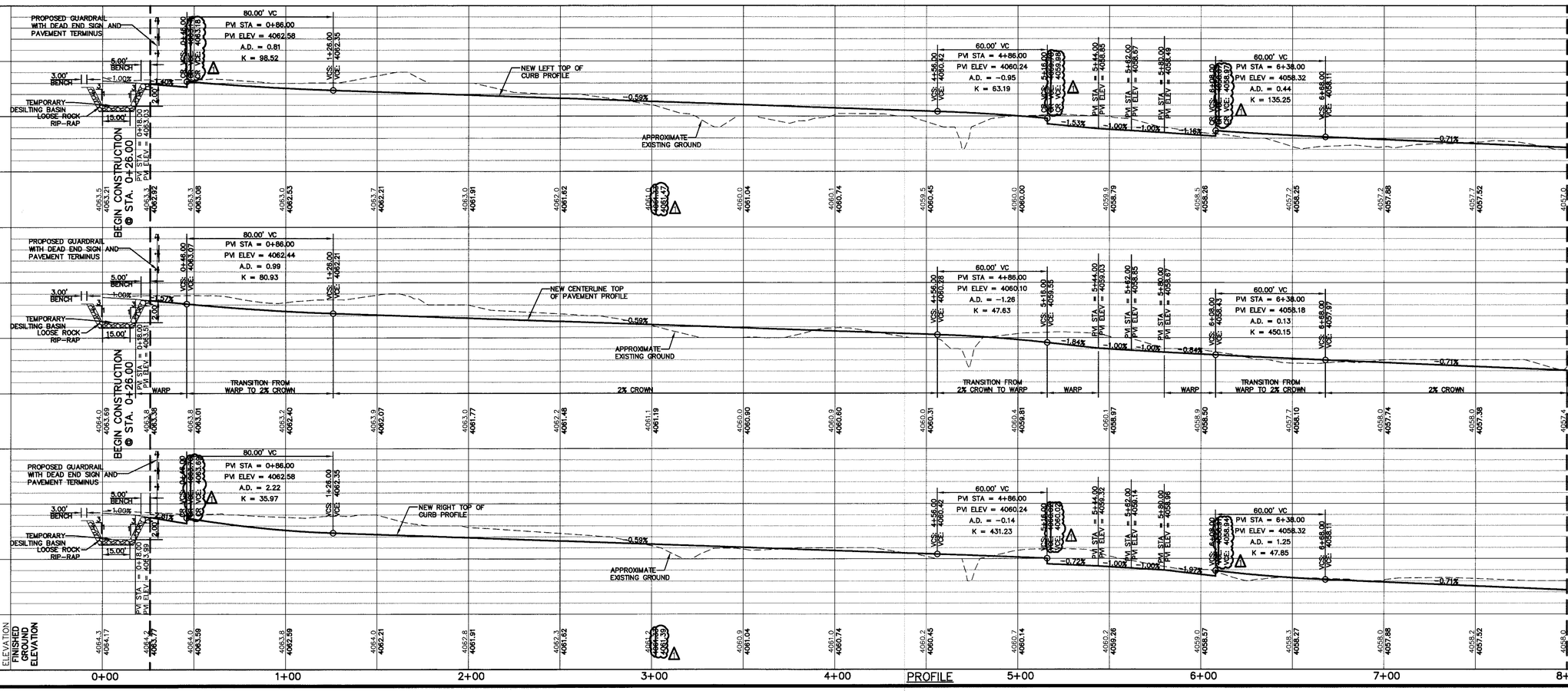

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ENGINEER'S SEAL
STATE OF TEXAS
JORGE L. ALDAPACHE
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LICENSED PROFESSIONAL ENGINEER
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SHEET TITLE

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FROM STA. 0+26.00
TO STA. 8+00.00

SHEET NO.

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OF 25