

# VILLAS DEL NORTE UNIT ONE SUBDIVISION

BEING A PORTION OF TRACT 1A,  
SECTION 31, BLOCK 80, TOWNSHIP 1,  
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS,  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING 48.64 ACRES ±

SHEET 1 OF 3

**DEDICATION**  
Northtowne Village Joint Venture, the owners of this land, do hereby present this map and dedicate their respective portions of property to the use of the public, the streets, ponding area, parks and utility easements, as hereon laid down and designated, including easements for overhead service wires for pole type utilities and the right for installation of service poles alongside lot lines as may be required, easements for buried service wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.

Witness my signature this 7th day of June, 2022

*Gregory B. Bowling*  
Gregory B. Bowling, Manager

## ACKNOWLEDGEMENT

STATE OF TEXAS  
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Gregory B. Bowling, 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 act and deed for the purpose and consideration herein expressed.

Given under my hand and seal of office this 7th day of June, 2022

*Noemi Haly*  
Notary Public in and for El Paso County  
My Commission Expires 10-13-2025

## CITY PLAN COMMISSION

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

this 1st day of October, 2022 Attest: *75-71-16*  
Executive Secretary

*NO*  
Chairperson

Date 1st October, 2022

Approved for filing this 16th day of June, 2022

*Philip Duvall*  
Planning and Inspections Director

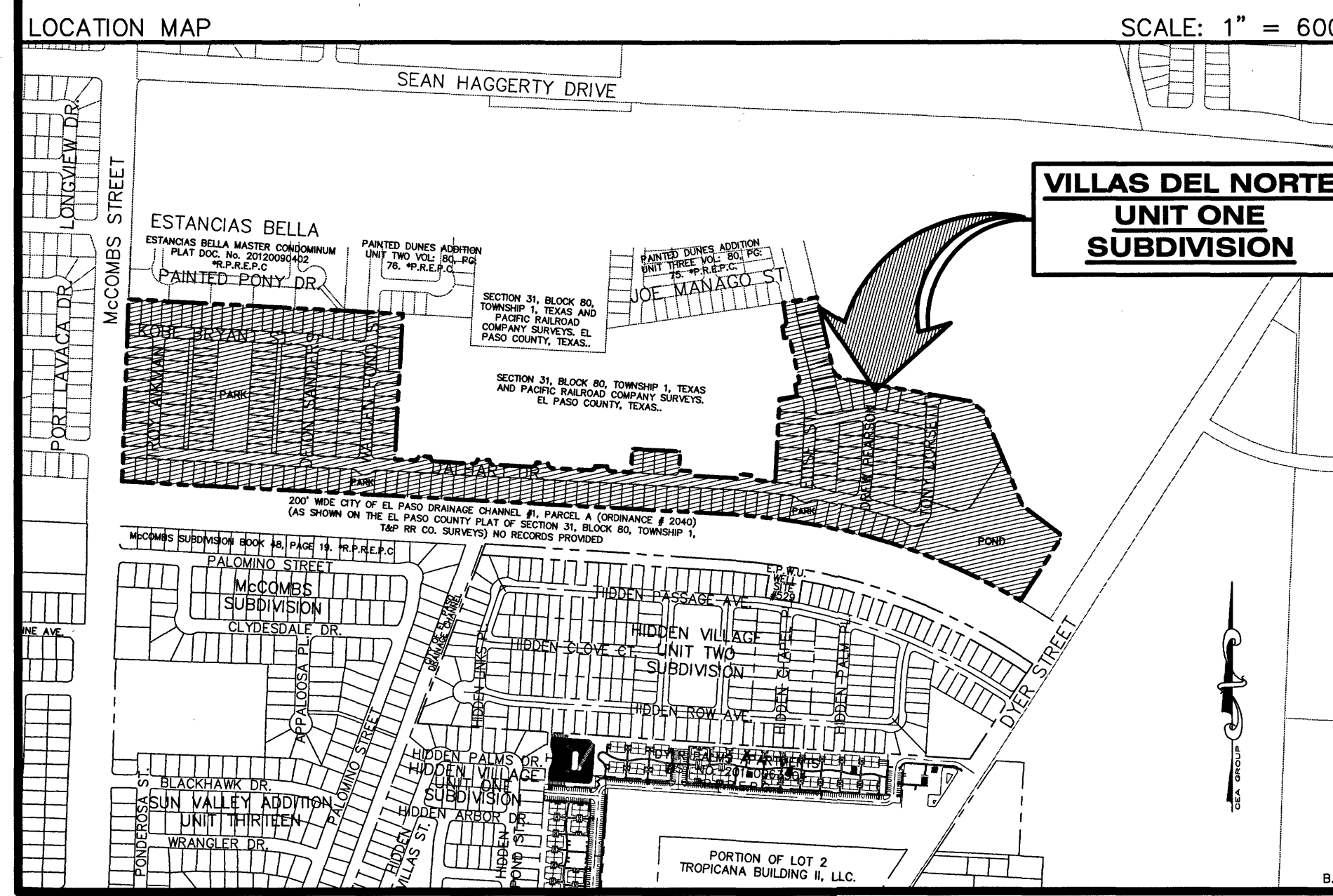
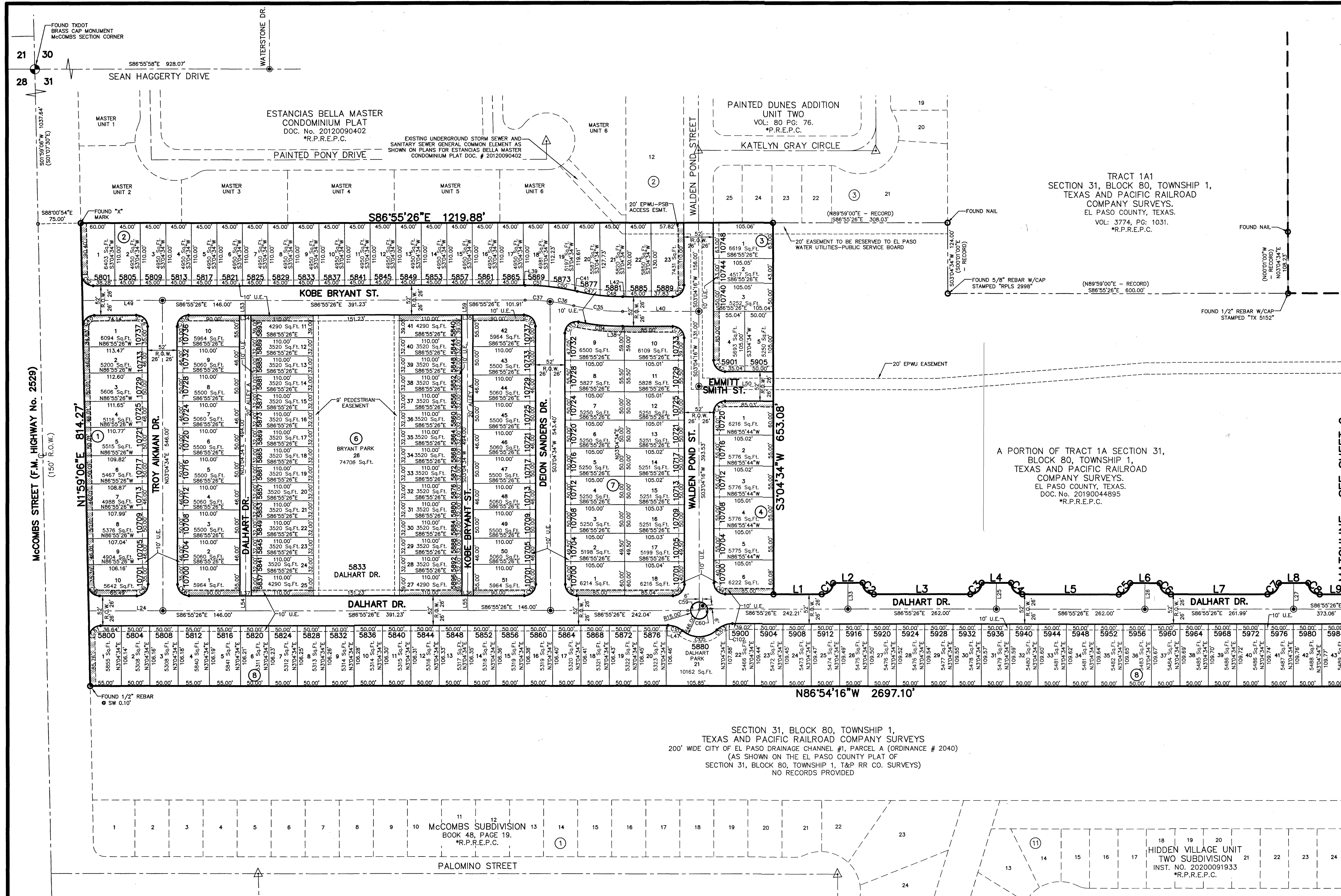
## FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 24th day

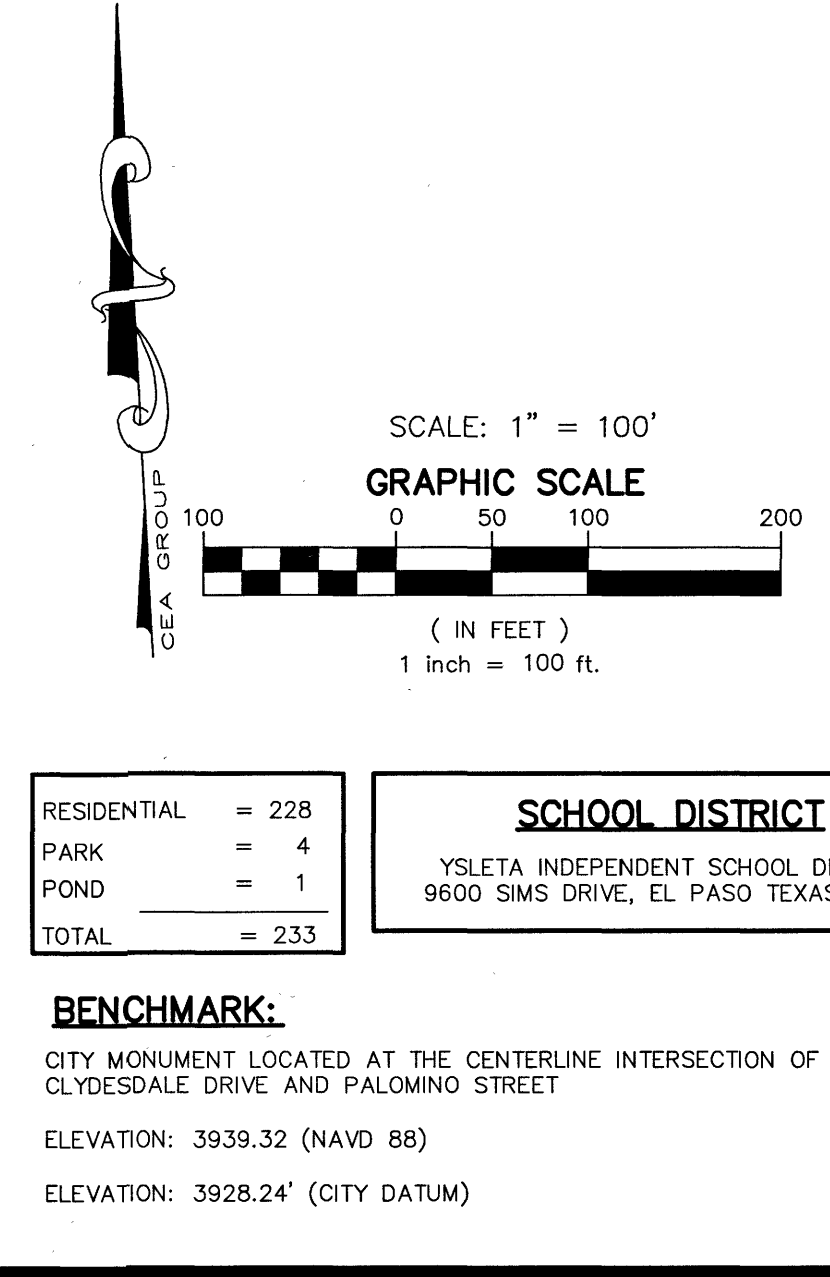
of June, 2022 in File No. 20220059723 of the Plat Records.

*Dale Brines*  
County Clerk  
*Stephoni Solis*  
by Deputy

Subdivision improvement plans prepared by and under the supervision of CEA Group. This plat represents a survey made on the ground by me or under my supervision and complies with the current Texas Board of Professional Engineers and Land Surveyors, Professional and Technical Standards.



- NOTES:**
- THIS IS TO CERTIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO VILLAS DEL NORTE UNIT ONE SUBDIVISION BY THE EL PASO WATER PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON WALDEN POND STREET AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.
  - TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION. INSTRUMENT NO. 20220069724 DATE 6/24/2022
  - RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION. INSTRUMENT NO. 20120069725 DATE 6/24/2022
  - A SET 1/2" REBAR WITH CAP STAMPED "B&A INC" WILL BE SET AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE SHOWN. INTERIOR LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES (BY OTHERS).
  - "U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS."
  - THIS SUBDIVISION LIES WITH IN ZONE "C" AND AS DESIGNATED PER LOMR CASE # 18-06-0885P, FIRM PANEL NO. 480214 00150, LOMR ISSUE DATE: JANUARY 26, 2018, EFFECTIVE DATE: JUNE 12, 2018.
  - ⊙ DENOTES PROPOSED MONUMENT. (MAY BE SUBJECT TO RELOCATION AT TIME OF CONSTRUCTION. FOR EXACT LOCATION PLEASE CONTACT THE CITY OF EL PASO.)
  - ⊙ DENOTES EXISTING MONUMENT.
  - ALL EASEMENTS SHALL BE TEN (10') FEET UNLESS OTHERWISE NOTED.
  - ALL DEVELOPED STORM WATER RUNOFF DISCHARGE VOLUMES SHALL BE RETAINED WITHIN THIS SUBDIVISION'S LIMITS IN COMPLIANCE WITH PROVISIONS OF DSC, MUNICIPAL CODE 19.19.010A AND DDM, 11.1.
  - ALL ALLEYS SHALL BE PUBLIC AND TO BE MAINTAINED BY THE CITY OF EL PASO.
  - 10' RESTRICTED ACCESS EASEMENT
  - THE RETENTION OF THE DIFFERENCE BETWEEN HISTORIC AND DEVELOPED STORM-WATER RUNOFF DISCHARGE VOLUME IS REQUIRED WITHIN THIS SUBDIVISION'S LIMITS IN COMPLIANCE WITH ALL PROVISIONS OF MUNICIPAL CODE 19.19.010A, DSC, DDM SECTION 11.1
  - BEARINGS SHOWN ARE GRID DERIVED FROM RTK OBSERVATIONS TO THE TEXAS CO-OP NETWORK, REFERRED TO THE TEXAS COORDINATE SYSTEM (NAD 83) CENTRAL ZONE. DISTANCES ARE GROUND AND MAY BE CONVERTED TO GRID DIVIDING BY 1.000176171.
  - DEED REFERENCE: DOC NO. 20190044895, REAL PROPERTY RECORDS OF EL PASO COUNTY, TEXAS.



*Jorge L. Azcarate* 6-6-2022  
JORGE L. AZCARATE, P.E.  
Licensed Professional Engineer  
Texas License No. 85075

*Benito Barragan* 6/1/2022  
Benito Barragan, R.P.L.S. No. 5615

**OWNER**  
NORTHTOWNE VILLAGE JOINT VENTURE  
6000 NORTHERN PASSES, SUITE C-1  
EL PASO, TX 79911  
VOICE: (915) 757-1802  
FAX: (915) 757-1827  
CONTACT: MR. GREG BOWLING

**DEVELOPER**  
BOWLING ENTERPRISES, LTD.  
6000 NORTHERN PASSES, SUITE C-1  
EL PASO, TX 79911  
VOICE: (915) 757-1802  
FAX: (915) 757-1827  
CONTACT: MR. GREG BOWLING

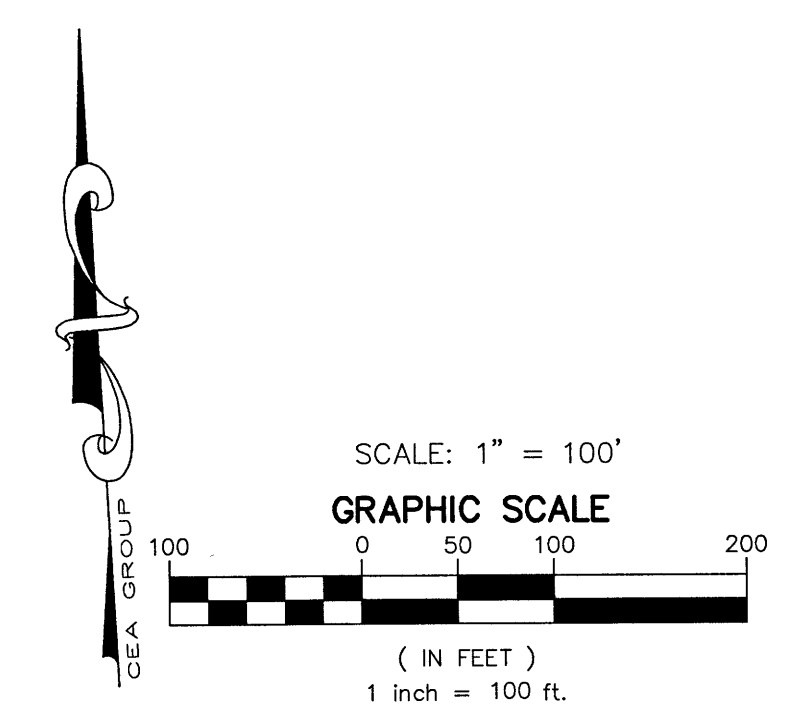
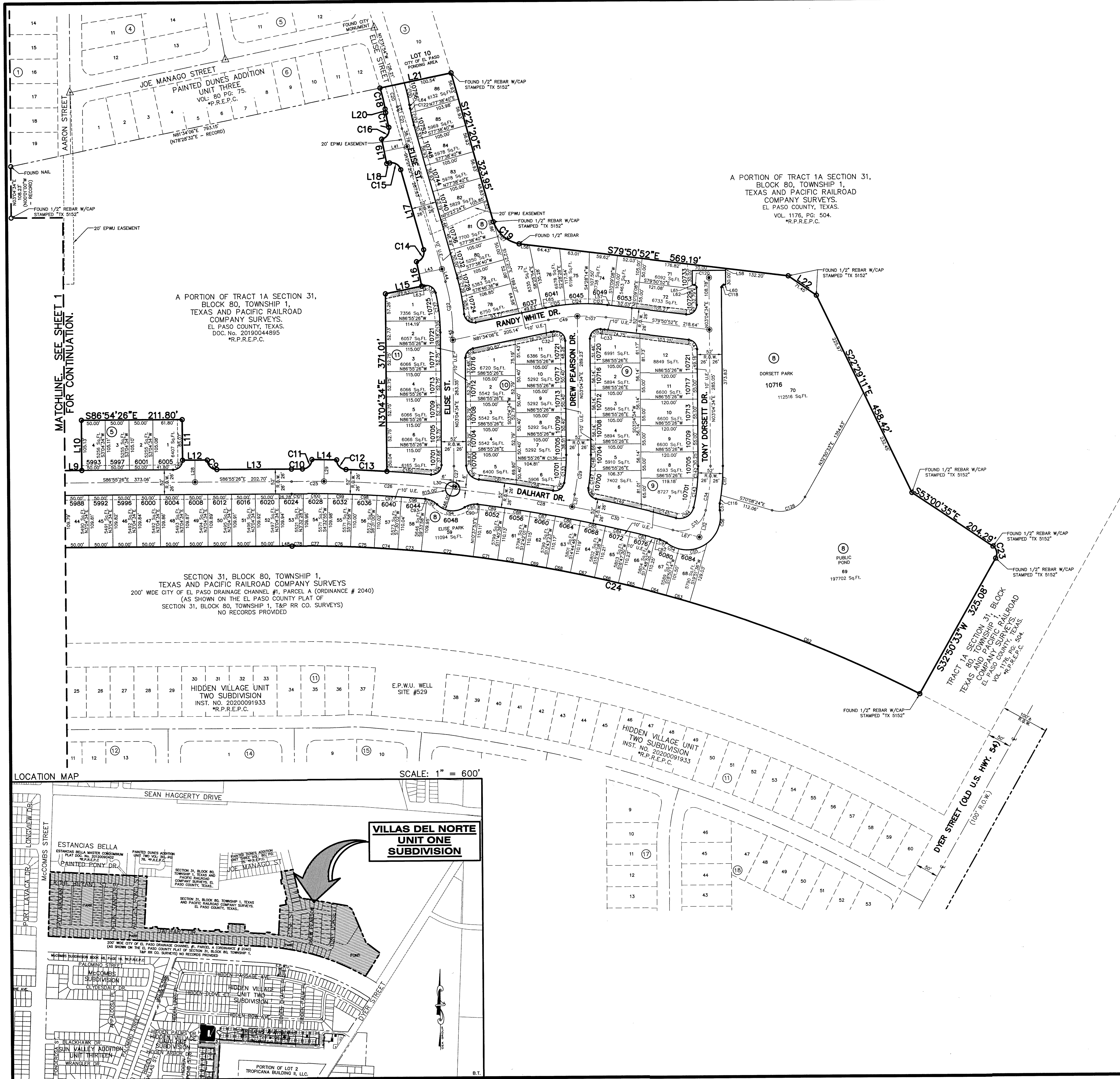
**ENGINEER**  
**cea group**  
813 N. Kansas St.  
Suite 300  
El Paso, TX 79902  
915.544.5232  
www.ceagroup.net  
TEXAS REGISTERED ENGINEERING FIRM F-4564  
CONTACT: JORGE L. AZCARATE, P.E.

**SURVEYOR**  
**Barragan & Associates Inc.**  
LAND PLANNING & LAND SURVEYING  
10950 PELLICANS DR. BLDG. F - EL PASO TX 79935  
Phone (915) 591-5709 Fax (915) 591-5706  
CONTACT: BENITO BARRAGAN, R.P.L.S.  
DATE OF PREPARATION: JANUARY 2021



# VILLAS DEL NORTE UNIT ONE SUBDIVISION

BEING A PORTION OF TRACT 1A,  
SECTION 31, BLOCK 80, TOWNSHIP 1,  
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS,  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING 48.64 ACRES ±  
SHEET 2 OF 3



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

*Benito Barragan* 6/1/2022  
Benito Barragan TX, R.P.L.S. No. 5615



ENGINEER  
**cea** GROUP  
813 N. Kansas St.  
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SHEET 3 OF 3

LINE TABLE			LINE TABLE			LINE TABLE		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L1	S86°55'26"E	85.00'	L25	S03°04'34"W	46.00'	L49	S86°55'26"E	141.02'
L2	S86°55'26"E	52.00'	L26	S03°04'34"W	46.00'	L50	S86°55'26"E	131.03'
L3	S86°55'26"E	170.03'	L27	S03°04'34"W	46.00'	L51	S12°21'20"E	10.56'
L4	S86°55'26"E	52.00'	L28	N03°04'34"E	46.00'	L52	S12°21'20"E	47.40'
L5	S86°55'26"E	170.00'	L29	S04°21'48"W	45.66'	L53	N03°04'34"E	26.00'
L6	S86°55'26"E	52.00'	L30	S09°29'08"W	6.36'	L54	N03°04'34"E	26.00'
L7	S86°55'26"E	169.99'	L31	S15°07'00"W	26.52'	L55	S03°04'34"W	26.00'
L8	S86°55'26"E	52.00'	L32	S16°29'01"W	57.89'	L56	S79°50'52"E	21.08'
L9	S86°55'26"E	89.27'	L33	S03°04'34"W	46.00'	L57	S79°50'52"E	9.28'
L10	N03°04'34"E	105.13'	L34	S86°55'26"E	20.00'	L58	N10°09'08"E	3.85'
L11	S03°04'34"W	85.07'	L35	S86°55'26"E	20.00'	L59	S03°04'34"W	26.00'
L12	S86°55'26"E	52.00'	L36	S86°55'26"E	20.00'	L60	N86°55'26"W	4.00'
L13	S86°55'26"E	156.70'	L37	S86°55'26"E	20.00'	L61	N86°55'26"W	4.00'
L14	S85°38'12"E	52.00'	L38	S86°55'26"E	3.04'	L62	N03°04'34"E	3.93'
L15	N81°34'06"E	77.83'	L39	S86°55'26"E	2.74'	L63	N81°34'06"E	5.96'
L16	S08°25'54"E	52.00'	L40	S86°55'26"E	134.04'	L64	S06°29'04"E	7.83'
L17	S12°21'20"E	175.41'	L41	N81°34'06"E	49.13'	L65	N81°34'06"E	7.26'
L18	N81°34'06"E	6.18'	L42	S86°55'26"E	5.21'	L66	N03°04'34"E	22.03'
L19	S08°25'54"E	52.00'	L43	N81°34'06"E	49.26'	L67	S71°36'43"E	57.89'
L20	S06°29'04"E	7.83'	L44	S12°21'20"E	27.18'			
L21	N81°34'06"E	152.75'	L45	N03°04'34"E	16.04'			
L22	S52°13'08"E	71.45'	L46	S12°21'20"E	66.65'			
L23	S06°29'04"E	7.83'	L47	S86°55'26"E	3.24'			
L24	S86°55'26"E	130.62'	L48	N86°54'16"W	26.25'			

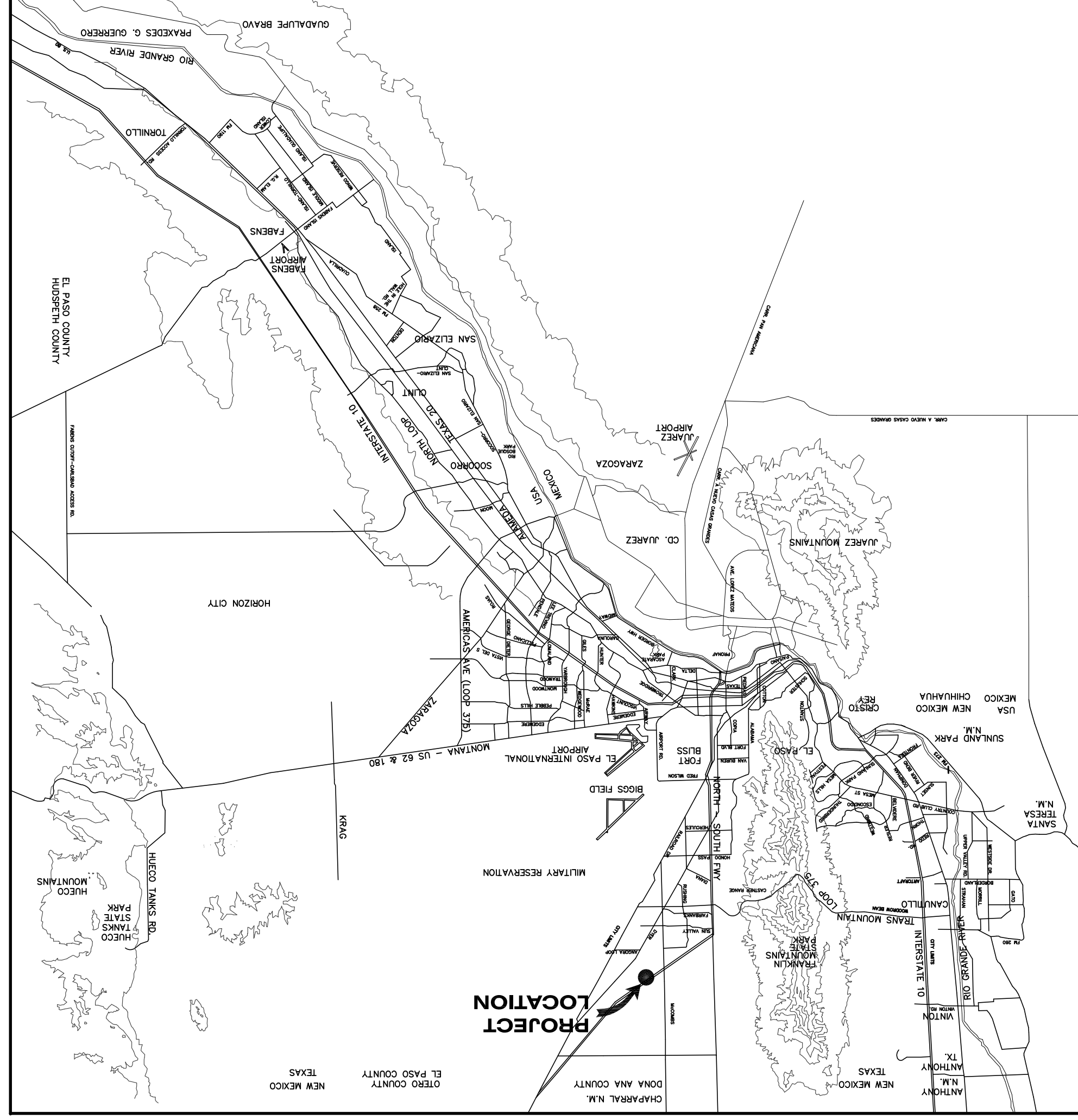
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	20.00'	31.42'	20.00'	28.28'	N48°04'34"E	090°00'00"
C2	20.00'	31.39'	19.97'	28.26'	S41°52'51"E	089°54'51"
C3	20.00'	31.42'	20.00'	28.28'	N48°04'34"E	090°00'00"
C4	20.00'	31.42'	20.00'	28.28'	S41°55'26"E	090°00'00"
C5	20.00'	31.42'	20.00'	28.28'	N48°04'34"E	090°00'00"
C6	20.00'	31.42'	20.00'	28.28'	S41°55'26"E	090°00'00"
C7	20.00'	31.42'	20.00'	28.28'	N48°04'34"E	090°00'00"
C8	20.00'	31.42'	20.00'	28.28'	S41°55'26"E	090°00'00"
C9	20.00'	31.42'	20.00'	28.28'	S41°55'26"E	090°00'00"
C10	3056.00'	22.95'	11.47'	22.95'	N86°42'31"W	000°25'49"
C11	20.00'	31.12'	19.70'	28.07'	N48°56'06"E	089°08'35"
C12	20.00'	31.12'	19.70'	28.07'	S40°12'30"E	089°08'35"
C13	3056.00'	86.09'	43.05'	86.09'	N83°58'22"W	001°36'51"
C14	20.00'	32.79'	21.42'	29.24'	N34°36'23"E	093°55'26"
C15	20.00'	30.05'	18.68'	27.30'	N55°23'37"W	086°04'34"
C16	20.00'	32.29'	20.89'	28.89'	N35°19'09"E	092°29'55"
C17	401.00'	31.11'	15.56'	31.11'	S08°42'26"E	004°26'44"
C18	349.00'	45.25'	22.65'	45.21'	N10°11'55"W	007°25'41"
C19	72.42'	74.69'	41.05'	71.42'	S45°44'02"E	059°05'22"
C20	375.00'	46.12'	23.09'	46.09'	N10°00'29"W	007°02'49"
C21	375.00'	38.42'	19.23'	38.41'	S09°25'12"E	005°52'15"
C22	400.00'	107.73'	54.19'	107.41'	N04°38'23"W	015°25'54"
C23	20.00'	28.44'	17.22'	26.10'	N08°00'35"W	081°27'43"
C24	2894.03'	1367.11'	696.56'	1354.43'	N73°22'04"W	027°03'57"
C25	3030.00'	68.06'	34.03'	68.06'	N86°16'49"W	001°17'13"
C26	3030.00'	270.89'	135.53'	270.79'	N83°04'32"W	005°07'20"
C27	375.00'	41.95'	21.00'	41.93'	N06°16'51"E	006°24'34"
C28	3030.00'	253.79'	126.97'	253.72'	N78°06'54"W	004°47'57"
C29	400.00'	84.06'	42.18'	83.90'	N09°05'47"E	012°02'26"
C30	3030.00'	217.00'	108.55'	216.95'	N73°39'49"W	004°06'12"
C31	56.00'	89.83'	57.89'	80.50'	N62°26'09"E	091°54'15"
C32	349.00'	6.27'	3.14'	6.27'	N82°05'00"E	001°01'48"
C33	349.00'	8.92'	4.46'	8.92'	S80°34'48"E	001°27'53"
C34	400.00'	93.60'	47.02'	93.39'	N09°46'48"E	013°24'27"
C35	375.00'	86.80'	43.59'	86.60'	S80°17'34"E	013°15'42"
C36	375.00'	42.60'	21.32'	42.58'	N76°54'59"W	006°30'33"
C37	375.00'	44.20'	22.12'	44.17'	N83°32'51"W	006°45'10"
C38	20.00'	31.04'	19.62'	28.01'	S42°28'10"E	088°54'32"
C39	20.00'	31.42'	20.00'	28.28'	N48°04'34"E	090°00'00"
C40	20.00'	31.80'	20.38'	28.55'	S47°31'50"W	091°05'28"
C41	401.00'	4.85'	2.43'	4.85'	N74°00'31"W	000°41'36"
C42	20.00'	31.41'	20.00'	28.28'	S41°55'35"E	089°59'42"
C43	20.00'	31.42'	20.00'	28.29'	S48°04'25"W	090°00'18"
C44	20.00'	31.41'	20.00'	28.28'	S41°55'35"E	089°59'42"
C45	20.00'	31.42'	20.00'	28.28'	N48°04'34"E	090°00'00"
C46	20.00'	31.42'	20.00'	28.28'	N41°55'27"W	089°59'57"
C47	349.00'	40.90'	20.48'	40.88'	S77°01'10"E	006°42'55"
C48	349.00'	39.88'	19.96'	39.85'	S83°39'02"E	006°32'48"
C49	375.00'	61.48'	30.81'	61.42'	S86°15'56"W	009°23'39"
C50	401.00'	45.63'	22.84'	45.60'	N77°36'53"W	006°31'09"
C51	401.00'	42.34'	21.19'	42.32'	N83°53'57"W	006°02'58"
C52	20.00'	31.04'	19.62'	28.01'	S42°28'10"E	088°54'32"
C53	20.00'	31.42'	20.00'	28.29'	N48°04'25"E	090°00'18"
C54	70.00'	28.93'	14.67'	28.72'	S60°24'15"E	023°40'41"
C55	70.00'	62.41'	33.45'	60.36'	N82°12'56"E	051°04'57"
C56	70.00'	78.29'	43.81'	74.27'	N24°38'01"E	064°04'54"
C57	40.00'	14.71'	7.44'	14.62'	S03°07'28"W	021°03'49"
C58	3056.00'	78.10'	39.05'	78.10'	N77°18'04"W	001°27'51"
C59	136.37'	20.07'	10.05'	20.05'	N88°51'33"E	008°26'01"
C60	136.35'	19.86'	9.95'	19.84'	S88°54'16"W	008°20'37"
C61	3056.00'	79.67'	39.84'	79.67'	N78°46'48"W	001°29'37"
C62	2894.03'	520.51'	260.96'	519.81'	N64°59'15"W	010°18'18"
C63	2894.03'	51.66'	25.83'	51.66'	N70°39'05"W	001°01'22"
C64	2894.03'	51.66'	25.83'	51.66'	N71°40'27"W	001°01'22"
C65	2894.03'	51.66'	25.83'	51.66'	N72°41'49"W	001°01'22"
C66	2894.03'	51.66'	25.83'	51.66'	N73°43'11"W	001°01'22"
C67	2894.03'	51.66'	25.83'	51.66'	N74°44'33"W	001°01'22"
C68	2894.03'	51.66'	25.83'	51.66'	N75°45'56"W	001°01'22"
C69	2894.03'	51.66'	25.83'	51.66'	N76°47'18"W	001°01'22"
C70	2894.03'	51.66'	25.83'	51.66'	N77°48'40"W	001°01'22"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C71	2894.03'	51.65'	25.83'	51.65'	N78°50'02"W	001°01'22"
C72	2894.03'	110.00'	55.01'	109.99'	N80°26'02"W	002°10'40"
C73	2894.03'	49.33'	24.66'	49.32'	N82°00'40"W	000°58'36"
C74	2894.03'	49.70'	24.85'	49.70'	N82°59'29"W	000°59'02"
C75	2894.03'	49.70'	24.85'	49.70'	N83°58'31"W	000°59'02"
C76	2894.03'	49.70'	24.85'	49.70'	N84°57'34"W	000°59'02"
C77	2894.03'	49.69'	24.85'	49.69'	N85°56'36"W	000°59'02"
C78	2894.03'	23.52'	11.76'	23.52'	N86°40'05"W	000°27'56"
C79	30.00'	43.25'	26.36'	39.60'	S38°13'31"E	082°36'11"
C80	20.00'	27.40'	16.34'	25.31'	S42°19'20"W	078°29'32"
C81	20.00'	31.80'	20.38'	28.55'	S47°31'49"W	091°05'26"
C82	3004.00'	9.44'	4.72'	9.44'	N72°07'04"W	000°10'48"
C83	3004.00'	53.63'	26.82'	53.63'	N72°43'09"W	001°01'22"
C84	3004.00'	53.63'	26.82'	53.63'	N73°44'31"W	001°01'22"
C85	3004.00'	53.63'	26.82'	53.63'	N74°45'54"W	001°01'22"
C86	3004.00'	53.63'	26.82'	53.63'	N75°47'16"W	001°01'22"
C87	3004.00'	53.63'	26.82'	53.63'	N76°48'38"W	001°01'22"
C88	3004.00'	53.63'	26.82'	53.63'	N77°50'01"W	001°01'22"
C89	3004.00'	53.66'	26.83'	53.66'	N78°51'24"W	001°01'25"
C90	3004.00'	4.81'	2.40'	4.81'	N79°24'52"W	000°05'30"
C91	40.00'	16.38'	8.31'	16.27'	N80°17'47"W	023°27'46"
C92	40.00'	24.90'	12.87'	24.50'	N88°59'59"W	035°40'21"
C93	40.00'	3.30'	1.65'	3.30'	N79°12'08"W	004°43'58"
C94	46.00'	63.19'	37.72'	58.33'	S80°30'52"E	078°42'08"
C95	40.00'	28.21'	14.72'	27.63'	S80°20'14"W	040°24'19"
C96	3004.00'	49.99'	25.00'	49.99'	N82°02'43"W	000°57'12"
C97	3004.00'	51.59'	25.80'	51.59'	N83°00'51"W	000°59'03"
C98	3004.00'	51.59'	25.80'	51.59'	N83°59'53"W	000°59'02"
C99	3004.00'	51.59'	25.80'	51.59'	N84°58'55"W	000°59'02"
C100	3004.00'	51.63'	25.81'	51.63'	N85°57'59"W	000°59'05"
C101	3004.00'	24.38'	12.19'	24.38'	N86°41'29"W	000°27'54"
C102	40.00'	11.12'	5.60'	11.09'	S85°06'41"W	015°55'48"
C103	40.00'	18.77'	9.56'	18.60'	S63°42'08"W	026°53'18"
C104	40.00'	27.84'	14.51'	27.28'	N66°59'10"W	039°52'31"
C105	46.00'	66.39'	40.48'	60.78'	S88°23'43"E	082°41'37"
C106	20.00'	31.42'	20.00'	28.28'	S48°04'35"W	089°59'59"
C107	375.00'	60.15'	30.14'	60.08'	N84°26'33"W	009°11'23"
C108	20.00'	31.42'	20.00'	28.28'	S41°55'26"E	090°00'00"
C109	20.00'	31.42'	20.00'	28.28'	N48°04'34"E	090°00'00"
C110	20.00'	31.42'	20.00'	28.28'	N41°55'26"W	090°00'00"
C111	20.00'	31.41'	20.00'	28.28'	N41°55'35"W	089°59'42"
C112	20.00'	31.42'	20.00'	28.29'	N48°04'25"E	090°00'18"
C113	20.00'	35.33'	24.36'	30.91'	S53°41'20"W	101°13'31"
C114	401.00'	78.56'	39.41'	78.44'	S81°18'40"E	011°13'31"
C115	20.00'	31.42'	20.00'	28.28'	S41°55'26"E	090°00'00"
C116	426.00'	17.01'	8.50'	17.01'	N12°30'45"E	002°17'15"
C117	426.00'	61.66'	30.88'	61.60'	N07°13'21"E	008°17'33"
C118	5.00'	7.85'	5.00'	7.07'	S48°04'34"W	



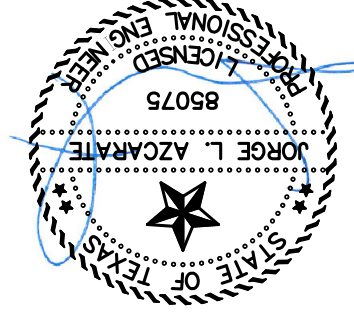
# VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS

BEING A PORTION OF TRACT 1A,  
SECTION 31, BLOCK 80, TOWNSHIP 1,  
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS,  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING 48.64± ACRES



VICINITY MAP  
APPROXIMATE SCALE:  
1" = 2 MILES

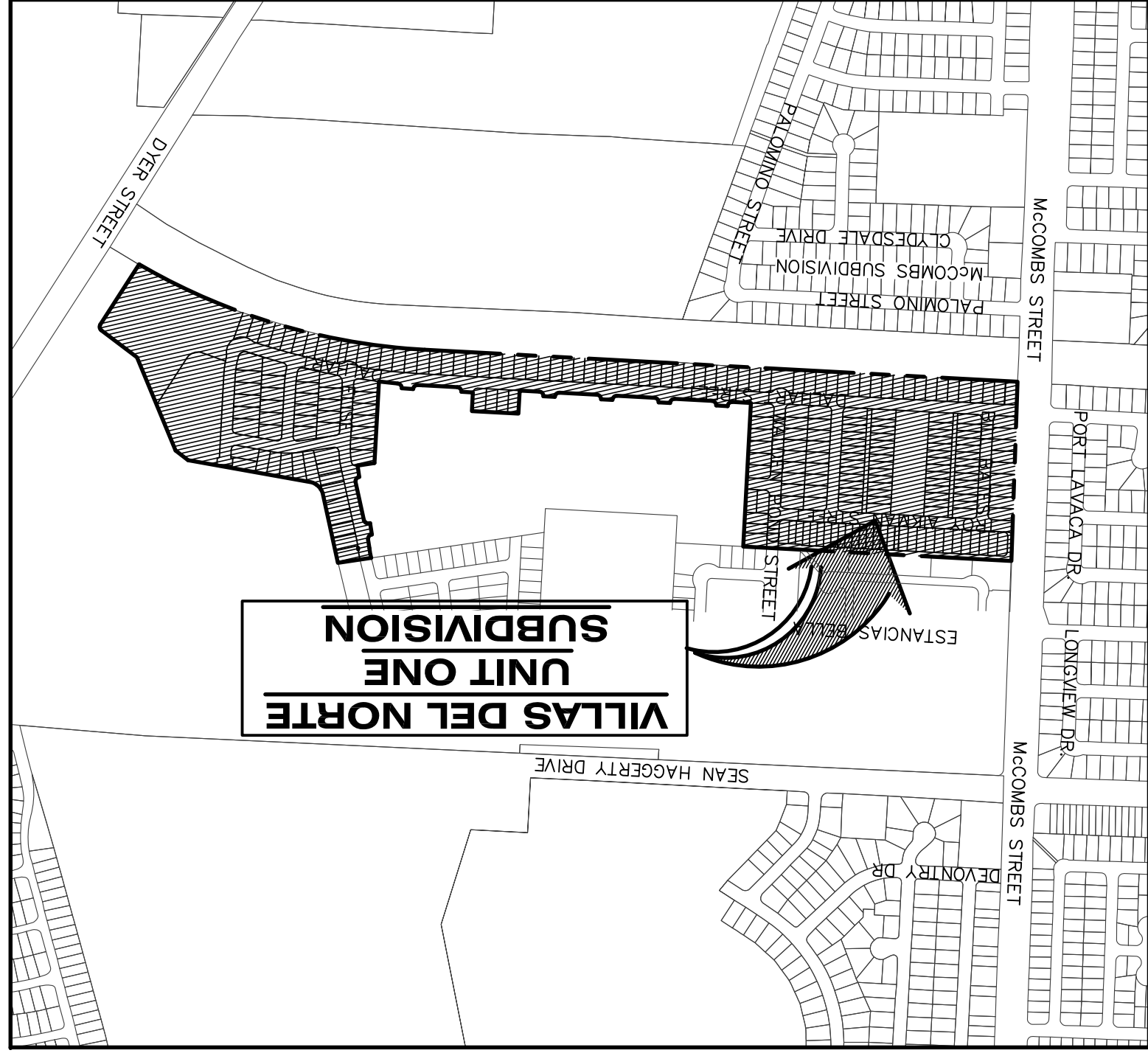
SHEET NUMBER	SHEET TITLE
CVR	COVER SHEET
C1.1	GENERAL INFORMATION
C2.1-C2.3	FINAL PLAN
C3.1-C3.4	GRADING PLAN
C4.1-C4.3	DRAINAGE PLAN
C5.1, C5.2	GRADING SECTIONS
C6.1-C6.16	STREET PLAN & PROFILES
C7.1-C7.6	STORM SEWER PLAN & PROFILES
C8.1	POND DESIGN PLAN
C9.1-C9.3	STANDARD DETAILS
C10.1-C10.5	DRAINAGE DETAILS
C11.1-C11.5	ILLUMINATION, SIGNAGE PLAN, DETAILS & CONSTRUCTION PHASING PLAN
C12.1, C12.2	WATER INDEX / GENERAL INFORMATION
C12.3-C12.7	WATER DETAILS
C13.1, C13.2	SANITARY SEWER INDEX / GENERAL INFORMATION
C13.3-C13.9	SANITARY SEWER PLAN & PROFILES
C13.10-C13.12	SANITARY SEWER DETAILS
C14.1-C14.4	STORM WATER POLLUTION PREVENTION PLAN
L1-L11	PARK SITE #1: PARK PLANS
L1-L7	PARK SITE #2: PARK PLANS
L1-L8	PARK SITE #3: PARK PLANS
L1-L11	PARK SITE #4: PARK PLANS
E1.0 & E1.1	ELECTRICAL PLANS FOR PARK SITES #1, #2, #3 & #4
CCC6-12	CONCRETE CURB AND GUTTER
PED-18 (1 - 4)	PEDESTRIAN FACILITIES CURB RAMP



JORGE L. AZCARATE, P.E. PROJECT MANAGER  
4-7-21  
813 N. Kansas St.  
Suite 300  
El Paso, TX 79902  
915.544.5232  
www.ceagroup.net  
TEXAS REGISTERED ENGINEERING FIRM F-4564

PRINCIPAL CONTACTS:

NAME	ADDRESS	CITY & ZIP	PHONE	FAX
OWNER: NORTHTOWNE VILLAGE JOINT VENTURE	6000 NORTHERN PASS, SITE C-1	EL PASO, TX 79911	(915) 757-1802	(915) 757-1827
ENGINEER: CEA GROUP	813 N. KANSAS STREET, STE. 300	EL PASO, TX 79902	(915) 544-5232	---
SURVEYOR: BARRAGAN & ASSOCIATES	10950 PELLICANO DR. BUILDING F	EL PASO, TX 79935	(915) 591-5709	(915) 591-5706



LOCATION MAP  
APPROXIMATE SCALE: 1" = 600'

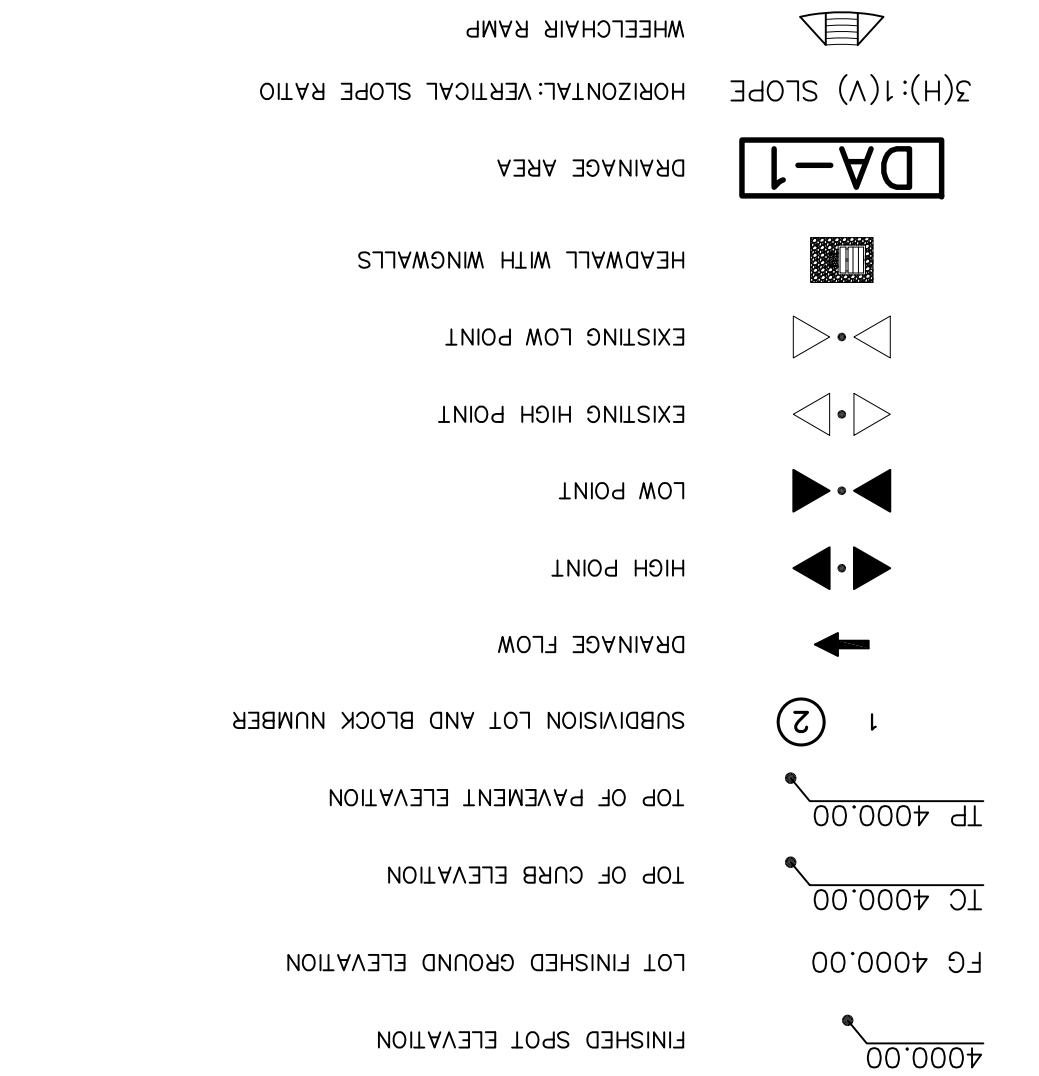
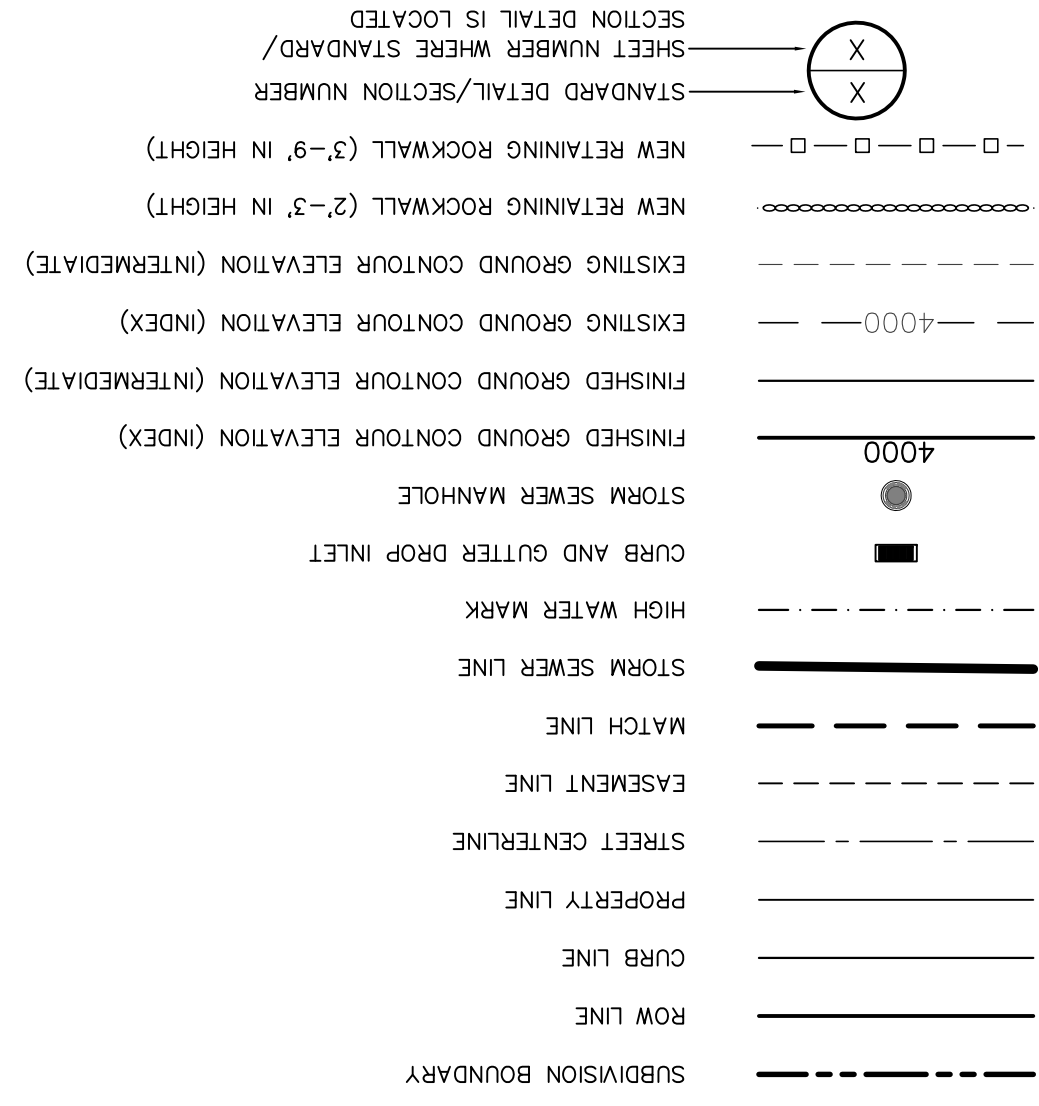


**GENERAL NOTES**

**GRADING SPECIFICATIONS**

1. CLEARING AND GRUBBING: CLEAR SITE OF TREES, SHRUBS AND OTHER VEGETATION; COMPLETELY REMOVE STAMPS, ROOTS AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE; UNLESS FURTHER EXCAVATION OF EARTHWORK IS INDICATED.
2. CONTRACTOR SHALL WATER CONSTRUCTION AREA A MINIMUM OF THREE (3) DAYS TO KEEP DUST TO A MINIMUM. ONCE IN THE MORNING AND BEFORE QUITTING TIME. THIS SHALL ALSO BE DONE DURING WEEKENDS AND HOLIDAYS.
3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, PROTECT, AND REPLACE ALL UNDERGROUND UTILITY LINES AT NO EXTRA COST TO THE OWNER WHEN LINES ARE DISTURBED AS A RESULT OF THE WORK.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM HIS OPERATIONS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF WORK. AS TO ASSURE PROPER PASSAGE OF STORM RUNOFF DURING THE COURSE OF HIS OPERATIONS, ALL LABOR, TOOLS, EQUIPMENT, AND SUPERVISION REQUIRED TO MAINTAIN DRAINAGE SYSTEMS SHALL BE REPORTED TO THE CONTRACTOR IMMEDIATELY UPON DISCOVERY.
5. THE CONTRACTOR SHALL MAINTAIN 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 CORRECTIONS.
6. SEE REFERENCED BENCHMARK ON TITLE BLOCK FOR DATUM ELEVATIONS.
7. VARIATORY ROLLERS WILL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE CITY ENGINEER.
8. ALL EXISTING PAVEMENT, ADJACENT UTILITIES, ETC., DISTURBED AS A RESULT OF THE NEW CONSTRUCTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. THE OWNER WILL FURNISH HORIZONTAL AND VERTICAL CONTROL, REFERENCED POINTS AND ALL OTHER SPECIFICATIONS TO THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN 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 CORRECTIONS.
10. SIDEWALKS SHALL BE BUILT BY BUILDER UNLESS SPECIFIED ELSEWHERE IN PLANS.
11. NO BLASTING SHALL BE PERMITTED.
12. THE CONTRACTOR SHALL FIELD VERIFY ELEVATIONS, MEASUREMENTS AND EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION. CORRECTIONS AND OMISSIONS, ERRORS, OR DISCREPANCIES FOUND SO THAT NECESSARY CORRECTIONS BE MADE PRIOR TO CONSTRUCTION.
13. PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARD (TITLE 29, CODE OF FEDERAL REGULATIONS) PUBLISHED BY THE OSHA, DEPARTMENT OF LABOR.
14. ALL CONSTRUCTION PROCEDURES SHALL COMPLY WITH THE PERTINENT PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH STANDARD (TITLE 29, CODE OF FEDERAL REGULATIONS) PUBLISHED BY THE OSHA, DEPARTMENT OF LABOR.
15. 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 REQUIRED DENSITY. THE PARTICULATE PORTION SHALL BE REMOVED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL TESTING AND WHEN REQUIRED DENSITIES ARE NOT MET, SUPERVISION BY THE GEOTECHNICAL ENGINEER DURING THE GRADING OPERATIONS TO ENSURE GRADING WORK IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

**LEGEND**



**ABBREVIATIONS**

HP	LOW POINT
ELV	ELEVATION
STA	STATION
VCS	VERTICAL CURVE STATION
VC	VERTICAL CURVE ELEVATION
FG	EXISTING GROUND ELEVATION (INDEX)
FG	EXISTING GROUND ELEVATION (INTERMEDIATE)
IC	TOP OF CURB
TP	TOP OF PAVEMENT
MP	MINIMUM
MAX	MAXIMUM
ROP	REINFORCED CONCRETE PIPE
Q	QUANTITY
CAP	CAPACITY
EXP	EXCEPTED
INV	INVERT
CFS	CUBIC FEET PER SECOND
M	AREA
DA	DRAINAGE AREA
LF	LINEAR FEET
STD	STANDARD
CONC	CONCRETE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
L	LENGTH
R	RADIUS
T	TANGENT
S	SLOPE
TEMP	TEMPORARY
V	VELOCITY IN FEET PER SECOND
HGL	HYDRAULIC GRADE LINE
HME	HIGH WATER ELEVATION

**INDEX OF DRAWINGS**

DRAWING NAME	SHEET NO.
COVER	CVR
GENERAL INFORMATION	C1.1
ILLUMINATION, SIGNAGE AND STRIPING PLAN (SHEET 1 OF 3)	C1.1
ILLUMINATION, SIGNAGE AND STRIPING PLAN (SHEET 2 OF 3)	C1.2
ILLUMINATION, SIGNAGE AND STRIPING PLAN (SHEET 3 OF 3)	C1.3
CONSTRUCTION PHASING PLAN (SHEET 1 OF 2)	C1.4
CONSTRUCTION PHASING PLAN (SHEET 2 OF 2)	C1.5
GRADING PLAN (SHEET 1 OF 2)	C2.1
GRADING PLAN (SHEET 2 OF 2)	C2.2
GRADING SECTIONS (SHEET 1 OF 2)	C3.1
GRADING SECTIONS (SHEET 2 OF 2)	C3.2
PARK SITE #1, #2 & #3 GRADING PLAN	C3.3
DRAINAGE PLAN (SHEET 1 OF 3)	C3.4
DRAINAGE PLAN (SHEET 2 OF 3)	C4.2
DRAINAGE PLAN (SHEET 3 OF 3)	C4.3
WATER DETAILS (SHEET 1 OF 2)	C5.1
WATER DETAILS (SHEET 2 OF 2)	C5.2
WATER LINE INDEX (SHEET 1 OF 2)	C12.1
WATER LINE INDEX (SHEET 2 OF 2)	C12.2
WATER DETAILS (SHEET 1 OF 5)	C12.3
WATER DETAILS (SHEET 2 OF 5)	C12.4
WATER DETAILS (SHEET 3 OF 5)	C12.5
WATER DETAILS (SHEET 4 OF 5)	C12.6
WATER DETAILS (SHEET 5 OF 5)	C12.7
SANITARY SEWER INDEX (SHEET 1 OF 2)	C13.1
SANITARY SEWER INDEX (SHEET 2 OF 2)	C13.2
SANITARY SEWER PLAN & PROFILE: LINE A	C13.3
SANITARY SEWER PLAN & PROFILE: LINE A	C13.4
SANITARY SEWER PLAN & PROFILE: LINE B, C, A1, B1, & C1	C13.5
SANITARY SEWER PLAN & PROFILE: LINE D, E, D1, E1, & F1	C13.6
SANITARY SEWER PLAN & PROFILE: LINE G, J & H1	C13.7
SANITARY SEWER PLAN & PROFILE: LINE F, L & G1	C13.8
SANITARY SEWER PLAN & PROFILE: LINE H, I & K	C13.9
SANITARY SEWER DETAILS (SHEET 1 OF 3)	C13.10
SANITARY SEWER DETAILS (SHEET 2 OF 3)	C13.11
SANITARY SEWER DETAILS (SHEET 3 OF 3)	C13.12
STORM WATER POLLUTION PREVENTION PLAN: GENERAL NOTES	C14.1
STORM WATER POLLUTION PREVENTION PLAN: SITE PLAN (SHEET 1 OF 2)	C14.2
STORM WATER POLLUTION PREVENTION PLAN: SITE PLAN (SHEET 2 OF 2)	C14.3
STORM WATER POLLUTION PREVENTION PLAN: DETAILS	C14.4
LANDSCAPE PARK SITE #1: PARK PLANS	L1-11
LANDSCAPE PARK SITE #1: PARK PLANS	L1-17
LANDSCAPE PARK SITE #2: PARK PLANS	L1-18
LANDSCAPE PARK SITE #3: PARK PLANS	L1-19
LANDSCAPE PARK SITE #4: PARK PLANS	L1-20
ELECTRICAL GENERAL NOTES, LEGEND, SCHEMATICS, AND SCHEDULES PARK SITE #1	E1.0
ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS SITE #1	E1.1
ELECTRICAL GENERAL NOTES, LEGEND, SCHEMATICS, AND SCHEDULES PARK SITE #2	E1.0
ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS SITE #2	E1.1
ELECTRICAL GENERAL NOTES, LEGEND, SCHEMATICS, AND SCHEDULES PARK SITE #3	E1.0
ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS SITE #3	E1.1
ELECTRICAL GENERAL NOTES, LEGEND, SCHEMATICS, AND SCHEDULES PARK SITE #4	E1.0
ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS SITE #4	E1.1
STANDARD DETAILS (SHEET 1 OF 3)	STANDARD DETAILS (SHEET 1 OF 3)
STANDARD DETAILS (SHEET 2 OF 3)	STANDARD DETAILS (SHEET 2 OF 3)
STANDARD DETAILS (SHEET 3 OF 3)	STANDARD DETAILS (SHEET 3 OF 3)
CONCRETE CURB & GUTTER (TxDOT DETAILS)	CCC-12
PEDESTRIAN FACILITIES CURB RAMPS (SHEET 1 OF 4)	PED-18
PEDESTRIAN FACILITIES CURB RAMPS (SHEET 2 OF 4)	PED-18
PEDESTRIAN FACILITIES CURB RAMPS (SHEET 3 OF 4)	PED-18
PEDESTRIAN FACILITIES CURB RAMPS (SHEET 4 OF 4)	PED-18

UTILITY LOCATOR SERVICES
EL PASO ELECTRIC COMPANY (915) 543-5720
EL PASO ENERGY CORPORATION (915) 496-5244
EL PASO WATER UTILITIES (915) 524-5500
MCI SURVEILLANCE (800) MCI-WORK
TIME WARNER COMMUNICATIONS (915) 772-1123
TEXAS GAS SERVICE (915) 680-7200
SBC (800) 545-6005
ARKIT (800) 852-3788
U.S. SPACNET TELECOMM (800) 521-0578
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750
(AFTER HOURS) (915) 240-3220

**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

**REFERENCES - BENCHMARKS**

CITY MONUMENT LOCATED AT THE QUARTERLINE INTERSECTION OF CLYDESDALE DRIVE AND PALMADO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

BY \_\_\_\_\_ REVISIONS \_\_\_\_\_ DATE \_\_\_\_\_

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

**ENGINEER'S SEAL**  
JAMES L. AZCARRATE  
Professional Engineer  
No. 88079  
State of Texas  
4/27/21

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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P. / C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB NO.: 2000-2241.D

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE

GENERAL NOTES

SHEET NO.

C1.1



# VILLAS DEL NORTE

## UNIT ONE SUBDIVISION

BEING A PORTION OF TRACT 1A, SECTION 31, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS, EL PASO COUNTY, TEXAS, CONTAINING 48.64 ACRES ±

SHEET 1 OF 3

### DEDICATION

Northtowne Village Joint Venture, the owners of the land, do hereby present this map and dedicate their respective portions of property to the use of the public, the streets, parking areas and utility easements, as hereon laid down and designated, including easements for opening of service areas for pole line utilities and the right for installation of service poles, underground lot lines as may be required, easements for buried wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction, and the right to trim interfering trees and shrubs.

Witness my signature this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Gregory B. Bowling, Manager

### ACKNOWLEDGEMENT

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

Given under my hand and seal of office this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Notary Public in and for El Paso County, My Commission Expires \_\_\_\_\_

### CITY PLAN COMMISSION

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

Attest: \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Executive Secretary

Approved for filing this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Planning and Inspections Director

### FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ in File No. \_\_\_\_\_ of the Plat Records.

County Clerk

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

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

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

JORGE L. AZCARATE, P.E.  
Licensed Professional Engineer  
Texas License No. 65075

DEVELOPER  
BOWLING ENTERPRISES, LTD.  
6000 NORTH TOWN PASS, SUITE C-1  
EL PASO, TX 79911  
VOICE: (915) 757-1802  
FAX: (915) 757-1827  
CONTACT: MR. GREG BOWLING

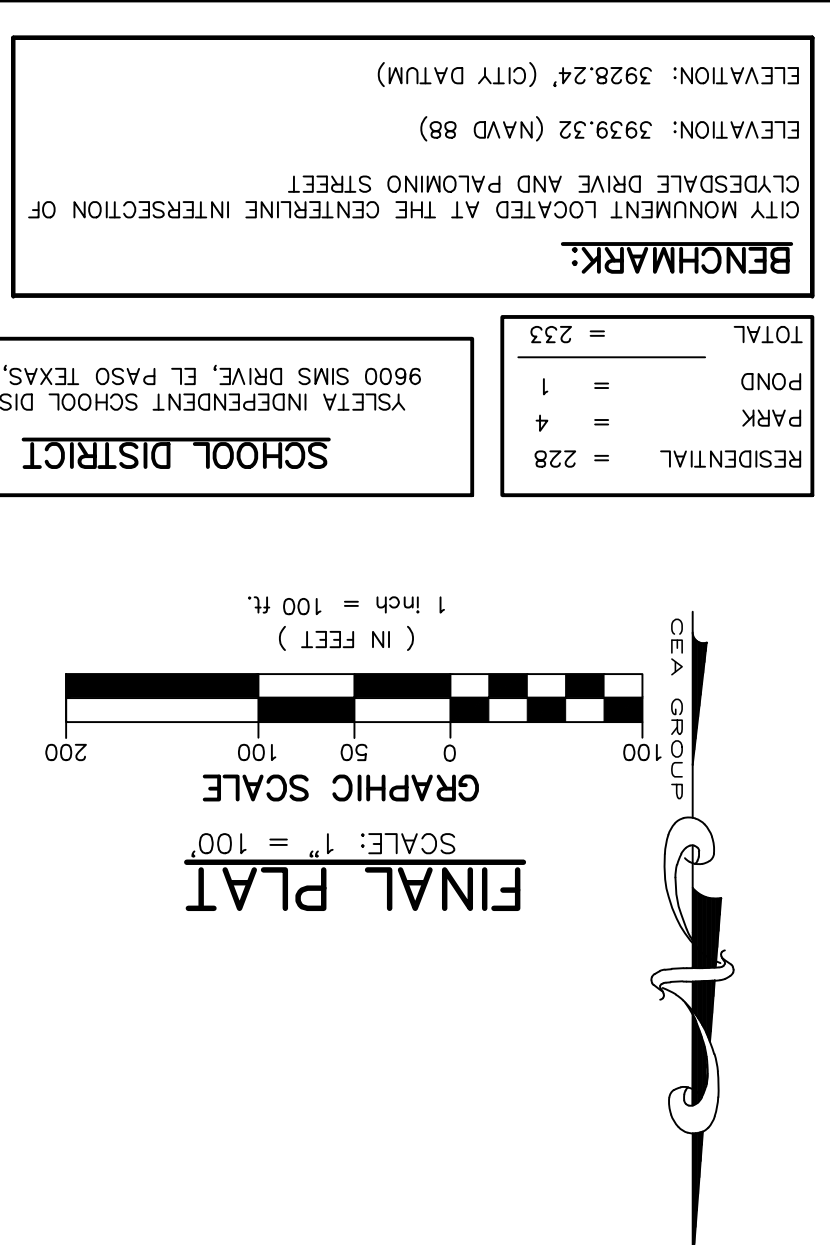
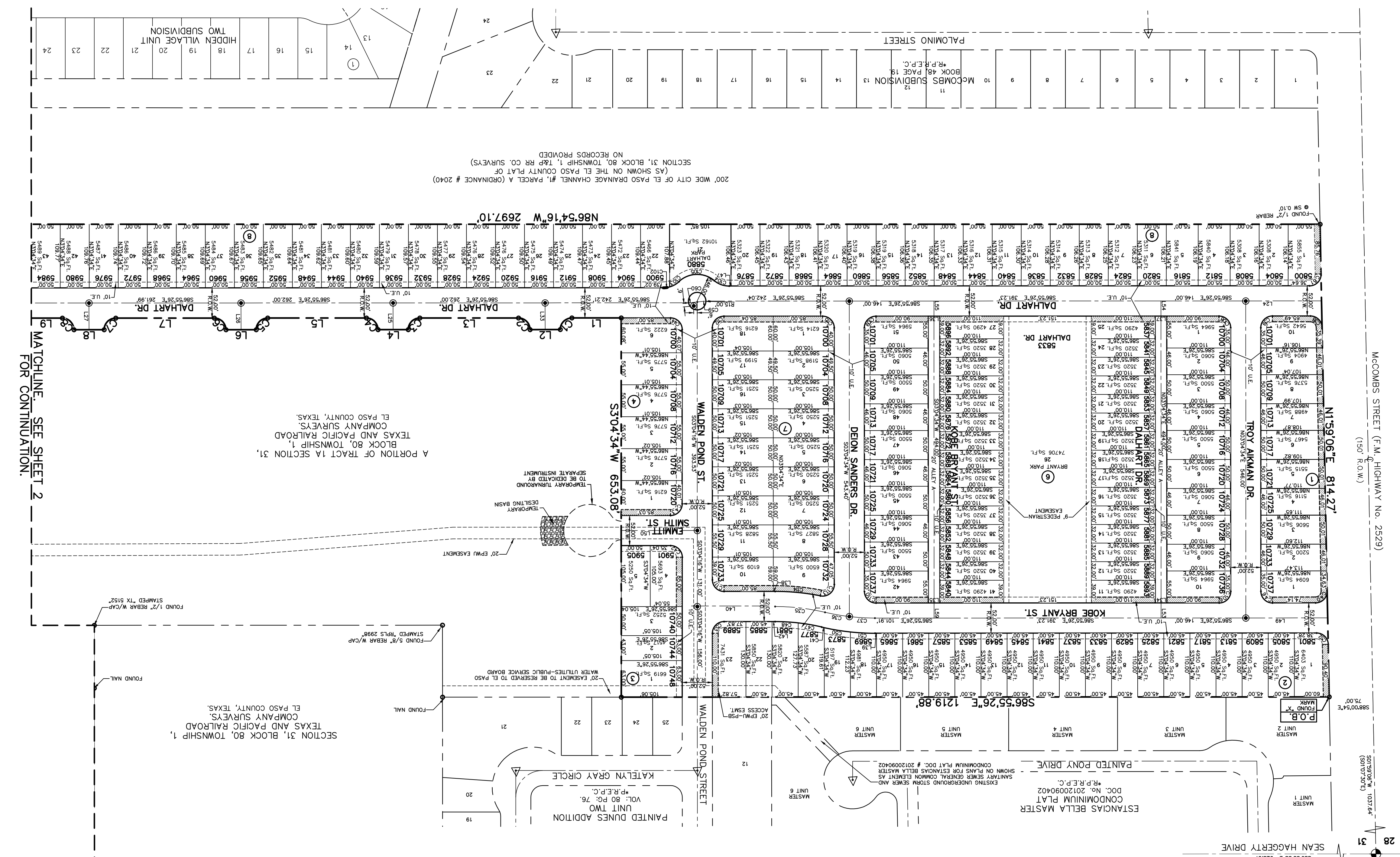
SURVEYOR  
Barragan & Associates Inc.  
LAND PLANNING & LAND SURVEYING  
10950 Pflumpton Dr. El Paso, TX 79935  
Phone: (915) 981-5709 Fax: (915) 991-5706

OWNER  
NORTH TOWN VILLAGE JOINT VENTURE  
6000 NORTH TOWN PASS, SUITE C-1  
EL PASO, TX 79911  
VOICE: (915) 757-1802  
FAX: (915) 757-1827  
CONTACT: MR. GREG BOWLING

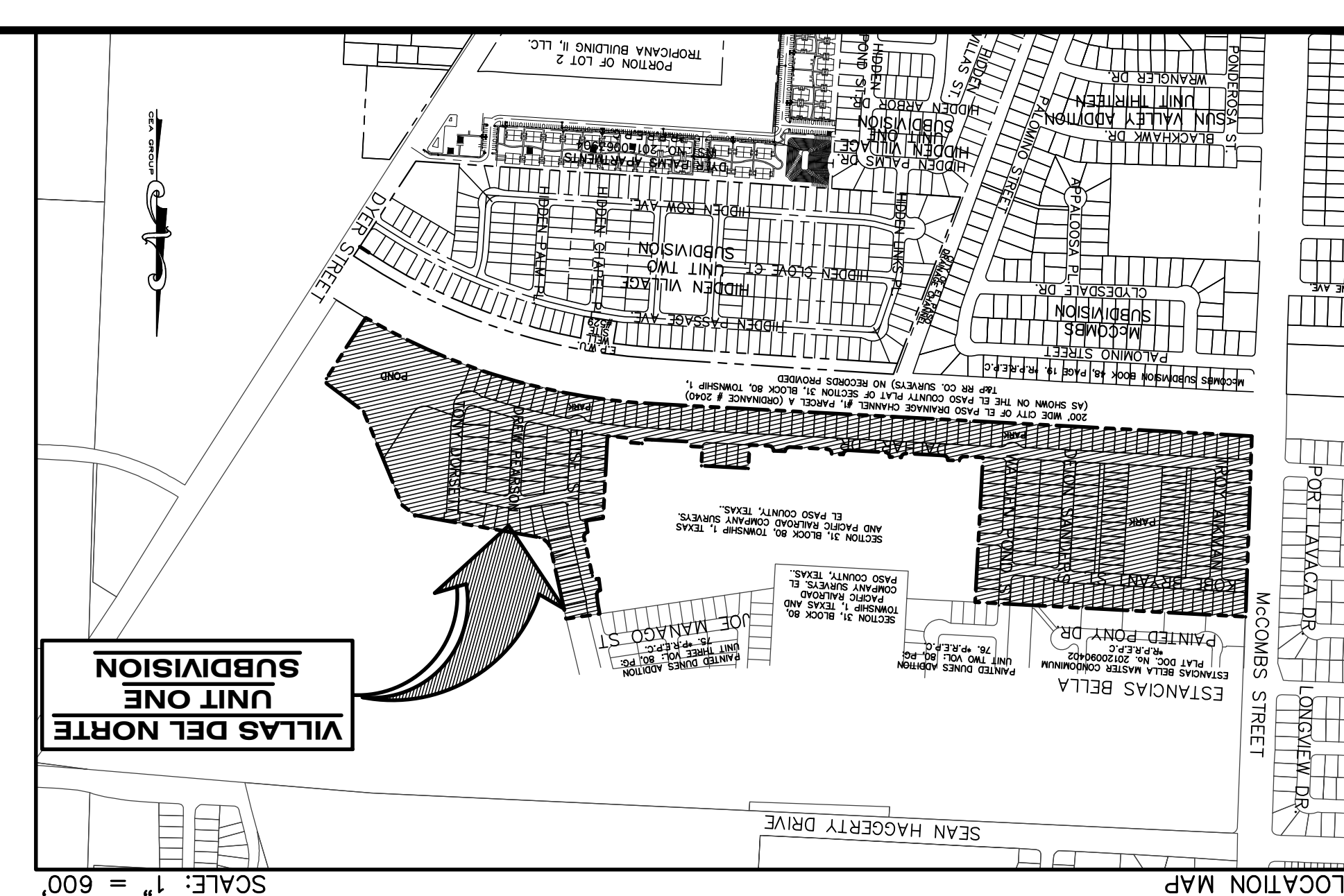
CONTACT: JORGE L. AZCARATE, P.E.  
TEXAS REGISTERED ENGINEERING FIRM F-4564  
www.ceagroup.net  
915.544.5232

DATE OF PREPARATION: APRIL 2021

P.O.C. 21  
20  
21  
22  
23  
24  
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- NOTES:**
- TO CLARIFY THAT WATER AND SEWER SERVICES WILL BE PROVIDED TO VILLAS DEL NORTE UNIT ONE SUBDIVISION BY THE EL PASO WATER PUBLIC SERVICE BOARD IN ACCORDANCE WITH THEIR RULES AND REGULATIONS AND WITH SECTION 16.343 OF THE TEXAS WATER CODE. WATER AND SEWER SERVICES WILL BE EXTENDED TO THE SUBDIVISION FROM EXISTING FACILITIES LOCATED ON WALDEN POND STREET AND WILL BE CONSTRUCTED TO SERVE THE SUBDIVISION.
  - TAX CERTIFICATE(S) FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO. \_\_\_\_\_ DATE \_\_\_\_\_
  - RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION, INSTRUMENT NO. \_\_\_\_\_ DATE \_\_\_\_\_
  - INTERIOR LOT CORNERS WILL BE SET UP UPON COMPLETION OF CONSTRUCTION OF ROADS AND UTILITIES. (BY OTHERS) SET 1/2" REBAR WITH CAP STAMPED "B&A INC" AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE SHOWN.
  - U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS."
  - THIS SUBDIVISION LIES WITH IN ZONE "C" AND AS DESIGNATED PER LOMV CASE # 18-06-0885P, FIRM PANEL NO. 48214 00150. LOMV ISSUE DATE: JANUARY 26, 2018, EFFECTIVE DATE JUNE 12, 2018.
  - DENOTES PROPOSED MONUMENT. (FOR EXACT LOCATION CONTACT CITY OF EL PASO)
  - △ DENOTES PROPOSED MONUMENT AS PER MC COMBS SUBDIVISION UNIT ONE. (NOT IN PLACE AS OF DATE OF PREPARATION)
  - ALL EASEMENTS SHALL BE TEN (10) FEET UNLESS OTHERWISE NOTED.
  - ALL DEVELOPED STORM WATER RUNOFF DISCHARGE VOLUMES SHALL BE RETAINED WITHIN THIS SUBDIVISION'S LIMITS IN COMPLIANCE WITH PROVISIONS OF DSC, MUNICIPAL CODE 19.19.010A AND DDM, 11.1.
  - ALL ALLEYS SHALL BE PUBLIC AND TO BE MAINTAINED BY THE CITY OF EL PASO.
  - THE RETENTION OF THE DIFFERENCE BETWEEN HISTORIC AND DEVELOPED STORM-WATER RUNOFF DISCHARGE VOLUME IS REQUIRED WITHIN THIS SUBDIVISION'S LIMITS IN COMPLIANCE WITH ALL PROVISIONS OF MUNICIPAL CODE 19.19.010A, DSC, DDM SECTION 11.1.



MATCHLINE - SEE SHEET 2 FOR CONTINUATION.

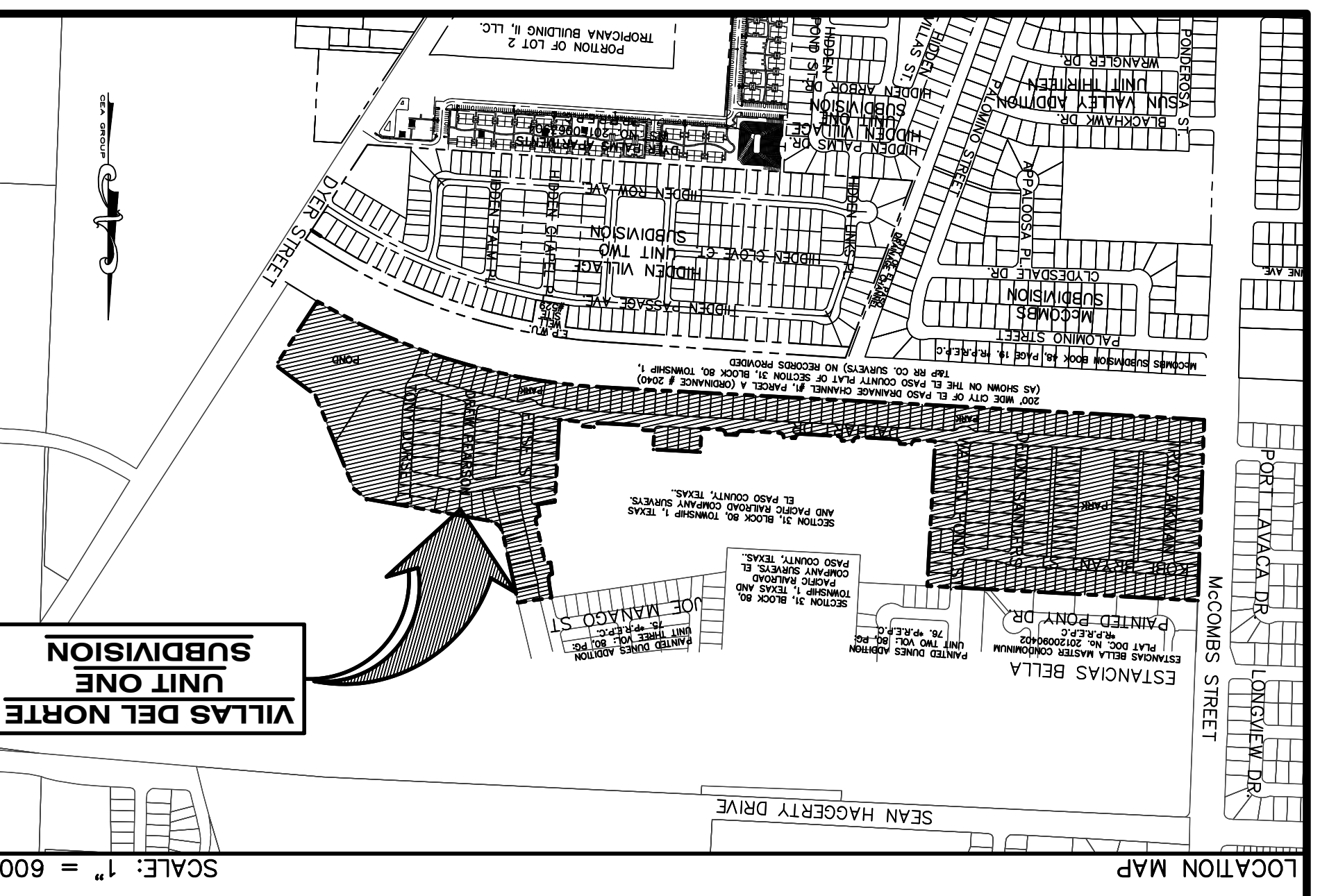
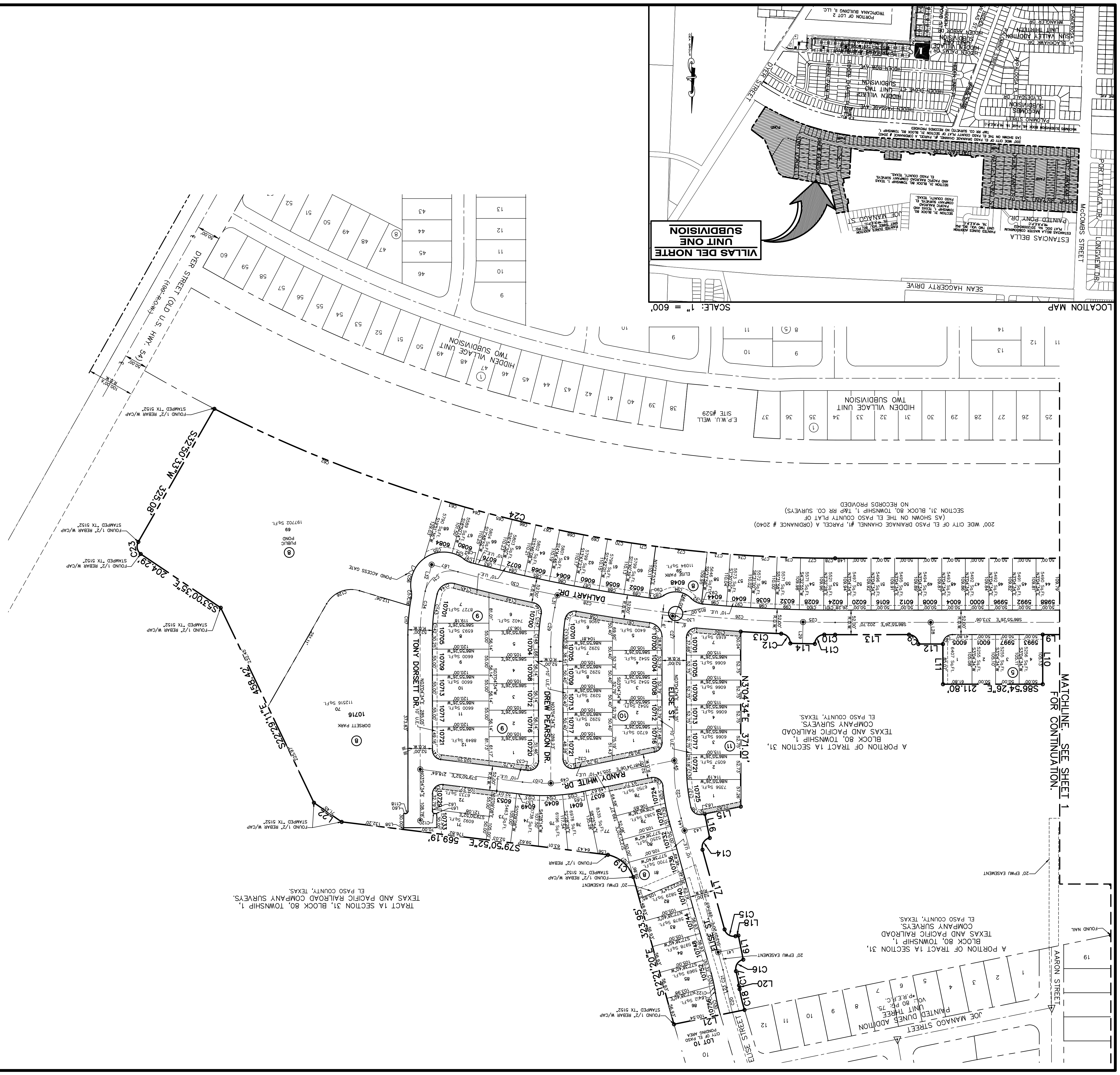


# VILLAS DEL NORTE

## UNIT ONE

### SUBDIVISION

BEING A PORTION OF TRACT 1A,  
SECTION 31, BLOCK 80, TOWNSHIP 1,  
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS,  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING 48.64 ACRES ±  
SHEET 2 OF 3



MATCHLINE - SEE SHEET 1 FOR CONTINUATION.

A PORTION OF TRACT 1A SECTION 31,  
BLOCK 80, TOWNSHIP 1,  
TEXAS AND PACIFIC RAILROAD  
COMPANY SURVEYS,  
EL PASO COUNTY, TEXAS.

SECTION 31, BLOCK 80, TOWNSHIP 1, T&P SURVEYS.  
(AS SHOWN ON THE EL PASO COUNTY PLAT OF  
2007 WIDE CITY OF EL PASO DRAINAGE CHANNEL #1, PARCEL A (ORDINANCE # 2040)

TRACT 1A SECTION 31, BLOCK 80, TOWNSHIP 1,  
EL PASO COUNTY, TEXAS.

FOUND 1/2" REBAR W/CAP  
STAMPED TX 5152

FOUND 1/2" REBAR W/CAP  
STAMPED TX 5152

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# VILLAS DEL NORTE UNIT ONE SUBDIVISION

BEING A PORTION OF TRACT 1A,  
SECTION 31, BLOCK 80, TOWNSHIP 1,  
TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS,  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING 48.64 ACRES ±  
SHEET 3 OF 3

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C141	20.00	28.95	17.67	26.48	N38°22'09"W	082°55'26"
C142	374.00	24.77	12.99	24.77	N04°58'25"E	003°47'41"
C143	374.00	62.75	31.45	62.67	N11°40'38"E	009°36'46"
C144	30.00	48.12	31.01	43.13	N62°26'09"E	091°54'15"
C145	3056.00	75.13	37.57	75.13	N72°18'59"W	001°24'31"
C146	20.00	30.52	19.12	27.64	S31°08'28"E	087°25'34"
C147	426.00	36.46	18.24	36.46	N10°07'11"E	004°54'14"
C148	426.00	34.14	17.08	34.13	N05°22'19"E	004°35'29"
C149	3056.00	97.80	48.90	97.79	N73°56'15"W	001°50'01"
C150	3056.00	93.39	46.70	93.39	N82°17'25"W	001°45'03"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
L1	586.5526	85.00				
L2	586.5526	52.00				
L3	586.5526	170.03				
L4	586.5526	52.00				
L5	586.5526	170.00				
L6	586.5526	52.00				
L7	586.5526	169.99				
L8	586.5526	52.00				
L9	586.5526	89.27				
L10	586.5526	105.13				
L11	586.5526	85.07				
L12	586.5526	52.00				
L13	586.5526	156.70				
L14	586.5526	52.00				
L15	586.5526	77.83				
L16	586.5526	52.00				
L17	586.5526	175.41				
L18	586.5526	6.18				
L19	586.5526	52.00				
L20	586.5526	7.83				
L21	586.5526	152.75				
L22	586.5526	7.83				
L23	586.5526	130.62				
L24	586.5526	3.24				

LINE TABLE

L24	586.5526	130.62				
L23	586.5526	7.83				
L22	586.5526	71.45				
L21	586.5526	152.75				
L20	586.5526	7.83				
L19	586.5526	52.00				
L18	586.5526	6.18				
L17	586.5526	52.00				
L16	586.5526	175.41				
L15	586.5526	77.83				
L14	586.5526	52.00				
L13	586.5526	156.70				
L12	586.5526	52.00				
L11	586.5526	85.07				
L10	586.5526	105.13				
L9	586.5526	89.27				
L8	586.5526	52.00				
L7	586.5526	169.99				
L6	586.5526	52.00				
L5	586.5526	170.00				
L4	586.5526	52.00				
L3	586.5526	89.27				
L2	586.5526	52.00				
L1	586.5526	85.00				

LINE TABLE

L48	586.5526	130.62				
L47	586.5526	3.24				
L46	586.5526	71.45				
L45	586.5526	152.75				
L44	586.5526	7.83				
L43	586.5526	52.00				
L42	586.5526	6.18				
L41	586.5526	52.00				
L40	586.5526	175.41				
L39	586.5526	77.83				
L38	586.5526	52.00				
L37	586.5526	156.70				
L36	586.5526	52.00				
L35	586.5526	85.07				
L34	586.5526	105.13				
L33	586.5526	89.27				
L32	586.5526	52.00				
L31	586.5526	169.99				
L30	586.5526	52.00				
L29	586.5526	170.00				
L28	586.5526	52.00				
L27	586.5526	89.27				
L26	586.5526	52.00				
L25	586.5526	85.00				
L24	586.5526	105.13				
L23	586.5526	89.27				
L22	586.5526	52.00				
L21	586.5526	6.18				
L20	586.5526	52.00				
L19	586.5526	77.83				
L18	586.5526	52.00				
L17	586.5526	175.41				
L16	586.5526	52.00				
L15	586.5526	77.83				
L14	586.5526	52.00				
L13	586.5526	156.70				
L12	586.5526	52.00				
L11	586.5526	85.07				
L10	586.5526	105.13				
L9	586.5526	89.27				
L8	586.5526	52.00				
L7	586.5526	169.99				
L6	586.5526	52.00				
L5	586.5526	170.00				
L4	586.5526	52.00				
L3	586.5526	89.27				
L2	586.5526	52.00				
L1	586.5526	85.00				

LINE	BEARING	LENGTH
L67	S71°36'43"E	57.89
L66	N03°04'34"E	22.03
L65	N81°34'06"E	7.26
L64	S06°29'04"E	7.83
L63	N81°34'06"E	5.96
L62	N03°04'34"E	3.93
L61	N86°55'26"W	4.00
L60	N86°55'26"W	4.00
L59	S03°04'34"W	26.00
L58	N10°09'08"E	3.85
L57	S79°50'52"E	9.28
L56	S79°50'52"E	21.08
L55	S03°04'34"W	26.00
L54	N03°04'34"E	26.00
L53	N03°04'34"E	26.00
L52	S12°21'20"E	47.40
L51	S12°21'20"E	10.56
L50	S86°55'26"E	131.03
L49	S86°55'26"E	141.02

LINE TABLE

CURVE TABLE

C1	20.00	31.42	20.00	28.28	N48°04'34"E	090°00'00"
C2	20.00	31.39	19.97	28.26	S41°55'26"E	089°54'51"
C3	20.00	31.42	20.00	28.28	N48°04'34"E	090°00'00"
C4	20.00	31.42	20.00	28.28	S41°55'26"E	090°00'00"
C5	20.00	31.42	20.00	28.28	N48°04'34"E	090°00'00"
C6	20.00	31.42	20.00	28.28	S41°55'26"E	090°00'00"
C7	20.00	31.42	20.00	28.28	N48°04'34"E	090°00'00"
C8	20.00	31.42	20.00	28.28	S41°55'26"E	090°00'00"
C9	20.00	31.42	20.00	28.28	N48°04'34"E	090°00'00"
C10	3056.00	22.95	11.47	22.95	N66°42'31"W	000°25'49"
C11	20.00	31.12	19.70	28.07	N48°56'08"E	089°08'35"
C12	20.00	31.12	19.70	28.07	S40°12'30"E	089°08'35"
C13	3056.00	86.09	43.05	86.09	N83°58'22"W	001°36'51"
C14	20.00	32.79	21.42	29.24	N34°36'23"E	093°55'26"
C15	20.00	30.05	18.68	27.30	N55°23'37"W	086°04'34"
C16	20.00	32.29	20.89	28.89	N35°19'09"E	092°29'55"
C17	401.00	31.11	15.66	31.11	S08°42'28"E	004°26'44"
C18	349.00	45.25	22.65	45.21	N10°11'55"W	007°25'41"
C19	374.00	72.42	74.69	71.42	S45°44'02"E	059°05'22"
C20	375.00	46.12	23.09	46.09	N10°00'29"W	007°02'49"
C21	375.00	38.42	19.23	38.41	S09°25'12"E	005°52'15"
C22	400.00	107.73	54.19	107.41	N04°38'23"W	015°25'54"
C23	20.00	28.44	17.22	26.10	N08°00'35"W	081°27'43"
C24	2894.03	1367.11	696.56	1354.43	N73°22'04"W	027°03'57"
C25	3030.00	68.08	68.06	68.06	N86°16'49"W	001°17'13"
C26	3030.00	270.89	135.53	270.79	N83°04'32"W	005°07'20"
C27	375.00	41.93	21.00	41.93	N06°16'51"E	006°24'34"
C28	3030.00	253.79	126.97	253.72	N78°06'54"W	004°47'57"
C29	400.00	64.06	42.18	83.90	N09°05'47"E	012°02'26"
C30	3030.00	217.00	108.55	216.95	N73°39'49"W	004°06'12"
C31	56.00	89.83	57.89	80.50	N62°26'09"E	091°54'15"
C32	349.00	6.27	3.14	6.27	N82°05'00"E	001°01'48"
C33	349.00	4.46	8.92	4.46	S80°34'48"E	001°27'53"
C34	400.00	93.60	47.02	93.39	N09°46'48"E	013°24'27"
C35	375.00	86.80	43.59	86.60	S80°17'34"E	013°54'42"
C36	375.00	42.60	21.32	42.58	N76°54'59"W	006°30'33"
C37	375.00	44.20	22.12	44.17	N83°32'51"W	006°45'10"
C38	20.00	31.04	19.62	28.01	S42°28'10"E	088°54'32"
C39	20.00	31.42	20.00	28.28	N48°04'34"E	090°00'00"
C40	20.00	31.80	20.38	28.55	S47°31'50"W	091°05'28"
C41	401.00	4.85	4.85	4.85	N74°00'31"W	000°41'36"
C42	20.00	31.41	20.00	28.28	S41°55'26"E	089°59'42"
C43	20.00	31.42	20.00	28.28	S48°04'25"W	090°00'18"
C44	20.00	31.41	20.00	28.28	S41°55'26"E	089°59'42"
C45	20.00	31.42	20.00	28.28	N48°04'34"E	090°00'00"
C46	20.00	31.42	20.00	28.28	N41°55'27"W	089°59'57"
C47	349.00	40.90	20.48			



**WARNING! BEFORE YOU DIG CALL 811**

UTILITY LOCATOR SERVICES (915) 543-5720  
 EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO WATER UTILITIES (915) 544-5544  
 MCI SERVICES (800) 772-1123  
 TIME WARNER COMMUNICATIONS (915) 640-7200  
 TEXAS GAS SERVICE (800) 852-3786  
 AT&T (800) 852-3786  
 U.S. SPINNET TELECOMM (800) 521-0579  
 U.S. SPINNET TELECOMM (915) 621-6750  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (PPD) (915) 240-3220

**BENCHMARK**  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLEVELAND DRIVE AND PALMIGNO STREET  
 ELEVATION: 3939.32 (NAVD 88)  
 CASE # 18-06-08859, FIRM PANEL NO. 48214.00150, LOMR ISSUE DATE: JANUARY 26, 2018, EFFECTIVE DATE JUNE 12, 2018.

**FLOOD ZONE:**  
 ELEVATION: 3928.24' (CITY DATUM)  
 THIS SUBDIVISION LIES WITH IN ZONE "CC" AND IS DEGRADED PER LOMR CASE # 18-06-08859, FIRM PANEL NO. 48214.00150, LOMR ISSUE DATE: JANUARY 26, 2018, EFFECTIVE DATE JUNE 12, 2018.

**REFERENCES - BENCHMARKS**  
 CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMIGNO STREET  
 ELEVATION: 3939.32 (NAVD 88)  
 INTERSECTION OF CLEVELAND DRIVE AND PALMIGNO STREET  
 ELEVATION: 3928.24' (CITY DATUM)

**REVISIONS**

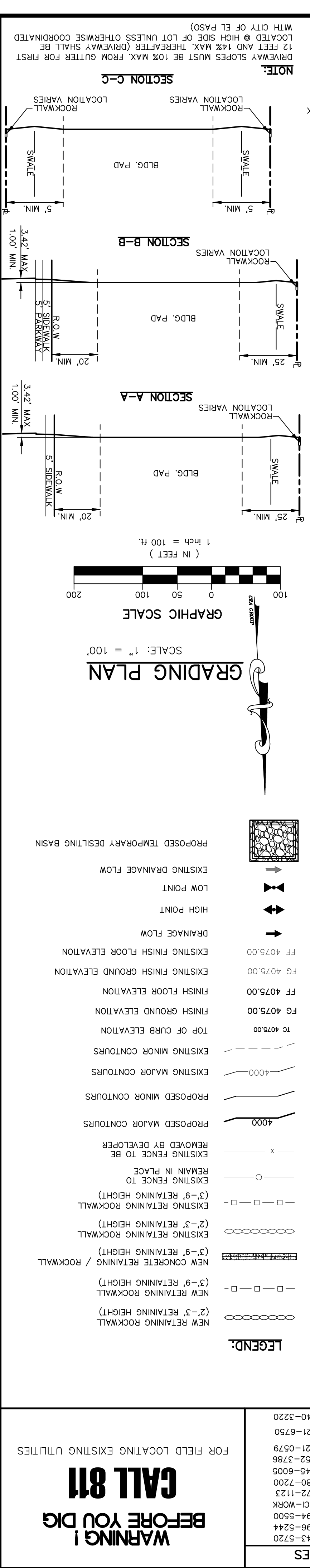
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APP'D. BY: J.L.A.  
 CHK'D. BY: F.Z.  
 DRAWM. BY: K.P./R.D.  
 DESIGN BY: C.J./R.D.  
 DATE: APRIL 2021  
 Vertical: N/A  
 Horizontal: "1" = 100'

**ENGINEER'S SEAL**

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

4/27/21



**NOTES:**

- GRADES GREATER THAN 2'-FEET.
- SLOPED AREAS SHALL BE MAINTAINED BY THE PROPERTY OWNERS.
- ALL RETAINING WALLS NOT SPECIFIED TO BE BUILT BY DEVELOPER SHALL BE BUILT BY BUILDER.
- RETAINING ROCKWALLS (RETAINING PORTIONS ONLY) IN EXCESS OF 4' HIGH TO BE BUILT BY DEVELOPER.
- DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 (EXCESSIVE PAVING CUTS) OF THE EL PASO MUNICIPAL CODE.
- IMPROVEMENTS SHALL NOT BE PLACED ON SIDEWALK (NORBS), SIGNS, POLES, FIRE HYDRANTS, ETC). REFER TO STANDARD DETAIL SHEETS.
- IMPROVEMENTS SHALL COMPLY WITH T.A.S./A.D.A.
- WHEELCHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS.
- EXISTING FENCE TO REMAIN IN PLACE.
- EXISTING FENCE TO BE REMOVED BY DEVELOPER.
- PROPOSED MAJOR CONTOURS.
- PROPOSED MINOR CONTOURS.
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- PROPOSED TEMPORARY DESLTING BASIN.

**LEGEND:**

NEW RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)

NEW CONCRETE RETAINING / ROCKWALL (3'-9' RETAINING HEIGHT)

EXISTING RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)

EXISTING RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)

EXISTING FENCE TO REMAIN IN PLACE

EXISTING FENCE TO BE REMOVED BY DEVELOPER

PROPOSED MAJOR CONTOURS

PROPOSED MINOR CONTOURS

EXISTING MAJOR CONTOURS

EXISTING MINOR CONTOURS

FINISH FLOOR ELEVATION

EXISTING FINISH FLOOR ELEVATION

FINISH FLOOR ELEVATION

EXISTING FINISH FLOOR ELEVATION

DRAINAGE FLOW

HIGH POINT

LOW POINT

EXISTING DRAINAGE FLOW

PROPOSED DRAINAGE FLOW

18.44.200 - ENGINEERING CONTROL FOR GRADING

1. NO ON-SITE PROCESSING OF MATERIAL FOR COMMERCIAL OR RETAIL USE SHALL BE ALLOWED.

2. ALL CONSTRUCTION EQUIPMENT AND MATERIALS TO BE USED COVERED BY THE GRADING PERMIT SHALL BE MAINTAINED IN A MANNER THAT PREVENTS AND DOES NOT OBSTRUCT TRAFFIC OR INTERFERE WITH THE FLOW OF TRAFFIC.

3. APPROVED PLANS, SPECIFICATIONS AND MEASUREMENTS SHALL BE MAINTAINED ON THE SITE THROUGHOUT THE PERIOD OF CONSTRUCTION.

4. MATERIAL STOCKPILING SHALL NOT BE ALLOWED WHEN GRADING OPERATIONS ARE BEING CONDUCTED.

5. OPERATIONS ARE TO BE CONDUCTED IN ACCORDANCE WITH THE GRADING PERMIT AND ANY ADDITIONAL CONDITIONS SPECIFIED THEREIN.

6. A TRAFFIC CONTROL PERMIT SHALL BE REQUIRED IF THE GRADING OPERATIONS WILL IMPACT TRAFFIC AND TRUCKING ACTIVITY.

7. ANY USE OF VIBRATORY EQUIPMENT SHALL NOT BE ALLOWED, UNLESS APPROVED IN WRITING BY THE PERMIT OFFICIAL IN ADVANCE OF SUCH USE.

8. THE PERMIT OFFICIAL MUST BE NOTIFIED NO LATER THAN 4:00 PM THE DAY IN ADVANCE OF ANY GRADING WORK.

9. RECORDS SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF CONSTRUCTION AND FOR A PERIOD OF TWO YEARS AFTER THE PERMIT IS CLOSED BY THE CITY PERMITTING OFFICIAL.

10. THE PERMIT IS ISSUED FOR THE PURPOSE OF MAINTAINING A STABILIZED SITE IN ACCORDANCE WITH THE APPROVED GRADING PERMIT.

11. INSPECTIONS OF THE PERMITTED AREA THROUGHOUT THE WARRANTY PERIOD ARE REQUIRED TO VERIFY THE ACCURACY OF THE GRADING PERMIT.

12. THE WARRANTY PERIOD SHALL BE THE PERIOD OF CONSTRUCTION PLUS 90 DAYS.

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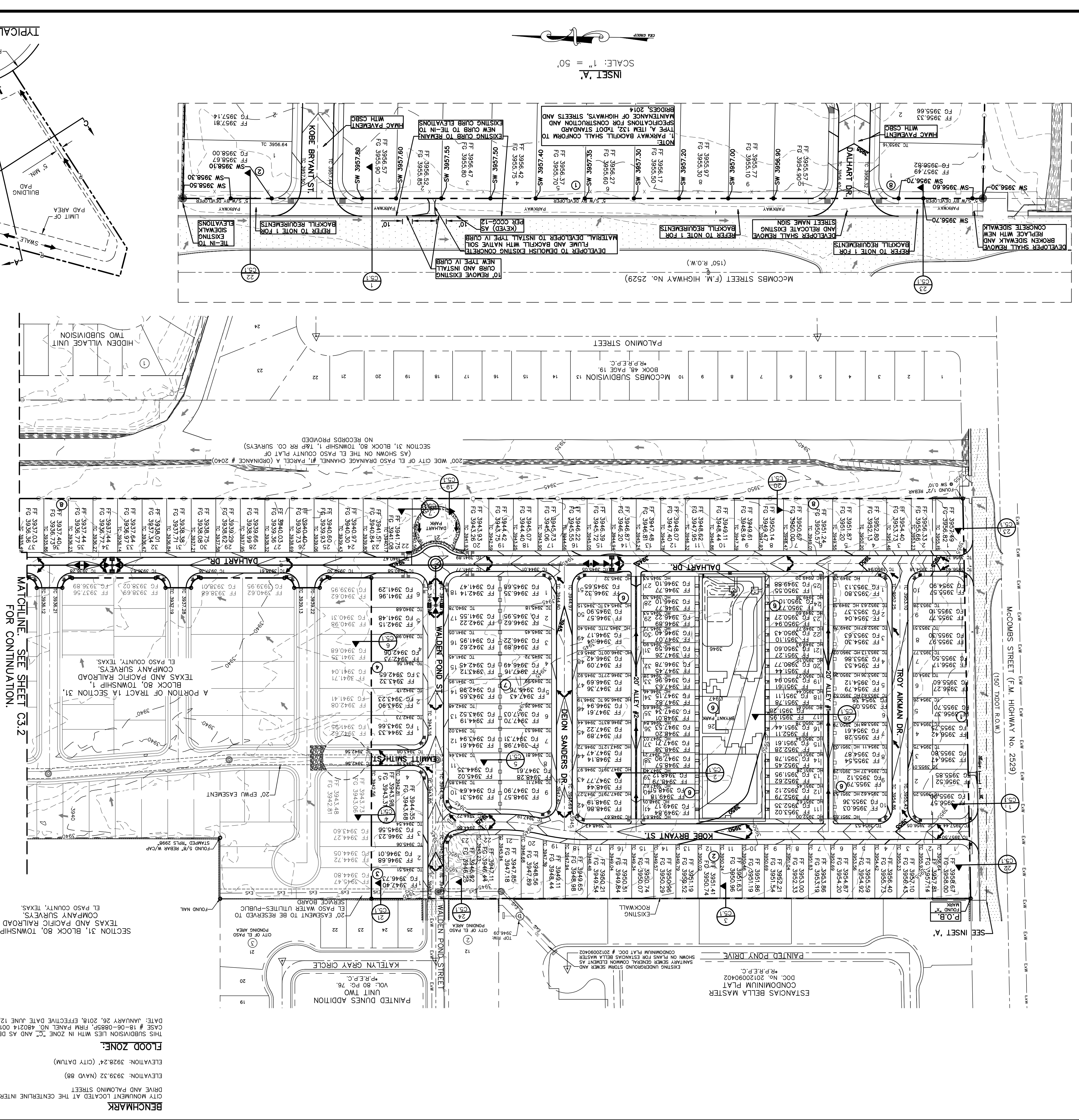
96. THE WARRANTY PERIOD SHALL BE THE PERIOD OF CONSTRUCTION PLUS 90 DAYS.

97. THE WARRANTY PERIOD SHALL BE THE PERIOD OF CONSTRUCTION PLUS 90 DAYS.

98. THE WARRANTY PERIOD SHALL BE THE PERIOD OF CONSTRUCTION PLUS 90 DAYS.

99. THE WARRANTY PERIOD SHALL BE THE PERIOD OF CONSTRUCTION PLUS 90 DAYS.

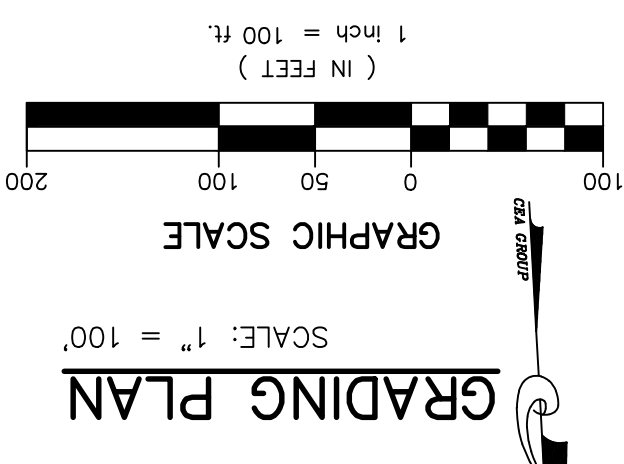
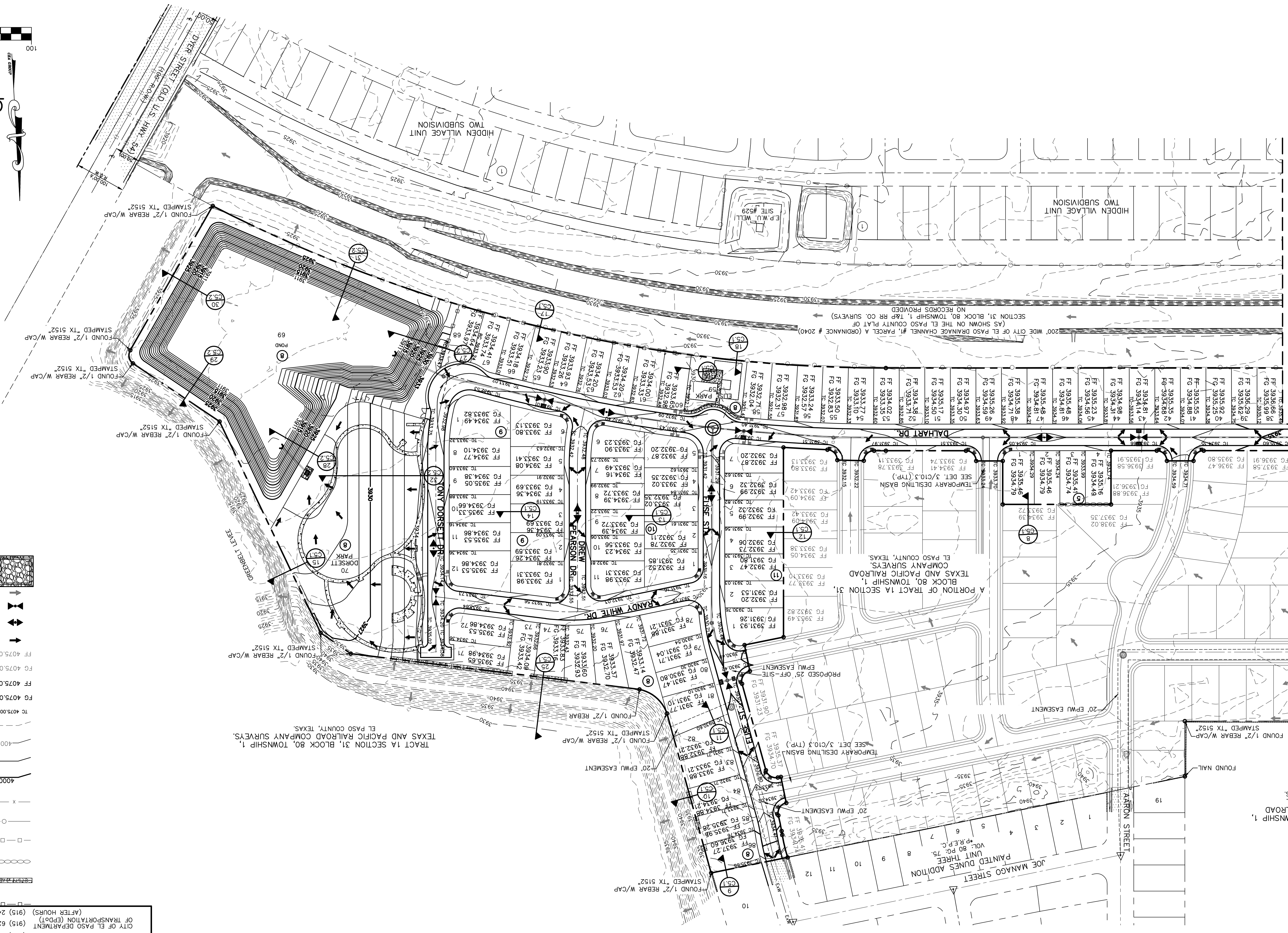
100. THE WARRANTY PERIOD SHALL BE THE PERIOD OF CONSTRUCTION PLUS 90 DAYS.



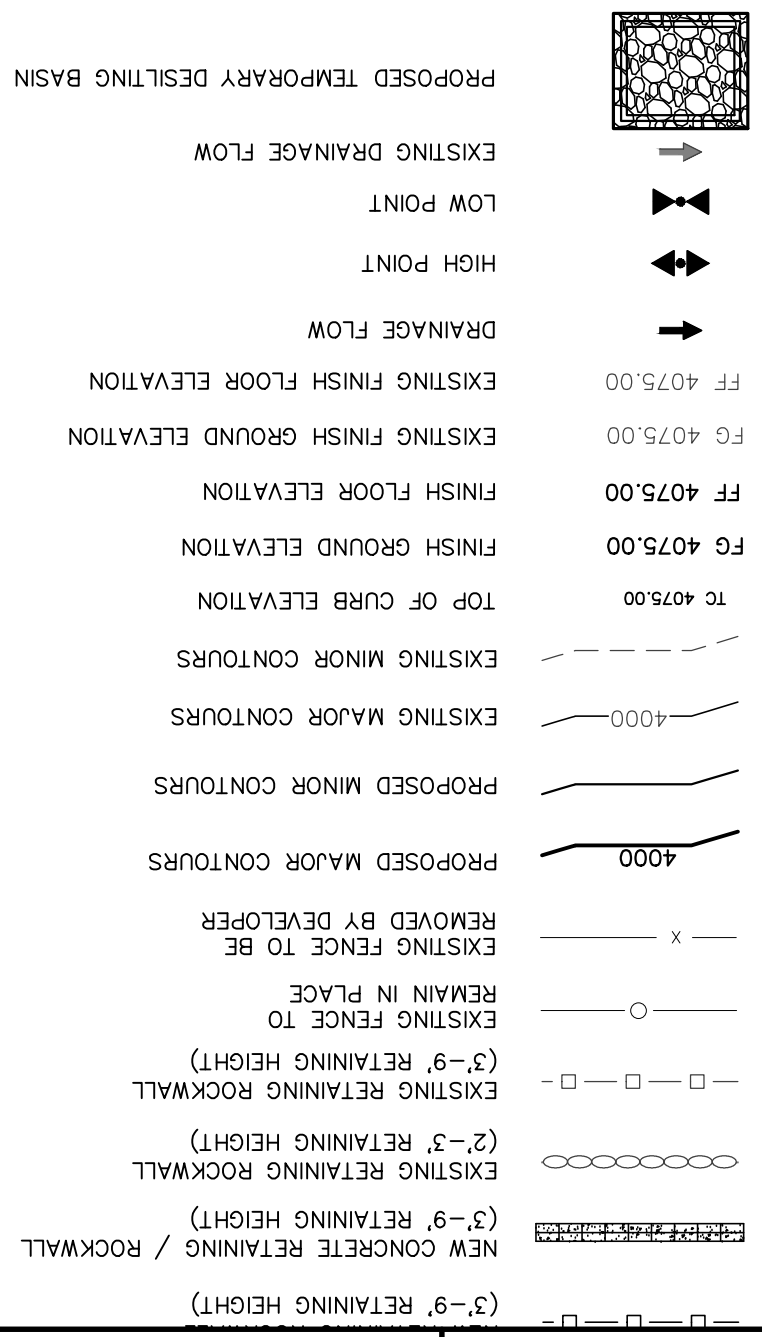


MATCHLINE: SEE SHEET C3.1  
FOR CONTINUATION.

SECTION 31, BLOCK 80, TOWNSHIP 1,  
TEXAS AND PACIFIC RAILROAD  
EL PASO COUNTY, TEXAS.



GRADING PLAN  
SCALE: 1" = 100'



UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-work
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 660-7200
SBC	(800) 545-6005
ART	(800) 852-3786
U.S. SPRINT TELCOMM	(800) 521-0579
PASSO DEPARTAMENT	(915) 621-6750
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 240-3220

FOR FIELD LOCATING EXISTING UTILITIES

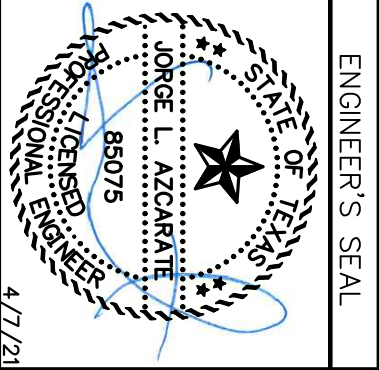
**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

REFERENCES - BENCHMARKS

CITY MONUMENT LOCATED AT THE INTERSECTION OF PALOMINO STREET AND

ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

SCALE: 1" = 100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J./R.D.  
DRAWN BY: K.P./D.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No.: 2000-2241D



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

**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
SUBDIVISION IMPROVEMENTS

GRADING PLAN

SHEET NO.

C3.2





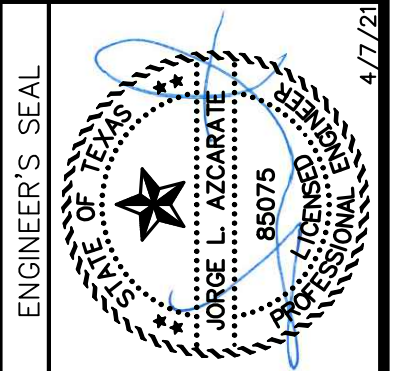


UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
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TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (AFTER HOURS)	(915) 621-6750 (915) 240-3220

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

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDESDALE DRIVE AND PALOMINO STREET  
ELEVATION: 3939.32 (NAVD 88)  
ELEVATION: 3928.24' (CITY DATUM)

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

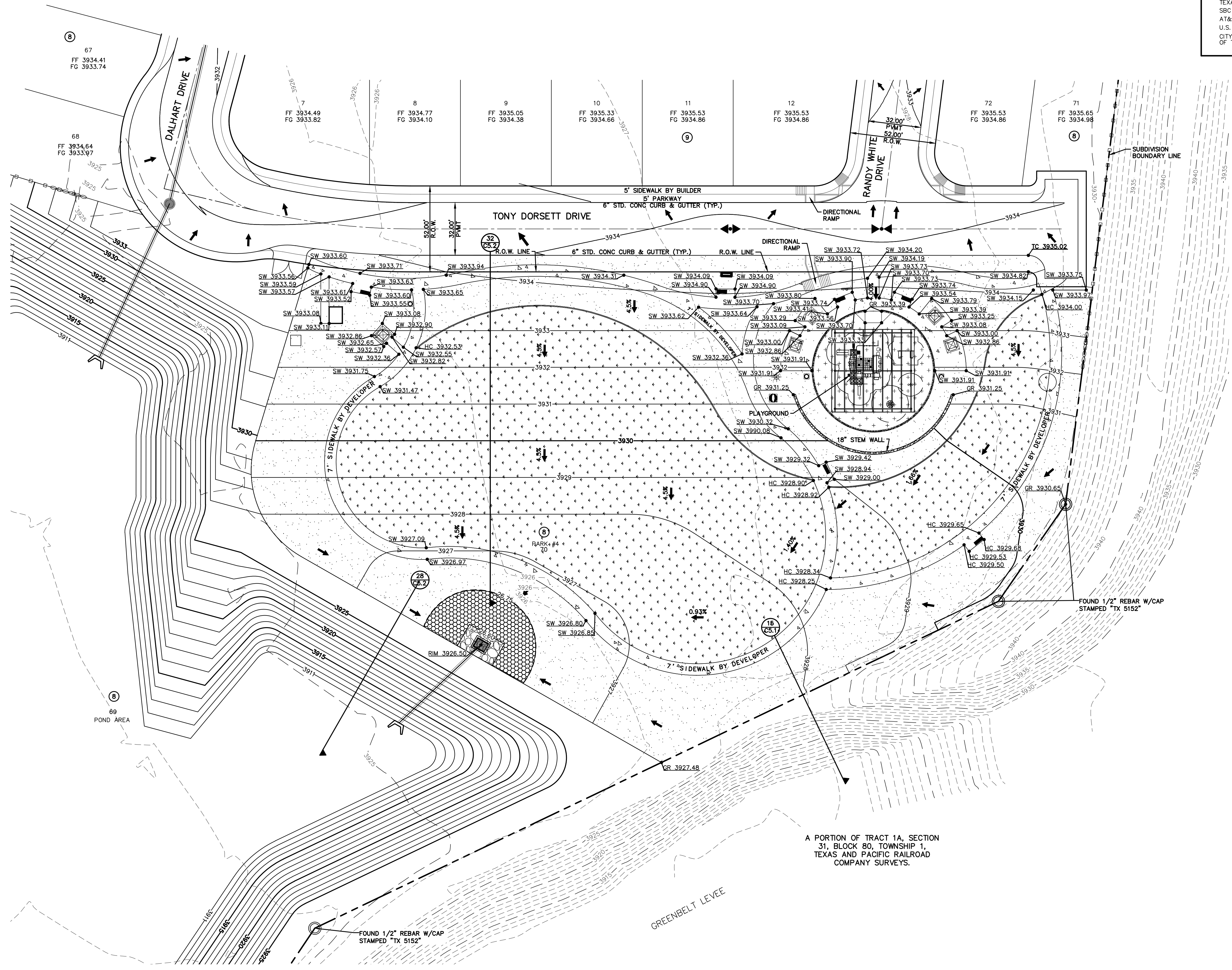


SCALE: 1" = 30'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. - 2000-2241D

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**PARK SITE #4 GRADING PLAN**

SHEET NO.  
**C3.4**



- LEGEND**
- 3770 — EXISTING MAJOR CONTOUR
  - - - - - EXISTING MINOR CONTOUR
  - 3770 — NEW MAJOR CONTOUR
  - - - - - NEW MINOR CONTOUR
  - ○ ○ ○ ○ NEW 6' HIGH RETAINING ROCKWALL (2'-3' RETAINING HEIGHT)
  - □ □ □ □ NEW 6' HIGH RETAINING ROCKWALL (3'-9' RETAINING HEIGHT)
  - TC 3946.00 TOP OF CURB ELEVATION
  - FG 4075.00 FINISH GROUND ELEVATION
  - FF 4075.67 FINISH FLOOR ELEVATION
  - ↔ EXISTING DRAINAGE FLOW DIRECTION
  - DRAINAGE FLOW DIRECTION
  - ↑ DRAINAGE HIGH POINT
  - ↓ DRAINAGE LOW POINT
  - ▭ CONCRETE WALKWAY (REFER TO LANDSCAPE PLANS)

- NOTES:**
- PARK STEMWALL/RETAINING WALL SHALL BE BUILT TO A 3' MINIMUM HEIGHT FROM THE HIGHEST GROUND BY DEVELOPER.
  - PROPOSED ROCKWALLS & RETAINING WALL LOCATIONS SHALL BE CONSTRUCTED ACCORDING TO GRADING SECTIONS AND RELATED DETAILS.
  - REFER TO LANDSCAPE/IRRIGATION PLANS FOR ADDITIONAL INFORMATION.

**BENCHMARK**  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDESDALE DRIVE AND PALOMINO STREET  
ELEVATION: 3939.32 (NAVD 88)  
ELEVATION: 3928.24' (CITY DATUM)

**FLOOD\_ZONE:**  
THIS SUBDIVISION LIES WITH IN ZONE "C" AND AS DESIGNATED PER LOMR CASE # 18-06-0885P, FIRM PANEL NO. 480214 0015D, LOMR ISSUE DATE: JANUARY 26, 2016, EFFECTIVE DATE JUNE 12, 2018.

**PARK SITE #4 HARVESTING AREA CALCULATIONS**

CONTOUR	ACCUMULATED VOLUME (AC-FT.)	QT = (ARC)/12	QT = 0.37 AC-FT
3926.75	0.005	A = 2.69 Ac	TOTAL req = 0.37 AC-FT
3926.60	0.000	R = 3.34'	

Cw = 0.500  
\*AS PER DDM FOR CENTRAL AREA, TABLE 4-1 FOR DEPTH-FREQUENCY FOR 24 HR, 100 YR RETURN FREQUENCY.

A PORTION OF TRACT 1A, SECTION 31, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS.

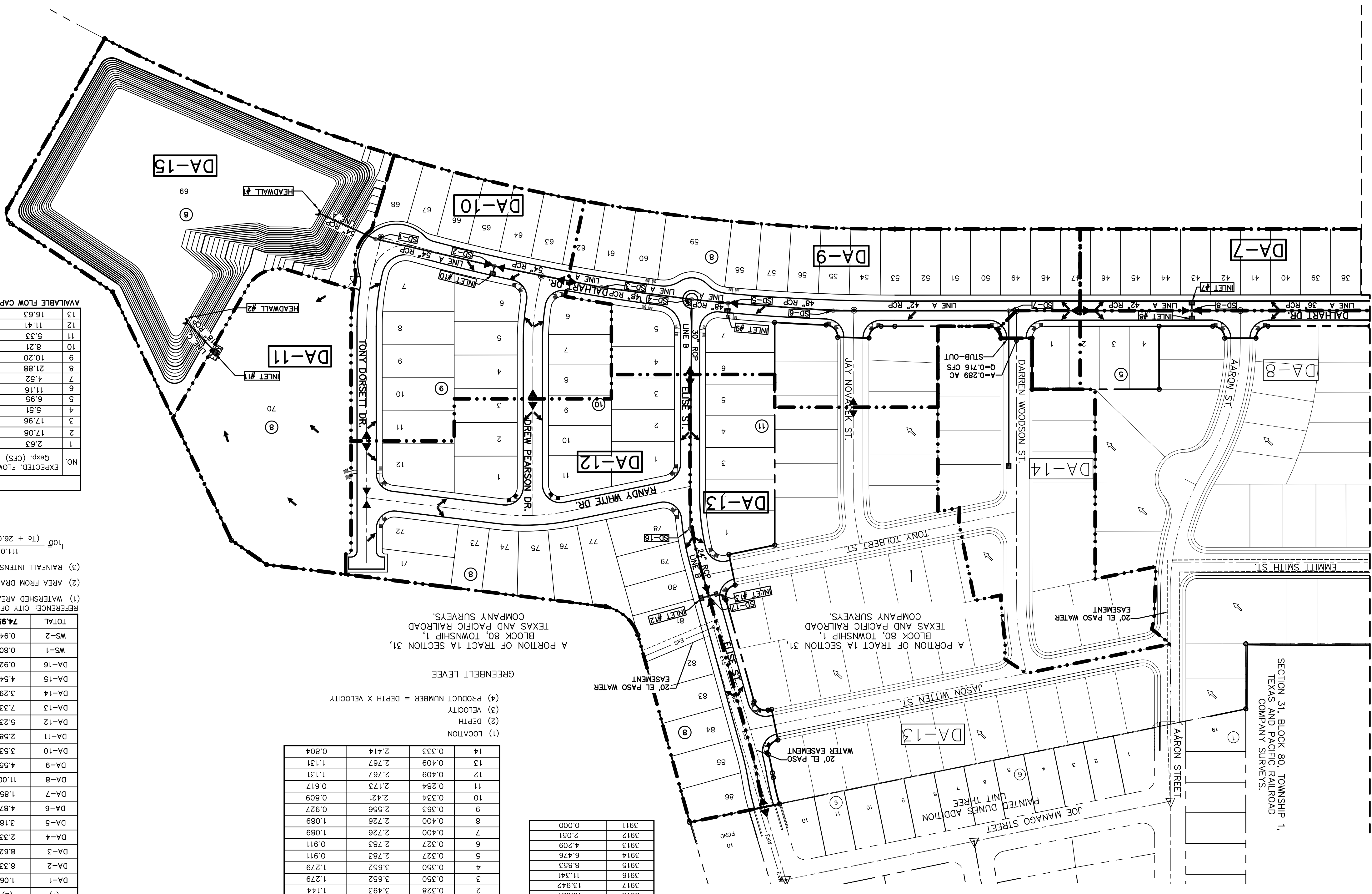
**PARK SITE #4 GRADING PLAN**  
SCALE: 1" = 30'







MATCHLINE: SEE SHEET C4.1  
FOR CONTINUATION.



**POND CALCULATIONS**

OT = (ARO)/2  
A = 74.95 AC  
OT = 12.52 AC-FT  
TOTAL<sub>REQ</sub> = 12.52 AC-FT

R = 3.34"  
C<sub>W</sub> = 0.600

CONTOUR ACCUMULATED VOLUME (AC-FT):  
3914 28.690  
3915 31.998  
3916 35.429  
3917 38.990  
3918 42.600  
3919 46.260  
3920 49.970  
3921 53.730  
3922 57.540  
3923 61.400  
3924 65.310  
3925 69.270  
3926 73.280  
3927 77.340  
3928 81.450  
3929 85.610  
3930 89.820  
3931 94.080  
3932 98.400  
3933 102.770  
3934 107.190  
3935 111.660  
3936 116.080  
3937 120.550  
3938 125.070  
3939 129.640  
3940 134.260  
3941 139.030  
3942 143.850  
3943 148.720  
3944 153.640  
3945 158.610  
3946 163.630  
3947 168.700  
3948 173.820  
3949 178.990  
3950 184.210  
3951 189.580  
3952 195.000  
3953 200.570  
3954 206.190  
3955 211.860  
3956 217.580  
3957 223.350  
3958 229.170  
3959 235.040  
3960 240.960  
3961 246.930  
3962 252.950  
3963 259.020  
3964 265.140  
3965 271.310  
3966 277.530  
3967 283.800  
3968 290.120  
3969 296.490  
3970 302.910  
3971 309.380  
3972 315.900  
3973 322.470  
3974 329.090  
3975 335.760  
3976 342.480  
3977 349.250  
3978 356.070  
3979 362.940  
3980 369.860  
3981 376.830  
3982 383.850  
3983 390.920  
3984 398.040  
3985 405.210  
3986 411.430  
3987 417.700  
3988 424.020  
3989 430.390  
3990 436.810  
3991 443.280  
3992 449.800  
3993 456.370  
3994 462.990  
3995 469.660  
3996 476.380  
3997 483.150  
3998 489.970  
3999 496.840  
4000 503.760

**MOMENTUM COMPUTATION**

LOCATION	DEPTH	VELOCITY	PRODUCT NUMBER
14	0.333	2.414	0.804
13	0.409	2.767	1.131
12	0.409	2.767	1.131
11	0.284	2.173	0.617
10	0.334	2.421	0.809
9	0.363	2.556	0.927
8	0.400	2.726	1.089
7	0.400	2.726	1.089
6	0.227	2.783	0.911
5	0.227	2.783	0.911
4	0.350	3.652	1.279
3	0.350	3.652	1.279
2	0.328	3.493	1.144
1	0.328	3.493	1.144

**POND**

POND NO.	REQUIRED CAPACITY (AC-FT)	AVAILABLE CAPACITY (AC-FT)	DEFICIT (AC-FT)
1	12.52	38.99	175.06
0	0	3916.45	3911
3911	8.55	3925	3925

**100 YEAR STORM CALCULATIONS FOR WATERSHED AREAS**

WATERSHED	AREA (AC)	DESIGN INTENSITY (1/100)	TIME OF CONCENTRATION (MIN)	RUNOFF COEFF. (C)	RUNOFF (CFS)
DA-1	1.06	4.13	10.00	0.60	2.63
DA-2	8.33	3.42	18.30	0.60	17.08
DA-3	6.62	3.59	15.96	0.58	17.96
DA-4	2.33	3.94	11.88	0.60	5.51
DA-5	3.18	3.70	14.58	0.59	6.95
DA-6	4.87	3.82	13.26	0.60	11.16
DA-7	1.85	4.07	10.62	0.60	4.52
DA-8	11.00	3.06	24.00	0.60	20.19
DA-9	4.55	3.87	12.72	0.58	10.20
DA-10	3.53	3.88	12.60	0.60	8.21
DA-11	2.58	4.13	10.00	0.50	5.33
DA-12	5.23	3.63	15.45	0.60	11.41
DA-13	7.33	3.78	13.68	0.60	16.63
DA-14	3.29	4.11	10.20	0.60	8.12
DA-15	4.54	4.13	10.00	0.50	9.38
DA-16	0.92	4.13	10.00	0.60	2.27
WS-1	0.80	4.00	11.28	0.95	3.04
WS-2	0.94	4.13	10.00	0.95	3.69
TOTAL	74.95				164.18

REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS (JUNE 2008)

(1) WATERSHED AREA IDENTIFICATION

(2) AREA FROM DRAINAGE PLAN

(3) RAINFALL INTENSITY, 100 YEAR STORM => CENTRAL INTENSITY EQUATIONS (4-7)

(4) TIME OF CONCENTRATION: TC = T (OVERLAND) + T (CUTTER)

(5) RAINFALL COEFFICIENT => PLATE NO. 2-10 TABLE A

(6) RESIDENTIAL AREA = 0.60  
PAVEMENT AREA = 0.95  
GENERAL OPEN SPACE = 0.50

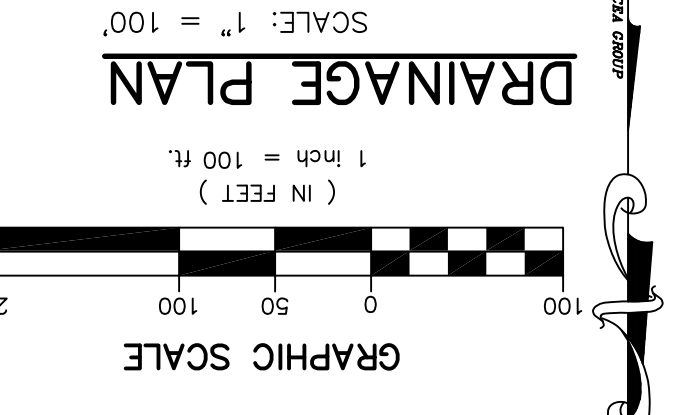
(7) RAINFALL INTENSITY EQUATION 4-25  
 $100^{(100 - I)} (I + 26.09)^{0.9177}$

(8)  $Q_{100} = C \times A \times I_{100}$

**DROP INLETS**

NO.	EXPECTED FLOW	ADDITIONAL FLOW	OVERFLOW CAPACITY (CFS)	REQUIRED AVAILABLE CAPACITY (CFS)	FLOW BYPASS TO INLET #	# OF TYPE OF INLET	LOCATION
1	2.63	8.75 (FROM I-2)	11.37	19.267	0	2	I
2	17.08	3.04 (WS-1)	11.37	19.267	0	2	I
3	17.96	8.07 (WS-2)	13.58	19.267	0	2	I
4	5.51	8.07 (FROM I-3)	13.58	19.267	0	2	I
5	6.95	2.11 (FROM I-6)	9.05	17.748	0	2	III
6	11.16	0	9.05	19.267	0	2	I
7	4.52	8.68 (FROM I-8)	13.20	17.748	0	2	I
8	21.88	0	13.20	19.267	0	2	I
9	10.20	0	19.267	19.267	0	2	I
10	8.21	0	19.267	19.267	0	2	I
11	5.33	8.21	17.748	17.748	0	2	III
12	11.41	2.61 (FROM I-13)	14.02	19.267	0	2	I
13	16.63	0	14.02	17.748	0	2	III
SUMP	0	0	0	0	0	2	III

AVAILABLE FLOW CAPACITY SHOWN AT ON-GRADE INLETS REFLECTS CAPACITIES WITH INLET GRADE EFFICIENCIES.



**PROJECT TITLE**  
VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

**SCALE**  
Horizontal: " = 100'  
Vertical: N/A

**ENGINEER'S SEAL**  
JAMES L. AZCABARTE  
Professional Engineer  
No. 88073  
State of Texas  
4/27/21

**DATE:** APRIL 2021  
**DESIGN BY:** C.J. / R.O.  
**DRAWN BY:** K.P./G.D.  
**CHKD. BY:** F.Z.  
**APPD. BY:** J.L.A.  
JOB NO.: 2000-2241.D

**REFERENCES - BENCHMARKS**  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLAYDONAL DRIVE AND PALMADO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

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

**UTILITY LOCATOR SERVICES**  
EL PASO ELECTRIC COMPANY (915) 543-5720  
EL PASO ENERGY CORPORATION (915) 496-5244  
EL PASO WATER UTILITIES (915) 524-5500  
MCI SURVEILLANCE (800) MCI-WORK  
TIME WARNER COMMUNICATIONS (915) 772-1123  
TEXAS GAS SERVICE (915) 680-8000  
SBC (800) 545-6005  
ARKT (800) 852-3786  
U.S. SPINNT TELECOMM (800) 521-0579  
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPD01) (915) 621-6750  
(AFTER HOURS) (915) 240-3220

**REVISIONS**

**DATE**

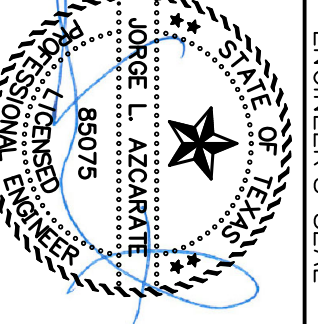
**BY**

SHEET TITLE  
DRAINAGE PLAN

SHEET (2 OF 3)  
SHEET NO.

C4.2





ENGINEER'S SEAL

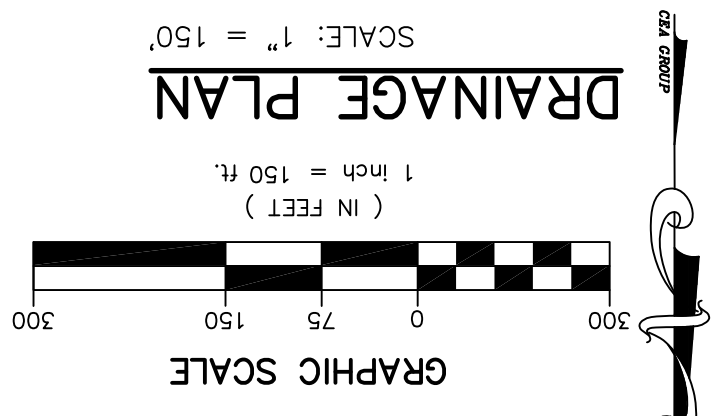
**ceeg**  
813 N. Kansas St.  
Suite 300  
El Paso, TX 79902  
915.544.5232  
www.ceegroup.net  
TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS

CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDESDALE DRIVE AND PALOMINO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

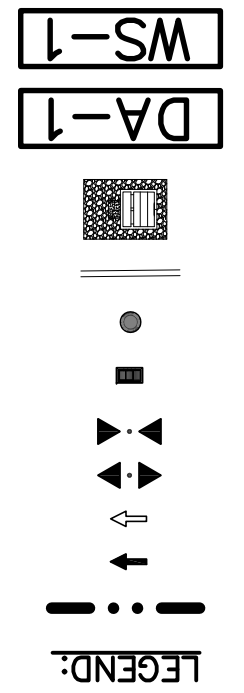
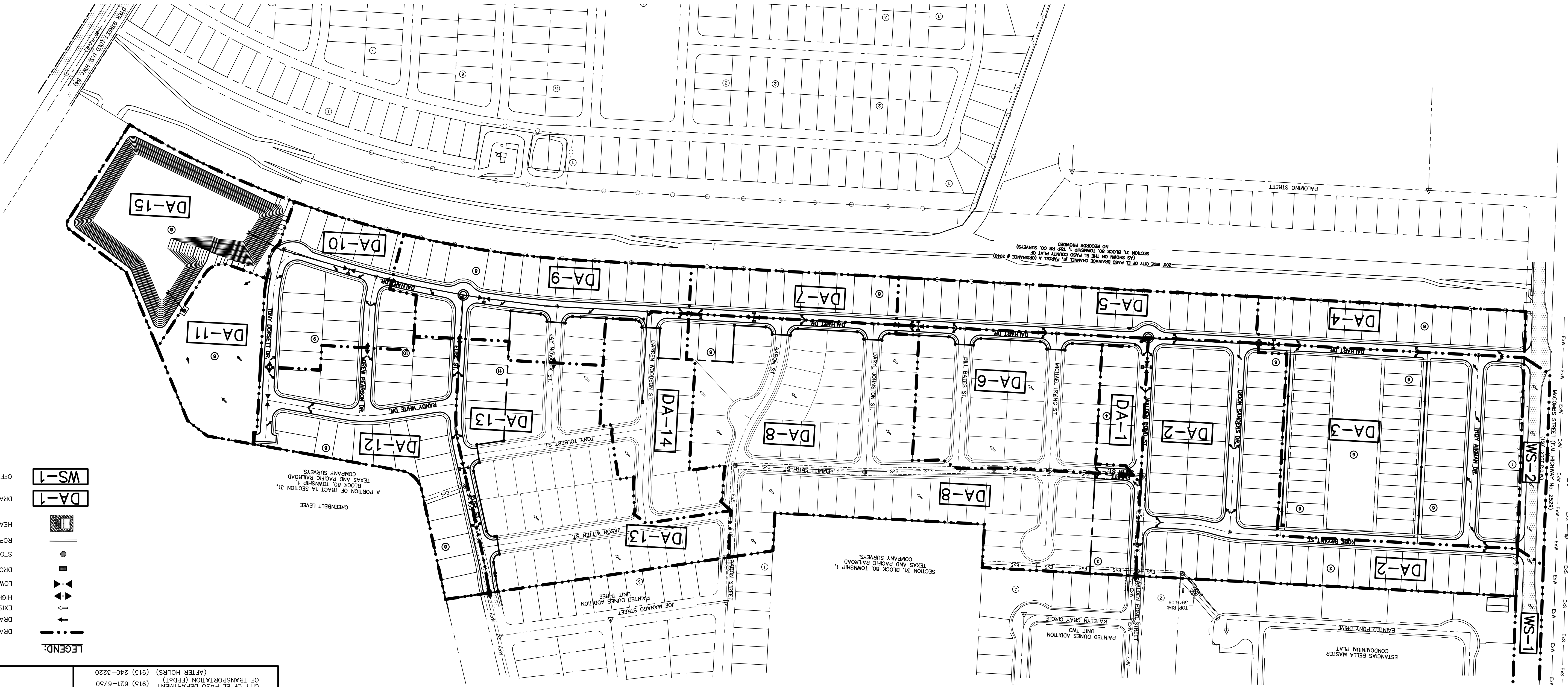
DATE	REVISIONS	BY

- REFERENCE: CITY OF EL PASO SUBDIVISION STANDARDS (JUNE 2008)
- WATERSHED AREA IDENTIFICATION
  - AREA FROM GRASS PLAN
  - RAINFALL INTENSITY, 100 YEAR STORM => CENTRAL INTENSITY EQUATIONS (4-7)
  - TIME OF CONCENTRATION: TC = T (OVERLAND) + T (GUTTER)
  - RUNOFF COEFFICIENT => PLATE NO. 2-2-10 TABLE A
  - RESIDENTIAL AREA = 0.60
  - PAYMENT AREA = 0.95
  - GENERAL OPEN SPACE = 0.50
  - $Q_{100} = C \times A \times I_{100}$



100 YEAR STORM CALCULATIONS FOR WATERSHED AREAS

DRAINAGE AREA NO.	DRAINAGE AREA (AC)	DESIGN STORM INTENSITY (1100)	TIME OF CONCENTRATION (MIN)	RUNOFF COEFF. (C)	Q100 (CFS)
DA-1	1.06	4.13	10.00	0.60	2.63
DA-2	8.33	3.42	18.30	0.60	17.08
DA-3	8.62	3.59	15.96	0.58	17.96
DA-4	2.33	3.94	11.88	0.60	5.51
DA-5	3.18	3.70	14.58	0.59	6.95
DA-6	4.87	3.82	13.26	0.60	11.16
DA-7	1.85	4.07	10.62	0.60	4.52
DA-8	11.00	3.06	24.00	0.60	20.19
DA-9	4.55	3.87	12.72	0.58	10.20
DA-10	3.53	3.88	12.60	0.60	8.21
DA-11	2.58	4.13	10.00	0.50	5.33
DA-12	5.23	3.63	15.45	0.60	11.41
DA-13	7.33	3.78	13.68	0.60	16.63
DA-14	3.29	4.11	10.20	0.60	8.12
DA-15	4.54	4.13	10.00	0.50	9.38
DA-16	0.92	4.13	10.00	0.60	2.27
WS-1	0.80	4.00	11.28	0.95	3.04
WS-2	0.94	4.13	10.00	0.95	3.69
TOTAL	74.95				164.18



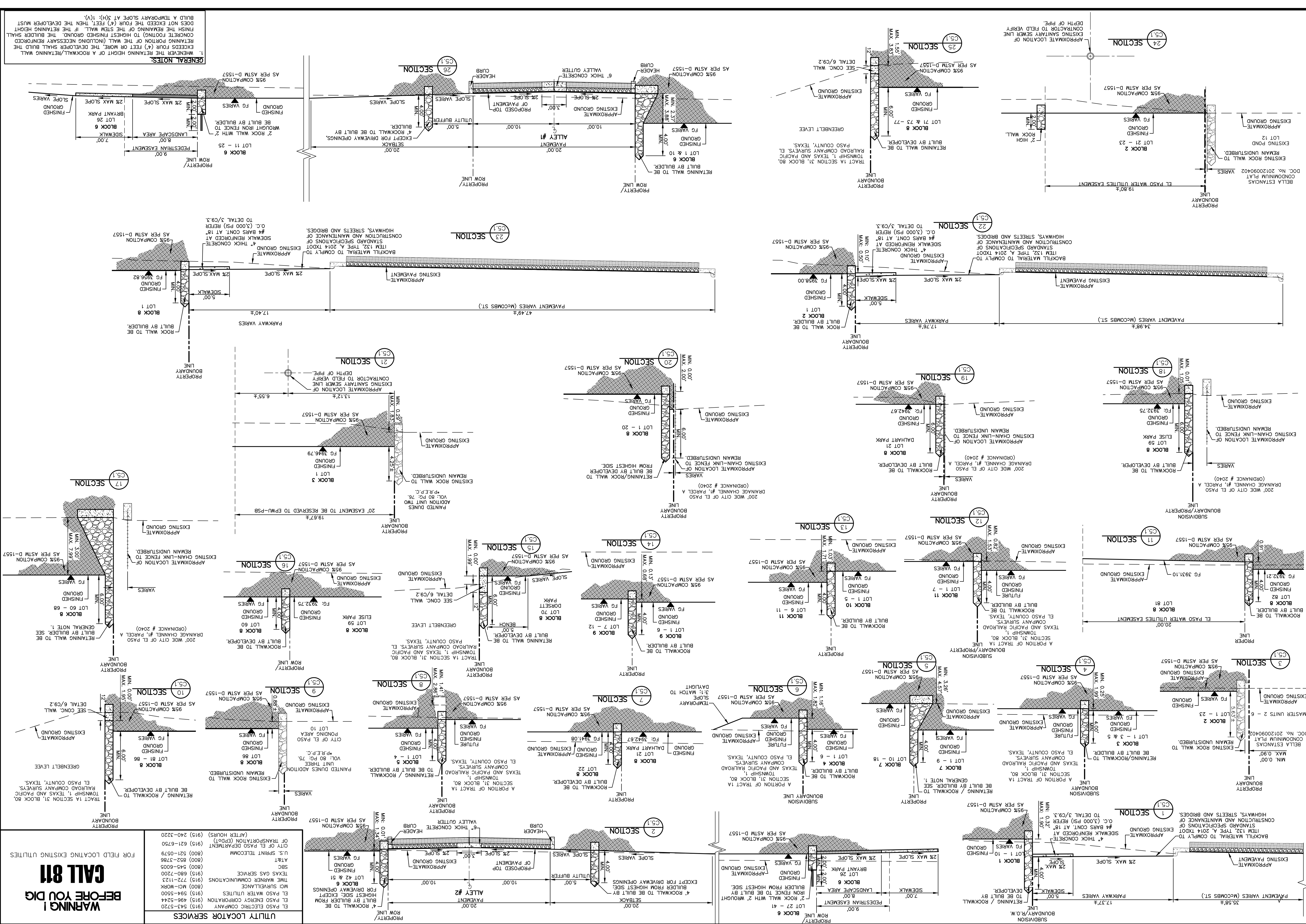
**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720  
EL PASO ENERGY CORPORATION (915) 496-5244  
EL PASO WATER UTILITIES (915) 524-5500  
MCI SURVEILLANCE (800) MCI-WORK  
TIME WARNER COMMUNICATIONS (915) 772-1123  
TEXAS GAS SERVICE (915) 680-7200  
SBC (800) 545-6005  
A&T (800) 852-3786  
U.S. SPRINT TELECOMM (800) 521-0579  
CITY OF EL PASO DEPARTMENT (915) 621-6750  
(AFTER HOURS) (915) 240-3220





**WARNING!**  
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FOR FIELD LOCATING EXISTING UTILITIES

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720  
EL PASO ENERGY CORPORATION (915) 496-5444  
EL PASO WATER UTILITIES (915) 544-5500  
MCI-WORK (800) 772-1123  
TIME WARNER COMMUNICATIONS (915) 640-7200  
TEXAS GAS SERVICE (800) 852-5786  
AIRT (800) 852-5786  
U.S. SPINNET TELECOM (800) 521-0779  
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (CPOT) (915) 621-6750  
(AFTER HOURS) (915) 240-3220

REFERENCES - BENCHMARKS

**GENERAL NOTES:**

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



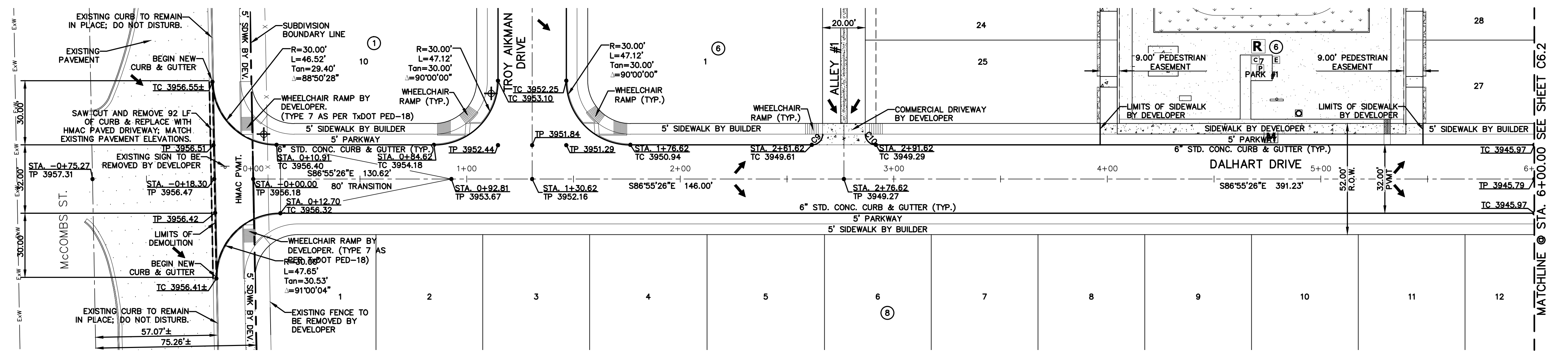




UTILITY LOCATOR SERVICES		
EL PASO ELECTRIC COMPANY	(915) 543-5720	
EL PASO ENERGY CORPORATION	(915) 496-5244	
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SBC	(800) 545-6005	
AT&T	(800) 852-3786	
U.S. SPRINT TELECOMM	(800) 521-0579	
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750	
(AFTER HOURS)	(915) 240-3220	

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

REFERENCES - BENCHMARKS	DATE	REVISIONS	BY
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLOSDALE DRIVE AND PALMADO STREET			
ELEVATION: 3939.32 (NAD 88)			
ELEVATION: 3928.24' (CITY DATUM)			

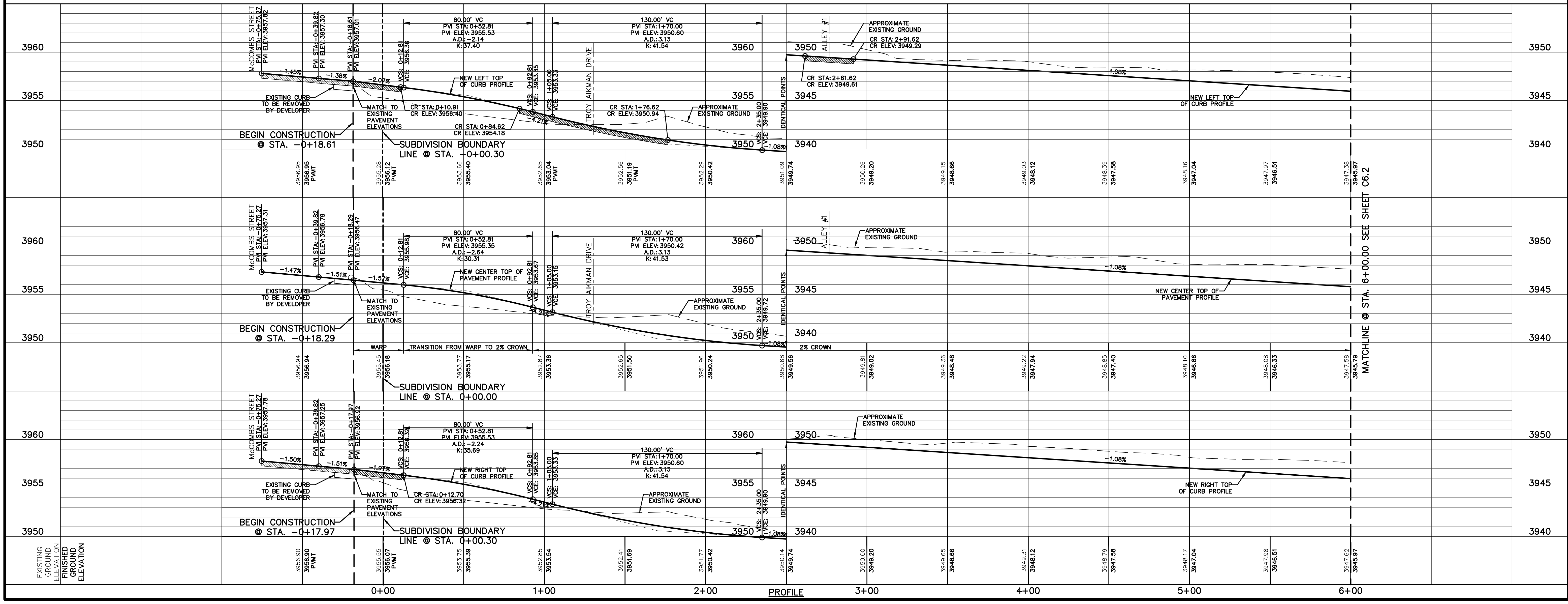


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	5.00'	7.85'	5.00'	7.07'	N48°04'34"E	090°00'00"
C10	5.00'	7.85'	5.00'	7.07'	S41°55'26"E	090°00'00"

**LEGEND**

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

PLAN



SCALE	
Horizontal: 1" = 30'	
Vertical: 1" = 5'	
Contour Interval: N/A	
DATE: APRIL 2021	
DESIGN BY: C.J. / R.O.	
DRAWN BY: K.P./C.D.	
CHKD. BY: F.Z.	
APPVD. BY: J.L.A.	
JOB No. - 2000-2241.D	

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

**DALHART DRIVE**  
**PLAN & PROFILE**  
**FROM STA. -0+18.29**  
**TO STA. 6+00.00**

**C6.1**

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

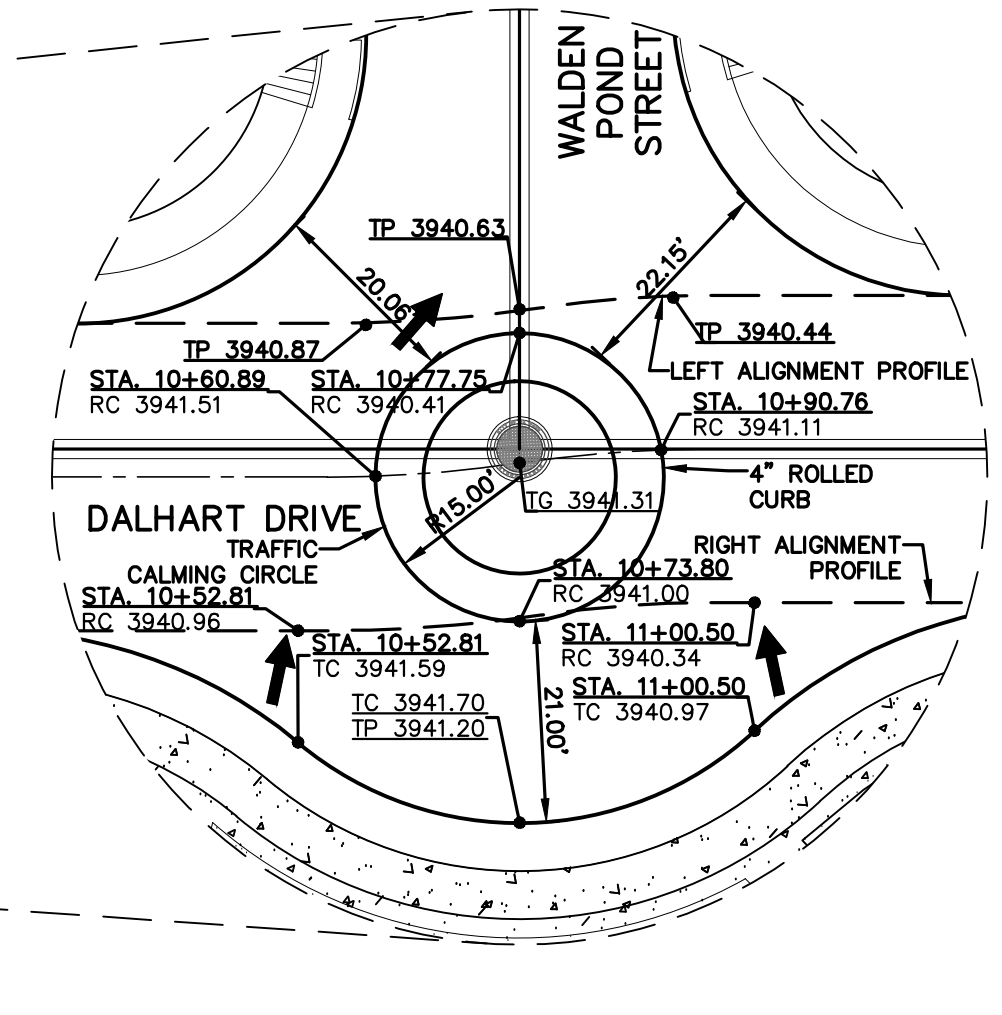
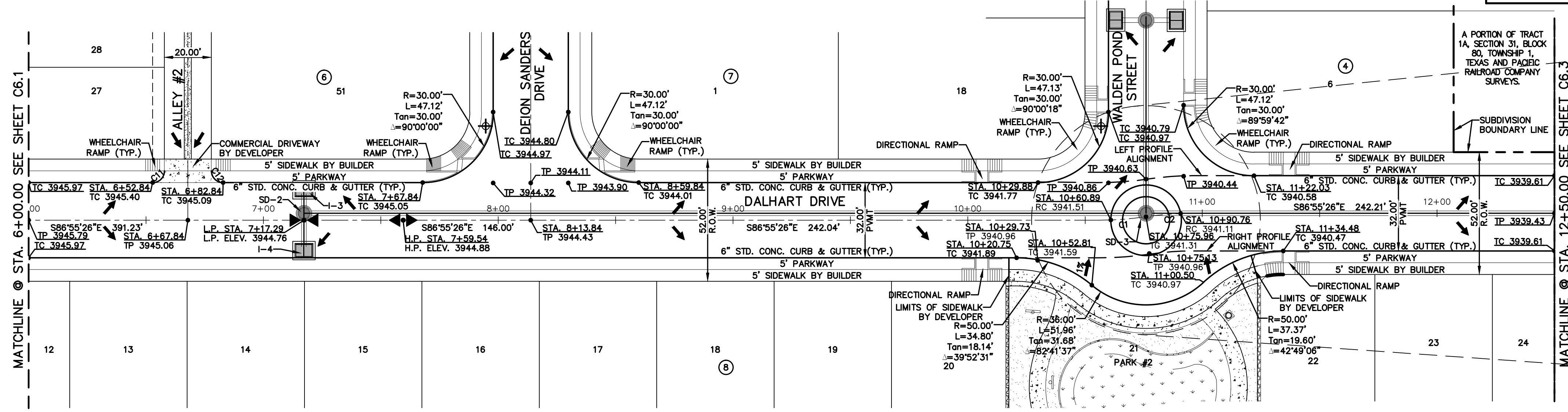
**ceagroup**  
TEXAS REGISTERED ENGINEERING FIRM #4564



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	136.37'	20.07'	10.05'	20.05'	N88°51'33"E	008°26'01"
C2	136.35'	19.86'	9.95'	19.84'	S88°54'16"W	008°20'37"
C11	5.00'	7.85'	5.00'	7.07'	N48°04'34"E	090°00'00"
C12	5.00'	7.85'	5.00'	7.07'	S41°55'26"E	090°00'00"

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

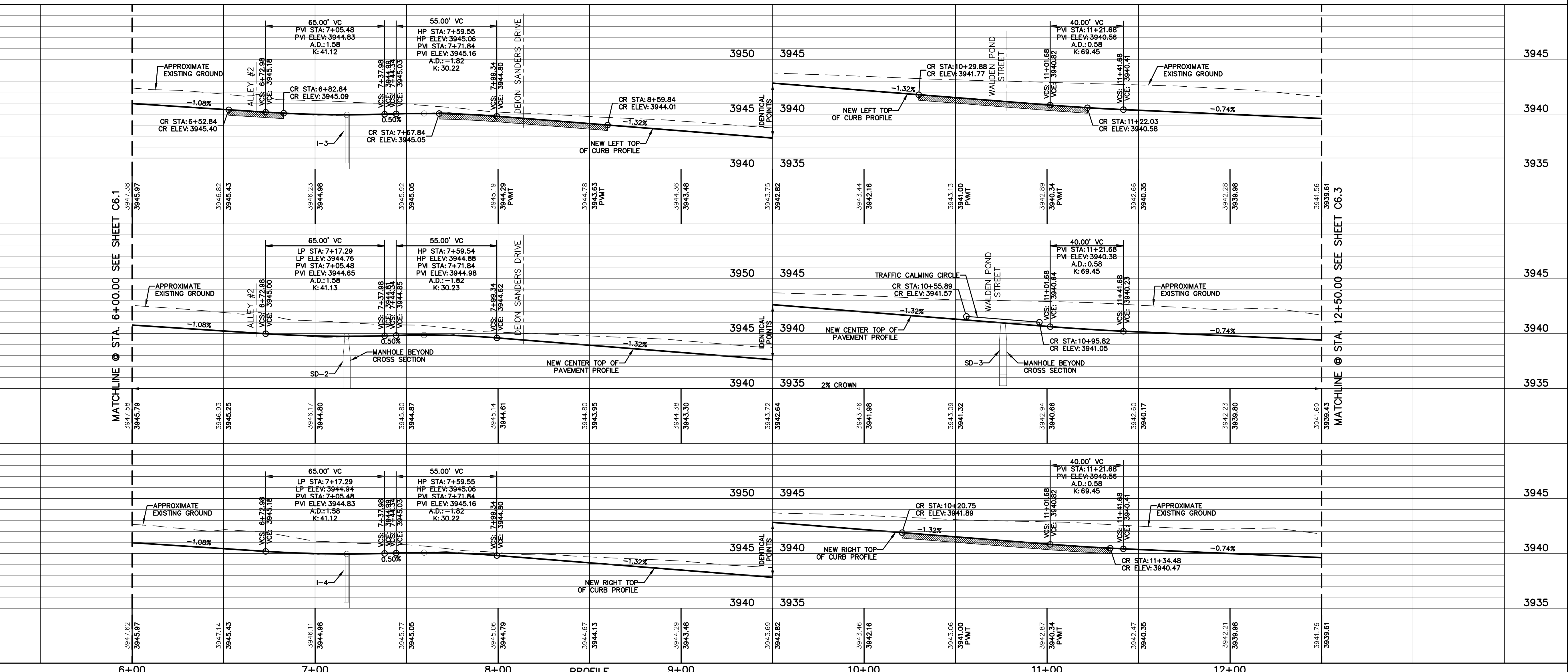
**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**  
FOR FIELD LOCATING EXISTING UTILITIES



**LEGEND**

- DIRECTIONAL WHEELCHAIR RAMP BY BUILDER (TYP.)
- PROPOSED STREET NAME SIGN & STOP SIGN
- SIDEWALK BY DEVELOPER

PLAN



REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMOLINO STREET AND WALDEN POND STREET  
ELEVATION: 3939.32 (N.A.S.D. 88)  
ELEVATION: 3928.24" (CITY DATUM)DATE: \_\_\_\_\_  
REVISIONS: \_\_\_\_\_ BY: \_\_\_\_\_

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

**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL  
J. L. AZCARRATE  
Professional Engineer  
No. 10075  
State of Texas  
4/17/20

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

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
DALHART DRIVE  
PLAN & PROFILE  
FROM STA. 6+00.00  
TO STA. 12+50.00

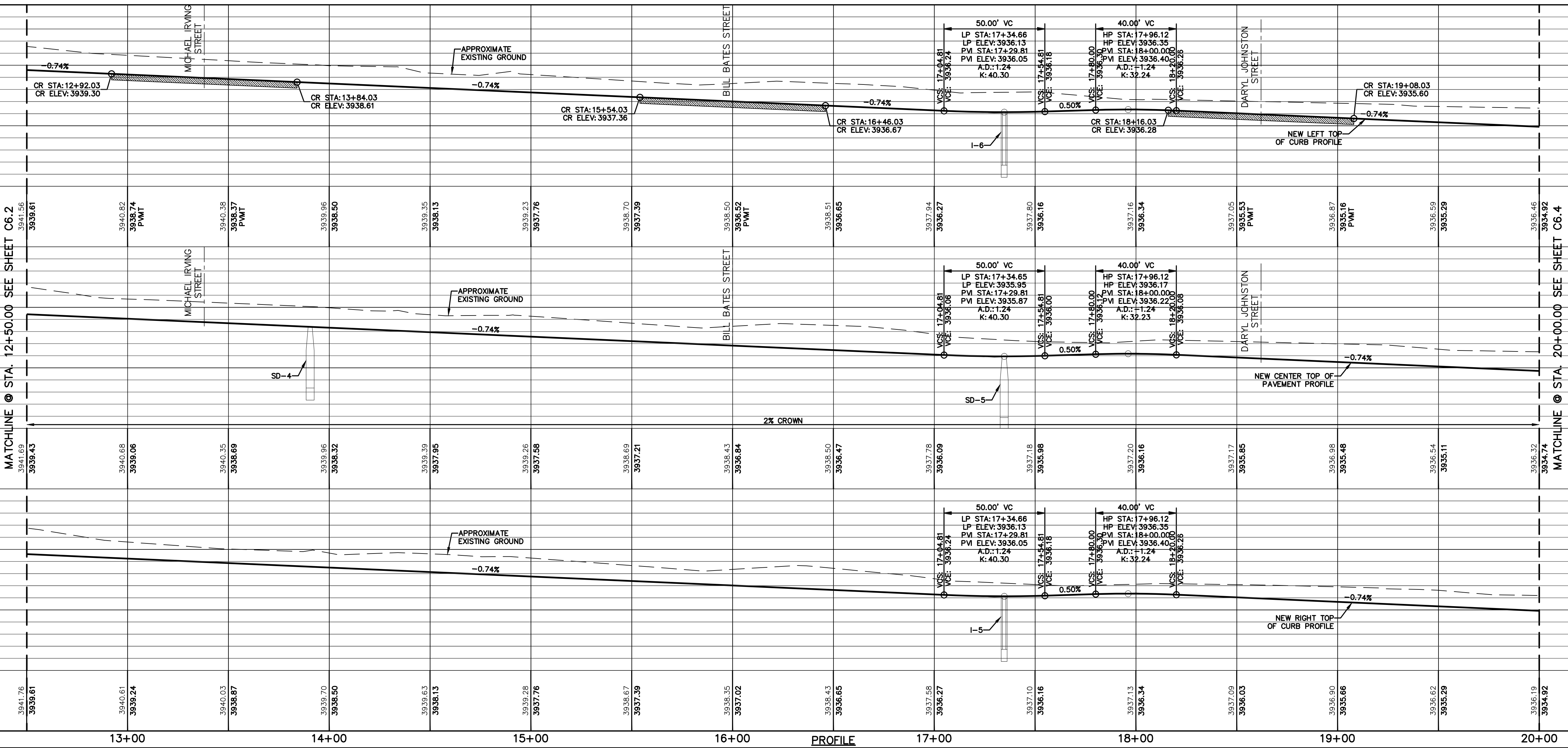
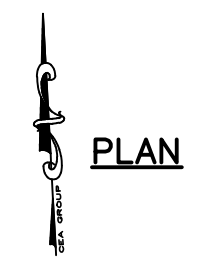
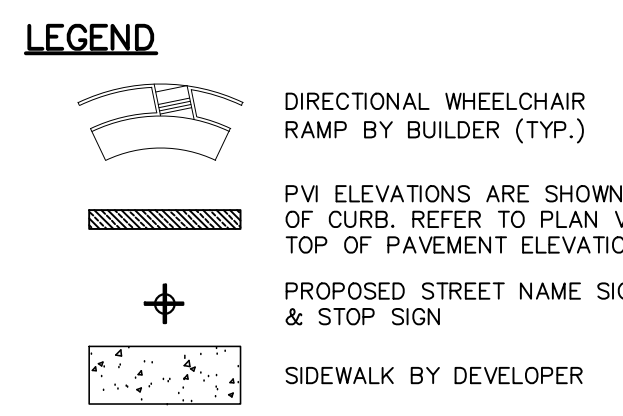
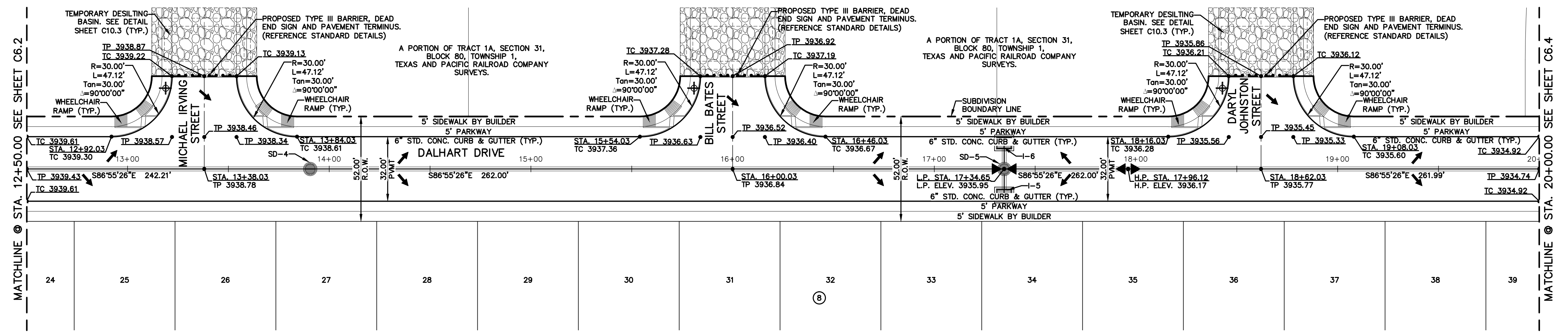
SHEET NO.  
**C6.2**



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

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

REFERENCES - BENCHMARKS	DATE	REVISIONS	BY
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLOSDALE DRIVE AND PALOMINO STREET	ELEVATION: 3939.32 (NAD 88)		
	ELEVATION: 3928.24" (CITY DATUM)		



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

**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL  
JOSÉ L. AZCÁRATE  
08075

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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
JOB No. 2000-224.D

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
DALHART DRIVE  
PLAN & PROFILE  
FROM STA. 12+50.00  
TO STA. 20+00.00

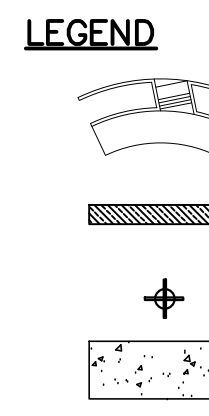
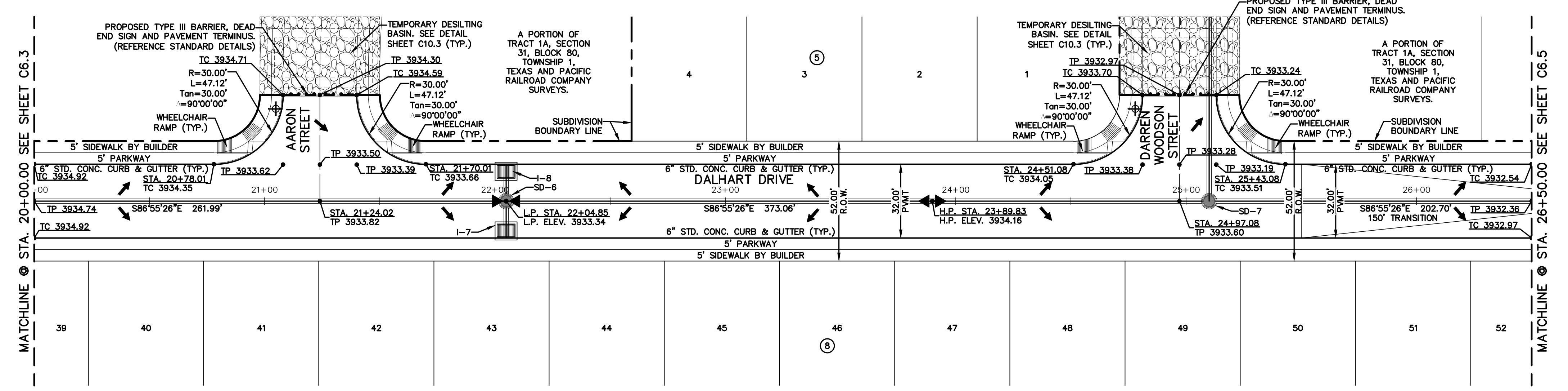
SHEET NO.  
**C6.3**



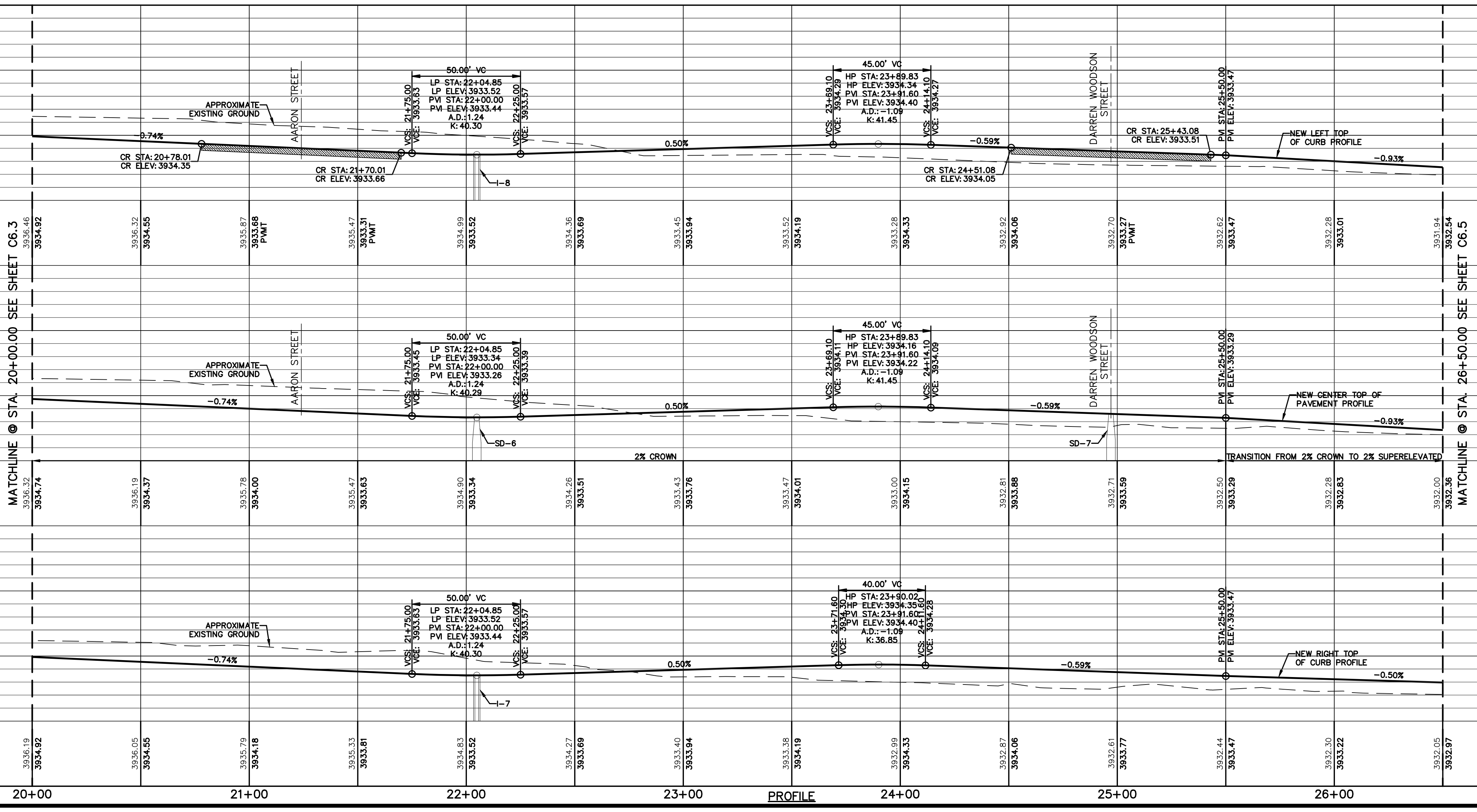
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

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

REFERENCES - BENCHMARKS	CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLODESDALE DRIVE AND PALOMINO STREET
DATE	ELEVATION: 3939.32 (NAD 88)
REVISIONS	ELEVATION: 3928.24' (CITY DATUM)
BY	

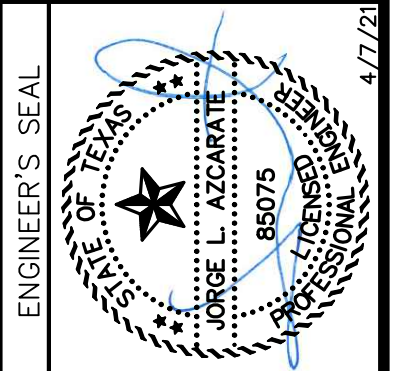


PLAN



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

TEXAS REGISTERED ENGINEERING FIRM F-4564



SCALE	Horizontal: 1"=30'
	Vertical: 1"=5'
DATE	APRIL 2021
DESIGN BY	C.J. / R.O.
DRAWN BY	K.P./C.D.
CHKD. BY	F.Z.
APPVD. BY	J.L.A.
JOB No.	2000-2241D

PROJECT TITLE

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**DALHART DRIVE**  
**PLAN & PROFILE**  
FROM STA. 20+00.00  
TO STA. 26+50.00

SHEET NO.

**C6.4**



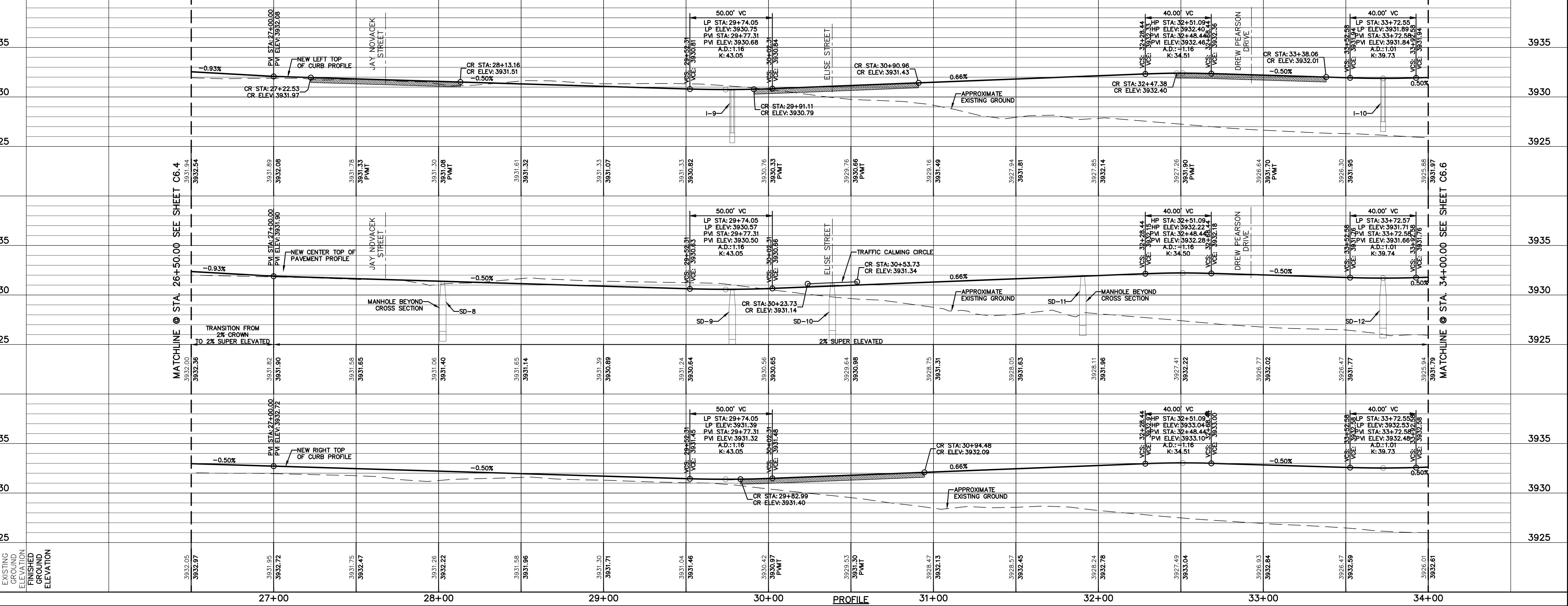
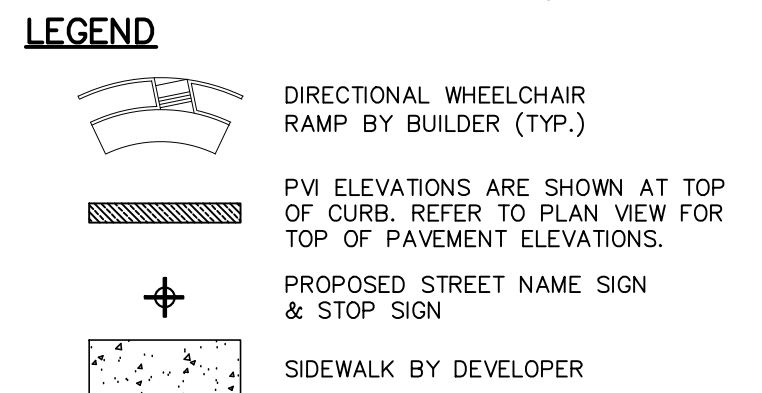
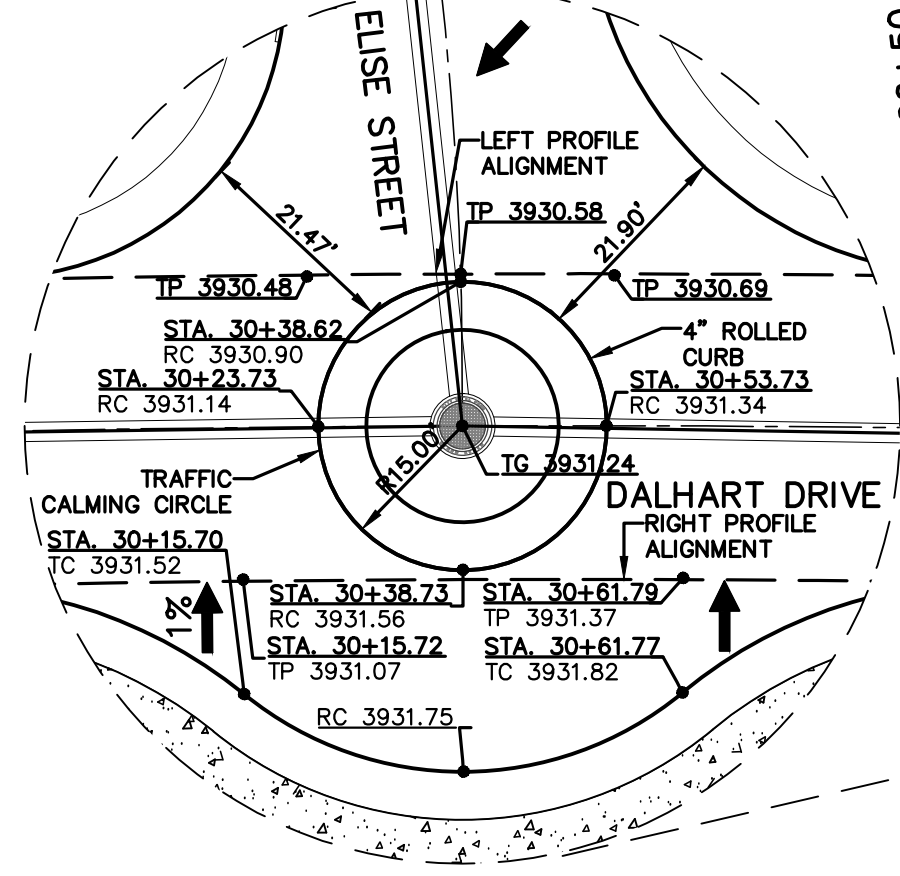
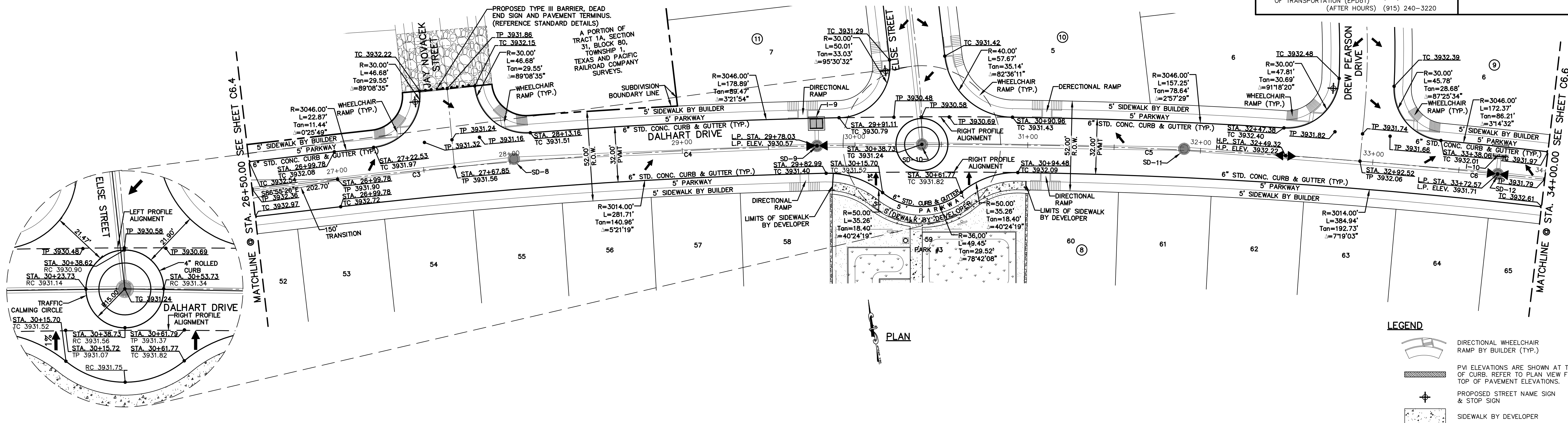
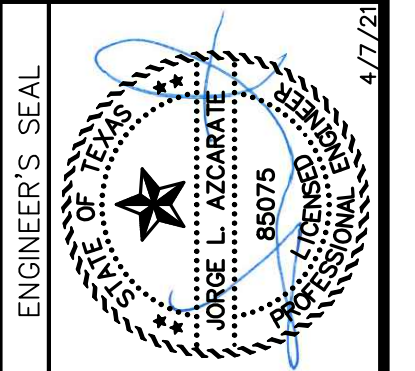
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	3030.00'	68.06'	34.03'	68.06'	N86°16'49"W	001°17'13"
C4	3030.00'	270.89'	135.53'	270.79'	N83°04'32"W	005°07'20"
C5	3030.00'	253.79'	126.97'	253.72'	N78°06'54"W	004°47'57"
C6	3030.00'	217.00'	108.55'	216.95'	N73°39'49"W	004°06'12"

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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (AFTER HOURS)	(915) 621-6750 (915) 240-3220

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

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE INTERSECTION OF PALOMINO STREET AND COLESDALE DRIVE AND  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24" (CITY DATUM)

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



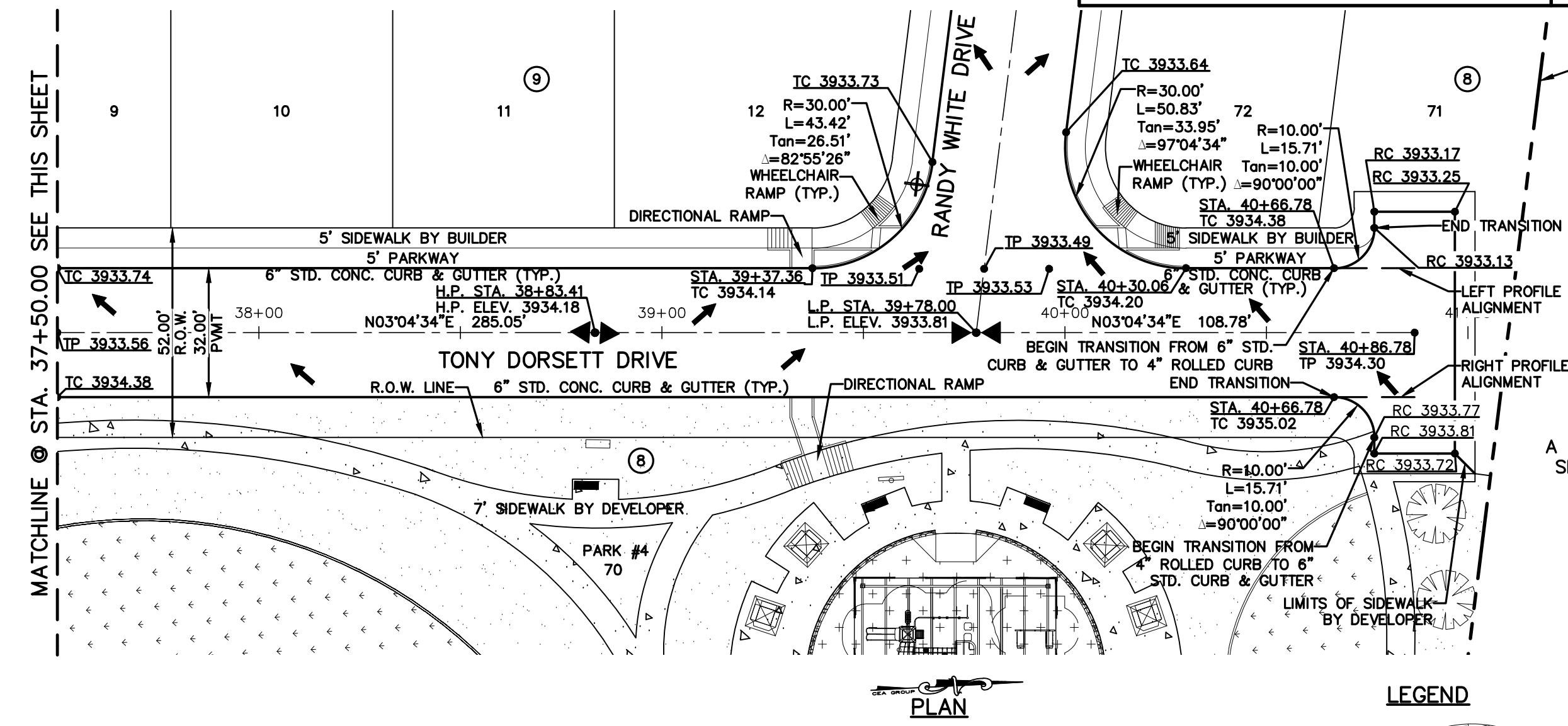
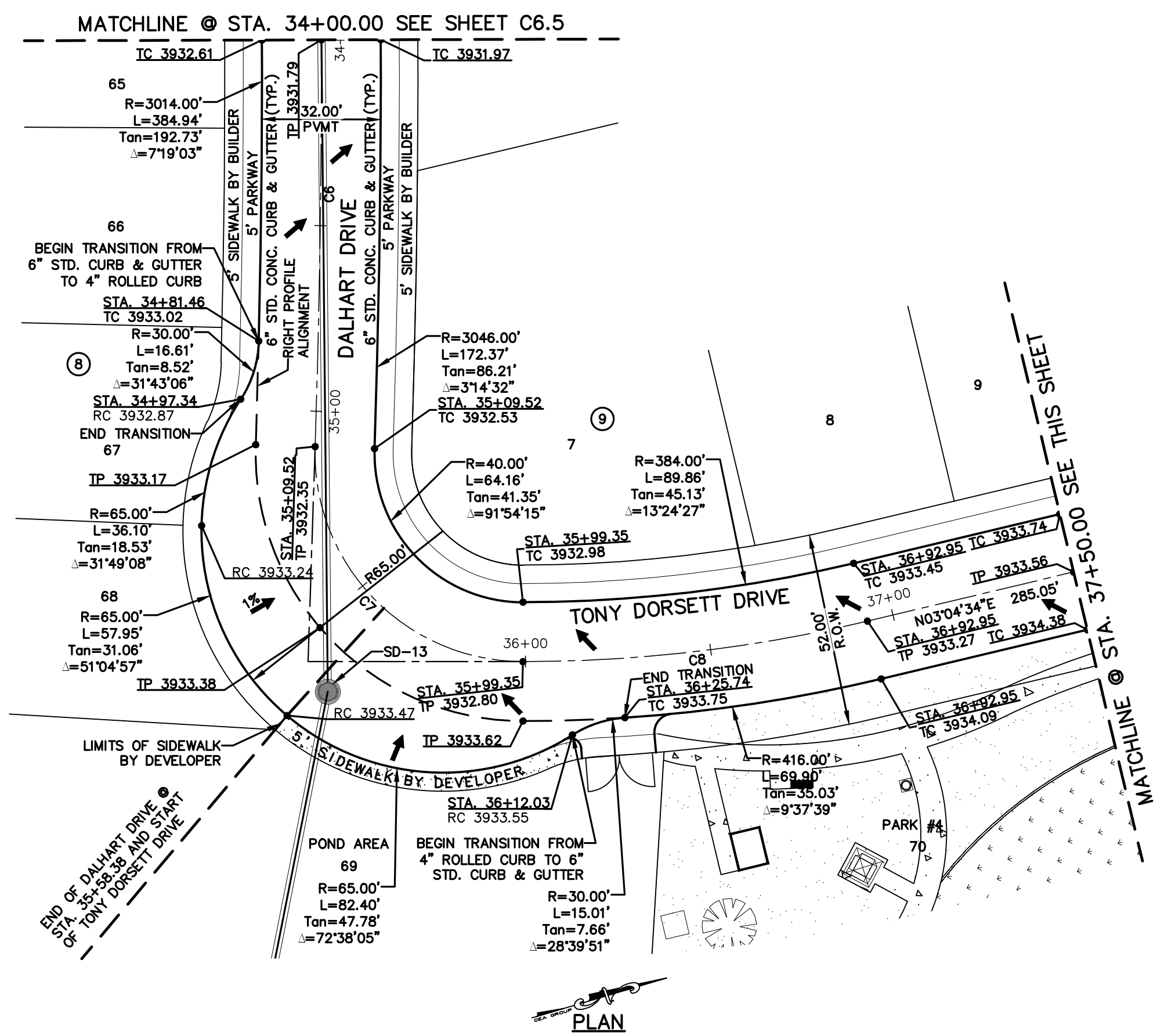
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Vertical: 1"=5'  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APP'D. BY: J.L.A.  
JOB No. 2000-2241.D

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
DALHART DRIVE  
PLAN & PROFILE  
FROM STA. 26+50.00  
TO STA. 34+00.00

SHEET NO.  
**C6.5**





CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C6	3030.00'	217.00'	108.55'	216.95'	N73°39'49"W	004°06'12"
C7	56.00'	89.83'	57.89'	80.50'	N62°26'09"E	091°54'15"
C8	400.00'	93.60'	47.02'	93.39'	N09°46'48"E	013°24'27"

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

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

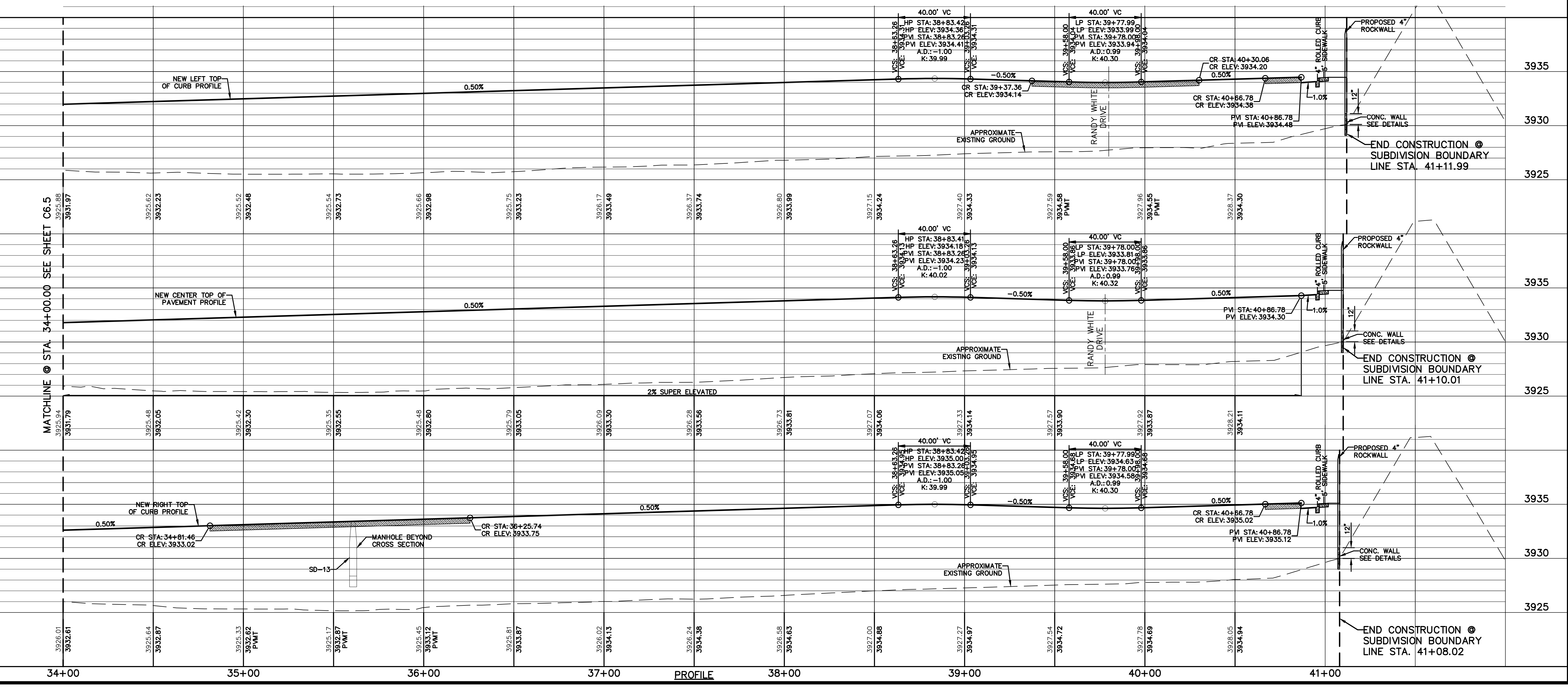
REFERENCES - BENCHMARKS	DATE	REVISIONS	BY
CITY MONUMENT LOCATED AT THE GENTRIE INTERSECTION OF CLOSDALE DRIVE AND PALOMINO STREET	ELEVATION: 3939.32 (NAD 88)		
	ELEVATION: 3928.24" (CITY DATUM)		

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Suite 300  
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915.544.5232  
www.ceegroup.net

**CEA GROUP**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

A PORTION OF TRACT 1A, SECTION 31, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD COMPANY SURVEYS.

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



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

Contour Interval: N/A

DATE: APRIL 2021

DESIGN BY: C.J. / R.O.

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

CHKD. BY: F.Z.

APPVD. BY: J.L.A.

JOB No. - 2000-224.D

PROJECT TITLE

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE
DALHART DRIVE PLAN & PROFILE FROM STA. 34+00.00 TO STA. 35+58.38
TONY DORSETT DRIVE PLAN & PROFILE FROM STA. 35+58.38 TO STA. 41+11.99
SHEET NO.

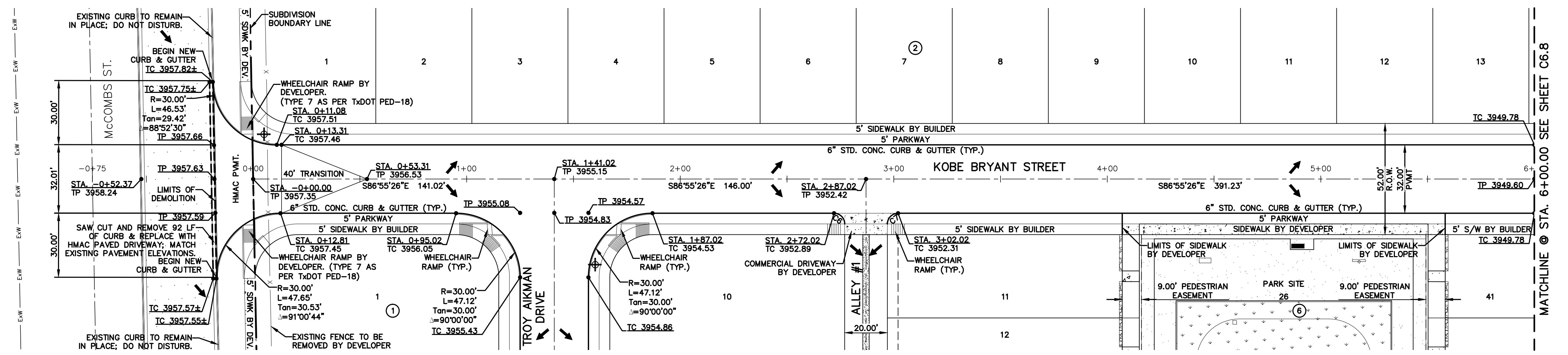
**C6.6**



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

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

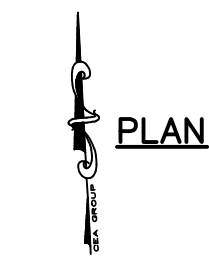
DATE	REVISIONS	BY



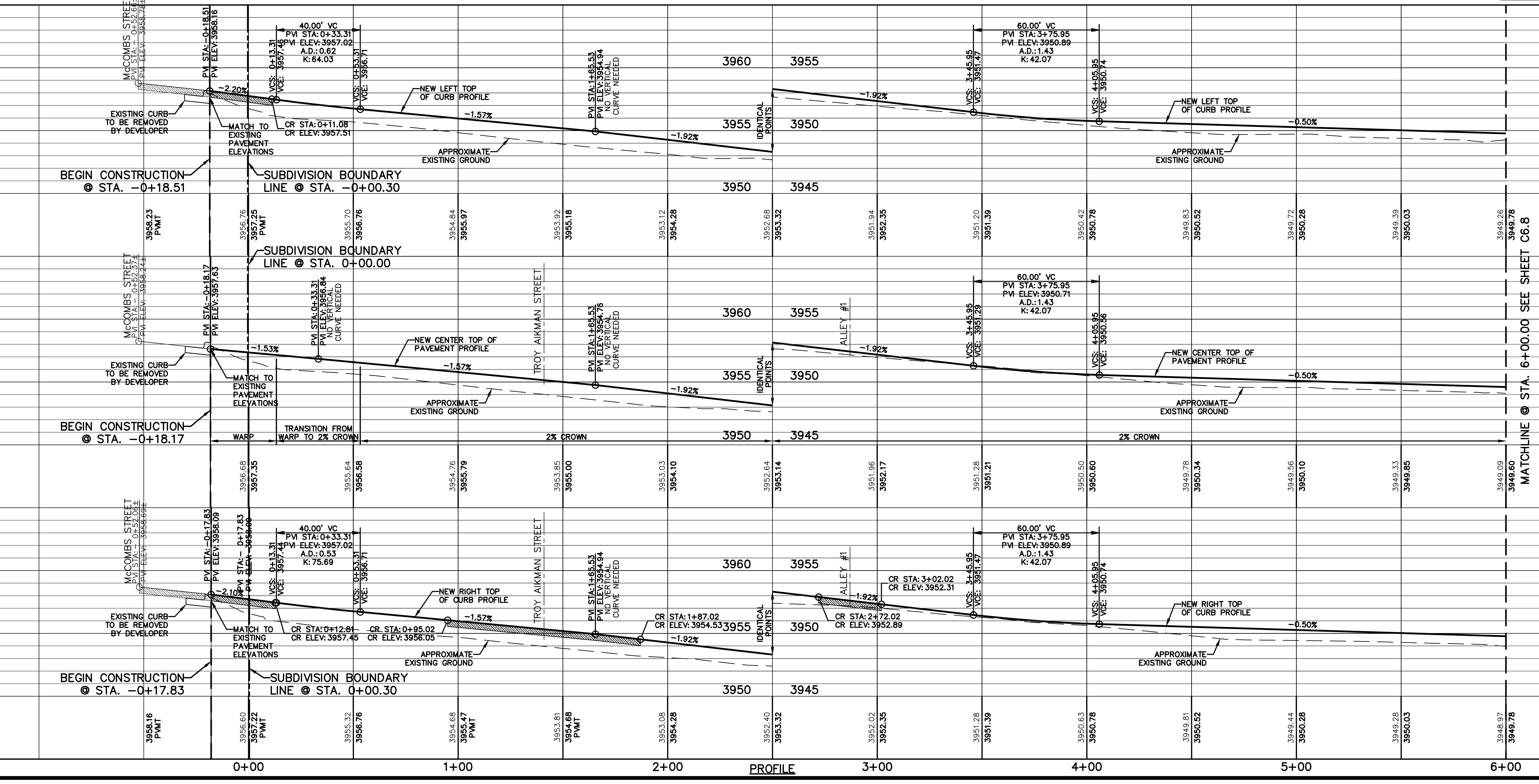
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C6	5.00'	7.85'	5.00'	7.07'	N41°55'26"W	090°00'00"
C7	5.00'	7.85'	5.00'	7.07'	S48°04'34"W	090°00'00"

**LEGEND**

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



REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF COLEDALE DRIVE AND PALMADO STREET  
ELEVATION: 3939.32 (N.A.D. 88)  
ELEVATION: 3928.24" (CITY DATUM)  
813 N. Kates St.  
Suite 300  
El Paso, TX 79902  
915.544.5232  
www.ceegroup.net  
TEXAS REGISTERED ENGINEERING FIRM F-4564



SCALE: 1" = 30'  
Horizontal: 1" = 50'  
Vertical: 1" = 5'  
Contour Interval: N/A

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. 2000-2241D

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
KOBAY BRYANT STREET PLAN & PROFILE FROM STA. -0+18.17 TO STA. 6+00.00

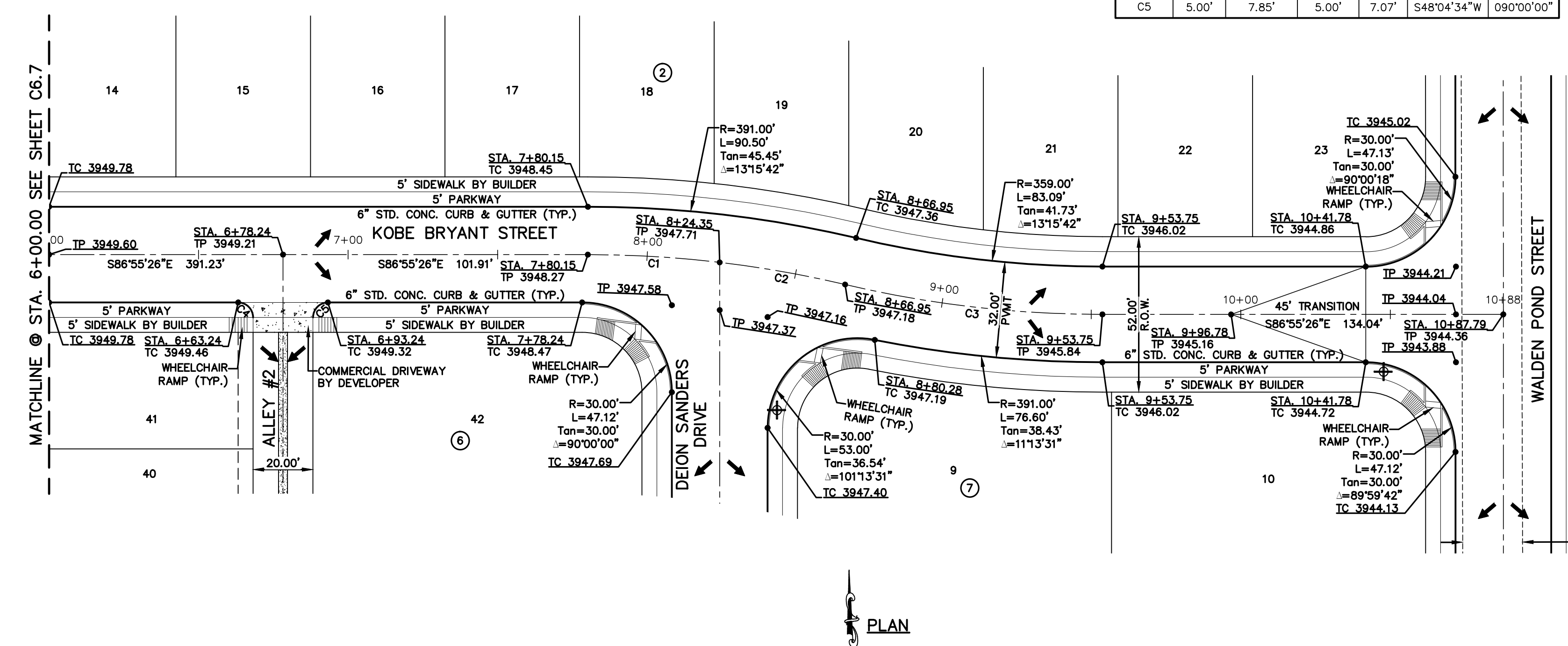
SHEET NO.  
**C6.7**



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	375.00'	44.20'	22.12'	44.17'	N83°32'51"W	006°45'10"
C2	375.00'	42.60'	21.32'	42.58'	N76°54'59"W	006°30'33"
C3	375.00'	86.80'	43.59'	86.60'	S80°17'34"E	013°15'42"
C4	5.00'	7.85'	5.00'	7.07'	N41°55'26"W	090°00'00"
C5	5.00'	7.85'	5.00'	7.07'	S48°04'34"W	090°00'00"

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

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



20.00' EASEMENT TO BE RESERVED TO EL PASO WATER UTILITIES-PUBLIC SERVICE BOARD AS PER METES AND BOUNDS BY CONDE, INC.

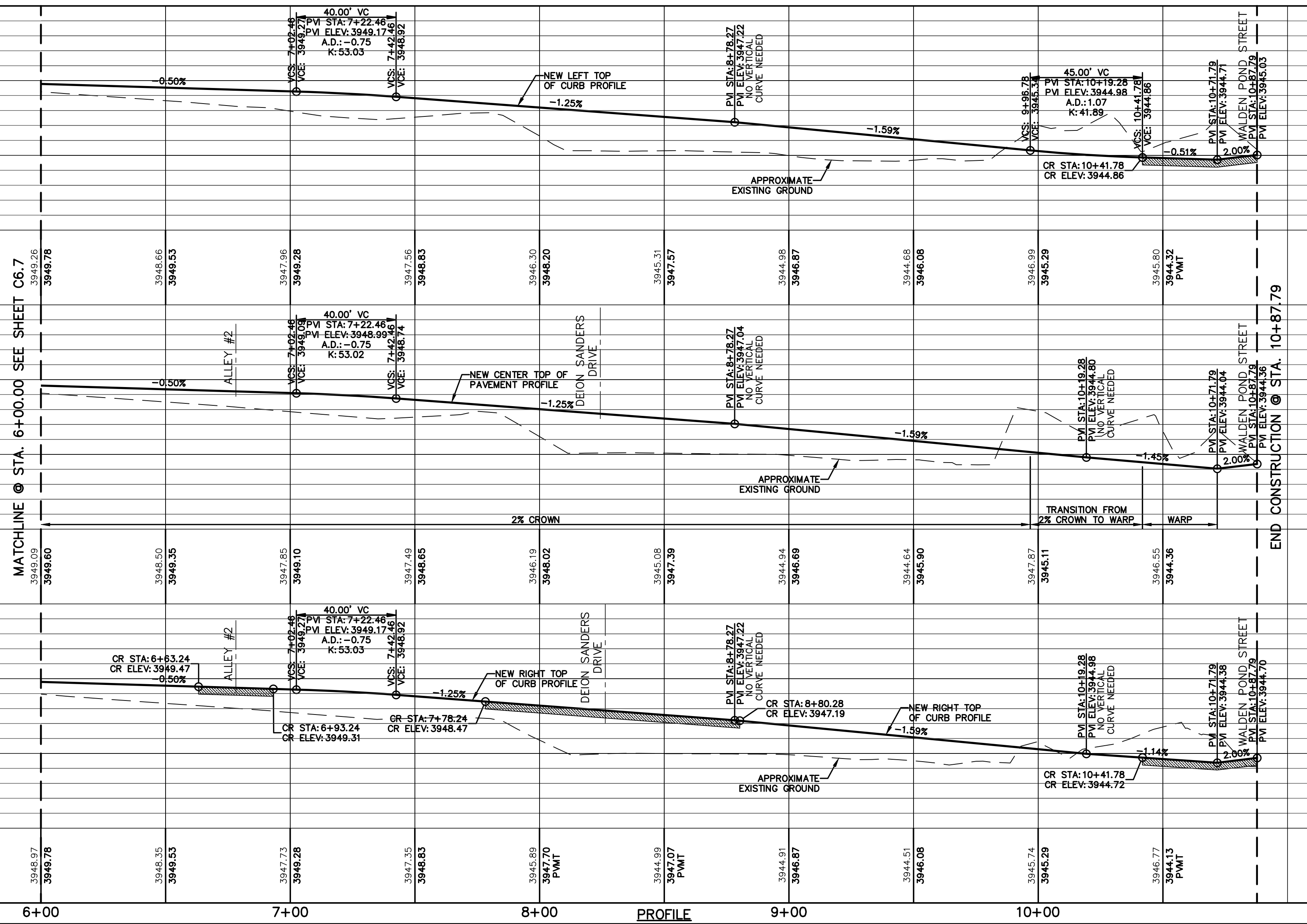
- LEGEND**
- DIRECTIONAL WHEELCHAIR RAMP BY BUILDER (TYP.)
  - PVI ELEVATIONS ARE SHOWN AT TOP OF CURB. REFER TO PLAN VIEW FOR TOP OF PAVEMENT ELEVATIONS.
  - PROPOSED STREET NAME SIGN & STOP SIGN
  - SIDEWALK BY DEVELOPER

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE INTERSECTION OF COLESDALE DRIVE AND PALOMINO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)DATE: \_\_\_\_\_  
REVISIONS: \_\_\_\_\_  
BY: \_\_\_\_\_

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

**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL  
J. L. AZCARRATE  
08075



EXISTING GROUND ELEVATION	FINISHED GROUND ELEVATION	PROFILE
3948.97	3948.78	6+00
3948.35	3948.53	7+00
3946.89	3947.70	8+00
3944.99	3947.07	9+00
3944.51	3946.08	10+00
3945.77	3944.13	10+88

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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: J.L.A.  
APPVD. BY: J.L.A.

JOB No. 2000-224.D  
4/17/21

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**KOBE BRYANT STREET PLAN & PROFILE FROM STA. 6+00.00 TO STA. 10+87.79**

SHEET NO.  
**C6.8**



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	375.00'	41.95'	21.00'	41.93'	N06°16'51"E	006°24'34"
C2	400.00'	107.73'	54.19'	107.41'	N04°38'23"W	015°25'54"

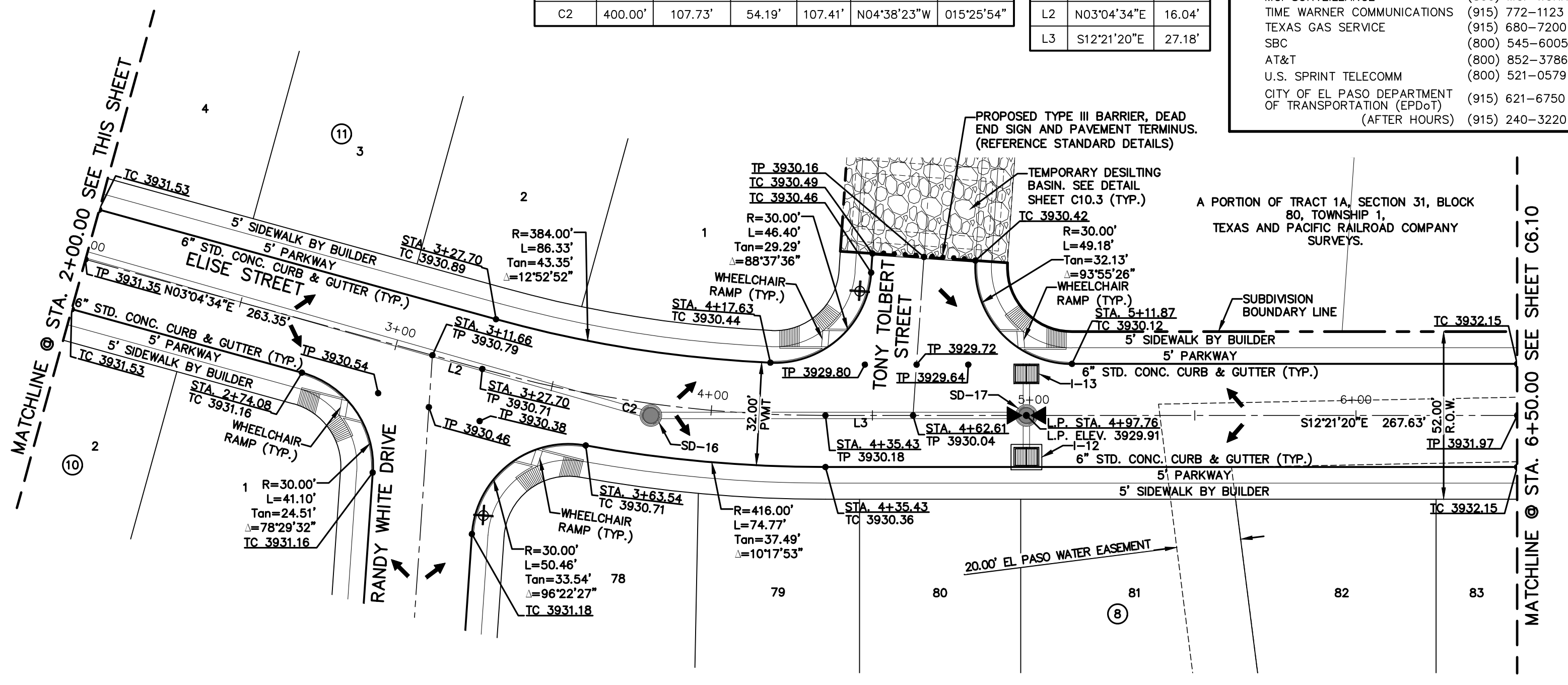
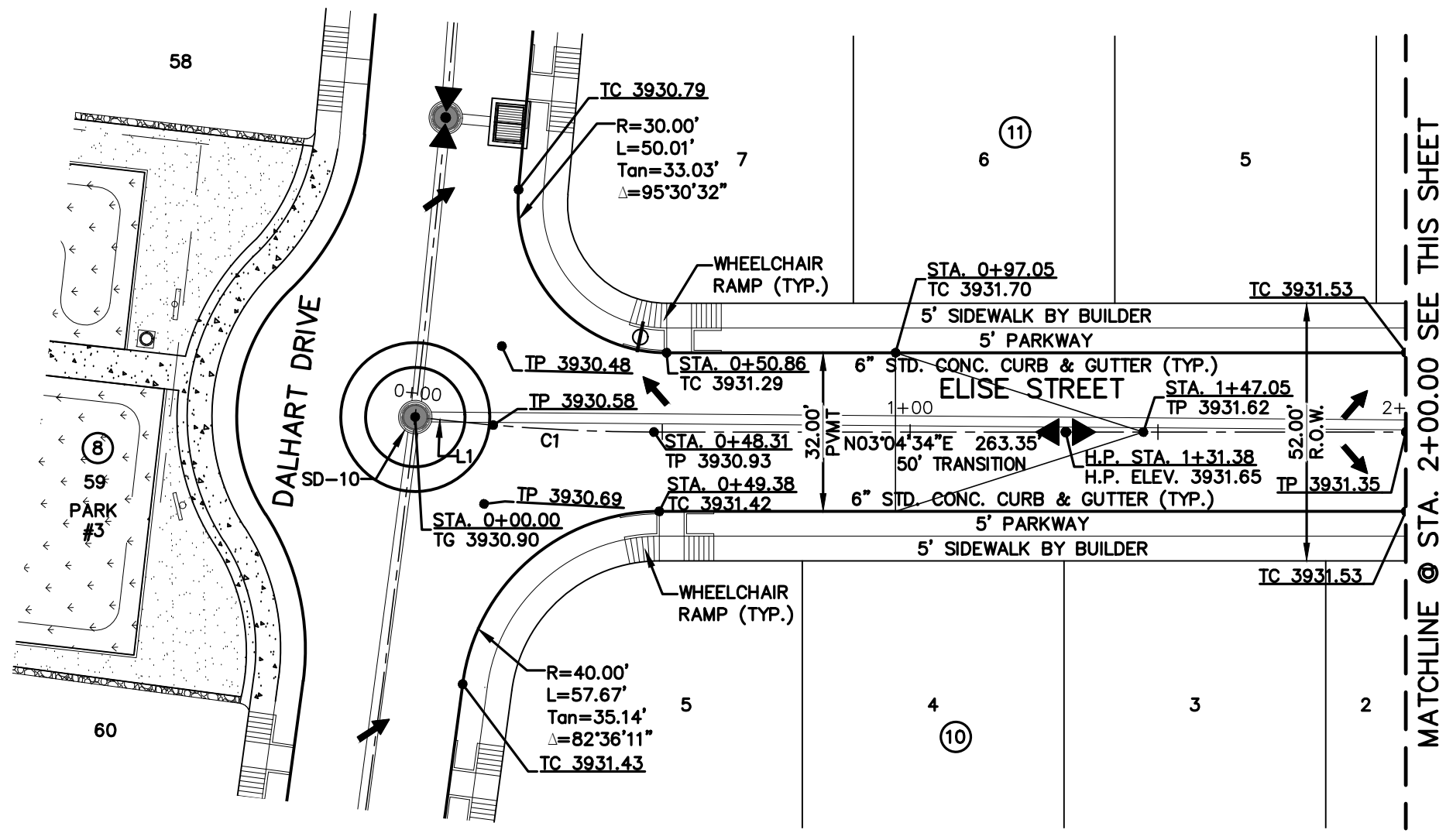
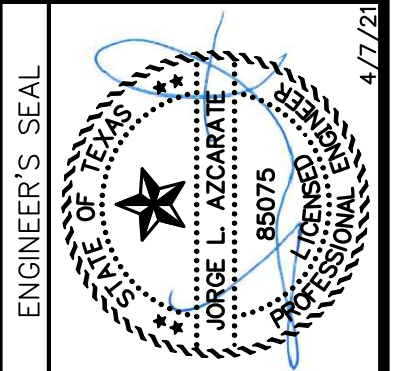
LINE TABLE		
LINE	BEARING	LENGTH
L1	S09°29'08"W	6.36'
L2	N03°04'34"E	16.04'
L3	S12°21'20"E	27.18'

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-8244
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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750 (AFTER HOURS) (915) 240-3220

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

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMADO STREET AND CLOSDALE DRIVE AND  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.94" (CITY DATUM)

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

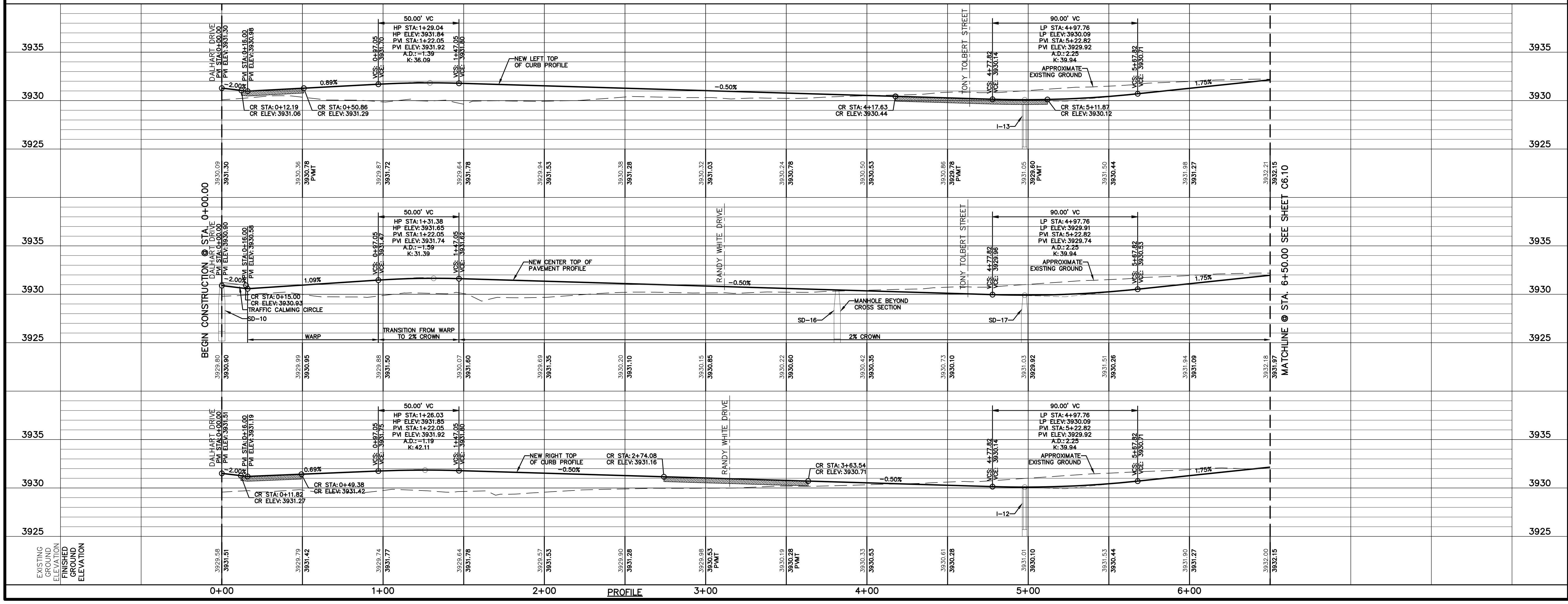


PLAN

PLAN

LEGEND

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



SCALE: Horizontal: 1"=30'  
Vertical: 1"=5'  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. 2000-2241D

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**ELISE STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 6+50.00**

SHEET NO.  
**C6.9**



CURVE TABLE						LINE TABLE			
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA	LINE	BEARING	LENGTH
C3	375.00'	38.42'	19.23'	38.41'	S09°25'12"E	005°52'15"	L4	S12°21'20"E	38.78'
C4	375.00'	46.12'	23.09'	46.09'	N10°00'29"W	007°02'49"	L5	S06°29'04"E	7.83'
C5	400.00'	84.06'	42.18'	83.90'	N09°05'47"E	012°02'26"	L6	S15°07'00"W	26.52'

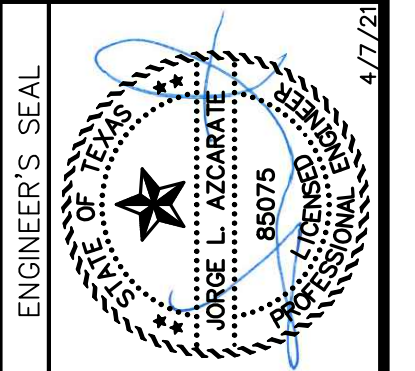
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

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

REFERENCES - BENCHMARKS	DATE	REVISIONS	BY
CITY MONUMENT LOCATED AT THE INTERSECTION OF CLOSDALE DRIVE AND PALMINDO STREET	ELEVATION: 3939.32 (NAVD 88)		
	ELEVATION: 3928.24" (CITY DATUM)		

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

**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564



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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.

JOB No. 2000-2241D

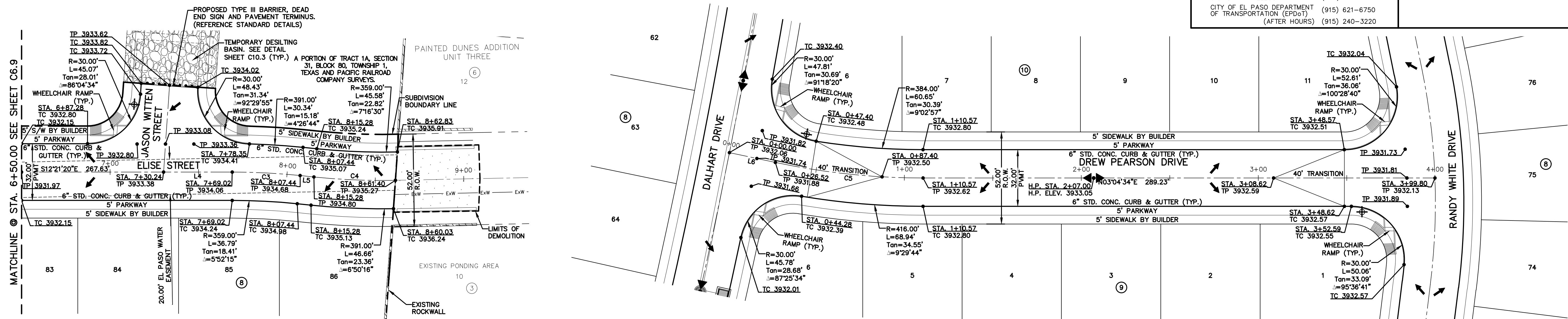
PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**ELISE STREET PLAN & PROFILE FROM STA. 6+50.00 TO STA. 9+09.17**

**DREW PEARSON DRIVE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 3+99.80**

SHEET NO.

**C6.10**

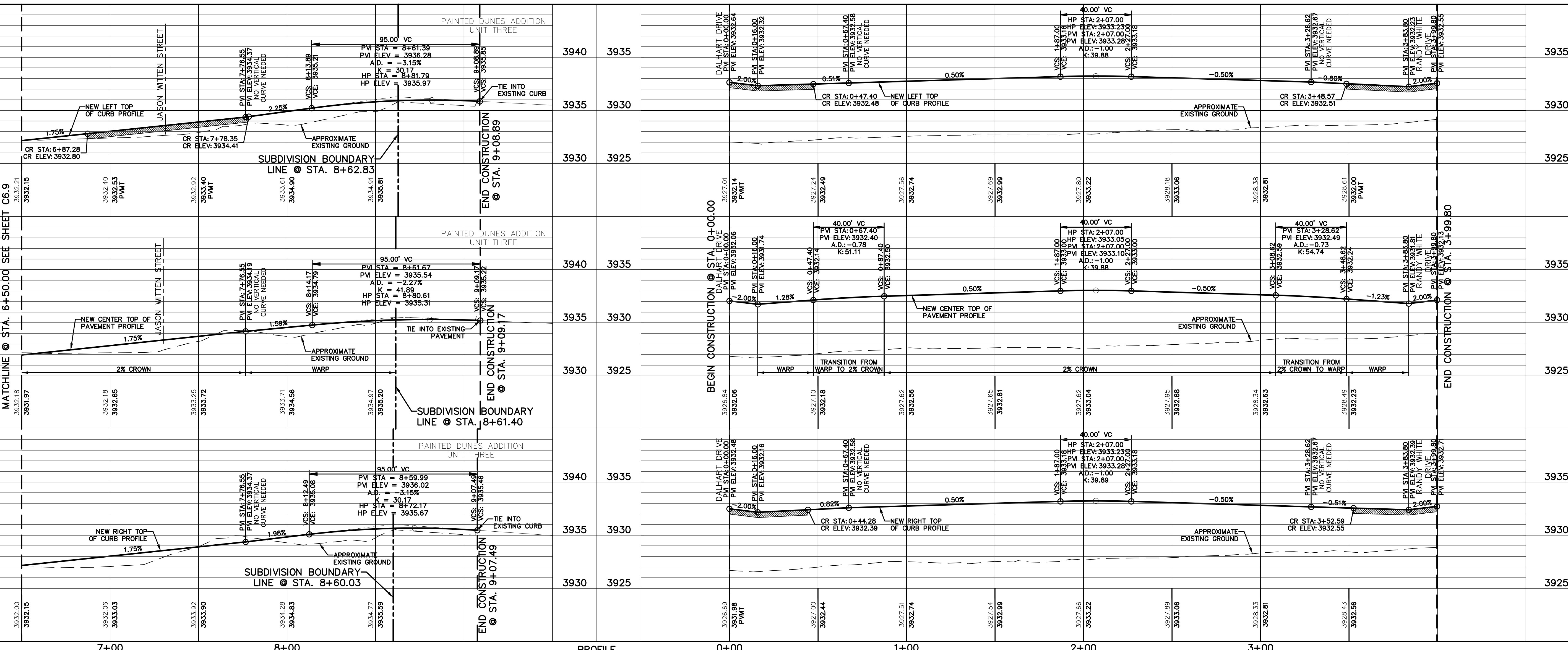


PLAN

PLAN

LEGEND

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



PROFILE

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

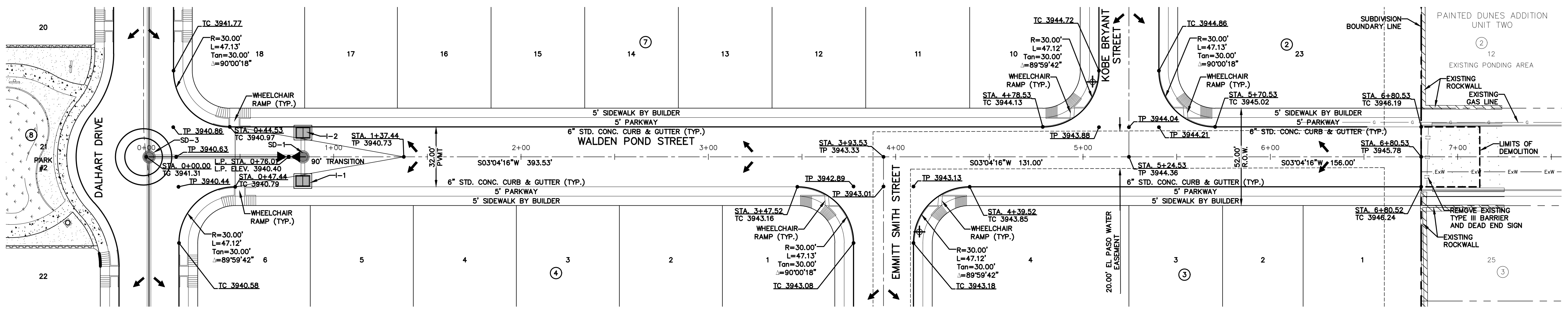
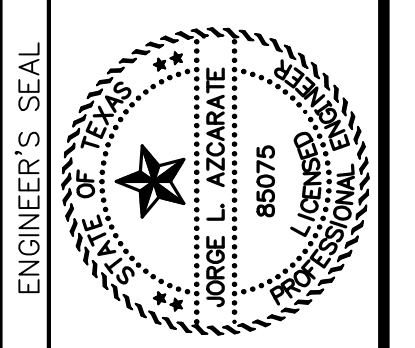


UTILITY LOCATOR SERVICES		
EL PASO ELECTRIC COMPANY	(915) 543-5720	
EL PASO ENERGY CORPORATION	(915) 496-5244	
EL PASO WATER UTILITIES	(915) 594-5500	
MCI SURVEILLANCE	(800) MCI-WORK	
TIME WARNER COMMUNICATIONS	(915) 772-1123	
TEXAS GAS SERVICE	(915) 680-7200	
SBC	(800) 545-6005	
AT&T	(800) 852-3786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

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

DATE	REVISIONS	BY

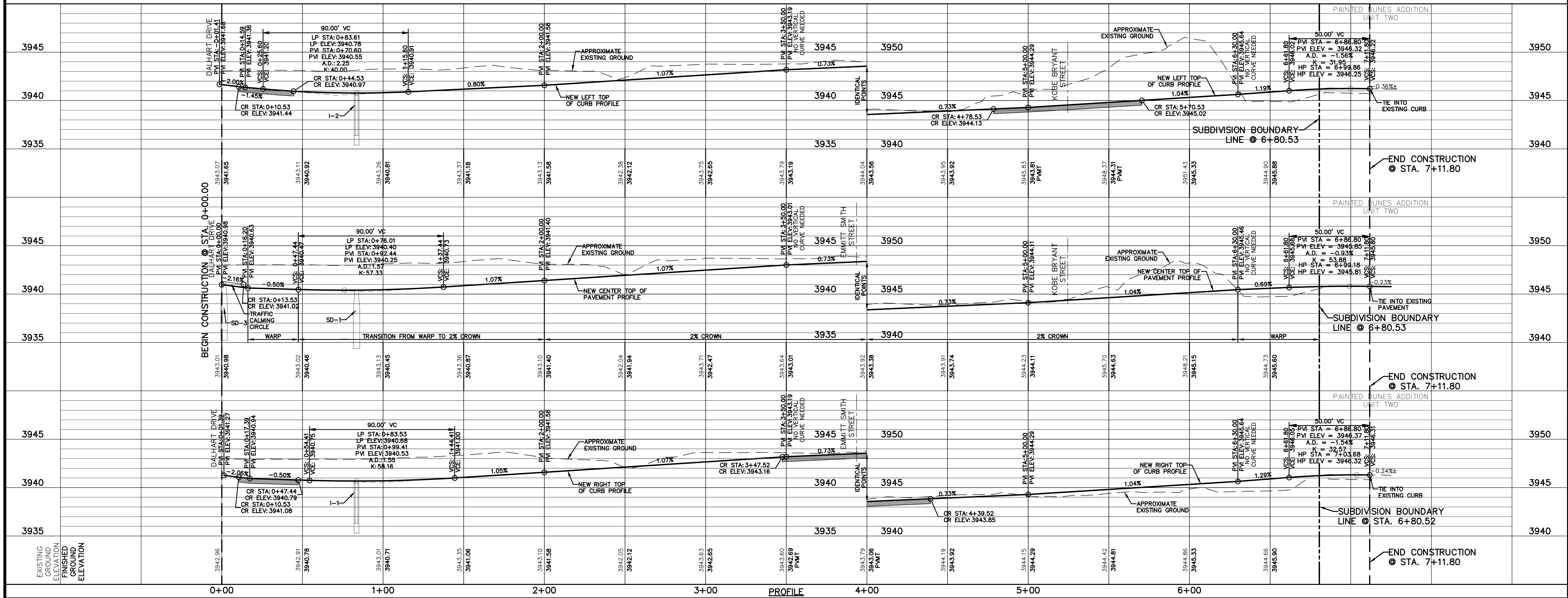
813 N. Kansas St.  
Suite 300  
El Paso, TX 79902  
EIPASO, TX 79902  
915.544.5232  
www.ceegroup.net  
TEXAS REGISTERED ENGINEERING FIRM F-4564



PLAN

**LEGEND**

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



SCALE: Horizontal: 1"=30'  
Vertical: 1"=5'  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
JOB No. 2000-2241D

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

PROJECT TITLE  
SHEET TITLE  
WALDEN POND STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 7+11.80  
SHEET NO.

C6.11



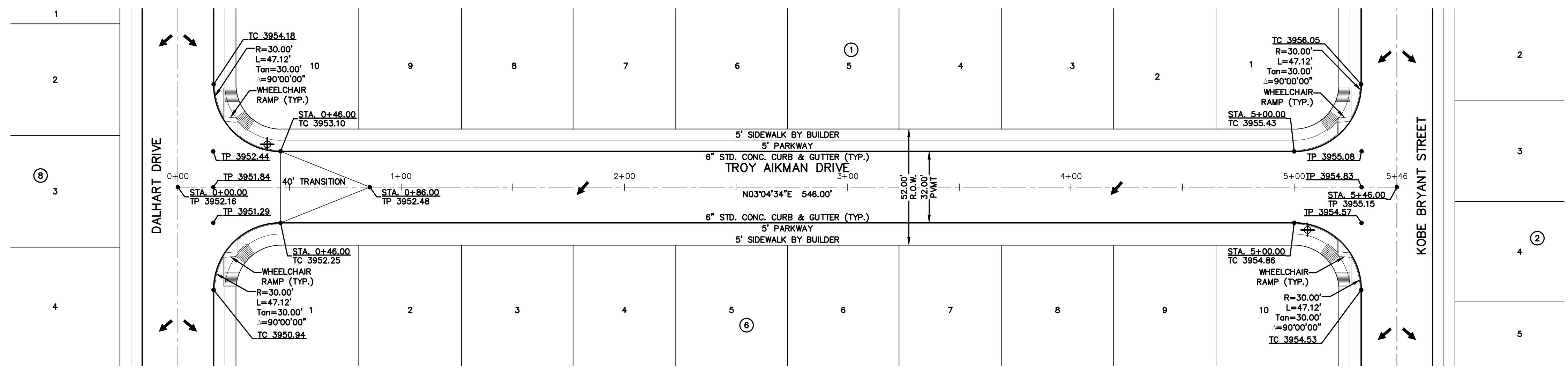
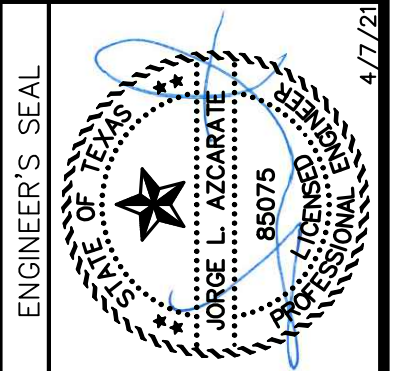
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

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

DATE	REVISIONS	BY

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El Paso, TX 79902  
915.544.5232  
www.ceegroup.net

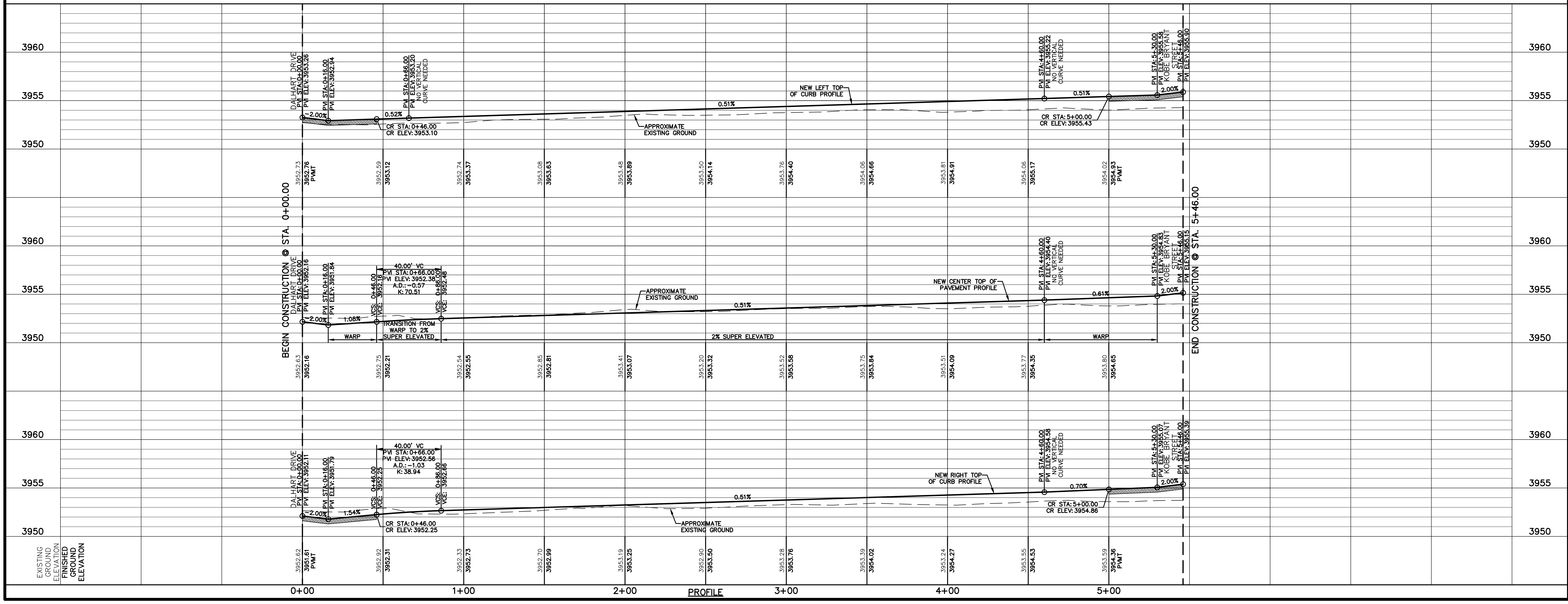
**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564



PLAN

**LEGEND**

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



SCALE	
Horizontal: 1" = 30'	Vertical: 1" = 5'
Contour Interval: N/A	
DATE: APRIL 2021	
DESIGN BY: C.J. / R.O.	
DRAWN BY: K.P./C.D.	
CHKD. BY: F.Z.	
APPD. BY: J.L.A.	
JOB No. : 2000-224.D	

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE

TROY AIKMAN DRIVE  
PLAN & PROFILE  
FROM STA. 0+00.00  
TO STA. 5+46.00

SHEET NO.

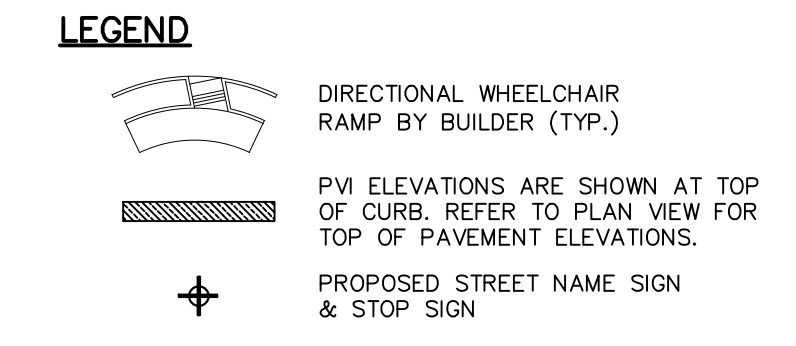
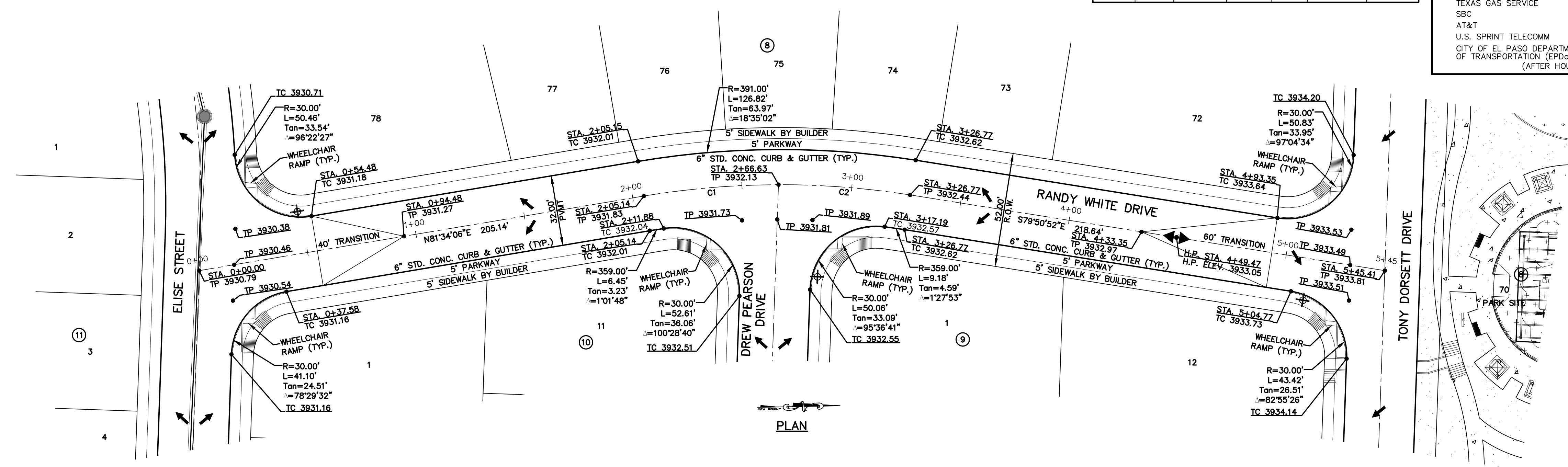
**C6.12**



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	375.00'	61.48'	30.81'	61.42'	S86°15'56"W	009°23'39"
C2	375.00'	60.15'	30.14'	60.08'	N84°26'33"W	009°11'23"

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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

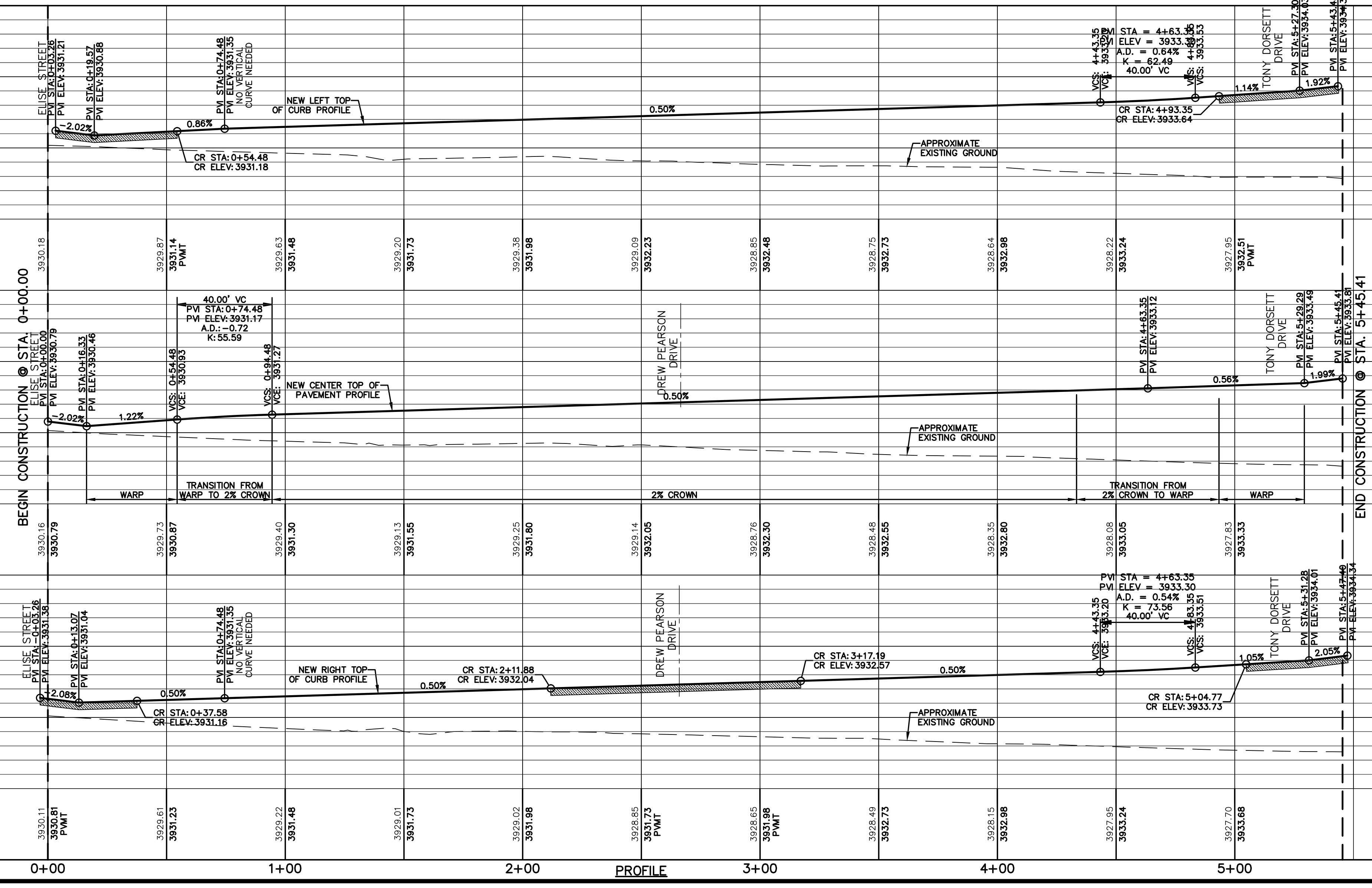


REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLOSDALE DRIVE AND PALOMINO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
REVISIONS: \_\_\_\_\_

813 N. Kansas St.  
Suite 300  
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915.544.5232  
www.ceegroup.net

**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

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



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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. 2000-2241D

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**RANDY WHITE DRIVE**  
**PLAN & PROFILE**  
**FROM STA. 0+00.00**  
**TO STA. 5+45.41**

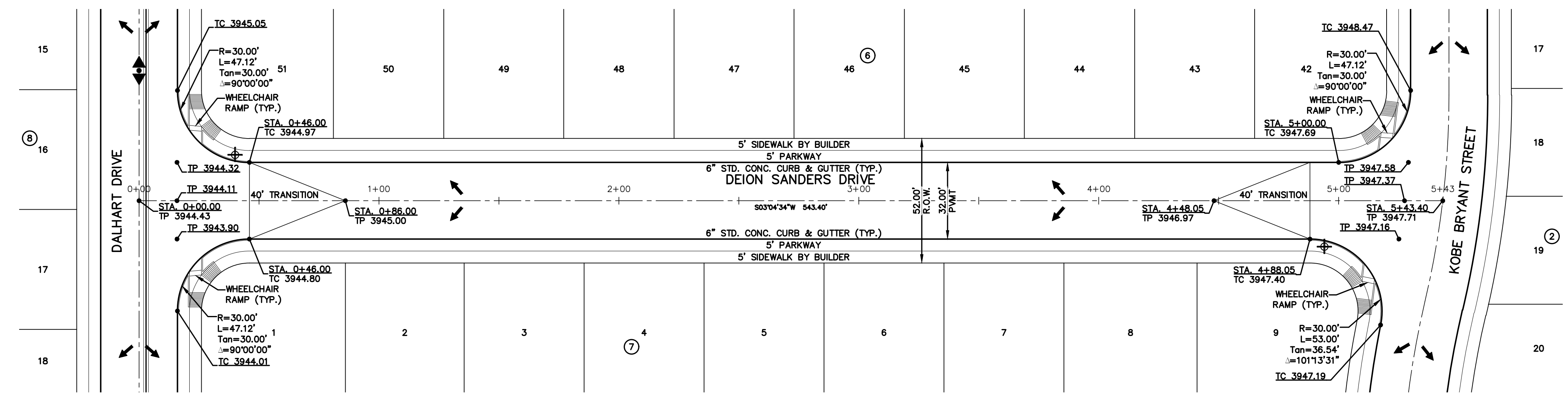
SHEET NO.  
**C6.13**



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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

DATE	REVISIONS	BY



PLAN

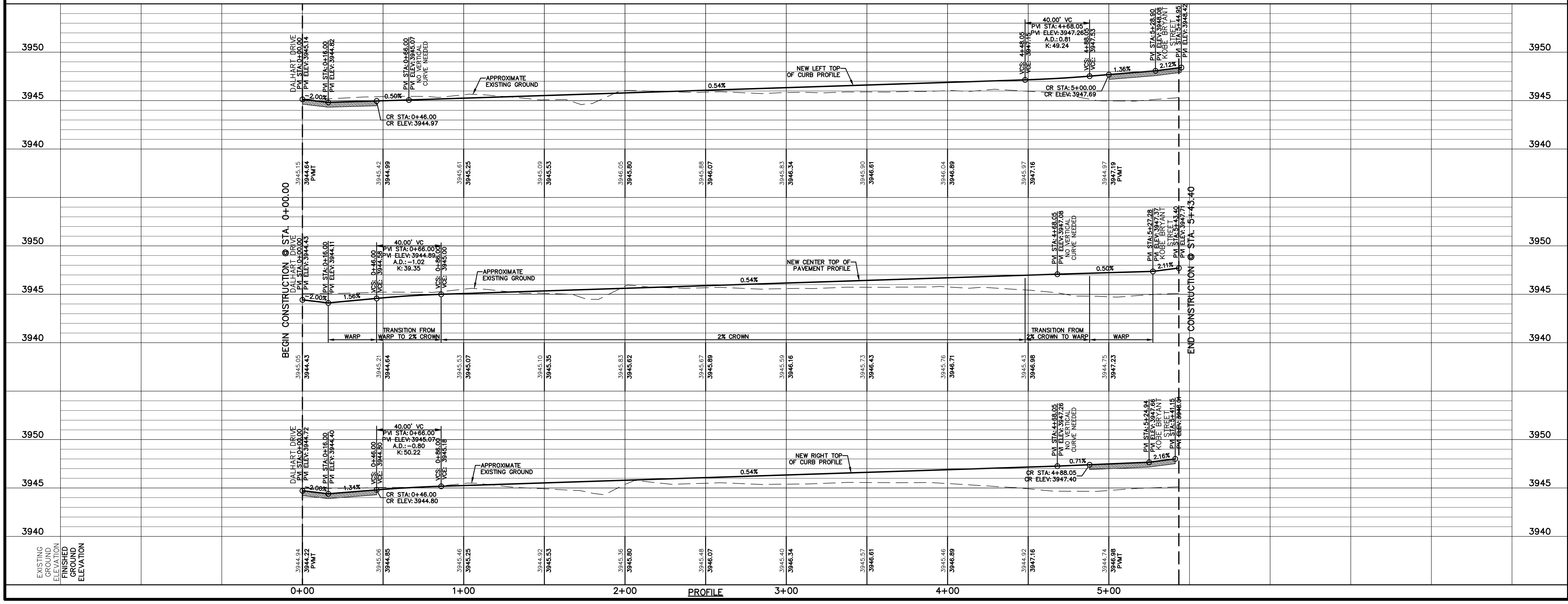
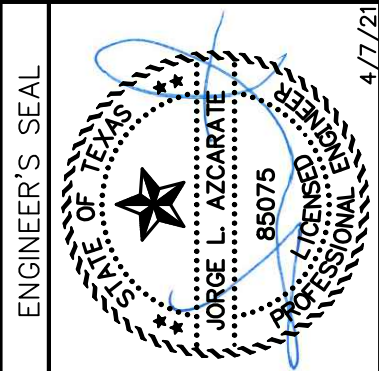
LEGEND

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

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLOSDALE DRIVE AND PALOMINO STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24' (CITY DATUM)

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



SCALE: 1" = 30'

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

Contour Interval: N/A

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
 JOB No. 2000-224.D

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**DEION SANDERS DRIVE PLAN & PROFILE FROM STA. 0+00.00 TO STA. 5+43.40**

SHEET NO.  
**C6.14**

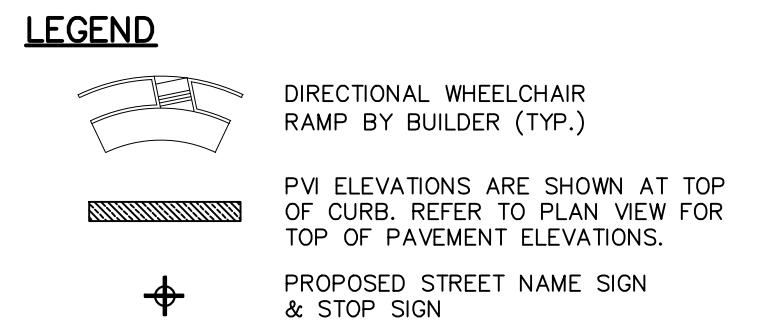
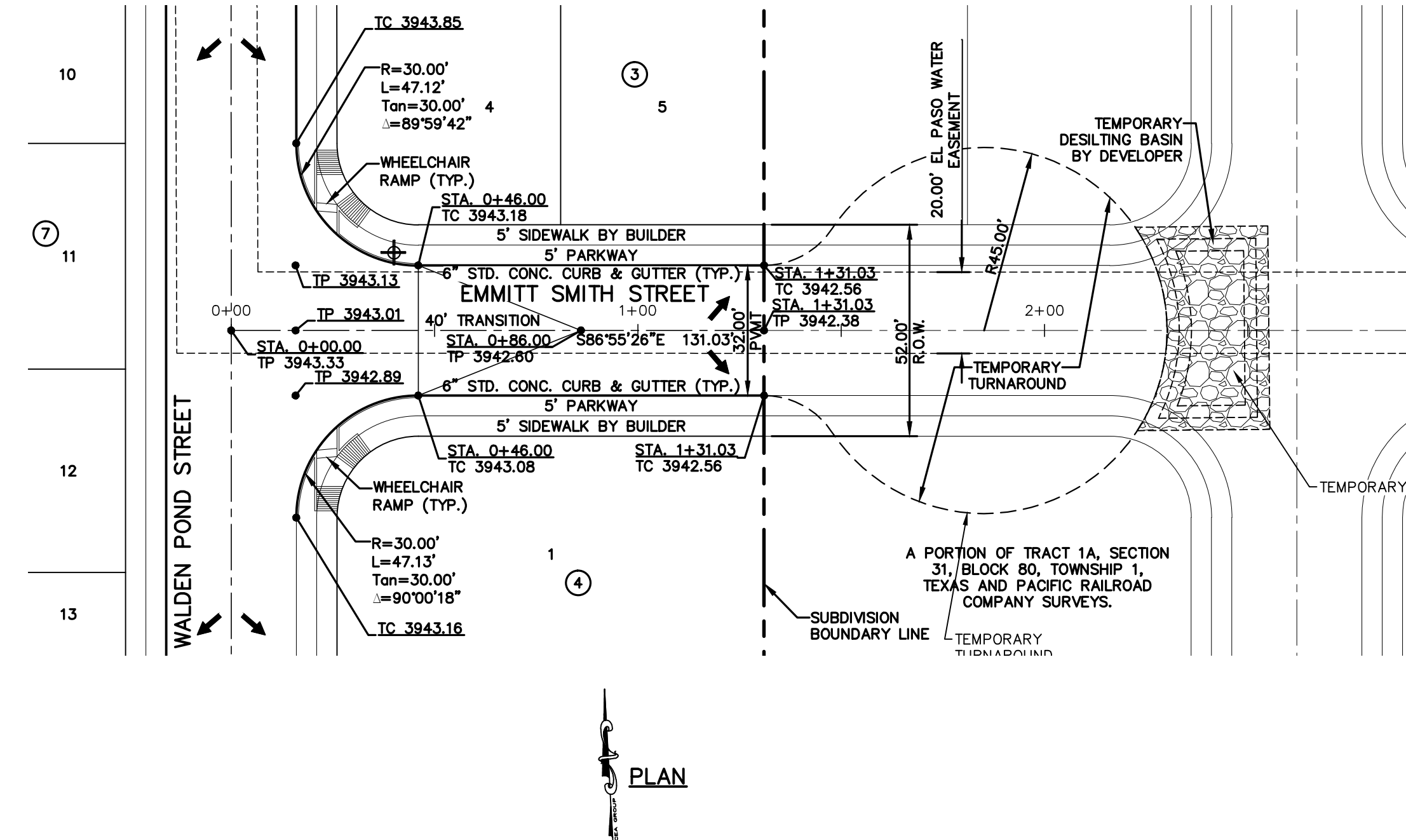


UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

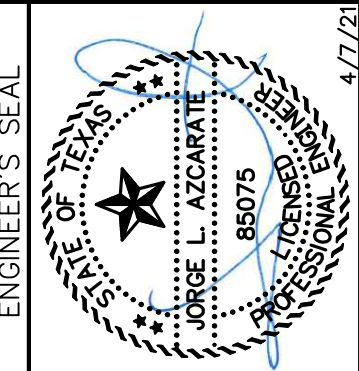
REFERENCES - BENCHMARKS	CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLOSDALE DRIVE AND PALOMINO STREET
ELEVATION:	3939.32 (NAD 88)
ELEVATION:	3928.24' (CITY DATUM)
DATE	REVISIONS
BY	



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Suite 300  
El Paso, TX 79902  
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TEXAS REGISTERED ENGINEERING FIRM F-4564



EXISTING GROUND ELEVATION	FINISHED GROUND ELEVATION	PROFILE	PROJECT TITLE	SHEET NO.
3945		3945	VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS	3945
3940		3940		3940
3935		3935		3935
3945		3945		3945
3940		3940		3940
3935		3935		3935
3945		3945		3945
3940		3940		3940
3935		3935		3935
3945		3945		3945
3940		3940		3940
3935		3935		3935

SCALE: 1" = 30'

Horizontal: 1" = 5'

Vertical: 1" = 5'

Contour Interval: N/A

DATE: APRIL 2021

DESIGN BY: C.J. / R.O.

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

CHKD. BY: F.Z.

APPVD. BY: J.L.A.

JOB No. 2000-224LD

PROJECT TITLE

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE

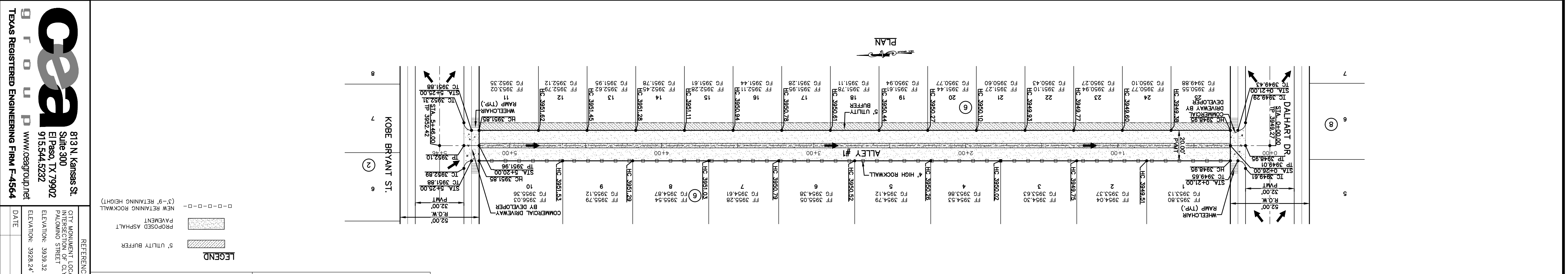
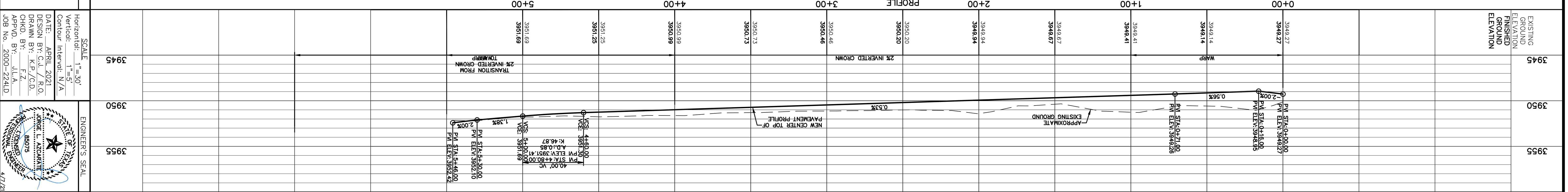
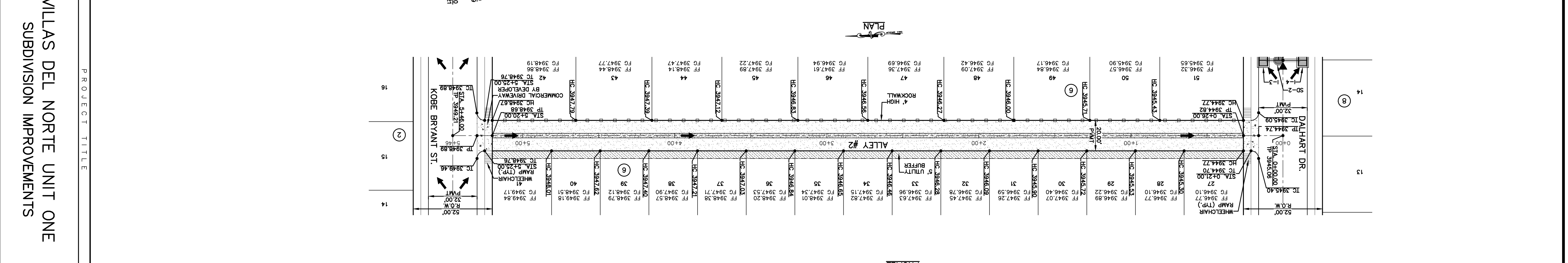
**EMMITT SMITH STREET PLAN & PROFILE FROM STA. 0+00.00 TO STA. 1+31.03**

SHEET NO.

**C6.15**



EXISTING FINISHED GROUND ELEVATION	EXISTING ELEVATION	3940	3945	3950
3946.06	3949.27			
3946.06	3949.27			
3946.02	3949.14			
3946.02	3949.14			
3946.35	3949.41			
3946.35	3949.41			
3946.64	3949.67			
3946.64	3949.67			
3946.64	3949.67			
3946.93	3949.94			
3946.93	3949.94			
3947.22	3950.20			
3947.22	3950.20			
3947.44	3950.46			
3947.44	3950.46			
3947.70	3950.73			
3947.70	3950.73			
3948.27	3951.25			
3948.27	3951.25			
3948.27	3951.25			



**WARNING! BEFORE YOU DIG CALL 811**

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO ENERGY CORPORATION (915) 456-5244  
 EL PASO WATER UTILITIES (915) 544-5500  
 MCI SURVEILLANCE (800) MCI-WORK  
 TIME WARNER COMMUNICATIONS (915) 772-1123  
 TEXAS GAS SERVICE (915) 660-7200  
 SBC (800) 545-6005  
 ART (800) 852-3786  
 U.S. SPRINT TELECOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

REFERENCES - BENCHMARKS  
 CITY ANUMENT LOCATED AT THE INTERSECTION OF PALMINDO STREET AND ELEVATION: 3928.24' (CITY DATUM)  
 DATE REVISIONS BY

LEGEND  
 NEW RETAINING ROCKWALL (3'-9" RETAINING HEIGHT)  
 PROPOSED ASPHALT PAVEMENT  
 5' UTILITY BUFFER

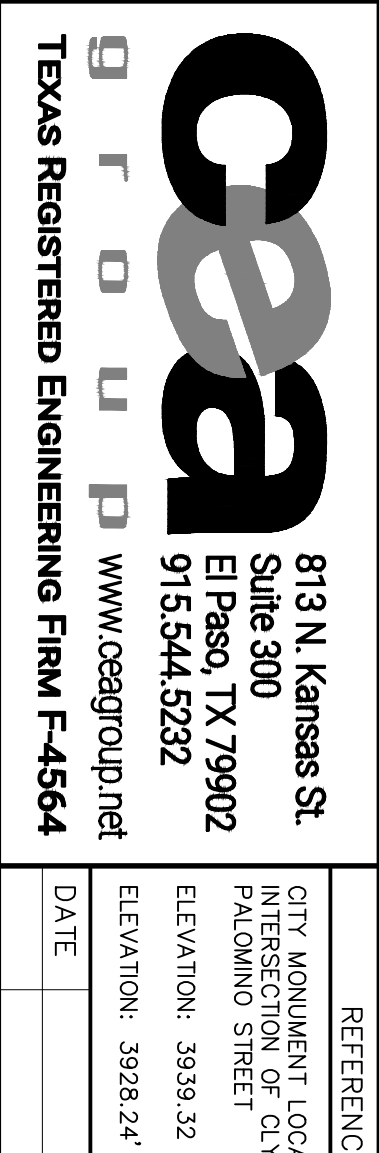
813 N. Kansas St.  
 Suite 300  
 El Paso, TX 79902  
 915.544.5232  
 www.ceegroup.net  
 TEXAS REGISTERED ENGINEERING FIRM F-4564

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**ALLEY #1**  
 FROM STA. 0+00.00  
 PLAN & PROFILE  
 ALLEY #2  
 FROM STA. 0+00.00  
 PLAN & PROFILE  
 SHEET NO.  
**C6.16**

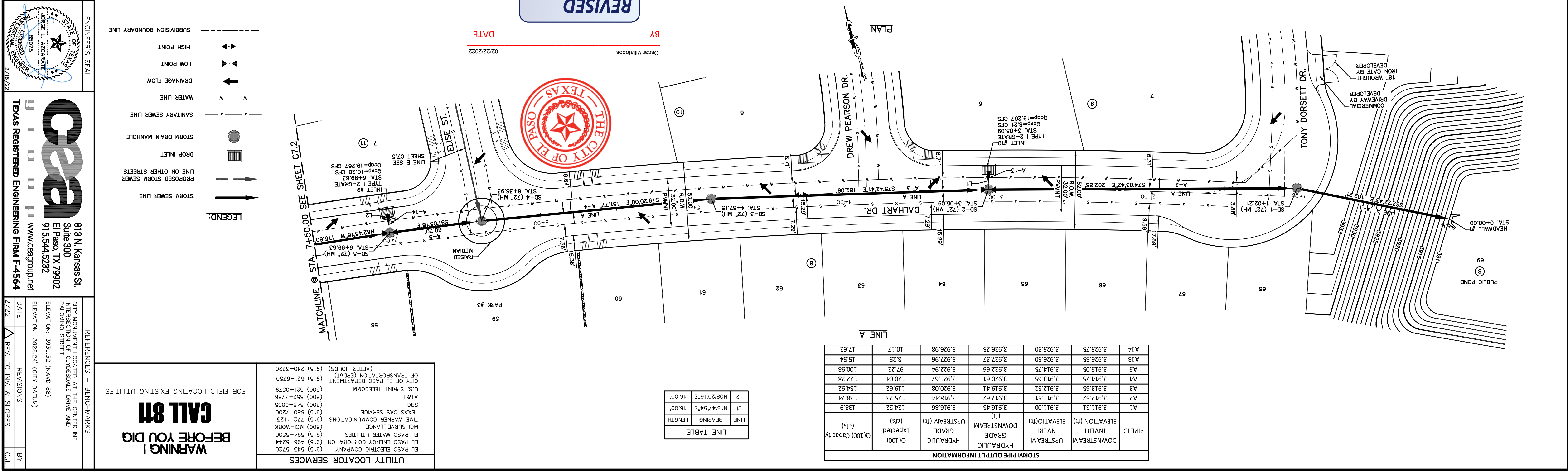
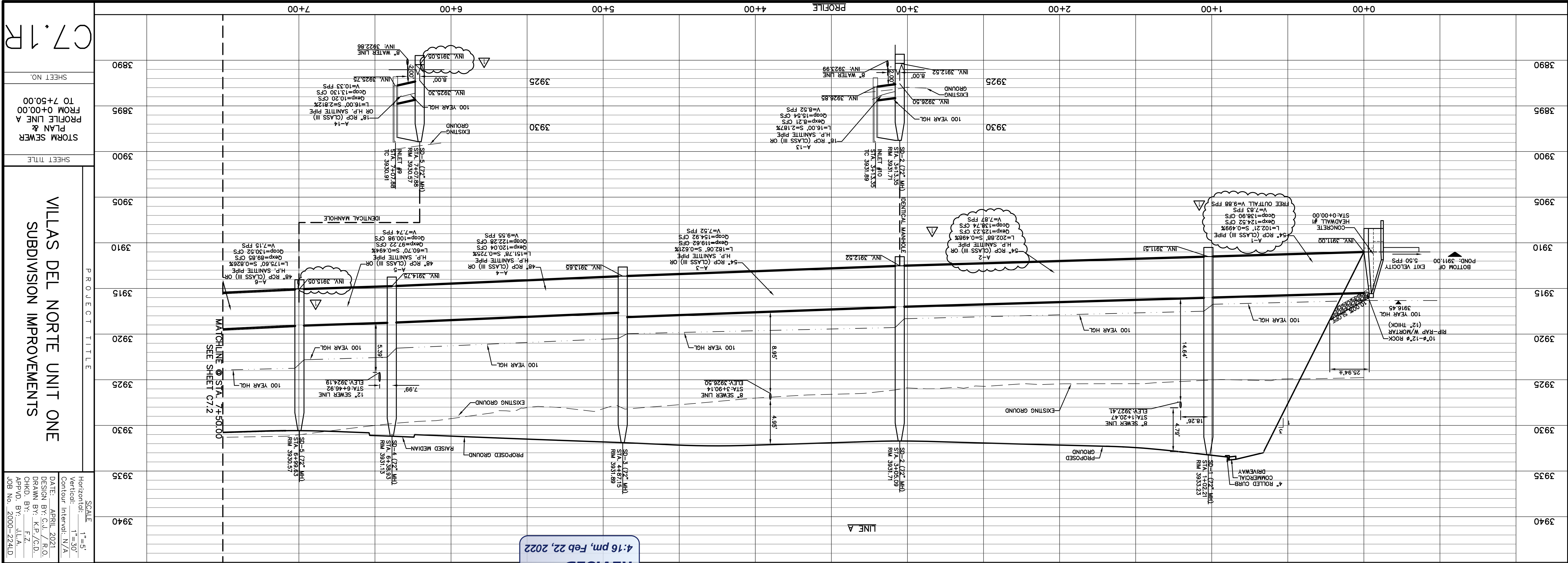
SCALE  
 Horizontal: 1" = 30'  
 Vertical: 1" = 5'  
 Contour Interval: N/A

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: J.L.A.  
 APP'D. BY: J.L.A.  
 JOB NO.: 2000-2241D



ENGINEER'S SEAL





STORM PIPE OUTPUT INFORMATION

PIPE ID	DOWNSTREAM ELEVATION (ft)	UPSTREAM ELEVATION (ft)	HYDRAULIC GRADE Expected (ft)	Q(100) Capacity (cfs)
A1	3,911.51	3,911.00	3,916.86	124.52
A2	3,912.52	3,911.51	3,918.44	125.23
A3	3,913.65	3,912.52	3,919.41	119.62
A4	3,914.75	3,913.65	3,921.67	120.04
A5	3,915.05	3,914.75	3,922.66	97.22
A13	3,926.85	3,927.37	3,927.96	8.25
A14	3,925.75	3,926.50	3,926.98	10.17

LINE TABLE

LINE	BEARING	LENGTH
L1	N15°47'54"E	16.00'
L2	N08°20'16"E	16.00'

**WARNING! BEFORE YOU DIG**

**CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO ENERGY CORPORATION (915) 456-5244  
 EL PASO WATER CORPORATION (915) 524-5500  
 MCI SURVEILLANCE (800) 772-1123  
 TIME WARNER COMMUNICATIONS (915) 722-1123  
 TEXAS GAS SERVICE (915) 680-7200  
 SBC (800) 545-6005  
 ARKI (800) 852-3786  
 U.S. SPINNT TELCOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

ENGINEER'S SEAL

DATE: 02/22/2022

BY: Oscar Villalobos

REVISIONS

DATE: 2/22

REV. TO INV. & SLOPES

BY: C.A.L.

PROJECT TITLE

VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

SCALE: 1"=5'

Horizontal: 1"=50'

Vertical: Interval N/A

DATE: APRIL 2021

DESIGN BY: C.J./R.O.

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

CHKD. BY: F.Z.

APPD. BY: J.L.A.

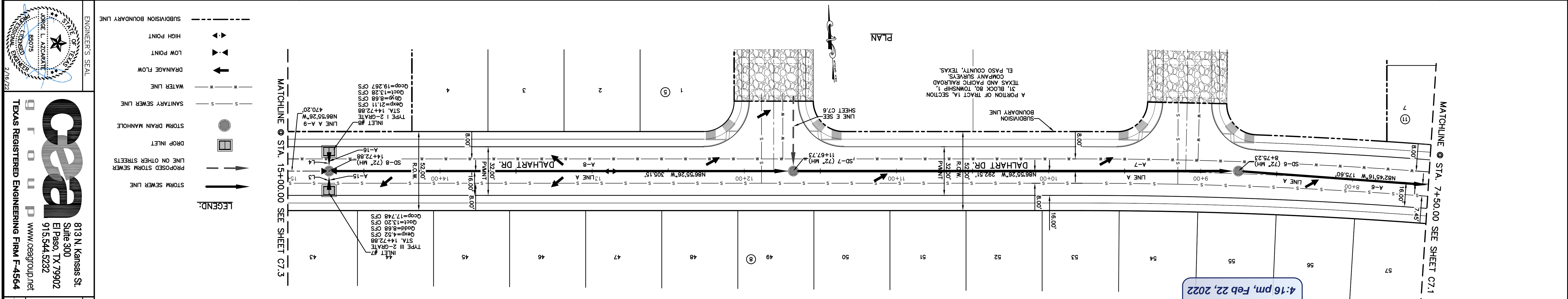
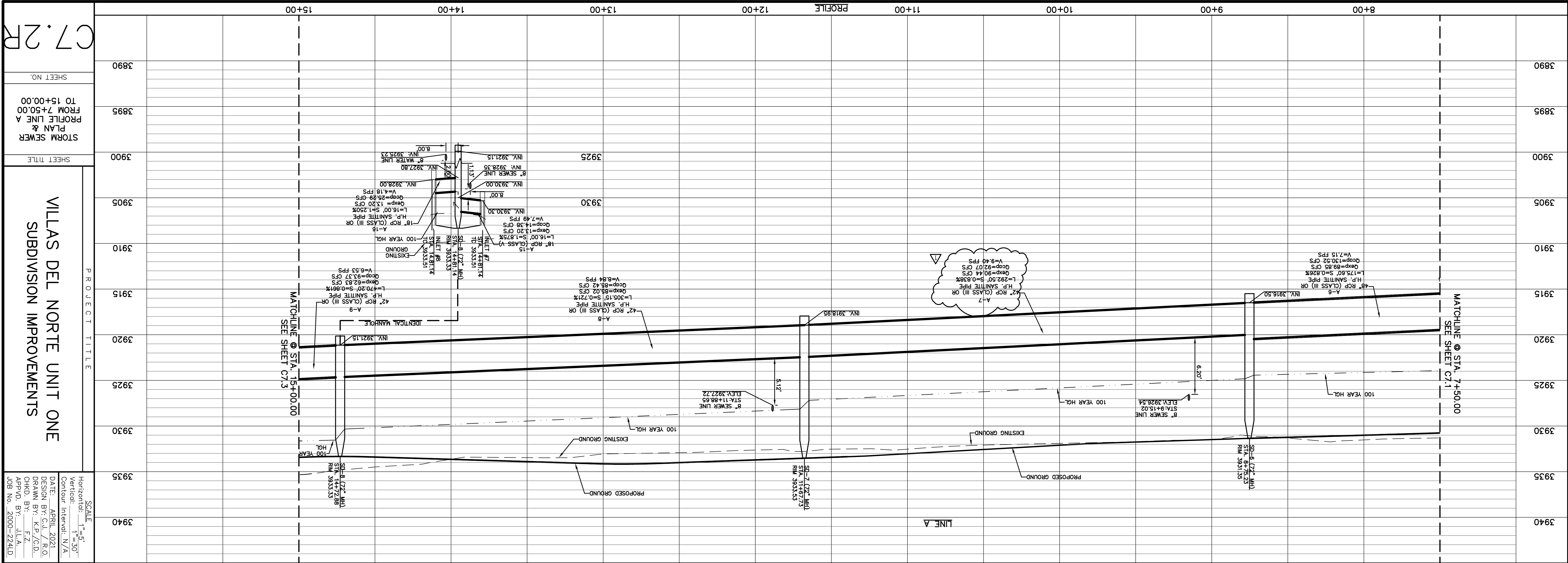
JOB NO.: 2000-2241D

SHEET NO. 7+50.00

STORM SEWER PLAN & PROFILE LINE A FROM 0+00.00 TO 7+50.00

C7.1R





**STORM PIPE OUTPUT INFORMATION**

PIPE ID	DOWNSTREAM	INVERT	GRADE	UPSTREAM	HYDRAULIC	DOWNSTREAM	INVERT	UPSTREAM	HYDRAULIC	GRADE	UPSTREAM	EXPECTED	EXPECTED	Q(100) Capacity
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	(cfs)	(cfs)
A6	3,916.50	3,915.05	3,922.87	3,924.56	89.85	130.52								
A7	3,918.95	3,916.50	3,924.56	3,927.32	90.44	92.07								
A8	3,921.15	3,918.95	3,928.28	3,930.46	85.02	85.42								
A15	3,930.00	3,931.93	3,931.67	3,931.93	13.23	14.38								
A16	3,928.00	3,927.80	3,931.67	3,931.73	13.14	25.29								

**UTILITY LOCATOR SERVICES**

EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO WATER UTILITIES (915) 456-5244  
 EL PASO ENERGY CORPORATION (915) 456-5244  
 MCI SURVEILLANCE (800) MCI-WORK  
 TIME WARNER COMMUNICATIONS (915) 772-1123  
 TEXAS GAS SERVICE (915) 680-6000-7200  
 SBC (800) 545-6005  
 ATRK (800) 852-3788  
 U.S. SPRINT TELECOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

**WARNING!**  
BEFORE YOU DIG  
**CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

DATE: 02/22/2022

BY: Oscar Villalobos

REVISIONS

REV. TO INV. & SLOPES

SHEET NO. 3890  
 SHEET TITLE: STORM SEWER PLAN & PROFILE LINE A FROM 7+50.00 TO 15+00.00  
 PROJECT TITLE: VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS  
 SCALE: Horizontal: 1"=50', Vertical: 1"=30'  
 DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPD. BY: J.L.A.  
 JOB NO.: 2000-2241D

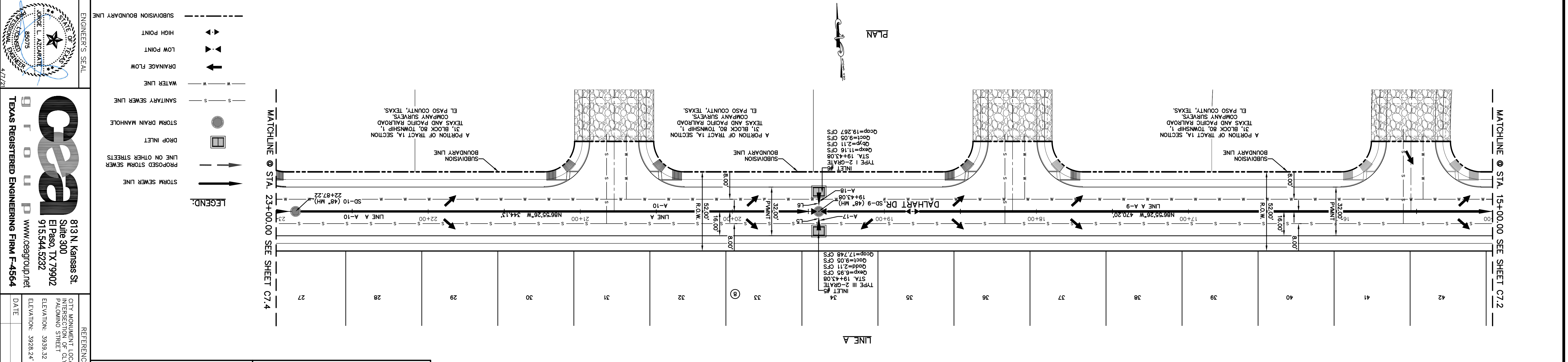
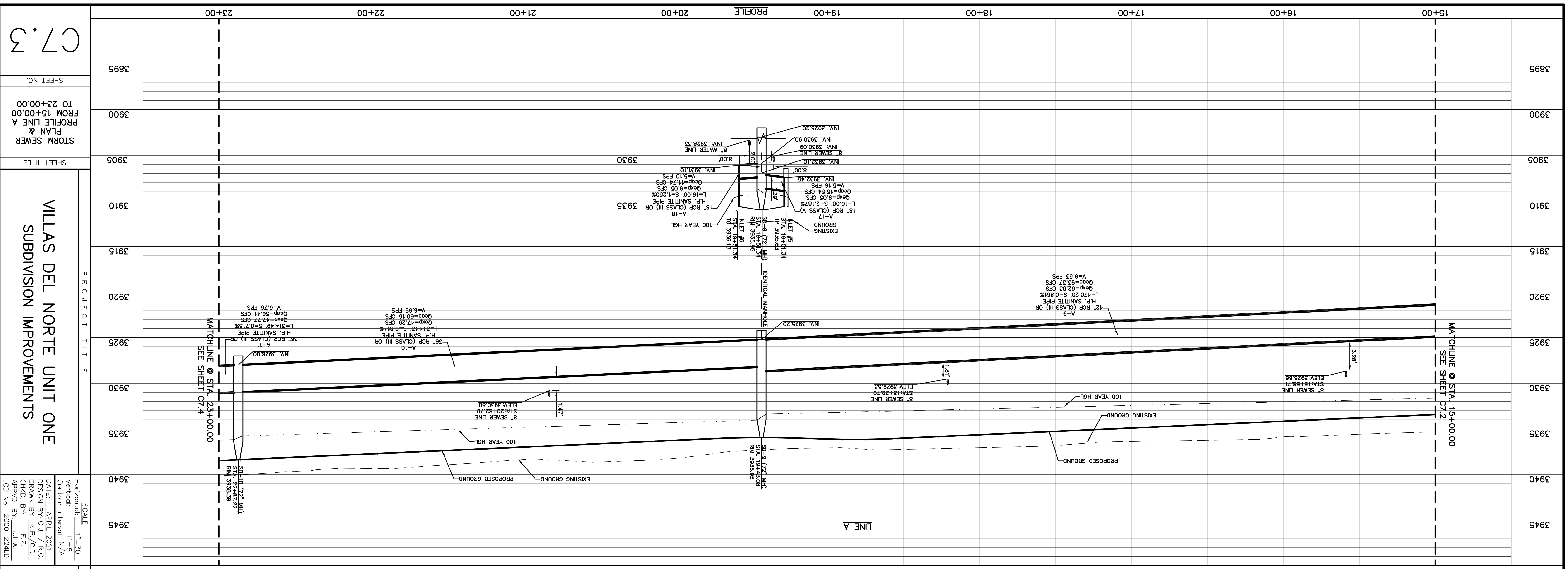
ENGINEER'S SEAL: JONGE L. AZCARRATE, LICENSED PROFESSIONAL ENGINEER, NO. 88079, EXPIRES 2/16/22  
 TEXAS REGISTERED ENGINEERING FIRM F-4564  
 813 N. Kansas St., Suite 300, El Paso, TX 79902  
 915.544.5232  
 www.oeaengr.com

REVISED  
 4:16 pm, Feb 22, 2022



C7.2R





STORM PIPE OUTPUT INFORMATION

PIPE ID	ELEVATION (ft)	UPSTREAM GRADE	UPSTREAM (ft)	DOWNSTREAM GRADE	DOWNSTREAM (ft)	Q(100) Expected	Q(100) Capacity
A18	3,931.10	3,932.10	3,934.17	3,921.15	3,933.51	62.83	93.37
A17	3,925.45	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37
A10	60.16	3,925.20	3,934.17	3,921.15	3,933.51	62.83	93.37
A9	3,925.20	3,921.15	3,931.67	3,921.15	3,933.51	62.83	93.37
ELEVATION (ft)	3,931.10	3,932.10	3,934.17	3,921.15	3,933.51	62.83	93.37
ELEVATION (ft)	3,925.45	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37
UPSTREAM GRADE	3,925.20	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37
UPSTREAM (ft)	3,925.20	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37
DOWNSTREAM GRADE	3,925.20	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37
DOWNSTREAM (ft)	3,925.20	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37
Q(100) Expected	3,925.20	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37
Q(100) Capacity	3,925.20	3,922.10	3,934.17	3,921.15	3,933.51	62.83	93.37

LINE TABLE

LINE	BEARING	LENGTH
L6	N03°04'34"E	16.00'
L5	S03°04'34"W	16.00'

UTILITY LOCATOR SERVICES  
 EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO ENERGY CORPORATION (915) 486-5244  
 EL PASO WATER UTILITIES (915) 524-5500  
 MCI SURVEILLANCE (800) MCI-WORK  
 TIME WARNER COMMUNICATIONS (915) 772-1123  
 TEXAS GAS SERVICE (915) 680-7200  
 SBC (800) 545-6005  
 ARKT (800) 852-3786  
 U.S. SPRINT TELECOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

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

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

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

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
 JOB No.: 2000-2241D

SHEET NO.  
 3895

SHEET TITLE  
 STORM SEWER  
 PLAN &  
 PROFILE LINE A  
 FROM 15+00.00  
 TO 23+00.00

C7.3

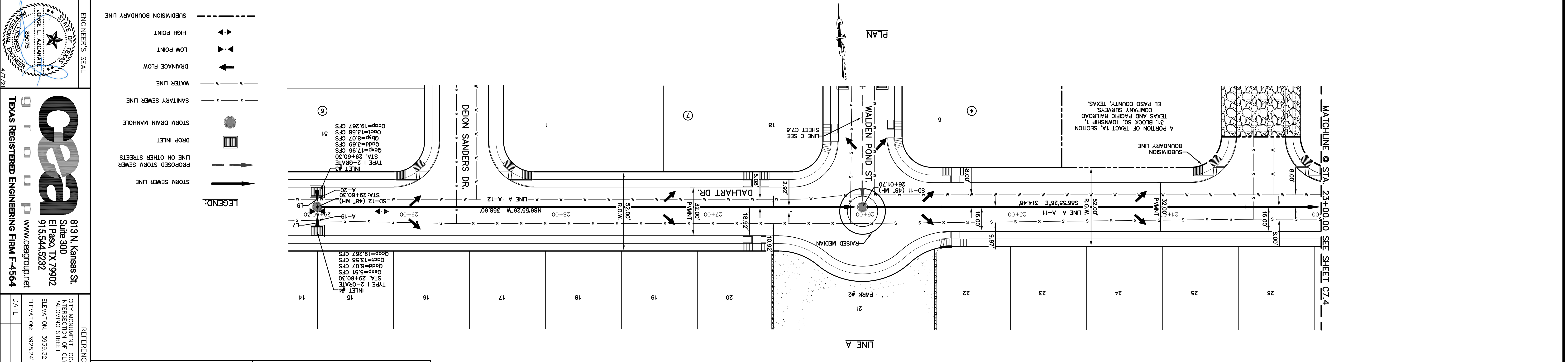
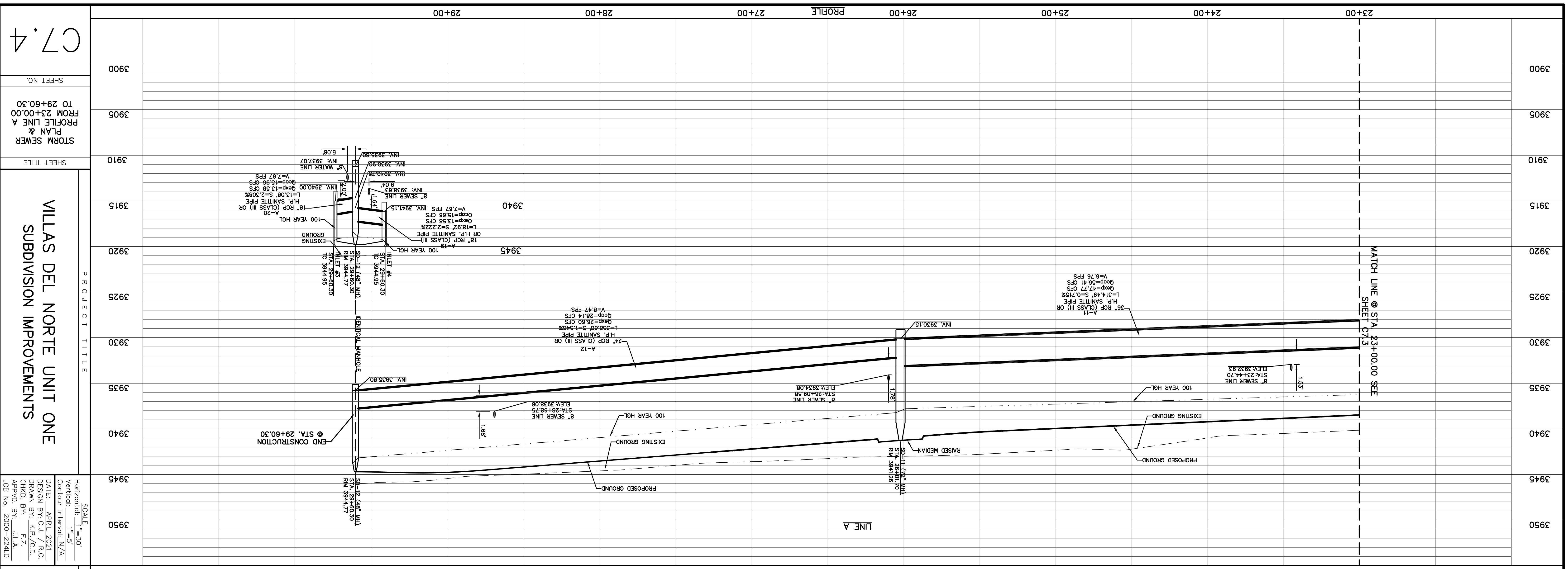
ENGINEER'S SEAL

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

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE INTERSECTION OF PALOMINO STREET AND  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24" (CITY DATUM)

DATE  
 REVISIONS





STORM PIPE OUTPUT INFORMATION

PIPE ID	UPSTREAM INVERT ELEVATION (ft)	UPSTREAM INVERT ELEVATION (ft)	GRADE	HYDRAULIC GRADE	Expected Q(100)	Expected Q(100) Capacity (cfs)
A11	3,930.25	3,928.00	3,927.93	3,927.93	47.77	56.41
A12	3,935.80	3,930.25	3,938.96	3,943.31	26.6	28.14
A19	3,941.15	3,940.75	3,943.98	3,944.28	13.56	15.66
A20	3,940.00	3,939.70	3,943.98	3,944.20	13.55	15.96

LINE TABLE

LINE	BEARING	LENGTH
L8	N03°04'34\"/>	

UTILITY LOCATOR SERVICES  
 EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO ENERGY CORPORATION (915) 456-5244  
 EL PASO WATER UTILITIES (915) 544-5500  
 MCI SURVEILLANCE (800) MCI-WORK  
 TIME WARNER COMMUNICATIONS (915) 772-1123  
 TEXAS GAS SERVICE (915) 680-7200  
 SBCC (800) 545-6005  
 AIRT (800) 852-3786  
 U.S. SPRINT TELECOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

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

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

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

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPD. BY: J.L.A.  
 JOB NO.: 2000-2241D

SHEET NO.  
 STORM SEWER  
 PLAN &  
 PROFILE LINE A  
 FROM 23+00.00  
 TO 29+60.30

SHEET TITLE  
 C7.4

ENGINEER'S SEAL

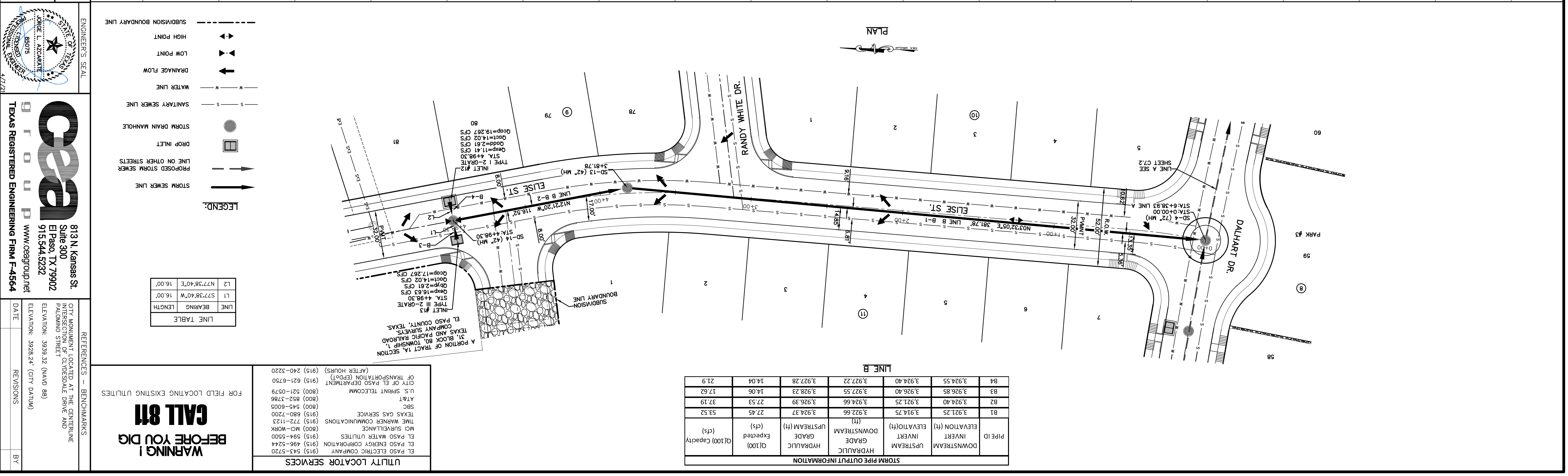
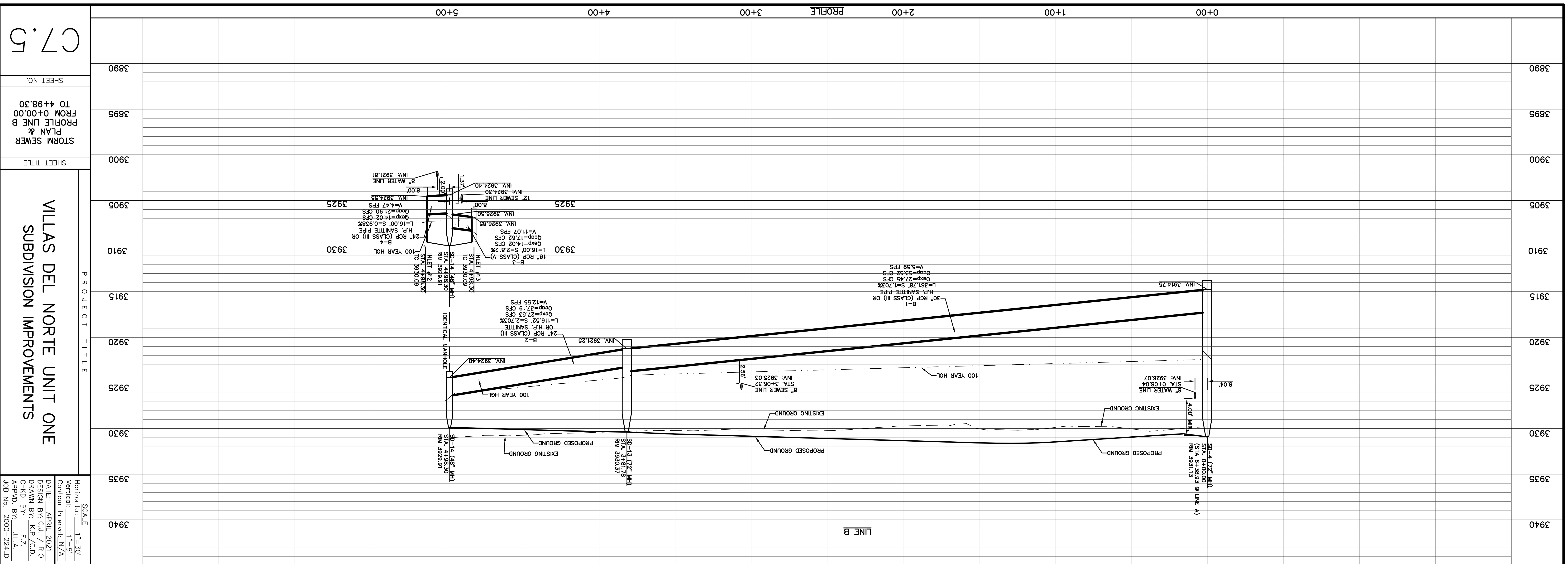
LEGEND:  
 SUBDIVISION BOUNDARY LINE  
 HIGH POINT  
 LOW POINT  
 DRAINAGE FLOW  
 WATER LINE  
 SANITARY SEWER LINE  
 STORM DRAIN MANHOLE  
 DROP INLET  
 PROPOSED STORM SEWER LINE ON OTHER STREETS  
 STORM SEWER LINE

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

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDESMITH DRIVE AND PALOMINO STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24" (CITY DATUM)

REVISIONS  
 DATE





**STORM PIPE OUTPUT INFORMATION**

PIPE ID	UPSTREAM INVERT	ELEVATION (ft)	UPSTREAM (ft)	DOWNSTREAM (ft)	GRADE UPSTREAM (ft)	HYDRAULIC UPSTREAM (ft)	Expected (cfs)	Expected (ft)	Q(100) Capacity
B1	3,921.25	3,914.75	3,922.66	3,924.37	3,924.37	3,924.37	27.45	27.53	53.52
B2	3,924.40	3,921.25	3,924.66	3,926.39	3,926.39	3,926.39	27.53	27.53	53.52
B3	3,926.85	3,926.40	3,927.55	3,928.23	3,928.23	3,928.23	17.62	17.62	21.9
B4	3,924.55	3,924.40	3,927.22	3,927.28	3,927.28	3,927.28	14.04	14.04	21.9

**UTILITY LOCATOR SERVICES**

UTILITY LOCATOR SERVICES	CONTACT INFORMATION
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
ARKAT	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

**LINE TABLE**

LINE	BEARING	LENGTH
L1	S77°38'40"W	16.00'
L2	N77°38'40"E	16.00'

**WARNING!**  
BEFORE YOU DIG  
CALL 811

FOR FIELD LOCATING EXISTING UTILITIES

**PROJECT TITLE**  
VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

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

**DATE:** APRIL 2021  
**DESIGN BY:** C.J. / R.O.  
**DRAWN BY:** K.P./C.D.  
**CHKD. BY:** F.Z.  
**APPD. BY:** J.L.A.  
**JOB No.:** 2000-2241D

**ENGINEER'S SEAL**  
JONGE L. AZCARRATE  
Professional Engineer  
No. 88079  
4/27/21

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

**REFERENCES - BENCHMARKS**  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDESDALE DRIVE AND PALOMINO STREET  
ELEVATION: 3939.52 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

**REVISIONS**

**BY**

**SHEET TITLE**  
STORM SEWER  
PLAN &  
PROFILE LINE B  
FROM 0+00.00  
TO 4+98.30

**SHEET NO.**  
C7.5

**DATE**



STORM PIPE OUTPUT INFORMATION			
PIPE ID	ELEVATION (ft)	ELEVATION (ft)	(Q100) Capacity (cfs)
D1	3,935.30	3,934.00	3,935.30
D2	3,936.55	3,936.40	3,935.50
D3	3,935.50	3,938.79	3,935.50

STORM PIPE OUTPUT INFORMATION			
PIPE ID	ELEVATION (ft)	ELEVATION (ft)	(Q100) Capacity (cfs)
D1	3,935.30	3,934.00	3,935.30
D2	3,936.55	3,936.40	3,935.50
D3	3,935.50	3,938.79	3,935.50

STORM PIPE OUTPUT INFORMATION			
PIPE ID	INVERT ELEVATION (ft)	UPSTREAM GRADE ELEVATION (ft)	(Q100) Capacity (cfs)
E1	3,926.75	3,924.50	3,926.75
E2	3,928.28	3,928.28	3,928.28
E3	3,929.85	3,929.85	3,929.85

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 524-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-6800
SBC	(800) 545-6005
ARKAT	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 852-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

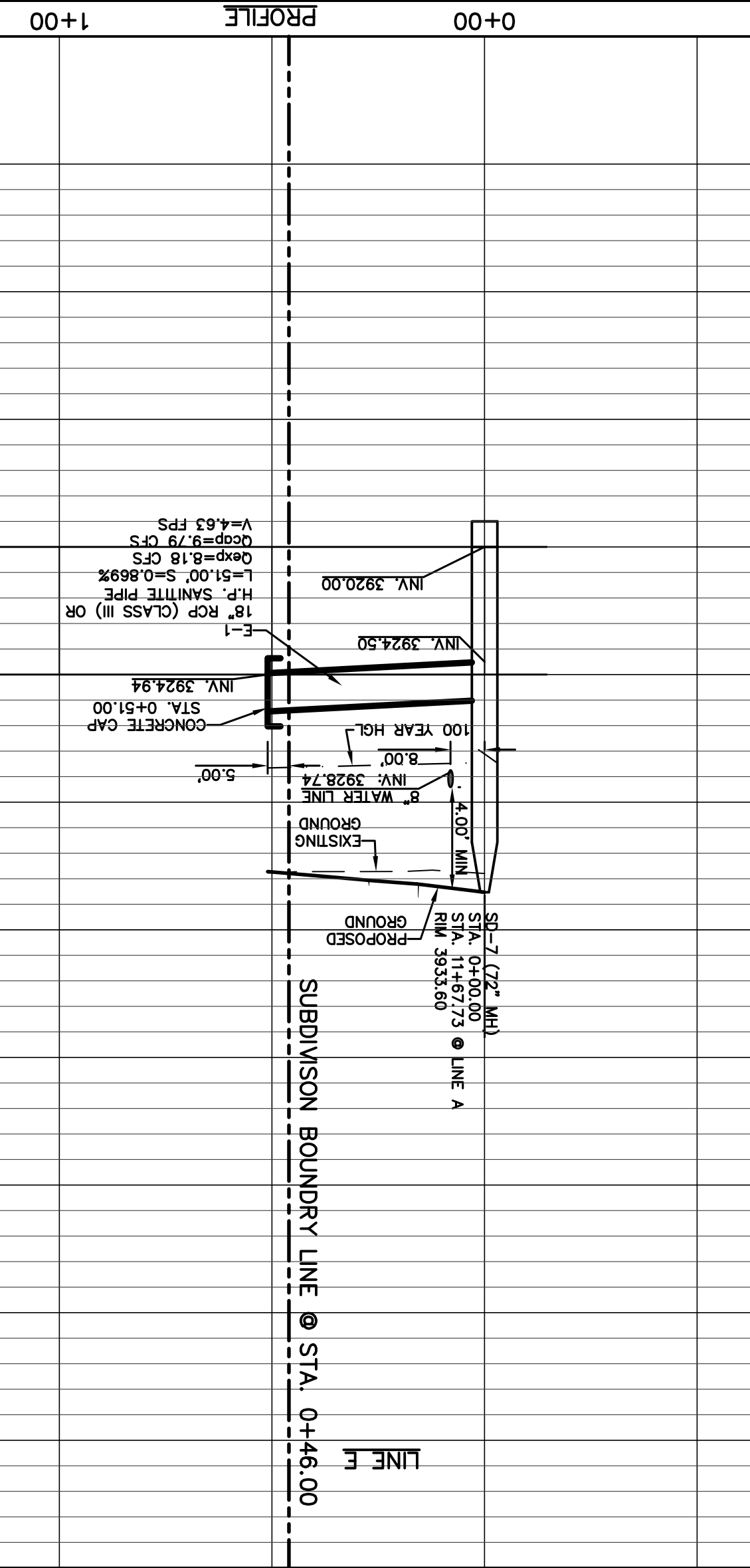
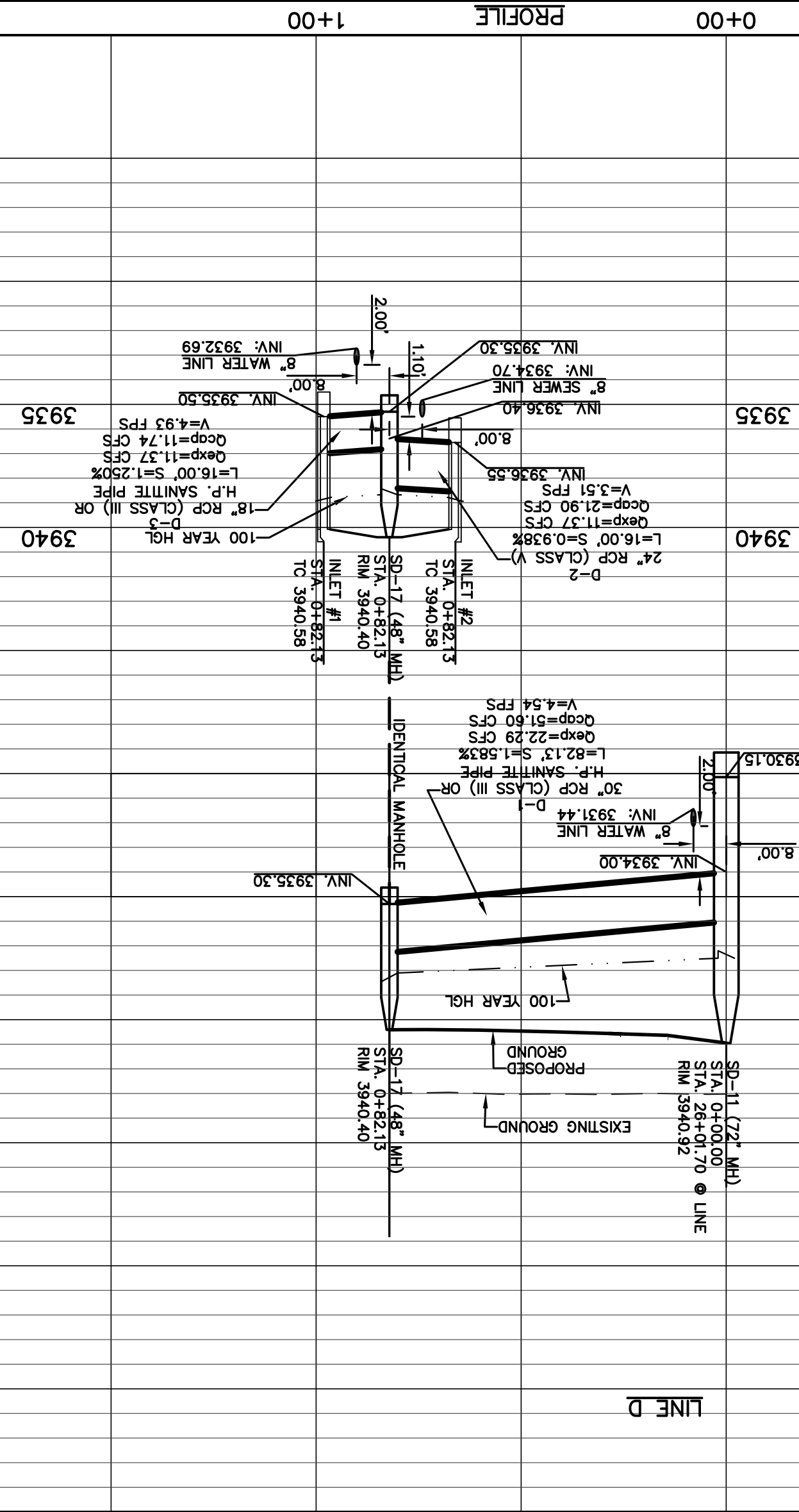
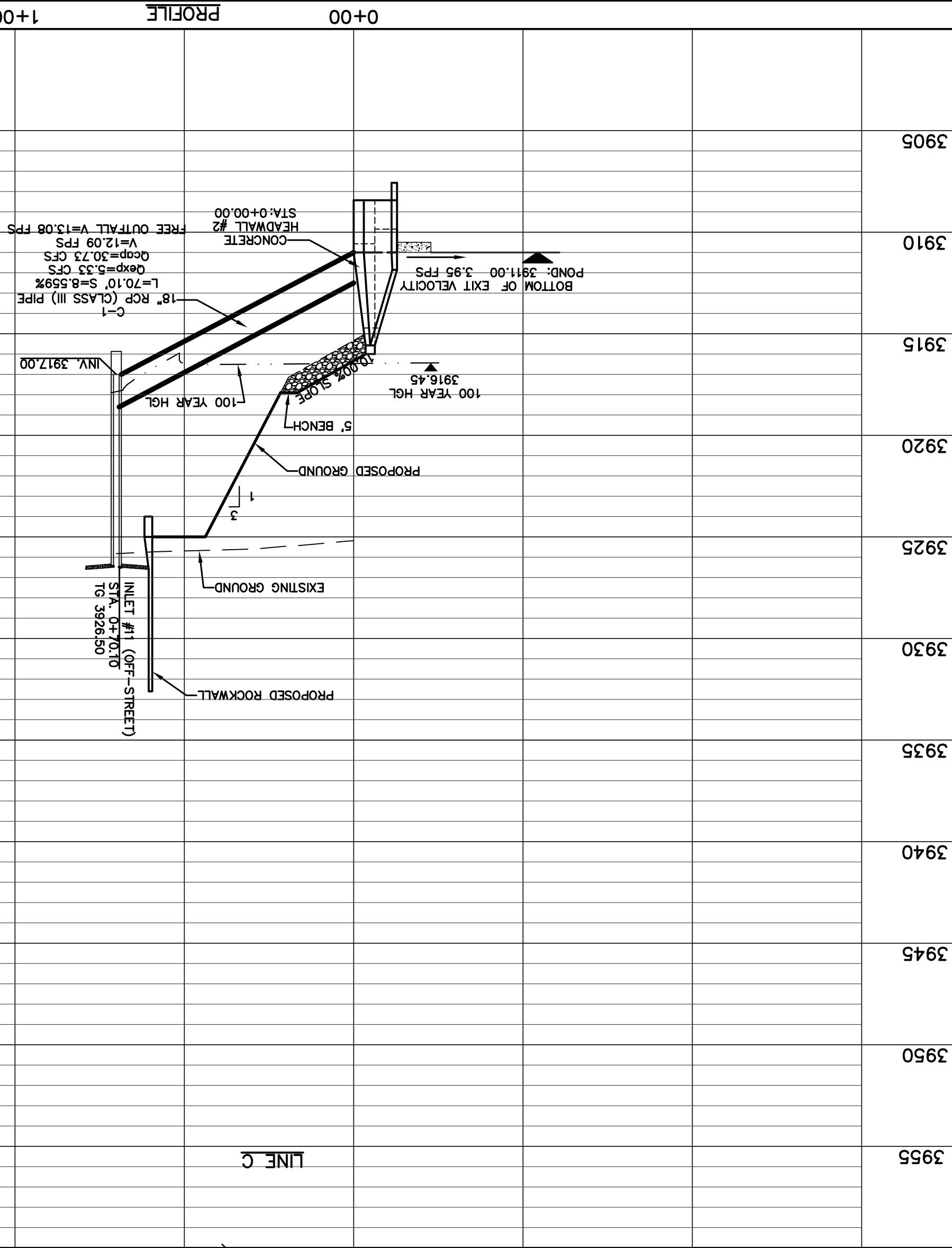
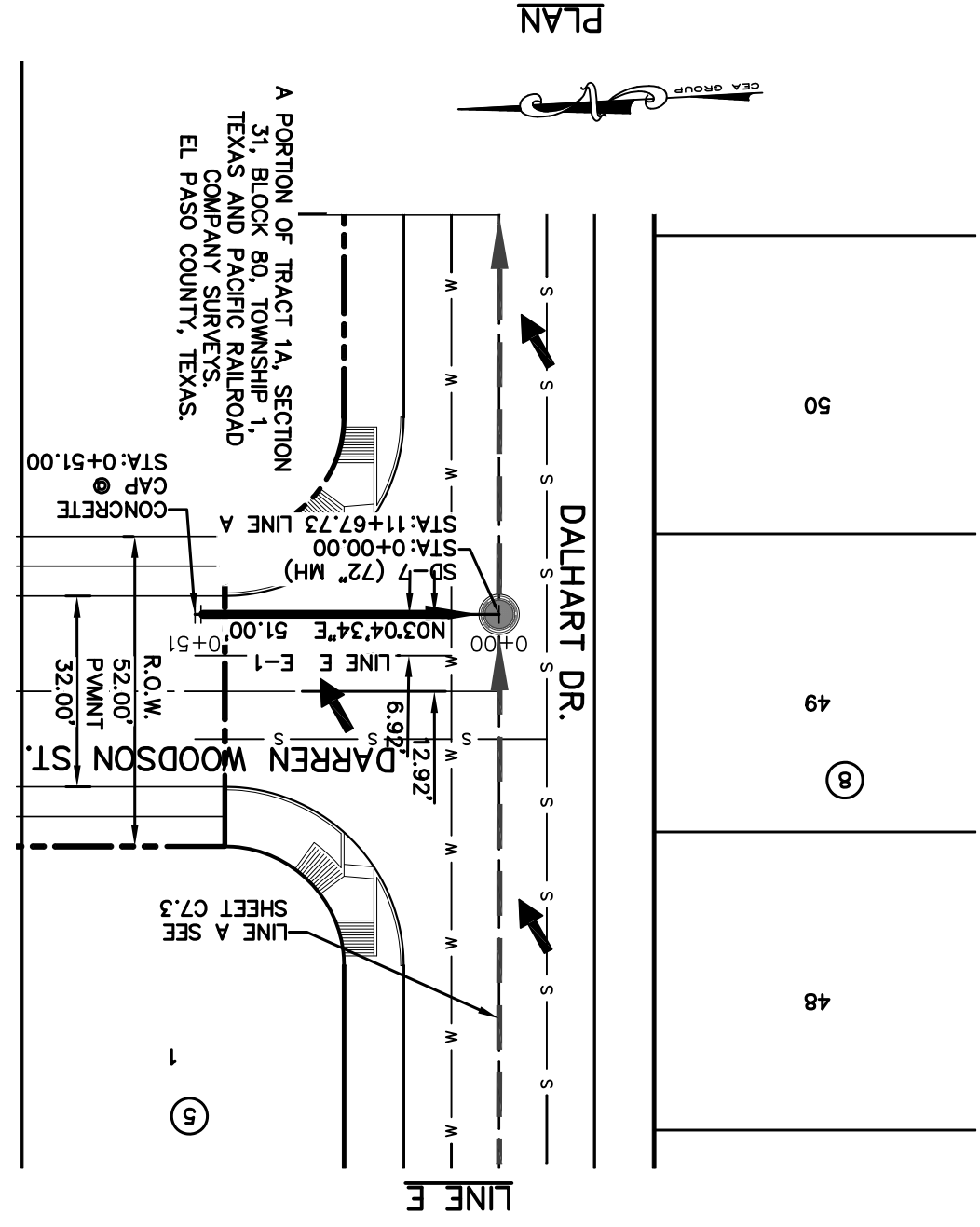
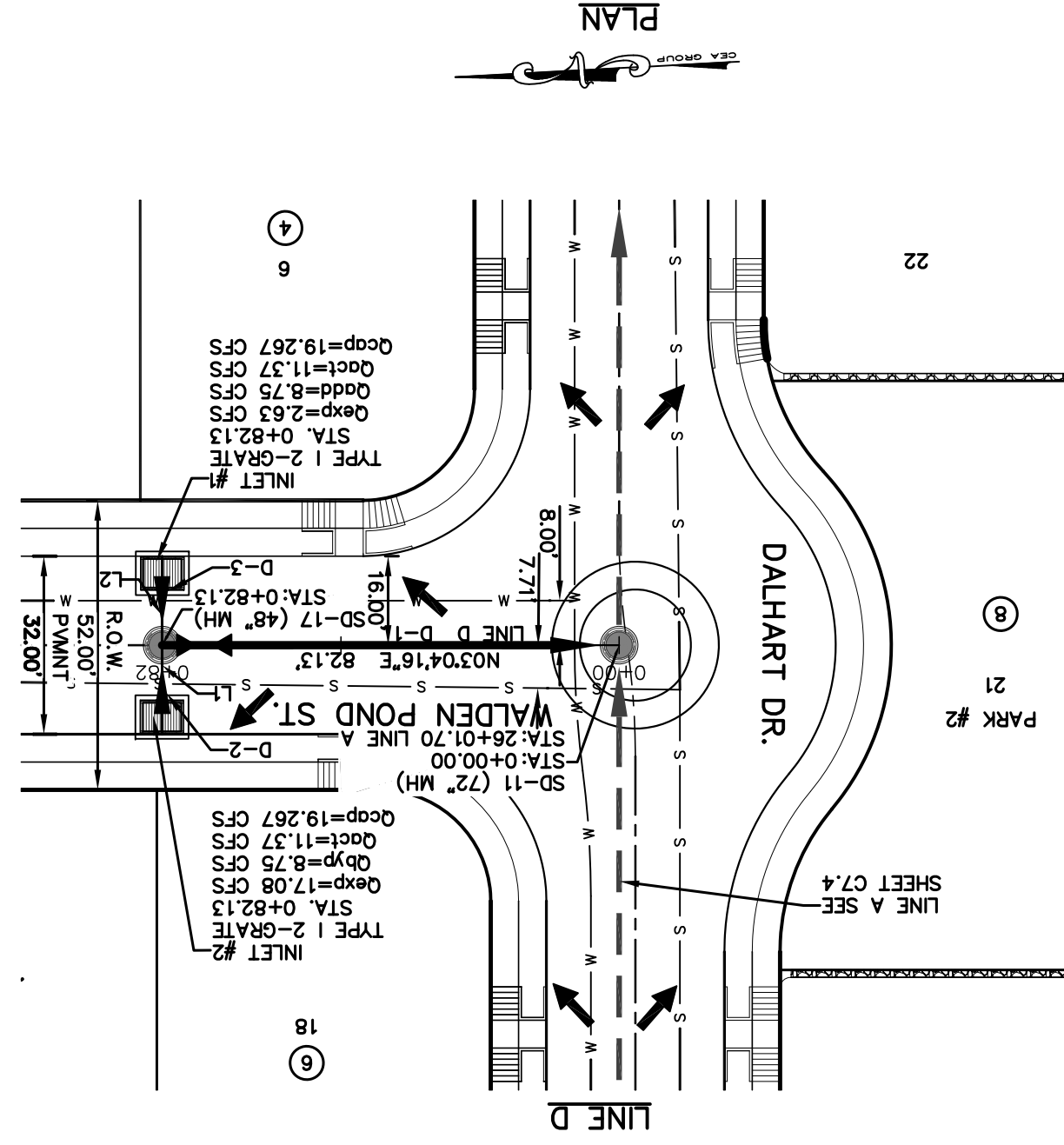
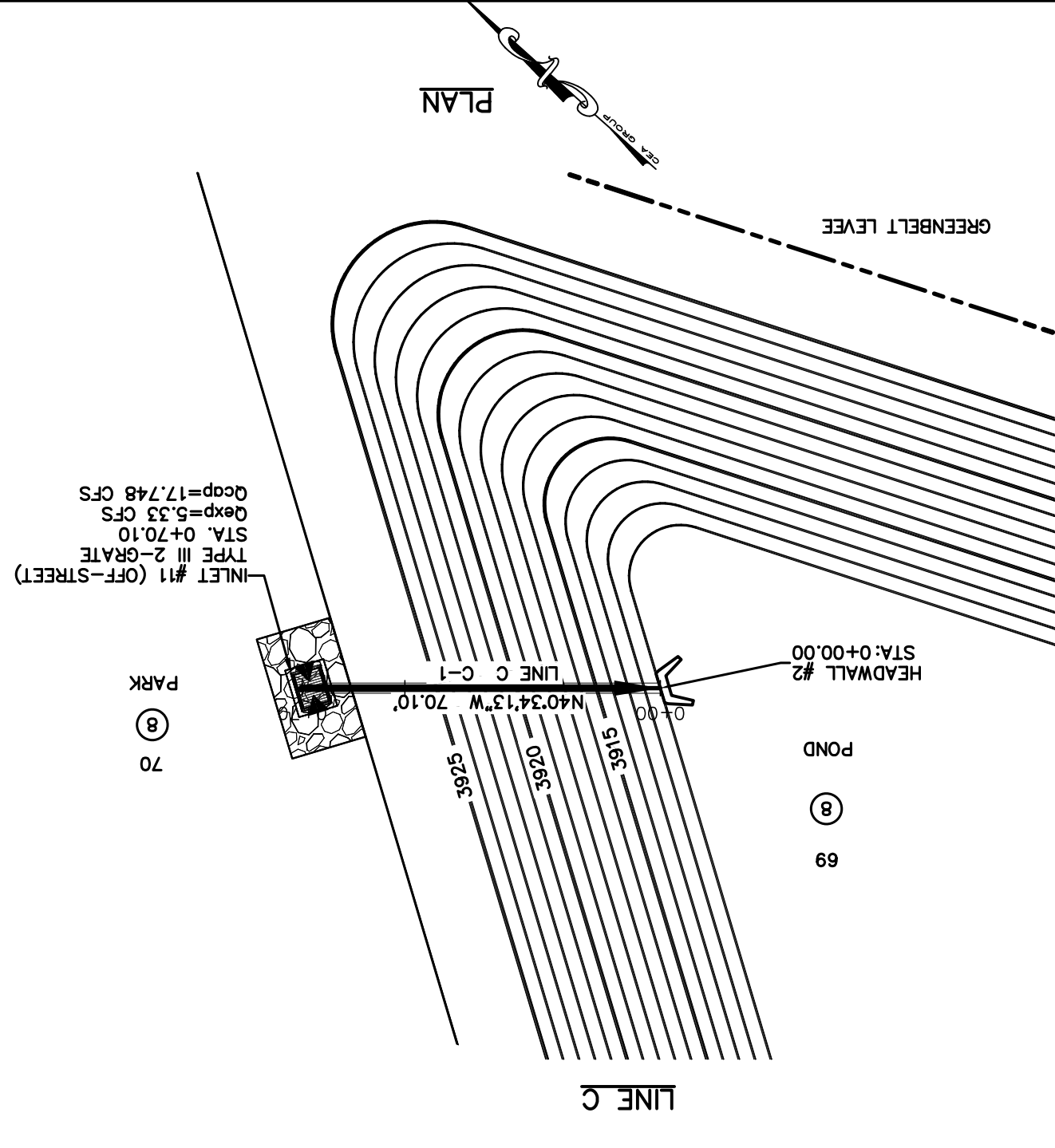
FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMADINO STREET  
ELEVATION: 3939.52 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

REVISIONS

DATE

BY



STATION	LINE C	LINE D	LINE E
3955			
3950			
3945			
3940			
3935			
3930			
3925			
3920			
3915			
3910			
3905			

**ENGINEER'S SEAL**

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P. / C.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
JOB No. 2000-224LD

**TEXAS REGISTERED ENGINEERING FIRM #4564**

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

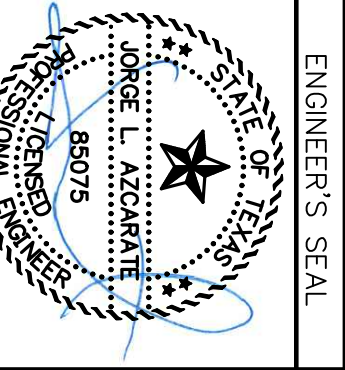
PROJECT TITLE: VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS  
 SHEET TITLE: STORM SEWER PLAN & PROFILE LINE C, D & E  
 SHEET NO.: C7.6

SCALE: Horizontal: 1"=50', Vertical: 1"=30'  
 SHEET NO.: C7.6



VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

PROJECT TITLE



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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: J.L.A.  
APPD. BY: J.L.A.  
JOB NO. 2000-2241D

POND DESIGN PLAN

SCALE: 1" = 30'

Point #	Northing	Easting
1	10716405.6680	416910.5429
2	10716426.4143	416872.9623
3	10716489.1743	416871.3557
4	10716576.4603	416927.6993
5	10716574.8616	416945.3407
6	10716480.9515	416984.2131
7	10716455.1425	417004.1951
8	10716360.6356	417229.6536
9	10716347.2250	417132.0384
10	10716168.2201	417016.8125
11	10716168.8125	417016.8125
12	10716165.1600	417004.0178
13	10716332.2928	416662.0370
14	10716346.8038	416658.0311
15	10716410.2936	416699.0604
16	10716414.7083	416709.2281
17	10716410.2199	416734.3087
18	10716410.1673	416734.9205
19	10716408.2034	416770.5998
20	10716407.4241	416773.9562
21	10716401.0487	416788.9815
22	10716400.2599	416793.0626
23	10716442.1195	416799.7134
24	10716469.6677	416808.7739
25	10716650.5245	416925.5181
26	10716647.3271	416960.8008

Point #	Northing	Easting
27	10716497.0149	417023.0199
28	10716488.6894	417029.4657
29	10716376.2745	417178.6973
30	10716349.4531	417183.4670
31	10716122.0653	417028.6867
32	10716114.9451	417011.0974
33	10716310.4994	416611.2008
34	10716339.3215	416603.1891
35	10716451.0369	416675.3833
36	10716459.8600	416695.7536
37	10716449.8323	416728.4965
38	10716448.2737	416785.2093
39	10716399.3623	416606.9518
40	10716490.3522	416672.2148
41	10716452.9593	416776.3175
42	10716505.9255	416813.1346
43	10716716.8990	416949.3193
44	10716502.1259	417038.2209
45	10716379.2069	417201.3967
46	10716353.3612	417205.0355
47	10716090.3617	417028.8107
48	10716300.0275	416957.6717
49	10716520.1030	416936.9467
50	10716479.2407	416753.0840
51	10716335.6230	416968.1810

Point #	Northing	Easting
52	10716408.2034	416770.5998
53	10716410.1673	416734.9205
54	10716410.2199	416734.3087
55	10716414.7083	416709.2281
56	10716410.2936	416699.0604
57	10716414.7083	416709.2281
58	10716410.2936	416699.0604
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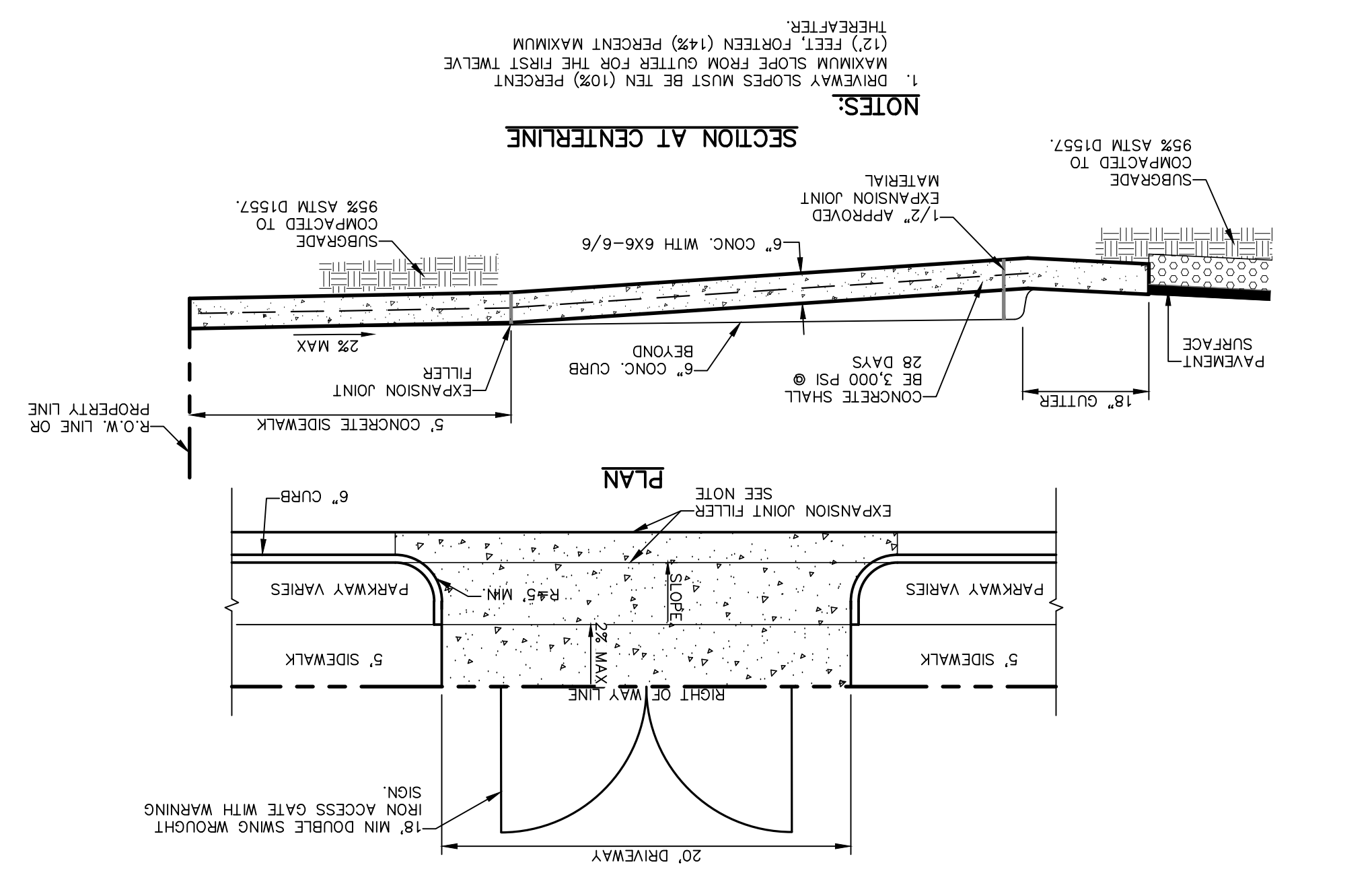
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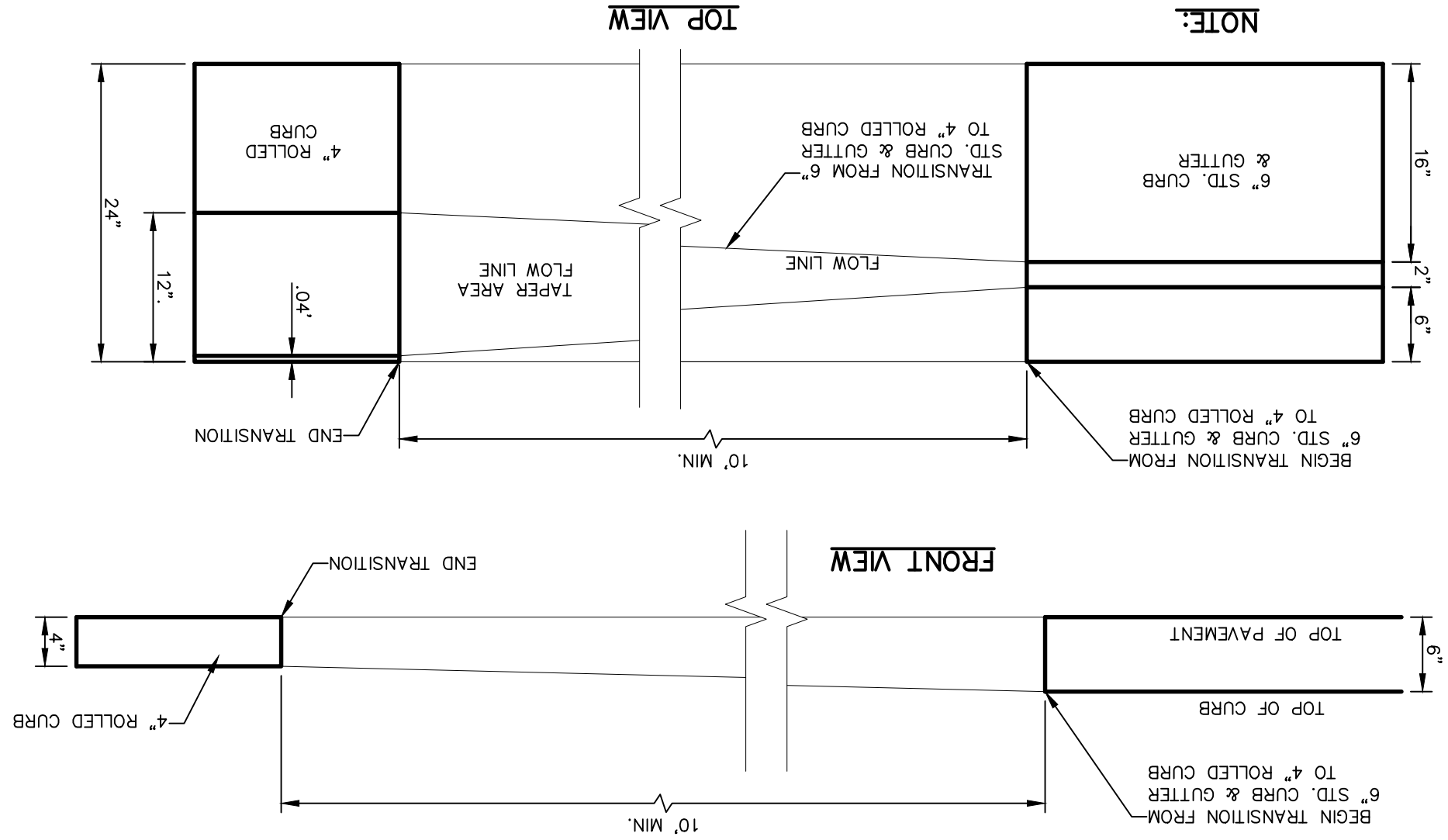
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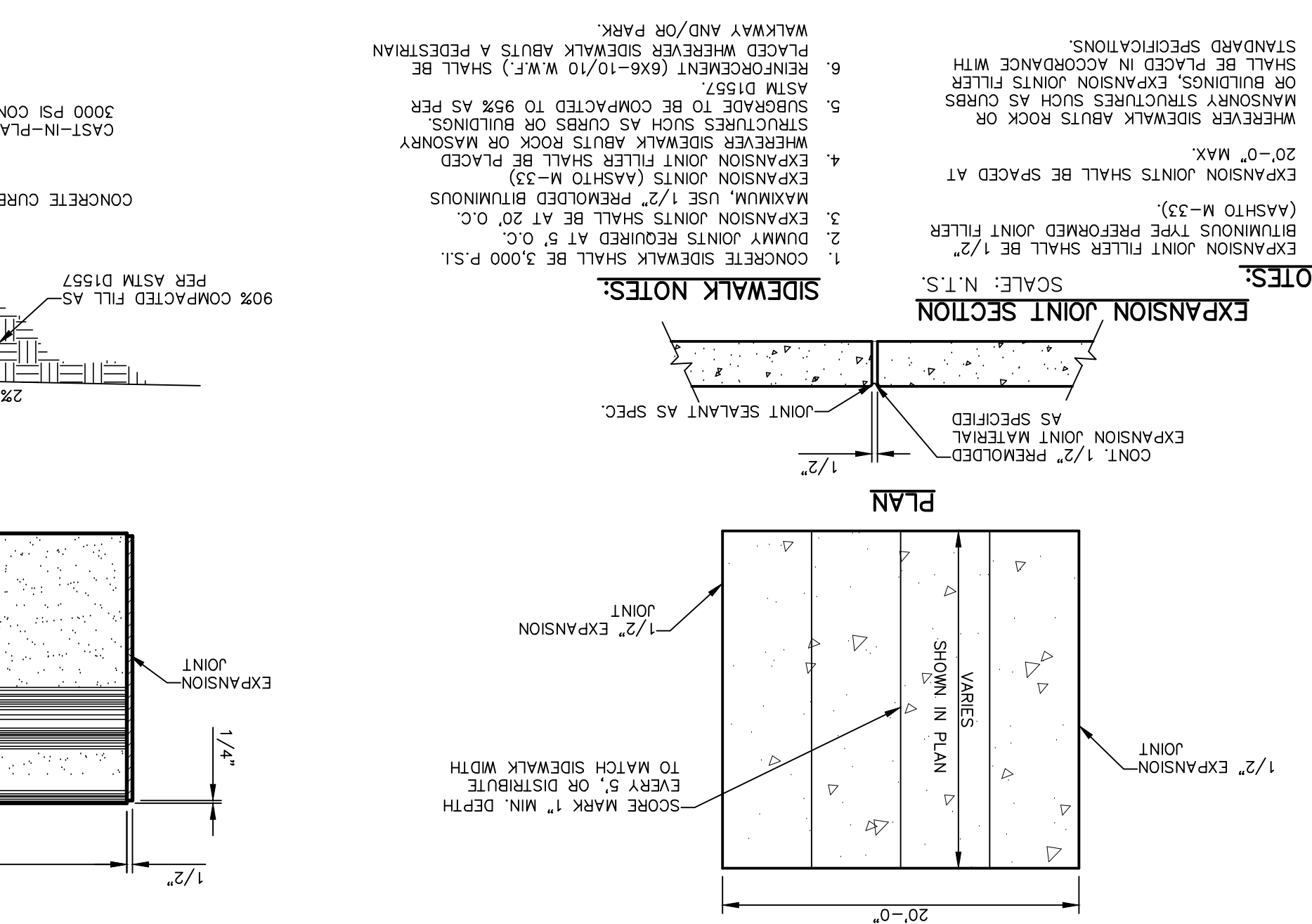
**9 COMMERCIAL DRIVEWAY DETAIL**  
SCALE: N.T.S.



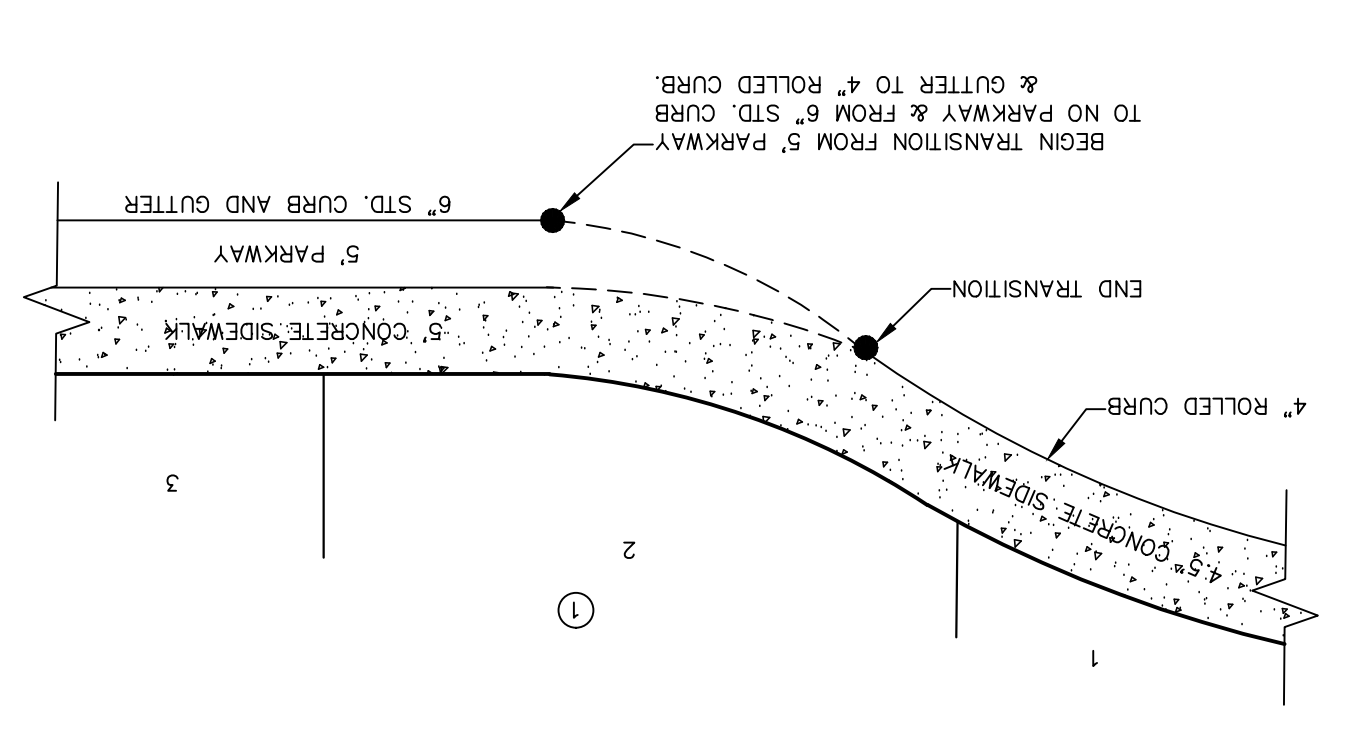
**6 CURB TRANSITION DETAIL**  
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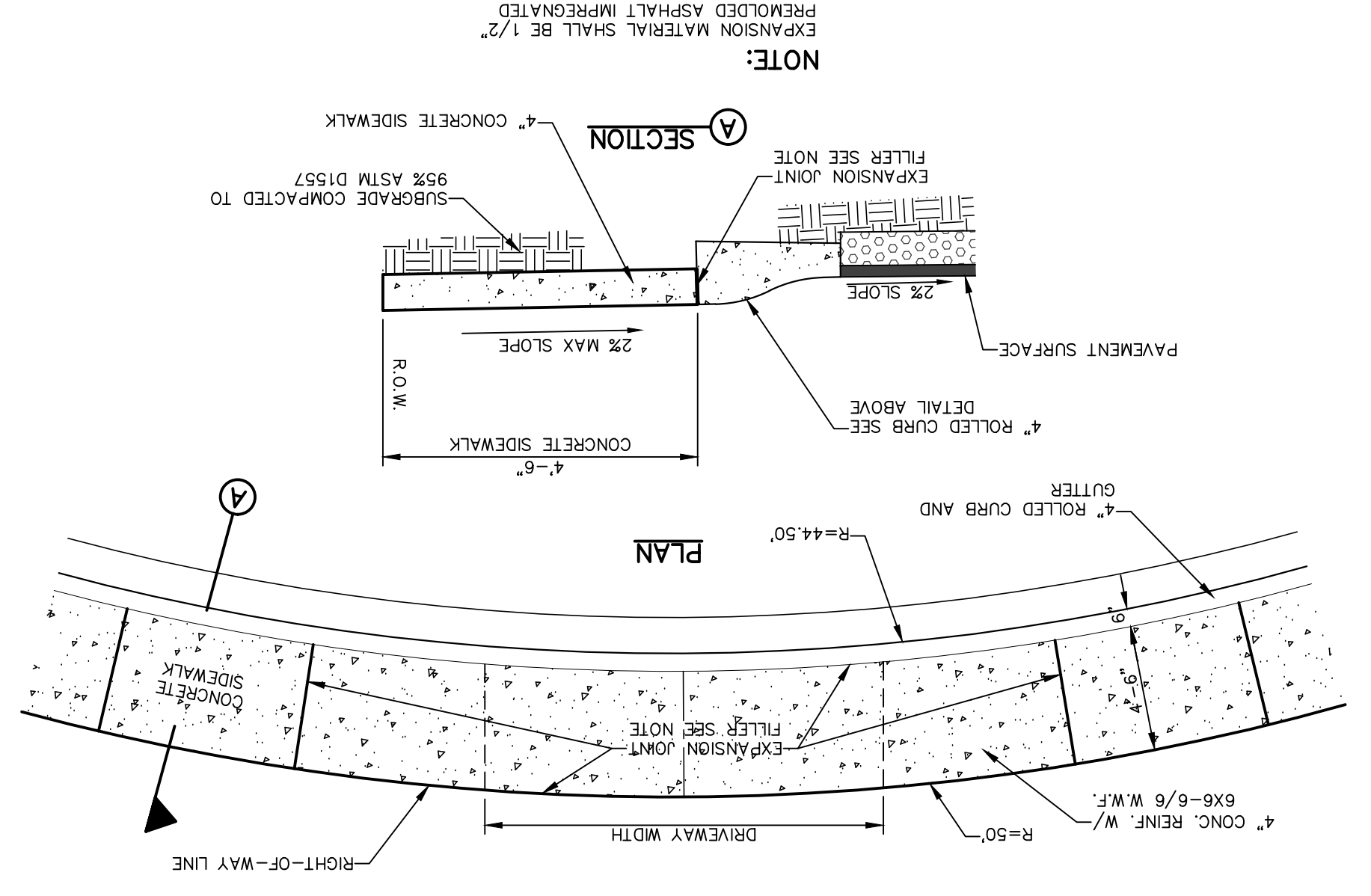
**1 SECTION-SIDEWALK/SLAB**  
SCALE: N.T.S.



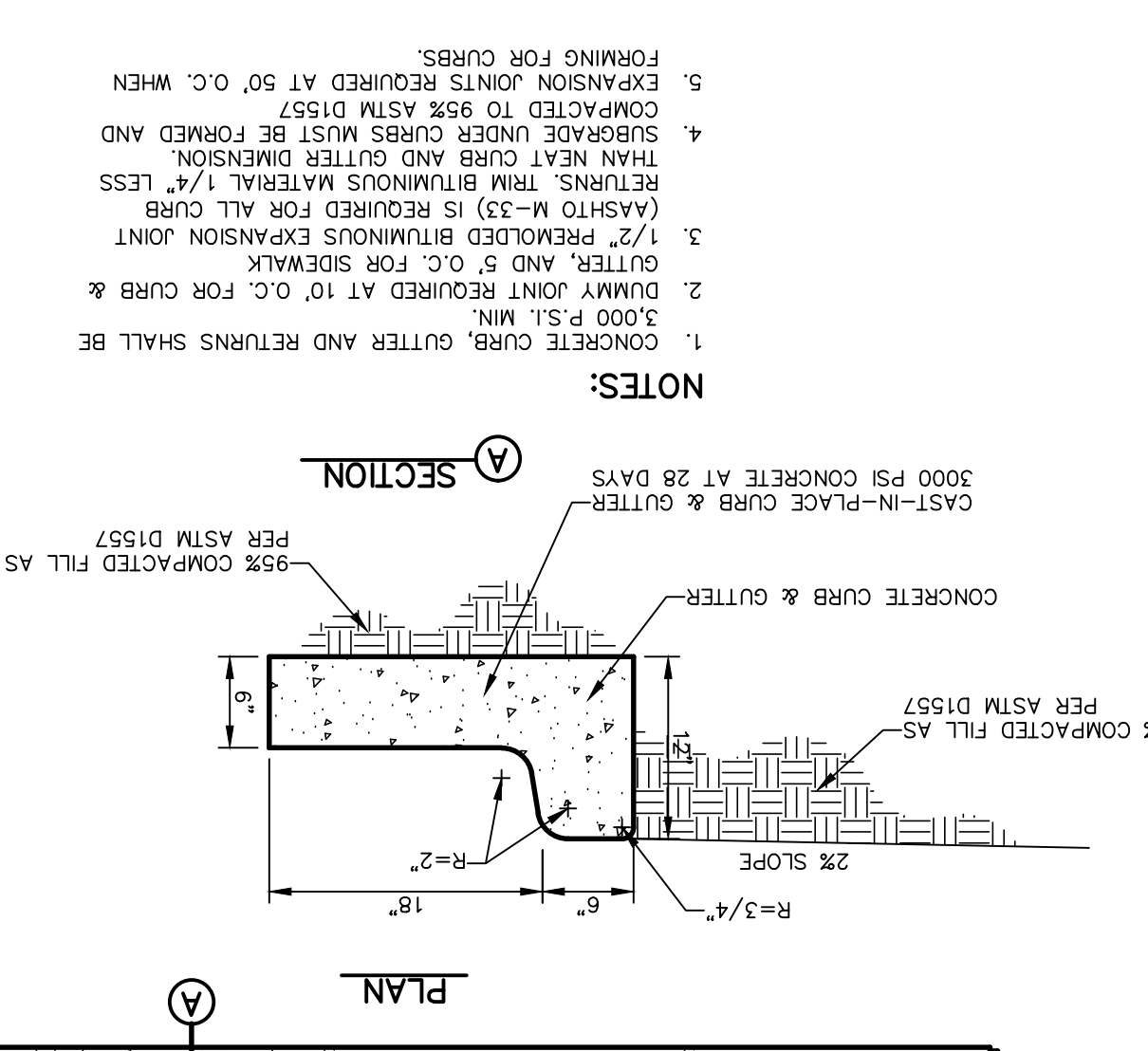
**10 TYPICAL HEEL/CUR-DE-SAC SIDEWALK TRANSITION**  
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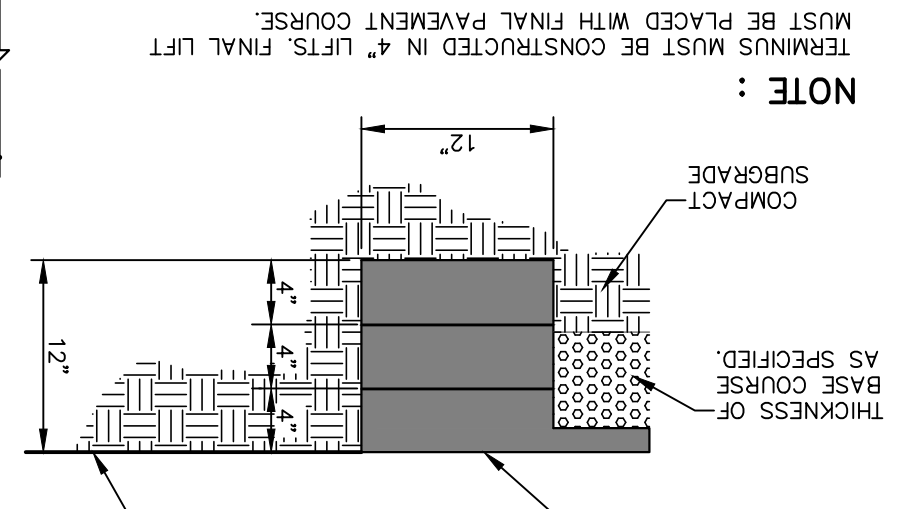
**7 HEEL/CUR-DE-SAC DRIVEWAY DETAIL**  
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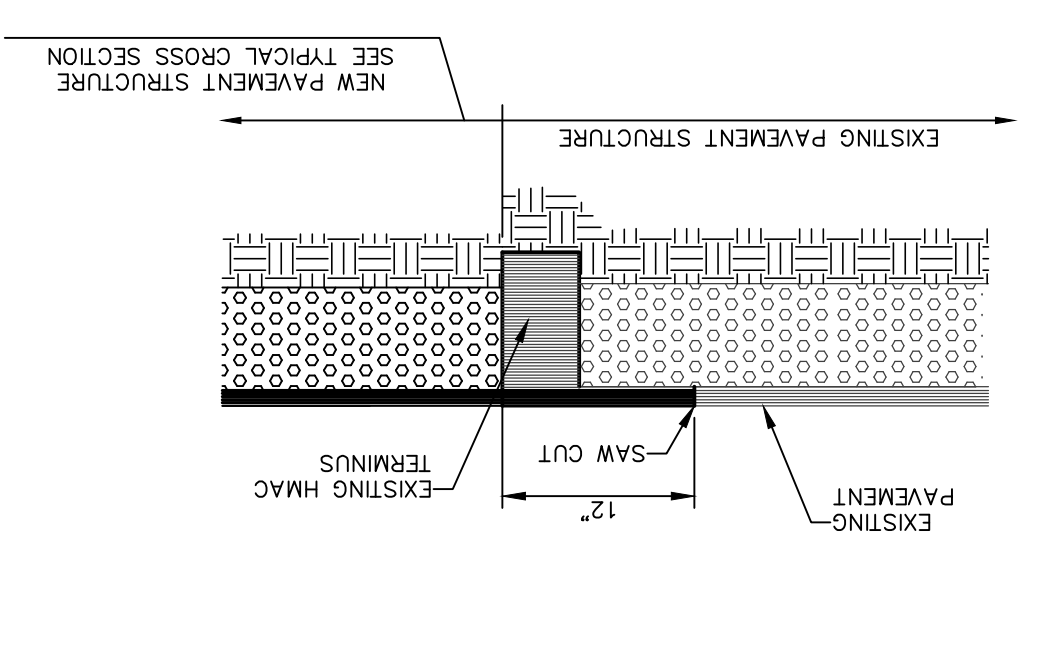
**2 CURB & GUTTER DETAIL**  
SCALE: 1\"/>



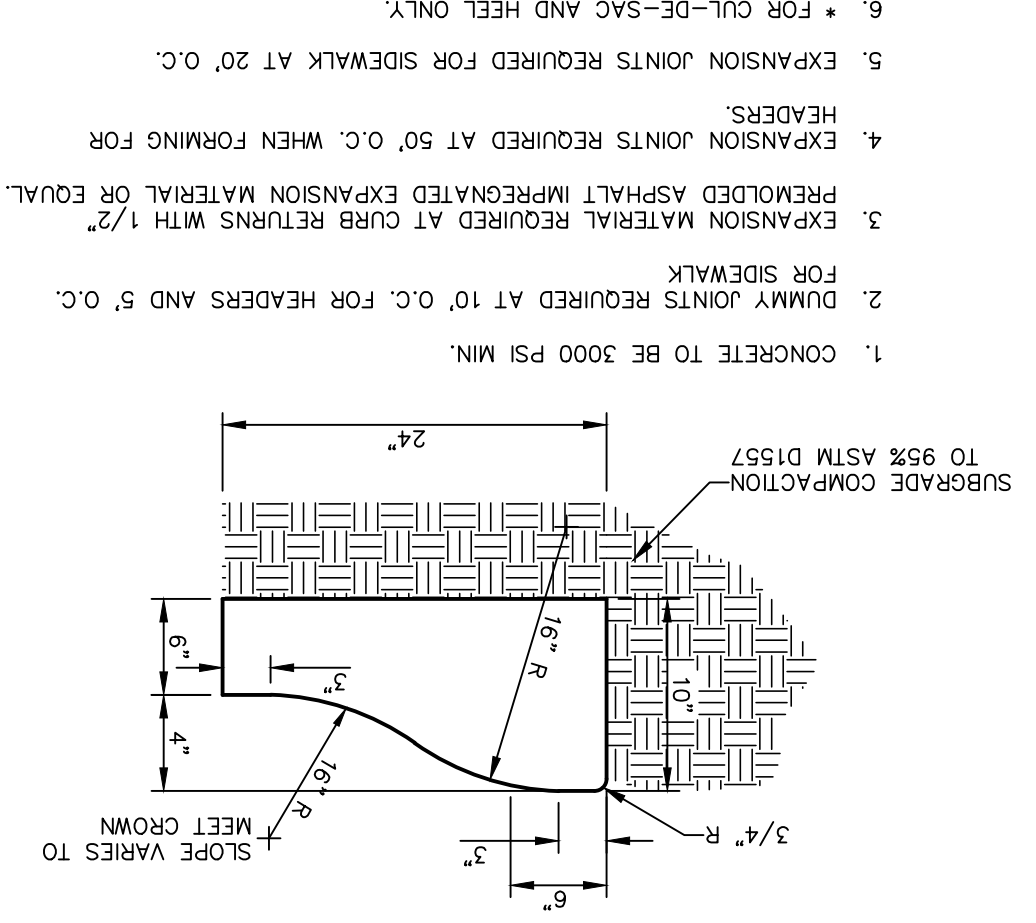
**4 TERMINUS OF STREET**  
SCALE: 1\"/>



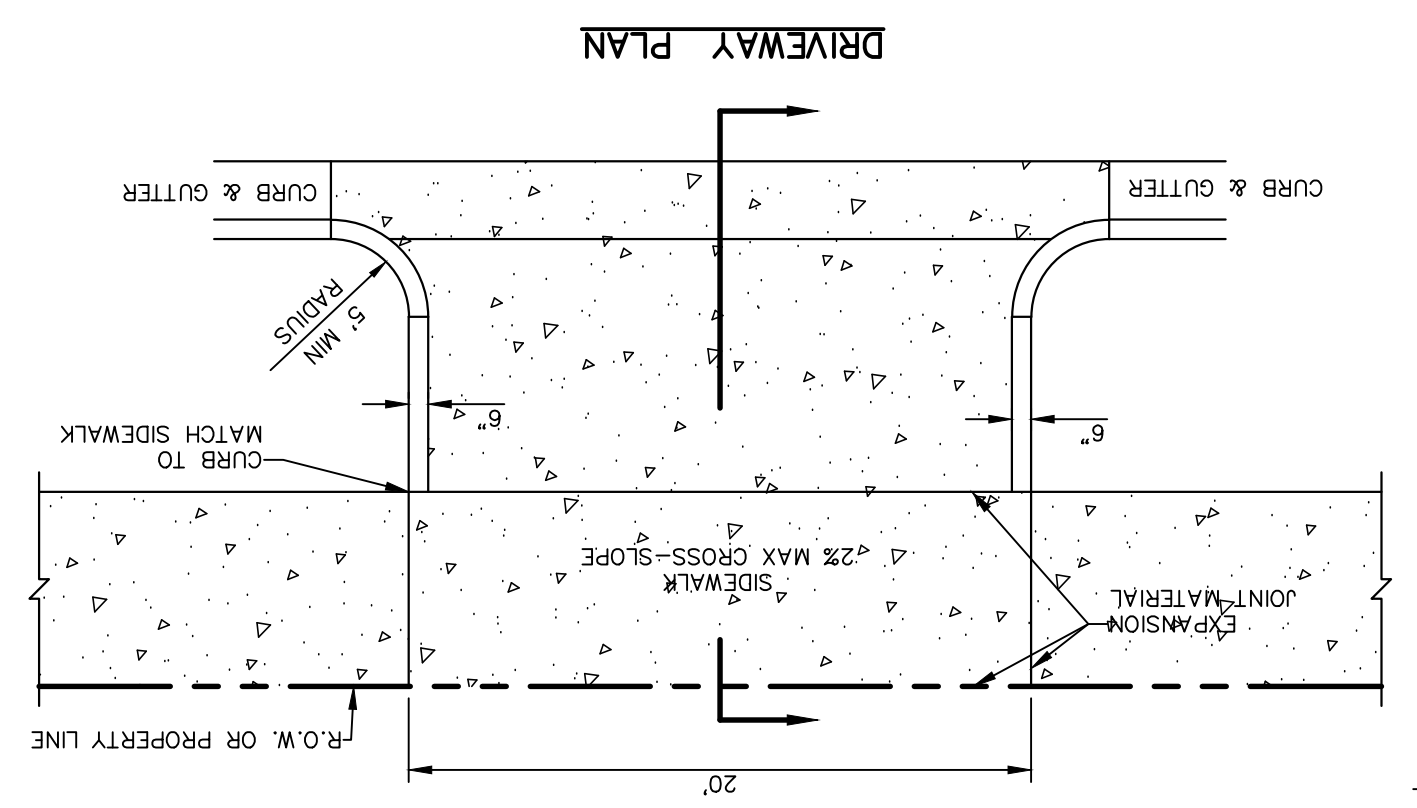
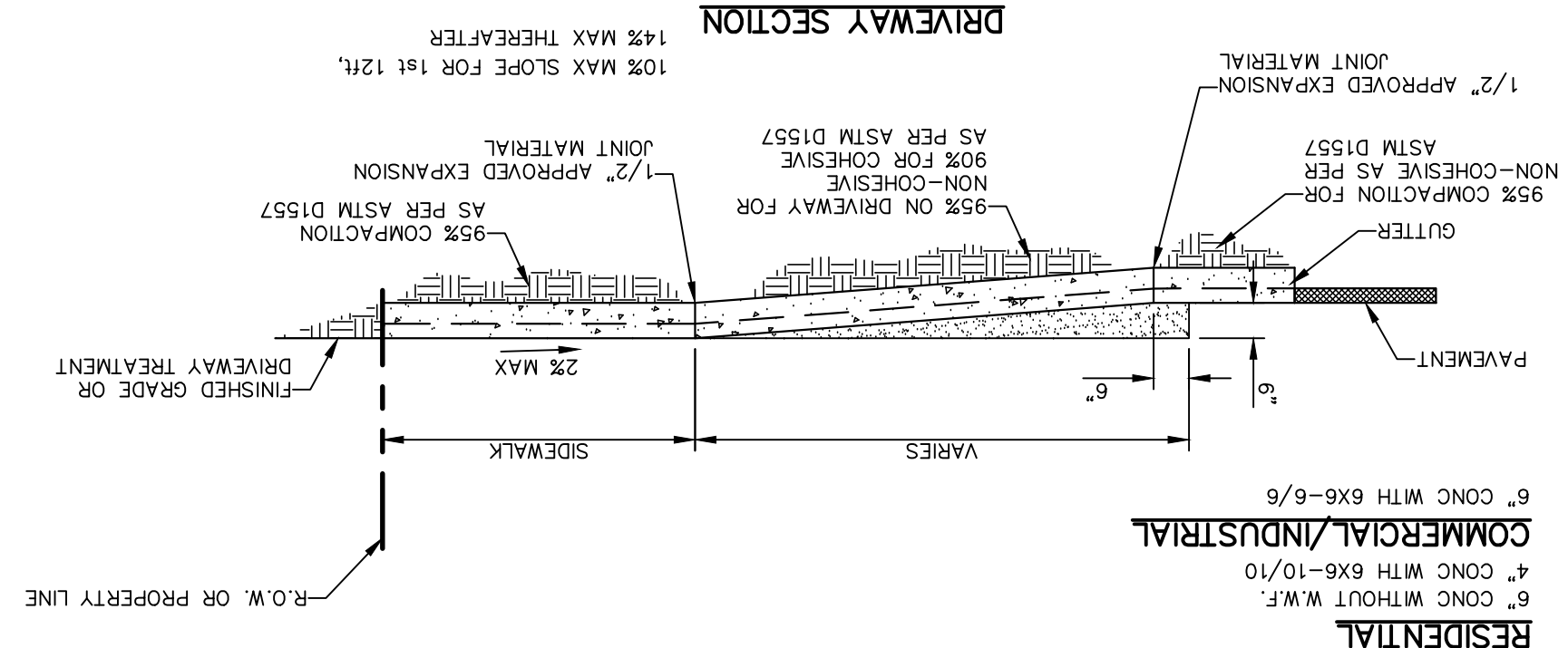
**3 TYPICAL PAVEMENT JOINT SECTION**  
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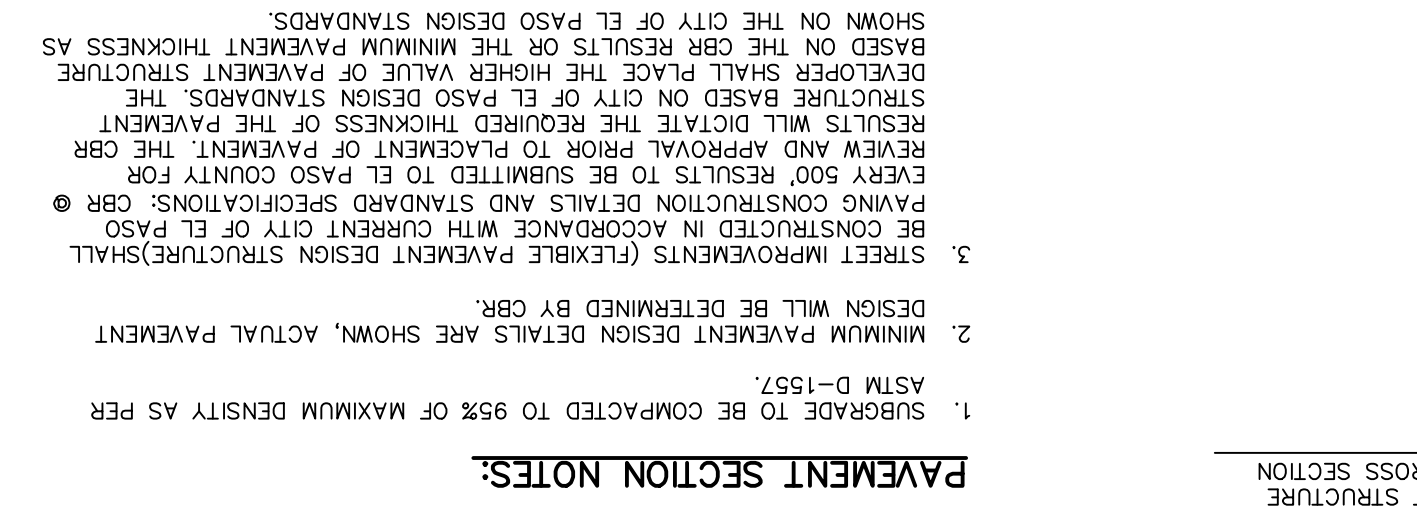
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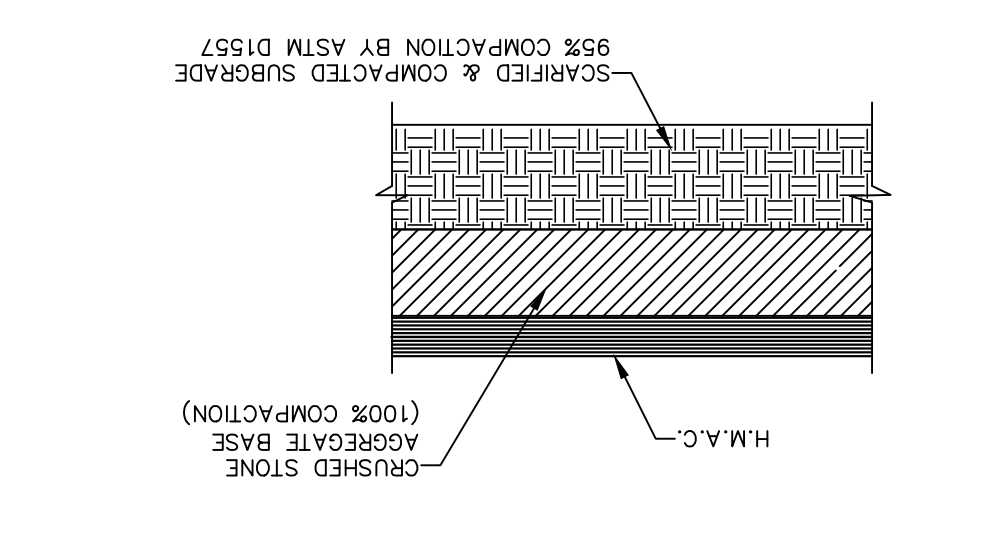
**8 CONCRETE APRON FOR DRIVEWAYS**  
SCALE: N.T.S.



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



**PAVEMENT SECTION NOTES:**



**C9.1**

SHEET NO. (SHEET 1 OF 3)

STANDARD DETAILS

PROJECT TITLE: VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS

SCALE: HORIZONTAL: N/A, VERTICAL: N/A

DATE: APRIL 2021

DESIGN BY: C.U./R.O.

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

CHKD. BY: F.Z.

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

JOB NO.: 2000-2241D

ENGINEER'S SEAL

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

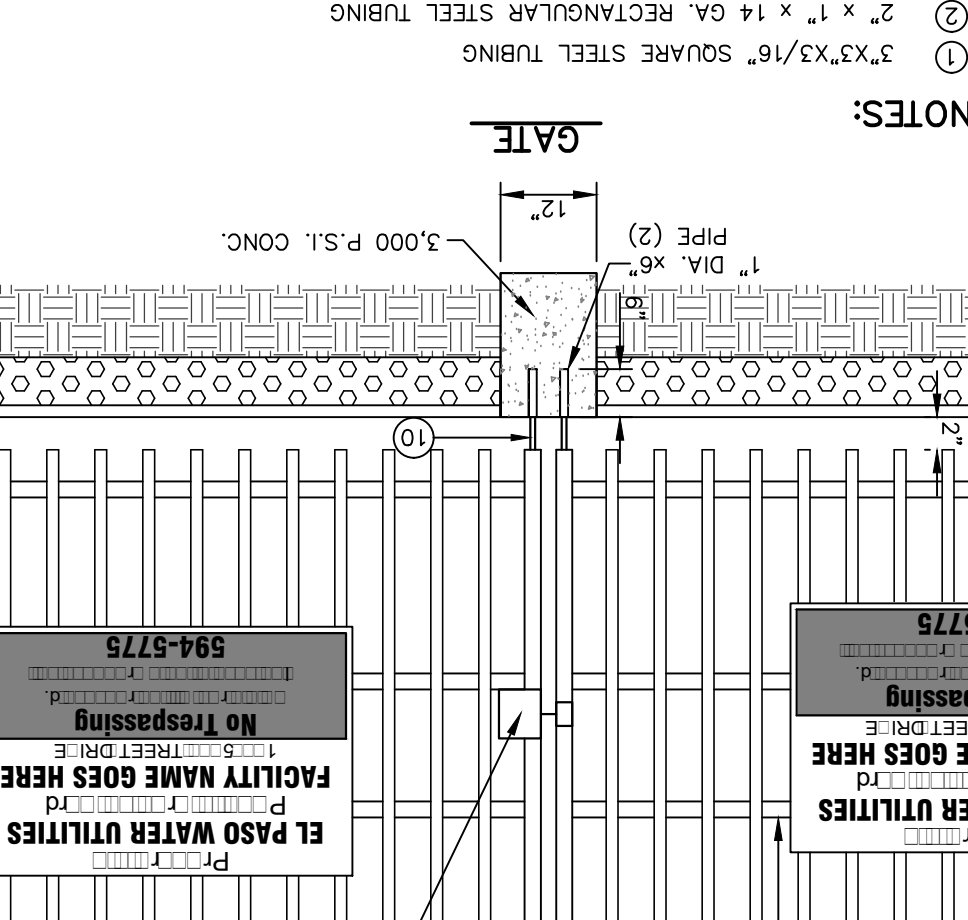
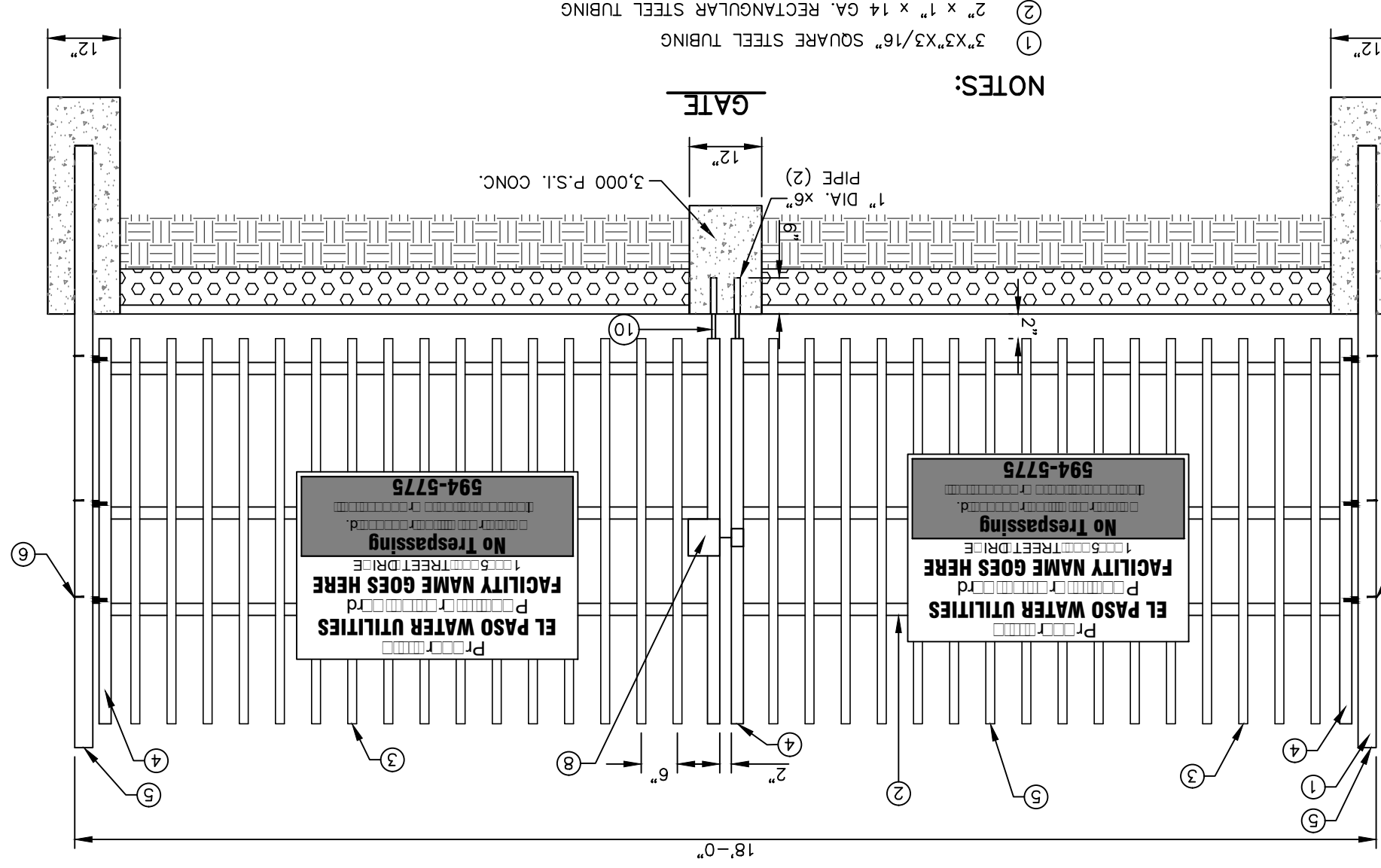
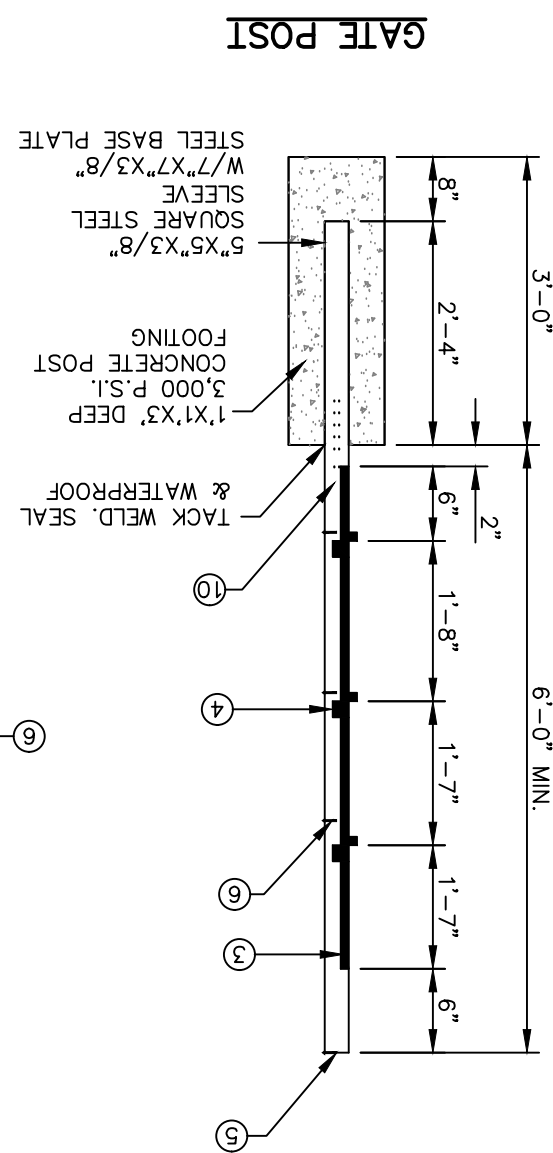
TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS: CITY AMMUNITION LOCATED AT THE INTERSECTION OF CROSBYDALE DRIVE AND PALMADINO STREET

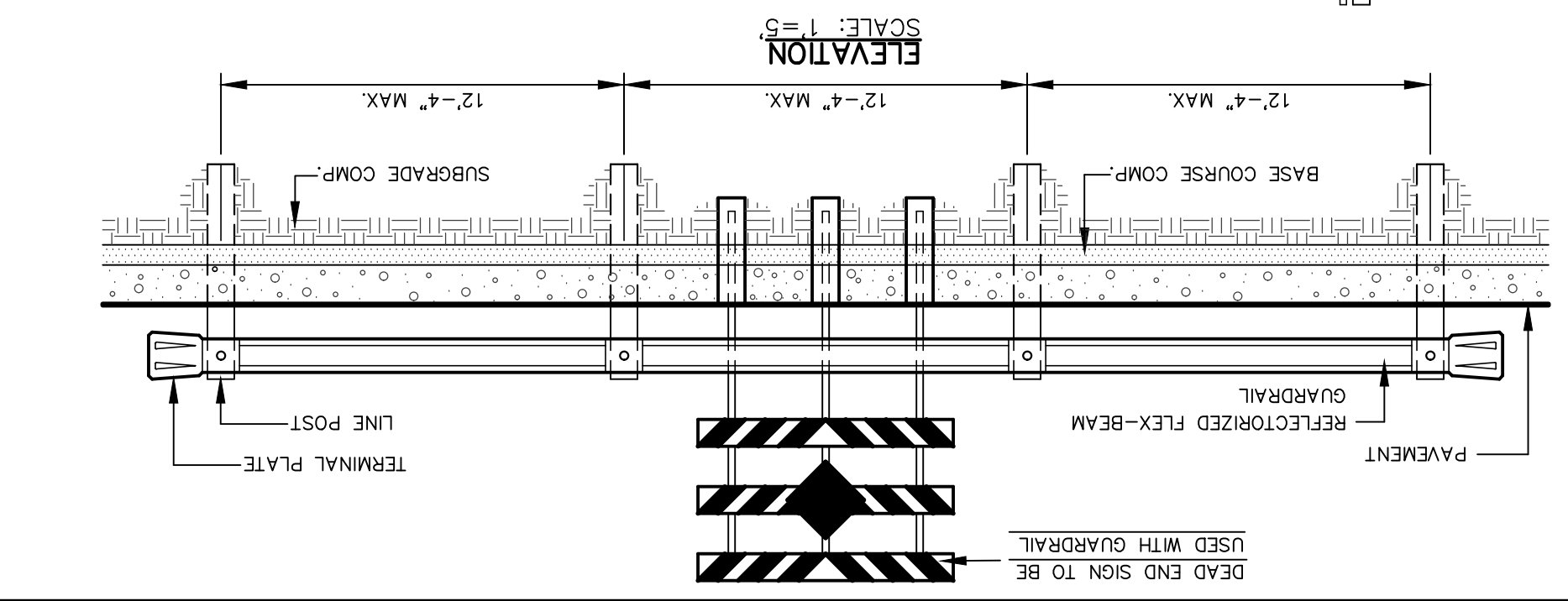
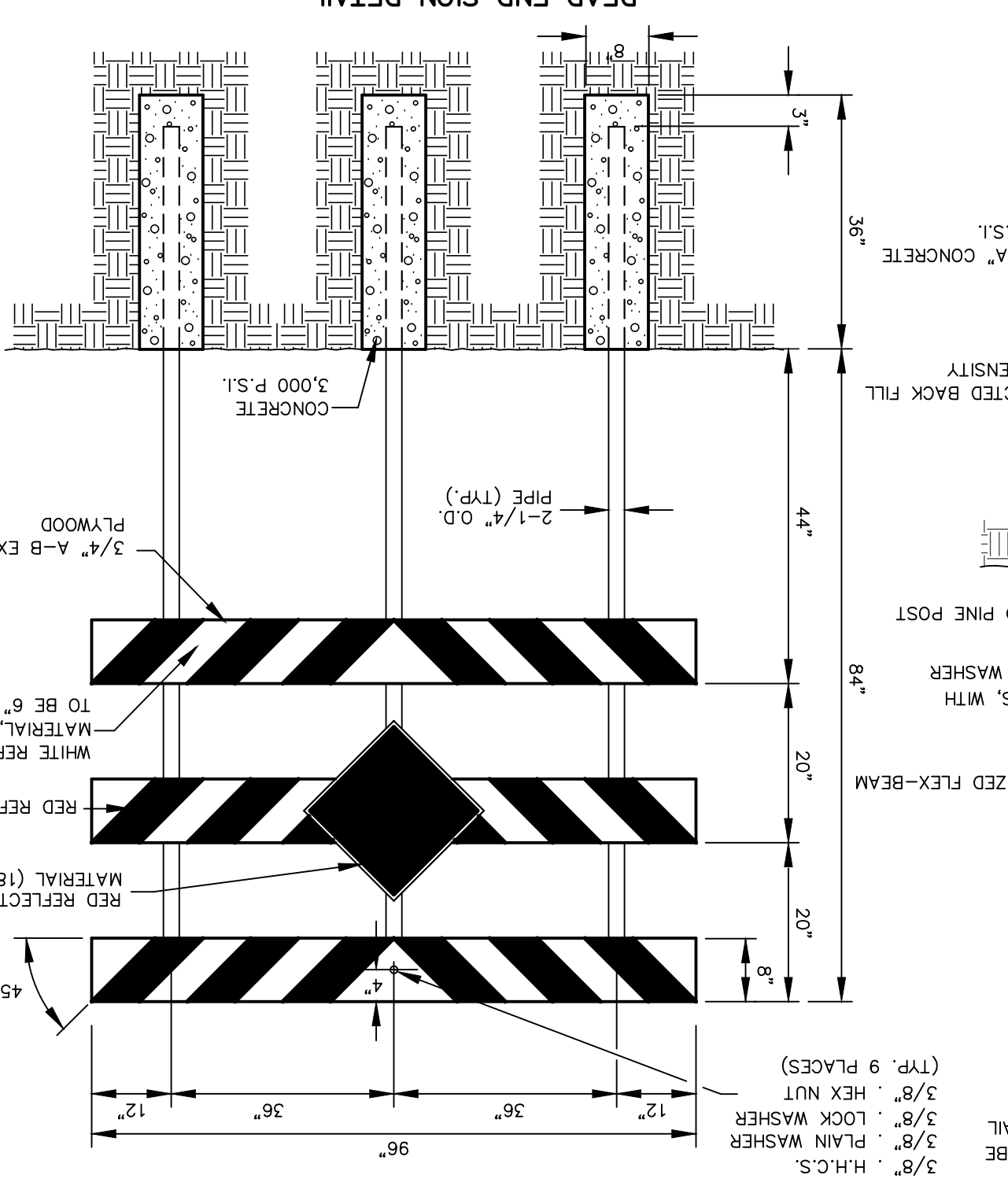
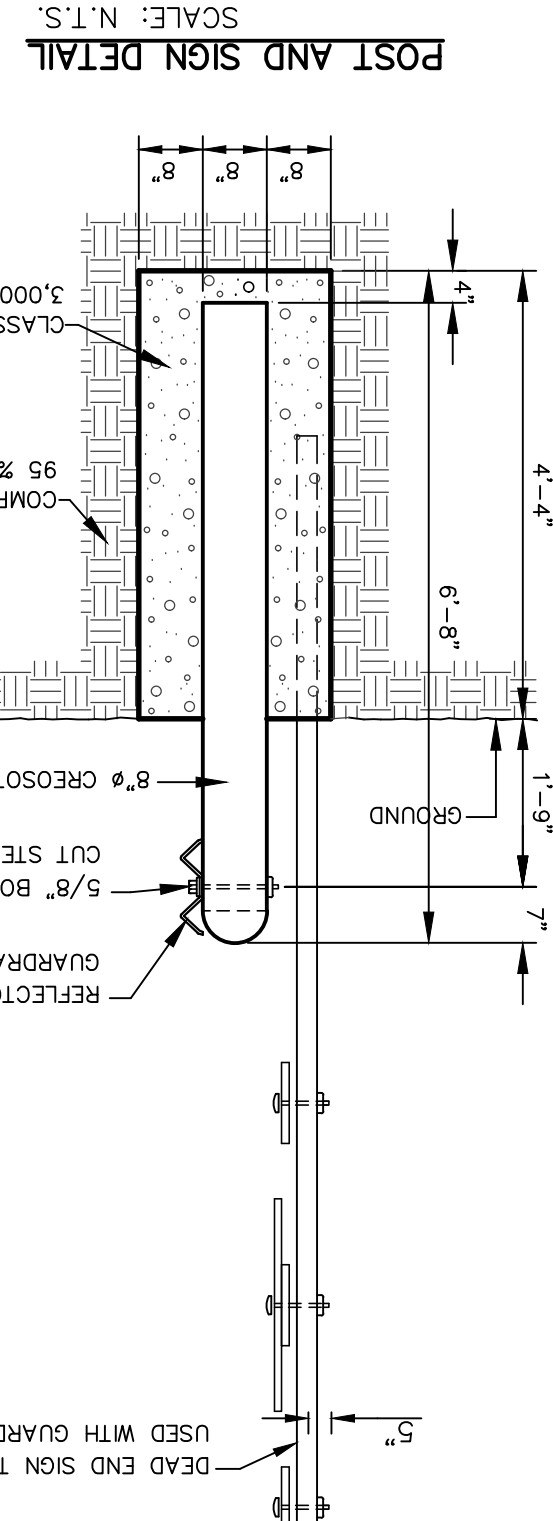
ELEVATION: 3939.32 (NAD 88)

ELEVATION: 3928.24\"/>





1 GUARD RAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL SCALE: 1" = 2'-0"



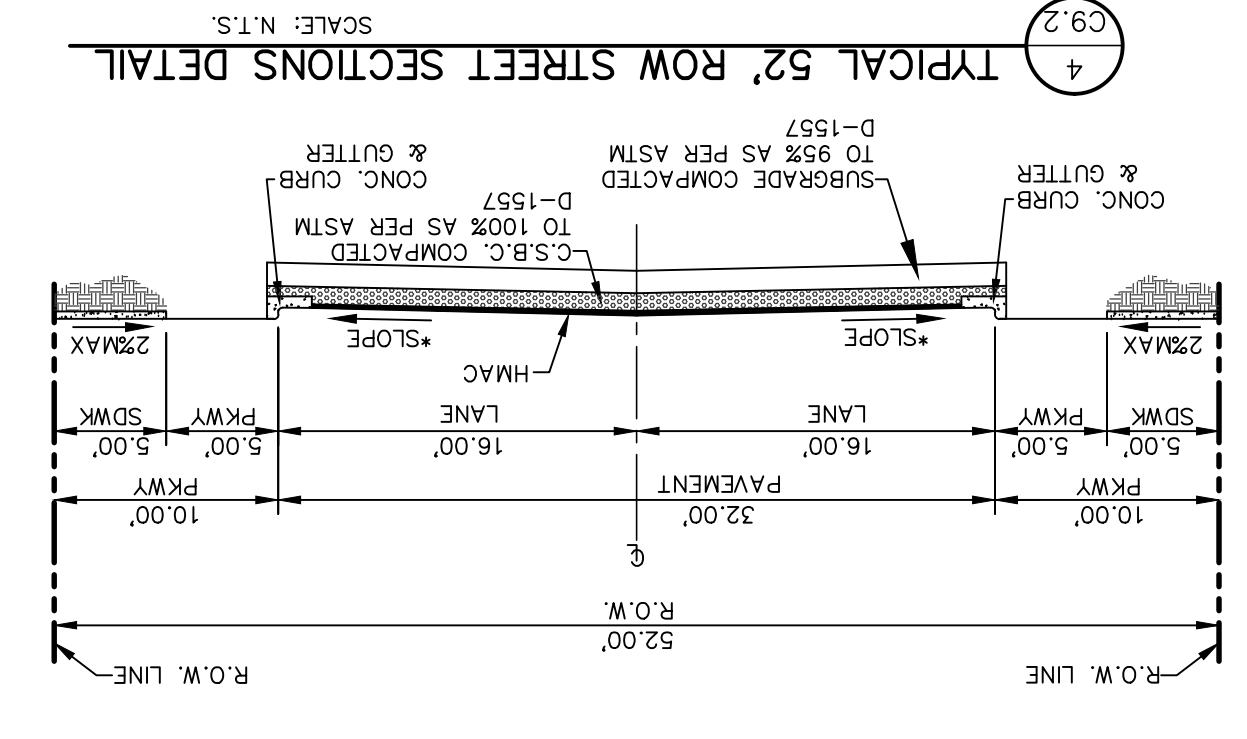
ROCK WALLS

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

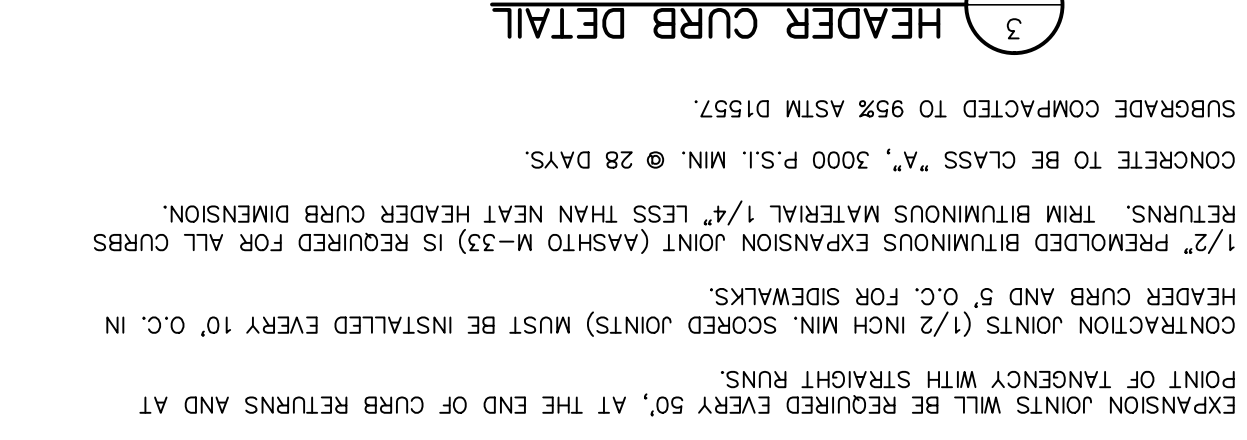
CONSTRUCTION METHODS: PRIOR TO PLACING THE CONCRETE FOUNDATION, THE EXCAVATION FOR THE ROCK WALLS SHALL BE MADE TO THE PROPER SECTION, AND, IF CONSIDERED NECESSARY BY THE ENGINEER, THE BOTTOM OF EXCAVATION SHALL BE HAND-TAMPED AND SPRINKLED. THE EXCAVATED AREAS FOR ROCK WALLS SHALL BE MOSTLY WHEN THE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

STONE SHALL BE SELECTED AS TO SIZE AND SHAPE IN ORDER TO SECURE FAIRLY LARGE, FLAT-SURFACED STONE WHICH MAY BE ERECTED WITH TRUE AND EVEN SURFACES AND A MINIMUM OF EXPOSED MORTAR. ALL EMBEDDED IN MORTAR SO THAT NO STONES SHALL TOUCH EACH OTHER OR WORKMANLIKE AND TRUE-TO-LINE APPEARANCE. THE INTERIOR OF THE ROCK WALL SHALL BE COMPLETELY FILLED WITH SPALLS AND PIECES OF THE SPECIFIED STONE. COMPLETELY EMBEDDED AND SURROUNDED BY MORTAR WITH NO Voids.

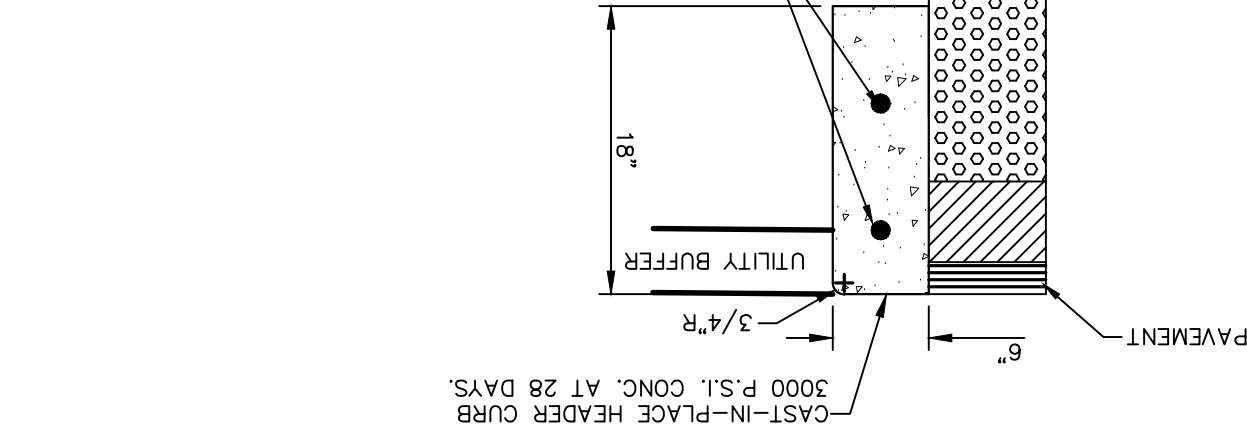
THE ERECTION OF THE ROCK WALL SHALL NOT BE MORE THAN THREE FEET IN HEIGHT FOR EVERY 24-HOUR PERIOD TO ALLOW FOR THE LOWER PORTIONS TO BECOME SUFFICIENTLY SET. ALL STONES SHALL BE THOROUGHLY WET BEFORE BEING PLACED IN THE FRESH MORTAR. THE LAST LAYER OF ROCK PRIOR TO BREAK OF CONSTRUCTION PHASE SHALL NOT HAVE ANY STRAGGLES ON FRESH MORTAR MUST BE USED FOR CONTINUATION OF WORK FOLLOWING WEAP HOLES SHALL BE PLACED ON THE ROCK WALL AS SHOWN ON THE PLANS. THE WEAP HOLES SHALL CONSIST OF FOUR-INCH WIDED CLAY PIPE, OR OTHER PIPE AS APPROVED BY THE ENGINEER, NEATLY CUT TO THE EXPOSED SURFACE OF THE ROCK WALL, NO LESS THAN ONE CURBIC FOOT OF ONE-INCH TO 3/4-INCH OF GRADED GRAVEL SHALL BE PLACED AT THE INLET OF EACH WEAP HOLE AS SHOWN ON THE PLANS.



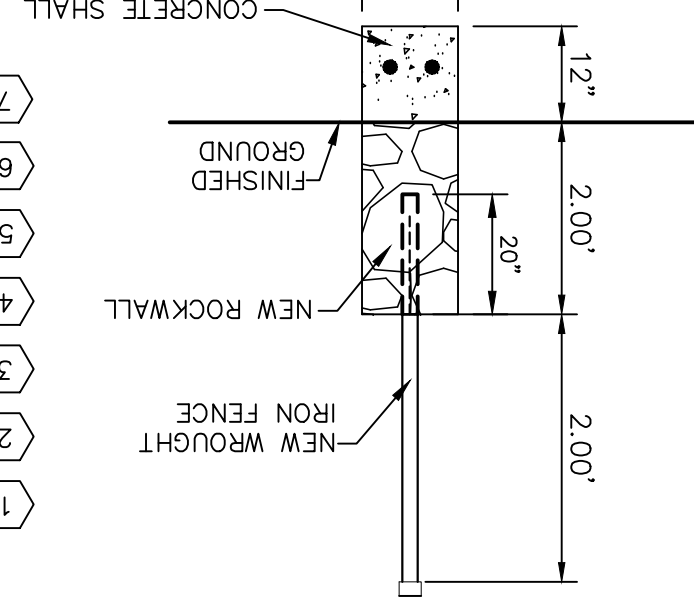
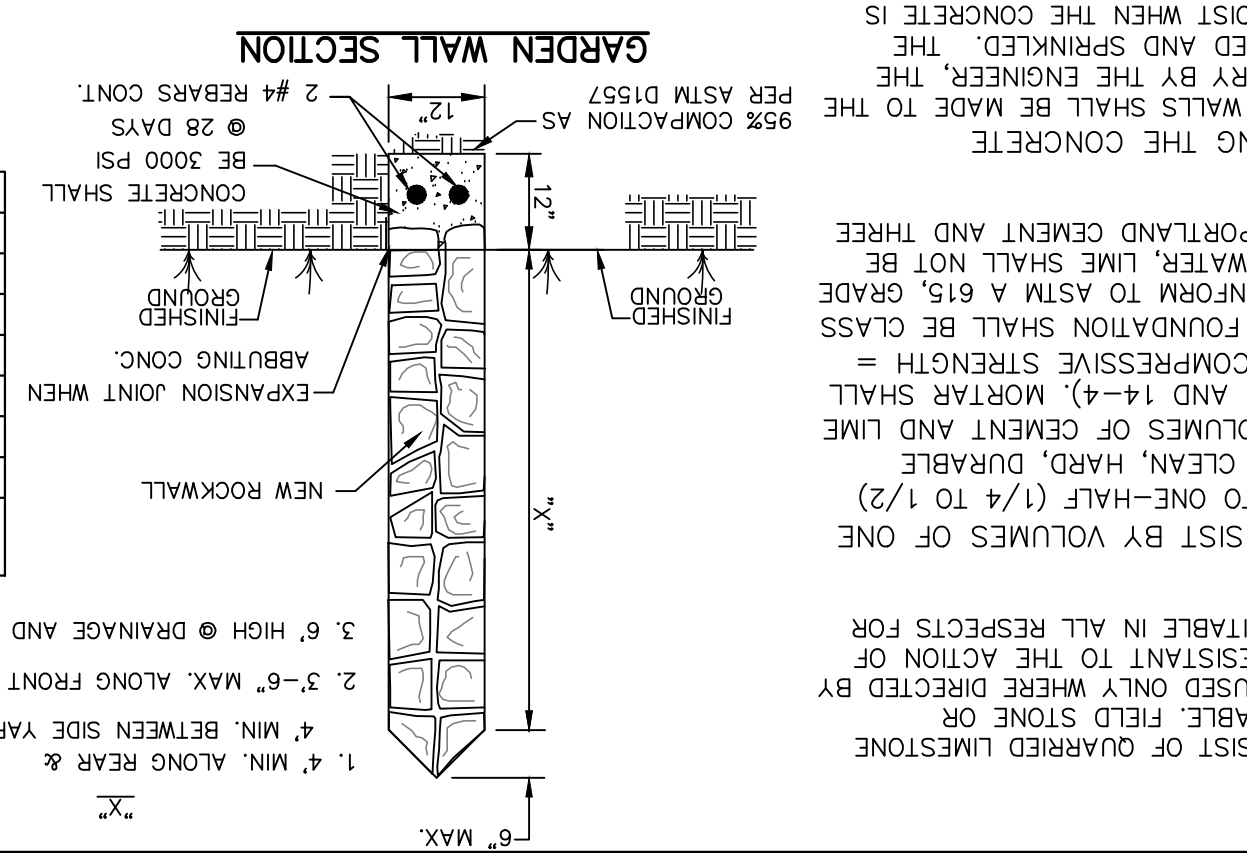
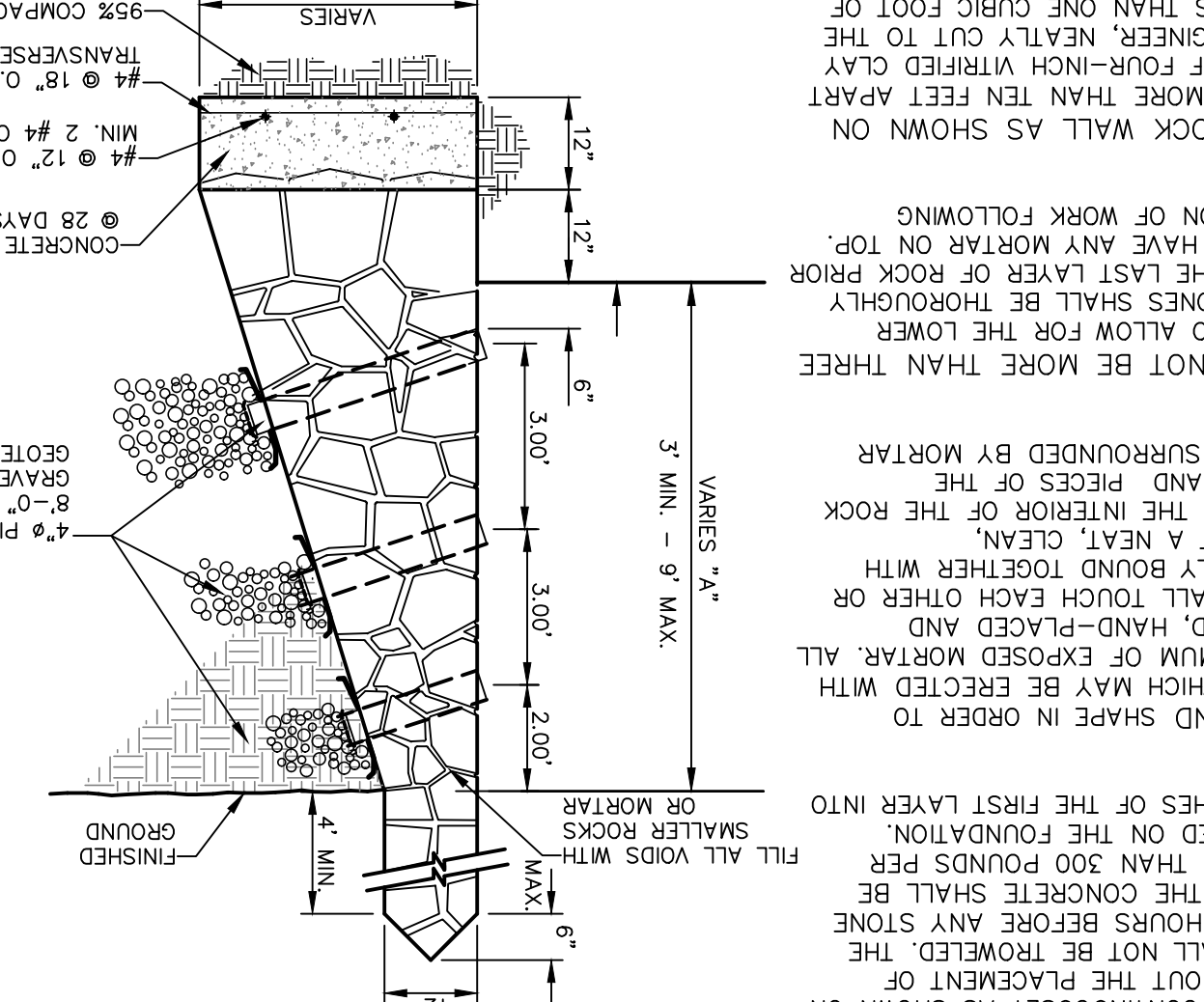
4 TYPICAL 52\"/>



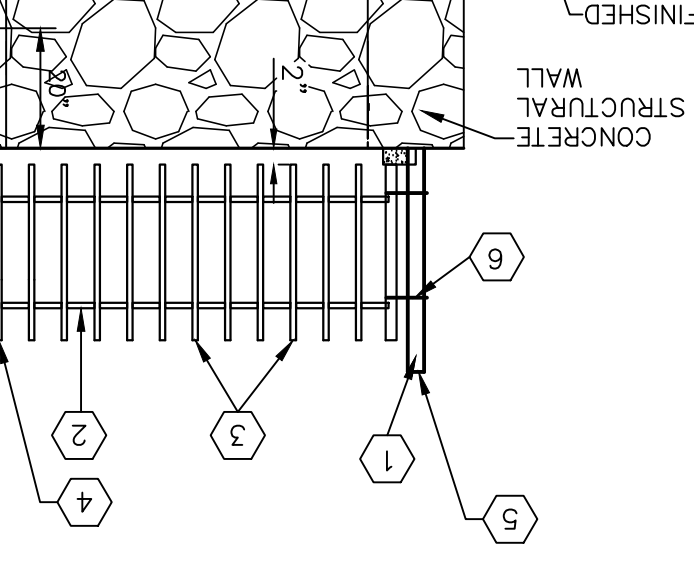
3 HEADER CURB DETAIL SCALE: 1" = 1'-0"



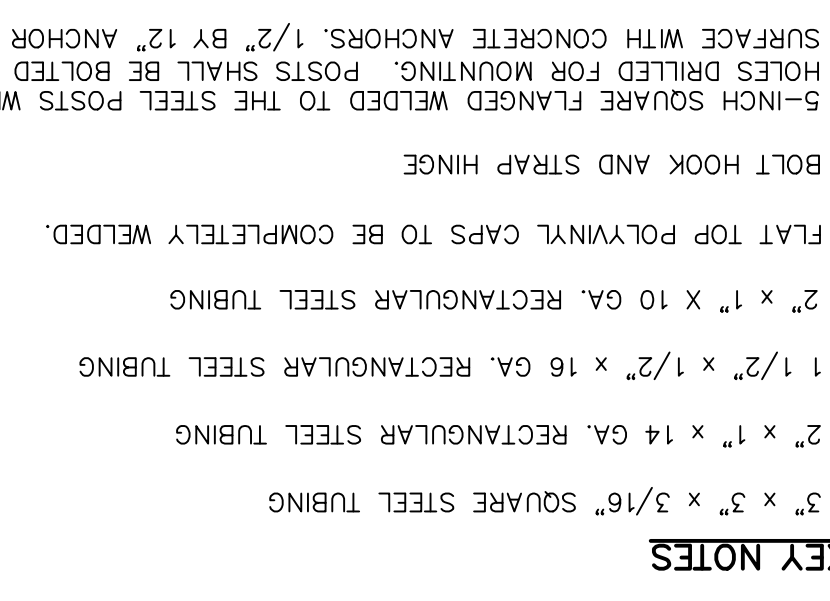
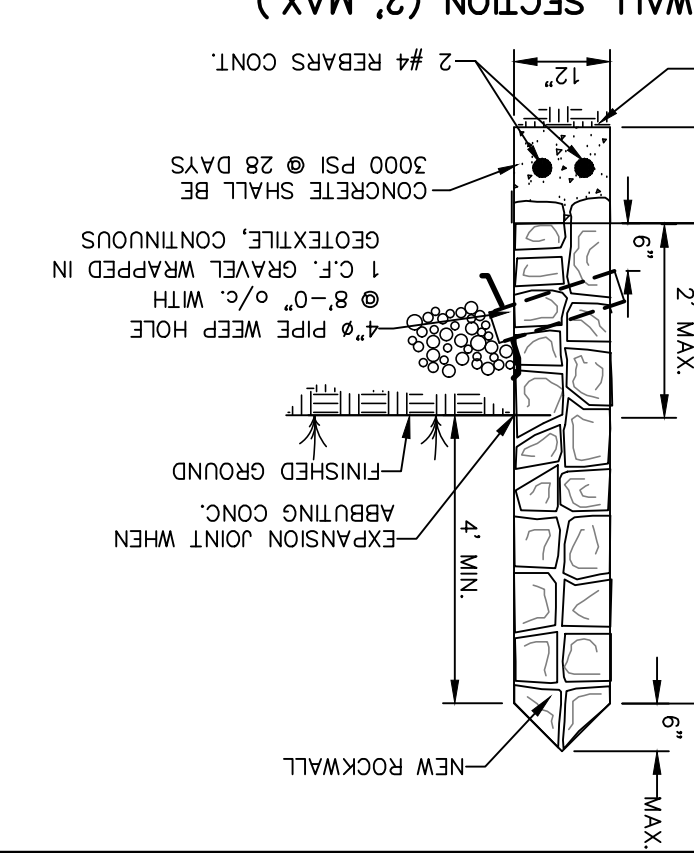
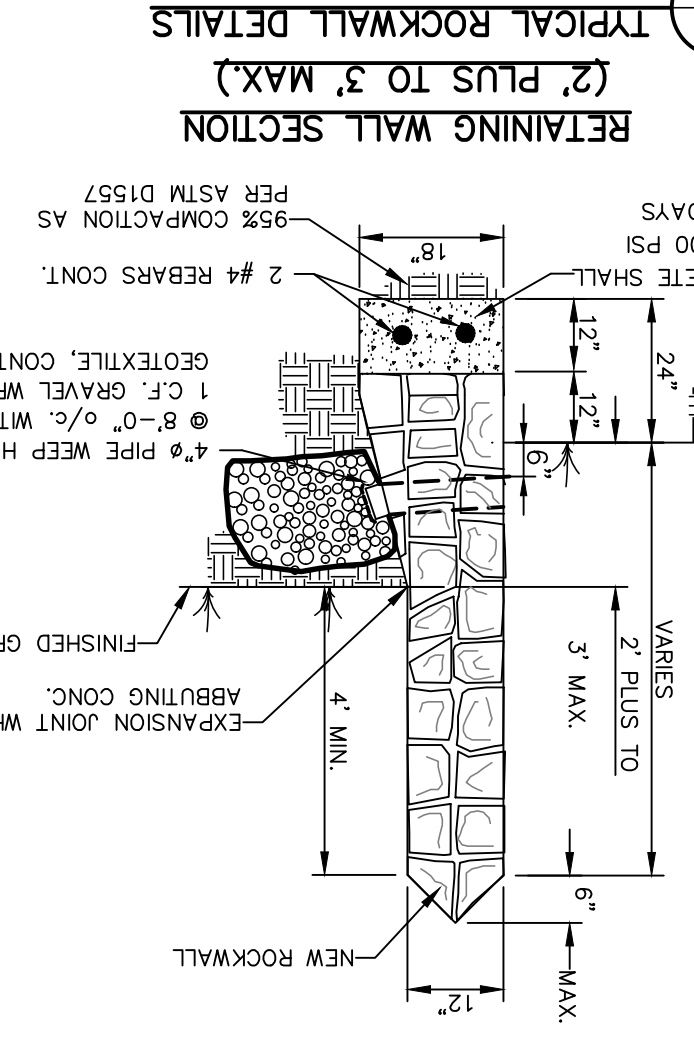
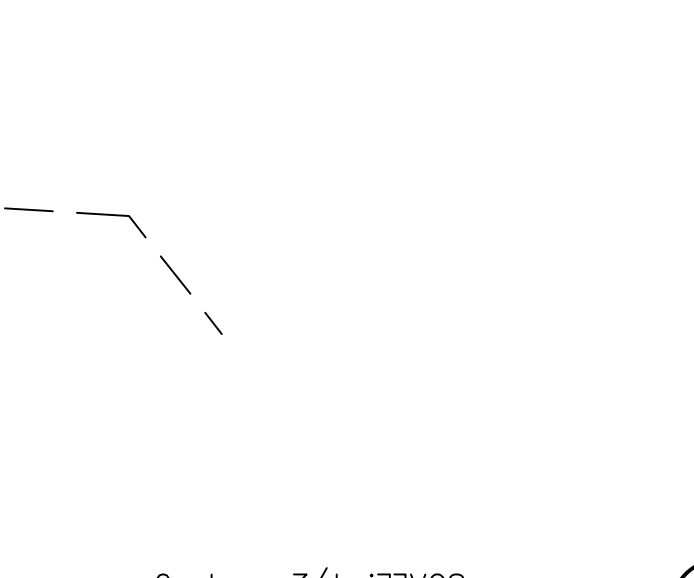
6 ROCKWALL WITH CONCRETE FOOTING DETAIL SCALE: N.T.S.



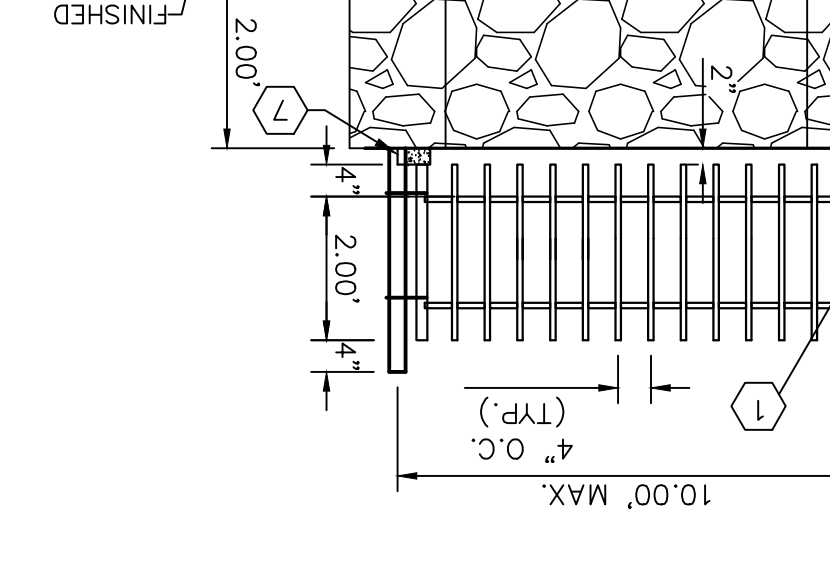
7 TYPICAL ROCKWALL W/ WROUGHT IRON FENCE DETAILS SCALE: N.T.S.



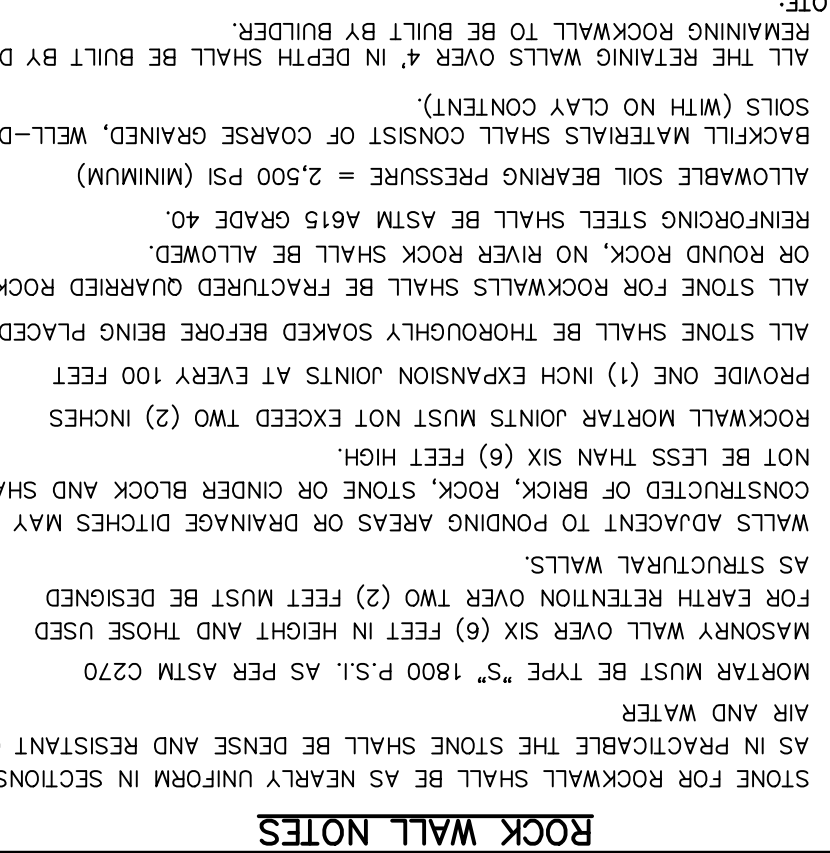
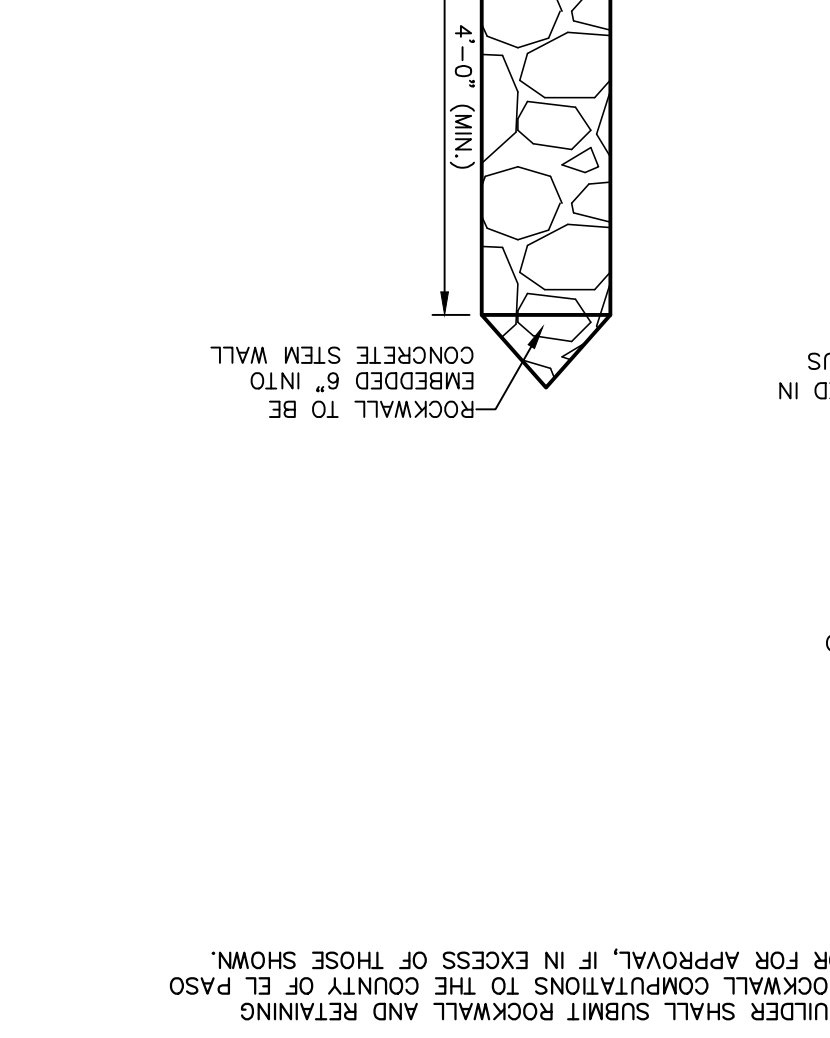
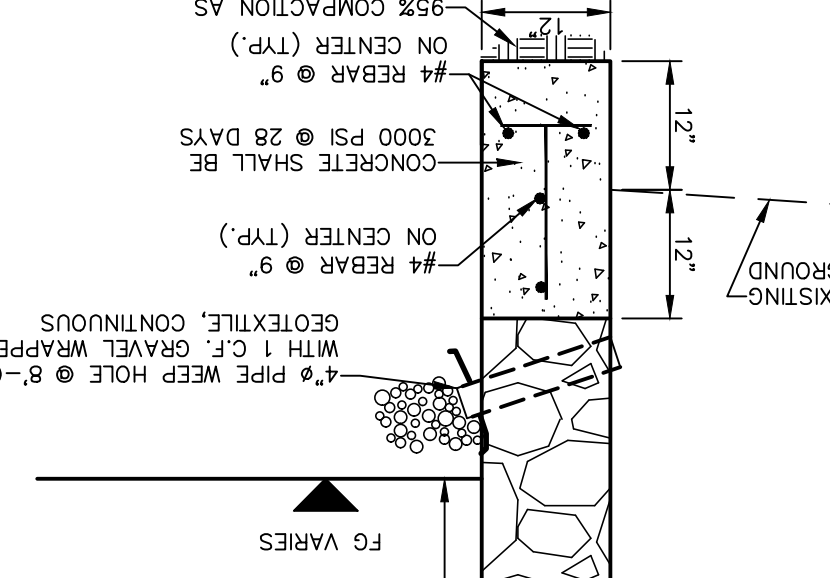
6 ROCKWALL WITH CONCRETE FOOTING DETAIL SCALE: N.T.S.



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



6 ROCKWALL WITH CONCRETE FOOTING DETAIL SCALE: N.T.S.



ROCK WALL NOTES

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

PROJECT TITLE: VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS

SCALE: N/A

Horizontal: N/A

Vertical: N/A

Contour Interval: N/A

DATE: APRIL 2021

DESIGN BY: C.U. / R.O.

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

CHKD. BY: J.L.A.

APPD. BY: J.L.A.

JOB NO.: 2000-2241D

ENGINEER'S SEAL

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

TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS

CITY: ANTONIO LOCATED AT THE INTERSECTION OF PALMADO STREET AND PALMADO STREET

ELEVATION: 3939.32 (NAD 88)

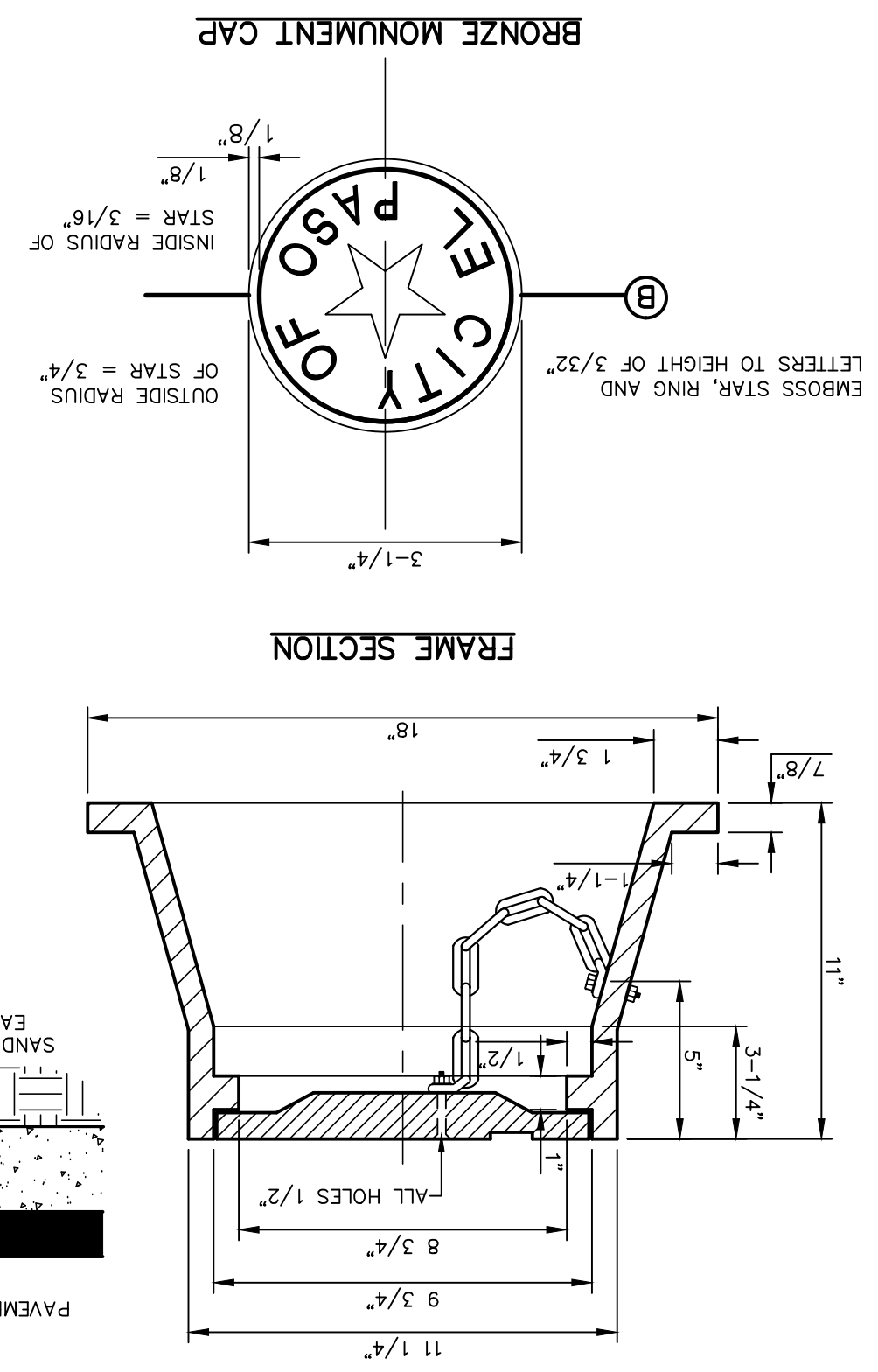
ELEVATION: 3928.24' (CITY DATUM)

REVISIONS

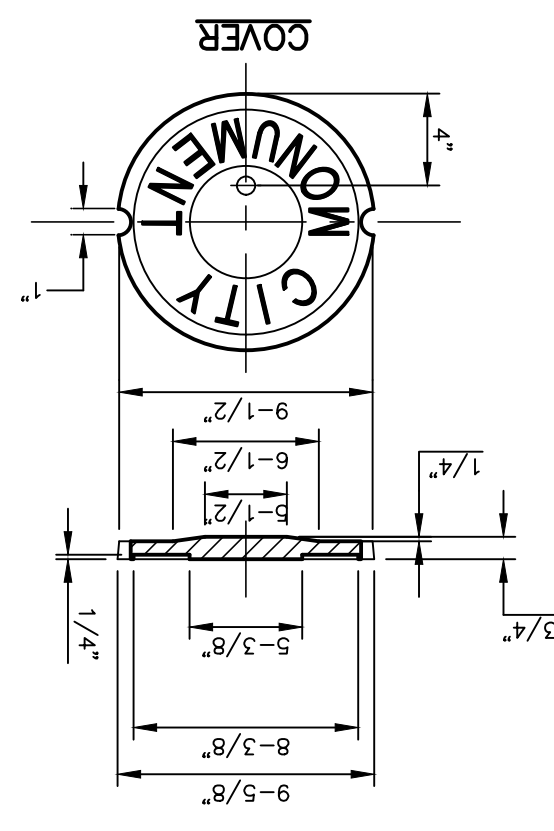
DATE

BY

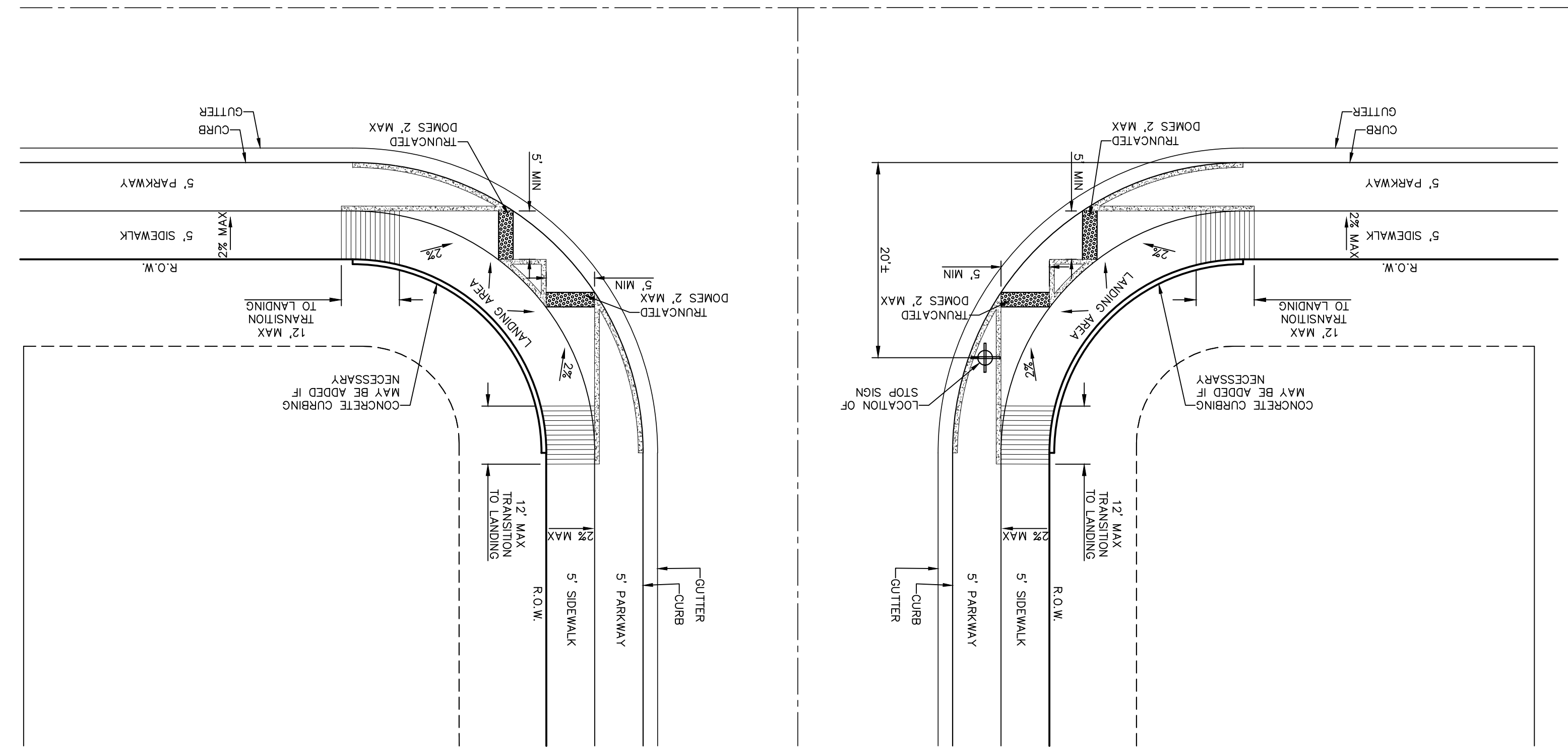




9 CITY SURVEY MONUMENT DETAILS  
SCALE: N.T.S.

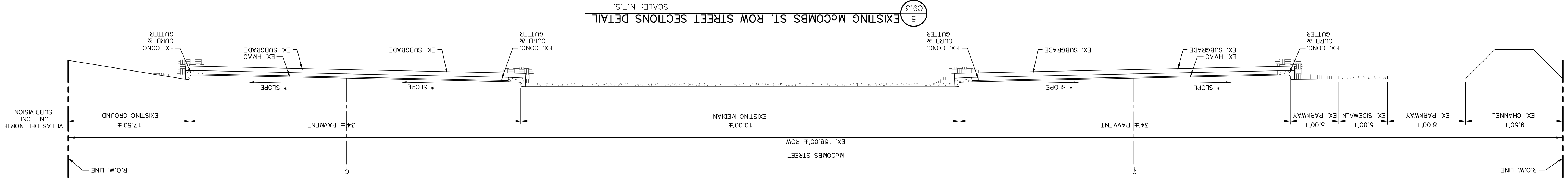


- PROPOSED MONUMENT LOCATIONS**
- MONUMENTS SHALL BE INSTALLED SO THAT ALL FRONT PROPERTY CORNERS OF ALL LOTS IN THE SUBDIVISION ARE WITHIN SIGHT OF A MONUMENT, OR WITHIN SIGHT OF THE LINE BETWEEN TWO ADJACENT MONUMENTS.
  - EACH MONUMENT SHALL BE WITHIN LINE OF SIGHT OF ANOTHER MONUMENT.
  - MONUMENTS SHALL BE NO FARTHER THAN 2000 FEET APART.
  - AT LEAST ONE (1) MONUMENT SHALL BE PLACED ON EACH HORIZONTAL CURVE LINE.
  - NO FEWER THAN TWO MONUMENTS SHALL BE PLACED IN ONE (1) STREET SUBDIVISIONS.

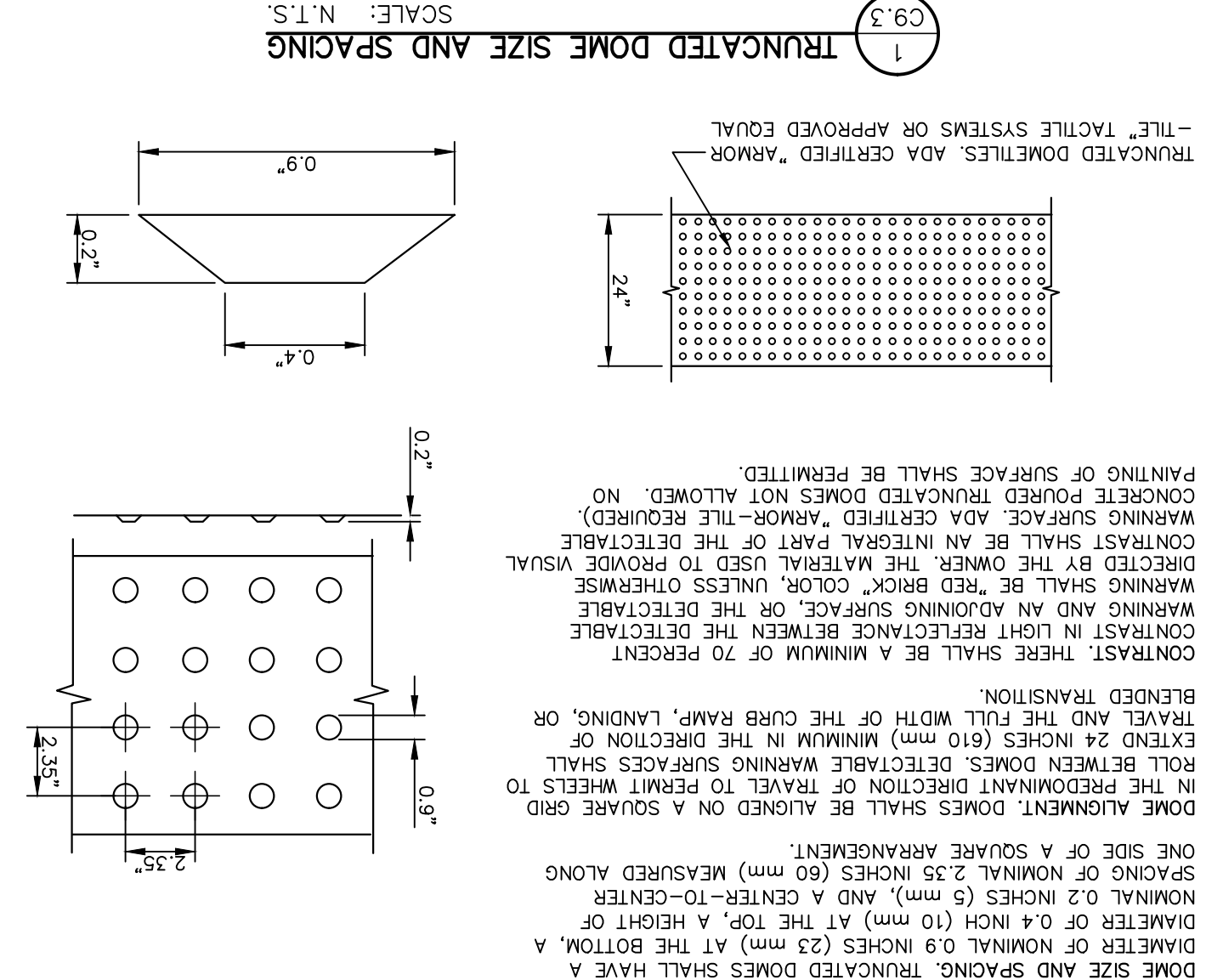


7 TYPICAL DIRECTIONAL RAMP & INTERSECTION  
SCALE: N.T.S.

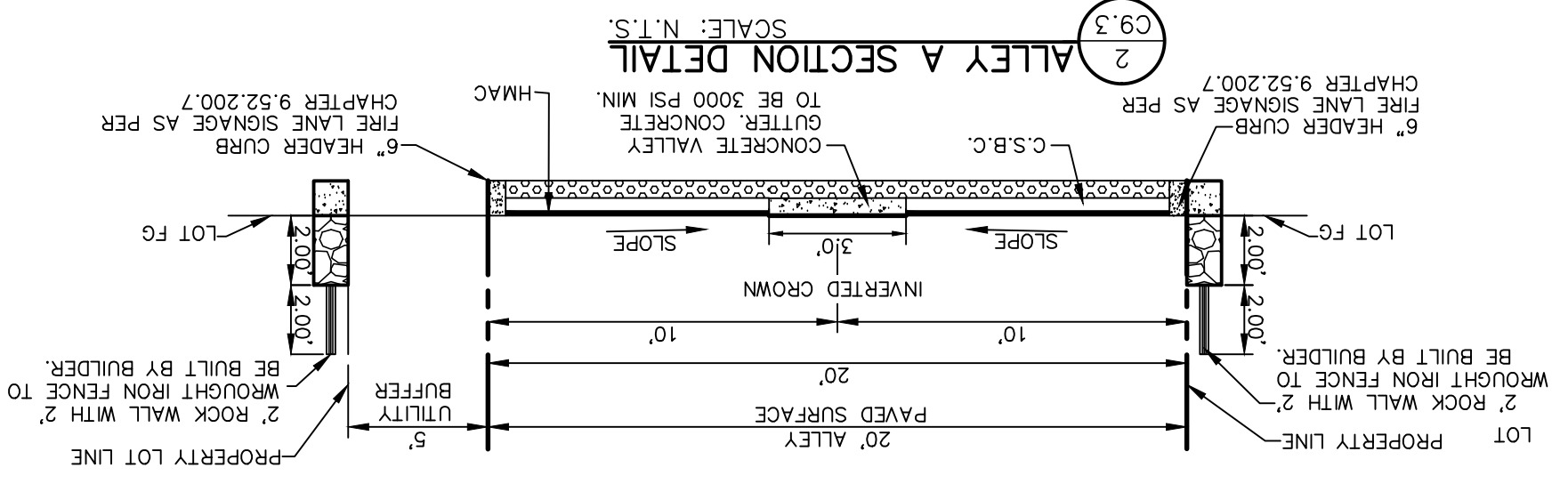
- NOTES:**
- RAMPS MAY BE PLACED AS SUGGESTED, HOWEVER EXISTING LIGHT POLES, FIREHYDRANTS, DROP MELTS, ETC., MAY AFFECT PLACEMENT.
  - THE CONCRETE SURFACE SHALL HAVE A ROUGH, NONSKID FINISH.
  - CONSTRUCTION METHODS SHALL CONFORM WITH THE CITY OF EL PASO SPECIFICATIONS.
  - ALL PARKING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF EL PASO.



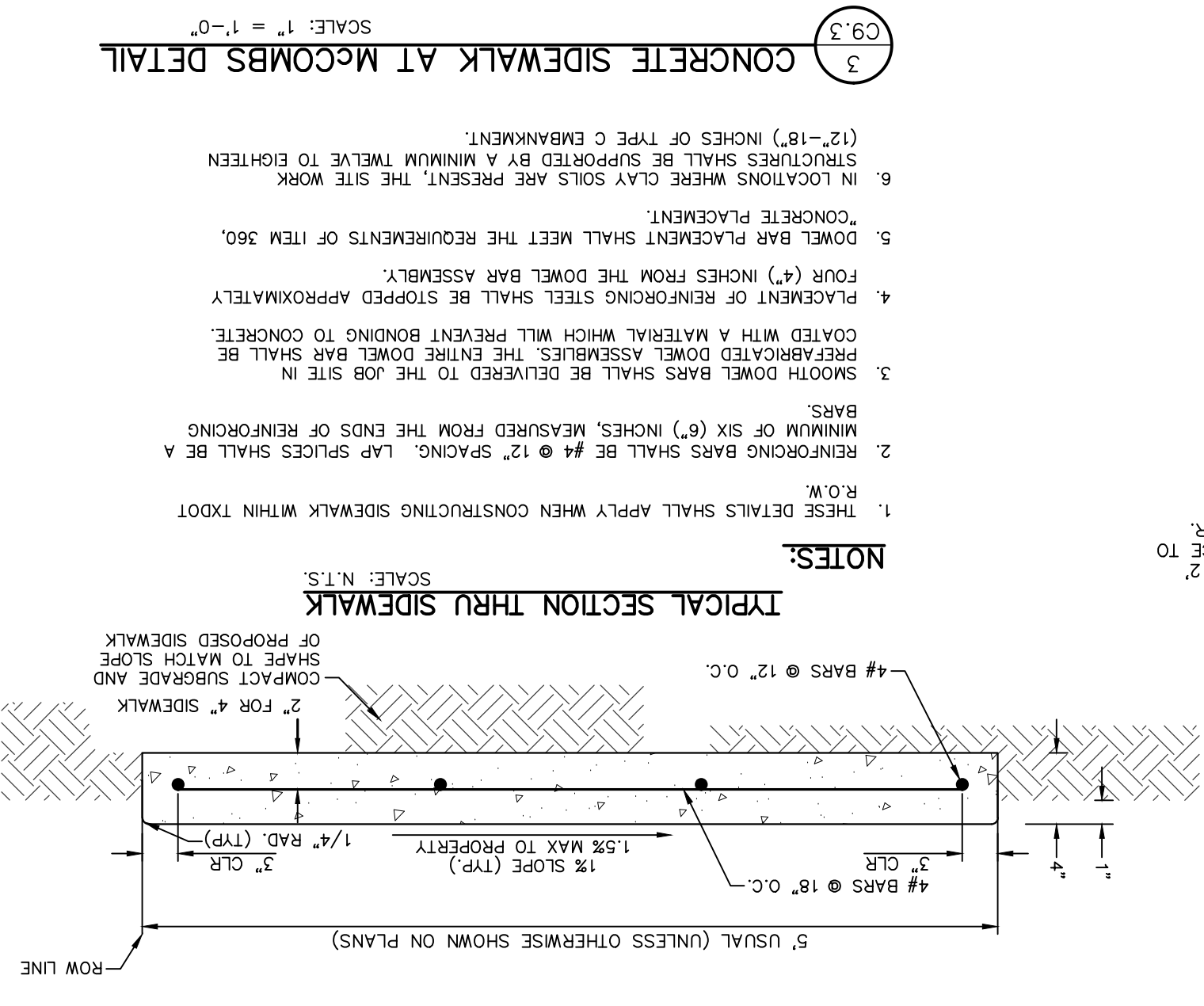
5 EXISTING McCOMBS ST. ROW STREET SECTIONS DETAIL  
SCALE: N.T.S.



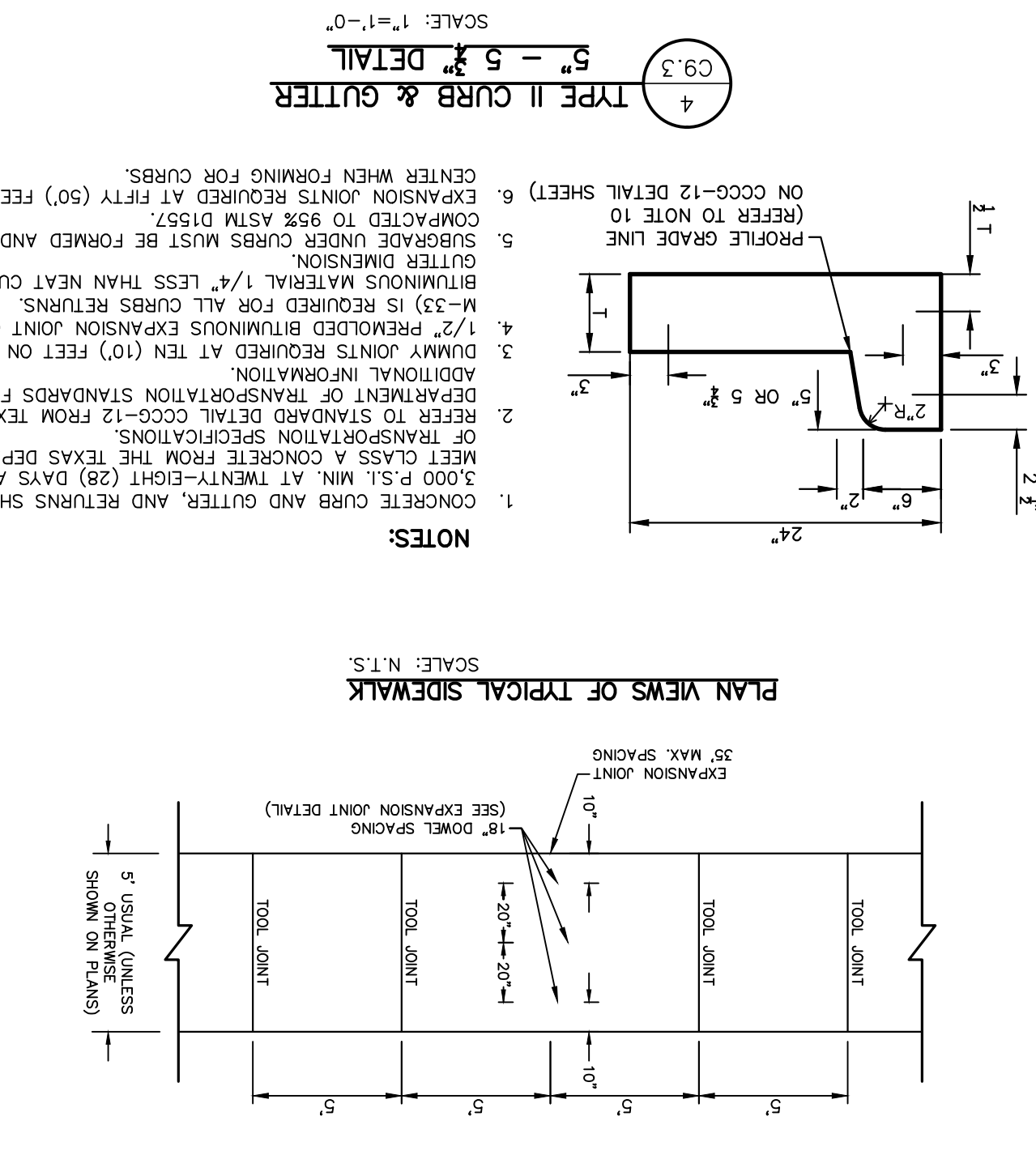
1 TRUNCATED DOME SIZE AND SPACING  
SCALE: N.T.S.



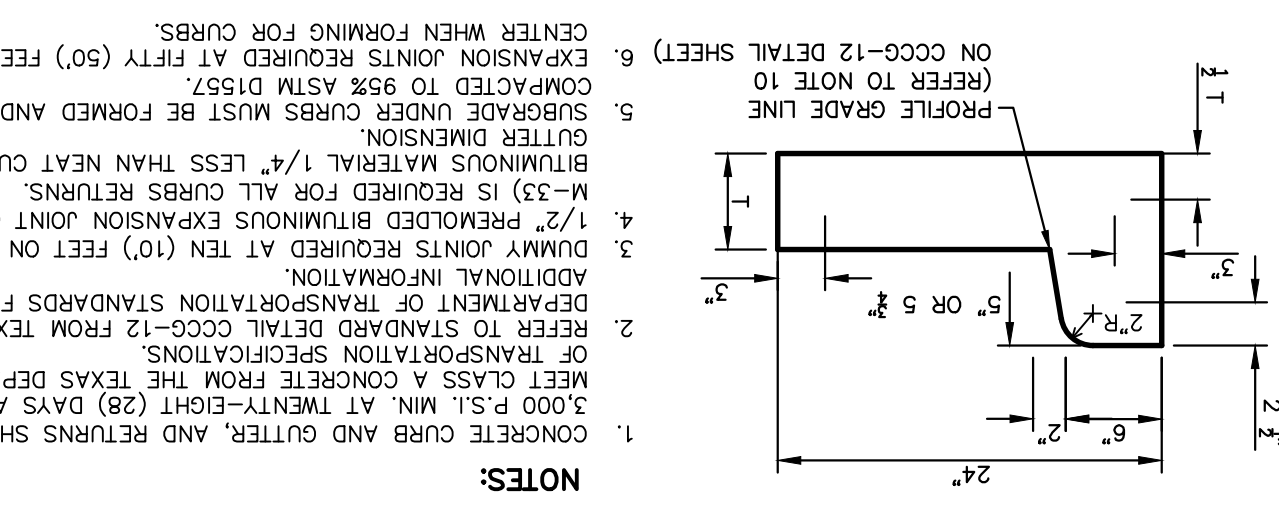
2 ALLEY A SECTION DETAIL  
SCALE: N.T.S.



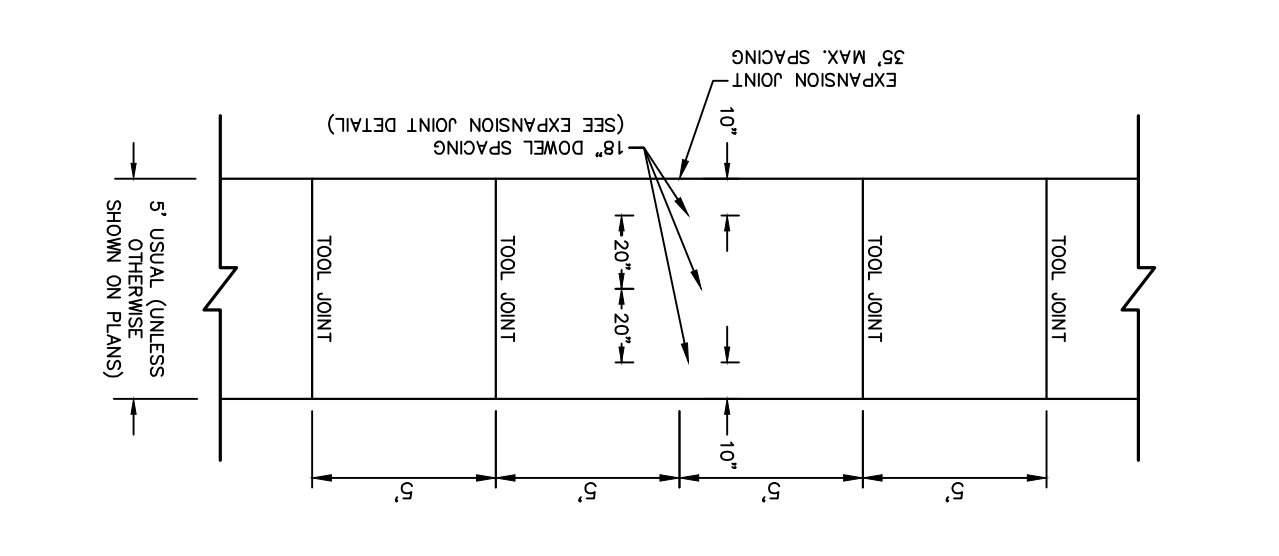
3 CONCRETE SIDEWALK AT McCOMBS DETAIL  
SCALE: 1\"/>



4 TYPE II CURB & GUTTER  
SCALE: 1\"/>



PLAN VIEWS OF TYPICAL SIDEWALK  
SCALE: N.T.S.



NOTES:

- THESE DETAILS SHALL APPLY WHEN CONSTRUCTING SIDEWALK WITHIN TYPICAL R.O.W.
- REINFORCING BARS SHALL BE #4 @ 12" SPACING. LAP SPICES SHALL BE A MINIMUM OF SIX (6") INCHES, MEASURED FROM THE ENDS OF REINFORCING BARS.
- SMOOTH DOWEL BARS SHALL BE DELIVERED TO THE JOB SITE IN PREFABRICATED DOWEL ASSEMBLIES. THE ENTIRE DOWEL BAR SHALL BE COATED WITH A MATERIAL WHICH WILL PREVENT BONDING TO CONCRETE.
- PLACEMENT OF REINFORCING STEEL SHALL BE STOPPED APPROXIMATELY FOUR (4) INCHES FROM THE DOWEL BAR ASSEMBLY.
- DOWEL BAR PLACEMENT SHALL MEET THE REQUIREMENTS OF ITEM 360.
- IN LOCATIONS WHERE CLAY SOILS ARE PRESENT, THE SITE WORK IN TRENCHES SHALL BE SUPPORTED BY A MINIMUM TWELVE TO EIGHTEEN (12"-18") INCHES OF TYPE C EMBANKMENT.
- CONCRETE SHALL BE PLACED IN LAYERS NOT EXCEEDING 4" IN THICKNESS. EACH LAYER SHALL BE COMPACTED TO 95% ASTM D1557. EXPANSION JOINTS REQUIRED AT FIFTY (50') FEET ON CENTER WHEN FORMING FOR CURBS.

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
SUBDIVISION IMPROVEMENTS

ENGINEER'S SEAL  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
JOB NO.: 2000-2241D

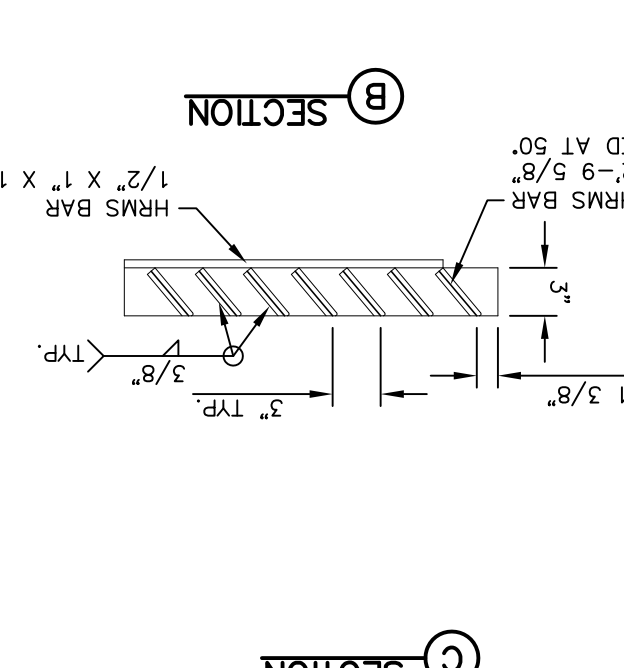
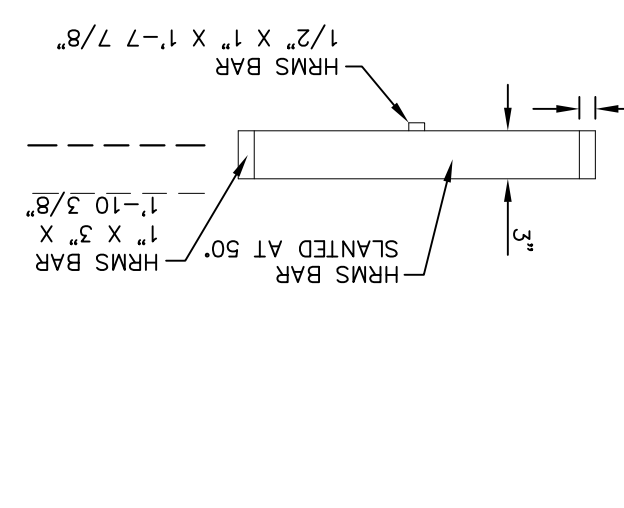
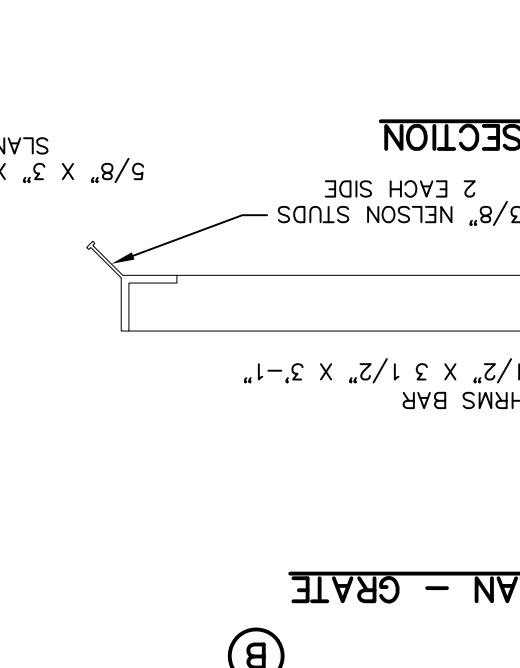
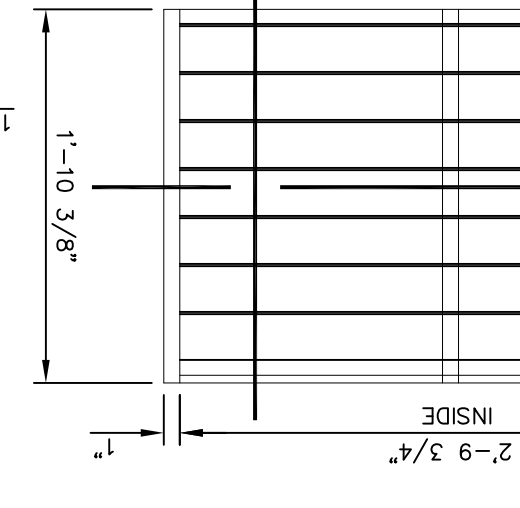
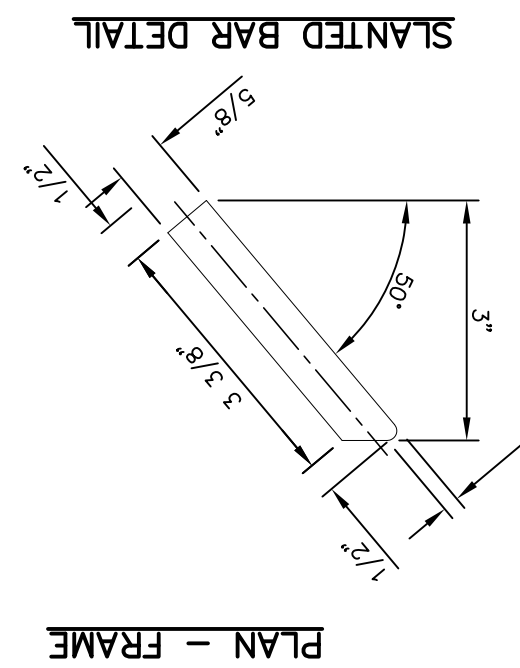
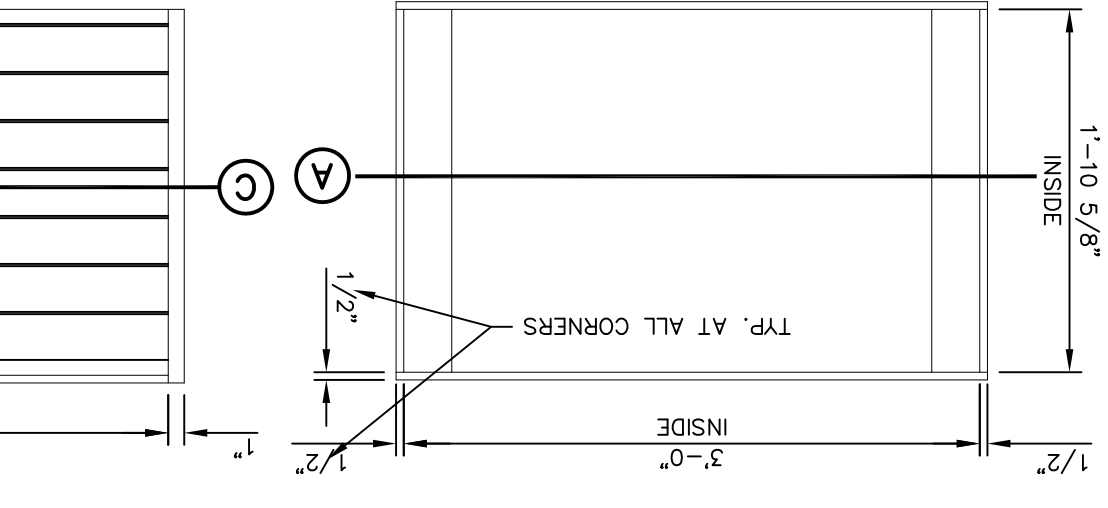
813 N. Kansas St.  
Suite 300  
El Paso, TX 79902  
915.544.5232  
www.ceegroup.net

REFERENCES - BENCHMARKS  
CITY MARKING LOCATED AT THE INTERSECTION OF CROSBY AND PALMADO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

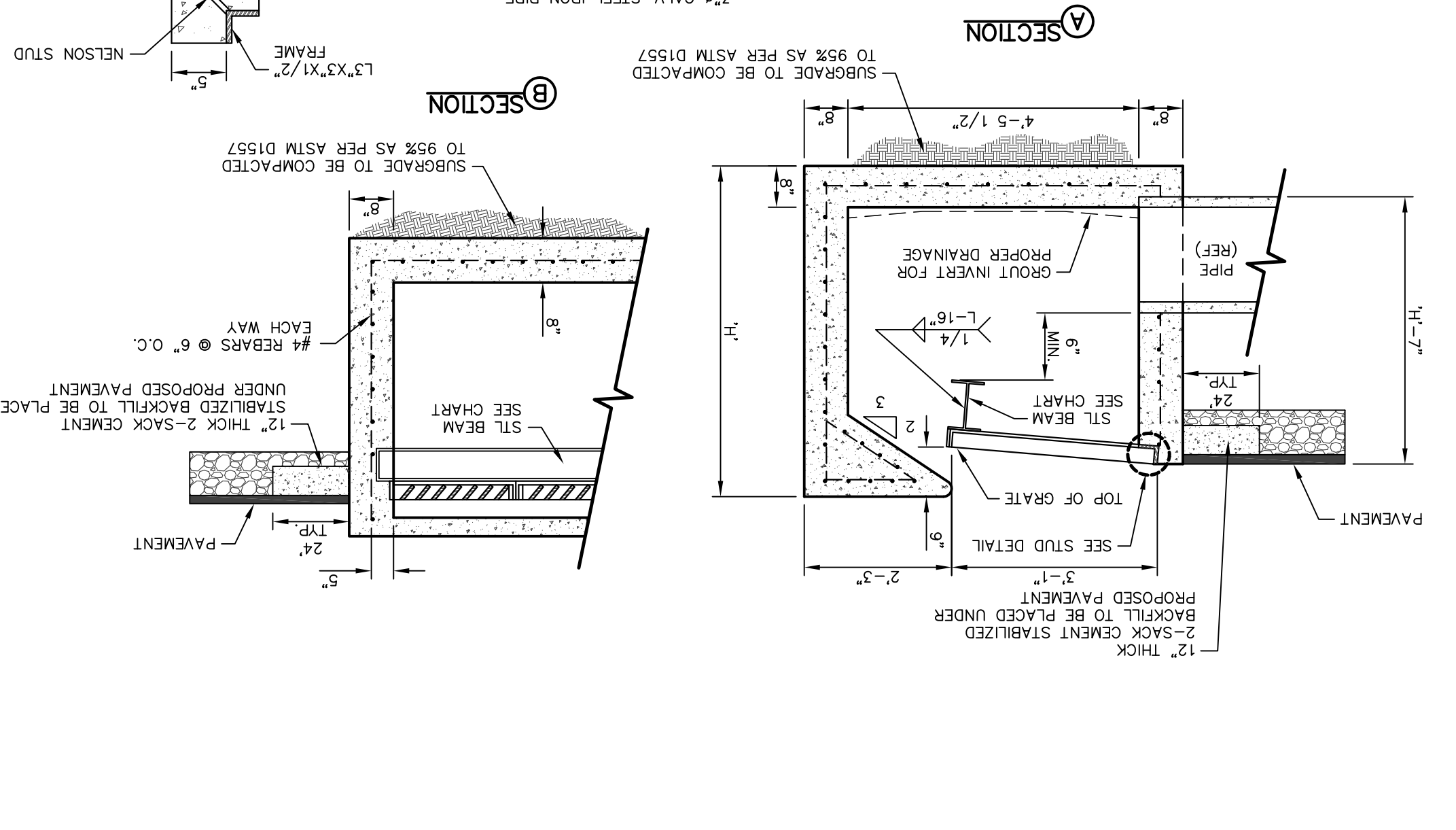
STANDARD DETAILS  
(SHEET 3 OF 3)  
SHEET NO.

C9.3



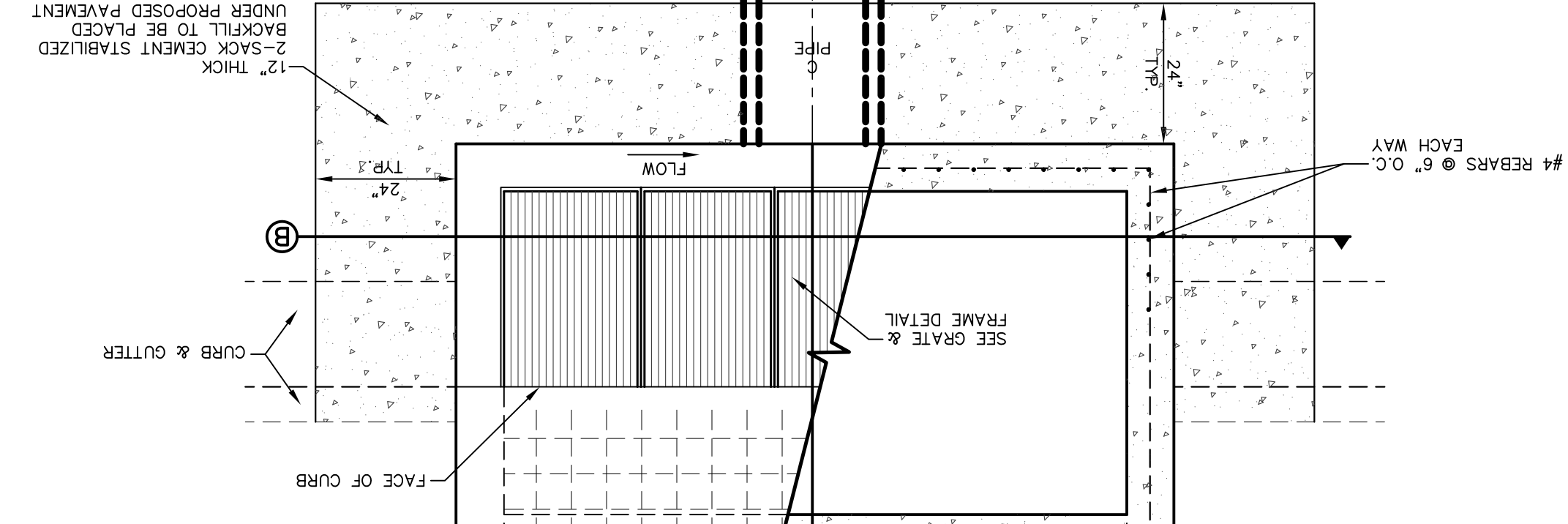
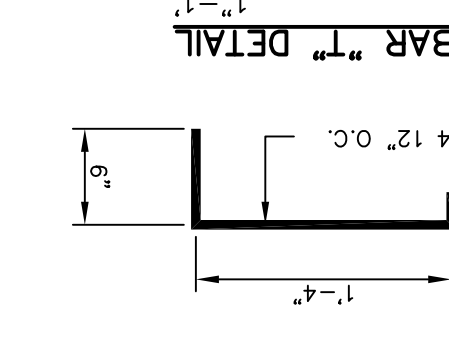
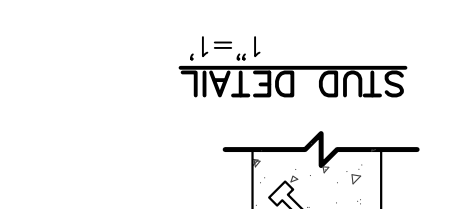


1 GRATE AND FRAME DETAILS  
SCALE: 1" = 1'-0"

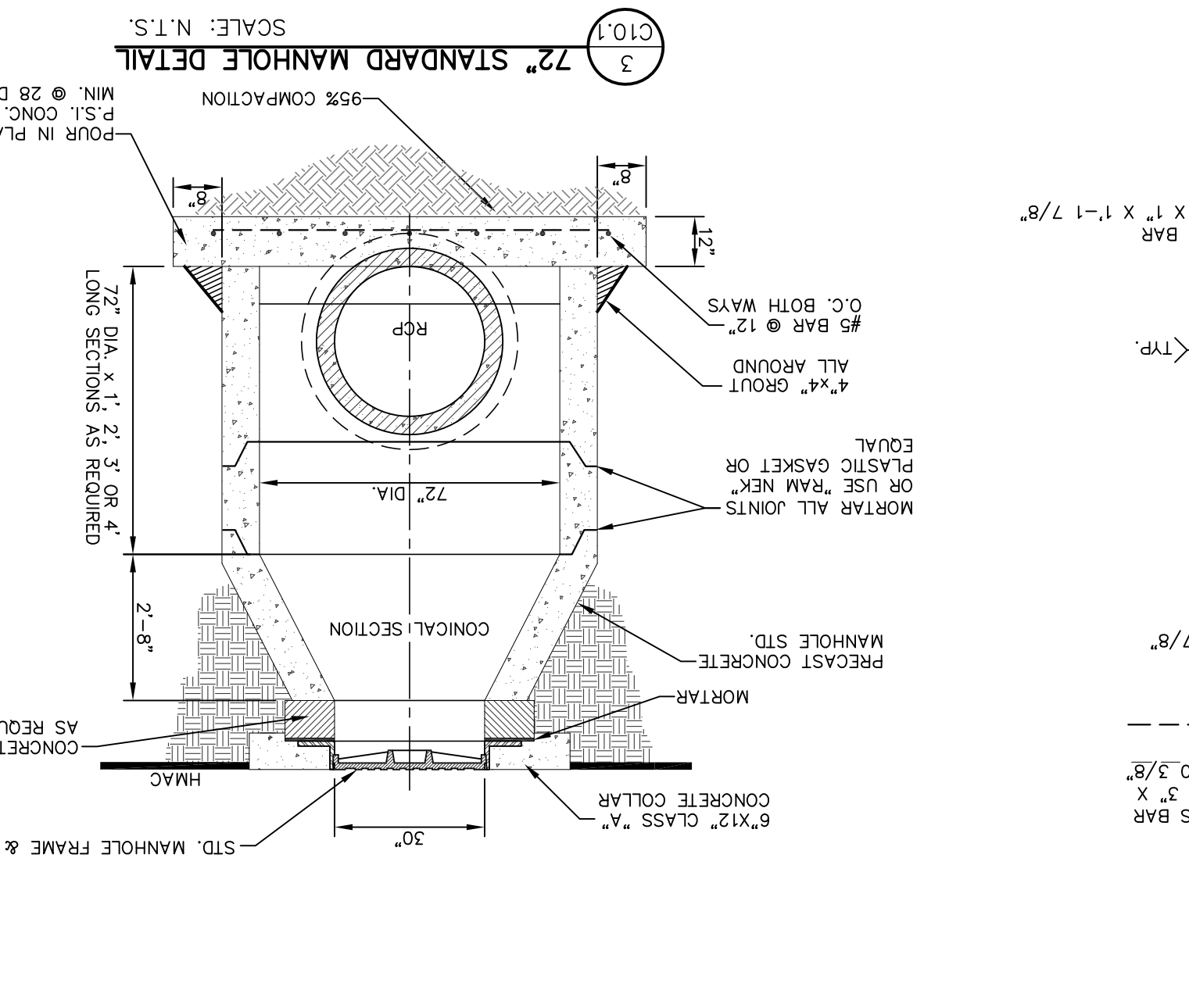


NO.	GRATES CAPACITY	BEAM LENGTH	BEAM (MIN. SIZES)
2	19.63 CFS	5'-1 1/8"	W6x12, S6x12.5, MC6x15.1
3	29.69 CFS	6'-5 1/8"	W8x15, S8x15.5, MC8x17.6
4	39.10 CFS	8'-3 7/8"	W10x15, S10x15.5, MC10x17.9
5	48.72 CFS	10'-2"	W12x15, S12x15.5, MC12x19

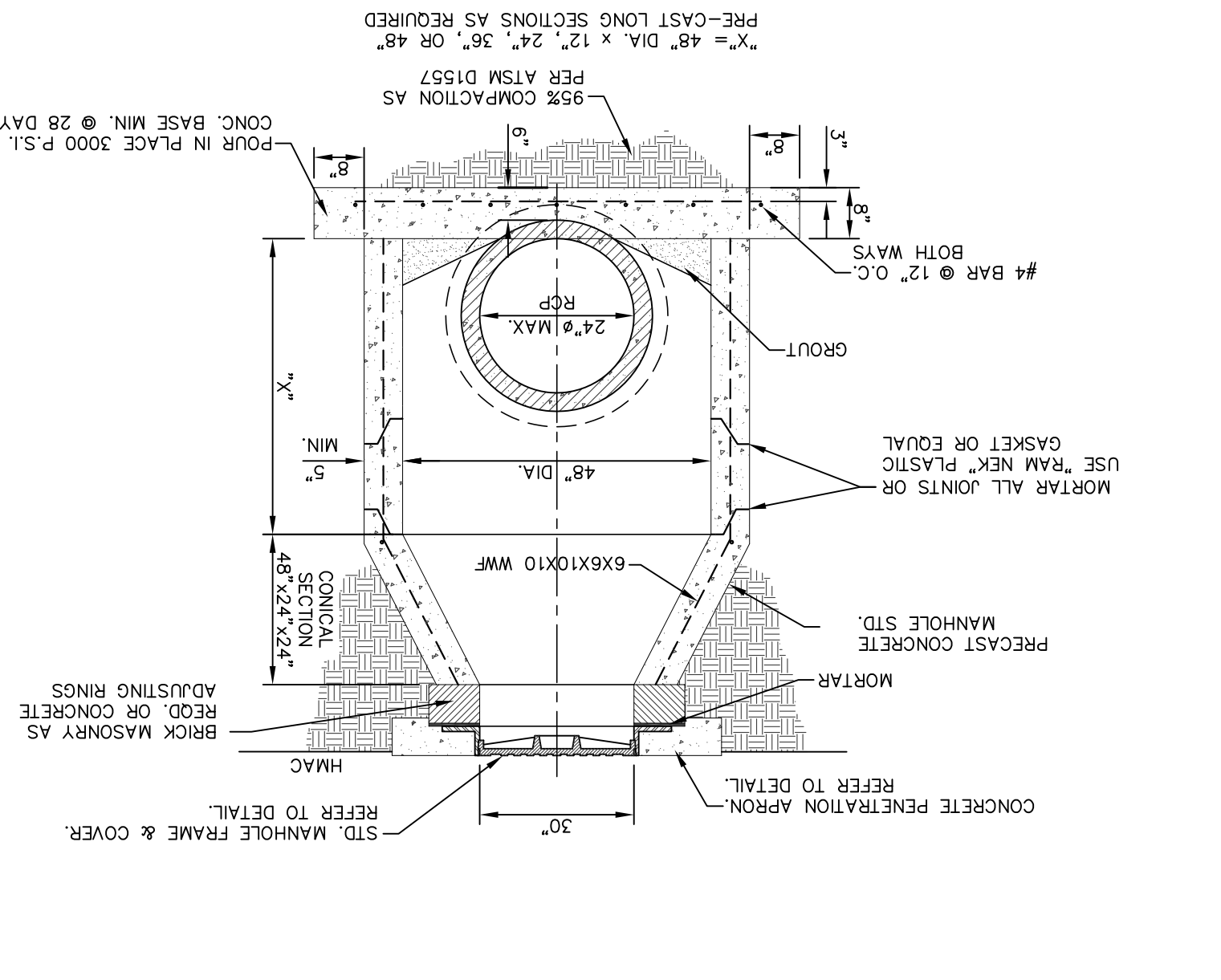
\* THESE CAPACITIES CORRESPOND TO A CLOGGING FACTOR OF 0.5



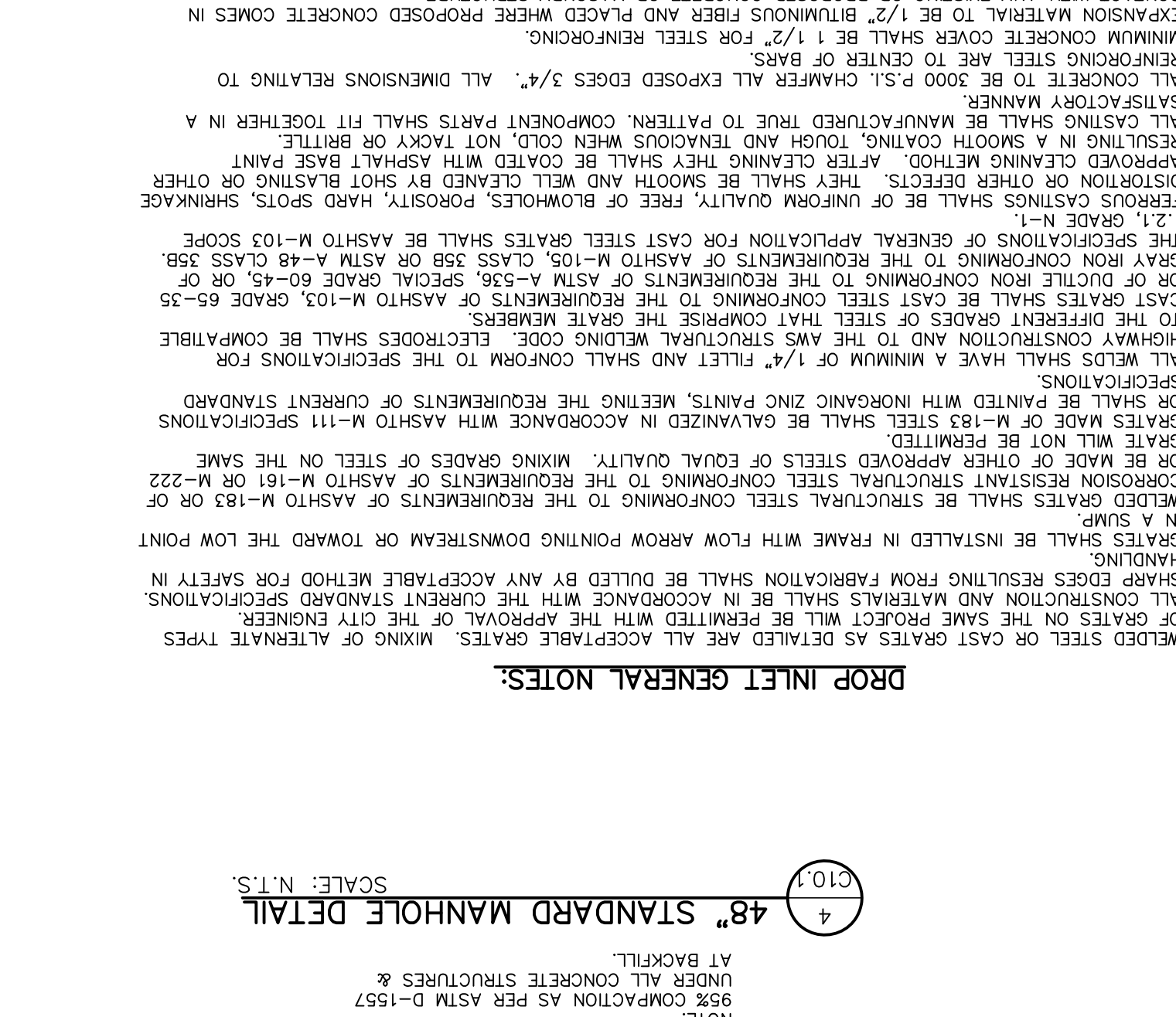
2 DROP INLET (TYPE 1) DETAILS  
SCALE: 1" = 2'-0"



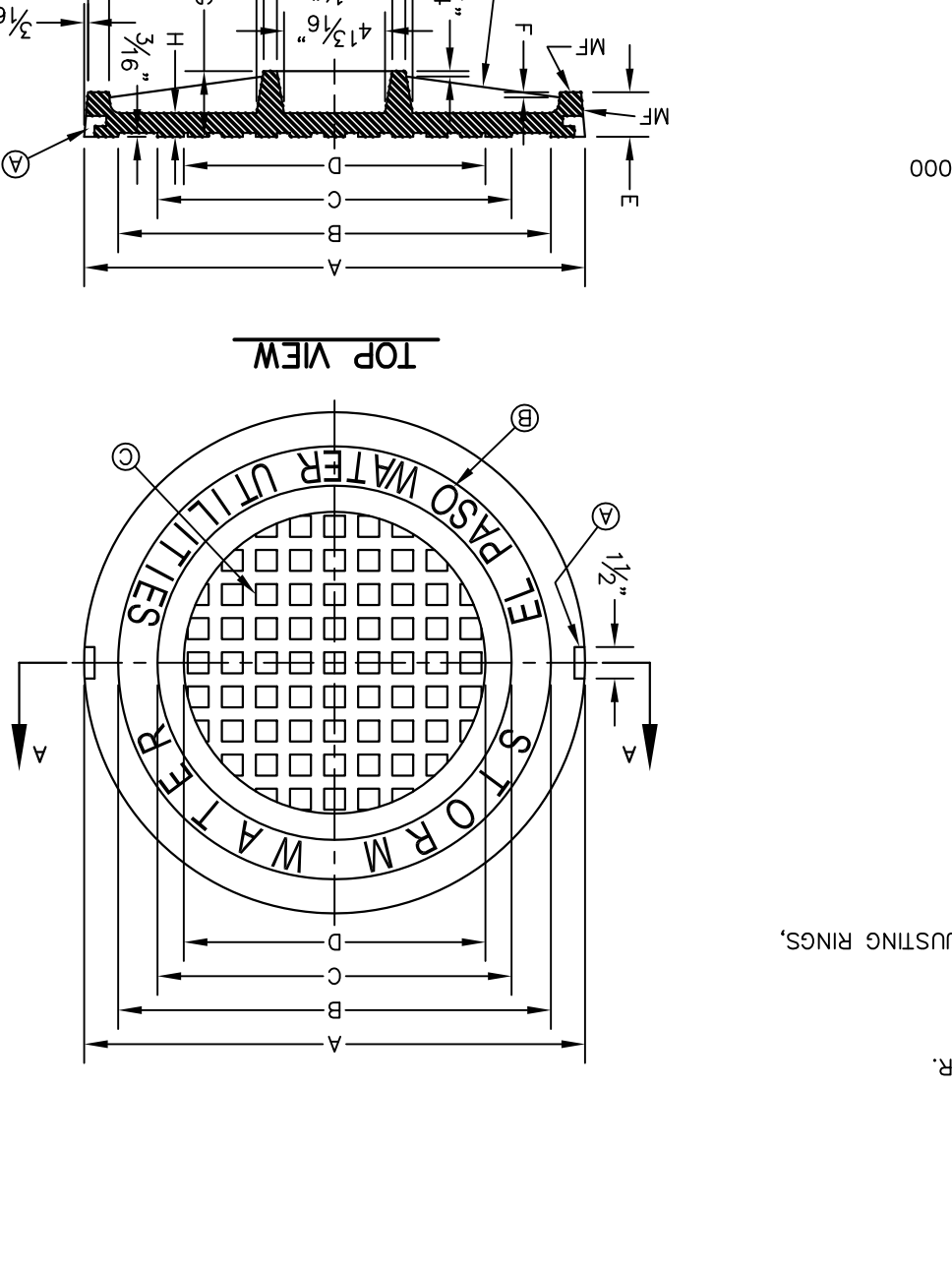
3 72" STANDARD MANHOLE DETAIL  
SCALE: N.T.S.



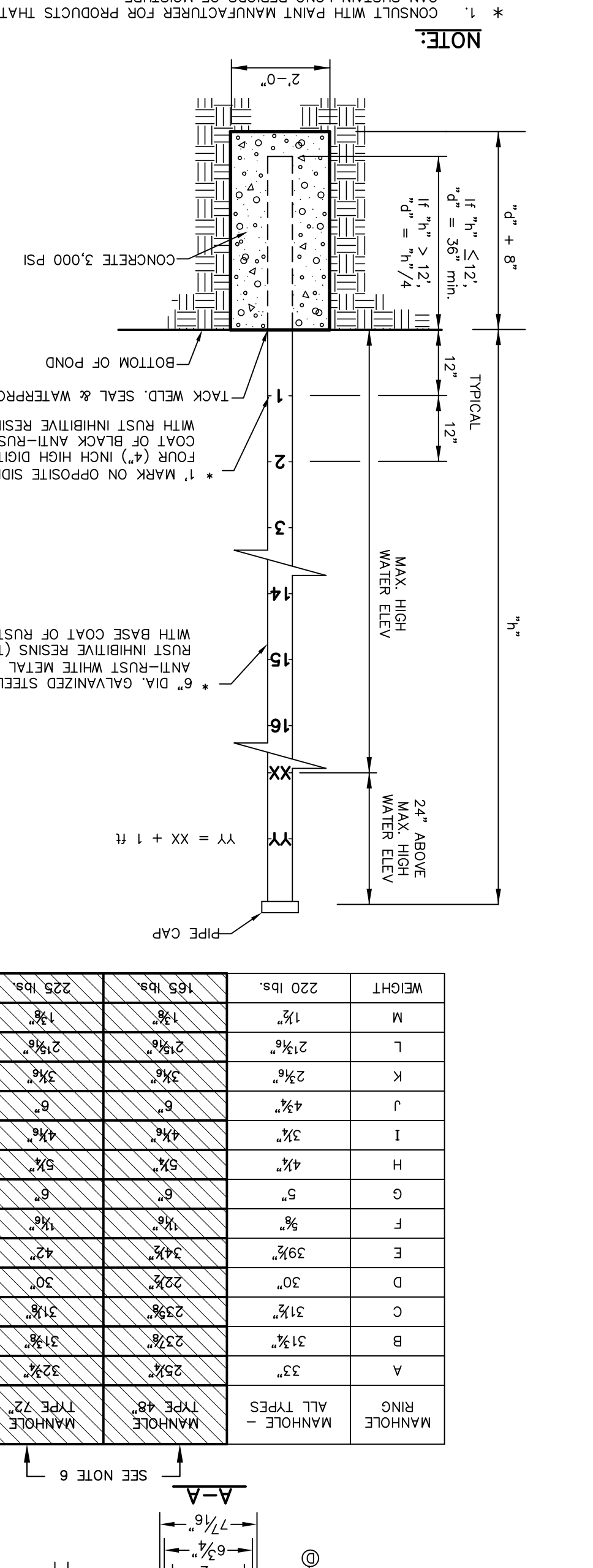
4 48" STANDARD MANHOLE DETAIL  
SCALE: N.T.S.



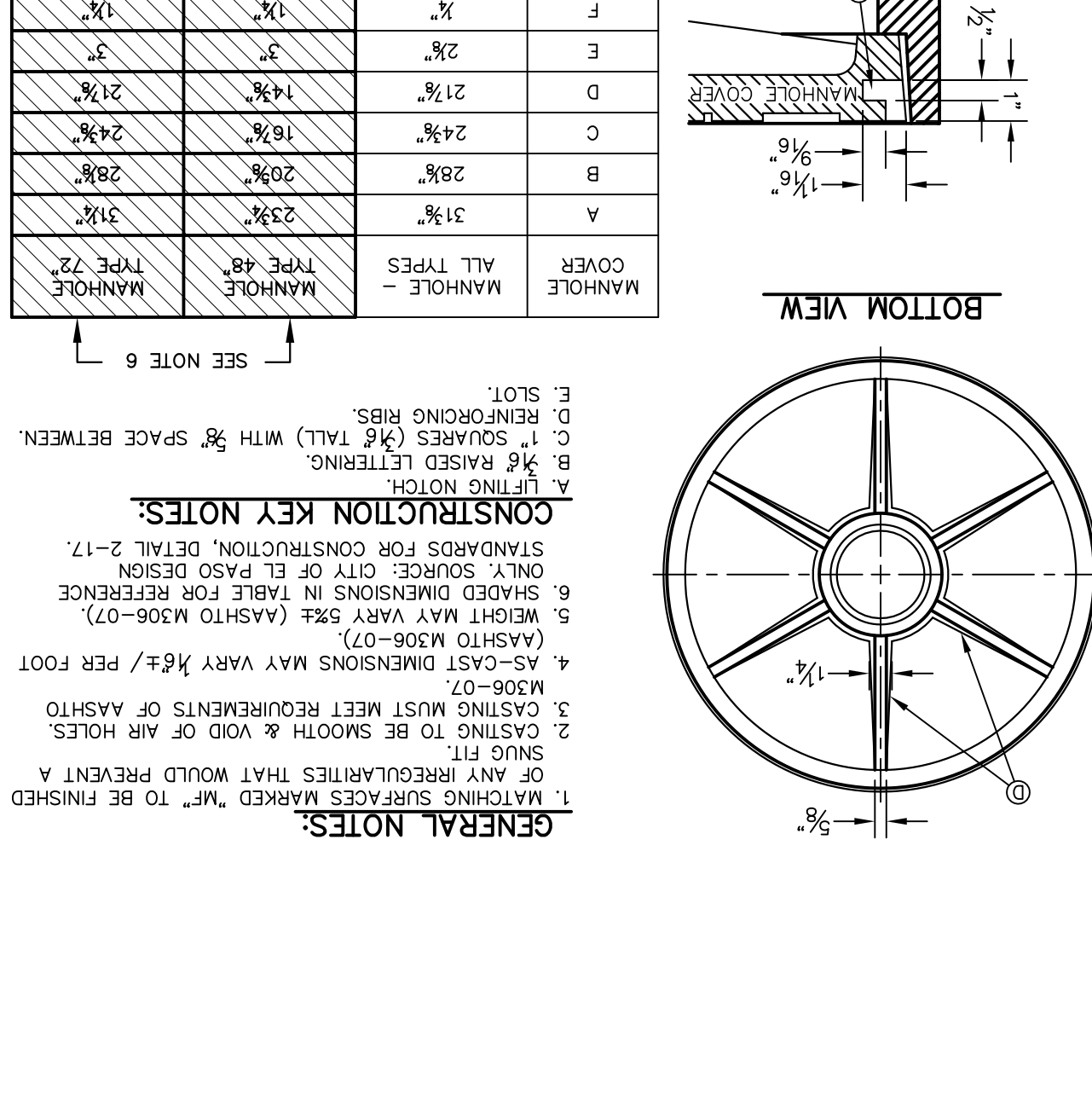
DROP INLET GENERAL NOTES:



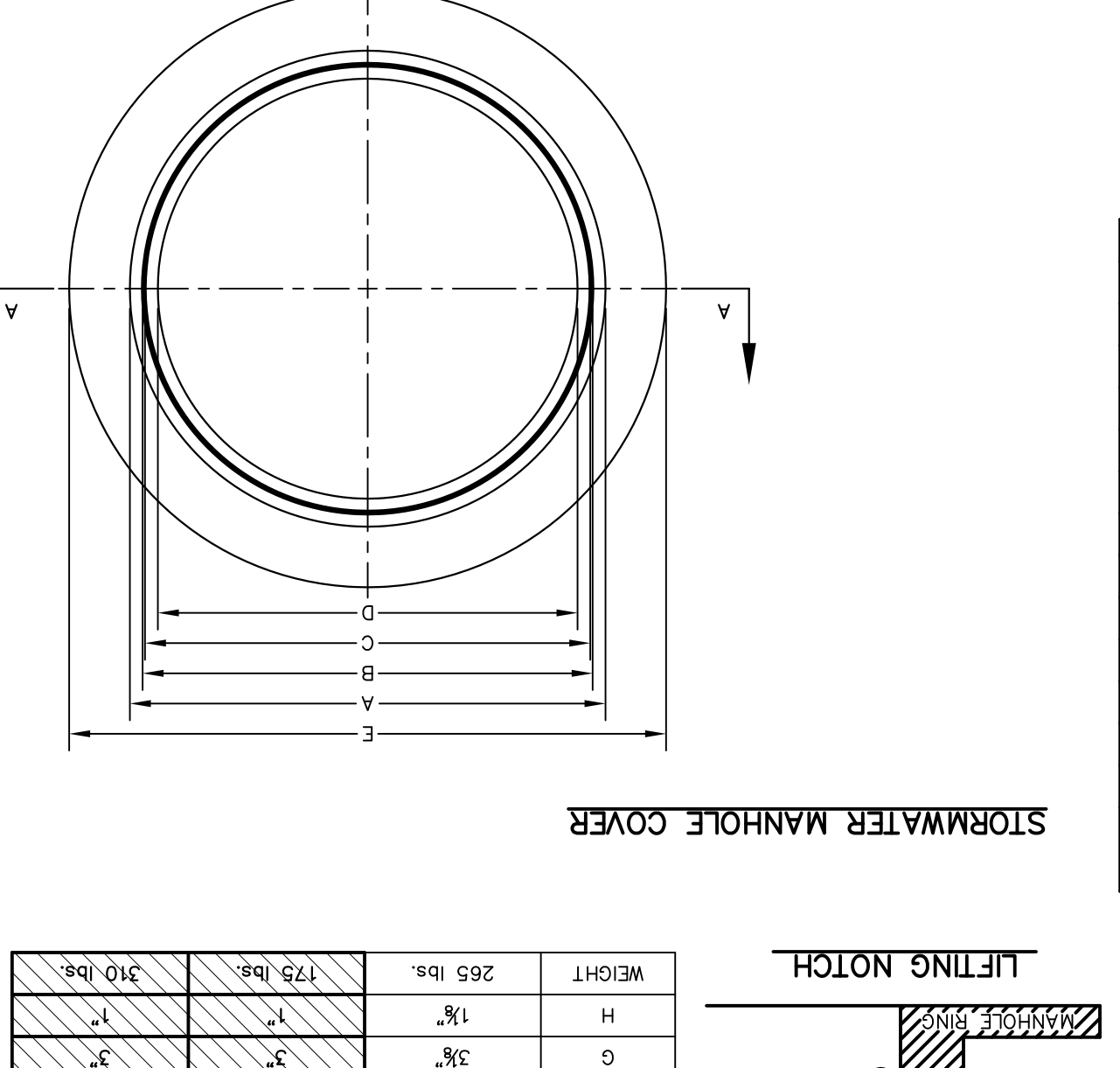
5 72" STANDARD MANHOLE RING AND COVER DETAILS  
SCALE: N.T.S.



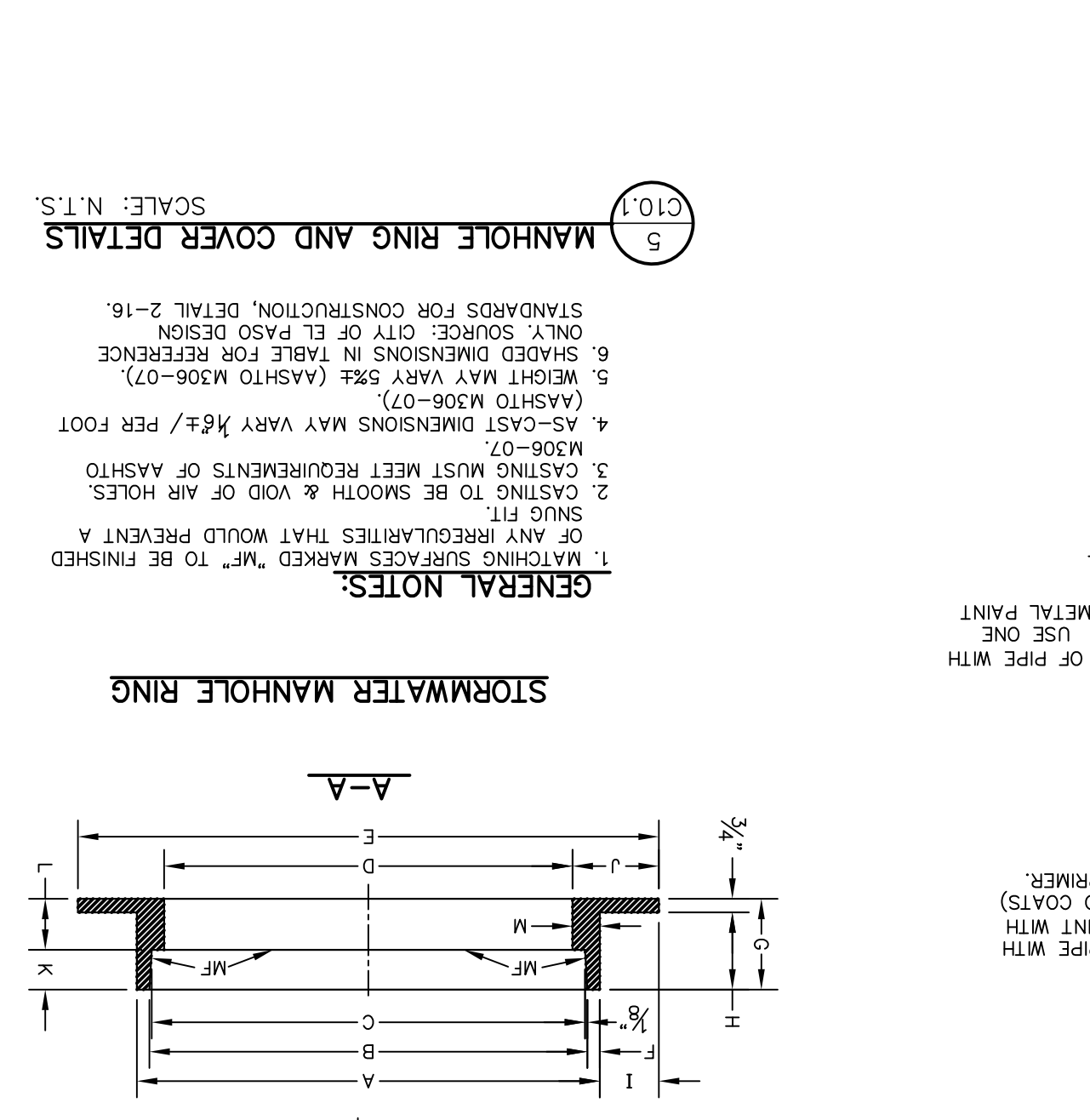
6 WATER DEPTH POLE DETAIL  
SCALE: N.T.S.



7 STORMWATER MANHOLE COVER  
SCALE: N.T.S.



8 STORMWATER MANHOLE RING  
SCALE: N.T.S.



9 MANTHOLE RING AND COVER DETAILS  
SCALE: N.T.S.



10 48" STANDARD MANHOLE DETAIL  
SCALE: N.T.S.

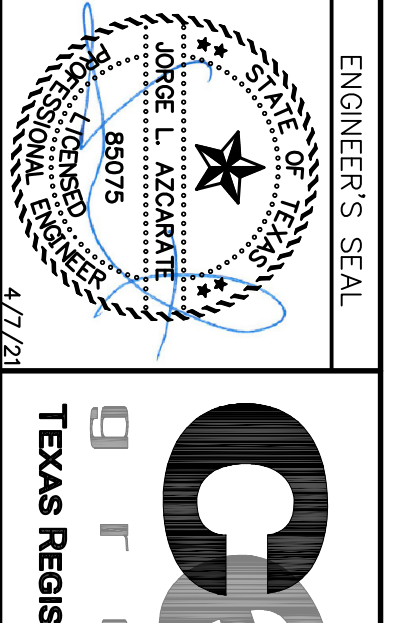
**GENERAL NOTES:**  
1. MATCHING SURFACES MARKED "M" TO BE FINISHED OR ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.  
2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.  
3. CASTING MUST MEET REQUIREMENTS OF ASHTO M-306-07.  
4. AS-CAST DIMENSIONS MAY VARY 1/8" / PER FOOT.  
5. WEIGHT MAY VARY 5% (ASHTO M-306-07).  
6. SHADDED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN.  
7. ONLY SOURCE: CITY OF EL PASO DESIGN.  
STANDARDS FOR CONSTRUCTION, DETAIL 2-17.

**CONSTRUCTION KEY NOTES:**  
A. LIFTING NOTCH.  
B. 3/8" RAISED LETTERING.  
C. 1" SQUARES (7/8" TALL) WITH 3/8" SPACE BETWEEN. E. SLOT.  
D. REINFORCING RIBS.

MANHOLE - COVER	MANHOLE - ALL TYPES	MANHOLE - MANHOLE	WEIGHT
A	31 3/8"	23 3/8"	31 3/8"
B	28 3/8"	20 3/8"	28 3/8"
C	24 3/8"	16 3/8"	24 3/8"
D	21 3/8"	14 3/8"	21 3/8"
E	2"	3"	1 1/2"
F	1 1/2"	1 1/2"	3/4"
G	3/8"	3/8"	1 1/8"
H	1 1/8"	1 1/8"	1 1/8"
I	4 1/8"	4 1/8"	1 3/8"
J	4 3/8"	4 3/8"	1 3/8"
K	2 3/8"	2 3/8"	2 3/8"
L	2 1 3/8"	2 1 3/8"	2 1 3/8"
M	1 1/2"	1 1/2"	1 1/2"
MANHOLE - MANHOLE	ALL TYPES	TYPE 48	225 lbs
MANHOLE - MANHOLE	TYPE 72	TYPE 72	225 lbs

**REFERENCES - BENCHMARKS**  
CITY MONUMENT LOCATED AT THE CENTERMARK INTERSECTION OF CLOVERDALE DRIVE AND PALMDALE STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24" (CITY DATUM)

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



SCALE: N/A  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./G.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
JOB NO.: 2000-2241.D

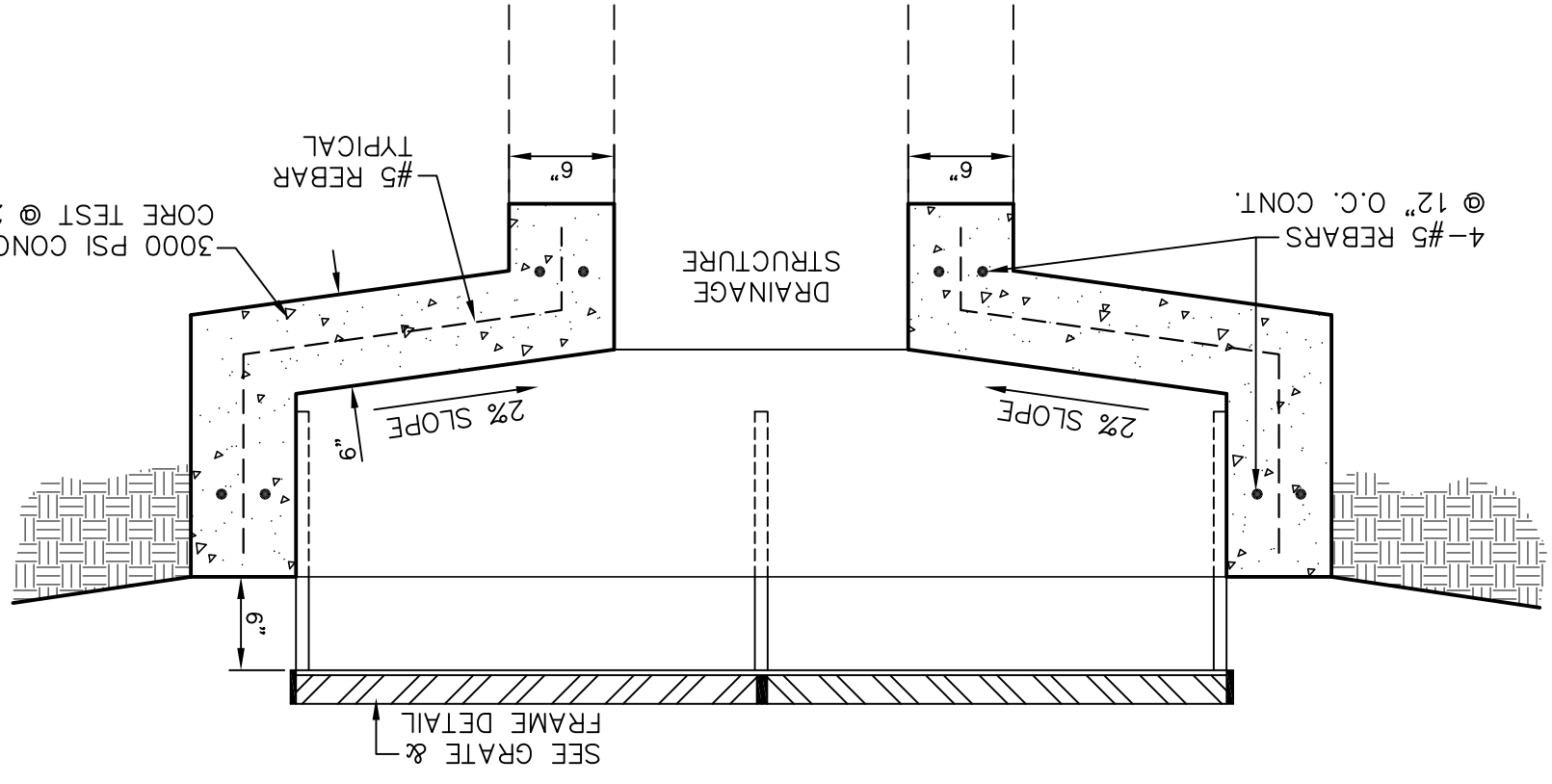
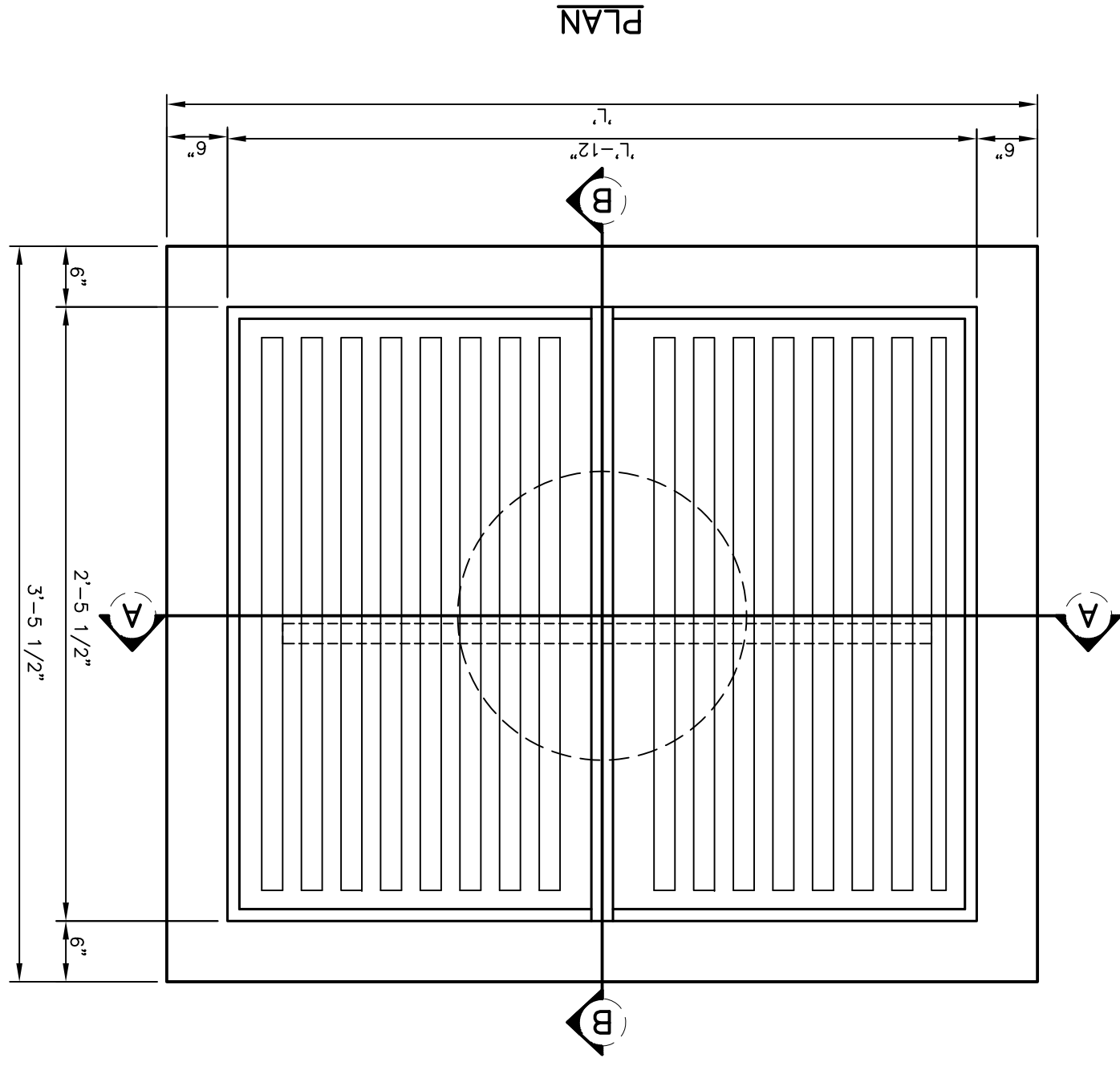
PROJECT TITLE  
VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

DRAINAGE DETAILS  
SHEET 1 OF 5  
C10.1

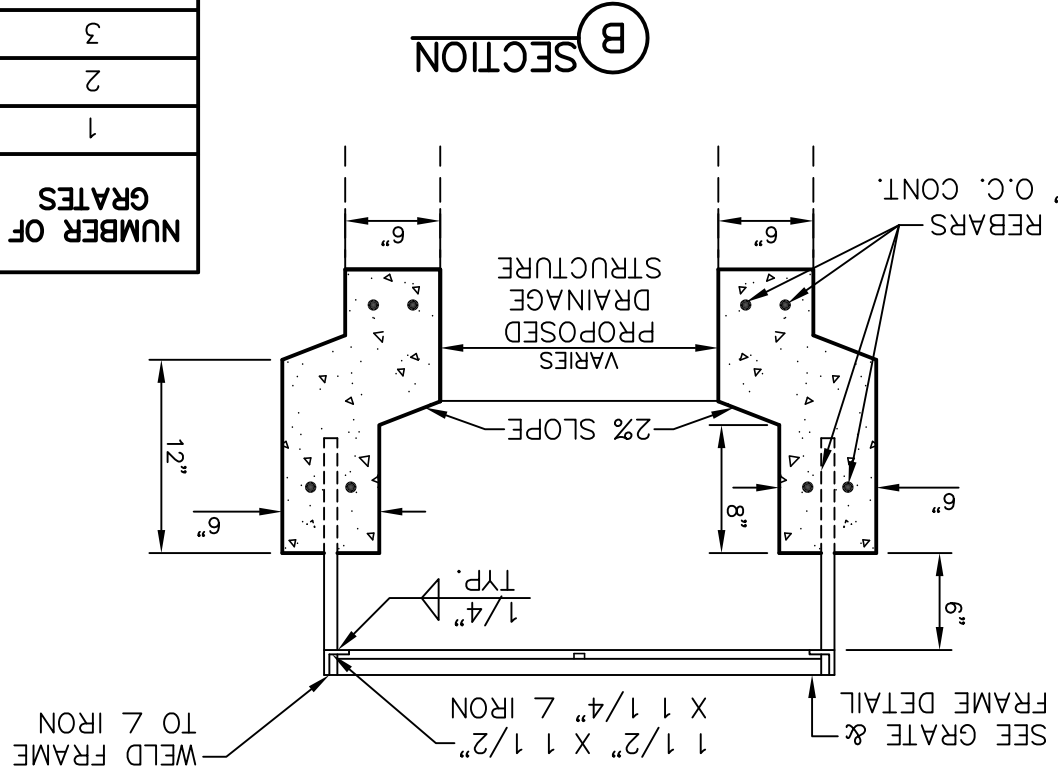








NUMBER OF GRATES	SIZE
1	2'-11 5/8"
2	5'-3 3/4"
3	6'-10 3/4"
4	8'-9 1/2"
5	10'-8"



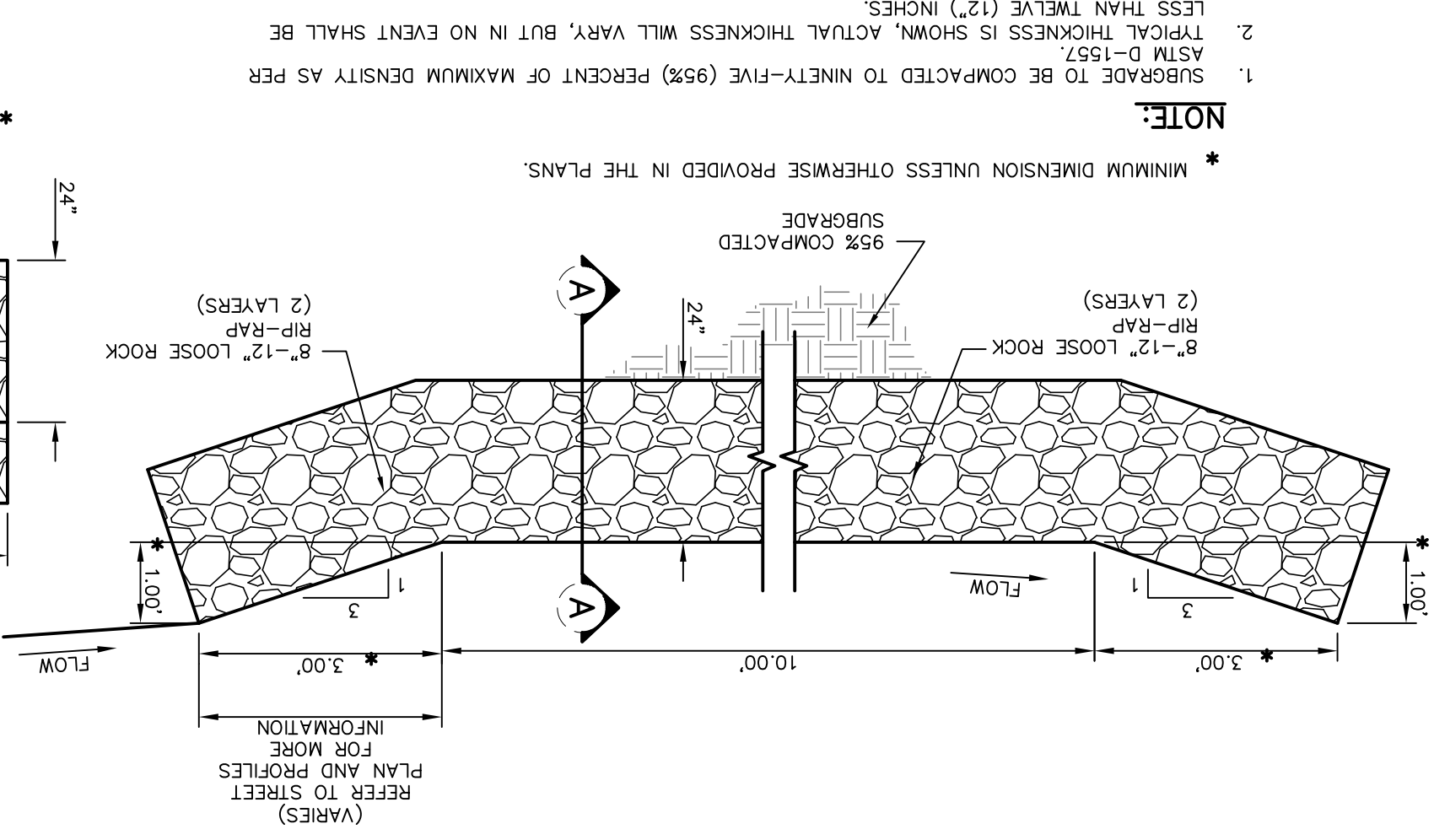
**CONSTRUCTION NOTES:**

1. ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
2. ANY DISTURBED COARSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
3. PROVIDE A MINIMUM OF 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
4. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (45-20).
5. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

**GENERAL NOTES:**

1. THE PENETRATION APRON SHOULD BE CAST IN-PLACE CONCRETE (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI, HIGH EARLY CONCRETE IS REQUIRED).
2. TOPS OF PENETRATION APRON SHALL BE FLUSH UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.
3. SIGN MATERIAL TO BE 16 GAUGE GALVANIZED SHEET METAL.
4. TOP PART OF SIGN SHALL SHOW BLACK LETTERS ON A WHITE BACKGROUND.
5. BOTTOM PART OF SIGN SHALL SHOW WHITE LETTERS ON A BLACK BACKGROUND.

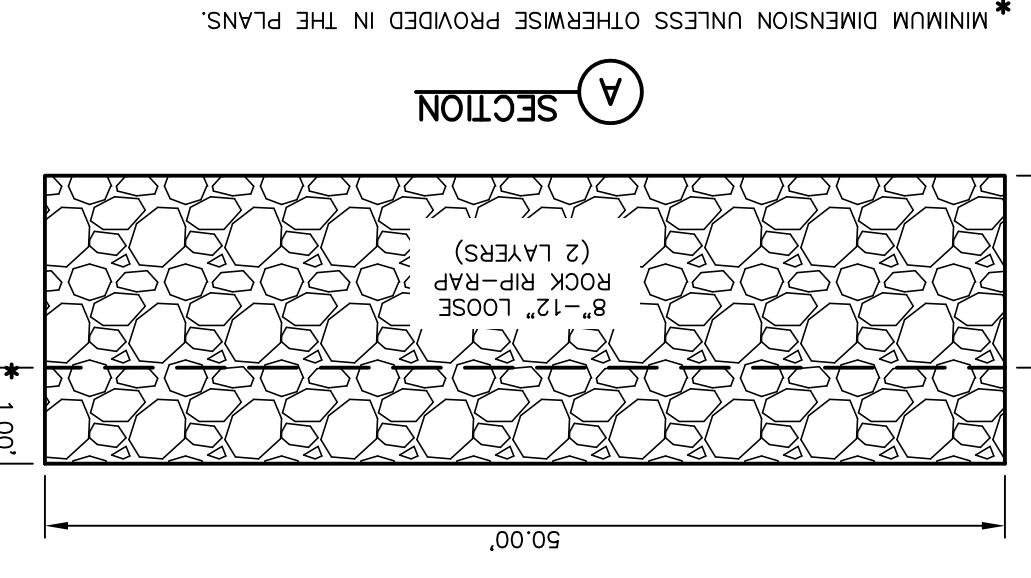
1 OFF STREET INLET  
SCALE: N.T.S.



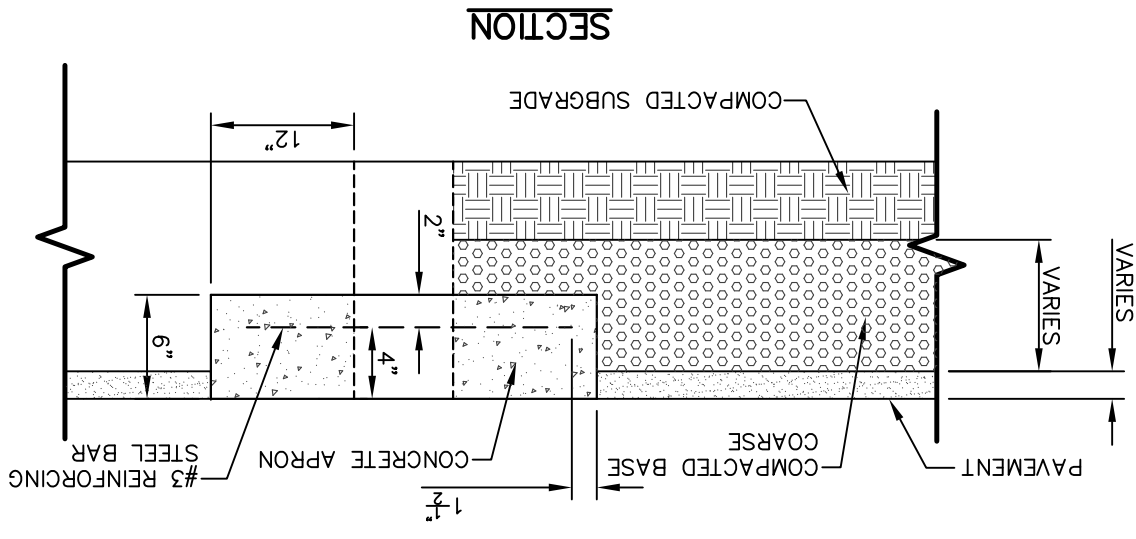
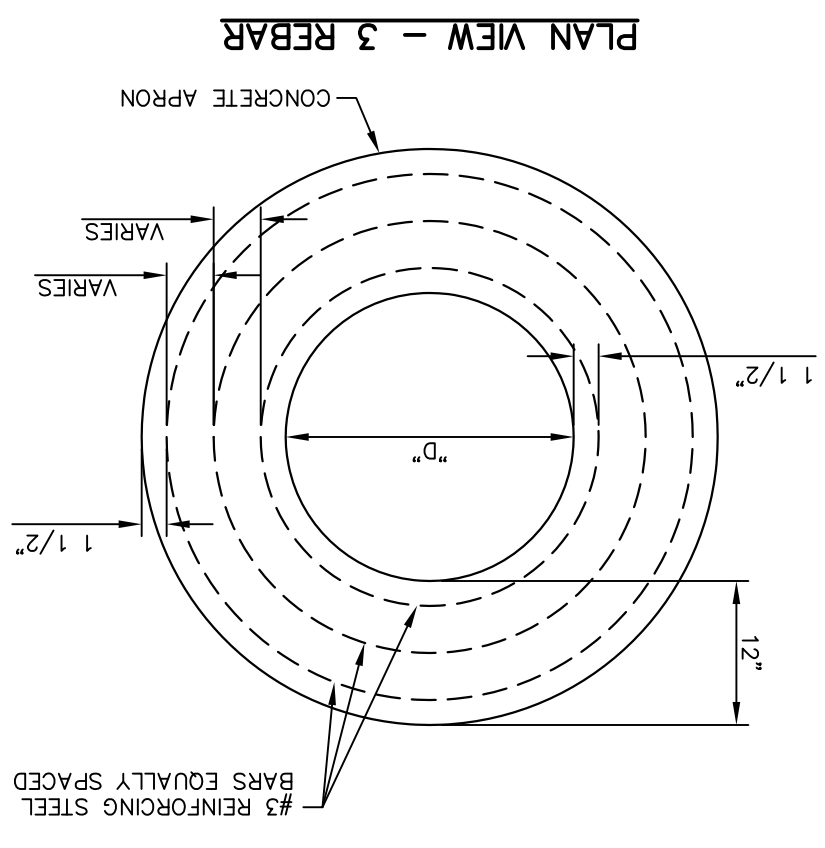
**NOTE:**

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

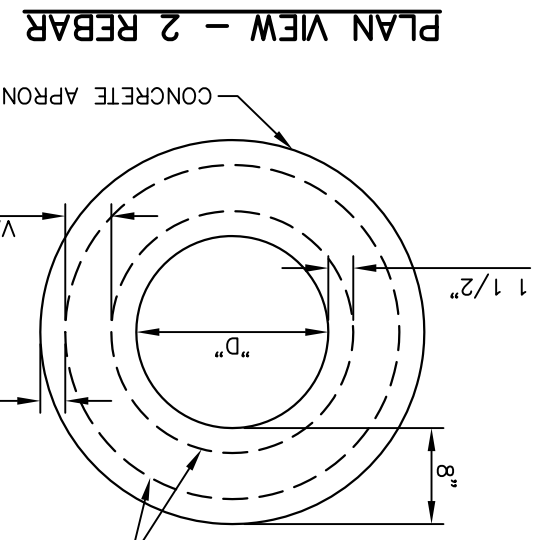
4 TEMPORARY DESILING BASIN DETAIL  
SCALE: 1" = 2'-0"



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



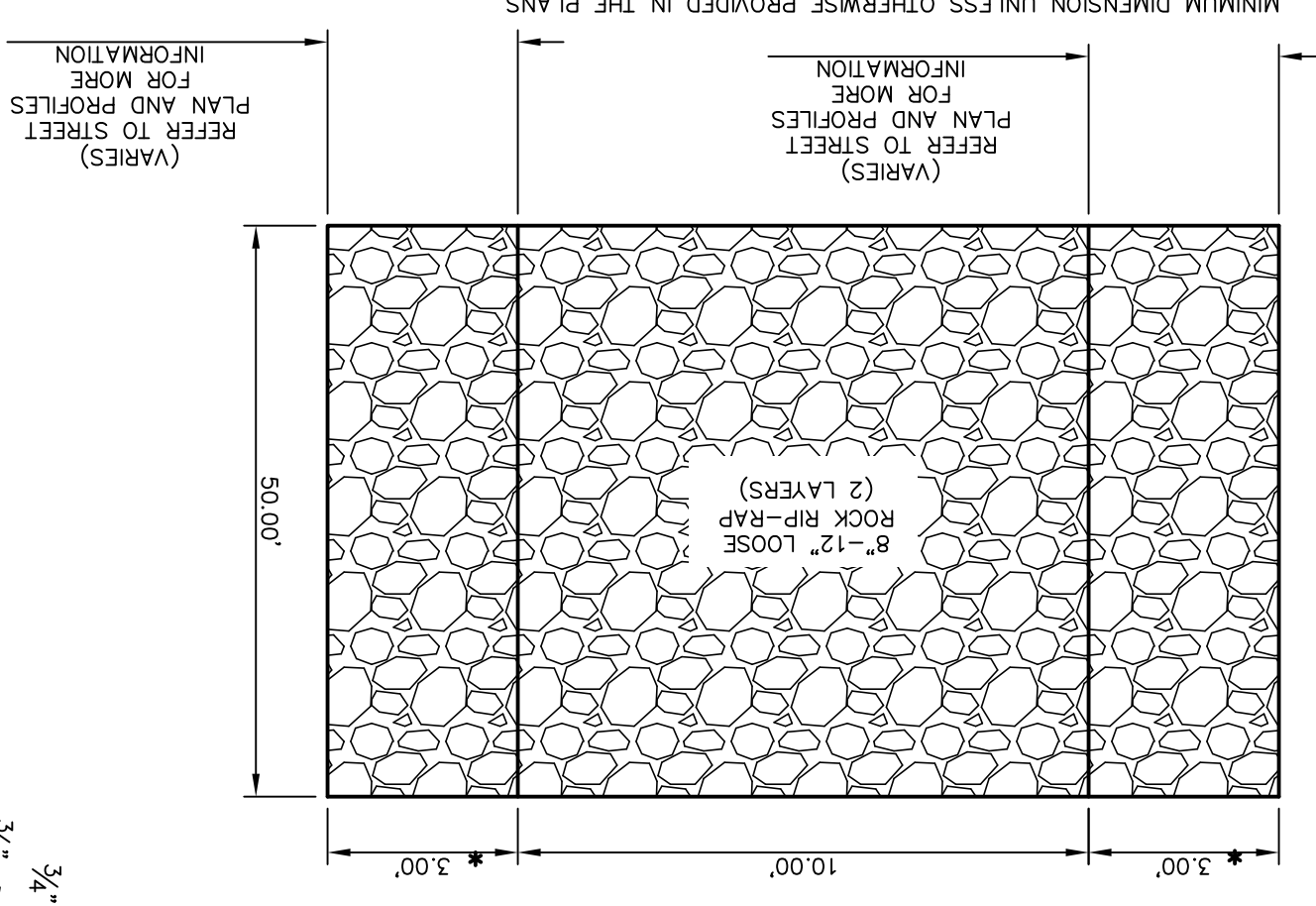
PLAN VIEW - SINGLE REBAR



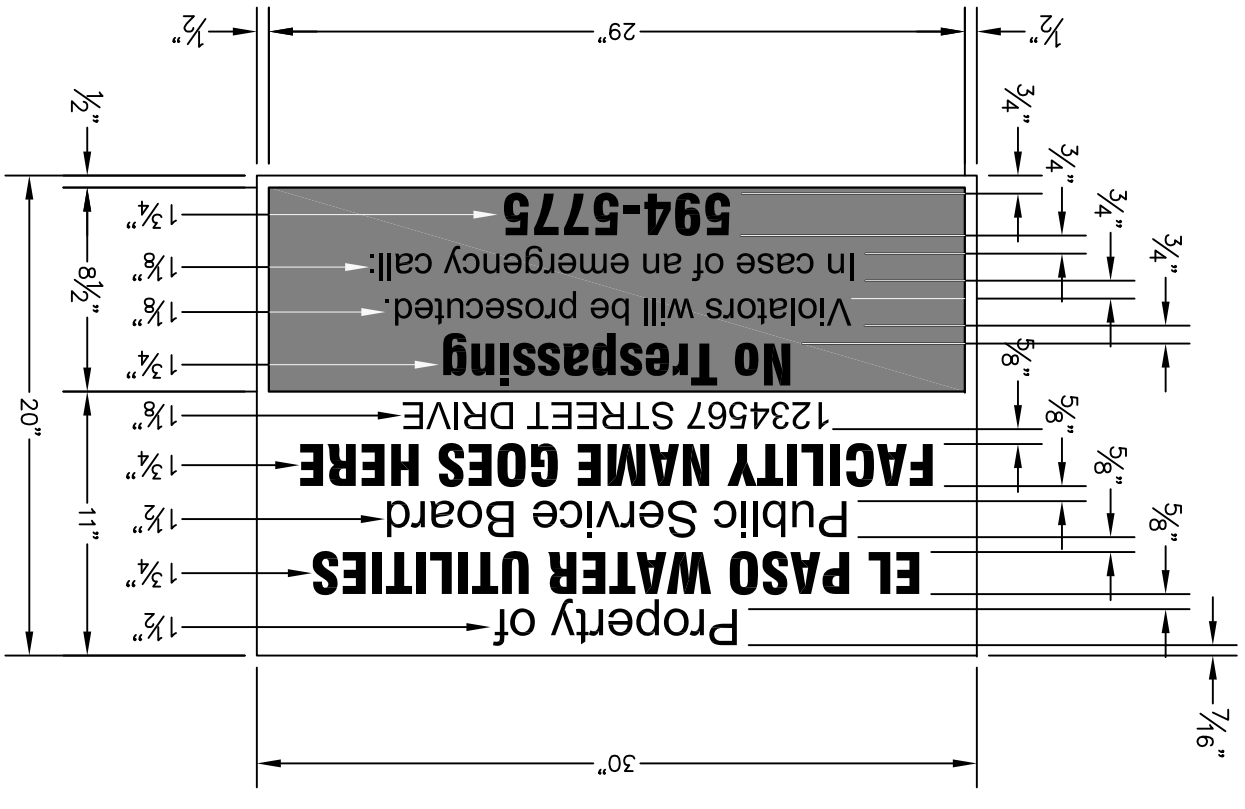
PLAN VIEW - 2 REBAR

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

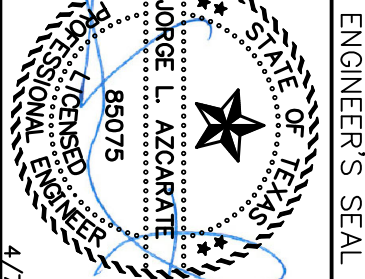
PLAN VIEW



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



SCALE: N/A  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./G.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
JOB NO.: 2000-22414D



813 N. Kansas St.  
Suite 300  
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915.544.5232  
www.ceegroup.net  
TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDESDALE DRIVE AND PALMADINO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24 (CITY DATUM)

REVISIONS  
DATE  
BY

DRAINAGE DETAILS  
(SHEET 3 OF 5)  
SHEET NO.

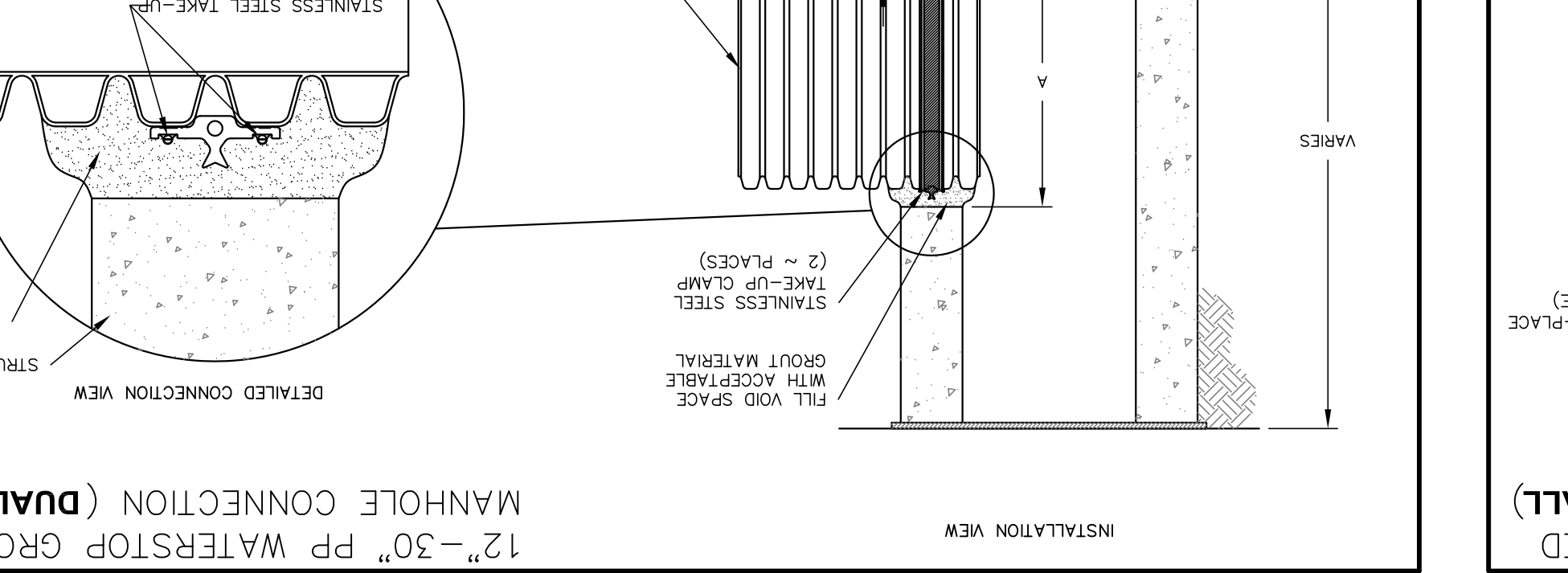
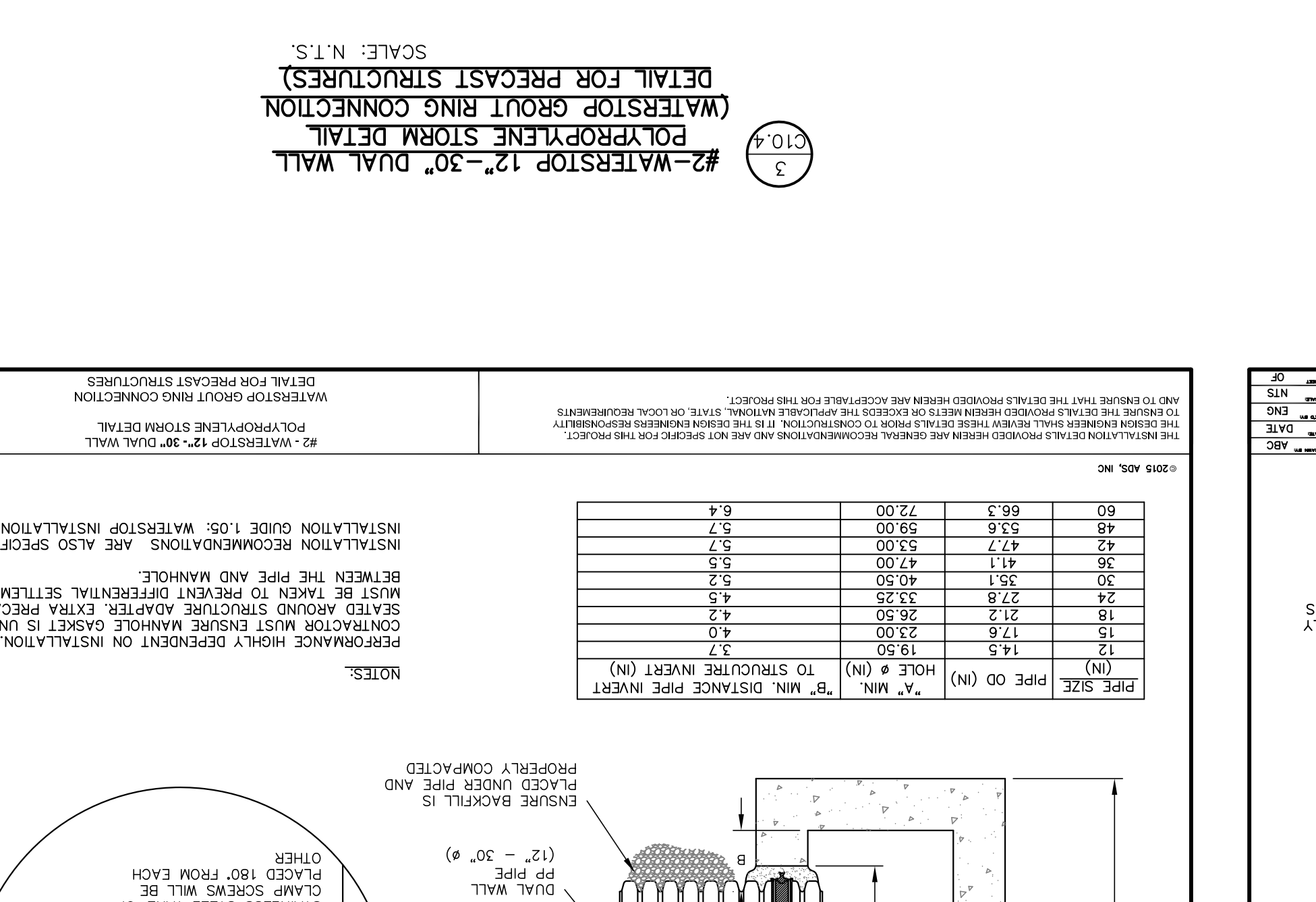
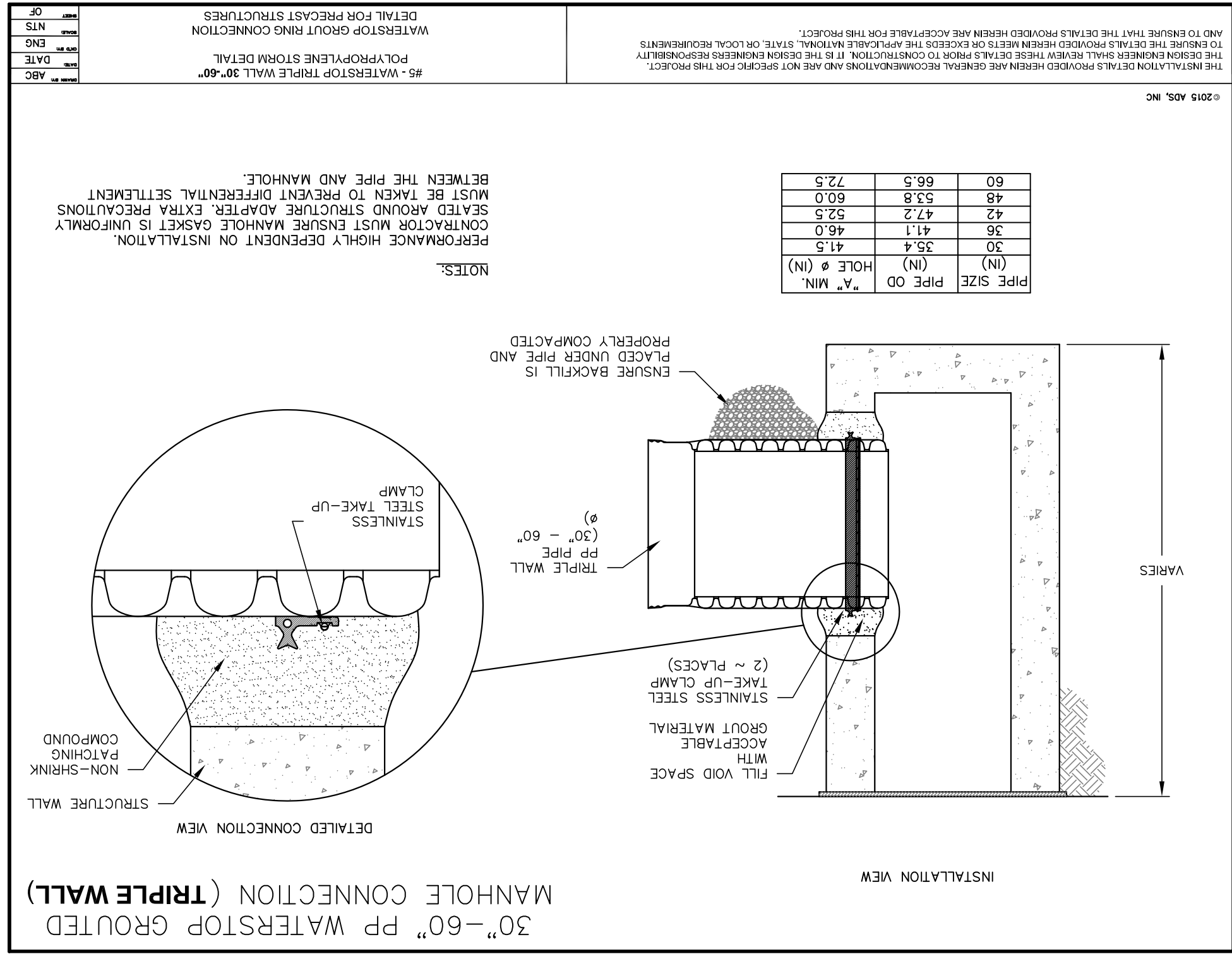
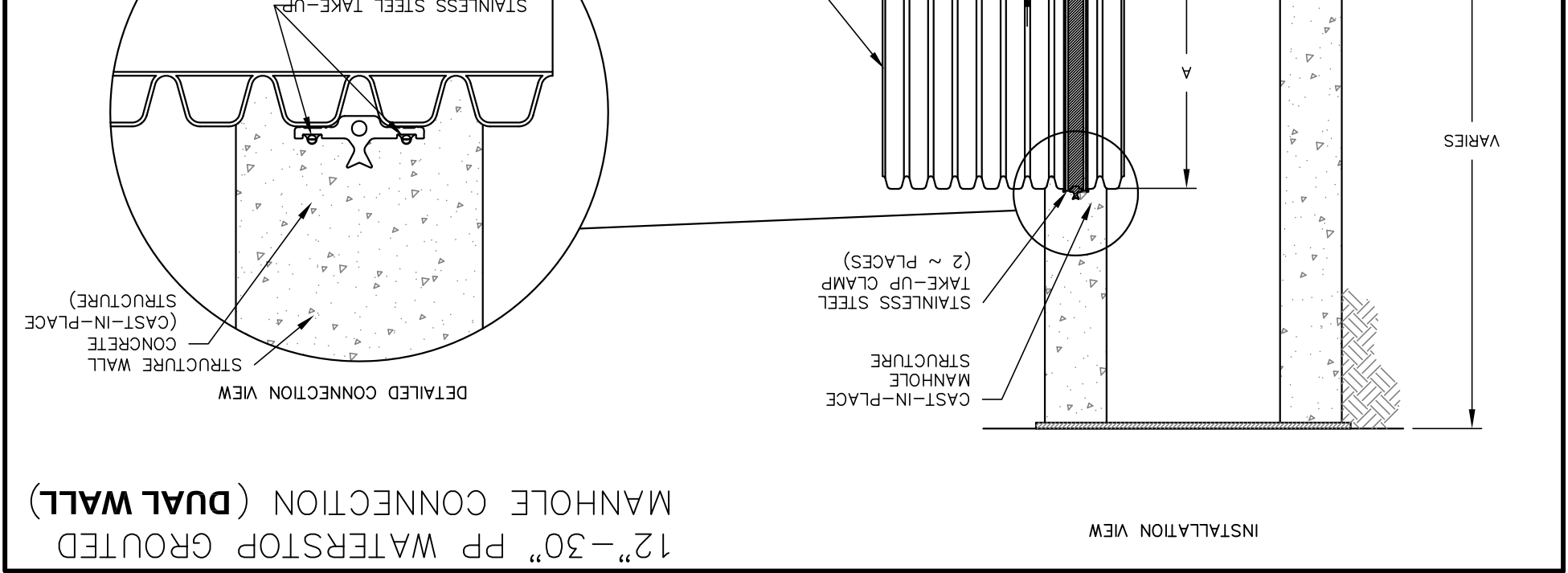
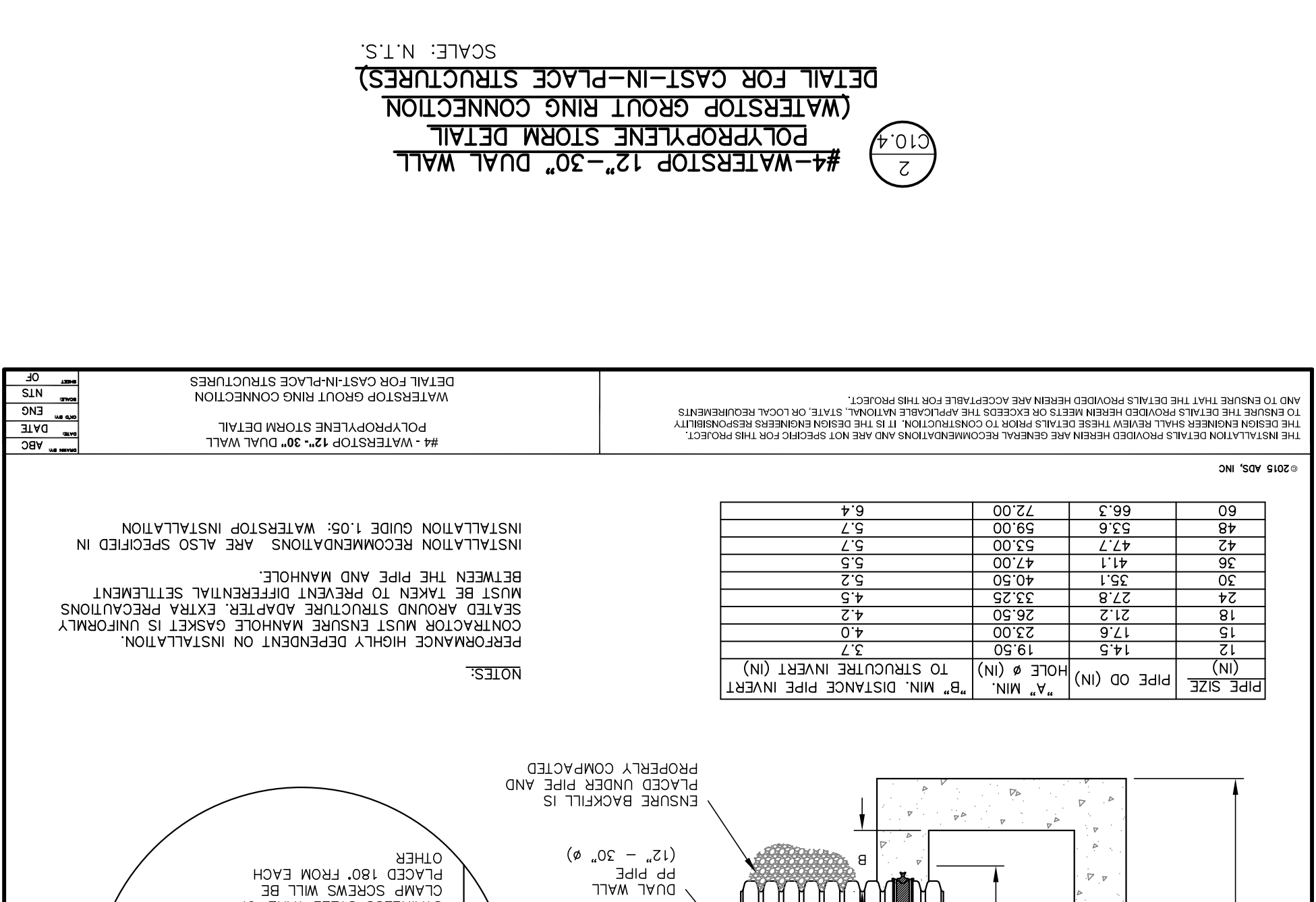
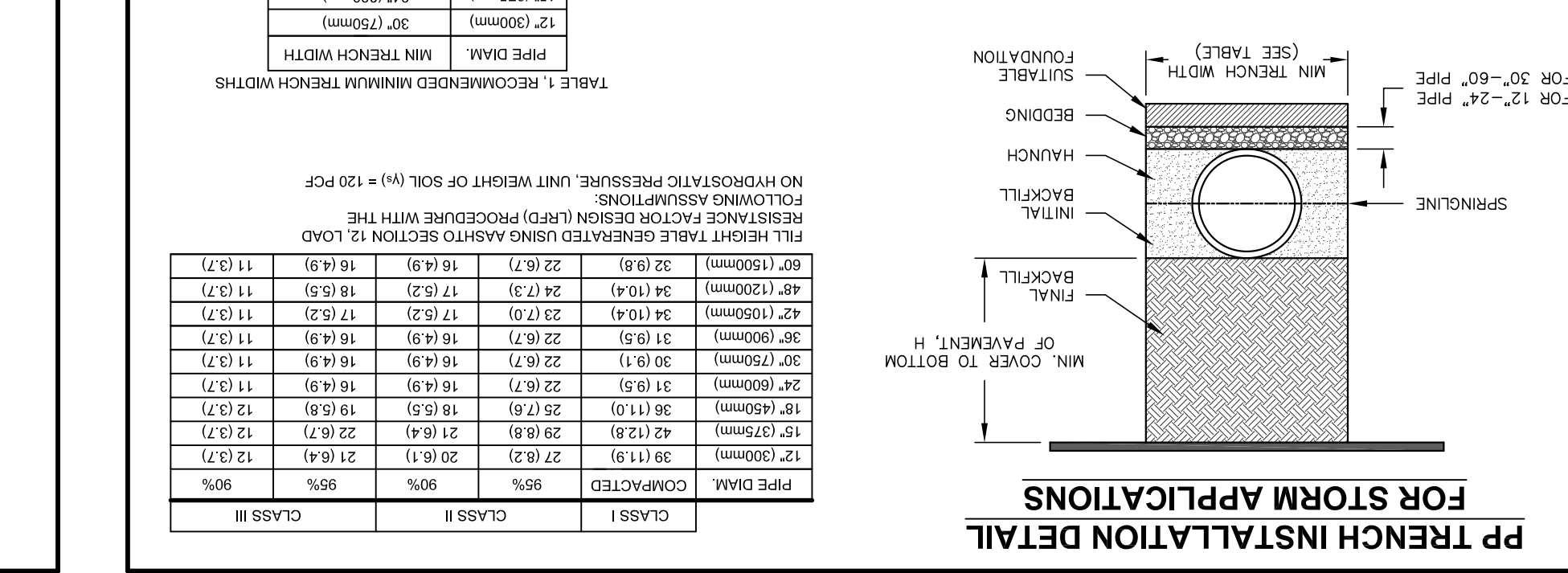
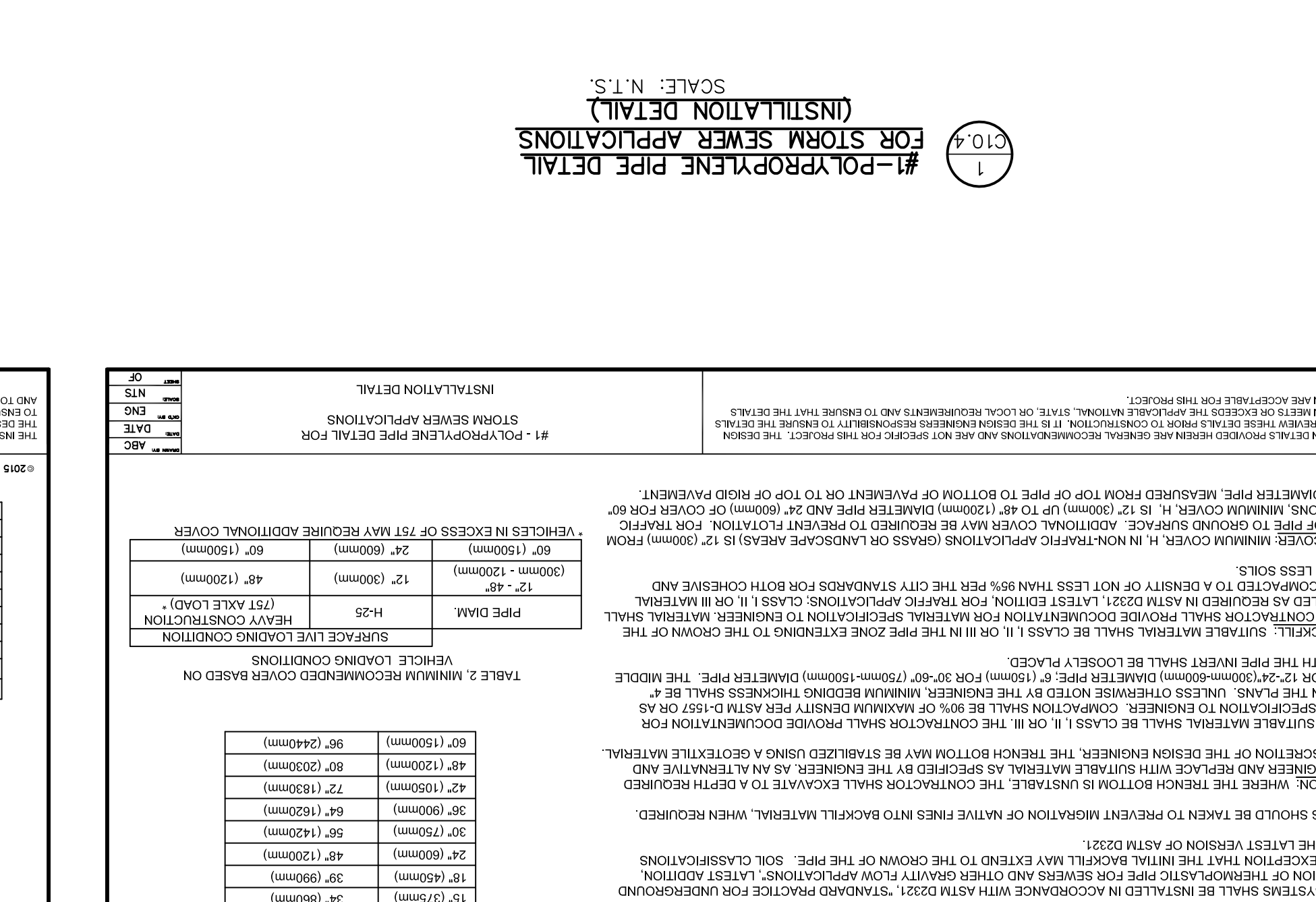
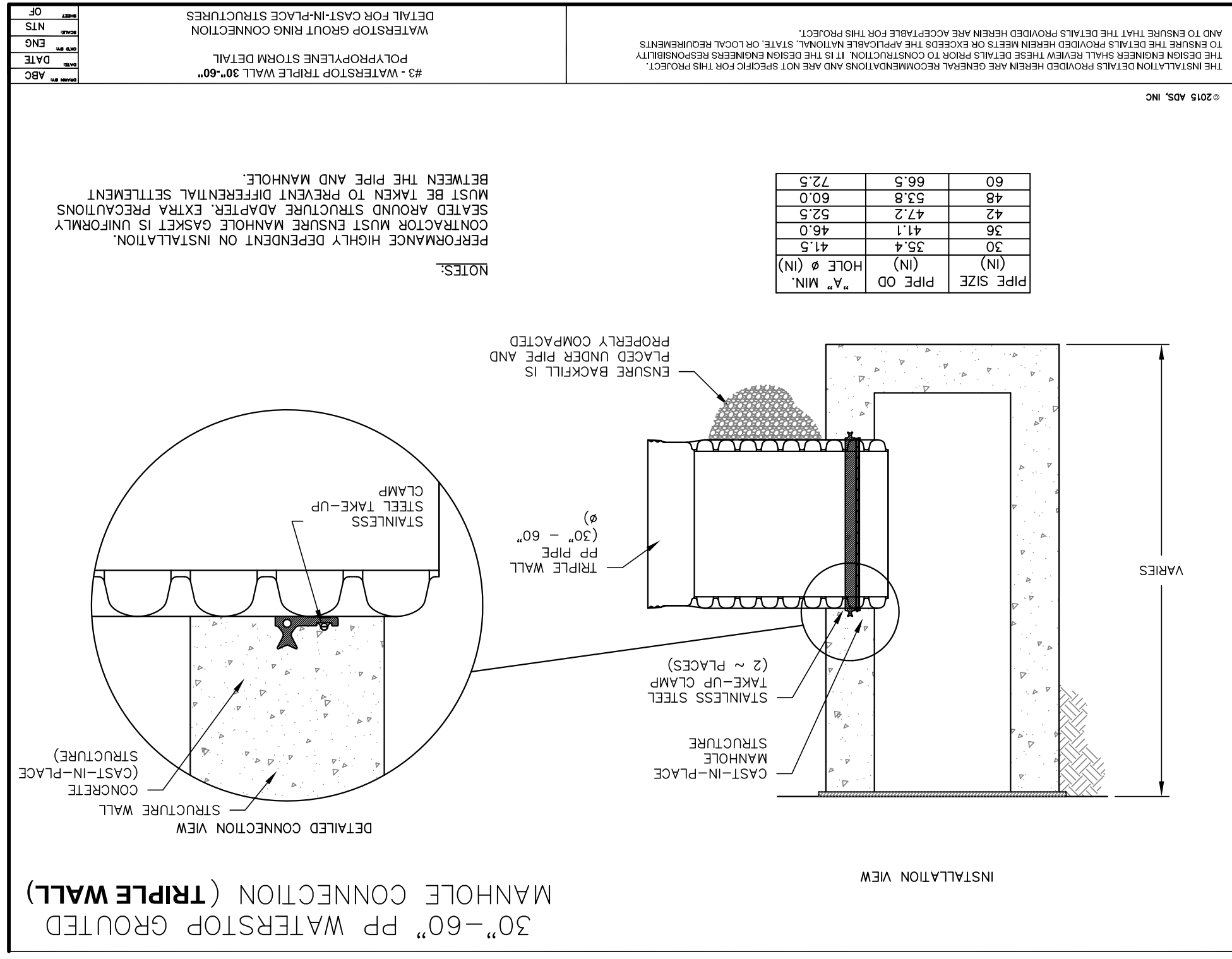
SHEET TITLE

VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

PROJECT TITLE

C10.3





SCALE: N.T.S.

DATE: APRIL 2021

DESIGN BY: C.J. / R.O.

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

CHKD. BY: F.Z.

APPVD. BY: J.L.A.

JOB NO. 2000-2241D

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

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

TEXAS REGISTERED ENGINEERING FIRM F-4564

DATE: \_\_\_\_\_

REVISIONS:

BY: \_\_\_\_\_

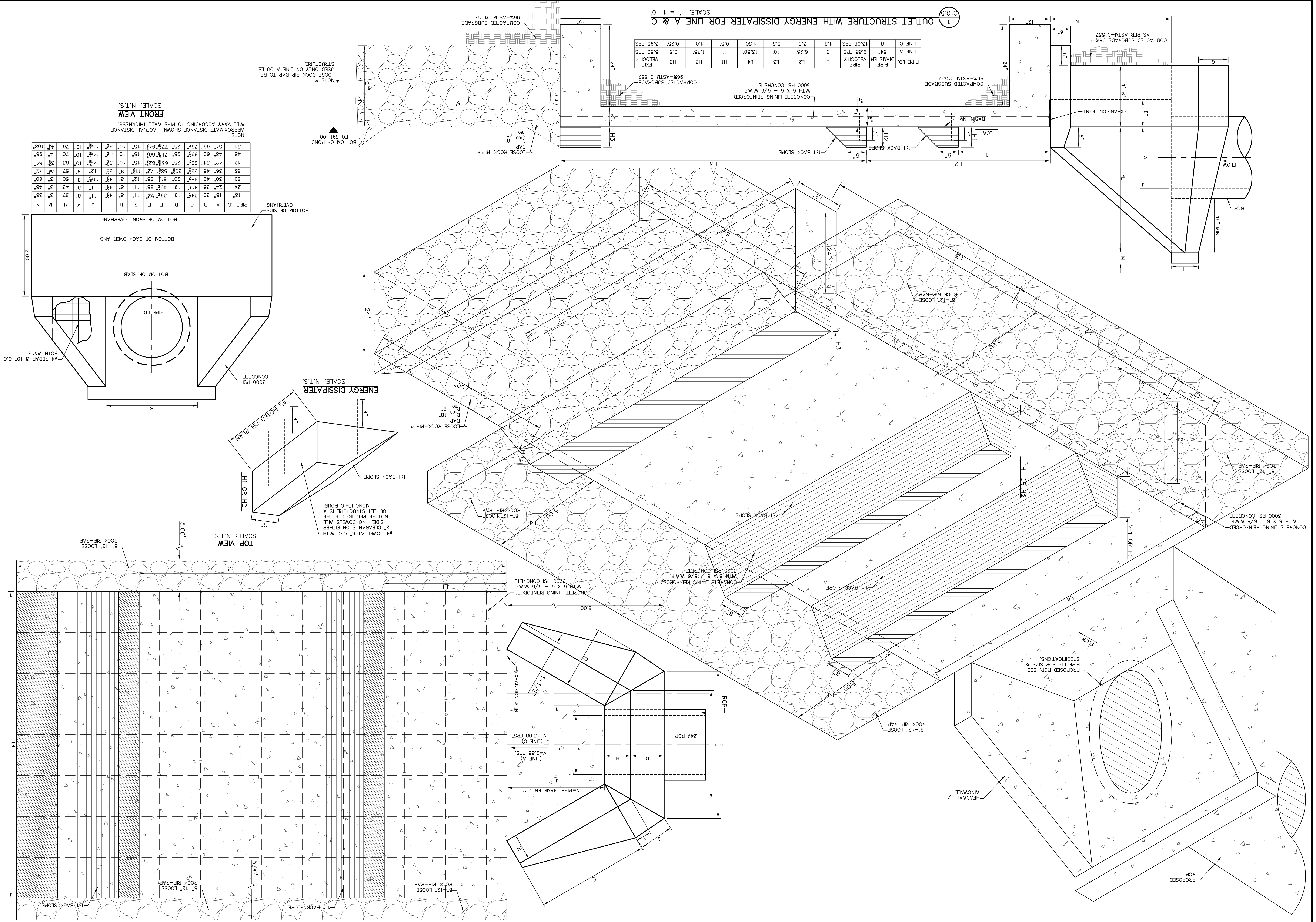
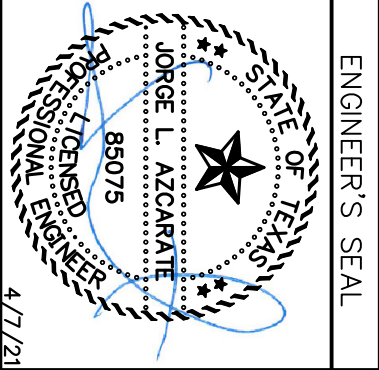
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SHEET TITLE: DRAINAGE DETAILS

SHEET 4 OF 5

C10.4

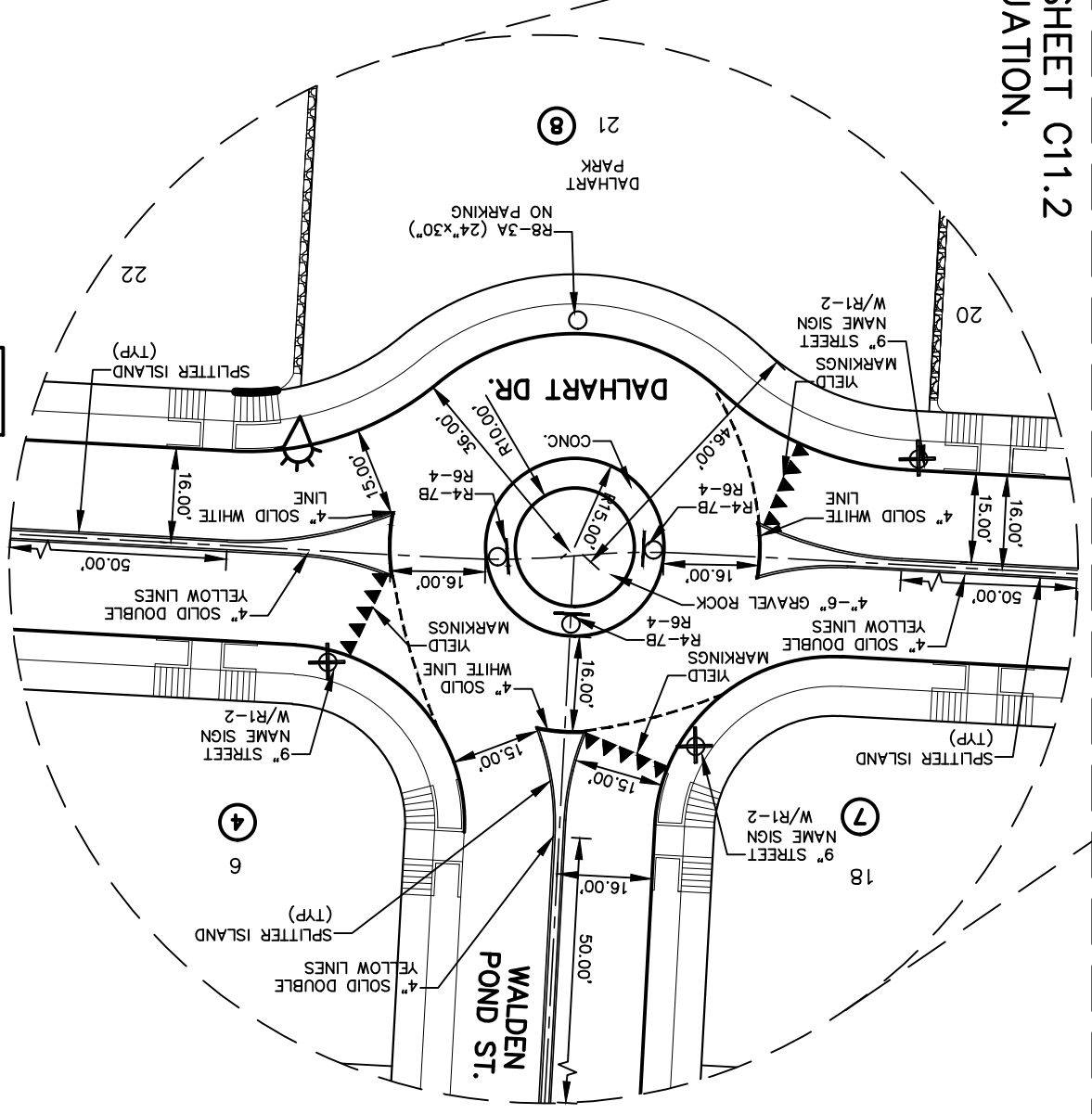
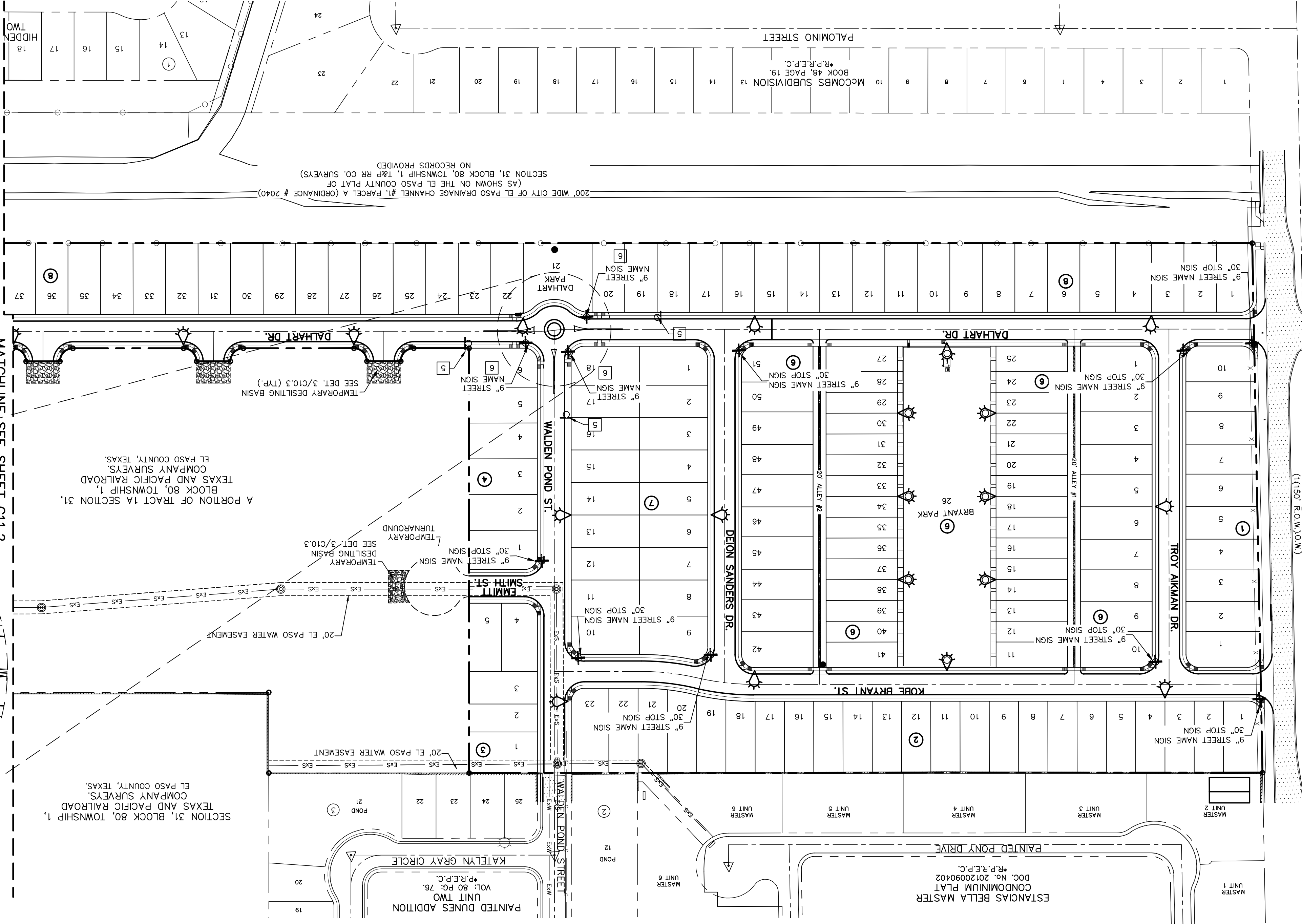
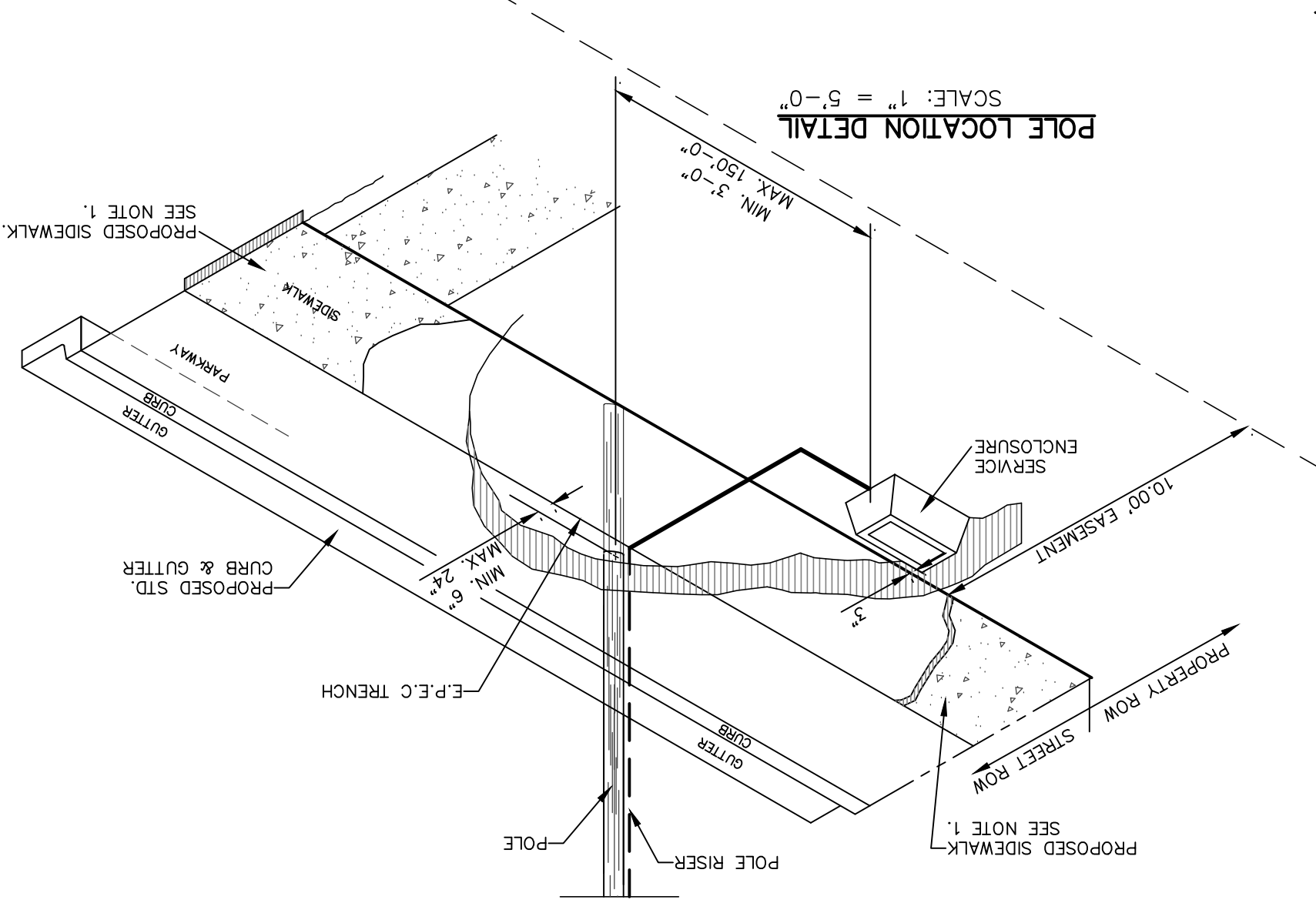
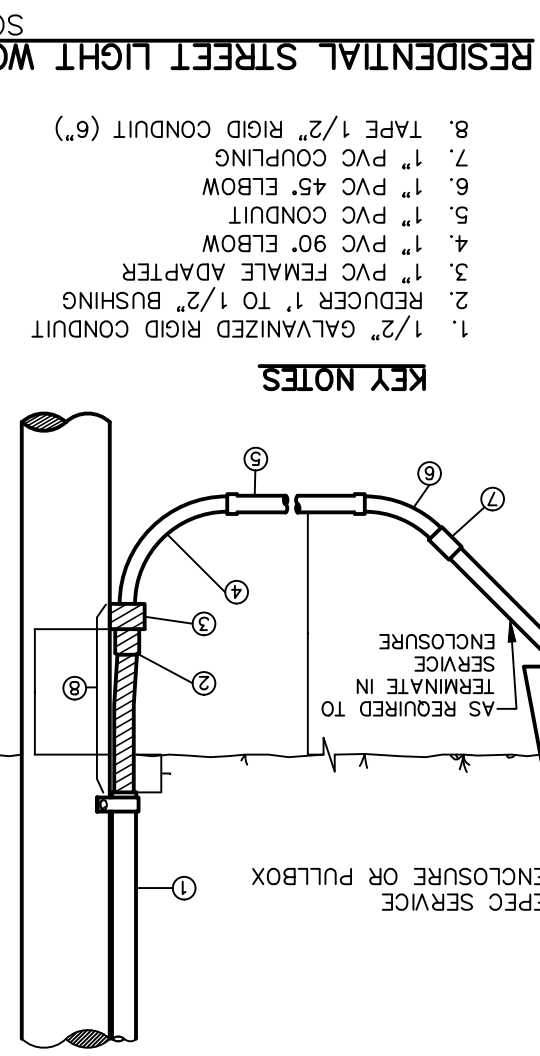
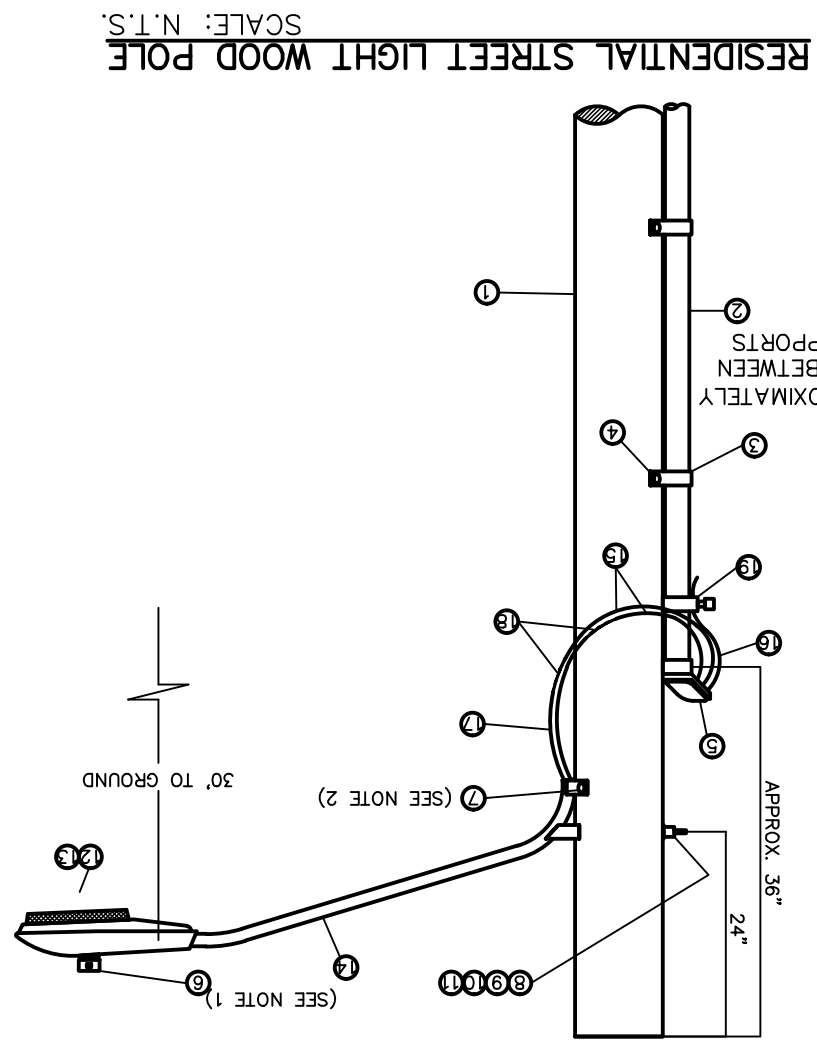






ITEM No.	DESCRIPTION	STOCK No.	QTY.
1	POLE .35 FT.-CLASS IV	009-035	1
2	GALVANIZED RIGID 1/2" CONDUIT, 2-HOLE	017-334	3
3	PIPE STRAP FOR 1/2" CONDUIT, 2-HOLE	017-293	1
4	LAG BOLT, 1/4" x 2"	002-330	6
5	WEATHERHEAD, 1/2" CONDUIT	017-293	1
6	PHOTOCELL, 240V-SEE NOTE 1	002-225	1
7	LAG BOLT, 1/2" x 4"	002-370	2
8	MACHINE BOLT, 5/8" x 8"	002-450	1
9	SQUARE GALV. WASHER, 2-1/4"x2-1/4"	002-760	1
10	COIL-SPRING WASHER, 5/8"	002-786	1
11	LOOKNUT, 5/8"	002-709	1
12	LUMINAIRE, 100W H.P.S.	021-335	1
13	LED LAMP, 65W	021-085	1
14	MAST ARM, 6" x 1-1/4"	021-200	1
15	COPPER CABLE, #12, 19 STRAND, 600 V.	013-665	2
16	COPPER CABLE, #12, SOLID, 600 V. GREEN	013-701	1
17	CABLE #10, 2 CONDUCTOR, 600 V. UF	013-600	8
18	SLEEVES, #12-10	005-140	2
19	GROUNDING CLAMP	021-215	1

- KEY NOTES**
1. MOUNT SO THAT CONTROL FACES NORTH.
  2. ITEM 17 SHALL NOT BE SPICED INSIDE ITEM 14.
  3. INSTALLATION SHALL COMPLY WITH ALL LOCAL CODE REQUIREMENTS.
  4. FOR ANY CLARIFICATION, EXCEPTIONS, OR QUESTIONS REGARDING CODE INTERPRETATION, CALL THE EL PASO ELECTRIC CO. DISTRIBUTION DEVELOPMENT DEPARTMENT.



- LEGEND:**
- Proposed Residential Street Light
  - Proposed Steel
  - Proposed Park Light
  - Proposed 9" Street Name Sign (Two Signs) and 30" Stop Sign
  - Proposed 9" Street Name Sign (One Sign) and 30" Stop Sign
  - Proposed Traffic Sign
  - Proposed N.D.B.C.U.
  - Proposed M.B.O.X.
  - Aerial Lighting-30'-0" High
  - Code for Outdoor Lighting Section 18.18.

- NOTES**
1. TRAFFIC STREET SIGNS MUST BE OF HIGH INTENSITY REFLECTIVE SHEETING.
  2. TEXT SIZES, FONTS, COLORS, STRIPING, ETC. MUST BE AS PER MUTCD STANDARDS & REQUIREMENTS.
  3. SIGNS & STRIPING SHOULD COMPLY WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
  4. ANY STRIPING, SIGNS, ETC. WITHIN TRUCK STOP REQUIREMENTS.
  5. POSTS MUST BE BREAK-AWAY TYPE AS SHOWN ON THIS SHEET.
  6. ALL PAVEMENT STRIPING SHALL BE THERMOPLASTIC AS PER TxDOT.

**UTILITY LOCATOR SERVICES**

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 486-5444
EL PASO WATER UTILITIES	(915) 544-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
A&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

**REFERENCES - BENCHMARKS**

CITY ANTIQUARIAN LOCATED AT THE INTERSECTION OF PALMIGNO STREET AND PALMIGNO STREET

ELEVATION: 3939.32 (NAD 88)

DATE

REVISIONS

**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

**PROJECT TITLE**  
VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

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

**DATE:** APRIL 2021  
**DESIGN BY:** C.U. / R.O.  
**DRAWN BY:** K.P. / F.Z.  
**CHKD. BY:** J.L.A.  
**APPVD. BY:** J.L.A.  
JOB No.: 2000-2241D

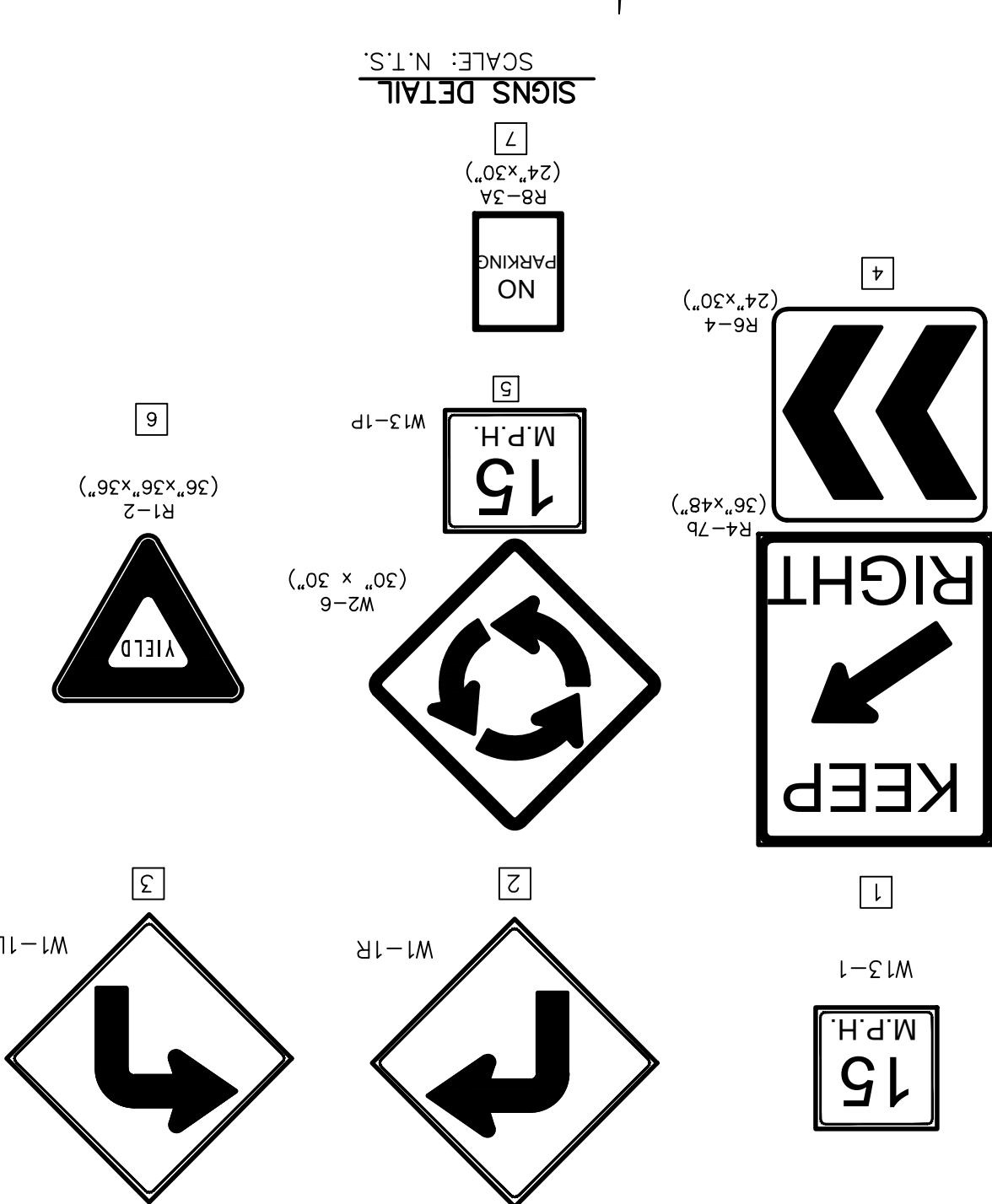
**ENGINEER'S SEAL**  
C.E. REGISTERED ENGINEERING FIRM F-4564

**REFERENCES:**  
CITY ANTIQUARIAN LOCATED AT THE INTERSECTION OF PALMIGNO STREET AND PALMIGNO STREET

**REVISIONS**

**BY**

**DATE**



**ILLUMINATION AND SIGNAGE PLAN**

**ILLUMINATION AND SIGNAGE PLAN**

(SHEET 1 OF 3)

SHEET NO.

C11.1

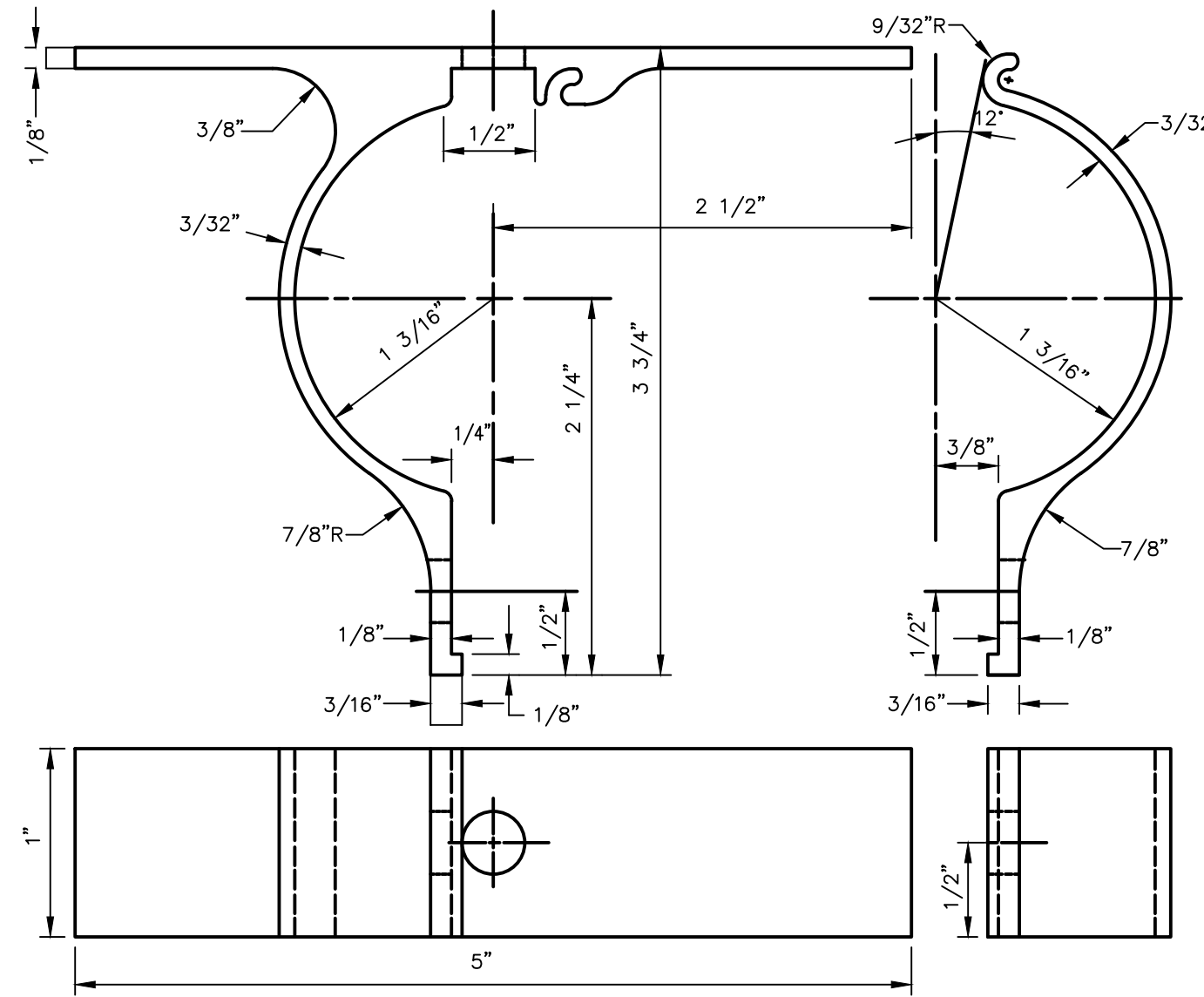






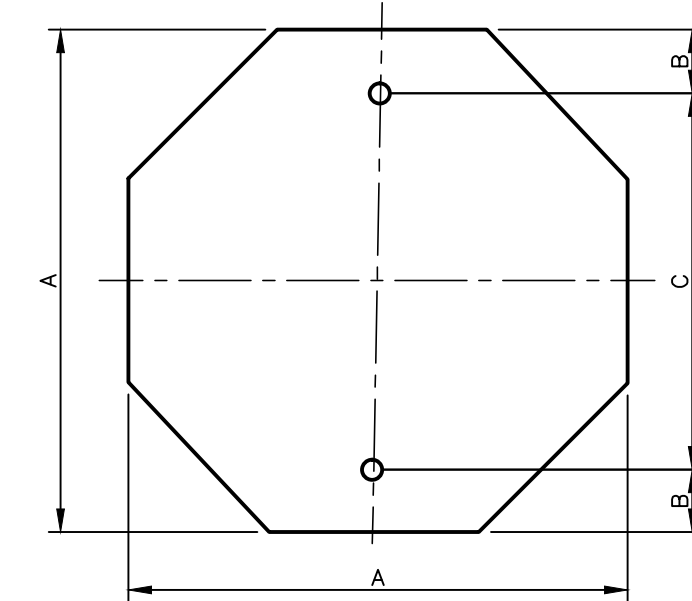
**CITY OF EL PASO  
SPECIFICATIONS FOR REFLECTORIZED  
STREET NAME SIGNS**

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



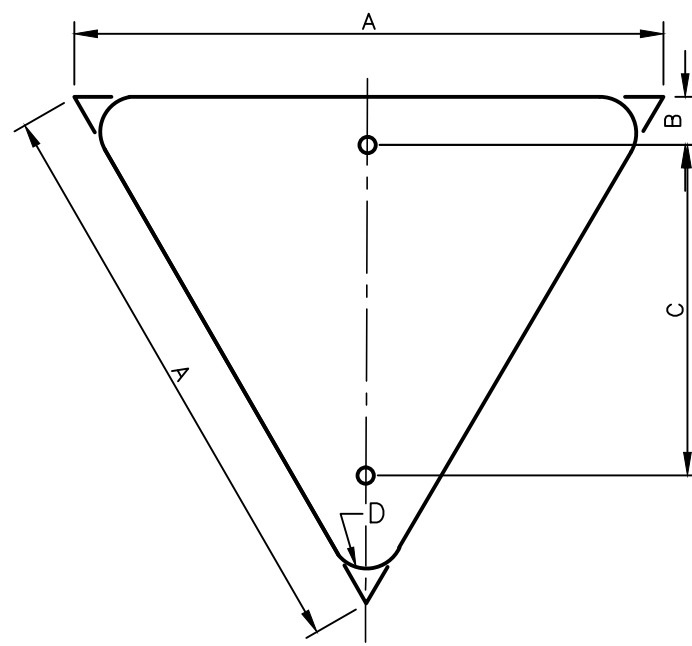
- NOTES:**
- ALL HOLES 3/8" PUNCH
  - FILLETS & ROUNDS 1/16" R
  - FURNISH THE FOLLOWING HARDWARE FOR EACH BRACKET:
    - 1 - 5/16" x 3/4" BOLTS
    - 1 - 5/16" x 1 1/4" BOLT
    - 2 - 5/16" NUTS & LOCK WASHERS
    - 2 - FLAT WASHERS
  - THE BRACKET IS TO BE MADE FROM HIGH STRENGTH ALUMINUM ALLOY. THE BRACKET IS TO EMPLOY AN EXTRUDED INTERLOCKING FEATURE OFFERING A RIGID MEANS OF ATTACHING A FLAT SIGN TO A STANDARD 2" (2 7/8" O.D.) TUBULAR POST.

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



3/8" HOLE DIA.

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



3/8" HOLE DIA.

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

**2 D.H.T. BLANK STANDARDS**  
SCALE: N.T.S.

**UTILITY LOCATOR SERVICES**

EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

REFERENCES - BENCHMARKS

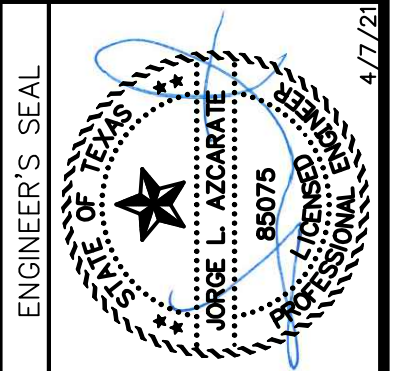
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLODESDALE DRIVE AND PALOMINO STREET

ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24" (CITY DATUM)

DATE \_\_\_\_\_ REVISIONS \_\_\_\_\_ BY \_\_\_\_\_

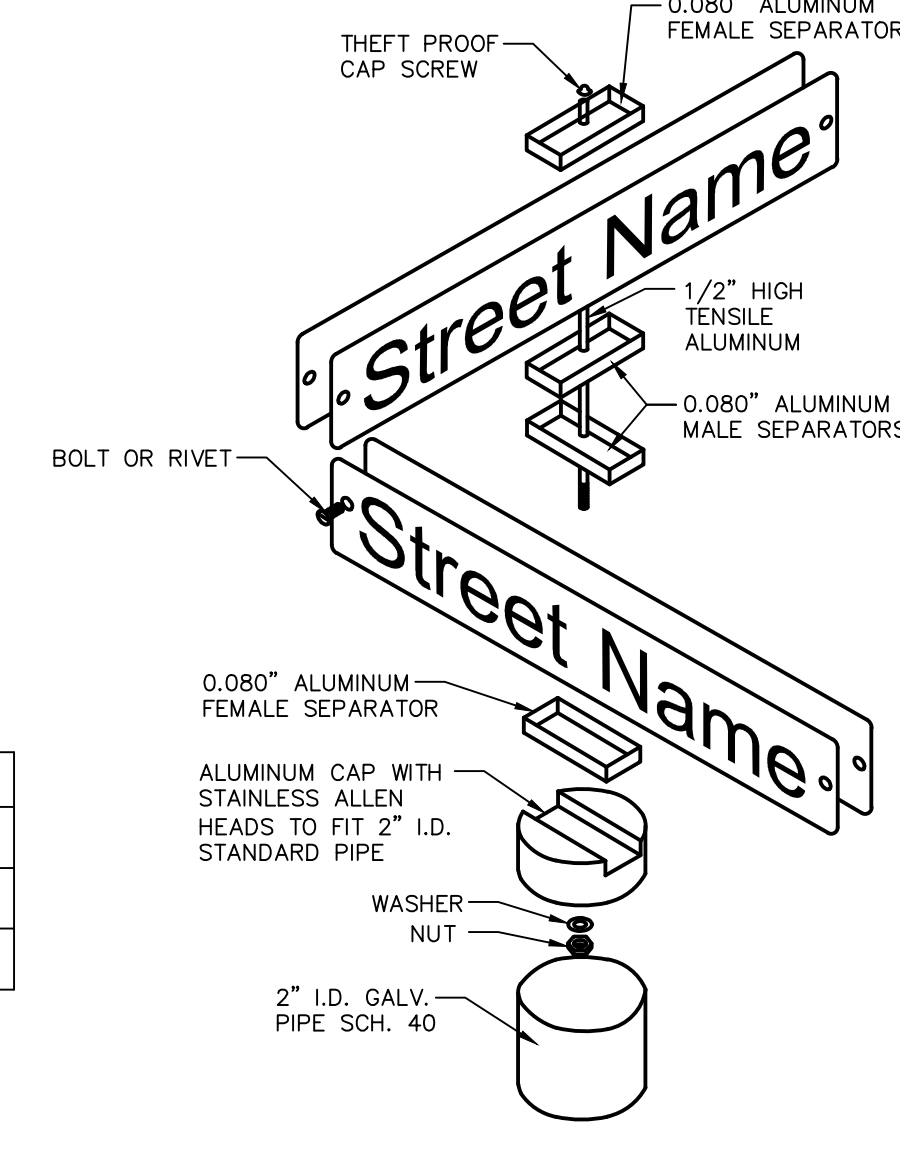
813 N. Kansas St.  
Suite 300  
El Paso, TX 79902  
915.544.5232  
www.ceegroup.net

**ceegroup**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

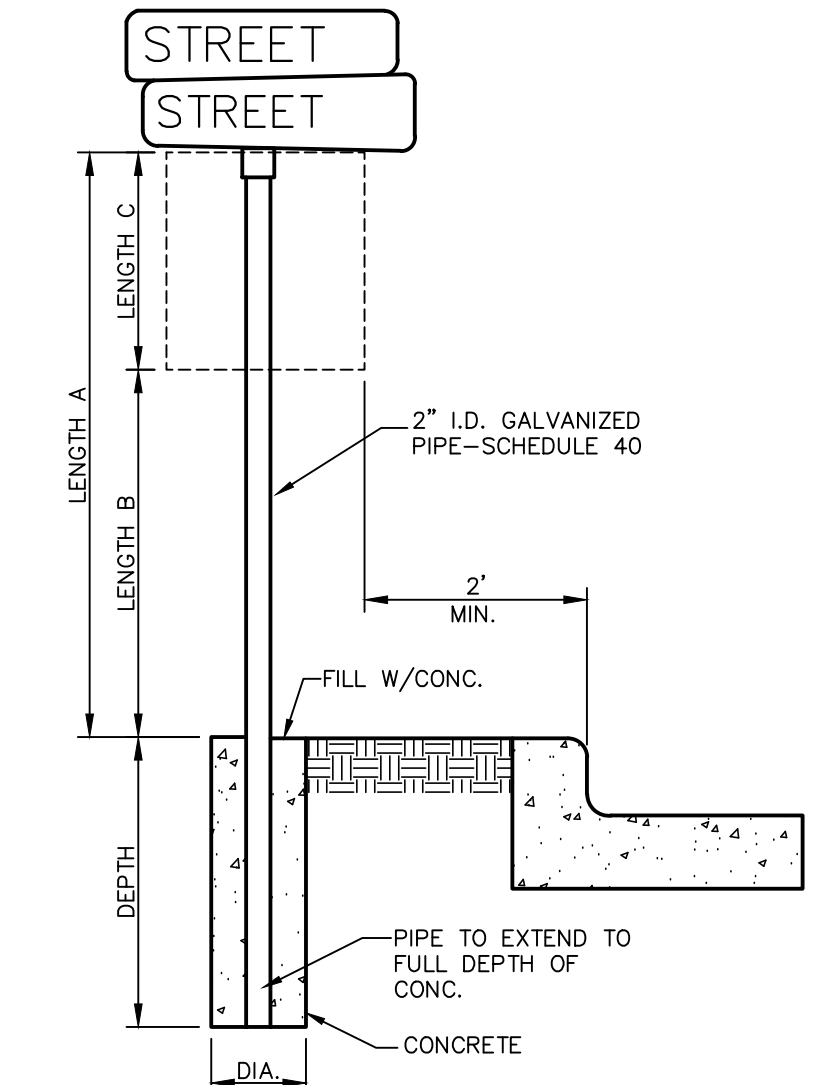


SCALE: AS SHOWN  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. - 2000-224.D.



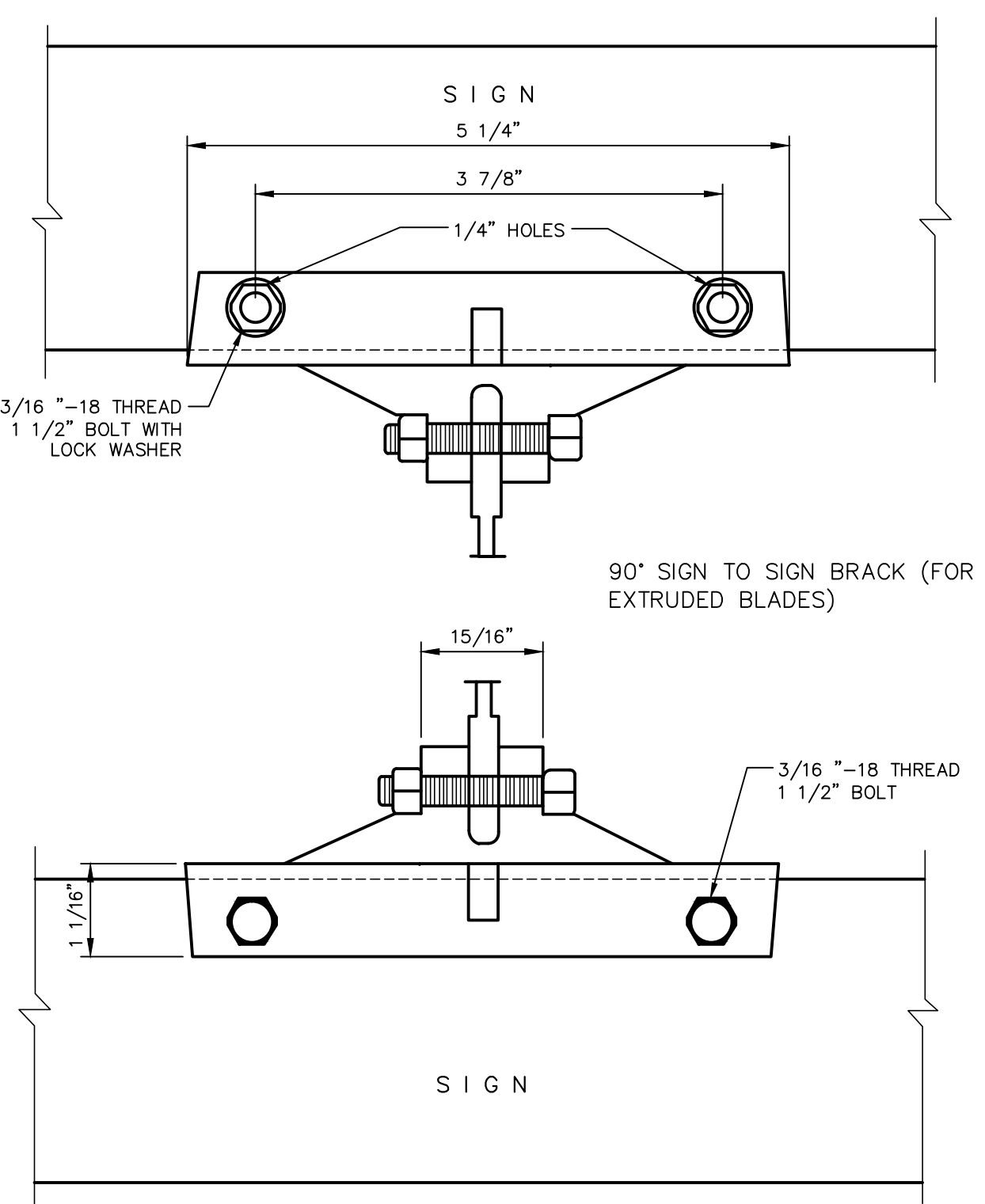
**3 9" STREET NAME ASSEMBLY**  
SCALE: N.T.S.



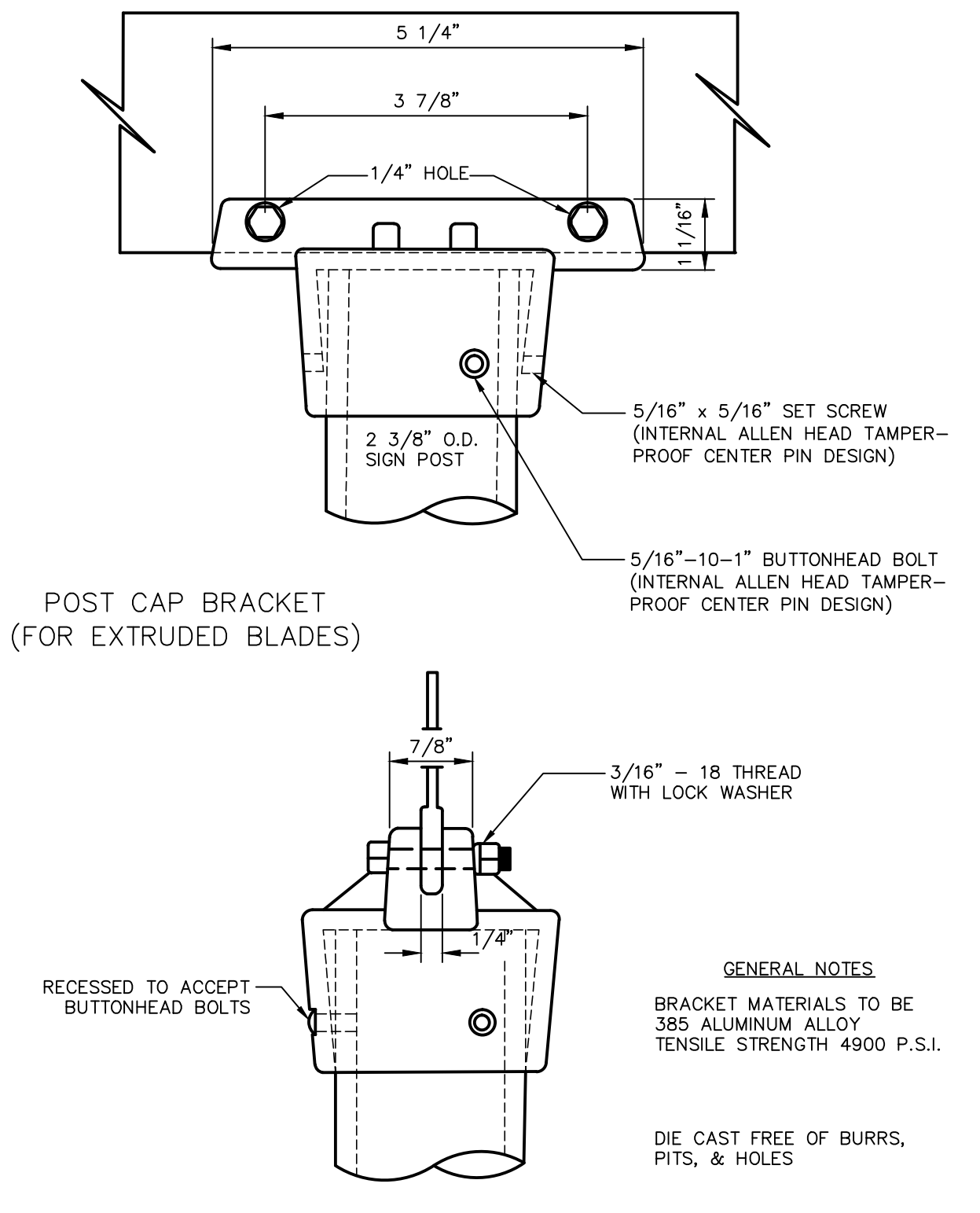
**SIGN POST INSTALLATION**

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

**4 SIGN POST INSTALLATION**  
SCALE: N.T.S.



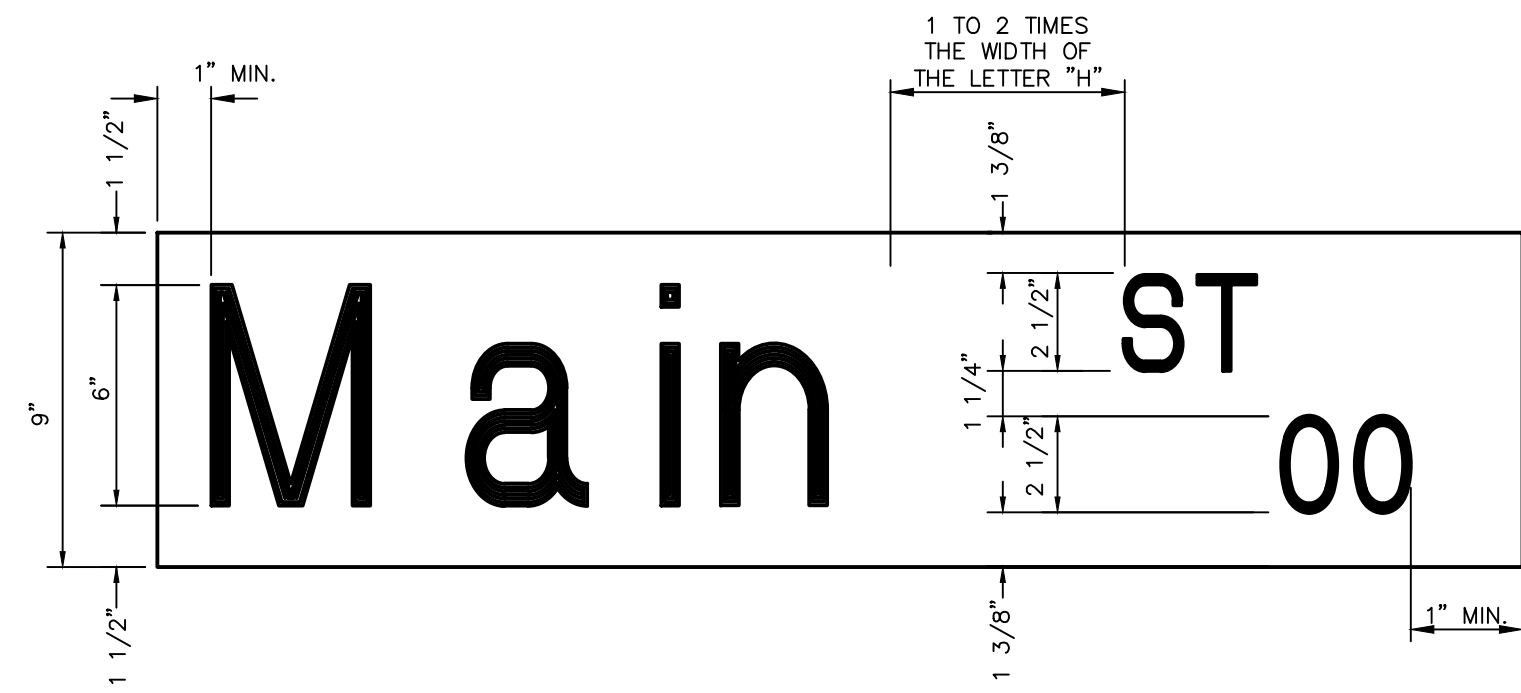
**5 9" STREET NAME SIGN ASSEMBLY**  
SCALE: N.T.S.



**GENERAL NOTES**

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

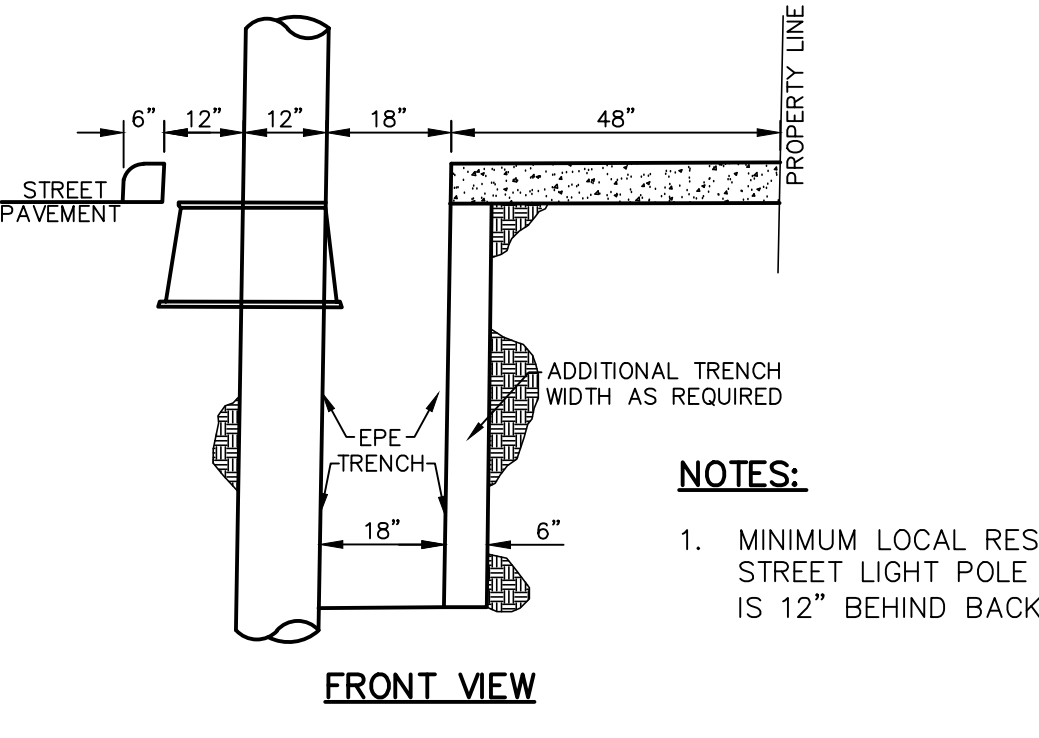
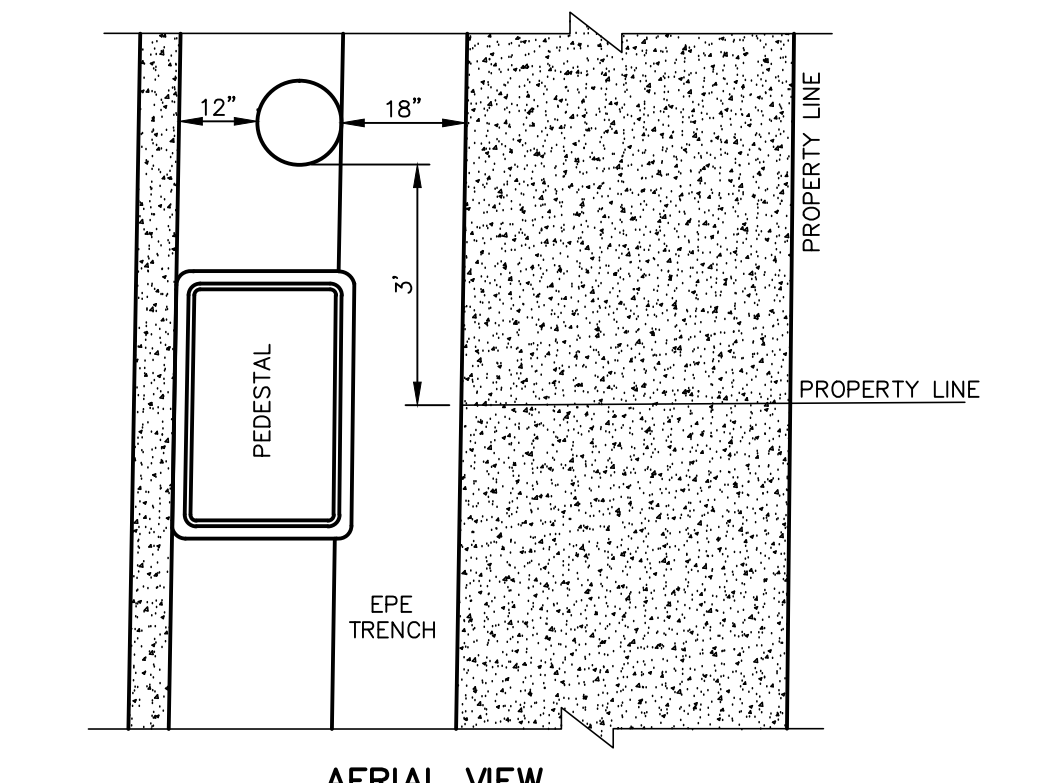
DIE CAST FREE OF BURRS, PITS, & HOLES



**LAYOUT FOR 9" STREET NAME SIGNS**

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

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



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

PROJECT TITLE

**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE

**ILLUMINATION AND SIGNAGE PLAN**

(SHEET 3 OF 3)

SHEET NO.

C11.3



BY	REVISIONS
DATE	

**UTILITY LOCATOR SERVICES**  
 (915) 543-5720  
 EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO ENERGY CORPORATION (915) 456-5244  
 EL PASO WATER UTILITIES (915) 524-5500  
 MCI SURVEILLANCE (800) MCI-WORK  
 TIME WARNER COMMUNICATIONS (915) 772-1123  
 TEXAS GAS SERVICE (915) 680-7200  
 SBC (800) 545-6005  
 A&T (800) 852-3786  
 U.S. SPRINT TELECOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

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FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

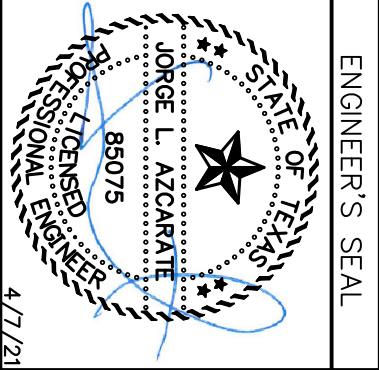
DATE

CITY MONUMENT LOCATED AT THE INTERSECTION OF PALOMINO STREET

ELEVATION: 3939.52 (NAD 88)

ELEVATION: 3928.24' (CITY DATUM)

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

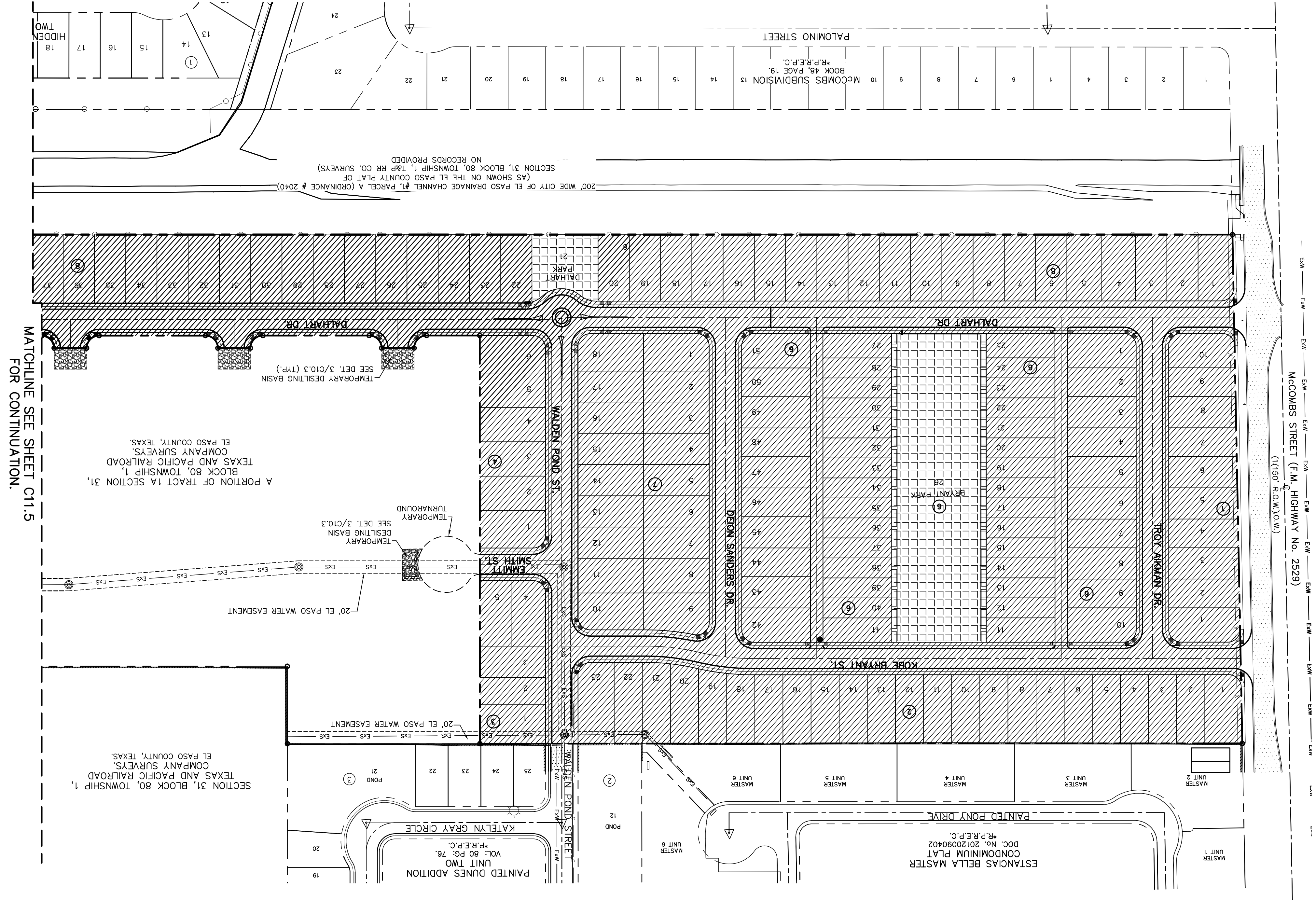
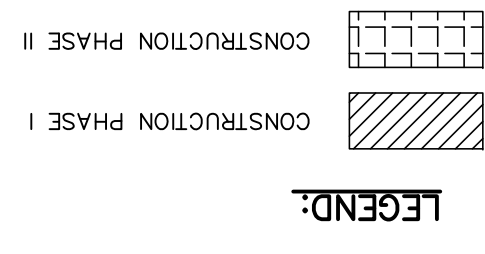


ENGINEER'S SEAL

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
 CONSTRUCTION PHASING PLAN  
 (SHEET 1 OF 2)  
 SHEET NO.

C11.4



MATCHLINE SEE SHEET C11.5 FOR CONTINUATION.

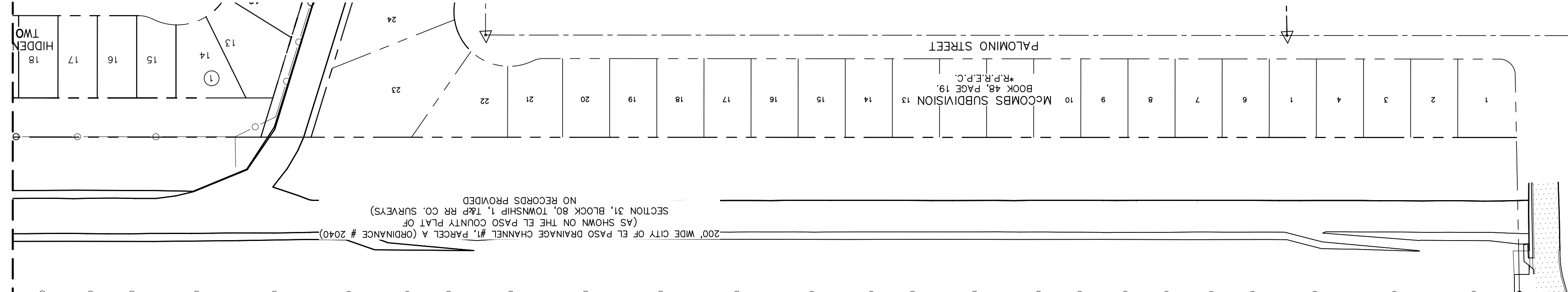
CONSTRUCTION PHASING PLAN

SCALE: 1" = 100'



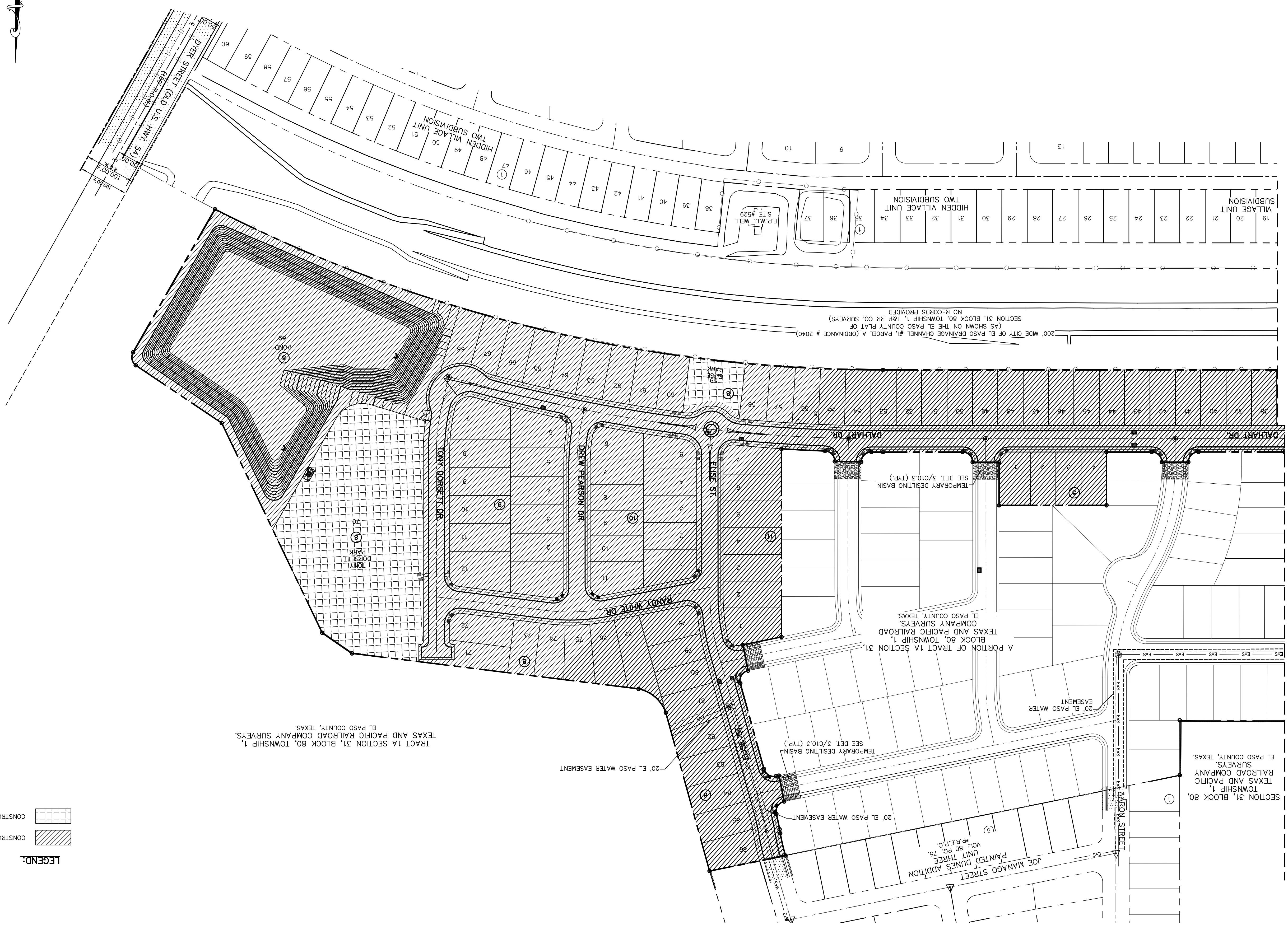
McCOMBS STREET (F.M. HIGHWAY No. 2529)  
 (1150' ROUNDABOUT)

200' WIDE CITY OF EL PASO DRAINAGE CHANNEL #1, PARCEL A (CRORANCE # 2040)  
 (AS SHOWN ON THE EL PASO COUNTY PLAT OF SECTION 31, BLOCK 80, TOWNSHIP 1, T&P RR CO. SURVEY) NO RECORDS PROVIDED

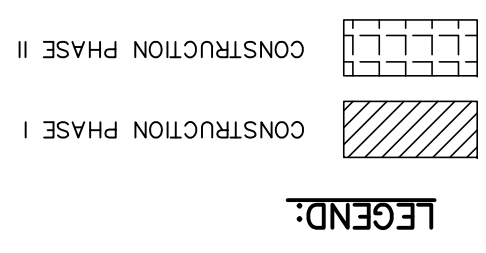




MATCHLINE SEE SHEET C11.4 FOR CONTINUATION.



CONSTRUCTION PHASING PLAN  
SCALE: 1" = 100'



UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720
EL PASO ENERGY CORPORATION (915) 456-5244
EL PASO WATER UTILITIES (915) 524-5500
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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750
(AFTER HOURS) (915) 240-3220

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**CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

REFERENCES - BENCHMARKS

CITY MONUMENT LOCATED AT THE INTERSECTION OF CLYDESDALE DRIVE AND PALOMINO STREET		
ELEVATION: 3939.32 (NAD 88)		
ELEVATION: 3928.24" (CITY DATUM)		
DATE	REVISIONS	BY

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

**ceeg**  
TEXAS REGISTERED ENGINEERING FIRM T-4564

ENGINEER'S SEAL

SCALE: 1" = 100'

Horizontal: N/A	Vertical: N/A
Contour Interval: N/A	
DATE: APRIL 2021	
DESIGN BY: C.J. / R.O.	
DRAWN BY: K.P./G.D.	
CHKD. BY: F.Z.	
APPROV. BY: J.L.A.	
JOB No.: 2000-2241D	

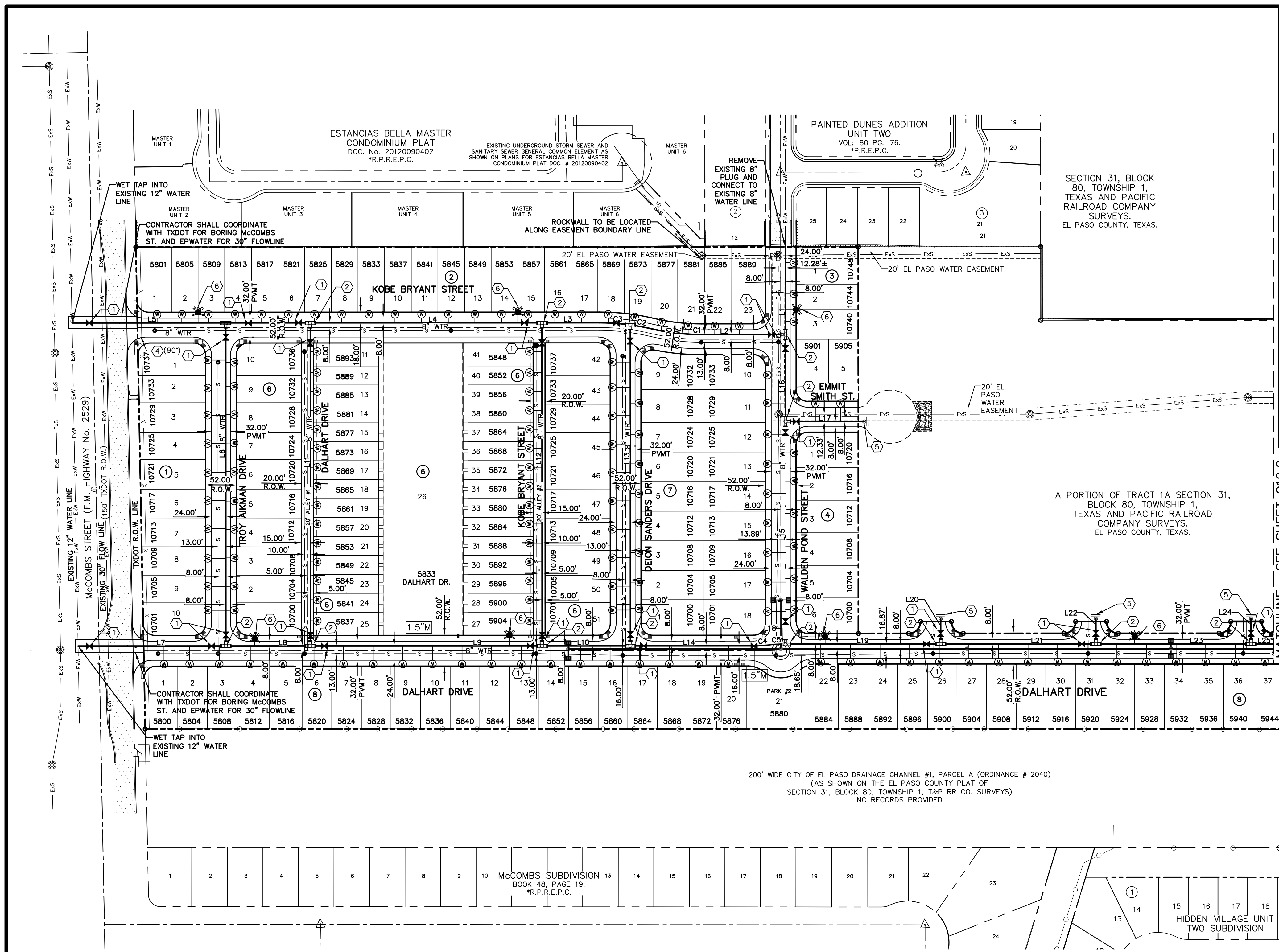
PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
CONSTRUCTION PHASING PLAN

(SHEET 2 OF 2)  
SHEET NO.

C11.5





LINE TABLE			LINE TABLE		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L1	S03°04'17"W	148.00'	L28	N03°04'34"E	43.00'
L2	S86°55'26"E	142.04'	L29	S86°55'26"E	194.70'
L3	S86°55'26"E	96.91'	L30	N04°21'48"E	42.67'
L4	S86°55'25"E	391.23'	L31	S15°07'00"W	18.41'
L5	S86°55'25"E	402.47'	L32	S71°36'43"E	31.68'
L6	N03°04'35"E	546.00'	L33	N63°23'17"E	46.46'
L7	S86°55'25"E	249.46'	L34	S16°29'01"W	17.28'
L8	S86°55'25"E	143.00'	L35	N03°04'34"E	400.83'
L9	S86°55'25"E	391.23'	L36	N86°55'26"W	22.00'
L10	S86°55'26"E	148.99'	L37	N03°04'34"E	105.98'
L11	N03°04'34"E	546.00'	L38	S79°50'52"E	203.54'
L12	S03°04'34"W	546.00'	L39	N03°04'34"E	297.44'
L13	S03°04'34"W	542.44'	L40	N81°34'06"E	195.35'
L14	S86°55'26"E	208.95'	L41	N03°04'34"E	270.60'
L15	S03°04'34"W	376.08'	L42	S03°04'34"W	6.24'
L16	S03°04'17"W	147.00'	L43	S81°34'06"W	61.73'
L17	S86°55'44"E	133.05'	L44	S12°21'20"E	34.65'
L18	S86°55'26"E	8.00'	L45	S12°21'20"E	49.02'
L19	S86°55'26"E	262.00'	L46	N57°05'41"W	11.19'
L20	N03°04'34"E	43.00'	L47	N14°46'38"W	212.00'
L21	S86°55'26"E	262.00'	L48	S81°34'06"W	44.73'
L22	N03°04'34"E	43.00'	L49	N14°46'38"W	66.64'
L23	S86°55'26"E	262.00'	L50	N32°23'02"E	35.43'
L24	N03°04'34"E	43.00'	L51	N13°31'54"W	30.08'
L25	S86°55'26"E	261.99'			
L26	N03°04'34"E	43.00'			
L27	S86°55'26"E	373.06'			

### INDEX

SHEET NO.	DESCRIPTION
C12.1, C12.2	VILLAS DEL NORTE UNIT ONE WATER MAIN PIPE LAYOUT
C12.3	WATER DETAILS
C12.4	WATER DETAILS
C12.5	WATER DETAILS
C12.6	WATER DETAILS

**NOTES:**

- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
- ALL WATER LINES SHALL BE PVC C-900, DR 18, 235 PSI.
- REFERENCE WATER DETAILS FOR TYPICAL VALVE AND WATER LOCATIONS AT STREET INTERSECTIONS.
- REFERENCE WATER DETAILS FOR WATER LINE (INCLUDING FITTINGS) CROSSING STORM SEWER AND SANITARY SEWER.

### LEGEND

SYMBOL	DESCRIPTION
8" WTR.	PROPOSED 8" C-900, DR 18, 235 PSI P.V.C. PIPE
---	SUBDIVISION BOUNDARY LINE
---	PROPERTY LINE
---	STREET CENTER LINE
8" SWR	PROPOSED SEWER LINE (PLAN VIEW)
---	PROPOSED STORM SEWER
+	PROPOSED WATER CROSS CONNECTION
+	PROPOSED WATER TEE CONNECTION
+	PROPOSED WATER BEND CONNECTION
+	PROPOSED SERVICE CONNECTION (PLAN VIEW)
+	PROPOSED FIRE HYDRANT, KENNEDY OR MUELLER MODEL
+	PROPOSED 8" PLUG
+	PROPOSED GATE VALVE
1.5" M	PROPOSED 1.5" IRRIGATION WATER METER
2" M	PROPOSED 2" IRRIGATION WATER METER
+	POINT OF TANGENCY
+	REDUCER
+	EXISTING GATE VALVE
+	EXISTING FIRE HYDRANT
+	EXISTING PLUG
ExS	EXISTING SEWER LINE
ExW	EXISTING WATER LINE

### WATER QUANTITIES

DESCRIPTION	QUANTITY	UNIT
8" PVC WATER LINE	9201.57	LF
8" GATE VALVE	50	EA
8" PLUG	10	EA
3/4" WATER METER	228	EA
1.5" IRRIGATION METER	3	EA
2" IRRIGATION METER	1	EA
16" STEEL CASING	380	LF
FIRE HYDRANT	14	EA

### WATER KEYED NOTES

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

### CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	367.00'	84.95'	42.66'	84.76'	S80°17'34"E	01°31'54"
C2	383.00'	36.39'	18.21'	36.38'	N76°23'03"W	00°52'40"
C3	383.00'	52.26'	26.17'	52.22'	N83°00'54"W	00°74'03"
C4	175.00'	22.61'	11.32'	22.60'	N89°22'28"E	00°72'41"

### CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C5	175.00'	21.56'	10.79'	21.54'	S89°12'05"W	00°70'32"
C6	3038.00'	76.24'	38.12'	76.24'	N86°12'17"W	00°12'61"
C7	3038.00'	271.60'	135.89'	271.51'	N82°55'29"W	00°50'72"
C8	385.47'	43.76'	21.91'	43.74'	N05°58'48"E	00°63'01"

### CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	3038.00'	254.58'	127.36'	254.51'	N77°57'47"W	00°44'80"
C10	408.00'	85.74'	43.03'	85.58'	N09°05'47"E	01°20'26"
C11	3038.00'	209.45'	104.77'	209.41'	N73°35'14"W	00°35'01"
C12	408.00'	73.15'	36.67'	73.05'	N11°20'51"E	01°01'21"

### CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C13	408.00'	22.32'	11.16'	22.32'	N04°38'37"E	00°33'08"
C14	383.00'	53.13'	26.61'	53.09'	N83°49'19"W	00°75'54"
C15	383.00'	71.09'	35.65'	70.99'	S86°53'10"W	01°03'08"
C16	408.00'	109.89'	55.28'	109.56'	N04°38'23"W	01°52'54"

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

### GENERAL UTILITIES:

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

### ENGINEER:

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

### FIBER OPTICS:

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

### WATER & SEWER:

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

### ELECTRIC:

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

### EL PASO STREETS

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

### TELEPHONE:

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

### FIBER OPTICS:

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

### RESIDENTIAL GAS LINES:

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

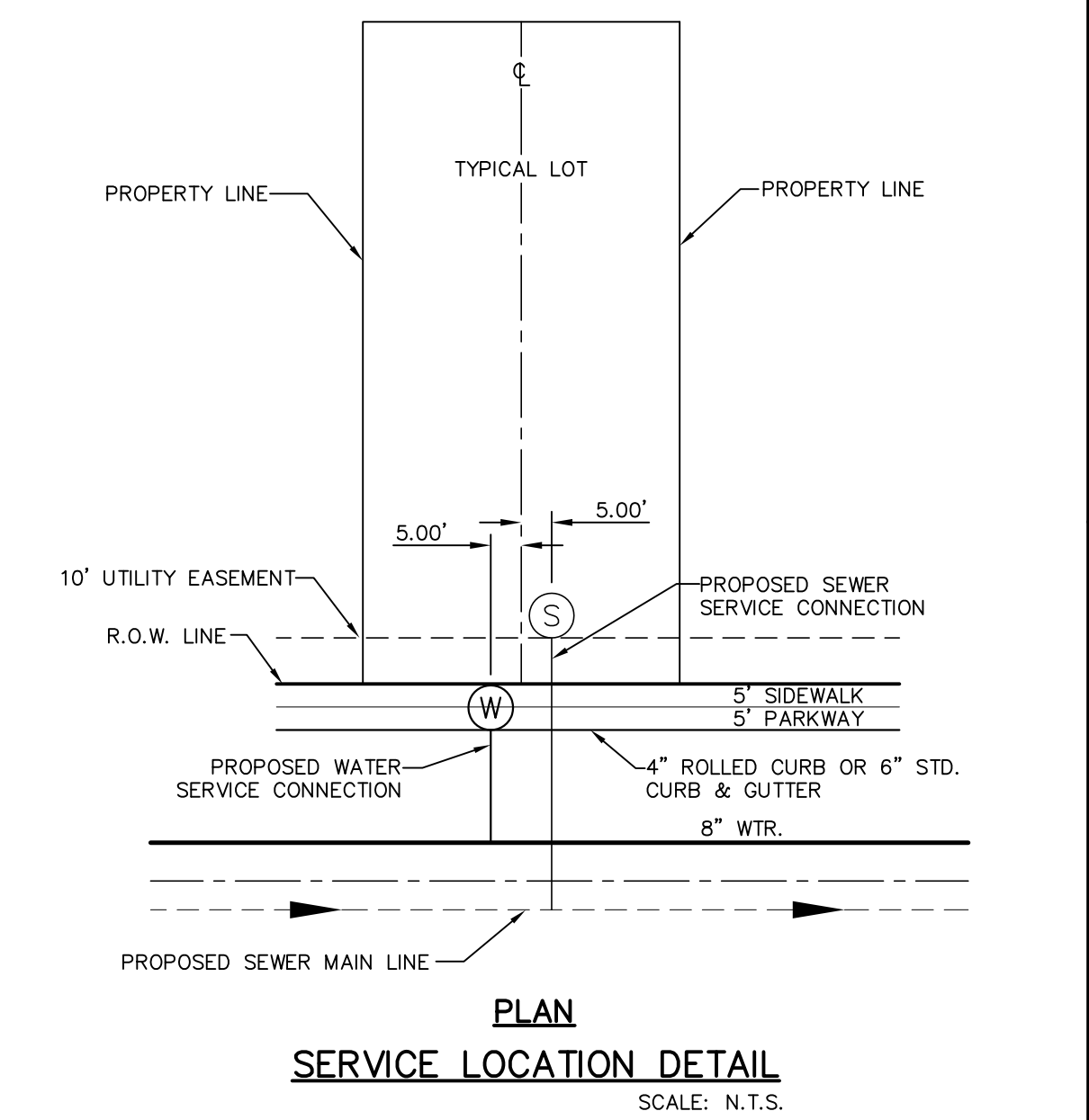
### FIBER OPTICS:

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

### CABLE TELEVISION:

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

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



REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CO. DESDALE DRIVE AND PALMADO STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24" (CITY DATUM)

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

ENGINEER'S SEAL  
 JORGE L. AZCARATE  
 P.E.

SCALE: 1" = 100'  
 Horizontal: N/A  
 Vertical: N/A  
 Contour Interval: N/A  
 DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APP'D. BY: J.L.A.  
 JOB No. - 2000-224.D.

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE  
 SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**WATER INDEX**

SHEET NO.  
**C12.1**







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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3 PAVEMENT REPLACEMENT SCALE: N.T.S.

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

**CONSTRUCTION KEY NOTES:**  
 A. COVER FOR WATER MAINS SHALL DEPEND ON THE PIPE SIZE AND THE FOLLOWING INSTALLATION CONDITIONS.  
 CONDITION A - NORMAL LINE INSTALLATION, STREET AND DRAINAGE PROJECTS, WATERLINE RELOCATION  
 CONDITION B - NEW SUBDIVISIONS, NON-PAVED AREA AND SHALL BE AS FOLLOWS.

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

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

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

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

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

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

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

5 GATE VALVE INSTALLATION SCALE: N.T.S.

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

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

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

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

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

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF COODESDALE DRIVE AND PALMINO STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24" (CITY DATUM)

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

TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL  
 STATE OF TEXAS  
 JORGE L. AZCARRATE  
 08075  
 4/17/21

SCALE: N/A  
 Horizontal: N/A  
 Vertical: N/A  
 Contour Interval: N/A  
 DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPD. BY: J.L.A.  
 JOB No. - 2000-2241D

VILLAS DEL NORTE UNIT ONE  
 SUBDIVISION IMPROVEMENTS

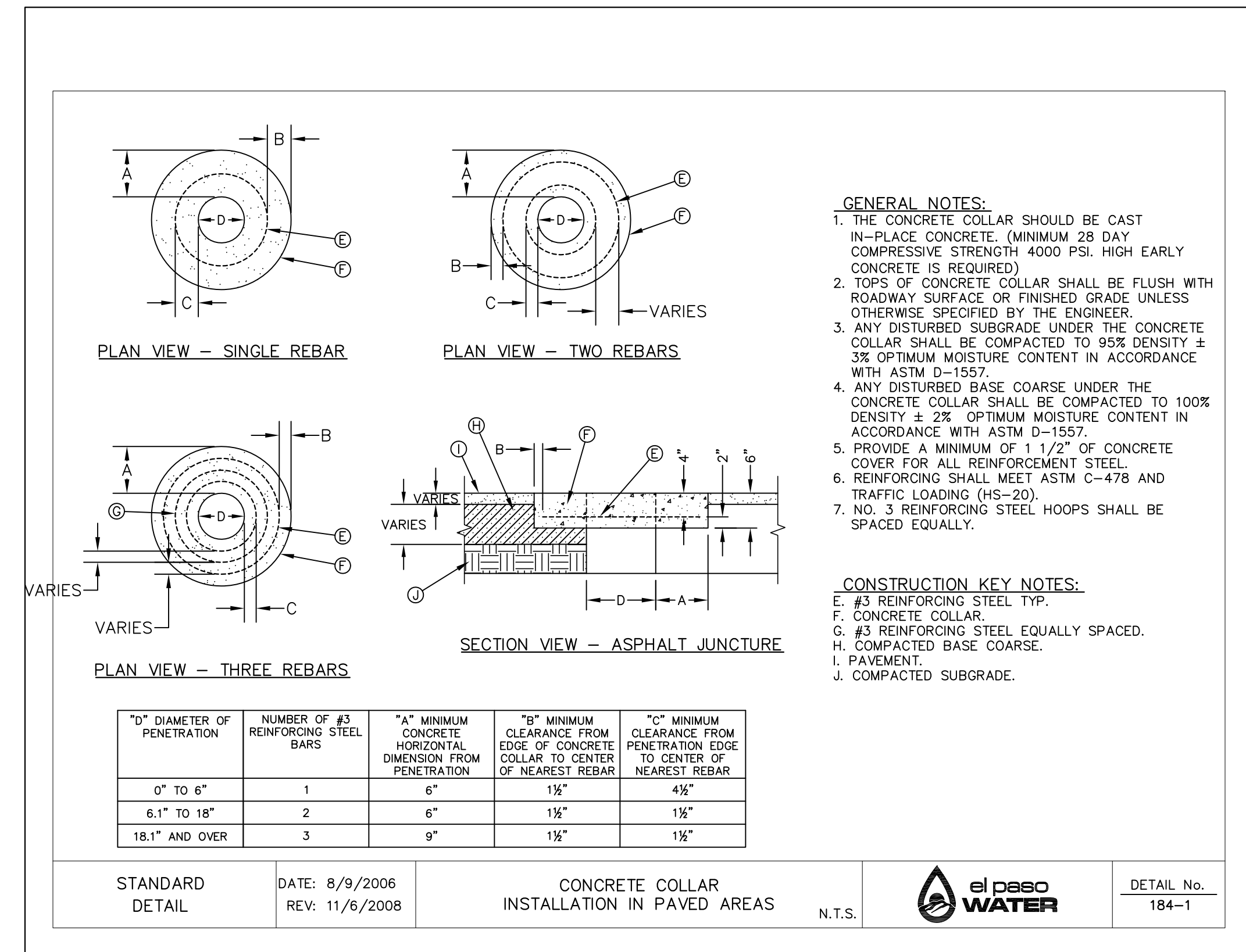
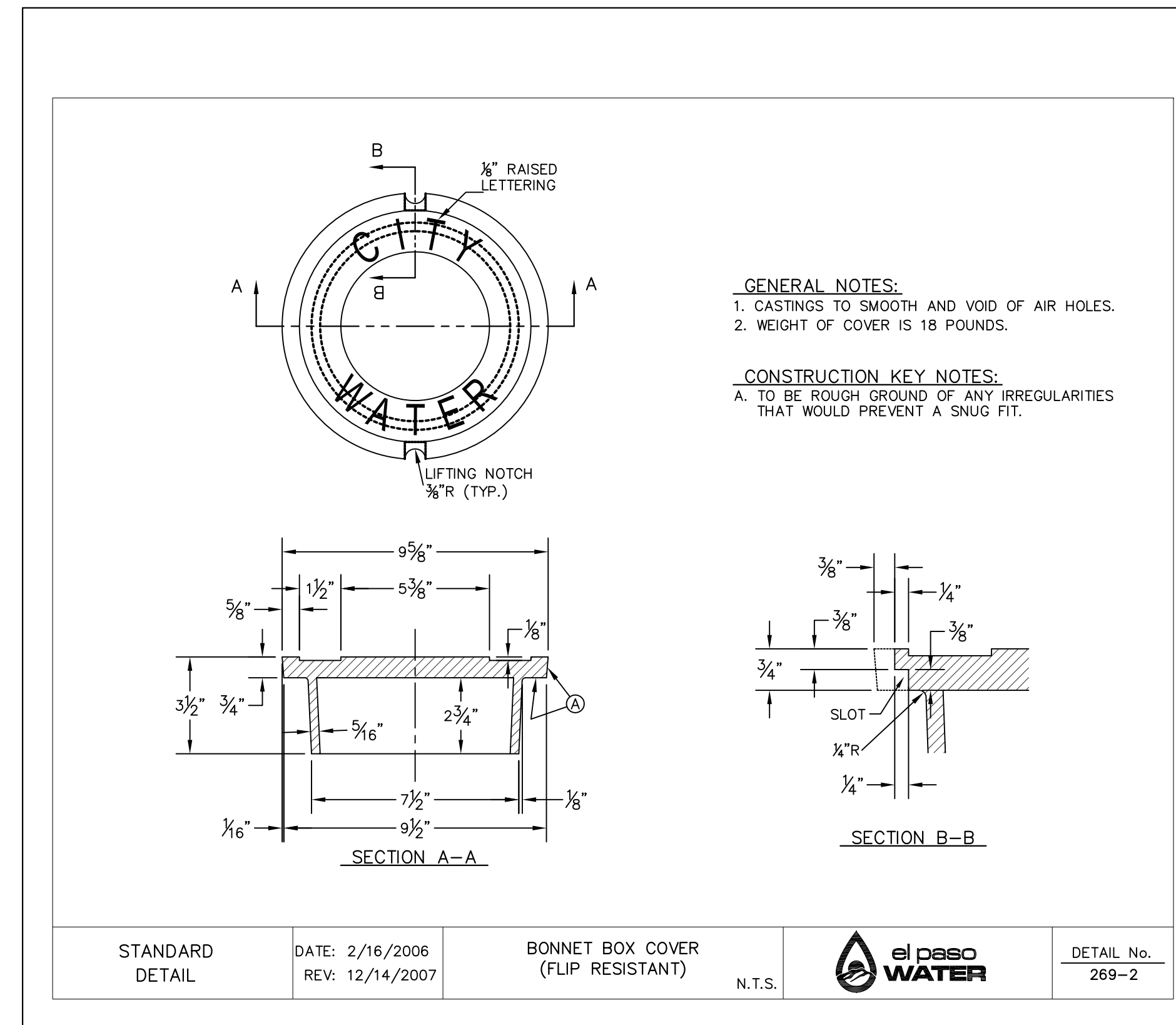
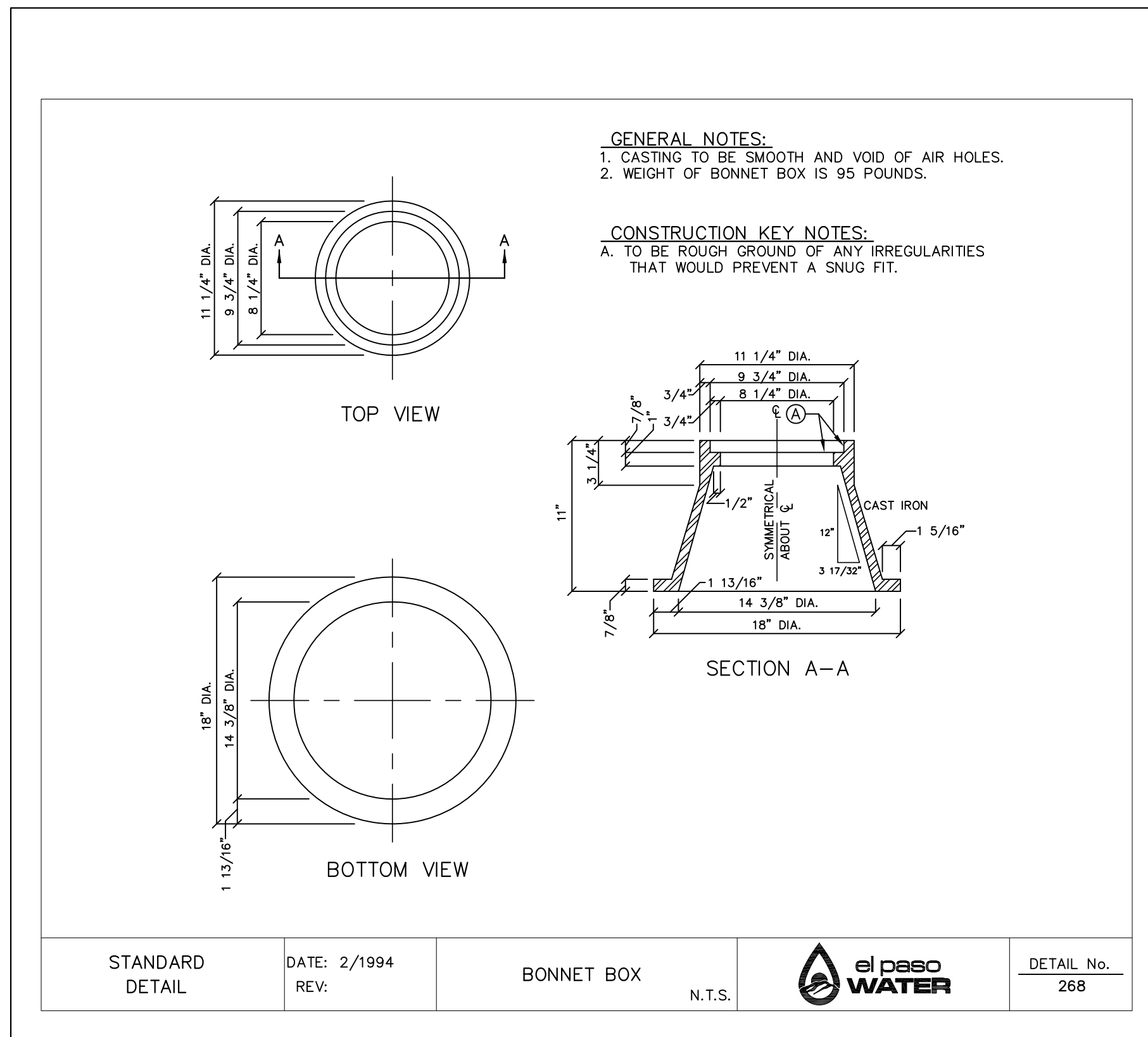
SHEET TITLE

WATER DETAILS

(SHEET 1 OF 5)  
 SHEET NO.

C12.3

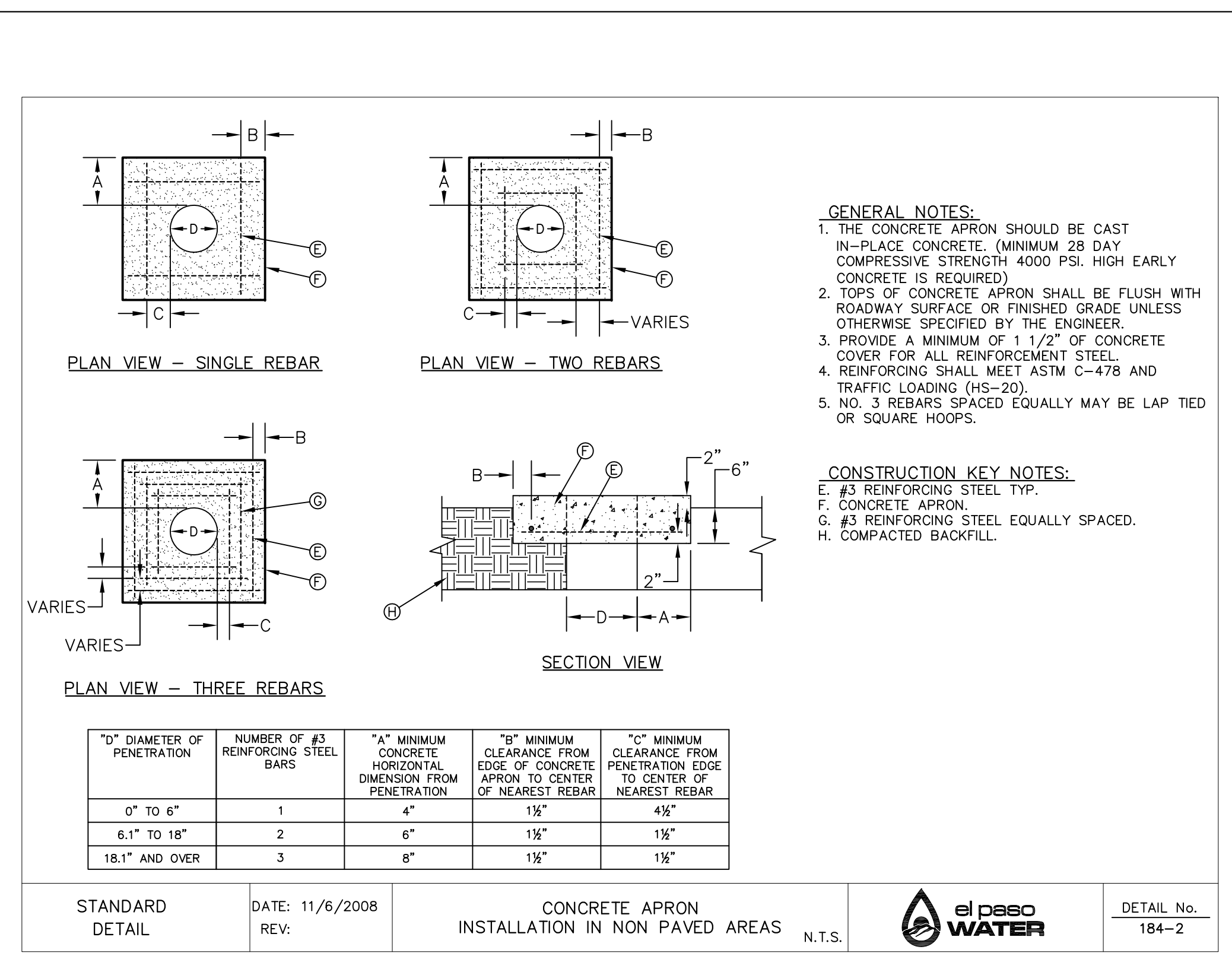




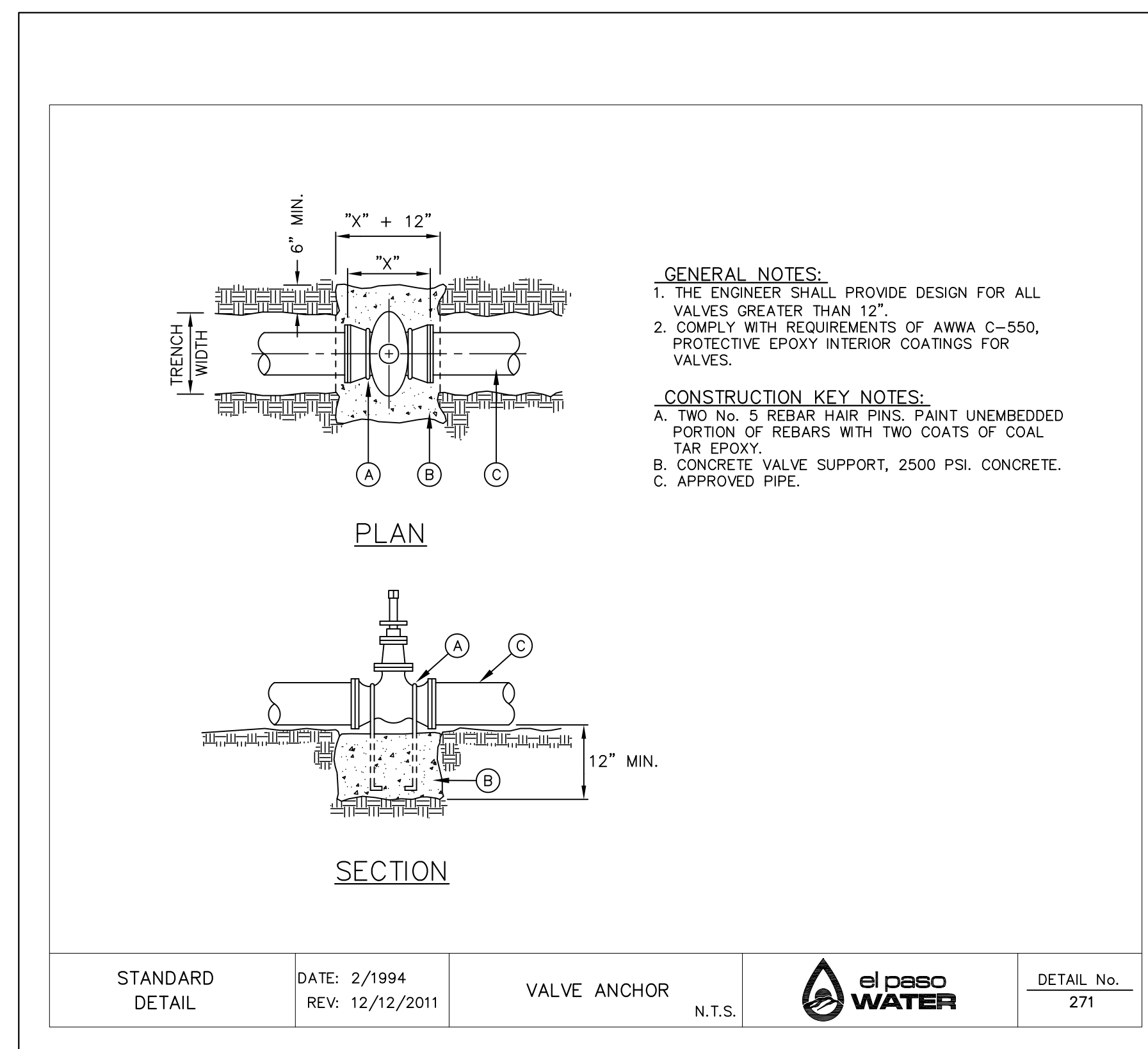
1 BONNET BOX SCALE: N.T.S.

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

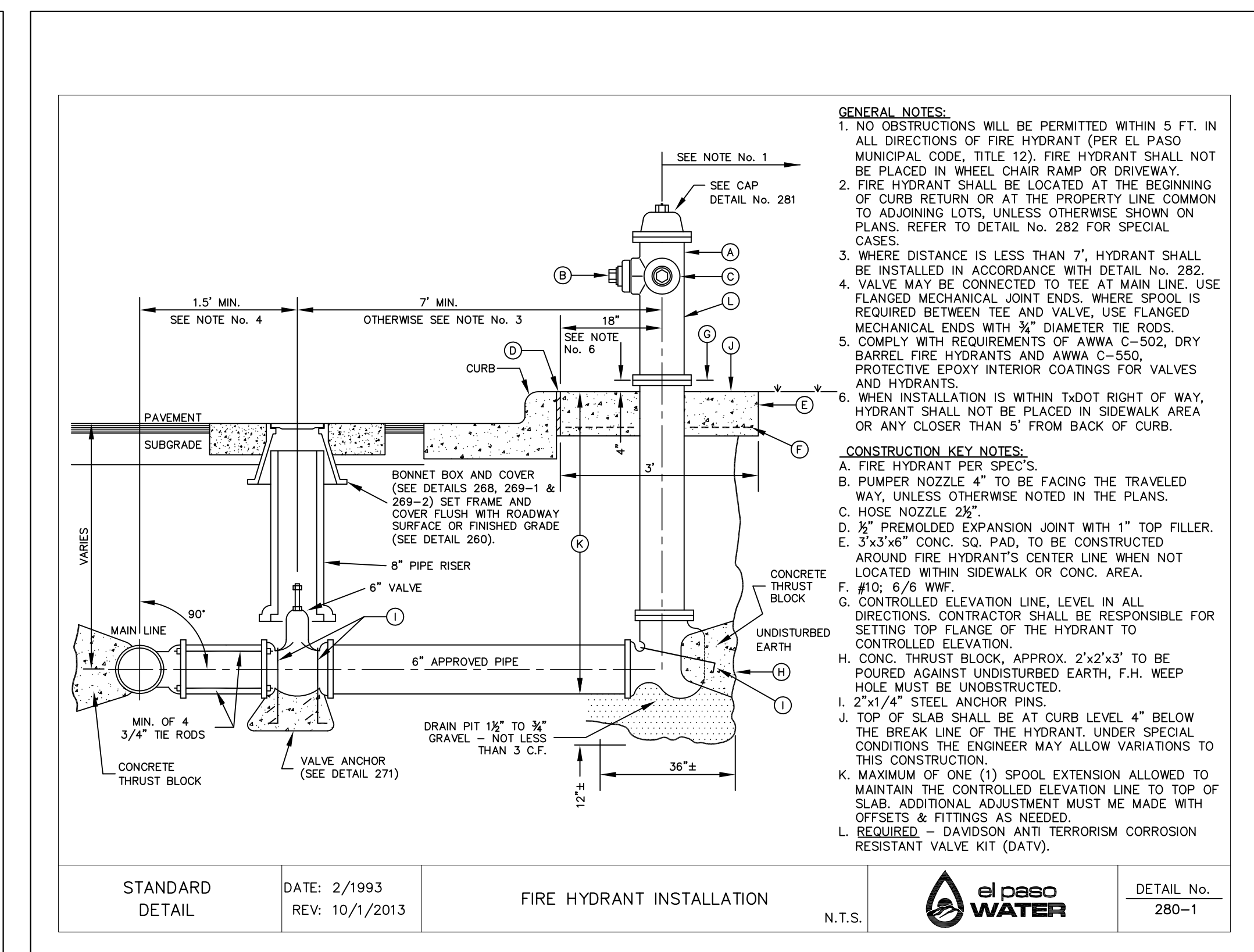
3 CONCRETE COLLAR INSTALLATION IN PAVED AREAS SCALE: N.T.S.



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



5 VALVE ANCHOR SCALE: N.T.S.



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

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF COODESDALE DRIVE AND PALOMINO STREET  
 ELEVATION: 3939.32 (N.A.D. 88)  
 ELEVATION: 3928.24" (CITY DATUM)

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

CSA GROUP  
 TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL  
 STATE OF TEXAS  
 JORGE L. AZCARRATE  
 0075  
 4/17/21

SCALE: N/A  
 Horizontal: N/A  
 Vertical: N/A  
 Contour Interval: N/A  
 DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
 JOB No. - 2000-224LD

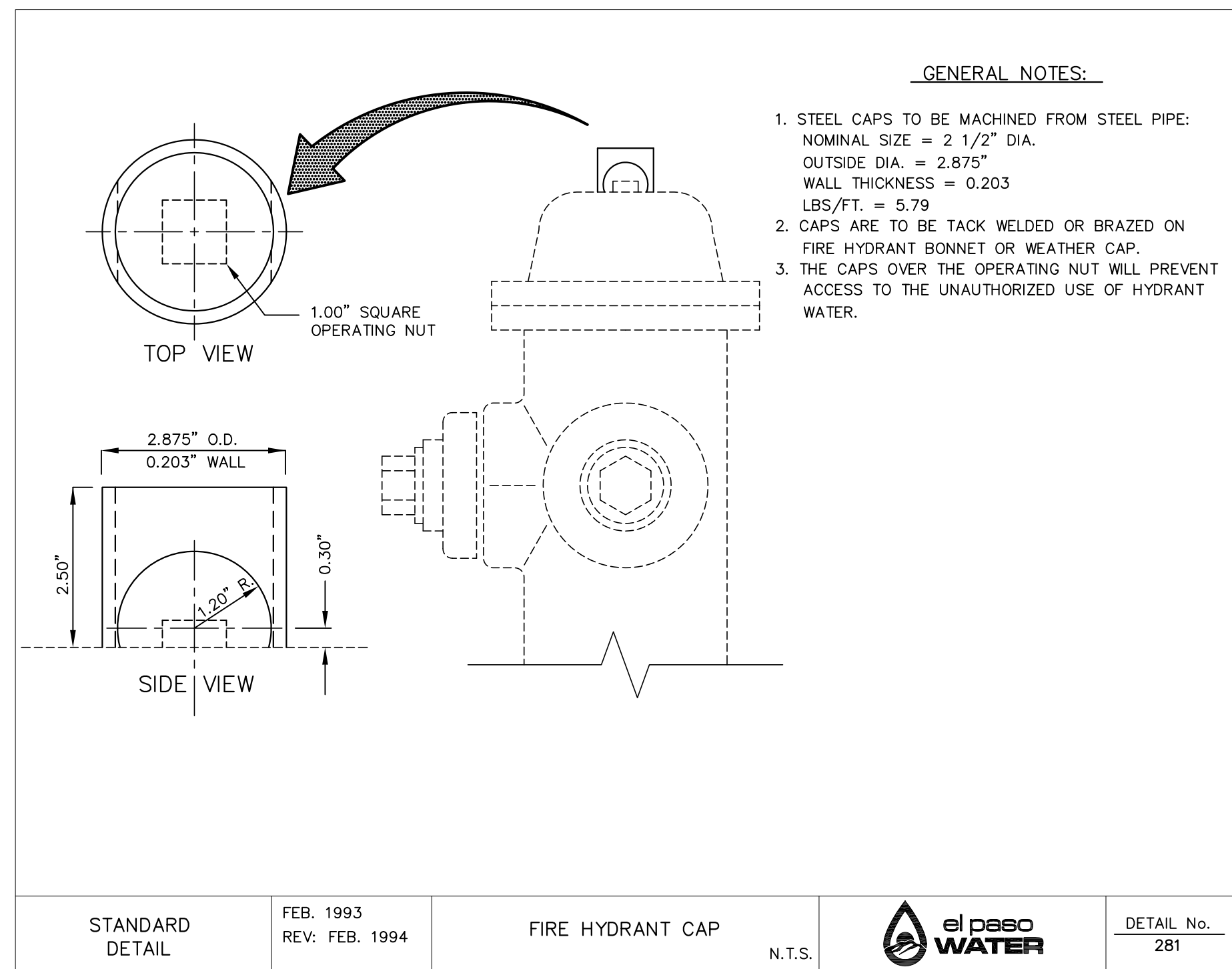
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 VILLAS DEL NORTE UNIT ONE  
 SUBDIVISION IMPROVEMENTS

SHEET TITLE  
 WATER DETAILS

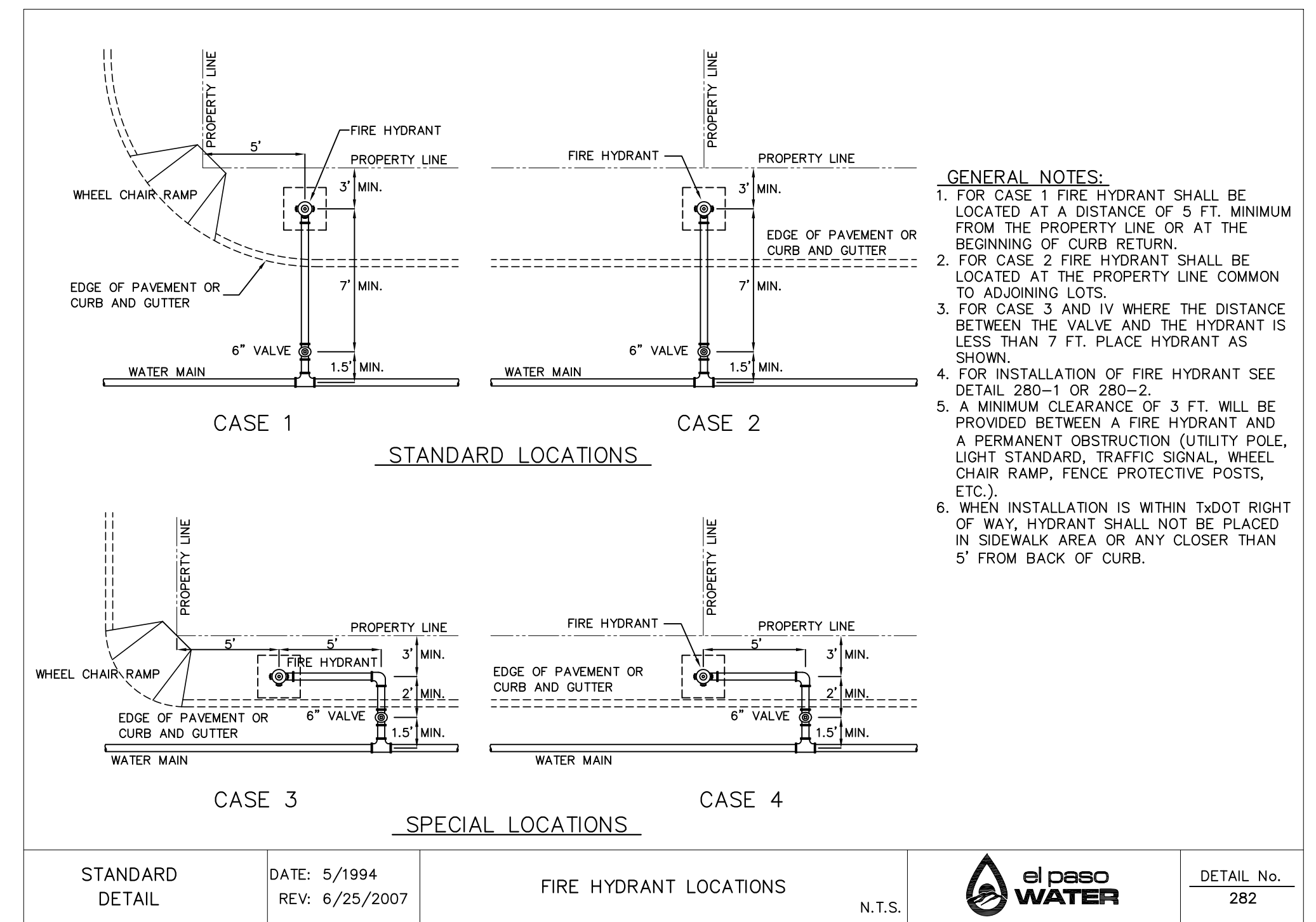
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 SHEET NO.

C12.4

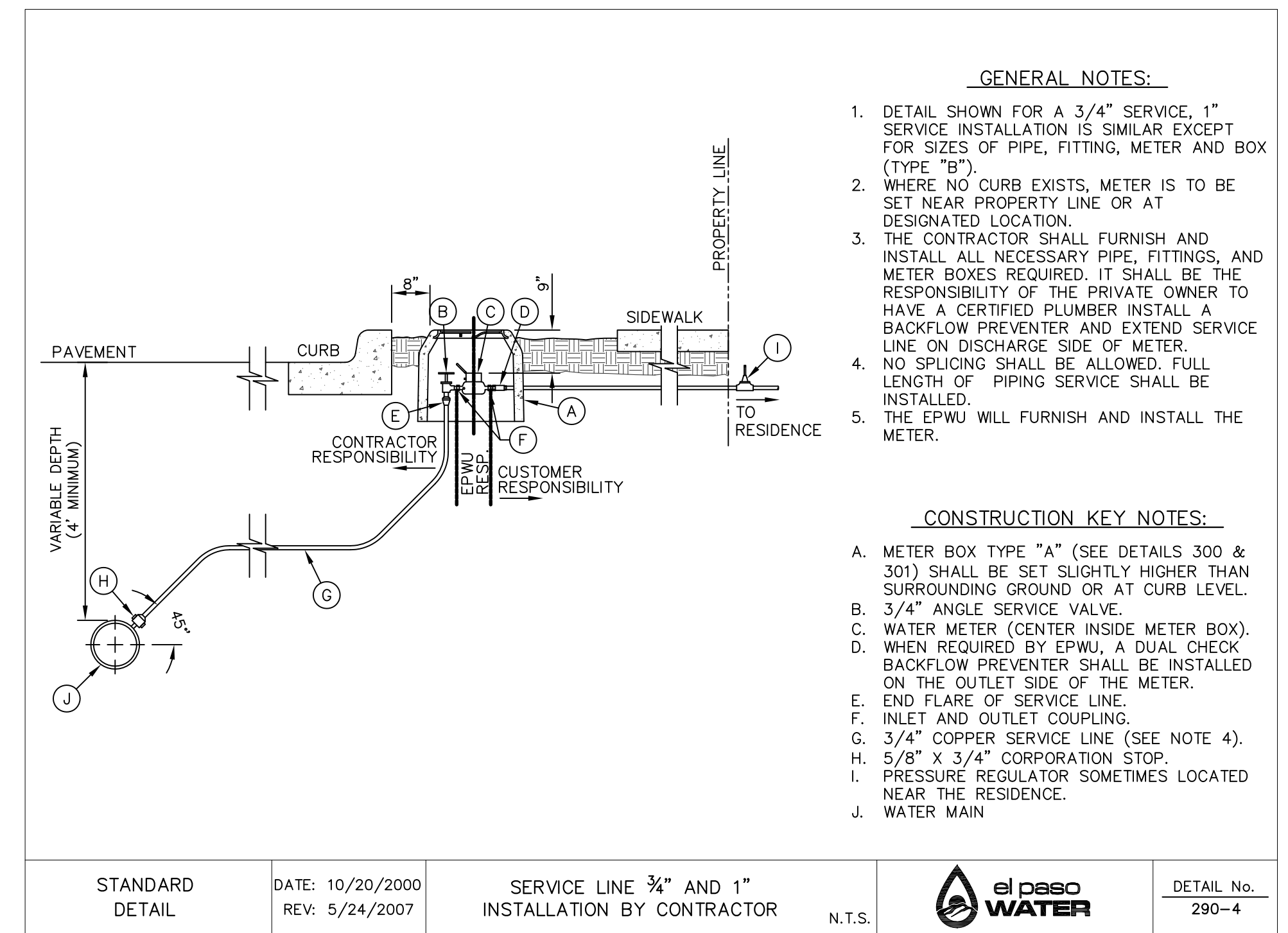




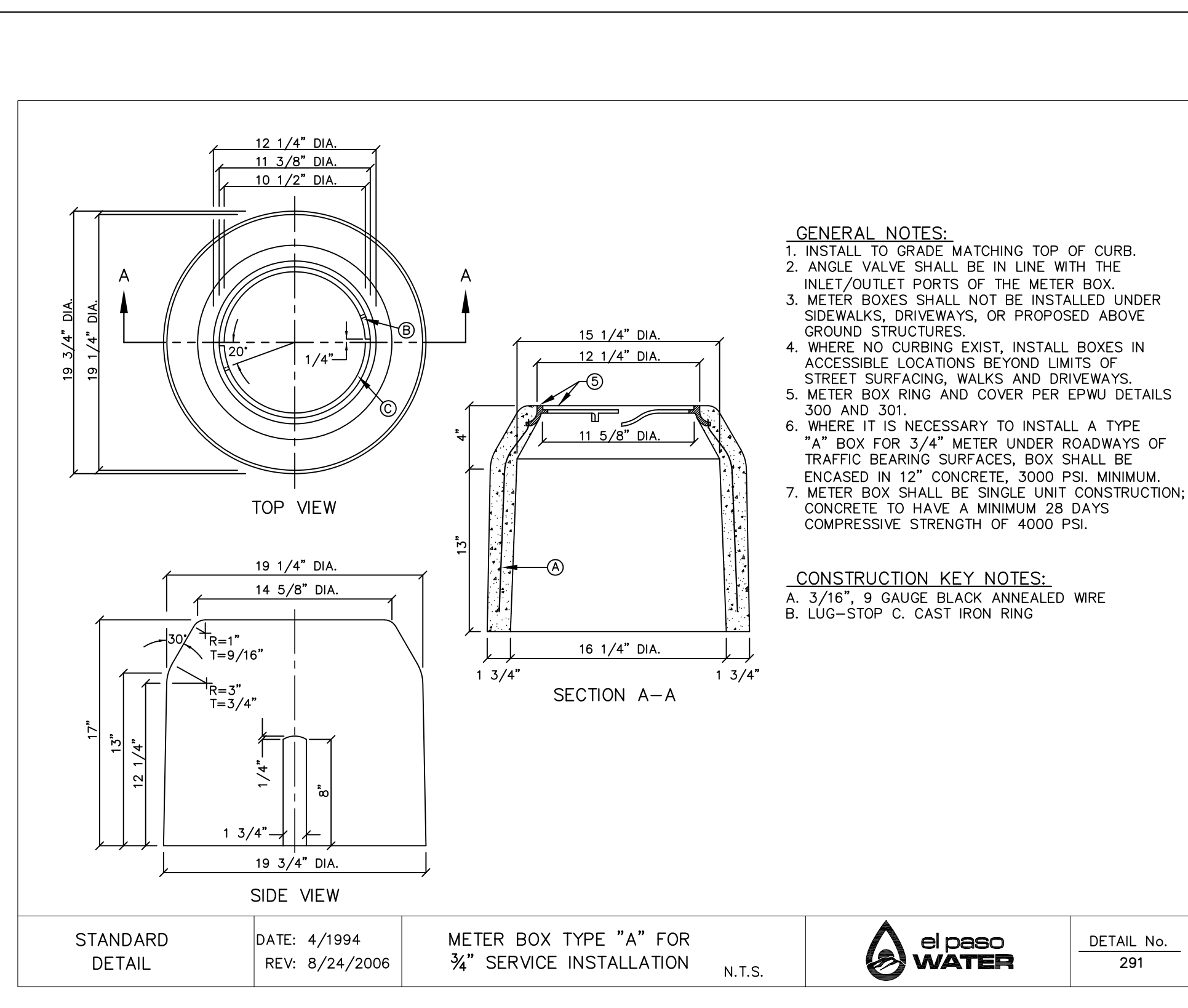
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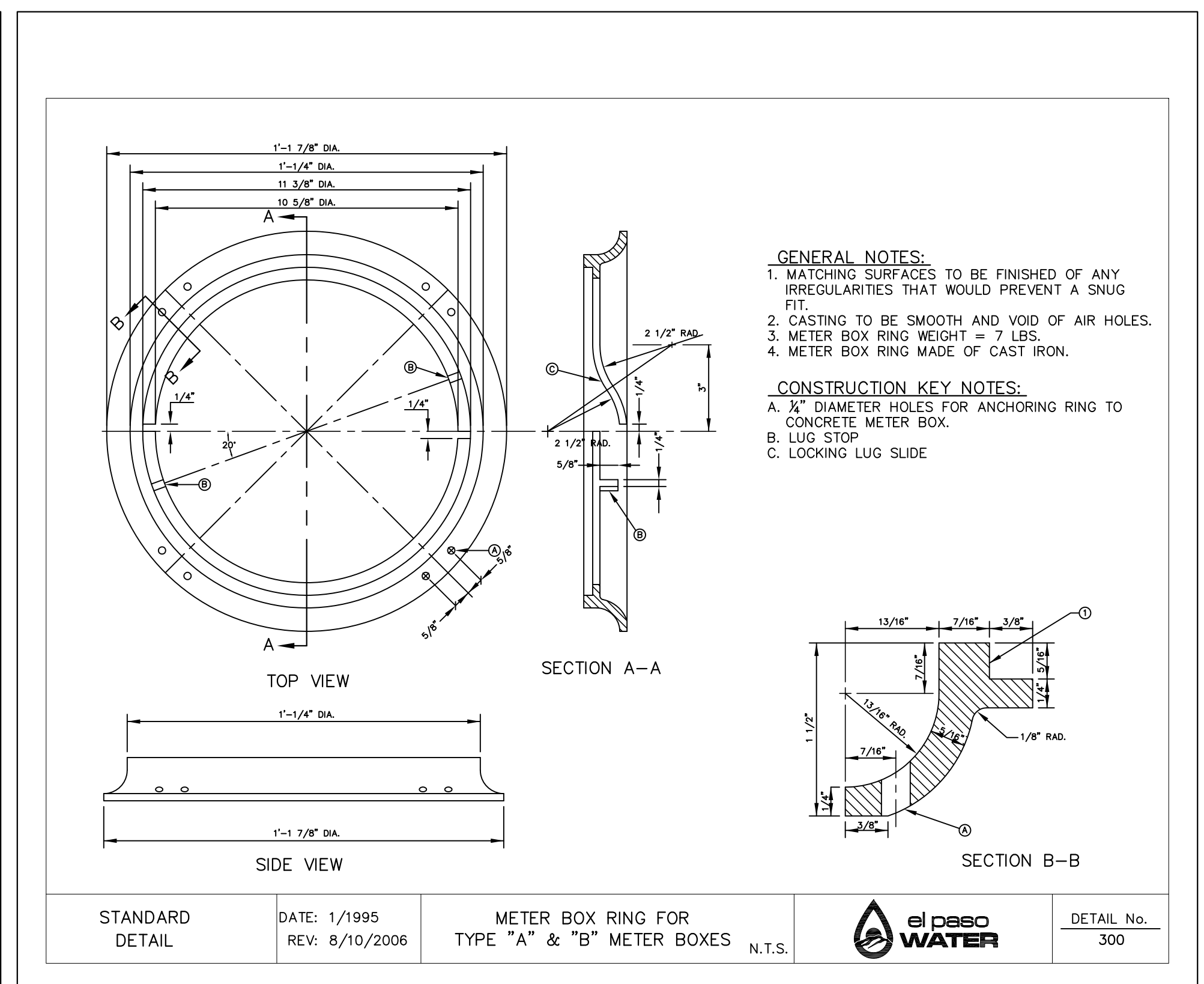
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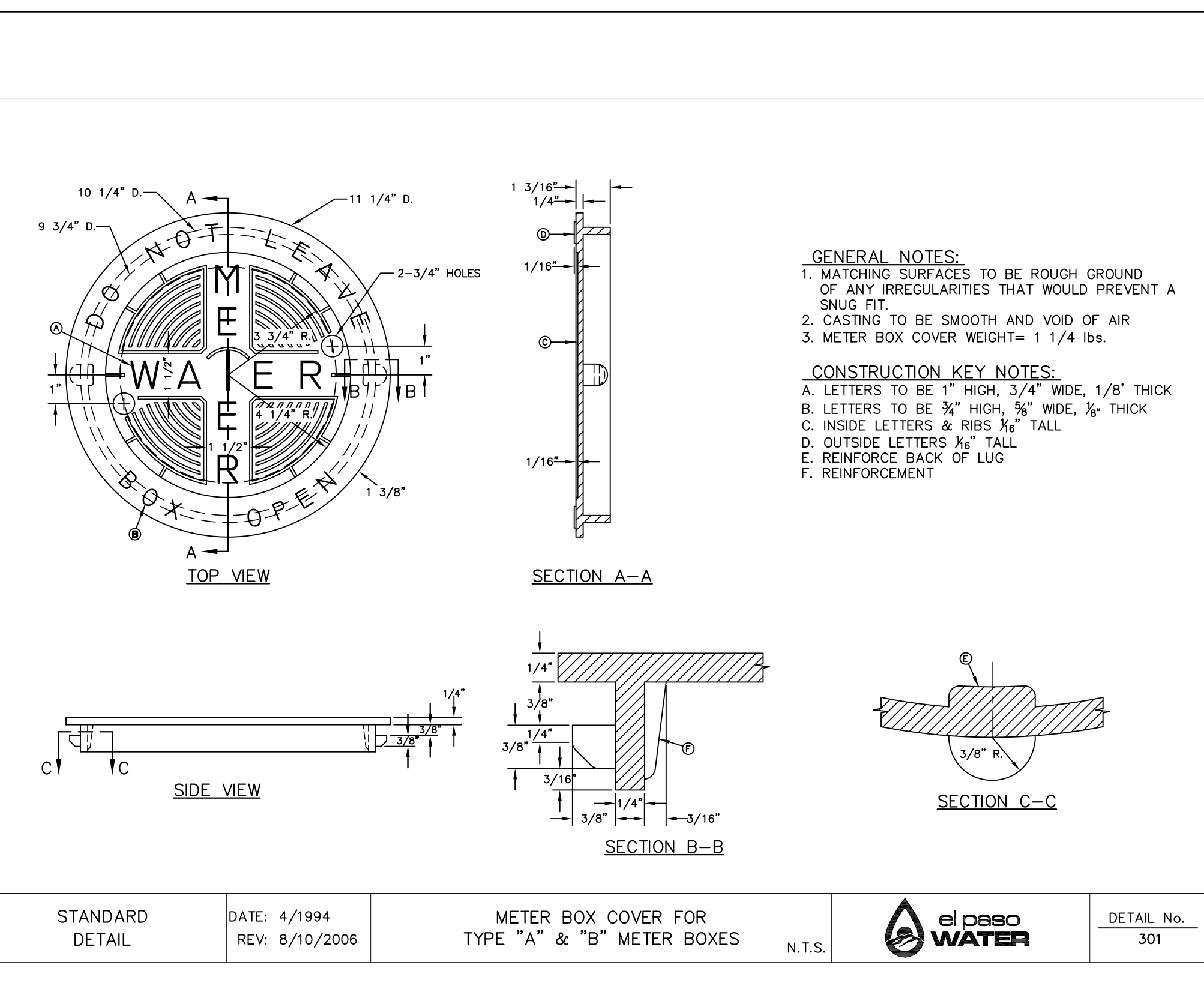
3 SERVICE LINE 3/4" AND 1" INSTALLATION SCALE: N.T.S.



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



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



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

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF COODESDALE DRIVE AND PALMOLINO STREET  
ELEVATION: 3939.32 (N.A.D. 88)  
ELEVATION: 3928.24" (CITY DATUM)

813 N. Kansas St.  
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915.544.5232  
www.ceegroup.net

TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL  
STATE OF TEXAS  
JOSUE L. AGUIAR  
08075  
4/7/20

SCALE: N/A  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. - 2000-224LD

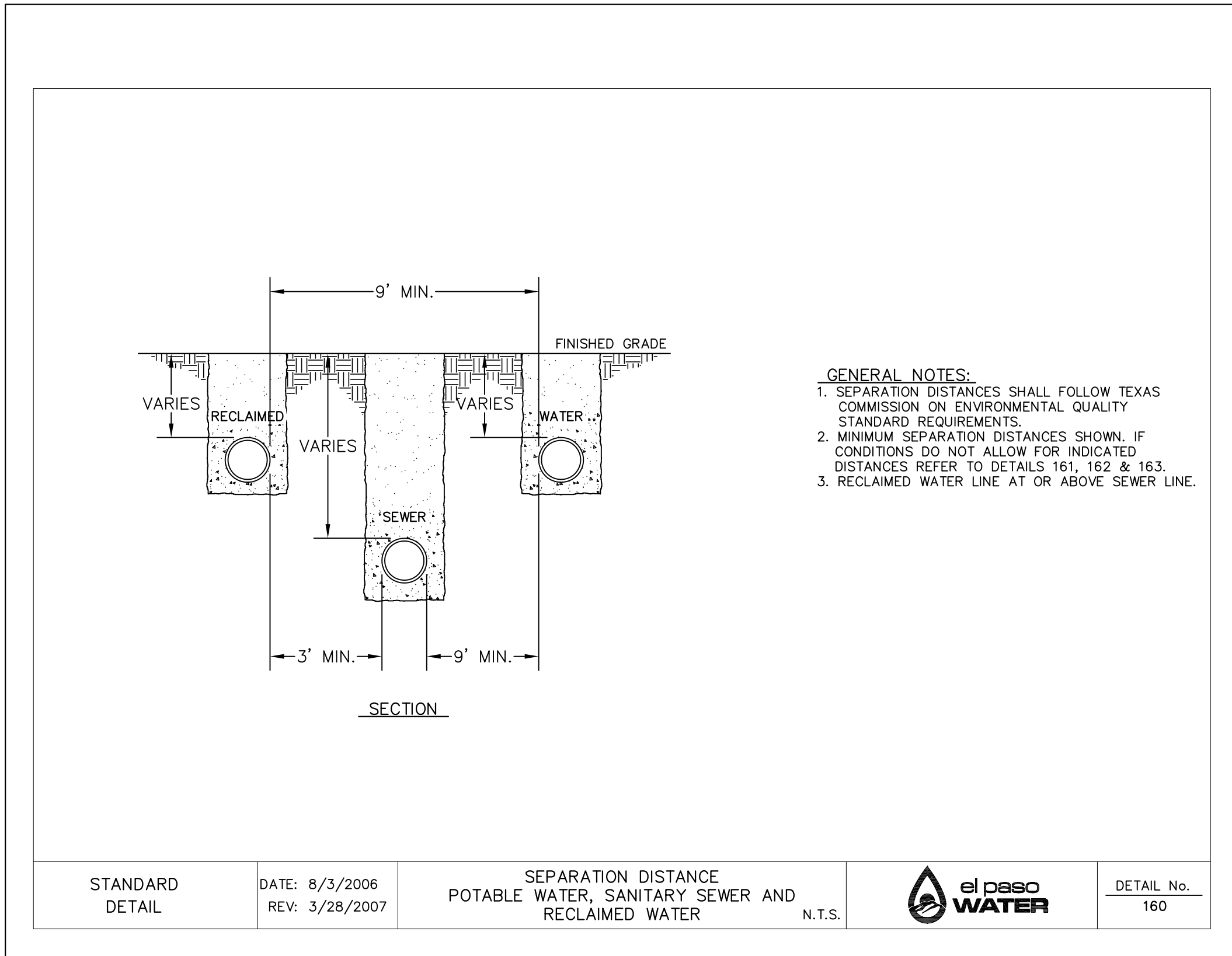
PROJECT TITLE  
VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
WATER DETAILS

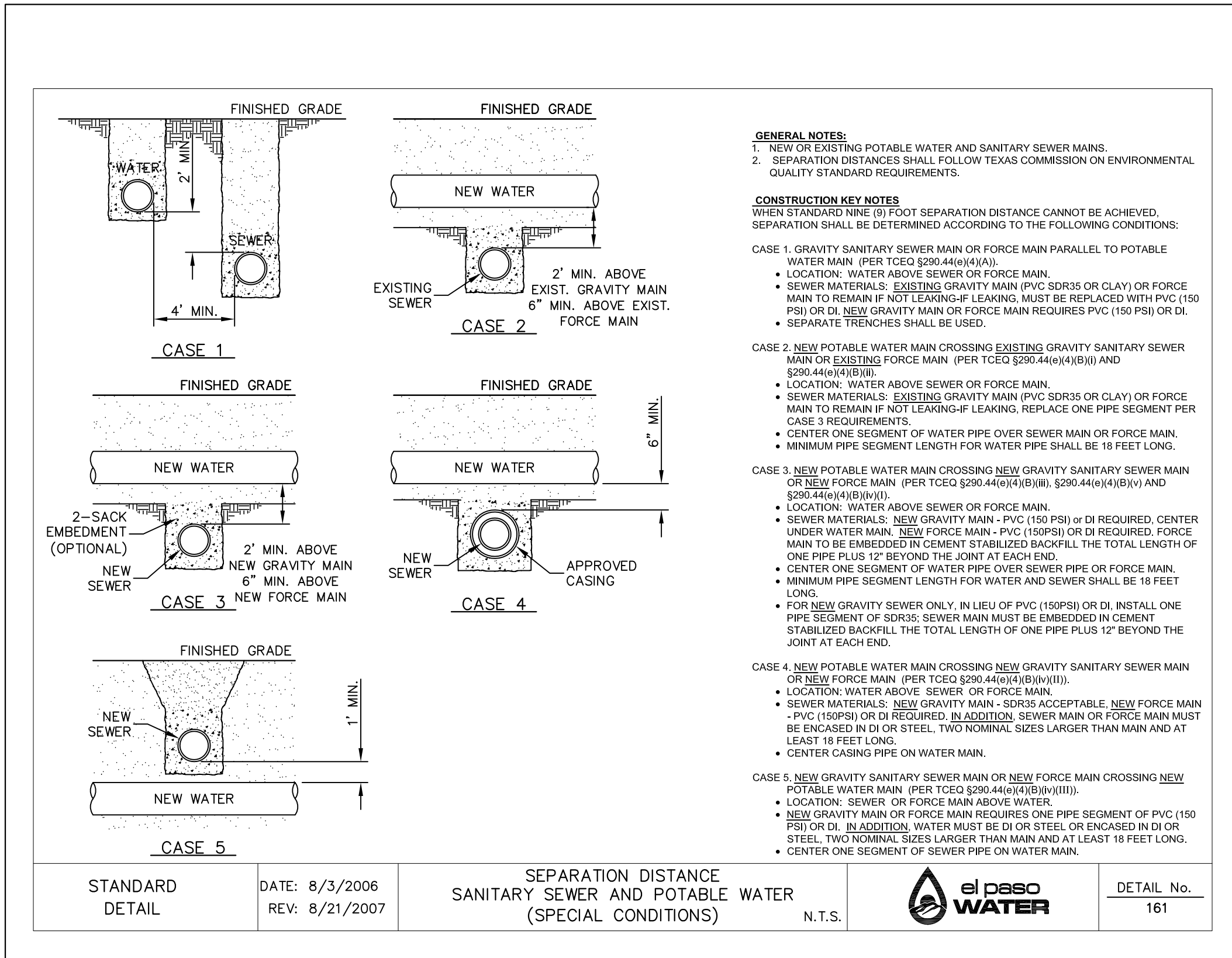
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SHEET NO.

C12.5

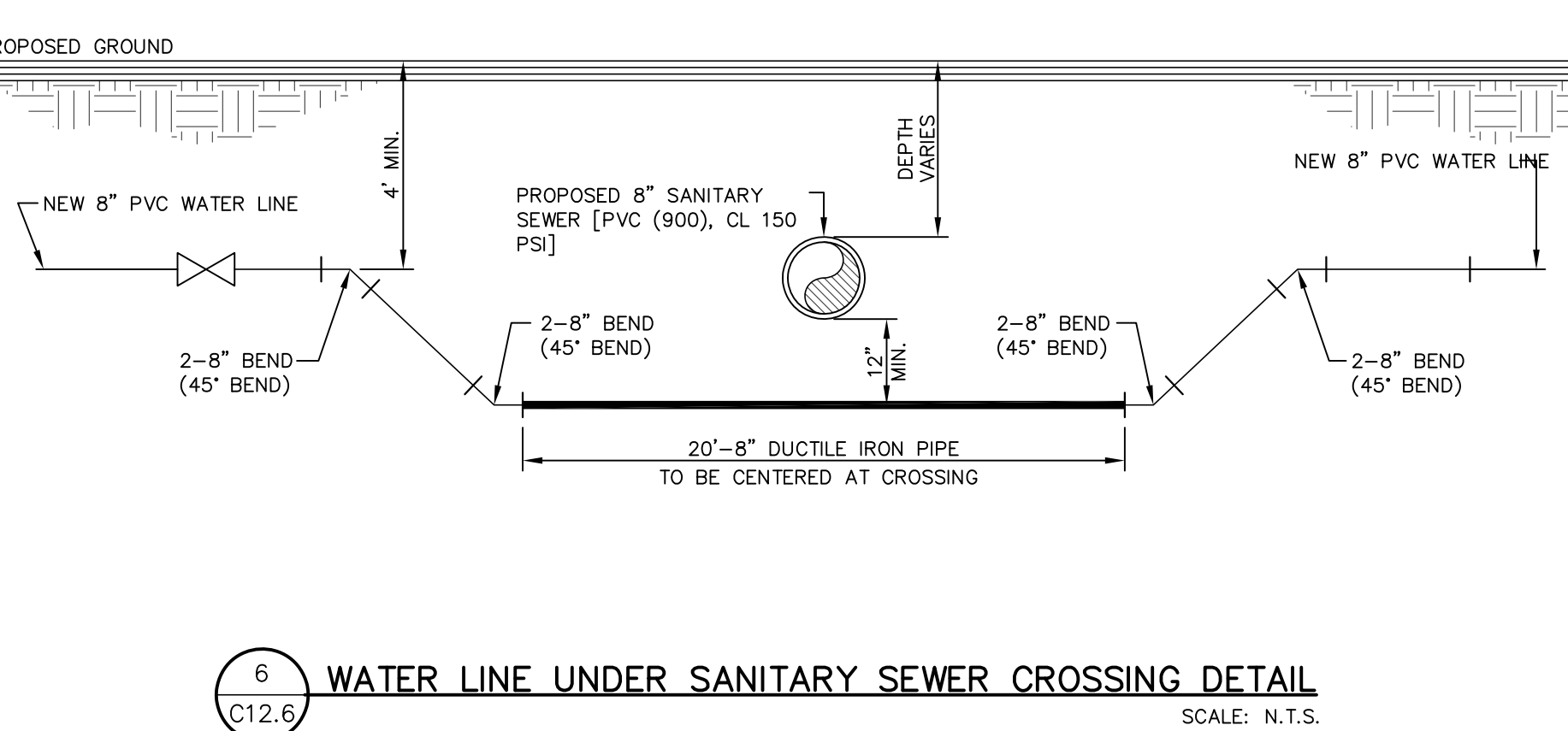
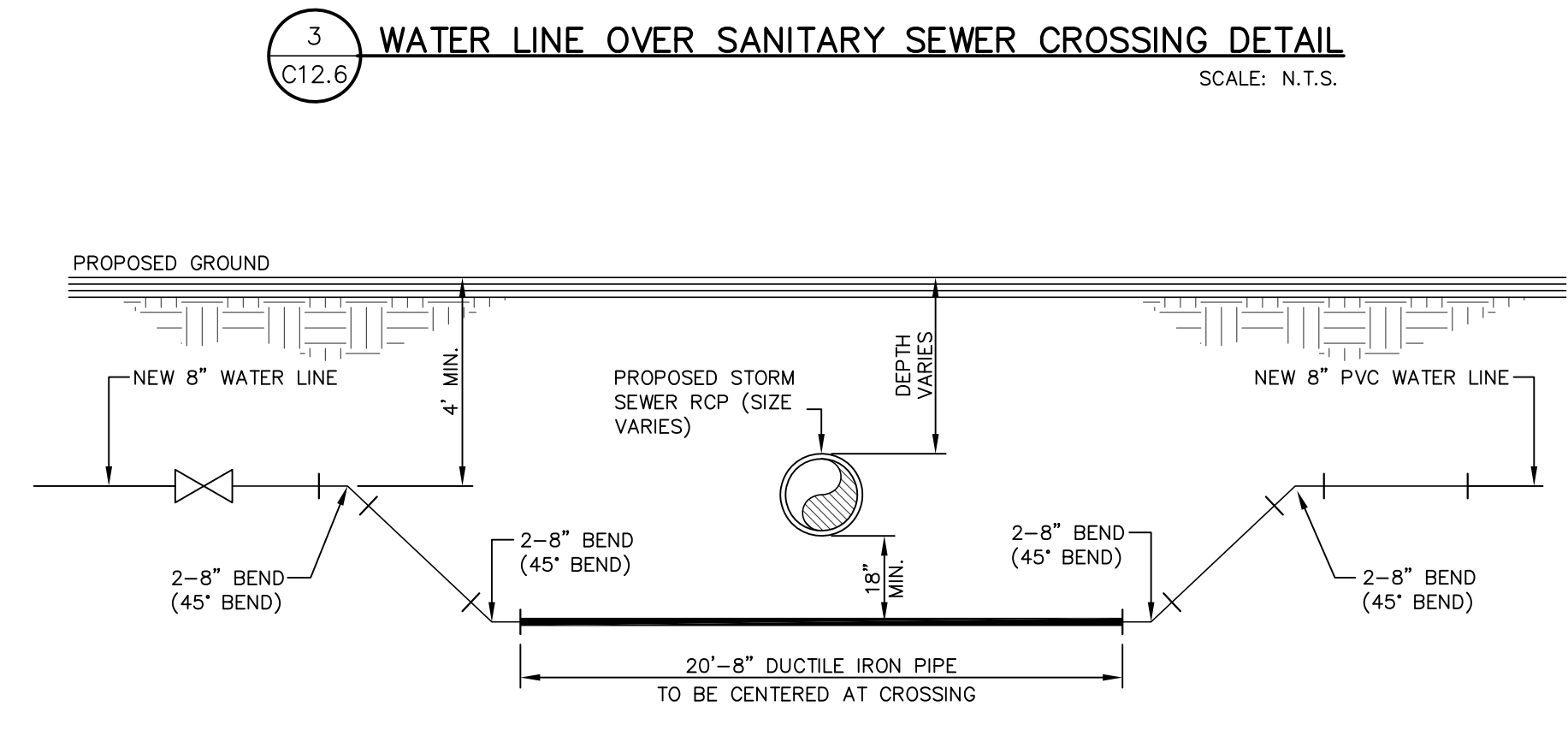
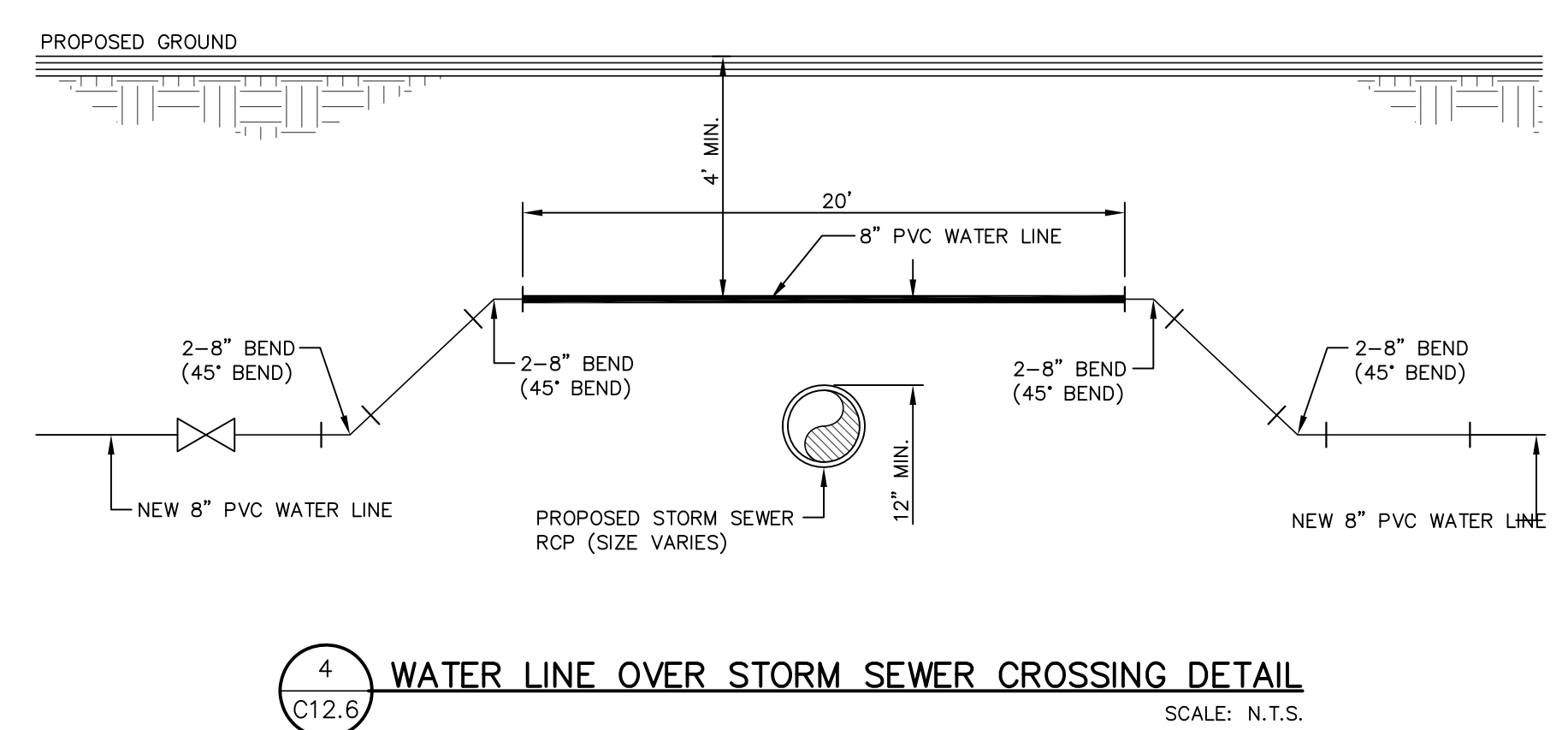
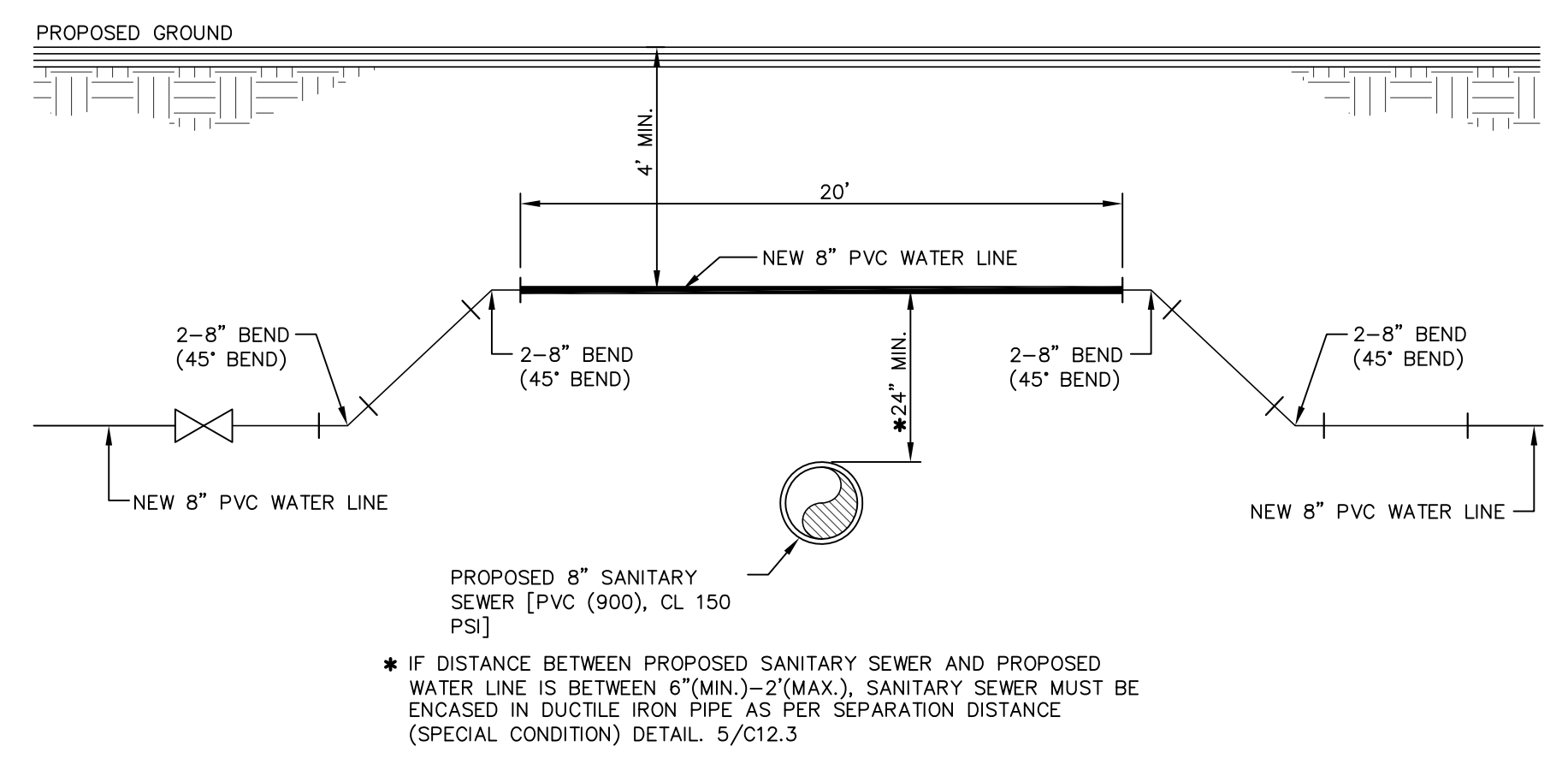




1 SEPARATION DISTANCE POTABLE WATER, SANITARY SEWER AND RECLAIMED WATER SCALE: N.T.S.



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



REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF COLLESDALE DRIVE AND PALOMINO STREET  
ELEVATION: 3939.32 (N.A.D. 86)  
ELEVATION: 3928.24" (CITY DATUM)

813 N. Kansas St.  
Suite 300  
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**CEEGROUP**  
TEXAS REGISTERED ENGINEERING FIRM F-4564

ENGINEER'S SEAL  
STATE OF TEXAS  
JOSUE L. AZCARRATE  
08075  
4/17/20

SCALE: N/A  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. - 2000-224LD

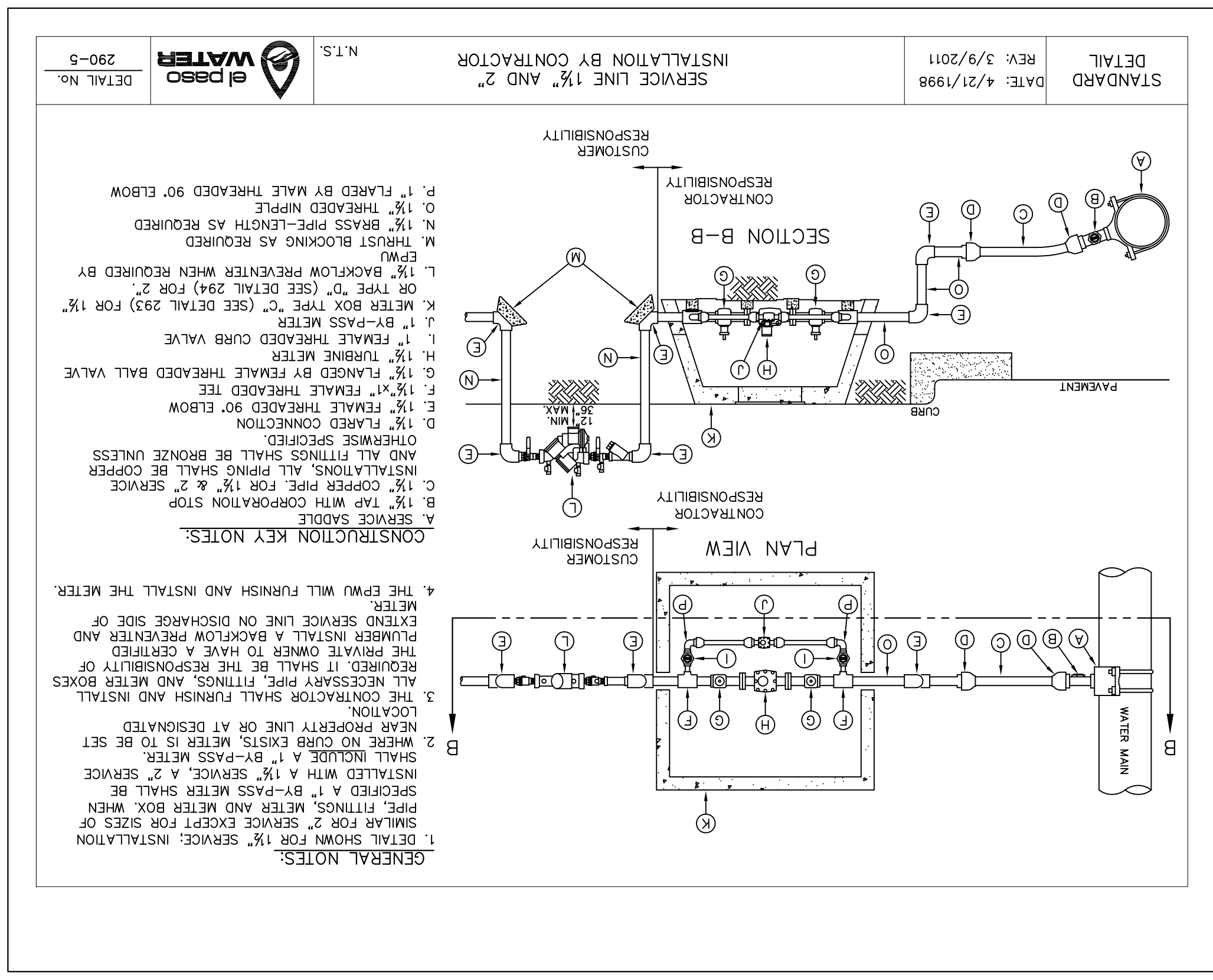
PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**WATER DETAILS**

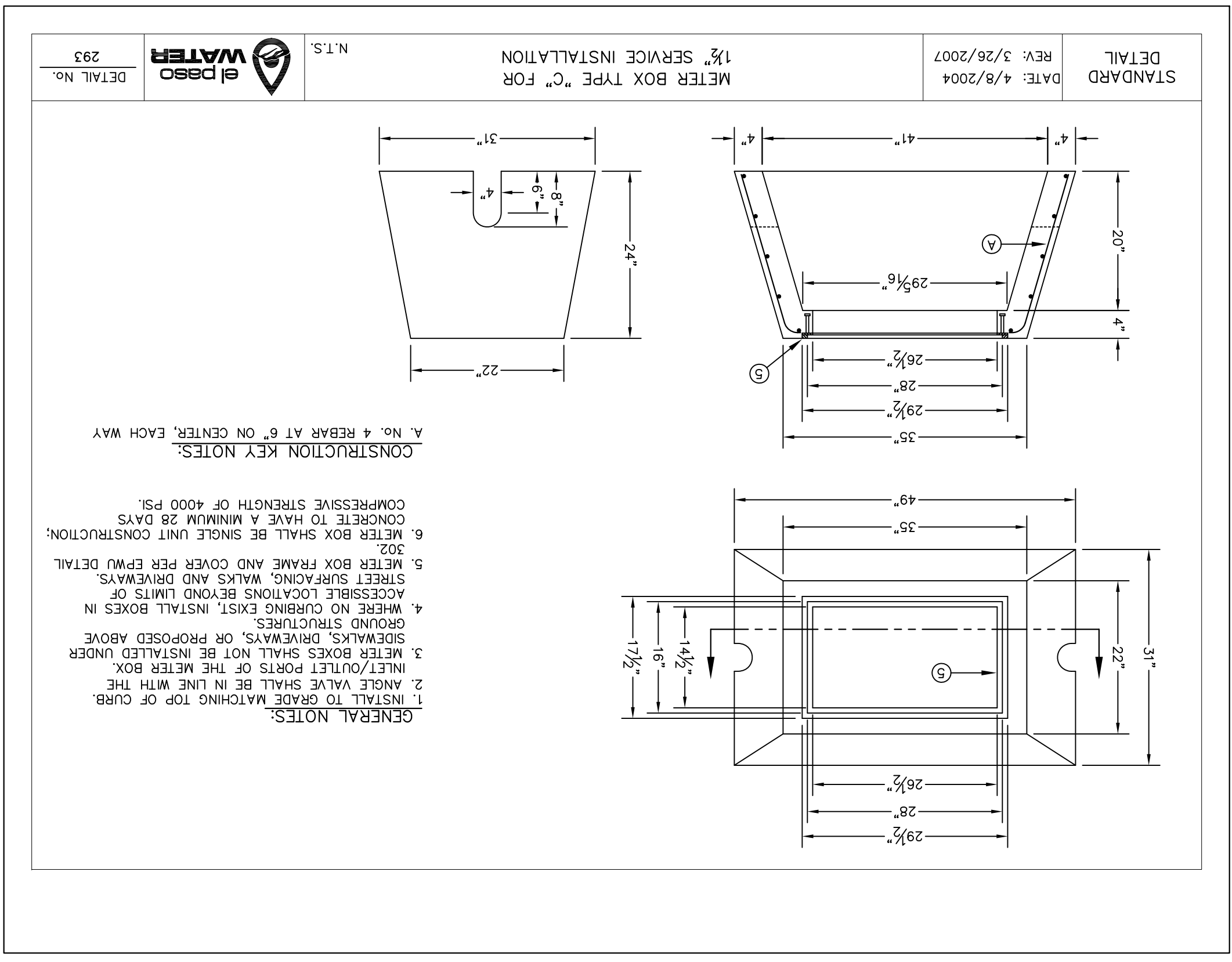
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SHEET NO.

C12.6

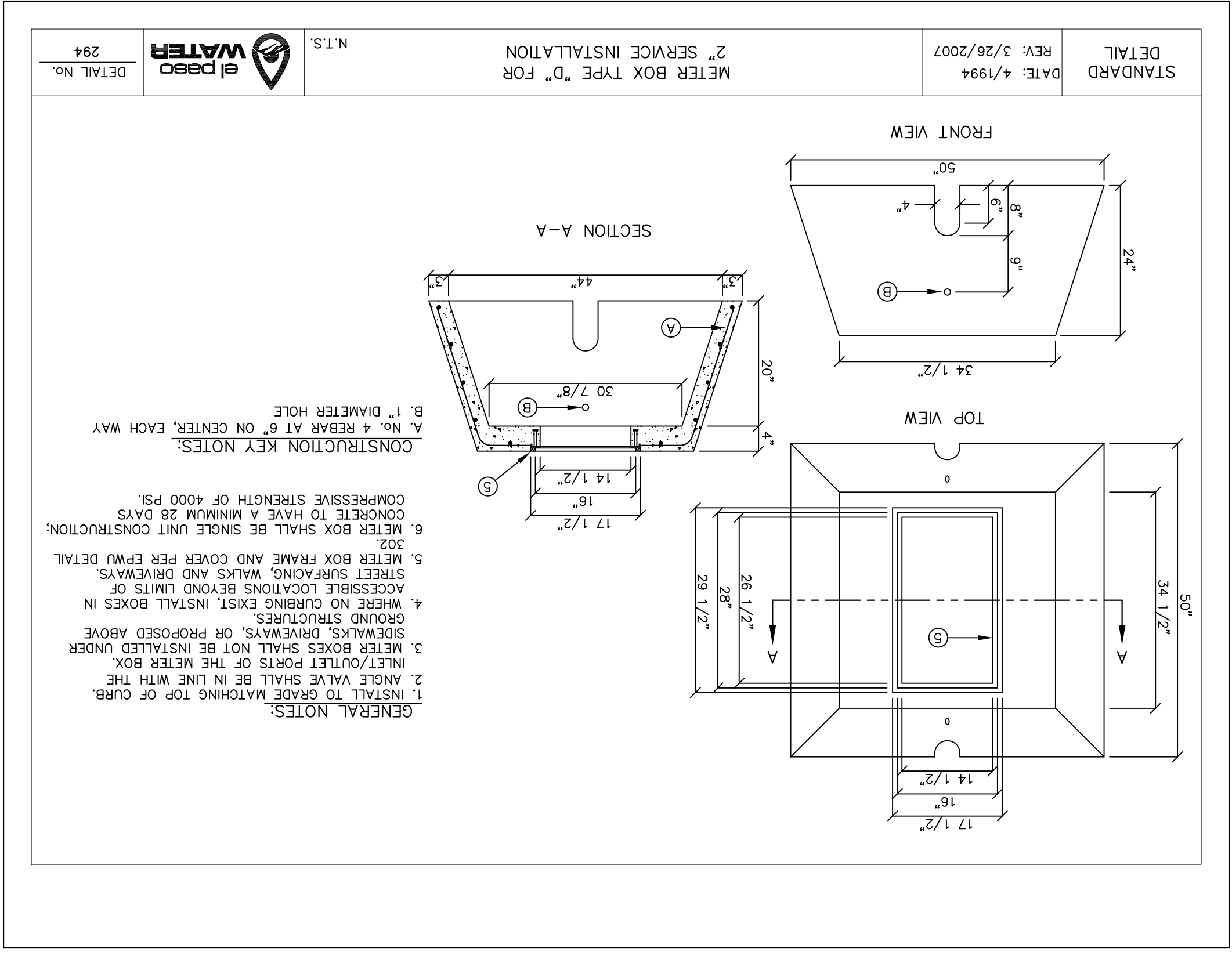




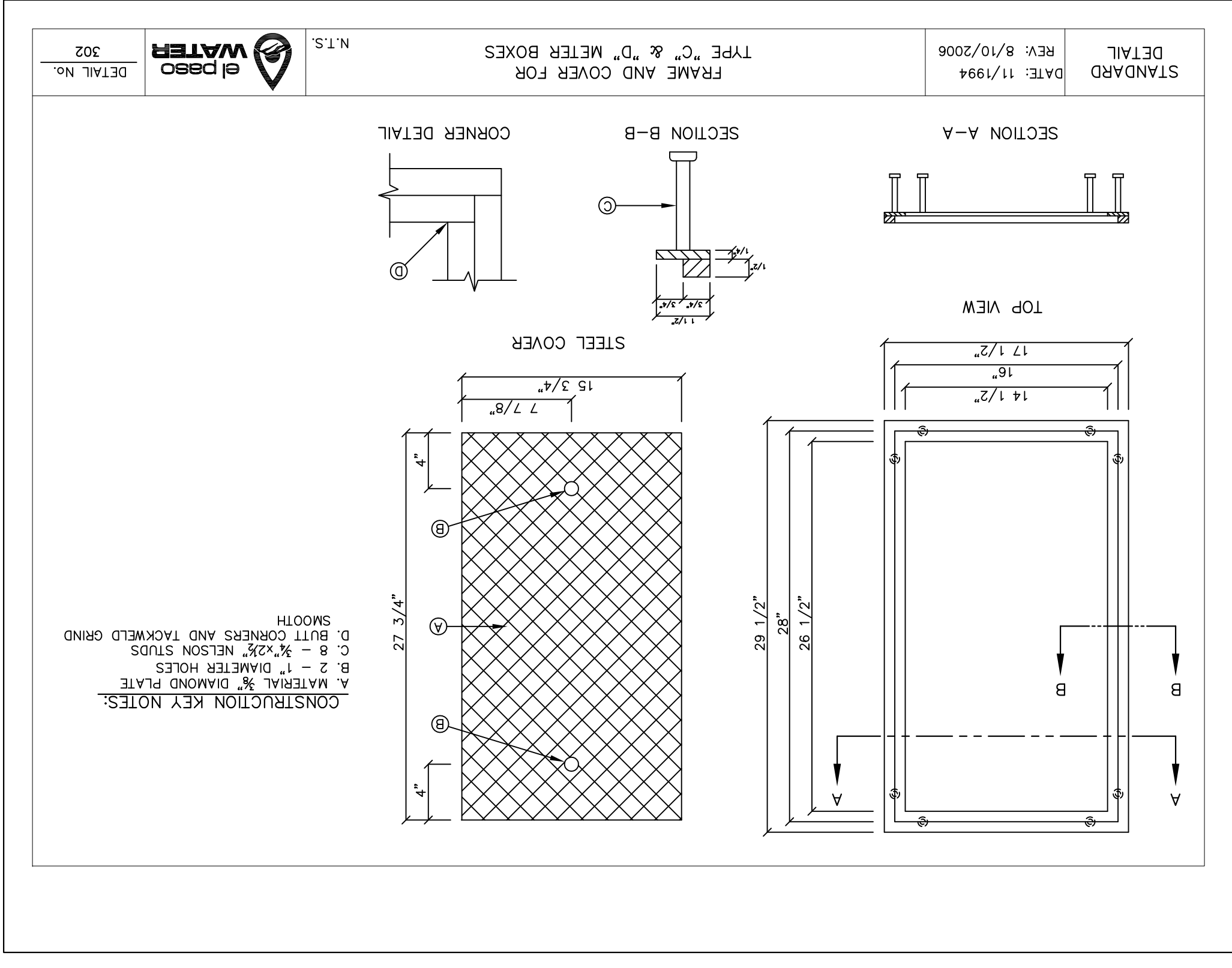
3 SERVICE LINE 1 1/2" AND 2" INSTALLATION BY CONTRACTOR  
C12.7 SCALE: N.T.S.



4 METER BOX TYPE "C" FOR 1 1/2" SERVICE INSTALLATION  
C12.7 SCALE: N.T.S.



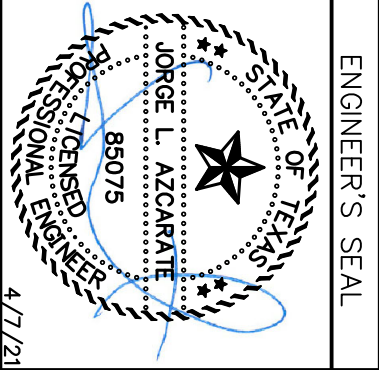
1 METER BOX TYPE "D" FOR 2" SERVICE INSTALLATION  
C12.7 SCALE: N.T.S.



2 FRAME AND COVER FOR TYPE "C" & "D" METER BOXES  
C12.7 SCALE: N.T.S.

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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./G.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
JOB No. 2000-2244D



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

TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF OLVEDORALE DRIVE AND PALMADO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24" (CITY DATUM)

REVISIONS

DATE

BY

PROJECT TITLE

VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

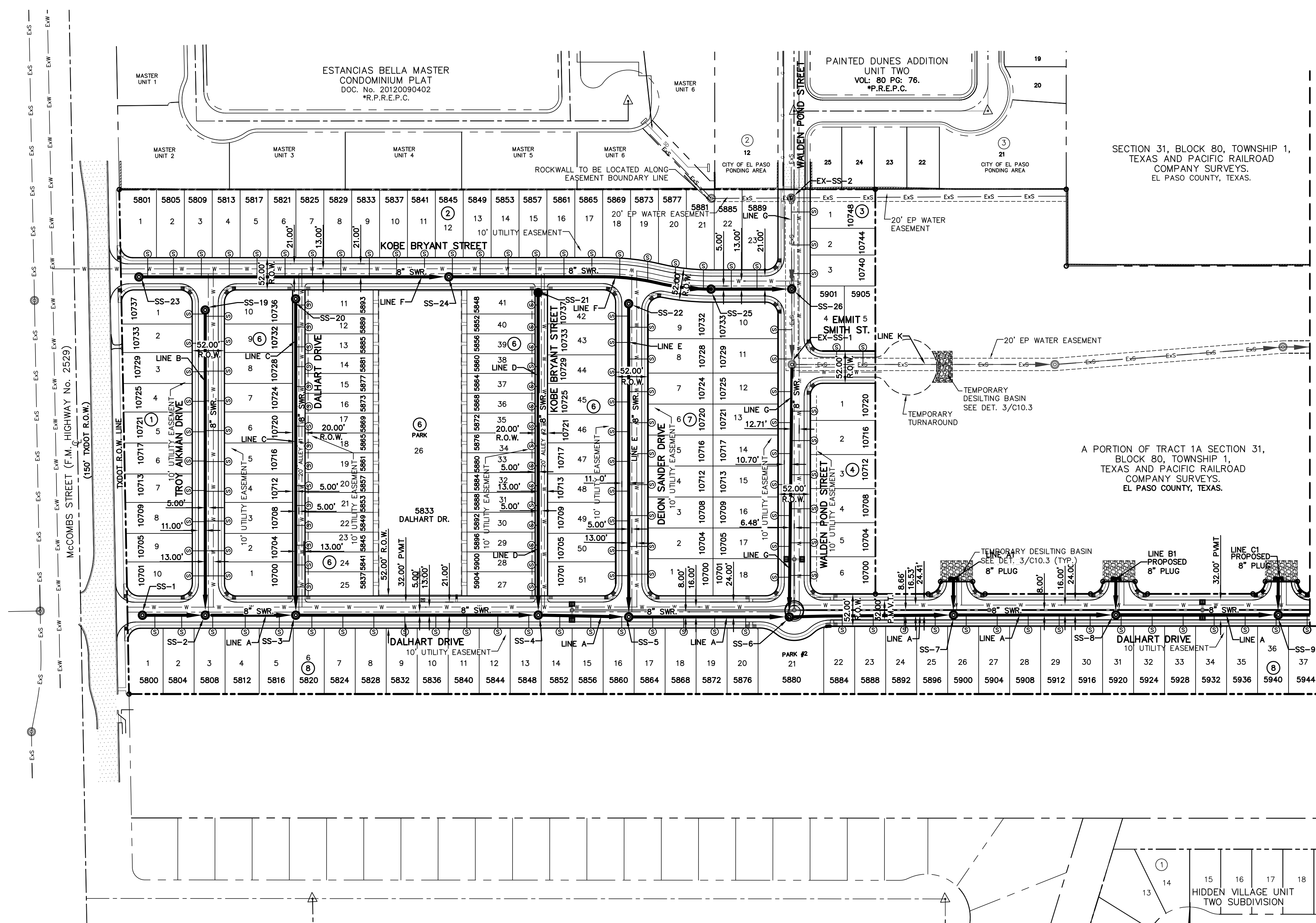
WATER DETAILS

(SHEET 5 OF 5)

SHEET NO.

C12.7





MATCHLINE SEE SHEET C13.2 FOR CONTINUATION.

WASTEWATER QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	8" PVC SDR35 GRAVITY LINE	5,275	LINEAR FEET
2	12" PVC SDR35 GRAVITY LINE	151	LINEAR FEET
3	8" PVC C-900 DR18, SDR 35	3,576	LINEAR FEET
4	12" PVC C-900 DR18, SDR 35	417	LINEAR FEET
5	16" # STEEL CASING	40	LINEAR FEET
6	STANDARD WASTEWATER MANHOLE (0'-8" DEEP)	32	EACH
7	4" WASTEWATER SERVICE CONNECTION	228	EACH

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

**SANITARY SEWER INDEX MAP**  
SCALE: 1" = 100'

**GENERAL NOTES**

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

**GENERAL UTILITIES:**  
TEXAS EXCAVATION SAFETY SERVICE  
1184 GREENVILLE AVENUE,  
DALLAS, TX. 75243  
(800) 344-8377

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

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

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

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

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

**EL PASO STREETS**  
CITY OF EL PASO  
STREETS & MAINTENANCE DEPARTMENT  
7969 SAN PAULO DRIVE  
EL PASO, TX. 79907  
(915) 621-6750

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

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

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

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

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

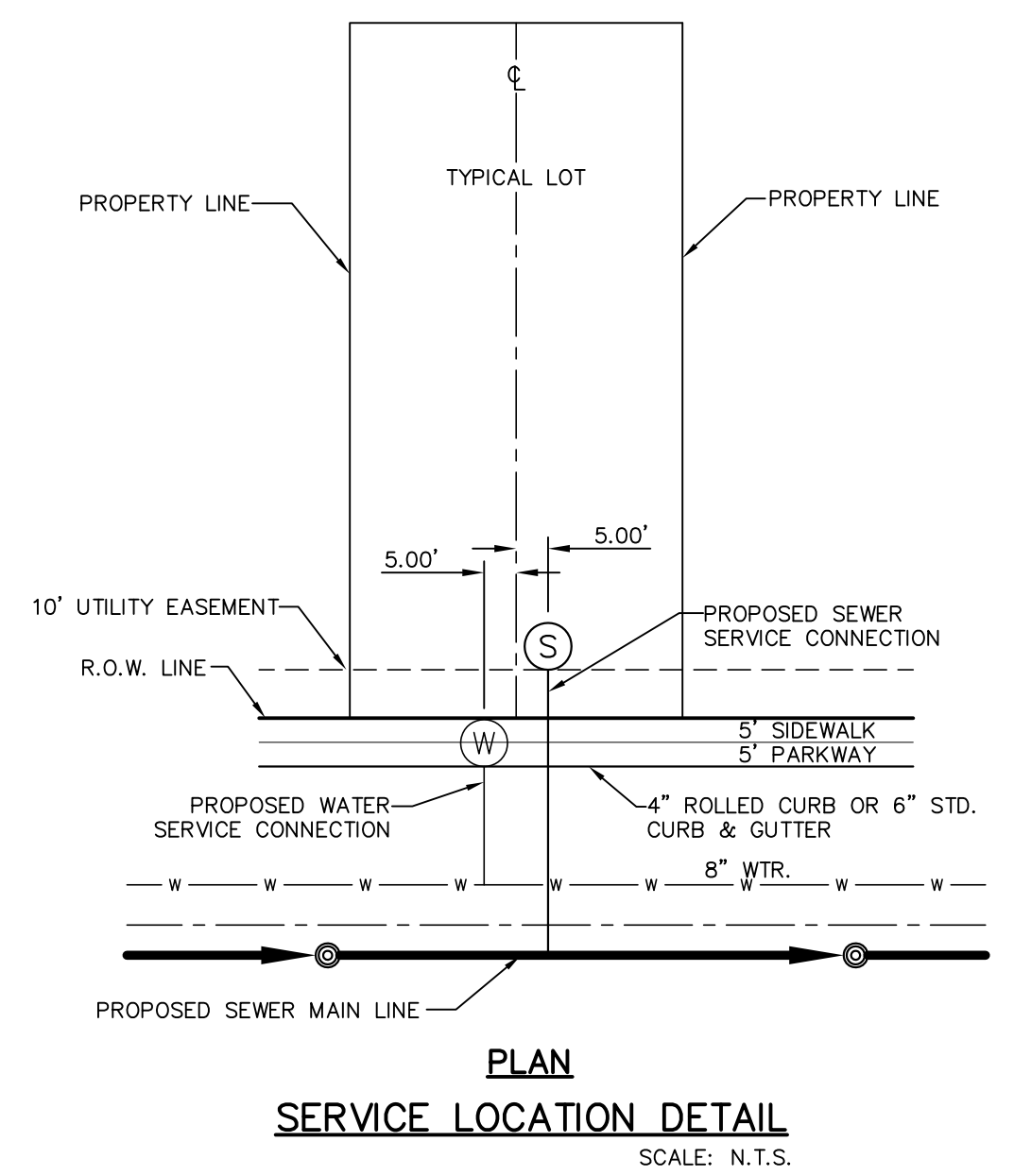
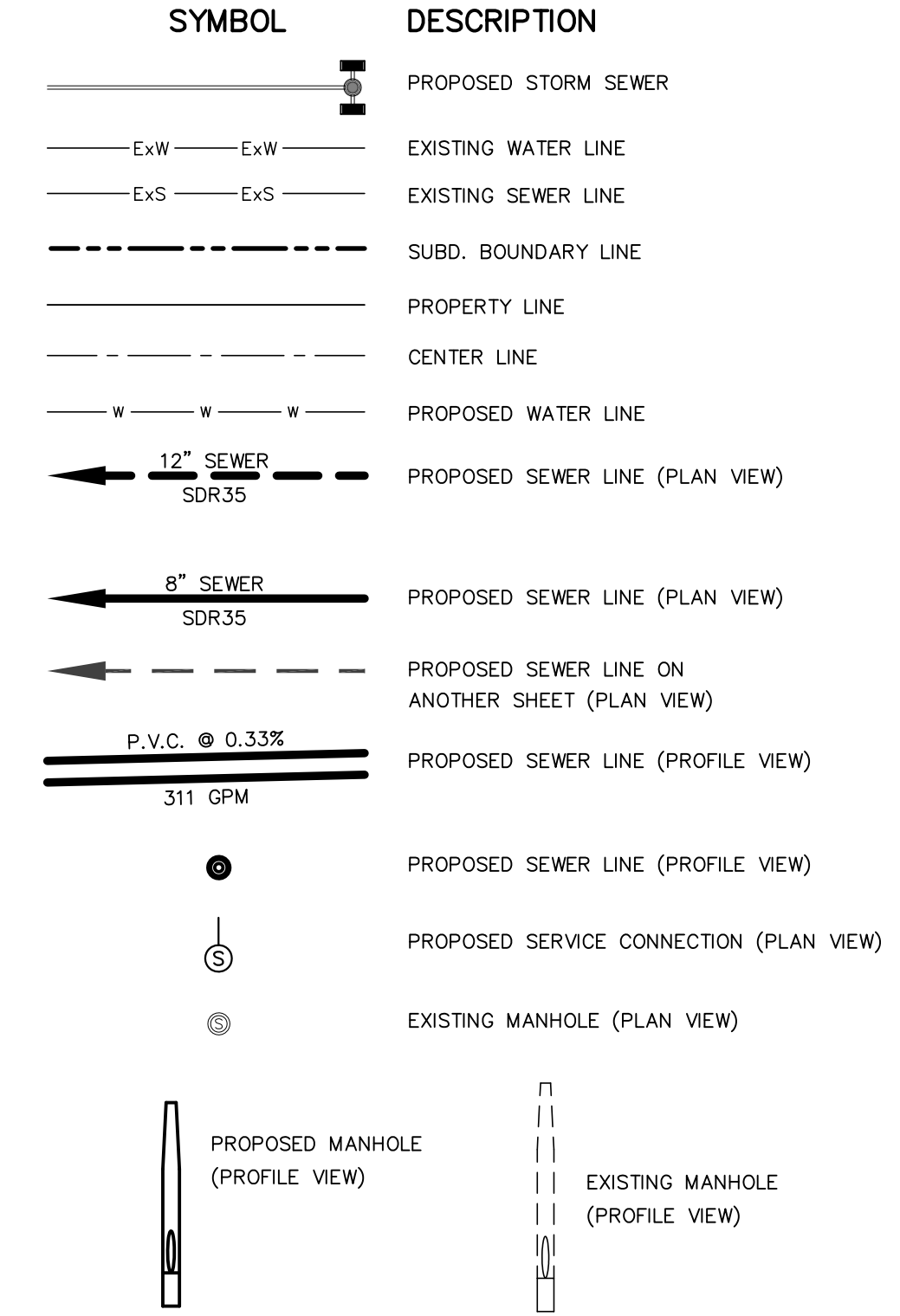
**INDEX**

SHEET NO.	DESCRIPTION
C13.1 & C13.2	VILLAS DEL NORTE UNIT ONE
C13.3 & C13.4	SANITARY SEWER INDEX
C13.5	LINE A
C13.6	LINE B,C,A1,B1 & C1
C13.7	LINE D,E,D1,E1 & F1
C13.8	LINE G,J & H1
C13.9	LINE F,L & G1
C13.10	LINE H,I & K
C13.11	SANITARY SEWER DETAILS
C13.12	SANITARY SEWER DETAILS

**NOTES:**

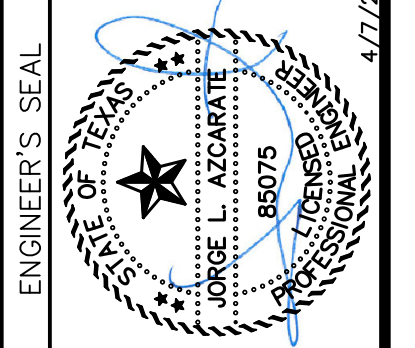
- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
- ALL SANITARY SEWER PIPES AND FITTINGS SHALL BE PVC, SDR 35 OR C900 DR18 GREEN PIPE AS SHOWN IN PLANS, AS REQUIRED BY THE EPWU/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.
- REFERENCE SANITARY SEWER DETAILS FOR SEWER CROSSINGS AT STORM SEWER.
- EXISTING MANHOLES ON ELISE STREET AND WALDEN POND DRIVE SHALL BE ADJUSTED BY EPWATER UNDER SEPARATE CONTRACT.
- CONTRACTOR SHALL NOTIFY EPWATER 48 HOURS PRIOR TO MANHOLE INSTALLATION ON EXISTING 8" SANITARY SEWER LINE. CONTRACTOR IS RESPONSIBLE FOR ALL WASTEWATER BYPASS AND/OR PUMP AND HAUL OPERATIONS AS MAY BE NECESSARY DURING MANHOLE INSTALLATION TO KEEP EXISTING SANITARY LINE SERVICE.

**LEGEND**



DATE	REVISIONS	BY

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



SCALE: 1" = 100'  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./C.D.  
CHKD. BY: F.Z.  
APPVD. BY: J.L.A.  
JOB No. - 2000-224LD

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**SANITARY SEWER INDEX**

SHEET NO.  
**C13.1**



MATCHLINE - SEE SHEET C13.1 FOR CONTINUATION.

WASTEWATER QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	8" PVC SDR35 GRAVITY LINE	5,275	LINEAR FEET
2	12" PVC SDR35 GRAVITY LINE	151	LINEAR FEET
3	8" PVC C-900, CL150	3,576	LINEAR FEET
4	12" PVC C-900, CL150	417	LINEAR FEET
5	16" # STEEL CASING	40	LINEAR FEET
6	STANDARD WASTEWATER MANHOLE (0'-8" DEEP)	32	EACH
7	4" WASTEWATER SERVICE CONNECTION	228	EACH

### INDEX

SHEET NO.	DESCRIPTION
C13.1 & C13.2	VILLAS DEL NORTE UNIT ONE SANITARY SEWER INDEX
C13.3 & C13.4	LINE A
C13.5	LINE B,C,A1,B1 & C1
C13.6	LINE D,E,D1,E1 & F1
C13.7	LINE G,J & H1
C13.8	LINE F,L & G1
C13.9	LINE H,I & K
C13.10	SANITARY SEWER DETAILS
C13.11	SANITARY SEWER DETAILS
C13.12	SANITARY SEWER DETAILS

### NOTES:

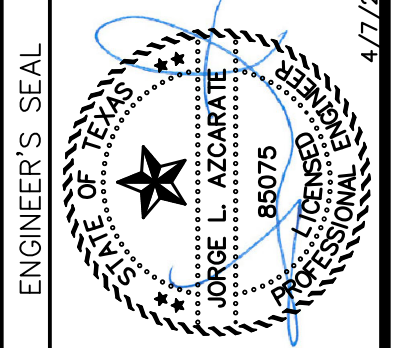
- ALL LOTS SHALL BE PROVIDED WITH ONE SERVICE CONNECTION TO BE INSTALLED AT THE LOCATION AS SHOWN ON THE SERVICE LOCATION DETAIL.
- ALL SANITARY SEWER PIPES AND FITTINGS SHALL BE PVC, SDR 35 OR C900 DR18 GREEN PIPE AS SHOWN IN PLANS, AS REQUIRED BY THE EPWJ/PSB RULES AND REGULATIONS AND DESIGN STANDARDS.
- REFERENCE SANITARY SEWER DETAILS FOR SEWER CROSSINGS AT STORM SEWER.
- EXISTING MANHOLES ON ELISE STREET AND WALDEN POND DRIVE SHALL BE ADJUSTED BY EPWATER UNDER SEPARATE CONTRACT.
- CONTRACTOR SHALL NOTIFY EPWATER 48 HOURS PRIOR TO MANHOLE INSTALLATION ON EXISTING 8" SANITARY SEWER LINE. CONTRACTOR IS RESPONSIBLE FOR ALL WASTEWATER BYPASS AND/OR PUMP AND HAUL OPERATIONS AS MAY BE NECESSARY DURING MANHOLE INSTALLATION TO KEEP EXISTING SANITARY LINE SERVICE.

### LEGEND

SYMBOL	DESCRIPTION
	PROPOSED STORM SEWER
	EXISTING WATER LINE
	EXISTING SEWER LINE
	SUBD. BOUNDARY LINE
	PROPERTY LINE
	CENTER LINE
	PROPOSED WATER LINE
	PROPOSED SEWER LINE (PLAN VIEW)
	PROPOSED SEWER LINE (PLAN VIEW)
	PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)
	PROPOSED SEWER LINE (PROFILE VIEW)
	PROPOSED SERVICE CONNECTION (PLAN VIEW)
	EXISTING MANHOLE (PLAN VIEW)
	PROPOSED MANHOLE (PROFILE VIEW)
	EXISTING MANHOLE (PROFILE VIEW)

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF COLONIALE DRIVE AND PALMOLINO STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24" (CITY DATUM)

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**CEA GROUP**  
 TEXAS REGISTERED ENGINEERING FIRM F-4564

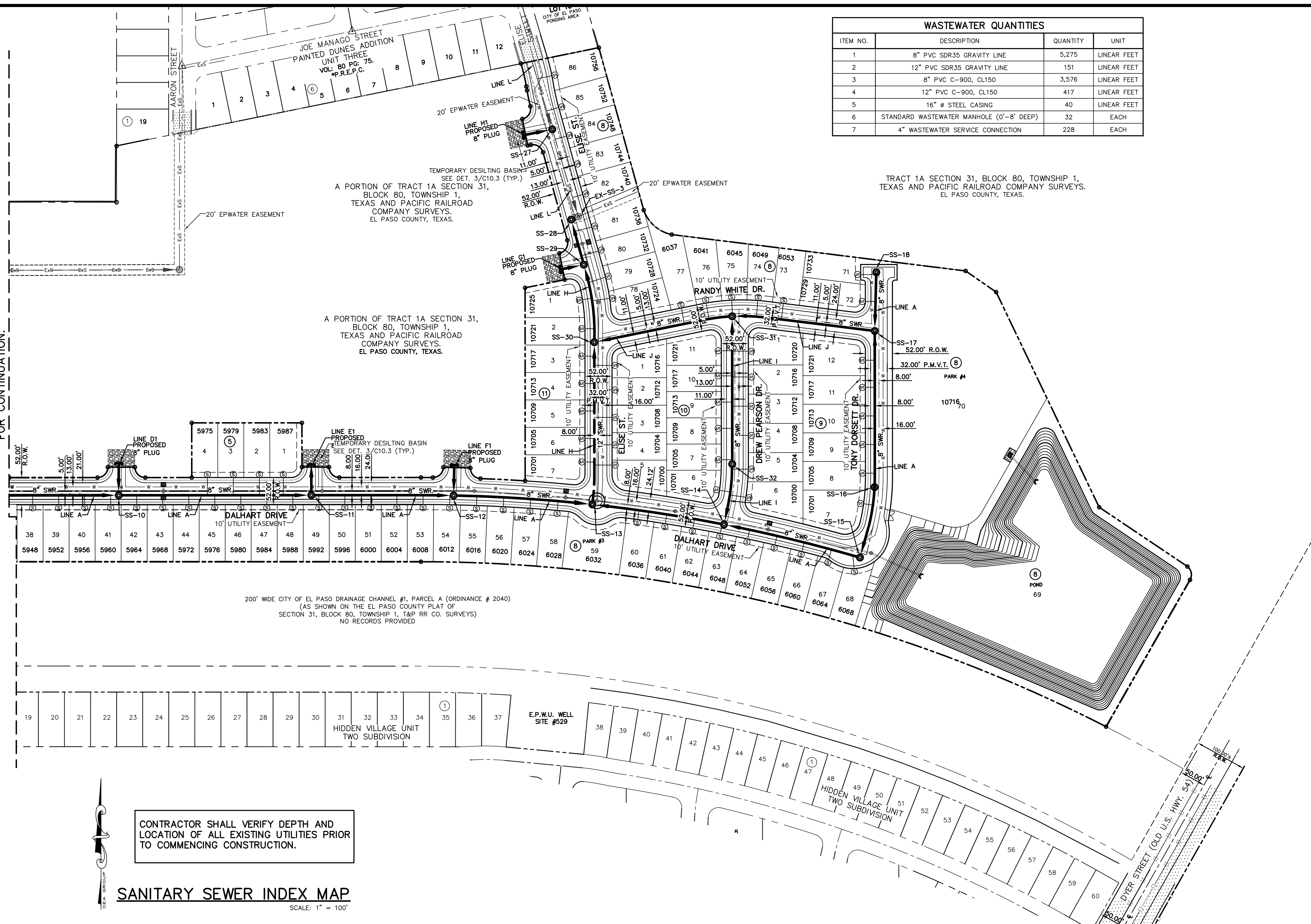


SCALE: 1" = 100'  
 Horizontal: N/A  
 Vertical: N/A  
 Contour Interval: N/A  
 DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
 JOB No. - 2000-224LD

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
**SANITARY SEWER INDEX**

SHEET NO.  
**C13.2**



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

### SANITARY SEWER INDEX MAP

SCALE: 1" = 100'

### GENERAL NOTES

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

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

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

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

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

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

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

**EL PASO STREETS**  
 CITY OF EL PASO  
 STREET & MAINTENANCE DEPARTMENT  
 7969 SAN PAULO DRIVE  
 EL PASO, TX. 79907  
 (915) 621-6750

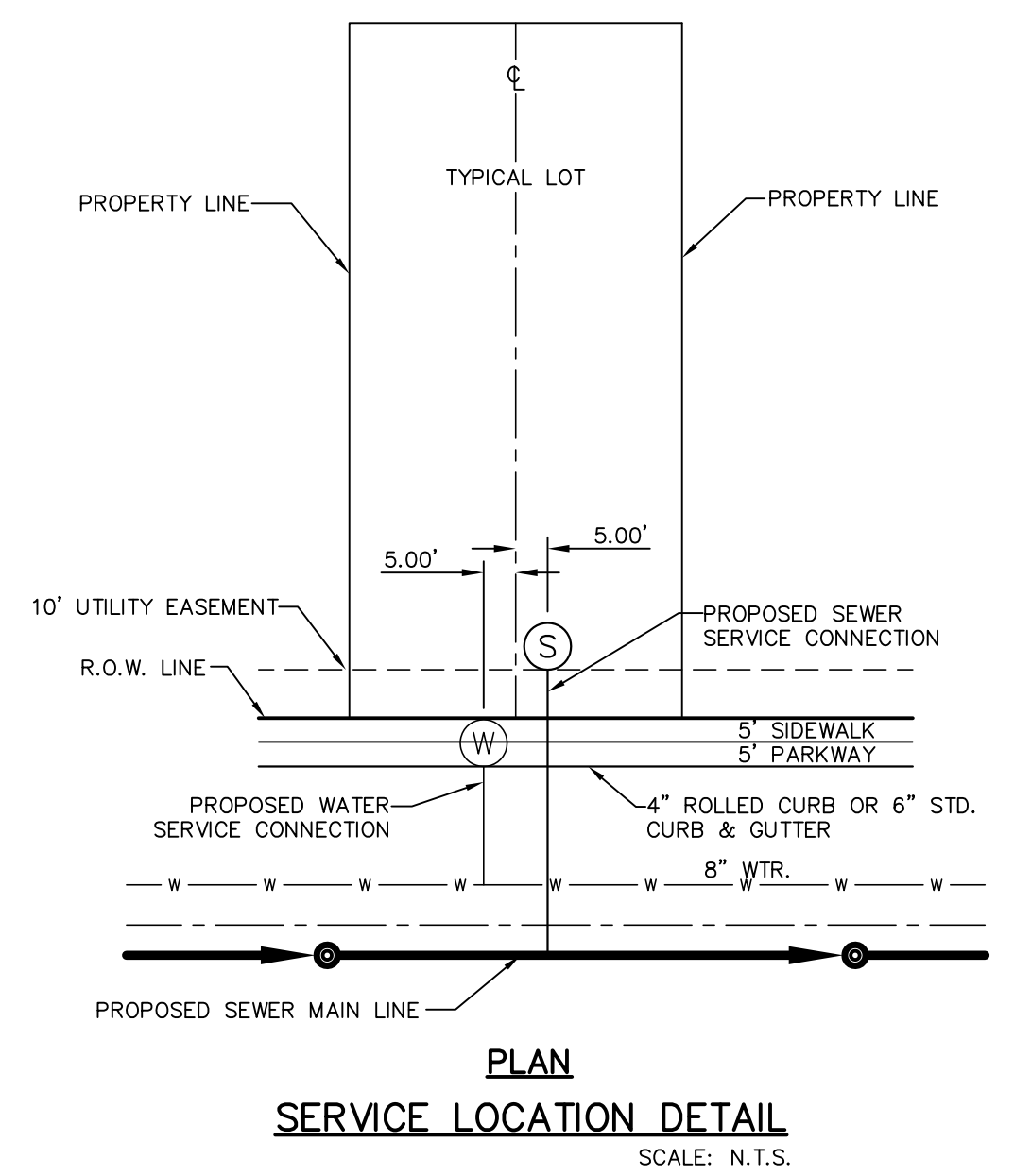
**CABLE TELEVISION:**  
 TIME WARNER COMMUNICATIONS  
 7010 AIRPORT ROAD  
 EL PASO, TX. 79906  
 (915) 772-1123

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

**FIBER OPTICS:**  
 AT&T  
 P.O. BOX 1650  
 EL PASO, TX. 79949  
 (1800) 852-3786

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

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

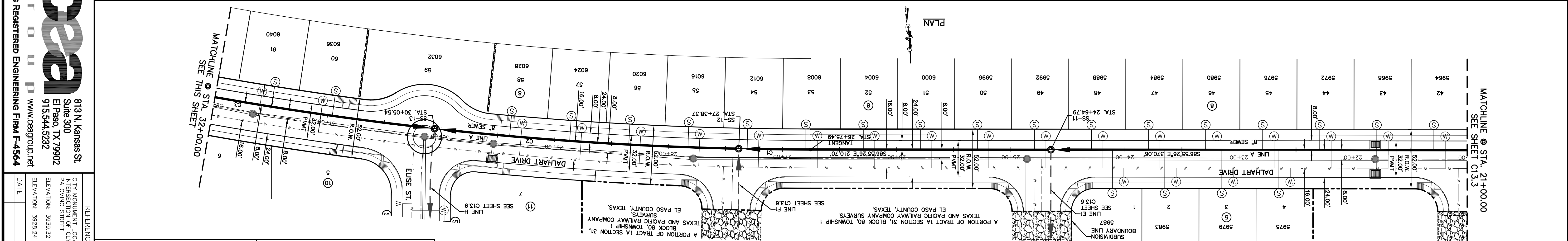
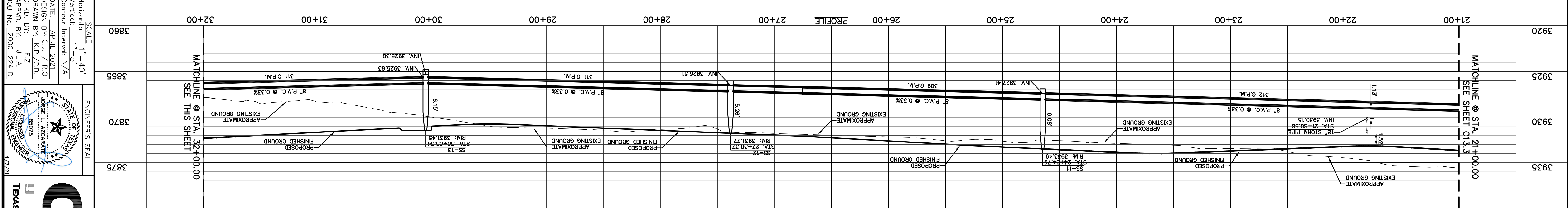
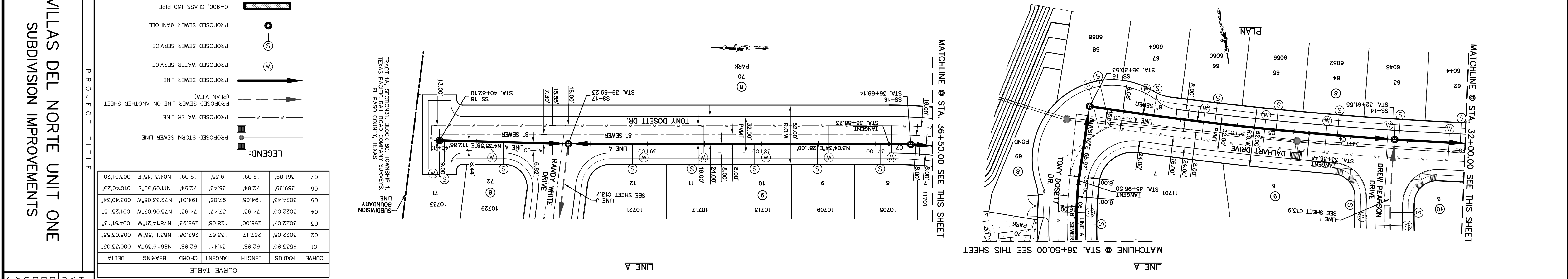
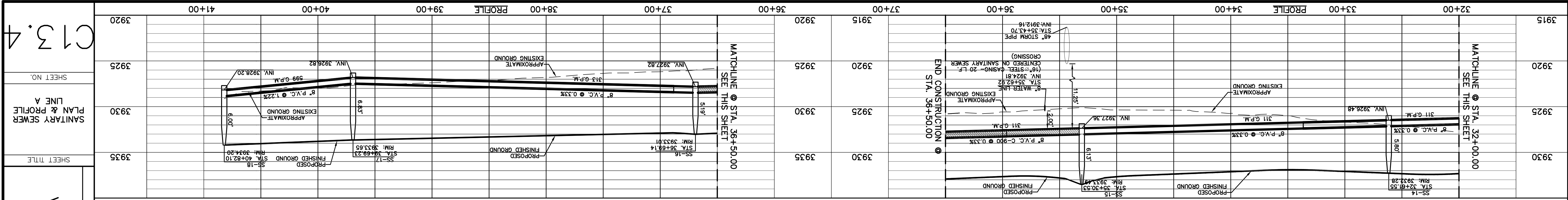


PLAN  
 SERVICE LOCATION DETAIL  
 SCALE: N.T.S.









**WARNING! BEFORE YOU DIG CALL 811**

FOR FIELD LOCATING EXISTING UTILITIES

**UTILITY LOCATOR SERVICES**

- EL PASO ELECTRIC COMPANY (915) 543-5720
- EL PASO ENERGY CORPORATION (915) 456-5244
- EL PASO WATER UTILITIES (915) 544-5500
- 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
- CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750
- (AFTER HOURS) (915) 240-3220

**REFERENCES - BENCHMARKS**

CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMDALE STREET AND PALMDALE STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24 (CITY DATUM)

DATE: \_\_\_\_\_ REVISIONS: \_\_\_\_\_ BY: \_\_\_\_\_

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

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

SHEET NO.  
**C13.4**

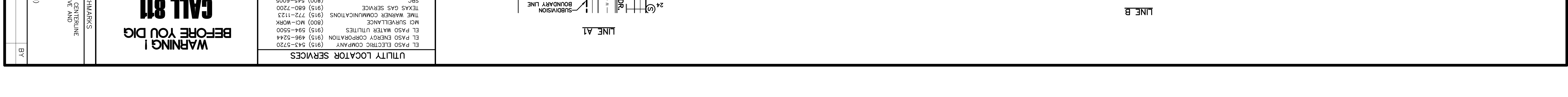
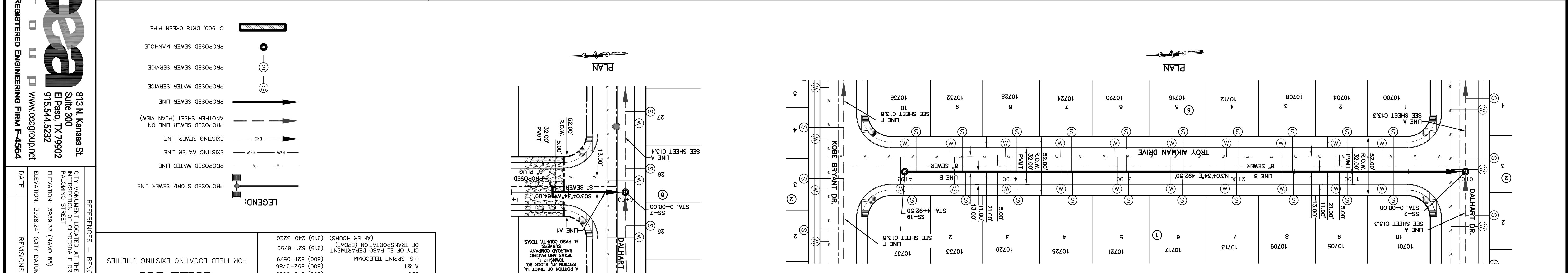
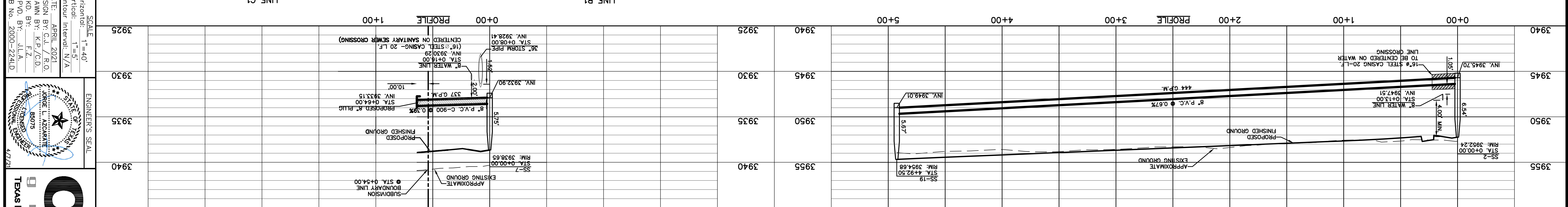
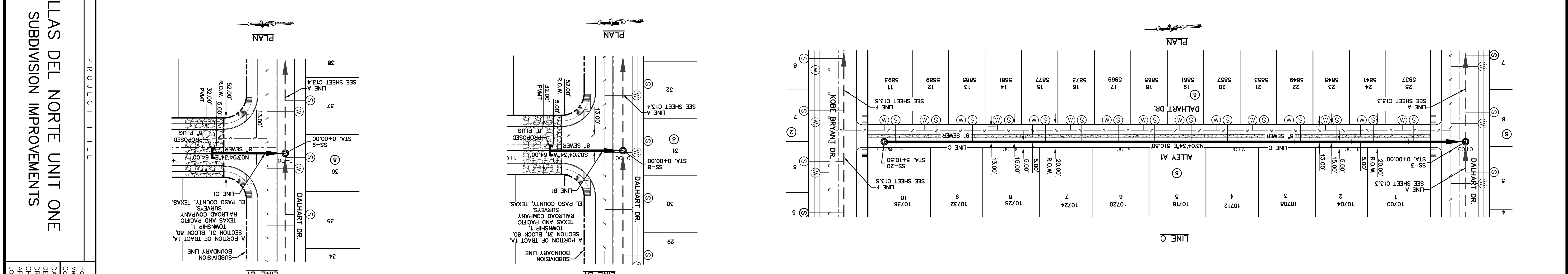
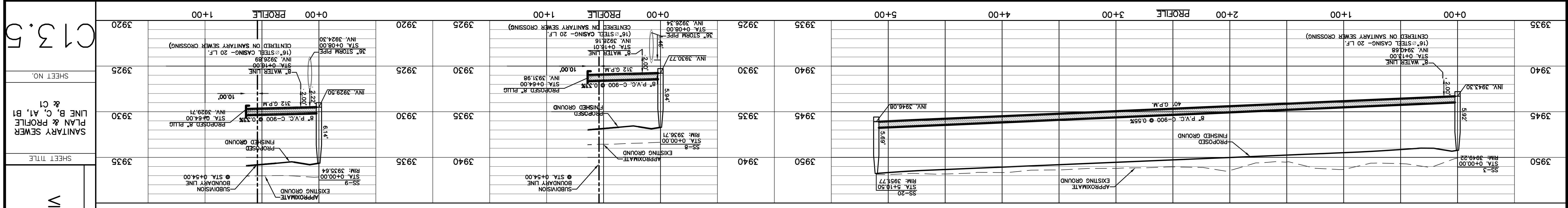
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 Horizontal: 1" = 50'  
 Vertical: 1" = 5'  
 Contour Interval: N/A

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CKD. BY: F.Z.  
 APPD. BY: J.L.A.  
 JOB NO.: 2000-2241.D

ENGINEER'S SEAL

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





PROJECT TITLE: VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS  
 SHEET NO. C13.5  
 SHEET TITLE: SANITARY SEWER PLAN B, C, A1, B1 & C1  
 SCALE: 1" = 40'  
 HORIZONTAL: 1" = 40'  
 VERTICAL: 1" = 5'  
 DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./G.D.  
 CHKD. BY: F.Z.  
 APPD. BY: J.L.A.  
 JOB NO.: 2000-2241D

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

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMADO STREET AND PALMADO STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24 (CITY DATUM)

UTILITY LOCATOR SERVICES  
 EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO ENERGY CORPORATION (915) 456-5244  
 EL PASO WATER UTILITIES (915) 524-5500  
 MCI SURVEILLANCE (800) MCI-WORK  
 TEXAS GAS SERVICE (915) 680-7200  
 TIME WARNER COMMUNICATIONS (915) 772-1123  
 U.S. SPRINT TELECOMM (800) 852-3786  
 U.S. SPRINT TELECOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

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

LEGEND:  
 PROPOSED STORM SEWER LINE  
 PROPOSED WATER LINE  
 PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)  
 PROPOSED SEWER LINE  
 PROPOSED WATER SERVICE  
 PROPOSED SEWER SERVICE  
 PROPOSED SEWER MANHOLE  
 C-900 DRIE GREEN PIPE

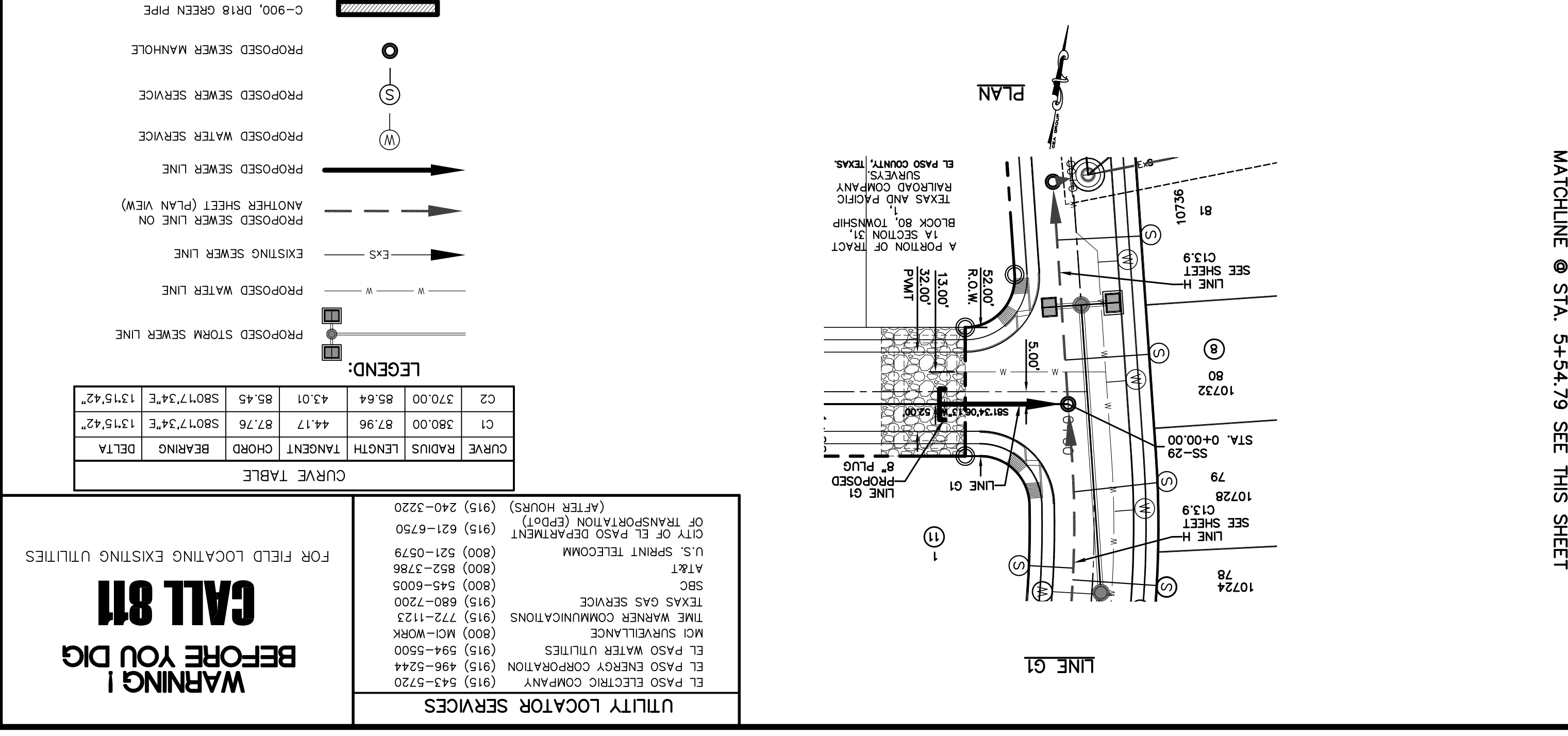
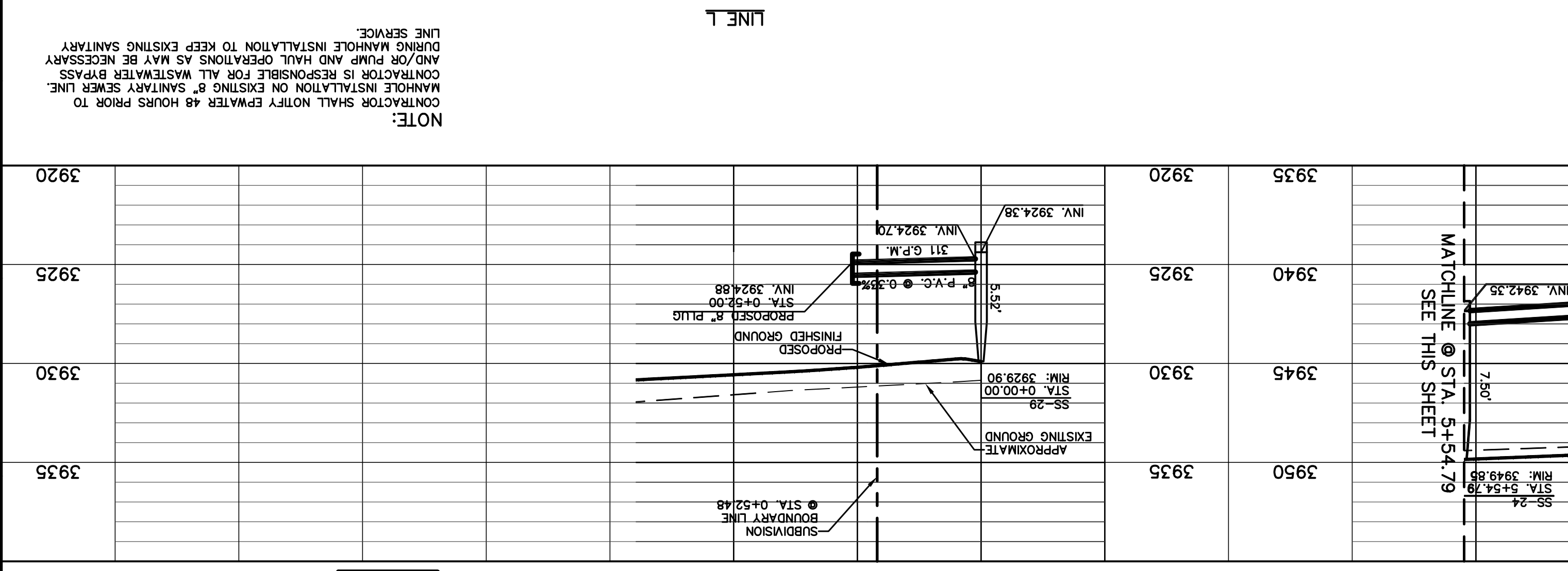
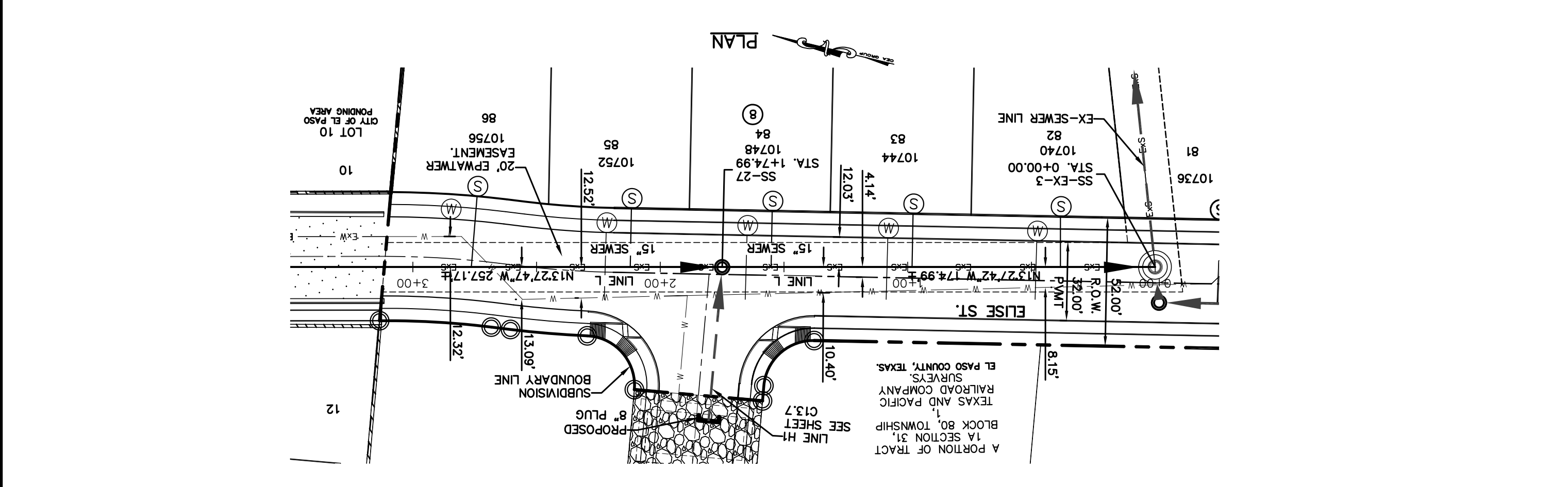
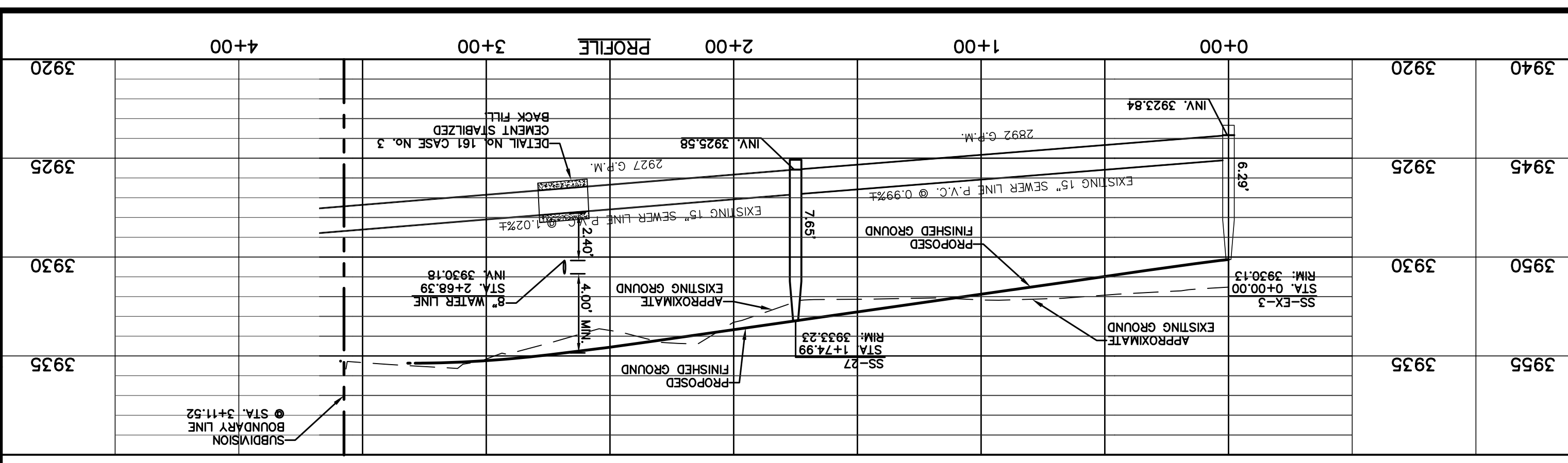
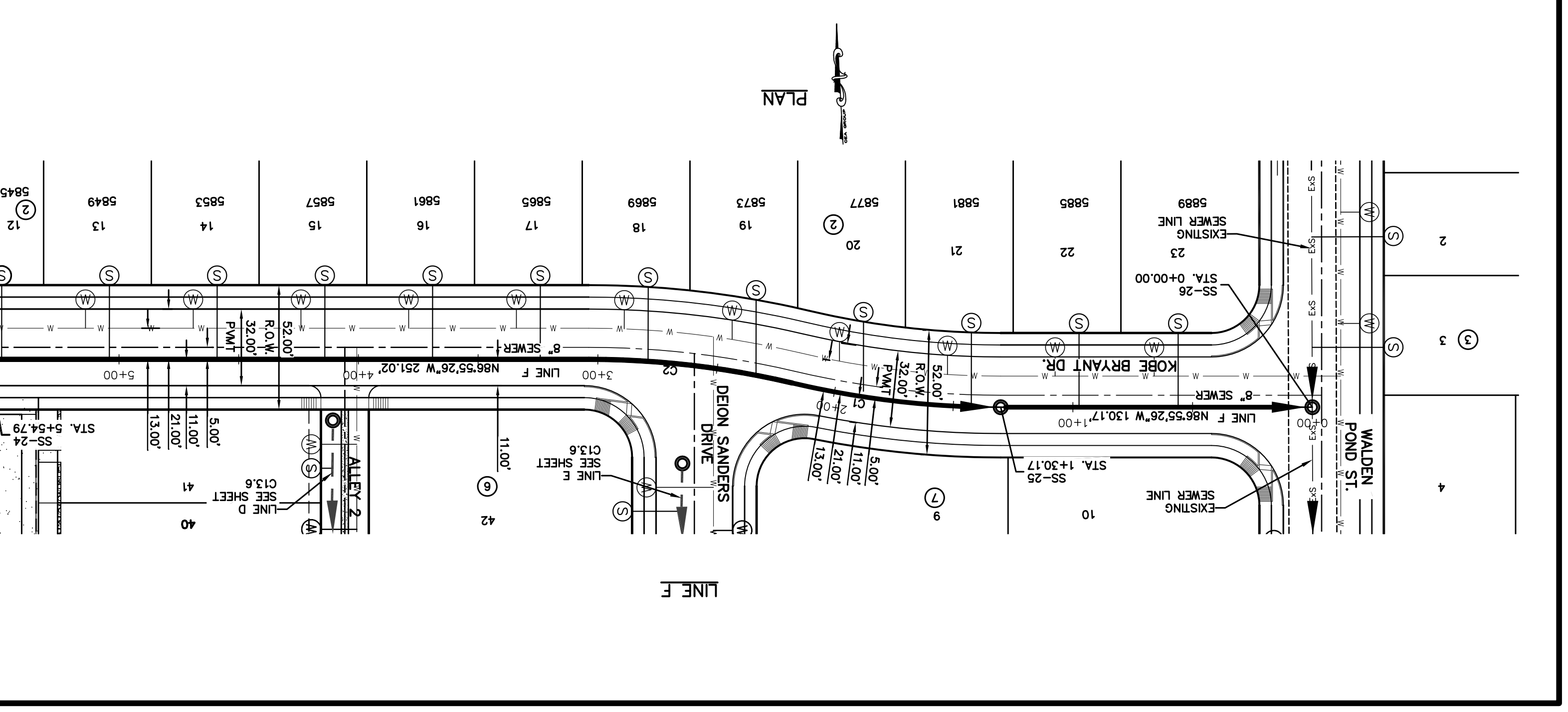
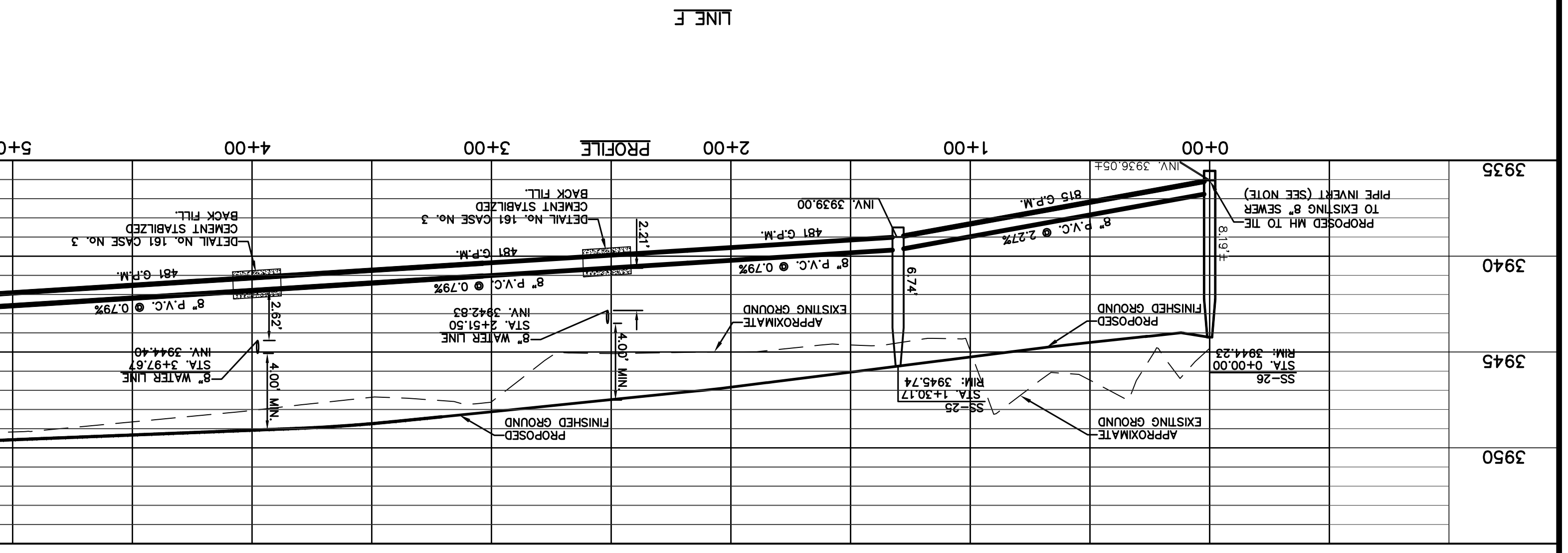
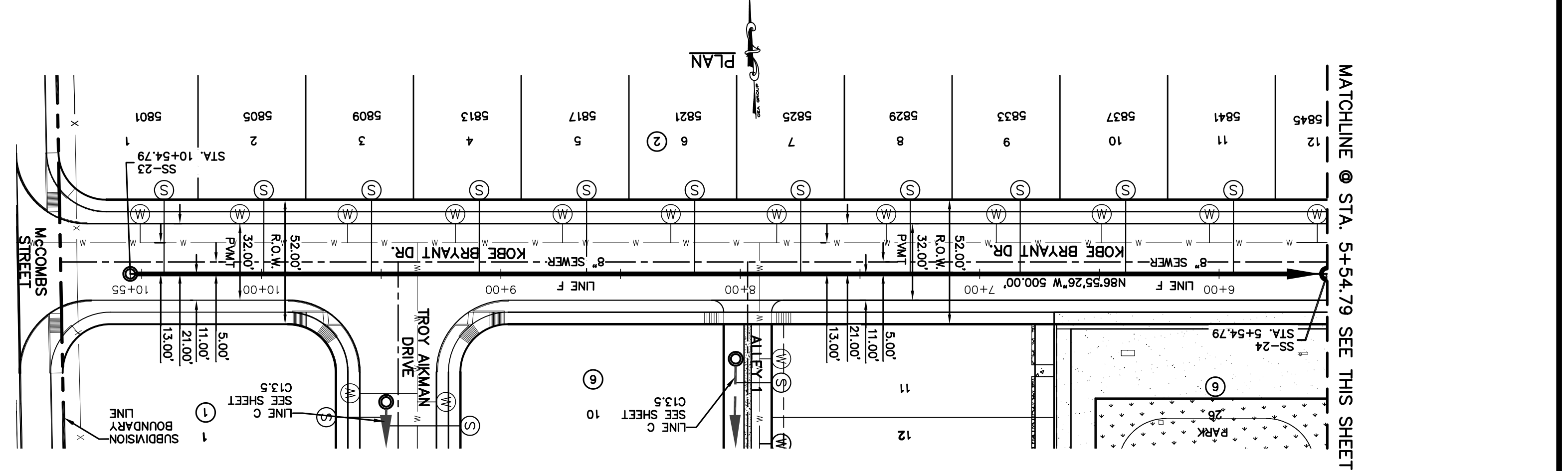
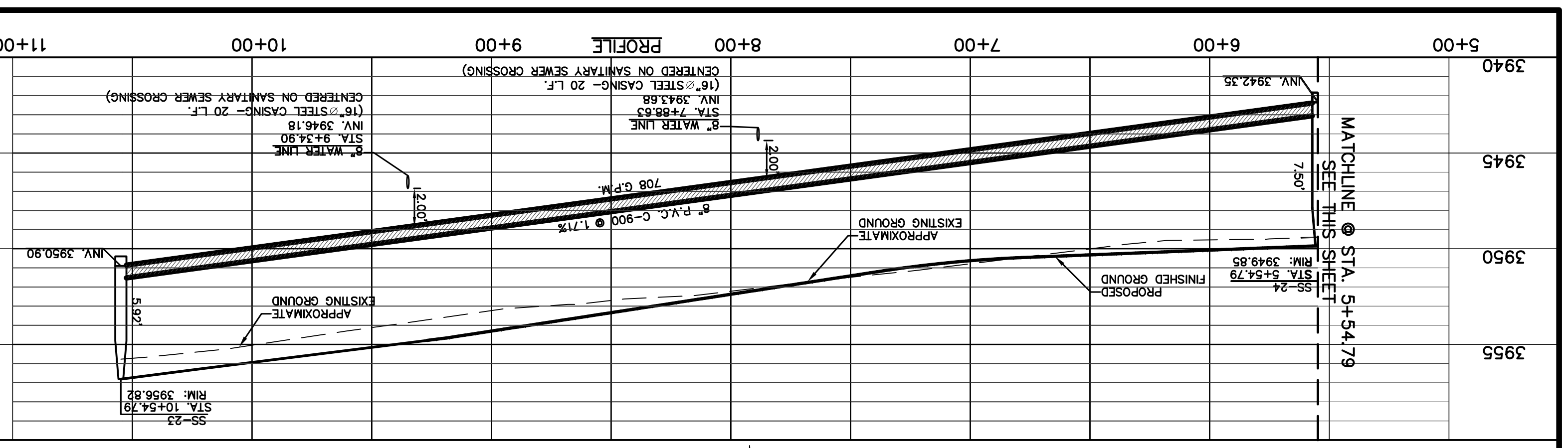












3940  
3945  
3950  
3955

5+00  
6+00  
7+00  
8+00  
9+00  
10+00  
11+00

PROFILE

3920  
3925  
3930  
3935

0+00  
1+00  
2+00  
3+00  
4+00

PROFILE

3920  
3925  
3930  
3935

PLAN

PLAN

PLAN

PLAN

PROJECT TITLE

VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

SCALE

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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./G.O.  
CHKD. BY: J.L.A.  
APPD. BY: J.L.A.  
JOB NO.: 2000-224LD

ENGINEER'S SEAL

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

TEXAS REGISTERED ENGINEERING FIRM #4564

NOTE:  
CONTRACTOR SHALL NOTIFY EPWATER 48 HOURS PRIOR TO MANHOLE INSTALLATION ON EXISTING 8" SANITARY SEWER LINE. CONTRACTOR IS RESPONSIBLE FOR ALL WASTEWATER BYPASS AND/OR PUMP AND HAUL OPERATIONS AS MAY BE NECESSARY DURING MANHOLE INSTALLATION TO KEEP EXISTING SANITARY LINE SERVICE.

LEGEND:

- PROPOSED STORM SEWER LINE
- PROPOSED WATER LINE
- EXISTING SEWER LINE
- PROPOSED SEWER LINE ON ANOTHER SHEET (PLAN VIEW)
- PROPOSED WATER SERVICE
- PROPOSED WATER SERVICE
- PROPOSED SEWER MANHOLE
- C-900, DRI8 GREEN PIPE

REFERENCES - BENCHMARKS

FOR FIELD LOCATING EXISTING UTILITIES

**CALL 811 BEFORE YOU DIG!**

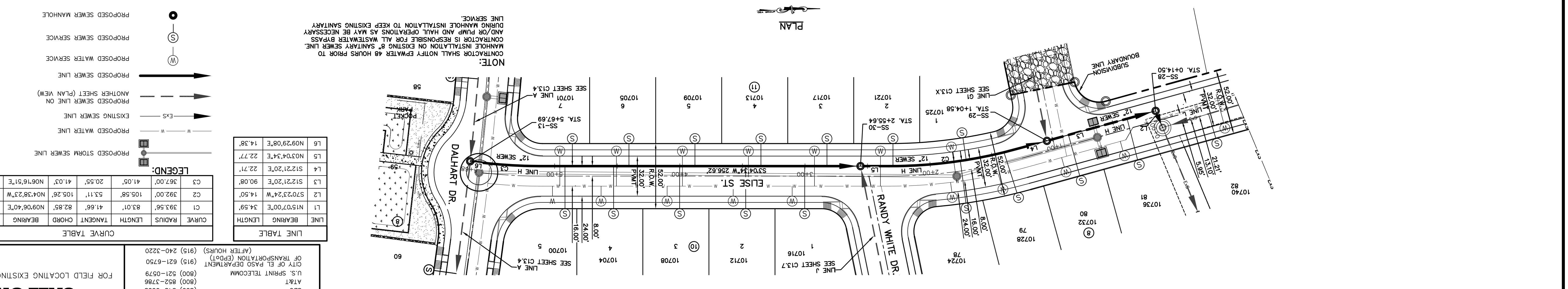
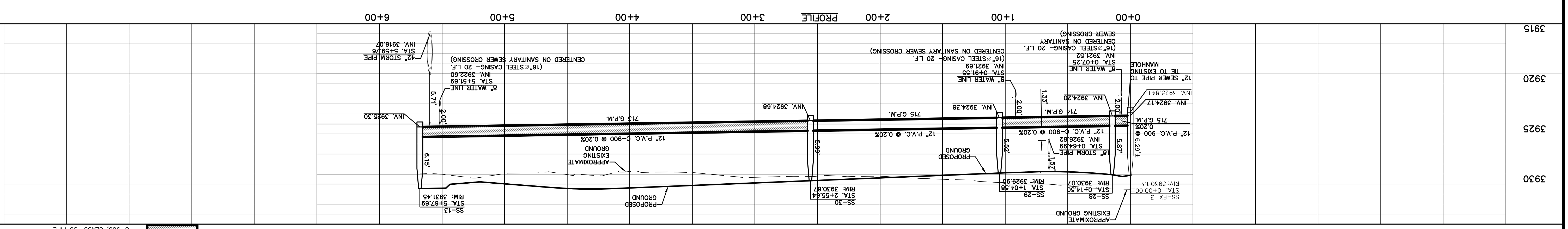
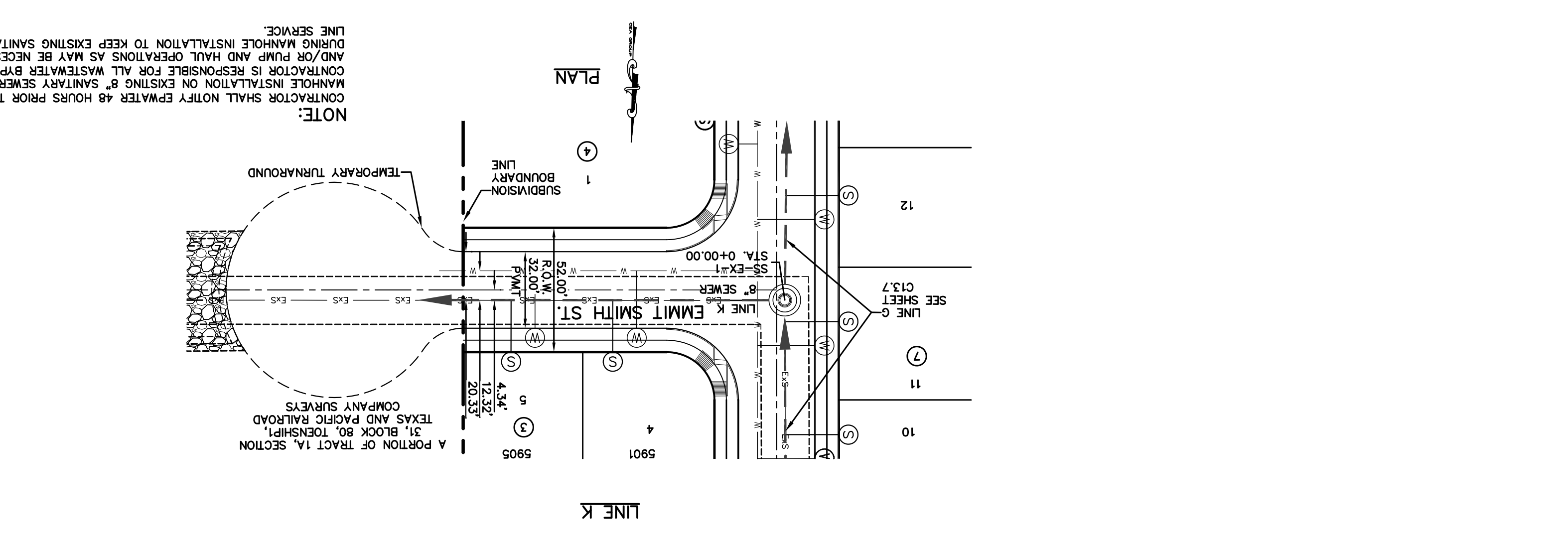
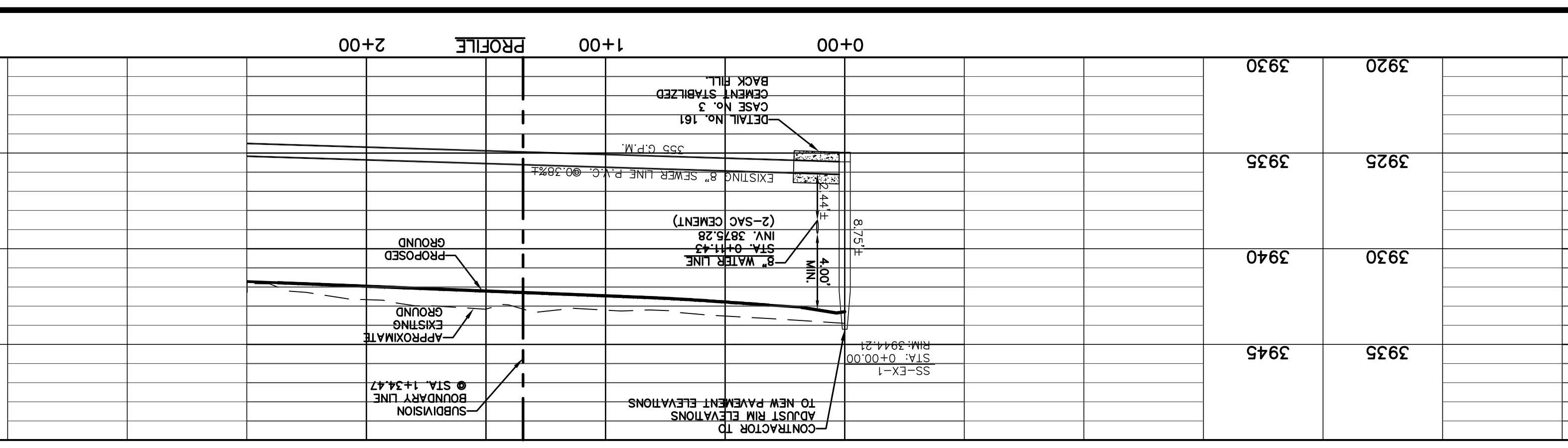
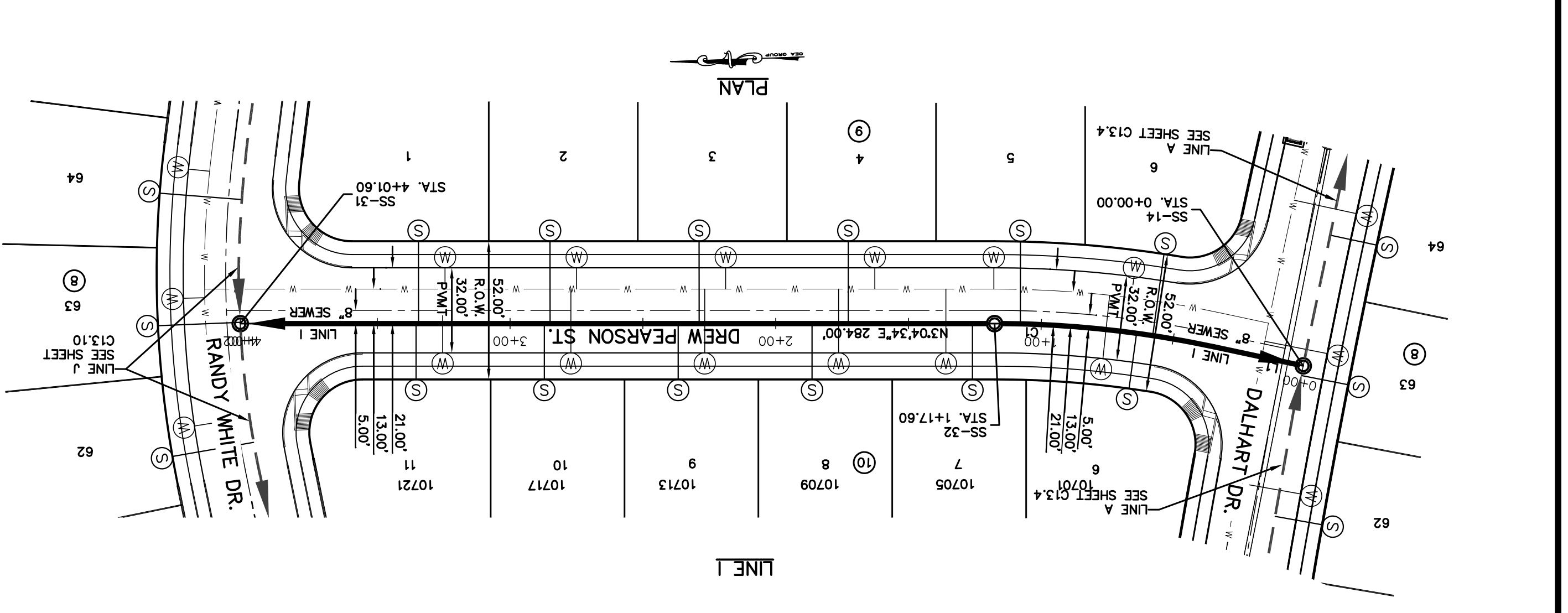
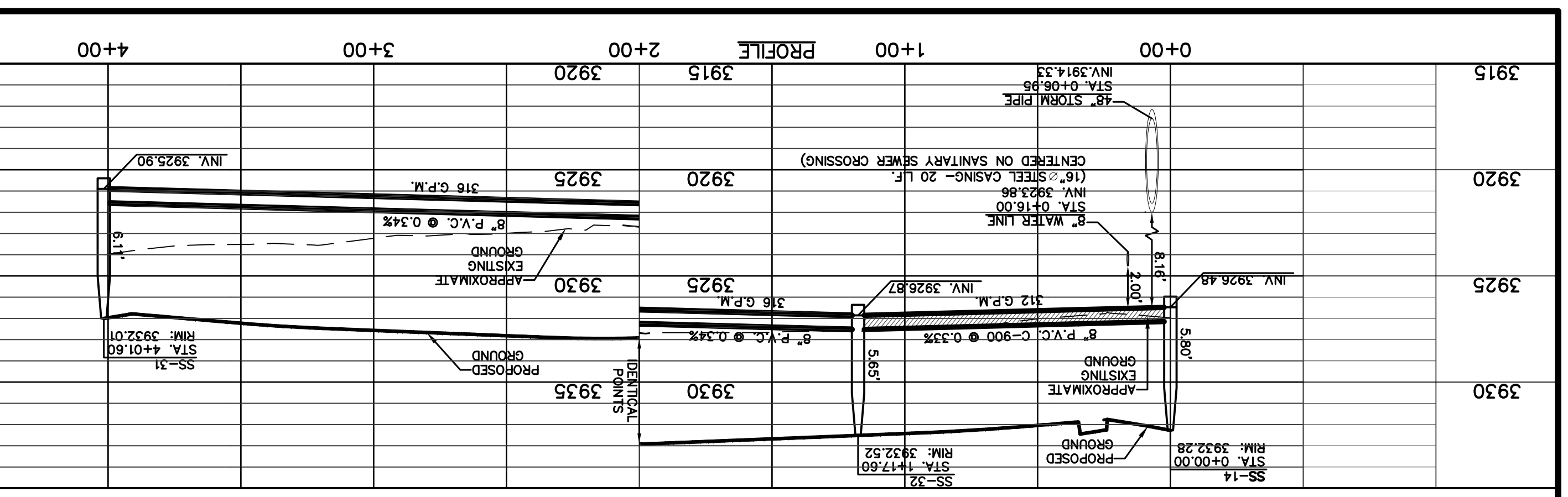
UTILITY LOCATOR SERVICES

EL PASO ELECTRIC COMPANY (915) 543-5720  
EL PASO ENERGY CORPORATION (915) 496-5244  
EL PASO WATER UTILITIES (915) 524-5500  
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  
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
(AFTER HOURS) (915) 240-3220

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	380.00	87.96	44.17	80.71	34°E	137°5'42"
C2	370.00	85.64	43.01	85.45	34°E	137°5'42"





**LEGEND**

- Proposed Storm Sewer Line
- Proposed Water Sewer Line
- Proposed Sewer Line
- Proposed Sewer Manhole
- Existing Sewer Line
- Existing Water Sewer Line
- Another Sheet (Plan View)
- Subdivision Boundary Line
- Subdivision Boundary Line

**CURVE TABLE**

LINE	BEARING	LENGTH	CURVE RADIUS	TANGENT LENGTH	CHORD BEARING	DELTA
L1	N17°02'00"E	24.59'	82.85'	41.66'	N09°06'40"E	017°05'05"
L2	S70°23'24"W	14.50'	105.58'	53.11'	N04°38'23"W	015°25'54"
L3	S12°21'20"E	90.08'	367.00'	41.05'	20.55'	006°24'34"
L4	S12°21'20"E	22.77'	41.03'	20.55'	N06°16'51"E	006°24'34"
L5	N03°04'34"E	22.77'	41.03'	20.55'	N06°16'51"E	006°24'34"
L6	N09°29'08"E	14.28'	41.03'	20.55'	N06°16'51"E	006°24'34"

**LINE TABLE**

LINE	BEARING	LENGTH
L1	N17°02'00"E	24.59'
L2	S70°23'24"W	14.50'
L3	S12°21'20"E	90.08'
L4	S12°21'20"E	22.77'
L5	N03°04'34"E	22.77'
L6	N09°29'08"E	14.28'

**UTILITY LOCATOR SERVICES**

EL PASO ELECTRIC COMPANY (915) 543-5720  
 EL PASO ENERGY CORPORATION (915) 486-5244  
 EL PASO WATER UTILITIES (915) 524-5500  
 MCI SURVEILLANCE (800) MCI-WORK  
 TIME WARNER COMMUNICATIONS (915) 772-1123  
 TEXAS GAS SERVICE (915) 680-7200  
 SBC (800) 545-6005  
 ATRK (800) 852-3786  
 U.S. SPANTEL TELECOMM (800) 521-0579  
 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750  
 (AFTER HOURS) (915) 240-3220

**REFERENCES - BENCHMARKS**

CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMDALE STREET AND INTERSECTION OF CALDESIMAL DRIVE AND PALMDALE STREET (CITY DATUM)  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24" (CITY DATUM)

**FOR FIELD LOCATING EXISTING UTILITIES**

**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

**PROJECT TITLE**  
 VILLAS DEL NORTE UNIT ONE  
 SUBDIVISION IMPROVEMENTS

**SHEET TITLE**  
 SANITARY SEWER  
 LINE H, I & K

**SHEET NO.**  
 C13.9

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

**DATE:** APRIL 2021  
**DESIGN BY:** C.J. / R.O.  
**DRAWN BY:** K.P./C.D.  
**CHKD. BY:** F.Z.  
**APPD. BY:** J.L.A.  
**JOB NO.:** 2000-2241D

**ENGINEER'S SEAL**  
 JAMES L. AZARVIT  
 88073  
 4/27/21

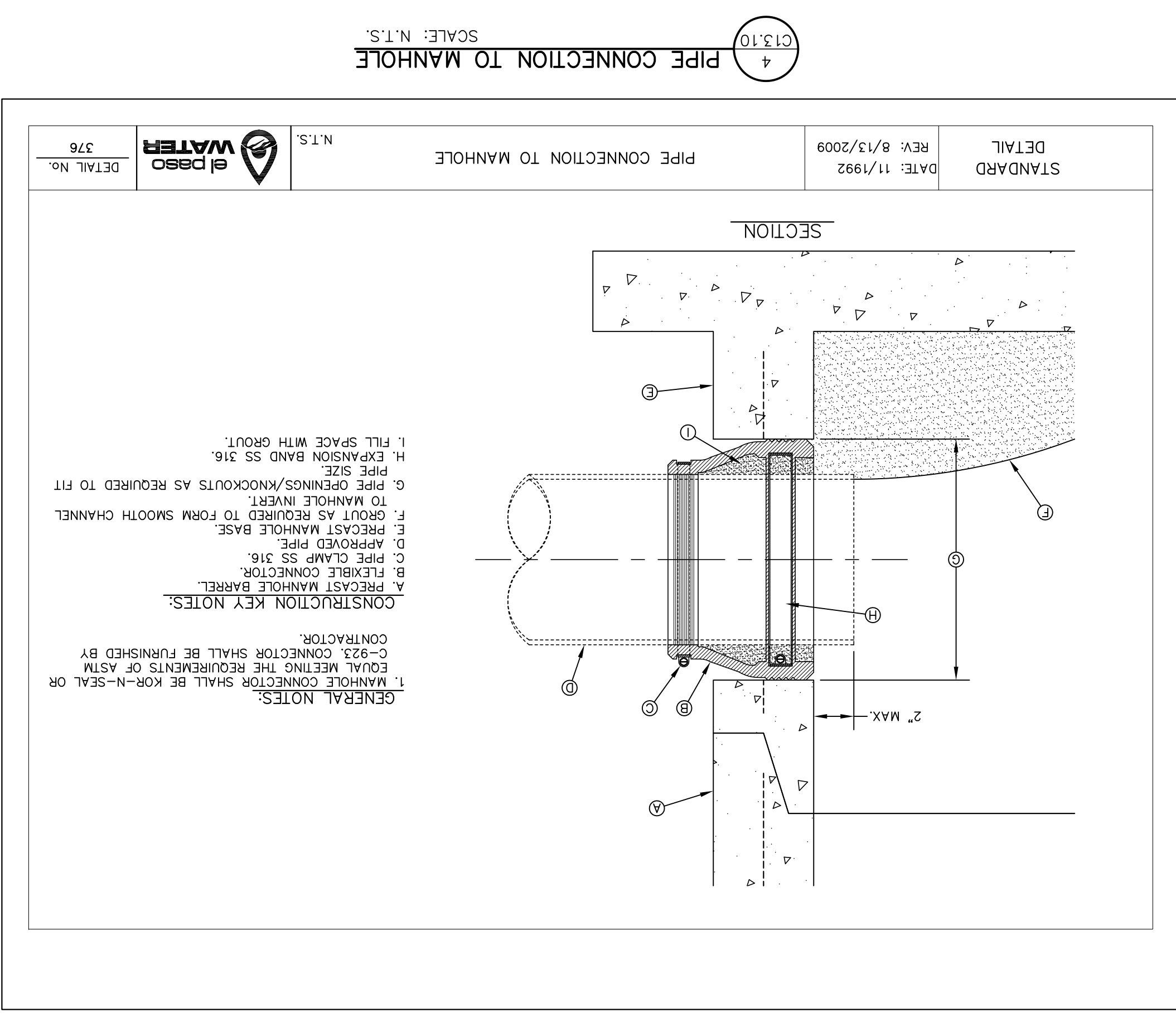
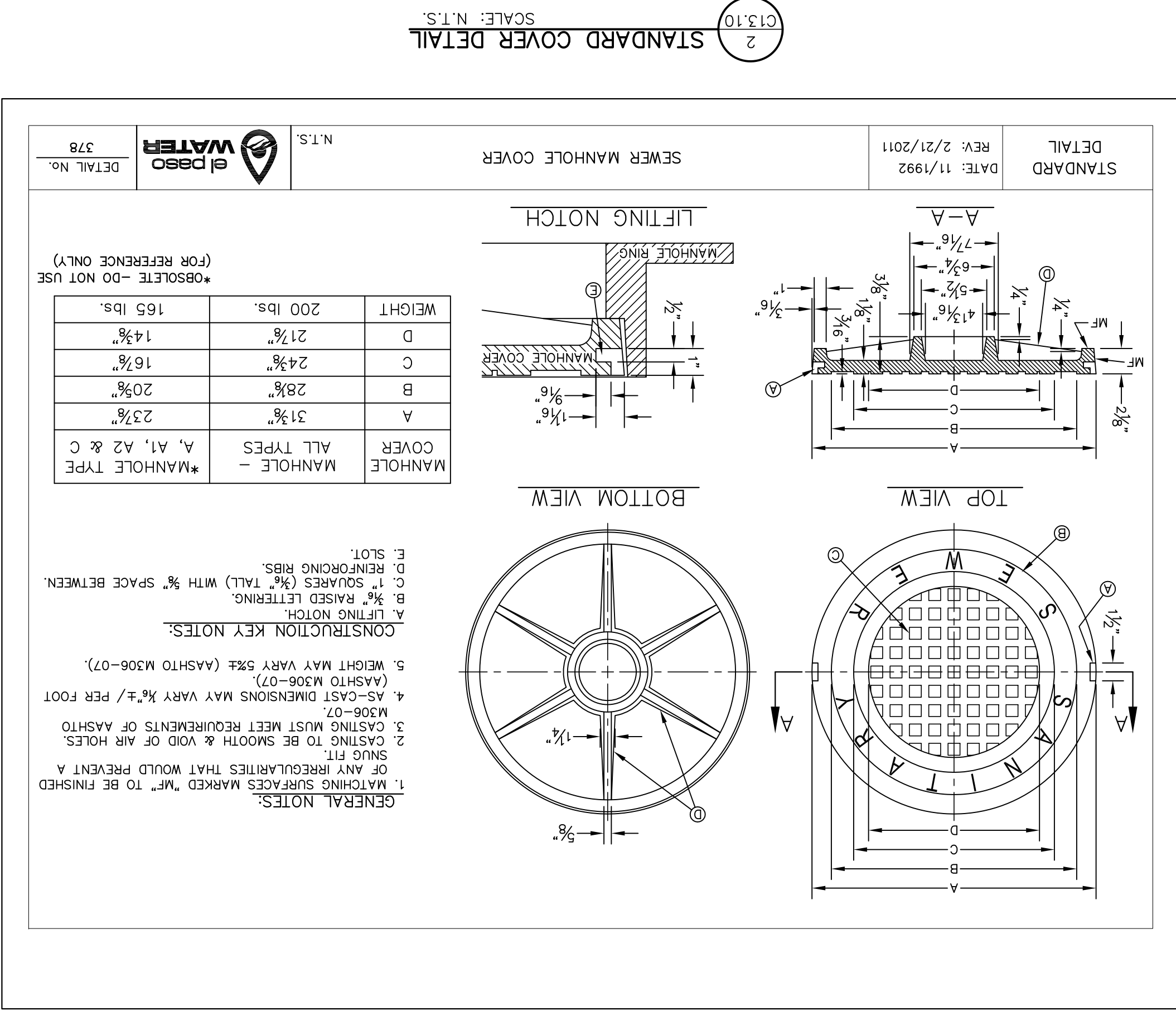
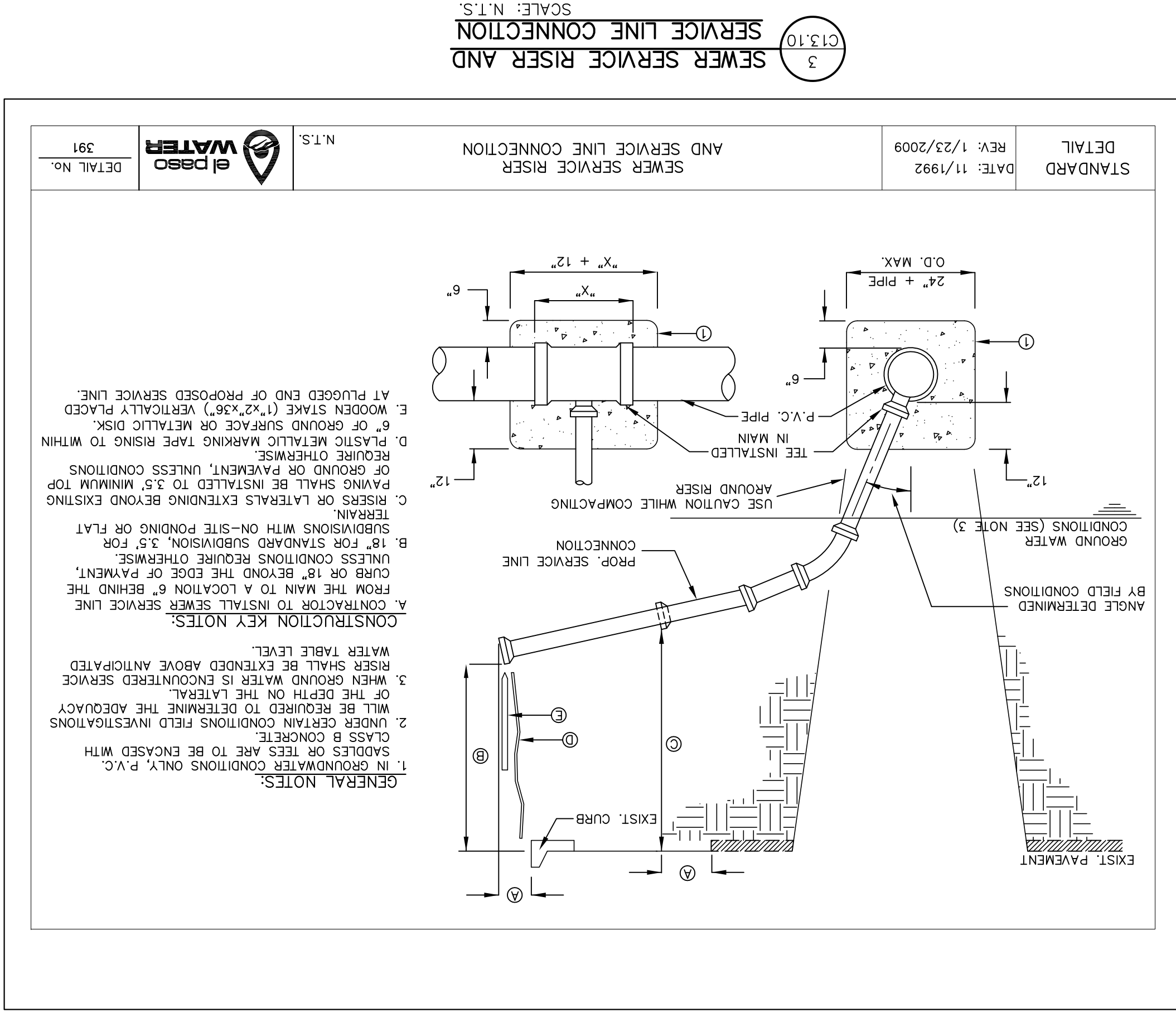
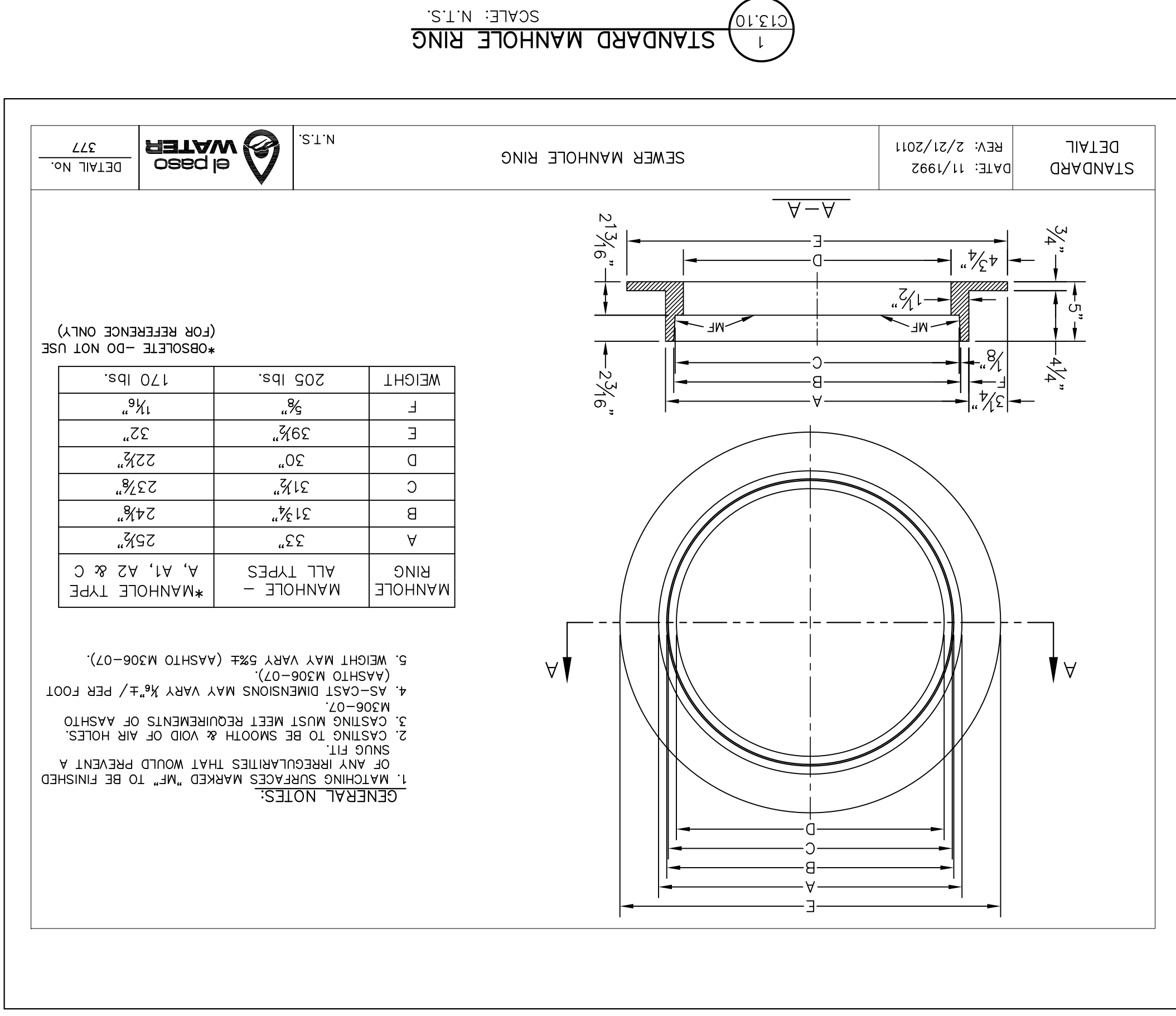
**813 N. Kansas St.  
 Suite 300  
 El Paso, TX 79902  
 915.544.5232  
 www.ceegroup.net**

**TEXAS REGISTERED ENGINEERING FIRM #4564**

**REVISIONS**

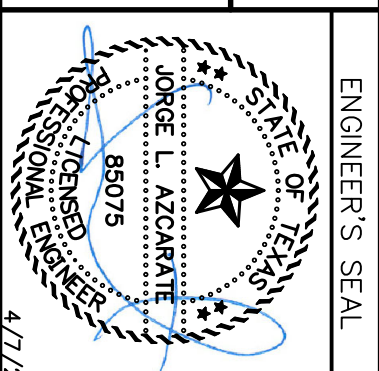
**BY**





REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDESDALE DRIVE AND PALOMINO STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24" (CITY DATUM)

BY \_\_\_\_\_ REVISIONS \_\_\_\_\_ DATE \_\_\_\_\_



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 Suite 300  
 El Paso, TX 79902  
 915.544.5232  
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TEXAS REGISTERED ENGINEERING FIRM F-4564

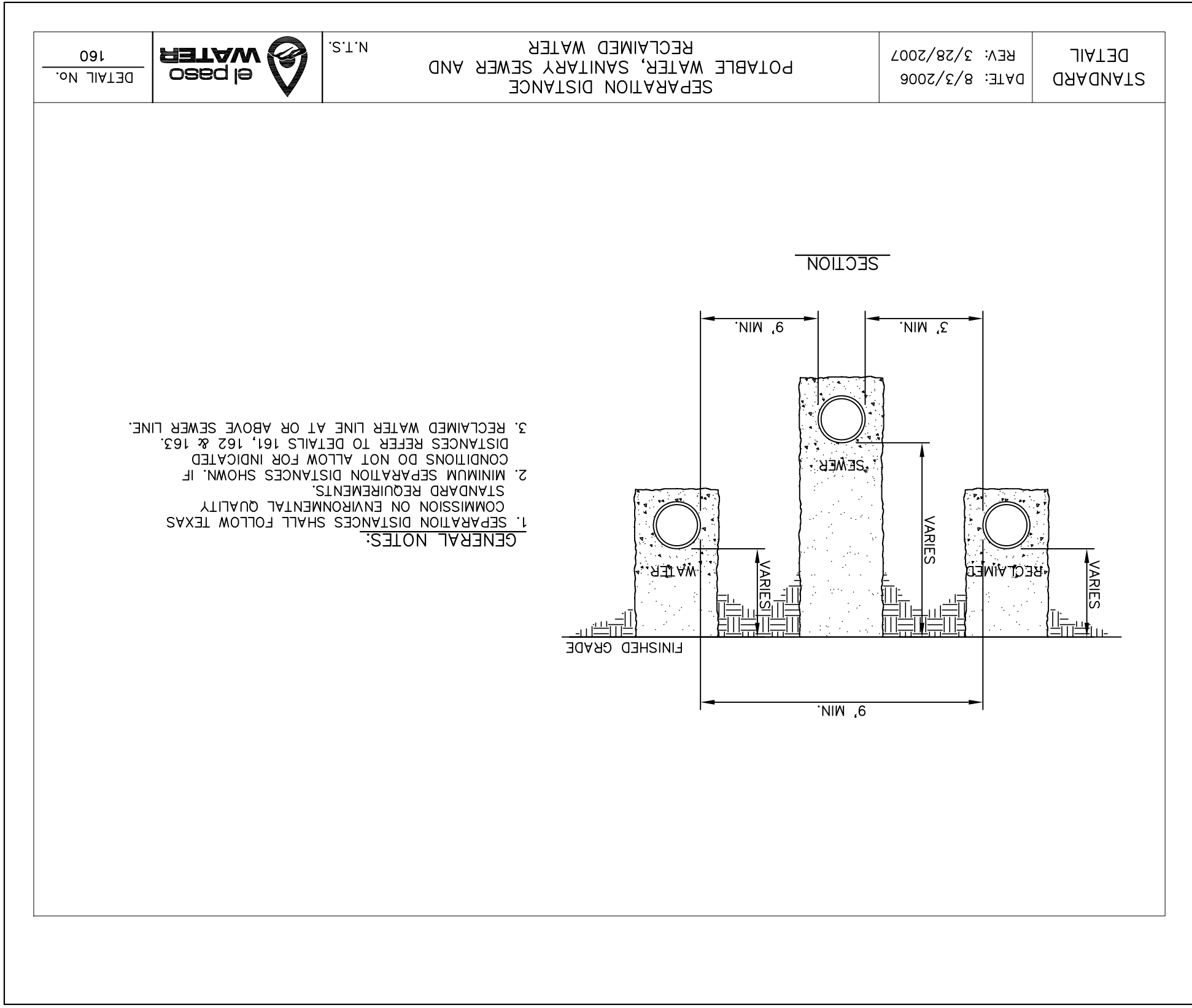
PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SHEET TITLE  
 SANITARY SEWER  
 DETAILS

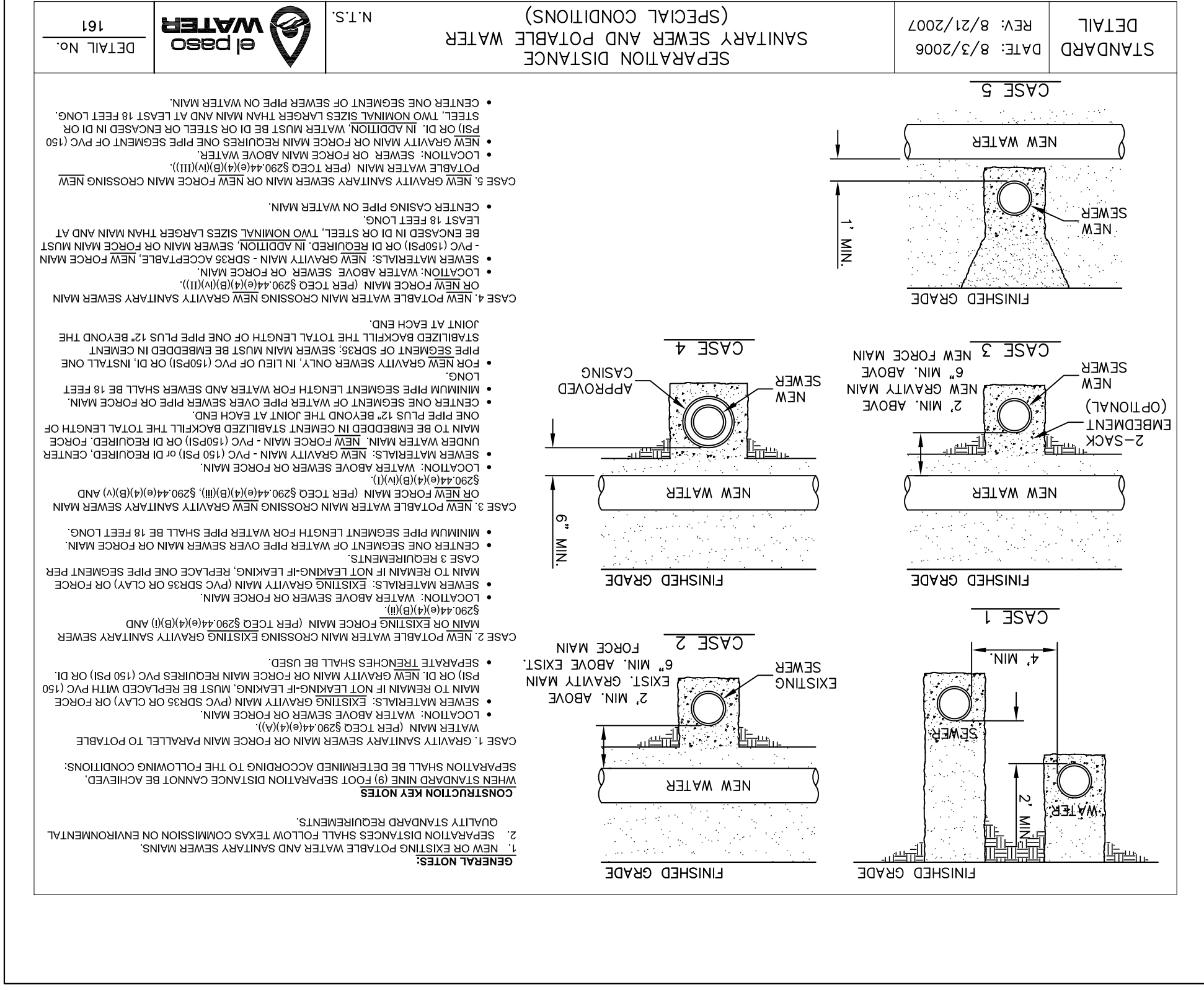
(SHEET 1 OF 3)

SHEET NO.  
 C13.10

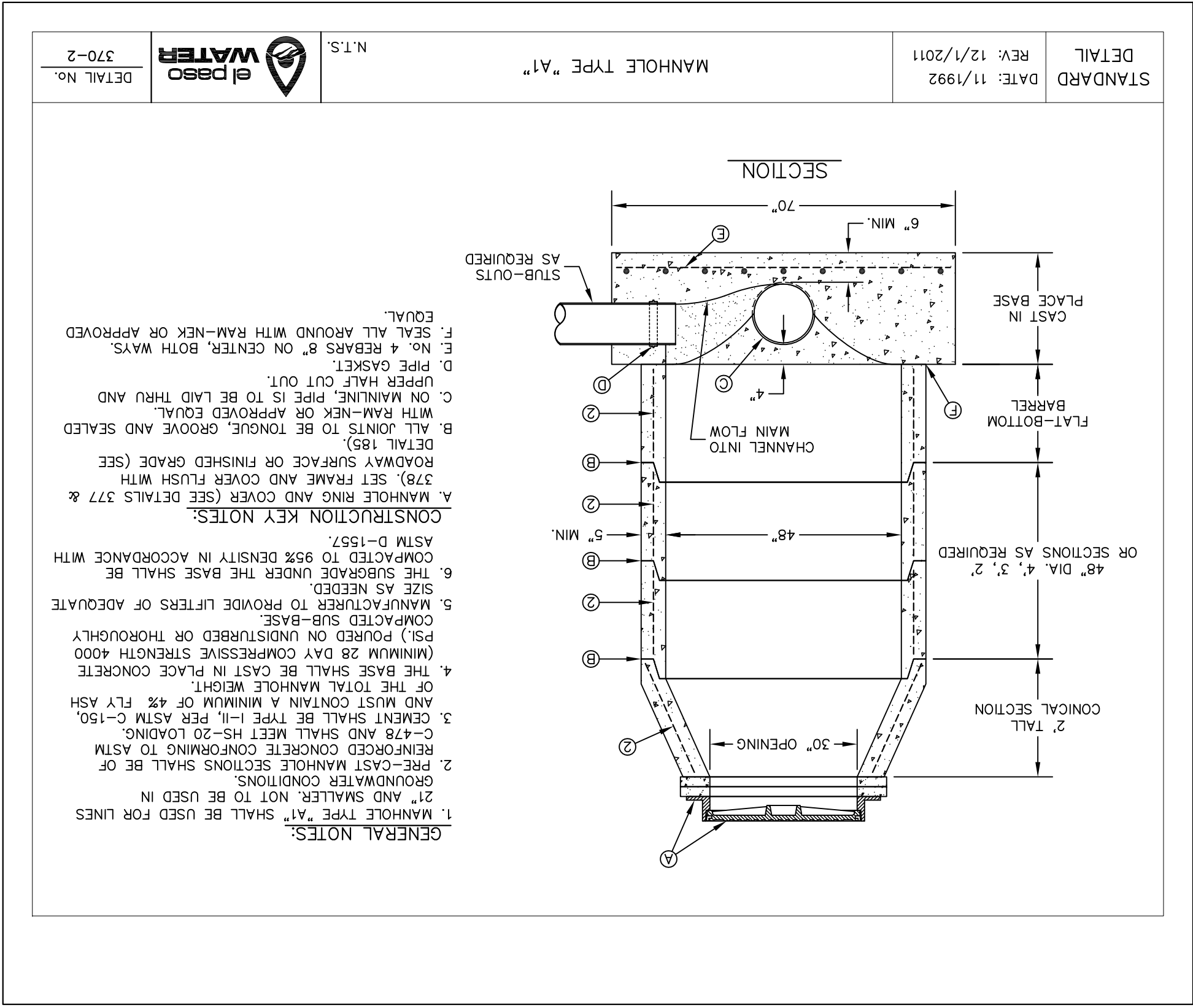




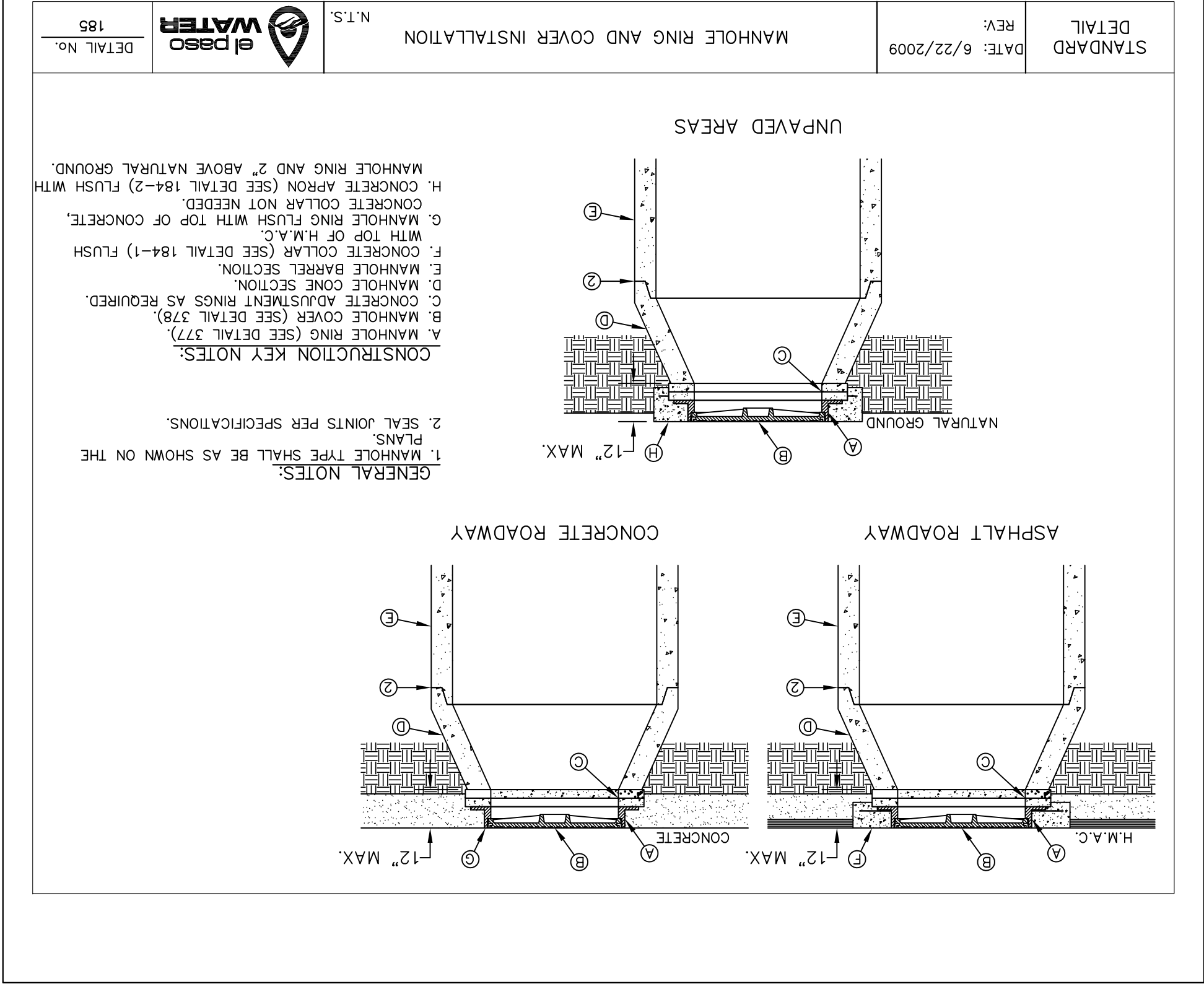
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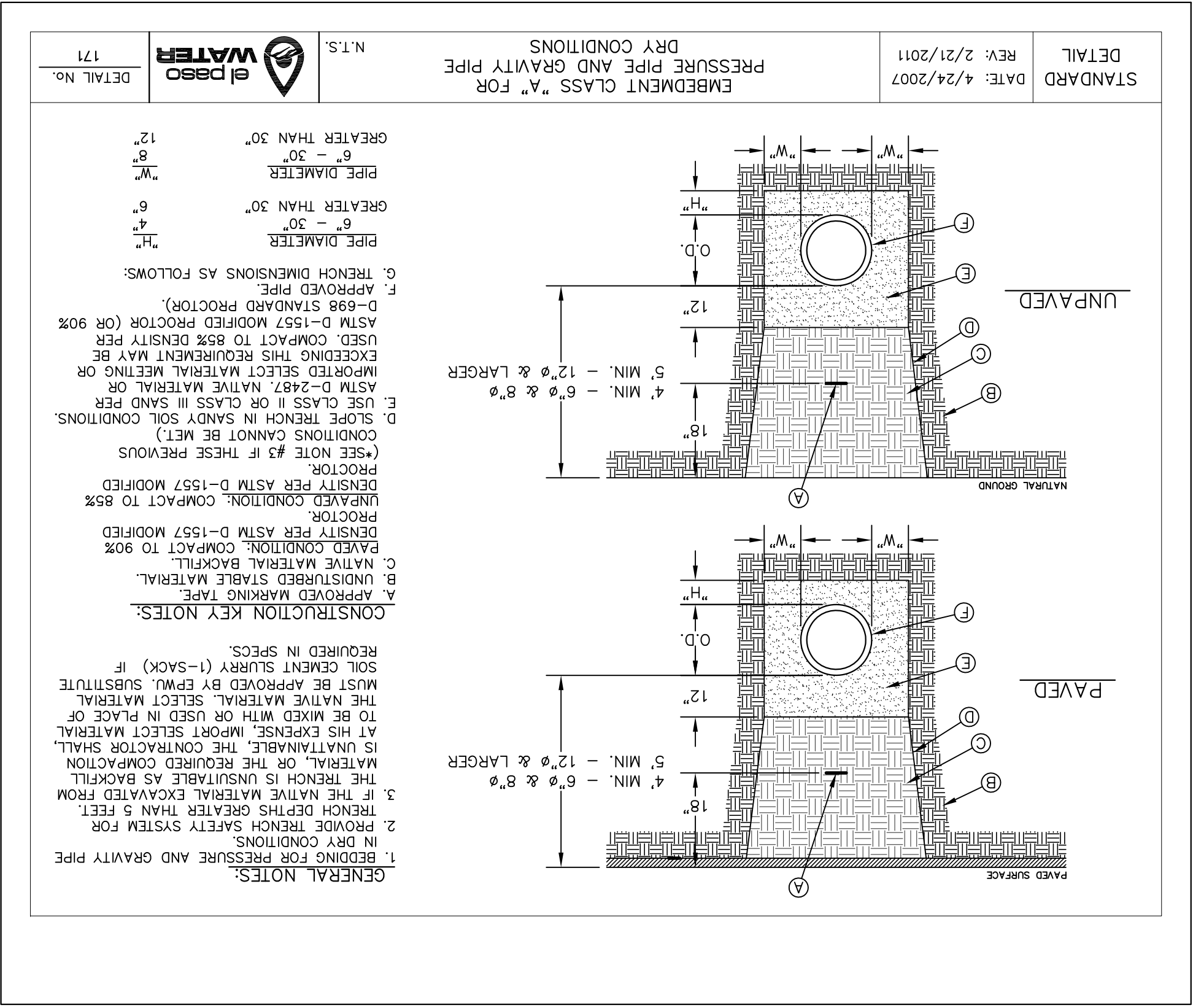
2 STANDARD MANHOLE TYPE "A1" FOR P.V.C. PRESSURE PIPE



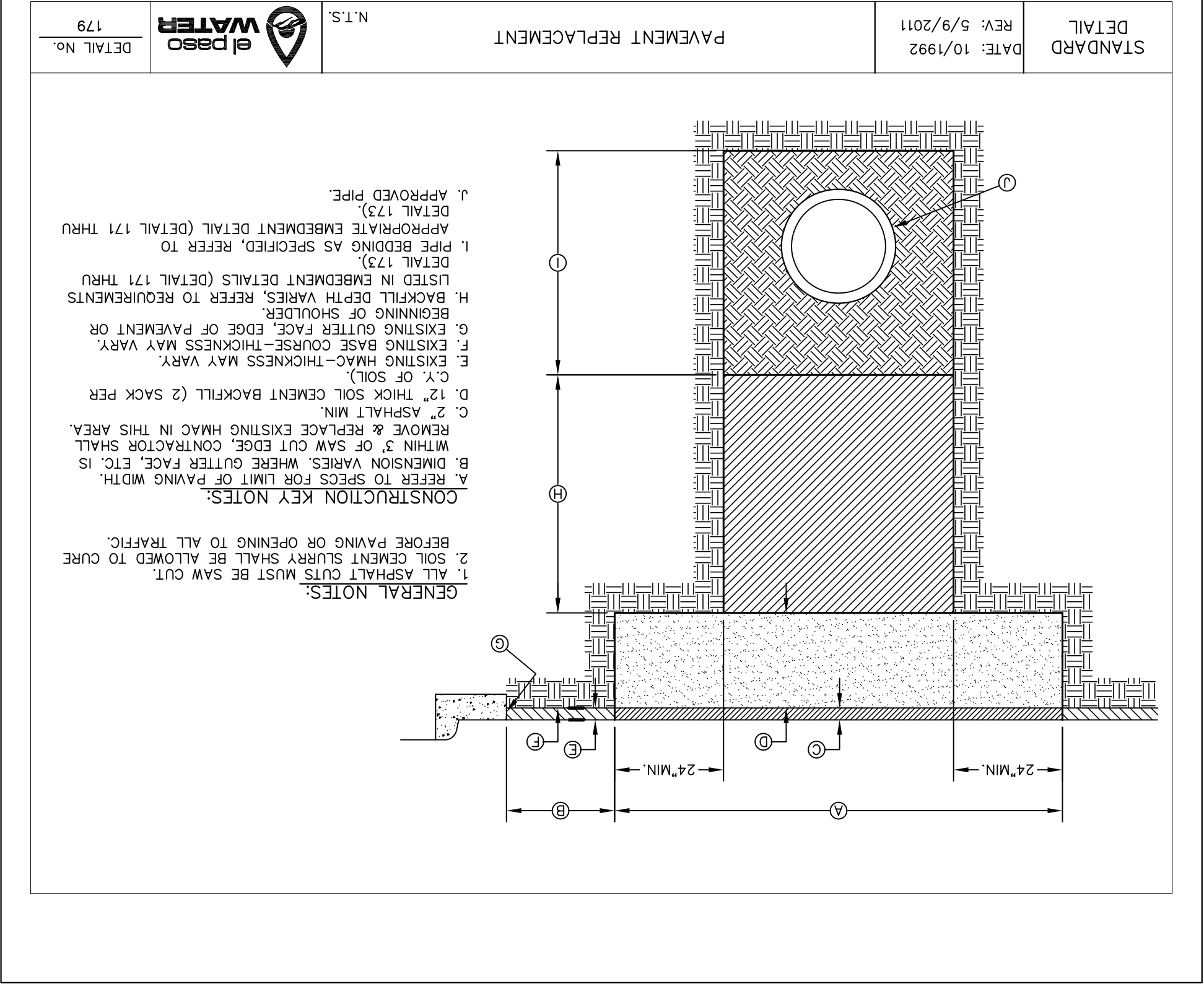
3 BEDDING CLASS DETAILS FOR P.V.C. PRESSURE PIPE



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



5 STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL



6 PAVEMENT REPAIR DETAIL

PROJECT TITLE  
**VILLAS DEL NORTE UNIT ONE**  
**SUBDIVISION IMPROVEMENTS**

SCALE: N.T.S.

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

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
 JOB No. 2000-2241.D

ENGINEER'S SEAL

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 915.544.5232  
 www.ceegroup.net

TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMDALE DRIVE AND PALMDALE STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24' (CITY DATUM)

REVISIONS  
 DATE BY

SCALE: N.T.S.

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

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
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 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24' (CITY DATUM)

REVISIONS  
 DATE BY

7 STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL

SCALE: N.T.S.

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

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
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 ELEVATION: 3928.24' (CITY DATUM)

REVISIONS  
 DATE BY

8 PAVEMENT REPAIR DETAIL

SCALE: N.T.S.

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

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
 JOB No. 2000-2241.D

ENGINEER'S SEAL

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

TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMDALE DRIVE AND PALMDALE STREET  
 ELEVATION: 3939.32 (NAD 88)  
 ELEVATION: 3928.24' (CITY DATUM)

REVISIONS  
 DATE BY

9 STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL

SCALE: N.T.S.

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

DATE: APRIL 2021  
 DESIGN BY: C.J. / R.O.  
 DRAWN BY: K.P./C.D.  
 CHKD. BY: F.Z.  
 APPVD. BY: J.L.A.  
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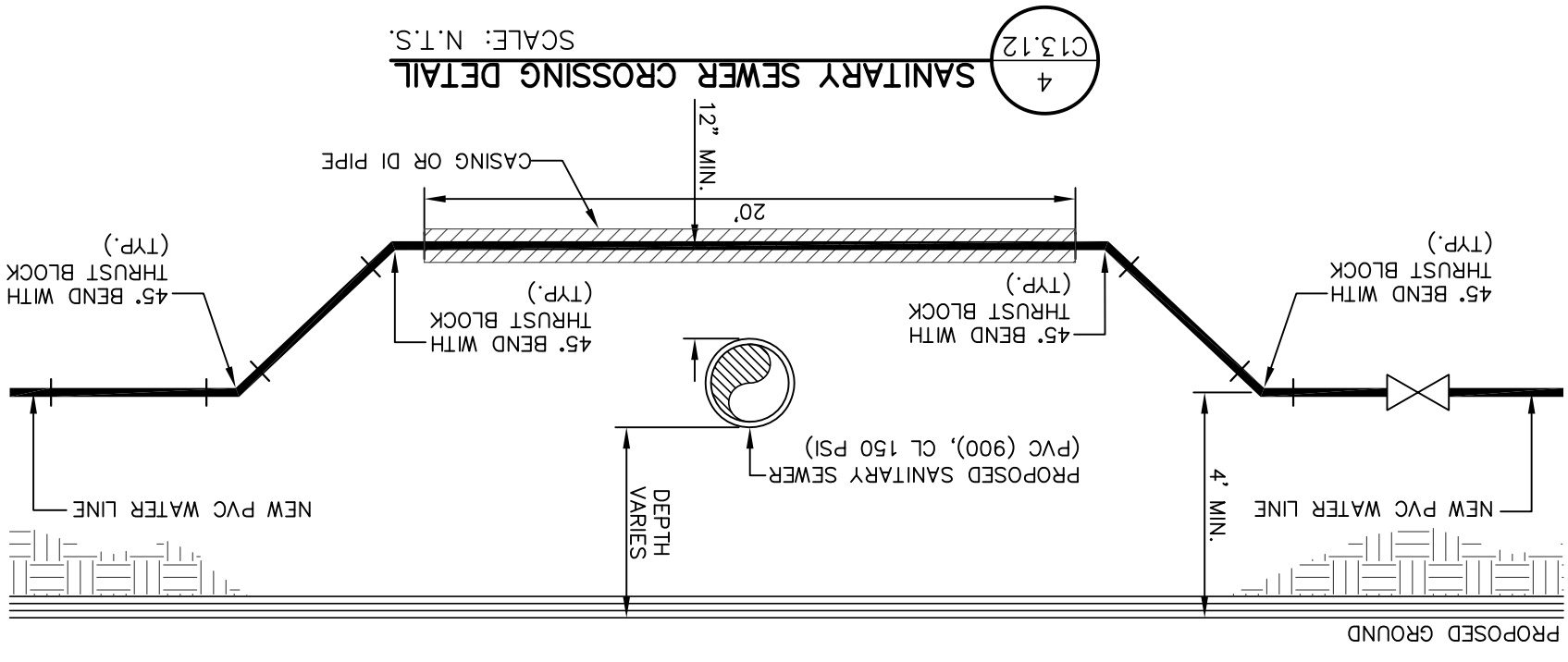
TEXAS REGISTERED ENGINEERING FIRM F-4564

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 ELEVATION: 3939.32 (NAD 88)  
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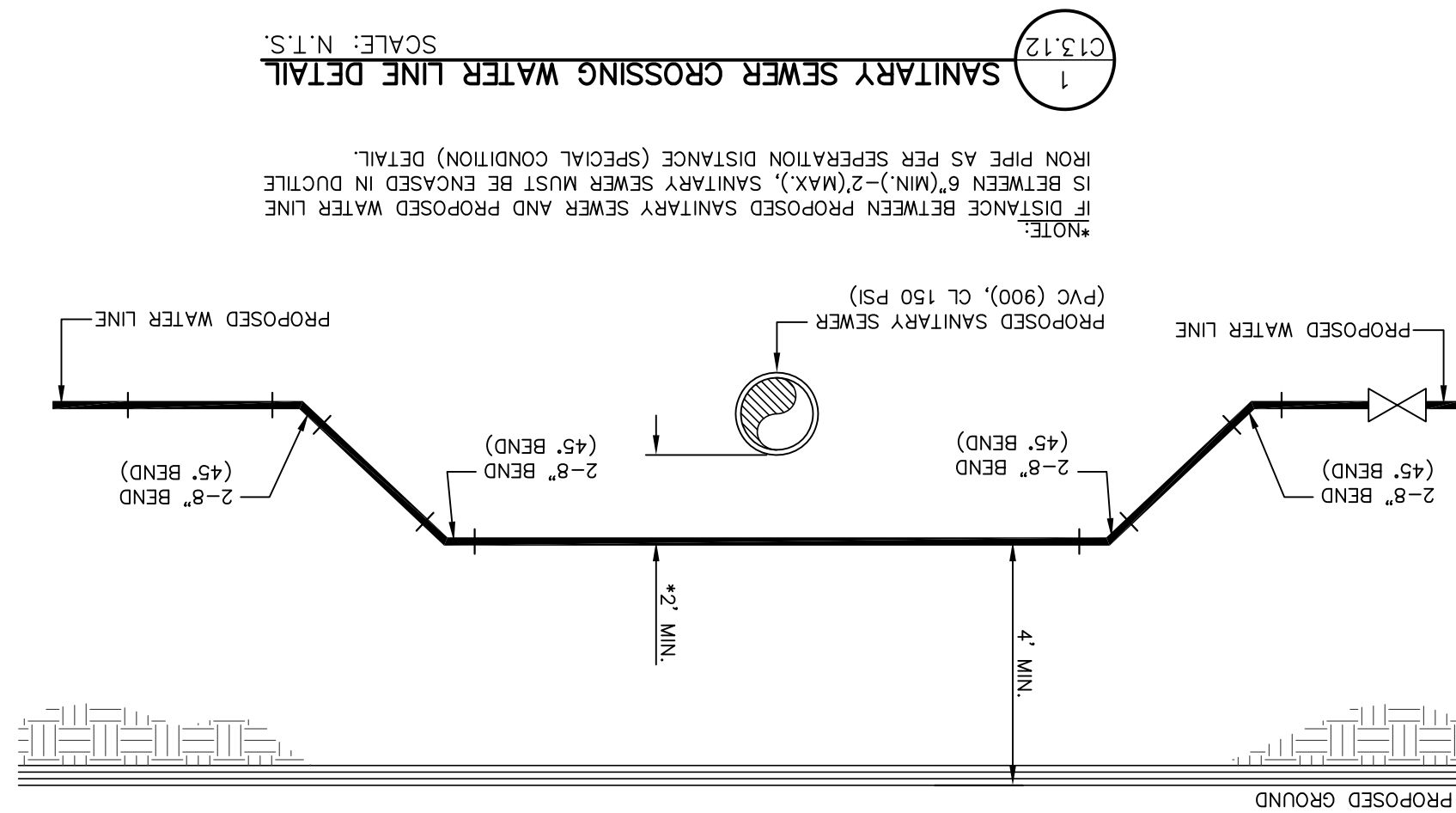
REVISIONS  
 DATE BY

10 STANDARD MANHOLE RING AND COVER INSTALLATION DETAIL

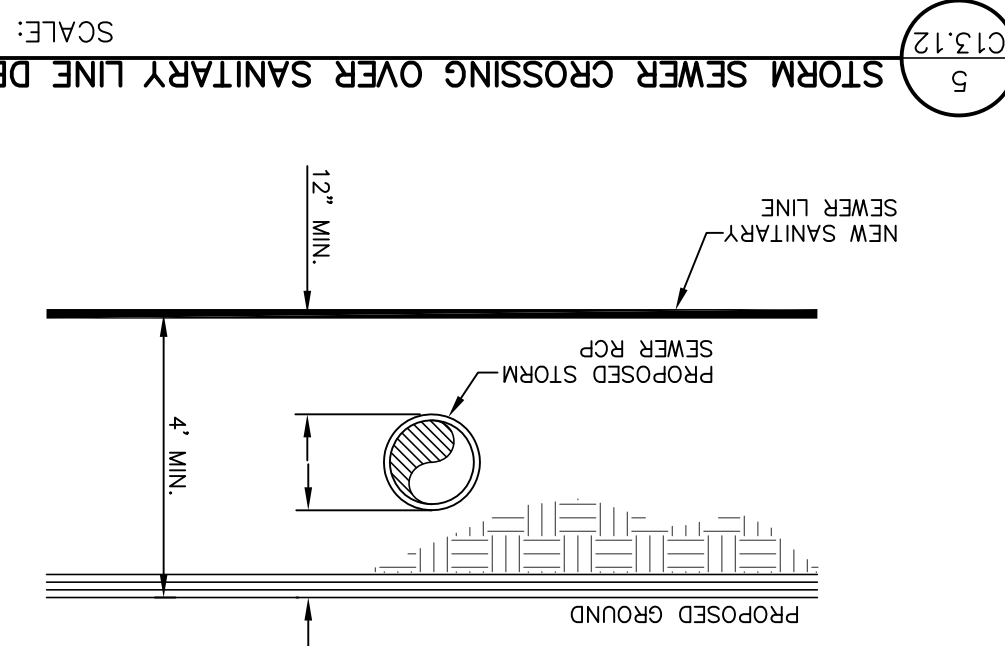




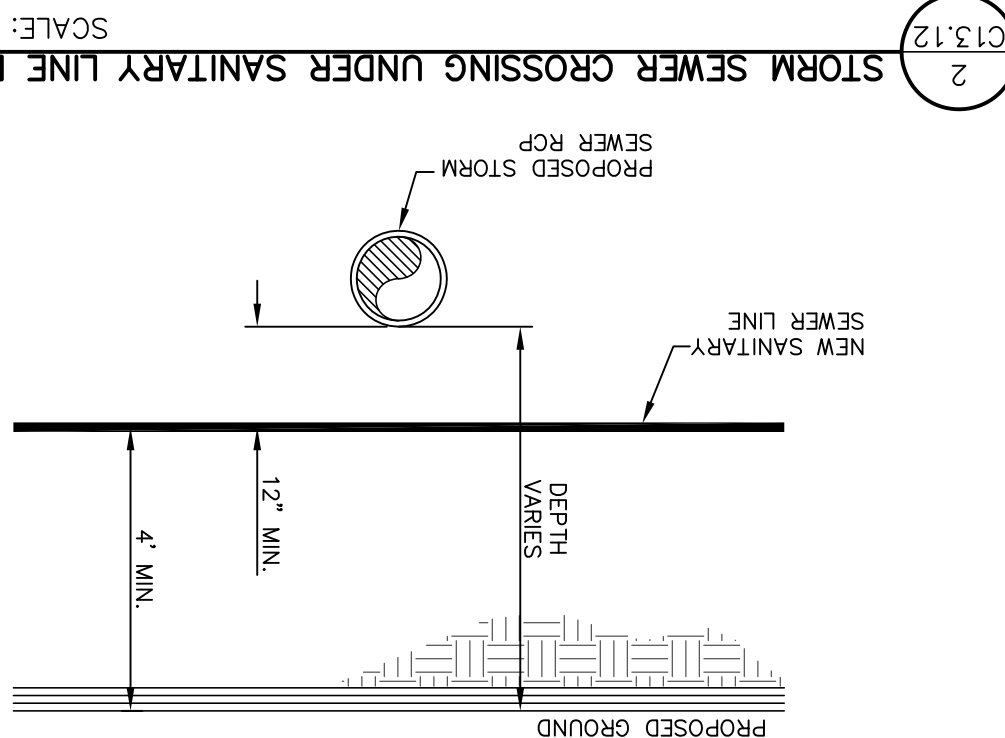
4 SANITARY SEWER CROSSING DETAIL  
SCALE: N.T.S.



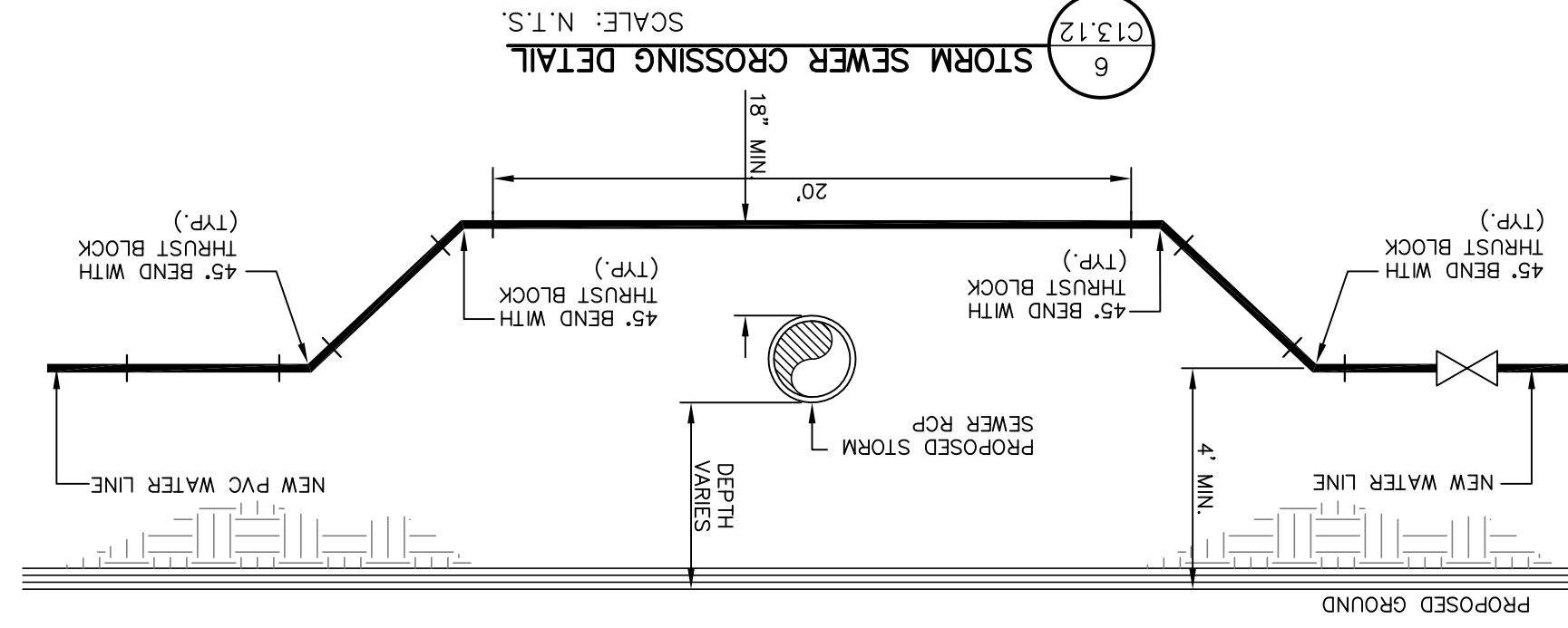
1 SANITARY SEWER CROSSING WATER LINE DETAIL  
SCALE: N.T.S.



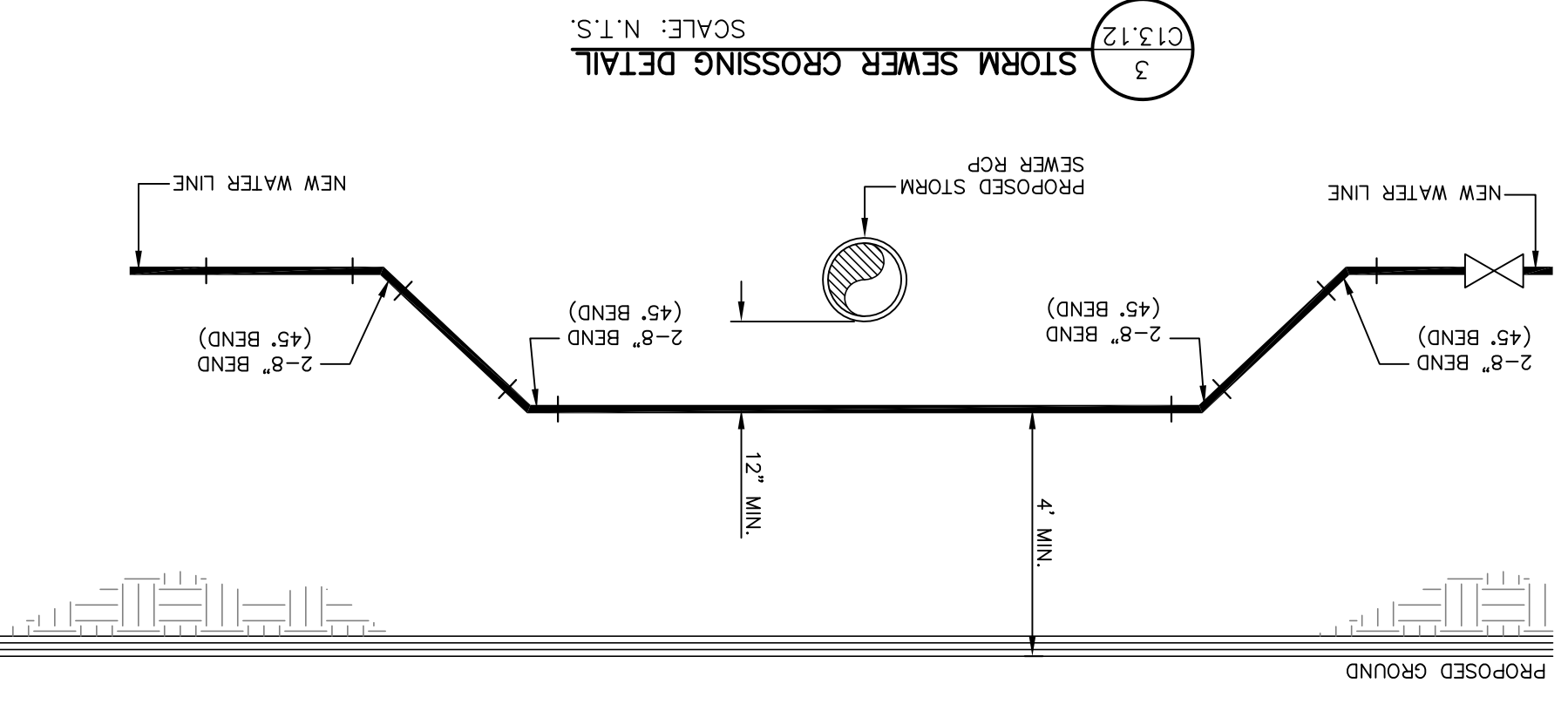
5 STORM SEWER CROSSING OVER SANITARY LINE DETAIL  
SCALE: N.T.S.



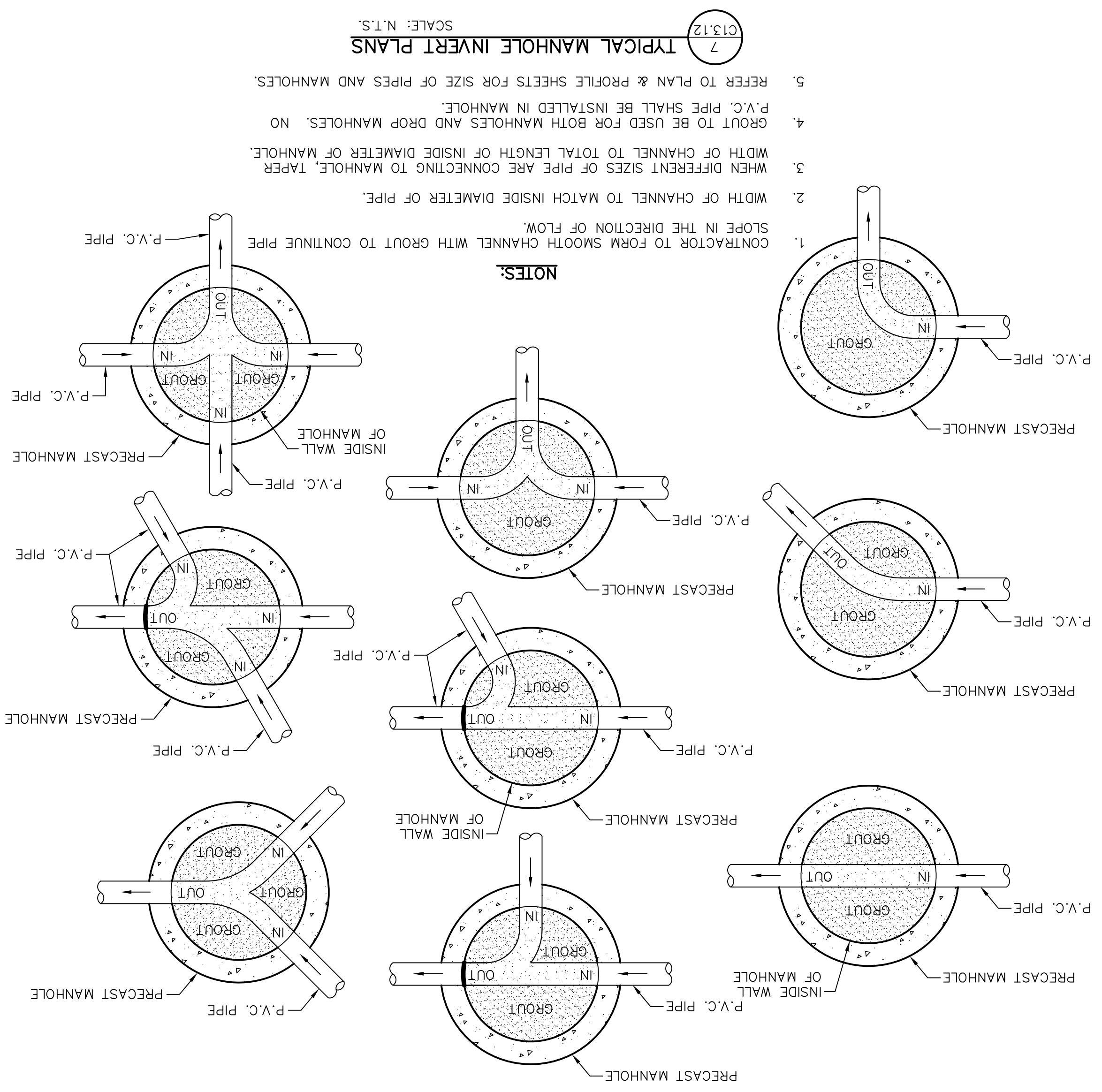
2 STORM SEWER CROSSING UNDER SANITARY LINE DETAIL  
SCALE: N.T.S.



6 STORM SEWER CROSSING DETAIL  
SCALE: N.T.S.



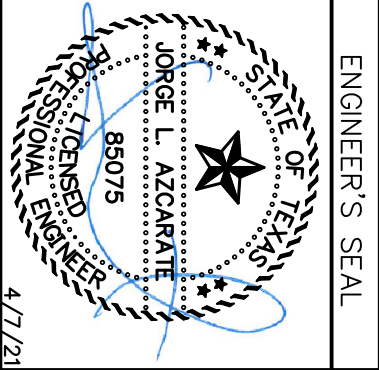
3 STORM SEWER CROSSING DETAIL  
SCALE: N.T.S.



7 TYPICAL MANHOLE INVERT PLANS  
SCALE: N.T.S.

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

SCALE  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./G.D.  
CHKD. BY: F.Z.  
APPD. BY: J.L.A.  
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TEXAS REGISTERED ENGINEERING FIRM F-4564

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLYDEDALE DRIVE AND PALMADO STREET  
ELEVATION: 3939.32 (NAD 88)  
ELEVATION: 3928.24' (CITY DATUM)

PROJECT TITLE  
VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

SHEET TITLE  
SANITARY SEWER  
DETAILS

(SHEET 3 OF 3)

SHEET NO.

C13.12



**SITE DESCRIPTION**

PROJECT NAME AND LIMITS: VILLAS DEL NORTE UNIT ONE IS BORDERED BY A PORTION OF SECTION 31, BLOCK 80 TOWNSHIP 1, AND PACIFIC RAILWAY COMPANY SURVEY, EL PASO COUNTY, TEXAS, TO THE NORTH, 200' WIDE CITY OF EL PASO DRAINAGE CHANNEL #1 PARCEL A (ORDINANCE #2040), TO THE SOUTH, AND SECTION 31, AND PACIFIC RAILWAY COMPANY SURVEY, EL PASO COUNTY AND, DYER STREET TO THE EAST, McCOMBS STREET (F.M. HIGHWAY NO. 2529) TO THE WEST.

PROJECT DESCRIPTION: THE SITE FOR THE NEW SUBDIVISION WILL ENCOMPASS APPROXIMATELY 48.64± ACRES, AND WILL CONTAIN A TOTAL OF 227 RESIDENTIAL LOTS, ONE POND, TWO POCKET PARKS AND TWO PARK SITES.

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

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

TOTAL PROJECT AREA: 48.64±

TOTAL AREA TO BE DISTURBED: 48.64±

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.684

EXISTING CONDITION OF SOIL AND VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: THE PROJECT SITE IS LOCATED IN THE VICINITY OF THE TURNER-BERINO ASSOCIATION. THE SOIL IS NEARLY LEVEL GENTLY SLOPING SOILS THAT HAVE A CLAY LOAM SUBSOIL AND ARE MODERATELY DEEP OVER SOFT CALICHE. IN THE HUECO BOLSON.

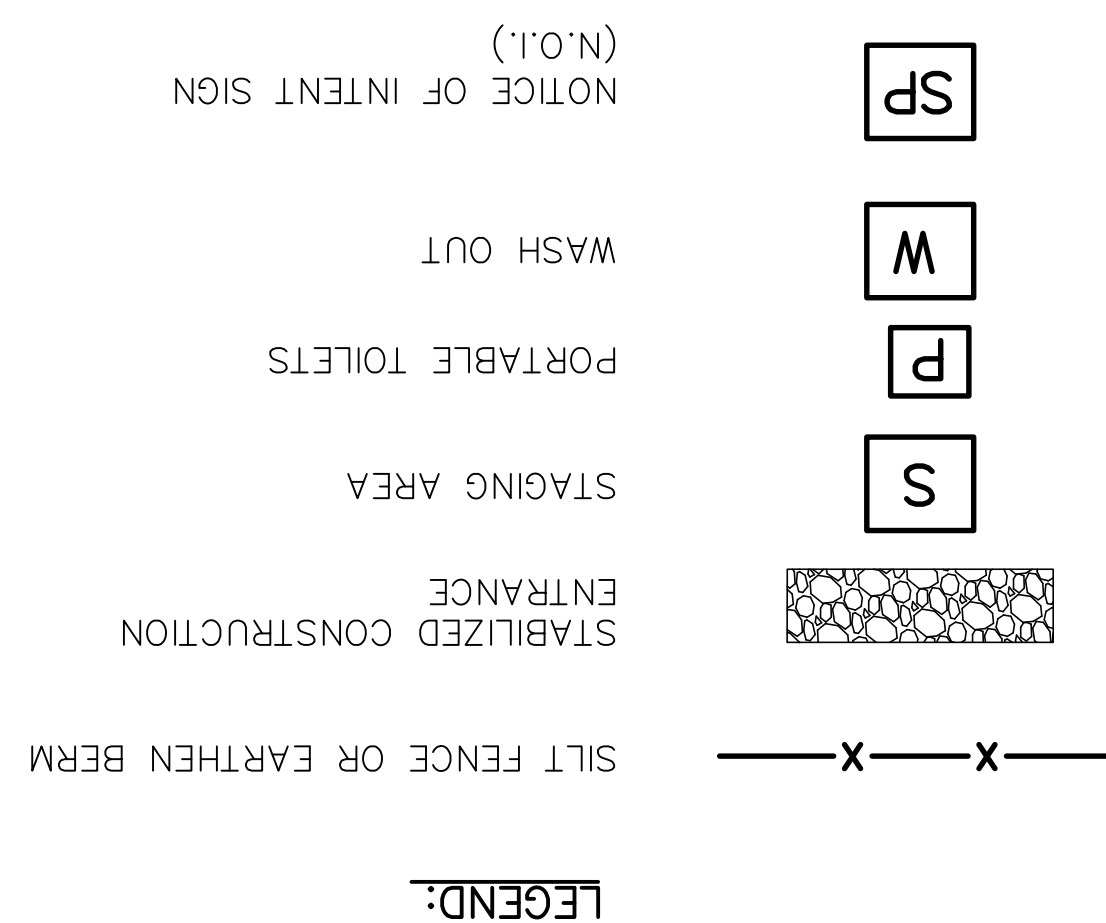
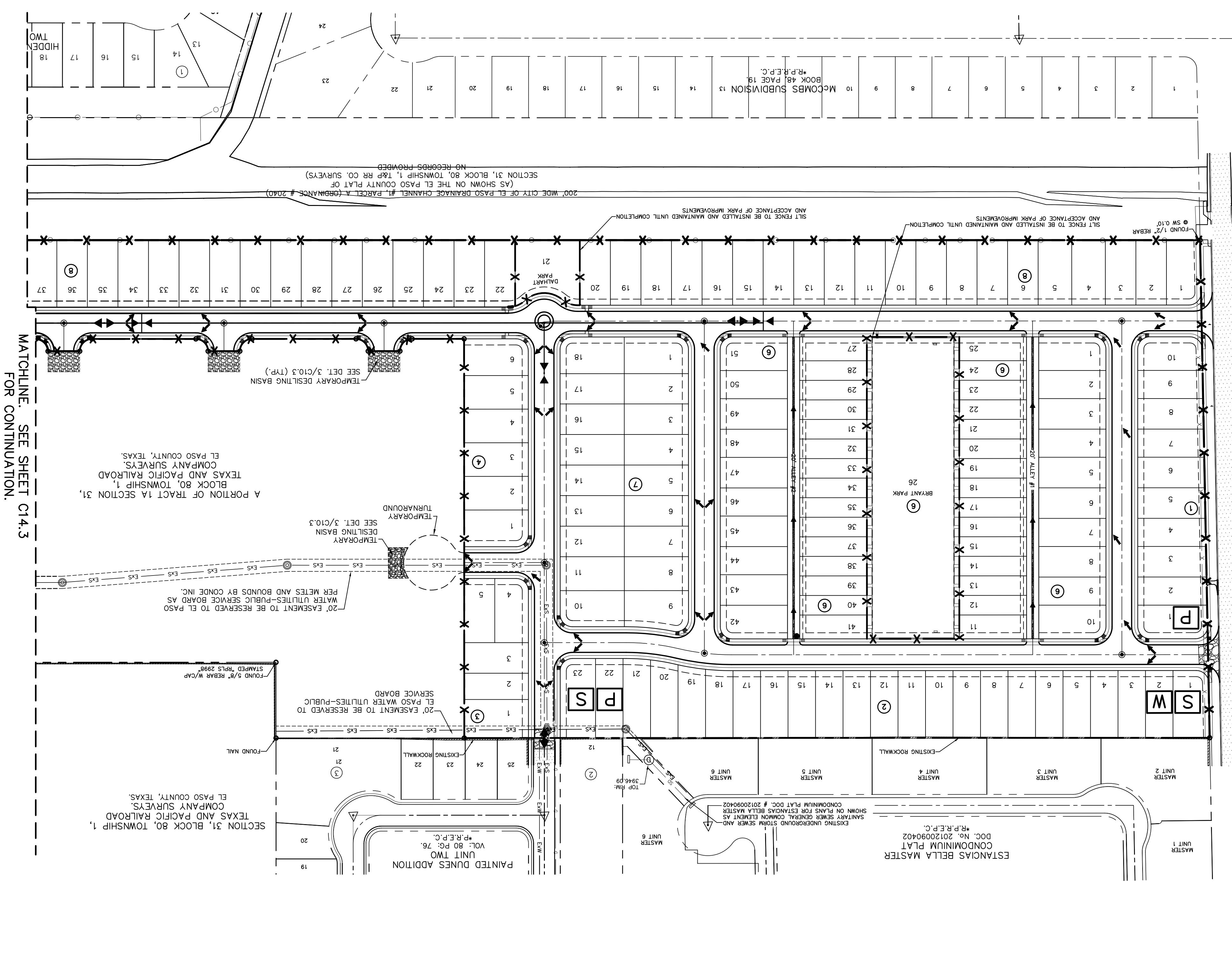
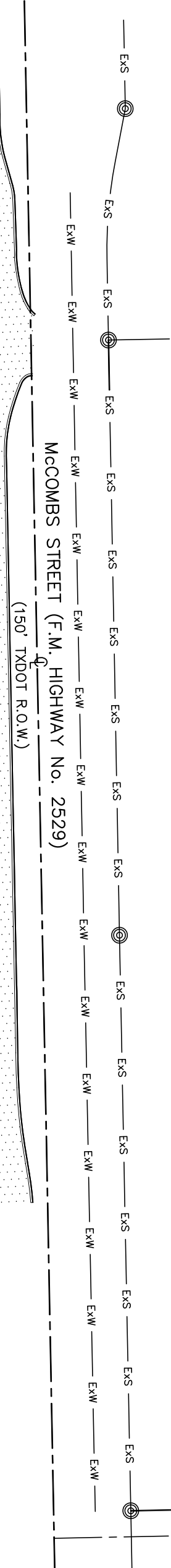
DISCHARGE INTO AN ON-SITE RETENTION BASIN.

NAME OF RECEIVING WATERS: VILLAS DEL NORTE UNIT ONE SUBDIVISION WILL DISCHARGE INTO AN ON-SITE STORM SEWER INFRASTRUCTURE AND ULTIMATELY DISCHARGE INTO PROPOSED INFRASTRUCTURE AND ULTIMATELY DISCHARGE INTO AN ON-SITE RETENTION BASIN.

**EROSION AND SEDIMENT CONTROL**

SOIL STABILIZATION PRACTICES	TEMPORARY SEEDING	PERMANENT PLANTING, SODDING, OR SEEDING	MULCHING	SOIL RETENTION BLANKET	BUFFER ZONES	PRESERVATION OF NATURAL RESOURCES	OTHER:
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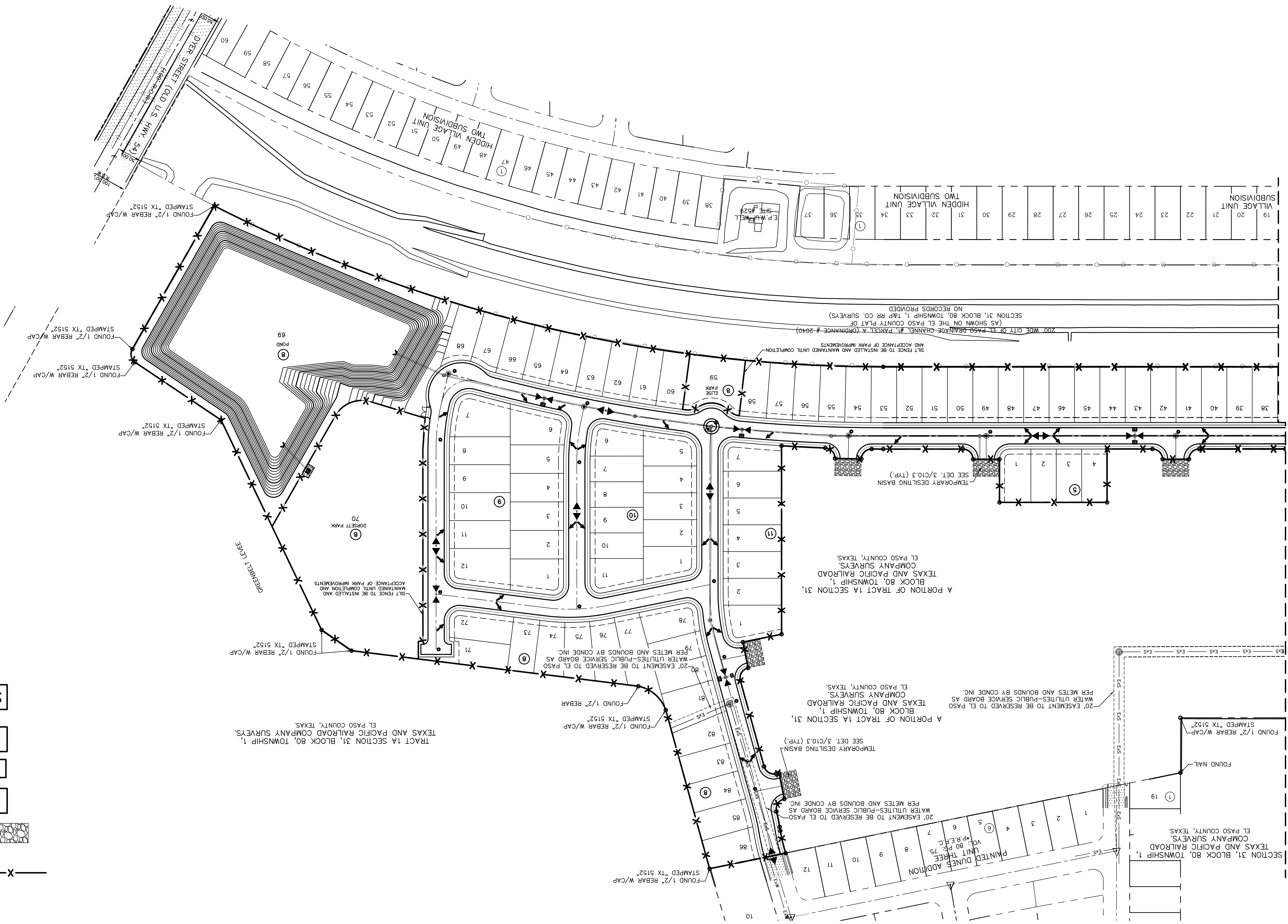




C14.2	SHEET NO.	SHEET TITLE	PROJECT TITLE
<b>VILLAS DEL NORTE UNIT ONE</b> <b>SUBDIVISION IMPROVEMENTS</b>			
SCALE: 1"=100'	Horizontal: N/A	Vertical: N/A	Contour Interval: N/A
DATE: APRIL 2021			
DESIGN BY: C.J. / R.O.			
DRAWN BY: K.P./C.D.			
CHKD. BY: F.Z.			
APPROV. BY: J.L.A.			
JOB No. 2000-224LD			
813 N. Kansas St. Suite 300 El Paso, TX 79902 915.544.5232 www.ceengr.com			
DATE	REVISIONS	REFERENCES - BENCHMARKS CITY MONUMENT LOCATED AT THE INTERSECTION OF PALMADO STREET ELEVATION: 3939.32 (NAD 88) ELEVATION: 3928.24' (CITY DATUM)	
<b>WARNING!</b> <b>BEFORE YOU DIG</b> <b>CALL 811</b>			
UTILITY LOCATOR SERVICES EL PASO ELECTRIC COMPANY (915) 543-5720 EL PASO ENERGY CORPORATION (915) 496-5244 EL PASO WATER UTILITIES (915) 524-5500 MCI SURVEILLANCE (800) MCI-WORK TIME WARNER COMMUNICATIONS (915) 772-1123 TEXAS GAS SERVICE (915) 680-7200 SBC (800) 545-6005 A&T (800) 852-3786 U.S. SPRINT TELECOM (800) 521-0579 CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (915) 621-6750 (AFTER HOURS) (915) 240-3220			
FOR FIELD LOCATING EXISTING UTILITIES			



MATCHLINE - SEE SHEET C14.2  
FOR CONTINUATION.



SITE PLAN  
SCALE: 1" = 100'



- LEGEND:
- SILT FENCE OR EARTHEN BERM
  - STABILIZED CONSTRUCTION ENTRANCE
  - STAGING AREA
  - PORTABLE TOILETS
  - WASH OUT
  - NOTICE OF INTENT SIGN (N.O.I.)

UTILITY LOCATOR SERVICES

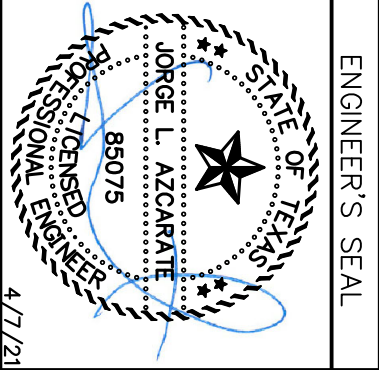
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 456-5244
EL PASO WATER UTILITIES	(915) 524-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AIRKT	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**

BY	REVISIONS
DATE	
REFERENCES - BENCHMARKS	
CITY MONUMENT LOCATED AT THE INTERSECTION OF PALCADO STREET AND	
ELEVATION: 3939.52 (NAD 88)	
ELEVATION: 3928.24" (CITY DATUM)	

**ceeg**  
813 N. Kansas St.  
Suite 300  
El Paso, TX 79902  
915.544.5232  
www.ceegrp.com

TEXAS REGISTERED ENGINEERING FIRM F-4564



ENGINEER'S SEAL

SCALE: 1" = 100'

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

DATE: APRIL 2021  
DESIGN BY: C.J. / R.O.  
DRAWN BY: K.P./G.D.  
CHKD. BY: F.Z.  
APPROV. BY: J.L.A.  
JOB NO.: 2000-2241D

PROJECT TITLE

VILLAS DEL NORTE UNIT ONE  
SUBDIVISION IMPROVEMENTS

SHEET TITLE

STORM WATER  
POLLUTION  
PREVENTION SITE  
PLAN

SHEET NO.

C14.3







**SODDING NOTES**

- SUBMIT THE FOLLOWING:**
- SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS.
- QUALITY ASSURANCE**
- MINIMUM AGE 18 MONTHS, WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING, WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS.
  - DELIVERY, STORAGE AND HANDLING
  - TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
  - DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING HEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE.
- SITE CONDITIONS**
- PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
  - WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
  - PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.
- SOIL AMENDMENTS**
- PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSIS OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AGED ORGANIC COMPOST OR APPROVED EQUAL.
- FERTILIZER**
- SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1000 SQUARE FEET BY WEIGHT.
- GRASS MATERIALS**
- PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.
- PREPARATION**
- PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 O.Y./1000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAG, AND LASER LEVEL TO AN EVEN GRADE, THEN ROLL FOR FIRMNESS, RAKE TILLED AREA AND REMOVE STONES OVER 1 INCH IN ANY DIMENSION, STICKS, ROOTS, RUBBISH AND OTHER EXTRANEIOUS MATTER. ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.
- SODDING OPERATIONS**
- LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN GROUND.
  - IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MIDDY SOIL CONDITION.
  - REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED.
  - LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN 1/8" LAY SOD OVER MOISTENED SOIL, LIGHTLY RAKING THE SOIL AHEAD OF EACH SOD STRIP. BUTT ENDS AND SIDES OF SOD STRIPS; DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD
  - WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.
- MAINTENANCE**
- BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
  - MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTHWEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE, AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
  - SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS.
  - MAINTENANCE TO INCLUDE:  
WATER SOD THOROUGH EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING. REPAIR, REWORK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED.  
REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD.  
MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING.  
FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1000 SQ.FT. OF NITROGEN WATER THOROUGHLY.
  - ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- CLEANUP AND PROTECTION**
- DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
  - PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.
- INSPECTION AND ACCEPTANCE**
- WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND MATERIALS PROMPTLY FROM PROJECT SITE.

**GENERAL IRRIGATION NOTES**

- ALL MATERIALS LISTED BY BRAND NAME MAY BE SUBSTITUTED BY EQUAL OR BETTER PRODUCTS AS APPROVED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES, AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER CONTRACTORS WORKING ON THE SITE. COORDINATE INSTALLATION OF SLEEVINGS!
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WATER PRESSURE, WATER SOURCE AND SIZE IN THE FIELD PRIOR TO CONSTRUCTION. SHOULD A DISCREPANCY EXIST BETWEEN DESIGN PRESSURE AND FIELD PRESSURE THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
- IF PRESSURE IS MORE THAN 45 PSI DOWNSTREAM OF METER NOTIFY THE PROJECT MANAGER AND LANDSCAPE ARCHITECT IMMEDIATELY.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
- LOCATION OF THE CONTROLLER AND BACKFLOW SHALL BE APPROVED BY CITY OF EL PASO PARKS AND RECREATION DEPT.
- STAKE OUT ROTOR HEAD AND PIPING LOCATIONS PRIOR TO TRENCHING. AFTER APPROVAL BY CITY OF EL PASO PARKS AND RECREATION DEPT., TRENCHING AND EQUIPMENT INSTALLATION MAY BEGIN.
- THE CONTRACTOR SHALL NOT IMPEDRE DRAINAGE IN ANY WAY. THE CONTRACTOR SHALL ALWAYS MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS, WALLS, ETC.
- ALL PIPING/WIRING RUNNING BENEATH PAVED SURFACES (DRIVES, WALKS, ETC.) SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES. SLEEVES MUST BE 2 X THE DIAMETER SIZE OF PIPE ENCASED. REMOTE CONTROL WIRING MUST BE RUN IN SEPARATE SLEEVES FROM IRRIGATION PIPE SLEEVES. EXTEND SLEEVE TWENTY-FOUR INCHES (24") BEYOND EDGE OF HARD SURFACES; WRAP ENDS WITH FOUR (4) MILS PLASTIC AND GOOD QUALITY PLASTIC TAPE. GRAY, CLOTH DUCT TAPE IS NOT ACCEPTABLE.
- DIRECT BURIAL 24V ELECTRIC CONTROL WIRE (#14S) AND COMMON GROUND (#12S) SHALL BE STANDARD COLORS- RED(HOT) AND WHITE(COMMON). INSTALL WIRE WITH SLACK TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION. LABEL ALL WIRE ENDS AT CONTROLLER AND IN VALVE BOX. PROVIDE THREE SPARE REMOTE CONTROL VALVE WIRES FOR EACH CONTROLLER AND EXTEND TO FURTHEST VALVE. WIRING SHALL BE IN SEPARATE TRENCH FIVE FEET (5') FROM PRESSURE MAIN LINE ON NORTH AND WEST SIDE OF MAIN. PROVIDE EXPANSION LOOPS FOR WIRING EVERY 200'. WIRES SHALL NOT BE STRETCHED TIGHT. USE DRI-SPLICE CONNECTORS FACTORY FILLED WITH SILICONE FOR VALVE WIRE. SPLICES ARE NOT ALLOWED BETWEEN CONTROLLER AND VALVES. SPARE REMOTE CONTROL VALVE WIRES MUST BE OTHER THAN STANDARD RED IN COLOR.
- ALL VALVES SHALL BE TAGGED WITH A WATERPROOF TAG SHOWING VALVE NUMBER, LABEL ALL WIRING AT CONTROLLERS AND PANELS.
- ALL PIPE CUTS SHALL BE MITERED TO 40 DEGREES TO ASSURE PROPER SOLVENT WELD. ALL BURRS SHALL BE REMOVED PRIOR TO GLUING AND MUST HAVE A FILED BEVELED EDGE A MINIMUM OF ONE FOURTH (1/4) THE WIDTH OF PIPE WALL. USE "3-STEP" GLUING PROCESS.  
PIPE MUST BE CLEAN AND PRIMER APPLIED AS RECOMMENDED BY MANUFACTURER WHEN GLUING PROCESS IS UNDERTAKEN. PRIMER SHOULD BE MOIST AS GLUE IS APPLIED AND PVC PIPING IS ASSEMBLED. USE IPS WELD-ON PURPLE PRIMER P68 OR P70.  
USE IPS WELD-ON GRAY GLUE #711 HEAVY DUTY. PIPE OFF ALL EXCESS CEMENT AND LET SET PER MANUFACTURER'S RECOMMENDATIONS. INITIAL SET TIMES SHALL BE MINIMUM OF 5 MIN. FOR 1/2 TO 1-1/4" PIPE, 8 MIN. FOR 1-1/2" PIPE TO 2" PIPE, 2 HOURS FOR 2-1/2" TO 6" PIPE. CURE TIMES ARE 20 MIN FOR 1/2" TO 1-1/4" PIPE, 30 MIN. FOR 1-1/2" PIPE, 4 HOURS FOR 2-1/2" PIPE. WHEN HUMIDITY EXCEEDS 60% INCREASE CURE TIME BY 50%. ONCE WELD IS SET, PIPE SHALL NOT BE MOVED FOR ANY REASON UNTIL SET TIMES HAVE BEEN ACHIEVED. WATER SHALL NOT BE TURNED ON UNTIL ALL CURE TIMES HAVE BEEN ACHIEVED.
- A CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE MUST BE PRESENT DURING ALL FLUSHING, TESTING AND ADJUSTING. THE CONTRACTOR MUST PROVIDE 24 HRS NOTICE TO THE CITY OF EL PASO PARKS AND RECREATION DEPT. PRIOR TO CONDUCTING THE TESTS. FLUSHING AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PARKS AND RECREATION DEPARTMENT DESIGN AND CONSTRUCTION STANDARDS.
- THE FINISH GRADE OF ALL TRENCHED AREAS SHALL BE SMOOTH, EVEN AND CONSISTENT. FREE OF ANY HUMPS, DEPRESSIONS OR OTHER GRADING IRREGULARITIES. OVERFILL TRENCHES AND COMPACT SO NOT TO CRUSH THE PIPE. PRIOR TO SODDING INSPECT TRENCHES FOR SETTLING AND BACKFILL AND REGRADE IF NECESSARY. DO NOT LAY SOD UNTIL TRENCHES ARE ACCEPTABLE.
- THE CONTRACTOR SHALL FINE TUNE AND ADJUST THE IRRIGATION SYSTEM SO THAT NO WATER WILL RUN ONTO THE STREET OR WALKS.
- THE CONTRACTOR SHALL PROVIDE A WATER AUDIT CONDUCTED IN THE PRESENCE OF THE CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE.
- THE CONTRACTOR SHALL MAINTAIN ALL WORK UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- WATERING TIME TO SET TURF STATIONS  
SEE TURF IRRIGATION SYSTEM DESIGN CRITERIA. SET PER LOCAL WATERING CODES.
- WARRANTY PERIOD IS ONE YEAR FROM DATE OF ACCEPTANCE.

PROJECT MUST BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TABS REQUIREMENTS TO INCLUDE INSPECTION AND CERTIFICATE OF SUBSTANTIAL COMPLETION. TABS REGISTRATION # TABS2021010554

**WATER AUDIT**

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.

**PLANTING NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR.
- TOPSOIL MATERIAL FOR PLANTING SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT WOULD BE TOXIC OR HARMFUL TO GROWTH.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
- IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
- THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIPER SIZE AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS.
- EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL-DIAMETER OF SHRUBS AND ROOT BALLS OF TREES. SCARIFY THE BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND/VERTICAL WITHOUT LEANING.
- REMOVE ALL WIRE, STRING, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOT BALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
- CONTRACTOR WILL NOT PLANT MATERIAL SHOWN ON PLANS WHEN IT IS EVIDENT THAT FIELD CONDITIONS HAVE CHANGED SINCE PLANS WERE DRAWN OR IF OTHER CONFLICTS ARE EVIDENT. ANY CHANGES ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PLANTING IS DONE IN THE AREA.
- PLANT SUBSTITUTIONS WILL BE PERMITTED DUE TO AVAILABILITY ISSUES NOT PRICE. REQUEST SUBSTITUTION IN WRITING GIVING REASON FOR SUCH SUBSTITUTIONS.
- TURF QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SUREPLAN. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
- SEEDED AREAS SHOULD BE MAINTAINED UNTIL A FULL GROWTH OF WILD GRASS OR SEEDED MATERIAL IS ACHIEVED.
- WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUNDCOVER).

UNSUITABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS

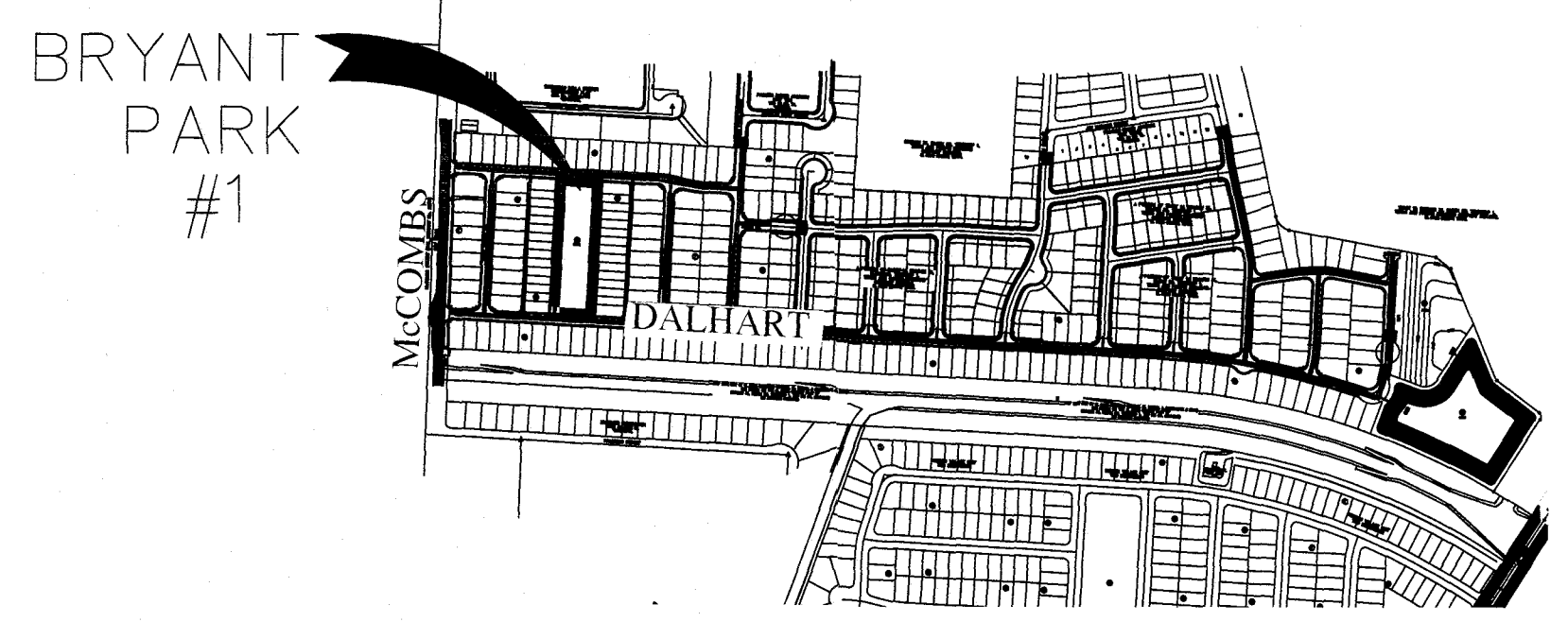
DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.

ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2018.

ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DESIGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH 6TOP SOIL / SANDY LOAM MATERIAL (BLEND OF 40% SAND, 40% SILT, & 20% CLAY - CAPABLE OF HOLDING MOISTURE) TO INCLUDE ORGANIC MATTER / NUTRIENTS TO A MINIMUM DEPTH OF 12 INCHES.

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*Karla Chavez*  
SIGNATURE  
5/18/21  
DATE



LOCATION MAP  
SCALE 1"=600'

TREES AND OTHER PLANTS DELIVERED TO THE SITE SHALL BE COVERED WITH CANVAS TARP DURING TRANSPORT. PLASTIC TARPS ARE PROHIBITED. TRANSPORT IN ENCLOSED VAN IS ACCEPTABLE BUT PLANTS MUST BE UNLOADED IMMEDIATELY UPON ARRIVAL AT SITE.

DO NOT LIFT TREES BY THE TRUNK. LIFT BY CONTAINER.

**SHEET INDEX**

L1	SITE MAP, SHEET INDEX, NOTES
L2	PARK PLANTING AND MATERIALS PLAN
L3	PARK IRRIGATION - PIPE SIZING
L4	PLAYGROUND LAYOUT
L5	PARK LAYOUT
L6	CONSTRUCTION DETAILS
L7	CONSTRUCTION DETAILS
L8	IRRIGATION DETAILS
L9	IRRIGATION DETAILS
L10	IRRIGATION DETAILS
L11	SHELTER DETAILS

DATE REFERENCES - BENCHMARKS

REVISIONS

ARCHITECT'S SEAL

SCALE

Vertical: Horizontal: Contour Interval: N/A

DATE: LM LM LM LM  
DESIGN BY: LM LM LM LM  
DRAWN BY: LM LM LM LM  
CHKD. BY: LM LM LM LM  
APPVD. BY: LM LM LM LM  
JOB No.

PROJECT TITLE

**BRYANT PARK**  
6833 DALHART DRIVE  
LOT 28 BLOCK 6  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, TEXAS 79928  
AREA: 74706 SQ.FT. - 1.71 ACRES

SHEET TITLE

**L1**

INDEX AND NOTES

SHEET 1 OF 11



QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE

PLANT LEGEND/SCHEDULE								
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	MR SPACING	QUANT.	SIZE	REMARKS
CS		CIMARRON SAGE-BLUE RANGER	LEUCOPHYLLUM ZYGOPHYLLUM CIMARRON	5 GAL	6'	16	18" HT	OO
RY		RED YUCCA	HESPERALOE PARVIFLORA	5 GAL	4'	5	18" HT	OO
SE		SILVER CASSIA	SENNA ARTEMISOIDES	5 GAL	8'	6	4" HT	OO
YL		NEW GOLD YELLOW LANTANA	LANTANA X NEW GOLD	5 GAL	4'	22	12" HT	OO
RM		REGAL MIST MUILY	MULBERGIA CAPILLARIS 'REGAL MIST'	5 GAL	6'	11	18" HT	OO
YB		YELLOW BELLS	TECOMA STANS VAR. ANGUSTATA	5 GAL	8'	2	18" HT	OO
TB		TURPENTINE BUSH	ERICAMERIA LARIGIFOLIA	5 GAL	4'	10	15" HT	OO
CB		DM COYOTE BUSH 'PIGEON POINT'	BACCHARIS PILLULARIS 'PIGEON POINT'	5 GAL	4'	17	8" HT	OO
		SANTA ANA BERMUDA GRASS	C.DACTYLON X TRANSVAALENSIS	SOD		2600	N/A	LAY SOD TIGHTLY SO THAT NO LINES ARE VISIBLE TYPICAL II MAY BE USED AS ALTERNATE

TREE LEGEND/SCHEDULE PROJECT TOTAL							
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
LET		LACEBARK ELM	ULMUS PARVIFOLIA	24' BOX	2' CAL-10HT-6' SPREAD	11	SINGLE-TRUNK-FULL
GPT		CHINESE PISTACHE	PISTACIA CHINENSIS	24' BOX	2' CAL-10HT-6' SPREAD	17	SINGLE-TRUNK-FULL
MET		HONEY MESQUITE	PROSOPIS GLANDULOSA	24' BOX	2' CAL-10HT-6' SPREAD	14	SINGLE-TRUNK-FULL
CET		CEDAR ELM	ULMUS CRASSIFOLIA	24' BOX	2' CAL-10HT-6' SPREAD	24	SINGLE-TRUNK-FULL

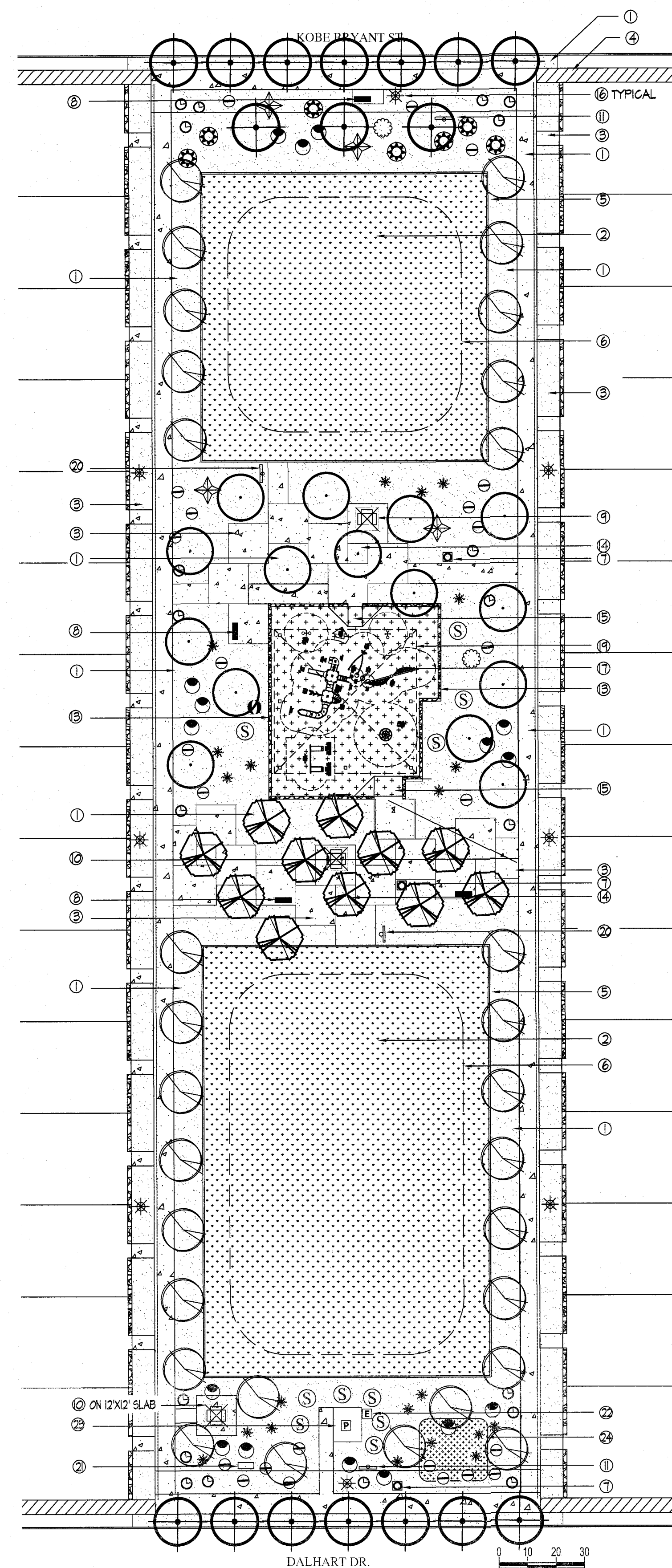
**TREE NOTES:**  
 MINIMUM BRANCHING CLEARANCE IS 7' OVER SIDEWALK  
 DO NOT SELECT TREES WITH LOW FORK BRANCHING PATTERN  
 PRUNING TO MEET CLEARANCE REQUIREMENTS WILL DESTROY  
 FORM OF TREES WITH THAT GROWTH HABIT.  
 MINIMUM HEIGHT 10'. CALIPER IS MEASURED AT 6" ABOVE TOP ROOT.

**PARK SITE NOTES**

- ALL PARK IMPROVEMENTS (SIDEWALKS, RAMPS, ETC.) AND PAVED HIKE/BIKE TRAILS (IF APPLICABLE) ARE TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAS & TAG STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.
- UNSATURABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS  
 DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.  
 ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2018.  
 ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DESIGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH #10P SOIL /

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 Parks & Recreation Department Planning

*Karla Chavez*  
 SIGNATURE  
 5/15/24  
 DATE



**PARK MATERIAL LEGEND AND DETAIL KEY:**

- DESERT TAN GRAVEL CRUSHER FINES 3" DEPTH 2" BELOW ALL CONCRETE SURFACES. USE WEED BARRIER. PROJECT TOTAL [52,785 SF] SEE DETAIL (C) ON SHEET L6.
- SANTA ANA BERMUDA GRASS PROJECT TOTAL [26000 SF] TOP OF SOD 2" BELOW TOP OF SIDEWALK AND CONCRETE HEADER CURB. SEE DETAIL (D) ON SHEET L6.
- PARK CONCRETE WALKWAYS, PATIO, BENCH & TABLE PADS. PROJECT TOTAL [804 SF] SEE DETAIL (F) ON SHEET L6.
- SUBDIVISION 5'-0" CONCRETE WALKWAY BY DEVELOPER.
- 6"x12" CONCRETE HEADER CURB. PROJECT TOTAL [308 LF] SEE DETAIL (E) ON SHEET L6.
- 6'-8" RECESSED AREA FOR WATER HARVESTING PARKS AND RECREATION REPRESENTATIVE MUST APPROVE GRADINGS PRIOR TO INSTALLING SOD OR GRAVEL.
- DUMOR TRASH RECEPTACLE 286-32-PTO PROJECT TOTAL [2] BLUE - INSTALL PER MANUFACTURER'S RECOMMENDATIONS SEE DETAIL (A) ON SHEET L6.
- 6'-0" DUMOR 54 SERIES BENCH-IN GROUND MOUNT. TOTAL [5] FOREST GREEN. INSTALL PER MANUF. RECOMMENDATIONS FOR ADA BENCH SEE DETAIL (I) ON SHEET L7.
- SHADED ACCESSIBLE PICNIC TABLE - PROJECT TOTAL [1] ORS HAWAIIAN 6X8 COVERED TABLE. 4 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (J) AND (K) ON SHEET L7.
- SHADED PICNIC TABLE - PROJECT TOTAL [2] ORS HAWAIIAN 6X8 COVERED TABLE. 4 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (J) AND (K) ON SHEET L7.
- PARK INFORMATION SIGN - LOCATION SHALL BE APPROVED BY PARKS DEPT REPRESENTATIVE. PROJECT TOTAL [2] SEE DETAIL (G) ON SHEET L7.
- ENGINEERED FIBER WOOD CHIPS. INSTALL PER MANUFACTURER'S SPECIFICATIONS. PROJECT TOTAL [361 SF] PLACE 18" DEPTH OF CHIPS AND COMPACT TO 12" DEPTH.
- 18" HT. ROCK WALL. PROJECT TOTAL [238 LF] SEE DETAIL (M) ON SHEET L7.
- T X T PLANTING SPACE IN FRANKLIN RED CRUSHER FINES. REFER TO PLAYGROUND PLAN FOR LOCATION.
- ADA ACCESSIBLE PLAYGROUND RAMP. SEE DETAIL (N) ON SHEET L7.
- AERIAL LIGHTING - 30' HIGH STEEL LIGHT POLE LED FIXTURES AND LAMPS. MUST COMPLY WITH CITY OF EL PASO MUNICIPAL CODE FOR OUTDOOR LIGHTING SECTION 10.18 SEE ILLUMINATION PLAN IN ENGINEER'S DRAWING SET.
- PLAY STRUCTURE - LANDSCAPE STRUCTURES PLAYBOOSTER COLORS - TANGERINE, PLUM, LIMON, LIMON COLOR PALATTE. MUST BE APPROVED BY PARKS PRIOR TO ORDERING. SEE SHEET L4 FOR MORE INFORMATION.
- LANDSCAPE STRUCTURES - BABY SWINGS AND DOUBLE BOBBLE. COLORS - TANGERINE, PLUM, LIMON, LIMON COLOR PALATTE. MUST BE APPROVED BY PARKS PRIOR TO ORDERING. SEE SHEET L4 FOR MORE INFORMATION.
- CLASSIC RECREATION "MESA" SHADE STRUCTURE 50 X 50 COLORS - SPECIFIED BY PARKS. FOOTINGS SHALL BE ENGINEERED BY THE MANUFACTURER AND DRAWINGS SHALL BE APPROVED BY PARKS PRIOR TO ORDERING.
- SUPERIOR PET WASTE ELIMINATOR STATION - SKU# EB WWW.PETWASTEELIMINATOR.COM QTY: 2 INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE DETAIL (O) ON SHEET L7.
- PARK MONUMENT SIGN SEE DETAIL (P) ON SHEET L6.
- ELECTRIC METER LOCATED ON PUMP HOUSE
- PUMP HOUSE
- 1-1/2" DESERT TAN GRAVEL 3" DEPTH 2" BELOW ALL CONCRETE SURFACES. USE WEED BARRIER. PROJECT TOTAL [818 SF] SEE DETAIL (C) ON SHEET L6.

PLANS MUST BE SUBMITTED TO TEXAS DEPT OF LICENSING AND REGULATION FOR COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS. #TAB52021010554

REVISIONS

DATE

LISA MCNELLIS  
 LANDSCAPE ARCHITECT  
 6833 DALHART DRIVE  
 VILLAS DEL NORTE UNIT 11  
 LAS CRUCES, NEW MEXICO 88001  
 (505) 621-9092

ARCHITECT'S SEAL

SCALE:  
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DATE: \_\_\_\_\_  
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 CHECK BY: LM  
 APP'D. BY: LM  
 JOB No. \_\_\_\_\_

PROJECT TITLE  
**BRYANT PARK**  
 6833 DALHART DRIVE  
 LOT 26 BLOCK 6  
 VILLAS DEL NORTE UNIT 11  
 CITY OF EL PASO, EL PASO, TEXAS 79928  
 AREA: 74706 SQ. FT. - 1.71 ACRES

SHEET TITLE  
**L2**  
 PARK PLANTING AND MATERIALS

SHEET 2 OF 11



WATERING SCHEDULE 9 TIMES PER WEEK									
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTING				
1P	X	46 MIN	X X X X X X X X X	32 MIN	12:00 AM				
2D	X	240 MIN	X X X X X X X X X	80 MIN	12:00 AM				
3P	X	46 MIN	X X X X X X X X X	32 MIN	12:39 AM				
4F	X	142 MIN	X X X X X X X X X	64 MIN	1:06 AM				
5P	X	46 MIN	X X X X X X X X X	32 MIN	2:11 AM				
6D	X	240 MIN	X X X X X X X X X	80 MIN	12:00 AM				
7P	X	46 MIN	X X X X X X X X X	32 MIN	2:44 AM				
8F	X	142 MIN	X X X X X X X X X	64 MIN	3:17 AM				
TOTAL RUN TIME PER DAY OF OPERATION - DRIP					80 MIN / 1.33 HOURS				
TOTAL RUN TIME PER DAY OF OPERATION - ROTORS					256 MIN / 4.27 HOURS				
TOTAL RUN TIME PER WEEK - ROTORS					1608 MIN / 26.8 HOURS				

WATERING SCHEDULE 4 TIMES PER WEEK									
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTING				
1P	X	46 MIN	X X X X	32 MIN	12:00 AM				
2D	X	240 MIN	X X X X	80 MIN	12:25 AM				
3P	X	46 MIN	X X X X	32 MIN	1:26 AM				
4F	X	142 MIN	X X X X	64 MIN	1:51 AM				
5P	X	46 MIN	X X X X	32 MIN	2:40 AM				
6D	X	240 MIN	X X X X	80 MIN	12:25 AM				
7P	X	46 MIN	X X X X	32 MIN	3:05 AM				
8F	X	142 MIN	X X X X	64 MIN	3:30 AM				
TOTAL RUN TIME PER DAY OF OPERATION - DRIP					80 MIN / 1.33 HOURS				
TOTAL RUN TIME PER DAY OF OPERATION - ROTORS					142 MIN / 2.37 HOURS				
TOTAL RUN TIME PER WEEK - ROTORS					1608 MIN / 26.8 HOURS				

**PERFORMANCE STATISTICS**

THE FOLLOWING PERFORMANCE STATISTICS WERE CALCULATED PER PLAN CHANGES IN OPERATING PRESSURE, HEAD SPACING AND OR NOZZLE SELECTION WILL EFFECT RESULTS.

VALVES #1P, #3P, #5P, AND #7P  
 8.1 X 46.25 = 374.625 3/2 X 2 = 6.25' / HR PART CIRCLE HEADS  
 (50 X 50) 2500 RUN TIME FOR 1/HR = 46 MINUTES PER WEEK

VALVES #4F AND #8F  
 8.1 X 46.25 = 374.625 3/2 X 2 = 6.25' / HR FULL CIRCLE HEADS  
 (50 X 50) 1502 RUN TIME FOR 1/HR = 142 MINUTES PER WEEK

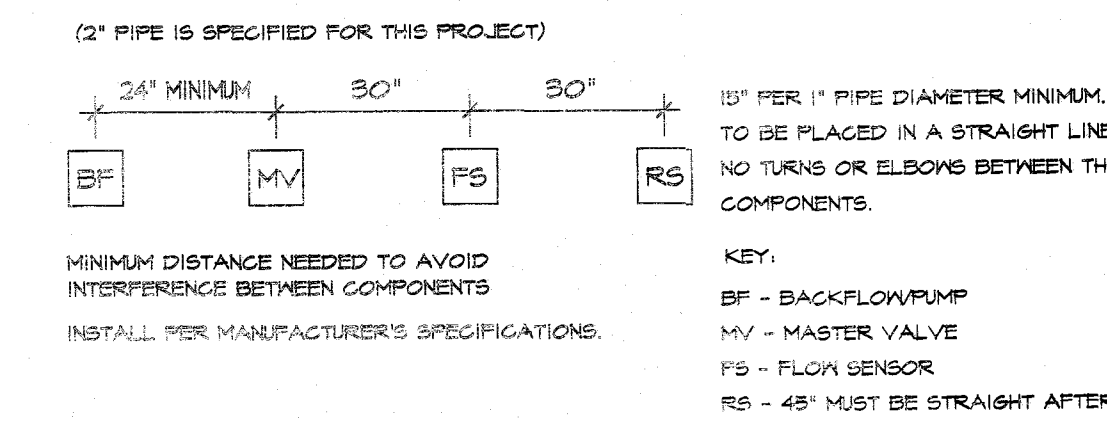
PRECIPITATION SCHEDULE									
VALVE #	VALVE SIZE	TOTAL GPM	RAINBIRD PRECIP. RATE	CALCULATED PRECIP. RATE	WATER REQUIREMENT	NOZZLE SIZE	# & TYPE OF HEADS	GPM PER HEAD	RUN TIME PER WEEK
1P	1.5"	40.5	6 IN/HR	6.24 IN/HR	1"/WEEK	#10	5 PART	8.1	46 MIN
2D	1"	12.64	DRIP	N/A	N/A	2 GPM	41 EMITTERS	27	240 MIN
3P	1.5"	32.4	6 IN/HR	6.24 IN/HR	1"/WEEK	#10	4 PART	8.1	46 MIN
4F	1"	8.1	3 IN/HR	3.12 IN/HR	1"/WEEK	#10	1 FULL	8.1	142 MIN
5P	1.5"	32.4	6 IN/HR	6.24 IN/HR	1"/WEEK	#10	4 PART	8.1	46 MIN
6D	1"	9.99	DRIP	N/A	N/A	2 GPM	37 EMITTERS	27	240 MIN
7P	1.5"	40.5	6 IN/HR	6.24 IN/HR	1"/WEEK	#10	5 PART	8.1	46 MIN
8F	1"	16.2	3 IN/HR	3.12 IN/HR	1"/WEEK	#10	1 FULL	8.1	142 MIN

PRESSURE LOSS CALCULATIONS						
VALVE #/P	Length of Pipe (Feet)	Flow (Gal.)	Size (in.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss
CLASS 200	50	8.1	1"	1.17	0.5850	0.5850
CLASS 200	50	16.2	1 1/4"	1.33	0.6650	1.2500
CLASS 200	13.1	24.3	1 1/4"	2.62	0.3432	1.5932
CLASS 200	5	40.5	2"	1.24	0.0620	1.6552
Section Pressure Losses (Sub-Total)						1.6552
Remaining Pressure Losses						
Item	Size (in.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss		
Section Valve	40.5	1.5	1.8000	3.4552		
Mainline SCH40	380	20.25	1.25	11.3296	14.7848	
	40.5	40.5	2	0.6075	15.3923	
Backflow			2	13.0000	28.3923	
Water Meter		1.5	3.6000	31.9923		
Copper Supply	66	40.5	1.5	5.4450	37.4373	
Total Pressure Loss to the City Main						37.4373
Minimum Required Head Pressure						50.0000
STATIC Pressure						94.0000
Design Pressure 94 + 25						119.0000
Actual Head Pressure						81.5627

IREH DRANT O ATED AT THE ORNER O DA HART AND PORT A A A  
 TATI P I GPM

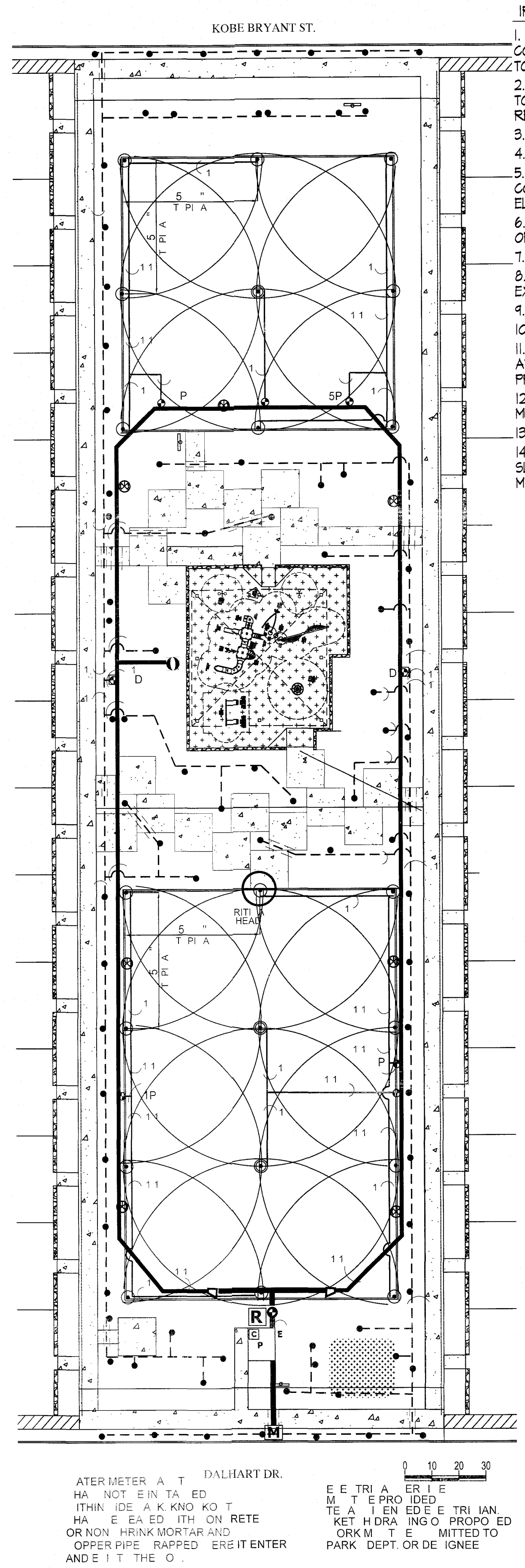
1P 1.5"	SP 1.5"
40.5 5	32.4 4
2D 1"	6D 1"
12.69 47	9.99 37
3P 1.5"	7P 1.5"
32.4 4	40.5 5
4F 1"	8F 1"
8.1 1	16.2 2

**NOTE:**  
 FOR FINAL ACCEPTANCE, THE IRRIGATION SYSTEM MUST DEMONSTRATE IT CAN COMMUNICATE WITH AND BE OPERATED BY THE PARKS MAXIGON CENTRAL CONTROL COMPUTER SUPPORTING UTILITY INFRASTRUCTURE FOR THIS MUST BE INSTALLED. (MASTER VALVE, CELL SERVICE/DATA MODULE, PRESSURE REGULATOR, FLOW SENSOR, MOISTURE SENSOR, RAIN CAN (I-CID, ECT) (CCU IF REQUIRED)

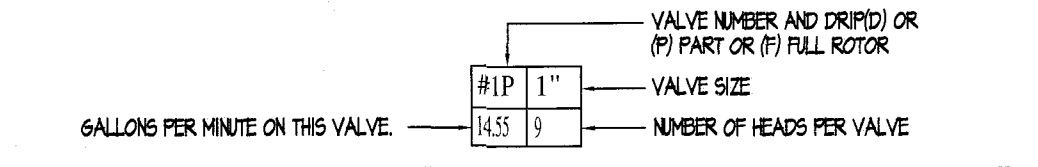


**WATER AUDIT**

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.



- IRRIGATION NOTES**
- IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMPLISHING FULL COVERAGE IN ALL AREAS WITH SPECIFIED EQUIPMENT. ANY DISCREPANCIES IN THE PLAN SHOULD BE BROUGHT TO THE PROJECT MANAGER'S ATTENTION DURING CONSTRUCTION.
  - ALL FITTINGS AND NECESSARY EQUIPMENT REQUIRED TO MAKE THIS IRRIGATION SYSTEM OPERATE PROPERLY AND TO COMPLY WITH LOCAL AND STATE CODES ARE INCIDENTAL TO THESE PLANS AND ARE THE CONTRACTOR'S RESPONSIBILITY.
  - CONTRACTOR WILL BE HELD LIABLE FOR GAINING ACCESS UNDER ALL PAVEMENTS.
  - SLEEVES SHOWN ON THE PLANS SHOULD BE VERIFIED FOR ACCESSIBILITY AND FEASIBILITY BEFORE BID IS MADE.
  - THE CONTRACTOR SHALL LOCATE AND VERIFY EACH WATER TAP TO WHICH THE IRRIGATION SYSTEM WILL CONNECT. ALL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH THE STANDARDS OF THE CITY OF EL PASO AND THE SPECIFICATIONS.
  - CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS AND VALVES REQUIRED FOR THE FULL IMPLEMENTATION OF THE SYSTEM.
  - THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO INITIATING WORK.
  - THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR INTERRUPTION IN SERVICE CAUSED BY HIS EXCAVATIONS AND/OR WORK.
  - EACH CONTROLLER WILL HAVE AN INDEPENDENT COMMON WIRE LOOPED TO THE VALVES CONNECTED TO IT.
  - REMOTE CONTROL VALVE WIRES ARE TO BE IN A TRENCH WITH THE MAIN LINE 6" BELOW THE PIPE.
  - ALL REMOTE CONTROL VALVE WIRES NEED TO BE LABELED AT VALVE W/ WEATHER (WATER) PROOF LABELS AND AT CONTROLLER WITH CORRESPONDING LABEL. (LETTER AND/OR NUMBER TAGS IN SEQUENTIAL ORDER WILL BE PROVIDED).
  - SPLICING OF REMOTE CONTROL VALVE WIRES IS NOT ALLOWED BETWEEN CONTROLLER & VALVE BOX FOR WIRES MUST BE CONTINUOUS FROM CONTROLLER TO REMOTE CONTROL VALVE WITHOUT SPLICING.
  - ALL ROTOR SPRINKLER HEADS SHALL BE ON STAINLESS STEEL RISERS WITH CHECK VALVE.
  - CONTRACTOR SHALL PROVIDE SLEEVES FOR NEW IRRIGATION LINES CROSSING UNDER CONCRETE SIDEWALKS. SLEEVES SHALL BE 2 TIMES THE PIPE SIZE EXTENDED 24" BEYOND EDGE OF SURFACE, BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HEAVY DUTY PLASTIC.



**MATERIAL LEGEND FOR PARK:**

- PRESSURE MAIN PVC SCHEDULE 40, DEPTH 24" TO TOP OF PIPE. SEE DETAIL 1 ON L8.
- LATERAL FOR SPRAY PVC CLASS 200, DEPTH 16", TO TOP OF PIPE. SEE DETAIL 1 ON L8.
- LATERAL FOR DRIP PVC CLASS 200, DEPTH 16", TO TOP OF PIPE. SEE DETAIL 1 ON L8.
- SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. SLEEVES SHALL EXTEND 12" PAST PAVING. CHISEL 1" MARK IN CONCRETE CURB OR WALK TO LOCATE SLEEVE AT EACH SIZE SIZE 2X DIA. OF PIPE TO BE SLEEVED. SEE #0 UNDER GENERAL IRRIGATION NOTES ON L1.
- CONCENTRIC REDUCER - SET 20" FROM JUNCTION IN LOOPED MAIN.
- 2 WIRE SYSTEM WIRING SHALL BE LOCATED IN THE SAME TRENCH AS THE MAIN AND PLACED 6" BELOW THE PIPE. SEE DETAIL 1 ON L8.
- DRIP EMITTER FOR TREES: RAINBIRD XER-BIRD XBD-80 WITH FILTER AND IN STEM PRESSURE REGULATOR USE 8 XB-20PC EMITTERS PER TREE. 21 GPM SET IN EMITTER VALVE BOX. SEE DETAILS 2 AND 3 ON L8.
- DRIP EMITTER FOR PLANTS: RAINBIRD XER-BIRD XBD-80 WITH FILTER AND IN STEM PRESSURE REGULATOR USE 1XB-20PC EMITTER PER PLANT. SET IN EMITTER VALVE BOX. DO NOT EXCEED 20" OF MICROTUBE. SET EMITTER ON UPWILL SIDE OF PLANT. SEE DETAIL 2 ON L8.
- ELECTRIC REMOTE VALVE FOR SPRAY: WEATHERMATIC 8200CR-10 WITH XPR SIZE ON PLAN. IN LOCKING VALVE BOX. SEE DETAILS 5 AND 6 ON SHEET L8.
- ELECTRIC REMOTE VALVE FOR DRIP: WEATHERMATIC 8200CR-10 WITH XPR SIZE ON PLAN. IN LOCKING VALVE BOX. SEE DETAILS 5 ON L8 AND 11 ON SHEET L4.
- RAINBIRD FALCON 6504 MODEL F4-PC-55-H6 #10 GREY NOZZLE. FULL CIRCLE 40 PSI 51 RADIUS. 8.1 GPM 6 MANU. PRECIP. RATE. STAINLESS STEEL RISER. SEE DETAIL 7 ON L8.
- RAINBIRD FALCON 6504 MODEL F4-PC-55-H6 #10 GREY NOZZLE. PART CIRCLE 40 PSI 51 RADIUS. 8.1 GPM 6 MANU. PRECIP. RATE. STAINLESS STEEL RISER. SEE DETAIL 7 ON L8.
- QUICK COUPLER - BUCKNER 1" DOUBLE LUG GC WITH FACTORY ASSEMBLED LANSO DRIP. IT THAT HAS SHAPLOCK BRASS STABILIZER FITTING. TO BE SET IN CARSON MODEL 1419 VALVE BOX WITH PURPLE FLAT LID AND VANDAL PROOF BOLT. SHALL HAVE WEATHER PROOF TAG THAT READS "NON-POTABLE WATER NOT SAFE FOR DRINKING". SEE DETAIL 12 ON L4.
- RAIN CAN INTEGRATED CONTROL SENSOR INPUT DEVICE MOUNTED ON POLE. SEE DETAIL 14 ON L4.
- ISOLATION GATE VALVE IN LOCKING VALVE BOX USE STANDARD VALVE BOX DETAILS. SEE DETAIL 8 ON L8.
- 1.5" METER LOCATION ON THIS PLAN IS APPROXIMATE. FLOW: 75 GPM - STATIC PRESSURE: 44 PSI
- BACKFLOW: FEBCO REDUCED PRESSURE 825Y 1.5" MUST MEET LOCAL CODES CITY OF EL PASO PARKS DEPT. REQUIREMENTS. PLACE IN TUFFEPPED PUMP ENCLOSURE FOLLOW LOCAL AND STATE CODE REQUIREMENTS. SEE DETAIL 15 ON L4.
- BERKELEY B-1/2 TPM 1-1/2X2X6M IN THE T1 POSITION. SEE DETAIL. VERIFY WITH MANUFACTURER PRIOR TO ORDERING. HOUSED IN 6X12 TUFFEPPED BRAND PREMIER SERIES ENCLOSURE. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO REQUIREMENTS. LOCATION APPROVED BY CITY OF EL PASO PARKS AND REC DEPARTMENT. SEE DETAILS 17 - 20 ON L10.
- ALL COMPONENTS TO BE SET IN VALVE BOXES MUST CONFORM TO STANDARD INSTALLATION SEE DETAIL 4 ON L8.
- ELECTRIC METER
- RAINBIRD ESP-LXD2 CONTROLLER WITH 10 COMMUNICATIONS CARTRIDGE. SEE DETAIL 10 ON L8 AND DETAIL 21 ON L10.
- ADD MILKING PRESSURE REGULATOR IF PSI IS 45 OR GREATER DOWNSIDE OF BACKFLOW

**PENTAIR BERKELEY** Pentair Electronic Catalog

**Pump Performance Datasheet**

Customer: Quote number: 1-1/2 x 2 x 6 M (B1-1/2TPM)  
 Customer reference: Size: 1-1/2 x 2 x 6 M (B1-1/2TPM)  
 Item number: : Default Stages: 1  
 Service: : Basic model number: : 8888  
 Quantity: : 1 : Basic model number: : B1-1/2TM  
 : : Date last saved: : 18 Mar 2021 12:33 PM

**Operating Conditions**

Flow, rated: 45.00 USgpm Liquid type: --Water  
 Differential head / pressure, rated (requested): 25.00 psi Additional liquid description  
 Differential head / pressure, rated (actual): 25.01 psi Solids diameter, max: 0.00 in  
 Suction pressure, rated / max: 0.00 / 0.00 psig Solids concentration, by volume: 0.00 %  
 NPSH available, rated: Ample Temperature, max: 68.00 deg F  
 Site Supply Frequency: 60 Hz Fluid density, rated / max: 1.000 / 1.000 SG  
 Viscosity, rated: 1.00 cP  
 Vapor pressure, rated: 0.00 psi a

**Performance**

Speed criteria: Variable frequency  
 Speed, rated: 1849 rpm  
 Impeller diameter, rated: 6.56 in Material selected: Cast iron-bronze fitted  
 Impeller diameter, maximum: 6.56 in  
 Impeller diameter, minimum: 5.50 in Maximum working pressure: 25.27 psi g  
 Efficiency: 65.66 % Maximum allowable working pressure: 150.0 psi g  
 PEI (C): 0.84 Maximum allowable suction pressure: N/A  
 NPSH required / margin required: 7.00 ft Hydrostatic test pressure: N/A  
 No (imp. eye flow) / Nse (imp. eye flow): 822 / 3322 US Units  
 MCSF: 31.14 USgpm Driver sizing specification: Rated power  
 Head, maximum, rated diameter: 25.27 psi Margin over specification: 0.00 %  
 Head rise to shutoff: -0.41 % Service factor: 1.00  
 Flow, best eff. point: 76.10 USgpm Power, hydraulic: 0.66 hp  
 Flow ratio, rated / BEP: 59.13 % Power, rated: 1.00 hp  
 Diameter ratio (rated / max): 100.00 % Power, maximum, rated diameter: 1.88 hp  
 Head ratio (rated dia / max dia): 100.00 % Minimum recommended motor rating: 1.00 hp / 0.75 kW  
 Cq/Ch/Ce/Cn [ANSI/H 9.6.7-2010]: 1.00 / 1.00 / 1.00 / 1.00  
 Selection status: Acceptable

BERKELEY Pumps / Pentair Water 293 Wright Street, Delavan, Wisconsin 53115  
 phone: (888)782-7433 fax: (800)426-9445 www.berkeleypumps.com

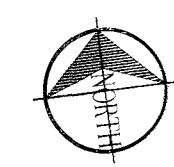
THIS PLAN IS A SCHEMATIC AND DOES NOT SHOW EXACT LOCATION OR LENGTH OF PIPE.

APPROVED FOR CONSTRUCTION

Park & Recreation Dept. (10000 10000)

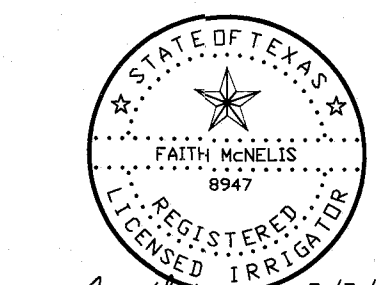
Karla Chavez

DATE



**PLAN VIEW - IRRIGATION**

SCALE: 1" = 30' - 0"



IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512-239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE

PROJECT TITLE

**BRYANT PARK**  
 6833 DALHART DRIVE  
 LOT 26 BLOCK 6  
 VILLAS DEL NORTE UNIT 1  
 CITY OF EL PASO, EL PASO, TEXAS 79928  
 AREA: 74706 SQ.FT. - 1.71 ACRES

DESIGN BY: LM  
 DRAWN BY: LM  
 CHECK BY: LM  
 APPVD. BY: LM

DATE: 5/5/21

STATE OF TEXAS  
 REGISTERED IRRIGATOR  
 FAITH MCNEIL  
 8947

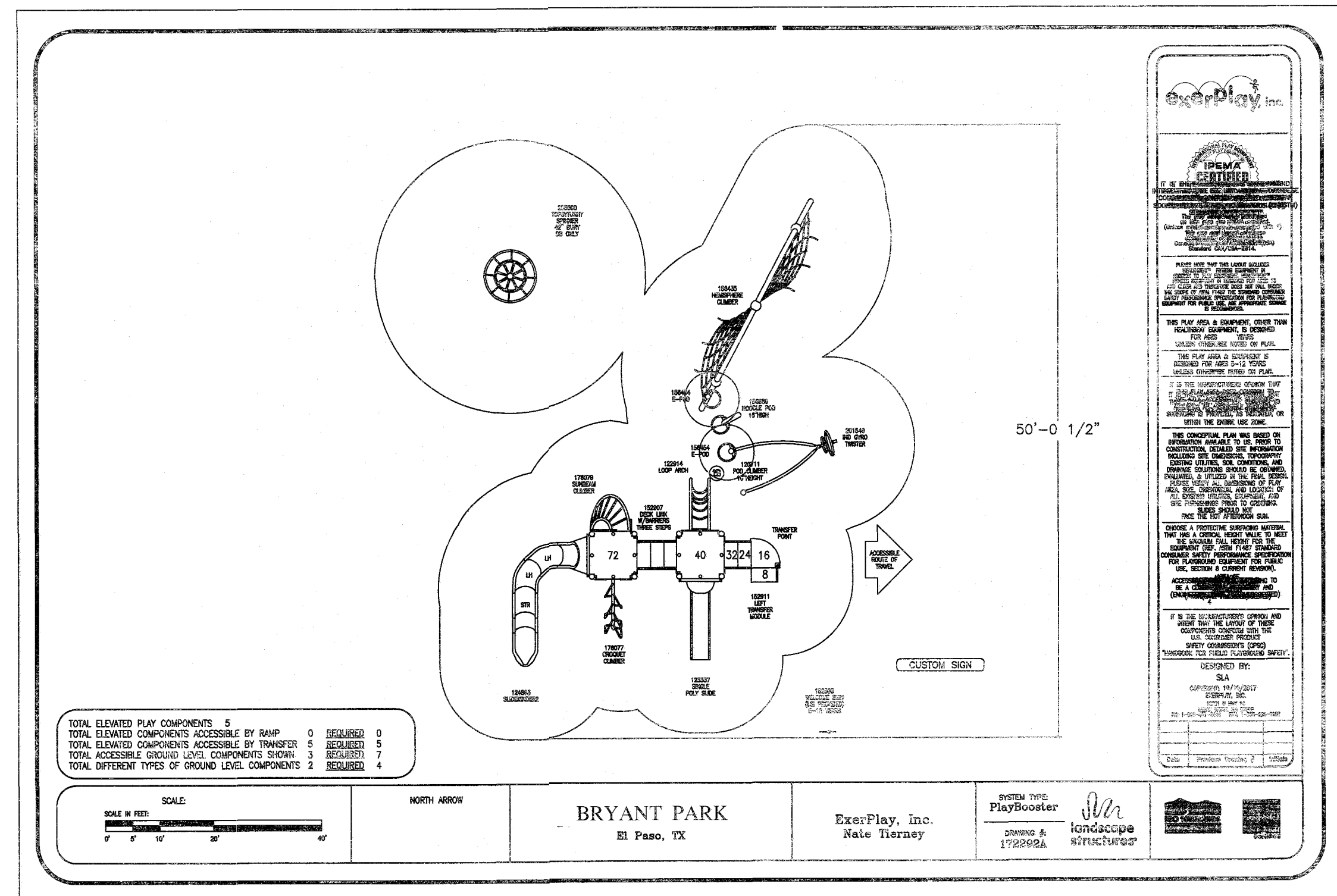
IRRIGATION PLAN

SHEET 3 OF 11



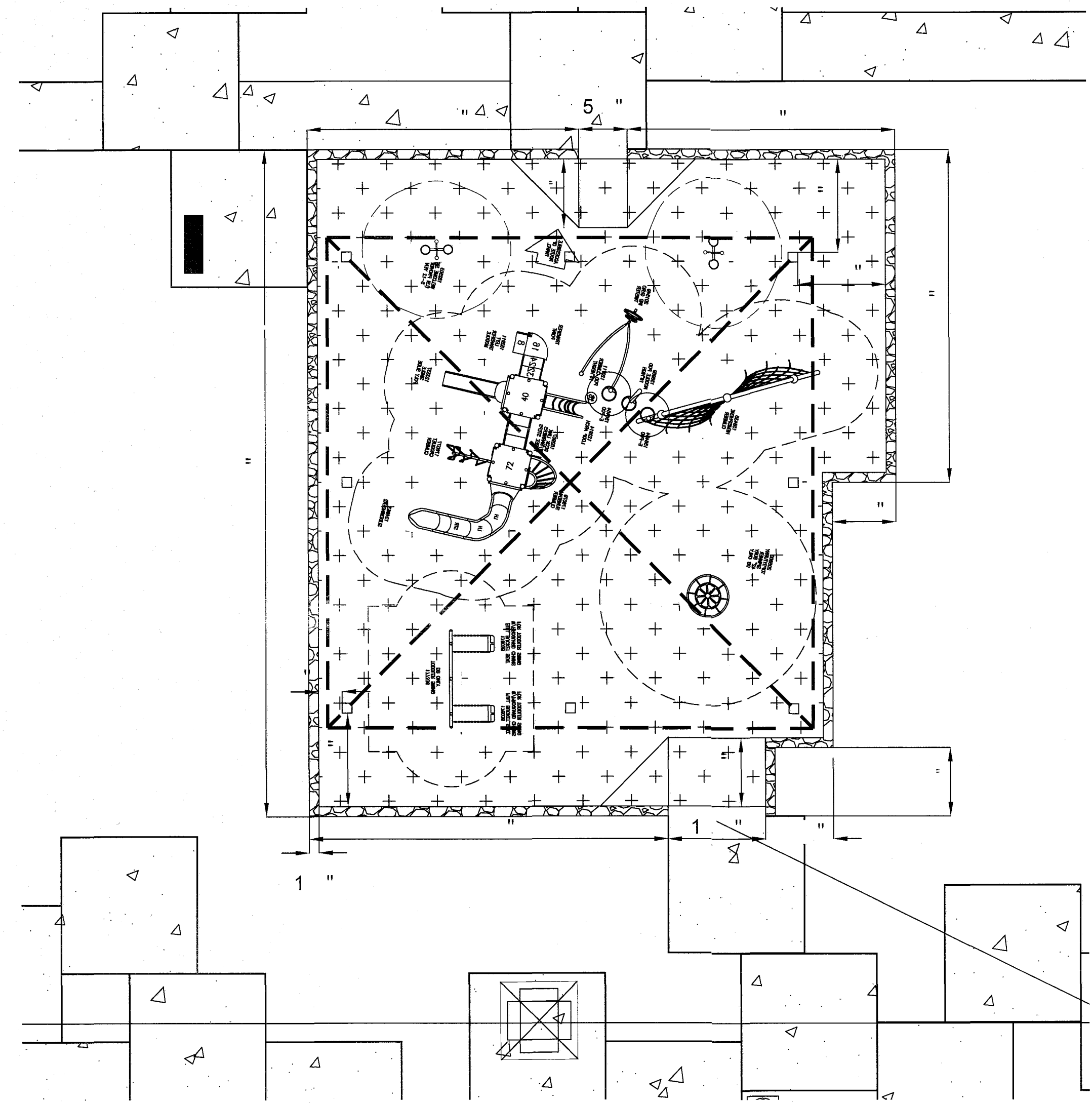
APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Karla Chavez  
SIGNATURE  
5/18/21  
DATE

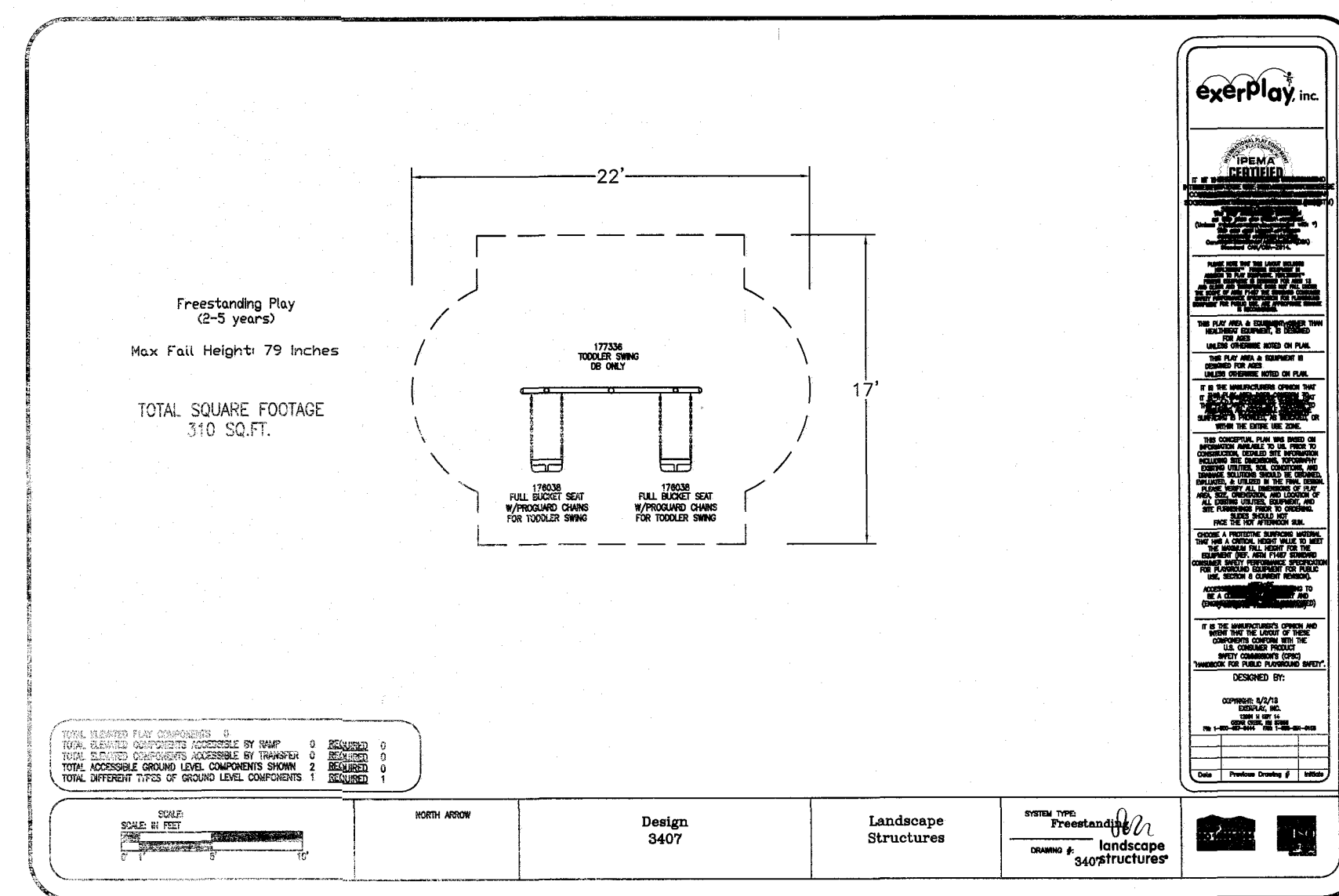


PLAYGROUND & SWING EQUIPMENT NOTES

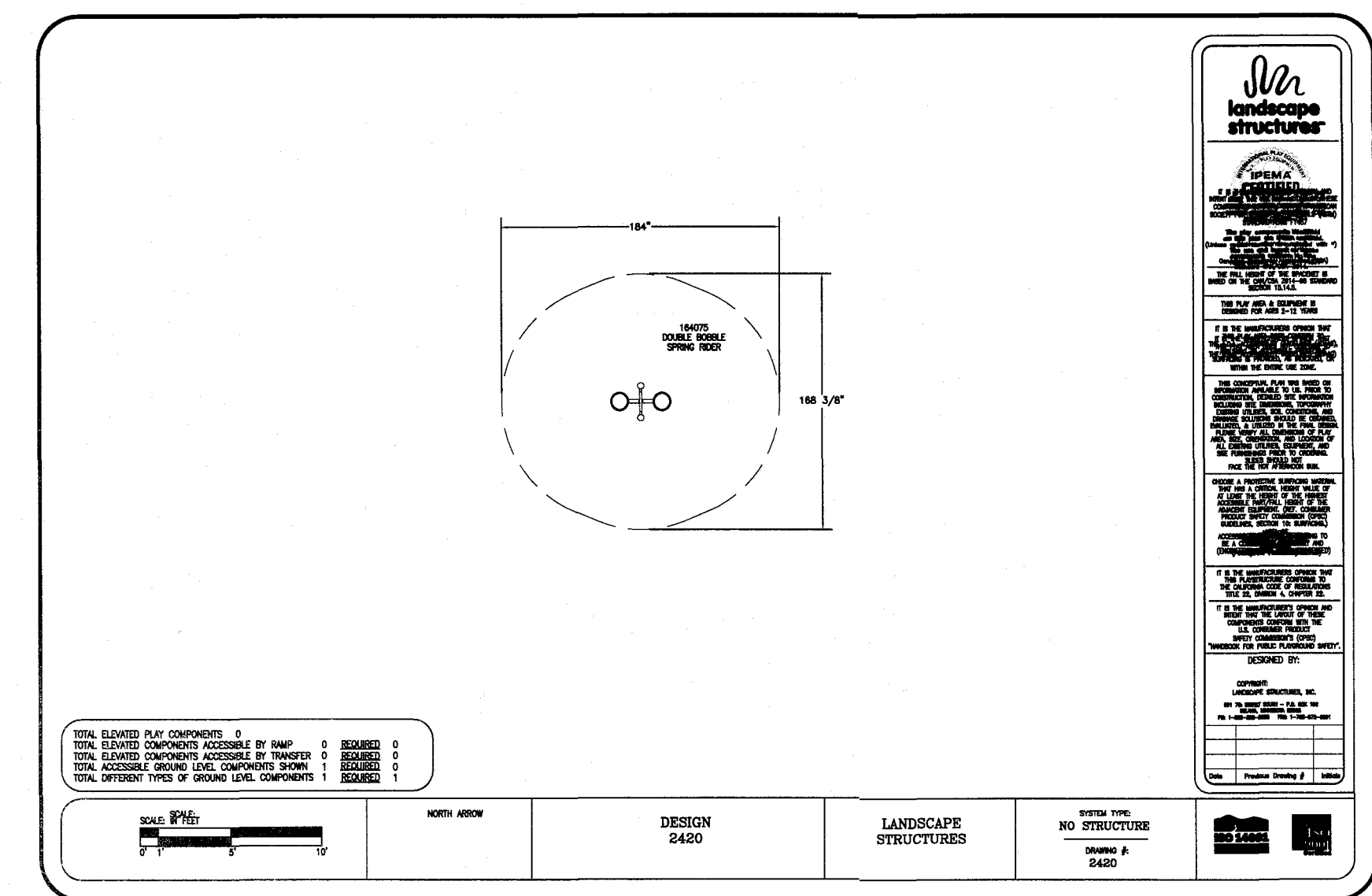
- EQUIPMENT AND COMPONENTS TO BE IFEMA CERTIFIED.
- EQUIPMENT MANUFACTURER TO COMPLY WITH ISO 9001.
- EQUIPMENT MANUFACTURER TO PROVIDE CLEAR INSTALLATION MANUAL AND PROJECT LAYOUT AT THE COMPLETION OF PROJECT HARD COPY.
- EQUIPMENT AND FALL SURFACING MUST COMPLY WITH CURRENT STANDARDS AND GUIDELINES.
- EQUIPMENT TO CALLED OUT WITH LENGTHS FOR OVERHEAD ACTIVITIES, SPACINGS BETWEEN RAILS FOR CURLY CLIMBERS, TRACK RIDES, ETC.
- EQUIPMENT TO HAVE SAFETY TOP RAIL WITH A MINIMUM OF 12 INCHES AT CLIMBING OR SLIDING ELEMENTS.
- EQUIPMENT MANUFACTURER SALES REPRESENTATIVE TO BE NPSI CERTIFIED.
- EQUIPMENT INSTALLATION TO BE INSPECTED AND CERTIFIED FOR PROPER ASSEMBLY BY MANUFACTURER REPRESENTATIVE NPSI CERTIFIED.
- EQUIPMENT MUST BE SUPERSEDED BY SUBMITTAL PACKETS THAT HAVE THE FOLLOWING INFORMATION FOR REVIEW AND RELEASE BY PROJECT DESIGNER AND PARK AND RECREATION STAFF:
  - PROJECT SITE PLAN REFLECTING CONSTRUCTION DRAWINGS OR ACTUAL FIELD CONDITIONS.
  - SITE PLAN WITH CONSTRUCTION POINTS.
  - SITE PLAN WITH DIMENSIONS FOR ALL USE ZONES AND BETWEEN INDEPENDENT PIECES OF EQUIPMENT.
  - LOCATION OF CONTAINMENT WALL OR CURB.
  - LOCATION, LIMITS AND DIMENSIONS OF ACCESSIBLE PATH OF TRAVEL.
  - LOCATION OF ANY SHADE CANOPIES AS APPLICABLE.
  - EQUIPMENT COLOR SELECTION CHART.
  - EQUIPMENT INFORMATION INCLUDING INSTALLATION.
- MANUFACTURER TO PROVIDE A SEALED MAINTENANCE KIT TO INCLUDE: TOOL BOX, SAND PAPER, OWNER'S MANUAL, HARDWARE (20 PIECES EACH MINIMUM) ASSORTED SIZES OF VANDAL PROOF NUTS, BOLTS, WASHERS, FASTENING TOOLS (ONE EACH SIZE - WRENCH AND CHUCK KEYS), ACANS OF PRIMER, 2 GALS OF EACH COLOR OF TOUCH-UP PAINT, PLASTIC REPAIR KIT, ANTI-GRAFFITI REMOVER.
- EQUIPMENT INSTALLATION TO BE PERFORMED BY CONTRACTOR MEETING THE FOLLOWING REQUIREMENTS (g. and b. ARE INSTALLATION EXPERIENCE REQUIREMENTS THAT MUST BE MET, c. AND d. ARE OPTIONAL REQUIREMENTS THAT MAY BE SUBSTITUTED FOR EITHER a. OR b.).
  - MINIMUM 8 YEARS EXPERIENCE INSTALLING SAME EQUIPMENT.
  - COMPLETE GOOD QUALITY INSTALLATION OF A MINIMUM OF 20 STRUCTURES OF SAME OR SIMILAR SIZE.
  - TRAINING AND CERTIFICATION BY EQUIPMENT MANUFACTURER.
  - NPSI CERTIFICATION.
- EQUIPMENT AND FALL SURFACES TO BE AUDITED AND TESTED BY AN INDEPENDENT EQUIPMENT INVENTORY, AND PLAN VIEW WITH DIMENSIONS OF PLAYGROUND IMPROVEMENTS, EQUIPMENT MANUFACTURER, AND FALL SURFACES MANUFACTURER WITH TOLL FREE NUMBERS. ANY ITEMS FOUND DEFICIENT IN AUDIT MUST BE CORRECTED AND A RE-AUDIT OF CORRECTED ITEM TO INSURE THAT ALL DEFICIENT ITEMS ARE ADDRESSED.
- PLAYGROUND AREA TO BE FENCED AND PROPERLY SECURED THROUGHOUT, COURSE OF CONSTRUCTION AND UP TO ACCEPTANCE OF PROJECT.
- EQUIPMENT TO HAVE MINIMUM 12" SAFETY USE (FALL) ZONE ASTM1487-11.
- CONSTRUCTION WORK ON PLAYGROUND AREA WILL NOT COMMENCE UNTIL ALL MATERIALS AND SUPPLIES ARE IN POSSESSION OF CONTRACTORS.
- CONTRACTOR WILL INSURE THAT WORK PROGRESS WILL BE ONGOING AND JOB SITE WILL NOT BE LEFT ABANDONED FOR ANY TIME PERIOD GREATER THAN 48 HOURS.
- CONTRACTOR WILL INSURE THAT JOB SITE IS KEPT CLEAN AND CLEAR OF ANY CONSTRUCTION DEBRIS ON A DAILY BASIS.
- CUSTOM SIGN TO BE FURNISHED BY PLAYGROUND MANUFACTURER WITH INFORMATION ON AGE APPROPRIATE USE, ADULT SUPERVISION RECOMMENDED, MANUFACTURER'S NAME AND 1-800 PHONE NUMBER, CITY OF EL PASO MAINTENANCE PHONE NUMBER OF (915) 621-6191 AND "WARNINGS" INSTALLATION OVER HARD SURFACE NOTICE. THE SPECIFIC VERBIAGE CAN BE WORKED OUT DURING PROJECT CONSTRUCTION.



PLAN VIEW - PLAYGROUND LAYOUT  
SCALE: 1" = 10' - 0"



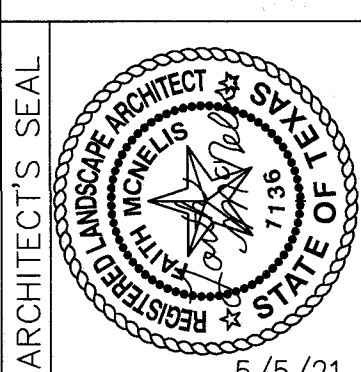
NO SCALE



NO SCALE

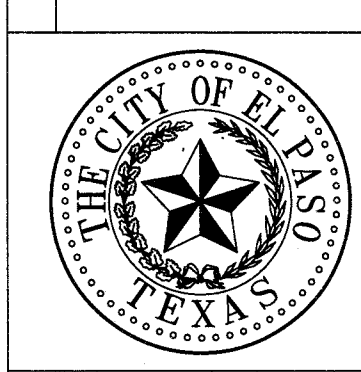
REVISIONS	DATE

LISA MCNELLIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88001  
(505) 621-5032



SCALE:  
Horizontal: N/A  
Vertical: Contour Interval: N/A  
DATE: BY: LM  
DESIGN: BY: LM  
DRAWN: BY: LM  
APP'D: BY: LM  
JOB No.

PROJECT TITLE  
**BRYANT PARK**  
6833 DALHART DRIVE  
LOT 26 BLOCK 6  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 74706 SQ.FT. - 1.71 ACRES

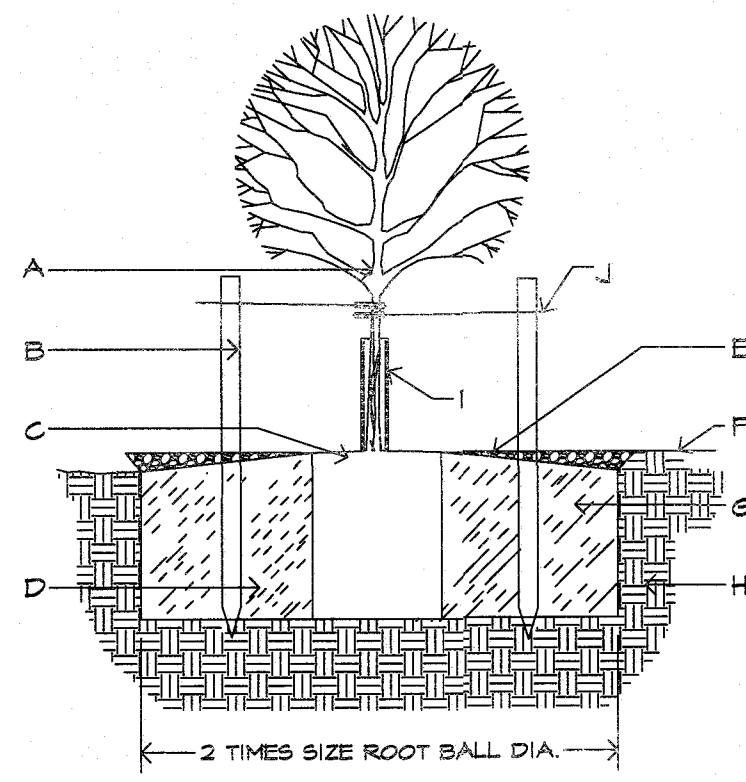


SHEET TITLE  
**L5**  
PARK  
PLAYGROUND  
SHEET 5 OF 11









- A. TREE
- B. STAKING NEEDED
- C. 4" SPACE BETWEEN MULCH AND TREE
- D. SLOPE ON SIDES OF PLANTING HOLE
- E. DEPTH OF BARK MULCH-SEE PLAN
- F. FINISH SOIL GRADE
- G. BACKFILL WITH EXISTING NATIVE SOIL
- H. UNDISTURBED SOIL
- I. TREEGUARD
- J. TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE TO PROTECT TREE TRUNK FROM DAMAGE. WIRE TIES TO BE SET ON SAME TRUNK OR MAIN TRUNK.

STAKE 1" CALIBER TREES IN PARK PARKWAY.

**A** TREE PLANTING DETAIL - SECTION  
NOT TO SCALE

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

**GENERAL NOTES:**

1. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE PIT EXCAVATED 5 TIMES THE SIZE OF THE ROOTBALL.
2. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE 1/2 TO 1/2 TOP SOIL BLENDED WITH CLAY SOIL AND USED AS BACKFILL.
3. TREES PLANTED IN ROCKY SOIL ARE TO HAVE ALL ROCKY MATERIAL LARGER THAN 1" IN SIZE REMOVED.

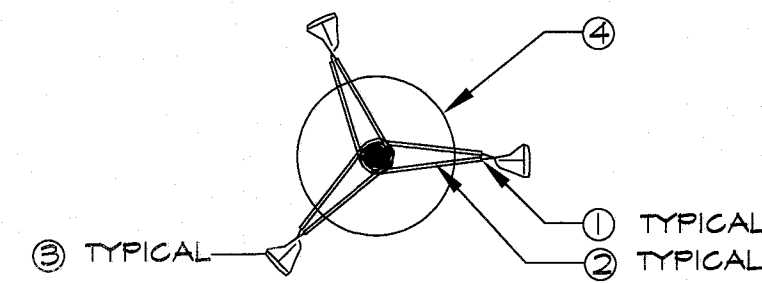
STAKING IS NOT REQUIRED BUT IF DEEMED NECESSARY THE STAKING DETAIL SHALL BE FOLLOWED. STAKING IS AT THE DISCRETION OF THE CONTRACTOR, LANDSCAPE ARCHITECT AND PARKS DEPT. BUT SHOULD TREES REQUIRE STAKING THE CONTRACTOR SHALL INCLUDE THE COST OF THE STAKING IN THE COST OF THE TREE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE STAKES AT END OF THE GUARANTEE PERIOD AT NO COST TO THE OWNER.

TREES THAT ARE DAMAGED DUE TO IMPROPER OR LACK OF STAKING MUST BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

WIRES SHALL NOT BE TAUT BUT SHOULD ALLOW MOVEMENT OF 5 - 10 DEGREES FROM VERTICAL.

STAKES SHALL NOT BE DRIVEN INTO ROOTBALL OF TREES.



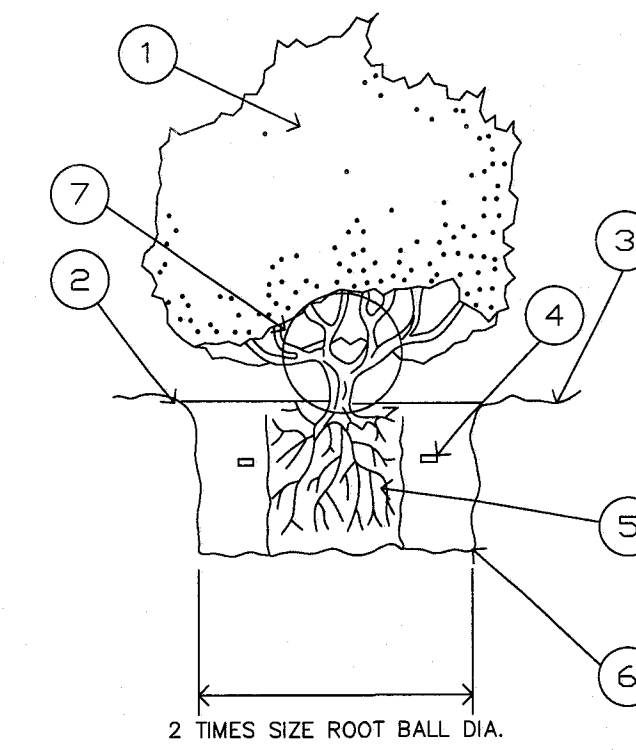
**B** TYPICAL TREE GUYING DETAIL - PLAN VIEW  
NOT TO SCALE

1. 2 STRAND TWIST 4 GAUGE WIRE
2. 1/2" RUBBER HOSE
3. 6' WOOD STAKE SET INTO GROUND 2'
4. ROOTBALL

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Karla Chavez

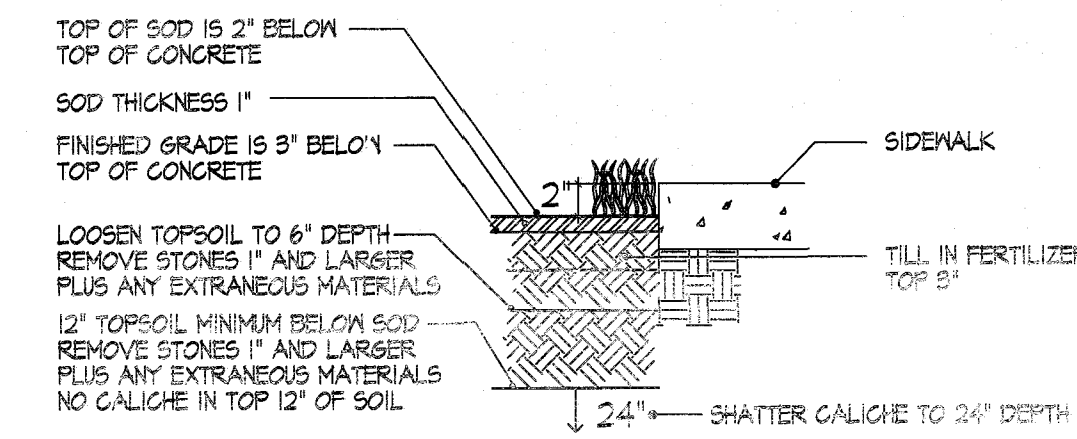
SIGNATURE  
5/18/21  
DATE



**C** SHRUB PLANTING DETAIL - SECTION  
NOT TO SCALE

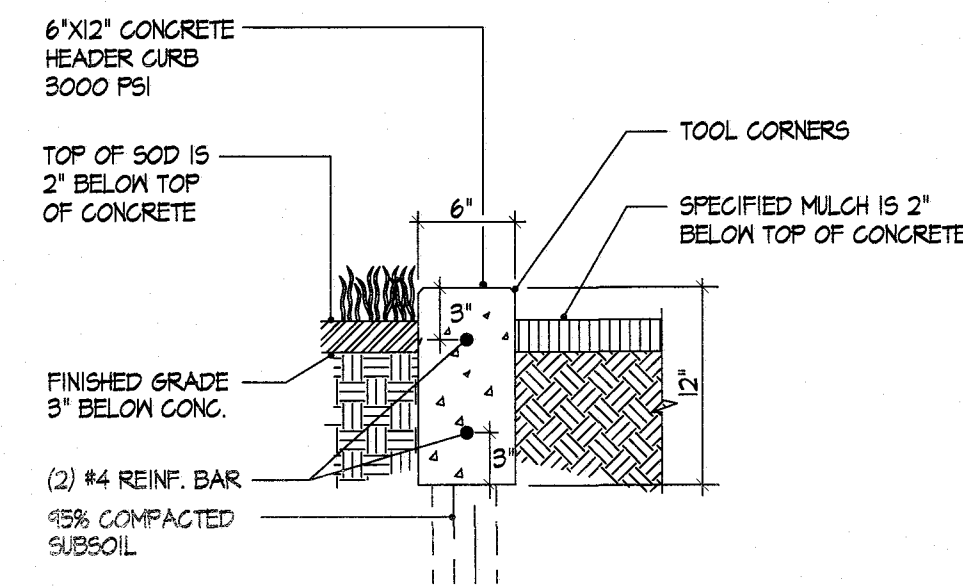
**LEGEND**

1. SHRUB OR VINE PER PLAN
  2. EARTH WATERING BASIN (COVER WITH SPECIFIED MULCH ON PLAN).
  3. FINISH GRADE
  4. 7 GRAM PLANT TABLETS  
1 GAL = 3, 5 GAL = 6, 10-15 GAL = 9
  5. ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE) COVER 2" SPECIFIED MULCH.
  6. UNDISTURBED NATIVE SOIL
  7. DO NOT BURY PLANT BASE IN GRAVEL
- EXCAVATE AND REPLACE WITH SAME SOIL. REMOVE STONES 2" OR LARGER.



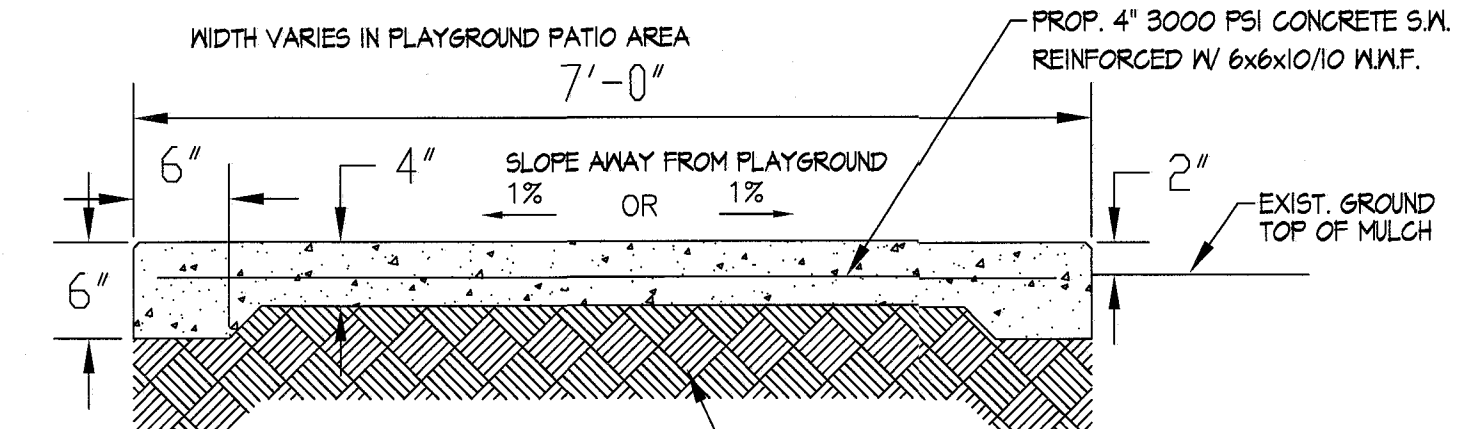
NOTES:  
MOISTEN SOIL PRIOR TO LAYING SOD  
ROLL IN TWO DIRECTIONS  
SEE SOD SPECIFICATIONS FOR COMPLETE REQUIREMENTS.

**D** TYPICAL TURF AT CONCRETE DETAIL - SECTION  
NOT TO SCALE



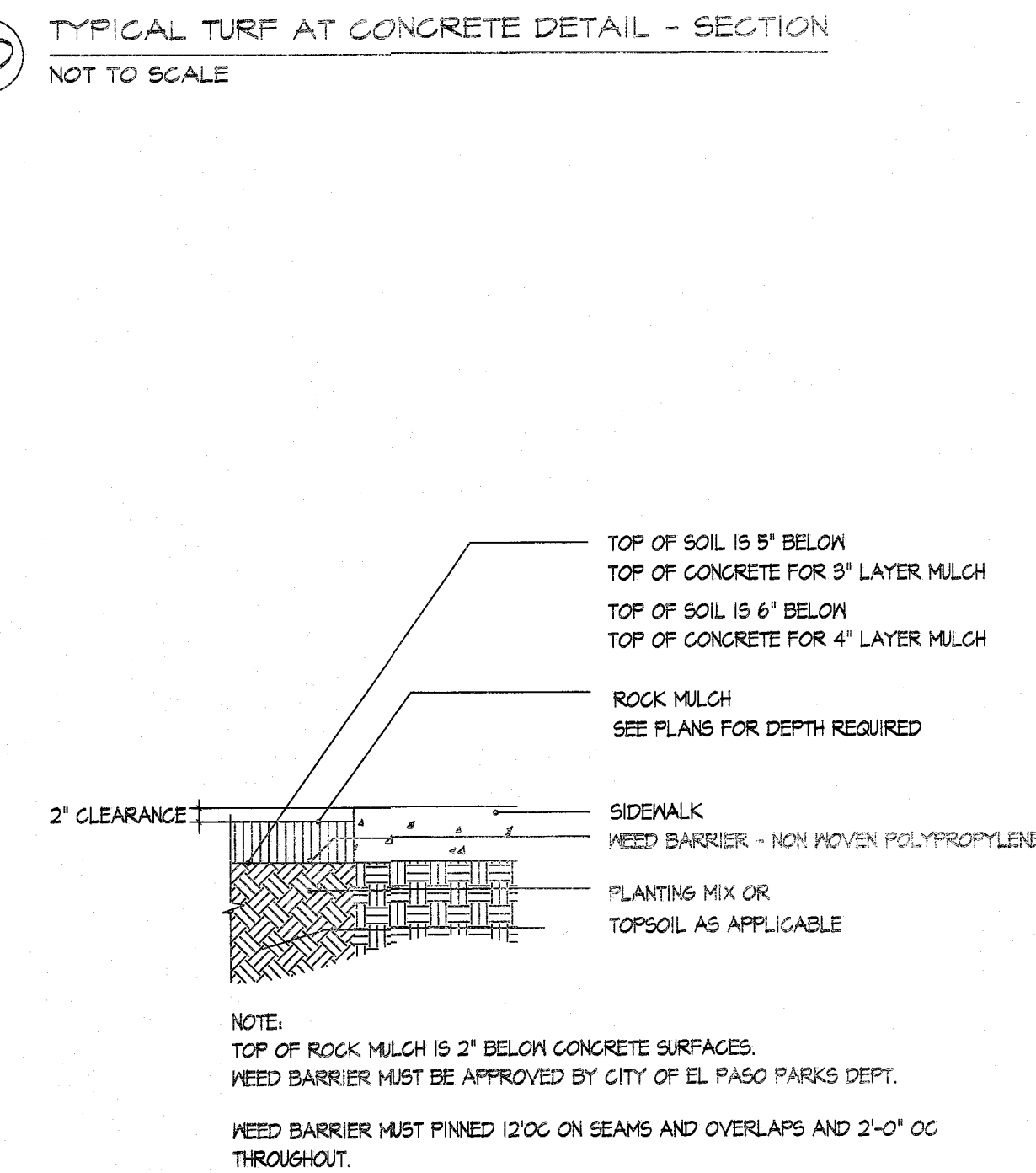
NOTES:  
1. USE CONTROL JOINT EVERY 10'.  
2. USE 1/2" ASPHALT EXPANSION JOINTS EVERY 50' AND AT CURB RETURNS

**E** CONCRETE HEADER CURB DETAIL - SECTION  
NOT TO SCALE

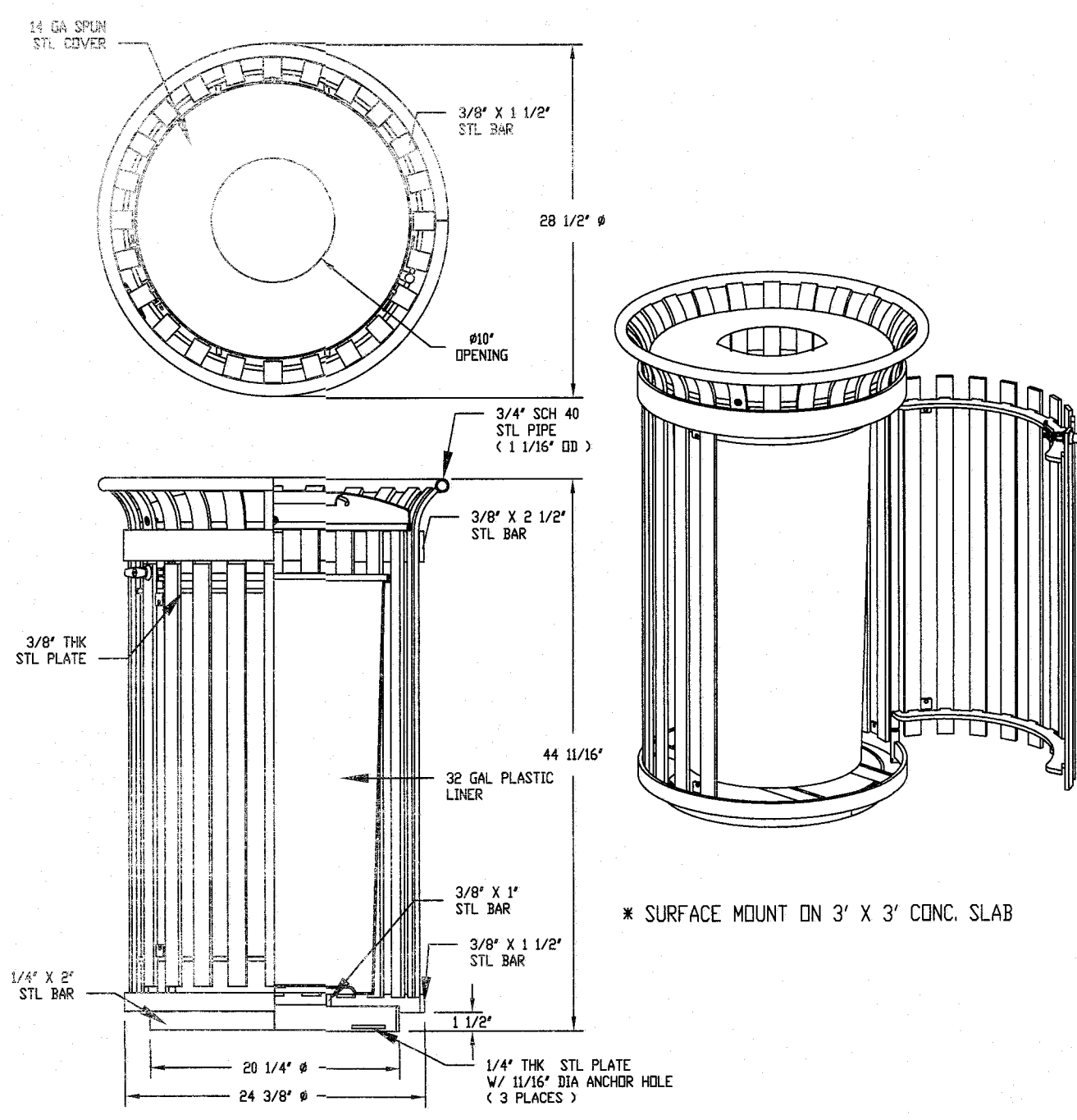


NOTES:  
1. CONCRETE SHALL BE 3000 PSI MINIMUM.  
2. CONTROL JOINT REQUIRED AT 5' O.C. FOR SIDEWALKS, CONTROL JOINTS SHALL BE 1/8" THICK AND 1" DEEP.  
3. EXPANSION JOINT MATERIAL REQUIRED @ 20' O.C. FOR SIDEWALKS.  
4. DO NOT CROSS REINFORCEMENT THRU EXPANSION MATERIAL.  
5. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALKS MEET, EXISTING SIDEWALKS AND CURBS.

**F** TYPICAL CONCRETE SIDEWALK - SECTION  
NOT TO SCALE

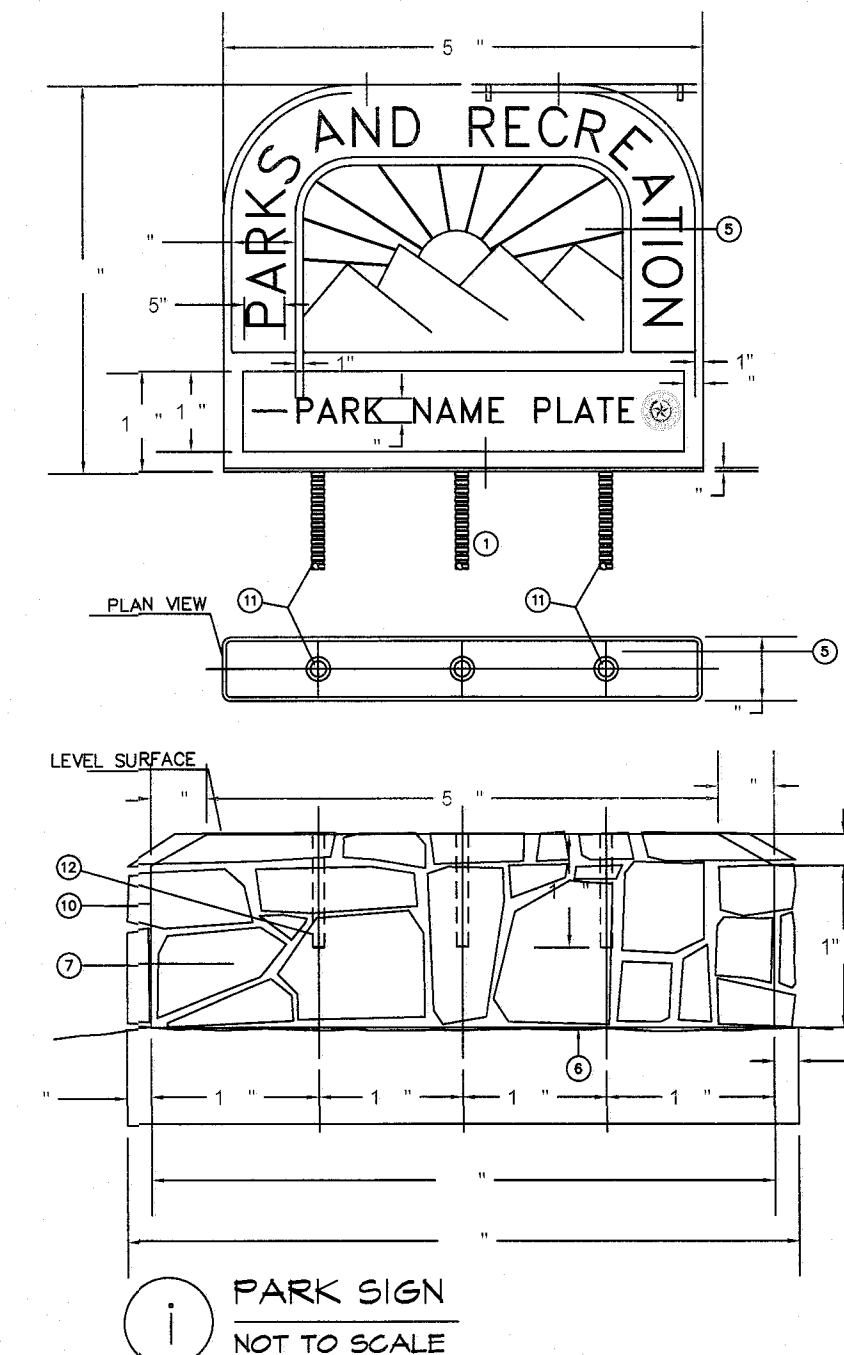


**G** ROCK MULCH DEPTH AT CONCRETE - SECTION  
NOT TO SCALE



NOTES:  
1) ALL STL. MEMBERS COATED W/ ZINC RICH EPDXY THEN FINISHED W/ POLYESTER POWDER COATING.  
2) 1/2\"/>

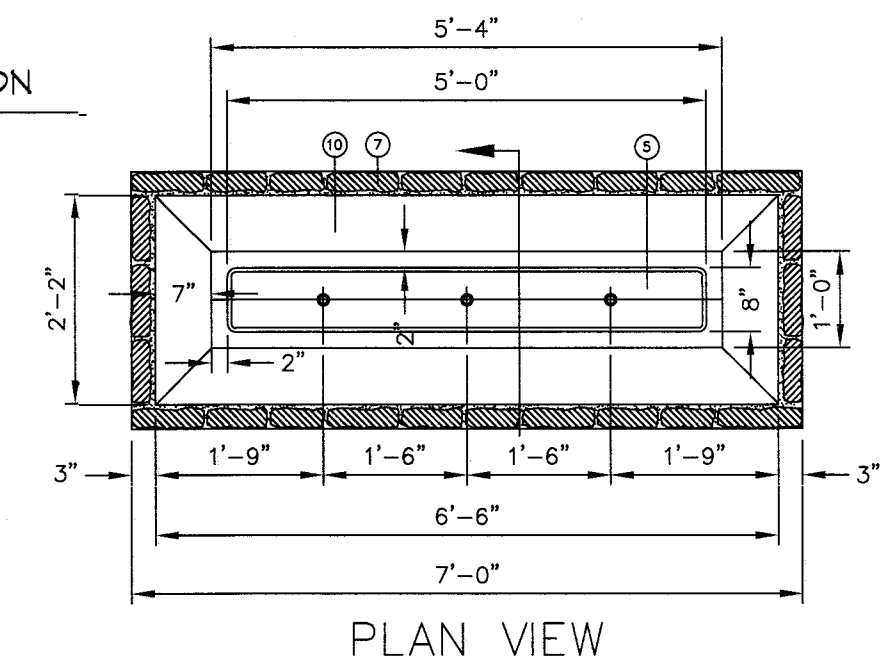
**H** DuMor 206-32-FTO HINGED TRASH RECEPTACLE  
NOT TO SCALE



**I** PARK SIGN  
NOT TO SCALE

**KEY NOTE**

- 1) PARK NAME IGN MAN
- 2) EXISTING GROUND TO REMAIN UNDISTURBED. DISTURBED GROUND TO BE COMPACTED TO A PER A THRU DIS
- 3) FINISHED GRADE SEE GRADING PLAN
- 4) CONTINUED ON RETE OUTING
- 5) PREPARE TO ON RETE IGN A A TIE RE TO PE
- 6) P I ON RETE A E
- 7) 2\"/>



**J** PARK SIGN SECTION

REVISIONS

DATE

ARCHITECT'S SEAL

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

DATE: DESIGN BY: LM DRAWN BY: LM CHECKED BY: LM APPROVED BY: LM JOB NO.:

PROJECT TITLE

**BRYANT PARK**  
6833 DALHART DRIVE  
LOT 26 BLOCK 6  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 74,706 SQ.FT. - 1.71 ACRES

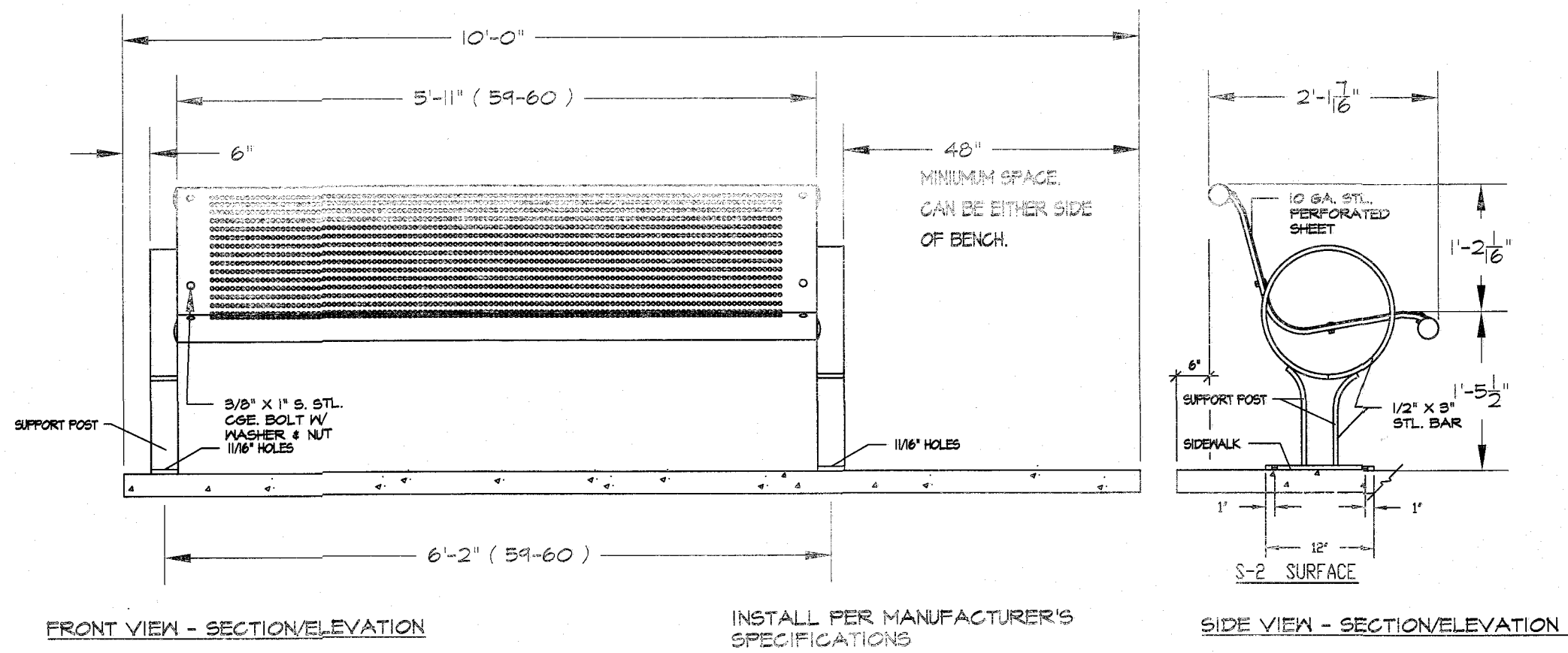
SHEET TITLE

**L6**

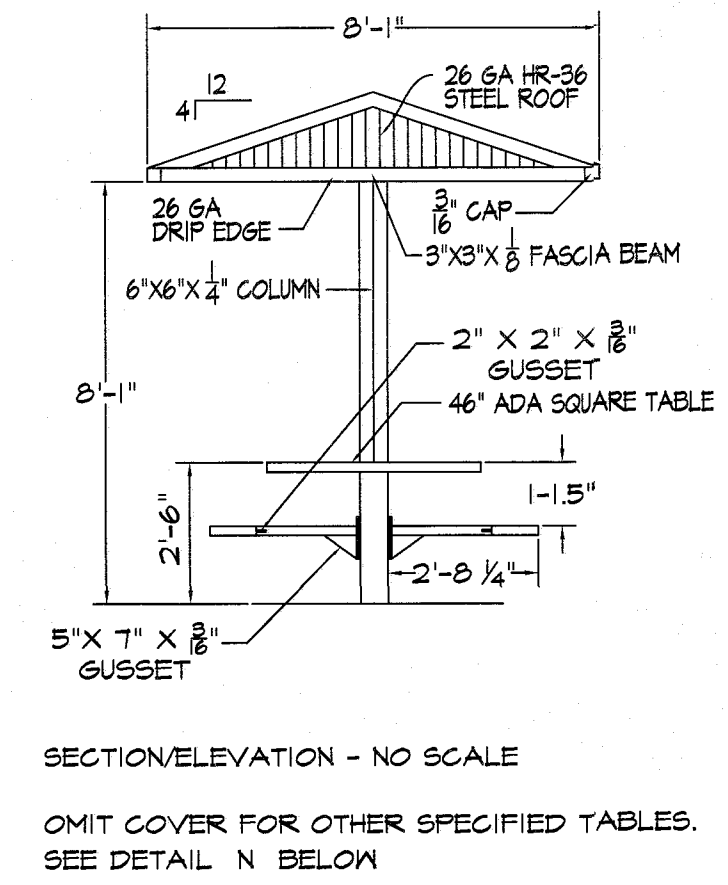
CONSTRUCTION DETAILS

SHEET 6 OF 11

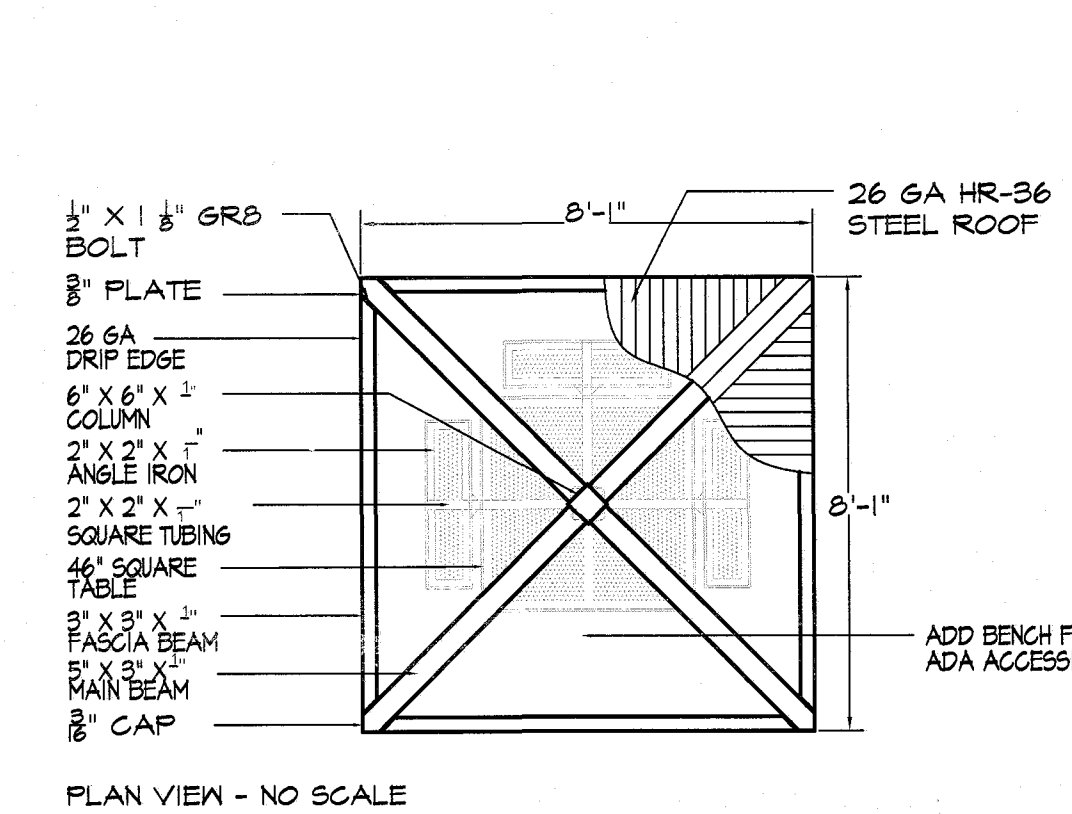




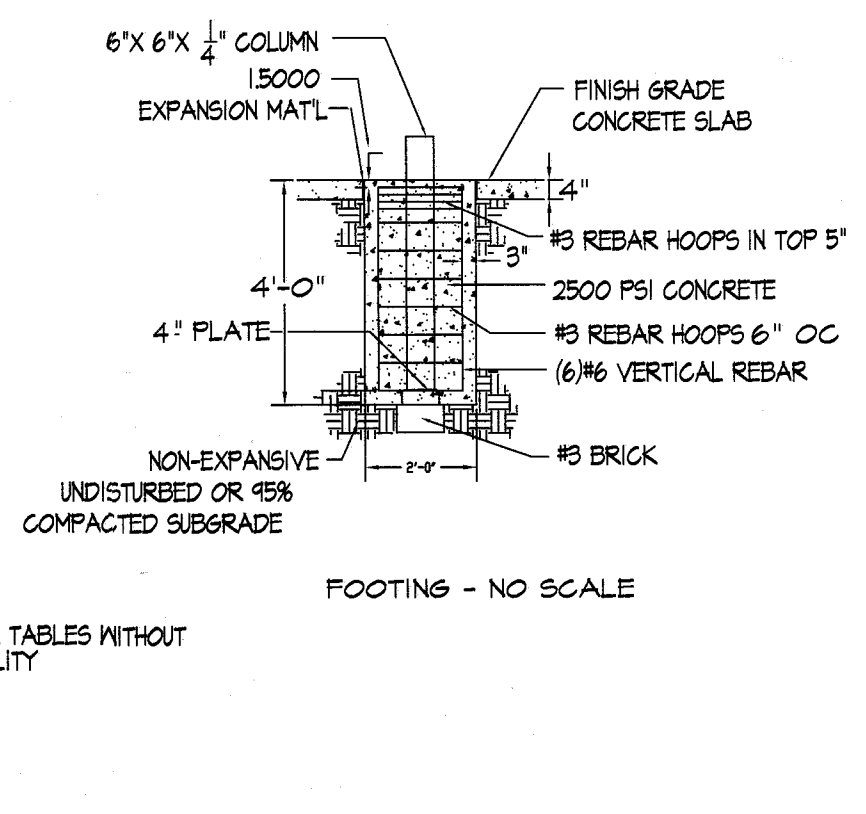
I ADA BENCH DETAIL  
NOT TO SCALE



L COVERED PICNIC TABLE  
NOT TO SCALE

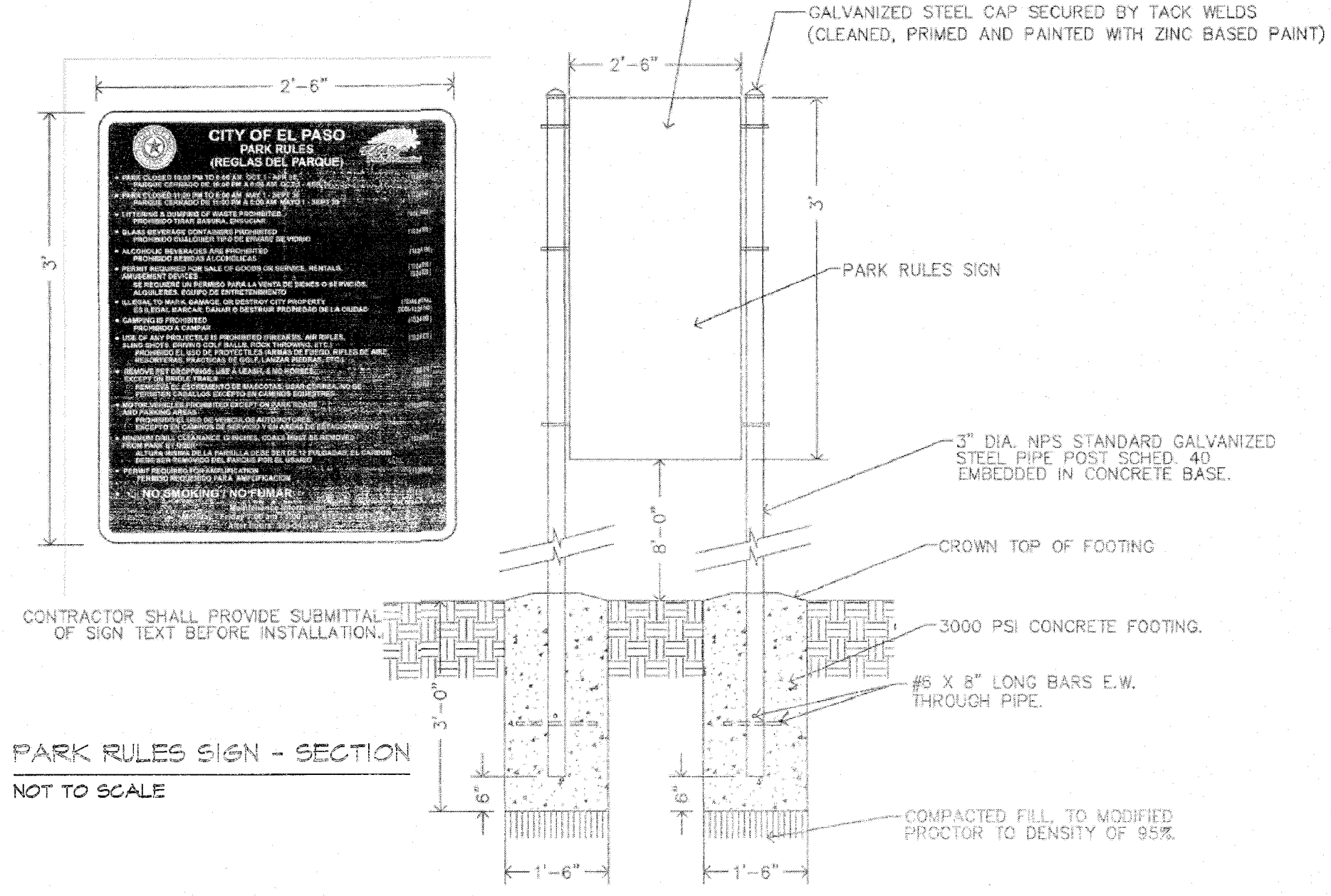


PLAN VIEW - NO SCALE

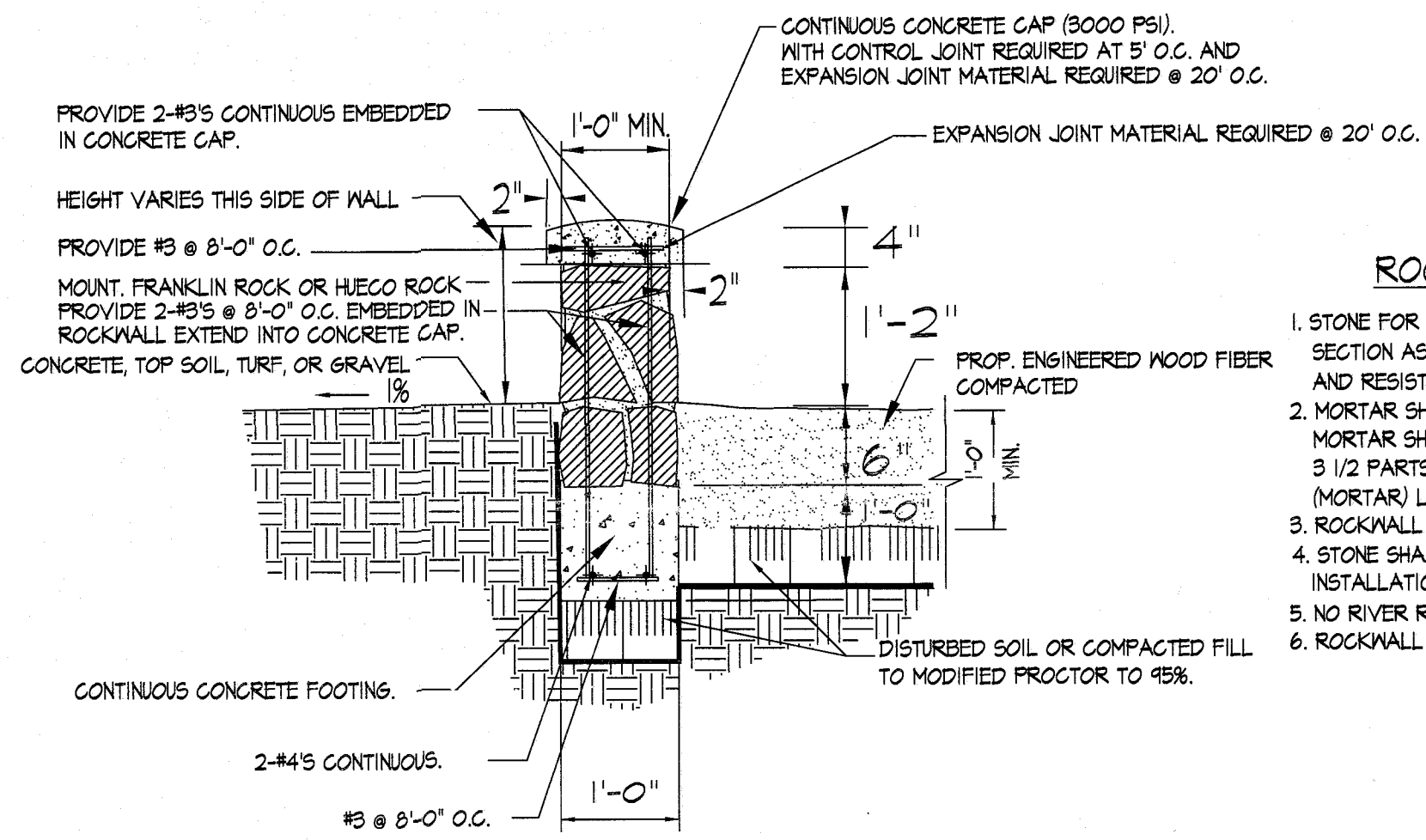


FOOTINGS - NO SCALE

SIGN SHALL BE 0.08 ALUMINUM WITH 3M BROWN REFLECTIVE FINISH WITH WHITE VINYL LETTERS, 3 COLOR & CURRENT CITY OF EL PASO PARKS DEPARTMENT LOGOS, AND 3M VINYL ANTI-GRAFFITI COATING



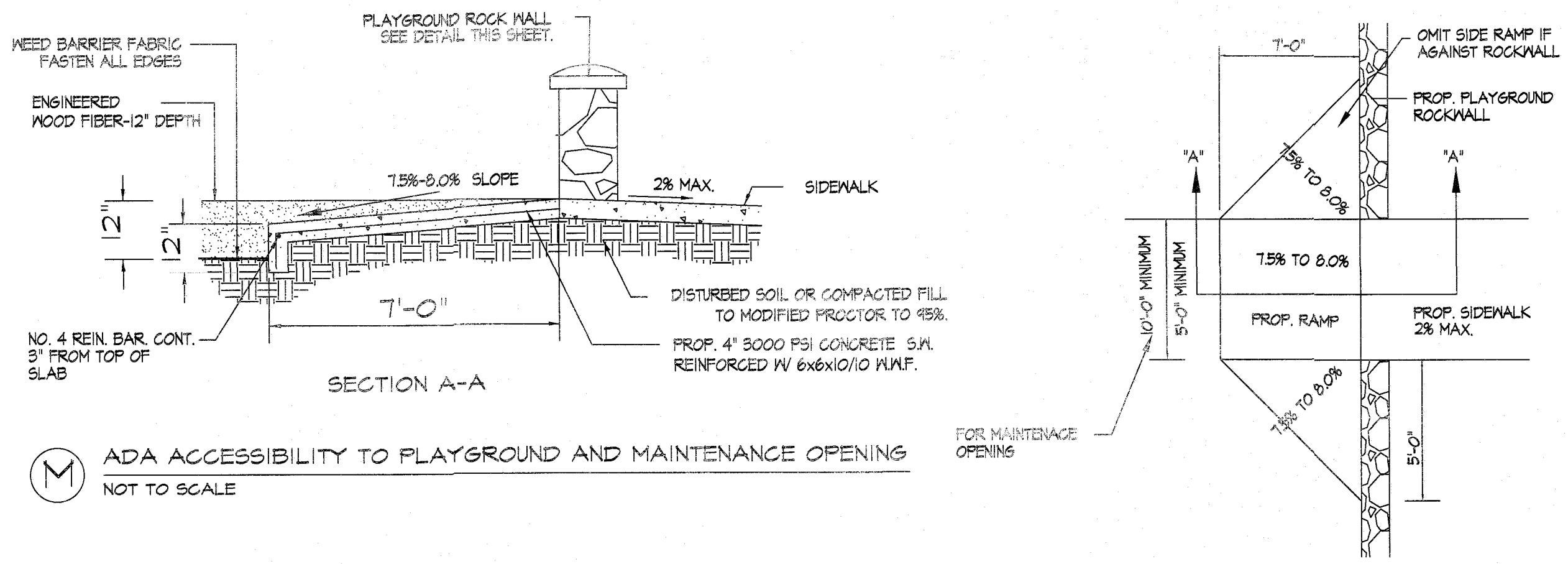
K PARK RULES SIGN - SECTION  
NOT TO SCALE



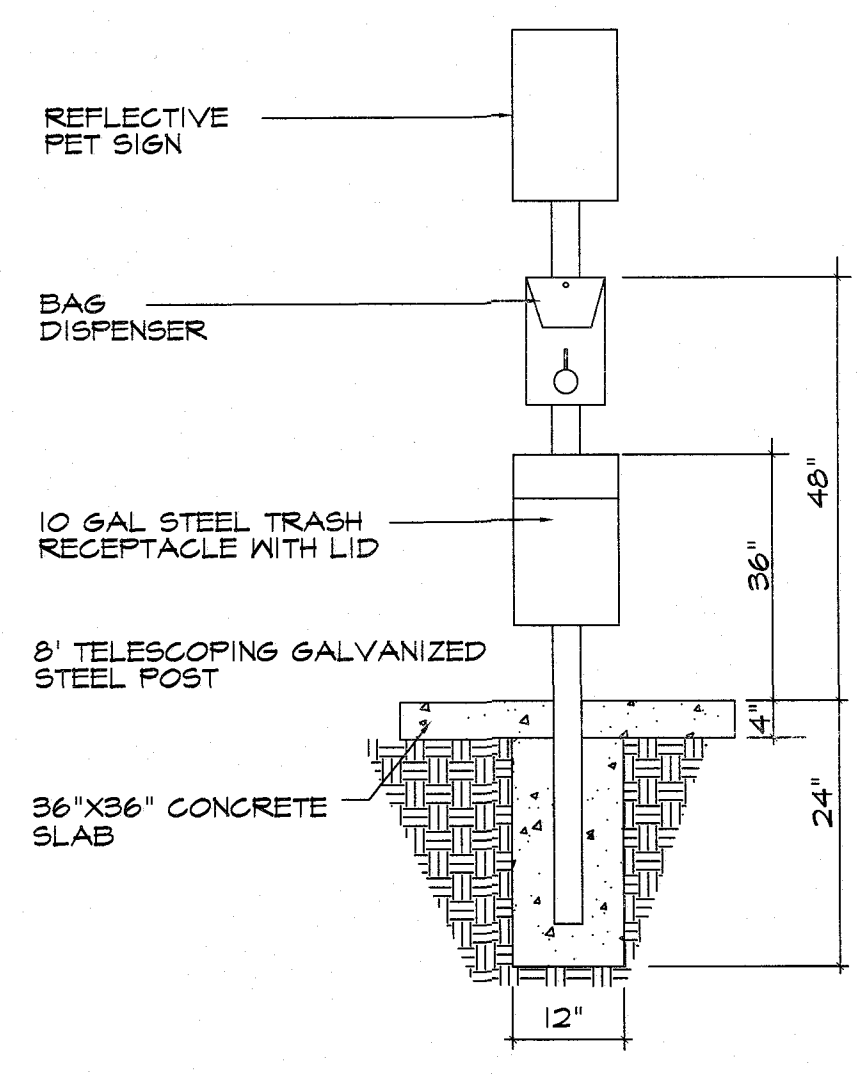
L PLAYGROUND ROCK WALL WITH MORTAR CAP  
NOT TO SCALE

ROCKWALL NOTES:

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER
2. MORTAR SHALL BE TYPE 'S' 1800 P.S.I. AS PER ASTM C270-T3. MORTAR SHALL CONSIST BY VOLUME OF 1 PART PORTLAND CEMENT, 3 1/2 PARTS OF CLEAN, HARD, DURABLE SAND AND 1/4 PART (MORTAR) LIME THOROUGHLY MIXED WITH WATER.
3. ROCKWALL MORTAR JOINTS SHALL NOT EXCEED 3/4" TO 1 1/4".
4. STONE SHALL BE CLEANED, FREE OF DIRT PRIOR TO INSTALLATION.
5. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.
6. ROCKWALL TO BE EMBEDDED IN THE CONCRETE FOOTING.



M ADA ACCESSIBILITY TO PLAYGROUND AND MAINTENANCE OPENING  
NOT TO SCALE



N PET WASTE STATION  
NOT TO SCALE

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Parks & Recreation Department-Planning

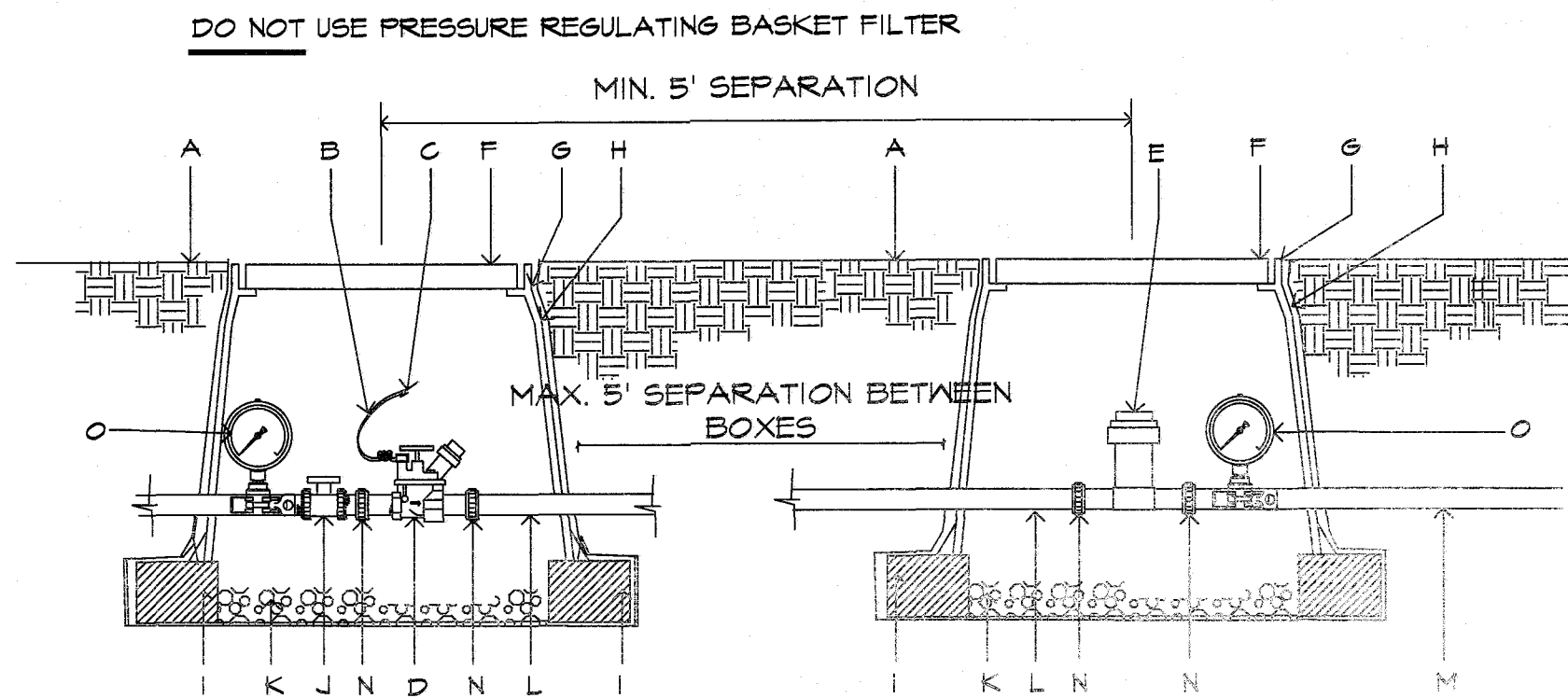
*Karla Chavez*  
SIGNATURE  
5/15/21  
DATE

REVISIONS	
DATE	
ARCHITECT'S SEAL	
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PROJECT TITLE	<b>BRYANT PARK</b> 6833 DALHART DRIVE LOT 26 BLOCK 6 VILLAS DEL NORTE UNIT 1 CITY OF EL PASO EL PASO, TEXAS 79928 AREA: 74706 SQ.FT. - 1.71 ACRES
SHEET TITLE	<b>L7</b> CONSTRUCTION DETAILS
	SHEET 7 OF 11





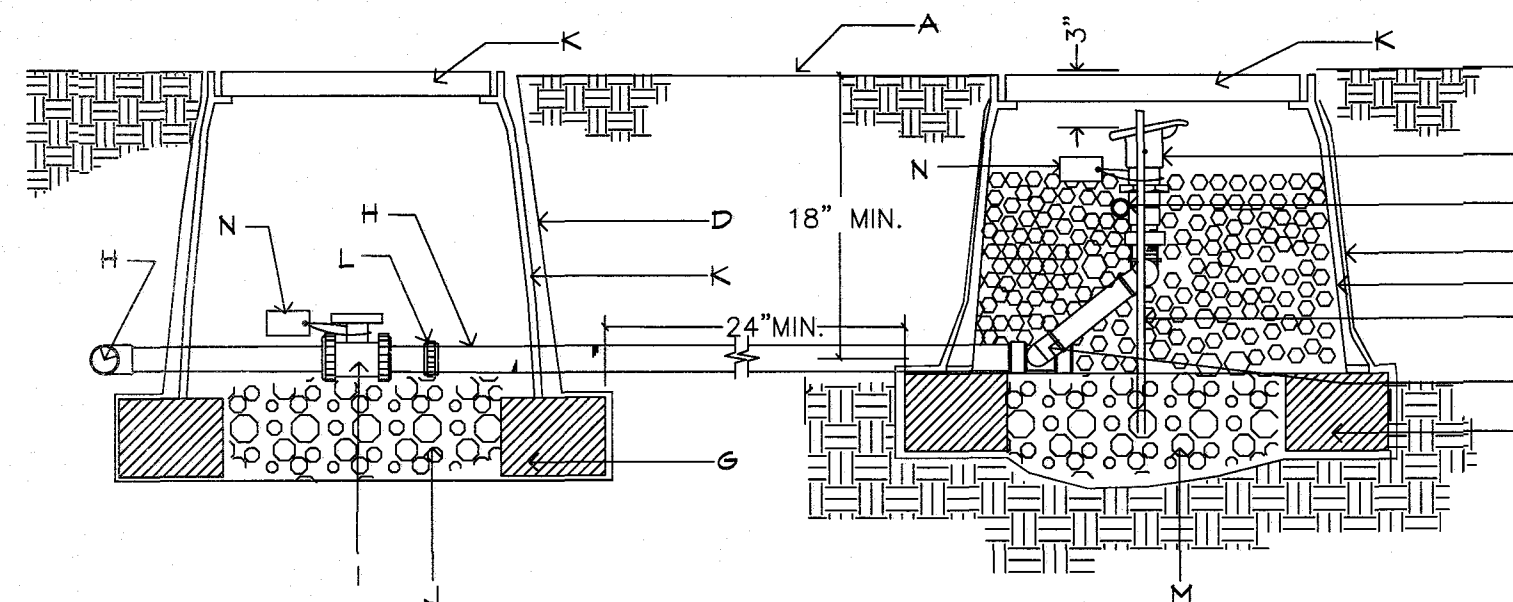




DO NOT USE PRESSURE REGULATING BASKET FILTER  
MIN. 5' SEPARATION  
MAX. 5' SEPARATION BETWEEN BOXES

- NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTREAM OF BALL VALVE AND ANOTHER DOWNSTREAM OF BASKET FILTER. PROVIDE 5' SEPARATION BETWEEN BOXES. IF SPACE IS NOT AVAILABLE, PROVIDE A MIN. 5' SEPARATION AT CENTER LINES OF BOXES. SET GAGES HORIZONTAL TO BE READABLE FROM ABOVE.
- A. FINISH GRADE.
  - B. 24" WIRE LOOP.
  - C. DRY SPLICE CONNECTOR OR EQUAL.
  - D. AUTOMATIC VALVE. SEE IRRIGATION LEGEND.
  - E. RAINBIRD PRESSURE BASKET FILTER STRAINER SHALL BE INSTALLED TO PROVIDE ACCESS FOR MAINTENANCE AND REPLACEMENT
  - F. LOCKING VALVE BOX COVER FLAT LID WITH BOLT.
  - G. CARSON PRODUCTS INC. 1419-B BODY (ABS) VALVE BOX W/BOLT DOWN COVER (COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY.
  - H. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX AND BLOCKS TAPE TO ALL INLET & OUTLET PIPE WITH 3M HEAVY DUTY PLASTIC TAPE.
  - I. 8"X8"X16" CMU SOLID CONCRETE BLOCK @ EACH CORNER.
  - J. BALL VALVE, INCLUDED IN CONTROL ZONE KIT, SEE IRRIGATION LEGEND.
  - K. 4" LAYER OF 3/8" MASHED PEA GRAVEL.
  - L. PVC PIPE SIZED PER PLAN WITH WELD ON THREADED FITTINGS ON EACH END.
  - M. LATERAL LINE
  - N. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
  - O. HORIZONTAL HYGIENIC PRESSURE GAUGE

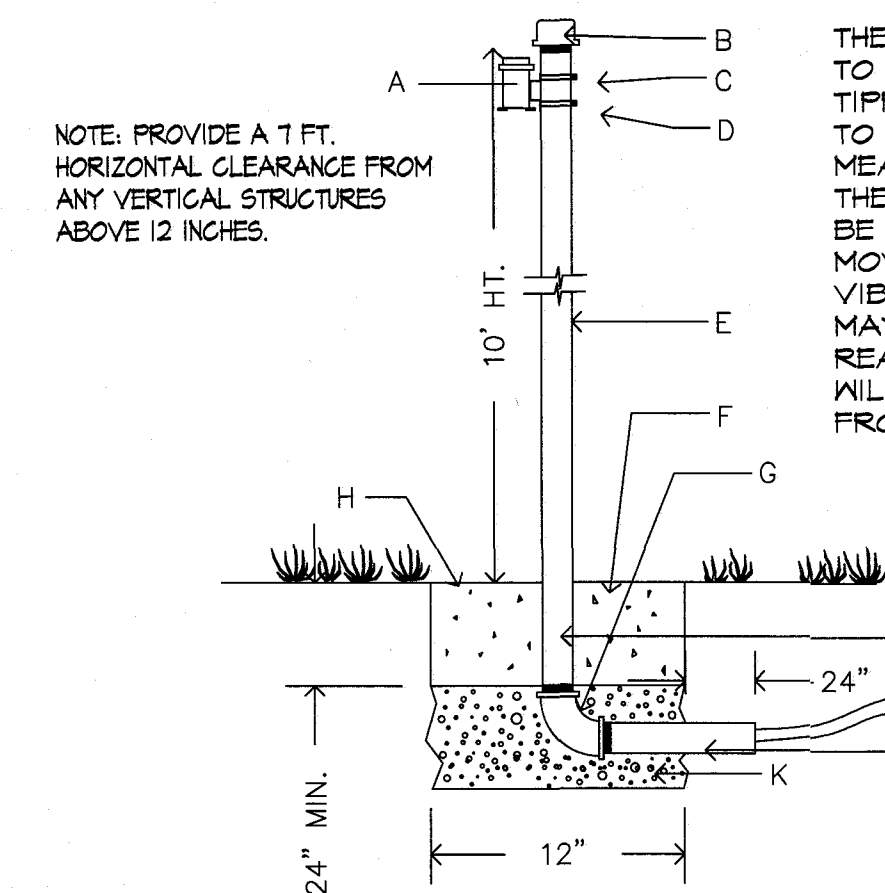
11 DRIP VALVE W/ BASKET FILTER  
NOT TO SCALE



- A. FINISH GRADE.
- B. 1" BUCKNER QUICK COUPLER VALVE, DOUBLE SLOT, PURPLE TOP-MODEL QBSNPIO WITH LASCO SNAP-LOK W/MALE BRASS STABILIZER ELBOW.
- C. MIN. 12" SECTION 1" DIA. PVC, SECTION SHOULD EXTEND BEYOND BOTH REBAR SECTION, STABILIZE IN GRAVEL.
- D. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY 3M PLASTIC TAPE.
- E. 1/2" OR 3/8" REBAR, MIN. 30" LENGTH, ONE ON EITHER SIDE OF QUICK COUPLER FOR STABILITY.
- F. LASCO SWING JOINT (PRE-ASSEMBLED).
- G. 8" X 8" X 16" SOLID CMU BLOCK
- H. IRRIGATION MAINLINE
- I. ISOLATION BALL VALVE, SEE IRRIGATION LEGEND.
- J. 6" DEPTH OF 3/8" MASHED PEA GRAVEL
- K. CARSON PRODUCTS INC. 1419-B BODY (ABS) VALVE BOX AND EXTENSION(S) W/BOLT DOWN COVER (COVER COLOR TO BE PURPLE).
- L. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- M. 3/8" MASHED PEA GRAVEL FILLED TO QUICK COUPLER FOR STABILITY.
- N. WEATHER PROOF TAG THAT READS: "NON-POTABLE WATER, NOT SAFE FOR DRINKING." FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.

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

12 QUICK COUPLER  
NOT TO SCALE



NOTE: PROVIDE A 1 FT. HORIZONTAL CLEARANCE FROM ANY VERTICAL STRUCTURES ABOVE 12 INCHES.

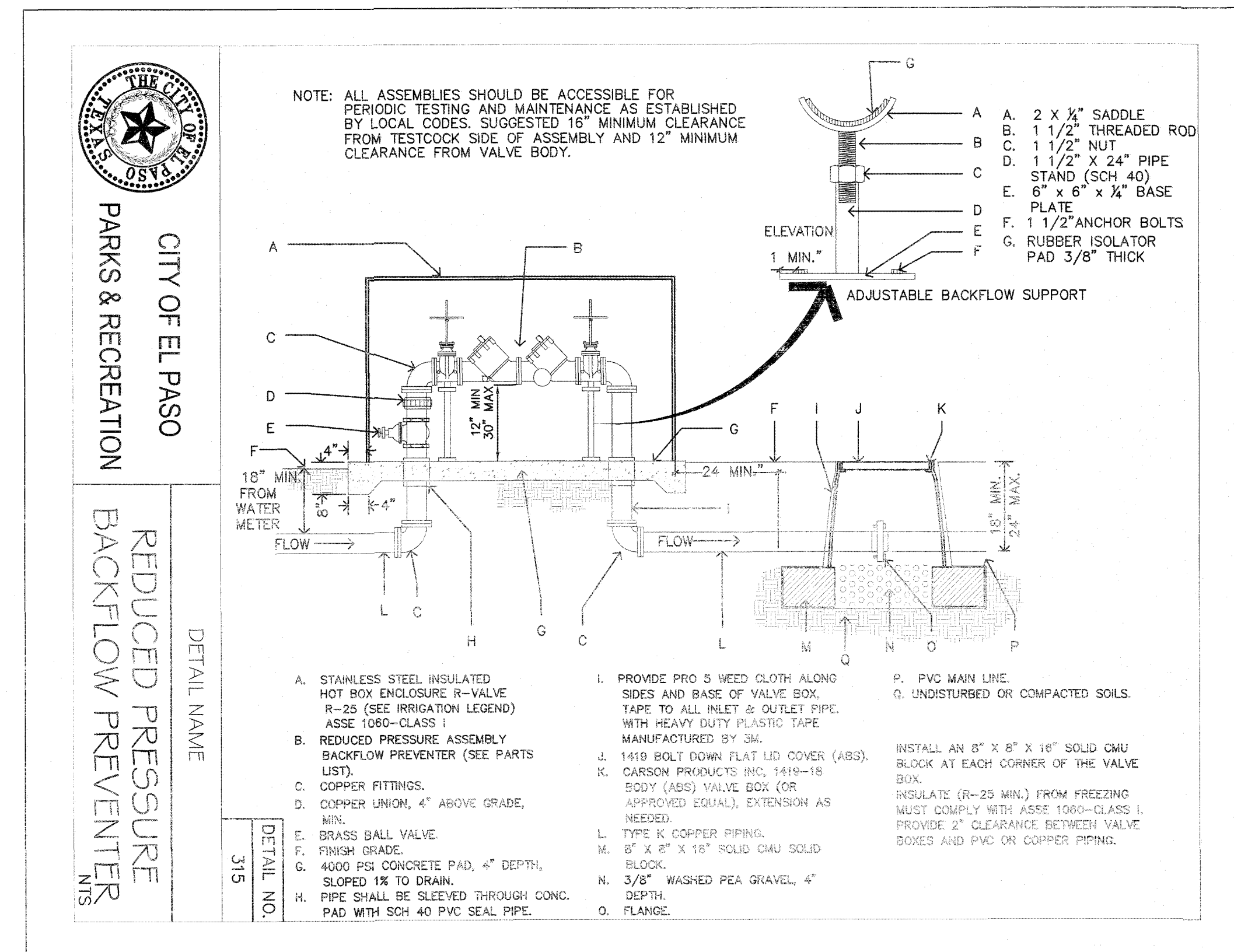
THE RAIN CAN MUST BE MOUNTED LEVEL TO ENSURE PROPER OPERATION OF THE TIPPING MECHANISM AND TO PROVIDE ACCURATE RAINFALL MEASUREMENTS. THE MOUNT ON WHICH THE RAIN CAN IS ATTACHED MUST BE STURDY ENOUGH TO PREVENT MOVEMENT IN WINDY CONDITIONS. VIBRATIONS FROM SMALL MOVEMENTS MAY REDUCE THE ACCURACY OF THE READINGS WHILE EXCESSIVE MOVEMENT WILL GENERATE FALSE READINGS FROM THE TIPPING ASSEMBLY.

SEE MANUFACTURER'S FIELD INSTALLATION INSTRUCTIONS. PARKS MAY REQUIRE ADDITIONAL FASTENERS OR MODIFICATION OF THIS DETAIL.

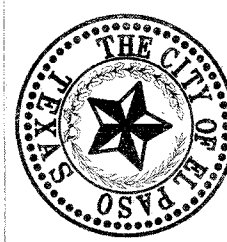
- A. RAIN BIRD RAIN CAN
- B. 2 1/2" PIPE CAP WITH HOLE FOR WIRES AND SEAL WITH EXTERIOR GRADE SILICONE SEALANT.
- C. CLAMPS
- D. (2) MACHINE SCREWS WITH WASHER, LOCK WASHER AND NUT.
- E. 2 1/2" SCH 40 GALVANIZED PIPE-10 FT. HT. A.G.
- F. 12"X12" CONCRETE BASE, MIN. 24" DEEP.
- G. PIPE ELBOW.
- H. FINISH GRADE
- I. PIPE TO BE SEALED AFTER CABLE IS RUN, USE 4 MIL. PLASTIC AND TAPED NIPPLE AND THE CABLE WITH HIGH GRADE 3M WEATHER PROOF PLASTIC TAPE.
- J. NIPPLE GALVANIZED PIPE IN CONCRETE FOOTING TO BE WRAPPED WITH WEATHER PROOF TAPE TO PROTECT FROM CORROSION.
- K. 6" THICK 3/8" DIAMETER MASHED PEA GRAVEL.

13 BLANK  
NOT TO SCALE

14 RAIN CAN  
NOT TO SCALE



NOTE: ALL ASSEMBLIES SHOULD BE ACCESSIBLE FOR PERIODIC TESTING AND MAINTENANCE AS ESTABLISHED BY LOCAL CODES. SUGGESTED 16" MINIMUM CLEARANCE FROM TESTCOCK SIDE OF ASSEMBLY AND 12" MINIMUM CLEARANCE FROM VALVE BODY.



CITY OF EL PASO  
PARKS & RECREATION

REDUCED PRESSURE BACKFLOW PREVENTER  
DETAIL NAME  
315

- A. STAINLESS STEEL INSULATED HOT BOX ENCLOSURE R-VALUE R-25 (SEE IRRIGATION LEGEND) ASSE 1080-CLASS I
- B. REDUCED PRESSURE ASSEMBLY BACKFLOW PREVENTER (SEE PARTS LIST)
- C. COPPER FITTINGS.
- D. COPPER UNION, 4" ABOVE GRADE, MIN.
- E. BRASS BALL VALVE
- F. FINISH GRADE.
- G. 4000 PSI CONCRETE PAD, 4" DEPTH, SLOPED 1% TO DRAIN.
- H. PIPE SHALL BE SLEEVED THROUGH CONC. PAD WITH SCH 40 PVC SEAL PIPE.
- I. PROVIDE PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET & OUTLET PIPE WITH HEAVY DUTY PLASTIC TAPE MANUFACTURED BY 3M.
- J. 1/2" BOLT DOWN FLAT LID COVER (ABS).
- K. CARSON PRODUCTS INC. 1419-B BODY (ABS) VALVE BOX (OR APPROVED EQUAL), EXTENSION AS NEEDED.
- L. TYPE K COPPER PIPING.
- M. 8" X 8" X 16" SOLID CMU SOLID BLOCK.
- N. 3/8" MASHED PEA GRAVEL, 4" DEPTH.
- O. FLANGE.
- P. PVC MAIN LINE.
- Q. UNDISTURBED OR COMPACTED SOILS.

USE THESE STANDARDS AS THEY APPLY TO THE BACKFLOW IN PUMP HOUSE DETAILS SEE SHEET L10

15 BACKFLOW  
NOT TO SCALE

16 BLANK  
NOT TO SCALE

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

*Karla Chavez*  
SIGNATURE  
5/15/21  
DATE

IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TCEQ 512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947



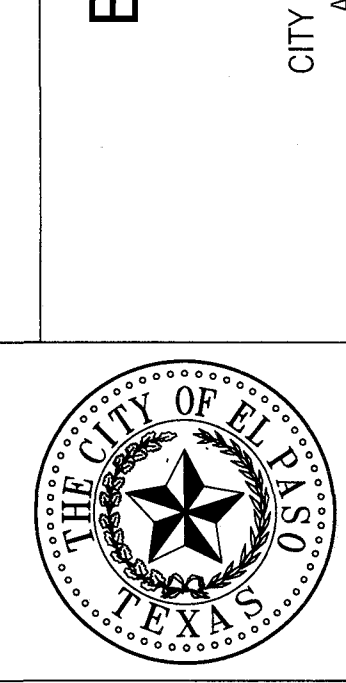
REVISIONS	DATE

LISA MCNEILL  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 89011  
(575) 621-5092



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

PROJECT TITLE  
**BRYANT PARK**  
6833 DALHART DRIVE  
LOT 28 BLOCK 6  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 74706 SQ.FT. - 1.71 ACRES



SHEET TITLE  
**L9**  
IRRIGATION DETAILS  
SHEET 9 OF 11



APPROVED FOR CONSTRUCTION

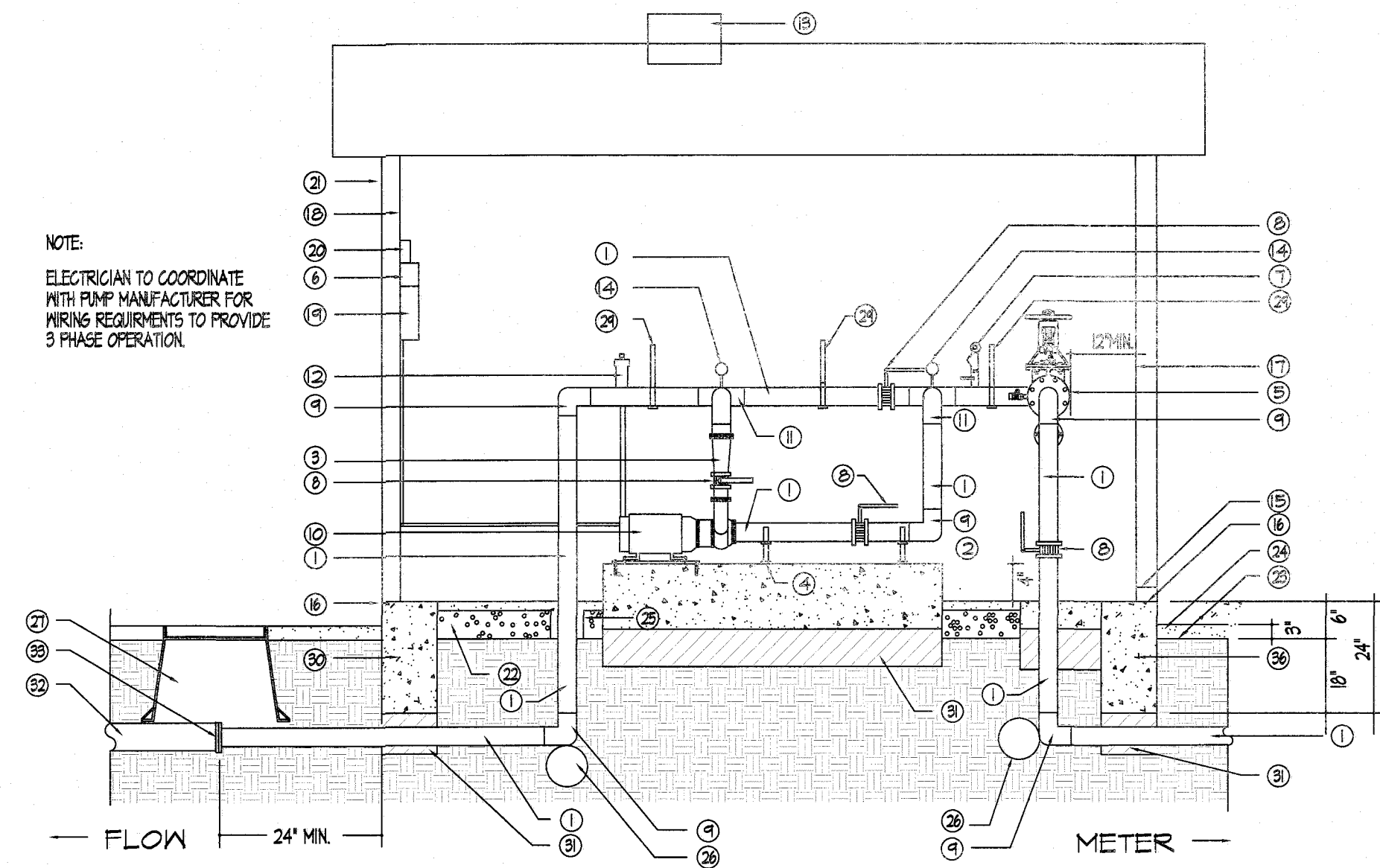
Parks & Recreation Department Planning

Karla Chavez

SIGNATURE

5/18/21

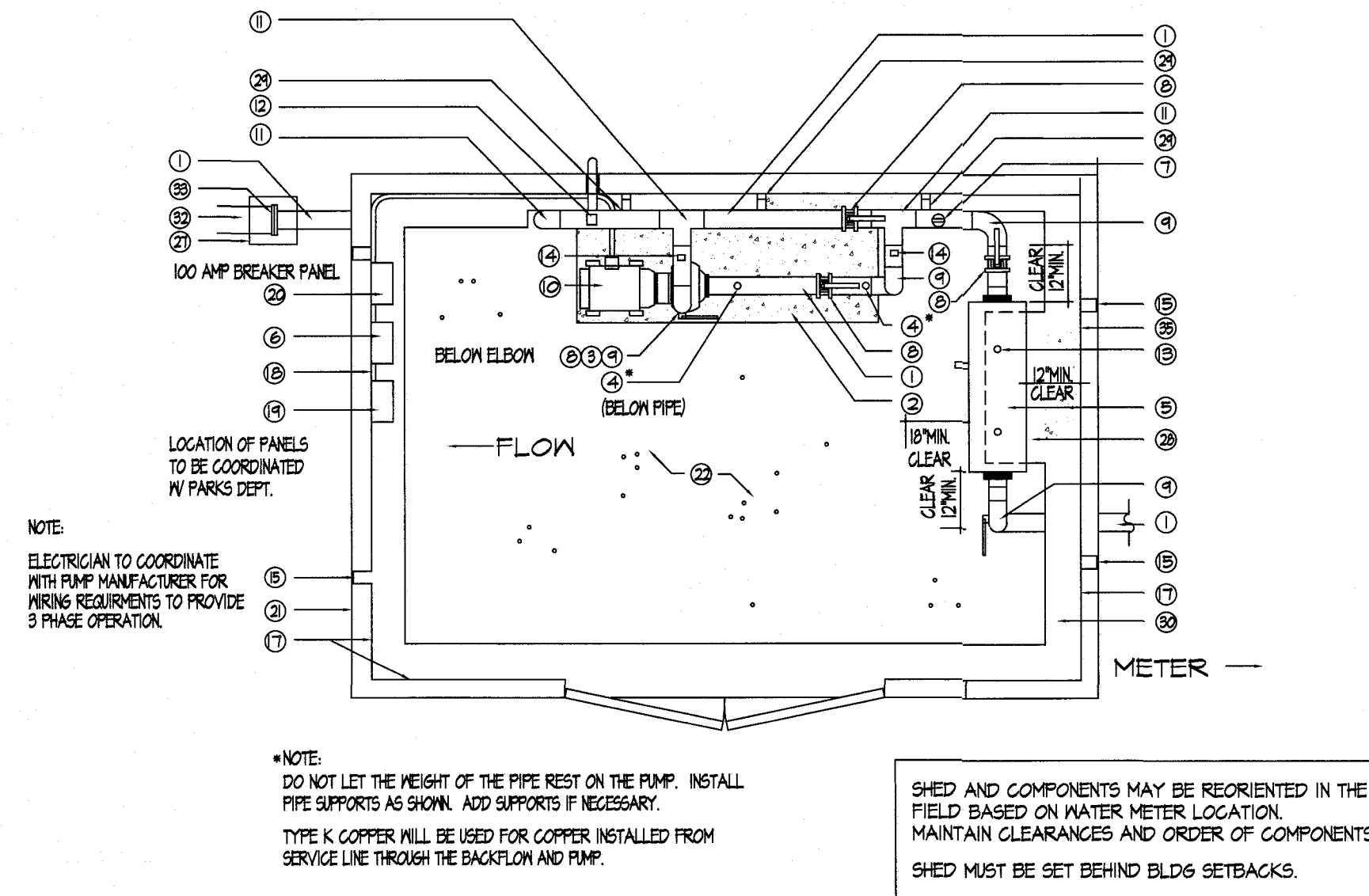
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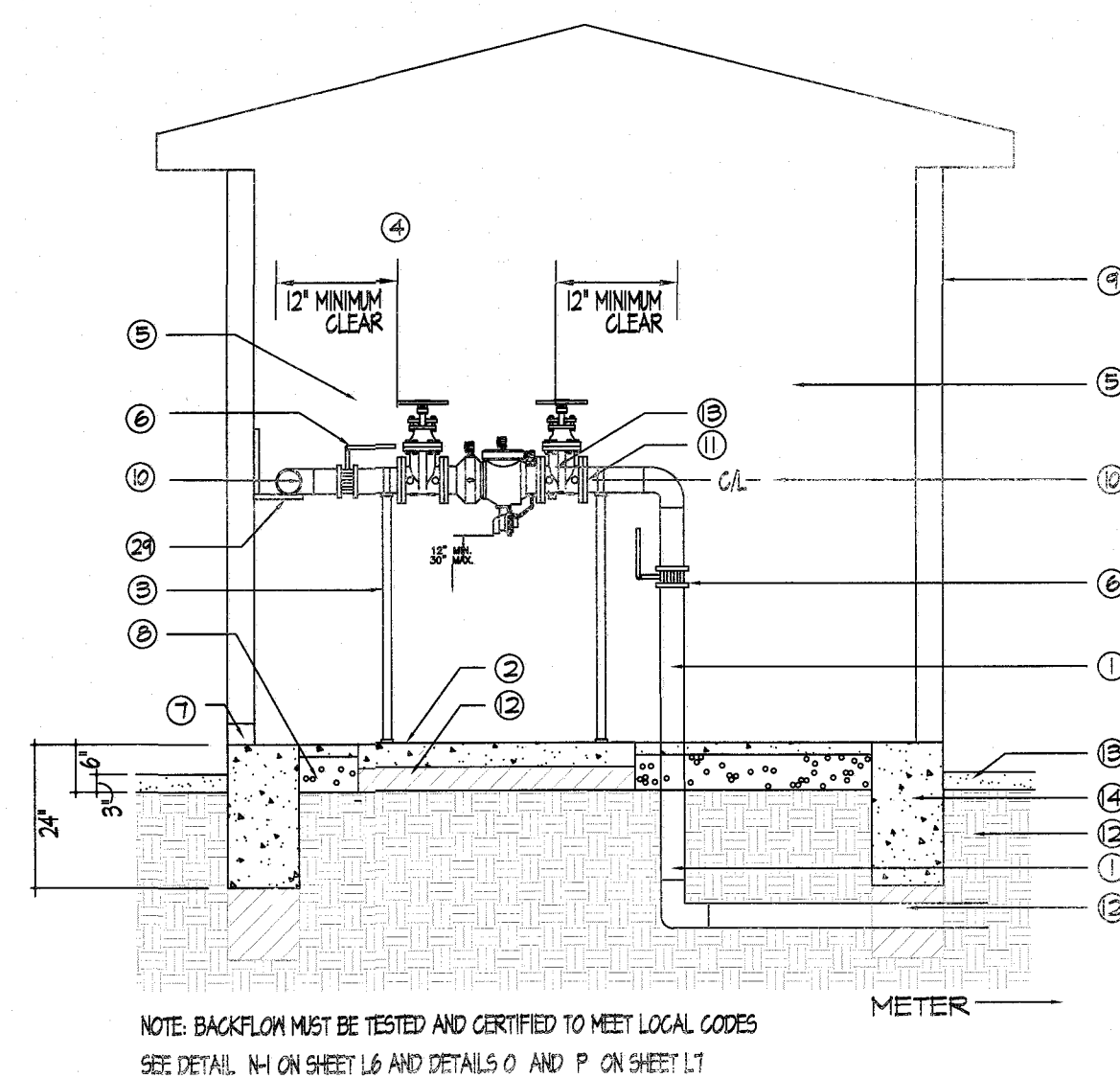
17 BOOSTER PUMP AND ENCLOSURE - SECTION/ELEVATION  
NOT TO SCALE

KEYED NOTES FOR DETAILS O AND P

- 1 TYPE K COPPER - SEE PLANS FOR SIZE
- 2 CONCRETE SLAB BELOW PUMP - 3000 PSI 4" HIGHER THAN BUILDING FOOTING
- 3 CONCENTRIC REDUCER IF PUMP OUTLET IS LESS THAN 3"
- 4 STEEL SUPPORTS WITH ISOLATORS BOLTED TO CONCRETE
- 5 BACKFLOW PREVENTER - SEE PLANS
- 6 FORTAIR VARIABLE FREQUENCY DRIVE
- 7 MERCID DA SWITCH - HIGH/LON CUT OFF SWITCH MUST BE VERTICAL AND LEVEL WIRE TO PUMP PANEL
- 8 1/2" STYLE BUTTERFLY VALVE
- 9 COPPER ELBOW
- 10 SEE IRRIGATION LEGEND FOR PUMP AND MOTOR SIZE FLANGED IN T1 POSITION MOUNTED ON CONCRETE SLAB WITH 1/2" OR THICKER SOLE PLATE TAPPED FOR HOLD DOWN BOLTS. USE RUBBER ISOLATORS BETWEEN PUMP AND SOLE PLATE. REFER TO BERKELEY CENTRIFUGAL PUMP OWNER'S MANUAL P. 5
- 11 COPPER TEE
- 12 PRESSURE RELEASE VALVE VENT TO OUTSIDE OF PUMP HOUSE
- 13 METAL STATIC VENT
- 14 100 PSI PRESSURE GAUGE
- 15 INSTALL KNOCK OUT DRAINS IN STURDY METAL LOUVERS (N-I)
- 16 TOP OF SHED FOOTING
- 17 WAFFER BOARD IN WALLS AND CEILING
- 18 3/4" CDX PLYWOOD BEHIND CONTROLLER AND ELEC. PANEL
- 19 CONTROLLER WITHIN 8' OF PUMP RELAYS. SEE DETAIL N SHEET L6
- 20 PUMP PANEL WITH NEMA 3R ENCLOSURE. REFER TO BERKELEY PUMP MANUFACTURER'S RECOMMENDED COMPONENTS FOR PUMP PROTECTION DURING OPERATION. MUST MEET ALL LOCAL ELEC. CODE REQUIREMENTS.
- 21 8' X 12' PREMIER TUFF SHED. DOOR LOCATION APPROVED BY PARKS.
- 22 3" MINIMUM DEPTH PEA GRAVEL
- 23 FINISHED GRADE
- 24 3" LAYER OF GRAVEL (OUTSIDE SHED)
- 25 USE 'LEAVE OUT' IN CONCRETE OR PVC SLEEVE
- 26 THRUST BLOCK
- 27 UNDO CARSON BOX (8" DEPTH FOR INSPECTION)
- 28 4" SLAB BELOW BACKFLOW FOR STEEL SUPPORTS
- 29 INSTRUIT PIPE SUPPORT SYSTEM - DETAILS PROVIDED TO PARKS
- 30 12"x24" CONCRETE FOOTING SEE T ON SHEET L12
- 31 UNDISTURBED SOIL OR COMPACTED FILL TO MODIFIED PROCTOR 98% BELOW ALL CONCRETE.
- 32 SCHEDULE 40 PVC MAIN
- 33 COPPER FLANGE TO PVC SCHEDULE 80 FLANGE



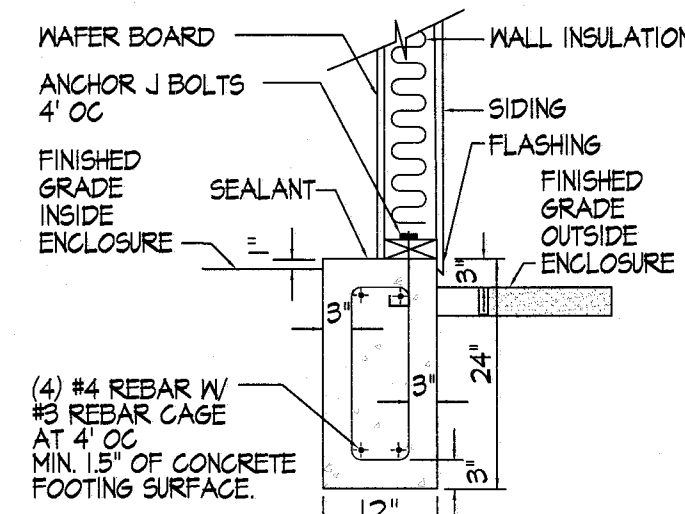
18 BOOSTER PUMP AND ENCLOSURE - PLAN VIEW  
NOT TO SCALE



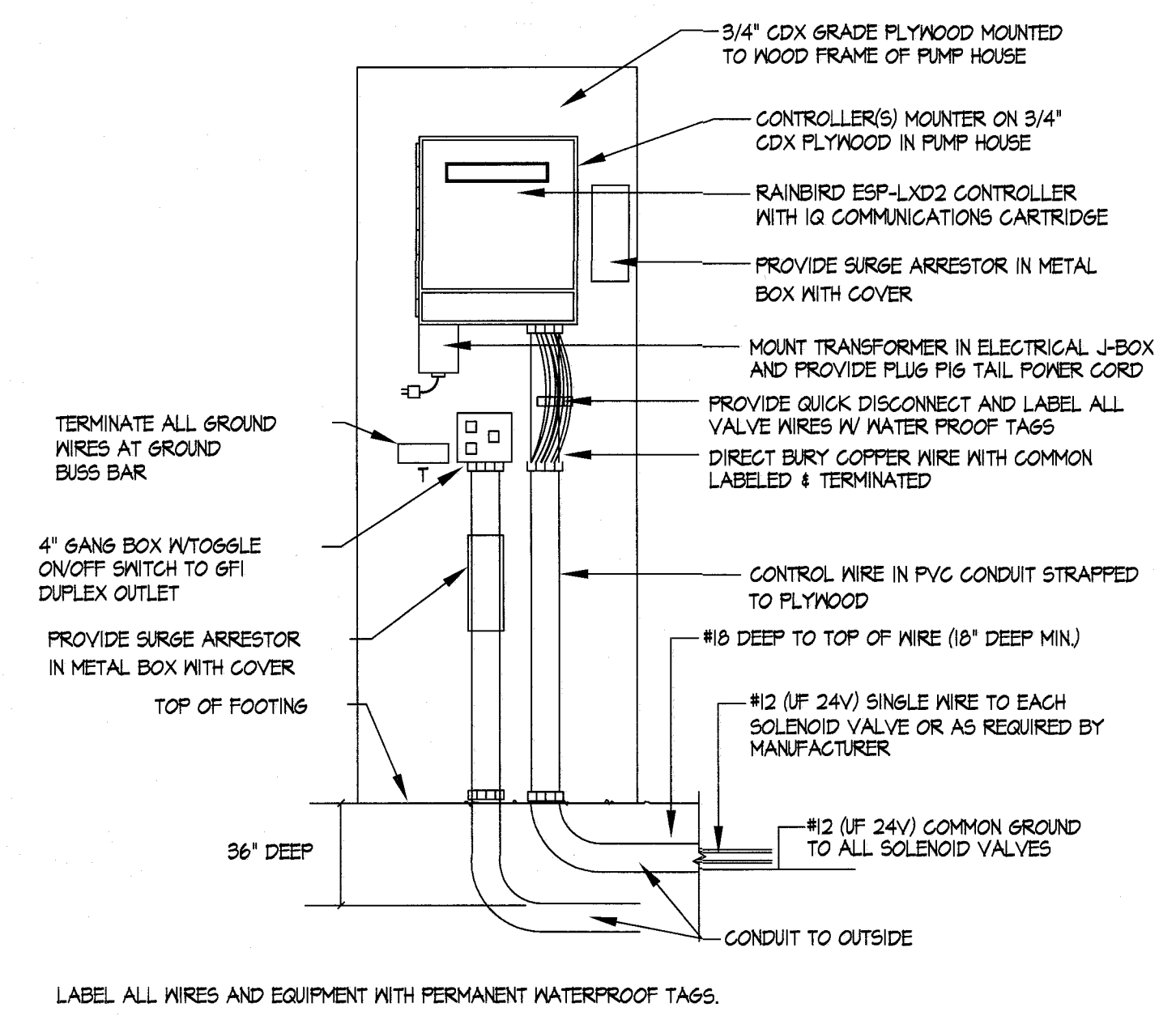
19 BACKFLOW IN PUMP ENCLOSURE - SECTION/ELEVATION  
NOT TO SCALE

- 1 TYPE K COPPER - SEE PLANS FOR SIZE
- 2 4" CONCRETE SLAB BELOW BACKFLOW 3000 PSI CONCRETE SAME POUR AS SHED FOOTING
- 3 STEEL SUPPORTS WITH RUBBER ISOLATORS BOLTED TO CONCRETE
- 4 INSTRUIT PIPE SUPPORT SYSTEM - DETAIL TO BE APPROVED BY PARKS.
- 5 BACKFLOW PREVENTER - SEE PLANS
- 6 BUTTERFLY VALVE
- 7 INSTALL KNOCK OUT DRAINS WITH STURDY METAL LOUVERS
- 8 4" DEPTH OF PEA GRAVEL
- 9 8' X 12' TUFF SHED. DOOR LOCATION TO BE APPROVED BY PARKS.
- 10 MUST ALIGN WITH BY-PASS ABOVE PUMP
- 11 COPPER UNION (FLANGED)
- 12 12" UNDISTURBED SOIL OR COMPACTED FILL TO MODIFIED PROCTOR 98% BELOW ALL CONCRETE.
- 13 3" LAYER OF GRAVEL OUTSIDE OF SHED
- 14 12" X 24" CONCRETE FOOTING MINIMUM SIZE BELOW WALLS. SEE DETAIL T ON L12.

PROVIDE CLEARANCES FOR BACKFLOW DEVICE OF:  
12" ON BACKSIDE  
12" ON SUPPLY AND DISCHARGE SIDES  
18" ON FRONT SIDE (1851 SIDE)



20 PUMP ENCLOSURE FOOTING DETAIL - SECTION/ELEVATION  
NOT TO SCALE



21 WALL MOUNTED CONTROLLER MAXICOM COMPATIBLE  
NOT TO SCALE

IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TEQO 512-239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947



REVISIONS

DATE

LANDSCAPE ARCHITECT  
LISA MENELIS  
6888 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88001  
(505) 621-9052

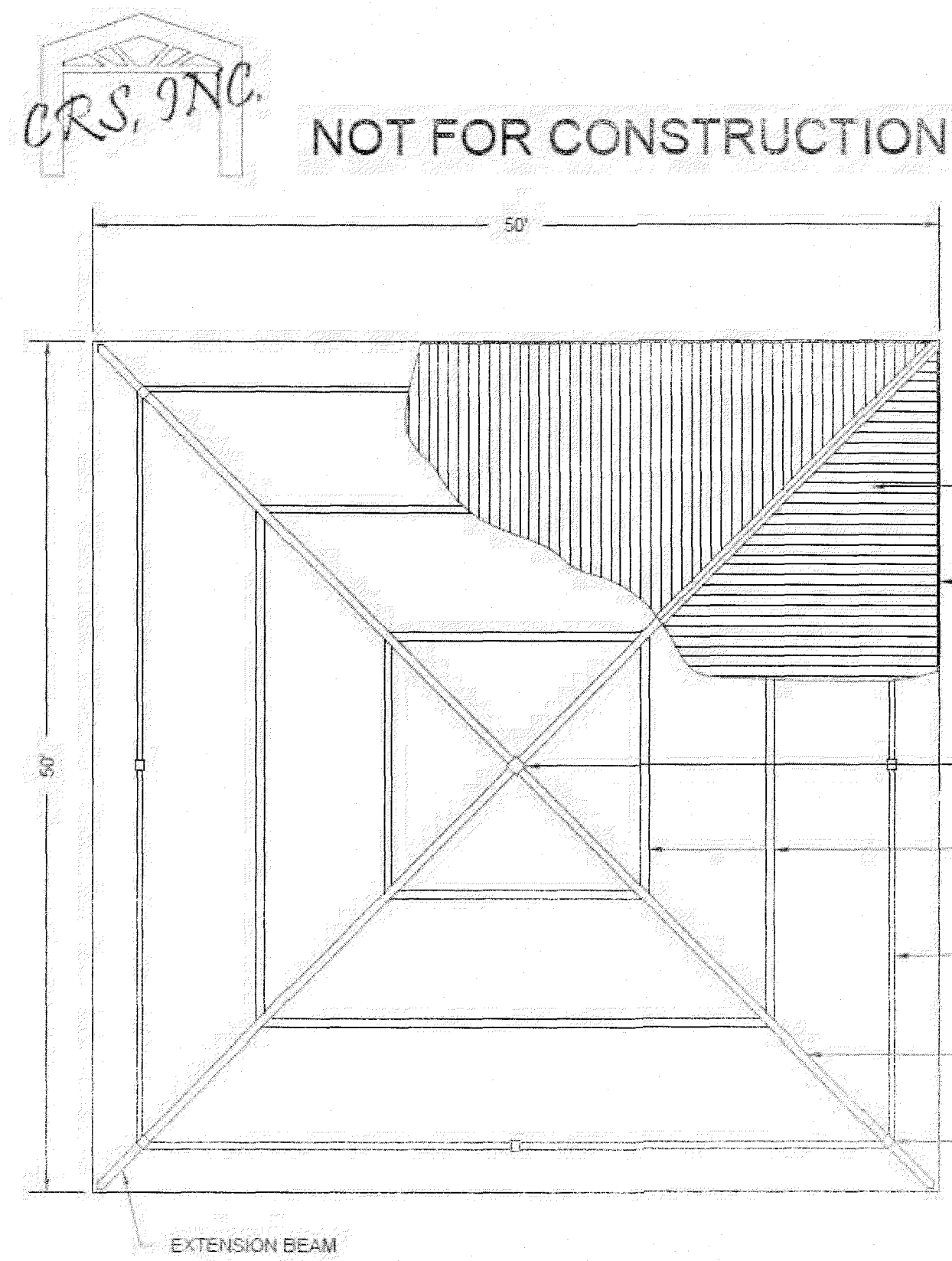
ARCHITECT'S SEAL

PROJECT TITLE  
**BRYANT PARK**  
6833 DALHART DRIVE  
LOT 26 BLOCK 6  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 74706 SQ. FT. - 1.71 ACRES

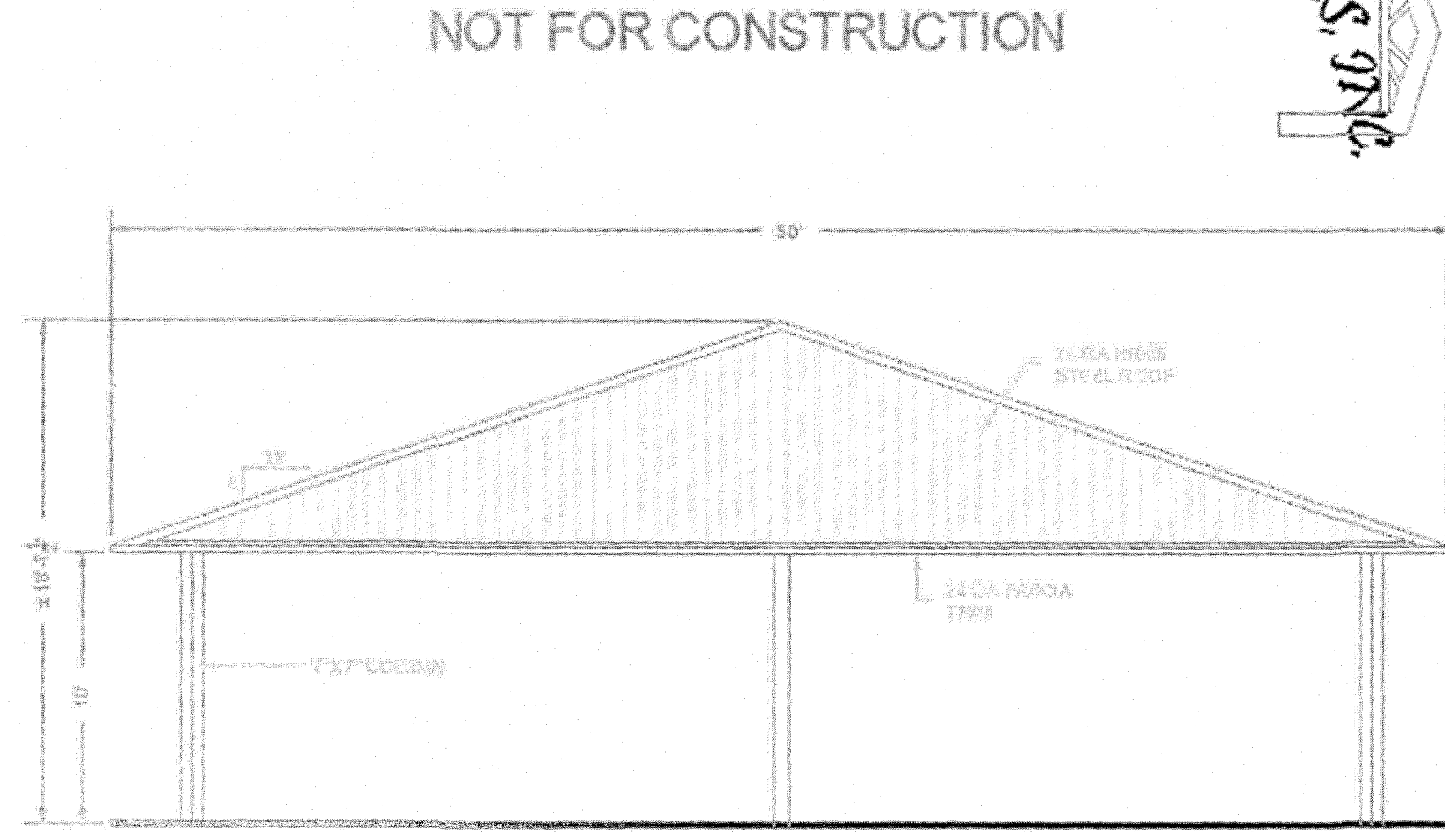
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DRAWN BY: LM  
CHKD. BY: LM  
APPVD. BY: LM  
JOB No.

SHEET TITLE  
**L10**  
PUMP  
DETAILS  
SHEET 10 OF 11

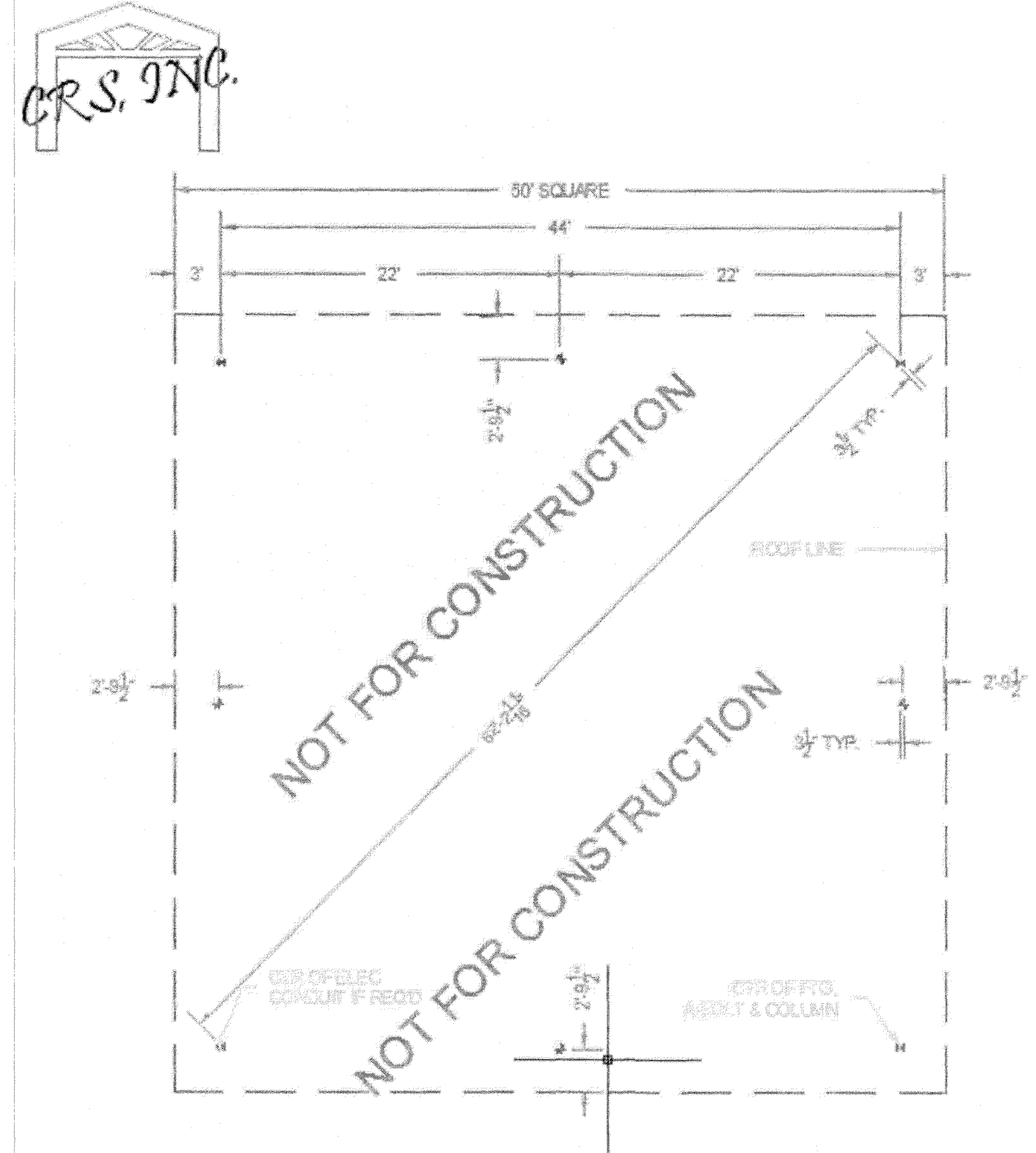




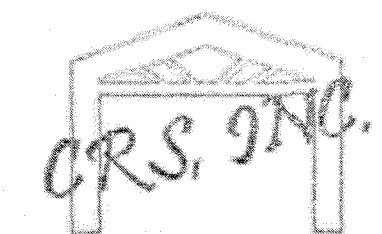
PLAN VIEW 50'X50' MESA MODEL  
NTS



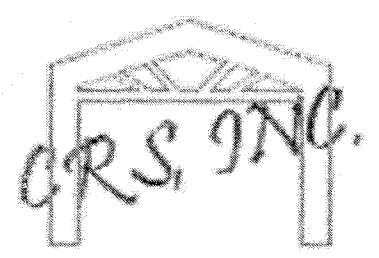
ELEVATION 50'X50' MESA MODEL  
NTS



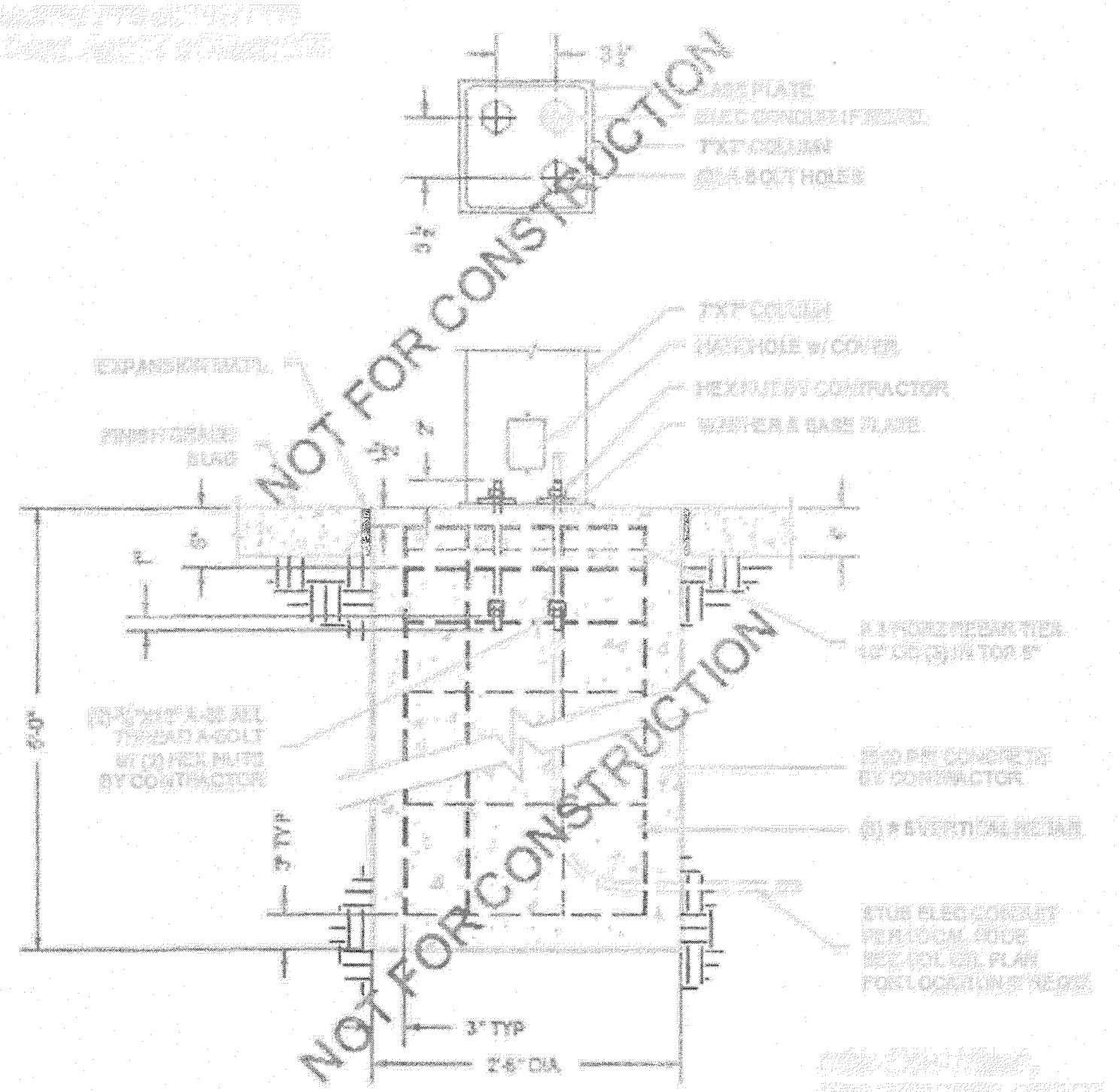
LAYOUT PLAN 50'X50' MESA MODEL  
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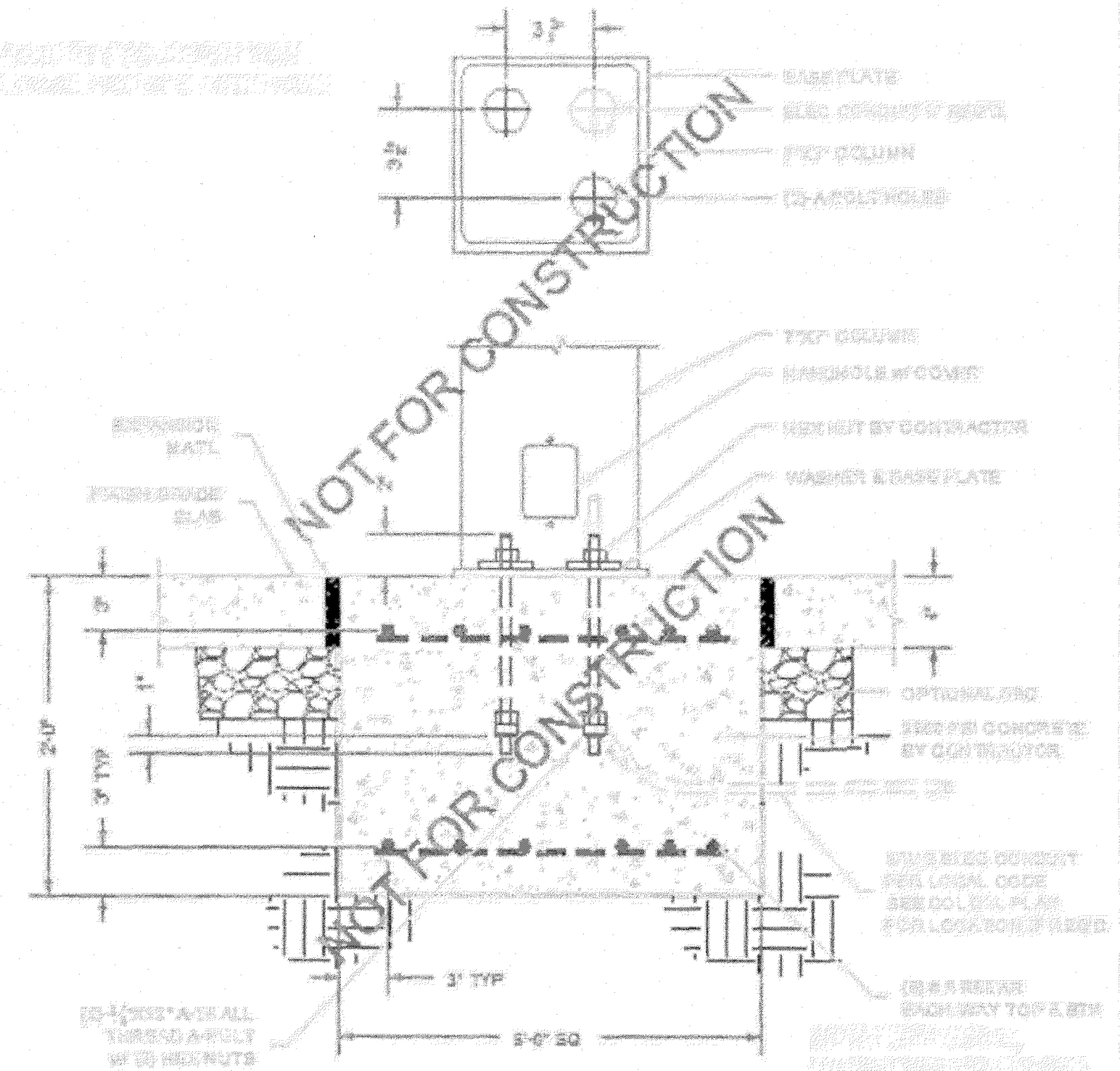
NOTE: FOR ILLUSTRATION ONLY!  
FOOTING SIZE MAY CHANGE W/  
STRUCTURAL ENGINEERING



NOTE: FOR ILLUSTRATION ONLY!  
FOOTING SIZE MAY CHANGE W/  
STRUCTURAL ENGINEERING



2-BOLT SURFACE MOUNT CAISSON FOOTING  
50'X50' MESA MODEL  
NTS



2-BOLT SURFACE MOUNT SPREAD FOOTING  
50'X50' MESA MODEL  
NTS

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Signature: Karla Chavez  
DATE: 5/18/21

REVISIONS				
DATE				
ARCHITECT'S SEAL	LISA MCNEELIS LANDSCAPE ARCHITECT 6833 DALHART DRIVE LOT 28 BLOCK 6 VILLAS DEL NORTE UNIT 1 CITY OF EL PASO, EL PASO, TEXAS 79928 AREA: 74706 SQ. FT. - 1.71 ACRES (575) 621-9232			
SCALE	Horizontal: N/A Vertical: N/A Contour Interval: N/A DATE: LM DESIGN BY: LM DRAWN BY: LM CHECK BY: LM APPROV. BY: LM JOB No.			
PROJECT TITLE	<b>BRYANT PARK</b> 6833 DALHART DRIVE LOT 28 BLOCK 6 VILLAS DEL NORTE UNIT 1 CITY OF EL PASO, EL PASO, TEXAS 79928 AREA: 74706 SQ. FT. - 1.71 ACRES			
SHEET TITLE	<b>L11</b> SHELTER DETAILS			
	SHEET 11 OF 11			

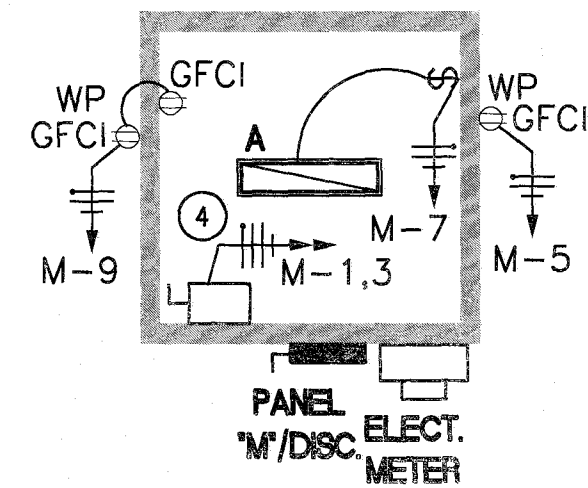




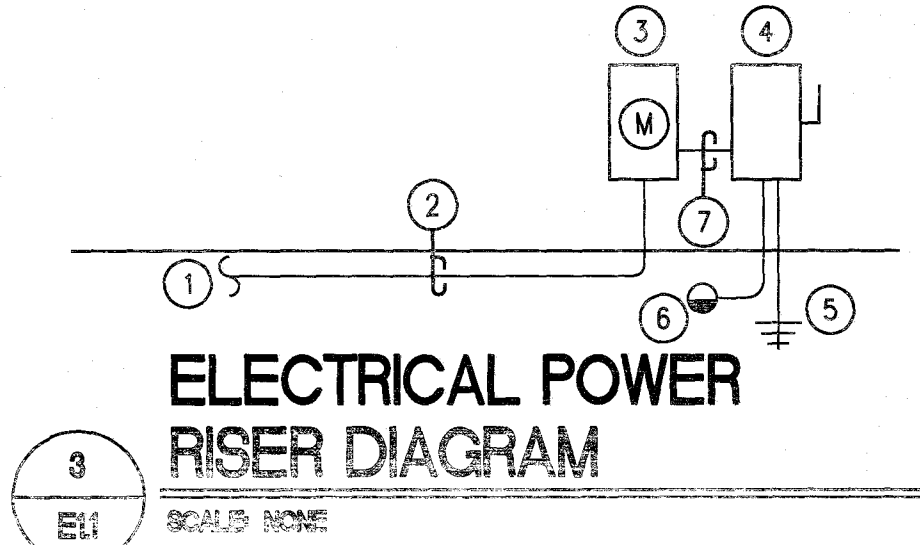


**ELECTRICAL RISER KEYED NOTES:**

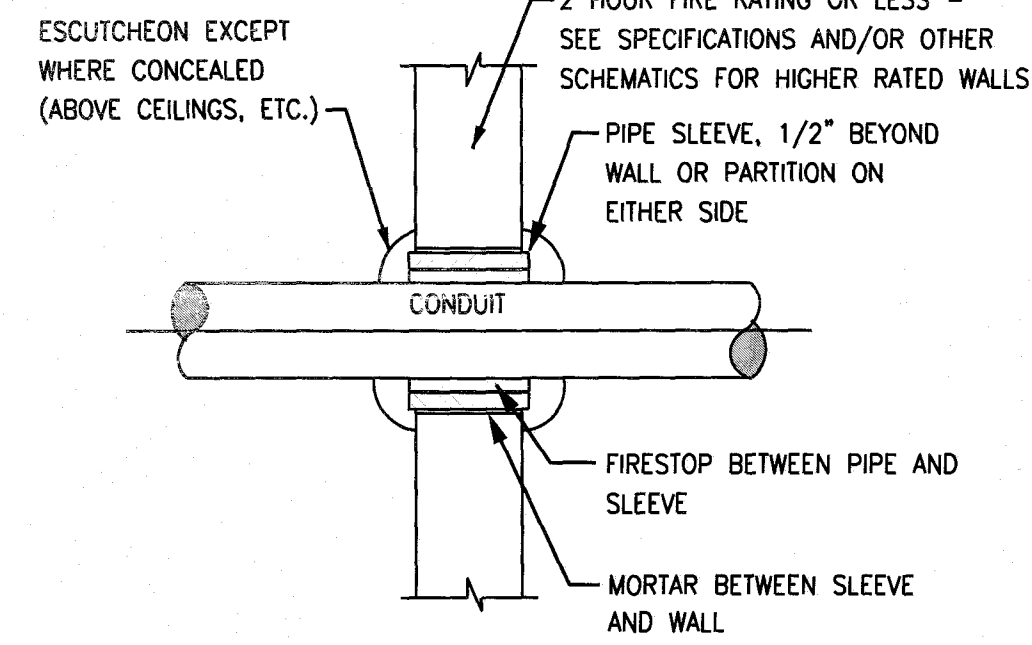
- 1 TO EPE SERVICE
- 2 #4/0 TRIPLEX FROM EPE
- 3 METER PER EPE REQUIREMENTS
- 4 100A 240/120V NGR PANEL
- 5 #8 CU TO 2 5/8"XB' COPPER CLAD GROUND RODS
- 6 #8 CU TO METALLIC COLD WATER PIPE
- 7 3 #2 CU THWN AND #8 CU GROUND IN 1-1/4" CONDUIT.



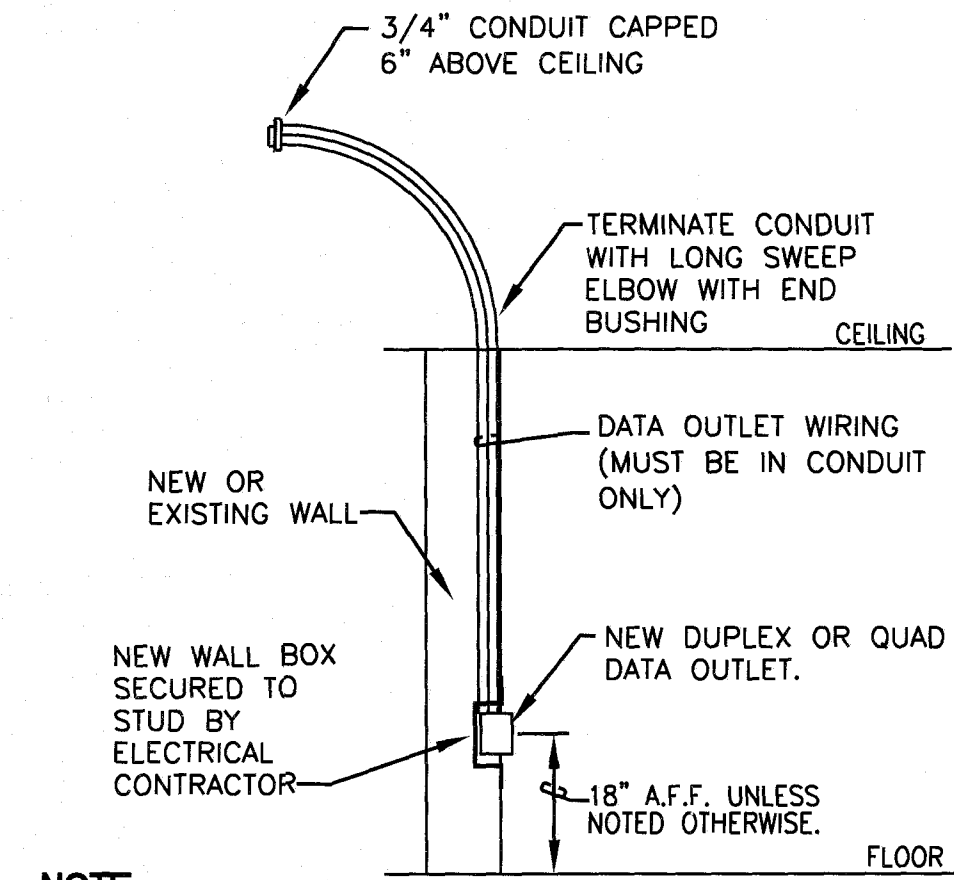
**ENLARGED ELECTRICAL PUMP HOUSE PLAN**  
SCALE: 1/8" = 1'-0"



**ELECTRICAL POWER RISER DIAGRAM**  
SCALE: NONE



**INTERIOR WALL CONDUIT PENETRATION**  
SCALE: NONE



**DUPLUX OR QUAD, DATA OUTLET MOUNTING SCHEMATIC**  
SCALE: NONE

**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
SCS	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 521-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (AFTER HOURS)	(915) 621-6750 (915) 240-3220

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

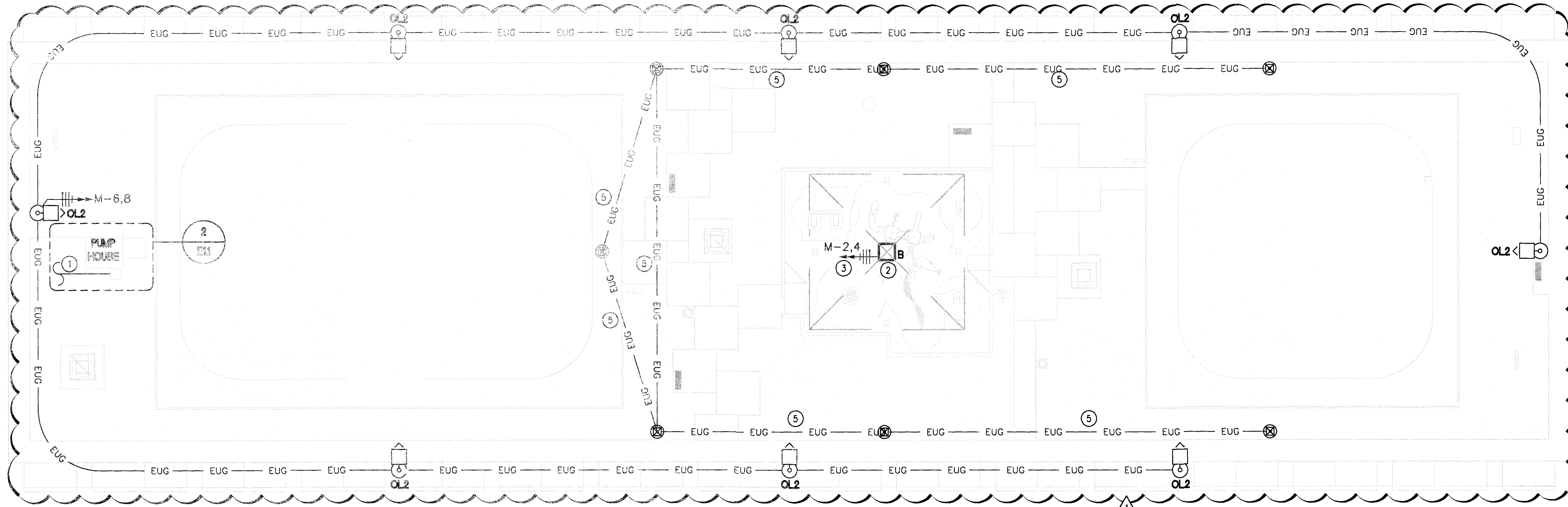
**REFERENCES - BENCHMARKS**

CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLAYDALE DRIVE AND PALOMINO STREET	ELEVATION: 3939.32 (NAVD 88)
	ELEVATION: 3928.24' (CITY DATUM)

**APPROVED FOR CONSTRUCTION**  
Parks & Recreation Department Planning

*Karla Chavez*  
SIGNATURE  
*3/18/21*  
DATE

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



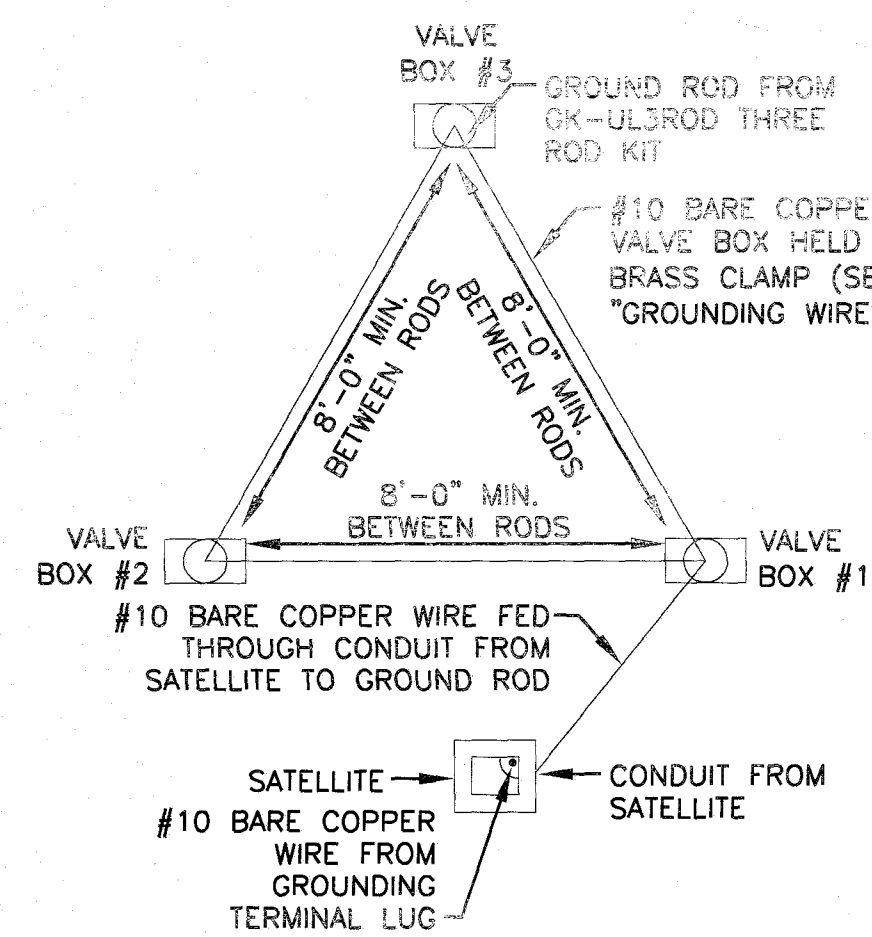
**ELECTRICAL GENERAL NOTES:**

- 1 UNDERGROUND WIRING TO BE XHHW.

**ELECTRICAL KEYED NOTES:**

- 1 PAD MOUNT TRANSFORMER BY EPE.
- 2 RUN CONDUIT AND WIRING FOR LIGHT INSIDE CANOPY REFER TO STRUCTURAL DETAILS OF CANOPY FOR PLACEMENT OF CONDUIT IN FOOTING AND COLUMN.
- 3 VIA ASTRONIMICAL TIME CLOCK AND PHOTOCCELL. PLACE TIMER AND PHOTOCCELL AT PUMP HOUSE.
- 4 COORDINATE PUMP EQUIPMENT LOCATION PRIOR TO INSTALL.
- 5 SEE VALVE BOX GROUNDING SCHEMATIC.

**ELECTRICAL SITE LIGHTING PLAN**  
SCALE: 1" = 20'-0"



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

**PLAN VIEW**  
SCALE: NONE

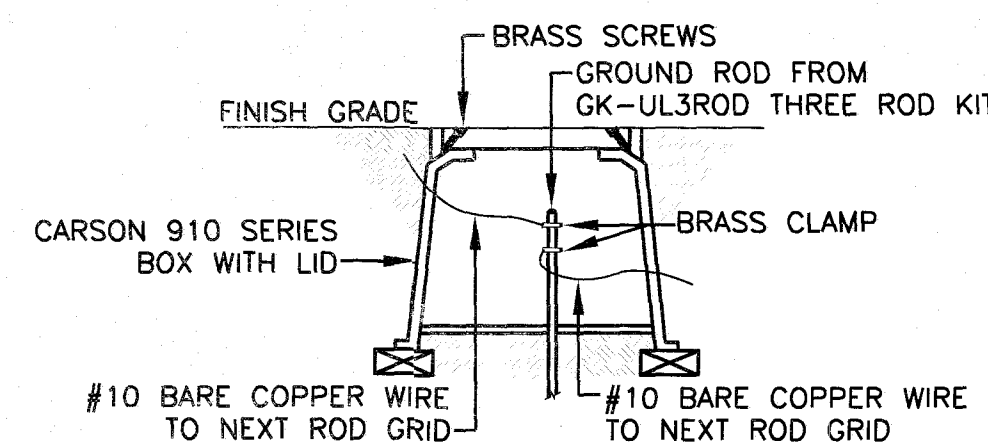
**7 VALVE BOX GROUNDING SCHEMATIC**  
SCALE: NONE

**GROUNDING ROD NOTES:**

GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH.

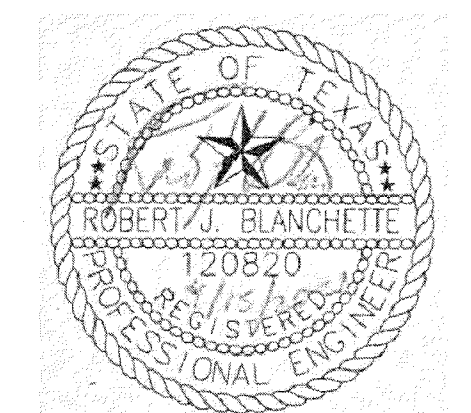
CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:

1. ALWAYS USE A 5/8"XB' COPPER CLAD ROD.
2. RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
5. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
6. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
7. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GRATER THAN 15 OHMS.
8. WHENEVER MORE THEN ONE WIRE IS ATTACHED TO A GROUND ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
9. GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM.

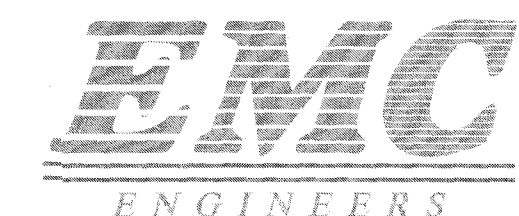


NOTE: SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS

**GROUNDING WIRES SCHEMATIC**  
SCALE: NONE



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EMC ENGINEERS  
2711 E. EL PASO AVE. SUITE 312  
EL PASO, TEXAS 79743  
PH: 915-781-5110  
FAX: 915-81-5075  
TEXAS FIRM REG. #2491  
EMC PROJECT #210208

PROJECT TITLE: **PARK #1 VILLAS DEL NORTE UNIT ONE SUBDIVISION IMPROVEMENTS**

SCALE: Vertical: Interval: 1/4" Contour: Interval: 201 DATE: MARCH 2021 DESIGN BY: EMC DRAWN BY: EMC CHKD. BY: EMC APPVD. BY: EMC JOB No.: 2000-224LD

SHEET TITLE: **ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS**

SHEET NO.: **E1.1**

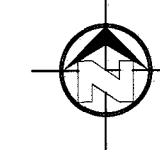
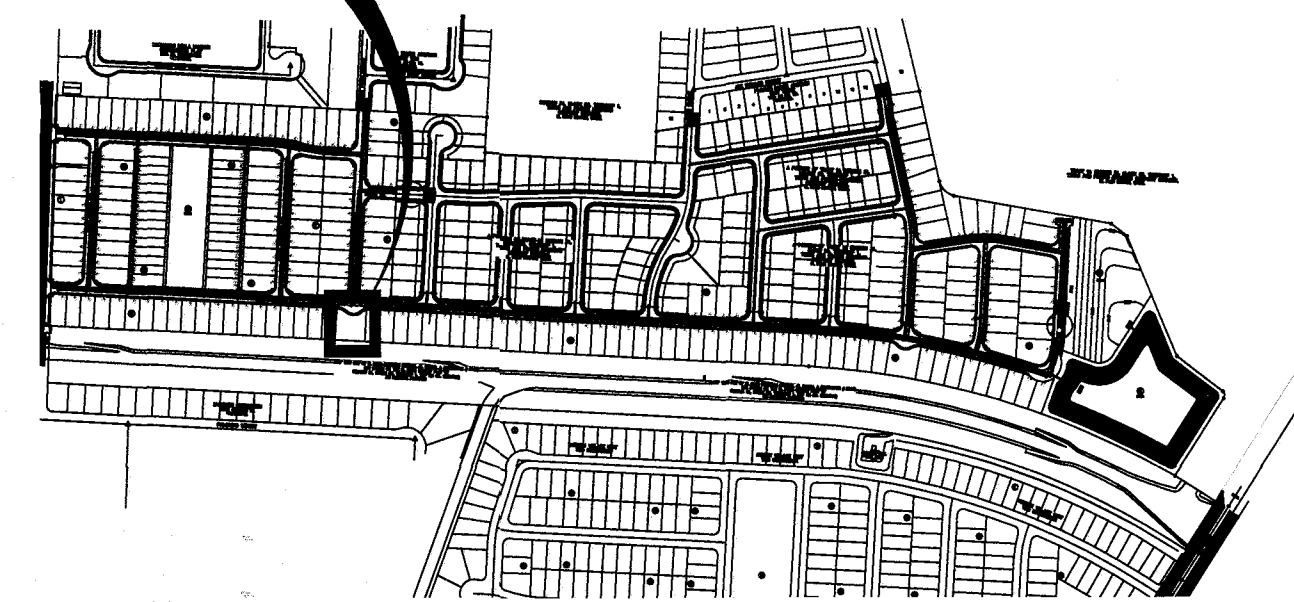


APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

*Karla Chavez*  
SIGNATURE

*3/18/24*  
DATE

DA HART  
PARK



LOCATION MAP  
SCALE 1"=600'

TREES AND OTHER PLANTS DELIVERED TO THE SITE SHALL BE COVERED WITH CANVAS TARP DURING TRANSPORT. PLASTIC TARPS ARE PROHIBITED. TRANSPORT IN ENCLOSED VAN IS ACCEPTABLE BUT PLANTS MUST BE UNLOADED IMMEDIATELY UPON ARRIVAL AT SITE.

DO NOT LIFT TREES BY THE TRUNK. LIFT BY CONTAINER.

**SODDING NOTES**

- SUBMIT THE FOLLOWING:**
- SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS.
- QUALITY ASSURANCE**
- MINIMUM AGE 18 MONTHS, WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING, WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS. DELIVERY, STORAGE AND HANDLING.
  - TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
  - DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING HEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DEGRADATION DURING DELIVERY AND WHILE STORED ON SITE.
- SITE CONDITIONS**
- PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
  - WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
  - PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.
- SOIL AMENDMENTS**
- PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSES OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AEDED ORGANIC COMPOST OR APPROVED EQUAL.
- FERTILIZER**
- SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1,000 SQUARE FEET BY WEIGHT.
- GRASS MATERIALS**
- PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.
- PREPARATION**
- PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 C.Y./1000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER. ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAG, AND LASER LEVEL TO AN EVEN GRADE, THEN ROLL FOR FIRMNESS, RAKE TILLED AREA AND REMOVE STONES OVER 1 INCH IN ANY DIMENSION, STICKS, ROOTS, RUBBISH AND OTHER EXTRANEOUS MATTER. ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.
- SODDING OPERATIONS**
- LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN GROUND.
  - IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MUDDY SOIL CONDITION.
  - REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED.
  - LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN 1/8" LAY SOD OVER MOISTENED SOIL, LIGHTLY RAKING THE SOIL AHEAD OF EACH SOD STRIP. BUT ENDS AND SIDES OF SOD STRIPS, DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD.
  - WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.
- MAINTENANCE**
- BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
  - MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTHWEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE, AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
  - SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS.
  - MAINTENANCE TO INCLUDE:  
WATER SOD THOROUGH EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING. REPAIR, REMARK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED. REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD. MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING. FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1,000 SQ.FT. OF NITROGEN, WATER THOROUGHLY.
  - ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- CLEANUP AND PROTECTION**
- DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
  - PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.
- INSPECTION AND ACCEPTANCE**
- WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND MATERIALS PROMPTLY FROM PROJECT SITE.

**GENERAL IRRIGATION NOTES**

- ALL MATERIALS LISTED BY BRAND NAME MAY BE SUBSTITUTED BY EQUAL OR BETTER PRODUCTS AS APPROVED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES, AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER CONTRACTORS WORKING ON THE SITE. COORDINATE INSTALLATION OF SLEEVING!
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WATER PRESSURE, WATER SOURCE AND SIZE IN THE FIELD PRIOR TO CONSTRUCTION. SHOULD A DISCREPANCY EXIST BETWEEN DESIGN PRESSURE AND FIELD PRESSURE THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
- IF PRESSURE IS MORE THAN 45 PSI DOWNSTREAM OF METER NOTIFY THE PROJECT MANAGER AND LANDSCAPE ARCHITECT IMMEDIATELY.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
- LOCATION OF THE CONTROLLER AND BACKFLOW SHALL BE APPROVED BY CITY OF EL PASO PARKS AND RECREATION DEPT.
- STAKE OUT ROTOR HEAD AND PIPING LOCATIONS PRIOR TO TRENCHING. AFTER APPROVAL BY CITY OF EL PASO PARKS AND RECREATION DEPT., TRENCHING AND EQUIPMENT INSTALLATION MAY BEGIN.
- THE CONTRACTOR SHALL NOT IMPEDE DRAINAGE IN ANY WAY. THE CONTRACTOR SHALL ALWAYS MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS, WALLS, ETC.
- ALL PIPING/WIRING RUNNING BENEATH PAVED SURFACES (DRIVES, WALKS, ETC.) SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES. SLEEVES MUST BE 2 X THE DIAMETER SIZE OF PIPE ENCASED, REMOTE CONTROL WIRING MUST BE RUN IN SEPARATE SLEEVES FROM IRRIGATION PIPE SLEEVES. EXTEND SLEEVE TWENTY-FOUR INCHES (24") BEYOND EDGE OF HARD SURFACES, WRAP ENDS WITH FOUR (4) MILS PLASTIC AND GOOD QUALITY PLASTIC TAPE. GRAY, CLOTH DUCT TAPE IS NOT ACCEPTABLE.
- DIRECT BURIAL 24V ELECTRIC CONTROL WIRE (#14) AND COMMON GROUND (#12) SHALL BE STANDARD COLORS- RED(HOT) AND WHITE(COMMON). INSTALL WIRE WITH SLACK TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION LABEL ALL WIRE ENDS AT CONTROLLER AND IN VALVE BOX. PROVIDE THREE SPARE REMOTE CONTROL VALVE WIRES FOR EACH CONTROLLER AND EXTEND TO FURTHEST VALVE. WIRING SHALL BE IN SEPARATE TRENCH FIVE FEET (5') FROM PRESSURE MAIN LINE ON NORTH AND WEST SIDE OF MAIN. PROVIDE EXPANSION LOOPS FOR WIRING EVERY 200'. WIRES SHALL NOT BE STRETCHED TIGHT. USE DRIP-SLEEVE CONNECTORS FACTORY FILLED WITH SILICONE FOR VALVE WIRE. SPLICERS ARE NOT ALLOWED BETWEEN CONTROLLER AND VALVES. SPARE REMOTE CONTROL VALVE WIRES MUST BE OTHER THAN STANDARD RED IN COLOR.
- ALL VALVES SHALL BE TAGGED WITH A WATERPROOF TAG SHOWING VALVE NUMBER, LABEL ALL WIRING AT CONTROLLERS AND PANELS.
- ALL PIPE CUTS SHALL BE BEveled TO 90 DEGREES TO ASSURE PROPER SOLVENT WELD. ALL BURRS SHALL BE REMOVED PRIOR TO GLUING AND MUST HAVE A FILED BEVELED EDGE A MINIMUM OF ONE FOURTH (1/4) THE WIDTH OF PIPE WALL. USE "3-STEP" GLUING PROCESS. PIPE MUST BE CLEAN AND PRIMER APPLIED AS RECOMMENDED BY MANUFACTURER WHEN GLUING PROCESS IS UNDERTAKEN. PRIMER SHOULD BE MOIST AS GLUE IS APPLIED AND PVC PIPING IS ASSEMBLED. USE IPS WELD-ON PURPLE PRIMER P88 OR P10. USE IPS WELD-ON GRAY GLUE #711 HEAVY DUTY. WIPE OFF ALL EXCESS CEMENT AND LET SET PER MANUFACTURER'S RECOMMENDATIONS. INITIAL SET TIMES SHALL BE MINIMUM OF 5 MIN. FOR 1/2 TO 1 1/4" PIPE, 8 MIN. FOR 1 1/2" PIPE TO 2" PIPE, 2 HOURS FOR 2 1/2" TO 6" PIPE. CURE TIMES ARE 20 MIN FOR 1/2" TO 1 1/4" PIPE, 30 MIN. FOR 1 1/2" PIPE, 4 HOURS FOR 2 1/2" PIPE. WHEN HUMIDITY EXCEEDS 80% INCREASE CURE TIME BY 50%. ONCE WELD IS SET, PIPE SHALL NOT BE MOVED FOR ANY REASON UNTIL SET TIMES HAVE BEEN ACHIEVED. WATER SHALL NOT BE TURNED ON UNTIL ALL CURE TIMES HAVE BEEN ACHIEVED.
- A CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE MUST BE PRESENT DURING ALL FLUSHING, TESTING AND ADJUSTING. THE CONTRACTOR MUST PROVIDE 24 HRS NOTICE TO THE CITY OF EL PASO PARKS AND RECREATION DEPT. PRIOR TO CONDUCTING THE TESTS. FLUSHING AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PARKS AND RECREATION DEPARTMENT DESIGN AND CONSTRUCTION STANDARDS.
- THE FINISH GRADE OF ALL TRENCHED AREAS SHALL BE SMOOTH, EVEN AND CONSISTENT, FREE OF ANY HUMPS, DEPRESSIONS OR OTHER GRADING IRREGULARITIES. OVERFILL TRENCHES AND COMPACT SO NOT TO CRUSH THE PIPE. PRIOR TO SODDING INSPECT TRENCHES FOR SETTLING AND BACKFILL AND REGRADE IF NECESSARY. DO NOT LAY SOD UNTIL TRENCHES ARE ACCEPTABLE.
- THE CONTRACTOR SHALL FINE TUNE AND ADJUST THE IRRIGATION SYSTEM SO THAT NO WATER WILL RUN ONTO THE STREET OR WALKS.
- THE CONTRACTOR SHALL PROVIDE A WATER AUDIT CONDUCTED IN THE PRESENCE OF THE CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE.
- THE CONTRACTOR SHALL MAINTAIN ALL WORK UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- WATERING TIME: TO SET TURF STATIONS. SEE TURF IRRIGATION SYSTEM DESIGN CRITERIA. SET PER LOCAL WATERING CODES.
- WARRANTY PERIOD IS ONE YEAR FROM DATE OF ACCEPTANCE.

PROJECT MUST BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TAS REQUIREMENTS TO INCLUDE INSPECTION AND CERTIFICATE OF SUBSTANTIAL COMPLETION. TABS REGISTRATION # TABS2021010554

**WATER AUDIT**

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.

**PLANTING NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR.
- TOPSOIL MATERIAL FOR PLANTING SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT WOULD BE TOXIC OR HARMFUL TO GROWTH.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
- IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
- THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIFER SIZE, AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS.
- EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL-DIAMETER OF SHRUBS AND ROOT BALLS OF TREES. SCARIFY THE BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND/VERTICAL WITHOUT LEANING.
- REMOVE ALL WIRE STRING, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOT BALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
- CONTRACTOR WILL NOT PLANT MATERIAL SHOWN ON PLANS WHEN IT IS EVIDENT THAT FIELD CONDITIONS HAVE CHANGED SINCE PLANS WERE DRAWN OR IF OTHER CONFLICTS ARE EVIDENT. ANY CHANGES ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PLANTING IS DONE IN THE AREA.
- PLANT SUBSTITUTIONS WILL BE PERMITTED DUE TO AVAILABILITY ISSUES NOT PRICE. REQUEST SUBSTITUTION IN WRITING GIVING REASON FOR SUCH SUBSTITUTIONS.
- TURF QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SURFLAN. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
- SEEDED AREAS SHOULD BE MAINTAINED UNTIL A FULL GROWTH OF WILD GRASS OR SEEDED MATERIAL IS ACHIEVED.
- WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUND COVER).

UNSUITABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS

DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH; COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.

ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2013.

ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DISEIGNERS ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH 6TOP SOIL A / SANDY LOAM MATERIAL (BLEND OF 40% SAND, 40% SILT, & 20% CLAY - CAPABLE OF HOLDING MOISTURE) TO INCLUDE ORGANIC MATTER / NUTRIENTS TO A MINIMUM DEPTH OF 12 INCHES.

**SHEET INDEX**

L1	SITE MAP, SHEET INDEX, NOTES
L2	PARK PLANTING AND MATERIALS PLAN
L3	PARK IRRIGATION
L4	PARK LAYOUT
L5	CONSTRUCTION DETAILS
L6	IRRIGATION DETAILS
L7	IRRIGATION DETAILS

DATE: REFERENCES - BENCHMARKS

ARCHITECT'S SEAL: LISA MCNEELIS, LANDSCAPE ARCHITECT, 688 STONE CANYON DRIVE, LAS CRUCES, NEW MEXICO 88011, (575) 621-5052

ARCHITECT'S SEAL: LANDSCAPE ARCHITECT & SEAL OF THE STATE OF TEXAS, 1736

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

DATE: DESIGN BY: LM, DRAWN BY: LM, CHKD. BY: LM, APPVD. BY: LM, JOB NO.:

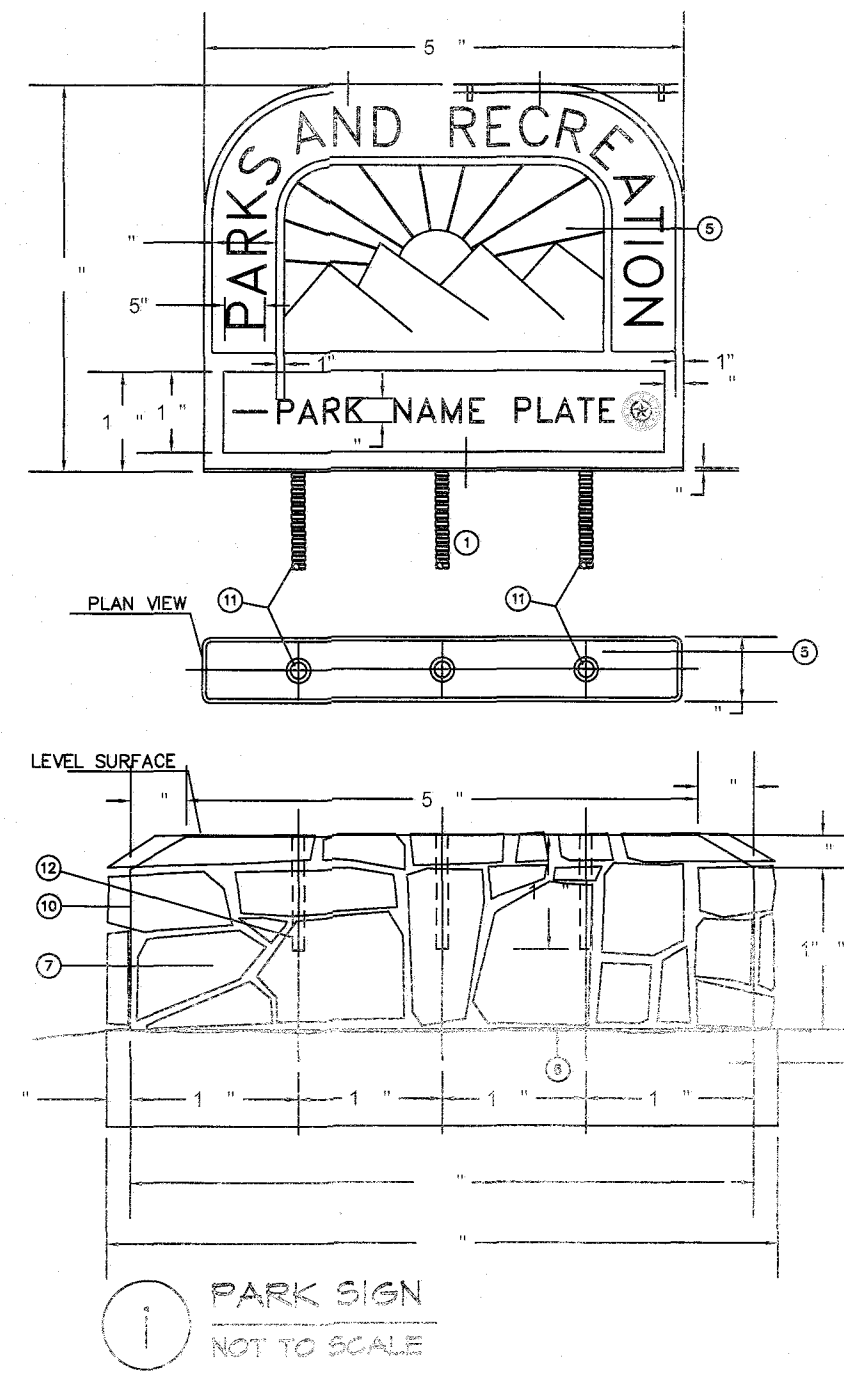
PROJECT TITLE: DALHART, 5880 DALHART DRIVE, LOT 21 BLOCK 8, VILLAS DEL NORTE UNIT 1, CITY OF EL PASO, EL PASO, TEXAS 79928, AREA: 10182 SQ. FT. - .233 ACRES

SHEET TITLE: L1

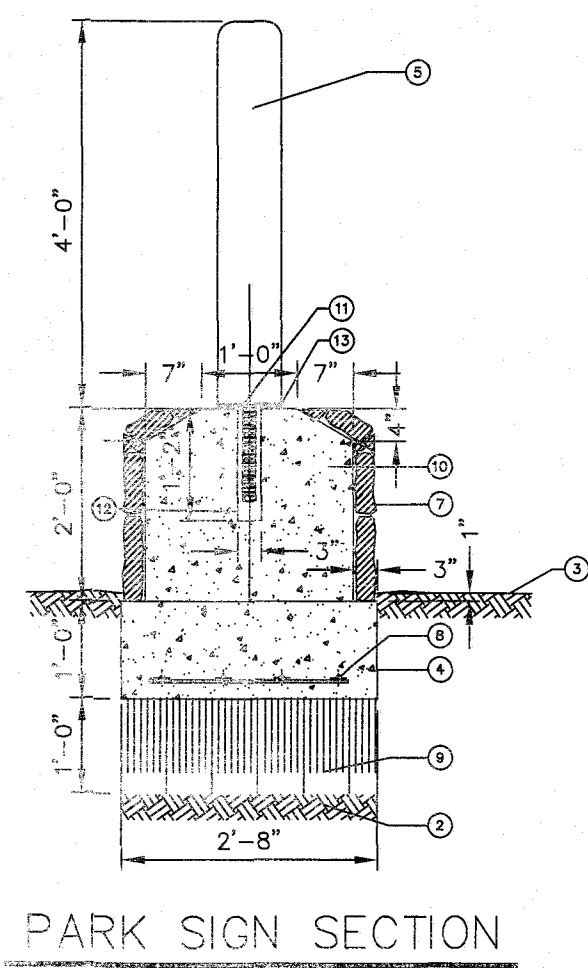
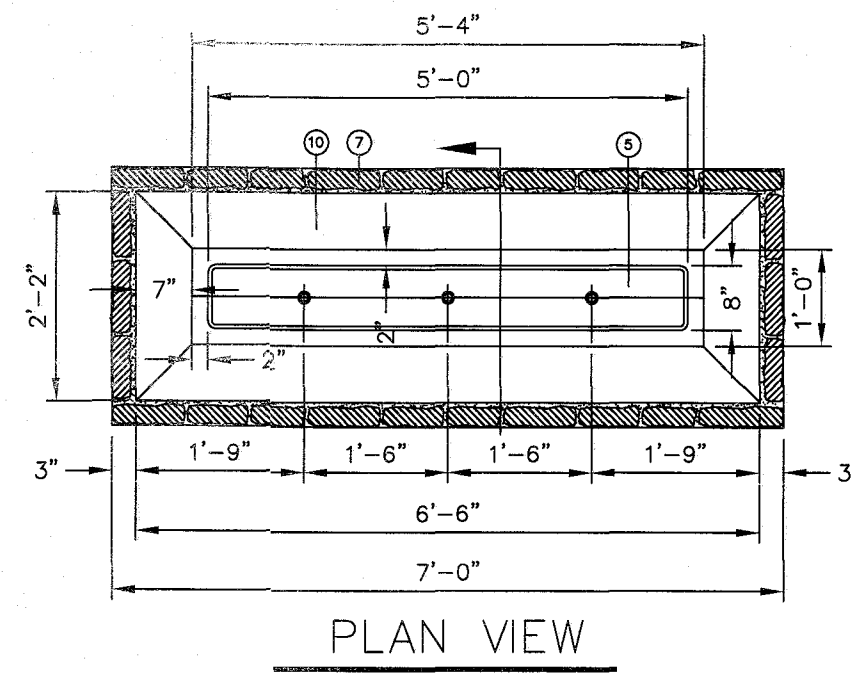
INDEX AND NOTES: SHEET 1 OF 7



Karla Chavez  
SIGNATURE  
5/16/21  
DATE



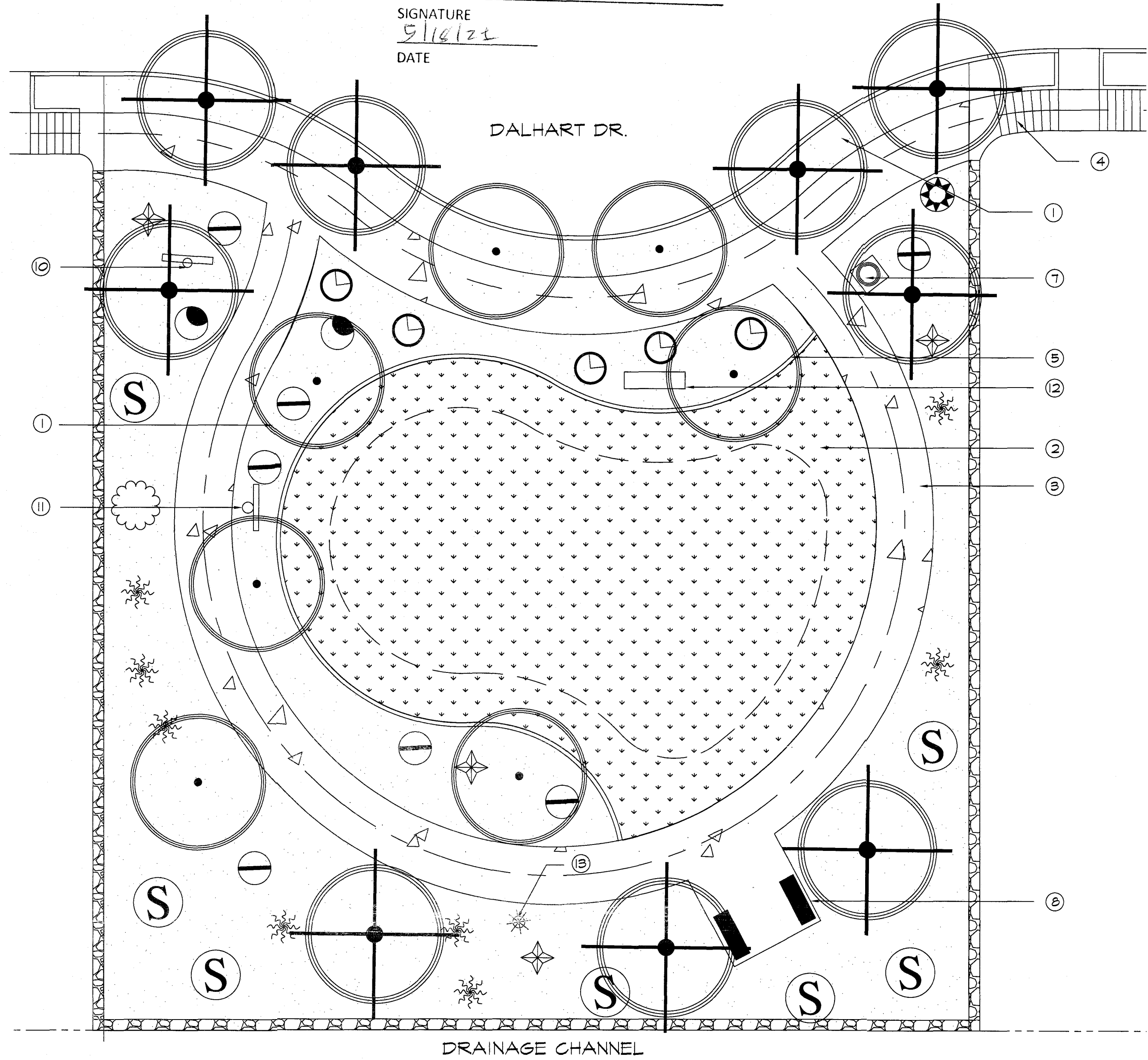
- KEY NOTE**
- 1 PARK NAME SIGN MANUFACTURER
  - 2 EXISTING GROUND TO REMAIN UNDISTURBED. DISTURBED GROUND TO BE COMPACTED TO PER A TYPICALS
  - 3 FINISHED GRADE SEE GRADING PLAN
  - 4 CONTINGENT ON RETEATING
  - 5 PRELIMINARY ON RETEATING AREA TO BE REFERRED TO PER
  - 6 P I ON RETEATING AREA
  - 7 2" ROCK VENEER, MOUNT, FRANKLIN ROCK CONT. 1" O.
  - 8 1" ENGINEERED IE D COMPACTED TO MODIFIED PRO TOR TO 5
  - 9 ON RETEATING SIGN MANUFACTURER
  - 10 TYPICAL HORIZONTAL PROPOSED SIGN MANUFACTURER
  - 11 3" X 14" DEEP LEAVE-OUT FOR ANCHORING SIGN MANUFACTURER
  - 12 PROVIDE GROUT & CEMENT FOR LEVELING SIGN.



**PARK MATERIAL LEGEND AND DETAIL KEY:**

1. FRANKLIN RED GRAVEL CRUSHER FINES 3" DEPTH 2" BELOW ALL CONCRETE SURFACES. USE WEED BARRIER. PROJECT TOTAL [5032 SF] SEE DETAIL (C) ON SHEET L5.
2. SANTA ANA BERMUDA GRASS PROJECT TOTAL [3032 SF] TOP OF SOD 2" BELOW TOP OF SIDEWALK AND CONCRETE HEADER CURB. SEE DETAIL (C) ON SHEET L5.
3. 7'-0" PARK CONCRETE WALKWAY, PATIO, BENCH & TABLE PADS. PROJECT TOTAL [2816 SF] SEE DETAIL (E) ON SHEET L5.
4. SUBDIVISION 7'-0" CONCRETE WALKWAY BY DEVELOPER.
5. 6"X12" CONCRETE HEADER CURB. PROJECT TOTAL [148' LF] SEE DETAIL (D) ON SHEET L5.
6. 6'-0" RECESSED AREA FOR WATER HARVESTING PARKS AND RECREATION REPRESENTATIVE MUST APPROVE GRADING PRIOR TO INSTALLING SOD OR GRAVEL.
7. DIMOR TRASH RECEPTACLE 84-52-RG PROJECT TOTAL [1] BLUE - INSTALL PER MANUFACTURER'S RECOMMENDATIONS SEE DETAIL (I) ON SHEET L5.
8. 6'-0" DIMOR 34 SERIES BENCH-SURFACE MOUNT TOTAL [2] BLUE. INSTALL PER MANUF. RECOMMENDATIONS FOR ADA BENCH SEE DETAIL (K) ON SHEET L5.
10. PARK INFORMATION SIGN - LOCATION SHALL BE APPROVED BY PARKS DEPT REPRESENTATIVE. SEE DETAIL (O) ON SHEET L5.
11. SUPERIOR PET WASTE ELIMINATOR STATION - SKM# EB WWW.PETWASTEELIMINATOR.COM (CITY: ) INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE DETAIL (N) ON SHEET L5.
12. PARK MONUMENT SIGN SEE DETAIL THIS SHEET.
13. AERIAL LIGHTING - 30" HIGH PRE-STRESSED CONCRETE DIRECT BURY POLE LED FIXTURES AND LAMPS. MUST COMPLY WITH CITY OF EL PASO MUNICIPAL CODE FOR OUTDOOR LIGHTING SECTION 18.18 PROJECT TOTAL [1] SEE EL PASO ELECTRIC'S PLAN IN ENGINEER'S DRAWING SET FOR PERIMETER LIGHTING.

PLANS MUST BE SUBMITTED TO TEXAS DEPT OF LICENSING AND REGULATION FOR COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS. #TAB52021010554



**PLAN VIEW - PLANTING AND MATERIALS**  
SCALE: 1" = 10' - 0"

**QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE**

PLANT LEGEND/SCHEDULE						
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	REMARKS
CS		CIMARRON SAGE-BLUE RANGER	LEICOPHYLLUM ZYGOPHYLLUM (CIMARRON)	5 GAL	6'	2 18' HT 00
RY		RED YUCCA	HESPERALOE PARVIFLORA	5 GAL	4'	4 18' HT 00
SE		SILVER CASSIA	SENNA ARTEMISOIDES	5 GAL	8'	1 4' HT 00
YL		NEW GOLD YELLOW LANTANA	LANTANA X NEW GOLD	5 GAL	4'	5 12' HT 00
RM		REGAL MIST MULHY	MHLBERGIA CAPILLARIS 'REGAL MIST'	5 GAL	6'	8 18' HT 00
YB		YELLOW BELLS	TEGOMA STANS VAR. ANGUSTATA	5 GAL	8'	1 18' HT 00
TB		TURPENTINE BUSH	ERICAMERIA LARICIFOLIA	5 GAL	4'	1 15' HT 00
CB		DM COYOTE BUSH PIGEON POINT	BACCHARIS PILULARIS PIGEON POINT	5 GAL	4'	1 8' HT 00
		SANTA ANA BERMUDA GRASS	G.DACTYLON X TRANSVAALENSIS	SOD		3032 N/A LAY SOD TIGHTLY SO THAT NO LINES ARE VISIBLE TYPWAY IT MAY BE USED AS ALTERNATE

TREE LEGEND/SCHEDULE PROJECT TOTAL					
SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	REMARKS
ME		HONEY MESQUITE	PROSOPIS GLANDULOSA	24" BOX	1 SINGLE TRUNK - FULL
PV		PALO VERDE DESERT MUSEUM	PARKINSONIA X DESERT MUSEUM	24" BOX	8 SINGLE TRUNK - FULL

**TREE NOTES:**  
MINIMUM BRANCHING CLEARANCE IS 7' OVER SIDEWALK  
DO NOT SELECT TREES WITH LOW FORK BRANCHING PATTERN. PRUNING TO MEET CLEARANCE REQUIREMENTS WILL DESTROY FORM OF TREES WITH THAT GROWTH HABIT.  
MINIMUM HEIGHT 10'. CALIPER IS MEASURED AT 6" ABOVE TOP ROOT.

**PARK SITE NOTES**

1. ALL PARK IMPROVEMENTS (SIDEWALKS, RAMPS, ETC.) AND PAVED HIKE/BIKE TRAILS (IF APPLICABLE) ARE TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAG & TAS STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.
2. UNSUITABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCULATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.
- ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2018.
- ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DISEIGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH 6TOP SOILS /

REVISIONS

DATE

ARCHITECT'S SEAL

LISA MCNELLIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
EL PASO, TEXAS 79928  
(979) 621-5023

ARCHITECT'S SEAL

5/5/21

SCALE

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

DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APP. NO. BY: LM  
JOB NO.

PROJECT TITLE

**DALHART**  
5880 DALHART DRIVE  
LOT 21 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, TEXAS 79928  
AREA: 101632 SQ. FT. - 233 ACRES

SHEET TITLE

**L2**  
PARK PLANTING AND MATERIALS

SHEET 2 OF 7



PRECIPITATION SCHEDULE									
VALVE #	VALVE SIZE	TOTAL GPM	RAINBIRD PRECIP. RATE	CALCULATED PRECIP. RATE	WATER REQUIREMENT	NOZZLE SIZE	# & TYPE OF HEADS	GPM PER HEAD	RUN TIME PER WEEK
1D	1"	6.75	DRIP	N/A	N/A	2 GPM	41 EMITTERS	21	240 MIN
2F	1"	3	.21 IN/HR	279 IN/HR	1"/WEEK	#4	1 FULL	3	41 MIN
3P	1.5"	24.75	.42 IN/HR	546 IN/HR	1"/WEEK	#4	1 PART	3	41 MIN

**IRRIGATION NOTES**

- IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMPLISHING FULL COVERAGE IN ALL AREAS WITH SPECIFIED EQUIPMENT. ANY DISCREPANCIES IN THE PLAN SHOULD BE BROUGHT TO THE PROJECT MANAGER'S ATTENTION DURING CONSTRUCTION.
- ALL FITTINGS AND NECESSARY EQUIPMENT REQUIRED TO MAKE THIS IRRIGATION SYSTEM OPERATE PROPERLY AND TO COMPLY WITH LOCAL AND STATE CODES ARE INCIDENTAL TO THESE PLANS AND ARE THE CONTRACTOR'S RESPONSIBILITY.
- CONTRACTOR WILL BE HELD LIABLE FOR GAINING ACCESS UNDER ALL PAVEMENTS.
- SLEEVES SHOWN ON THE PLANS SHOULD BE VERIFIED FOR ACCESSIBILITY AND FEASIBILITY BEFORE BID IS MADE.
- THE CONTRACTOR SHALL LOCATE AND VERIFY EACH WATER TAP TO WHICH THE IRRIGATION SYSTEM WILL CONNECT. ALL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH THE STANDARDS OF THE CITY OF EL PASO AND THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS AND VALVES REQUIRED FOR THE FULL IMPLEMENTATION OF THE SYSTEM.
- THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO INITIATING WORK.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR INTERRUPTION IN SERVICE CAUSED BY HIS EXCAVATIONS AND/OR WORK.
- EACH CONTROLLER WILL HAVE AN INDEPENDENT COMMON WIRE LOOPED TO THE VALVES CONNECTED TO IT.
- REMOTE CONTROL VALVE WIRES ARE TO BE IN A SEPARATE TRENCH 5' FROM MAIN LINE ON NORTH OR WEST SIDE OF MAINLINE.
- ALL REMOTE CONTROL VALVE WIRES NEED TO BE LABELED AT VALVE W/ WEATHER (WATER) PROOF LABELS AND AT CONTROLLER WITH CORRESPONDING LABEL. (LETTER AND/OR NUMBER TAGS IN SEQUENTIAL ORDER WILL BE PROVIDED).
- SPLICING OF REMOTE CONTROL VALVE WIRES IS NOT ALLOWED BETWEEN CONTROLLER & VALVE BOX FOR WIRES MUST BE CONTINUOUS FROM CONTROLLER TO REMOTE CONTROL VALVE WITHOUT SPLICING.
- ALL ROTOR SPRINKLER HEADS SHALL BE ON STAINLESS STEEL RISERS WITH CHECK VALVE.
- CONTRACTOR SHALL PROVIDE SLEEVES FOR NEW IRRIGATION LINES CROSSING UNDER CONCRETE SIDEWALKS. SLEEVES SHALL BE 2 TIMES THE PIPE SIZE EXTENDED 24" BEYOND EDGE OF SURFACE, BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HEAVY DUTY PLASTIC.

PRESSURE LOSS CALCULATIONS						
VALVE #3P	Length of Pipe (Feet)	Flow (Gal.)	Size (in.)	Pressure Loss Per 100 ft.	Pressure Loss This Item	Accumulated Pressure Loss
CLASS 200	19	3	3/4	0.52	0.0988	0.0988
CLASS 200	13	6	3/4	1.86	0.2418	0.3406
CLASS 200	29	9	1	1.17	0.3393	0.6799
CLASS 200	12	12	1	1.99	0.2376	0.9175
CLASS 200	5	21	1 1/4	1.92	0.0960	0.7759
<b>Section Pressure Losses (Sub-Total)</b>						0.7759
Remaining Pressure Losses						
Item	Size (in.)	Pressure Loss Per 100	Pressure Loss	Accumulated		
Section Valve	21	1.25	3.0000	3.7759		
Mainline SCH40	66	2.92	1.9272	5.7031		
	0	0	0.0000	5.7031		
Backflow	1		12.0000	17.7031		
Water Meter	1		2.8000	20.5031		
Copper Supply	40	21	1.25	2.0400	22.5431	
<b>Total Pressure Loss to the City Main</b>						22.5431
<b>Minimum Required Head Pressure</b>						30.0000
STATIC Pressure						64.0000
Actual Head Pressure						71.4869

DALHART AND PORT LAVACA - FH # 3684  
 STATIC - 44 PSI  
 666 GPM

**APPROVED FOR CONSTRUCTION**  
 Parks & Recreation Department Planning

*Karla Chavez*  
 SIGNATURE  
 DATE

**MATERIAL LEGEND FOR PARK:**

- PRESSURE MAIN PVC SCHEDULE 40, DEPTH 24" TO TOP OF PIPE. SEE DETAIL 1 ON L6.
- LATERAL FOR SPRAY PVC CLASS 200, DEPTH 16", TO TOP OF PIPE. SEE DETAIL 1 ON L6.
- LATERAL FOR DRIP PVC CLASS 200, DEPTH 16", TO TOP OF PIPE. SEE DETAIL 1 ON L6.
- SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. SLEEVES SHALL EXTEND 12" PAST PAVING. CHISEL 1" MARK IN CONCRETE CURB OR WALK TO LOCATE SLEEVE AT EACH SIDE. SIZE 2X DIA. OF PIPE TO BE SLEAVED. SEE #10 UNDER GENERAL IRRIGATION NOTES ON L1.
- FIELD WIRING SHALL BE IN A SEPARATE TRENCH 5' OFFSET FROM MAIN LINE ON NORTH AND WEST SIDE.
- DRIP EMITTER FOR TREES: RAINBIRD XERI-BIRD XBD-80 WITH FILTER AND IN STEM PRESSURE REGULATOR. USE 8 XB-20PC EMITTERS PER TREE. 21 GPM SET IN EMITTER VALVE BOX. SEE DETAILS 2, AND 3 ON L6.
- DRIP EMITTER FOR PLANTS: RAINBIRD XERI-BIRD XBD-80 WITH FILTER AND IN STEM PRESSURE REGULATOR. USE 1 XB-20PC EMITTER PER PLANT. SET IN EMITTER VALVE BOX. DO NOT EXCEED 20' OF MICROTUBE. SET EMITTER ON UPHILL SIDE OF PLANT. SEE DETAIL 2 ON L6.
- ELECTRIC REMOTE VALVE FOR SPRAY: WEATHERMATIC 8200CR-10 WITH XPR SIZE ON PLAN. IN LOCKING VALVE BOX. SEE DETAILS 4, 5 AND 6 ON SHEET L6.
- ELECTRIC REMOTE VALVE FOR DRIP: WEATHERMATIC 8200CR-10 WITH XPR SIZE ON PLAN. IN LOCKING VALVE BOX. SEE DETAILS 4, 5 ON L6 AND 11 ON SHEET L7.
- RAINBIRD FALCON 6504 MODEL F4-FC-55-H6 #4 GREY NOZZLE. FULL CIRCLE 30 PSI 31 RADIUS. 0.1 GPM & MANU. PRECIP.RATE. STAINLESS STEEL RISER. SEE DETAIL 7 ON L6.
- RAINBIRD FALCON 6504 MODEL F4-FC-55-H6 #4 NOZZLE. PART CIRCLE 30 PSI 31 RADIUS. 0.1 GPM & MANU. PRECIP.RATE. STAINLESS STEEL RISER. SEE DETAIL 7 ON L6.
- QUICK COUPLER - BUCKNER 1" DOUBLE LUG GC WITH FACTORY ASSEMBLED LASCO SWING JT THAT HAS SNAP-LOK BRASS STABILIZER FITTING. TO BE SET IN CARSON MODEL 1418 VALVE BOX WITH PURPLE FLAT LID AND VANDAL PROOF BOLT. SHALL HAVE WEATHER PROOF TAG THAT READS "NON-POTABLE WATER. NOT SAFE FOR DRINKING." SEE DETAIL 12 ON L7.
- RAINBIRD RAIN SENSOR RSD-BEX. LOCATION TO BE APPROVED BY PARKS. SEE DETAIL 13 ON L7.
- ISOLATION GATE VALVE IN LOCKING VALVE BOX USE STANDARD VALVE BOX DETAILS. SEE DETAIL 8 ON L6.
- 1" METER LOCATION ON THIS PLAN IS APPROXIMATE. FLOW: 31 GPM - STATIC PRESSURE: 44 PSI
- BACKFLOW: FEDCO REDUCED PRESSURE 825Y 1" USE ASSE 1060-CLASS 1 ENCLOSURE. ELEC. HEAT. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO PARKS DEPT. REQUIREMENTS. PORTS MUST BE 2' AWAY FROM ANY OBSTRUCTION TO ALLOW FOR INSPECTIONS. SEE DETAIL 10 ON L7.
- ALL COMPONENTS TO BE SET IN VALVE BOXES MUST CONFORM TO STANDARD INSTALLATION. SEE DETAIL 4 ON L6.
- ELECTRIC METER
- RAINBIRD ESP-861E SATELLITE CONTROLLER IN LOCKING STRONGBOX STAINLESS STEEL UNIT SB-2455 WITH PEDESTAL. SEE DETAILS 15 AND 16 ON L7.
- WILKINS PRESSURE REGULATOR IF PRESSURE IS 45 PSI BELOW THE BACKFLOW USE PRESSURE REGULATOR.

COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE CITY OF EL PASO PARKS AND REC. DEPT.

**PERFORMANCE STATISTICS**

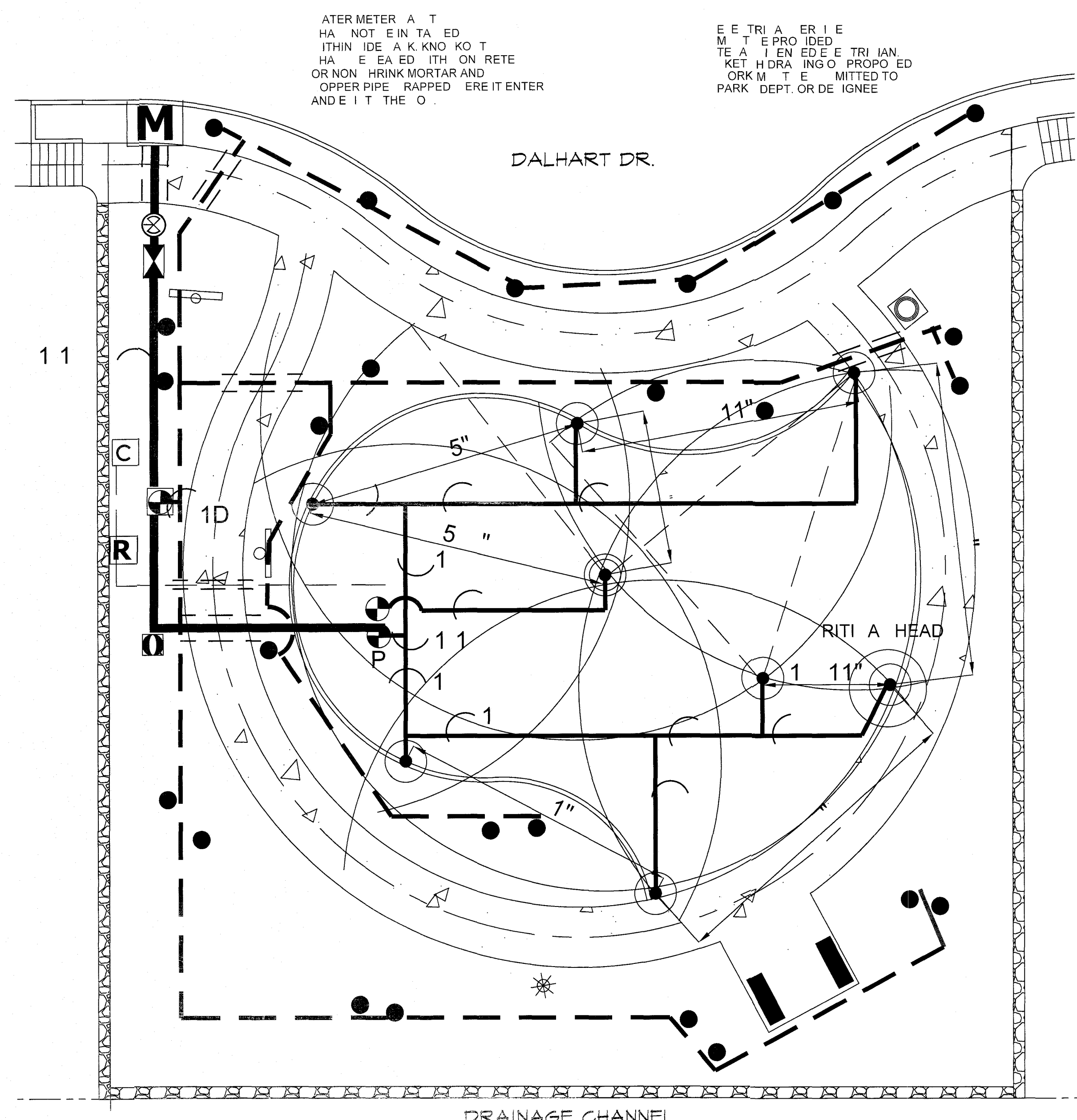
- THE FOLLOWING PERFORMANCE STATISTICS WERE CALCULATED PER PLAN. CHANGES IN OPERATING PRESSURE, HEAD SPACING AND OR NOZZLE SELECTION WILL EFFECT RESULTS.

VALVE #2F  
 $3 \times \frac{6.75}{1066} = 200.75 = 279 \text{ IN/HR FULL CIRCLE HEADS}$   
 RUN TIME FOR 1"/HR - 220 MINUTES PER WEEK

VALVE #3P  
 $3 \times \frac{24.75}{1066} = 200.75 = 546 \text{ IN/HR PART CIRCLE HEADS}$   
 RUN TIME FOR 1"/HR - 110 MINUTES PER WEEK

**WATER AUDIT**

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.



**PLAN VIEW - IRRIGATION**  
 SCALE: 1" = 10' - 0"

ID	1"
6.75	25
2F	1"
3	1
3P	1.25"
21	7

WATERING SCHEDULE 3 TIMES PER WEEK						
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTING	
1D	X	240 MIN	X X X	80 MIN	12:00 AM	
2F	X	220 MIN	X X X	74 MIN	12:00 AM	
3P	X	110 MIN	X X X	37 MIN	1:15 AM	
TOTAL RUN TIME PER DAY OF OPERATION - DRIP				80 MIN / 133 HOURS		
TOTAL RUN TIME PER DAY OF OPERATION - ROTORS				111 MIN / 184 HOURS		
TOTAL RUN TIME PER WEEK - ROTORS				330 MIN / 55 HOURS		

WATERING SCHEDULE 4 TIMES PER WEEK						
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTING	
1D	X	240 MIN	X X X X	60 MIN	12:00 AM	
2F	X	220 MIN	X X X X	55 MIN	1:01 AM	
3P	X	110 MIN	X X X X	28 MIN	1:51 AM	
TOTAL RUN TIME PER DAY OF OPERATION - DRIP				60 MIN / 133 HOURS		
TOTAL RUN TIME PER DAY OF OPERATION - ROTORS				85 MIN / 136 HOURS		
TOTAL RUN TIME PER WEEK - ROTORS				330 MIN / 55 HOURS		

IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512-239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947



REVISIONS

DATE

ARCHITECT'S SEAL

LANDSCAPE ARCHITECT  
 LISA MCNELIS  
 688 STONE CANYON DRIVE  
 LAS CRUCES, NEW MEXICO 88011  
 (505) 621-5082

SCALE

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

DESIGN BY: LM  
 DRAWN BY: LM  
 CHECKED BY: LM  
 APP'D. BY: LM  
 JOB NO.

PROJECT TITLE

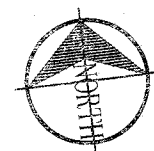
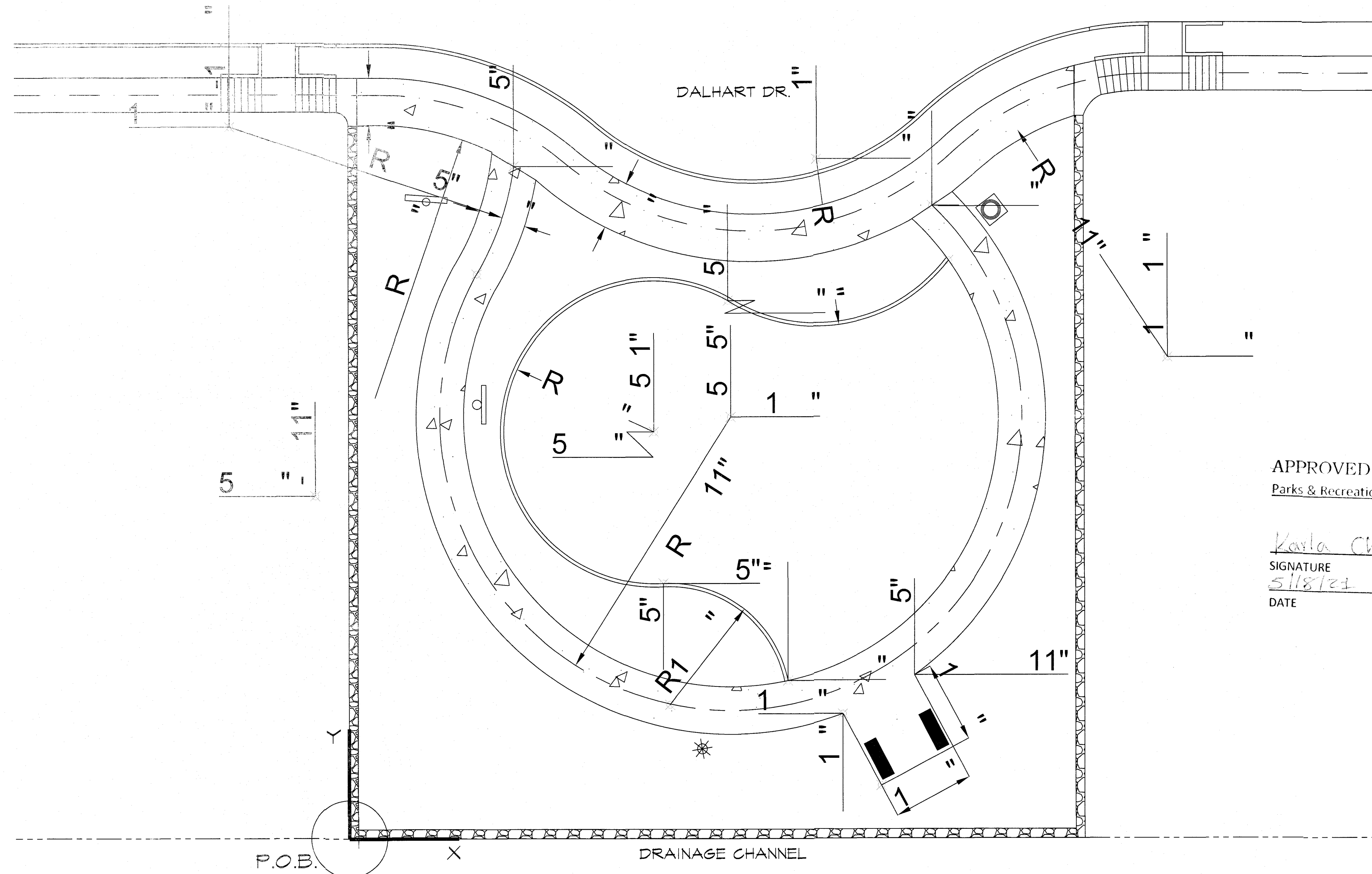
**DALHART**  
 5880 DALHART DRIVE  
 LOT 21 BLOCK 8  
 VILLAS DEL NORTE UNIT 1  
 CITY OF EL PASO, EL PASO, TEXAS 79928  
 AREA: 10,162 SQ.FT. - .233 ACRES

SHEET TITLE

**L3**  
 IRRIGATION PLAN

SHEET 3 OF 7





PLAN VIEW - LAYOUT

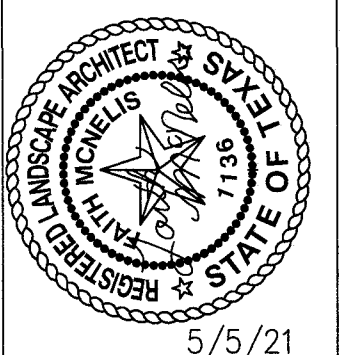
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APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

SIGNATURE  
*Karla Chavez*  
DATE  
5/18/21

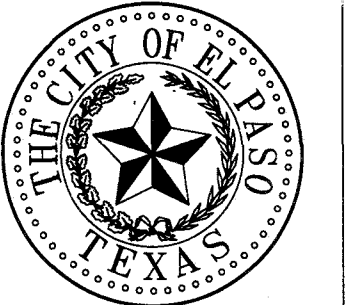
REVISIONS	DATE

LISA MCNEELIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88011  
(505) 621-5032



SCALE	
Horizontal:	N/A
Vertical:	N/A
Contour Interval:	N/A
DATE:	LW
DESIGN BY:	LW
DRAWN BY:	LW
CHKD. BY:	LW
APPVD. BY:	LW
JOB No.	

PROJECT TITLE  
**DALHART**  
5880 DALHART DRIVE  
LOT 21 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 10162 SQ.FT. - .233 ACRES



SHEET TITLE  
**L4**  
PARK  
LAYOUT  
SHEET 4 OF 7



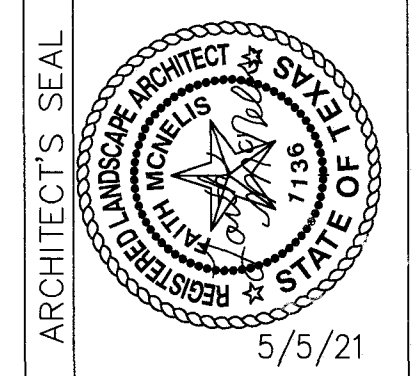
*Karla Chavez*

SIGNATURE  
*5/16/21*

DATE

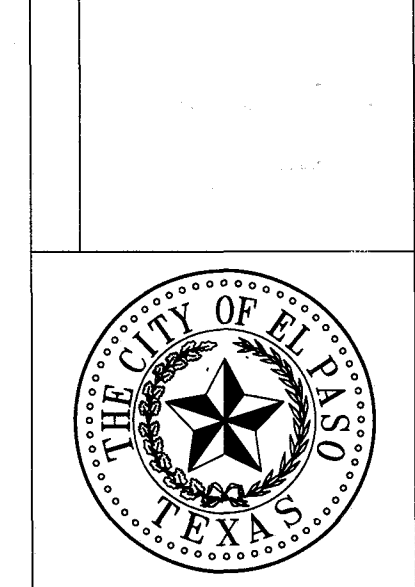
REVISIONS	DATE

LISA MCNEELIS  
LANDSCAPE ARCHITECT  
1088 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88001  
(575) 621-3032

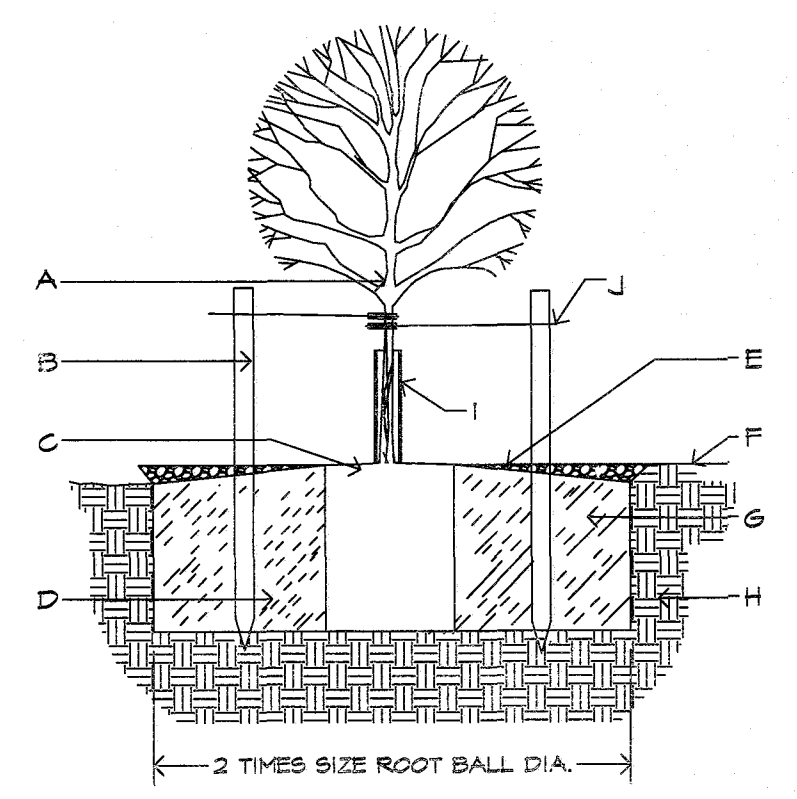


SCALE  
Horizontal: N/A  
Vertical: N/A  
DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPD. BY: LM  
JOB No.

PROJECT TITLE  
**DALHART**  
5880 DALHART DRIVE  
LOT 21 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, TEXAS 79928  
AREA: 10162 SQ.FT. - .233 ACRES



SHEET TITLE  
**L5**  
CONSTRUCTION  
DETAILS  
SHEET 5 OF 7



- A TREE PLANTING DETAIL - SECTION**  
NOT TO SCALE
- A. TREE
  - B. STAKING NEEDED
  - C. 4" SPACE BETWEEN MULCH AND TREE
  - D. SLOPE ON SIDES OF PLANTING HOLE
  - E. DEPTH OF BARK MULCH-SEE PLAN
  - F. FINISH SOIL GRADE
  - G. BACKFILL WITH EXISTING NATIVE SOIL
  - H. UNDISTURBED SOIL
  - I. TREEGUARD
  - J. TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE TO PROTECT TREE TRUNK FROM DAMAGE. WIRE TIES TO BE SET ON SAME TRUNK OR MAIN TRUNK.

STAKE 1" CALIPER TREES IN PARK PARKWAY.

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

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

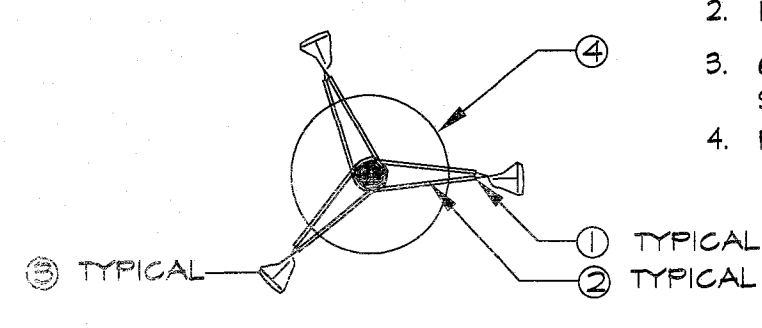
STAKING IS NOT REQUIRED BUT IF DEEMED NECESSARY THE STAKING DETAIL SHALL BE FOLLOWED. STAKING IS AT THE DISCRETION OF THE CONTRACTOR, LANDSCAPE ARCHITECT AND PARKS DEPT. BUT SHOULD TREES REQUIRE STAKING THE CONTRACTOR SHALL INCLUDE THE COST OF THE STAKING IN THE COST OF THE TREE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE STAKES AT END OF THE GUARANTEE PERIOD AT NO COST TO THE OWNER. TREES THAT ARE DAMAGED DUE TO IMPROPER OR LACK OF STAKING MUST BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

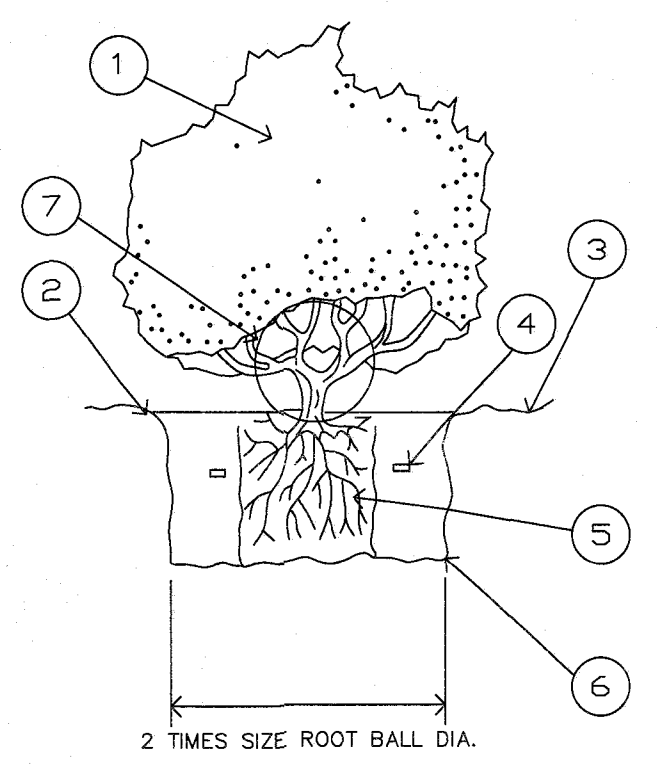
WIRES SHALL NOT BE TAUT BUT SHOULD ALLOW MOVEMENT OF 5 - 10 DEGREES FROM VERTICAL.

STAKES SHALL NOT BE DRIVEN INTO ROOTBALL OF TREES.

1. 2 STRAND TWIST #4 GAUGE WIRE
2. 1/2" RUBBER HOSE
3. 6" WOOD STAKE SET INTO GROUND 2'
4. ROOTBALL



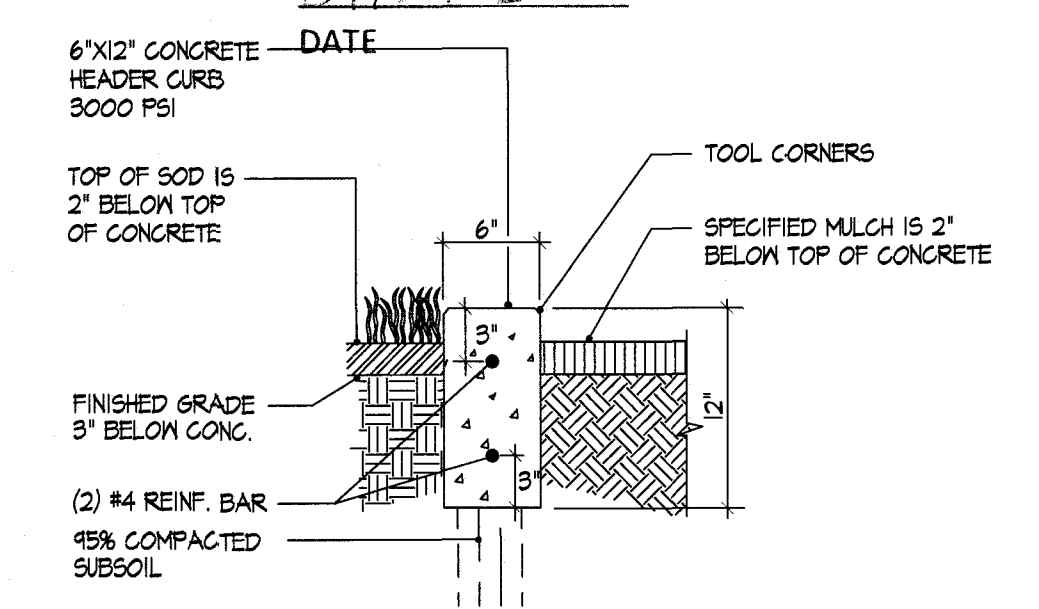
**B TYPICAL TREE GUYING DETAIL - PLAN VIEW**  
NOT TO SCALE



**C SHRUB PLANTING DETAIL - SECTION**  
NOT TO SCALE

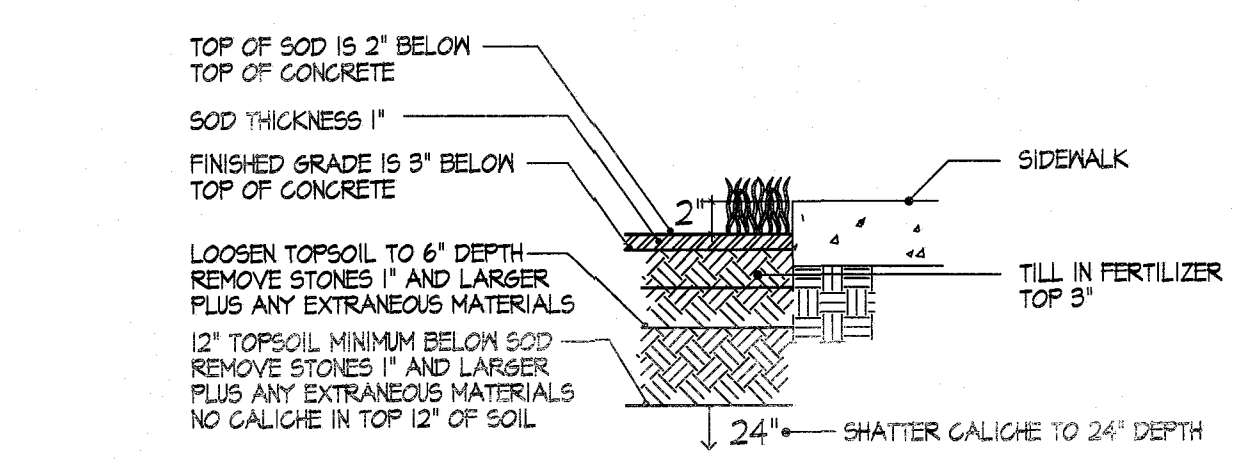
**LEGEND**

1. SHRUB OR VINE PER PLAN
  2. EARTH WATERING BASIN (COVER WITH SPECIFIED MULCH ON PLAN).
  3. FINISH GRADE
  4. 7 GRAM PLANT TABLETS (1 GAL = 3, 5 GAL = 6, 10-15 GAL = 9)
  5. ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE) COVER 2" SPECIFIED MULCH.
  6. UNDISTURBED NATIVE SOIL
  1. DO NOT BURY PLANT BASE IN GRAVEL
- EXCAVATE AND REPLACE WITH SAME SOIL. REMOVE STONES 2" OR LARGER.



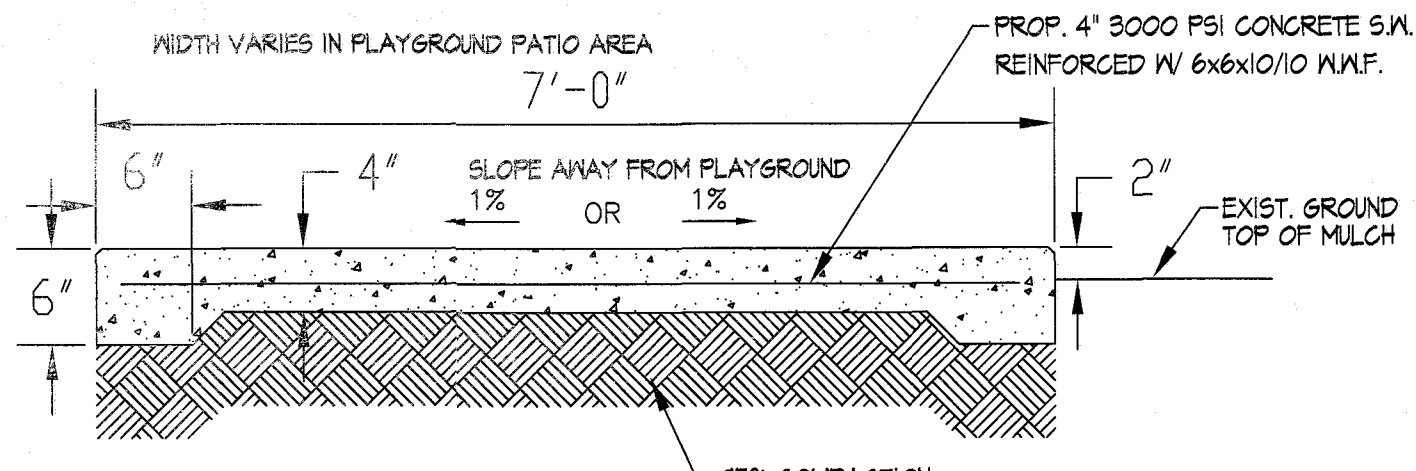
**D CONCRETE HEADER CURB DETAIL - SECTION**  
NOT TO SCALE

- NOTES:**
1. USE CONTROL JOINT EVERY 10'.
  2. USE 1/2" ASPHALT EXPANSION JOINTS EVERY 50' AND AT CURB RETURN



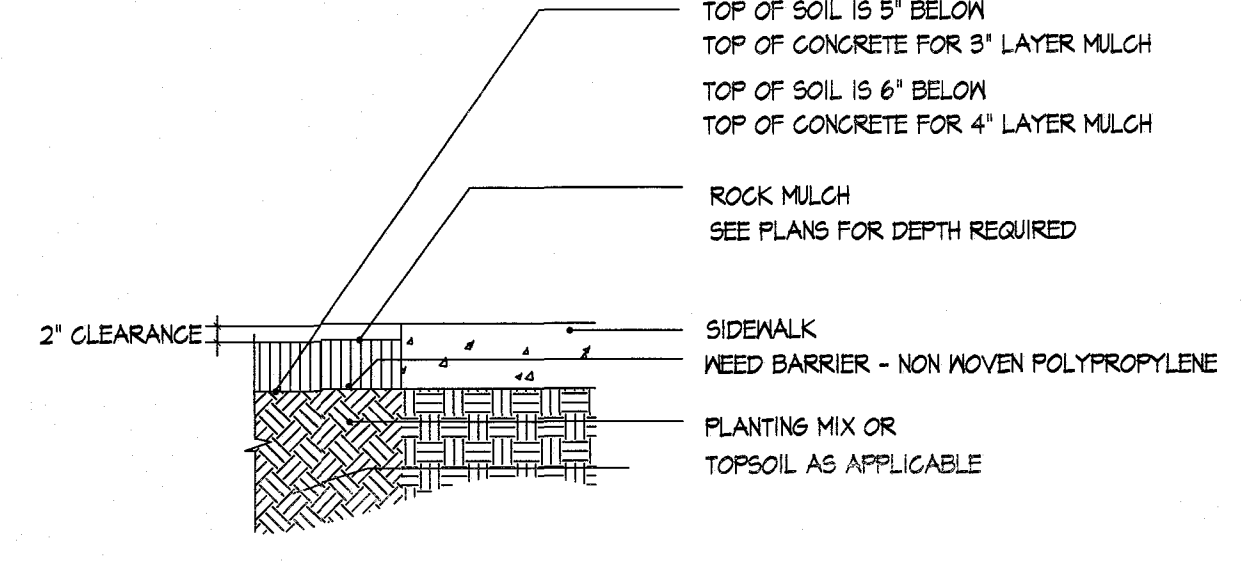
- NOTES:**
- 1. MOISTEN SOIL PRIOR TO LAYING SOD
  - 2. ROLL IN TWO DIRECTIONS
  - 3. SEE SOD SPECIFICATIONS FOR COMPLETE REQUIREMENTS.

**E TYPICAL TURF AT CONCRETE DETAIL - SECTION**  
NOT TO SCALE



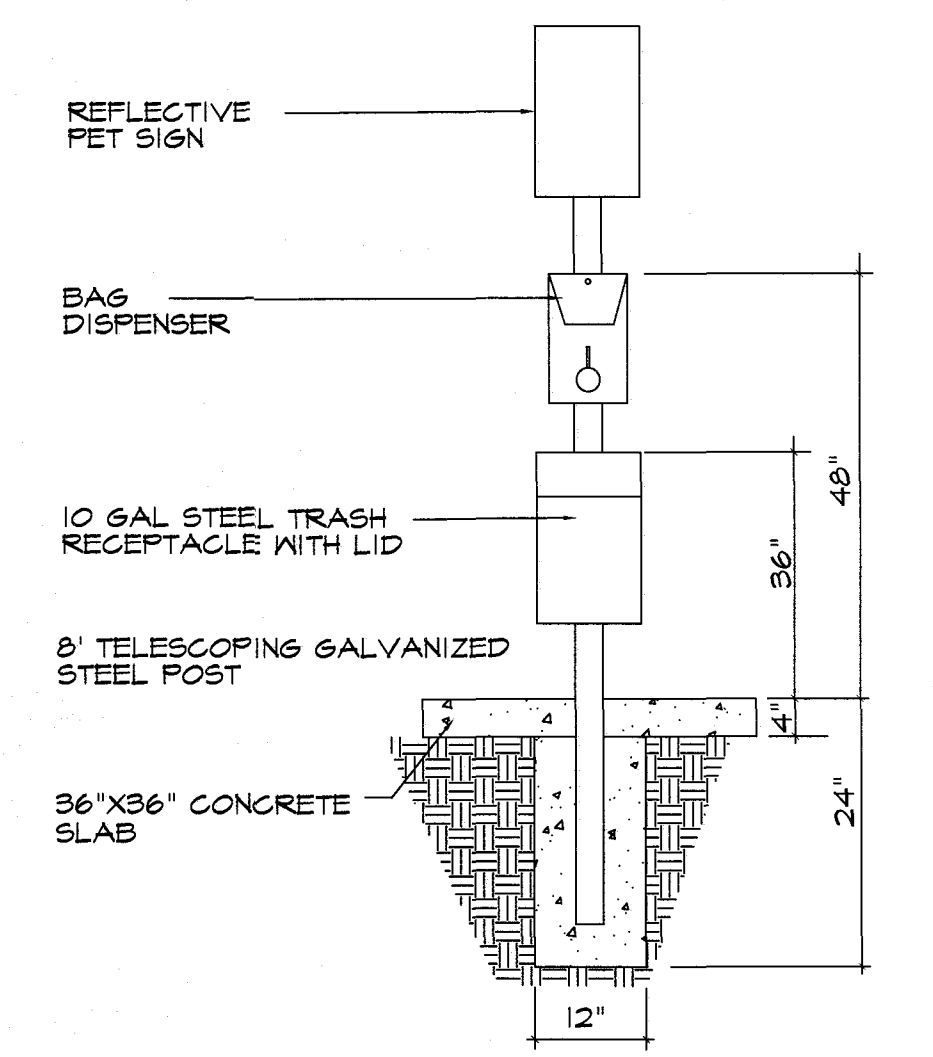
- NOTES:**
1. CONCRETE SHALL BE 3000 PSI MINIMUM.
  2. CONTROL JOINT REQUIRED AT 5' O.C. FOR SIDEWALKS. CONTROL JOINTS SHALL BE 1/8" THICK AND 1" DEEP.
  3. EXPANSION JOINT MATERIAL REQUIRED @ 20' O.C. FOR SIDEWALKS.
  4. DO NOT CROSS REINFORCEMENT THRU EXPANSION MATERIAL.
  5. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALKS MEET, EXISTING SIDEWALKS AND CURBS.

**F TYPICAL CONCRETE SIDEWALK - SECTION**  
NOT TO SCALE

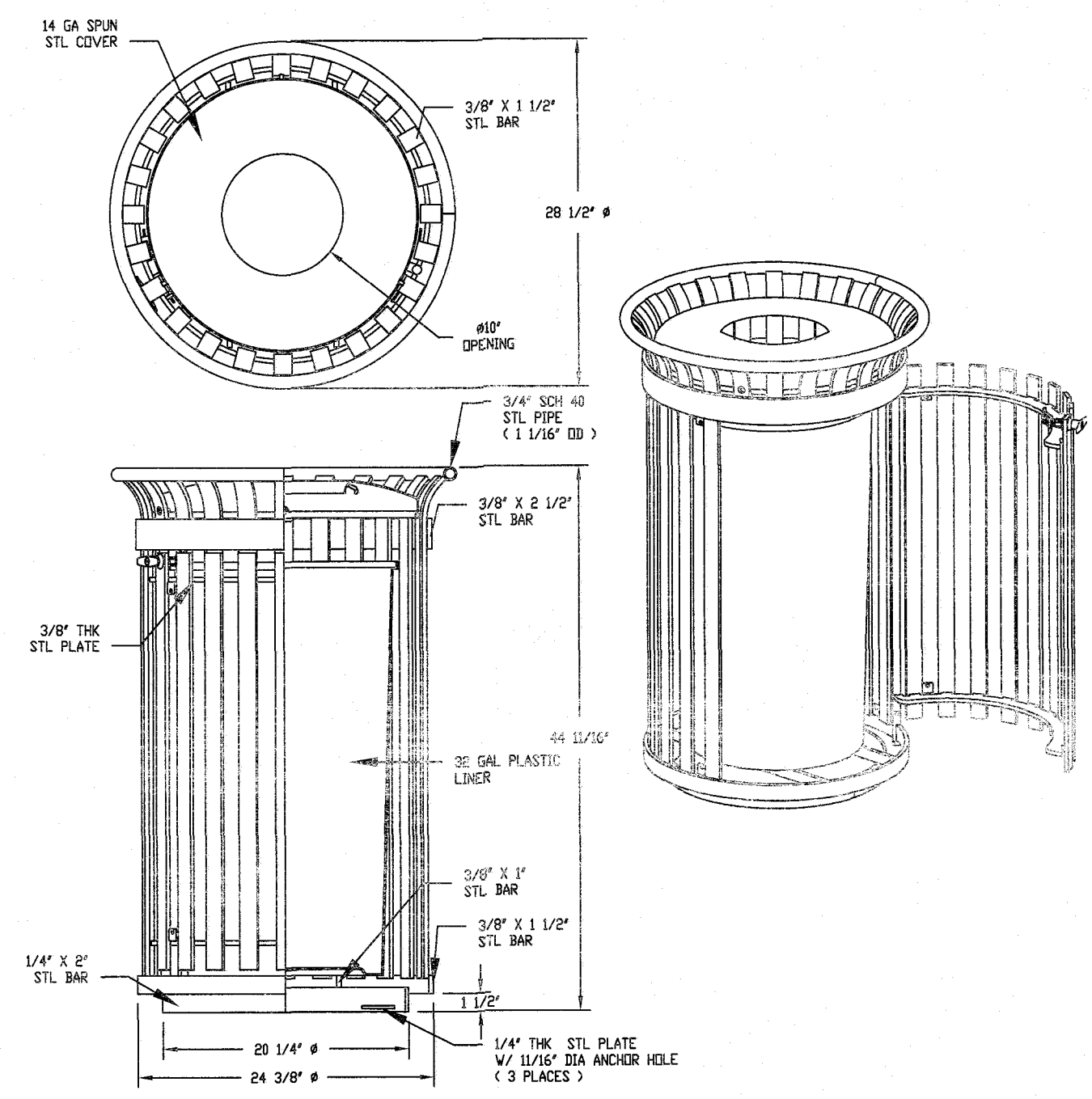


- NOTE:**
- 1. TOP OF ROCK MULCH IS 2" BELOW CONCRETE SURFACES.
  - 2. NEED BARRIER MUST BE APPROVED BY CITY OF EL PASO PARKS DEPT.
  - 3. NEED BARRIER MUST BE PINNED 12 O.C. ON SEAMS AND OVERLAPS AND 2'-0" O.C. THROUGHOUT.

**G ROCK MULCH DEPTH AT CONCRETE - SECTION**  
NOT TO SCALE

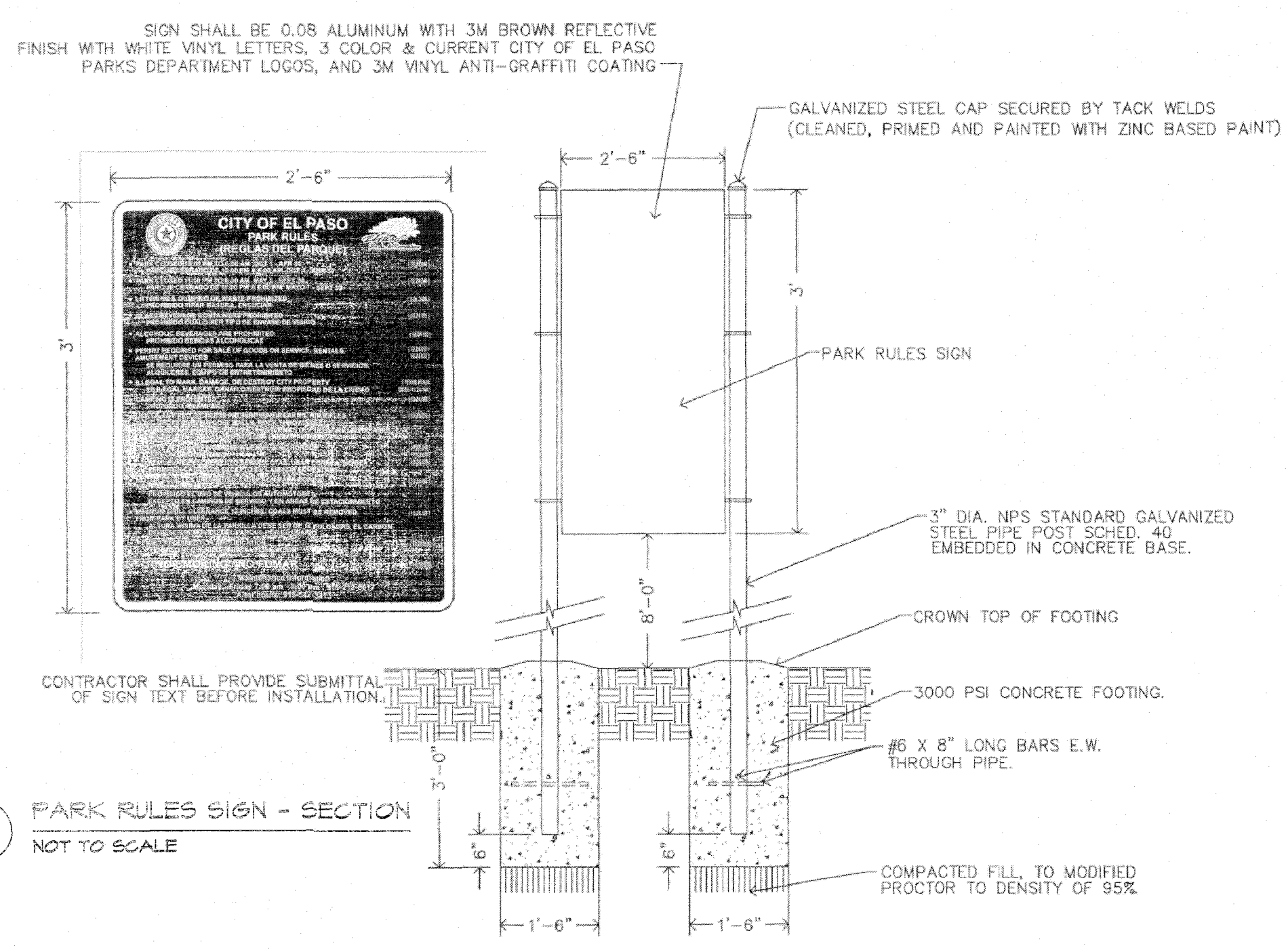


**H PET WASTE STATION**  
NOT TO SCALE

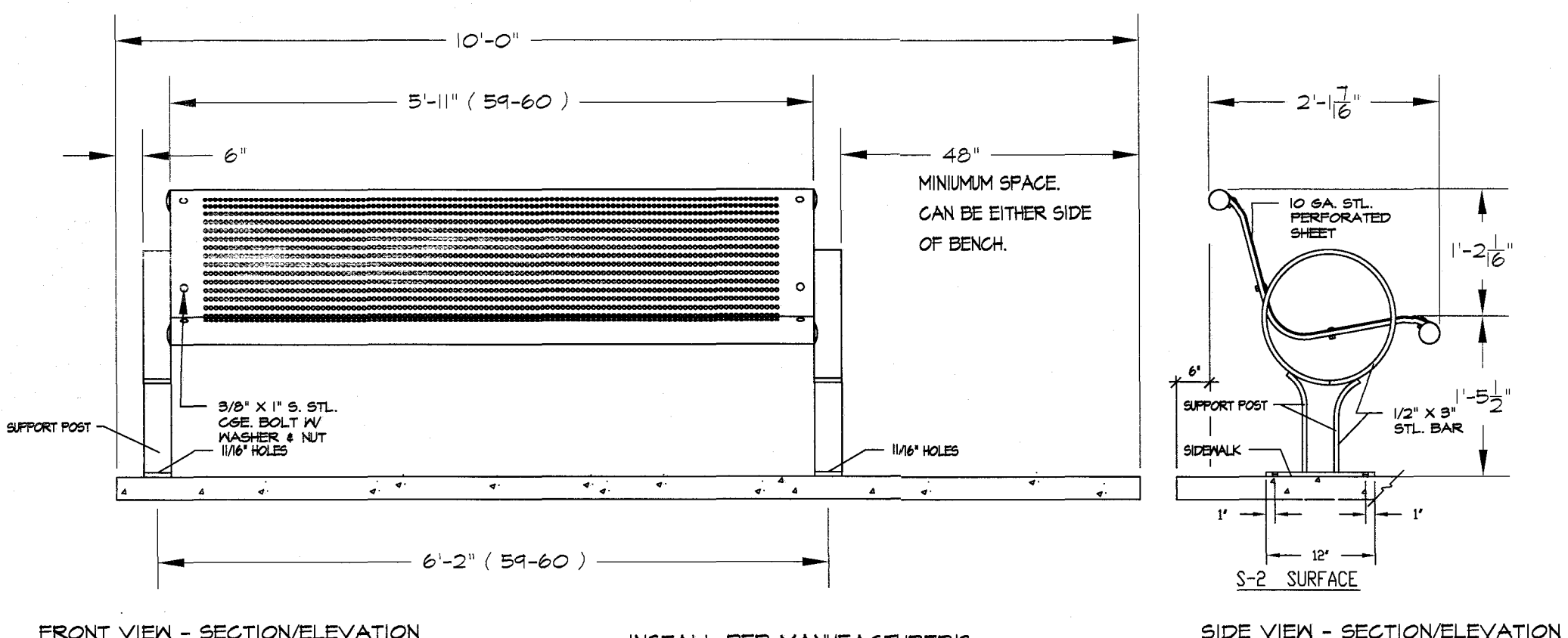


- NOTES:**
1. ALL STL MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
  2. 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.

**I Dumor 286-32-PTO HINGED TRASH RECEPTACLE**  
NOT TO SCALE



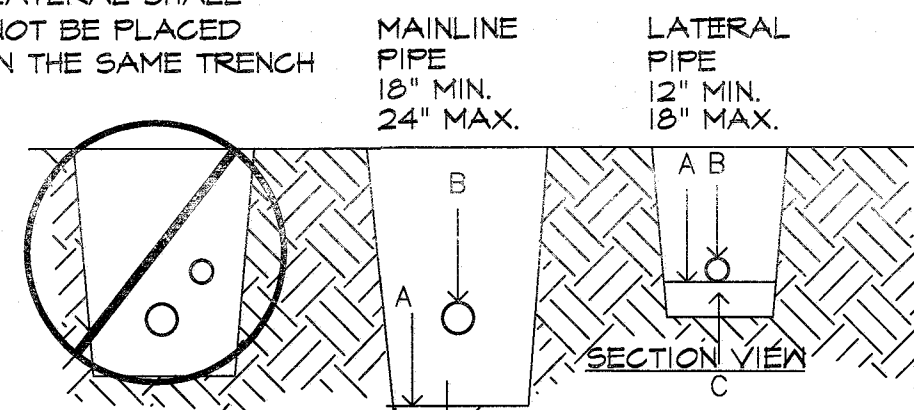
**J PARK RULES SIGN - SECTION**  
NOT TO SCALE



**K ADA BENCH DETAIL**  
NOT TO SCALE



MAINLINE, AND LATERAL SHALL NOT BE PLACED IN THE SAME TRENCH



SET WIRE BUNDLE AT 5' FROM MAINLINE ALONG THE NORTH AND WEST SIDE OF MAIN OR AS AGREED TOO WITH PARKS STAFF.

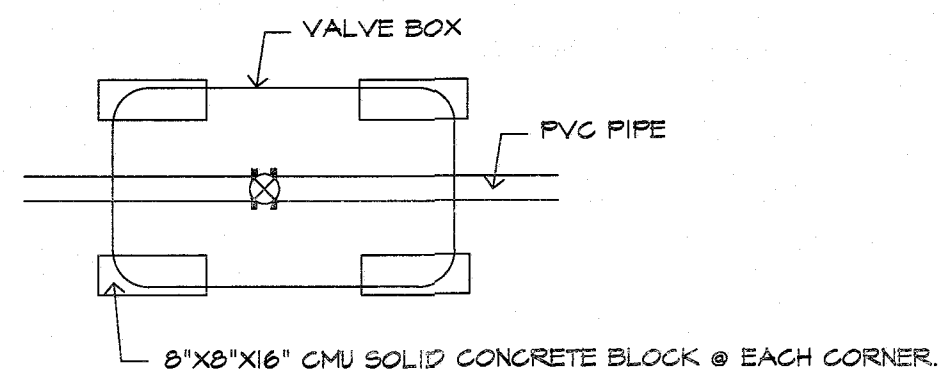
ALL SOLVENT WELD PLASTIC PIPING TO BE SNAKED IN TRENCH AS SHOWN FOR LATERAL LINES.

TIE A 24-INCH LOOP IN ALL WIRING AT CHANGES OF DIRECTION OF 90° OR GREATER AND EVERY 200 FEET.

- NOTES: A. BOTTOM OF EXCAVATED TRENCH WHERE NONE ROCKY SOILS ARE EXPOSED (ENCOUNTERED).  
 B. IRRIGATION SYSTEM PIPING.  
 C. MINIMUM 4" DEEP BEDDING SANDY SOILS MATERIAL WHERE ROCKY SOILS ARE EXPOSED.  
 D. IRRIGATION SYSTEM VALVE WIRING. LOCATE 6" BELOW MAIN PIPE.  
 E. BACKFILL SOILS MATERIAL MAY BE NATIVE SOILS IF IT IS FREE OF CALICHE OR STONES LARGER THAN 1" IN SIZE AND ORGANIC MATTER OR WASTE DEBRIS. SOILS COMPACTION IN TURF AREAS TO BE 80% TO 85% DENSITY BY ASTM D-1557 STANDARD AND AT 95% DENSITY UNDER PAVED OR HARDSCAPE SURFACES.

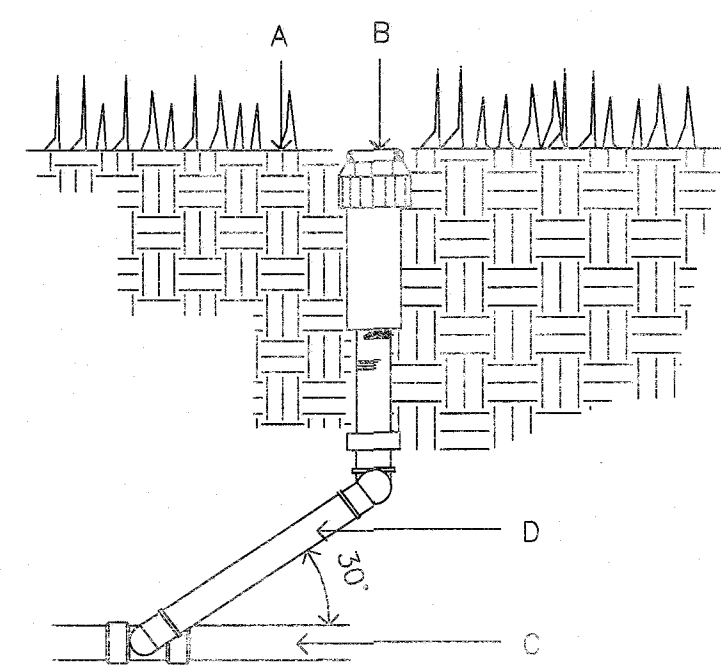
1 TYPICAL PIPE AND WIRE TRENCHING DETAIL NOT TO SCALE

THIS DETAIL SHALL TAKE PRECEDENCE TO ANY OTHER DETAIL SHOWING VALVE BOX INSTALLATION.



NOTE: BLOCKS TO SIT ON NEED CLOTH ON UNDISTURBED SOIL. DISTURBED SOILS SHALL BE COMPACTED WITH TAMPER PRIOR TO SETTING NEED CLOTH & BLOCKS. VALVE BOX AND EXTENSIONS TO SIT ON BLOCKS. VALVE BOX AND EXTENSIONS TO HAVE A MINIMUM 2" CLEARANCE TO THE TOP OF PVC PIPE.

4 BLOCK PLACEMENT FOR VALVE BOXES NOT TO SCALE



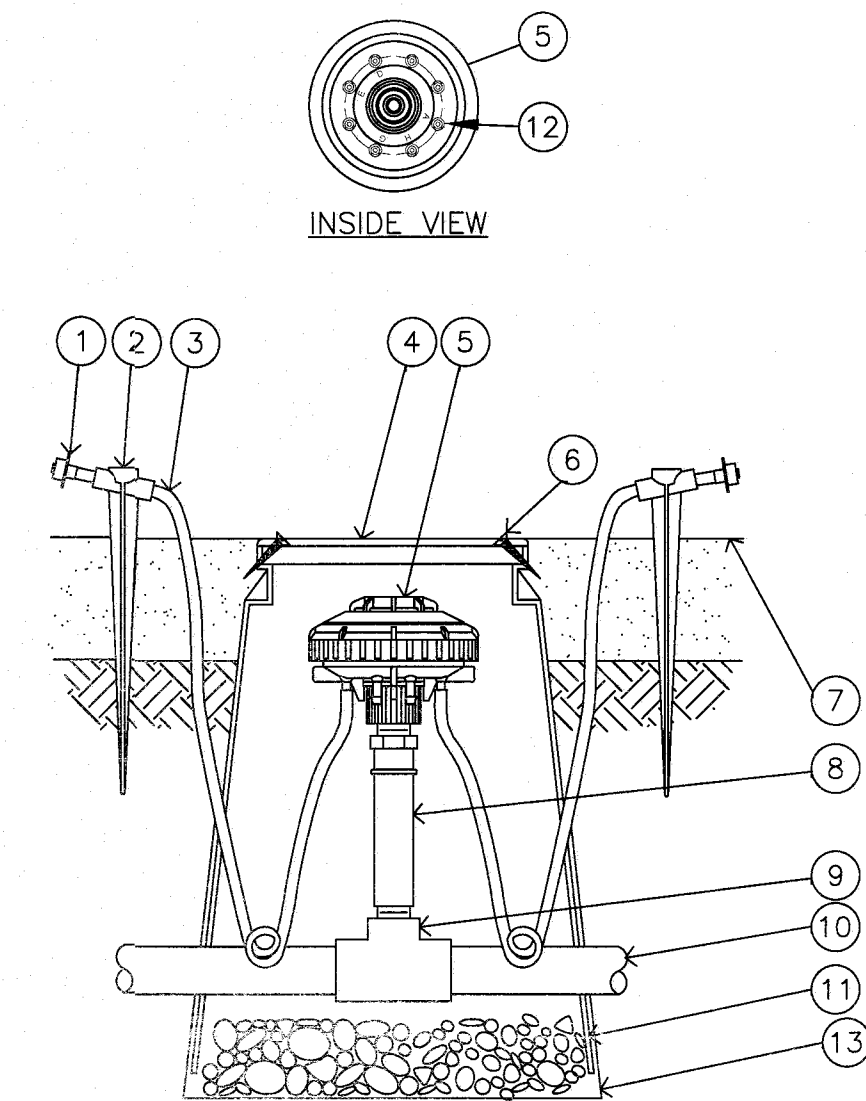
A. FINISH GRADE.  
 B. SPRINKLER HEAD (SEE PLAN).  
 C. LATERAL LINE (SEE PLAN).  
 D. LASCO PRE-ASSEMBLED SWING JOINT.  
 THIS DETAIL SHALL BE USED FOR POP-UP SHRUB SPRAY, POP-UP LAWN SPRAY, GEAR DRIVEN AND ROTARY SPRINKLER HEADS. TOP OF SPRINKLER HEAD SHALL BE SET FLUSH WITH FINISH GRADE. SWING JOINT INSTALLATION TO COMPLY WITH MANUFACTURER'S RECOMMENDATION.

7 HUNTER ROTOR HEAD NOT TO SCALE

LOCATE INNER RING EMITTER OUTLETS WITHIN 3' OF TREE TRUNK. LOCATE OUTER RING EMITTER OUTLETS 8' FROM ROOTBALL.

DO NOT EXCEED 20' OF MICROTUBING.

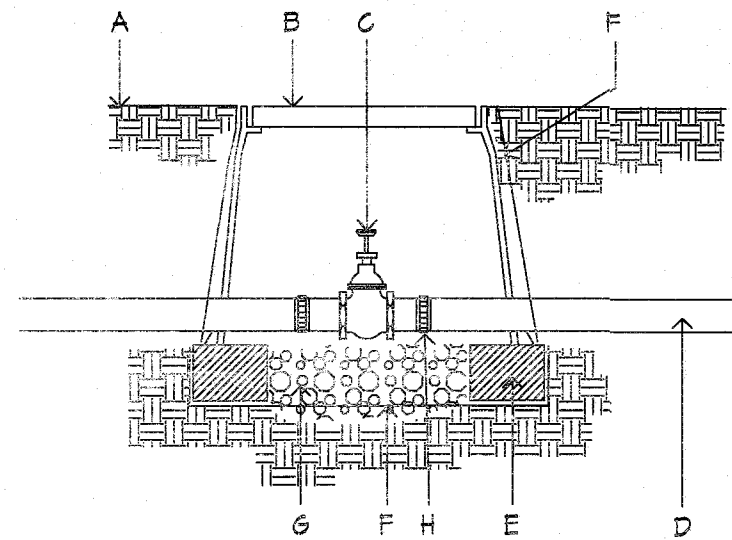
FOR SHRUBS AND GROUNDCOVER PLANTS PLACE EMITTER ON UPHILL SIDE OF PLANT 12" FROM STEM.



- NOTES:  
 1. COIL ADDITIONAL 4" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.  
 2. RAIN BIRD XERI-BUG BARB X BARB EMITTERS ARE AVAILABLE IN THE FOLLOWING MODELS:  
 XB-05PG 0.5 GPH XB-10PG 1.0 GPH XB-20PG 2.0 GPH

2 DRIP EMITTER FOR TREES AND PLANTS RAIN BIRD XERI-BIRD & MULTI OUTLET EMISSION DEVICE NOT TO SCALE

5 WIRE CONNECTORS NOT TO SCALE

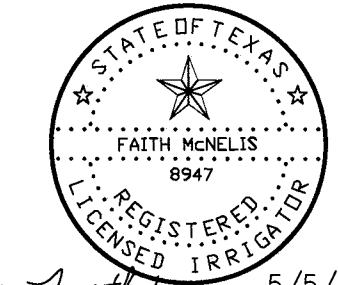


- A. FINISH GRADE.  
 B. CARSON PRODUCTS INC. (MIR-18(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISH MATERIAL AND 6" EXTENSIONS AS NECESSARY.  
 C. BRASS ISOLATION VALVE- SEE IRRIGATION LEGEND.  
 D. IRRIGATION MAINLINE.  
 E. 8"X 8"X16" SOLID CMU SOLID BLOCK @ EACH CORNER.  
 F. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.  
 G. 4" DEPTH 3/8" WASHED PEA GRAVEL.  
 H. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)

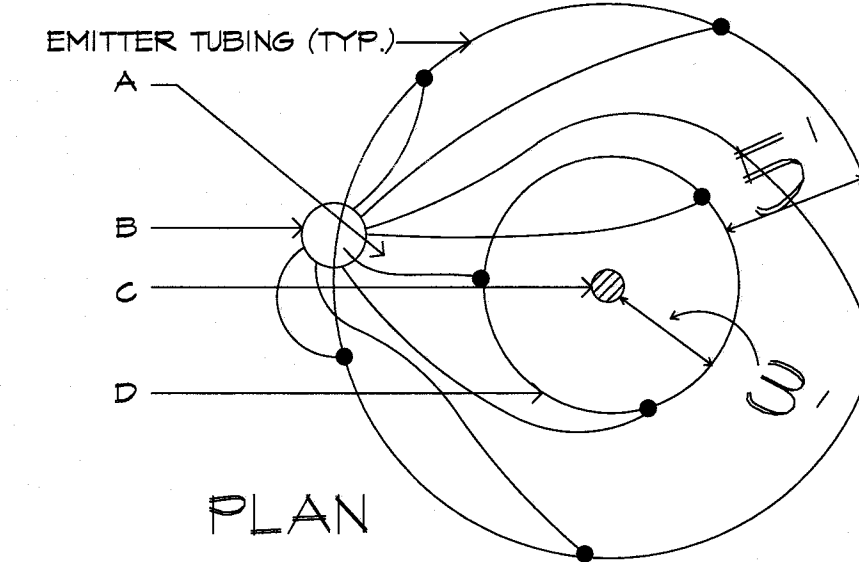
NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK MUST BE LOCATED 10' FROM CONCENTRIC REDUCER ON 4" PIPE.

8 ISOLATION VALVE NOT TO SCALE

IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512 239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947



5/5/21



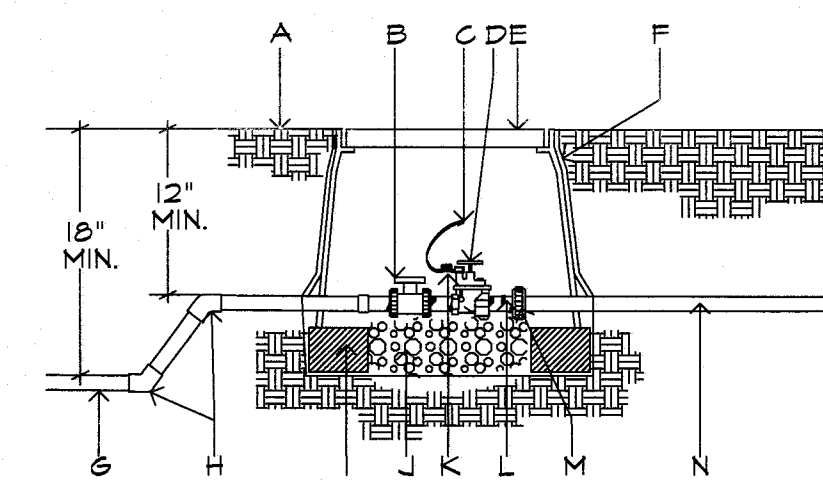
INSTALL (2) EMITTERS PER TREE, SPACE EVENLY AROUND ROOTBALL, IN OFFSET TRIANGULAR PATTERN FOR TREES. SEE IRRIGATION LEGEND FOR OUTLET EMITTER SIZE.

LOCATE INNER RING EMITTER OUTLETS WITHIN 3' OF TREE TRUNK. LOCATE OUTER RING EMITTER OUTLETS 8' FROM ROOTBALL. DO NOT EXCEED 20' OF MICROTUBING.

FOR SHRUBS AND GROUNDCOVER PLANTS PLACE EMITTER ON UPHILL SIDE OF PLANT 12" FROM STEM.

3 EMITTER PLACEMENT FOR TREES NOT TO SCALE

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

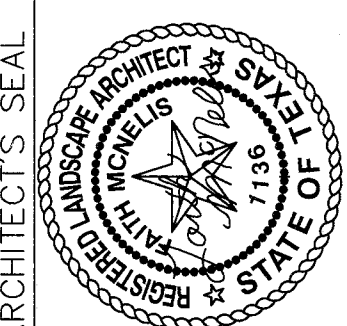


- A. FINISH GRADE.  
 B. BALL VALVE.  
 C. DRY SPLICE CONNECTOR OR EQUAL.  
 D. ELECTRIC VALVE -SEE IRRIGATION LEGEND.  
 E. CARSON PRODUCTS INC. (MIR-18(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISHED MATERIAL AND 8" EXTENSIONS AS NECESSARY.  
 F. PROVIDE DEWITT PRO 5 NEED CLOTH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

6 IRRIGATION CONTROL VALVE NOT TO SCALE

REVISIONS  
 DATE

LISA MCNELIS  
 LANDSCAPE ARCHITECT  
 688 STONE CANYON DRIVE  
 LAS CRUCES, NEW MEXICO 88011  
 (505) 621-9032



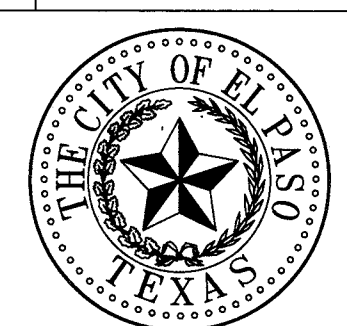
5/5/21

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 Vertical: N/A  
 Contour Interval: N/A  
 DATE: LM  
 DESIGN BY: LM  
 DRAWN BY: LM  
 CHECK BY: LM  
 APPROV. BY: LM  
 JOB No.:

PROJECT TITLE  
**DALHART**  
 5880 DALHART DRIVE  
 LOT 21 BLOCK 8  
 VILLAS DEL NORTE UNIT 1  
 CITY OF EL PASO, EL PASO, TEXAS 79928  
 AREA: 10162 SQ.FT. - .233 ACRES

APPROVED FOR CONSTRUCTION  
 Parks & Recreation Department Planning

*Karla Chavez*  
 SIGNATURE  
 5/15/21  
 DATE



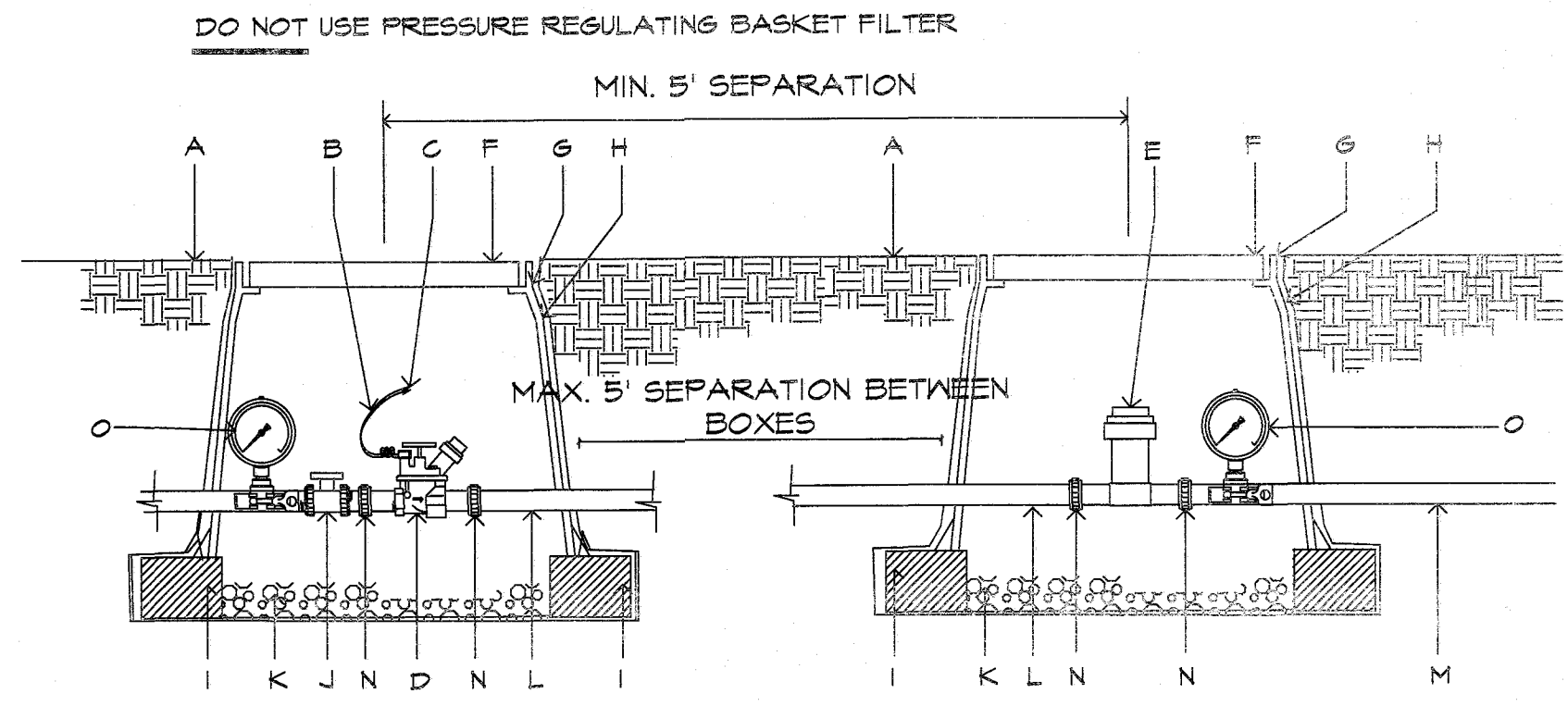
SHEET TITLE

**L6**

IRRIGATION  
 DETAILS

SHEET 6 OF 7



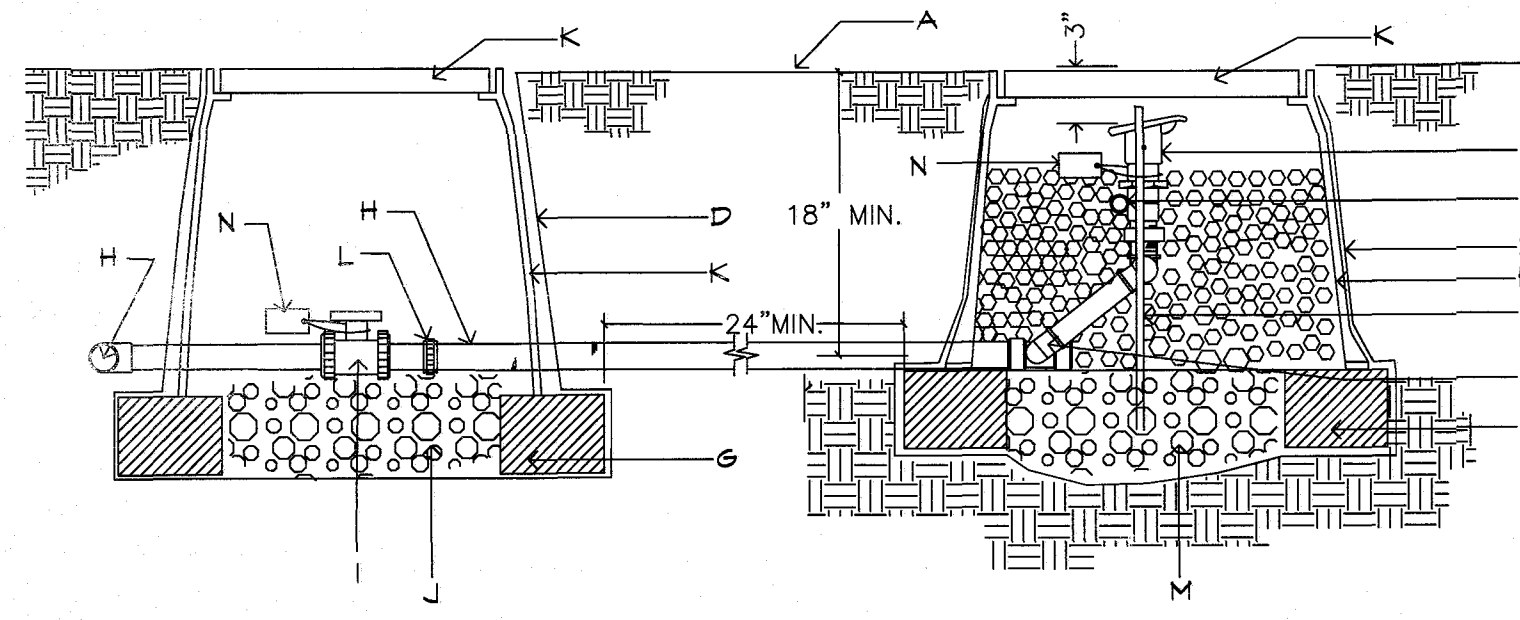


DO NOT USE PRESSURE REGULATING BASKET FILTER  
MIN. 5' SEPARATION  
MAX. 5' SEPARATION BETWEEN BOXES

NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTREAM OF BALL VALVE AND ANOTHER DOWNSTREAM OF BASKET FILTER. PROVIDE 5' SEPARATION BETWEEN BOXES. IF SPACE IS NOT AVAILABLE PROVIDE A MIN. 5' SEPARATION AT CENTER LINES OF BOXES. SET GAGES HORIZONTAL TO BE READABLE FROM ABOVE.

- A. FINISH GRADE.
- B. 24" WIRE LOOP.
- C. DRY SPLICE CONNECTOR OR EQUAL.
- D. AUTOMATIC VALVE. SEE IRRIGATION LEGEND.
- E. RAINBIRD PRESSURE BASKET FILTER STRAINER SHALL BE INSTALLED TO PROVIDE ACCESS FOR MAINTENANCE AND REPLACEMENT.
- F. LOCKING VALVE BOX COVER FLAT LID WITH BOLT.
- G. CARSON PRODUCTS INC. 1419-10 BODY (ABS) VALVE BOX W/BOLT DOWN COVER (COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY).
- H. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX AND BLOCKS. TAPE TO ALL INLET & OUTLET PIPE WITH 3M HEAVY DUTY PLASTIC TAPE.
- I. 8"x8"x16" CMU SOLID CONCRETE BLOCK @ EACH CORNER.
- J. BALL VALVE, INCLUDED IN CONTROL ZONE KIT, SEE IRRIGATION LEGEND.
- K. 4" LAYER OF 3/8" WASHED PEA GRAVEL.
- L. PVC PIPE SIZED PER PLAN WITH WELD ON THREADED FITTINGS ON EACH END.
- M. LATERAL LINE.
- N. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- O. HORIZONTAL HYGIENIC PRESSURE GAUGE.

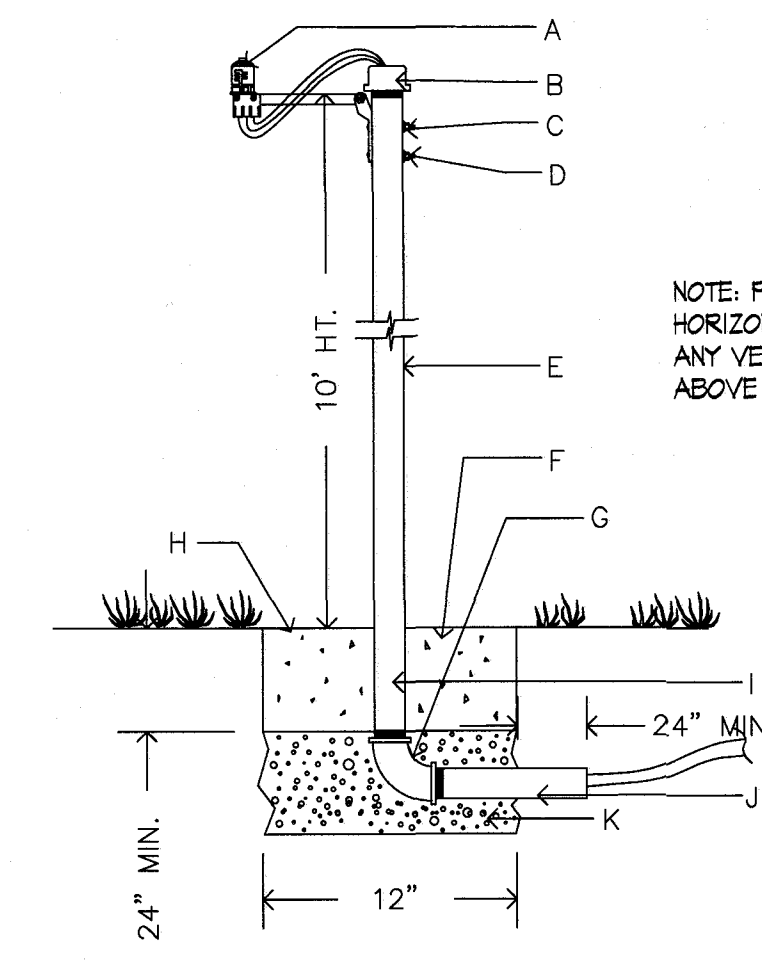
11 DRIP VALVE W/ BASKET FILTER  
NOT TO SCALE



- A. FINISH GRADE.
- B. 1" BUCKNER QUICK COUPLER VALVE, DOUBLE SLOT, PURPLE TOP-MODEL QBSNFO WITH LASCO SNAP-LOCK W/MALE BRASS STABILIZER ELBOW.
- C. MIN. 12" SECTION 1" DIA. PVC SECTION SHOULD EXTEND BEYOND BOTH REBAR SECTION, STABILIZE IN GRAVEL.
- D. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY 3M PLASTIC TAPE.
- E. 1/2" OR 3/8" REBAR, MIN. 30" LENGTH, ONE ON EITHER SIDE OF QUICK COUPLER FOR STABILITY.
- F. LASCO SWING JOINT (PRE-ASSEMBLED).
- G. 8" X 8" X 16" SOLID CMU BLOCK.
- H. IRRIGATION MAINLINE.
- I. ISOLATION BALL VALVE, SEE IRRIGATION LEGEND.
- J. 6" DEPTH OF 3/8" WASHED PEA GRAVEL.
- K. CARSON PRODUCTS INC. 1419-10 BODY (ABS) VALVE BOX AND EXTENSION(S) W/BOLT DOWN COVER (COVER COLOR TO BE PURPLE).
- L. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- M. 3/8" WASHED PEA GRAVEL FILLED TO QUICK COUPLER FOR STABILITY.
- N. WEATHER PROOF TAG THAT READS, "NON-PORTABLE WATER, NOT SAFE FOR DRINKING." FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.

NOTE: INSTALL AN 8" X 8" X 16" SOLID CMU BLOCK AT EACH CORNER OF THE VALVE BOX. INSTALL 3/8" PEA GRAVEL BELOW THE 1419-10 VALVE BOX WITH BOLT DOWN COVER. EXTEND PEA GRAVEL UP TO COLLAR OF QUICK COUPLER VALVE. INSTALL A TEE, FLANGE & BALL VALVE OFF OF THE MAIN LINE IMMEDIATELY UPSTREAM OF THE QUICK COUPLER VALVE.

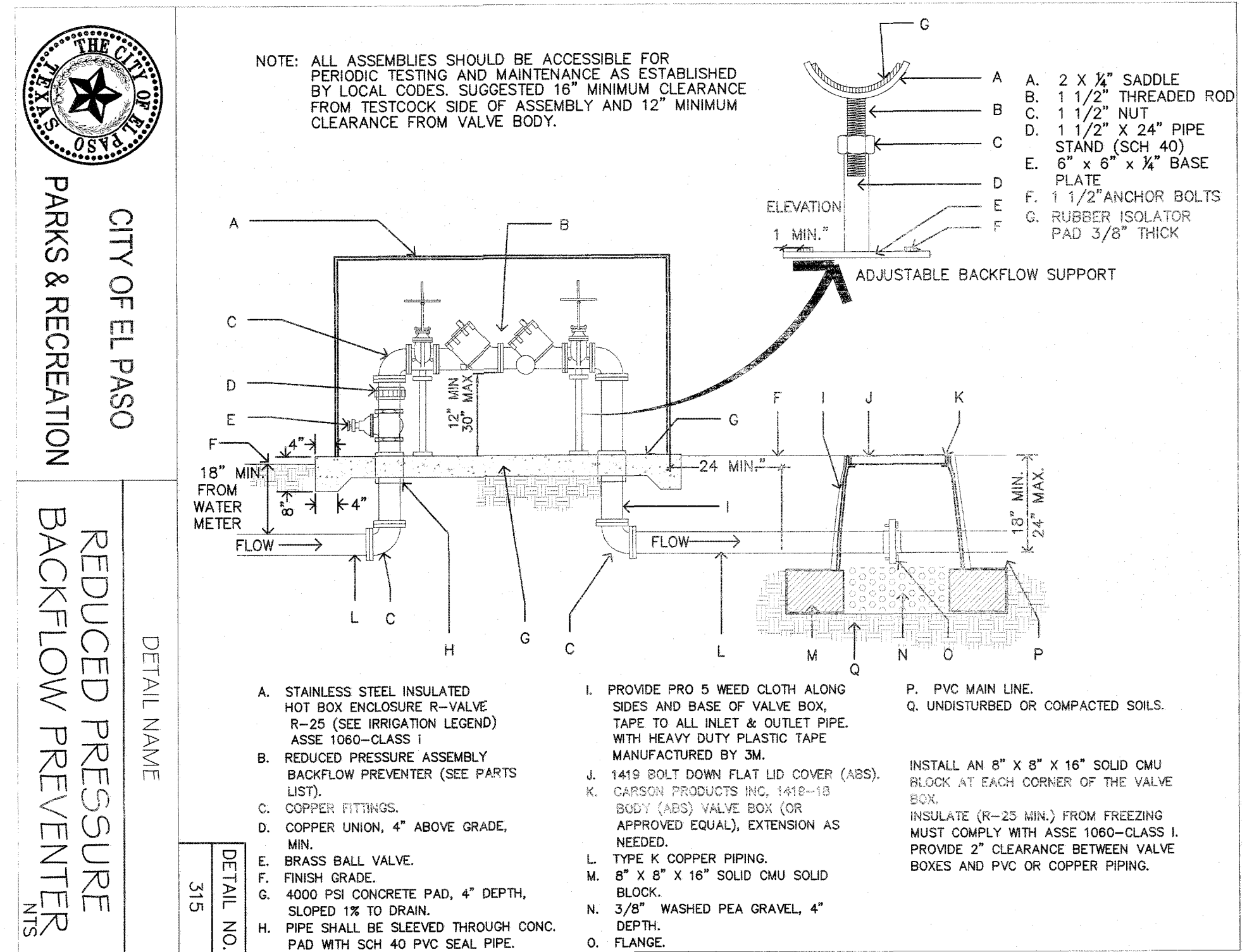
12 QUICK COUPLER  
NOT TO SCALE



- A. RAIN BIRD RSD-BEX RAIN SENSOR, SET TO 1/8"
- B. 2 3/4" PIPE CAP WITH HOLE FOR WIRES AND SEAL WITH EXTERIOR GRADE SILICONE SEALANT.
- C. DRILL TWO 3/16" HOLES IN PIPE FOR SENSOR BRACKET.
- D. (2) NO. 8-32 MACHINE SCREWS WITH WASHER, LOCK WASHER AND NUT.
- E. 2 1/2" SCH 40 GALVANIZED PIPE-10 FT. H.T. A.G.
- F. 12"x12" CONCRETE BASE, MIN. 24" DEEP.
- G. PIPE ELBOW.
- H. FINISH GRADE.
- I. PIPE TO BE SEALED AFTER CABLE IS RUN, USE 4 MIL. PLASTIC AND TAPED NIPLER AND THE CABLE WITH HIGH GRADE 3M WEATHER PROOF PLASTIC TAPE.
- J. NIPLER, GALVANIZED PIPE IN CONCRETE FOOTING TO BE WRAPPED WITH WEATHER PROOF TAPE TO PROTECT FROM CORROSION.
- K. 6" THICK, 3/8" DIAMETER WASHED PEA GRAVEL.

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

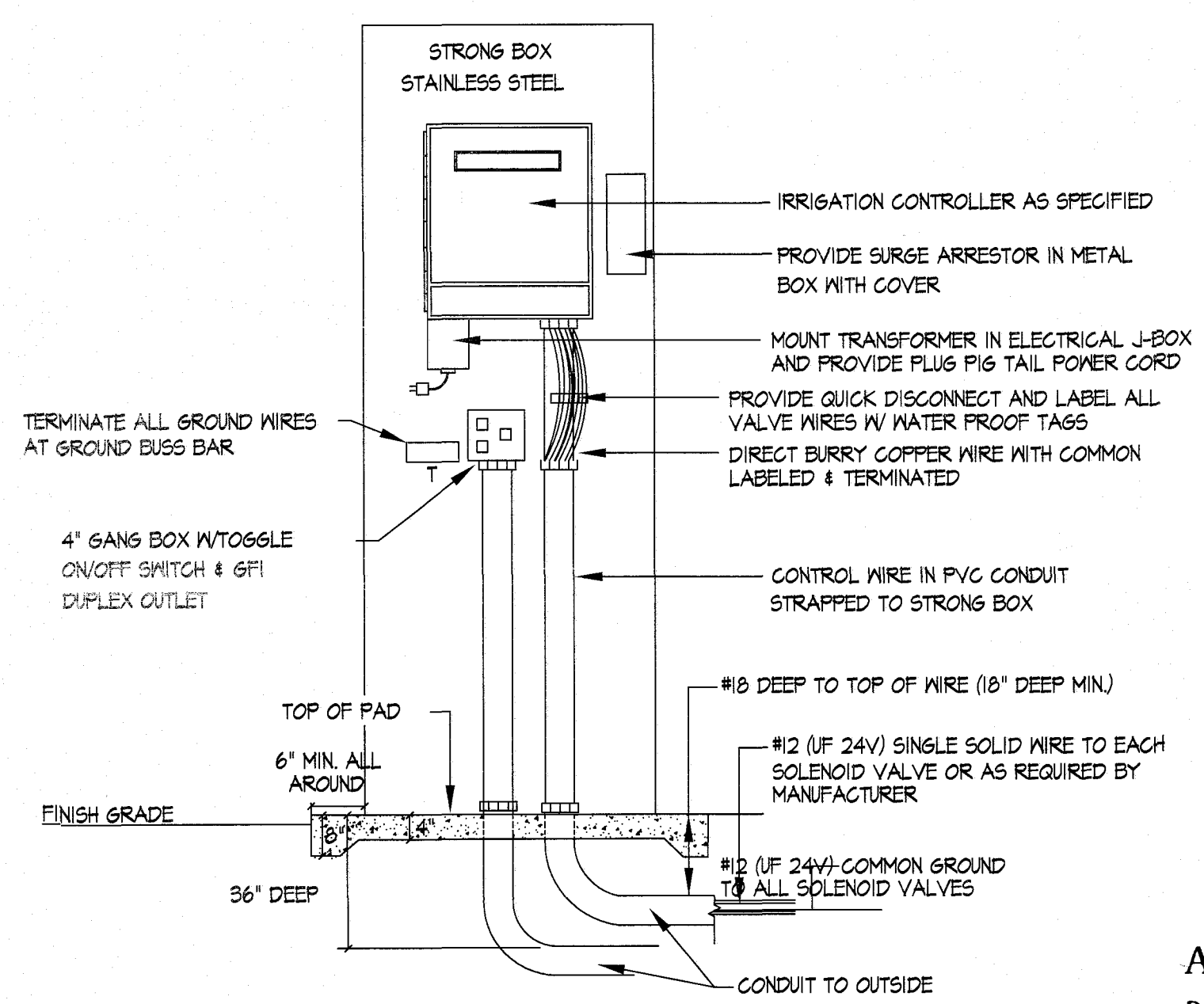
13 RAIN SENSOR  
NOT TO SCALE



NOTE: ALL ASSEMBLIES SHOULD BE ACCESSIBLE FOR PERIODIC TESTING AND MAINTENANCE AS ESTABLISHED BY LOCAL CODES SUGGESTED 16" MINIMUM CLEARANCE FROM TESTCOCK SIDE OF ASSEMBLY AND 12" MINIMUM CLEARANCE FROM VALVE BODY.

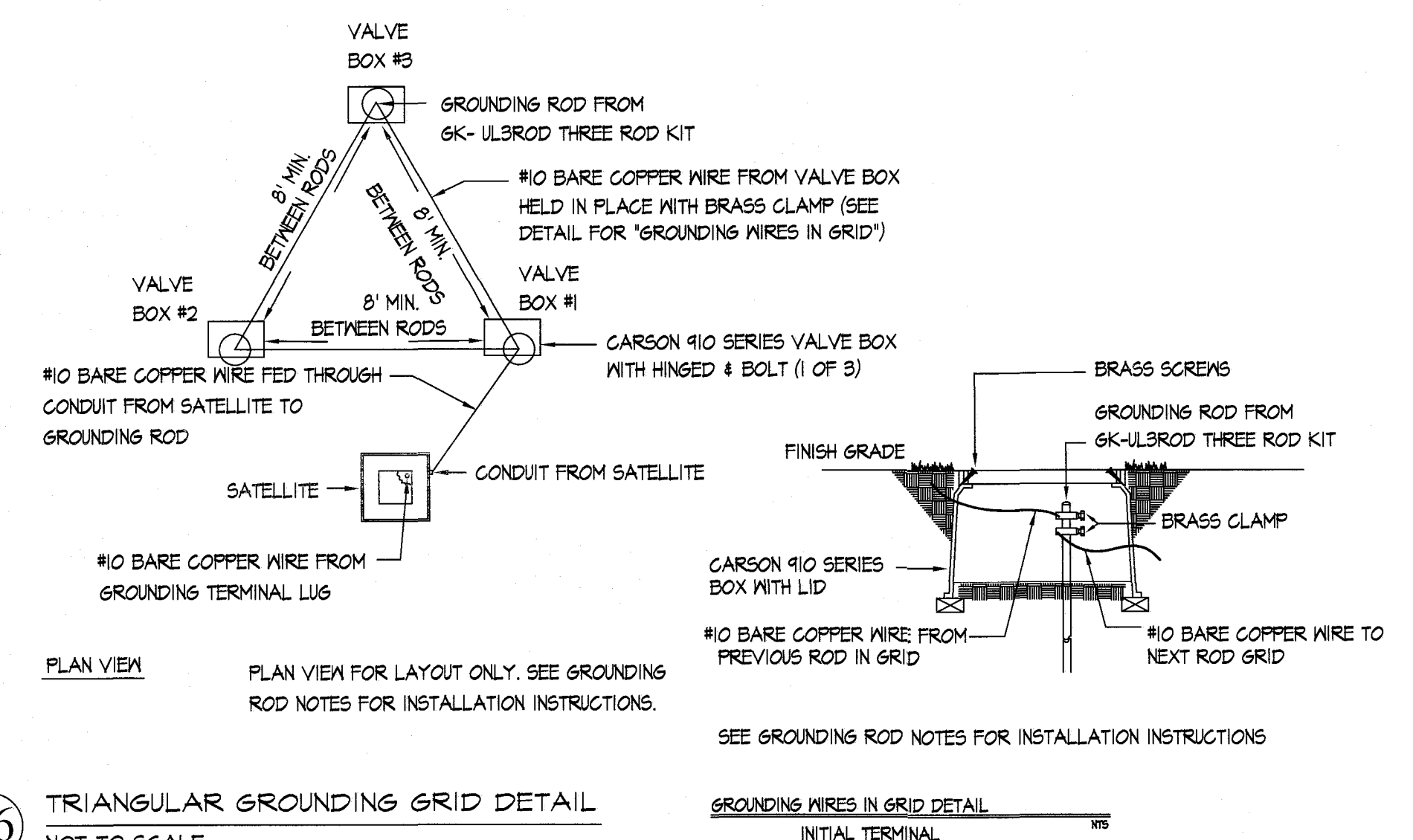
- A. 2 X 1/2" SADDLE.
- B. 1 1/2" THREADED ROD.
- C. 1 1/2" NUT.
- D. 1 1/2" X 24" PIPE STAND (SCH 40).
- E. 6" X 6" X 1/4" BASE PLATE.
- F. 1 1/2" ANCHOR BOLTS.
- G. RUBBER ISOLATOR PAD 3/8" THICK.
- A. STAINLESS STEEL INSULATED HOT BOX ENCLOSURE R-VALUE R-25 (SEE IRRIGATION LEGEND) ASSE 1060-CLASS 1.
- B. REDUCED PRESSURE ASSEMBLY BACKFLOW PREVENTER (SEE PARTS LIST).
- C. COPPER FITTINGS.
- D. COPPER UNION, 4" ABOVE GRADE.
- E. BRASS BALL VALVE.
- F. FINISH GRADE.
- G. 4000 PSI CONCRETE PAD, 4" DEPTH, SLOPED 1% TO DRAIN.
- H. PIPE SHALL BE SLEEVED THROUGH CONC. PAD WITH SCH 40 PVC SEAL PIPE.
- I. PROVIDE PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET & OUTLET PIPE WITH HEAVY DUTY PLASTIC TAPE MANUFACTURED BY 3M.
- J. 1419 BOLT DOWN FLAT LID COVER (ABS) BOX.
- K. CARSON PRODUCTS INC. 1419-10 BODY (ABS) VALVE BOX (OR APPROVED EQUAL), EXTENSION AS NEEDED.
- L. INSULATE (R-25 MIN.) FROM FREEZING MUST COMPLY WITH ASSE 1060-CLASS I. PROVIDE 2" CLEARANCE BETWEEN VALVE BOXES AND PVC OR COPPER PIPING.
- M. 8" X 8" X 16" SOLID CMU SOLID BLOCK.
- N. 3/8" WASHED PEA GRAVEL, 4" DEPTH.
- O. FLANGE.
- P. PVC MAIN LINE.
- Q. UNDISTURBED OR COMPACTED SOILS.

14 BACKFLOW  
NOT TO SCALE



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

15 CONTROLLER  
NOT TO SCALE



16 TRIANGULAR GROUNDING GRID DETAIL  
NOT TO SCALE

**GROUNDING ROD NOTES:**  
GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:  
1. ALWAYS USE A 3/8" X 3' COPPER CLAD ROD.  
2. RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.  
3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.  
4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.  
5. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.  
6. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.  
7. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 15 OHMS.  
8. WHENEVER MORE THAN ONE WIRE IS ATTACHED TO A GROUNDING ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.  
9. GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM.

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Karla Chavez  
SIGNATURE  
5/11/21  
DATE

IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TCOQ 512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947



REVISIONS

DATE

LISA MCNELLIS  
LANDSCAPE ARCHITECT  
629 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88011  
(575) 621-5092

ARCHITECT'S SEAL

PROJECT TITLE  
**DALHART**  
5880 DALHART DRIVE  
LOT 21 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 10162 SQ. FT. - .233 ACRES

SCALE  
Vertical: N/A  
Horizontal: N/A  
Contour Interval: N/A  
DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPVD. BY: LM  
JOB No.

SHEET TITLE  
**L7**  
IRRIGATION  
DETAILS  
SHEET 7 OF 7



**ELECTRICAL GENERAL NOTES:**

- THESE ELECTRICAL GENERAL NOTES ARE APPLICABLE TO ALL ELECTRICAL SHEETS IN THIS PROJECT SET.
- THE ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE AND ADOPTED PROVISIONS OF THE FOLLOWING CODES:  
 2014 NATIONAL ELECTRICAL CODE  
 2015 INTERNATIONAL BUILDING CODE  
 2015 INTERNATIONAL PLUMBING CODE  
 2015 INTERNATIONAL MECHANICAL CODE  
 2015 INTERNATIONAL FIRE CODE  
 2015 INTERNATIONAL FUEL CODE  
 2015 INTERNATIONAL ENERGY CONSERVATION CODE  
 AS ADOPTED AND INTERPRETED BY THE STATE OF TEXAS, CITY OF EL PASO AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) REGULATIONS, CURRENTLY ADOPTED EDITION REGARDING ELECTRICAL SYSTEMS, FIRE PROTECTION AND ALARM SYSTEMS AND ASSOCIATED MECHANICAL AND PLUMBING SYSTEMS. ALL LABOR AND MATERIALS NECESSARY TO COMPLY WITH RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED, WHERE THE DRAWINGS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS SHALL GOVERN. THE CONTRACTOR SHALL HOLD AND SAVE THE OWNER, ARCHITECT AND ENGINEER FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FROM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
- THE CONTRACTOR SHALL COORDINATE WITH OWNER, ARCHITECT, AND ENGINEER ANY WORK THAT HAS THE POTENTIAL TO HINDER ELECTRICAL SERVICES TO AREAS OUTSIDE OF THIS CONTRACT, ALL SHUT-DOWNS OR TIE-INS RELATING TO THESE SYSTEMS SHALL BE SCHEDULED AND SUBMITTED IN WRITING TO BE APPROVED BY THE OWNER'S FACILITY MANAGEMENT, OWNER, ARCHITECT, OR ENGINEER. CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE FOR PHASING OF CONSTRUCTION THAT INDICATES AREAS OF FIRST PRIORITY DURING EACH PHASE AND ANTICIPATED COMPLETION TIMES. SCHEDULES SHALL BE SUBMITTED A MINIMUM OF ONE WEEK PRIOR TO COMMENCING WORK. FACILITY MANAGEMENT, OWNER, ARCHITECT OR ENGINEER SHALL REVIEW THESE SCHEDULES AND NOTIFY CONTRACTOR OF ACCEPTANCE PRIOR TO COMMENCEMENT OF WORK.
- ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH CODES AND RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED, WHERE THE DRAWINGS AND/OR SPECIFICATIONS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS AND/OR SPECIFICATIONS SHALL GOVERN. THE CONTRACTOR SHALL HOLD AND SAVE THE OWNER, ARCHITECT AND ENGINEER FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FROM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
- BIDDERS SHALL VISIT THE SITE AND SHALL BE RESPONSIBLE FOR HAVING ASCERTAINED PERTINENT LOCAL CONDITIONS SUCH AS LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE SITE, THE CHARACTER AND EXTENT OF THE WORK WITHIN THE BUILDING AND TO BECOME FAMILIAR WITH ALL OTHER WORK TO BE PERFORMED AT THIS TIME. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO CONTRACTOR'S FAILURE TO DETERMINE ALL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED.
- BEFORE YOU DO ALL EXISTING UTILITIES, I.E. WATER, SEWER, GAS, FIRE LINE, ELECTRICITY, CABLE, TELEPHONE, FIBER OPTIC LINES, SHALL BE LOCATED AND CLEARLY MARKED IN ORDER TO AVOID UNNECESSARY SHUT DOWNS AND EMERGENCY.
- EACH CONTRACTOR SHALL OVE ALL REQUISITE NOTICES AND FILLED OUT APPLICATIONS, OBTAIN AND PAY FOR ALL PERMITS, DEPOSITS AND FEES (INCLUDING UTILITY CONNECTIONS FEES, ANY UTILITY EXTENSION FEES, TAP FEES, DEVELOPMENT FEES, AND MONET FEES) NECESSARY FOR THE INSTALLATION OF WORK UNDER THESE NOTES. TWO (2) COPIES OF CERTIFICATES OF APPROVAL SHALL BE OBTAINED FROM ALL AUTHORITIES ISSUING SAME AND SHALL BE TURNED OVER TO OWNER, ARCHITECT, ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE WORK.
- REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WORK. CONTRACTOR SHALL SECURE AND PAY ALL PERMITS, FEES, INSPECTIONS, AND TESTS UNLESS OTHERWISE INDICATED, COORDINATE WITH ARCHITECT, ENGINEER OR OTHER SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL WORK SHALL CONFORM WITH FEDERAL, STATE, AND LOCAL CODES, RULES, AND REGULATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE SYSTEMS SHALL BE INSTALLED COMPLETE AND FULLY OPERATIVE UNLESS OTHERWISE INDICATED.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE ARCHITECT AND THE ENGINEERING OFFICES. THIS REPORT SHALL DESCRIBE EXISTING DAMAGE OR OTHER CONDITIONS THAT MAY INTERFERE WITH THIS PROPOSED NEW WORK. THIS SITE SURVEY SHALL ALSO INCLUDE VERIFICATION OF SIZES, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDING OF THE CONTRACT. OTHERWISE THE ENGINEER'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.
- DURING CONSTRUCTION IF THE CONTRACTOR ENCOUNTERS AND DAMAGES THE EXISTING UNDERGROUND INFRASTRUCTURE THE CONTRACTOR SHALL REPAIR THE INFRASTRUCTURE AT NO ADDITIONAL COST TO THE OWNER. WHERE STRUCTURE IS ALTERED OR DAMAGED DURING CONSTRUCTION, INSTALLATION AND REMOVAL OF EQUIPMENT OR FIXTURES, THE CONTRACTOR SHALL REPAIR THE AREA TO MATCH SURROUNDING AREA PER ARCHITECTURAL SPECIFICATIONS, CUTTING, TRENCHING, AND PENETRATIONS THROUGH FIRE WALL, CONCRETE AND OTHER STRUCTURES ARE A PART OF THIS PROJECT SCOPE AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID. ALL EXCAVATION AND BACKFILLING FOR PLUMBING WORK IS ALSO INCLUDED AS PART OF THIS CONTRACT AND SHALL BE INCLUDED IN CONTRACTOR'S BID.
- ALL SYSTEMS AND COMPONENTS SHALL BE APPROVED FOR THE PURPOSE FOR WHICH INSTALLED. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND FROM ESTABLISHED AMERICAN SUPPLIERS UNLESS OTHERWISE INDICATED.
- ALL EQUIPMENT PARAMETERS SHOWN ARE FOR PERFORMANCE AT SITE ALTITUDE. SUPPLIERS SHALL SELECT AND DEMONSTRATE THAT THEIR EQUIPMENT MEETS THE DESIGN CONDITIONS AT SITE ALTITUDE.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL/PLUMBING CONTRACTOR THE MECHANICAL/PLUMBING EQUIPMENT'S ELECTRICAL REQUIREMENTS, INCLUDING POWER, CONTROL, COMMUNICATION, AND MONITORING OF EACH DEVICE PROVIDED AND INSTALLED BY MECHANICAL/PLUMBING CONTRACTOR.
- THE CONTRACTOR SHALL NOT SCALE THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND DO NOT COMPLETELY DEPICT ALL EXISTING CONDITIONS IN THE AREA.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOOK THROUGH ALL DRAWINGS ASSOCIATED WITH THIS PROJECT. WORK ASSOCIATED WITH THE ELECTRICAL CONTRACTOR'S TRADE MAY BE SHOWN ON OTHER DRAWINGS. ANY ADDITIONAL COSTS RESULTING FROM THE FAILURE TO INCLUDE THESE ITEMS SHOWN ON OTHER DRAWINGS WILL BE INCURRED BY THE CONTRACTOR. SHOULD THE CONTRACTOR ENCOUNTER ANY DISCREPANCIES OR INCONSISTENCIES IN THE CONSTRUCTION DOCUMENTS, THE MORE STRINGENT SHALL GOVERN.
- CONTRACTOR SHALL FIELD VERIFY CONDITION OF EXISTING EQUIPMENT AND PROVIDE NECESSARY COMPONENTS TO ASSEMBLE AND TO START-UP COMPLETE AND FULLY OPERATIONAL SYSTEMS.
- PROVIDE OWNER WITH THREE (3) COPIES OF ALL INSTALLATION INSTRUCTIONS, PRODUCT DATA SUBMITTAL, INFORMATION, WARRANTIES, CONTACT INFORMATION DURING WARRANTY PERIOD AND BALANCING REPORTS IN 3-RING BINDERS AND CD VERSION.
- CONTRACTOR SHALL SAW CUT AND PATCH CONCRETE OR OTHER MATERIAL ENCOUNTERED AS REQUIRED TO INSTALL NEW UNDERGROUND RACEWAY. REFER TO ARCHITECTURAL SPECIFICATIONS REGARDING PATCHING REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE AND INSTALL IDENTIFICATION TAGS FOR EQUIPMENT AND CONDUITS PER ASME 1.8.1 SCHEME OF IDENTIFICATION FOR PIPING. BURIED ELECTRICAL CONDUITS SHALL BE MARKED PER CODE REQUIREMENTS WITH UNDERGROUND MARKING TAPE 3" BELOW FINISHED GRADE. TAPE SHALL BE 4" WIDE COLORED RED WITH SUSTAINABLE LOGOID PER ASME A13.1 SCHEME OF IDENTIFICATION FOR PIPING.
- CONTRACTOR SHALL TAKE PRECAUTIONS PER THE ARCHITECT'S INSTRUCTIONS TO PROTECT EXISTING TREES AND /OR OTHER SITE VEGETATION.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL ORDINANCES AND SPECIFICATIONS FOR ALTERNATES AND ALLOWANCES FOR THIS PROJECT.
- ALL ELECTRICAL CONDUIT AND BOX OPENINGS SHALL BE CAPPED DURING DEMOLITION AND CONSTRUCTION.
- SITE VISIT REPORTS:  
 DURING THE COURSE OF THE PROJECT, THE ENGINEER WILL MAKE SITE AND INSPECTION VISITS TO OBSERVE WORK IN PROGRESS AND WILL SUBSEQUENTLY PREPARE A WRITTEN SITE VISIT REPORT, WHICH WILL BE SENT TO THE CONTRACTOR AND TO WHOMEVER ELSE THE ENGINEER DEEMES. THE CONTRACTOR SHALL PROVIDE 48 HOUR WRITTEN NOTICE TO THE ENGINEER FOR ALL TESTING AND CITY INSPECTION SO THEY CAN ATTEND THESE INSPECTIONS. THE CONTRACTOR SHALL PREPARE A WRITTEN AND TYPED RESPONSE WITHIN SEVEN (7) CALENDAR DAYS OF HIS RECEIVING THE SITE VISIT REPORT. THE CONTRACTORS SHALL ACCOMPANY THE ENGINEER DURING THIS FINAL PUNCHLIST VISIT UPON THE REQUEST OF THE ENGINEER. THE GENERAL CONTRACTOR SHALL INCLUDE IN HIS RESPONSE THE FOLLOWING INFORMATION:  
 1 DATE OF SITE VISIT BY THE ENGINEER.  
 2 DATE OF RECEIPT OF THE SITE VISIT REPORT.  
 3 NAME AND TITLE OF THE PREPARER OF THE RESPONSE.  
 4 AN ITEM NUMBER REFERENCED TO THE SITE REPORT.  
 5 A BRIEF THREE OR FOUR WORD DESCRIPTION OF THE ITEM.  
 6 THE CONTRACTOR OR SUBCONTRACTOR AFFECTED.  
 7 THE PROPOSED COURSE OF ACTION, AND  
 8 AN EXPECTED TIME OF COMPLETION OF THE ACTION.
- FINAL PUNCHLIST REPORTS:  
 AT THE COMPLETION OF THE JOB, THE ENGINEER WILL MAKE PUNCHLIST SITE VISITS TO OBSERVE COMPLETED WORK AND WILL SUBSEQUENTLY PREPARE A WRITTEN SITE VISIT PUNCHLIST REPORT, WHICH WILL BE SENT TO THE CONTRACTOR AND TO WHOMEVER ELSE THE ENGINEER DEEMES. THE CONTRACTOR, UPON COMPLETION OF THE LISTED PUNCHLIST ITEMS, SHALL PREPARE A TYPED WRITTEN RESPONSE TO THE LIST INDICATING COMPLETION OF EACH ITEM. THE CONTRACTOR SHALL INCLUDE IN HIS RESPONSE THE RESOLUTION OF EACH ITEM. THE CONTRACTORS SHALL ACCOMPANY THE ENGINEER DURING THIS FINAL PUNCHLIST VISIT UPON THE REQUEST OF THE ENGINEER.
- ALL ELECTRICAL CONDUIT AND PANEL OPENINGS SHALL BE CAPPED DURING DEMOLITION AND CONSTRUCTION.
- SUBSTITUTED PRODUCTS:  
 A. MATERIAL OR EQUIPMENT SPECIFIED BY MANUFACTURER'S NAME IS BEING USED AS A BASIS OF STANDARD. NO SUBSTITUTION IS ALLOWABLE WITHOUT ENGINEER'S WRITTEN APPROVAL TEN (10) DAYS PRIOR TO BID DUE DATE UNLESS THE MANUFACTURER IS LISTED ON THE DRAWINGS OR IN THE SPECIFICATION AS BEING A PREAPPROVED ALTERNATE MANUFACTURER. ANY SUBSTITUTION RECEIVED WITHOUT SUCH WRITTEN APPROVAL OR PRIOR APPROVAL IS SUBJECT TO UNQUALIFIED REJECTION.  
 B. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT SUBMITTED SUBSTITUTE EQUIPMENT WILL FIT IN SPACE AVAILABLE. THE CONTRACTOR'S SUBMITTAL FOR ACCEPTANCE OF THE SUBSTITUTE SHALL INCLUDE A WRITTEN STATEMENT OF WHETHER OR NOT SUCH ACCEPTANCE WOULD REQUIRE ANY SUBSEQUENT OR ASSOCIATED CHANGES TO THE DRAWINGS OR SPECIFICATIONS. ANY SUCH CHANGES SHALL BE DESCRIBED IN WRITING, BRIEFLY BUT COMPLETE.  
 C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF ANY SUCH MODIFICATIONS DUE TO SUBSTITUTION OF MATERIALS OR EQUIPMENT FOR THAT WHICH WAS SPECIFIED OR SCHEDULED. THE COST SHALL BE COMPLETE, THAT IS, IT SHALL INCLUDE THE COST EFFECT OF ANY AND ALL OTHER TRADES.  
 D. THE ENGINEER MAY REQUEST DETAILED SHOP DRAWING OR PLAN LAYOUTS OF MECHANICAL ROOMS OR SYSTEMS OF THE SUBSTITUTED EQUIPMENT.  
 E. SHOULD A SUBSTITUTION BE APPROVED BY THE ENGINEER (BASED UPON THE SUBSTITUTION SUBMITTAL REVIEW) AND ACCEPTED, AND SHOULD THE SUBSTITUTE MATERIAL OR EQUIPMENT PROVE DEFECTIVE, NOT MEETING DESIGN PARAMETERS, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THIS MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
- SUBMITTAL REQUIREMENTS:  
 A. THE INTENT OF THIS SECTION IS TO GIVE GENERAL SUBMITTAL INFORMATION, REFER TO SPECIFIC SUBMITTAL INFORMATION IN THE SUBSEQUENT ELECTRICAL SECTIONS.  
 B. WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, AND BEFORE ORDERS ARE PLACED, CONTRACTOR SHALL SUBMIT SPECIFIC INFORMATION ON LIST OF EQUIPMENT AND PRINCIPAL MATERIALS SPECIFIED. CONTRACTOR SHALL INDICATE AND/OR PROVIDE NAMES OF MANUFACTURERS, CATALOG AND MODEL NUMBERS, CUT SHEETS, AND SUCH OTHER SUPPLEMENTARY INFORMATION AS NECESSARY FOR EVALUATION. MINIMUM OF SIX (6) COPIES, OR AS DIRECTED BY THE ENGINEER, OF EACH SHALL BE SUBMITTED AND SHALL INCLUDE ALL ITEMS MENTIONED BY MODEL NUMBER AND/OR MANUFACTURER'S NAME IN THE SPECIFICATIONS OR IN SCHEDULES OR IN THE DRAWINGS.  
 C. REQUIREMENTS FOR EACH SUBMITTAL:  
 1 BEAR A DATED STAMP OR SPECIFIC WRITTEN INDICATION THAT THE CONTRACTOR HAS REVIEWED AND APPROVED ALL SUBMITTAL PRIOR TO SUBMISSION TO ENGINEER.  
 2 HAVE ALL INFORMATION DELETED BY CONTRACTOR PERMITS TO THE MEANS AND METHODS OF CONSTRUCTION OR TO FABRICATION, ASSEMBLY, INSTALLATION, OR ERECTION (APPROVAL BY ENGINEER SHALL NOT EXTEND TO THESE AREAS UNLESS SPECIFICALLY NOTED BY ENGINEER).

- BE CLEARLY AND SPECIFICALLY MARKED AS TO WHICH SPECIFIC PIECE OF EQUIPMENT IS BEING SUBMITTED, BY USE OF A PERMANENT MARK, STAMP, ETC., SO AS TO DISTINGUISH IT FROM OTHER PIECES OF EQUIPMENT THAT MAY OCCUR ON THE SAME PAGE.
- BE CLEARLY AND SPECIFICALLY MARKED AS TO WHICH AVAILABLE OPTIONS ARE BEING SUBMITTED THAT ARE ASSOCIATED WITH A PIECE OF EQUIPMENT, AND BE COMPLETE WITH RESPECT TO QUANTITIES, DIMENSIONS, SPECIFIC PERFORMANCE, MATERIALS, AND SIMILAR DATA TO ENABLE THE ENGINEER TO REVIEW THE PROPOSED EQUIPMENT.
- BE COMPLETE WITH RESPECT TO QUANTITIES, DIMENSIONS, SPECIFIC PERFORMANCE, MATERIALS, AND SIMILAR DATA TO ENABLE THE ENGINEER TO REVIEW THE PROPOSED EQUIPMENT.
- BE CLEARLY AND SPECIFICALLY MARKED AS TO ANY AND ALL SUBMITTAL DEVIATIONS FROM THE DESIGN SPECIFICATION REQUIREMENTS SHALL BE PROVIDED IN WRITEN FORM.
- ONCE SUBMITTED BY CONTRACTOR ANY OF THE ABOVE REQUIREMENTS OR SUBMITTALS WILL SUBJECT SUBMITTAL TO AUTOMATIC REJECTION WITHOUT REVIEW.
- ANY SUBMITTALS RECEIVED BY ENGINEER THAT WERE NOT REQUESTED SHALL BE RETURNED WITHOUT REVIEW OF ANY KIND. SUBMITTALS SHALL INDICATE MINIMUM ACCESS AND SERVICE CLEARANCES IF REQUIRED BY THE SUBMITTED EQUIPMENT.
- INSTALLATION INSTRUCTIONS - FOR CERTAIN PRODUCTS OR SYSTEMS AS IDENTIFIED IN SUBSEQUENT SPECIFICATIONS SECTIONS OR ON THE DRAWINGS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE COPIES OF MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE SUBMITTAL. WHEN REQUIRED AS SUCH, THE INSTALLATION INSTRUCTIONS ARE CONSIDERED PART OF THE SUBMITTAL AND THEIR OMISSION WILL RESULT IN AUTOMATIC REJECTION OF THE SUBMITTAL. WHERE MORE THAN ONE IDENTICAL DEVICE ARE SCHEDULED, ONLY ONE SET OF INSTALLATION INSTRUCTIONS NEEDS TO BE SUBMITTED, E.G. IF SEVEN 200A 200V/2P PANELS ARE SCHEDULED, ONLY ONE 200A 200V/2P PANELS INSTALLATION INSTRUCTION NEEDS TO BE SUBMITTED. SIMILARLY, IF ONE SET OF INSTALLATION INSTRUCTIONS IS IDENTIFIED BY THE MANUFACTURER AND ON THE INSTRUCTIONS TO BE APPLICABLE TO MORE THAN ONE TYPE OR SIZE OF DEVICES, E.G. IF ONE SET OF PANEL INSTRUCTIONS IS GOOD FOR 100A, 150, 200A, PANELS, THEN ONLY ONE INSTRUCTION SET IS REQUIRED FOR THESE DEVICES.
- THIS ENGINEER WILL REVIEW THE SUBMITTALS FOR APPROVAL. TWO, ANY ADDITIONAL REVIEWS THAT ARE REQUIRED BY THE ENGINEER FOR WHATEVER REASON AFTER THE INITIAL TWO REVIEWS WILL RESULT IN ADDITIONAL COMPENSATION FOR THE ENGINEER'S TIME BY THE SUBMITTING CONTRACTOR AT THE ENGINEER'S RATE.

- REQUIRED SHOP DRAWING SUBMITTALS:  
 A. LIGHTING FIXTURES (AS NOTED IN LIGHTING FIXTURE SCHEDULE)  
 B. MAIN DISTRIBUTION PANEL INCLUDING CIRCUIT BREAKERS  
 C. PANELBOARDS INCLUDING CIRCUIT BREAKERS  
 D. RECEPTACLES AND COWPLATE PLATES  
 E. DISCONNECTS INCLUDING FUSES OR MAGNETIC STARTERS  
 F. CONDUIT  
 G. FIBRING  
 H. CONDUIT  
 I. FIRE ALARM SYSTEM  
 J. ACCESS CONTROL AND SECURITY SYSTEM COMPONENTS  
 K. DATA CABLING, TELEPHONE WIRING, AUDIO-VISUAL CABLING  
 L. JUNCTION BOXES AND ENCLOSURES
- ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH ADJACENT SURFACES.
- PROVIDE BLANK METAL COVERPLATES OVER ALL UNUSED OUTLET BOXES, PAIN COVERPLATE TO MATCH ADJACENT SURFACES.
- WIRING SHALL BE THIN COPPER WITH MINIMUM SIZE OF #12, IN MINIMUM 3/4" (3/4") CONDUIT WITH COLL. EDS, UNLESS NOTED OTHERWISE.
- DOUBLE SET SCREW FITTINGS ARE ACCEPTABLE FOR STEEL CONDUIT AND COUPLINGS ONLY.
- DEVICES THAT MIGHT CAUSE OR OPERATE WITH VIBRATION OR NOISE SHALL BE ISOLATED PER MANUFACTURER'S RECOMMENDATIONS AND/OR PER SPECIFICATIONS.
- SWITCHBOARDS, PANEL BOARDS AND TRANSFORMERS SHALL BE CUTLER-HAMMER, SQUARE-D, OR SIMILAR APPROVED BY THE ENGINEER.
- USE THE FOLLOWING WIRING COLOR CODE:  
 A. FOR WIRE SIZES TO 4WG AND SMALLER, INSTALL WIRE COLORS IN ACCORDANCE WITH THE FOLLOWING:  
 1 BLACK AND RED FOR SINGLE PHASE CIRCUITS AT 120/240 VOLTS.  
 2 BLACK, RED, AND BLUE FOR CIRCUITS AT 120/208 VOLTS SINGLE OR THREE PHASE.  
 3 ORANGE, BROWN, AND YELLOW FOR CIRCUITS AT 277/480 VOLTS SINGLE OR THREE PHASE.  
 B. FOR WIRE SIZES 6 AWG AND LARGER, IDENTIFY WIRE WITH COLORED TAPE AT TERMINALS.  
 SPLICES AND BOXES, COLORS ARE AS FOLLOWS:  
 1 BLACK AND RED FOR SINGLE PHASE CIRCUITS AT 120/240 VOLTS.  
 2 BLACK, RED, AND BLUE FOR CIRCUITS AT 120/208 VOLTS SINGLE OR THREE PHASE.  
 3 BROWN, ORANGE, AND YELLOW FOR CIRCUITS AT 277/480 VOLTS SINGLE OR THREE PHASE.  
 C. NEUTRAL CONDUCTORS: WHITE FOR 208/120V CIRCUITS, GREY FOR 480/277V CIRCUITS.  
 D. BRANCH CIRCUIT CONDUCTORS: INSTALL THREE OR FOUR WIRE NEMPHURS WITH EACH PHASE UNLESS COLOR CODED.  
 E. FEEDER CIRCUIT CONDUCTORS: UNLESS COLOR CODED EACH PHASE.  
 F. GROUND CONDUCTORS:  
 1 FOR 6 AWG AND SMALLER: GREEN.  
 2 FOR 4 AWG AND LARGER: IDENTIFY WITH GREEN TAPE AT BOTH ENDS AND VISIBLE POINTS INCLUDING JUNCTION BOXES.
- EACH 120 VOLT BRANCH CIRCUIT SHALL BE PROVIDED WITH A SEPARATE NEUTRAL ONE FOR EACH PHASE WIRE. CIRCUIT BREAKER HANDLE TIES MAY BE USED INSTEAD OF SEPARATE NEUTRALS, COMPLY WITH ALL CODES.
- PROVIDE ARC-FLASH LABELING ON ALL ELECTRICAL PANELS, BOTH NEW AND EXISTING. ALL LABELING SHALL BE DONE USING ANNEK H OF NFPA 70E, OR BY CALCULATIONS.
- ALL STEP-DOWN TRANSFORMERS SHALL COMPLY WITH THE U.S. DOE 2016 LEGISLATION FOR ENERGY EFFICIENCY.
- PROVIDE AN UN-SWITCHED PHASE WIRE FROM THE LINE SIDE OF THE PULLER'S LIGHT SWITCH TO THE EMERGENCY FIXTURE IN THAT ROOM.
- NO CABLE MAY BE USED FOR BRANCH CIRCUITS WHERE ALLOWED BY CODE.

**SYMBOL LEGEND**

SYMBOL	DESCRIPTION
	SURFACE MOUNTED LIGHT FIXTURE, TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LIGHT POLE AND NUMBER OF LUMINAIRES SHOWN, TYPE AS INDICATED IN FIXTURE SCHEDULE
	PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE POLES AND RATING REQUIRED, TO BE MOUNTED IN NEMA 3R IF INSTALLED OUTDOORS.
	ELECTRICAL UNDERGROUND CIRCUIT, 2"-0" MINIMUM BELOW GRADE.
	BRANCH CIRCUIT IN WALLS OR CEILING.
	HOME RUN TO PANEL WITH BRANCH CIRCUIT NUMBERS INDICATED. TIC MARKS REPRESENT NEUTRAL, HOT, SWITCH LEG, AND GROUND CONDUCTORS RESPECTIVELY. CONDUITS WITH NO TIC MARKS SHALL BE: "A HOT AND NEUTRAL", "A HOT AND SWITCH LEG", "A NEUTRAL AND SWITCH LEG", OR "HOT, NEUTRAL, AND GROUND OR ISOLATED GROUND", AS APPLICABLE.

NOTE: SOME SYMBOLS SHOWN MAY NOT BE USED ON THIS PROJECT.

APPROVED FOR CONSTRUCTION  
 Parks & Recreation Department Planning

Karla Chavez  
 SIGNATURE  
 2/16/21  
 DATE

**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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

**ENERGY CODE NOT REQUIRED. NO HABITABLE SPACES AND PLAYGROUND EXEMPT.**

**LIGHTING FIXTURE SCHEDULE**

GENERAL LIGHTING		SYMBOL	MANUFACTURER NAME AND NUMBER	LAMPS	VOLTAGE	BALLAST	MOUNTING	DESCRIPTION	NOTES
OL1	LSI #MRM-LED-30L-SIL-UNV-DIM-40-70CRI-IL-CR7P			2-232W LED 30000 LUMEN	240	NA	POLE	AREA LIGHT, TWO HEADS WITH ROAM REN127 DV1 0 J50 PHOTOCONTROL	4
POLE	AMERON POLE PRODUCTS SK081705 REV E WITH LSI BKS NM D90 PLP BRACKETS								

NOTES:  
 1. LIGHT FIXTURES SHALL BE AS SPECIFIED AND NO SUBSTITUTIONS WILL BE ALLOWED UNLESS PRIOR APPROVED PER SPECIFICATIONS.  
 2. REFER TO PLAN FOR TYPES AND QUANTITIES USED. ALL TYPES LISTED ABOVE DO NOT NECESSARILY APPEAR ON PLAN.  
 3. UPON COMPLETION OF THE PROJECT THE CONTRACTOR IS TO PROVIDE LABOR TO ADJUST THE COMPLETE INTERIOR LIGHTING PER THE DIRECTION OF THE USER.  
 4. CONTRACTOR TO PROVIDE UNIT ID NUMBER AND COORDINATES OF EACH PHOTOCELL TO CITY

**PANEL "M" SCHEDULE**

ENCLOSURE: NEMA 3R  
 TYPE: SURFACE MOUNTED  
 NEUTRAL BUS: COPPER  
 GROUNDING BUS: COPPER

TYPE: DBLTA		SERVICE: 240/120 VOLT 22,000 AIC		1 PHASE 60 AMP		3 WIRE 60 AMP		TYPE: MCB		LOAD DESCRIPTION		WIRE / CONDUIT	
WIRE / CONDUIT	LOCATION: ROOM	LOAD DESCRIPTION	POLE	AMP	VA	PH "A"	PH "C"	VA	AMP	POLE	SERVICE	TYPE	CKT NO.
1	O	IRRIGATION CONTROLLER	1	20	500			150	20	2	AREA LIGHT	C	2
3	O	BACKFLOW WARNER	1	20	1,000		1,150	150				C	4
5													6
7							0						8
9							0						10
11							0						12
WIRING AND CONDUITS SHALL BE IN ACCORDANCE WITH E10 ELECTRICAL GENERAL NOTES #32 AND #42, UNLESS NOTED OTHERWISE.						CONNECTED VA		650	1,150				
DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF CODE DIVERSITIES						CONNECTED AMPS		5.4	9.6				
						TOTAL CONNECTED KVA		9.6	MAX AMPS / PH				
						DIVERSITY AMPS		1.8					
						TOTAL DIVERSITY KVA		1.9		UNBALANCE % 43.5			
TYPE OF LOAD		VA	DEMAND FACTOR	DEMAND VA									
C	CONTINUOUS	300	1.25	375									
N	NON-CONTINUOUS	0	1.00	0									
K	KITCHEN	0	0.65	0									
R	RECEPTACLES	0	1.00	0									
O	OTHER	1,500	1.00	1,500									
M	MECHANICAL	0	1.00	0									
TOTAL		1,800		1,875									

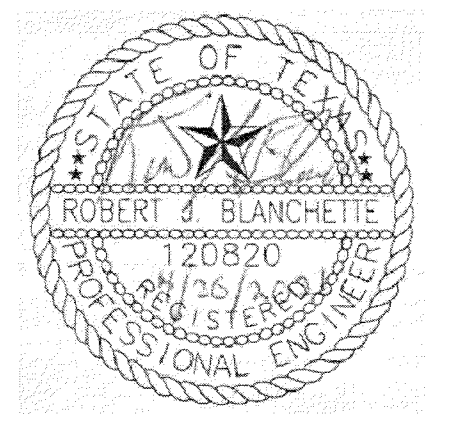
REFERENCES - BENCHMARKS  
 CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLOSDALE DRIVE AND PALOMINO STREET  
 ELEVATION: 3939.32 (NAVD 88)  
 ELEVATION: 3926.24' (CITY DATUM)  
 DATE: \_\_\_\_\_  
 REVISIONS: \_\_\_\_\_  
 BY: \_\_\_\_\_

ENGINEER'S SEAL  
 SCALE  
 Horizontal: \_\_\_\_\_  
 Vertical: \_\_\_\_\_  
 Contour Interval: N/A  
 DATE: MARCH 2021  
 DESIGN BY: EMC  
 DRAWN BY: EMC  
 CHECKED BY: EMC  
 APP'D. BY: EMC  
 JOB NO. 2000-2241D

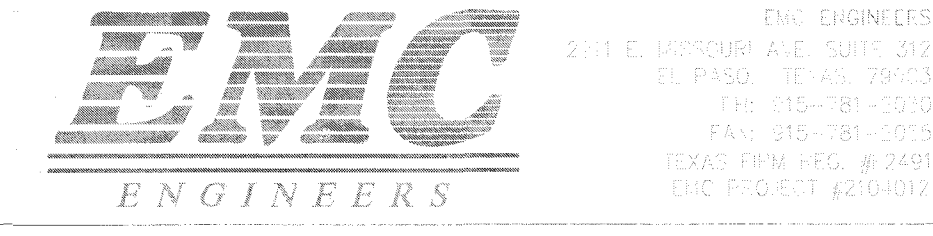
PROJECT TITLE  
**DALHART PARK #2**  
 5880 DALHART DRIVE  
 LOT 59 BLOCK 8  
 VILLAS DEL NORTE UNIT 1  
 CITY OF EL PASO, EL PASO, TEXAS 79928  
 AREA: 10162 SQ.FT. - .233 ACRES

SHEET TITLE  
**ELECTRICAL GENERAL NOTES, LEGEND, SCHEMATICS, AND SCHEDULES**

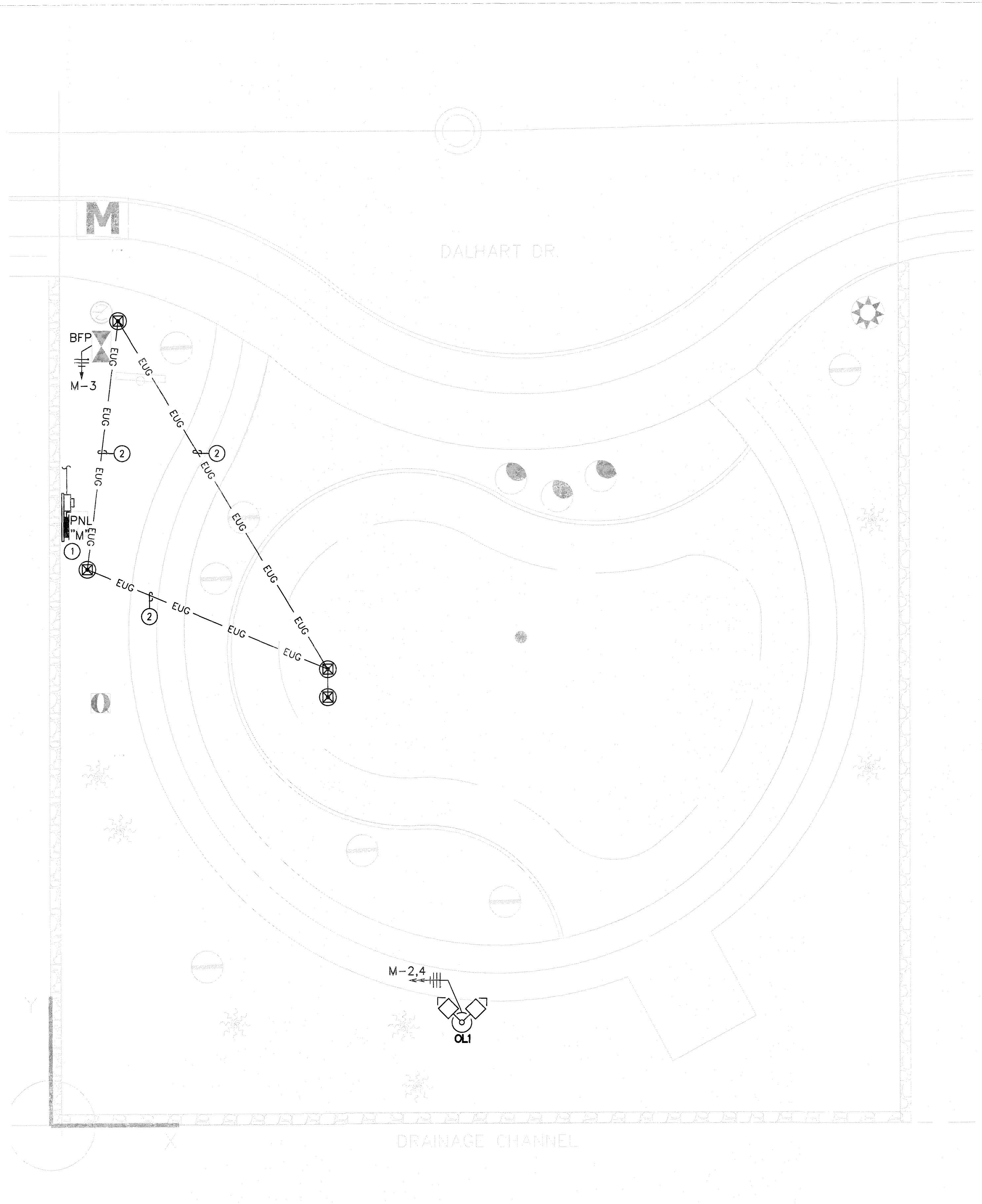
SHEET NO.  
**E10**



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ROBERT J. BLANCHETTE, P.E. #120820 OF EMC ENGINEERS (TEXAS FIRM REG. #F2491) ON APRIL 20, 2021 WITHOUT ALTERATION OF A SEALED DOCUMENT. THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.







APPROVED FOR CONSTRUCTION

Parks & Recreation Department Planning

*Karla Chavez*

SIGNATURE  
*3/15/22*

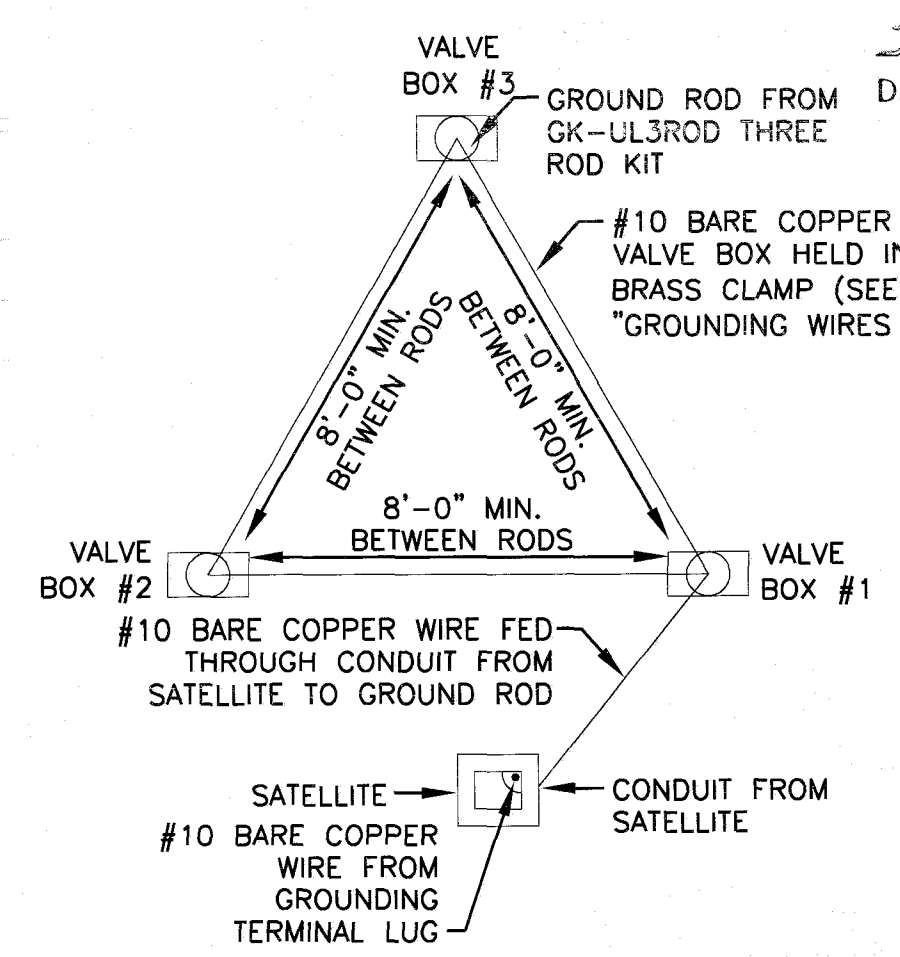
DATE

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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (AFTER HOURS)	(915) 621-6750 (915) 240-3220

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

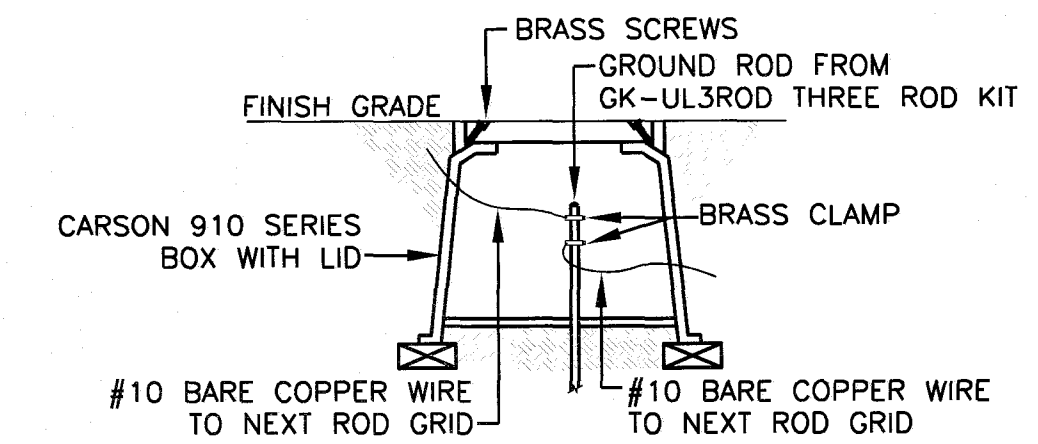
**GROUNDING ROD NOTES:**

- GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH.
- CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:
1. ALWAYS USE A 5/8"X8" COPPER CLAD ROD.
  2. RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
  3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
  4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
  5. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
  6. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
  7. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 15 OHMS.
  8. WHENEVER MORE THAN ONE WIRE IS ATTACHED TO A GROUND ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
  9. GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM.



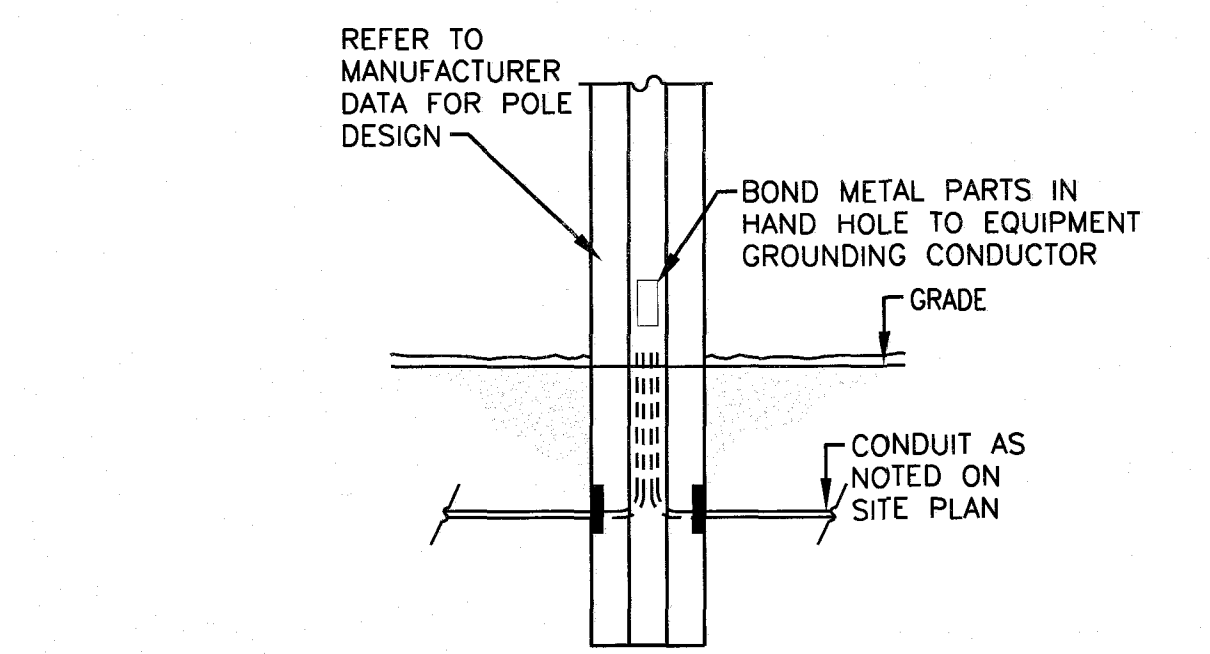
NOTE: PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

**2 VALVE BOX GROUNDING SCHEMATIC**  
SCALE: NONE



NOTE: SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS

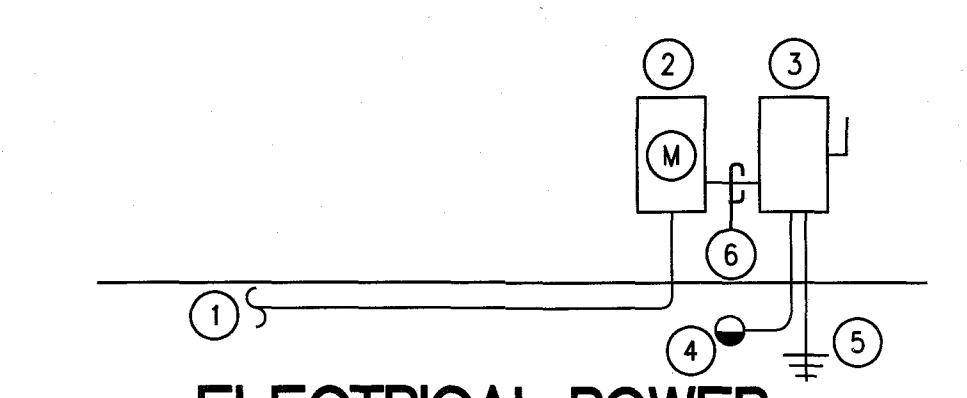
**GROUNDING WIRES SCHEMATIC**  
SCALE: NONE



**3 CONCRETE POLE SCHEMATIC**  
SCALE: NONE

**ELECTRICAL RISER KEYED NOTES:**

- 1 TO EPE SERVICE
- 2 RACK MOUNTED METER PER EPE REQUIREMENTS
- 3 RACK MOUNTED 60A 240/120V N3R PANEL WITH MAIN BREAKER
- 4 #8 CU TO 2 5/8"X8" COPPER CLAD GROUND RODS
- 5 #8 CU TO METALLIC COLD WATER PIPE
- 6 3 #6 CU THWN AND #8 CU GROUND IN 1" CONDUIT.



**4 ELECTRICAL POWER RISER DIAGRAM**  
SCALE: NONE

**ELECTRICAL GENERAL NOTES:**

- 1 UNDERGROUND WIRING TO BE XHHW.

**ELECTRICAL KEYED NOTES:**

- 1 RACK MOUNTED METER AND PANEL NEXT TO IRRIGATION CONTROLLER
- 2 SEE VALVE BOX GROUNDING SCHEMATIC.

**1 ELECTRICAL SITE LIGHTING PLAN**  
SCALE: 1/8" = 1'-0"  
8 4 2 0 4 8 12 16

REFERENCES - BENCHMARKS  
CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF CLODESDALE DRIVE AND PALMWOOD STREET  
ELEVATION: 3939.32 (NAVD 88)  
ELEVATION: 3928.24' (CITY DATUM)

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

PROJECT TITLE  
**DALHART PARK #2**  
5880 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 10162 SQ.FT. - .235 ACRES

SHEET TITLE  
**ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS**

SHEET NO.  
**E1.1**

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ROBERT J. BLANCHETTE, P.E. #20820 OF EMC ENGINEERS (TEXAS FIRM REG. #F2491) ON APRIL 20, 2021.  
ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

EMC ENGINEERS  
2011 E. LASQUER AVE., SUITE 312  
EL PASO, TEXAS 79913  
PHONE: 915-544-5232  
FAX: 915-544-5233  
TEXAS FIRM REG. # 2491  
EMC PROJECT #2101D12





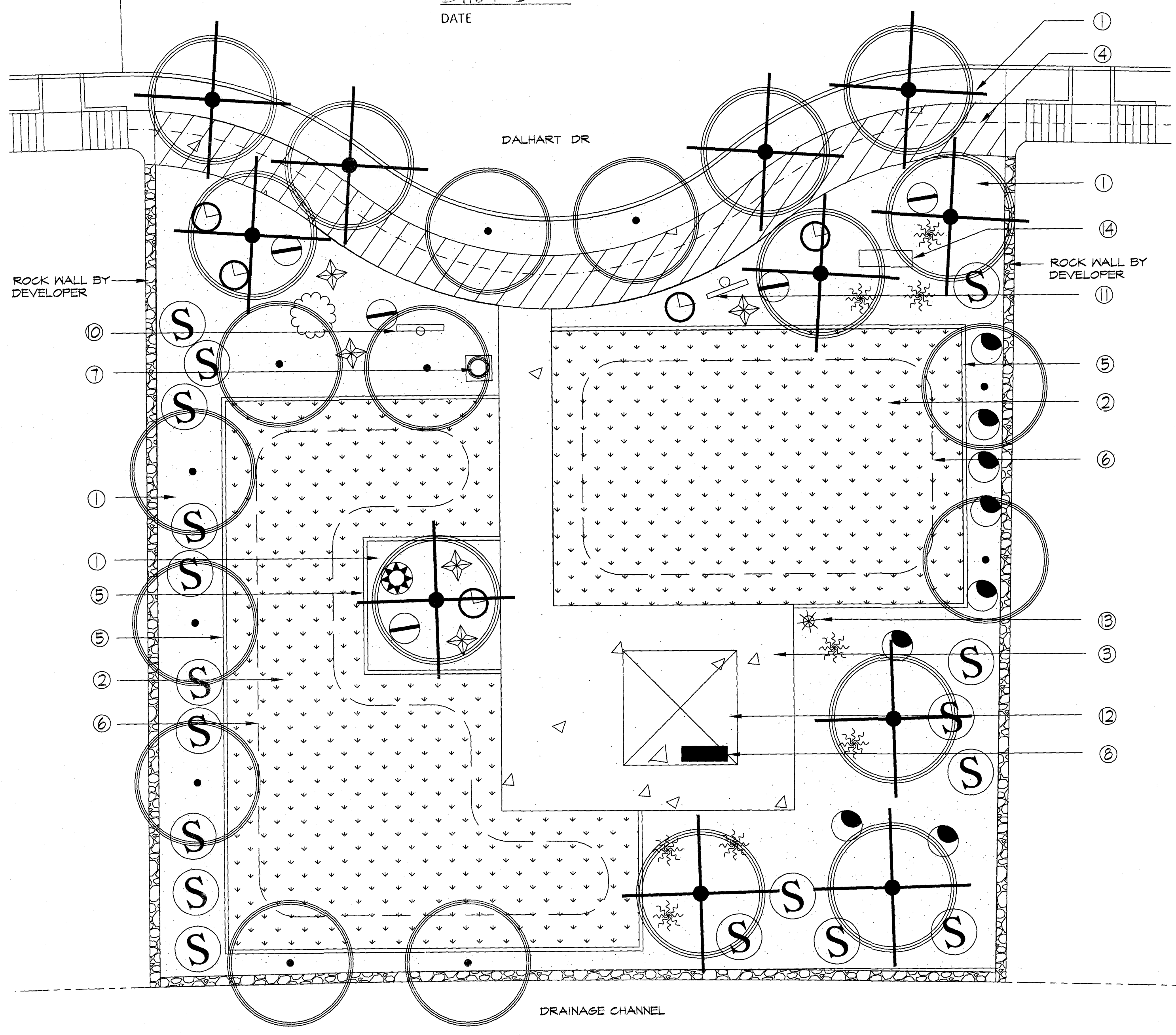


**PARK MATERIAL LEGEND AND DETAIL KEY:**

	1. FRANKLIN RED GRAVEL CRUSHER FINES 3" DEPTH 2" BELOW ALL CONCRETE SURFACES, USE NEED BARRIER, PROJECT TOTAL [5274 SF] SEE DETAIL (C) ON SHEET L5.
	2. SANTA ANA BERMIUDA GRASS PROJECT TOTAL [4536 SF] TOP OF SOD 2" BELOW TOP OF SIDEWALK AND CONCRETE HEADER CURB. SEE DETAIL (C) ON SHEET L5.
	3. 1'-0" PARK CONCRETE WALKWAY, PATIO, BENCH & TABLE PADS. PROJECT TOTAL [262 SF] SEE DETAIL (C) ON SHEET L5.
	4. SUBDIVISION 1'-0" CONCRETE WALKWAY BY DEVELOPER
	5. 6"x12" CONCRETE HEADER CURB. PROJECT TOTAL [145' LF] SEE DETAIL (C) ON SHEET L5.
	6. 6"-8" RECESSED AREA FOR WATER HARVESTING PARKS AND RECREATION REPRESENTATIVE MUST APPROVE GRADING PRIOR TO INSTALLING SOD OR GRAVEL.
	7. DUMOR TRASH RECEPTACLE 64-32-RG PROJECT TOTAL [1] FOREST GREEN - INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SURFACE MOUNT ON 3' X 3' SLAB. SEE DETAIL (C) ON SHEET L5.
	8. 6'-0" DUMOR 94 SERIES BENCH-SURFACE MOUNT. TOTAL [1] FOREST GREEN. INSTALL PER MANUF. RECOMMENDATIONS FOR ADA BENCH SEE DETAIL (C) ON SHEET L5.
	9. PARK INFORMATION SIGN - LOCATION SHALL BE APPROVED BY PARKS DEPT REPRESENTATIVE. SEE DETAIL (C) ON SHEET L5.
	10. SUPERIOR PET WASTE ELIMINATOR STATION - SKU# EB WWW.PETWASTEELIMINATOR.COM [QTY: 1] INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE DETAIL (C) ON SHEET L5.
	11. USA SHADE 20 X 20 SEE DETAIL (C) AND REQUIREMENTS ON SHEET L5.
	12. AERIAL LIGHTING - 30' HIGH PRE-STRESSED CONCRETE DIRECT BURY POLE LED FIXTURES AND LAMPS MUST COMPLY WITH CITY OF EL PASO MUNICIPAL CODE FOR OUTDOOR LIGHTING SECTION 10.10. PROJECT TOTAL [1] SEE EL PASO ELECTRIC'S PLAN IN ENGINEER'S DRAWING SET FOR PERIMETER LIGHTING.
	13. PARK MONUMENT SIGN OBTAIN PARK APPROVAL ON LOCATION SEE DETAIL (C) ON SHEET L5.

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Karla Chavez  
SIGNATURE  
5/16/21  
DATE



QUANTITIES ARE PROJECT TOTALS - VERIFY! PLANS TAKE PRECEDENCE

**PLANT LEGEND/SCHEDULE**

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
CS	CS	CIMARRON SAGE-BLUE RANGER	LEUCOPHYLLUM ZYGOPHYLLUM CIMARRON	5 GAL	6'	3	18' HT
RY	RY	RED YUCCA	HESPERALOE PARVIFLORA	5 GAL	4'	4	18' HT
SE	SE	SILVER CASSIA	SENNA ARTEMISOIDES	5 GAL	8'	7	4' HT
YL	YL	NEEN GOLD YELLOW LANTANA	LANTANA X NEEN GOLD	5 GAL	4'	4	12' HT
RM	RM	REGAL MIST MULHY	MULBERGIA CAPILLARIS 'REGAL MIST'	5 GAL	6'	8	18' HT
YB	YB	YELLOW BELLS	TECOMA STANS VAR. ANGUSTATA	5 GAL	8'	1	18' HT
TB	TB	TURPENTINE BUSH	ERICAMERIA LARICIFOLIA	5 GAL	4'	1	15' HT
CB	CB	DM COYOTE BUSH PIGEON POINT	BACCHARIS PILULARIS PIGEON POINT	5 GAL	4'	7	8' HT
		SANTA ANA BERMIUDA GRASS	C.DACTYLOM X TRANSVAALENSIS	SOD		3032	LAY SOD TIGHTLY SO THAT NO LINES ARE VISIBLE TRIFRAY 1 MAY BE USED AS ALTERNATE

**TREE LEGEND/SCHEDULE PROJECT TOTAL**

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
NET	NET	HONEY MESQUITE	PROBOSIS GLANDULOSA	24' BOX	2' CAL-10HT-6' SPREAD	4	SINGLE TRUNK - FULL
PVT	PVT	PALO VERDE DESERT MUSEUM	PARKINSONIA X DESERT MUSEUM	24' BOX	2' CAL-10HT-6' SPREAD	8	SINGLE TRUNK - FULL

**TREE NOTES:**  
MINIMUM BRANCHING CLEARANCE IS 7' OVER SIDEWALK  
DO NOT SELECT TREES WITH LOW FORK BRANCHING PATTERN.  
PRUNING TO MEET CLEARANCE REQUIREMENTS WILL DESTROY FORM OF TREES WITH THAT GROWTH HABIT.  
MINIMUM HEIGHT 10'. CALIFER IS MEASURED AT 6" ABOVE TOP ROOT.

**PARK SITE NOTES**

- ALL PARK IMPROVEMENTS (SIDEWALKS, RAMPS, ETC.) AND PAVED HIKE/BIKE TRAILS (IF APPLICABLE) ARE TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAG & TAG STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.
- UNSUITABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS  
DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.  
  
ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2019.  
  
ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DISEGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH 6TOP SOILS /

PLAN VIEW - PLANTING AND MATERIALS  
SCALE: 1" = 10' - 0"

PLANS MUST BE SUBMITTED TO TEXAS DEPT OF LICENSING AND REGULATION FOR COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS. #TAB52021010554

REVISIONS

DATE

ARCHITECT'S SEAL

LISA MCNELLIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88001  
(575) 621-3032

STATE OF TEXAS  
REGISTERED LANDSCAPE ARCHITECT  
NO. 1136  
5/5/21

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

DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPD. BY: LM  
JOB No.

PROJECT TITLE  
**ELISE PARK**  
6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11084 SQ.FT. - .254 ACRES

SHEET TITLE  
**L2**  
PARK PLANTING AND MATERIALS

SHEET 2 OF 8



APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Katla Chavez

SIGNATURE  
5/18/24  
DATE

PRECIPITATION SCHEDULE									
VALVE #	VALVE SIZE	TOTAL GPM	RAINBIRD PRECIP. RATE	CALCULATED PRECIP. RATE	WATER REQUIREMENT	NOZZLE SIZE	# & TYPE OF HEADS	GPM PER HEAD	RUN TIME PER WEEK
15	1.5"	31.92	1.50	1.50	N/A	1/8"	12 VAN	VARIES	38 MIN
25	1.25"	21.28	1.50	1.61	1"/WEEK	1/8"	9 VAN	VARIES	38 MIN
3D	1"	8.1	DRIP	N/A	1"/WEEK	N/A	N/A	N/A	240 MIN
4S	1.25"	21.28	1.50	1.61	1"/WEEK	1/8"	8 VAN	VARIES	38 MIN

WATERING SCHEDULE 3 TIMES PER WEEK							
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTING		
15	X   2   3   4	38 MIN	X   X   X	15 MIN	12:00 AM		
25	X	38 MIN	X   X   X	13 MIN	12:14 AM		
3D	X	240 MIN	X   X   X	80 MIN	12:00 AM		
4S	X	38 MIN	X   X   X	13 MIN	12:28 AM		
TOTAL RUN TIME PER DAY OF OPERATION - DRIP		80 MIN / 133 HOURS					
TOTAL RUN TIME PER DAY OF OPERATION - SPRAY		34 MIN / 65 HOURS					
TOTAL RUN TIME PER WEEK - SPRAY		114 MIN / 174 HOURS					

WATERING SCHEDULE 4 TIMES PER WEEK							
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTING		
15	X   2   3   4	38 MIN	X   X   X   X	10 MIN	12:00 AM		
25	X	38 MIN	X   X   X   X	10 MIN	12:34 AM		
3D	X	240 MIN	X   X   X   X	60 MIN	1:18 AM		
4S	X	38 MIN	X   X   X   X	10 MIN	2:18 AM		
TOTAL RUN TIME PER DAY OF OPERATION - DRIP		80 MIN / 133 HOURS					
TOTAL RUN TIME PER DAY OF OPERATION - SPRAY		30 MIN / 5 HOURS					
TOTAL RUN TIME PER WEEK - SPRAY		114 MIN / 174 HOURS					

PRESSURE LOSS CALCULATIONS					
VALVE #1S	Length of Pipe (Feet)	Flow (Gal.)	Size (In.)	Pressure Loss Per 100 ft.	Accumulated Pressure Loss
CLASS 200	18	1.33	3/4	0.24	0.0432
CLASS 200	9	3.99	3/4	0.88	0.1224
CLASS 200	18	7.98	3/4	3.17	0.6930
CLASS 200	14	23.94	1 1/4	2.26	1.0094
CLASS 200	5	31.92	1 1/2	2.33	1.1259
<b>Section Pressure Losses (Sub-Total)</b>					
Remaining Pressure Losses					
Item	Length (Feet)	Flow (Gal.)	Size (In.)	Pressure Loss Per 100 Ft.	Accumulated Pressure Loss
Section Valve	31.92	1.5	1.5	2.500	3.6259
Mainline SCH40	87	31.92	2	0.94	0.8178
Backflow	0	0	0	0.000	4.4437
Water Meter		1.5		13.0000	17.4437
Copper Supply	66	31.92	1.5	3.4188	21.0437
Total Pressure Loss to the City Main					
				30.0000	30.0000
Minimum Required Head Pressure					
STATIC Pressure				94.0000	
Actual Head Pressure				69.5375	

ELISE (ACROSS 10783 ELISE ST.) - FH#4553  
STATIC - 94 PSI  
1244 GPM

VALVE NUMBER AND DRIP(S) OR SPRAY(S) → #1S 1" → VALVE SIZE  
→ 107 8 → NUMBER OF HEADS ON THIS VALVE  
GALLONS PER MINUTE ON THIS VALVE

MATERIAL LEGEND AND DETAIL KEY:

- PRESSURE MAIN PVC SCHEDULE 40, DEPTH 18" TO TOP OF PIPE. SEE DETAIL ① ON L6.
  - LATERAL PVC CLASS 200, DEPTH 12" TO TOP OF PIPE. SEE DETAIL ① ON L6.
  - DRIP LATERAL PVC CLASS 200, DEPTH 12" TO TOP OF PIPE. SEE DETAIL ① ON L6.
  - SCH 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. SLEEVES SHALL EXTEND 12" PAST PAVING. CHISEL 1" MARK IN CONCRETE CURB OR WALK TO LOCATE SLEEVE AT EACH SIDE. SIZE 2X DIA. OF PIPE TO BE SLEEVED. SEE #10 UNDER GENERAL IRRIGATION NOTES ON L1.
  - - - FIELD WIRING SHALL BE IN A SEPARATE TRENCH 5' OFFSET FROM MAIN LINE ON NORTH AND WEST SIDE.
  - ⊕ RAINBIRD 1806 SPRAY BODY WITH VAN NOZZLE AT 30 PSI 18" RADIUS PRECIP. RATE 1.50 SEE DETAIL ① ON L6.
  - ⊕ DRIP EMITTER FOR TREES: RAINBIRD XERI-BIRD XBD-80 WITH FILTER AND IN-STEM PRESSURE REGULATOR. USE 1/8" XB-20PC EMITTERS PER TREE. 21 GPM SET IN EMITTER VALVE BOX. SEE DETAILS 2, AND 3 ON L6.
  - ⊕ DRIP EMITTER FOR PLANTS: RAINBIRD XERI-BIRD XBD-80 WITH FILTER AND IN-STEM PRESSURE REGULATOR. USE 1/8" XB-20PC EMITTER PER PLANT. SET IN EMITTER VALVE BOX. DO NOT EXCEED 20' OF MICROTUBE. SET EMITTER ON UPHILL SIDE OF PLANT. SEE DETAIL 2 ON L6.
  - ⊕ ELECTRIC REMOTE VALVE: WEATHERMATIC 8200CR-10 WITH XPR OPTION AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAILS ④, ⑤, AND ⑥ ON L6.
  - ⊕ ELECTRIC REMOTE VALVE FOR DRIP: WEATHERMATIC 8200CR-10 WITH XPR OPTION AND CUT-OFF BALL VALVE. SIZE ON PLAN. SEE DETAILS ④, ⑤ ON L6 AND ⑩ ON L7.
  - ⊕ ISOLATION GATE VALVE IN LOCKING VALVE BOX. USE STANDARD VALVE BOX DETAILS. SEE DETAIL ② ON L6.
  - ⊕ BUCKNER 1" QUICK COUPLER - DOUBLE LUG WITH LASCO SNAP LUG WITH MALE BRASS STABILIZER ELBOW WITH CUT OFF. TO BE SET IN 12"x14" LOCKING VALVE BOX. SEE DETAIL ② ON L7.
  - ⊕ 15" METER LOCATION ON THIS PLAN IS APPROXIMATE. FLOW: 15 GPM. DO NOT SET IN SIDEWALK.
  - ⊕ BACKFLOW: FEBCO REDUCED PRESSURE 825Y 15". USE ASSE 1060-CLASS 1 ENCLOSURE ELEC. HEAT. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO PARKS DEPT. REQUIREMENTS. PORTS MUST BE 2' AWAY FROM ANY OBSTRUCTION TO ALLOW FOR INSPECTIONS. SEE DETAIL ④ ON L7.
  - ⊕ RAINBIRD ESP-125ITE SATELLITE CONTROLLER IN LOCKING STRONGBOX STAINLESS STEEL UNIT SB-2465 WITH PEDESTAL. SEE DETAILS ⑤ AND ⑥ ON L7.
  - ⊕ RAINBIRD RAIN SENSOR RSD-BEX. LOCATION TO BE APPROVED BY PARKS. SEE DETAIL 13 ON L7.
- ALL COMPONENTS TO BE SET IN VALVE BOXES MUST CONFORM TO STANDARD INSTALLATION SEE DETAIL ② ON L6.
- ADD MILKING PRESSURE REGULATOR IF PSI IS 95 OR GREATER DOWNSTREAM OF BACKFLOW.

COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE CITY OF EL PASO PARKS AND REC. DEPT.

PERFORMANCE STATISTICS

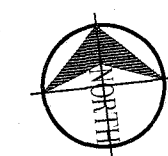
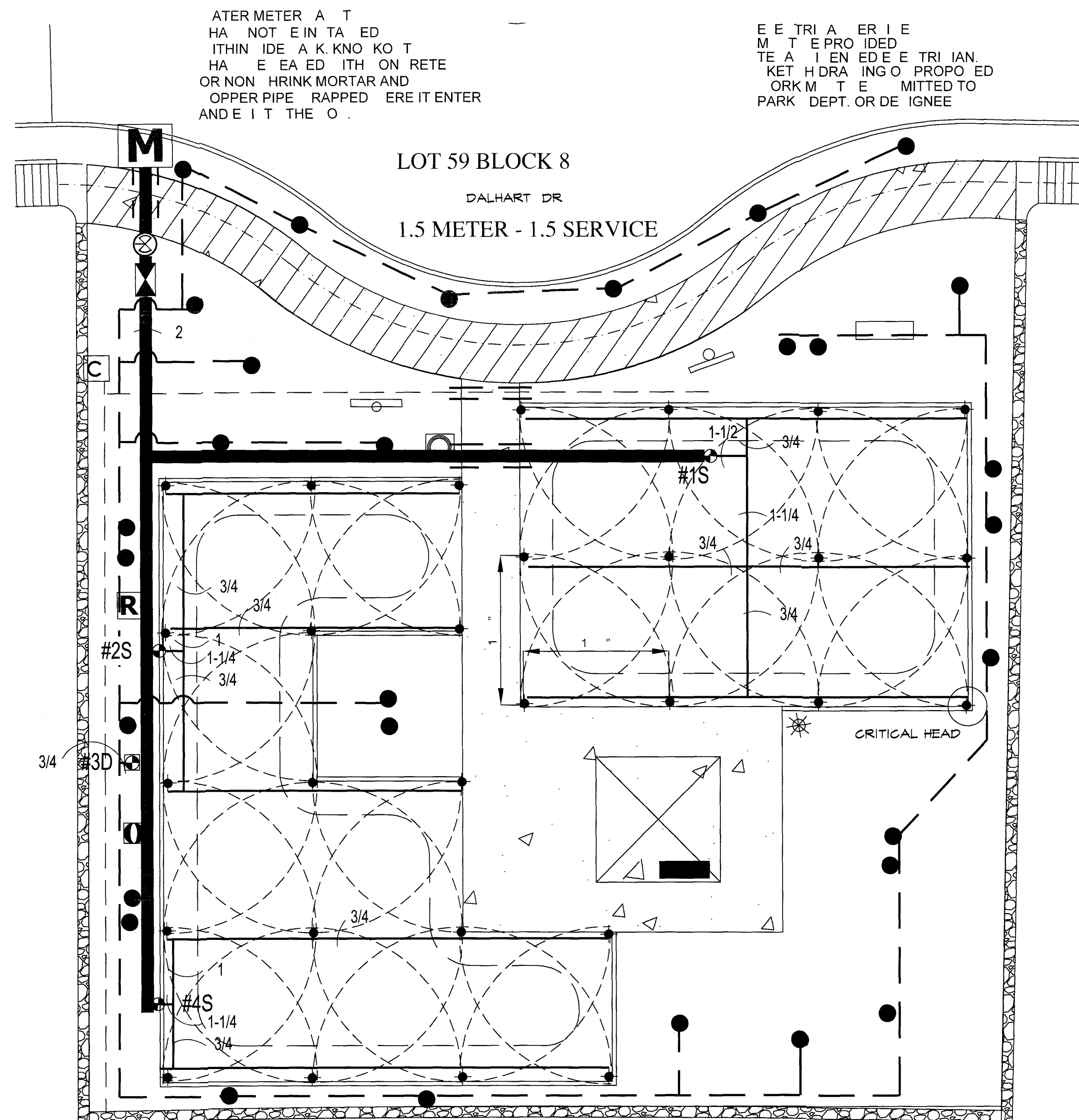
1. THE FOLLOWING PERFORMANCE STATISTICS WERE CALCULATED PER PLAN CHANGES IN OPERATING PRESSURE, HEAD SPACING AND/OR NOZZLE SELECTION WILL EFFECT RESULTS.

VALVE #1S  
31.92 X 46.25 = 3072 = 1.50 "/HR AVERAGE AREA METHOD  
1443 1443 RUN TIME FOR 1"/HR - 38 MINUTES PER WEEK

VALVES #2S AND #4S  
43 X 46.25 = 4188.75 = 1.61 "/HR AVERAGE AREA METHOD  
2570 2570 RUN TIME FOR 1"/HR - 38 MINUTES PER WEEK

WATER AUDIT

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.



PLAN VIEW - IRRIGATION

SCALE: 1" = 10' - 0"

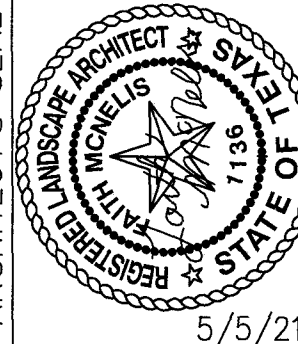
IRRIGATION NOTES

- IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMPLISHING FULL COVERAGE IN ALL AREAS WITH SPECIFIED EQUIPMENT. ANY DISCREPANCIES IN THE PLAN SHOULD BE BROUGHT TO THE PROJECT MANAGER'S ATTENTION DURING CONSTRUCTION.
- ALL FITTINGS AND NECESSARY EQUIPMENT REQUIRED TO MAKE THIS IRRIGATION SYSTEM OPERATE PROPERLY AND TO COMPLY WITH LOCAL AND STATE CODES ARE INCIDENTAL TO THESE PLANS AND ARE THE CONTRACTOR'S RESPONSIBILITY.
- CONTRACTOR WILL BE HELD LIABLE FOR GAINING ACCESS UNDER ALL PAVEMENTS.
- SLEEVES SHOWN ON THE PLANS SHOULD BE VERIFIED FOR ACCESSIBILITY AND FEASIBILITY BEFORE BID IS MADE.
- THE CONTRACTOR SHALL LOCATE AND VERIFY EACH WATER TAP TO WHICH THE IRRIGATION SYSTEM WILL CONNECT. ALL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH THE STANDARDS OF THE CITY OF EL PASO AND THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS AND VALVES REQUIRED FOR THE FULL IMPLEMENTATION OF THE SYSTEM.
- THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO INITIATING WORK.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR INTERRUPTION IN SERVICE CAUSED BY HIS EXCAVATIONS AND/OR WORK.
- EACH CONTROLLER WILL HAVE AN INDEPENDENT COMMON WIRE LOOPED TO THE VALVES CONNECTED TO IT.
- REMOTE CONTROL VALVE WIRES ARE TO BE IN A SEPARATE TRENCH 5' FROM MAIN LINE ON NORTH OR WEST SIDE OF MAINLINE.
- ALL REMOTE CONTROL VALVE WIRES NEED TO BE LABELED AT VALVE IN WEATHER (WATER) PROOF LABELS AND AT CONTROLLER WITH CORRESPONDING LABEL. (LETTER AND/OR NUMBER TAGS IN SEQUENTIAL ORDER WILL BE PROVIDED).
- SPLICES OF REMOTE CONTROL VALVE WIRES IS NOT ALLOWED BETWEEN CONTROLLER & VALVE BOX FOR WIRES MUST BE CONTINUOUS FROM CONTROLLER TO REMOTE CONTROL VALVE WITHOUT SPLICES.
- ALL ROTOR SPRINKLER HEADS SHALL BE ON STAINLESS STEEL RISERS WITH CHECK VALVE.
- CONTRACTOR SHALL PROVIDE SLEEVES FOR NEW IRRIGATION LINES CROSSING UNDER CONCRETE SIDEWALKS. SLEEVES SHALL BE 2 TIMES THE PIPE SIZE EXTENDED 24" BEYOND EDGE OF SURFACE, BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HEAVY DUTY PLASTIC.

IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TCO 512-239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947

REVISIONS  
DATE

LISA MCNEELIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88001  
(505) 621-8092



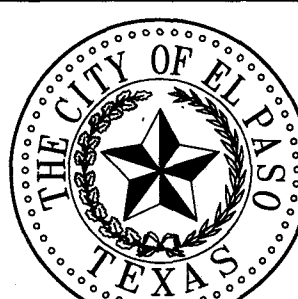
5/5/21

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DATE: DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPROV. BY: LM  
JOB No.

PROJECT TITLE

ELISE PARK

6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11094 SQ.FT. - .254 ACRES



5/5/21  
Faith McNeelis

SHEET TITLE

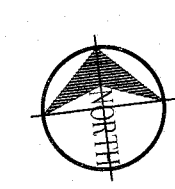
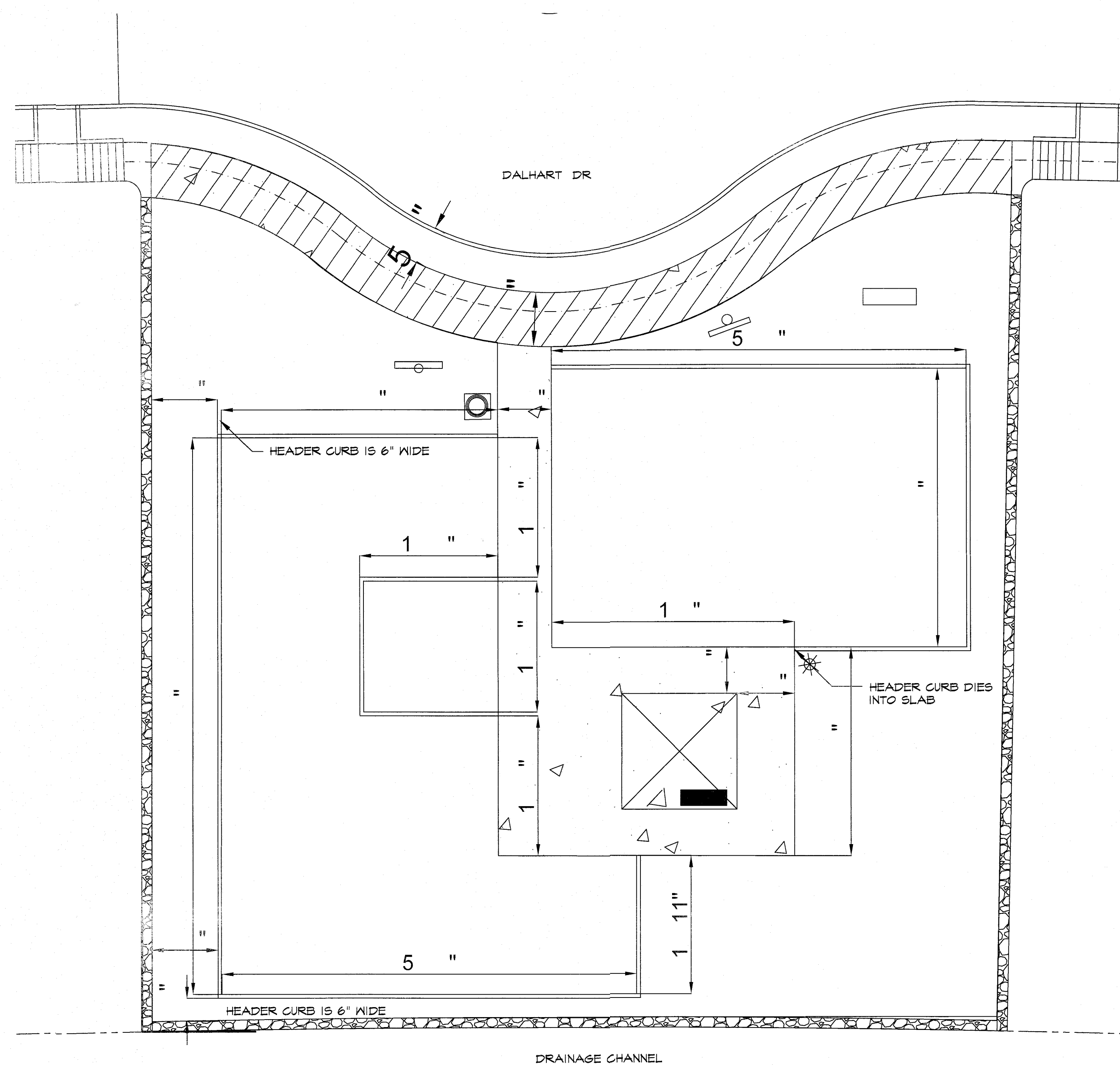
L3  
IRRIGATION PLAN

SHEET 3 OF 8



APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Karla Chavez  
SIGNATURE  
5/18/21  
DATE

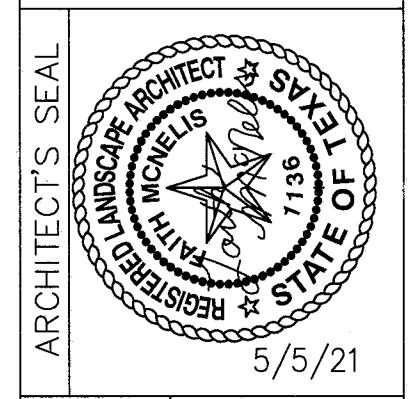


PLAN VIEW - LAYOUT

SCALE: 1" = 10' - 0"

REVISIONS	DATE

LISA MCNELIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88011  
(505) 621-9032

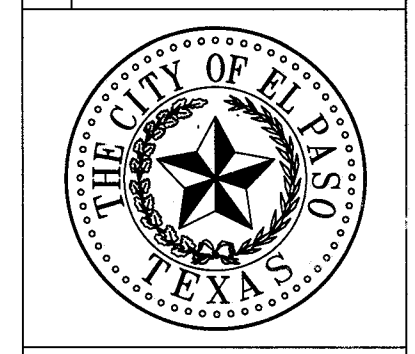


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5/5/21

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DRAWN BY: LM  
CHECKED BY: LM  
APPROVED BY: LM  
JOB No.

PROJECT TITLE  
**ELISE PARK**  
6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11094 SQ.FT. - .254 ACRES

SHEET TITLE  
**L4**  
PARK  
LAYOUT  
SHEET 4 OF 8



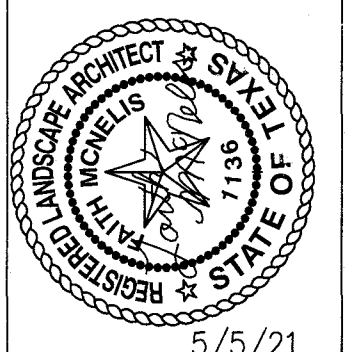


Karla Chavez  
SIGNATURE  
5/18/21  
DATE

REVISIONS

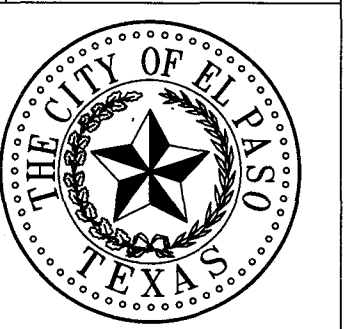
DATE

LISA MCNEELIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
DALLAS, TEXAS 75248  
(512) 621-3032



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Horizontal: N/A  
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DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPVD. BY: LM  
JOB NO.

PROJECT TITLE  
**ELISE PARK**  
6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, TEXAS 79928  
AREA: 11084 SQ.FT. - .254 ACRES

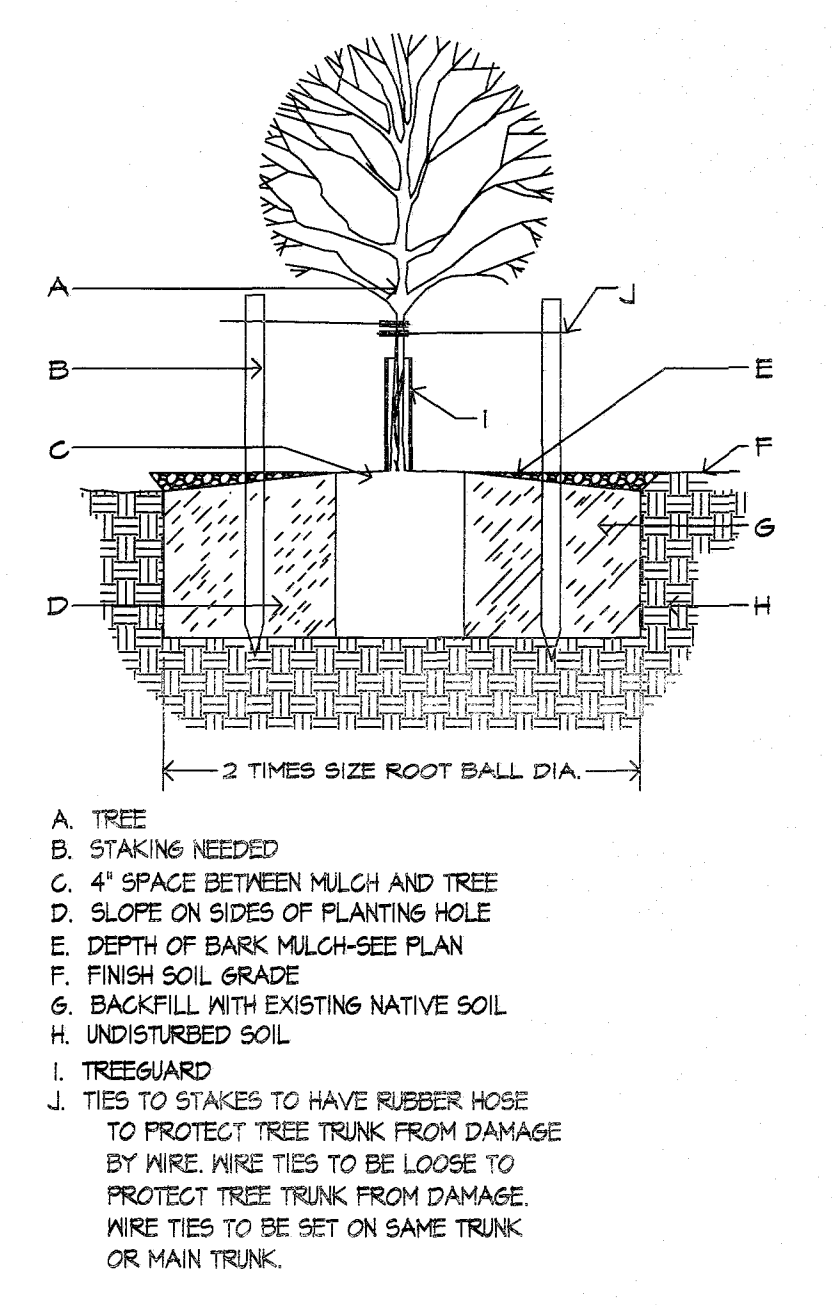


SHEET TITLE

**L5**

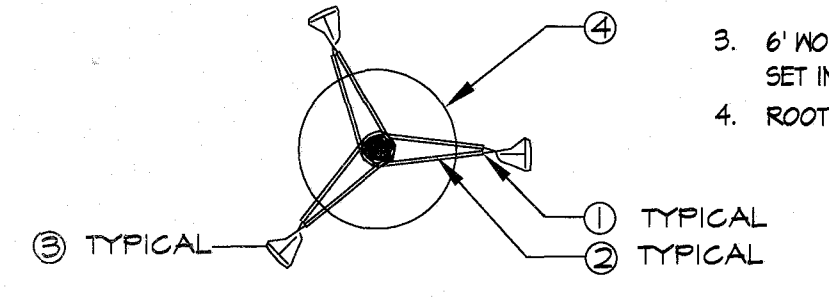
CONSTRUCTION DETAILS

SHEET 5 OF 8

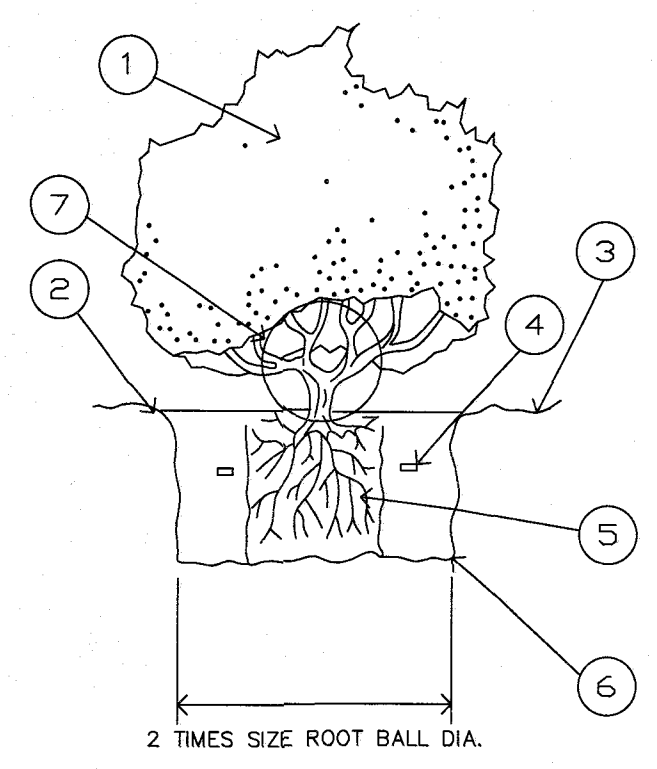


- KEEP SOIL BELOW ROOT BALL UNDISTURBED TO PREVENT TREE FROM SETTLING.
  - REMOVE ANY EXCESS SOIL FROM TOP OF ROOTBALL TO EXPOSE ROOT FLARE (WHERE TOP MOST ROOT EMERGES FROM THE TRUNK). PLANT WITH ROOT FLARE THAN FINISH GRADE 1'-2" HIGHER.
  - REMOVE CONTAINER AND CUT ANY ROOTS THAT ARE CIRCLING THE CONTAINER PRIOR TO SETTING TREE IN PLANTING HOLE (PI).
  - TAMP SOIL FIRMLY AROUND BASE OF ROOTBALL WITH FOOT PRESSURE.
  - AT TIME OF PLANTING, ONLY PRUNE CO-DOMINANT LEADERS (DOES NOT APPLY TO MULTI-TRUNK SPECIMENS), CROSSOVER LIMBS, AND DEAD OR BROKEN BRANCHES.
  - DO NOT ALLOW MULCH IN CONTACT WITH TREE TRUNK, KEEP AT LEAST 4" AWAY FROM TRUNK.
  - INSTALL TREE GUARD FOR TREES IN TURF AREAS. WWW.BENMEADOWS.COM
  - WHEN DONE, THOROUGHLY WATER TO ELIMINATE AIR POCKETS.
  - STAKING IS NOT REQUIRED - STAKE TREES ONLY IF TREE CANNOT STAND ALONE AND WITH APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT STAKE ALL TREES INDISCRIMINATELY; APPROVAL MUST BE OBTAINED TO STAKE TREES.
  - WITH APPROVAL, PROVIDE MIN. 3 STAKES/TREE (TYP.) IN A TRIANGULAR PATTERN STAKED INTO UNDISTURBED SOIL WITH CLARK'S TREE STAKE KIT OR APPROVED EQUAL, REMOVE AFTER ONE GROWING SEASON.
- GENERAL NOTES:  
1. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE PIT EXCAVATED 5 TIMES THE SIZE OF THE ROOTBALL.  
2. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE 1/3 TO 1/2 TOP SOIL BLENDED WITH CLAY SOIL AND USED AS BACKFILL.  
3. TREES PLANTED IN ROCKY SOIL ARE TO HAVE ALL ROCKY MATERIAL LARGER THAN 1" IN SIZE REMOVED.

STAKING IS NOT REQUIRED BUT IF DEEMED NECESSARY THE STAKING DETAIL SHALL BE FOLLOWED. STAKING IS AT THE DISCRETION OF THE CONTRACTOR, LANDSCAPE ARCHITECT AND PARKS DEPT. BUT SHOULD TREES REQUIRE STAKING THE CONTRACTOR SHALL INCLUDE THE COST OF THE STAKING IN THE COST OF THE TREE.  
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE STAKES AT END OF THE GUARANTEE PERIOD AT NO COST TO THE OWNER.  
TREES THAT ARE DAMAGED DUE TO IMPROPER OR LACK OF STAKING MUST BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.  
WIRES SHALL NOT BE TAUT BUT SHOULD ALLOW MOVEMENT OF 5 - 10 DEGREES FROM VERTICAL.  
STAKES SHALL NOT BE DRIVEN INTO ROOTBALL OF TREES.

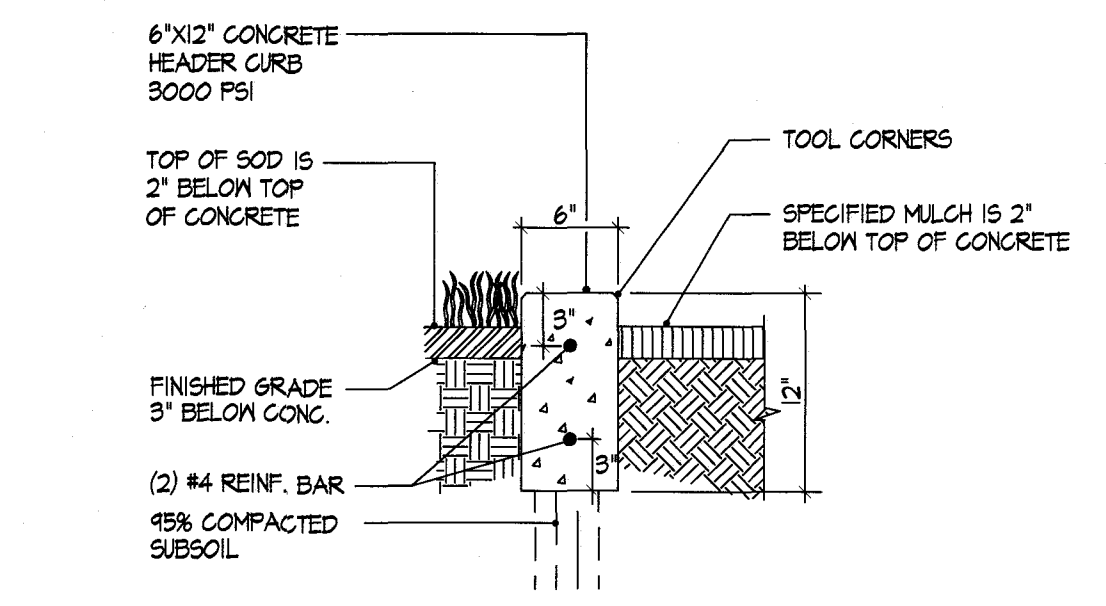


**B** TYPICAL TREE GUYING DETAIL - PLAN VIEW  
NOT TO SCALE



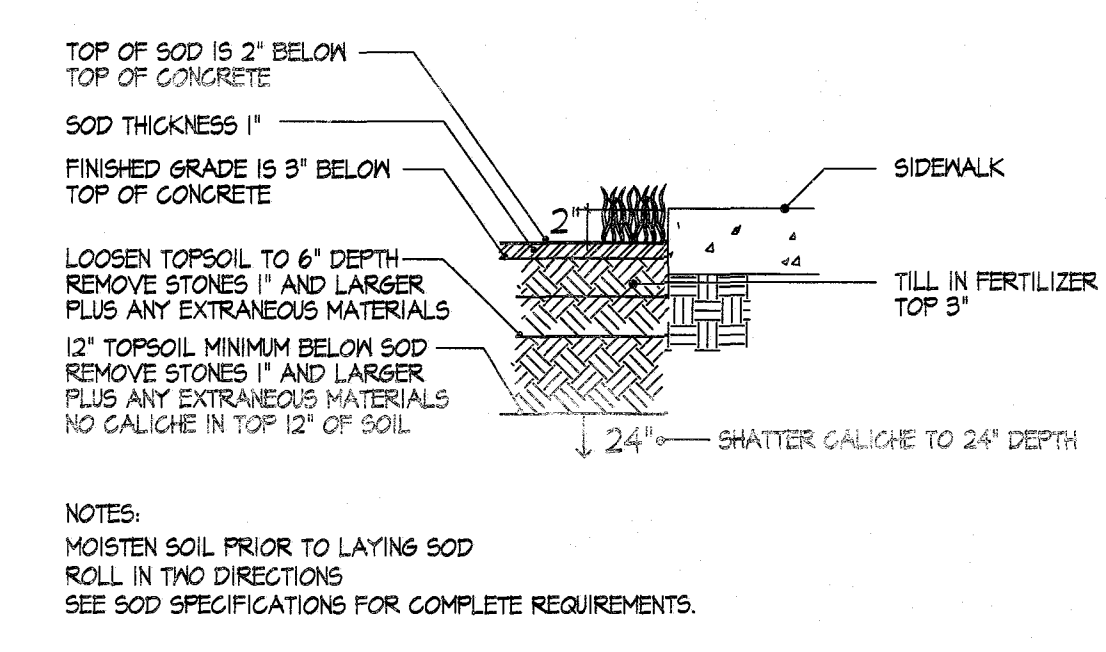
- LEGEND**
- SHRUB OR VINE PER PLAN
  - EARTH WATERING BASIN (COVER WITH SPECIFIED MULCH ON PLAN).
  - FINISH GRADE
  - 7 GRAM PLANT TABLETS (1 GAL = 3, 5 GAL = 6, 10-15 GAL = 9)
  - ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE) COVER 2" SPECIFIED MULCH.
  - UNDISTURBED NATIVE SOIL
  - DO NOT BURY PLANT BASE IN GRAVEL
- EXCAVATE AND REPLACE WITH SAME SOIL. REMOVE STONES 2" OR LARGER.

**C** SHRUB PLANTING DETAIL - SECTION  
NOT TO SCALE

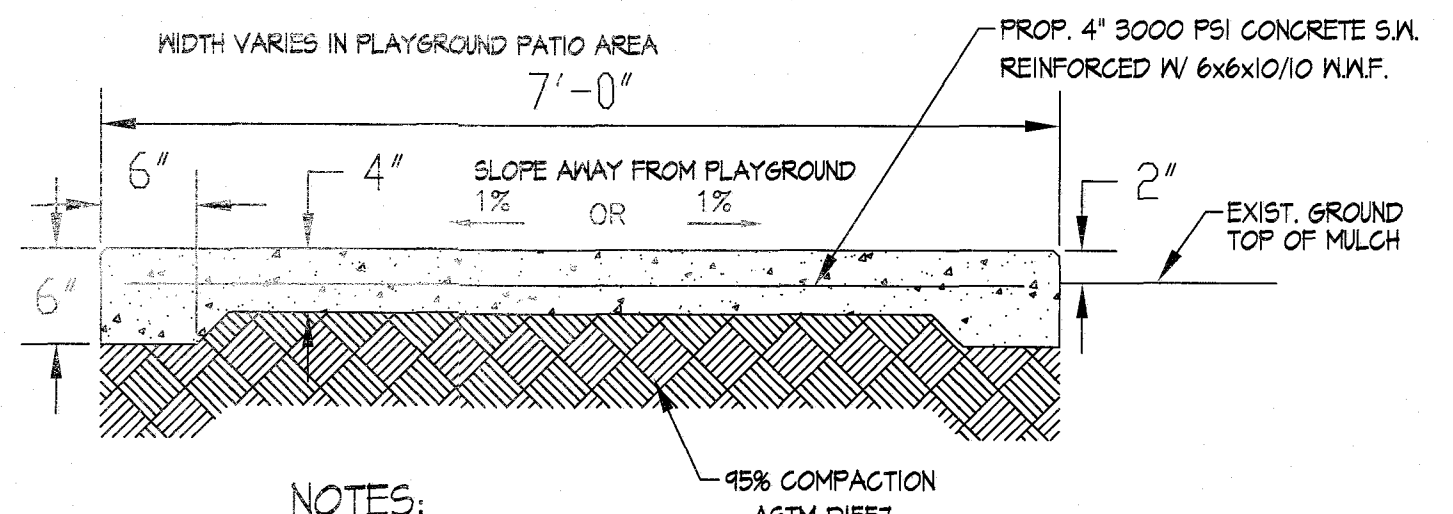


**D** CONCRETE HEADER CURB DETAIL - SECTION  
NOT TO SCALE

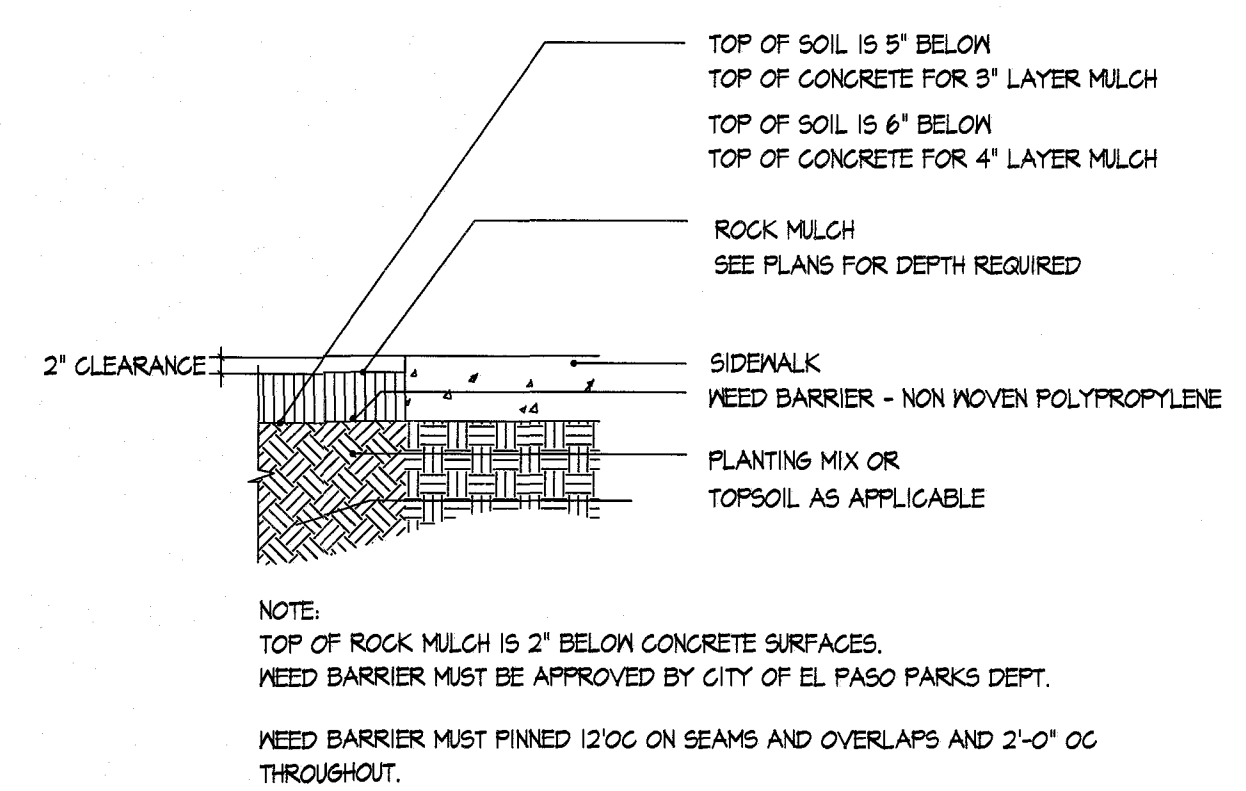
**A** TREE PLANTING DETAIL - SECTION  
NOT TO SCALE



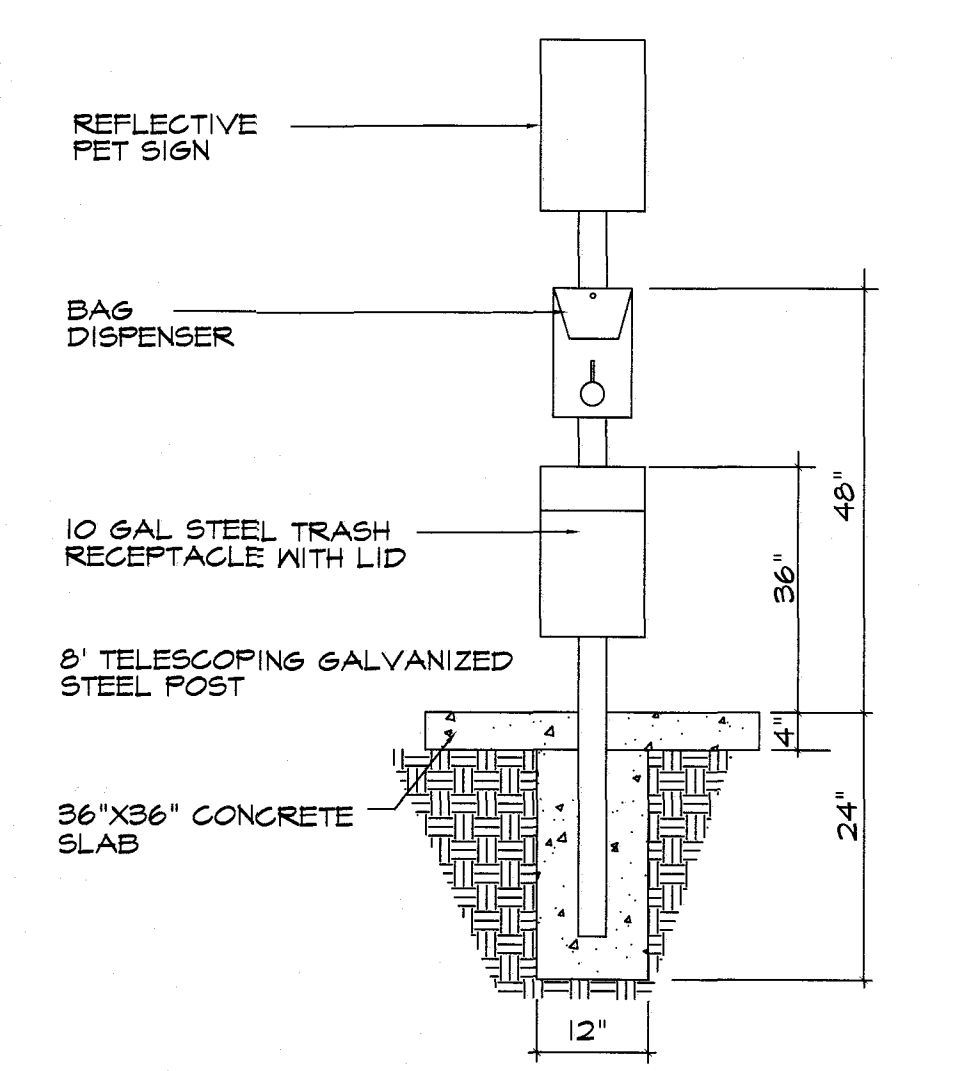
**E** TYPICAL TURF AT CONCRETE DETAIL - SECTION  
NOT TO SCALE



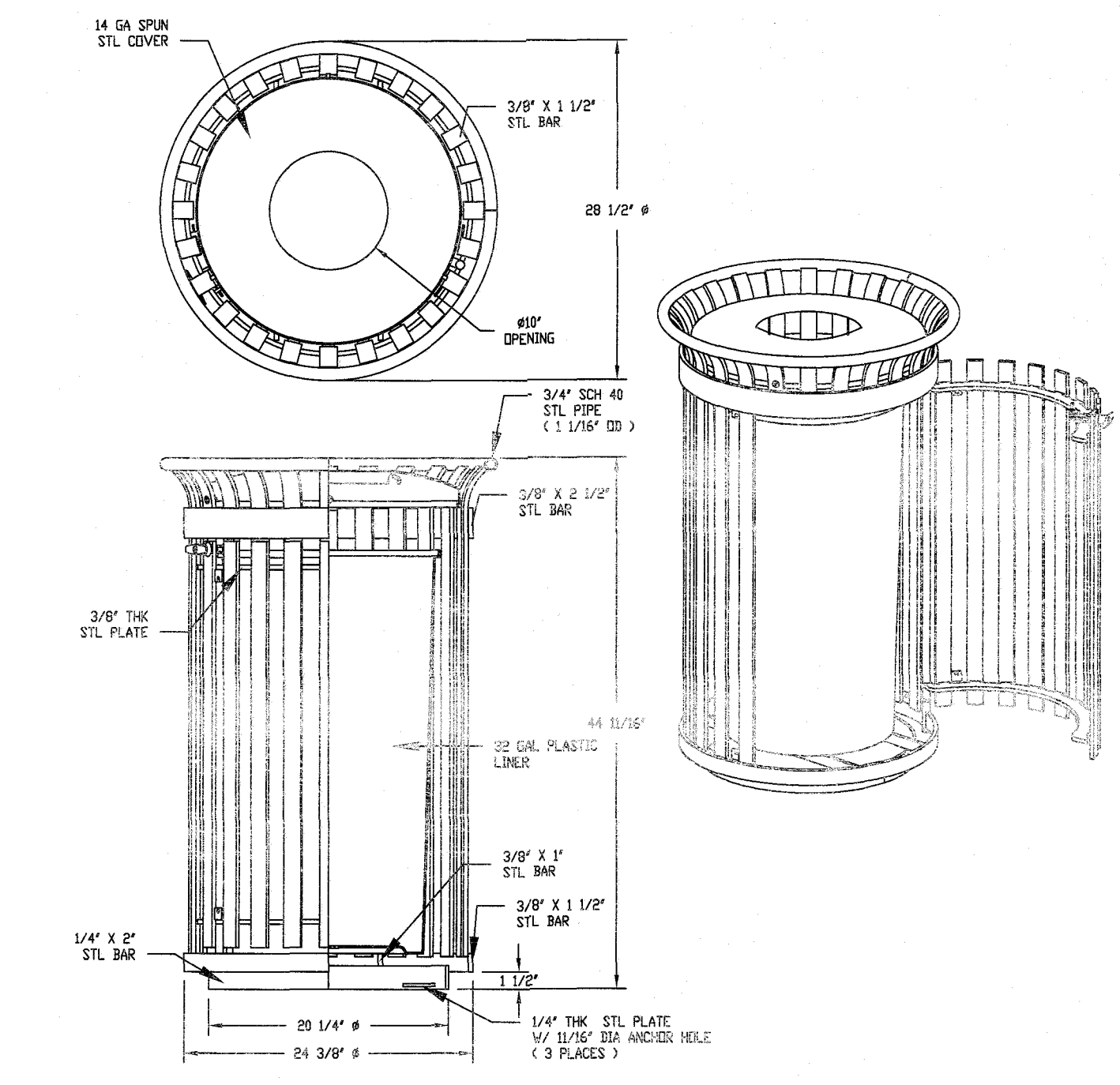
**F** TYPICAL CONCRETE SIDEWALK - SECTION  
NOT TO SCALE



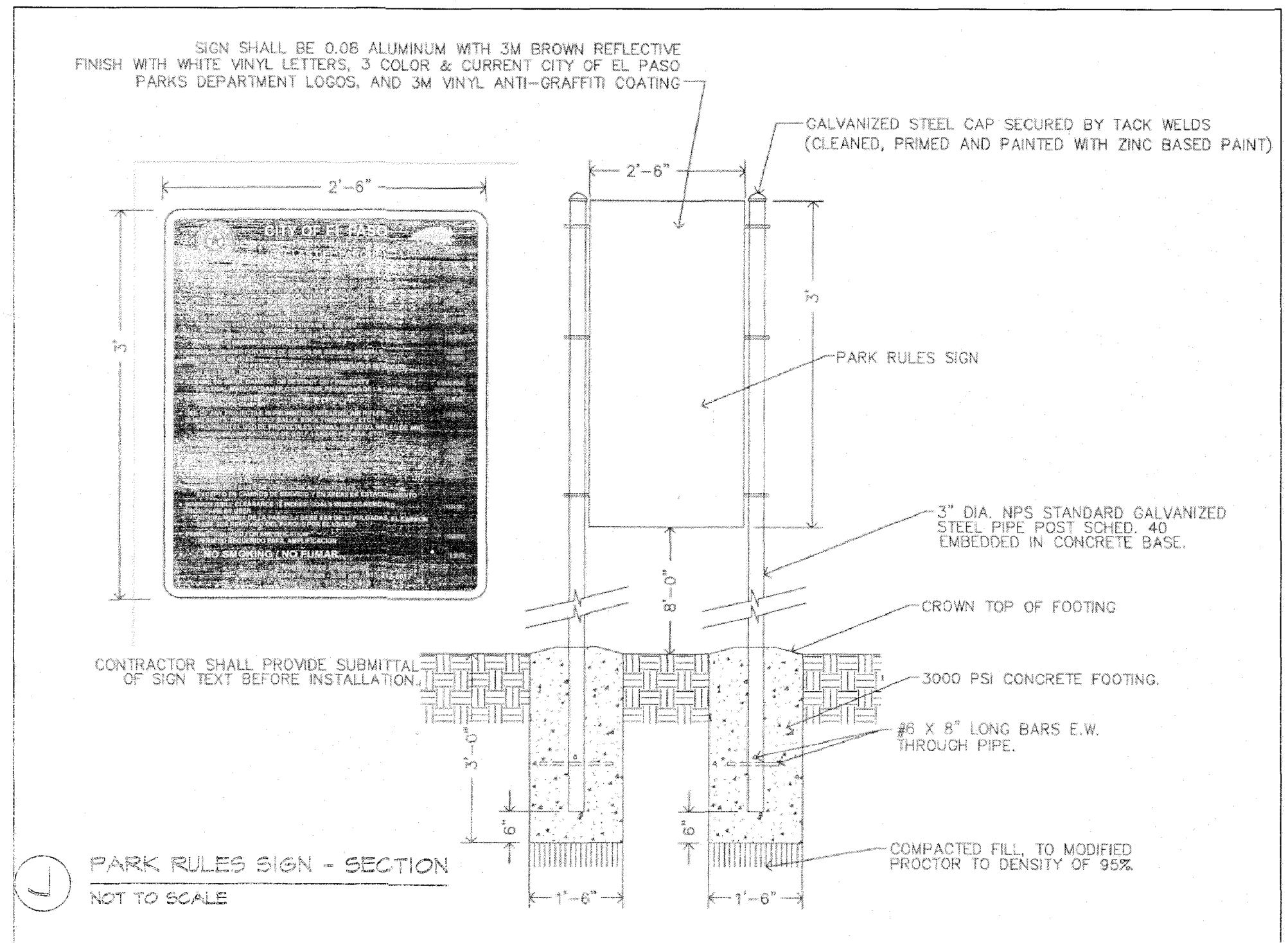
**G** ROCK MULCH DEPTH AT CONCRETE - SECTION  
NOT TO SCALE



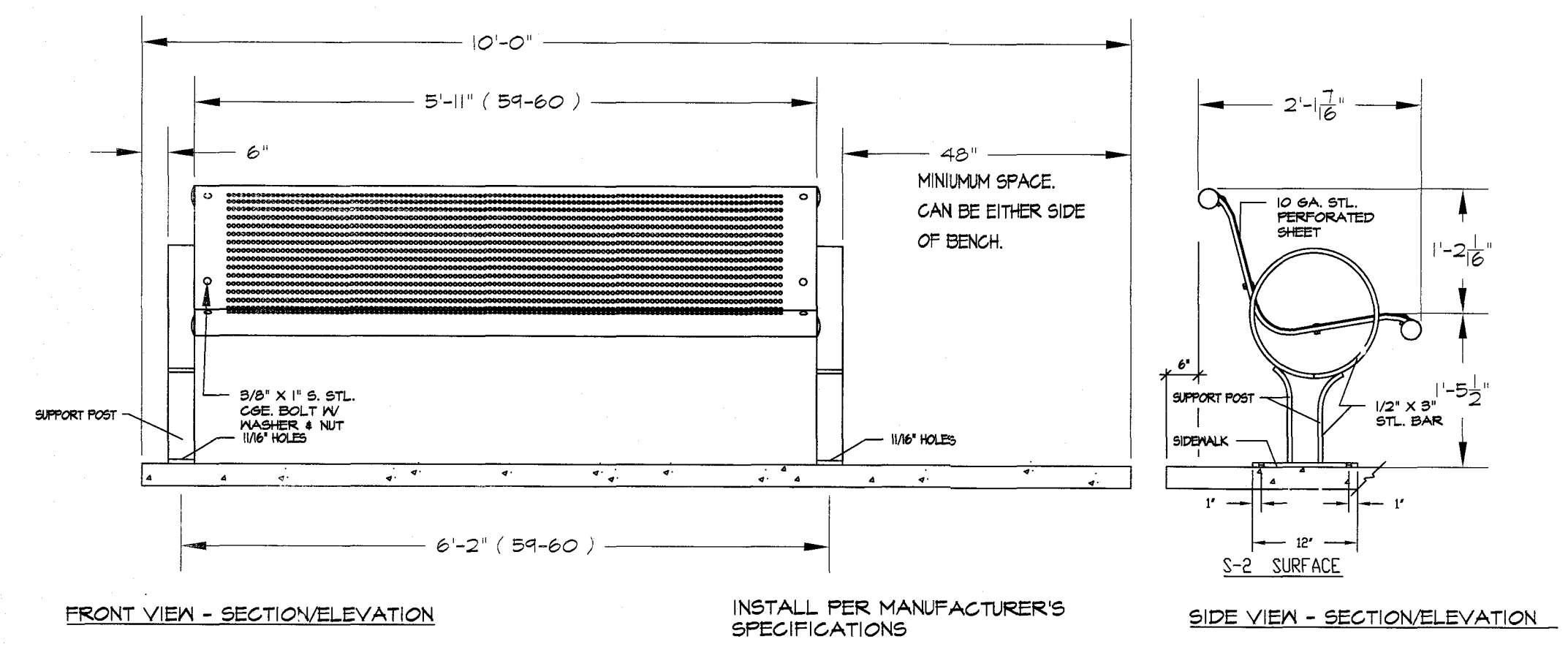
**H** PET WASTE STATION  
NOT TO SCALE



**I** DuMor 286-32-PTO HINGED TRASH RECEPTACLE  
NOT TO SCALE



**J** PARK RULES SIGN - SECTION  
NOT TO SCALE



**K** ADA BENCH DETAIL  
NOT TO SCALE



LOCATE INNER RING EMITTER OUTLETS WITHIN 3' OF TREE TRUNK.  
LOCATE OUTER RING EMITTER OUTLETS 8' FROM ROOTBALL.  
DO NOT EXCEED 20' OF MICROTUBING.

FOR SHRUBS AND GROUNDCOVER PLANTS PLACE EMITTER ON UPHILL SIDE  
SIDE OF PLANT 12" FROM STEM.

APPROVED FOR CONSTRUCTION

Parks & Recreation Department Planning

*Karla Chavez*

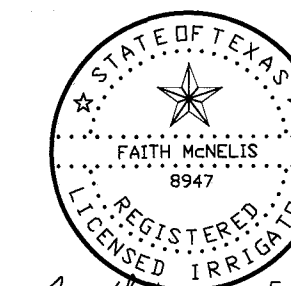
SIGNATURE

*Silvizi*

DATE

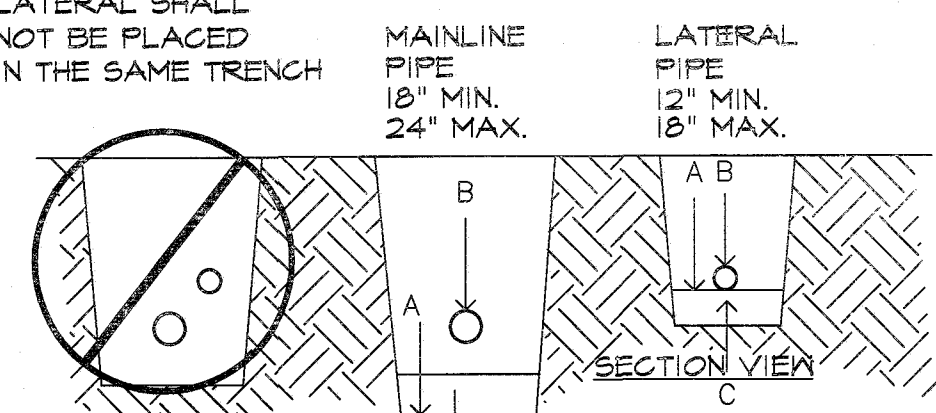
IRRIGATION IS REGULATED BY:

PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TCEQ 512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947



*Faith McNeilis* 5/5/21

MAINLINE AND LATERAL SHALL NOT BE PLACED IN THE SAME TRENCH



SET WIRE BUNDLE AT 5' FROM MAINLINE ALONG THE NORTH AND WEST SIDE OF MAIN OR AS AGREED TOO WITH PARKS STAFF.

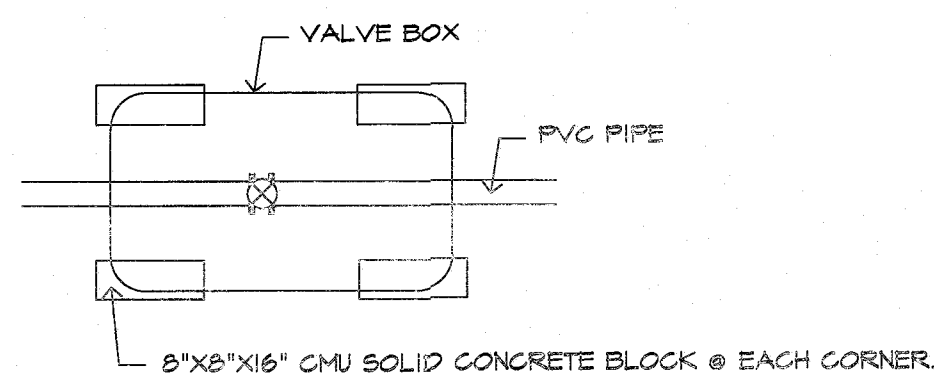
ALL SOLVENT WELD PLASTIC PIPING TO BE SNAKED IN TRENCH AS SHOWN FOR LATERAL LINES.

TIE A 24-INCH LOOP IN ALL WIRING AT CHANGES OF DIRECTION OF 90° OR GREATER AND EVERY 200 FEET.

- NOTES: A. BOTTOM OF EXCAVATED TRENCH WHERE NONE ROCKY SOILS ARE EXPOSED (ENCOUNTERED).  
B. IRRIGATION SYSTEM PIPING.  
C. MINIMUM 4" DEEP BEDDING SANDY SOILS MATERIAL WHERE ROCKY SOILS ARE EXPOSED.  
D. IRRIGATION SYSTEM VALVE WIRING. LOCATE 6" BELOW MAIN PIPE  
E. BACKFILL SOILS MATERIAL MAY BE NATIVE SOILS IF IT IS FREE OF CALICHE OR STONES LARGER THAN 1" IN SIZE AND ORGANIC MATTER OR WASTE DEBRIS. SOILS COMPACTION IN TURF AREAS TO BE 80% TO 85% DENSITY BY ASTM D-1557 STANDARD AND AT 95% DENSITY UNDER PAVED OR HARDCAPE SURFACES.

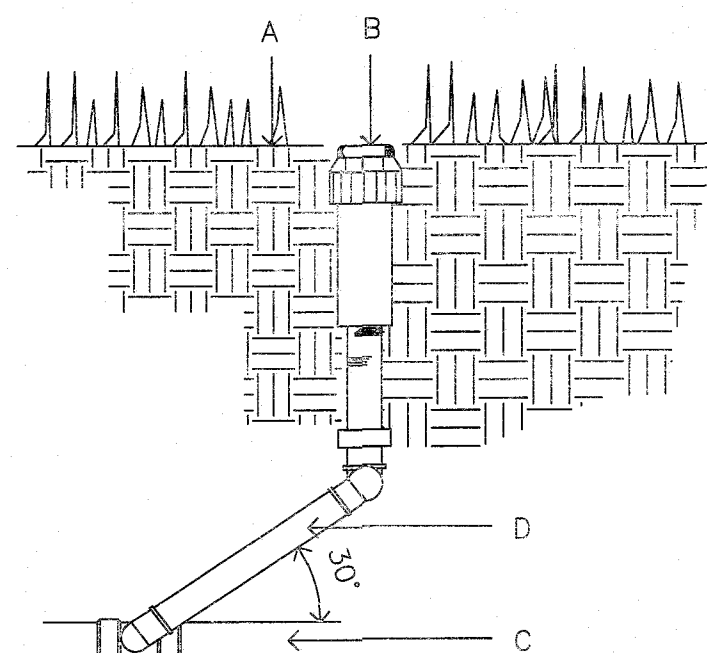
1 TYPICAL PIPE AND WIRE TRENCHING DETAIL  
NOT TO SCALE

THIS DETAIL SHALL TAKE PRECEDENCE TO ANY OTHER DETAIL SHOWING VALVE BOX INSTALLATION.



NOTE: BLOCKS TO SIT ON NEED CLOTH ON UNDISTURBED SOIL. DISTURBED SOILS SHALL BE COMPACTED WITH TAMPER PRIOR TO SETTING NEED CLOTH & BLOCKS. VALVE BOX AND EXTENSIONS TO SIT ON BLOCKS. VALVE BOX AND EXTENSIONS TO HAVE A MINIMUM 2" CLEARANCE TO THE TOP OF PVC PIPE.

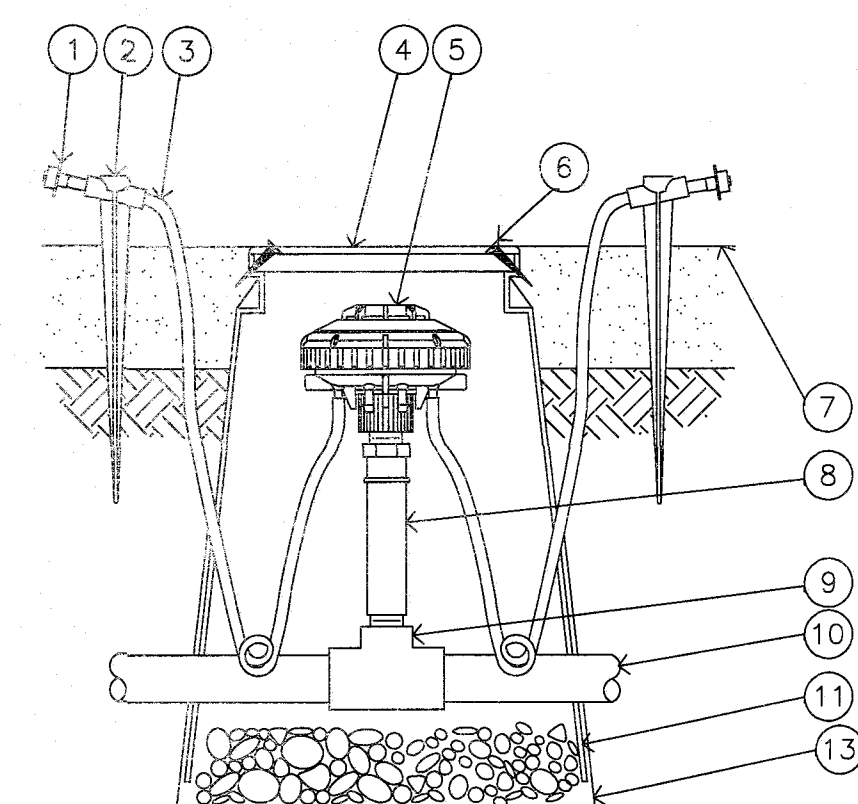
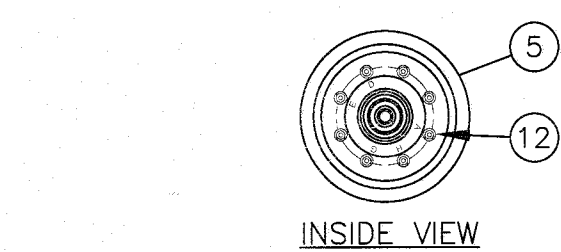
4 BLOCK PLACEMENT FOR VALVE BOXES  
NOT TO SCALE



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

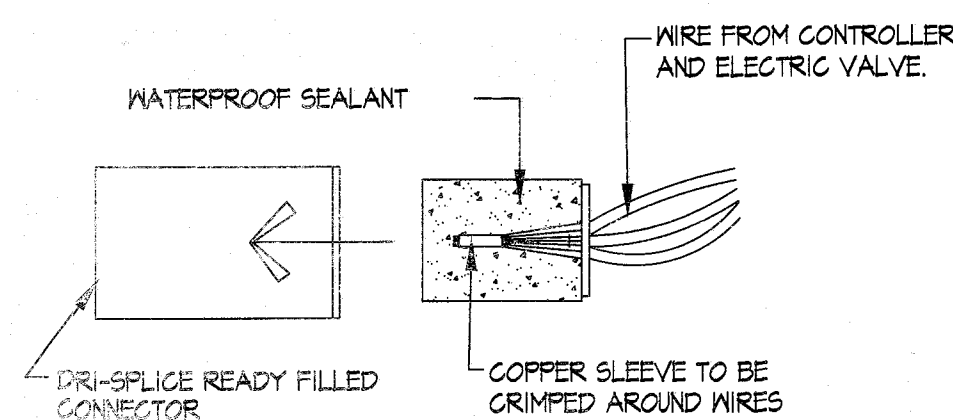
THIS DETAIL SHALL BE USED FOR POP-UP SHRUB SPRAY, POP-UP LAWN SPRAY, GEAR DRIVEN AND ROTARY SPRINKLER HEADS. TOP OF SPRINKLER HEAD SHALL BE SET FLUSH WITH FINISH GRADE. SWING JOINT INSTALLATION TO COMPLY WITH MANUFACTURER'S RECOMMENDATION.

7 SPRAY HEAD  
NOT TO SCALE



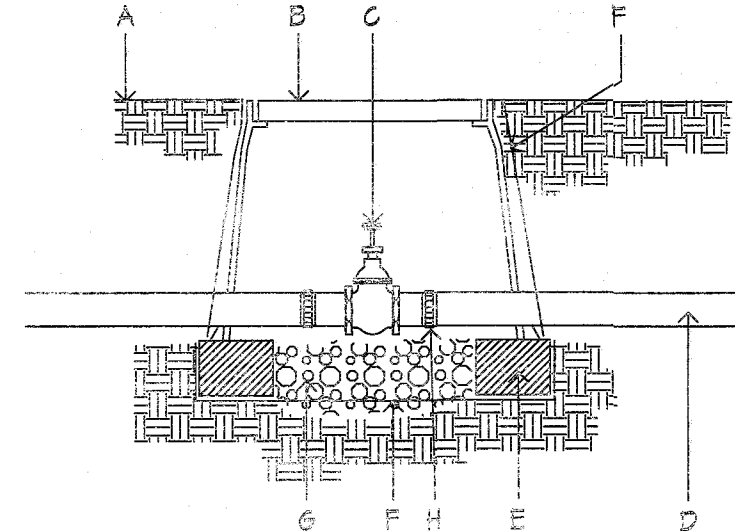
- NOTES:  
1. COIL ADDITIONAL 4' OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.  
2. RAIN BIRD XERI-BIRD BARB X BARB EMITTERS ARE AVAILABLE IN THE FOLLOWING MODELS:  
XB-05PC 0.5 GPH XB-10PC 1.0 GPH XB-20PC 2.0 GPH

2 DRIP EMITTER FOR TREES AND PLANTS RAIN BIRD XERI-BIRD & MULTI OUTLET EMISSION DEVICE  
NOT TO SCALE



THREE STEP OPERATION DRI-SPLICE READY FILL CONNECTORS. ADD ADDITIONAL SILICONE TO SUFFICIENTLY SEAL WHEN ASSEMBLED - (AS REQUIRED).

5 WIRE CONNECTORS  
NOT TO SCALE



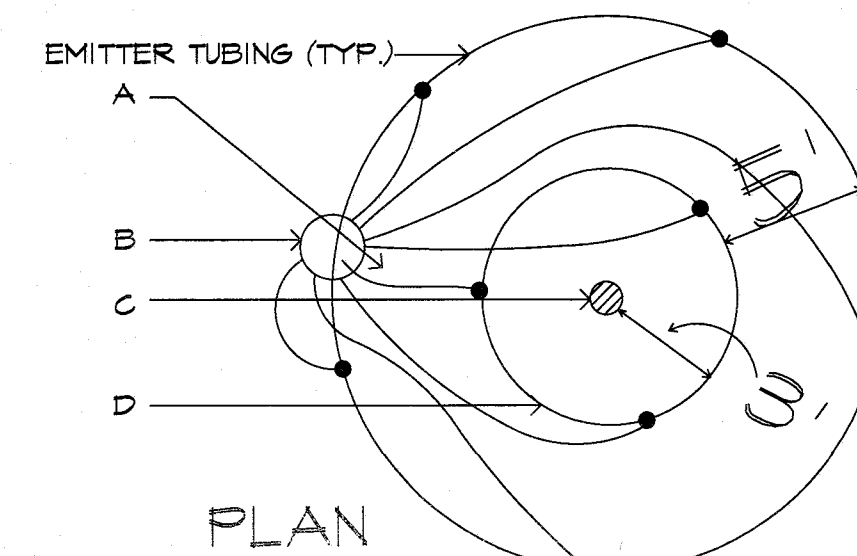
- A. FINISH GRADE.  
B. CARSON PRODUCTS INC. 1419-12(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISH MATERIAL AND 8" EXTENSIONS AS NECESSARY.  
C. BRASS ISOLATION VALVE- SEE IRRIGATION LEGEND.  
D. IRRIGATION MAINLINE.  
E. 8"X8"X16" SOLID CMU BLOCK @ EACH CORNER.  
F. PROVIDE DEWITT PRO 5 NEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.  
G. 4" DEPTH 3/8" WASHED PEA GRAVEL.  
H. FLANGE (8" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)

NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK MUST BE LOCATED 10' FROM CONCENTRIC REDUCER ON 4" PIPE.

8 ISOLATION VALVE  
NOT TO SCALE

9 BLANK  
NOT TO SCALE

10 BLANK  
NOT TO SCALE



PLAN

INSTALL (8) EMITTERS PER TREE, SPACE EVENLY AROUND ROOTBALL, IN OFFSET TRIANGULAR PATTERN FOR TREES, SEE IRRIGATION LEGEND FOR OUTLET EMITTER SIZE.

- A. EMITTER TUBING.  
B. MULTI OUTLET EMITTER DEVICE, INSTALL 5' FROM TREE TRUNK ON WEST SIDE.  
C. TREE TRUNK.  
D. TREE ROOTBALL.

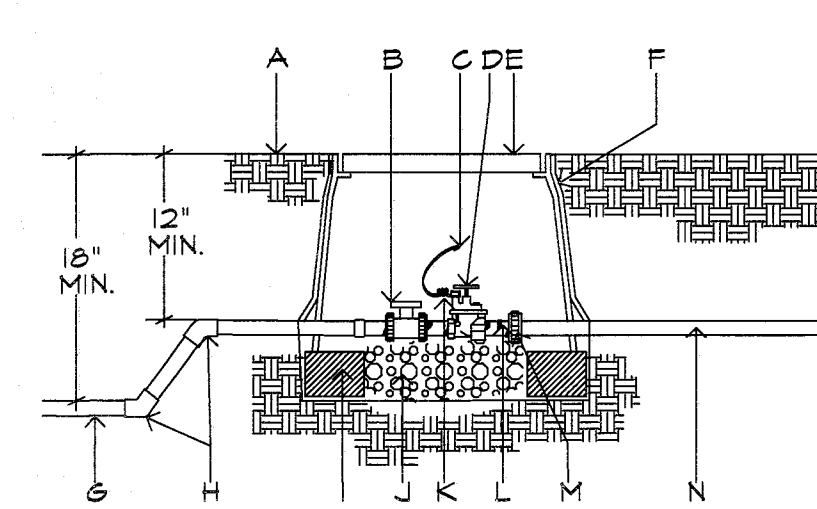
3 EMITTER PLACEMENT FOR TREES  
NOT TO SCALE

LOCATE INNER RING EMITTER OUTLETS WITHIN 3' OF TREE TRUNK.  
LOCATE OUTER RING EMITTER OUTLETS 8' FROM ROOTBALL.

DO NOT EXCEED 20' OF MICROTUBING.

FOR SHRUBS AND GROUNDCOVER PLANTS PLACE EMITTER ON UPHILL SIDE SIDE OF PLANT 12" FROM STEM.

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



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

6 IRRIGATION CONTROL VALVE  
NOT TO SCALE

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE

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

DATE: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APP'D. BY: LM  
JOB NO.

PROJECT TITLE

**ELISE PARK**  
6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11094 SQ.FT. - .254 ACRES

THE CITY OF EL PASO TEXAS

SHEET TITLE

**L6**

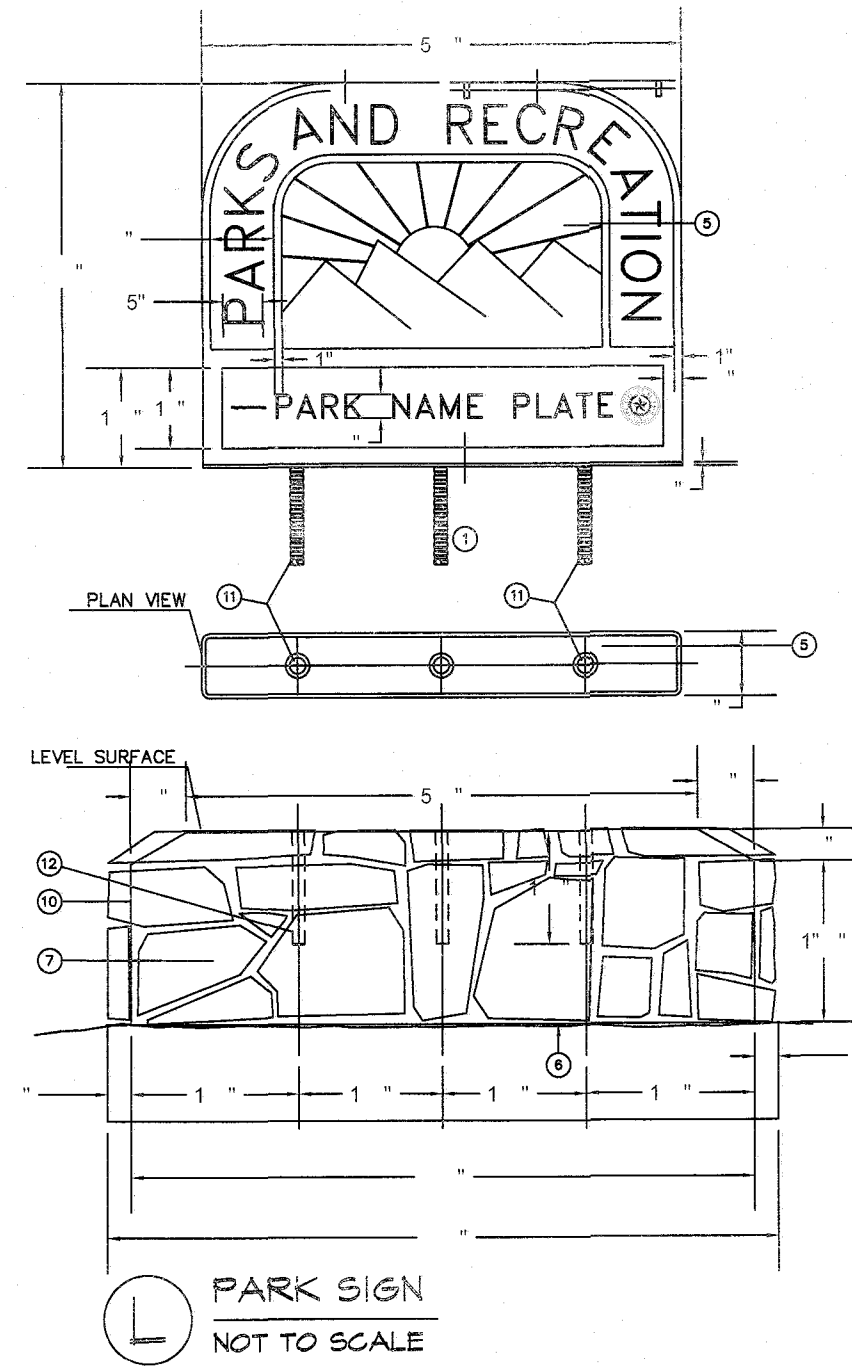
CONSTRUCTION DETAILS

SHEET 6 OF 8

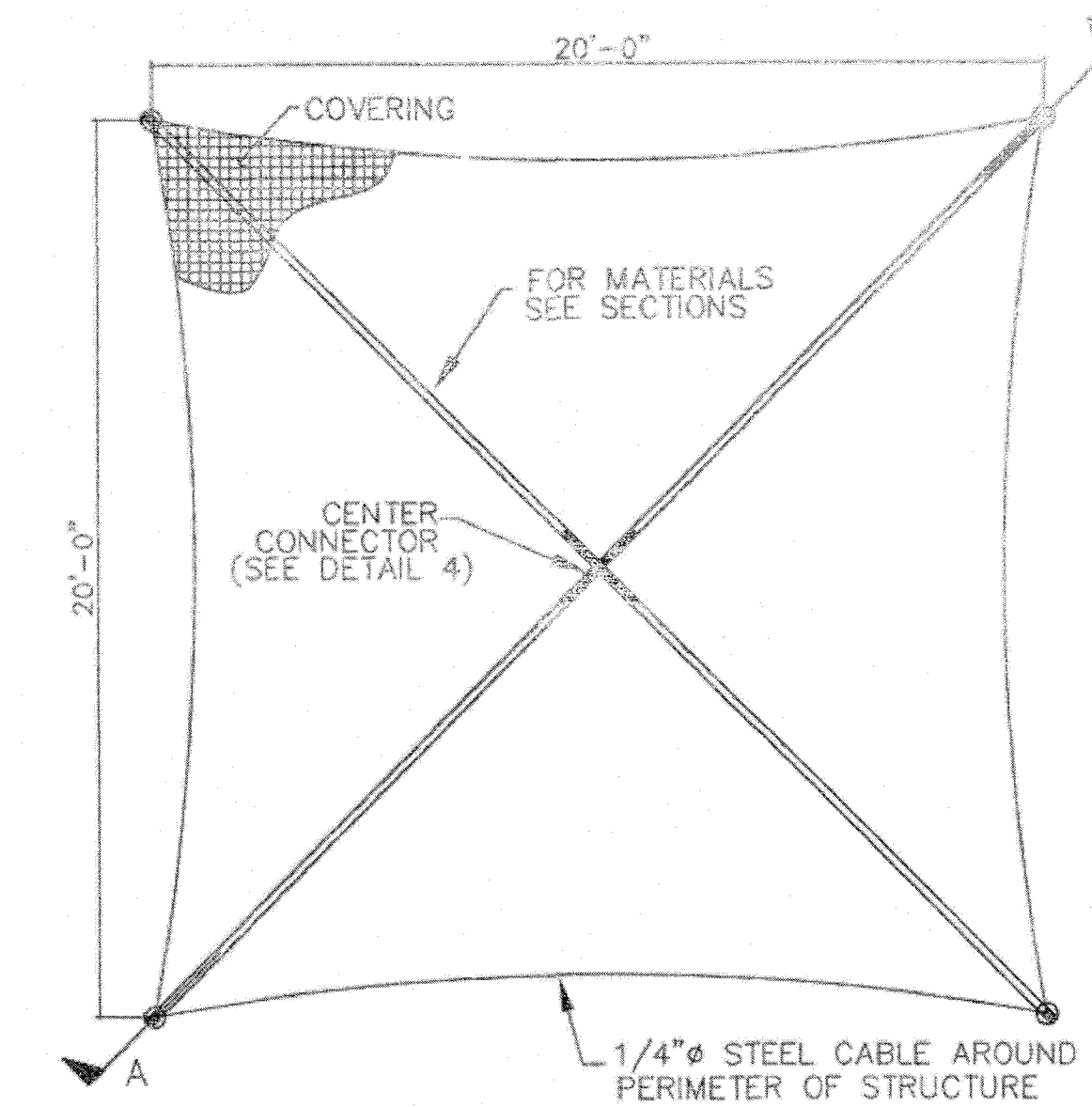
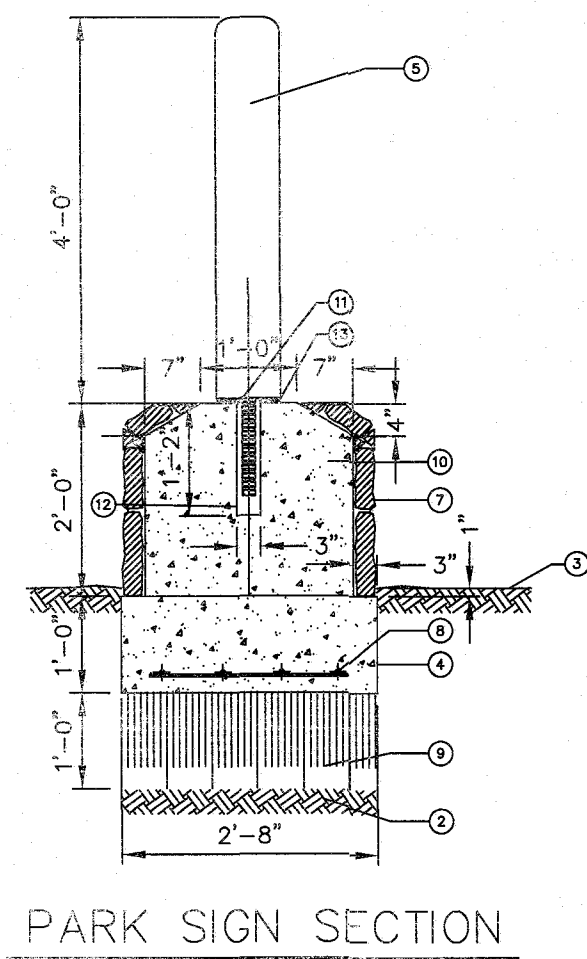
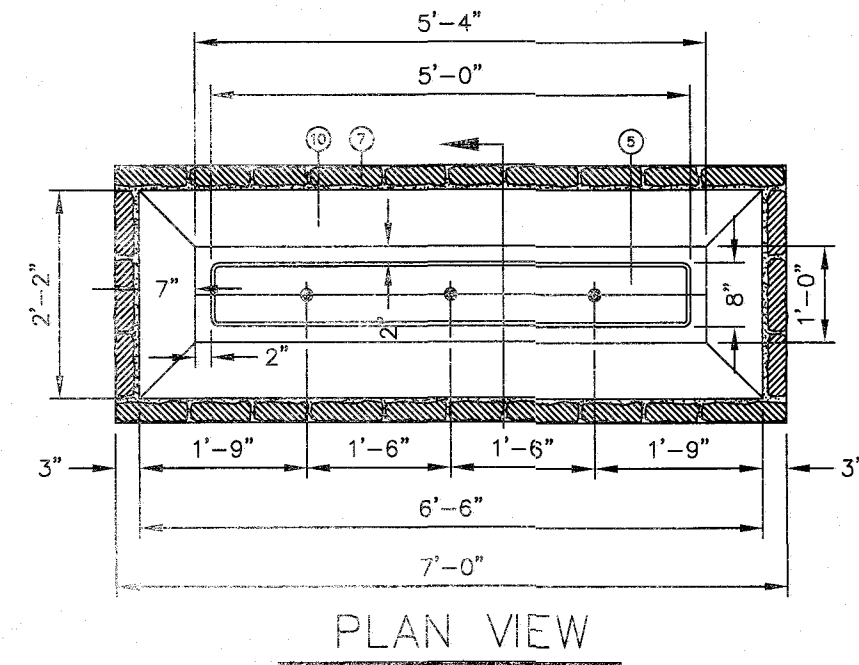




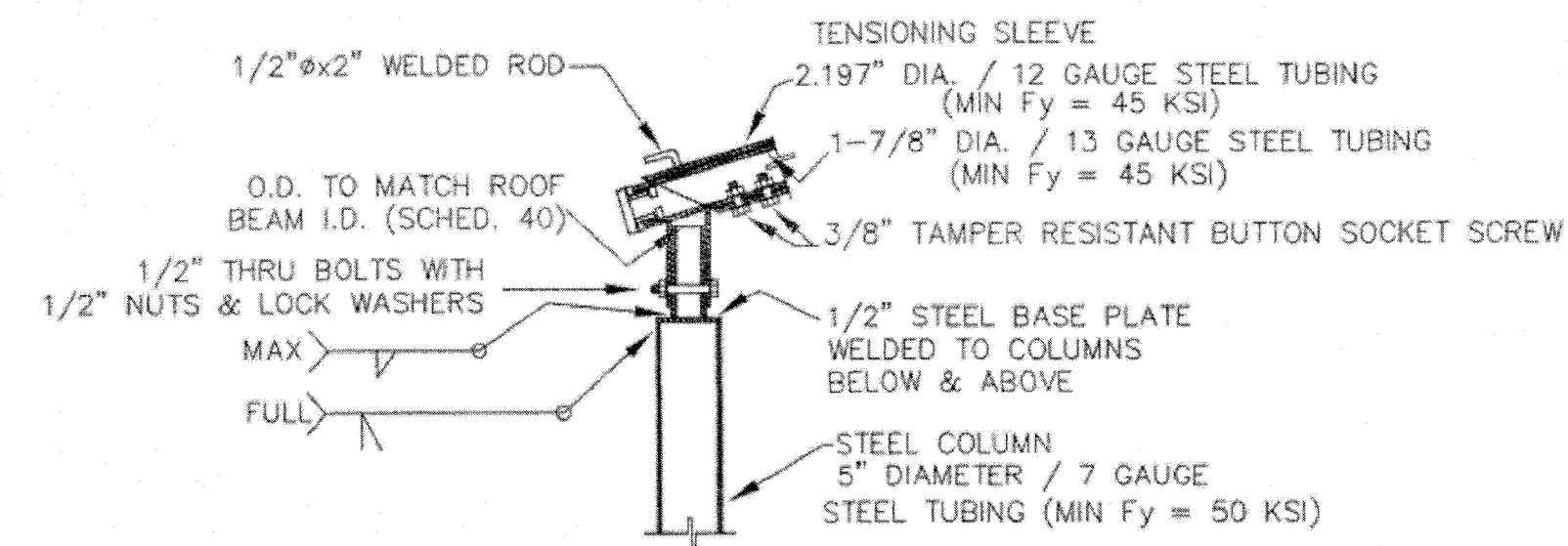
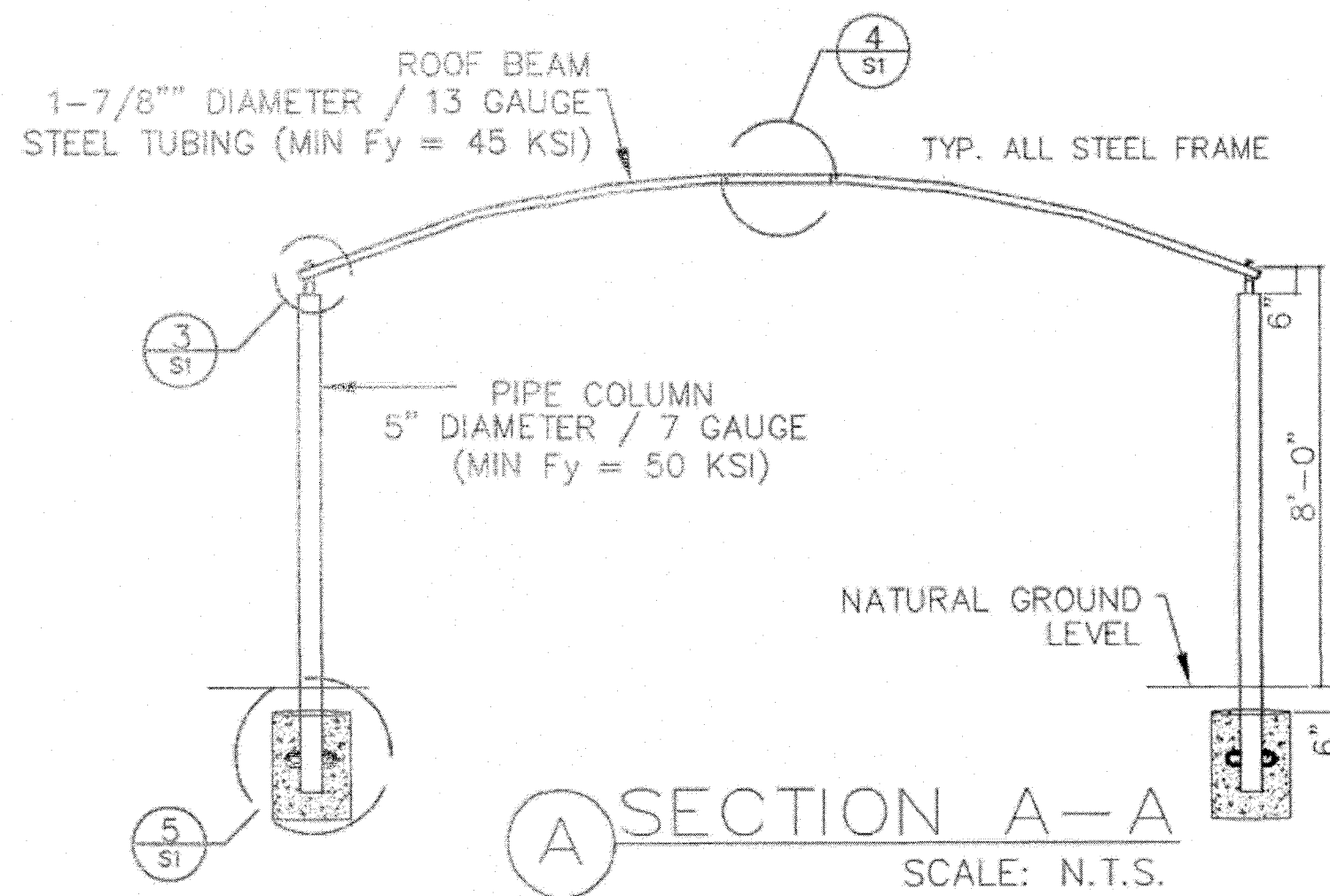




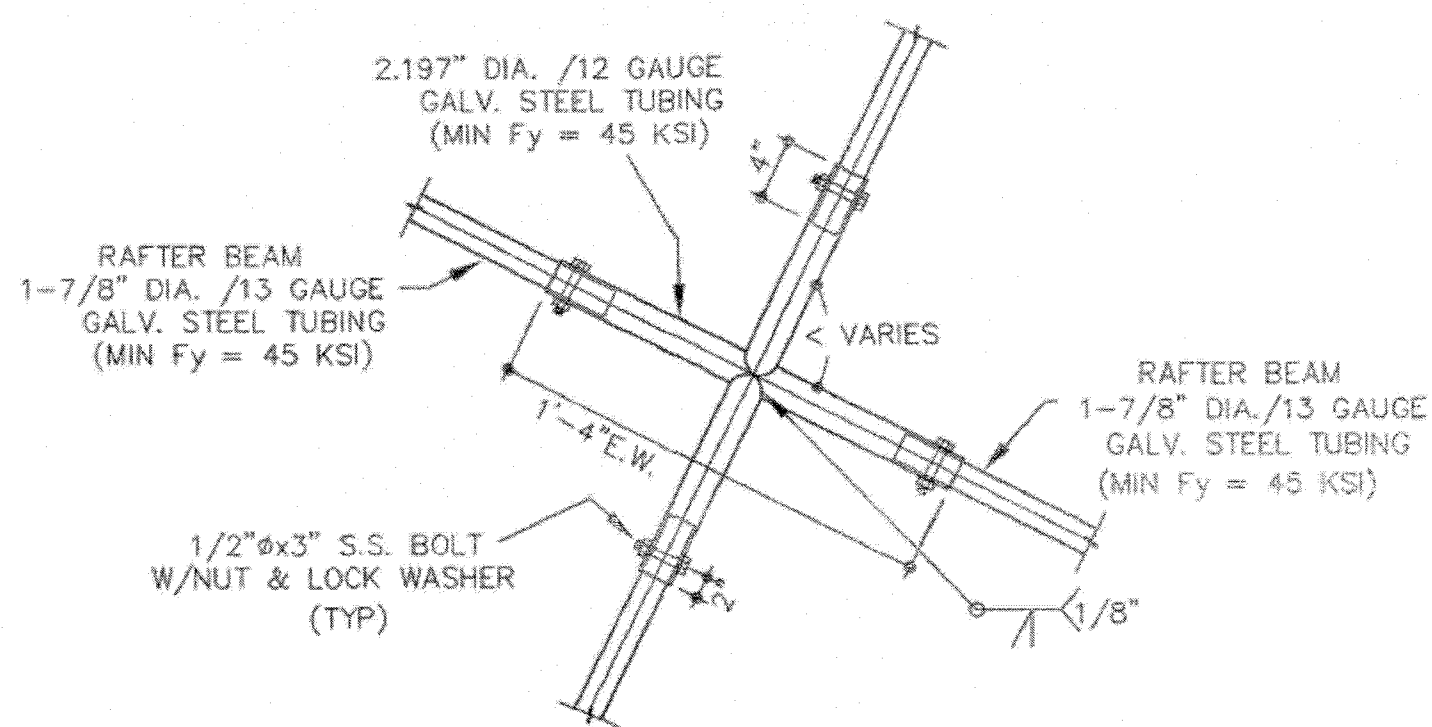
- KEYED NOTE**
- 1 PARK NAME SIGN MANUFACTURER
  - 2 EXISTING GROUND TO REMAIN UNDISTURBED. DISTURBED GROUND TO BE COMPACTED TO A PERCENTAGE
  - 3 FINISHED GRADE SEE GRADING PLAN
  - 4 CONTINUOUS POWDER COATING
  - 5 PRE-PAINTED ON RETE SIGN MANUFACTURER'S RECOMMENDATION
  - 6 PAINT ON RETE AREA
  - 7 ROCK VENEER, MOUNT. FRANKLIN ROCK. 1" O.C.
  - 8 1" ENGINEERED 1/2" COMPACTED TO MODIFIED PROPORTIONS
  - 9 ON RETE AREA SIGN MANUFACTURER'S RECOMMENDATION
  - 10 TYPICAL HORIZONTAL PROPOSED SIGN MANUFACTURER'S RECOMMENDATION
  - 11 3" X 14" DEEP LEAVE-OUT FOR ANCHORING SIGN MANUFACTURER'S RECOMMENDATION
  - 12 PROVIDE GROUT & CEMENT FOR LEVELING SIGN.



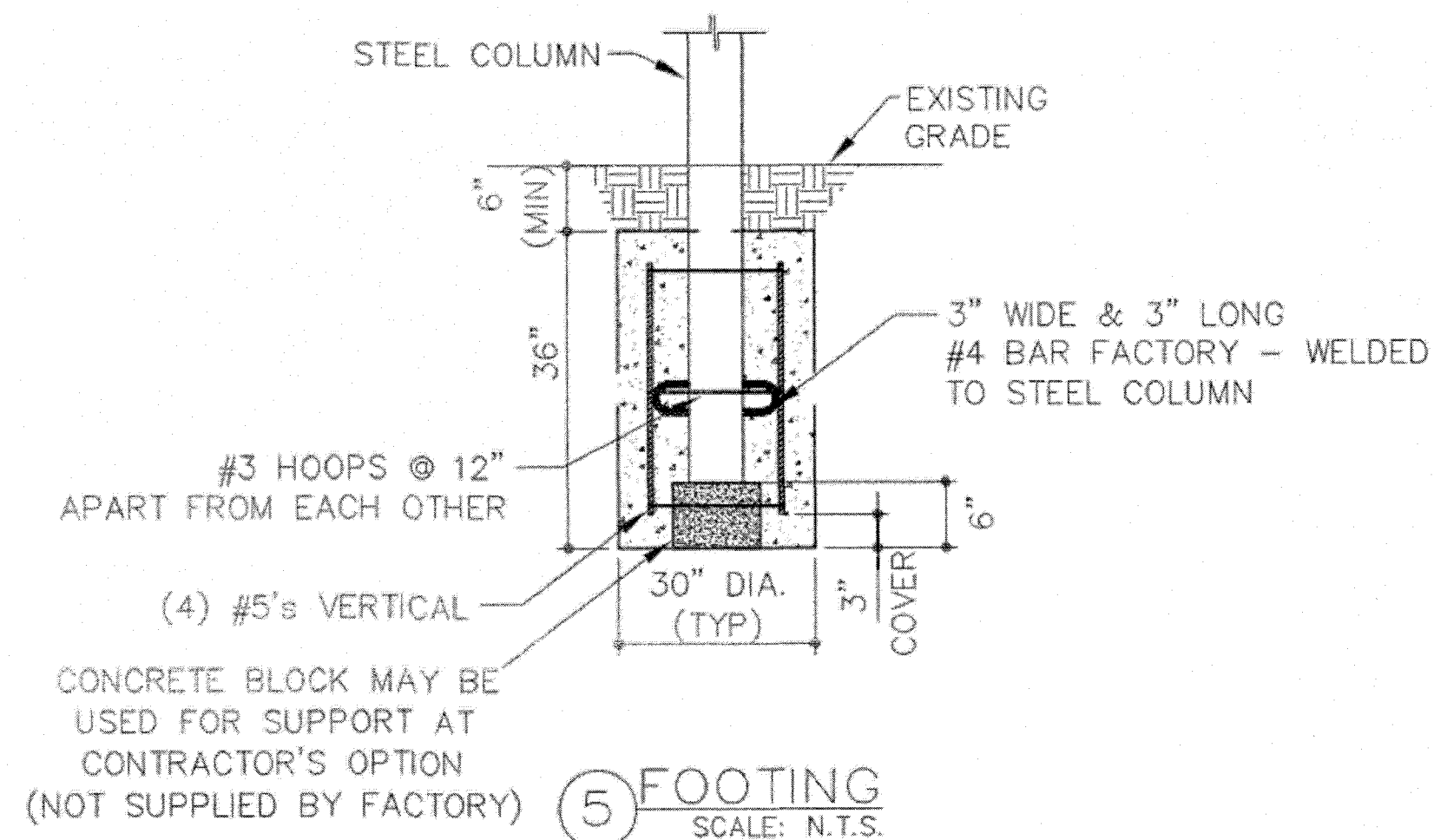
**M FABRIC SHELTER NOT TO SCALE**



TOP CORNER CONNECTION DETAIL



ENTER CONNECTION



- 3) All Canopies
  - a) Canopy structure and footings must have engineered drawings designed, stamped, signed and sealed by a Professional Engineer registered in the State of Texas. Drawings must be submitted for review and approval to all appropriate City Departments.
  - b) All appropriate documents (shop drawings, color charts, warranties, etc.) should be provided to the City of El Paso designee for his/her review and approval.
  - c) Structure must be assembled and installed per manufacturer recommendations.
  - d) Installation of the new structure over playground equipment should comply with the National Playground Safety Institute, ASTM F1487-17 and ASTM F2223-10 minimum requirements
  - e) Structure must be anchored in method that does not produce any exposed bolts or anchors.
  - f) Shade canopies, shall have a variety of designs and colors for both frame and canopy, regardless of fabric or metal materials, and will be submitted to the City of El Paso designee for approval.
  - g) Structure must have all welds applied by a certified welder.
  - h) Provide Powder Coating for steel tubing. Powder coating shall be sufficiently applied, with a minimum three coats (3 mils thickness per coat) and should be free of imperfection and flaws.
  - i) Shade canopies eaves shall be no less than nine feet (9') above adjacent playground components, ground, concrete pad, or wood fiber. Structure may be higher based on application.
  - j) Provide a 10-year minimum warranty covering deterioration for UV degradation, fade, tear, and 90-100 MPH winds
- 5) Fabric Canopies
  - a) Fabric Canopy Columns must be all steel construction.
  - b) Canopy material for Fabric shade canopies must be resistant to photo-degradation.
  - c) Fabric Canopies corners shall be reinforced with extra non-tear fabric and strapping to properly distribute load(s), and the perimeters of the fabric top that contain the cables shall be double lock stitched.
  - d) Steel cable is determined based on calculated engineering load. Reinforced corners and galvanized cable to be used all around.
  - e) Fabric canopies shall block out at minimum 90% of the sun's harmful UV-A & UV-B rays.
  - f) Fabric shall be a high-density polyethylene with ultra violet additives, with monofilaments and tape construction giving a stable material and rachel knitted.

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department-Planning

*Karla Chavez*  
SIGNATURE  
5/5/21  
DATE

REVISIONS

DATE

LISA MCNELLIS  
LANDSCAPE ARCHITECT  
688 STONE CANYON DRIVE  
LAS CRUCES, NEW MEXICO 88001  
(505) 621-3032

ARCHITECTS SEAL

5/5/21

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

DATE: DESIGN BY: LM DRAWN BY: LM CHECK BY: LM APPROVED BY: LM JOB No.:

PROJECT TITLE  
**ELISE PARK**  
6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11094 SQ. FT. - .254 ACRES

SHEET TITLE  
**L8**  
SHELTER DETAILS  
SHEET 8 OF 8



# ELECTRICAL GENERAL NOTES:

- THESE ELECTRICAL GENERAL NOTES ARE APPLICABLE TO ALL ELECTRICAL SHEETS IN THIS PROJECT SET.
- THE ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE AND ADOPTED PROVISIONS OF THE FOLLOWING CODES:  
2014 NATIONAL ELECTRICAL CODE  
2015 INTERNATIONAL BUILDING CODE  
2015 INTERNATIONAL PLUMBING CODE  
2015 INTERNATIONAL MECHANICAL CODE  
2015 INTERNATIONAL FIRE CODE  
2015 INTERNATIONAL ENERGY CONSERVATION CODE  
AS ADOPTED AND INTERPRETED BY THE STATE OF TEXAS, CITY OF EL PASO AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) REGULATIONS, CURRENT ADOPTED EDITION REGARDING ELECTRICAL SYSTEMS, FIRE PROTECTION AND RELATED MECHANICAL AND ASSOCIATED SYSTEMS. ALL LABOR AND MATERIALS NECESSARY TO COMPLY WITH RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED. WHERE THE DRAWINGS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS SHALL GOVERN. THE CONTRACTOR SHALL HOLD AND SAVE THE OWNER, ARCHITECT AND ENGINEER FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FROM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
- THE CONTRACTOR SHALL COORDINATE WITH OWNER, ARCHITECT, AND ENGINEER ANY WORK THAT HAS THE POTENTIAL TO INTERFERE WITH ELECTRICAL SERVICES TO AREAS OUTSIDE OF THIS CONTRACT. ALL SHUT-DOWNS OR TIE-INS RELATING TO THESE SYSTEMS SHALL BE SCHEDULED AND SUBMITTED IN WRITING TO BE APPROVED BY THE OWNER'S FACILITY MANAGEMENT, OWNER, ARCHITECT, OR ENGINEER. CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE FOR PHASING OF CONSTRUCTION THAT INDICATES AREAS OF PRIORITY DURING EACH PHASE AND ANTICIPATED COMPLETION TIMES. SCHEDULES SHALL BE SUBMITTED A MINIMUM OF ONE WEEK PRIOR TO COMMENCING WORK. FACILITY MANAGEMENT OWNER, ARCHITECT AND ENGINEER SHALL REVIEW THESE SCHEDULES AND NOTIFY CONTRACTOR OF ACCEPTANCE PRIOR TO COMMENCEMENT OF WORK.
- ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH CODES AND RULES, REGULATIONS AND ORDINANCES SHALL BE PROVIDED. WHERE THE DRAWINGS AND/OR SPECIFICATIONS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF CODE REQUIREMENTS, THE DRAWINGS AND/OR SPECIFICATIONS SHALL GOVERN. THE CONTRACTOR SHALL HOLD AND SAVE THE OWNER, ARCHITECT AND ENGINEERS FREE AND HARMLESS FROM LIABILITY OF ANY NATURE OR KIND ARISING FROM HIS FAILURE TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
- BIDDERS SHALL VISIT THE SITE AND SHALL BE RESPONSIBLE FOR HAVING ASCERTAINED PERTINENT LOCAL CONDITIONS SUCH AS LOCATION, ACCESSIBILITY AND GENERAL CHARACTER OF THE SITE. THE CHARACTER AND EXTENT OF THE WORK WITHIN THE BUILDING AND TO BECOME FAMILIAR WITH ALL OTHER WORK TO BE PERFORMED AT THIS TIME. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO THE CONTRACTOR'S FAILURE TO DETERMINE ALL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED.
- BEFORE YOU DIG ALL EXISTING UTILITIES, I.E. WATER, SEWER, GAS, FIRE LINE, ELECTRICITY, CABLE, TELEPHONE, IRRIGATION LINES, SHALL BE LOCATED AND CLEARLY MARKED IN ORDER TO AVOID UNNECESSARY SHUT DOWNS AND EMERGENCY.
- EACH CONTRACTOR SHALL OBTAIN ALL NECESSARY NOTICES AND FILLED OUT APPLICATIONS, OBTAIN AND PAY FOR ALL PERMITS, DEPOSITS AND FEES (INCLUDING UTILITY CONNECTIONS FEES, ANY UTILITY EXTENSION FEES, TAP FEES, DEVELOPMENT FEES, AND IMPACT FEES) NECESSARY FOR THE INSTALLATION OF WORK UNDER THESE NOTES. TWO (2) COPIES OF CERTIFICATES OF APPROVAL SHALL BE OBTAINED FROM ALL AUTHORITIES ISSUING SAME AND SHALL BE TURNED OVER TO OWNER, ARCHITECT, ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE WORK.
- REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WORK. CONTRACTOR SHALL SECURE AND PAY ALL PERMITS, FEES, INSPECTIONS, AND TESTS UNLESS OTHERWISE INDICATED. COORDINATE WITH ARCHITECT, ENGINEER OR OWNER. SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL WORK SHALL CONFORM WITH FEDERAL, STATE, AND LOCAL CODES, RULES, AND REGULATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE SYSTEMS SHALL BE INSTALLED COMPLETE AND FULLY OPERATIVE UNLESS OTHERWISE INDICATED.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE ARCHITECT AND THE ENGINEERING OFFICES. THIS REPORT SHALL DESCRIBE EXISTING DAMAGE OR OTHER CONDITIONS THAT MAY INTERFERE WITH THIS PROPOSED NEW WORK. THIS SITE SURVEY SHALL ALSO INCLUDE VERIFICATION OF SIZES, LOCATIONS, AND CONDITIONS OF EXISTING UTILITIES. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDING OF THE CONTRACT. OTHERWISE THE ENGINEER'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.
- DURING CONSTRUCTION IF THE CONTRACTOR DISCOVERS AND DAMAGES THE EXISTING UNDERGROUND INFRASTRUCTURE, THE CONTRACTOR SHALL NOTIFY THE INFRASTRUCTURE AT NO ADDITIONAL COST TO THE OWNER. WHERE STRUCTURE IS ALTERED OR DAMAGED DURING CONSTRUCTION, INSTALLATION AND REMOVAL OF EQUIPMENT OR FIXTURES, THE CONTRACTOR SHALL REPAIR THE AREA TO MATCH SURROUNDING AREA PER ARCHITECTURAL SPECIFICATIONS. CUTTING, TRENCHING, AND PENETRATIONS THROUGH FIRE WALL, CONCRETE AND OTHER STRUCTURES ARE A PART OF THIS PROJECT SCOPE AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID. ALL EXCAVATION AND BACKFILLING REQUIRED FOR PLUMBING WORK IS ALSO INCLUDED AS PART OF THIS CONTRACT AND SHALL BE INCLUDED IN CONTRACTOR'S BID.
- ALL SYSTEMS AND COMPONENTS SHALL BE APPROVED FOR THE PURPOSE FOR WHICH INSTALLED. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND FROM ESTABLISHED AMERICAN SUPPLIERS UNLESS OTHERWISE INDICATED.
- ALL EQUIPMENT PARAMETERS SHOWN ARE FOR PERFORMANCE AT SITE ALTITUDE. SUPPLIERS SHALL SELECT AND DEMONSTRATE THAT THEIR EQUIPMENT MEETS THE DESIGN CONDITIONS AT SITE ALTITUDE.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL/PLUMBING CONTRACTOR THE MECHANICAL/PLUMBING EQUIPMENT REQUIREMENTS INCLUDING POWER, CONTROL, COORDINATION, AND MONITORING OF EACH DEVICE PROVIDED AND/OR INSTALLED BY MECHANICAL/PLUMBING CONTRACTOR.
- THE CONTRACTOR SHALL NOT SCALE THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND DO NOT COMPLETELY DEPICT ALL EXISTING CONDITIONS IN THE AREA.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOOK THROUGH ALL DRAWINGS ASSOCIATED WITH THIS PROJECT. WORK ASSOCIATED WITH THE ELECTRICAL CONTRACTOR'S TRADE MAY BE SHOWN ON OTHER DRAWINGS. ANY ADDITIONAL COSTS RESULTING FROM THE FAILURE TO INCLUDE THESE ITEMS SHOWN ON OTHER DRAWINGS WILL BE INCURRED BY THE CONTRACTOR. SHOULD THE CONTRACTOR ENCOUNTER ANY DISCREPANCIES OR INCONSISTENCIES IN THE CONSTRUCTION DOCUMENTS, THE MORE STRINGENT SHALL GOVERN.
- CONTRACTOR SHALL FIELD VERIFY CONDITION OF EXISTING EQUIPMENT AND PROVIDE NECESSARY COMPONENTS TO ASSEMBLE AND TO START-UP COMPLETE AND FULLY OPERATIONAL SYSTEMS.
- PROVIDE OWNER WITH THREE (3) COPIES OF ALL INSTALLATION INSTRUCTIONS, PRODUCT DATA SUBMITTAL INFORMATION, WARRANTIES, CONTACT INFORMATION DURING WARRANTY PERIOD AND BALANCING REPORTS IN 3-RING BINDERS AND CD VERSION.
- CONTRACTOR SHALL SAW CUT AND PATCH CONCRETE OR OTHER MATERIAL ENCOUNTERED AS REPORTED TO INSTALL NEW UNDERGROUND RACEWAY. REFER TO ARCHITECTURAL SPECIFICATIONS REGARDING PATCHING REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE AND INSTALL IDENTIFICATION TAGS FOR EQUIPMENT AND CONDUITS PER ASME 13.1 SCHEME OF IDENTIFICATION FOR PIPING. BURIED ELECTRICAL CONDUITS SHALL BE MARKED PER CODE REQUIREMENTS WITH UNDERGROUND WARNING TAPE 3" BELOW FINISHED GRADE. TAPE SHALL BE 4" WIDE COLORED RED WITH SUITABLE WARNING LEGEND PER ASME 11.5.1 SCHEME OF IDENTIFICATION FOR PIPING.
- CONTRACTOR SHALL TAKE PRECAUTIONS PER THE ARCHITECT'S INSTRUCTIONS TO PROTECT EXISTING TREES AND /OR OTHER SITE VEGETATION.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ALTERNATES AND ALLOWANCES FOR THIS PROJECT.
- ALL ELECTRICAL CONDUIT AND BOX OPENINGS SHALL BE CAPPED DURING DEMOLITION AND CONSTRUCTION.
- FINAL PUNCH REPORTS:  
DURING THE COURSE OF THE JOB, THE ENGINEER WILL MAKE SITE AND INSPECTION VISITS TO OBSERVE WORK IN PROGRESS AND WILL SUBSEQUENTLY PREPARE A WRITTEN SITE VISIT REPORT, WHICH WILL BE SENT TO THE CONTRACTOR AND TO WHOMEVER ELSE THE ENGINEER DESIRES. THE CONTRACTOR, UPON COMPLETION OF THE LISTED PUNCHLIST ITEMS TO THE ENGINEER FOR ALL TESTING AND CITY INSPECTION SO THEY CAN ATTEND THESE INSPECTIONS. THE CONTRACTOR SHALL PREPARE A WRITTEN AND TYPED RESPONSE WITHIN SEVEN (7) CALENDAR DAYS OF HIS RECEIVING THE SITE VISIT REPORT. THE CONTRACTOR SHALL ACCOMPANY THE ENGINEER DURING THIS FINAL PUNCHLIST VISIT UPON THE REQUEST OF THE ENGINEER. THE GENERAL CONTRACTOR SHALL INCLUDE IN HIS RESPONSE THE FOLLOWING INFORMATION:  
1. DATE OF SITE VISIT BY THE ENGINEER.  
2. DATE OF RECEIPT OF THE SITE VISIT REPORT.  
3. NAME AND TITLE OF THE PERSONS OF THE RESPONSE.  
4. AN ITEM NUMBER REFERENCED TO THE SITE REPORT.  
5. A BRIEF THREE OR FOUR WORD DESCRIPTION OF THE ITEM.  
6. THE CONTRACTOR OR SUBCONTRACTOR AFFECTED.  
7. THE PROPOSED COURSE OF ACTION, AND  
8. AN EXPECTED TIME OF COMPLETION OF THE ACTION.
- FINAL PUNCH REPORTS:  
AT THE COMPLETION OF THE JOB, THE ENGINEER WILL MAKE PUNCHLIST SITE VISITS TO OBSERVE COMPLETED WORK AND WILL SUBSEQUENTLY PREPARE A WRITTEN SITE VISIT PUNCHLIST REPORT, WHICH WILL BE SENT TO THE CONTRACTOR AND TO WHOMEVER ELSE THE ENGINEER DESIRES. THE CONTRACTOR, UPON COMPLETION OF THE LISTED PUNCHLIST ITEMS, SHALL PREPARE A TYPED RESPONSE TO THE LIST INDICATING COMPLETION OF EACH ITEM. THE CONTRACTOR SHALL INCLUDE IN HIS RESPONSE THE RESOLUTION OF EACH ITEM. THE CONTRACTOR SHALL ACCOMPANY THE ENGINEER DURING THIS FINAL PUNCHLIST VISIT UPON THE REQUEST OF THE ENGINEER.
- ALL ELECTRICAL CONDUIT AND PANEL OPENINGS SHALL BE CAPPED DURING DEMOLITION AND CONSTRUCTION.
- SUBSTITUTED PRODUCTS  
A. MATERIAL OR EQUIPMENT SPECIFIED BY MANUFACTURER'S NAME IS BEING USED AS A BASIS OF STANDARD. NO SUBSTITUTION IS ALLOWABLE WITHOUT ENGINEER'S WRITTEN APPROVAL TEN (10) DAYS PRIOR TO BID DATE UNLESS THE MANUFACTURER IS LISTED ON THE DRAWINGS OR IN THE SPECIFICATION AS BEING A PRE-APPROVED ALTERNATIVE MANUFACTURER. ANY SUBMITTAL RECEIVED WITHOUT SUCH WRITTEN APPROVAL OR PRIOR APPROVAL IS SUBJECT TO UNQUALIFIED REJECTION.  
B. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT SUBMITTED SUBSTITUTE EQUIPMENT WILL FIT IN SPACE AVAILABLE. THE CONTRACTOR'S SUBMITTAL FOR ACCEPTANCE OF THE SUBSTITUTE SHALL INCLUDE A WRITTEN STATEMENT OF WHETHER OR NOT SUCH ACCEPTANCE WOULD REQUIRE ANY SUBSEQUENT OR ASSOCIATED CHANGES TO THE DRAWINGS OR SPECIFICATIONS. ANY SUCH CHANGES SHALL BE DESCRIBED IN WRITING, BRIEFLY BUT COMPLETE.  
C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF ANY SUCH MODIFICATIONS DUE TO SUBSTITUTION OF MATERIALS OR EQUIPMENT FOR THAT WHICH WAS SPECIFIED OR SCHEDULED. THE COST SHALL BE COMPLETE, THAT IS, IT SHALL INCLUDE THE COST EFFECT OF ANY AND ALL OTHER TRADES.  
D. THE ENGINEER MAY REQUEST DETAILED SHOP DRAWING OR PLAN LAYOUTS OF MECHANICAL ROOMS OR SYSTEMS OF THE SUBSTITUTED EQUIPMENT.  
E. SHOULD A SUBSTITUTION BE APPROVED BY THE ENGINEER (BASED UPON THE SUBSTITUTION SUBMITTAL REVIEW AND ACCEPTED), AND SHOULD THE SUBSTITUTE MATERIAL OR EQUIPMENT PROVE DEFECTIVE, NOT MEETING DESIGN PARAMETERS, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THIS MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
- SUBMITTAL REQUIREMENTS:  
A. THE INTENT OF THIS SECTION IS TO OBTAIN GENERAL SUBMITTAL INFORMATION, REFER TO SPECIFIC SUBMITTAL INFORMATION IN THE SUBSEQUENT ELECTRICAL SECTIONS.  
B. WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, AND BEFORE ORDERS ARE PLACED, CONTRACTOR SHALL SUBMIT SPECIFIC INFORMATION ON LIST OF EQUIPMENT AND PRINCIPAL MATERIALS SPECIFIED. CONTRACTOR SHALL INDICATE AND/OR PROVIDE MANUFACTURERS, CATALOG AND MODEL NUMBERS, CUT SHEETS, AND SUCH OTHER SUPPLEMENTARY INFORMATION AS NECESSARY FOR EVALUATION. MINIMUM OF SIX (6) COPIES, OR AS DIRECTED BY THE ENGINEER, OF EACH SHALL BE SUBMITTED AND SHALL INCLUDE ALL ITEMS MENTIONED BY MODEL NUMBER AND/OR MANUFACTURER'S NAME IN THE SPECIFICATIONS OR IN SCHEDULES ON THE DRAWINGS.  
C. REQUIREMENTS FOR EACH SUBMITTAL:  
1. BEAR A DATED STAMP OR SPECIFIC WRITTEN INDICATION THAT THE CONTRACTOR HAS REVIEWED AND APPROVED ALL SUBMITTALS PRIOR TO SUBMISSION TO ENGINEER.  
2. HAVE ALL INFORMATION DELETED BY CONTRACTOR THAT PERTAINS TO THE MEANS AND METHODS OF CONSTRUCTION OR TO FABRICATION, ASSEMBLY, INSTALLATION, OR RECTION (APPROVAL BY ENGINEER SHALL NOT EXTEND TO THESE AREAS UNLESS SPECIFICALLY NOTED BY ENGINEER).

- BE CLEARLY AND SPECIFICALLY MARKED AS TO WHICH SPECIFIC PIECE OF EQUIPMENT IS BEING SUBMITTED, BY USE OF A PERMANENT MARKER, STAMP, ETC., SO AS TO DISTINGUISH IT FROM OTHER PIECES OF EQUIPMENT THAT MAY OCCUR ON THE SAME PAGE.
- BE CLEARLY AND SPECIFICALLY MARKED AS TO WHICH AVAILABLE OPTIONS ARE BEING SUBMITTED THAT ARE ASSOCIATED WITH A PIECE OF EQUIPMENT, AND BE COMPLETE WITH RESPECT TO QUANTITIES, DIMENSIONS, SPECIFIC PERFORMANCE MATERIALS, AND SERIAL DATA TO ENABLE THE ENGINEER TO REVIEW THE PROPOSED EQUIPMENT.
- BE COMPLETE WITH RESPECT TO QUANTITIES, DIMENSIONS, SPECIFIC PERFORMANCE MATERIALS, AND SERIAL DATA TO ENABLE THE ENGINEER TO REVIEW THE PROPOSED EQUIPMENT.
- BE CLEARLY AND SPECIFICALLY MARKED AS TO ANY AND ALL SUBSTITUTED DEVIATIONS FROM THIS DESIGN SPECIFICATION REQUIREMENTS SHALL BE PROVIDED IN WRITTEN FORM.
- OMISSION BY CONTRACTOR OF ANY OF THE ABOVE REQUIREMENTS OR SUBMITTALS WILL SUBJECT SUBMITTAL TO AUTOMATIC REJECTION WITHOUT REVIEW.
- ANY SUBMITTALS RECEIVED BY ENGINEER THAT WERE NOT REQUESTED SHALL BE RETURNED WITHOUT REVIEW OF ANY KIND. SUBMITTALS SHALL INDICATE APPLICABLE ACCESS AND SERVICE CLEARANCES IF REQUIRED BY THE SUBMITTED EQUIPMENT.
- INSTALLATION INSTRUCTIONS - FOR CERTAIN PRODUCTS OR SYSTEMS AS IDENTIFIED IN SUBSEQUENT SPECIFICATIONS SECTIONS OR ON THE DRAWINGS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE COPIES OF MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE SUBMITTAL. WHEN REQUIRED AS SUCH, THE INSTALLATION INSTRUCTIONS ARE CONSIDERED PART OF THE SUBMITTAL AND THEIR OMISSION MAY RESULT IN AUTOMATIC REJECTION OF THE SUBMITTAL. WHERE MORE THAN ONE IDENTICAL DEVICE ARE SCHEDULED, ONLY ONE SET OF INSTALLATION INSTRUCTIONS NEEDS TO BE SUBMITTED. I.E. IF SEVEN 200A 208Y/3P PANELS ARE SCHEDULED, ONLY ONE 200A 208Y/3P PANELS INSTALLATION INSTRUCTION NEEDS TO BE SUBMITTED. SIMILARLY, IF ONE SET OF INSTALLATION INSTRUCTIONS IS IDENTIFIED BY THE MANUFACTURER AND ON THE INSTRUCTIONS TO BE APPLICABLE TO MORE THAN ONE TYPE OR SIZE OF DEVICE, I.E. IF ONE SET OF PANEL INSTRUCTIONS IS GOOD FOR 100A, 150, 200A, PANELS, THEN ONLY ONE INSTRUCTION SET IS REQUIRED FOR THESE DEVICES.
- THIS ENGINEER WILL REVIEW THE SUBMITTALS FOR APPROVAL TWICE. ANY ADDITIONAL REVIEWS THAT ARE REQUIRED BY THE ENGINEER FOR REVISIONS WILL BE REQUIRED AFTER THE INITIAL TWO REVIEWS WILL RESULT IN ADDITIONAL COMPENSATION FOR THE ENGINEER'S TIME BY THE SUBMITTED CONTRACTOR AT THE ENGINEER'S RATE.

- REQUIRED SHOP DRAWING SUBMITTALS:  
A. LIGHTING FIXTURES (AS NOTED IN LIGHTING FIXTURE SCHEDULES)  
B. MAIN DISTRIBUTION PANELS, INCLUDING CIRCUIT BREAKERS  
C. PANELBOARDS INCLUDING CIRCUIT BREAKERS  
D. RECEPTACLES AND COVER PLATES  
E. DISCONNECTS INCLUDING FUSES OR MAGNETIC STARTERS  
F. GROUNDING  
G. WIRING  
H. CONDUIT  
I. FIRE ALARMS SYSTEM  
J. ACCESS CONTROL AND SECURITY SYSTEM COMPONENTS  
K. DATA CABLING, TELEPHONE WIRING, AUDIO-VISUAL CABLING  
L. JUNCTION BOXES AND ENCLOSURES
- ALL EXPOSED CONDUIT SHALL BE PAINTED TO MATCH ADJACENT SURFACES.
- PROVIDE BLANK METAL COVERPLATES OVER ALL UNUSED OUTLET BODIES. PAINT COVERPLATE TO MATCH ADJACENT SURFACES.
- WIRING SHALL BE THIN COPPER WITH MINIMUM SIZE OF #12, IN MINIMUM 3/4" (20MT) CONDUIT WITH CU, ECL, UNLESS NOTED OTHERWISE.
- DOUBLE SET SCREW FITTINGS ARE ACCEPTABLE FOR STEEL CONDUIT AND COUPLINGS ONLY.
- DEVICES THAT MIGHT CAUSE OR OPERATE WITH VIBRATION OR NOISE SHALL BE ISOLATED PER MANUFACTURER'S RECOMMENDATIONS AND/OR PER SPECIFICATIONS.
- SWITCHBOARDS, PANEL BOARDS AND TRANSFORMERS SHALL BE CUTLER-HAMMER, SQUARE-D, OR SIMILAR APPROVED BY THE ENGINEER.
- USE THE FOLLOWING WIRING COLOR CODE:  
A. FOR WIRE SIZES 14 AWG AND SMALLER, INSTALL WIRE COLORS IN ACCORDANCE WITH THE FOLLOWING:  
1. BLACK AND RED FOR SINGLE PHASE CIRCUITS AT 120/240 VOLTS.  
2. BLACK, RED, AND BLUE FOR CIRCUITS AT 120/208 VOLTS SINGLE OR THREE PHASE.  
3. ORANGE, BROWN, AND YELLOW FOR CIRCUITS AT 277/480 VOLTS SINGLE OR THREE PHASE.  
4. FOR WIRE SIZES 16 AWG AND LARGER, IDENTIFY WIRE WITH COLORED TAPE AS FOLLOWS:  
1. BLACK AND RED FOR SINGLE PHASE CIRCUITS AT 120/240 VOLTS.  
2. BLACK, RED, AND BLUE FOR CIRCUITS AT 120/208 VOLTS SINGLE OR THREE PHASE.  
3. BROWN, ORANGE, AND YELLOW FOR CIRCUITS AT 277/480 VOLTS SINGLE OR THREE PHASE.  
C. NEUTRAL CONDUCTORS: WHITE FOR 200/120V CIRCUITS, GRAY FOR 480/277V CIRCUITS.  
D. BRANCH CIRCUIT CONDUCTORS: INSTALL THREE OR FOUR WIRE HOMERUNS WITH EACH PHASE UNLESS COLOR CODED.  
E. FEEDER CIRCUIT CONDUCTORS: UNUSUAL COLOR CODE EACH PHASE.  
F. GROUND CONDUCTORS:  
1. FOR 6 AWG AND SMALLER: GREEN.  
2. FOR 4 AWG AND LARGER: IDENTIFY WITH GREEN TAPE AT BOTH ENDS AND VISIBLE POINTS INCLUDING JUNCTION BOXES.
- EACH 120 VOLT BRANCH CIRCUIT SHALL BE PROVIDED WITH A SEPARATE NEUTRAL, ONE FOR EACH PHASE WIRE. CIRCUIT BREAKER HANDLE TIES MAY BE USED INSTEAD OF SEPARATE NEUTRALS. COMPLY WITH ALL CODES.
- PROVIDE ARC-FLASH LABELING ON ALL ELECTRICAL PANELS, BOTH NEW AND EXISTING. ALL LABELING SHALL BE DONE USING ANSI 68.41 OF NFPA 70E, OR BY CALCULATION.
- ALL STEP-DOWN TRANSFORMERS SHALL COMPLY WITH THE U.S. DOE 2013 LEGISLATION FOR ENERGY EFFICIENCY.
- PROVIDE AN UN-SWITCHED PHASE WIRE FROM THE LINE SIDE OF THE ROOM'S LIGHT SWITCH TO THE EMERGENCY FIXTURE IN THAT ROOM.
- MC CABLE MAY BE USED FOR BRANCH CIRCUITS WHERE ALLOWED BY CODE.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	SURFACE MOUNTED LIGHT FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	LIGHT POLE AND NUMBER OF LUMINAIRES SHOWN. TYPE AS INDICATED IN FIXTURE SCHEDULE.
	PANELBOARD. SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE POLES AND RATING REQUIRED, TO BE MOUNTED IN NEMA 3R IF INSTALLED OUTDOORS.
	ELECTRICAL UNDERGROUND CIRCUIT, 2'-0" MINIMUM BELOW GRADE.
	BRANCH CIRCUIT IN WALLS OR CEILING.
	HOME RUN TO PANEL WITH BRANCH CIRCUIT NUMBERS INDICATED. TIC MARKS REPRESENT NEUTRAL, HOT, SWITCH LEG, AND GROUND CONDUCTORS RESPECTIVELY. CONDUITS WITH NO TIC MARKS SHALL BE: "A HOT AND NEUTRAL", "A HOT AND SWITCH LEG", "A NEUTRAL AND SWITCH LEG", OR "HOT, NEUTRAL AND GROUND OR ISOLATED GROUND", AS APPLICABLE.

NOTE: SOME SYMBOLS SHOWN MAY NOT BE USED ON THIS PROJECT.

**ENERGY CODE NOT REQUIRED. NO HABITABLE SPACES AND PLAYGROUND EXEMPT.**

UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 880-1200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT TELECOMM	(800) 821-0579
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT) (AFTER HOURS)	(915) 621-6750 (915) 240-3220

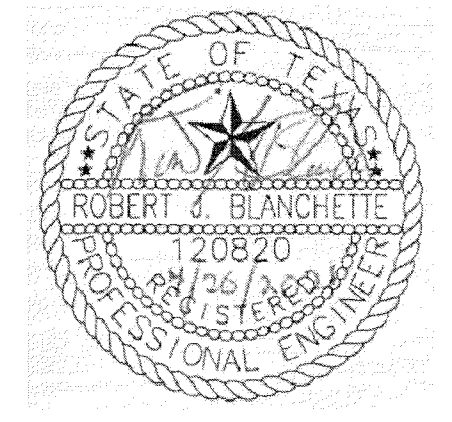
**WARNING!**  
**BEFORE YOU DIG**  
**CALL 811**  
FOR FIELD LOCATING EXISTING UTILITIES

GENERAL LIGHTING									
SYMBOL	MANUFACTURER NAME AND NUMBER	LAMPS	VOLTAGE	BALLAST	MOUNTING	DESCRIPTION	NOTES		
B	LSI EXCURSION EXN D EGLD BL TSW UNV DIM 40 BLK	60W LED 8230 LUMEN	240	NA	SURFACE	CANOPY LUMINAIRE VIA TIMER AND PHOTOCELL			
OL1	LSI #MRM-LED-30L-SIL-UNV-DIM-40-70CRI-IL-CR7P	2-232W LED 30000 LUMEN	240	NA	POLE	AREA LIGHT, TWO HEADS WITH ROAM REN127 DV1 O J50 PHOTOCONTROL	4		
POLE	AMERON POLE PRODUCTS SK081705 REV E WITH LSI BKS NM D90 PLP BRACKETS								
NOTES									
1. LIGHT FIXTURES SHALL BE AS SPECIFIED AND NO SUBSTITUTIONS WILL BE ALLOWED UNLESS PRIOR APPROVED PER SPECIFICATIONS.									
2. REFER TO PLAN FOR TYPES AND QUANTITIES USED. ALL TYPES LISTED ABOVE DO NOT NECESSARILY APPEAR ON PLAN.									
3. UPON COMPLETION OF THE PROJECT THE CONTRACTOR IS TO PROVIDE LABOR TO ADJUST THE COMPLETE INTERIOR LIGHTING PER THE DIRECTION OF THE USER.									
4. CONTRACTOR TO PROVIDE UNIT ID NUMBER AND COORDINATES OF EACH PHOTOCELL TO CITY.									

PANEL "M" SCHEDULE												
TYPE: DBL/TA		SERVICE:	240/120 VOLT	1 PHASE	3 WIRE	ENCLOSURE: NEMA 3R						
SIC:		SIC:	22,000 AIC	MAIN: 60	AMPS	TYPE: MCB	TYPE: SURFACE MOUNTED					
LOCATION: ROOM		LOAD DESCRIPTION	POLE	AMP	VA	PH "A"	PH "C"	AMP	POLE	LOAD DESCRIPTION	CTK	WIRE / CONDUIT
WIRE / CONDUIT	NO. TYPE	SERVICE										
	1	IRRIGATION CONTROLLER	1	20	500	650		150	20			AREA LIGHT
	3	BACKFLOW WARNER	1	20	1,000		1,150	150				
	5	PLAYGROUND LIGHT	1	20	1,000							
	7											
	9											
	11											
WIRING AND CONDUITS SHALL BE IN ACCORDANCE WITH E1.0 ELECTRICAL GENERAL NOTES #32 AND #42, UNLESS NOTED OTHERWISE.						CONNECTED VA	750	1,150				
DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF CODE DIVERSITIES						CONNECTED AMPS	6.3	9.6				
						TOTAL CONNECTED KVA	1.9	9.6	MAX AMPS / PH			
						DIVERSITY AMPS	8.3					
						TOTAL DIVERSITY KVA	2.0					
TYPE OF LOAD						VA	DEMAND FACTOR	DEMAND VA				
C CONTINUOUS						400	1.25	500				
N NON-CONTINUOUS						0	1.00	0				
K KITCHEN						0	0.65	0				
R RECEPTACLES						0	1.00	0				
O OTHER						1,500	1.00	1,500				
M MECHANICAL						0	1.00	0				
TOTAL						1,900		2,000				
UNBALANCE %										34.8		

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

*Karla Chavez*  
SIGNATURE  
5/18/21  
DATE



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

TEXAS REGISTERED ENGINEERING FIRM F-4564

PROJECT TITLE  
**ELISE PARK #3**  
6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11094 SQ.FT., .254 ACRES

SCALE  
Horizontal: N/A  
Vertical: N/A  
Contour Interval: N/A  
DATE: APRIL 2021  
DESIGN BY: EMC  
DRAWN BY: EMC  
CHKD BY: EMC  
APPRD BY: EMC  
JOB NO.

REFERENCES - BENCHMARKS

BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISIONS

ENGINEER'S SEAL

SHEET TITLE

ELECTRICAL GENERAL NOTES, LEGEND, SCHEMATICS, AND SCHEDULES

SHEET NO.

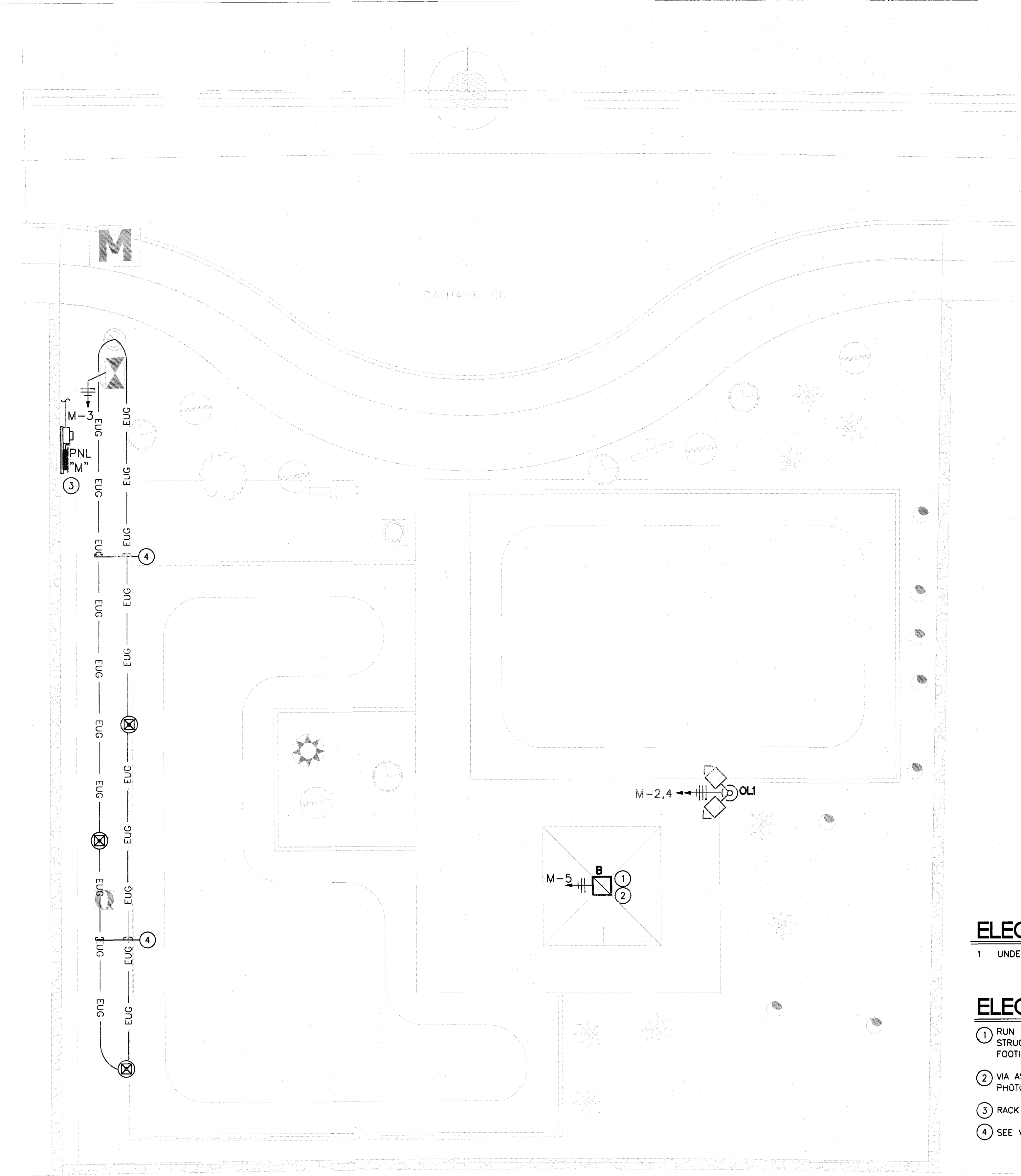
E1.0



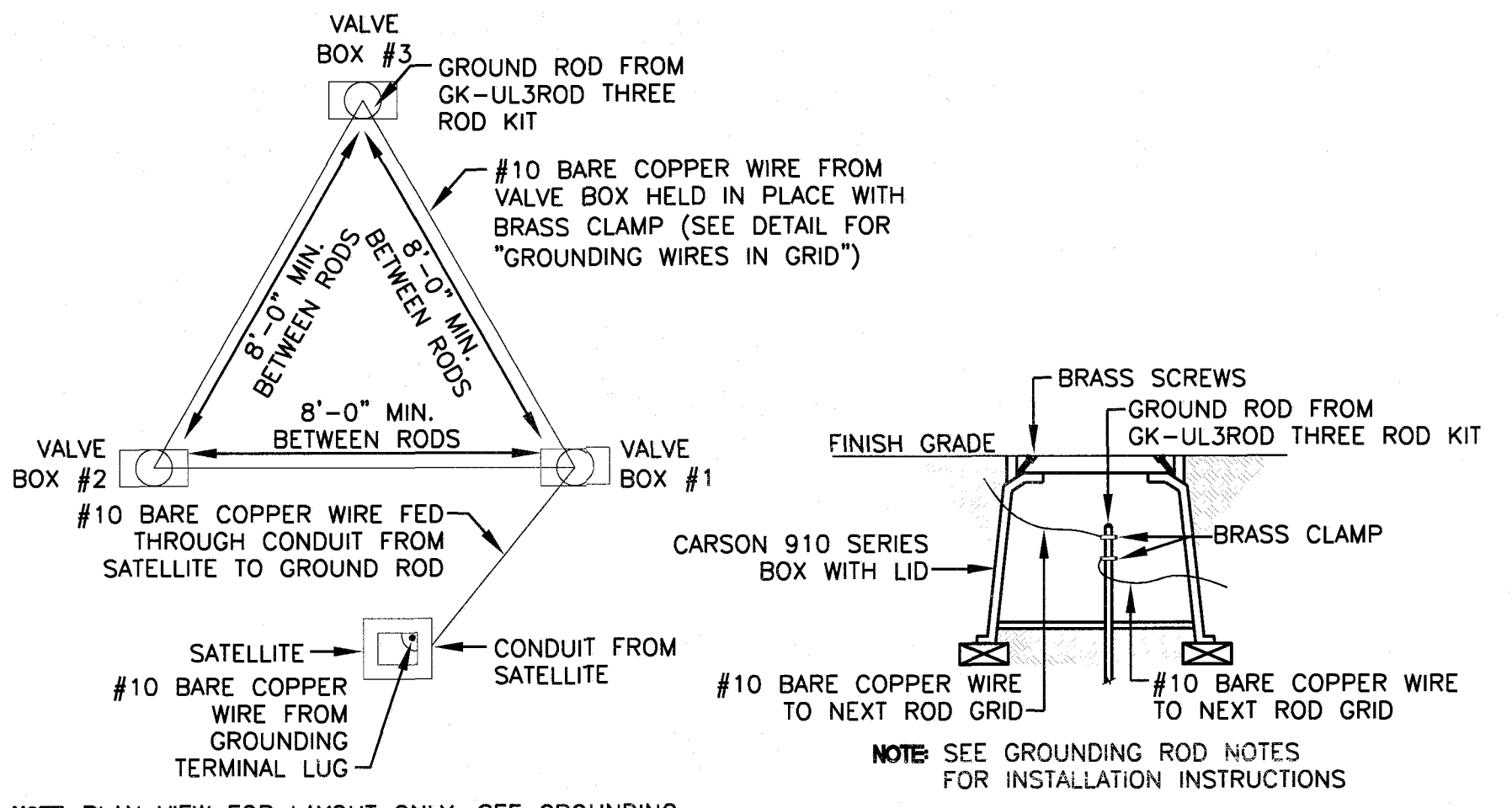
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

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

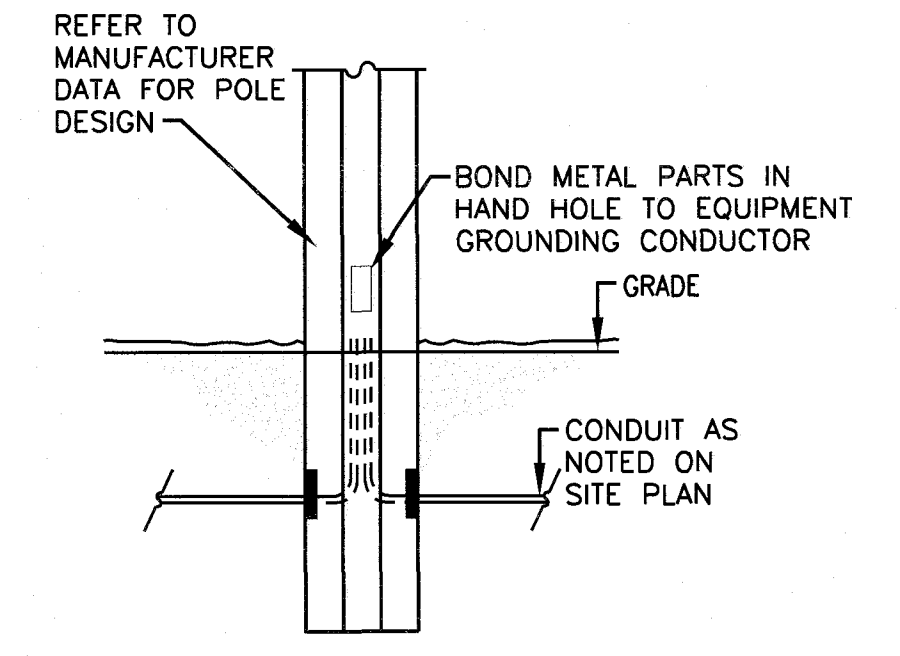
REFERENCES - BENCHMARKS	DATE	REVISIONS	BY



**1**  
**E11**  
**ELECTRICAL SITE LIGHTING PLAN**  
SCALE: 1/8" = 1'-0"  
0 2 4 6 8 10 12 14



**2**  
**E11**  
**VALVE BOX GROUNDING SCHEMATIC**  
SCALE: NONE



**3**  
**E11**  
**CONCRETE POLE SCHEMATIC**  
SCALE: NONE

**ELECTRICAL GENERAL NOTES:**

- 1 UNDERGROUND WIRING TO BE XHHW.

**ELECTRICAL KEYED NOTES: ①**

- ① RUN CONDUIT AND WIRING FOR LIGHT INSIDE CANOPY REFER TO STRUCTURAL DETAILS OF CANOPY FOR PLACEMENT OF CONDUIT IN FOOTING AND COLUMN.
- ② VIA ASTRONOMICAL TIME CLOCK AND PHOTOCCELL. PLACE TIMER AND PHOTOCCELL AT METER RACK
- ③ RACK MOUNTED METER AND PANEL NEXT TO IRRIGATION CONTROLLER
- ④ SEE VALVE BOX GROUNDING SCHEMATIC.

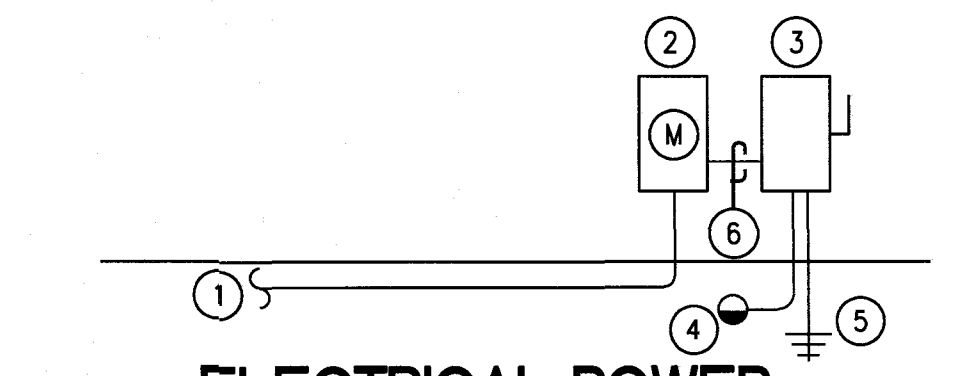
**GROUNDING ROD NOTES:**

- GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH.
- CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:
1. ALWAYS USE A 5/8"X8" COPPER CLAD ROD.
  2. RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
  3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
  4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
  5. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
  6. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID, CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
  7. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GRATER THAN 15 OHMS.
  8. WHENEVER MORE THEN ONE WIRE IS ATTACHED TO A GROUND ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
  9. GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH REMEMBER THESE TIPS WHEN INSTALLING THEM.

**GROUNDING WIRES SCHEMATIC**  
SCALE: NONE

**ELECTRICAL RISER KEYED NOTES: ①**

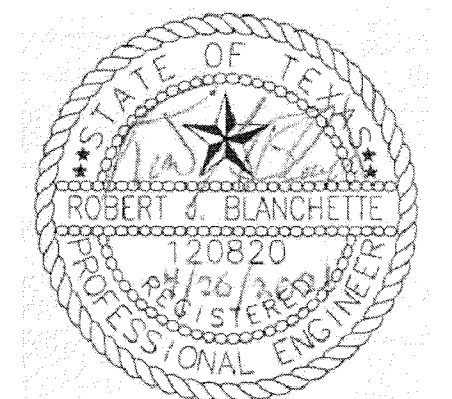
- ① TO EPE SERVICE
- ② RACK MOUNTED METER PER EPE REQUIREMENTS
- ③ RACK MOUNTED 60A 240/120V N3R PANEL WITH MAIN BREAKER
- ④ #8 CU TO 2 1/2"X8" COPPER CLAD GROUND RODS
- ⑤ #8 CU TO METALLIC COLD WATER PIPE
- ⑥ 3 #6 CU THWN AND #8 CU GROUND IN 1" CONDUIT.



**4**  
**E11**  
**ELECTRICAL POWER RISER DIAGRAM**  
SCALE: NONE

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Karla Chavez  
SIGNATURE  
E11/8/21  
DATE



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813 N. Kansas St.  
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915.544.5232  
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ENGINEER'S SEAL

SCALE	Horizontal:	Vertical:	Contour Interval:	DATE:	DESIGN BY:	DRAWN BY:	CHKD. BY:	APPVD. BY:	JOB NO.
				APRIL 2021	EMC	EMC	EMC	EMC	

**PROJECT TITLE**  
**ELISE PARK #3**  
6032 DALHART DRIVE  
LOT 59 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11094 SQ.FT. - .254 ACRES

SHEET TITLE

ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS

SHEET NO.

**E11**



**SODDING NOTES**

- SUBMIT THE FOLLOWING:
- SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS.
- QUALITY ASSURANCE
- MINIMUM AGE 18 MONTHS, WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARINGS, WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS. DELIVERY, STORAGE AND HANDLING
  - TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
  - DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE.
- SITE CONDITIONS
- PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
  - WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
  - PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.
- SOIL AMENDMENTS
- PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSES OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AGED ORGANIC COMPOST OR APPROVED EQUAL.
- FERTILIZER
- SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1,000 SQUARE FEET BY WEIGHT.
- GRASS MATERIALS
- PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.
- PREPARATION
- PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 C.Y./1000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAG, AND LASER LEVEL TO AN EVEN GRADE. THEN ROLL FOR FIRMNESS. RAKE TILLED AREA AND REMOVE STONES OVER 1 INCH IN ANY DIMENSION, STICKS, ROOTS, RUBBISH AND OTHER EXTRANEIOUS MATTER. ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.
- SODDING OPERATIONS
- LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN GROUND.
  - IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MUDDY SOIL CONDITION.
  - REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN 1/8" LAY SOD OVER MOISTENED SOIL, LIGHTLY RAKING THE SOIL AHEAD OF EACH SOD STRIP. BUTT ENDS AND SIDES OF SOD STRIPS. DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD
  - WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.
- MAINTENANCE
- BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
  - MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTH-WEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE, AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
  - SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS.
  - MAINTENANCE TO INCLUDE:
    - WATER SOD THOROUGH EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING.
    - REPAIR, REWORK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED.
    - REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD.
    - MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING.
    - FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1,000 SQ.FT. OF NITROGEN, WATER THOROUGHLY.
  - ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REFLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- CLEANUP AND PROTECTION
- DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
  - PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.
- INSPECTION AND ACCEPTANCE
- WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE ARCHITECT AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND MATERIALS PROMPTLY FROM PROJECT SITE.

**GENERAL IRRIGATION NOTES**

- ALL MATERIALS LISTED BY BRAND NAME MAY BE SUBSTITUTED BY EQUAL OR BETTER PRODUCTS AS APPROVED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING AND PROPOSED UTILITIES, AND ALL SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER CONTRACTORS WORKING ON THE SITE. COORDINATE INSTALLATION OF SLEEVINGS!
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WATER PRESSURE, WATER SOURCE AND SIZE IN THE FIELD PRIOR TO CONSTRUCTION. SHOULD A DISCREPANCY EXIST BETWEEN DESIGN PRESSURE AND FIELD PRESSURE THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
- IF PRESSURE IS MORE THAN 95 PSI DOWNSTREAM OF METER NOTIFY THE PROJECT MANAGER AND LANDSCAPE ARCHITECT IMMEDIATELY.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
- LOCATION OF THE CONTROLLER AND BACKFLOW SHALL BE APPROVED BY CITY OF EL PASO PARKS AND RECREATION DEPT.
- STAKE OUT ROTOR HEAD AND PIPING LOCATIONS PRIOR TO TRENCHING. AFTER APPROVAL BY CITY OF EL PASO PARKS AND RECREATION DEPT., TRENCHING AND EQUIPMENT INSTALLATION MAY BEGIN.
- THE CONTRACTOR SHALL NOT IMPEDE DRAINAGE IN ANY WAY. THE CONTRACTOR SHALL ALWAYS MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS, WALLS, ETC.
- ALL PIPING/MIRING RUNNING BENEATH PAVED SURFACES (DRIVES, WALKS, ETC.) SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES. SLEEVES MUST BE 2 X THE DIAMETER SIZE OF PIPE ENGAGED. REMOTE CONTROL MIRING MUST BE RUN IN SEPARATE SLEEVES FROM IRRIGATION PIPE SLEEVES. EXTEND SLEEVE TWENTY-FOUR INCHES (24") BEYOND EDGE OF HARD SURFACES; WRAP ENDS WITH FOUR (4) MILS PLASTIC AND GOOD QUALITY PLASTIC TAPE. GRAY, CLOTH DUCT TAPE IS NOT ACCEPTABLE.
- DIRECT BURIAL 24V ELECTRIC CONTROL WIRE (#146) AND COMMON GROUND (#126) SHALL BE STANDARD COLORS- RED(NOT) AND WHITE(COMMON). INSTALL WIRE WITH SLACK TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION. LABEL ALL WIRE ENDS AT CONTROLLER AND IN VALVE BOX. PROVIDE THREE SPARE REMOTE CONTROL VALVE WIRES FOR EACH CONTROLLER AND EXTEND TO FURTHEST VALVE. WIRES SHALL BE IN SEPARATE TRENCH FIVE FEET (5') FROM PRESSURE MAIN LINE ON NORTH AND WEST SIDE OF MAIN. PROVIDE EXPANSION LOOPS FOR WIRES EVERY 200'. WIRES SHALL NOT BE STRETCHED TIGHT. USE DRI-SPLICE CONNECTORS FACTORY FILLED WITH SILICONE FOR VALVE WIRE. SPLICES ARE NOT ALLOWED BETWEEN CONTROLLER AND VALVES. SPARE REMOTE CONTROL VALVE WIRES MUST BE OTHER THAN STANDARD RED IN COLOR.
- ALL VALVES SHALL BE TAGGED WITH A WATERPROOF TAG SHOWING VALVE NUMBER. LABEL ALL MIRING AT CONTROLLERS AND PANELS.
- ALL PIPE CUTS SHALL BE MITERED TO 90 DEGREES TO ASSURE PROPER SOLVENT WELD. ALL BURRS SHALL BE REMOVED PRIOR TO GLUING AND MUST HAVE A FILED BEVELED EDGE A MINIMUM OF ONE FOURTH (1/4) THE WIDTH OF PIPE HALL. USE "3-STEP" GLUING PROCESS. PIPE MUST BE CLEAN AND PRIMER APPLIED AS RECOMMENDED BY MANUFACTURER WHEN GLUING PROCESS IS UNDERTAKEN. PRIMER SHOULD BE MOIST AS GLUE IS APPLIED AND PVC PIPING IS ASSEMBLED. USE IPS WELD-ON PURPLE PRIMER P68 OR P70. USE IPS WELD-ON GRAY GLUE #11 HEAVY DUTY. PIPE OFF ALL EXCESS CEMENT AND LET SET PER MANUFACTURER'S RECOMMENDATIONS. INITIAL SET TIMES SHALL BE MINIMUM OF 5 MIN. FOR 1/2" TO 1-1/4" PIPE, 8 MIN. FOR 1-1/2" PIPE TO 2" PIPE, 2 HOURS FOR 2-1/2" TO 6" PIPE. CURE TIMES ARE 20 MIN FOR 1/2" TO 1-1/4" PIPE, 30 MIN. FOR 1-1/2" PIPE, 4 HOURS FOR 2-1/2" PIPE. WHEN HUMIDITY EXCEEDS 60% INCREASE CURE TIME BY 50%. ONCE WELD IS SET, PIPE SHALL NOT BE MOVED FOR ANY REASON UNTIL SET TIMES HAVE BEEN ACHIEVED. WATER SHALL NOT BE TURNED ON UNTIL ALL CURE TIMES HAVE BEEN ACHIEVED.
- A CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE MUST BE PRESENT DURING ALL FLUSHING, TESTING AND ADJUSTING. THE CONTRACTOR MUST PROVIDE 24 HRS NOTICE TO THE CITY OF EL PASO PARKS AND RECREATION DEPT. PRIOR TO CONDUCTING THE TESTS. FLUSHING AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PARKS AND RECREATION DEPARTMENT DESIGN AND CONSTRUCTION STANDARDS.
- THE FINISH GRADE OF ALL TRENCHED AREAS SHALL BE SMOOTH, EVEN AND CONSISTENT, FREE OF ANY HUMPS, DEPRESSIONS OR OTHER GRADING IRREGULARITIES. OVERFILL TRENCHES AND CONTACT SO NOT TO CRUSH THE PIPE. PRIOR TO SODDING INSPECT TRENCHES FOR SETTLING AND BACKFILL AND REGRADE IF NECESSARY. DO NOT LAY SOD UNTIL TRENCHES ARE ACCEPTABLE.
- THE CONTRACTOR SHALL PINE TIME AND ADJUST THE IRRIGATION SYSTEM SO THAT NO WATER WILL RUN ONTO THE STREET OR WALKS
- THE CONTRACTOR SHALL PROVIDE A WATER AUDIT CONDUCTED IN THE PRESENCE OF THE CITY OF EL PASO PARKS AND RECREATION DEPT. REPRESENTATIVE.
- THE CONTRACTOR SHALL MAINTAIN ALL WORK UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE CITY OF EL PASO PARKS AND RECREATION DEPT.
- WATERING TIME. TO SET TURF STATIONS SEE TURF IRRIGATION SYSTEM DESIGN CRITERIA. SET PER LOCAL WATERING CODES.
- WARRANTY PERIOD IS ONE YEAR FROM DATE OF ACCEPTANCE.

PROJECT MUST BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TAS REQUIREMENTS TO INCLUDE INSPECTION AND CERTIFICATE OF SUBSTANTIAL COMPLETION. TABS REGISTRATION # TABS2021010554

**WATER AUDIT**

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.

**PLANTING NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR.
- TOPSOIL MATERIAL FOR PLANTING SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT WOULD BE TOXIC OR HARMFUL TO GROWTH.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
- IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
- THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIPER SIZE, AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS.
- EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL-DIAMETER OF SHRUBS AND ROOT BALLS OF TREES. SCARIFY THE BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND/VERTICAL WITHOUT LEANING.
- REMOVE ALL WIRE, STRIPS, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOT BALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
- PLANT SUBSTITUTIONS WILL BE PERMITTED DUE TO AVAILABILITY ISSUES NOT PRICE. REQUEST SUBSTITUTION IN WRITING GIVING REASON FOR SUCH SUBSTITUTIONS.
- TURF QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SURFLAN. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
- SEEDED AREAS SHOULD BE MAINTAINED UNTIL A FULL GROWTH OF WILD GRASS OR SEEDING MATERIAL IS ACHIEVED.
- WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUNDCOVER).

UNSATURABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS

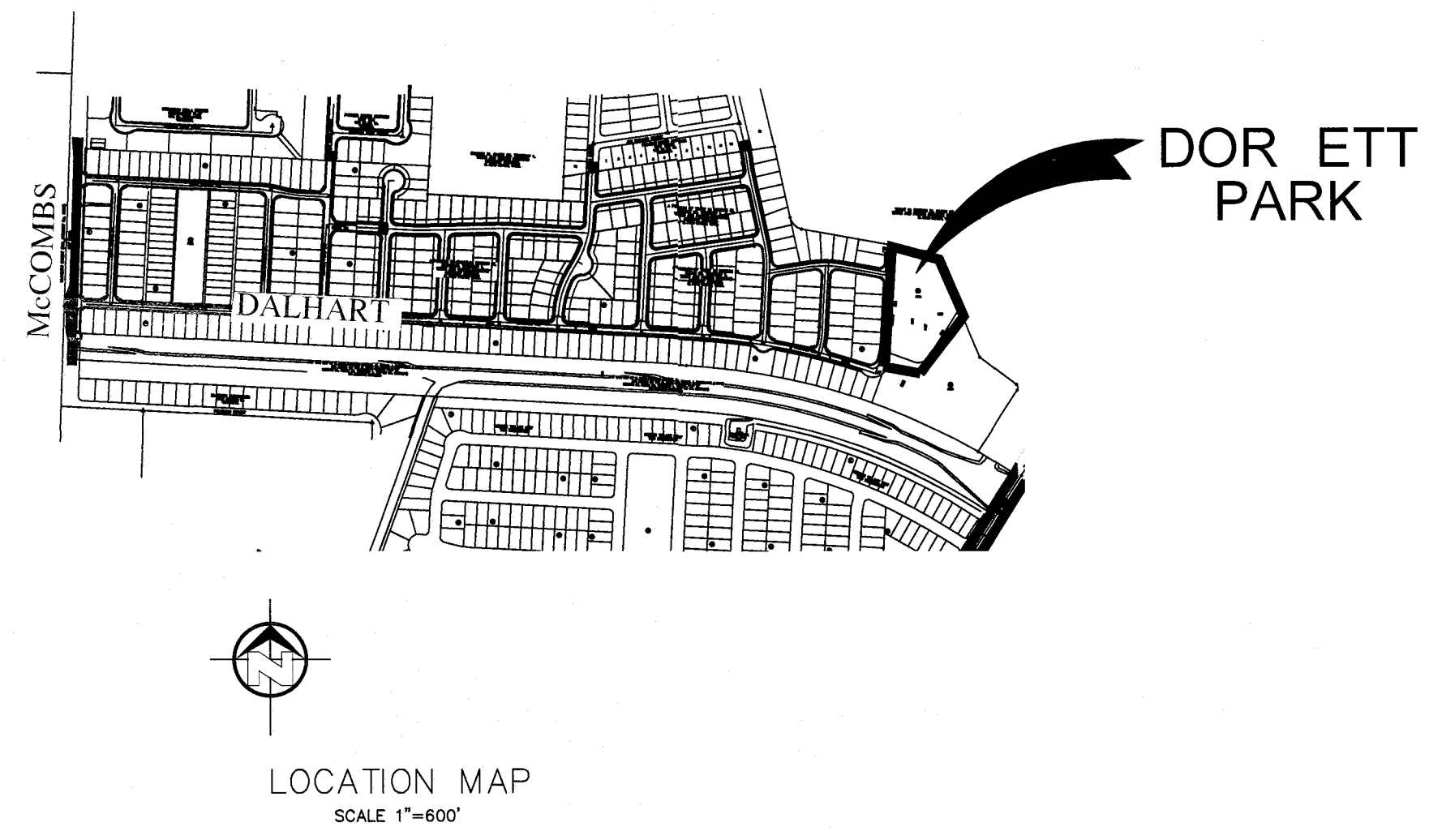
DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.

ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARK'S DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2019.

ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DISENINEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH #TOP SOIL A / SANDY LOAM MATERIAL (BLEND OF 40% SAND, 40% SILT, & 20% CLAY - CAPABLE OF HOLDING MOISTURE) TO INCLUDE ORGANIC MATTER / NUTRIENTS TO A MINIMUM DEPTH OF 12 INCHES.

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

*Karla Chavez*  
SIGNATURE  
*5/18/21*  
DATE



TREES AND OTHER PLANTS DELIVERED TO THE SITE SHALL BE COVERED WITH CANVAS TARP DURING TRANSPORT. PLASTIC TARPS ARE PROHIBITED. TRANSPORT IN ENCLOSED VAN IS ACCEPTABLE BUT PLANTS MUST BE UNLOADED IMMEDIATELY UPON ARRIVAL AT SITE. DO NOT LIFT TREES BY THE TRUNK. LIFT BY CONTAINER.

SHEET INDEX	
L1	SITE MAP, SHEET INDEX, NOTES
L2	PARK PLANTING AND MATERIALS PLAN
L3	PARK IRRIGATION - PIPE SIZING
L4	PLAYGROUND LAYOUT
L5	PARK LAYOUT
L6	CONSTRUCTION DETAILS
L7	CONSTRUCTION DETAILS
L8	IRRIGATION DETAILS
L9	IRRIGATION DETAILS
L10	IRRIGATION DETAILS
L11	SHELTER DETAILS

DATE: REFERENCES - BENCHMARKS

ARCHITECT'S SEAL: LISA MCNEELIS, LANDSCAPE ARCHITECT, 688 STONE CANYON DRIVE, LAS CRUCES, NEW MEXICO 88001, (575) 621-5032

ARCHITECT'S SEAL: PROFESSIONAL ARCHITECT & ENGINEER, STATE OF TEXAS, 1138, 5/5/21

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

DATE: DESIGNED BY: LM, DRAWN BY: LM, CHECKED BY: LM, APPROVED BY: LM, JOB No.:

PROJECT TITLE: DORSETT PARK, 10716 TOMMY DORSETT STREET, LOT 70 BLOCK 8, VILLAS DEL NORTE UNIT 1, CITY OF EL PASO, EL PASO, TEXAS 79928, AREA: 112516 SQ.FT. - 2.58 ACRES

SHEET TITLE: L1, INDEX AND NOTES, SHEET 1 OF 11

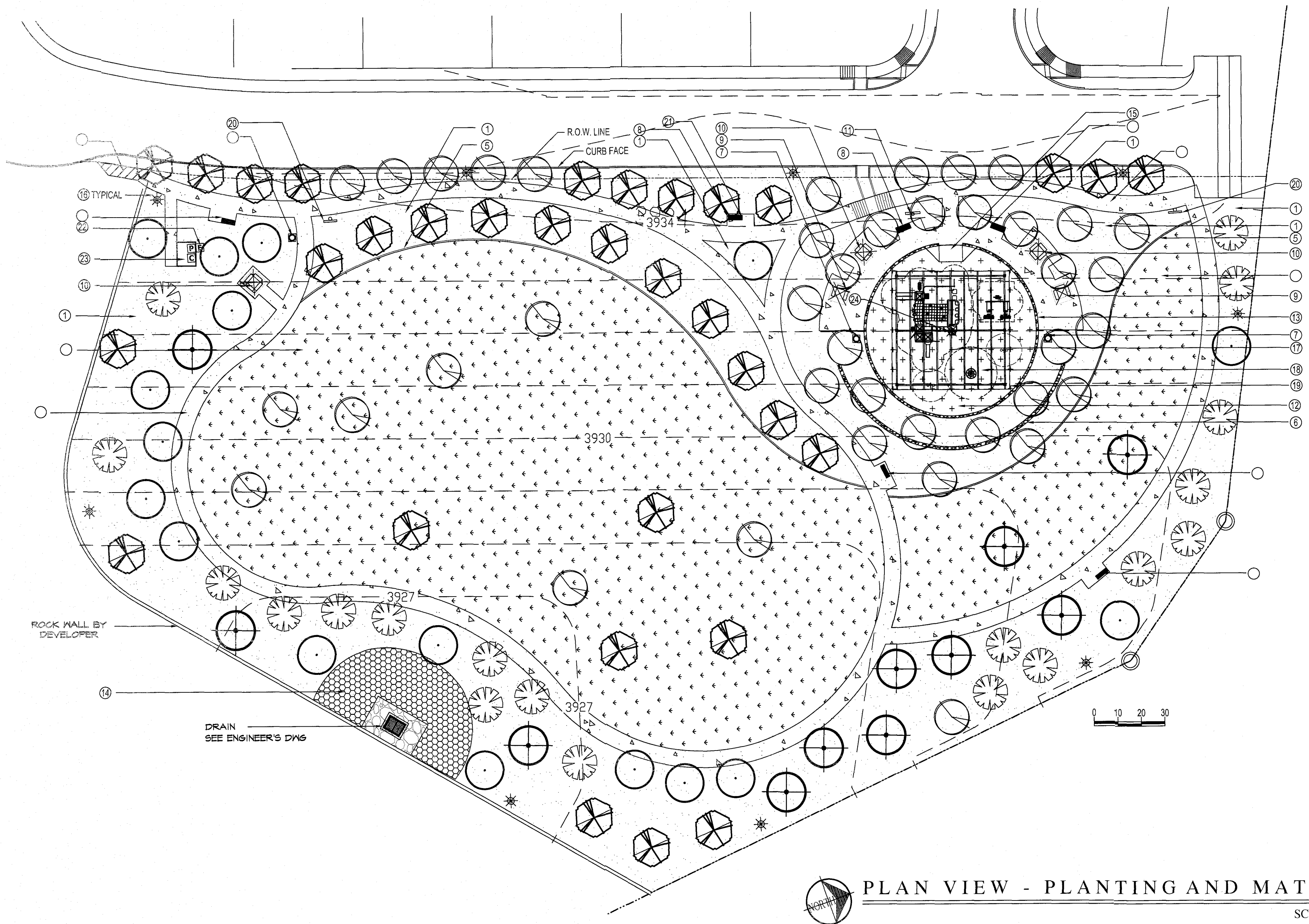


**PARK MATERIAL LEGEND AND DETAIL KEY:**

	1. DESERT TAN GRAVEL, CRUSHER FINES 3" DEPTH 2" BELOW ALL CONCRETE SURFACES, USE REED BARRIER. PROJECT TOTAL [47465 SF] SEE DETAIL (C) ON SHEET L6.
	2. SANTA ANA BERMDUDA GRASS. PROJECT TOTAL [44,226 SF] TOP OF SOG 2" BELOW TOP OF SIDEWALK AND CONCRETE HEADER CURB. SEE DETAIL (C) ON SHEET L6.
	3. PARK CONCRETE WALKWAYS, PATIO, BENCH & TABLE PADS. PROJECT TOTAL [12,193 SF] SEE DETAIL (C) ON SHEET L6.
	4. SUBDIVISION 8'-0" CONCRETE WALKWAY BY DEVELOPER.
	5. 6'x12' CONCRETE HEADER CURB. PROJECT TOTAL [903' LF] SEE DETAIL (E) ON SHEET L6.
	6. 12' ROCK RETAINING WALL - SEE ENGS DRAWINGS FOR MORE INFORMATION.
	7. DUMOR TRASH RECEPTACLE 286-32-PTO PROJECT TOTAL [3] BLUE - INSTALL PER MANUFACTURER'S RECOMMENDATIONS SEE DETAIL (F) ON SHEET L6.
	8. 6'-0" DUMOR 54 SERIES BENCH IN GROUND MOUNT. TOTAL [5] FOREST GREEN. INSTALL PER MANUF. RECOMMENDATIONS FOR ADA BENCH SEE DETAIL (I) ON SHEET L7.
	9. SHADED ACCESSIBLE PICNIC TABLE - PROJECT TOTAL [2] CRS HAWAIIAN 8X8 COVERED TABLE. 3 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (J) ON SHEET L7.
	10. SHADED PICNIC TABLE - PROJECT TOTAL [3] CRS HAWAIIAN 8X8 COVERED TABLE. 4 SEATS. COLORS TO BE APPROVED BY PARKS. SEE DETAIL (J) ON SHEET L7.
	11. PARK INFORMATION SIGN - LOCATION SHALL BE APPROVED BY PARKS DEPT REPRESENTATIVE. PROJECT TOTAL [1] SEE DETAIL (K) ON SHEET L7.
	12. ENGINEERED FIBER WOOD CHIPS. INSTALL PER MANUFACTURER'S SPECIFICATIONS. PROJECT TOTAL [361 SF] PLACE 18" DEPTH OF CHIPS AND COMPACT TO 12" DEPTH.
	13. 18' HT. ROCK WALL. PROJECT TOTAL [290' LF] SEE DETAIL (C) ON SHEET L7.
	14. 4'-6" RIP RAP - 6" DEPTH. PROJECT TOTAL [1800 SF]
	15. ADA ACCESSIBLE PLAYGROUND RAMP AND MAINTENANCE OPENING. SEE DETAIL (L) ON SHEET L7.
	16. AERIAL LIGHTING - 30' HIGH STEEL POLE LED FIXTURES AND LAMPS. MUST COMPLY WITH CITY OF EL PASO MUNICIPAL CODE FOR OUTDOOR LIGHTING SECTION 18.18 SEE ILLUMINATION PLAN IN ENGINEER'S DRAWINGS SET.
	17. PLAY STRUCTURE - LANDSCAPE STRUCTURES VENT AND TOPY TIRRY PLAYBOOSTER COLORS - TANGERINE, PLUM, LIMON, LIMON COLOR PALATTE. MUST BE APPROVED BY PARKS PRIOR TO ORDERING. SEE SHEET L4 FOR MORE INFORMATION.
	18. LANDSCAPE STRUCTURES - BABY SHINGS AND 2 DOUBLE DOBBLES COLORS - TANGERINE, PLUM, LIMON, LIMON COLOR PALATTE. MUST BE APPROVED BY PARKS PRIOR TO ORDERING. SEE SHEET L4 FOR MORE INFORMATION.
	19. CLASSIC RECREATION 'ORLANDO' SHADE STRUCTURE 50 X 50 COLORS - SPECIFIED BY PARKS. FOOTINGS SHALL BE ENGINEERED BY THE MANUFACTURER AND POST HEIGHTS REQUIRED MUST BE APPROVED BY PARKS PRIOR TO ORDERING. ALL DRAWINGS SHALL BE APPROVED BY PARKS PRIOR TO ORDERING. SEE SHEET L4.
	20. SUPERIOR PET WASTE ELIMINATOR STATION - SKIP EB WWW.PETWASTEELIMINATOR.COM [CITY 2] INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE DETAIL (N) ON SHEET L7.
	21. PARK MONUMENT SIGN SEE DETAIL (O) ON SHEET L6.
	22. ELECTRIC METER LOCATED ON PUMP HOUSE
	23. PUMP HOUSE
	24. PLAYGROUND SHELTER LIGHTING LED FIXTURES AND LAMPS. MUST COMPLY WITH CITY OF EL PASO MUNICIPAL CODE FOR OUTDOOR LIGHTING SECTION 18.18.

**PARK SITE NOTES**

- ALL PARK IMPROVEMENTS (SIDEWALKS, RAMPS, ETC.) AND PAVED HIKE/BIKE TRAILS (IF APPLICABLE) ARE TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAG 4 TAG STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.
- UNSATURABLE SOIL CONDITION MITIGATION PER PARKS AND RECREATION STANDARDS  
DEVELOPER / CONTRACTOR SHALL OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) & PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, SOILS CLASSIFICATION, MINERALS AND NUTRIENTS AVAILABILITY, WATER INFILTRATION/PERCOLATION, DETAILED SALINITY, & PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH. COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.  
ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIATED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BY SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS FOR PARK FACILITIES APPROVED ON 01/08/2019.  
[ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT AND/OR DEPARTMENT LIAISON/DISEGNEE ARE TO BE REMOVED, DISPOSED-OFF, AND REPLACED WITH #TOP SOIL A /



**PLAN VIEW - PLANTING AND MATERIALS**  
SCALE: 1" = 30' - 0"

**TREE LEGEND/SCHEDULE PROJECT TOTAL**

SYM	KEY	COMMON NAME	BOTANICAL NAME	CONT.	SIZE	QUANT.	REMARKS
	LET	LACBARK ELM	ULMUS PARVIFOLIA	24'BOX	2" CAL-10HT-6' SPREAD	32	SINGLE-FULL
	PVT	DESERT MUSEUM PALOVERDE	PARKINSONIA X DESERT MUSEUM	24'BOX	2" CAL-10HT-6' SPREAD	11	SINGLE TRUNK-FULL
	NET	HONEY MESQUITE	PROSOPIS GLANDULOSA	24'BOX	2" CAL-10HT-6' SPREAD	11	SINGLE TRUNK - FULL
	GET	CHINESE PISTACHE	PISTACIA CHINENSIS	24'BOX	2" CAL-10HT-6' SPREAD	23	SINGLE TRUNK - FULL
	DWT	DESERT WILLOW	CHAILOPSIS LINEARIS	24'BOX	2" CAL-10HT-6' SPREAD	19	SINGLE TRUNK - FULL

**TREE NOTES:**  
MINIMUM BRANCHING CLEARANCE IS 7' OVER SIDEWALK  
DO NOT SELECT TREES WITH LOW FORK BRANCHING PATTERN. PRUNING TO MEET CLEARANCE REQUIREMENTS WILL DESTROY FORM OF TREES WITH THAT GROWTH HABIT.  
MINIMUM HEIGHT 10'. CALIPER IS MEASURED AT 6" ABOVE TOP ROOT.

**APPROVED FOR CONSTRUCTION**  
Parks & Recreation Department Planning  
  
Karla Chavez  
SIGNATURE  
5/18/21  
DATE

PLANS MUST BE SUBMITTED TO TEXAS DEPT OF LICENSING AND REGULATION FOR COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS. #TAB52021010554

REVISIONS	DATE
<p>LISA MCNELIS LANDSCAPE ARCHITECT 688 STONE CANYON DRIVE PASADENA, TEXAS 75068 (972) 621-9052</p>	
ARCHITECT'S SEAL	 5/5/21
SCALE	Horizontal: N/A Vertical: N/A Contour Interval: N/A DATE: LM DESIGN BY: LM DRAWN BY: LM CHKD. BY: LM APPVD. BY: LM JOB NO.
PROJECT TITLE	<b>DORSETT PARK</b> 10716 TOMMY DORSETT STREET LOT 70 BLOCK 8 VILLAS DEL NORTE UNIT 1 CITY OF EL PASO, TEXAS 79928 AREA: 11,2516 SQ.FT. - 2.58 ACRES
SHEET TITLE	<b>L2</b> PARK PLANTING AND MATERIALS
SHEET 2 OF 11	



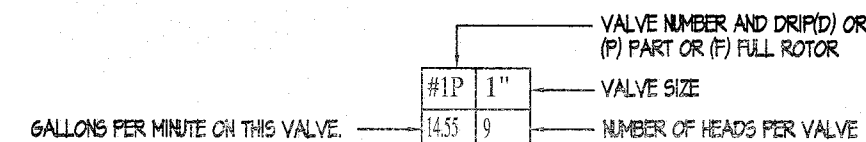
WATERING SCHEDULE 3 TIMES PER WEEK																				
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTINGS	SCHEDULE														
						1	2	3	4	5	6	7	8	9						
1F	X	146 MIN	X	X	12:00 AM	X	X	X												
2D	X	240 MIN	X	X	12:00 AM	X	X	X												
3P	X	79 MIN	X	X	12:35 AM	X	X	X												
4P	X	79 MIN	X	X	1:06 AM	X	X	X												
5F	X	146 MIN	X	X	2:11 AM	X	X	X												
6P	X	79 MIN	X	X	12:00 AM	X	X	X												
7P	X	79 MIN	X	X	2:44 AM	X	X	X												
8P	X	79 MIN	X	X	2:44 AM	X	X	X												
9D	X	240 MIN	X	X	9:11 AM	X	X	X												
10P	X	79 MIN	X	X	9:11 AM	X	X	X												
TOTAL RUN TIME PER DAY OF OPERATION - DRIP		80 MIN			1:39 HOURS															
TOTAL RUN TIME PER DAY OF OPERATION - ROTORS		246 MIN			4:18 HOURS															
TOTAL RUN TIME PER WEEK - ROTORS		190 MIN			3:16 HOURS															

WATERING SCHEDULE 4 TIMES PER WEEK																				
STATION #	VALVE COMBINATION	RUN TIME PER WEEK	WATERING DAYS	DURATION	CLOCK SETTINGS	SCHEDULE														
						1	2	3	4	5	6	7	8	9						
1F	X	146 MIN	X	X	12:00 AM	X	X	X												
2D	X	240 MIN	X	X	12:00 AM	X	X	X												
3P	X	79 MIN	X	X	12:35 AM	X	X	X												
4P	X	79 MIN	X	X	1:06 AM	X	X	X												
5F	X	146 MIN	X	X	2:11 AM	X	X	X												
6P	X	79 MIN	X	X	12:00 AM	X	X	X												
7P	X	79 MIN	X	X	2:44 AM	X	X	X												
8P	X	79 MIN	X	X	2:44 AM	X	X	X												
9D	X	240 MIN	X	X	9:11 AM	X	X	X												
10P	X	79 MIN	X	X	9:11 AM	X	X	X												
TOTAL RUN TIME PER DAY OF OPERATION - DRIP		80 MIN			1:40 HOURS															
TOTAL RUN TIME PER DAY OF OPERATION - ROTORS		198 MIN			3:38 HOURS															
TOTAL RUN TIME PER WEEK - ROTORS		190 MIN			3:16 HOURS															

**IRRIGATION NOTES**

- IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMPLISHING FULL COVERAGE IN ALL AREAS WITH SPECIFIED EQUIPMENT. ANY DISCREPANCIES IN THE PLAN SHOULD BE BROUGHT TO THE PROJECT MANAGER'S ATTENTION DURING CONSTRUCTION.
- ALL FITTINGS AND NECESSARY EQUIPMENT REQUIRED TO MAKE THIS IRRIGATION SYSTEM OPERATE PROPERLY AND TO COMPLY WITH LOCAL AND STATE CODES ARE INCIDENTAL TO THESE PLANS AND ARE THE CONTRACTOR'S RESPONSIBILITY.
- CONTRACTOR WILL BE HELD LIABLE FOR GAINING ACCESS UNDER ALL PAVEMENTS.
- SLEEVES SHOWN ON THE PLANS SHOULD BE VERIFIED FOR ACCESSIBILITY AND FEASIBILITY BEFORE BID IS MADE.
- THE CONTRACTOR SHALL LOCATE AND VERIFY EACH WATER TAP TO WHICH THE IRRIGATION SYSTEM WILL CONNECT. ALL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH THE STANDARDS OF THE CITY OF EL PASO AND THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS AND VALVES REQUIRED FOR THE FULL IMPLEMENTATION OF THE SYSTEM.
- THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO INITIATING WORK.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR INTERRUPTION IN SERVICE CAUSED BY HIS EXCAVATIONS AND/OR WORK.
- EACH CONTROLLER WILL HAVE AN INDEPENDENT COMMON WIRE LOOPED TO THE VALVES CONNECTED TO IT.
- REMOTE CONTROL VALVE WIRES ARE TO BE IN A SEPARATE TRENCH 5' FROM MAIN LINE ON NORTH OR WEST SIDE OF MAINLINE.
- ALL REMOTE CONTROL VALVE WIRES NEED TO BE LABELED AT VALVE W/ WEATHER (WATER) PROOF LABELS AND AT CONTROLLER WITH CORRESPONDING LABEL. (LETTER AND/OR NUMBER TAGS IN SEQUENTIAL ORDER WILL BE PROVIDED).
- SPLICING OF REMOTE CONTROL VALVE WIRES IS NOT ALLOWED BETWEEN CONTROLLER & VALVE BOX FOR WIRES MUST BE CONTINUOUS FROM CONTROLLER TO REMOTE CONTROL VALVE WITHOUT SPLICES.
- ALL ROTOR SPRINKLER HEADS SHALL BE ON STAINLESS STEEL RISERS WITH CHECK VALVE.
- CONTRACTOR SHALL PROVIDE SLEEVES FOR NEW IRRIGATION LINES CROSSING UNDER CONCRETE SIDEWALKS. SLEEVES SHALL BE 2 TIMES THE PIPE SIZE EXTENDED 24" BEYOND EDGE OF SURFACE, BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HEAVY DUTY PLASTIC.

NOTE:  
FOR FINAL ACCEPTANCE, THE IRRIGATION SYSTEM MUST DEMONSTRATE IT CAN COMMUNICATE WITH, AND BE OPERATED BY THE PARK'S MAXICOM CENTRAL CONTROL COMPUTER SUPPORTING UTILITY INFRASTRUCTURE FOR THIS MUST BE INSTALLED. (MASTER VALVE; CELL SERVICE/DATA MODULE; PRESSURE REGULATOR; FLOW SENSOR; MOISTURE SENSOR; RAIN CAN IC-ID; ECT) (CCU IF REQUIRED)



**MATERIAL LEGEND FOR PARK:**

- PRESSURE MAIN, PVC SCHEDULE 40, DEPTH 24" TO TOP OF PIPE. SEE DETAIL 1 ON L.B.
- LATERAL FOR SPRAY PVC CLASS 200, DEPTH 16", TO TOP OF PIPE. SEE DETAIL 1 ON L.B.
- LATERAL FOR DRIP PVC CLASS 200, DEPTH 16", TO TOP OF PIPE. SEE DETAIL 1 ON L.B.
- 5/8" 40 SLEEVING UNDER ALL PAVED AREAS WHERE LINES ARE RUN. SLEEVES SHALL EXTEND 12" PAST PAVING. GASES, 1" MARK IN CONCRETE CURB OR WALK TO LOCATE SLEEVE AT EACH SIDE. SIZE 2X DIA. OF PIPE TO BE SLEEVED. SEE #10 UNDER GENERAL IRRIGATION NOTES ON L.I.
- CONCENTRIC REDUCER - SET 20' FROM JUNCTION IN LOOPED MAIN.
- 2 WIRE SYSTEM, WIRES SHALL BE LOCATED IN THE SAME TRENCH AS THE MAIN AND PLACED 6" BELOW THE PIPE. SEE DETAIL 1 ON L.B.
- DRIP EMITTER FOR TREES: RAINBIRD XER-3RD XSD-80 WITH FILTER AND IN STEM PRESSURE REGULATOR. USE 9 XSD-20PC EMITTERS PER TREE. 21 GPM SET IN EMITTER VALVE BOX. SEE DETAILS 2, AND 3 ON L.B.
- DRIP EMITTER FOR PLANTS: RAINBIRD XER-3RD XSD-80 WITH FILTER AND IN STEM PRESSURE REGULATOR. USE 1 XSD-20PC EMITTER PER PLANT. SET IN EMITTER VALVE BOX. DO NOT EXCEED 20' OF HEAD. SEE DETAIL 2 ON L.B.
- RAINBIRD FALCON 6504 MODEL P4-PC 55-16 1/4 NOZZLE. FULL CIRCLE 40 PSI 55' RADIUS. 11.3 GPM 565 MANU. PRECIPITATE. STAINLESS STEEL RISER. SEE DETAIL 7 ON L.B.
- RAINBIRD FALCON 6504 MODEL P4-PC 55-16 1/4 NOZZLE. PART CIRCLE 40 PSI 55' RADIUS. 11.3 GPM 12 MANU. PRECIPITATE. STAINLESS STEEL RISER. SEE DETAIL 7 ON L.B.
- ELECTRIC REMOTE VALVE FOR SPRAY: WEATHERMATIC 8200CR-10 WITH XTR SIZE ON PLAN. IN LOCKING VALVE BOX. SEE DETAILS 5 AND 6 ON SHEET L.B.
- ELECTRIC REMOTE VALVE FOR DRIP: WEATHERMATIC 8200CR-10 WITH XTR SIZE ON PLAN. IN LOCKING VALVE BOX. SEE DETAILS 5 ON L.B. AND 11 ON SHEET L.B.
- ELECTRIC MASTER REMOTE VALVE: WEATHERMATIC 2-1/2" 8200CR-10. SEE DETAIL 5 AND 6 ON L.B.
- ISOLATION GATE VALVE IN LOCKING VALVE BOX. USE STANDARD VALVE BOX DETAILS. SEE DETAIL 9 ON L.B.
- ORCA COUPLER - 1/2" DOUBLE END. DOUBLE END WITH FACTORY ASSEMBLED LASSO SPRING. 1" DOUBLE END BRASS STABILIZER FITTING. TO BE SET IN CARSON MODEL 1414 VALVE BOX WITH PURPLE FLAT LID AND VANDAL PROOF BOLT. SHALL HAVE WEATHER PROOF TAG THAT READS "NON-POTABLE WATER, NOT SAFE FOR DRINKING." SEE DETAIL 12 ON L.B.
- RAIN GAV INTEGRATED CONTROL SENSOR INPT DEVICE MOUNTED ON POLE. SEE DETAIL 14 ON L.B.
- 2" METER LOCATION ON THIS PLAN IS APPROXIMATE. FLOW: 120 GPM - STATIC PRESSURE: 94 PSI
- BACKFLOW: FERCO REDUCED PRESSURE 2" MUST MEET LOCAL CODES CITY OF EL PASO PARKS DEPT. REQUIREMENTS. PLACE IN TYPED BRASS ENCLOSURE. FOLLOW LOCAL AND STATE CODE REQUIREMENTS. SEE DETAIL 15 ON L.B.
- BERKELEY B3.5EM 3 HP MINIMUM PUMP. VERIFY WITH MANUFACTURER PRIOR TO ORDERING. HOUSED IN 8" X 12" TYPED BRAND PRIMER SERIES ENCLOSURE. INSTALL TO MEET LOCAL CODES AND CITY OF EL PASO REQUIREMENTS. LOCATION APPROVED BY CITY OF EL PASO PARKS AND REC DEPARTMENT. SEE DETAILS 11 - 20 ON L.B.
- ALL COMPONENTS TO BE SET IN VALVE BOXES MUST CONFORM TO STANDARD INSTALLATION. SEE DETAIL 4 ON L.B.
- ELECTRIC METER
- RAINBIRD ESP-122 CONTROLLER MAXICOM COMPATIBLE - BASIC MODULE. SEE DETAIL 10 ON L.B. AND DETAIL 21 ON L.B.
- ADD MILKINS PRESSURE REGULATOR IF PSI IS 45 OR GREATER DOWNSTREAM OF BACKFLOW

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Signature: *Karla Chavez*  
DATE: 5/18/21

**PERFORMANCE STATISTICS**

THE FOLLOWING PERFORMANCE STATISTICS WERE CALCULATED PER PLAN CHANGES IN OPERATING PRESSURE, HEAD SPACING AND OR NOZZLE SELECTION WILL EFFECT RESULTS.

VALVES #1F, AND #2F	11.3 x 146.25 = 1651.875	= 41 YR FULL CIRCLE HEADS
(55 x 40)	2640	RUN TIME FOR 1 YR = 146 MINUTES PER WEEK
VALVES #3P, 4P, 6P, 7P, 8P, AND #10P	11.3 x 146.25 = 1651.875	= 41 X 2 = 82 YR PART CIRCLE HEADS
(55 x 40)	2640	RUN TIME FOR 1 YR = 79 MINUTES PER WEEK

STATIC PRESSURE - 94 PSI

**PRESSURE LOSS CALCULATIONS**

VALVE #7P	Length of Pipe (Feet)	Flow (Gal.)	Size (in.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss	
CLASS 200	48	11.3	1"	1.93	0.9504	0.9504	
CLASS 200	49	22.6	1 1/4	2.26	1.1074	2.0578	
CLASS 200	36	33.9	1 1/2	2.33	0.8388	2.8966	
CLASS 200	9	45.2	2	1.51	0.1359	1.0863	
CLASS 200	36	56.5	2 1/2	0.83	0.2988	2.3566	
CLASS 200	21	67.8	2 1/2	1.1	0.2310	3.1276	
Section Pressure Losses (Sub-Total)							3.1276
Remaining Pressure Losses							
Item	Size (in.)	Pressure Loss Per 100 Ft.	Pressure Loss This Item	Accumulated Pressure Loss			
Section Valve	67.8	2	2.6000	5.7276			
Mainline SCH40	136	67.8	2.5	1.9448	7.6724		
	212	34	2	0.94	1.9928	9.6652	
	114	67.8	2.5	1.43	1.6302	11.2954	
Backflow			2	13.0000	24.2954		
Water Meter			2	3.7000	27.9954		
Copper Supply	66	67.8	2	4.76	3.1814	31.1568	
Total Pressure Loss to the City Main					31.1568		
Minimum Required Head Pressure					40.0000	40.0000	
STATIC Pressure					94.0000		
Design Pressure: 94 + 25					119.0000		
Actual Head Pressure					87.8432		

FIRE HYDRANT #4558 LOCATED ON ELISE (ACROSS 10783)  
STATIC 94 PSI 1244 GPM

**PENTAIR BERKELEY** Pentair Electronic Catalog

**Pump Performance Datasheet**

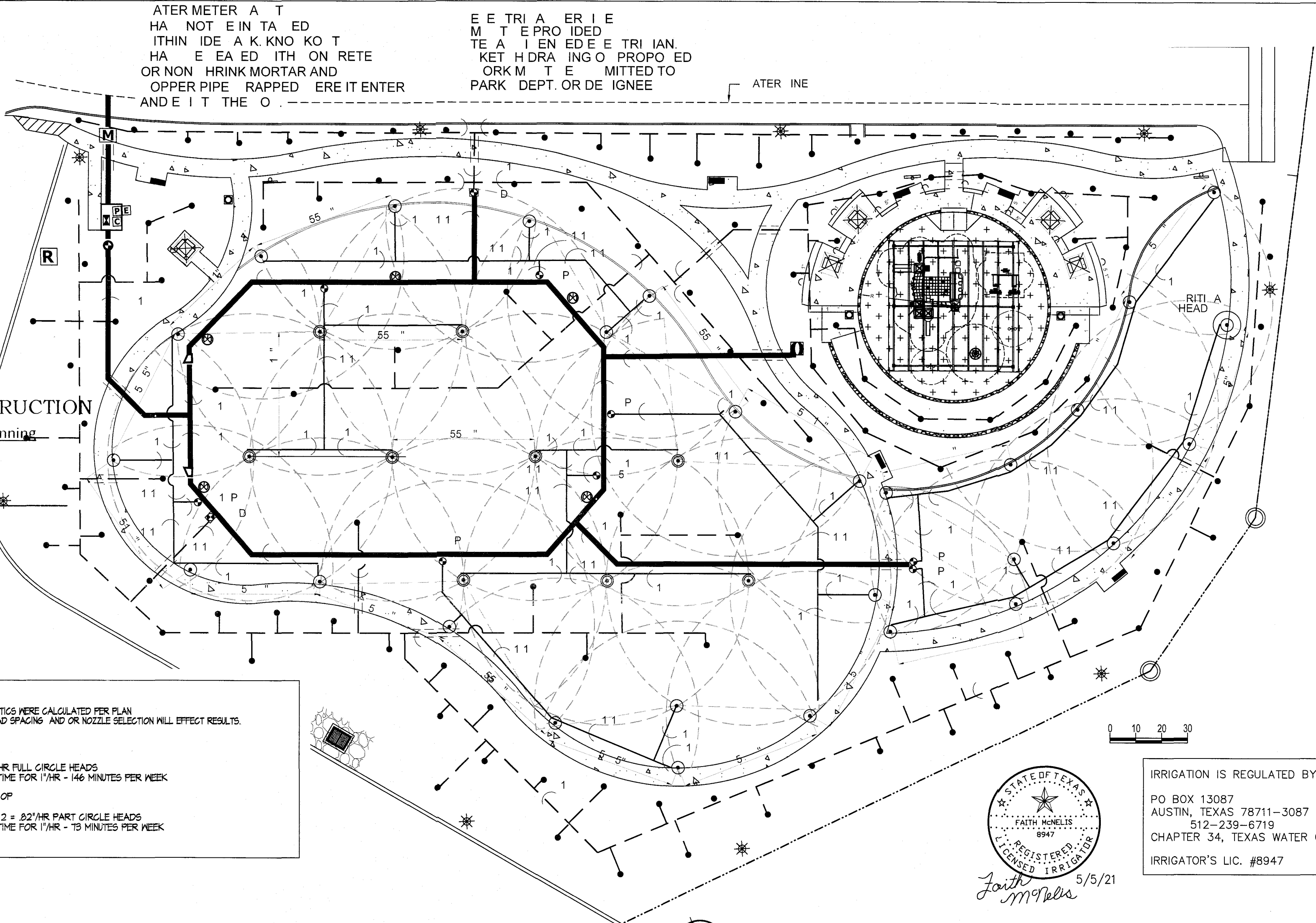
Customer	Quote number	
Customer reference	Size	B3JBM
Item number	Stages	1
Service	Based on curve number	B3J_BM
Quantity	Basic model number	
	Date last saved	18 Mar 2021 3:12 PM

**Operating Conditions**

Flow, rated	68.00 USgpm	Liquid type	--Water
Differential head / pressure, rated (requested)	25.00 psi	Additional liquid description	
Differential head / pressure, rated (actual)	25.02 psi	Solids diameter, max	0.00 in
Suction pressure, rated / max	-0.00 / 0.00 psi g	Solids concentration, by volume	0.00 %
NPSH available, rated	-	Temperature, max	68.00 deg F
Site Supply Frequency	60 Hz	Fluid density, rated / max	1.000 / 1.000 SG
		Viscosity, rated	1.00 cP
		Vapor pressure, rated	0.00 psia

**Performance**

Speed criteria	Variable frequency	Material	Cast iron-bronze lined
Speed, rated	981 rpm	Material selected	Cast iron-bronze lined
Impeller diameter, rated	13.13 in	Maximum working pressure	25.07 psi g
Impeller diameter, maximum	13.13 in	Maximum allowable working pressure	- psi g
Impeller diameter, minimum	9.57 in	Maximum allowable suction pressure	N/A
Efficiency	35.62 %	Hydrostatic test pressure	N/A
PEI (CL)	- / 0.00 ft	Driver's Power Data @ Max density	
NPSH required / margin required	- / 0.00 ft	Head, maximum, rated diameter	25.07 psi
Ns (imp. eye flow) / Nss (imp. eye flow)	1.086 / 5.769 US Units	Margin over specification	0.00 %
MCSF		Service factor	1.00
Head, maximum, rated diameter	25.07 psi	Power, hydraulic	0.99 hp
Head rise to shutoff	-2.31 ft	Power, rated	2.79 hp
Flow, best eff. point	415.5 USgpm	Power, maximum, rated diameter	7.75 hp
Flow ratio, rated / BEP	16.37 %	Minimum recommended motor rating	3.00 hp / 2.24 kW
Diameter ratio (rated / max)	100.00 %		
Head ratio (rated dia / max dia)	100.00 %		
CapChOCn (ANSI/ISO 9.6.7-2010)	1.00 / 1.00 / 1.00 / 1.00		
Selection status	Acceptable		



**PLAN VIEW - IRRIGATION**

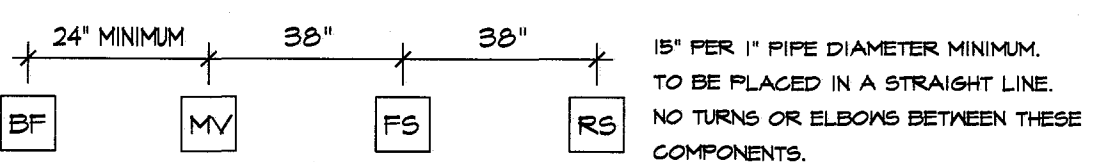
THIS PLAN IS A SCHEMATIC AND DOES NOT SHOW EXACT LOCATION OR LENGTH OF PIPE.

**PRECIPITATION SCHEDULE**

VALVE #	VALVE SIZE	TOTAL GPM	RAINBIRD PRECIP. RATE	CALCULATED PRECIP. RATE	WATER REQUIREMENT	NOZZLE SIZE	# & TYPE OF HEADS	GPM PER HEAD	RUN TIME PER WEEK
1F	1 1/2"	45.2	.36 IN/HR	.41 IN/HR	1"/WEEK	#4	4 FULL	11.3	146 MIN
2D	1"	12.64	DRIP	N/A	N/A	2 GPM	41 EMITTERS	27	240 MIN
3P	2"	56.5	.74 IN/HR	.82 IN/HR	1"/WEEK	#4	5 PART	11.3	79 MIN
4P	1 1/2"	45.2	.74 IN/HR	.82 IN/HR	1"/WEEK	#4	4 PART	11.3	79 MIN
5F	2"	56.5	.36 IN/HR	.41 IN/HR	1"/WEEK	#4	5 FULL	11.3	146 MIN
6P	2"	56.5	DRIP	.82 IN/HR	1"/WEEK	#4	5 PART	11.3	79 MIN
7P	2"	67.8	.74 IN/HR	.82 IN/HR	1"/WEEK	#4	6 PART	11.3	79 MIN
8P	1 1/2"	45.2	.74 IN/HR	.82 IN/HR	1"/WEEK	#4	4 PART	11.3	79 MIN
9D	1"	12.64	DRIP	N/A	N/A	2 GPM	41 EMITTERS	27	240 MIN
10P	1 1/2"	45.2	.74 IN/HR	.82 IN/HR	1"/WEEK	#4	4 PART	11.3	79 MIN

**WATER AUDIT**

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN IRRIGATION SYSTEM WATER AUDIT AFTER INSTALLATION IS COMPLETE.
- AUDIT MUST BE PERFORMED BY A TEXAS CERTIFIED IRRIGATION WATER AUDITOR.
- WATER AUDIT MUST BE PERFORMED IN ACCORDANCE TO THE EL PASO PARKS AND RECREATION DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES.



MINIMUM DISTANCE NEEDED TO AVOID INTERFERENCE BETWEEN COMPONENTS. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

MAXICOM/IC CONTROL SYSTEM COMPONENTS SEQUENCE AND SPACING NOT TO SCALE

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE: 1" = 30' - 0"

PROJECT TITLE: **DORSETT PARK**  
10716 TOMMY DORSETT STREET  
LOT 70 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 112516 SQ.FT. - 2.58 ACRES

DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPROV. BY: LM  
JOB NO.

FAITH McNELIS  
REGISTERED IRRIGATOR  
5/5/21

IRRIGATOR'S LIC. #8947

IRRIGATION IS REGULATED BY: TCEQ  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
512-239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947

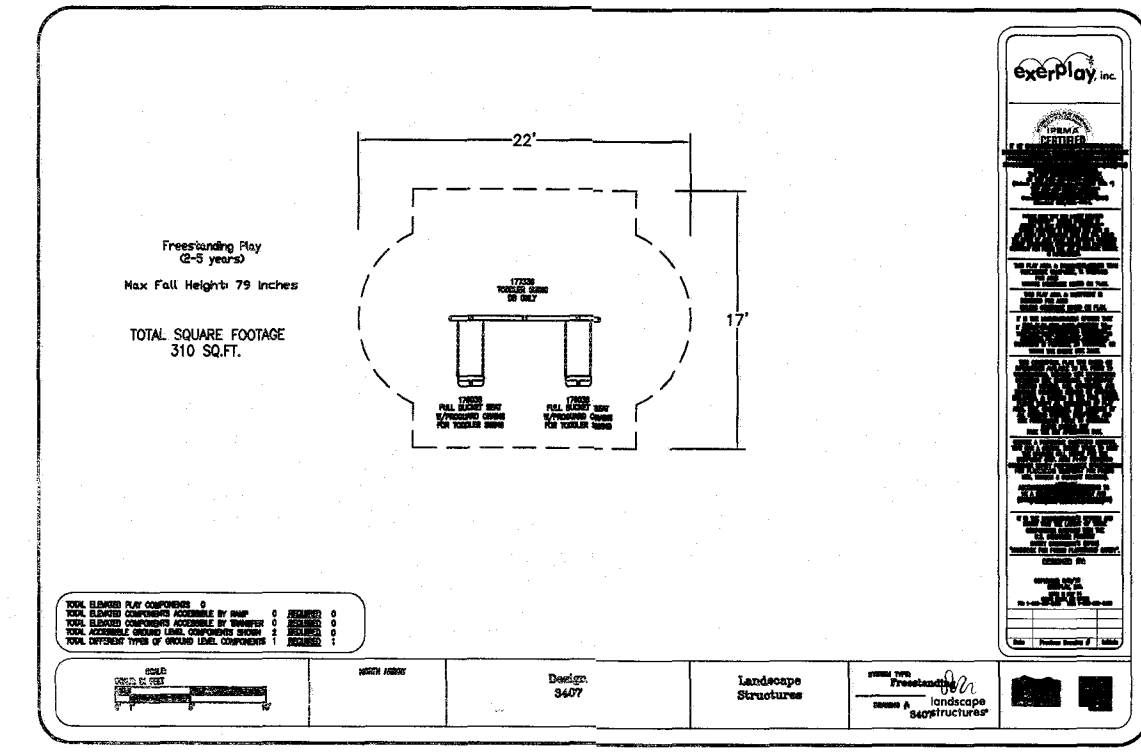
FAITH McNELIS  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-5052

SHEET TITLE: **L3**  
IRRIGATION PLAN  
SHEET 3 OF 11

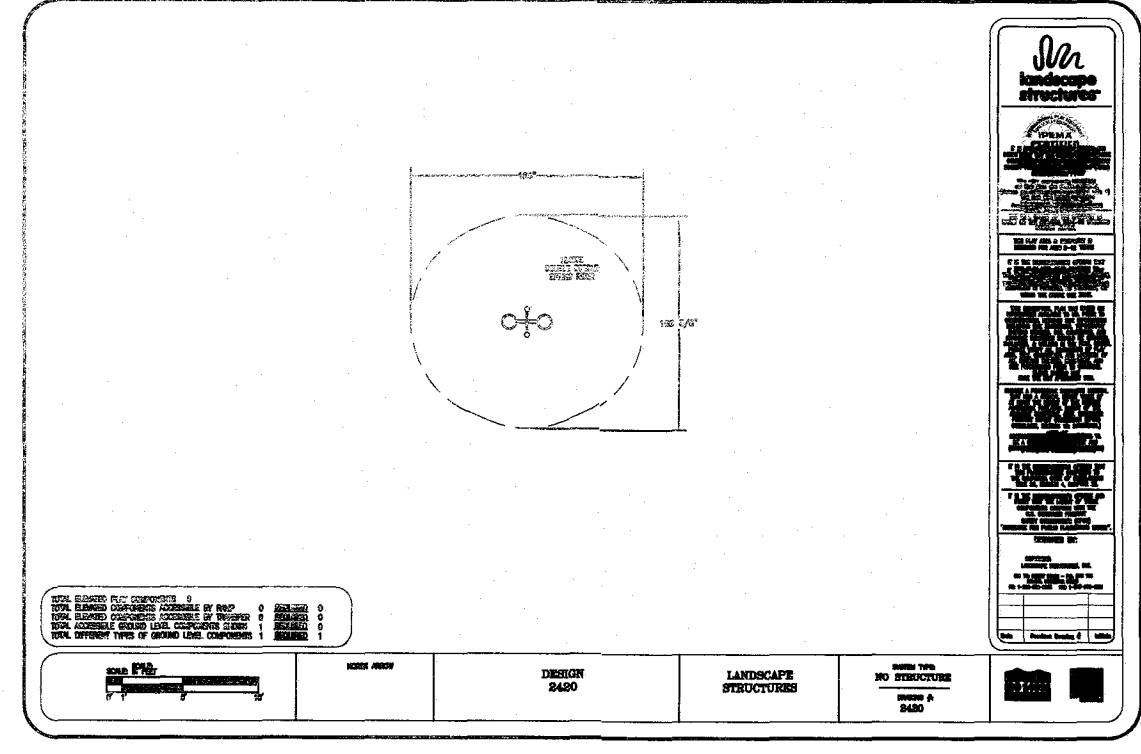


**PLAYGROUND & SWING EQUIPMENT NOTES**

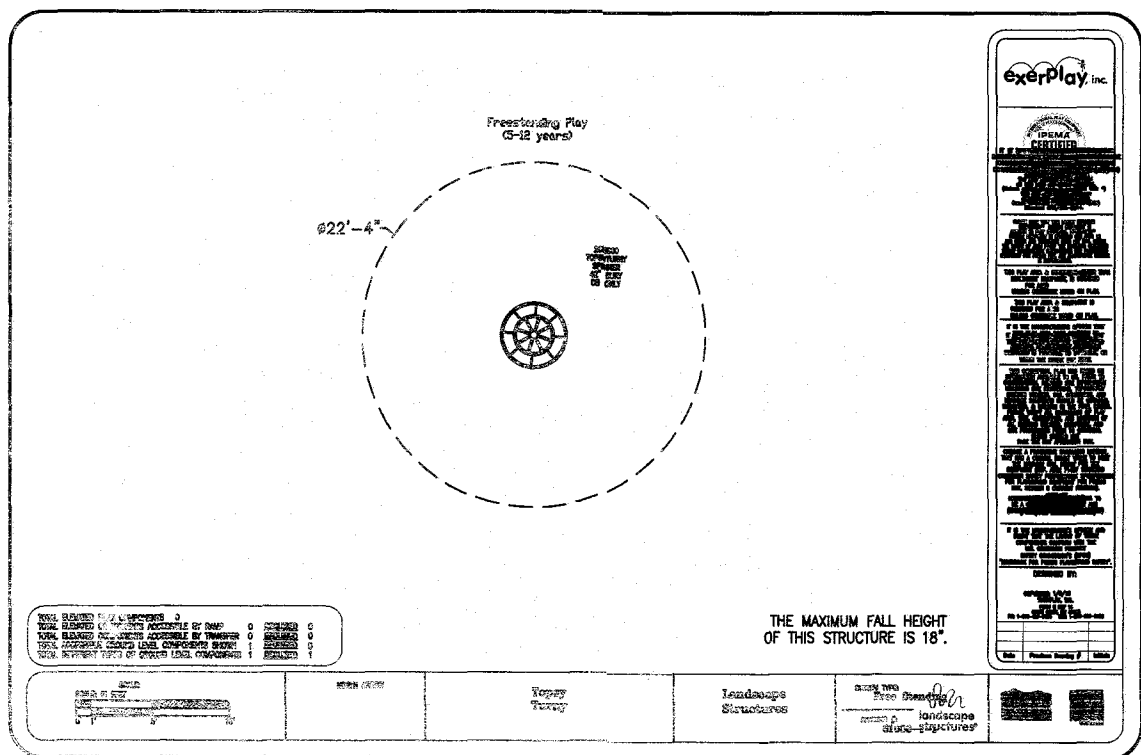
1. EQUIPMENT AND COMPONENTS TO BE IFEMA CERTIFIED.
2. EQUIPMENT MANUFACTURER TO COMPLY WITH ISO 9001.
3. EQUIPMENT MANUFACTURER TO PROVIDE CLEAR INSTALLATION MANUAL AND PROJECT LAYOUT AT THE COMPLETION OF PROJECT HARD COPY.
4. EQUIPMENT AND FALL SURFACING MUST COMPLY WITH CURRENT STANDARDS AND GUIDELINES.
5. EQUIPMENT TO CALLED OUT WITH LENGTHS FOR OVERHEAD ACTIVITIES, SPACING BETWEEN RAILS FOR CURLY CLIMBERS, TRACK RIDES, ETC.
6. EQUIPMENT TO HAVE SAFETY TOP RAIL WITH A MINIMUM OF 12 INCHES AT CLIMBING OR SLIDING ELEMENTS.
7. EQUIPMENT MANUFACTURER SALES REPRESENTATIVE TO BE NFPSI CERTIFIED.
8. EQUIPMENT INSTALLATION TO BE INSPECTED AND CERTIFIED FOR PROPER ASSEMBLY BY MANUFACTURER REPRESENTATIVE NFPSI CERTIFIED.
9. EQUIPMENT MUST BE SUPERSEDED BY SUBMITTAL PACKETS THAT HAVE THE FOLLOWING INFORMATION FOR REVIEW AND RELEASE BY PROJECT DESIGNER AND PARK AND RECREATION STAFF:
  - a. PROJECT SITE PLAN REFLECTING CONSTRUCTION DRAWINGS OR ACTUAL FIELD CONDITIONS.
  - b. SITE PLAN WITH CONSTRUCTION POINTS.
  - c. SITE PLAN WITH DIMENSIONS FOR ALL USE ZONES AND BETWEEN INDEPENDENT PIECES OF EQUIPMENT.
  - d. LOCATION OF CONTAINMENT WALL OR CURB.
  - e. LOCATION, LIMITS AND DIMENSIONS OF ACCESSIBLE PATH OF TRAVEL.
  - f. LOCATION OF ANY SHADE CANOPIES AS APPLICABLE.
  - g. EQUIPMENT COLOR SELECTION CHART.
  - h. EQUIPMENT INFORMATION INCLUDING INSTALLATION.
10. MANUFACTURER TO PROVIDE A SEALED MAINTENANCE KIT TO INCLUDE: TOOL BOX, SAND PAPER, OWNER'S MANUAL, HARDWARE (20 PIECES EACH MINIMUM) ASSORTED SIZES OF VANDAL PROOF NUTS, BOLTS, WASHERS, FASTENING TOOLS (ONE EACH SIZE - WRENCH AND CHUCK KEYS), 4GANS OF PRIMER, 2 GANS OF EACH COLOR OF TOUCH-UP PAINT, PLASTIC REPAIR KIT, ANTI-GRAFFITI REMOVER.
11. EQUIPMENT INSTALLATION TO BE PERFORMED BY CONTRACTOR MEETING THE FOLLOWING REQUIREMENTS AND b. ARE INSTALLATION EXPERIENCE REQUIREMENTS THAT MUST BE MET, c. AND d. ARE OPTIONAL REQUIREMENTS THAT MAY BE SUBSTITUTED FOR EITHER a. OR b.).
  - a. MINIMUM 8 YEARS EXPERIENCE INSTALLING SAME EQUIPMENT.
  - b. COMPLETE GOOD QUALITY INSTALLATION OF A MINIMUM OF 20 STRUCTURES OF SAME OR SIMILAR SIZE.
  - c. TRAINING AND CERTIFICATION BY EQUIPMENT MANUFACTURER.
  - d. NFPSI CERTIFICATION.
12. EQUIPMENT AND FALL SURFACES TO BE AUDITED AND TESTED BY AN INDEPENDENT EQUIPMENT INVENTORY, AND PLAN VIEW WITH DIMENSIONS OF PLAYGROUND IMPROVEMENTS, EQUIPMENT MANUFACTURER, AND FALL SURFACES MANUFACTURER WITH TOLL FREE NUMBERS. ANY ITEMS FOUND DEFICIENT IN AUDIT MUST BE CORRECTED AND A RE-AUDIT OF CORRECTED ITEM TO INSURE THAT ALL DEFICIENT ITEMS ARE ADDRESSED.
13. PLAYGROUND AREA TO BE FENCED AND PROPERLY SECURED THROUGHOUT, COURSE OF CONSTRUCTION AND UP TO ACCEPTANCE OF PROJECT.
14. EQUIPMENT TO HAVE MINIMUM 12" SAFETY USE FALL ZONE ASTM A487-II.
15. CONSTRUCTION WORK ON PLAYGROUND AREA WILL NOT COMMENCE UNTIL ALL MATERIALS AND SUPPLIES ARE IN POSSESSION OF CONTRACTORS.
16. CONTRACTOR WILL INSURE THAT WORK PROGRESS WILL BE ONGOING AND JOB SITE WILL NOT BE LEFT ABANDONED FOR ANY TIME PERIOD GREATER THAN 48 HOURS.
17. CONTRACTOR WILL INSURE THAT JOB SITE IS KEPT CLEAN AND CLEAR OF ANY CONSTRUCTION DEBRIS ON A DAILY BASIS.
18. CUSTOM SIGN TO BE FURNISHED BY PLAYGROUND MANUFACTURER WITH INFORMATION ON AGE APPROPRIATE USE, ADULT SUPERVISION RECOMMENDED, MANUFACTURER'S NAME AND 1-800 PHONE NUMBER, CITY OF EL PASO MAINTENANCE PHONE NUMBER OF (915) 621-6141 AND "WARNING" INSTALLATION OVER HARD SURFACE NOTICE. THE SPECIFIC VERBIAGE CAN BE WORKED OUT DURING PROJECT CONSTRUCTION.



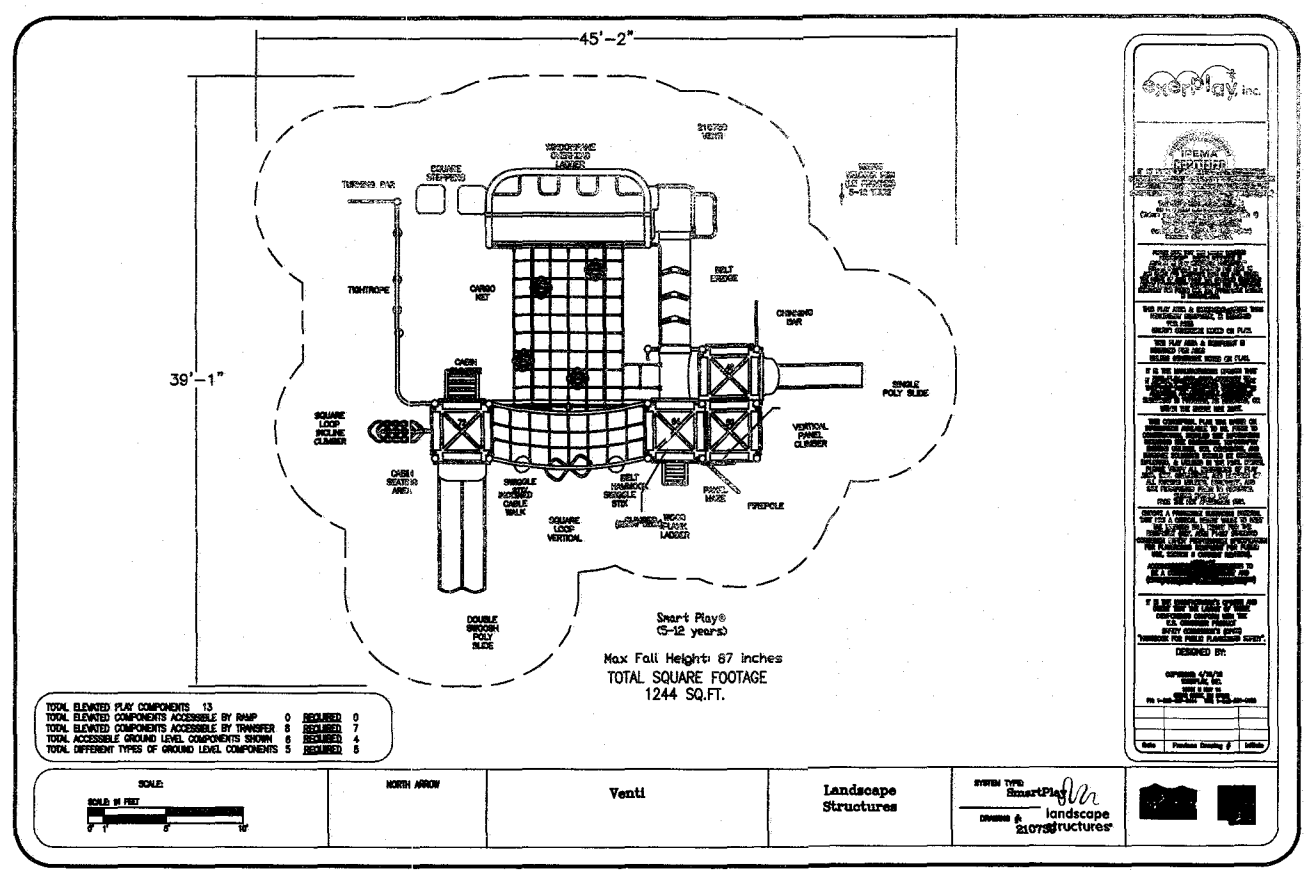
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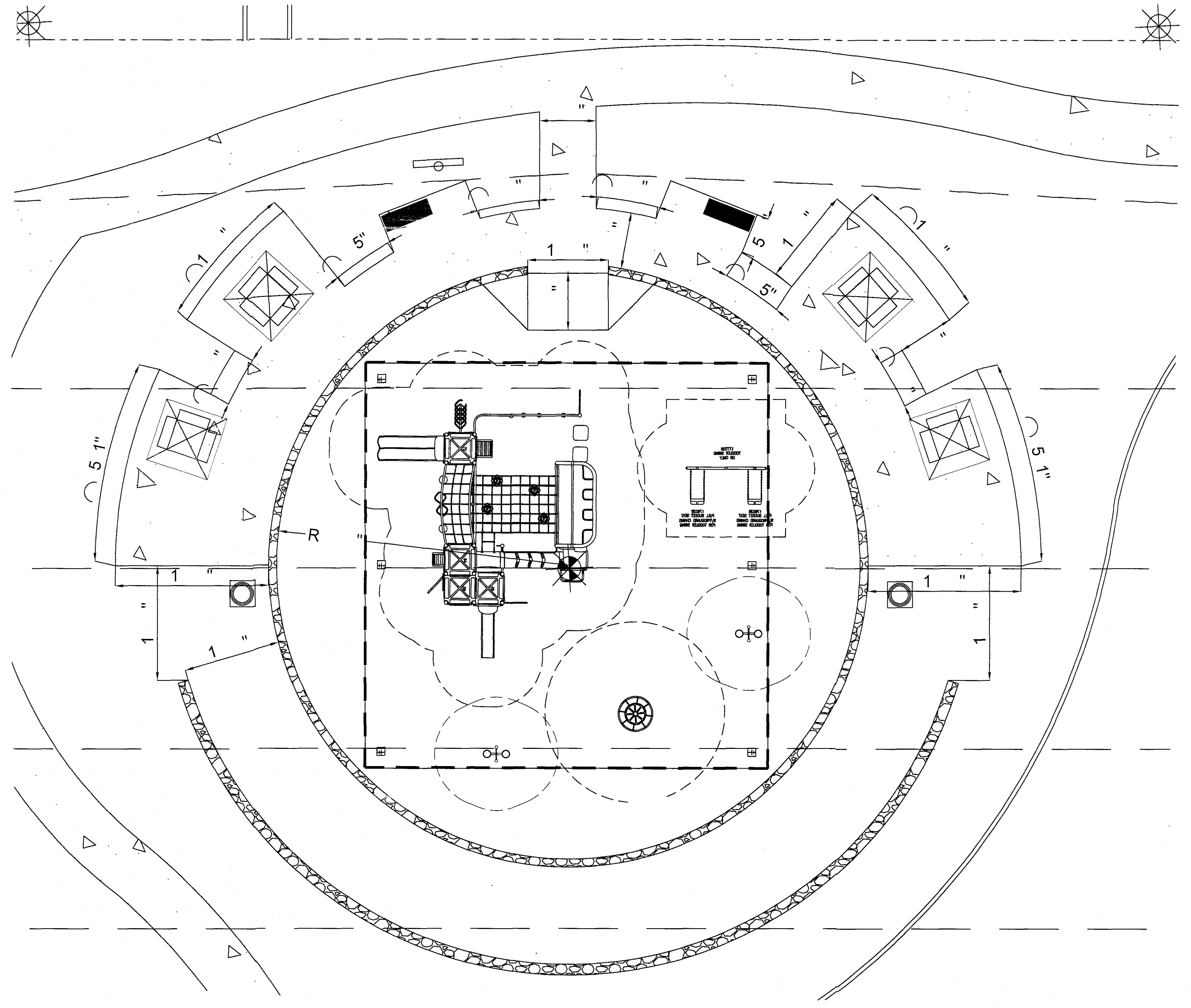
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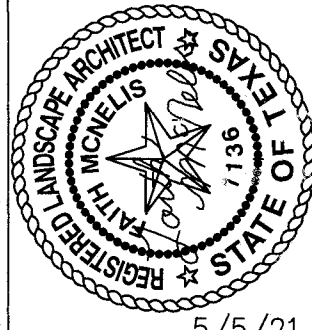


**PLAN VIEW - PLAYGROUND LAYOUT**  
SCALE: 1" = 10' - 0"

FALL ZONE AREA: 2280 SF

**APPROVED FOR CONSTRUCTION**  
Parks & Recreation Department-Planning

*Karla Chavez*  
SIGNATURE  
5/18/21  
DATE

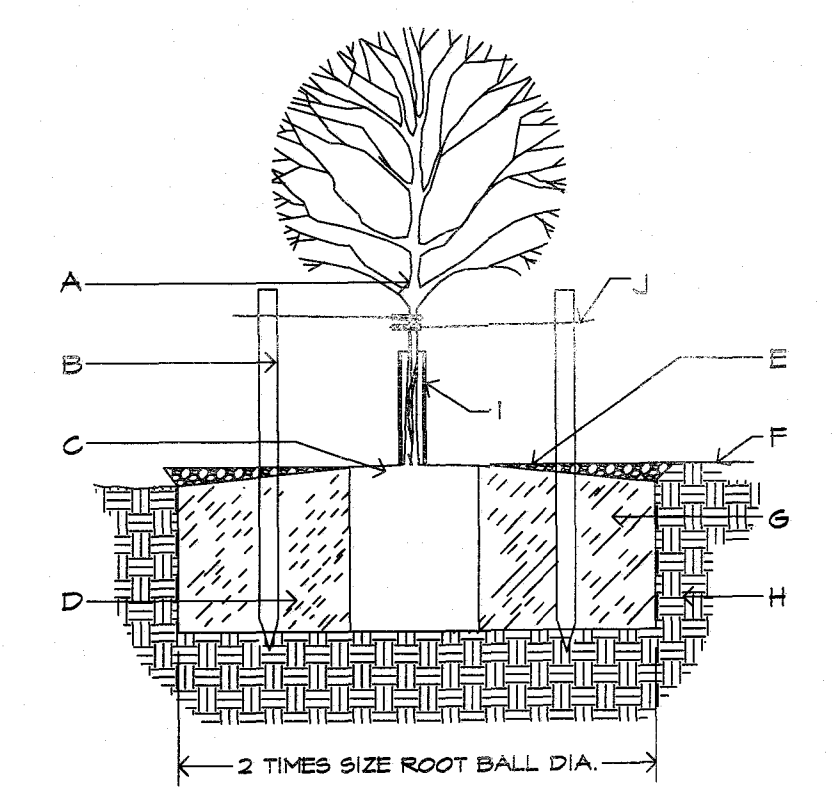
<p>REVISIONS</p>	<p>DATE</p>	<p><b>LILISA MCNELLIS</b> LANDSCAPE ARCHITECT 1900 FOXBORO CITY OF EL PASO, TEXAS 79902 (915) 621-6032</p>
<p>ARCHITECT'S SEAL</p>  <p>5/5/21</p>		
<p>SCALE</p> <p>Horizontal: Vertical: Contour Interval: N/A</p> <p>DATE: DESIGN BY: LM DRAWN BY: LM CHKD. BY: LM APPROV. BY: LM JOB No.</p>		
<p>PROJECT TITLE</p> <p><b>DORSETT PARK</b> 10716 TOMMY DORSETT STREET LOT 70 BLOCK 8 VILLAS DEL NORTE UNIT 1 CITY OF EL PASO, EL PASO, TEXAS 79928 AREA: 112516 SQ.FT. - 2.58 ACRES</p>		
<p>SHEET TITLE</p> <p><b>L4</b></p> <p>PARK PLAYGROUND</p>		
<p>SHEET 4 OF 11</p>		







Karla Chavez  
SIGNATURE  
3/15/22  
DATE



- A. TREE
- B. STAKING NEEDED
- C. 4" SPACE BETWEEN MULCH AND TREE
- D. SLOPE ON SIDES OF PLANTING HOLE
- E. DEPTH OF BARK MULCH-SEE PLAN
- F. FINISH SOIL GRADE
- G. BACKFILL WITH EXISTING NATIVE SOIL
- H. UNDISTURBED SOIL
- I. TREE GUARD
- J. TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE TO PROTECT TREE TRUNK FROM DAMAGE. WIRE TIES TO BE SET ON SAME TRUNK OR MAIN TRUNK.

STAKE 1" CALIPER TREES IN PARK, PARKWAY.

**A** TREE PLANTING DETAIL - SECTION  
NOT TO SCALE

1. KEEP SOIL BELOW ROOT BALL UNDISTURBED TO PREVENT TREE FROM SETTLING.
  2. REMOVE ANY EXCESS SOIL FROM TOP OF ROOTBALL TO EXPOSE ROOT FLARE (WHERE TOP MOST ROOT EMERGES FROM THE TRUNK). PLANT WITH ROOT FLARE THAN FINISH GRADE 1"-2" HIGHER.
  3. REMOVE CONTAINER AND CUT ANY ROOTS THAT ARE CIRCLING THE CONTAINER PRIOR TO SETTING TREE IN PLANTING HOLE (PIT).
  4. TAMP SOIL FIRMLY AROUND BASE OF ROOTBALL WITH FOOT PRESSURE.
  5. AT TIME OF PLANTING, ONLY PRUNE CO-DOMINANT LEADERS (DOES NOT APPLY TO MULTI-TRUNK SPECIMENS), CROSSOVER LIMBS, AND DEAD OR BROKEN BRANCHES.
  6. DO NOT ALLOW MULCH IN CONTACT WITH TREE TRUNK. KEEP AT LEAST 4" AWAY FROM TRUNK.
  7. INSTALL TREE GUARD. FOR TREES IN TURF AREAS. WWW.BENMEADOWS.COM
  8. WHEN DONE, THOROUGHLY WATER TO ELIMINATE AIR POCKETS.
  9. STAKING IS NOT REQUIRED - STAKE TREES ONLY IF TREE CANNOT STAND ALONE AND WITH APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT STAKE ALL TREES INDISCRIMINATELY; APPROVAL MUST BE OBTAINED TO STAKE TREES.
  10. WITH APPROVAL, PROVIDE MIN. 3 STAKES/TREE (TYP) IN A TRIANGULAR PATTERN STAKED INTO UNDISTURBED SOIL WITH CLARK'S TREE STAKE KIT OR APPROVED EQUAL. REMOVE AFTER ONE GROWING SEASON.
  11. TOP OF ROOT BALL SHALL BE LEVEL WITH TOP OF MULCH OR BARK. MULCH SHALL BE FEATHERED TO FULL DEPTH.
- GENERAL NOTES:**
1. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE PIT EXCAVATED 5 TIMES THE SIZE OF THE ROOTBALL.
  2. TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE 1/3 TO 1/2 TOP SOIL BLENDED WITH CLAY SOIL AND USED AS BACKFILL.
  3. TREES PLANTED IN ROCKY SOIL ARE TO HAVE ALL ROCKY MATERIAL LARGER THAN 1" IN SIZE REMOVED.

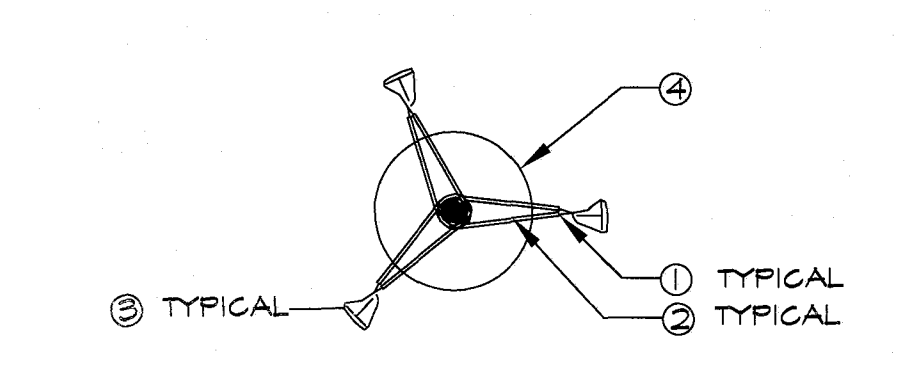
STAKING IS NOT REQUIRED BUT IF DEEMED NECESSARY THE STAKING DETAIL SHALL BE FOLLOWED. STAKING IS AT THE DISCRETION OF THE CONTRACTOR, LANDSCAPE ARCHITECT AND PARKS DEPT. BUT SHOULD TREES REQUIRE STAKING THE CONTRACTOR SHALL INCLUDE THE COST OF THE STAKING IN THE COST OF THE TREE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE STAKES AT END OF THE GUARANTEE PERIOD AT NO COST TO THE OWNER.

TREES THAT ARE DAMAGED DUE TO IMPROPER OR LACK OF STAKING MUST BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

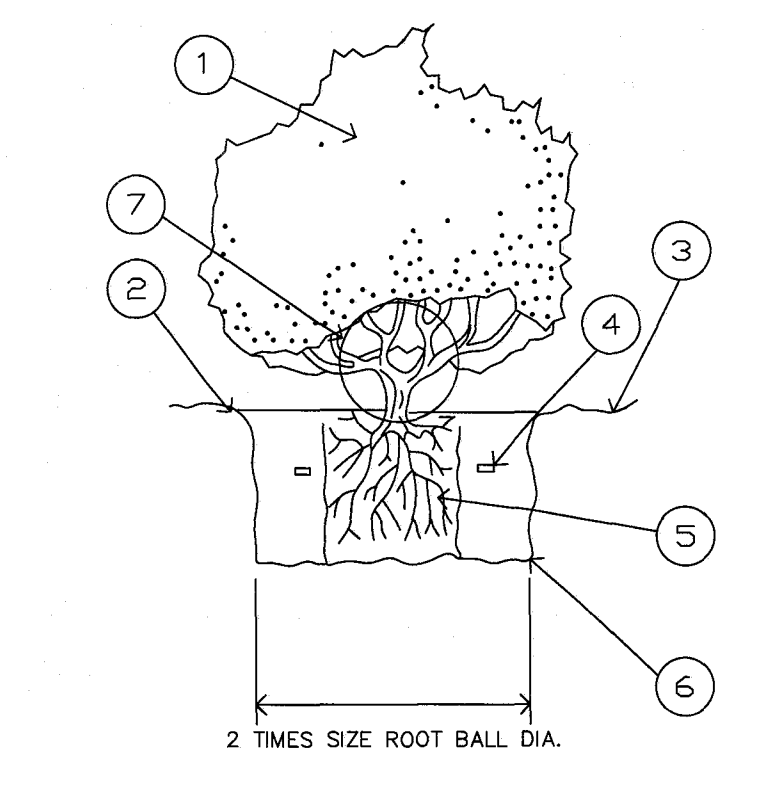
WIRES SHALL NOT BE TAUT BUT SHOULD ALLOW MOVEMENT OF 5 - 10 DEGREES FROM VERTICAL.

STAKES SHALL NOT BE DRIVEN INTO ROOTBALL OF TREES.



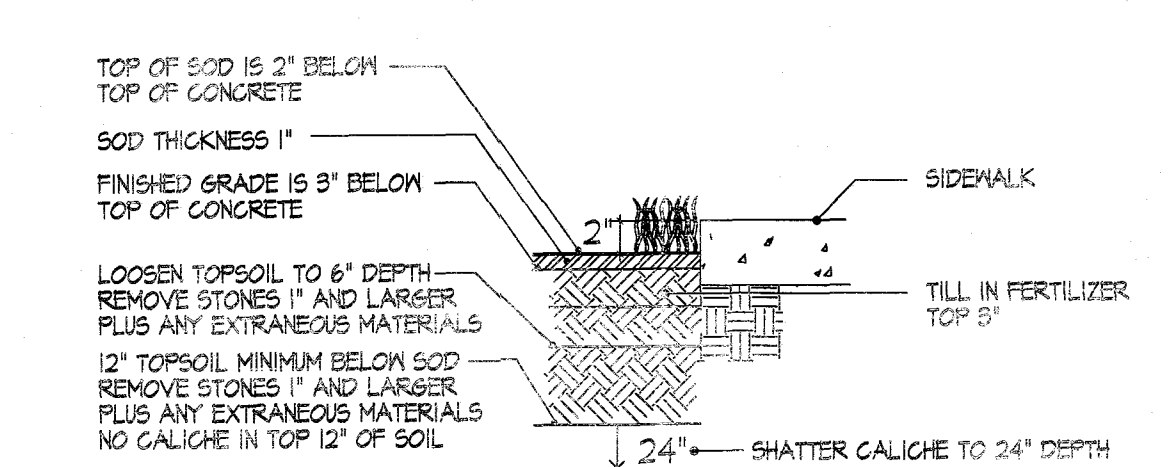
**B** TYPICAL TREE GUYING DETAIL - PLAN VIEW  
NOT TO SCALE

1. 2 STRAND TWIST 9 GAUGE WIRE
2. 1/2" RUBBER HOSE
3. 6' WOOD STAKE SET INTO GROUND 2'
4. ROOTBALL



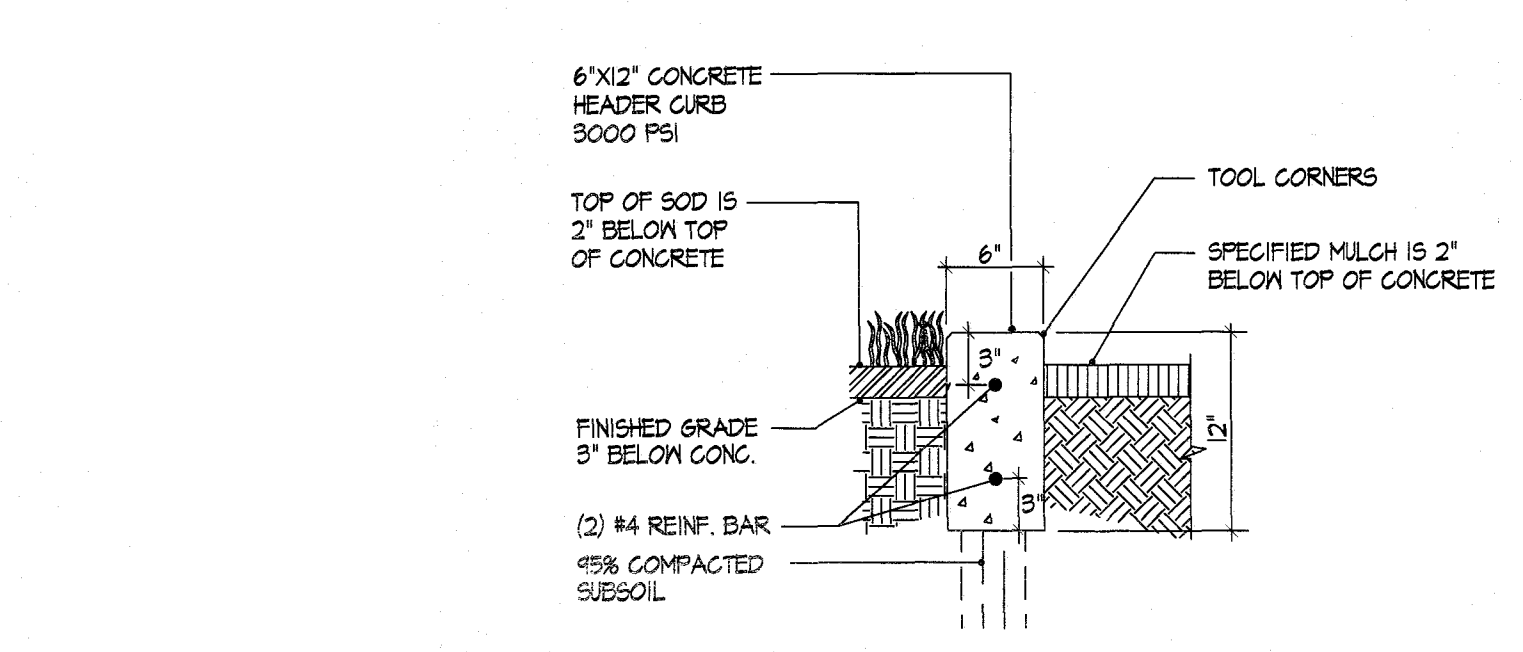
**C** SHRUB PLANTING DETAIL - SECTION  
NOT TO SCALE

- LEGEND**
1. SHRUB OR VINE PER PLAN
  2. EARTH WATERING BASIN (COVER WITH SPECIFIED MULCH ON PLAN).
  3. FINISH GRADE
  4. 7 GRAM PLANT TABLETS  
1 GAL = 3, 5 GAL = 6, 10-15 GAL = 9
  5. ROOTBALL (SET CROWN FLUSH WITH FINISH GRADE) COVER 2" SPECIFIED MULCH.
  6. UNDISTURBED NATIVE SOIL
  7. DO NOT BURY PLANT BASE IN GRAVEL.
- EXCAVATE AND REPLACE WITH SAME SOIL. REMOVE STONES 2" OR LARGER.

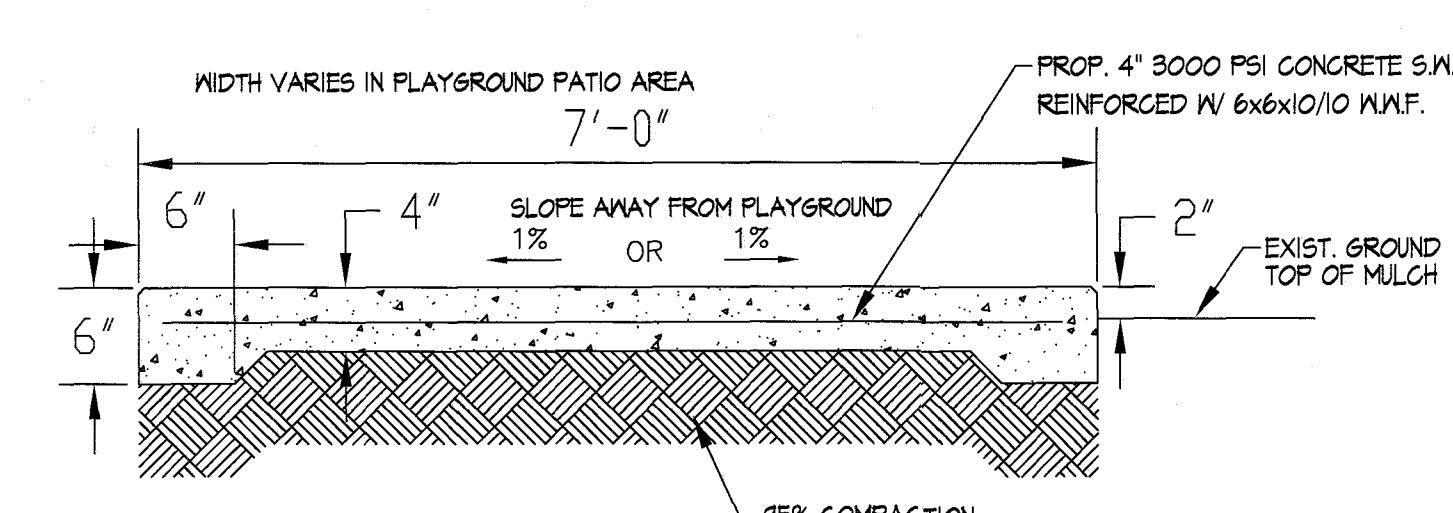


- NOTES:**
1. USE CONTROL JOINT EVERY 10'.
  2. USE 1/2" ASPHALT EXPANSION JOINTS EVERY 50' AND AT CURB RETURNS

**D** TYPICAL TURF AT CONCRETE DETAIL - SECTION  
NOT TO SCALE

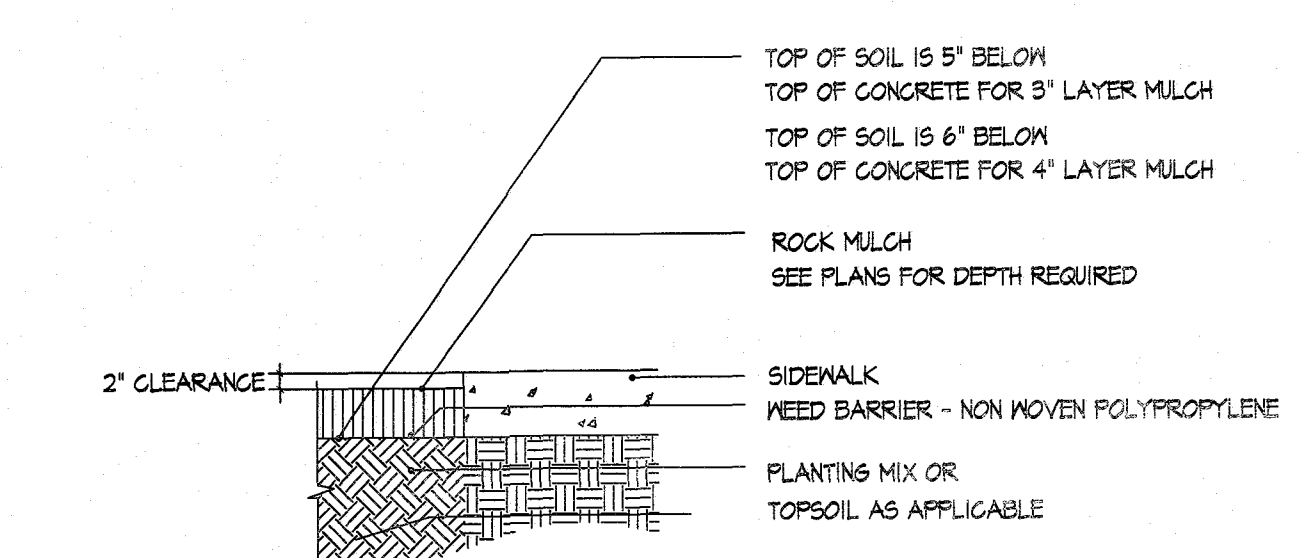


**E** CONCRETE HEADER CURB DETAIL - SECTION  
NOT TO SCALE

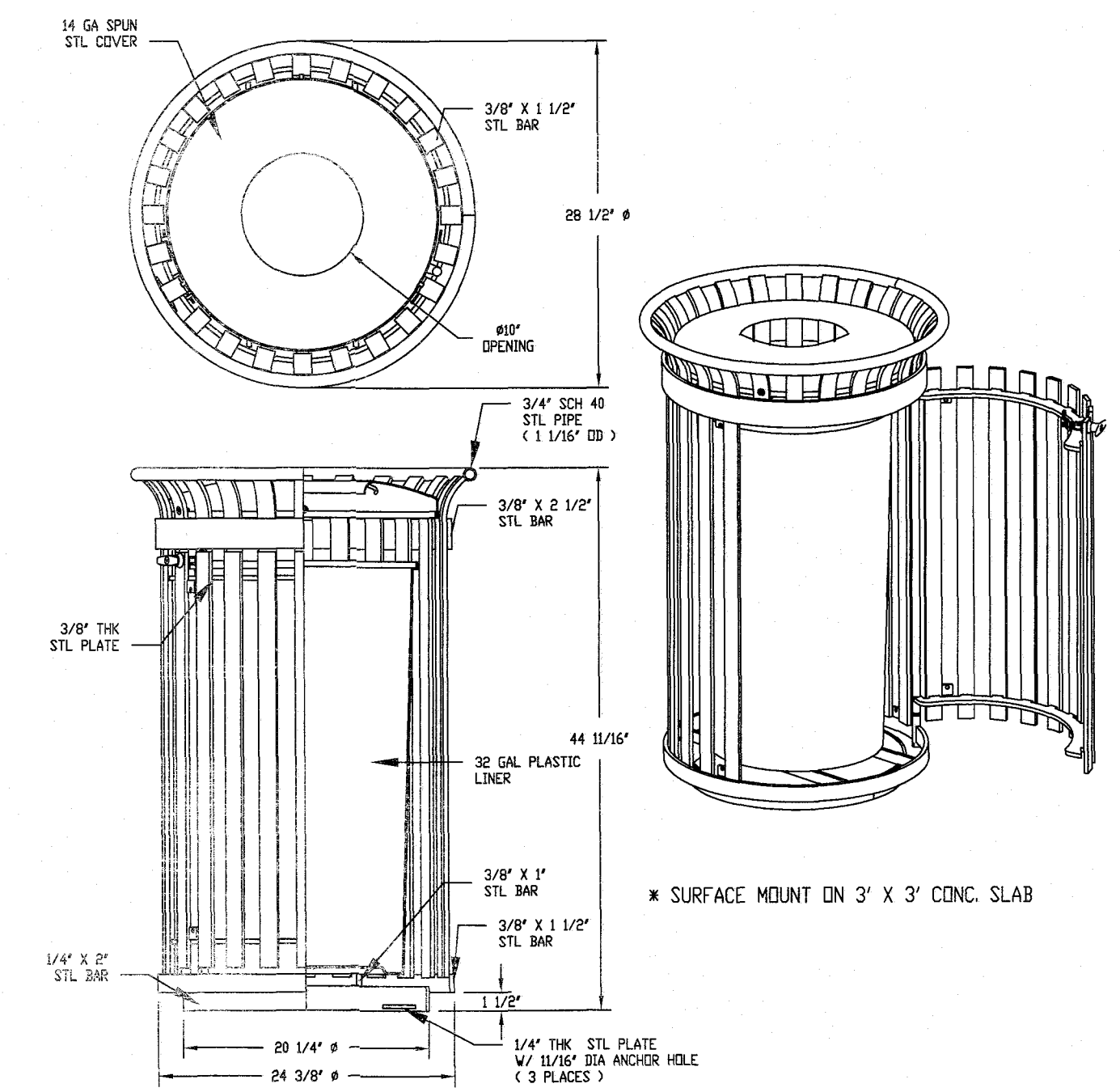


- NOTES:**
1. CONCRETE SHALL BE 3000 PSI MINIMUM.
  2. CONTROL JOINT REQUIRED AT 5' O.C. FOR SIDEWALKS. CONTROL JOINTS SHALL BE 1/8" THICK AND 1" DEEP.
  3. EXPANSION JOINT MATERIAL REQUIRED @ 20' O.C. FOR SIDEWALKS.
  4. DO NOT CROSS REINFORCEMENT THRU EXPANSION MATERIAL.
  5. PROVIDE EXPANSION JOINT MATERIAL WHERE SIDEWALKS MEET, EXISTING SIDEWALKS AND CURBS.

**F** TYPICAL CONCRETE SIDEWALK - SECTION  
NOT TO SCALE

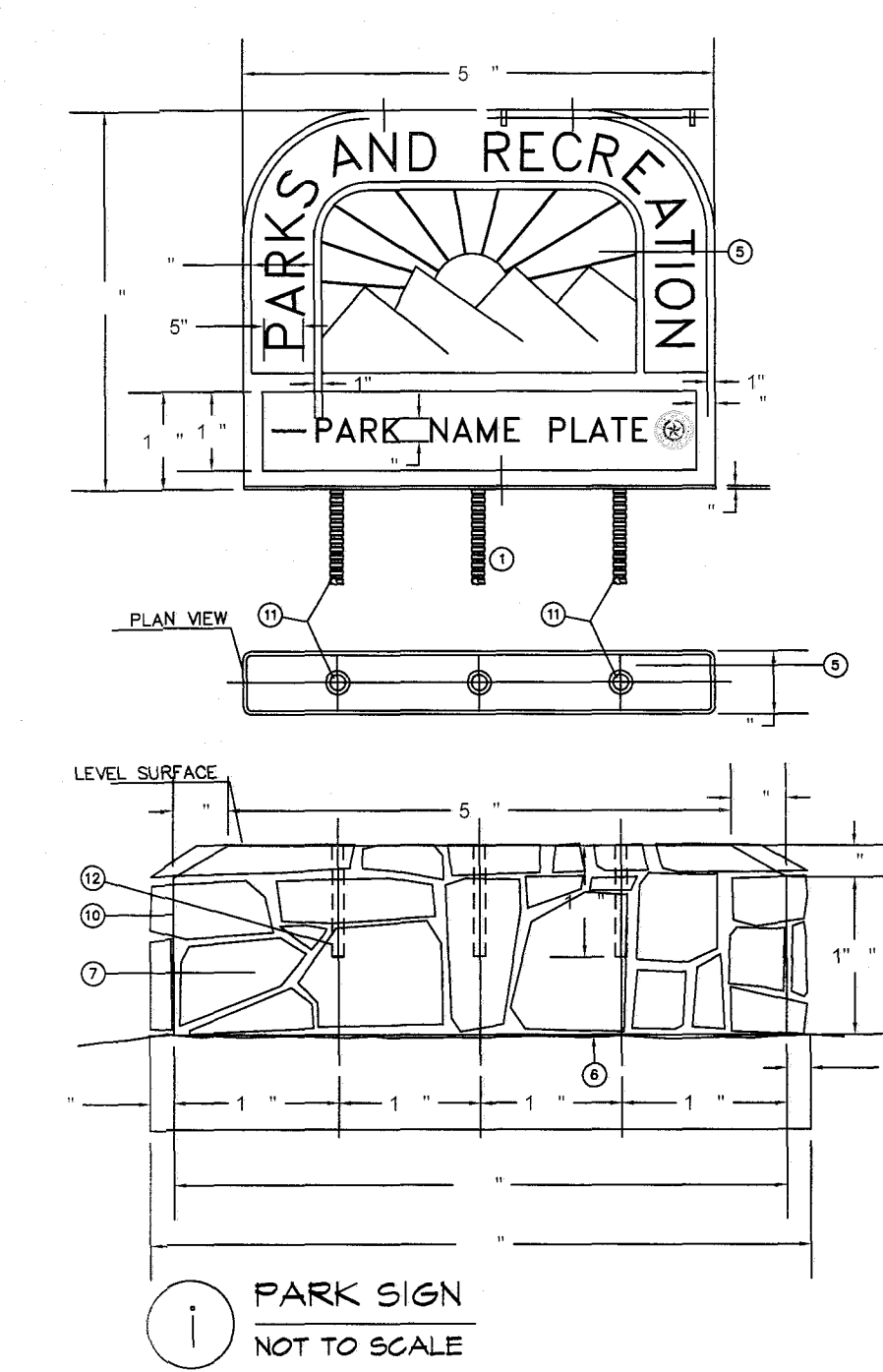


**G** ROCK MULCH DEPTH AT CONCRETE - SECTION  
NOT TO SCALE



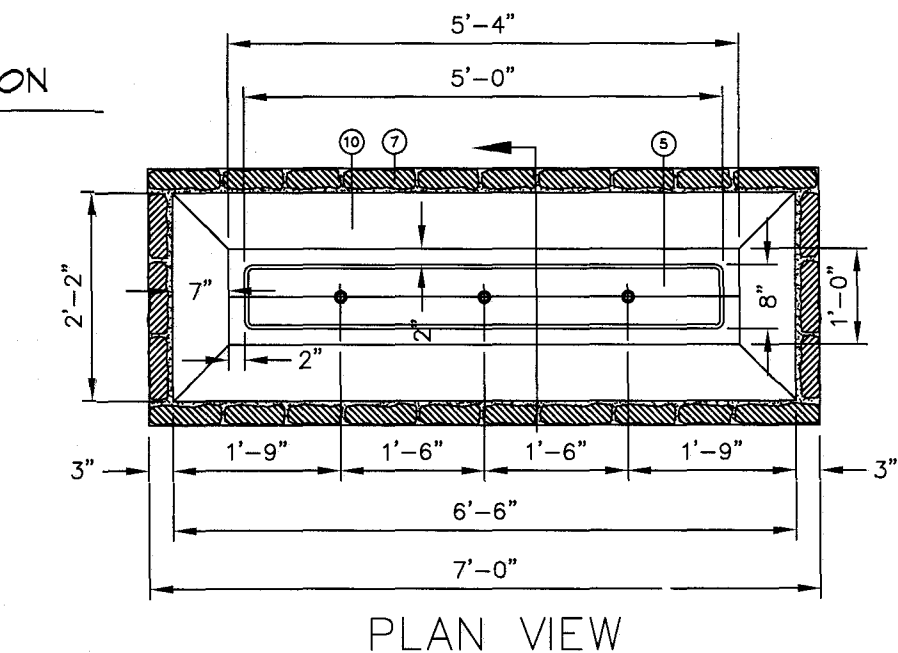
- NOTES:**
- 1) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ PULVERESTER POWDER COATING.
  - 2) 1/2" X 3/4" EXPANSION ANCHOR BOLTS PROVIDED.

**H** DuraMor 286-32-PTO HINGED TRASH RECEPTACLE  
NOT TO SCALE



**I** PARK SIGN  
NOT TO SCALE

- KEY NOTE**
- 1) PARK NAME SIGN MANUFACTURER
  - 2) EXISTING GROUND TO REMAIN UNDISTURBED. DISTURBED GROUND TO BE COMPACTED TO ORIGINAL CONDITION.
  - 3) FINISHED GRADE SEE GRADING PLAN
  - 4) CONTINUE ON RETE OUTING.
  - 5) PRELIMINARY ON RETE SIGN AREA TO BE DETERMINED.
  - 6) FINISH GRADE SEE GRADING PLAN
  - 7) 2" ROCK VENEER, MOUNT, FRANKLIN ROCK COMPANY.
  - 8) 1" O.C.
  - 9) 1" ENGINEERED, IE D. COMPACTED TO MOISTURE PROPORTION.
  - 10) ON RETE AREA SIGN MANUFACTURER.
  - 11) 3" X 14" DEEP LEAVE-OUT FOR ANCHORING SIGN MANUFACTURER.
  - 12) PROVIDE GROUT & CEMENT FOR LEVELING SIGN.



**J** PARK SIGN SECTION

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE

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

DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APPROV. BY: LM  
JOB NO.

PROJECT TITLE

**DORSETT PARK**  
10716 TOMMY DORSETT STREET  
LOT 70 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 112516 SQ.FT. - 2.68 ACRES

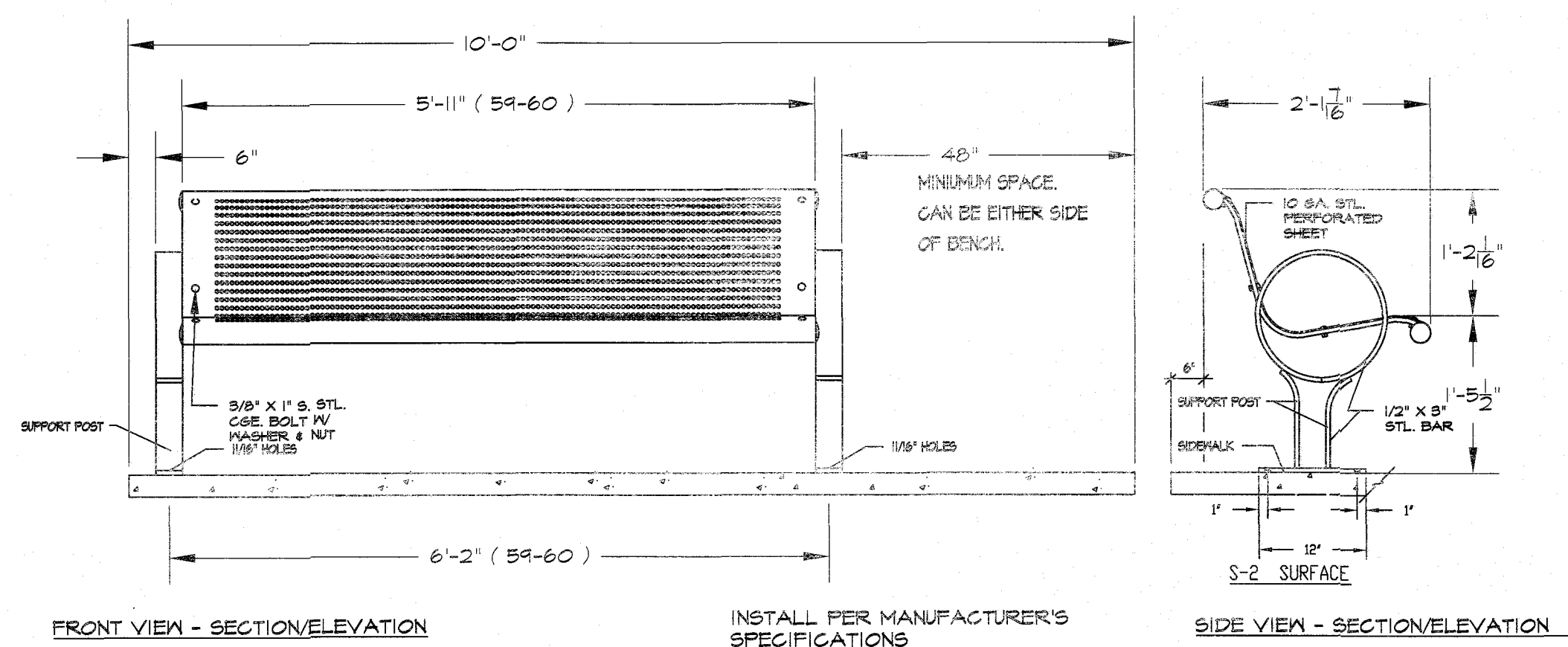
SHEET TITLE

**L6**

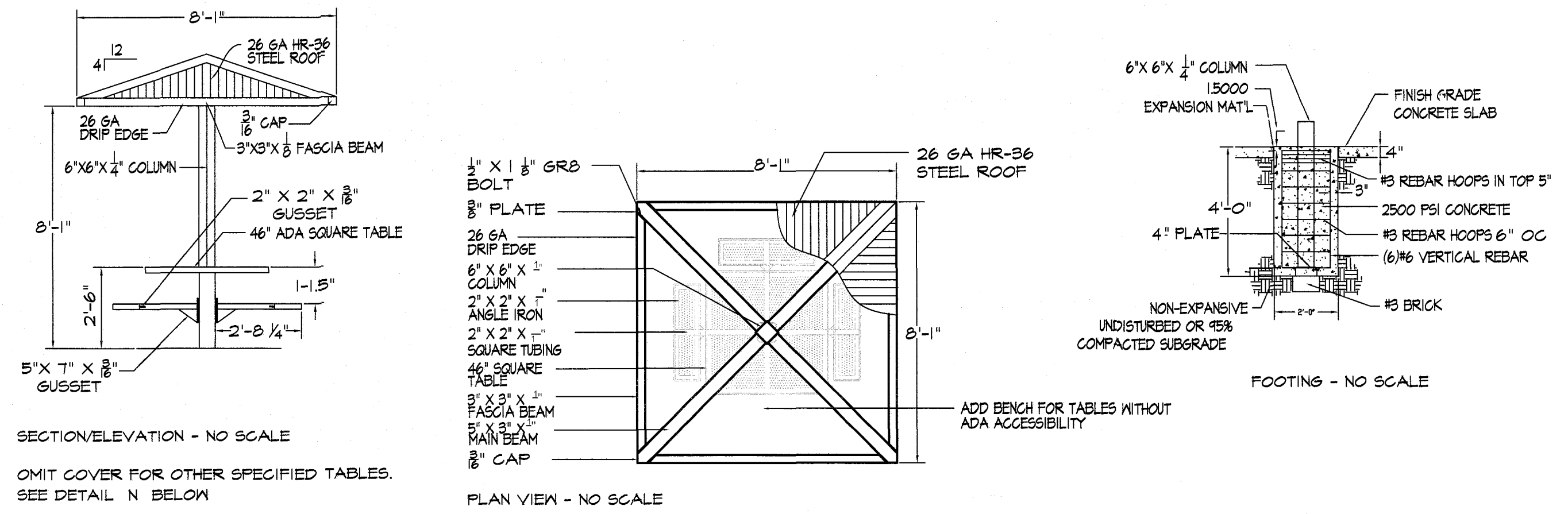
CONSTRUCTION DETAILS

SHEET 6 OF 11

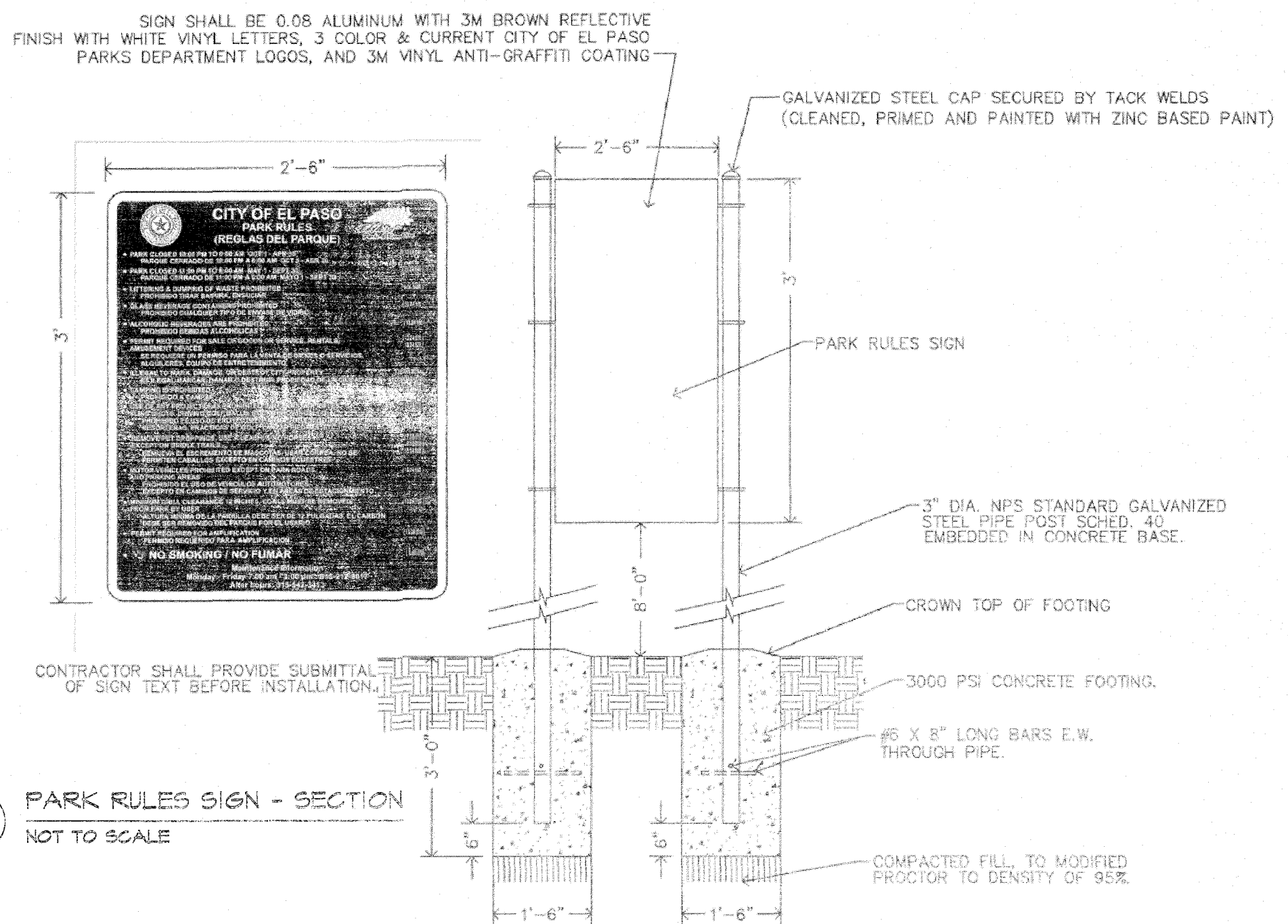




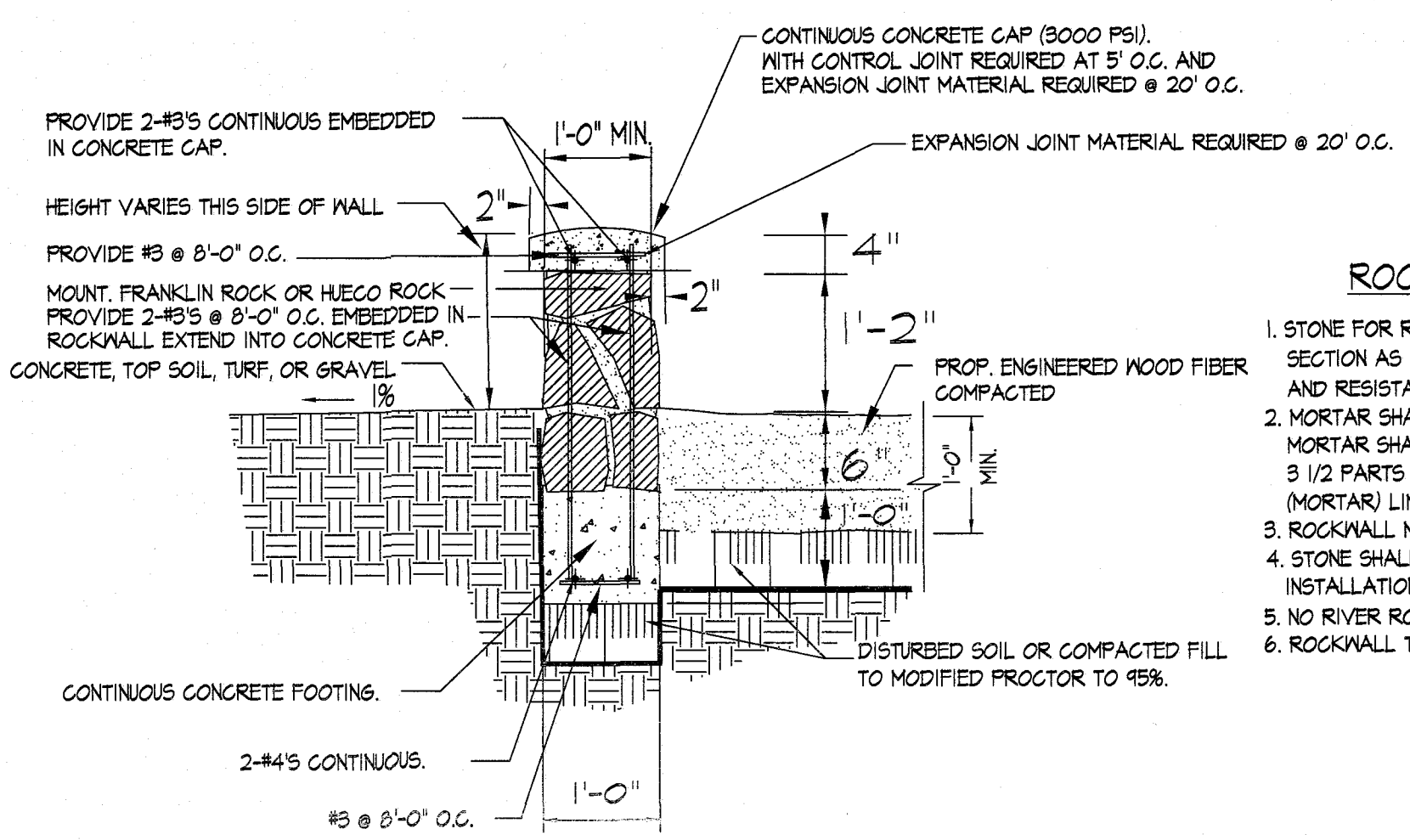
**I ADA BENCH DETAIL**  
NOT TO SCALE



**J COVERED PICNIC TABLE**  
NOT TO SCALE

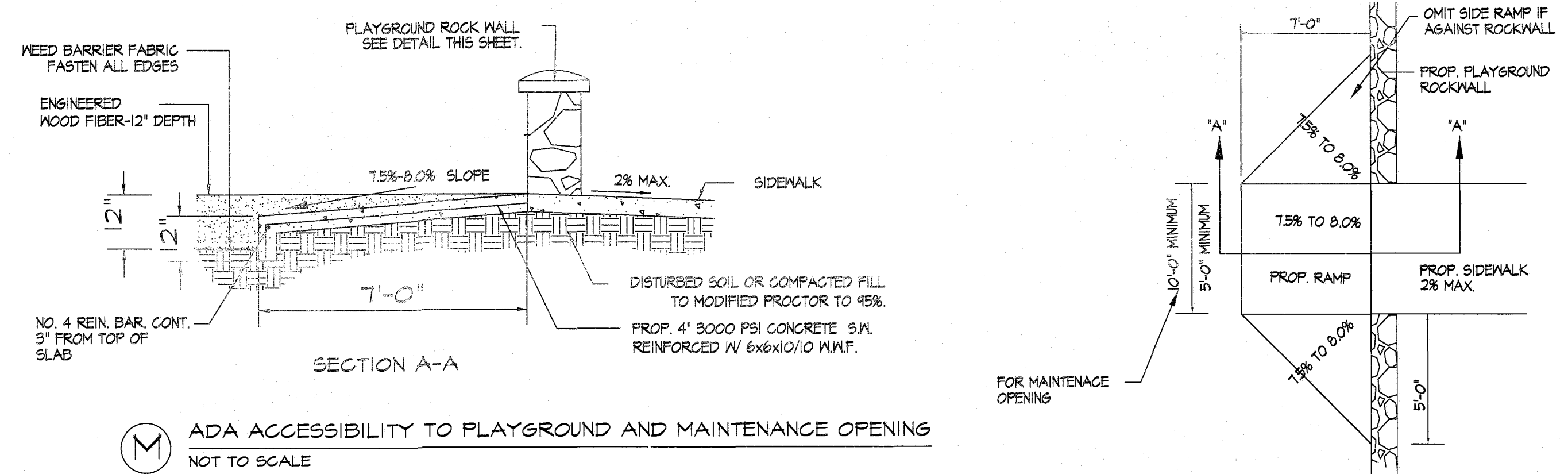


**K PARK RULES SIGN - SECTION**  
NOT TO SCALE

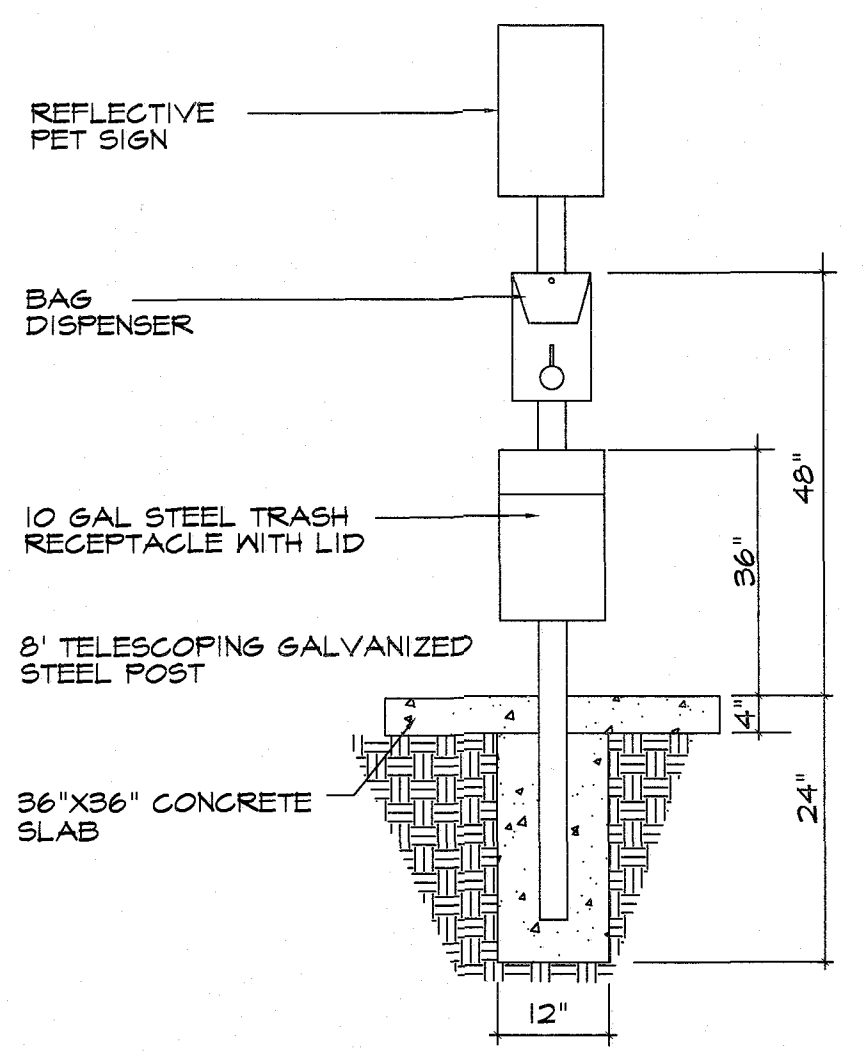


**L PLAYGROUND ROCK WALL WITH MORTAR CAP**  
NOT TO SCALE

- ROCKWALL NOTES:**
1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER.
  2. MORTAR SHALL BE TYPE 'S' 1800 P.S.I. AS PER ASTM C270-T3.
  3. 1/2 PARTS OF CLEAN, HARD, DURABLE SAND AND 1/4 PART (MORTAR) LIME THOROUGHLY MIXED WITH WATER.
  4. ROCKWALL MORTAR JOINTS SHALL NOT EXCEED 3/4" TO 1 1/4".
  5. STONE SHALL BE CLEANED, FREE OF DIRT PRIOR TO INSTALLATION.
  6. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.
  7. ROCKWALL TO BE EMBEDDED IN THE CONCRETE FOOTING.



**M ADA ACCESSIBILITY TO PLAYGROUND AND MAINTENANCE OPENING**  
NOT TO SCALE



**N PET WASTE STATION**  
NOT TO SCALE

APPROVED FOR CONSTRUCTION  
 Parks & Recreation Department Planning

*Karla Chavez*  
 SIGNATURE  
 5/18/21  
 DATE

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE

PROJECT TITLE

**DORSETT PARK**  
 10716 TOMMY DORSETT STREET  
 LOT 70 BLOCK 8  
 VILLAS DEL NORTE UNIT 1  
 CITY OF EL PASO, TEXAS 79928  
 AREA: 112516 SQ.FT. - 2.58 ACRES

**L7**

CONSTRUCTION DETAILS

SHEET 7 OF 11

LISA MCNEELIS  
 LANDSCAPE ARCHITECT  
 1800 FLORENCO  
 LAS CRUCES, NEW MEXICO 88007  
 (575) 621-3032

5/5/21

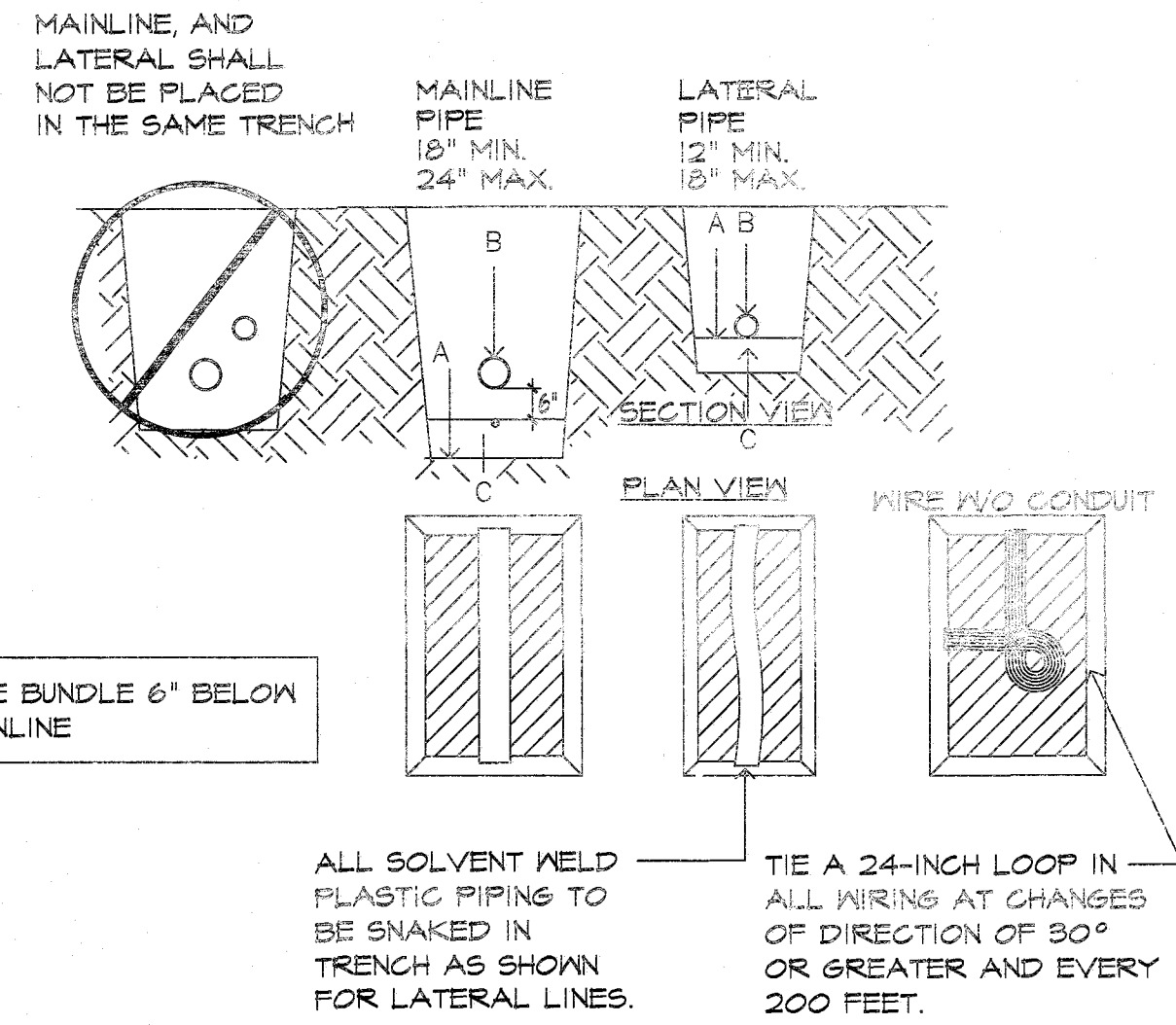
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 Vertical: N/A  
 DATE: LM  
 DESIGN BY: LM  
 DRAWN BY: LM  
 APP'D. BY: LM  
 JOB No. LM



IRRIGATION IS REGULATED BY:  
 PO BOX 13087  
 AUSTIN, TEXAS 78711-3087  
 TCEQ 512 239-6719  
 CHAPTER 34, TEXAS WATER CODE  
 IRRIGATOR'S LIC. #8947

APPROVED FOR CONSTRUCTION  
 Parks & Recreation Department Planning

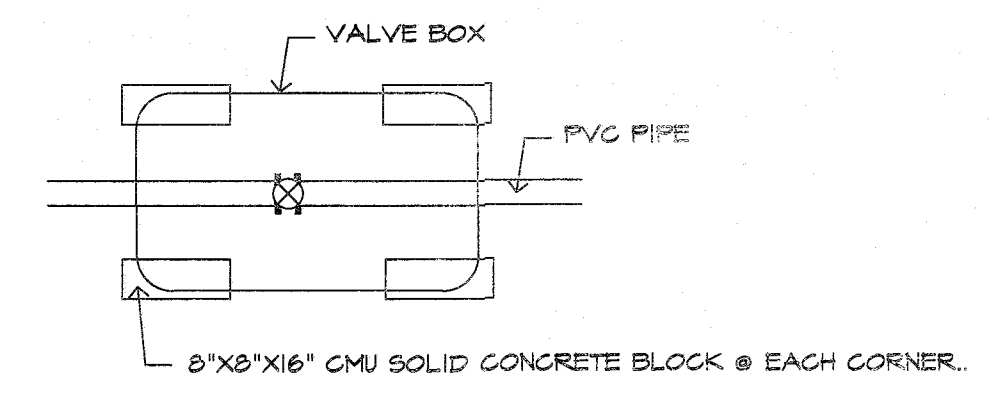
Karla Chavez  
 SIGNATURE  
 DATE



NOTES: A. BOTTOM OF EXCAVATED TRENCH WHERE NONE ROCKY SOILS ARE EXPOSED (ENCOUNTERED).  
 B. IRRIGATION SYSTEM PIPING.  
 C. MINIMUM 4" DEEP BEDDING SANDY SOILS MATERIAL WHERE ROCKY SOILS ARE EXPOSED.  
 D. IRRIGATION SYSTEM VALVE WIRING. LOCATE 6" BELOW MAIN PIPE.  
 E. BACKFILL SOILS MATERIAL MAY BE NATIVE SOILS IF IT IS FREE OF CALICHE OR STONES LARGER THAN 1" IN SIZE AND ORGANIC MATTER OR WASTE DEBRIS. SOILS COMPACTION IN TURF AREAS TO BE 80% TO 85% DENSITY BY ASTM D-1557 STANDARD AND AT 95% DENSITY UNDER PAVED OR HARDSCAPE SURFACES.

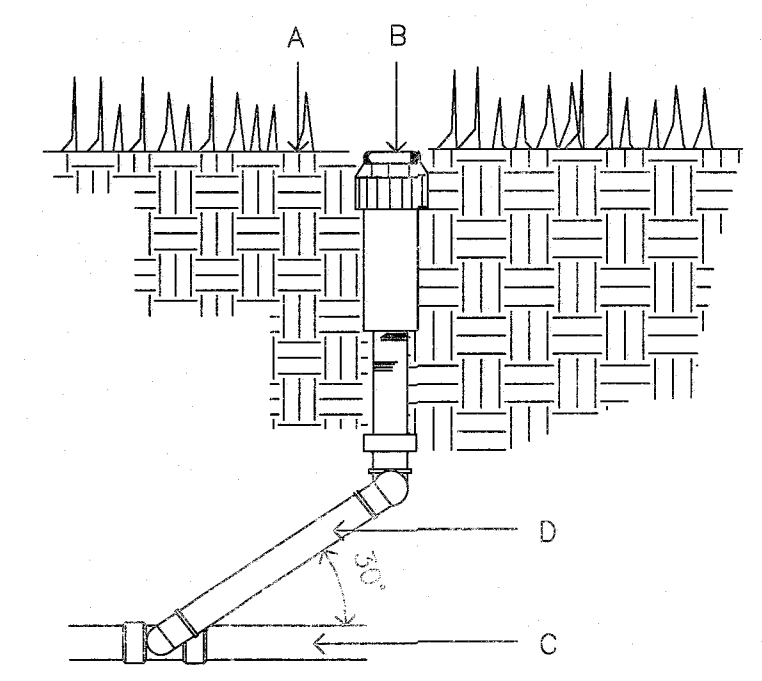
1 TYPICAL PIPE AND WIRE TRENCHING DETAIL  
 NOT TO SCALE

THIS DETAIL SHALL TAKE PRECEDENCE TO ANY OTHER DETAIL SHOWING VALVE BOX INSTALLATION.



NOTE: BLOCKS TO SIT ON WEED CLOTH ON UNDISTURBED SOIL. DISTURBED SOILS SHALL BE COMPACTED WITH TAMPER PRIOR TO SETTING WEED CLOTH & BLOCKS. VALVE BOX AND EXTENSIONS TO SIT ON BLOCKS. VALVE BOX AND EXTENSIONS TO HAVE A MINIMUM 2" CLEARANCE TO THE TOP OF PVC PIPE.

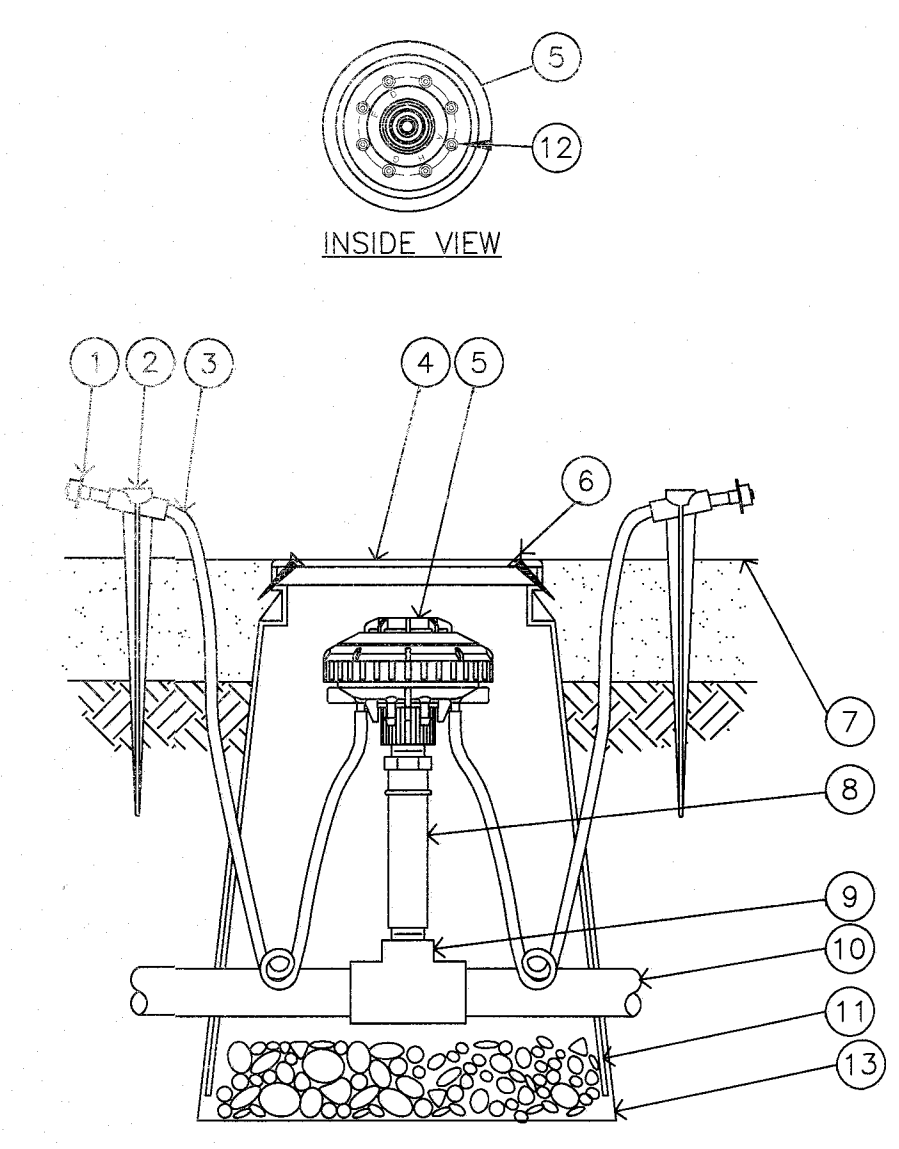
4 BLOCK PLACEMENT FOR VALVE BOXES  
 NOT TO SCALE



A. FINISH GRADE.  
 B. SPRINKLER HEAD (SEE PLAN).  
 C. LATERAL LINE (SEE PLAN).  
 D. LASCO PRE-ASSEMBLED SWING JOINT.  
 THIS DETAIL SHALL BE USED FOR POP-UP SPRINKLER HEADS, POP-UP LAWN SPRAY, GEAR DRIVEN AND ROTARY SPRINKLER HEADS.  
 TOP OF SPRINKLER HEAD SHALL BE SET FLUSH WITH FINISH GRADE.  
 SWING JOINT INSTALLATION TO COMPLY WITH MANUFACTURER'S RECOMMENDATION.

7 ROTOR HEAD  
 NOT TO SCALE

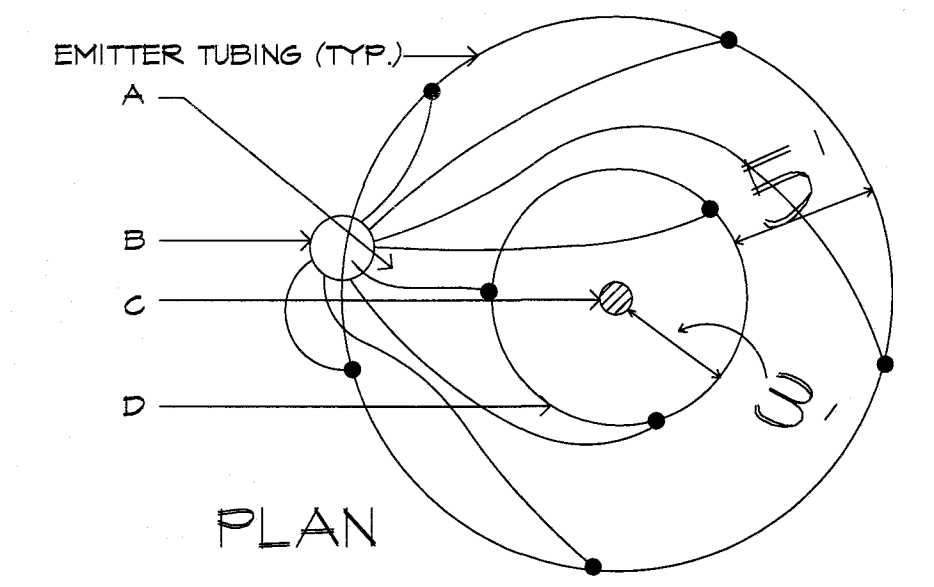
LOCATE INNER RING EMITTER OUTLETS WITHIN 3' OF TREE TRUNK.  
 LOCATE OUTER RING EMITTER OUTLETS 8' FROM ROOTBALL.  
 DO NOT EXCEED 20' OF MICROTUBING.  
 FOR SHRUBS AND GROUND COVER PLANTS PLACE EMITTER ON UPHILL SIDE OF PLANT 12" FROM STEM.



NOTES:  
 1. COIL ADDITIONAL 4" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.  
 2. RAIN BIRD XERI-BIRD BARB X BARB EMITTERS ARE AVAILABLE IN THE FOLLOWING MODELS:  
 XB-09PC 0.5 GPH XB-10PC 1.0 GPH XB-20PC 2.0 GPH

2 DRIFT EMITTER FOR TREES AND PLANTS RAIN BIRD XERI-BIRD & MULTI OUTLET EMISSION DEVICE  
 NOT TO SCALE

- DIFFUSER BUG CAP: RAIN BIRD DBC-025 (1 OF 2 SHOWN, & POSSIBLE).
- UNIVERSAL 1/4" TUBING STAKE: RAIN BIRD TS-025 (1 OF 2 SHOWN, & POSSIBLE).
- 1/4" DISTRIBUTION TUBING: RAIN BIRD XQ TUBING (LENGTH AS REQUIRED/DO NOT EXCEED 20' (1 OF 2 SHOWN, & POSSIBLE)).
- SUBTERRANEAN EMITTER BOX: CARSON 910 SERI ES/GREEN IN TURF AREAS AND TAN IN ROCK LANDSCAPE AREAS.
- MULTI-OUTLET EMISSION DEVICE: RAIN BIRD XERI-BIRD XBD-80.
- INSTALL 2 #8, 2" LONG SELF TAPING BRASS SCREWS.
- FINISH GRADE.
- PVC SCH 80 IN LINE PRESSURE REGULATOR -050-30
- PVC SCH 40 TEE OR ELL.
- PVC LATERAL PIPE.
- 3" MINIMUM DEPTH OF 3/4" WASHED PEA GRAVEL.
- SINGLE-OUTLET BARB INLET X BARB EMITTER: RAIN BIRD XERI-BIRD EMITTER.
- WEED BARRIER TAPE TO EMITTER BOX AND PIPE PENETRATION TAPE TO BE 3M BRAND HEAVY DUTY PLASTIC TAPE.

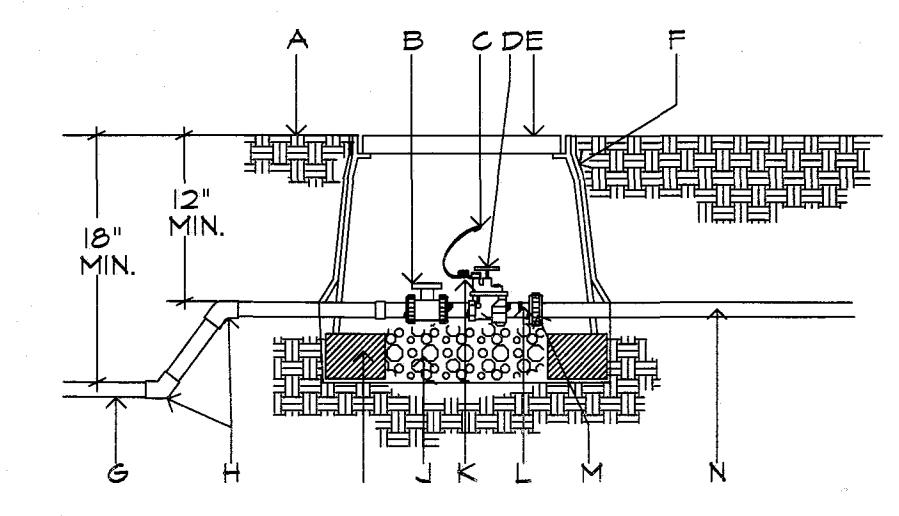


INSTALL (8) EMITTERS PER TREE, SPACE EVENLY AROUND ROOTBALL, IN OFFSET TRIANGULAR PATTERN FOR TREES, SEE IRRIGATION LEGEND FOR OUTLET EMITTER SIZE.  
 A. EMITTER TUBING.  
 B. MULTI OUTLET EMITTER DEVICE, INSTALL 5' FROM TREE TRUNK ON WEST SIDE.  
 C. TREE TRUNK.  
 D. TREE ROOTBALL.

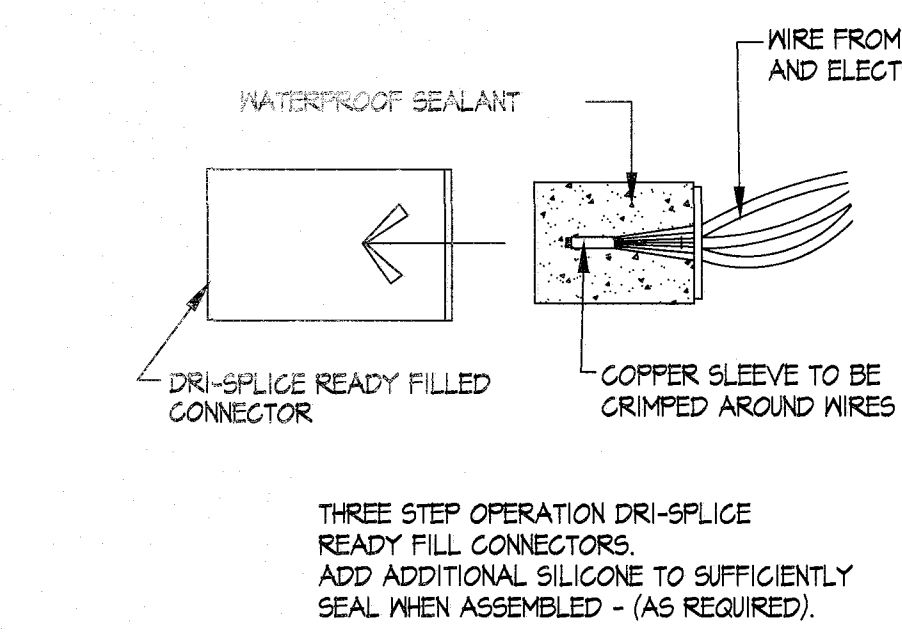
3 EMITTER PLACEMENT FOR TREES  
 NOT TO SCALE

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

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

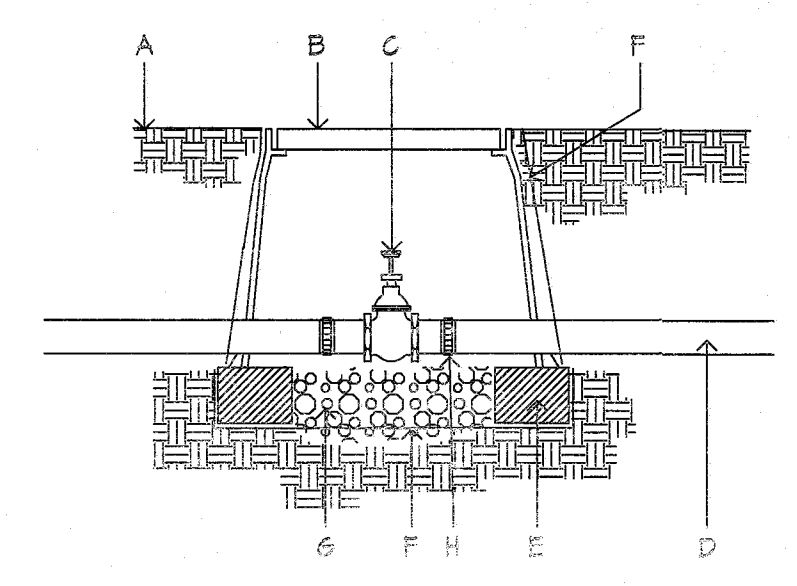


6 IRRIGATION CONTROL VALVE  
 NOT TO SCALE



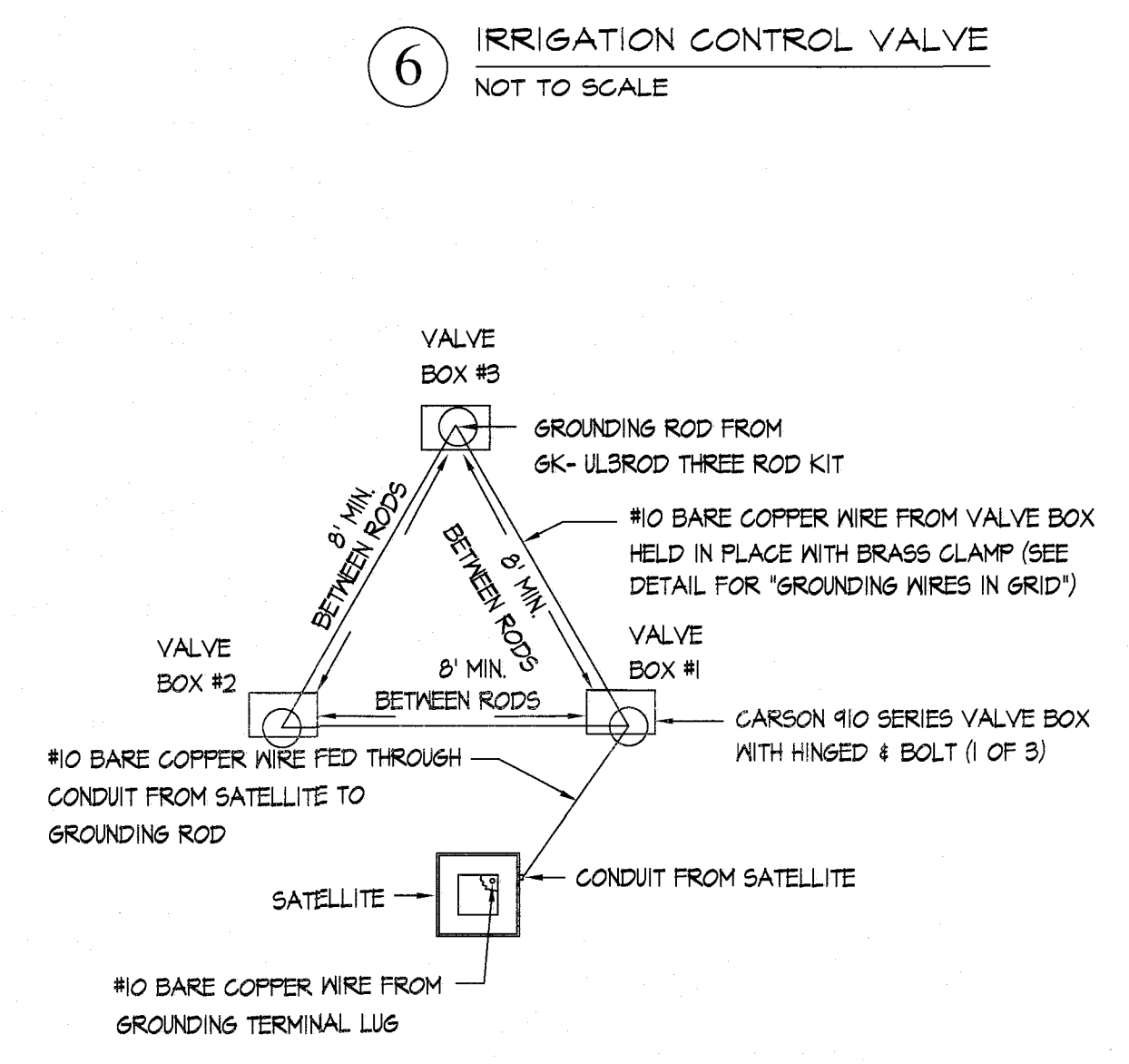
5 WIRE CONNECTORS  
 NOT TO SCALE

THREE STEP OPERATION DRI-SPLICE READY FILL CONNECTOR.  
 ADD ADDITIONAL SILICONE TO SUFFICIENTLY SEAL WHEN ASSEMBLED - (AS REQUIRED).



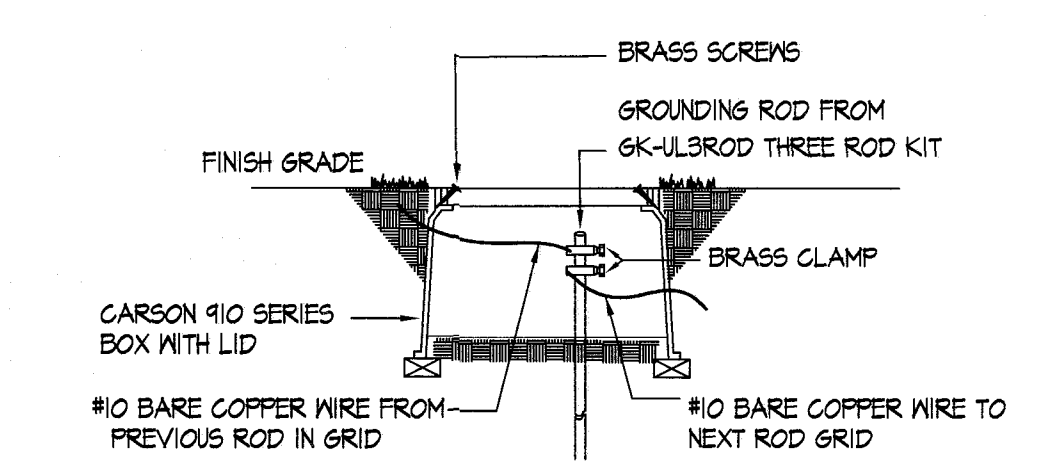
A. FINISH GRADE.  
 B. CARSON PRODUCTS INC. 1419-18(A/B) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISHED MATERIAL AND 8" EXTENSIONS AS NECESSARY.  
 C. BRASS ISOLATION VALVE- SEE IRRIGATION LEGEND.  
 D. IRRIGATION MAINLINE.  
 E. 8"X 8"X16" SOLID CMU SOLID BLOCK @ EACH CORNER.  
 F. PROVIDE DEMITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.  
 G. 4" DEPTH, 3/8" WASHED PEA GRAVEL.  
 H. FLANGE (8" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)  
 NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK MUST BE LOCATED 10" FROM CONCENTRIC REDUCER ON 4" PIPE.

8 ISOLATION VALVE  
 NOT TO SCALE



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

10 TRIANGULAR GROUNDING GRID DETAIL  
 NOT TO SCALE



SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS

GROUNDING WIRES IN GRID DETAIL INITIAL TERMINAL

GROUNDING ROD NOTES:

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

REVISIONS

DATE

ARCHITECT'S SEAL

SCALE

Horizontal: Vertical: Contour Interval: N/A

DATE: DESIGN BY: LM  
 DRAWN BY: LM  
 CHKD. BY: LM  
 APPVD. BY: LM  
 JOB No.

PROJECT TITLE

DORSETT PARK  
 10716 TOMMY DORSETT STREET  
 LOT 70 BLOCK 8  
 VILLAS DEL NORTE UNIT 1  
 CITY OF EL PASO, EL PASO, TEXAS 79928  
 AREA: 112516 SQ.FT. - 2.58 ACRES

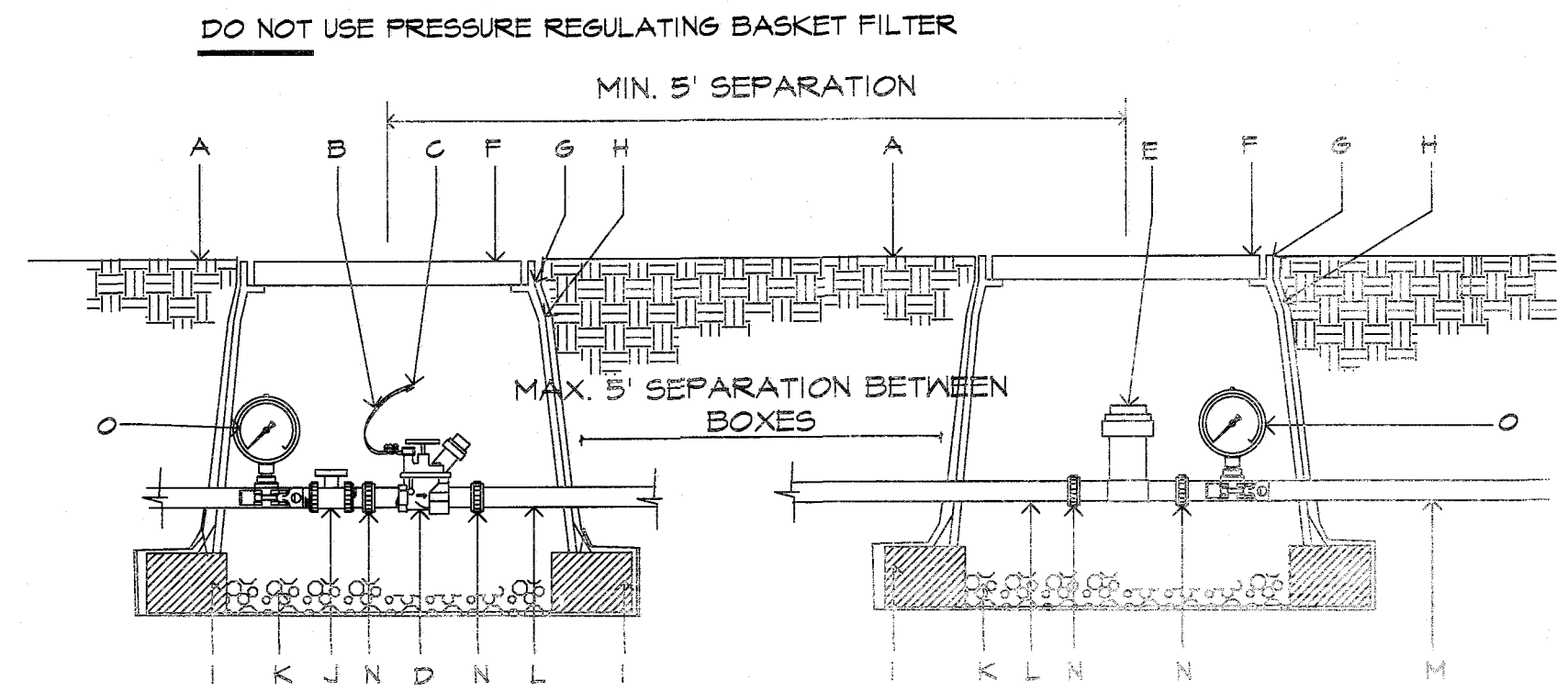
SHEET TITLE

L8

IRRIGATION DETAILS

SHEET 8 OF 11

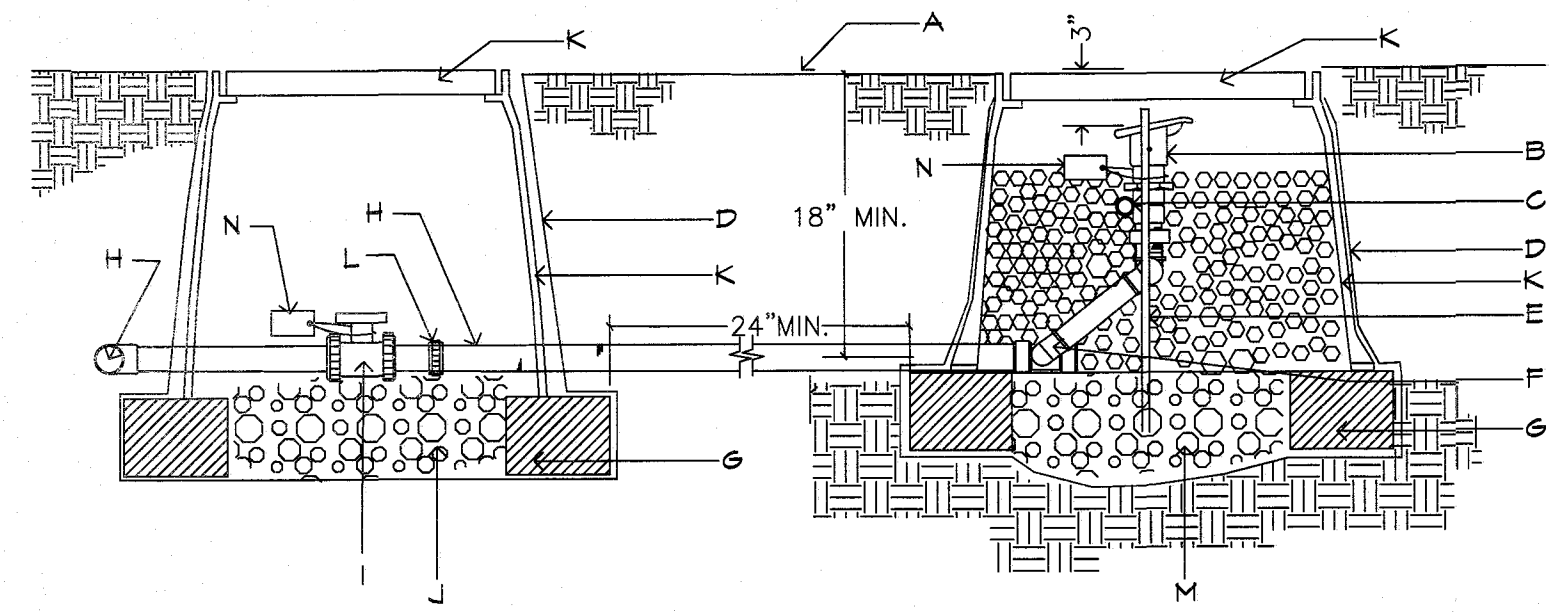




NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTREAM OF BALL VALVE AND ANOTHER DOWNSTREAM OF BASKET FILTER. PROVIDE 5' SEPARATION BETWEEN BOXES. IF SPACE IS NOT AVAILABLE, PROVIDE A MIN. 5' SEPARATION AT CENTER LINES OF BOXES. SET GAGES HORIZONTAL TO BE READABLE FROM ABOVE.

- A. FINISH GRADE.
- B. 24" WIRE LOOP.
- C. DRY SPLICE CONNECTOR OR EQUAL.
- D. AUTOMATIC VALVE. SEE IRRIGATION LEGEND.
- E. RAINBIRD PRESSURE BASKET FILTER SHALL BE INSTALLED TO PROVIDE ACCESS FOR MAINTENANCE AND REPLACEMENT.
- F. LOCKING VALVE BOX COVER FLAT LID WITH BOLT.
- G. CARSON PRODUCTS INC. 1419-18 BODY (ABS) VALVE BOX W/BOLT DOWN COVER (COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY).
- H. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX AND BLOCKS. TAPE TO ALL INLET & OUTLET PIPE WITH 3M HEAVY DUTY PLASTIC TAPE.
- I. 8"X8"X16" CMU SOLID CONCRETE BLOCK @ EACH CORNER.
- J. BALL VALVE, INCLUDED IN CONTROL ZONE KIT, SEE IRRIGATION LEGEND.
- K. 4" LAYER OF 3/8" WASHED PEA GRAVEL.
- L. PVC PIPE SIZED PER PLAN WITH WELD ON THREADED FITTINGS ON EACH END.
- M. LATERAL LINE.
- N. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- O. HORIZONTAL HYGIENIC PRESSURE GAUGE.

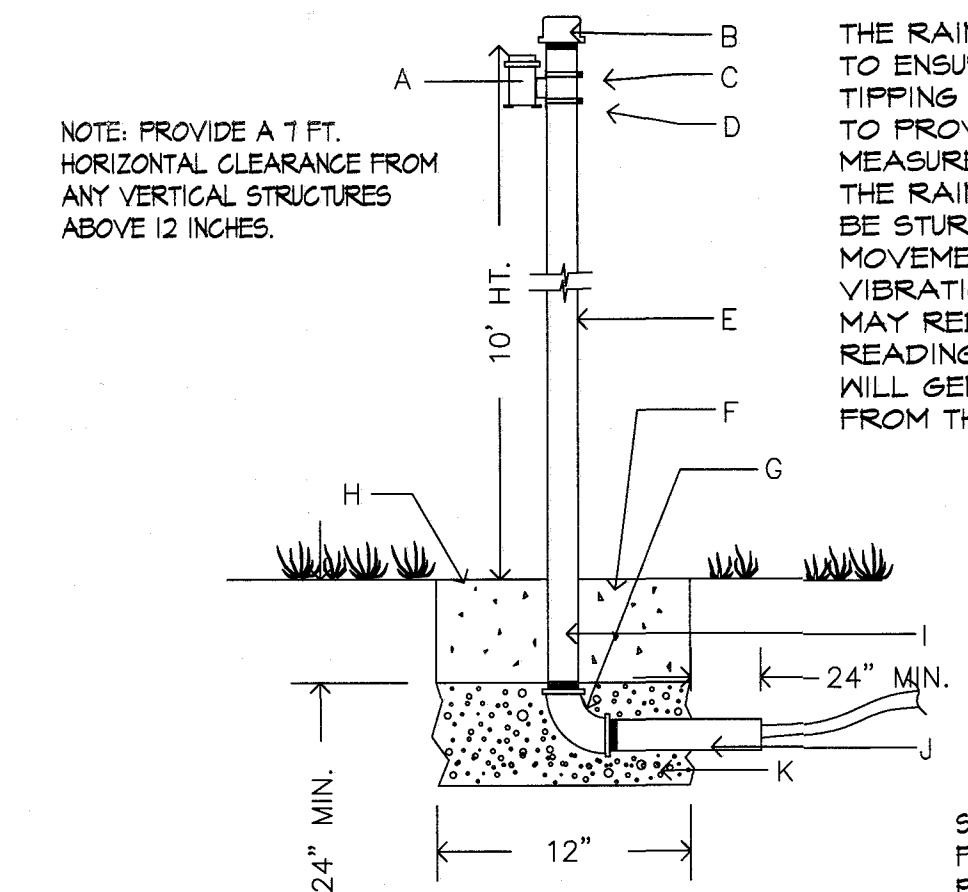
11 DRIP VALVE W/ BASKET FILTER  
NOT TO SCALE



- A. FINISH GRADE.
- B. 1" BUCKNER QUICK COUPLER VALVE, DOUBLE SLOT, PURPLE TOP-MODEL QBSNF10 WITH LASCO SNAP-LOK W/MALE BRASS STABILIZER ELBOW.
- C. MIN. 12" SECTION 1" DIA. PVC SECTION SHOULD EXTEND BEYOND BOTH REBAR SECTION, STABILIZE IN GRAVEL.
- D. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY 3M PLASTIC TAPE.
- E. 1/2" OR 3/8" REBAR, MIN. 30" LENGTH, ONE ON EITHER SIDE OF QUICK COUPLER FOR STABILITY.
- F. LASCO SWING JOINT (PRE-ASSEMBLED).
- G. 8" X 8" X 16" SOLID CMU BLOCK.
- H. IRRIGATION MAINLINE.
- I. ISOLATION BALL VALVE, SEE IRRIGATION LEGEND.
- J. 6" DEPTH OF 3/8" WASHED PEA GRAVEL.
- K. CARSON PRODUCTS INC. 1419-18 BODY (ABS) VALVE BOX AND EXTENSION(S) W/BOLT DOWN COVER (COVER COLOR TO BE PURPLE).
- L. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
- M. 3/8" WASHED PEA GRAVEL FILLED TO QUICK COUPLER FOR STABILITY.
- N. WEATHER PROOF TAG THAT READS, "NON-PORTABLE WATER, NOT SAFE FOR DRINKING." FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.

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

12 QUICK COUPLER  
NOT TO SCALE

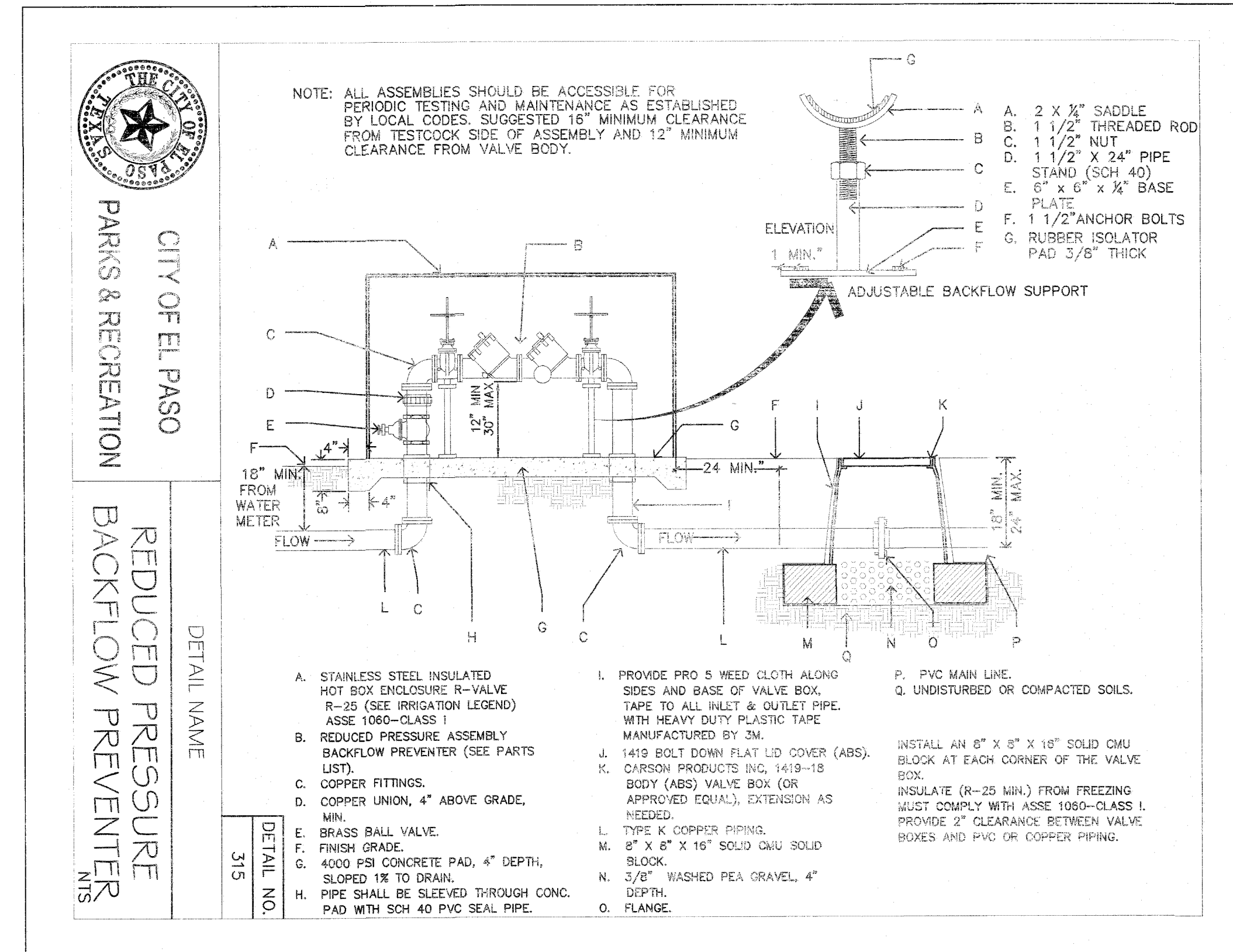


THE RAIN CAN MUST BE MOUNTED LEVEL TO ENSURE PROPER OPERATION OF THE TIPPING MECHANISM AND TO PROVIDE ACCURATE RAINFALL MEASUREMENTS. THE MOUNT ON WHICH THE RAIN CAN IS ATTACHED MUST BE STURDY ENOUGH TO PREVENT MOVEMENT IN WINDY CONDITIONS. VIBRATIONS FROM SMALL MOVEMENTS MAY REDUCE THE ACCURACY OF THE READINGS WHILE EXCESSIVE MOVEMENT WILL GENERATE FALSE READINGS FROM THE TIPPING ASSEMBLY.

- A. RAIN BIRD RAIN CAN.
- B. 2 1/2" PIPE GAP WITH HOLE FOR WIRES AND SEAL WITH EXTERIOR GRADE SILICONE SEALANT.
- C. CLAMPS.
- D. (2) MACHINE SCREWS WITH WASHER, LOCK WASHER AND NUT.
- E. 2 1/2" SCH 40 GALVANIZED PIPE-10 FT. HT. A.G.
- F. 12"X12" CONCRETE BASE, MIN. 24" DEEP.
- G. PIPE ELBOW.
- H. FINISH GRADE.
- I. PIPE TO BE SEALED AFTER CABLE IS RUN USE 4 MIL. PLASTIC AND TAPED NIPPLE AND THE CABLE WITH HIGH GRADE 3M WEATHER PROOF PLASTIC TAPE.
- J. NIPPLE, GALVANIZED PIPE IN CONCRETE FOOTING TO BE WRAPPED WITH WEATHER PROOF TAPE TO PROTECT FROM CORROSION.
- K. 6" THICK, 3/8" DIAMETER WASHED PEA GRAVEL.

SEE MANUFACTURER'S FIELD INSTALLATION INSTRUCTIONS. PARKS MAY REQUIRE ADDITIONAL FASTENERS OR MODIFICATION OF THIS DETAIL.

14 RAIN CAN  
NOT TO SCALE



- A. STAINLESS STEEL INSULATED HOT BOX ENCLOSURE R-VALVE R-25 (SEE IRRIGATION LEGEND) ASSE 1080-CLASS I.
- B. REDUCED PRESSURE ASSEMBLY BACKFLOW PREVENTER (SEE PARTS LIST).
- C. COPPER FITTINGS.
- D. COPPER UNION, 4" ABOVE GRADE, MIN.
- E. BRASS BALL VALVE.
- F. FINISH GRADE.
- G. 4000 PSI CONCRETE PAD, 4" DEPTH, SLOPED 1% TO DRAIN.
- H. PIPE SHALL BE SLEEVED THROUGH CONC. PAD WITH SCH 40 PVC SEAL PIPE.
- I. PROVIDE PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET & OUTLET PIPE WITH HEAVY DUTY PLASTIC TAPE MANUFACTURED BY 3M.
- J. 1419 BOLT DOWN FLAT LID COVER (ABS), CARSON PRODUCTS INC. 1419-18 BODY (ABS) VALVE BOX (OR APPROVED EQUAL), EXTENSION AS NEEDED.
- K. TYPE K COPPER PIPING.
- L. 8" X 8" X 16" SOLID CMU SOLID BLOCK.
- M. 3/8" WASHED PEA GRAVEL, 4" DEPTH.
- N. FLANGE.
- O. UNDISTURBED OR COMPACTED SOILS.
- P. PVC MAIN LINE.

USE THESE STANDARDS AS THEY APPLY TO THE BACKFLOW IN PUMP HOUSE DETAILS SEE SHEET L10

15 BACKFLOW  
NOT TO SCALE

16 BLANK  
NOT TO SCALE

REVISIONS

DATE

LISA MCNELLIS  
LANDSCAPE ARCHITECT  
1900 FOXBORO  
LAS CRUCES, NEW MEXICO 88007  
(505) 621-9032

ARCHITECTS SEAL

5/5/21

SCALE

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

DATE: LM  
DESIGN BY: LM  
CHECK BY: LM  
APPROV. BY: LM  
JOB NO.:

PROJECT TITLE

**DORSETT PARK**  
10716 TOMMY DORSETT STREET  
LOT 70 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 112516 SQ. FT. - 2.58 ACRES

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

*Karla Chavez*  
SIGNATURE  
5/18/21  
DATE

CITY OF EL PASO TEXAS

SHEET TITLE

**L9**

IRRIGATION DETAILS

SHEET 9 OF 11

IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TCEQ 512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947

STATE OF TEXAS  
LISA MCNELLIS  
REGISTERED LANDSCAPE ARCHITECT  
8947

*Lisa McNellis* 5/5/21

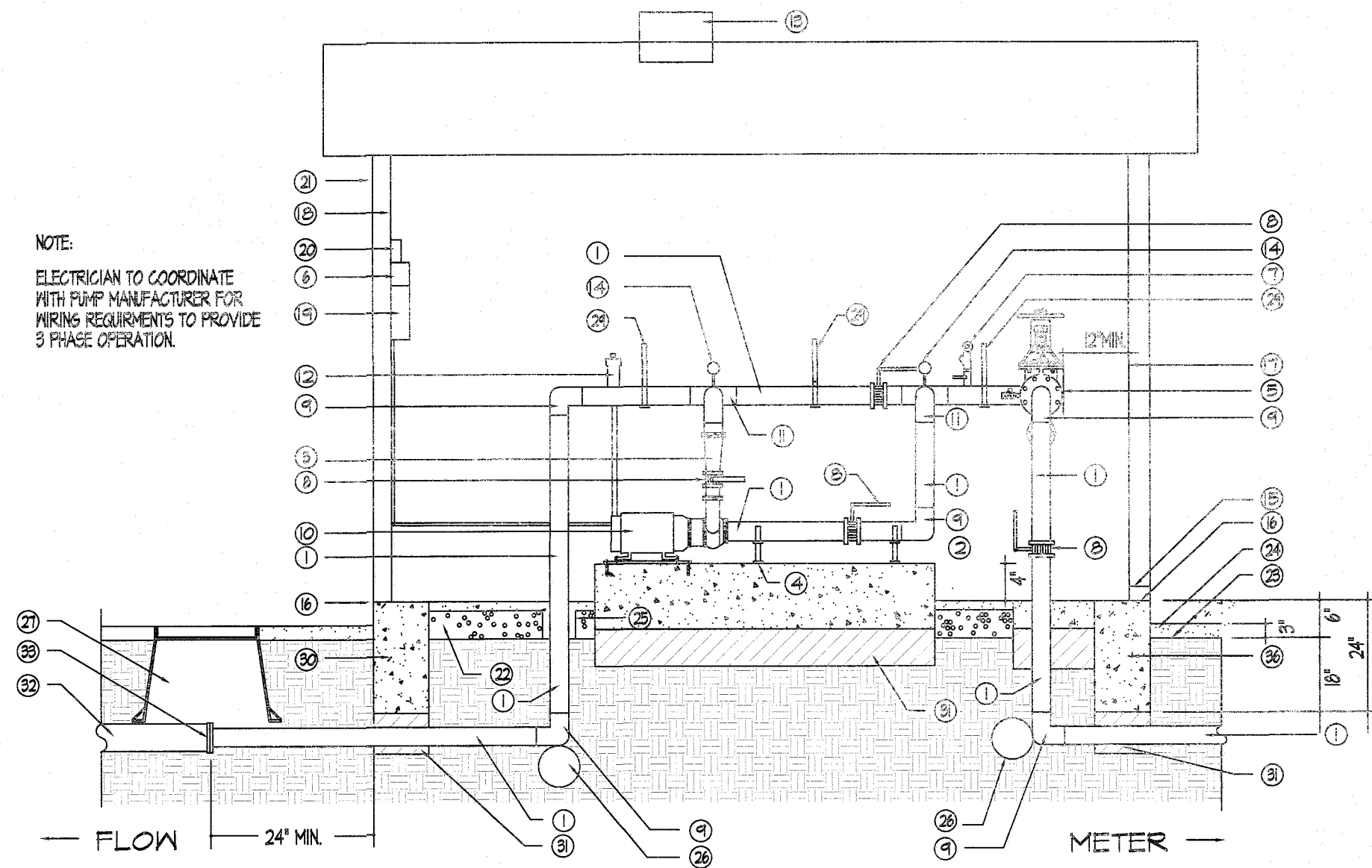


Karla Chavez

SIGNATURE

5/18/21

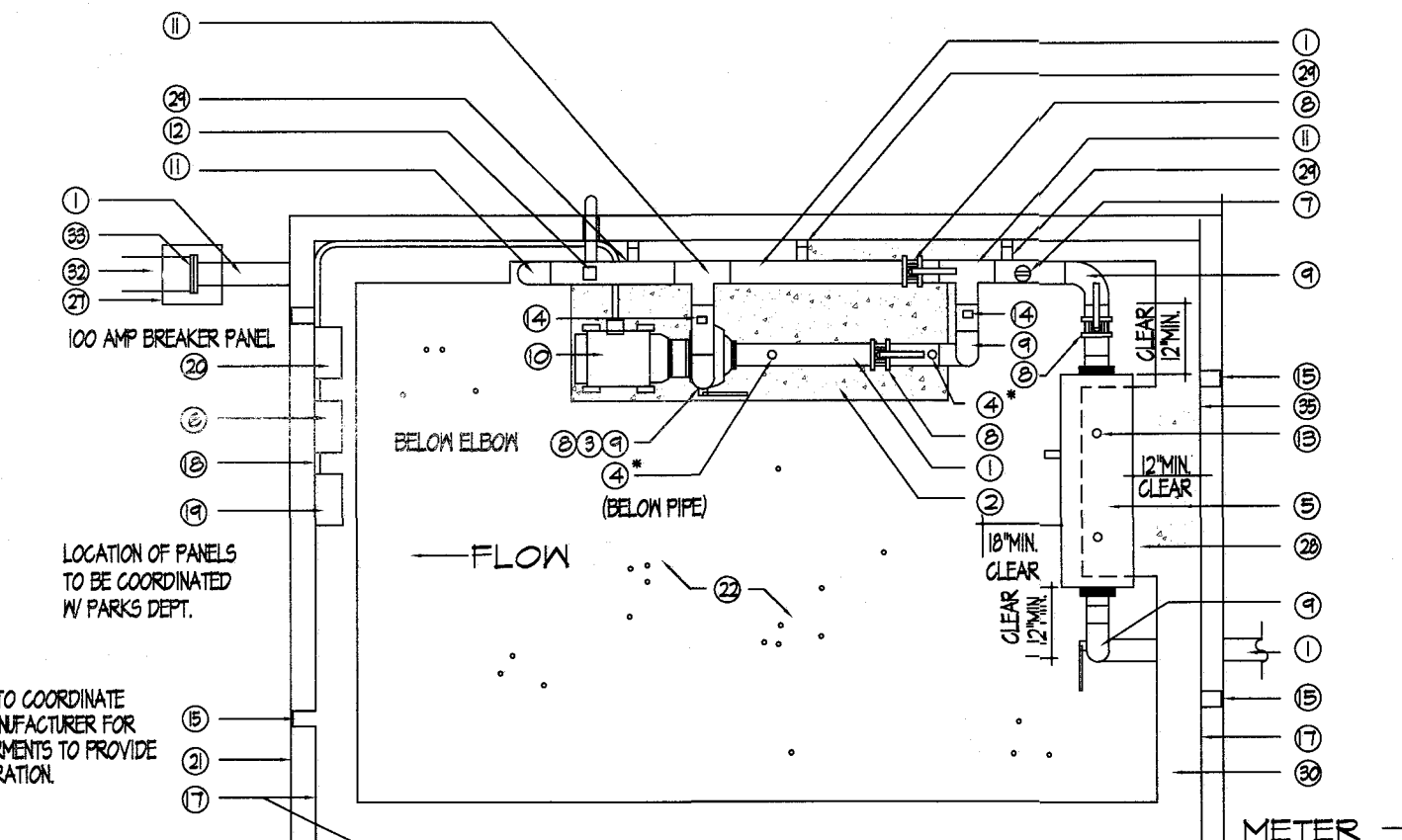
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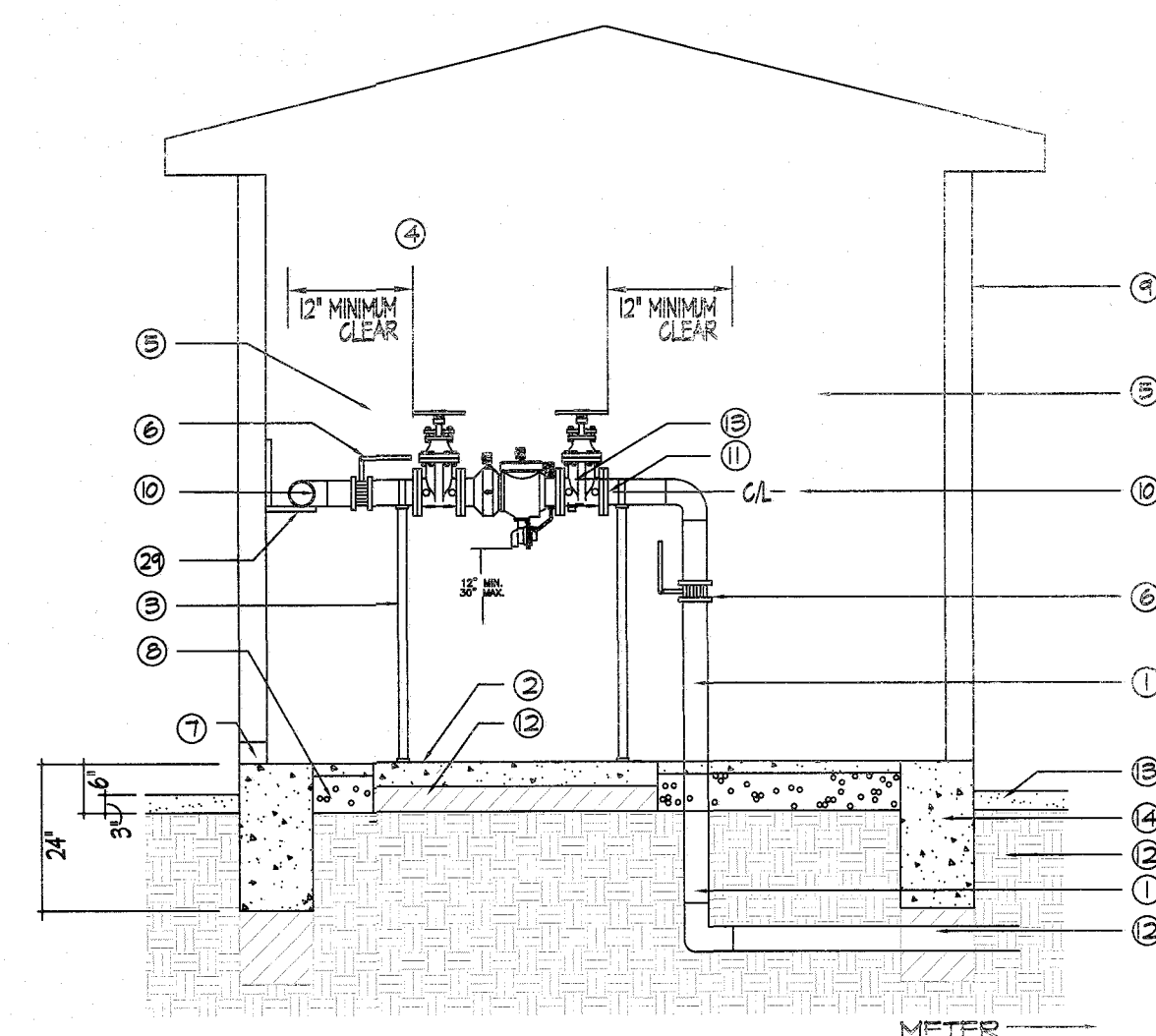
17 BOOSTER PUMP AND ENCLOSURE - SECTION/ELEVATION  
NOT TO SCALE

KEYED NOTES FOR DETAILS O AND P

- 1 TYPE K COPPER - SEE PLANS FOR SIZE
- 2 CONCRETE SLAB BELOW PUMP - 3000 PSI 4" HIGHER THAN BUILDING FOOTING
- 3 CONCENTRIC REDUCER IF PUMP OUTLET IS LESS THAN 3"
- 4 STEEL SUPPORTS WITH ISOLATORS BOLTED TO CONCRETE
- 5 BACKFLOW PREVENTER - SEE PLANS
- 6 PENITAIR VARIABLE FREQUENCY DRIVE
- 7 MERGOLD DA SWITCH-HIGH/LON OUT OFF SWITCH MUST BE VERTICAL AND LEVEL
- 8 WIRE TO PUMP PANEL
- 9 LUG STYLE BUTTERFLY VALVE
- 10 COPPER ELBOW
- 11 SEE PUMP INFORMATION IN IRRIGATION LEGEND
- 12 MOTOR FLANGED, MOUNTED ON CONCRETE SLAB WITH 1/2" OR THICKER SOLE PLATE TAPPED FOR HOLD DOWN BOLTS. USE RUBBER ISOLATORS BETWEEN PUMP AND SOLE PLATE. REFER TO BERKELEY CENTRIFUGAL PUMP OWNER'S MANUAL P. 5
- 13 COPPER TEE
- 14 PRESSURE RELEASE VALVE VENT TO OUTSIDE OF PUMP HOUSE
- 15 METAL STATIC VENT
- 16 100 PSI PRESSURE GAUGE
- 17 INSTALL KNOCK OUT DRAINS W/ STURDY METAL LOVERS (N=)
- 18 TOP OF SHED FOOTING
- 19 WATER BOARD IN WALLS AND CEILING
- 20 3/4" CDX PLYWOOD BEHIND CONTROLLER AND ELEC PANEL
- 21 CONTROLLER WITHIN 8" OF PUMP RELAYS. SEE DETAIL M SHEET L6
- 22 PUMP PANEL WITH NEMA 3R ENCLOSURE. REFER TO BERKELEY PUMP MANUFACTURER'S RECOMMENDED COMPONENTS FOR PUMP PROTECTION DURING OPERATION. MUST MEET ALL LOCAL ELEC. CODE REQUIREMENTS
- 23 8' X 12' PREMIER TUFF SHED. DOOR LOCATION APPROVED BY PARKS.
- 24 4" MINIMUM DEPTH FEA GRAVEL
- 25 FINISHED GRADE
- 26 3" LAYER OF GRAVEL (OUTSIDE SHED)
- 27 THRUST BLOCK
- 28 JIMBO CARSON BOX 18" DEPTH FOR INSPECTION
- 29 4" SLAB BELOW BACKFLOW FOR STEEL SUPPORTS
- 30 UNISTRUT PIPE SUPPORT SYSTEM - DETAILS PROVIDED TO PARKS
- 31 12"x24" CONCRETE FOOTING SEE T ON SHEET L2
- 32 UNDISTURBED SOIL OR COMPACTED FILL TO MODIFIED PROCTOR 95% BELOW ALL CONCRETE.
- 33 SCHEDULE 40 PVC MAN
- 34 COPPER FLANGE TO PVC SCHEDULE 80 FLANGE



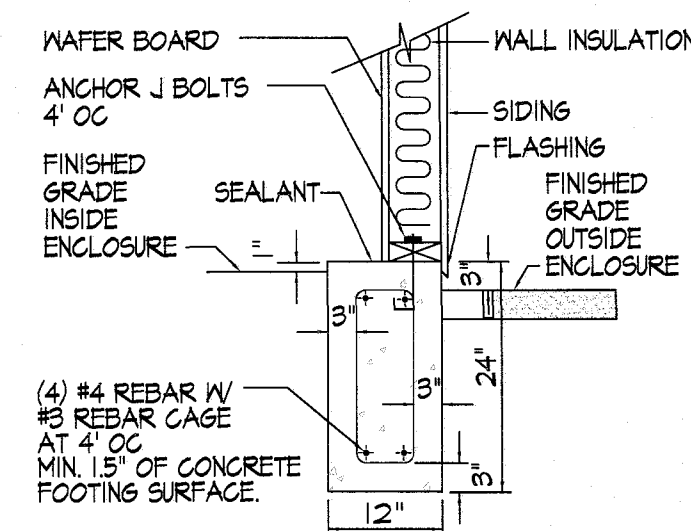
18 BOOSTER PUMP AND ENCLOSURE - PLAN VIEW  
NOT TO SCALE



19 BACKFLOW IN PUMP ENCLOSURE - SECTION/ELEVATION  
NOT TO SCALE

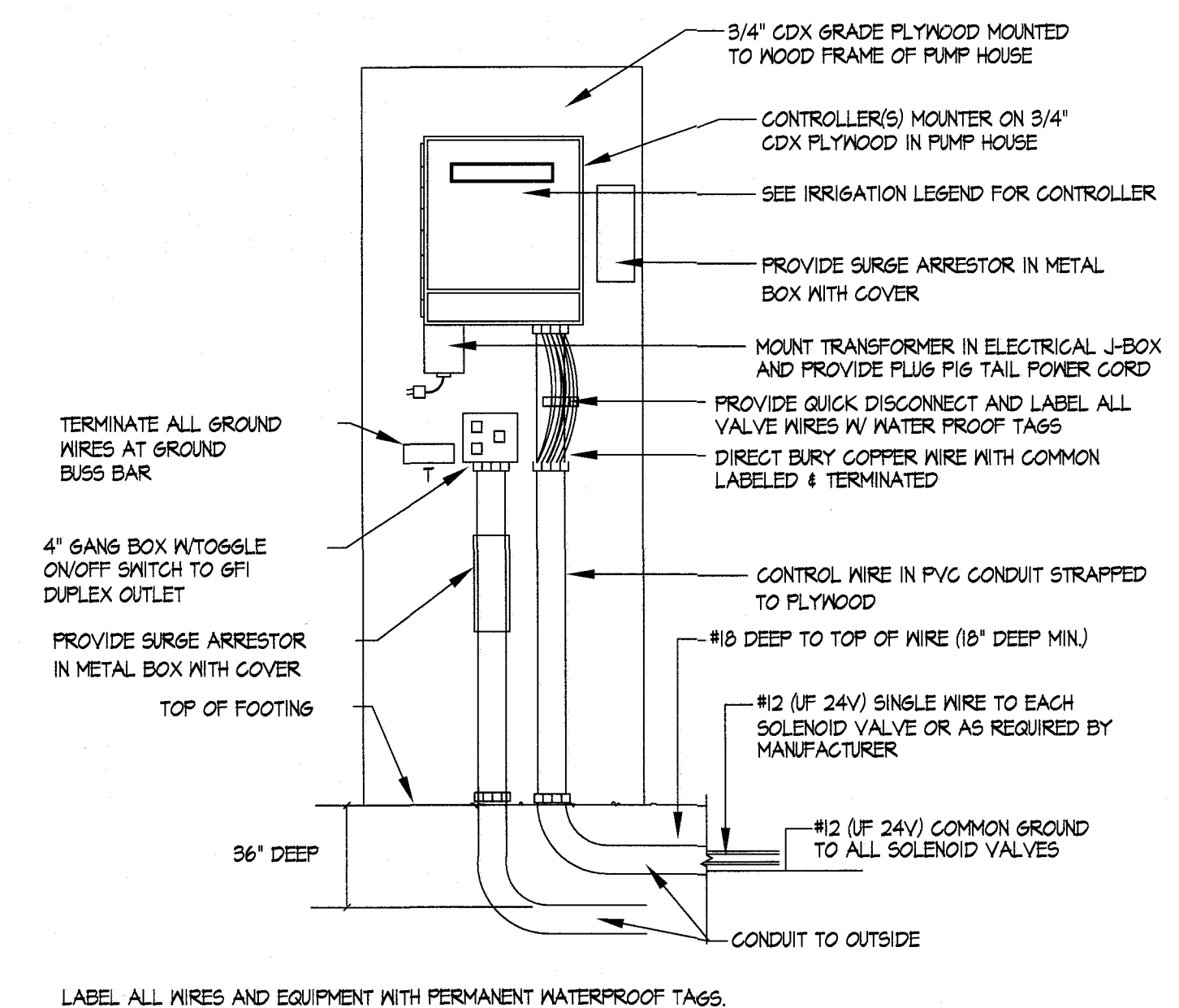
- 1 TYPE K COPPER - SEE PLANS FOR SIZE
- 2 4" CONCRETE SLAB BELOW BACKFLOW 3000 PSI CONCRETE. SAME POUR AS SHED FOOTING
- 3 STEEL SUPPORTS WITH RUBBER ISOLATORS BOLTED TO CONCRETE
- 4 UNISTRUT PIPE SUPPORT SYSTEM - DETAIL TO BE APPROVED BY PARKS.
- 5 BACKFLOW PREVENTER - SEE PLANS
- 6 BUTTERFLY VALVE
- 7 INSTALL KNOCK OUT DRAINS WITH STURDY METAL LOVERS
- 8 4" DEPTH OF FEA GRAVEL
- 9 8' X 12' TUFF SHED. DOOR LOCATION TO BE APPROVED BY PARKS.
- 10 MUST ALIGN WITH BY-PASS ABOVE PUMP
- 11 COPPER UNION (FLANGED)
- 12 UNDISTURBED SOIL OR COMPACTED FILL TO MODIFIED PROCTOR 95% BELOW ALL CONCRETE.
- 13 3" LAYER OF GRAVEL OUTSIDE OF SHED
- 14 12' X 24" CONCRETE FOOTING MINIMUM SIZE BELOW WALLS. SEE DETAIL T ON L2.

PROVIDE CLEARANCES FOR BACKFLOW DEVICE OF:  
12" ON BACKSIDE  
12" ON SUPPLY AND DISCHARGE SIDES  
12" ON FRONT SIDE (FEET SIDE)



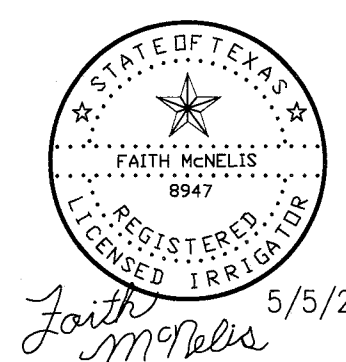
NOTES:  
ALL SIDING AND TRIM WORK TO BE CAULKED THEN PRIMED. USE 2 COATES OF PAINT (COLOR SELECTED BY PARKS AND RECREATION DEPT).  
INSTALL KNOCK-OUT DRAINS WITH STURDY METAL LOVERS AT BASE OF PUMP HOUSE IN CASE OF LEAKS.  
SEE DETAILS N, O AND P ON SHEETS L6 AND L7 FOR MORE INFORMATION.

20 PUMP ENCLOSURE FOOTING DETAIL - SECTION/ELEVATION  
NOT TO SCALE



21 WALL MOUNTED CONTROLLER MAXICOM COMPATIBLE  
NOT TO SCALE

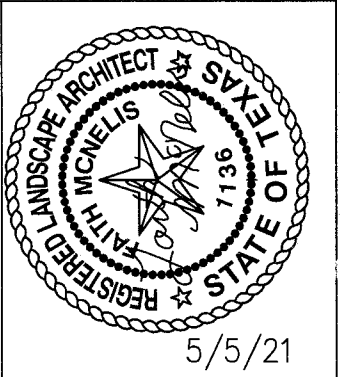
IRRIGATION IS REGULATED BY:  
PO BOX 13087  
AUSTIN, TEXAS 78711-3087  
TOEQ 512 239-6719  
CHAPTER 34, TEXAS WATER CODE  
IRRIGATOR'S LIC. #8947



5/5/21

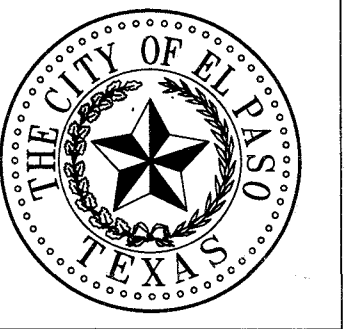
REVISIONS	DATE

LISA MCNELLIS  
LANDSCAPE ARCHITECT  
1000 FLORENCE  
LAS CRUCES, NEW MEXICO 88007  
(575) 621-9022



SCALE  
Horizontal: N/A  
Vertical: Contour Interval: N/A  
DATE: LM  
DESIGN BY: LM  
DRAWN BY: LM  
CHKD. BY: LM  
APP'D. BY: LM  
JOB No.

PROJECT TITLE  
**DORSETT PARK**  
10716 TOMMY DORSETT STREET  
LOT 70 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 112516 SQ.FT. - 2.58 ACRES

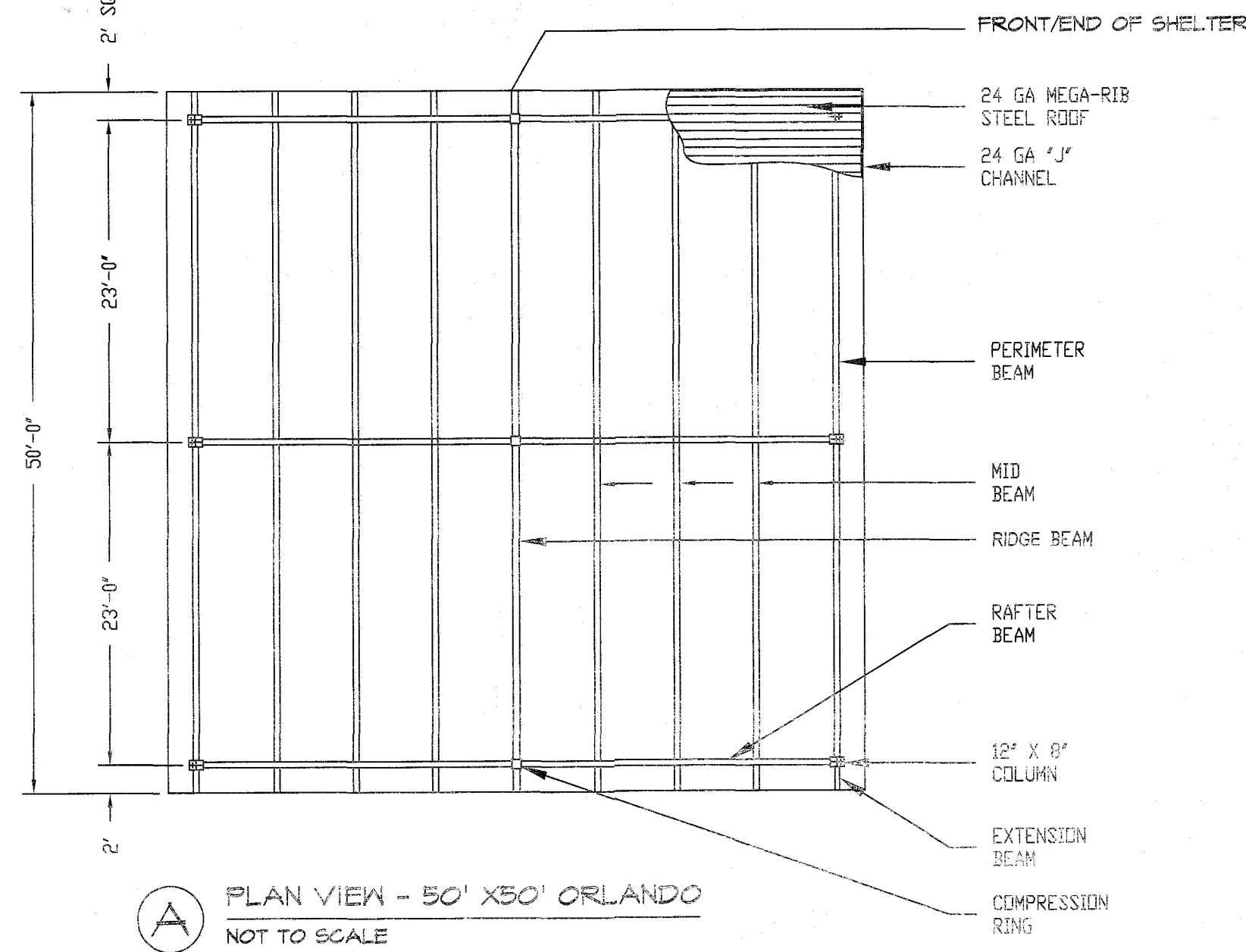


SHEET TITLE

**L10**  
PUMP  
DETAILS  
SHEET 10 OF 11

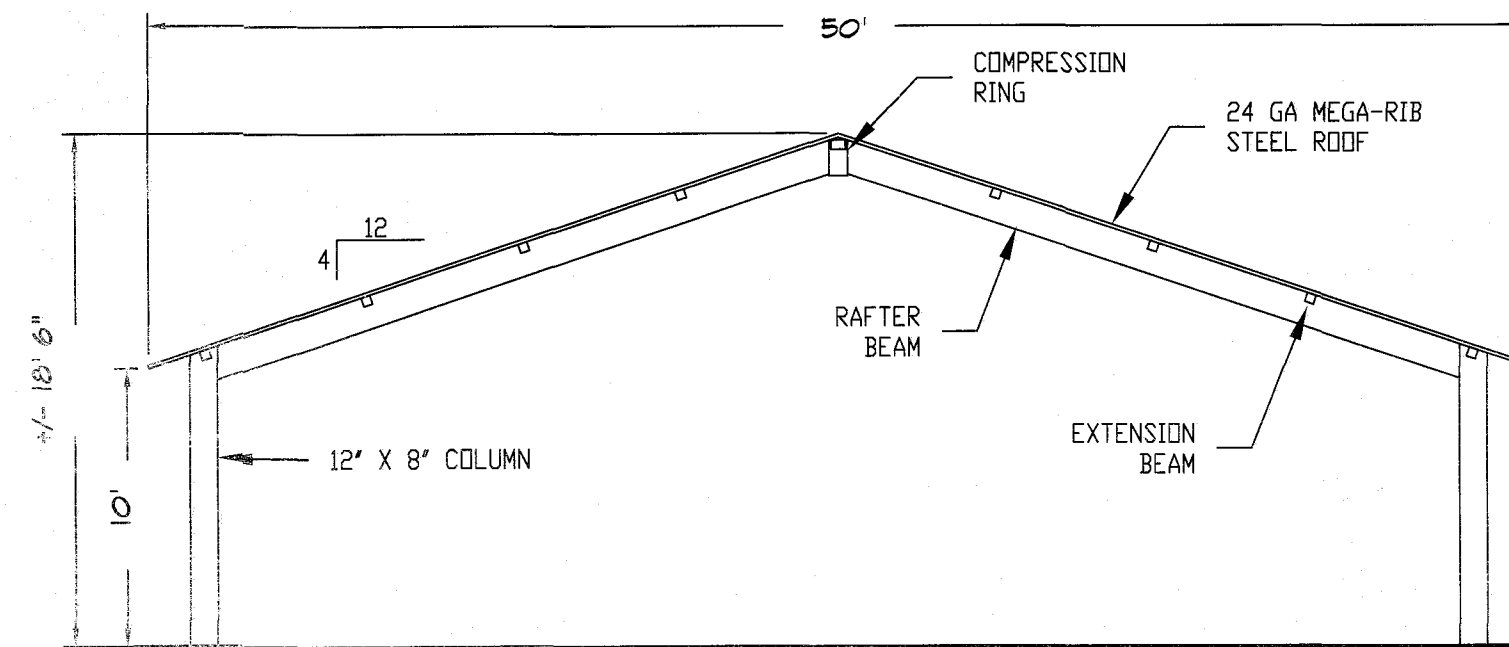


NOT FOR CONSTRUCTION

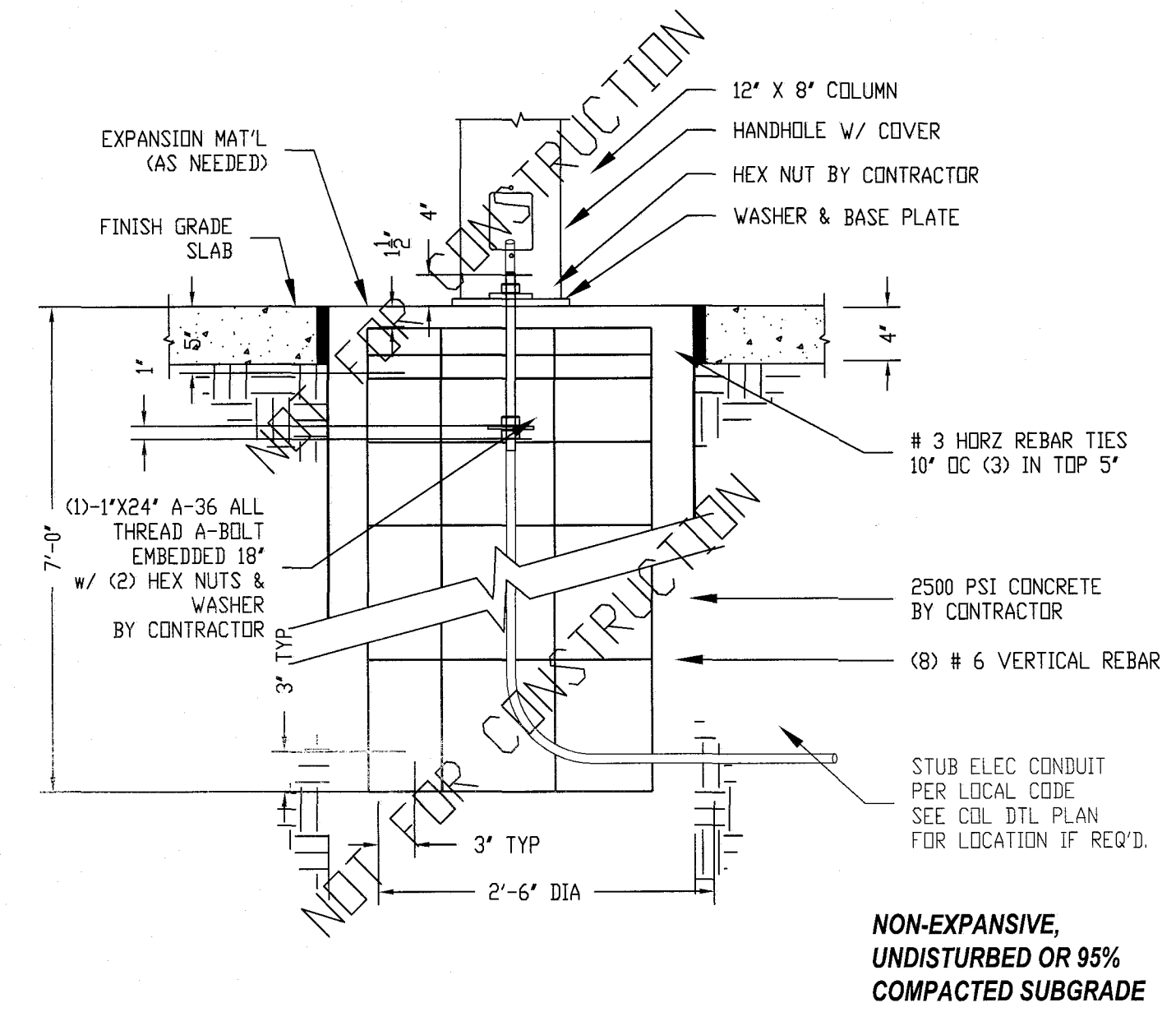


**A** PLAN VIEW - 50' X 50' ORLANDO  
NOT TO SCALE

NOT FOR CONSTRUCTION



**B** ELEVATION VIEW - 50' X 50' ORLANDO - FRONT/END  
NOT TO SCALE



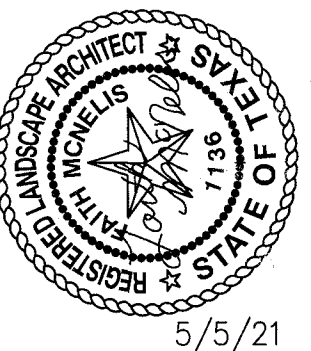
**C** 1 BOLT DSURFACE MOUNT CAISSON TYPE FOOTING  
NOT TO SCALE

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

SIGNATURE: Karla Chavez  
DATE: 5/18/21

REVISIONS	DATE

LISA MCNEELIS  
LANDSCAPE ARCHITECT  
1400 FOXBORO  
LAS CRUCES, NEW MEXICO 88001  
(505) 621-5092



SCALE	DATE	DESIGN BY	DRAWN BY	CHKD. BY	APPRD. BY	JOB No.
Horizontal: Vertical: Contour Interval: N/A		LM	LM	LM	LM	

PROJECT TITLE  
**DORSETT PARK**  
10716 TOMMY DORSETT STREET  
LOT 70 BLOCK 8  
VILLAS DEL NORTE UNIT 1  
CITY OF EL PASO, EL PASO, TEXAS 79928  
AREA: 11,2516 SQ.FT. - 2.58 ACRES



SHEET TITLE  
**L11**  
SHELTER  
DETAILS  
SHEET 11 OF 11







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
CITY OF EL PASO DEPARTMENT OF TRANSPORTATION (EPDOT)	(915) 621-6750
(AFTER HOURS)	(915) 240-3220

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

REFERENCES - BENCHMARKS	DATE	REVISIONS	BY	EMC
CITY MONUMENT LOCATED AT THE CENTERLINE PALOMINO STREET				
ELEVATION: 3939.32 (NAVD 88)				
ELEVATION: 3928.24' (CITY DATUM)				
	04/15/21			
		REV. 1	CITY COMMENTS	

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

ENGINEER'S SEAL

SCALE	Horizontal	Vertical
	1" = 40'-0"	1" = 40'-0"
DATE:	MARCH 2021	
DESIGN BY:	EMC	
DRAWN BY:	EMC	
CHKD BY:	EMC	
APPVD BY:	EMC	
JOB No.	2000-2241D	

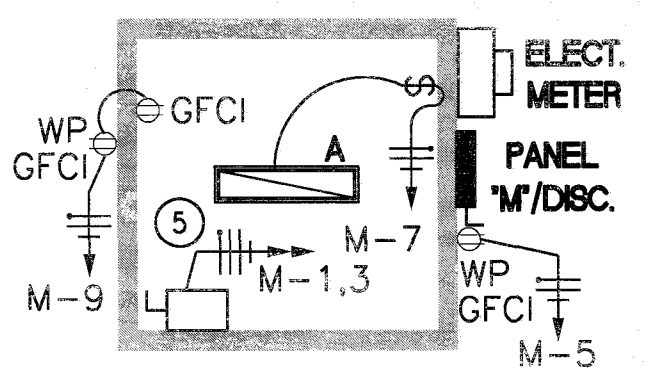
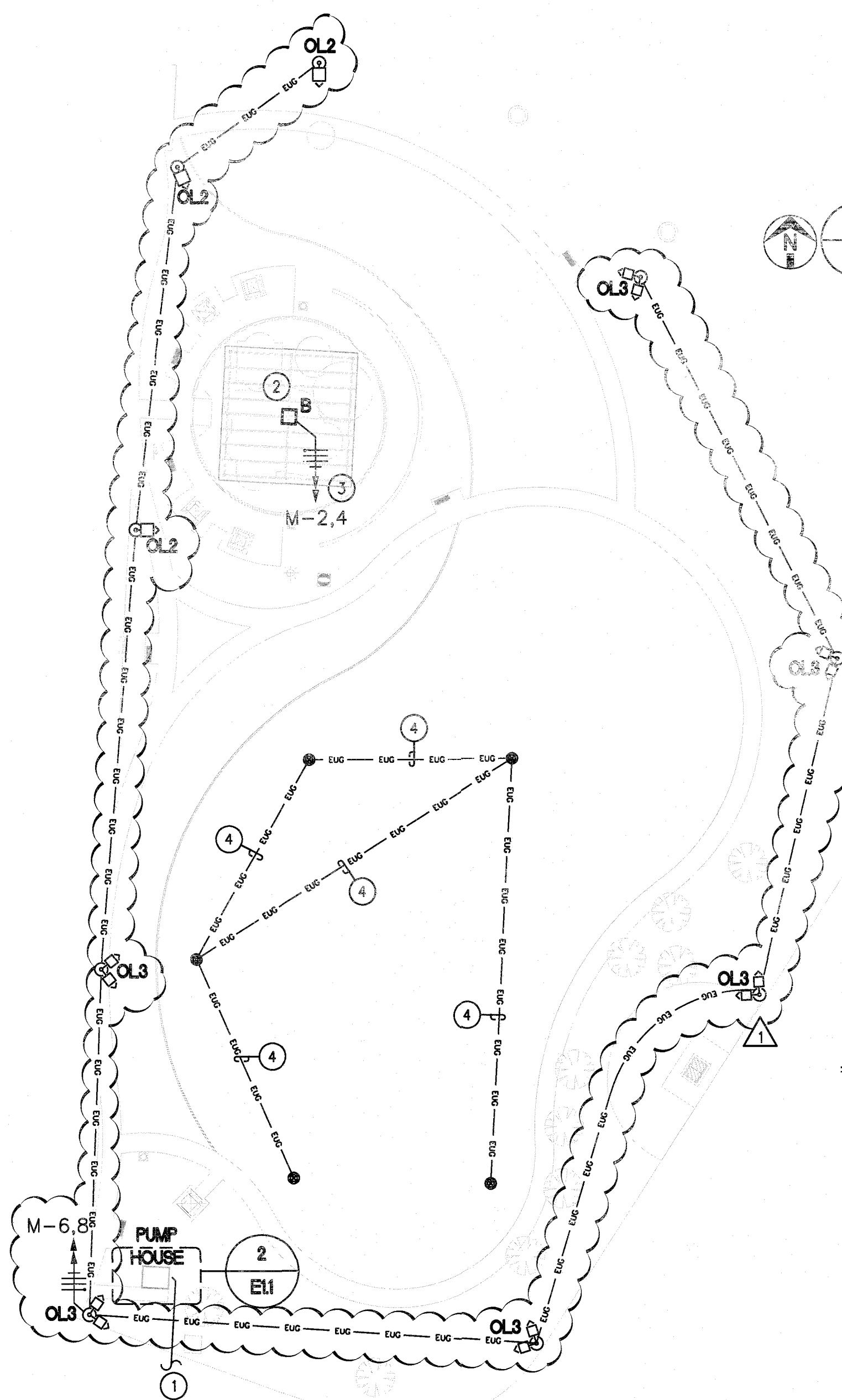
PROJECT TITLE  
**PARK #4**  
**VILLAS DEL NORTE UNIT ONE**  
SUBDIVISION IMPROVEMENTS

SHEET TITLE

ELECTRICAL SITE LIGHTING PLAN AND SCHEMATICS

SHEET NO.

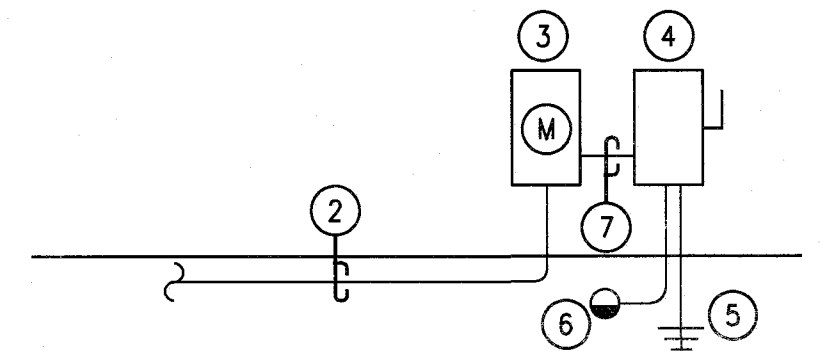
**E1.1**



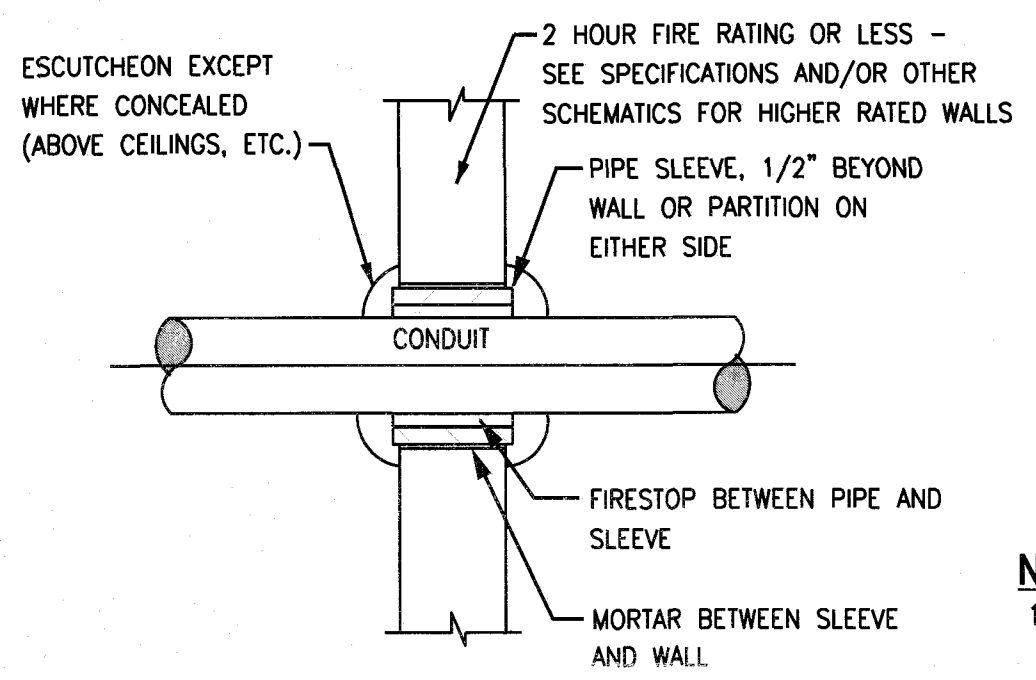
**ENLARGED ELECTRICAL PUMP HOUSE PLAN**  
SCALE: 1/8" = 1'-0"

**ELECTRICAL KEYED NOTES:**

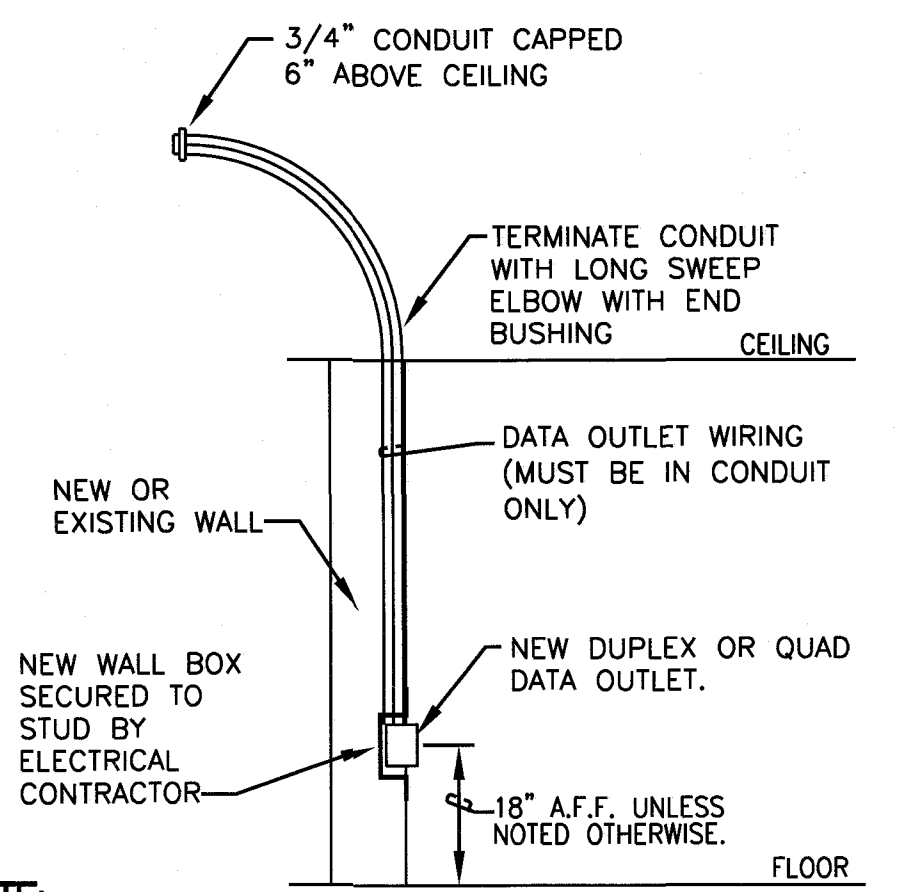
- TO EPE SERVICE
- #4/0 TRIPLEX FROM EPE
- METER PER EPE REQUIREMENTS
- 100A 240/120V N3R PANEL
- #8 CU TO 2 5/8"x8" COPPER CLAD GROUND RODS
- #8 CU TO METALLIC COLD WATER PIPE
- 3 #2 CU THWN AND #8 CU GROUND IN 1-1/4" CONDUIT.



**ELECTRICAL POWER RISER DIAGRAM**  
SCALE: NONE



**INTERIOR WALL CONDUIT PENETRATION**  
SCALE: NONE



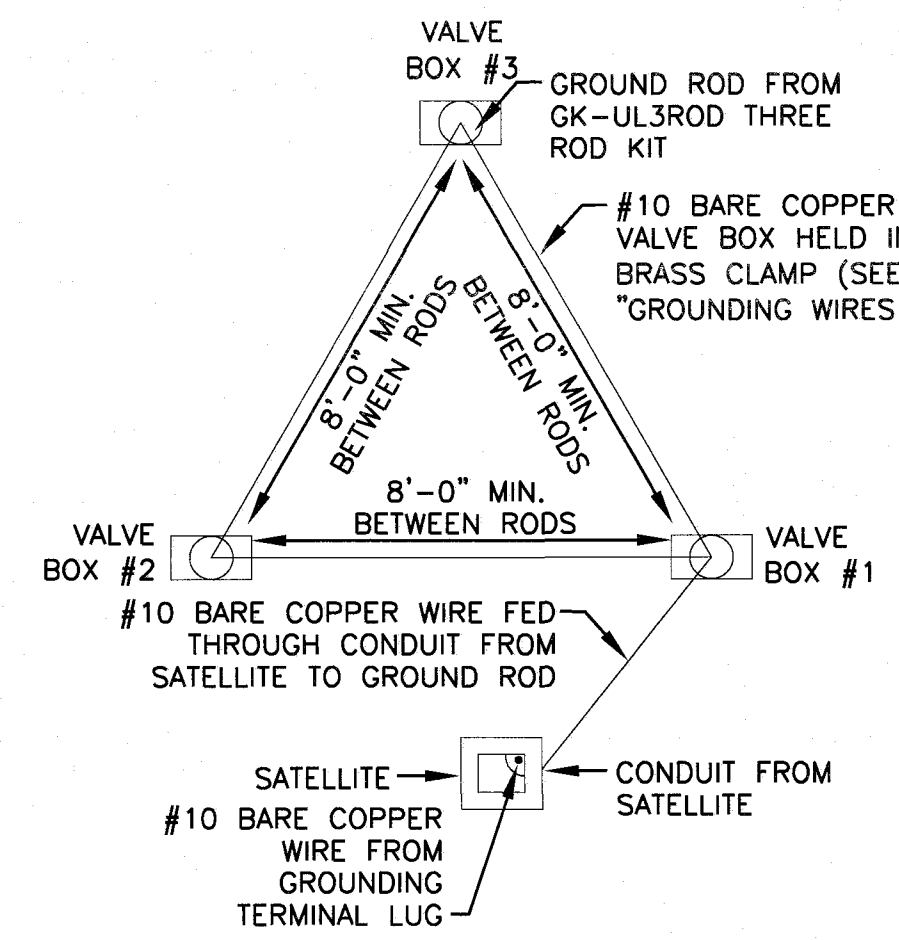
**DUPLIX OR QUAD, DATA OUTLET MOUNTING SCHEMATIC**  
SCALE: NONE

NOTE:

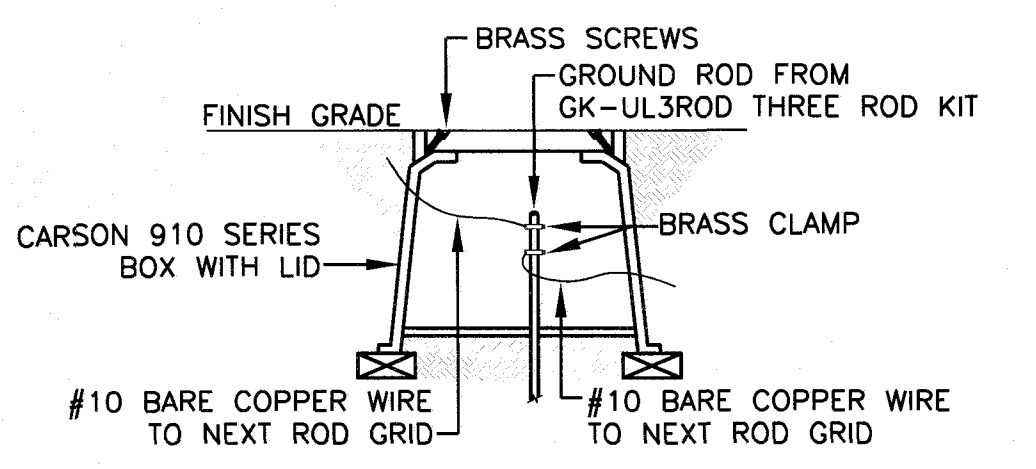
- ELECTRICAL CONTRACTOR TO INSTALL CONDUIT AND PULL STRING FOR CONTROLS. CONTRACTOR TO INSTALL WIRE DEVICES.

**GROUNDING ROD NOTES:**

- GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH.
- CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:
- ALWAYS USE A 5/8"x8" COPPER CLAD ROD.
  - RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
  - KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
  - CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
  - TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
  - SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID #10 COPPER WIRE.
  - WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GRATER THAN 15 OHMS.
  - WHENEVER MORE THEN ONE WIRE IS ATTACHED TO A GROUND ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
  - GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. REMEMBER THESE TIPS WHEN INSTALLING THEM.



**PLAN VIEW VALVE BOX GROUNDING SCHEMATIC**  
SCALE: NONE



**GROUNDING WIRES SCHEMATIC**  
SCALE: NONE

**ELECTRICAL GENERAL NOTES:**

- UNDERGROUND WIRING TO BE XHHW.

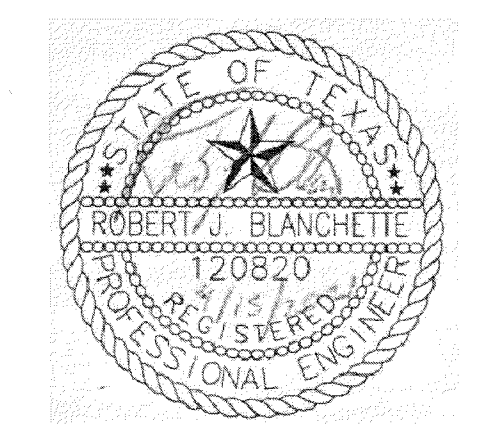
**ELECTRICAL KEYED NOTES:**

- PAD MOUNT TRANSFORMER BY EPE.
- RUN CONDUIT AND WIRING FOR LIGHT INSIDE CANOPY REFER TO STRUCTURAL DETAILS OF CANOPY FOR PLACEMENT OF CONDUIT IN FOOTING AND COLUMN.
- VIA ASTRONIMICAL TIME CLOCK AND PHOTOCCELL. PLACE TIMER AND PHOTOCCELL AT PUMP HOUSE.
- SEE VALVE BOX GROUNDING SCHEMATIC.
- COORDINATE PUMP EQUIPMENT LOCATION PRIOR TO INSTALL.

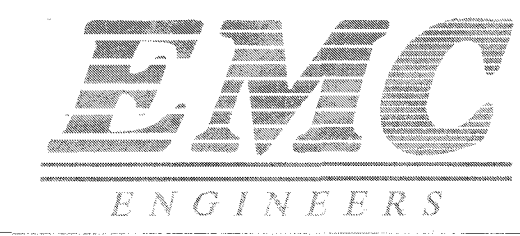
**ELECTRICAL SITE LIGHTING PLAN**  
SCALE: 1" = 40'-0"

APPROVED FOR CONSTRUCTION  
Parks & Recreation Department Planning

Signature: Karla Chavez  
DATE: 3/18/21



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ROBERT J. BLANCHETTE, P.E. #120820 OF EMC ENGINEERS (TEXAS FIRM REG. #2491) ON 03/18/21. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

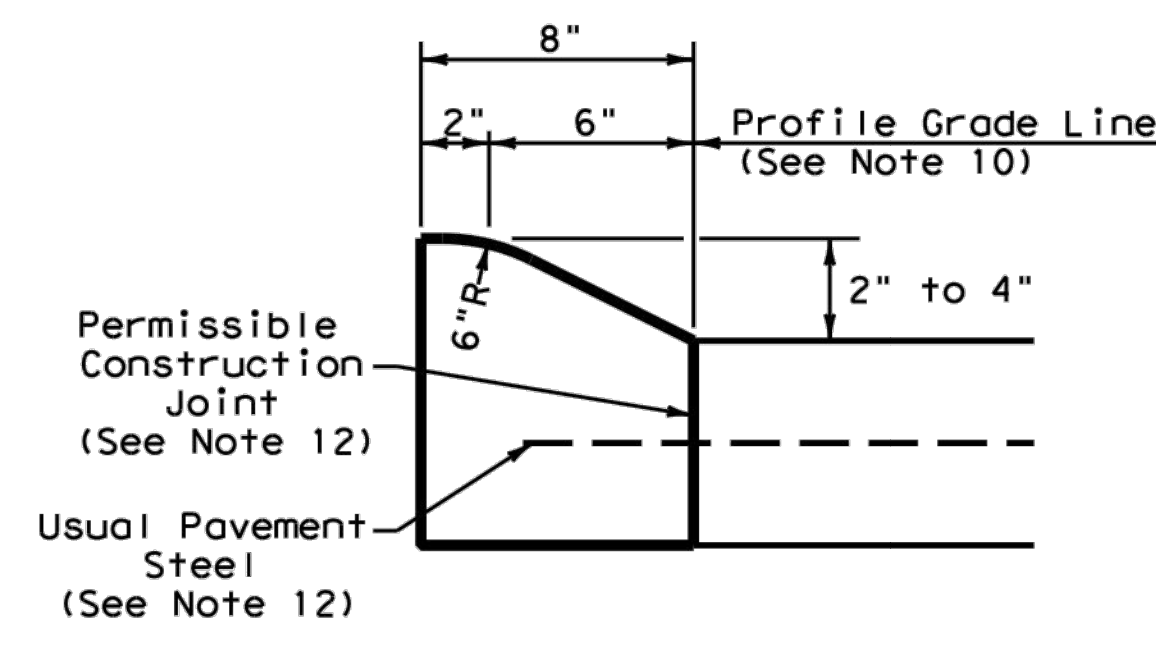


EMC ENGINEERS  
2011 E. HASTINGS AVE. SUITE 302  
EL PASO, TX 79903  
PH: 915.781.0510  
FAX: 915.781.0975  
TEXAS FIRM REG. #2491  
EMC PROJ. 2021-0015

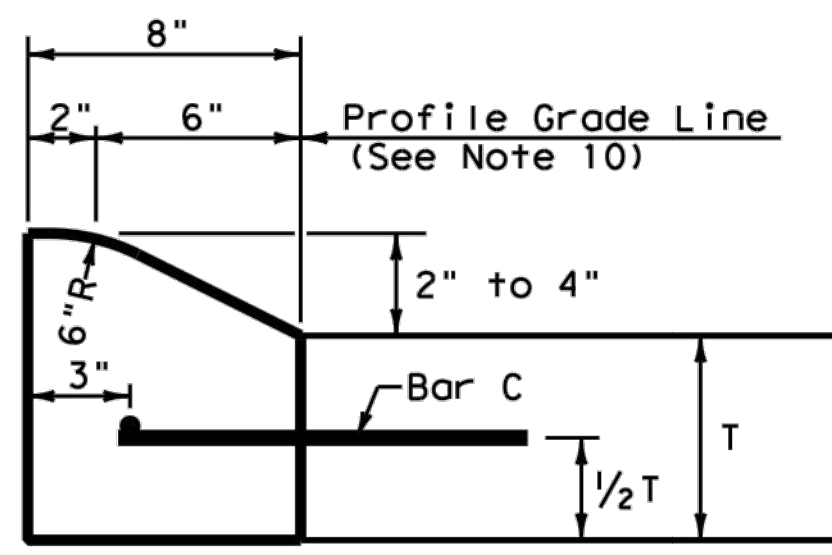


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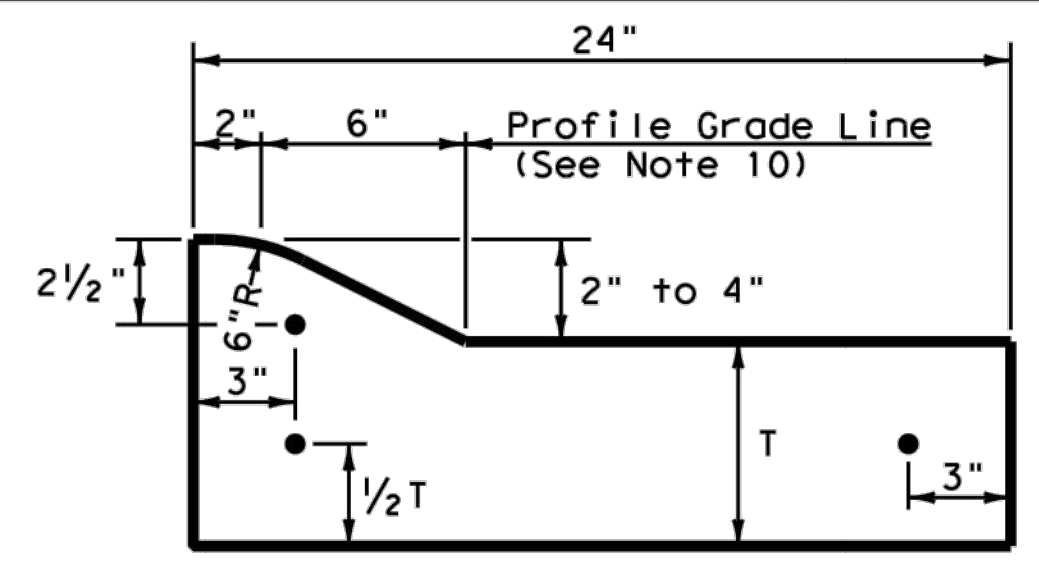
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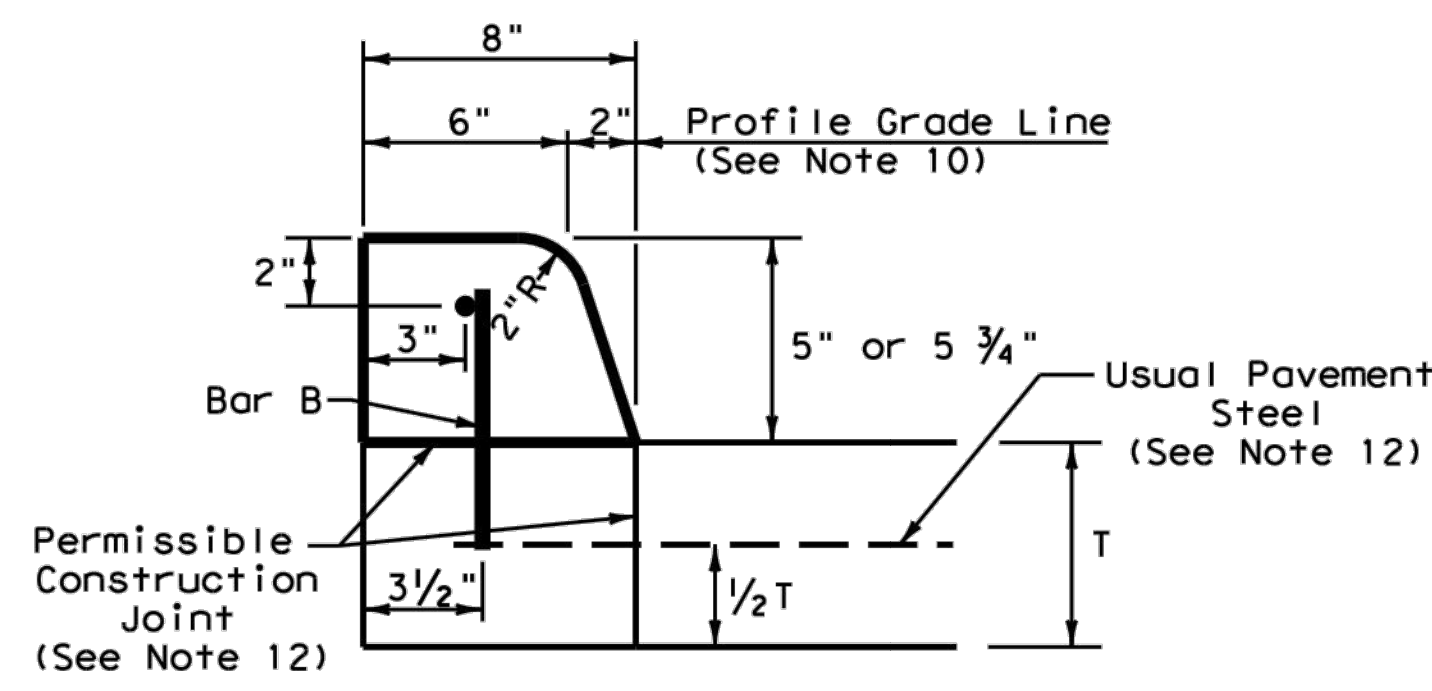
**TYPE I CURB (MONOLITHIC)**  
2" - 4" HEIGHT



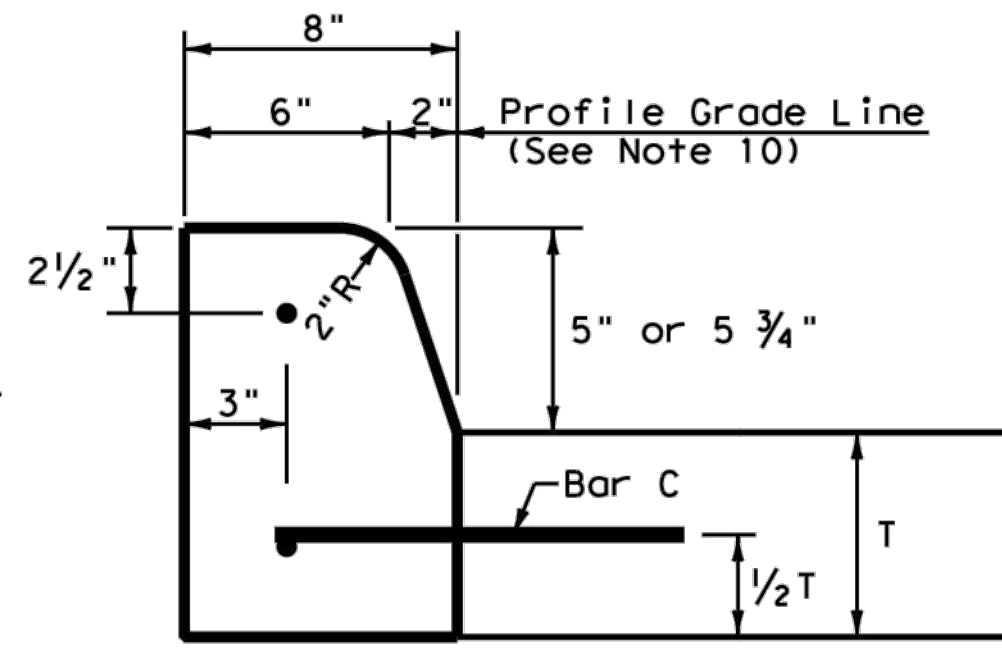
**TYPE I CURB**  
2" - 4" HEIGHT



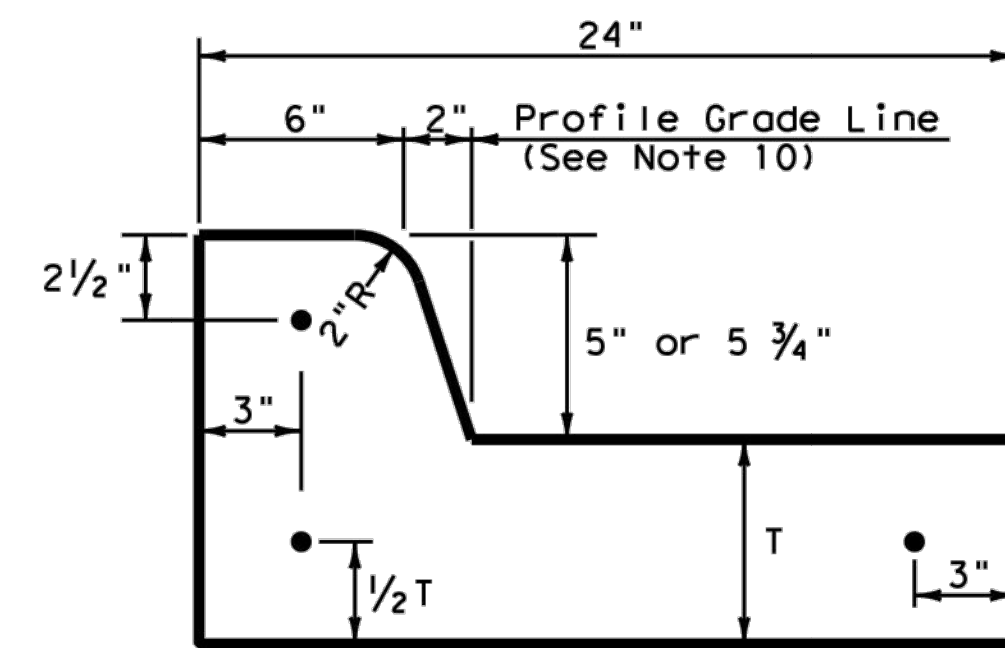
**TYPE I CURB AND GUTTER**  
2" - 4" HEIGHT



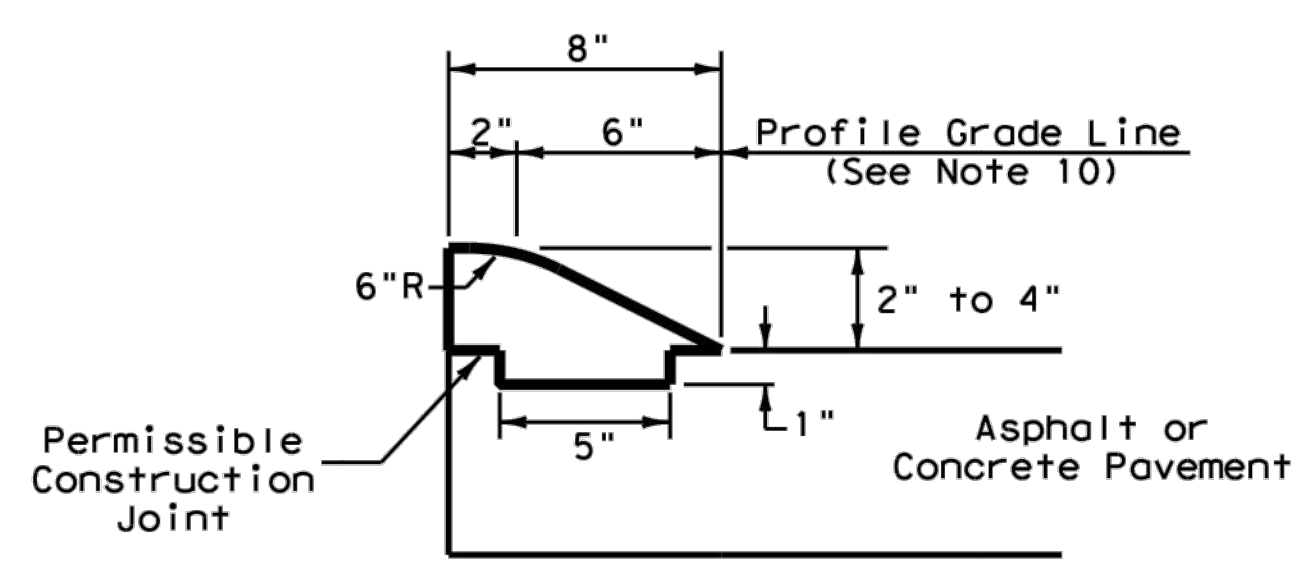
**TYPE II CURB (MONOLITHIC)**  
5" - 5 3/4" HEIGHT



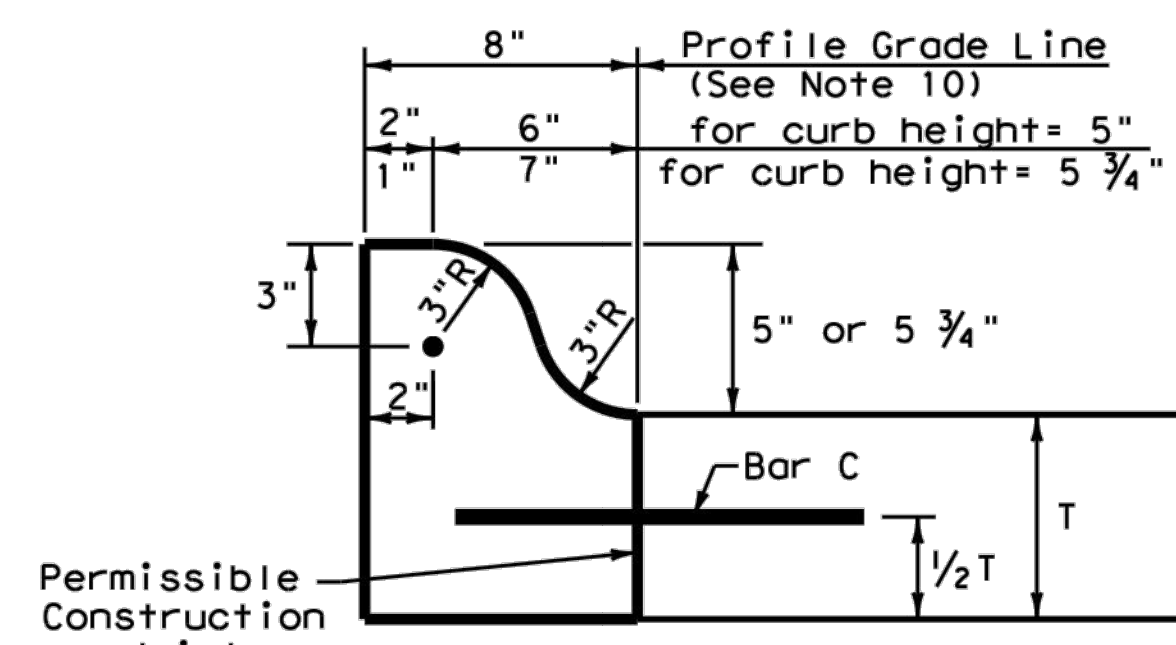
**TYPE II CURB**  
5" - 5 3/4" HEIGHT



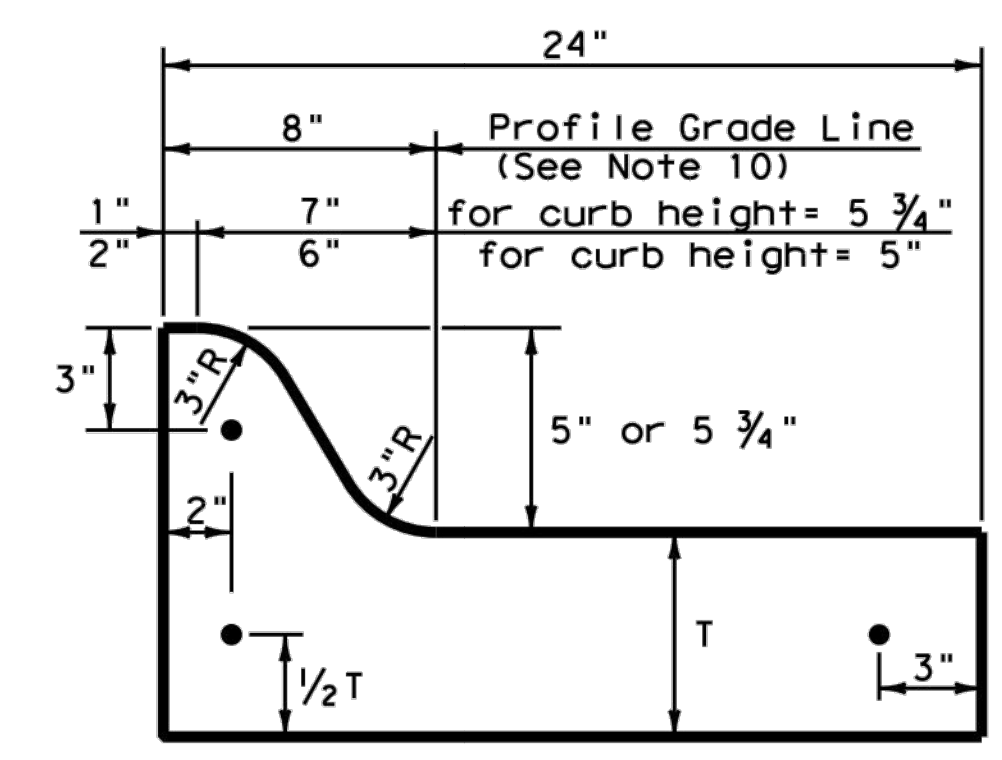
**TYPE II CURB AND GUTTER**  
5" - 5 3/4" HEIGHT



**TYPE III CURB (KEYED)**  
2" - 4" HEIGHT



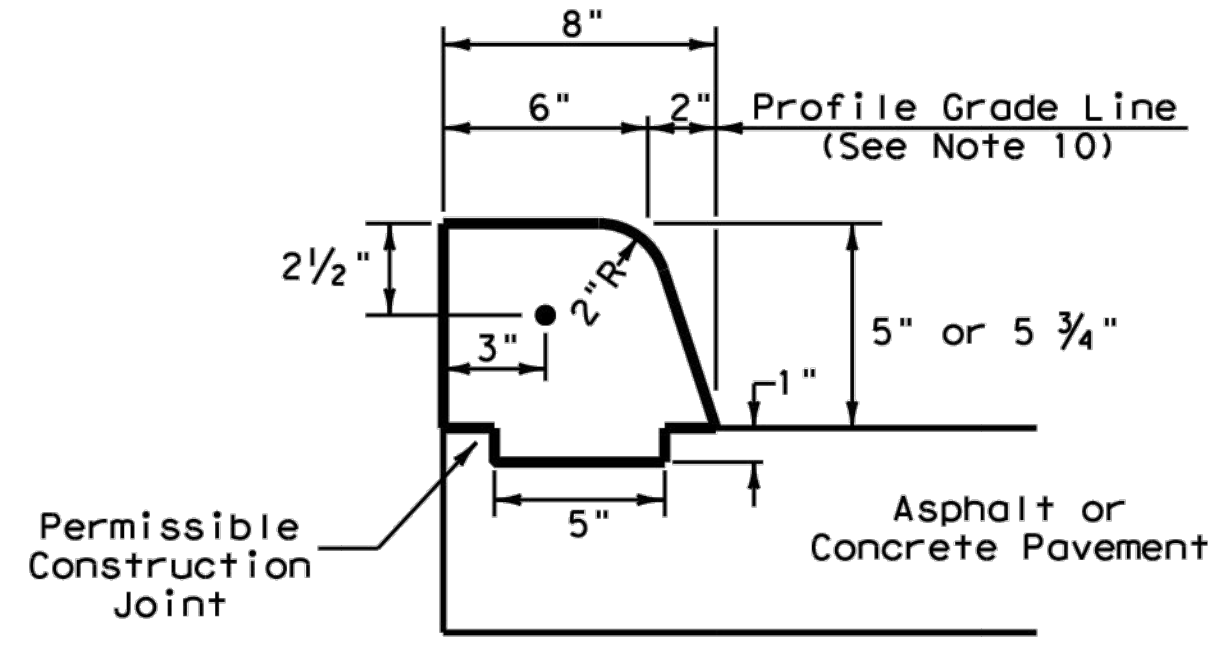
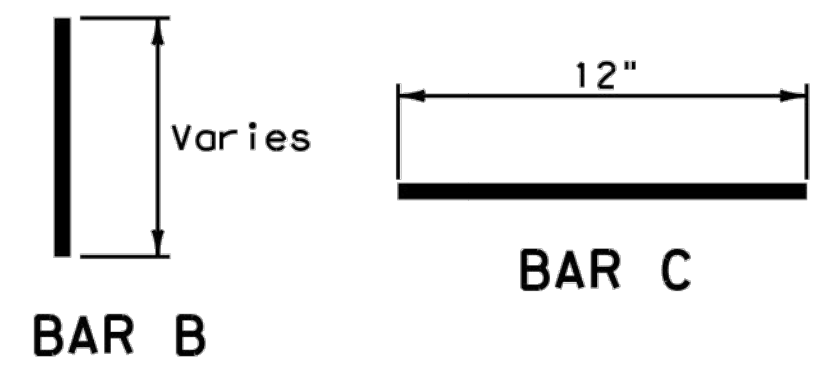
**TYPE IIIa CURB**  
5" - 5 3/4" HEIGHT



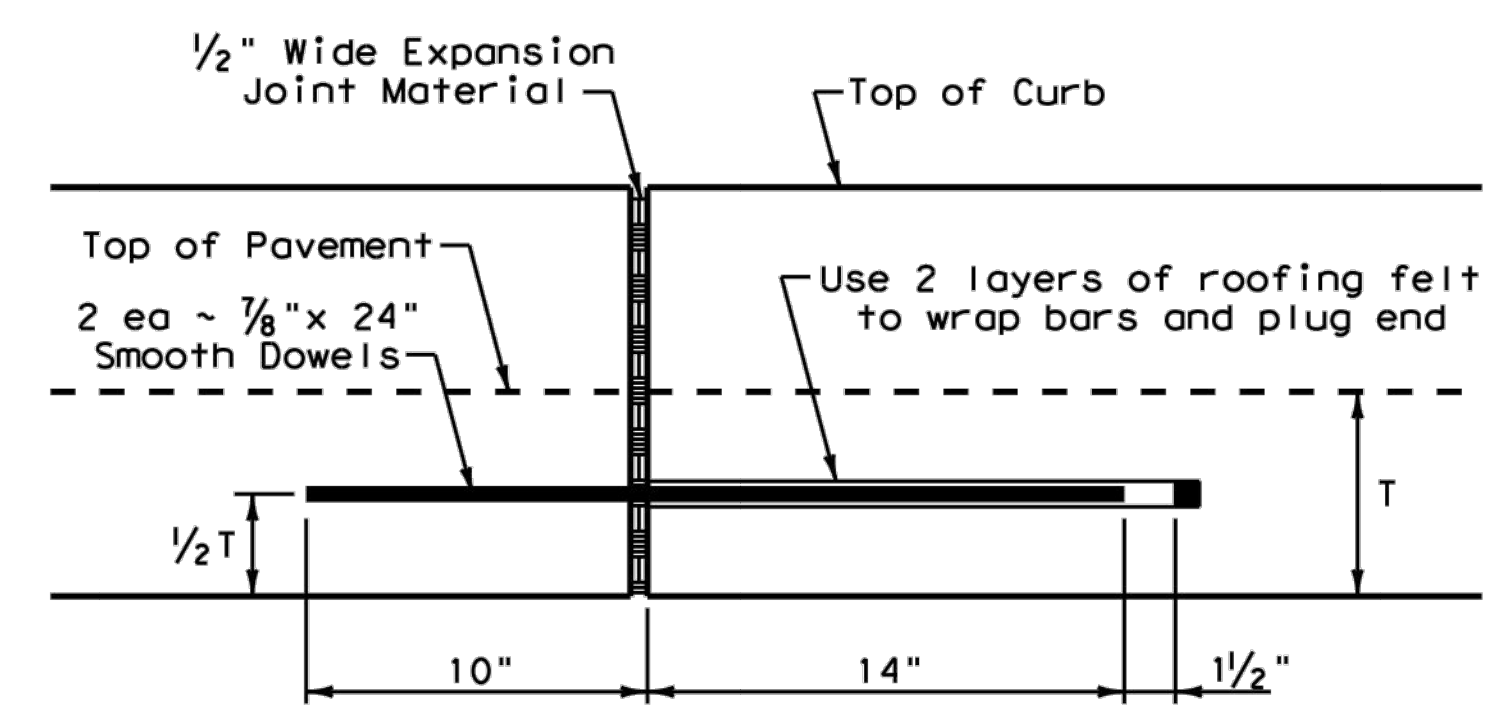
**TYPE IIIa CURB AND GUTTER**  
5" - 5 3/4" HEIGHT

**General Notes**

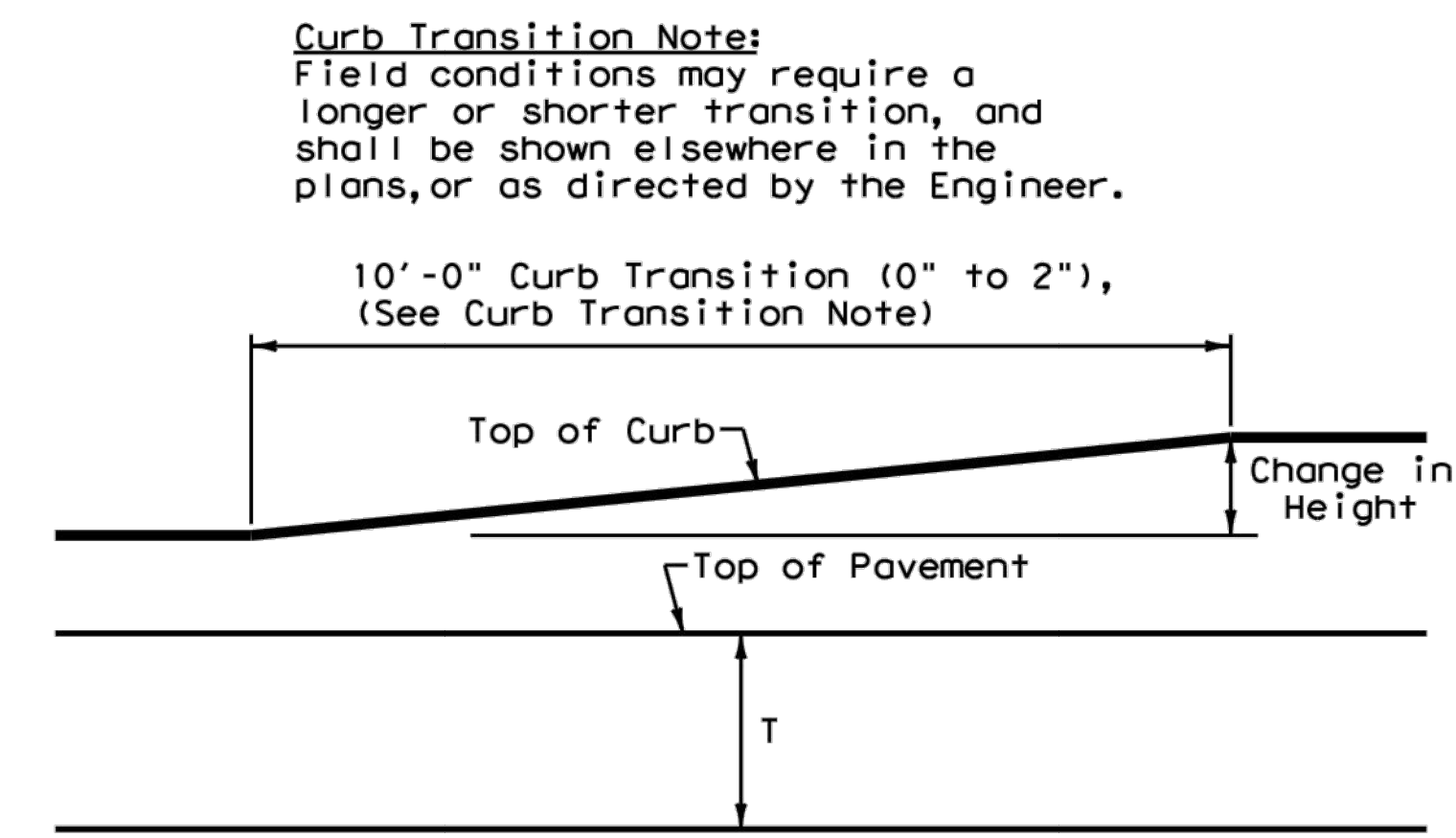
1. All materials and construction shall be in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."
2. Concrete shall be Class A.
3. When reinforcing bars are used, they shall be No.4 unless otherwise shown. The use of synthetic fiber in lieu of steel reinforcing is acceptable, provided the fiber producer is on the Department Producer List (MPL), maintained by TxDOT, Construction Division.
4. Round exposed sharp edges with a rounding tool, to a minimum radius of 1/4 inch.
5. All existing curbs and driveways to be removed shall be sawed or removed at existing joints.
6. Where concrete curb is placed on existing concrete pavement, the pavement shall be drilled and the reinforcing bars grouted in place.
7. Expansion and contraction joints shall be constructed to match pavement joints in all curbs and curb and gutter adjacent to jointed concrete pavement. Where placement of curb or curb and gutter is not adjacent to concrete pavement, expansion joints shall be provided at structures, curb returns at streets, and at locations directed by The Engineer.
8. Vertical and horizontal dowel bars and transverse reinforcing bars shall be placed at four feet C-C.
9. Dimension 'T' shown is the thickness of concrete pavement. When curb is installed adjacent to flexible pavement dimension 'T' is 8" maximum.
10. Usual profile grade line. Refer to typical sections and plan-profile sheets for exact locations.
11. One-half inch expansion joint material shall be provided where curb or curb and gutter is adjacent to sidewalk or riprap.
12. When vertical permissible construction joints are used, resulting in a longitudinal construction joint in the pavement, the longitudinal pavement steel shall be placed in accordance with pavement details shown elsewhere in the plans for longitudinal construction joints. Reinforcing steel for curb section shall then conform to that required for concrete curb.



**TYPE IV CURB (KEYED)**  
5" - 5 3/4" HEIGHT



**EXPANSION JOINT DETAIL**



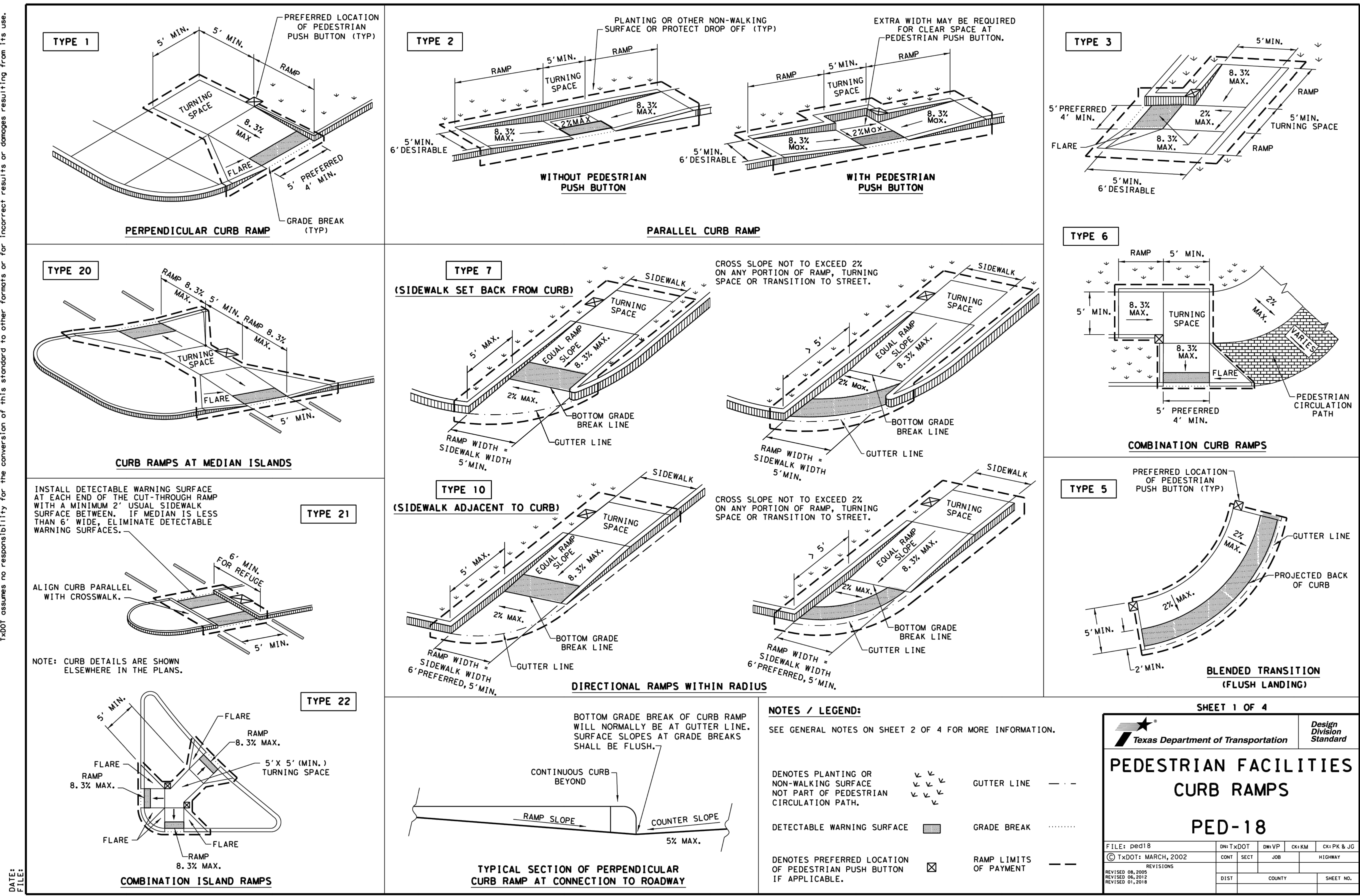
**CURB TRANSITION**  
Note: To be paid for as Highest Curb

Texas Department of Transportation		Design Division Standard	
<b>CONCRETE CURB AND GUTTER</b>			
<b>CCCG-12</b>			
FILE: cccg12.dgn	DWG: TxDOT	CHK: AM	DWG: VP
© TxDOT: 1995	CONT	SECT	JOB
UPDATED 2012 - VP	REVISIONS		HIGHWAY
DIST	COUNTY	SHEET NO.	

DATE:  
FILE:



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SHEET 1 OF 4

**PEDESTRIAN FACILITIES  
CURB RAMPS  
PED-18**

FILE: ped18		DN: TxDOT	DR: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002		CONT	SECT	JOB	HIGHWAY
REVISIONS					
REVISED 08, 2005					
REVISED 06, 2012					
REVISED 01, 2018					
DIST	COUNTY			SHEET NO.	

Texas Department of Transportation  
Design Division Standard

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DATE:  
FILE:

**GENERAL NOTES**

**CURB RAMPS**

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5' x 5' passing areas at intervals not to exceed 200' are required.
5. Turning Spaces shall be 5' x 5' minimum. Cross slope shall be maximum 2%.
6. Clear 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.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

**DETECTABLE WARNING MATERIAL**

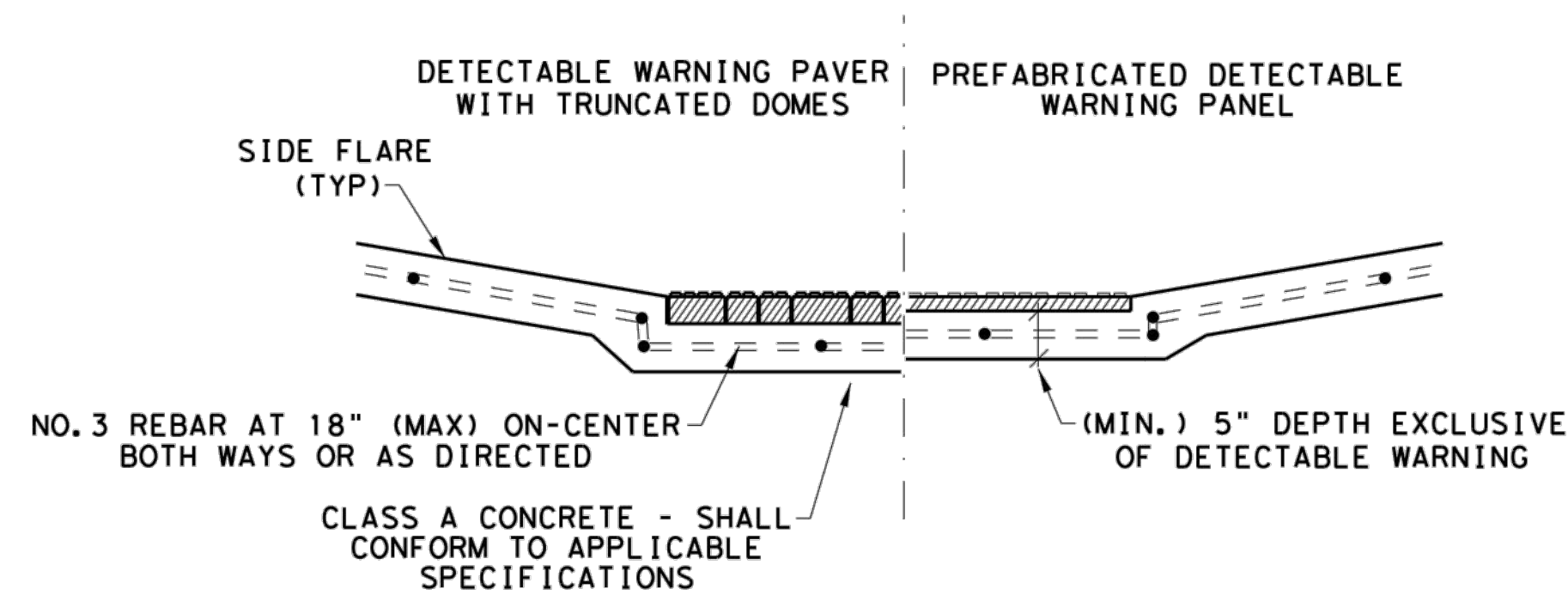
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

**DETECTABLE WARNING PAVERS (IF USED)**

25. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

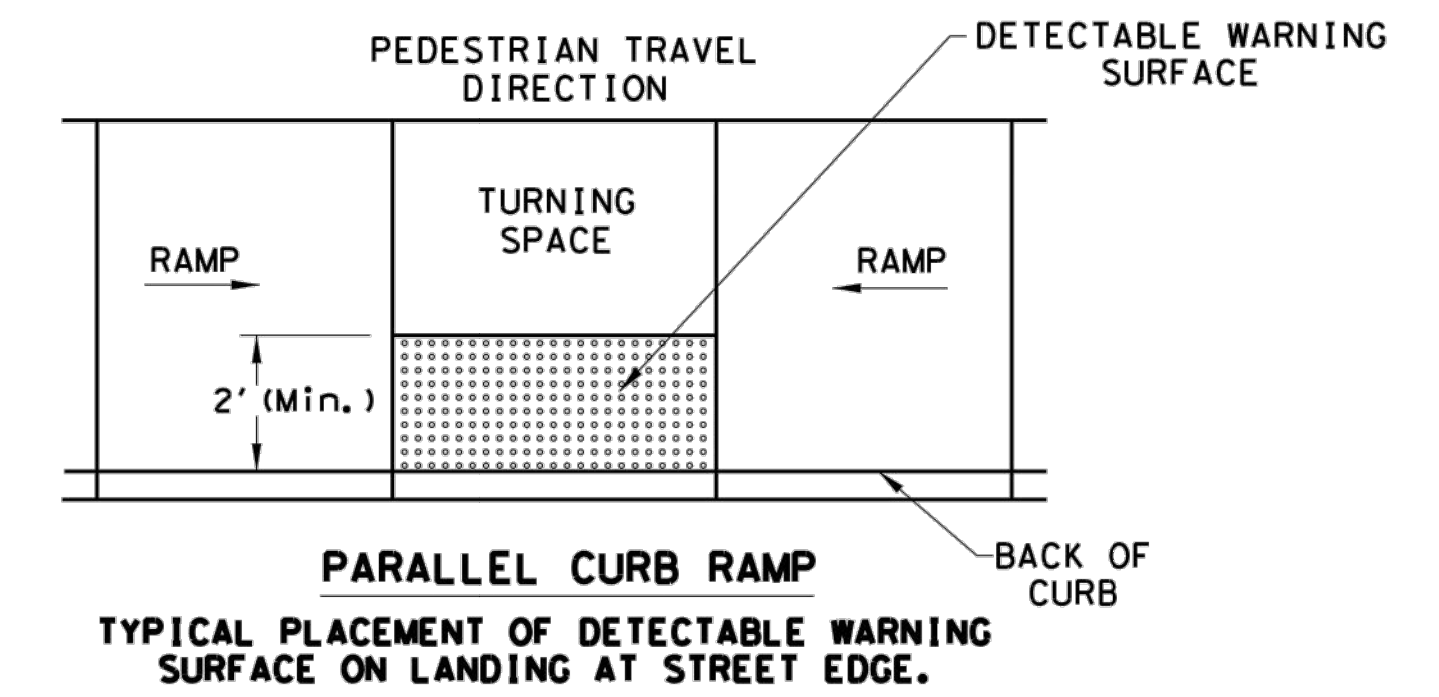
**SIDEWALKS**

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
34. Sidewalk details are shown elsewhere in the plans.

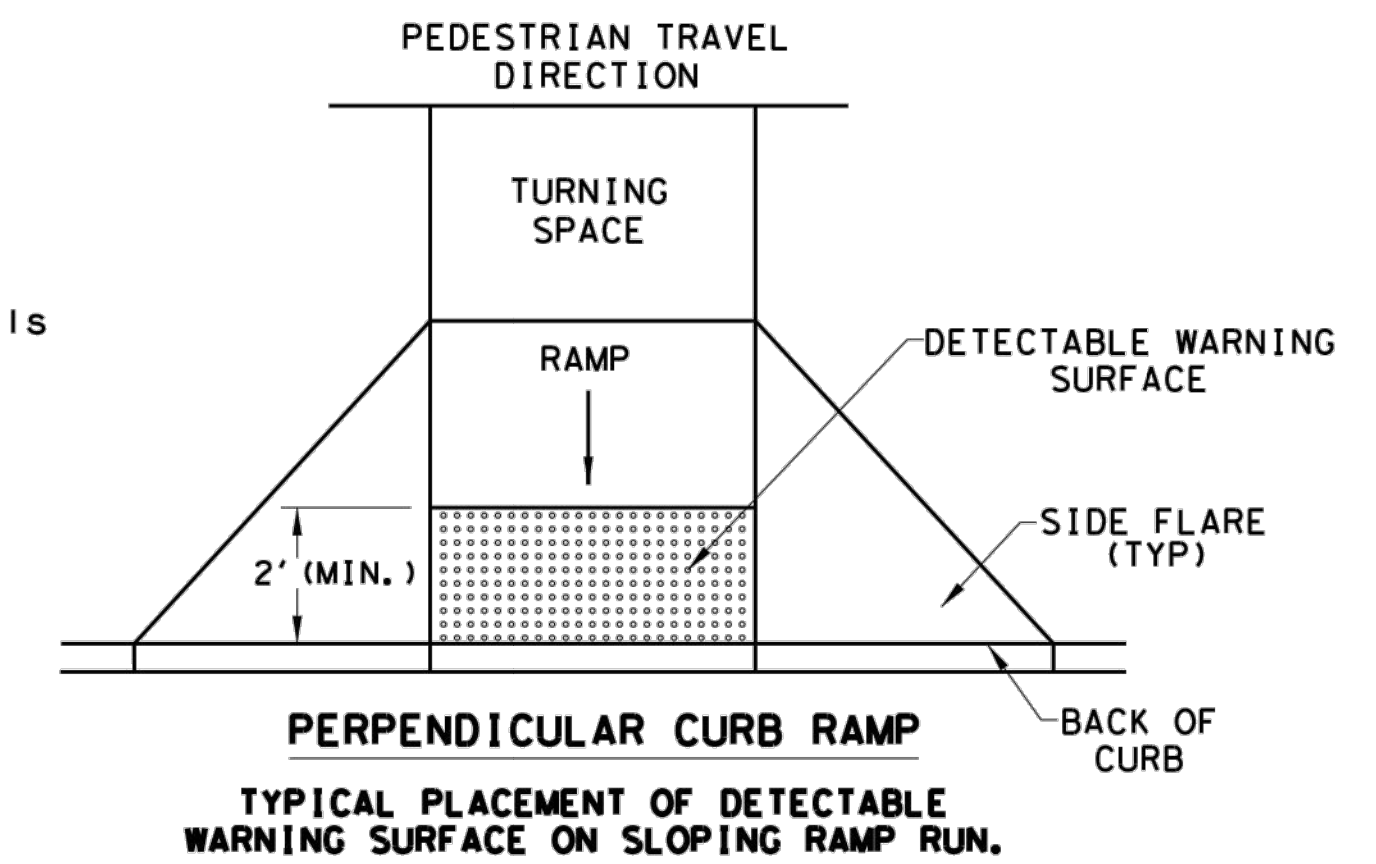


**SECTION VIEW DETAIL  
CURB RAMP AT DETECTABLE WARNINGS**

**DETECTABLE WARNING SURFACE DETAILS**

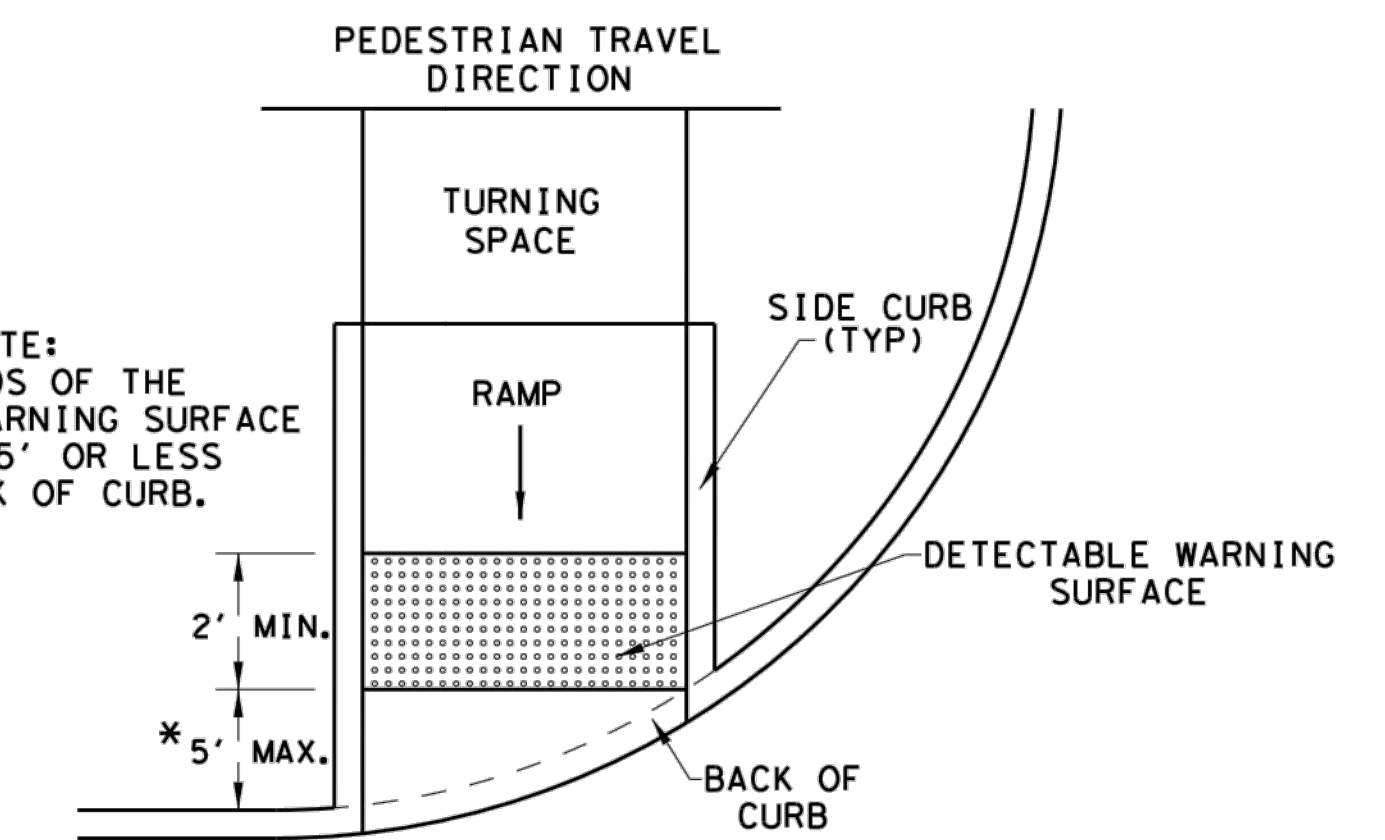


**PARALLEL CURB RAMP  
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE.**



**PERPENDICULAR CURB RAMP  
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.**

\* NOTE:  
BOTH ENDS OF THE  
DETECTABLE WARNING SURFACE  
SHALL BE 5' OR LESS  
FROM BACK OF CURB.



**DIRECTIONAL CURB RAMP  
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.**

SHEET 2 OF 4

		<b>Design Division Standard</b>	
<b>PEDESTRIAN FACILITIES CURB RAMPS</b>			
<b>PED-18</b>			
FILE: ped18	DW: TxDOT	DW: VP	CK: KM
© TxDOT: MARCH, 2002	CONT	SECT	JOB
<small>REVISIONS</small>			
REVISD 08, 2005			
REVISD 06, 2012			
REVISD 01, 2018			
DIST	COUNTY	SHEET NO.	

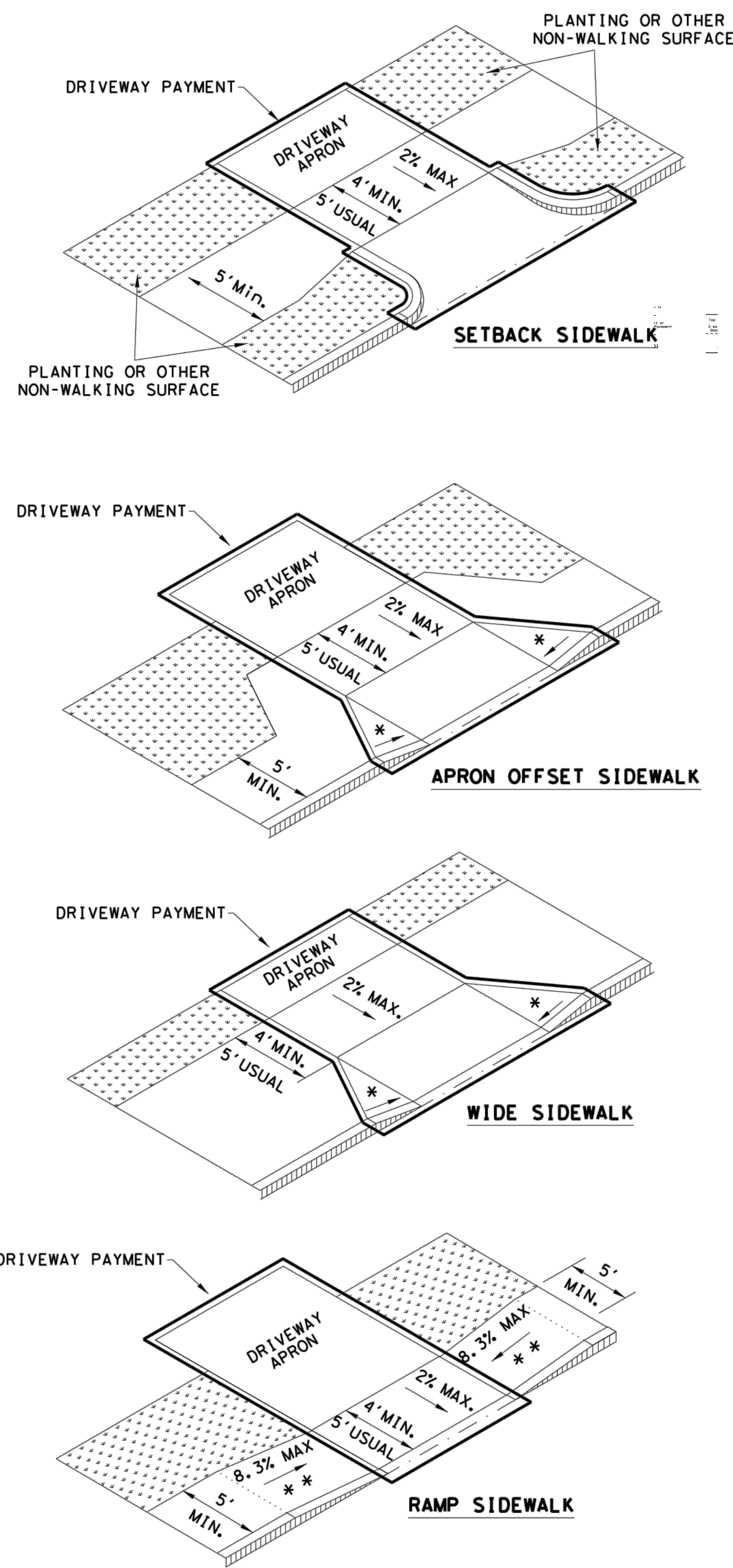


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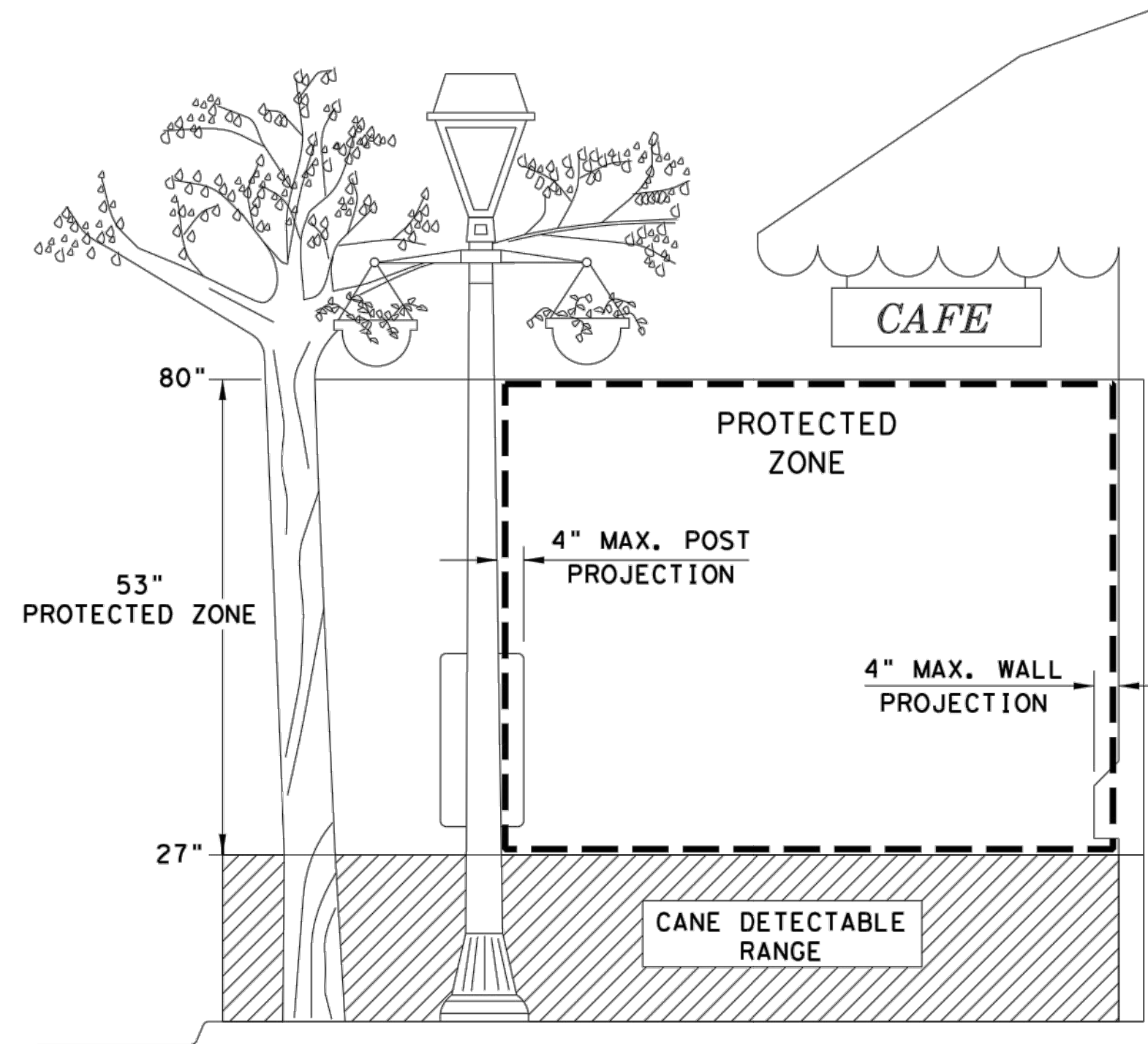
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DATE:  
FILE:

**SIDEWALK TREATMENT AT DRIVEWAYS**

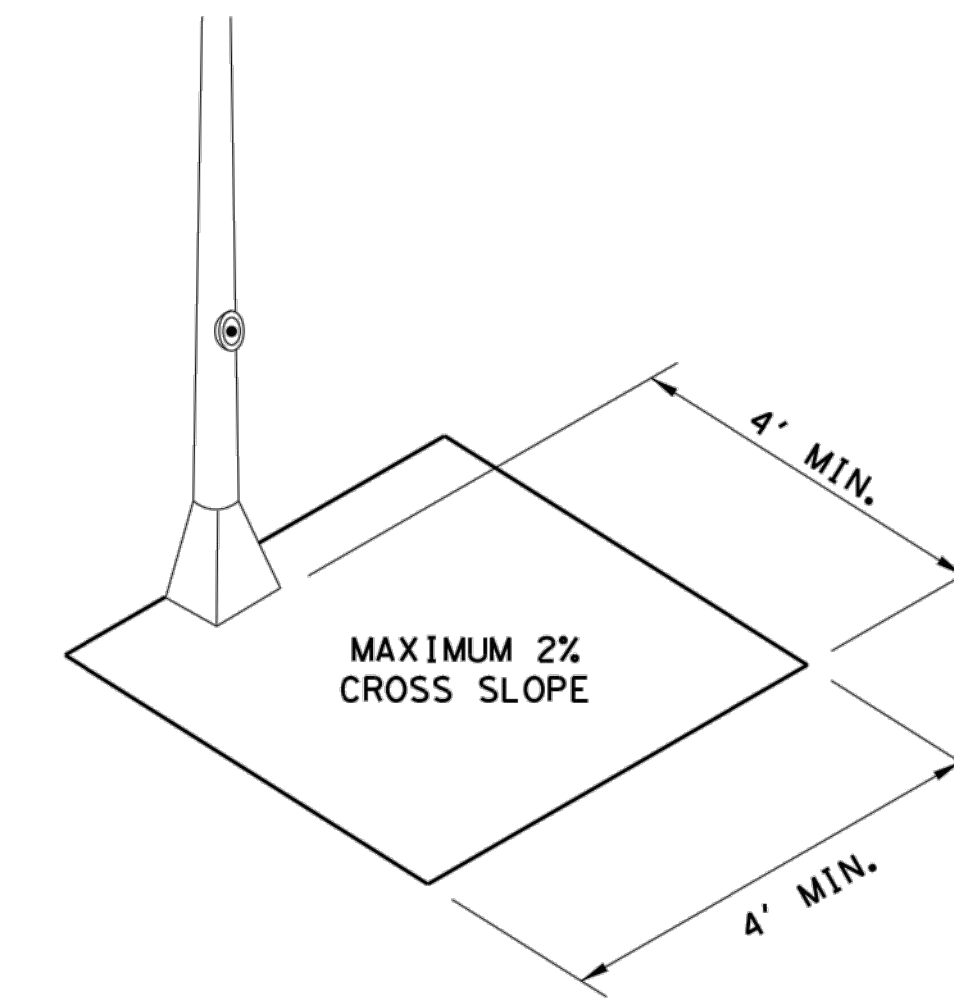


NOTES:  
 \* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.  
 \* \* IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.

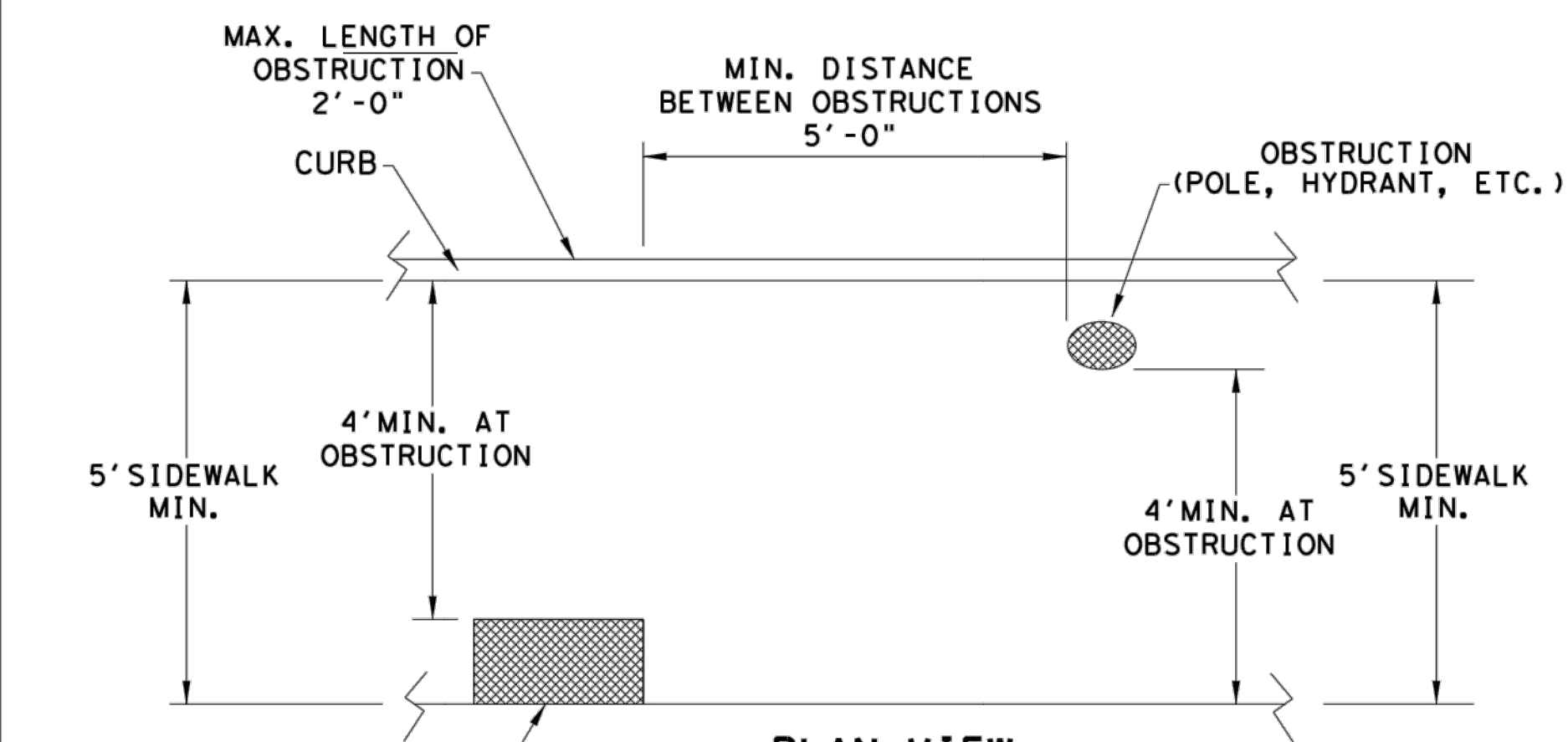


**PROTECTED ZONE**

NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.

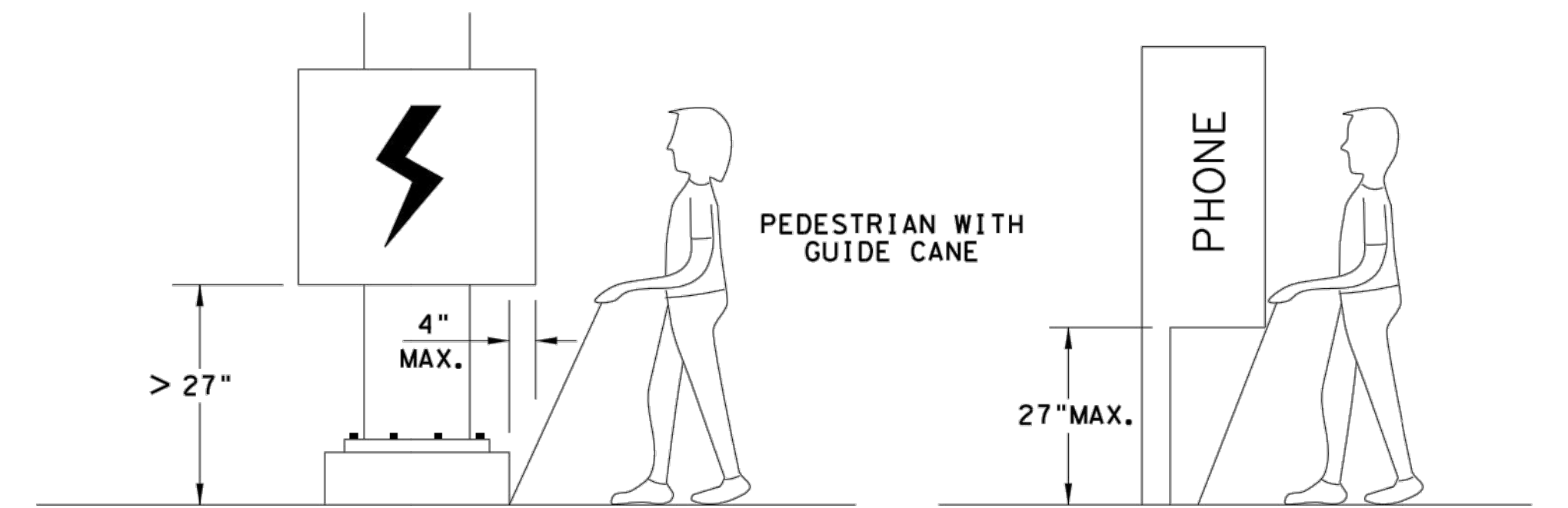


**CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON**



**PLAN VIEW  
PLACEMENT OF STREET FIXTURES**

NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



WHEN AN OBSTRUCTION OF A HEIGHT GREATER THAN 27" FROM THE SURFACE WOULD CREATE A PROTRUSION OF MORE THAN 4" INTO THE PEDESTRIAN CIRCULATION AREA, CONSTRUCT ADDITIONAL CURB OR FOUNDATION AT THE BOTTOM TO PROVIDE A MAXIMUM 4" OVERHANG.

PROTRUDING OBJECTS OF A HEIGHT ≤ 27" ARE DETECTABLE BY CANE AND DO NOT REQUIRE ADDITIONAL TREATMENT.

**DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"**

SHEET 3 OF 4

		Design Division Standard	
<b>PEDESTRIAN FACILITIES CURB RAMPS</b>			
<b>PED-18</b>			
FILE: ped18	DN: TxDOT	DR: VP	CK: KM
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REVISIONS	DIST		COUNTY
REVISED 08, 2005	SHEET NO.		
REVISED 06, 2012			
REVISED 01, 2018			

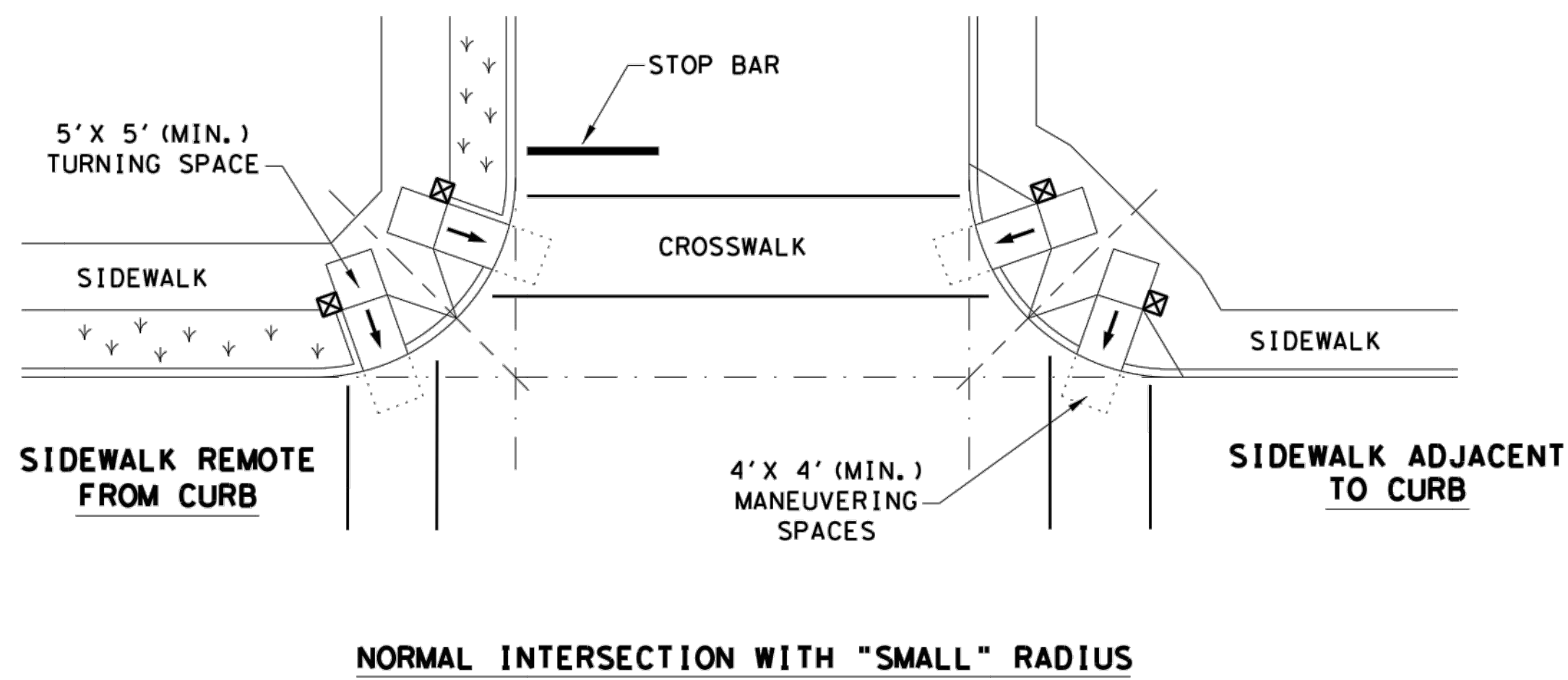
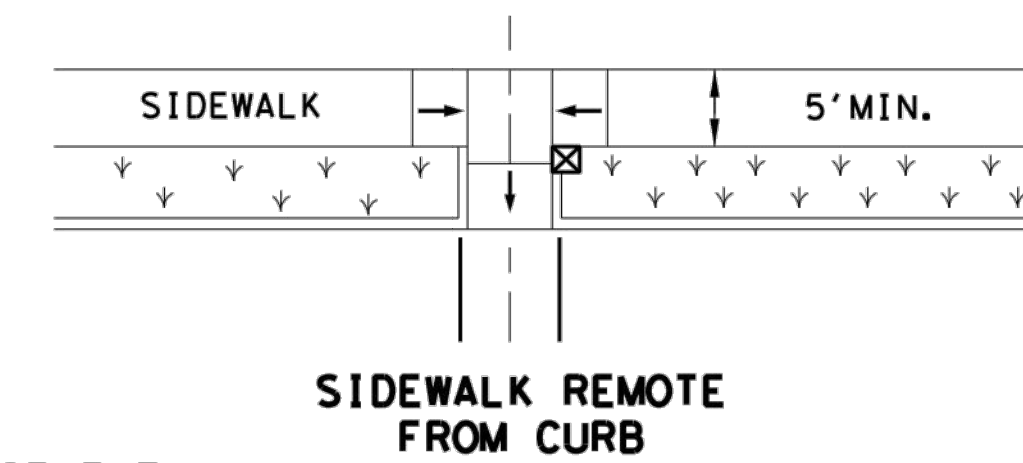
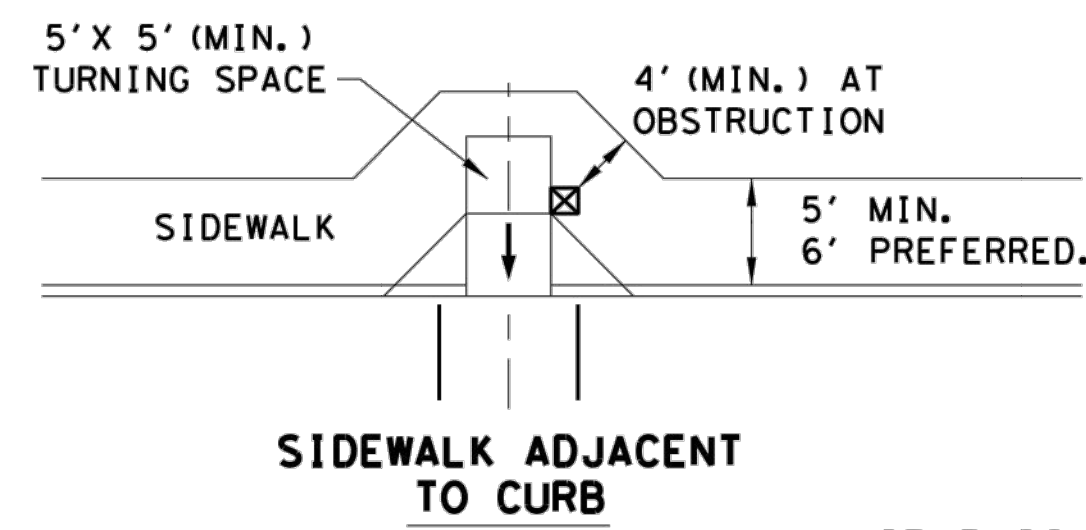
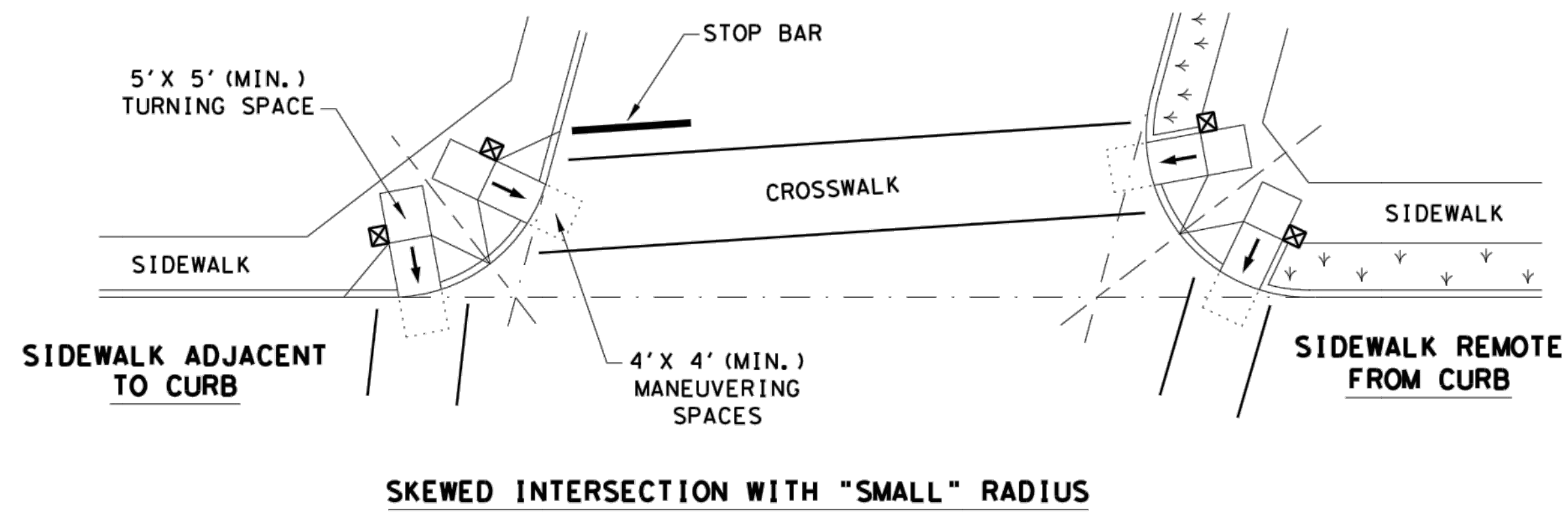
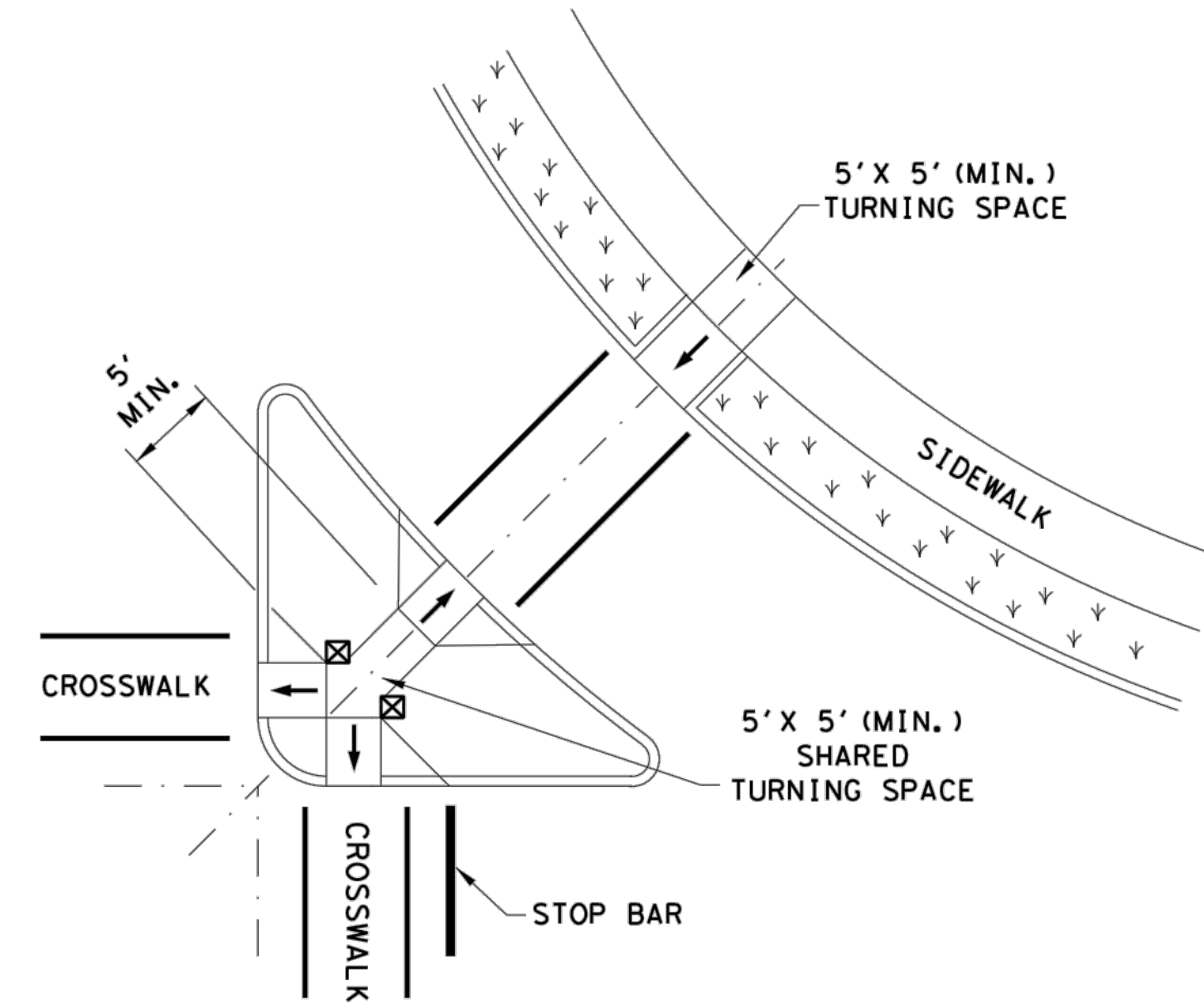
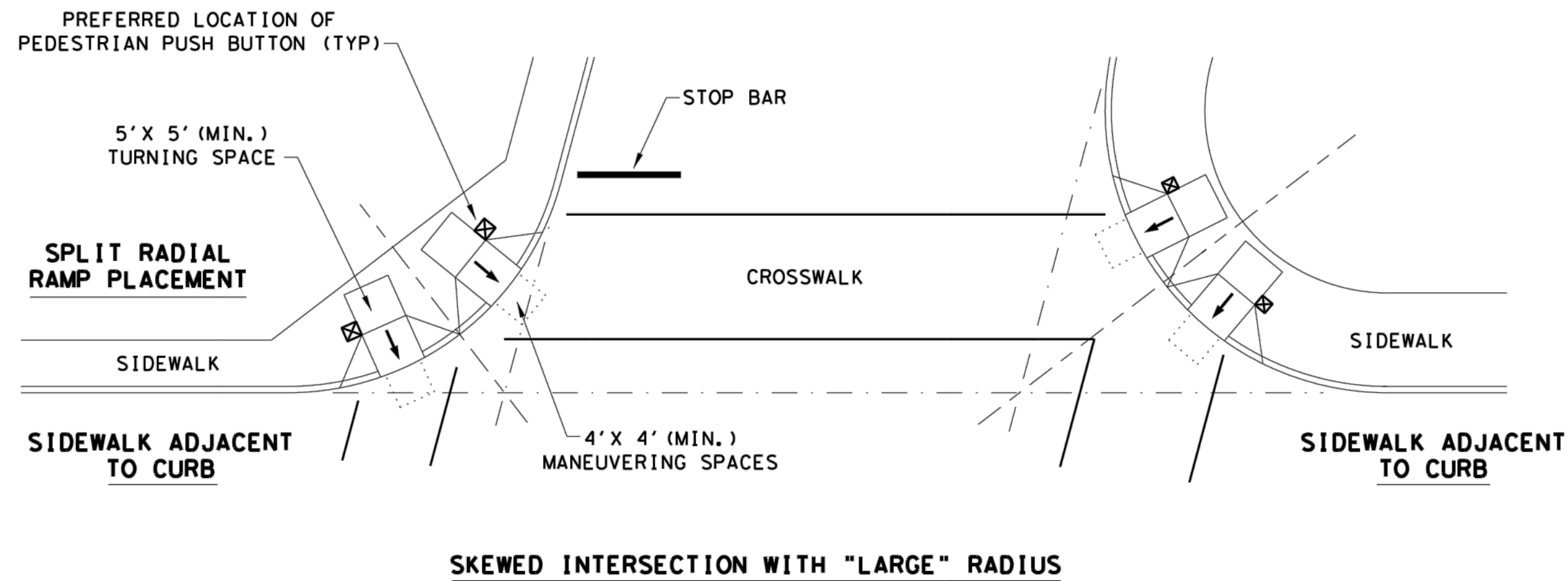


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**TYPICAL CROSSING LAYOUTS**  
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



**LEGEND:**

SHOWS DOWNWARD SLOPE. →

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON (IF APPLICABLE). ☒

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH. ↙ ↘ ↙ ↘ ↙ ↘

SHEET 4 OF 4



**PEDESTRIAN FACILITIES**  
**CURB RAMPS**  
**PED-18**

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
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