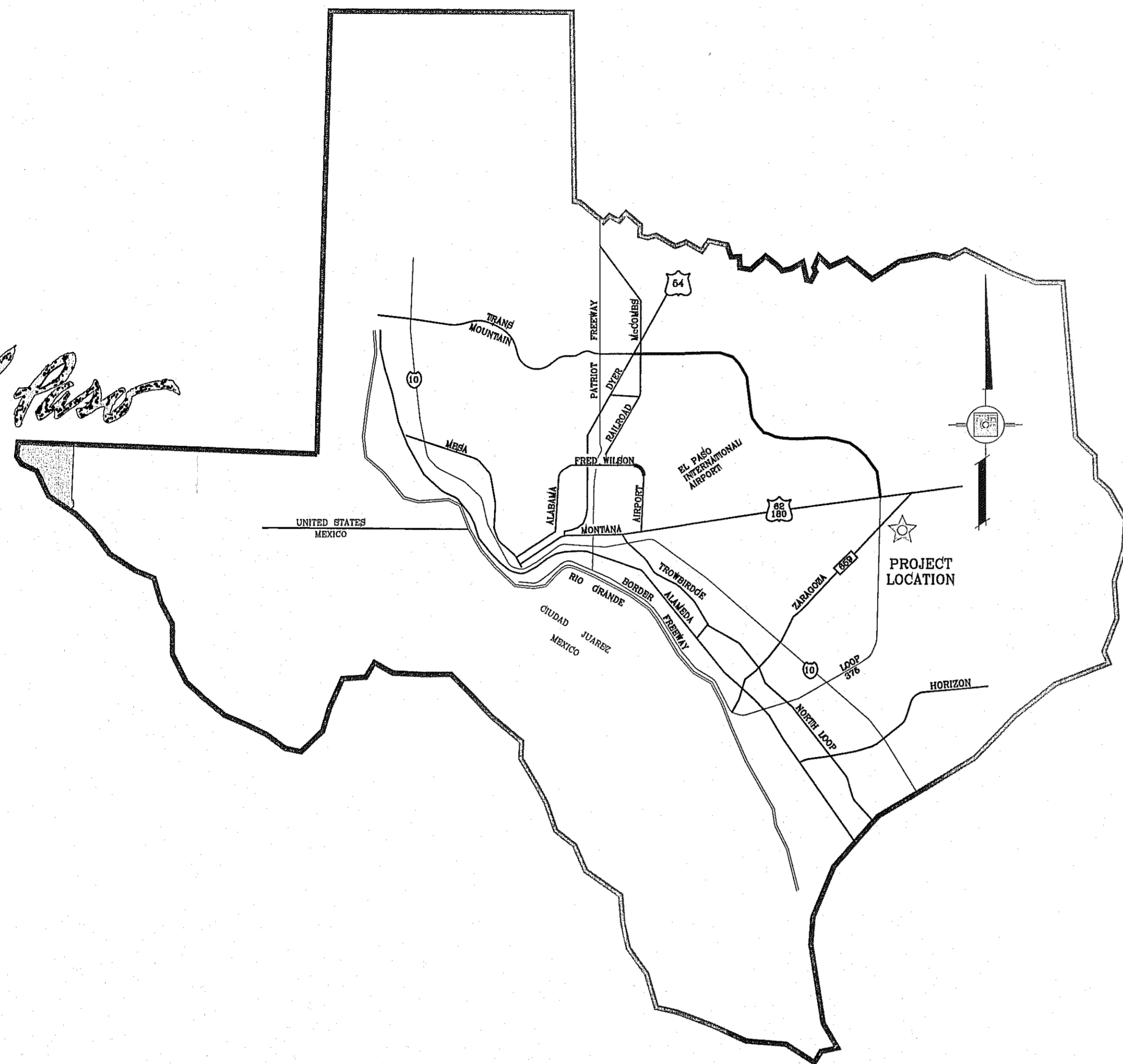


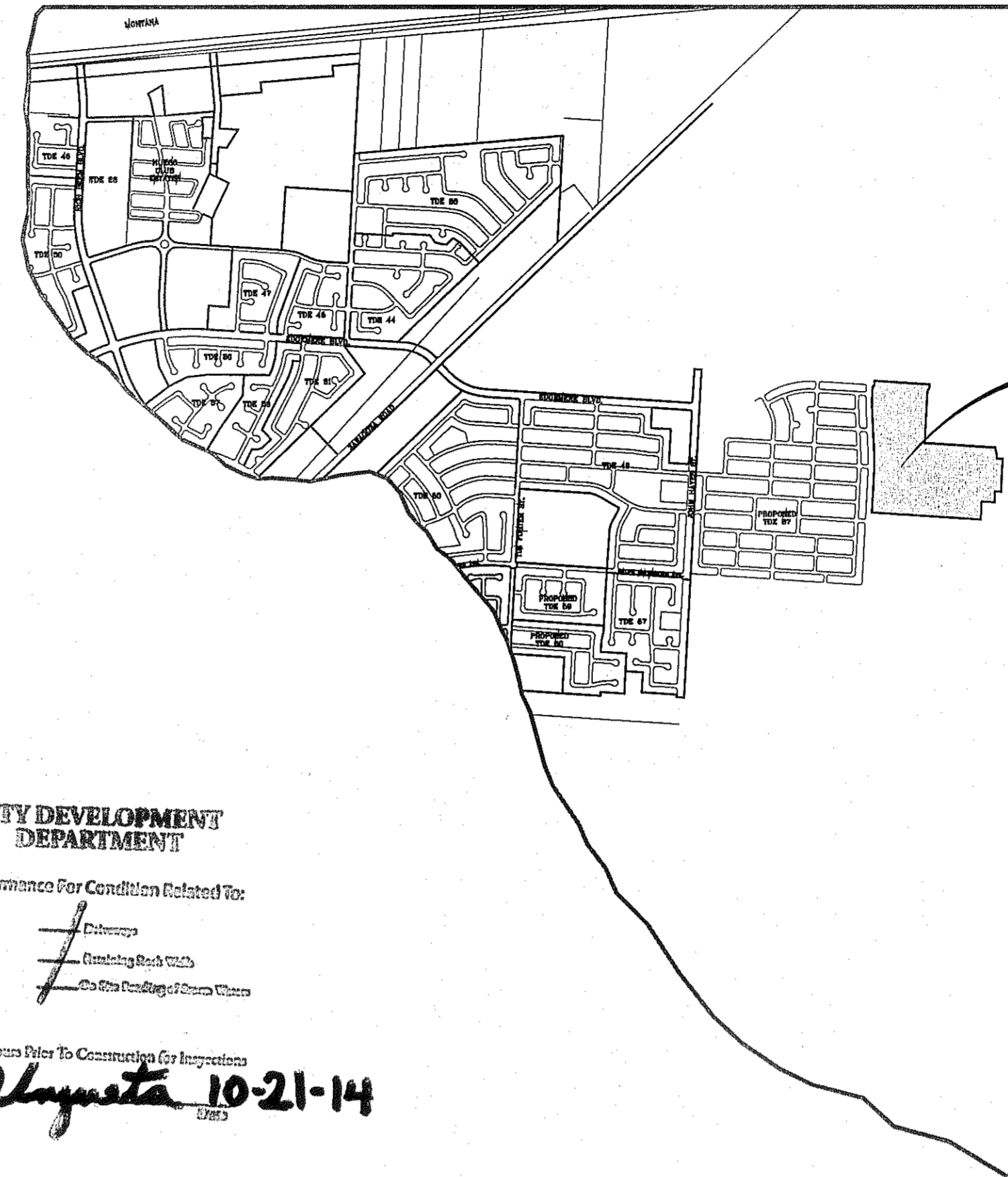
*El Paso*



LOCATION MAP

SCALE: 1"=1000'

VICINITY MAP



TIERRA DEL ESTE  
UNIT SEVENTY ONE  
PROJECT  
LOCATION

CITY DEVELOPMENT  
DEPARTMENT

Reviewed For Conformance For Condition Related To:

- Address
- Zoning Ordinance
- Water Utility
- City Code
- Easements
- Existing Right of Way
- On Site Funding of Street Work

Contractor Must Call 24 Hours Prior To Construction for Inspections

*Jose Vazquez* 10-21-14

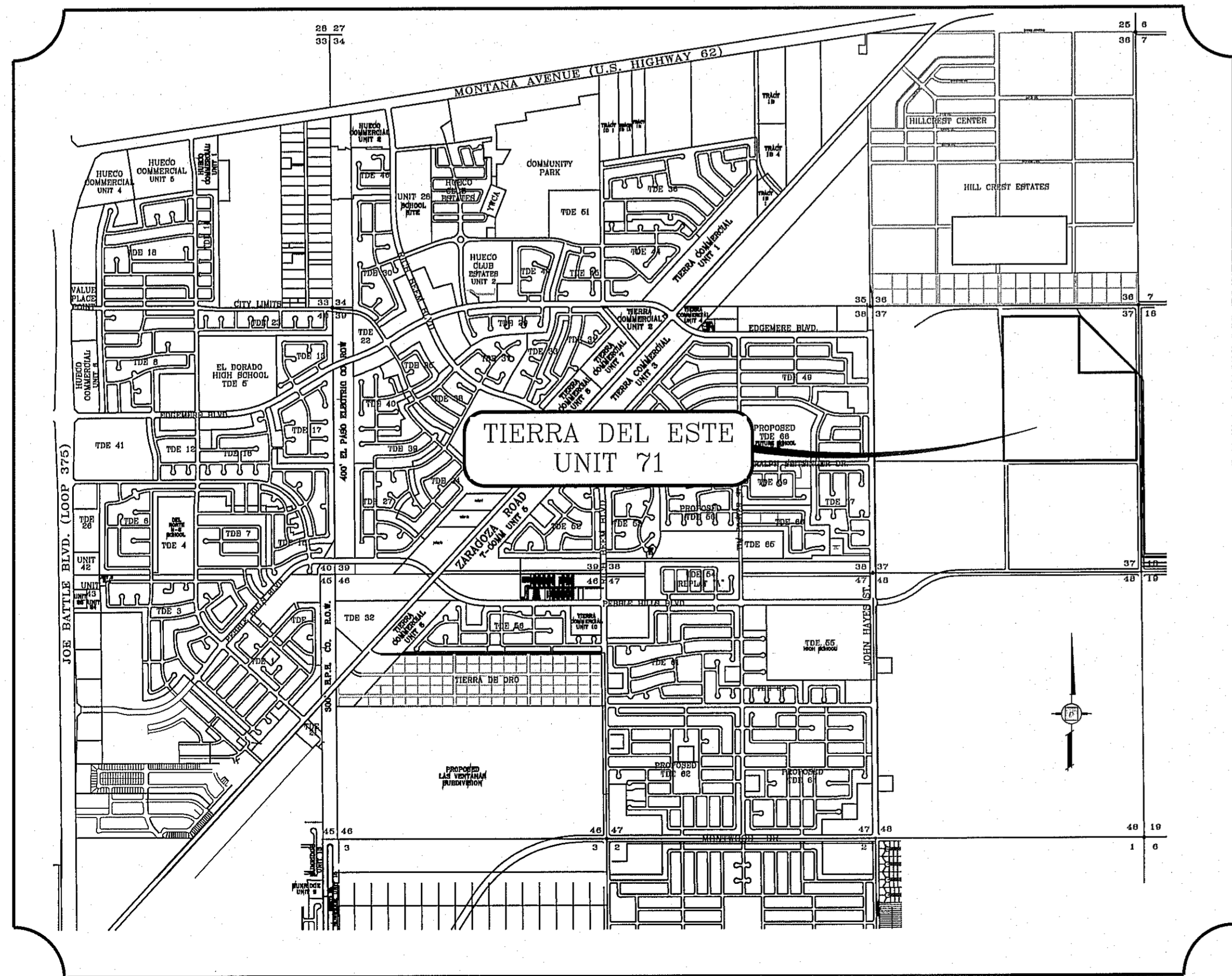


Final Approval

# STREET IMPROVEMENTS

## I N D E X

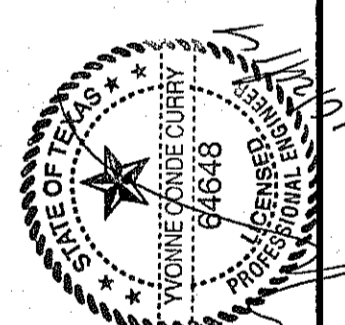
TITLE	SHEET No.	TITLE	SHEET No.
COVER SHEET	1 of 55	QUINTAN GATES CT.	32 of 55
PLAT	2-3 of 55	RANDY CULPEPPER CT.	33 of 55
GRADING PLAN	4-5 of 55	TOCO BAILEY PL.	34 of 55
GRADING SECTIONS	6-7 of 55	WILLIE WORSLEY AVE.	35-36 of 55
DRAINAGE PLAN	8-9 of 55	PROPOSED PARK WITH SECTIONS	37 of 55
SWPPP & GSP PLAN AND NOTES	10-12 of 55	POND & POND DETAILS	38 of 55
AVA LEIGH AVE.	13-14 of 55	PROPOSED STRUCTURES	39-41 of 55
BOBBY JOE HILL DR.	15-16 of 55	STANDARD DETAILS	42-44 of 55
DAVID LATIN AVE.	17-18 of 55	STRUCTURE DETAILS	45-46 of 55
EDGEMERE BLVD.	19-20 of 55	ILLUMINATION AND TRAFFIC CONTROL PLAN	47 of 55
HARRY FLOURNOY AVE.	21-23 of 55	WATER DISTRIBUTION PLAN	48 of 55
FRED REYNOLDS ST.	24 of 55	SEWER DISTRIBUTION PLAN	49 of 55
NEVIL SHED ST.	25-27 of 55	SEWER PROFILES	50-51 of 55
OLDENBERG CT.	28 of 55	WATER AND SEWER DETAILS	52-55 of 55
ORSTEN ARTIS AVE.	29-31 of 55	KEY MAP	L1 of 17
		LANDSCAPE PLAN	L13 of 17
		IRRIGATION PLAN	L14 of 17
		LANDSCAPE DETAILS	L15 of 17
		IRRIGATION PLAN	L16-L17 of 17



PROJECT NAME  
**TIERRA DEL ESTE UNIT SEVENTY ONE**

(REVISED)

BEING PORTION OF SECTION 37, BLOCK 79,  
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 61.586± ACRES



**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905





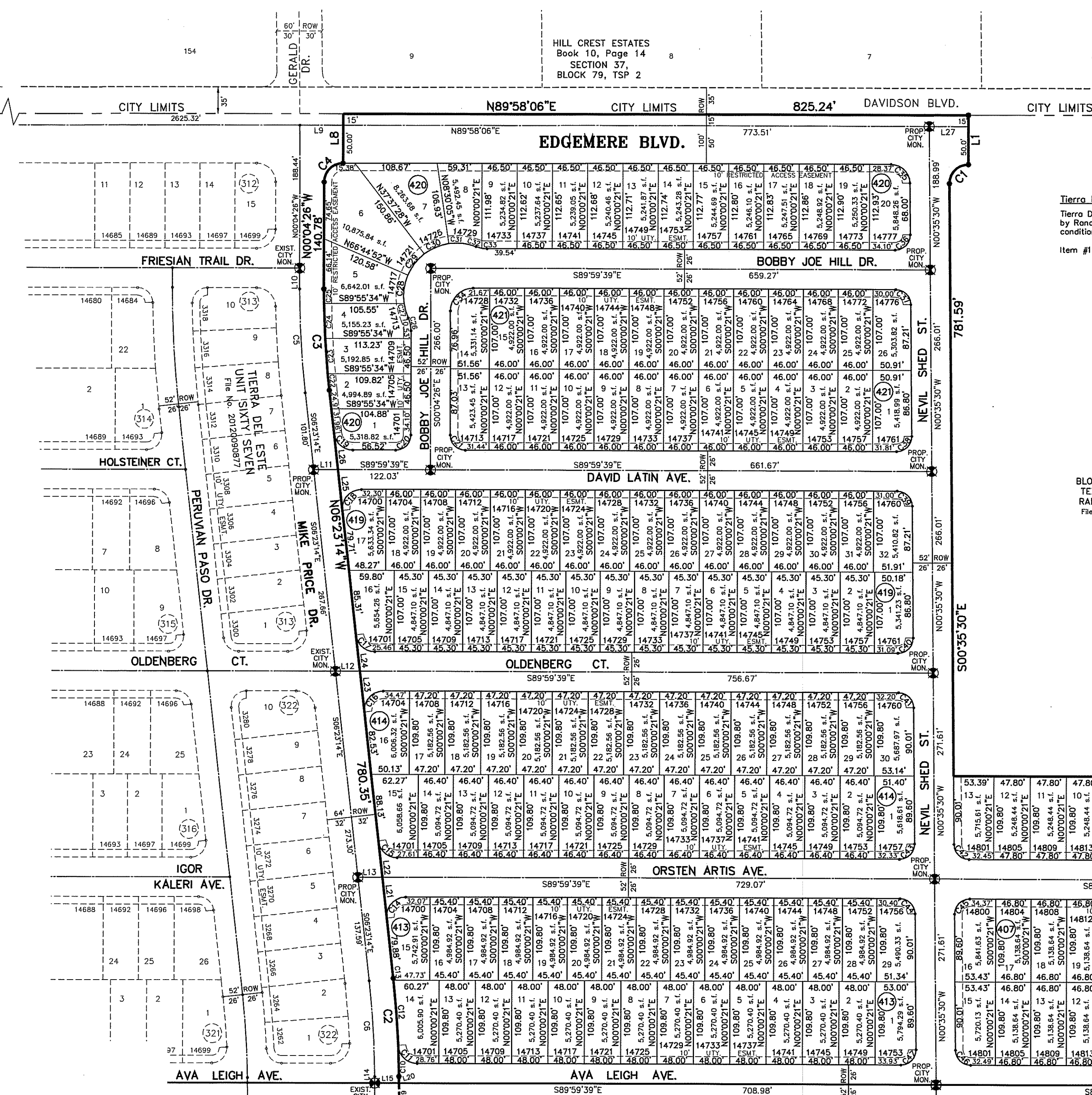
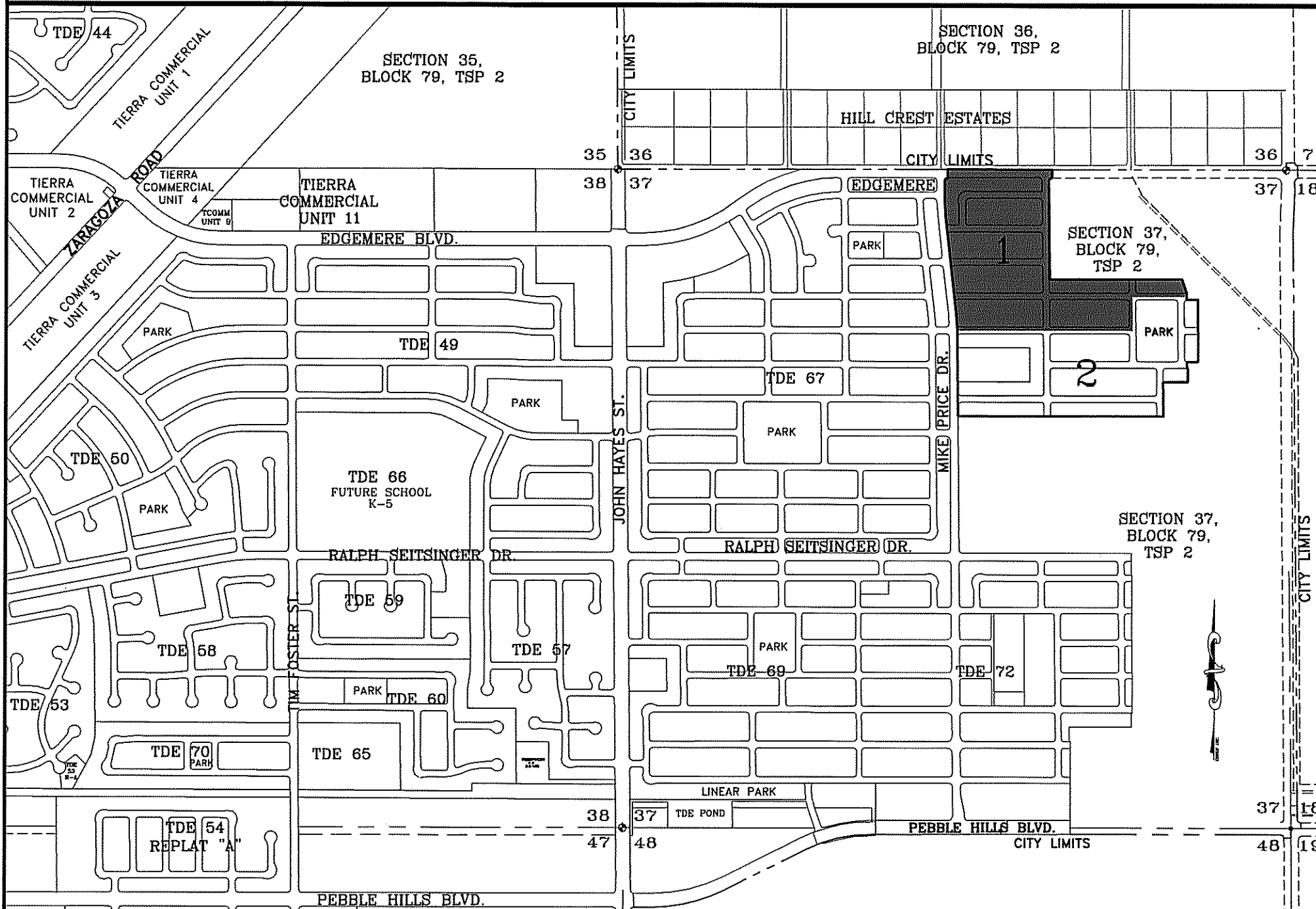
# TIERRA DEL ESTE UNIT SEVENTY ONE

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.60± ACRES

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	25.00	39.51	25.25	35.53	S44°11'18"W	90°33'36"
C2	1282.00	129.80	64.96	129.75	N03°29'12"W	5°48'04"
C3	1218.00	134.21	67.17	134.14	N03°13'50"W	6°18'48"
C4	25.00	39.29	25.02	35.37	N44°56'50"E	90°02'32"
C5	1250.00	137.73	68.94	137.66	S03°13'50"E	6°18'48"
C6	1250.00	126.56	63.33	126.51	N03°29'12"W	5°48'04"
C7	25.00	39.53	25.26	35.54	S44°42'36"W	90°35'30"
C8	25.00	39.01	24.74	35.17	S46°17'24"E	89°24'30"
C9	25.00	39.53	25.26	35.54	S44°42'36"W	90°35'30"
C10	1282.00	129.80	64.96	129.75	N03°29'12"W	5°48'04"
C11	25.00	39.29	25.02	35.37	N44°56'50"E	90°02'32"
C12	1282.00	129.80	64.96	129.75	N03°29'12"W	5°48'04"
C13	1282.00	129.80	64.96	129.75	N03°29'12"W	5°48'04"
C14	25.00	42.06	27.96	37.27	S41°48'33"W	96°23'34"
C15	25.00	36.48	22.36	33.33	S48°11'27"E	83°36'28"
C16	25.00	42.06	27.96	37.27	S41°48'33"W	96°23'34"
C17	25.00	42.06	27.96	37.27	S41°48'33"W	96°23'34"
C18	25.00	42.06	27.96	37.27	S41°48'33"W	96°23'34"
C19	25.00	36.48	22.36	33.33	S48°11'27"E	83°36'28"
C20	25.00	31.44	20.03	28.30	N44°57'57"E	90°04'46"
C21	20.00	31.39	19.97	28.26	S45°02'03"E	89°55'14"
C22	1218.00	134.21	67.17	134.14	S06°52'22"E	1°01'42"
C23	1218.00	134.21	67.17	134.14	S04°16'43"E	2°11'36"
C24	1218.00	134.21	67.17	134.14	S02°04'16"E	87°34'28"
C25	1218.00	134.21	67.17	134.14	S02°04'16"E	87°34'28"
C26	40.00	17.19	8.73	17.06	N12°23'02"W	24°37'12"
C27	70.00	20.19	10.16	20.12	S16°25'56"E	16°31'23"
C28	70.00	38.39	19.69	37.91	S07°32'27"W	31°25'23"
C29	70.00	35.58	18.18	35.20	S37°48'50"W	29°07'24"
C30	70.00	35.58	18.18	35.20	S66°56'14"W	29°07'24"
C31	70.00	35.58	18.18	35.20	N83°33'27"E	29°07'24"
C32	40.00	7.93	3.98	7.91	S74°17'24"E	89°21'13"
C33	40.00	7.00	3.51	6.99	S84°58'51"E	10°01'38"
C34	40.00	47.17	30.04	42.46	S44°57'57"E	90°04'46"
C35	25.00	39.03	24.76	35.18	N45°18'42"W	89°26'24"
C36	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C37	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C38	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C39	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C40	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C41	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C42	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C43	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C44	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C45	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C46	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C47	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C48	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C49	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C50	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C51	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C52	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C53	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C54	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C55	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C56	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C57	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C58	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C59	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C60	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C61	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C62	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C63	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C64	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C65	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C66	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C67	20.00	31.62	20.21	28.43	N44°42'25"E	90°35'50"
C68	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C69	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C70	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C71	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C72	20.00	31.21	19.79	28.14	S45°17'35"E	89°24'10"
C73	20.00	31.62	20.21	28.43	S44°42'25"E	90°35'50"
C74	126.00	75.57	38.96	74.45	N72°49'23"E	34°21'54"

LINE	LENGTH	BEARING
L1	65.00	S00°01'54"E
L2	52.00	S00°00'21"W
L3	3.64	S89°59'39"E
L4	26.64	S34°21'34"E
L5	90.21	N89°59'39"W
L6	52.00	S00°00'21"W
L7	6.27	S89°59'39"E
L8	65.00	N00°01'54"W
L9	57.06	N89°58'06"E
L10	27.39	N00°04'26"W
L11	32.20	S89°59'39"E
L12	32.20	S89°59'39"E
L13	32.20	S89°59'39"E
L14	8.60	S00°35'09"E
L15	32.00	S89°59'39"E
L16	32.00	S89°59'39"E
L17	51.26	S00°35'09"E
L18	50.74	S00°35'09"E
L19	51.26	S00°35'09"E
L20	8.93	S00°35'09"E
L21	54.12	S08°23'14"E
L22	48.52	S08°23'14"E
L23	54.12	S08°23'14"E
L24	48.52	S08°23'14"E
L25	54.12	N06°23'14"W
L26	48.52	N06°23'14"W
L27	51.74	N89°58'06"E
L28	48.48	S89°59'39"E
L29	136.01	S89°59'39"E
L30	45.62	S89°59'39"E

LOCATION MAP SCALE: 1"=1000'



**Tierra Del Este Unit 71 Notes:**  
 Tierra Del Este Subdivision Unit 71 is subject to the Annexation Agreement entered into by Ranchos Real IV LTD with the City of El Paso on January 31, 2006. Among other conditions the agreement required the following:  
 Item #11 Owner agrees to pay a water and wastewater connection fee to the El Paso Water Utilities Department of the City for each three quarter inch (3/4") equivalent water meter that is connected to the public water system as shown below. The water and wastewater connection fee shall be increased by three (3) percent on March 1, 2006, and each year thereafter. Payment of the water and wastewater connection fee shall be due at the time of application for water and wastewater to the system.

Water Size	Water (\$)	Wastewater (\$)
5/8" x 3/4"	566	328
1"	1,396	809
1 1/2"	2,830	1,640
2"	4,528	2,624
3"	8,056	5,248
4"	14,150	8,200
6"	26,300	16,400
8"	52,600	32,800
10"	75,467	43,733

SECTION 37, BLOCK 79, TSP 2, TEXAS & PACIFIC RAILWAY SURVEYS File No. 2004091659

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SECTION 37, BLOCK 79, TSP 2, TEXAS & PACIFIC RAILWAY SURVEYS File No. 2004091659

**NOTES:**  
 WATER AND SEWER SERVICES WILL BE EXTENDED TO THIS SUBDIVISION (TIERRA DEL ESTE UNIT 71) FROM EXISTING EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD FACILITIES AND WILL BE CONSTRUCTED AND OPERABLE AS OF MARCH 2016.

THE INSTRUMENT ASSURING THE CERTIFICATION THAT WATER AND SEWER SERVICES FACILITIES DESCRIBED BY THIS PLAT ARE IN COMPLIANCE WITH THE MODEL RULES ADOPTED UNDER SECTION 16.545, TEXAS WATER CODE IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.

INSTRUMENT No. 20160018121 DATE 3-17-16

TAX CERTIFICATE FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.

INSTRUMENT No. 20160018122 DATE 3-17-16

VEHICULAR ACCESS TO THOSE RESIDENTIAL LOTS ABUTTING EDMERERE BLVD., AND MIKE PRICE DR., SHALL BE FROM OTHER DEDICATED STREETS ONLY. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.

RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.

INSTRUMENT No. 20160018122 DATE 3-17-16

LOT CORNERS BEING 1/2" REBAR W/CAP MARKED TX 5152 WILL BE SET UP UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.

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

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 4802201758, DATED SEPTEMBER 4, 1991 THIS PROPERTY IS IN FLOOD HAZARD ZONE X OUTSIDE THE 500 YEAR FLOOD-PLAIN.

STREET CLASSIFICATION: 52' R.O.W. = 32' LOCAL RESIDENTIAL 31, 100' R.O.W. = MAJOR ARTERIAL STREET.

SECTION 37, BLOCK 79, TSP 2, TEXAS & PACIFIC RAILWAY SURVEYS File No. 2004091659

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SECTION 37, BLOCK 79, TSP 2, TEXAS & PACIFIC RAILWAY SURVEYS File No. 2004091659

**DEDICATION**  
 RANCHO REAL XV, L.L.C., property owner of this land, hereby present this plat and dedicate to the use of the public, the streets, drives, pond, park, drainage R.O.W., restricted access easement and utility easements as hereon laid down and designated, including easements for overhead or service wires for pole type utilities and buried service wires for 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 our signature this 15<sup>TH</sup> day of JANUARY, 2016.

By: Douglas A. Schwartz, MANAGER

STATE OF TEXAS  
 COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Douglas A. Schwartz, Manager of RANCHO REAL XV, L.L.C., ON BEHALF OF SAID LIMITED LIABILITY COMPANY, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as the act and deed of said company for the purpose and considerations herein expressed.

Given under my hand and seal of office this 15<sup>TH</sup> day of JANUARY, 2016.

Notary Public in and for El Paso County, My Commission Expires 01-31-2018

**SCHOOL DISTRICT**  
 SOCORRO INDEPENDENT SCHOOL DISTRICT  
 12440 ROJAS DRIVE

**TOTAL RESIDENTIAL LOTS**  
 324

DATE OF PREPARATION: OCTOBER 18, 2011

**CONDE INC.**  
 ENGINEERING / PLANNING  
 GPS / SURVEYING / CAD  
 6080 SURRY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0885  
 FAX: (915) 592-0886

**CITY PLAN COMMISSION**  
 This subdivision is hereby approved as to the plotting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas this 24 day of JANUARY, 2016.  
 Executive Secretary [Signature] Chairperson [Signature]

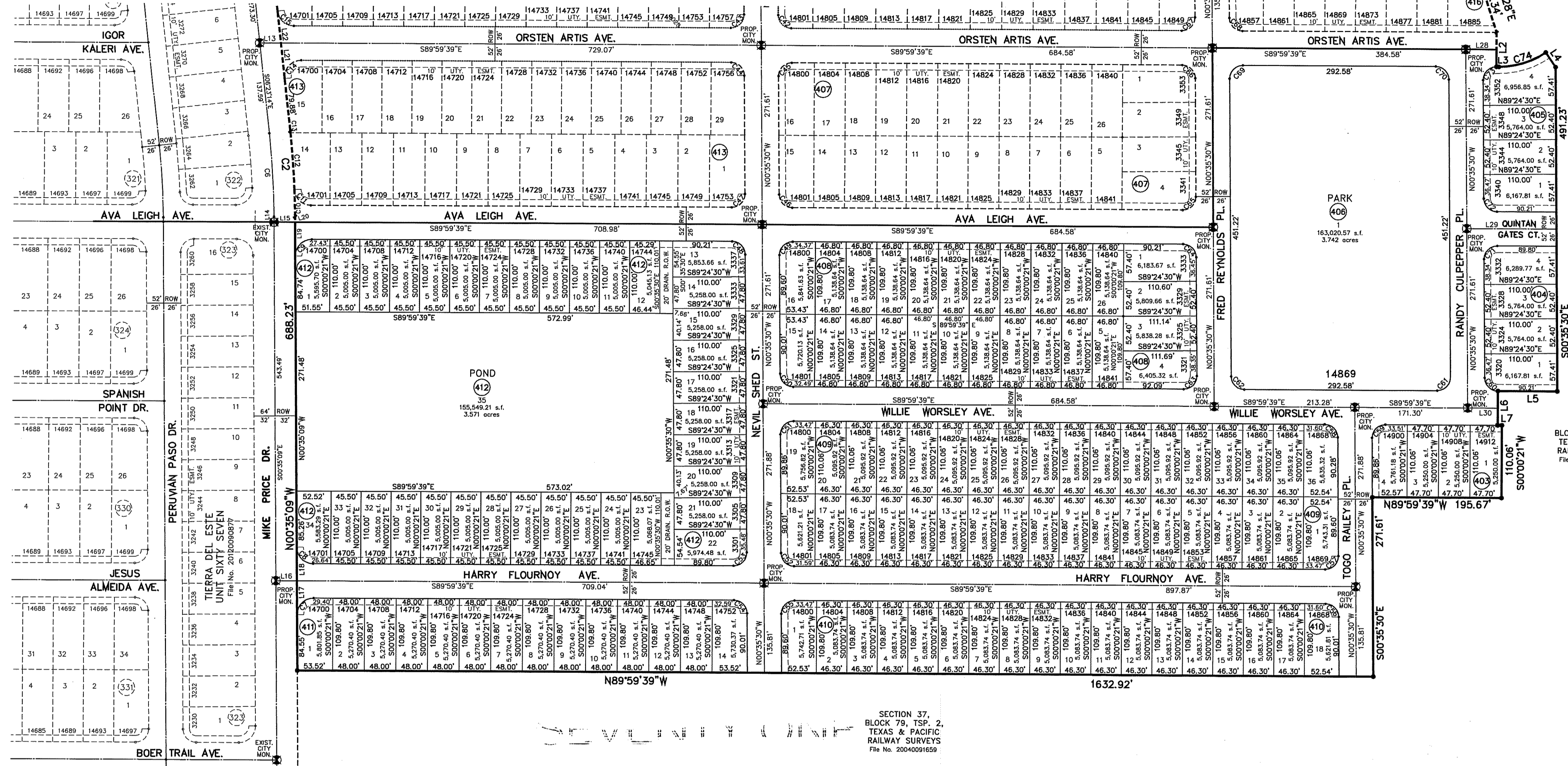


# TIERRA DEL ESTE UNIT SEVENTY ONE

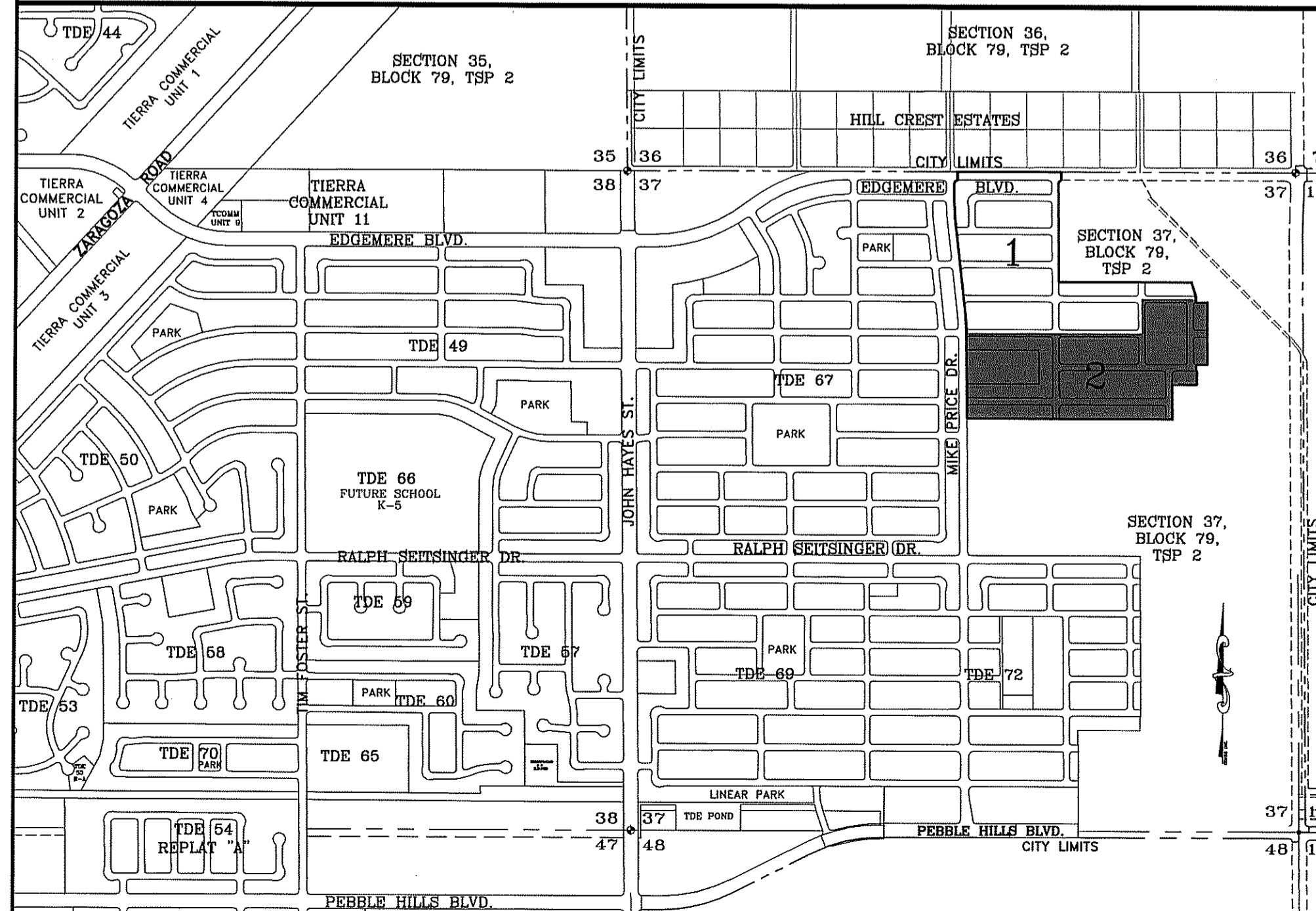
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.60± ACRES

SECTION 37, BLOCK 79, TSP. 2, TEXAS & PACIFIC RAILWAY SURVEYS File No. 20040091659

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	25.00	39.51	25.25	35.53	S44°41'18"W	90°33'36"
C2	1282.00	129.80	64.96	129.75	N03°29'12"W	5°48'04"
C3	1218.00	134.21	67.17	134.14	N03°13'50"W	6°18'48"
C4	25.00	39.29	25.02	35.37	N44°56'50"E	90°02'32"
C5	1250.00	137.73	68.94	137.66	S03°31'50"E	6°18'48"
C6	1250.00	126.56	63.33	126.51	N03°29'12"W	5°48'04"
C7	25.00	39.53	25.26	35.54	S44°42'36"W	90°35'30"
C8	25.00	39.01	24.74	35.17	S45°17'24"E	89°24'30"
C9	25.00	39.53	25.26	35.54	S44°42'36"W	90°35'30"
C10	1282.00	141.03	20.52	141.03	N01°30'10"W	1°00'02"
C11	25.00	38.21	23.96	34.60	S48°12'26"E	87°34'28"
C12	1282.00	86.12	43.08	86.11	N04°20'39"W	3°50'56"
C13	1282.00	2.65	1.32	2.65	N08°19'41"W	0°07'06"
C14	25.00	42.06	27.96	37.27	S41°48'33"W	96°23'34"
C15	25.00	36.48	22.36	33.33	S48°11'27"E	83°36'26"
C16	25.00	42.06	27.96	37.27	S41°48'33"W	96°23'34"
C17	25.00	36.48	22.36	33.33	S48°11'27"E	83°36'26"
C18	25.00	42.06	27.96	37.27	S41°48'33"W	96°23'34"
C19	25.00	36.48	22.36	33.33	S48°11'27"E	83°36'26"
C20	20.00	31.44	20.03	28.30	N44°57'57"E	90°04'48"
C21	20.00	31.39	19.97	28.26	S45°02'03"E	89°55'14"
C22	1218.00	21.86	10.93	21.86	S05°52'22"E	1°01'42"
C23	1218.00	46.63	23.32	46.62	S04°15'43"E	2°11'36"
C24	1218.00	46.53	23.27	46.53	S02°04'15"E	2°11'36"
C25	1218.00	19.19	9.59	19.19	S00°31'31"E	0°54'09"
C26	40.00	17.19	8.73	17.06	N12°33'02"W	24°37'12"
C27	70.00	20.19	10.16	20.12	S16°26'56"E	16°33'24"
C28	70.00	38.39	19.69	37.91	S07°32'27"W	31°25'23"
C29	70.00	35.58	18.18	35.20	S37°48'60"W	29°07'24"
C30	70.00	35.58	18.18	35.20	S66°56'14"W	29°07'24"
C31	70.00	36.51	18.68	36.10	N83°33'27"W	29°53'16"
C32	40.00	7.93	3.98	7.91	S74°17'26"E	11°21'33"
C33	40.00	7.90	3.91	7.88	S4°58'51"E	10°01'38"
C34	30.00	47.17	30.04	42.46	S44°57'57"E	90°04'48"
C35	25.00	39.03	24.76	35.18	N45°18'42"W	89°26'24"
C36	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C37	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C38	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C39	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C40	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C41	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C42	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C43	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C44	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C45	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C46	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C47	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C48	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C49	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C50	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C51	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C52	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C53	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C54	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C55	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C56	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C57	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C58	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C59	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C60	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C61	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C62	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C63	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C64	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C65	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C66	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C67	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C68	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C69	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C70	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C71	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C72	20.00	31.21	19.79	28.14	N45°17'35"W	89°24'10"
C73	20.00	31.62	20.21	28.43	N44°42'26"E	90°35'50"
C74	126.00	75.57	38.96	74.45	N72°49'23"E	34°21'54"



LOCATION MAP SCALE: 1"=1000'



TIERRA DEL ESTE UNIT 71 NOTES:

Item #1: Owner agrees to pay a water and wastewater connection fee to the El Paso Water Utilities Department of the City for each three quarter inch (3/4") equivalent water meter that is connected to the public water system as shown below. The water and wastewater connection fee shall be increased by three (3) percent on March 1, 2006, and each year thereafter. Payment of the water and wastewater connection fee shall be due at the time of application for water and wastewater to the system.

LINE	LENGTH	BEARING
L1	65.00	S00°01'54"E
L2	52.00	S00°02'11"W
L3	3.64	S89°59'39"E
L4	26.64	S34°21'34"E
L5	90.21	N89°59'39"W
L6	52.00	S00°00'21"W
L7	6.27	S89°59'39"E
L8	65.00	N00°01'54"W
L9	57.06	N89°58'06"E
L10	27.39	N00°04'26"E
L11	32.20	S89°59'39"E
L12	32.20	S89°59'39"E
L13	32.20	S89°59'39"E
L14	8.60	S00°35'09"E
L15	32.00	S89°59'39"E
L16	32.00	S89°59'39"E
L17	51.26	S00°35'09"E
L18	50.74	S00°35'09"E
L19	51.26	S00°35'09"E
L20	8.93	S00°35'09"E
L21	54.12	S06°23'14"E
L22	48.52	S06°23'14"E
L23	54.12	S06°23'14"E
L24	48.52	S06°23'14"E
L25	54.12	N06°23'14"W
L26	48.52	N06°23'14"W
L27	51.74	N89°58'06"E
L28	46.48	S89°59'39"E
L29	136.00	S89°59'39"E
L30	45.52	S89°59'39"E

SCHOOL DISTRICT  
SOCORRO INDEPENDENT SCHOOL DISTRICT  
12440 ROJAS DRIVE

TOTAL RESIDENTIAL LOTS  
324

DATE OF PREPARATION: OCTOBER 18, 2011

6000 BURSLEY DR. STE 100  
EL PASO, TEXAS 79906  
PHONE: (915) 882-0283  
FAX: (915) 882-0288

NOTES:  
LOT CORNERS BEING 1/2" REBAR'S W/CAP MARKED TX 5152 WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.

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

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP HAZARD ZONE X OUTSIDE THE 500 YEAR FLOOD-PLAIN.

STREET CLASSIFICATION: 52' R.O.W. = 32' LOCAL RESIDENTIAL 3.  
100' R.O.W. = MAJOR ARTERIAL STREET.

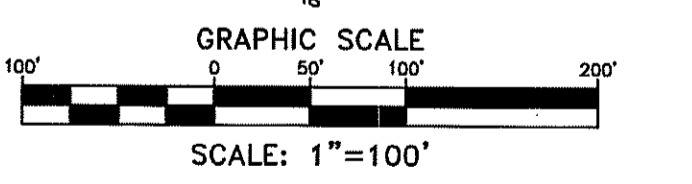
ATTEST: NOT REQUIRED  
ACKNOWLEDGEMENT

STATE OF TEXAS  
COUNTY OF EL PASO

Before me, the undersigned authority, on this day personally appeared Douglas A. Schwartz, Manager of RANCHOS REAL XV, L.L.C., ON BEHALF OF SAID LIMITED LIABILITY COMPANY known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as the act and deed of said company for the purpose and considerations herein expressed.

Given under my hand and seal of office this 15<sup>TH</sup> day of JANUARY, 2016.

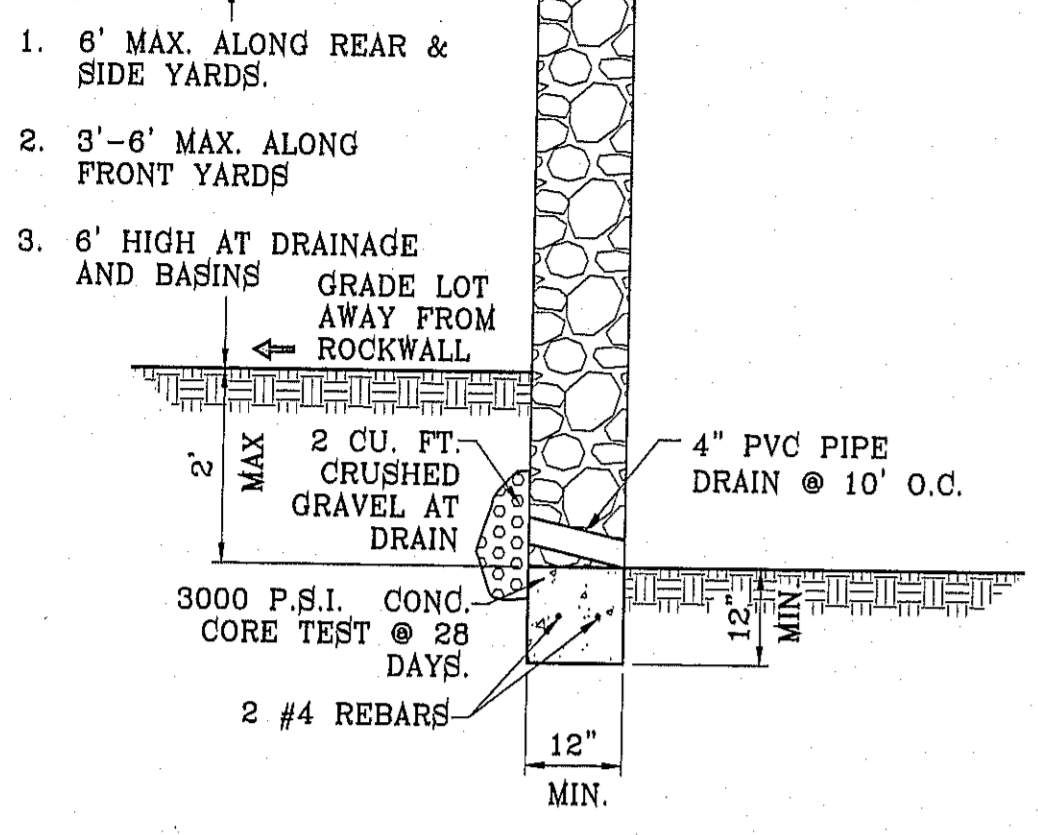
Notary Public in and for El Paso County  
My Commission Expires JANUARY 31 2018



ANA M. GREGG  
NOTARY PUBLIC  
STATE OF TEXAS  
JANUARY 31 2018



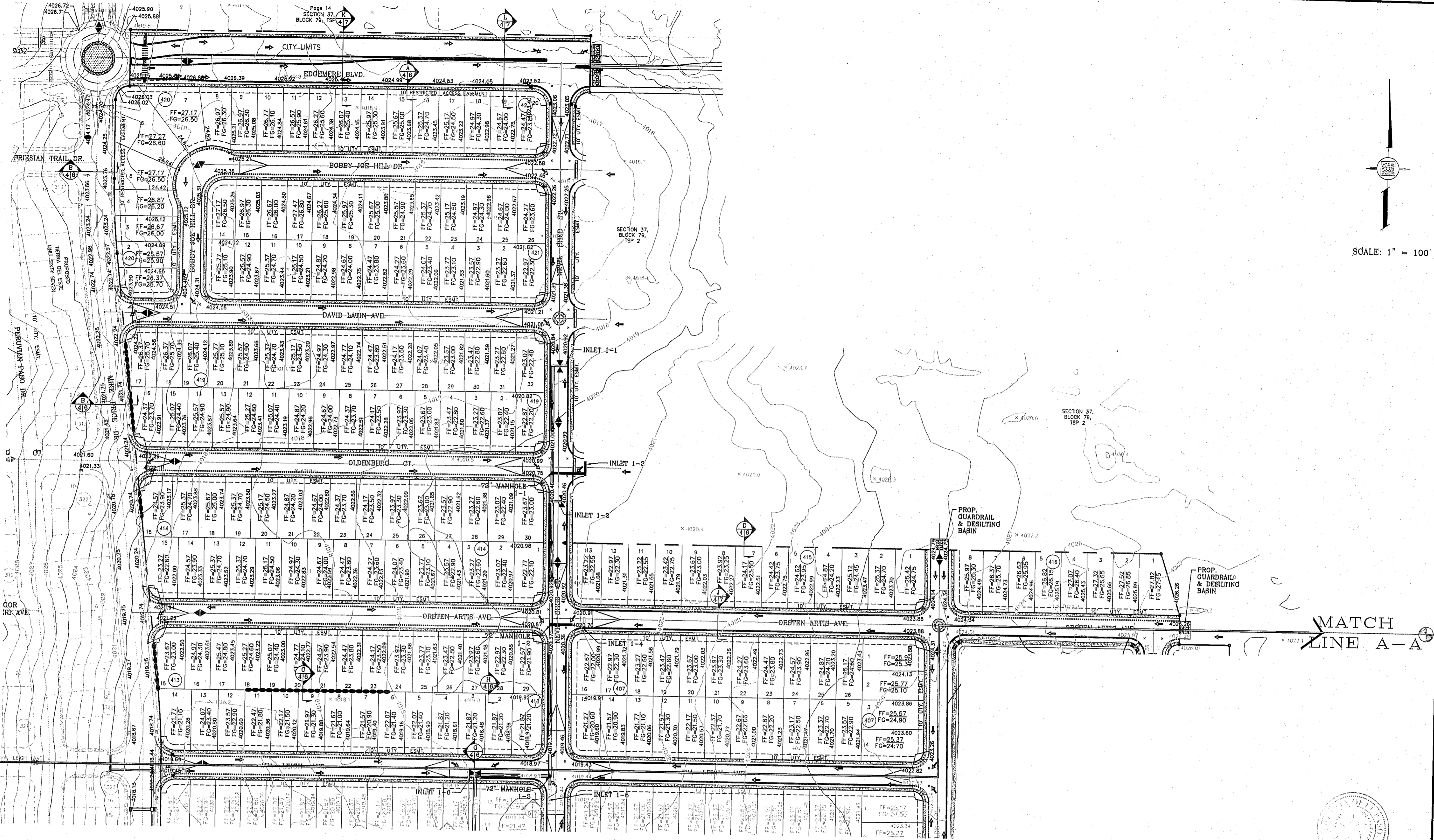
FILE S:\Subdivisions\THE 71 REGISTRATION PLANNED Monday, October 20, 2014 5:00:38 PM



ROCKWALL DETAIL  
SCALE: 1" = 2'

**ROCKWALL NOTES:**

1. STONE FOR ROCKWALLS SHALL BE AS NEARLY UNIFORM IN SECTIONS AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT OF AIR AND WATER.
2. MORTAR MUST BE TYPE "S" 1800 P.S.I. AS PER ASTM C270.
3. MASONRY WALLS OVER SIX (6) FEET IN HEIGHT AND THOSE USED FOR EARTH RETENTION OVER TWO (2) FEET MUST BE DESIGNED AS STRUCTURAL WALLS.
4. WALLS ADJACENT TO PONDING AREAS OR DRAINAGE DITCHES MAY BE CONSTRUCTED OF BRICK, CINDER BLOCK, OR STONE AND SHALL NOT BE LESS THAN SIX (6) FEET HIGH.
5. ROCKWALL MORTAR JOINTS MUST NOT EXCEED TWO (2) INCHES.
6. PROVIDE ONE (1) INCH EXPANSION JOINTS AT EVERY 100 FEET.
7. ALL STONE SHALL BE THOROUGHLY SOAKED BEFORE BEING PLACED.
8. NO RIVER ROCK SHALL BE ALLOWED.



**GENERAL NOTES:**

1. IMPROVEMENT WITHIN CITY R.O.W. SHALL COMPLY WITH TITLE 19-SUBDIVISION ORDINANCE-"DRAINAGE DESIGN MANUAL AND DESIGN STANDARDS FOR CONSTRUCTION".
2. CONTRACTOR SHALL PROVIDE TEMPORARY MEASURES FOR THE MANAGEMENT OF STORM WATER RUNOFF ENTERING, EXITING AND ON SITE DURING THE COURSE OF THE CONSTRUCTION. TEMPORARY BERMS, DESILTING BASIN, CHECK DAMS, PIPING ETC. SHALL BE PROVIDED AS NECESSARY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND NOTIFICATION WITH ALL APPURTENANT UTILITY COMPANIES WHOSE LINES ARE WITHIN THE CONSTRUCTION CONTRACT AREA. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES 48 HOURS PRIOR TO ANY CONSTRUCTION ON SITE. THE CONTRACTOR WILL BE RESPONSIBLE PHYSICALLY AND FINANCIALLY FOR ANY DISRUPTION TO SERVICE EITHER ON SITE OR OFF SITE DUE TO BREAKAGE OF UTILITY LINES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DATA SHOWN ON THE PLANS. IF DISCREPANCIES ARE FOUND THE CONTRACTOR SHALL NOTIFY THE OWNER OR ENGINEER IMMEDIATELY SO THAT PROPER CORRECTIONS CAN BE MADE.
5. EQUIPMENT OF A CONDITION AND DESIGN SUFFICIENT TO ENSURE A THOROUGH AND WORKMANLIKE PROSECUTION OF THE PROJECT SHALL BE USED AT ALL TIMES.
6. ALL ELEVATIONS ARE TO CITY DATUM UNLESS OTHERWISE NOTED.
7. ALL WASTE MATERIALS INCLUDING EXCAVATION, CURBING, PAVEMENT, ETC. SHALL BE DISPOSED OF AS DESIGNATED BY THE OWNER OR HIS REPRESENTATIVE.
8. THE CONTRACTOR SHALL NOTIFY THE OWNER, OR HIS REPRESENTATIVE, IN SUFFICIENT TIME IN ADVANCE OF DELIVERY OF MATERIALS TO BE SUPPLIED BY HIM UNDER THIS PROJECT, IN ORDER THAT THE OWNER MAY ARRANGE, IF DESIRED, INSPECTION AND TESTING FOR SAME.
9. SAFE AND REASONABLE ACCESS FOR THIS SITE MUST BE MAINTAINED AT ALL TIMES DURING THE LIFE OF THE PROJECT.
10. ANY CAVITY REMAINING OPEN DURING NONWORKING HOURS MUST BE GUARDED BY FLASHER TYPE BARRICADES WITH STRINGERS PLACED BETWEEN THE TOPS OF THE BARRICADES.
11. DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 "EXCESSIVE PAVING CUTS" AS PER EL PASO MUNICIPAL CODE.

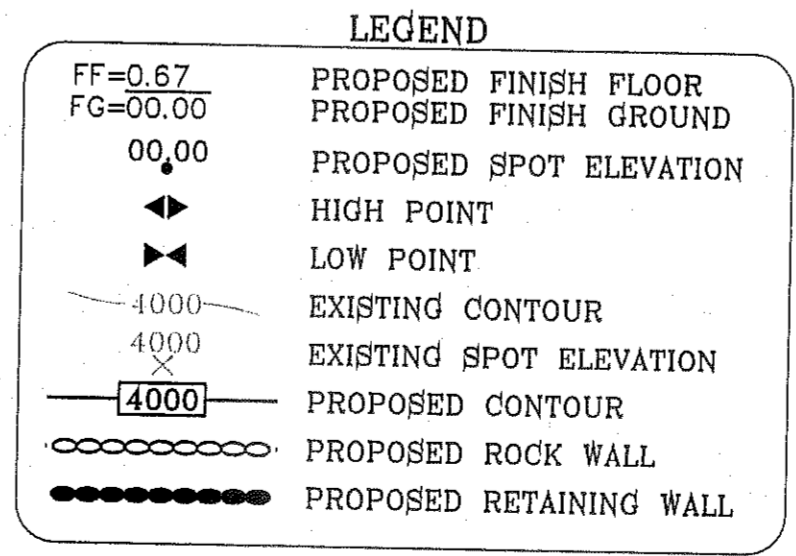
**GENERAL EARTHWORK NOTES:**

1. ALL GRADING SHALL CONFORM TO THE CITY OF EL PASO GRADING ORDINANCE SECTION 18.44 (AMENDED).
2. THE CONTRACTOR SHALL CARRY ON HIS WORK WITH SPECIAL CARE AT ALL TIMES TO MAINTAIN THE NATURAL SURROUNDINGS AND EXISTING STRUCTURES IN AN UNDAMAGED CONDITION.
3. NATURAL SUBGRADES TO SUPPORT STRUCTURAL FILL OR PAVEMENTS SHOULD BE STRIPPED OF ALL VEGETATION OR ORGANIC TOPSOIL. THE EXPOSED SUBGRADE SHOULD BE SCARIFIED JUST PRIOR TO FILL PLACEMENT TO A MINIMUM DEPTH OF 6 INCHES AND RECOMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS PER ASTM D-1557. ALL BACKFILL MATERIAL TO BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED EIGHT (8) INCH LIFTS AND COMPACTED AS BEFORE.
4. TEMPORARY DUST AND EROSION CONTROL MEASURES SHALL BE PROVIDED FOR AT ALL TIMES. SEE SHEET 13.
5. ANY EROSION OF THE GRADED SITE DURING THE COURSE OF THE PROJECT SHALL BE CORRECTED PRIOR TO FINALIZATION OF THE PROJECT AT NO COST TO THE OWNER.
6. ALL SLOPES AND SWALES WITHIN LOTS SHALL BE MAINTAINED BY LOT OWNER.

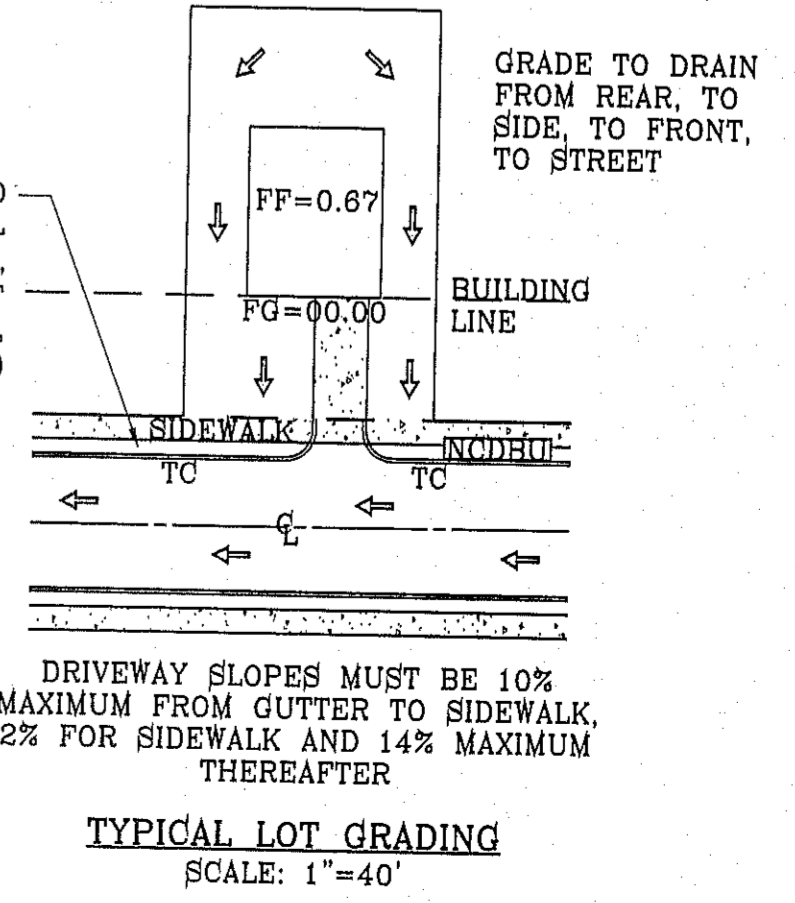
**CONSTRUCTION NOTES:**

1. ALL CONCRETE FOR STRUCTURES SHALL BE 3000 PSI. UNLESS OTHERWISE NOTED.
2. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
3. 95% COMPACTION REQUIRED FOR STRUCTURES AS PER ASTM D1657.
4. REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A616 GRADE 60.
5. RETAINING WALLS WILL BE REQUIRED WHERE THERE IS A GRADE DIFFERENCE OF 2 OR MORE FEET BETWEEN LOTS AND STREET. RETAINING WALL DESIGN AT TIME OF BUILDING PERMIT.

DETAIL No. 345  
SECTION DETAIL SHEET  
SECTION REFERENCE SHEET



ALL UTILITIES SHALL BE PLACED IN PARKWAY. NO UTILITIES SHALL BE PLACED ON SIDEWALKS (I.E., NCDDB'S, FIRE HYDRANTS, LIGHT POLES, SIGNS, POWER POLES, etc....)



SEE SHEET 39-41 FOR DRAINAGE STRUCTURES

NOTE:  
HEREON DESCRIBED TRACT LIES IN ZONE X, COMMUNITY PANEL NO. 480212 0175B. DATED SEPTEMBER 4, 1991.



PROJECT NAME	TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)
DATE	11/12/12
REVISIONS	CITY REDLINES AS PER 11/12/12 COMMENTS
BY	R.R.
DATE	3/12/13
REVISIONS	REVISED TERRA DEL ESTE UNIT SEVENTY ONE

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS. CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 01.586± ACRES

SCALE  
HORIZ: 1" = 100'  
VERT: 1" = 100'

DATE: JAN. 2012  
DESIGN BY: JC  
INITIATED BY: RC  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

ENGINEER'S SEAL  
CONDE INC.  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURVEY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

SHEET TITLE  
**GRADING PLAN**

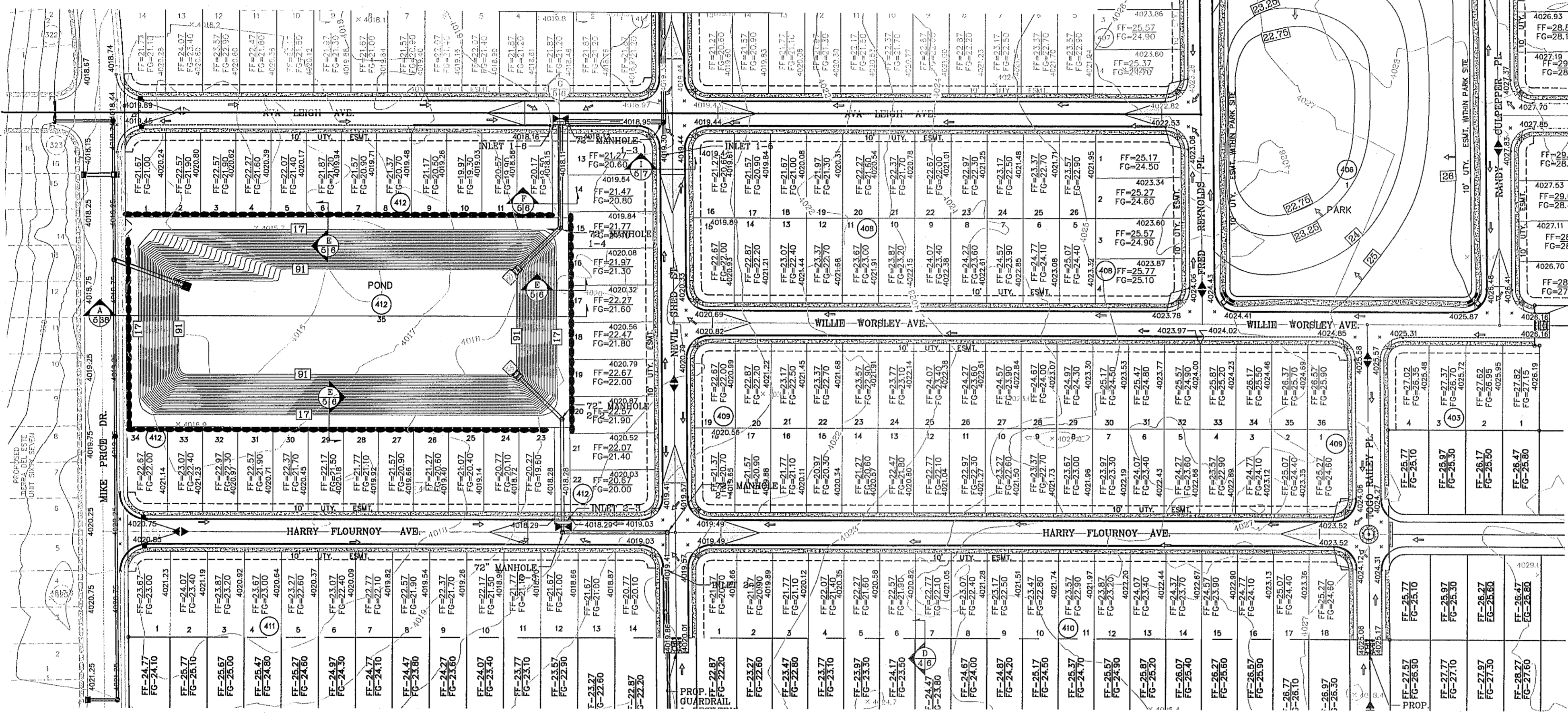
SHT 4 OF 55



**GRADING STABILIZATION NOTES:**

- A. STABILIZATION MEASURE FOR LOT 35, BLOCK 412 (POND) TO BE HYDROMULCH SLOPES
- DESIGN: ROUGHEN SLOPES.
- MIX: 65-85 lbs WOOD MULCH/1000 s.f.
- SEED: BUFFALO GRASS SEED @ 25 lbs/1000 s.f.
- WATER: 30-35 lbs OF MULCH PER 100 GALLONS OF WATER.
- WATER SLOPE THEN APPLY HYDROMULCH.
- TEMPORARY IRRIGATION AND WATER SLOPES TWICE PER WEEK UNTIL VEGETATION ESTABLISHED.

MATCH LINE A-A



MATCH LINE A-A

**GENERAL PARKS AND RECREATION NOTES:**

1. PROJECT TO BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TDS REQUIREMENTS TO INCLUDE INSPECTION, AND CERTIFICATE OF SUBSTANTIAL COMPLETION; APPROVAL OF THE SUBDIVISION/PARK IMPROVEMENT PLANS IS SUBJECT TO APPLICANT PROVIDING PROOF OF THE PROJECT REGISTRATION - PLD #
2. ALL PARK IMPROVEMENTS (SIDEWALKS, RAMPS, ETC.) AND PAVED WALK/HIKE/BIKE TRAILS TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAG & TDS STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.
3. NO SIGNS, FIRE HYDRANTS, LIGHTS, NDCBU'S ELECTRICAL /WATER BOXES, TELEPHONE PEDESTALS, NO OBSTRUCTIONS IN GENERAL, SHALL BE PLACED ALONG PROPOSED PARK SITE PERIMETER.
4. WHERE POSSIBLE, UTILITY EASEMENTS SHALL NOT BE PLACED WITHIN PARK SITE.
5. ALL UTILITIES SHALL BE AT MINIMUM FIVE FEET DEEP.
6. WHERE POSSIBLE AND PREFERABLY, UTILITIES SHALL BE PLACED UNDERNEATH THE PROPOSED 7' SIDEWALK TO AVOID FUTURE CONFLICT WITH THE PROPOSED STREET TREE LINE OR DAMAGE TO THE UTILITIES.
7. NO TRANSFORMERS, PEDESTAL, OR JUNCTION BOXES SHALL BE INSTALLED WITHIN PARK SITE.

**CONSTRUCTION ACTIVITY REQUIREMENTS:**

1. NO ON-SITE PROCESSING OF MATERIAL FOR COMMERCIAL OR RETAIL SALES SHALL BE ALLOWED. ON-SITE PROCESSING OF MATERIALS TO BE USED FOR PREPARATION OR CONSTRUCTION OF IMPROVEMENTS WITHIN THE SITE COVERED BY THE GRADING PERMIT SHALL BE ALLOWED.
2. WORK SHALL BE CONDUCTED IN MANNER THAT PRESERVES AND DOES NOT OBSTRUCT, IMPERE OR INTERFERE WITH THE FLOW OF STORM WATER IN NATURAL DRAINAGE WAYS, UNIMPROVED CHANNELS OR WATERCOURSES, OR IMPROVED DITCHES, CHANNELS OR CANALS IN SUCH A MANNER AS TO CAUSE FLOODING WHERE IT WOULD NOT OTHERWISE OCCUR
3. CONSTRUCTION EQUIPMENT AND FENCING SHALL BE KEPT OUT OF WATERCOURSES EXCEPT WHEN NECESSARY TO PERFORM WORK ON THE APPROVED PLANS. ADEQUATE BY PASS MEASURES SHALL BE INSTALLED WHERE TEMPORARY DRAINAGE BLOCKAGES WILL OCCUR. WHERE WORK WITHIN A CHANNEL IS DESIGNATED ON APPROVED PLANS, PRECAUTIONS SHALL BE TAKEN TO STABILIZE THE WORK AREA DURING CONSTRUCTION TO MINIMIZE EROSION. THE CHANNEL, INCLUDING BED AND BANKS, SHALL ALWAYS BE RESTORED/RE-STABILIZED IMMEDIATELY AFTER IN CHANNEL WORK IS COMPLETED;
4. WHERE A DRAINAGE WAY WILL BE CROSSED BY CONSTRUCTION VEHICLES REGULARLY DURING CONSTRUCTION, A TEMPORARY CROSSING SHALL BE CONSTRUCTED.
5. MATERIAL STOCKPILING SHALL NOT BE ALLOWED WHEN GRADING OPERATIONS ARE IDE FOR MORE THAN SEVEN CONSECUTIVE CALENDAR DAYS. STOCKPILING SHALL BE L AND LIMITED TO TEN FEET HIGH WHEN GRADING OPERATIONS ARE BEING CONDUCTED.
6. TRAFFIC CONTROL PERMIT AND/OR FLAGMEN MAY BE REQUIRED AS PART OF THE GRADING PERMIT.
7. ANY USE OF VIBRATORY EQUIPMENT SHALL BE APPROVED IN WRITING BY THE DIRECTOR IN ADVANCE OF SUCH USE

**18.44.220 - PERMIT CLOSEOUT PROCEDURE:**

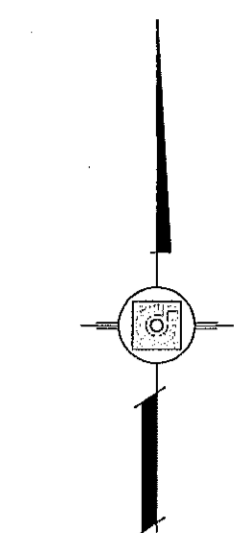
AFTER THE PERMITTEE COMPLETES THE GRADING UNDER THE PERMIT, THE PERMIT SHALL BE CLOSED. AS PART OF THE CLOSEOUT PROCEDURE, THE APPLICANT MUST SUBMIT THE FOLLOWING TO THE CITY:

- A. A STATEMENT FROM THE ENGINEER OF RECORD THAT STATES, "THE GRADING OPERATION HAS BEEN SUBSTANTIALLY COMPLETED AND GENERALLY CONFORMS TO THE APPROVED SET OF PLANS". THE PERMITTEE SHALL CALL THE PERMIT OFFICIAL TO ESTABLISH THE BEGINNING OF THE WARRANTY PERIOD AND TO NOTIFY THE PERMIT OFFICIAL THAT THE GSP HAS BEEN IMPLEMENTED.
- B. A COPY OF THE NOTICE OF TERMINATION FILED WITH THE STATE OR DATED CONSTRUCTION SITE NOTICE, IF APPLICABLE, IN ACCORDANCE WITH CHAPTER 15.

THE CITY WILL ISSUE A LETTER STATING GENERAL CONFORMANCE TO THE PERMIT. AS SOON MET AND THAT THE WARRANTY PERIOD REQUIREMENTS WILL CONTINUE TO BE IN EFFECT.

**18.44.090 - WARRANTY:**

ANY PERSON ISSUED A PERMIT SHALL AGREE WARRANT AND MAINTAIN THE AREA DESCRIBED IN THE PERMIT FOR A PERIOD OF TWO YEARS AFTER THE PERMIT IS CLOSED BY THE CITY PURSUANT TO SECTION 18.44.220, OR UNTIL A BUILDING PERMIT IS ISSUED FOR THE PURPOSE OF MAINTAINING A STABILIZED SITE IN ACCORDANCE WITH THE APPROVED GSP, WHICHEVER FIRST OCCURS (THE "WARRANTY" OR "WARRANTY PERIOD"). THE CITY MAY CONDUCT INSPECTIONS OF THE PERMITTED AREA THROUGHOUT THE WARRANTY PERIOD AND REQUIRE MAINTENANCE AND CORRECTION OF THE WORK BY THE PERMIT HOLDER. FAILURE OF THE PERMIT HOLDER TO CORRECT THE WORK SHALL CONSTITUTE A FAILURE TO COMPLY WITH THE PROVISIONS OF THIS CHAPTER.



SCALE: 1" = 100'



Final Approval

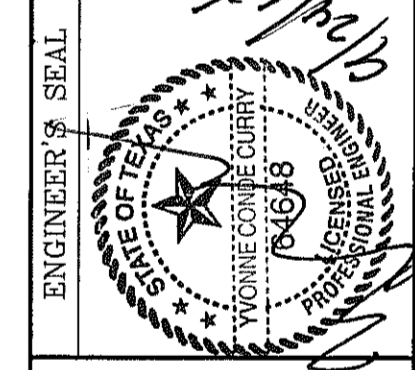
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DATE	11/12/12
REVISIONS	CITY REVISIONS AS PER 11/12/12 COMMENTS
BY	R.R.
R.R.	REVISED TERRA DEL ESTE UNIT SEVENTY ONE

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 61.586± ACRES

SCALE  
HORIZ: 1" = 100'  
VERT: 1" = 100'

DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18



**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

**CONDE INC.**  
REGISTRATION NO. P-221

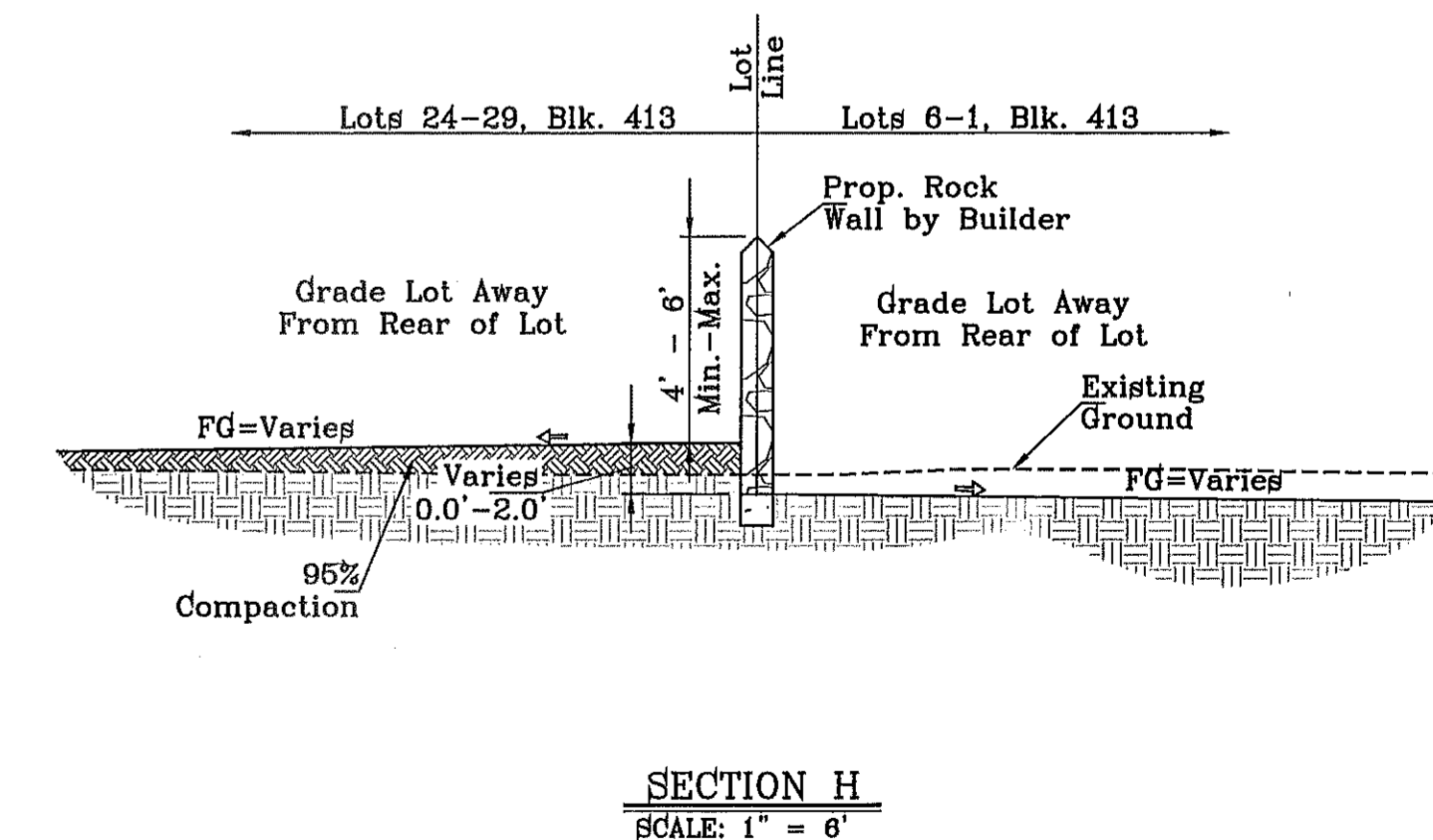
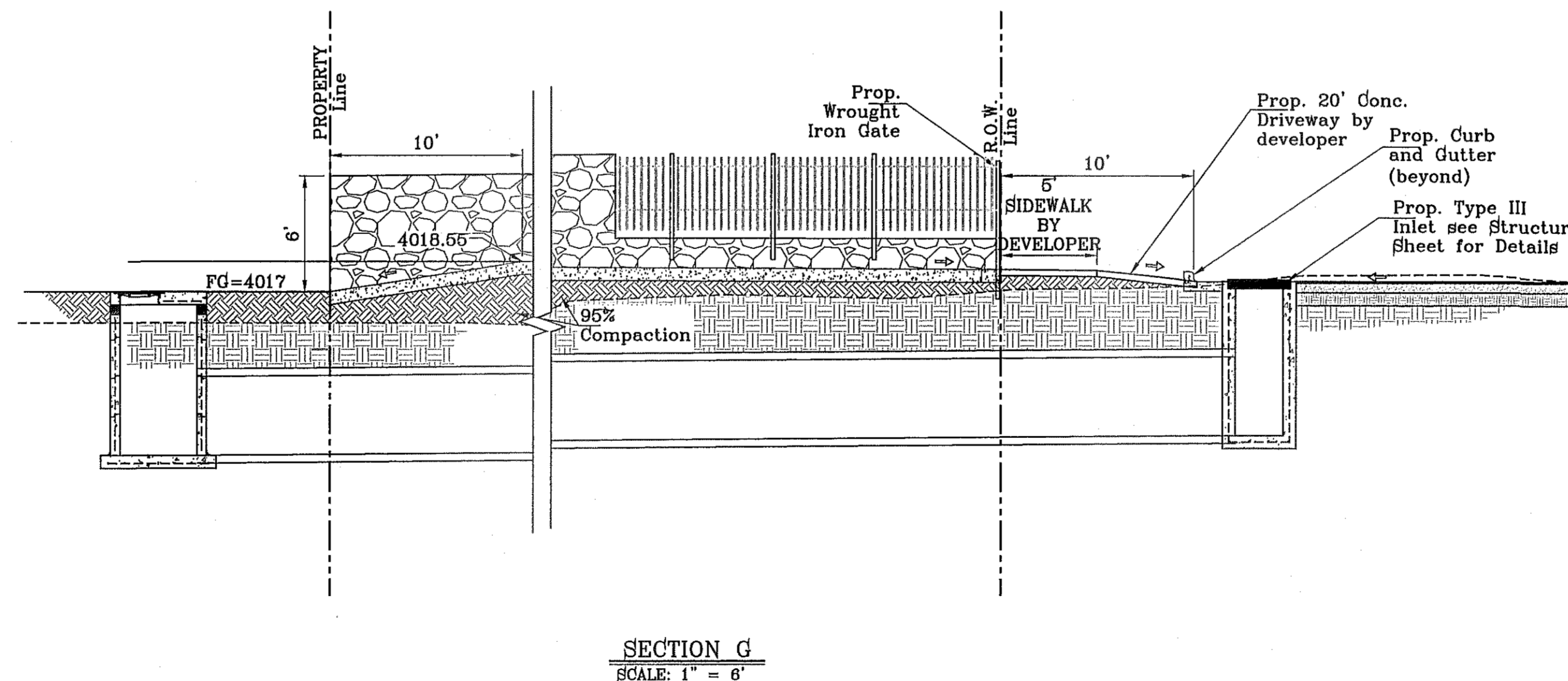
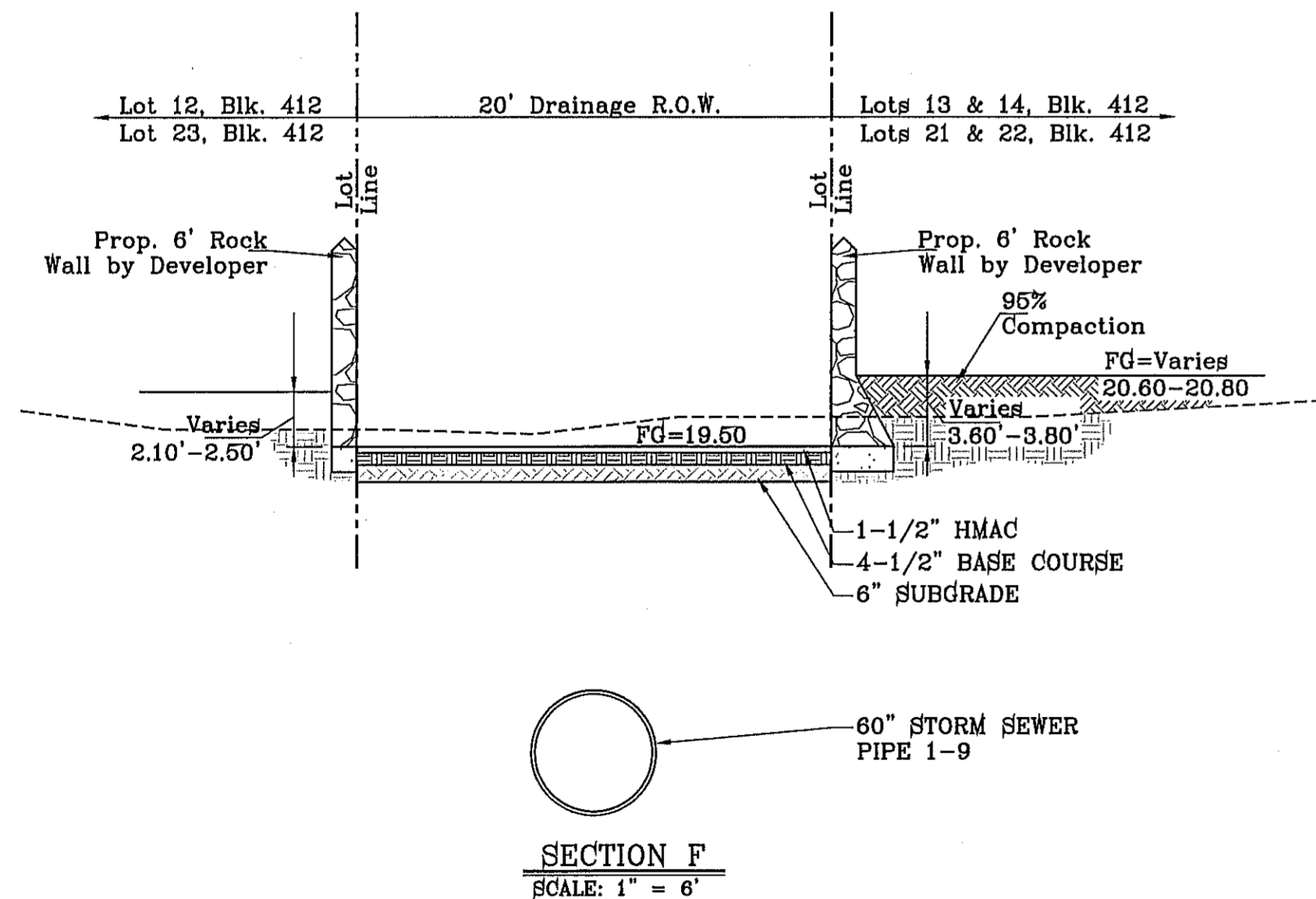
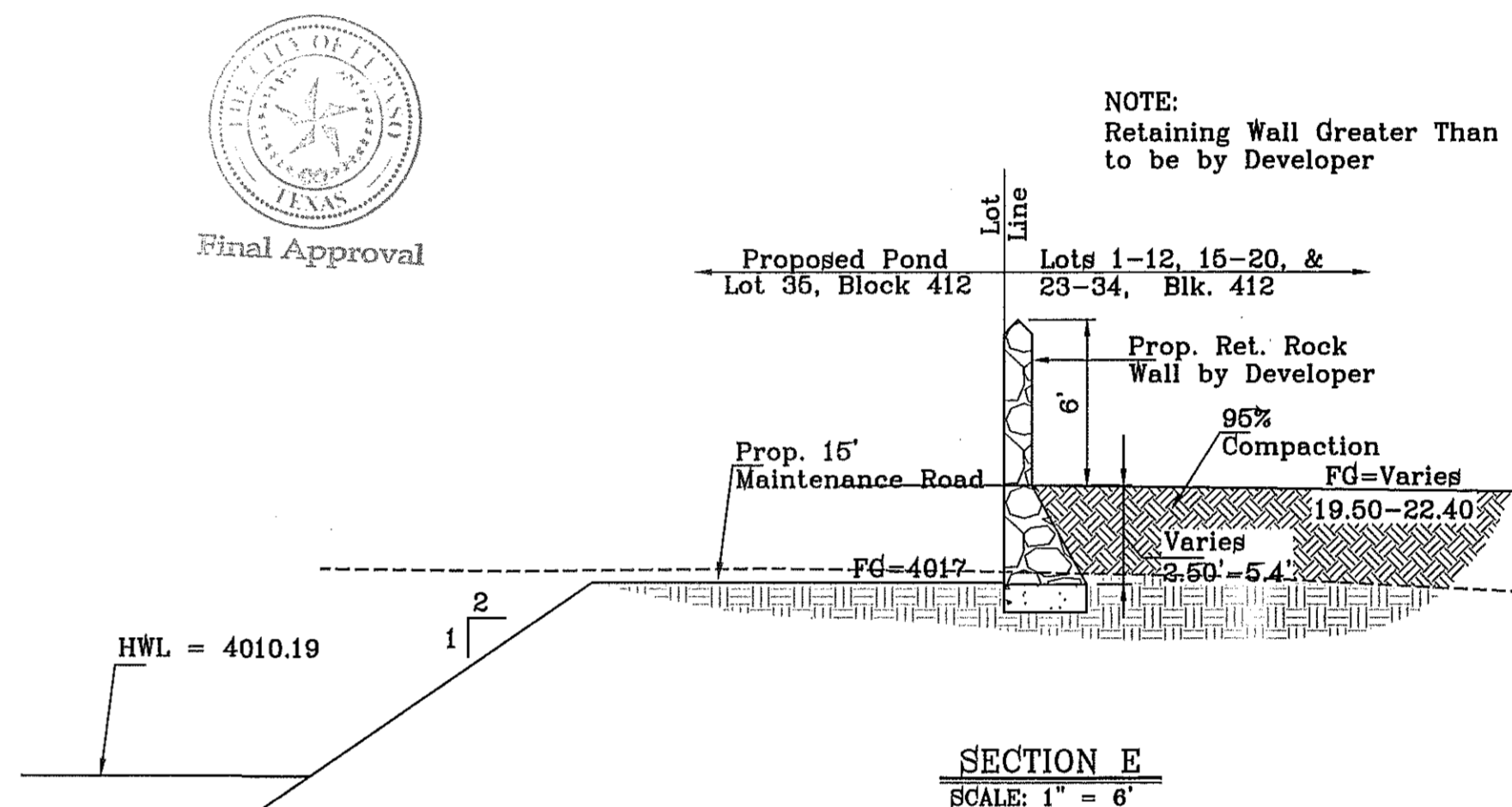
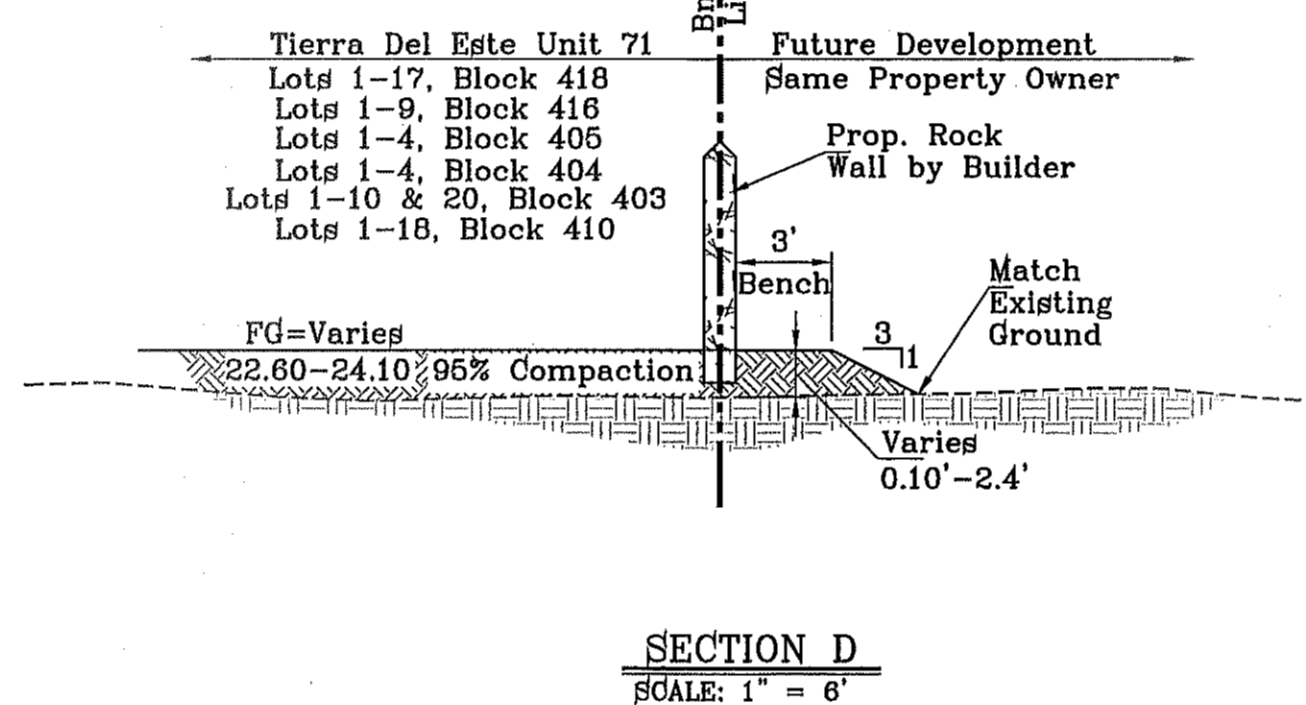
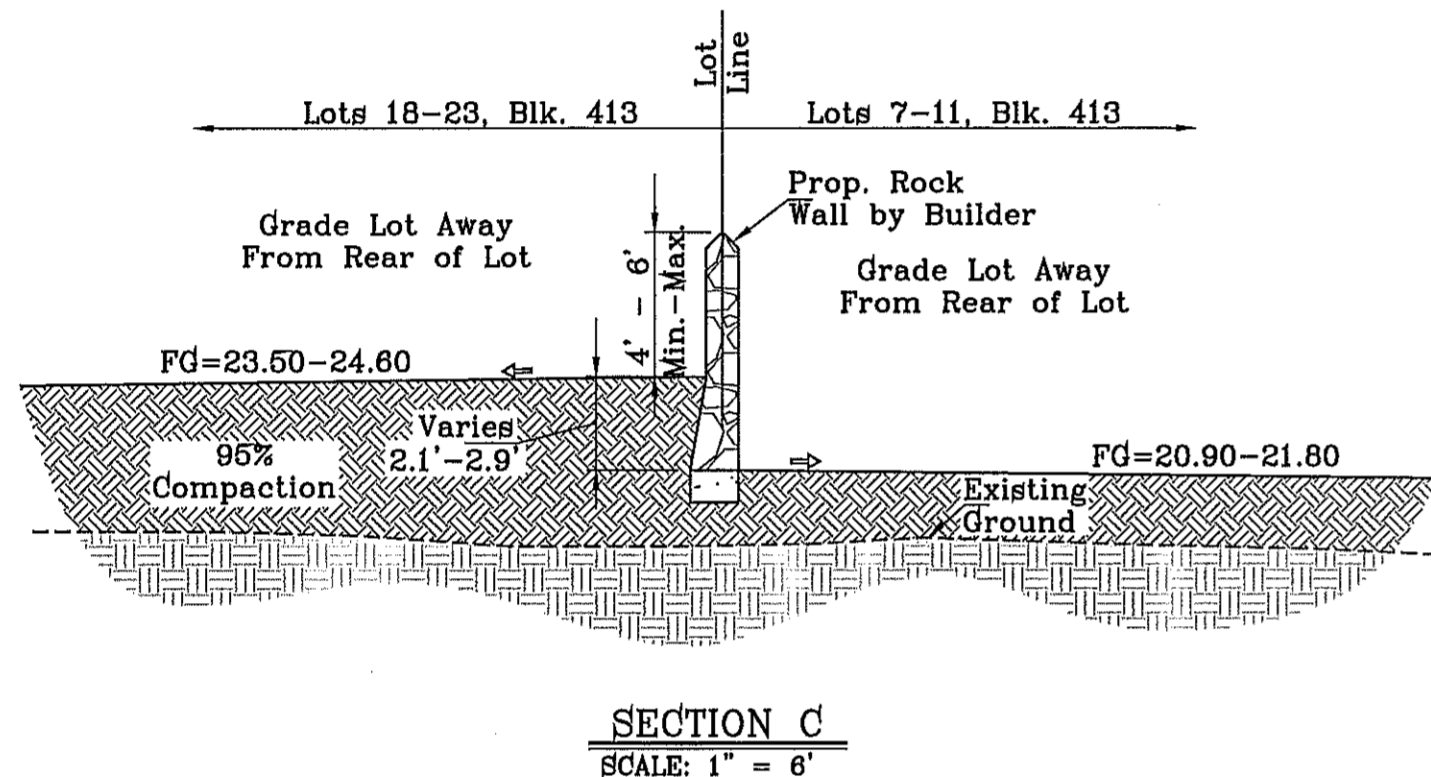
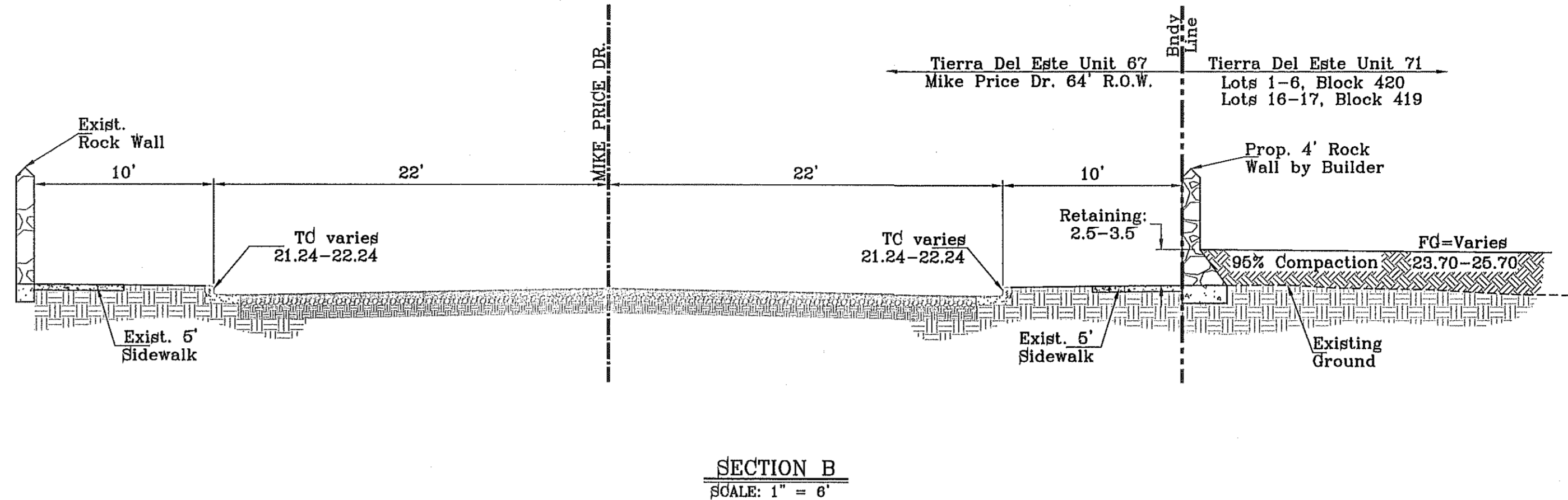
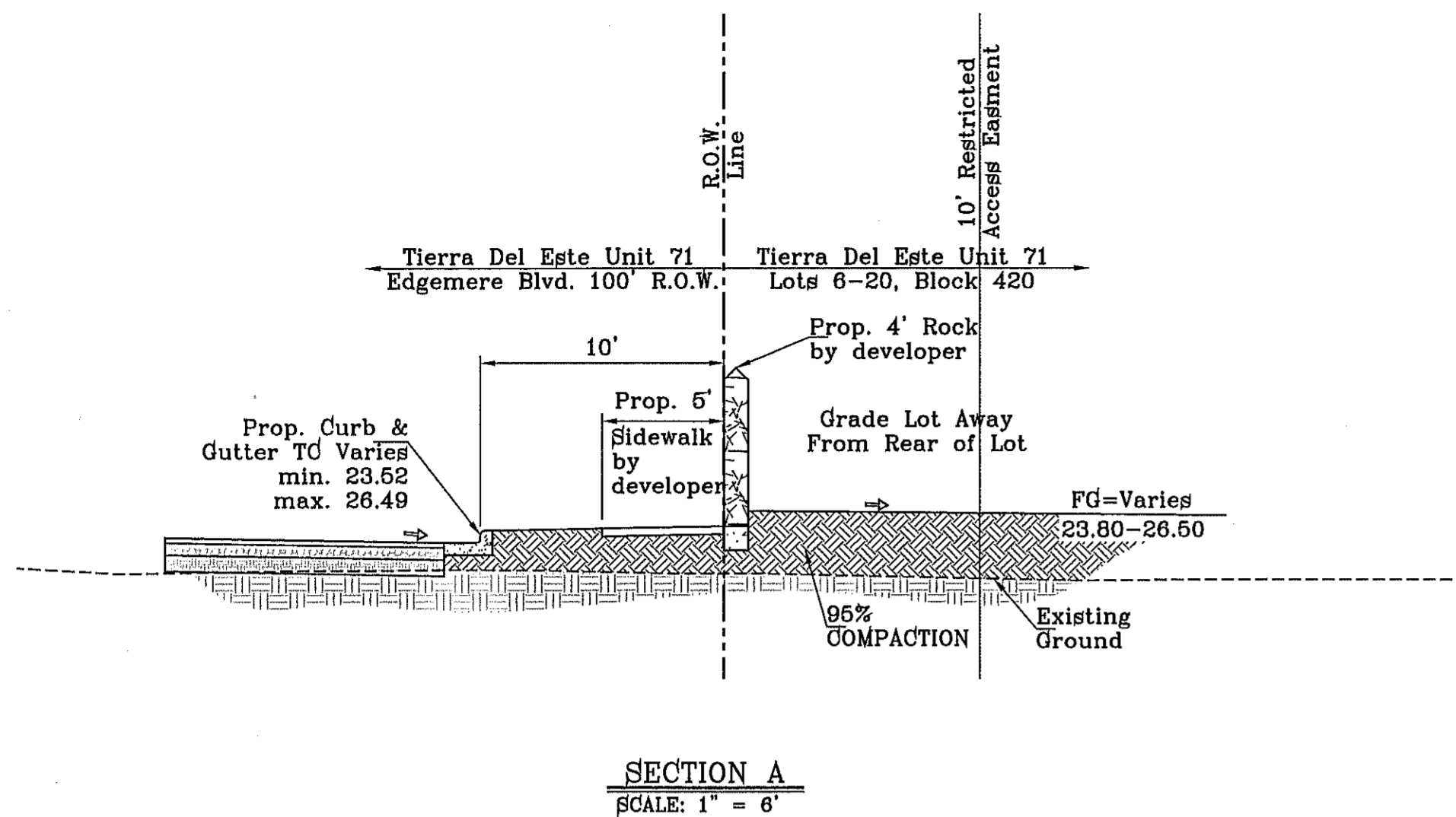
SHEET TITLE

**GRADING PLAN**

SHT 5 OF 55



FILE S:\\_Subdivisions\THE 71 ROGER GRADING SECTIONS-71 - SECTIONS PLOTTED Tuesday, June 18, 2013 2:04:44 PM



NOTE:  
Retaining Wall Greater Than 4'  
to be by Developer

BENCHMARK	
CITY MOUNTAIN AT THE CENTERLINE INTERSECTION OF RALPH STENINGER DR. AND JOHN HAYES CT. ELEVATION 4018.75	NAVD83 DATUM
DATE	REVISIONS
09/08/12	CITY COMMENTS AS PER 3-8-12
04/01/12	CITY COMMENTS AS PER 04/01/12
11/19/12	CITY COMMENTS AS PER 10/30/12
3/12/13	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE

PROJECT NAME  
**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 61.566± ACRES

SCALE	HORIZ: AS NOTED
VERT: ---	DATE: JAN. 2012
DESIGN BY: YC	INITIATED BY: RO
CHECKED BY: YC & FC	JOB NO.: 1110-18

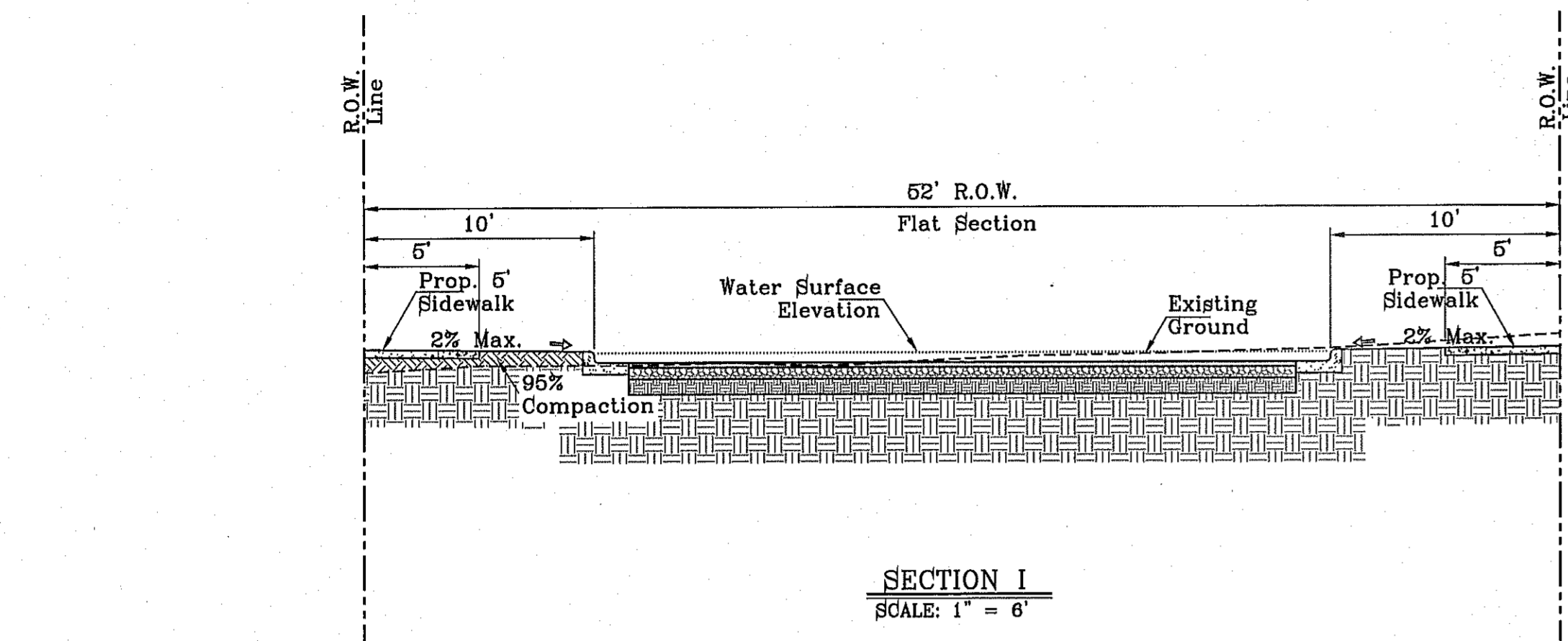
ENGINEER'S SEAL

**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

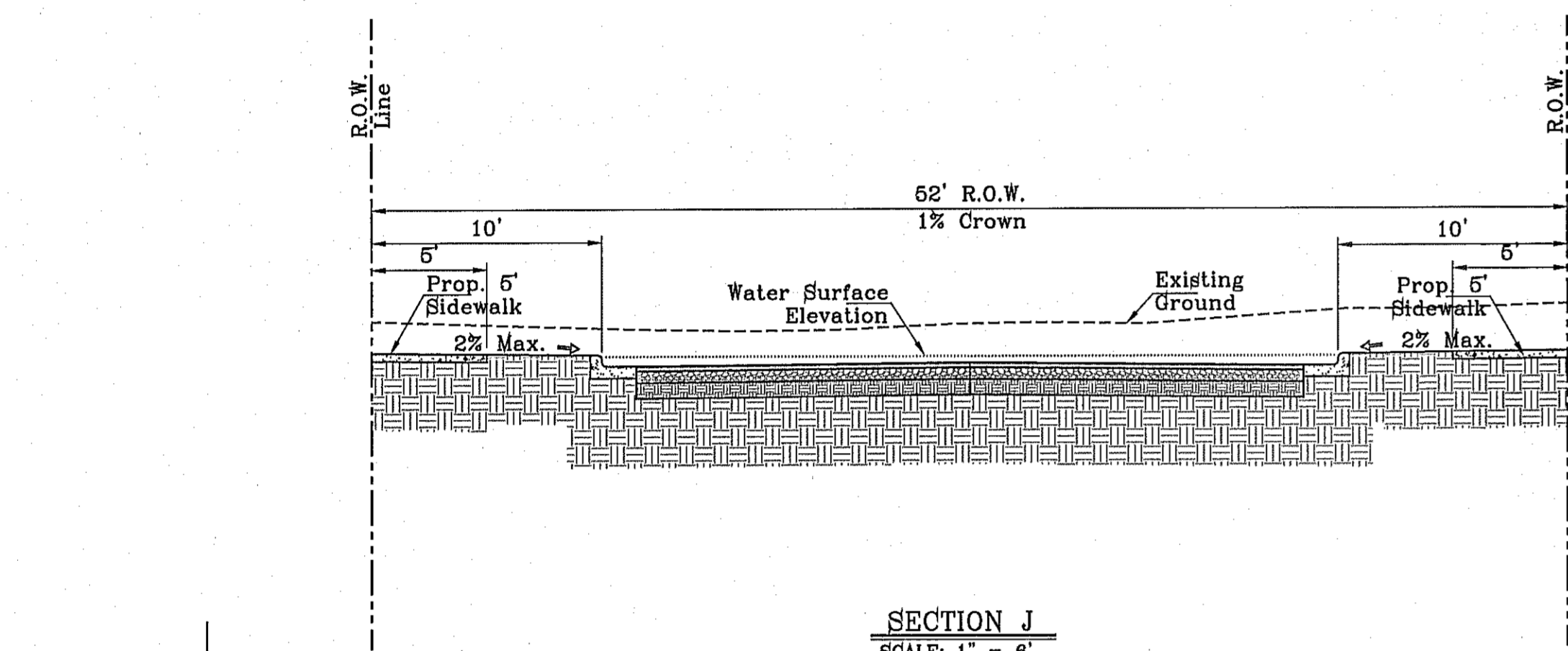


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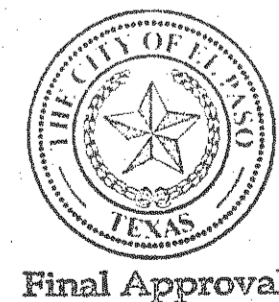
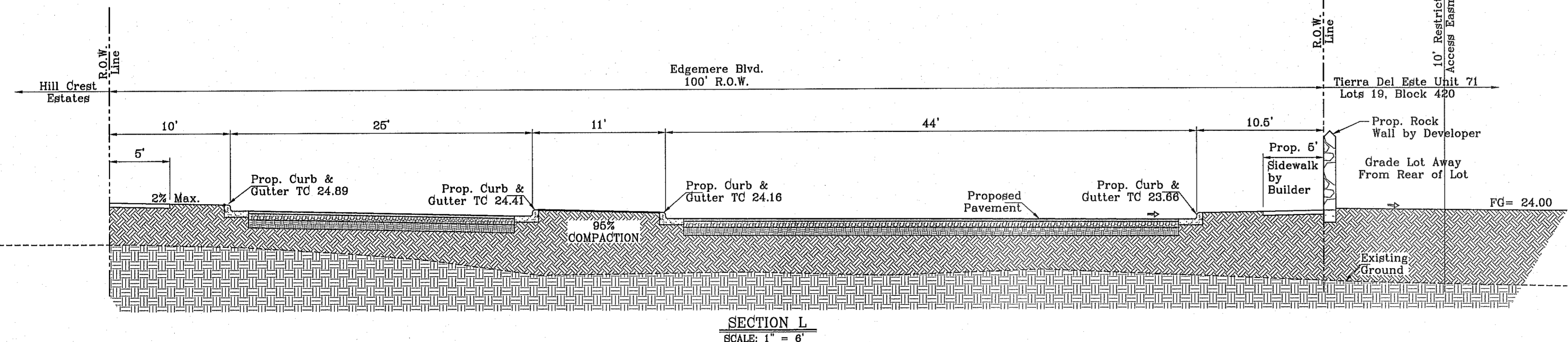
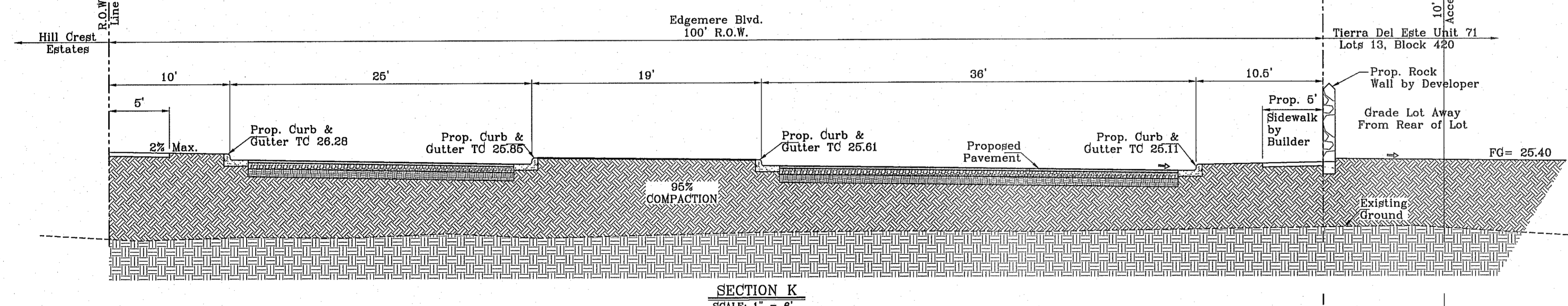
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**62' R.O.W. STREET  
FLAT SECTION  
W/1" FREEBOARD**  
 $Q^2 = 61.94 \text{ CFS}$   
 $D = 0.42 \text{ FT}$   
 $V = 3.87 \text{ FPS}$   
 $S = 0.50\%$   
 6" CURB & GUTTER



**62' R.O.W. STREET  
1% CROWN SECTION  
W/1" FREEBOARD**  
 $Q^2 = 36.68 \text{ CFS}$   
 $D = 0.42 \text{ FT}$   
 $V = 3.36 \text{ FPS}$   
 $S = 0.50\%$   
 6" CURB & GUTTER

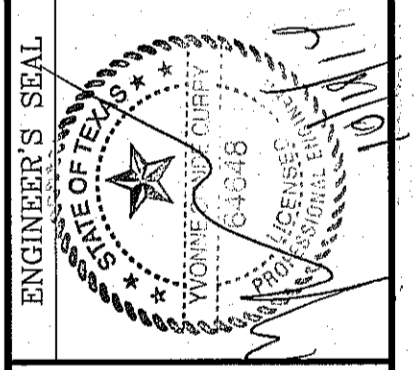


BENCHMARK

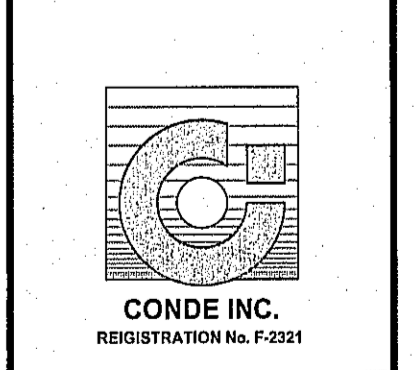
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4016.75	
DATE	REVISIONS
11/19/12	CITY COMMENTS AS PER 10/30/12
3/12/13	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE
BY	E.I.

**PROJECT NAME**  
 TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)  
 BEING PORTION SECTION 27, BLOCK 79 TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CITY OF EL PASO, EL PASO COUNTY, TEXAS  
 CONTAINING: 61.666± ACRES

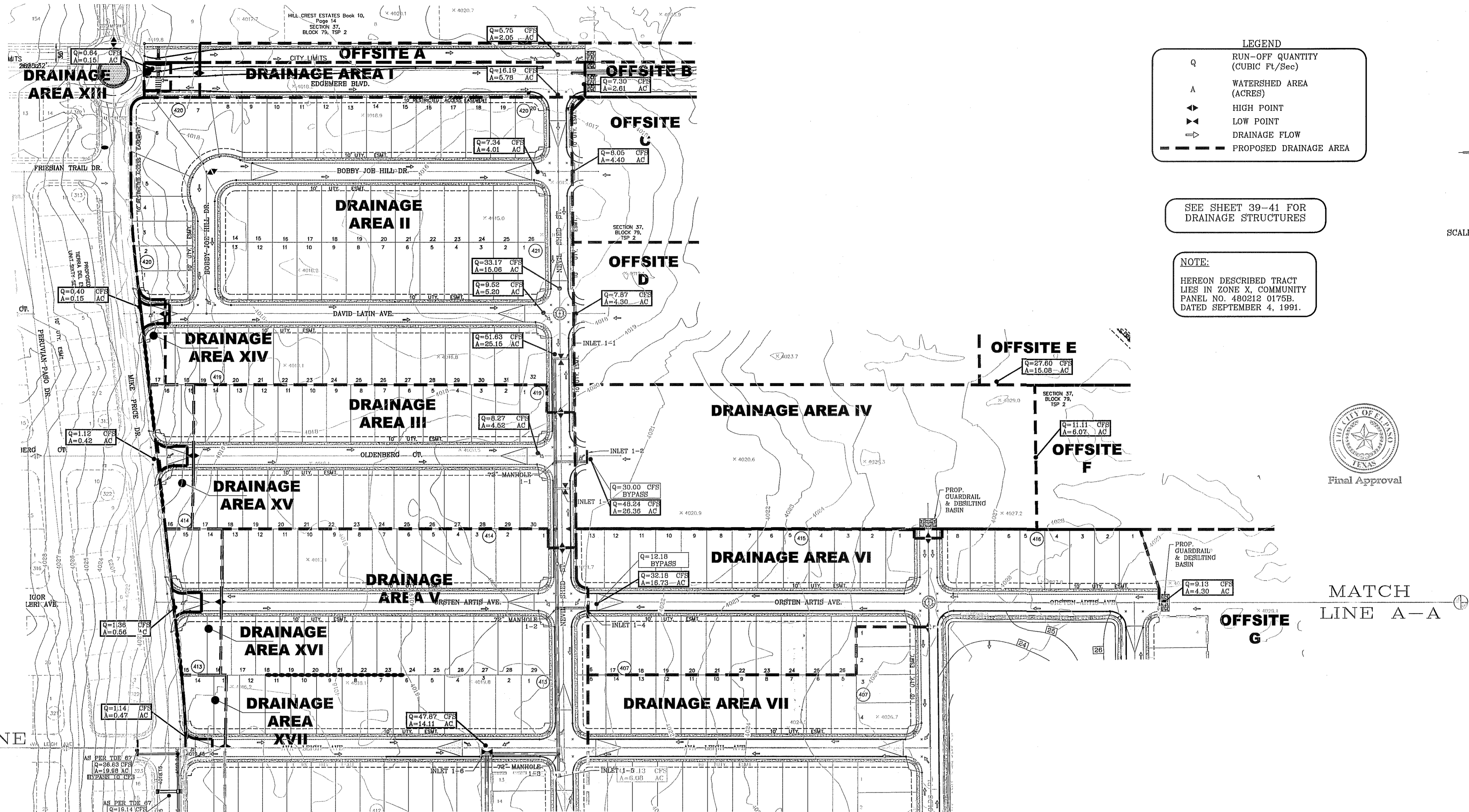
**SCALE**  
 HORIZ. AS NOTED  
 VERT. ---  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-1B



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 EL PASO, TEXAS 79905  
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**LEGEND**

- Q RUN-OFF QUANTITY (CUBIC FT/Sec)
- A WATERSHED AREA (ACRES)
- ▲ HIGH POINT
- ▼ LOW POINT
- DRAINAGE FLOW
- - - PROPOSED DRAINAGE AREA

SEE SHEET 39-41 FOR DRAINAGE STRUCTURES

**NOTE:**  
HEREON DESCRIBED TRACT LIES IN ZONE X, COMMUNITY PANEL NO. 480212 0175B. DATED SEPTEMBER 4, 1991.

SCALE: 1" = 100'



MATCH LINE A-A

**INLET DATA**

INLET No.	INLET TYPE	No. GRATES	Qd <sub>50</sub> YR. cfs	Qc cfs	Qd <sub>100</sub> YR. cfs	Qc <sub>100</sub> YR. cfs
1-1	II	12	51.63	92.67	59.94	92.67
1-2	II	8	46.24	92.67	58.37	92.67
1-3	II	12	26.51	92.67	38.38	92.67
1-4	II	5	20.00	38.60	29.18	38.60
1-5	I	4	29.11	43.28	38.81	43.28
1-6	III	5	47.87	61.76	56.19	61.76
2-1	Offstreet	3	22.75	36.38	26.57	36.38
2-2	I	6	42.05	54.10	51.75	64.92
2-3	III	10	57.21	46.32	65.05	77.20

**BASIN CALCS.**

Basin No.	BASE ELEVATION (ft.)	REQUIRED CAPACITY (ac. ft.)	AVAILABLE CAPACITY (ac. ft.)	PEAK INFLOW (cfs)	OUTLET TOWER FLOW (cfs)	HIGH WATER SURFACE ELEV. (ft)	FREE BOARD (ft)
1	3991	40.77	54.48	101.52	0.00	4011.80	4.20

**DRAINAGE CALCULATION TABLE**

DRAINAGE AREA	AREA (acres)	Tc (min)	C	I <sub>50</sub> (in/hr)	Q <sub>50</sub> (cfs)	I <sub>100</sub> (in/hr)	Q <sub>100</sub> (cfs)
I	1.12	30	0.95	2.95	3.14	3.57	3.80
II	10.67	28	0.60	3.05	19.52	3.69	23.62
III	4.52	28	0.60	3.05	8.27	3.69	10.01
IV	5.21	28	0.60	3.05	9.53	3.69	11.54
V	8.03	28	0.60	3.05	14.70	3.69	17.78
VI	6.36	28	0.60	3.05	11.64	3.69	14.08
VII	4.82	28	0.60	3.05	8.82	3.69	10.67
VIII	7.27	28	0.60	3.05	13.30	3.69	16.09
IX	10.10	29	0.60	3.00	18.18	3.63	21.99
X	23.76	30	0.60	2.95	42.05	3.63	51.75
XI	15.22	30	0.60	2.95	28.94	3.63	33.15
XII	3.70	30	0.95	2.95	10.37	3.57	12.55
XIII	0.16	10	0.95	4.46	0.64	5.36	0.76
XIV	0.15	10	0.60	4.46	0.40	5.36	0.76
XV	0.42	10	0.60	4.46	1.12	5.36	1.35
XVI	0.56	14	0.60	4.04	1.36	4.87	1.64
XVII	0.47	14	0.60	4.04	1.14	4.87	1.37
XVIII	0.40	14	0.60	4.04	0.97	4.87	1.17
XIX	0.55	14	0.60	4.04	1.33	4.87	1.17
XX	0.73	10	0.95	4.65	3.22	5.36	3.72
XXI	2.84	30	0.95	2.95	7.96	3.57	9.63
PARK	SEE PARK SHEET FOR DRAINAGE DETAILS/CALCS.						
POND	SEE POND SHEET FOR DRAINAGE DETAILS/CALCS.						

**DRAINAGE CALCULATION TABLE**

DRAINAGE AREA	AREA (acres)	Tc (min)	C	I <sub>50</sub> (in/hr)	Q <sub>50</sub> (cfs)	I <sub>100</sub> (in/hr)	Q <sub>100</sub> (cfs)
OFFSITE A	2.05	30	0.95	2.95	5.75	3.57	6.85
OFFSITE B	2.61	30	0.95	2.95	7.30	3.57	8.85
OFFSITE C	4.40	28	0.60	3.05	8.05	3.69	9.74
OFFSITE D	4.30	28	0.60	3.05	7.87	3.69	9.52
OFFSITE E	13.22	28	0.60	3.05	24.19	3.69	29.27
OFFSITE F	6.07	28	0.60	3.05	11.11	3.69	13.44
OFFSITE G	4.30	20	0.60	3.54	9.19	4.28	11.04
OFFSITE H	6.09	26	0.60	3.16	11.55	3.82	13.96
OFFSITE I	4.79	26	0.60	3.16	9.08	3.82	10.98
OFFSITE J	8.00	28	0.90	3.05	21.96	3.69	26.57
OFFSITE K	17.00	28	0.90	3.05	46.87	3.69	56.46
PARK	SEE PARK SHEET FOR DRAINAGE DETAILS/CALCS.						
POND	SEE POND SHEET FOR DRAINAGE DETAILS/CALCS.						

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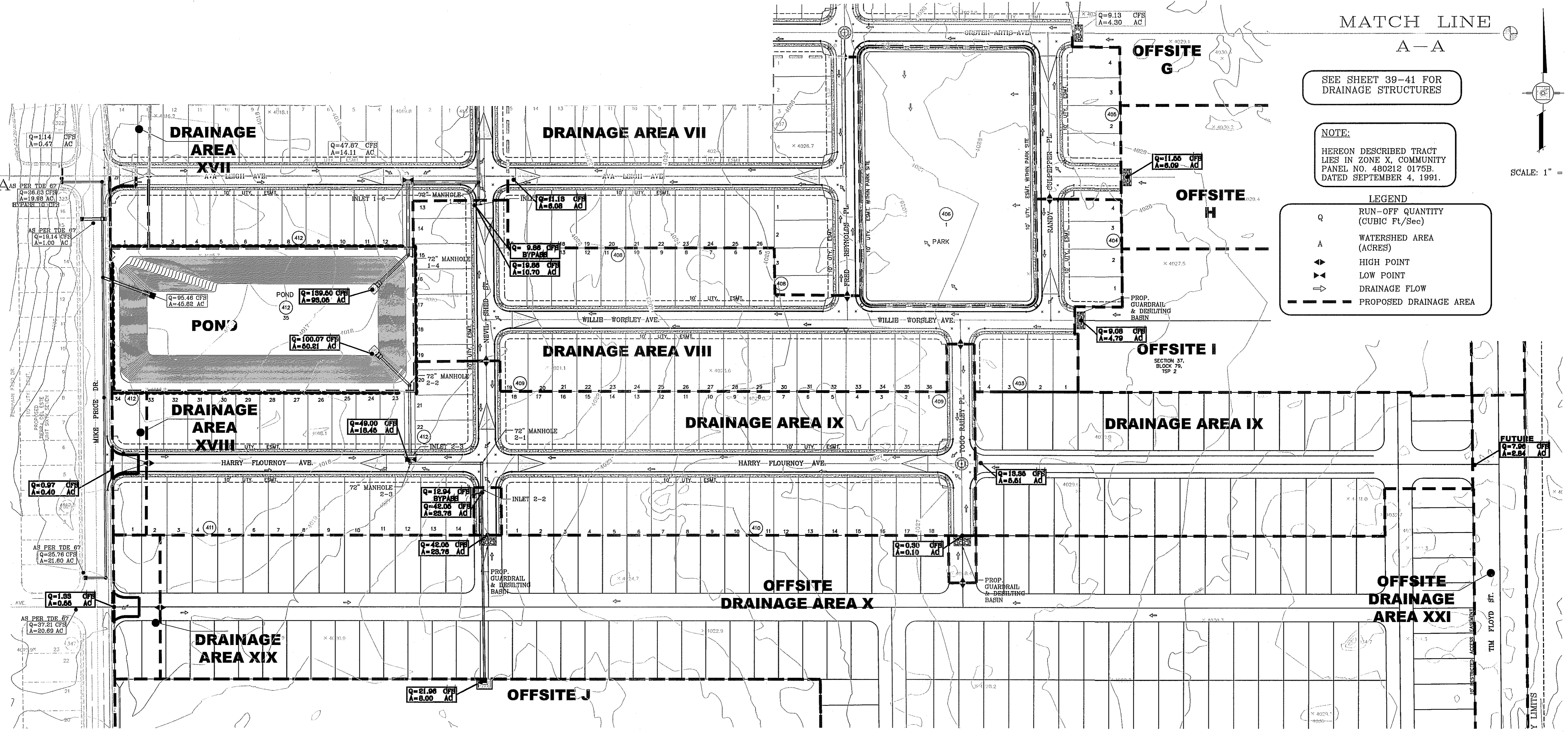
**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.586± ACRES

**SHT 8 OF 55**



MATCH LINE A-A

MATCH LINE A-A



SEE SHEET 39-41 FOR DRAINAGE STRUCTURES

NOTE:  
HEREON DESCRIBED TRACT LIES IN ZONE X, COMMUNITY PANEL NO. 480212 0175B, DATED SEPTEMBER 4, 1991.

LEGEND

Q	RUN-OFF QUANTITY (CUBIC FT/Sec)
A	WATERSHED AREA (ACRES)
▲	HIGH POINT
▼	LOW POINT
→	DRAINAGE FLOW
- - -	PROPOSED DRAINAGE AREA

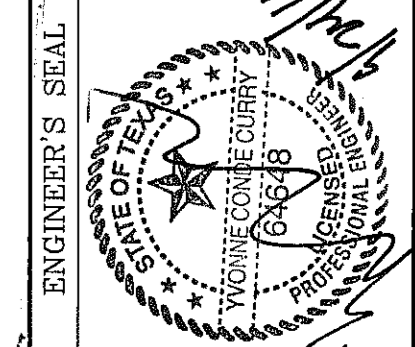
SCALE: 1" = 100'

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RUSH SENSINGER DR. AND JOHN HAYES DR. ELEVATION 4018.75	NAVD88 DATUM
DATE	REVISIONS
11/12/12	CITY REVISIONS AS PER 11/12/12 COMMENTS
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.566± ACRES

SCALE  
HORIZ: 1" = 100'  
VERT: 1" = 100'  
DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: JC & FC  
JOB NO.: 1110-18

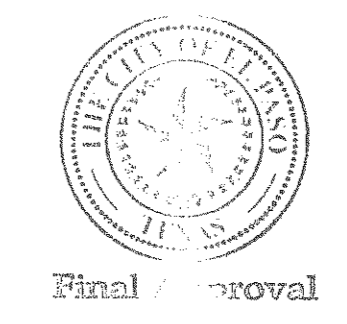


DRAINAGE CALCULATION TABLE

DRAINAGE AREA	AREA (acres)	Tc (min)	C	I <sub>a</sub> (in/hr)	Q <sub>a</sub> (cfs)	I <sub>100</sub> (in/hr)	Q <sub>100</sub> (cfs)
I	1.12	30	0.95	2.95	3.14	3.57	3.80
II	10.67	28	0.60	3.05	19.52	3.69	23.62
III	4.52	28	0.60	3.05	8.27	3.69	10.01
IV	5.21	28	0.60	3.05	9.53	3.69	11.54
V	8.03	28	0.60	3.05	14.70	3.69	17.78
VI	6.36	28	0.60	3.05	11.64	3.69	14.08
VII	4.82	28	0.60	3.05	8.82	3.69	10.87
VIII	7.27	28	0.60	3.05	13.30	3.69	16.09
IX	15.61	29	0.60	3.00	28.10	3.63	34.00
X	23.76	30	0.60	2.95	42.05	3.63	51.75
XI	15.22	30	0.60	2.95	26.94	3.63	33.15
XII	3.70	30	0.95	2.95	10.37	3.57	12.55
XIII	0.15	10	0.95	4.46	0.64	5.36	0.76
XIV	0.15	10	0.60	4.46	0.40	5.36	0.76
XV	0.42	10	0.60	4.46	1.12	5.36	1.35
XVI	0.56	14	0.60	4.04	1.36	4.87	1.64
XVII	0.47	14	0.60	4.04	1.14	4.87	1.37
XVIII	0.40	14	0.60	4.04	0.97	4.87	1.17
XIX	0.55	14	0.60	4.04	1.33	4.87	1.17
XX	0.73	10	0.95	4.85	3.22	5.36	3.72
XXI	2.84	30	0.95	2.95	7.96	3.57	9.63
PARK	SEE PARK SHEET FOR DRAINAGE DETAILS/CALCS.						
POND	SEE POND SHEET FOR DRAINAGE DETAILS/CALCS.						

DRAINAGE CALCULATION TABLE

DRAINAGE AREA	AREA (acres)	Tc (min)	C	I <sub>a</sub> (in/hr)	Q <sub>a</sub> (cfs)	I <sub>100</sub> (in/hr)	Q <sub>100</sub> (cfs)
OFFSITE A	2.05	30	0.95	2.95	5.75	3.57	6.95
OFFSITE B	2.61	30	0.95	2.95	7.30	3.57	8.65
OFFSITE C	4.40	28	0.60	3.05	8.05	3.69	9.74
OFFSITE D	4.30	28	0.60	3.05	7.87	3.69	9.52
OFFSITE E	13.22	28	0.60	3.05	24.19	3.69	29.27
OFFSITE F	6.07	28	0.60	3.05	11.11	3.69	13.44
OFFSITE G	4.30	20	0.60	3.54	9.13	4.28	11.04
OFFSITE H	6.09	26	0.60	3.16	11.55	3.82	13.96
OFFSITE I	4.79	26	0.60	3.16	9.08	3.82	10.98
OFFSITE J	8.00	28	0.90	3.05	21.96	3.69	26.57
OFFSITE K	17.00	28	0.90	3.05	46.67	3.69	56.46
PARK	SEE PARK SHEET FOR DRAINAGE DETAILS/CALCS.						
POND	SEE POND SHEET FOR DRAINAGE DETAILS/CALCS.						

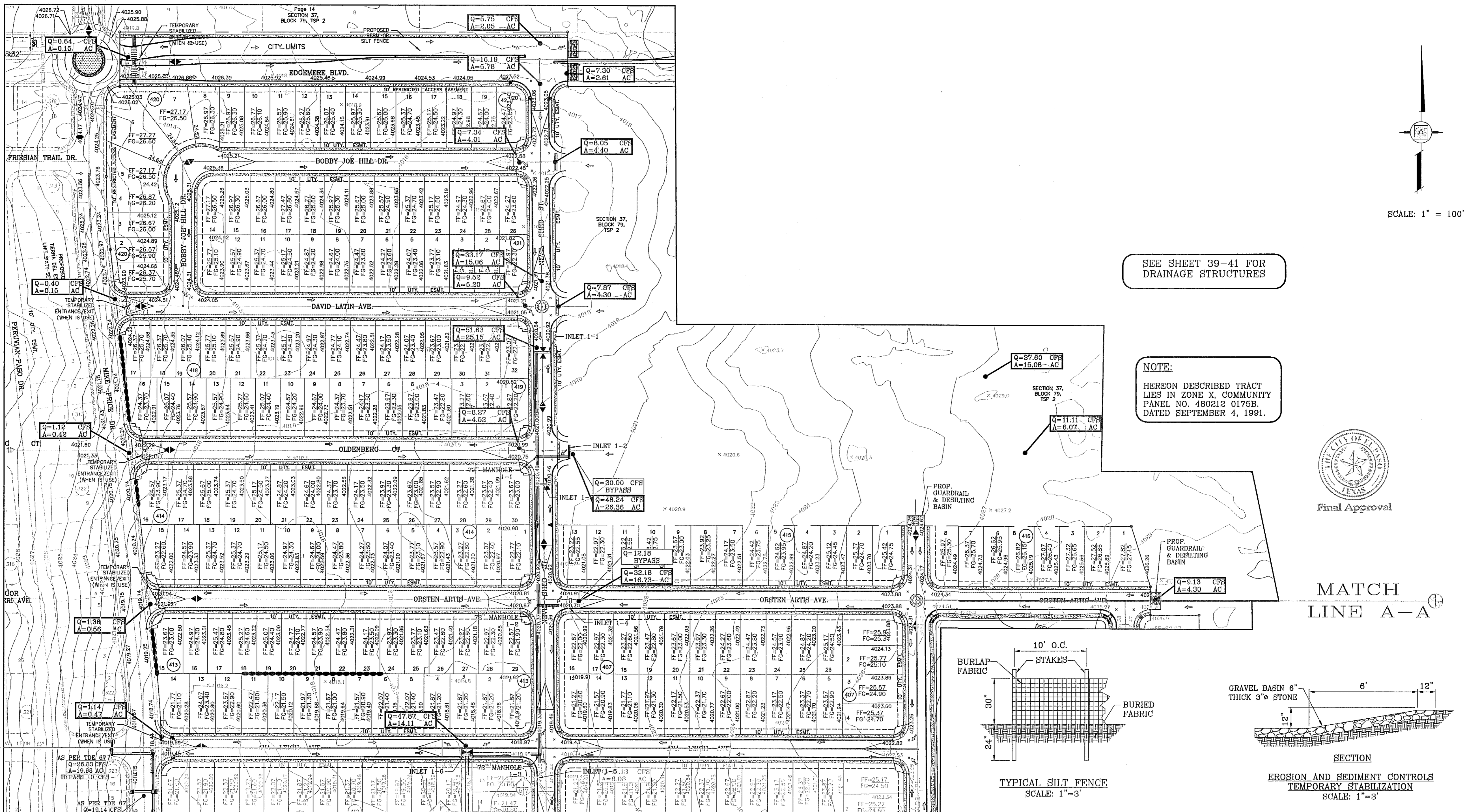


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FAX: (915) 592-0286



SHEET TITLE  
**DRAINAGE PLAN**





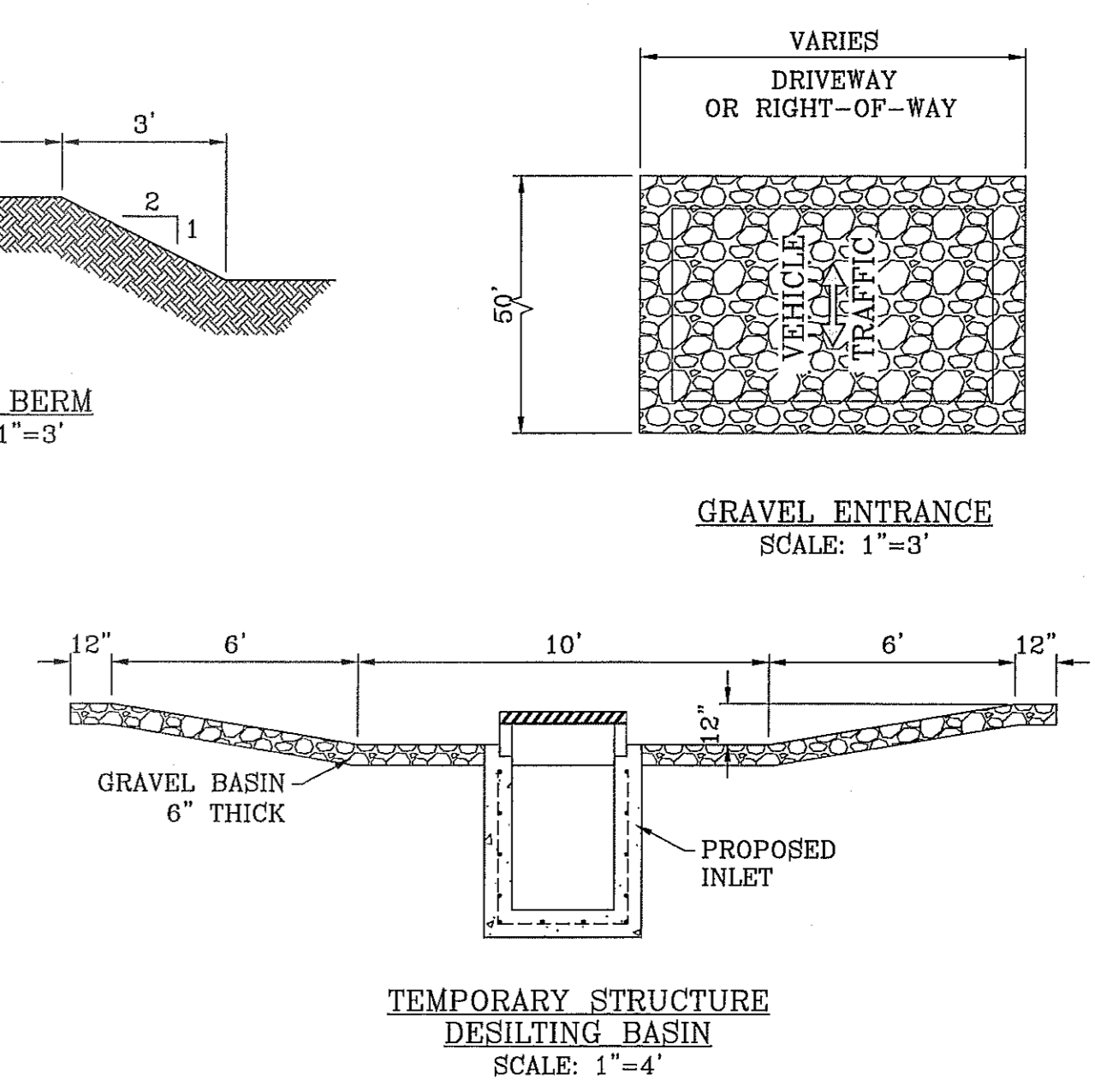
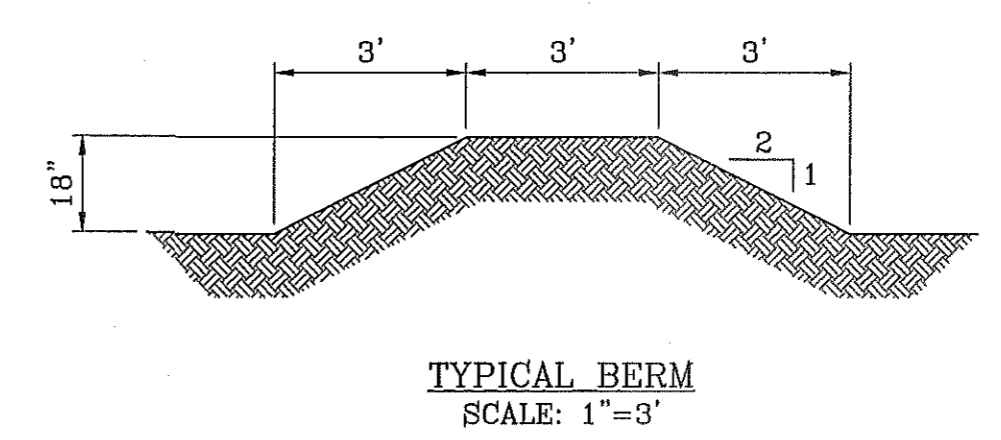
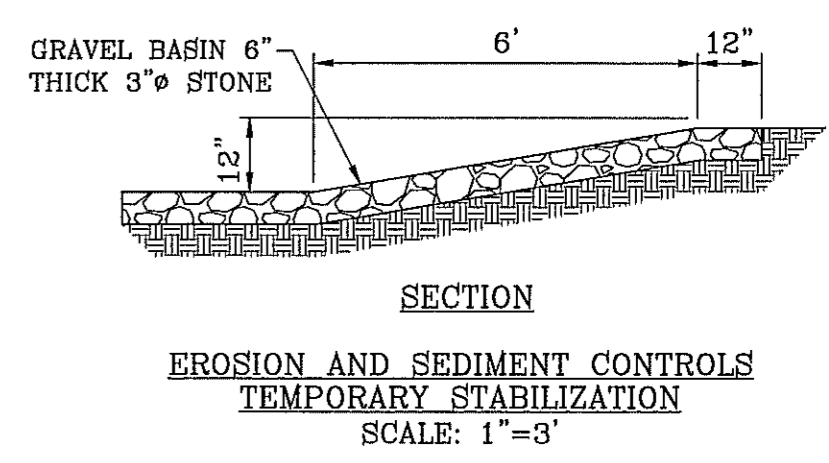
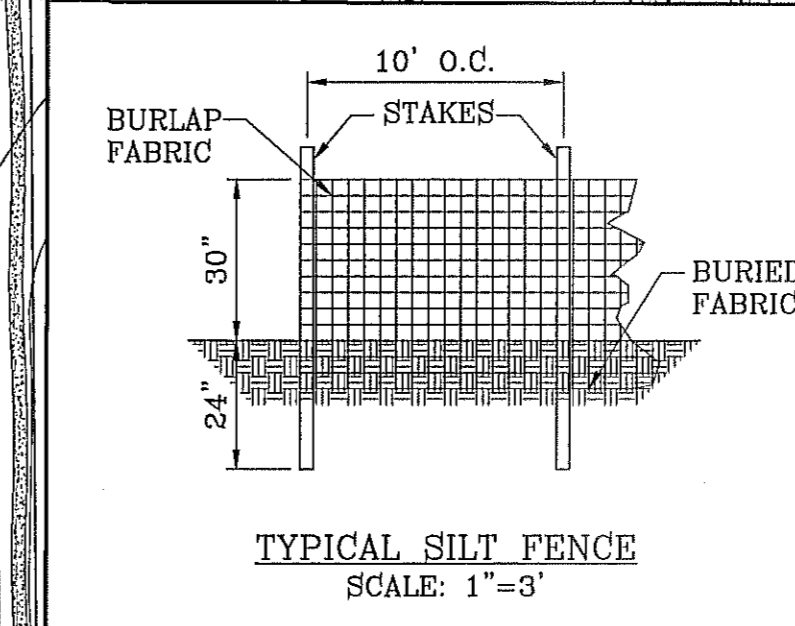
SCALE: 1" = 100'

SEE SHEET 39-41 FOR DRAINAGE STRUCTURES

NOTE:  
HEREON DESCRIBED TRACT LIES IN ZONE X, COMMUNITY PANEL NO. 480212 0175B. DATED SEPTEMBER 4, 1991.

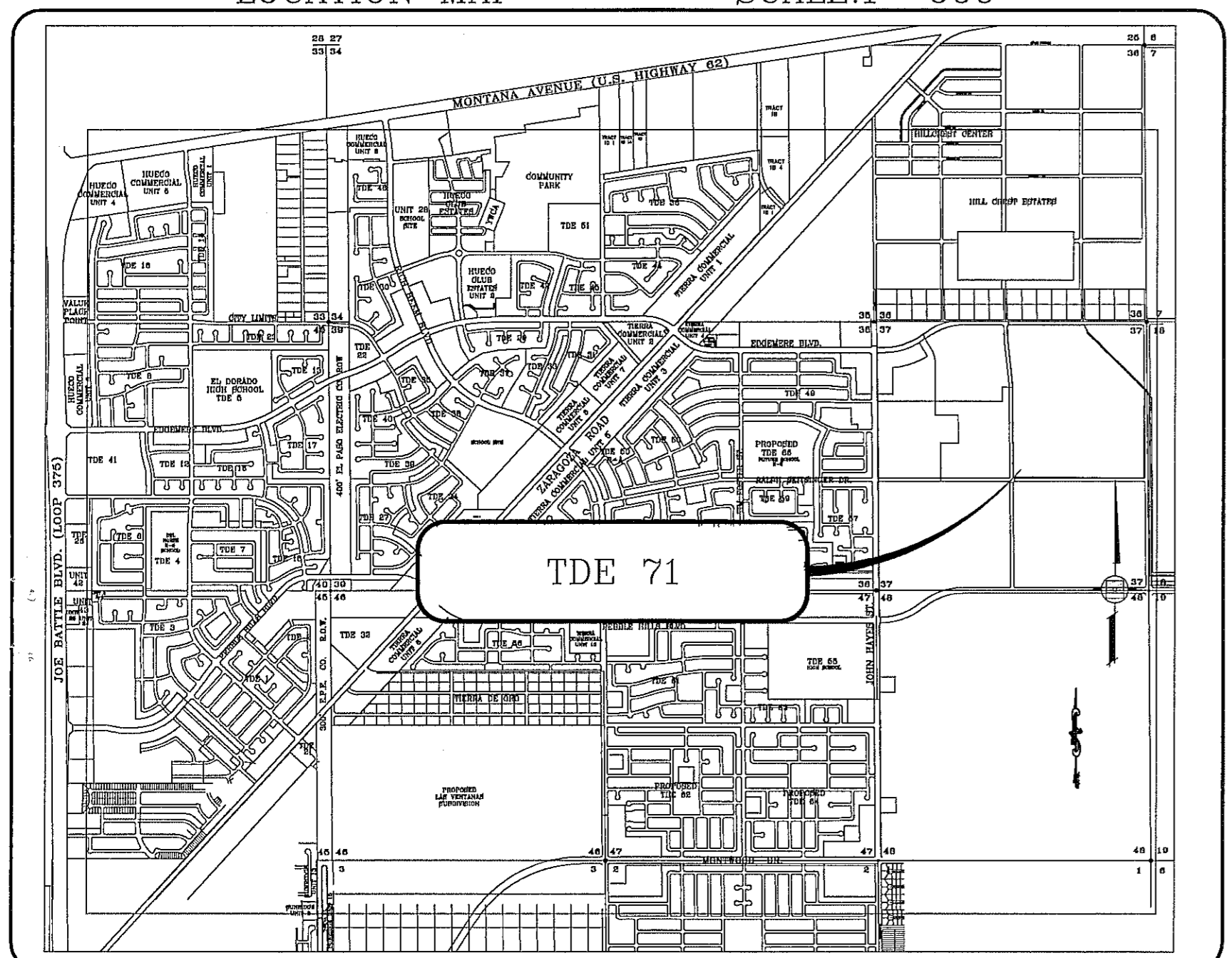


MATCH LINE A-A



MATCH LINE A-A

LOCATION MAP SCALE: 1"=600'



- NOTES:
- T.P.D.E.S. PERMIT- AS REQUIRED BY CONTRACTOR
  - STORM WATER AS PER N.P.D.E.S. PERMIT

LEGEND

FF=####	PROPOSED FINISH GROUND AND FINISH FLOOR
FG=XX.XX	PROPOSED SPOT ELEVATION
00.00	PROPOSED SPOT ELEVATION
▲	HIGH POINT
▼	LOW POINT
4000	EXISTING CONTOUR
4000	EXISTING SPOT ELEVATION
—	PROPOSED CONTOUR
—	PROPOSED ROCK WALL
—	PROPOSED RETAINING WALL
—	PROPOSED SILT FENCE
Q	RUN-OFF QUANTITY (CUBIC Ft./Sec)
A	WATERSHED AREA (ACRES)
→	DRAINAGE FLOW

- STABILIZED ENTRANCE EROSION CONTROL NOTES
- SILT FENCING OR TEMPORARY BERMS SHALL BE INSTALLED AT TIME OF CONSTRUCTION.
  - TEMPORARY SWALES AND DESILTING BASINS WILL BE PLACED WHERE NECESSARY IN ORDER TO CONVEY STORM WATER RUN-OFF.
  - A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEP WEEKLY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE.
  - THE OWNER SHALL BE RESPONSIBLE FOR INSURING THAT ALL EROSION CONTROL METHODS ARE INSPECTED ON A MONTHLY BASIS OR AFTER EVERY ERODIBLE RAINFALL (1/2" OR MORE). ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL SHALL BE MADE AT THE TIME.
  - A TEMPORARY BERM SHALL BE PROVIDED AT THE TOE OF SLOPE AND LOT LINE AT TIME OF GRADING PRIOR TO ROCKWALL CONSTRUCTION.
  - SILT FENCE TO BE INSTALLED AND MAINTAINED ALONG THE PERIMETER OF THE PARK SITE UNTIL ALL ADJUTING RESIDENCES ARE DEVELOPED.

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4016.75

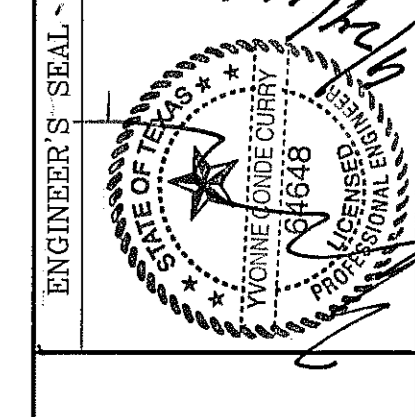
DATE	REVISIONS	BY
11/12/12	CITY REDLINES AS PER 11/12/12 COMMENTS	R.R.
3/12/13	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE	

PROJECT NAME  
**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

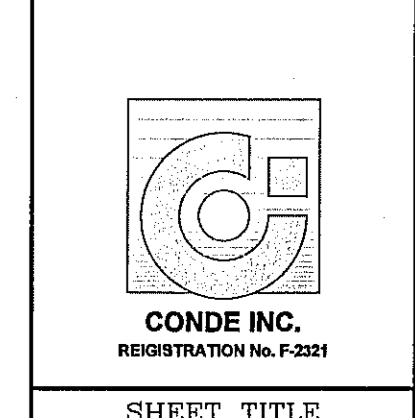
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61,586± ACRES

SCALE  
HORIZ: 1" = 100'  
VERT: 1" = 100'

DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RD  
CHECKED BY: YC & FC  
JOB NO.: 1110-18



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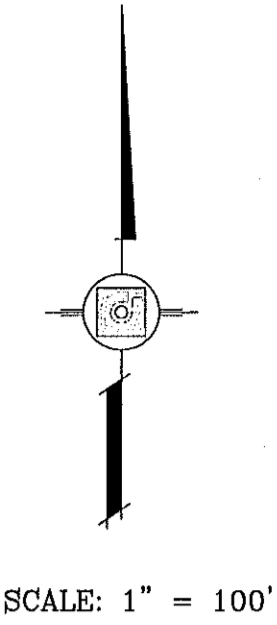
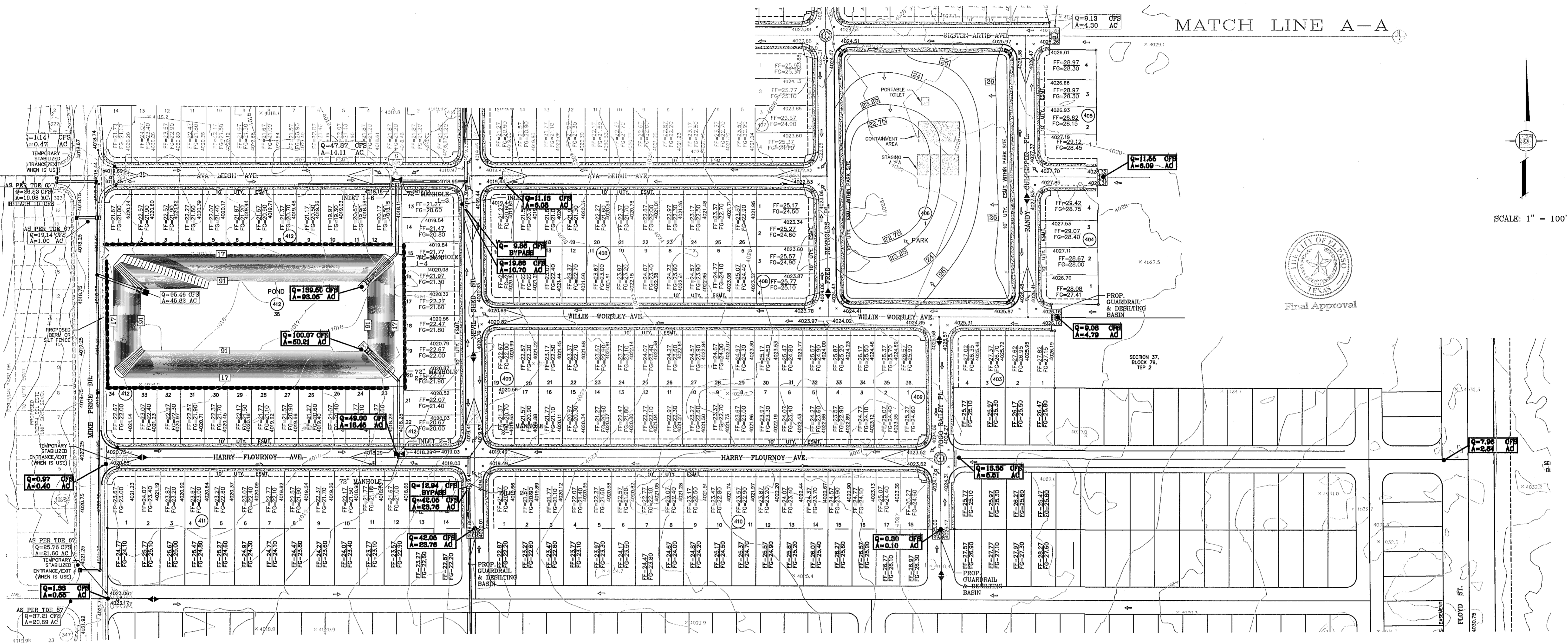
SHEET TITLE  
**STORMWATER POLLUTION PREVENTION PLAN**

SHT 10 OF 55



MATCH LINE A

MATCH LINE A-A



- NOTES:**
1. T.P.D.E.S. PERMIT- AS REQUIRED BY CONTRACTOR
  2. STORM WATER AS PER N.P.D.E.S. PERMIT

**LEGEND**

FF=####	PROPOSED FINISH GROUND AND FINISH FLOOR
FG=XX.XX	PROPOSED SPOT ELEVATION
00.00	HIGH POINT
X	LOW POINT
—4000—	EXISTING CONTOUR
—4000	EXISTING SPOT ELEVATION
○	PROPOSED CONTOUR
—○—	PROPOSED ROCK WALL
—●—	PROPOSED RETAINING WALL
— —	PROPOSED SILT FENCE
Q	RUN-OFF QUANTITY (CUBIC Ft./Sec)
A	WATERSHED AREA (ACRES)
→	DRAINAGE FLOW

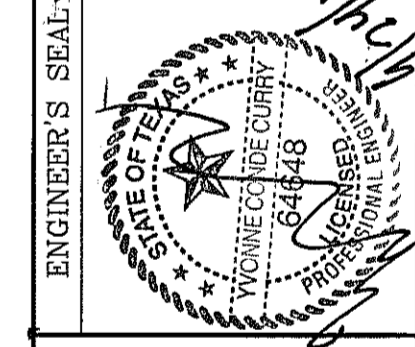
- STABILIZED ENTRANCE EROSION CONTROL NOTES**
1. SILT FENCING OR TEMPORARY BERMS SHALL BE INSTALLED AT TIME OF CONSTRUCTION.
  2. TEMPORARY SWALES AND DESILTING BASINS WILL BE PLACED WHERE NECESSARY IN ORDER TO CONVEY STORM WATER RUN-OFF.
  3. A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEP WEEKLY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE.
  4. THE OWNER SHALL BE RESPONSIBLE FOR INSURING THAT ALL EROSION CONTROL METHODS ARE INSPECTED ON A MONTHLY BASIS OR AFTER EVERY ERODIBLE RAINFALL (1/2" OR MORE). ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL SHALL BE MADE AT THE TIME.
  5. A TEMPORARY BERM SHALL BE PROVIDED AT THE TOE OF SLOPE AND LOT LINE AT TIME OF GRADING PRIOR TO ROCKWALL CONSTRUCTION.
  6. SILT FENCE TO BE INSTALLED AND MAINTAINED ALONG THE PERIMETER OF THE PARK SITE UNTIL ALL ABUTTING RESIDENCES ARE DEVELOPED.

**BENCHMARK**

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4016.75	REVISIONS	BY
	3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE

**PROJECT NAME**  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
 BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS  
 CONTAINING: 61.566± ACRES

**SCALE**  
 HORIZ: 1" = 100'  
 VERT: 1" = 100'  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18



**CONDE INC.**  
 ENGINEERING / PLANNING / SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286



**SHEET TITLE**  
**STORMWATER POLLUTION PREVENTION PLAN**  
**SHT 11 OF 55**



SITE DESCRIPTION: PROJECT DESCRIPTION

1. NO ASPHALT BATCH PLANTS FOR THIS SITE.

BEST MANAGEMENT PRACTICES

- 1. STRUCTURAL CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT IN EFFECTIVE OPERATING CONDITION.
2. DOCUMENTATION OF MAINTENANCE ACTIVITIES INCLUDING FREQUENCY, LOT DESIGNATION, INSPECTION OF: STRUCTURAL CONTROLS, MATERIAL STORAGE AREAS, VEHICLES ENTRANCE AND EXITS, ACTIONS TAKEN AND INSPECTORS NAME.
3. CONSTRUCTION SITE NOTICE WILL BE MAINTAINED ON SITE.
4. COPY OF SWPPP SHALL BE KEPT ON SITE.
5. PERMITTEE MUST RETAIN THE SWP3, NOI AND INSPECTION LOG FOR A MINIMUM OF THREE YEARS FROM TERMINATION AND FINAL STABILIZATION OF PROJECT.

I. WASTE MATERIALS

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

II. HAZARDOUS WASTE

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

III. SANITARY WASTE

ALL SANITARY WASTE SHALL BE COLLECTED FROM THE CONSTRUCTION PORTABLE UNITS AS NECESSARY BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR. ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

IV. SPILL PREVENTION

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

A. GOOD HOUSEKEEPING

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

B. HAZARDOUS PRODUCTS:

PRACTICES USED TO REDUCE RISKS:

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

C. PETROLEUM PRODUCTS:

PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

V. SPILL CONTROL PRACTICES:

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

VI. MAINTENANCE AND INSPECTION PROCEDURES

ALL POLLUTION PREVENTION MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY 14 DAYS AND FOLLOWING A STORM EVENT OF 0.5 INCHES OR MORE. BEST MANAGEMENT PRACTICES AND POLLUTION CONTROL PROCEDURES SHALL BE INSPECTED FOR ADEQUACY. A RECORD OF THE RESULTS OF THE INSPECTIONS OF THE SITE SHALL BE KEPT ON SITE.

VII. REMARKS

DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS.

CONSTRUCTION ACTIVITIES LOG table with columns: ACTIVITIES, DATE, SIGNATURE

INSPECTION AND MAINTENANCE REPORT

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWN VIOLATIONS.

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

SWPPP COORDINATOR NAME: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_

LOG OF ACTIVITIES AVAILABLE: SWPPP COORDINATOR. INSPECTION LOG AVAILABLE: SWPPP COORDINATOR SCHEDULE OF ACTIVITIES AVAILABLE: SWPPP COORDINATOR

SITE DESCRIPTION: PROJECT DESCRIPTION THE EXISTING SITE IS UNDEVELOPED DESERT. THERE ARE NO SURFACE WATERS ON THE SITE ITSELF OR ADJACENT TO THE SITE. THE SITE DISTURBANCE AREA IS 61.586 ACRES.

THE SITE MAP SHOWS THE PROPERTY BOUNDARIES WITH THE PROPOSED LOCATION OF THE ROADWAYS, LOTS, STORM INLETS AND RETENTION BASINS. THIS SITE WILL BE GRADED, ROADWAYS PAVED AND DRAINAGE STRUCTURES CONSTRUCTED. THE GRADED LOTS WILL DRAIN TO THE GRADED STREETS AND THEN TO THE STORM INLETS WHICH WILL CONDUCT THE STORM RUNOFF VIA UNDERGROUND STRUCTURES TO A RETENTION BASIN.

INTERIM STABILIZATION MEASURES ARE AS FOLLOWS: PERIMETER, TEMPORARY EARTHEN BERMS, TEMPORARY STABILIZED CONSTRUCTION SITE EXIT, TEMPORARY DESILTING BASINS

FINAL STABILIZATION WILL BE PERFORMED BY THE HOME BUILDERS WHICH WILL CONSTRUCT A SINGLE BUILDING ON EACH LOT AND PLACE LANDSCAPING ON EXPOSED SURFACES.

THE RECEIVING WATERS ARE PONDING AREA AT LOT XX BLOCK XXX

STORM WATER SAMPLING DATA IS NOT AVAILABLE FOR THIS SITE.

NO CONCRETE OR BATCH PLANTS ON THIS SITE.

NO APPARENT ENDANGERED SPECIES ON SITE. NO HISTORIC PROPERTIES ON SITE.

STORM WATER CONTAMINANTS ON SITE

THE FOLLOWING ARE THE POTENTIAL STORM WATER POLLUTANTS (CHECKED ITEMS ONLY):

Table listing contaminants: CLEANING SOLVENTS, ASPHALT, CONCRETE, PAINTS, CURING COMPOUNDS, EQUIP. CLEANING WASTEWATER, HYDRAULIC OIL/FLUIDS, GASOLINE, DIESEL FUEL, ANTIFREEZE/COOLANT

THE CONTAINMENT AREA FOR THESE ITEMS IS LOCATED: AS SHOWN ON PLAN

THE STAGING AREA FOR THIS SITE IS LOCATED: AS SHOWN ON PLAN

THE PORTABLE TOILET FOR THIS SITE IS LOCATED: AS SHOWN ON PLAN

NON STORM WATER DISCHARGES ON SITE (CHECKED ITEMS ONLY):

Table listing discharges: FIRE HYDRANT FLUSHING, VEHICLE WASH WATER, DUST CONTROL WATER, WATER LINE FLUSHING WATER, LANDSCAPE IRRIGATION, PAVEMENT WASH WATERS

ALL STAGING AREAS, PORTABLE TOILETS AND POLLUTANT AREAS WILL INCORPORATE SECONDARY CONTAINMENT MEASURES SUCH AS BERMS OR SEDIMENT TRAPS/BARRIERS.

STORM WATER POLLUTION PREVENTION PLAN

GENERAL CONTRACTOR CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT THAT AUTHORIZES STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

COMPANY: \_\_\_\_\_ ADDRESS: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_ DATE: \_\_\_\_\_

OWNER CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OWNER: (SIGNED) \_\_\_\_\_ DATE: \_\_\_\_\_ OWNER: (NAME) \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_

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

- ESTIMATED BEGINNING CONSTRUCTION DATE: \_\_\_\_\_
1. BEGIN CONSTRUCTION/MOBILIZATION (5 DAYS)
2. INSTALL INITIAL STORMWATER POLLUTION PREVENTIONS (SWPP) MEASURES AS INDICATED ON SWPP PLAN ( DAYS)
3. CLEAR AND GRUB
4. SITE GRADING
5. PERFORM PERIODIC INSPECTIONS OF THE SWPP STRUCTURES, PERFORM MAINTENANCE AND REPLACEMENTS AS NEEDED (DURATION OF CONSTRUCTION).
6. EXCAVATION FOR SITE UTILITIES AND STORM SEWER
7. CONSTRUCTION OF SITE IMPROVEMENTS AND STORM SEWER
8. END CONSTRUCTION - FINAL STABILIZATION, DEMOBILIZATION, REMOVAL OF SWPPP CONTROLS, AND SUBMIT NOTICE OF TERMINATION.

ESTIMATED CONSTRUCTION COMPLETION DATE: \_\_\_\_\_

GRADING STABILIZATION ACTIVITY PLAN

GRADING STABILIZATION PLAN

- 1. SEDIMENT CAUSED BY EXCESSIVE EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE LEAVING THE SITE
2. PROJECT AREAS PHYSICALLY DISTURBED DURING DEVELOPMENT SHALL BE EXPOSED TO EROSION PRODUCING INFLUENCES FOR THE SHORTEST PERIOD OF TIME.
3. AFTER COMPLETION OF THE SITE GRADING THE PROJECT AREAS SHALL BE WATERED AS REQUIRED TO CONTROL WIND EROSION.
4. SITE MONITORING SHALL BE PERFORMED BY THE PERMITTEE RESPONSIBLE FOR THE GRADING. ALL STABILIZATION MEASURES SHALL BE CHECKED ON A MONTHLY BASIS AND SHALL CONTINUE TO BE MAINTAINED.
5. A MONITORING AND INSPECTION PROGRAM SHALL BE IMPLEMENTED UNTIL A STABILIZED SITE IS ACHIEVED OF BUILDING RESUMES. INACTIVE/IDLE SITES SHALL BE INSPECTED AND MAINTAINED ON ONE OF THE FOLLOWING SCHEDULES: A. AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A WIND EVENT B. AT LEAST ONCE EVERY 7 CALENDAR DAYS ON A SET SPECIFIC DAY
6. AFTER PERMITTEE COMPLETES THE GRADING THE PERMIT SHALL BE CLOSED. AS PART OF THE CLOSEOUT PROCEDURES, THE APPLICANT MUST SUBMIT THE FOLLOWING:

a. A STATEMENT FROM THE ENGINEER OF RECORD THAT STATES "THE GRADING OPERATION HAS BEEN SUBSTANTIALLY COMPLETED AND GENERALLY CONFORMS TO THE APPROVED SET OF PLANS".

THE PERMITTEE SHALL CALL THE PERMIT OFFICIAL TO ESTABLISH THE BEGINNING OF THE WARRANTY PERIOD AND NOTIFY THE PERMIT OFFICIAL GSP HAS BEEN IMPLEMENTED.

b. SHALL SUBMIT A COPY OF THE NOTICE OF TERMINATION FILED WITH THE STATE.

GRADING STABILIZATION MAINTENANCE AND SCHEDULE PLAN

Table with columns: STABILIZATION MEASURES, INSPECTION DATE, MAINT. DATE, MAINTAINANCE TYPE. Rows include: WATERING OF SITE, WEED PREVENTION AND MOWING, RE-GRADING OF SITE DUE TO EROSION, SEDIMENT FROM EROSION SHALL BE REMOVED FROM SITE, ASSURE MAINTENANCE OF SWPPP MEASURES

PERMITTEE CERTIFICATION

I CERTIFY AND AGREE TO WARRANT AND MAINTAIN THE SITE AS DESCRIBED IN THIS GSP UNTIL BUILDING PERMIT IS ISSUED OR THE CITY CLOSES THE PERMIT AS SPECIFIED IN MUNICIPAL CODE SECTION 18.44.090.

PERMITTEE: (SIGNED) \_\_\_\_\_ DATE: \_\_\_\_\_

OWNER: (NAME) \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

Vertical information on the right side including PROJECT NAME: TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED), BENCHMARK: CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST., ELEVATION 4016.75, DATE: 3/12/13, REVISIONS: REVISED TIERRA DEL ESTE UNIT SEVENTY ONE, and PROJECT ADDRESS: BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 61.586+ ACRES

ENGINEER'S SEAL and SCALE information: HORIZ: --- VERT: --- DATE: JAN. 2012 DESIGN BY: YC INITIATED BY: RO CHECKED BY: YC & FC JOB NO.: 1110-18

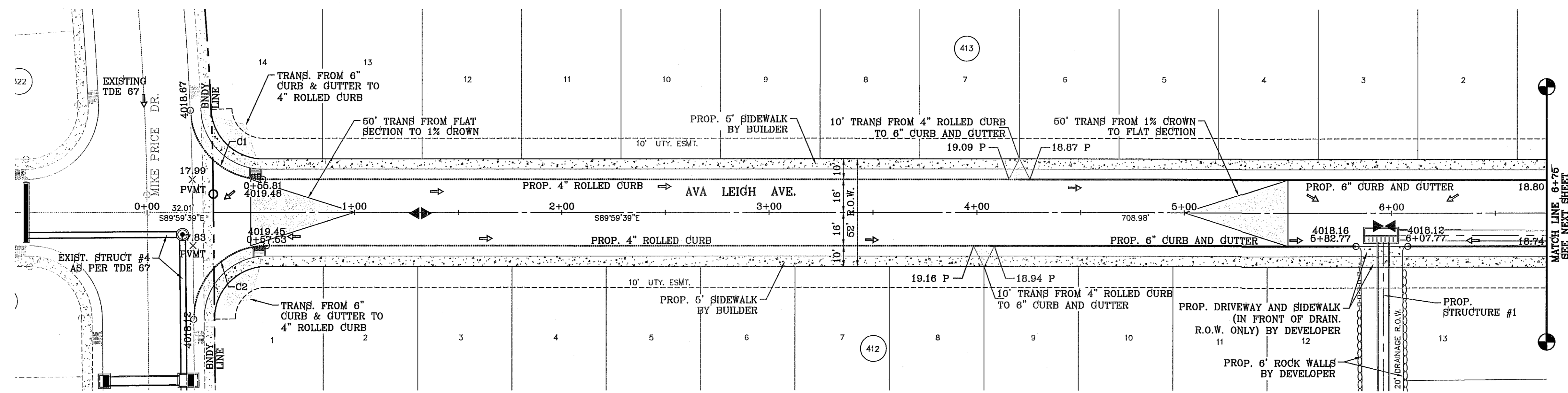
CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURETY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286

CONDE INC. REGISTRATION NO. F-231

SHEET TITLE: STORMWATER POLLUTION PREVENTION NOTES

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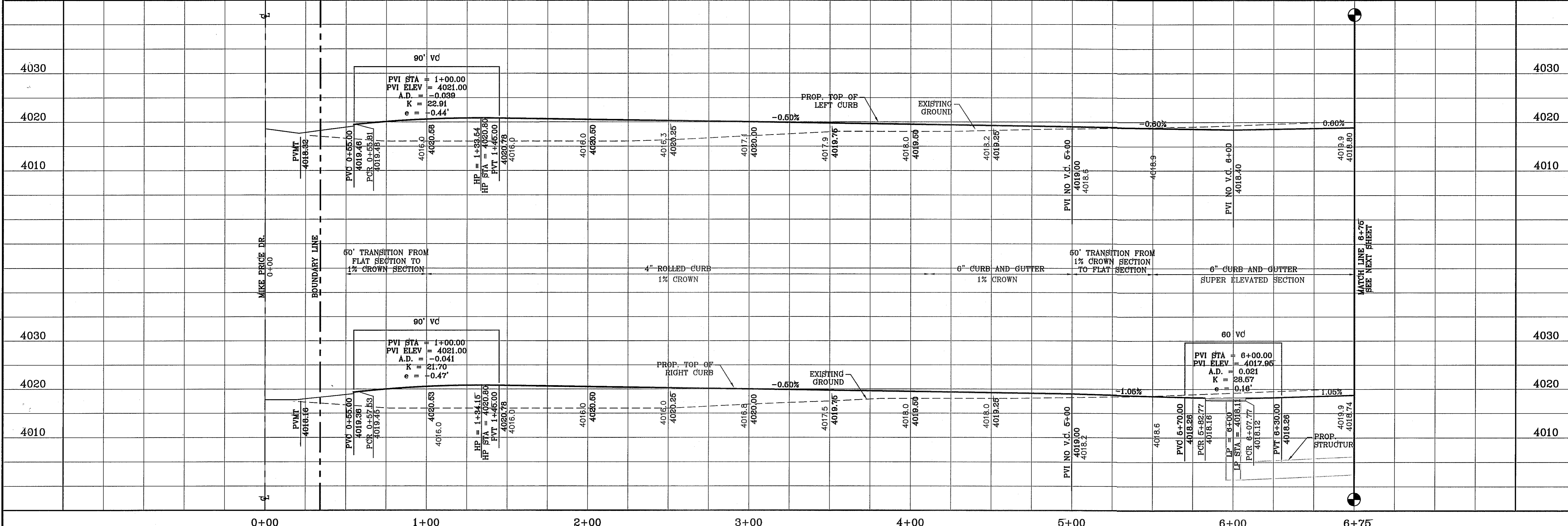
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C1	35.00'	53.50'	33.55'	48.44'	S46°12'25"E	87°34'28"
C2	35.00'	55.34'	35.36'	49.75'	S44°42'36"W	90°35'30"

SCALE: 1" = 30'



SEE SHEET 39 FOR DRAINAGE STRUCTURE #1

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



REVISIONS	DATE	BY
CITY REDLINES AS PER 11/12/12 COMMENTS	11/12/12	R.R.
REVISED TERRA DEL ESTE UNIT SEVENTY ONE	3/12/13	R.R.
CITY REDLINES AS PER 04/30/13 COMMENTS	5/19/13	D.N.

**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
 BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS  
 CONTAINING: 61,566± ACRES

PROJECT NAME: TIERRA DEL ESTE UNIT SEVENTY ONE  
 SCALE: HORIZ: 1" = 30', VERT: 1" = 10'  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RD  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18

**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

**AVA LEIGH AVE.**  
 STA: 0+00 TO STA: 6+50  
 SHEET TITLE: STREET PLAN-PROFILE  
 SHT 13 OF 55

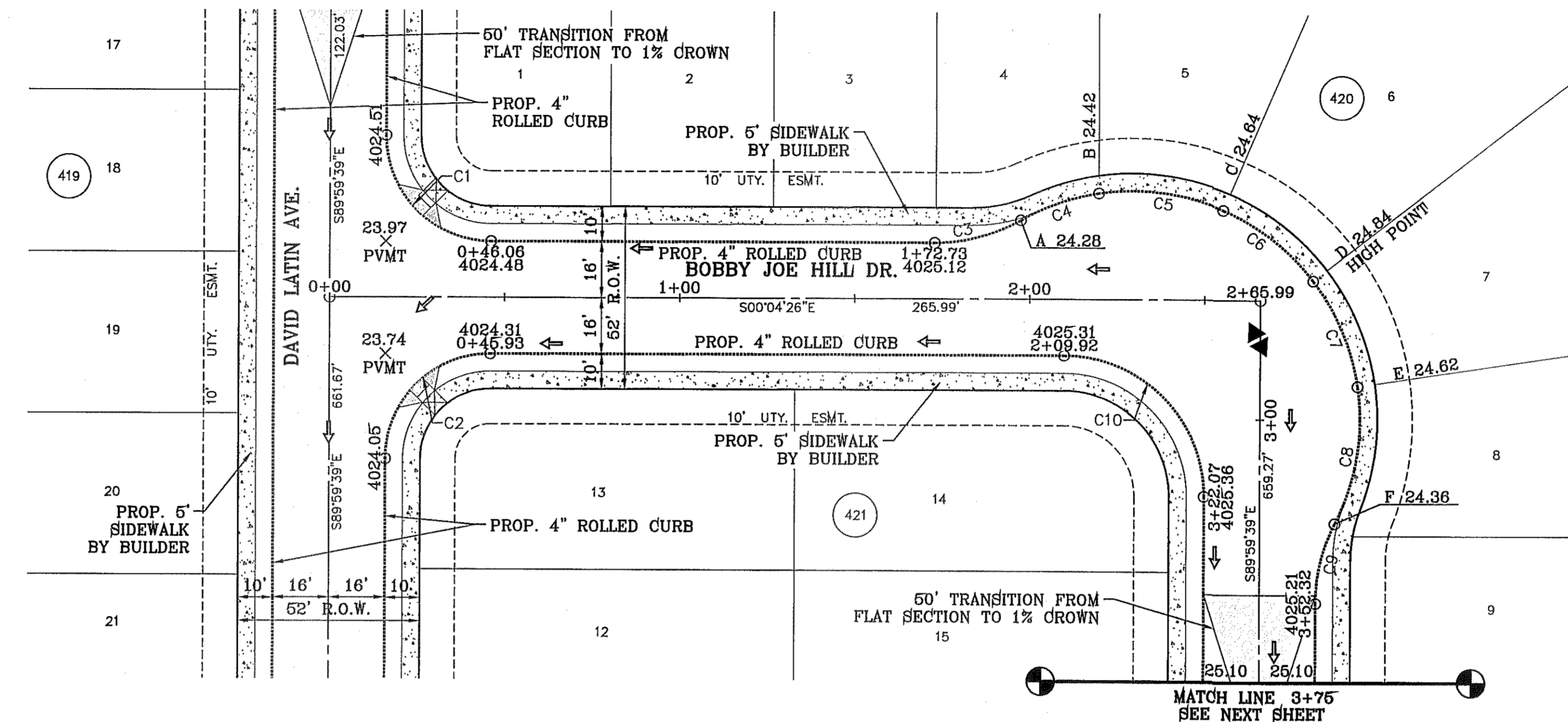
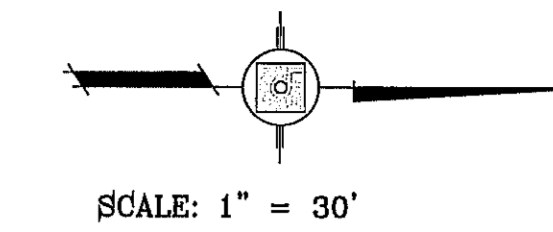




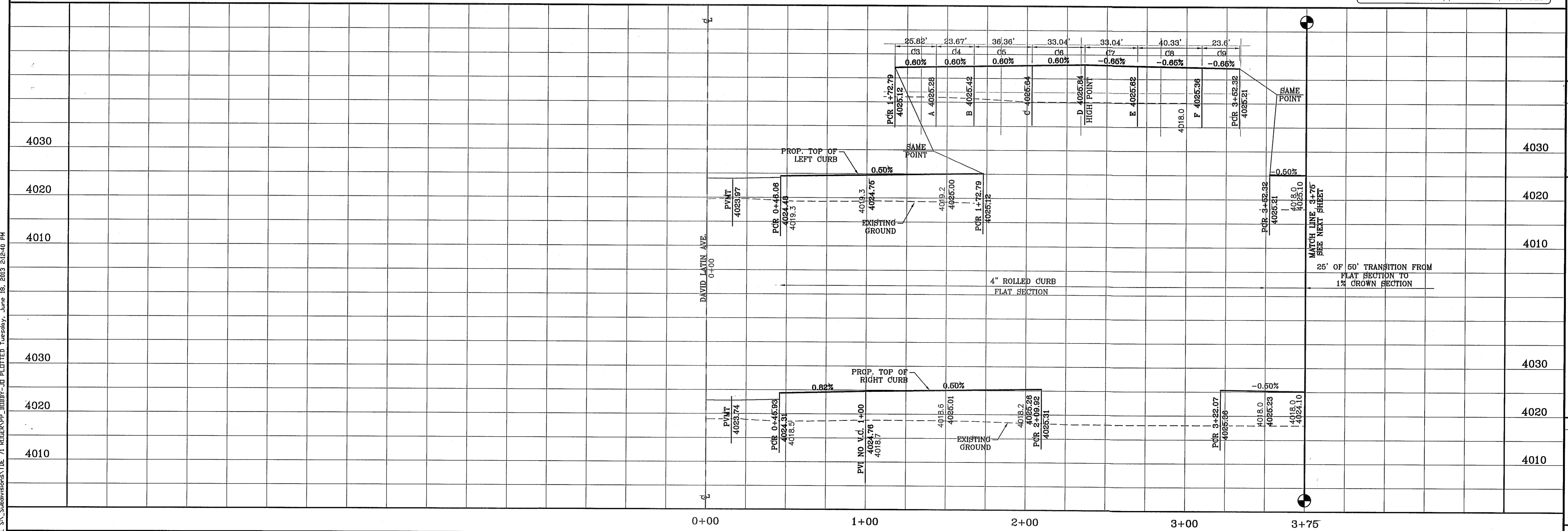


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CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.17'	30.04'	42.46'	N44°57'57"E	90°04'46"
C2	30.00'	47.08'	29.96'	42.40'	S45°02'03"E	89°55'14"
C3	50.00'	25.82'	13.21'	25.54'	N14°52'11"W	29°35'31"
C4	65.00'	23.67'	11.97'	23.54'	S19°13'55"E	20°52'03"
C5	65.00'	36.36'	18.67'	35.89'	S71°33'37"W	32°03'02"
C6	65.00'	33.04'	16.88'	32.68'	S37°48'50"W	29°07'24"
C7	65.00'	33.04'	16.88'	32.68'	S66°56'14"W	29°07'24"
C8	65.00'	40.33'	20.84'	39.68'	N80°43'41"W	35°32'48"
C9	50.00'	23.60'	12.02'	23.38'	S76°28'28"E	27°02'22"
C10	40.00'	62.89'	40.06'	56.61'	S44°57'57"W	90°04'46"



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.

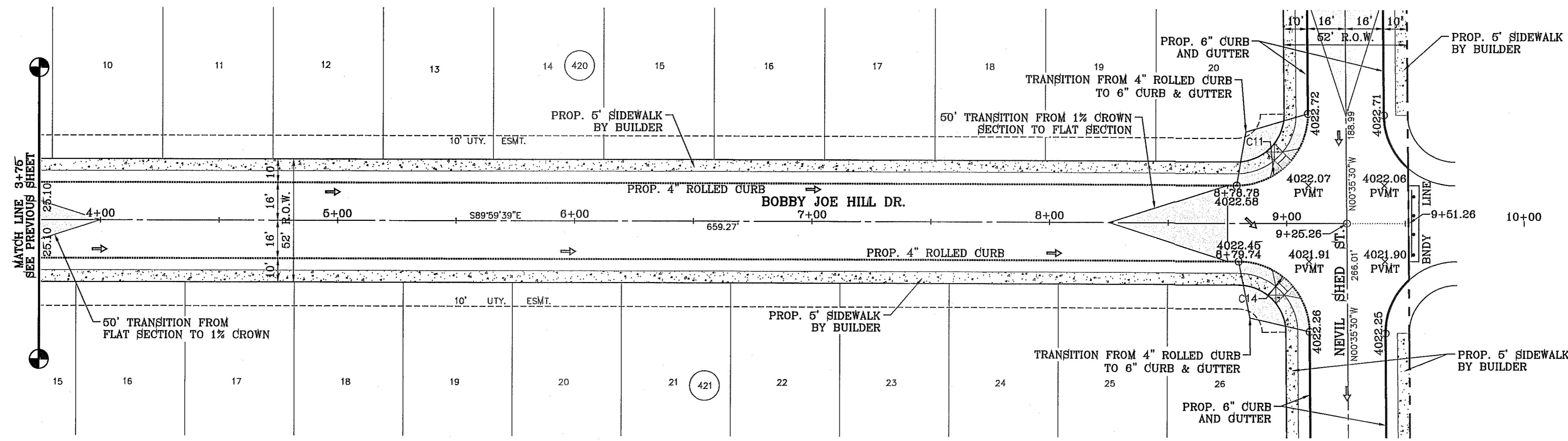


<b>CONDE INC.</b> ENGINEERING / PLANNING SURVEYING / GPS 6000 SURETY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286	PROJECT NAME <b>TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)</b>
	SHEET TITLE <b>STREET PLAN-PROFILE</b> <b>BOBBY JOE HILL DR.</b> STA: 0+00 TO STA: 3+75
ENGINEER'S SEAL 	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF ALPH SUTSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75
S C A L E HORIZ. 1" = 30' VERT. 1" = 10' DATE: JAN. 2012 DESIGN BY: YC INITIATED BY: RO CHECKED BY: YC & FC JOB NO.: 1110-1B	BENCHMARK CITY MONUMENT AT THE CENTERLINE INTERSECTION OF ALPH SUTSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75
REVISIONS DATE 3/12/13 5/13/13 REVISIONS REVISED TERRA DEL ESTE UNIT SEVENTY ONE CITY REDLINES AS PER 04/30/13 COMMENTS	BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.668± ACRES
SHT 15 OF 55	TIERRA DEL ESTE UNIT SEVENTY ONE

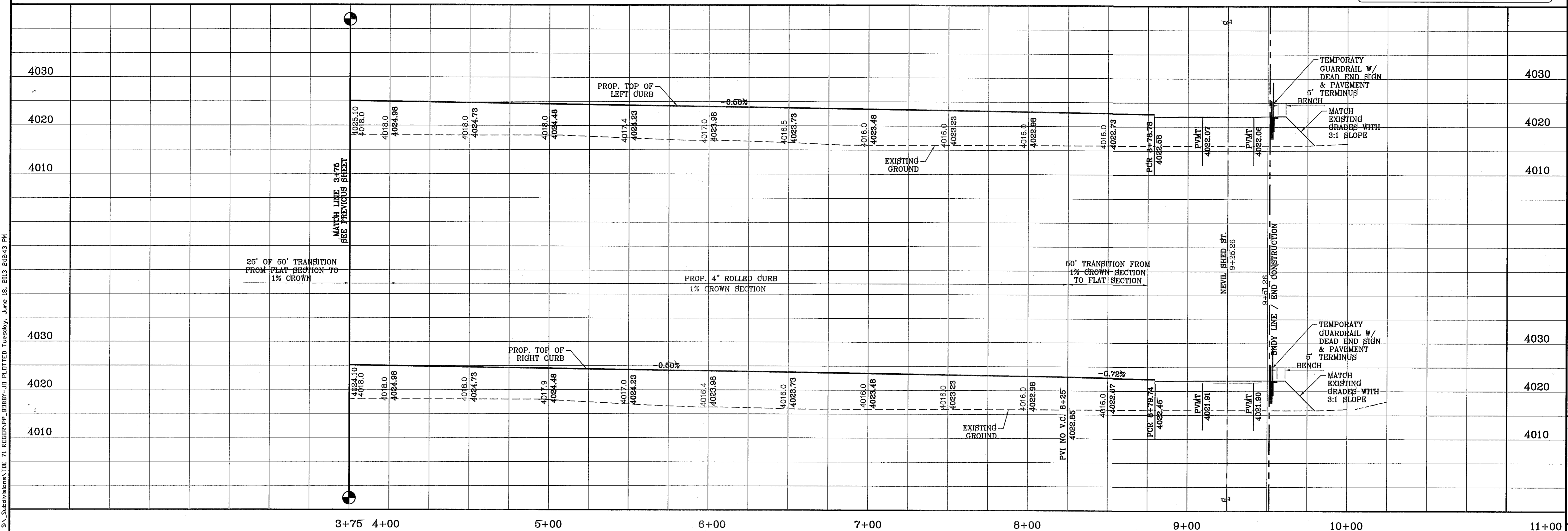


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C11	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C14	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"

SCALE: 1" = 30'



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



DATE	REVISIONS	BY	D.N.
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE		
5/13/13	CITY REDLINES AS PER 04/30/13 COMMENTS		

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 61.586± ACRES

ENGINEER'S SEAL  
SCALE  
HORIZ: 1" = 30'  
VERT: 1" = 10'  
DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6060 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

SHEET TITLE  
**STREET PROFILE**  
**BOBBY JOE HILL DR.**  
STA: 3+75  
TO  
STA: 9+51.26  
SHT 16 OF 55

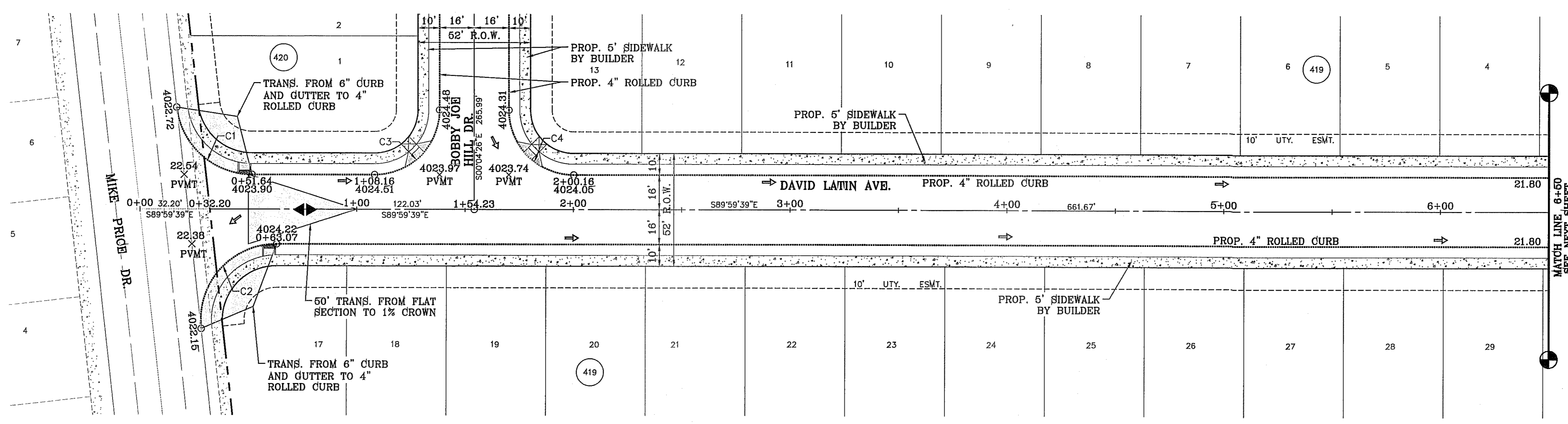
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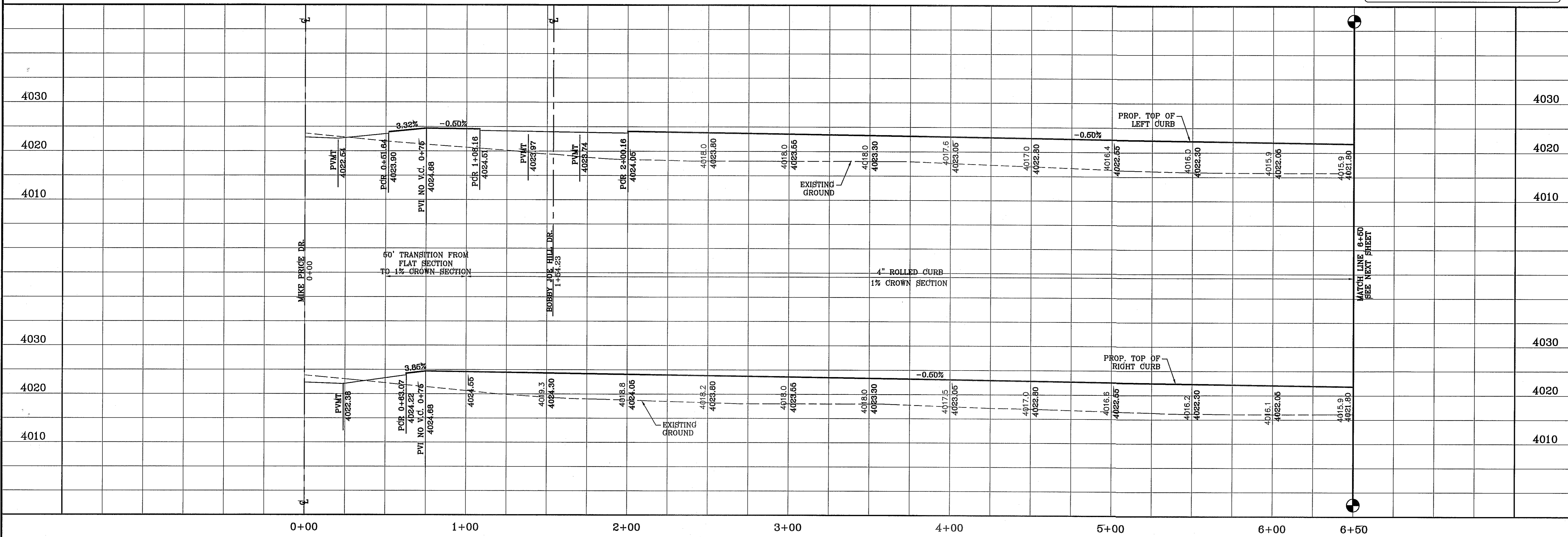
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CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	35.00'	51.07'	31.30'	46.66'	S48°11'27"E	83°36'26"
C2	35.00'	58.88'	39.14'	52.18'	S41°48'33"W	96°23'34"
C3	30.00'	47.17'	30.04'	42.46'	N44°57'57"E	90°04'46"
C4	30.00'	47.08'	29.96'	42.40'	S45°02'03"E	89°55'14"

SCALE: 1" = 30'



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



**PROJECT NAME**  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
 BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.566± ACRES

**ENGINEER'S SEAL**  
 STATE OF TEXAS  
 DAVID LATIN  
 LICENSE NO. 1110-18

**CONDE INC.**  
 ENGINEERING / PLANNING SURVEYING / GPS  
 6060 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

**REVISIONS**

DATE	REVISIONS
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE

**BENCHMARK**  
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

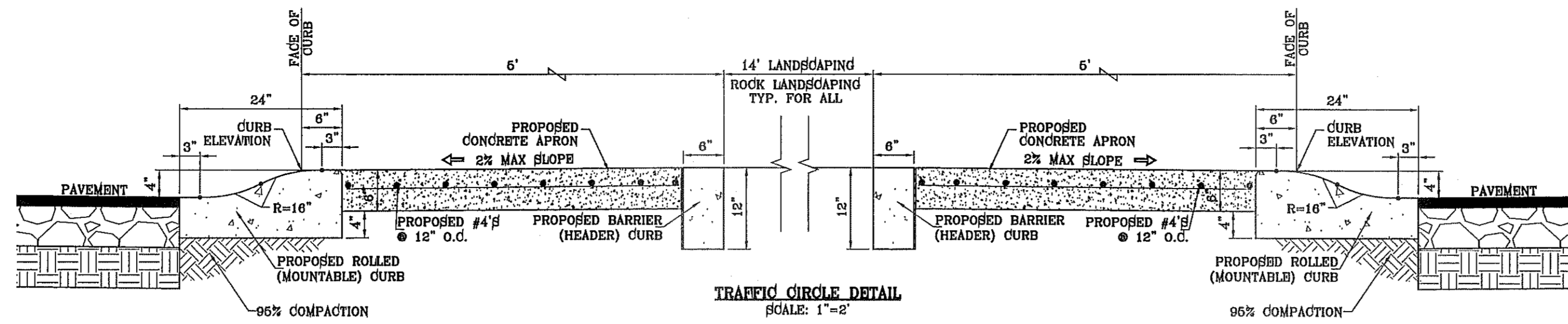
**SCALE**  
 HORIZ: 1" = 30'  
 VERT: 1" = 10'

**DESIGN BY:** YC  
**INITIATED BY:** RO  
**CHECKED BY:** YC & FC  
**JOB NO.:** 1110-18

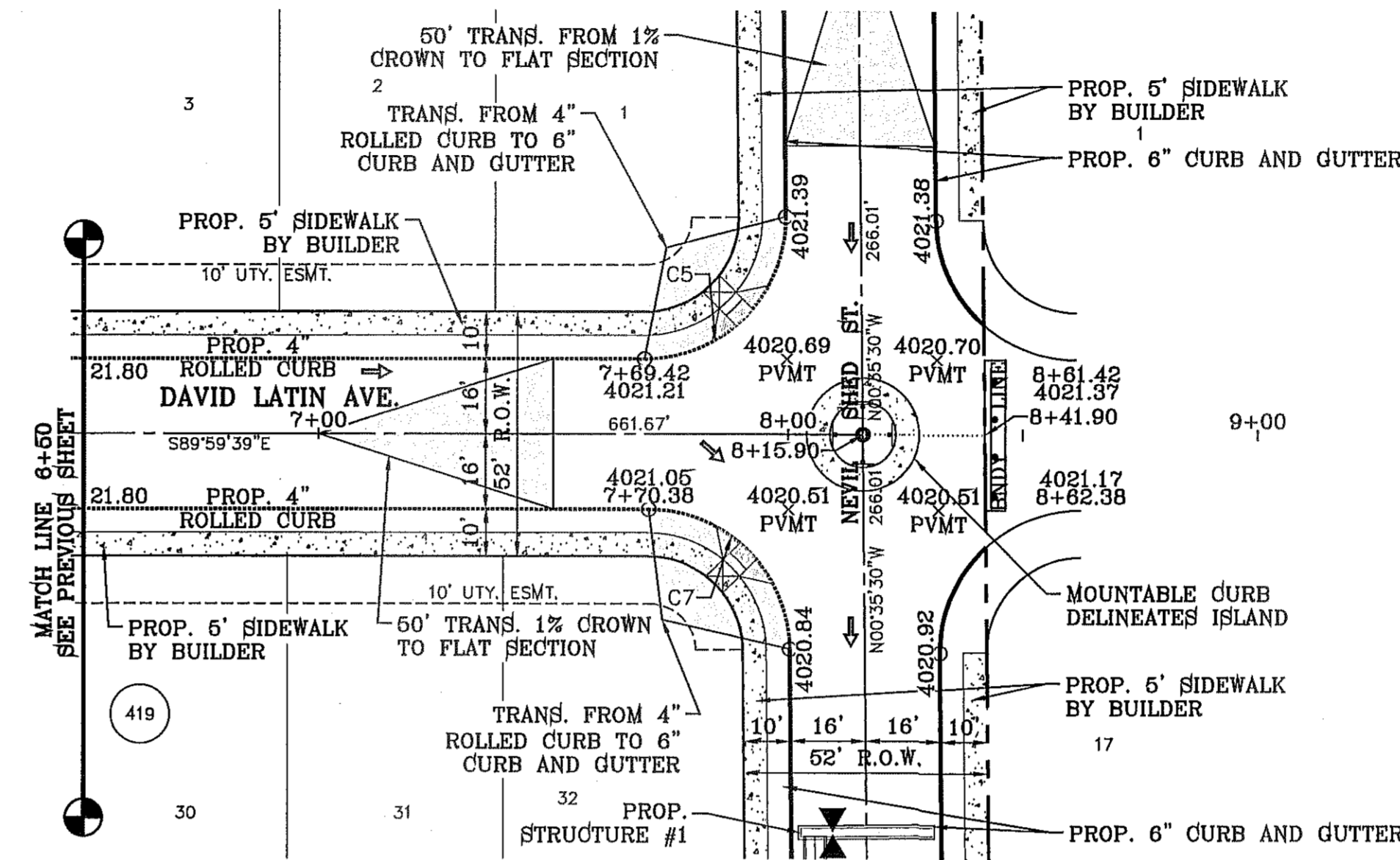
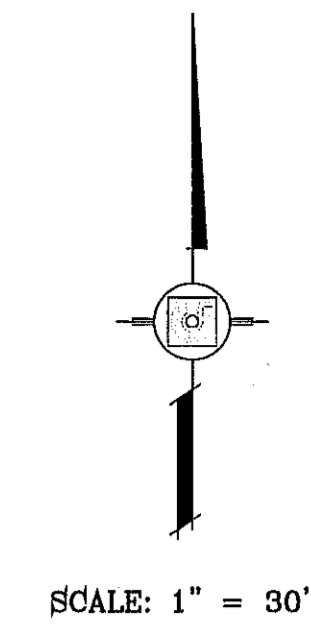
**SHEET TITLE**  
**STREET PLAN - PROFILE**  
**DAVID LATIN ST.**  
 STA: 0+00 TO STA: 6+50

**SHT 17 OF 55**

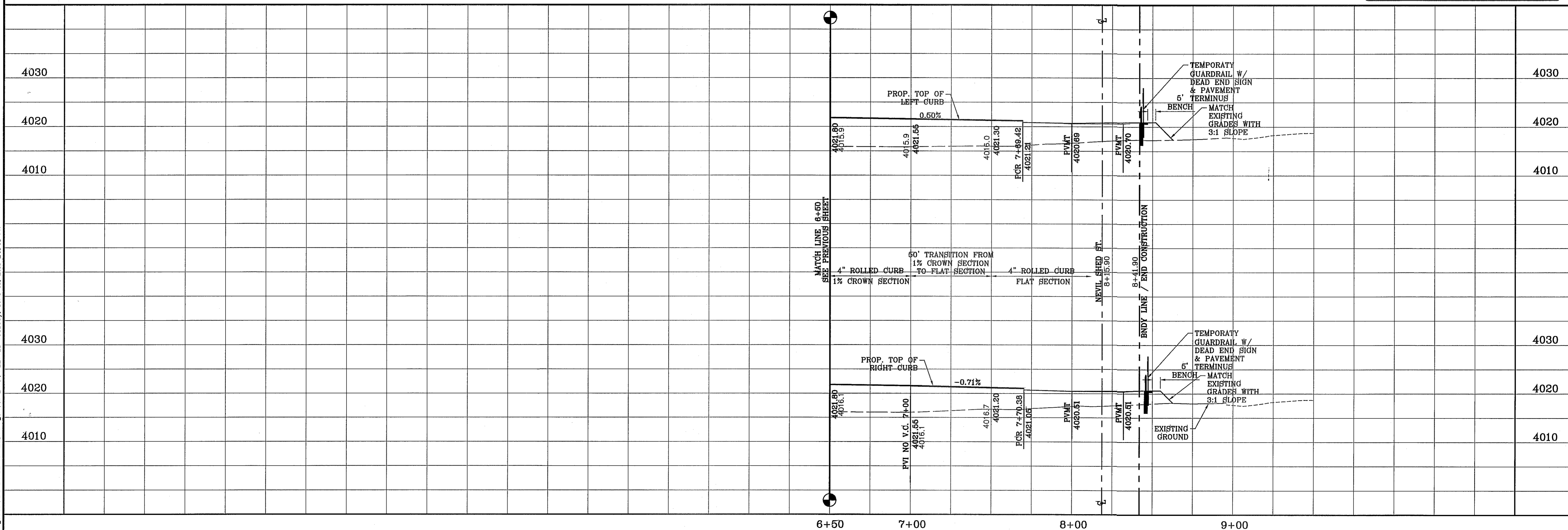




CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C5	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C7	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"



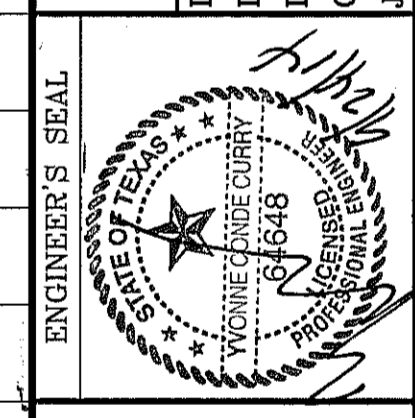
NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



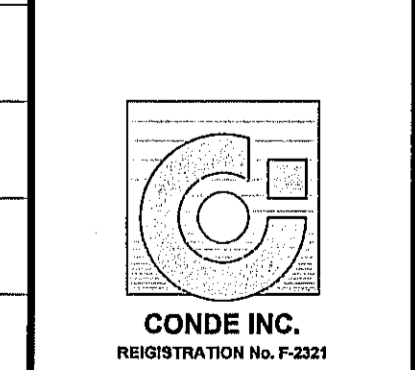
BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF SOUTH JOSEPH DR. AND JOHN HAYES ST. ELEVATION 4018.79
REVISIONS	BY
DATE	REVISOR
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE
5/13/13	CITY REVISIONS AS PER 04/30/13 COMMENTS D.N.

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 61.586± ACRES

SCALE  
HORIZ: 1" = 30'  
VERT: 1" = 10'  
DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RD  
CHECKED BY: YC & FC  
JOB NO.: 1110-18



**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79906  
PHONE: (915) 592-0283  
FAX: (915) 592-0286



SHEET TITLE  
STREET  
PLAN-PROFILE  
**DAVID LATIN ST.**  
STA: 6+50  
TO  
STA: 8+41.90

FILE S:\Subdivisions\1871 RIDGEP, DAVID LATIN PLOTTED Tuesday, June 19, 2012 2:30:03 PM



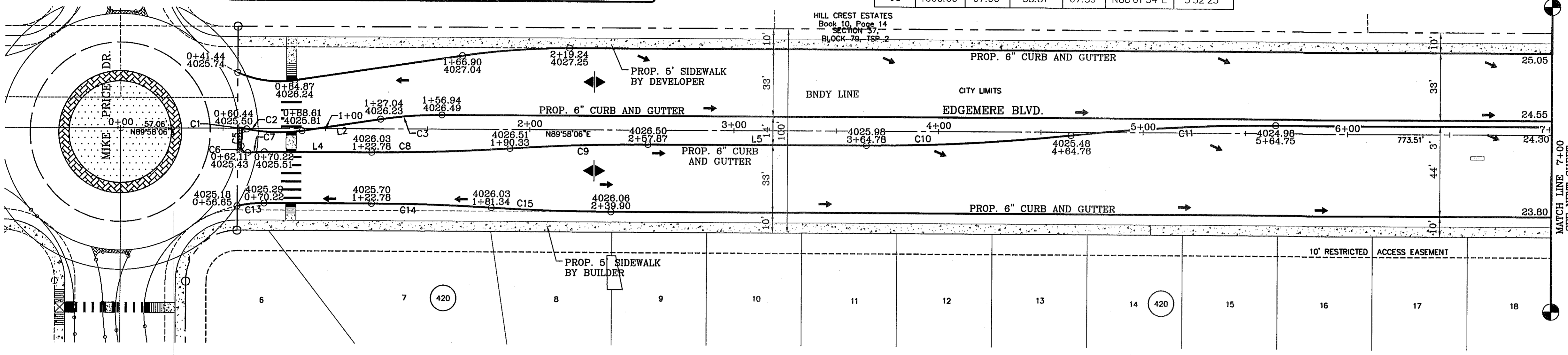
FILE S:\Subdivisions\71 CEDERVALE\EDGEMERE PLOTTED Wednesday, September 24, 2014 10:53:39 PM

LINE	LENGTH	BEARING
L2	38.861	S81°22'03.28"W
L3	24.750	S81°22'03.28"W
L4	52.552	N89°58'06.04"E
L5	106.903	N89°58'06.04"E

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	1.00'	1.82'	1.28'	1.58'	S51°01'24"W	104°01'10"
C2	75.00'	28.36'	14.35'	28.19'	S87°47'59"E	21°39'56"
C3	200.00'	30.02'	15.04'	29.99'	S85°40'05"W	8°36'03"
C4	62.50'	30.10'	15.35'	29.81'	S84°50'11"E	27°35'32"
C5	59.50'	7.69'	3.85'	7.69'	N2°43'03"E	7°24'29"
C6	3.00'	5.34'	3.70'	4.66'	S44°32'35"E	101°55'45"
C7	85.00'	8.12'	4.07'	8.12'	S87°13'49"W	5°28'34"
C8	1000.00'	67.60'	33.81'	67.59'	N88°01'54"E	3°52'23"

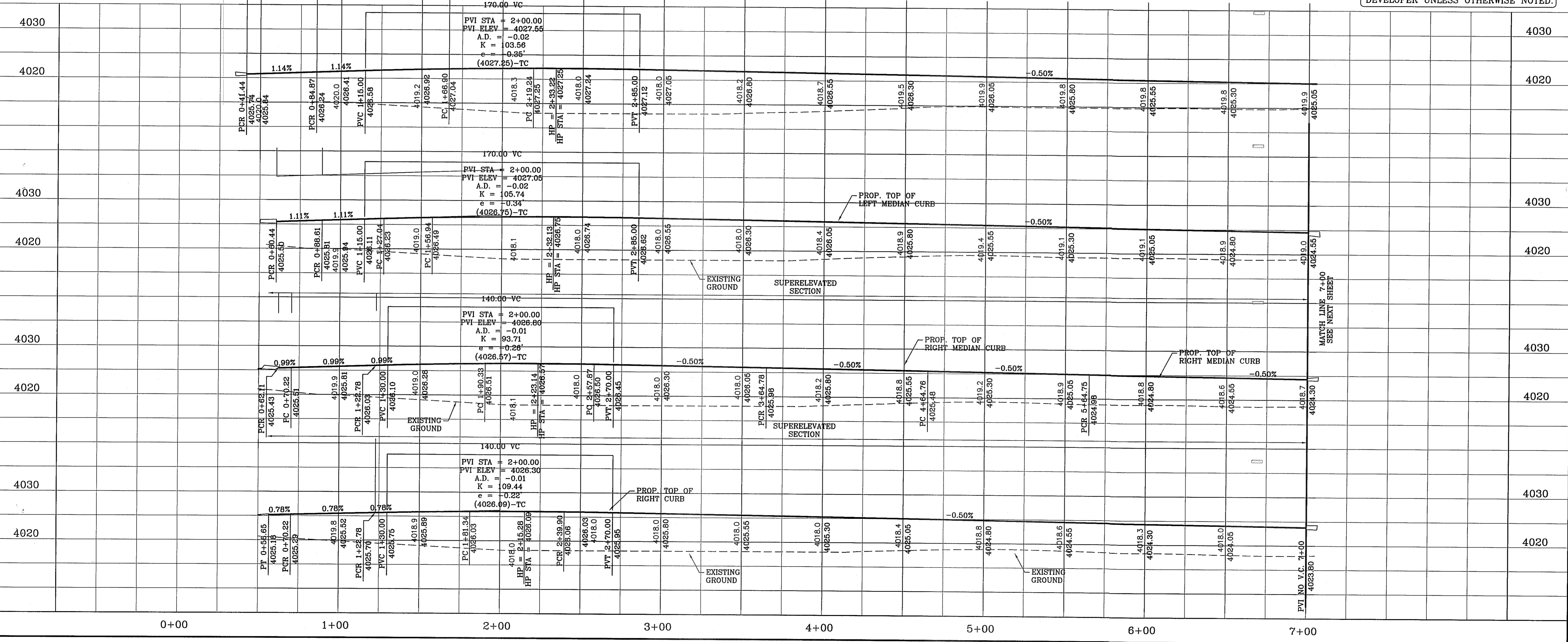
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	1000.00'	67.60'	33.81'	67.59'	S88°01'54"W	3°52'23"
C10	911.64'	100.19'	50.15'	100.14'	N86°49'12"E	6°17'49"
C11	911.64'	100.19'	50.15'	100.14'	S86°49'12"W	6°17'49"
C12	1.50'	4.71'	INFINITY'	3.00'	N0°01'54"W	180°00'00"
C13	60.00'	13.28'	6.67'	13.25'	S83°37'43"W	12°40'45"
C14	1000.00'	58.59'	29.30'	58.58'	N88°21'11"W	3°21'26"

NOTE: ENTIRE STREET SECTION TO BE CONSTRUCTED BY DEVELOPER



NOTE: THE CITY WILL NOT ACCEPT EDGEMERE BLVD FOR MAINTENANCE UNTIL THE PORTION OF EDGEMERE BLVD LOCATE OUTSIDE THE CITY LIMITS IS ANNEXED.

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

PROJECT NAME: TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS

6080 SURETY DR. STE 100 EL PASO, TEXAS 79905

PHONE: (915) 592-0283 FAX: (915) 592-0286

DATE: JAN. 2012

DESIGN BY: YC

INITIATED BY: RO

CHECKED BY: YC & FC

JOB NO.: 1110-1B

SCALE: HORIZ. 1" = 30' VERT. 1" = 10'

ENGINEER'S SEAL

CONDE INC. REGISTRATION No. F-2321

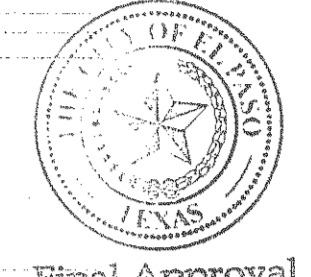
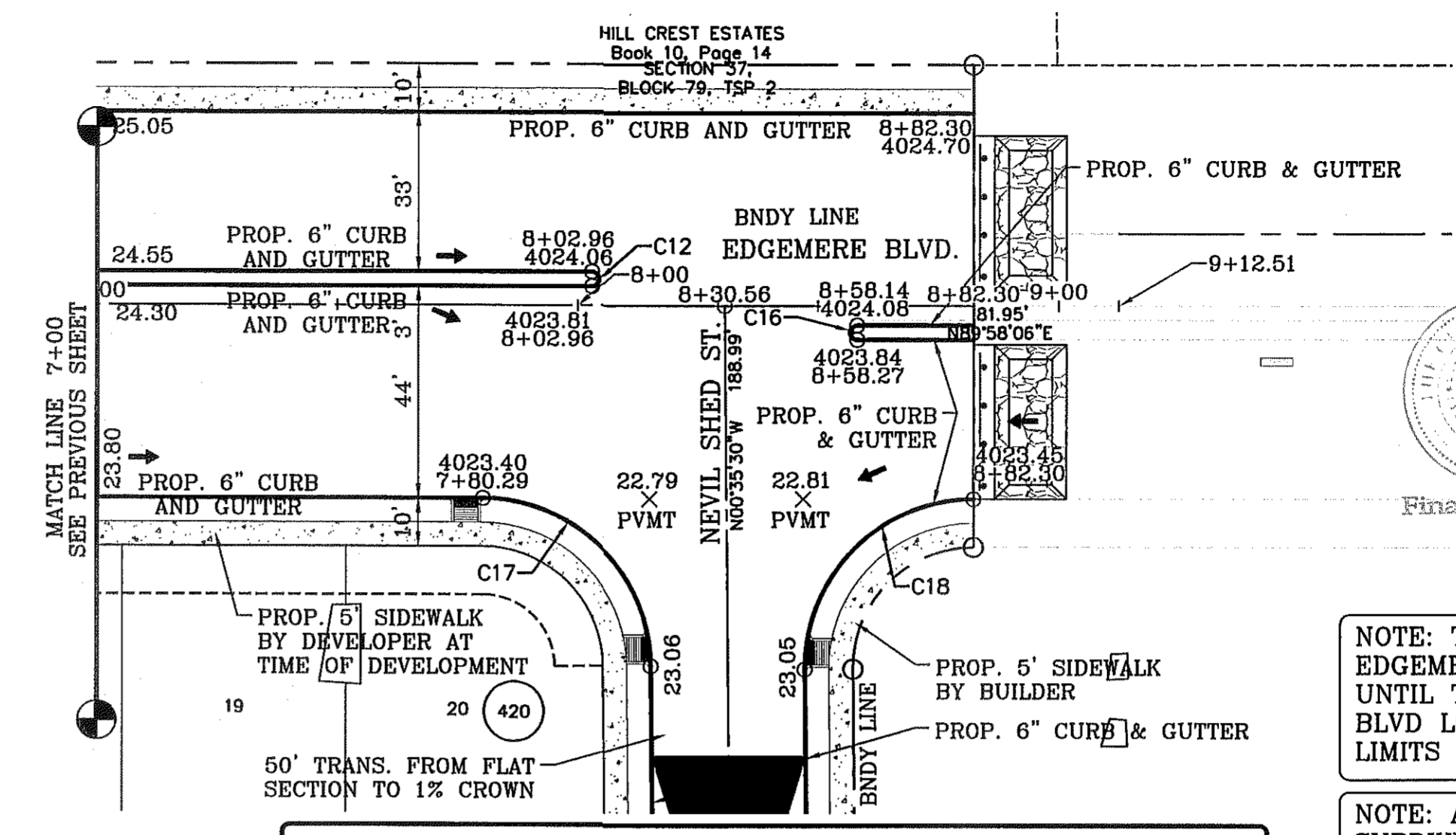
SHEET TITLE: EDGEMERE BLVD. STA: 0+00 TO STA: 7+00

SHT 19 OF 55



FILE: SA\_Subdivisions\TDE 71 ROGER PP EDGEMERE PLOTTED Wednesday, September 24, 2014 11:32 PM

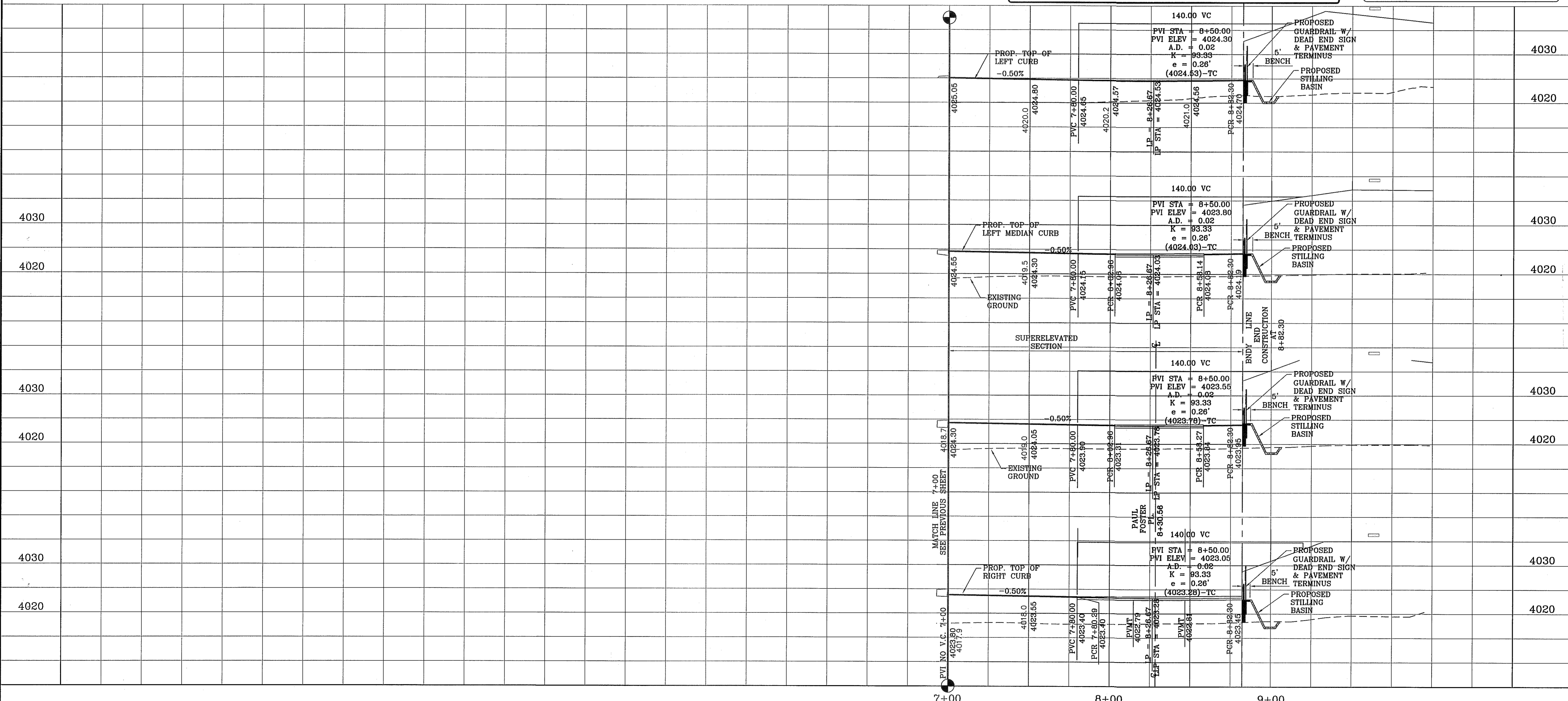
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C12	1.50'	4.71'	INFINITY	3.00'	N0°01'54"W	180°00'00"
C16	1.50'	4.71'	INFINITY	3.00'	S0°01'54"E	180°00'00"
C17	35.00'	54.64'	34.66'	49.26'	N45°18'42"W	89°26'24"
C18	35.00'	55.32'	35.34'	49.74'	S44°41'18"W	90°33'36"



NOTE: THE CITY WILL NOT ACCEPT EDGEMERE BLVD FOR MAINTENANCE UNTIL THE PORTION OF EDGEMERE BLVD LOCATE OUTSIDE THE CITY LIMITS IS ANNEXED.

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.

NOTE: ENTIRE STREET SECTION TO BE CONSTRUCTED BY DEVELOPER



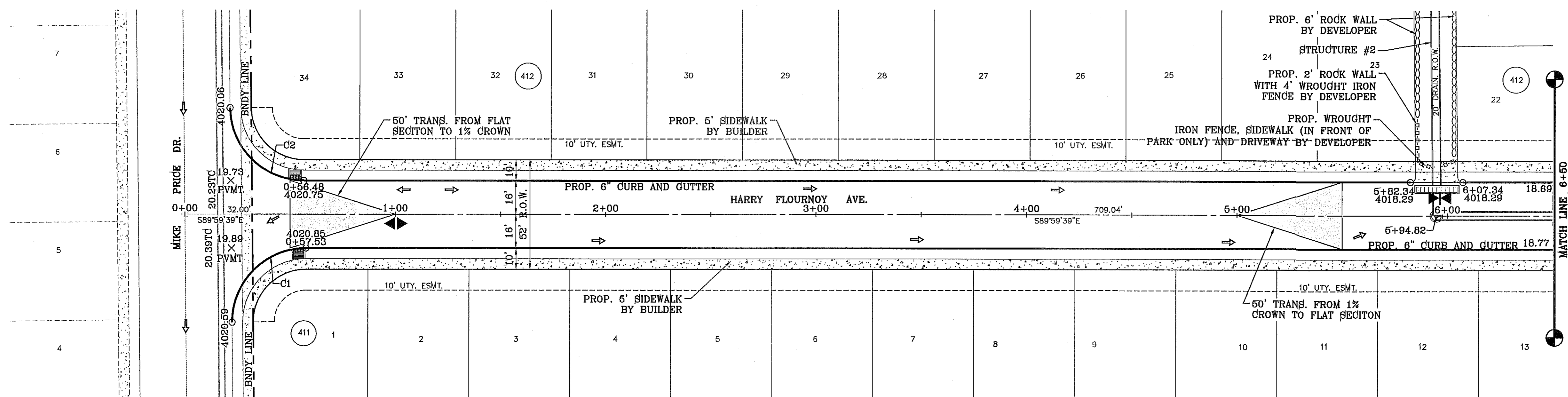
BENCHMARK		CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEISINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75	
DATE	REVISIONS	BY	E.J.
11/20/12	CITY REDLINES AS PER 10/30/12 COMMENTS		
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE		
<b>TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)</b>			
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS			
CONTAINING: 61.566± ACRES			
SCALE		HORIZ: 1" = 30' VERT: 1" = 10'	
DATE: JAN. 2012		DESIGN BY: YC	
INITIATED BY: YC		CHECKED BY: YC & FC	
JOB NO.: 1110-18			
<b>CONDE INC.</b> ENGINEERING / PLANNING SURVEYING / GPS 6080 SURETY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286			
REGISTRATION No. P-3221			
SHEET TITLE			
<b>EDGEMERE BLVD.</b> STA: 7+00 TO STA: 8+82.30			
SHT 20		OF 55	



FILE: SA\_Subdivisions\ATBE 71 ROGER PP, FLDORNOY PLOTTED Tuesday, June 18, 2013 2:13:45 PM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	35.00'	55.34'	35.36'	49.75'	S44°42'36"W	90°35'30"
C2	35.00'	54.62'	34.64'	49.24'	S45°17'24"E	89°24'30"

SCALE: 1" = 30'



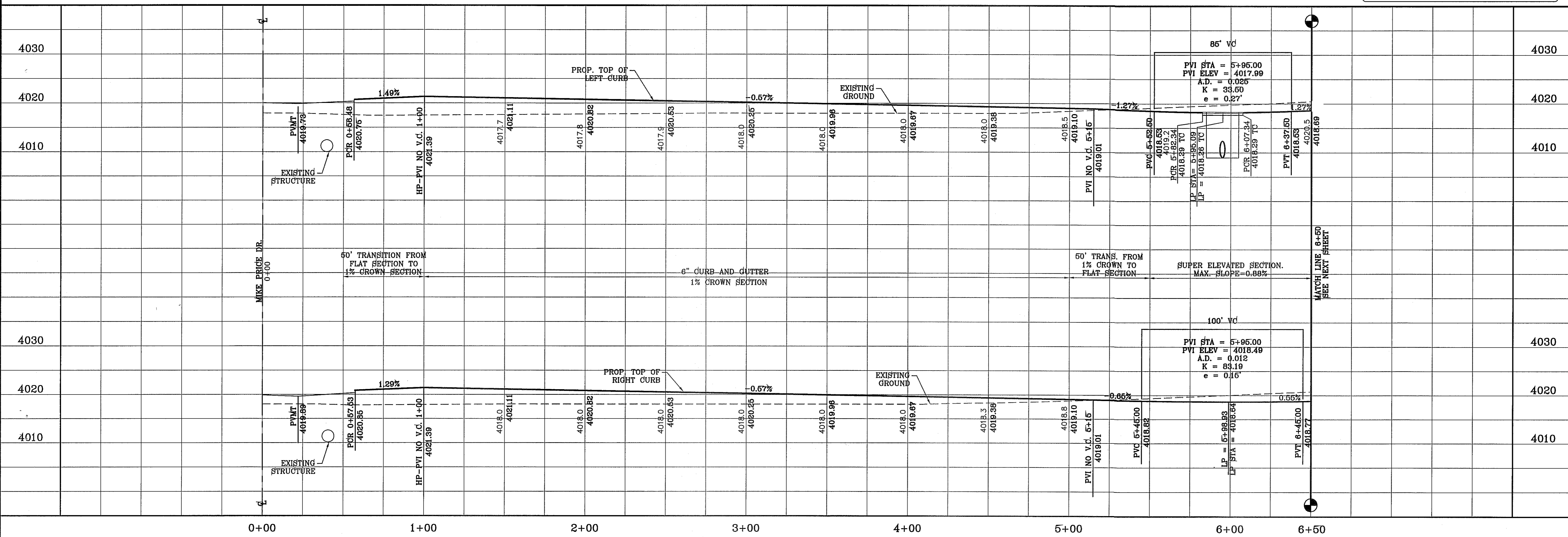
SEE SHEET 41 FOR DRAINAGE STRUCTURE #2

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.

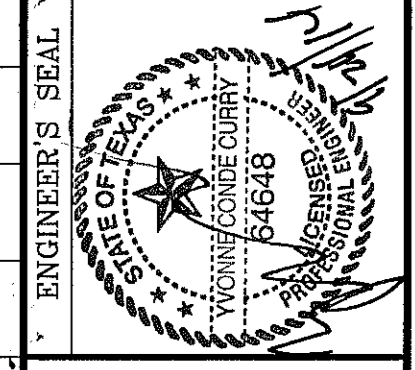


BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75
DATE	3/12/13
REVISIONS	REVISED TERRA DEL ESTE UNIT SEVENTY ONE
BY	

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 61.586± ACRES



SCALE	HORIZ: 1" = 30' VERT: 1" = 10'
DATE	JAN. 2012
DESIGN BY	YC
INITIATED BY	RO
CHECKED BY	YC & FC
JOB NO.	1110-18



CONDE INC.  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

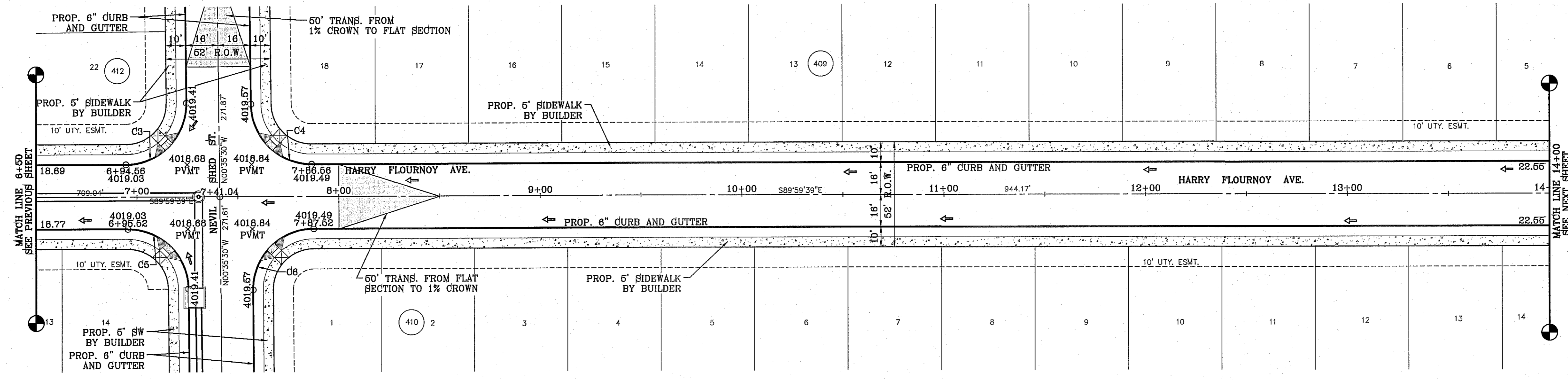
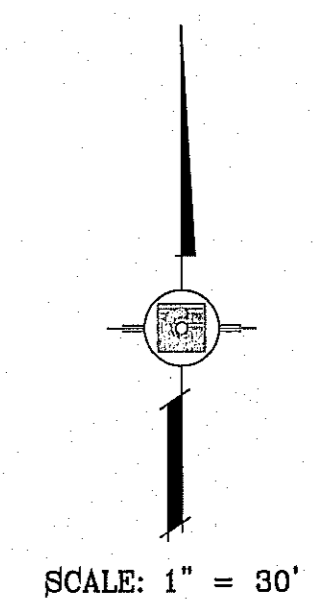


SHEET TITLE  
**STREET PLAN-PROFILE HARRY FLOURNOY AVE.**  
STA: 0+00 TO STA: 6+50

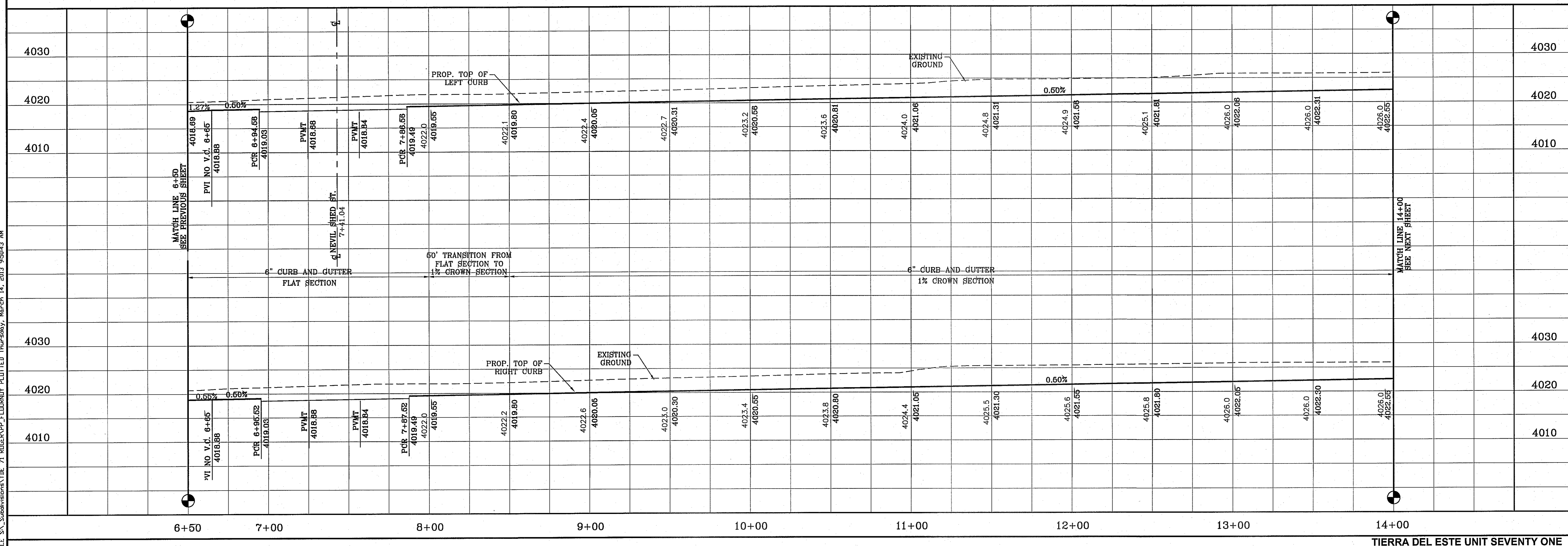


FILE S:\Subdivisions\71 RIGER\PP\_FLORNOY\_PLOTTED Thursday, March 14, 2013 9:50:43 AM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C4	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C5	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C6	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"



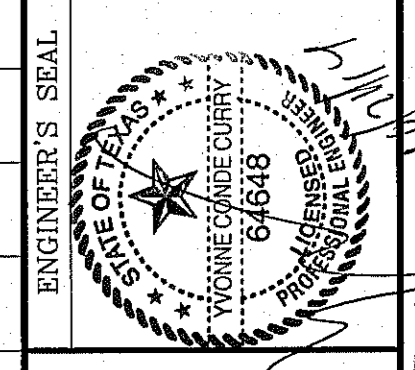
SEE SHEET 41 FOR DRAINAGE STRUCTURE #2



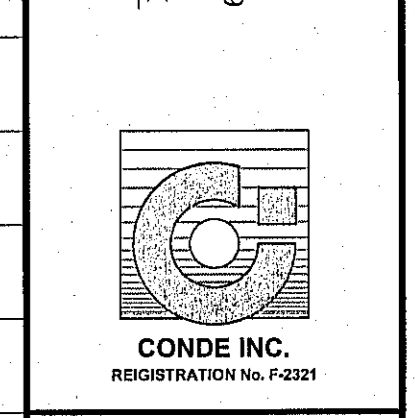
DATE	REVISIONS	BY
3/12/13	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE	

**PROJECT NAME**  
**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
 BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING: 61.5862 ACRES

**SCALE**  
 HORIZ: 1" = 30'  
 VERT: 1" = 10'  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & PC  
 JOB NO.: 1110-18

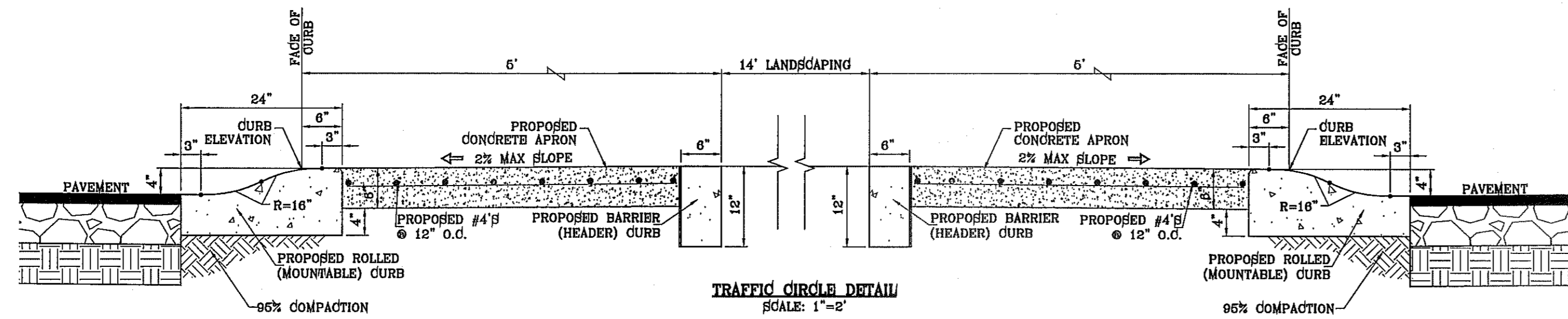


**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

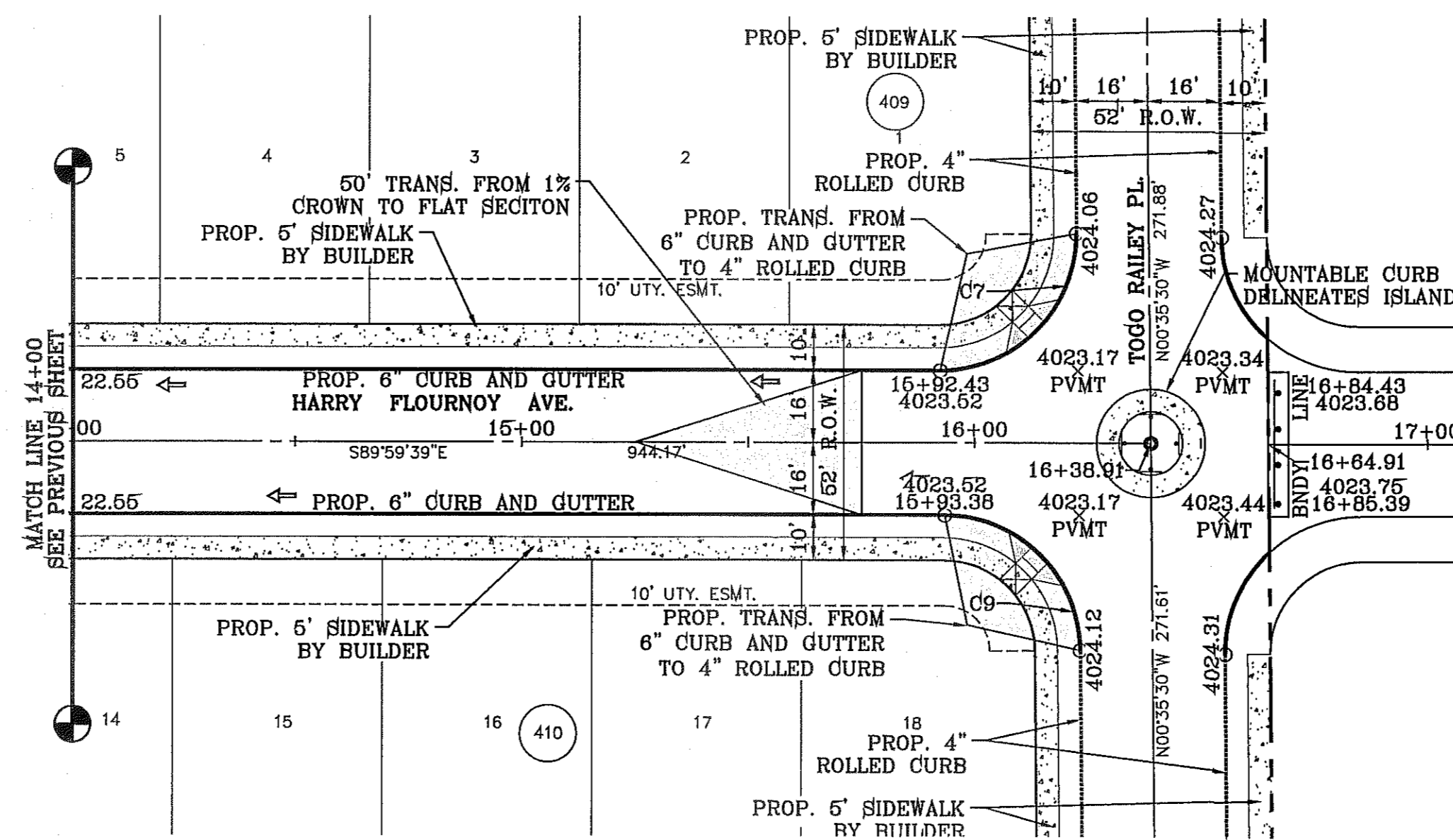
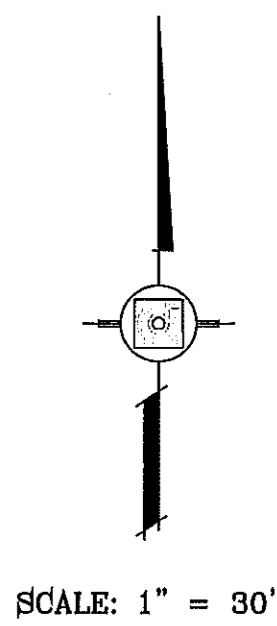


**SHEET TITLE**  
 STREET  
**HARRY FLOURNOY AVE.**  
 STA: 6+50  
 TO  
 STA: 14+00

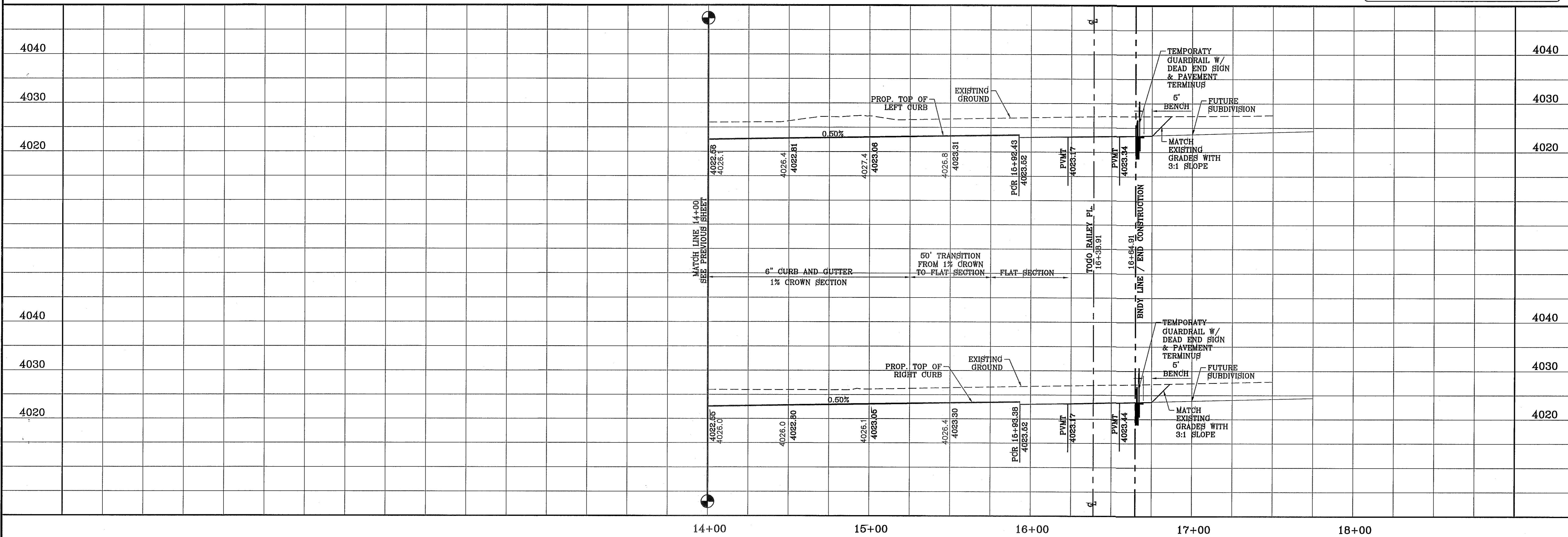




CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C9	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



REVISIONS	DATE	BY
REVISED TERRA DEL ESTE UNIT SEVENTY ONE	3/12/13	
CITY REDLINES AS PER 04/30/13 COMMENTS	5/13/13	D.N.

**PROJECT NAME**  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
 BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.586± ACRES

**SCALE**  
 HORIZ: 1" = 30'  
 VERT: 1" = 10'  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18

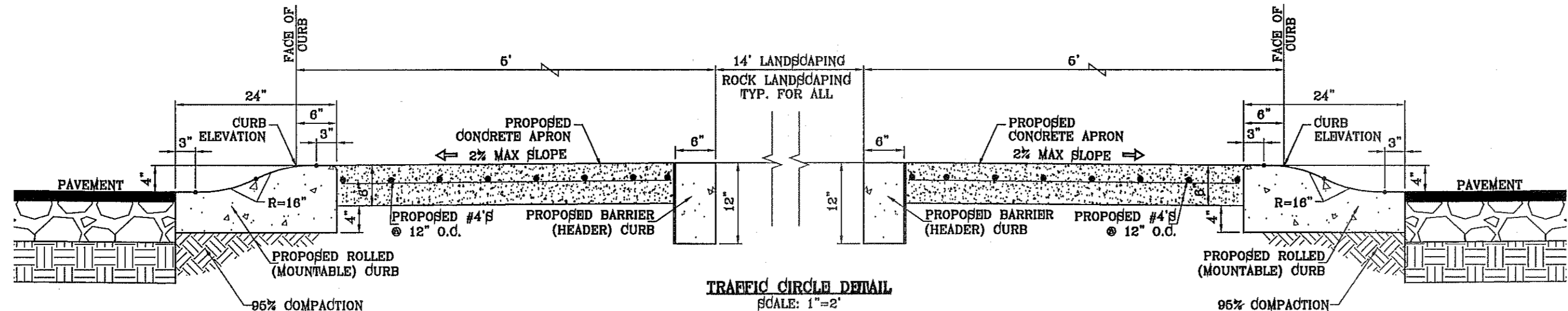
**ENGINEER'S SEAL**

**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

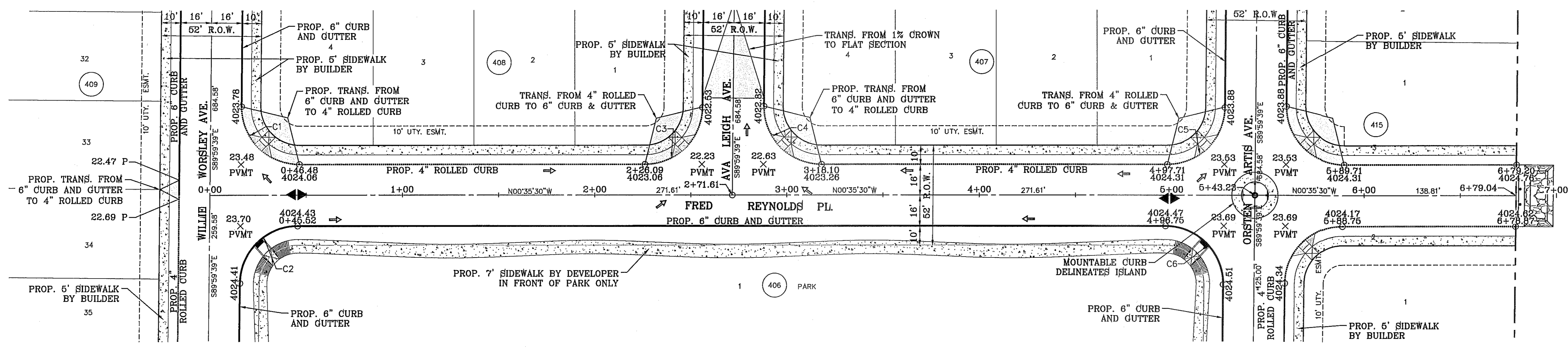
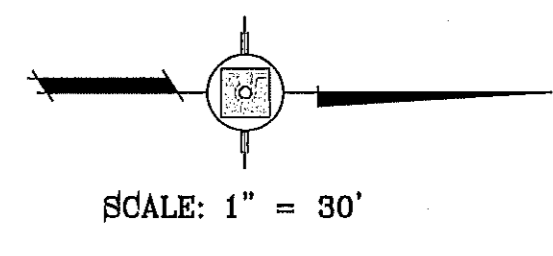
**SHEET TITLE**  
 STREET PLAN-PROFILE  
**HARRY FLOURNOY AVE.**  
 STA: 14+00 TO STA: 16+64.91

FILE SA: Subdivisions\TDE 71 RIDGER PP, FLOURNOY PLOTTED Tuesday, June 18, 2013 2:03:54 PM

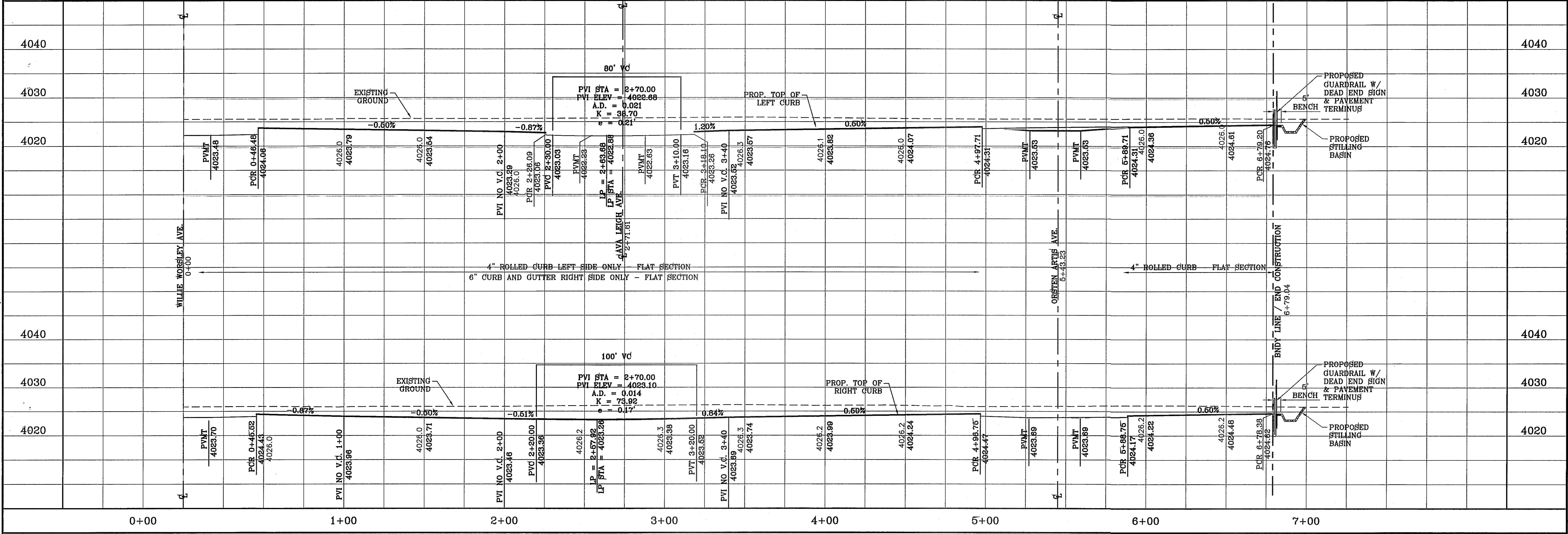




CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C2	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C3	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C4	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C5	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C6	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"



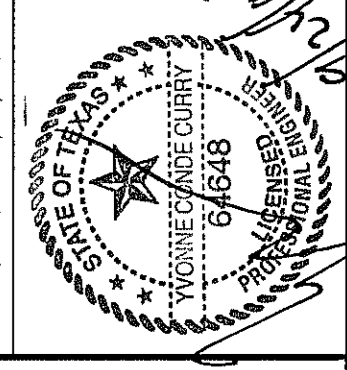
NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



REVISIONS	DATE	BY
1	11/12/12	R.R.
2	3/12/13	R.R.

**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
 BEING PORTION OF SECTION 37, BLOCK 78  
 TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,  
 CITY OF EL PASO, EL PASO COUNTY, TEXAS  
 CONTAINING: 61,566± ACRES

SCALE  
 HORIZ: 1" = 30'  
 VERT: 1" = 10'  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18



**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286



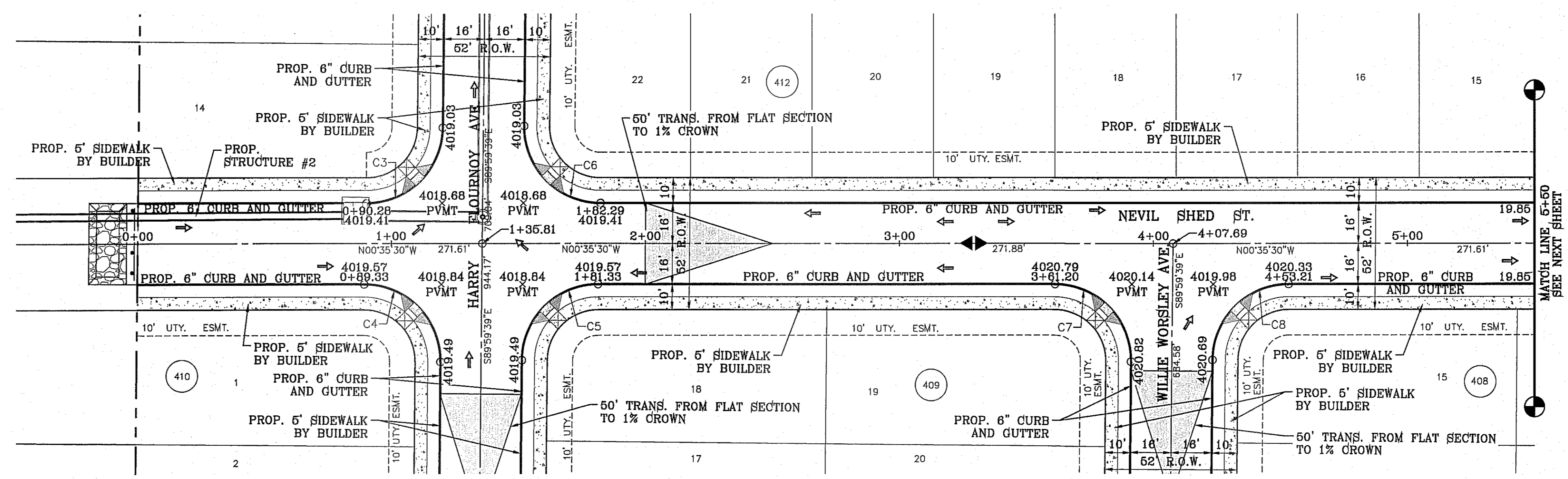
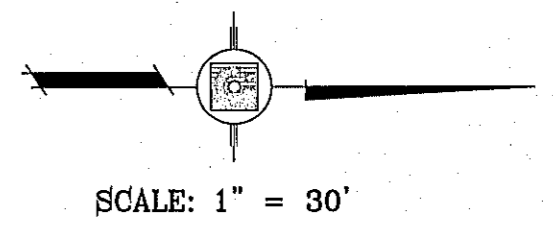
SHEET TITLE  
**FRED REYNOLDS AVE.**  
 STA: 0+00 TO STA: 6+79.04

FILE S:\Subdivisions\TBE 71 RIDGER-PP-FRED REYNOLDS PLOTTED Tuesday, June 18, 2013 2:44:12 PM

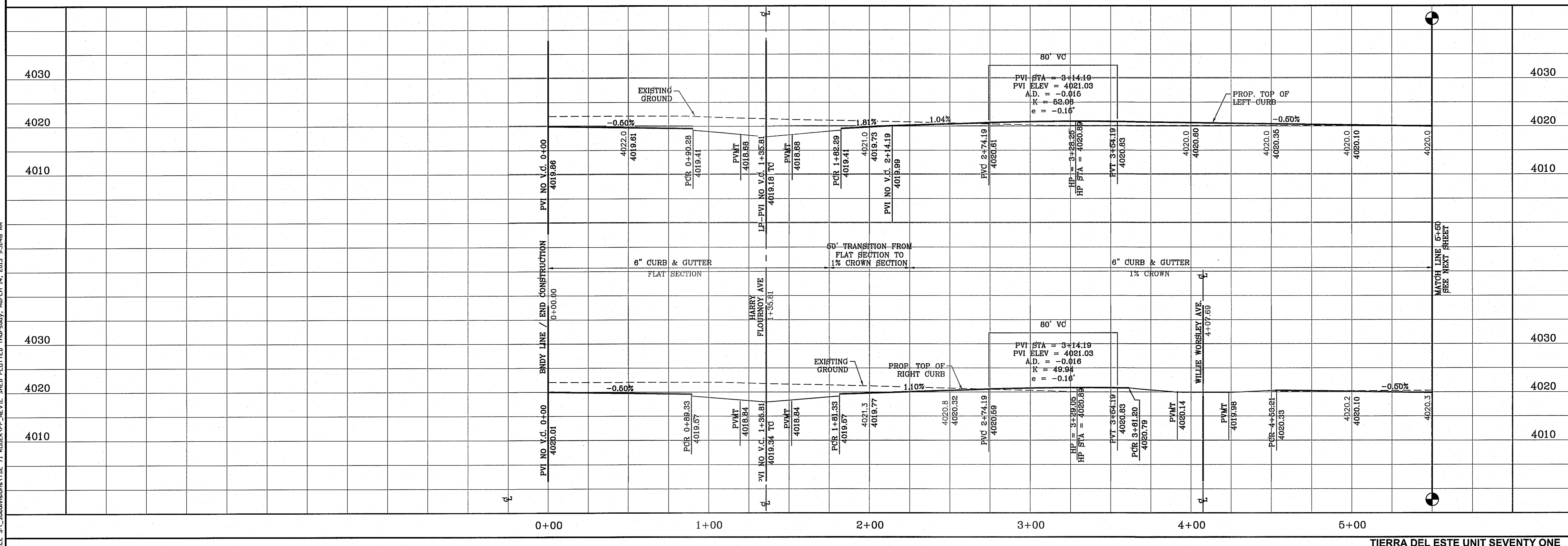


FILE S:\Subdivisions\71 RODGERPP NEVIL SHED PLOTTED Thursday, March 14, 2013 9:51:46 AM

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
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C4	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"
C5	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C6	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C7	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"
C8	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"



SEE SHEET 41 FOR DRAINAGE STRUCTURE #2

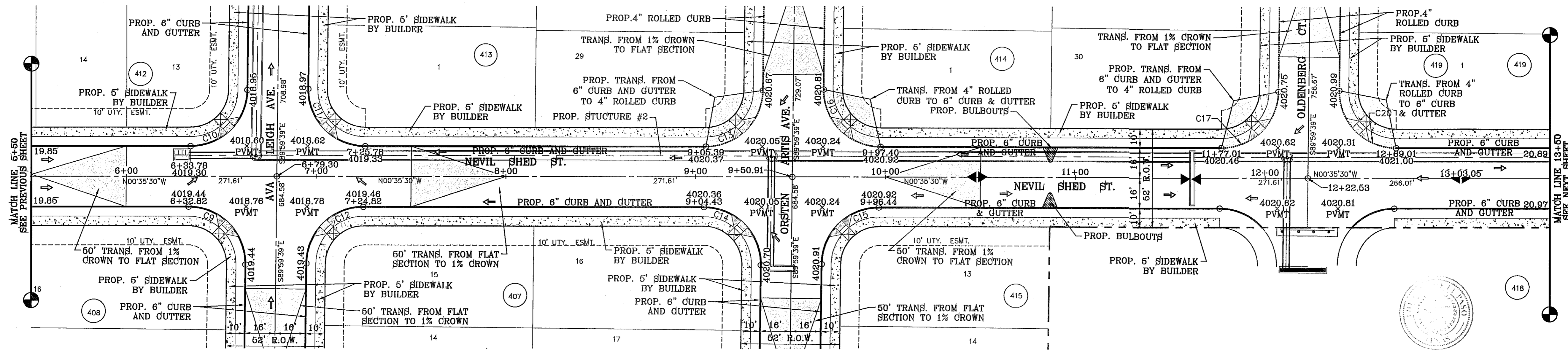
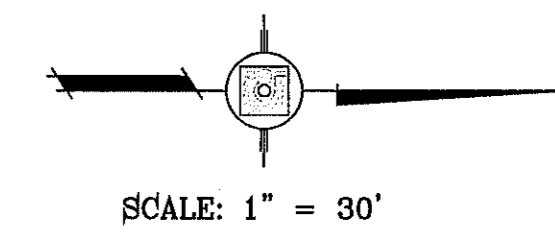


BENCHMARK		CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITSINGER DR. AND JOHN HAYES ST. ELEVATION 4016.75		NAVD83 DATUM	
DATE	3/12/13	REVISIONS	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE	BY	
PROJECT NAME					
TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)					
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING 61.8862 ACRES					
SCALE					
HORIZ: 1" = 30'					
VERT: 1" = 10'					
DATE: JAN. 2012					
DESIGN BY: YC					
INITIATED BY: RO					
CHECKED BY: YC & JC					
JOB NO.: 1110-18					
ENGINEER'S SEAL					
CONDE INC.					
ENGINEERING / PLANNING					
SURVEYING / GPS					
6080 SURETY DR. STE 100					
EL PASO, TEXAS 79905					
PHONE: (915) 692-0283					
FAX: (915) 692-0286					
SHEET TITLE					
STREET PLAN-PROFILE					
NEVIL SHED ST.					
STA: 0+00 TO STA: 5+50					
SHT 25 OF 55					



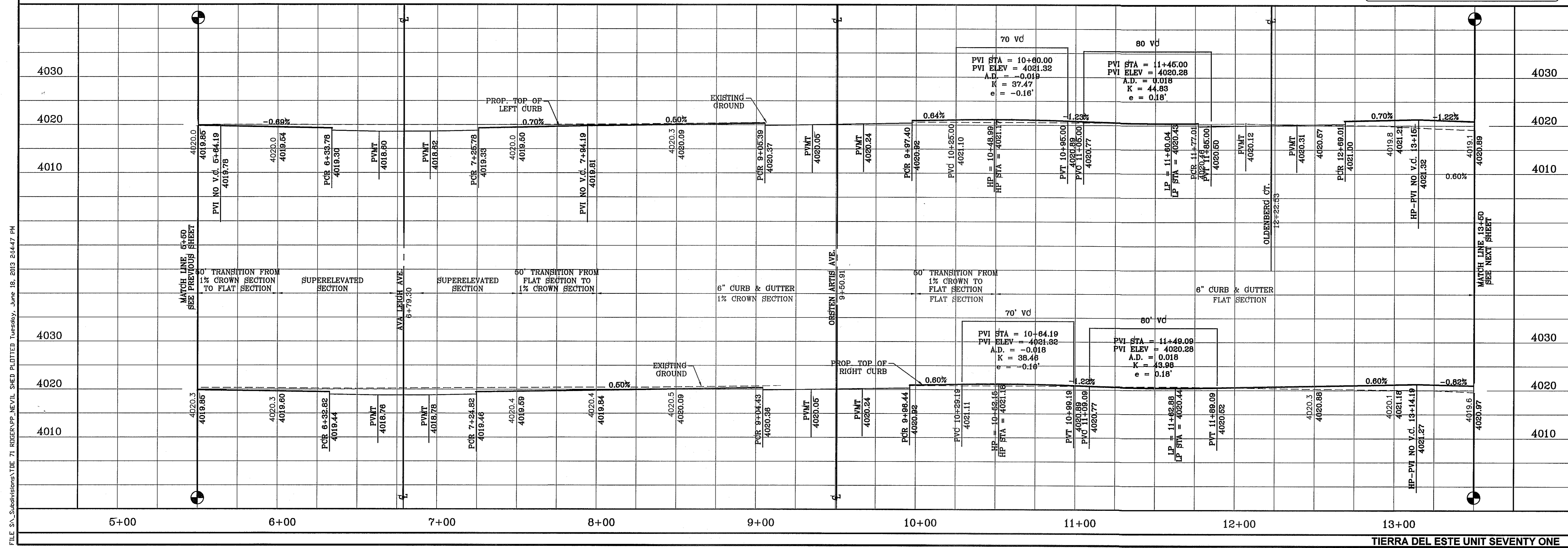
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C9	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"
C10	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C11	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C12	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C13	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C14	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C15	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C16	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C17	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C20	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"



SEE SHEET 39 & 40 FOR DRAINAGE STRUCTURE #1

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



BENCHMARK  
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEISINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75 .....NAVD88 DATUM  
 DATE 3/12/13  
 REVISIONS  
 BY  
 REVISED TERRA DEL ESTE UNIT SEVENTY ONE

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
 BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS  
 CONTAINING: 61.586± ACRES

S C A L E  
 HORIZ: 1" = 30'  
 VERT: 1" = 10'  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18

ENGINEER'S SEAL

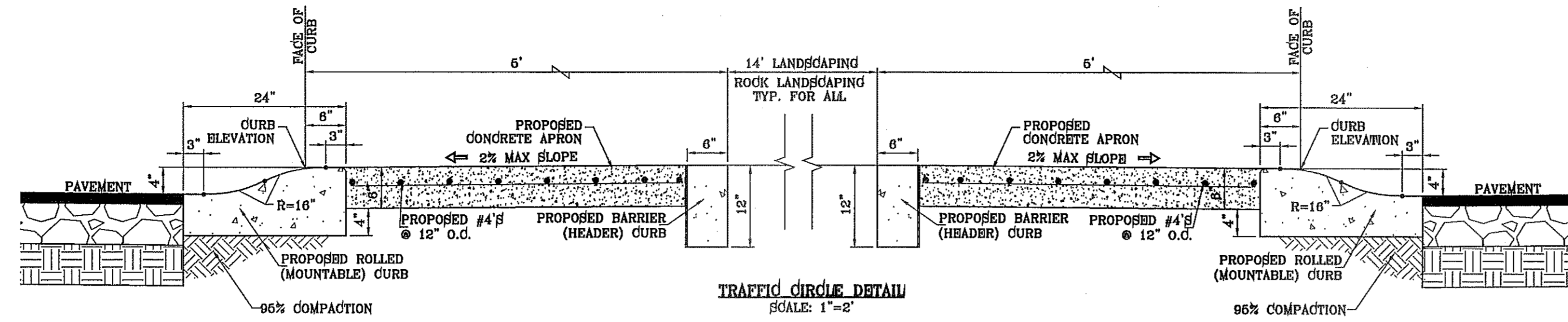
**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

SHEET TITLE  
**STREET PLAN - PROFILE**  
**NEVIL SHED ST.**  
 STA: 5+50 TO STA: 13+50

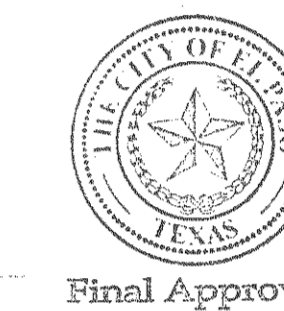
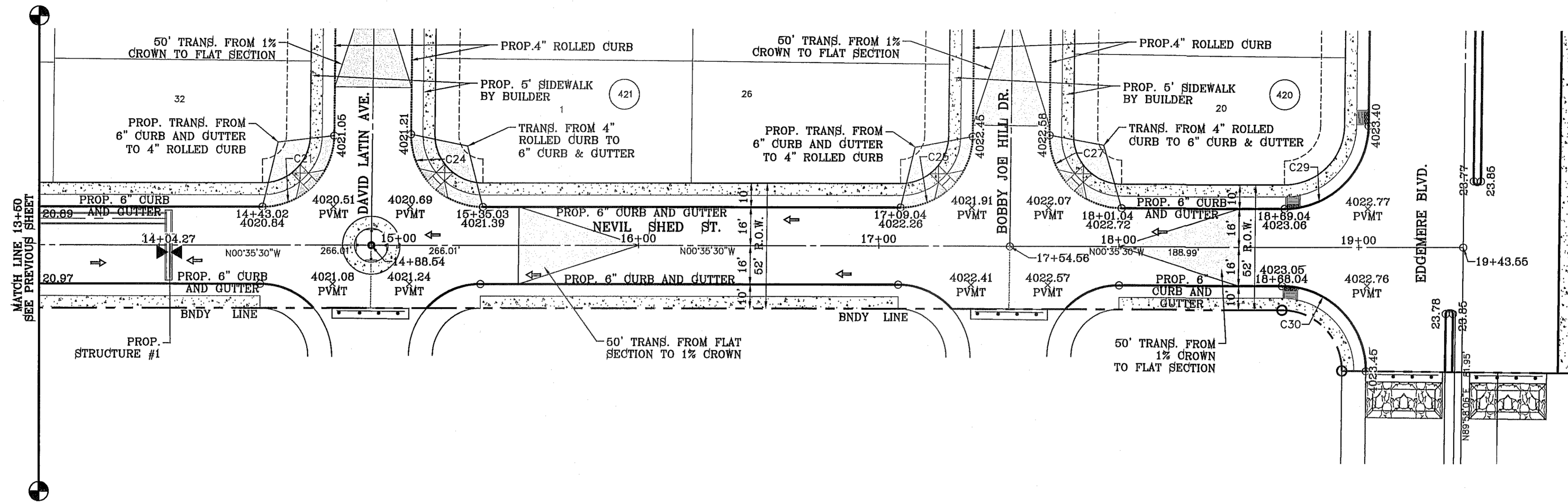
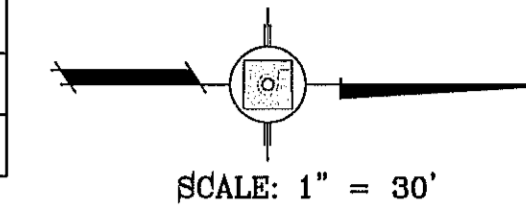
**SHT 26 OF 55**

FILE SA\_Subdivisions\A\TIE 71\_RDR\RP\NEVIL SHED PLOTTED Tuesday, June 18, 2013 2:44:47 PM

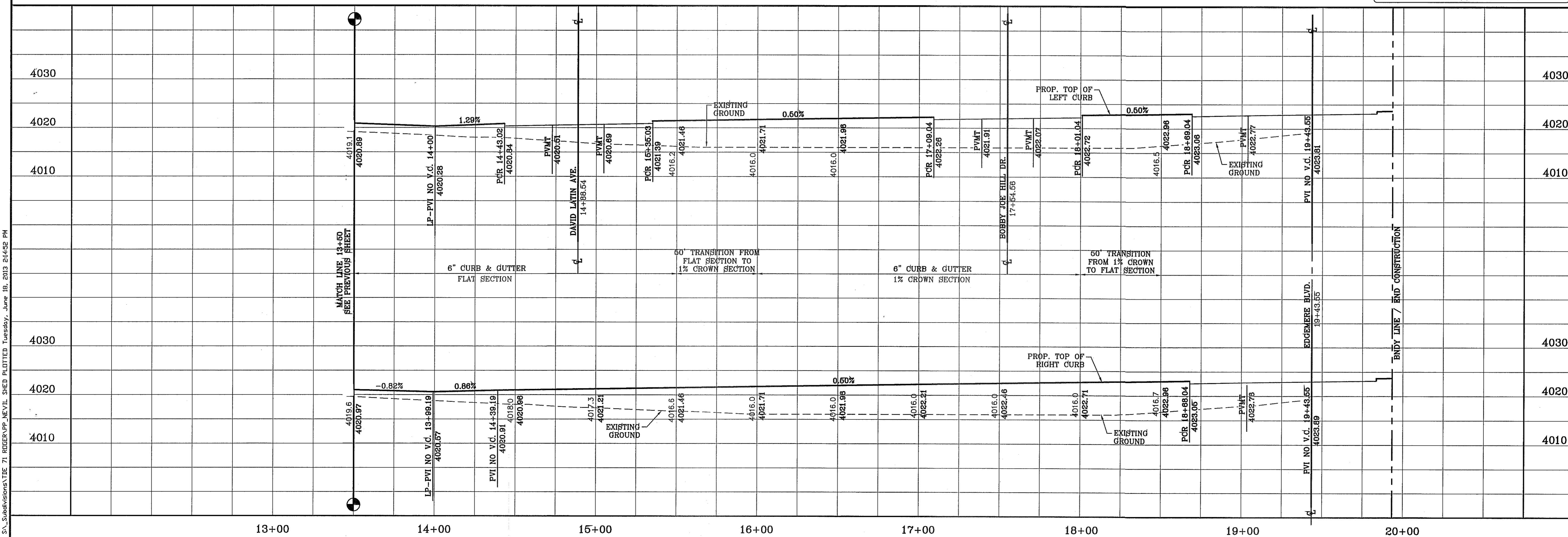




CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C21	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C24	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C25	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C27	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C29	35.00'	54.64'	34.66'	49.26'	N45°18'42"W	89°26'24"
C30	35.00'	55.32'	35.34'	49.74'	S44°41'18"W	90°33'36"



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



**PROJECT NAME**  
TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

**DATE**  
3/12/13

**REVISIONS**  
REVISED TERRA DEL ESTE UNIT SEVENTY ONE  
CITY REDLINES AS PER 04/30/13 COMMENTS

**BY**  
D.N.

**BENCHMARK**  
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

**PROJECT NAME**  
TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

**BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS**

**CONTAINING:** 61.586± ACRES

**SCALE**  
HORIZ: 1" = 30'  
VERT: 1" = 10'

**DATE:** JAN. 2012

**DESIGN BY:** YC

**INITIATED BY:** RO

**CHECKED BY:** YC & FC

**JOB NO.:** 1110-18

**CONDE INC.**  
ENGINEERING / PLANNING / SURVEYING / GPS  
6060 SURREY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

**REGISTRATION NO. F-221**

**SHEET TITLE**  
STREET PLAN-PROFILE

**NEVIL SHED ST.**  
STA: 13+50 TO STA: 19+43.55

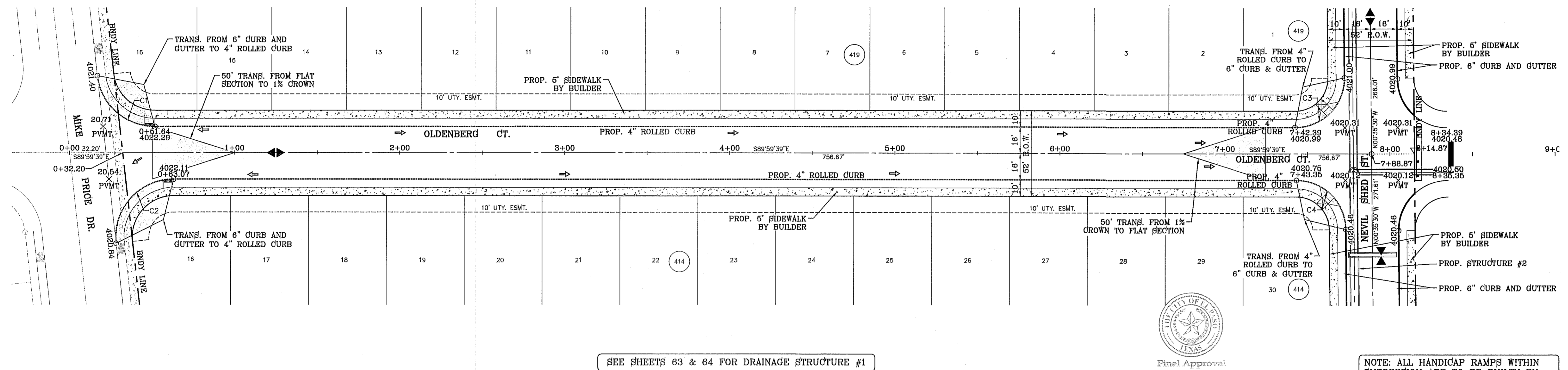
**SHT 27 OF 55**

FILE S:\Subdivisions\TDE 71 RIDGER VP, NEVIL SHED PLOTTED Tuesday, June 18, 2013 2:45:22 PM



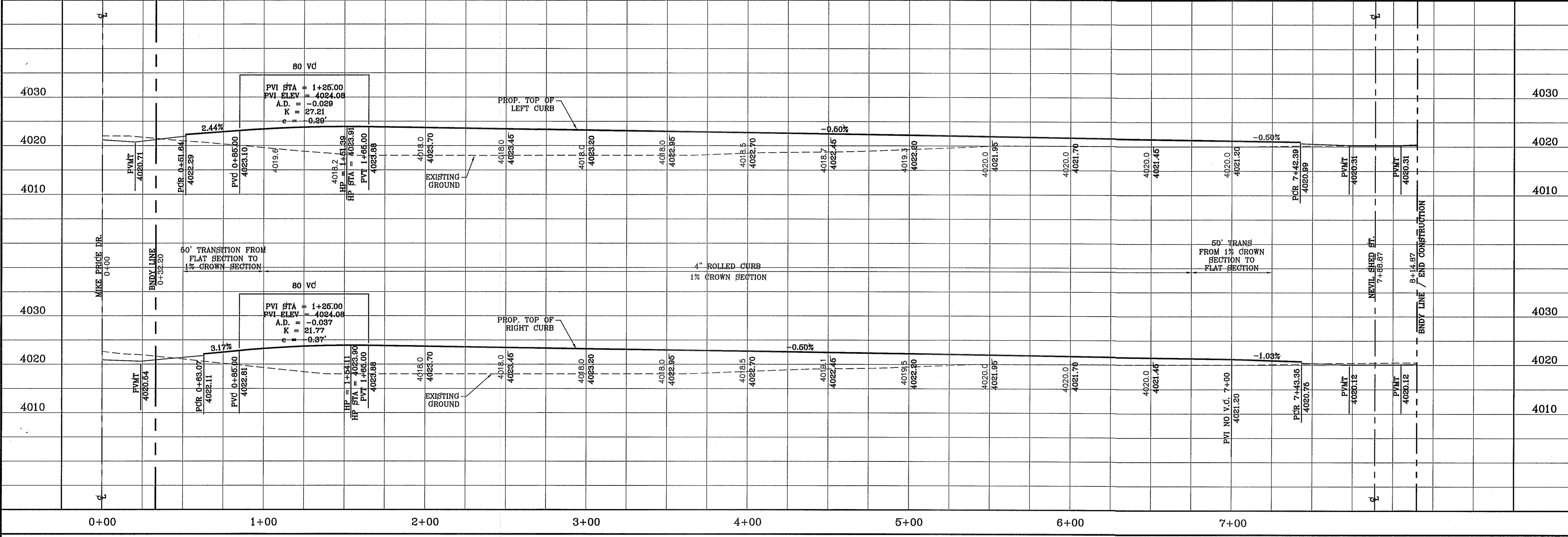
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	35.00'	51.07'	31.30'	46.66'	S48°11'27"E	83°36'26"
C2	35.00'	58.88'	39.14'	52.18'	S41°48'33"W	96°23'34"
C3	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C4	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"

SCALE: 1" = 30'



SEE SHEETS 63 & 64 FOR DRAINAGE STRUCTURE #1

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



**PROJECT NAME**  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

**BENCHMARK**  
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF ROLPH SEISINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

**REVISIONS**

DATE	BY	REVISIONS
3/12/13		REVISED TERRA DEL ESTE UNIT SEVENTY ONE
5/13/13		CITY REDLINES AS PER 04/30/13 COMMENTS

**SCALE**  
 HORIZ: 1" = 30'  
 VERT: 1" = 10'

**ENGINEER'S SEAL**

**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. SUE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

**SHEET TITLE**  
**STREET PLAN - PROFILE**  
**OLDENBERG CT.**  
 STA: 0+00 TO STA: 7+88.87

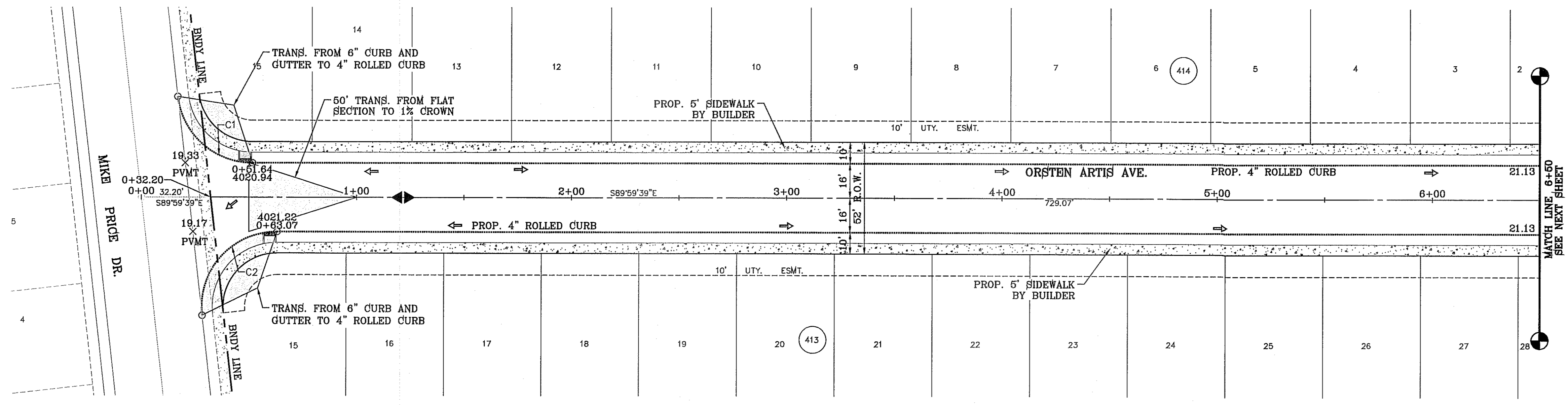
**SHT 28 OF 55**

**TERRA DEL ESTE UNIT SEVENTY ONE**

FILE: SA\_Subdivisions\ATDE 71 RIDGER PP OLDBENBERG PLOTTED Tuesday, June 18, 2013 2:10:08 PM



FILE S:\Subdivisions\71 RIDGER PP, ORSTEN ARTIS PLOTTED Tuesday, June 18, 2013 2:15:29 PM

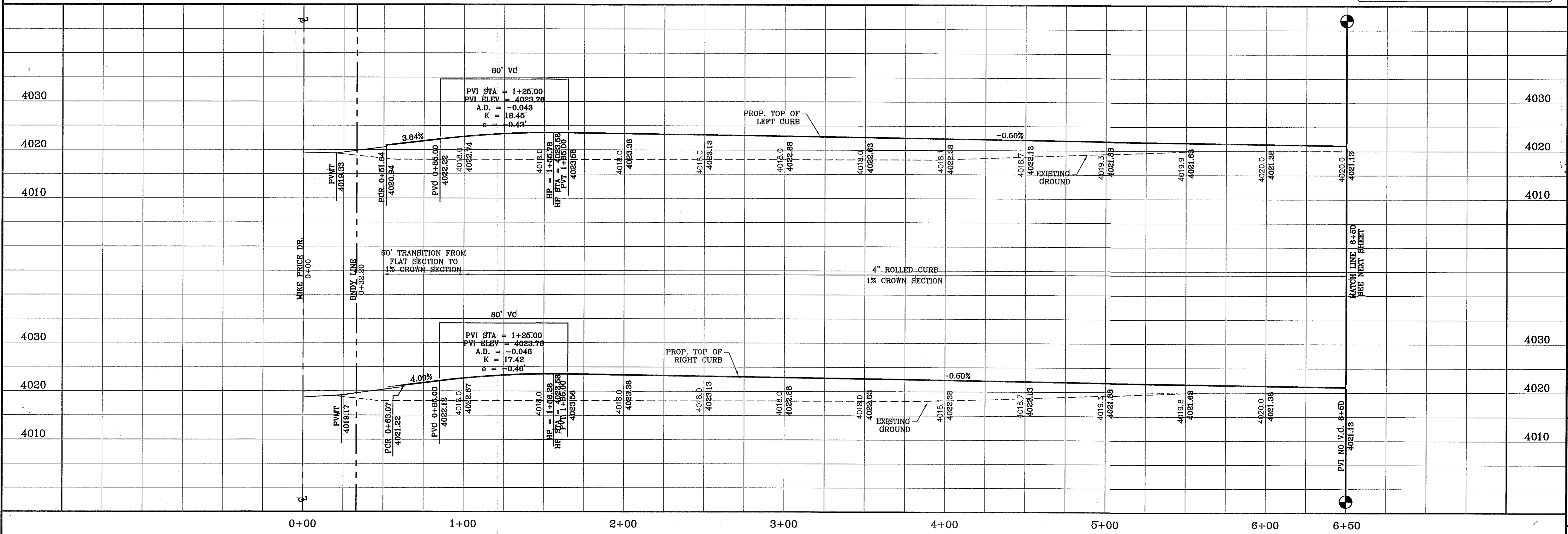


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	35.00'	51.07'	31.30'	46.66'	S48°11'27"E	83°36'26"
C2	35.00'	58.88'	39.14'	52.18'	S41°48'33"W	96°23'34"

SCALE: 1" = 30'



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4016.75
DATE	3/12/13
REVISIONS	REVISED TERRA DEL ESTE UNIT SEVENTY ONE
BY	

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.566± ACRES

SCALES  
HORIZ: 1" = 30'  
VERT: 1" = 10'

DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

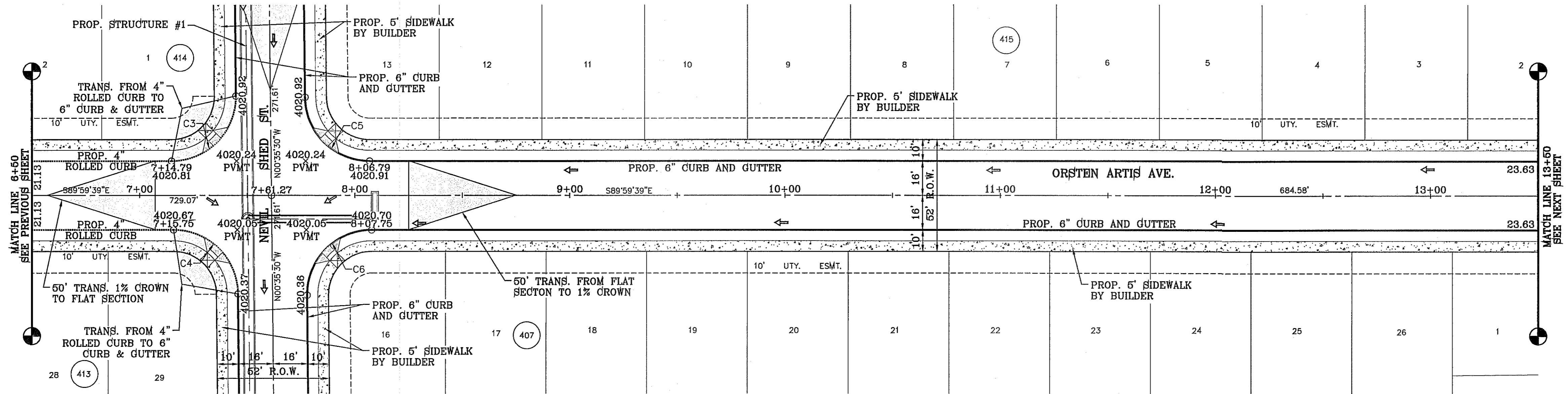
ENGINEER'S SEAL  
**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79906  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

SHEET TITLE  
**STREET PLAN - PROFILE**  
**ORSTEN ARTIS AVE.**  
STA: 0+00 TO STA: 6+50



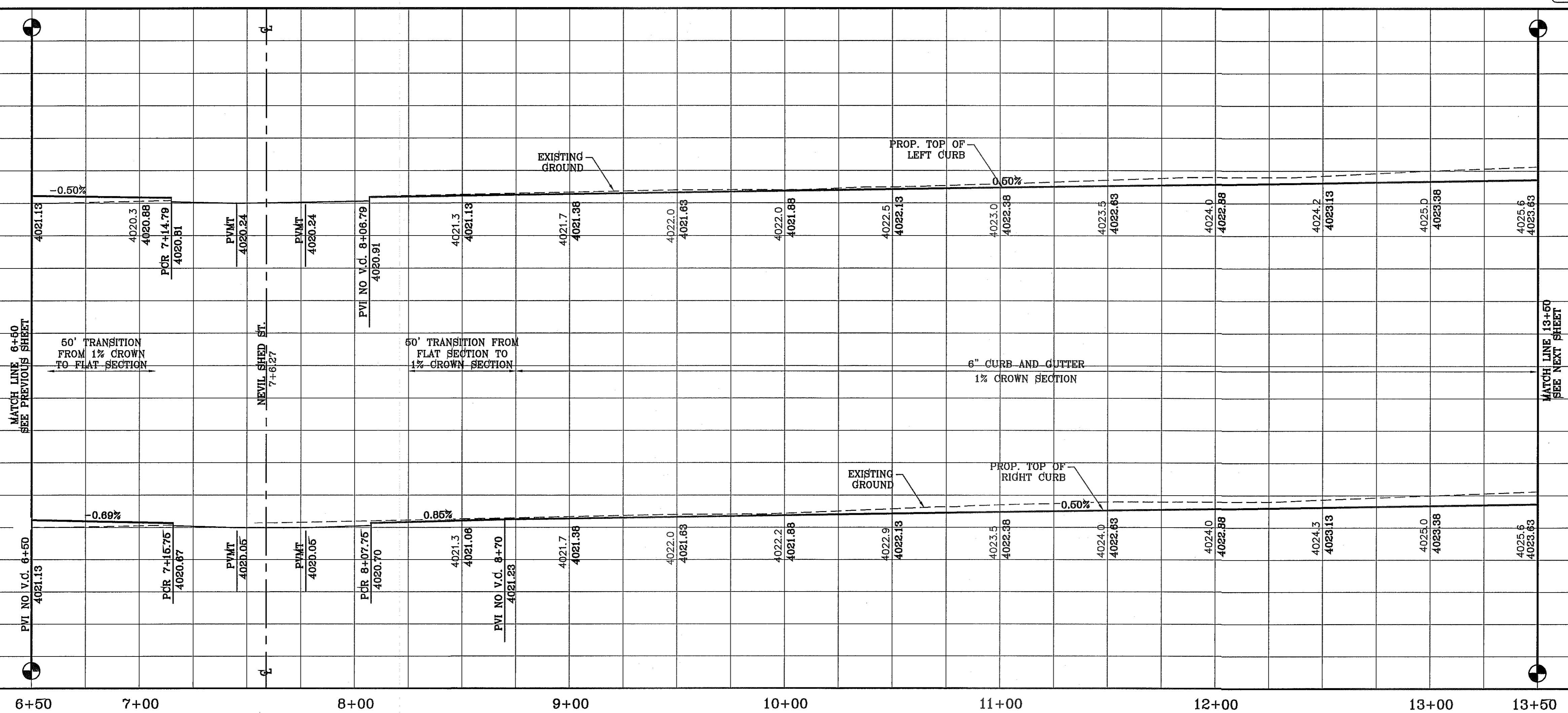
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C4	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C5	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C6	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"

SCALE: 1" = 30'



SEE SHEET 39 FOR DRAINAGE STRUCTURE #1

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.

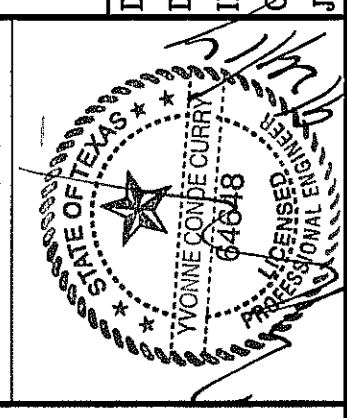


TIERRA DEL ESTE UNIT SEVENTY ONE

DATE	REVISIONS	BY
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE	
5/13/13	CITY REDLINES AS PER 04/30/13 COMMENTS	D.N.

PROJECT NAME  
**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.566± ACRES

SCALE  
HORIZ: 1" = 30'  
VERT: 1" = 10'  
DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18



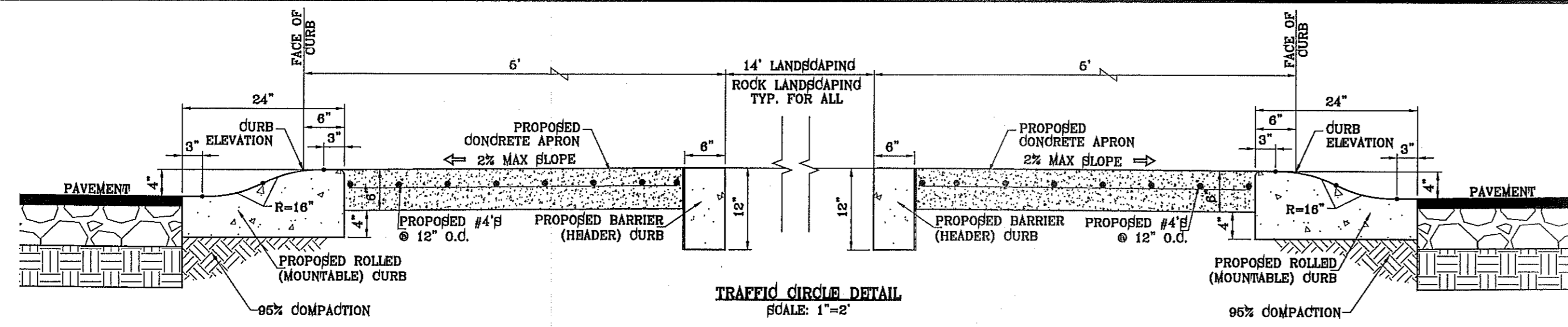
**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286



SHEET TITLE  
**STREET PLAN - PROFILE**  
**ORSTEN ARTIS AVE.**  
TO  
STA: 6+50

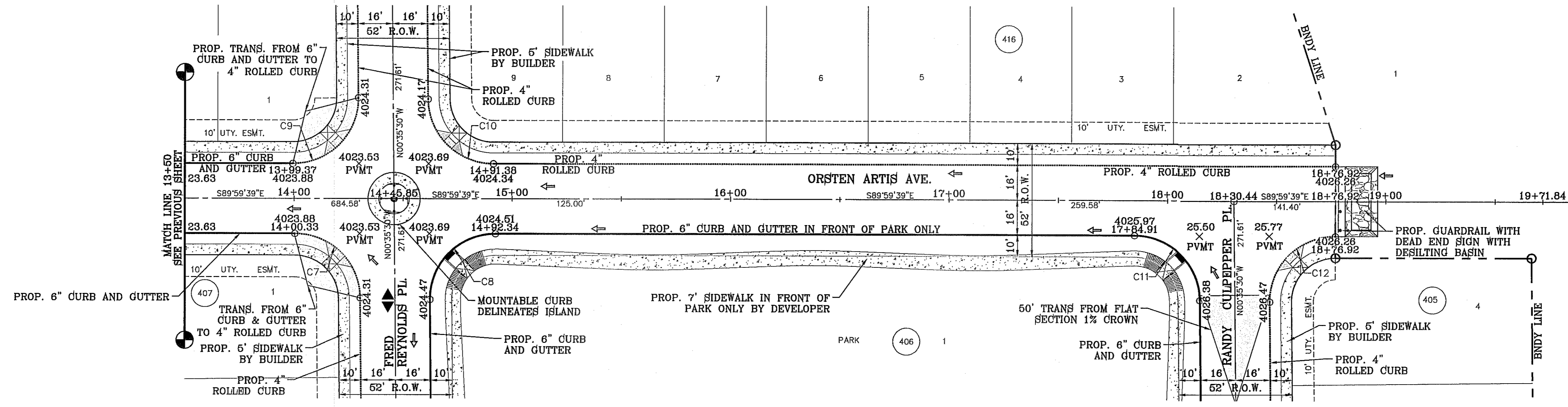
FILE S:\Subdivisions\TIE 71 RIDGERVP-ORSTEN ARTIS PLOTTED Tuesday, June 19, 2013 2:15:33 PM





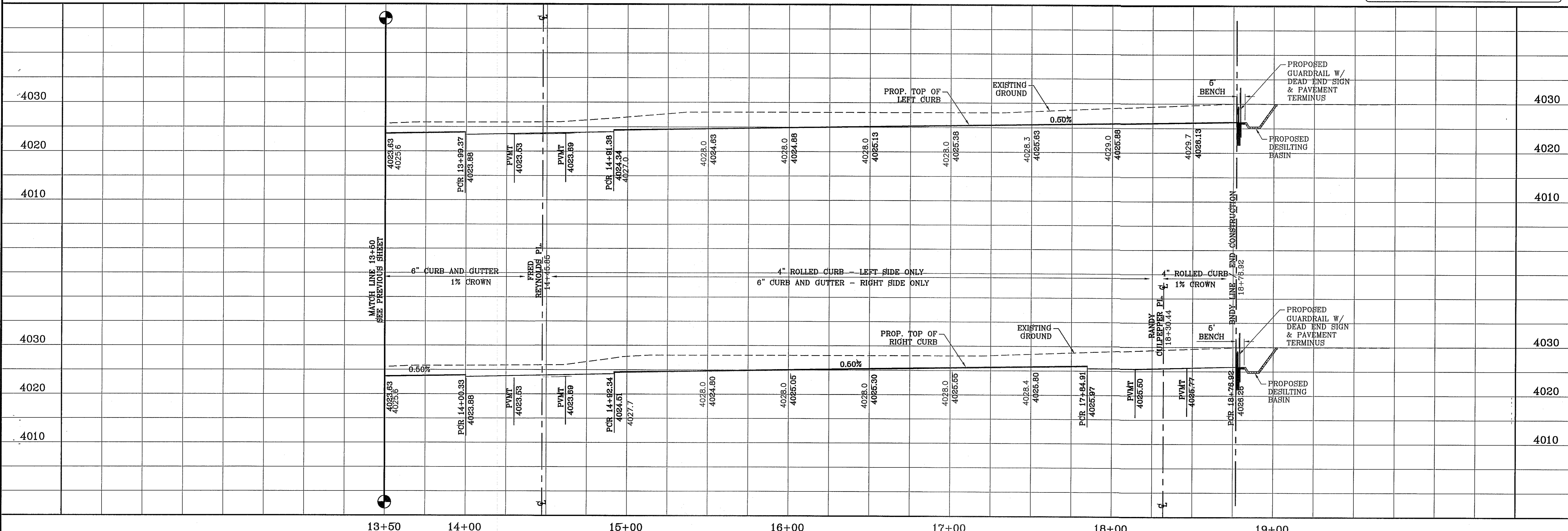
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C8	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"
C9	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C10	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C11	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C12	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"

SCALE: 1" = 30'



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.

FILE: S:\\_Subdivisions\71 RDRER\PP-ORSTEN ARTIS PLOTTED Tuesday, June 18, 2013 2:15:58 PM



**PROJECT NAME**  
TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

**DESIGN BY:** YC  
**DATE:** JAN. 2012  
**INITIATED BY:** RO  
**CHECKED BY:** YC & FC  
**JOB NO.:** 1110-18

**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

**REGISTRATION No. F-231**

**SHEET TITLE**  
STREET PLAN-PROFILE  
**ORSTEN ARTIS AVE.**  
STA: 13+50 TO STA: 18+76.92

**SHT 31 OF 55**

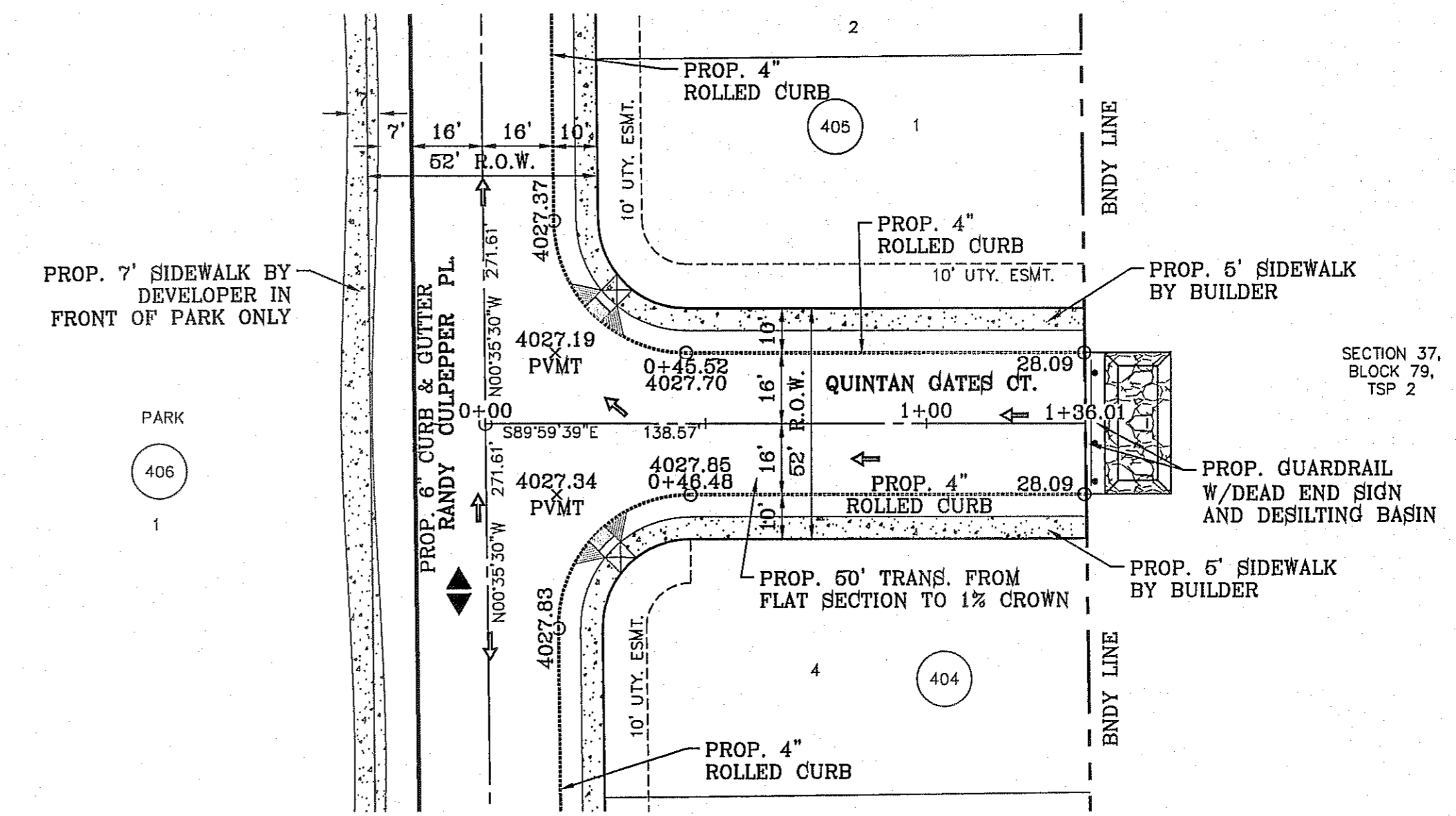


3:\Subdivisions\TDE 71 ROGER\PP\_QUINTAN GATES.dwg, 32 PP\_QUINTAN GATES 0+00 TO 1+36.01, 10/20/2014 5:01:26 PM

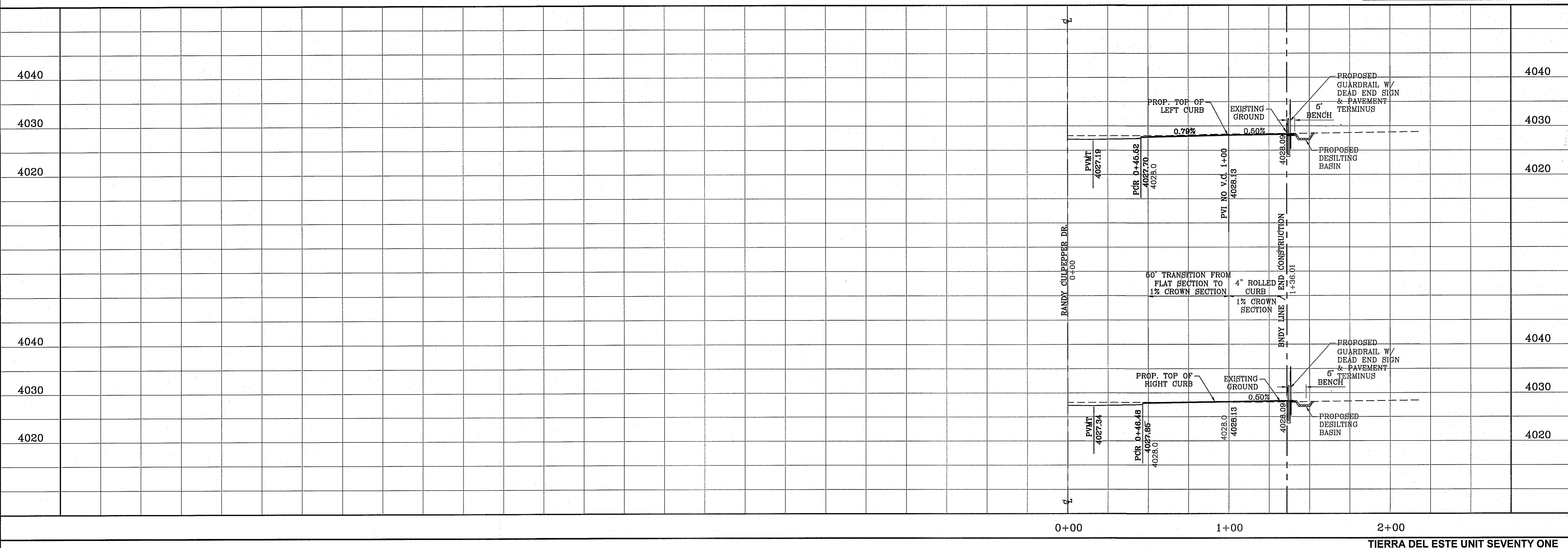
FILE S:\Subdivisions\TDE 71 ROGER\PP\_QUINTAN GATES PLOTTED Monday, October 20, 2014 5:01:29 PM

CURVE TABLE						
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C1	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C2	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"

SCALE: 1" = 30'

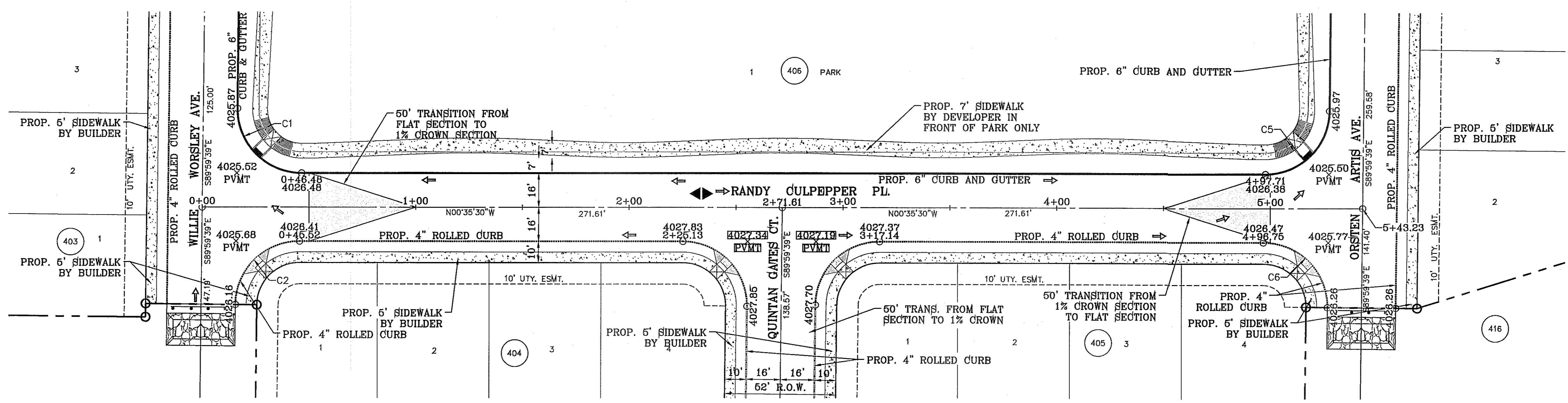
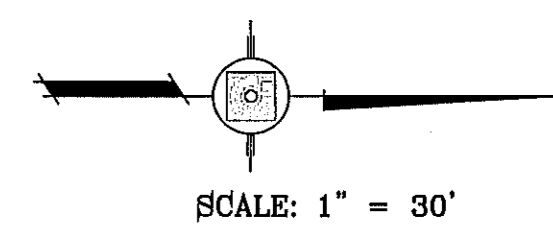


NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



<p><b>PROJECT NAME</b> TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)</p> <p>BEING PORTION OF SECTION 37, BLOCK 79 TOWNSHIP 2, RANGE 10 AND PACIFIC RAILWAY CO. SURVEYS, CITY OF TEXAS, TEXAS, CONTAINING 6.588± ACRES</p>	<p><b>DATE</b> 3/12/13</p>	<p><b>REVISIONS</b></p>	<p><b>BY</b></p>
	<p>BENCHMARK CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITSINGER DR. AND JOHN HAYES ST. ELEVATION 4015.75 ..... NAVD83 DATUM</p>		
<p><b>SCALES</b> HORIZ: 1" = 30' VERT: 1" = 10'</p> <p>DATE: JAN. 2012 DESIGN BY: YC INITIATED BY: RO CHECKED BY: YC &amp; FC JOB NO.: 1110-18</p>			
<p><b>ENGINEER'S SEAL</b></p>			
<p><b>CONDE INC.</b> ENGINEERING / PLANNING SURVEYING / GPS 6080 SURVEY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286</p>			
<p><b>SHEET TITLE</b> STREET PLAN-PROFILE <b>QUINTAN GATES CT.</b> STA: 0+00 TO STA: 1+36.01</p>			
<p>SHT 32 OF 55 TIERRA DEL ESTE UNIT SEVENTY ONE</p>			

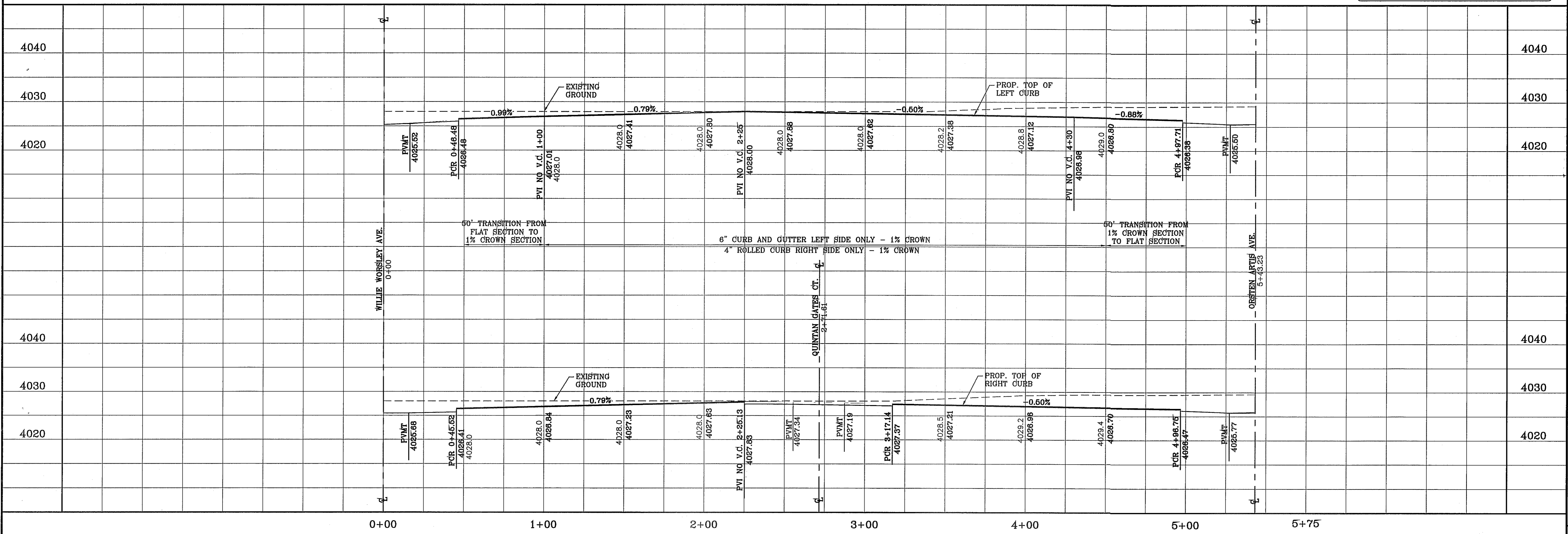
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C2	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C3	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"
C4	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"
C5	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C6	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



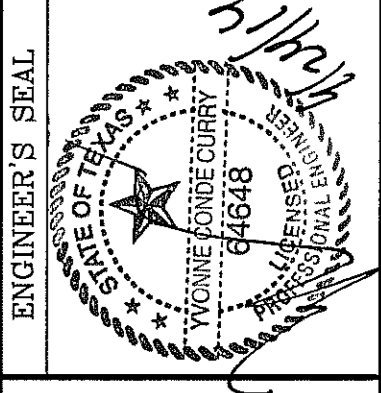
FILE SA, Subdivision\TDE 71 RIDGER.PP, RANDY CULPEPPER PLOTTED Tuesday, June 18, 2013 2:16:12 PM



BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEIBINGER DR. AND JOHN HAYES ST.	ELEVATION 4018.75
DATE	11/12/12
REVISIONS	CITY REDLINES AS PER 11/12/12 COMMENTS
BY	R.R.

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING: 81.586± ACRES

SCALE  
HORIZ: 1" = 30'  
VERT: 1" = 10'  
DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

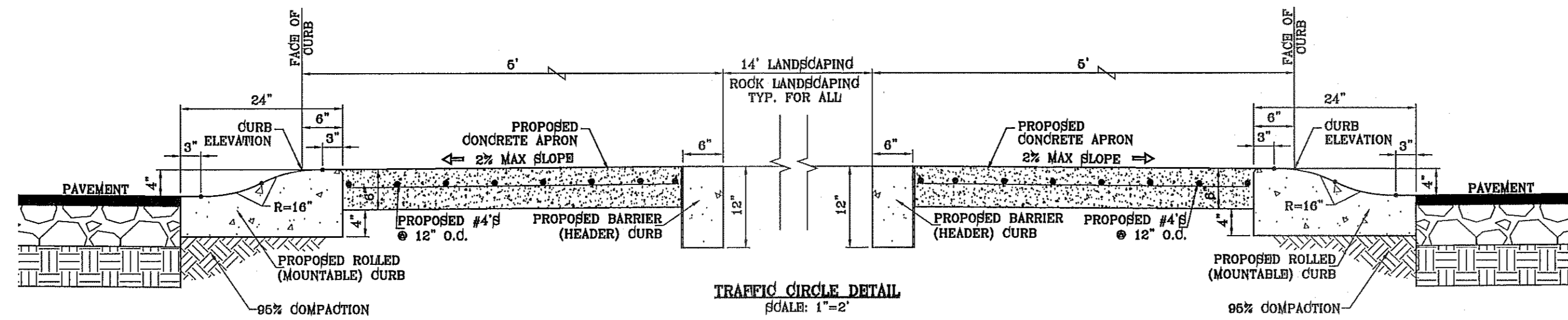


**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79906  
PHONE (915) 592-0283  
FAX (915) 592-0286

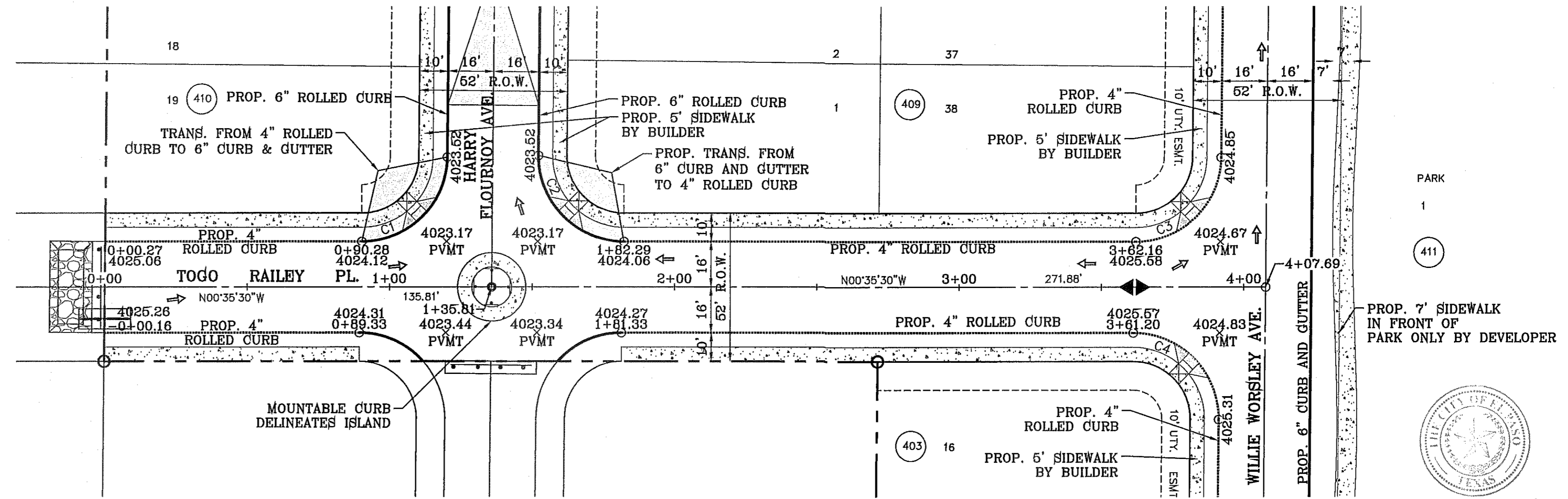
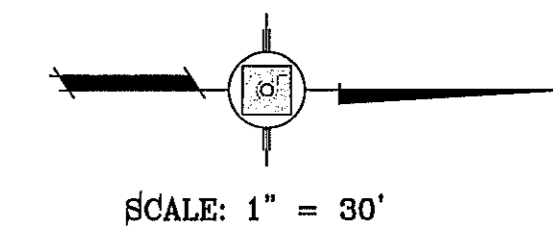


SHEET TITLE  
STREET  
PLAN - PROFILE  
**RANDY CULPEPPER PL.**  
STA: 0+00  
TO  
STA: 5+43.23

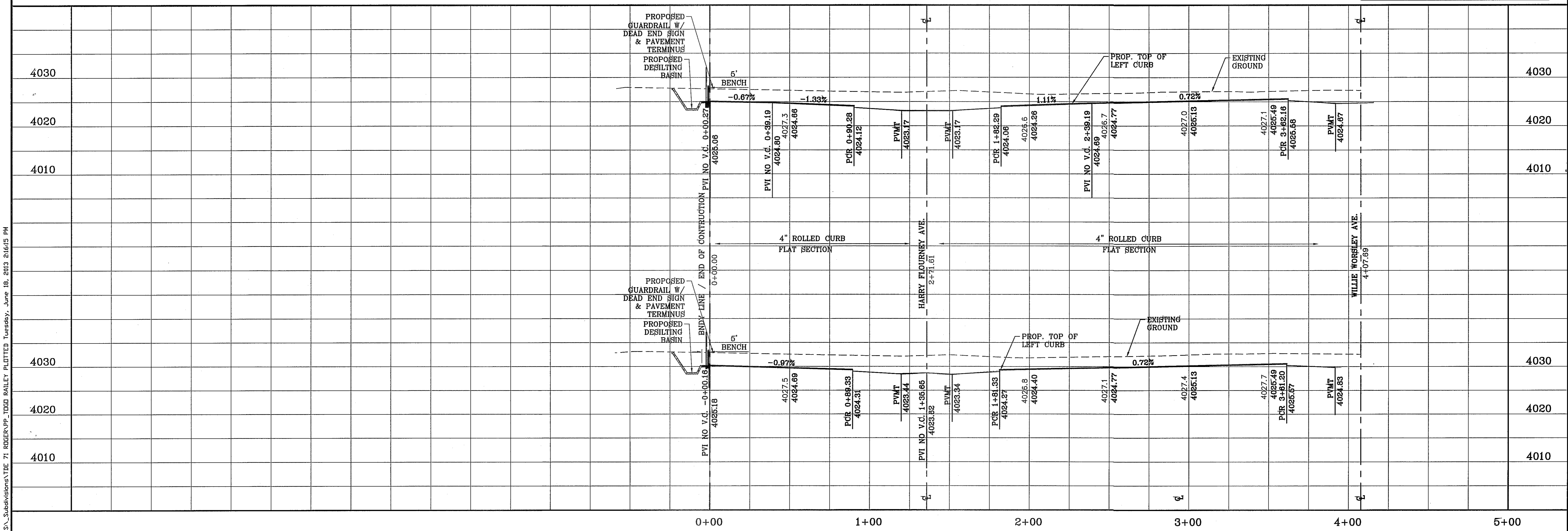




CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C2	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C3	30.00'	46.81'	29.69'	42.20'	N45°17'35"W	89°24'10"
C4	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79805  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79  
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 61.586± ACRES

**PROJECT NAME**  
TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

**SCALES**  
HORIZ: 1" = 30'  
VERT: 1" = 10'

**DATE:** JAN. 2012  
**DESIGN BY:** YC  
**INITIATED BY:** RO  
**CHECKED BY:** YC & FC  
**JOB NO.:** 1110-18

**REVISIONS**

DATE	REVISIONS	BY
3/12/13	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE	D.N.
5/13/13	CITY REDLINES AS PER 04/30/13 COMMENTS	D.N.

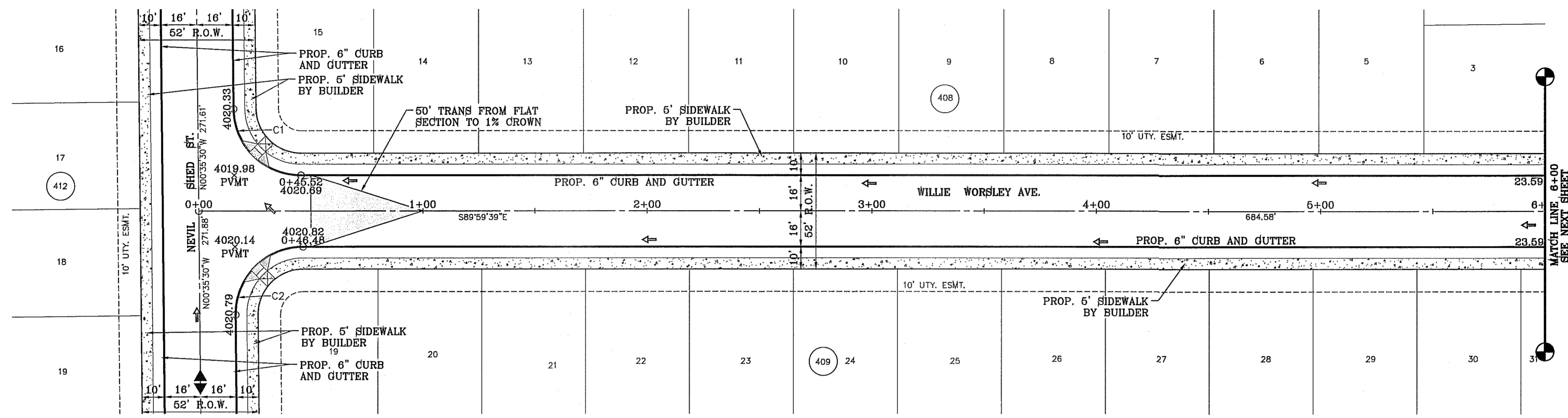
**BENCHMARK**  
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF  
HARRISBURGER DR. AND JOHN HAYDS DR  
ELEVATION 4016.79

**SHEET TITLE**  
STREET  
PLAN-PROFILE  
**TOGO RAILLEY.**  
STA: 0+00  
TO  
STA: 4+07.69

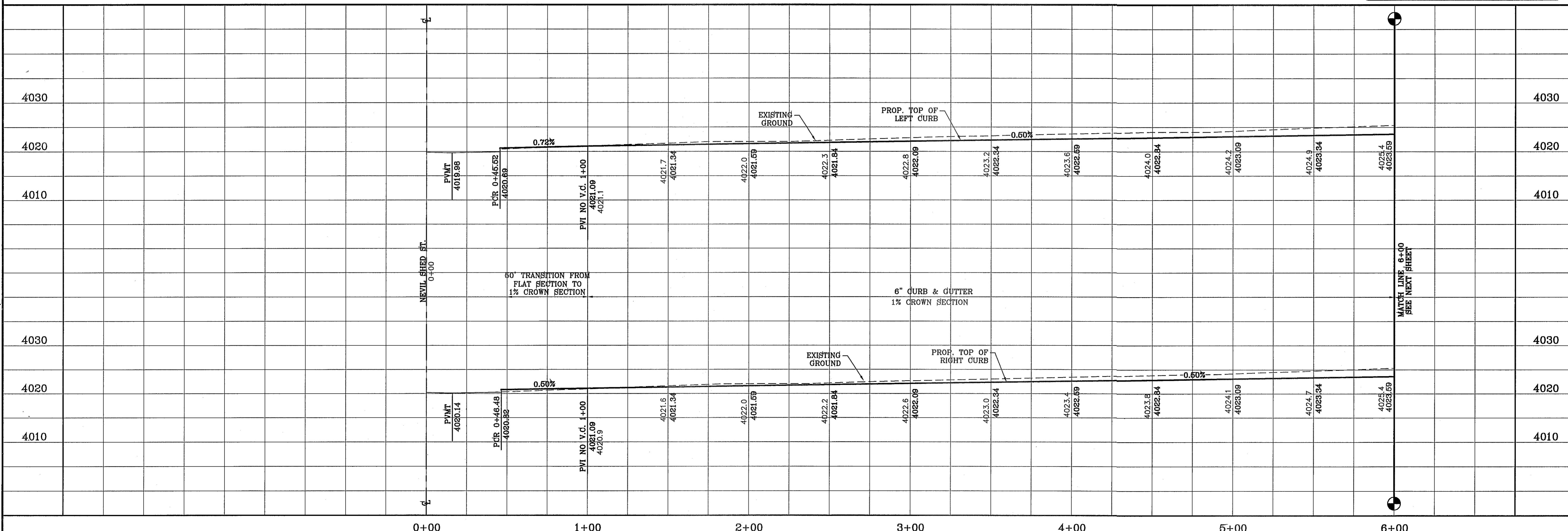
**SHT 34 OF 55**

FILE S:\Subdivisions\TBE 71 ROGER VP\_TOGO RAILLEY PLOTTED Tuesday, June 18, 2013 2:16:15 PM

FILE S:\Subdivisions\1871 RIDGER PP, WILLIE WORSLEY PLOTTED Tuesday, June 18, 2013 2:16:33 PM



NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



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6080 SURETY DR, STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

**WILLIE WORSLEY AVE.**  
STREET PLAN - PROFILE  
STA: 0+00 TO STA: 6+00

**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**  
BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.588± ACRES

PROJECT NAME: TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)  
DATE: 3/12/13  
DESIGN BY: YC  
INITIATED BY: ED  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

SCALES:  
HORIZ: 1" = 30'  
VERT: 1" = 10'

ENGINEER'S SEAL: Yvonne Camacho, State of Texas, No. 54648

REVISIONS:  
DATE: 3/12/13  
BY: YC  
REVISIONS: REVISED TERRA DEL ESTE UNIT SEVENTY ONE

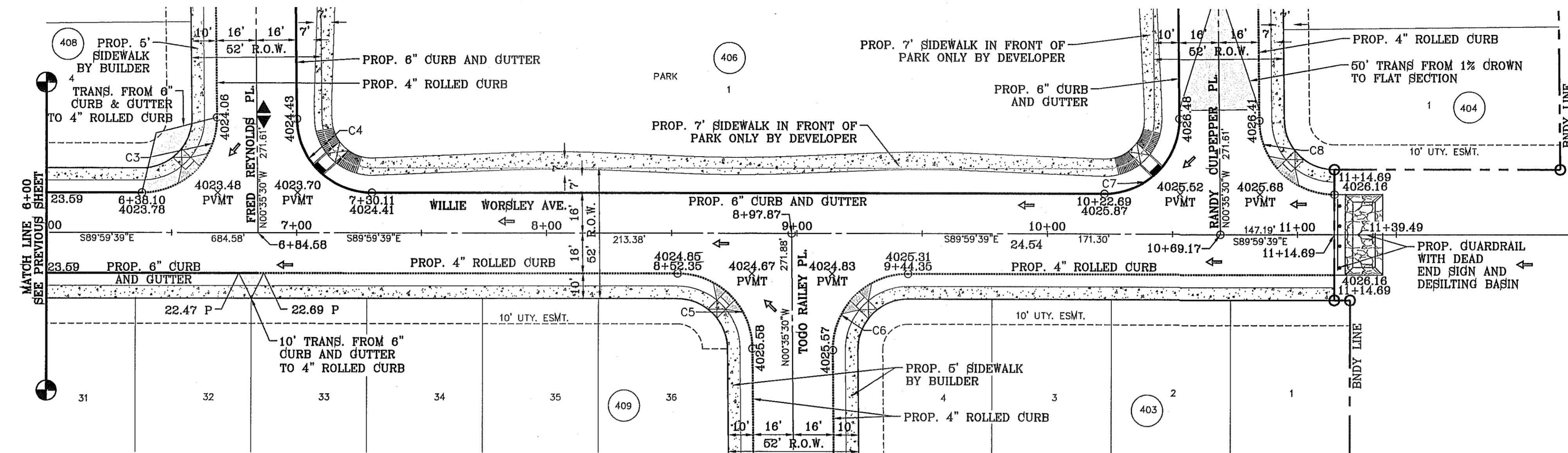
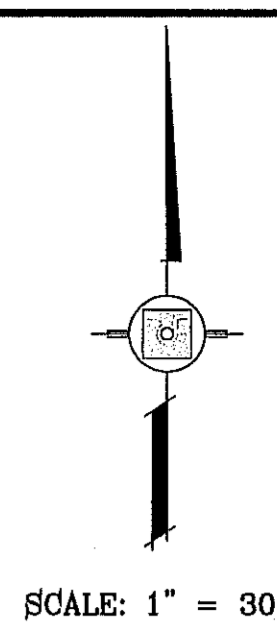
BENCHMARK: CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RICHARDSON DR. AND JOHN WARDEN DATUM ELEVATION 4018.75

SHT 35 OF 55



FILE SA: Subdivisions\71 ROGER PP, WILLIE WORSLEY PLOTTED Tuesday, June 18, 2013 2:16:37 PM

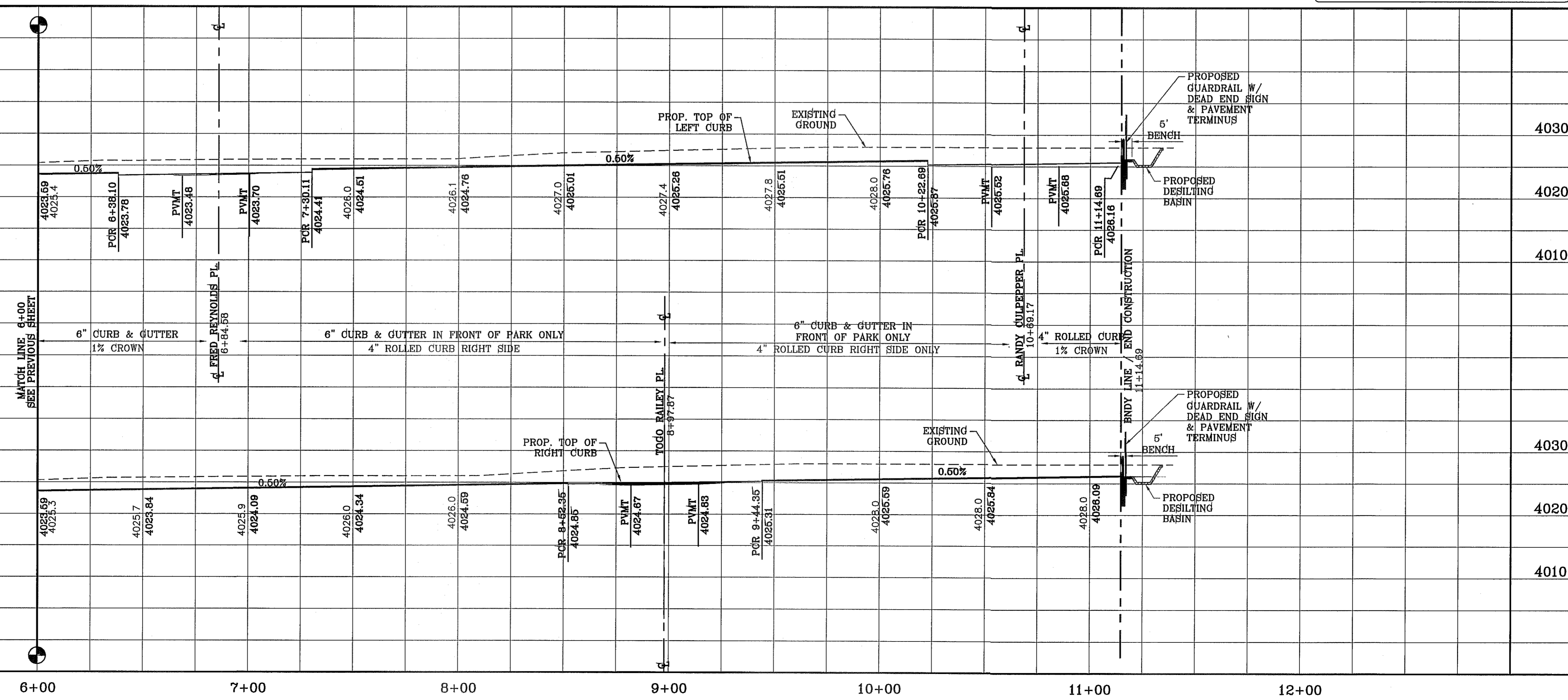
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C4	30.00'	46.81'	29.69'	42.20'	S45°17'35"W	89°24'10"
C5	30.00'	46.81'	29.69'	42.20'	N45°17'35"E	89°24'10"
C6	30.00'	47.44'	30.31'	42.65'	S44°42'25"W	90°35'50"
C7	30.00'	47.44'	30.31'	42.65'	N44°42'25"E	90°35'50"
C8	30.00'	46.81'	29.69'	42.20'	S45°17'35"E	89°24'10"



SECTION 37,  
BLOCK 79,  
TSP 2

Final Approval

NOTE: ALL HANDICAP RAMPS WITHIN SUBDIVISION ARE TO BE BUILT BY DEVELOPER UNLESS OTHERWISE NOTED.



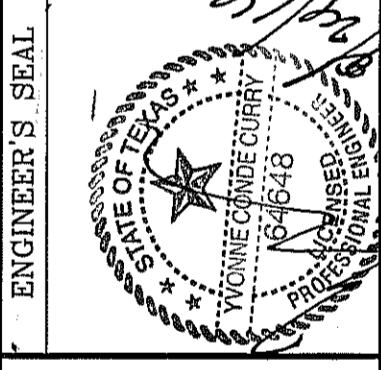
BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEIBENGER DR. AND JOHN HAYES ST. ELEVATION 4018.75
DATE	3/12/13
REVISIONS	REVISED TERRA DEL ESTE UNIT SEVENTY ONE
BY	

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.566± ACRES

SCALE  
HORIZ: 1" = 30'  
VERT: 1" = 10'

DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18



**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286



SHEET TITLE  
STREET  
PLAN-PROFILE  
**WILLIE WORSLEY AVE.**  
STA: 6+00  
TO  
STA: 11+14.69

TOP SOIL SHALL COMPLY WITH CITY OF EL PASO PARKS & RECREATION DEPARTMENT PARK DESIGN GUIDELINES AND STANDARDS, SODDING SPECIFICATION 1.02C.

SEE LANDSCAPE AND IRRIGATION PLANS FOR DETAILS

**PARK AREA 1  
ON SITE PONDING CALCULATIONS**

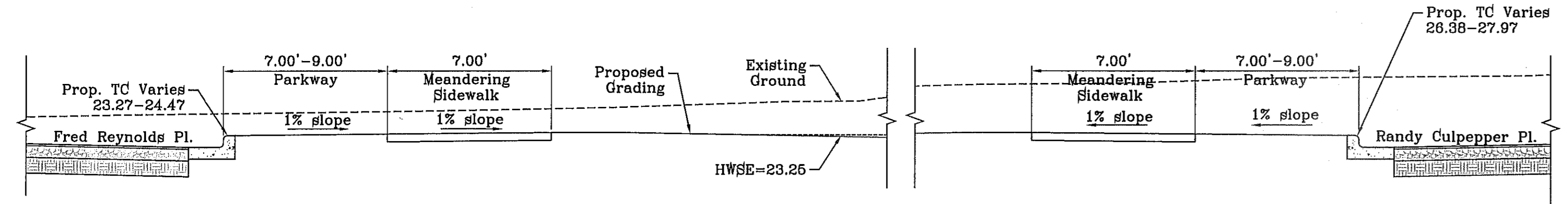
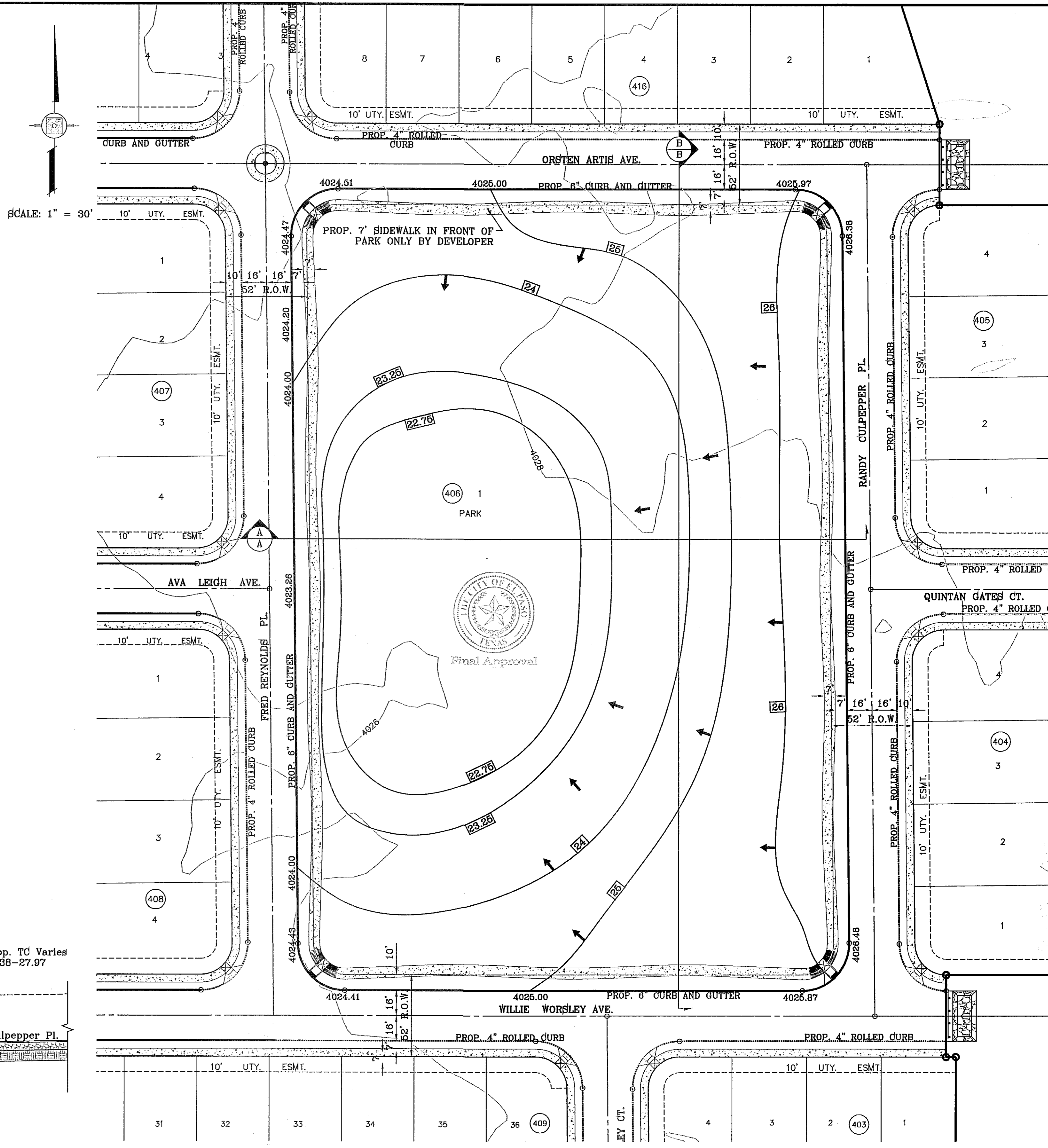
Q= TOTAL RUNOFF IN ACRE-FEET  
 A= 100% OF WATERSHED AREA IN ACRES  
 R= RAINFALL IN INCHES  
 C= RUNOFF FACTOR INCHES

$$Q = \frac{ARC}{12} = \frac{3.74(4)(0.6)}{12} = 0.75$$

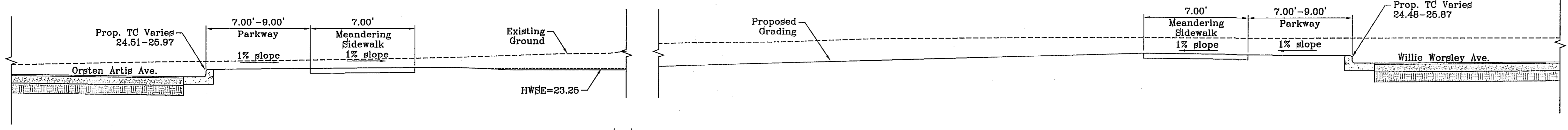
HW ELEV = 4023.25 = 0.75 ac-ft  
**DRAINAGE COMPUTATIONS**

Park Output		
Units=Elevation,ft.	Volume,acft.	Volume,acft
Elev ft	Conic Vol acft	Cumml Avg acft
22.75	0.00	0.00
23.25	0.76	0.76

PARK AREA	LOT NO.	BLOCK NO.	PARK AREA (AC)	POND VOLUME (AC FT.)	DEPTH (FEET)	HIGH WATER ELEV.
1	1	406	3.74	0.76	0.50	0.74



**SECTION A**  
SCALE: 1" = 4'



**SECTION B**  
SCALE: 1" = 4'

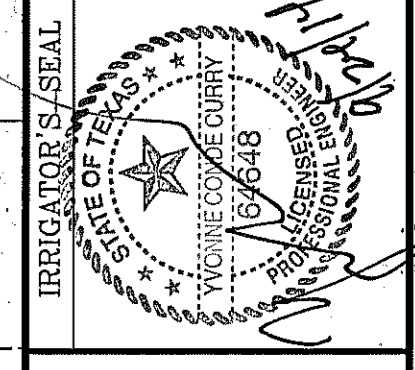
BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF CITY RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

DATE	REVISIONS	BY
11/12/12	CITY REFINES AS PER 11/12/12 COMMENTS	R.R.
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE	R.R.
5/13/13	CITY REFINES AS PER 04/30/13 COMMENTS	D.N.

PROJECT NAME  
**TERRA DEL ESTE UNIT 71 PARK**  
**"MINERS PARK"**  
 14869 WILLIE WORSLEY AVE.  
 BEING ALL OF LOT 1, BLOCK 406  
 TERRA DEL ESTE UNIT SEVENTY ONE  
 CITY OF EL PASO, EL PASO COUNTY, TEXAS  
 CONTAINING: 3.74± ACRES

SCALE  
 HORIZ: AS NOTED  
 VERT: NOTED  
 DATE: AUGUST 2012  
 DESIGN BY: OM  
 INITIATED BY: OM  
 CHECKED BY: RMJM  
 JOB NO.: 1110-18



**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286



SHEET TITLE  
**PROPOSED PARK WITH SECTIONS**



**WATERSHED-POND 2:1 SLOPE**

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

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

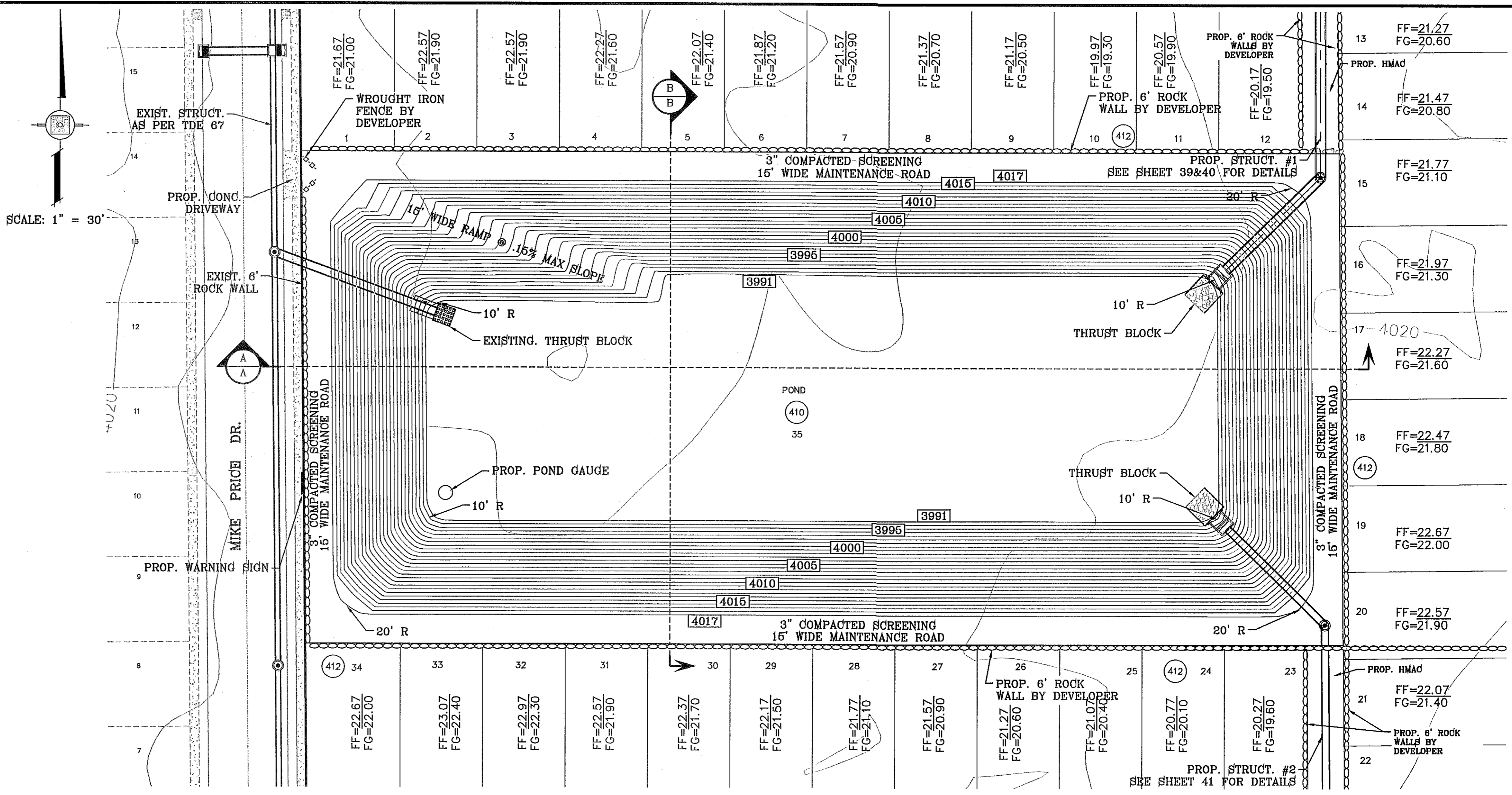
PROP. TDE 71	61.58(4)0.60	=12.32 ac-ft
AND POND		
EXIST. TDE 67	45.82(4)0.60	=9.16 ac-ft
FUTURE DEVELOPMENT	60.56(4)0.60	=12.11 ac-ft
FUTURE HIGH SCHOOL	8.00(4)0.90	=2.40 ac-ft
<b>TOTAL =</b>	<b>35.99 ac-ft</b>	

Qreq (TOTAL) =	35.99
Qcap (TOTAL) =	54.48

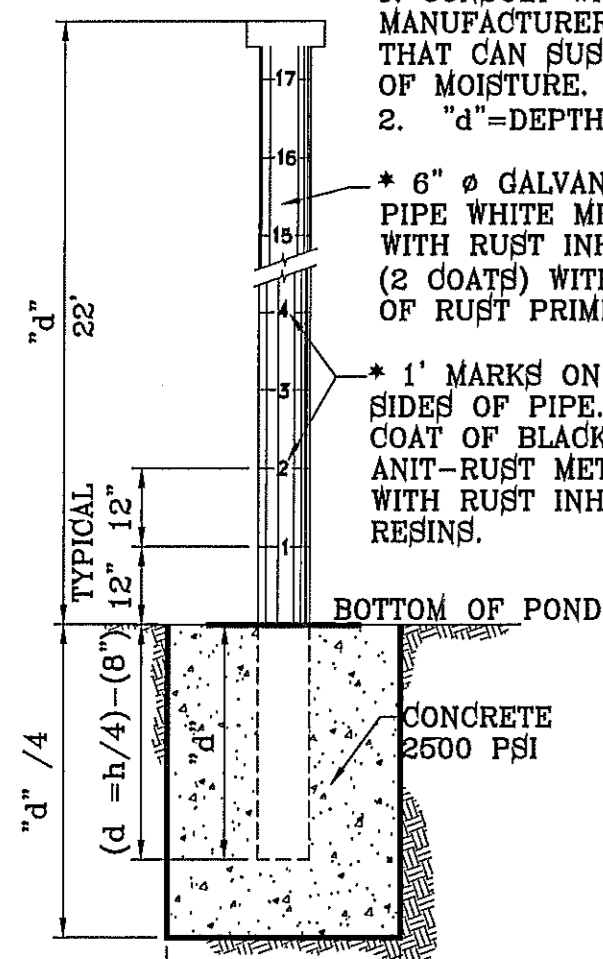
100 YEAR HW ELEVATION = 4010.19

ELEVATION FT	AREA SQ-FT	CONIC VOL. AC-FT	VOLUME CAP. AC-FT
4017	129102.50	2.92	54.48
4016	126587.08	2.85	51.56
4015	122486.84	2.78	48.71
4014	119417.04	2.71	46.93
4013	116375.69	2.64	43.22
4012	113386.04	2.57	40.58
4011	110387.09	2.50	38.01
4010	107438.52	2.43	35.51
4009	104522.06	2.37	33.08
4008	101634.77	2.30	30.71
4007	98776.79	2.24	28.41
4006	95948.91	2.17	26.18
4005	93153.61	2.11	24.01
4004	90389.09	2.04	21.90
4003	87655.80	1.98	19.86
4002	84958.79	1.92	17.88
4001	82285.97	1.86	15.96
4000	79639.10	1.80	14.10
3999	77027.89	1.74	12.30
3998	74446.45	1.68	10.56
3997	71895.81	1.62	8.88
3996	69378.82	1.56	7.26
3995	66886.34	1.51	5.70
3994	64422.20	1.45	4.19
3993	61991.00	1.40	2.74
3992	59588.42	1.34	1.34
3991	57316.39	0.00	0.00



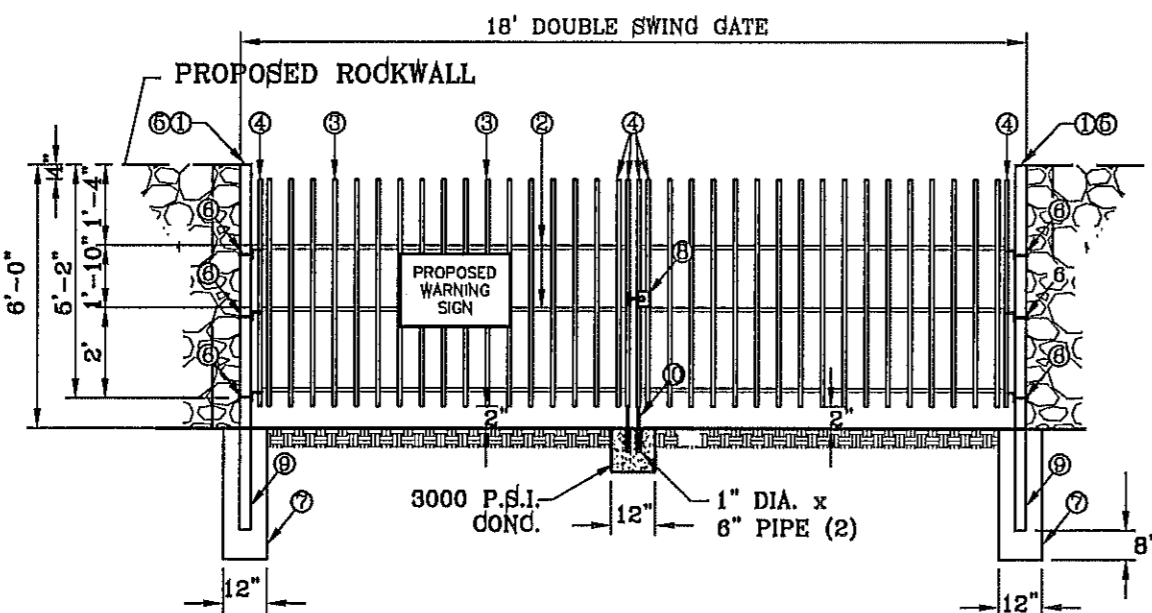
\* NOTES  
 GAUGE SHOULD EXTEND 2 FEET BEYOND MAX HW ELEVATION

\* NOTES  
 1. CONSULT WITH PAINT MANUFACTURER FOR PRODUCTS THAT CAN SUSTAIN LONG PERIODS OF MOISTURE.  
 2. "d"=DEPTH



\* 6" Ø GALVANIZED STEEL PIPE WHITE METAL PAINT WITH RUST INHIBITIVE RESINS (2 COATS) WITH BASE COAT OF RUST PRIMER  
 \* 1" MARKS ON OPPOSITE SIDES OF PIPE. USE ONE COAT OF BLACK ANTI-RUST METAL PAINT WITH RUST INHIBITIVE RESINS.

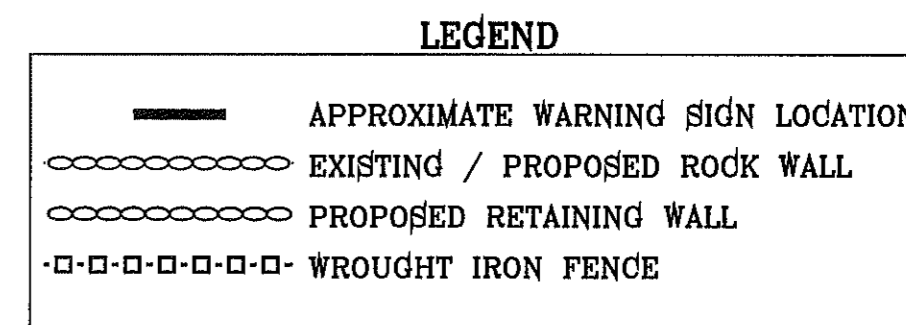
- ① 3"x3"x3/16" SQUARE STEEL TUBING
- ② 2"x1"x1/4" GA. RECTANGULAR STEEL TUBING
- ③ 1 1/2"x1/2"x1/8" GA. RECTANGULAR STEEL TUBING
- ④ 2"x1"x1/8" GA. RECTANGULAR STEEL TUBING
- ⑤ FLAT TOP POLYVINYL CAP
- ⑥ BOLT HOOK AND STRAP HINGE
- ⑦ 1"x3" DEEP 3000 PSI CONCRETE POST FOOTING
- ⑧ DOUBLE GATE HEAVY DUTY INDUSTRIAL LATCH W/PAD LOCK
- ⑨ 5"x5"x3/8" SQUARE STEEL SLEEVE W/7"x7"x3/8" STEEL BASE PLATE
- ⑩ CANE BOLT LATCH W/KEEPER 5-8" x18" LONG ( 2 REQUIRED)



GENERAL NOTES:  
 1. SIGN MATERIAL TO BE 16 GAUGE GALVANIZED SHEET METAL.  
 2. TOP PART OF SIGN SHALL SHOW BLACK LETTERS ON A WHITE BACKGROUND.  
 3. BOTTOM PART OF SIGN SHALL SHOW WHITE LETTERS ON A BLACK BACKGROUND.

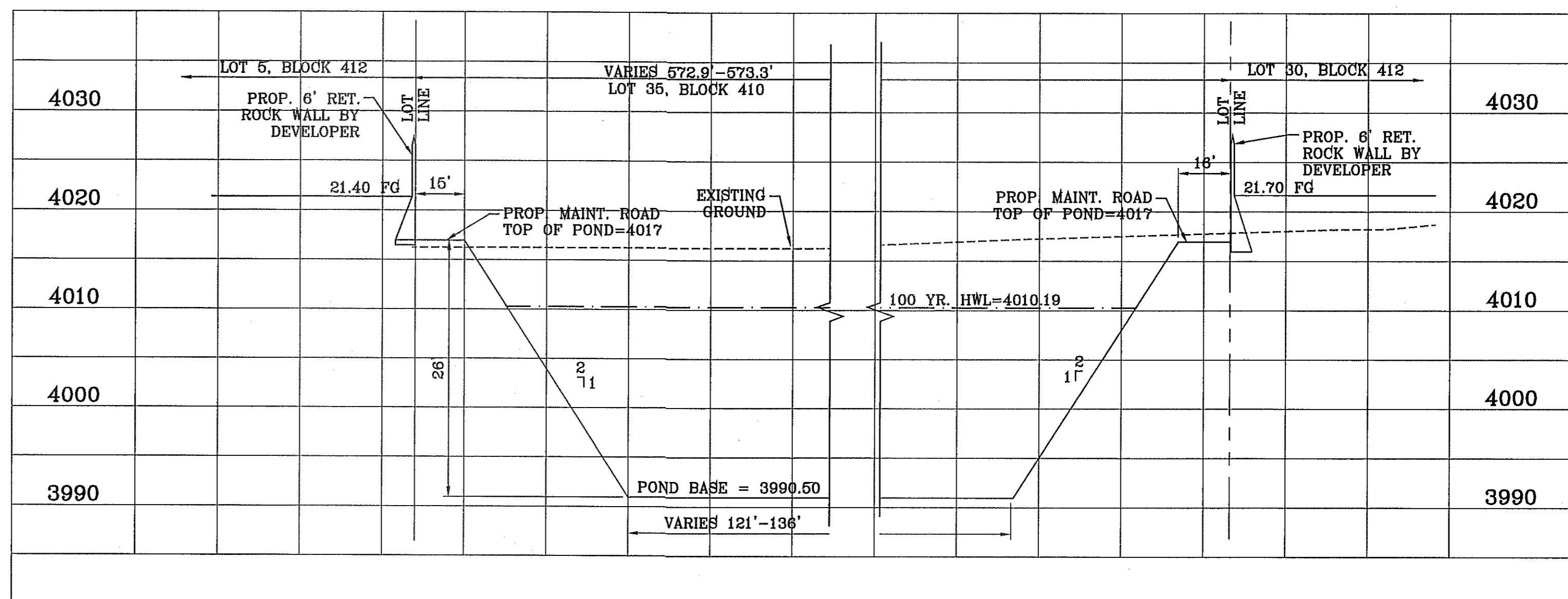
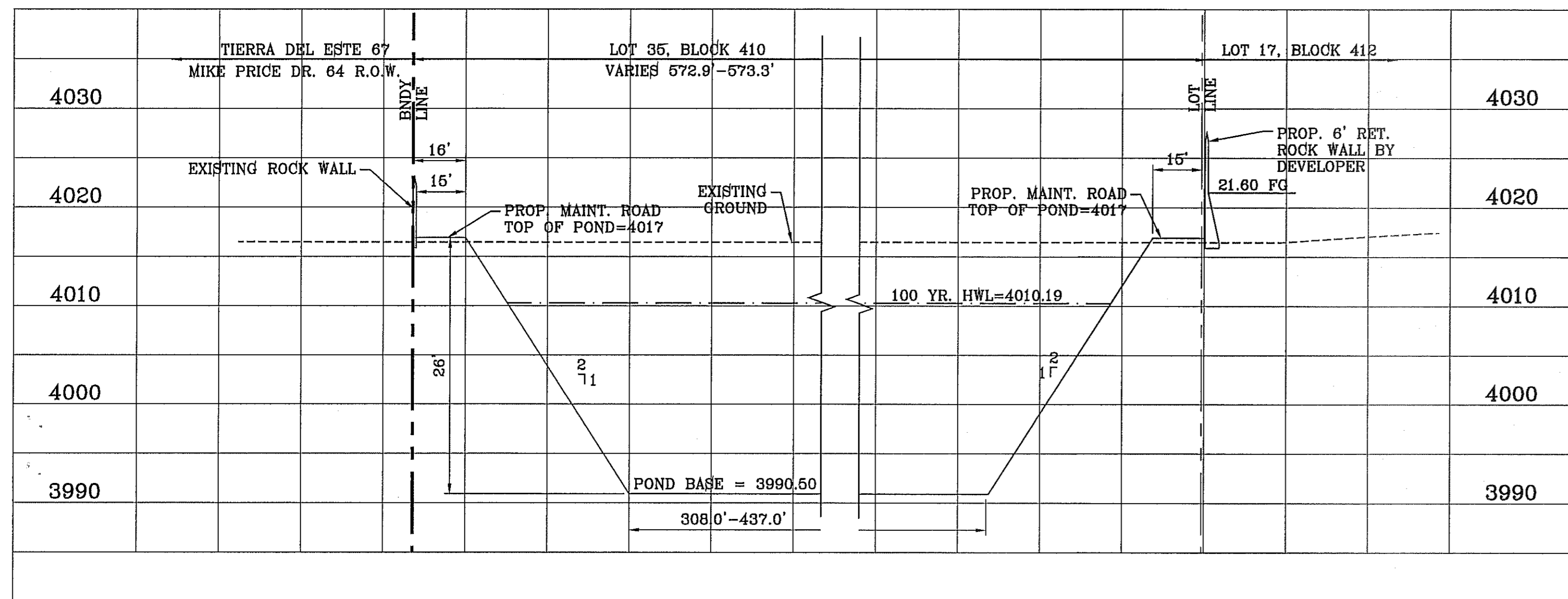
**GRADING STABILIZATION NOTES:**

A. STABILIZATION MEASURE FOR LOT 35, BLOCK 412 (POND) TO BE HYDROMULCH SLOPES.  
**DESIGN:** ROUGHEN SLOPES.  
**MIX:** 65-85 lbs WOOD MULCH/1000 s.f.  
**SEED:** BUFFALO GRASS SEED @ 25 lbs/1000 s.f.  
**WATER:** 30-35 lbs of MULCH PER 100 GALLONS OF WATER.  
 WATER SLOPE THEN APPLY HYDROMULCH.  
 TEMPORARY IRRIGATION AND WATER SLOPES TWICE PER WEEK UNTIL VEGETATION ESTABLISHED.



**NOTES:**

- POND SLOPE TO BE STABILIZED WITH HYDROMULCH SEED FORMULA, SEE GSD ON SHEET 6.
- THE RESULTS OF THE RETENTION BASIN BORING AND PERCOLATION TESTS PERFORMED AT THE TIME OF EXCAVATION IN ACCORDANCE TO CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION ARE REQUIRED BEFORE ACCEPTANCE OF ANY STORMWATER MANAGEMENT FACILITIES.



**PROJECT NAME**  
 TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

**DESIGN BY:** YC  
**INITIATED BY:** RO  
**CHECKED BY:** YC & FC  
**JOB NO.:** 1110-18

**ENGINEER'S SEAL:** [Seal]

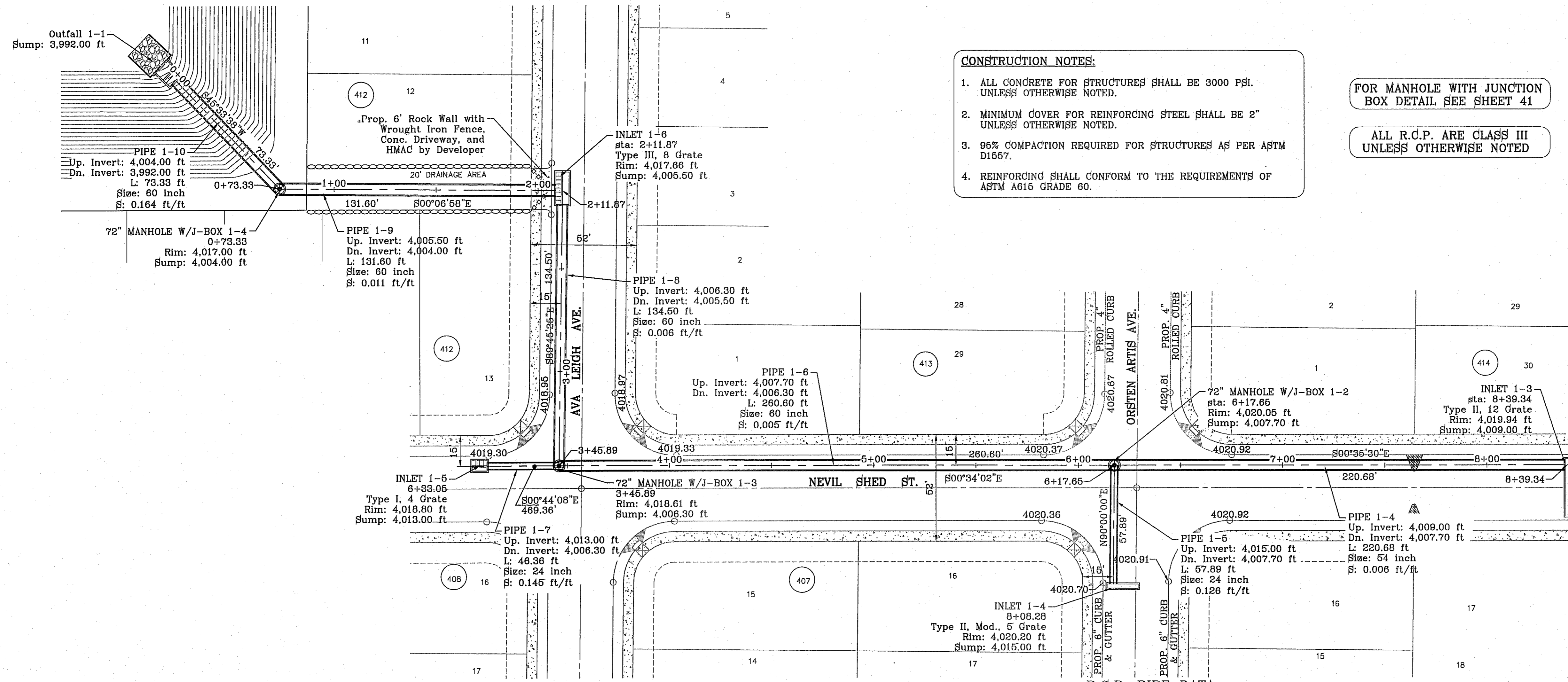
**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79906  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

**SHEET TITLE**  
 PROPOSED POND WITH SECTIONS

**SHT 38 OF 55**



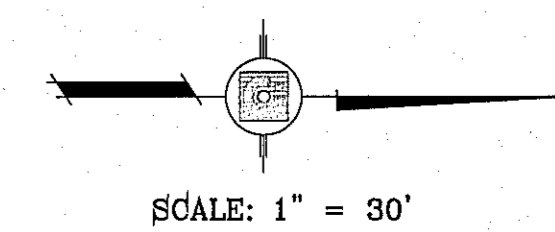
Subdivisions\TDE 71 ROGER\STRUCTURE-1.dwg, 39 PROPOSED STRUCTURE #1 - 1 OF 2, 10/20/2014 5:01:42 PM



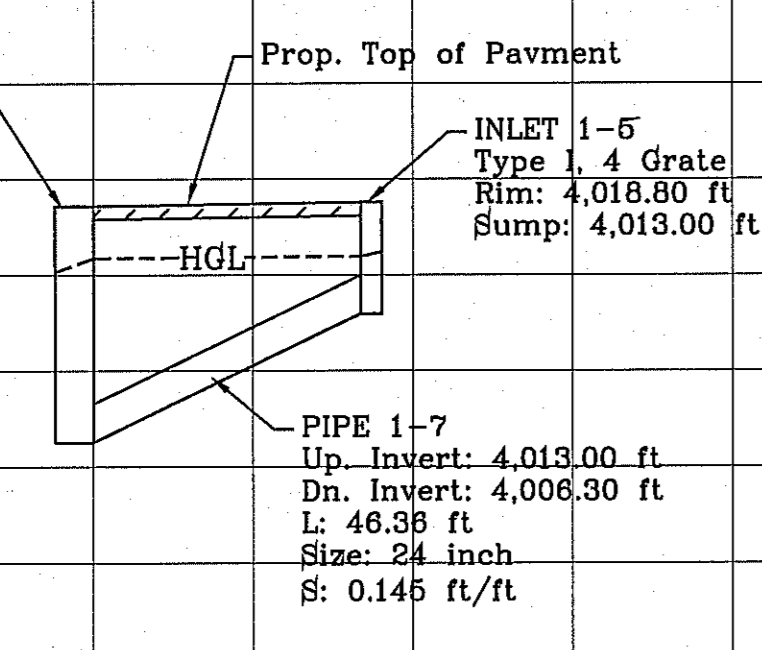
- CONSTRUCTION NOTES:**
- ALL CONCRETE FOR STRUCTURES SHALL BE 3000 PSI. UNLESS OTHERWISE NOTED.
  - MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
  - 95% COMPACTION REQUIRED FOR STRUCTURES AS PER ASTM D1567.
  - REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

FOR MANHOLE WITH JUNCTION BOX DETAIL SEE SHEET 41

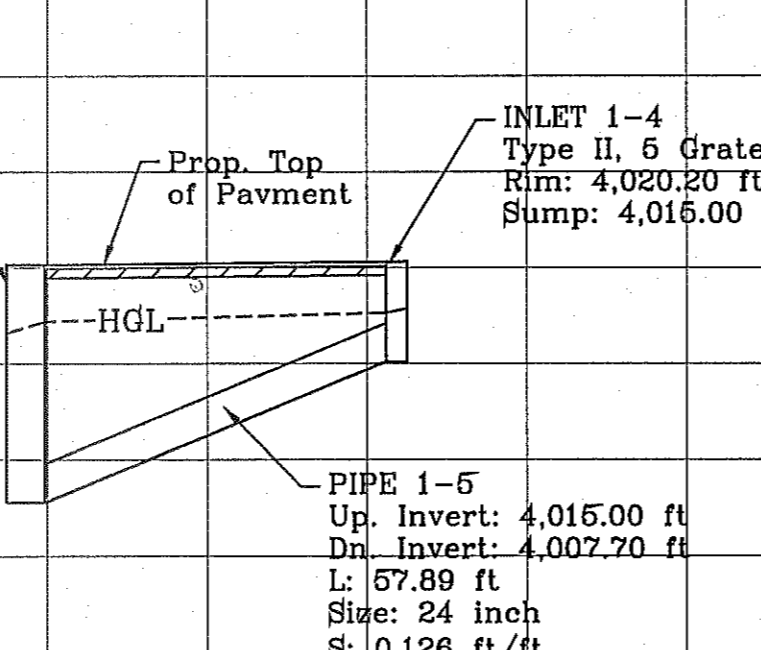
ALL R.C.P. ARE CLASS III UNLESS OTHERWISE NOTED



4030		4030
4020	72" MANHOLE W/J-BOX 1-3 Rim: 4,018.61 ft Sump: 4,008.30 ft	4020
4010		4010
4000		4000



4030		4030
4020	72" MANHOLE W/J-BOX 1-2 Rim: 4,020.05 ft Sump: 4,007.70 ft	4020
4010		4010
4000		4000



**R.C.P. PIPE DATA**

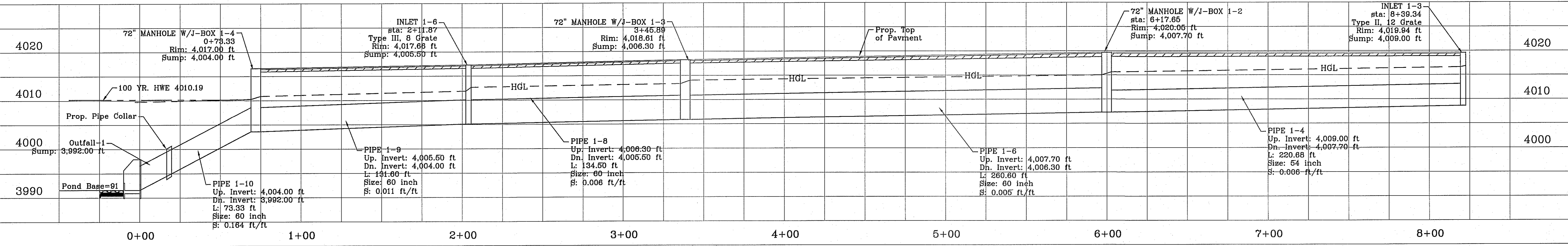
PIPE	SECTION SIZE (in)	LENGTH (ft)	SLOPE (ft./ft)	DISCHARGE (cfs)	CAPACITY (cfs)	AVERAGE VELOCITY (fps)	DOWN STREAM GROUND	DOWN STREAM HGL	DOWN STREAM INVERT	UPSTREAM GROUND	UPSTREAM HGL	UPSTREAM INVERT
1-1	42	190.00	0.026	63.07	163.20	6.56	4020.12	4018.07	4009.50	4020.07	4018.82	4014.60
1-2	30	58.04	0.095	43.77	126.28	8.92	4020.12	4018.07	4009.50	4020.84	4018.73	4015.00
1-3	48	49.23	0.010	106.84	144.75	6.50	4019.94	4017.20	4009.00	4020.12	4017.47	4009.50
1-4	48	220.68	0.006	131.46	160.92	6.27	4020.05	4015.98	4007.70	4019.94	4019.97	4009.00
1-5	24	57.89	0.126	29.18	80.33	9.45	4020.05	4015.98	4007.70	4020.20	4016.85	4015.00
1-6	60	260.60	0.005	180.63	190.88	8.18	4018.61	4014.39	4006.30	4020.05	4015.38	4007.70
1-7	24	46.36	0.145	18.02	86.00	6.36	4018.61	4014.39	4006.30	4018.80	4014.53	4013.00
1-8	60	134.50	0.006	178.65	200.85	9.10	4017.66	4013.06	4005.50	4018.61	4013.69	4006.30
1-9	60	131.60	0.110	225.62	278.04	11.49	4017.00	4011.27	4004.00	4017.68	4012.26	4005.50
1-10	60	73.33	0.164	225.62	1063.51	11.49	4017.00	4010.12	3992.00	4017.00	4010.67	4004.00

**INLET DATA**

INLET No.	INLET TYPE	No. GRATES	Q <sub>10</sub> ym. cfs	Q <sub>100</sub> ym. cfs	Q <sub>c</sub> cfs
1-6	III	8	47.87	56.19	61.76
1-5	I	4	29.11	38.81	43.28
1-4	II	6	20.00	29.18	38.60
1-3	II	12	26.51	38.38	92.67

STRUCTURE #1 PROFILE - INLET 1-5 TO MANHOLE 1-3  
HORIZONTAL: 1"=30' VERTICAL: 1"=10'

STRUCTURE #1 PROFILE - INLET 1-4 TO MANHOLE 1-2  
HORIZONTAL: 1"=30' VERTICAL: 1"=10'



STRUCTURE #1 PROFILE - OUTFALL TO INLET 1-3  
HORIZONTAL: 1"=30' VERTICAL: 1"=10'

TIERRA DEL ESTE UNIT SEVENTY ONE

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SETSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

REVISIONS

DATE	REVISIONS
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE
5/13/13	CITY REDLINES AS PER 04/30/13 COMMENTS

BY D.N.

PROJECT NAME

TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

BEING PORTION OF SECTION 37, BLOCK 99, TOWNSHIP 22 N, RANGE 10 E, COUNTY OF EL PASO, TEXAS. CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 61.568± ACRES

SCALE

HORIZ: 1" = 30'

VERT: 1" = 10'

DATE: JAN. 2012

DESIGN BY: YC

INITIATED BY: RO

CHECKED BY: YC & FC

JOB NO.: 1110-18

ENGINEER'S SEAL

CONDE INC.  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

SHEET TITLE

PROPOSED STRUCTURE #1

SHT 39 OF 55



S:\Subdivisions\TDE 71 ROGER\STRUCTURE-1.dwg, 40 PROPOSED STRUCTURE #1 - 2 OF 2, 10/20/2014 5:01:46 PM

FILE: S:\Subdivisions\TDE 71 ROGER\STRUCTURE-1 PLOTTED Monday, October 20, 2014 5:01:50 PM

INLET DATA					
INLET No.	INLET TYPE	No. GRATES	Qd <sub>60</sub> yr. cfs	Qd <sub>100</sub> yr. cfs	Qc <sub>100</sub> yr. cfs
1-1	II	12	51.63	59.94	92.67
1-2	II	8	48.24	58.37	92.67
1-3	II	12	26.51	38.38	92.67

**R.C.P. PIPE DATA**

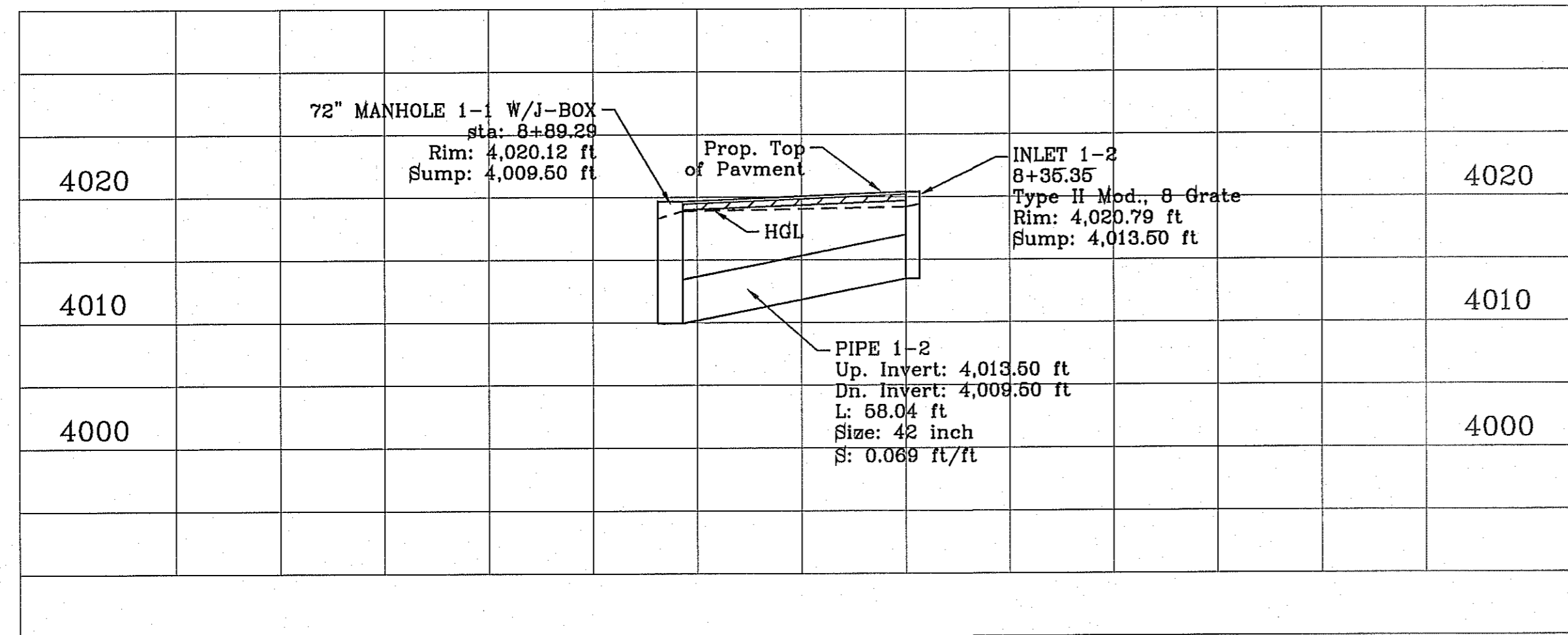
PIPE	SECTION SIZE (in)	LENGTH (ft)	SLOPE (ft/ft)	DISCHARGE (cfs)	CAPACITY (cfs)	AVERAGE VELOCITY (fps)	DOWN STREAM GROUND	DOWN STREAM HGL	DOWN STREAM INVERT	UPSTREAM GROUND	UPSTREAM HGL	UPSTREAM INVERT
1-1	42	190.00	0.026	63.07	163.20	6.56	4020.12	4018.07	4009.50	4020.07	4018.82	4014.50
1-2	30	58.04	0.069	43.77	126.26	8.92	4020.12	4018.07	4009.50	4020.84	4018.73	4013.50
1-3	48	49.23	0.010	106.84	144.75	8.50	4019.94	4017.20	4009.00	4020.12	4017.47	4009.50

FOR MANHOLE WITH JUNCTION BOX DETAIL SEE SHEET 41

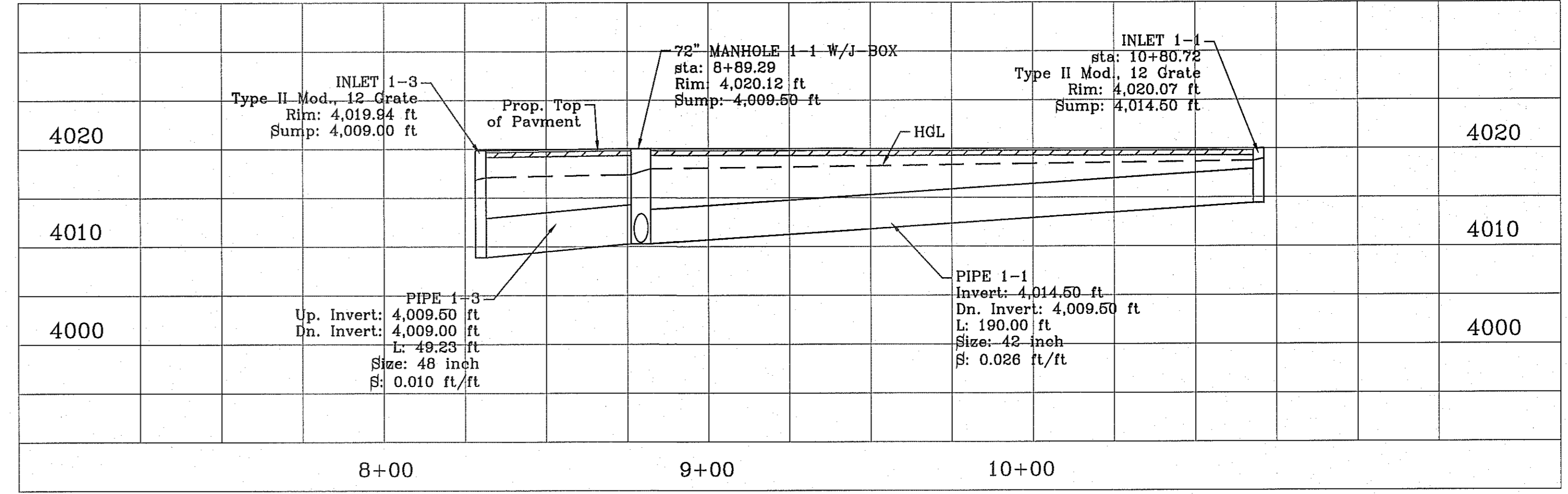
ALL R.C.P. ARE CLASS III UNLESS OTHERWISE NOTED

**CONSTRUCTION NOTES:**

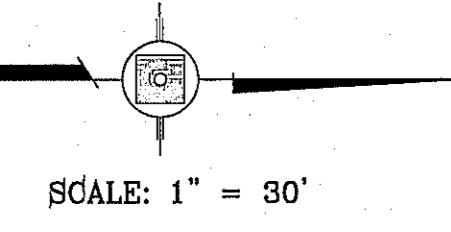
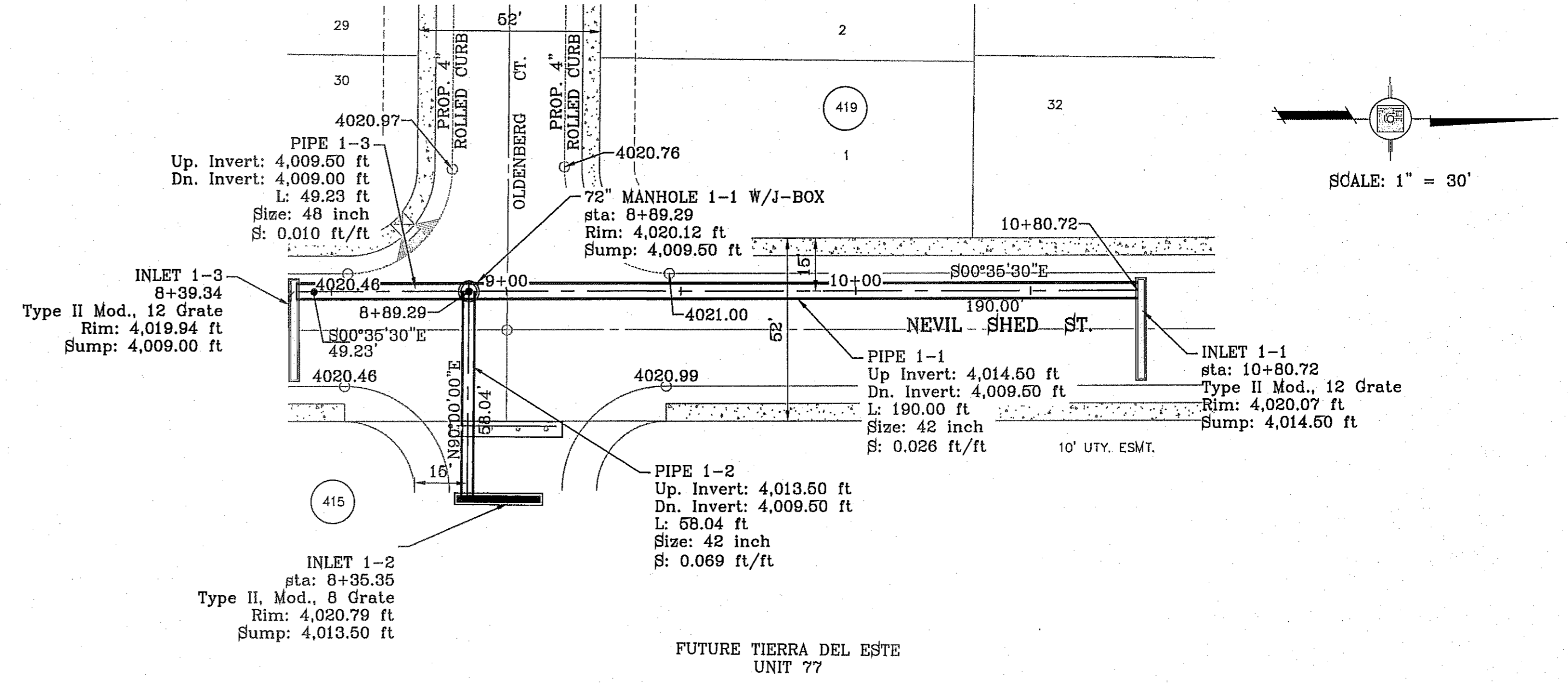
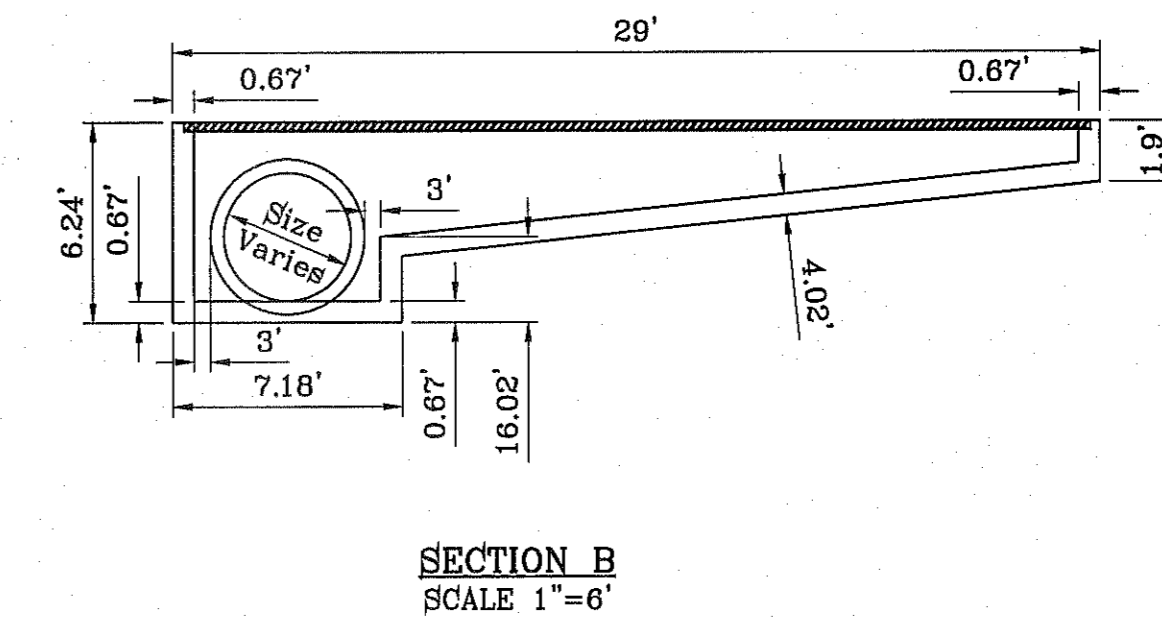
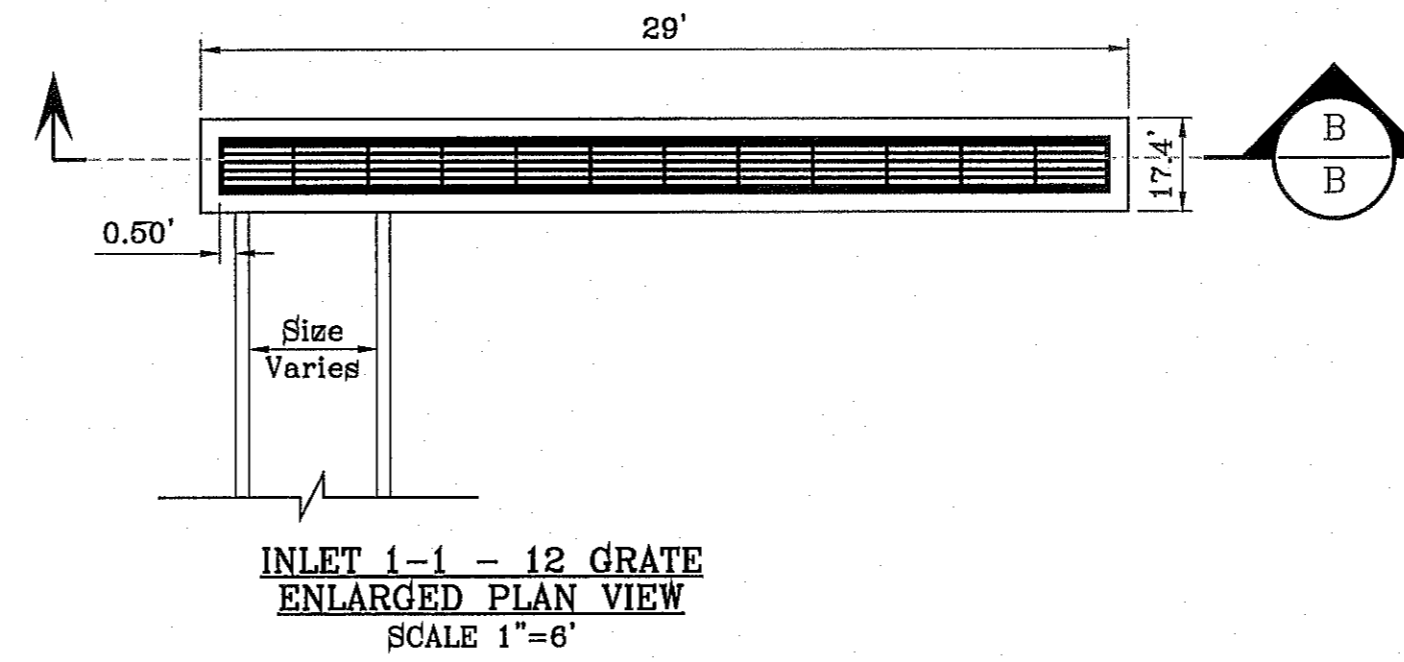
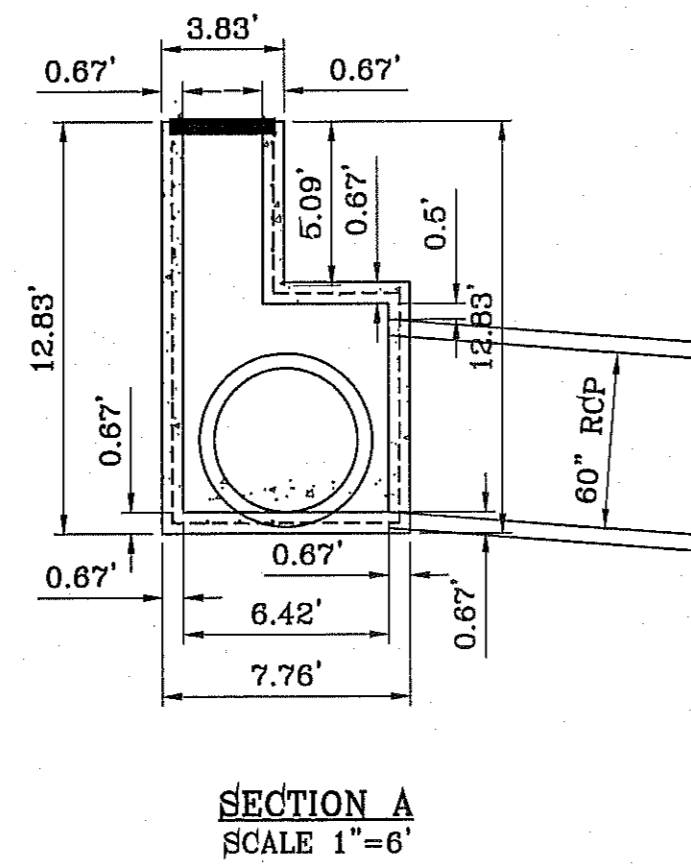
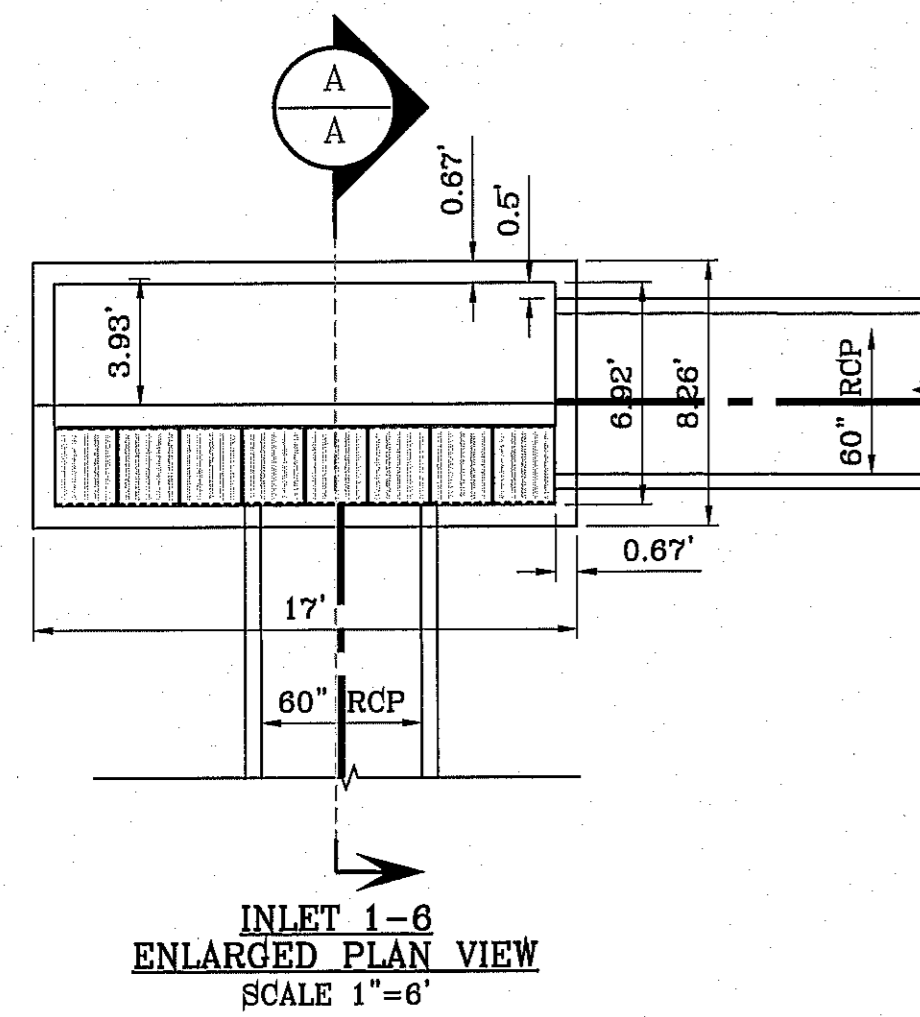
- ALL CONCRETE FOR STRUCTURES SHALL BE 3000 PSI UNLESS OTHERWISE NOTED.
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
- 95% COMPACTION REQUIRED FOR STRUCTURES AS PER ASTM D1557.
- REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A616 GRADE 60.



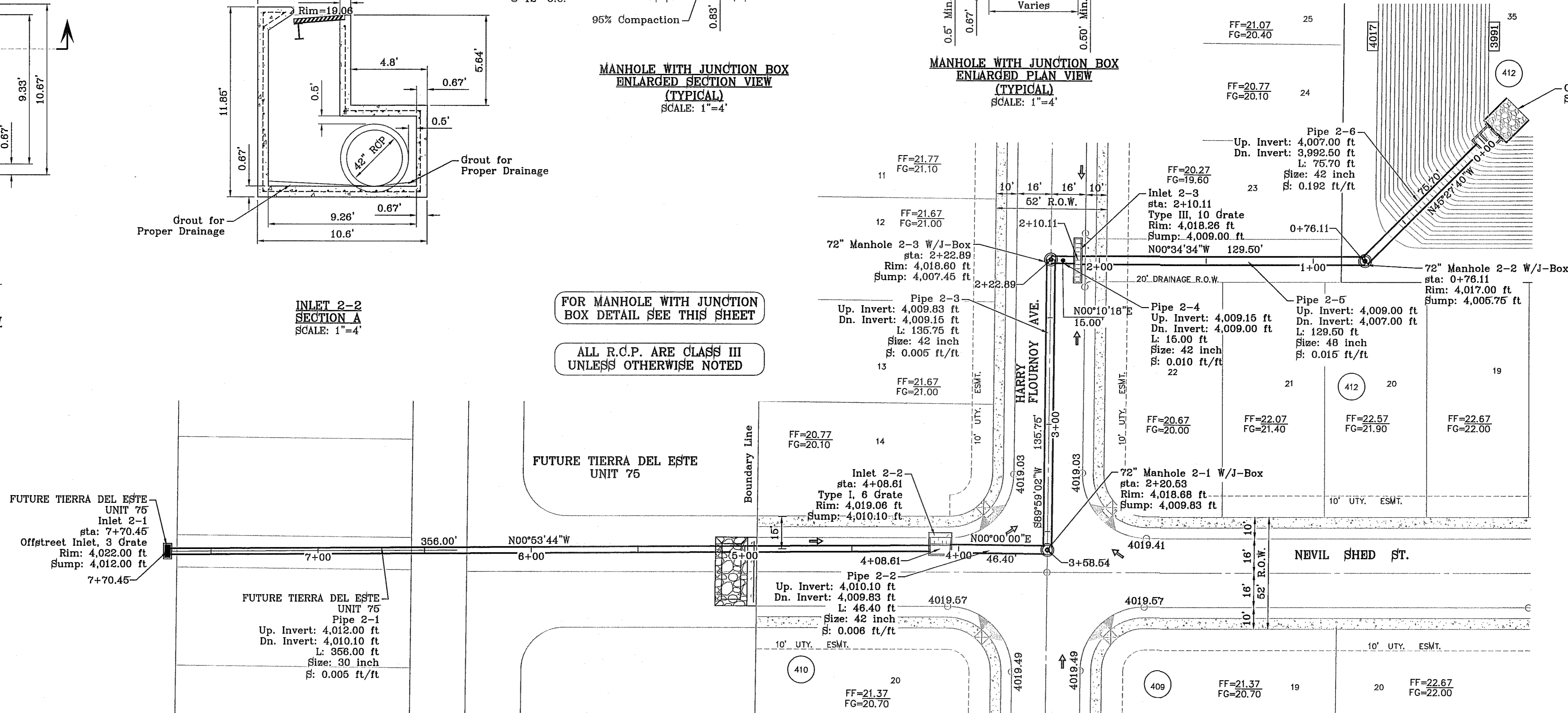
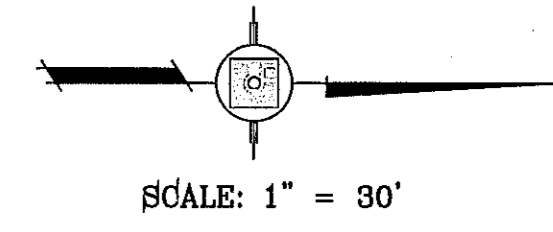
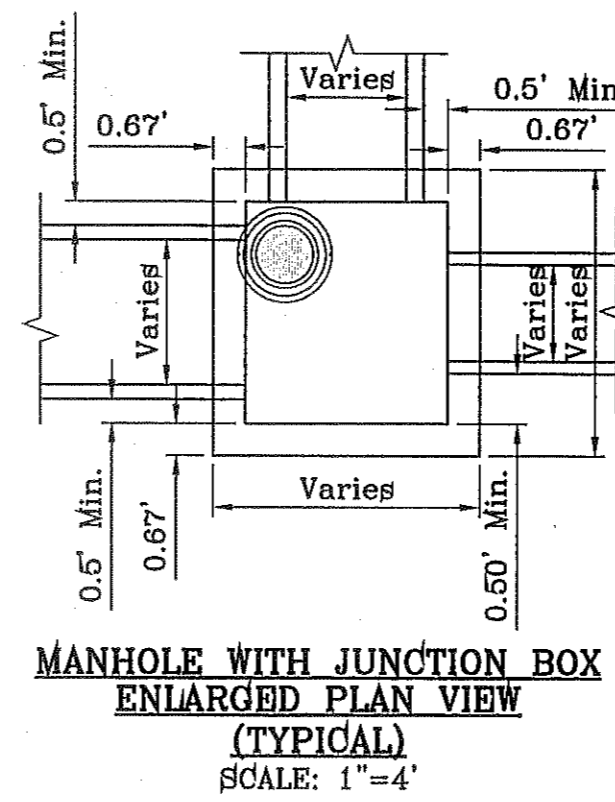
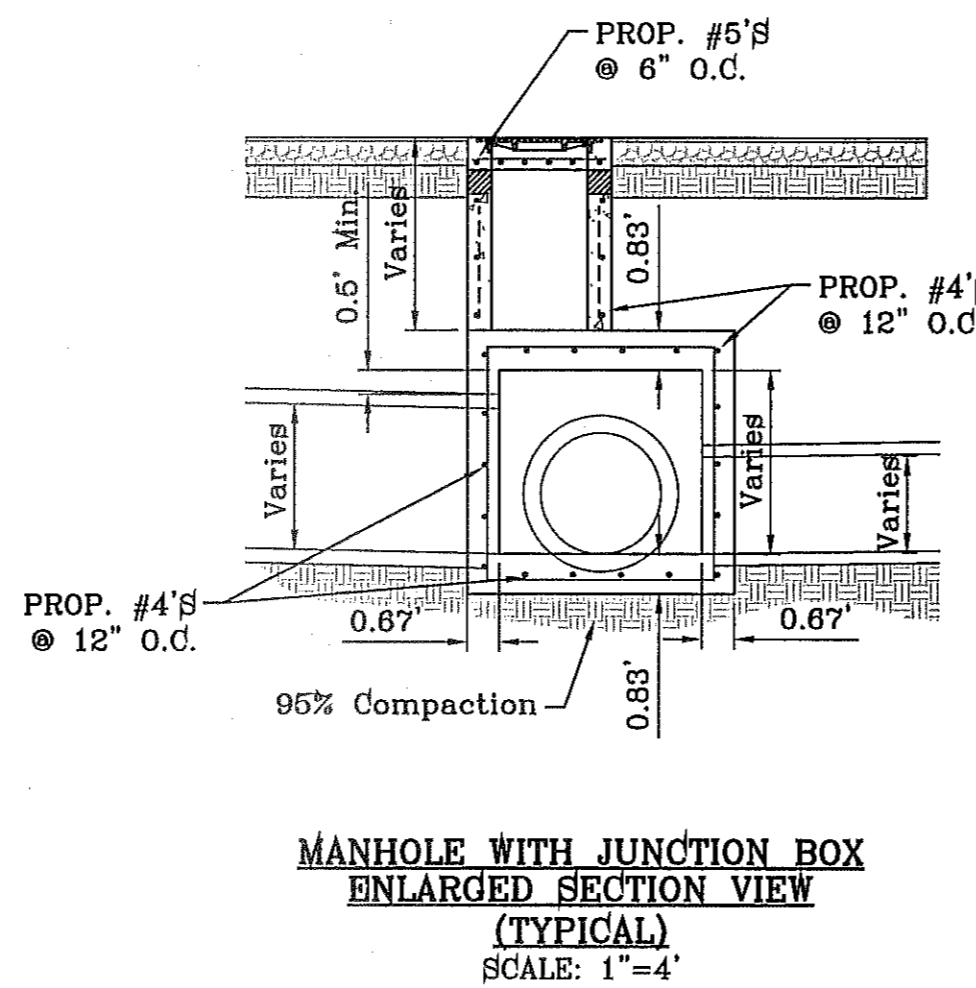
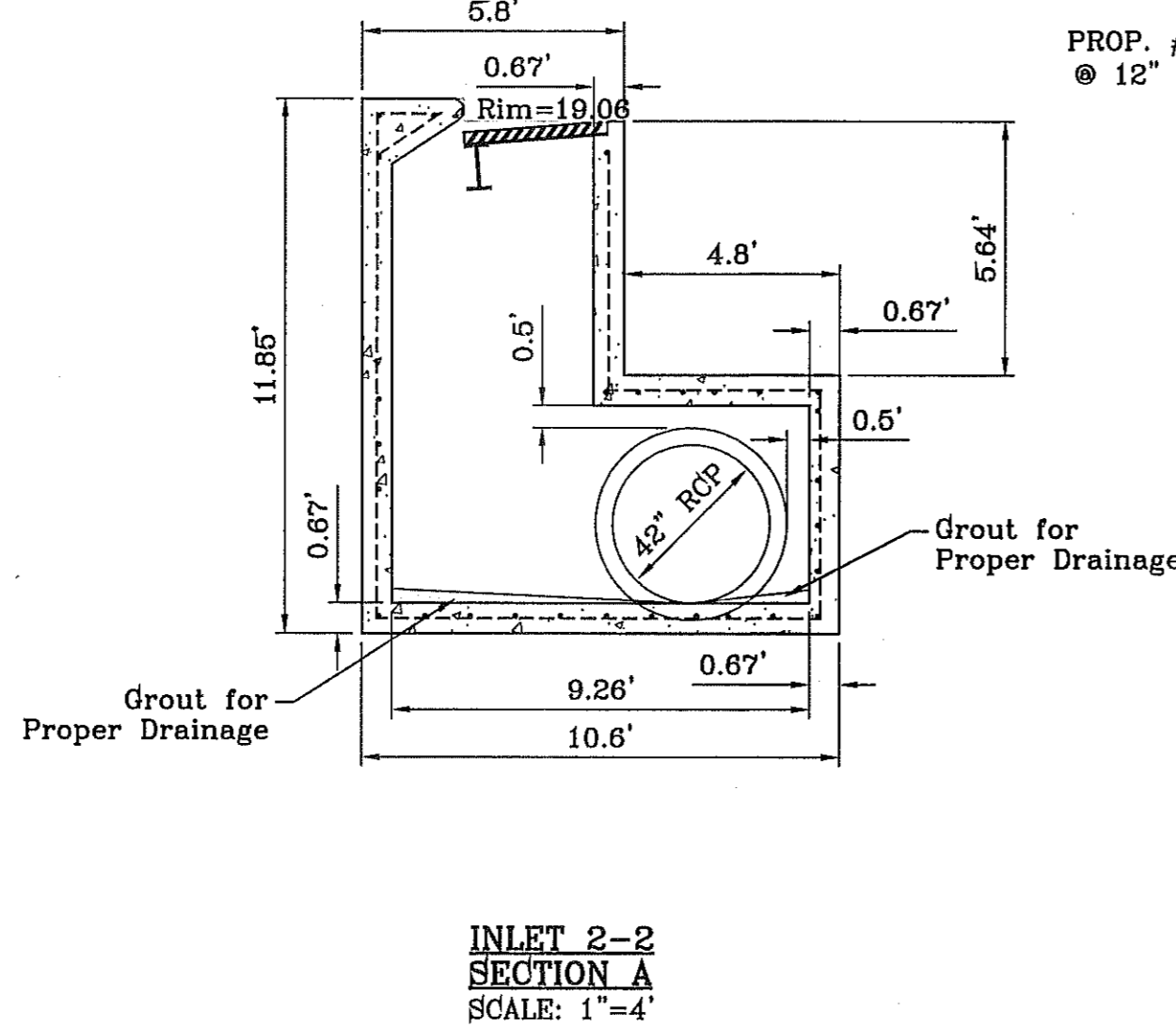
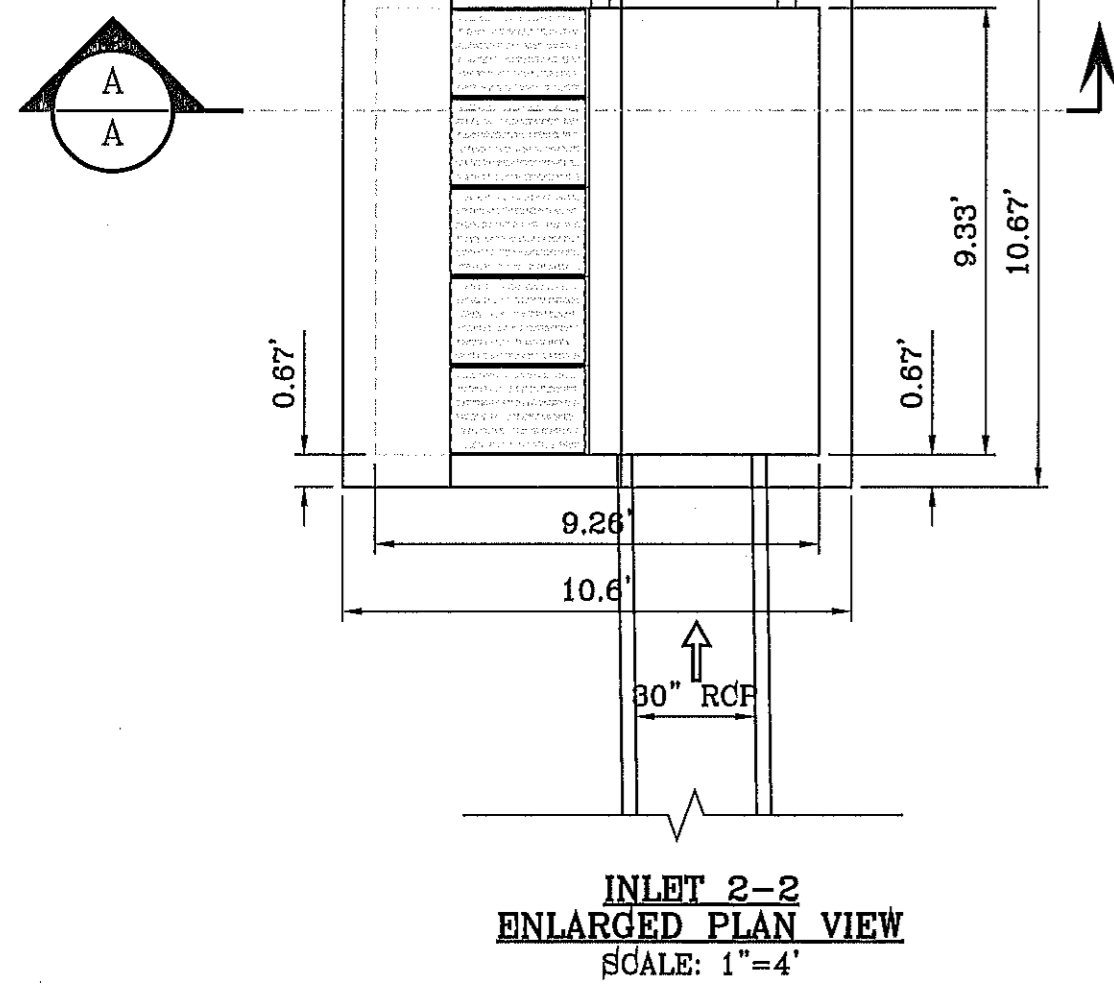
STRUCTURE #1 PROFILE - MANHOLE 1-1 TO INLET 1-2  
HORIZONTAL: 1"=30' VERTICAL: 1"=10'



STRUCTURE #1 PROFILE - INLET 1-1 TO INLET 1-3  
HORIZONTAL: 1"=30' VERTICAL: 1"=10'



PROJECT NAME: TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)  
 SCALE: 1" = 30'  
 S.C.A.L.E.: HORIZ: 1" = 30', VERT: 1" = 10'  
 ENGINEER'S SEAL: [Seal of Conde Inc.]  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18  
 CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURVEY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0285 FAX: (915) 592-0286  
 SHEET TITLE: PROPOSED STRUCTURE #1  
 SHT 40 OF 55



FOR MANHOLE WITH JUNCTION BOX DETAIL SEE THIS SHEET

ALL R.C.P. ARE CLASS III UNLESS OTHERWISE NOTED

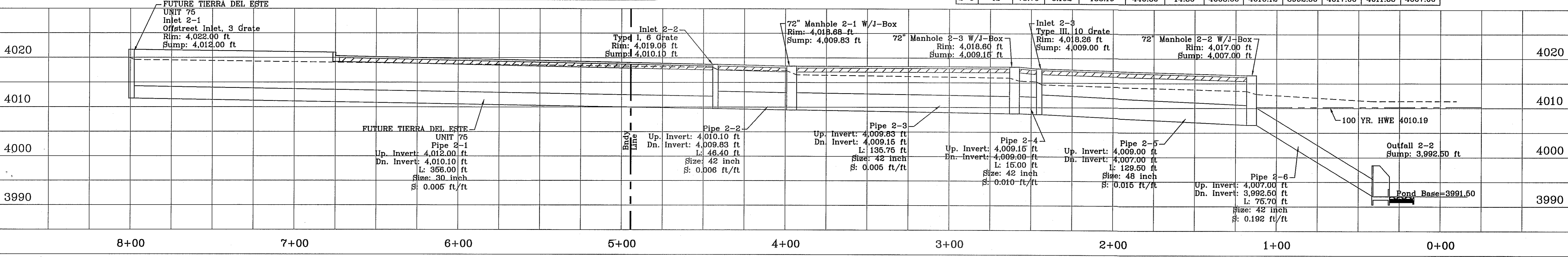
- CONSTRUCTION NOTES:**
- ALL CONCRETE FOR STRUCTURES SHALL BE 3000 PSI. UNLESS OTHERWISE NOTED.
  - MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
  - 95% COMPACTION REQUIRED FOR STRUCTURES AS PER ASTM D1557.
  - REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.

**INLET DATA**

INLET No.	INLET TYPE	No. GRATES	Q <sub>60</sub> yr. cfs	Q <sub>100</sub> yr. cfs	Q <sub>100</sub> yr. cfs	Q <sub>100</sub> yr. cfs
2-1	Offstreet	3	22.75	36.38	26.57	36.38
2-2	I	6	42.05	64.10	51.75	64.92
2-3	III	10	57.21	46.32	65.05	77.20

**R.C.P. PIPE DATA**

PIPE	SECTION SIZE (in)	LENGTH (ft)	SLOPE (ft/ft)	DISCHARGE (cfs)	CAPACITY (cfs)	AVERAGE VELOCITY (fps)	DOWN STREAM GROUND	DOWN STREAM HGL	DOWN STREAM INVERT	UPSTREAM GROUND	UPSTREAM HGL	UPSTREAM INVERT
2-1	30	356.00	0.012	26.57	45.60	5.41	4019.06	4016.68	4010.10	4022.00	4018.17	4014.50
2-2	42	46.40	0.006	65.38	76.74	6.80	4018.68	4015.98	4009.83	4019.06	4016.18	4010.10
2-3	42	135.75	0.005	65.38	71.20	6.80	4018.60	4014.61	4009.15	4018.68	4015.18	4009.83
2-4	42	15.00	0.010	65.38	100.60	6.80	4018.26	4013.95	4009.00	4018.60	4014.01	4009.15
2-5	48	129.50	0.015	138.19	178.50	11.00	4017.00	4012.15	4007.00	4018.26	4013.35	4009.00
2-6	42	75.70	0.192	138.19	440.30	14.36	4003.00	4010.12	3992.50	4017.00	4011.55	4007.00



**CONDE INC.**  
ENGINEERING / PLANNING / SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
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FAX: (915) 592-0286

**PROPOSED STRUCTURE #2**

**SHT 41 OF 55**

**TERRA DEL ESTE UNIT SEVENTY ONE**

**REVISIONS**

DATE	REVISIONS	BY
3/12/13	REVISED TERRA DEL ESTE UNIT SEVENTY ONE	D.N.
5/13/13	CITY REDLINES AS PER 04/30/13 COMMENTS	D.N.

**PROJECT NAME:** TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

**SCALE:** HORIZ: 1" = 30', VERT: 1" = 10'

**DESIGN BY:** YC  
**INITIATED BY:** RO  
**CHECKED BY:** YC & FC  
**JOB NO.:** 1110-18

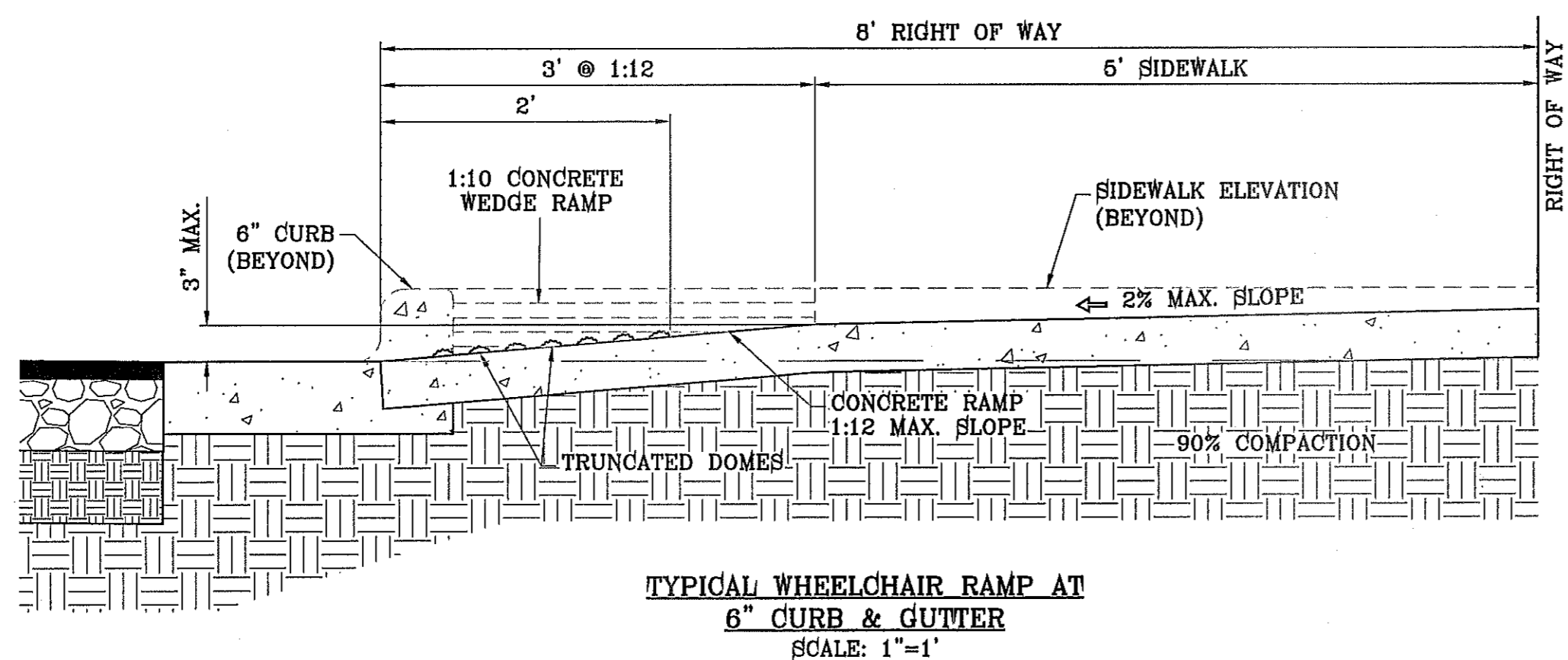
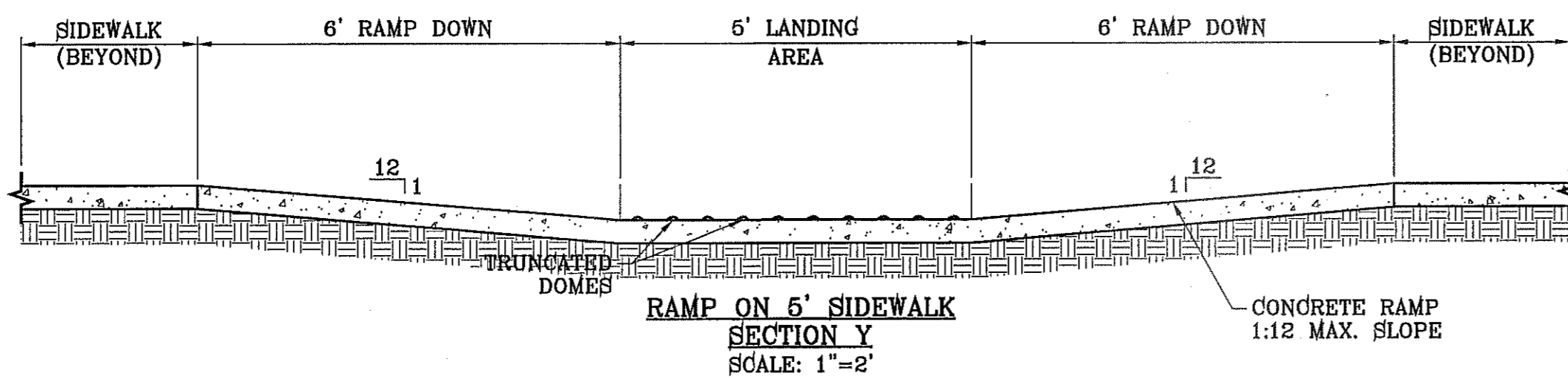
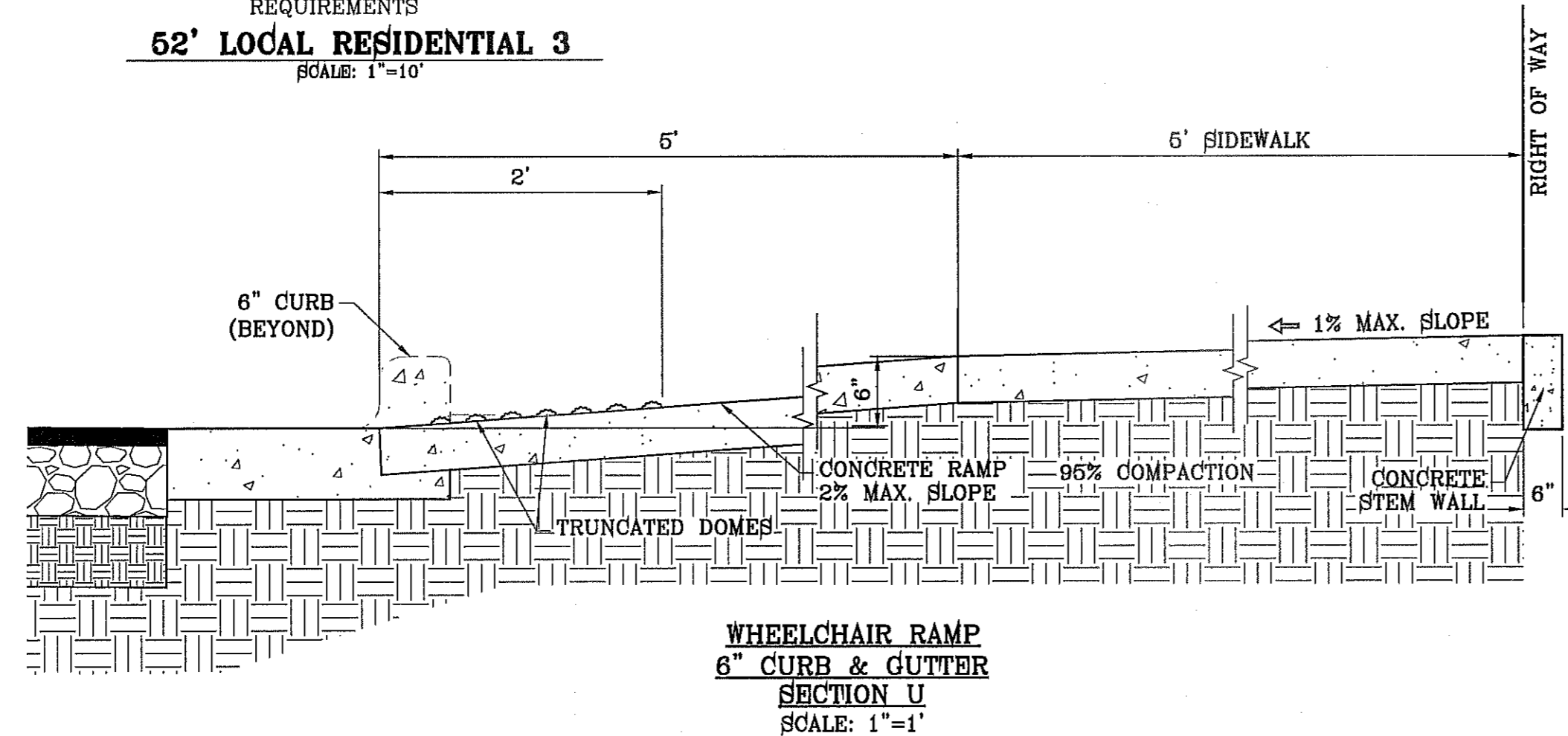
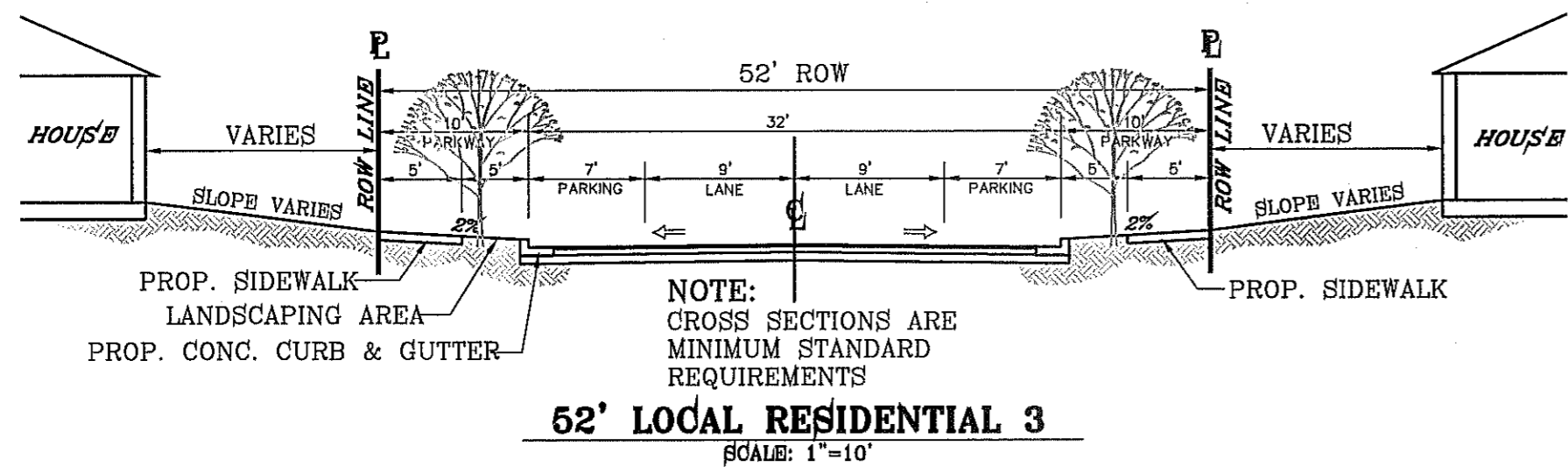
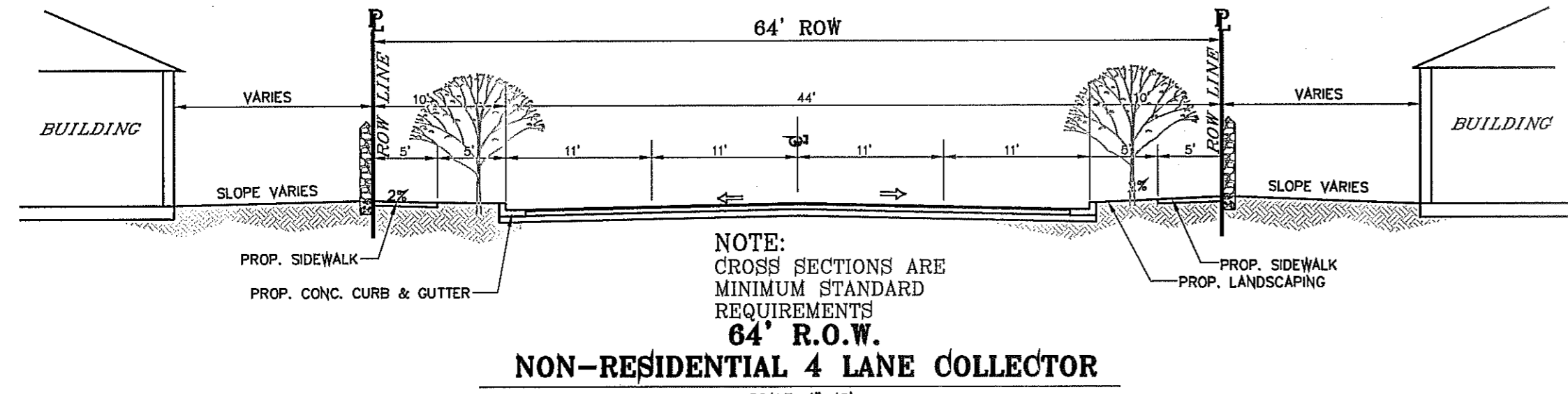
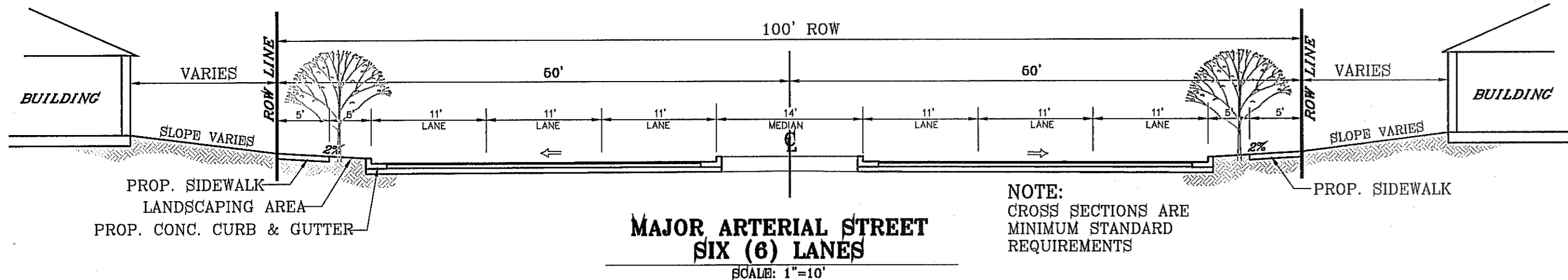
**ENGINEER'S SEAL:** [Seal]

**FINAL APPROVAL:** [Signature]

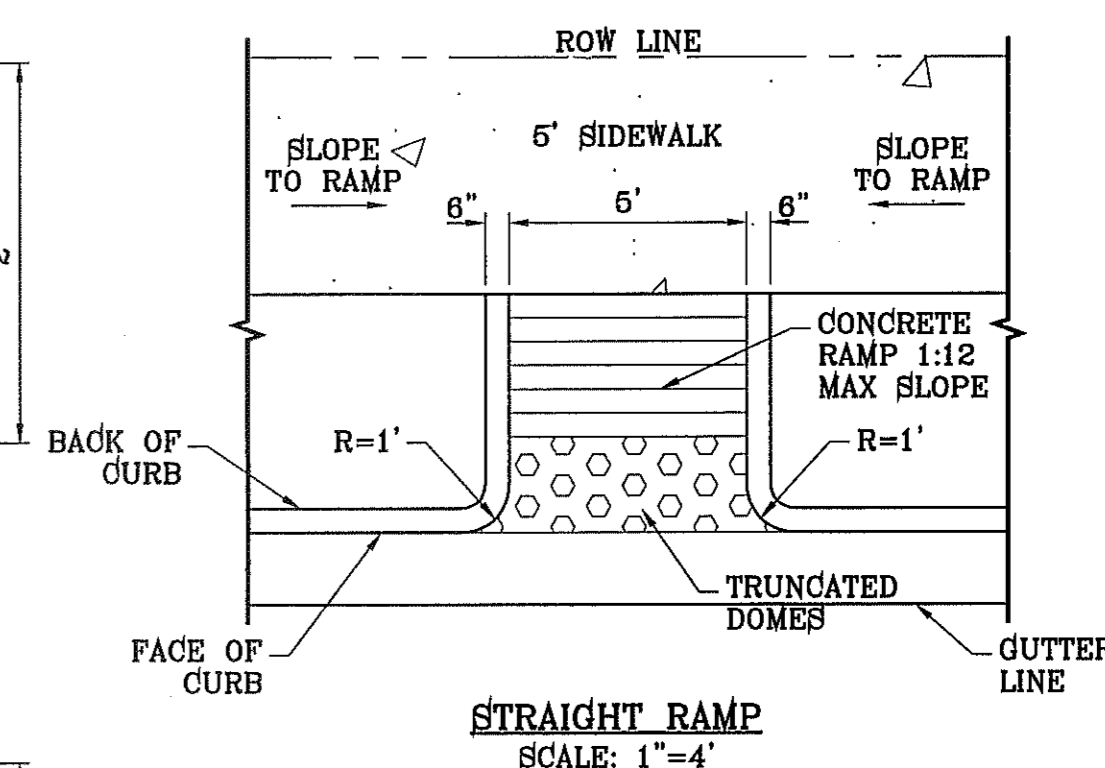
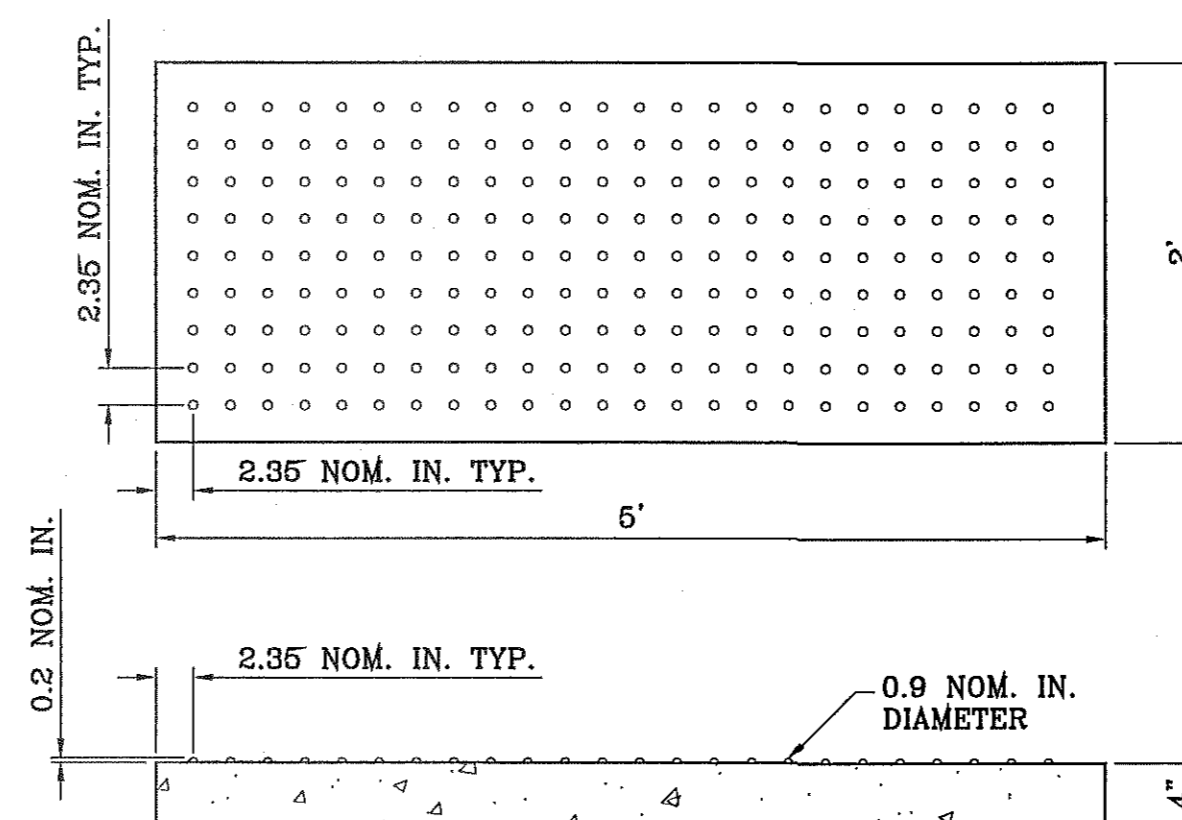
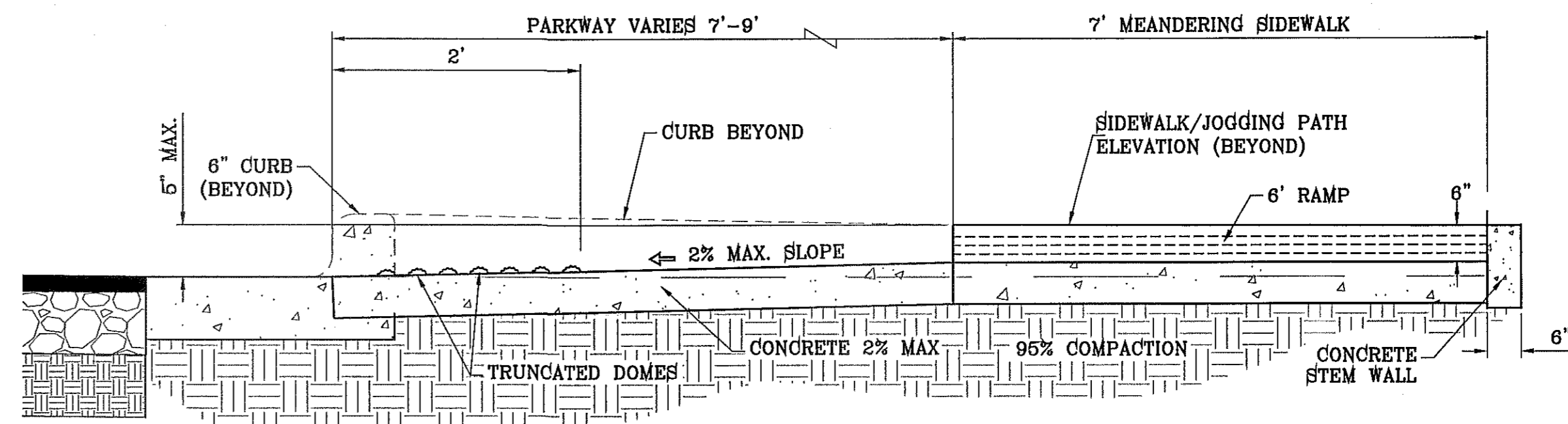
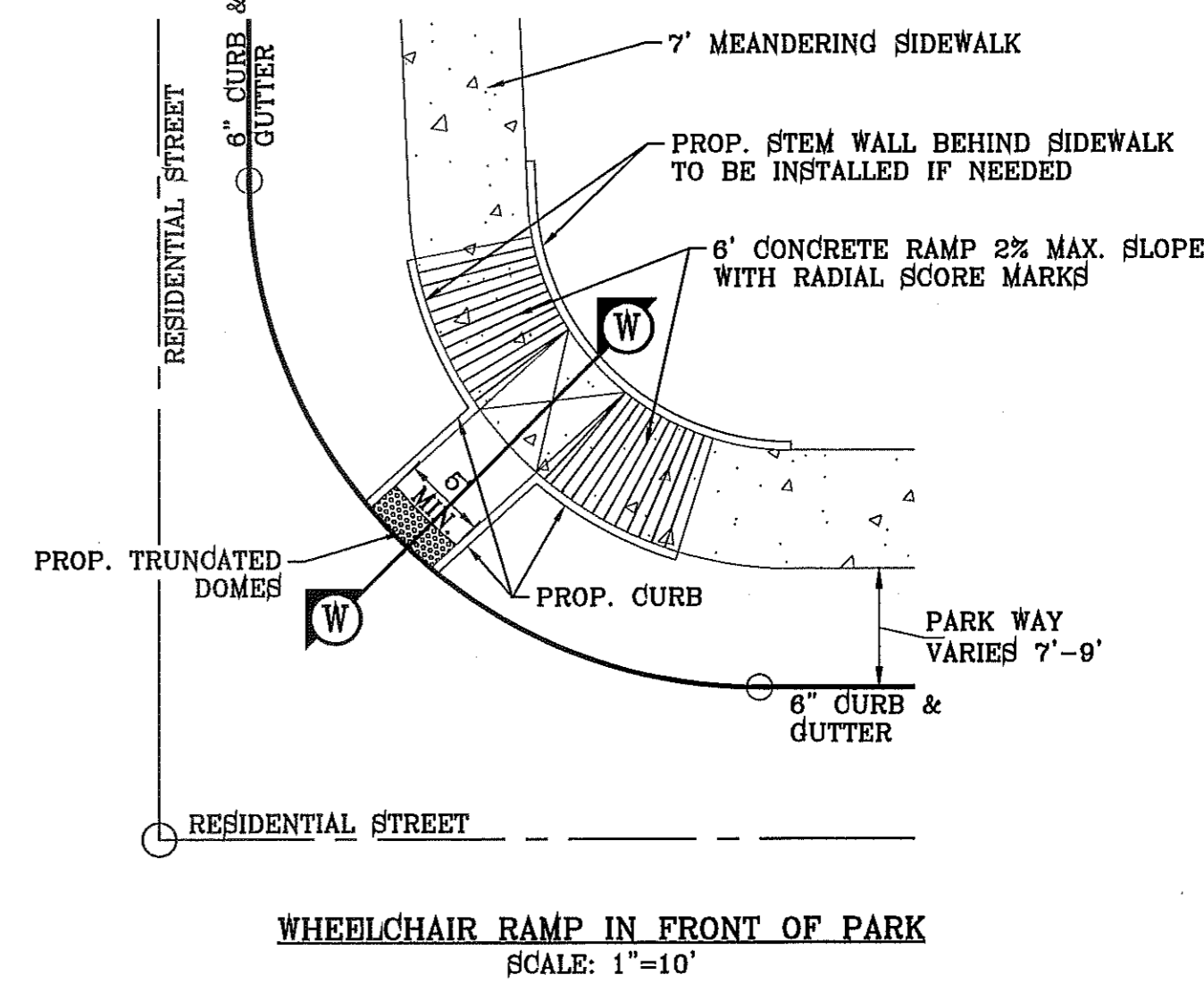
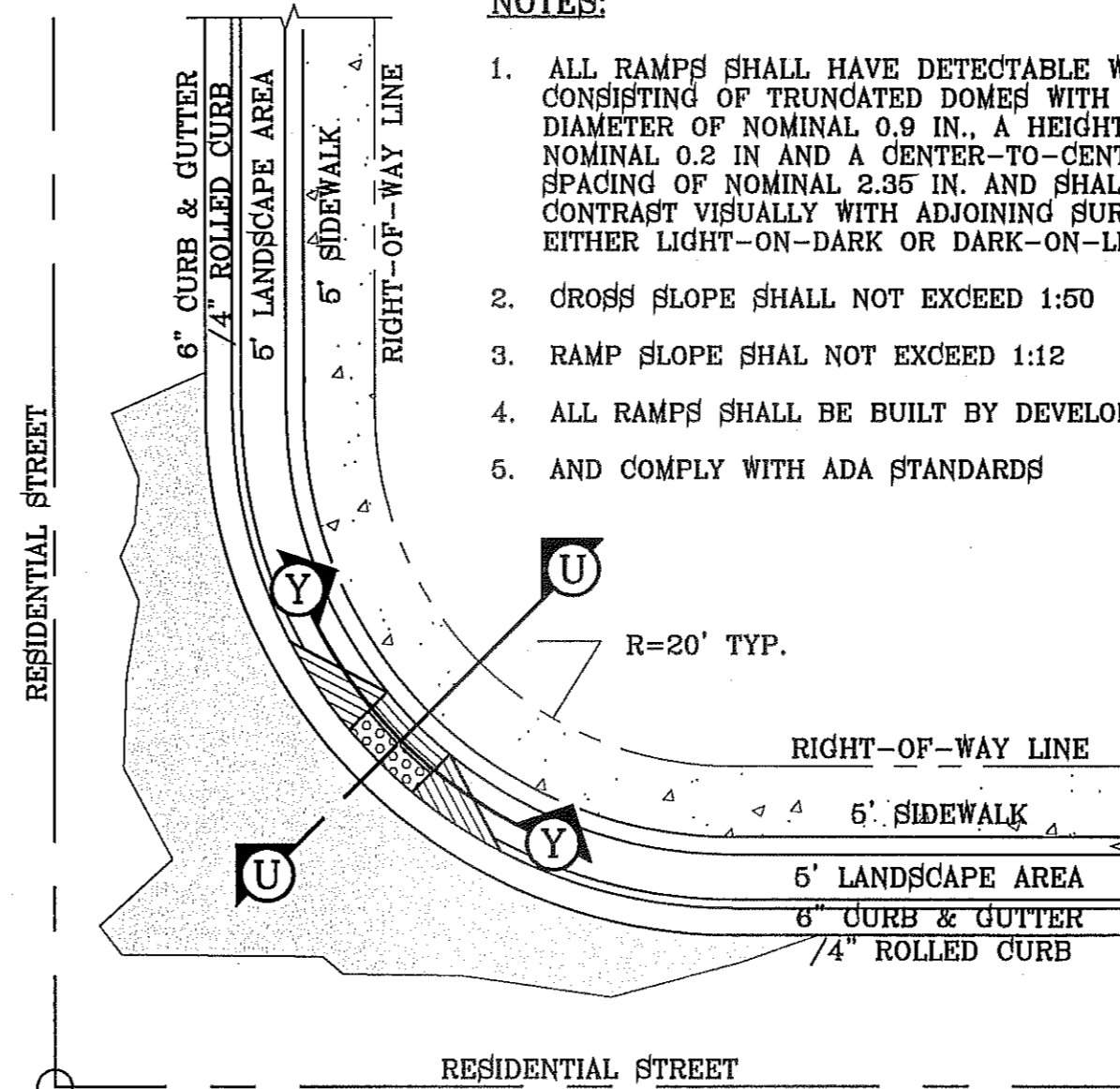
**BENCHMARK:** CITY MONUMENT AT THE CENTERLINE INTERSECTION OF CITY OF EL PASO SINGER DR. AND JOHN NAVD83 DATUM ELEVATION 4018.75

FILE: SA\_Subsdivision\TIE 71 RIDGE\STRUCTURE-2 PLOTTED Tuesday, June 18, 2013 2:17:53 PM





- NOTES:**
1. ALL RAMP SHALL HAVE DETECTABLE WARNINGS CONSISTING OF TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN., A HEIGHT OF NOMINAL 0.2 IN AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN. AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
  2. CROSS SLOPE SHALL NOT EXCEED 1:50
  3. RAMP SLOPE SHALL NOT EXCEED 1:12
  4. ALL RAMP SHALL BE BUILT BY DEVELOPER
  5. AND COMPLY WITH ADA STANDARDS



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

DATE

REVISIONS

BY

**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 24 NORTH, RANGE 10 EAST, COUNTY OF TARRANT, TEXAS. AREA 61.5884 ACRES

**SCALE**

HORIZ: AS NOTED

VERT: ---

DATE: JAN. 2012

DESIGN BY: YC

INITIATED BY: RO

CHECKED BY: YC & FC

JOB NO.: 1110-18

**ENGINEER'S SEAL**

ENGINEER'S SEAL NOT REQUIRED. THIS SHEET IS A PRELIMINARY DESIGN SUBDIVISION DESIGN STANDARDS

**CONDE INC.**

ENGINEERING / PLANNING SURVEYING / GPS

6080 SURVEY DR. STE 100 EL PASO, TEXAS 79905

PHONE: (915) 592-0283 FAX: (915) 592-0286

REGISTRATION No. P-2321

**SHEET TITLE**

**DETAILS - STD DTL 1**

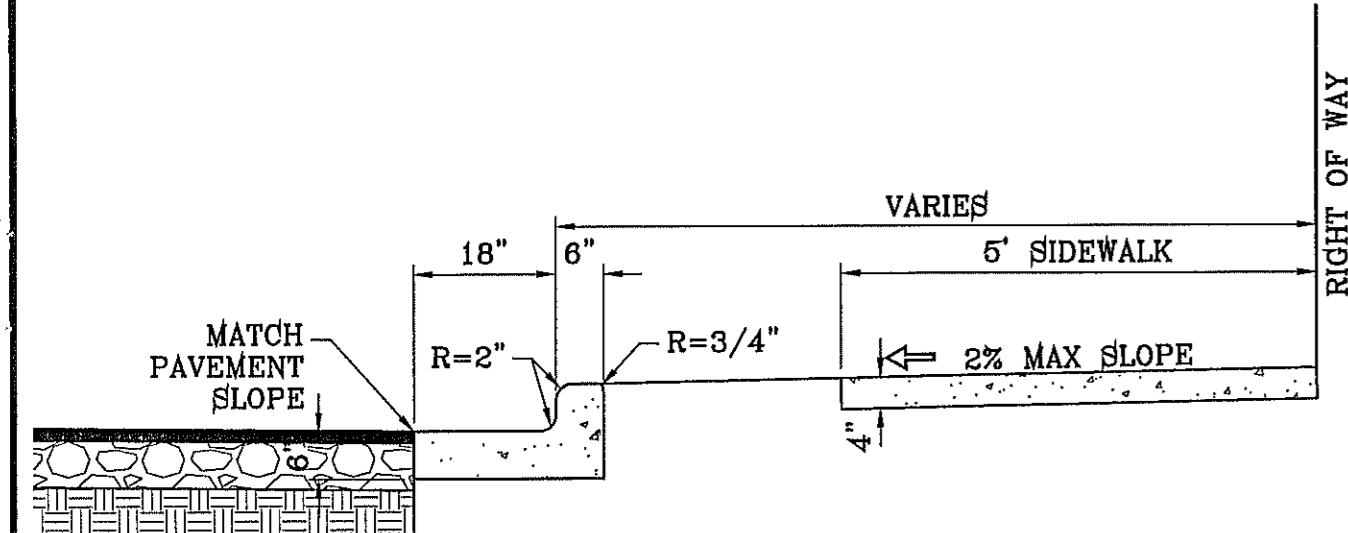
**SHT 42 OF 55**

FILE S:\Subdivisions\71 RODGER\DETAILS PLOTTED Tuesday, June 18, 2013 2:18:02 PM



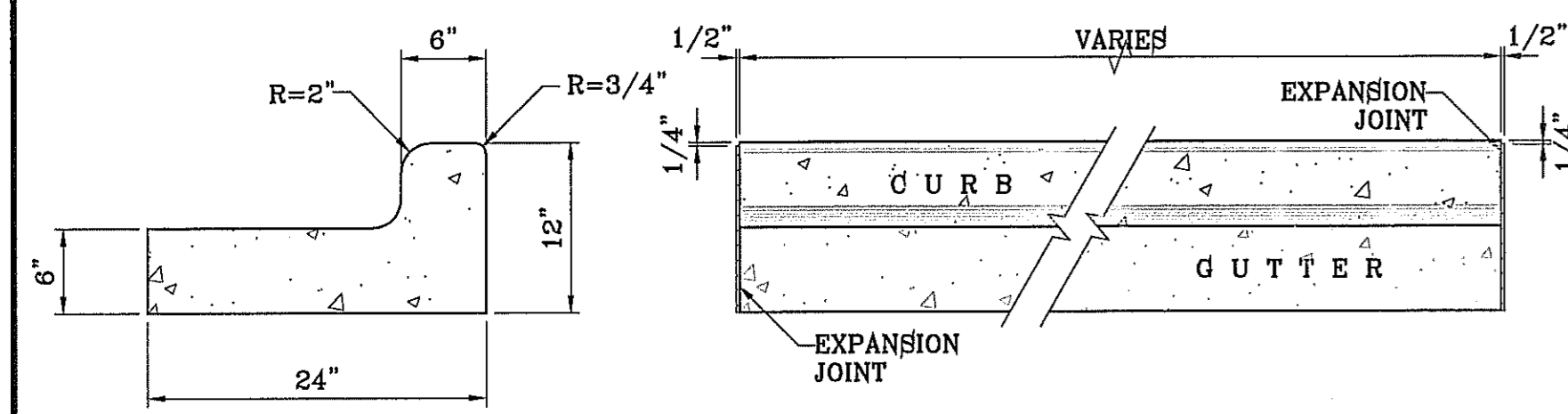
FILE S:\Subdivisions\71 RODGER DETAILS PLOTTED Tuesday, June 18, 2013 2:18:03 PM

**NOTE:**  
THE BULB-OUT DRAWING SHOWN IS FOR A 30 FOOT WIDE STREET. IF A STREET IS WIDER, THE BULB WOULD BE DEEPER; EACH BULB SHOWN IS SEVEN FEET DEEP. THE WIDTH BETWEEN BULBS SHOULD BE 16 FEET, WHICH ALLOWS FOR ONE FOOT BETWEEN BULB AND CAR, SIX FEET PER CAR, AND TWO FEET BETWEEN CARS. THIS WOULD REQUIRE CARS TO SLOW DOWN SUBSTANTIALLY IN ORDER TO PASS. THE BULB WOULD RESTRICT PARKING FOR APPROXIMATELY 20 FEET (ONE CAR LENGTH FOR PARKING PURPOSES) IN ORDER FOR THE BULB TO BE VISIBLE, ALLOW WIDER VEHICLES TO PULL TO THE RIGHT AND ALLOW AN OPPOSING VEHICLE TO PASS. IT MAY BE POSSIBLE TO PLANT A TREE IN EACH BULB.



- NOTES:**
- CONCRETE SHALL BE 3000 P.S.I. MINIMUM.
  - DUMMY JOINTS REQUIRED AT 10' O.C. FOR CURB/GUTTER AND 5' O.C. FOR SIDEWALK.
  - EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
  - EXPANSION JOINTS REQUIRED AT 60' O.C. WHEN FORMING FOR CURBS.
  - WHENEVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS, EXPANSION JOINT FILLER SHALL BE USED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

**CURB & GUTTER AND SIDEWALK DETAIL**  
SCALE: 1"=2"

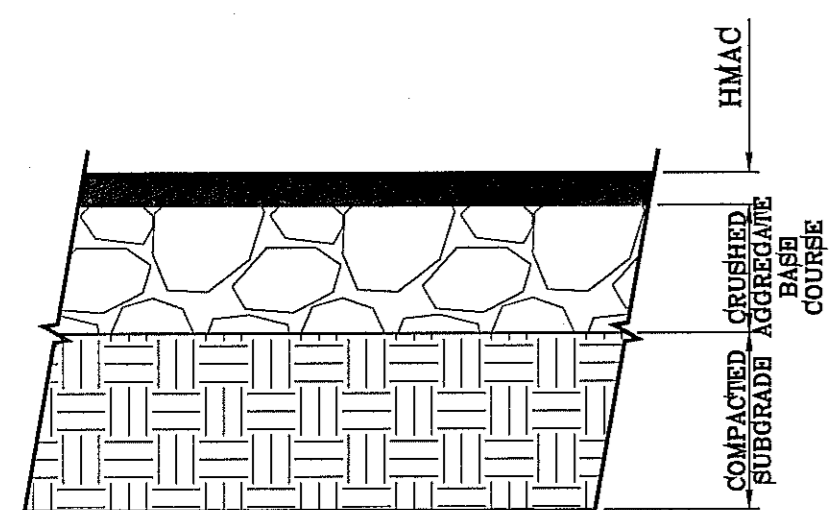


**END SECTION**

**PLAN VIEW**

- NOTES:**
- NO EXPANSION JOINT WILL BE REQUIRED EXCEPT AT THE END OF CURB RETURNS. (POINT OF TANGENCY WITH STRAIGHT LINE).
  - CONTRACTION JOINTS (1/2" INCH MIN.) MUST BE SCORD EVERY 10 FEET IN CURB AND GUTTER.
  - ALL EXPANSION JOINTS WILL BE OF PREFORMED BITUMINOUS FIBER 1/2" INCH THICK.
  - CONCRETE: CLASS "A" 3000 PSI.
  - EXPANSION JOINTS REQUIRED AT 5' O.C. WHEN FORMING FOR CURBS.

**CURB & GUTTER DETAIL**  
SCALE: 1"=1"



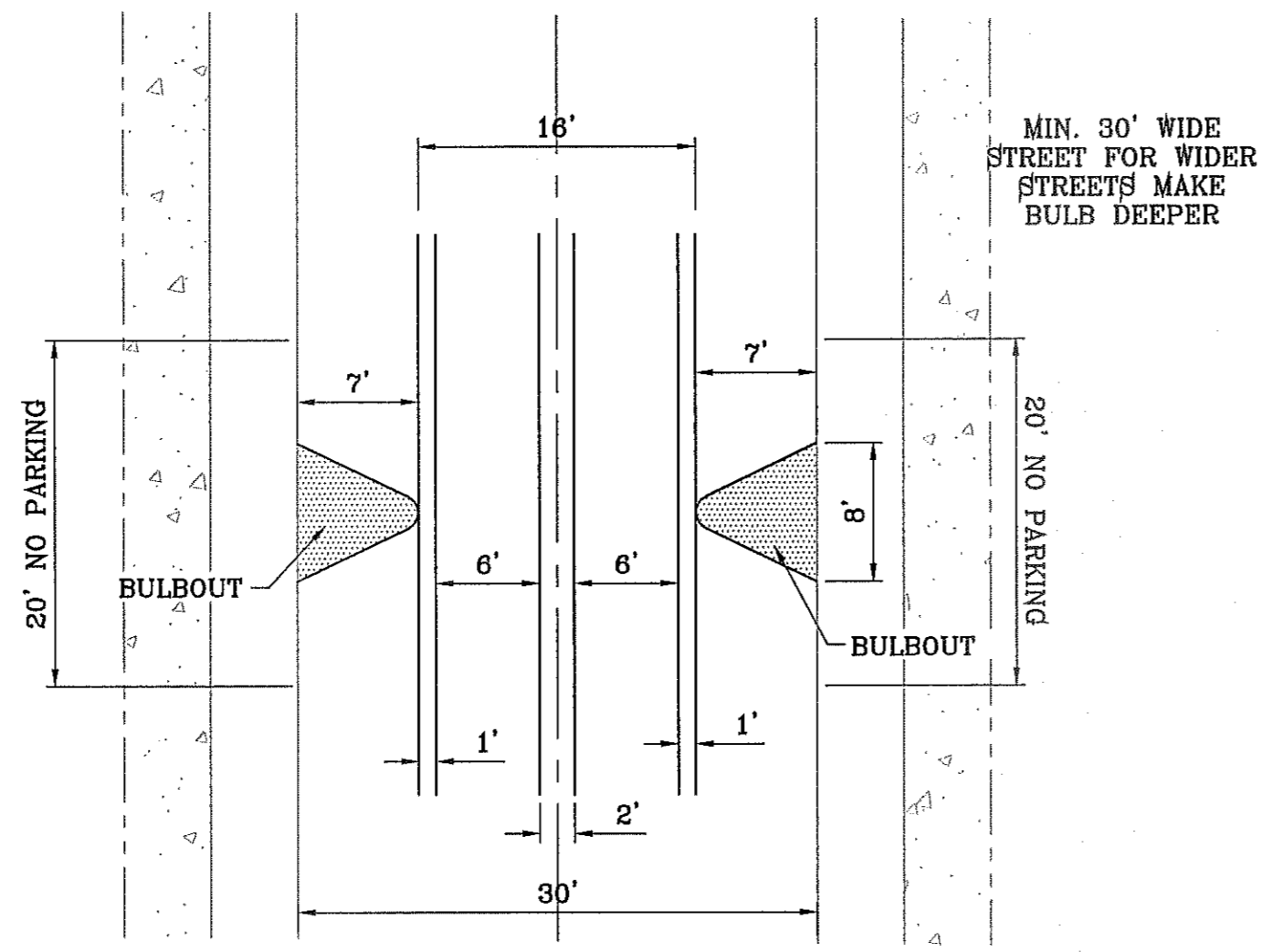
**PAVEMENT SECTION DETAIL**  
SCALE: 1"=1"

**PAVEMENT NOTES**

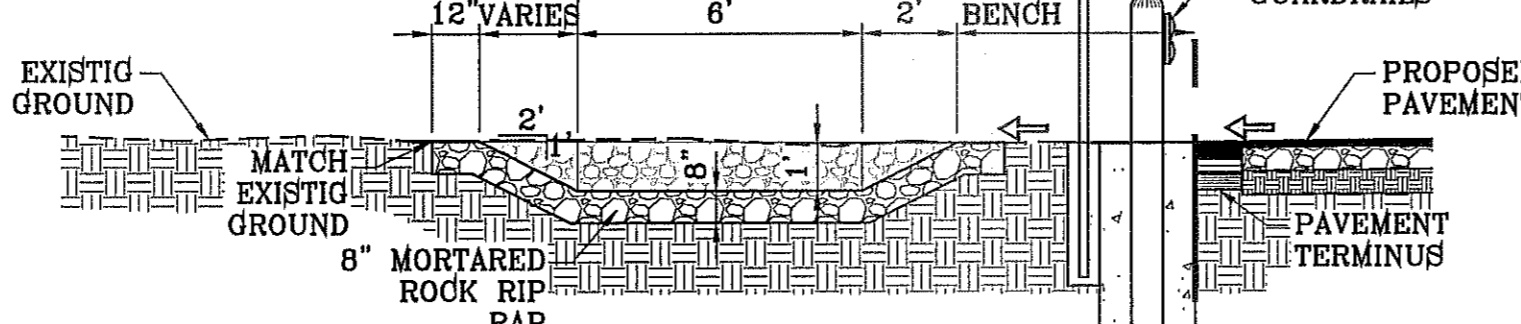
- SUBGRADE TO BE COMPACTED TO 95% OF MAXIMUM DENSITY AS PER ASTM D1557.
- BASE TO BE COMPACTED TO NOT LESS THAN 100% DENSITY IN ACCORDANCE WITH ASTM D1557, TYPE A, GRADE 1 OR 2.
- BITUMINOUS MATERIAL SHALL CONFORM TO AC-10 OR AC-20, TYPE "C" IN ACCORDANCE WITH ASTM D3318.
- PRIME COAT TO BE 0.25 GAL. PER SQUARE YARD (MINIMUM COVERAGE) MC-70.
- COMPACTION TESTS WHERE REQUIRED BY THE CITY ENGINEER MUST BE PAID FOR BY THE DEVELOPER.
- C.B.R. TESTS WILL BE REQUIRED AT 500 FOOT INTERVALS AFTER SUBGRADE IS PLACED AND/OR A MINIMUM OF TWO TESTS IF STREET IS LESS THAN 600 FEET.
- STRICT VERTICAL CONTROL OF ALL CURB AND GUTTER ELEVATIONS WILL BE MAINTAINED. BLUE TOPPING WILL BE REQUIRED THROUGHOUT.
- ALL PLANS MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF EL PASO SUBDIVISION DESIGN AND IMPROVEMENT STANDARDS.
- HMAc. BASE, SUB BASE WILL BE IN ACCORDANCE WITH THE LATEST CITY OF EL PASO SPECIFICATIONS.
- MINIMUM PAVEMENT DESIGN DETAILS ARE SHOWN. ACTUAL PAVEMENT DESIGN WILL BE DETERMINED BY: C.B.R.

**TRENCHING**

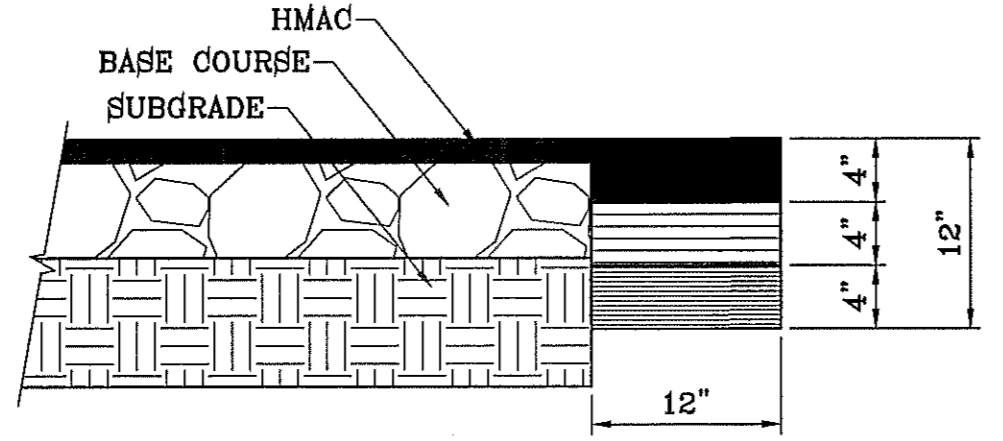
ALL TRENCHING SHALL BE DONE IN STRICT ACCORDANCE WITH OSHA-2226.



**BULBOUT DETAIL (Midblock Treatment)**  
SCALE: 1"=10'



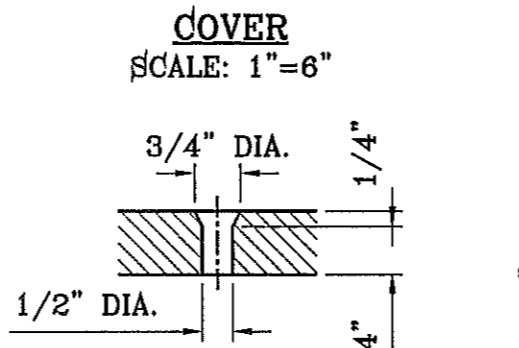
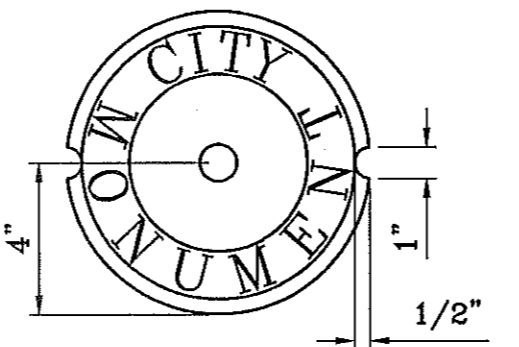
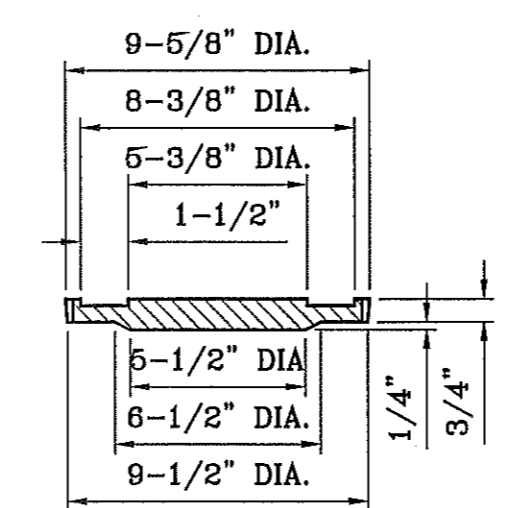
**DESILTING BASIN WITH GUARD RAIL DETAIL**  
SCALE: 1"=4'



**PAVEMENT TERMINUS**  
SCALE: 1"=1"

**NOTE:**

THICKENED EDGE SHALL BE CONSTRUCTED IN COURSED NOT OVER 4" IN THICKNESS, EACH COURSE THOROUGHLY COMPACTED BEFORE PLACING NEXT COURSE, FINAL COURSE, FINAL COURSE TO BE PLACED MONOLITHIC WITH PAVEMENT.



**COUNTERSUNK DETAIL**  
SCALE: 1"=3"

**SIZE AND CONSTRUCTION:**

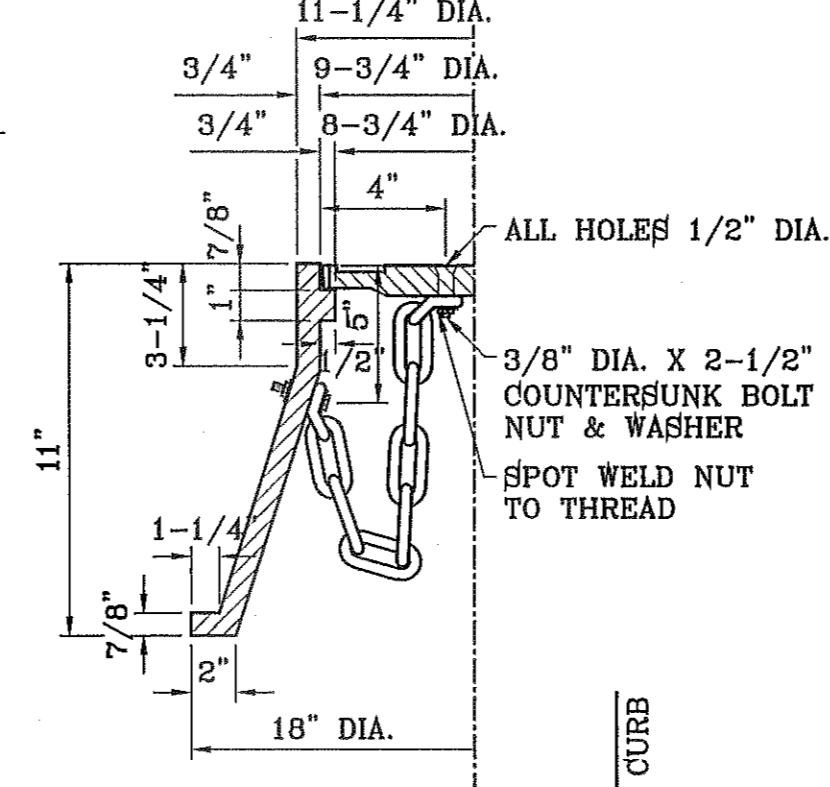
THE STANDARD CITY MONUMENT SHALL BE POURED-IN-PLACE CONCRETE CONE, EIGHT (8) INCHES MINIMUM DIAMETER AT THE TOP, EIGHTEEN (18) INCHES MINIMUM DIAMETER AT THE BOTTOM, THIRTY-SIX (36) INCHES MINIMUM IN DEPTH WITH THE MONUMENT CAP IN PLACE ON TOP.

THE MONUMENT SHALL BE COVERED WITH A CAST IRON BOX AND COVER.

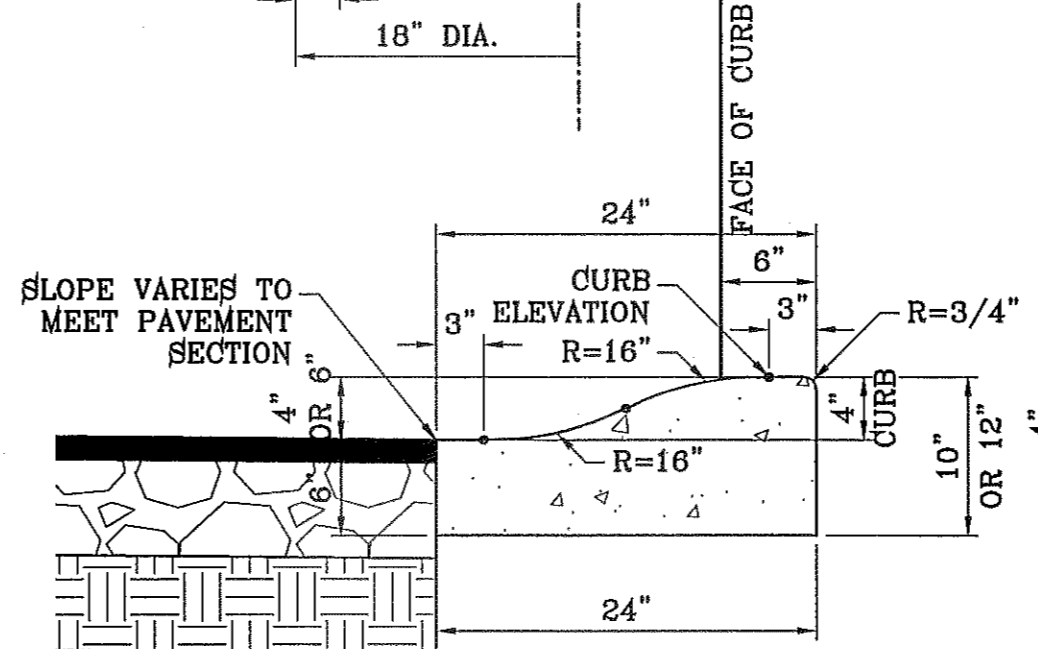
**NUMBER AND LOCATIONS:**

THE MONUMENTS SHALL BE INSTALLED WHERE SHOWN ON THE SUBDIVISION PLAT AS APPROVED BY THE CITY ENGINEER.

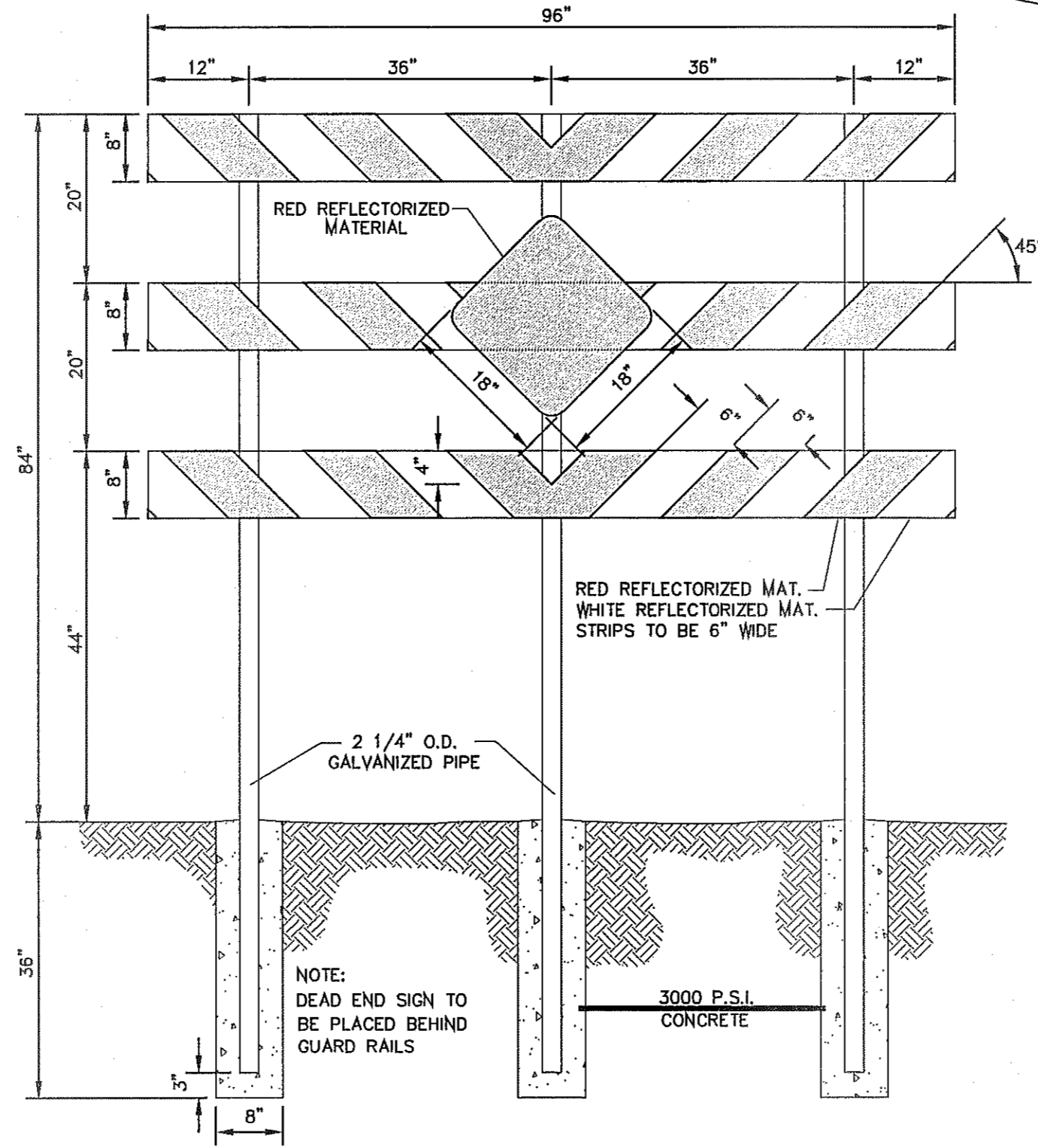
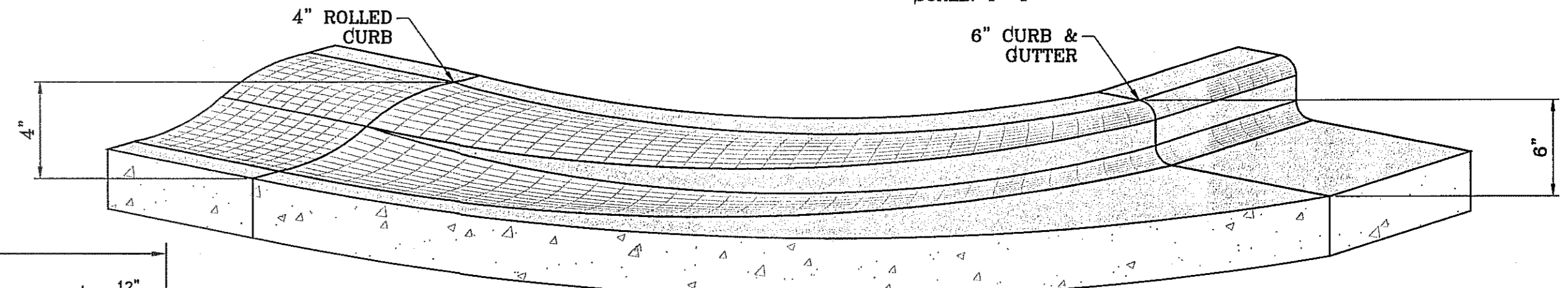
THE SIZE, TOPOGRAPHY AND LAYOUT OF THE SUBDIVISION SHALL GOVERN MONUMENT MUST BE WITHIN THE LINE OF SIGHT OF ANY OTHER MONUMENT (2000 FEET MAXIMUM DISTANCE BETWEEN MONUMENTS). THE NUMBER OF MONUMENTS REQUIRED.



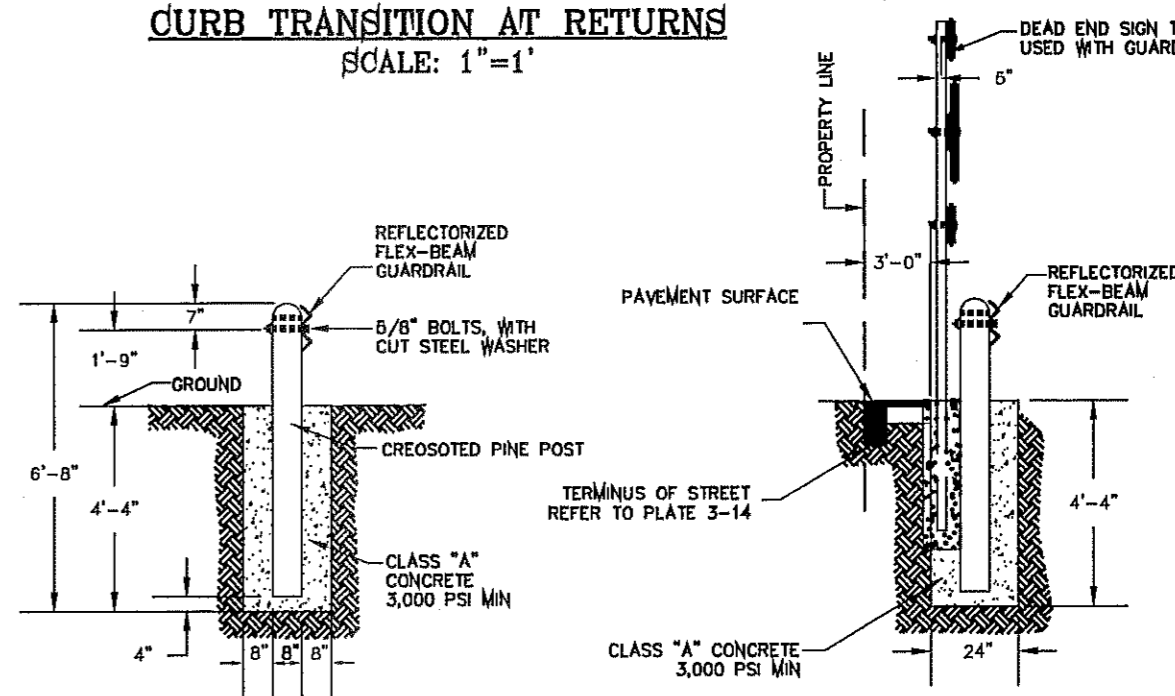
**ROLLED CURB DETAIL**  
SCALE: 1"=1"



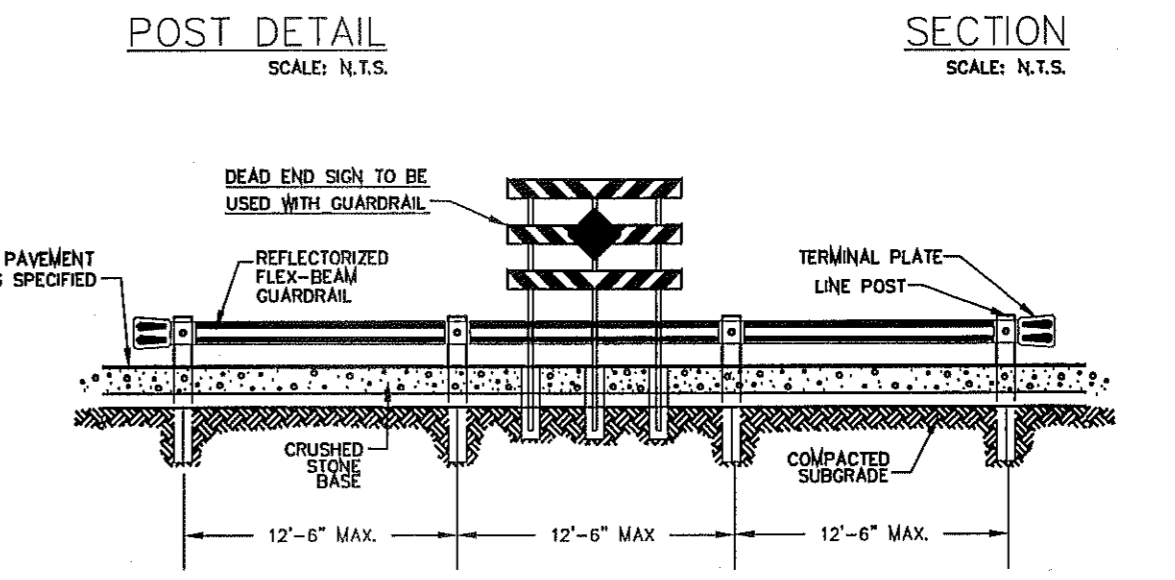
**ROLLED CURB TO CURB & GUTTER TRANSITION**  
SCALE: 1"=1"



**DEAD END SIGN**



**CURB TRANSITION AT RETURNS**  
SCALE: 1"=1"



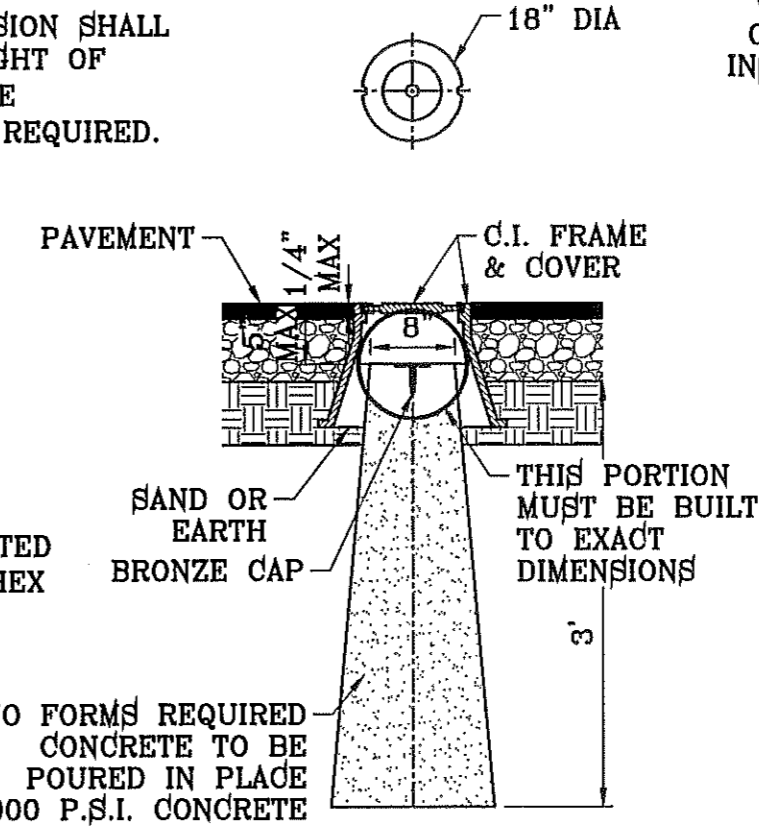
**POST DETAIL**  
SCALE: N.T.S.

**SECTION**  
SCALE: N.T.S.

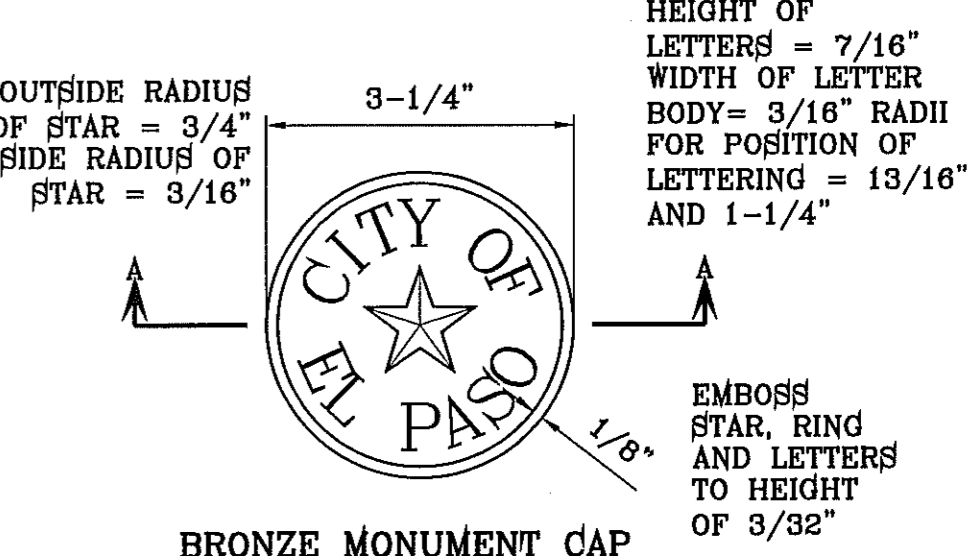
**GUARDRAIL/SIGN ASSEMBLY AT DEAD END STREET DETAIL**

NO FEWER THAN TWO MONUMENTS SHALL BE PLACED IN A ONE STREET SUB-DIVISION.

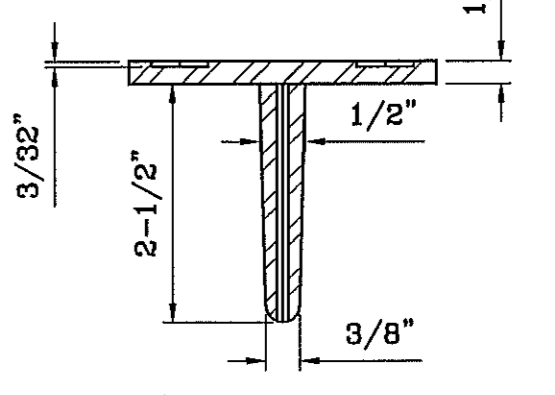
AT LEAST ONE (1) MONUMENT SHALL BE PLACED ON EACH HORIZONTAL CURVE. TWO SHALL BE PLACED IF THE POINT OF INTERSECTION (P.I.) OF THE TANGENTS LEADING INTO THE CURVE FALLS OUTSIDE OF CITY RIGHT-OF-WAY. MONUMENTS SHALL BE INSTALLED SO THAT ALL FRONT PROPERTY CORNERS OF ALL LOTS IN THE SUBDIVISION ARE WITHIN LINE OF SIGHT OF A MONUMENT, OR WITHIN SIGHT OF LINE BETWEEN TWO ADJACENT MONUMENTS.



**CITY MONUMENT DETAIL**  
SCALE: 1"=2"



**BRONZE MONUMENT CAP**  
SCALE: 1"=2"



**SECTION A-A**  
SCALE: 1"=2"

HEIGHT OF LETTERS = 7/16"  
WIDTH OF LETTER BODY = 3/16" RADI FOR POSITION OF LETTERING = 13/16" AND 1-1/4"

EMBOSS STAR, RING AND LETTERS TO HEIGHT OF 3/32"

BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST.	
ELEVATION 4018.75	.....NAVD83 DATUM
DATE	
REVISIONS	
BY	

**TERRIA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 27, BLOCK 79, TOWNSHIP 2 NORTH, RANGE 10 WEST, COUNTY OF EL PASO, TEXAS. CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 61.596± ACRES

PROJECT NAME	TERRIA DEL ESTE UNIT SEVENTY ONE (REVISED)
DATE	JAN. 2012
DESIGN BY	YC
INITIATED BY	RO
CHECKED BY	YC & FG
JOB NO.	1110-18

ENGINEER'S SEAL  
NOT REQUIRED.  
THIS DRAWING IS PRODUCED FROM CITY SUBDIVISION DESIGN STANDARDS

**CONDE INC.**  
ENGINEERING / PLANNING / SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

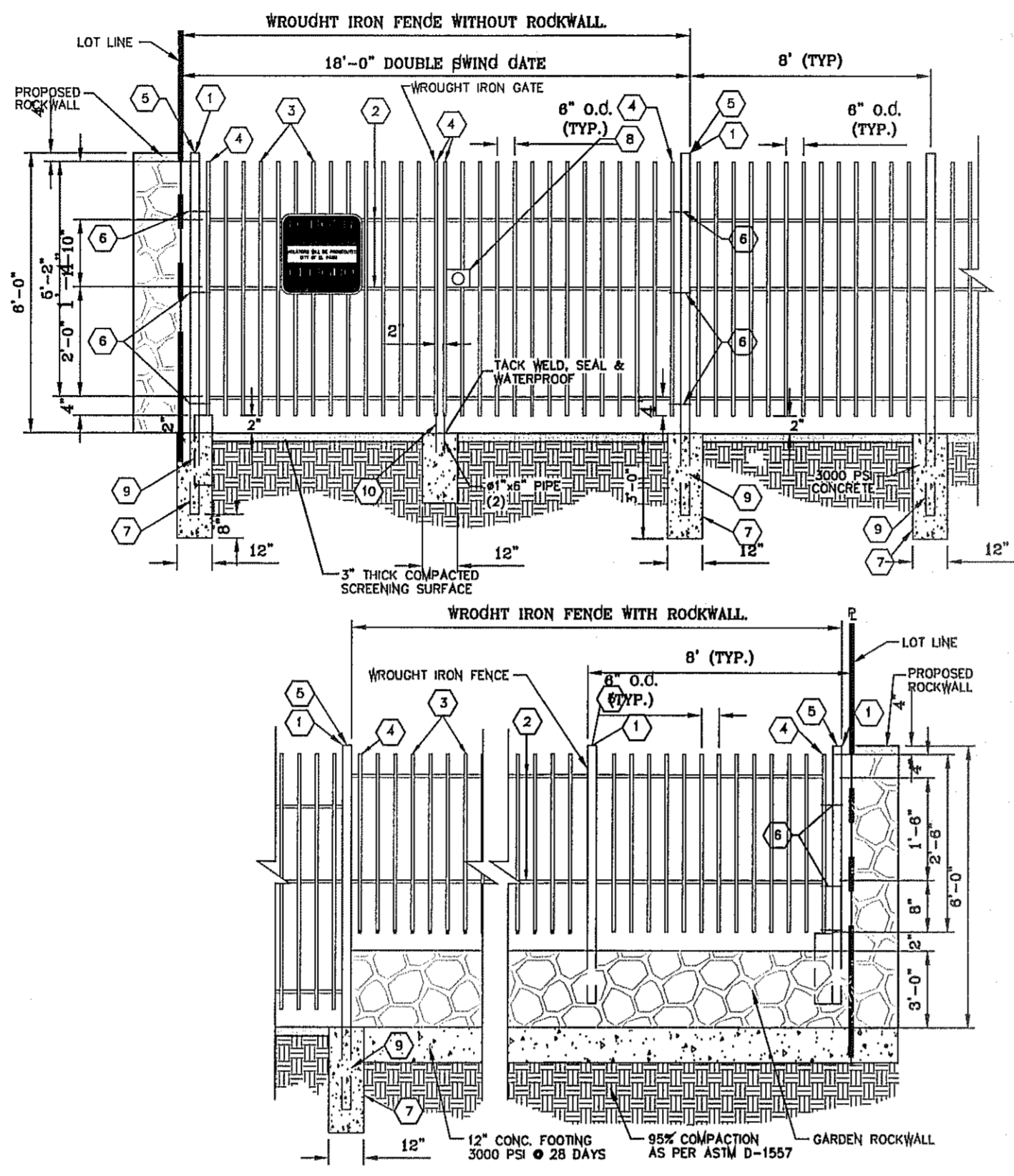


SHEET TITLE

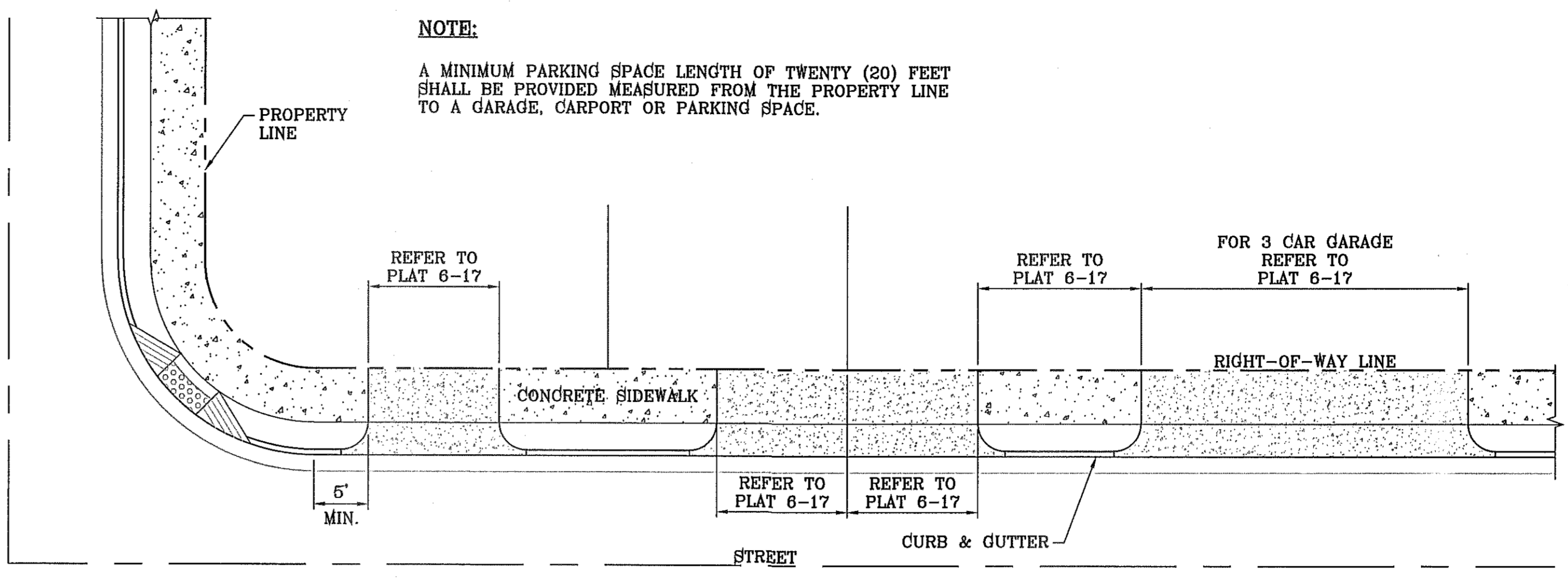
**DETAILS - STD DTL 2**



- KEY NOTES**
- 1 3" x 3" x 3/16" SQUARE STEEL TUBING
  - 2 2" x 1" x 1/4" GA. RECTANGULAR STEEL TUBING
  - 3 1 1/2" x 1/2" x 1/4" GA. RECTANGULAR STEEL TUBING
  - 4 2" x 1" x 1/4" GA. RECTANGULAR STEEL TUBING
  - 5 FLAT TOP POLYETHYLENE CAP
  - 6 BOLT HOOK AND STRAP HINGE
  - 7 1" x 3" DEEP 3000 PSI CONCRETE POST FOOTING
  - 8 DOUBLE GATE HEAVY DUTY INDUSTRIAL LATCH W/PAD LOCK
  - 9 5"x5"x5/8" SQUARE STEEL SLEEVE W/7"x7"x3/8" STEEL BASE PLATE
  - 10 CANE BOLT LATCH W/KEEPER 5-8" x 18" LONG (2 REQUIRED)



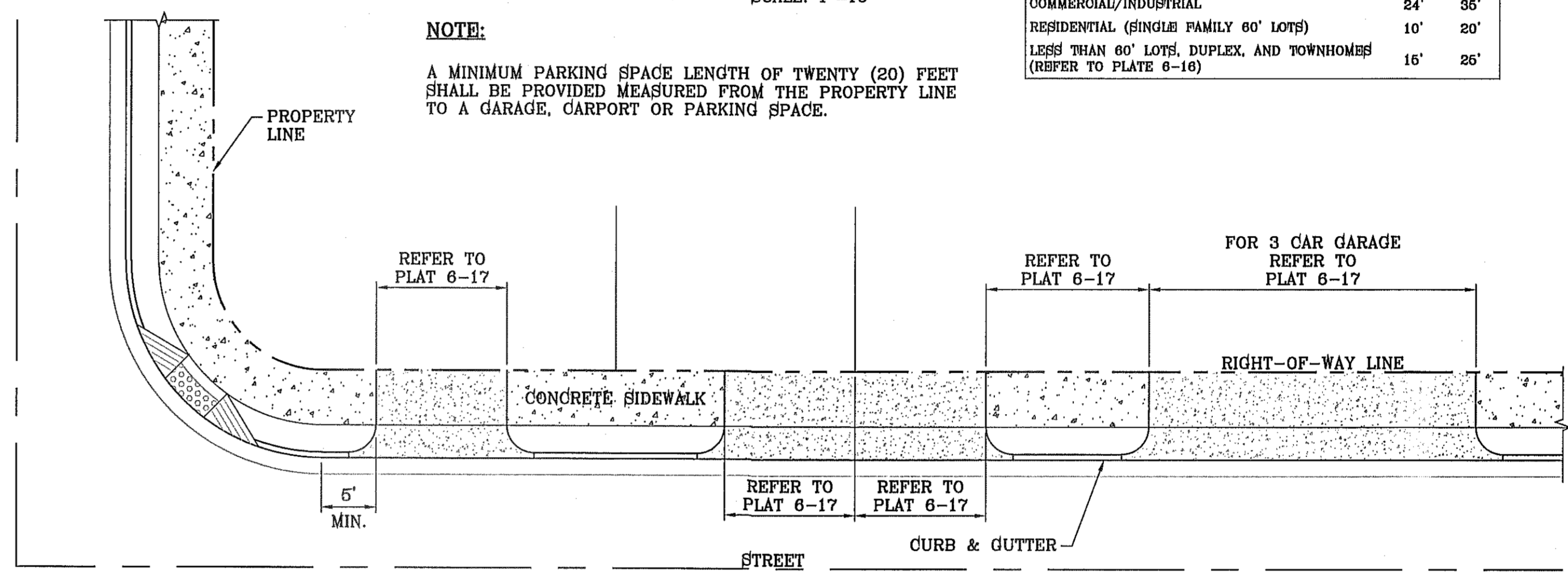
**WROUGHT IRON FENCE**  
N.T.S.



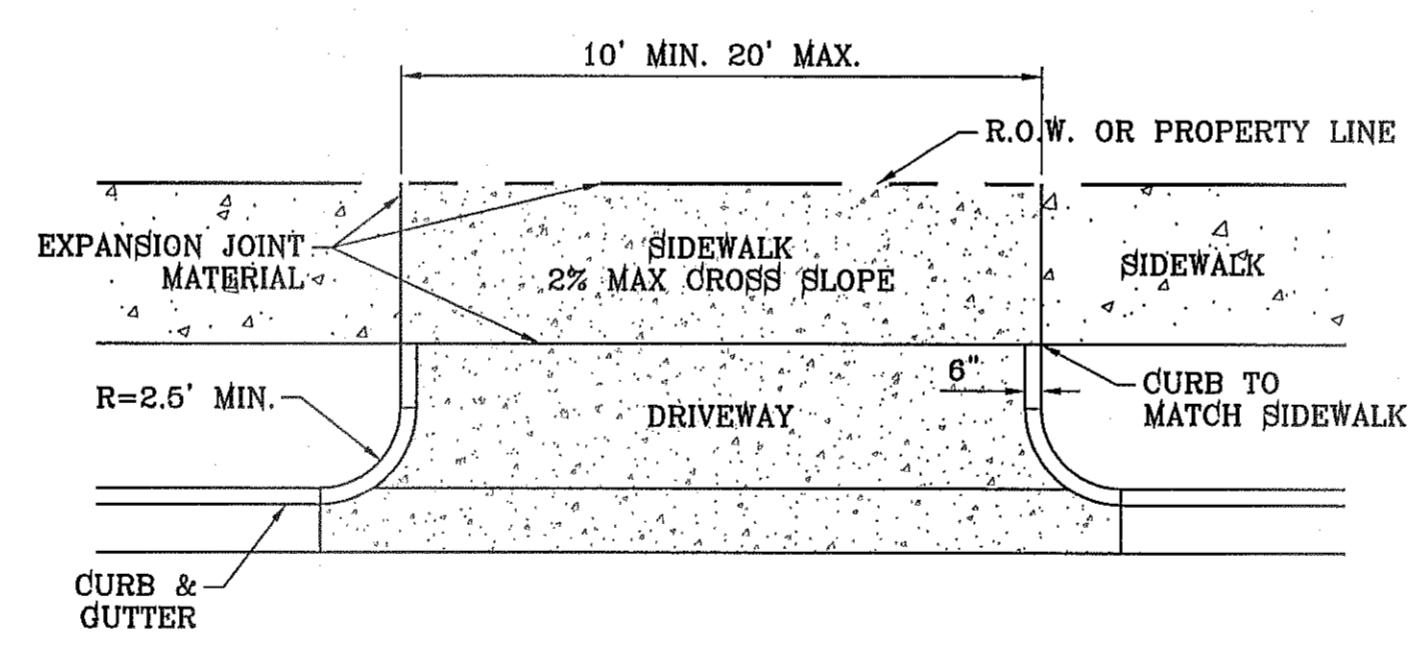
**RESIDENTIAL DRIVEWAYS**  
6-16  
SCALE: 1"=10'

PLATE 6-17

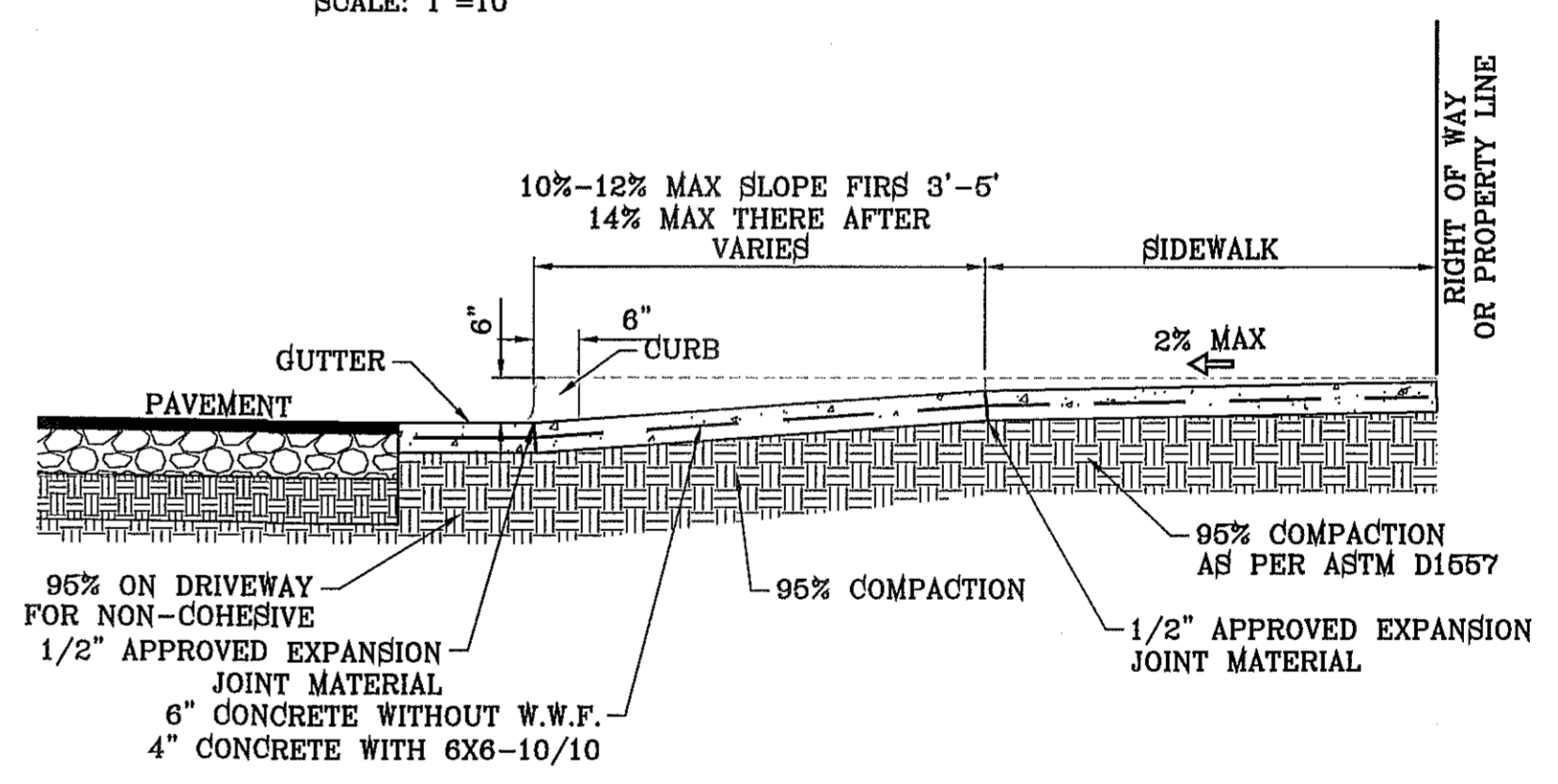
DRIVEWAY WIDTH	MIN	MAX
COMMERCIAL/INDUSTRIAL	24'	35'
RESIDENTIAL (SINGLE FAMILY 60' LOTS)	10'	20'
LESS THAN 60' LOTS, DUPLEX, AND TOWNHOMES	16'	26'



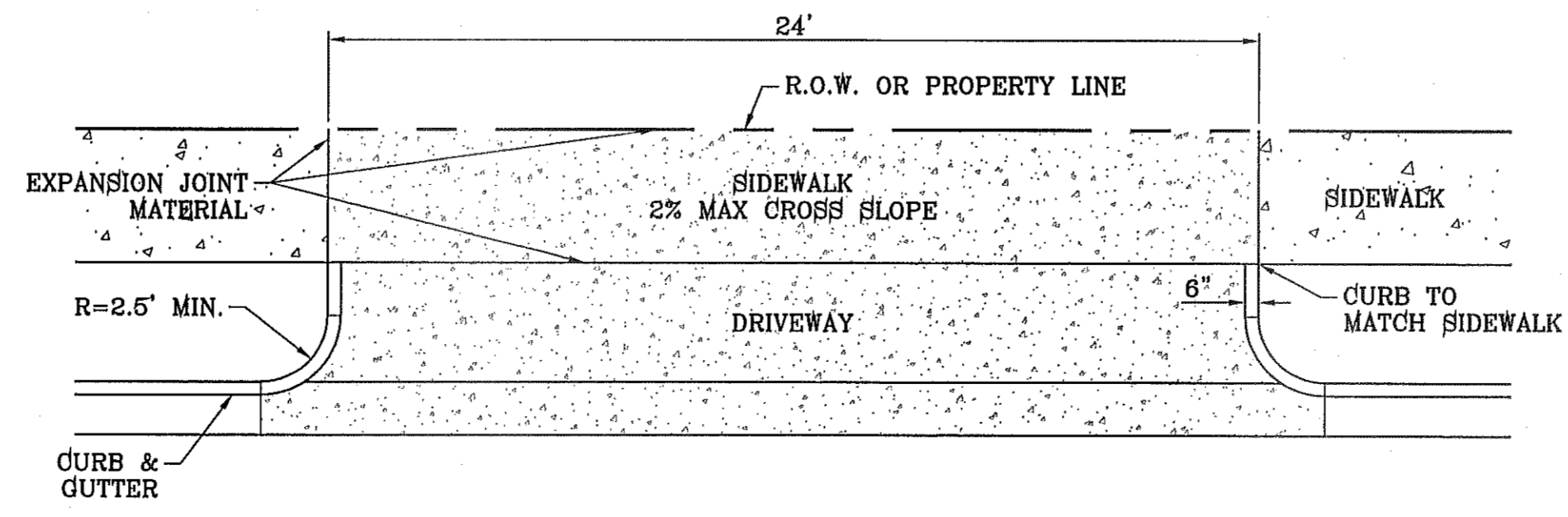
**RESIDENTIAL DRIVEWAYS**  
6-16  
SCALE: 1"=10'



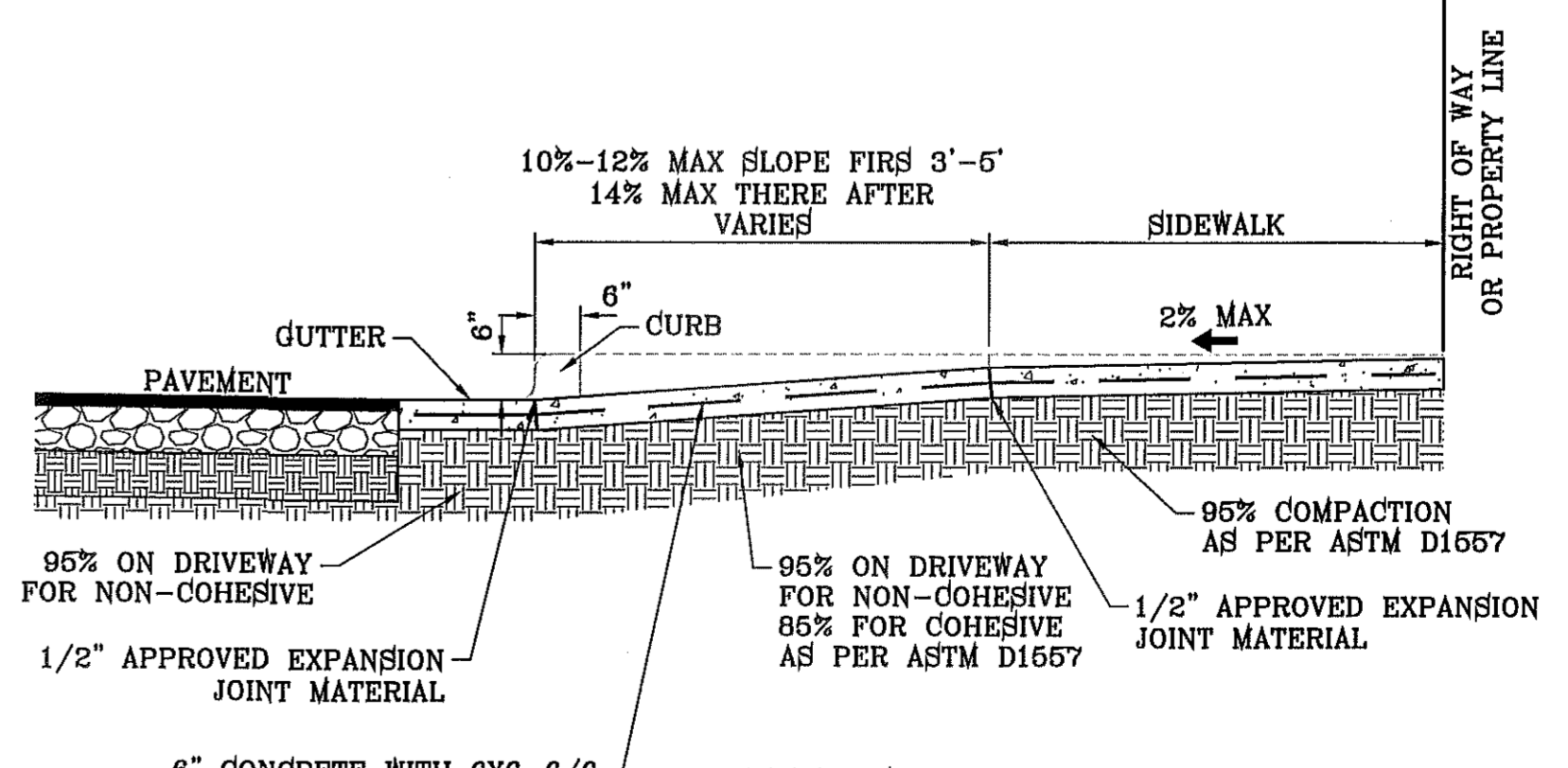
**RESIDENTIAL DRIVEWAY DETAIL**  
SCALE: 1"=6'



**RESIDENTIAL DRIVEWAY SECTION**  
SCALE: 1"=2'



**COMMERCIAL/INDUSTRIAL DRIVEWAY DETAIL**  
SCALE: 1"=6'



**COMMERCIAL DRIVEWAY SECTION**  
SCALE: 1"=2'



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4016.75

DATE: 04/02/12

REVISIONS

CITY COMMENTS AS PER 04/02/12

BY: R.R.

**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: ACRES

ENGINEER'S SEAL

HORIZ: AS NOTED

VERT: AS NOTED

DATE: JAN. 2012

DESIGN BY: YC

INITIATED BY: RC

CHECKED BY: YC & FC

JOB NO.: 1110-18

**CONDE INC.**

ENGINEERING / PLANNING SURVEYING / GPS

6080 SURREY DR. STE 100 EL PASO, TEXAS 79905

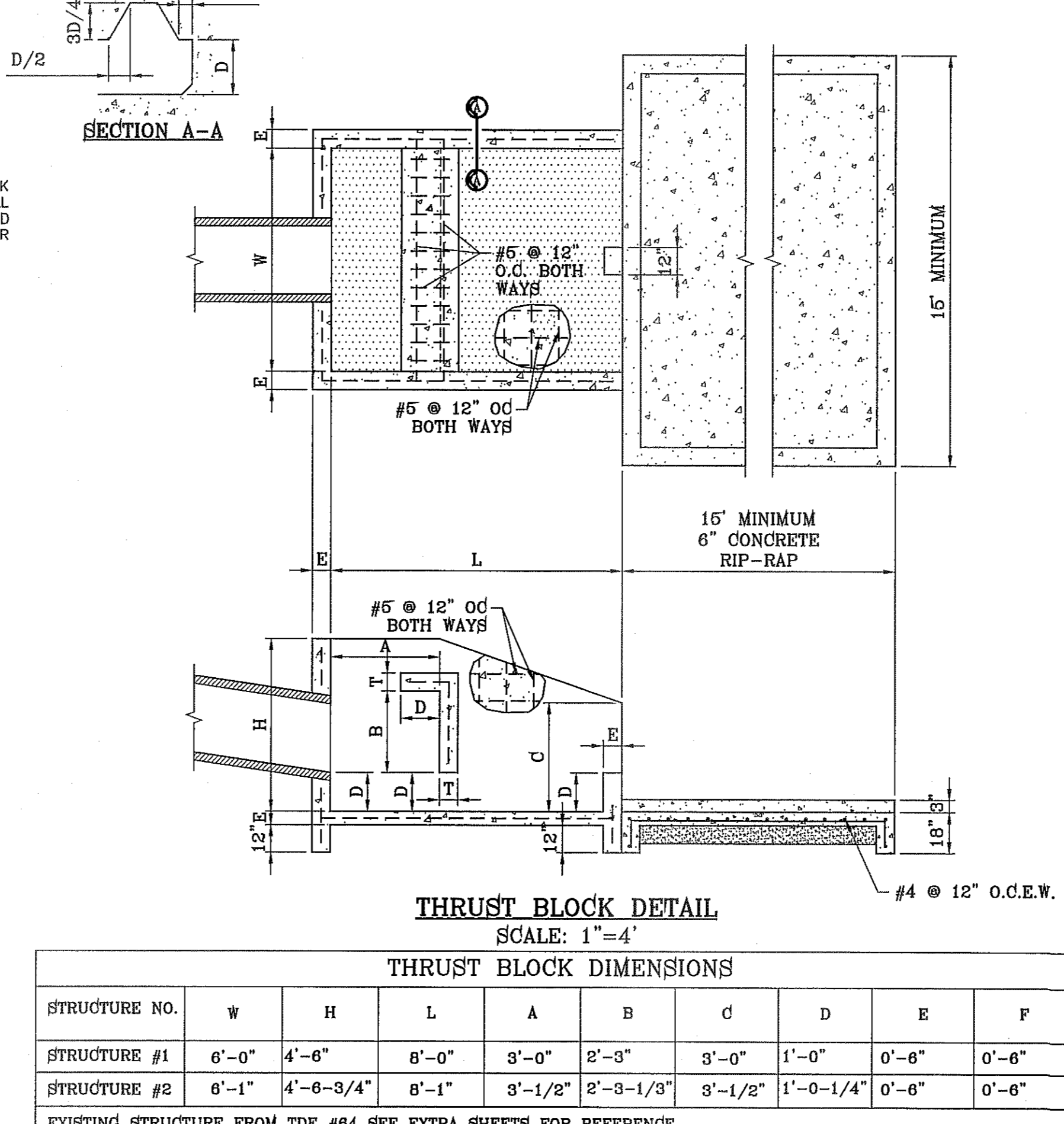
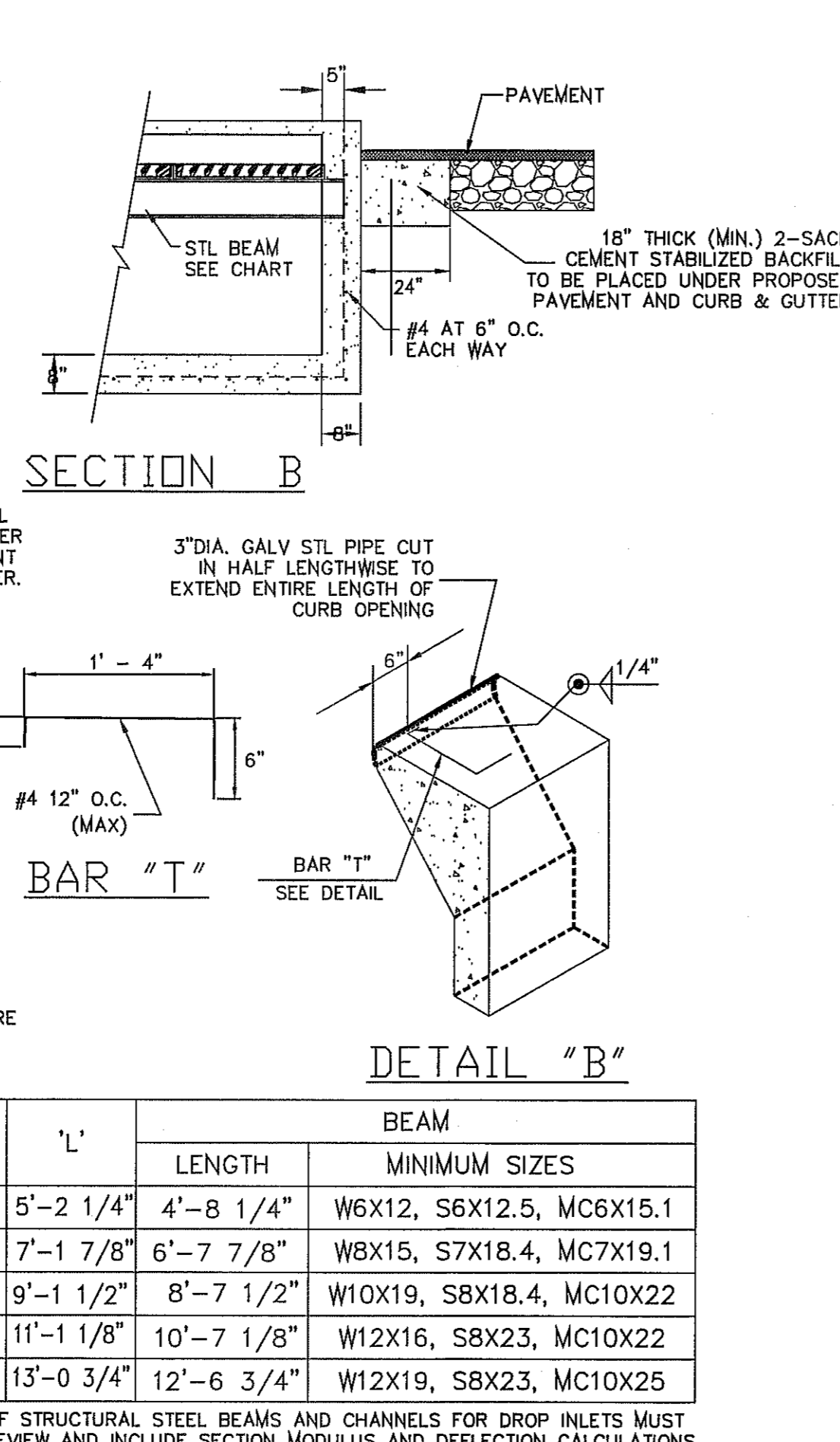
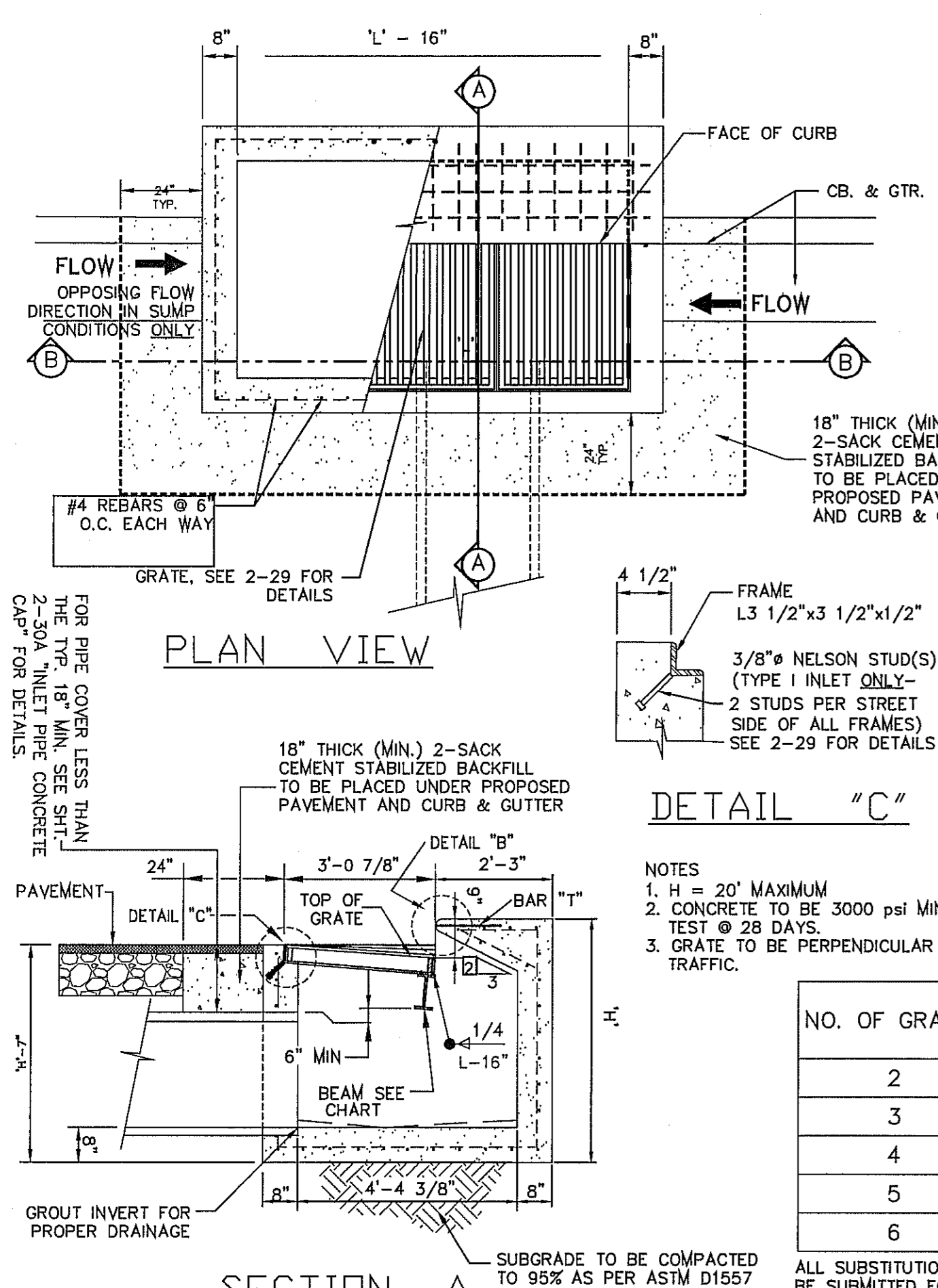
PHONE: (915) 592-0283

FAX: (915) 592-0286



SHEET TITLE

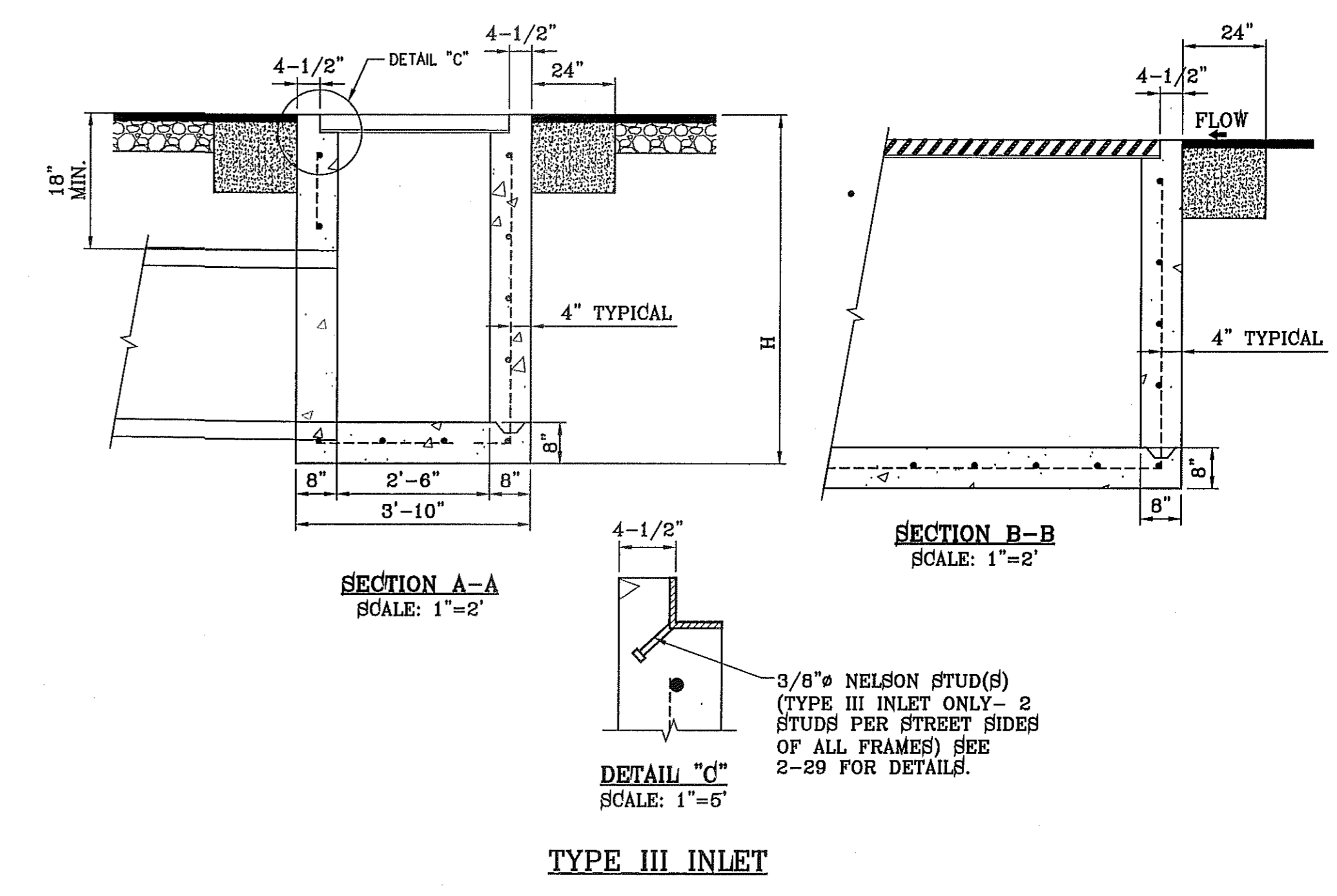
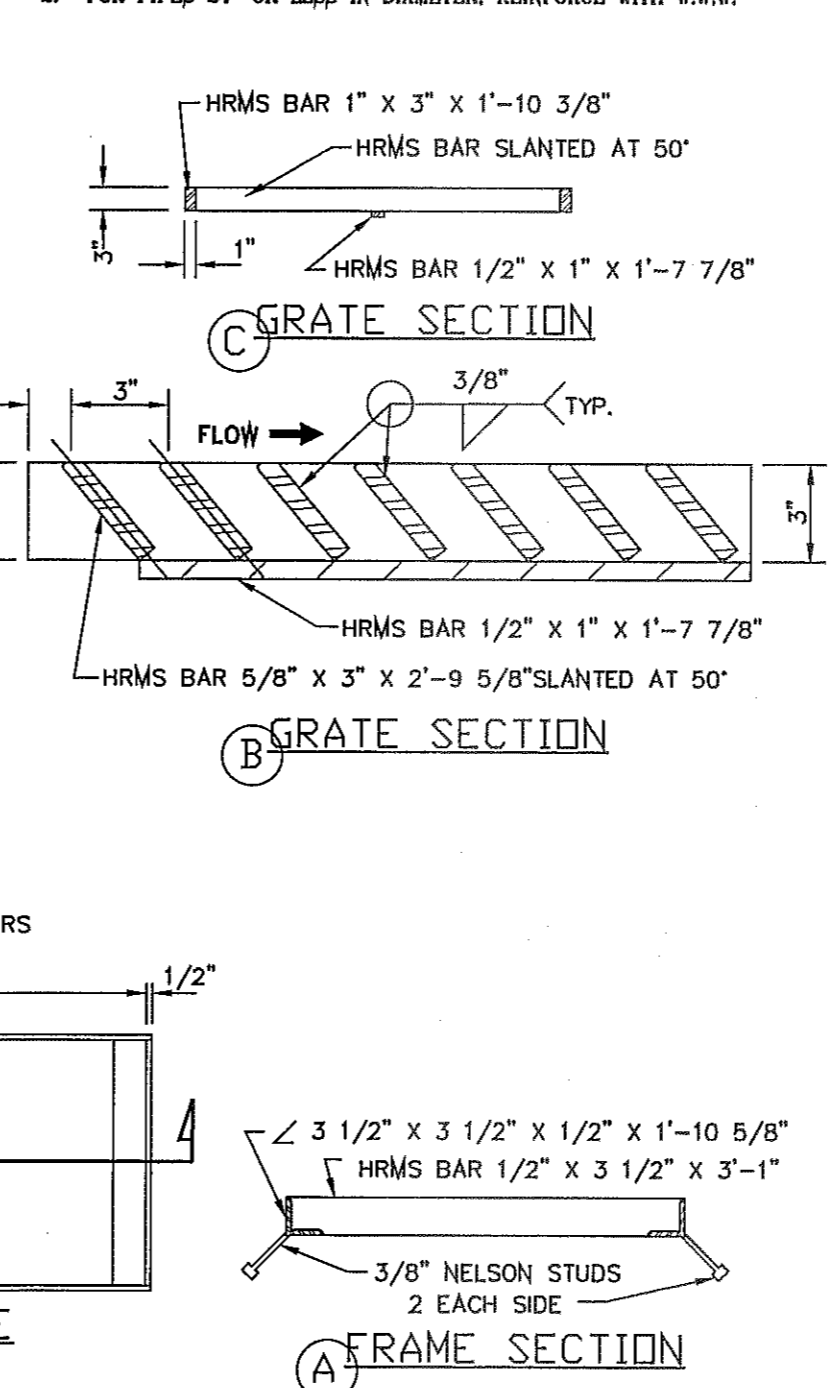
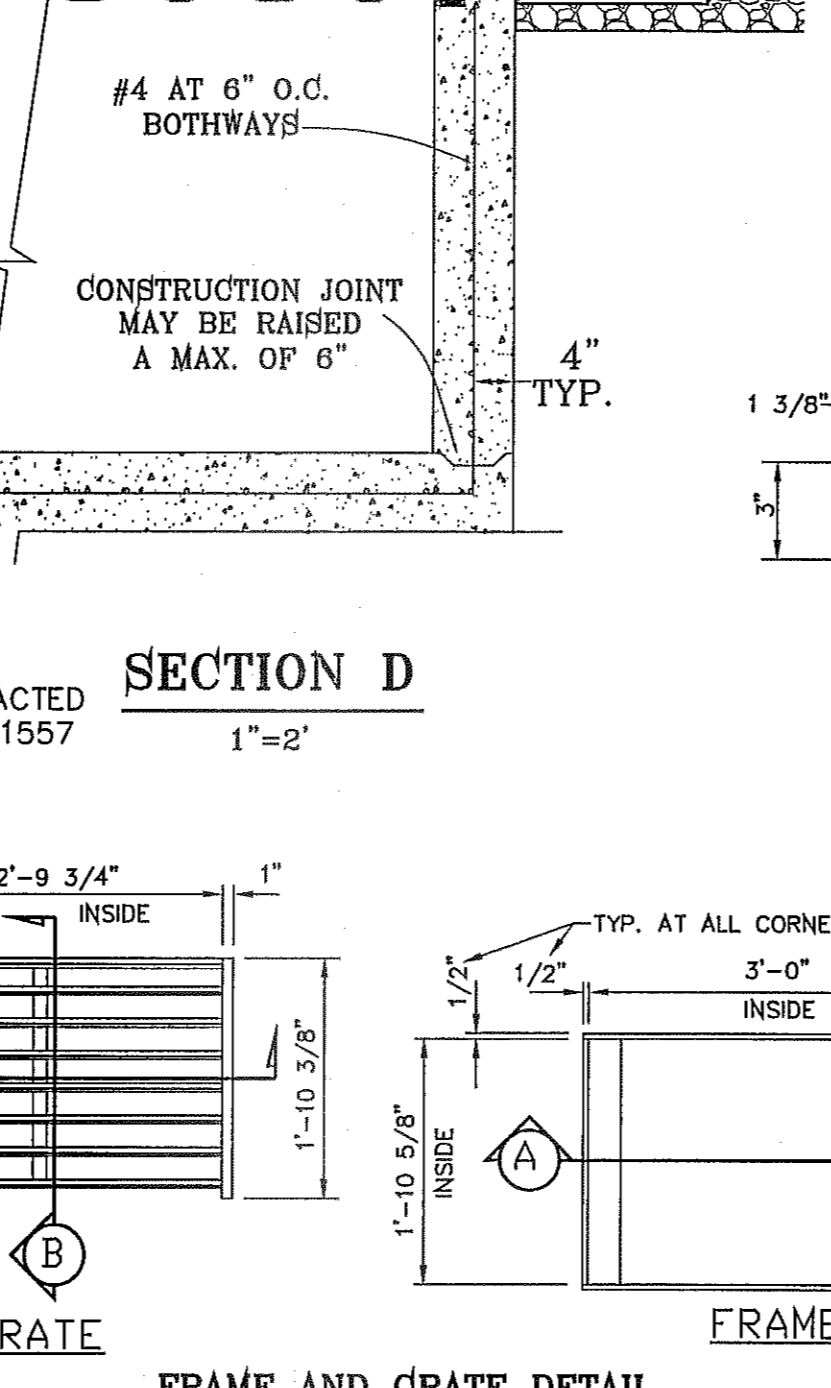
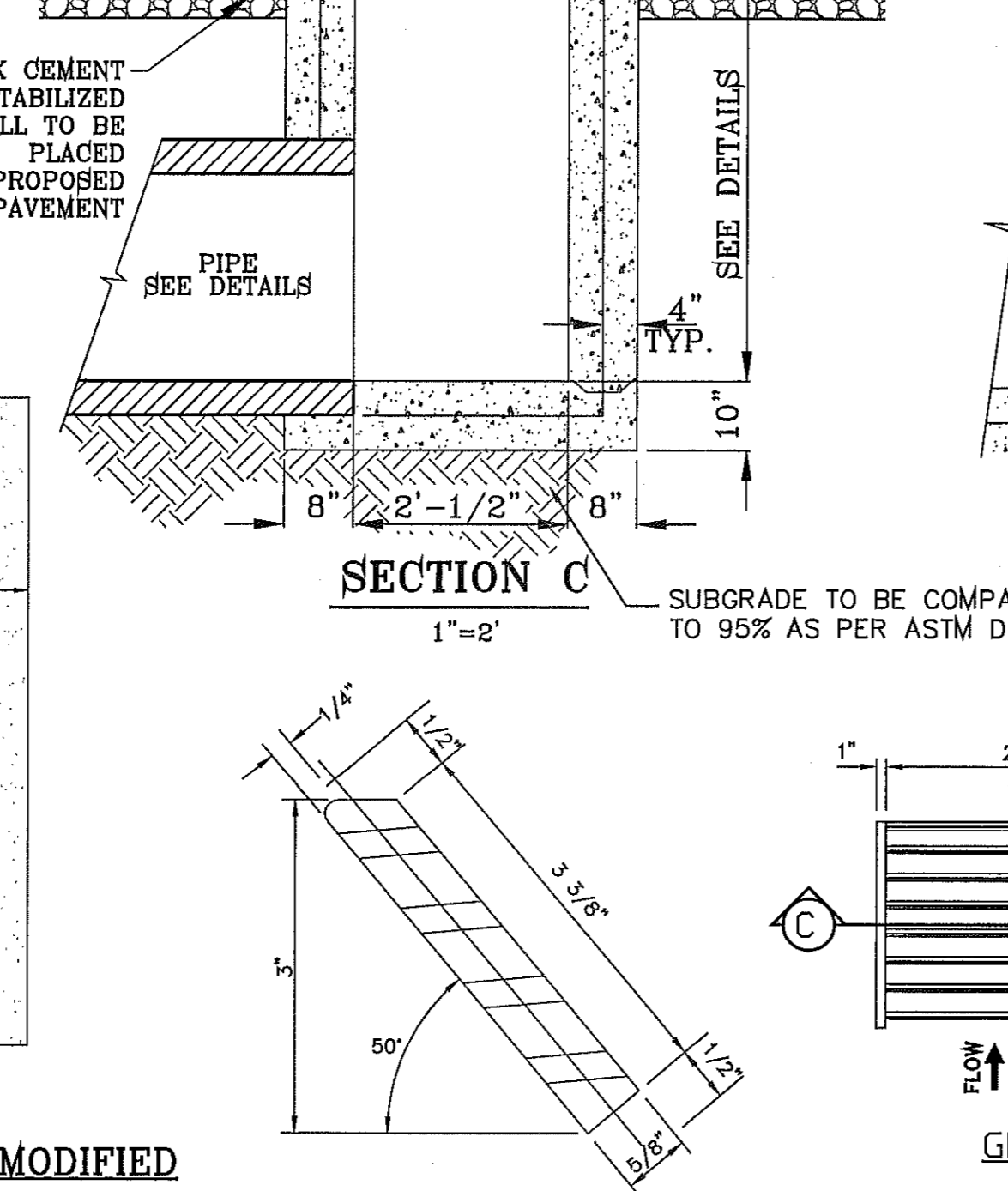
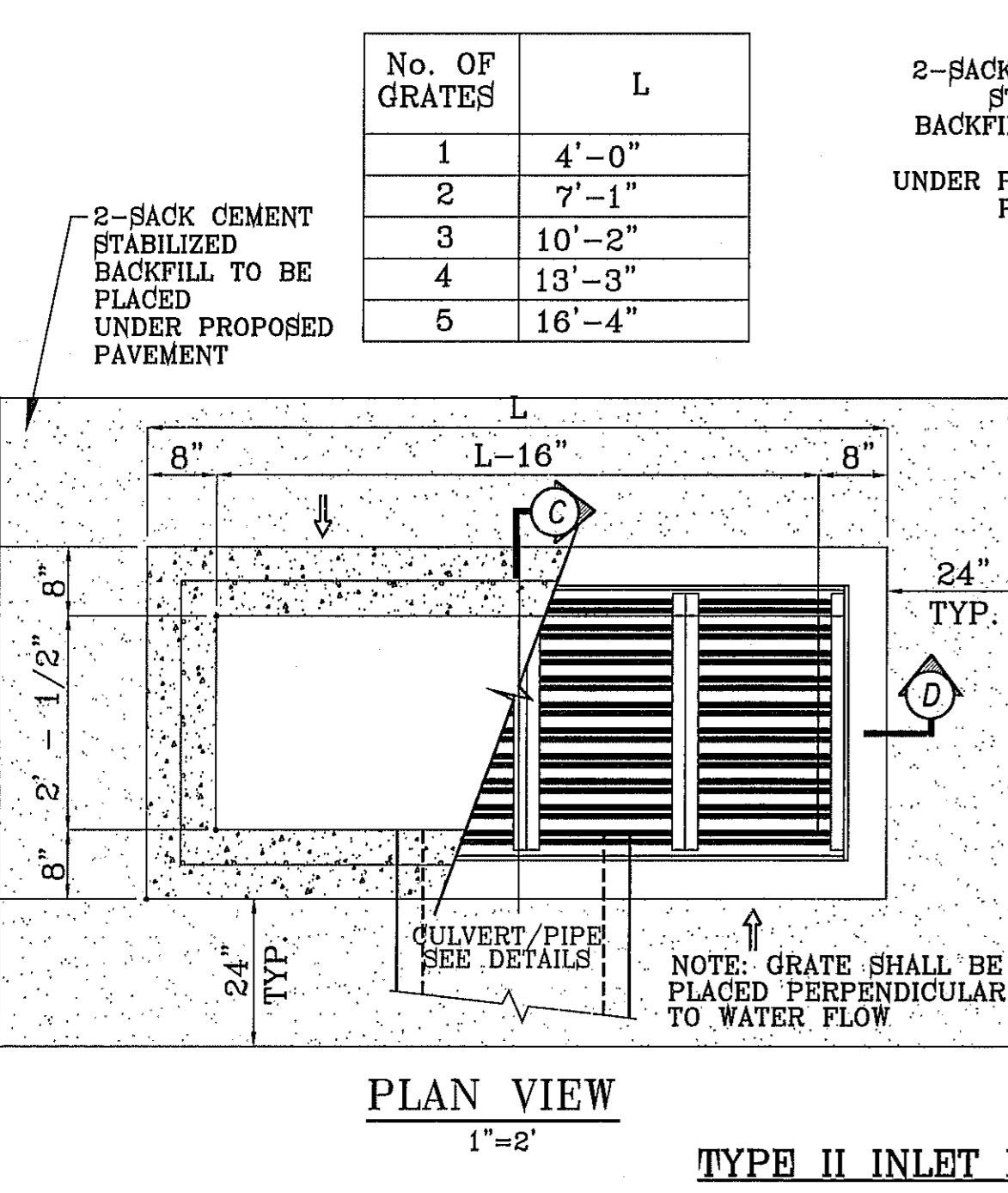
**STRUCTURE DETAILS**



NO. OF GRATES	'L'	BEAM	
		LENGTH	MINIMUM SIZES
2	5'-2 1/4"	4'-8 1/4"	W6X12, S6X12.5, MC6X15.1
3	7'-1 7/8"	6'-7 7/8"	W8X15, S7X18.4, MC7X19.1
4	9'-1 1/2"	8'-7 1/2"	W10X19, S8X18.4, MC10X22
5	11'-1 1/8"	10'-7 1/8"	W12X16, S8X23, MC10X22
6	13'-0 3/4"	12'-6 3/4"	W12X19, S8X23, MC10X25

**DROP INLET TYPE I**

ALL SUBSTITUTIONS OF STRUCTURAL STEEL BEAMS AND CHANNELS FOR DROP INLETS MUST BE SUBMITTED FOR REVIEW AND INCLUDE SECTION MODULUS AND DEFLECTION CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS.



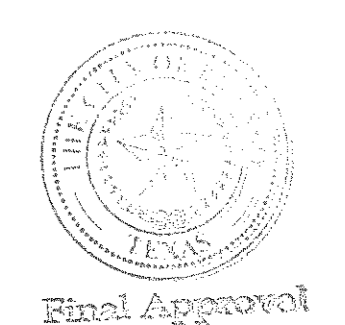
**TYPE II INLET MODIFIED**

**SLANTED BAR DETAIL**

**FRAME AND GRATE DETAIL**

**TYPE III INLET**

FILE S:\Subdivisions\TIE 71 RIDGER DETAILS STRUCT PLOTTED Tuesday, June 18, 2013 2:01:11 PM



BENCHMARK  
 12/6711 MONUMENT TO THE CENTERLINE INTERSECTION OF  
 RALPH SETSINGER DR. AND JOHN HAYES ST.  
 ELEVATION 4036.75  
 DATE  
 REVISIONS  
 BY

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE**  
 (REVISED)  
 BEING PORTION OF SECTION 37 BLOCK 79  
 TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,  
 CITY OF EL PASO, EL PASO COUNTY, TEXAS  
 CONTAINING: ACRES

SCALE  
 HORIZ: N/A  
 VERT: ---  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18

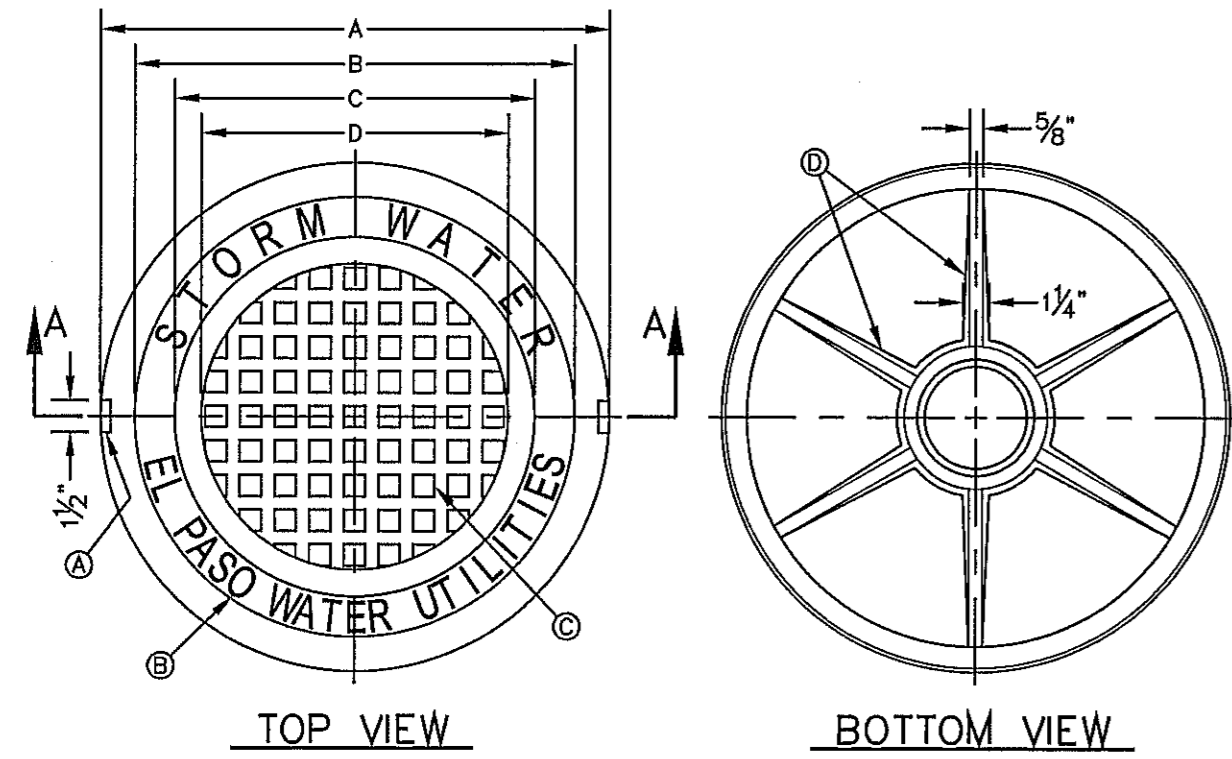
ENGINEER'S SEAL  
 ENGINEER'S SEAL NOT REQUIRED. THIS SHEET IS PRODUCED FROM CITY SUBDIVISION DESIGN STANDARDS

CONDE INC.  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6060 SURREY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

SHEET TITLE  
**STRUCTURE DETAILS**

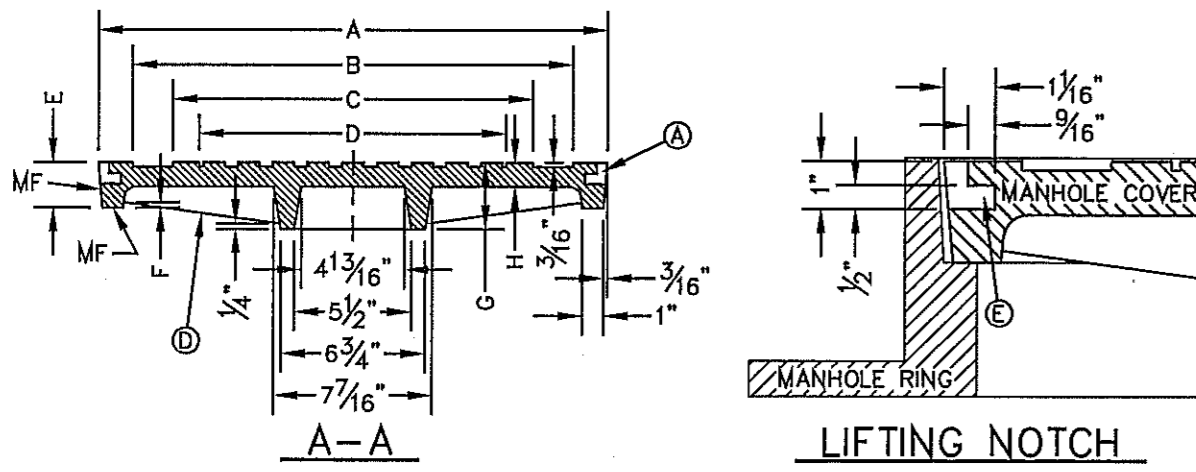
SHT 45 OF 55





TOP VIEW

BOTTOM VIEW



LIFTING NOTCH

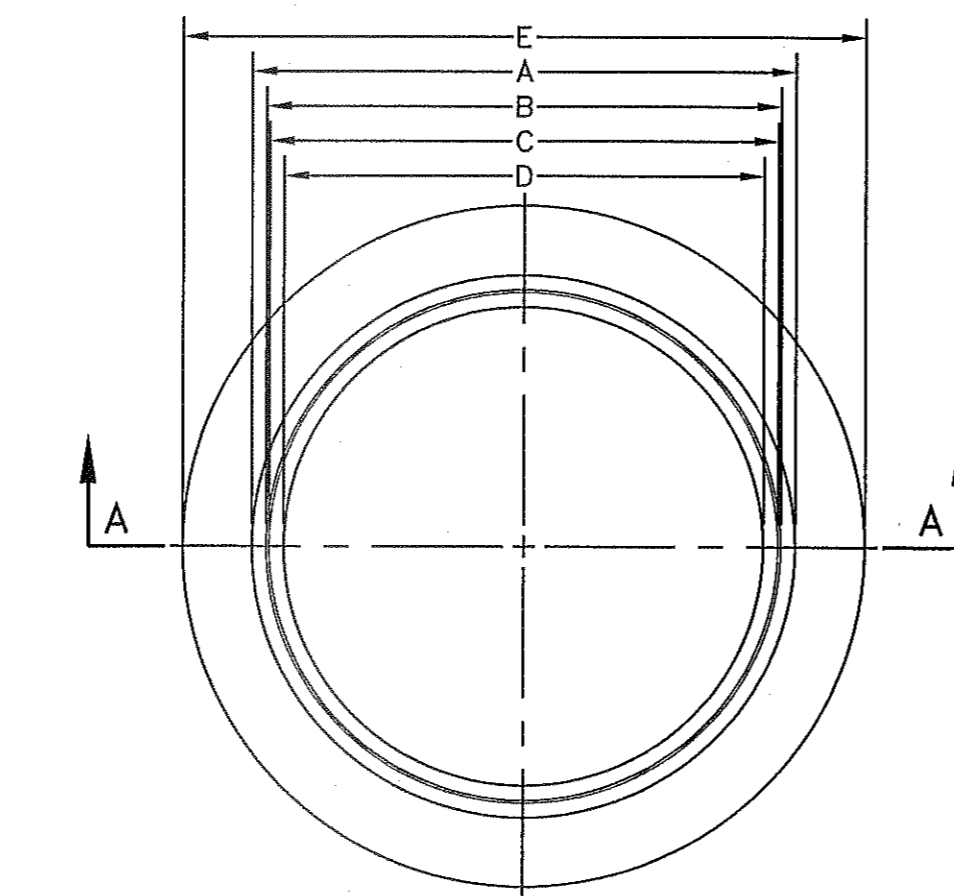
MANHOLE COVER

- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
  2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
  3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
  4. AS-CAST DIMENSIONS MAY VARY  $\pm 1/16"$  PER FOOT (AASHTO M306-07).
  5. WEIGHT MAY VARY 5% (AASHTO M306-07).
  6. SHADED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-17.

- CONSTRUCTION KEY NOTES:**
- A. LIFTING NOTCH.
  - B.  $3/16"$  RAISED TALL.
  - C. 1" SQUARES ( $3/16"$  TALL) WITH  $3/16"$  SPACE BETWEEN.
  - D. REINFORCING RIBS.
  - E. SLOT.

SEE NOTE 6

MANHOLE COVER	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	31 3/8"	23 3/8"	31 3/8"
B	28 1/8"	20 5/8"	28 1/8"
C	24 3/8"	16 7/8"	24 3/8"
D	21 7/8"	14 3/8"	21 7/8"
E	2 1/8"	3"	3"
F	1/4"	1 1/4"	1 1/4"
G	3 3/8"	3"	3"
H	1 1/8"	1"	1"
WEIGHT	265 lbs.	175 lbs.	310 lbs.

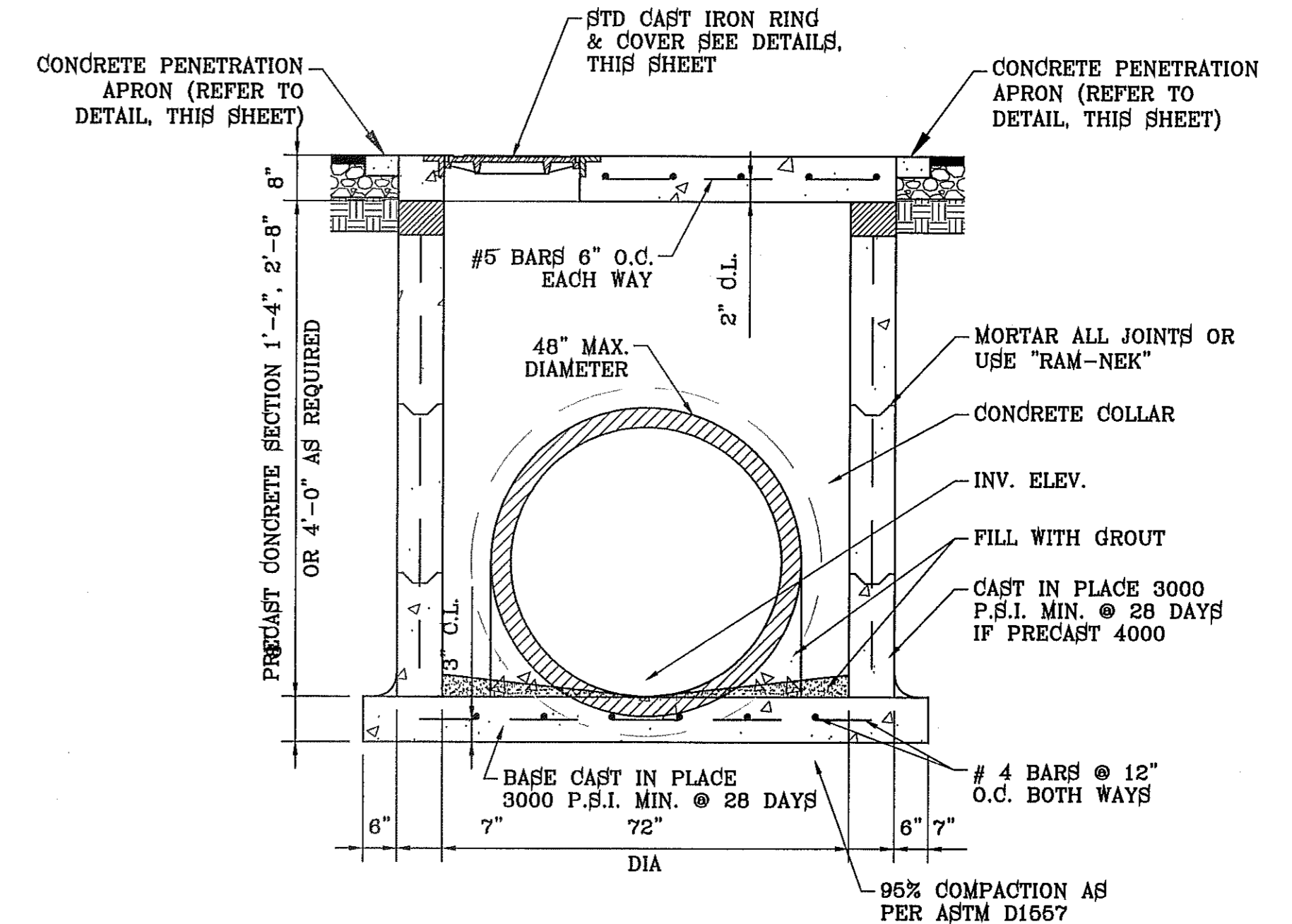


MANHOLE RING

- GENERAL NOTES:**
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
  2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
  3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
  4. AS-CAST DIMENSIONS MAY VARY  $\pm 1/16"$  PER FOOT (AASHTO M306-07).
  5. WEIGHT MAY VARY 5% (AASHTO M306-07).
  6. SHADED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2-16.

SEE NOTE 6

MANHOLE RING	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	33"	25 1/4"	32 3/4"
B	31 3/4"	23 3/8"	31 3/8"
C	31 1/2"	23 3/8"	31 1/8"
D	30"	22 1/2"	30"
E	39 1/2"	34 1/2"	42"
F	5 1/8"	1 1/8"	1 1/8"
G	5"	6"	6"
H	4 1/4"	5 1/2"	5 1/4"
I	3 1/4"	4 1/8"	4 1/8"
J	4 3/4"	6"	6"
K	2 3/8"	3 1/8"	3 1/8"
L	2 1/16"	2 1/16"	2 1/16"
M	1 1/2"	1 3/8"	1 3/8"
WEIGHT	220 lbs.	165 lbs.	225 lbs.



PRECAST 72" MANHOLE SECTION  
SCALE: 1"=2'

CONCRETE APRON FOR CIRCULAR PENETRATIONS IN ASPHALT PAVEMENTS

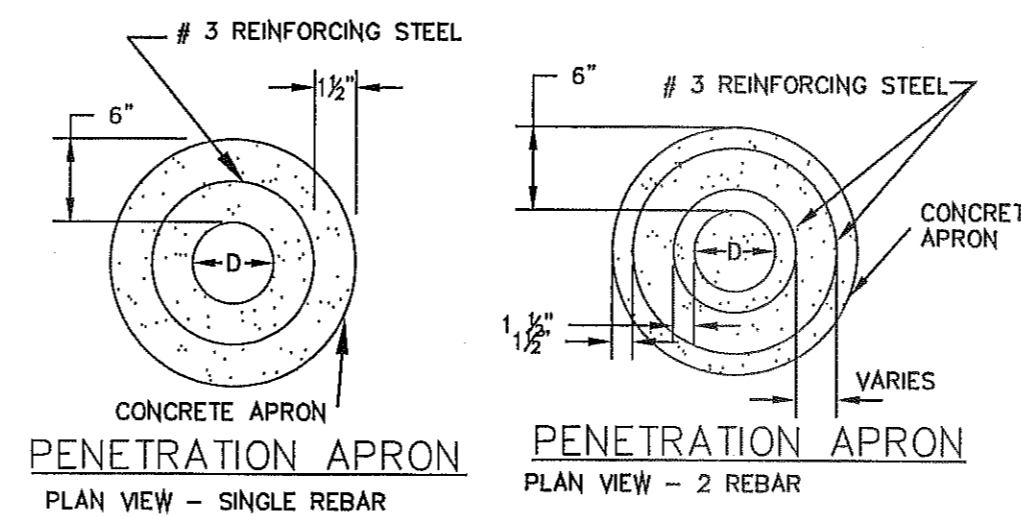
"D" DIAMETER OF PENETRATION (INCHES)	"A" CONCRETE HORIZONTAL DIMENSION FROM PENETRATION (INCHES)	NUMBER OF NO. 3 REINFORCING STEEL BARS	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE APRON TO CENTER OF NEAREST REBAR (INCHES)	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR (INCHES)
0 TO 6.00	6	1	1 1/2	1 1/2
6.01 TO 18.01	8	2	1 1/2	1 1/2
18.01 AND OVER	12	3	1 1/2	1 1/2

**CONSTRUCTION NOTES:**

1. ANY DISTURBED SUBGRADE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 95% A.S. PER ASTM D1557. MOISTURE CONTENT TO BE IN ACCORDANCE WITH ASTM D-1557.
2. ANY DISTURBED COURSE UNDER THE CONCRETE APRON SHALL BE COMPACTED TO 100% DENSITY & 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
3. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
4. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
5. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

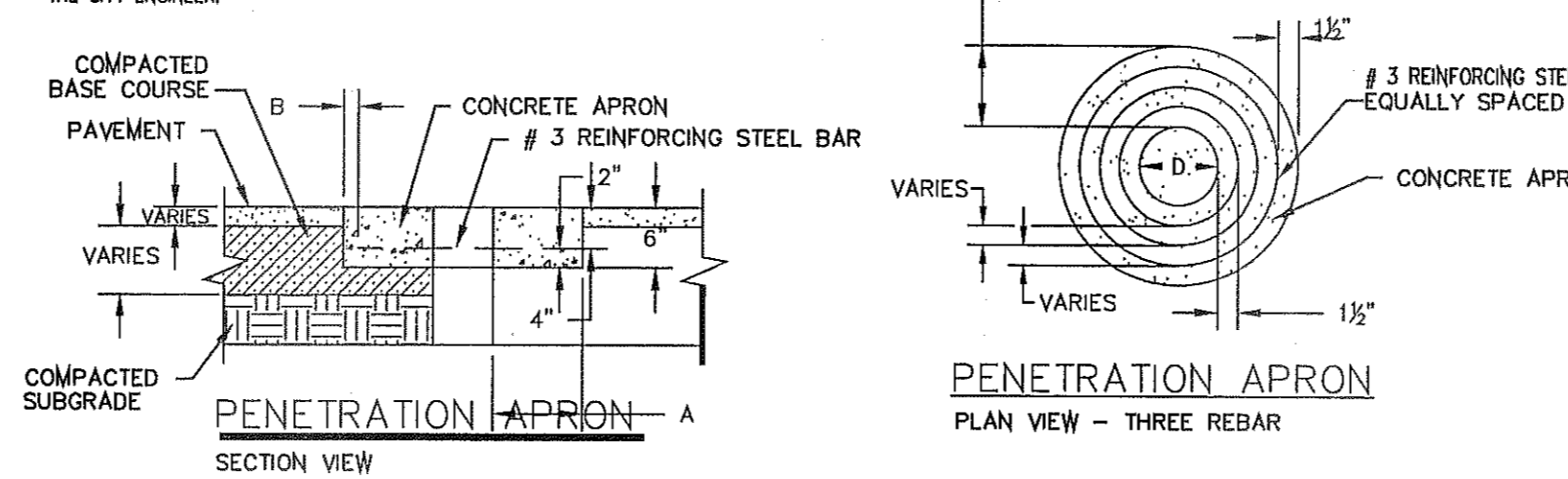
**GENERAL NOTES:**

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

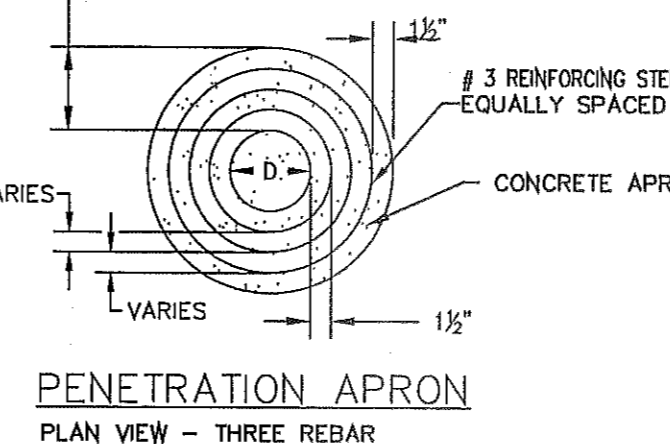


CONCRETE APRON PENETRATION APRON PLAN VIEW - SINGLE REBAR

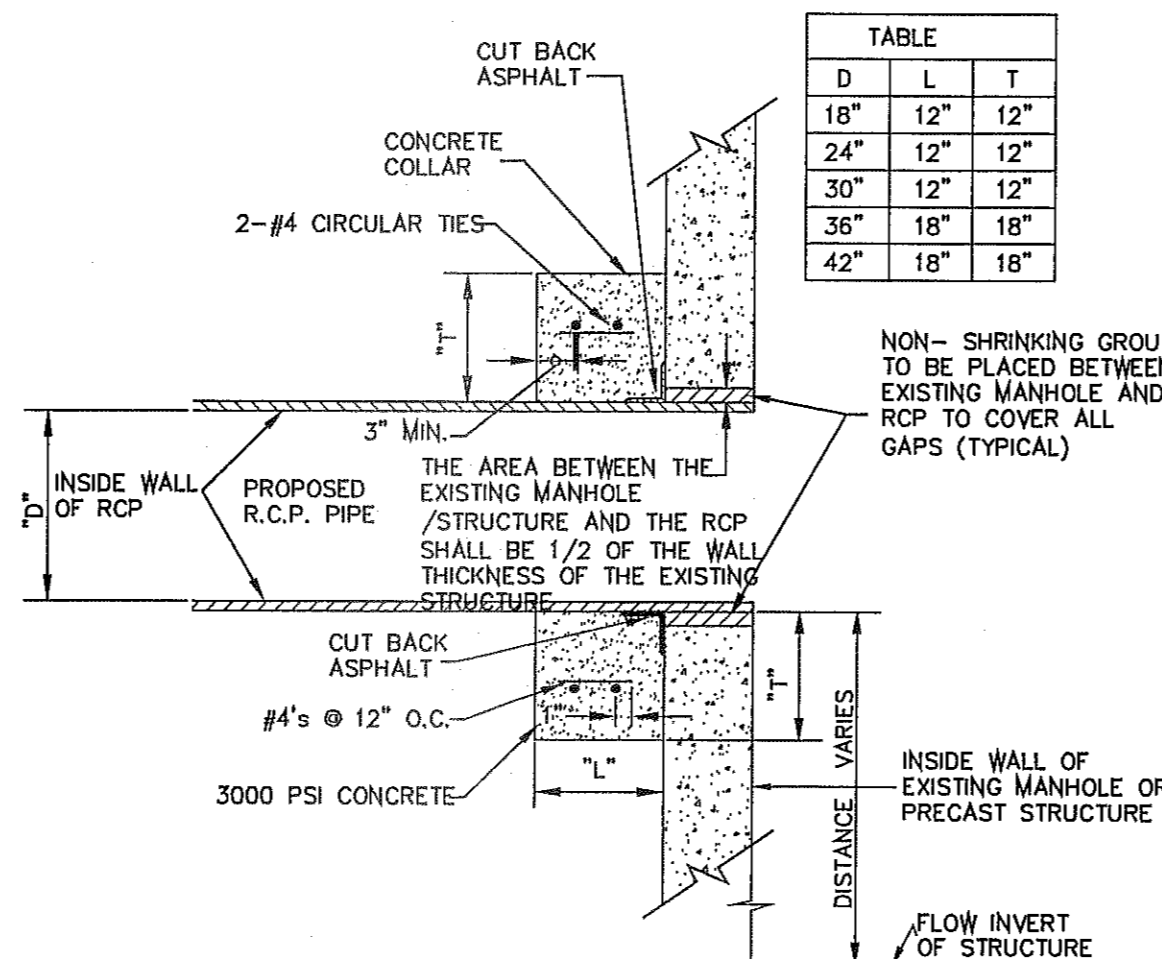
CONCRETE APRON PENETRATION APRON PLAN VIEW - 2 REBAR



CONCRETE APRON PENETRATION APRON SECTION VIEW



CONCRETE APRON PENETRATION APRON PLAN VIEW - THREE REBAR



LATERAL CONNECTION AT PRECAST JUNCTION BOXES OR EXISTING MANHOLES (ABOVE MAINLINE FLOW INVERT)  
SCALE: N.T.S.

TABLE

D	L	T
18"	12"	12"
24"	12"	12"
30"	12"	12"
36"	18"	18"
42"	18"	18"

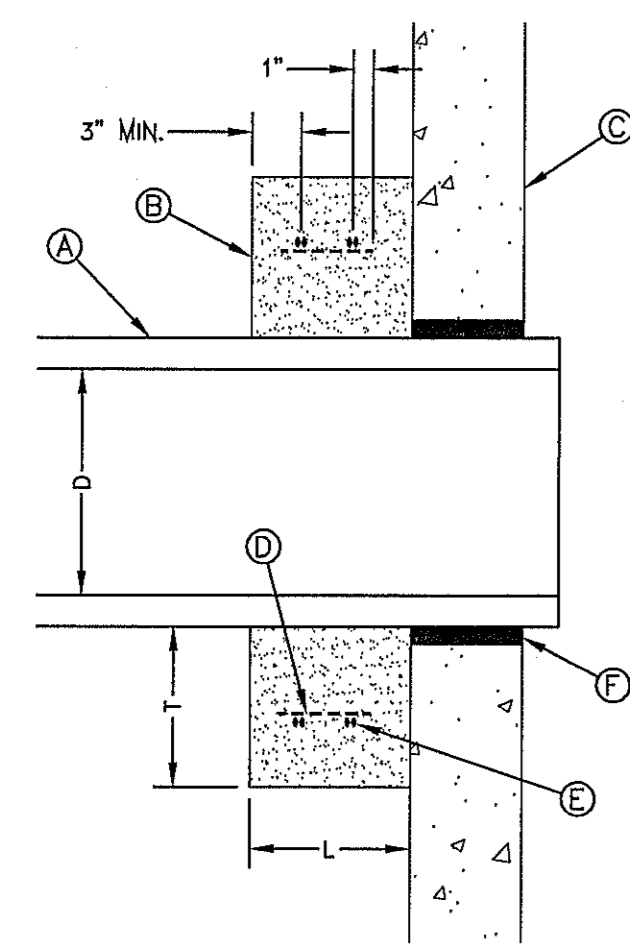
- GENERAL NOTES:**
1. NOT TO BE USED UNDER GROUND WATER CONDITIONS.

**CONSTRUCTION KEY NOTES:**

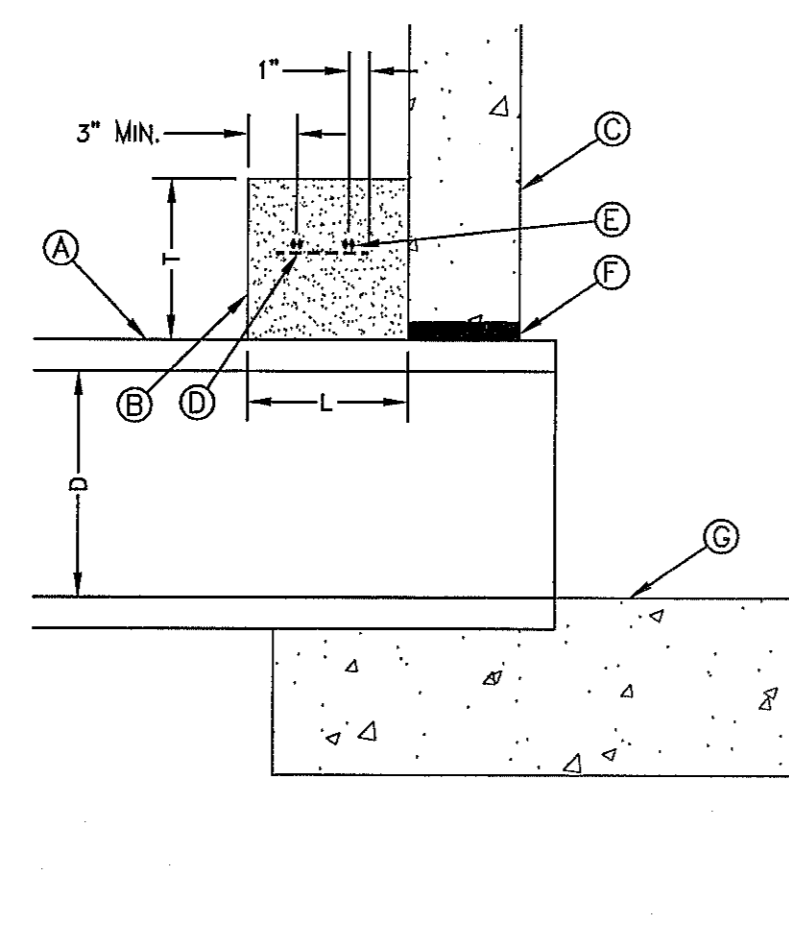
- A. PROPOSED R.C.P. PIPE.
- B. CONCRETE COLLAR (3000 PSI CONCRETE).
- C. INSIDE WALL OF EXISTING MANHOLE OR PRECAST STRUCTURE.
- D. #4's @ 12" O.C.
- E. 2-#4 CIRCULAR TIES.
- F. NON-SHRINK GROUT TO BE PLACED BETWEEN EXISTING MANHOLE AND RCP TO COVER ALL GAPS (TYPICAL). THE AREA BETWEEN THE EXISTING MANHOLE/STRUCTURE AND THE RCP SHALL BE 1/2 OF THE WALL THICKNESS OF THE EXISTING STRUCTURE.
- G. MANHOLE BASE.

TABLE

D	L	T
18"	12"	12"
24"	12"	12"
30"	12"	12"
36"	18"	18"
42"	18"	18"

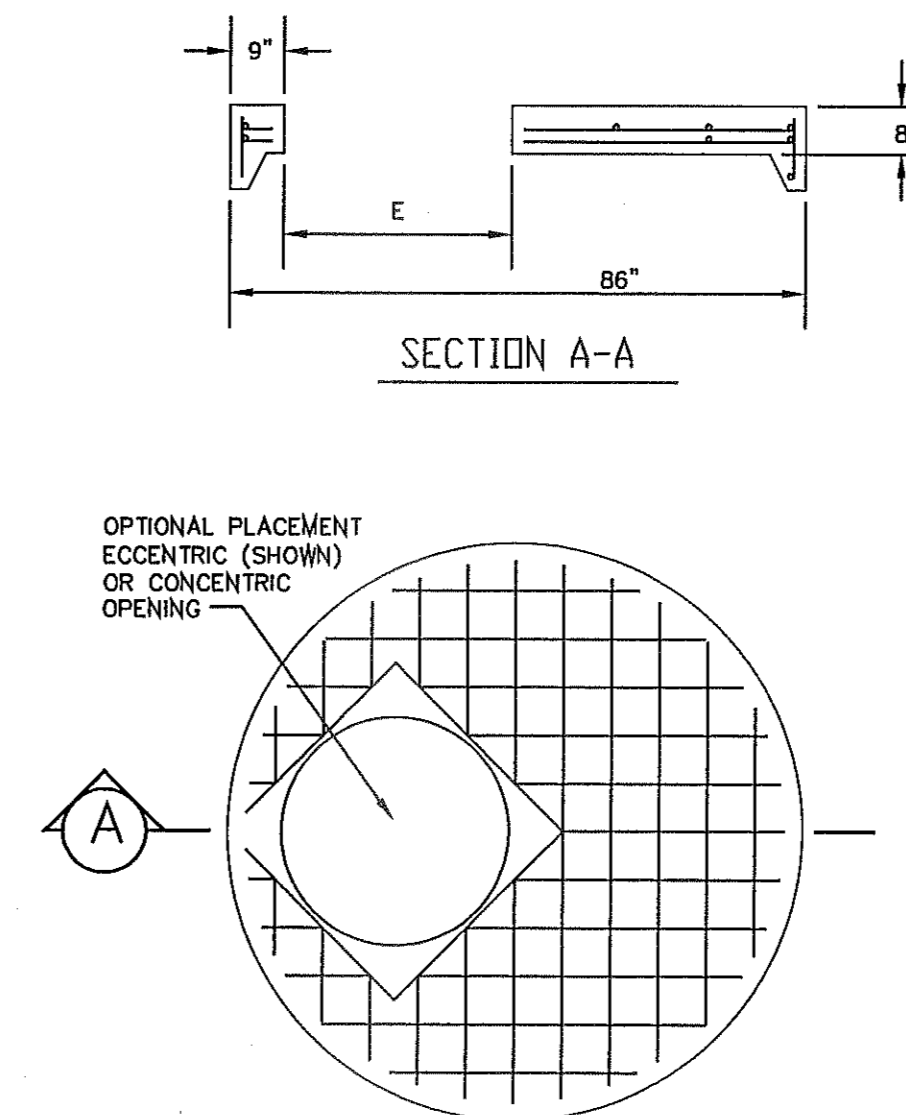


CONNECTION AT DROP INLET



CONNECTION AT BASE

LATERAL CONNECTION AT STORMWATER PRECAST JUNCTION BOXES OR EXISTING MANHOLES (CONCRETE COLLAR)  
2-28C



MANHOLE COVER FOR TYPE 72" MANHOLE

**GENERAL NOTES:**

1. ALL JOINTS TO BE TONGUE AND GROOVE AND SEALED WITH RAM-NEK OR EQUAL.
2. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.

**CONSTRUCTION KEY NOTES:**

- A. 4000 P.S.I. CONCRETE 28 DAYS.
- B. KEYLOCK ADDS 8" TO VERTICAL HEIGHT.
- C. RING & COVER OR SPECIAL LIDS TO MEET REQUIREMENTS. MAY BE CAST IN PLACE.
- D. REINFORCING SHALL MEET A.S.T.M. C478-87 AND TRAFFIC LOADING (HS-20).
- E. SIZED TO ACCOMMODATE 72" DIAMETER MANHOLE RING.

BENCHMARK  
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SUTSINGER DR. AND JOHN HAYES ST.  
ELEVATION 4018.75  
DATE 12/6/11  
REVISIONS CITY COMMENTS  
BY R.R.

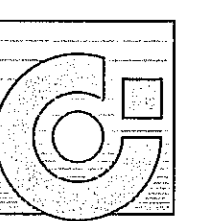
PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.566± ACRES

SCALE  
HORIZ: N/A  
VERT: 1"=4'  
DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

ENGINEER'S SEAL  
ENGINEER'S SEAL NOT REQUIRED. THIS SHEET IS PRODUCED FROM CITY DESIGN STANDARDS

**CONDE INC.**  
ENGINEERING / PLANNING / SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

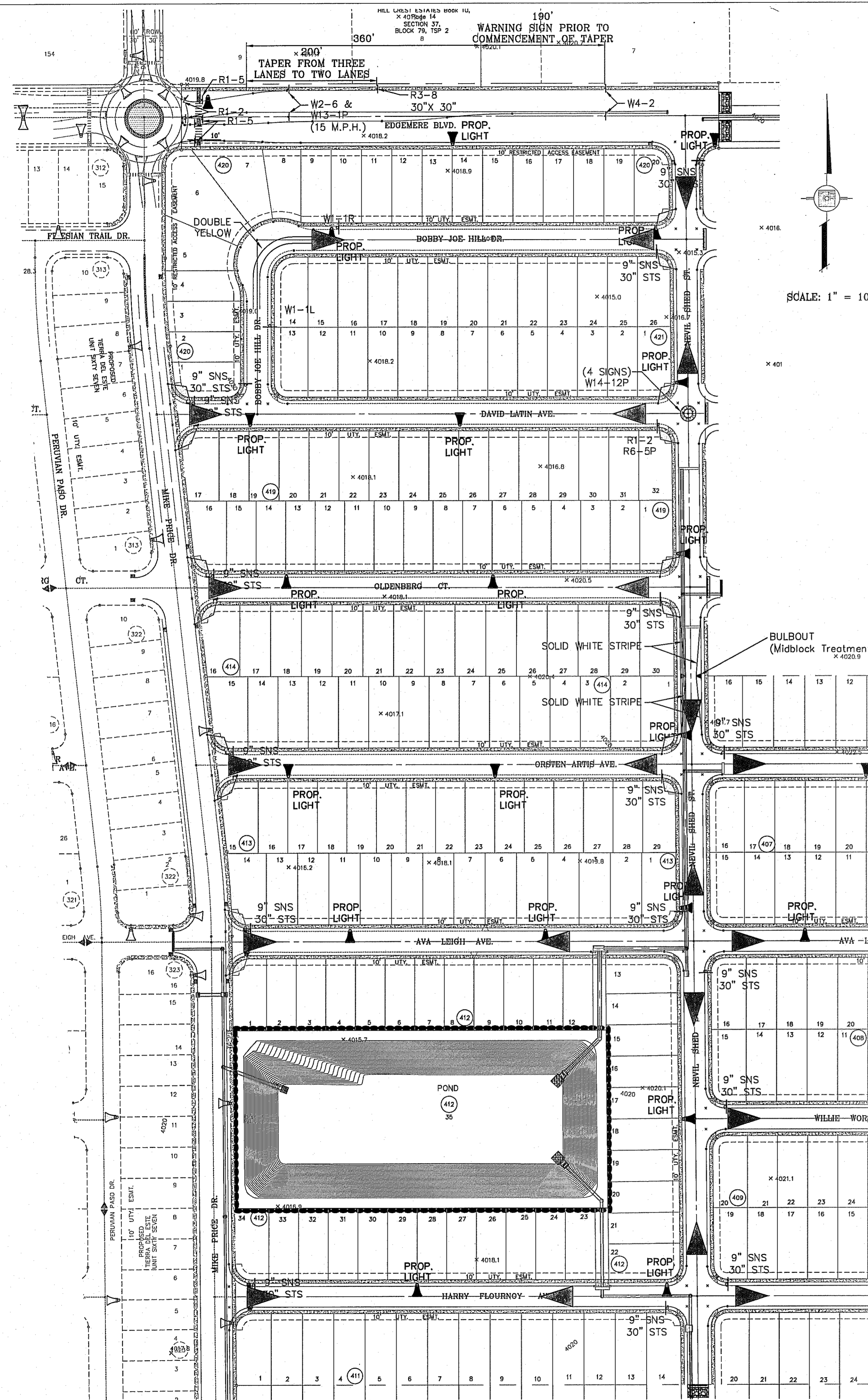


REGISTRATION NO. P-3221

SHEET TITLE

**STRUCTURE DETAILS**

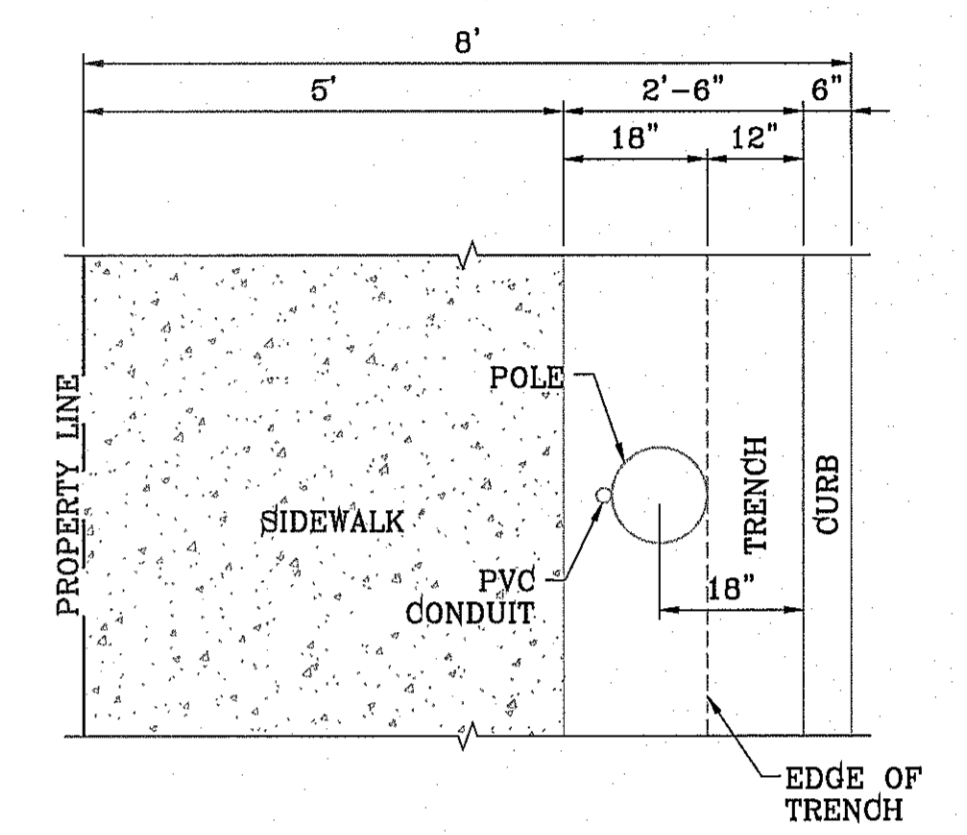




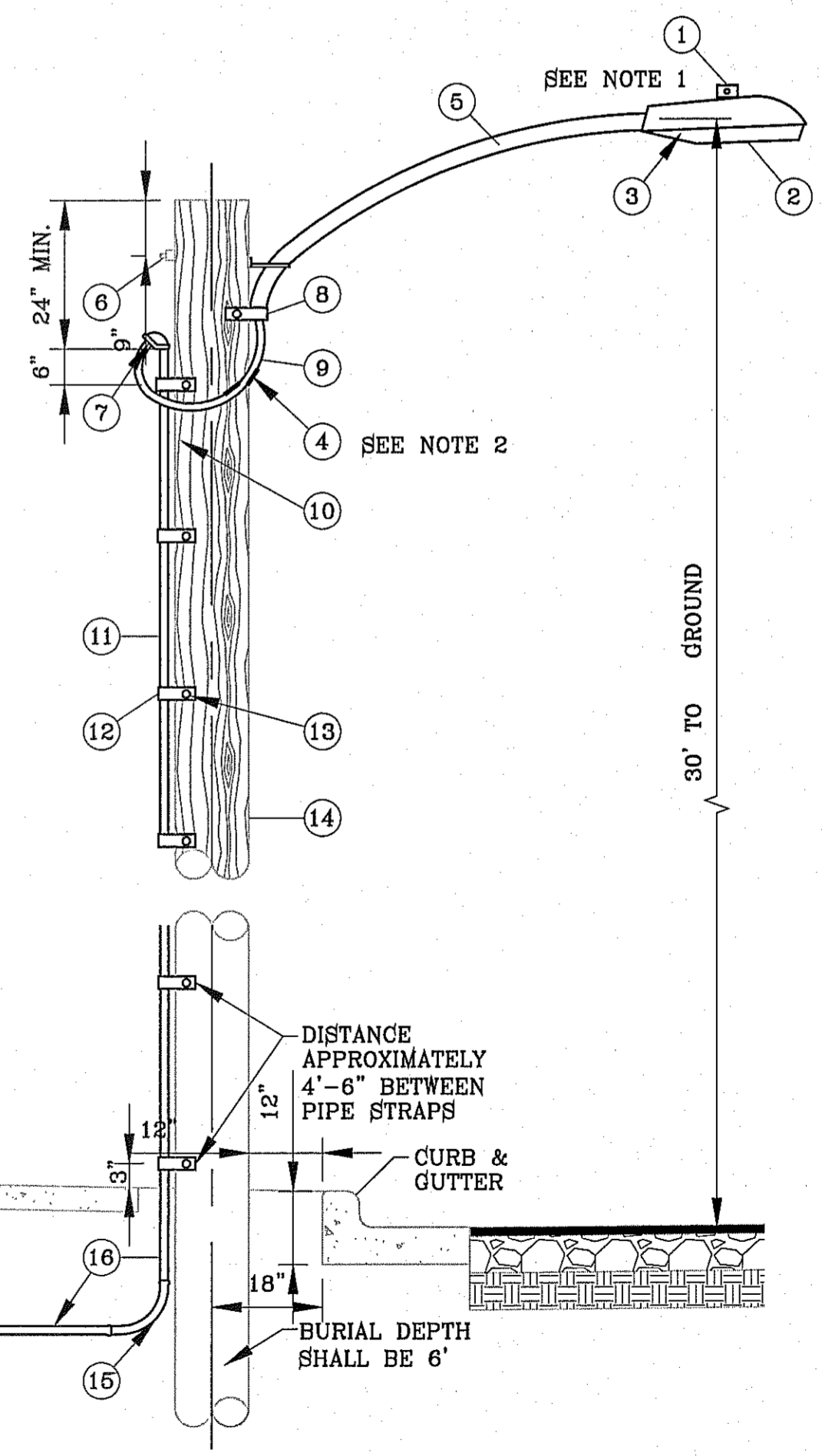
- 1 MOUNT SO THAT PHOTO CELL IS FACING NORTH.
- 2 ITEM #9 SHALL NOT BE SPICED INSIDE ITEM #6.
- 3 INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
- 4 FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.

ITEM No.	DESCRIPTION	STOCK DSU No.	QTY.	C/U CODE	MACRO CODE
1	PHOTOCELL, 240 V-SEE NOTE 1	21-225	1		LCOBRAUG
2	HPS LAMP 100 W	21-085	1	LCOBRAHD	
3	LUMINAIRE, 100 W HPS	21-335	1		
4	SLEEVES, #12-10	05-140	2		
5	MAST ARM, 6' x 1 1/4"	21-200	1	LBRKT1*6	
6	MACHINE BOLT, 5/8" x 12"	02-470	1		
	SQUARE GALV. WASHER, 2 1/4"x2 1/4"	02-760	1	LMB5/812	
	COIL SPRING WASHER, 5/8"	02-786	1		
	LOCK NUT, 5/8"	02-706	1		
7	SERVICE ENTRANCE CAP FOR 1" PVC CONDUIT	17-281	1	LSVCCAP1	
8	LAG BOLT, 1/2" x3"	02-343	2	LLAG12*3	
9	CABLE #10, 2 CONDUCTOR, 600V, UF	13-800	8'	L2C#10S	
10	COPPER CBL, #12, 19 SOLID, 600V BLUE	13-702	60'	LC#12CU	
11	SCHEDULE 80 1" PVC CONDUIT	17-280	30'	LSCH801	
12	PIPE STRAP FOR 1" PVC CONDUIT 2 HOLE	17-283	7	LPVCSTRP	
13	NAIL, STAINLESS STEEL SCREW 2.5"	14-427	.25#	LNAL14*2	
14	POLE, 35' CLASS 4	09-035	1	L354UG	
15	1" PVC 90 DEGREE ELBOW	17-297	1	LEL901	
16	1" PVC CONDUIT	17-299	AS REQ'D	LPVC1	
17	1" PVC 45 DEGREE ELBOW	17-298	1	LEL451	
18	1" PVC COUPLING	17-296	1	LCPLG1	

SCALE: 1" = 100'



PLAN VIEW SCALE: 1"=2'



UNDERGROUND RESIDENTIAL STREET LIGHT WOOD POLE E.P.E.C. STD. DSU 805 SCALE: 1"=2'

**LEGEND**

- ▲ PROPOSED LIGHT
- ◻ EXISTING LIGHT
- ◻ PROPOSED SIGN

NOTE: STREET LIGHTING TO BE IN ACCORDANCE WITH EL PASO DESIGN STANDARDS, SECTION VIII

NOTE: INSTALL TRAFFIC CONTROL DEVICES AS SHOWN AND IN ACCORDANCE WITH CITY OF EL PASO DESIGN STANDARDS, SECTION VII

**PROJECT NAME**  
TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)

**BENCHMARK**  
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SETSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

**DATE**  
11/12/12

**REVISIONS**  
CITY REVISIONS AS PER 11/12/12 COMMENTS R.R. 9/12/13 REVISED TERRA DEL ESTE UNIT SEVENTY ONE

**SCALE**  
HORIZ: 1" = 100'  
VERT: 1" = 100'

**DESIGN BY:** YC  
**INITIATED BY:** RO  
**CHECKED BY:** YC & FC  
**JOB NO.:** 1110-18

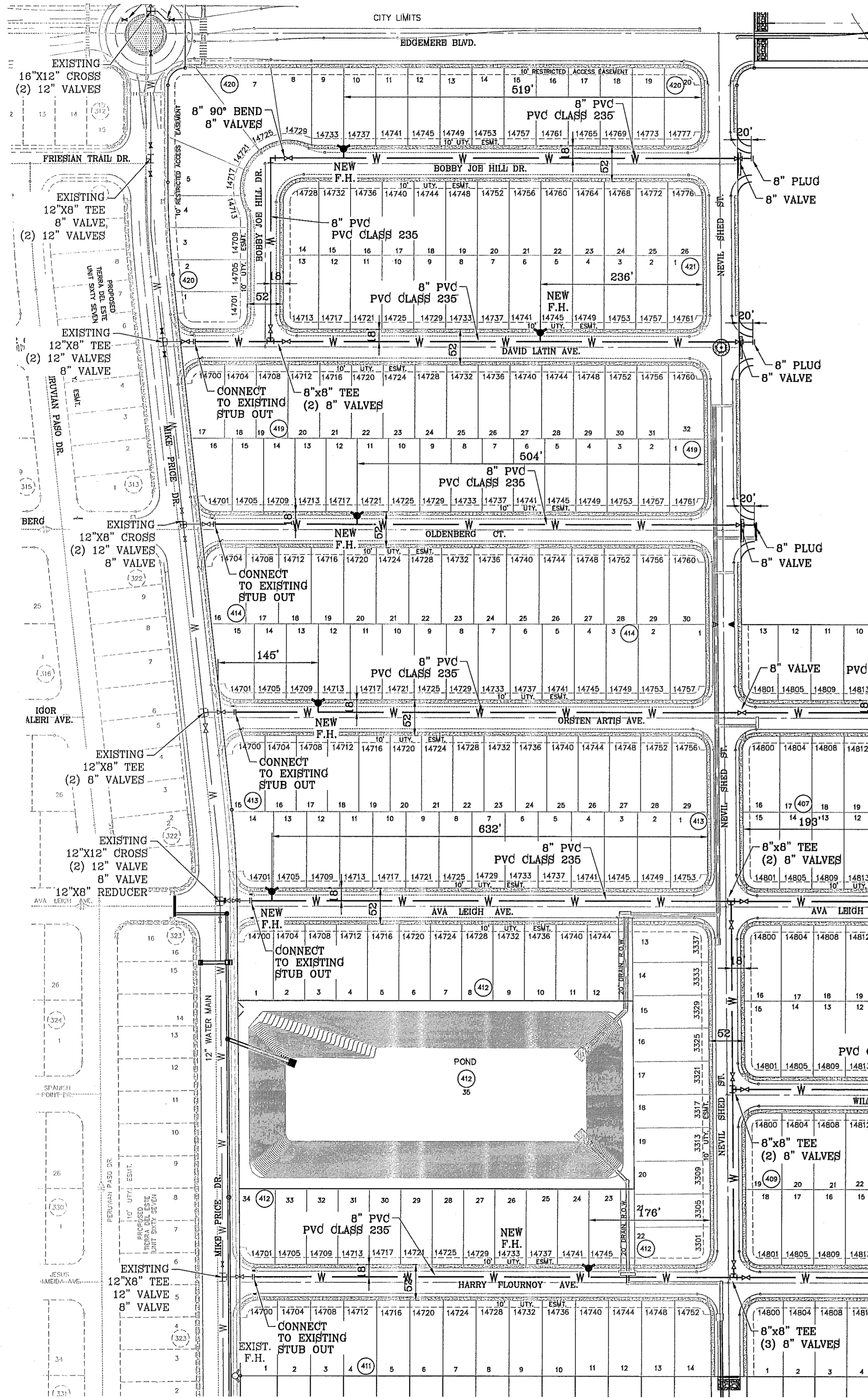
**ENGINEER'S SEAL**  
CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURETY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286

**SHEET TITLE**  
ILLUMINATION AND TRAFFIC CONTROL PLAN

**SHT 47 OF 55**



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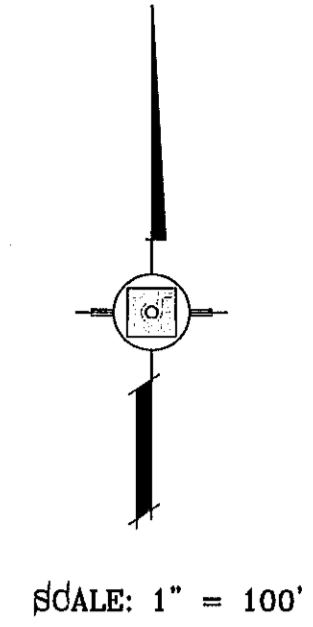
**LEGEND**

- W — PROPOSED WATER LINE
- ⊥ PROPOSED 90° BEND
- ⊥ PROPOSED 8" TEE
- ⊕ PROPOSED 8" CROSS
- ⊕ PROPOSED FIRE HYDRANT
- ⊕ PROPOSED WATER PLUG
- ⊕ PROPOSED WATER VALVE
- W — EXISTING WATER LINE
- ⊥ EXISTING 90° BEND
- ⊥ EXISTING 8" TEE
- ⊕ EXISTING 8" CROSS
- ⊕ EXISTING FIRE HYDRANT
- ⊕ EXISTING WATER VALVE

STREET NAMES	LENGTH, SIZE AND TYPE OF PIPE
BOBBY JOE HILL DR.	INSTALL 964 FEET OF 8" P.V.C. PIPE (CLASS 235)
DAVID LATIN AVE.	INSTALL 815 FEET OF 8" P.V.C. PIPE (CLASS 235)
OLDENBERG CT.	INSTALL 787 FEET OF 8" P.V.C. PIPE (CLASS 235)
ORSTEN ARTIS AVE.	INSTALL 1,849 FEET OF 8" P.V.C. PIPE (CLASS 235)
AVA LEIGH AVE.	INSTALL 1,382 FEET OF 8" P.V.C. PIPE (CLASS 235)
RANDY CULPEPPER PL.	INSTALL 544 FEET OF 8" P.V.C. PIPE (CLASS 235)
QUINTAN GATES CT.	INSTALL 148 FEET OF 8" P.V.C. PIPE (CLASS 235)
FRED REYNOLDS PL.	INSTALL 690 FEET OF 6" P.V.C. PIPE (CLASS 235)
NEVIL SHED ST.	INSTALL 544 FEET OF 8" P.V.C. PIPE (CLASS 235)
HARRY FLOURNOY AVE.	INSTALL 1,636 FEET OF 8" P.V.C. PIPE (CLASS 235)
WILLIE WORSLEY AVE.	INSTALL 1,127 FEET OF 8" P.V.C. PIPE (CLASS 235)

**EPWU-PSB NOTES:**

- PUBLIC WATER AND SEWER UTILITY WORK SHALL NO BE PERFORMED BY THE CONTRACTOR UNTIL A DEVELOPMENT AGREEMENT HAS BEEN EXECUTED BETWEEN THE OWNER AND EPWU-PSB.
- 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.
- DURING THE SITE IMPROVEMENT WORK, THE CONTRACTOR SHALL SAFEGUARD ALL THE EXISTING SEWER MAINS AND APPURTENANT STRUCTURES AND SHALL VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SUTSINGER DR. AND JOHN HARRIS ST. ELEVATION 4018.75 .....NAVD83 DATUM

DATE	REVISIONS	BY
11/12/12	CITY REDLINES AS PER 11/12/12 COMMENTS	R.R.
3/12/13	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE	R.R.
5/13/13	CITY REDLINES AS PER 04/30/13 COMMENTS	D.N.

PROJECT NAME  
**TIERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.586± ACRES

SCALE  
HORIZ: 1" = 100'  
VERT: 1" = 100'

DATE: JAN. 2012  
DESIGN BY: YC  
INITIATED BY: RO  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

ENGINEER'S SEAL

**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

**CONDE INC.**  
REGISTRATION NO. F-2321

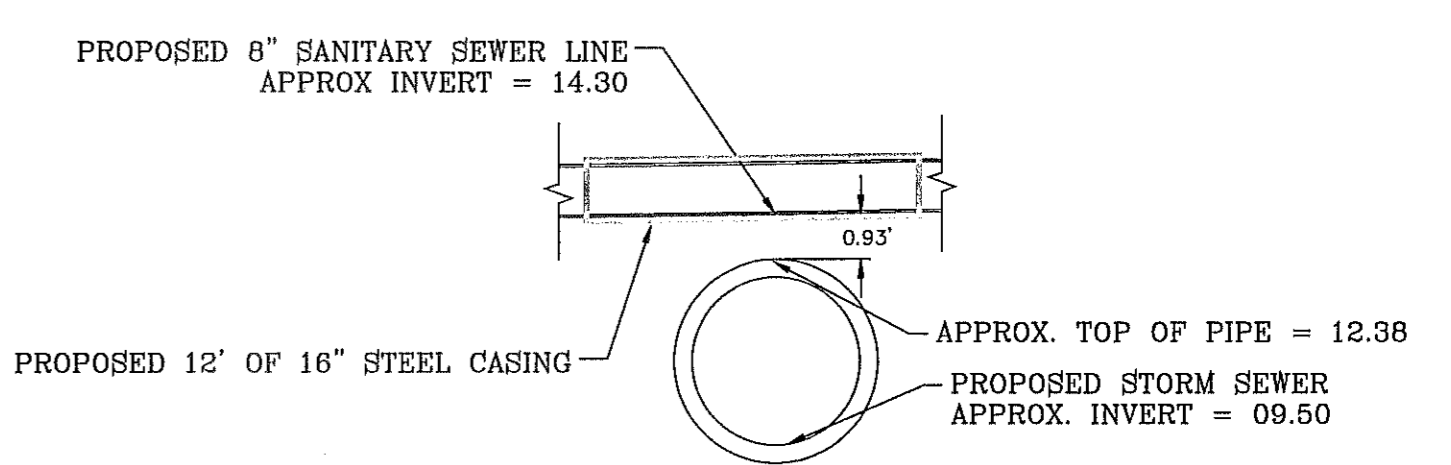
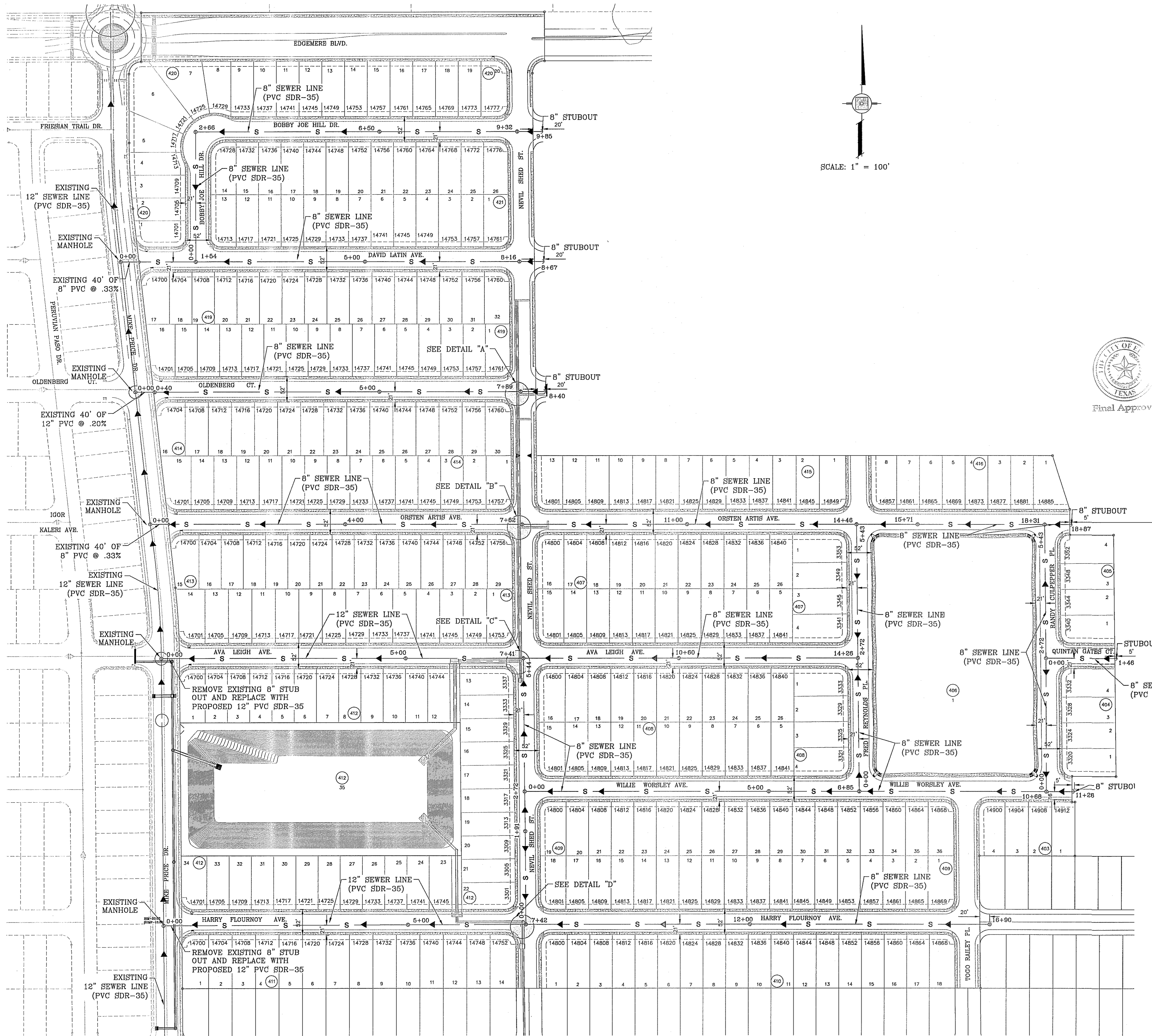
SHEET TITLE  
**WATER DISTRIBUTION PLAN**

SHT 48 OF 55

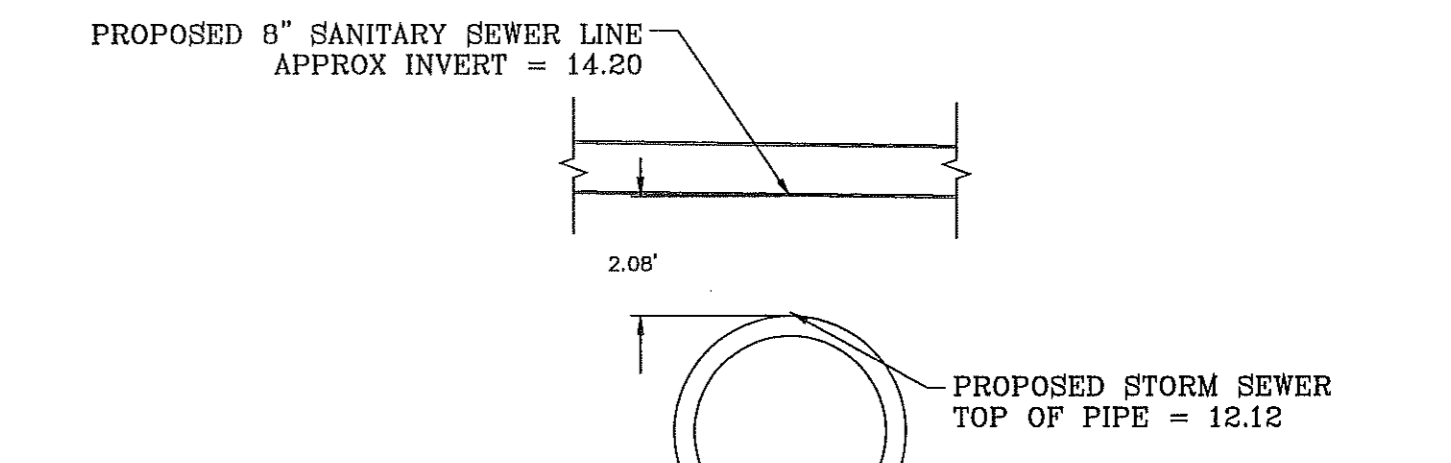




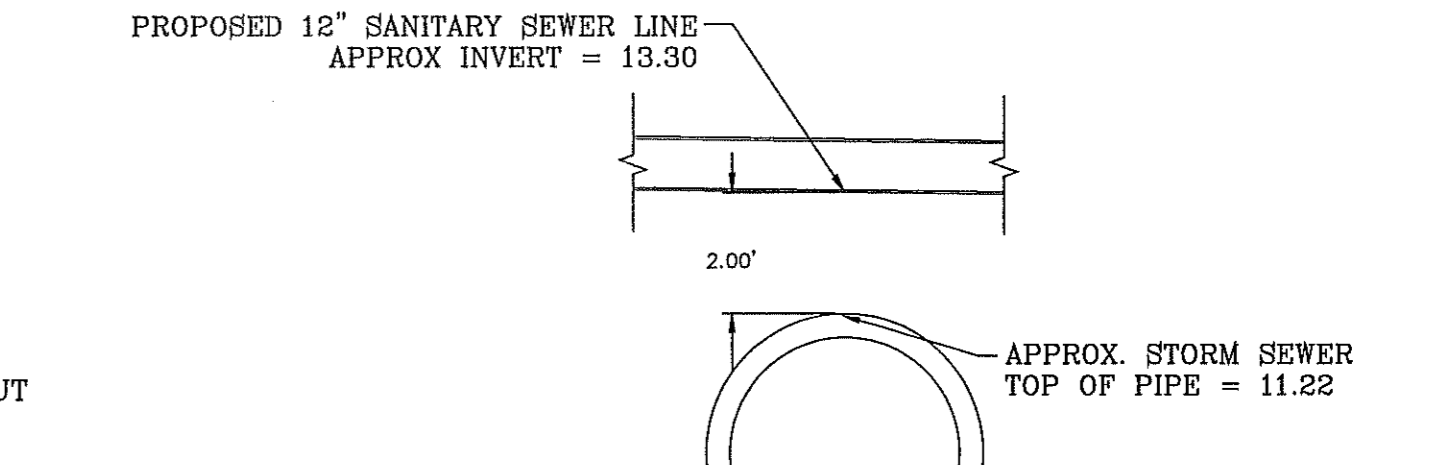
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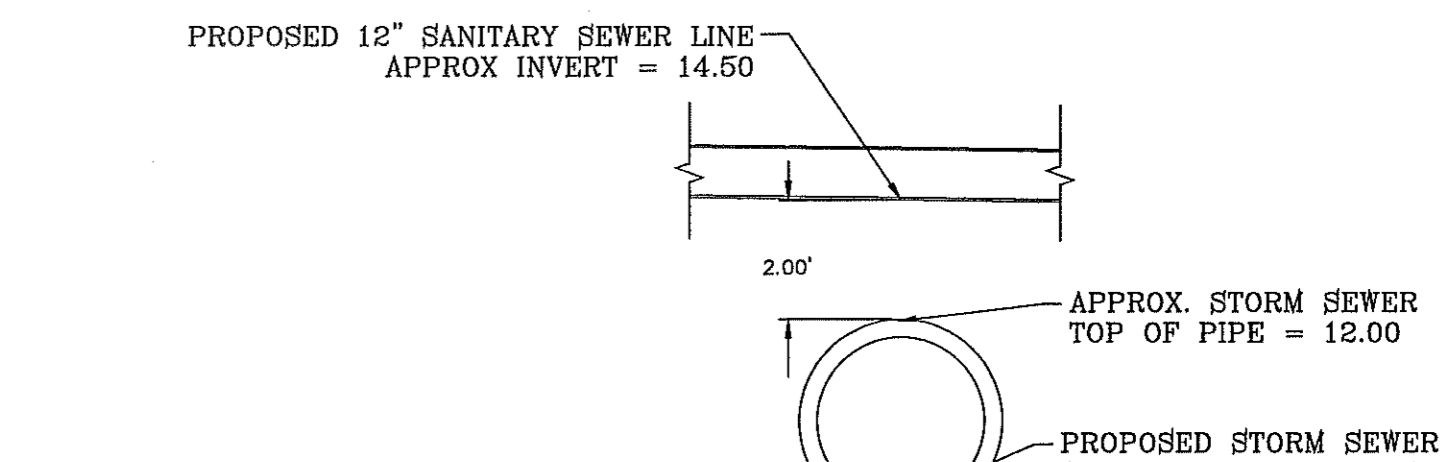
STORM SEWER CROSSING  
NEVIL SHED ST. AND OLDENBERG CT.  
DETAIL A  
SCALE: 1"=4'



STORM SEWER CROSSING  
NEVIL SHED ST. AND ORSTEN ARTIS AVE.  
DETAIL B  
SCALE: 1"=4'



STORM SEWER CROSSING  
NEVIL SHED ST. AND AVA LEIGH AVE.  
DETAIL C  
SCALE: 1"=4'



STORM SEWER CROSSING  
NEVIL SHED ST. & HARRY FLOURNOY AVE.  
DETAIL D  
SCALE: 1"=4'

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH STENSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

REVISIONS

DATE	BY	COMMENTS
05/08/12	YC	CITY REVISIONS AS PER 05/08/12 COMMENTS
3/12/13	YC	REVISED TERRA DEL ESTE UNIT SEVENTY ONE

PROJECT NAME  
**TERRA DEL ESTE UNIT SEVENTY ONE (REVISED)**

BEING PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.586± ACRES

SCALE  
HORIZ: 1" = 100'  
VERT: 1" = 100'

DATE: JAN. 2012

DESIGN BY: YC

INITIATED BY: PD

CHECKED BY: JC & FC

JOB NO.: 1110-18

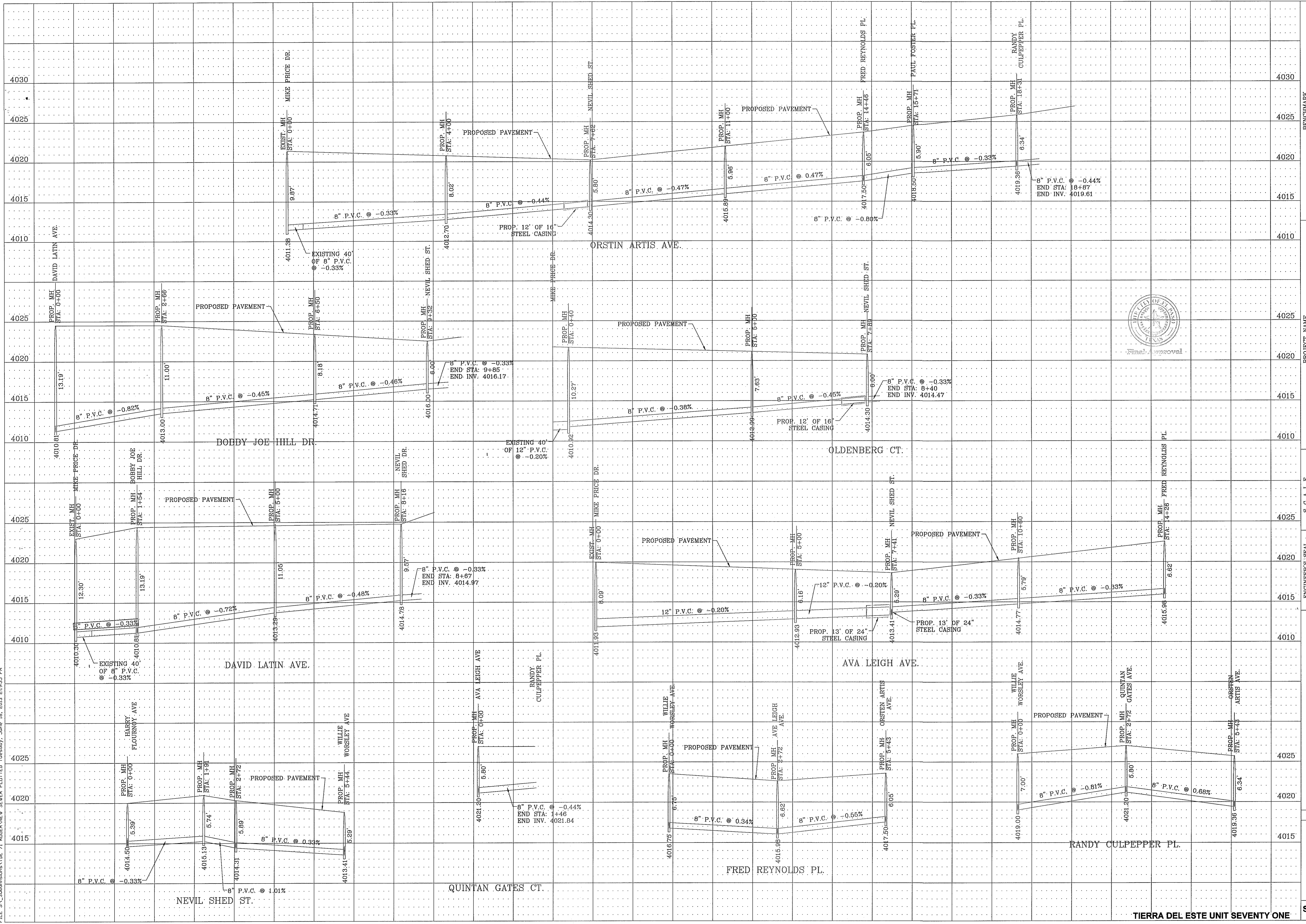
ENGINEER'S SEAL

**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0263  
FAX: (915) 592-0266

SHEET TITLE  
**SEWER DISTRIBUTION PLAN**



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**CONDE INC.**  
 ENGINEERING / PLANNING  
 SURVEYING / GPS  
 6080 SURETY DR. STE 100  
 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283  
 FAX: (915) 592-0286

**TIERRA DEL ESTE UNIT SEVENTY ONE**

**SANITARY SEWER PROFILES**

**SHT 50 OF 55**

**SCALE**  
 HORIZ: 1" = 100'  
 VERT: 1" = 5'

**ENGINEER'S SEAL**  
 DATE: JAN. 2012  
 DESIGN BY: YC  
 INITIATED BY: RO  
 CHECKED BY: YC & FC  
 JOB NO.: 1110-18

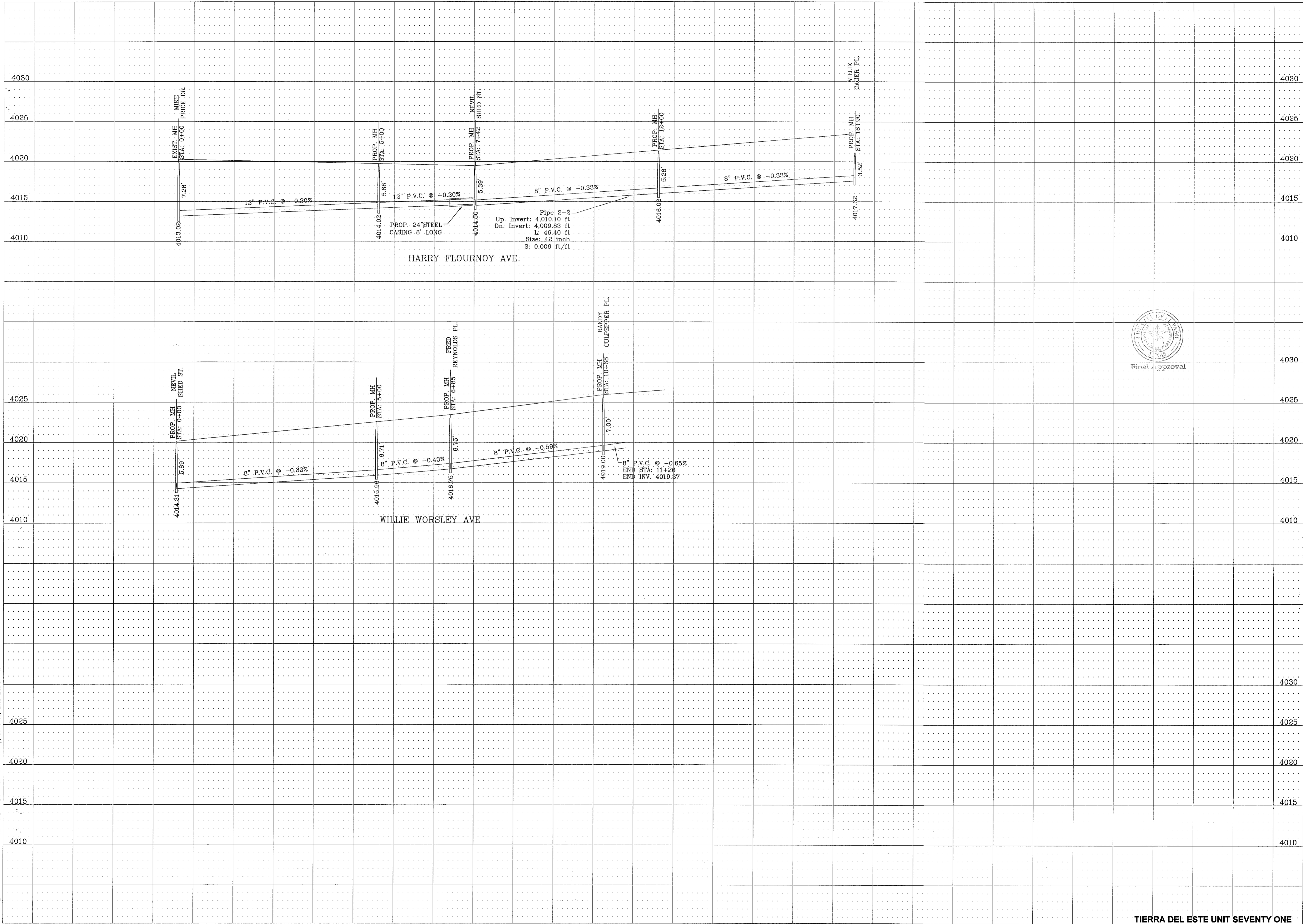
**PROJECT NAME**  
 TIERRA DEL ESTE UNIT SEVENTY ONE

**BENCHMARK**  
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SETSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

**REVISIONS**

DATE	REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.
04/10/12	CITY REDLINES AS PER 04/10/12 COMMENTS	R.R.
3/12/13	REVISED TIERRA DEL ESTE UNIT SEVENTY ONE	R.R.

BRING PORTION OF SECTION OF BLOCK 70 TOWNSHIP 2 NORTH, RANGE 12 WEST, COUNTY SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 61.5866± ACRES



<p><b>CONDE INC.</b> ENGINEERING / PLANNING SURVEYING / GPS 6080 SURETY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0288</p>		<p>ENGINEER'S SEAL <i>[Signature]</i> 64648 Professional Engineer State of Texas</p>	<p>SCALE HORIZ: 1" = 100' VERT: 1" = 5'</p>	<p>PROJECT NAME <b>TERRA DEL ESTE UNIT SEVENTY ONE</b></p>	<p>BENCHMARK CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SETSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75</p>
<p>DATE: JAN. 2012 DESIGN BY: YC INITIATED BY: RD CHECKED BY: YC &amp; FC JOB NO.: 1110-18</p>		<p>REVISIONS 03/08/12 CITY REDLINES AS PER 03/08/12 COMMENTS R.R. 04/10/12 CITY REDLINES AS PER 04/10/12 COMMENTS R.R. 3/12/13 REVISED TERRA DEL ESTE UNIT SEVENTY ONE</p>		<p>SHEET TITLE <b>SANITARY SEWER PROFILES</b></p>	
<p>CONDE INC. REGISTRATION NO. P221</p>		<p>TIERRA DEL ESTE UNIT SEVENTY ONE</p>		<p>SHT 51 OF 55</p>	



WATER AND SEWER NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TCEQ AND EL PASO WATER UTILITIES DESIGN STANDARDS AND SPECIFICATIONS WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS. THE MORE STRINGENT SHALL BE APPLIED. CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS, AT A MINIMUM, MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."
2. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS/HER AUTHORIZED REPRESENTATIVE SHALL CONVENES A PRE-CONSTRUCTION CONFERENCE BETWEEN THE CONSULTING ENGINEERS REPRESENTATIVE, CONTRACTOR(S), P.E.B. ENGINEER, EL PASO COUNTY (IF APPROPRIATE), THE P.E.B. AND ANY OTHER AFFECTED PARTIES. NOTIFY ALL SUCH PARTIES AT LEAST 48 HOURS PRIOR TO THE TIME OF THE CONFERENCE AND 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
3. THE CONTRACTOR SHALL GIVE THE ENGINEER, CITY, AND THE P.E.B. A MINIMUM OF 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION. PUBLIC WATER AND SEWER UTILITY WORK, INCLUDING TRENCHING SHALL NOT BE PERFORMED UNTIL A DEVELOPMENT AGREEMENT HAS BEEN EXECUTED BETWEEN THE OWNER AND EPWU-P.E.B. WORK SHALL BE COORDINATED WITH EPWU-P.E.B. FIELD ENGINEER AT LEAST 48 HOURS PRIOR TO COMMENCING ANY PUBLIC UTILITY WORK.
4. ANY EXISTING PAYMENT, CURBS AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE BEFORE ACCEPTANCE OF THE WORK.
5. THE LOCATION OF ANY WATER AND/OR WASTEWATER LINES TO BE CROSSED OR CONNECTED TO SHALL BE VERIFIED BY THE CONTRACTOR AT THE TIME OF COMMENCEMENT OF CONSTRUCTION.
6. CONTRACTORS SHALL VERIFY EXACT DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, DRIVEWAYS, PAVEMENT, CURB & GUTTER, SIDEWALKS, ETC. SHALL BE REPAIRED BY THE CONTRACTOR, OR THE UTILITY, AT UTILITIES OPTION, AND CONTRACTOR, OR THE UTILITY, AT UTILITIES OPTION, AND SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
7. ALL WATER MAINS SHALL HAVE A MINIMUM 48 INCHES OF COVER FROM FINISHED GRADE OR 40 INCHES BELOW ACTUAL SUBGRADE UNLESS OTHERWISE DENOTED ON THE PLANS.
8. CONTACT THE EL PASO WATER UTILITIES AND ANY OTHER CONCERNED PARTIES 48 HOURS PRIOR TO CONNECTING TO EXISTING WATER AND/OR WASTEWATER LINES.
9. ALL FILL AREAS OVER ALL UTILITIES, SHALL BE COMPACTED TO 95 % STANDARD PROCTOR DENSITY IN ACCORDANCE WITH TEX 113-E METHOD.
10. WATER AND WASTEWATER ALIGNMENTS SHOWN ON THE PLANS SHOULD BE ACHIEVED BY DEFLECTION WITHIN THE MANUFACTURER'S SPECIFICATIONS, EXCEPT WHERE SPECIFIC FITTINGS ARE CALLED FOR ON THE PLANS.
11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING UTILITIES SUCH AS GAS LINES, ELECTRIC LINES, WATERLINES, VALVE BOXES, FIRE HYDRANTS, STRUCTURES, AND OTHER APPURTENANCES THAT LIE WITHIN THE RIGHT-OF-WAY OR EASEMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR ALL UTILITIES, DRIVEWAYS, PAVEMENT, CURB, GUTTER, SIDEWALKS, FENCES AND OTHER ITEMS DAMAGED DURING CONSTRUCTION REGARDLESS OF WHETHER ALL ITEMS ARE SHOWN ON THE PLANS AT HIS SOLE EXPENSE. IN ADDITION TO NORMAL PRECAUTIONS WHEN EXCAVATING, TAKE EXTRA CAUTION WHEN EXCAVATING WITHIN 26 FT. OF ANY UTILITIES SHOWN ON THE PLANS.
12. THE CONTRACTOR SHALL INCLUDE ADDITIONAL FLUSHING VALVES AND TEST CONNECTIONS NECESSARY TO PERFORM TEST AND STERILIZATION OPERATION.
13. ALL CONSTRUCTION ACTIVITIES, INCLUDING ACCESS, EGRESS, TRAVEL, STOCKPILING, ETC. ARE TO BE CONFINED TO AREAS IDENTIFIED BY THE ENGINEER.
14. DISPOSAL OF ALL SPOIL OFFSITE WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
15. PIPE FITTINGS AND JOINTS: WATER PIPE-PVC SDR 14, C-900, CL-360 WITH BOLTLESS GASKETED JOINTS AND C.I., M.J. OR FLANGED PIPE FITTINGS UNLESS OTHERWISE SHOWN ON THE PLANS; FLUSHING VALVE / FIRE HYDRANT'S LEAD - DUCTILE IRON, CLASS 60, MECHANICAL JOINTS AND C.I. (D.I. ENDS) FITTINGS, UNLESS OTHERWISE SHOWN ON THE PLANS; GRAVITY SEWER - PVC SDR 35 AND SDR 26 UNLESS OTHERWISE NOTED. ALL PIPES, FITTINGS, VALVES, HYDRANTS, AND OTHER APPURTENANCES TO BE USED ON THE INSTALLATION OF PUBLIC SYSTEMS SHALL CONFORM TO THE MATERIALS AND DIMENSIONS DEPICTED ON CURRENT EPWU-P.E.B. STANDARD DETAILS.
16. ALL GATE VALVES SHALL HAVE RESILIENT VALVE SEATS.
17. AT ALL LOCATIONS WHERE A WATERLINE CROSSES A WASTEWATER LINE, THE CONSTRUCTION SHALL STRICTLY COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS OF THE TCEQ. TCEQ SPECIFICATIONS FOR LOCATION OF WATERLINES AS REQUIRED IN TITLE 30 TAC, CHAPTER 290.44(a) (RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS) ARE MINIMUM REQUIREMENTS.
18. THE CONTRACTOR SHALL FURNISH THE ENGINEER ONE SET OF AS-BUILT PLANS REFLECTING ALL CHANGES MADE IN THE FIELD, AND TWO MEASUREMENTS TO ALL VALVES AND MANHOLES INSTALLED FROM PERMANENT OBJECTS.
19. THE P.E.B. AND THE ENGINEER SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ANY TESTING PHASE (DENSITY, PRESSURE, LEAKAGE, ETC.)
20. MANHOLE CONSTRUCTION AND REHABILITATION: ALL MANHOLES ARE WATER-TIGHT, WITH WATER-TIGHT RINGS AND COVERS. IF MANHOLES ARE WITHIN THE 100-YEAR FLOODPLAIN THE MANHOLE COVERS SHALL HAVE GASKETS AND BE BOLTED. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE, ALTERNATE MEANS OF VENTING SHALL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE PER 30 TAC 6317.2 (6)(F).
21. CONSTRUCTION OF PUBLIC WATER AND SEWER SYSTEM INCLUDING MATERIALS AND TESTING SHALL CONFORM WITH EPWU-P.E.B. STANDARD SPECIFICATIONS FOR THE INSTALLATION OF WATER MAINS, SANITARY SEWER MAIN AND RELATED APPURTENANCES.

ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE FOLLOWING REQUIREMENTS:

MANHOLES AND WET WELLS MUST BE TESTED SEPARATELY AND INDEPENDENTLY OF THE COLLECTION LINES. ALL MANHOLES MUST BE HYDROSTATICALLY TESTED WITH A MAXIMUM-LOSS ALLOWANCE OF 0.026-GALLON PER FOOT DIAMETER PER FOOT OF HEAD PER HOUR. OTHER TESTING METHODS, SUCH AS VACUUM TESTING, MAY BE APPROVED ON A CASE-BY-CASE BASIS BY THE EXECUTIVE DIRECTOR OF THE TCEQ.

22. ALL 8" SEWER LINES SHALL BE TESTED USING THE FOLLOWING METHOD:

- A. ALL LOW PRESSURE AIR SHALL CONFORM TO THE PROCEDURES DESCRIBED IN ASTM C-826, ASTM C-924, OR OTHER APPROPRIATE PROCEDURES. THE FOL. THE PRESSURE TO DROP SHALL BE AT LEAST AS STRINGENT AS THE REQUIREMENTS OF TCEQ RULES SECTION 317.2(A)(4)(B) DESCRIBED BELOW.

FOR SECTIONS OF PIPE UP TO 36-INCHES AVERAGE INSIDE DIAMETER MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 POUND PER SQUARE INCH GAUGE TO 2.5 POUNDS PER SQUARE INCH GAUGE SHALL BE COMPUTED FROM THE FOLLOWING EQUATION:

n = 0.0860(D)(K) / (Q); WHERE T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS.
K = 0.000419(D)(L), BUT NOT LESS THAN 1.0
D = AVERAGE INSIDE DIAMETER IN INCHES
L = LENGTH OF LINE IN FEET OF SAME SIZE BEING TESTED
Q = RATE OF LOSS, 0.0016 CUBIC FEET PER MINUTE PER SQUARE FOR INTERNAL SURFACE SHALL BE USED.

SINCE A K VALUE OF LESS THAN 1.0 SHALL NOT BE USED, THERE ARE MINIMUM TIMES FOR EACH PIPE DIAMETER AS OUTLINED BELOW:

Table with 5 columns: PIPE DIA. (IN), MIN. TIME (SEC), LEN. FOR MIN (FT), TIME FOR LONGER LENGTH (SEC), and 0.865 (L). Rows include diameters from 6 to 33 inches.

- B. ALL INFILTRATION/EXFILTRATION TESTS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS. THE TOTAL INFILTRATION OR EXFILTRATION, AS DETERMINED BY WATER TEST, MUST BE AT A RATE NOT GREATER THAN 60 GALLONS PER INCH OF PIPE DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET. IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, REMEDIAL ACTION MUST BE UNDERTAKEN IN ORDER TO REDUCE THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED IN 30 TAC SEC 317.2 (A)(4)(A).

C. DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID PIPES. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF FIVE PERCENT. IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, SUCH TEST DEVICE SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THIS TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. THE DESIGN ENGINEER SHOULD RECOGNIZE THAT THIS IS A MAXIMUM DEFLECTION CRITERION FOR ALL PIPES. A REDUCED PERCENT DEFLECTION MAY BE MORE APPROPRIATE FOR SPECIFIC TYPES AND SIZES OF PIPE. REFERENCE 30 TAC SEC 317.2 (A)(4)(A).

- 22. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE SHALL COMPLY WITH THE STANDARDS OF ASTM D-2321, CLASSES I OR II. FOR RIGID PIPE BEDDING SHALL COMPLY WITH THE REQUIREMENTS OF ASTM-C-12 CLASSES A OR B. REFERENCE 30 TAC 6317.2.6

- 23. 8" SEWER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE OR WHEN A NEW 8" SEWER LINE IS CONNECTED TO AN EXISTING SUB OR CLEAN-OUT, IT SHALL BE TESTED FROM AN EXISTING MANHOLE TO A NEW MANHOLE.
24. WATER LINE/NEW 8" SEWER LINE SEPARATION: WHEN NEW SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO WATER LINES THAN NINE FEET IN ALL DIRECTIONS. SEWERS THAT PARALLEL WATER LINES MUST BE INSTALLED IN SEPARATE TRENCHES, WHERE THE TEN (10) FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES APPLY:
A. WHERE A SANITARY SEWER PARALLELS A WATER LINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING ASTM SPECIFICATION WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 160 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATER LINE.
B. WHERE A SANITARY SEWER CROSSES A WATER LINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC WITH A MINIMUM PRESSURE RATING OF 160 PSI, AN ABSOLUTE MINIMUM DISTANCE OF 6 INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION THE SEWER SHALL BE LOCATED BELOW THE WATER LINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATER LINE.
C. WHERE A SEWER CROSSES UNDER A WATER LINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF SEWER WITHIN NINE FEET OF THE WATER LINE. THIS INITIAL BACKFILL SHALL BE FROM ONE QUARTER DIAMETER BELOW THE CENTERLINE OF THE PIPE TO ONE PIPE DIAMETER (BUT NOT LESS THAN 12 INCHES) ABOVE THE TOP OF THE PIPE.
D. WHERE A SEWER CROSSES OVER A WATER LINE ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATER LINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 160 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE, THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 160 PSI PRESSURE CLASS PIPE AT LEAST 18-FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT 6 FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.
E. UNLESS MANHOLES CAN BE MADE WATER-TIGHT AND TESTED FOR NO LEAKAGE THEY MUST BE INSTALLED SO AS TO PROVIDE A MINIMUM OF NINE FEET OF HORIZONTAL CLEARANCE FROM AN EXISTING OR PROPOSED WATER LINE. IF THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE WATERLINE MUST BE ENCASED IN A JOINT OF 160 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE WATERLINE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT 6 FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED PARTIALLY CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.
25. SEWERS SHALL BE LAID IN STRAIGHT ALIGNMENT WITH UNIFORM GRADE BETWEEN MANHOLES. DEVIATION FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE SHALL BE APPROVED ONLY ON A CASE BY CASE BASIS BY THE TCEQ. IF APPROVAL IS GIVEN FOR DEVIATION FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE, CURRENT COMMISSION POLICY REGARDING HORIZONTAL CURVATURE SHALL BE COMPLIED WITH FULLY.

GENERAL NOTES FOR CURVED 8" SEWER LINES:

- A. ALL CURVATURE OF SEWER PIPE WILL BE ACHIEVED BY PIPE DEFLECTION PER THE MANUFACTURE R'S RECOMMENDED PROCEDURE
B. IN-PLACE DEFLECTION TESTS (MANDREL TEST) MUST BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID PIPE IN ACCORDANCE WITH 30 TAC SEC317.2 (A)(4)(C).
C. INFILTRATION TEST SHALL BE CONDUCTED IN ACCORDANCE WITH 30 TAC SEC317.2 (A)(4)(A) - 60 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE.
D. SPECIFIC CARE SHALL BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC SEC 317.2 (A)(5).

- 28. THE ASTM, ANSI, OR AWWA SPECIFICATION NUMBERS FOR THE PIPE AND JOINTS ARE ASTM D3034 & ASTM 2241. THE PIPE MATERIAL, THE PRESSURE CLASSSES, AND THE SDR AND/OR DR DESIGNATIONS ARE SDR 35 AND SDR 26.
29. THE DIAMETER OF THE MANHOLES SHALL BE A MINIMUM OF FOUR FEET AND THE MANHOLE COVERS SHALL HAVE A MINIMUM NOMINAL DIAMETER OF 30". THESE DIMENSIONS ARE LABELED ON THE MANHOLE DRAWING ON THE DETAIL SHEET.
30. THE MANHOLE DETAILS SHALL INSURE THAT THE TCEQ RULES CONCERNING SEWER INVERTS HAVE BEEN COMPILED WITH AS DESCRIBED IN 317.2(C)(5)(B).
31. A CROSS SECTION OF THE TRENCH DETAILS IS INCLUDED IN THE PLANS WHICH SHOW THE DIMENSIONS OF THE TRENCH AND PIPE AND THE CLASS OF BEDDING MATERIAL REQUIRED.
32. AFTER THE PIPE HAS BEEN INSTALLED AND CONNECTED, A PRESSURE TEST, FOLLOWED BY A LEAKAGE TEST, WILL BE CONDUCTED BY THE CONTRACTOR UNDER THE OBSERVATION OF THE ENGINEER. THE CONTRACTOR SHALL BE PRESENT AND SHALL FURNISH ALL NECESSARY LABOR AND EQUIPMENT FOR CONDUCTING THE TESTS. THE SPECIFIED TEST PRESSURE WILL BE BASED ON THE ELEVATION OF THE LOWEST POINT OF THE LINE OR SECTION UNDER TEST. BEFORE APPLYING THE SPECIFIED TEST PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. IF PERMANENT AIR VENTS ARE NOT LOCATED AT ALL HIGH POINTS, THE CONTRACTOR SHALL INSTALL CORPORATION COCKS AT SUCH POINTS. ALL DRAIN HYDRANT AND FIRE HYDRANT LEADS, WITH THE MAIN 6-INCH GATE VALVE OPEN, THE HYDRANT VALVE SEATS CLOSED AND NOZZEL CAPS OPEN, SHALL BE INCLUDED IN THE TEST.

- A. PRESSURE TEST: THE ENTIRE PROJECT OF EACH VALVED SECTION SHALL BE TESTED, AT A PRESSURE OF 200 PSI FOR A SUFFICIENT PERIOD (APPROXIMATELY 10 MINUTES) TO DISCOVER ALL LEAKING OR DEFECTIVE MATERIALS. REPAIRS SHALL BE MADE BY THE CONTRACTOR TO CORRECT ANY LEAKING OR DEFECTIVE MATERIALS.
B. PRESSURE PIPE LEAKAGE TEST: A LEAKAGE TEST WILL FOLLOW THE PRESSURE TEST AND BE CONDUCTED ON THE ENTIRE PROJECT OR EACH VALVED SECTION. THE LEAKAGE TEST SHALL BE AT 160 PSI FOR AT LEAST 1 HOUR, UNLESS OTHERWISE SPECIFIED.

- 1. ALLOWABLE LEAKAGE: LEAKAGE SHALL BE DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE PIPE SECTION BEING TESTED TO MAINTAIN A PRESSURE OF 160 PSI FOR THE PERIOD OF THE TEST. LEAKAGE AFTER THE PIPE HAS BEEN FILLED WITH WATER AND THE AIR INTO THE PIPELINE HAS BEEN EXPELLED. NO INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FORMULA:
Leak P = 7.400
WHERE: L = ALLOWABLE LEAKAGE, IN GALLONS PER HOUR
N = NUMBER OF JOINTS IN THE LENGTH OF PIPELINE TESTED
D = NOMINAL DIAMETER OF THE PIPE, IN INCHES
P = AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST, IN POUNDS PER SQUARE INCH (GAUGE)

- 2. LOCATING AND CORRECTION OF LEAKAGE: IF SUCH TESTING DISCLOSES LEAKAGE IN EXCESS OF THIS SPECIFIED AMOUNT ALLOWABLE, THE CONTRACTOR, AT HIS EXPENSE, SHALL LOCATE AND CORRECT ALL DEFECTS IN THE PIPE LINE UNTIL THE LEAKAGE IS WITHIN THE INDICATED ALLOWANCE. ALL VISIBLE LEAKAGE IN PIPE SHALL ALSO BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.

TYPE NOTES:

- A. THE WATERLINES MUST BE DISINFECTED BEFORE USING ACCORDING TO THE CURRENT STANDARD, AWWA C651-92. A MINIMUM OF ONE BACTERIOLOGICAL SAMPLE MUST BE COLLECTED FOR EACH 1,000 FEET OR COMPLETED WATERLINE TO CHECK EFFICIENCY OF DISINFECTION PROCEDURES AND MUST BE REPEATED IF CONTAMINATION PERSISTS AS PER 290.44(f)(3).
B. ALL NEWLY INSTALLED PIPE AND FITTINGS MUST CONFORM TO ANSI/NSF STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI. ALL PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST ALSO BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW) AS PER 290.44(a)(1) AND (2).
C. THE SYSTEM MUST MAINTAIN A MINIMUM PRESSURE OF 36 PSI AT ALL POINTS WITHIN THE DISTRIBUTION NETWORK AT FLOW RATES OF AT LEAST 1.6 GALLONS PER MINUTE PER CONNECTION. WHEN THE SYSTEM IS INTENDED TO PROVIDE FIRE FIGHTING CAPABILITY, IT MUST ALSO MAINTAIN A MINIMUM PRESSURE OF 20 PSI UNDER COMBINED FIRE AND DRINKING WATER FLOW CONDITIONS AS REQUIRED IN 290.44(d) OF THE RULES.

TRENCH SAFETY NOTES:

- 1. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES DEEPER THAN 5 FEET IN DEPTH IN EITHER HARD AND COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SHORED, SHIELDED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED.
2. IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN EMPLOYEES ARE REQUIRED TO BE IN TRENCHES 4- FEET DEEP OR MORE, ADEQUATE MEANS EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
3. IF TRENCH SAFETY SYSTEM DETAILS WERE NOT PROVIDED IN THE PLANS BECAUSE TRENCHES WERE ANTICIPATED TO BE LESS THAN FIVE FEET IN DEPTH AND DURING CONSTRUCTION IT IS FOUND THAT TRENCHES ARE IN FACT 5 FEET OR MORE IN DEPTH OR TRENCHES LESS THAN 5 FEET IN DEPTH ARE IN AN AREA WHERE HAZARDOUS GROUND MOVEMENT IS EXPECTED, ALL CONSTRUCTION SHALL CEASE. THE TRENCH AREA SHALL BE BRACED AND THE ENGINEER NOTIFIED IMMEDIATELY. CONSTRUCTION SHALL NOT RESUME UNTIL APPROPRIATE TRENCH SAFETY SYSTEM DETAILS, AS DESIGNED BY A PROFESSIONAL ENGINEER, ARE SUBMITTED TO AND ACCEPTED BY THE HORIZON REGIONAL MUNICIPAL UTILITY DISTRICT.
4. CONTRACTOR SHALL PROVIDE TO THE P.E.B. A TRENCH SAFETY PLAN, SEALED BY A REGISTERED ENGINEER.

UTILITY NOTES:

- 1. CONTRACTOR MUST COORDINATE WATER SYSTEM WITH SEWER SYSTEM TO PREVENT ANY CONFLICTS WHERE THIS LINES INTERSECT ONE ANOTHER.
2. AREAS WHERE WATER PIPES CROSS OVER SEWER PIPES SHALL NOT HAVE ANY JOINTS.
3. WATER & SEWER TO HAVE A MINIMUM SEPARATION OF 10 FEET.

THE FOLLOWING LIST INCLUDES THE KNOWN RESPONSIBLE AUTHORITIES:

- TEXAS GAS SERVICE
IVAN ALCOB... (916) 680-7238
EL PASO ELECTRIC COMPANY
ROBERT BERRERA... (606) 682-2317
EL PASO WATER UTILITIES
FELIPE LOPEZ... (916) 564-6630
TIME WARNER COMMUNICATIONS
RAY MENDOZA... (916) 776-7416
PARKS AND RECREATION
DAVID OCHOA... (916) 698-0771
LOUIS ALOYSIUS... (916) 621-3791
AT&T
FRANCISCO VACIO... (916) 666-6119

WATER NOTES:

- 1. CONTACT UTILITY COMPANIES FOR EXACT LOCATION FOR UNDERGROUND UTILITIES IN THE AREA.
2. PROVIDE ADEQUATE CONCRETE THRUST BLOCKING AT THE FOLLOWING: TAPPING, SLEEVES, TEES, BENDS, PLUGS - ALL FITTINGS.
3. INSTALL A TRENCH SAFETY SYSTEM TO PROVIDE FOR THE SAFE EXCAVATION OF ALL TRENCHES EXCEEDING A DEPTH OF (5') FIVE FEET AS PER O.S.H.A. STANDARDS.
4. ALL P.V.D. PIPE ON THIS PLAN SHALL BE ENCASED WITH SELECT BEDDING WHEN PLACED IN CITY ROW. IN SITU (ACCEPTABLE) MATERIAL CAN BE USED IN PRIVATE LINES.
5. ALL VALVES ON P.V.C. WATER MAINS SHALL BE ANCHORED IN CONCRETE.
6. CITY PAVING CUT PERMIT REQUIRED BEFORE EXCAVATION.
7. RECONNECTION OF EXISTING WATER LINE SYSTEM SHOWN ON THESE PLANS MUST BE MADE, SUCH THAT MINIMAL INTERRUPTION OF SERVICE TO CUSTOMER IS MADE.
8. ALL EXISTING LINES CURRENTLY IN SERVICE MUST REMAIN IN SERVICE THROUGHOUT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR PROTECTING 8" SEWER LINES (INCLUDING SERVICES) FROM DAMAGE AS A RESULT OF CONSTRUCTION.
9. VALVES AND OTHER PIPE MATERIALS TO BE ABANDONED SHALL BE REMOVED AND DISPOSED AT THE CONTRACTOR'S RESPONSIBILITY AND EXPENSE.
10. CONTRACTOR SHALL VERIFY LOCATION OF SERVICES BEFORE CONSTRUCTION.
11. CONTRACTOR SHALL COORDINATE WITH CITY CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL PLANS.
12. CONTRACTOR SHALL PROVIDE TEMPORARY SERVICE TO CUSTOMERS IF SERVICE WILL BE INTERRUPTED FOR MORE THAN (4) HOURS IN A 24-HOUR PERIOD.
13. CONTRACTOR TO ADJUST WATER VALVES TO FINAL GRADE WHERE NECESSARY. COORDINATE FINAL GRADE ELEVATION WITH JOHN HAYES ST.
14. FIRE PROTECTION LINE TO BE SIZED BY FIRE PROTECTION CONTRACTOR.

SEWER NOTES:

- 1. CONTACT UTILITY COMPANIES FOR EXACT LOCATION OF UNDERGROUND UTILITIES IN THIS AREA.
2. INSTALL A TRENCH SAFETY SYSTEM TO PROVIDE FOR THE SAFE EXCAVATION OF ALL TRENCHES EXCEEDING A DEPTH OF (5') FIVE FEET AS PER O.S.H.A. STANDARDS.
3. ALL P.V.D. PIPE ON THIS PLAN SHALL BE ENCASED WITH SELECT BEDDING WHEN PLACED IN CITY ROW. IN SITU (ACCEPTABLE) MATERIAL CAN BE USED IN PRIVATE LINES.
4. PROVIDE MANHOLE ADAPTER WHERE P.V.C. PIPE CONNECTS TO MANHOLE.
5. WATER & SANITARY SEWER MAIN SEPARATION REQUIREMENTS SHALL COMPLY WITH "T.C.E.Q." MINIMUM VERTICAL SEPARATION REQUIREMENTS. (REFER TO SPECIFICATIONS)
6. ALL EXISTING 8" SEWER LINES AND SERVICES CURRENTLY IN SERVICE MUST REMAIN IN SERVICE THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY SERVICE TO CUSTOMERS IF SERVICE WILL BE INTERRUPTED FOR MORE THAN (4) HOURS IN A 24-HOUR PERIOD. CONTRACTOR IS RESPONSIBLE FOR PROTECTING 8" SEWER LINES (INCLUDING SERVICES) FROM DAMAGE AS A RESULT OF CONSTRUCTION.
7. CONTRACTOR SHALL COORDINATE WITH CITY CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL PLANS.



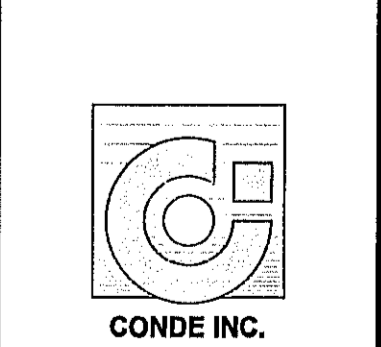
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PROJECT NAME: TIERRA DEL ESTE UNIT SEVENTY ONE
BENCHMARK: CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4016.75
SEVENTY ONE: BEING PORTION OF SECTION 16, BLOCK 76, TOWNSHIP 2, AND PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 120,683± ACRES

Table with columns: SCALE, HORIZ, VERT, DATE, DESIGN BY, INITIATED BY, CHECKED BY, JOB NO. Includes values like JAN. 2012, YC, FC & FC, 1110-18.

ENGINEER'S SEAL: ENGINEER'S SEAL REQUIRED. THIS SHEET IS PRODUCED FROM CITY SUBDIVISION DESIGN STANDARDS

CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS
6080 SURETY DR. STE. 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286



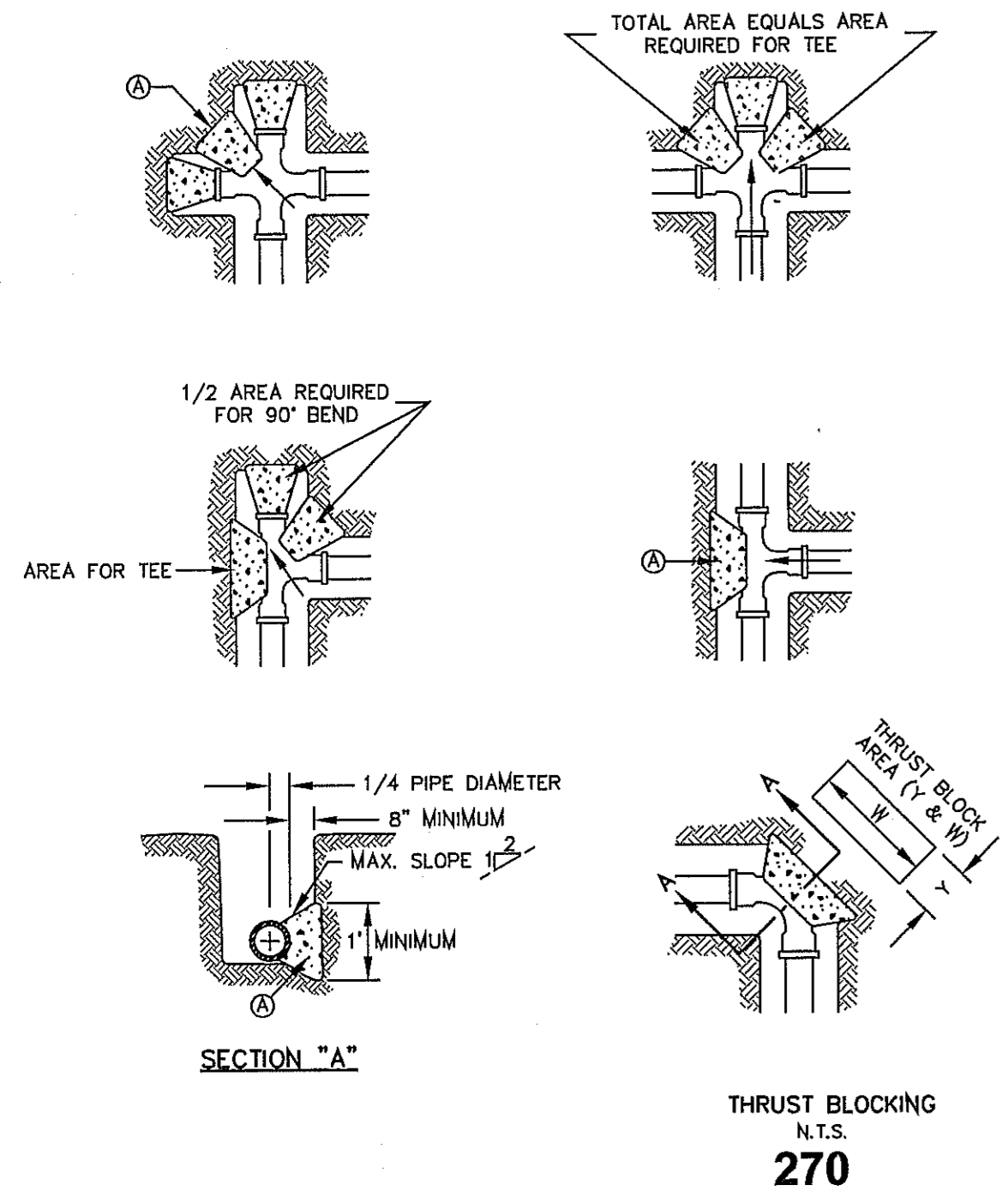
SHEET TITLE

WATER AND SEWER NOTES





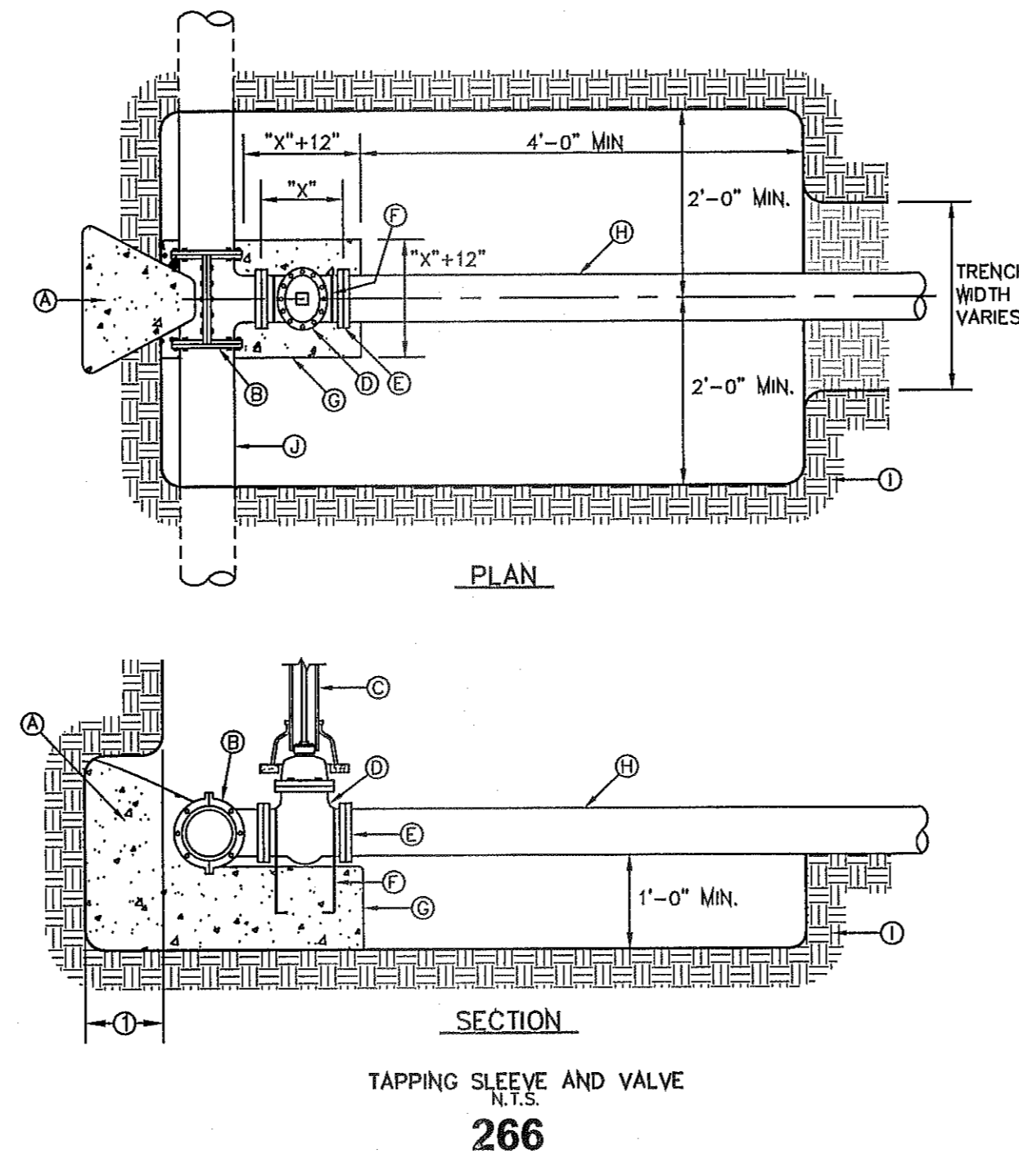




**GENERAL NOTES:**  
 1. TABLE IS BASED ON 2000#/SQ. FT. SOIL. IF CONDITIONS ARE FOUND TO INDICATE SOIL BEARING IS LESS, THE AREAS SHALL BE INCREASED ACCORDINGLY.  
 2. AREAS FOR PIPE LARGER THAN 18" SHALL BE CALCULATED.  
 3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2500 PSI.  
 4. THRUST 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 V.I. OR BELL AND SPIGOT JOINTS.  
 7. BLOCK IN A SIMILAR MANNER AT TEES, HYDRANTS, PLUGS 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.

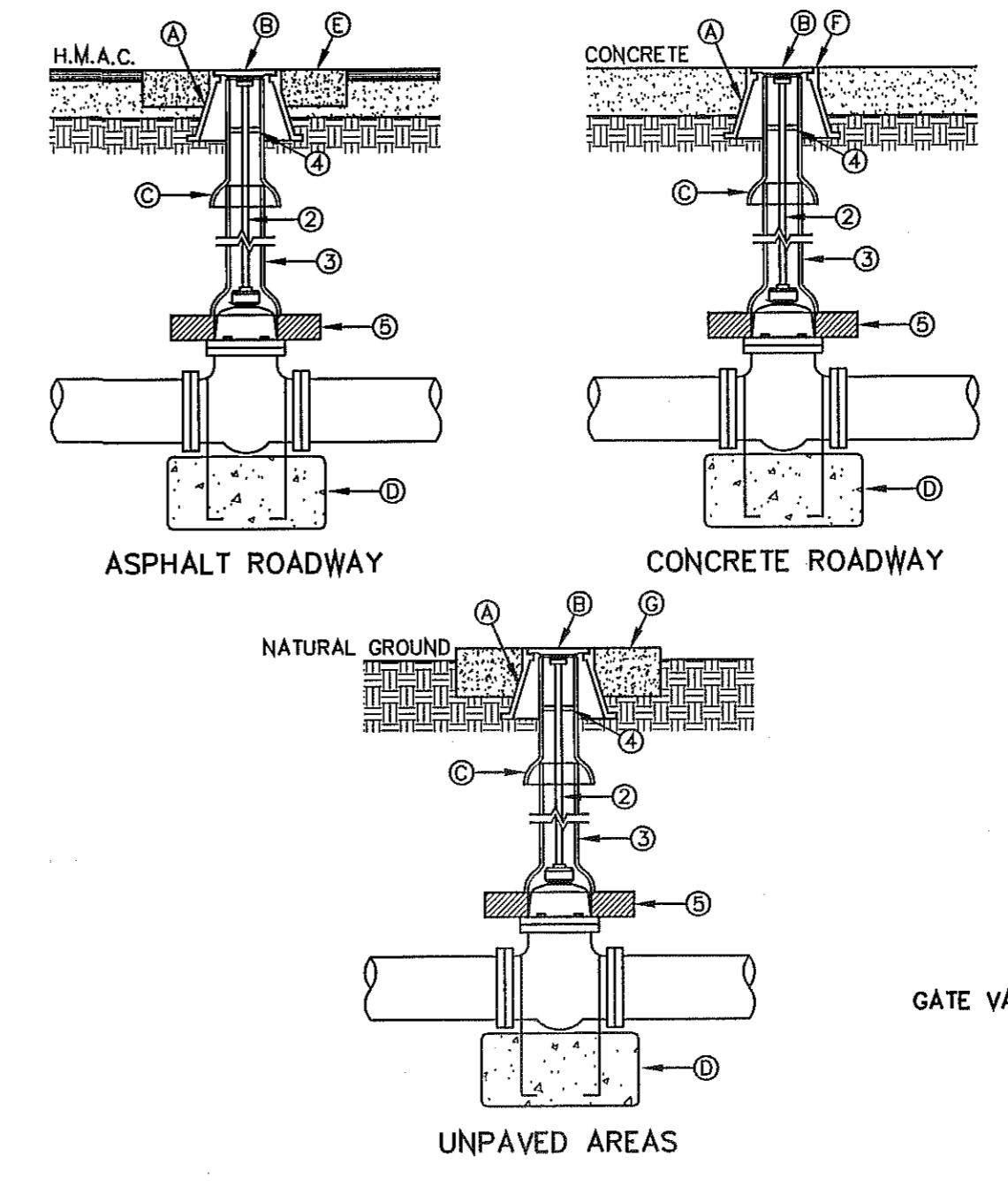
**CONSTRUCTION KEY NOTES:**  
 A. LENGTH "Y" & "W" AS REQUIRED TO OBTAIN BEARING AREA AGAINST UNDISTURBED SOIL.  
 B. ADDITIONAL EXCAVATION IF NECESSARY TO OBTAIN REQUIRED BEARING AREA.  
 C. MINIMUM THRUST BLOCK AREA REQUIREMENTS FOR (Y & W) AS FOLLOWS:

PIPE SIZE	WATER PIPE	
	TEE, DEAD END	45° AND 90° 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



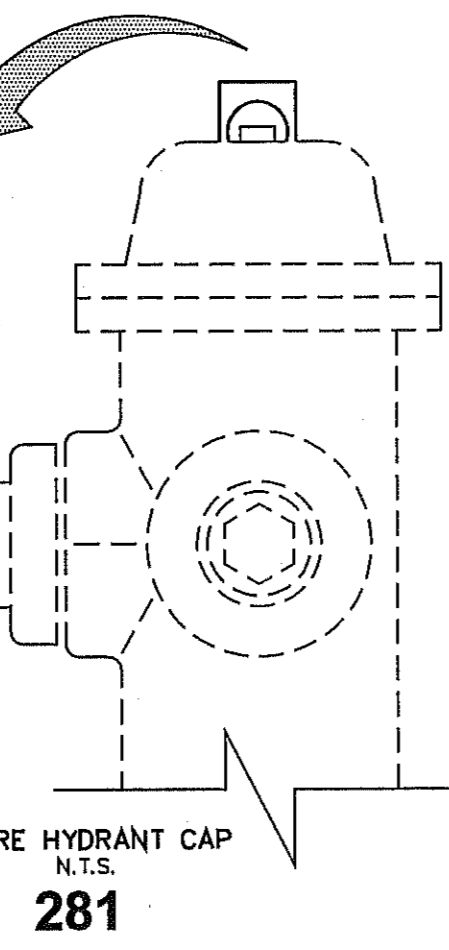
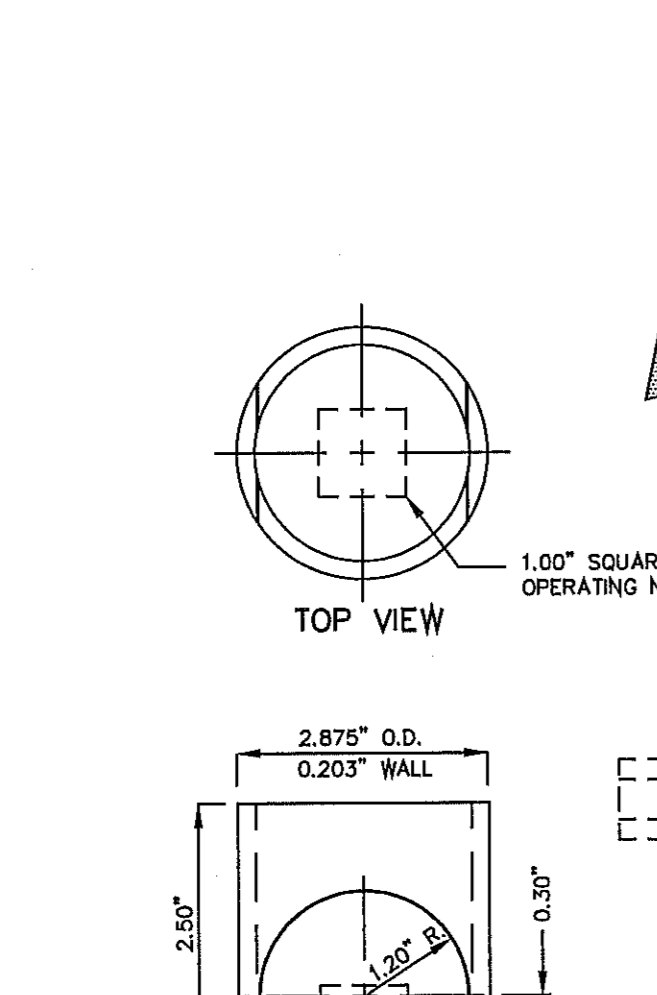
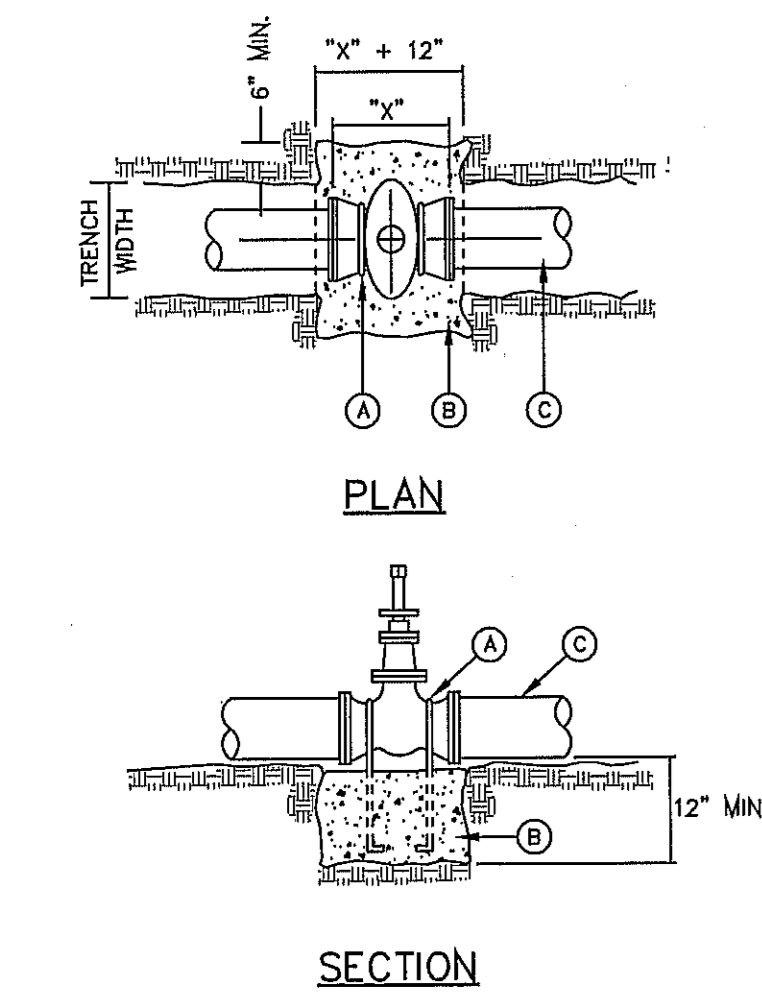
**GENERAL NOTES:**  
 1. THRUST BLOCKING SHALL EXTEND TO UNDISTURBED EARTH.  
 2. TAPPING SLEEVE SHALL BE 18" MINIMUM FROM ANY BELL, COUPLING, VALVE OR FITTING LOCATED ALONG EXISTING WATER LINE TO BE TAPPED.  
 3. REPLACE EXCAVATED MATERIAL WITH CEMENT STABILIZED BACKFILL PRIOR TO PAVING.  
 4. JOINTS AND BOLTS SHALL BE CLEAR OF CONCRETE.  
 5. INSTALL PERMANENT THRUST BLOCKING UNDER VALVE BEFORE TAP IS MADE. JOINTS AND BOLTS TO BE CLEAR OF CONCRETE.

**CONSTRUCTION KEY NOTES:**  
 A. CONCRETE THRUST BLOCKING, PER DETAIL 270.  
 B. TAPPING SLEEVE.  
 C. RISER INSTALLATION, PER DETAIL 260.  
 D. TAPPING VALVE.  
 E. VALVE ENDS FOR TYPE OF PIPE INSTALLED.  
 F. 2-#5 REBAR HAIRPINS, PAINT UNEMBEDDED PORTION OF BARS WITH 2-COATS OF COAL TAR EPOXY, THEN COVER WITH 2" MINIMUM OF CEMENT MORTAR.  
 G. CONCRETE VALVE SUPPORT, PER DETAIL 271.  
 H. NEW WATER LINE TO BE INSTALLED.  
 I. UNDISTURBED EARTH.  
 J. EXISTING WATER MAIN TO BE TAPPED.

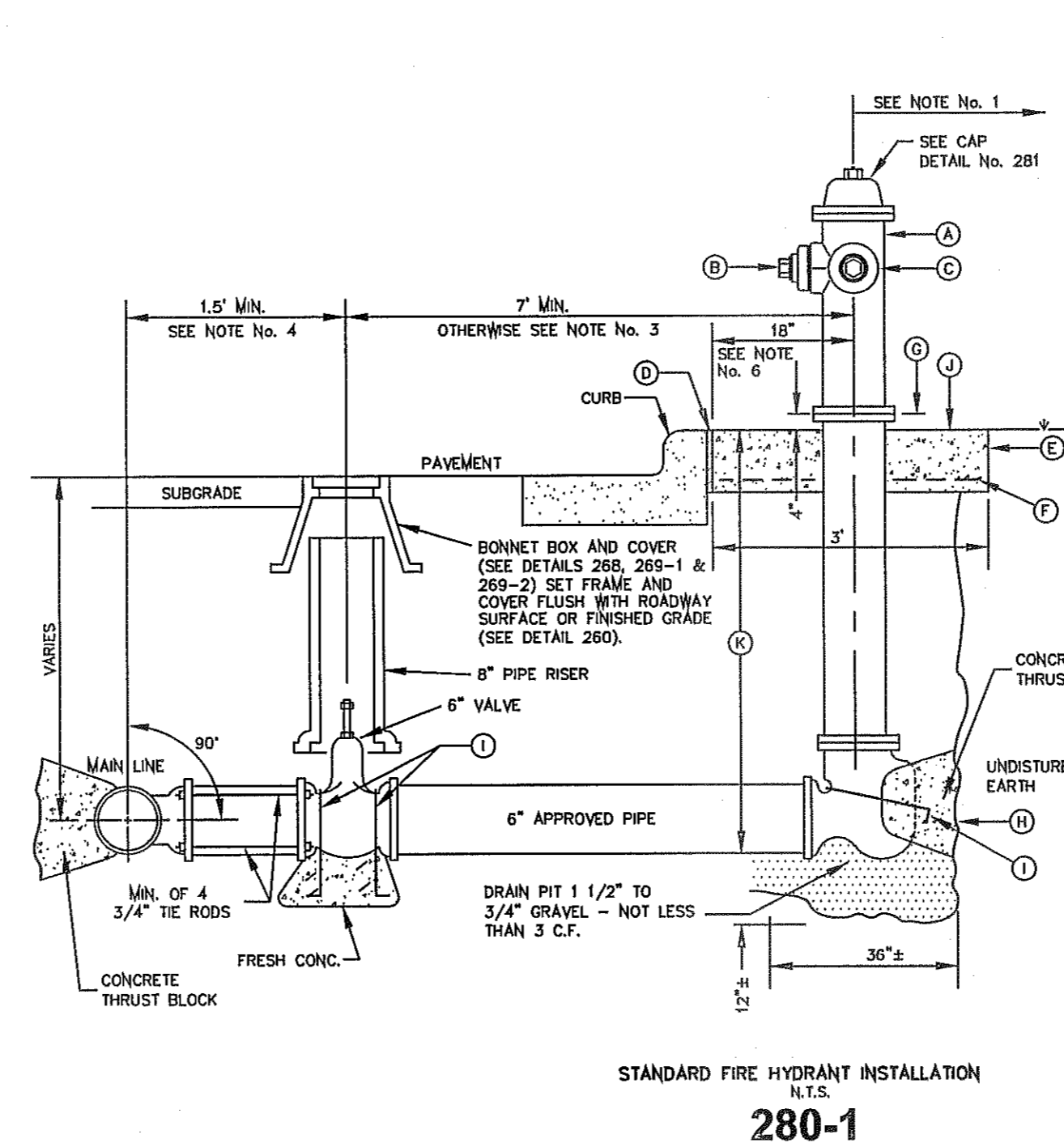


**GENERAL NOTES:**  
 1. VALVE TYPE AND VALVE ENDS SHALL BE AS SHOWN ON THE PLANS.  
 2. ALL BURIED VALVES 5" AND DEEPER SHALL BE PROVIDED WITH SOLID STEEL EXTENSION STEM OPERATOR WITH 2" SQUARE AWWA NUT WITHIN 36" OF VALVE BOX COVER. NUT IS TO INDICATE DIRECTION OF ROTATION TO OPEN VALVE.  
 3. 8" DIA.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

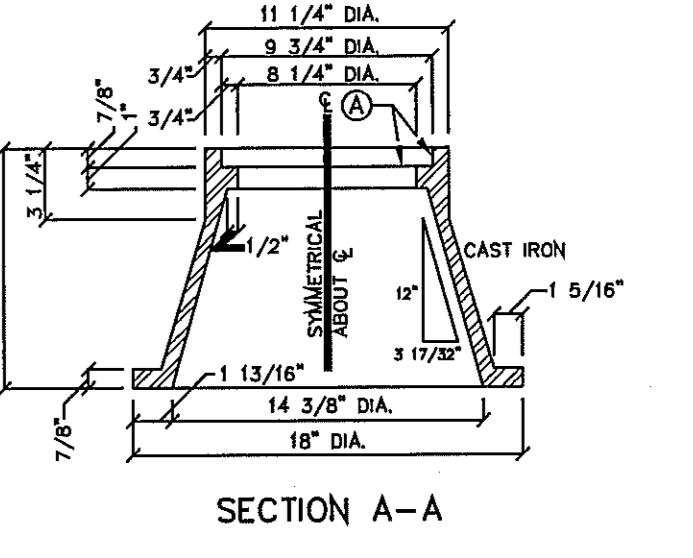
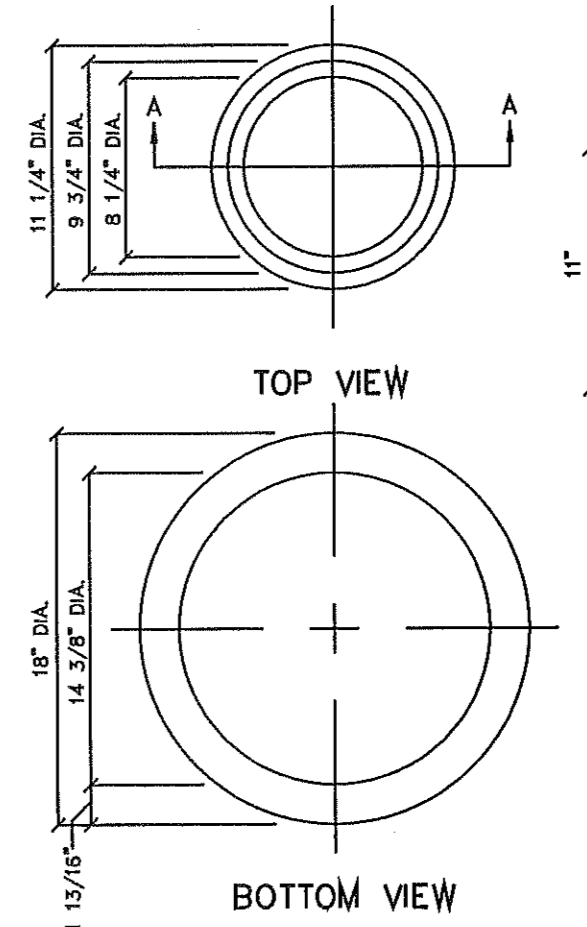
**CONSTRUCTION KEY NOTES:**  
 A. BONNET BOX (SEE DETAIL 268).  
 B. BONNET BOX COVER (SEE DETAILS 269-1 & 269-2).  
 C. FINAL EXTENSION TO BONNET BOX SHALL BE WITH BELL AND SPIGOT ENDS (CLAY OR SDR 35 P.V.C. SPOOL).  
 D. CONCRETE VALVE ANCHOR (SEE DETAIL 271).  
 E. CONCRETE COLLAR (SEE DET 184-1)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



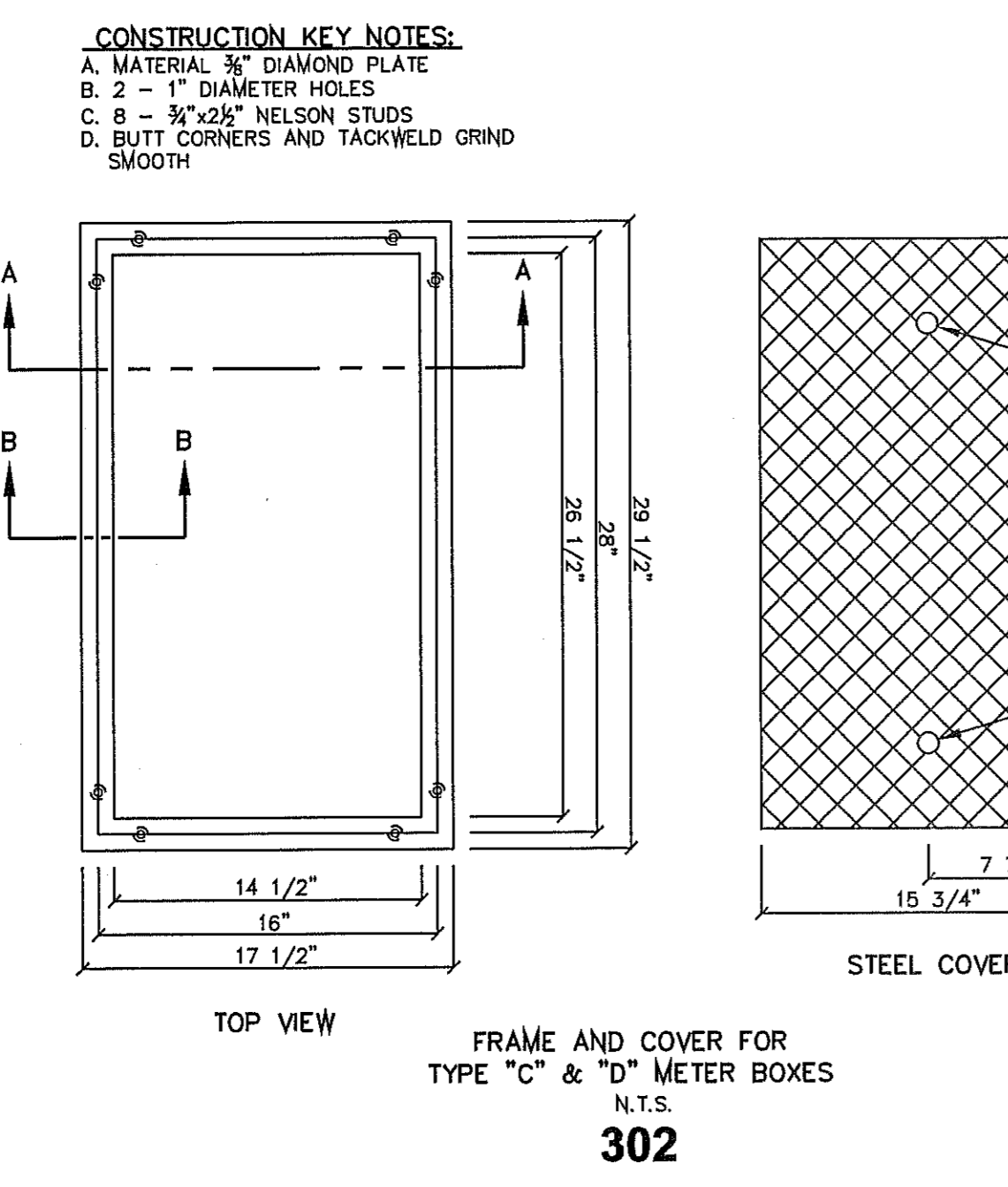
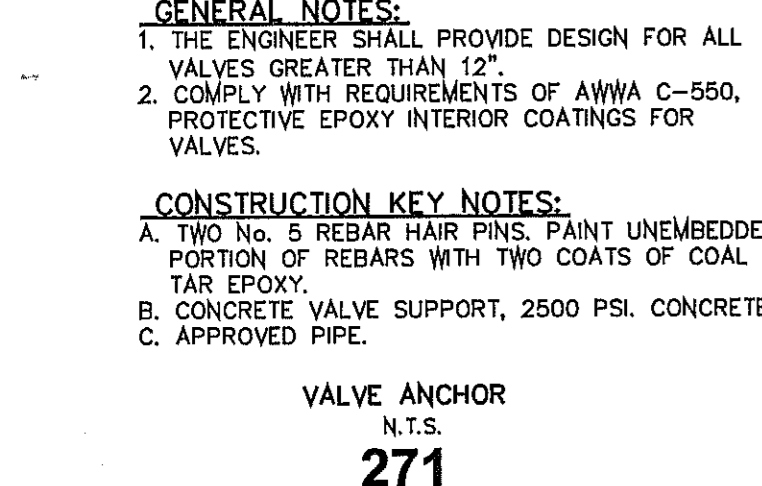
1. STEEL CAPS TO BE MACHINED FROM STEEL PIPE; NOMINAL SIZE = 2 1/2" DIA. OUTSIDE DIA. = 2.875" WALL THICKNESS = 0.203  
 LBS/FT. = 5.79  
 2. CAPS ARE TO BE TACK WELDED OR BRAZED ON FIRE HYDRANT BONNET OR WEATHER CAP.  
 3. THE CAPS OVER THE OPERATING NUT WILL PREVENT ACCESS TO THE UNAUTHORIZED USE OF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



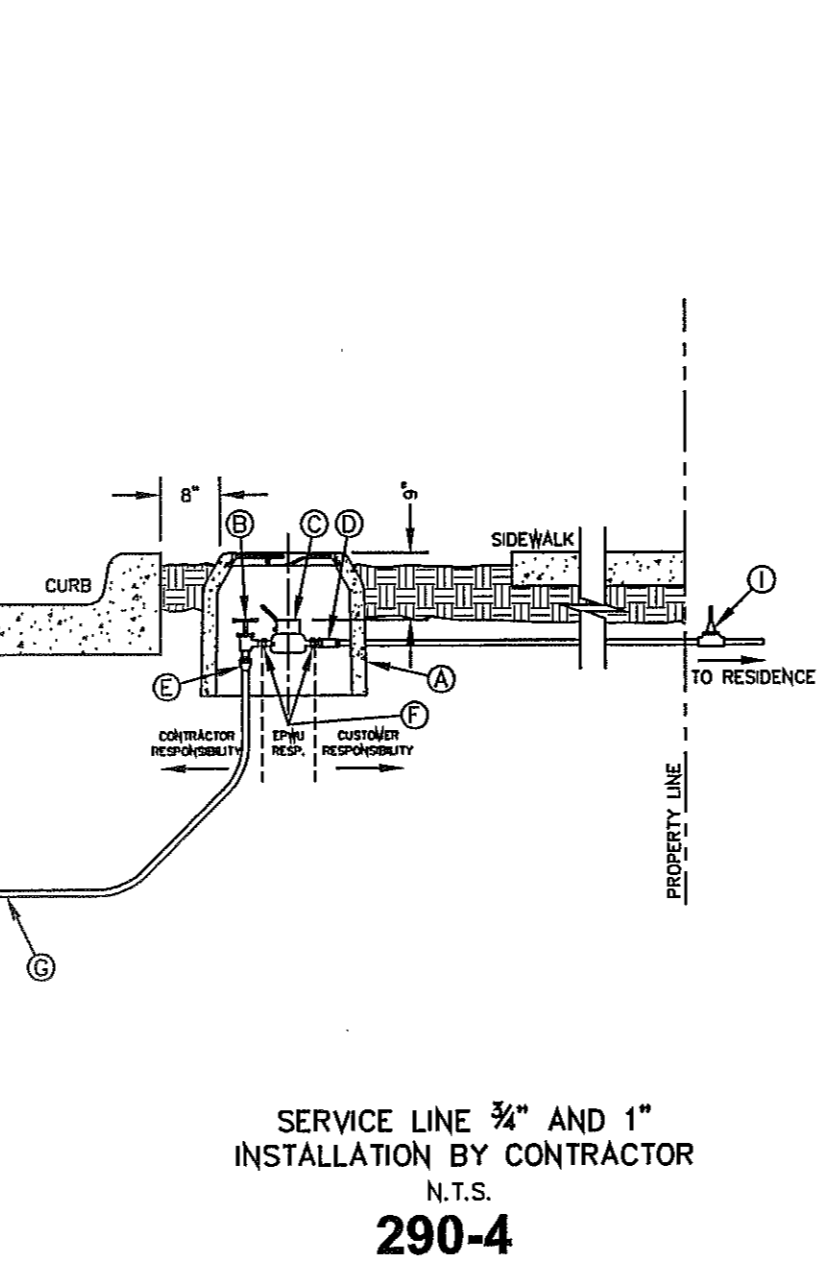
**GENERAL NOTES:**  
 1. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 5 FT. IN ALL DIRECTIONS OF FIRE HYDRANT (PER EL PASO MUNICIPAL CODE, TITLE 12). FIRE HYDRANT SHALL NOT BE PLACED IN WHEEL CHAIR RAMP OR DRIVEWAY.  
 2. FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB RETURN OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE SHOWN ON PLANS. REFER TO DETAIL No. 282 FOR SPECIAL CASES.  
 3. WHERE DISTANCE IS LESS THAN 7', HYDRANT SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL No. 282.  
 4. VALVE MAY BE CONNECTED TO TEE AT MAIN LINE. USE FLANGED MECHANICAL JOINT ENDS. WHERE SPOOL IS REQUIRED BETWEEN TEE AND VALVE, USE FLANGED MECHANICAL ENDS WITH 1/2" DIAMETER TIE RODS.  
 5. COMPLY WITH REQUIREMENTS OF AWWA C-502, DRY BARREL FIRE HYDRANTS AND AWWA C-550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES AND HYDRANTS.  
 6. WHEN INSTALLATION IS WITHIN 100' RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.  
**CONSTRUCTION KEY NOTES:**  
 A. FIRE HYDRANT PER SPECS.  
 B. PUMPER NOZZLE 4 1/2" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.  
 C. HOSE NOZZLE 1 1/2".  
 D. 1/2" PREMOLDED EXPANSION JOINT WITH 1" TOP FILLER.  
 E. 3"x3"x6" CONC. SO. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.  
 F. #10; 6/6 W/W.  
 G. CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE HYDRANT TO CONTROLLED ELEVATION.  
 H. CONC. THRUST BLOCK APPROX. 2'x2'x3' TO BE POURED AGAINST UNDISTURBED EARTH. F.H. WEEP HOLE MUST BE UNOBSTRUCTED.  
 I. 2"x1/4" STEEL ANCHOR PINS.  
 J. TOP OF SLAB SHALL BE AT CURB LEVEL 4" BELOW THE BREAK LINE OF THE HYDRANT, UNDER SPECIAL CONDITIONS THE ENGINEER MAY ALLOW VARIATIONS TO THIS CONSTRUCTION.  
 K. CONTRACTOR IS TO PROVIDE ADDITIONAL SPOOLS IF NEEDED TO MAINTAIN THE 4" MIN. CLEARANCE FROM THE CONTROLLED ELEV. LINE TO TOP OF SLAB.



**GENERAL NOTES:**  
 1. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.  
 2. WEIGHT OF BONNET BOX IS 95 POUNDS.  
**CONSTRUCTION KEY NOTES:**  
 A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.

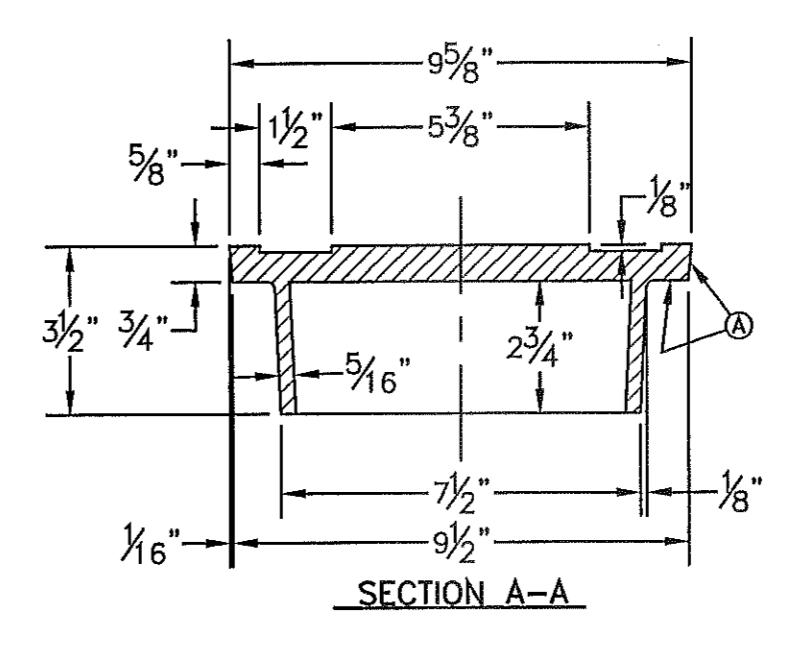
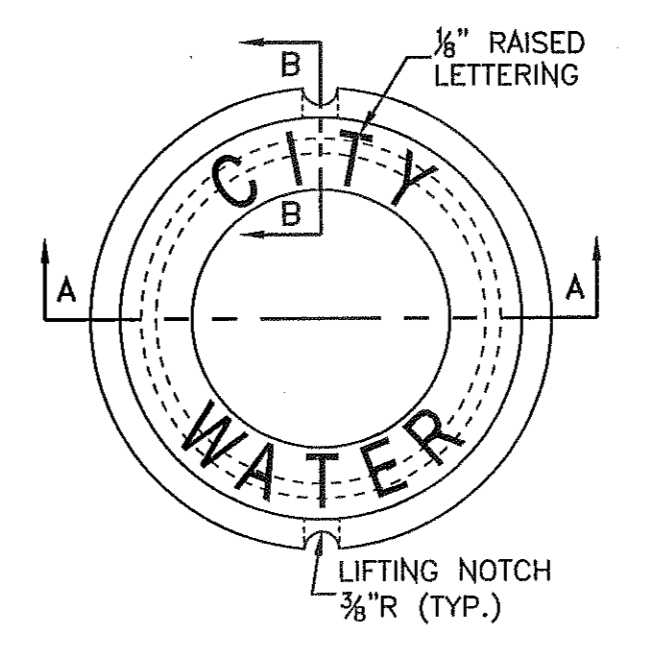


**CONSTRUCTION KEY NOTES:**  
 A. MATERIAL 3/8" DIAMOND PLATE  
 B. 2 - 1" DIAMETER HOLES  
 C. 8 - 3/8"x3/4" NELSON STUDS  
 D. BUTT CORNERS AND TACKWELD GRIND SMOOTH



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

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



**GENERAL NOTES:**  
 1. CASTINGS TO BE SMOOTH AND VOID OF AIR HOLES.  
 2. WEIGHT OF COVER IS 18 POUNDS.  
**CONSTRUCTION KEY NOTES:**  
 A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.

**BONNET BOX COVER (FLIP RESISTANT) N.T.S. 269-2**  
**EL PASO WATER UTILITY DETAILS NUMBERS:**  
 260, 266, 268, 269-2, 270, 271, 280-1, 281, 290-4, 302

**ENGINEER'S SEAL**  
 ENGINEER'S SEAL NOT REQUIRED.  
 DESIGN BY: YC  
 FROM CITY OF EL PASO, TEXAS 79905  
 SUBDIVISION CHECKED BY: YC & FC  
 DESIGN STANDARDS JOB NO.: 1110-18

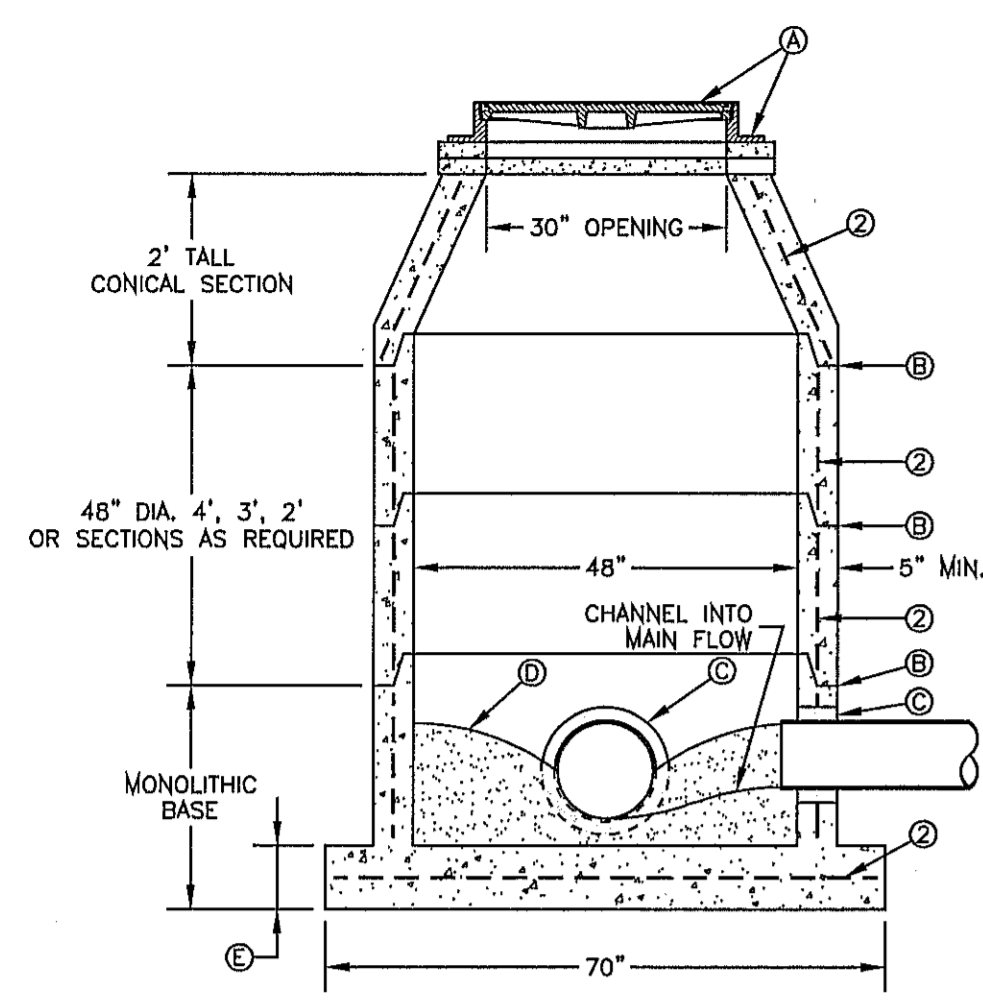
**CONDE INC.**  
 ENGINEERING / PLANNING SURVEYING / GPS  
 6080 SURETY DR. STE 100 EL PASO, TEXAS 79905  
 PHONE: (915) 592-0283 FAX: (915) 592-0286

**TIERRA DEL ESTE UNIT SEVENTY ONE**  
 BRING PORTION OF SECTION 18, BLOCK 78, TOWNSHIP 2, AND PORTION OF SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 120.668± ACRES

**WATER DETAILS**  
 SHEET TITLE  
 SHT 54 OF 55

FILE S:\Subdivisions\71 ROBERTS\71 NEW\71E-1-VAS NOTES AND DETAILS PLOTTED Tuesday, June 18, 2013 2:54:47 PM

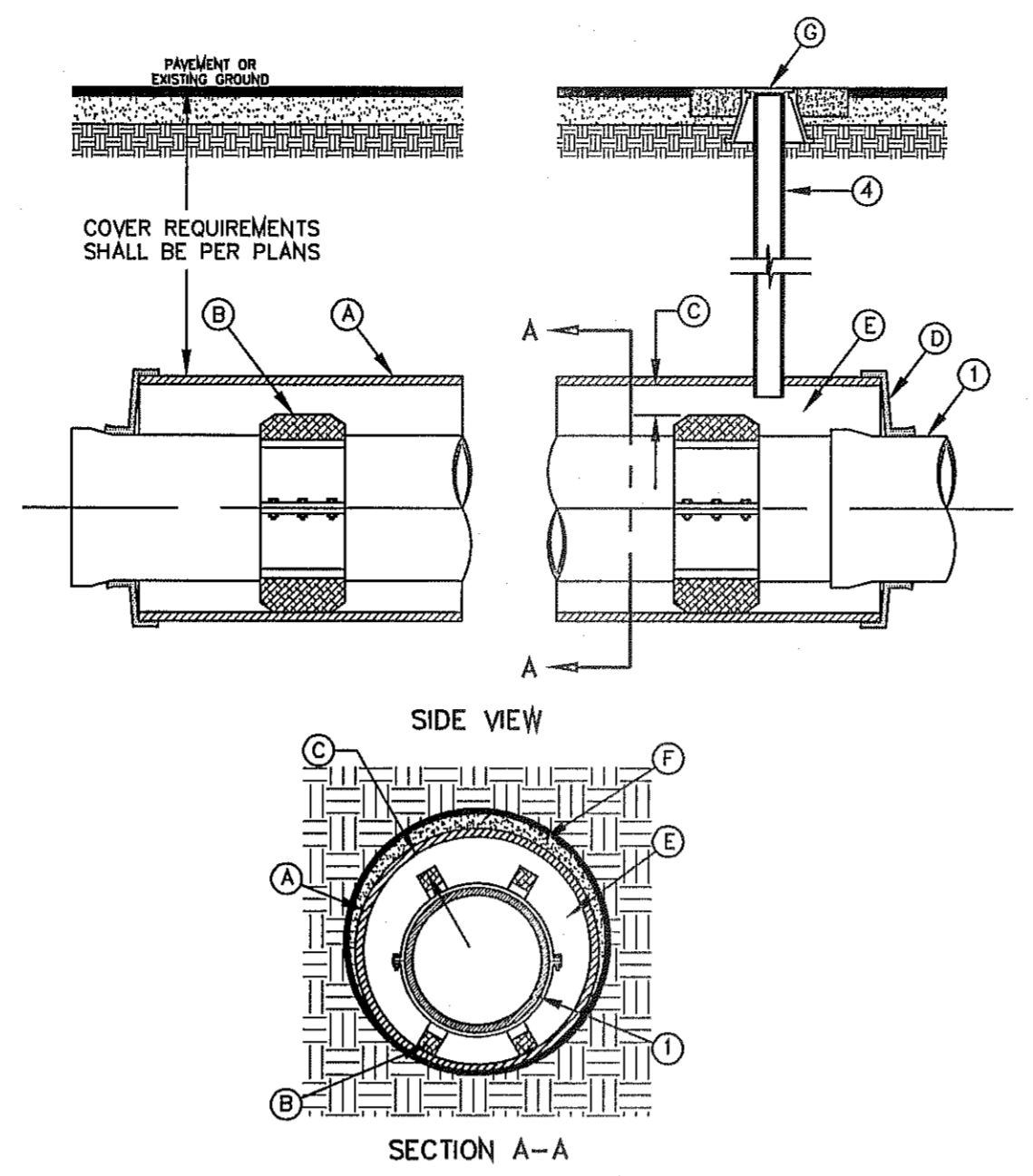




MANHOLE TYPE "A"  
N.T.S.  
**370-1**

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

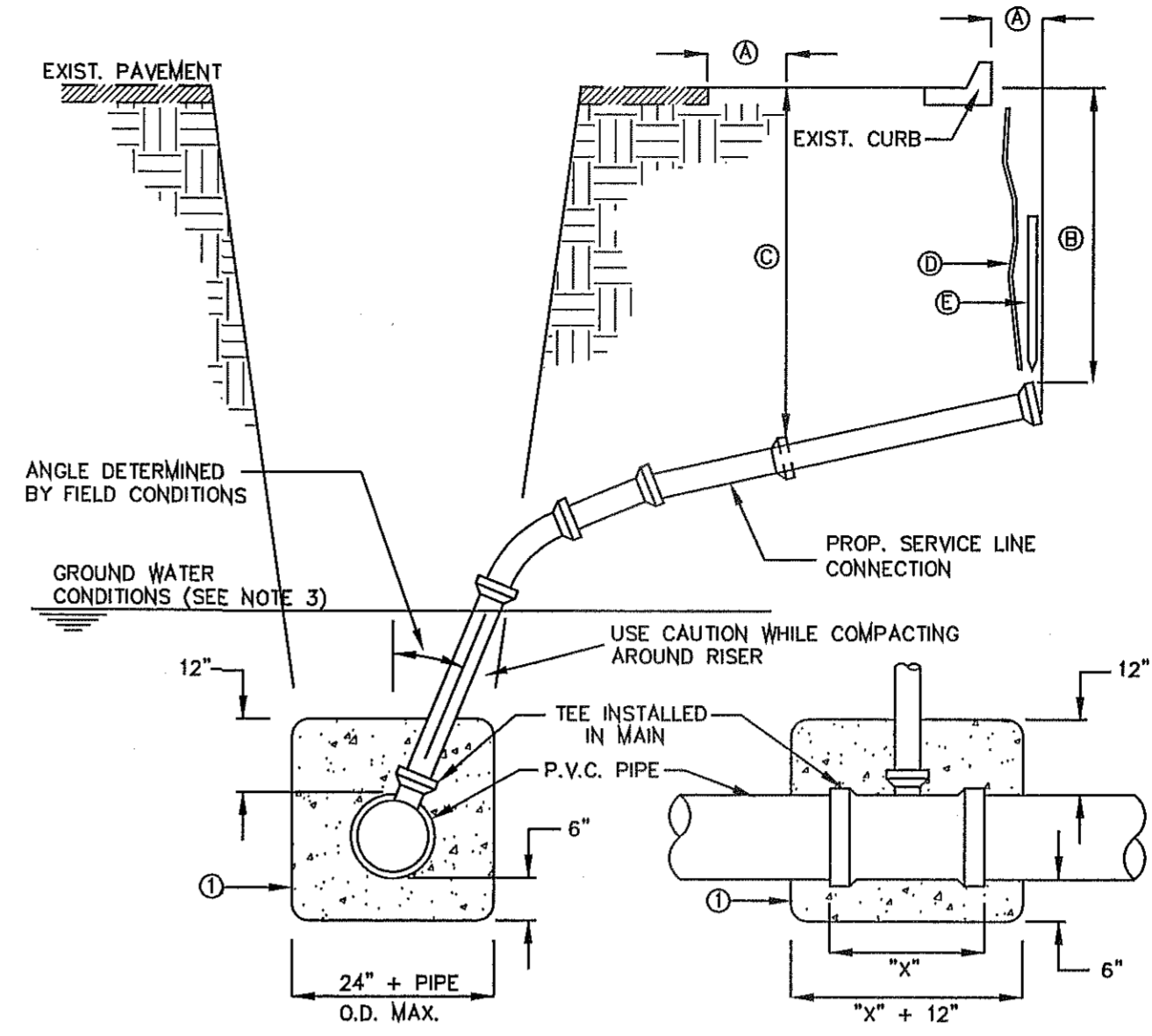
- CONSTRUCTION KEY NOTES:**
- A. MANHOLE RING AND COVER (SEE DETAILS 377 & 378). SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE (SEE DETAIL 185).
  - B. ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH RAM-NEK OR APPROVED EQUAL.
  - C. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE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



CARRIER PIPE INSTALLATION  
WITH CASING INSULATORS  
N.T.S.  
**180**

- GENERAL NOTES:**
1. INSTALLATION FOR APPROVED CARRIER PIPE.
  2. CASING SHALL BE INSTALLED USING EITHER JACKING, BORING OR TUNNELING METHODS FROM THE END WHICH CREATES A MINIMUM OF ACCESS AND RELOCATION PROBLEMS.
  3. INSULATED SPACERS SHALL BE USED WHEN SPECIFIED, TO PROVIDE CORROSION PROTECTION.
  4. PRECAUTIONARY OUTLET (6") WITH BONNET BOX AND COVER SHALL BE USED WHEN REQUIRED BY OTHER GOVERNING AGENCIES.

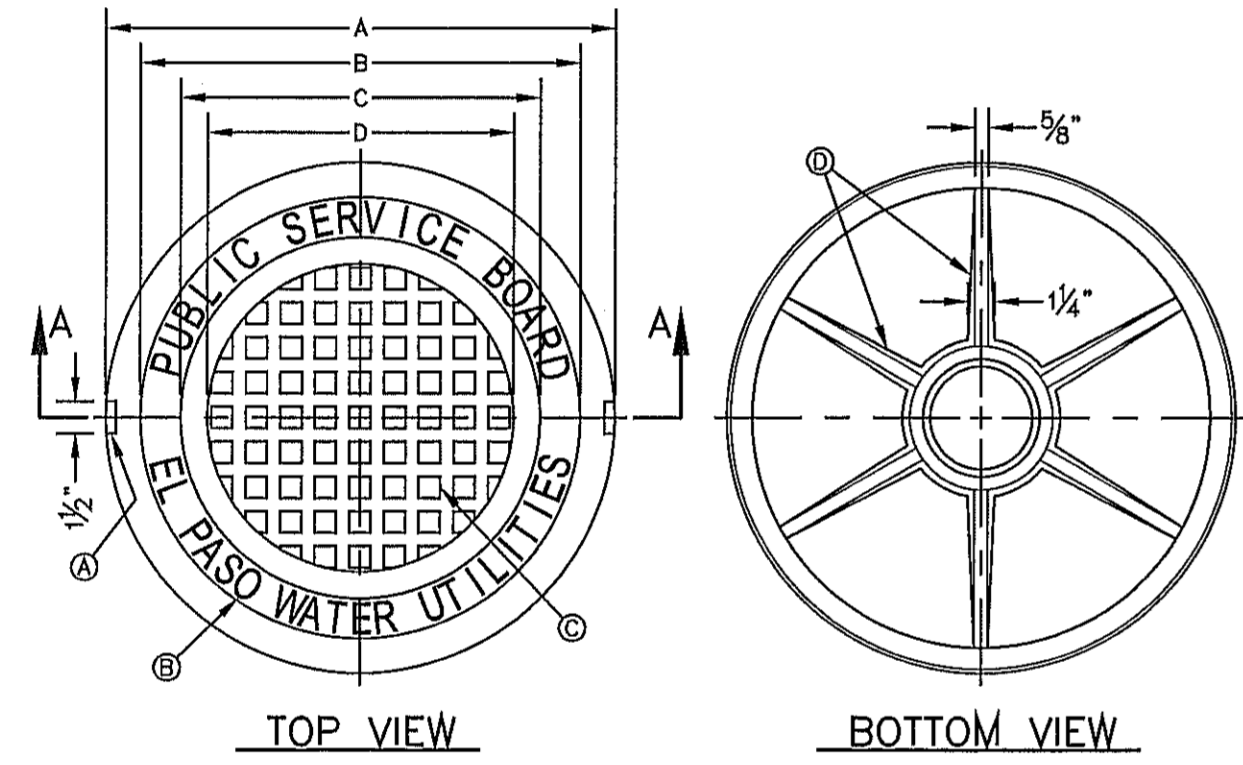
- CONSTRUCTION KEY NOTES:**
- A. STEEL CASING MINIMUM YIELD 36000 PSI, SIZE AND LENGTH AS SPECIFIED.
  - B. CASING INSULATORS, SPACING AND LOCATION PER MANUFACTURER'S RECOMMENDATIONS. INSULATORS SHALL FIT SNUG OVER THE CARRIER PIPE.
  - C. POSITION CARRIER PIPE APPROXIMATELY IN CENTER OF CASING. MINIMUM SPACING BETWEEN INSULATOR AND CARRIER PIPE SHALL BE 1", MAXIMUM SPACING SHALL BE 2".
  - D. END SHALL BE SEALED WITH BRICK AND MORTAR, BULKHEAD AND GROUT, OR WITH SYNTHETIC RUBBER SEAL, AS SPECIFIED.
  - E. ANNULAR SPACE SHALL BE LEFT OPEN FOR CATHODICALLY PROTECTED SYSTEM WHERE BOTH CASING AND CARRIER PIPE ARE METALLIC MATERIAL, OR AS OTHERWISE SPECIFIED.
  - F. PRESSURE GROUT ANNULAR SPACE OUTSIDE CASING AFTER CASING IS INSTALLED.
  - G. BONNET BOX AND COVER (SEE DETAILS 268, 269-1 & 269-2) SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE (SEE DETAIL 260).



SEWER SERVICE RISER  
AND SERVICE LINE CONNECTION  
N.T.S.  
**391**

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

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



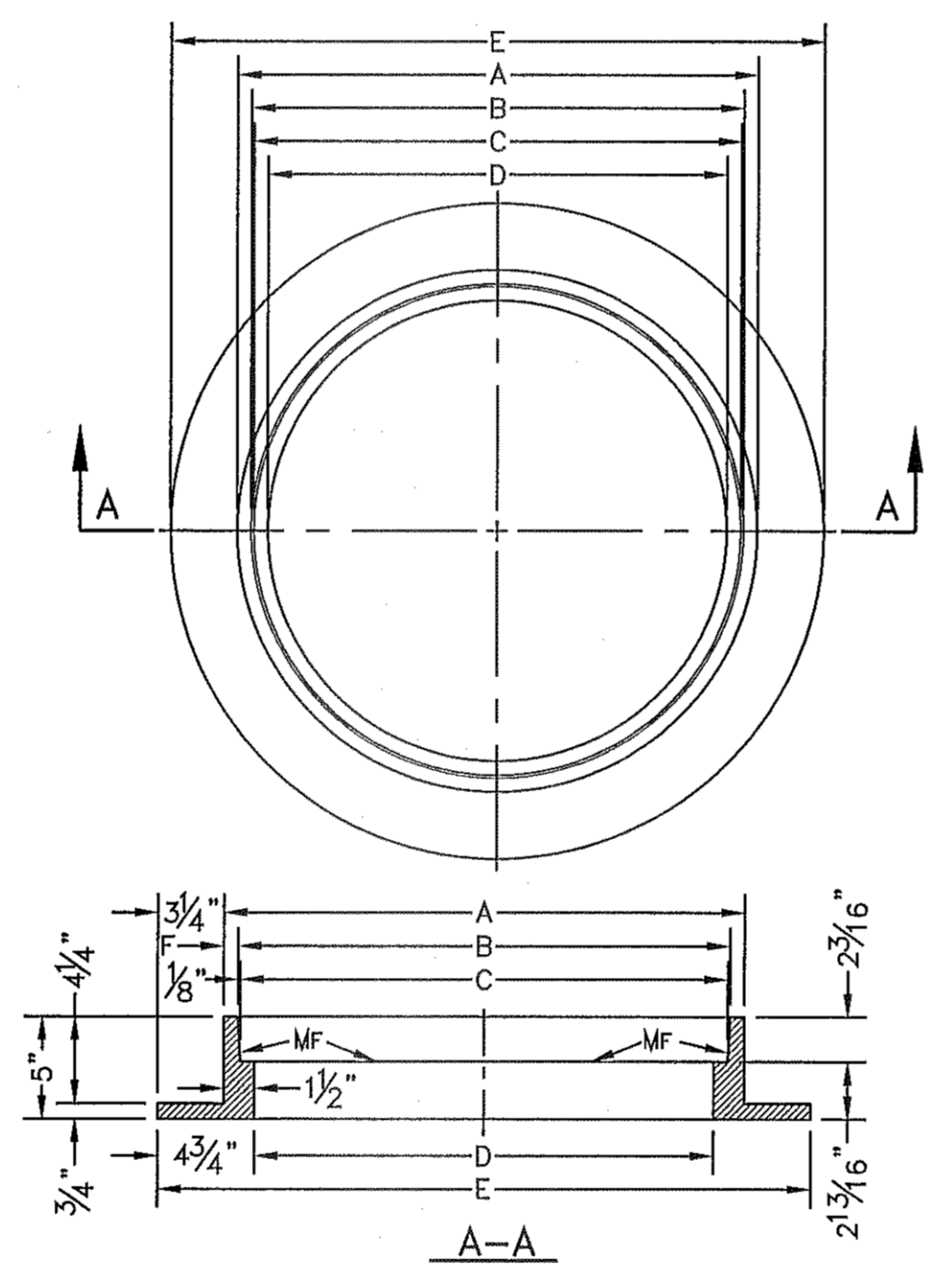
SEWER MANHOLE COVER  
N.T.S.  
**378**

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

- CONSTRUCTION KEY NOTES:**
- A. LIFTING NOTCH.
  - B. 3/16" RAISED LETTERING.
  - C. 1" SQUARES (3/8" TALL) WITH 5/8" SPACE BETWEEN.
  - D. REINFORCING RIBS.
  - E. SLOT.

MANHOLE COVER	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	31 3/8"	23 3/8"
B	28 1/2"	20 3/8"
C	24 3/4"	16 3/4"
D	21 1/2"	14 3/8"
WEIGHT	265 lbs.	165 lbs.

\*OBSELETE - DO NOT USE  
(FOR REFERENCE ONLY)

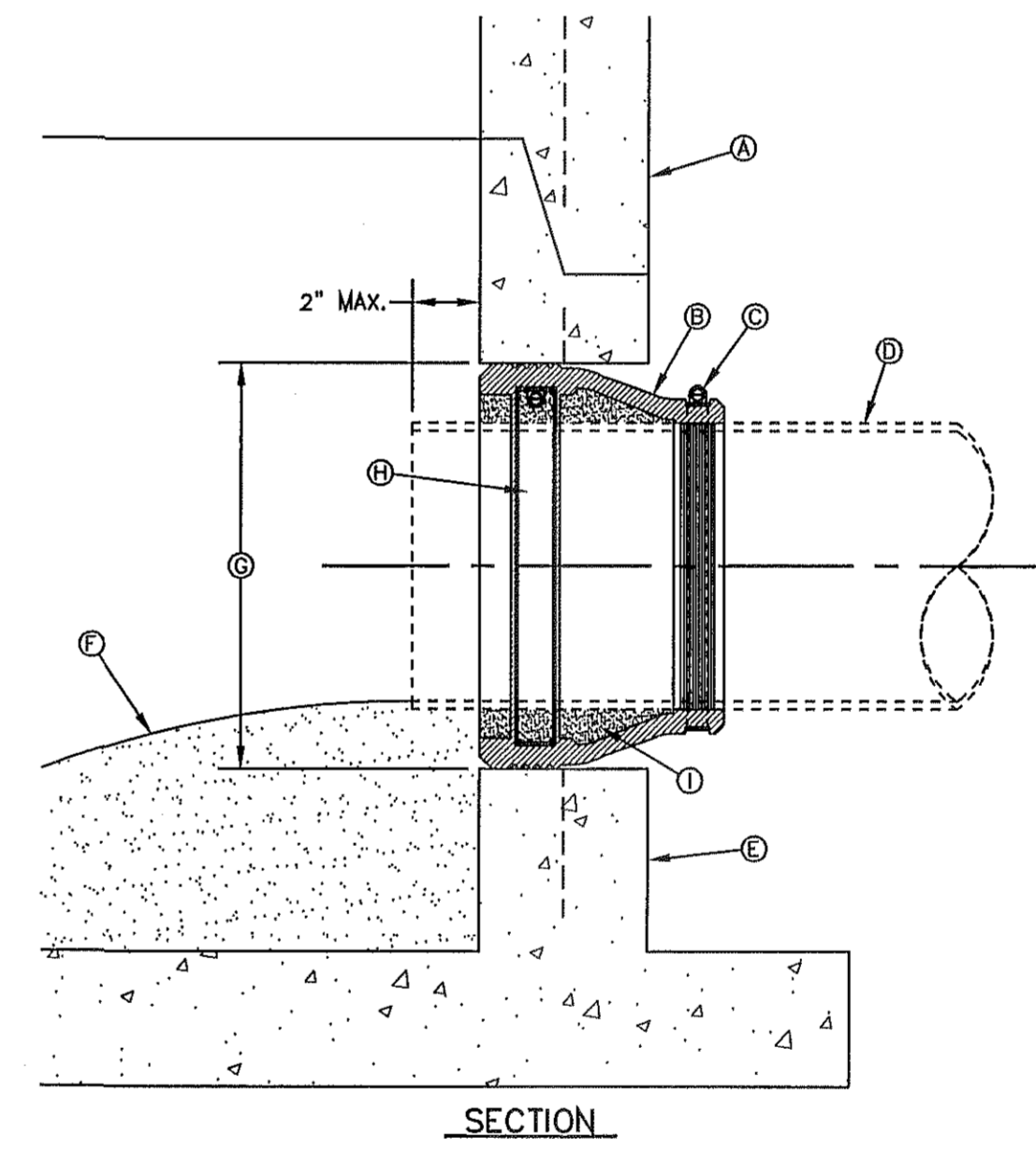


SEWER MANHOLE RING  
N.T.S.  
**377**

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

MANHOLE RING	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	33"	25 1/2"
B	31 3/4"	24 1/8"
C	31 1/2"	23 3/8"
D	30"	22 1/2"
E	29 1/2"	22"
F	28"	21 1/2"
WEIGHT	220 lbs.	170 lbs.

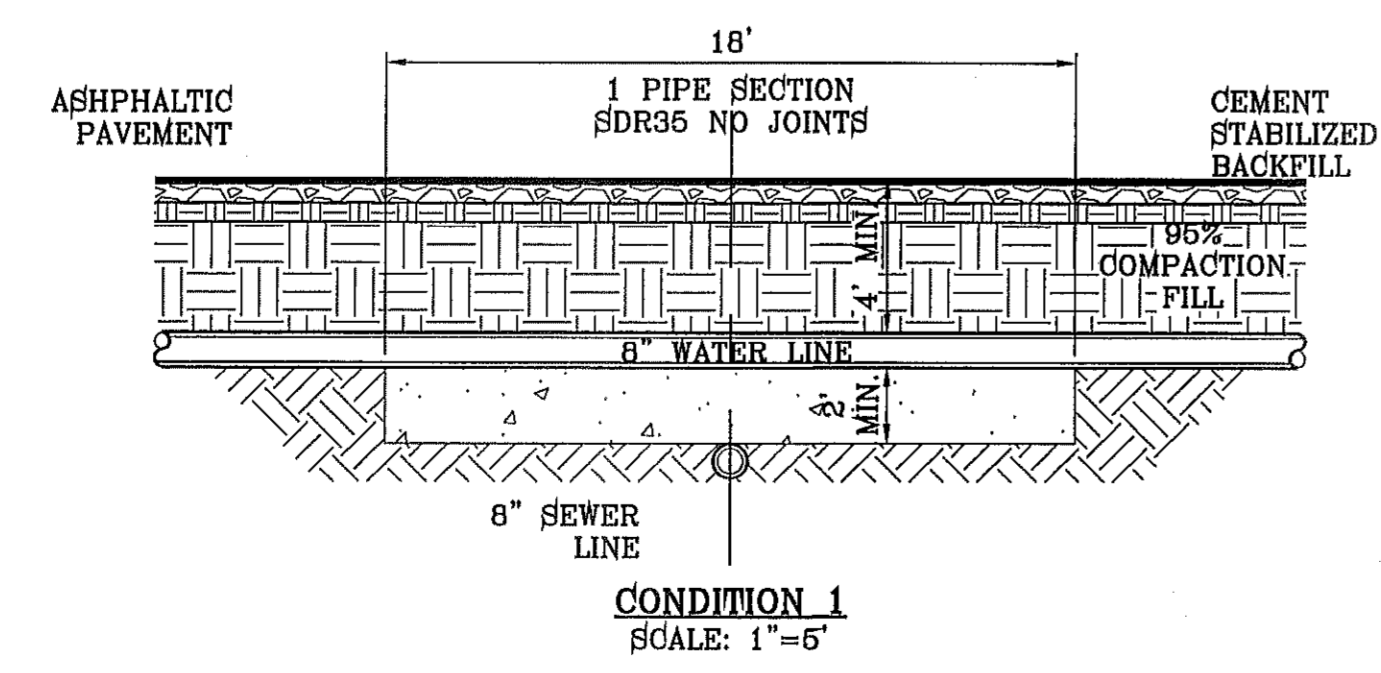
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(FOR REFERENCE ONLY)



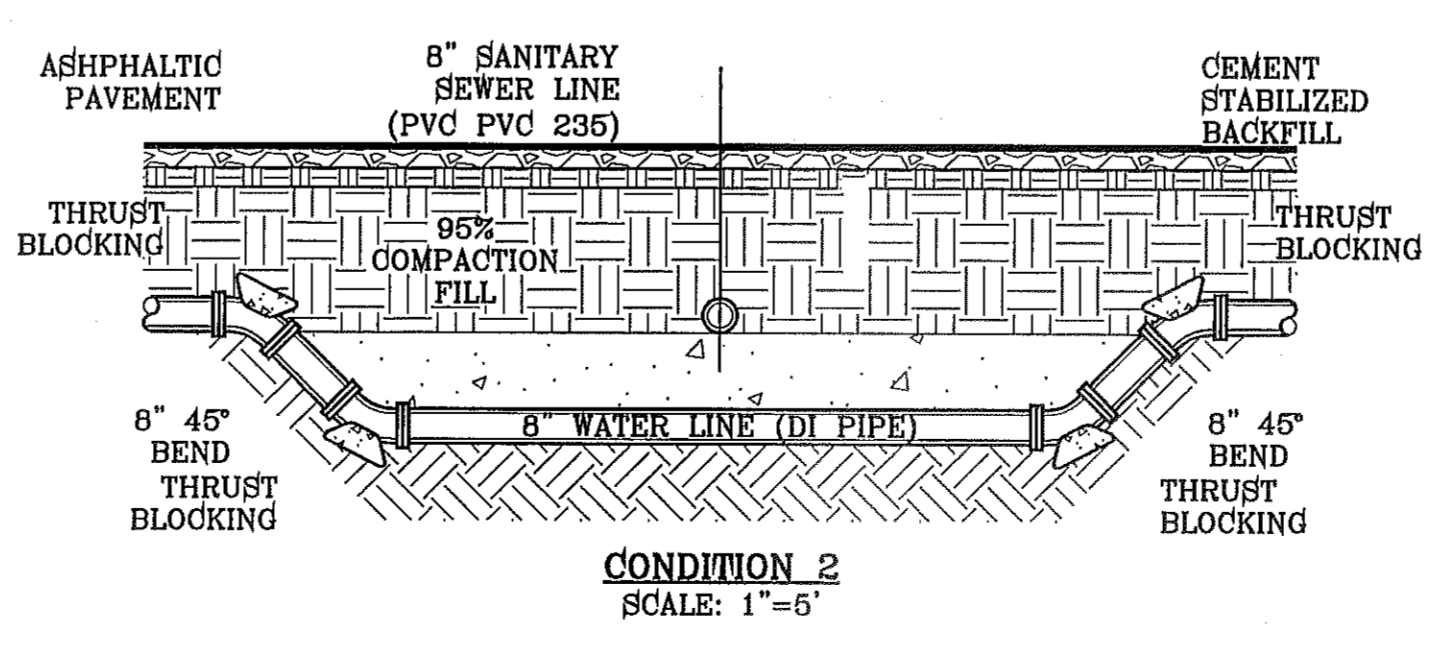
PIPE CONNECTION TO MANHOLE  
N.T.S.  
**376**

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

- CONSTRUCTION KEY NOTES:**
- A. PRECAST MANHOLE BARREL.
  - B. FLEXIBLE CONNECTOR.
  - C. PIPE CLAMP SS 316.
  - D. APPROVED PIPE.
  - E. PRECAST MANHOLE BASE.
  - F. GROUT AS REQUIRED TO FORM SMOOTH CHANNEL TO MANHOLE INVERT.
  - G. PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE.
  - H. EXPANSION BAND SS 316.
  - I. FILL SPACE WITH GROUT.



CONDITION 1  
SCALE: 1"=5'



CONDITION 2  
SCALE: 1"=5'

EL PASO WATER UTILITY DETAILS  
NUMBERS:  
180, 370-1, 376, 377, 378, 391

TIERRA DEL ESTE UNIT SEVENTY ONE

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF  
E. 7TH STREET AND JOHN HAYES ST.  
ELEVATION 4016.79

DATE: 1-27-2012

REVISIONS

BY: PSB

RO: REDLINES

PROJECT NAME

**TIERRA DEL ESTE UNIT SEVENTY ONE**

BEING PORTION OF SECTION 18, BLOCK 78,  
TOWNSHIP 2, AND PORTION OF SECTION 37, BLOCK 79,  
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,  
EL PASO COUNTY, TEXAS  
CITY OF EL PASO, TEXAS  
CONTAINING: 120,988± ACRES

ENGINEER'S SEAL

ENGINEER'S SEAL  
NOT REQUIRED.  
THIS SHEET  
IS PRODUCED  
FROM CITY  
DESIGN BY: YC  
INITIATED BY: RO  
SUBDIVISION  
DESIGN STANDARDS  
CHECKED BY: YC & FC  
JOB NO.: 1110-18

CONDE INC.

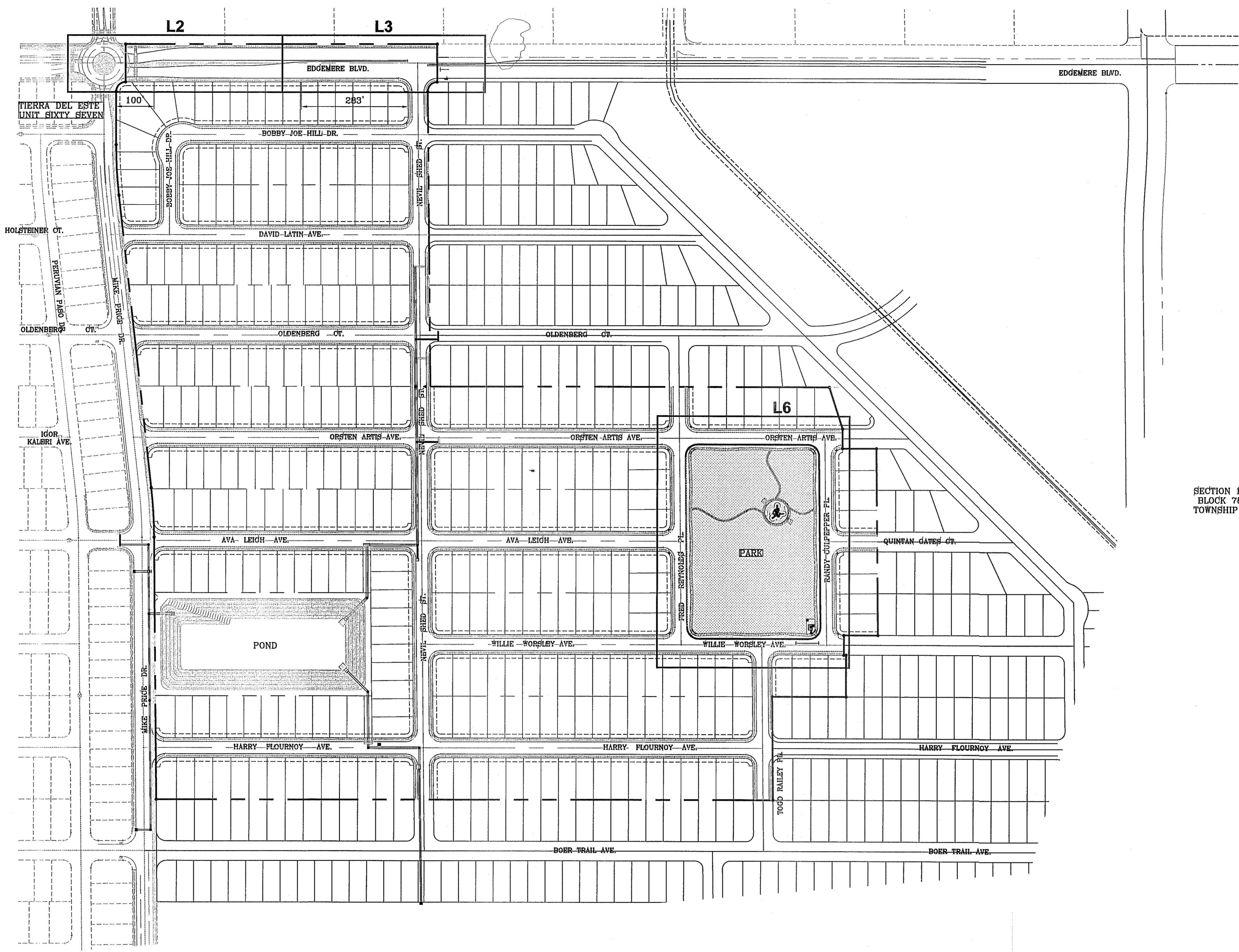
ENGINEERING / PLANNING  
SURVEYING / GPS  
6030 SURETY DR. STE 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0263  
FAX: (915) 592-0286



SHEET TITLE

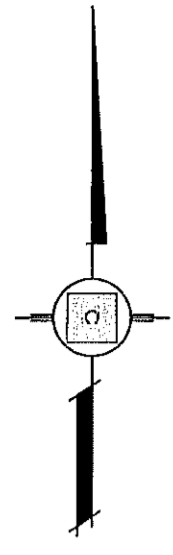
SANITARY  
SEWER  
DETAILS





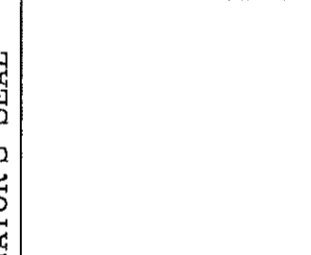
TIERRA DEL ESTE UNIT SIXTY SEVEN

SECTION 18, BLOCK 78, TOWNSHIP 2

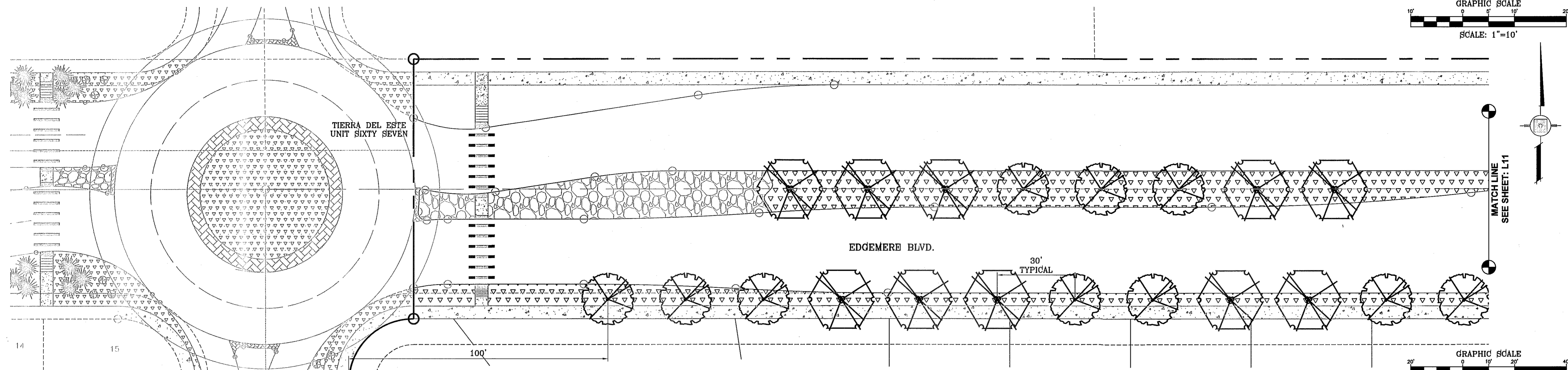


**PARKS DEPARTMENT**  
REVIEWED BY *Christy Clark* for 09/18/14

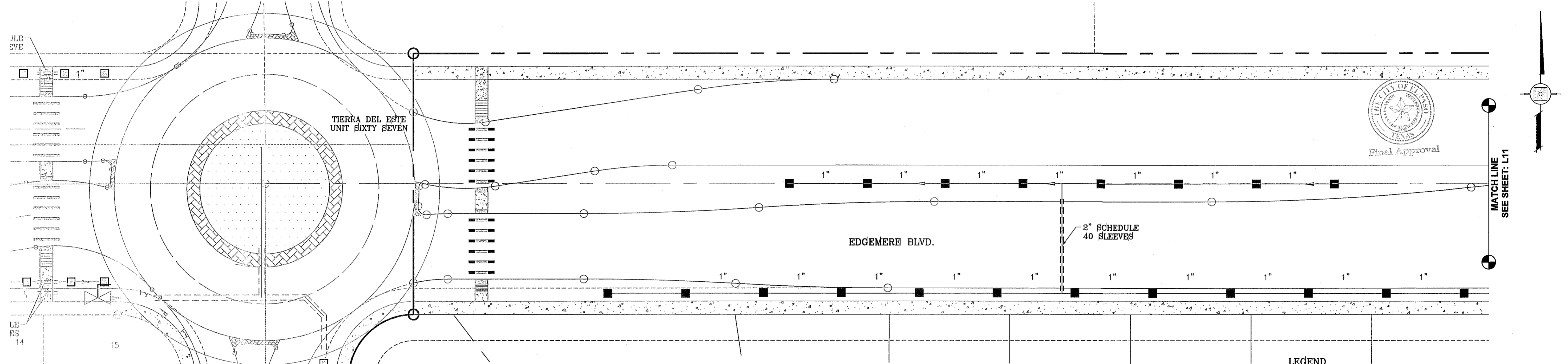
TIERRA DEL ESTE UNIT SEVENTY ONE PARK  
TDLR PROJECT REGISTRATION NUMBER EABPRJB5801055

PROJECT NAME <b>TIERRA DEL ESTE UNIT 71 PARK</b> <b>"MINERS PARK"</b> <b>14869 WILLIE WORSLEY AVE.</b> <small>BEING ALL OF LOT 1, BLOCK 406 TIERRA DEL ESTE UNIT SEVENTY ONE TIERRA DEL ESTE EL PASO COUNTY TEXAS CITY OF CONTAINING: 3.742± ACRES</small>	
BENCHMARK CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH BEITSINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75 ..... NAVD88 DATUM	REVISIONS DATE BY
S C A L E HORIZ: N.T.S. VERT: ---	DATE: AUGUST 2012 DESIGN BY: OM INITIATED BY: OM CHECKED BY: RMJM JOB NO.: 1110-18
IRRIGATOR'S SEAL 	CONDE INC. ENGINEERING / PLANNING SURVEYING / GFS 6080 SURETY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286
SHEET TITLE <b>TDE 71 LOCATION MAP</b>	
SHT 1 OF 9	





LANDSCAPE PLAN



IRRIGATION PLAN

**LEGEND**

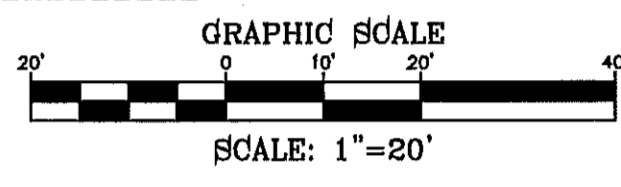
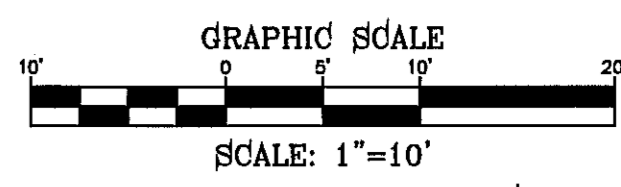
- BOUNDARY LINE
- TYPE K 1" COPPER WATER TUBE
- 1" PVC SCHEDULE 40 WATER MAIN
- 1" PVC SCHEDULE 40 WATER LATERAL
- 2" PVC SCHEDULE 40 SLEEVE
- ⊕ 1" WATER METER BY DEVELOPER
- ⊕ 1" PROPOSED UNDERGROUND DOUBLE CHECK ASSEMBLY BACKFLOW PREVENTOR
- ⊕ TBO'S CONTROL MODULE
- ⊕ 1" REMOTE CONTROL VALVE
- ⊕ XERIBIRD 8 EMMITER
- ⊕ PIPE SIZE (SIZE AS NOTED)
- ⊕ 1" STUB OUT WITH FOR FUTURE DRIP
- ⊕ 1" ISOLATION BRASS BALL VALVE
- ⊕ AMIAD 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR

**LEGEND**

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHAPE	FRAXINUS VELUTINA	2" CAL.	46
	RAYWOOD ASH Q TIPPED SHAPE	FRAXINUS ANGUSTIFOLIA	2" CAL.	44
	CHINESE JUNIPER	JUIPERUS CHINENSIS	1 GAL.	4
	RED CLUSTERBERRY	COTONEASTER LACTEUS "PARNEYI"	5 GAL.	4
	NEW GOLD LANTANA	LANTANA CAMARA 'NEW GOLD'	1 GAL.	39
	TEXAS SAGE	LEUCOPHYLLUM 'FRUTESCENS'	5 GAL.	48
	DESERT ROSEMARY	POLIOMINTHA INCANA	5 GAL.	24
	RED YUCCA	HESPERALOE PARVIFLORA	5 GAL.	39
	FRANKLIN RED BOULDER			8
	3/8" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3" ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			
	RIVER ROCK, WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3" ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			

FILE SA\_LANDSCAPE 71.DWG DATE: 7/1/2014 8:03:37 AM

IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13087, AUSTIN, TX 78711-308, (512) 239-6719



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75

DATE

REVISIONS

BY

PROJECT NAME

**TIERRA DEL ESTE UNIT 71 PARK**

**EDGEMERE MEDIAN LANDSCAPE**

SCALE

HORIZ: 1" = 20'

VERT: ---

DATE: AUGUST 2012

DESIGN BY: OM

INITIATED BY: OM

CHECKED BY: RNJM

JOB NO.: 1110-18

IRRIGATOR'S SEAL

STATE OF TEXAS

REYMONDO MARTINEZ

9000

CONDE INC.

ENGINEERING / PLANNING

SURVEYING / GPS

6080 SURETY DR. STE 100

EL PASO, TEXAS 79905

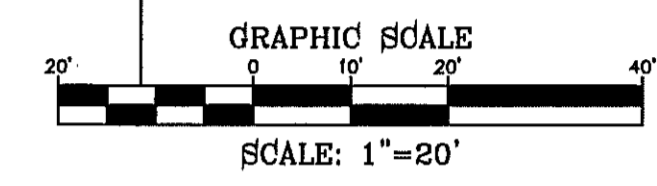
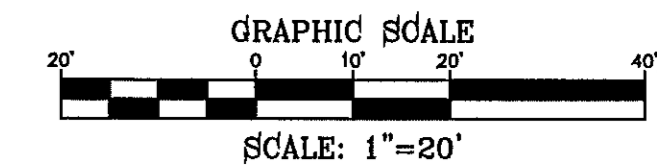
PHONE: (915) 592-0283

FAX: (915) 592-0286

SHEET TITLE

**EDGEMERE BLVD. LANDSCAPE AND IRRIGATION**





Final Approval

BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75	NAVD88 DATUM
DATE	
REVISIONS	
BY	

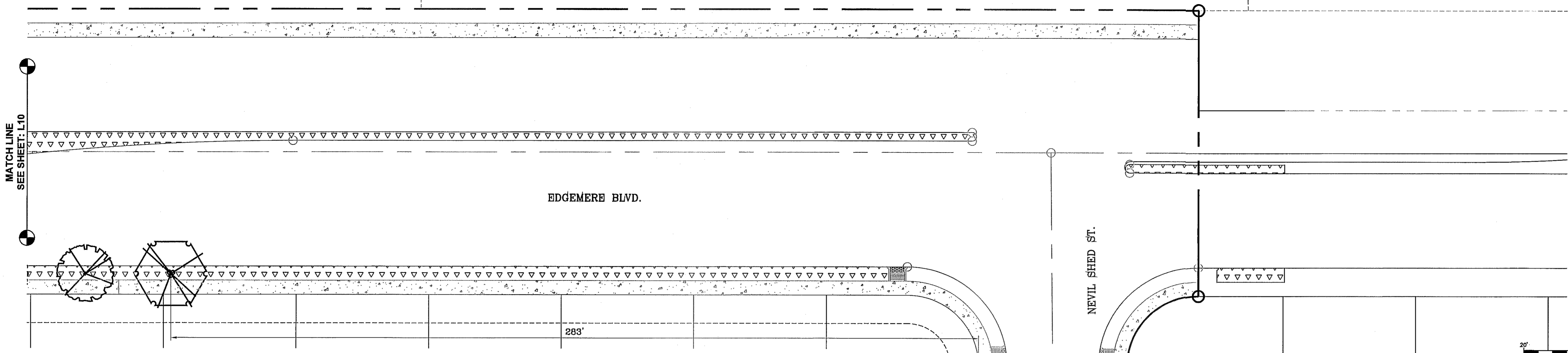
PROJECT NAME  
**TERRA DEL ESTE UNIT 71 PARK  
EDGEMERE MEDIAN LANDSCAPE**

SCALE  
HORIZ: 1" = 30'  
VERT: 1" = 30'  
DATE: AUGUST 2012  
DESIGN BY: OM  
INITIATED BY: RMJM  
CHECKED BY: RMJM  
JOB NO.: 1110-18

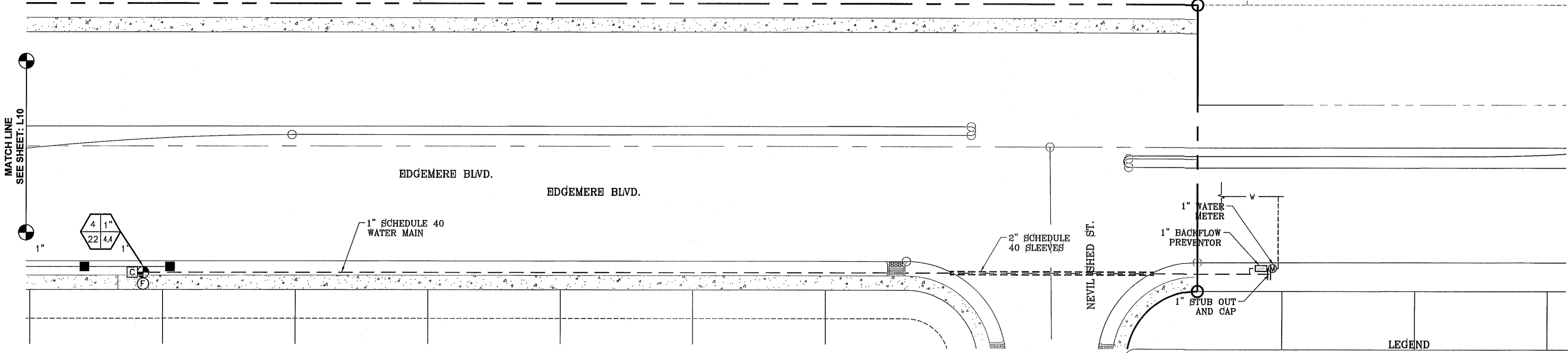
CONDE INC.  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE. 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286



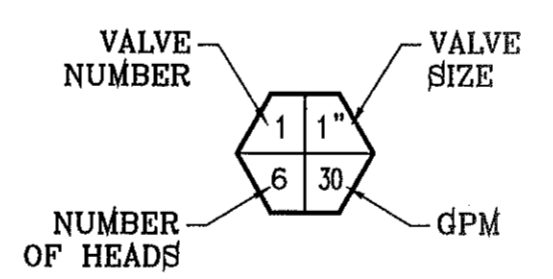
SHEET TITLE  
**EDGEMERE BLVD.  
LANDSCAPE  
AND  
IRRIGATION**



**LANDSCAPE PLAN**



**IRRIGATION PLAN**



**LEGEND**

---	BOUNDARY LINE
---	TYPE K 1" COPPER WATER TUBE
---	1" PVC SCHEDULE 40 WATER MAIN
---	1" PVC SCHEDULE 40 WATER LATERAL
---	2" PVC SCHEDULE 40 SLEEVE
⊙	1" WATER METER BY DEVELOPER
⊕	1" PROPOSED UNDERGROUND DOUBLE CHECK ASSEMBLY BACKFLOW PREVENTOR
⊞	TBO'S CONTROL MODULE
⊕	1" REMOTE CONTROL VALVE
⊕	XERIBIRD 8 EMMITER
---	PIPE SIZE (SIZE AS NOTED)
---	1" STUB OUT WITH FOR FUTURE DRIP
⊕	1" ISOLATION BRASS BALL VALVE
⊕	AMIAID 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR

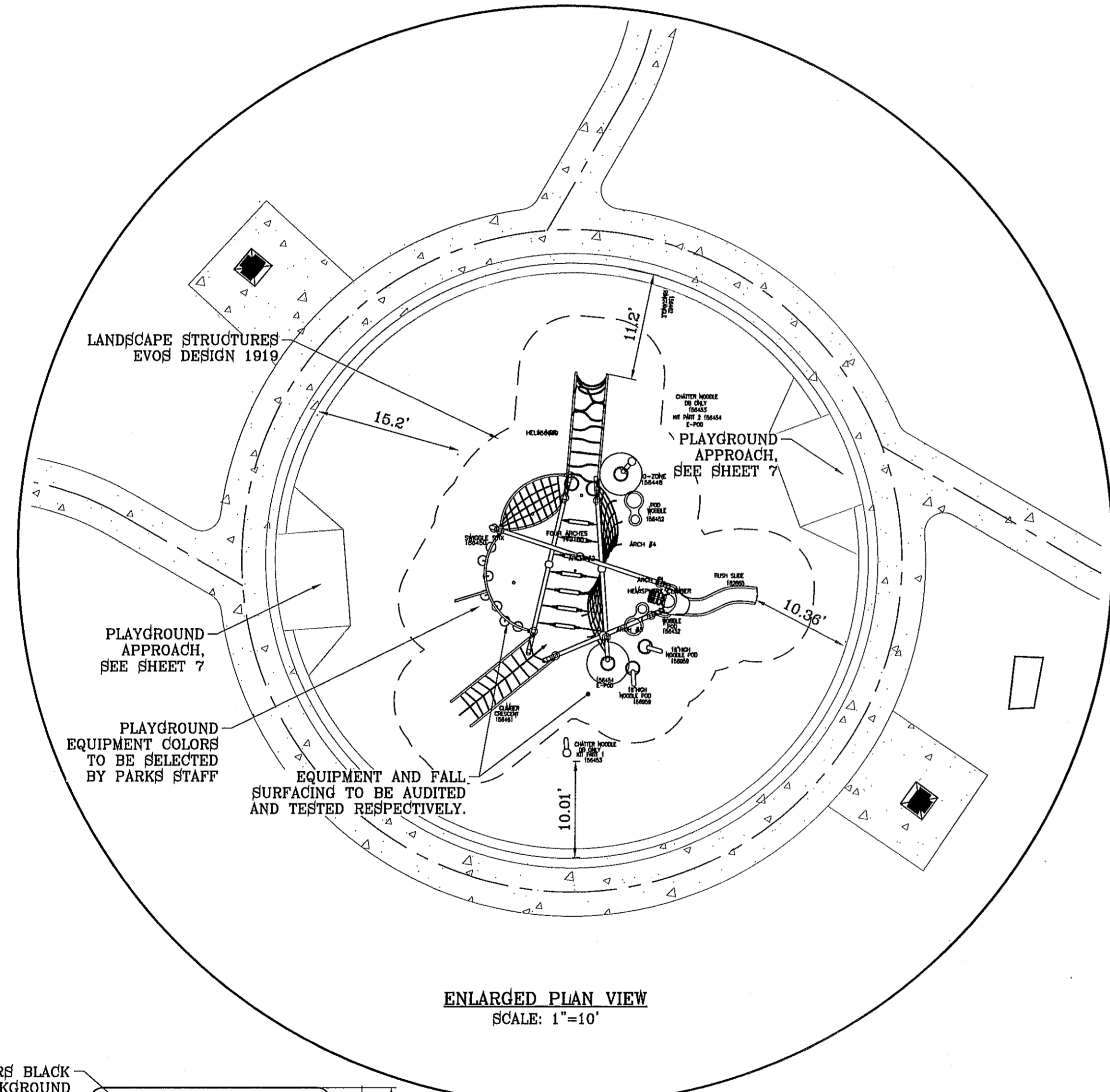
**LEGEND**

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHADE SHAPE	FRAXINUS VELUTINA	2" CAL.	46
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	NEW GOLD LANTANA	LANTANA CAMARA 'NEW GOLD'	1 GAL.	39
	TEXAS SAGE	LEUCOPHYLLUM 'FRUTESCENS'	5 GAL.	48
	DESERT ROSEMARY	POLIOMINTHA INCANA	5 GAL.	24
	RED YUCCA	HESPERALOE PARVIFLORA	5 GAL.	39
	FRANKLIN RED BOULDER			8
	3/8" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			
	RIVER ROCK, WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			

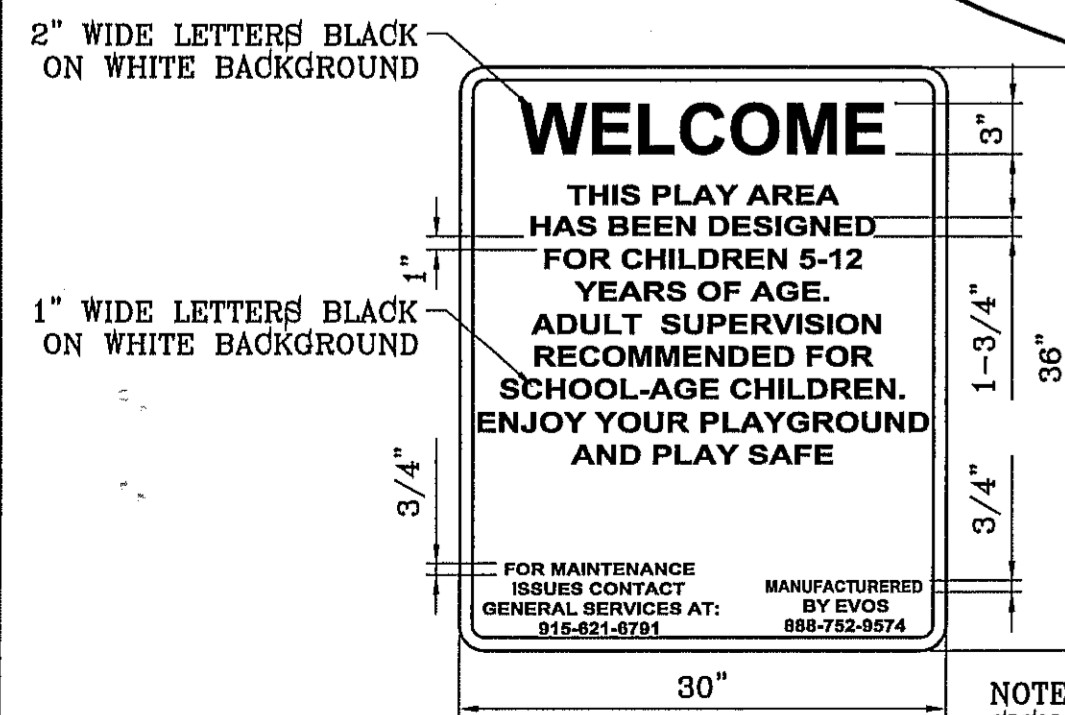
FILE S:\LANDSCAPE\71\DWG\71E-71-LANDSCAPE & IRRIGATION PLOTTED Wednesday, September 17, 2014 8:44:49 AM



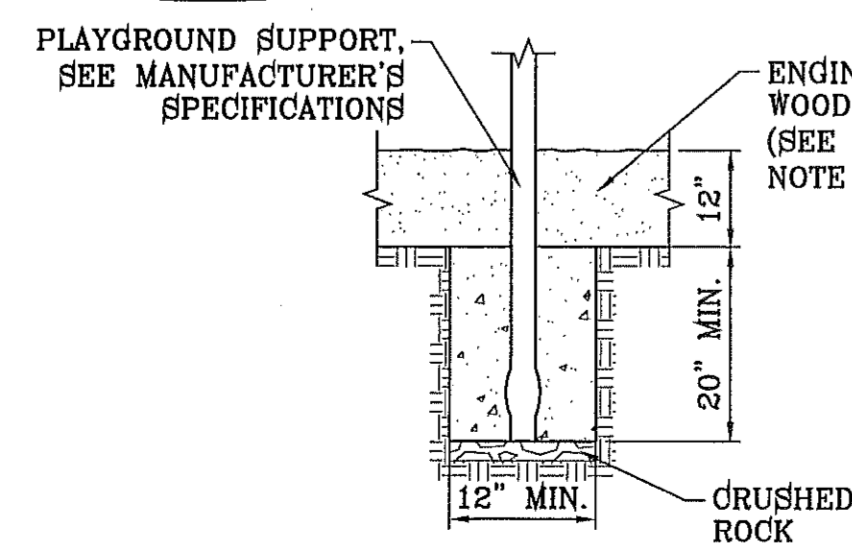
- Equipment and components to be IPEMA certified.
- Equipment manufacturer to comply with ISO 9001.
- Equipment manufacturer to provide clear installation manual and project layout at the completion of project. Hard copy.
- Equipment and Fall Surfacing must comply with current Standards and Guidelines.
- Equipment to be called out with lengths for Overhead Activities, spacing between rails for Curley Climbers, Track Rides, etc.
- Equipment to have safety top rail with a minimum of 72-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 Parks and Recreation Staff:
  - Project site plan reflecting construction drawings or actual field conditions,
  - Site plan with construction control point,
  - 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, and
  - Equipment information including installation.
- Manufacturer to provide sealed maintenance kit to include: tool box, sand paper, owners manual, hardware (20 pieces each minimum) assorted sizes of vandal proof nuts, bolts, washers, fastening tools (one each size - wrench and chuck keys), 4 cans of primer, 2 cans of each color of touch-up paint, plastic repair kit, anti-graffiti remover.
- Equipment installation to be performed by contractor meeting the following requirements (a. 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,
  - and NPSI certification.
- Equipment and Fall surfaces to be audited and tested by an independent contractor (Play Safe, LLC, Inc.). Audit to include: audit date, auditor(s) name(s), 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 items to insure that all deficient items are addressed.
- Playground area to be fenced and properly secured throughout course of construction and up to acceptance project.
- Equipment to have minimum 72' safety use (fall) zone ASTM 1487-11.
- Construction Work on playground area will not commence until all materials and supplies are in possession of contractors.
- Equipment to be installed prior to any associated playground area improvements.
- 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.



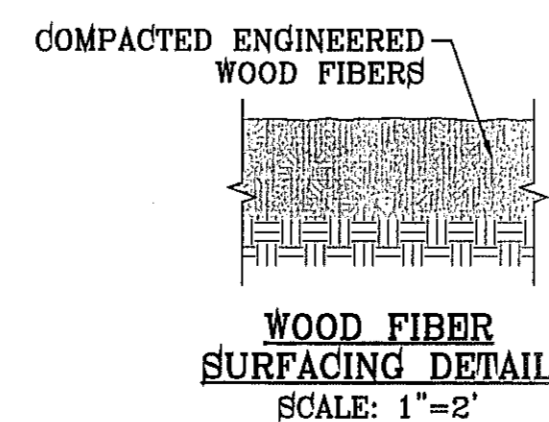
ENLARGED PLAN VIEW  
SCALE: 1"=10'



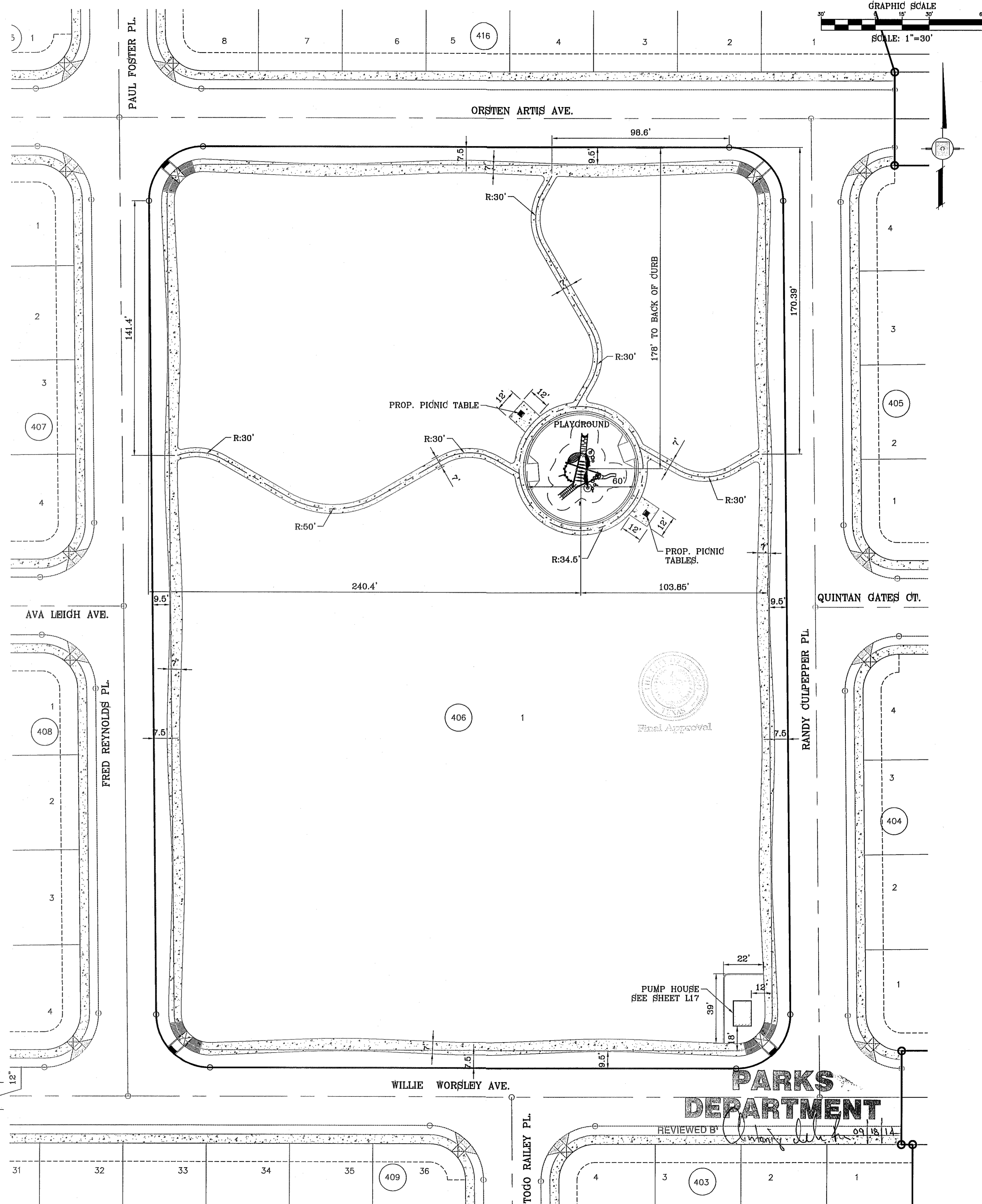
CUSTOM PLAYGROUND SIGN DETAIL  
SCALE: 1"=1'



POST FOOTING DETAIL  
SCALE: 1"=2'



WOOD FIBER SURFACING DETAIL  
SCALE: 1"=2'



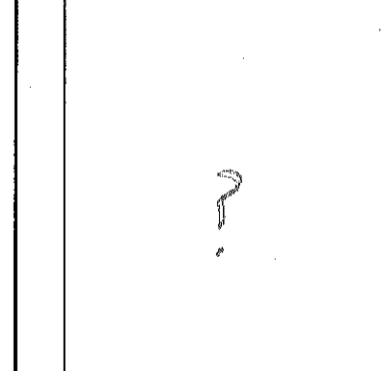
**PARKS DEPARTMENT**

REVIEWED BY: [Signature] 09/18/14

BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITSINGER DR. AND JOHN HAYES ST.
DATE	ELEVATION 4016.75
REVISIONS	DATE
BY	

PROJECT NAME  
**TERRA DEL ESTE UNIT 71 PARK**  
**"MINERS PARK"**  
**14869 WILLIE WORSLEY AVE.**  
BEING ALL OF LOT 1, BLOCK 406  
TERRA DEL ESTE UNIT SEVENTY ONE  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 3.742± ACRES

SCALE	HORIZ: AS NOTED
VERT: ---	
DATE: AUGUST 2012	
DESIGN BY: OM	
INITIATED BY: OM	
CHECKED BY: RMJM	
JOB NO.: 1110-19	



**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SUBURBY DR. STE. 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
FAX: (915) 592-0286

REGISTRATION No. F-2321

SHEET TITLE  
**PARK PLAYGROUND**

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VALVE AND PRECIPITATION TABLE

VALVE NUMBER	VALVE SIZE	SPRINKLER MODEL TYPE	GPM	NUMBER OF HEADS	NOZZLE	PRECIPITATION RATE	TIME FOR 1.2" OF WATER IN MINUTES PER DAY
1	2.5	1-25 STAINLESS STEEL ADJUSTABLE	121.2	12	#10 (LT GRN)	0.53	136
2	2.5	1-25 STAINLESS STEEL ADJUSTABLE	121.2	12	#10 (LT GRN)	1.02	68
3	2.5	1-25 STAINLESS STEEL ADJUSTABLE	101.0	10	#10 (LT GRN)	0.53	136
4	2.5	1-25 STAINLESS STEEL ADJUSTABLE	111.1	11	#10 (LT GRN)	0.53	136
5	2.5	1-25 STAINLESS STEEL ADJUSTABLE	111.1	11	#10 (LT GRN)	1.02	136
6	2.5	1-25 STAINLESS STEEL ADJUSTABLE	131.3	13	#10 (LT GRN)	1.02	68
7	2.5	1-25 STAINLESS STEEL ADJUSTABLE	101.0	10	#10 (LT GRN)	0.53	136
8	2.5	1-25 STAINLESS STEEL ADJUSTABLE	111.1	11	#10 (LT GRN)	1.02	68
9	2.5	1-25 STAINLESS STEEL ADJUSTABLE	101.0	10	#10 (LT GRN)	0.53	136
10	2.5	1-25 STAINLESS STEEL ADJUSTABLE	121.2	12	#10 (LT GRN)	0.53	68
11	1"	XERI-BIRD 8	2.66	24	XB-10PC		30
12	1"	XERI-BIRD 8	2.66	24	XB-10PC		30

TOTAL RUN TIME IN MINUTES/HOURS: 1088 Min. / 18.13 hrs.  
 TOTAL RUN TIME IN MINUTES/HOURS WITH 2 ZONES RUNNING AT SAME TIME: 544 Min. / 9.07 hrs.  
 TOTAL RUN TIME, THREE DAYS PER WEEK @ 2 ZONES RUNNING AT SAME TIME (ROTORS): 3 HOURS 3 MINUTES  
 TOTAL RUN TIME, THREE DAYS PER WEEK (EMITTERS): 10 MINUTES

HYDRAULIC CALCULATION TABLE

ZONE # 6 (RUN W/ZONE 10)	PIPE LENGTH (FEET)	FLOW (GPM)	SIZE (IN.)	STRESS LOSS PER 100 FEET	STRESS LOSS THIS SECTION	ACCUMULATED PRESSURE LOSS
A-PVC CLASS 200	46	10.1	1"	1.438	0.661	0.661
B-PVC CLASS 200	21	20.2	1-1/2"	0.838	0.176	0.837
C-PVC CLASS 200	46	30.3	1-1/2"	1.775	0.816	1.653
D-PVC CLASS 200	46	40.4	2"	1.011	0.465	2.118
E-PVC CLASS 200	46	60.5	2"	1.628	0.703	2.821
F-PVC CLASS 200	46	60.6	2-1/2"	0.838	0.386	3.207
G-PVC CLASS 200	13	70.7	2-1/2"	1.115	0.145	3.352
H-PVC CLASS 200	60	131.3	4"	0.393	0.236	3.588

LATERAL PIPING PRESSURE LOSS IN PSI: 3.588

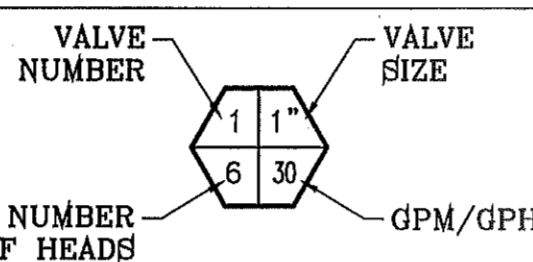
IRRIGATION ITEM	LOSS	LOSS				
ZONE VALVE hunter ball cv	131.3	2.50	6.088			
MAIN LINE-PVC SCHEDULE 40 (LOOPED)	608	232.3	4"	1.200	7.294	13.382
MAIN LINE-CLASS 200	75	232.3	6"	0.182	0.122	13.504
BACKFLOW	232.3	4"	12.00	25.604		
TYPE K COPPER LINE (THROUGH PUMP AND BACKFLOW)	25	232.3	4"	2.603	1.302	26.806
WATER METER	232.3	3"	9.1	35.906		
TOTAL PRESSURE LOSS					35.906	
TOTAL PRESSURE LOSS + 2ND VALVE (DUPLICATE OF CRITICAL HEAD CALC WITH ZONE VALVE)					6.088	39.494
MINIMUM HEAD PRESSURE (1-25 ADJ #10 LT. GREEN @ 60PSI-51' RADIUS 10.1 GPM)						50.000
PRESSURE AT CRITICAL HEAD (STATIC 65 - LOSS 35.906 = 19.094) ACTUAL						19.094
PRESSURE SHORTAGE						35.906
DESIGN PRESSURE (REQ'D PRESSURE @ CRITICAL HEAD PLUS LOSS) 60.0+34.179 = 89.494						89.494
PUMP REQUIREMENTS (PRESSURE SHORTAGE CONVERTED TO ( FT. HEAD X 2.31) X 10% = FT HD @ GPM (MAX)						91.237
PUMP REQUIREMENTS (PRESSURE SHORTAGE CONVERTED TO ( FT. HEAD X 2.31) X 10% = FT HD @ GPM (MAX)						35.906 X 2.31 = 82.943 X 10% = 91.237 @ 232.3 GPM

KEYED NOTES:

- IRRIGATION TAP POINT VERIFY 55 PSI. NOTIFY OWNER IN WRITING IF ABOVE CRITERIA NOT MET.
- CONTROLLER LOCATION 110V POWER BY DEVELOPER. COORDINATE EXACT LOCATION IN FIELD.
- CONTRACTOR REQUIRED TO APPLY FOR AND OBTAIN ALL PERMITS AND PASS ALL INSPECTIONS.

THIS DESIGN COMPLIES WITH THE CITY OF EL PASO APPROVED PARK DESIGN STANDARDS ADOPTED JANUARY 8, 2013

NOTE: IRRIGATION IS REGULATED BY THE TEXAS COMMISSION IN ENVIRONMENTAL QUALITY (T.C.E.Q.) (MC-178), P.O. BOX 13087, AUSTIN TEXAS. 78711-3037, TCEQ'S WEB SITE IS: WWW.TCEQ.STATE.TX.US



- NOTES:
- PVC SLEEVES TO BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HD PLASTIC TAPE
  - QUICK COUPLER VALVES AND ISOLATION VALVES BOX ARE TO BE INSTALLED WITH TAP THAT READS "NON POTABLE WATER NOT SAFE FOR DRINKING"

PRECIPITATION RATE

PR = GPM X 96.3 / HEAD SPACING X 0.866

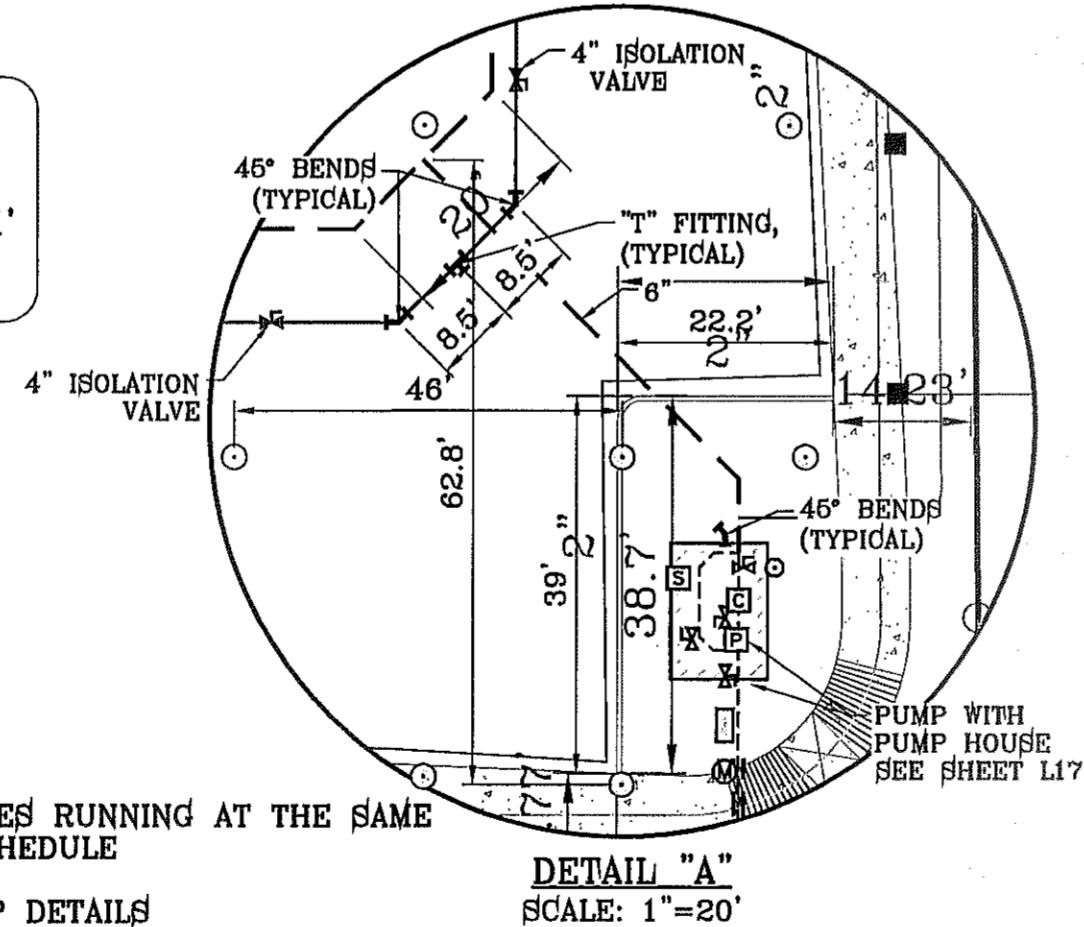
PR = 10.1 X 96.25 / 46 X 0.866 = 0.53 IN./HR.

PR = 10.1 X 96.25 / 46 X 0.433 = 1.06 IN./HR.

PRECIPITATION RATE TRIANGULAR SPACING

PR = 10.1 x 96.25 / 48 x 0.866 = 0.53 IN./HR.

HEAD SPACING: 46'  
 ROW SPACING: 39.75'  
 RADIUS OF NOZZLE = 51'  
 46 x 102 = 46.9  
 46.9 x .866 = 39.75'



\*TOTAL GPM WITH 2 ZONES RUNNING AT THE SAME TIME, SEE WATERING SCHEDULE  
 \*\*SEE SHEET 9 FOR PUMP DETAILS

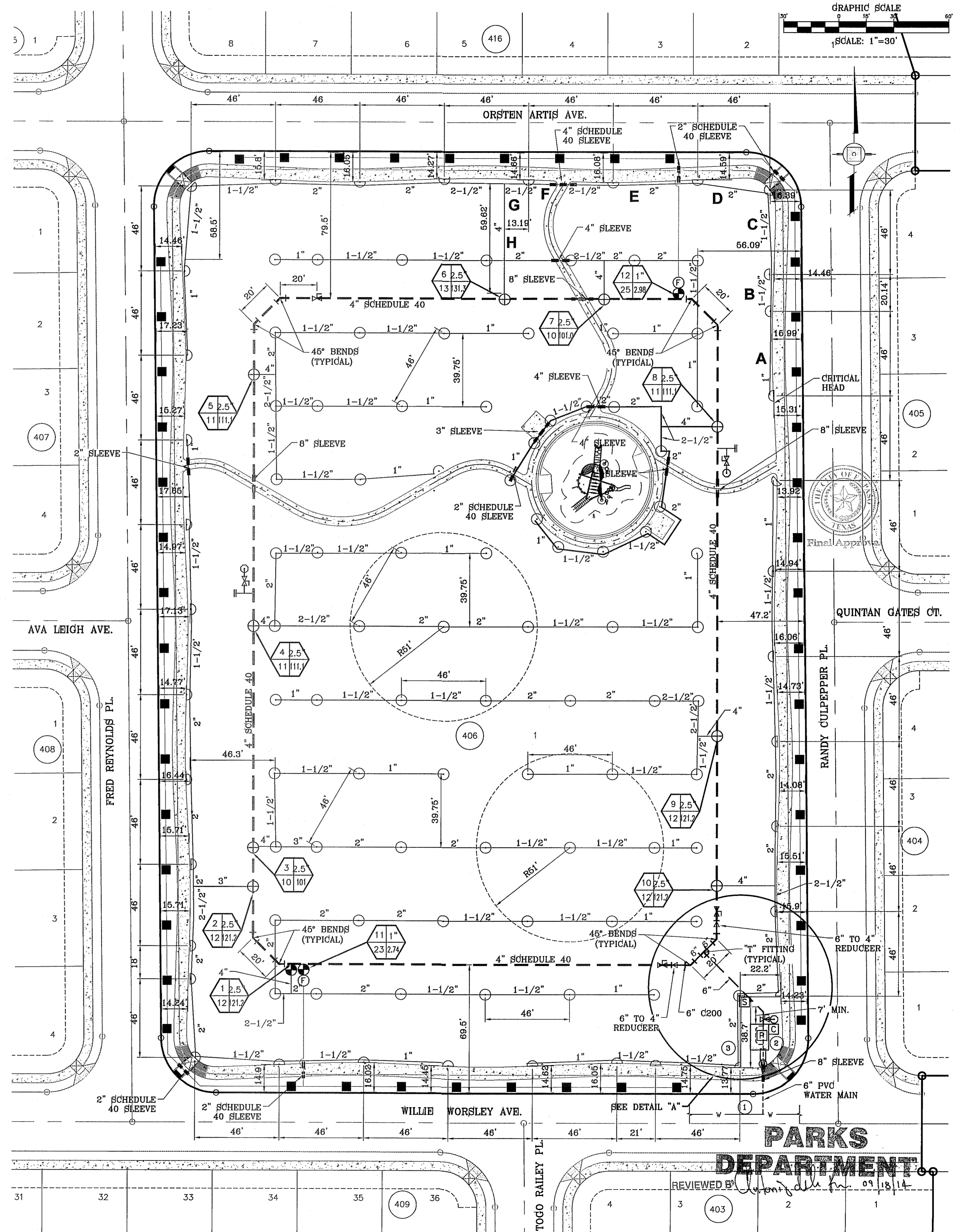
PARK ZONE WATERING SCHEDULE

VALVE NUMBERS TO RUN AT SAME TIME	START & END TIME FOR EACH CYCLE 20 MIN.	TOTAL GPM'S	TOTAL RUN TIME(S)
VALVE 1	10:30 pm 10:50 pm 12:10 am 12:30 am 1:50 am 2:10 am 3:30 am 3:50 am 5:10 am 5:30 am 6:50 am 7:10 am 8:30 am 8:50 am	131.3	136 min.
VALVE 3	3:30 am 3:50 am 4:50 am 5:10 am 5:50 am 6:10 am 6:50 am 7:06 am	111.1	136 min.
VALVE 2	11:10 pm 11:30 pm 12:50 am 1:10 am 2:30 am 2:50 am 3:50 am 3:58 am	111.1	68 min.
VALVE 4	11:10 pm 11:30 pm 12:50 am 1:10 am 2:30 am 2:50 am 3:50 am 3:58 am	111.1	136 min.
VALVE 10	4:00 am 4:20 am 6:10 am 6:30 am 6:10 am 6:30 am 7:06 am 7:22 am	111.1	136 min.
VALVE 7	11:30 pm 11:50 pm 1:10 am 1:30 am 2:50 am 3:10 am 3:50 am 3:58 am	111.1	136 min.
VALVE 9	4:20 am 4:40 am 6:30 am 6:50 am 6:30 am 6:50 am 7:22 am 7:38 am	110.0	136 min.
VALVE 8	11:50 pm 12:10 pm 1:30 am 1:50 am 3:10 am 3:30 am	111.1	68 min.
VALVE 6	11:50 pm 12:10 pm 1:30 am 1:50 am 3:10 am 3:30 am 4:40 am 4:48 am	111.1	68 min.

\*TWO ZONE VALVES TO RUN AT SAME TIME AS SPECIFIED ON TABLE ABOVE TO ENSURE 1.2" OF WATER APPLIED AND ON DAYS SPECIFIED BY PARKS DEPARTMENT NOT TO EXCEED 3 DAYS A WEEK.

LEGEND

- LOT LINE
- STREET CENTERLINE
- 6" PVC CLASS 200 MAIN WATER LINE
- 4" PVC SCHEDULE 40 LOOPED WATER MAIN
- TYPE K 3" COPPER WATER TUBE
- PVC CLASS 200 IPS PLASTIC PIPE WATER LATERAL (SIZE AS NOTED)
- PVC SLEEVE TO EXTEND 24" FROM EDGES (TWICE THE SIZE OF PIPE)
- 3" WATER METER BY DEVELOPER 240 GPM
- FEBCO MASTER SERIES LFHD W/HYDRO-COWL ENCLOSURE
- RAIN SENSOR
- STATION CONTROLLER
- BERKELEY PUMP-B2TRMS, 1 PHASE, 6HP/3.73 KW, 222.2 GPM, 70.43 FT. HD., W/ TUFF SHED ENCLOSURE
- HUNTER BALL ICV 301-OR EQUAL 3" REMOTE CONTROL VALVE
- HUNTER I-25 ADJUSTABLE STAINLESS STEEL RISER ROTOR
- NOZZLE #10 LIGHT GREEN @ 50 PSI
- RADIUS: 51' FLOW: 10.1 GPM
- XERIBIRD 8 EMITTER
- PIPE SIZE (SIZE AS NOTED)
- STUB OUT WITH VALVE (HOT LEAD COLOR RED) WIRES FOR FUTURE DRIP (COLOR BLUE, PURPLE, AND YELLOW)
- ISOLATION BRASS BALL VALVE TO BE IN VALVE BOX
- AMIAID 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR
- BUCKNER DOUBLE LUG 1" QUICK COUPLER
- PURPLE BOLT CAP W/ BRASS STABILIZER IN VALVE BOX WITH PURPLE LID.



PROJECT NAME: TERRA DEL ESTE UNIT 71 PARK "MINERS PARK" 14869 WILLIE WORSLEY AVE. BEING ALL OF LOT 1, BLOCK 406 TERRA DEL ESTE UNIT SEVENTY ONE CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 3.742± ACRES

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

REVISIONS: \_\_\_\_\_

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

SCALE: 1"=30'

GRAPHIC SCALE

IRRIGATOR'S SEAL: REYMONDO MARTINEZ 9000

CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURETY DR. STE. 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286

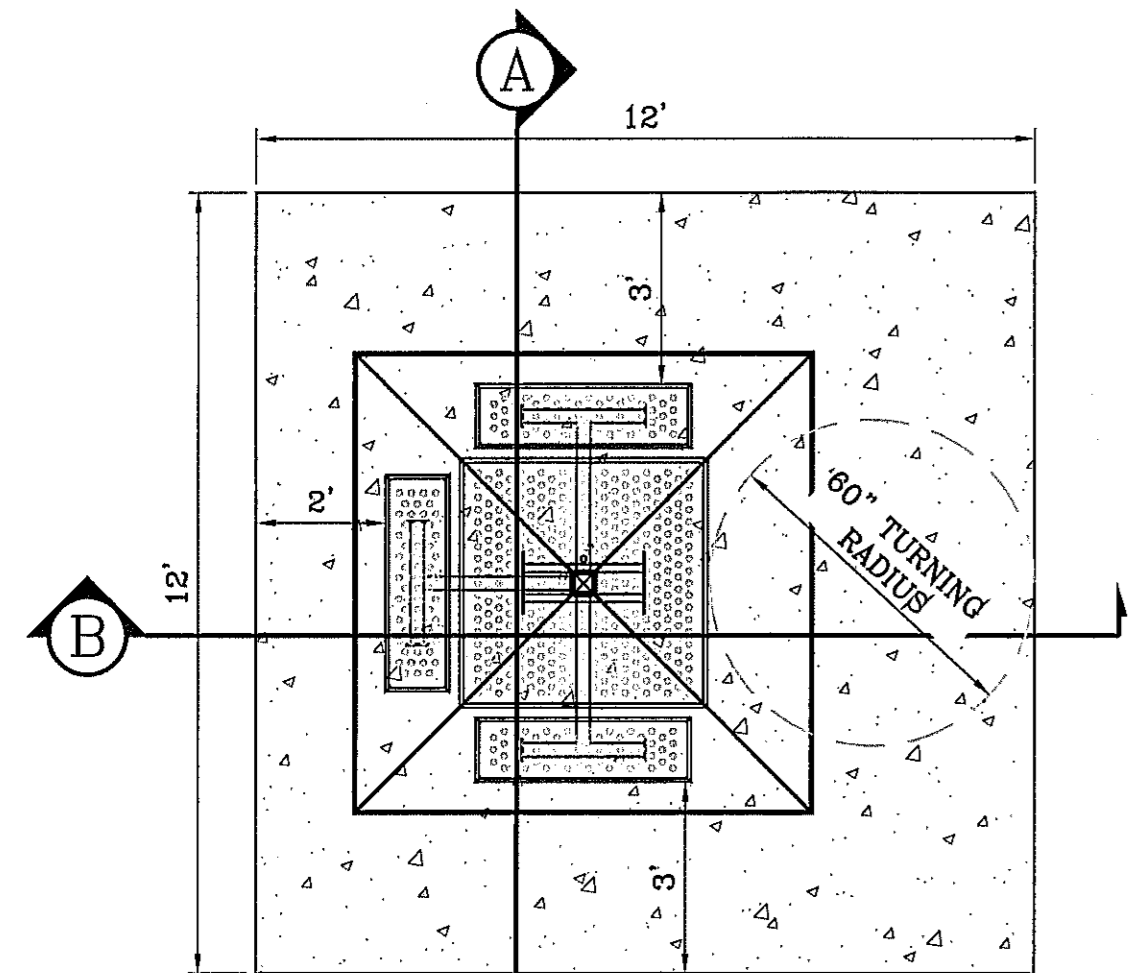
CONDE INC. REGISTRATION NO. P-2321

SHEET TITLE: PARK IRRIGATION PLAN

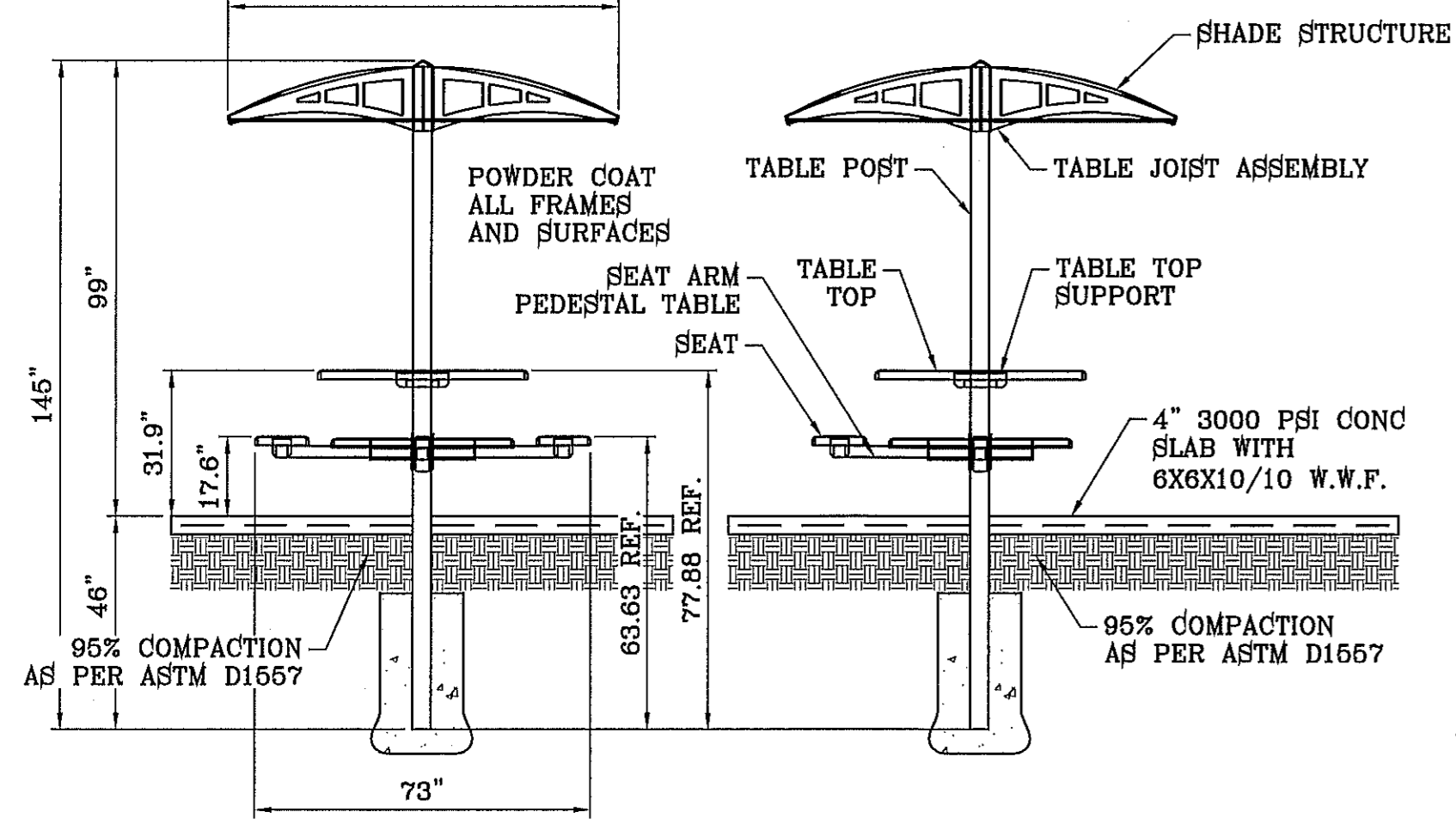
SHT 6 OF 9

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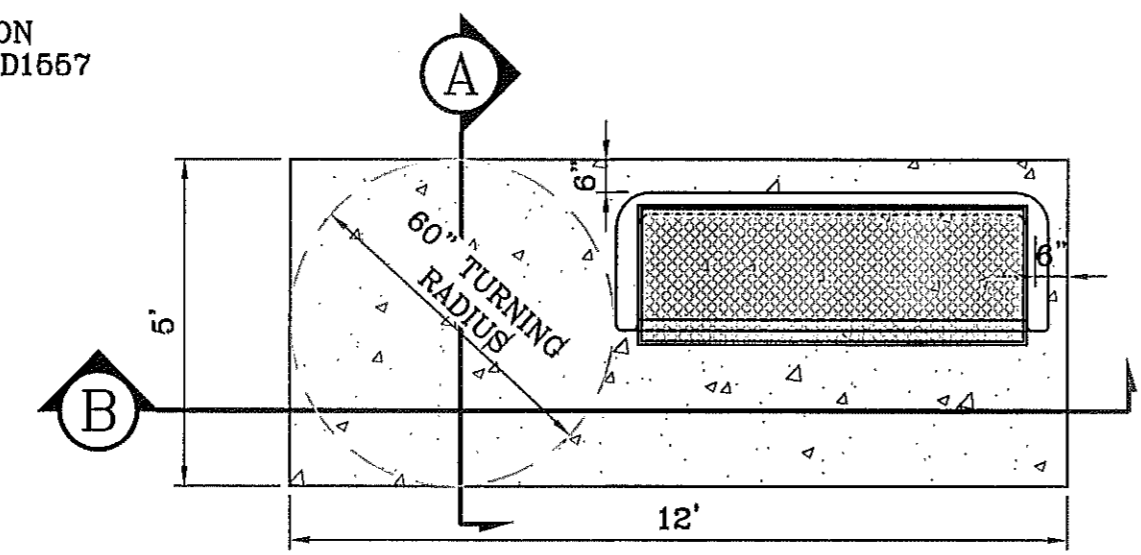


46" SQUARE TABLE  
PARIS SPS-APS ACCESSIBLE  
SCALE: 1"=3'

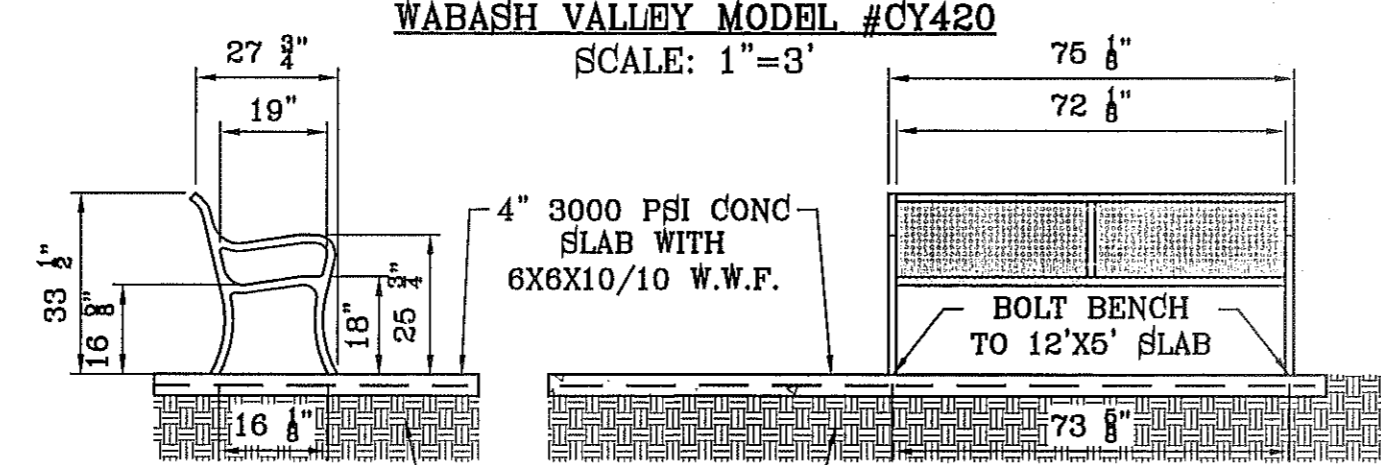


SECTION A  
SCALE: 1"=3'

SECTION B  
SCALE: 1"=3'

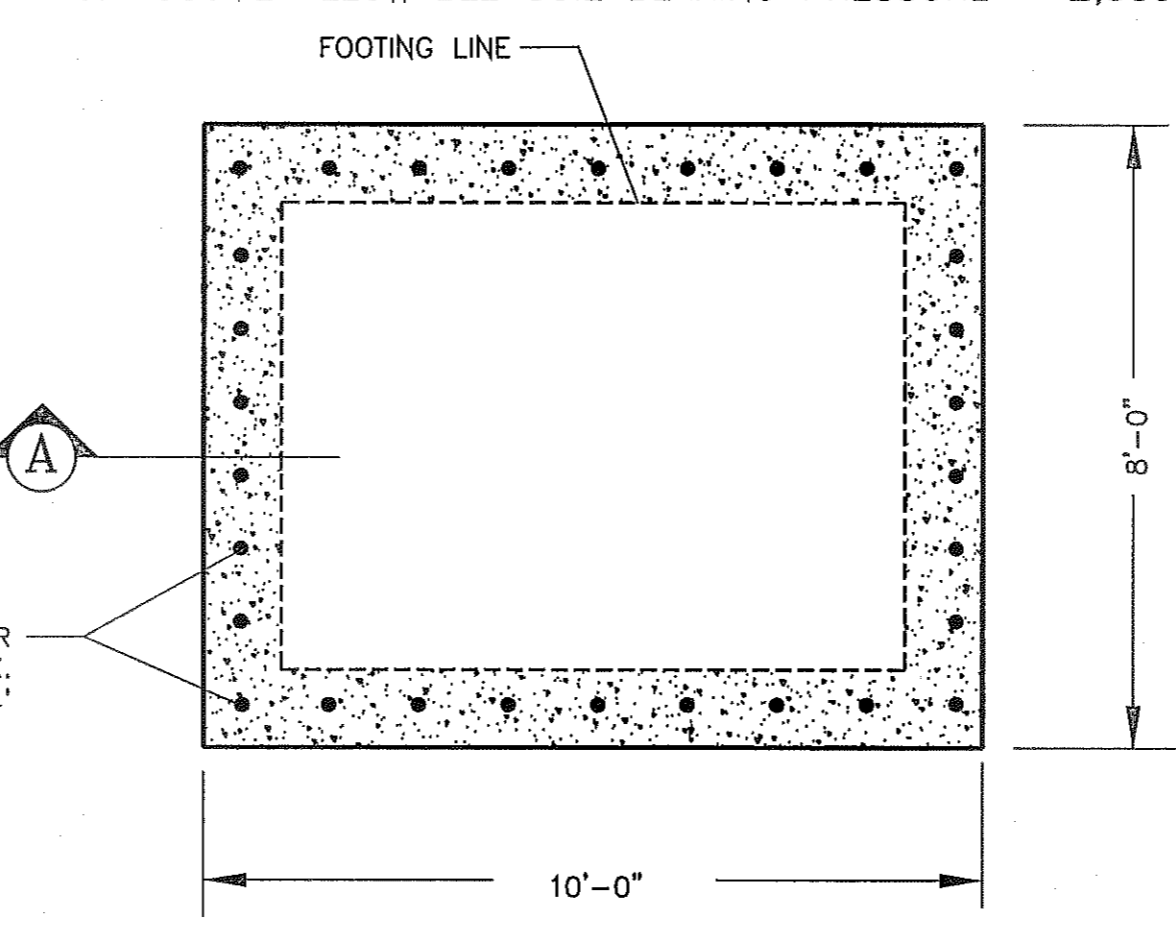


6' PARK BENCH  
WABASH VALLEY MODEL #OY420  
SCALE: 1"=3'

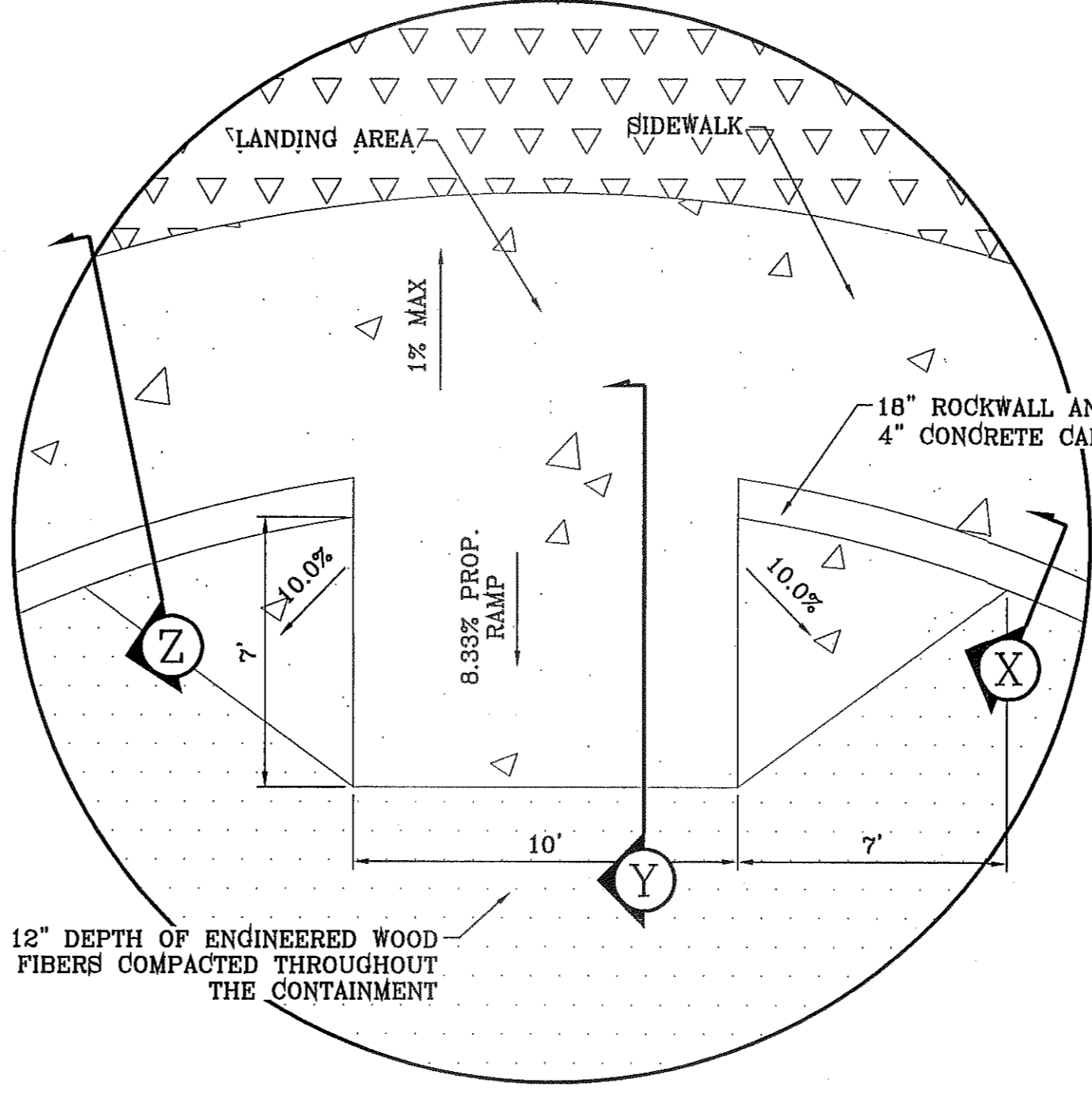


SECTION A  
SCALE: 1"=3'

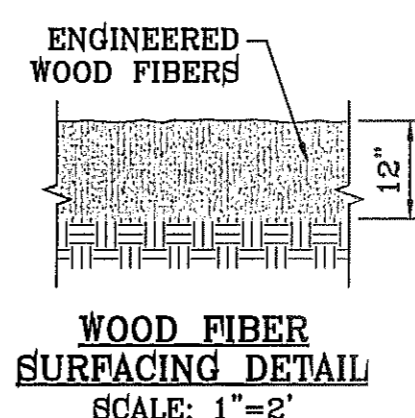
SECTION B  
SCALE: 1"=3'



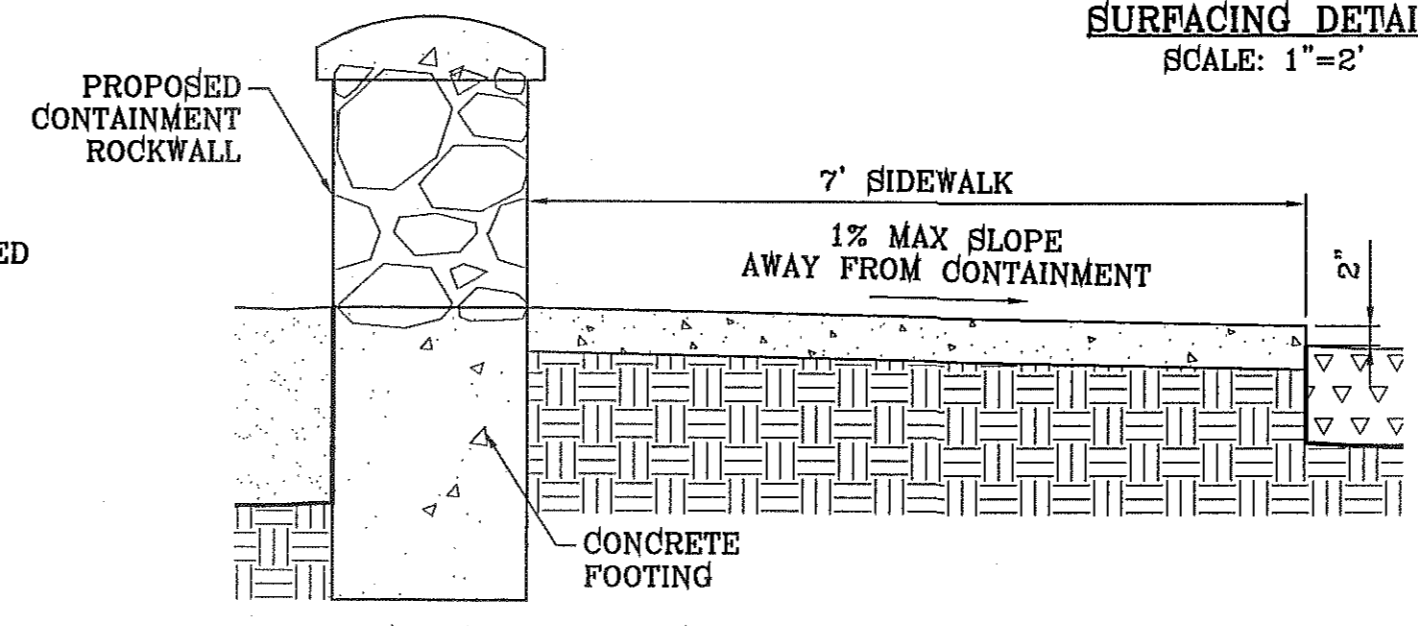
FOUNDATION PLAN  
PLAN VIEW  
SCALE: NTS



PLAYGROUND APPROACH DETAIL  
SCALE: 1"=4'

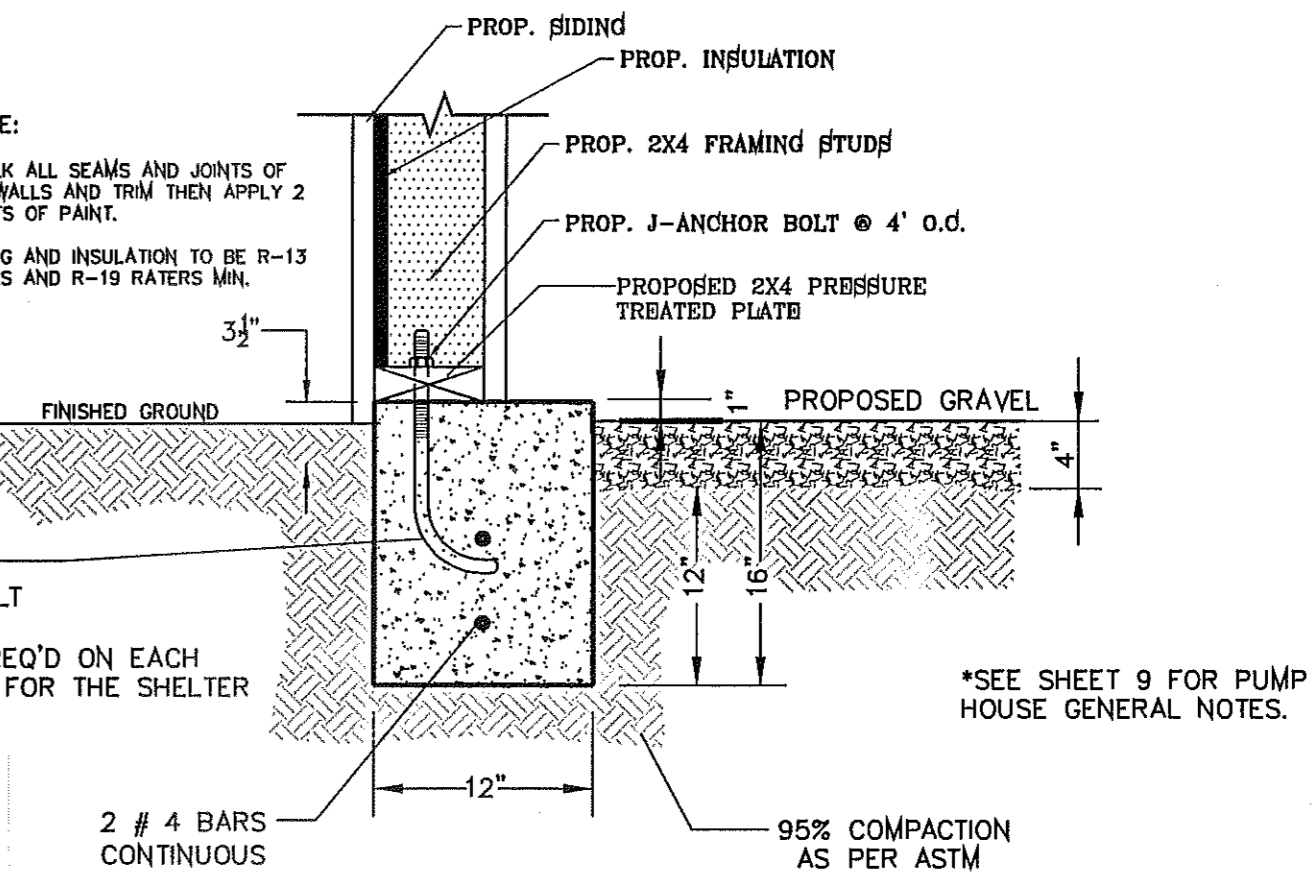


WOOD FIBER SURFACING DETAIL  
SCALE: 1"=2'

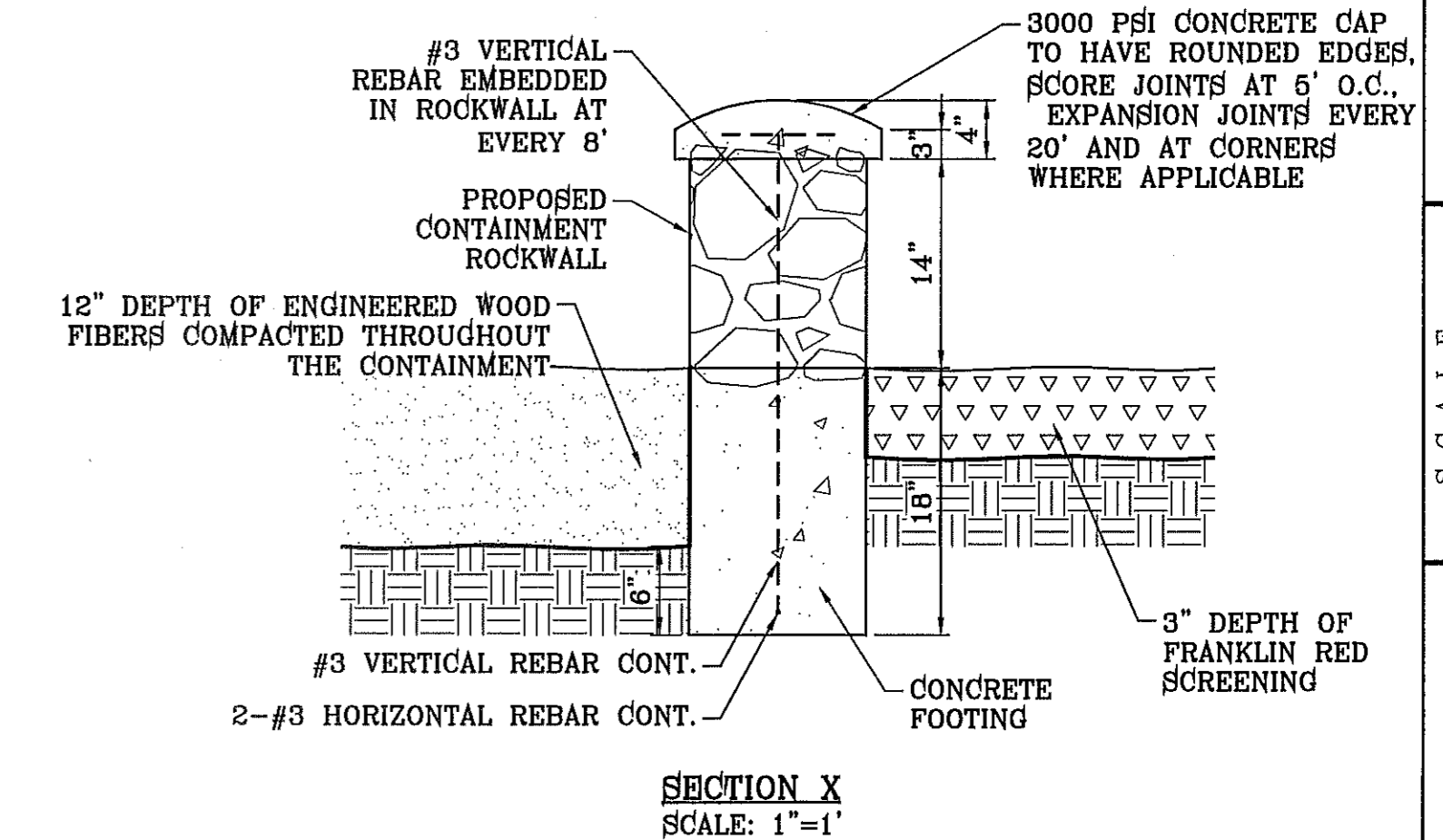


SECTION Z  
SCALE: 1"=1'

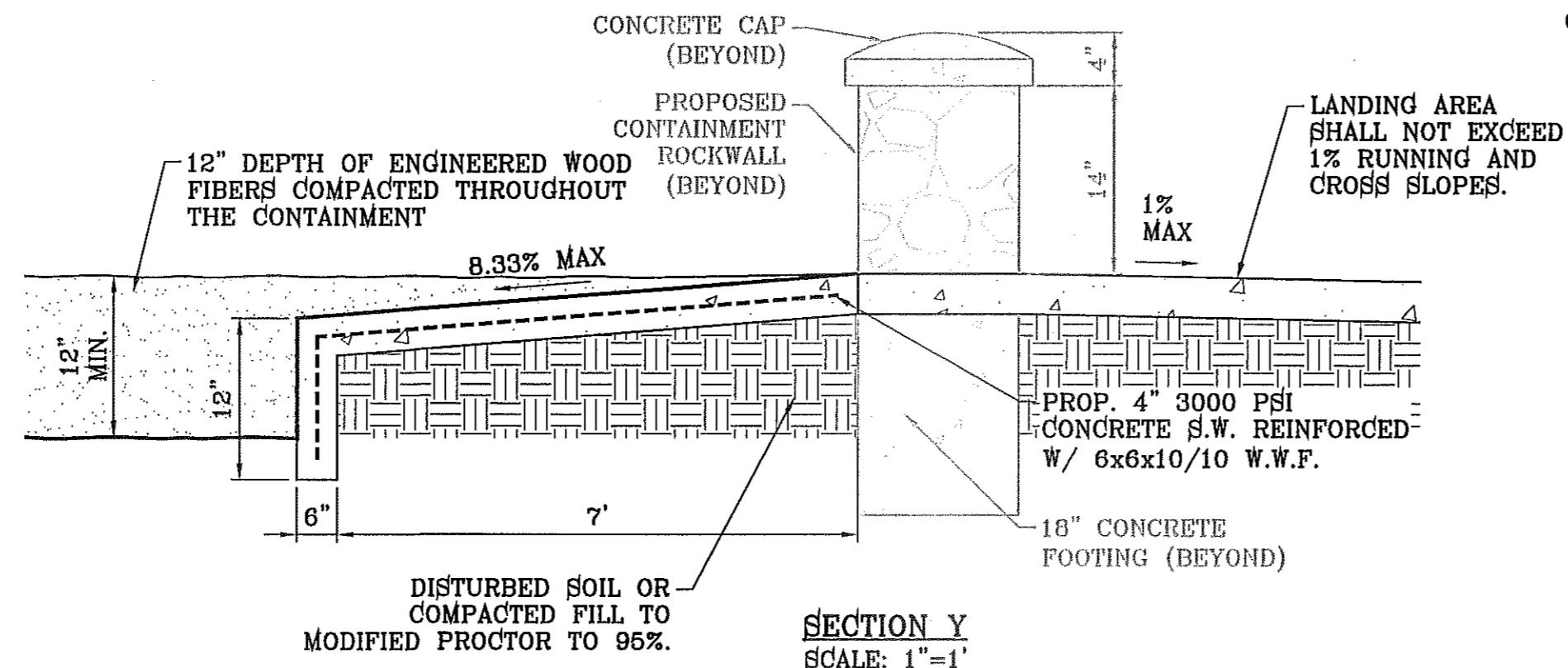
- 5 SIDEWALK NOTES:
1. CONCRETE SHALL BE 3000 P.S.I. MINIMUM @ 28 DAYS.
  2. DUMMY JOINTS REQUIRED AT 5' O.C. FOR SIDEWALK.
  3. EXPANSION JOINTS AT 20' O.C.



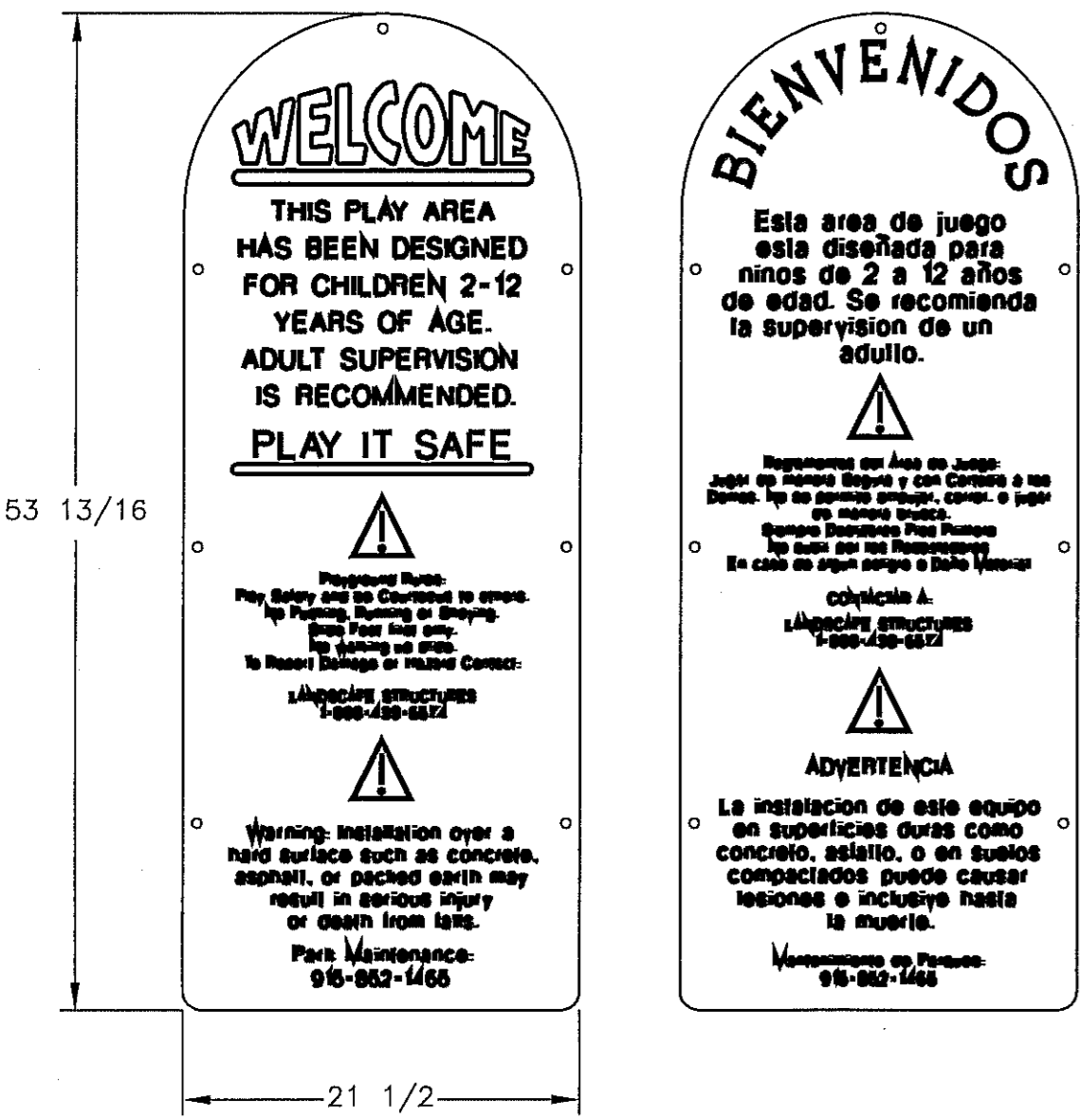
CONCRETE FOUNDATION FOR PUMP HOUSE  
SECTION A  
SCALE: 1"=1'



SECTION X  
SCALE: 1"=1'

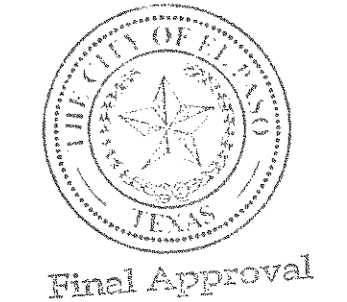


SECTION Y  
SCALE: 1"=1'



CUSTOM EVOS SIGN  
DETAIL  
SCALE: NTS

- STRUCTURAL NOTES:
1. 3" MIN. COVER FOR REINF. STEEL.
  2. FOOTING TO BE 12" MIN. IN WIDTH.
  3. BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED IN 8" TO 12" LIFTS AND COMPACTED TO 95% COMPACTION AS PER ASTM D1557.
  4. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 3,000 PSI MIN.
  5. YIELD STRENGTH OF REINFORCEMENT SHALL BE 60,000 PSI.
  6. MODULUS OF ELASTICITY OF STEEL = 29,000,000 PSI
  7. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENT OF ASTM A615.
  8. ALLOWABLE TENSILE STRESS IN REINFORCEMENT = 24,000 PSI
  9. EQUIVALENT FLUID PRESSURE OF SOIL = 45 PCF
  10. ASSUME ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSF MIN.



BENCHMARK	
CITY MONUMENT AT THE CENTRAL INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75	NAVD83 DATUM
DATE	
REVISIONS	
BY	

PROJECT NAME  
TIERRA DEL ESTE UNIT 71 PARK  
"MINERS PARK"  
14869 WILLIE WORSLEY AVE.  
BEING ALL OF LOT 1, BLOCK 406  
TIERRA DEL ESTE UNIT SEVENTY ONE  
CITY OF EL PASO, EL PASO COUNTY, TEXAS  
CONTAINING: 3.742± ACRES

HORIZ: AS NOTED	
VERT: ---	
DATE: AUGUST 2012	
DESIGN BY: OM	
INITIATED BY: OM	
CHECKED BY: RMM	
JOB NO.: 1110-18	

CONDE INC.  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE. 100  
EL PASO, TEXAS 79905  
PHONE: (915) 992-0283  
FAX: (915) 992-0286



CONDE INC.  
REGISTRATION No. F-2321

SHEET TITLE

PARK  
LANDSCAPE  
DETAILS

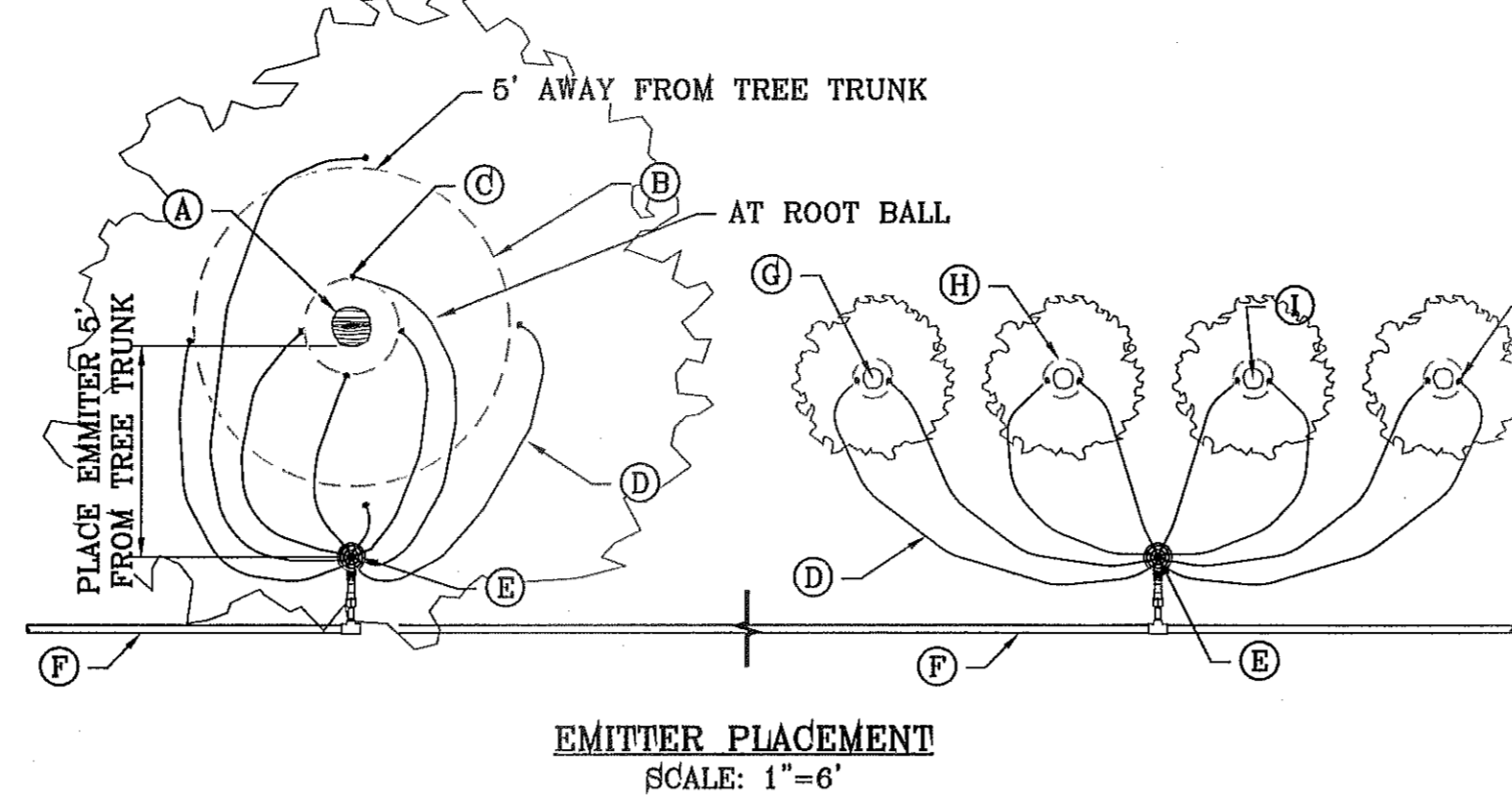
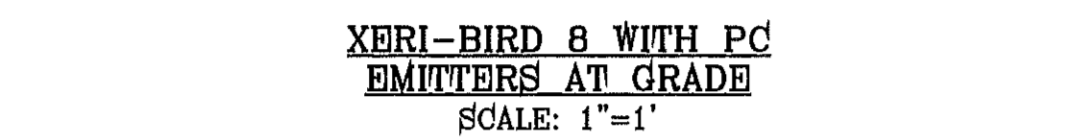
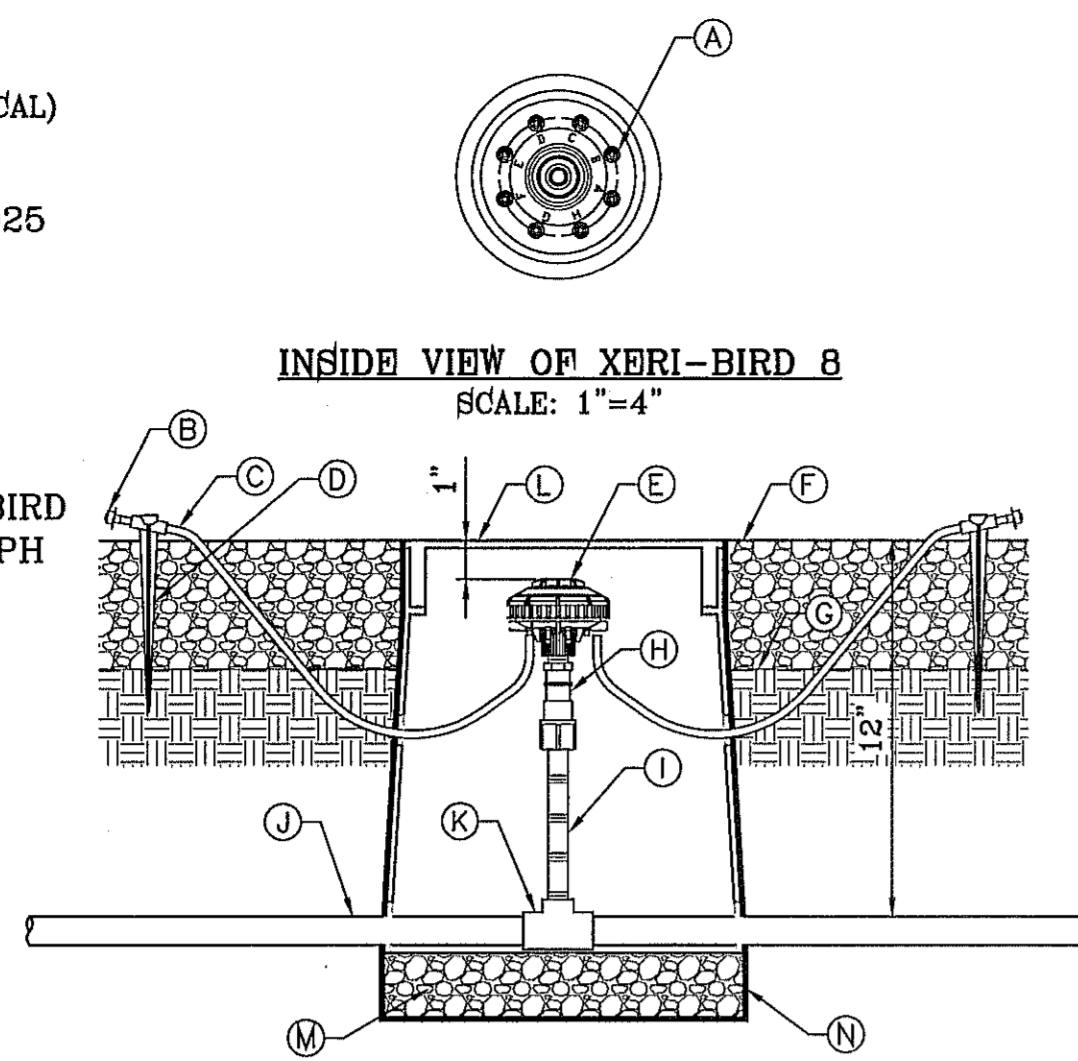
PARKS  
DEPARTMENT

REVIEWED BY: *Antonio del Rio* 09/18/14

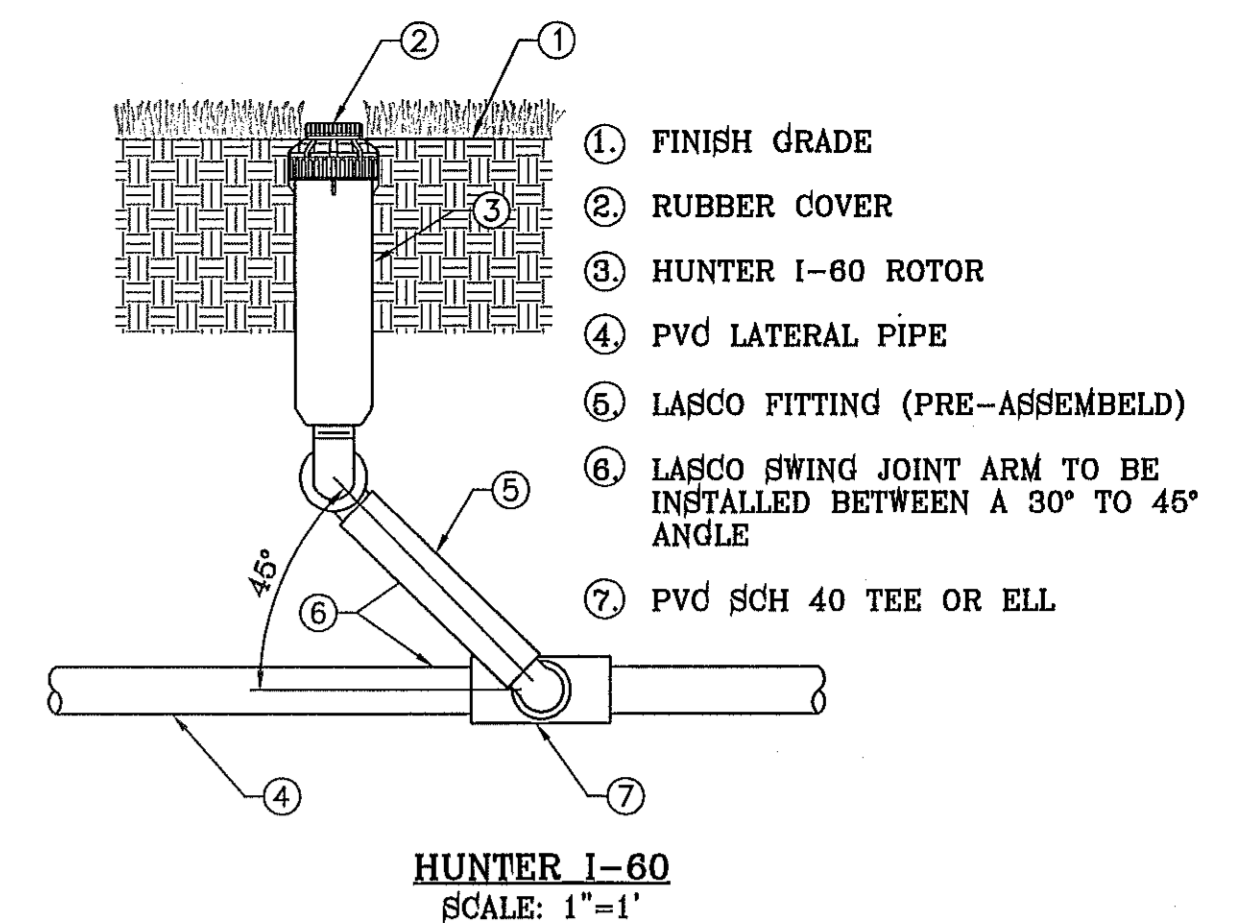
POST FOOTING DETAIL  
SCALE: 1"=2'



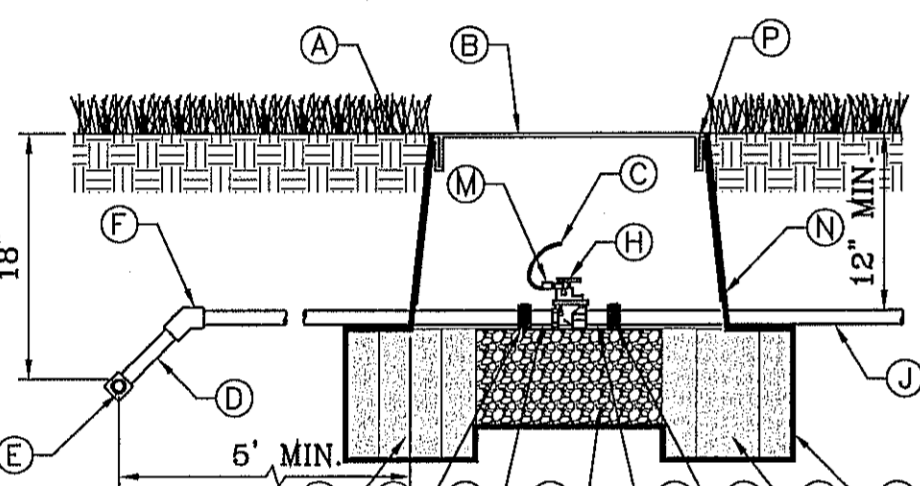
- (A) (B) 1-GPH XERI-BUGS INSTALLED AT FACTORY
- (B) DIFFUSER BUG CAP. RAIN BIRD DBC-026 (TYPICAL)
- (C) 1/4-INCH TUBING: POLYETHYLENE DISTRIBUTION TUBING RAIN BIRD PT-025 OR VINYL DISTRIBUTION TUBING RAIN BIRD DT-025 (0.170 I.D. X 0.250 O.D.)
- (D) 1/4-INCH TUBING STAKE: RAIN BIRD TS-025 (1 OF 2)
- (E) MULTI-OUTLET EMISSION DEVICE RAIN BIRD XERI-BIRD 8 XEB-81 (WITH EIGHT 1-GPH XERI-BUG XB-10PC EMITTERS FACTORY INSTALLED)
- (F) TOP OF MULCH
- (G) FINISH GRADE
- (H) RETROFIT PRESSURE REGULATOR: RAIN BIRD PRS-050-30
- (I) PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- (J) PVC LATERAL PIPE
- (K) PVC SCH 40 TEE OR ELL
- (L) SET IN CARSON 910 SERIES BOX AND BE BOLTED DOWN, COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
- (M) 3/8" PEA GRAVEL, 4" DEEP
- (N) PROVIDE WEED BARRIER FABRIC "DeWITT PRO 5" NDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS



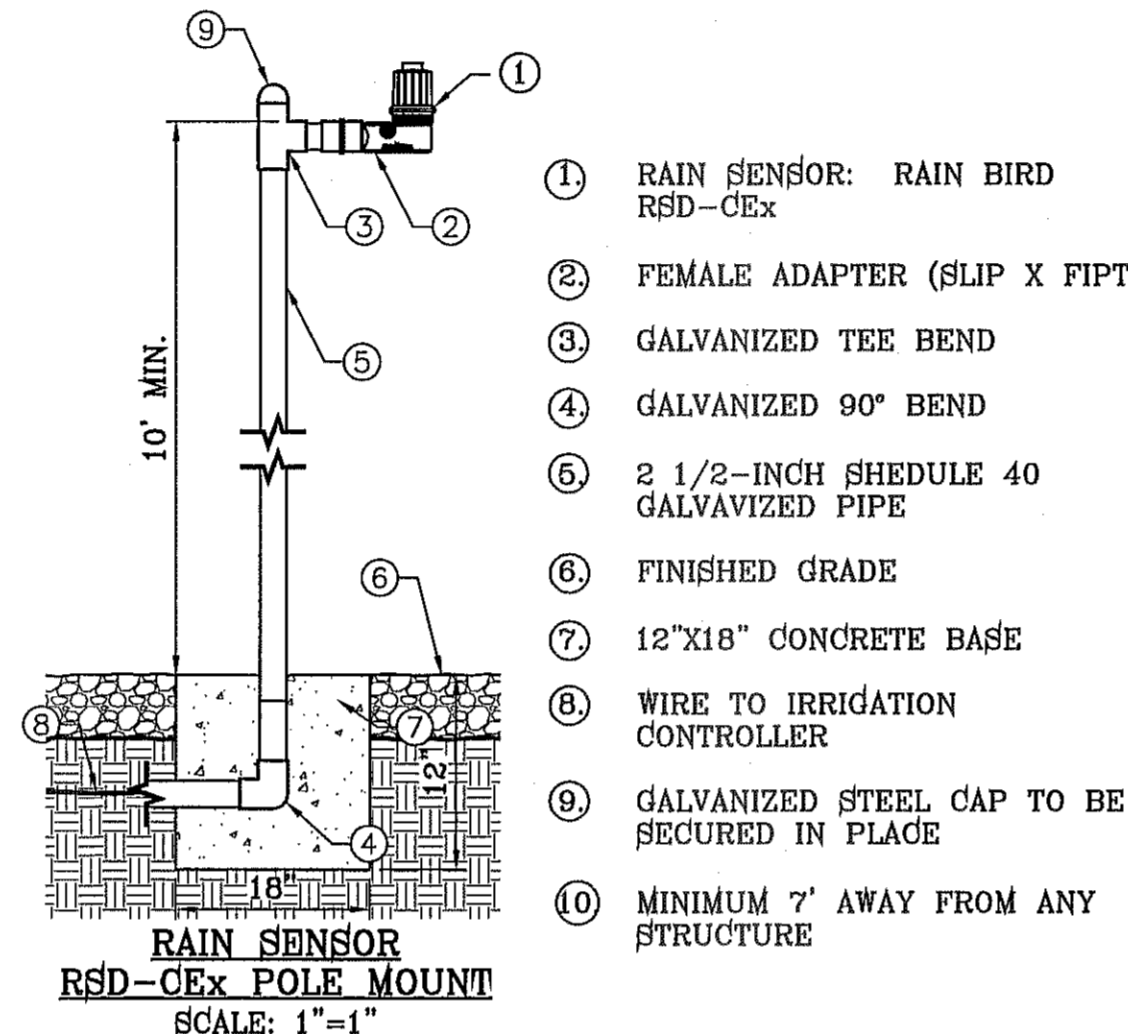
- (A) TREE TRUNK
- (B) EMITTER 5' FROM TREE TRUNK (1 OF 4)
- (C) EMITTER @ ROOT BALL (1 OF 4)
- (D) 1/4" CAPILLARY TUBING (0.170 I.D. X 0.250 O.D.)
- (E) 8 OUTLET EMITTER
- (F) PVC SUPPLY LATERAL FROM ZONE CONTROL VALVE
- (G) ROOT BALL
- (H) PLANT PIT
- (I) SHRUB CENTER
- (J) EMITTER TUBING PLACEMENT



- (1) FINISH GRADE
- (2) RUBBER COVER
- (3) HUNTER I-60 ROTOR
- (4) PVC LATERAL PIPE
- (5) LASCO FITTING (PRE-ASSEMBLED)
- (6) LASCO SWING JOINT ARM TO BE INSTALLED BETWEEN A 30° TO 45° ANGLE
- (7) PVC SCH 40 TEE OR ELL



- (A) FINISH GRADE
- (B) 1419 CARSON VALVE BOX WITH LID AND BOLT. COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
- (C) 3M SCOTCHLOK CONNECTORS OR APPROVED EQUAL
- (D) IRRIGATION MAINLINE/LATERAL MAINLINE
- (E) IRRIGATION MAINLINE SERVICE TEE OR ELL
- (F) SCHEDULE 80 PVC ELBOW
- (G) SCHEDULE 80 PVC CLOSED NIPPLE
- (H) WEATHERMATIC B200CR-20 ELECTRIC CONTROL VALVE
- (I) SCHEDULE 80 PVC UNIONS ON LINES 3" OR SMALLER, AND FLANGES ON LINES 3" OR LARGER
- (J) LATERAL LINE
- (K) 1 CUBIC FOOT 1" DIAMETER WASHED ROCK
- (L) 8"X8"X16" SOLID CMU BLOCK
- (M) 24" WIRE EXPANSION COIL
- (N) 6 mm BLACK POLYETHYLENE PLASTIC TAPE TO ALL INLET AND OUTLET PIPE
- (O) PROVIDE WEED BARRIER FABRIC "DeWITT PRO 5" UNDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS



- (1) RAIN SENSOR: RAIN BIRD RSD-CEX
- (2) FEMALE ADAPTER (SLIP X FIPT)
- (3) GALVANIZED TEE BEND
- (4) GALVANIZED 90° BEND
- (5) 2 1/2-INCH SCHEDULE 40 GALVANIZED PIPE
- (6) FINISHED GRADE
- (7) 12"X18" CONCRETE BASE
- (8) WIRE TO IRRIGATION CONTROLLER
- (9) GALVANIZED STEEL CAP TO BE SECURED IN PLACE
- (10) MINIMUM 7" AWAY FROM ANY STRUCTURE

- (A) PROPOSED METER SERVICE LINE, NO OUTLETS ALLOWED. COPPER
- (B) FINISH GRADE
- (C) TYPE K COPPER ELL
- (D) TYPE K COPPER NIPPLE
- (E) BRASS UNION, 4" ABOVE GRADE, MIN.
- (F) BACKFLOW PREVENTOR DEVICE (SEE PLAN) HEIGHT 12" MIN, MAX 30"
- (G) COPPER MAINLINE
- (H) 28" MINIMUM DEPTH
- (I) 3000 PSI CONCRETE PAD, 4" DEPTH, EXTEND 4" BEYOND EDGE OF ENCLOSURE
- (J) PIPE SHALL BE SLEEVED THROUGH CONCRETE PAD WITH SEALED SHC 40 PVC.
- (K) BACKFLOW ENCLOSURE (SEE PLAN) MUST MEET R VALUE OF 25, & PROVIDED MINIMUM CLEARANCES.
- (L) STEEL SUPPORT BRACKETS BOLTED TO CONCRETE PAD
- (M) BRASS ISOLATION VALVE. BRICK BLOCK AT EACH CORNER FLANGE
- (N) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX)
- (O) SET IN CARLSON VALVE BOX
- (P) WEED CLOTH ALL AROUND BOX PIPE AND UNDER PEA GRAVEL. TAPE TO SEAL ALL GAPS AND PENETRATIONS. USE 3M HIGH GRADE PLASTIC TAPE.
- (Q) 1419 CARLSON VALVE BOX WITH LID AND BOLT, COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
- (R) PVC MAINLINE AS PER IRRIGATION PLAN

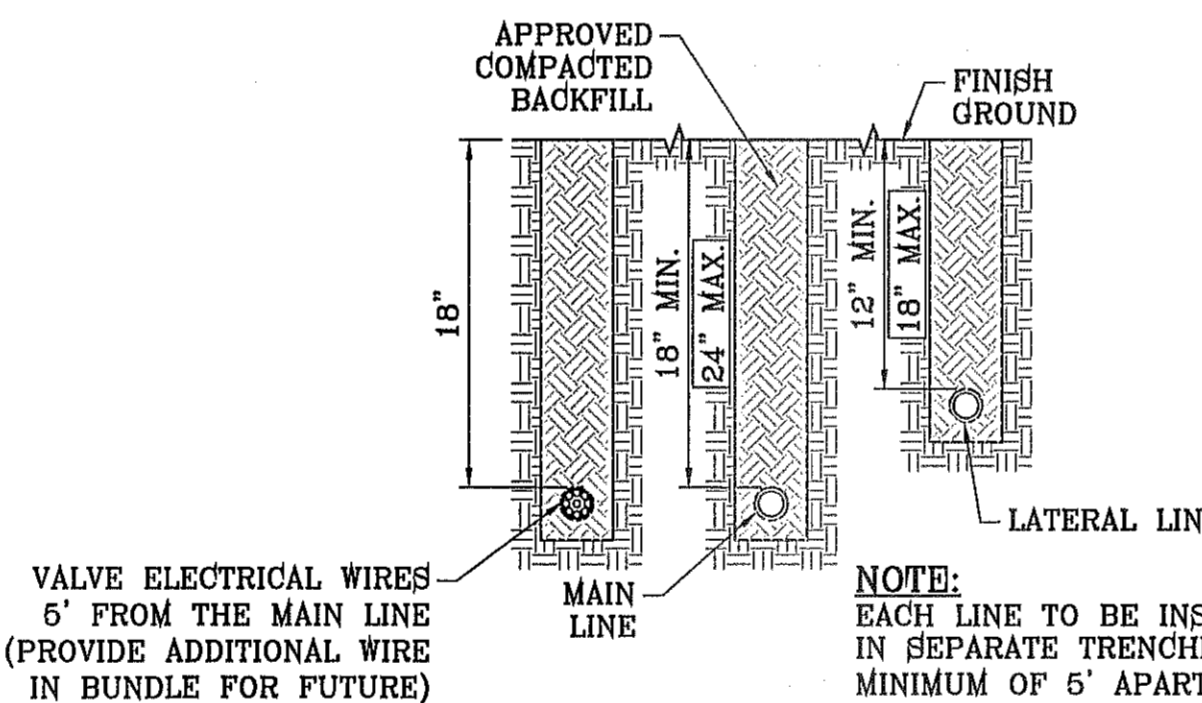
**GENERAL NOTES:**

1. ENCLOSURE MUST NOTE ASSE#1060 FOR BACKFLOW DEVICE.
2. DO NOT INSTALL IN FLOOD PRONE AREAS.
3. METAL RISER PIPING REQUIRED.
4. JOINTS TO BE ADEQUATELY RESTRAINED.
5. HORIZONTAL INSTALLATION REQUIRED AS SHOWN.
6. RPBP SHALL BE SUPPORTED AT ALL TIMES DURING AND AFTER INSTALLATION. PIPES ARE NOT TO BARE WEIGHT OF RP DEVICE. BACKFLOW PREVENTION DEVICE SHALL BE PROPERLY SUPPORTED BY BRACKETS AND NOT COPPER RISERS OR COPPER RISERS WILL BE REPLACED.

**ELECTRICAL NOTES:**

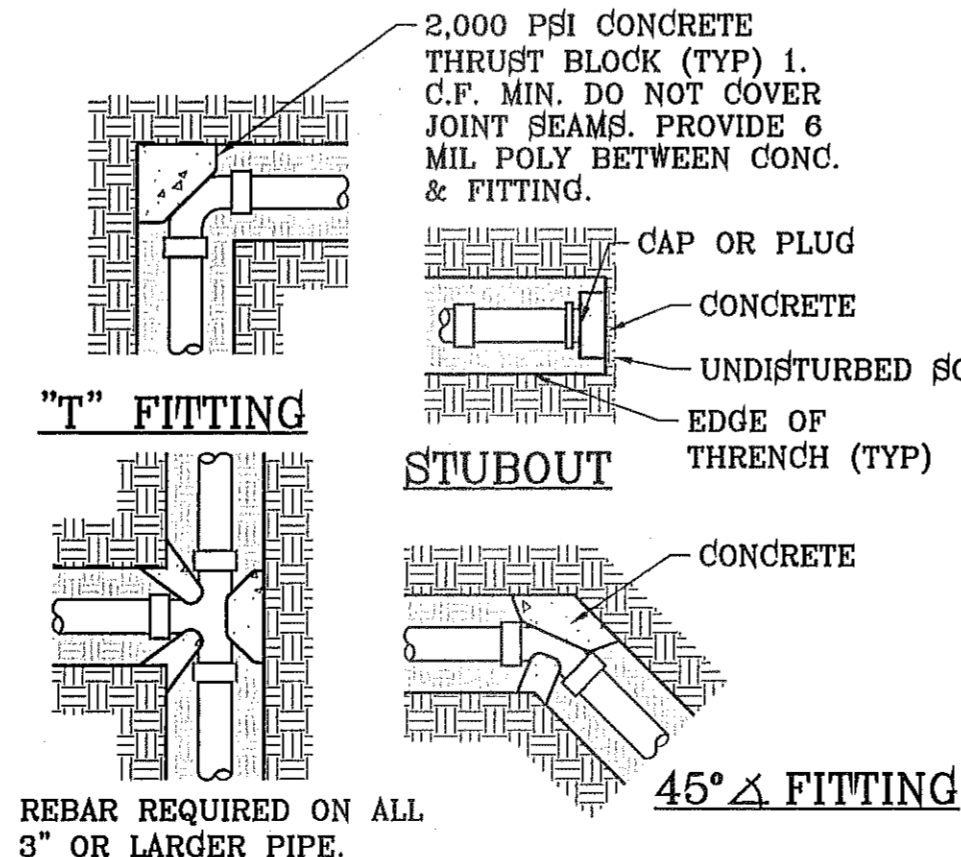
CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING, COORDINATING, AND INSTALLING ALL ELECTRICAL AND ELECTRICAL SUPPLIES NECESSARY FOR THE INSTALLATION AND OPERATION OF THE IRRIGATION SYSTEM SPECIFIED.

ALL ELECTRICAL SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES, ORDINANCES AND REQUIREMENTS OF ALL GOVERNING BODIES HAVING JURISDICTION.



VALVE ELECTRICAL WIRES 5' FROM THE MAIN LINE (PROVIDE ADDITIONAL WIRE IN BUNDLE FOR FUTURE)

NOTE: EACH LINE TO BE INSTALLED IN SEPARATE TRENCHES AT A MINIMUM OF 5' APART

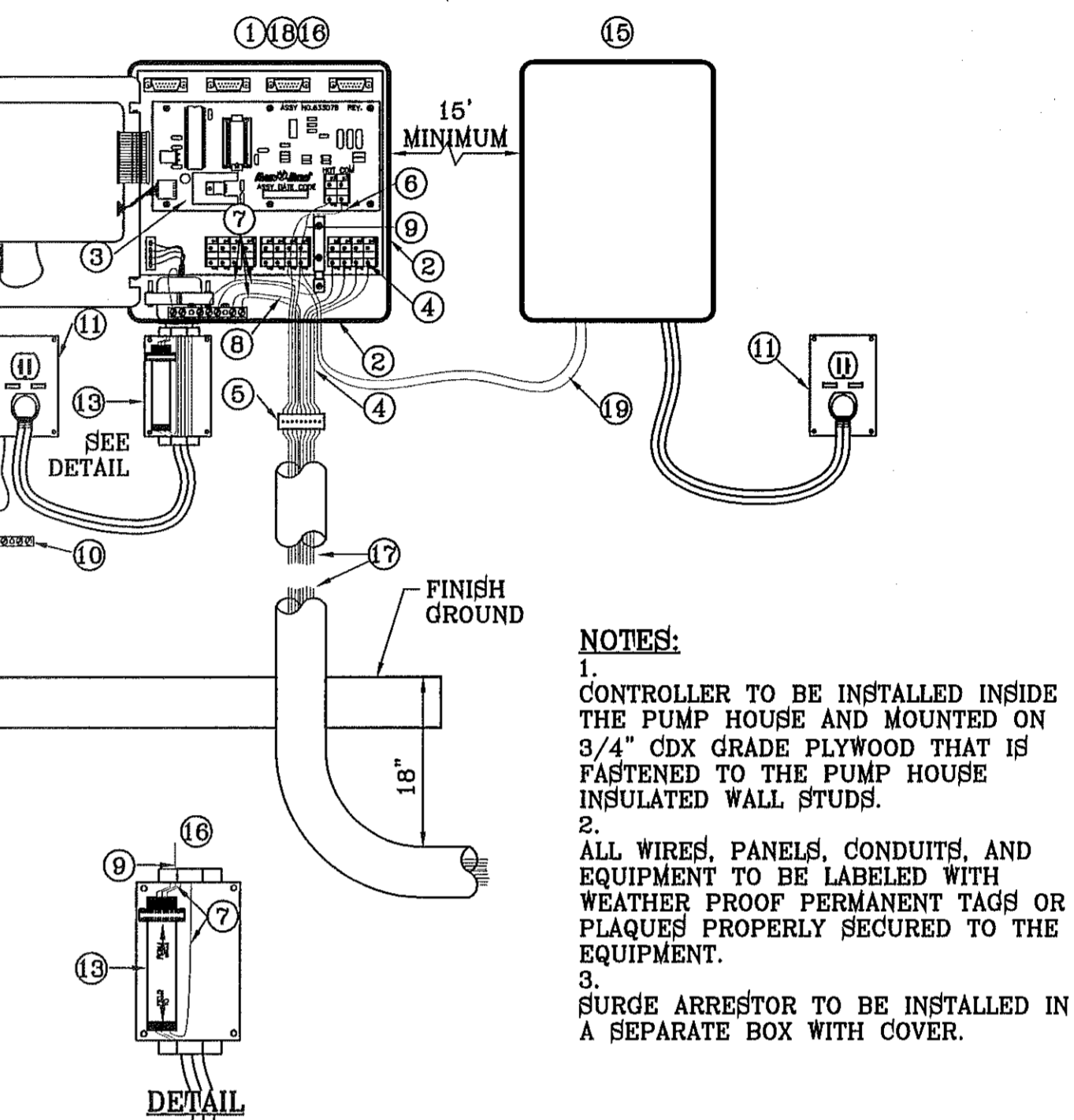


REBAR REQUIRED ON ALL 3" OR LARGER PIPE.

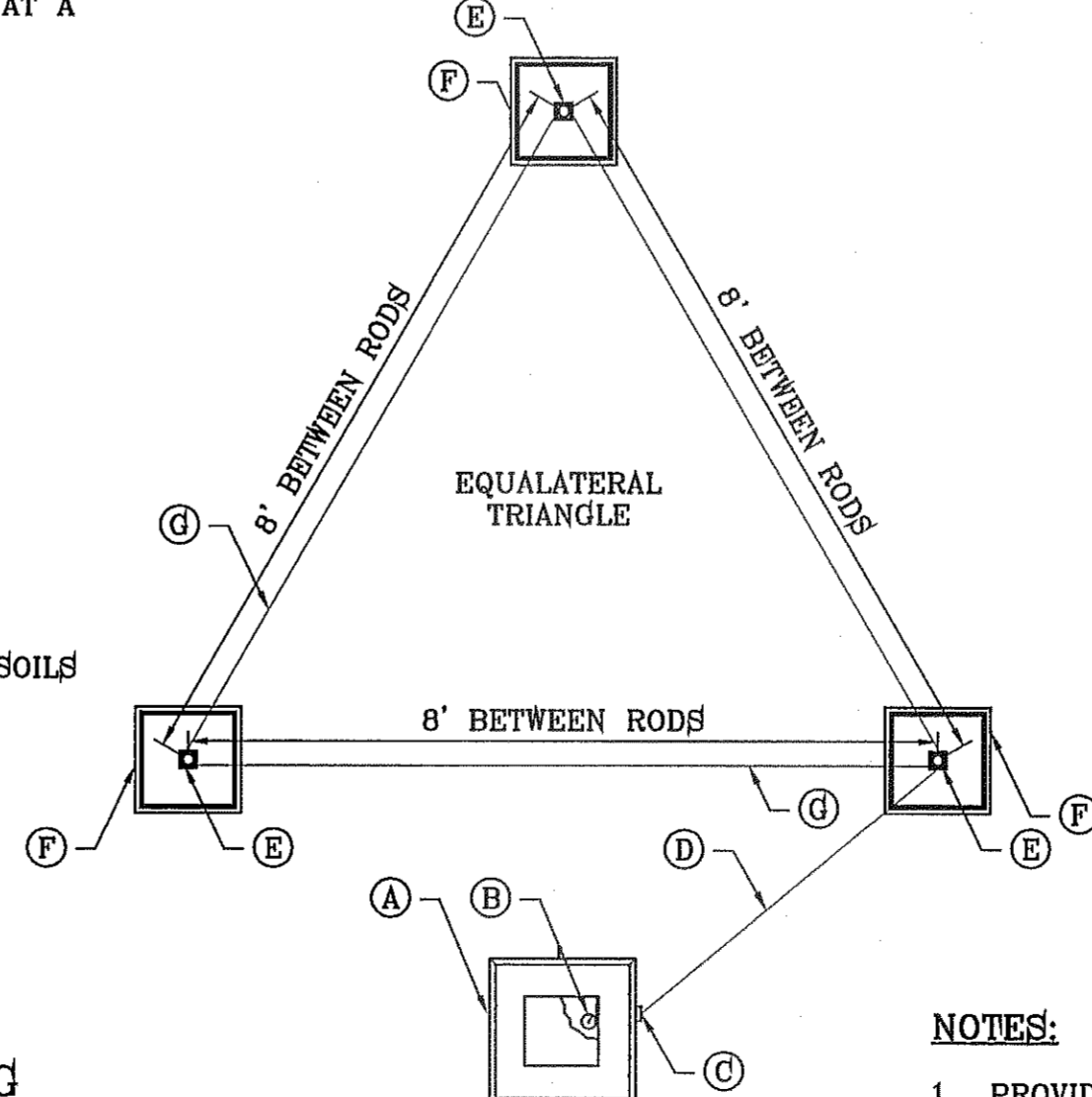
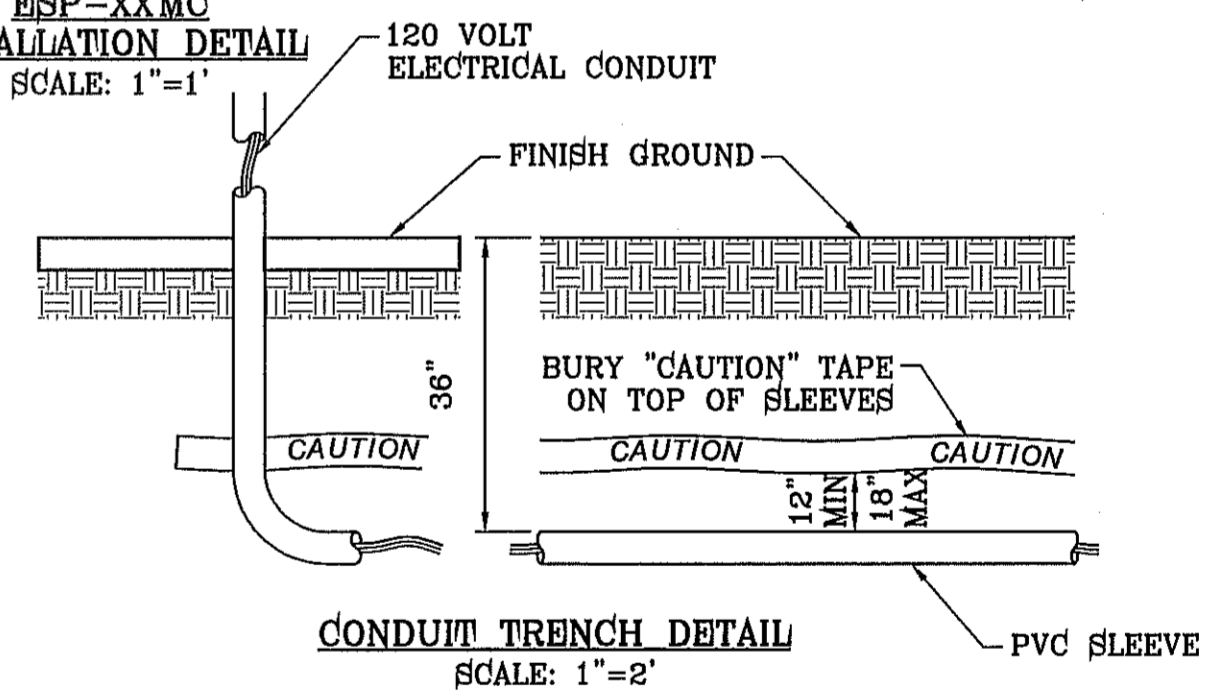


TRANS. FROM COPPER TO PVC PIPE TO BE 5' MIN. AFTER PUMP HOUSE WHEN APPLICABLE.

- (1) INSTALL IN NEMA2 APPROVED METAL ENCLOSURE TO HOUSE IRRIGATION SYSTEM CONTROLLER.
- (2) RAIN BIRD ESP SITE SATELLITE MODEL
- (3) ESP-SAT TWO-WIRE MAXICOM INTERFACE BOARD (MIB)
- (4) WIRE TERMINAL CONNECTORS TO REMOTE CONTROL VALVES USE ESP-MC QUICK CONNECT TERMINAL STRIP. ALL WIRES TO BE LABELED IN CONJUNCTION WITH EACH IRRIGATION REMOTE CONTROL VALVE AND MUST BE WATER/WEATHER PROOF. PLACE A QUICK DISCONNECT IN THIS GENERAL LOCATION SEPARATE FROM THE ONE ON THE CLOCK (CONTROLLER)
- (5) PLACE A QUICK DISCONNECT IN THIS GENERAL LOCATION SEPARATE FROM THE ONE ON THE CONTROLLER AND MOUNTED WITHIN METAL PEDESTAL ENCLOSURE.
- (6) COMMON WIRE (BLACK) FROM MSP-1 SURGE ARRESTOR TO MAXICOM INTERFACE BOARD (MIB)
- (7) ALL GROUND WIRES (GREEN) TO GROUNDING BUSS BAR
- (8) #10 COPPER GROUND WIRE FROM ESP FIELD SATELLITE CONTROLLER GROUNDING BUSS BAR TO GROUNDING GRID (SEE GROUNDING GRID MAXICOM DETAIL 305)
- (9) HOT WIRE (RED) FROM MSP-1 SURGE ARRESTOR TO MAXICOM INTERFACE BOARD (MIB)
- (10) GROUNDING BUSS BAR IN CABINET SEPARATE OF CONTROLLER
- (11) 120 VOLT POWER SUPPLY W/ G.F.C.I. PROTECTION
- (12) REFER TO LOCAL ELECTRIC CODE FOR CONNECTIONS
- (13) RAIN BIRD MSP-1 RECOMMENDED SURGE ARRESTOR TO BE INSTALLED IN SEPARATE JUNCTION BOX WITH COVER
- (14) POWER ON/OFF TODDLE SWITCH
- (15) PUMP START RELAY
- (16) RAIN BIRD WARRANTY REQUIRES PROPER SURGE PROTECTION IN A METAL BOX WITH LID. USE INTERMATIC AG2401 OR TRIPPLITE ISOBAR.
- (17) IRRIGATION LOW VOLTAGE WIRES.
- (18) IF PUMP IN PUMP HOUSE IS REQUIRED, CONTROLLER TO BE INSTALLED INSIDE THE PUMP HOUSE AND MOUNTED ON 3/4" CDX GRADE PLYWOOD THAT IS FASTENED TO THE PUMP HOUSE INSULATED WALL STUDS. SURGE ARRESTOR TO BE INSTALLED IN A SEPARATE JUNCTION BOX WITH COVER
- (19) COMMON WIRE/MASTER VALVE WIRE
- (20) ELECTRICAL POWER CONDUIT FOR 120 VOLT POWER TO BE BURIED AT 36" DEPTH FROM FINISH GROUND TO TOP OF PIPE AND EXTENDED TO DUPLEX OUTLET J-BOX WITH LABELS AND PERMANENT TAGS. SEE TRENCH DETAIL.



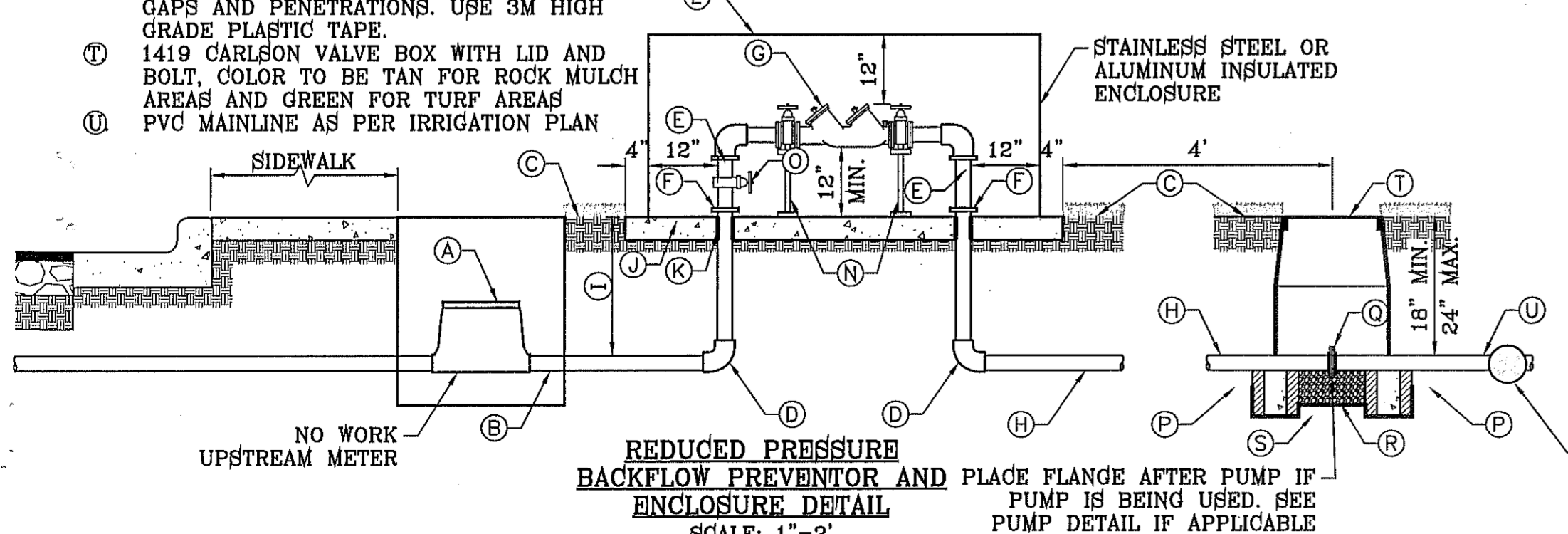
- NOTES:**
1. CONTROLLER TO BE INSTALLED INSIDE THE PUMP HOUSE AND MOUNTED ON 3/4" CDX GRADE PLYWOOD THAT IS FASTENED TO THE PUMP HOUSE INSULATED WALL STUDS.
  2. ALL WIRES, PANELS, CONDUITS, AND EQUIPMENT TO BE LABELED WITH WEATHER PROOF PERMANENT TAGS OR PLAQUES PROPERLY SECURED TO THE EQUIPMENT.
  3. SURGE ARRESTOR TO BE INSTALLED IN A SEPARATE BOX WITH COVER.



- (A) SATELLITE
- (B) #10 BARE COPPER WIRE FROM GROUNDING TERMINAL LUG
- (C) CONDUIT FROM SATELLITE
- (D) #10 BARE COPPER WIRE FED THROUGH CONDUIT FROM SATELLITE TO GROUNDING ROD
- (E) GROUNDING ROD FROM GK-UL3ROD THREE ROD KIT
- (F) TAN COLOR CARSON 910 SERIES BOX W/ LID & BOLT (1 OF 3)
- (G) #10 BARE COPPER WIRE FROM VALVE BOX HELD IN PLACE WITH BRASS CLAMP (SEE DETAIL FOR "GROUNDING WIRES IN GRID")

**NOTES:**

1. PROVIDE WEED CLOTH UNDER AND AROUND THE VALVE BOX AND TAPE IT. PROVIDE WASHED 3" PEA GRAVEL 4" DEEP
2. PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.



PLACE FLANGE AFTER PUMP IF PUMP IS BEING USED. SEE PUMP DETAIL IF APPLICABLE

PROJECT NAME: TIERRA DEL ESTE UNIT 71 PARK "MINERS PARK" 14889 WILLIE WORSLEY AVE. BEING ALL OF LOT 1, BLOCK 406 TIERRA DEL ESTE UNIT SEVENTY ONE (6.19 AC.) EL PASO COUNTY, TEXAS CITY OF ... CONTAINING: 5.7422 ACRES  
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST. ELEVATION 4018.75 ... NAVD83 DATUM  
 REVISIONS: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 S C A L E: \_\_\_\_\_  
 HORIZ. AS NOTED \_\_\_\_\_  
 VERT. \_\_\_\_\_  
 DATE: AUGUST 2012  
 DESIGN BY: OM  
 INITIATED BY: OM  
 CHECKED BY: RMM  
 JOB NO.: 1110-18  
 CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURETY DR. STE. 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286  
 REGISTRATION No. P-2321  
 SHEET TITLE: PARK IRRIGATION DETAILS  
 SHT 8 OF 9

**PARKS DEPARTMENT**  
 REVIEWED BY: *Anthony del...* 09/18/12



**LANDSCAPE NOTES:**

- PLANT MATERIAL SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN PERMISSION OF THE OWNER. THE USE OF MATERIALS DIFFERING IN KIND, QUALITY OR SIZE FROM THAT SPECIFIED WILL BE ALLOWED ONLY AFTER OWNER IS CONVINCED THAT ALL MEANS OF OBTAINING THE SPECIFIED MATERIAL HAVE BEEN EXHAUSTED. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS SPECIFIED. ALL REQUESTS FOR SUBSTITUTIONS MUST BE SUBMITTED NO LATER THAN TWO WEEKS PRIOR TO THE INITIATION OF WORK.
- PLANT MATERIAL QUALITY, SIZE AND CONDITION SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK, 1980 EDITION, AS PUBLISHED BY THE COMMITTEE ON HORTICULTURAL STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUNSCALED INJURIES, PLANT DISEASES, INSECT EGGS, BORES AND ALL OTHER FORMS OF INFECTIONS.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS OR APPROVED BY THE OWNER'S REPRESENTATIVE, ALL PLANTS SHALL BE NURSERY GROWN AND SHALL BE TAGGED WITH NURSERY LABELS INDICATING SPECIES AND VARIETY.
- NON-CONTAINER GROWN PLANTS SHALL HAVE A SOLID BALL OF EARTH OF MINIMUM SPECIFIED SIZE AND HELD IN PLACE SECURELY BY BURLAP AND A STOUT TWINE OR ROPE, SEE TREE AND SHRUB PLANTING DETAIL. BROKEN OR LOOSE BALLS WILL BE REJECTED.
- UNLESS SPECIFICALLY NOTED ON DRAWING, ALL TREES SHALL HAVE A SINGLE TRUNK THAT IS STRAIGHT AND FREE OF "DOG-LEGS" "CROOKS" "Y-CROUCHES", OR OTHER DISFIGURING SHAPES. THE CENTRAL LEADER OF ALL TREES SHALL NOT HAVE BEEN PRUNED. TREES WITH DOUBLE LEADERS ARE NOT ACCEPTABLE, UNLESS SPECIFIED AS MULTI-TRUNKED.
- ALL PLANT MATERIAL SHALL HAVE A UNIFORM SHAPE AROUND ITS COMPLETE CIRCUMFERENCE. PLAN MATERIAL WITH IRREGULAR BRANCHING PATTERNS OR WITH BRANCHING PATTERNS MORE HIGHLY DEVELOPED ON ONE SIDE THAN ON OTHER SIDES SHALL NOT BE ACCEPTABLE.
- THE OWNER'S REPRESENTATIVE SHALL BE THE JUDGE OF THE QUALITY AND ACCEPTABILITY OF ALL PLANT MATERIALS. ALL REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIALS AT NO ADDITIONAL COST TO OWNER.
- ALL TREES, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR THE PERIOD OF ONE FULL YEAR BEGINNING ON THE DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS WITHIN 10 WORKING DAYS OF WRITTEN NOTIFICATION AT NO EXPENSE TO THE OWNER. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR VANDALIZED PLANT MATERIAL.
- ALL PLANTING BEDS SHOWN ON PLANS SHALL BE MULCHED. NO BEDS WILL BE LEFT UNCOVERED OR NOT TOP DRESSED, UNLESS OTHERWISE SPECIFIED.

**GRADING**

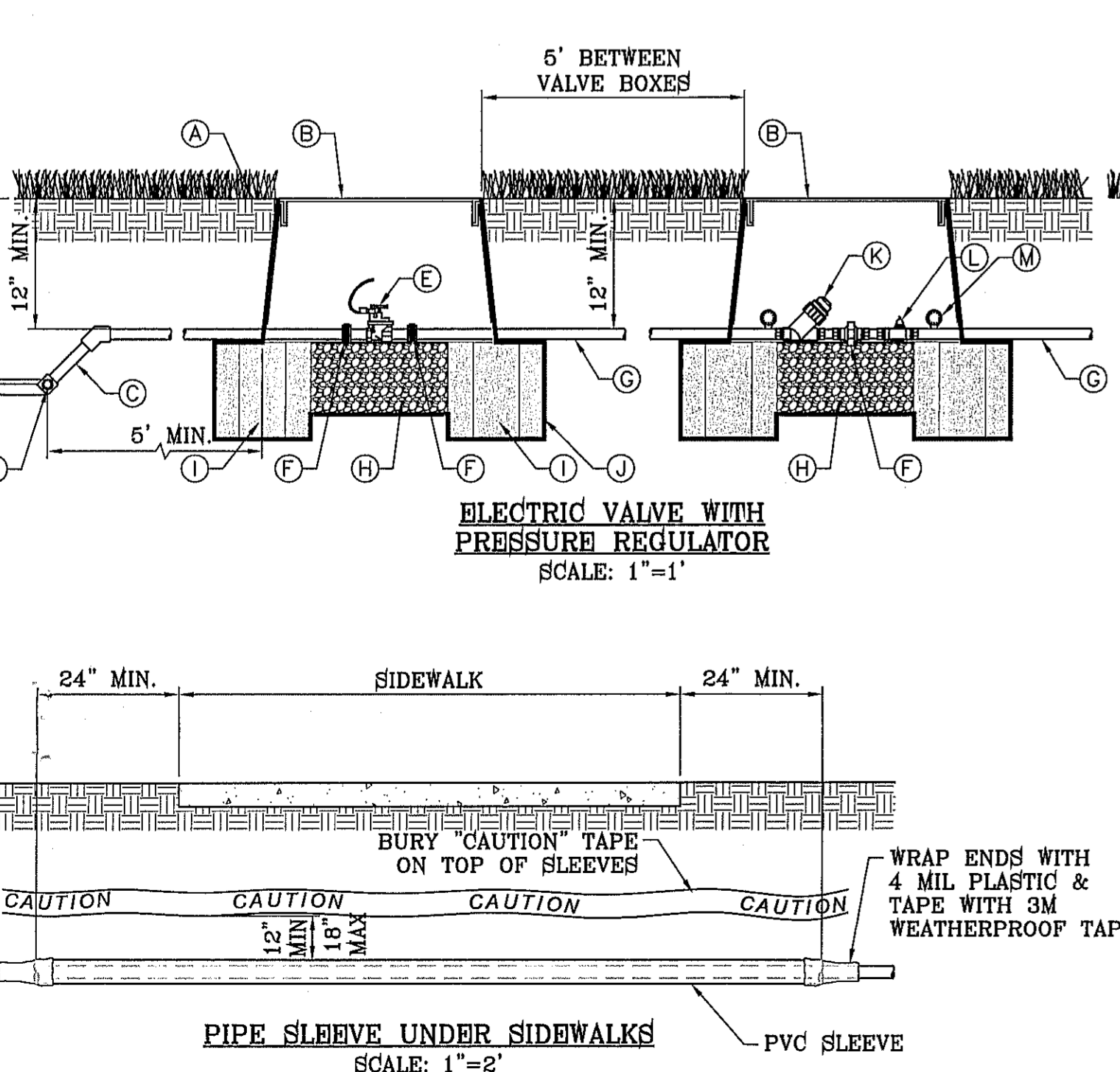
- PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF ALL GOVERNING BODIES HAVING JURISDICTION.
- FINE GRADING: SURFACE SHALL BE RAKED FREE OF STONES AND EXTRANEOUS MATERIALS AND DEBRIS TO A SMOOTH AND EVEN TEXTURE. ALL EXTRANEOUS MATTER WILL BE DISPOSED OF BY CONTRACTOR.

**PROTECTIONS:**

- CONTRACTOR SHALL BE FAMILIAR WITH PLANS, DETAILS AND SPECIFICATIONS AS THEY PERTAIN TO THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IF ANY ITEMS CONTAINED WITHIN THE SCOPE OF WORK DEFINED HEREIN ARE IN CONFLICT WITH PROPOSED CONTRACT.
- EXISTING UTILITY LINES ARE TO BE BLUE STAKED PRIOR TO EXCAVATION. CHECK AND FIELD VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO EXCAVATION. CALL FOR BLUE STAKING.
- THE CONTRACTOR SHALL BE LIABLE FOR ANY LOSS OR DAMAGE TO ANY WORK OR MATERIALS, SUPPLIES AND EQUIPMENT ON THE JOB SITE CAUSED BY THE CONTRACTOR OR ITS EMPLOYEES.
- CONTRACTOR IS TO BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND POST WITH WARNING LIGHTS OR OTHER WARNING MEASURES AS NECESSARY. PROTECTION OF EXISTING SHRUBS, TREES, AND OTHER PLANT MATERIALS ARE ALSO TO BE INCLUDED.
- PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS. ALL DAMAGES THAT MAY OCCUR DURING THIS PHASE OF WORK SHALL BE THE CONTRACTOR'S FINANCIAL RESPONSIBILITY.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS.

**GENERAL NOTES:**

- THE DEVELOPER SHALL REGISTER THE PROJECT WITH TDLR, TO INCLUDE SUBMITTAL OF DRAWINGS, INSPECTION AND CERTIFICATE OF SUBSTANTIAL COMPLEXION.
- ALL TURF AREAS ARE HYBRID BERMUDA 'SANTA ANA' SOD OR SEED IN ACCORDANCE TO PARKS DESIGN AND CONSTRUCTION STANDARDS
- SEEDING NEEDS TO OCCUR BETWEEN APRIL 15 THROUGH JUNE 15 TO YIELD BEST ESTABLISHED STAND. OUTSIDE THAT WINDOW SOD SHOULD BE THE METHOD OF PLANTING.
- TREE LOCATIONS TO BE COORDINATED WITH PARKS DEPARTMENT IN THE FIELD TO PREVENT BEING PLANTED TOO CLOSE TO SPRINKLERS.
- ENGINEERED WOOD CHIP FIBERS SHALL BE COMPACTED AS PER THE SUPPLIER'S TESTING LAB RECOMMENDATIONS, WHICH SHALL COMPLY WITH THE MOST CURRENT STANDARDS IN ACCESSIBILITY.
- SILT FENCE TO BE INSTALLED AND MAINTAINED ALONG THE PERIMETER OF THE PARK SITE UNTIL ALL ABUTTING RESIDENCES ARE DEVELOPED.



- (A) FINISH GRADE
- (B) 1419 CARSON VALVE BOX WITH LID AND BOLT. COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
- (C) IRRIGATION MAINLINE/LATERAL MAINLINE
- (D) IRRIGATION MAINLINE SERVICE TEE OR ELL
- (E) WEATHERMATIC 8200CR-20 ELECTRIC CONTROL VALVE
- (F) SCHEDULE 80 PVC UNIONS ON LINES 3" OR SMALLER, AND FLANGES ON LINES 3" OR LARGER
- (G) LATERAL LINE
- (H) 1 CUBIC FOOT 1" DIAMETER WASHED ROCK
- (I) 8"x8"x16" SOLID CMU BLOCK
- (J) PROVIDE WEED BARRIER FABRIC 'DeWITT PRO 5' UNDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS RAINBIRD
- (K) AMIAD WYE FILTER TO BE SET AT ANGLE TO BE ABLE TO DRAIN AND BE SERVICED READILY.
- (L) WILKINS BF4 BRONZE BODY OR IN-LINE PRESSURE REGULATOR
- (M) GAUGE

NOTE:  
PVC PIPE ASSEMBLIES AT IRRIGATION VALVES, PRESSURE REGULATOR AND FILTER ARE TO HAVE UNIONS ON BOTH INTAKE AND DISCHARGE SIDES OF THE EQUIPMENT WHEN THE PIPE IS SMALLER THAN THREE INCHES AND FLANGES ARE TO BE USED ON PIPE THREE INCHES AND LARGER. INSURE THAT THE EQUIPMENT AND FITTINGS ARE ACCOMMODATED WITHIN THE 1419 CARSON IRRIGATION VALVE BOX.

**IRRIGATION NOTES**

- ALL WORK MUST BE IN COMPLIANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES AND REGULATIONS.
- ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDED ALL EQUIPMENT, TOOLS, PRODUCTS, MATERIALS, LABOR, TRANSPORTATION AND OBTAIN ALL PERMITS AND PAY ALL REQUIRED FEES.
- ALL PAVEMENT TRENCHING SHALL BE IN PERFORMED TO THE CITY OF EL PASO FOR PUBLIC WORK CONSTRUCTION.
- PIPING UNDER HARDSCAPES (DRIVEWAYS, SIDEWALKS, etc. etc.) SHALL REQUIRE SLEEVING. GENERALLY TWO SIZES LARGER THAN IRRIGATION PIPE AND ONE FOOT BEYOND EDGE OF HARDSCAPE.
- ALL SPRINKLER HEADS ADJACENT TO HARDSCAPES SHALL BE PLACED A MINIMUM OF ONE FOOT FROM EDGE OF SURFACING.
- SOME PIPES, VALVES, BACKFLOWS etc. etc. HAVE BEEN SHOWN IN PAVING, SIDEWALKS OR OUTSIDE THE BOUNDARY FOR CLARITY ONLY.
- STATIC PRESSURE (60 PSI) BASED ON CLOSEST FIRE HYDRANT TO THE PROJECT SITE ON PEBBLE HILLS BLVD. AND JOHN HAYES ST. AS PER THE PSB. THE CONTRACTOR/INSTALLER SHALL FIELD VERIFY THE STATIC PRESSURE OF THE WATER SUPPLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO IMMEDIATELY CONTACT THE LICENSED IRRIGATOR IF STATIC PRESSURE OR FIELD CONDITIONS ARE DIFFERENT IN THE FIELD THAN SHOWN ON PLANS.
- CONTRACTOR IS REQUIRED TO APPLY FOR AND OBTAIN IRRIGATION PERMIT FROM B&M

**TRENCHING**

- CONTACT LOCAL UTILITY COMPANIES AND BLUE STAKE ALL UTILITIES PRIOR TO EXCAVATION.
- ALL TRENCHING SHALL BE DONE IN STRICT ACCORDANCE WITH OSHA-2226.
- PIPES MUST BE FLUSHED AND INSPECTED BY PROJECT INSPECTOR BEFORE INSTALLING VALVES AND SPRINKLERS.
- PIPES SHALL NOT BE BURIED UNTIL INSPECTED BY PROJECT INSPECTOR. CONTRACTOR MUST UNCOVER THE WORK TO BE INSPECTED AND/OR TESTED AND BE RE-BURIED AT THEIR EXPENSE.
- AVOID OBSTACLES (UTILITIES, TREE ROOTS, BOULDERS etc. etc.) ALLOW A MINIMUM OF TWO INCHES OF COVERAGE
- BACKFILL MATERIAL SHALL CONTAIN NO LUMPS, ROCKS LARGER THAN ONE INCH OR ORGANIC MATERIAL. BACKFILL MATERIAL MUST BE APPROVED BY PROJECT INSPECTOR PRIOR FILLING OF TRENCHES.
- IF EXCAVATING 16 INCHES OR DEEPER WITH POWER EQUIPMENT, YOU MUST BY LAW CALL 1-800-DIG TESS (800-344-8377) 48 HOURS BEFORE EXCAVATING.
- LATERAL LINES SHALL BE TO A DEPTH OF 12". MAIN LINES SHALL BE TO A DEPTH OF 18" AND VALVE ELECTRICAL WIRES TO A DEPTH OF 18", SEE TRENCH DETAIL ON ### OF ###.

**SOLVENT WELDING**

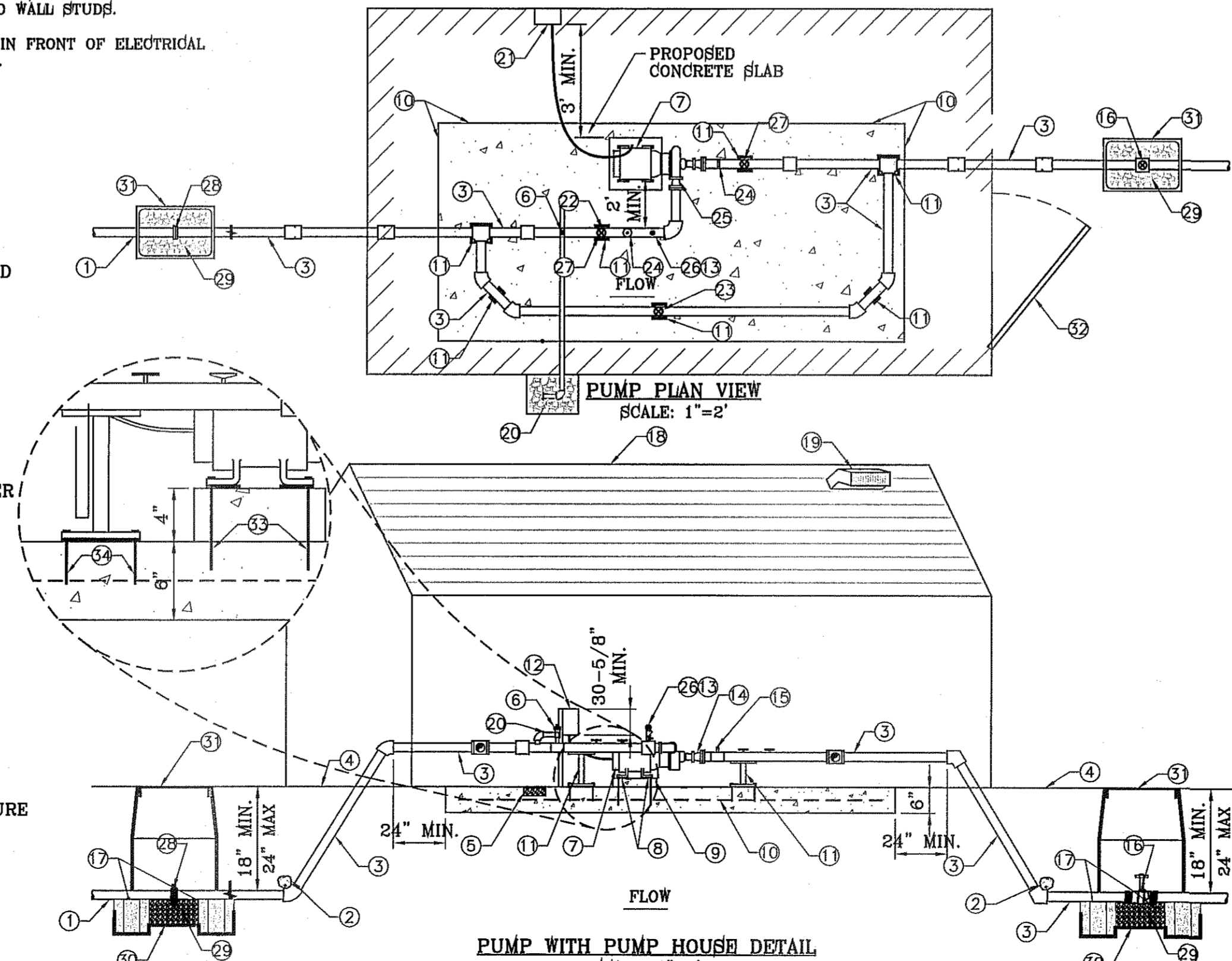
- USE IPS WELD-ON CLEANER AND PURPLE PRIMER P68 OR P70 TO CLEAN AND PREPARE THE PIPES BEING JOINED.
- USE IPS WELD-ON GRAY GLUE #711 HEAVY DUTY.
- LACK OF SUFFICIENT SOLVENT WILL RESULT IN A WEAK CONNECTION, EXCESS SOLVENT WILL WEAKEN THE STRUCTURE. USE THE RIGHT AMOUNT OF SOLVENT FOR A SOUND INSTALLATION.
- PIPE BENDS AND FITTINGS MUST BE INSPECTED DURING PRESSURE TEST. SOLVENT WELDING IS REQUIRED ON ALL PIPE BENDS AND FITTINGS. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- CLEAN OFF ALL BURRS FROM PIPE CUTS, BEVEL THE END OF THE MAIN LINE AND WIPE EXCESS SOLVENT FROM JOINT.

**ELECTRICAL WIRING**

- WIRES SHOULD NOT BE STRETCHED TIGHT IN THE TRENCHES, ALLOW EXTRA WIRE FOR SHARP TURNS IN THE TRENCHES.
- WIRING SHALL BE UL LISTED FOR DIRECT BURIAL AND SIZED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- DIRECT BURIAL WIRE SPLICES MUST BE WATERPROOF AS PER MANUFACTURER'S SPECIFICATIONS.
- WIRES SHALL BE LABELED WITH WATERPROOF TAGS AT THE CONTROLLER AND VALVE BOX.

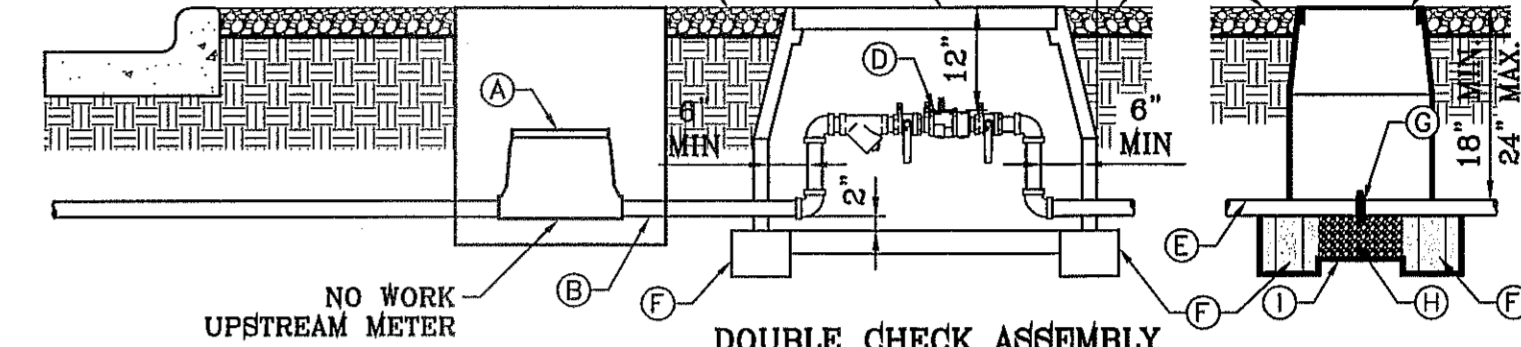
**PUMP HOUSE GENERAL NOTES:**

- PUMP HOUSE CONSTRUCTION TO INCLUDE SIDING, 2x4 STUDS, 2x4 PRESSURE TREATED BOTTOM PLATE, J-BOLT WITH WASHER AND NUT SET AT 4' O.C. AND INSULATION. SEE SHEET L16 FOR FOUNDATION DETAIL.
- CONCRETE PAD FOR PUMP AND BYPASS MAY BE SHIFTED TOWARDS WALL OPPOSITE ENTRANCE SO THAT MORE CLEAR WALKING SPACE IS PROVIDED AT ENTRANCE TO PUMP HOUSE.
- PIPING FOR BYPASS MAY BE SUPPORTED WITH UNI-STRUTS ANCHORED TO WALL STUDS.
- A MIN. OF 3' CLEARANCE IN FRONT OF ELECTRICAL PANELS AND PUMP PANEL.



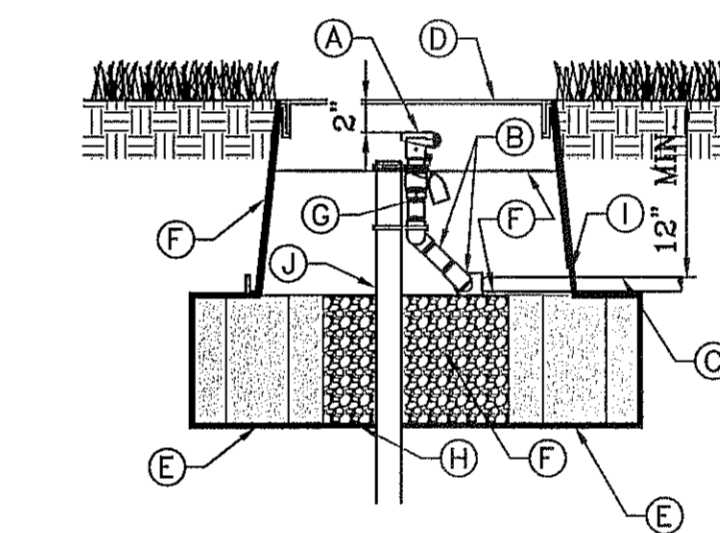
NOTE:  
ELECTRICAL POWER CONDUIT AND PUMP CONTROL POWER TO BE INSTALLED (BURIED) AT 36" DEPTH FROM FINISH GROUND TO TOP OF PIPE. SEE CONDUIT TRENCH DETAIL.

- (A) PROPOSED METER
- (B) SERVICE LINE, NO OUTLETS ALLOWED.
- (C) FINISH GRADE
- (D) DOUBLE CHECK MODEL FEBCO MODEL 850
- (E) 2" MINIMUM DEPTH
- (F) BRICK BLOCK AT EACH CORNER
- (G) FLANGE
- (H) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX) SET IN CARLSON VALVE BOX
- (I) WEED CLOTH ALL AROUND BOX PIPE AND UNDER PEA GRAVEL. TAPE TO SEAL ALL GAPS AND PENETRATIONS. USE 3M HIGH GRADE PLASTIC TAPE.
- (J) CHRISTY B36 HIGH DENSITY REINFORCED CONCRETE UTILITY BOX WITH SCREW DOWN STEEL CHECKER LID.
- (K) 1419 CARLSON VALVE BOX WITH LID AND BOLT. COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS



DOUBLE CHECK ASSEMBLY UNDERGROUND INSTALLATION DETAIL (NOT APPLICABLE FOR PARK SITE) SCALE: 1"=2'

- (A) ISOLATION BRASS BALL VALVE (SAME SIZE AS PIPE)
- (B) THREADED MALE ADAPTERS
- (C) PVC LATERAL
- (D) 1419 PURPLE CARSON VALVE BOX W/ FLAT LID TO BE BOLTED DOWN.
- (E) SOLID BRICK BLOCK AT EACH CORNER
- (F) WATER PROOF TAGS THAT READ "NON-POTABLE WATER, NOT SAFE FOR DRINKING."
- (G) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX)
- (H) PROVIDE WEED BARRIER FABRIC 'DeWITT PRO 5' UNDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS
- (I) 6 mm BLACK POLYETHYLENE PLASTIC TAPE TO ALL INLET AND OUTLET PIPE



QUICK COUPLER VALVE SCALE: 1"=1'

- (1) PVC MAINLINE TO VALVES, SIZE AS NOTED
- (2) THROUGH BLOCK, SEE DETAIL
- (3) COPPER LINE, SIZE AS NOTED
- (4) FINISH GROUND
- (5) 3/4" GRAVEL BED, 4" THICK
- (6) 2" BERMAD PRESSURE RELIEF VALVE MODEL 730-Q
- (7) PUMP
- (8) RUBBER ISOLATORS
- (9) 4" CONCRETE SLAB ABOVE DOOR THRESHOLD.
- (10) 6" CONCRETE SLAB, 3000 PSI W/ 6X6 #W/F
- (11) STEEL SUPPORTS WITH ISOLATORS BOLTED TO CONCRETE
- (12) PUMP PANEL, FURNAS MODEL ESP100, NEMA 460 VOLT, 3 PHASE MODEL #775HP WITH VOLTAGE MONITOR AND 3 PLUG-IN RELAYS FOR EACH CONTROLLER AND STALL TIMER.
- (13) MERCOID TYPE OA PRESSURE CONTROL HIGH/LOW PRESSURE CUT-OFF SWITCH, WIRE TO PUMP PANEL.
- (14) BOCENTRIC REDUCER FLAT SIDE UP
- (15) 100LB. PRESSURE GAUGE
- (16) TEE FITTING WITH 1" BRASS BALL VALVE IN VALVE BOX TO ALLOW DRAINING OF SYSTEM ON A 3/8" PEA GRAVEL BED OVER WEED CLOTH
- (17) BRICK BLOCK AT EACH CORNER

- (18) PUMP ENCLOSURE TO BE A TUFF SHED OR EQUIVALENT BOLTED ON CONCRETE SLAB WITH R-13 INSULATED WALLS AND R-19 INSULATION ON CEILING.
- (19) METAL STATIC VENT
- (20) 2" COPPER TO DAYLIGHT OUTSIDE OF PUMP HOUSE
- (21) PUMP PANEL MOUNTED ON 3/4" CDX GRADE PLYWOOD MOUNTED ON INSULATED WALL OF PUMP HOUSE
- (22) BRASS BALL VALVE
- (23) 5" WATERMAN POW-160 SPRING LOADED CHECK VALVE
- (24) 100LB. PRESSURE GAUGE
- (25) CONCENTRIC REDUCER
- (26) MERCROID SWITCH ON DISCHARGE SIDE OF PUMP
- (27) BRASS BALL VALVE
- (28) FLANGE
- (29) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX)
- (30) WEED CLOTH ALL AROUND BOX, PIPE AND UNDER PEA GRAVEL. TAPE TO SEAL ALL GAPS AND PENETRATIONS. USE 3M HIGH GRADE PLASTIC TAPE.
- (31) CARSON VALVE BOX, 1419 SERIES WITH EXTENSIONS AS NEEDED & BOLT DOWN FLAT LID
- (32) DOOR TOWARDS STREET
- (33) 2" LONG, 5/8" CONCRETE ANCHORS (DRILLED) WITH NUTS
- (34) 4" LONG, 5/8" CONCRETE ANCHORS (DRILLED) WITH NUTS

**PARKS DEPARTMENT**

REVIEWED BY: *Antonio del Rio* 09/18/14

TIERRA DEL ESTE UNIT SEVENTY ONE PARK

BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF RALPH SEITZINGER DR. AND JOHN HAYES ST.	ELEVATION 4018.75
DATE	REVISIONS

PROJECT NAME  
**TIERRA DEL ESTE UNIT 71 PARK "MINERS PARK"**  
14869 WILLIE WORSLEY AVE.  
BEING ALL OF LOT 1, BLOCK 406  
TIERRA DEL ESTE UNIT SEVENTY ONE  
EL PASO, EL PASO COUNTY, TEXAS  
CITY OF EL PASO, TEXAS  
CONTAINING: .37422 ACRES

SCALE	
HORIZ: AS NOTED	VERT: ---
DATE: AUGUST 2012	DESIGN BY: OM
INITIATED BY: OM	CHECKED BY: RMM
JOB NO.: 1110-18	

**CONDE INC.**  
ENGINEERING / PLANNING  
SURVEYING / GPS  
6080 SURETY DR. STE. 100  
EL PASO, TEXAS 79905  
PHONE: (915) 592-0283  
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SHEET TITLE  
**PARK IRRIGATION DETAILS**  
SHT 9 OF 9