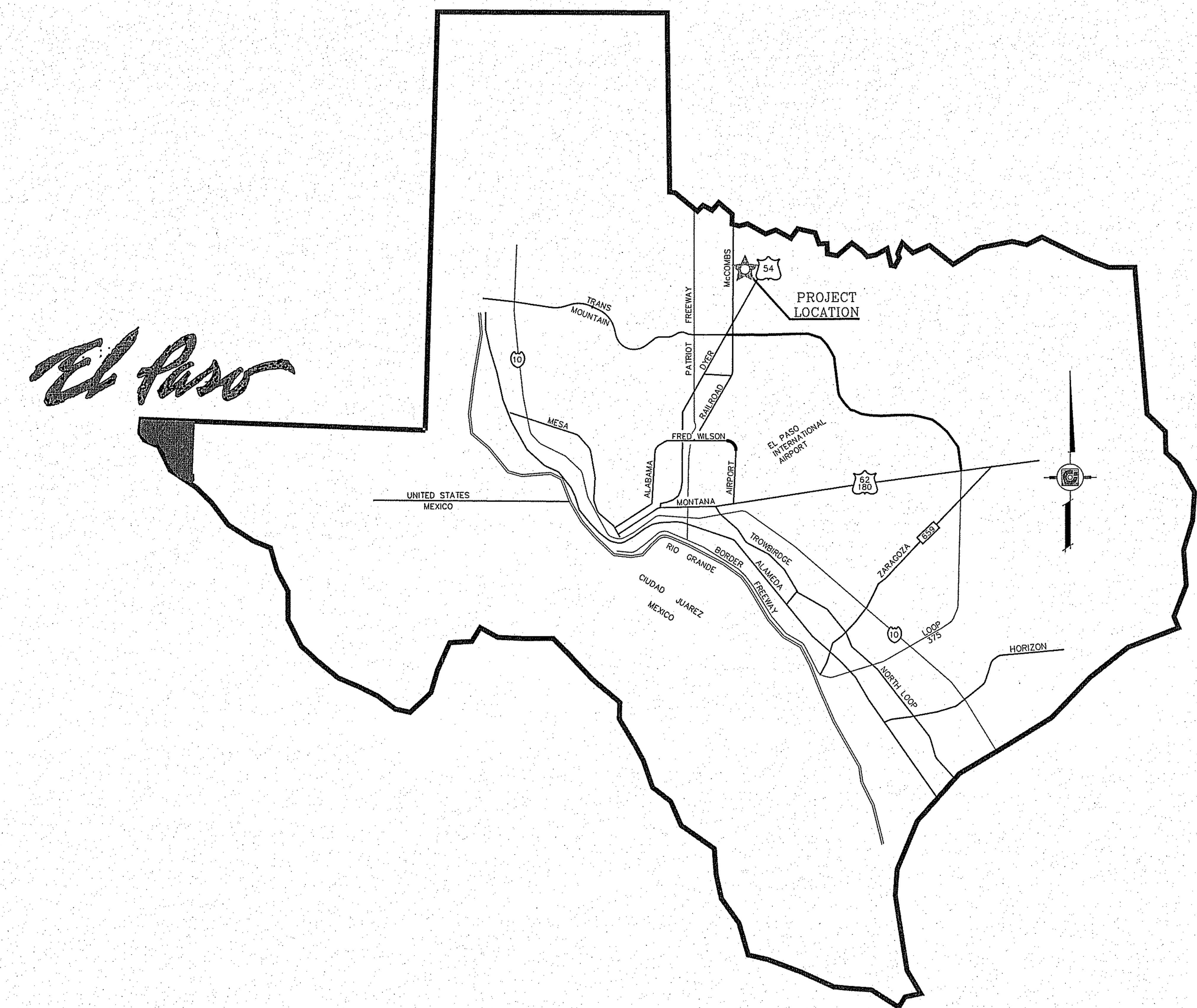
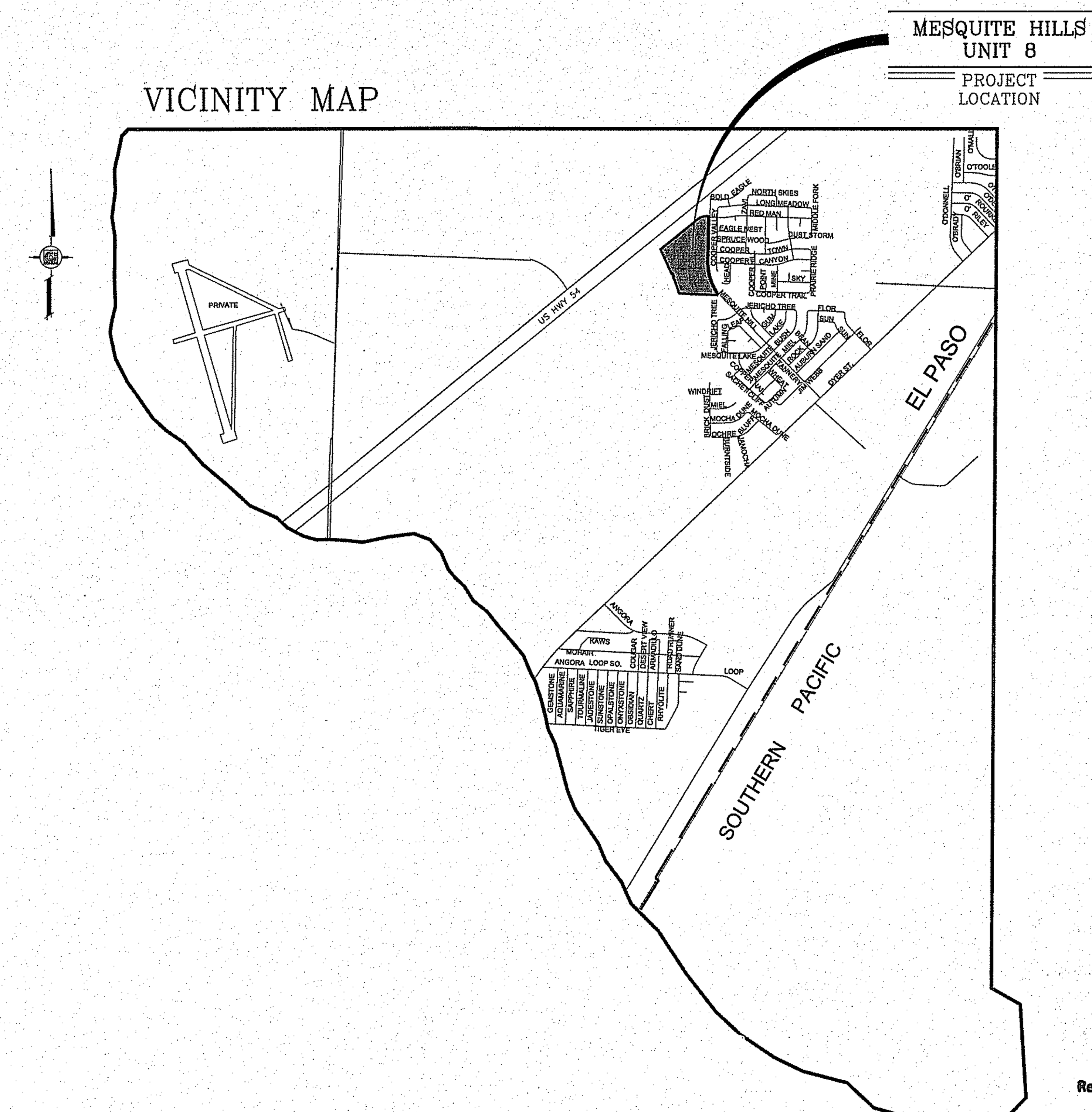




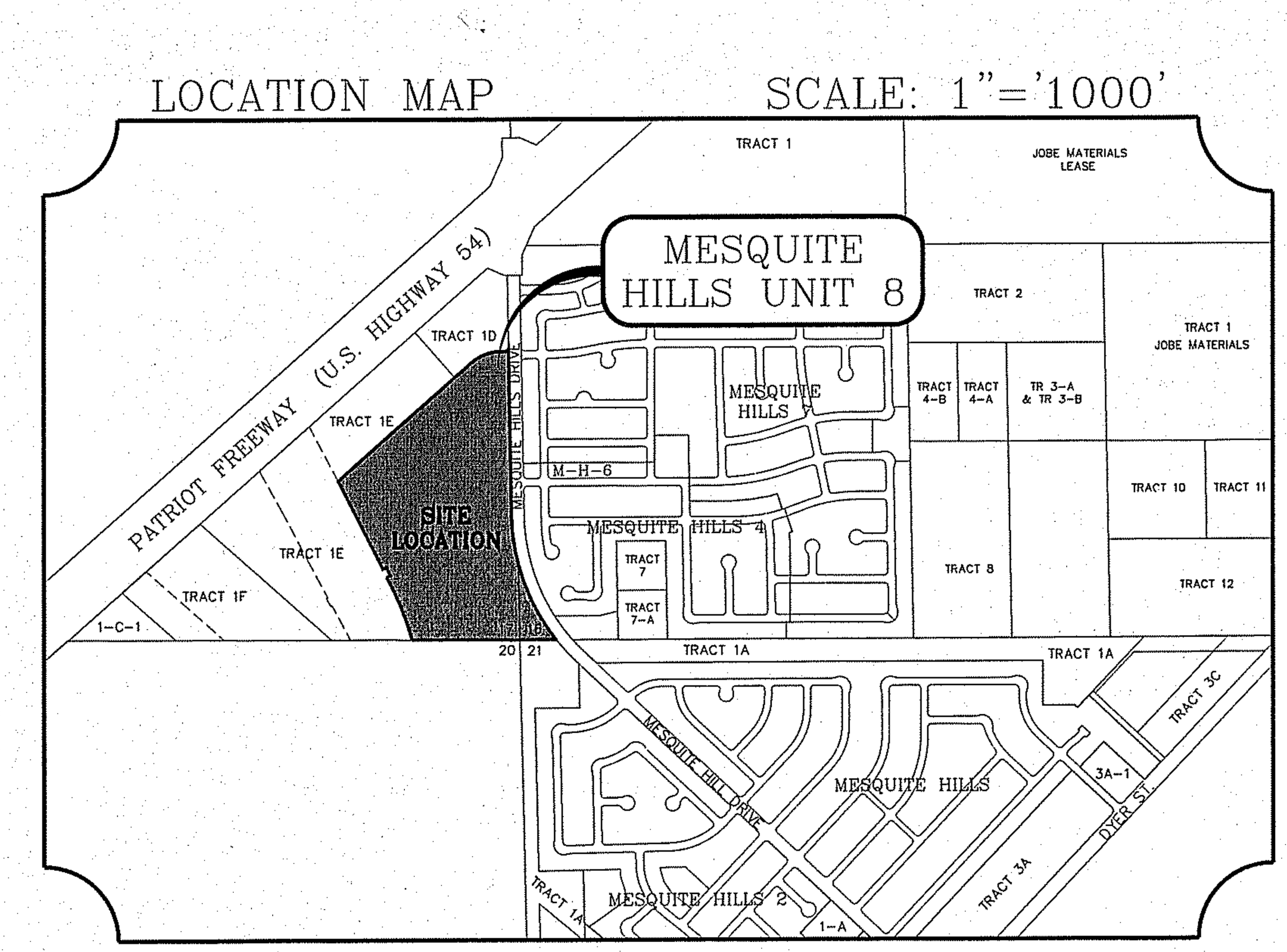
CITY DEVELOPMENT DEPARTMENT

Reviewed For Conformance For Condition Related To:

Sidewalks — Driveways
Grading & Drainage — Retaining Rock Walls
Wheelchair Ramps — On Site Ponding of Storm Water
On Site Parking Layout

Contractor Must Call 24 Hours Prior To Construction for Inspections

By — 12/21/16 Date



STREET IMPROVEMENTS

INDEX

TITLE	SHEET No.		
COVER SHEET	1	OF	30
PLAT	2	OF	30
GRADING	3	OF	30
GRADING SECTIONS	4	OF	30
GRADING SECTIONS	5	OF	30
DRAINAGE	6	OF	30
S.WP.P.P. AND STANDARD DETAILS	7	OF	30
S.WP.P.P. NOTES	8	OF	30
COPPER TOWN DR.	9	OF	30
COPPER TOWN DR.	10	OF	30
BLACK MESQUITE DR.	11	OF	30
MESQUITE BLACK DR. / REDMAN DR.	12	OF	30
REDMAN DR.	13	OF	30
MESQUITE RIVER DR.	14	OF	30
MESQUITE RIVER DR.	15	OF	30
WHITE MESQUITE WAY	16	OF	30
MESQUITE THORN DR.	17	OF	30
MESQUITE THORN DR.	18	OF	30
MESQUITE THORN DR.	19	OF	30
BROWN MESQUITE LN.	20	OF	30
RED MESQUITE WAY / OLD MESQUITE WAY	21	OF	30
BLACK MESQUITE STRUCTURE NO. 1	22	OF	30
MESQUITE RIVER STRUCTURE NO. 2	23	OF	30
POND WITH SECTIONS	24	OF	30
STORM DRAINAGE INLET DETAILS	25	OF	30
STORM DRAINAGE STRUCTURE DETAILS	26	OF	30
STORM DRAINAGE STRUCTURE DETAILS	27	OF	30
STANDARD DETAILS	28	OF	30
STANDARD DETAILS	29	OF	30
ILLUMINATION PLAN	30	OF	30
LANDSCAPE AND IRRIGATION	L1-L11	OF	L11
WATER & SEWER	1-7	OF	7

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

STATE OF TEXAS
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER

NOVEMBER 17, 2016

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

CONDE INC.
REGISTRATION No. F-2321

SHT 1 OF 30

MESQUITE HILLS UNIT 8

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.03 ACRES

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	1392.00'	907.01'	470.26'	891.05'	S19°39'41"E	37°19'59"
C2	2030.00'	453.59'	227.74'	452.65'	N22°05'34"W	12°48'08"
C3	326.00'	230.30'	120.19'	225.54'	N68°46'00"E	40°28'36"
C4	20.00'	31.42'	20.00'	28.28'	N44°00'18"E	90°00'00"
C5	300.00'	3.28'	1.64'	3.28'	N60°36'16"E	0°37'37"
C6	300.00'	152.86'	78.13'	151.21'	N75°30'54"E	29°11'40"
C7	300.00'	99.56'	50.24'	99.10'	N14°55'13"W	19°00'52"
C8	1528.00'	434.61'	218.78'	433.14'	S16°16'46"E	16°17'48"
C9	1528.00'	190.31'	95.28'	190.19'	S4°33'47"E	7°08'10"
C10	750.00'	194.91'	98.01'	194.36'	N71°98'98"W	14°53'24"
C11	1790.00'	77.62'	38.82'	77.61'	S13°32'07"E	2°29'04"
C12	1790.00'	130.03'	65.04'	130.00'	S10°12'43"E	4°09'43"
C13	1790.00'	222.94'	111.61'	222.80'	S4°33'47"E	7°08'10"
C14	300.00'	186.09'	96.15'	183.13'	S47°44'44"E	35°32'29"
C15	1000.00'	104.38'	52.24'	104.33'	N32°57'54"E	5°58'50"
C16	300.00'	47.06'	23.58'	47.01'	S31°27'41"E	8°59'16"
C17	400.00'	184.45'	93.89'	182.82'	S76°52'35"E	26°25'14"
C18	400.00'	154.95'	78.46'	153.98'	S52°34'08"E	22°11'40"
C19	300.00'	254.55'	135.50'	246.98'	S65°46'45"E	48°36'54"
C20	300.00'	120.91'	61.29'	120.10'	S60°04'29"W	23°05'34"
C21	300.00'	91.02'	45.86'	90.67'	S80°18'47"W	17°23'02"
C22	20.00'	31.42'	20.00'	28.28'	N45°59'42"E	90°00'00"
C23	274.00'	45.58'	22.84'	45.52'	S83°52'44"E	9°31'49"
C24	20.00'	27.96'	16.81'	25.74'	S39°03'34"W	80°06'31"
C25	20.00'	42.68'	36.29'	35.03'	N62°07'57"E	122°16'30"
C26	274.00'	39.22'	19.64'	39.19'	S52°37'45"W	8°12'06"
C27	20.00'	30.90'	19.49'	27.92'	S41°16'14"W	88°30'57"
C28	50.00'	24.47'	12.48'	24.23'	N25°58'03"W	28°02'23"
C29	50.00'	35.18'	18.36'	34.46'	N61°24'40"E	40°19'03"
C30	50.00'	35.48'	18.52'	34.74'	N48°41'53"E	40°39'23"
C31	50.00'	34.89'	18.19'	34.18'	N89°00'55"E	39°58'42"
C32	50.00'	24.47'	12.48'	24.23'	S56°58'32"E	28°02'23"
C33	20.00'	30.90'	19.49'	27.92'	N87°12'49"W	88°30'57"
C34	20.00'	31.42'	20.00'	28.28'	S3°31'42"W	90°00'00"
C35	274.00'	10.83'	5.41'	10.83'	S42°36'13"E	2°15'51"
C36	274.00'	64.33'	32.31'	64.18'	S50°27'47"E	13°27'29"
C37	274.00'	64.33'	32.31'	64.18'	S63°54'50"E	13°27'08"
C38	274.00'	65.40'	32.86'	65.25'	S77°28'41"E	13°40'34"
C39	274.00'	27.60'	13.81'	27.58'	S87°12'05"E	5°46'14"
C40	20.00'	31.73'	20.32'	28.51'	N44°27'33"E	90°54'30"
C41	20.00'	31.10'	19.69'	28.06'	N45°32'27"W	89°05'30"
C42	326.00'	13.68'	6.84'	13.67'	S88°53'06"E	2°24'13"
C43	326.00'	42.68'	21.37'	42.65'	S83°55'57"E	7°30'05"
C44	326.00'	42.68'	21.37'	42.65'	S76°25'51"E	7°30'05"
C45	326.00'	42.68'	21.37'	42.65'	S68°55'46"E	7°30'05"
C46	326.00'	42.68'	21.37'	42.65'	S61°25'41"E	7°30'05"
C47	326.00'	42.68'	21.37'	42.65'	S53°55'36"E	7°30'05"
C48	326.00'	42.68'	21.37'	42.65'	S46°25'30"E	7°30'06"
C49	326.00'	6.84'	3.42'	6.84'	S42°04'22"E	1°12'09"
C50	20.00'	31.42'	20.00'	28.28'	N86°28'18"W	90°00'00"
C51	20.00'	31.42'	20.00'	28.28'	S3°31'42"W	90°00'00"
C52	20.00'	31.42'	20.00'	28.28'	N86°28'18"W	90°00'00"
C53	426.00'	27.67'	13.84'	27.67'	S43°19'57"E	3°43'18"
C54	426.00'	77.58'	38.90'	77.47'	S50°24'37"E	10°26'04"
C55	20.00'	38.04'	28.02'	32.56'	N1°08'42"W	108°57'55"
C56	50.00'	28.12'	14.44'	27.75'	S37°13'34"W	32°13'23"
C57	50.00'	36.78'	19.27'	35.96'	S0°02'31"W	42°08'43"
C58	50.00'	38.86'	20.47'	37.89'	S43°17'39"E	44°31'37"
C59	50.00'	35.71'	18.66'	34.96'	S86°01'14"E	40°55'32"
C60	50.00'	35.71'	18.66'	34.96'	N53°03'14"E	40°55'32"
C61	50.00'	29.03'	14.93'	28.62'	N15°57'38"E	33°15'40"
C62	20.00'	38.04'	28.02'	32.56'	S53°48'46"W	108°57'55"
C63	426.00'	72.26'	36.22'	72.17'	S76°33'50"E	9°43'07"
C64	426.00'	64.41'	32.27'	64.35'	S85°45'18"E	8°39'48"
C65	20.00'	31.10'	19.69'	28.06'	N45°32'27"W	89°05'30"
C66	20.00'	31.73'	20.32'	28.51'	S44°27'33"W	90°54'30"
C67	374.00'	38.28'	19.16'	38.26'	S44°24'12"E	5°51'49"
C68	374.00'	59.07'	29.60'	59.01'	S51°51'35"E	9°02'57"
C69	374.00'	59.07'	29.60'	59.01'	S60°54'32"E	9°02'57"
C70	374.00'	59.07'	29.60'	59.01'	S69°57'29"E	9°02'57"
C71	374.00'	59.07'	29.60'	59.01'	S79°00'26"E	9°02'57"
C72	374.00'	42.79'	21.42'	42.76'	S86°48'33"E	6°33'17"
C73	20.00'	31.73'	20.32'	28.51'	N44°27'33"E	90°54'30"
C74	20.00'	31.10'	19.69'	28.06'	S45°32'27"E	89°05'30"
C75	20.00'	31.73'	20.32'	28.51'	N44°27'33"E	90°54'30"
C76	20.00'	31.10'	19.69'	28.06'	N45°32'27"W	89°05'30"
C77	20.00'	31.73'	20.32'	28.51'	S44°27'33"W	90°54'30"
C78	20.00'	31.10'	19.69'	28.06'	N45°32'27"W	89°05'30"
C79	1392.00'	36.13'	18.07'	36.13'	S1°44'19"E	1°29'14"
C80	1392.00'	43.99'	22.00'	43.99'	S3°23'15"E	1°48'39"
C81	1392.00'	43.99'	22.00'	43.99'	S5°11'54"E	1°48'39"
C82	1392.00'	43.99'	22.00'	43.99'	S7°00'33"E	1°48'39"
C83	1392.00'	43.99'	22.00'	43.99'	S8°49'12"E	1°48'39"
C84	1392.00'	43.99'	22.00'	43.99'	S10°37'51"E	1°48'39"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C85	1392.00'	43.99'	22.00'	43.99'	S12°26'30"E	1°48'39"
C86	1392.00'	43.99'	22.00'	43.99'	S14°15'09"E	1°48'39"
C87	1392.00'	43.99'	22.00'	43.99'	S16°03'48"E	1°48'39"
C88	1392.00'	43.99'	22.00'	43.99'	S17°52'27"E	1°48'39"
C89	1392.00'	43.99'	22.00'	43.99'	S19°41'06"E	1°48'39"
C90	1392.00'	43.99'	22.00'	43.99'	S21°29'45"E	1°48'39"
C91	1392.00'	43.99'	22.00'	43.99'	S23°18'24"E	1°48'39"
C92	1392.00'	44.13'	22.07'	44.13'	S25°07'13"E	1°48'59"
C93	1392.00'	43.08'	21.54'	43.08'	S26°54'54"E	1°46'23"
C94	1392.00'	164.77'	82.48'	164.67'	S34°56'13"E	6°46'55"
C95	20.00'	29.47'	18.14'	26.88'	S73°45'31"E	84°25'30"
C96	326.00'	29.45'	14.73'	29.44'	N66°37'00"E	5°10'33"
C97	326.00'	43.62'	21.84'	43.59'	N73°02'17"E	7°40'01"
C98	326.00'	43.62'	21.84'	43.59'	N80°42'18"E	7°40'01"
C99	326.00'	31.71'	15.87'	31.70'	N87°19'32"E	5°34'25"
C100	20.00'	32.52'	21.14'	29.06'	N18°47'08"E	93°10'28"
C101	274.00'	87.42'	44.09'	87.05'	N74°30'49"E	18°16'52"
C102	20.00'	29.21'	17.91'	26.68'	S54°30'13"E	83°41'06"
C103	326.00'	24.78'	12.40'	24.77'	N14°50'19"W	4°21'19"
C104	326.00'	42.17'	21.11'	42.14'	N20°43'19"W	7°24'41"
C105	1502.00'	5.65'	2.83'	5.65'	S24°19'11"E	0°12'56"
C106	1502.00'	47.47'	23.74'	47.47'	S23°18'24"E	1°48'39"
C107	1502.00'	47.47'	23.74'	47.47'	S21°29'45"E	1°48'39"
C108	1502.00'	47.47'	23.74'	47.47'	S19°41'06"E	1°48'39"
C109	1502.00'	47.47'	23.74'	47.47'	S17°52'27"E	1°48'39"
C110	1502.00'	47.47'	23.74'	47.47'	S16°03'48"E	1°48'39"
C111	1502.00'	47.47'	23.74'	47.47'	S14°15'09"E	1°48'39"
C112	1502.00'	47.47'	23.74'	47.47'	S12°26'30"E	1°48'39"
C113	1502.00'	47.47'	23.74'	47.47'	S10°37'51"E	1°48'39"
C114	1502.00'	47.47'	23.74'	47.47'	S8°49'12"E	1°48'39"
C115	1502.00'	47.47'	23.74'	47.47'	S7°00'33"E	1°48'39"
C116	1502.00'	47.47'	23.74'	47.47'	S5°11'54"E	1°48'39"
C117	1502.00'	47.47'	23.74'	47.47'	S3°23'15"E	1°48'39"
C118	1502.00'	38.99'	19.49'	38.99'	S1°44'19"E	1°29'14"
C119	1554.00'	148.13'	74.12'	148.07'	S3°43'32"E	5°27'41"
C120	20.00'	30.83'	19.42'	27.87'	N37°42'22"E	88°19'31"
C121	20.00'	30.83'	19.42'	27.87'	N53°58'06"W	88°19'31"
C122	1554.00'	85.73'	42.88'	85.72'	S11°23'10"E	3°09'40"
C123	1554.00'	45.26'	22.63'	45.26'	S13°48'04"E	1°40'08"
C124	1554.00'	45.26'	22.63'	45.26'	S15°28'12"E	1°40'08"
C125	1554.00'	45.26'	22.63'	45.26'	S17°08'20"E	1°40'08"
C126	1554.00'	45.26'	22.63'	45.26'	S18°48'27"E	1°40'08"
C127	1554.00'	79.50'	39.76'	79.49'	S21°06'27"E	2°55'52"
C128	1554.00'	50.30'	25.15'	50.30'	S23°30'01"E	1°51'16"
C129	274.00'	35.35'	17.70'	35.33'	N20°43'53"W	7°23'34"
C130	20.00'	27.40'	27.10'	32.18'	N36°32'19"E	107°08'50"
C131	40.00'	17.19'	8.73'	17.06'	S77°48'08"W	24°37'12"
C132	70.00'	3.16'	1.58'	3.16'	N66°47'13"E	2°35'22"
C133	70.00'	42.08'	21.70'	41.45'	N85°18'16"E	34°26'44"
C134	70.00'	35.00'	17.87'	34.64'	S63°08'56"E	28°38'52"
C135	70.00'	35.00'	17.87'	34.64'	S34°30'04"E	28°38'52"
C136	70.00'	54.86'	28.93'	53.47'	S2°16'32"W	44°54'18"
C137	40.00'	17.31'	8.79'	17.18'	N12°19'45"E	24°47'51"
C138	724.00'	35.61'	17.81'	35.60'	N11°28'43"W	2°49'04"
C139	724.00'	52.67'	26.35'	52.66'	N4°58'18"W	4°10'06"
C140	724.00'	52.63'	26.33'	52.62'	N9°08'18"W	4°09'54"
C141	724.00'	44.95'	22.48'	44.94'	N12°59'57"W	3°33'25"
C142	1816.00'	34.20'	17.10'	34.20'	S14°14'17"E	1°04'45"
C143	20.00'	30.49'	19.10'	27.62'	N57°22'41"W	87°21'33"
C144	30.00'	47.12'	30.00'	42.43'	S44°53'16"E	90°00'00"
C145	776.00'	53.39'	26.71'	53.38'	N1°51'32"W	3°56'35"
C146	776.00'	49.35'	24.68'	49.34'	N3°39'07"W	3°38'37"
C147	776.00'	50.69'	25.36'	50.68'	N9°20'43"W	3°44'35"
C148	776.00'	48.23'	24.12'	48.22'	N12°59'50"W	3°33'39"
C149	1764.00'	2.64'	1.32'	2.64'	S14°44'05"E	0°05'09"
C150	1764.00'	57.06'	28.53'	57.06'	S13°45'54"E	1°51'12"
C151	1764.00'	98.40'	49.21'	98.38'	S11°14'26"E	3°11'46"
C152	20.00'	31.94'	20.53'	28.65'	S36°06'48"W	91°30'41"
C153	20.00'	31.94'	20.53'	28.65'	S52°22'31"E	91°30'41"
C154	1764.00'	173.17'	86.65'	173.10'	S3°48'26"E	5°37'29"
C155	1816.00'	40.76'	20.38'	40.76'	S1°38'16"E	1°17'09"
C156	1816.00'	46.69'	23.34'	46.68'	S3°01'02"E	1°28'23"
C157	1816.00'	46.69'	23.34'	46.68'	S4°29'25"E	1°28'23"
C158	1816.00'	46.69'	23.34'	46.68'	S5°57'48"E	1°28'23"
C159	1816.00'	47.22'	23.61'	47.22'	S7°26'41"E	1°29'23"
C160	1816.00'	53.58'	41.80'	53.57'	S9°30'29"E	2°38'13"
C161	20.00'	31.34'	19.92'	28.23'	N34°03'29"E	89°46'08"
C162	274.00'	68.87'	34.62'	68.69'	N86°08'36"E	14°24'06"
C163	274.00'	78.55'	39.55'	78.28'	S78°26'34"E	16°25'35"
C164	274.00'	150.86'	77.39'	148.96'	S54°27'25"E	31°32'44"
C165	20.00'	31.14'	19.73'	28.09'	S5°55'37"W	89°13'16"
C166	20.00'	17.08'	9.10'	16.56'	S74°59'49"W	48°55'04"
C167	50.00'	53.96'	29.94'	51.38'	N68°32'27"E	61°49'48"
C168	50.00'	32.74'	16.98'	32.16'	N18°52'08"E	37°30'49"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C169	50.00'	32.74'	16.98'	32.16'	N18°38'41"W	37°30'49"
C170	50.00'	32.14'	16.65'	31.59'	N55°49'05"W	36°49'59"
C171	50.00'	32.14'	16.65'	31.59'	S87°20'56"W	36°49'59"
C172	50.00'	40.55'	21.46'	39.45'	S45°42'02"W	46°27'50"
C173	50.00'	18.19'	9.20'	18.09'	S12°02'40"W	20°50'53"
C174	20.00'	17.08'	9.10'	16.56'	N26°04'45"E	48°55'04"
C175	20.00'	33.69'	22.42'	29.85'	S81°12'02"E	96°31'23"
C176	1026.00'	54.01'	27.01'	54.01'	N34°26'50"W	3°00'59"
C177	274.00'	42.98'	21.54'	42.94'	S31°27'41"E	8°59'16"
C178	326.00'	38.41'	19.23'	38.39'	N82°19'04"E	6°45'02"
C179	326.00'	20.10'	10.06'	20.10'	N87°27'34"E	3°32'00"
C180	326.00'	41.29'	20.67'	41.26'	S87°08'44"E	7°15'23"
C181	326.00'	42.43'	21.25'	42.40'	S79°47'18"E	7°27'29"
C182	326.00'	42.43'	21.25'	42.40'	S72°19'49"E	7°27'29"
C183	326.00'	42.43'	21.25'	42.40'	S64°52'20"E	7°27'29"
C184	326.00'	42.43'	21.25'	42.40'	S57°24'51"E	7°27'29"
C185	326.00'	42.43'	21.25'	42.40'	S49°57'23"E	7°27'29"
C186	326.00'	42.43'	21.25'	42.40'	S42°29'54"E	7°27'29"
C187	326.00'	44.73'	22.40'	44.69'	S34°50'20"E	7°51'39"
C188	326.00'	5.31'	2.66'	5.31'	S30°26'30"E	0°56'01"
C189	974.00'	40.90'	20.45'	40.89'	N31°10'39"W	2°24'20"
C190	974.00'	46.28'	23.15'	46.28'	N33°44'30"W	2°43'22"
C191	974.00'	14.49'	7.24'	14.49'	N35°31'45"W	0°51'08"
C192	326.00'	31.82'	15.92'	31.81'	S33°09'32"E	5°35'34"
C193	326.00'	19.32'	9.66'	19.31'	S28°39'54"E	3°23'42"
C194	40.00'	17.19'	8.73'	17.06'	N39°16'39"W	24°37'12"
C195	70.00'	13.16'	6.60'	13.14'	S46°12'01"E	10°46'27"
C196	70.00'	109.15'	69.20'	98.42'	S35°12'28"W	89°20'30"
C197	30.00'	39.53'	23.23'	36.73'	S10°46'56"W	75°29'45"
C198	300.00'	186.09'	96.15'	183.13'	S83°11'3"E	35°32'29"

LINE TABLE		
LINE	LENGTH	BEARING
L1	26.53	N63°01'54"E
L2	61.01	N26°58'02"W
L3	24.00	S63°02'00"W
L4	42.00	N89°00'18"E
L5	42.00	S89°00'18"W
L6	38.72	S60°17'27"W
L7	10.26	N89°53'16"W
L8	77.65	S0°06'44"W
L9	56.93	S77°16'36"E
L10	56.71	S72°19'49"E
L11	56.71	S64°52'20"E
L12	56.71	S57°24'51"E
L13	58.83	S65°35'30"E
L14	66.51	S89°54'48"W
L15	73.40	S26°20'02"W
L16	69.86	N41°28'18"W
L17	44.19	N41°28'18"W
L18	42.01	S89°54'48"W
L19	46.37	S89°00'18"W
L20	42.00	S89°00'18"W

NOTES:

1. WATER AND SEWER SERVICES HAS BEEN EXTENDED TO THIS SUBDIVISION (MESQUITE HILLS UNIT 8) FROM EXISTING EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD FACILITIES AND WERE CONSTRUCTED AND OPERABLE AS OF AUGUST 2018.
2. 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 16.343, TEXAS WATER CODE IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
   INSTRUMENT No._____ DATE_____
3. TAX CERTIFICATE FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORDS SECTION.
   INSTRUMENT No. 20180090677-79 DATE 11/29/2018
4. VEHICULAR ACCESS TO THOSE RESIDENTIAL LOTS ABUTTING MESQUITE HILL DRIVE SHALL BE FROM OTHER DEDICATED STREETS ONLY. THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
   INSTRUMENT No._____ DATE_____
5. RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
   INSTRUMENT No. 20180090680 DATE 11/29/2018
6. LOT CORNERS BEING 1/2" REBAR WITH CAP MARKED TX 5152 WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.
7. "U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS".
8. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO 480214--0009D, DATED JANUARY 3, 1997, PROPERTY IS IN FLOOD HAZARD ZONE C "AREAS OF MINIMAL FLOODING".
9. ALL STORM WATER RUNOFF: SHALL BE ADDRESSED WITHIN THE SUBDIVISION LIMITS AND SHALL COMPLY WITH ALL PROVISIONS OF (DSC, 19.19.010A AND DDM, 11.1).
10. STREET CLASSIFICATION 52' R.O.W. = 32' LOCAL RESIDENTIAL 3.

SCHOOL DISTRICT

YSLETA INDEPENDENT SCHOOL DISTRICT
9600 SIMS DRIVE

TOTAL RESIDENTIAL LOTS
179

1) That no permits, including grading permits, be issued by the City until full provision for water and sewer are available from either PSB or the Developers and service is available for actual use.

2) At the time the PSB is able to provide water and sewer and that the development is required to hook up, at their expense, to the PSB water and sewer and that this be recorded in the plat and that a provision be made for the hook up.

Impact fees shall be calculated based on the table below:

Chapter 395 of the Texas Local Government Code authorizes the City of El Paso to adopt and impose water and wastewater impact fees. This plat note fulfills an obligation mandated by Chapter 395 and sets the assessment of the impact fees in accordance with the impact fee schedule adopted by City Council as set forth below. The collection of the impact fee for this subdivision shall be prior to the time a building permit is issued if development is within the city limits or at the time of the meter connection if development is outside of the city limits.

NORTHEAST SERVICE AREA

Meter Size	Meter Capacity Ratio	*Water ($)	Wastewater ($)
Less Than 1"	1.00	1,178.00	291.00
1"	1.67	1,967.00	485.00
1 1/2"	3.33	3,921.00	969.00
2"	5.33	6,276.00	1,551.00
3"	10.00	11,775.00	2,910.00
4"	16.67	19,629.00	4,851.00
6"	33.33	39,246.00	9,699.00
8"	53.33	62,796.00	15,519.00
10"	76.67	90,279.00	22,311.00
12"	143.33	168,771.00	41,709.00

* Fees do not apply to water meter or connections made for standby fire protection service.

SECTION 17, BLOCK 80, TSP 1 TEXAS & PACIFIC RAILWAY SURVEYS TRACT 1E NEWMAN RANCH PROPERTIES, L.L.C. FILE No. 20080086509

SECTION 17, BLOCK 80, TSP 1 TEXAS & PACIFIC RAILWAY SURVEYS TRACT 1D NEWMAN RANCH PROPERTIES, L.L.C. FILE No. 20060032208

SECTION 17, BLOCK 80, TOWNSHIP 1 TEXAS & PACIFIC RAILWAY SURVEYS TRACT 1E NEWMAN RANCH PROPERTIES, L.L.C. FILE No. 20080086509

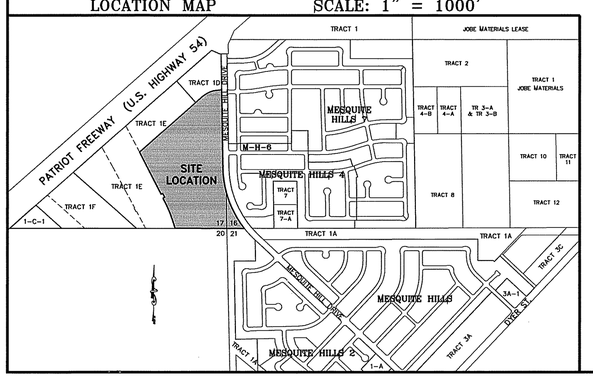
SECTION 17, BLOCK 80, TOWNSHIP 1 TEXAS & PACIFIC RAILWAY SURVEYS TRACT 1E NEWMAN RANCH PROPERTIES, L.L.C. FILE No. 20080086509

SECTION 20, BLOCK 80, TSP 1 TEXAS & PACIFIC RAILWAY SURVEYS TRACT 6 EL PASO WATER UTILITIES

SECTION 21, BLOCK 80, TOWNSHIP 1 TEXAS & PACIFIC RAILWAY SURVEYS TRACT 1A EL PASO WATER UTILITIES

LOCATION MAP

SCALE: 1" = 1000'



GRAPHIC SCALE

100' 0 50' 100' 200'

SCALE: 1"=100'

DATE OF PREPARATION: SEPTEMBER 16, 2014

CONDE INC.
ENGINEERING / PLANNING
GPS / SURVEYING / CADD
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286
REGISTRATION No. F-2321

DEDICATION

NEWMAN RANCH PARTNERS, L.P. property owner of this land hereby present this plat and dedicate to the use of the public, the streets, drives, park, pond, drainage R.O.W., drainage easement, restricted access easements, and utility easements as hereon laid down and designated, including easements for overhang of service wires for pole type utilities, and buried service wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction and the right to trim interfering trees and shrubs.

Witness our signature this 18th day of OCTOBER, 2018.

NEWMAN RANCH PARTNERS, L.P.
BY: NEWMAN RANCH, L.L.C.
ITS GENERAL PARTNER

By: _____
Douglas A. Schwartz, MANAGER

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 NEWMAN RANCH, L. L. C., GENERAL PARTNER OF NEWMAN RANCH PARTNERS, L.P., 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 partnership for the purpose and considerations herein expressed.

Given under my hand and seal of office this 18th day of OCTOBER, 2018.

Notary Public in and for El Paso County — My Commission Expires 01-31-2022

ANA M. GREGG
NOTARY PUBLIC
STATE OF TEXAS
My commission expires
JANUARY 31, 2022

CITY PLAN COMMISSION

This subdivision is hereby approved as to the platting and as to the condition of the dedication in accordance with Chapter 212 of the Local Government Code of Texas this 14th day of July, 2016

Executive Secretary — Chairperson

Approved for filing this 1st day of November, 2018.

Planning and Inspections Director

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 29th day of November, 2018, A.D. in File No. 20180090676

FOR RECORDING PURPOSES ONLY
County Clerk — By Deputy

Prepared by and under the supervision of:
YVONNE CONDE CURRY, P.E.
Registered Professional Engineer
Registration No. 64648

STATE OF TEXAS — YVONNE CONDE CURRY — 64648 — LICENSED PROFESSIONAL ENGINEER — 10/17/18

Yvonne Conde Curry, P.E.

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

Ron R. Conde,
Registered Professional Land Surveyor
Texas License No. 5152

STATE OF TEXAS — REGISTERED — G RONALD ROBERT CONDE — 5152 — PROFESSIONAL LAND SURVEYOR — 10-17-18

S:\CEVERO\DATA\CI\MESQ-HILLS-8.DWG, 10/17/2018 2:04:21 PM, ccortez

GENERAL NOTES:

1. IMPROVEMENT WITHIN CITY R.O.W. SHALL COMPLY WITH TITLE 19–SUBDIVISION ORDINANCE–"SUBDIVISION IMPROVEMENT DESIGN STANDARDS".
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.
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.
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 D1557.
4. REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 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.

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, IMPEDE 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/RESTABILIZED 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 IDLE FOR MORE THAN SEVEN CONSECUTIVE CALENDAR DAYS. STOCKPILING SHALL BE L AND LIMITED TO TEN FEET HIGH WHEN GRADING OPERATIONS ARE BEING CONDUCTED.

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.

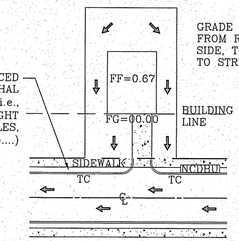
B. A COPY OF THE NOTICE OF TERMINATION FILED WITH THE STATE OR DATED CONSTRUCTION SITE NOTICE, IF APPLICABLE, IN ACCORDANCE WITH CHAPTER 15.

THE CITY WILL ISSUE A LETTER STATING GENERAL CONFORMANCE TO THE PERMIT S BEEN 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.

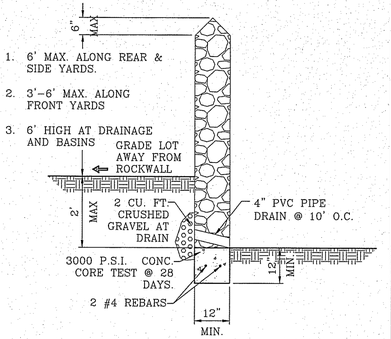
ALL UTILITIES SHALL BE PLACED IN PARKWAY. NO UTILITIES SHAL BE PLACED ON SIDEWALKS (i.e., NCDBU'S, FIRE HYDRANTS, LIGHT POLES, SIGNS, POWER POLES, etc....)



DRIVEWAY SLOPES MUST BE 10% MAXIMUM FROM GUTTER TO SIDEWALK, 2% FOR SIDEWALK AND 14% MAXIMUM THEREAFTER

TYPICAL LOT GRADING
SCALE: 1"=40'

1. 6' MAX. ALONG REAR & SIDE YARDS.
2. 3'–6' MAX. ALONG FRONT YARDS
3. 6' HIGH AT DRAINAGE AND BASINS



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.

NOTE:
ALL RETAINING WALLS EQUAL TO AND/OR HIGHER THAN 4' AND ALL WHEELCHAIR RAMPS TO BE BY DEVELOPER

SEE SHEET 25 – STRUCTURE DETAILS

A 3/4 — DETAIL No. / SECTION DETAIL SHEET / SECTION REFERENCE SHEET

FLOOD ZONE:
HEREON DESCRIBED TRACT LIES IN FLOOD ZONE C. COMMUNITY PANEL NO. 480214 0009D SEPTEMBER 3, 1997

LEGEND

FF=0.67 / FG=00.00	PROPOSED FINISH FLOOR / PROPOSED FINISH GROUND
00.00	PROPOSED SPOT ELEVATION
◆	HIGH POINT
▶◀	LOW POINT
4000	EXISTING CONTOUR
4000	EXISTING SPOT ELEVATION
4000	PROPOSED CONTOUR
	PROPOSED RETAINING WALL, RETAINING OVER 2'
	4" ROLL CURB
	6" CURB AND GUTTER

THE CITY OF EL PASO TEXAS — Final Approval

BENCHMARK
BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE — HORIZ: 1"=100' / VERT: ---
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL — JAVIER A. ACOSTA, 109225, LICENSED PROFESSIONAL ENGINEER, STATE OF TEXAS

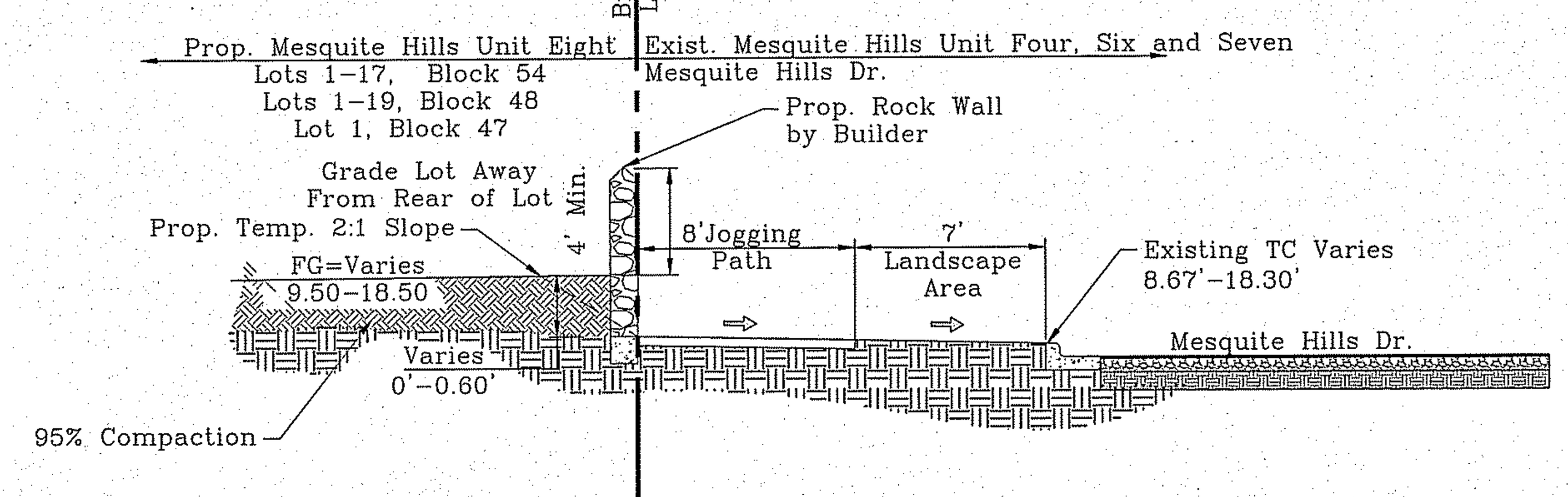
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE (915) 592-0283
FAX: (915) 592-0286
CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

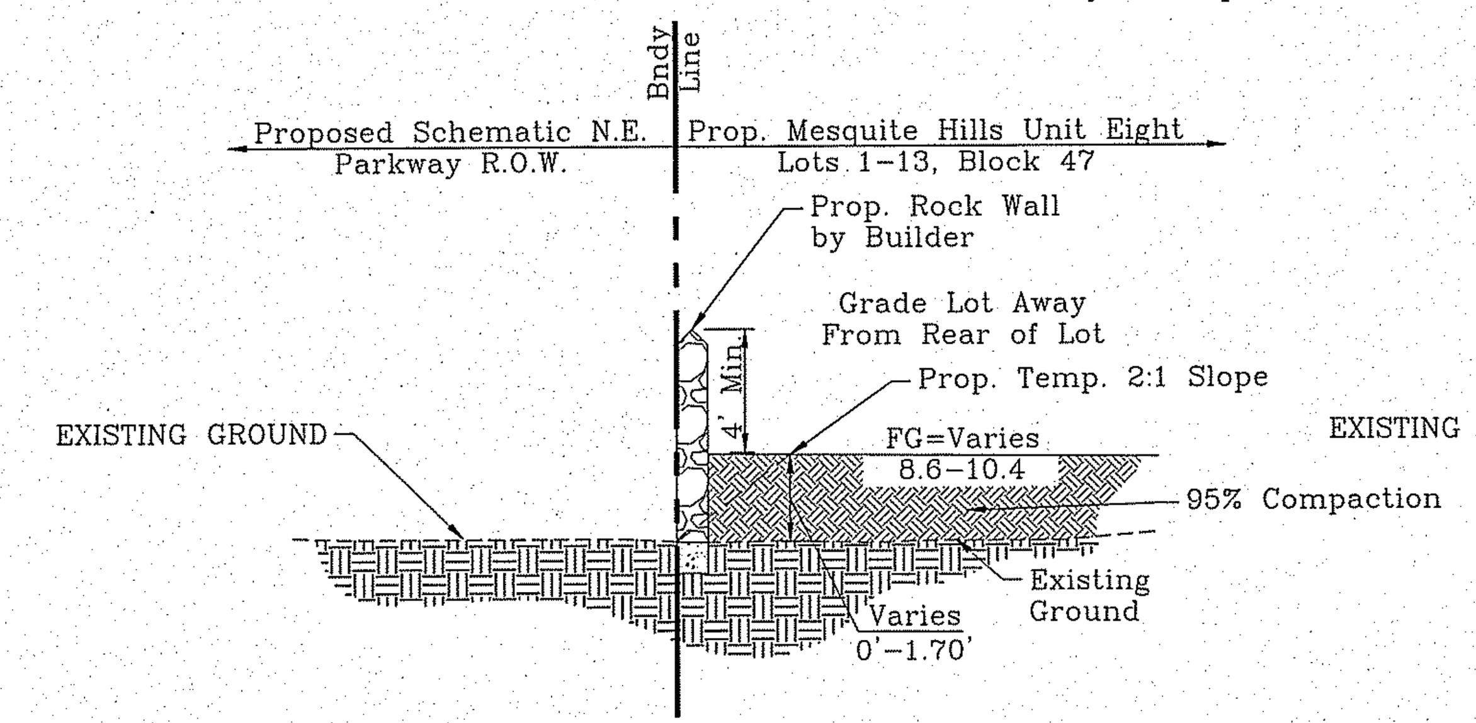
GRADING PLAN

SHT 3 OF 30

FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 – GDPL PLOTTED ON Thursday, November 17, 2016 2:07:23 PM BY ESTEBAN JUAREZ



SECTION A
SCALE: 1" = 6'



SECTION B
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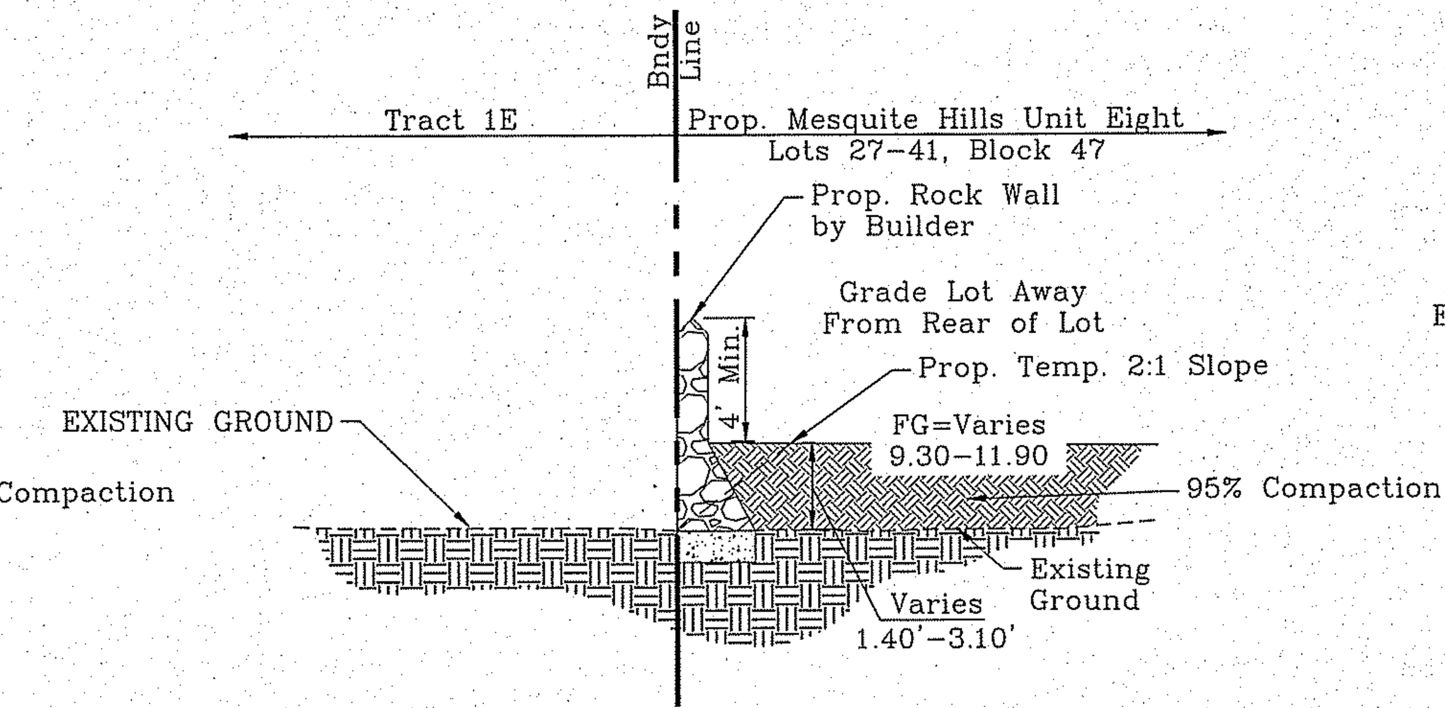
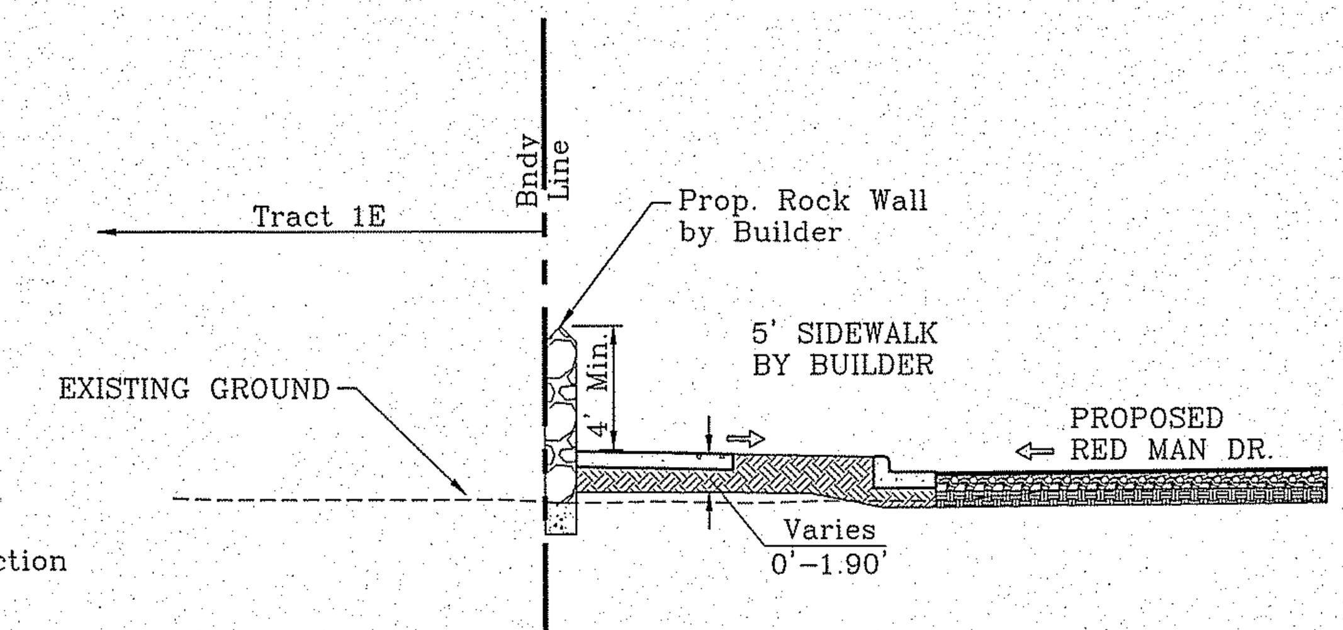
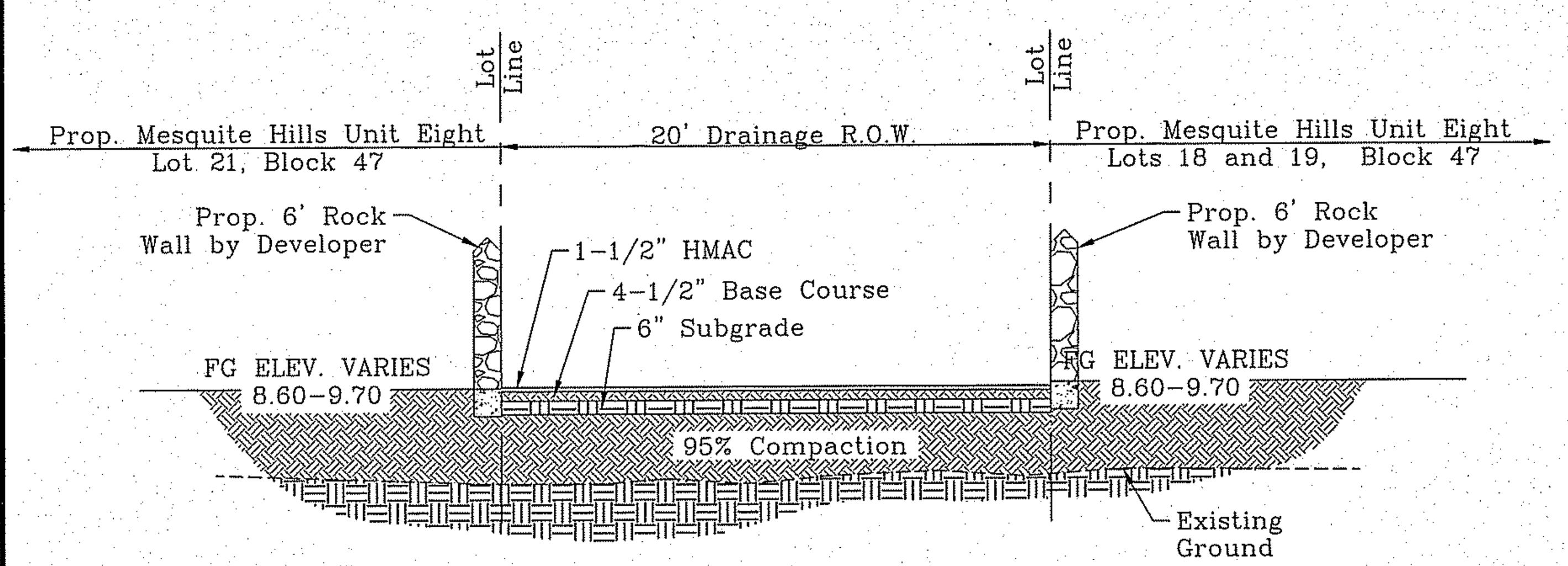


SECTION C
SCALE: 1" = 6'



SECTION D
SCALE: 1" = 6'



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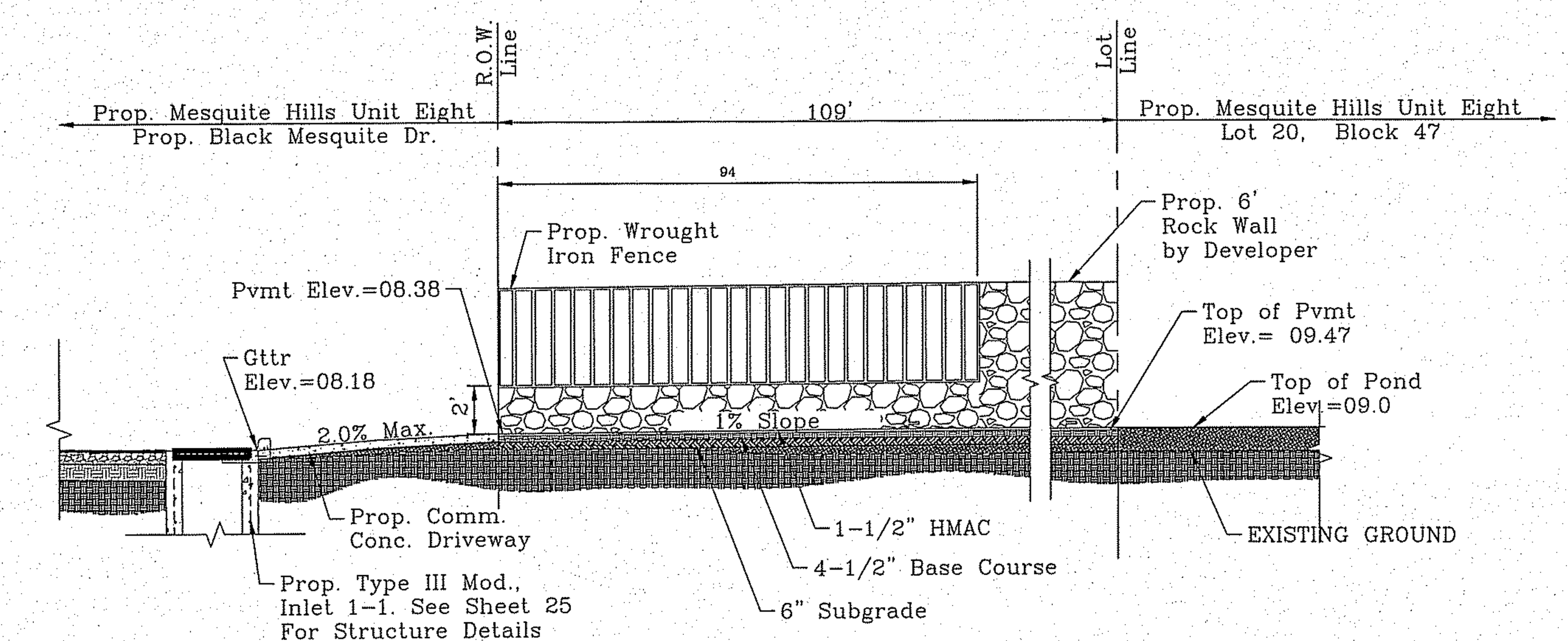

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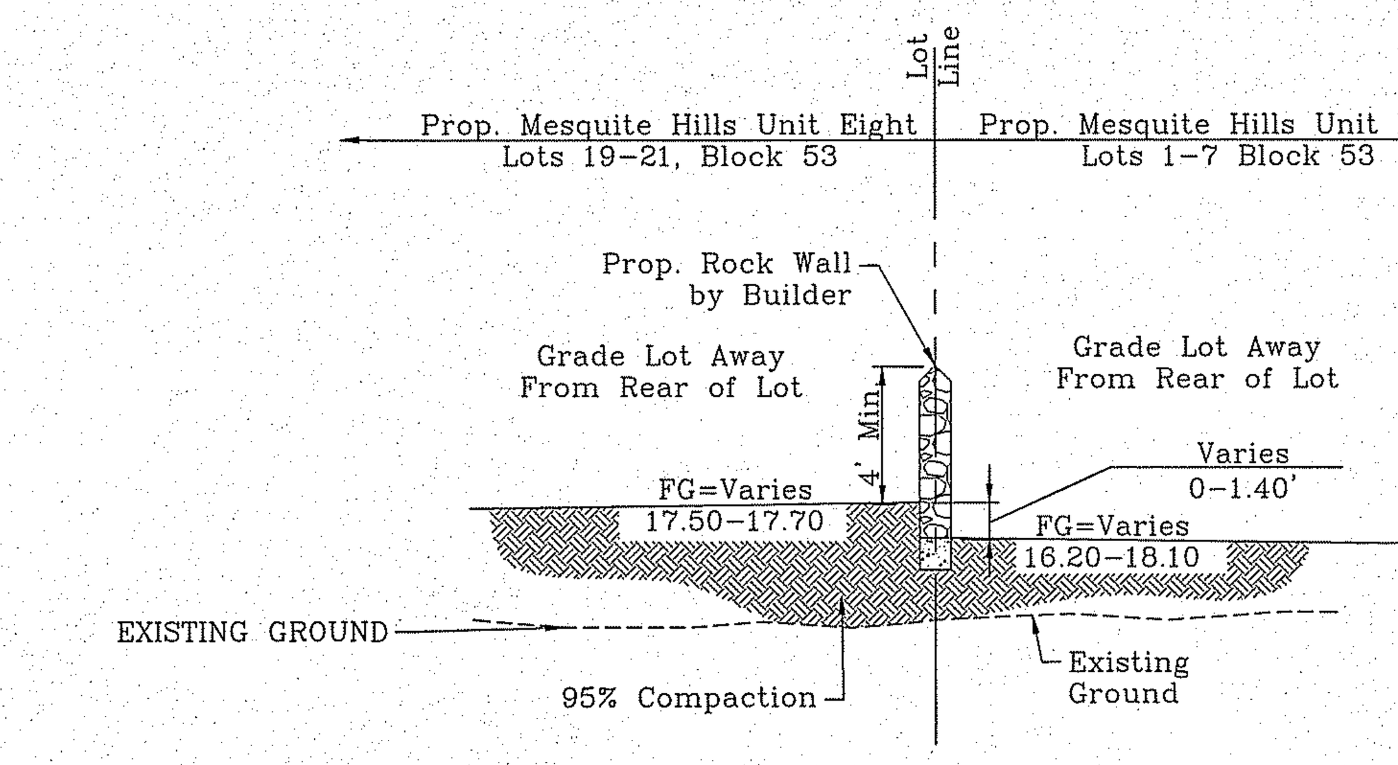

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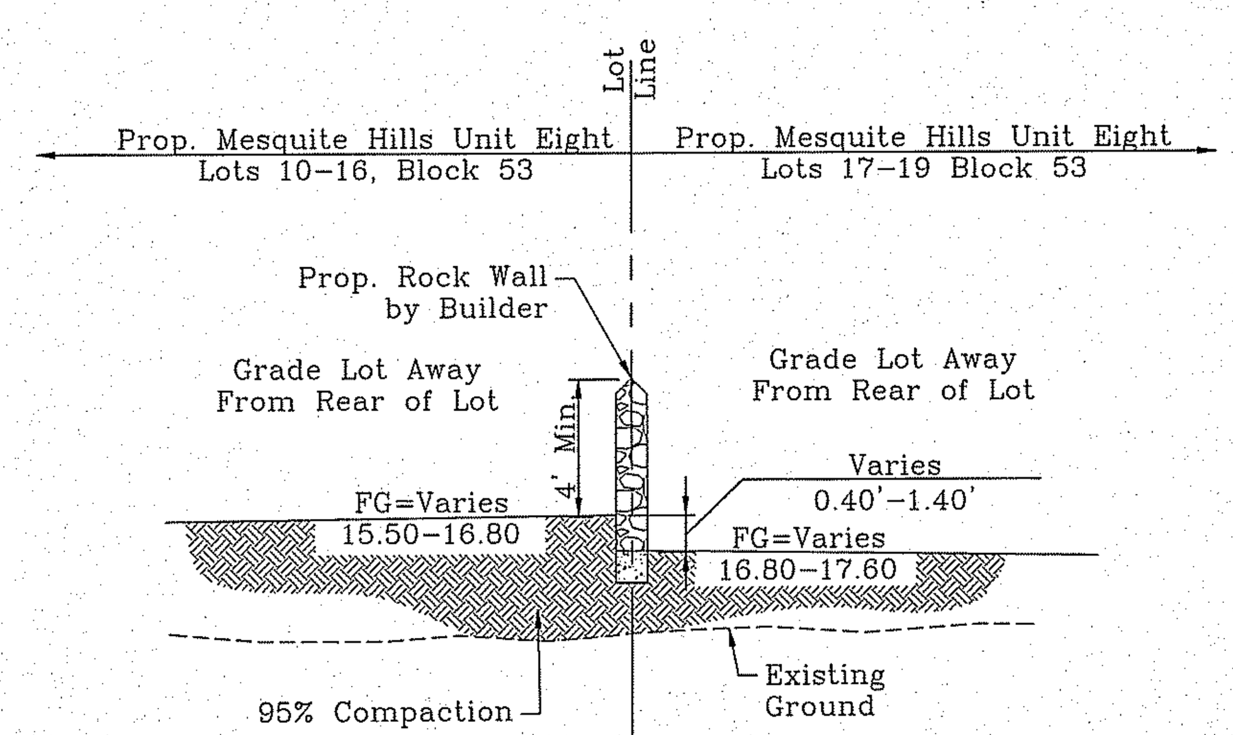
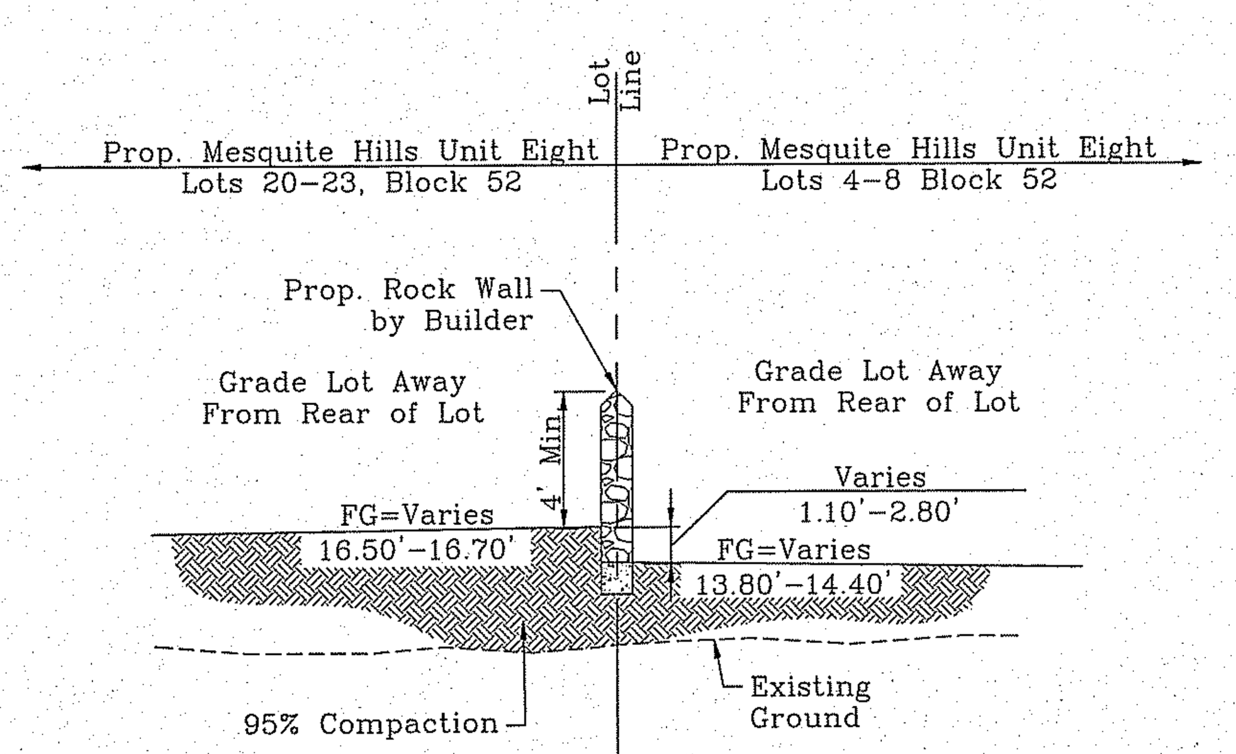
SCALE: 1" = 6'

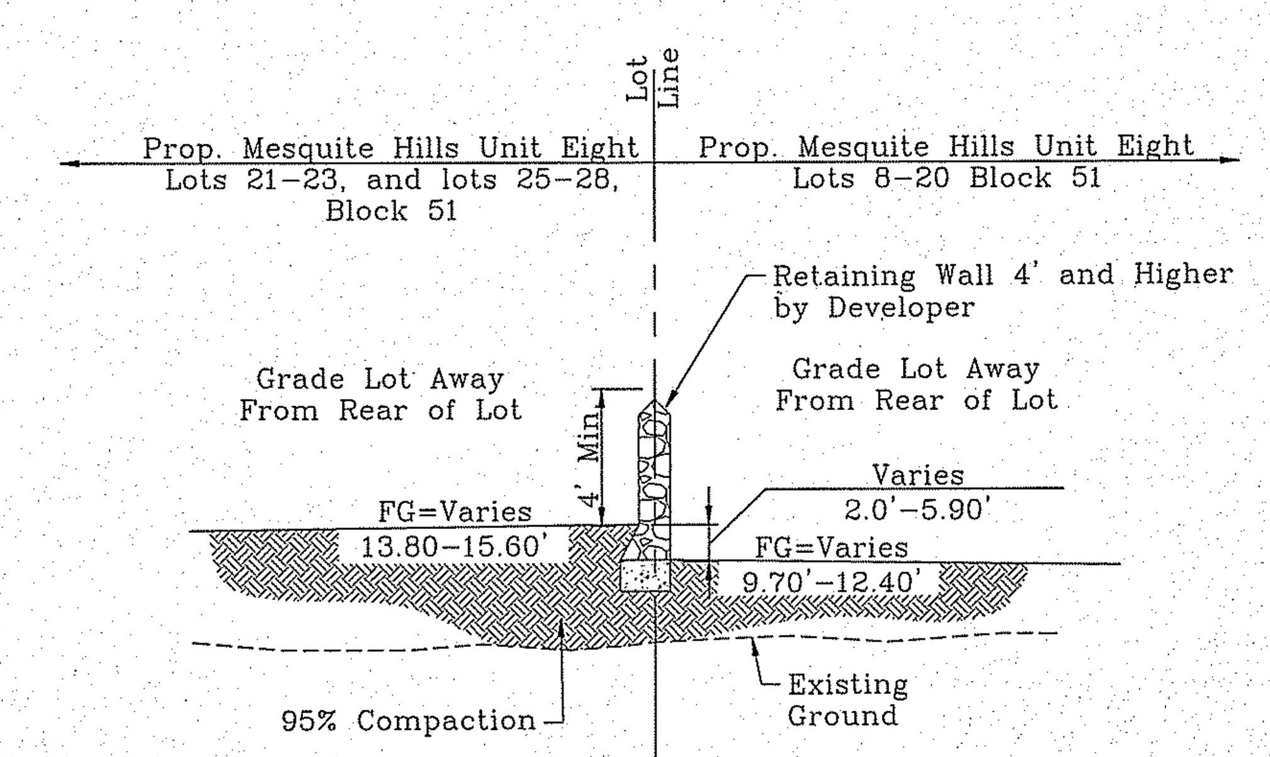


SECTION H
SCALE: 1" = 6'

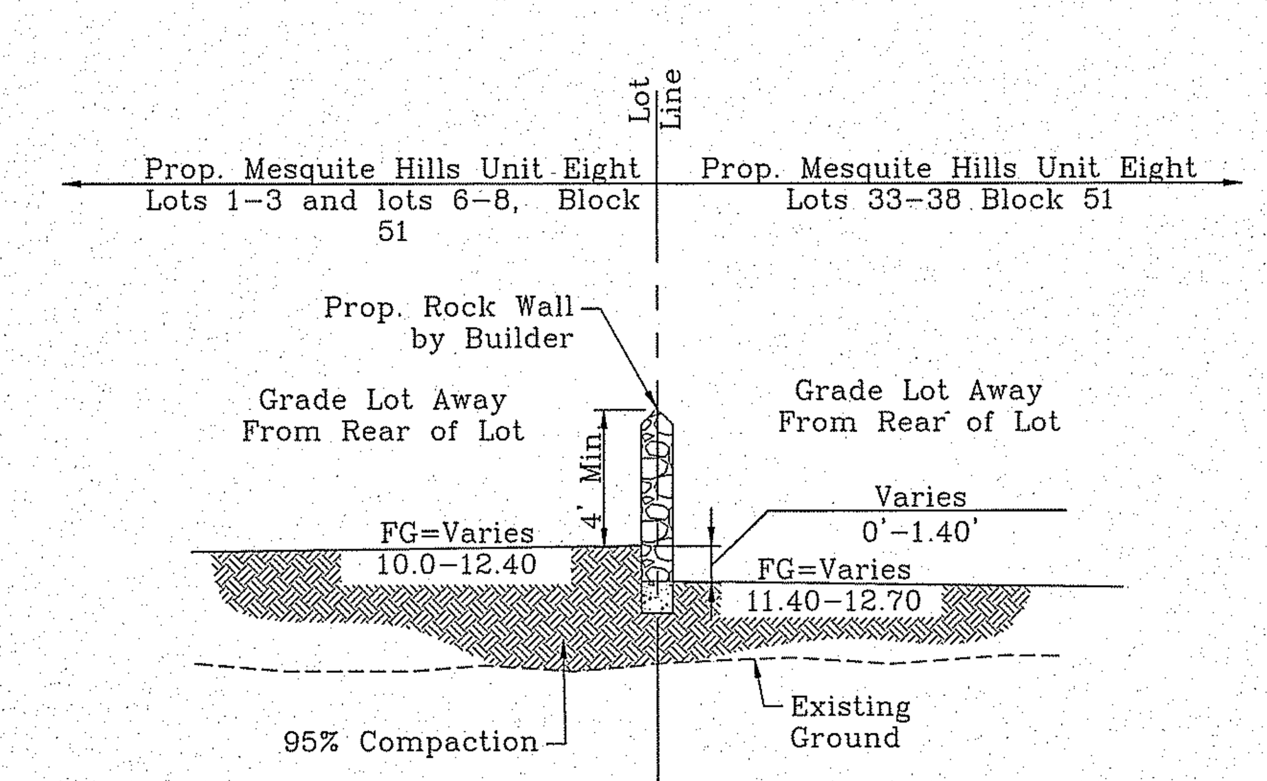


SECTION I
SCALE: 1" = 6'

NOTE:
ALL RETAINING WALLS EQUAL TO 4' OR MORE ARE TO BE BY DEVELOPER



SECTION J
SCALE: 1" = 6'



SECTION K
SCALE: 1" = 6'

THE CITY OF EL PASO TEXAS
Final Approval

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY
07/08/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ: as shown
VERT: shown

DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

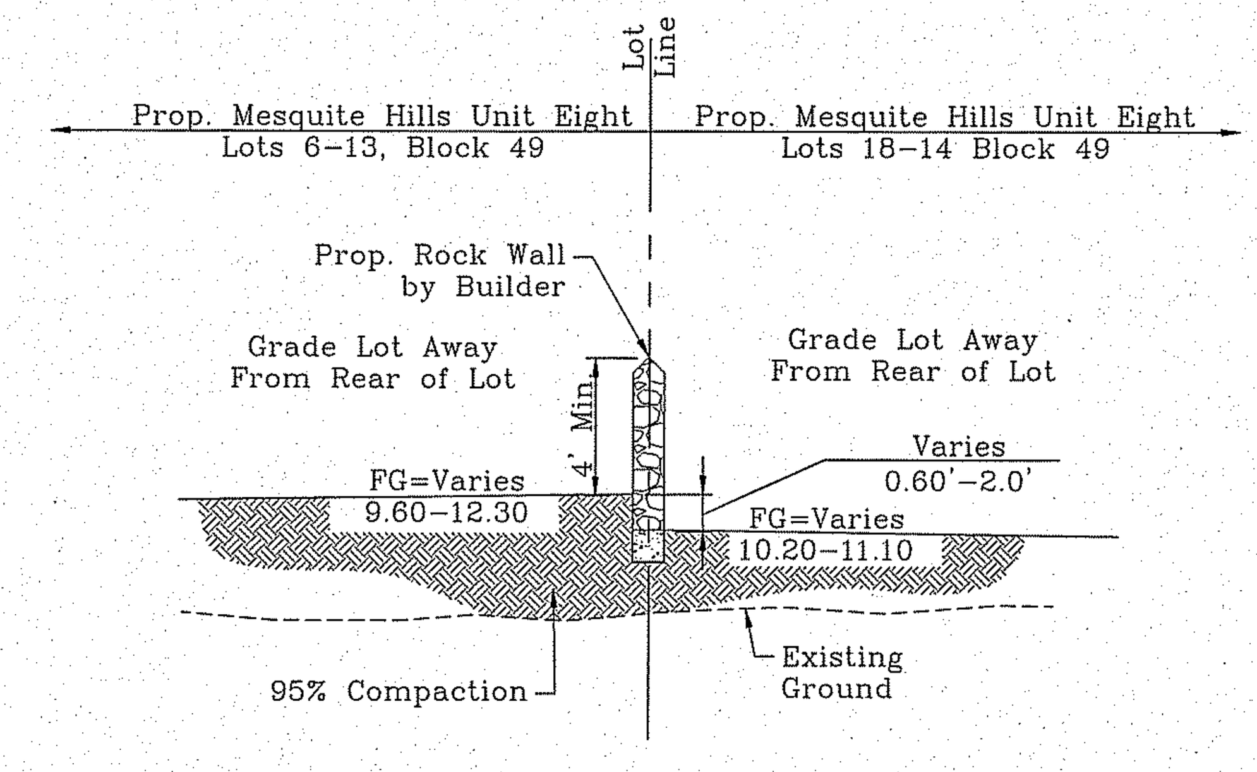
ENGINEER'S SEAL
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER

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

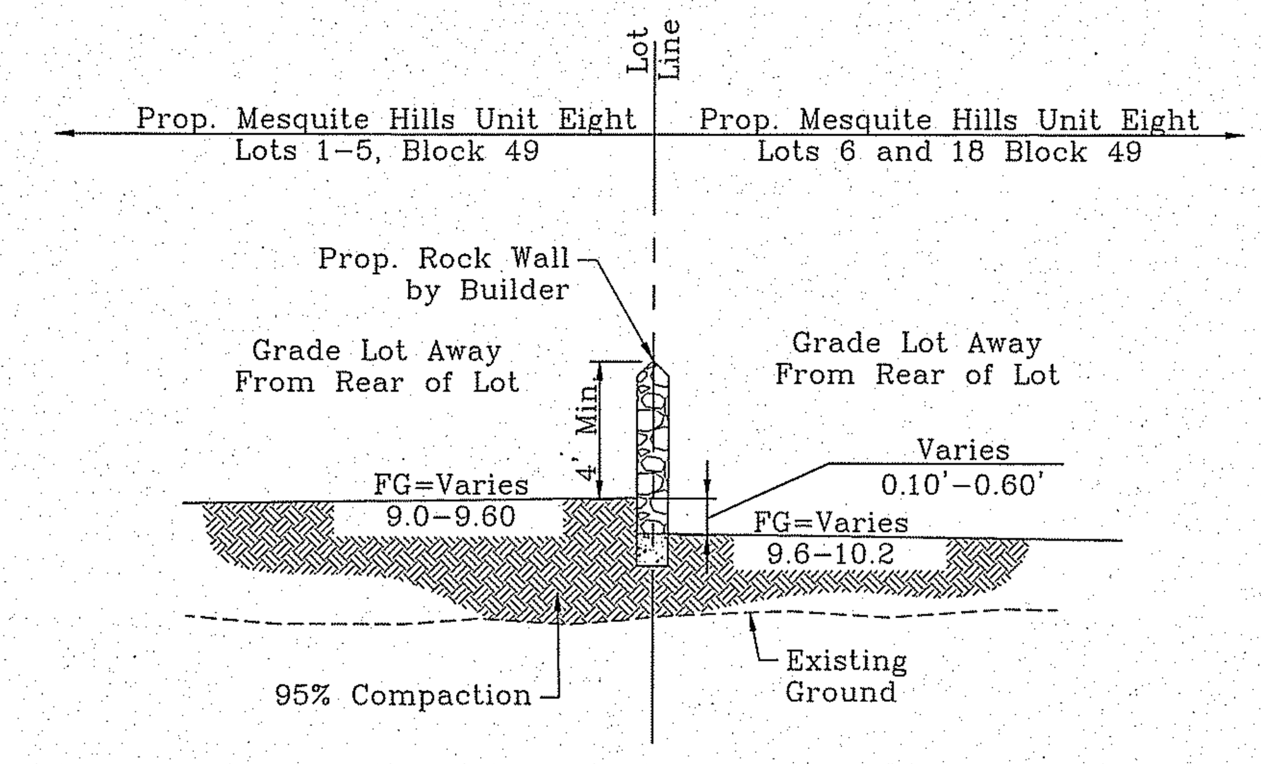
CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

GRADING SECTIONS



SECTION L
SCALE: 1" = 6'



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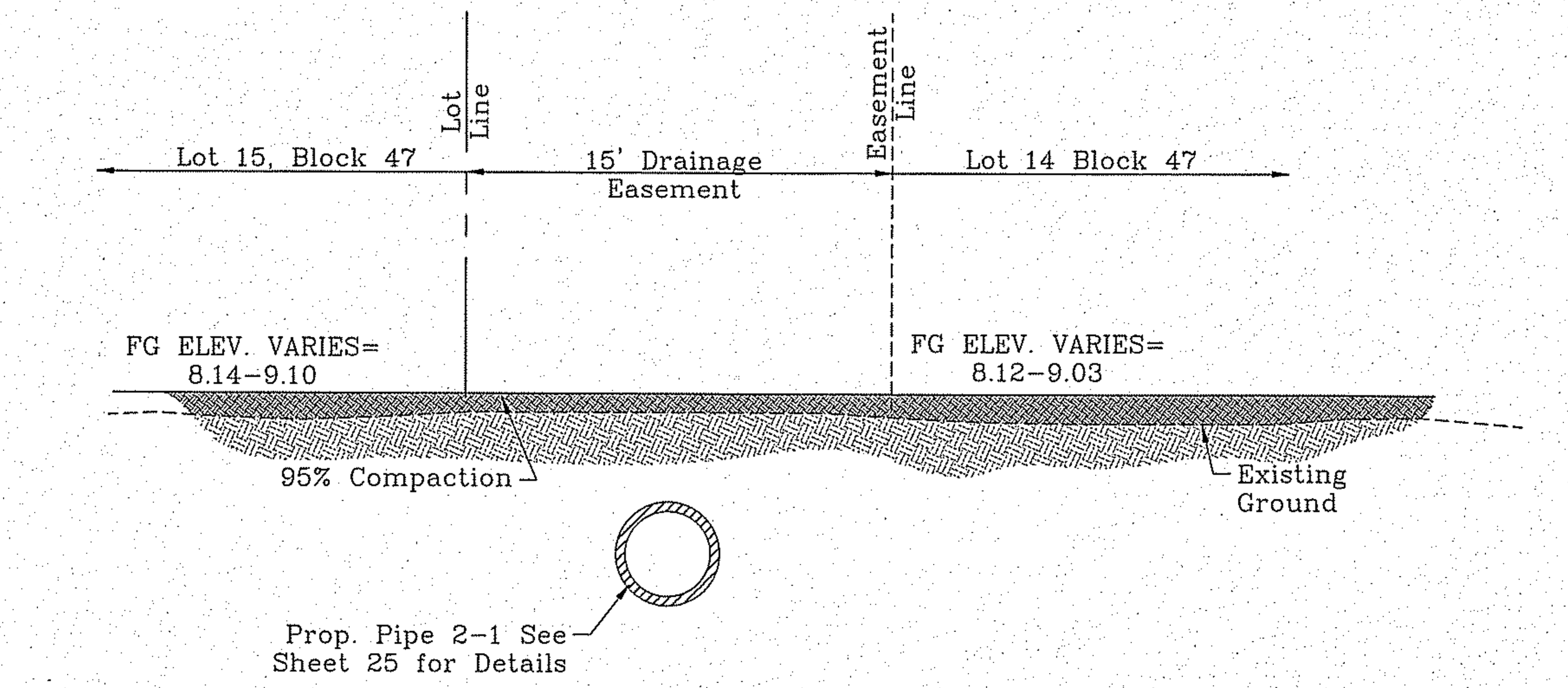
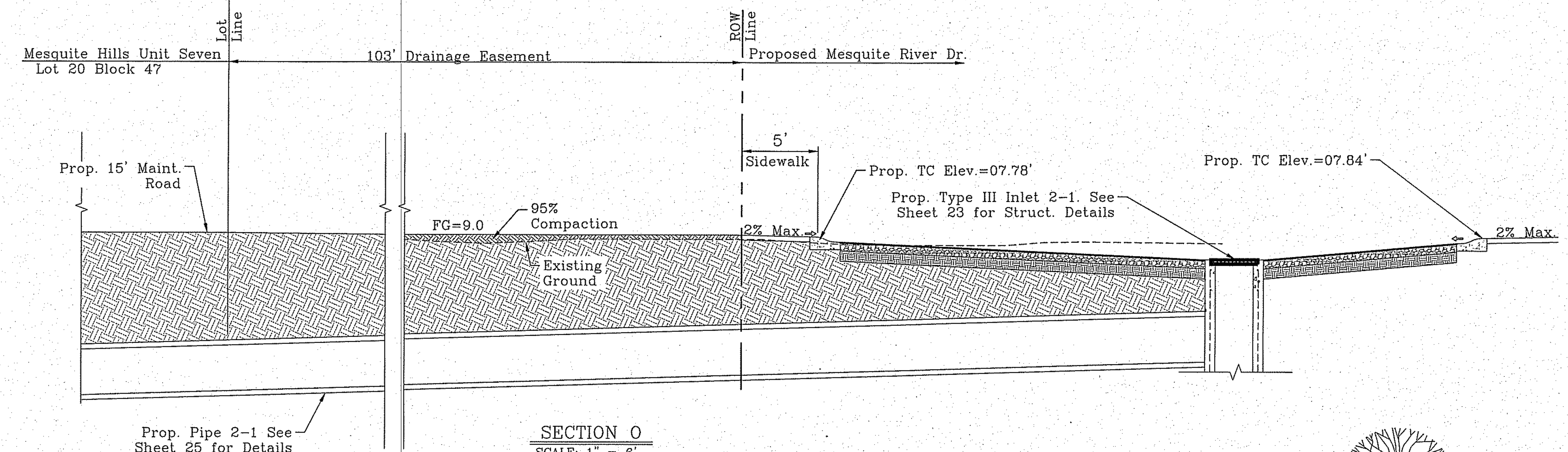
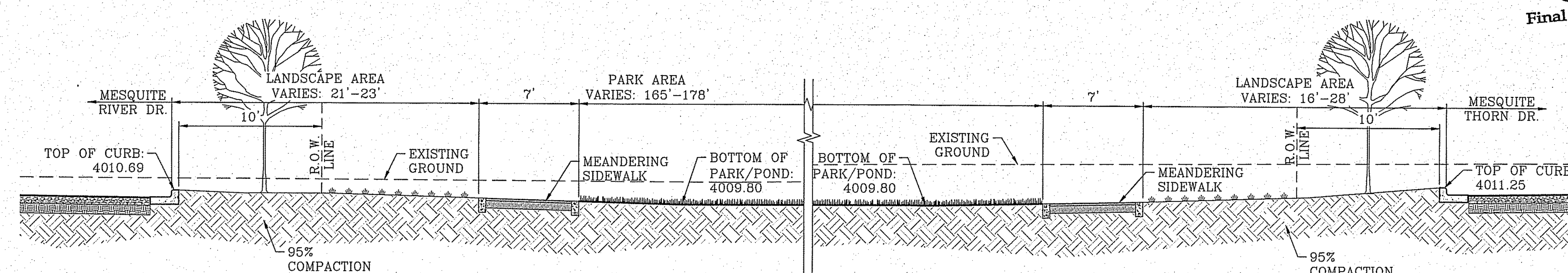
SCALE: 1" = 6'



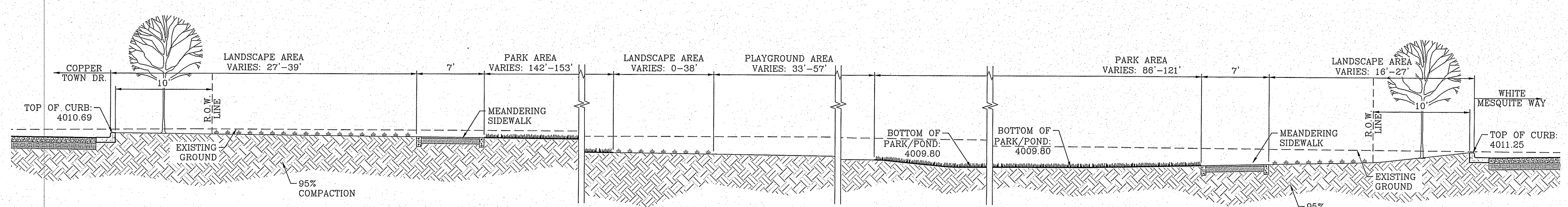
SECTION N
SCALE: 1" = 6'



SECTION O
SCALE: 1" = 6'



SECTION P
SCALE: 1" = 6'



SECTION Q
SCALE: 1" = 6'

NOTE:
ALL RETAINING WALLS EQUAL TO 4' OR MORE ARE TO BE BY DEVELOPER

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE.
ELEV.=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.
08/17/16	ADDITIONS OF SECTIONS P AND Q	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

S C A L E
HORIZ: as
VERT: shown
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL

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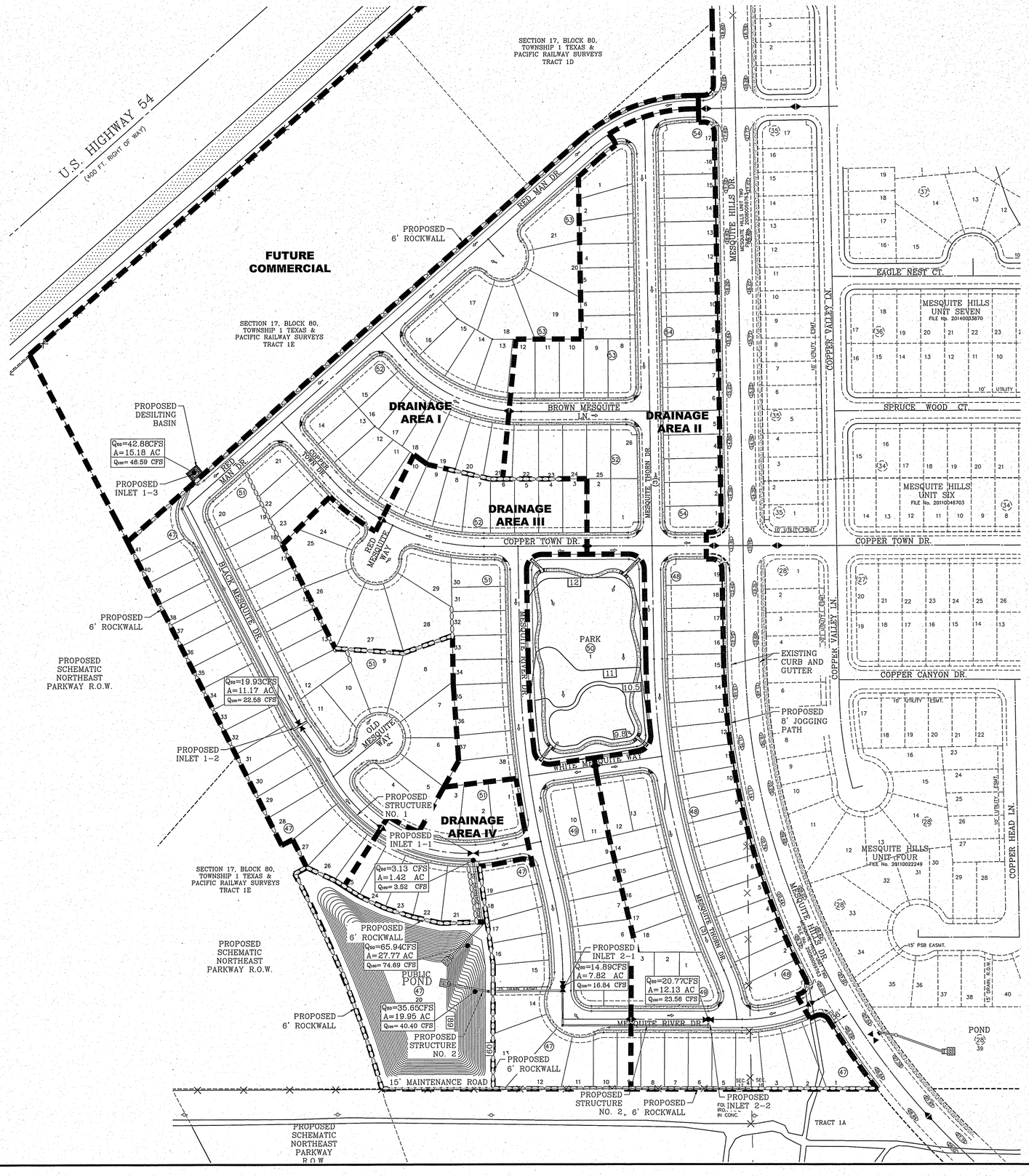
CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

GRADING SECTIONS



DRAINAGE CALCULATION TABLE							
DRAINAGE AREA	AREA (acres)	Tc (min)	C	I60 (in/hr)	Q60 (cfs)	I100 (in/hr)	Q100 (cfs)
I	11.17	19.0	0.60	2.97	19.93	3.37	22.58
II	12.13	21	0.60	2.85	20.77	3.24	23.56
III	7.82	16.0	0.60	3.17	14.89	3.59	16.84
IV	1.42	10.0	0.60	3.67	3.13	4.13	3.52
FUTURE COMMERCIAL	15.18	19.0	0.95	2.97	42.88	3.37	48.59
POND	2.29	FOR POND CALCULATIONS, SEE SHEET 24.					
PARK	2.08	FOR PARK CALCULATIONS, SEE THIS SHEET					

PARK-AREA-A

$Q = \frac{ARC}{12} = \frac{2.08(4)(0.4)}{12} = 0.27$

ELEVATION FT	AREA SQ-FT	CONIC VOL. AC-FT	VOLUME CAP. AC-FT
4009.80	13352.11	0.00	0.00
4010.50	24372.38	0.30	0.30

NOTE:

HEREON DESCRIBED TRACT LIES IN ZONE C, COMMUNITY PANEL NO. 480214 0009D. DATED SEPTEMBER 3, 1997.

LEGEND

FF=0.67 / FG=00.00	PROPOSED FINISH FLOOR / PROPOSED FINISH GROUND
00.00	PROPOSED SPOT ELEVATION
◆	HIGH POINT
▶◀	LOW POINT
4000	EXISTING CONTOUR
4000 ×	EXISTING SPOT ELEVATION
4000	PROPOSED CONTOUR
	PROPOSED RETAINING WALL, RETAINING OVER 2'
	4" ROLL CURB
	6" CURB AND GUTTER

Final Approval

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE.
ELEV.=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC R.R. CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
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SCALE
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DESIGN BY: Y.C.
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JOB NO.: 113-30

ENGINEER'S SEAL
JAVIER A. ACOSTA
103225
LICENSED PROFESSIONAL ENGINEER
NOV 17 2016

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CONDE INC.
REGISTRATION No. F-2321

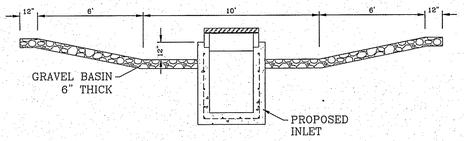
SHEET TITLE

DRAINAGE PLAN

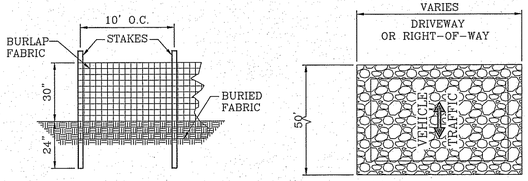
SHT 6 OF 30

MESQUITE HILLS UNIT 8

FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - GDPL PLOTTED ON Thursday, November 17, 2016 2:08:11 PM BY ESTEBAN JUAREZ

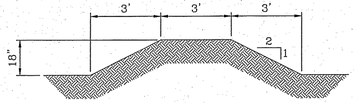


TEMPORARY STRUCTURE
DESILTING BASIN
SCALE: 1"=4'

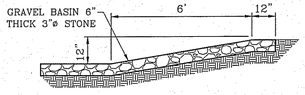


TYPICAL SILT FENCE
SCALE: 1"=3'

GRAVEL ENTRANCE
SCALE: 1"=3'



TYPICAL BERM
SCALE: 1"=3'



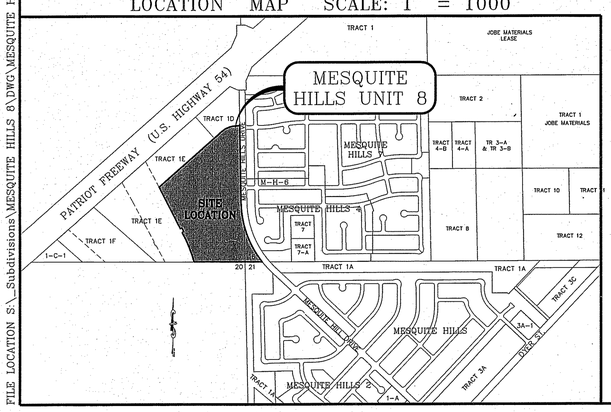
SECTION

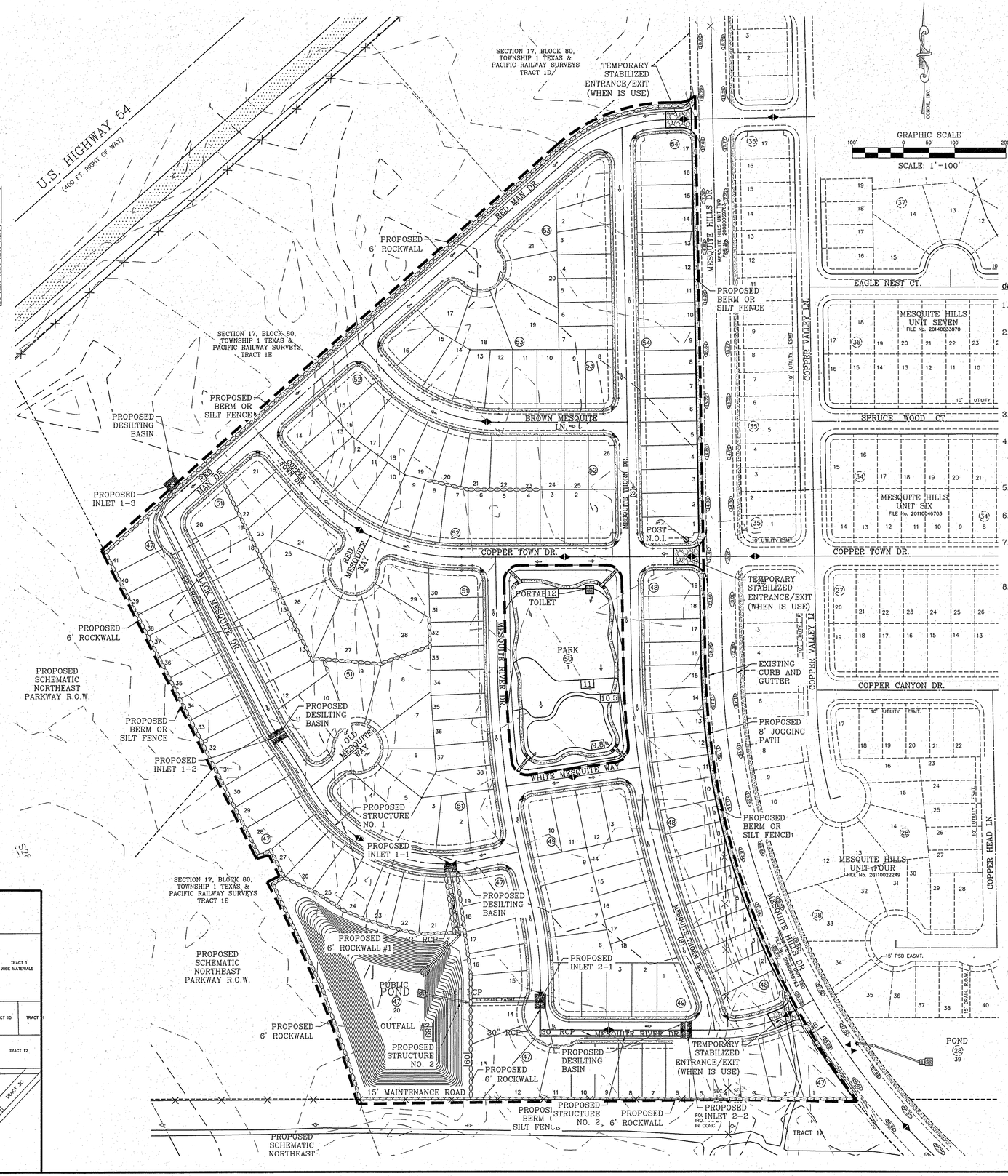
EROSION AND SEDIMENT CONTROLS
TEMPORARY STABILIZATION
SCALE: 1"=3'

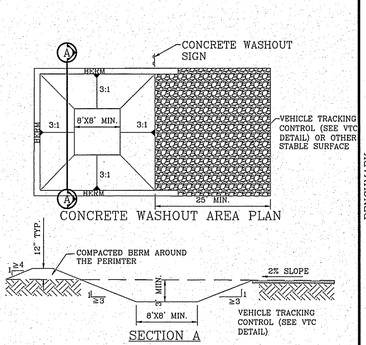
STABILIZED ENTRANCE
EROSION CONTROL NOTES

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 SWEPT 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 EFFECTIVENESSOF 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.

LOCATION MAP SCALE: 1" = 1000'







CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR: -CWA INSTALLATION LOCATION
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1000' OF ANY WELLS OR DRINKING WATER SOURCES. IF THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK SHALL HAVE A MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARD THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE AT THH CWA AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

Final Approval

NOTE:
STAGING AREA AND CONTAINMENT AREA LOCATED OFF-SITE

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=0.67 FG=00.00	PROPOSED FINISH FLOOR PROPOSED FINISH GROUND
00.00	PROPOSED SPOT ELEVATION
◆	HIGH POINT
◆	LOW POINT
4000	EXISTING CONTOUR
4000	EXISTING SPOT ELEVATION
4000	PROPOSED CONTOUR
	PROPOSED RETAINING WALL, RETAINING OVER 2'
	PROPOSED SILT FENCE
Q	RUN-OFF QUANTITY (CUBIC Ft/Sec)
A	WATERSHED AREA (ACRES)
⇨	DRAINAGE FLOW

MESQUITE HILLS UNIT 8

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE.
ELEV.=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1"=100'
VERT: ---
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

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

STORMWATER POLLUTION PREVENTION PLAN

SHT 7 OF 30

FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - GDPL PLOTTED ON Thursday, November 17, 2016 2:08:26 PM BY ESTEBAN JUAREZ

SITE DESCRIPTION: RESIDENTIAL SUBDIVISION
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 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		
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: JAVIER NAVARRO
PHONE NUMBER: (915) 494-4066

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 37.031 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 20 BLOCK 47

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):

CLEANING SOLVENTS	____	EQUIP. CLEANING WASTEWATER	____
ASPHALT	___X___	HYDRAULIC OIL/FLUIDS	___X___
CONCRETE	___X___	GASOLINE	___X___
PAINTS	____	DIESEL FUEL	___X___
CURING COMPOUNDS	___X___	ANTIFREEZE/COOLANT	___X___

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).

FIRE HYDRANT FLUSHING	___X___	WATER LINE FLUSHING WATER	___X___
VEHICLE WASH WATER	____	LANDSCAPE IRRIGATION	___X___
DUST CONTROL WATER	___X___	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.

ROBERT F. FOSTER, INC.
COMPANY:

SIGNED: _____
6080 SURETY DRIVE, SUITE 300
ADDRESS:

TITLE: _____
(915) 595-2775
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:

DOUGLAS A. SHWARTZ, MANAGER OF RANCHO REAL XIV, LLC.
OWNER: (NAME)

(915) 592-0290
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			
STABILIZATION MEASURES	INSPECTION DATE	MAINT. DATE	MAINTAINANCE TYPE
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			

THE CITY OF EL PASO TEXAS
Final Approval

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:

DOUGLAS A. SHWARTZ, MANAGER OF RANCHOS REAL XIV, LLC.
OWNER: (NAME)

(915) 592-0290
PHONE NUMBER:

BENCHMARK
BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME
MESQUITE HILLS UNIT 8
BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ: ---
VERT: ---
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
JAVIER A. NAVARRO
109223
LICENSED PROFESSIONAL ENGINEER
NOV 17 2016

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

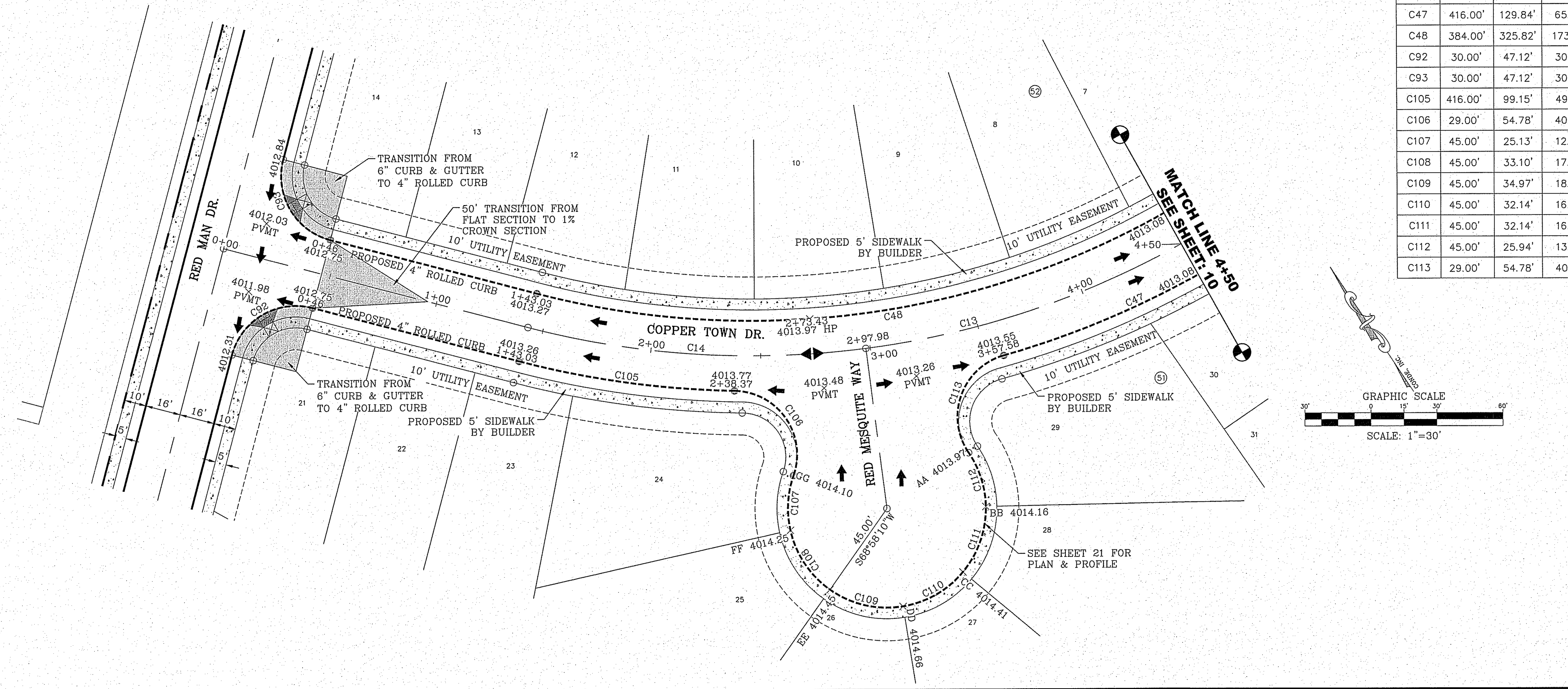
SHEET TITLE
STORMWATER POLLUTION PREVENTION PLAN NOTES NOTES

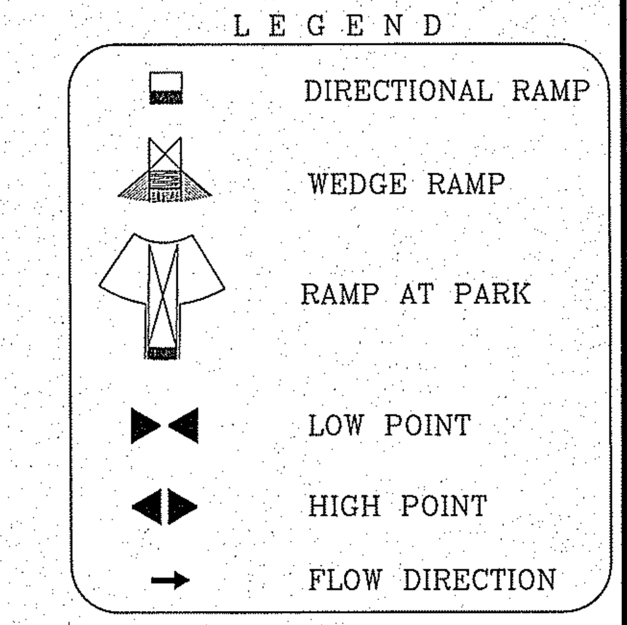
SHT 8 OF 30

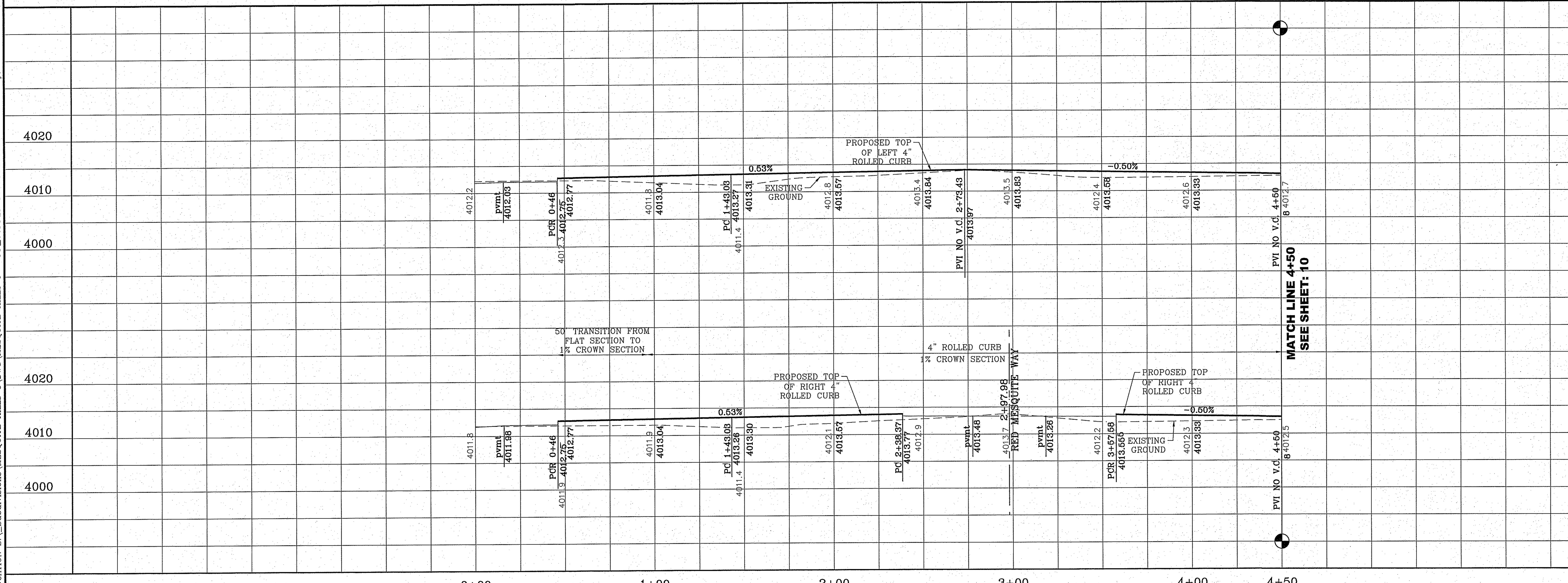
MESQUITE HILLS UNIT 8

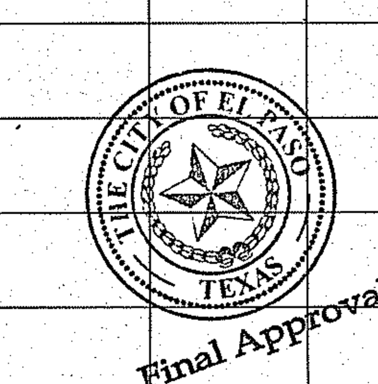
FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - GDPL PLOTTED ON Thursday, November 17, 2016 2:08:35 PM BY ESTEBAN JUAREZ

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C13	400.00'	184.45'	93.89'	182.82'	S76°52'35"E	26°25'14"
C14	400.00'	154.95'	78.46'	153.98'	S52°34'08"E	22°11'40"
C47	416.00'	129.84'	65.45'	129.31'	S81°08'43"E	17°52'57"
C48	384.00'	325.82'	173.44'	316.14'	S65°46'45"E	48°36'54"
C92	30.00'	47.12'	30.00'	42.43'	N86°28'18"W	90°00'00"
C93	30.00'	47.12'	30.00'	42.43'	S3°31'42"W	90°00'00"
C105	416.00'	99.15'	49.81'	98.92'	S48°17'59"E	13°39'23"
C106	29.00'	54.78'	40.09'	46.99'	N1°00'39"W	108°14'03"
C107	45.00'	25.13'	12.90'	24.80'	S37°06'38"W	31°59'29"
C108	45.00'	33.10'	17.34'	32.36'	S0°02'31"W	42°08'43"
C109	45.00'	34.97'	18.42'	34.10'	S43°17'39"E	44°31'37"
C110	45.00'	32.14'	16.79'	31.46'	S86°01'14"E	40°55'32"
C111	45.00'	32.14'	16.79'	31.46'	N53°03'14"E	40°55'32"
C112	45.00'	25.94'	13.34'	25.58'	N16°04'35"E	33°01'46"
C113	29.00'	54.78'	40.09'	46.99'	S53°40'44"W	108°14'03"









BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

REVISIONS	DATE	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL

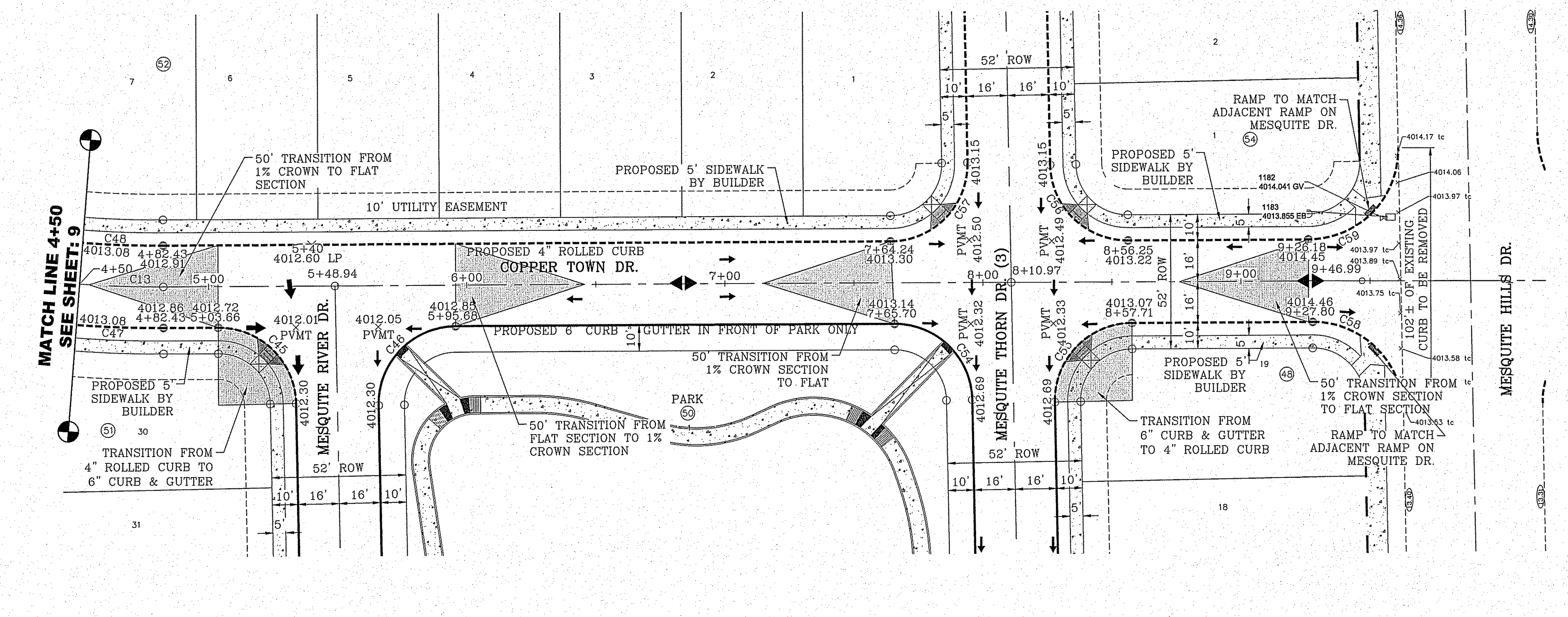
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE. 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE
STREET PLAN-PROFILE

COPPER TOWN DR.
STA: 0+00 TO STA: 4+50

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C13	400.00'	184.45'	93.89'	182.82'	S76°52'35"E	26°25'14"
C45	30.00'	46.65'	29.53'	42.09'	N45°32'27"W	89°05'30"
C46	30.00'	47.60'	30.48'	42.76'	S44°27'33"W	90°54'30"
C47	416.00'	129.84'	65.45'	129.31'	S81°08'43"E	17°52'57"
C48	384.00'	325.82'	173.44'	316.14'	S65°46'45"E	48°36'54"
C54	30.00'	46.65'	29.53'	42.09'	N45°32'27"W	89°05'30"
C55	30.00'	47.60'	30.48'	42.76'	S44°27'33"W	90°54'30"
C56	30.00'	46.65'	29.53'	42.09'	S45°32'27"E	89°05'30"
C57	30.00'	47.60'	30.48'	42.76'	N44°27'33"E	90°54'30"
C58	35.00'	54.42'	34.45'	49.10'	N45°32'27"W	89°05'30"
C59	35.00'	55.53'	35.56'	49.89'	N44°27'33"E	90°54'30"

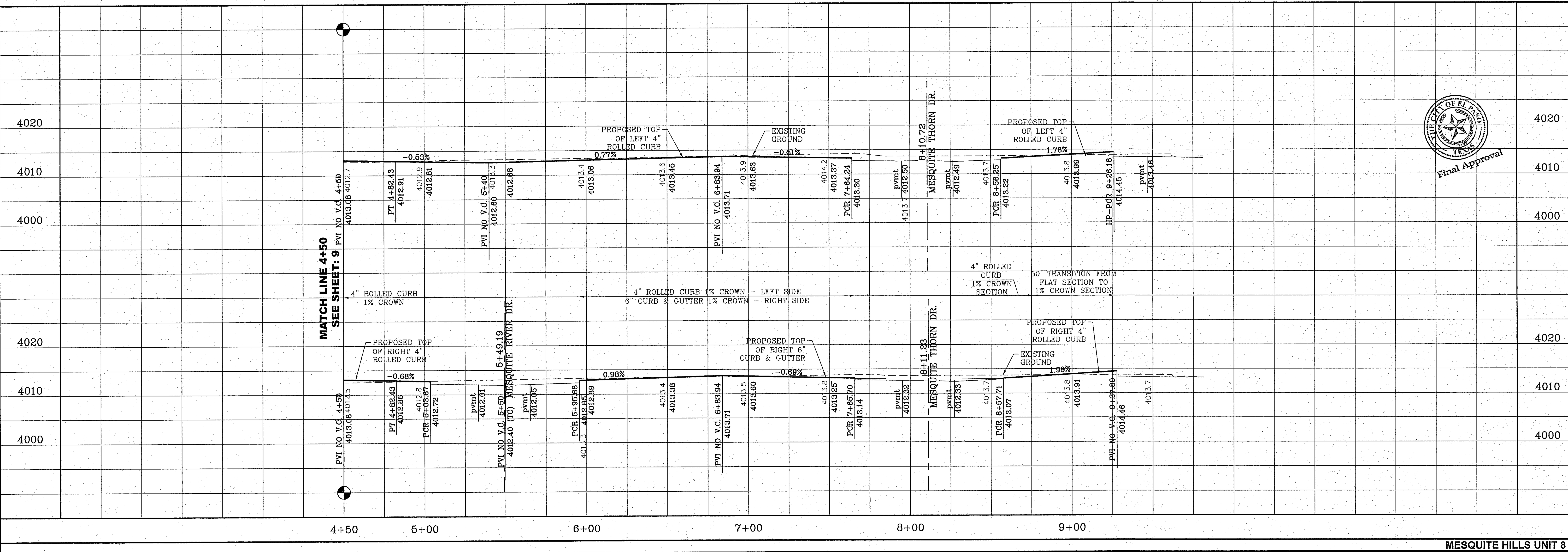


GRAPHIC SCALE

SCALE: 1"=30'

LEGEND

- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



Final Approval

BENCHMARK
BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE | REVISIONS | BY

PROJECT NAME
MESQUITE HILLS UNIT 8
BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
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DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

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

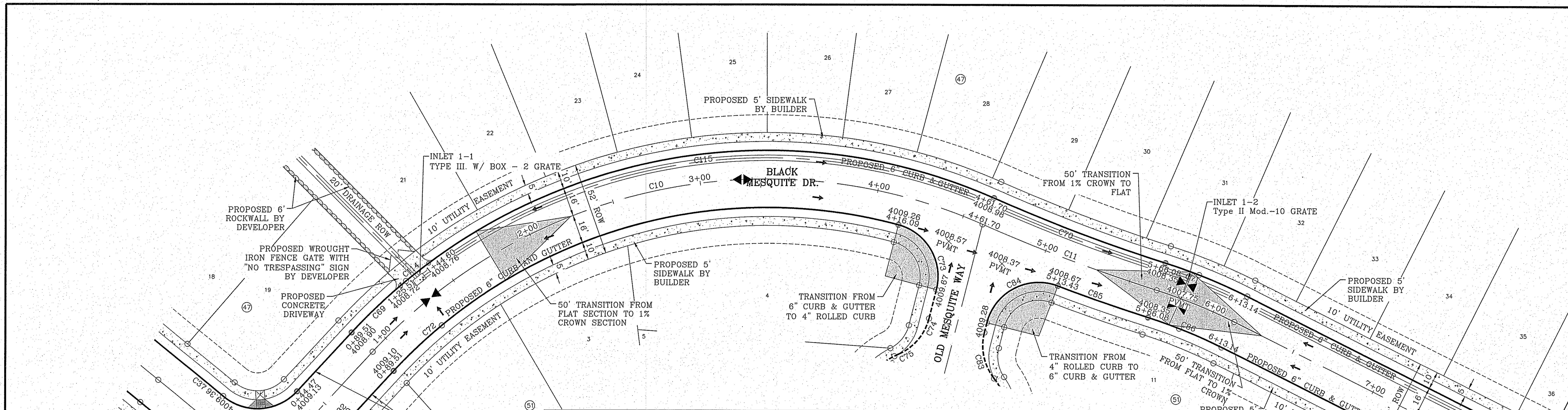
SHEET TITLE
STREET PLAN-PROFILE

COPPER TOWN DR. (2)
STA: 4+50 TO END

SHT 10 OF 30

MESQUITE HILLS UNIT 8

FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - PP_COPPER TOWN PLOTTED ON Thursday, November 17, 2016 2:09:37 PM BY ESTEBAN JUAREZ

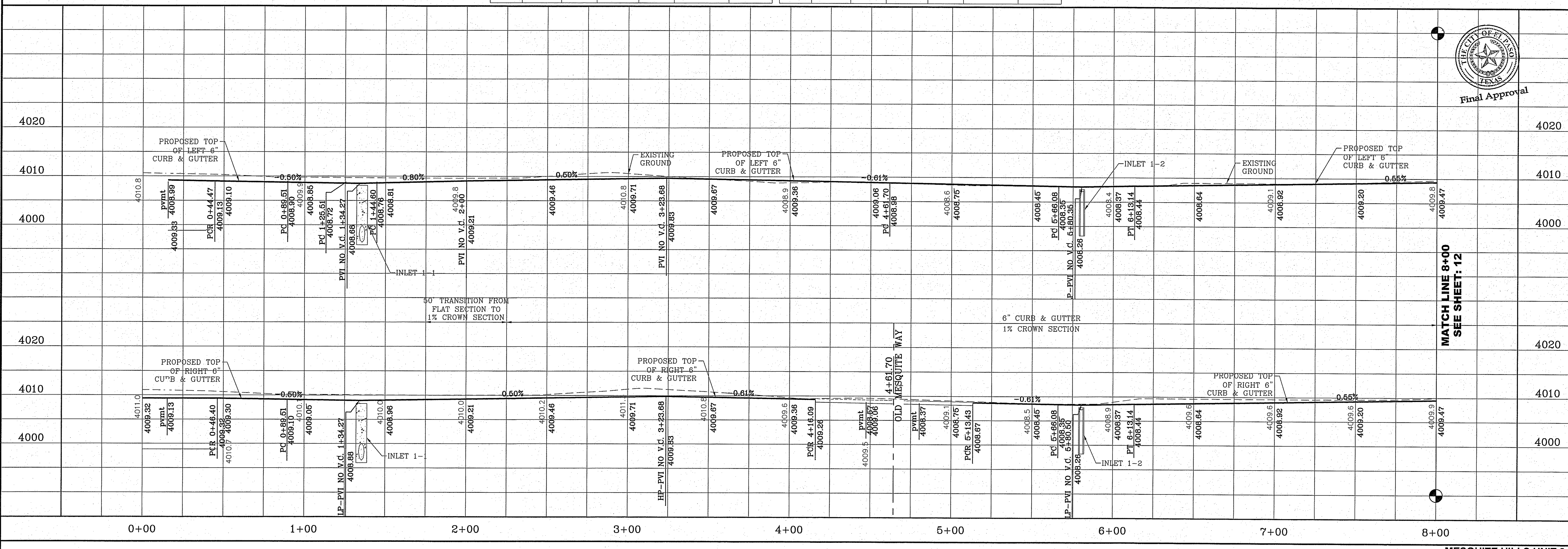


CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	1790.00'	77.62'	38.82'	77.61'	S13°32'07"E	2°29'04"
C8	1790.00'	130.03'	65.04'	130.00'	S10°12'43"E	4°09'43"
C10	300.00'	372.19'	214.32'	348.77'	S65°30'58"E	71°04'58"
C11	1000.00'	104.38'	52.24'	104.33'	N32°57'54"W	5°58'50"
C12	300.00'	47.06'	23.58'	47.01'	S31°27'41"E	8°59'16"
C38	30.00'	45.74'	28.65'	41.44'	N57°22'41"W	87°21'33"
C39	30.00'	47.00'	29.88'	42.34'	N34°03'29"E	89°46'08"
C40	1806.00'	309.90'	155.33'	309.52'	S5°54'39"E	9°49'54"
C41	1774.00'	159.00'	79.55'	158.94'	S12°12'36"E	5°08'07"
C69	316.00'	37.92'	18.98'	37.90'	N82°22'50"E	6°52'35"
C70	984.00'	102.71'	51.40'	102.66'	N32°57'54"W	5°58'50"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C71	316.00'	49.57'	24.84'	49.52'	S31°27'41"E	8°59'16"
C72	284.00'	309.17'	171.91'	294.13'	S69°52'15"E	62°22'25"
C73	30.00'	46.72'	29.60'	42.14'	S5°55'37"W	89°13'19"
C74	30.00'	21.77'	11.39'	21.30'	S71°19'44"W	41°34'55"
C75	30.00'	5.54'	2.78'	5.54'	N82°35'11"W	10°35'13"
C83	30.00'	27.32'	14.69'	26.38'	N24°27'12"E	52°10'09"
C84	30.00'	50.54'	33.63'	44.77'	S81°12'02"E	96°31'23"
C85	1016.00'	53.49'	26.75'	53.48'	N34°26'50"W	3°00'59"
C86	284.00'	44.55'	22.32'	44.50'	S31°27'41"E	8°59'16"
C114	316.00'	20.11'	10.06'	20.11'	N87°38'31"E	3°38'47"
C115	316.00'	334.00'	184.51'	318.67'	S60°15'17"E	60°33'37"

LEGEND

- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



Final Approval

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

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

BLACK MESQUITE DR.
STA: 0+00 TO STA: 8+00

LEGEND

- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION

GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C15	300.00'	254.55'	135.50'	246.98'	S65°46'45"E	48°36'54"
C87	50.00'	25.82'	13.21'	25.54'	N41°45'48"W	29°35'31"
C88	65.00'	16.63'	8.36'	16.58'	S49°13'50"E	14°39'26"
C89	65.00'	121.83'	88.47'	104.76'	S11°47'31"W	107°23'17"
C90	50.00'	14.80'	7.45'	14.74'	N57°00'26"E	16°57'27"
C91	40.00'	52.71'	30.97'	48.98'	S10°46'50"W	75°29'45"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C92	30.00'	47.12'	30.00'	42.43'	N86°28'18"W	90°00'00"
C93	30.00'	47.12'	30.00'	42.43'	S3°31'42"W	90°00'00"
C94	30.00'	47.12'	30.00'	42.43'	N86°28'18"W	90°00'00"
C95	30.00'	47.12'	30.00'	42.43'	S3°31'42"W	90°00'00"
C96	316.00'	268.12'	142.73'	260.15'	S65°46'45"E	48°36'54"
C97	284.00'	240.97'	128.28'	233.81'	S65°46'45"E	48°36'54"

GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'

TRANSITION FROM 6" CURB & GUTTER TO 4" ROLLED CURB
PROPOSED 4" ROLLED CURB
PROPOSED 5' SIDEWALK BY BUILDER
10' UTILITY EASEMENT
PROPOSED 6" CURB & GUTTER
BLACK MESQUITE DR.
RED MAN DR.
PROPOSED 5' SIDEWALK BY BUILDER
50' TRANSITION FROM 1% CROWN TO SUPER ELEVATED
INLET 1-3-OFFSTREET TYPE III. W/BOX - 5 GRATE
50' TRANSITION FROM SUPER ELEVATED TO 1% CROWN
TRANSITION FROM 4" ROLLED CURB TO 6" CURB & GUTTER
MATCH LINE 8+00 SEE SHEET: 11
MATCH LINE 11+50 SEE THIS SHEET

50' TRANSITION FROM SUPER ELEVATED TO 1% CROWN
PROPOSED 5' SIDEWALK BY BUILDER
RED MAN DR.
PROPOSED 6" CURB & GUTTER
10' UTILITY EASEMENT
COPPER TOWN DR.
TRANSITION FROM 6" CURB & GUTTER TO 4" ROLLED CURB
PROPOSED 5' SIDEWALK BY BUILDER
TRANSITION FROM 4" ROLLED CURB TO 6" CURB & GUTTER
BROWN MESQUITE LN.
TRANSITION FROM 6" CURB & GUTTER TO 4" ROLLED CURB
MATCH LINE 11+50 SEE THIS SHEET
MATCH LINE 16+50 SEE SHEET: 13

Final Approval

SAME POINT
PROPOSED TOP OF LEFT 4" ROLLED CURB
PROPOSED TOP OF LEFT 6" CURB & GUTTER
EXISTING GROUND
MH 1-1
50' TRANSITION FROM 1% CROWN SECTION TO FLAT SECTION
6" CURB & GUTTER 1% CROWN SECTION
50' TRANSITION FROM FLAT SECTION TO 1% CROWN SECTION
PROPOSED TOP OF LEFT 6" CURB & GUTTER
6" CURB & GUTTER - 1% CROWN SECTION
PROPOSED TOP OF RIGHT 6" CURB & GUTTER
MH 1-2
PROPOSED TOP OF RIGHT 6" CURB & GUTTER
EXISTING GROUND
MATCH LINE 8+00 SEE SHEET: 11
MATCH LINE 16+50 SEE SHEET: 13

8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 16+50

MESQUITE HILLS UNIT 8

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

REVISIONS		
DATE		BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

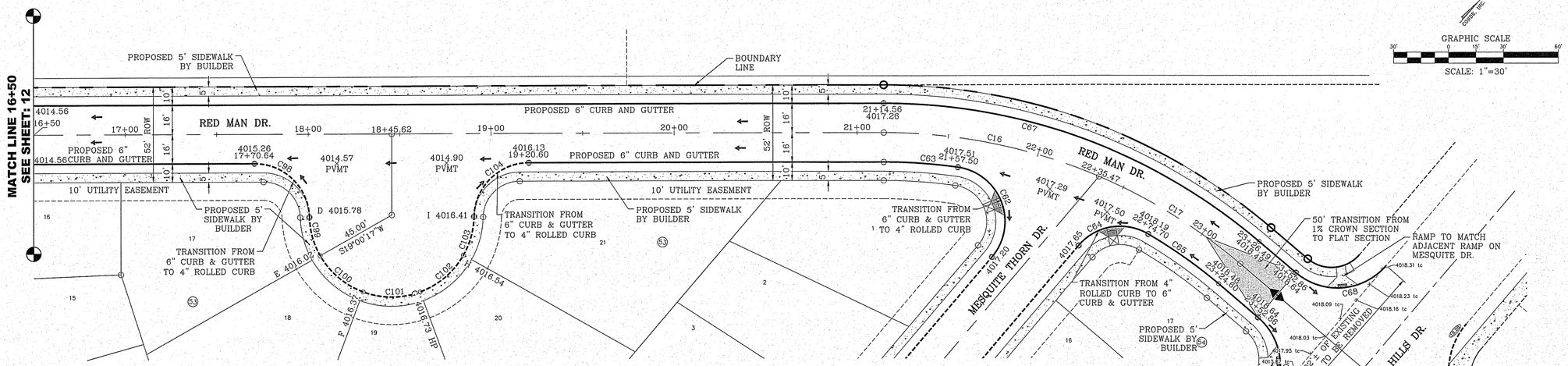
ENGINEER'S SEAL
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER
11-17-2016

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

STREET PLAN-PROFILE

BLACK MESQUITE DR. - RED MAN DR.
STA: 8+00 TO STA: 16+50

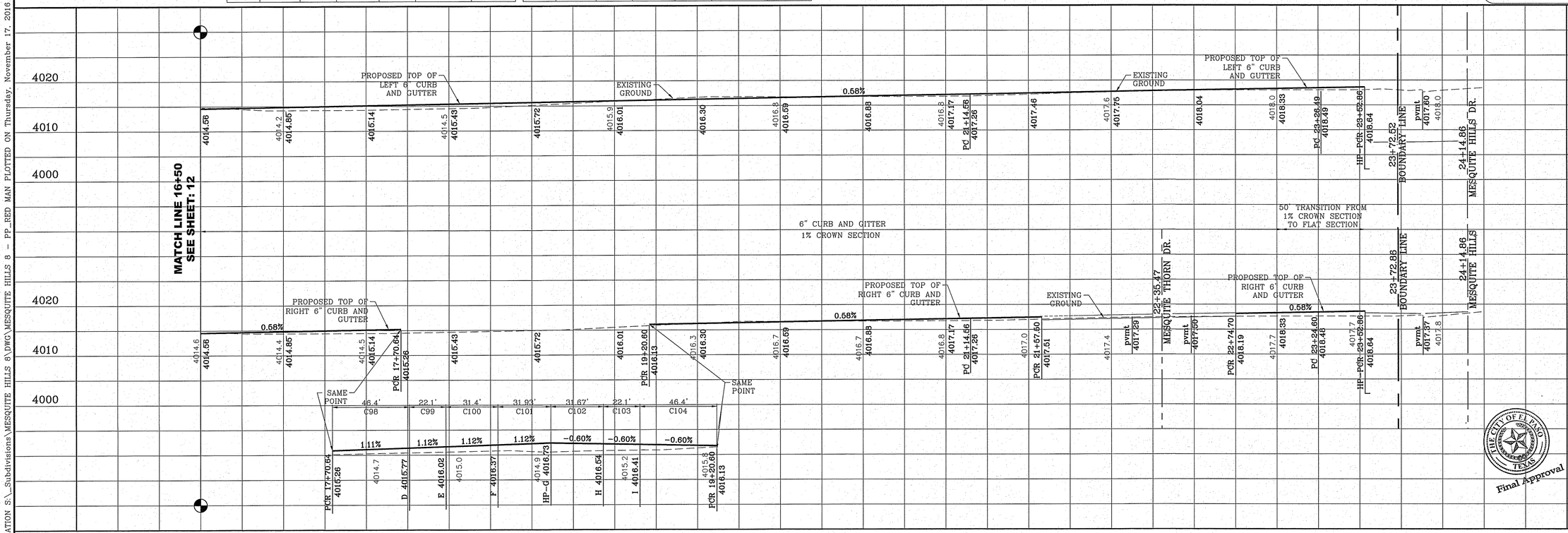


GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C16	300.00'	120.91'	61.29'	120.10'	S60°04'29"W	23°05'34"
C17	300.00'	91.02'	45.86'	90.67'	S80°18'47"W	17°23'02"
C62	30.00'	64.02'	54.43'	52.55'	N62°07'57"W	122°16'30"
C63	284.00'	40.65'	20.36'	40.62'	S52°37'45"W	8°12'06"
C64	30.00'	41.94'	25.22'	38.61'	S39°03'34"W	80°06'31"
C65	284.00'	47.24'	23.67'	47.18'	S83°52'44"W	9°31'49"
C66	35.00'	54.98'	35.00'	49.50'	N45°59'42"W	90°00'00"
C67	316.00'	223.24'	116.51'	218.62'	S68°46'00"W	40°28'36"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C68	35.00'	54.98'	35.00'	49.50'	N44°00'18"E	90°00'00"
C98	30.00'	46.40'	29.28'	41.91'	N87°09'51"W	88°36'53"
C99	45.00'	22.10'	11.28'	21.88'	S56°55'34"E	28°08'19"
C100	45.00'	31.40'	16.37'	30.77'	N89°00'55"E	39°58'42"
C101	45.00'	31.93'	16.67'	31.27'	N48°41'53"E	40°39'23"
C102	45.00'	31.67'	16.52'	31.02'	N8°12'40"E	40°19'03"
C103	45.00'	22.10'	11.28'	21.88'	N26°01'01"W	28°08'19"
C104	30.00'	46.40'	29.28'	41.91'	S4°13'16"W	88°36'53"

LEGEND
- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



BENCHMARK
BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE.
ELEV.=4013.06

REVISIONS		
DATE		BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 17D AND 17E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
ANGEL A. ACOSTA
105225
LICENSED PROFESSIONAL ENGINEER
NOV 17, 2016

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
STREET
PLAN-PROFILE

RED MAN DR.
STA: 16+50
TO END

SHT 13 OF 30

THE CITY OF EL PASO TEXAS
Final Approval

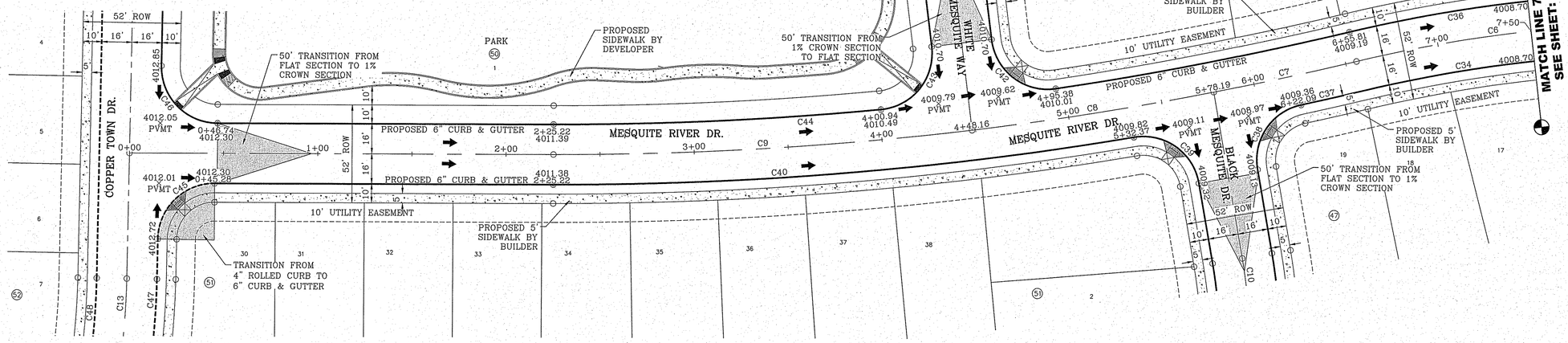
MESQUITE HILLS UNIT 8

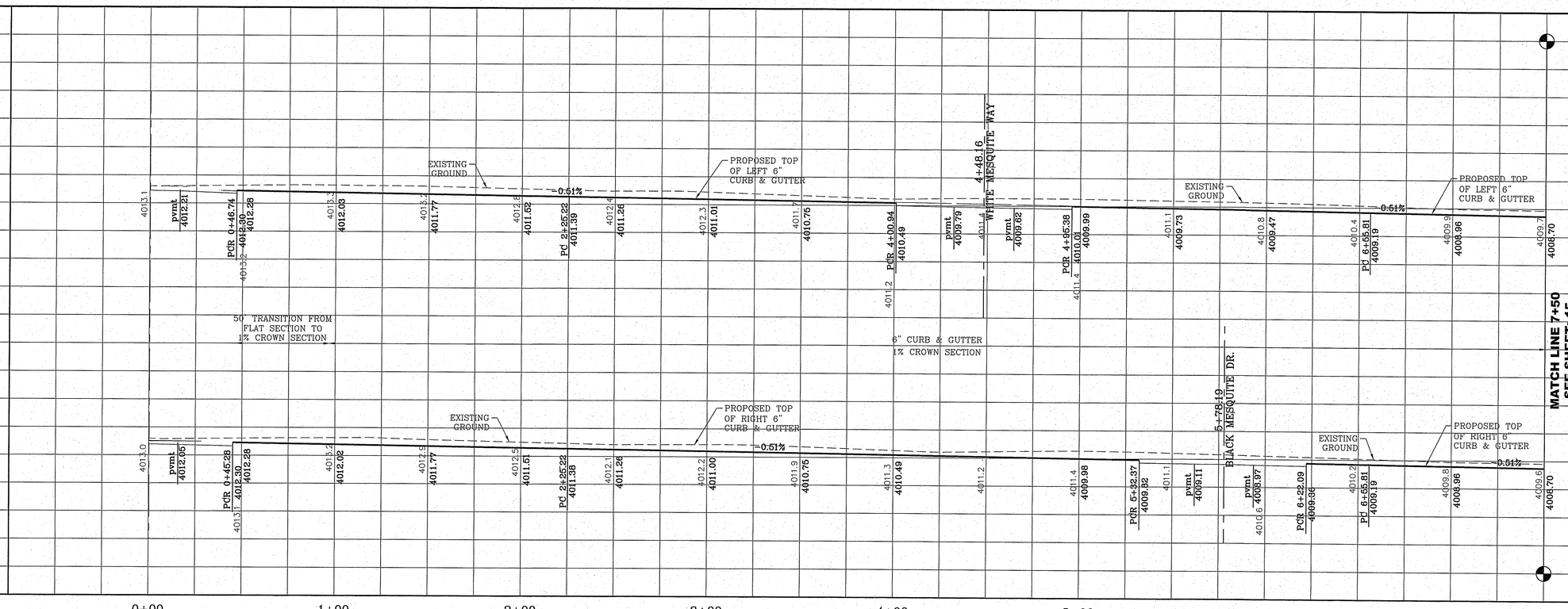
FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - PP_RED MAN PLOTTED ON Thursday, November 17, 2016 2:10:48 PM BY ESTEBAN JUAREZ

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C6	750.00'	194.91'	98.01'	194.36'	N7°19'58"W	14°53'24"
C7	1790.00'	77.62'	38.82'	77.61'	S13°32'07"E	2°29'04"
C8	1790.00'	130.03'	65.04'	130.00'	S10°12'43"E	4°09'43"
C9	1790.00'	222.94'	111.61'	222.80'	S4°33'47"E	7°08'10"
C13	400.00'	184.45'	93.89'	182.82'	S76°52'35"E	26°25'14"
C10	300.00'	372.19'	214.32'	348.77'	S65°30'58"E	71°04'58"
C34	734.00'	176.88'	88.87'	176.45'	N7°52'27"W	13°48'25"
C36	766.00'	199.07'	100.10'	198.51'	N7°19'58"W	14°53'24"
C37	1806.00'	34.01'	17.01'	34.01'	S14°14'17"E	1°04'45"
C38	30.00'	45.74'	28.65'	41.44'	N57°22'41"W	87°21'33"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C39	30.00'	47.00'	29.88'	42.34'	N34°03'29"E	89°46'08"
C40	1806.00'	309.90'	155.33'	309.52'	S5°54'39"E	9°49'54"
C42	30.00'	47.92'	30.80'	42.98'	S36°06'48"W	91°30'41"
C43	30.00'	47.92'	30.80'	42.98'	S52°22'31"E	91°30'41"
C44	1774.00'	174.15'	87.15'	174.08'	S3°48'26"E	5°37'29"
C45	30.00'	46.65'	29.53'	42.09'	N45°32'27"W	89°05'30"
C46	30.00'	47.60'	30.48'	42.76'	S44°27'33"W	90°54'30"
C47	416.00'	129.84'	65.45'	129.31'	S81°08'43"E	17°52'57"
C48	384.00'	325.82'	173.44'	316.14'	S65°46'45"E	48°36'54"

GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'





LEGEND
- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION

BENCHMARK
BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

REVISIONS		
DATE		BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME
MESQUITE HILLS UNIT 8
BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 10 AND 11, BLOCK 79, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
JAMES A. ACOSTA 109225 LICENSED PROFESSIONAL ENGINEER
11/17/16

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

THE CITY OF EL PASO TEXAS
Final Approval

SHEET TITLE
STREET PLAN-PROFILE

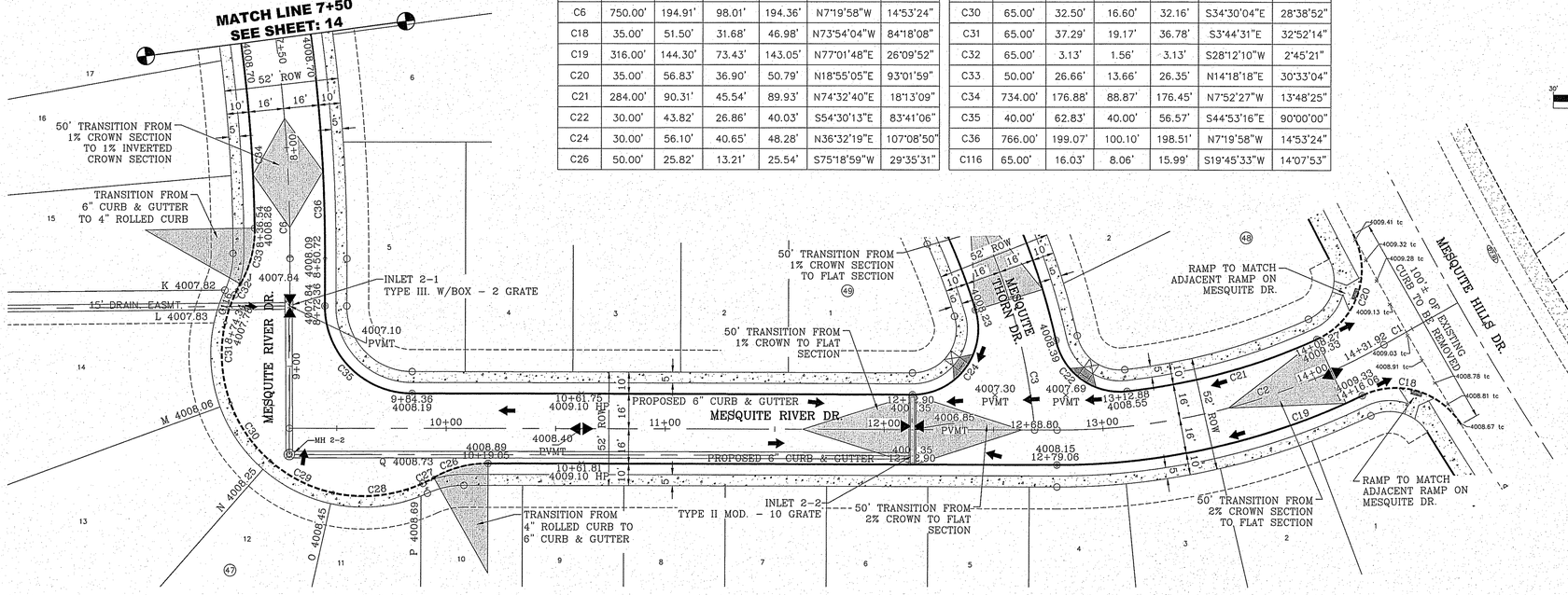
MESQUITE RIVER DR.
STA: 0+00 TO STA: 7+50

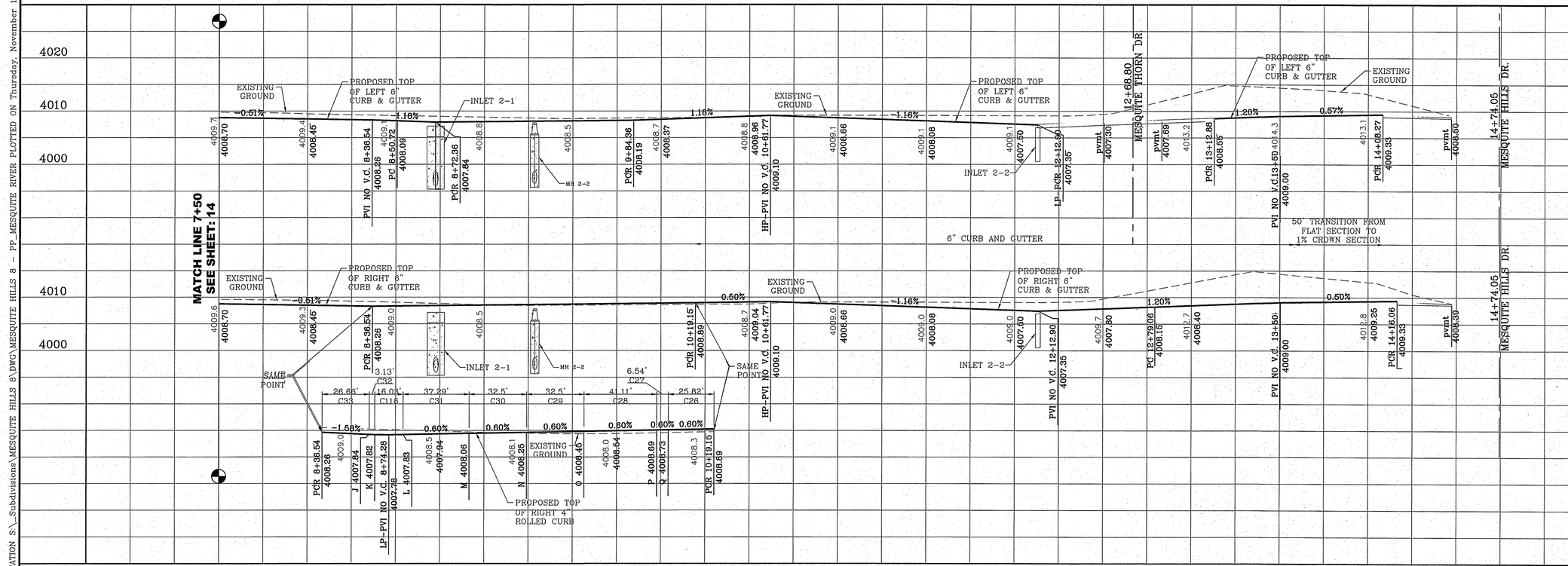
SHT 14 OF 30

MESQUITE HILLS UNIT 8

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	300.00'	3.28'	1.64'	3.28'	N60°36'16"E	0°37'37"
C2	300.00'	152.86'	78.13'	151.21'	N75°30'54"E	29°11'40"
C3	300.00'	99.56'	50.24'	99.10'	N14°55'13"W	19°00'52"
C6	750.00'	194.91'	98.01'	194.36'	N7°19'58"W	14°53'24"
C18	35.00'	51.50'	31.68'	46.98'	N73°54'04"W	84°18'08"
C19	316.00'	144.30'	73.43'	143.05'	N77°01'48"E	26°09'52"
C20	35.00'	56.83'	36.90'	50.79'	N18°55'05"E	93°01'59"
C21	284.00'	90.31'	45.54'	89.93'	N74°32'40"E	18°13'09"
C22	30.00'	43.82'	26.86'	40.03'	S54°30'13"E	83°41'06"
C24	30.00'	56.10'	40.65'	48.28'	N36°32'19"E	107°08'50"
C26	50.00'	25.82'	13.21'	25.54'	S75°18'59"W	29°35'31"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C27	65.00'	6.54'	3.27'	6.54'	N63°24'13"E	5°45'58"
C28	65.00'	41.11'	21.27'	40.43'	N84°24'25"E	36°14'26"
C29	65.00'	32.50'	16.60'	32.16'	S63°08'56"E	28°38'52"
C30	65.00'	32.50'	16.60'	32.16'	S34°30'04"E	28°38'52"
C31	65.00'	37.29'	19.17'	36.78'	S3°44'31"E	32°52'14"
C32	65.00'	3.13'	1.56'	3.13'	S28°12'10"W	2°45'21"
C33	50.00'	26.66'	13.66'	26.35'	N14°18'18"E	30°33'04"
C34	734.00'	176.88'	88.87'	176.45'	N7°52'27"W	13°48'25"
C35	40.00'	62.83'	40.00'	56.57'	S44°53'16"E	90°00'00"
C36	766.00'	199.07'	100.10'	198.51'	N7°19'58"W	14°53'24"
C116	65.00'	16.03'	8.06'	15.99'	S19°45'33"W	14°07'53"





BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.021 ACRES

SCALE
HORIZ.: 1" = 30'
VERT.: 1" = 10'
DATE: FEB 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

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

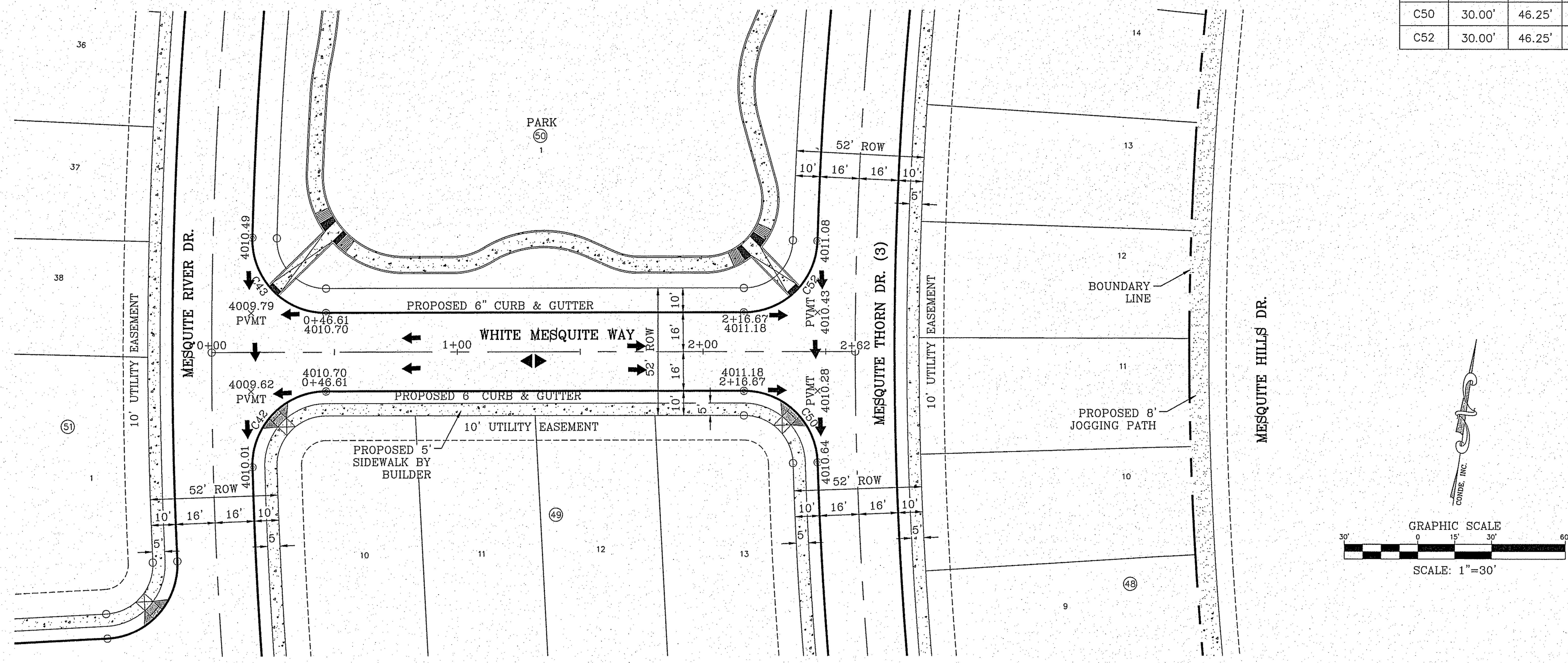
STREET PLAN-PROFILE

MESQUITE RIVER DR. (2)
STA: 7+50 TO END

SHT 15 OF 30

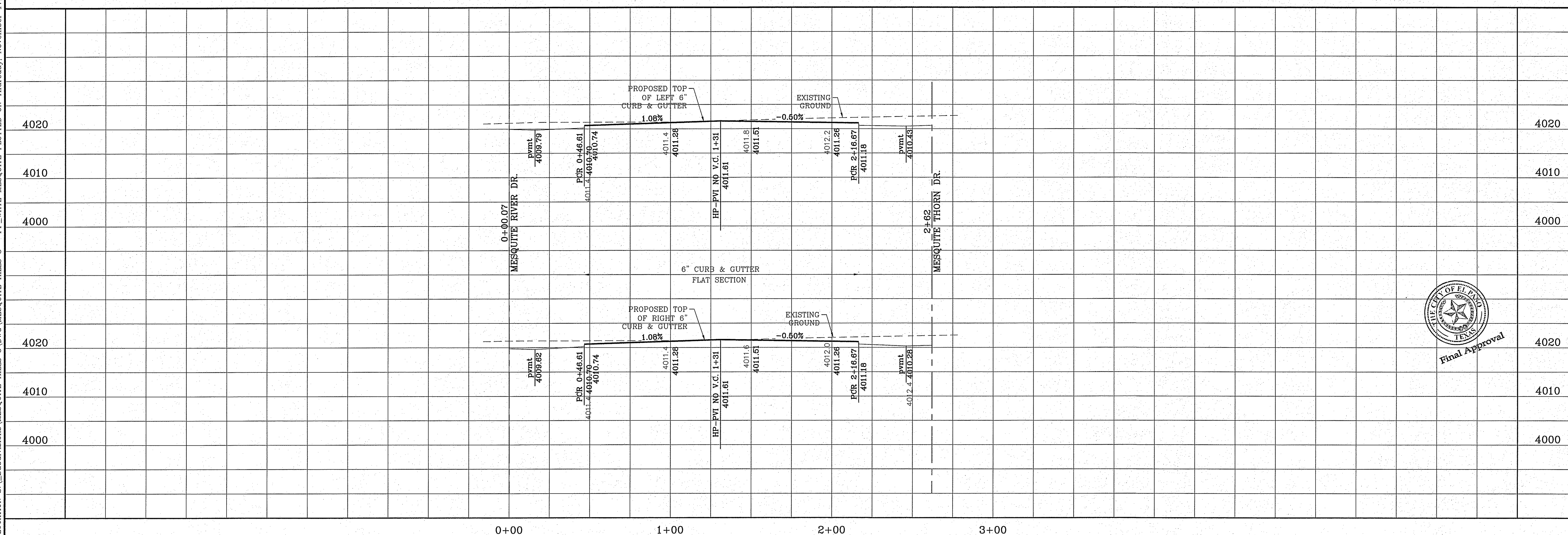
MESQUITE HILLS UNIT 8

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C42	30.00'	47.92'	30.80'	42.98'	S36°06'48"W	91°30'41"
C43	30.00'	47.92'	30.80'	42.98'	S52°22'31"E	91°30'41"
C50	30.00'	46.25'	29.14'	41.80'	N53°58'06"W	88°19'31"
C52	30.00'	46.25'	29.14'	41.80'	N37°42'23"E	88°19'31"



LEGEND

- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

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

DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GIS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286
CONDE INC.
REGISTRATION No. F-2321

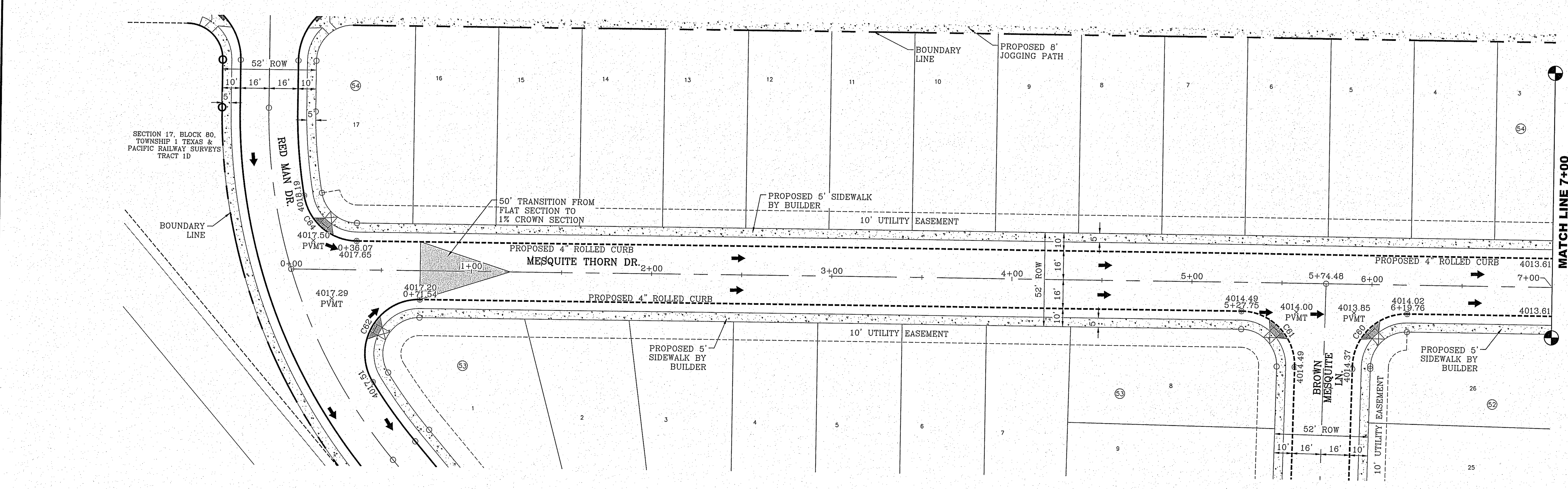
Final Approval

SHEET TITLE
STREET PLAN-PROFILE

WHITE MESQUITE WAY
IN ITS ENTIRETY

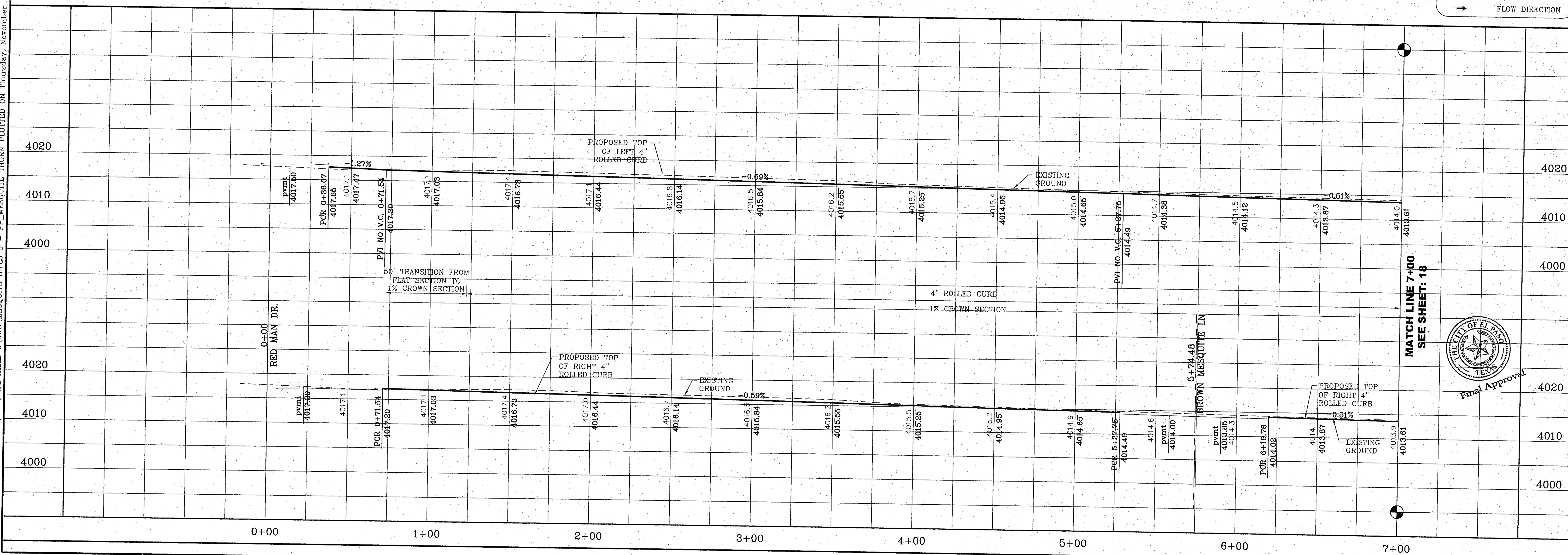
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C60	30.00'	46.65'	29.53'	42.09'	N45°32'27"W	89°05'30"
C61	30.00'	47.60'	30.48'	42.76'	N44°27'33"E	90°54'30"
C62	30.00'	64.02'	54.43'	52.55'	N62°07'57"W	122°16'30"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C64	30.00'	41.94'	25.22'	38.61'	S39°03'34"W	80°06'31"
C67	316.00'	223.24'	116.51'	218.62'	S68°46'00"W	40°28'36"



LEGEND

- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

REVISIONS | DATE | BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE HORIZ: 1" = 30' VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL

JAVIER A. ACOSTA 109225 LICENSED

Final Approval

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

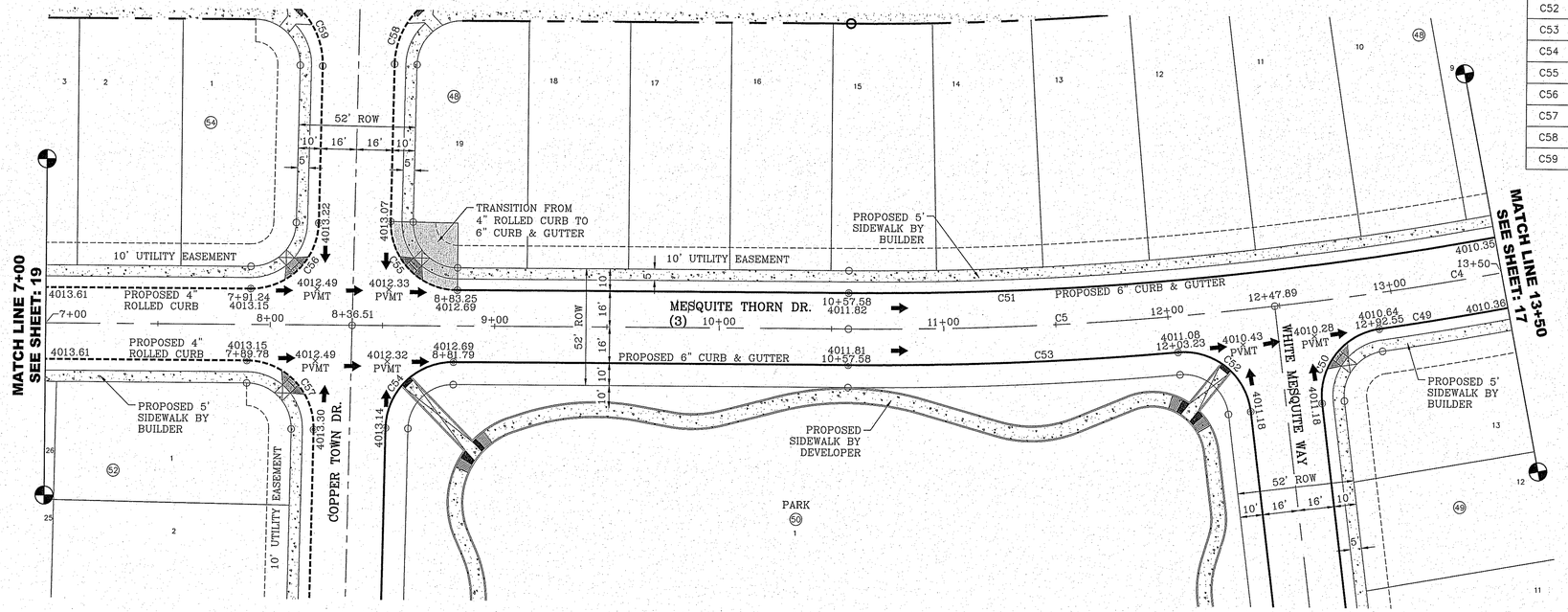
CONDE INC. REGISTRATION No. F-2321

SHEET TITLE
STREET PLAN-PROFILE

MESQUITE THORN DR.
STA: 0+00 TO STA: 7+00

MESQUITE HILLS UNIT 8

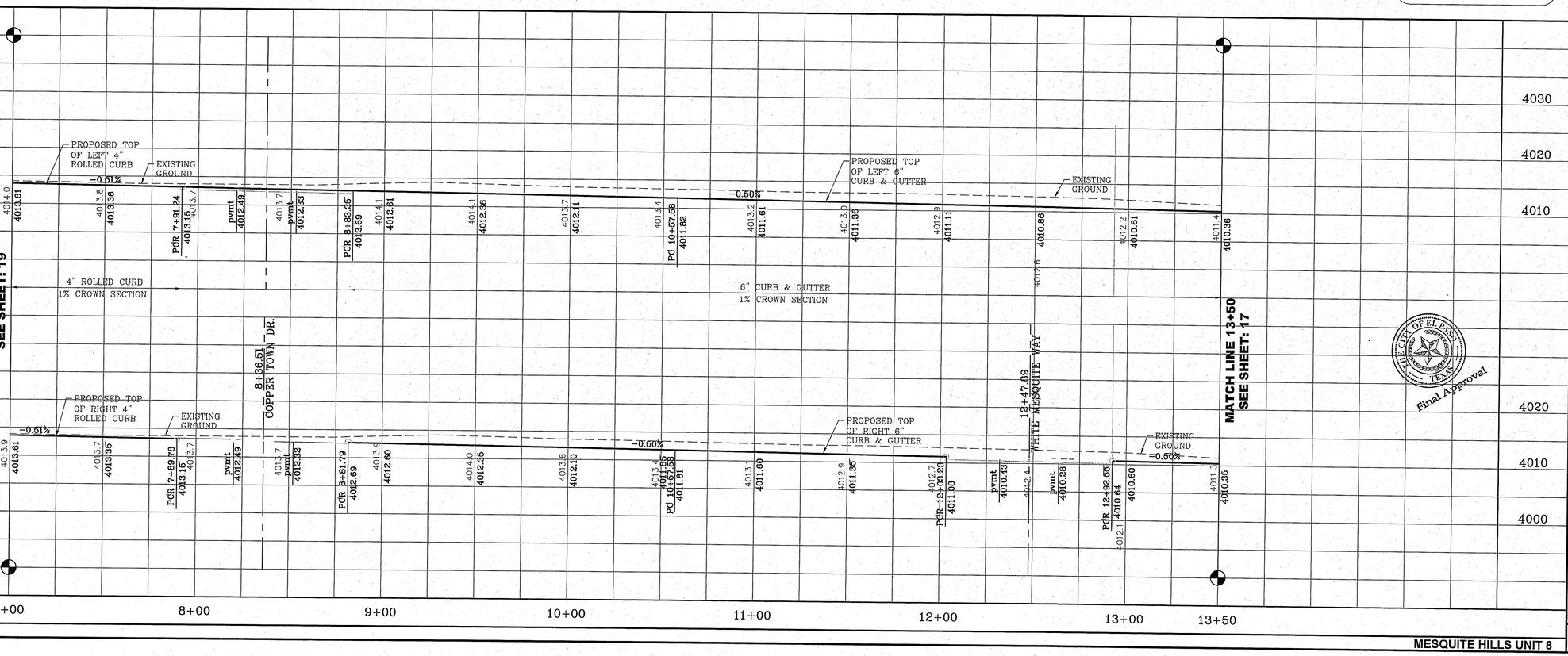
SHT 17 OF 30



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C4	1528.00'	434.61'	218.78'	433.14'	S16°16'46"E	16°17'48"
C5	1528.00'	190.31'	95.28'	190.19'	S4°33'47"E	7°08'10"
C49	1544.00'	394.03'	198.09'	392.96'	S17°07'00"E	14°37'19"
C50	30.00'	46.25'	29.14'	41.80'	N53°58'06"W	88°19'31"
C51	1512.00'	618.37'	313.57'	614.07'	S12°42'41"E	23°25'58"
C52	30.00'	46.25'	29.14'	41.80'	N37°42'23"E	88°19'31"
C53	1544.00'	147.17'	73.64'	147.12'	S3°43'32"E	5°27'41"
C54	30.00'	46.65'	29.53'	42.09'	N45°32'27"W	89°05'30"
C55	30.00'	47.60'	30.48'	42.76'	S44°27'33"W	90°54'30"
C56	30.00'	46.65'	29.53'	42.09'	S45°32'27"E	89°05'30"
C57	30.00'	47.60'	30.48'	42.76'	N44°27'33"E	90°54'30"
C58	35.00'	54.42'	34.45'	49.10'	N45°32'27"W	89°05'30"
C59	35.00'	55.53'	35.56'	49.89'	N44°27'33"E	90°54'30"

GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'

LEGEND
- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



Final Approval

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

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

DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
109223
LICENSED
PROFESSIONAL
ENGINEER
11/17/2016

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
STREET PLAN-PROFILE

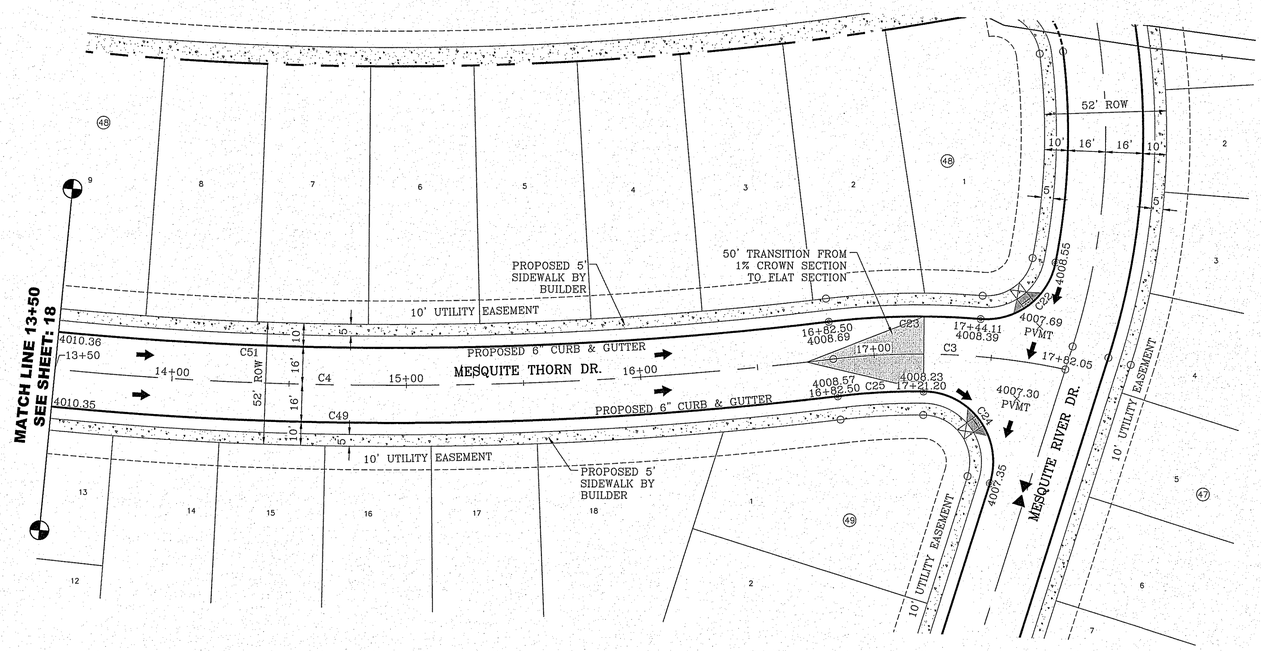
MESQUITE THORN DR. (2)
STA: 7+00 TO STA: 13+50

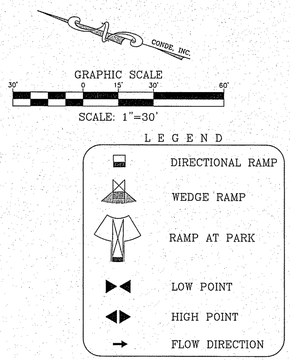
SHT 18 OF 30

MESQUITE HILLS UNIT 8

FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - PP_MESQUITE THORN PLOTTED ON Thursday, November 17, 2016 2:13:38 PM BY ESTEBAN JUAREZ

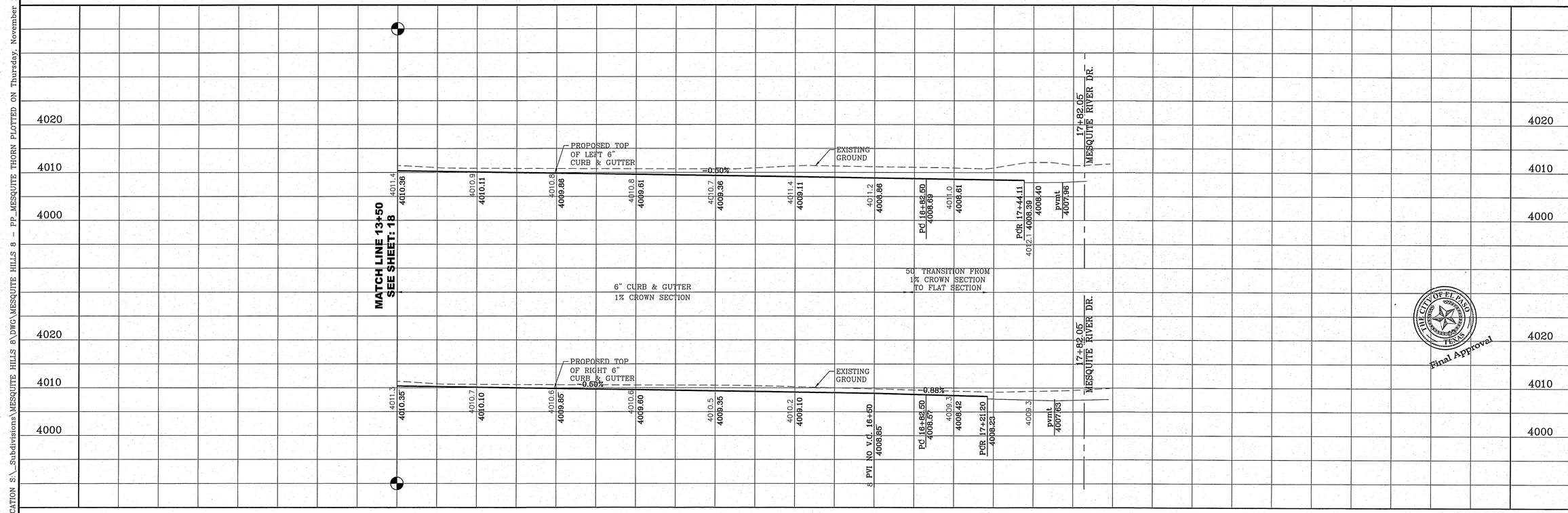
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	300.00'	99.56'	50.24'	99.10'	N14°55'13"W	19°00'52"
C4	1528.00'	434.61'	218.78'	433.14'	S16°16'46"E	16°17'48"
C22	30.00'	43.82'	26.86'	40.03'	S54°30'13"E	83°41'06"
C23	316.00'	64.90'	32.56'	64.78'	N18°32'39"W	11°46'00"
C24	30.00'	56.10'	40.65'	48.28'	N36°32'19"E	107°08'50"
C25	284.00'	36.64'	18.35'	36.62'	N20°43'53"W	7°23'34"
C49	1544.00'	394.03'	198.09'	392.96'	S17°07'00"E	14°37'19"
C51	1512.00'	618.37'	313.57'	614.07'	S12°42'41"E	23°25'58"





L E G E N D

- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1 AND 1A, SECTION 17, BLOCK 79, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL

THE STATE OF TEXAS
JAMES A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER
11/17/2016

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

THE CITY OF EL PASO TEXAS
Final Approval

SHEET TITLE

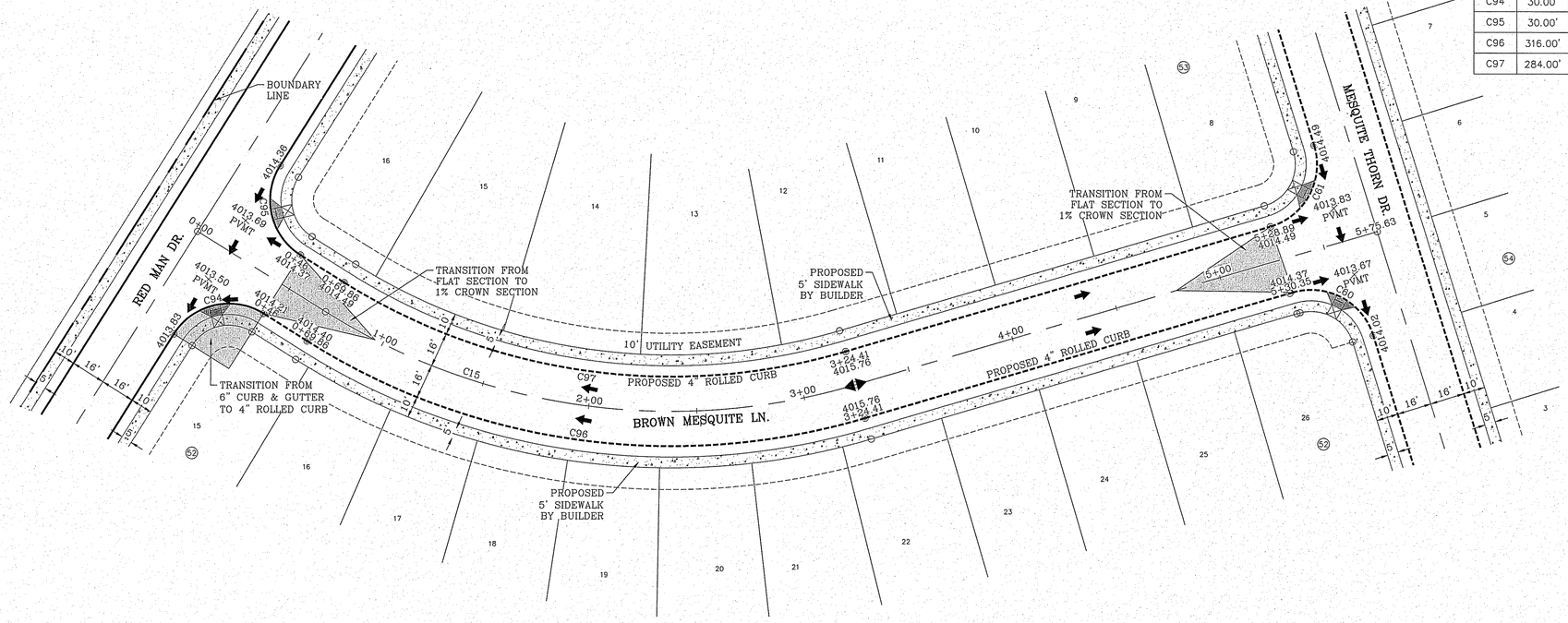
STREET PLAN-PROFILE

MESQUITE THORN DR. (3)
STA: 13+50 TO END

SHT 19 OF 30

MESQUITE HILLS UNIT 8

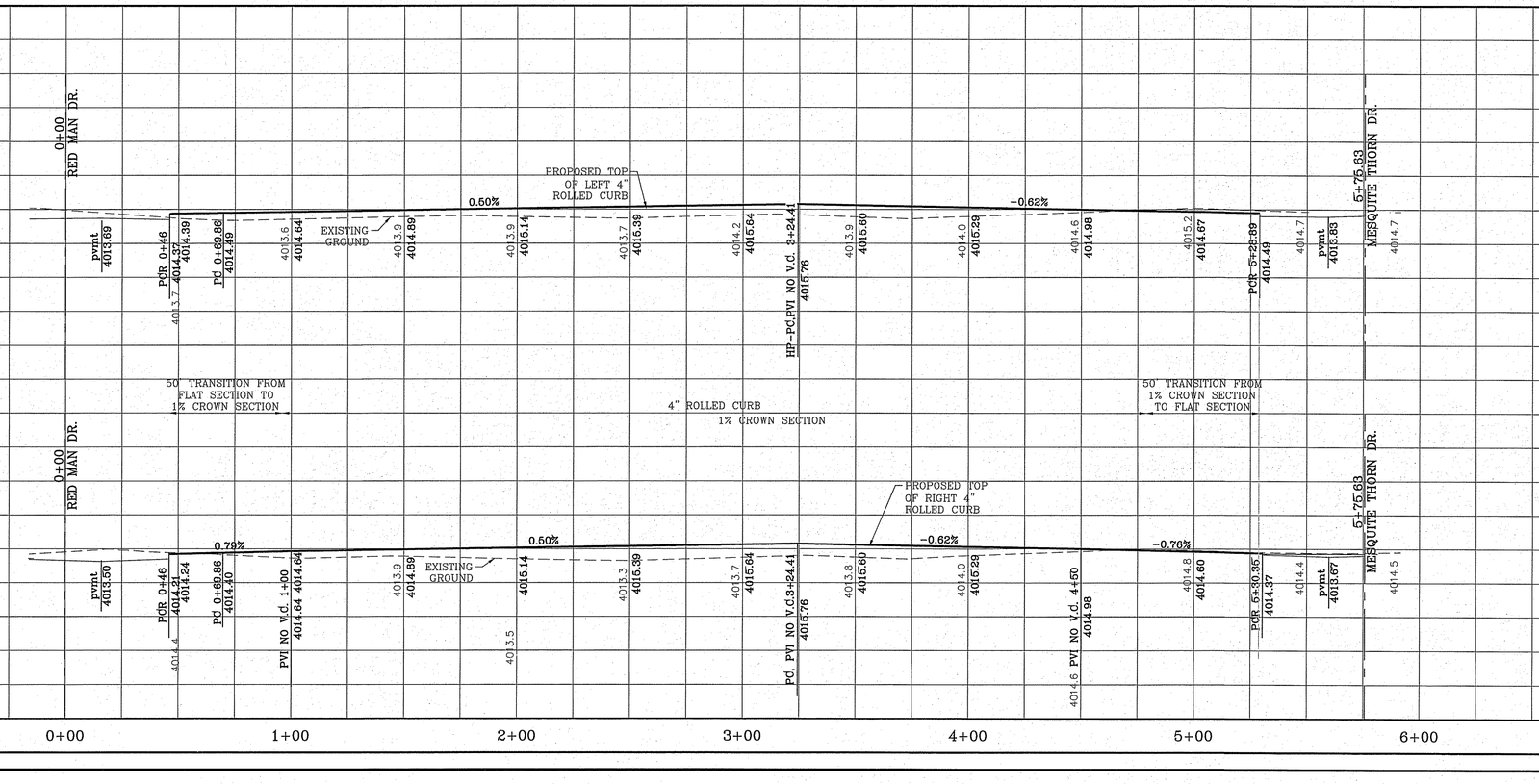
FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - PP_MESQUITE THORN PLOTTED ON Thursday, November 17, 2016



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C15	300.00'	254.55'	135.50'	246.98'	S65°46'45"E	48°36'54"
C60	30.00'	46.65'	29.53'	42.09'	N45°32'27"W	89°05'30"
C61	30.00'	47.60'	30.48'	42.76'	N44°27'33"E	90°54'30"
C94	30.00'	47.12'	30.00'	42.43'	N86°28'18"W	90°00'00"
C95	30.00'	47.12'	30.00'	42.43'	S3°31'42"W	90°00'00"
C96	316.00'	268.12'	142.73'	260.15'	S65°46'45"E	48°36'54"
C97	284.00'	240.97'	128.28'	233.81'	S65°46'45"E	48°36'54"

GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'

LEGEND
- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE.
ELEV.=4013.08

REVISIONS	DATE	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

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

DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER
NOV 17 2016

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

THE CITY OF EL PASO TEXAS
Final Approval

CONDE INC.
REGISTRATION No. F-2221

SHEET TITLE
STREET PLAN-PROFILE

BROWN MESQUITE LN.
IN ITS ENTIRETY

SHT 20 OF 30

MESQUITE HILLS UNIT 8

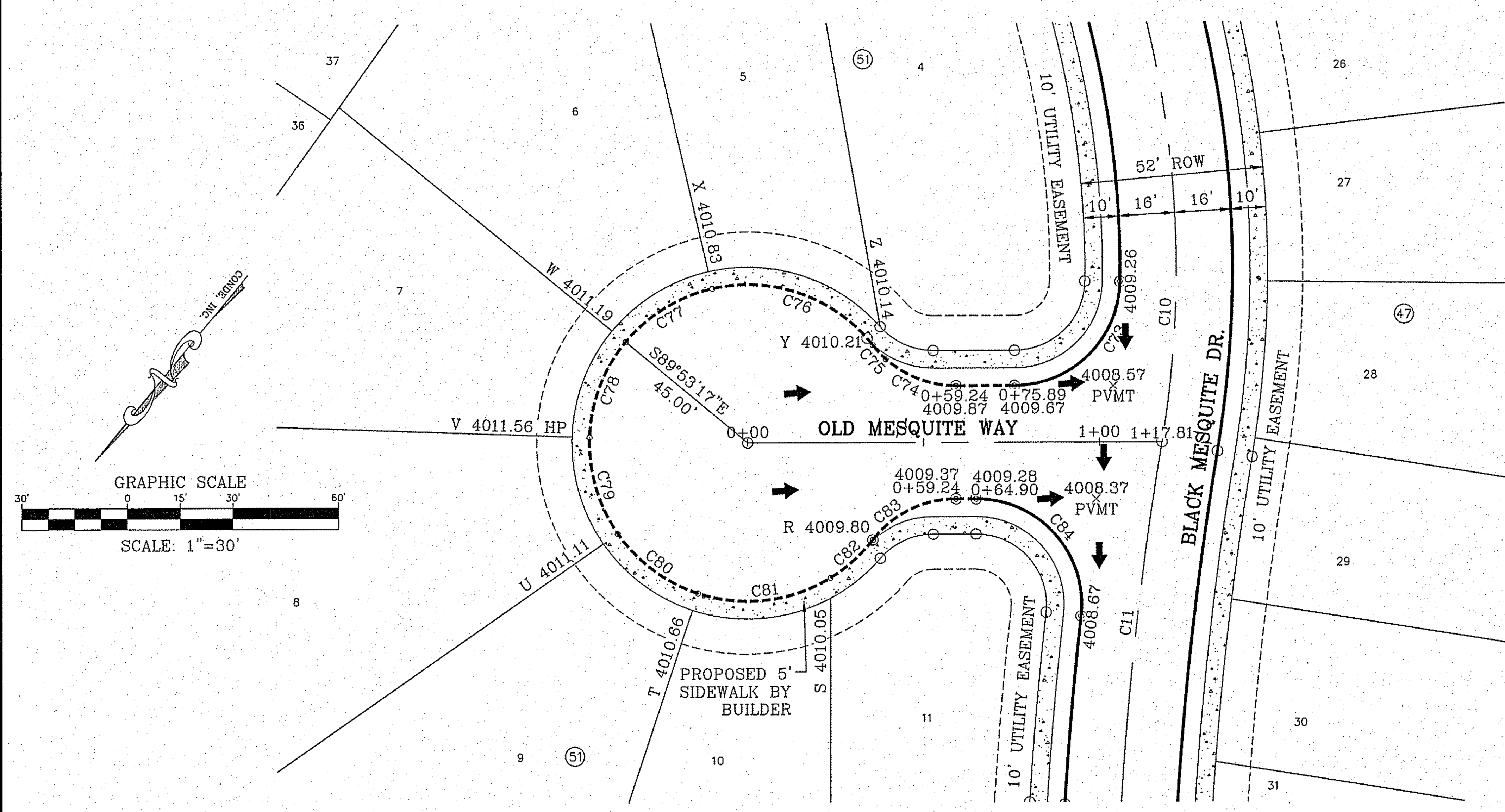
FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - PP_BROWN MESQUITE PLOTTED ON Thursday, November 17, 2016 2:14:36 PM BY ESTEBAN JUAREZ

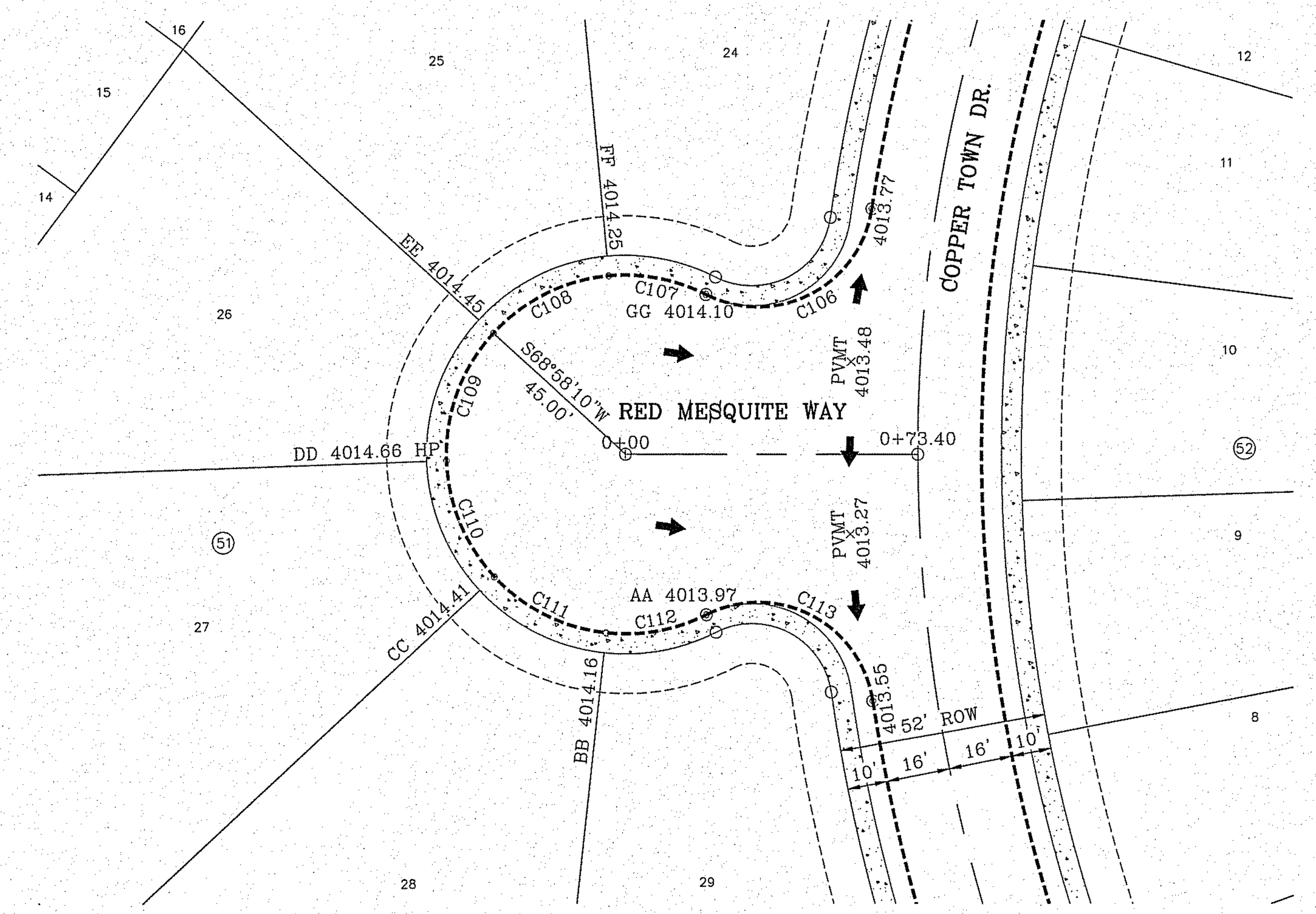
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C10	300.00'	372.19'	214.32'	348.77'	S65°30'58"E	71°04'58"
C11	1000.00'	104.38'	52.24'	104.33'	N32°57'54"W	5°58'50"
C73	30.00'	46.72'	29.60'	42.14'	S5°55'37"W	89°13'19"
C74	30.00'	21.77'	11.39'	21.30'	S71°19'44"W	41°34'55"
C75	30.00'	5.54'	2.78'	5.54'	N82°35'11"W	10°35'13"
C76	45.00'	51.11'	28.71'	48.41'	N70°09'59"E	65°04'53"
C77	45.00'	29.46'	15.28'	28.94'	N18°52'08"E	37°30'49"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C78	45.00'	29.46'	15.28'	28.94'	N18°38'41"W	37°30'49"
C79	45.00'	28.93'	14.98'	28.43'	N55°49'05"W	36°49'59"
C80	45.00'	28.93'	14.98'	28.43'	S87°20'56"W	36°49'59"
C81	45.00'	39.20'	20.94'	37.98'	S43°58'27"W	49°54'58"
C82	45.00'	16.22'	8.20'	16.13'	S8°41'33"W	20°38'50"
C83	30.00'	27.32'	14.69'	26.38'	N24°27'12"E	52°10'09"
C84	30.00'	50.54'	33.63'	44.77'	S81°12'02"E	96°31'23"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C106	29.00'	54.78'	40.09'	46.99'	N1°00'39"W	108°14'03"
C107	45.00'	25.13'	12.90'	24.80'	S37°06'38"W	31°59'29"
C108	45.00'	33.10'	17.34'	32.36'	S0°02'31"W	42°08'43"
C109	45.00'	34.97'	18.42'	34.10'	S43°17'39"E	44°31'37"

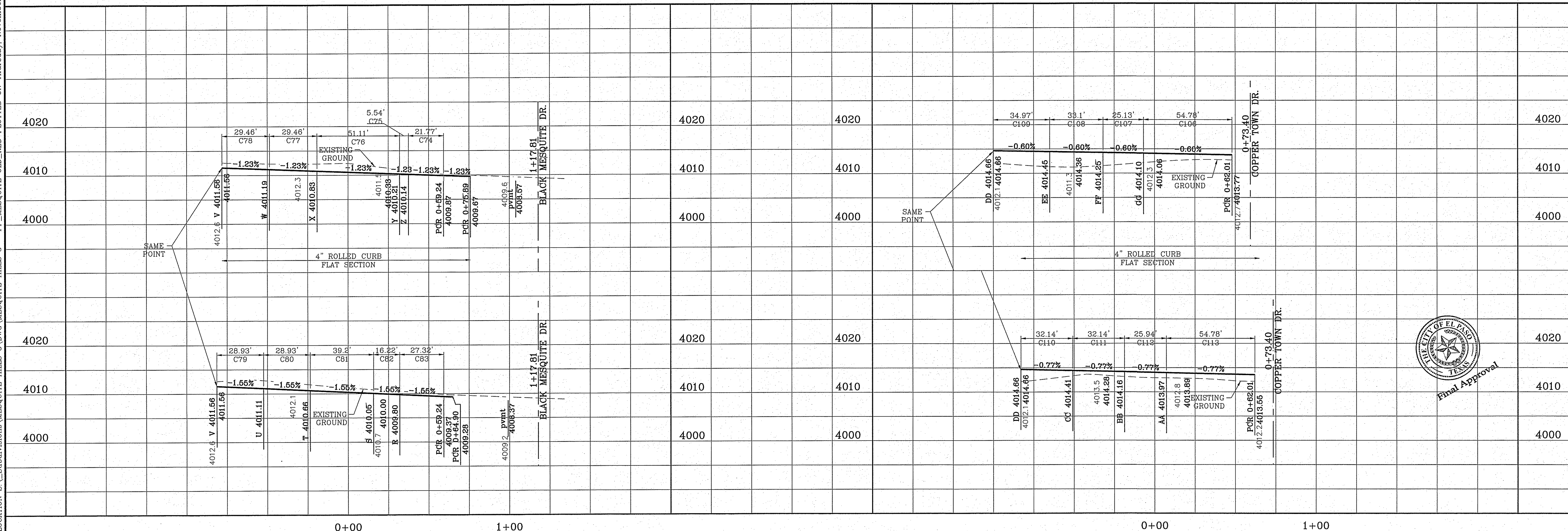
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C110	45.00'	32.14'	16.79'	31.46'	S86°01'14"E	40°55'32"
C111	45.00'	32.14'	16.79'	31.46'	N53°03'14"E	40°55'32"
C112	45.00'	25.94'	13.34'	25.58'	N16°04'35"E	33°01'46"
C113	29.00'	54.78'	40.09'	46.99'	S53°40'44"W	108°14'03"





LEGEND

- DIRECTIONAL RAMP
- WEDGE RAMP
- RAMP AT PARK
- LOW POINT
- HIGH POINT
- FLOW DIRECTION



Final Approval

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

S C A L E
HORIZ: 1" = 30'
VERT: 1" = 10'

DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS — JAVIER A. ACOSTA — 109225 — LICENSED PROFESSIONAL ENGINEER
NOV. 17, 2016

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

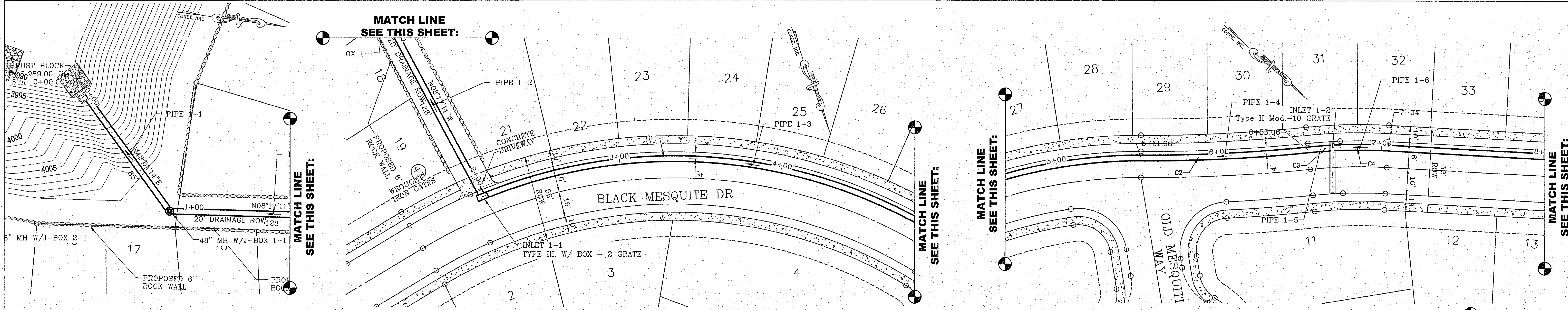
CONDE INC.
REIGISTRATION No. F-2321

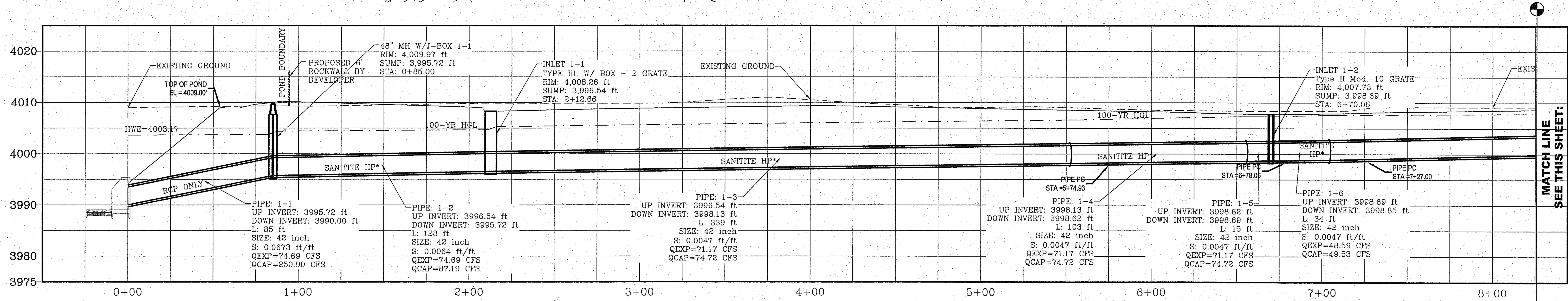
SHEET TITLE

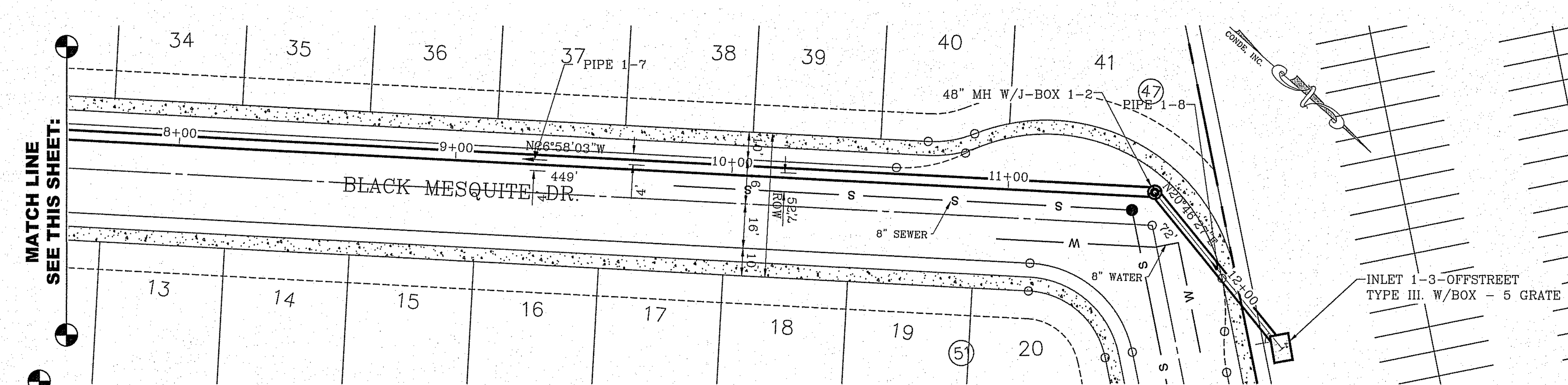
STREET PLAN-PROFILE

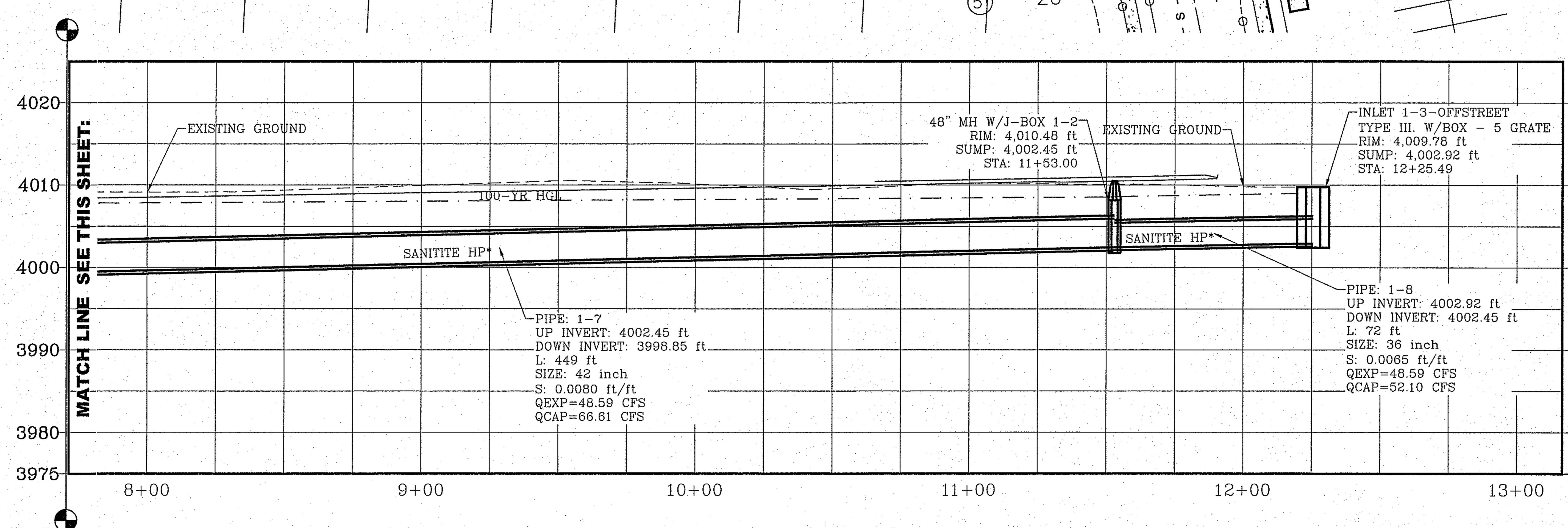
OLD MESQUITE WAY

RED MESQUITE WAY









PIPES ARE EITHER CLASS III R.C.P OR SANITITE HP TRIPLE WALL UNLESS OTHERWISE NOTED

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 D1557.
4. REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
5. SANITITE HP TRIPLE WALL TO BE USED AS AN APPROVED ALTERNATE FOR ALL PIPE EXCEPT FOR THE PIPE ENTERING THE POND.

SANITITE HP NOTE

PIPE FITTINGS SHALL BE TRIPLE WALL, SMOOTH INTERIOR AND EXTERIOR, WITH ANNULAR INNER CORRUGATIONS IN CONFORMANCE TO ASTM F2764 FOR PIPE DIAMETERS 30" TO 60". PIPE FITTINGS FOR DIAMETERS UP TO AND INCLUDING 60" SHALL HAVE A MINIMUM PIPE STIFFNESS OF 40 PSI WHEN TESTED IN ACCORDANCE WITH ASTM D2412. PIPE FITTINGS FOR DIAMETERS UP TO AND INCLUDING 60" SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212.

R.C.P. PIPE DATA (100 Year Storm Calcs.)

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	85	.0673	74.69	250.90	7.74	3993.88	4003.62	3990	4009.97	4003.76	3995.72
1-2	42	128	.0064	74.69	87.19	7.74	4009.97	4004.38	3995.72	4008.26	4004.68	3996.54
1-3	42	339	.0047	71.17	74.72	7.42	4008.26	4005.27	3996.54	4008.52	4006.60	3998.13
1-4	42	103	.0047	71.17	74.72	7.42	4008.52	4006.60	3997.91	4007.83	4007.31	3999.48
1-5	42	15	.0047	71.17	74.72	5.05	4007.83	4007.31	3998.62	4007.73	4007.31	3998.69
1-6	42	34	.0047	48.59	49.53	6.87	4007.73	4007.31	3998.69	4007.91	4007.31	3998.85
1-7	42	449	.0080	48.59	66.61	6.87	4007.91	4007.64	3998.85	4010.48	4008.56	4002.45
1-8	36	72	.0065	48.59	52.10	6.87	4010.48	4008.62	4002.45	4009.78	4008.99	4002.92

INLET DATA

INLET No.	INLET TYPE	No. GRATES	$Qd_{50\ YR.}$ cfs	$Qd_{100\ YR.}$ cfs	Qc cfs
1-1	III	2	3.15	3.52	20.29
1-2	II Mod.	10	20.12	22.79	78.00
1-3	III	5	42.88	48.59	49.52
2-1	III	2	14.89	16.84	20.29
2-2	II-MOD.	10	20.59	23.35	78.00

CLOGGING FACTOR = 2/3

CURVE TABLE

CURVE #	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	312.00'	339.31'	188.62	322.83'	N61°07'48"W	62°18'37"
C2	988.00'	103.13'	51.61	103.08'	N32°57'54"W	5°58'50"
C3	312.00'	19.78'	9.89	19.77'	N34°08'22"W	3°37'54"
C4	312.00'	29.17'	14.59	29.16'	N29°38'44"W	5°21'23"

STREET CARRYING CAPACITY-1% CROWN-50 YR STORM

STREET NAME	STATION	Q_D CFS	Velocity	Depth	Q_{CAP} CFS @ 5"
BLACK MESQUITE DR.	15+15	20.12	2.53	0.43	34.83
MESQUITE THORN DR.	15+15	20.59	2.50	0.44	34.83

THE CITY OF EL PASO TEXAS
Final Approval

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	EJ

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

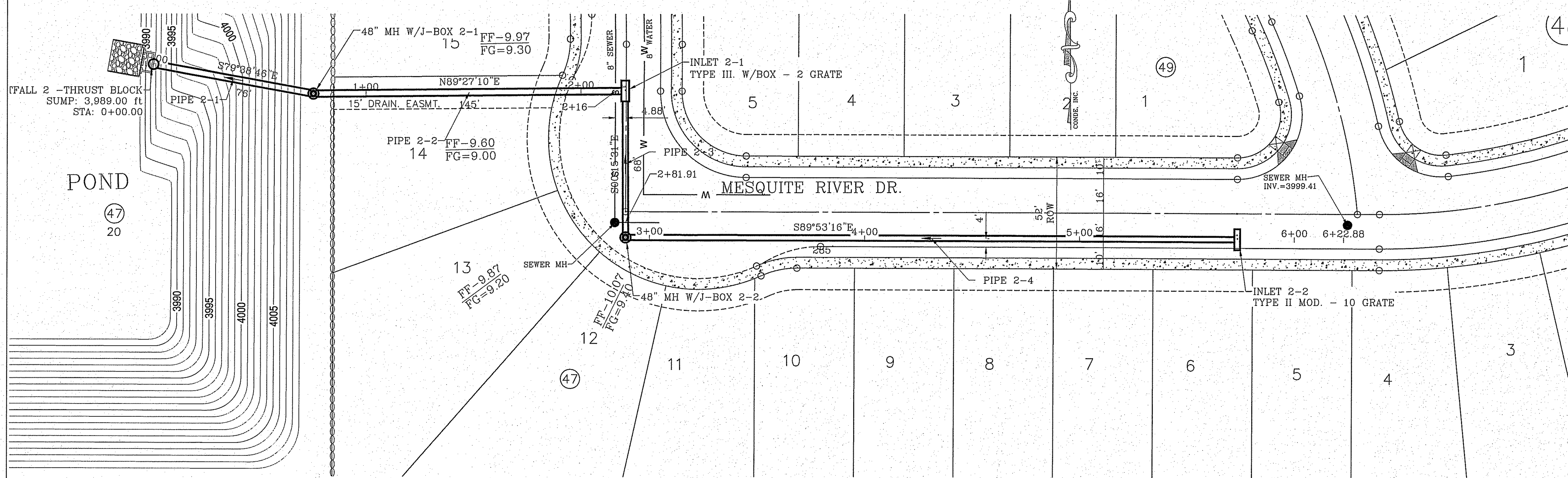
SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
JAVIER A. ACOSTA 109225

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

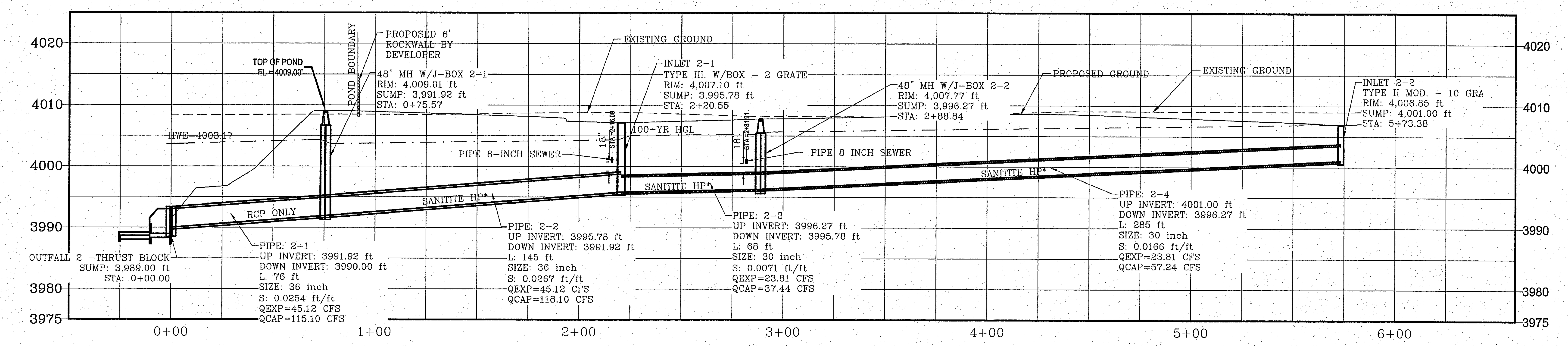
BLACK MESQUITE STRUCTURE NO. 1



ALL R.C.P. ARE CLASS III OR SANITITE HP TRIPLE WALL UNLESS OTHERWISE NOTED

CONSTRUCTION NOTES:

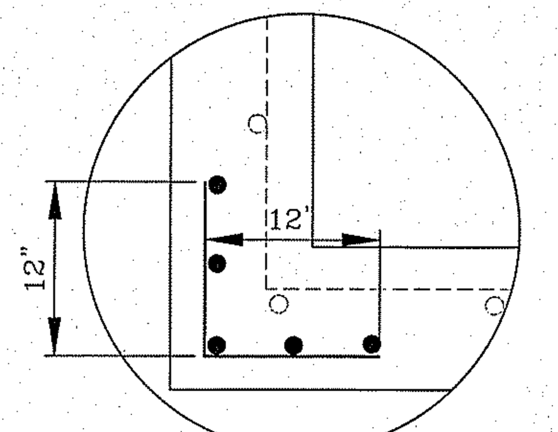
1. ALL CONCRETE FOR STRUCTURES SHALL BE 3000 PSI. UNLESS OTHERWISE NOTED.
2. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
3. 95% COMPACTION REQUIRED FOR STRUCTURES AS PER ASTM D1557.
4. REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
5. SANITITE HP TRIPLE WALL TO BE USED AS AN APPROVED ALTNERNATE FOR ALL PIPE EXCEPT FOR THE PIPE ENTERING THE POND.



SANITITE HP NOTE

PIPE FITTINGS SHALL BE TRIPLE WALL, SMOOTH INTERIOR AND EXTERIOR, WITH ANNULAR INNER CORRUGATIONS IN CONFORMANCE TO ASTM F2764 FOR PIPE DIAMETERS 30" TO 60". PIPE FITTINGS FOR DIAMETERS UP TO AND INCLUDING 60" SHALL HAVE A MINIMUM PIPE STIFFNESS OF 40 PSI WHEN TESTED IN ACCORDANCE WITH ASTM D2412. PIPE FITTINGS FOR DIAMETERS UP TO AND INCLUDING 60" SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212.

THE CITY OF EL PASO TEXAS — Final Approval



DETAIL "A"
TYPICAL REBAR AT CONCRETE BENDS
SCALE NTS

SECTION VIEW CHART		
MH 1-1	MH 1-2	MH 2-1
D = 14.25'	D = 7.92'	D = 17.09'
E = 42"	E = 42"	E = 36"
F = 42"	F = 36"	F = 36"

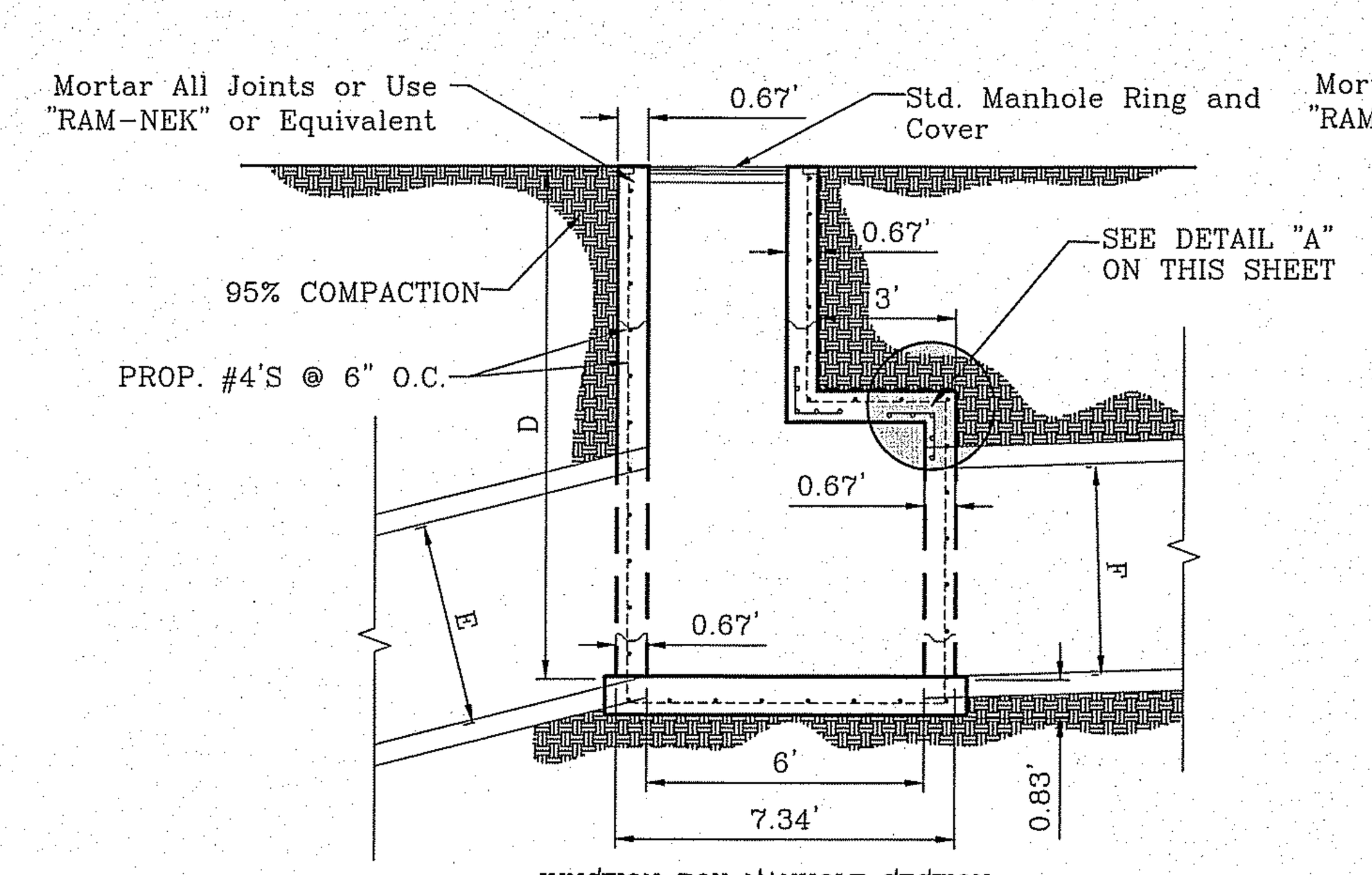
R.C.P. PIPE DATA (100 Year Storm Calcs.)

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	36	76	.0254	40.40	115.10	5.82	3993.33	4003.67	3990	4009.01	4004.34	3991.92
2-2	36	145	.0267	40.40	118.10	4.95	4009.01	4003.67	3991.92	4007.10	4004.34	3995.79
2-3	30	68	.0071	23.56	37.44	4.95	4007.10	4005.10	3995.79	4007.77	4005.25	3996.27
2-3	30	285	.0166	23.56	57.24	4.95	4007.77	4005.60	3999.27	4006.85	4006.98	4001.00

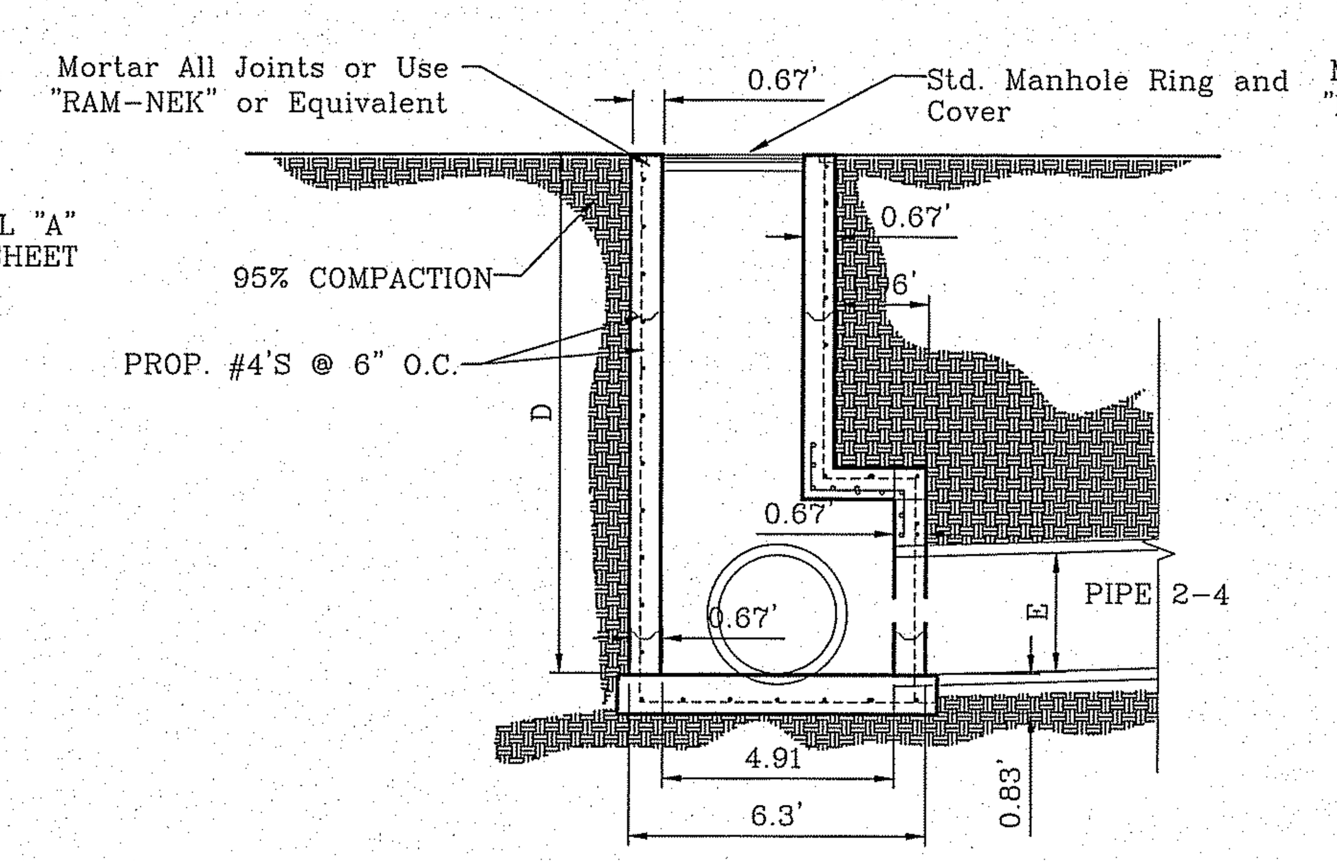
INLET DATA					
INLET No.	INLET TYPE	No. GRATES	$Qd_{50\ YR.}$ cfs	$Qd_{100\ YR.}$ cfs	Qc cfs
1-1	III	2	3.15	3.52	20.29
1-2	II Mod.	10	20.12	22.79	78.00
1-3	III	5	42.88	48.59	49.52
2-1	III	2	14.89	16.84	20.29
2-2	II-MOD.	10	20.59	23.35	78.00

CLOGGING FACTOR = 2/3

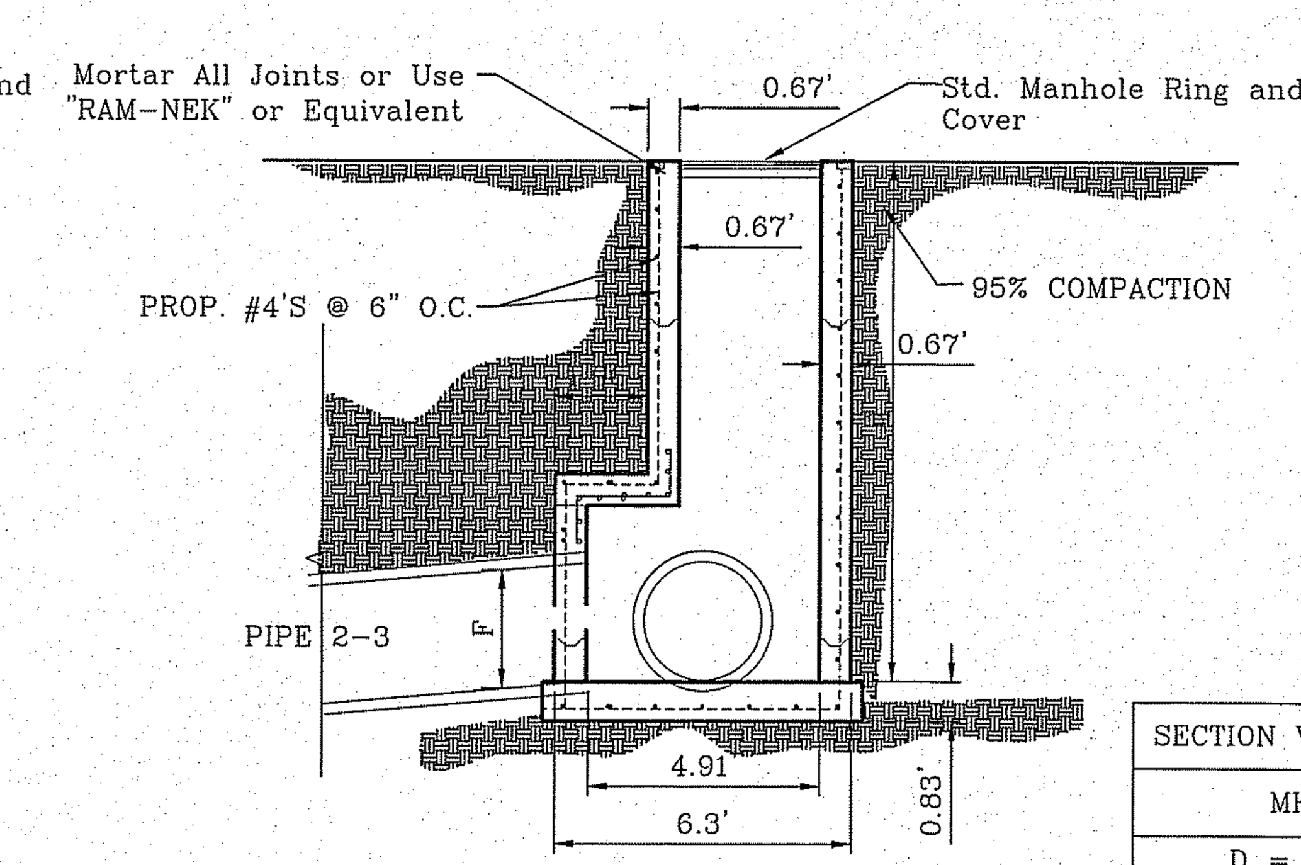
STREET CARRYING CAPACITY-1% CROWN-50 YR STORM					
STREET NAME	STATION	Q_D CFS	Velocity	Depth	Q_{CAP} CFS @ 5"
BLACK MESQUITE DR.	15+15	20.12	2.53	0.43	34.83
MESQUITE THORN DR.	15+15	20.59	2.50	0.44	34.83



JUNCTION BOX MANHOLE SECTION
SCALE: 1"=4'



JUNCTION BOX MANHOLE 2-2 SECTION
SCALE: 1"=4'



JUNCTION BOX MANHOLE 2-2 SECTION
SCALE: 1"=4'

SECTION VIEW CHART
MH 2-2
D = 11.50'
E = 30"
F = 30"

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ: 1" = 30'
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DATE: FEB. 2016
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CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL

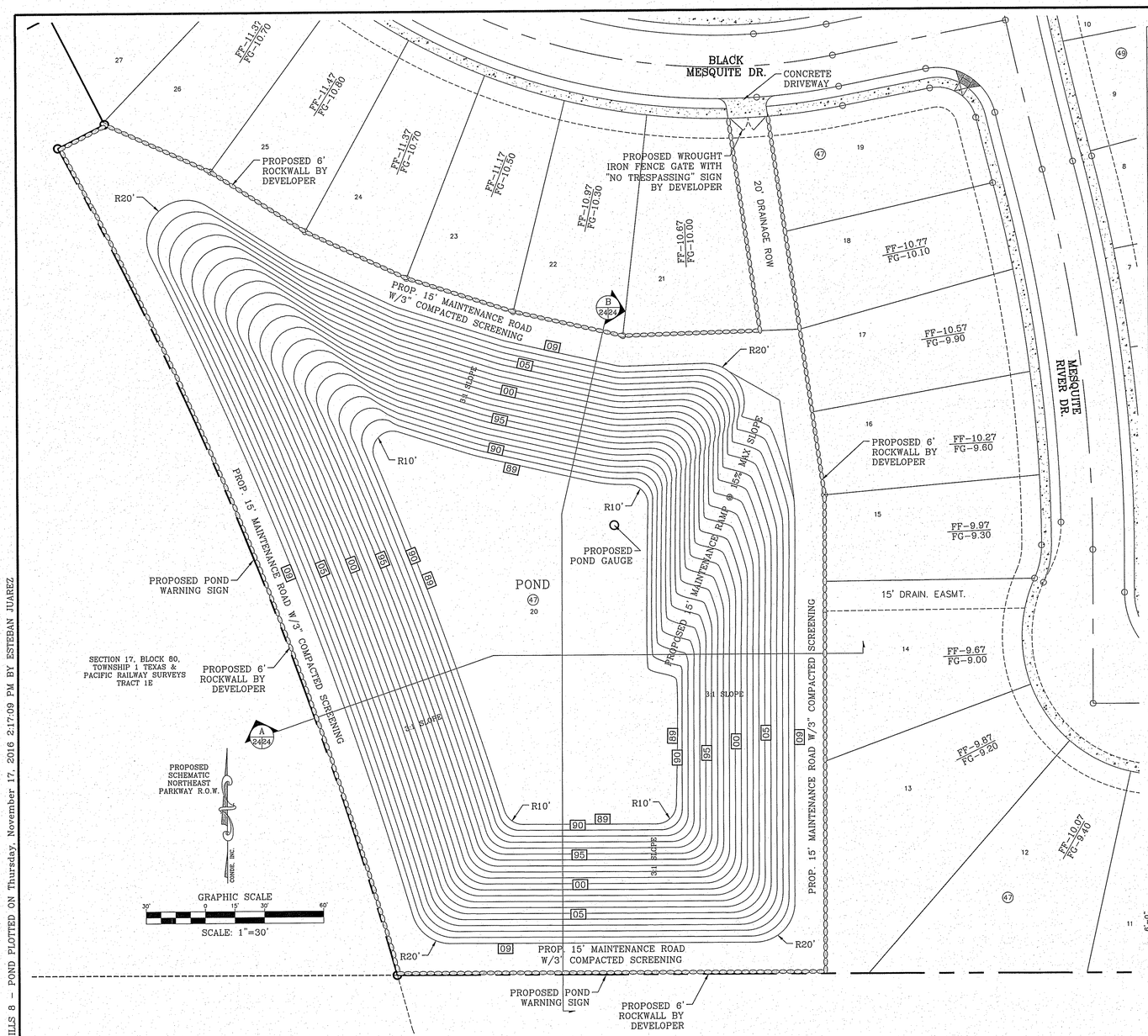
JAVIER A. ACOSTA 109225

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

MESQUITE RIVER STRUCTURE NO. 2



STAGE STORAGE TABLE			
ELEV	AREA (sq. ft.)	CONIC INC. VOL. (ac. ft.)	CONIC TOTAL VOL. (ac. ft.)
3,989.00	19,834.94	N/A	0.00
3,990.00	21,778.06	0.48	0.48
3,991.00	23,853.95	0.52	1.00
3,992.00	26,023.54	0.57	1.57
3,993.00	28,286.92	0.62	2.20
3,994.00	30,643.83	0.68	2.87
3,995.00	33,094.10	0.73	3.60
3,996.00	35,637.88	0.79	4.39
3,997.00	38,275.25	0.85	5.24
3,998.00	41,006.90	0.91	6.15
3,999.00	43,831.82	0.97	7.12
4,000.00	46,750.07	1.04	8.16
4,001.00	49,761.59	1.11	9.27
4,002.00	52,865.99	1.18	10.45
4,003.00	56,063.56	1.25	11.70
4,004.00	59,354.34	1.32	13.02
4,005.00	62,738.27	1.40	14.43
4,006.00	66,215.43	1.48	15.91
4,007.00	69,785.90	1.56	17.47
4,008.00	73,451.02	1.64	19.11
4,009.00	77,204.11	1.73	20.84

WATERSHED-POND

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

POND CALC.
QT=ACR/12
A=TOTAL AREA IN ACRES
R=RAINFALL IN INCHES
C=RUNOFF FACTOR

RESIDENTIAL & POND = $\frac{37.03(4)\ 0.60}{12}$ = 7.41 ac-ft

FUT. COMM = $\frac{15.18(4)\ 0.90}{12}$ = 4.55 ac-ft

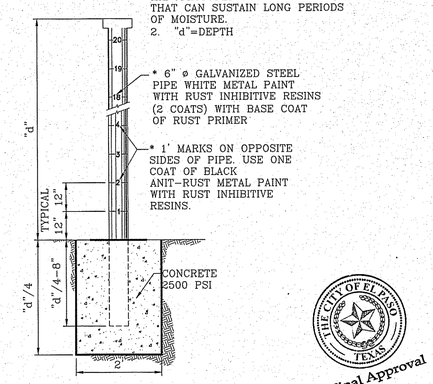
11.96 ac-ft

SILT & DEBRIS = 0.63

Qreq (TOTAL) = 12.59

Qcap (TOTAL) = 20.84

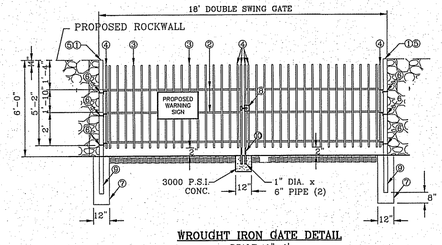
100 YEAR HW ELEVATION = 4003.17



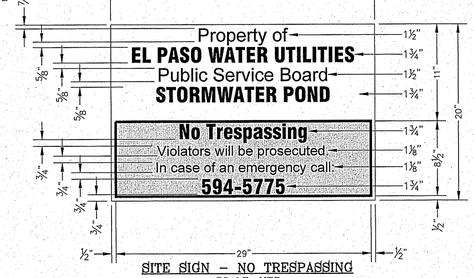
POND DEPTH GAUGE
SCALE: 1"=2'

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.

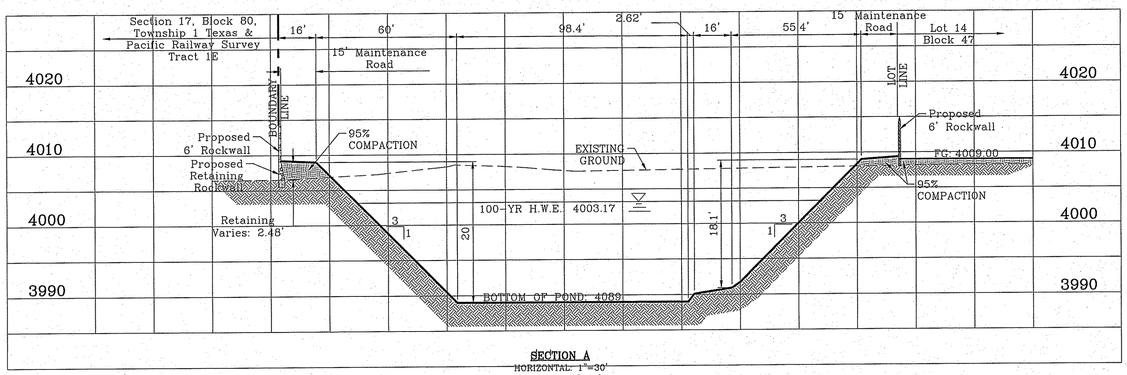
① 3"x3"x3/16" SQUARE STEEL TUBING
② 2"x1"x14 GA. RECTANGULAR STEEL TUBING
③ 1 1/2"x1/2"x16 GA. RECTANGULAR STEEL TUBING
④ 2"x1"x10 GA. RECTANGULAR STEEL TUBING
⑤ FLAT TOP POLYVINYL CAP
⑥ BOLT HOOK AND STRAP HINGE
⑦ 1'x3' DEEP 3000 PSI CONCRETE POST FOOTING
⑧ DOUBLE GATE HEAVY DRTY INDUSTRIAL LATCH W/PAD 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)



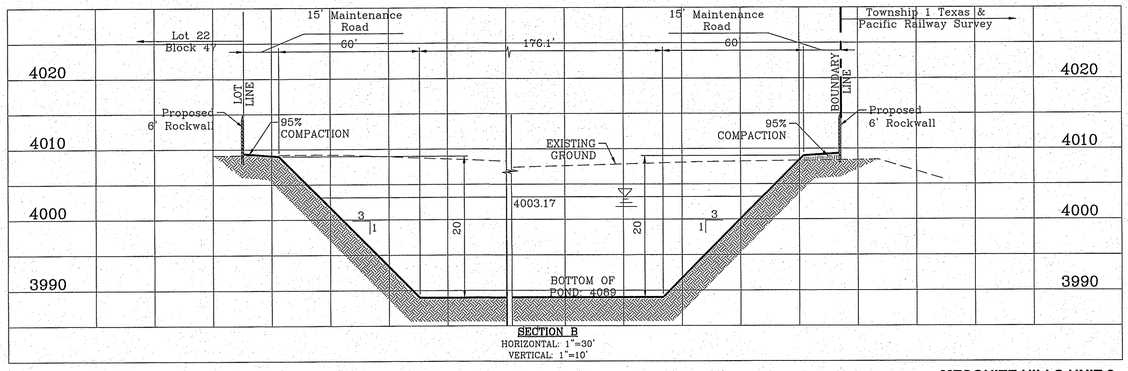
WROUGHT IRON GATE DETAIL
SCALE: 1"=4'



SITE SIGN – NO TRESPASSING
SCALE: NTS



SECTION A
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



SECTION B
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

REVISIONS		
DATE		BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 15 AND 15E, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

THE CITY OF EL PASO TEXAS
Final Approval

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

DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER
11/07/2016

CONDE INC.
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FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. F-2321

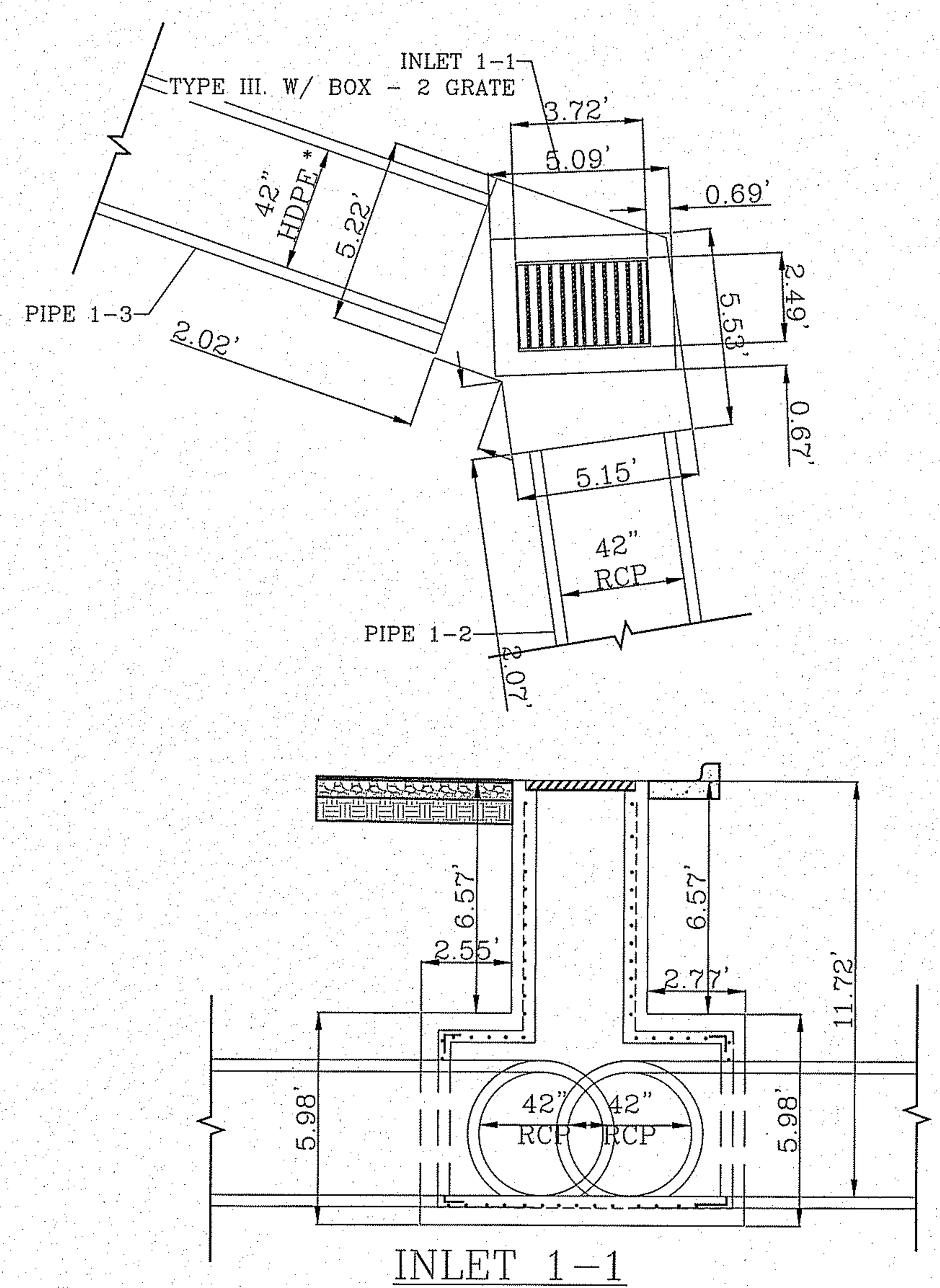
SHEET TITLE

POND WITH SECTIONS

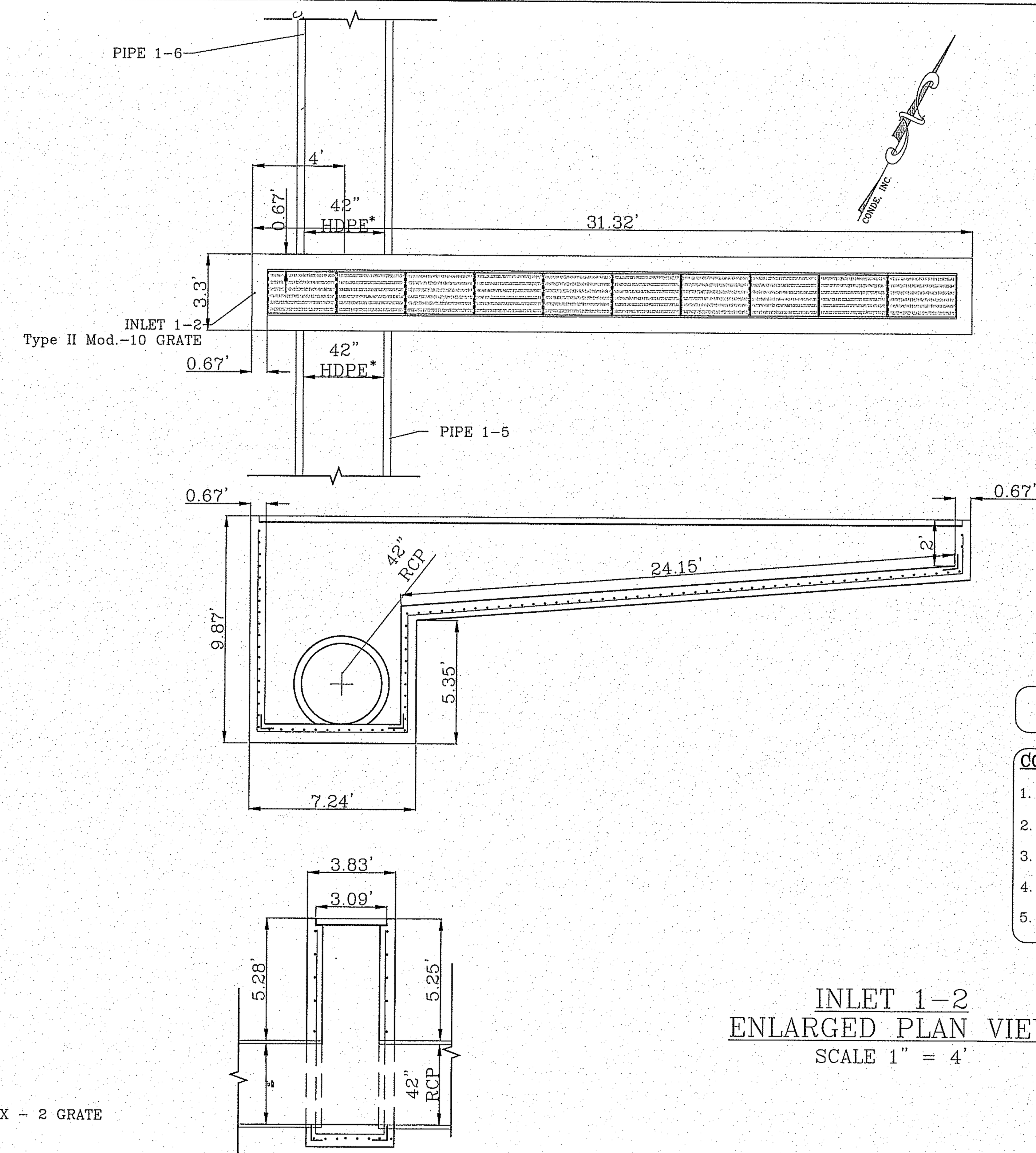
SHT 24 OF 30

MESQUITE HILLS UNIT 8

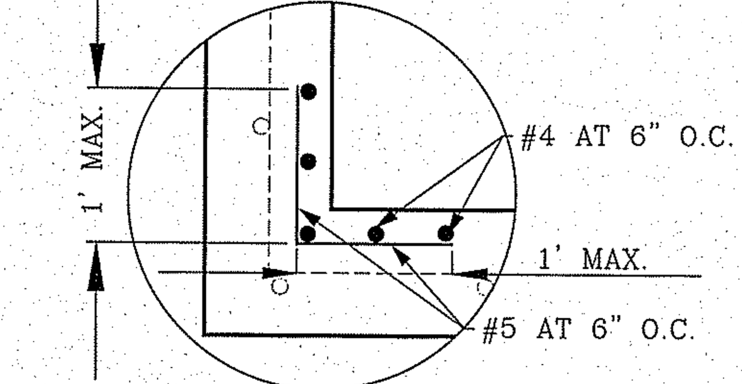
FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - POND PLOTTED ON Thursday, November 17, 2016 2:17:09 PM BY ESTEBAN JUAREZ



INLET 1-1
ENLARGED PLAN VIEW
SCALE 1" = 4'



INLET 1-2
ENLARGED PLAN VIEW
SCALE 1" = 4'



DETAIL A
TYPICAL REBAR AT CONCRETE BENDS
SCALE NTS

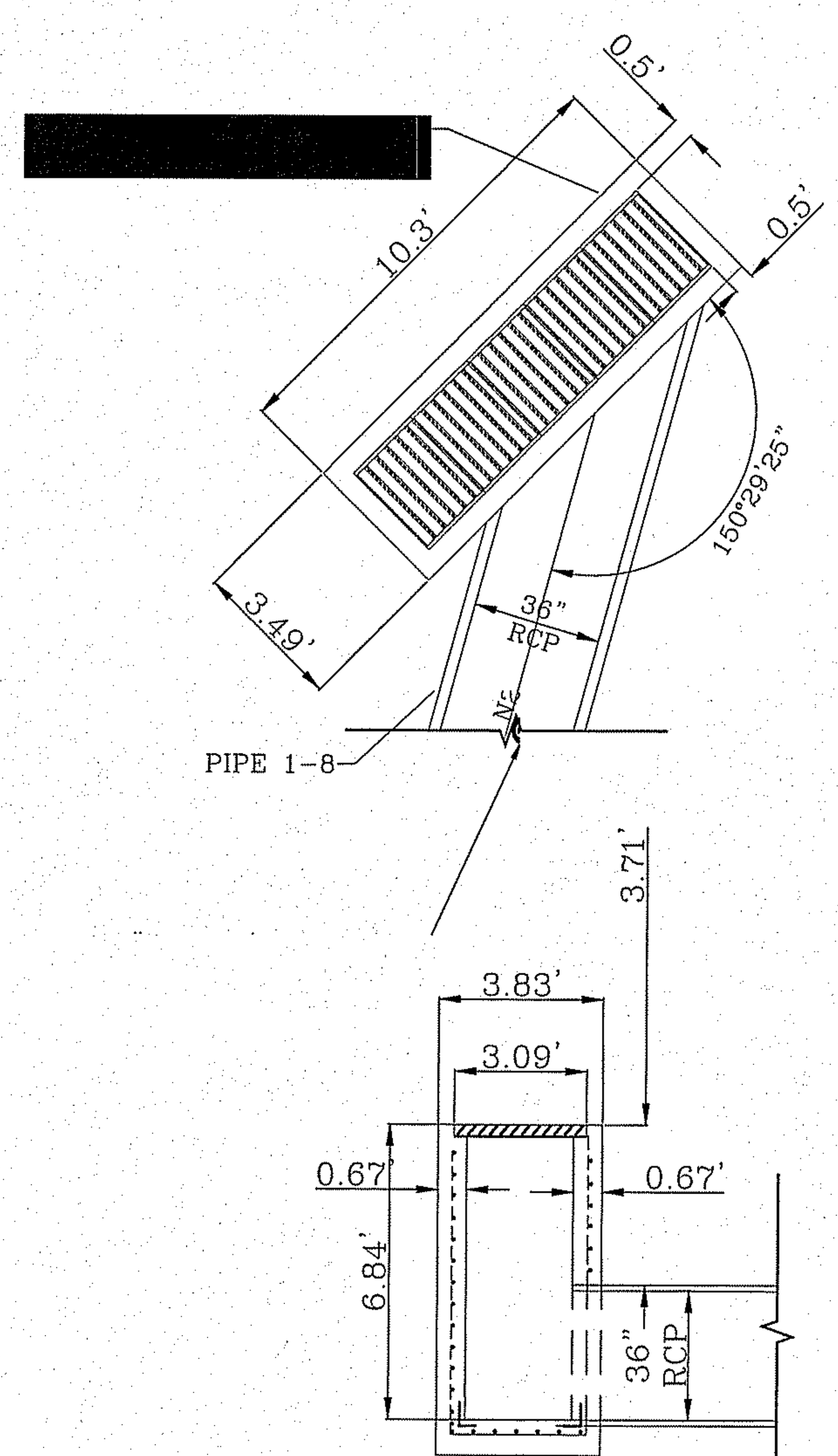
ALL R.C.P. ARE CLASS III OR SANITITE HP TRIPLE WALL UNLESS OTHERWISE NOTED

CONSTRUCTION NOTES:

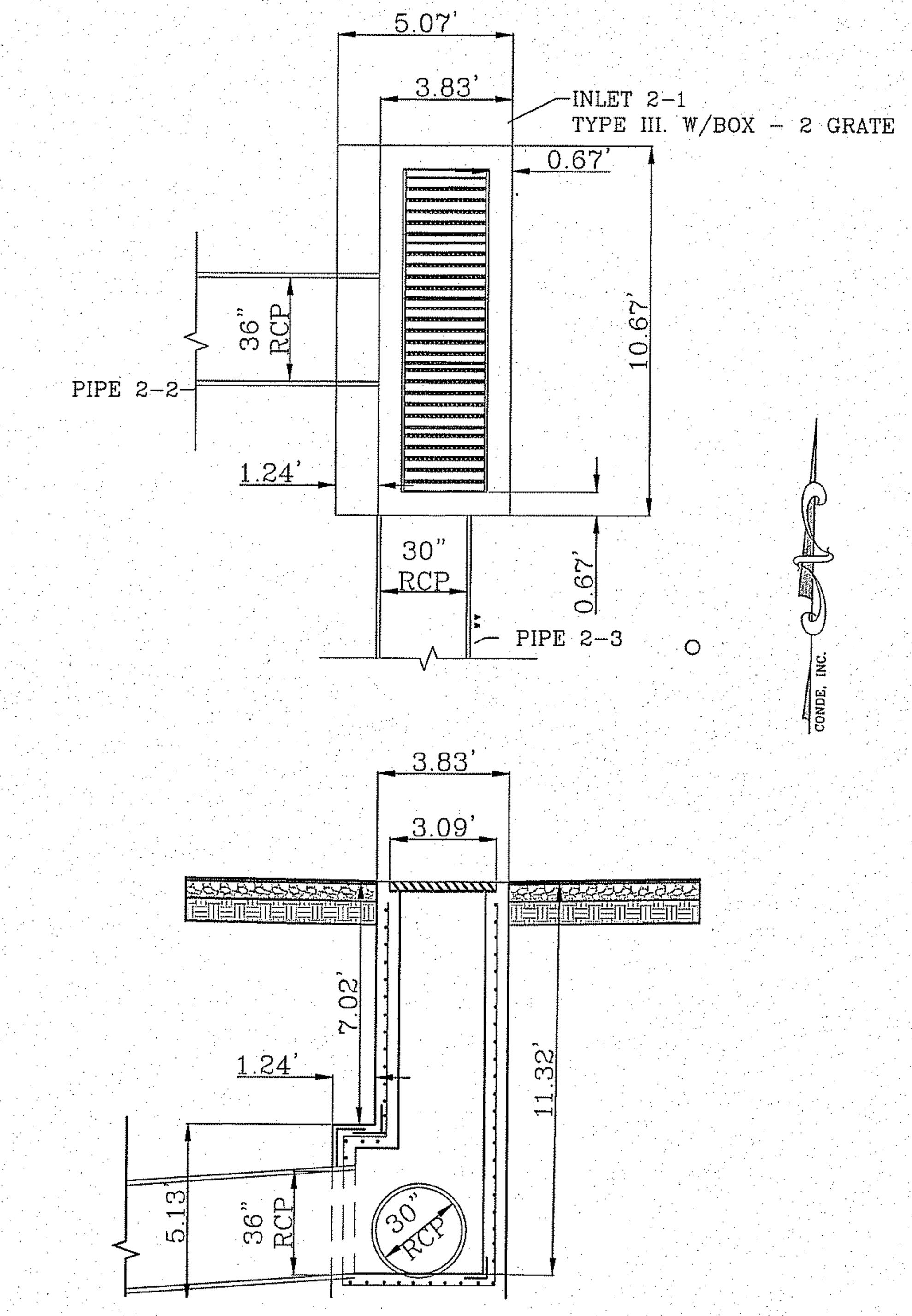
1. ALL CONCRETE FOR STRUCTURES SHALL BE 3000 PSI. UNLESS OTHERWISE NOTED.
2. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
3. 95% COMPACTION REQUIRED FOR STRUCTURES AS PER ASTM D1557.
4. REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
5. SANITITE HP TRIPLE WALL TO BE USED AS AN APPROVED ALTNERNATE FOR ALL PIPE EXCEPT FOR THE PIPE ENTERING THE POND.

HDPE NOTE

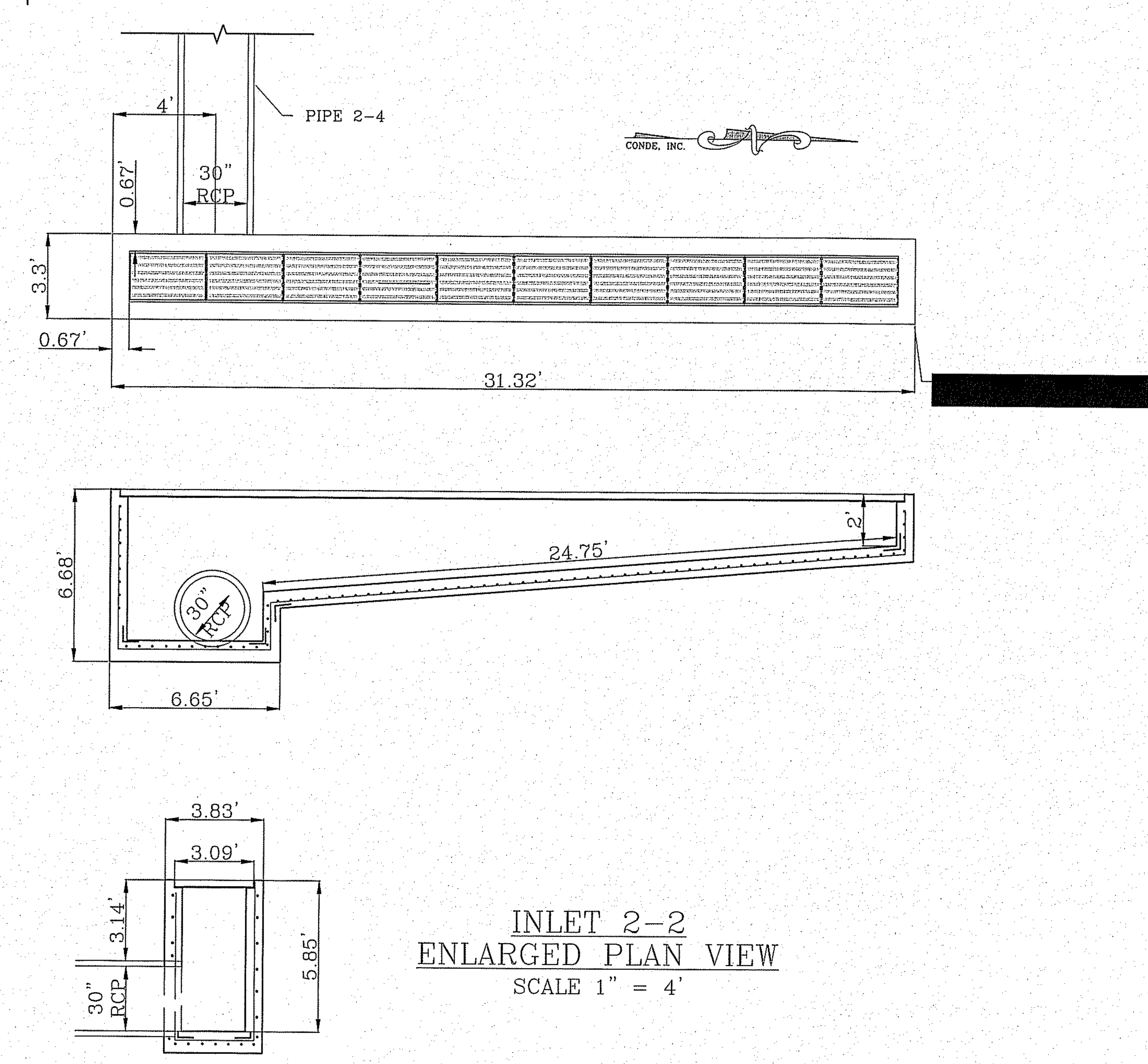
PIPE FITTINGS SHALL BE TRIPLE WALL, SMOOTH INTERIOR AND EXTERIOR, WITH ANNULAR INNER CORRUGATIONS IN CONFORMANCE TO ASTM F2764 FOR PIPE DIAMETERS 30" TO 60". PIPE FITTINGS FOR DIAMETERS UP TO AND INCLUDING 60" SHALL HAVE A MINIMUM PIPE STIFFNESS OF 40 PSI WHEN TESTED IN ACCORDANCE WITH ASTM D2412. PIPE FITTINGS FOR DIAMETERS UP TO AND INCLUDING 60" SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212.



INLET 1-3 OFFSTREET
ENLARGED PLAN VIEW
SCALE 1" = 4'



INLET 2-1
ENLARGED PLAN VIEW
SCALE 1" = 4'



INLET 2-2
ENLARGED PLAN VIEW
SCALE 1" = 4'

THE CITY OF EL PASO TEXAS
Final Approval

BENCHMARK
BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME
MESQUITE HILLS UNIT 8
BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

S C A L E
HORIZ: as shown
VERT: shown

DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER
NOV. 17, 2016

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PHONE: (915) 592-0283
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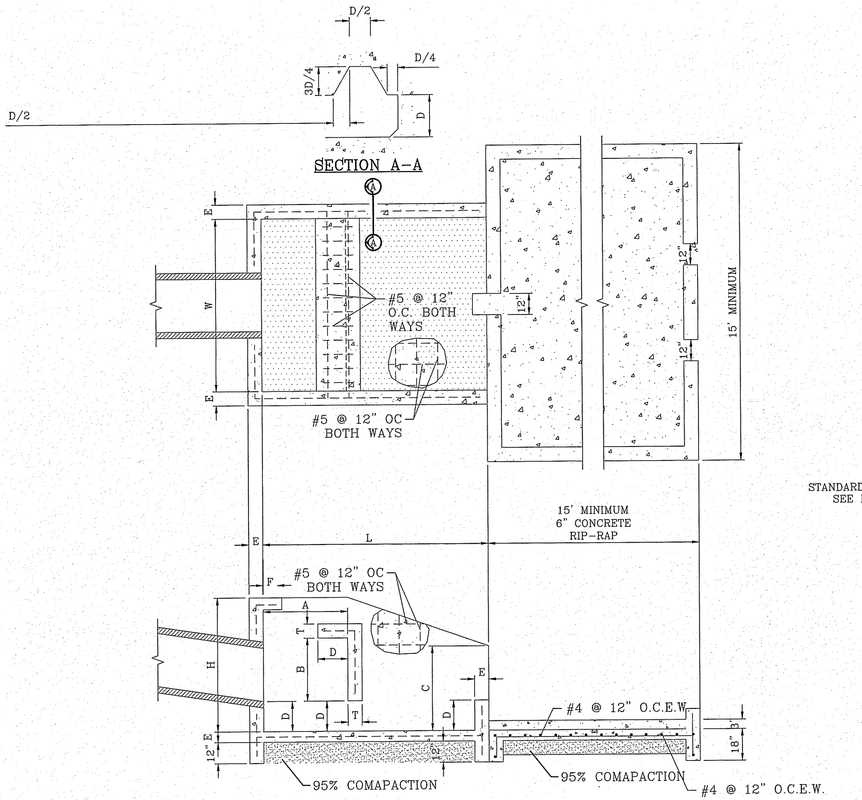
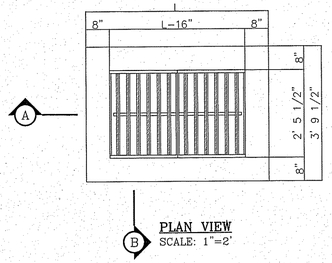
CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE
STORM DRAIN INLET DETAILS

THRUST BLOCK DIMENSION CALCULATIONS (NEED DATA IN YELLOW)

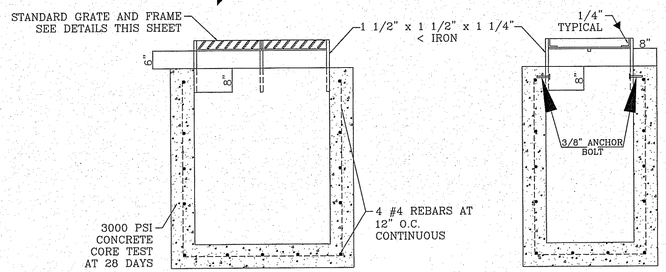
DATA INPUT FROM STROMCAD & STRUCTURES								THRUST BLOCK DIMENSIONS								
Struct. no.	Pipe size	CFS (total)	Velocity (v)	Depth (d)	g	froud	W/D (from chart)	W	H (3/4)	L (4/3)	A (1/2)	b (3/8)	c (1/2)	d (1/6)	e (1/12)	f (1/12)	t (1/12)
1	42	74.91	7.74	1.37	32.2	1.165	3.50	5'-6"	4'-6"	6'-5"	2'-5"	1'-10"	2'-5"	0'-8"	0'-8"	0'-8"	0'-8"
2	36	40.19	5.82	1.21	32.2	0.932	3.0	5'-0"	4'-0"	4'-10"	1'-10"	1'-5"	1'-10"	0'-8"	0'-8"	0'-8"	0'-8"





PLAN VIEW
SCALE: 1"=2'

No. OF GRATES	L
1	3' 4"
2	5' 3"
3	7' 2"
4	9' 1"
5	11' 0"
6	12' 11"

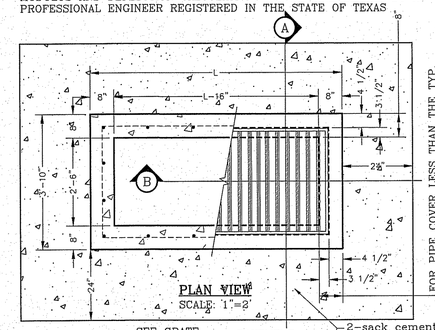


SECTION A-A
SCALE: 1"=2'

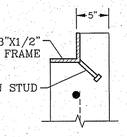
OFF-STEET STORM INLET

SECTION B-B
SCALE: 1"=2'

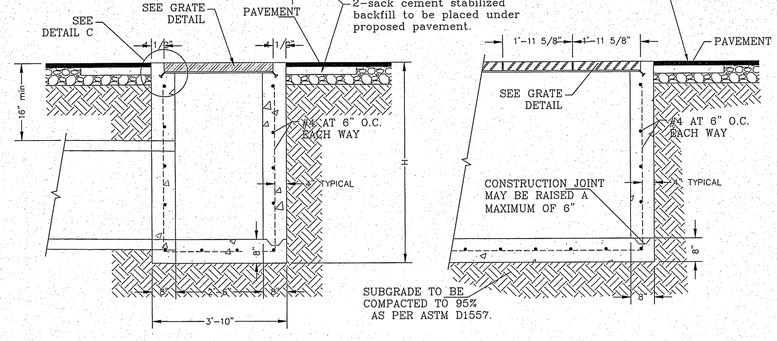
ALL SUBSTITUTIONS OF STRUCTURAL STEE BEAMS AND CHANNELS FOR DROP INLETS MUST BE SUBMITTED FOR REVIEW AND INCLUDE SECTION MODULUS AND DEFLECTION CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS



PLAN VIEW
SCALE: 1"=2'



DETAIL "C"
SCALE: 1"=5'



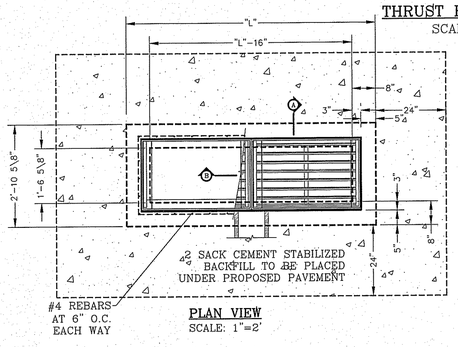
SECTION A-A
SCALE: 1"=2'

SECTION B-B
SCALE: 1"=2'

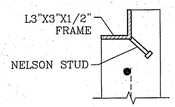
TYPE III INLET

THRUST BLOCK DETAIL

SCALE: 1"=4'



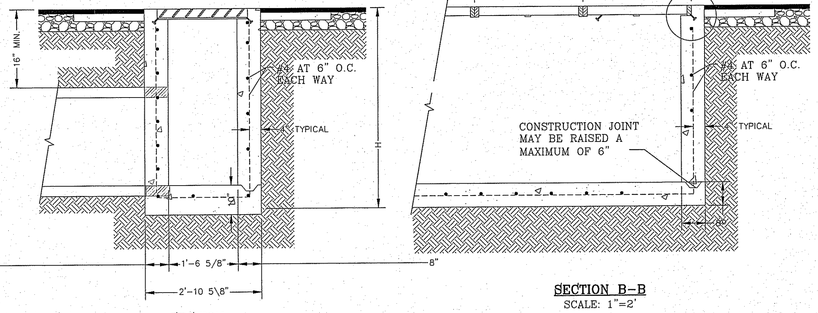
PLAN VIEW
SCALE: 1"=2'



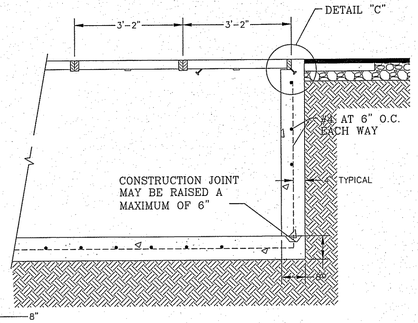
DETAIL "C"
SCALE: 1"=5'

No. OF GRATES	"L"
2	7'-1"
3	10'-2"
4	13'-3"
5	16'-4"

NOTES:
1. H=20' MAXIMUM
2. CONCRETE TO BE 3000 PSI MIN. CORE TEST @ 28 DAYS.
3. GRATE TO BE PERPENDICULAR TO TRAFFIC.



SECTION A-A
SCALE: 1"=2'



SECTION B-B
SCALE: 1"=2'

TYPE II INLET MODIFIED

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1 AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

SCALE
HORIZ: as
VERT: shown
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J
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JOB NO.: 113-30

ENGINEER'S SEAL

CONDE INC.
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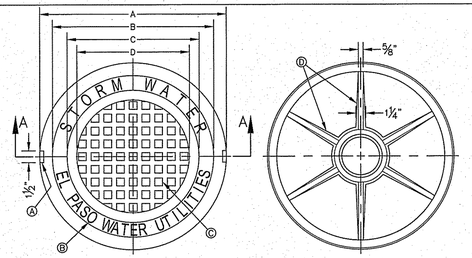
FAX (915) 592-0286

CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

STORM DRAINAGE DETAILS

SHT 26 OF 30

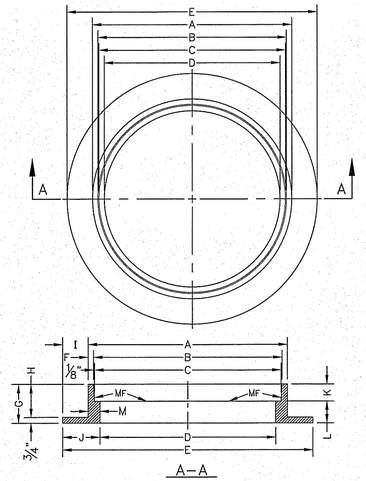


MANHOLE COVER

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 ⅛"±/ 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. ⅜" RAISED LETTERING.
C. 1" SQUARES (⅜" TALL) WITH ⅝" SPACE BETWEEN.
D. REINFORCING RIBS.
E. SLOT.

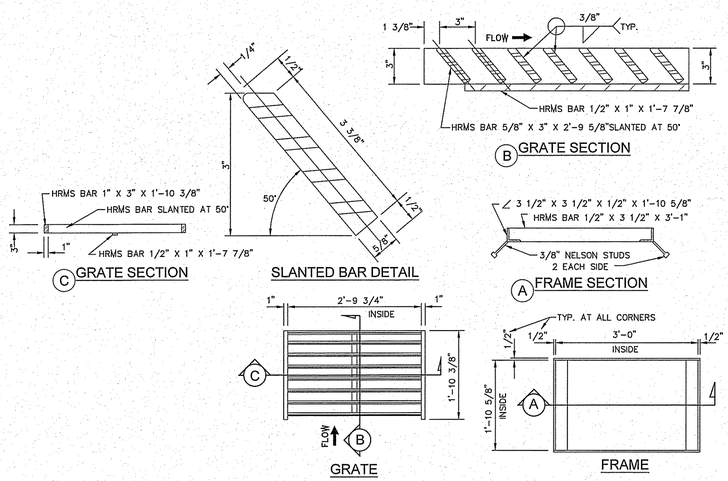
MANHOLE COVER	MANHOLE – ALL TYPES	MANHOLE TYPE 48" (SEE NOTE 6)	MANHOLE TYPE 72" (SEE NOTE 6)
A	31⅜"	23¾"	31⅜"
B	28⅛"	20⅝"	28⅛"
C	24⅜"	16⅝"	24⅜"
D	21⅞"	14⅛"	21⅞"
E	2⅛"	3"	3"
F	¼"	1¼"	1¼"
G	3⅛"	1"	1"
H	1⅛"	¾"	¾"
WEIGHT	265 lbs.	175 lbs.	310 lbs.



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 ⅛"±/ PER FOOT (AASHTO M306–07).
5. WEIGHT MAY VARY 5%± (AASHTO M306–07).
6. SHADED DIMENSIONS IN TABLE FOR REFERENCE ONLY. SOURCE: CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION, DETAIL 2–16.

MANHOLE RING	MANHOLE – ALL TYPES	MANHOLE TYPE 48" (SEE NOTE 6)	MANHOLE TYPE 72" (SEE NOTE 6)
A	33"	25½"	33½"
B	31¾"	23⅞"	31⅞"
C	31½"	23⅝"	31⅝"
D	30"	22½"	30"
E	39½"	34½"	42"
F	⅝"	1⅛"	1⅛"
G	5"	6"	6"
H	4¼"	5¼"	5¼"
I	3¼"	4⅛"	4⅛"
J	4¾"	5"	5"
K	2⅜"	3⅛"	3⅛"
L	2 1⅜/16"	2⅝"	2⅝"
M	1½"	1⅜"	1⅜"
WEIGHT	220 lbs.	165 lbs.	225 lbs.

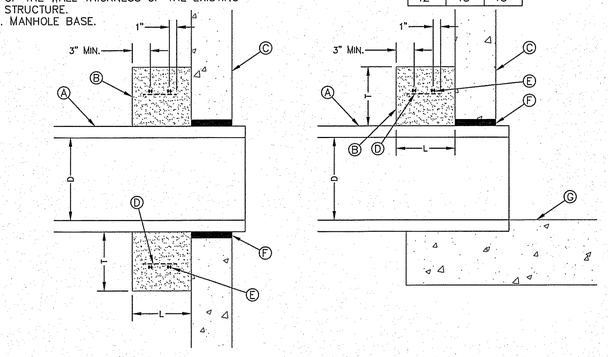


FRAME AND GRATE DETAIL
SCALE: NTS

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.

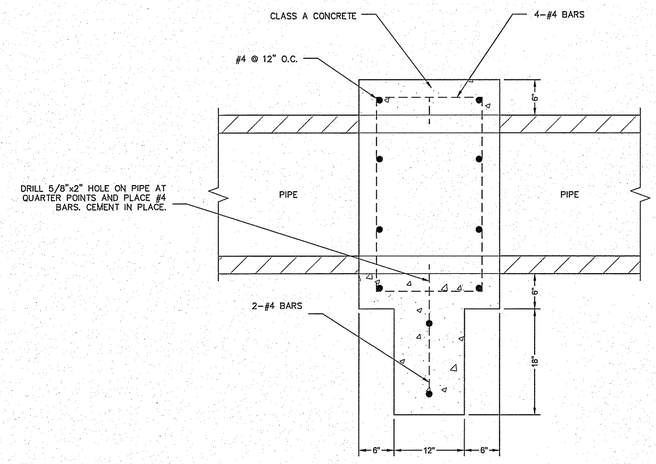
TABLE		
D	L	T
18"	12"	12"
24"	12"	12"
30"	12"	12"
36"	18"	18"
42"	18"	18"



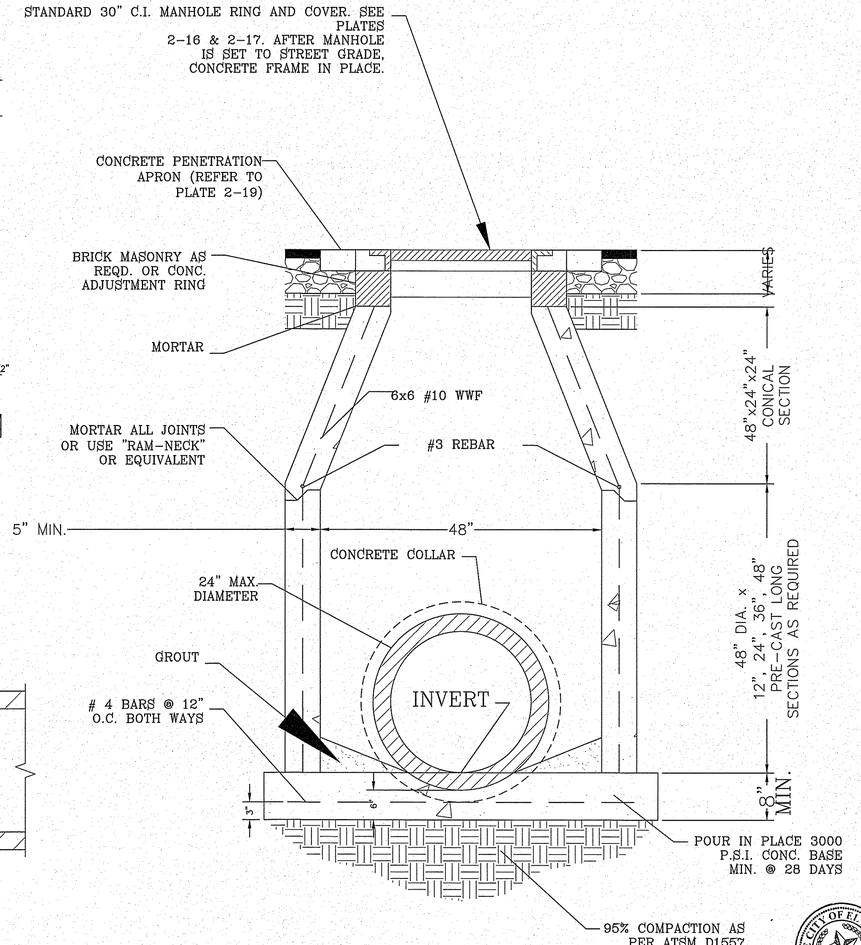
CONNECTION AT DROP INLET

CONNECTION AT BASE

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



PIPE ANCHOR
SCALE: 1"=2'



48" DIAMETER STANDARD MANHOLE
SCALE: 1"=2'

THE CITY OF EL PASO TEXAS
Final Approval

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

REVISIONS			BY
DATE			

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ: as
VERT: shown
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER
12-15-2016

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

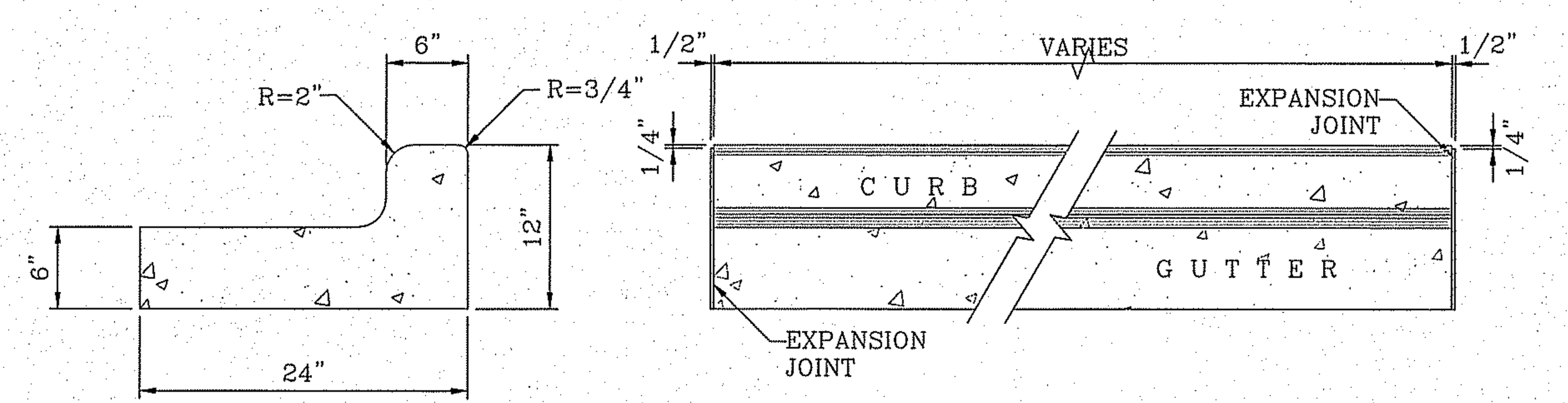
CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

STORM DRAINAGE DETAILS

SHT 27 OF 30

MESQUITE HILLS UNIT 8



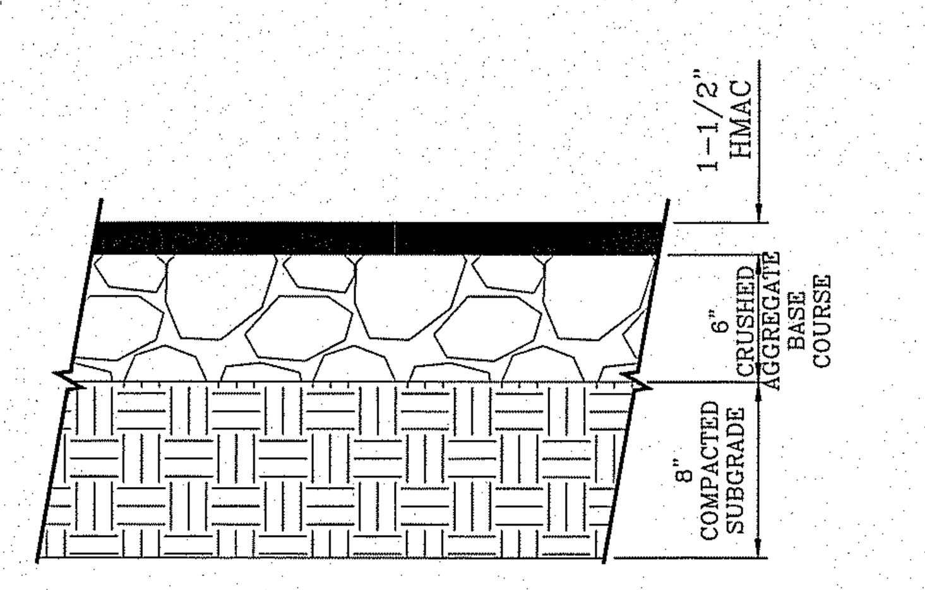
END SECTION

PLAN VIEW

NOTES:

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

CURB & GUTTER DETAIL
SCALE: 1"=1'

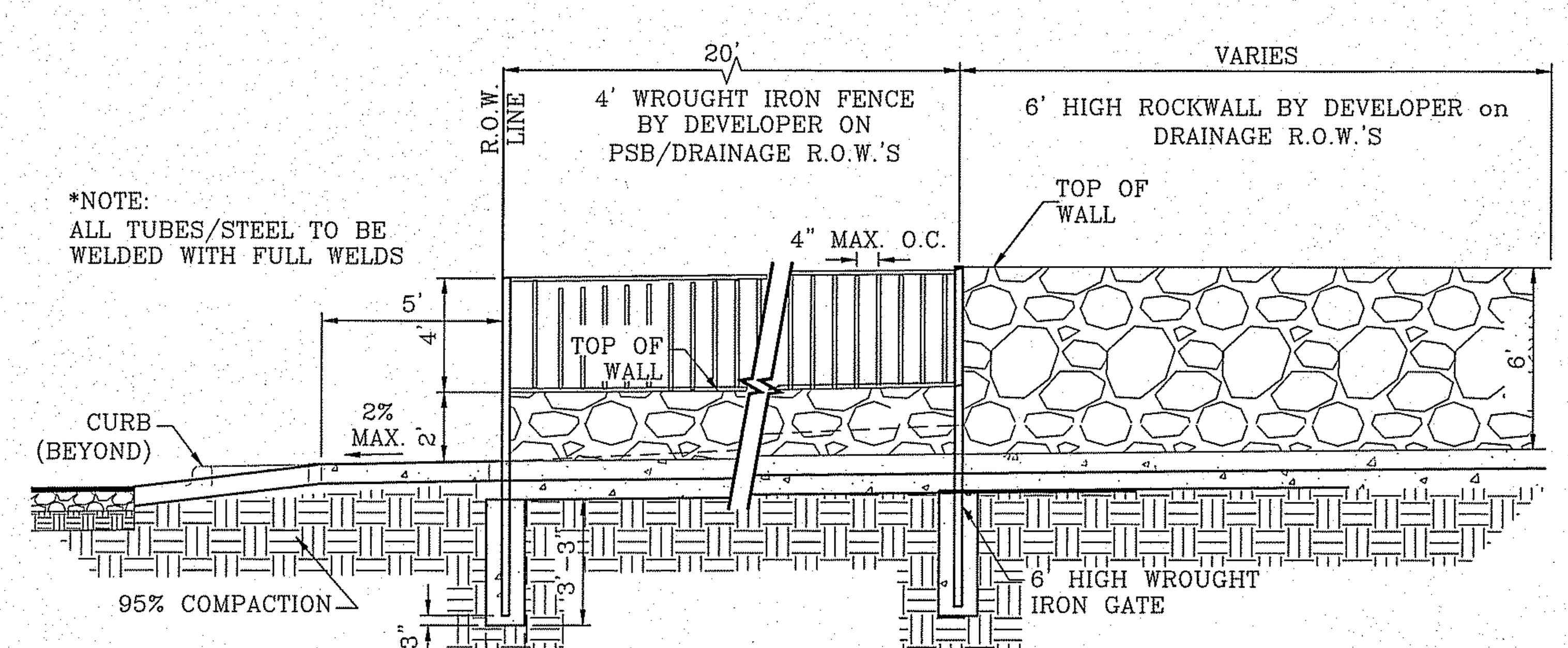


PAVEMENT SECTION DETAIL
SCALE: 1"=1'

PAVEMENT NOTES

1. SUBGRADE TO BE COMPACTED TO 95% OF MAXIMUM DENSITY AS PER ASTM D1557.
2. BASE TO BE COMPACTED TO NOT LESS THAN 100% DENSITY IN ACCORDANCE WITH ASTM D1557. TYPE A, GRADE 1 OR 2.
3. BITUMINOUS MATERIAL SHALL CONFORM TO AC-10 OR AC-20, TYPE "C" IN ACCORDANCE WITH ASTM D3318.
4. PRIME COAT TO BE 0.25 GAL. PER SQUARE YARD (MINIMUM COVERAGE) MC-70.
5. COMPACTION TESTS WHERE REQUIRED BY THE CITY ENGINEER MUST BE PAID FOR BY THE DEVELOPER.
6. 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 500 FEET.
7. STRICT VERTICAL CONTROL OF ALL CURB AND GUTTER ELEVATIONS WILL BE MAINTAINED. BLUE TOPPING WILL BE REQUIRED THROUGHOUT.
8. ALL PLANS MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF EL PASO SUBDIVISION DESIGN AND IMPROVEMENT STANDARDS.
9. HMAC. BASE, SUB BASE WILL BE IN ACCORDANCE WITH THE LATEST CITY OF EL PASO SPECIFICATIONS.
10. MINIMUM PAVEMENT DESIGN DETAILS ARE SHOWN. ACTUAL PAVEMENT DESIGN WILL BE DETERMINED BY: C.B.R.

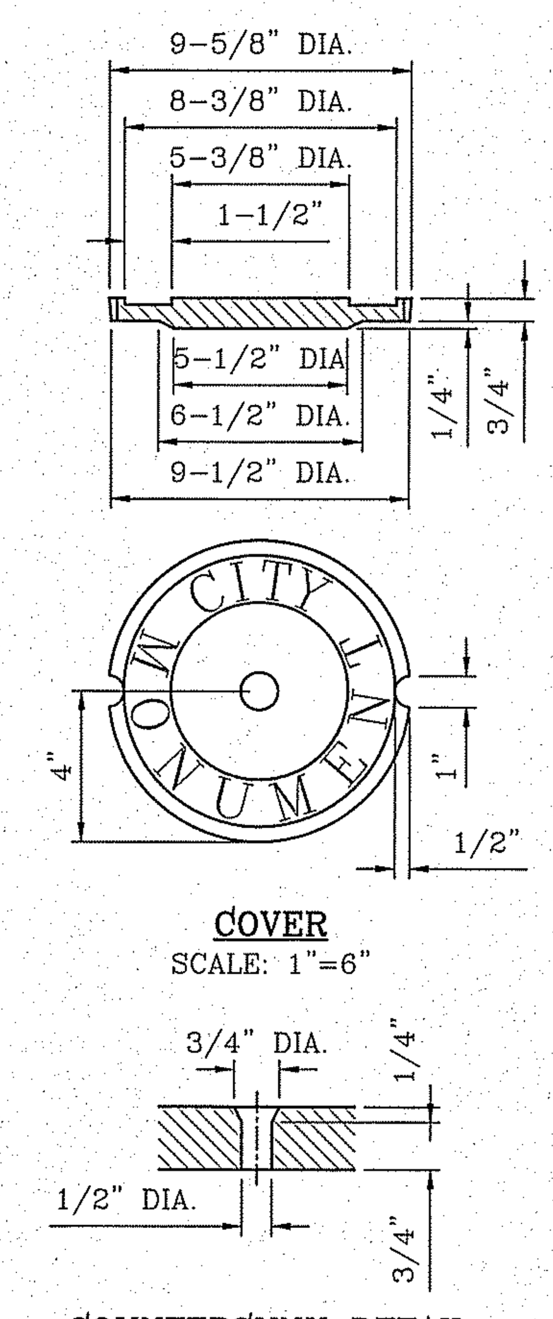
TRENCHING
ALL TRENCHING SHALL BE DONE IN STRICT ACCORDANCE WITH OSHA-2226.



NOTE:

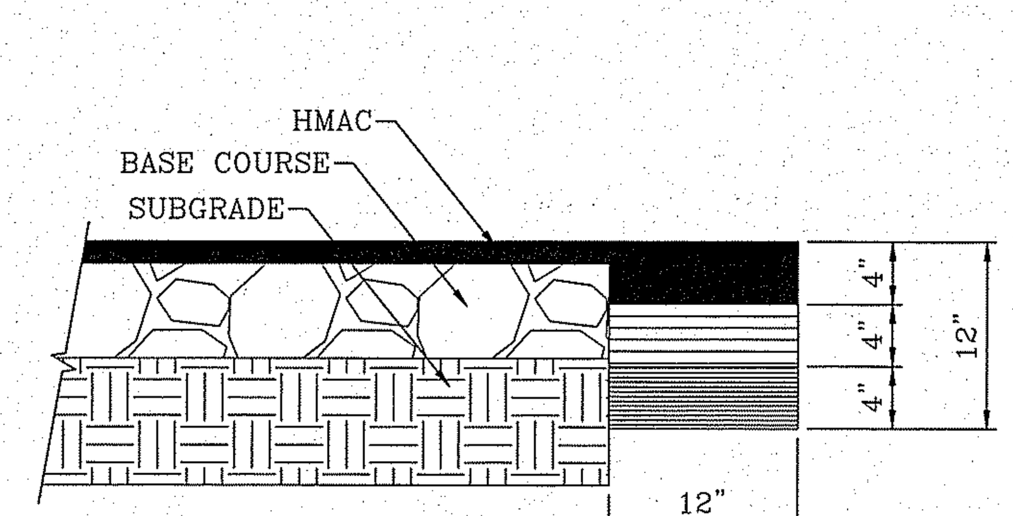
HMAC AND BASE COURSE THICKNESS AS PER CBR'S

ROCKWALL/IRON FENCE FOR DRAINAGE R.O.W.'s
SCALE: 1"=4'



COVER
SCALE: 1"=6"

COUNTERSUNK DETAIL
SCALE: 1"=3"



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.

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.

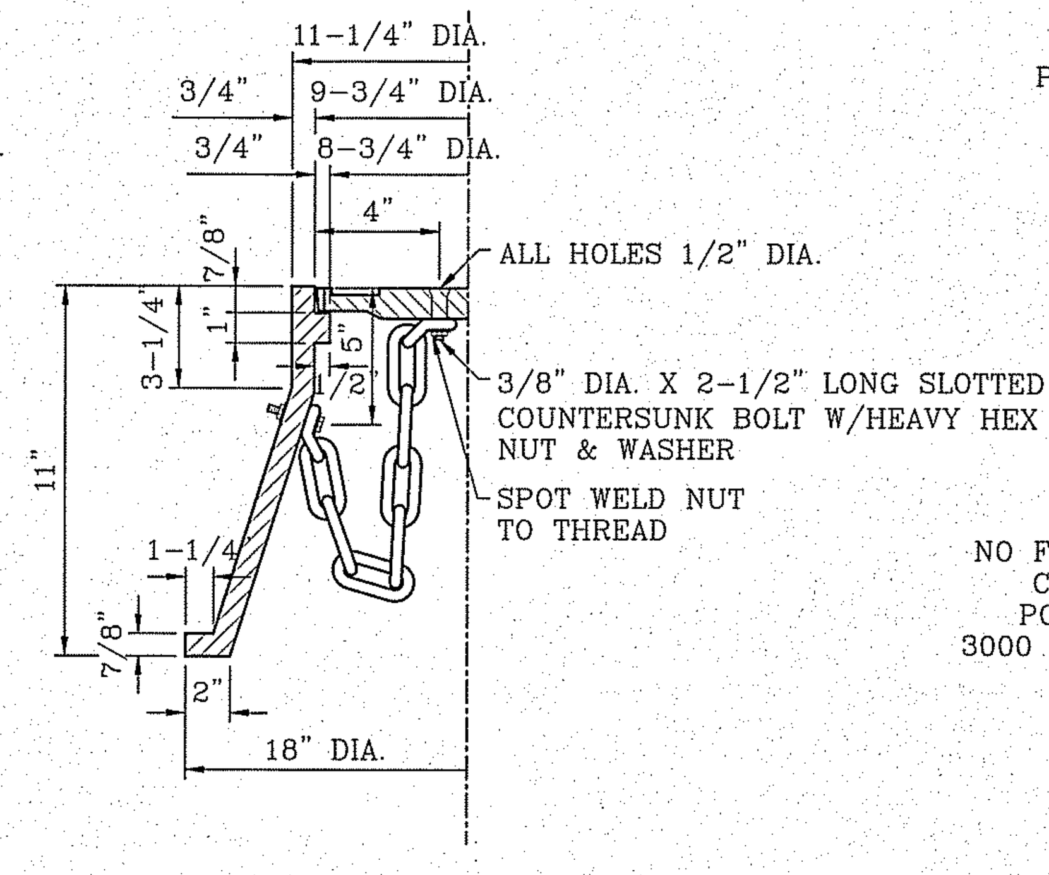
NUMBER AND LOCATIONS:

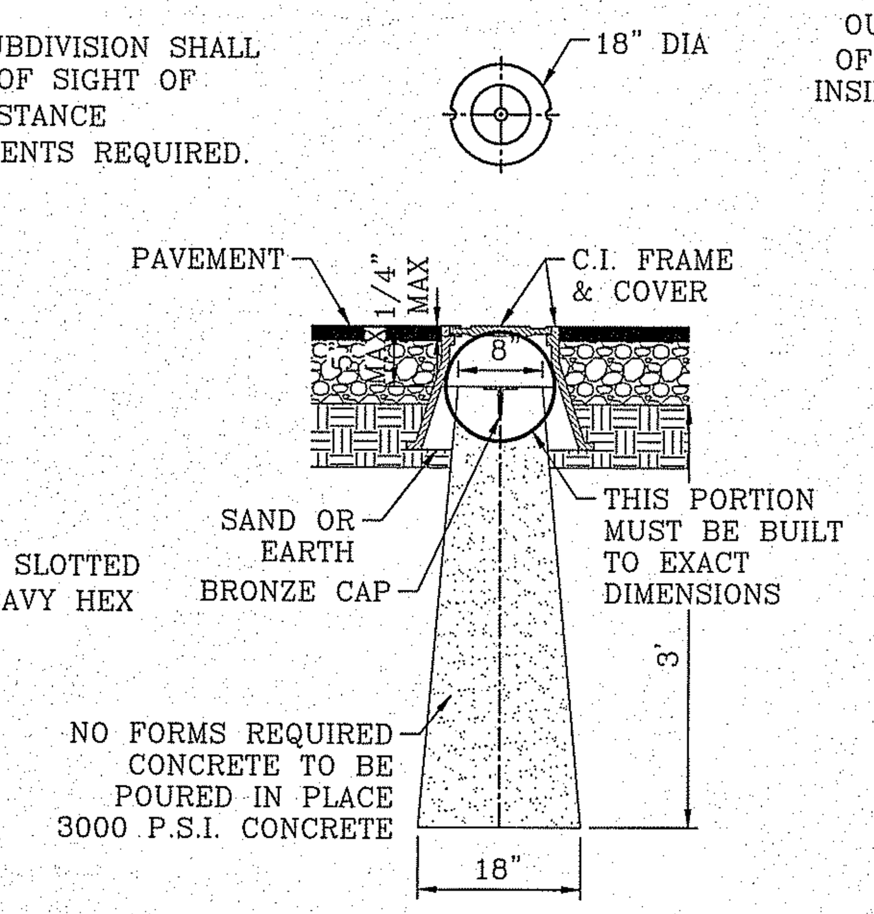
THE MONUMENTS SHALL BE INSTALLED WHERE SHOWN ON THE SUBDIVISION PLAT AS APPROVED BY THE CITY ENGINEER.

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.

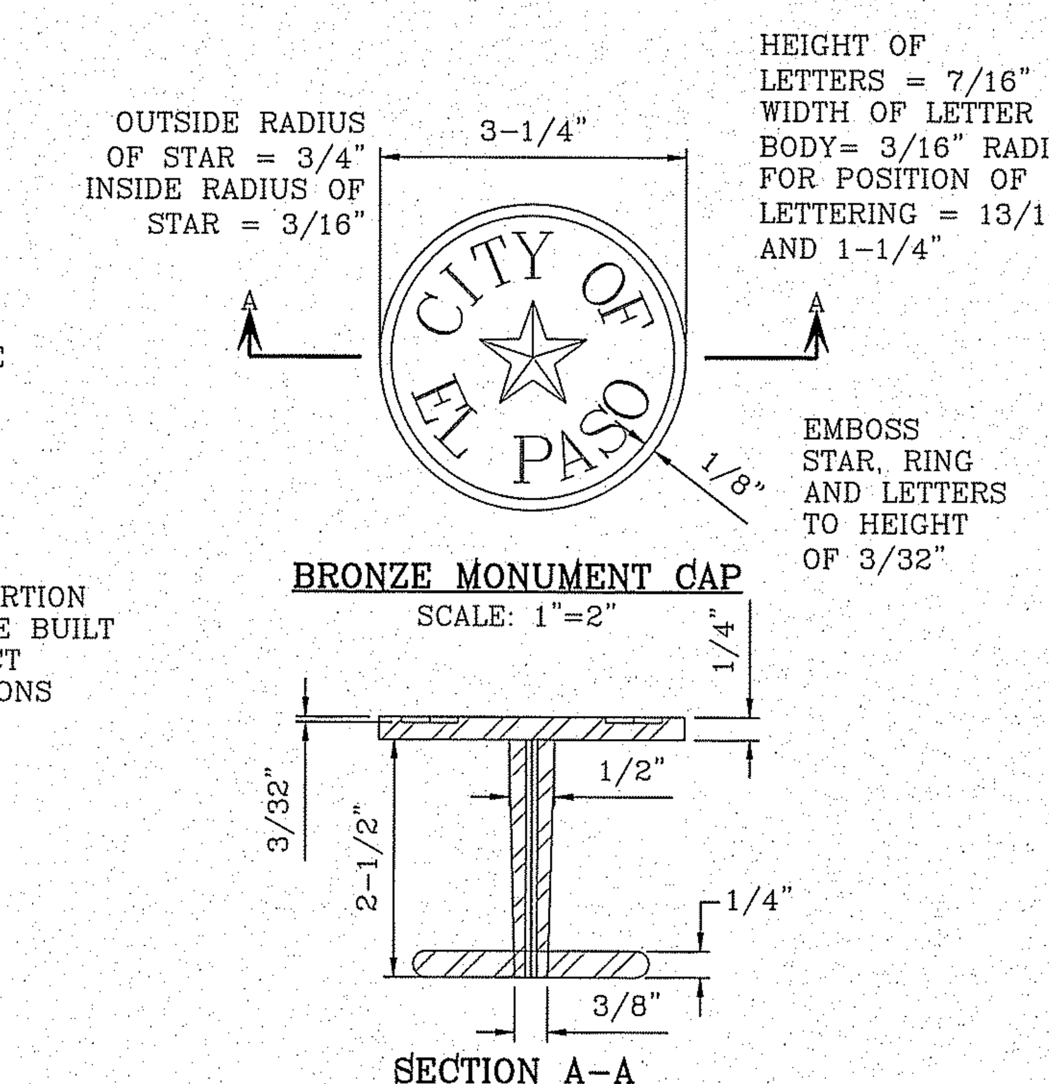
NO FEWER THAN TWO MONUMENTS SHALL BE PLACED IN A ONE STREET SUB-DIVISION.

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.



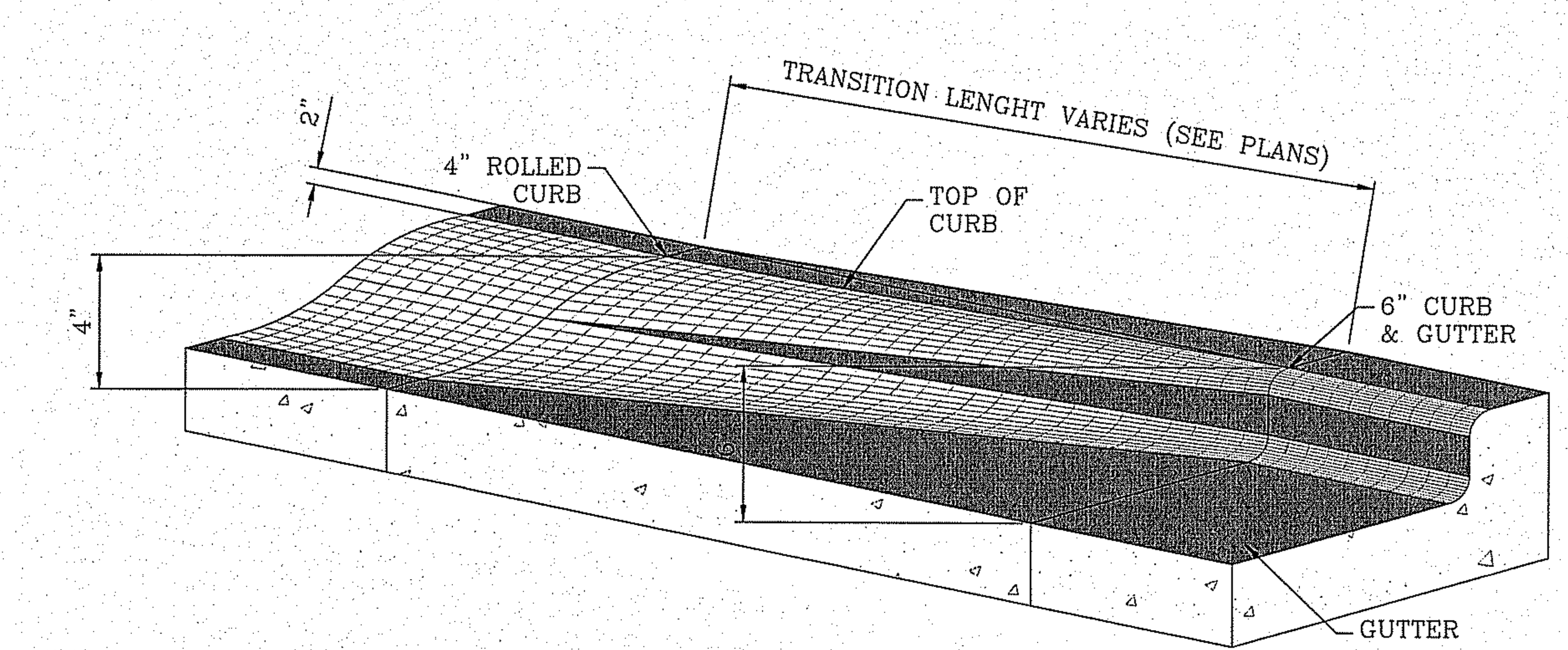


CITY MONUMENT DETAIL
SCALE: 1"=2"

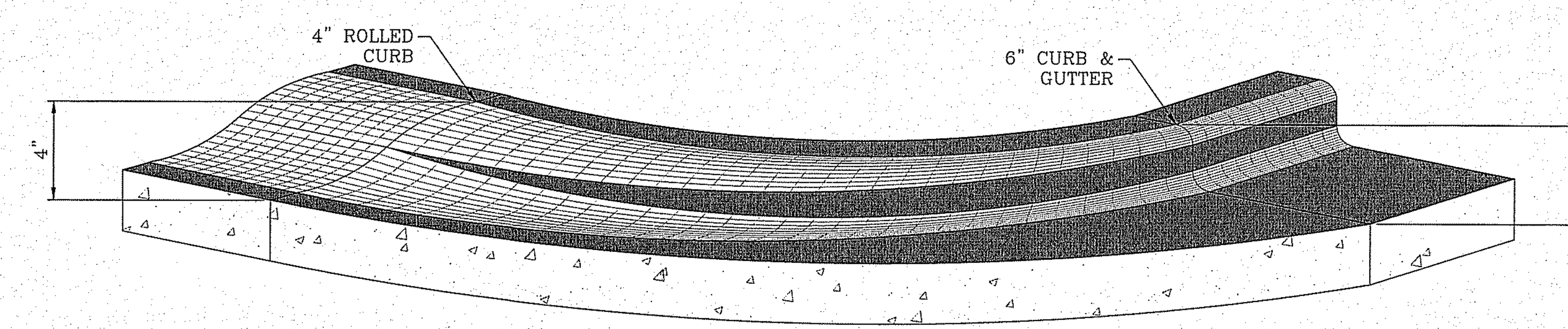


BRONZE MONUMENT CAP
SCALE: 1"=2"

SECTION A-A
SCALE: 1"=2"



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



CURB TRANSITION AT RETURNS
SCALE: 1"=1'

Final Approval

BENCHMARK
BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY
07/06/16	AS PER CITY REDLINES COMMENTS	E.J.

PROJECT NAME
MESQUITE HILLS UNIT 8
BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

S C A L E
HORIZ: as
VERT: shown
DATE: FEB. 2016
DESIGN BY: Y.C.
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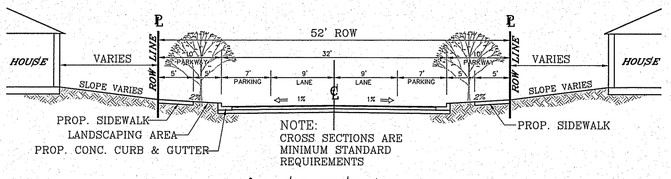
CHECKED BY: Y.C.
JOB NO.: 113-30

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

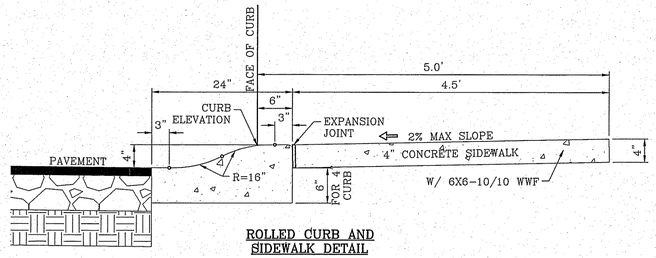
SHEET TITLE

STANDARD DETAILS



52' LOCAL RESIDENTIAL 3

SCALE: 1"=10'

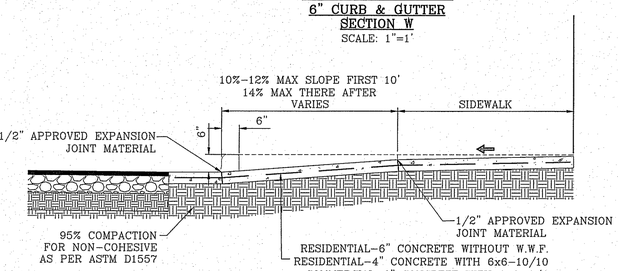


ROLLED CURB AND SIDEWALK DETAIL

SCALE: 1"=1'

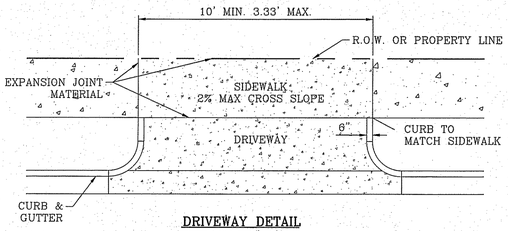
WHEELCHAIR RAMP AT 6" CURB & GUTTER SECTION W

SCALE: 1"=1'



RESIDENTIAL & COMMERCIAL DRIVEWAY SECTION

SCALE: 1"=2'



DRIVEWAY DETAIL

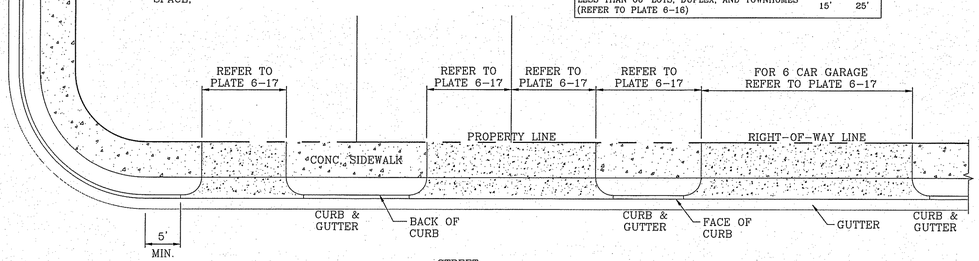
SCALE: 1"=6'

NOTE:

A MINIMUM PARKING SPACE LENGTH OF TWENTY (20) FEET SHALL BE PROVIDED MEASURED FROM THE PROPERTY LINE TO A GARAGE, CARPORT OR PARKING SPACE.

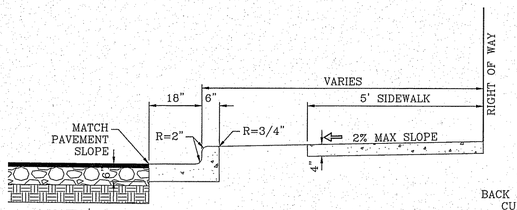
PLATE 6-17

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



TYPICAL RESIDENTIAL DRIVEWAY WITH CURB & GUTTER

SCALE: 1"=10'

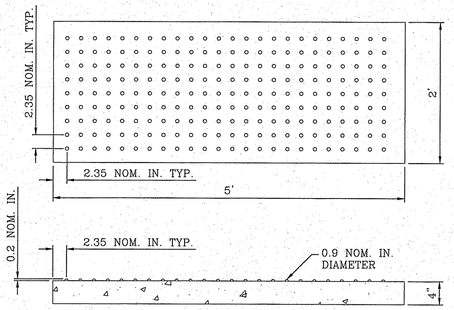


NOTES:

1. CONCRETE SHALL BE 3000 P.S.I. MINIMUM.
2. DUMMY JOINTS REQUIRED AT 10' O.C. FOR CURB/GUTTER AND 5' O.C. FOR SIDEWALK.
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.
5. WHENEVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS, EXPANSION JOINT FILLER SHALL BE USED IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

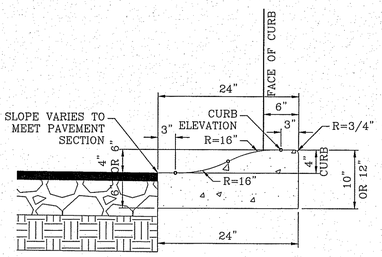
CURB & GUTTER AND SIDEWALK DETAIL

SCALE: 1"=2'



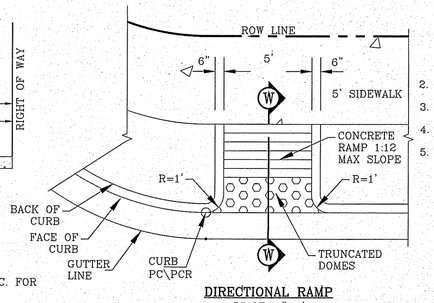
TRUNCATED TILES

SCALE: 1"=1'



ROLLED CURB DETAIL

SCALE: 1"=1'

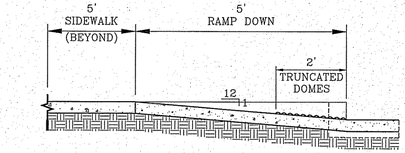


NOTES:

1. ALL RAMPS 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 SHAL NOT EXCEED 1:12
4. ALL RAMPS SHALL BE BUILT BY DEVELOPER
5. AND COMPLY WITH ADA STANDARDS

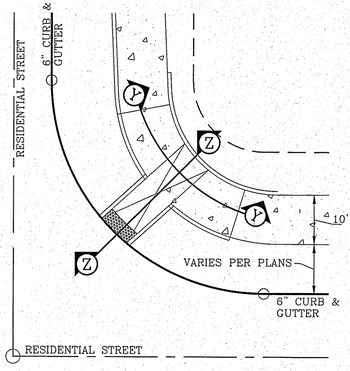
DIRECTIONAL RAMP

SCALE: 1"=4'



DIRECTIONAL RAMP SECTION W

SCALE: 1"=2'

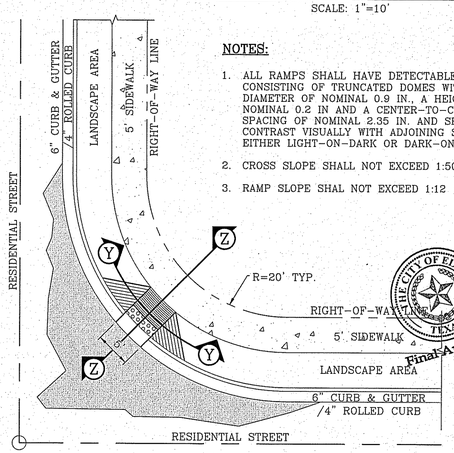


WHEELCHAIR RAMP IN FRONT OF PARK

SCALE: 1"=10'

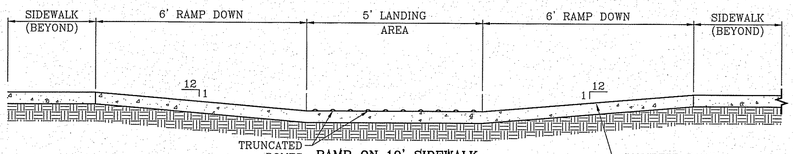
NOTES:

1. ALL RAMPS 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 SHAL NOT EXCEED 1:12



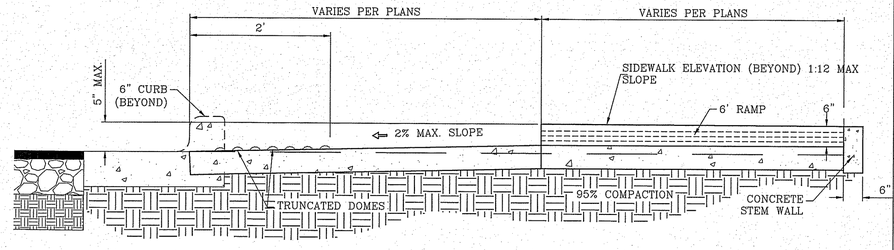
RAMP ON SIDEWALK AT CURB & GUTTER/ROLLED CURB

SCALE: 1"=10'



RAMP ON 10' SIDEWALK SECTION Y

SCALE: 1"=2'



TYPICAL WHEELCHAIR RAMP AT 6" CURB & GUTTER SECTION Z

SCALE: 1"=1'

FILE LOCATION S:_Subdivisions\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8 - STD DETAILS PLOTTED ON Thursday, November 17, 2016 2:19:20 PM BY ESTEBAN JUAREZ

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE. ELEV.=4013.08

DATE	REVISIONS	BY

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 17 AND 18, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 37.031 ACRES

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ENGINEER'S SEAL
JAVIER A. ACOSTA
109225
LICENSED
PROFESSIONAL
ENGINEER
11/17/2016

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EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. F-2321

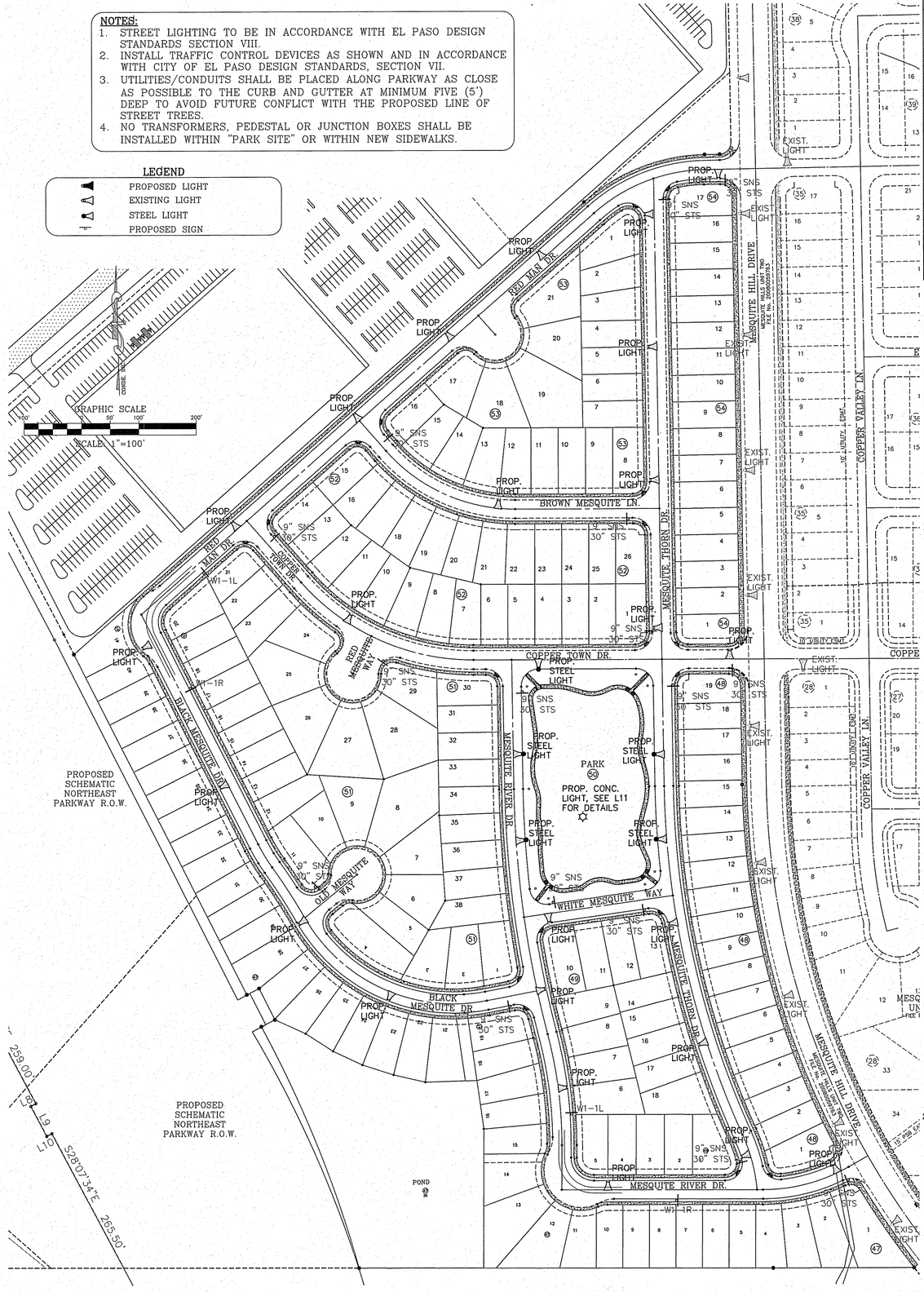
SHEET TITLE

STANDARD DETAILS

SHT 29 OF 30

NOTES:
1. STREET LIGHTING TO BE IN ACCORDANCE WITH EL PASO DESIGN STANDARDS SECTION VIII.
2. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN AND IN ACCORDANCE WITH CITY OF EL PASO DESIGN STANDARDS, SECTION VII.
3. UTILITIES/CONDUITS SHALL BE PLACED ALONG PARKWAY AS CLOSE AS POSSIBLE TO THE CURB AND GUTTER AT MINIMUM FIVE (5') DEEP TO AVOID FUTURE CONFLICT WITH THE PROPOSED LINE OF STREET TREES.
4. NO TRANSFORMERS, PEDESTAL OR JUNCTION BOXES SHALL BE INSTALLED WITHIN "PARK SITE" OR WITHIN NEW SIDEWALKS.

LEGEND
- PROPOSED LIGHT
- EXISTING LIGHT
- STEEL LIGHT
- PROPOSED SIGN



WOOD POLE TABLE

ITEM	No.	DESCRIPTION	STOCK\DSU No.	QTY.	C\U CODE	MACRO CODE
1		PHOTOCELL, 240 V–SEE NOTE 1	21–225	1	LCOBRAHD	LCOBRAUG
2		HPS LAMP 100 W	21–085	1		
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	LMB5/812	
		SQUARE GALV. WASHER, 2 1/4"x2 1/4"	02–760	1		
		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	13–600	8'	L2C#10S	
10		COPPER CBLE, #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 CONDUITM 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	

STEEL POLE TABLE

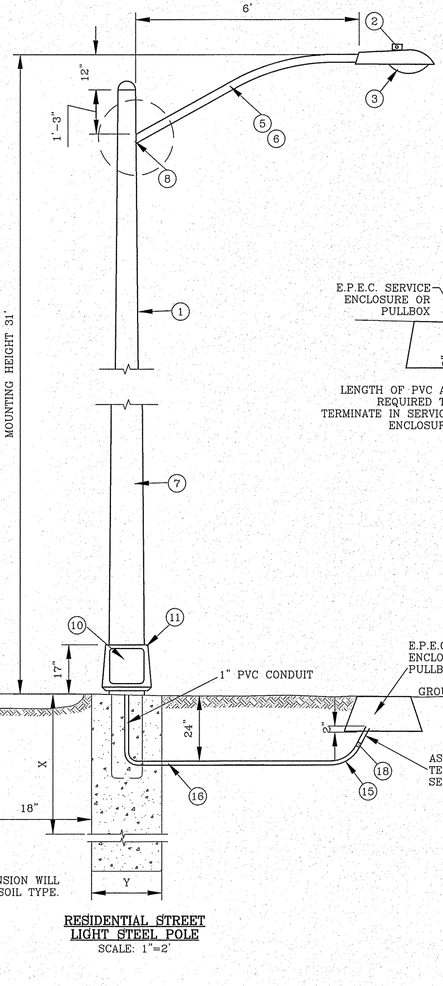
ITEM	No.	DESCRIPTION	STOCK\DSO No.	QTY.
1		POLE. 36 FT. STEEL POLE		1
2		PHOTOCELL. 240 V – SEE NOTE 1	021–225	1
3		LED LUMINAIR MIN. 65 WATTS	021–335	1
4		NOT USED		
5		MAST. ARM 5' X 1 1/4"	21–200	1
6		#10 SOLID CABLE 600V	013–600	AS REQ'D
7		CABLE. #10. 3 CONDUCTOR. 600 V. UF	013–600	40' PLUS
8		SLEEVE. #12	05–145	AS REQ'D
9		RIADWAY KUMINAIRE HPS 150 WATTS	21–340	1
10		BREAK–A–WAY FUSES 30 AMP	21–250	2
11		ALUMINUM TRANSFORMER BASE	21–608	1
12		5/8" GROUND ROD CLAMP	07–561	1
13		5/8" X 10' CU BONDED GROUND ROD	08–626	1

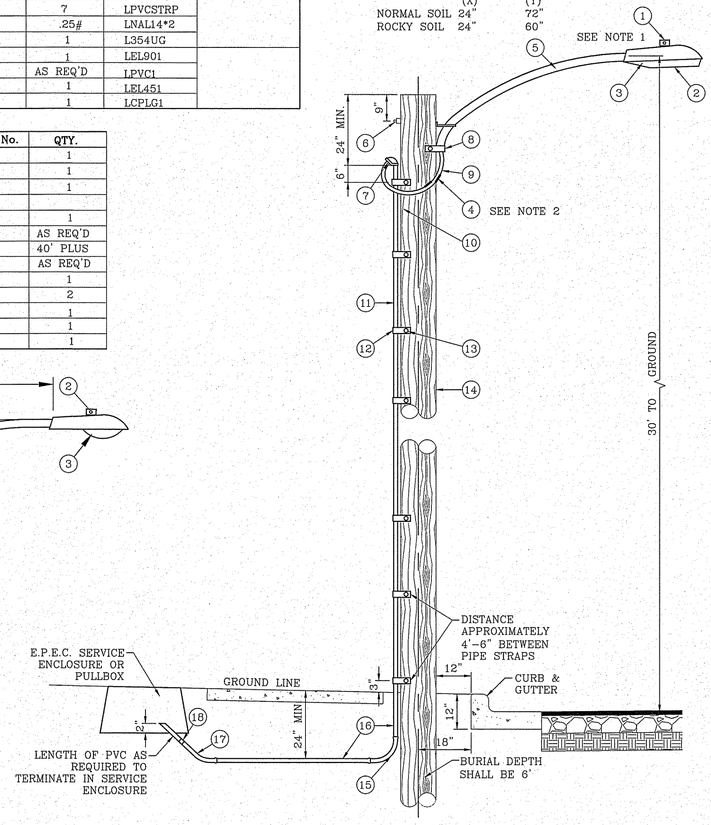
WOOD POLE NOTES
1. MOUNT SO THAT PHOTO CELL IS FACING NORTH.
2. ITEM #9 SHALL NOT BE SPLICED INSIDE ITEM #5.
3. INSTALLATION MUST COMPLY WITH LOCAL CODE REQUIREMENTS.
4. FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING THIS STANDARD, CALL THE EL PASO ELECTRIC COMPANY DISTRIBUTION DESIGN DEPARTMENT.

STEEL POLE NOTES
1. MOUNT SO THAT CONTROL FACES NORTH.
2. ITEM 7 SHALL NOT BE SPLICED INSIDE ITEM 5.

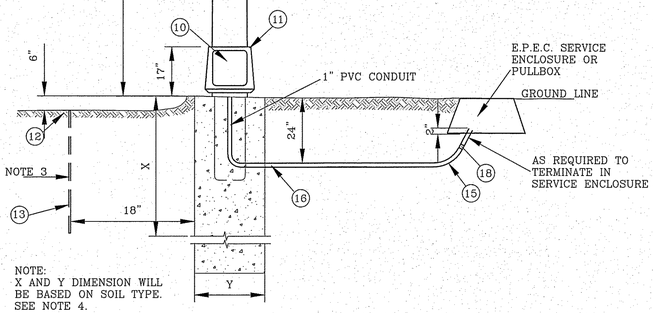
STEEL POLE DESIGN NOTES
1. INSTALLATION SHALL COMPLY WITH ALL LOCAL CODE REQUIREMENTS.
2. FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING CODE INTERPETATION CALL THE EL PASO ELECTRIC CO. DISTRIBUTUION DEVELOPMENT DEPARTMENT.
3. A GROUND ROD MUST BE USED.
4. FOUNDATION DIMENSIONS ARE AS FOLLOWS:

	DIAMETER (X)	DEPTH (Y)
NORMAL SOIL	24"	72"
ROCKY SOIL	24"	60"



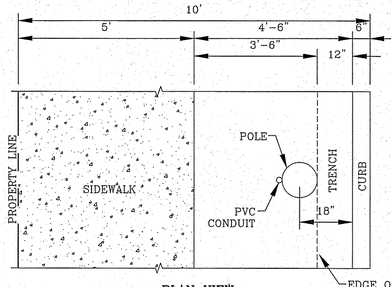


UNDERGROUND RESIDENTIAL STREET LIGHT WOOD POLE
E.P.E.C. STD. DSU 805
SCALE: 1"=2'



NOTE:
X AND Y DIMENSION WILL BE BASED ON SOIL TYPE. SEE NOTE 4.

RESIDENTIAL STREET LIGHT STEEL POLE
SCALE: 1"=2'



PLAN VIEW
SCALE: 1"=2'

BENCHMARK

BENCHMARK LOCATED AT THE CENTERLINE INTERSECTION OF COPPER TOWN DRIVE AND MESQUITE HILLS DRIVE.
ELEV.=4013.08

REVISIONS	DATE	BY
AS PER CITY REDLINES COMMENTS	07/06/16	E.J.

PROJECT NAME

MESQUITE HILLS UNIT 8

BEING PORTION OF TRACT 6C, SECTION 16 AND PORTION OF TRACTS 1D AND 1E, SECTION 17, BLOCK 80, TOWNSHIP 1, TEXAS AND PACIFIC RAILROAD Co. SURVEYS. CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 37.031 ACRES

SCALE
HORIZ. 1"= 100'
VERT: ---
DATE: FEB. 2016
DESIGN BY: Y.C.
INITIATED BY: E.J.
CHECKED BY: Y.C.
JOB NO.: 113-30

ENGINEER'S SEAL
STATE OF TEXAS
JAVIER A. ACOSTA
109225
LICENSED PROFESSIONAL ENGINEER
11-17-2016

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

ILLUMINATION AND TRAFFIC CONTROL PLAN

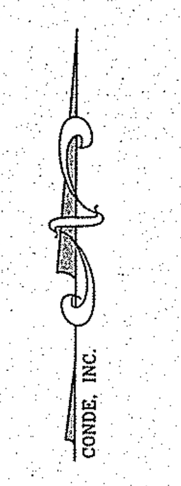
SHT 30 OF 30

CITY OF EL PASO TEXAS
Final Approval

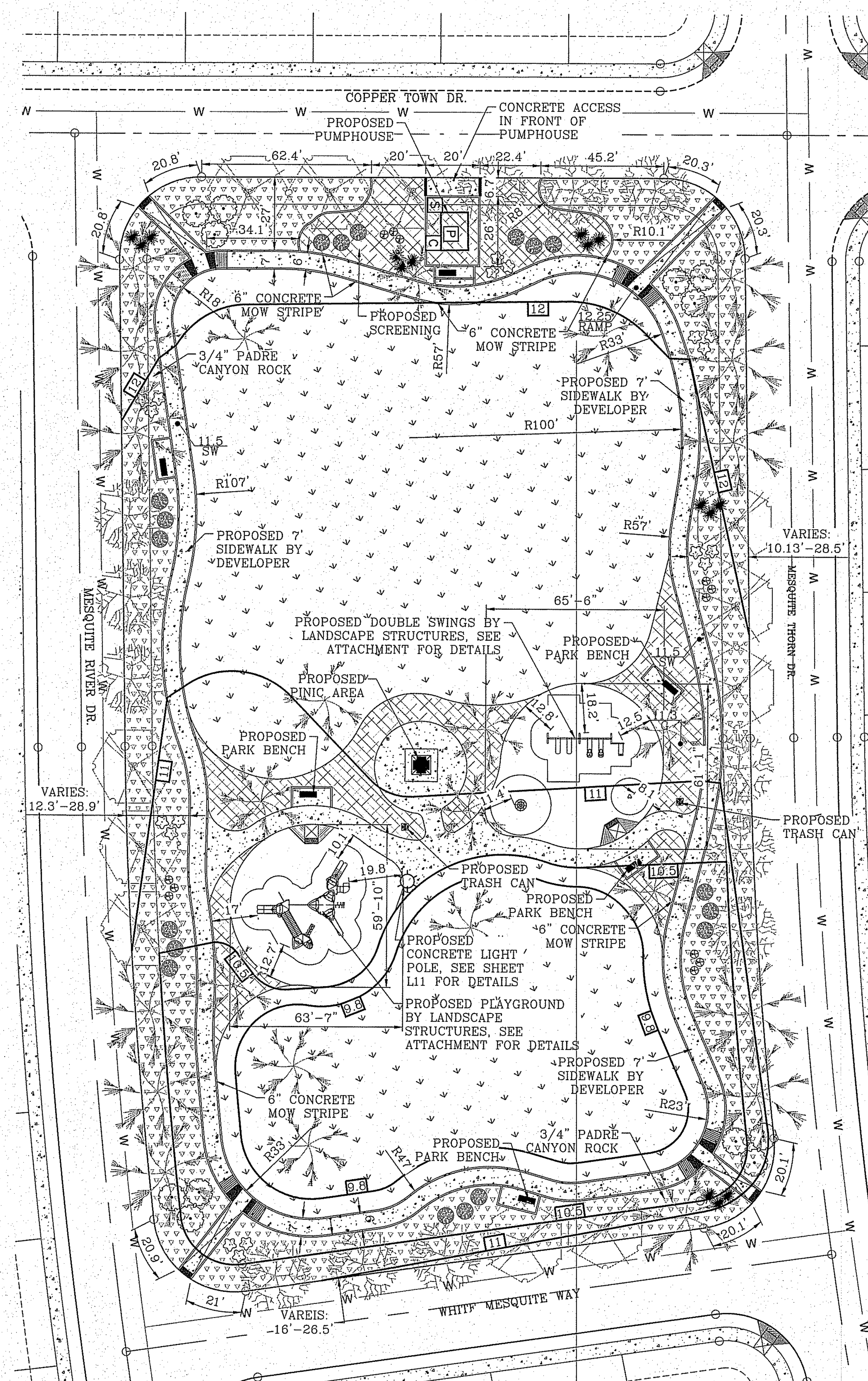
NOTE:
IN COMPLIANCE WITH THE PARK DESIGN AND CONSTRUCTION STANDARDS FOR PARK FACILITIES:

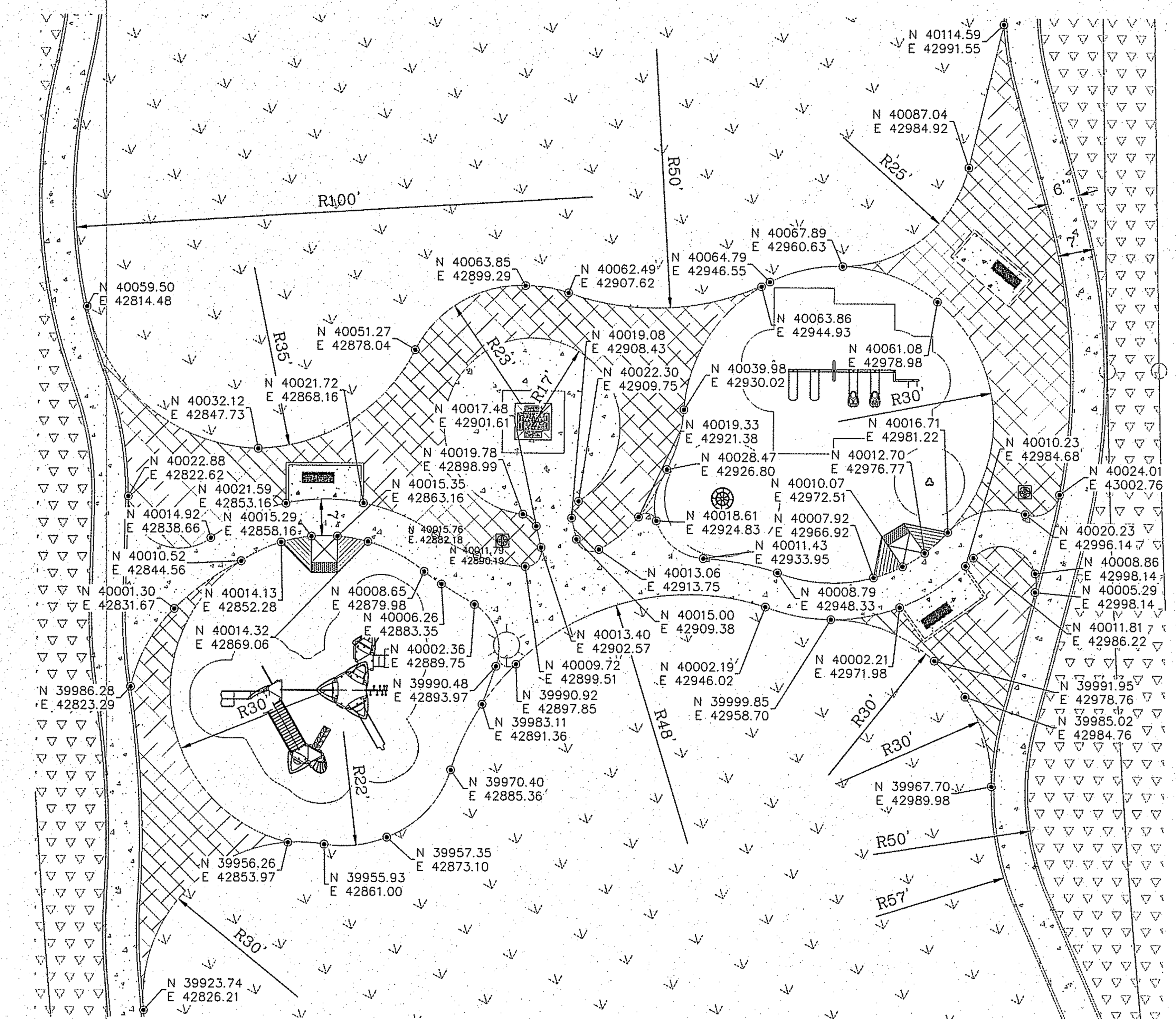
(1) UNSUITABLE SOIL CONDITION MITIGATION TO INCLUDE:

1. REMOVAL OF CALICHE, DELETERIOUS MATERIALS (CONCRETE, ASPHALT, TRASH, BUILDING MATERIALS, ETC.), ROCK AND CLAY FROM THE FIRST 12 INCHES BELOW FINISH GRADE.
2. SHATTERING, IN TWO DIRECTIONS, OF HARD PAN CALICHE, CLAY SOILS, ROCKS TO A DEPTH OF 36 INCHES BELOW FINISHED GRADE.
3. REMOVE DELETERIOUS MATERIALS 24 INCHES BELOW FINISH GRADE.
4. IMPORT AND INSTALL 12 INCHES OF SUITABLE TOP SOIL TO OBTAIN FINISH GRADE FOR TURF GRASS ESTABLISHMENT AS DETERMINED BY THE PARKS AND DIRECTOR, OR DESIGNEE, AND LANDSCAPE ARCHITECT.



GRAPHIC SCALE
SCALE: 1"=30'





PLAYGROUND AND SIDEWALK DETAIL
SCALE: 1" = 20'

Final Approval

PARKS DEPARTMENT
REVIEWED BY [signature] 12/08/2016

L E G E N D

	COMMON NAME	BOTANICAL NAME / SIZE / HEIGHT	QUANTITY
	CIMARRON ASH	FRAXINUS PENNSYLVANICA / 2" CAL. / 10' (DECIDUOUS)	25
	TEXAS RED OAK	QUERCUS BUCKLEYI / 2" CAL. / 10' (DECIDUOUS)	11
	PALO VERDE	CERCIDIUM FLORIDUM / 2" CAL. / 10' (DECIDUOUS)	12
	LILY OF THE NILE	AGAPANTHUS AFRICANUS / 1 GAL. (DECIDUOUS)	12
	PURPLE SAGE	LEUCOPHYLLUM FRUTESCENS / 5 GAL. (EVERGREEN)	18
	HAMELS FOUNDATION GRASS	HESPERALOE PARVIFLORA / 5 GAL. (EVERGREEN)	18
	RED BIRD OF PARADISE	CAELSALPINAPU LEHERRIMA / 5 GAL. (DECIDUOUS)	15
	AUTUM SAGE SELECTIONS	SAVLIA GREGGII / 5 GAL. (SEMI-EVERGREEN)	12
	3/4" PADRE CANYON ROCK, 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 – 28,040 SQ. FT.		0.47 AC.
	PADRE CANYON SCREENINGS, 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		0.17 AC.
	HYBRID BERMUDA "SANTA ANA' SOD – 44,860 SQ. FT.		
	CONCRETE SIDEWALK – 6,811 SQ. FT.		
	6" WIDE x 12" DEEP CONCRETE MOWSTRIP/HDR CURB		
	PARK BENCH (SEE SHEET L10 FOR DETAIL)		

DATE	REVISIONS	BY
09/26/16	REVISIONS AS PER CITY COMMENTS 08/19/16	E.J.
11/9/16	REVISIONS AS PER CITY COMMENTS 10/28/16	E.J.
12/7/16	REVISIONS AS PER CITY COMMENTS 12/7/16	E.J.

BENCHMARK

PROJECT NAME
PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK
6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8
78,996.91 S.F. OR 1.813 ACRES

SCALE
HORIZ: 1" = 30'
VERT: ---
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

12/07/16
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR

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
PROPOSED PARK LANDSCAPE PLAN

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK

SHT L1 OF L11

FILE LOCATION S:_LANDSCAPE\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8_L&I PLOTTED ON Wednesday, December 07, 2016 2:03:18 PM BY ESTEBAN JUAREZ

GENERAL PARK NOTES

1. FOR PROJECT(S) TO BE COORDINATED WITH TDLR TO INSURE COMPLIANCE WITH TAS REQUIREMENTS TO INCLUDE INSPECTIONS, AND CERTIFICATE OF SUBSTANTIAL COMPLETION: APPROVAL OF THE SUBDIVISION/PARK IMPROVEMENTS PLANS IS SUBJECT TO APPLICANT PROVIDING PROOF OF THE PROJECT REGISTRATION – PLD # (REGISTRATION NUMBER)
2. FOR ALL PARK IMPROVEMENTS (SIDEWALKS, RAMPS, ETC.) AND PAVED HIKE/BIKE TRAILS (IF APPLICABLE) TO BE COMPLIANT WITH REQUIRED ACCESSIBILITY CRITERIA AS SET FORTH IN ADAAG AND TAS STANDARDS AS MANDATED BY FEDERAL AND STATE GOVERNMENTS.
3. FOR NO SIGNS, FIRE HYDRANTS, LIGHTS, NDCBU'S, ELECTRICAL/WATER BOXES, TELEPHONE PEDESTALS, NO OBSTRUCTIONS IN GENERAL, SHALL INTERFERE / ENCROACH IN TO THE PROPOSED SIDEWALKS / JOGGING TRAILS.
4. FOR APPLICANT/ CONTRACTOR TO OBTAIN BUILDING, ELECTRICAL, IRRIGATION, AND ANY OTHER REQUIRED PERMITS FROM DEVELOPMENT SERVICES (BP&I) BUILDING PERMITS AND INSPECTIONS DIVISION.
5. FOR DEVELOPER TO OBTAIN SOIL SAMPLES (TAKEN FROM PROPOSED PARK SITE LOCATION FINISHED GROUND) AND PROVIDE COMPLETE ANALYSIS REPORT (TEXTURAL, MINERALS AVAILABILITY, WATER INFILTRATION, DETAILED SALINITY AND PH CONDUCTIVITY TEST) WITH RECOMMENDATIONS FOR SOILS AMENDMENTS AND PREPARATION TO INSURE EXISTING SOIL CONDITIONS ARE SUITABLE FOR TURF, SHRUBS, AND TREE GROWTH: COORDINATE SITE VISIT WITH PARKS STAFF FOR COLLECTION OF SOIL SAMPLES.
6. FOR ANY UNSUITABLE SOIL CONDITIONS SHALL BE REMEDIED TO ELIMINATE HARD SOILS, STONY SOILS, HIGH CALICHE SOILS, CLAY SOILS, AND CONTAMINATED SOILS TO A MINIMUM DEPTH OF 12 INCHES AS REQUIRED FOR PROPER PLANTING AS PER PARKS DESIGN & CONSTRUCTION STANDARDS.
7. FOR ANY UNSUITABLE SOIL MATERIALS NOT APPROVED BY PARKS DEPARTMENT ARE TO BE REMOVED, DISPOSED OF, AND REPLACED WITH TOP SOIL TO A MINIMUM DEPTH OF 12 INCHES.

VALVE AND PRECIPITATION TABLE – ROTORS

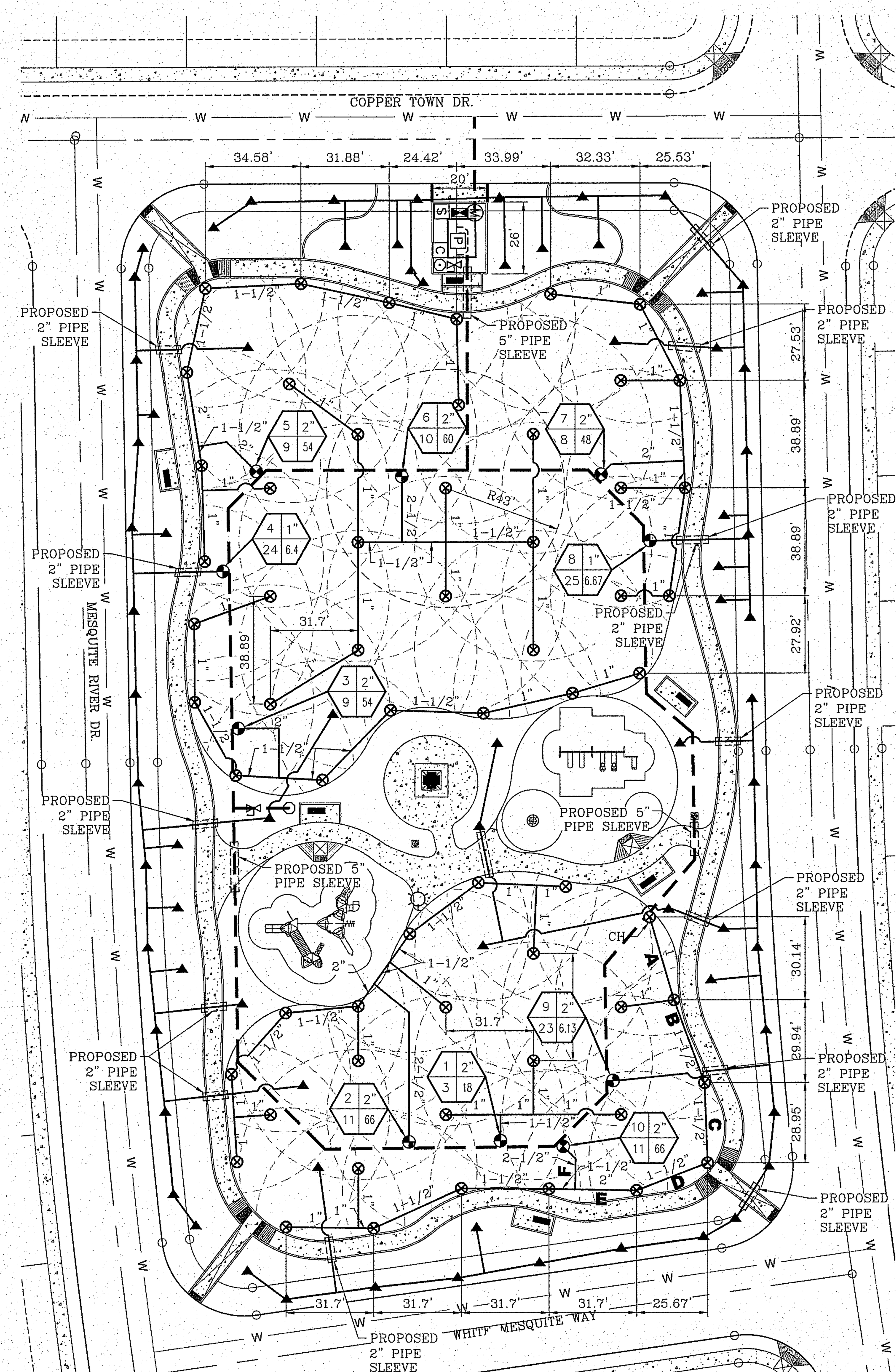
VALVE NUMBER	VALVE SIZE	SPRINKLER MODEL TYPE	GPM	NUMBER OF HEADS	NOZZLE	PRECIPITATION RATES	RUNTIME FOR 0.67" OF WATER IN MINUTES
1	1"	I-20-06-SS-06	18.00	3	#6	0.47	86
2	1"	I-20-06-SS-06	66.00	11	#6	0.88	46
3	1"	I-20-06-SS-06	54.00	9	#6	0.88	46
5	1"	I-20-06-SS-06	54.00	9	#6	0.88	46
6	1"	I-20-06-SS-06	60.00	10	#6	0.47	86
7	1"	I-20-06-SS-06	48.00	8	#6	0.88	46
10	1"	I-20-06-SS-06	66.00	11	#6	0.88	46
TOTAL RUN TIME:				402	MIN. OR	6 HRS.	42 MIN.

VALVE AND PRECIPITATION TABLE – EMMITTERS

VALVE NUMBER	VALVE SIZE	SPRINKLER MODEL TYPE	GPM	NUMBER OF HEADS	NOZZLE	PRECIPITATION RATES
4	1"	XERI-BIRD 8	6.4	24	XBD-80	–
8	1"	XERI-BIRD 8	6.7	25	XBD-80	–
9	1"	XERI-BIRD 8	6.1	23	XBD-80	–
TOTAL RUN TIME, THREE DAYS PER WEEK (EMITTERS):				FOR 45 MINUTES		

HYDRAULIC CALCULATION TABLE

ZONE #10		STATIC PRESSURE AS PER PSB: 55			SECTION GPM 66.0	
LATERAL PIPE SECTION	PIPE LEGNTH (FEET)	FLOW (GPM)	SIZE (IN)	PRESSURE LOSS PER 100 FEET	PRESSURE LOSS THIS SECTION	ACCUMULATED PRESSURE LOSS
A-PVC CLASS 200	31	6	1"	0.548	0.1720	0.172
B-PVC CLASS 200	32	18.0	1-1/2"	0.677	0.2159	0.388
C-PVC CLASS 200	29	24.0	1-1/2"	1.15	0.3331	0.721
D-PVC CLASS 200	28	30.0	1-1/2"	1.74	0.4789	1.200
E-PVC CLASS 200	22	36.0	2"	0.816	0.1818	1.382
F-PVC CLASS 200	15	66.0	2-1/2"	0.982	0.1489	1.531
TOTAL LATERAL PIPING PRESSURE LOSS IN PSI						1.531
IRRIGATION ITEM						
ZONE VALVE		66	2"		2.36	3.891
MAIN LINE-PVC SCHED 40 (LOOPED MAIN)	744	66	2"	1.52	11.268	15.159
MAIN LINE-PVC SCHED 40	78	66	2-1/2"	1.28	0.997	16.156
BACKFLOW		66	2"		12.00	28.156
TYPE K COPPER LINE (THROUGH PUMP AND BACKFLOW)	35	66	2"	4.48	1.552	29.708
WATER METER		66	1-1/2"		8.58	38.288
ELEVATION GAIN		# OF FT.	3.8	x 0.433		1.65
TOTAL PRESSURE LOSS						36.642
MINIMUM HEAD PRESSURE (I-20 ADJ #6 BLUE @ 45 PSI-43' RADIUS 6.0 GPM)						45.0
PRESSURE AT CRITICAL HEAD (STATIC 55 – LOSSES 36.642 = 18.358) ACTUAL						18.358
PRESSURE SHORTAGE						
DESIGN PRESSURE (REQ'D PRESSURE @ CRITICAL HEAD PLUS LOSSES) 45.0 + 36.642 = 81.642						81.642
PUMP REQUIREMENTS (PRESSURE SHORTAGE CONVERTED TO (FT. HEAD) X 2.31)) X 10% = FT HD @ 66.0 GPM						67.698
PUMP REQUIREMENTS (PRESSURE SHORTAGE CONVERTED TO (FT. HEAD) X 2.31)) X 10% = FT HD @ 66.0 GPM 45 – 18.358 = 26.642 x 2.31 x 10% = 67.698						



WATERING SCHEDULE

STATION NUMBER	GPM	RUN TIME: START TIME	END TIME	TOTAL MINUTES	
1	18.0	10:00 PM	11:26 PM	86	MIN.
2	66.0	11:26 PM	12:12 AM	46	MIN.
3	54.0	12:12 AM	12:58 AM	46	MIN.
5	54.0	12:58 AM	1:44 AM	46	MIN.
6	60.0	1:44 AM	3:10 AM	86	MIN.
7	48.0	3:10 AM	3:56 AM	46	MIN.
10	66.0	3:56 AM	4:42 AM	46	MIN.
TOTAL RUN TIME, THREE DAYS PER WEEK:		6	HRS.	42	MIN.

REGISTRATION NUMBER (PLD#): EABPRJB7803035

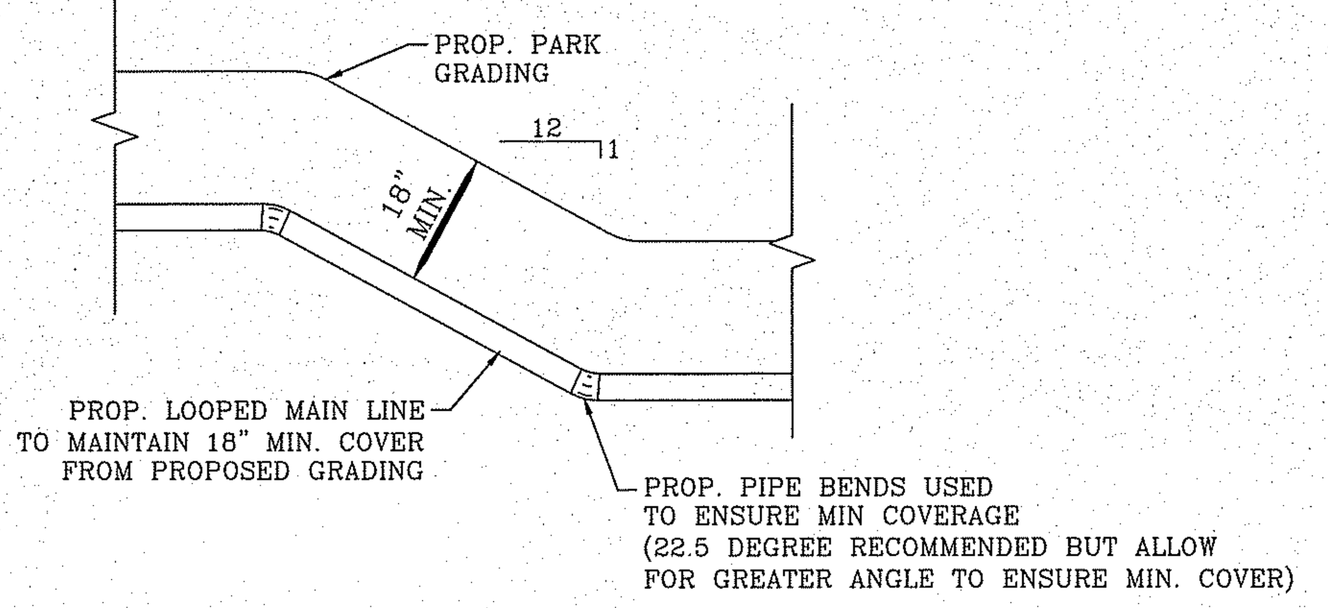
PARKS DEPARTMENT
REVIEWED BY: [signature] 12/08/2016

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

HEAD SPACING: 38.89'
ROW SPACING: 31.7'

RADIUS OF NOZZLE = 43'
.45 x 86 = 38.7
38.7 x .866 = 33.51



PROPOSED MAINLINE (LOOPED) COVER DETAIL
SCALE: NTS

GRAPHIC SCALE
SCALE: 1"=30'

THE CITY OF EL PASO TEXAS — Final Approval

VALVE NUMBER — VALVE SIZE — NUMBER OF HEADS — GPM (1 | 1" / 6 | 30)

KEYED NOTES:

1. IRRIGATION TAP POINT VERIFY 50 PSI. NOTIFY OWNER IN WRITING IF ABOVE CRITERIA NOT MET.
2. CONTROLLER LOCATION 110V POWER BY DEVELOPER. COORDINATE EXACT LOCATION IN FIELD.
3. CONTRACTOR REQUIRED TO APPLY FOR AND OBTAIN ALL PERMITS AND PASS ALL INSPECTIONS.

PRECIPITATION RATE

FULL SPRAY

$$PR = \frac{\text{FULL HEAD GPM} \times 96.25}{\text{HEAD SPACING} \times \text{ROW SPACING}}$$

$$PR = \frac{6.0 \times 96.25}{38.89' \times 31.7'} = \frac{577.5}{1232.8132} = 0.47 \text{ IN./HR.}$$

HALF SPRAY

$$PR = \frac{\text{FULL HEAD GPM} \times 96.25}{\text{HEAD SPACING}^2 \times 0.433}$$

$$PR = \frac{6.0 \times 96.25}{38.89'^2 \times 0.433} = \frac{577.5}{654.88} = 0.88 \text{ IN./HR.}$$

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

IRRIGATION DRIP EMITTER NOTES:
1. ALL PVC PIPE PERTAINING DRIP EMITTERS TO BE CLASS 200 SIZE 1" UNLESS OTHERWISE NOTED

L E G E N D

— — — —	2-1/2" PVC SCHEDULE 40 MAIN WATER LINE
– – – – –	2" PVC SCHEDULE 40 LOOPED WATER MAIN
- - - - - -	TYPE K 2" 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)
Ⓜ	1-1/2" WATER METER BY DEVELOPER – MAX FLOW 75 GPM
	FEBCO (BF) SERIES LF825Y 2" RPZA W/ ENCLOSURE
S	RAIN SENSOR
C	RAINBIRD ESP-12SITEW STATION CONTROLLER, SEE SHEET L9 FOR DETAILS
P	PUMP W/ 10' x 14' TUFF SHED ENCLOSURE, SEE DATA SHEET ON L9 FOR FOUNDATION PLAN
⊕	WEATHERMATIC 8200CR SERIES BRONZE BULLET (2" 8200CR-20D)
⊗	HUNTER I-20 ADJUSTABLE STAINLESS STEEL RISER ROTOR NOZZLE #6.0 BLUE @ 45 psi RADIUS: 43' FLOW: 6.0 GPM
▲	XERIBIRD 8 EMMITER
x"	PIPE SIZE (SIZE AS NOTED)
	STUB OUT WITH VALVE (HOT LEAD COLOR GREEN) WIRES FOR FUTURE DRIP (BLACK, BLUE, & COLOR ORANGE)
	ISOLATION BRASS BALL VALVE TO BE IN VALVE BOX
Ⓕ	AMIAD 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR
⊙	BUCKNER DOUBLE LUG 1" QUICK COUPLER PURPLE BOLT CAP W/ BRASS STABALIZER IN VALVE BOX WITH PURPLE LID.

BENCHMARK

DATE	REVISIONS	BY
09/26/16	REVISIONS AS PER CITY COMMENTS 08/19/16	E.J.
11/2/16	REVISIONS AS PER CITY COMMENTS 10/28/16	E.J.

PROJECT NAME
PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK 6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8 78,986.91 S.F. OR 1.813 ACRES

S C A L E
HORIZ: 1" = 30'
VERT: ---
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

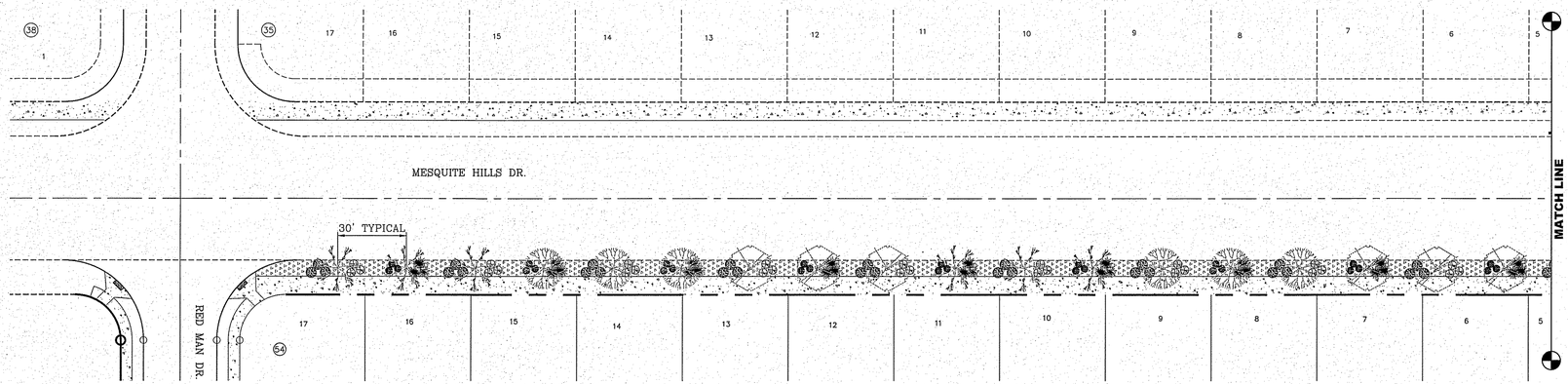
12/07/16 STATE OF TEXAS REYMUNDO MARTINEZ LICENSED IRRIGATOR

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

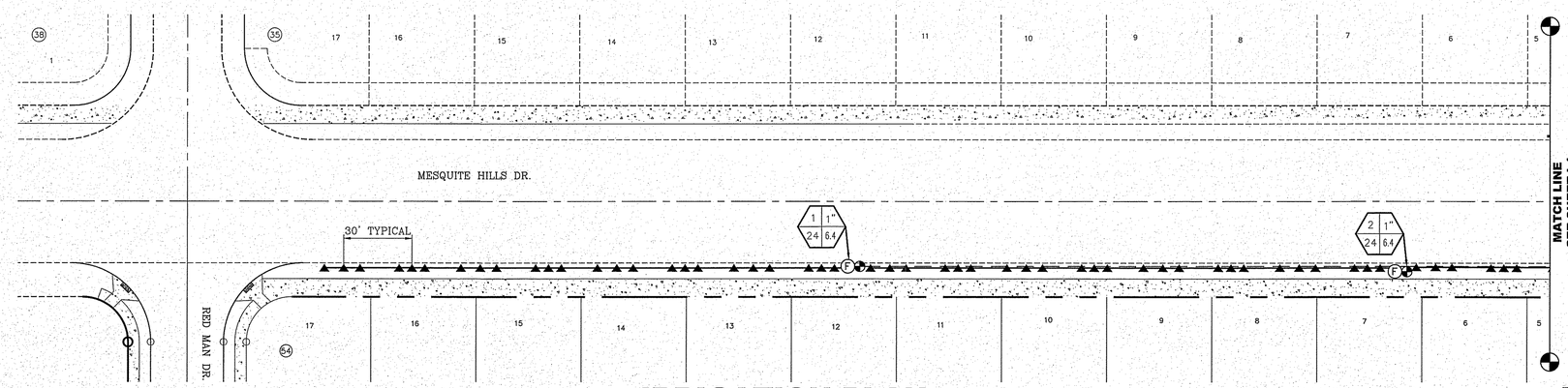
SHEET TITLE
PROPOSED PARK IRRIGATION PLAN

SHT L2 OF L11

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK



LANDSCAPE PLAN



IRRIGATION PLAN

CONDE, INC.

GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'

IRRIGATION LEGEND

———	1" PVC SCHEDULE 40 MAIN WATER LINE
———	TYPE K 1" COPPER WATER TUBE
———	1" PVC SCHEDULE 40 WATER LATERAL
=========	PVC SLEEVE TO EXTEND 24" FROM EDGES (TWICE THE SIZE OF PIPE)
M	3/4" WATER METER BY DEVELOPER – MAX FLOW 15 GPM
	FEBCO (BF) SERIES LF825Y 3/4" RPZA W/ ENCLOSURE
C	RAINBIRD ESP-LXME CONTROLLER, SEE SHEET L9 FOR DETAIL
	WEATHERMATIC 8200CR SERIES BRONZE BULLET (1" 8200CR-10)
▲	XERIBIRD 8 EMMITER
	STUB OUT WITH VALVE (HOT LEAD COLOR GREEN) WIRES FOR FUTURE DRIP (BLACK, BLUE, & COLOR ORANGE)
	ISOLATION BRASS BALL VALVE TO BE IN VALVE BOX
F	AMIAD 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR

VALVE NUMBER — VALVE SIZE
NUMBER OF HEADS — GPM
(1 | 1") (.6 | 30)

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

LEGEND

	COMMON NAME	BOTANICAL NAME / SIZE	QUANTITY (THIS SHEET)	QUANTITY (TOTAL)
	CIMARRON ASH	FRAXINUS PENNSYLVANICA / 2" CAL. (DECIDUOUS)	6	20
	TEXAS RED OAK	QUERCUS BUCKLEYI / 2" CAL. (DECIDUOUS)	6	19
	PALO VERDE	CERCIDIUM FLORIDUM / 2" CAL. (DECIDUOUS)	6	18
	OLEANDER PINK	NERIUM OLEANDER / 5 GAL. (DECIDUOUS)	27	57
	RED YUCCA	HESPERALOE PARVIFLORA / 5 GAL. (DECIDUOUS)	27	60
	PURPLE SAGE	LEUCOPHYLLUM FRUTESCENS / 5 GAL. (EVERGREEN)	28	59
	AUTUM SAGE SELECTIONS	SAVLIA GREGGII / 5 GAL. (SEMI-EVERGREEN)	27	57
		PADRE CANYON CHAT, 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	0.09 AC.	0.29 AC.

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK

THE CITY OF EL PASO TEXAS
Final Approval

PARKS DEPARTMENT
REVIEWED BY: 12/08/2016

BENCHMARK

REVISIONS		BY
DATE		
11/2/16	REVISIONS AS PER CITY COMMENTS 10/28/16	E.J.

PROJECT NAME

MESQUITE HILLS DR. WESTSIDE HIKE & BIKE TRAIL

BEING A PORTION OF MESQUITE HILLS UNIT 2
MESQUITE HILLS UNIT 2
12,506.38 S.F. OR 0.287± ACRES

SCALE
HORIZ: 1" = 30'
VERT: ---
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

STATE OF TEXAS
REYNALDO MARTINEZ
9060
LICENSED IRRIGATOR
12/07/16

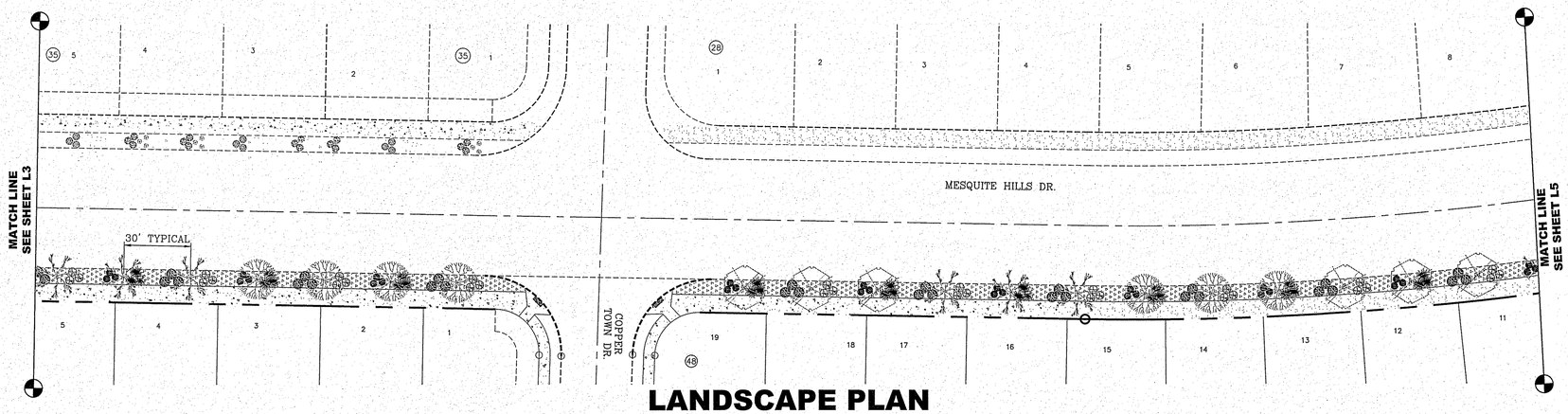
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

MESQUITE HILLS DR. LANDSCAPE AND IRRIGATION

SHT L3 OF L11



LANDSCAPE PLAN

IRRIGATION PLAN

IRRIGATION LEGEND

- 1" PVC SCHEDULE 40 MAIN WATER LINE
- TYPE K 1" COPPER WATER TUBE
- 1" PVC SCHEDULE 40 WATER LATERAL
- PVC SLEEVE TO EXTEND 24" FROM EDGES (TWICE THE SIZE OF PIPE)
- (M) 3/4" WATER METER BY DEVELOPER – MAX FLOW 15 GPM
- FEBCO (BF) SERIES LF825Y 3/4" RPZA W/ ENCLOSURE
- [C] RAINBIRD ESP-LXME CONTROLLER, SEE SHEET L9 FOR DETAIL
- WEATHERMATIC 8200CR SERIES BRONZE BULLET (1" 8200CR-10)
- XERIBIRD 8 EMMITER
- STUB OUT WITH VALVE (HOT LEAD COLOR GREEN) WIRES FOR FUTURE DRIP (BLACK, BLUE, & COLOR ORANGE)
- ISOLATION BRASS BALL VALVE TO BE IN VALVE BOX
- (F) AMIAD 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR

VALVE NUMBER — VALVE SIZE
NUMBER OF HEADS — GPM
(1 | 1" | 6 | 30)

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

LEGEND

COMMON NAME	BOTANICAL NAME / SIZE	QUANTITY (THIS SHEET)	QUANTITY (TOTAL)
CIMARRON ASH	FRAXINUS PENNSYLVANICA / 2" CAL. (DECIDUOUS)	6	20
TEXAS RED OAK	QUERCUS BUCKLEYI / 2" CAL. (DECIDUOUS)	7	19
PALO VERDE	CERCIDIUM FLORIDUM / 2" CAL. (DECIDUOUS)	6	18
OLEANDER PINK	NERIUM OLEANDER / 5 GAL. (DECIDUOUS)	30	57
RED YUCCA	HESPERALOE PARVIFLORA / 5 GAL. (DECIDUOUS)	30	60
PURPLE SAGE	LEUCOPHYLLUM FRUTESCENS / 5 GAL. (EVERGREEN)	29	59
AUTUM SAGE SELECTIONS	SAVLIA GREGGII / 5 GAL. (SEMI-EVERGREEN)	27	57
	PADRE CANYON CHAT, 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	0.10 AC.	0.29 AC.

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK

Final Approval

PARKS DEPARTMENT

REVIEWED BY: Antonio Martinez 12/08/2016

CONDE, INC.

GRAPHIC SCALE
30' 0 15' 30' 60'
SCALE: 1"=30'

BENCHMARK

REVISIONS		BY
DATE		
11/2/16	REVISIONS AS PER CITY COMMENTS 10/28/16	E.J.

PROJECT NAME

MESQUITE HILLS DR. WESTSIDE HIKE & BIKE TRAIL

BEING A PORTION OF MESQUITE HILLS DR., MESQUITE HILLS UNIT 2
12,506.36 S.F. OR 0.287± ACRES

SCALE
HORIZ: 1" = 30'
VERT: ---
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED LANDSCAPE ARCHITECT
12/07

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
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CONDE INC.
REGISTRATION No. F-2321

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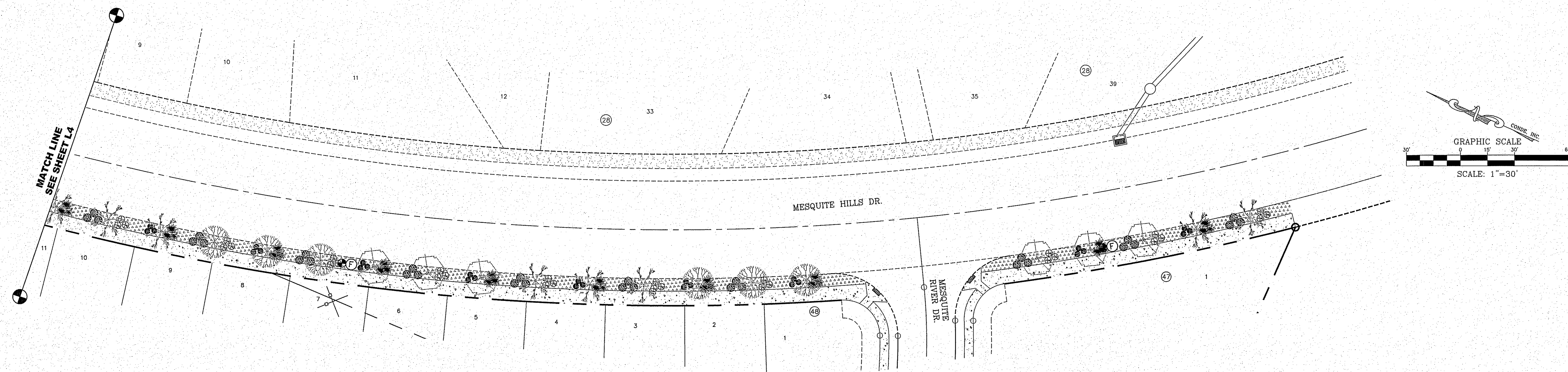
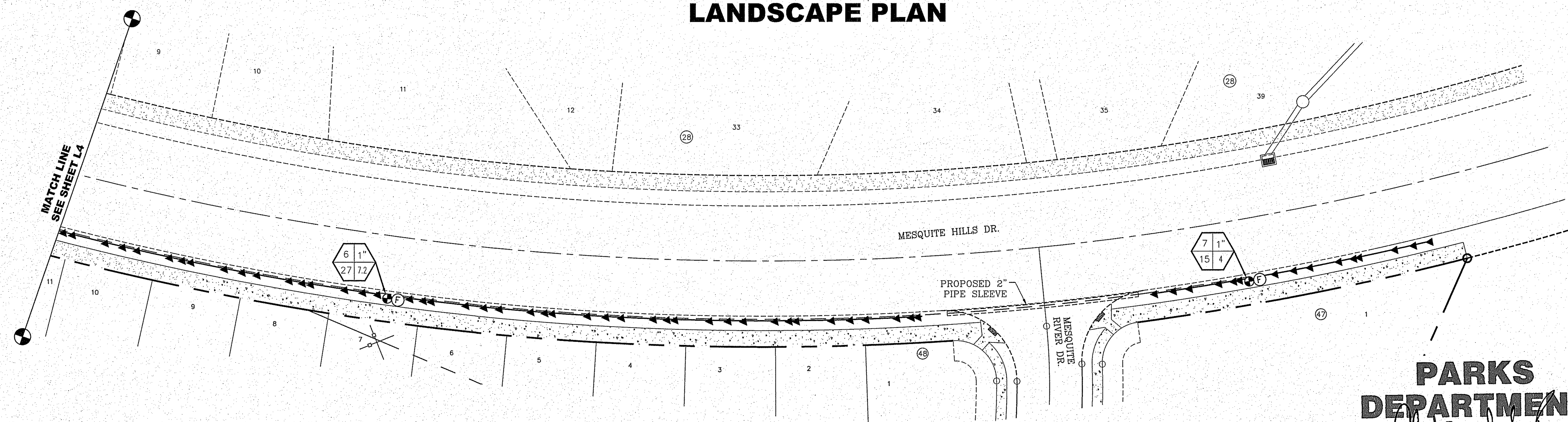
MESQUITE HILLS DR. LANDSCAPE AND IRRIGATION

SHT L4 OF L11



LANDSCAPE PLAN



IRRIGATION PLAN

PARKS DEPARTMENT
REVIEWED BY [signature] 12/08/2016

THE CITY OF EL PASO TEXAS — Final Approval

STATE OF TEXAS — REYMUNDO MARTINEZ — 9000 — LICENSED IRRIGATOR — 12/07/16

IRRIGATION LEGEND

Symbol	Description
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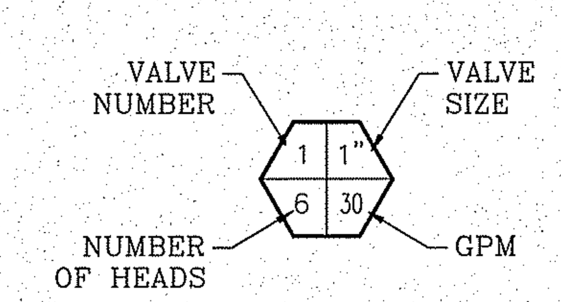

THIS DESIGN COMPLIES WITH THE CITY OF EL PASO APPROVED PARK DESIGN STANDARDS ADOPTED JANUARY 8, 2013

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CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

MESQUITE HILLS DR. LANDSCAPE AND IRRIGATION

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT AND FAMILIARIZE HIMSELF WITH THE PROJECT SITE PRIOR TO SUBMITTING HIS BID.
2. CONTRACTOR SHALL BE FAMILIAR WITH PLANS, DETAILS AND SPECIFICATIONS AS THEY PERTAIN TO THE SITE, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IF ANY ITEMS CONTAINED WITHIN THE SCOPE OF WORK DEFINED HEREIN, ARE IN CONFLICT WITH THE PROPOSED CONTRACT.
3. EXISTING UTILITY LINES ARE TO BE BLUE STAKED PRIOR TO EXCAVATION. CHECK AND FIELD VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO EXCAVATION. CONSTRUCTION WORK IN CLOSE PROXIMITY TO UNDER- GROUND UTILITIES SHALL BE COORDINATED WITH APPROPRIATE AGENCY.
4. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH OWNER, ALL AFFECTED UTILITY COMPANIES, AND ALL OTHER ENTITIES HAVING JURISDICTION OVER THE PROJECT.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES PRIOR TO COMMENCING WITH THE WORK. ANY DISCREPANCY NOTED SHALL BE REPORTED IMMEDIATELY TO THE PROJECT MANAGER. FAILURE OF THE CONTRACTOR TO REPORT ANY FIELD AND PLAN DISCREPANCIES SHALL MAKE THE CONTRACTOR RESPONSIBLE FOR WORK THAT IS PERFORMED.
6. VIBRATORY ROLLERS SHALL NOT BE PERMITTED ON ANY PHASE OF THIS PROJECT, UNLESS APPROVED IN WRITING BY THE CITY ENGINEER.
7. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN STRICT CONFORMANCE WITH ALL CURRENT SAFETY CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO, OSHA REQUIREMENTS.
8. WARNING! BEFORE EXCAVATING, CONTRACTOR SHALL LOCATE AND PROTECT ALL UNDERGROUND UTILITIES LINES. CONTRACTOR SHALL REPLACE ANY UTILITIES DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
9. CONTRACTOR SHALL WATER CONSTRUCTION SITE AREA A MINIMUM OF TWICE A DAY TO DUST CONTROL, ONCE IN THE MORNING AND ONCE IN THE AFTERNOON. THIS SHALL ALSO BE DONE ON WEEKENDS AND HOLIDAYS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING IMPROVEMENTS IN THE PROJECT AREA AND ITS VICINITY. ANY DAMAGE RESULTING FROM CONTRACTOR WORK SHALL BE RESTORED AT NO COST TO OWNER.
11. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATION DURING CONSTRUCTION ACTIVITY.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ENVIRONMENTAL FINES RESULTING FROM HIS/HER WORK AND HOLD THE OWNER HARMLESS IN SUCH CASES.
13. CONTRACTOR SHALL SECURE THE SITE DURING CONSTRUCTION TO PROTECT THE AREA FROM VANDALISM AND ILLEGAL TRESPASSING. CONTRACTOR SHALL SECURE THE SITE AT HIS/HER OWN COST. CONTRACTOR SHALL SITE PROTECTION MEASURES SHALL BE SUBMITTED TO THE PARKS AND RECREATION DEPT. FOR APPROVAL.
14. ALL EXISTING UTILITIES CURRENTLY IN SERVICE MUST REMAIN IN SERVICE THROUGHOUT CONSTRUCTION EXCEPT AS NOTED IN THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES (INCLUDING SERVICE CONNECTIONS) FROM DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES.
15. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO VERIFY LOCATION OF EXISTING UTILITIES & CONTRACTOR SHALL CALL THE RESPECTIVE "1-CALL" NUMBER FOR SUCH UTILITIES.
16. CONTRACTOR SHALL INSURE THE FOLLOWING: ALL ACCESSIBLE ROUTES SHALL NOT EXCEED A RUNNING SLOPE GREATER THEN 1:20(5%). NO WHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50(2%). MAXIMUM SLOPE OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20(5%). MAXIMUM RUNNING SLOPE OF ANY CURB RAMP SHALL NOT EXCEED 1:12(8.33%) SLOPE. ALL ACCESSIBLE PATHS SHALL COMPLY WITH TAS AND ADAAG.

IRRIGATION PLAN GENERAL NOTES

1. IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMPLISHING FULL COVERAGE IN ALL AREAS WITH SPECIFIED EQUIPMENT. ANY DISCREPANCIES IN THE PLAN SHOULD BE BROUGHT TO THE PROJECT MANAGER'S ATTENTION DURING CONSTRUCTION.
2. ALL FITTINGS AND NECESSARY EQUIPMENT REQUIRED TO MAKE THIS IRRIGATION SYSTEM OPERATE PROPERLY AND TO COMPLY WITH LOCAL AND STATE CODES ARE INCIDENTAL TO THESE PLANS AND ARE THE CONTRACTOR'S RESPONSIBILITY.
3. CONTRACTOR WILL BE HELD LIABLE FOR GAINING ACCESS UNDER ALL PAVEMENTS.
4. SLEEVES SHOWN ON THE PLANS SHOULD BE VERIFIED FOR ACCESSIBILITY AND FEASIBILITY BEFORE BID IS MADE.
5. THE CONTRACTOR SHALL LOCATE AND VERIFY EACH WATER TAP TO WHICH THE IRRIGATION SYSTEM WILL CONNECT. ALL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH THE STANDARDS OF THE CITY OF EL PASO AND THE SPECIFICATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS AND VALVES REQUIRED FOR THE FULL IMPLEMENTATION OF THE SYSTEM.
7. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO INITIATING WORK.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR INTERRUPTION IN SERVICE CAUSED BY HIS EXCAVATIONS AND/OR WORK.
9. EACH CONTROLLER WILL HAVE AN INDEPENDENT COMMON WIRE LOOPED TO THE VALVES CONNECTED TO IT.
10. REMOTE CONTROL VALVE WIRES ARE TO BE IN A SEPARATE TRENCH 5' FROM MAIN LINE ON NORTH OR WEST SIDE OF MAINLINE.
11. ALL REMOTE CONTROL VALVE WIRES NEED TO BE LABELED AT VALVE W/ WEATHER (WATER) PROOF LABELS AND AT CONTROLLER WITH CORRESPONDING LABEL. (LETTER AND/OR NUMBER TAGS IN SEQUENTIAL ORDER WILL BE PROVIDED).
12. SPLICING OF REMOTE CONTROL VALVE WIRES IS NOT ALLOWED BETWEEN CONTROLLER & VALVE BOX FOR WIRES MUST BE CONTINUOUS FROM CONTROLLER TO REMOTE CONTROL VALVE WITHOUT SPLICING.
13. ALL SPRINKLER HEADS SHALL BE ON STAINLESS STEEL RISERS WITH CHECK VALVE.
14. CONTRACTOR SHALL PROVIDE SLEEVES FOR NEW IRRIGATION LINES CROSSING UNDER CONCRETE SIDEWALKS. SLEEVES SHALL BE 2 TIMES THE PIPE SIZE EXTENDED 24" BEYOND EDGE OF SURFACE, BE WRAPPED WITH MINIMUM 4 MIL PLASTIC AND TAPED WITH 3M BRAND HEAVY DUTY PLASTIC.

NOTES FOR PLANTING

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER AND TO STRAIGHTEN OR REPLANT ALL PLANTS WHICH ARE DAMAGED DUE TO WIND. PLANTS BLOWN OVER BY HIGH WINDS SHALL NOT BE A CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE FINANCIAL RESPONSIBILITY OF CONTRACTOR.
2. TOPSOIL MATERIAL FOR PLANTING, SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, STONES LARGER THAN 1" IN DIAMETER, NOXIOUS WEEDS AND PLANTS, SOD, PARTIALLY DISINTEGRATED DEBRIS, INSECTS OR ANY OTHER UNDESIRABLE MATERIAL. PLANTS OR SEEDS THAT WOULD BE TOXIC OR HARMFUL TO GROWTH.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF PLANT MATERIAL QUANTITIES.
4. IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. IMPROPER PLANT COUNT MADE BY THE LANDSCAPE CONTRACTOR SHALL BE NO CAUSE FOR ADDITIONAL COSTS TO THE OWNER.
5. THE CONTRACTOR SHALL MEET BOTH THE CONTAINER SIZE AND CALIPER SIZE, AS WELL AS HEIGHT AND SPREAD SPECIFICATIONS SPECIFIED.
6. EXCAVATE TWO TIMES GREATER THAN THE ROOT BALL-DIAMETER OF THE SHRUB, TWO TIMES GREATER THAN THE ROOT BALL FOR TREES. SCARIFY BOTTOM OF PLANTING PIT BEFORE PLACING PLANT. PLACEMENT OF PLANT SHALL BE PERPENDICULAR TO GROUND.
7. CONTRACTOR WILL NOT PLANT MATERIAL SHOWN ON PLANS WHEN IT IS EVIDENT THAT FIELD CONDITIONS HAVE CHANGES SINCE PLANS WERE DRAWN. ANY CHANGES ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE DESIGNER BEFORE ANY PLANTING IS DONE IN THE AREA.
8. PLANT SUBSTITUTIONS WILL BE PERMITTED, REQUEST SUBSTITUTION IN WRITING GIVING REASONS FOR SUCH SUBSTITUTIONS.
9. TURF QUANTITY TAKE-OFF ARE THE RESPONSIBILITY OF THE CONTRACTOR.
10. TREAT ALL PLANTING AREAS WITH AN APPLICATION OF SURF. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION.
11. REMOVE ALL WIRE, STRING, WIRE BASKETS, BURLAP, CONTAINERS, ETC., FROM THE ROOTBALL OF PLANTS BEFORE BACKFILLING THE PLANTING HOLE.
12. SEEDED AREAS SHOULD BE MAINTAINED UNTIL A FULL GROWTH OF WILD GRASS OR SEEDED MATERIAL IS ACHIEVED.
13. WARRANTY FOR THE PLANTING MATERIAL SHALL BE ONE YEAR FROM THE DATE OF ACCEPTANCE. (TREES, SHRUBS AND GROUNDCOVER).

PLAYGROUND & SWING EQUIPMENT NOTES

1. EQUIPMENT AND COMPONENTS TO BE IPEMA CERTIFIED.
2. EQUIPMENT MANUFACTURER TO COMPLY WITH ISO 9001.
3. EQUIPMENT MANUFACTURER TO PROVIDE CLEAR INSTALLATION MANUAL AND PROJECT LAYOUT AT THE COMPLETION OF PROJECT HARD COPY.
4. EQUIPMENT AND FALL SURFACING MUST COMPLY WITH CURRENT STANDARDS AND GUIDELINES.
5. EQUIPMENT TO CALLED OUT WITH LENGTHS FOR OVERHEAD ACTIVITIES, SPACING BETWEEN RAILS FOR CURLEY CLIMBERS, TRACK RIDES, ETC.
6. EQUIPMENT TO HAVE SAFETY TOP RAIL WITH A MINIMUM OF 72 INCHES AT CLIMBING OR SLIDING ELEMENTS.
7. EQUIPMENT MANUFACTURER SALES REPRESENTATIVE TO BE NPSI CERTIFIED.
8. EQUIPMENT INSTALLATION TO BE INSPECTED AND CERTIFIED FOR PROPER ASSEMBLY BY MANUFACTURER REPRESENTATIVE NPSI CERTIFIED.
9. EQUIPMENT MUST BE SUPERSEDED BY SUBMITTAL PACKETS THAT HAVE THE FOLLOWING INFORMATION FOR REVIEW AND RELEASE BY PROJECT DESIGNER AND PARK AND RECREATION STAFF:
   a. PROJECT SITE PLAN REFLECTING CONSTRUCTION DRAWINGS OR ACTUAL FIELD CONDITIONS.
   b. SITE PLAN WITH CONSTRUCTION POINTS.
   c. SITE PLAN WITH DIMENSIONS FOR ALL USE ZONES AND BETWEEN INDEPENDENT PIECES OF EQUIPMENT.
   d. LOCATION OF CONTAINMENT WALL OR CURB.
   e. LOCATION, LIMITS AND DIMENSIONS OF ACCESSIBLE PATH OF TRAVEL
   f. LOCATION OF ANY SHADE CANOPIES AS APPLICABLE.
   g. EQUIPMENT COLOR SELECTION CHART.
   h. EQUIPMENT INFORMATION INCLUDING INSTALLATION.
10. MANUFACTURER TO PROVIDE A SEALED MAINTENANCE KIT TO INCLUDE: TOOL BOX, SAND PAPER, OWNER'S MANUAL, HARDWARE (20 PIECES EACH MINIMUM) ASSORTED SIZES OF VANDAL PROOF NUTS, BOLTS, WASHERS, FASTENING TOOLS (ONE EACH SIZE – WRENCH AND CHUCK KEYS), 4CANS OF PRIMER , 2 CANS OF EACH COLOR OF TOUCH-UP PAINT, PLASTIC REPAIR KIT, ANTI-GRAFFITI REMOVER.
11. EQUIPMENT INSTALLATION TO BE PERFORMED BY CONTRACTOR MEETING THE FOLLOWING REQUIREMENTS (i. AND j. ARE INSTALLATION EXPERIENCE REQUIREMENTS THAT MUST BE MET, k. AND l. ARE OPTIONAL REQUIREMENTS THAT MAY BE SUBSTITUTED FOR EITHER i. OR j.).
    i. MINIMUM 8 YEARS EXPERIENCE INSTALLING SAME EQUIPMENT.
    j. COMPLETE GOOD QUALITY INSTALLATION OF A MINIMUM OF 20 STRUCTURES OF SAME OR SIMILAR SIZE.
    k. TRAINING AND CERTIFICATION BY EQUIPMENT MANUFACTURER.
    l. NPSI CERTIFICATION.
12. EQUIPMENT AND FALL SURFACES TO BE AUDITED AND TESTED BY AN INDEPENDENT EQUIPMENT INVENTORY, AND PLAN VIEW WITH DIMENSIONS OF PLAYGROUND IMPROVEMENTS, EQUIPMENT MANUFACTURER, AND FALL SURFACES MANUFACTURER WITH TOLL FREE NUMBERS. ANY ITEMS FOUND DEFICIENT IN AUDIT MUST BE CORRECTED AND A RE-AUDIT OF CORRECTED ITEM TO INSURE THAT ALL DEFICIENT ITEMS ARE ADDRESSED.
13. PLAYGROUND AREA TO BE FENCED AND PROPERLY SECURED THROUGHOUT, COURSE OF CONSTRUCTION AND UP TO ACCEPTANCE PROJECT.
14. EQUIPMENT TO HAVE MINIMUM 72" SAFETY USE (FALL) ZONE ASTM1487-11.
15. CONSTRUCTION WORK ON PLAYGROUND AREA WILL NOT COMMENCE UNTIL ALL MATERIALS AND SUPPLIES ARE IN POSSESSION OF CONTRACTORS.
16. CONTRACTOR WILL INSURE THAT WORK PROGRESS WILL BE ONGOING AND JOB SITE WILL NOT BE LEFT ABANDONED FOR ANY TIME PERIOD GREATER THAN 48 HOURS.
17. CONTRACTOR WILL INSURE THAT JOB SITE IS KEPT CLEAN AND CLEAR OF ANY CONSTRUCTION DEBRIS ON A DAILY BASIS.
18. CUSTOM SIGN TO BE FURNISHED BY PLAYGROUND MANUFACTURER WITH INFORMATION ON AGE APPROPRIATE USE, ADULT SUPERVISION RECOMMENDED, MANUFACTURER'S NAME AND 1-800 PHONE NUMBER, CITY OF EL PASO MAINTENANCE PHONE NUMBER OF (915) 621-6791 AND "WARNING" INSTALLATION OVER HARD SURFACE NOTICE. THE SPECIFIC VERBIAGE CAN BE WORKED OUT DURING PROJECT CONSTRUCTION.

SODDING NOTES

SUBMIT THE FOLLOWING:

1. SOD CERTIFICATION FOR GRASS SPECIES AND NAME AND LOCATION OF SOD SOURCE. SODDING SCHEDULE, INCLUDING DATES AND TYPE OF WORK TO BE PERFORMED. PRIOR TO ORDERING, NAME OF SUPPLIER OF SOIL AMENDMENTS MATERIALS.

QUALITY ASSURANCE

2. MINIMUM AGE 18 MONTHS, WITH ROOT DEVELOPMENT THAT WILL SUPPORT ITS OWN WEIGHT WITHOUT TEARING, WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS.

DELIVERY, STORAGE AND HANDLING

3. TIME DELIVERY SO THAT SOD WILL BE PLACED WITHIN 24 HOURS OF DELIVERY AT SITE. PROTECT AGAINST DRYING AND BREAKING OF ROLLED STRIPS.
4. DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED ON SITE.

SITE CONDITIONS

5. PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS PORTIONS OF SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED.
6. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION BEFORE PLANTING.
7. PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED. CORRELATE PLANTING WITH SPECIFIED MAINTENANCE PERIODS TO PROVIDE MAINTENANCE FROM DATE OF FINAL ACCEPTANCE.

SOIL AMENDMENTS

8. PROVIDE SOIL ANALYSIS BEFORE ADDITION OF SOIL AMENDMENTS & ANALYSES OF SOIL AMENDMENTS. ORGANIC AMENDMENTS SHALL CONSIST OF WELL-AGED ORGANIC COMPOST OR APPROVED EQUAL.

FERTILIZER

9. SLOW-RELEASE STARTER FERTILIZER ANALYSIS AS RECOMMENDED BY LANDSCAPE ARCHITECT BY WEIGHT AT A RATE OF 1 LB OF ACTUAL NITROGEN PER 1,000 SQUARE FEET BY WEIGHT.

GRASS MATERIALS

10. PROVIDE STRONGLY ROOTED SOD, NOT LESS THAN 18 MONTHS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES AND MACHINE CUT TO PAD THICKNESS OF 3/4 INCH (PLUS OR MINUS 1/4 INCH), EXCLUDING TOP GROWTH AND THATCH. PROVIDE SOD CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. CUT SOD PIECES A MINIMUM OF 18 INCHES WIDE.

PREPARATION

11. PRIOR TO START OF SOIL PREPARATION ALL FINISH GRADES SHALL BE ESTABLISHED AND APPROVED AS MEETING THE REQUIREMENTS OF THE GRADING PLAN. APPLY A UNIFORM ONE-INCH LAYER (3 C.Y./1000 SQUARE FEET) OF ORGANIC SOIL AMENDMENT, AFTER APPLICATION OF ORGANIC AMENDMENT AND STARTER FERTILIZER ALL AREAS TO BE SODDED SHALL BE THOROUGHLY ROTOTILLED TO A MINIMUM DEPTH OF 12 INCHES. AFTER ROTOTILLING IS COMPLETE AT CROSS DIRECTIONS, DRAG, AND LASER LEVEL TO AN EVEN GRADE, THEN ROLL FOR FIRMNESS. RAKE TILLED AREA AND REMOVE STONES OVER 1 INCH IN ANY DIMENSION, STICKS, ROOTS, RUBBISH AND OTHER EXTRANEOUS MATTER. ROLL ENTIRE AREA WITH WEIGHTED HAND ROLLER.

SODDING OPERATIONS

12. LAY SOD WITHIN 24 HOURS OF DELIVERY AT SITE. DO NOT PLANT DORMANT SOD OR ON FROZEN GROUND.
13. IF SOIL IS DRY, MOISTEN AREAS BEFORE SODDING. WATER THOROUGHLY AND ALLOW SURFACE MOISTURE TO DRY. DO NOT CREATE A MUDDY SOIL CONDITION.
14. REMOVE FIBER MESH USED BY SOD FARM TO TRANSPORT SOD ROLLS AS SOD IS BEING INSTALLED.
15. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. NO JOINT SHALL BE MORE THAN LAY SOD OVER MOISTENED SOIL, LIGHTLY RAKING THE SOIL AHEAD OF EACH SOD STRIP. BUTT ENDS AND SIDES OF SOD STRIPS; DO NOT OVERLAP. STAGGER STRIPS TO OFF-SET JOINTS IN ADJACENT COURSES. LAY SOD PARALLEL TO CONTOURS OF SLOPE. WORK FROM BOARDS TO AVOID DAMAGE TO SUBSOIL OR SOD. TAMP FIRMLY AND EVENLY BY HAND TO ENSURE CONTACT WITH SUBSOIL. WORK SIFTED TOPSOIL OR SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD
16. WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING.

MAINTENANCE

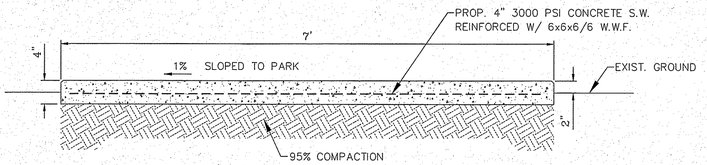
17. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
18. MAINTAIN LAWNS FOR NOT LESS THAN A PERIOD OF AT LEAST 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SOD. INSPECTION TO DETERMINE ACCEPTANCE OF SODDED LAWNS WILL BE MADE BY PARKS STAFF AND SITES SOUTHWEST REPRESENTATIVE UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST 10 WORKING DAYS BEFORE REQUESTED INSPECTION DATE. AND LONGER AS REQUIRED TO ESTABLISH AN ACCEPTABLE LAWN.
19. SODDED LAWNS TO BE MAINTAINED NOT LESS THAN 60 DAYS AFTER COMPLETION AND ACCEPTANCE OF SODDING OPERATIONS.
20. MAINTENANCE TO INCLUDE: WATER SOD THOROUGH EVERY 2 TO 3 DAYS MIN. AS REQUIRED TO ESTABLISH PROPER ROOTING. REPAIR, REWORK AND RESOD AREAS THAT HAVE WASHED OUT OR ERODED. REPLACE DEAD OR UNDESIRABLE SOD SECTIONS WITH NEW SOD. MOW LAWN AREAS WHEN THE GRASS IS OVER 2 INCHES HIGH FOR FIRST CUTTING. FERTILIZE LAWN WITH TOP DRESSING FERTILIZER AT 1 LB. PER 1,000 SQ.FT. OF NITROGEN, WATER THOROUGHLY.
21. ADDITIONAL LAWN MAINTENANCE CONSISTS OF WEEDING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

CLEANUP AND PROTECTION

22. DURING THE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
23. PROTECT WORK AND MATERIALS FROM DAMAGE DUE TO SODDING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED WORK AS DIRECTED.

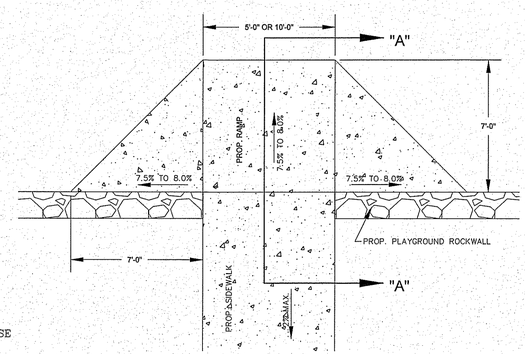
INSPECTION AND ACCEPTANCE

24. WHEN INSPECTED WORK DOES NOT COMPLY WITH REQUIREMENTS, REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED BY THE LANDSCAPE DESIGNER AND CITY OF EL PASO PARKS AND RECREATION AND FOUND TO BE ACCEPTABLE. REMOVE REJECTED SOD AND MATERIALS PROMPTLY FROM PROJECT SITE.

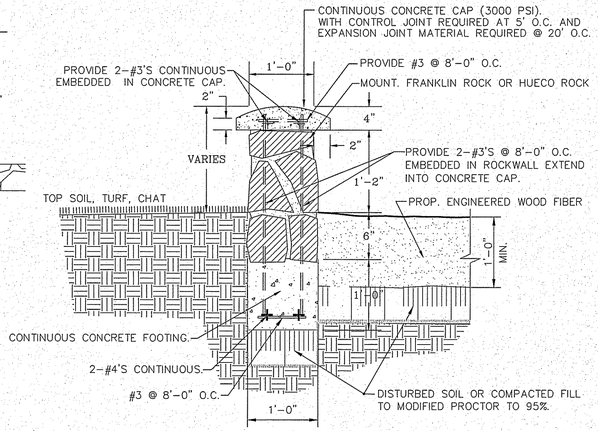


SIDEWALK NOTES:

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



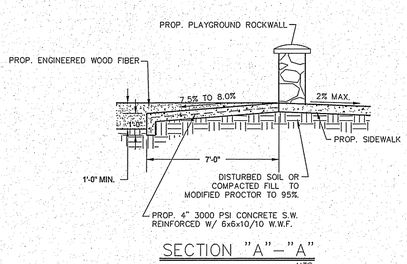
PLAYGROUND RAMP
NTS



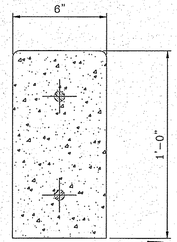
PLAYGROUND ROCKWALL DETAIL

ROCKWALL NOTES:

1. STONE FOR ROCKWALL SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE.THE STONE SHALL BE DENSE AND RESISTANT TO AIR AND WATER.
2. MORTAR SHALL BE TYPE "S" 1800 P.S.I. AS PER ASTM C270-73. MORTAR SHALL CONSIST BY VOLUME OF 1 PART PORTLAND CEMENT, 3 1/2 PARTS OF CLEAN, HARD, DURABLE SAND AND 1/4 PART (MORTAR) LIME THOROUGHLY MIXED WITH WATER.
3. ROCKWALL MORTAR JOINTS SHALL NOT EXCEED 3/4" TO 1 1/4".
4. STONE SHALL BE CLEANED, FREE OF DIRT PRIOR TO INSTALLATION.
5. NO RIVER ROCK SHALL BE ALLOWED FOR ROCKWALLS.



SECTION "A"-"A"
NTS



HEADER CURB DETAIL AND NOTES:

1. HEADER CURBS SHALL BE 3,000 PSI CONCRETE STRENGTH.
2. HEADER CURBS HAND POURED AND PLACED SHALL INCLUDE:
   (a) 2 CONTINUOUS #4 REBARS.
   (b) WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.
3. HEADER CURBS MACHINE INSTALLED SHALL INCLUDE:
   (a) 2.0 POUNDS OF LONG FIBERGLASS MESH CUBIC YARD.
   (b) WITH 1/2 INCH EXPANSION JOINTS EVERY 20.0 FEET AND CONTROL JOINTS EVERY 5.0 FEET, AND A BROOM FINISH.

THE CITY OF EL PASO TEXAS
Final Approval

PARKS DEPARTMENT
REVIEWED BY: 12/08/2016

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK

BENCHMARK

DATE	REVISIONS	BY
11/2/16	REVISIONS AS PER CITY COMMENTS 10/28/16	E.J.

PROJECT NAME

PROPOSED MESQUITE HILLS 8
WHITE MESQUITE PARK
6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8,
78,986.91 S.F. OR 1.813 ACRES

SCALE
HORIZ: NTS
VERT: NTS
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

IRRIGATOR'S SEAL
12/07/16
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR

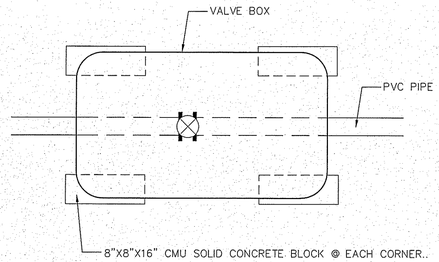
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

LANDSCAPE AND IRRIGATION DETAILS

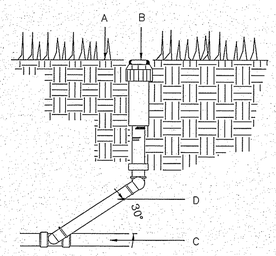
SHT L6 OF L11



NOTE: BLOCKS TO SIT ON WEED CLOTH ON UNDISTURBED SOIL. DISTURBED SOILS SHALL BE COMPACTED WITH TAMPER PRIOR TO SETTING WEED CLOTH & BLOCKS. VALVE BOX AND EXTENSIONS TO SIT ON BLOCKS. VALVE BOX AND EXTENSIONS TO HAVE A MINIMUM 2" CLEARANCE TO THE TOP OF PVC PIPE.

BRICK PLACEMENT ON VALVE BOXES

NTS

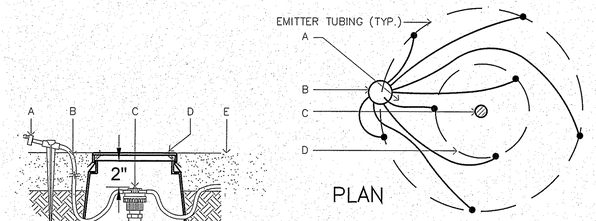


A. FINISH GRADE.
B. SPRINKLER HEAD (SEE PLAN).
C. LATERAL LINE (SEE PLAN).
D. LASCO PRE-ASSEMBELED SWING JOINT.

THIS DETAIL SHALL BE USED FOR POP-UP SHRUB SPRAY, POP-UP LAWN SPRAY, GEAR DRIVEN AND ROTARY SPRINKLER HEADS.
TOP OF SPRINKLER HEAD SHALL BE SET FLUSH WITH FINISH GRADE.
SWING JOINT INSTALLATION TO COMPLY WITH MANUFACTURER'S RECOMMENDATION.

IRRIGATION SPRINKLER HEAD

NTS



INSTALL (8) EMITTERS PER TREE. SPACE EVENLY AROUND ROOTBALL, IN OFFSET TRIANGULAR PATTERN FOR TREES, SEE IRRIGATION LEGEND FOR OUTLET EMITTER SIZE.

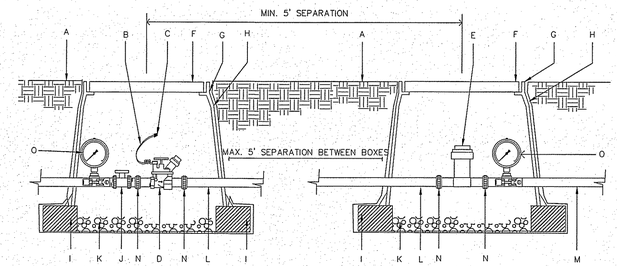
A. EMITTER TUBING.
B. MULTI OUTLET EMITTER DEVICE, INSTALL 5' FROM TREE TRUNK ON WEST SIDE.
C. TREE TRUNK.
D. TREE ROOTBALL.

A. SINGLE-OUTLET EMITTER: SEE IRRIGATION LEGEND (BARB ONLY).
B. 1/4-INCH TUBING: POLYETHYLENE DISTRIBUTION TUBING.
C. 8-OUTLET DISTRIBUTION MANIFOLD: SEE IRRIGATION LEGEND
D. INSTALL 2-#8, 2" LONG SELF TAPING BRASS SCREWS.
E. FINISH GRADE.
F. 1/4-INCH TUBING STAKE: RAIN BIRD TS-025.
G. 3" MIN. DEPTH OF 3/8" WASHED PEA GRAVEL.
H. SCH. 80 THREADED NIPPLE, LENGTH AS NEEDED.
I. TEE OR ELL TO PVC OR POLYETHYLENE PIPE SEE PLAN.
J. PVC OR POLEYETHYLENE LATERAL PIPE, SEE PLAN.
K. CARSON 9" ROUND SUBTERRANEAN EMITTER BOX, COVER TO MATCH COLOR OF FINISHED MATERIAL (GREEN IN TURF AND TAN IN ROCK MULCH AREAS).

CONSTRUCTION NOTES:
1. ENSURE SINGLE OUTLET EMITTER IS ON TOP OF THE PLANT'S ROOTBALL.
2. LOCATE SINGLE OUTLET EMITTERS AROUND TREES AS PER PLAN DIAGRAM ABOVE.
3. LOCATE SINGLE OUTLET EMITTERS FOR 1 GALLON & 5 GALLON ON OPPOSITE SIDES OF ROOTBALL.
4. WEED BARRIER TO BE INSTALLED UNDER WASHED PEA GRAVEL AND WRAPPED AROUND EMITTER BOX THEN TAPE WITH ALL PENETRATIONS SEALED. USE 3M BRAND HEAVY DUTY PLASTIC TAPE.

MULTI -8- OUTLET EMITTER FOR TREE

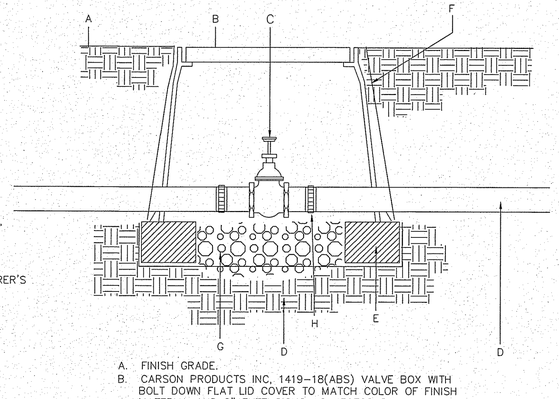
NTS



A. FINISH GRADE.
B. 24" WIRE LOOP.
C. DRY SPLICE CONNECTOR OR EQUAL.
D. AUTOMATIC VALVE INCLUDED IN CONTROL ZONE KIT. SEE IRRIGATION LEGEND.
E. BASKET FILTER STRAINER INCLUDED IN CONTROL ZONE KIT SHALL BE INSTALLED TO PROVIDE ACCESSFOR MAINTENANCE AND REPLACEMENT. SEE IRRIGATION LEGEND.
F. LOCKING VALVE BOX COVER FLAT LID WITH BOLT.
g. CARSON PRODUCTS INC. 1419-18 BODY (ABS) VALVE BOX W/BOLT DOWN COVER (COVER COLOR TO MATCH FINISH MATERIAL AND EXTENSION AS NECESSARY.
H. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX AND BLOCKS TAPE TO ALL INLET & OUTLET PIPE WITH 3M HEAVY DUTY PLASTIC TAPE.
I. 8"X8"X16" CMU SOLID CONCRETE BLOCK @ EACH CORNER..
J. BALL VALVE, INCLUDED IN CONTROL ZONE KIT, SEE IRRIGATION LEGEND.
K. 4" LAYER OF 3/8" WASHED PEA GRAVEL.
L. PVC PIPE SIZED PER PLAN WITH WELD ON THREADED FITTINGS ON EACH END.
M. LATERAL LINE
N. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
O. HORIZONTAL HYGIENIC PRESSURE GAUGE

NOTE: PROVIDE 1 PRESSURE GAUGE ON MAIN LINE UPSTREAM OF BALL VALVE AND ANOTHER DOWNSTREAM OF KIT'S PRESSURE REGULATOR. PROVIDE 5' SEPARATION BETWEEN BOXES. IF SPACE IS NOT AVAILABLE, PROVIDE A MIN. 5' SEPARATION AT CENTER LINES OF BOXES. SET GAGES HORIZONTAL TO BRE READABLE.

DRIP VALVE/ BASKET FILTER KIT

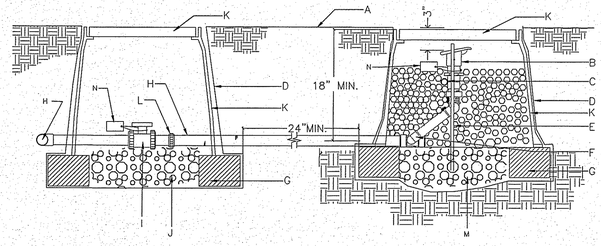


A. FINISH GRADE.
B. CARSON PRODUCTS INC, 1419-18(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISH MATERIAL AND 8" EXTENSIONS AS NECESSARY.
C. BRASS ISOLATION VALVE- SEE IRRIGATION LEGEND.
D. IRRIGATION MAINLINE.
E. 8"X 8"X16" SOLID CMU SOLID BLOCK @ EACH CORNER.
F. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
G. 4" DEPTH, 3/8" WASHED PEA GRAVEL.
H. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)

NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

ISOLATION VALVE

NTS

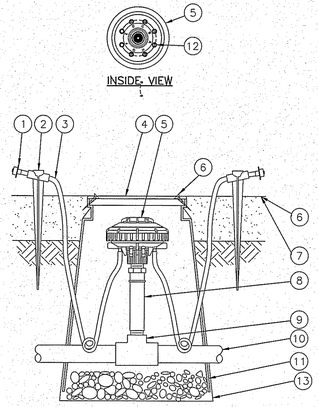


A. FINISH GRADE.
B. 1" BUCKNER QUICK COUPLER VALVE, DOUBLE SLOT, PURPLE TOP-MODEL QBSNPI0 WITH LASCO SNAP-LOK W/MALE BRASS STABILIZER ELBOW.
C. MIN. 12" SECTION 1" DIA. PVC, SECTION SHOULD EXTEND BEYOND BOTH REBAR SECTION, STABILIZE IN GRAVEL.
D. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY 3M PLASTIC TAPE.
E. 1/2" OR 3/8" REBAR, MIN. 30" LENGTH, ONE ON EITHER SIDE OF QUICK COUPLER FOR STABILITY.
F. LASCO SWING JOINT (PRE-ASSEMBLED).
G. 8" X 8" X 16" SOLID CMU BLOCK
H. IRRIGATION MAINLINE
I. ISOLATION BALL VALVE, SEE IRRIGATION LEGEND.
J. 6" DEPTH OF 3/8" WASHED PEA GRAVEL
K. CARSON PRODUCTS INC. 1419-18 BODY (ABS) VALVE BOX AND EXTENSION(S) W/BOLT DOWN COVER (COVER COLOR TO BE PURPLE).
L. PROVIDE PVC UNION FOR PIPE SIZES LESS THAN THREE INCHES IN DIAMETER OR PROVIDE. FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.
M. 3/8" WASHED PEA GRAVEL FILLED TO QUICK COUPLER FOR STABILITY.
N. WEATHER PROOF TAG THAT READS. "NON-PORTABLE WATER, NOT SAFE FOR DRINKING." FLANGES FOR PIPE SIZES THREE INCHES IN DIAMETER OR LARGER.

NOTE: INSTALL AN 8" X 8" X 16" SOLID CMU BLOCK AT EACH CORNER OF THE VALVE BOX. INSTALL 3/8" PEA GRAVEL BELOW THE 1419-18 VALVE BOX WITH BOLT DOWN COVER. EXTEND PEA GRAVEL UP TO COLLAR OF QUICK COUPLER VALVE. INSTALL A TEE, FLANGE & BALL VALVE OFF OF THE MAIN LINE IMMEDIATELY UPSTREAM OF THE QUICK COUPLER VALVE.

QUICK COUPLER VALVE

NTS



NOTES:
1. COIL ADDITIONAL 9" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.
2. RAIN BIRD XERI-BUG BARB X BARB EMITTERS, MODEL XB-20PC 2.0 GPH

MULTI -8- OUTLET EMITTER

NTS

1. DIFFUSER BUG CAP: RAIN BIRD DBC-025 (1 OF 2 SHOWN, 8 POSSIBLE).
2. UNIVERSAL RAIN BIRD TS-025 (1 OF 2 SHOWN, 8 POSSIBLE).
3. 1/4" DISTRIBUTION TUBING: RAIN BIRD XQ TUBING STAKE: (LENGTH AS REQUIRED) (1 OF 2 SHOWN, 8 POSSIBLE).
4. SUBTERRANEAN EMITTER BOX: CARSON 910 SERI ES(GREEN IN TURF AREAS AND TAN IN ROCK LANDSCAPE AREAS).
5. MULTI-8-OUTLET EMISSION DEVICE: RAIN BIRD XERI-BIRD XBD-80.
6. INSTALL 2 #8, 2" LONG SELF TAPING BRASS SCREWS.
7. FINISH GRADE.
8. PVC SCH 80 THREADED NIPPLE LENGTH AS NEEDED.
9. PVC SCH 40 TEE OR ELL.
10. PVC LATERAL PIPE.
11. 3" MINIMUM DEPTH OF 3/4" WASHED PEA GRAVEL.
12. SINGLE-OUTLET BARB INLET X BARB OUTLET EMITTER: RAIN BIRD XERI-BUG EMITTER.
13. WEED BARRIER TAPED TO EMITTER BOX AND PIPE PENETRATION. TAPE TO BE 3M BRAND HEAVY DUTY PLASTIC TAPE.

BACKFLOW ENCLOSURE GENERAL NOTES:

ASSE STANDARD #1060 (ISSUED MARCH 13, 2006)
PERFORMANCE REQUIREMENTS FOR OUTDOOR ENCLOSURES FOR BACKFLOW PREVENTION ASSEMBLIES
SECTION 3.1.1:
ENCLOSURES SHALL CONTAIN A HEAT SOURCE CAPABLE OF MAINTAINING 4°C (40°F) INSIDE THE ENCLOSURE WHEN SUBJECTED TO 34°C (-34°F) OUTSIDE AIR TEMPERATURE.

SECITON3.2.1:
ENCLOSURES shall be designed to support a minimum vertical load of 100 lb/sf.

section 3.3.1:
depth of water within the enclosure shall not exceed 6 inches during full flow of the back flow preventer relief discharge.
SECTION 3.5.2.
Enclosure shall be designed to be accessed and provide sufficient room for testing and maintenance...drawings shall be submitted by the manufacturer.

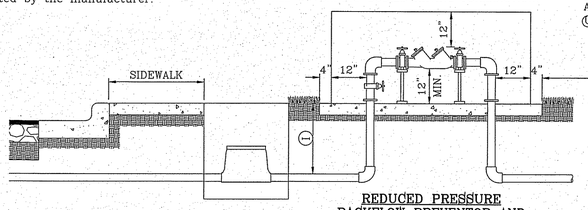
GENERAL NOTES:

1. ENCLOSURE MUST COMPLY WITH 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 PRENENTION DEVICE SHALL BE PROPERTLY SUPPORTED BY BRACKETS AND NOT COPPER RISERS OR COPPER RISERS WILL BE REPLACED.

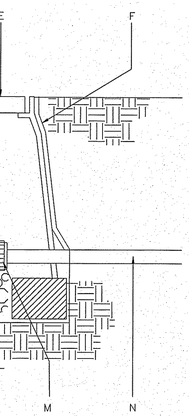
ELECTRICAL NOTES:

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.



REDUCED PRESSURE BACKFLOW PREVENTOR AND ENCLOSURE DETAIL
SCALE: 1"=2'



NOTE: PVC PIPE TO BE CLEAR OF VALVE BOX AND SOLID CMU BLOCK.

IRRIGATION CONTROL VALVE

NTS

A. FINISH GRADE.
B. BALL VALVE.
C. DRY SPLICE CONNECTOR OR EQUAL.
D. ELECTRIC VALVE -SEE IRRIGATION LEGEND.
E. CARSON PRODUCTS INC, 1419-18(ABS) VALVE BOX WITH BOLT DOWN FLAT LID COVER TO MATCH COLOR OF FINISHED MATERIAL AND 8" EXTENSIONS AS NECESSARY.
F. PROVIDE DEWITT PRO 5 WEED CLOTH ALONG SIDES AND BASE OF VALVE BOX INSTALLATION. TAPE TO ALL INLET AND OUTLET PIPE AND VALVE BOX WITH HEAVY DUTY PLASTIC 3M TAPE.
G. PVC MAINLINE-SEE IRRIGATION LEGEND.
H. SCH 80 - 45 DEGREE FITTING.
I. 8"X8"X16" SOLID CMU BLOCK @ EACH CORNER.
J. 4" DEPTH, 3/8" DIAMETER WASHED PEA GRAVEL.
K. 24" WIRE EXPANSION COIL, EXTEND WIRE 12" ABOVE VALVE BOX FOR SERVICE.
L. SCHEDULE 80 PVC CLOSE NIPPLE.
M. FLANGE (3" AND ABOVE) AND UNION (BELOW 3" PIPE SIZE)
N. LATERAL LINE.

(A) PROPOSED METER
(B) SERVICE LINE, NO OUTLETS ALLOWED. COPPER
(C) FINISH GRADE
(D) TYPE K COPPER ELL
(E) TYPE K COPPER NIPPLE
(F) BRASS UNION, 4" ABOVE GRADE, MIN.
(G) BACKFLOW PREVENTOR DEVICE (SEE PLAN) HEIGHT 12" MIN, MAX 30"
(H) COPPER MAINLINE
(I) 28" MINIMUM DEPTH
(J) 3000 PSI CONCRETE PAD, 4" DEPTH, EXTEND 4" BEYOND EDGE OF ENCLOSURE
(K) PIPE SHALL BE SLEEVED THROUGH CONCRETE PAD WITH SEALED SHC 40 PVC.
(L) BACKFLOW ENCLOSURE TO BE ASSE 1060 CERTIFIED CLASS I.
(M) NOT USED.
(N) STEEL SUPPORT BRACKETS BOLTED TO CONCRETE PAD
(O) BRASS ISOLATION VALVE.
(P) BRICK BLOCK AT EACH CORNER
(Q) FLANGE
(R) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX) SET IN CARLSON VALVE BOX
(S) WEED CLOTH ALL AROUND BOX PIPE AND UNDER PEA GRAVEL,. TAPE TO SEAL ALL GAPS AND PENETRATIONS. USE 3M HIGH GRADE PLASTIC TAPE.
(T) 1419 CARLSON VALVE BOX WITH LID AND BOLT, COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
(U) PVC MAINLINE AS PER IRRIGATION PLAN

PARKS DEPARTMENT
REVIEWED BY: Antonio Martinez 12/08/2016 Final Approval

THE CITY OF EL PASO TEXAS

BENCHMARK

BY	REVISIONS	DATE

PROJECT NAME

PROPOSED MESQUITE HILLS 8
WHITE MESQUITE PARK
6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8
78,886.91 S.F. OR 1.813 ACRES

SCALE
HORIZ: NTS
VERT: NTS
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

IRRIGATOR'S SEAL
12/07/16
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR

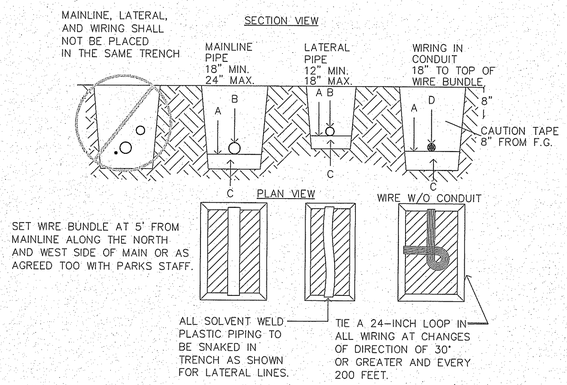
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. F-2321

SHEET TITLE

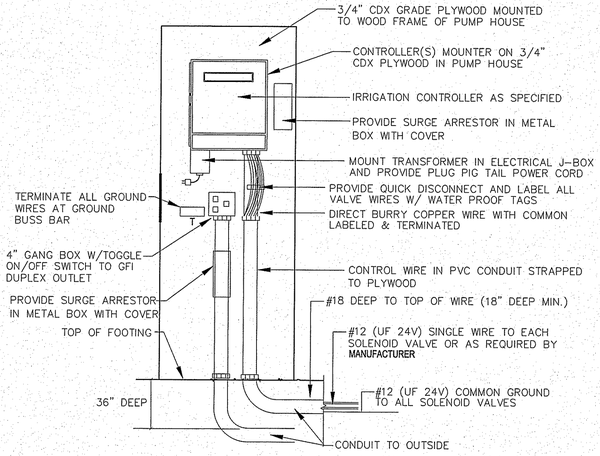
LANDSCAPE AND IRRIGATION DETAILS

SHT L7 OF L11

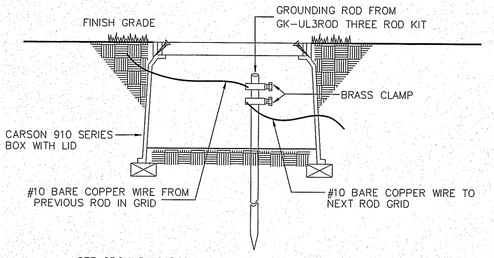


NOTES:
A. BOTTOM OF EXCAVATED TRENCH WHERE NONE ROCKY SOILS ARE EXPOSED (ENCOUNTERED).
B. IRRIGATION SYSTEM PIPING.
C. MINIMUM 4" DEEP BEDDING SANDY SOILS MATERIAL WHERE ROCKY SOILS ARE EXPOSED.
D. IRRIGATION SYSTEM VALVE WIRING.
E. BACKFILL SOILS MATERIAL MAY BE NATIVE SOILS IF IT IS FREE OF CALICHE OR STONES LARGER THANK 1" IN SIZE AND ORGANIC MATTER OR WASTE DEBRIS. SOILS COMPACTION IN TURF AREAS TO BE 80% TO 85% DENSITY BY ASTM D-1557 STANDARD AND AT 95% DENSITY UNDER PAVED OR HARDSCAPE SURFACES.

PIPE / WIRE IN TRENCH
NTS



CONTROLLER WALL MOUNT DETAIL INSIDE PUMP HOUSE
NTS



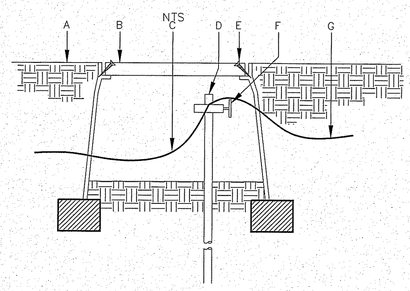
SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS

GROUNDING ROD NOTES:

GROUNDING RODS SERVE AS ELECTRODES FOR DEVICES TO DISSIPATE THE SURGE INTO THE EARTH. CAREFULLY READ THE FOLLOWING INSTALLATION INSTRUCTIONS:

1. ALWAYS USE A 5/8" X 8' COPPER CLAD ROD.
2. RUN A #10 OF LARGER BARE COPPER WIRE FROM THE DEVICE TO THE ROD.
3. KEEP THE GROUND WIRES AS SHORT AND STRAIGHT AS POSSIBLE FROM THE DEVICE TO THE FIRST ROD.
4. CLAMP ALL WIRES TO THE GROUNDING ROD. DO NOT SOLDER OR TAPE THEM TO THE ROD.
5. TO INSTALL GROUNDING ROD, USE GK-TOOLS ROD DRIVING SLEEVE.
6. SPACE THREE RODS IN A TRIANGULAR GRID AT LEAST 8' APART FROM THE OTHERS IN THE GRID. CONNECT ALL THREE RODS WITH A SOLID # 10 COPPER WIRE.
7. WHEN TESTED WITH THE PROPER EQUIPMENT, GRIDS SHOULD HAVE AN EARTH RESISTANCE NO GREATER THAN 10 OHMS.
8. WHENEVER MORE THEN ONE WIRE IS ATTACHED TO A GROUNDING ROD ALWAYS USE A SEPARATE CLAMP FOR EACH WIRE. TRYING TO INSTALL MORE THAN ONE WIRE PER CLAMP COULD CAUSE A POOR CONNECTION RESULTING IN HIGH RESISTANCE LEVELS.
9. GROUNDING RODS SERVE AS ELECTRODES FOR THE SURGE DEVICES TO DISSIPATE THE SURGE INTO THE EARTH REMEMBER THESE TIPS WHEN INSTALLING THEM.

GROUNDING WIRES IN GRID DETAIL INITIAL TERMINAL



A. FINISH GRADE.
B. CARSON 910 SERIES VALVE BOX WITH LID AND SCREWS, COLOR TO MATCH MULCH.
C. No. 10 BARE COPPER WIRE FROM PREVIOUS ROD IN GRID.
D. GROUNDING ROD FROM GK-UL3ROD THREE ROD KIT.
E. INSTALL SELF TAPING #8, 2" LONG BRASS SCREWS.
F. BRASS CLAMP.
G. No. 10 BARE COPPER WIRE CONTINUING TO NEXT ROD IN GRID.

NOTE: SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

GROUNDING WIRES INTERMEDIATE
NTS

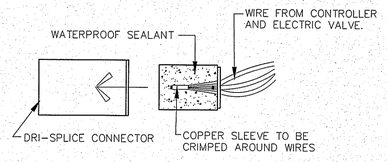
PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

TRIANGULAR GROUNDING PLAN VIEW DETAIL
NTS

NOTE: PROVIDE A 7 FT. HORIZONTAL CLEARANCE FROM ANY VERTICAL STRUCTURES ABOVE 12 INCHES.

RAIN SENSOR AND NOTES

A. RAIN BIRD RSD-BEx RAIN SENSOR. SET TO 1/8"
B. 2½" PIPE CAP WITH HOLE FOR WIRES AND SEAL WITH EXTERIOR GRADE SILICONE SEALANT.
C. DRILL TWO 3/16" HOLES IN PIPE FOR SENSOR BRACKET.
D. (2) NO. 8-32 MACHINE SCREWS WITH WASHER, LOCK WASHER AND NUT.
E. 2 1/2"" SCH 40 GALVANIZED PIPE-10 FT. HT. A.G.
F. 12"X12" CONCRETE BASE, MIN. 24" DEEP.
G. PIPE ELBOW.
H. FINISH GRADE
I. PIPE TO BE SEALED AFTER CABLE IS RUN, USE 4 MIL. PLASTIC AND TAPED NIPPLE AND THE CABLE WITH HIGH GRADE 3M WEATHER PROOF PLASTIC TAPE.
J. NIPPLE. GALVANIZED PIPE IN CONCRETE FOOTING TO BE WRAPPED WITH WEATHER PROOF TAPE TO PROTECT FROM CORROSION.
K. 6" THICK, 3/8" DIAMETER WASHED PEA GRAVEL.



THREE STEP OPERATION DRI-SPLICE CONNECTOR ONLY.
FILL WITH SEALANT SUFFICIENT TO SEAP WHEN ASSEMBLED.

WIRE CONNECTORS
NTS

THE CITY OF EL PASO TEXAS
Final Approval

PARKS DEPARTMENT
REVIEWED BY: 12/20/2016

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK

BENCHMARK

REVISIONS	DATE	BY
REVISIONS AS PER CITY COMMENTS	10/28/16	E.J.
	11/2/16	

PROJECT NAME

PROPOSED MESQUITE HILLS 8
WHITE MESQUITE PARK
6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8
76,996.91 S.F. OR 1.613 ACRES

SCALE
HORIZ: NTS
VERT: NTS
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

IRRIGATOR'S SEAL
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR
12/7/16

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6080 SURETTY DR. STE 100
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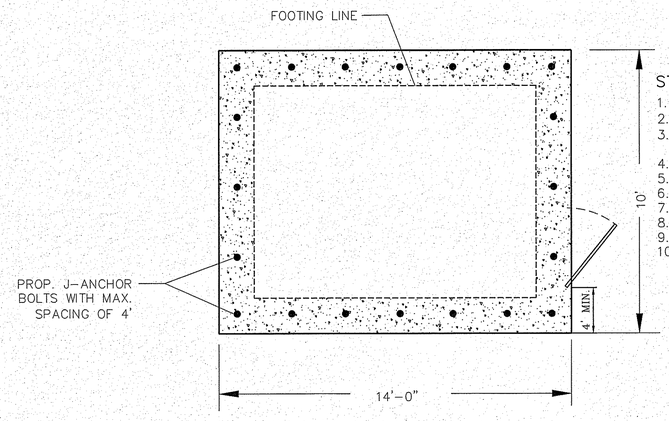
LANDSCAPE AND IRRIGATION DETAILS

SHT L8 OF L11

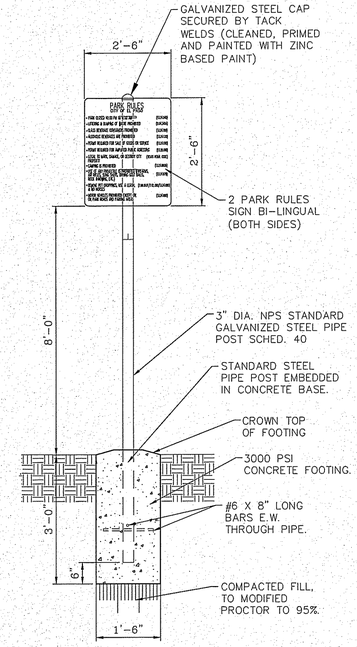


FOUNDATION PLAN
PLAN VIEW ELEVATION

SCALE: 1"=3'

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.



PARK RULES SIGN

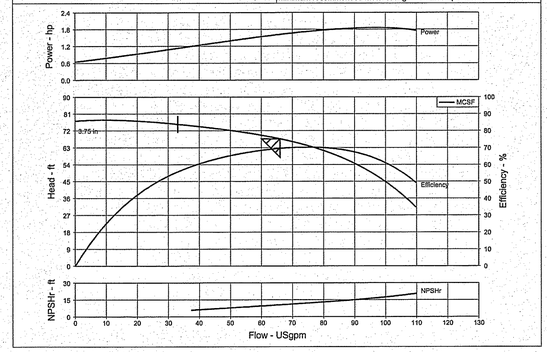
NTS

PENTAIR BERKELEY

Pentair Electronic Catalog

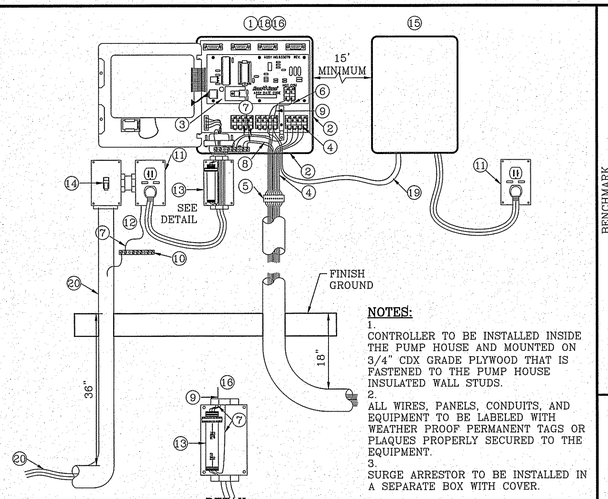
Pump Performance Datasheet

Customer	: Ranchos Real XVI	Quote number	:
Customer reference	: Mesquite Hills Unit 8	Size	: B1-1/2MRS
Item number	: Default	Stages	: 1
Service	: 6940 Copper Town Dr.	Based on curve number	: 2676
Quantity	: 1	Date last saved	: 01 Nov 2016 5:10 PM
Operating Conditions		**Liquid**	
Flow, rated	: 66.00 USgpm	Liquid type	: --Water
Differential head / pressure, rated (requested)	: 67.70 ft	Additional liquid description	:
Differential head / pressure, rated (actual)	: 67.73 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: Ample	Temperature, max	: 68.00 deg F
Frequency	: 60 Hz	Fluid density, rated / max	: 1.000 / 1.000 SG
Performance		Viscosity, rated	: 1.00 cP
Speed, rated	: 4068 rpm	Vapor pressure, rated	: 0.00 psi.a
Impeller diameter, rated	: 3.75 in	**Material**	
Impeller diameter, maximum	: 3.75 in	Material selected	: Not specified
Impeller diameter, minimum	: 3.75 in	**Pressure Data**	
Efficiency	: 69.82 %	Maximum working pressure	: 33.68 psi.g
NPSH required / margin required	: 10.61 / 0.00 ft	Maximum allowable working pressure	: 200.0 psi.g
nq (imp. eye flow) / S (imp. eye flow)	: 30 / 105 Metric units	Maximum allowable suction pressure	: N/A
MCSF	: 33.08 USgpm	Hydrostatic test pressure	: N/A
Head, maximum, rated diameter	: 77.81 ft	**Driver & Power Data**	
Head rise to shutoff	: 13.99 %	Driver sizing specification	: Rated power
Flow, best eff. point	: 74.94 USgpm	Margin over specification	: 0.00 %
Flow ratio, rated / BEP	: 88.07 %	Service factor	: 1.00
Diameter ratio (rated / max)	: 100.00 %	Power, hydraulic	: 1.13 hp
Head ratio (rated dia / max dia)	: 100.00 %	Power, rated	: 1.62 hp
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Power, maximum, rated diameter	: 1.86 hp
Selection status	: Acceptable	Minimum recommended motor rating	: 2.00 hp / 1.49 kW



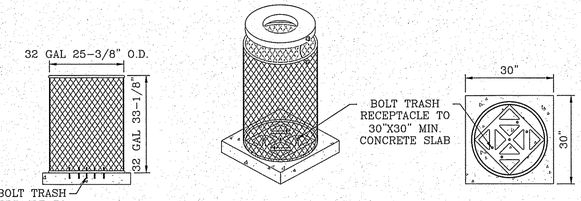
BERKELEY Pumps / Pentair Water · 293 Wright Street · Delavan, Wisconsin 53115
phone: (888)782-7483 · fax: (800)426-9446 · www.berkeleypumps.com

1. INSTALL IN NEMA2 APPROVED METAL ENCLOSURE TO HOUSE IRRIGATION SYSTEM CONTROLLER.
2. RAIN BIRD ESP-SAT WALL MOUNT (METAL/PLASTIC) FIELD SATELLITE CONTROLLER
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 SEPERATE FROM THE ONE ON THE CLOCK (CONTROLLER)
5. PLACE A QUICK DISCONNECT IN THIS GENERAL LOCATION SEPERATE 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 TOGGLE 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. N/A
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 ARRESTROR 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.



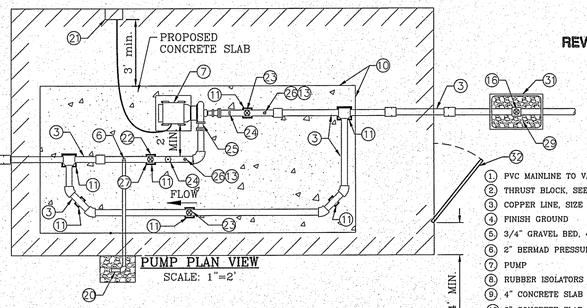
NOTES:
1. CONTROLLER TO BE INSTALLED INSIDE THE PUMP HOUSE AND MOUNTED ON 3/4" CDX GRADE PLYWOOD THAT IS FASTENED TO THE PUMP HOUSE INSULATED WALL STUDS.
2. ALL WIRES, PANELS, CONDUITS, AND EQUIPMENT TO BE LABELED WITH WEATHER PROOF PERMANENT TAGS OR PLAQUES PROPERLY SECURED TO THE EQUIPMENT.
3. SURGE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

ESP-12SITEW
INSTALLATION DETAIL
SCALE: 1"=1'



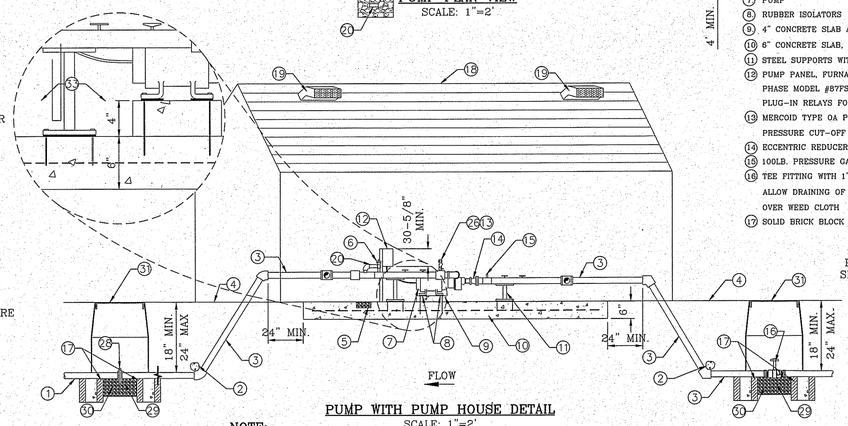
32 GALLON TRASH RECEPTACLE
WABASH VALLEY OR APPROVED EQUAL BY OTHERS
SCALE: 1"=2'

PARKS DEPARTMENT
REVIEWED BY Antonio Martinez 12/08/2016



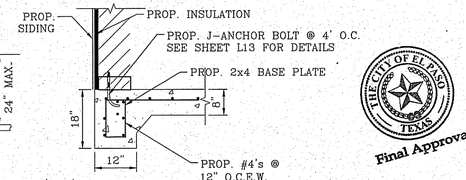
PUMP PLAN VIEW
SCALE: 1"=2'

1. PVC MAINLINE TO VALVES, SIZE AS NOTED
2. THRUST 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 #WWF
11. STEEL SUPPORTS WITH ISOLATORS BOLTED TO CONCRETE
12. PUMP PANEL, FURNAS MODEL ESP100, NEMA2 460 VOLT, 3 PHASE MODEL #87FSH6F WITH VOLTAGE MONITOR AND 3 PLUG-IN RELAYS FOR EACH CONTROLLER AND STALL TIMER.
13. MERCOID TYPE 0A PRESSURE CONTROL HIGH/LOW PRESSURE CUT-OFF SWITCH. WIRE TO PUMP PANEL.
14. ECCENTRIC 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. SOLID 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. 3" WATERMAN PCW-150 SPRING LOADED CHECK VALVE
24. 100lb. PRESSURE GAUGE
25. CONCENTRIC REDUCER
26. MERCOID 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. 7" LONG, 5/8" CONCRETE ANCHORS (DRILLED) WITH NUTS
34. 4" LONG, 5/8" CONCRETE ANCHORS (DRILLED) WITH NUTS



PUMP WITH PUMP HOUSE DETAIL
SCALE: 1"=2'

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



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

Final Approval

- 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.

BENCHMARK

REVISIONS	BY
DATE	
09/26/16	REVISIONS AS PER CITY COMMENTS 08/19/16 E.J.
11/2/16	REVISIONS AS PER CITY COMMENTS 10/28/16 E.J.

PROJECT NAME

PROPOSED MESQUITE HILLS 8
WHITE MESQUITE PARK
6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8
78,906.91 S.F. OR 1.815 ACRES

SCALE
HORIZ.:
VERT.:
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

ENGINEER'S SEAL
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR
12/2016

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ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
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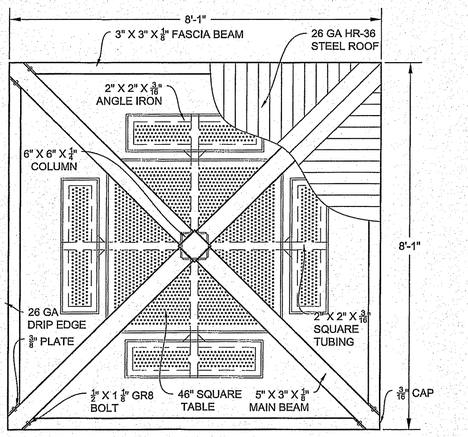
REGISTRATION No. F-2321

SHEET TITLE

LANDSCAPE AND IRRIGATION DETAILS

SHT L9 OF L11

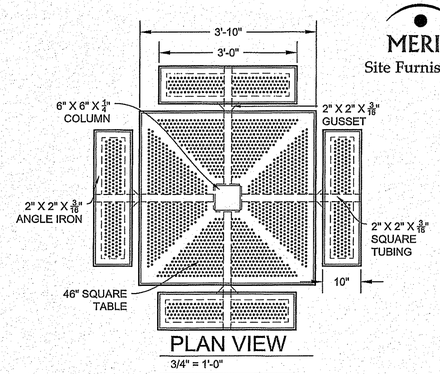
FILE LOCATION S:_LANDSCAPE\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8_L&I DETAILS PLOTTED ON Wednesday, November 16, 2016 11:05:07 AM BY ESTEBAN JUAREZ



PLAN VIEW ROOF WITH TABLE AND BENCHES

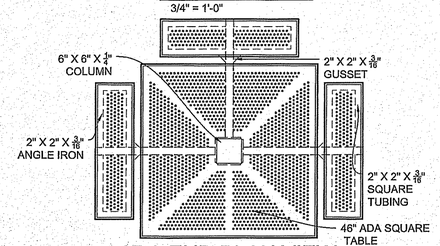
3/4" = 1'-0"

MERIT
Site Furnishings



PLAN VIEW

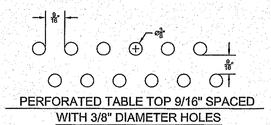
3/4" = 1'-0"



ADA END PLAN VIEW

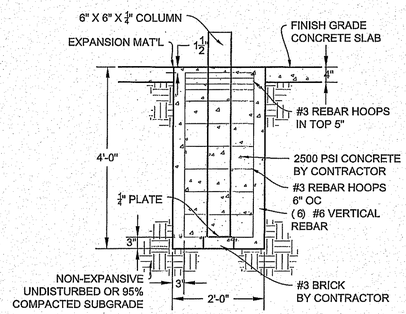
3/4" = 1'-0"

MERIT
Site Furnishings



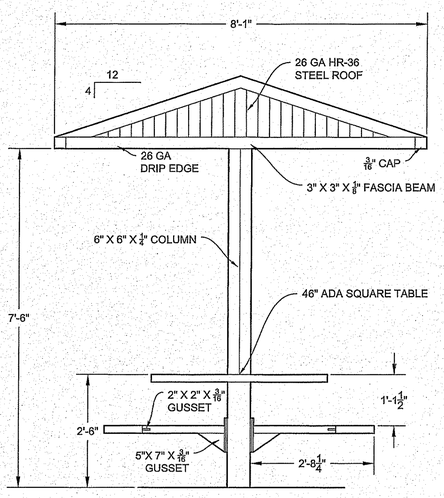
PERFORATED TABLE TOP 9/16" SPACED WITH 3/8" DIAMETER HOLES

KT-2.



FOOTING DIRECT BURY

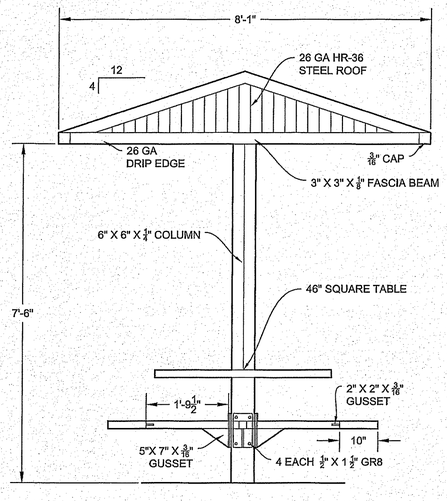
3/4" = 1'-0"



ADA END ELEVATION

3/4" = 1'-0"

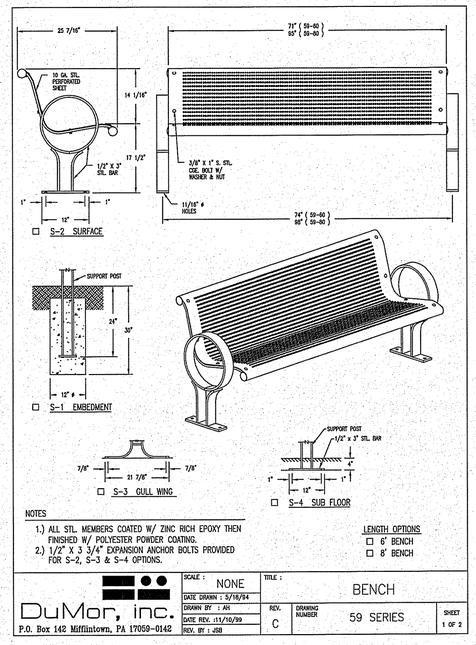
MERIT
Site Furnishings



ELEVATION VIEW

3/4" = 1'-0"

MERIT
Site Furnishings



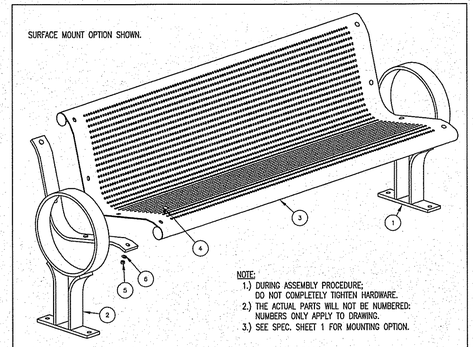
NOTES

1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED FOR S-2, S-3 & S-4 OPTIONS.

LENGTH OPTIONS

☐ 6' BENCH
☐ 8' BENCH

DuMor, inc. P.O. Box 142 Mifflintown, PA 17059-0142	SCALE : NONE	TITLE : BENCH	
	DATE DRAWN : 5/18/94		
	DRAWN BY : AH	REV. C	DRAWING NUMBER 59 SERIES
	DATE REV. : 11/10/99		SHEET 1 OF 2
	REV. BY : JSB		



NOTE:
1.) DURING ASSEMBLY PROCEDURE; DO NOT COMPLETELY TIGHTEN HARDWARE.
2.) THE ACTUAL PARTS WILL NOT BE NUMBERED: NUMBERS ONLY APPLY TO DRAWING.
3.) SEE SPEC. SHEET 1 FOR MOUNTING OPTION.

STEP 1:
USE 1 – PC. LEFT SUPPORT FOR SURFACE MOUNT (1)
1 – PC. 6' STL. SEAT ASSEMBLY (3)
4 – PCS. 3/8" X 1" SS. CGE. BOLT (4)
4 – PCS. 3/8" SS. HEX NUT (5)
4 – PCS. 3/8" SS. FLAT WASHER (6)
ATTACH LEFT SUPPORT FOR SURFACE MOUNT (1) TO 6' STL. SEAT ASSEMBLY (3) USING HARDWARE (4, 5, & 6). TIGHTEN TO SNUG FIT.

STEP 2:
USE 1 – PC. RIGHT SUPPORT FOR SURFACE MOUNT (2)
4 – PCS. 3/8" X 1" SS. CGE BOLT (4)
4 – PCS. 3/8" SS. HEX NUT (5)
4 – PCS. 3/8" SS. FLAT WASHER (6)
ATTACH RIGHT SUPPORT FOR SURFACE MOUNT (2) TO STEP 1 ASSEMBLY USING HARDWARE (4, 5, & 6). TIGHTEN TO SNUG FIT.

STEP 3:
UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL COMPONENTS THEN TIGHTEN ALL HARDWARE.

STEP 4:
ANCHOR ACCORDING TO SUPPORT OPTION USED.

ITEM	QTY	PART NO	DESCRIPTION
1	1	D-59-000-02/S-2	LEFT BENCH SUPPORT FOR SURFACE MOUNT
2	1	D-59-000-02/S-2	RIGHT BENCH SUPPORT FOR SURFACE MOUNT
3	1	D-59-60-01	6' PERF 10 GA STL SEAT
4	8	1-11-028	3/8" X 1" SS CGE BOLT
5	8	1-21-007	3/8" SS HEX NUT
6	8	1-22-024	3/8" SS FLAT WASHER

DuMor, inc. P.O. Box 142 Mifflintown, PA 17059-0142	SCALE : NONE	TITLE : BENCH ASSEMBLY	
	DATE DRAWN : 5/18/94		
	DRAWN BY : AH	REV. C	DRAWING NUMBER 59 SERIES
	DATE REV. : 11/10/99		SHEET 2 OF 2
	REV. BY : JSB		

THE CITY OF EL PASO TEXAS Final Approval

PARKS DEPARTMENT

REVIEWED BY: Antonio Martinez 12/08/2016

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK

BENCHMARK

REVISIONS		BY
DATE		
09/26/16	REVISIONS AS PER CITY COMMENTS 06/19/16	E.J.

PROJECT NAME

PROPOSED MESQUITE HILLS 8
WHITE MESQUITE PARK
6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8
78,986.91 S.F. OR 1.813 ACRES

SCALE
HORIZ: NTS
VERT: NTS
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

IRRIGATOR'S SEAL
12/07/16
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR

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

LANDSCAPE AND IRRIGATION DETAILS

SHT **L10** OF L11

FILE LOCATION: S:_LANDSCAPE\MESQUITE HILLS 8\DWG\MESQUITE HILLS 8_L&I DETAILS PLOTTED ON Wednesday, December 07, 2016 2:04:12 PM BY ESTEBAN JUAREZ

CIMARRON LED

CIMARRON LED	Cat.#		SPAULDING LIGHTING
	Job	Type	Approvals

SPECIFICATIONS

Construction:
- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- Separate optical and electrical compartment for optimum component operation
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Complements the Hubbell Southwest series of outdoor fixtures
- Weight - 45.0 pounds, EPA - 1.3 ft²
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31

Optics:
- Choice of 72 high brightness LED configurations with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions
- Auto optics designed for front row 1A and interior rows 2A (see distribution under ordering and page 2)
- CCT: 3000K (80 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

Electrical:
- Universal input voltage 120-277 VAC, 50/60 Hz
- Integral step-down transformer for 347V & 480V
- Ambient operating temperature -40° C to 40° C
- Automatic thermal self-protection
- Drivers have greater than 90% power factor and less than 10% THD
- Optional continuous dimming to 10% or dual circuitry available
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- 1050 mA driver available with 90L configuration for increased lumen output
- LED electrical assembly, including PR devices, consumes no power in the 'off' state
- Surge protection – 20KA; Turns fixture off at end of life; Includes LED for end of life indication (see surge suppressor page 4)

Controls:
- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

Lumen maintenance:
- L90 at 60,000 hours (Projected per IESNA TM-21-11)

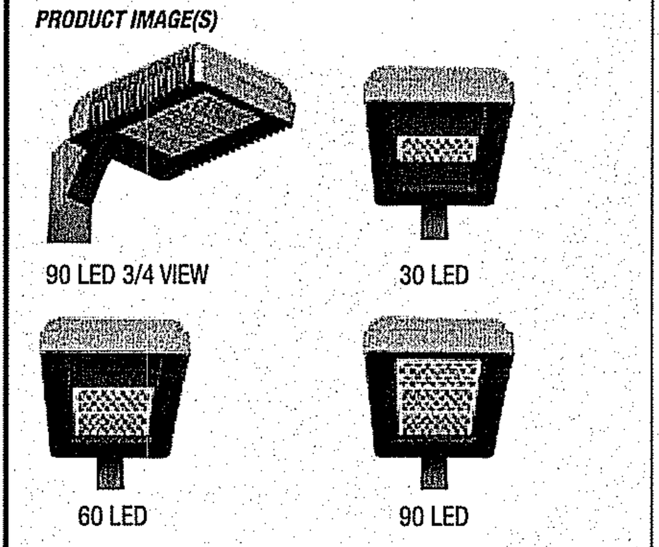
Installation:
- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

Finish:
- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

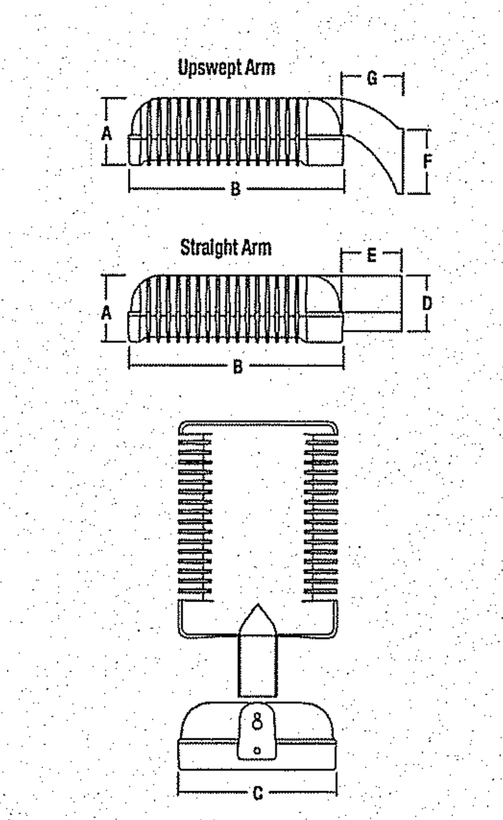
Warranty:
Five year limited warranty (for more information visit: http://www.hubbelloutdoor.com/resources/warranty/

Listings:
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- Models meet DesignLights Consortium (DLC) qualifications, consult DLC website for more details: http://www.designlights.org/QPL
- IDA approved • IP65

PRODUCT IMAGE(S)



DIMENSIONS



A	B	C	D	E	F	G
6 3/4" 171mm	21 3/4" 552mm	16" 406mm	6 5/8" 168mm	6 5/16" 160mm	5 5/8" 143mm	6 1/8" 155mm

CERTIFICATIONS/LISTINGS

ORDERING INFORMATION SEE NEXT PAGE

ORDERING INFORMATION ORDERING EXAMPLE: CL1-A-90LU-5K-3-DB-RPA3

CL1 - [ ] - [ ] [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

SERIES
- CL1 Cimarron LED

MOUNTING
- A Arm mount construction (6" straight rigid arm included & acceptable for 90° configurations)
- AD Decorative arm mount const. (6" decorative upswept arm incl. & acceptable for 90° configurations)
- MAF Mast arm fitter for mounting to standard 2 3/8" mast arm bracket, includes 6" straight rigid arm

NO. OF LEDS
- 90L 90 High brightness LEDs
- 60L 60 High brightness LEDs
- 30L 30 High brightness LEDs

VOLTAGE
- U[3] Universal 120V-277V, 50/60 Hz
- 1 120V
- 2 208V
- 3 240V
- 4 277V
- 5 480V, 60 Hz
- F 347V, 60 Hz
- E[4] 220V, 50 Hz

CCT
- 3K 3000K
- 4K 4000K
- 5K 5000K
- AM[7] Amber (590 nm available for "Turtle Friendly" applications (consult factory)

DRIVE CURRENT
- Leave blank for 700mA (standard)
- 035 350mA Amber CCT only
- 105 1050 mA (use with 90L only for higher lumen output)

DISTRIBUTION
- 2 Type II
- 3 Type III
- 4 Type IV
- 5M Type V Medium
- 5S Type V Short
- 5W Type V Wide
- 2L Type II Rotated 90° left
- 3L Type III Rotated 90° left
- 4L Type IV Rotated 90° left
- 2R Type II Rotated 90° right
- 3R Type III Rotated 90° right
- 4R Type IV Rotated 90° right
- 1A Auto Front Row Type I
- 1AR Auto Front Row Type I Rotated 90° right
- 1AL Auto Front Row Type I Rotated 90° left
- 2A Auto Front Row Type II
- 2AR Auto Front Row Type II Rotated 90° right
- 2AL Auto Front Row Type II Rotated 90° left

COLOR
- DB Dark Bronze
- BL Black
- WH White
- GR Gray
- PS Platinum Silver
- RD Red (premium color)
- FG Forest Green (premium color)
- CC Custom Color

OPTIONS
- BC[6] Backlight control
- CD[2] Continuous dimming
- WB Wall bracket
- RPA3 3" Round pole adapter
- RPA4 4" Round pole adapter
- RPA5 5" Round pole adapter
- RPA6 6" Round pole adapter
- F(X)[3,4] Fusing (replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V, 5-480V, F-347V)
- VG Vandal guard
- 7PR Photocell receptacle (7-pin ANSI C136.41—2013 receptacle for use with standard Twist-Lock® photo controls, shorting caps, and ANSI C136.41 external wireless control devices. Select SCL option to add occupancy sensing capability when using with compatible external wireless devices.

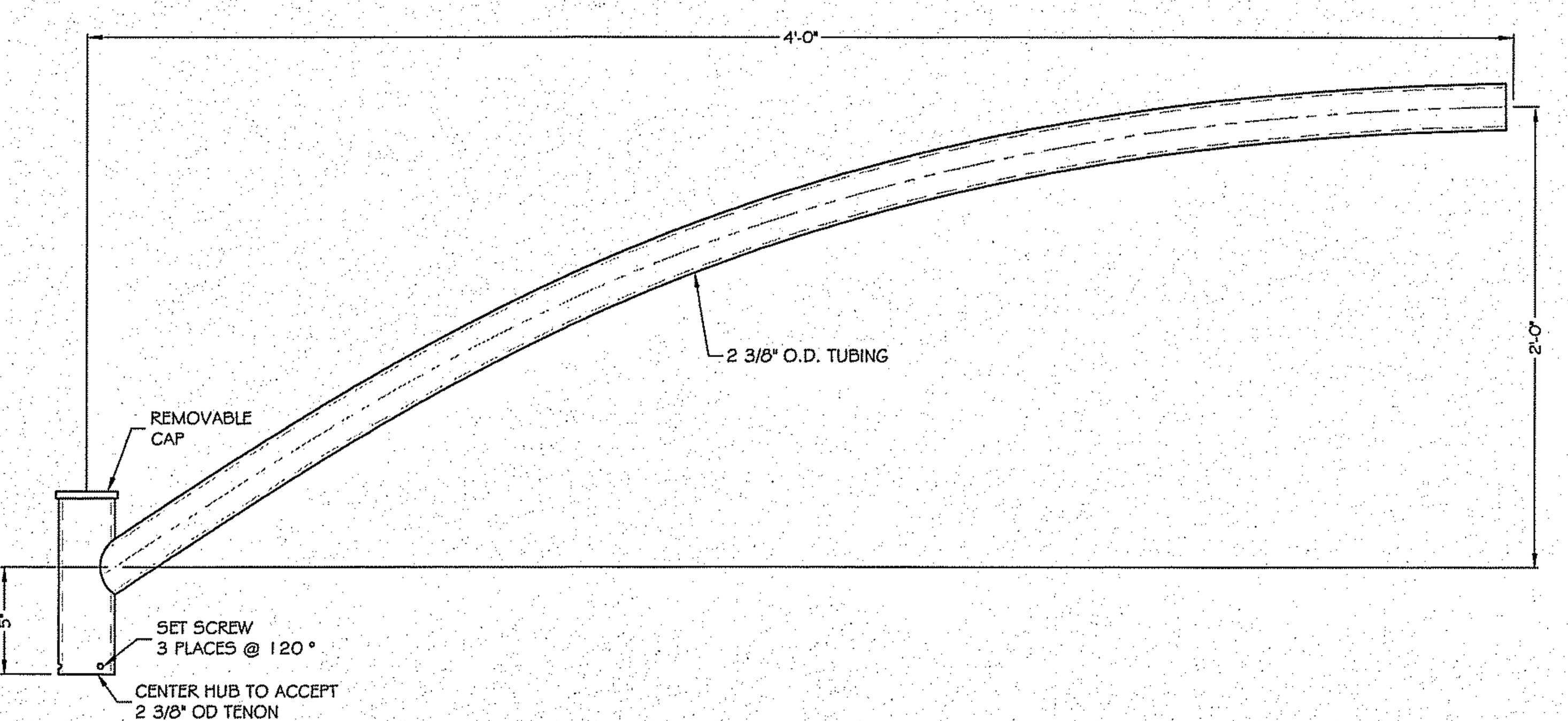
PIR MOTION/OCCUPANCY CONTROL OPTIONS
- SCO[10,12,13] On/Off control (line voltage device not for use with 7PR receptacle option and external wireless control devices)
- SCL[10,12,13] Add-on occupancy sensor for use with ext. wireless control device connected thru 7PR receptacle. Consult control manufacturer for compatibility.
- SCP[8,10,12,13] Programmable dimming control (line voltage device not for use with 7PR receptacle option and external wireless control devices). A minimum of one SCP-REMOTE accessory remote control required for configuration; (Standard lens with greater sensitivity; motion detection radius equal to .75 X luminaire mounting height (approx. distance)
- SCPW[8,10,12,13] Programmable dimming control (line voltage device not for use with 7RP receptacle option and external wireless control devices); A minimum of one SCP-REMOTE accessory remote control required for configuration. (Wide lens with motion detection radius equal to 1.3 X luminaire mounting height (approx. distance)

WIRELESS CONTROL OPTIONS
- WIR[11,14] wiSCAPE Fixture Module, in-fixture relay for wireless lighting control
- WIRSC[10,12,14] wiSCAPE Fixture Module, in-fixture relay for wireless lighting control and motion/occupancy control
- TCM[12,13,14] TOTUS Control Module, T-Net wireless lighting control from TOTUS

Notes:
1 - For BL option 90L and 60L; N/A 347V & 480V
2 - BL & CD cannot be combined
3 - Fuse option not available with universal voltage
4 - Select F3 fusing option for 220V
5 - Photocell receptacle not available with BL option
6 - Recommended for Type III and IV distributions only
7 - Available in 350mA drive current only Type IV, 5M
8 - 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, must order minimum of one SCP-REMOTE control to program dimming settings (see accessories)
9 - Must specify 120V, 208V, 240V or 277V; not available with PR option; consult factory for 347V and 480V application, not available with BL or CD options.
10 - Not available with AD arm
11 - Not available with 480V
12 - Not available with 347V or 480V
13 - Not available with WIR or WIRSC
14 - Not available with SCO, SCL, SCP or SCPW

CONTROLS GUIDE
As energy codes become more restrictive and we push for sustainable lighting designs, the integration of lighting controls and luminaires have become more and more important. Hubbell Lighting offers numerous outdoor lighting controls solutions for the most demanding applications. Visit the link below to learn more about energy-saving controls.

www.hubbellighting.com/solutions/controls/



American LitePole	AMERICAN LITE POLE 2800 S. HULEN, SUITE 200 FORT WORTH, TX 76109 817-924-3682 PH. 817-924-7049 FAX	REV. DATE BY REVISION DESCRIPTION / PROJECT NAME:	SCALE: NONE	DATE: 11/19/09	DWG BY: BM
	** CONFIDENTIAL** THE INFORMATION CONTAINED IN THIS DRAWING IS PROPRIETARY AND CONFIDENTIAL. UNAUTHORIZED DUPLICATION OR DISSEMINATION OF THIS DOCUMENT IS STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN NOTICE FROM AMERICAN LITE POLE.	DESCRIPTION: TENON MOUNT 4' UPSWEEP ARM	PO NUMBER:	QTY:	CHKD BY: CKR
			DRAWING NUMBER: UP-4S		REV:

ENERGY SAVING DATA

#LEDS	DRIVE CURRENT	SYSTEM WATTS 120-277V	SYSTEM WATTS 347-480V	DIST. TYPE	5K (5000K nominal, 70 CRI) LUMENS	LPW[1]	B	U	G	4K (4000K nominal, 70 CRI) LUMENS	LPW[1]	B	U	G	Amber (590) LUMENS	LPW[1]	B	U	G
30	700 mA	70W	80W	1A	8244	118	1	0	1	8162	117	1	0	1	—	—	—	—	—
				2A	8202	117	1	0	1	8121	116	1	0	1	—	—	—	—	—
				2	7715	110	2	0	3	7639	109	2	0	2	—	—	—	—	—
				3	7712	110	2	0	2	7635	109	2	0	2	—	—	—	—	—
				4	7803	111	1	0	2	7726	110	1	0	2	—	—	—	—	—
				5S	8374	120	3	0	0	8291	118	3	0	0	—	—	—	—	—
				5M	7940	113	3	0	1	7862	112	3	0	1	—	—	—	—	—
				5W	7667	110	3	0	2	7591	108	3	0	2	—	—	—	—	—
60		135W	150W	1A	16171	120	1	0	2	16011	119	1	0	1	—	—	—	—	—
				2A	16088	119	1	0	2	15929	118	1	0	2	—	—	—	—	—
				2	15134	112	3	0	3	14984	111	3	0	3	—	—	—	—	—
				3	15127	112	3	0	3	14977	111	3	0	3	—	—	—	—	—
				4	15306	113	2	0	3	15154	112	2	0	3	2488	51	0	0	1
				5S	16426	122	4	0	0	16263	120	4	0	0	—	—	—	—	—
				5M	15575	115	4	0	2	15421	114	4	0	2	2533	51	2	0	1
				5W	15040	111	4	0	3	14891	110	4	0	3	—	—	—	—	—
90		205W	225W	1A	23781	116	2	0	2	23546	115	2	0	2	—	—	—	—	—
				2A	23659	115	2	0	2	23425	114	2	0	2	—	—	—	—	—
				2	22255	109	3	0	4	22035	107	3	0	4	—	—	—	—	—
				3	22246	109	3	0	4	22026	107	3	0	4	—	—	—	—	—
				4	22509	110	3	0	4	22286	109	3	0	4	3558	76	1	0	1
				5S	24156	118	5	0	0	23916	117	5	0	0	—	—	—	—	—
				5M	22905	112	4	0	2	22678	111	4	0	2	3596	76	2	0	1
				5W	22117	108	5	0	3	21899	107	5	0	3	—	—	—	—	—
90	1050mA	325W	350W	1A	31708	98	2	0	2	31394	97	2	0	2					
				2A	31545	97	2	0	2	31233	96	2	0	2					
				2	29674	91	4	0	5	29380	90	3	0	5					
				3	29661	91	3	0	4	29367	90	3	0	4					
				4	30011	92	3	0	5	29714	91	3	0	5					
				5S	32207	99	5	0	0	31888	98	5	0	0					
				5M	30539	94	5	0	3	30237	93	5	0	3					
				5W	29490	91	5	0	4	29198	90	5	0	4					

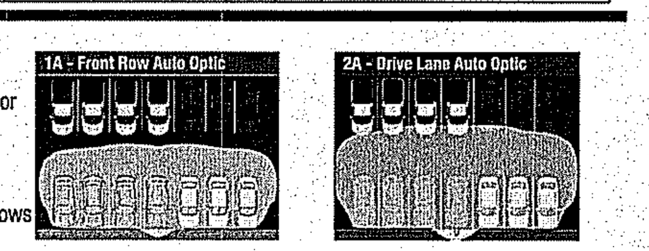
ENERGY DATA	
Power Factor	>.9
Total Harmonic Distortion	<10%

AUTOMOTIVE DEALERSHIP OPTICS

For Automotive Dealership applications Spaulding Lighting has developed two optics designed for enhanced and proper lighting of the auto dealership merchandise and the front row 1A and interior rows 2A (See CL1 distribution information for details)

Optic 1A
- Maximum illumination on front row display
- Maximum pole spacing

Optic 2A
- Excellent front row illumination and drive lane
- Optimal uniformity for drive lane and interior rows

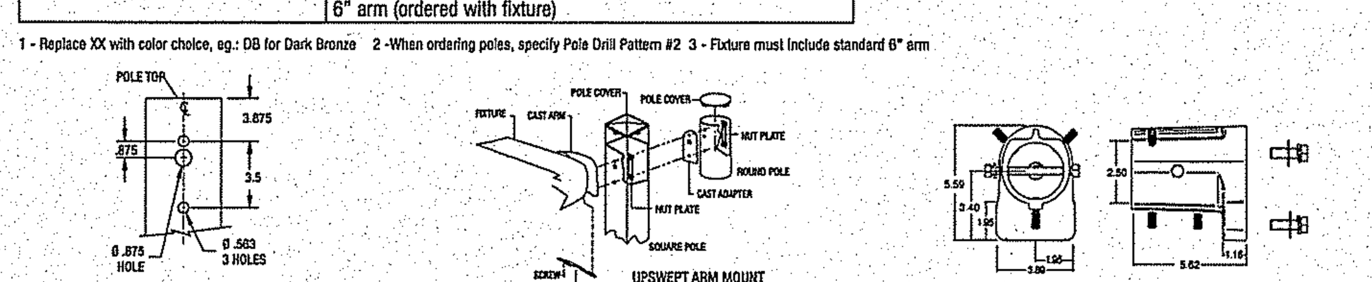


ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
CR-RPA3-XX[1]	Round pole adapter for straight arm (3¼ - 3¾")
CR-RPA4-XX[1]	Round pole adapter for straight arm (3⅞ - 4½")
CR-RPA5-XX[1]	Round pole adapter for straight arm (5")
CR-RPA6-XX[1]	Round pole adapter for straight arm (6")
CRD-RPA2-XX[1]	Round pole adapter for upswept arm (2¾ - 3⅛")
CRD-RPA3-XX[1]	Round pole adapter for upswept arm (3¼ - 3¾")
CRD-RPA4-XX[1]	Round pole adapter for upswept arm (3⅞ - 4½")
CRD-RPA5-XX[1]	Round pole adapter for upswept arm (5")
CRD-RPA6-XX[1]	Round pole adapter for upswept arm (6")
WB-CR-XX[1]	Wall bracket
TPLB-XX[1]	Twin parallel luminaire bracket
MAF-CL-XX[3]	Horizontal mast arm fitter for 2 3/8" OD arm. Mounts to standard 6" arm (ordered with fixture)

Catalog Number	Description
SCP-REMOTE[9]	Remote control for SCP option. Order at least one per project to program and control.
93052458	20KA surge protection with an end of life LED indicator

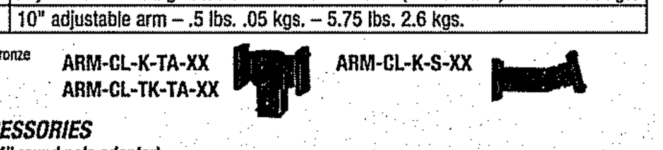
1 - Replace XX with color choice, eg.: DB for Dark Bronze 2 -When ordering poles, specify Pole Drill Pattern #2 3 - Fixture must include standard 6" arm



MOUNTING ACCESSORIES

Catalog Number	Description
ARM-CL-K-TA-XX[1]	Adjustable mounting arm for single fixture (2-3/8 tenon) – 5 lbs. 2.3 kgs.
ARM-CL-TK-TA-XX[1]	Adjustable mounting arm for two fixtures at 180° (2-3/8 tenon) – 7 lbs. 3.2 kgs.
ARM-CL-K-S-XX[1]	10" adjustable arm – .5 lbs. .05 kgs. – 5.75 lbs. 2.6 kgs.

1 Replace XX with color choice, eg.: DB for Dark Bronze
2 Fixture must include standard 6" straight arm



TENON TOP POLE BRACKET ACCESSORIES

(2 3/8" OD tenon) (RSS version requires 4" round pole adapter)

Catalog Number	Description
SETA-XX[1]	Square pole tenon adapter (4 at 90 degrees)
RETA-XX[1]	Round pole tenon adapter (4 at 90 degrees)
TETA-XX[1]	Hexagonal pole tenon adapter (3 at 120 degrees)

1 Replace XX with color choice, eg.: DB for Dark Bronze

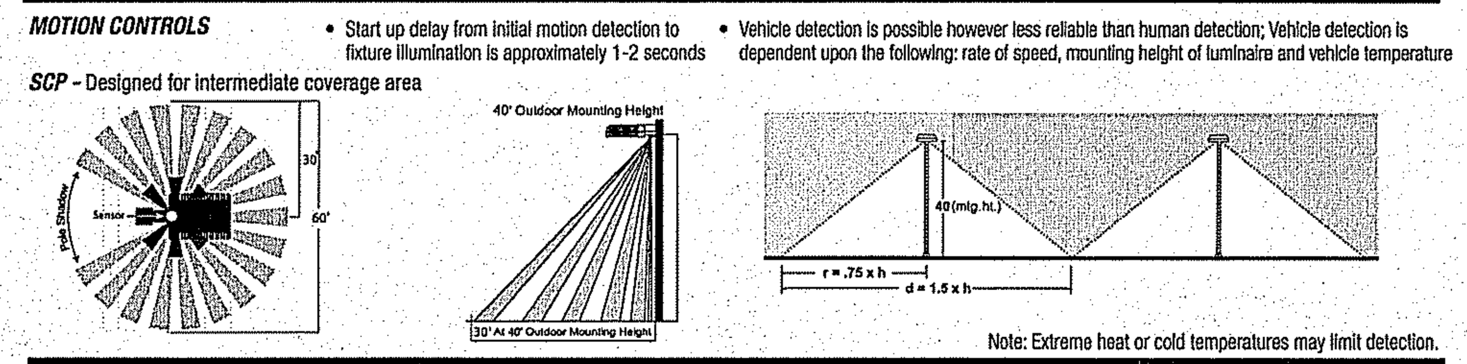
PHOTOCONTROL EQUIPMENT

Catalog Number	Description
PTL-1	Photocontrol - twist-lock cell (120V)
PTL-8	Photocontrol - twist-lock cell (120-277V)
PTL-5	Photocontrol - twist-lock cell (480V)
PTL-6	Photocontrol - twist-lock cell (347V)
PSC	Shorting cap - twist-lock

MOTION CONTROLS

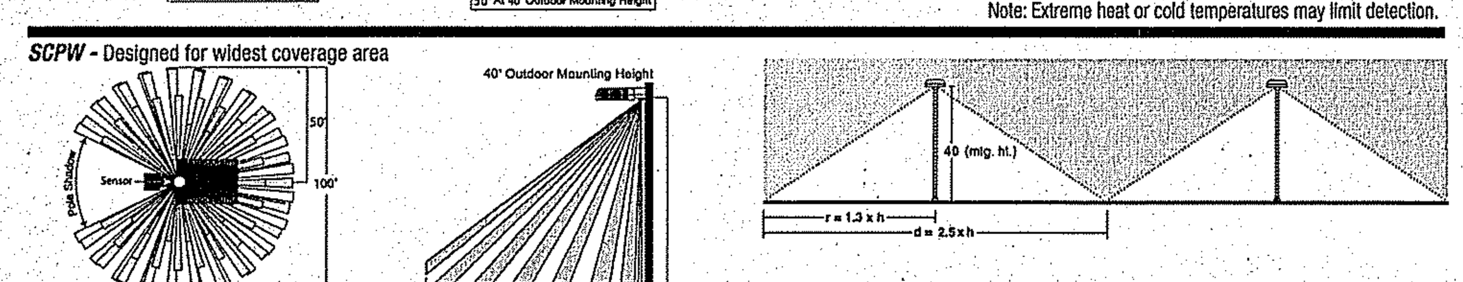
- Start up delay from initial motion detection to fixture illumination is approximately 1-2 seconds
- Vehicle detection is possible however less reliable than human detection; Vehicle detection is dependent upon the following: rate of speed, mounting height of luminaire and vehicle temperature

SCP - Designed for intermediate coverage area



Note: Extreme heat or cold temperatures may limit detection.

SCPW - Designed for widest coverage area



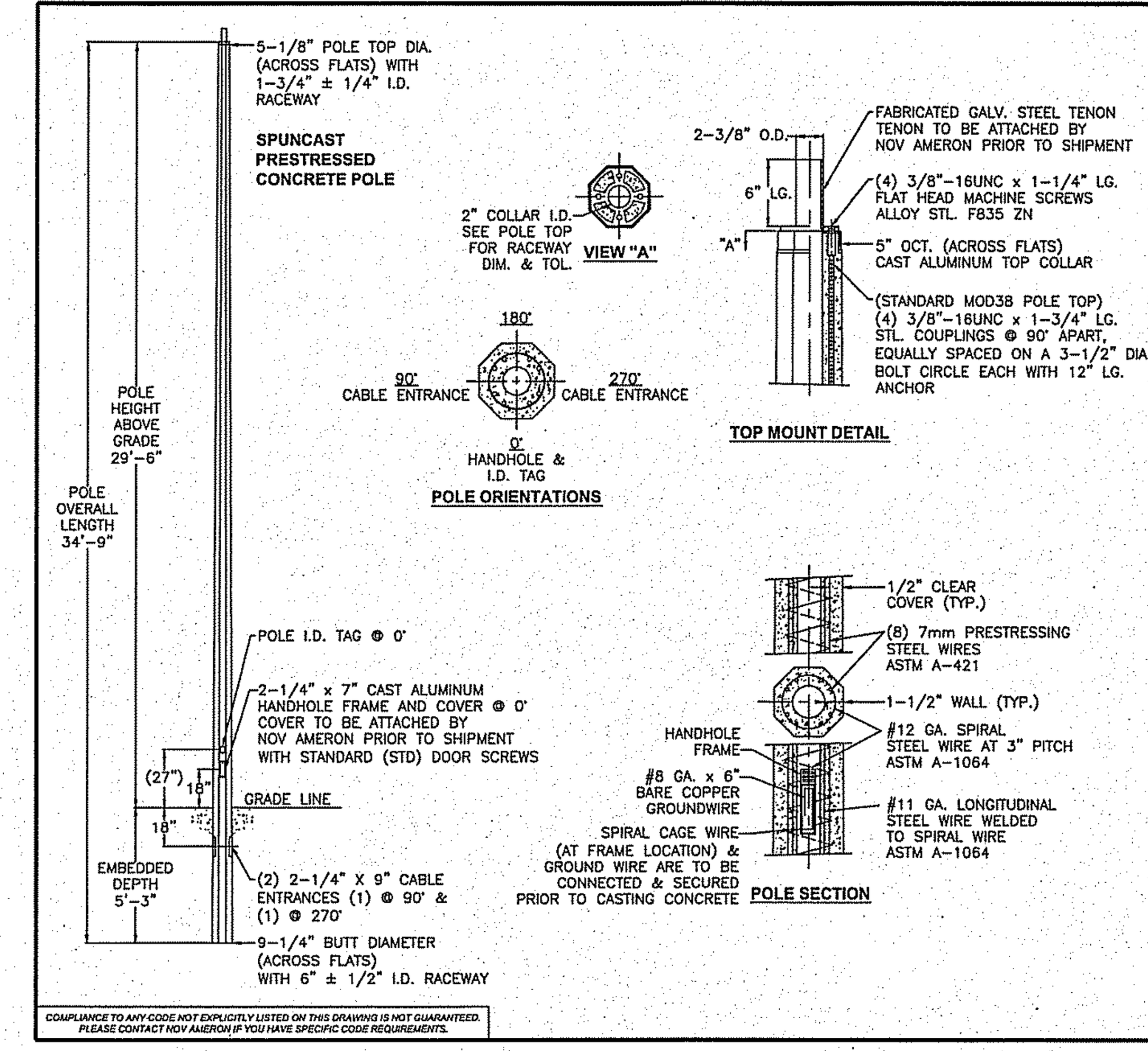
Note: Extreme heat or cold temperatures may limit detection.

SURGE PROTECTION

- Field replaceable surge protection device (SPD) provides 20KA and 10KV protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3
- The SPD is designed with a clamping voltage of 1600V at 20KA using industry standard 8/20μs waveform
- Max surge current = 20,000 Amps (see table)
- LED Indicator – Green LED is unlit at end of life

Pulse Rating (8 x 20 μSec) Strikes	Surge
1	20,000 A
2	15,000 A
15	10,000 A
120	3,000 A

	cRUus	CE
I_n	10KA	5KA



COMPLIANCE TO ANY CODE NOT EXPLICITLY LISTED ON THIS DRAWING IS NOT GUARANTEED. PLEASE CONTACT NOV AMERON IF YOU HAVE SPECIFIC CODE REQUIREMENTS.

REV.	DATE	DESCRIPTION	DRN.	APPR.

"F" LEVEL CONFIG CODES

OPTION CLASS	ENTRY	INFO.
COATING	I	
HH COVER	66526E	
DOOR SCR	STD	

"P" LEVEL CONFIG CODES

OPTION CLASS	ENTRY	INFO.
MIX	DR	
FINISH	3	
COLLAR	65830E	OCT.
POLE TOP CON.	MOD38	

MEDIUM EMBEDDED OCTAGONAL POLE

POLE DESIGNATION	POLE HEIGHT ABOVE GRADE	EMBEDDED DEPTH	POLE OVERALL LENGTH	BUTT DIAMETER	ULTIMATE G.L. MOMENT (ft.-lbs.)	POLE WEIGHT (lbs.)
ME009	29'-6"	5'-3"	34'-9"	9-1/4"	22,540	1,300

( ) POLES REQUIRED EACH WITH FABRICATED GALVANIZED STEEL TENON ASSEMBLY, 2-3/8" O.D. X 6" LG. (P/N: 40005EM6A)

NOTES:
1. MIX(DR3I): DESERT ROSE, EXPOSED AGGREGATE FINISH WITH AMERSHIELD ANTI-GRAFFITI COATING.
2. ASTM C-150 TYPE III GRAY CEMENT.
3. f'c @ 28 DAYS=7,000 PSI, USING SPUN CYLINDER TEST.
4. f'c @ 28 DAYS=5,000 PSI, USING ASTM C-31 CYLINDER TEST.
5. POLES MANUFACTURED TO ASTM C-1089-13 SPECIFICATIONS.
6. PROTECTIVE COAT EXPOSED P.C. WIRES AT POLE ENDS.
7. THE POLE (& IMPLIED TENON TOP ASSEMBLY) DEPICTED ON THIS DRAWING IS DESIGNED TO WITHSTAND THE LOADS IMPARTED BY QUADRIPLE TENON-MOUNTED ARM (NOT TO EXCEED 12" LG., 1.0 SQ. FT. EPA, 10 LBS. EACH) WITH ARM HOLDING A SINGLE LUMINAIRE (NOT TO EXCEED 0.8 SQ. FT. EPA, 50 LBS.) PER THE 2013 AASHTO LTS-6 IN A 90 MPH WIND ZONE (3-SECOND GUSTS). PLEASE ADVISE IF INTENDED LOADING EXCEEDS THESE VALUES.

APPROVED BY DATE

NOV Ameron Pole Products

RADFORD PARK- EL PASO, TX
MEO09 POLE WITH TENON ASSEMBLY

THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO NOV AMERON. IT SHALL NOT BE REPRODUCED, USED OR DISCLOSED TO ANYONE WITHOUT THE PRIOR WRITTEN PERMISSION OF NOV AMERON.

DRAWN: J.C.	06/14	SCALE	DWG. NO.	REV
CHK'D:		N.T.S.	1406-030	

THE CITY OF EL PASO TEXAS
Final Approval

PARKS DEPARTMENT
REVIEWED BY [signature] 12/08/2016

PROPOSED MESQUITE HILLS 8 WHITE MESQUITE PARK

DATE	REVISIONS	BY
11/2/16	REVISIONS AS PER CITY COMMENTS 10/28/16	E.J.
12/7/16	REVISIONS AS PER CITY COMMENTS 12/7/16	E.J.

BENCHMARK

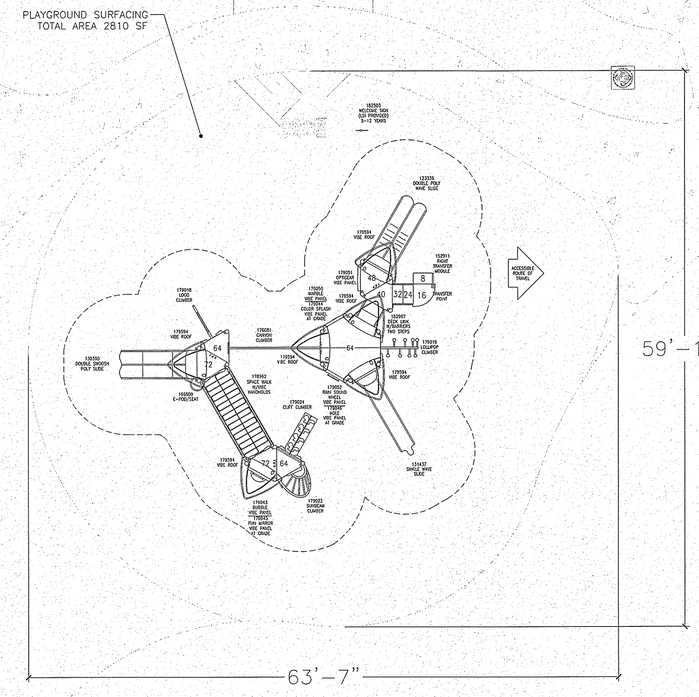
PROJECT NAME
PROPOSED MESQUITE HILLS 8
WHITE MESQUITE PARK
6940 COPPER TOWN DR.
BEING ALL OF LOT 1, BLOCK 50, MESQUITE HILLS UNIT 8
78,986.91 S.F. OR 1.813 ACRES

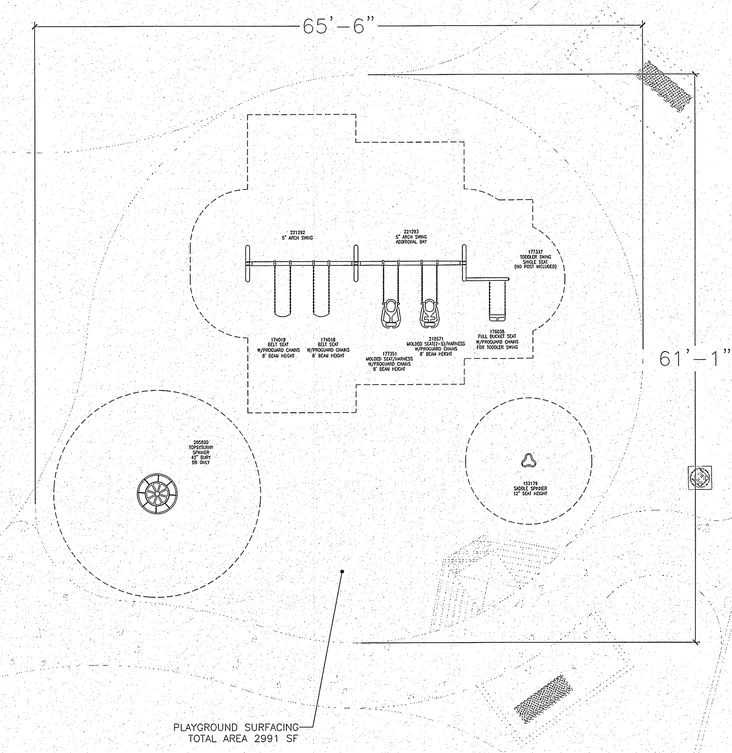
S C A L E
HORIZ: NTS
VERT: NTS
DATE: JUNE 2016
DESIGN BY: R.M.
INITIATED BY: E.J.
CHECKED BY: R.M.
JOB NO.: 216-33

IRRIGATOR'S SEAL
STATE OF TEXAS
REYMUNDO MARTINEZ
9000
LICENSED IRRIGATOR
12/07/16

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.
REIGISTRATION No. F-2321

SHEET TITLE
LANDSCAPE AND IRRIGATION DETAILS





TOTAL ELEVATED PLAY COMPONENTS	12
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0 REQUIRED 0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	6 REQUIRED 6
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	11 REQUIRED 4
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	7 REQUIRED 7

Final Approval

PARKS DEPARTMENT

REVIEWED BY: Antonio Ortiz 12/08/2016

exerPlay, inc.

INTERNATIONAL PLAY EQUIPMENT MANUFACTURERS ASSOCIATION
IPEMA CERTIFIED to ASTM F1487

The play components identified on this plan are IPEMA certified. (Unless model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487.

THIS PLAY AREA & EQUIPMENT IS DESIGNED FOR AGES 5-12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURERS OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION).

DESIGNED BY:
SLA

12001 N HWY 14
CEDAR CREST, NM 87008
PH: 1-800-457-5444 FAX: 1-505-281-0155

Date	Previous Drawing #	Initials

SCALE IN FEET: 0' 5' 10' 20' 40'

Mesquite Hills 8
El Paso, TX

ExerPlay, Inc.
Nate Tierney

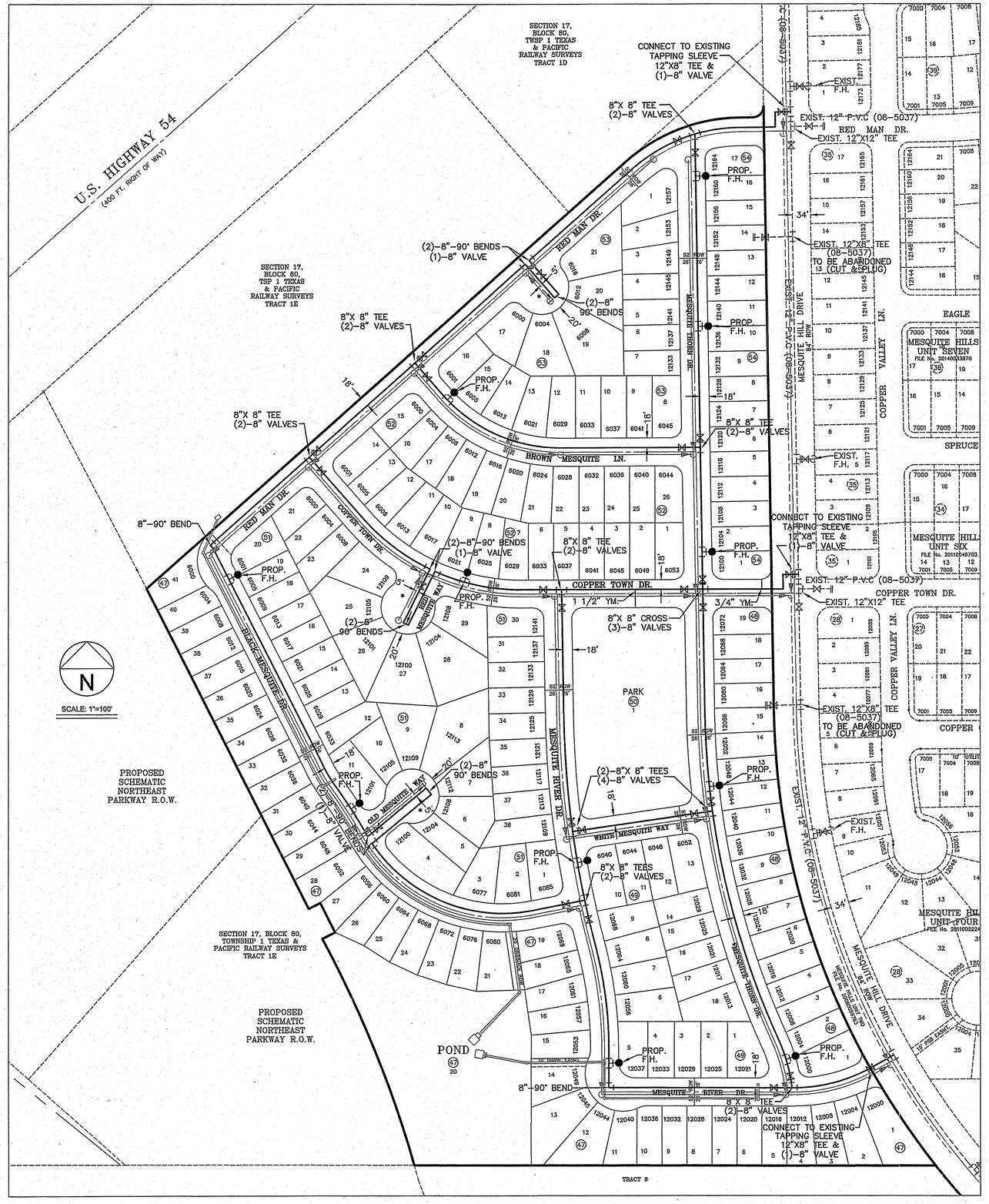
SYSTEM TYPE: PlayBooster

DRAWING #: 160916A

landscape structures

ISO 14001:2004 CERTIFIED

ISO 9001:2000 Certified

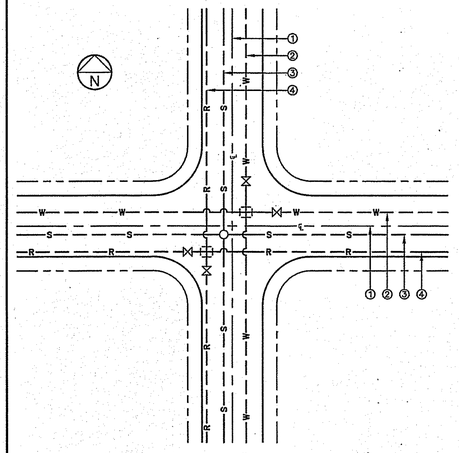


STREET NAME	LENGTH, SIZE, TYPE & CLASS OF PIPE	
RED MAN DRIVE	INST. 1288 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
RED MAN DRIVE (CUL-DE-SAC)	INST. 174 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
BROWN MESQUITE LANE	INST. 585 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
COPPER TOWN DRIVE	INST. 927 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
MESQUITE THORN DRIVE	INST. 1784 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
MESQUITE RIVER DRIVE	INST. 1409 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
WHITE MESQUITE WAY	INST. 262 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
RED MESQUITE WAY	INST. 232 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
OLD MESQUITE WAY	INST. 294 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)
BLACK MESQUITE DRIVE	INST. 1069 FT. OF 8" P.V.C. PIPE (C/900)	(CLASS 235)

NOTES:

1. PUBLIC WATER AND SEWER UTILITY WORK SHALL NOT BE PERFORMED BY THE CONTRACTOR UNTIL A DEVELOPMENT AGREEMENT HAS BEEN EXECUTED BETWEEN THE OWNER AND THE EPWATER-PSB.
2. CONSTRUCTION OF PUBLIC WATER AND SEWER SYSTEM, INCLUDING MATERIALS AND TESTING SHALL CONFORM TO EPWATER-PSB STANDARD SPECIFICATIONS.
3. ALL PRESSURIZED PVC PIPE SHALL BE MARKED WITH DUAL INDICATOR LINES AT THE SPIGOT END INDICATING PROPER PENETRATION WHEN THE JOINT IS ASSEMBLED OR BELL PROTECTION SYSTEM.

* A 10 FEET MINUMUM SEPARATION DISTANCE SHALL BE PROVIDED BETWEEN THE WATER MAIN AND THE PROPOSED SANITARY SEWER MAIN.



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

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

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

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

THE CITY OF EL PASO TEXAS — Final Approval

PSB COMMENTS 11/03/16
PSB COMMENTS 09/15/16
PSB COMMENTS 08/11/16
SUBMITTAL 06/03/16

THE STATE OF TEXAS — ROBERTO GUEVARA — 90388 — LICENSED PROFESSIONAL ENGINEER — 11/1/16

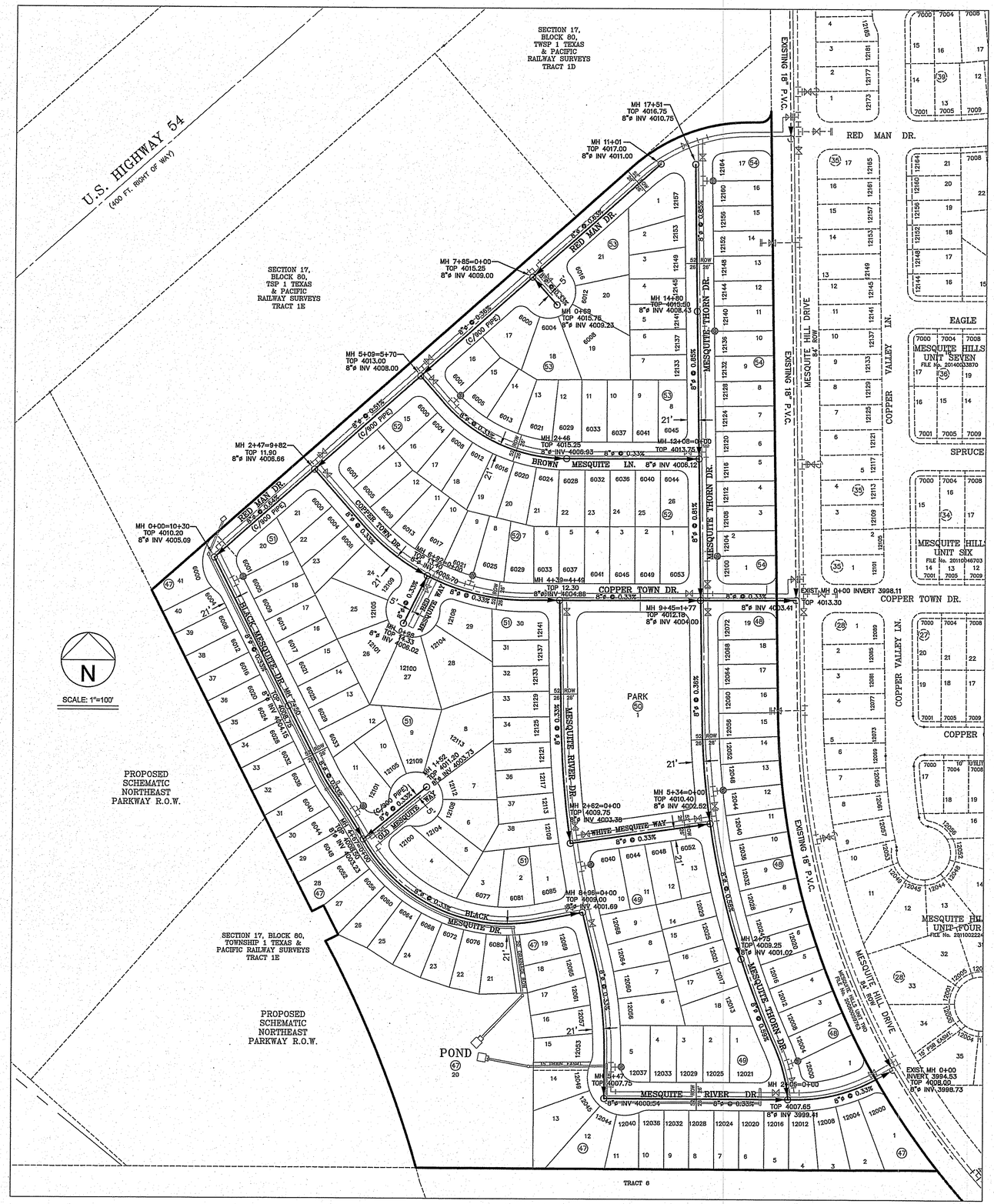
CIVIL ENGINEER
GUEVARA ENGINEERING
P.O. BOX 961514
EL PASO, TEXAS 79996
(915) 203-5826
STATE REGISTRATION NO. F-12421

MESQUITE HILLS UNIT 8 SUBDIVISION

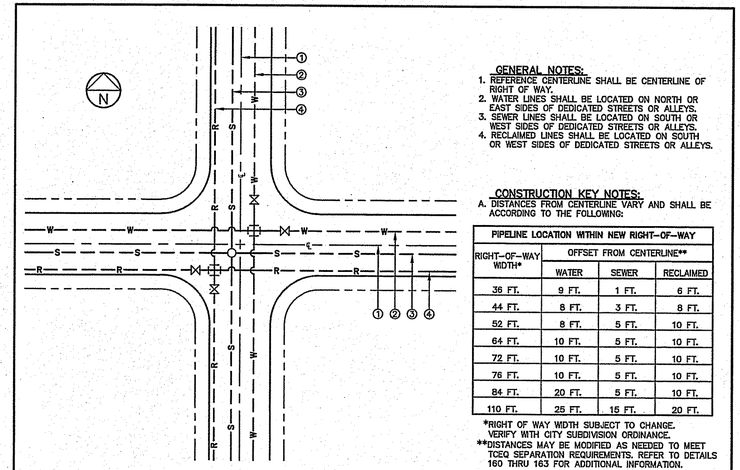
CITY OF EL PASO
EL PASO COUNTY, TEXAS

WATER DISTRIBUTION SYSTEM

DATE: MAY 2016
SCALE: AS SHOWN
JOB NO. :
SHEET NO. : SHT. 1 OF 7



STREET NAME	LENGTH, SIZE & TYPE OF PIPE
RED MAN DRIVE	INST. 316 FT. OF 8" P.V.C. PIPE (SDR 35)
RED MAN DRIVE	INST. 785 FT. OF 8" P.V.C. PIPE (C/900)
RED MAN DRIVE (CUL-DE-SAC)	INST. 69 FT. OF 8" P.V.C. PIPE (SDR 35)
BROWN MESQUITE LANE	INST. 570 FT. OF 8" P.V.C. PIPE (SDR 35)
COPPER TOWN DRIVE	INST. 982 FT. OF 8" P.V.C. PIPE (SDR 35)
MESQUITE THORN DRIVE	INST. 1751 FT. OF 8" P.V.C. PIPE (SDR 35)
MESQUITE RIVER DRIVE	INST. 1345 FT. OF 8" P.V.C. PIPE (SDR 35)
WHITE MESQUITE WAY	INST. 262 FT. OF 8" P.V.C. PIPE (SDR 35)
RED MESQUITE WAY	INST. 98 FT. OF 8" P.V.C. PIPE (SDR 35)
OLD MESQUITE WAY	INST. 152 FT. OF 8" P.V.C. PIPE (C/900)
BLACK MESQUITE DRIVE	INST. 467 FT. OF 8" P.V.C. PIPE (SDR 35)



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

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

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

Final Approval

CIVIL ENGINEER
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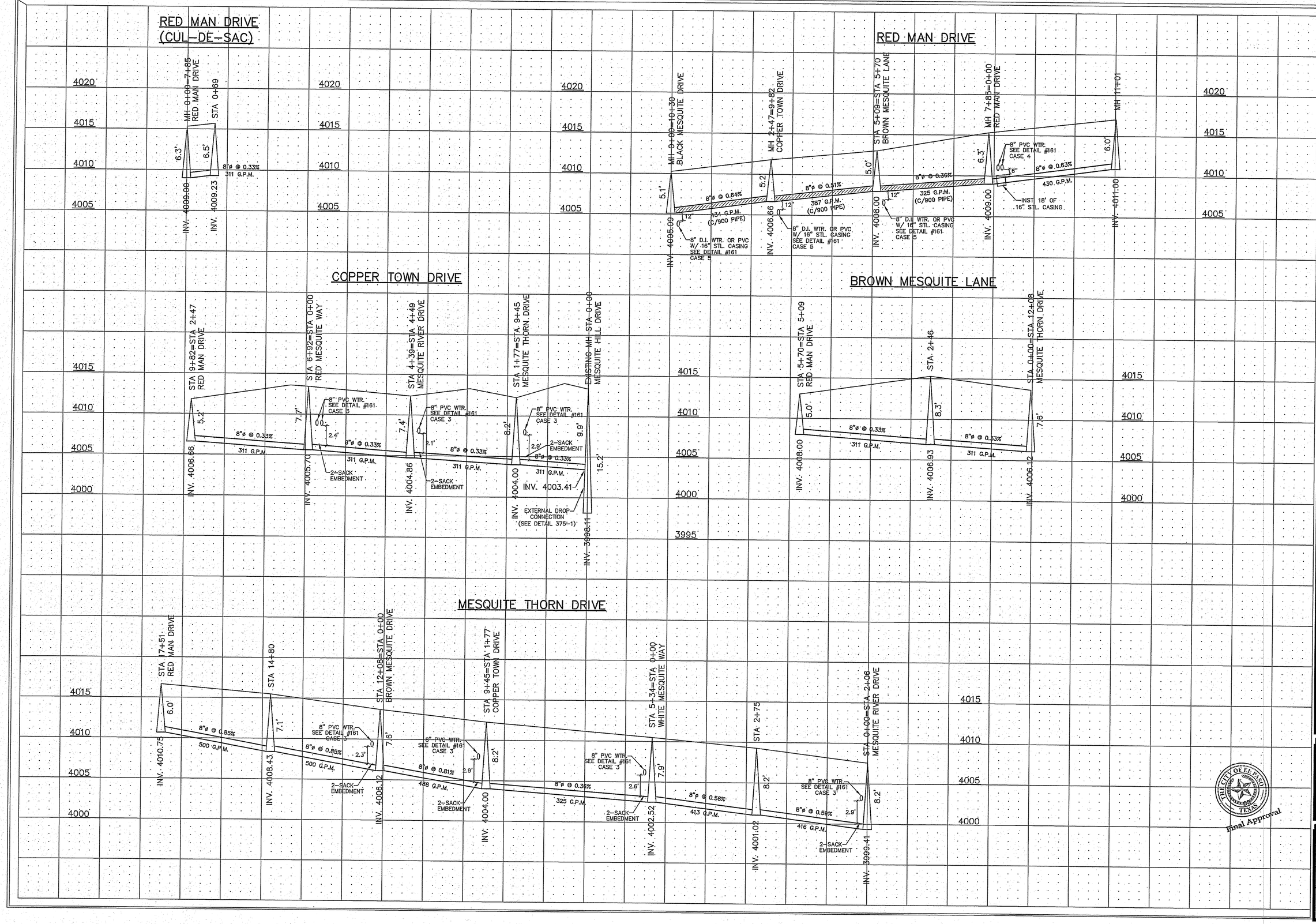
EL PASO, TEXAS 79996
(915) 203-5826
STATE REGISTRATION NO. F-12421

MESQUITE HILLS UNIT 8 SUBDIVISION

CITY OF EL PASO
EL PASO COUNTY, TEXAS

SANITARY SEWER SYSTEM

DATE: MAY 2014
SCALE: AS SHOWN
JOB NO. :
SHEET NO. : SHT. 2 OF 7



CIVIL ENGINEER
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(915) 203-5826
STATE REGISTRATION NO. F-12421

MESQUITE HILLS UNIT 8 SUBDIVISION

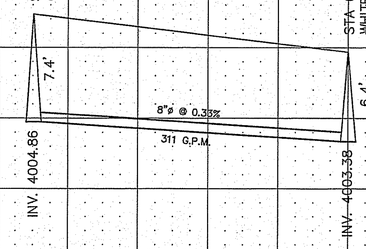
CITY OF EL PASO
EL PASO COUNTY, TEXAS

SANITARY SEWER PROFILES

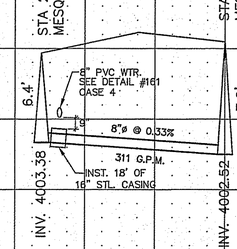
THE CITY OF EL PASO TEXAS — Final Approval

DATE:	MAY 2016
SCALE:	AS SHOWN
JOB NO. :	
SHEET NO. :	SHT. 3 OF 7

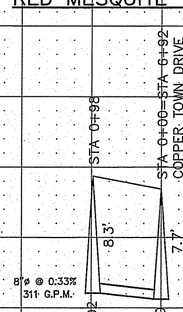
MESQUITE RIVER DRIVE (1 OF 2)



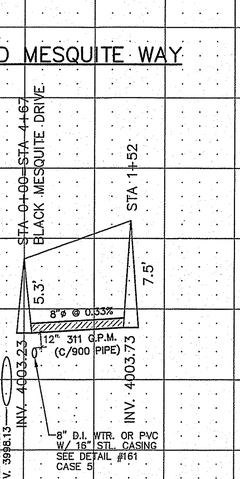
WHITE MESQUITE WAY



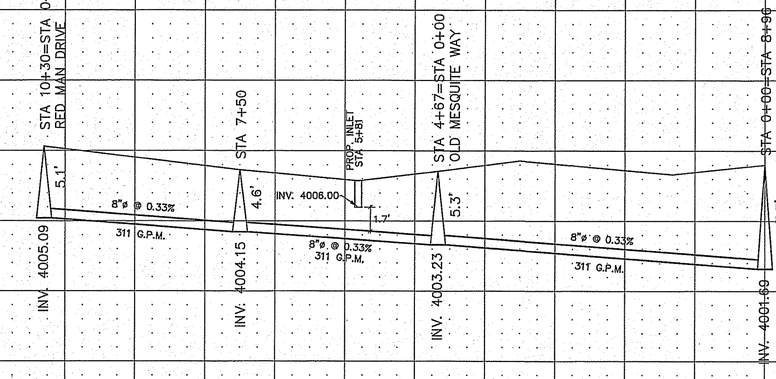
RED MESQUITE WAY



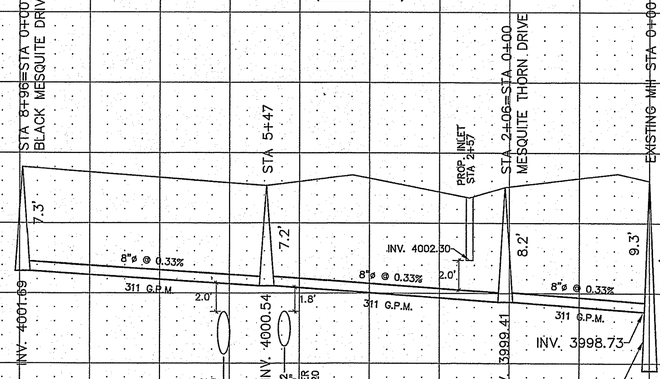
OLD MESQUITE WAY



BLACK MESQUITE DRIVE



MESQUITE RIVER DRIVE (2 OF 2)



THE CITY OF EL PASO TEXAS
Final Approval

CIVIL ENGINEER
GUEVARA ENGINEERING
P.O. BOX 961514
EL PASO, TEXAS 79996
(915) 203-5826
STATE REGISTRATION NO. F-12421

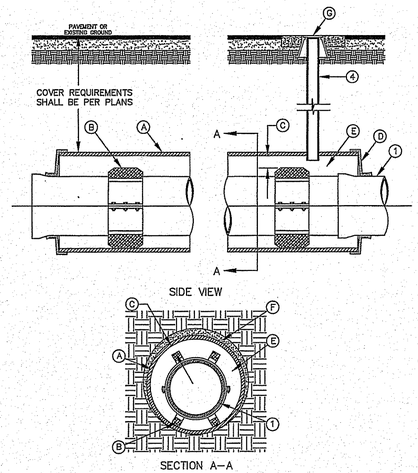
PORFIRIO GUEVARA
90386
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
11/11/16

MESQUITE HILLS UNIT 8 SUBDIVISION

CITY OF EL PASO
EL PASO COUNTY, TEXAS

SANITARY SEWER PROFILES

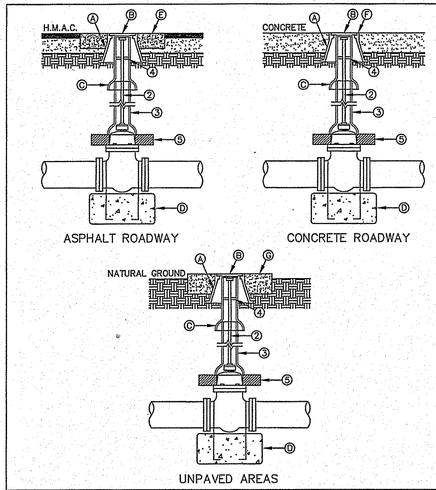
DATE: MAY 2016
SCALE: AS SHOWN
JOB NO. :
SHEET NO. : SHT. 4 OF 7



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 MANUFACTURES 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).

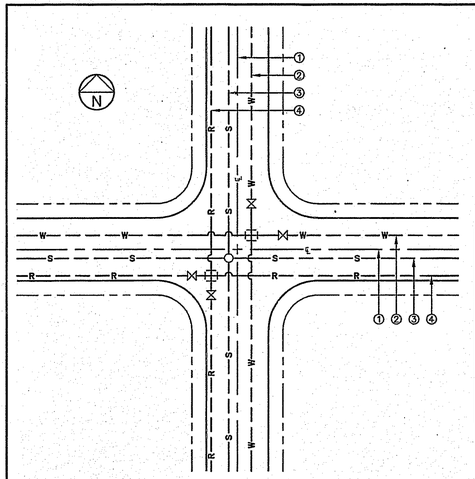
STANDARD DETAIL	DATE: 3/1994 REV: 1/7/2013	CARRIER PIPE INSTALLATION WITH CASING INSULATORS	N.T.S.	el paso WATER	DETAIL No. 180



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

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

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



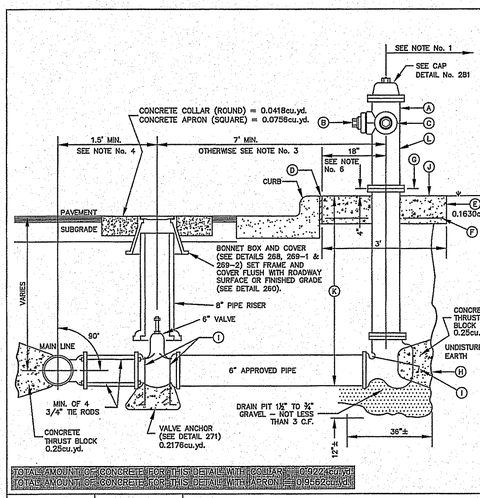
GENERAL NOTES:
1. REFERENCE CENTERLINE SHALL BE CENTERLINE OF RIGHT OF WAY.
2. WATER LINES SHALL BE LOCATED ON NORTH OR EAST SIDES OF DEDICATED STREETS OR ALLEYS.
3. SEWER LINES SHALL BE LOCATED ON SOUTH OR WEST SIDES OF DEDICATED STREETS OR ALLEYS.
4. RECLAIMED LINES SHALL BE LOCATED ON SOUTH OR WEST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

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

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

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

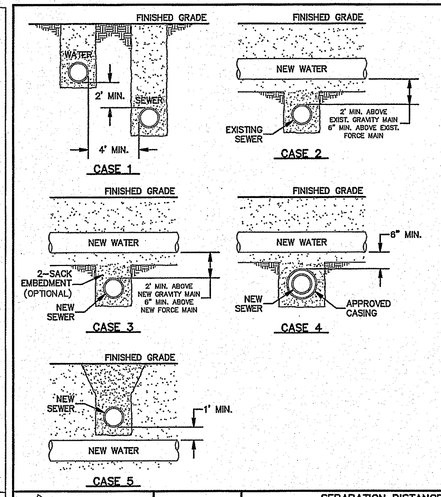
STANDARD DETAIL	DATE: 03/1994 REV: 3/28/2007	LOCATION FOR UTILITY LINES	N.T.S.	el paso WATER	DETAIL No. 140



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 ¾" DIAMETER TIE RODS.
5. COMPLY WITH REQUIREMENTS OF AWWA C–502, DRY BARREL FIRE HYDRANTS AND AWWA C–550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES AND HYDRANTS.
6. WHEN INSTALLATION IS WITHIN TxDOT RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.

CONSTRUCTION KEY NOTES:
A. FIRE HYDRANT PER SPEC'S.
B. PUMPER NOZZLE 4" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.
C. HOSE NOZZLE 2½".
D. ¾" PREMOLDED EXPANSION JOINT WITH 1" TOP FILLER.
E. 3'x3'x6" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.
F. #10; 6/6 WWF.
G. CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE 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. MAXIMUM OF ONE (1) SPOOL EXTENSION ALLOWED TO MAINTAIN THE CONTROLLED ELEVATION LINE TO TOP OF SLAB. ADDITIONAL ADJUSTMENT MUST ME MADE WITH OFFSETS & FITTINGS AS NEEDED.
L. REQUIRED – DAVIDSON ANTI TERRORISM CORROSION RESISTANT VALVE KIT (DATV).

STANDARD DETAIL	DATE: 2/1993 REV: 10/1/2013	FIRE HYDRANT INSTALLATION	N.T.S.	el paso WATER	DETAIL No. 280–1



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

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

CASE 1. GRAVITY SANITARY SEWER MAIN OR FORCE MAIN PARALLEL TO POTABLE WATER MAIN (PER TCEQ §290.44(e)(4)(i)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, MUST BE REPLACED WITH PVC (150 PSI) OR DI. NEW GRAVITY MAIN OR FORCE MAIN REQUIRES PVC (150 PSI) OR DI.
- SEPARATE TRENCHES SHALL BE USED.

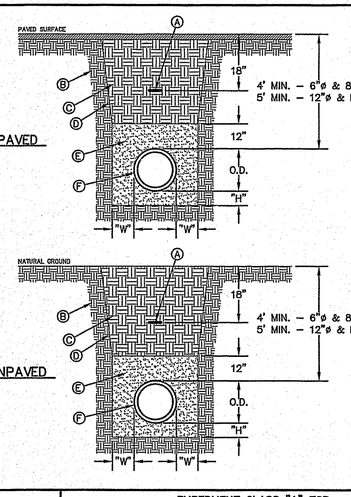
CASE 2. NEW POTABLE WATER MAIN CROSSING EXISTING GRAVITY SANITARY SEWER MAIN OR EXISTING FORCE MAIN (PER TCEQ §290.44(e)(4)(ii)) AND §290.44(e)(4)(iii)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: EXISTING GRAVITY MAIN (PVC SDR35 OR CLAY) OR FORCE MAIN TO REMAIN IF NOT LEAKING-IF LEAKING, REPLACE ONE PIPE SEGMENT PER CASE 3 REQUIREMENTS.
- CENTER ONE SEGMENT OF WATER PIPE OVER SEWER MAIN OR FORCE MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR WATER PIPE SHALL BE 18 FEET LONG.

CASE 3. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(e)(4)(ii)(B), §290.44(e)(4)(iii)(A) AND §290.44(e)(4)(iii)(C)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: NEW GRAVITY MAIN - PVC (150 PSI) or DI REQUIRED, CENTER UNDER WATER MAIN. NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED. FORCE MAIN TO BE EMBEDDED IN CEMENT STABILIZED BACKFILL. THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.
- CENTER ONE SEGMENT OF WATER PIPE OVER SEWER PIPE OR FORCE MAIN.
- MINIMUM PIPE SEGMENT LENGTH FOR WATER AND SEWER SHALL BE 18 FEET LONG.
- FOR NEW GRAVITY SEWER ONLY, IN LIEU OF PVC (150PSI) OR DI, INSTALL ONE PIPE SEGMENT OF SDR35; SEWER MAIN MUST BE EMBEDDED IN CEMENT STABILIZED BACKFILL. THE TOTAL LENGTH OF ONE PIPE PLUS 12" BEYOND THE JOINT AT EACH END.

CASE 4. NEW POTABLE WATER MAIN CROSSING NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN (PER TCEQ §290.44(e)(4)(ii)(C) AND §290.44(e)(4)(iii)(B)).
- LOCATION: WATER ABOVE SEWER OR FORCE MAIN.
- SEWER MATERIALS: NEW GRAVITY MAIN - SDR35 ACCEPTABLE. NEW FORCE MAIN - PVC (150PSI) OR DI REQUIRED. IN ADDITION, SEWER MAIN OR FORCE MAIN MUST BE ENCASED IN DI OR STEEL. TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER CASING PIPE ON WATER MAIN.

CASE 5. NEW GRAVITY SANITARY SEWER MAIN OR NEW FORCE MAIN CROSSING NEW POTABLE WATER MAIN (PER TCEQ §290.44(e)(4)(ii)(D) AND (iii)).
- LOCATION: SEWER OR FORCE MAIN ABOVE WATER.
- NEW GRAVITY MAIN OR FORCE MAIN REQUIRES ONE PIPE SEGMENT OF PVC (150 PSI) OR DI. IN ADDITION, WATER MUST BE DI OR STEEL OR ENCASED IN DI OR STEEL, TWO NOMINAL SIZES LARGER THAN MAIN AND AT LEAST 18 FEET LONG.
- CENTER ONE SEGMENT OF SEWER PIPE ON WATER MAIN.

STANDARD DETAIL	DATE: 8/3/2006 REV: 8/21/2007	SEPARATION DISTANCE SANITARY SEWER AND POTABLE WATER (SPECIAL CONDITIONS)	N.T.S.	EL PASO WATER UTILITIES PUBLIC SERVICE BOARD	DETAIL No. 161



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

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

PIPE DIAMETER	"H"	"W"
6" – 30"	4"	6"
GREATER THAN 30"	6"	12"

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

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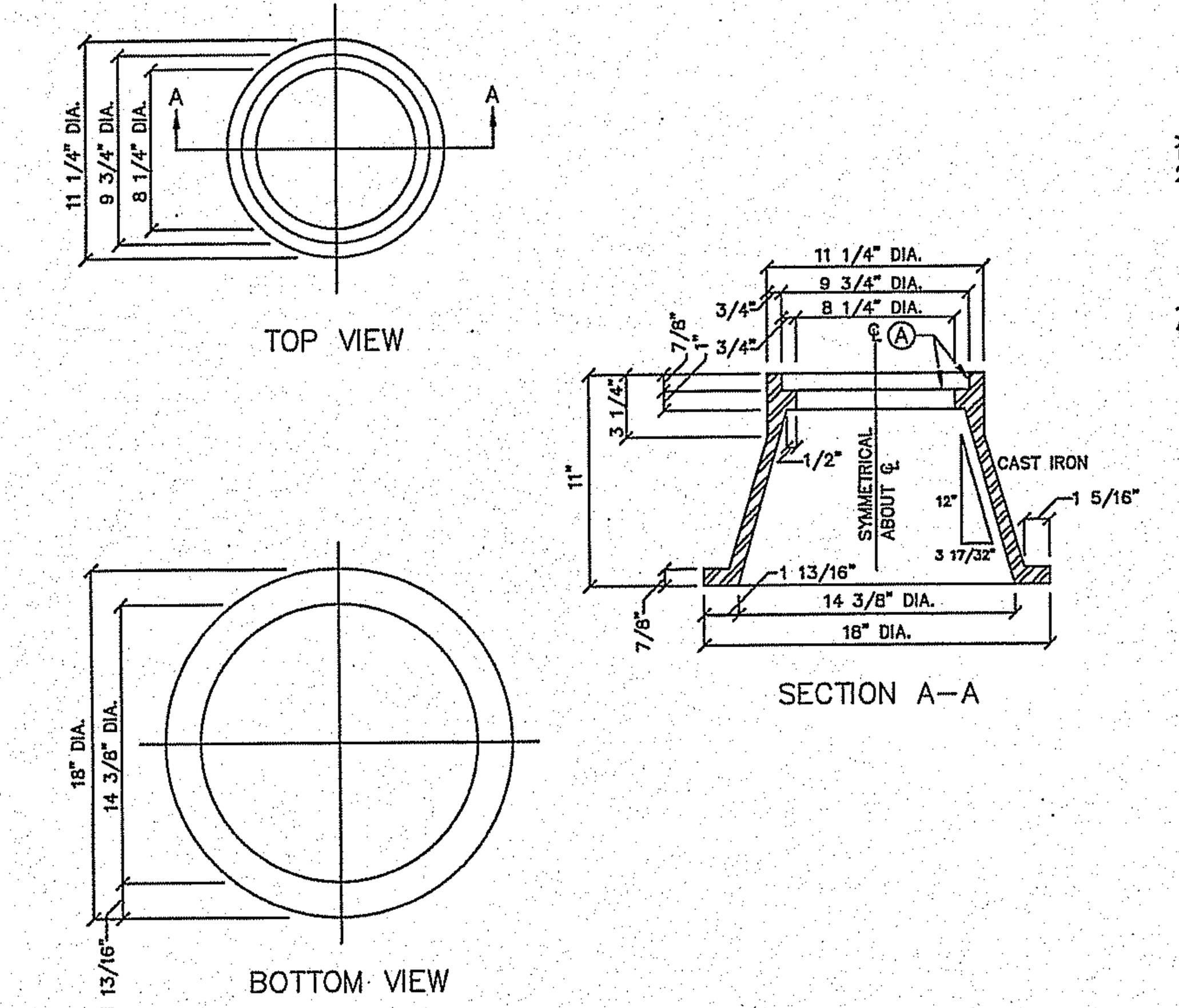
CITY OF EL PASO
EL PASO COUNTY, TEXAS

WATER DETAILS

DATE: MAY 2016
SCALE: AS SHOWN
JOB NO. :
SHEET NO. : SHT. 5 OF 7

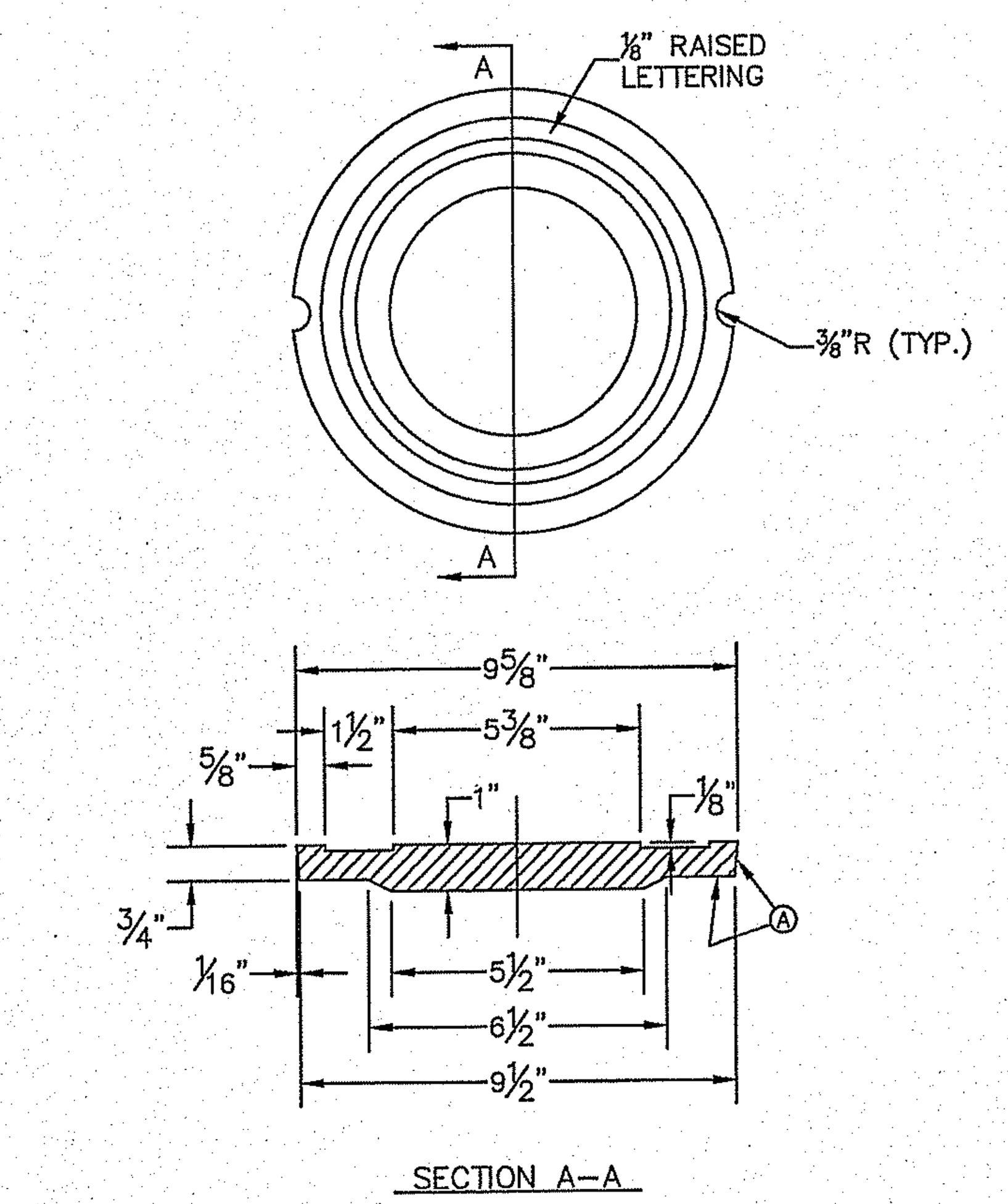
Final Approval



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

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

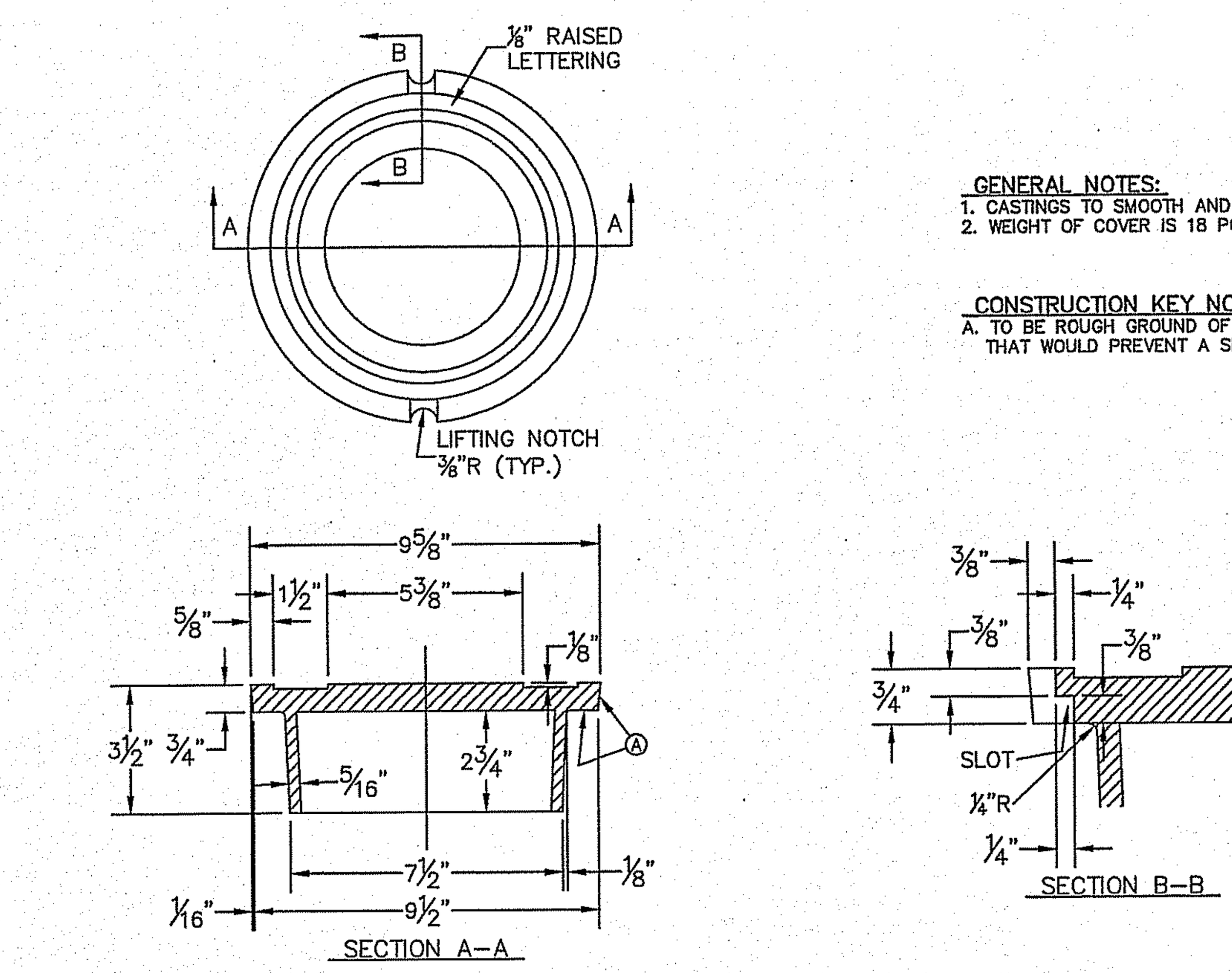
STANDARD DETAIL	DATE: 2/1994 REV:	BONNET BOX	N.T.S.	el paso WATER	DETAIL No. 268



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

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

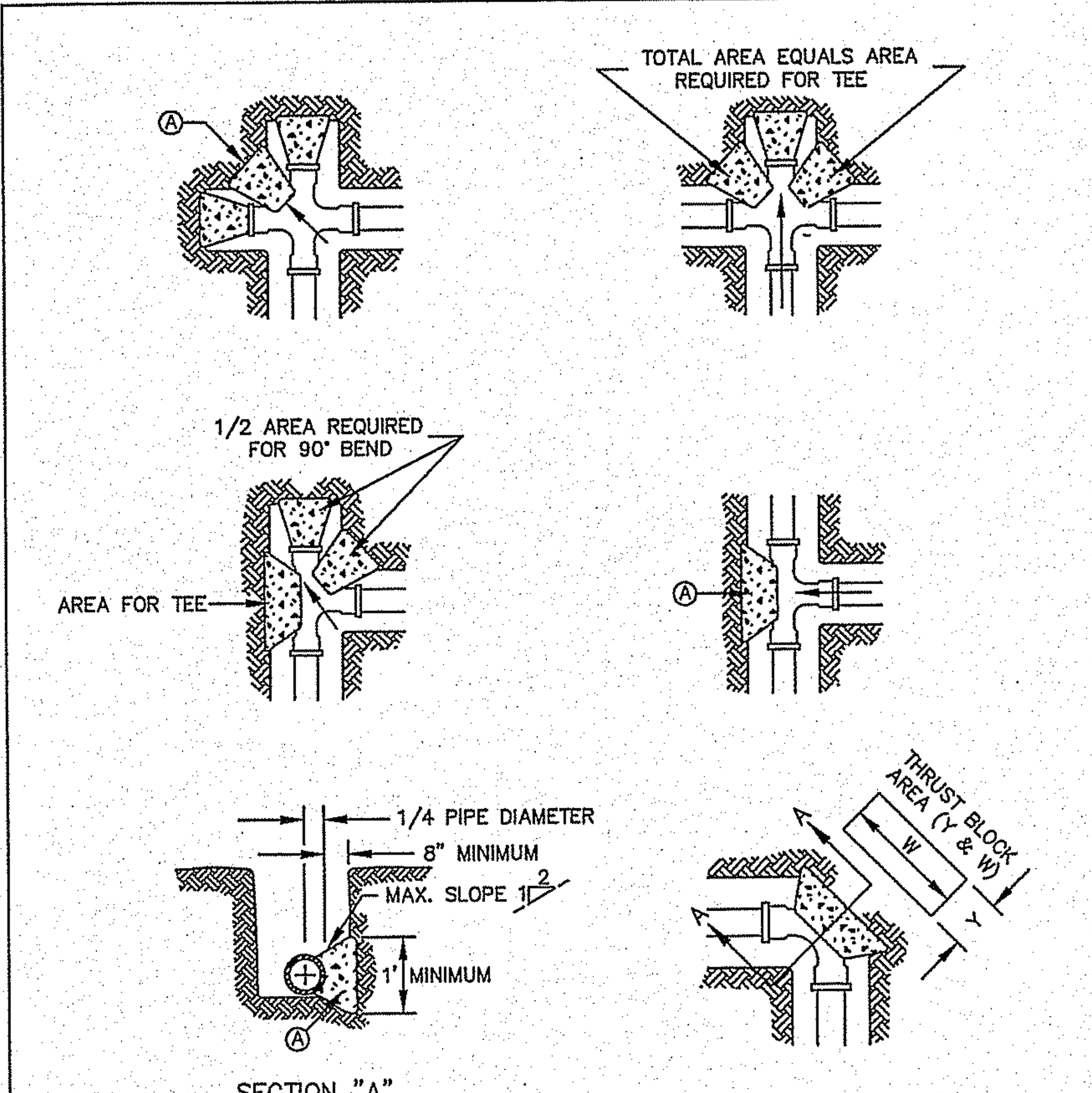
STANDARD DETAIL	DATE: 2/1994 REV: 11/1/2007	BONNET BOX COVER	N.T.S.	el paso WATER	DETAIL No. 269–1



GENERAL NOTES:
1. CASTINGS TO 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.

STANDARD DETAIL	DATE: 2/16/2006 REV: 12/14/2007	BONNET BOX COVER (FLIP RESISTANT)	N.T.S.	el paso WATER	DETAIL No. 269–2

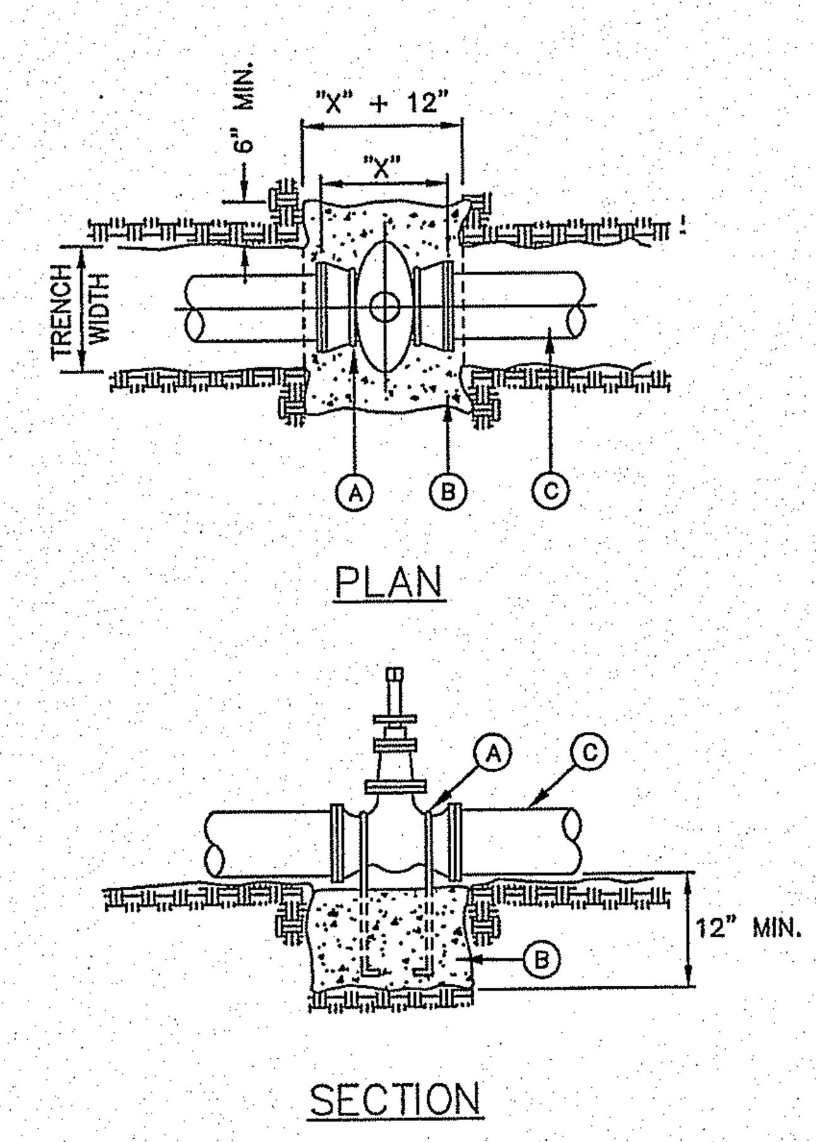


GENERAL NOTES:
1. TABLE IS BASED ON 2000#/SQ. FT. SOIL. IF CONDITIONS ARE FOUND TO INDICATE SOIL BEARING IS LESS, THE AREAS SHALL BE INCREASED ACCORDINGLY.
2. AREAS FOR PIPE LARGER THAN 18" SHALL BE CALCULATED.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2500 PSI.
4. THRUST BLOCK IS TO EXTEND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

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

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

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

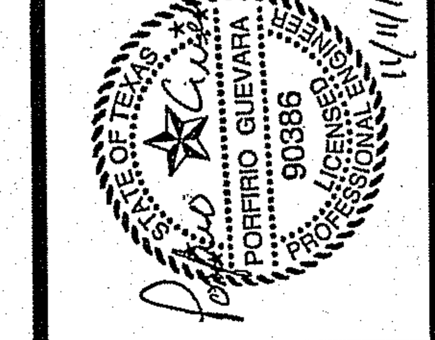


GENERAL NOTES:
1. THE ENGINEER SHALL PROVIDE DESIGN FOR ALL VALVES GREATER THAN 12".
2. COMPLY WITH REQUIREMENTS OF AWWA C–550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES.

CONSTRUCTION KEY NOTES:
A. TWO No. 5 REBAR HAIR PINS. PAINT UNEMBEDDED PORTION OF REBARS WITH TWO COATS OF COAL TAR EPOXY.
B. CONCRETE VALVE SUPPORT, 2500 PSI. CONCRETE.
C. APPROVED PIPE.

NOTE: Calculated for Mueller A–2360 Resilient Wedge Gate Valve – M.J.xM.J.
TOTAL AMOUNT OF CONCRETE FOR THIS DETAIL 4" VALVE = 0.2037cu.yd.
TOTAL AMOUNT OF CONCRETE FOR THIS DETAIL 6" VALVE = 0.2176cu.yd.
TOTAL AMOUNT OF CONCRETE FOR THIS DETAIL 8" VALVE = 0.2142cu.yd.
TOTAL AMOUNT OF CONCRETE FOR THIS DETAIL 10" VALVE = 0.2614cu.yd.
TOTAL AMOUNT OF CONCRETE FOR THIS DETAIL 12" VALVE = 0.2765cu.yd.

STANDARD DETAIL	DATE: 2/1994 REV: 12/12/2011	VALVE ANCHOR	N.T.S.	el paso WATER	DETAIL No. 271



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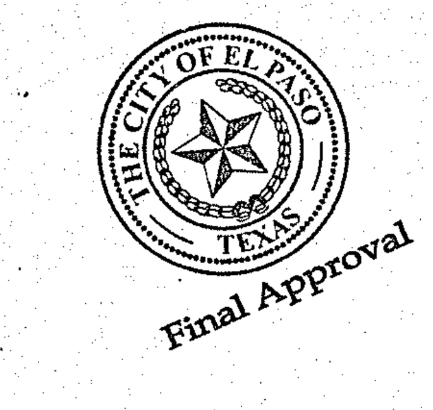
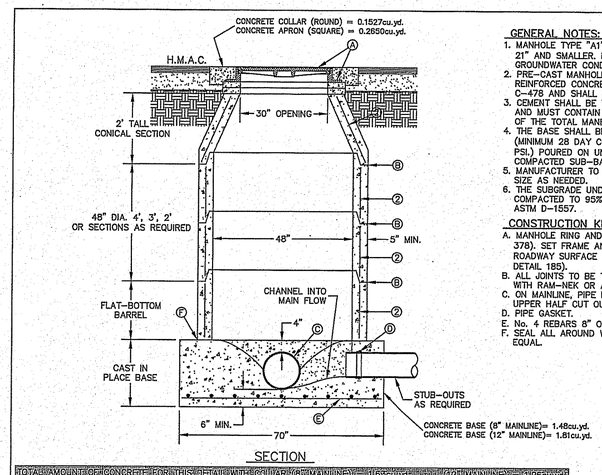
WATER DETAILS



DATE: MAY 2016
SCALE: AS SHOWN
JOB NO. :
SHEET NO. : SHT. 6 OF 7



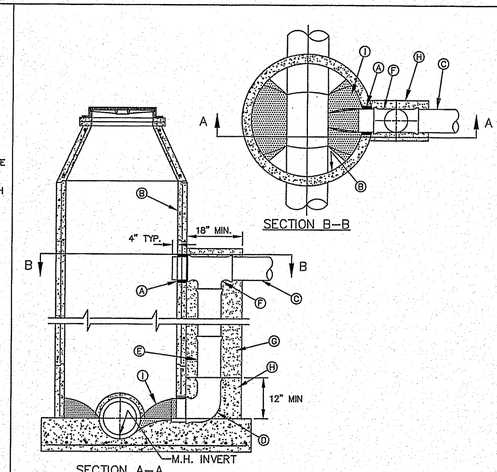
SECTION

TOTAL AMOUNT OF CONCRETE FOR THIS DETAIL WITH COLLAR (8" MAINLINE) = 1.63cu.yd. (12" MAINLINE) = 1.96cu.yd.
TOTAL AMOUNT OF CONCRETE FOR THIS DETAIL WITH APRON (8" MAINLINE) = 1.75cu.yd. (12" MAINLINE) = 2.08cu.yd.

GENERAL NOTES:
1. MANHOLE TYPE "A1" SHALL BE USED FOR LINES 21" AND SMALLER. NOT TO BE USED IN GROUNDWATER CONDITIONS.
2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING.
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 SHALL BE CAST IN PLACE CONCRETE (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI.) POURED ON UNDISTURBED OR THOROUGHLY COMPACTED SUB-BASE.
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.

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. ON MAINLINE, PIPE IS TO BE LAID THRU AND UPPER HALF CUT OUT.
D. PIPE GASKET.
E. No. 4 REBARS 8" ON CENTER, BOTH WAYS.
F. SEAL ALL AROUND WITH RAM-NEK OR APPROVED EQUAL.

STANDARD DETAIL	DATE: 11/1992 REV: 12/1/2011	MANHOLE TYPE "A1" N.T.S.	el paso WATER	DETAIL No. 370-2

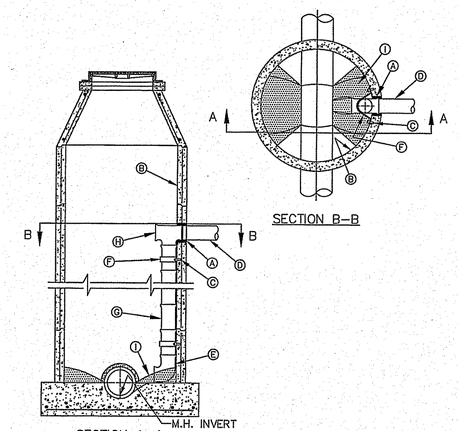


SECTION A-A

GENERAL NOTES:
1. DROP CONNECTION SHOWN MAY BE USED ON ALL MANHOLE TYPES (NOT RECOMMENDED IN GROUND WATER CONDITIONS).
2. DROP CONNECTION TO BE CONSTRUCTED WHEN INVERT ELEVATION OF INFLUENT PIPE IS 3 FEET (OR GREATER) ABOVE THE MANHOLE INVERT.

CONSTRUCTION KEY NOTES:
A. PIPE OPENINGS IN MANHOLE RISERS SHALL HAVE COMPRESSION TYPE FLEXIBLE PIPE TO MANHOLE CONNECTORS (A.S.T.M.- C923) "KOR-N-SEAL" OR APPROVED EQUAL.
B. MANHOLE WALL.
C. INFLUENT SEWER PIPE.
D. 90° BEND (P.V.C.)
E. P.V.C. PIPE (SDR. 35)
F. P.V.C. TEE
G. CONCRETE FLOWABLE FILL
H. 2500 psi CONCRETE
I. USE GROUT TO FORM A SMOOTH CHANNEL TO MANHOLE INVERT

STANDARD DETAIL	DATE: 3/18/1998 REV: 6/19/2009	DROP CONNECTION - EXTERNAL MANHOLE INSTALLATION N.T.S.	el paso WATER	DETAIL No. 375-1

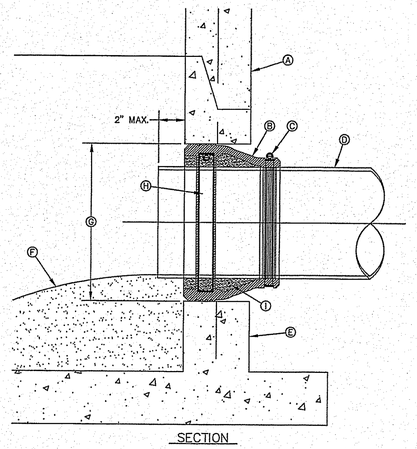


SECTION A-A

GENERAL NOTES:
1. DROP CONNECTION SHOWN IS FOR 8" INFLUENT PIPE. FOR LARGER SIZE COLLECTOR LINE, MANHOLE SIZE SHALL BE INCREASED AS NECESSARY TO PROVIDE ADEQUATE CLEARANCE BETWEEN MANHOLE WALL & DROP CONNECTION PIPING AND SHALL ACCOMMODATE THE EPWU'S CONFINED SPACE ENTRY PERMIT PROGRAM.
2. VERIFY MANHOLE STRUCTURAL INTEGRITY (I.E. BRICK TYPE MANHOLES) PRIOR TO INSTALLATION OF ANCHOR STRAPS & EXPANSION BOLTS (SEE NOTES "C" & "F" BELOW)
3. ANCHOR STRAPS & BOLTS, SHALL HAVE ONE HEAVY COAT OF POLYAMIDE CURED COAL TAR EPOXY TO PREVENT CORROSION.
4. DROP CONNECTION TO BE CONSTRUCTED WHEN INVERT ELEVATION OF INFLUENT PIPE IS 3 FEET (OR GREATER) ABOVE THE MANHOLE INVERT.

CONSTRUCTION KEY NOTES:
A. PIPE OPENINGS IN MANHOLE RISERS SHALL HAVE COMPRESSION TYPE FLEXIBLE PIPE TO MANHOLE CONNECTORS (A.S.T.M.- C923) "KOR-N-SEAL" OR APPROVED EQUAL.
B. MANHOLE WALL.
C. 1/2" STAINLESS STEEL EXPANSION BOLT TO HAVE 2" MIN. ANCHORAGE INTO MANHOLE.
D. 8" INFLUENT SEWER PIPE.
E. 8"-90° BEND (P.V.C.)
F. 2" WIDE X 3/16" THICK STAINLESS STEEL (T316) STRAP @ 4' O.C. (AS REQUIRED)
G. 8" P.V.C. PIPE (SDR. 35)
H. 8" X 8" P.V.C. TEE
I. USE GROUT TO FORM A SMOOTH CHANNEL TO MANHOLE INVERT

STANDARD DETAIL	DATE: 4/1997 REV: 6/19/2009	DROP CONNECTION - INTERNAL MANHOLE INSTALLATION N.T.S.	el paso WATER	DETAIL No. 375-2

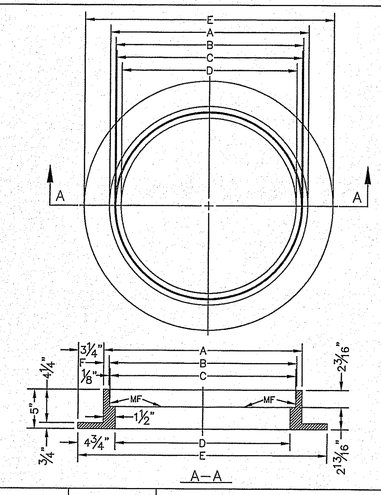


SECTION

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.

STANDARD DETAIL	DATE: 11/1992 REV: 8/13/2009	PIPE CONNECTION TO MANHOLE N.T.S.	el paso WATER	DETAIL No. 376



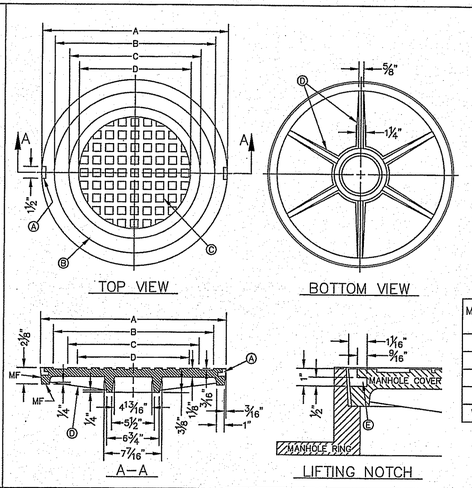
A-A

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"	25½"
B	31¾"	24⅛"
C	31½"	23⅞"
D	30"	22½"
E	39½"	32"
F	⅝"	1/16"
WEIGHT	205 lbs.	170 lbs.

*OBSOLETE -DO NOT USE (FOR REFERENCE ONLY)

STANDARD DETAIL	DATE: 11/1992 REV: 2/21/2011	SEWER MANHOLE RING N.T.S.	el paso WATER	DETAIL No. 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).

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

MANHOLE COVER	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	31 3/16"	23⅜"
B	28⅛"	20⅝"
C	24 3/16"	16 7/16"
D	21⅞"	14 3/16"
WEIGHT	200 lbs.	165 lbs.

*OBSOLETE -DO NOT USE (FOR REFERENCE ONLY)

STANDARD DETAIL	DATE: 11/1992 REV: 2/21/2011	SEWER MANHOLE COVER N.T.S.	el paso WATER	DETAIL No. 378

Final Approval

CIVIL ENGINEER
GUEVARA ENGINEERING
P.O. BOX 961514
EL PASO, TEXAS 79996
(915) 203-5826
STATE REGISTRATION NO. F-12421

MESQUITE HILLS UNIT 8 SUBDIVISION
CITY OF EL PASO
EL PASO COUNTY, TEXAS

SEWER DETAILS

DATE: MAY 2016
SCALE: AS SHOWN
JOB NO. :
SHEET NO. : SHT. 7 OF 7