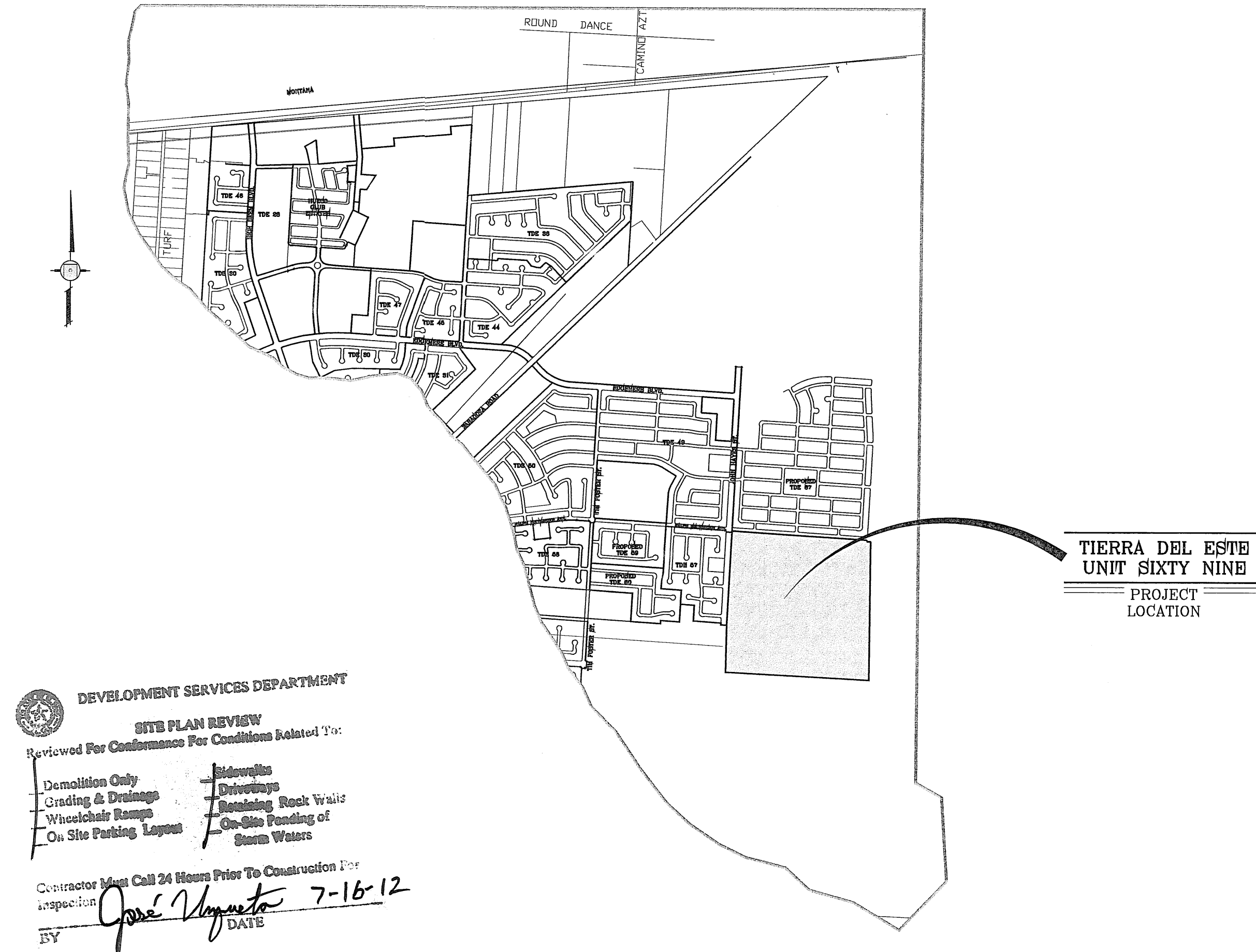


LOCATION MAP SCALE: 1"=1000'

VICINITY MAP

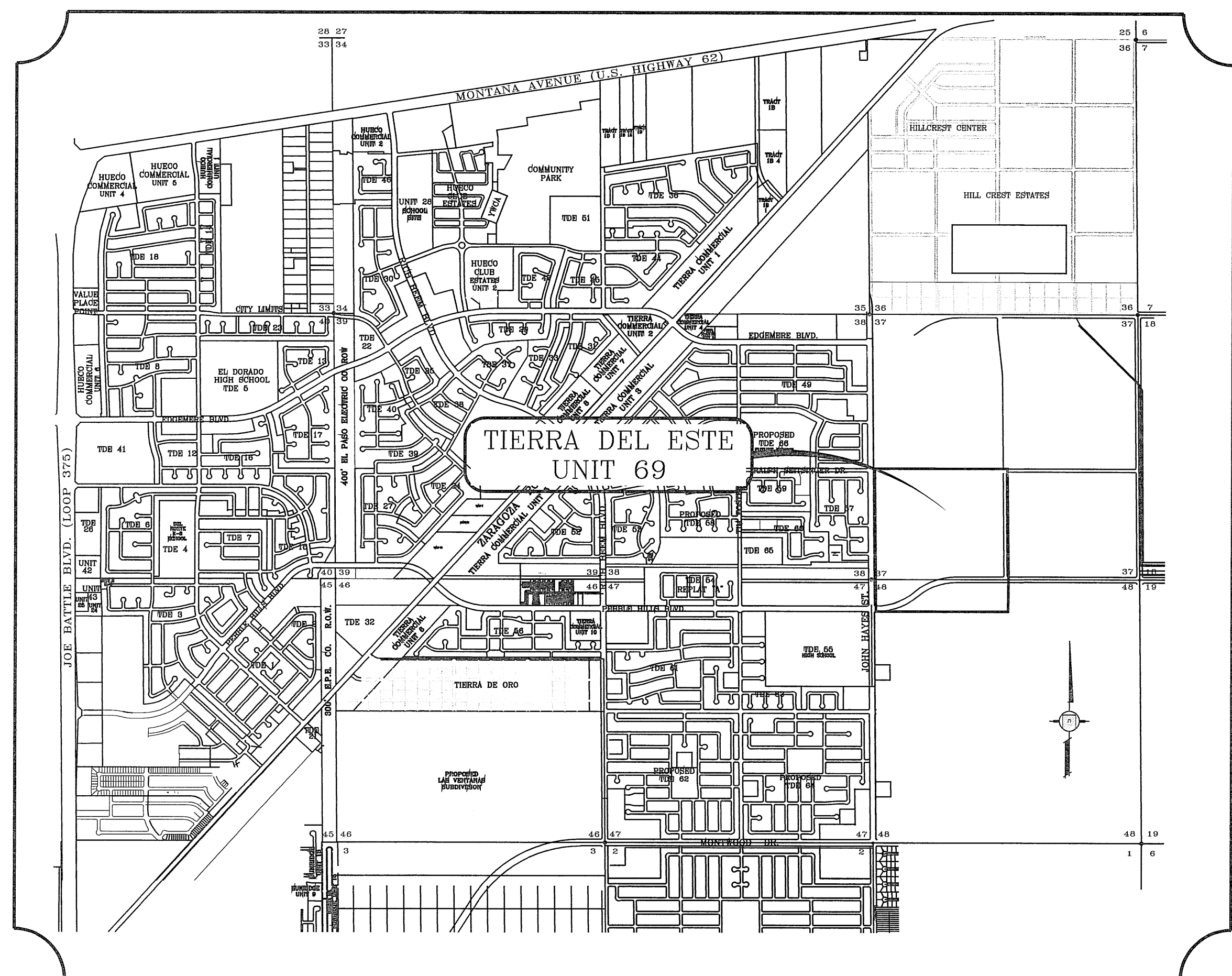


DEVELOPMENT SERVICES DEPARTMENT
SITE PLAN REVIEW
 Reviewed For Conformance For Conditions Related To:
 Demolition Only / Grading & Drainage / Wheelchair Ramps / On Site Parking Layouts / Sidewalks / Driveways / Retaining Bank Walls / On-Site Handling of Storm Waters
 Contractor Must Call 24 Hours Prior To Construction For Inspection
 BY *Jose Vazquez* DATE **7-16-12**

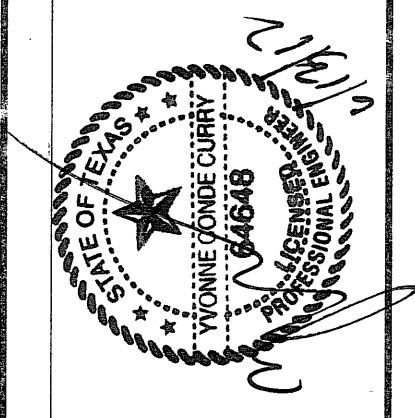
STREET IMPROVEMENTS

I N D E X

TITLE	SHEET No.	TITLE	SHEET No.
COVER SHEET	1 of 64	SADDLEHORN ST.	36 of 64
PLAT	2-3 of 64	SHADY RIVER ST.	37-38 of 64
GRADING PLAN	4-5 of 64	SUNNY LAND ST.	39-41 of 64
GRADING SECTIONS	6-7 of 64	TIMBER ST.	42 of 64
DRAINAGE PLAN	8-9 of 64	JOHN RUIZ ST.	43-45 of 64
SWPPP & GSP PLAN AND NOTES	10-11 of 64	FIELDWOOD PL.	46 of 64
ALTON OAKS AVE.	12-13 of 64	PROPOSED PARK WITH SECTIONS	47 of 64
BROOKSIDE ST.	14 of 64	POND & POND DETAILS	48 of 64
GALICENO PL. / LUSTIANO PL.	15 of 64	PROPOSED STRUCTURES	49-50 of 64
CLEARBOOK PL./MEADOW LAWN AVE.	16-19 of 64	STANDARD DETAILS	51-52 of 64
HOLLY SPRINGS AVE./HUNTERS GROVE AVE.	20-25 of 64	STRUCTURE DETAILS	53 of 64
LONG SHADOW ST.	26-28 of 64	ILLUMINATION AND TRAFFIC CONTROL PLAN	54-55 of 64
LOOKOUT ST./LYNBROOK ST.	29 of 64	WATER DISTRIBUTION PLAN	56-57 of 64
OVERBROOK ST.	30 of 64	SEWER DISTRIBUTION PLAN	58-59 of 64
PEBBLE HILLS BLVD.	31-33 of 64	SEWER PROFILES	60-62 of 64
PINTO TRAIL PL.	34 of 64	WATER DETAILS	63 of 64
ROCKRIDGE ST.	35 of 64	SEWER DETAILS	64 of 64
		ELECTRICAL ARTERIAL LIGHTING & DETAIL STANDARDS	1-14 of 14
		LANDSCAPE AND IRRIGATION	L1-L12 of L12



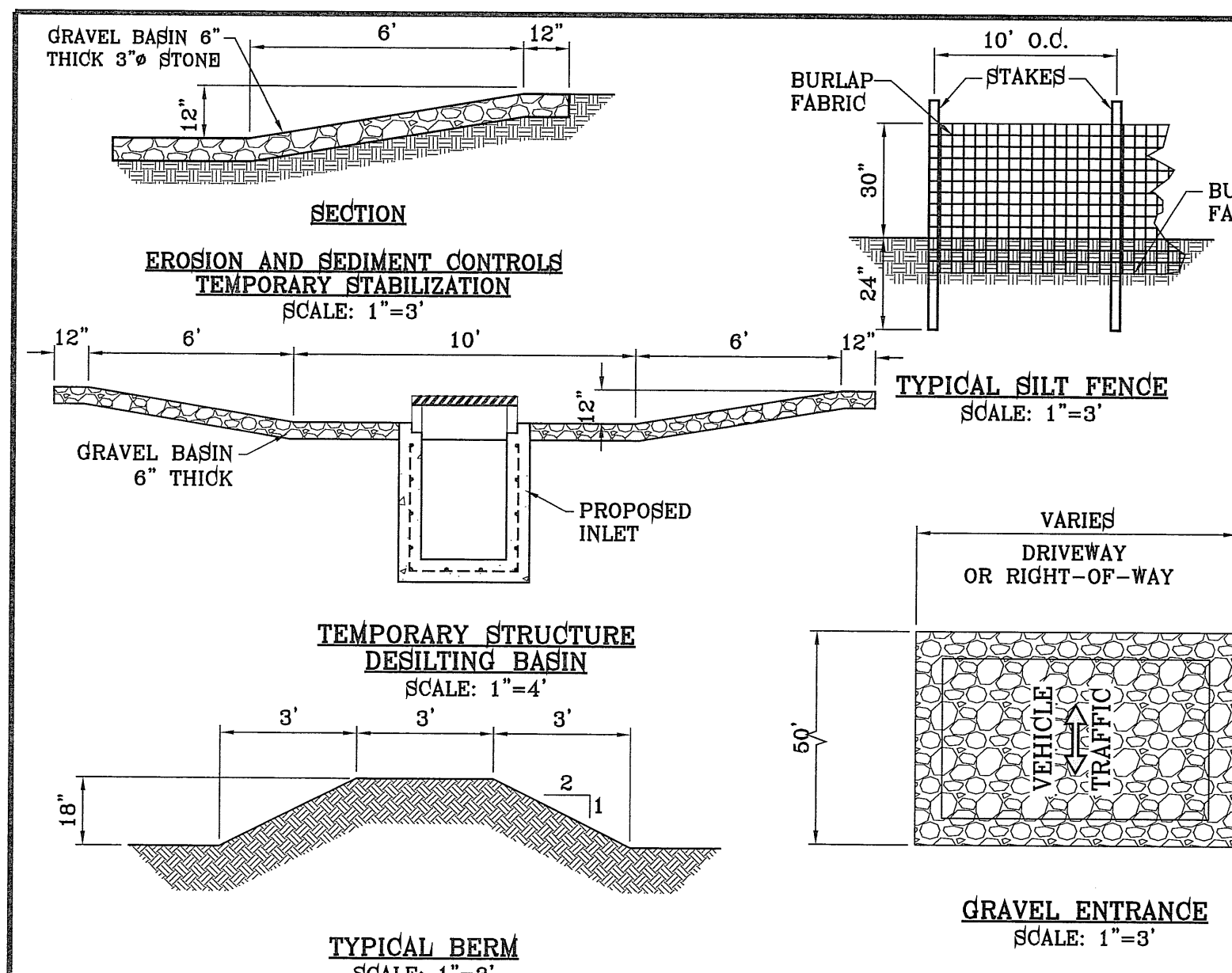
PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 46, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES



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

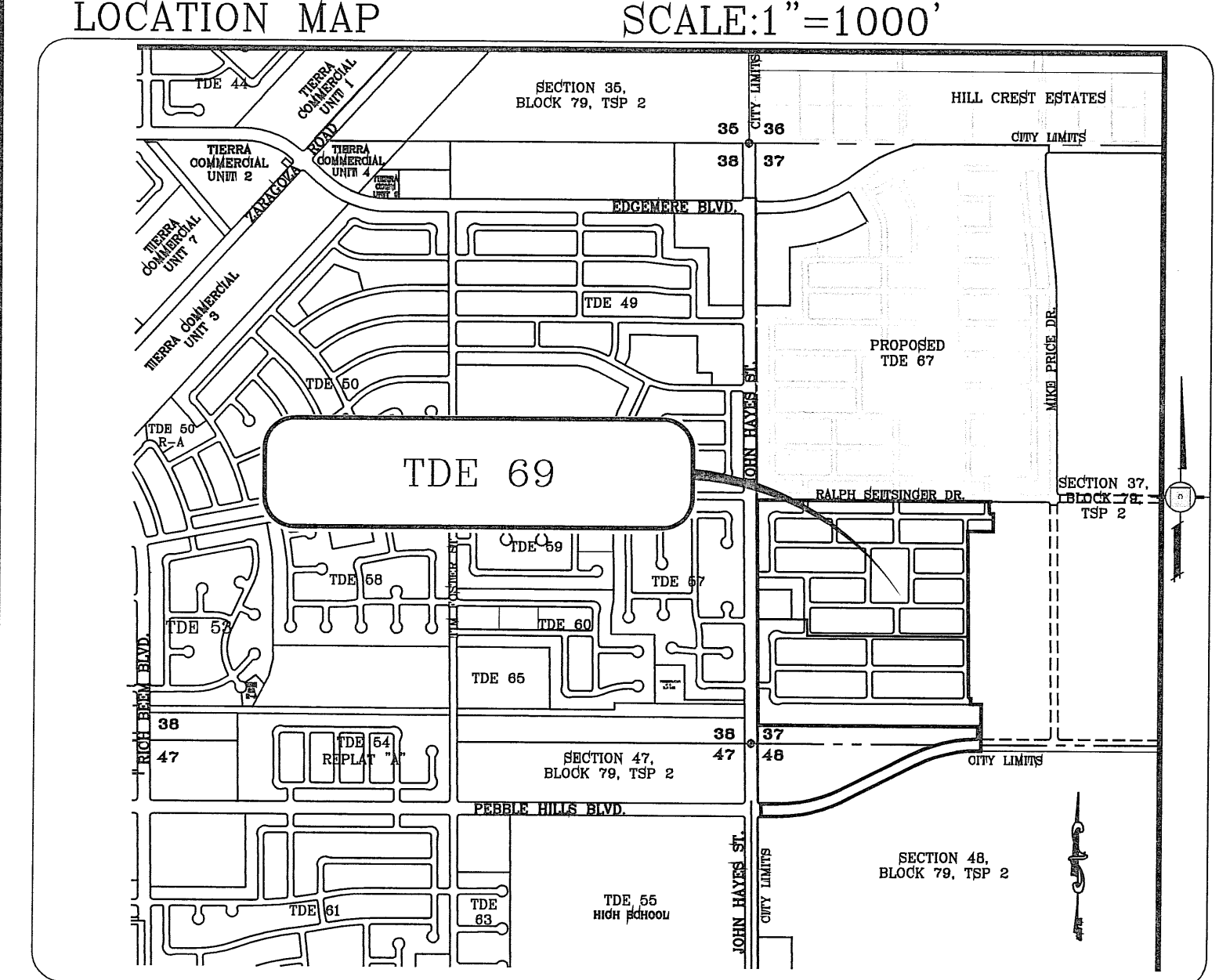
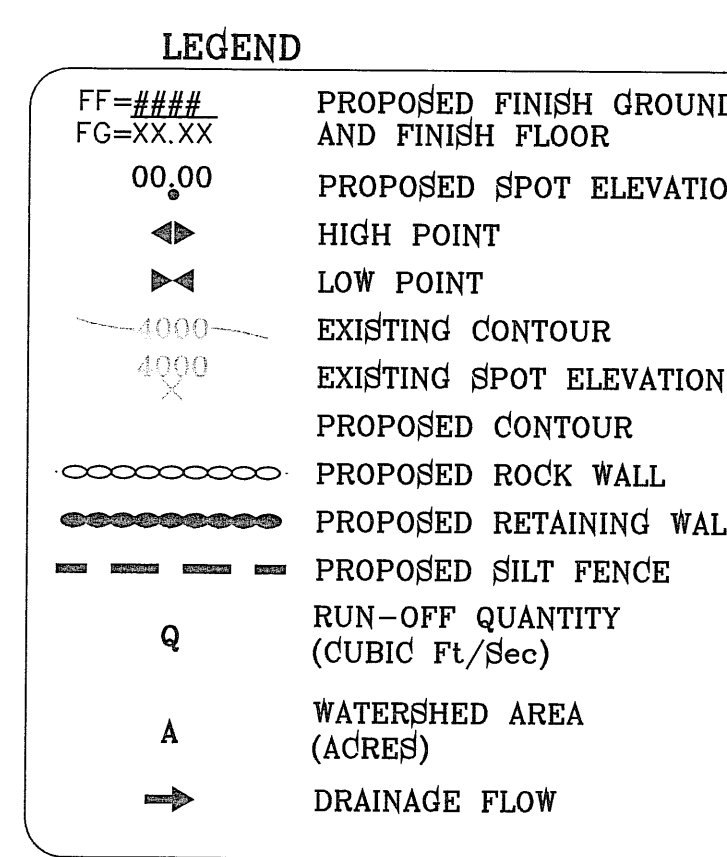


FILE LOCATION: E:\Subdivisions\TDE 69\GDPL PLOTTED ON Thursday, July 12, 2012 1:02:43 PM BY RUBEN RIVERA



STABILIZED ENTRANCE EROSION CONTROL NOTES

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

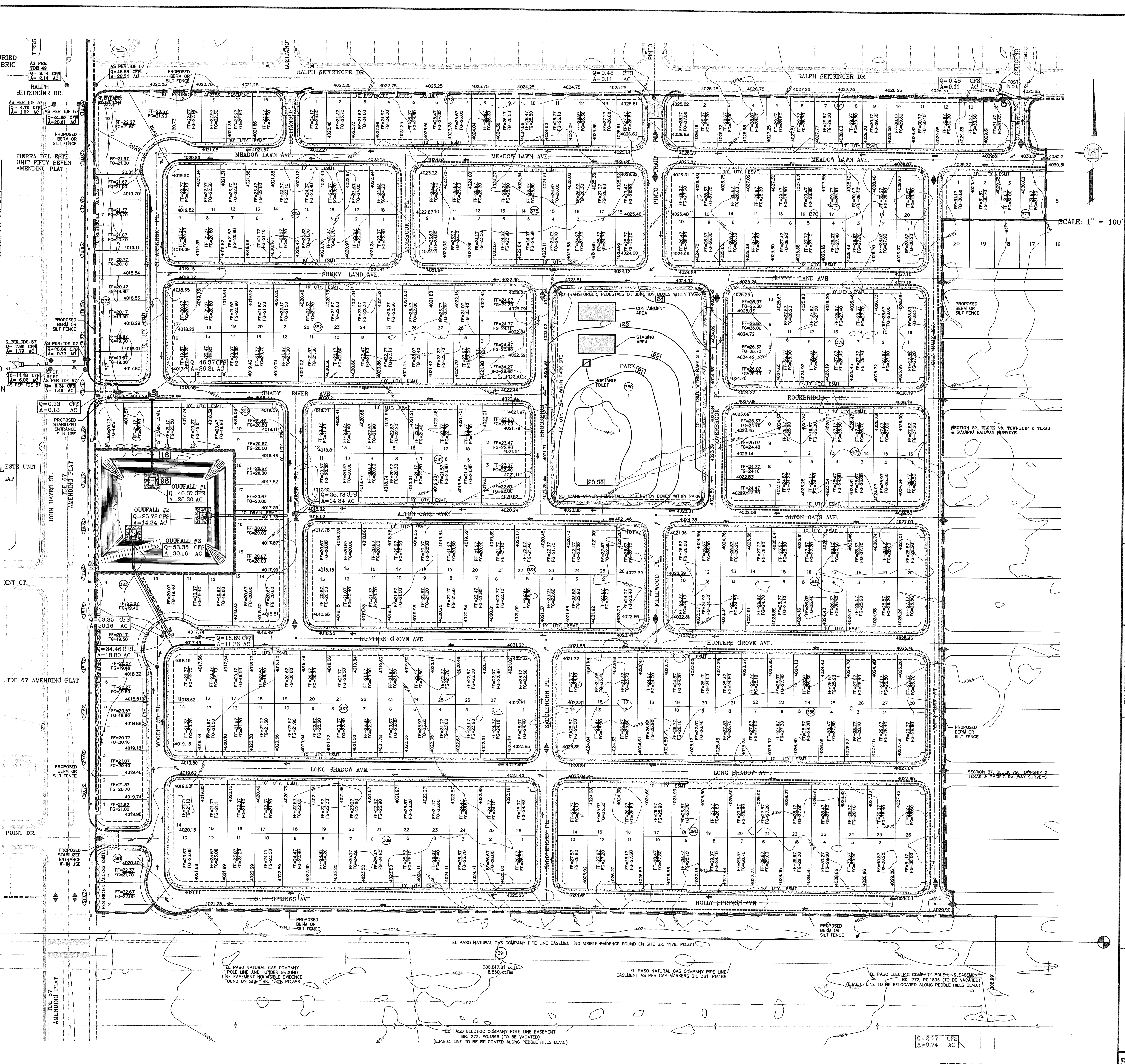


MATCH LINE A-A SEE NEXT SHEET

SEE SHEET 49 AND 50 FOR DRAINAGE STRUCTURES #1, #2 AND #3

NOTES:

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



BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
JOHN HAYES ST. AND JOHN HAYES ST.
ELEVATION 4020.56CITY DATUM

DATE _____ BY _____

REVISIONS _____

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BRING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING: 90.166± ACRES

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

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

ENGINEER'S SEAL

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6090 SUBURY DR. SUITE 100
EL PASO, TEXAS 79905
PHONE: (915) 692-0283
FAX: (915) 692-0286

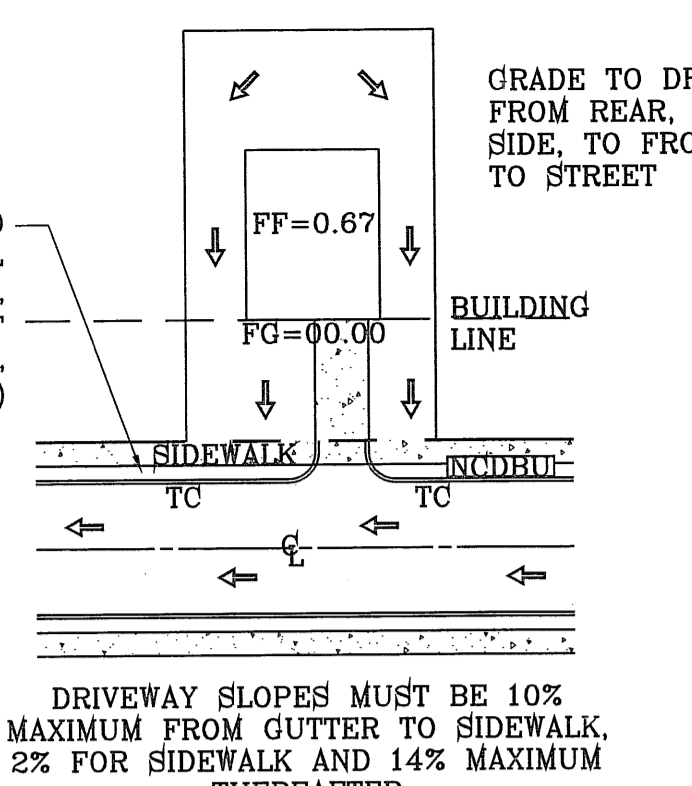
REGISTRATION No. F-221

SHEET TITLE
STORMWATER AND POLLUTION PREVENTION PLAN

SHT 10 OF 64

FILE LOCATION: s:\subdivisions\TDE 69 GDPL PLOTTED ON Thursday, July 12, 2012 1:03:47 PM BY RUBEN RIVERA

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



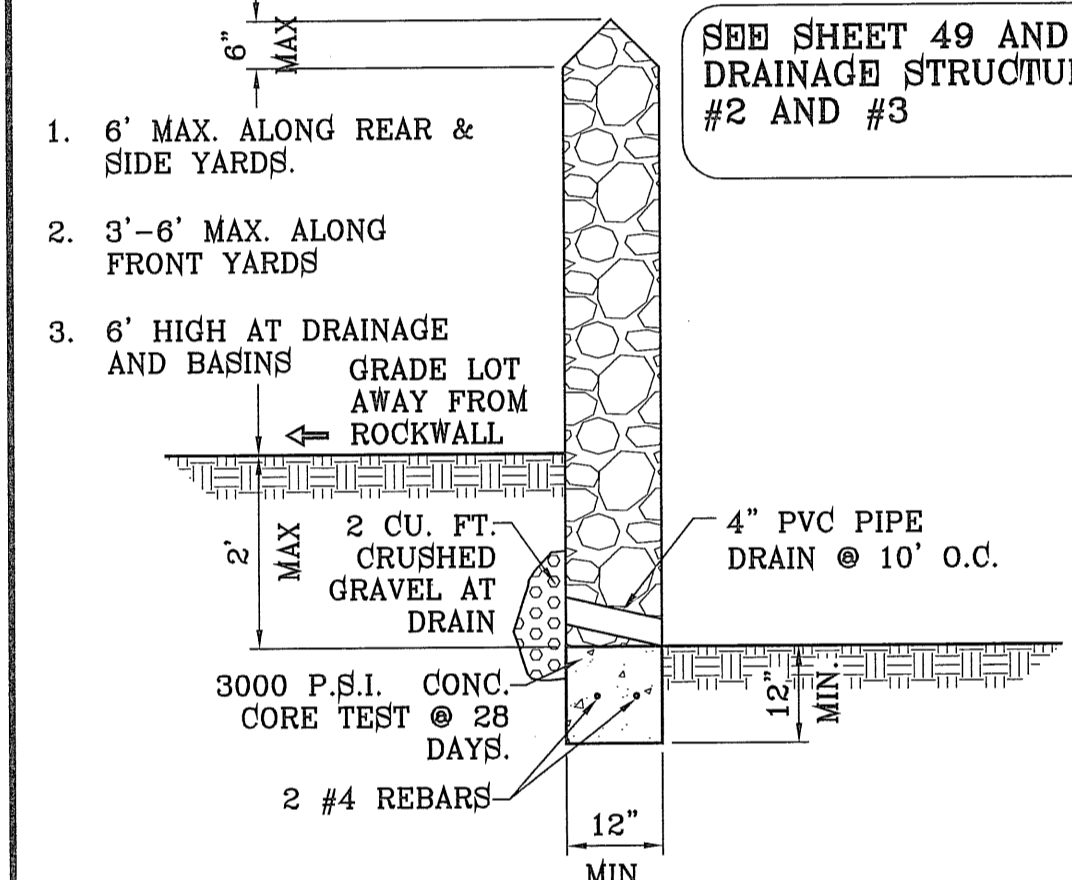
NOTE: HEREON DESCRIBED TRACT LIES IN ZONE X, COMMUNITY PANEL NO. 480212 0176B, DATED SEPTEMBER 4, 1991.

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

DETAIL No. SECTION DETAIL SHEET SECTION REFERENCE SHEET

TYPICAL LOT GRADING SCALE: 1"=40'

- LEGEND
- FF=0.67 PROPOSED FINISH FLOOR
 - FG=00.00 PROPOSED FINISH GROUND
 - 00.00 PROPOSED SPOT ELEVATION
 - High Point
 - Low Point
 - Existing Contour
 - Existing Spot Elevation
 - 4000 Proposed Contour
 - Proposed Rock Wall
 - Proposed Retaining Wall



SEE SHEET 49 AND 50 FOR DRAINAGE STRUCTURES #1, #2 AND #3

1. 6' MAX. ALONG REAR & SIDE YARDS.
2. 3'-6" MAX. ALONG FRONT YARDS
3. 6" HIGH AT DRAINAGE AND BASINS GRADE LOT AWAY FROM ROCKWALL

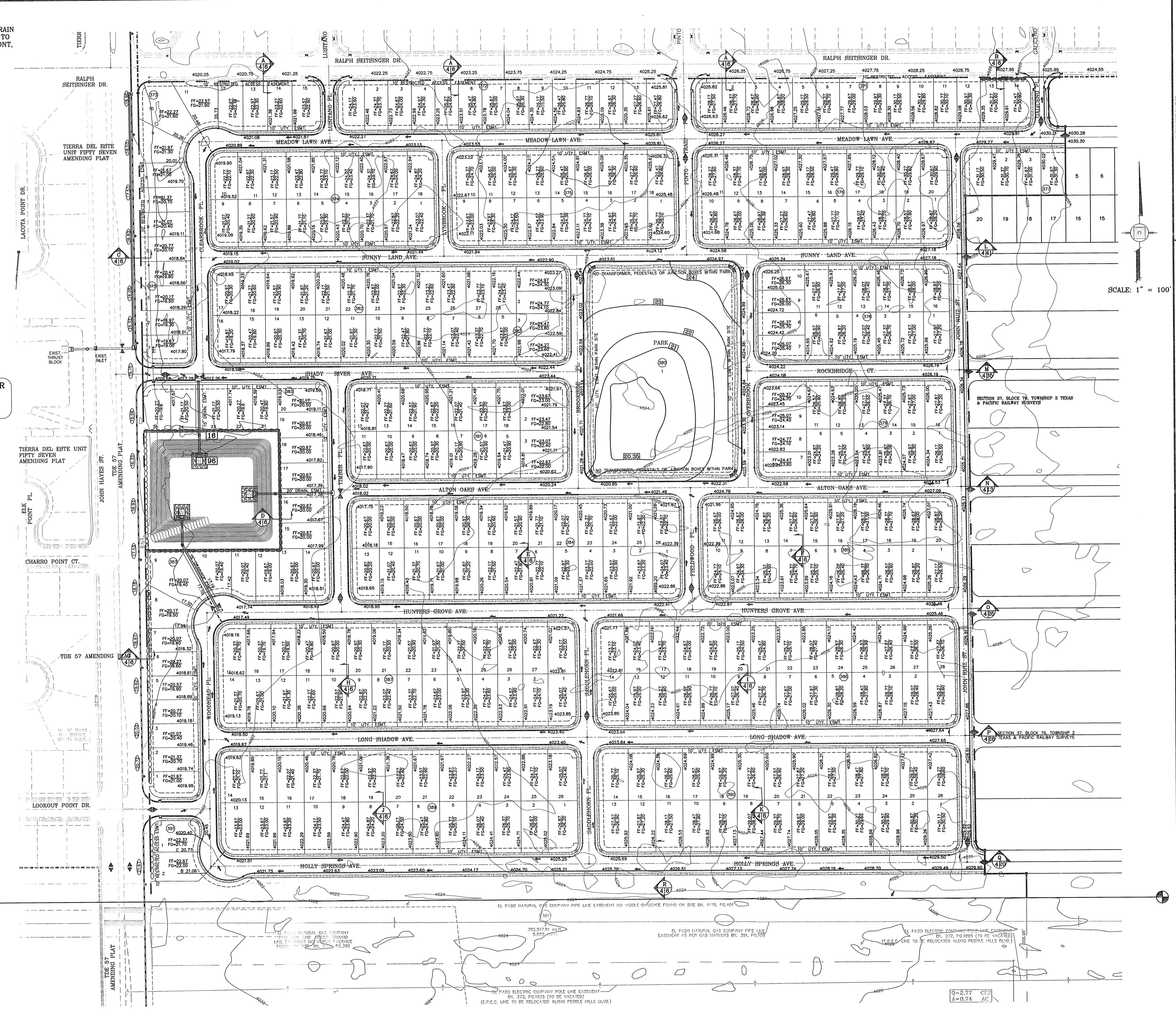
ROCKWALL DETAIL SCALE: 1"=2'

- 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: MAINTENANCE OF DRAINAGE STRUCTURES OUTSIDE SUBDIVISION BOUNDARIES SHALL BE THE RESPONSIBILITY OF DEVELOPER UNTIL THEY ARE PLATTED, DEDICATED, AND ACCEPTED FOR MAINTENANCE BY THE CITY OF EL PASO WITH FUTURE SUBDIVISION PLATS.

MATCH LINE A-A SEE NEXT SHEET

NOTE: ALL WHEEL CHAIR RAMPS WILL BE CONSTRUCTED BY DEVELOPER AS PART OF SUBDIVISION IMPROVEMENTS



SCALE: 1" = 100'

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.66

DATE	REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.

PROJECT NAME

TERRIA DEL ESTE UNIT SIXTY NINE

BRING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

SCALE

HORIZ. 1" = 100'

VERT. 1" = 100'

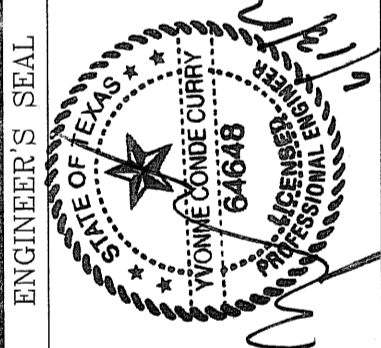
DATE: NOV. 2011

DESIGN BY: Y.C.

INITIATED BY: R.R.

CHECKED BY: Y.C.

JOB NO.: 211-60



CONDE INC.

ENGINEERING / PLANNING SURVEYING / GFS

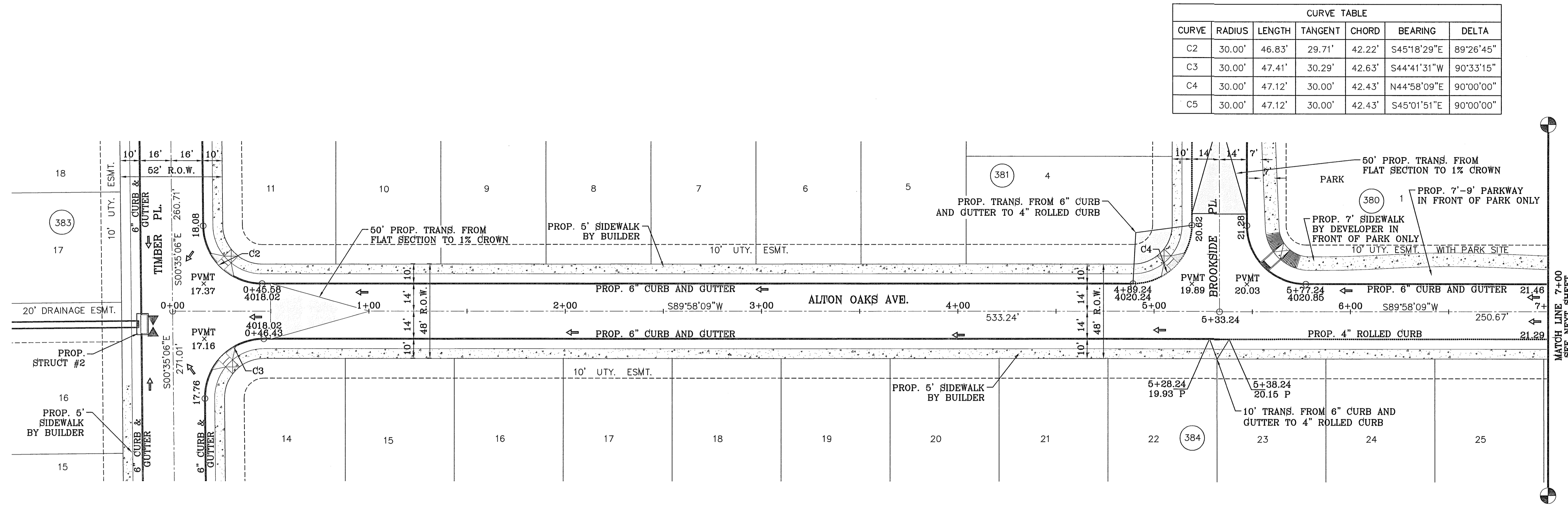
6090 SURETY DR. STE 100 EL PASO, TEXAS 79905

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

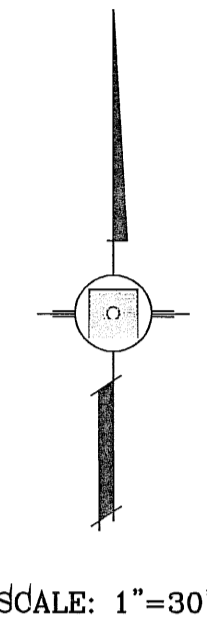


GRADING PLAN

FILE LOCATION: s:_Subdivisions\TDE 69\PP-ALTON OAKS PLOTTED ON Thursday, July 12, 2012 1:11:39 PM BY RUBEN RIVERA



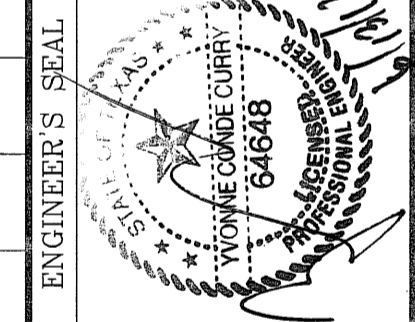
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C2	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C3	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"
C4	30.00'	47.12'	30.00'	42.43'	N44°58'09"E	90°00'00"
C5	30.00'	47.12'	30.00'	42.43'	S45°01'51"E	90°00'00"



REVISIONS	
DATE	BY
05/09/12	CITY REDLINES AS PER 09/08/12 COMMENTS R.R.
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS R.R.

TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 97 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEY, CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 90.166± ACRES

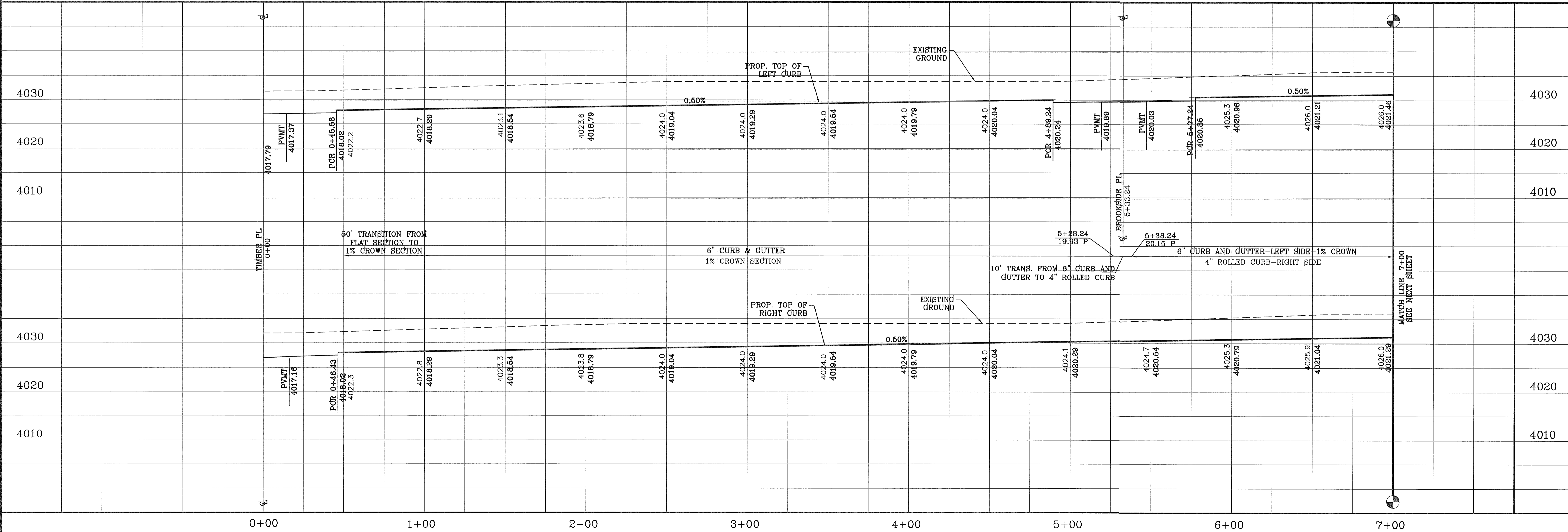
SCALE: HORIZ: 1" = 30', VERT: 1" = 10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50



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



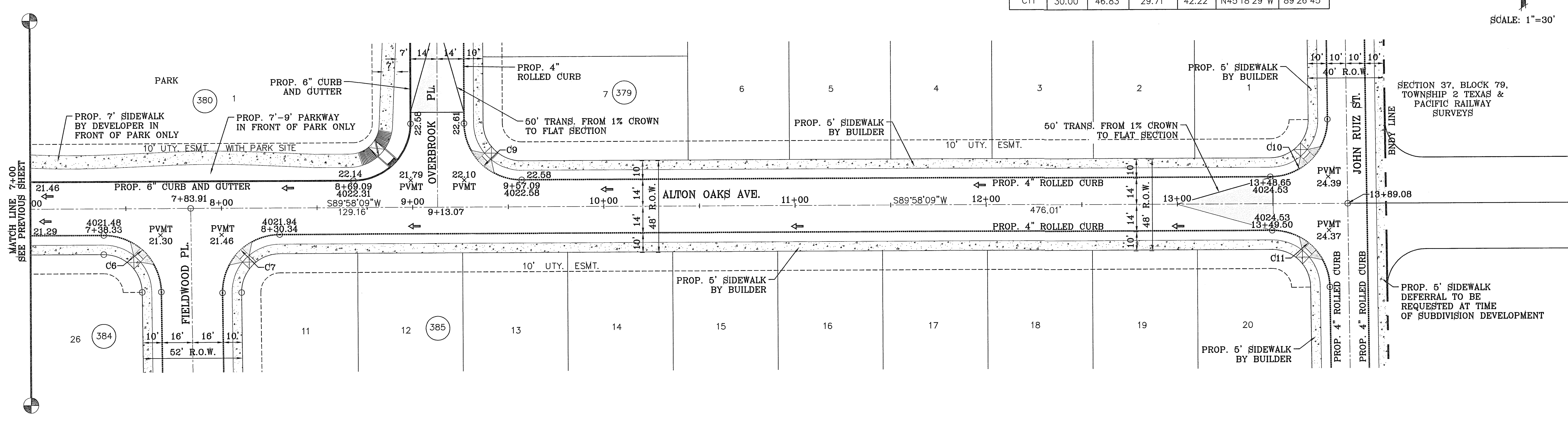
SHEET TITLE
STREET PLAN - PROFILE
ALTON OAKS AVE.
 STA: 0+00 TO STA: 7+00



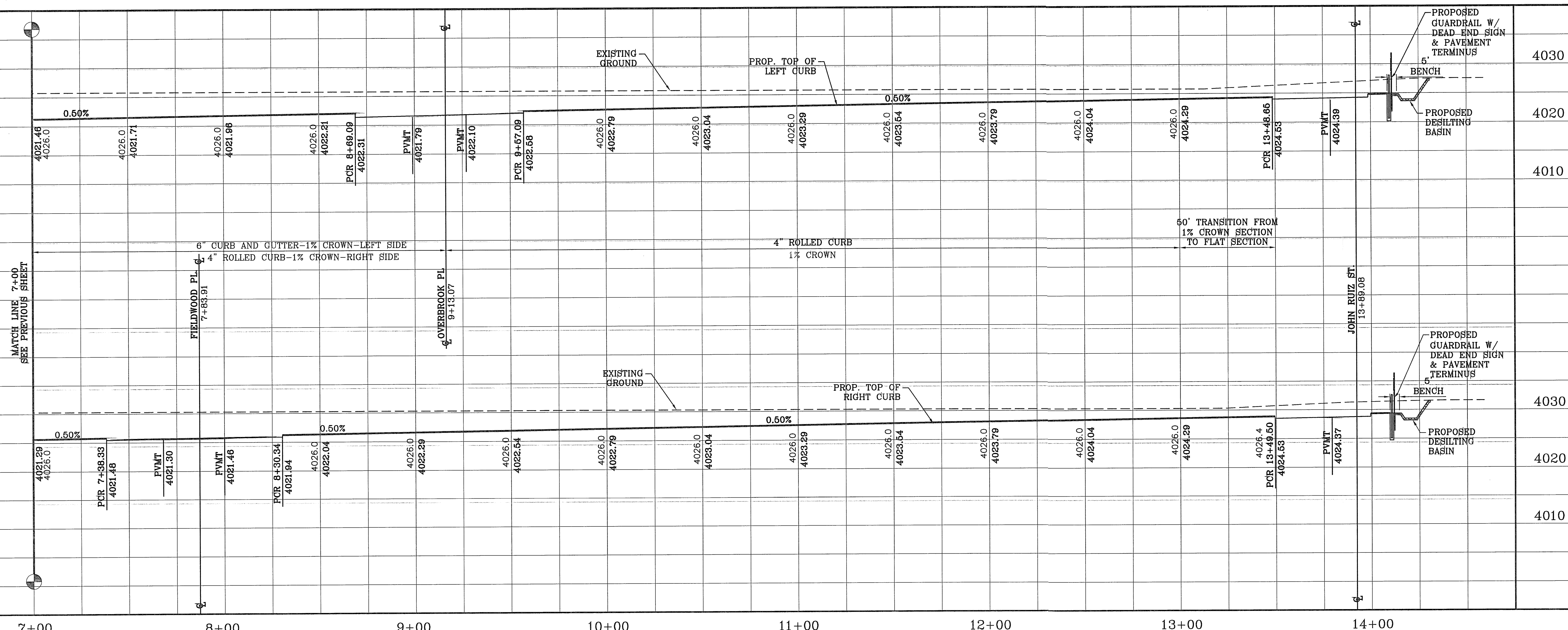
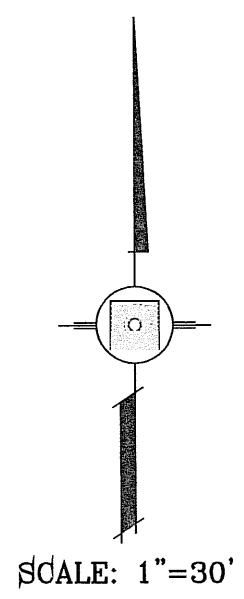
MATCH LINE 7+00 SEE NEXT SHEET

MATCH LINE 7+00 SEE NEXT SHEET

FILE LOCATION S:\Subdivisions\TDE 69\PP-ALTON OAKS PLOTTED ON Thursday, July 12, 2012 1:11:22 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C6	30.00'	46.83'	29.71'	42.22'	N45°18'29\"W	89°26'45\"
C7	30.00'	47.41'	30.29'	42.63'	S44°41'31\"W	90°33'15\"
C8	30.00'	47.10'	29.98'	42.41'	N44°59'15\"E	89°57'48\"
C9	30.00'	47.14'	30.02'	42.44'	S45°00'45\"E	90°02'12\"
C10	30.00'	47.41'	30.29'	42.63'	N44°41'31\"E	90°33'15\"
C11	30.00'	46.83'	29.71'	42.22'	N45°18'29\"W	89°26'45\"



CITY DATUM	
DATE	REVISIONS
03/09/12	CITY REDLINES AS PER 03/09/12 COMMENTS
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

SCALE
 HORIZ: 1" = 30'
 VERT: 1" = 10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50

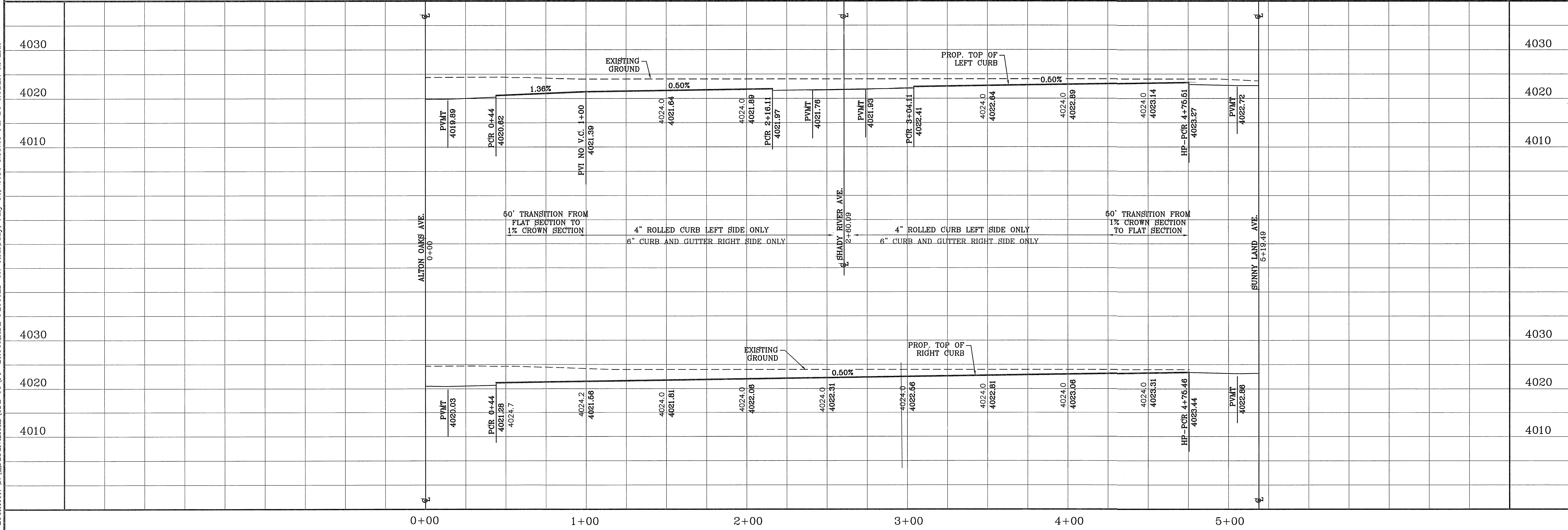
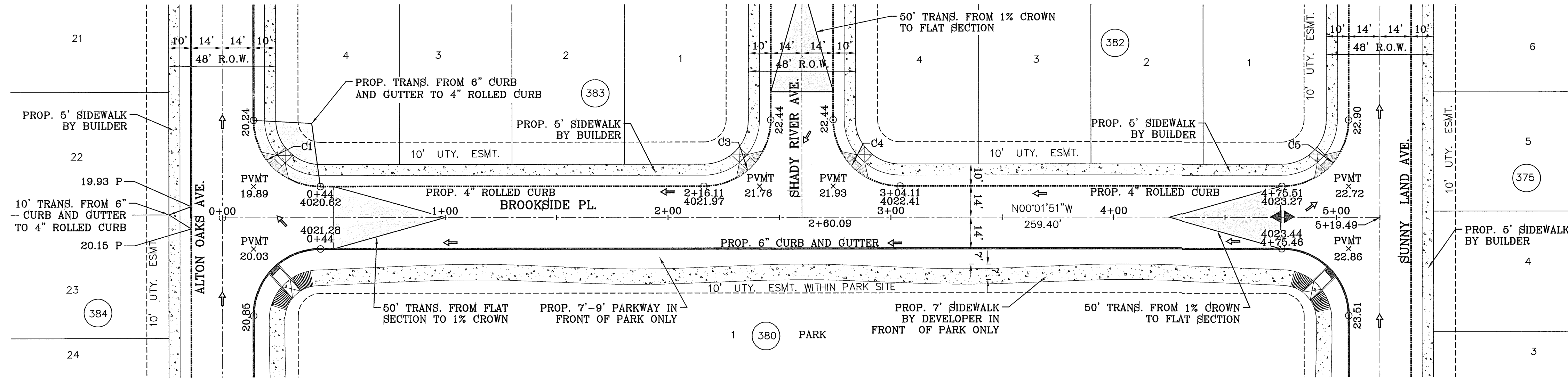
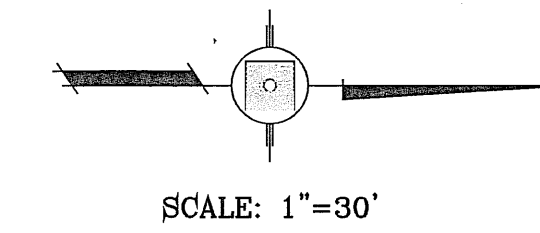
ENGINEER'S SEAL

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

SHEET TITLE
 STREET
 PLAN-PROFILE
ALTON OAKS AVE.
 STA: 7+00
 TO
 STA: 13+89.08

FILE LOCATION S:_Subdivisions\TDE 69\PP-BROOKSIDE PLOTTED ON Thursday, July 12, 2012 1:13:28 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	N44°58'09"E	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S45°01'51"E	90°00'00"
C3	30.00'	47.10'	29.98'	42.41'	N45°00'45"W	89°57'48"
C4	30.00'	47.14'	30.02'	42.44'	N44°59'15"E	90°02'12"
C5	30.00'	47.10'	29.98'	42.41'	N45°00'45"W	89°57'48"
C6	30.00'	47.14'	30.02'	42.44'	S44°59'15"W	90°02'12"



BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.56

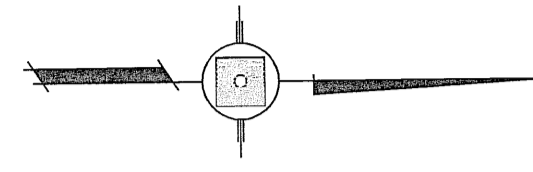
PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: .90166± ACRES

ENGINEER'S SEAL
CONDE INC.
WOMEN'S CONFERENCE
6848

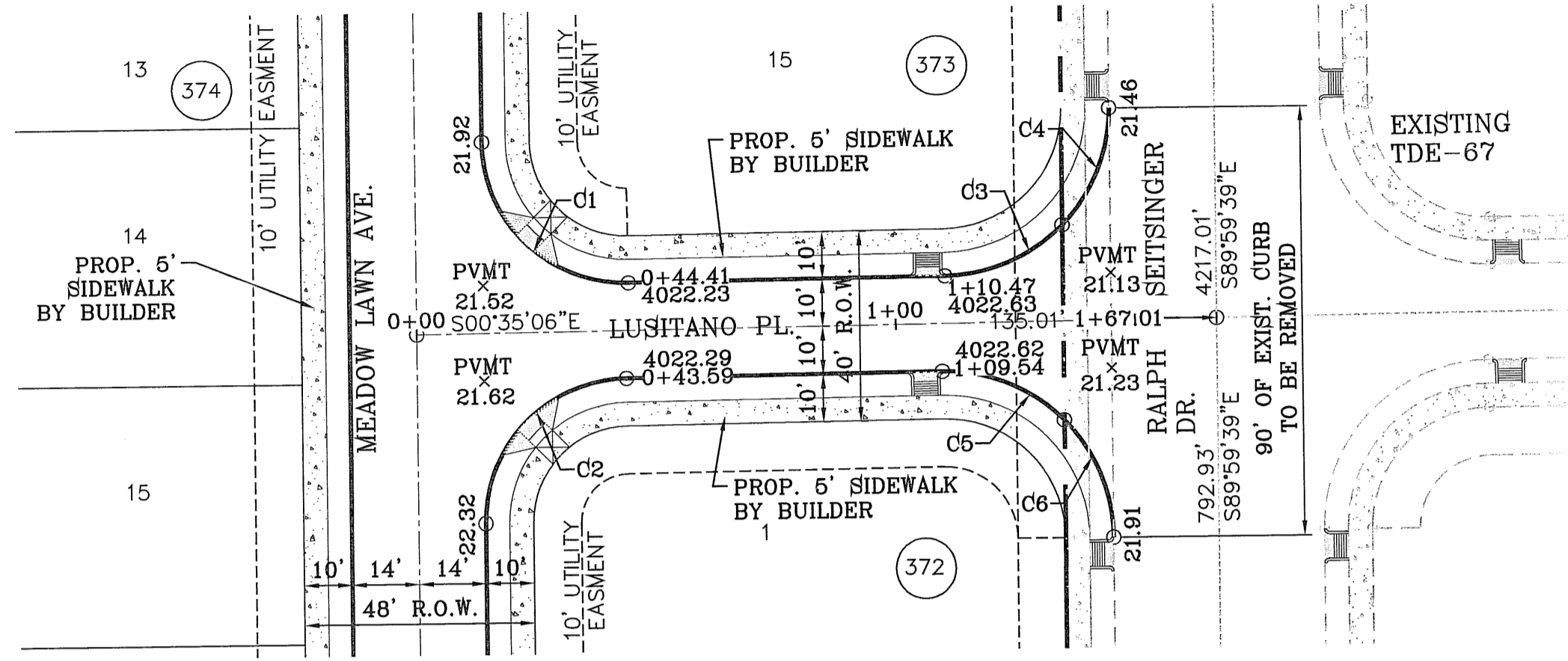
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GFS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

SHEET TITLE
BROOKSIDE PL.
SHT 14 OF 64

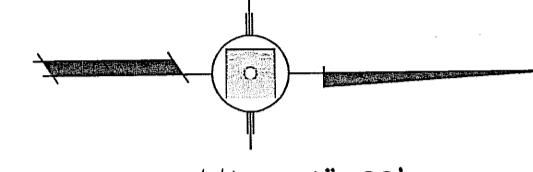
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C2	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C3	35.00'	27.49'	14.50'	26.78'	N23°04'55"W	44°59'38"
C4	35.00'	27.13'	14.29'	26.46'	N67°47'12"W	44°24'55"
C5	35.00'	28.21'	14.92'	27.45'	S22°30'10"W	46°10'32"
C6	35.00'	27.13'	14.29'	26.46'	S67°47'53"W	44°24'55"



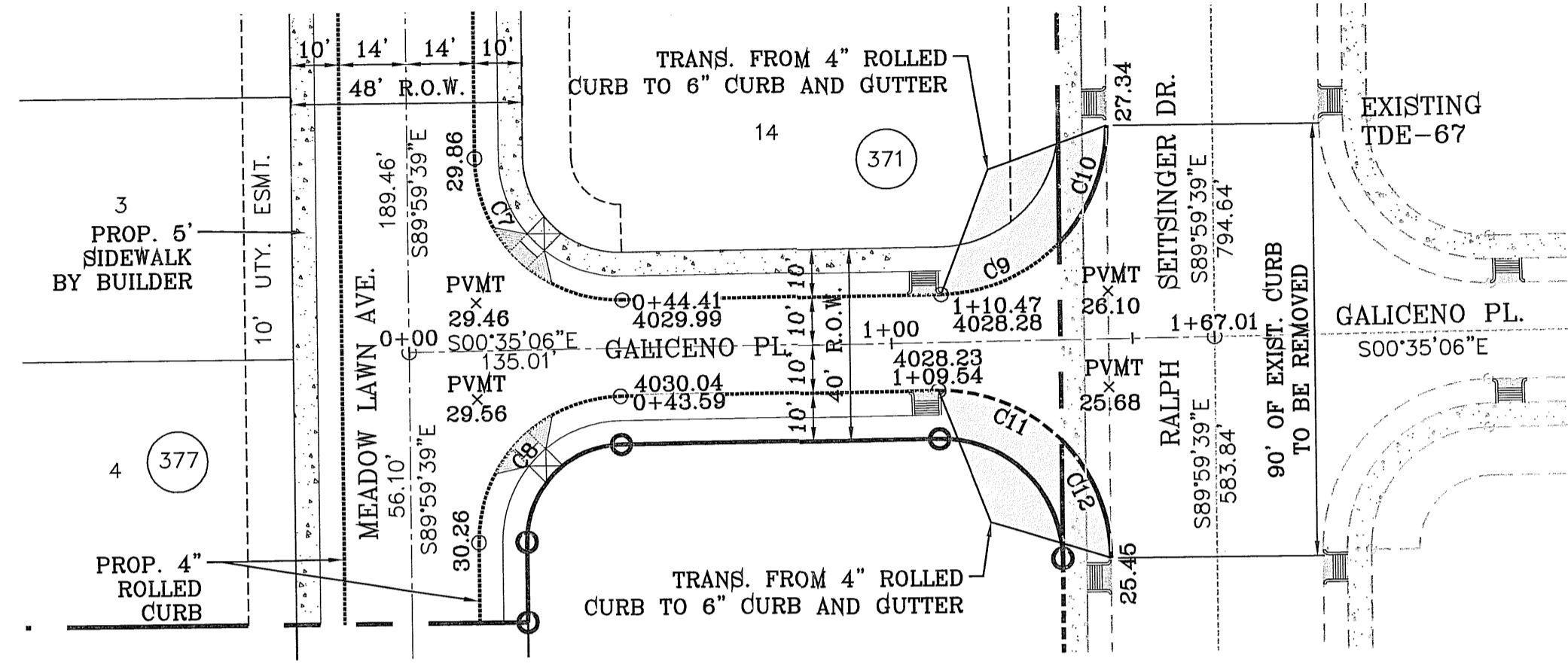
SCALE: 1"=30'



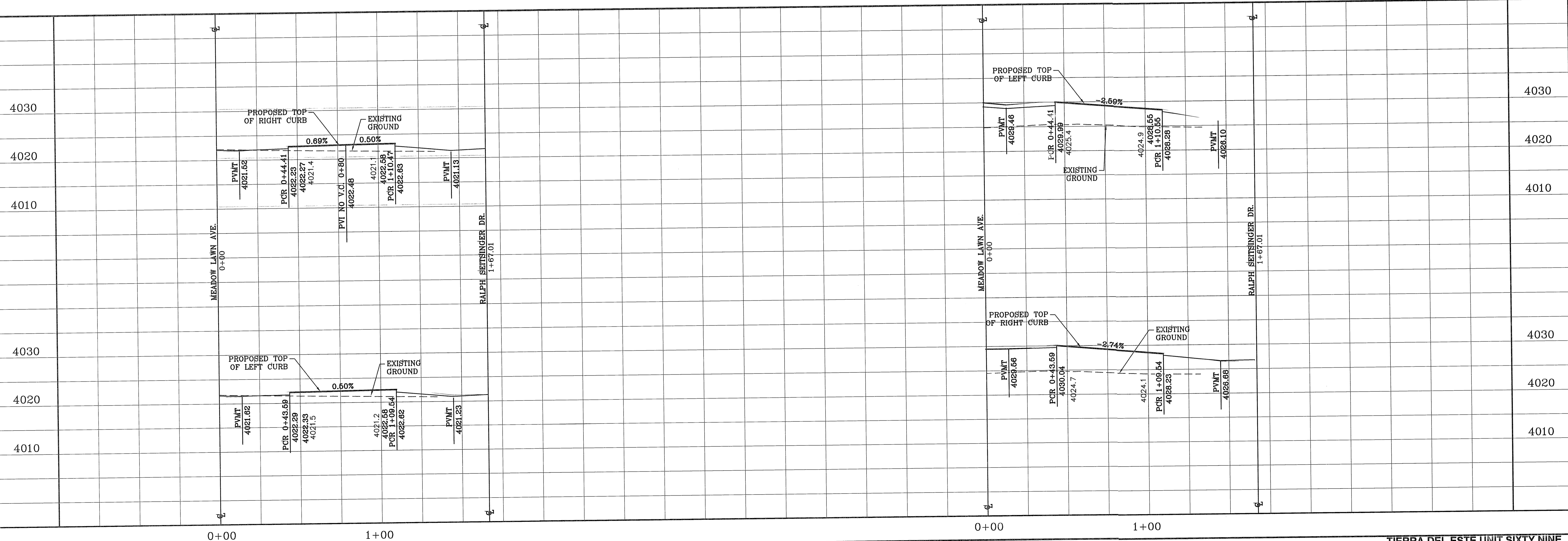
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C8	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C9	35.00'	27.49'	14.50'	26.78'	N23°04'55"W	44°59'38"
C10	35.00'	27.13'	14.29'	26.46'	N67°47'12"W	44°24'55"
C11	35.00'	28.21'	14.92'	27.45'	S22°30'10"W	46°10'32"
C12	35.00'	27.13'	14.29'	26.46'	S67°47'53"W	44°24'55"



SCALE: 1"=30'



FILE LOCATION S:_Subdivisions\TDE 69 PP-LUSTIANO-GALICENO PLOTTED ON Thursday, July 12, 2012 1:27:03 PM BY RUBEN RIVERA

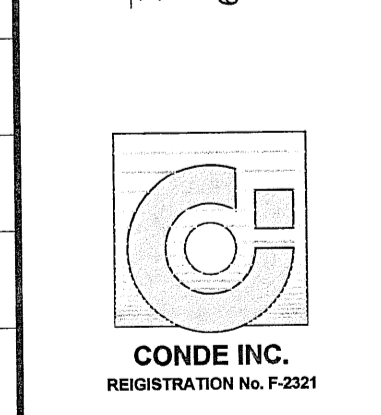


BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58
DATE	03/08/12
BY	REVISIONS
R.R.	CITY REDLINES AS PER 09/08/12 COMMENTS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.165± ACRES

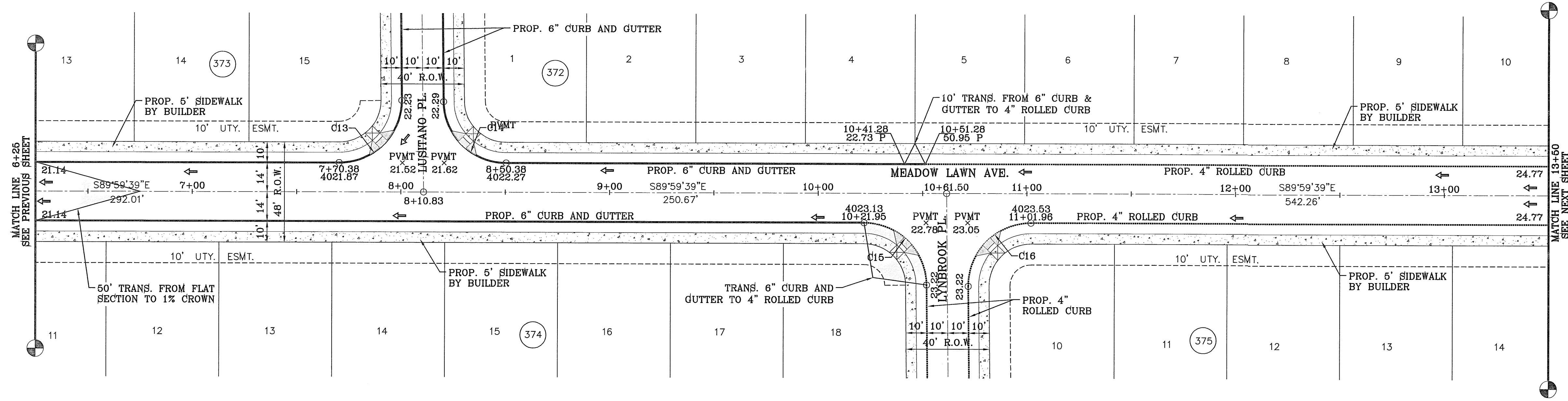
SCALE
HORIZ: 1"=30'
VERT: 1"=10'
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

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

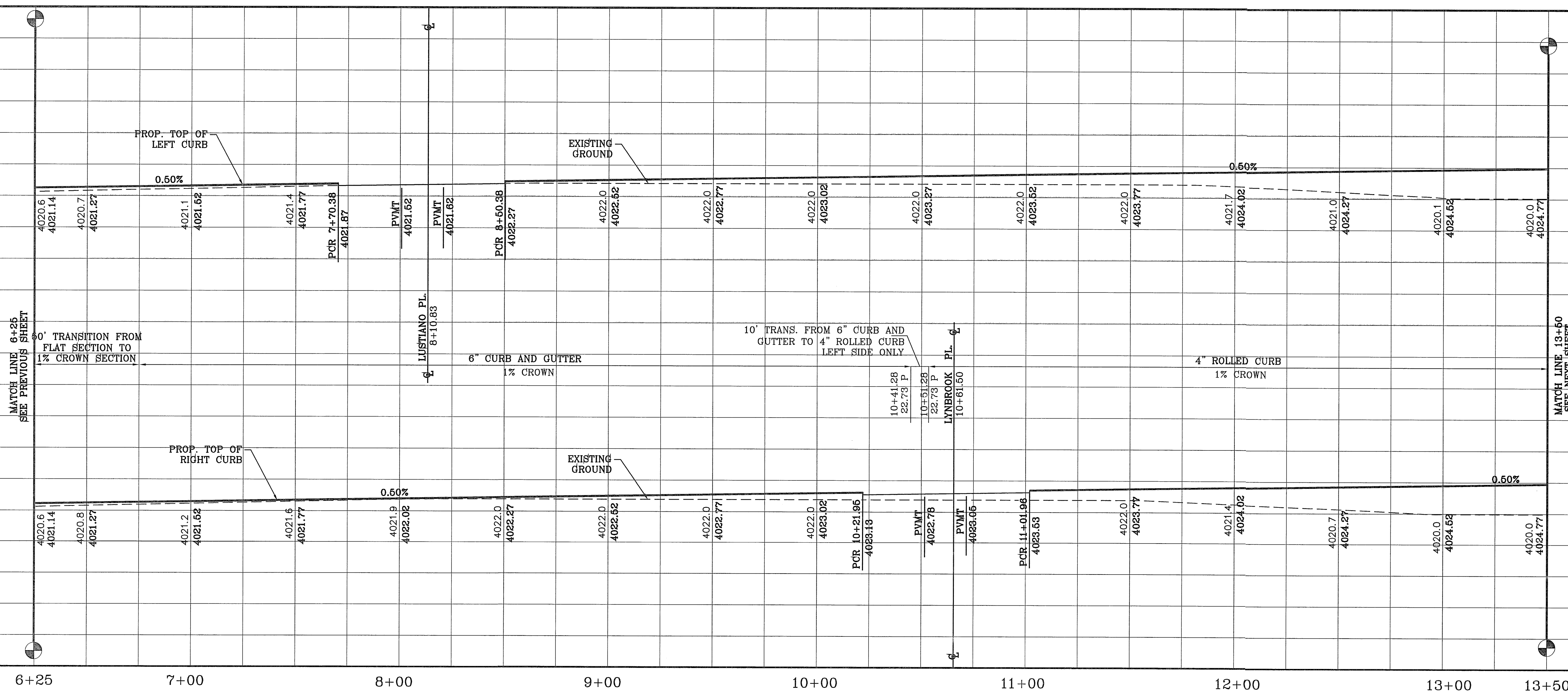
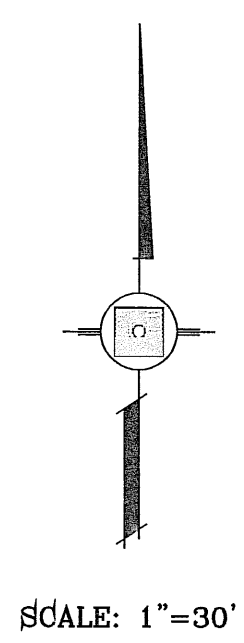


SHEET TITLE
STREET PLAN-PROFILE
LUSTIANO PL. & GALICENO PL.
SHT 15 OF 64

FILE LOCATION S:\Subdivisions\TDE 69\PP-CLEARBROOK-MEADOW LAWN PLOTTED ON Thursday, July 12, 2012 1:17:09 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C13	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C14	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C15	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C16	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.56	BY
DATE	REVISIONS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

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

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

ENGINEER'S SEAL

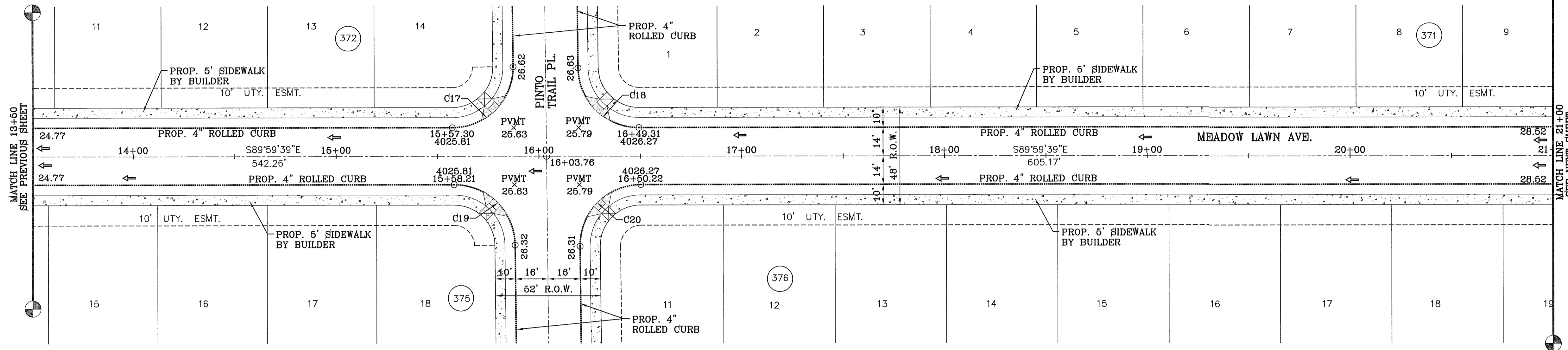
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

SHEET TITLE

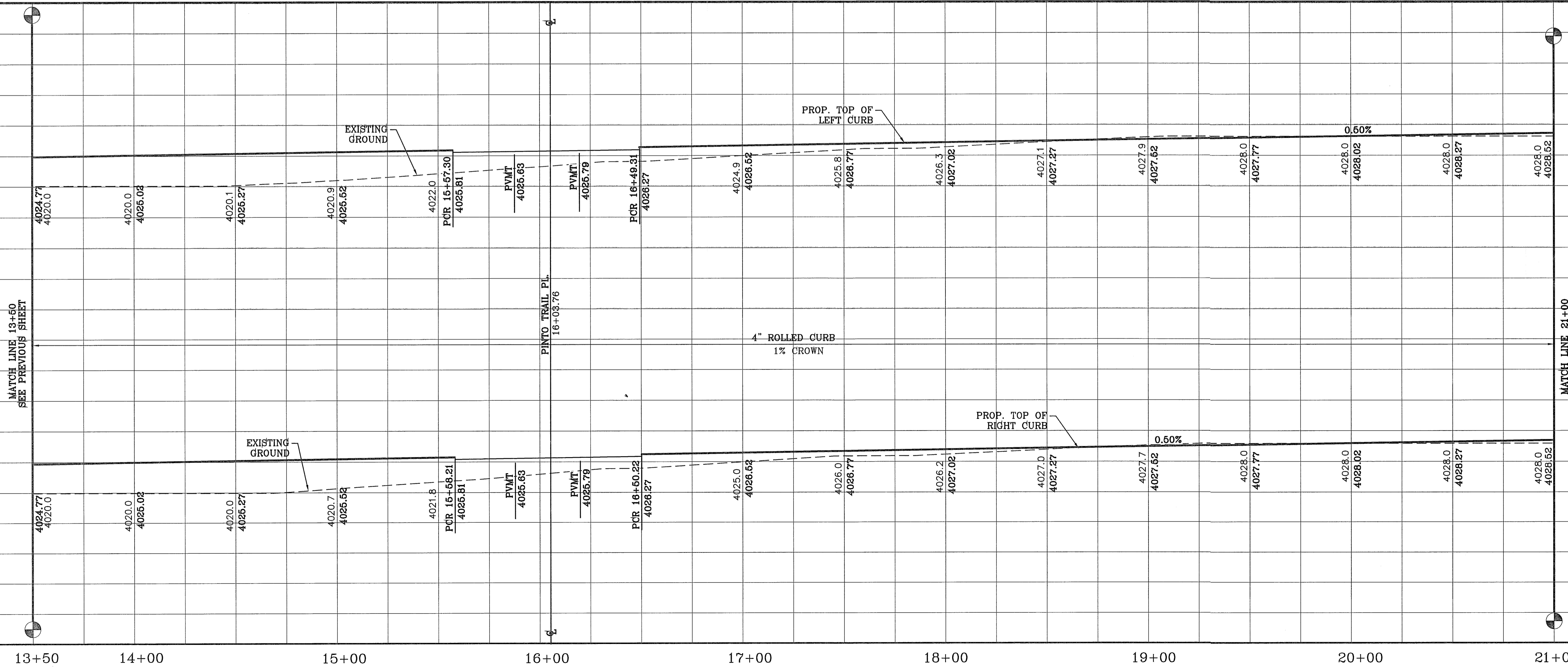
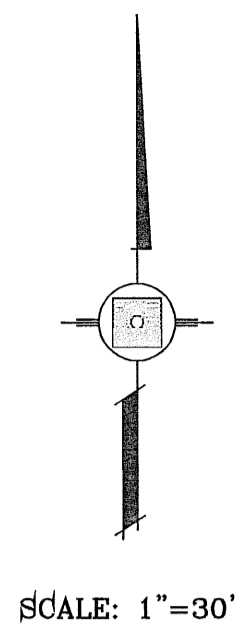
**STREET
PLAN - PROFILE
MEADOW
LAWN AVE.**

STA: 6+25
TO
STA: 13+50

FILE LOCATION S:_Subdivisions\TDE 69\PP-CLEARBROOK-MEADOW LAWN PLOTTED ON Thursday, July 12, 2012 1:15:24 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C16	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"
C17	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C18	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C19	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C20	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"



BENCHMARK

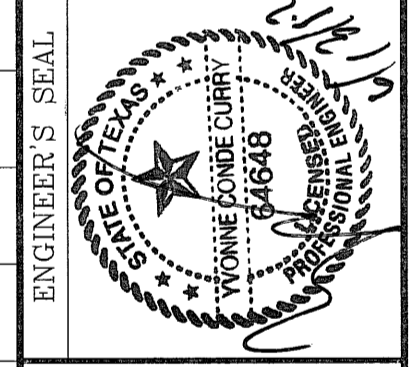
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.58

DATE	REVISIONS	BY

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

S C A L E
HORIZ: 1"=30'
VERT: 1"=10'
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50



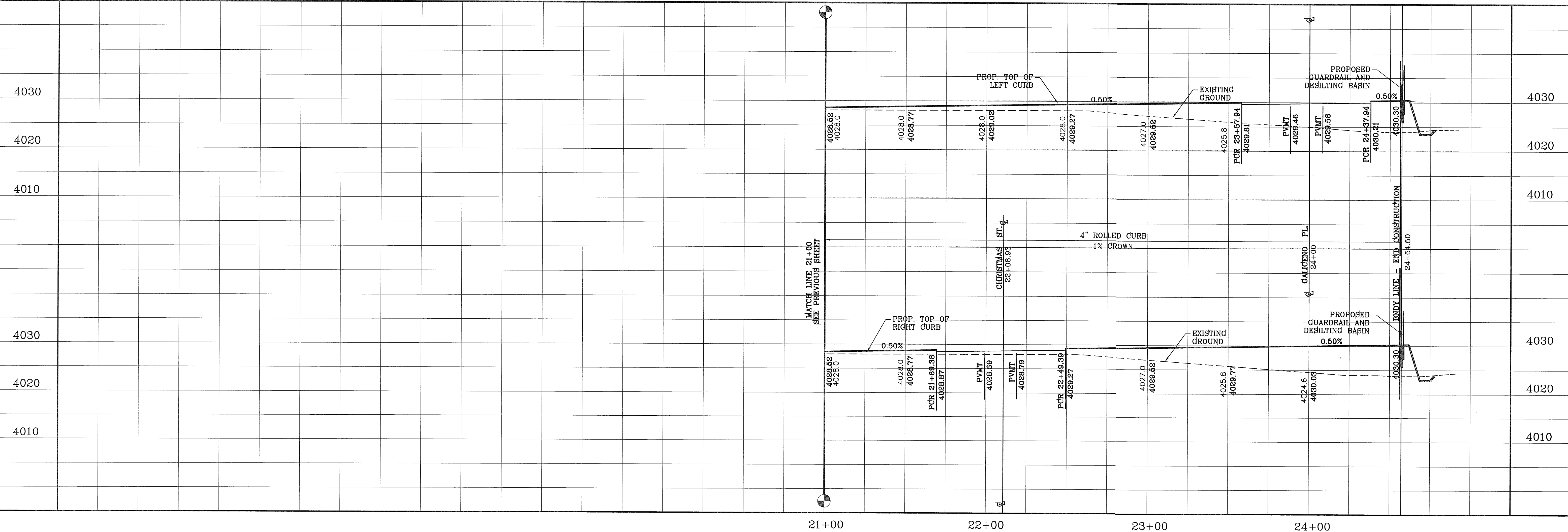
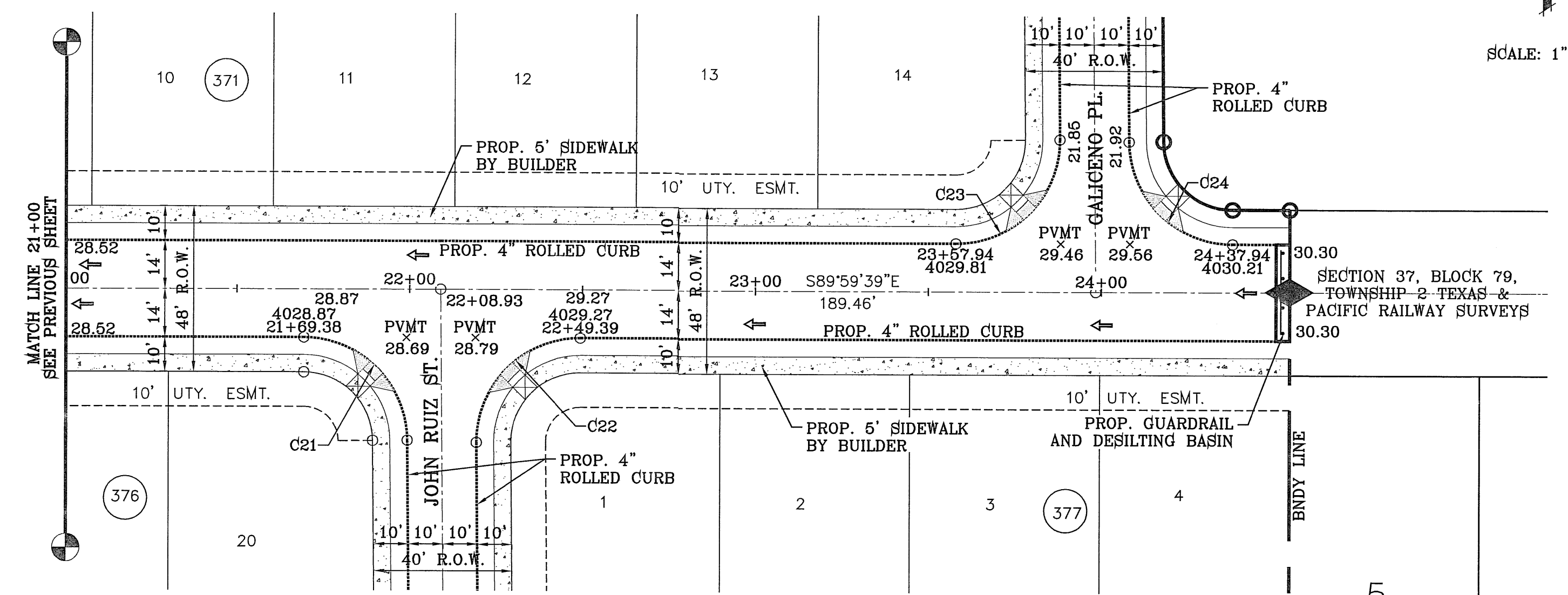
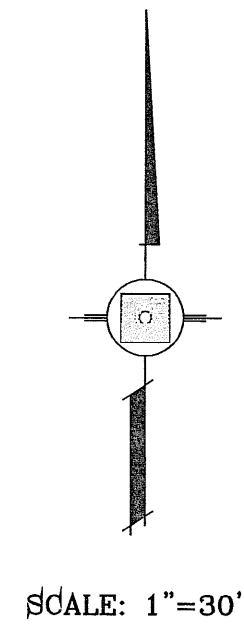
ENGINEER'S SEAL

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
MEADOW LAWN AVE.
STA: 13+50
TO
STA: 21+00

FILE LOCATION S:_Subdivisions\TDE 69.PP-CLEARBROOK-MEADOW LAWN PLOTTED ON Thursday, July 12, 2012 1:13:56 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C21	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C22	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"
C23	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C24	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.68

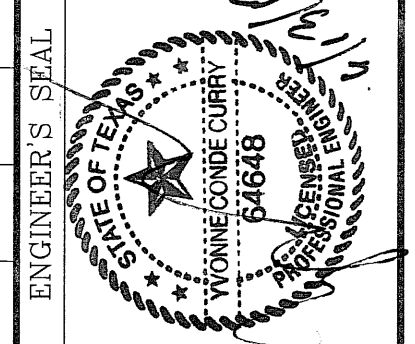
DATE	REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/09/12 COMMENTS	R.R.

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

SCALE
HORIZ: 1"=80'
VERT: 1"=10'

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-60



CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 582-0283
FAX: (915) 582-0286



SHEET TITLE
**STREET
PLAN-PROFILE
MEADOW
LAWN AVE.
STA: 21+00
TO
STA: 24+54.50**

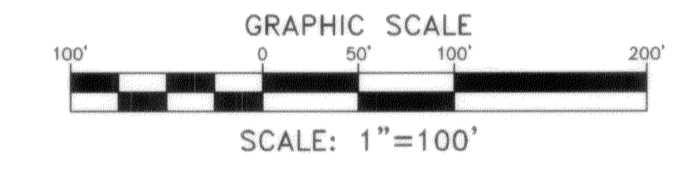
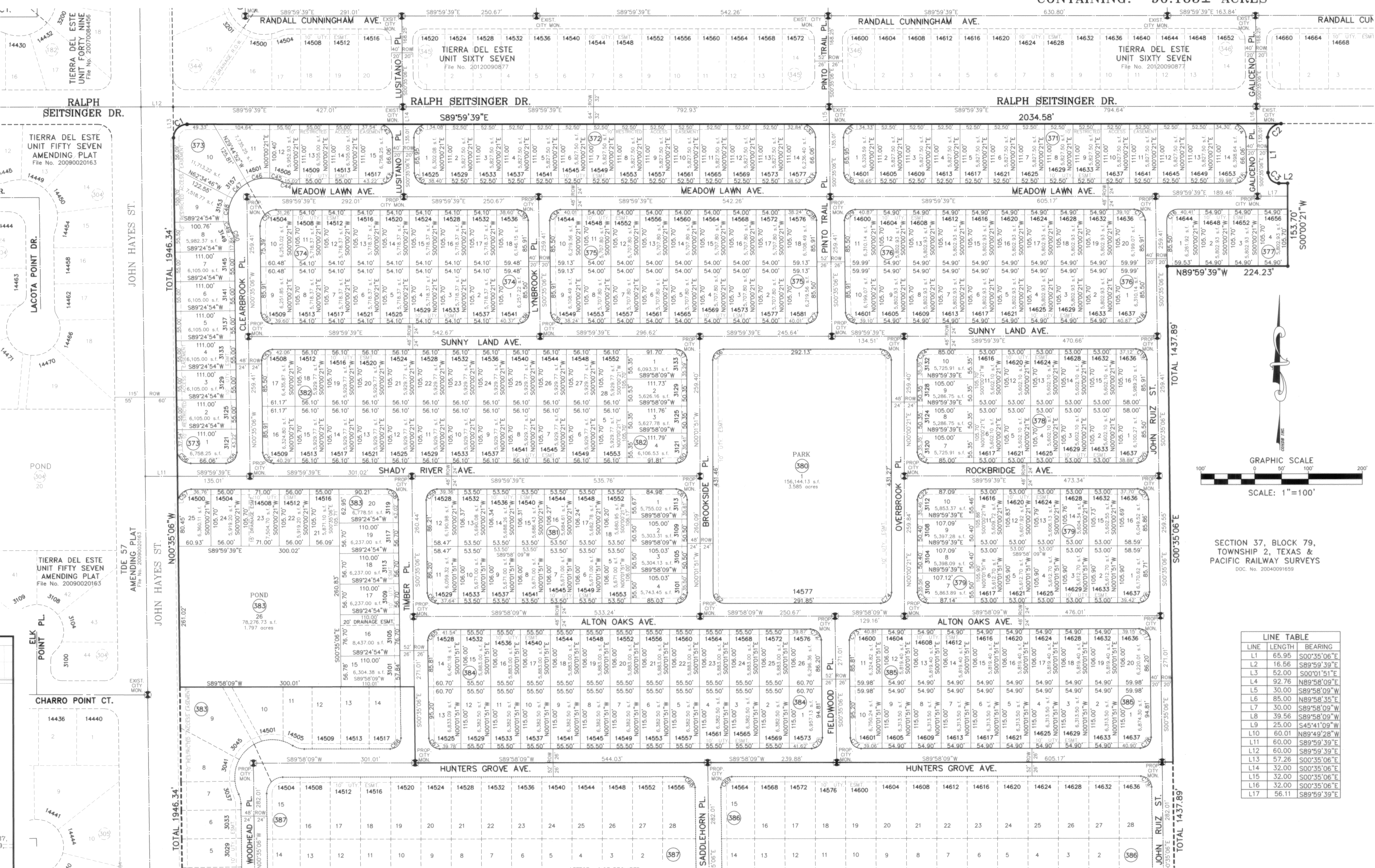
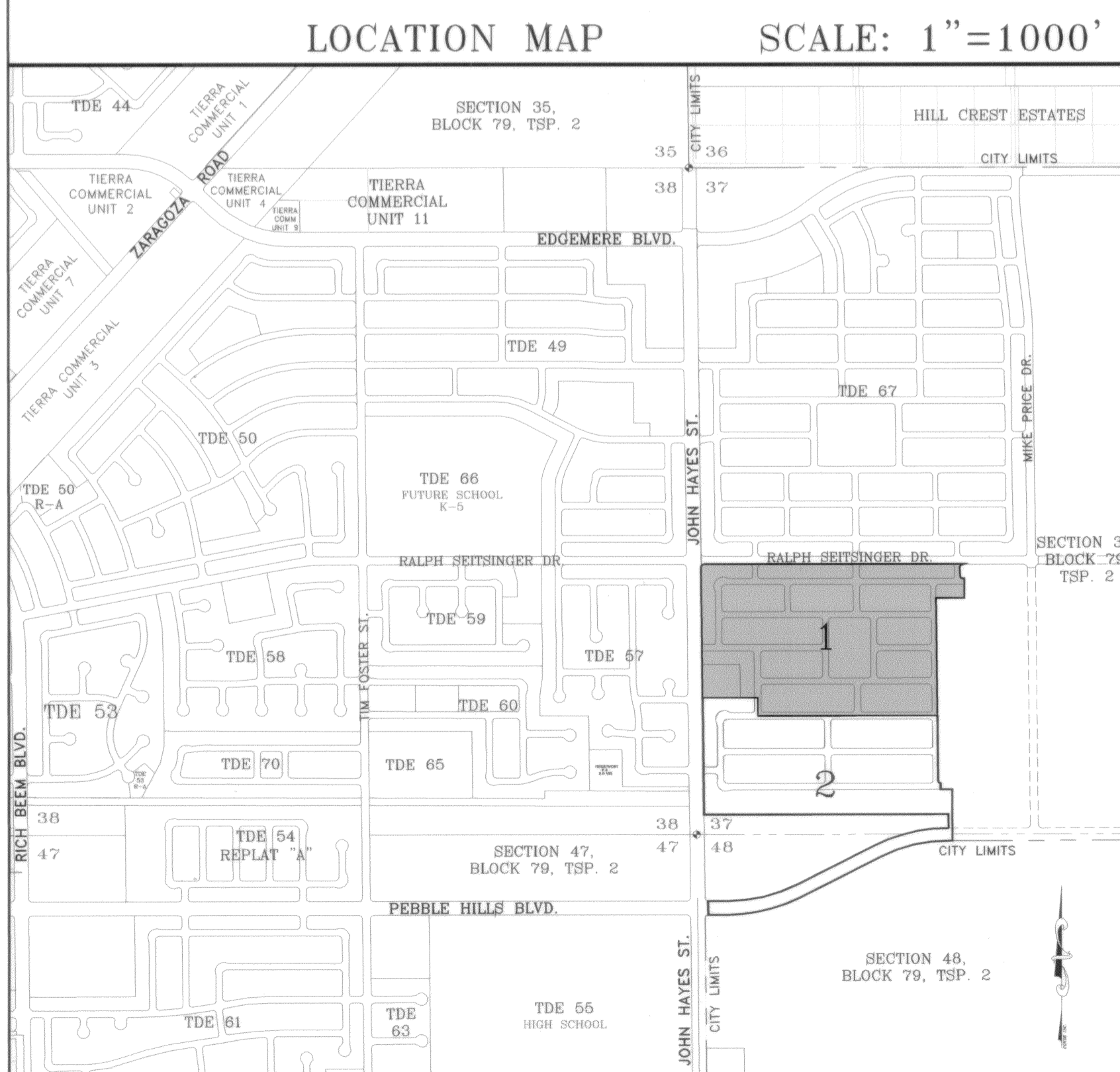
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.165± ACRES

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	25.00	39.53	25.26	35.54	N44°42'37"E	90°35'27"
C2	25.00	39.53	25.26	35.54	S44°42'37"W	90°35'27"
C3	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C4	20.00	31.21	19.79	28.14	N45°17'23"W	89°24'33"
C5	1200.00	558.41	284.35	553.38	S76°38'17"W	26°39'43"
C6	1258.00	585.55	298.18	580.28	S76°38'17"W	26°40'09"
C7	1242.00	578.10	294.39	572.90	N76°38'17"E	26°40'09"
C8	1300.00	604.84	309.71	599.50	N76°38'17"E	26°39'43"
C9	1250.00	581.83	296.28	576.59	N76°38'17"E	26°40'09"
C10	1250.00	581.83	296.28	576.54	S76°38'17"W	26°39'43"
C11	25.00	39.01	24.74	35.17	N44°42'37"E	90°35'27"
C12	25.00	39.01	24.74	35.17	S44°42'37"W	90°35'27"
C13	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C14	20.00	31.62	20.21	28.43	N44°42'37"W	90°35'27"
C15	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C16	20.00	31.62	20.21	28.43	N44°42'37"W	90°35'27"
C17	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C18	20.00	31.21	19.79	28.14	N45°17'23"W	89°24'33"
C19	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C20	20.00	31.62	20.21	28.43	N44°42'37"W	90°35'27"
C21	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C22	20.00	31.21	19.79	28.14	N45°17'23"W	89°24'33"
C23	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C24	20.00	31.62	20.21	28.43	N44°42'37"W	90°35'27"
C25	20.00	31.42	20.00	28.28	S45°00'21"E	90°00'00"
C26	20.00	31.42	20.00	28.28	N45°00'21"W	90°00'00"
C27	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C28	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C29	20.00	31.21	19.79	28.14	N45°17'23"W	89°24'33"
C30	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C31	20.00	31.62	20.21	28.43	N44°42'37"W	90°35'27"
C32	25.00	39.01	24.74	35.17	N45°17'23"E	89°24'33"
C33	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C34	20.00	31.62	20.21	28.43	N44°42'37"W	90°35'27"
C35	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C36	20.00	31.21	19.79	28.14	N45°17'23"W	89°24'33"
C37	20.00	31.40	19.99	28.28	N44°50'15"E	89°57'48"
C38	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C39	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C40	20.00	31.21	19.79	28.14	N45°17'23"W	89°24'33"

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C41	25.00	39.53	25.26	35.54	S44°42'37"W	90°35'27"
C42	25.00	39.01	24.74	35.17	N45°17'23"E	89°24'33"
C43	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C44	40.00	18.04	9.18	17.89	S77°04'24"E	20°50'31"
C45	70.00	24.09	12.17	23.97	N74°00'45"W	19°43'12"
C46	70.00	43.83	22.66	43.12	S78°11'24"W	35°52'31"
C47	70.00	40.11	20.62	39.56	S45°30'11"W	32°49'54"
C48	70.00	44.54	23.65	43.79	S69°11'31"W	38°27'22"
C49	70.00	21.25	10.71	21.17	S17°43'53"E	17°23'29"
C50	40.00	18.04	9.18	17.89	N13°30'22"W	25°50'31"
C51	30.00	47.43	30.31	42.64	S44°42'37"W	90°35'27"
C52	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C53	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C54	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C55	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C56	25.00	39.01	24.74	35.17	S45°17'23"E	89°24'33"
C57	25.00	39.53	25.26	35.54	S44°42'37"W	90°35'27"
C58	20.00	31.21	19.79	28.14	N45°17'23"W	89°24'33"
C59	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C60	20.00	31.43	20.01	28.29	N44°58'15"E	90°00'12"
C61	20.00	31.40	19.99	28.28	N45°00'45"W	89°57'48"
C62	20.00	31.42	20.00	28.28	S45°00'21"E	90°00'00"
C63	20.00	31.42	20.00	28.28	N45°00'21"W	90°00'00"
C64	20.00	31.22	19.81	28.15	S45°18'21"E	89°26'45"
C65	20.00	31.61	20.19	28.42	S44°41'31"W	90°33'15"
C66	20.00	31.61	20.19	28.42	N44°41'31"E	90°33'15"
C67	20.00	31.22	19.81	28.15	N45°18'21"E	89°26'45"
C68	20.00	31.43	20.01	28.29	N44°58'15"E	90°00'12"
C69	20.00	31.41	20.19	28.42	S44°41'31"W	90°33'15"
C70	20.00	31.61	20.19	28.42	N44°41'31"E	90°33'15"
C71	20.00	31.22	19.81	28.15	S45°18'21"E	89°26'45"
C72	20.00	31.22	19.81	28.15	N45°18'21"E	89°26'45"
C73	20.00	31.61	20.19	28.42	S44°41'31"W	90°33'15"
C74	20.00	31.40	19.99	28.28	N44°59'15"E	89°57'48"
C75	20.00	31.62	20.21	28.43	S44°42'37"E	90°35'27"
C76	20.00	31.61	20.19	28.42	N44°41'31"E	90°33'15"
C77	20.00	31.22	19.81	28.15	N45°18'21"E	89°26'45"
C78	20.00	31.61	20.19	28.42	N44°41'31"E	90°33'15"
C79	20.00	31.22	19.81	28.15	N45°18'21"E	89°26'45"

NOTES:
 WATER AND SEWER SERVICES WILL BE EXTENDED TO THIS SUBDIVISION (TIERRA DEL ESTE UNIT 69) FROM EXISTING EL PASO WATER UTILITIES/PUBLIC SERVICE BOARD FACILITIES AND WILL BE CONSTRUCTED AND OPERABLE AS OF JULY 2013.
 THE INSTRUMENT ASSURING THE CERTIFICATION THAT WATER AND SEWER SERVICES FACILITIES DESCRIBED BY THIS PLAN ARE IN COMPLIANCE WITH THE MODEL RULES ADOPTED UNDER SECTION 16.543, TEXAS WATER CODE IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
 INSTRUMENT NO. _____ DATE _____
 TAX CERTIFICATE FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORDS SECTION, EL PASO, TEXAS, ON 7-24-2013.
 VEHICULAR ACCESS TO THESE RESIDENTIAL LOTS ABUTTING JOHN HAYES STREET AND RALPH SEITSINGER DR. SHALL BE FROM OTHER DEDICATED STREETS UNLESS THE INSTRUMENT ASSURING RELEASE OF ACCESS IS FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
 INSTRUMENT NO. 20130055403 DATE 7-24-2013
 RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE FILED IN THE OFFICE OF THE COUNTY CLERK, DEED AND RECORD SECTION.
 INSTRUMENT NO. 20130055402 DATE 7-24-2013
 LOT CORNERS WILL BE SET UP ON COMPLETION OF CONSTRUCTION OF ROADS AND UTILITIES.
 U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS.
 SET 1/2" REBAR WITH CAP MARKED TX 5152 AT ALL EXTERIOR BOUNDARY CORNERS UNLESS OTHERWISE NOTED.
 ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 48021201758, DATED SEPTEMBER 4, 1991 THIS PROPERTY IS IN FLOOD HAZARD ZONE 1 OUTSIDE THE 500 YEAR FLOOD PLAIN.
 SINGLE FAMILY AND TWO FAMILY RESIDENTIAL STREETS OF LESS THAN 60 FEET IN LENGTH MAY USE THE SMALLER WIDTH WHEN THE FACING LOTS ARE 50 FEET OR WIDER WITH TWO CAR DRIVEWAYS 18 FEET IN WIDTH OR WITH REAR ENTRY FROM ALLEYS. LANES WILL BE USED WHERE THE STREET LENGTH IS LESS THAN 400' AND THE LOTS ARE GREATER THAN 20,000 SQUARE FEET WITH 50 FOOT SETBACKS AND DRIVEWAYS ARE 20 FEET IN WIDTH.
 STREET CLASSIFICATION: 40' R.O.W. = 20' RESIDENTIAL LANE NO PARKING.
 48' R.O.W. = 20' LOCAL RESIDENTIAL 2
 52' R.O.W. = 32' LOCAL RESIDENTIAL 3
 100'-110' R.O.W. = MAJOR ARTERIAL STREET.



SECTION 37, BLOCK 79, TOWNSHIP 2, TEXAS & PACIFIC RAILWAY SURVEYS
 DOC. NO. 20040091659

LINE	LENGTH	BEARING
L1	65.95	S00°35'06"E
L2	16.86	S89°59'39"E
L3	52.00	S00°01'51"W
L4	92.76	N89°59'39"E
L5	30.00	S89°59'39"E
L6	85.00	N89°59'39"E
L7	30.00	S89°59'39"E
L8	39.56	S89°59'39"E
L9	25.00	S45°41'09"W
L10	50.01	N89°42'28"W
L11	60.00	S89°59'39"E
L12	60.00	S89°59'39"E
L13	57.26	S00°35'06"E
L14	32.00	S00°35'06"E
L15	32.00	S00°35'06"E
L16	32.00	S00°35'06"E
L17	56.11	S89°59'39"E

SCHOOL DISTRICT
 SOCORRO INDEPENDENT SCHOOL DISTRICT
 12300 EASTLAKE DRIVE

DATE OF PREPARATION: FEBRUARY 18, 2011

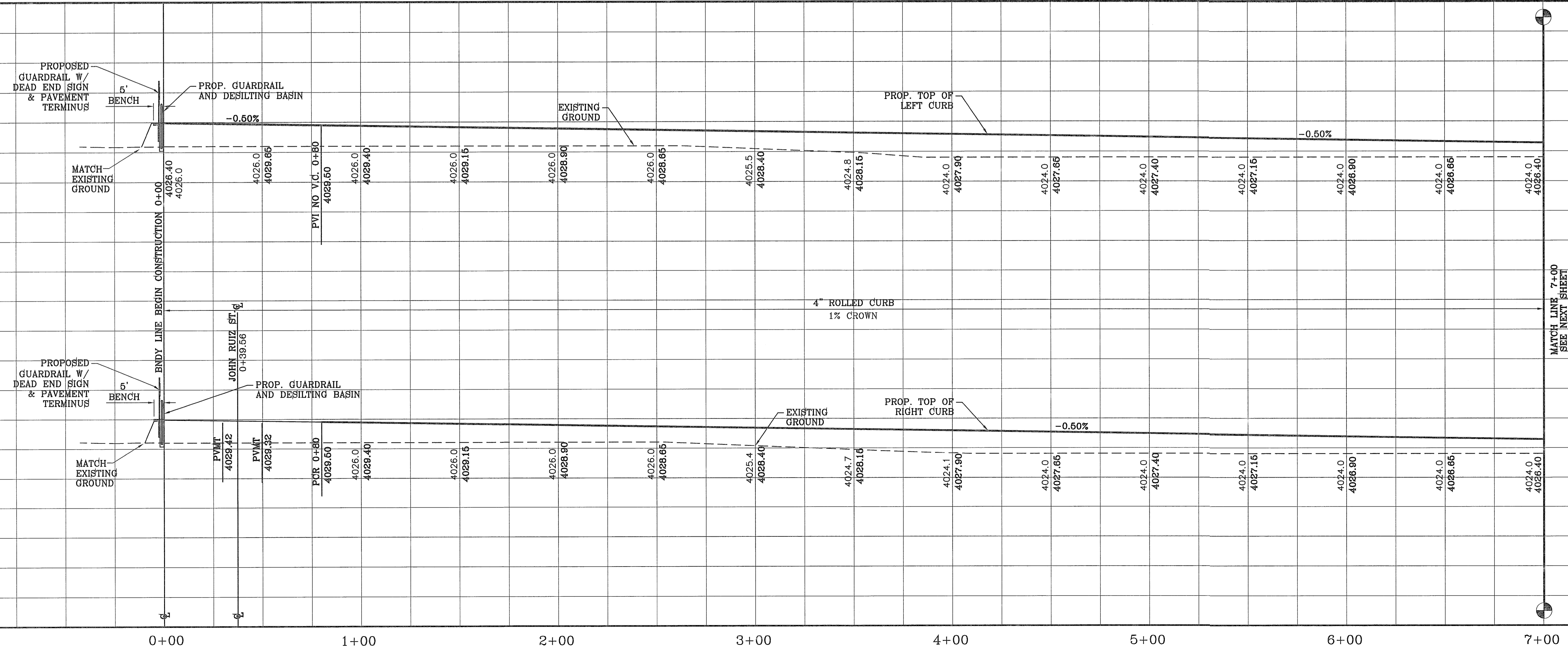
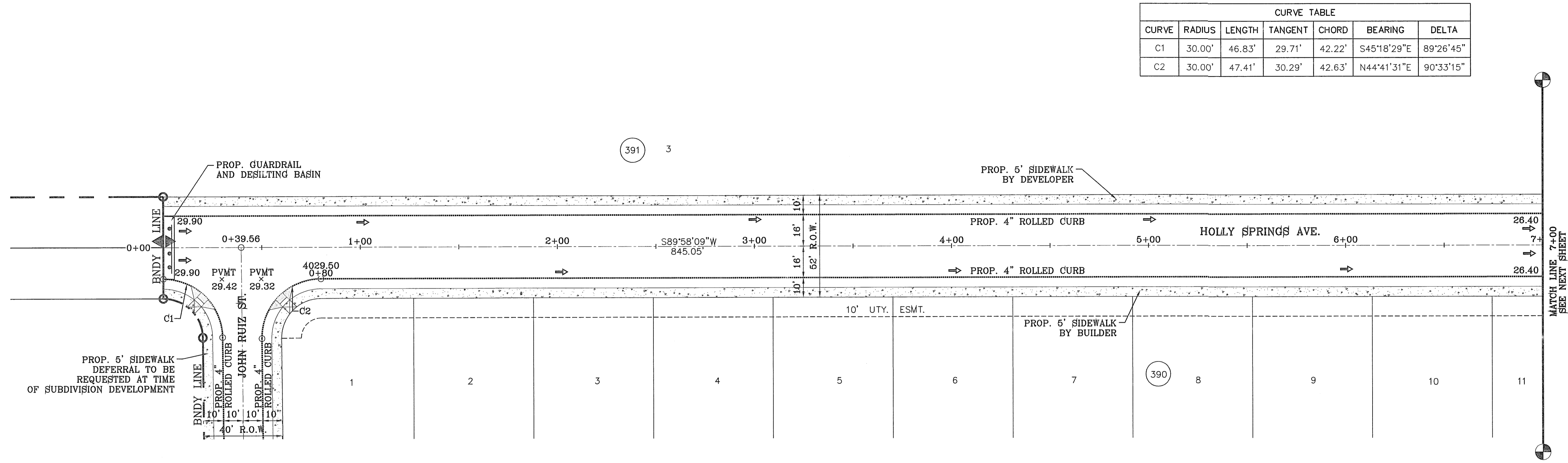
 CONDE INC.
 ENGINEERING / PLANNING
 GPS / SURVEYING / CAD
 6080 BURNEY DR. SUITE 100
 EL PASO, TEXAS 79904
 PHONE: (915) 892-0283
 FAX: (915) 892-0288

DEDICATION
 RANCHO REAL XV, L.L.C., property owner of this land hereby present this plat and dedicate to the use of the public, the streets, drives, parks, restricted access easements, drainage easements, and utility easements as herein laid out and designated, including easements for overhead service wires for pole top 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 my signature this 3rd day of July 2013.

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 RANCHO REAL XV, L.L.C., ON BEHALF OF SAID LIMITED LIABILITY COMPANY, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as the act and deed of said company for the purpose and considerations herein expressed.
 Given under my hand and seal of office this 3rd day of July 2013.
 Susan McMillan
 Notary Public in and for El Paso County, Texas
 My Commission Expires 3-16-17
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 17th day of July 2013.
 Approved for filing this 17th day of July 2013.
 Executive Secretary
 City Development Director

FILING
 Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 24th day of July 2013, A.D. in File No. 20130055399
 Susan McMillan
 Notary Public
 My Commission Expires March 16, 2017
 Robin Brines
 Charite Quezada
 FOR RECORDING PURPOSES ONLY
 By Deputy
 Prepared by and under the supervision of:
 YVONNE CONDE CURRY, P.E.
 Registered Professional Engineer
 Registration No. 64648
 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.
 Yvonne Conde Curry, P.E.
 Ron R. Conde,
 Registered Professional Land Surveyor
 Texas License No. 5152
 SHEET 1 OF 2

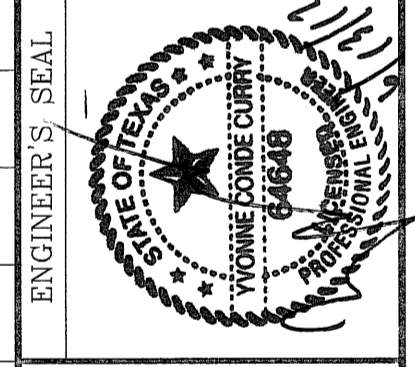
FILE LOCATION S:\Subdivisions\TDE 69\PP-HOLLY-HUNTERS PLOTTED ON Thursday, July 12, 2012 2:39:25 PM BY RUBEN RIVERA



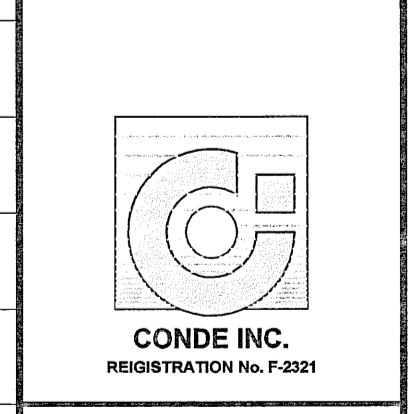
DATE	REVISIONS	BY	R.R.
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS		

TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 46, BLOCK 78, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

S C A L E
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50

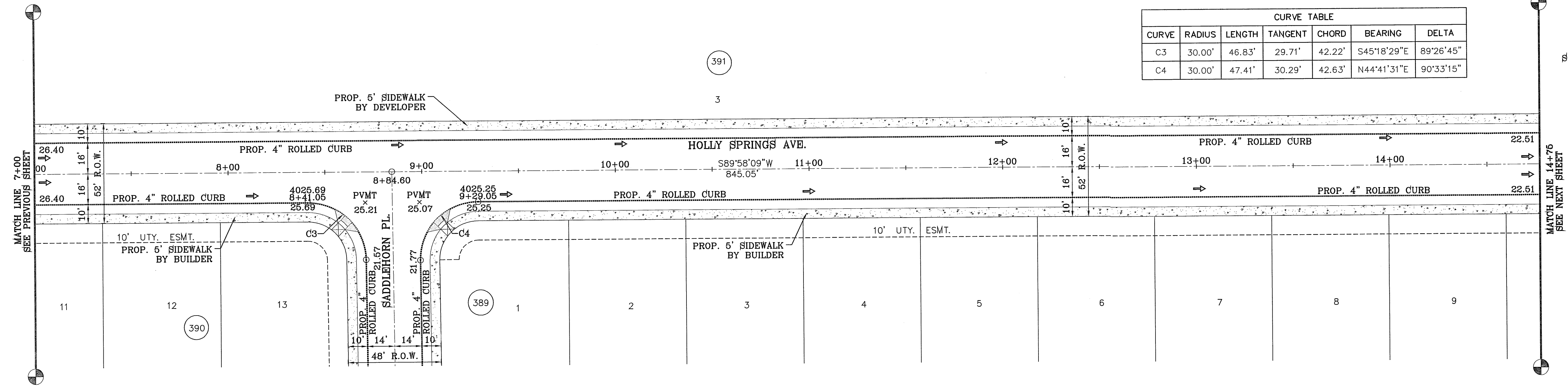


CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GIS
 6080 SURVEY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286



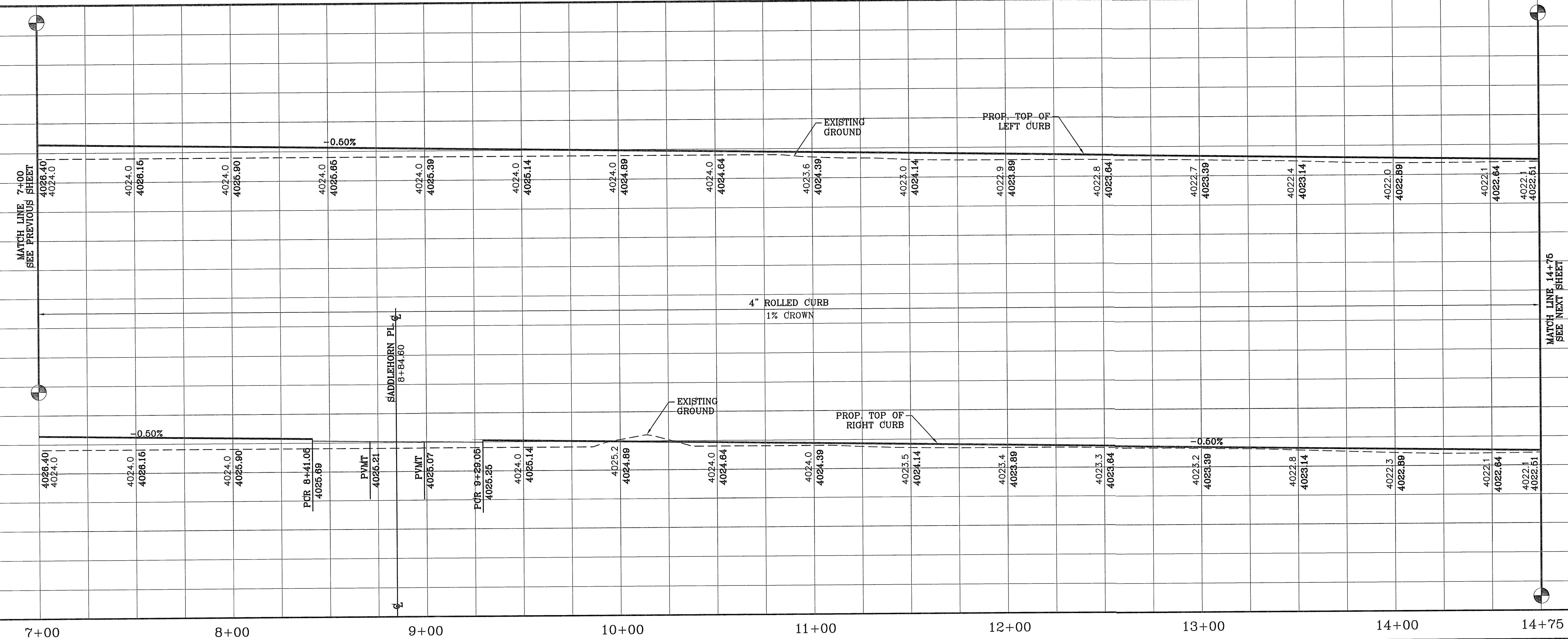
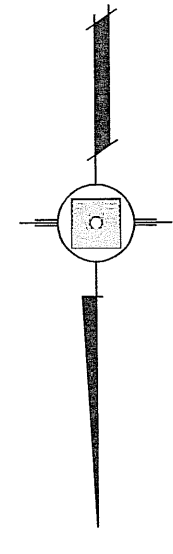
SHEET TITLE
STREET PLAN-PROFILE
HOLLY SPRINGS AVE.
 STA: 0+00 TO STA: 7+00

FILE LOCATION E:\Subdivisions\TDE 69_PP-HOLLY-HUNTERS PLOTTED ON Thursday, July 12, 2012 1:18:47 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C4	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"

SCALE: 1"=30'



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.66	DATE	REVISIONS	BY
.....CITY DATUM			

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

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

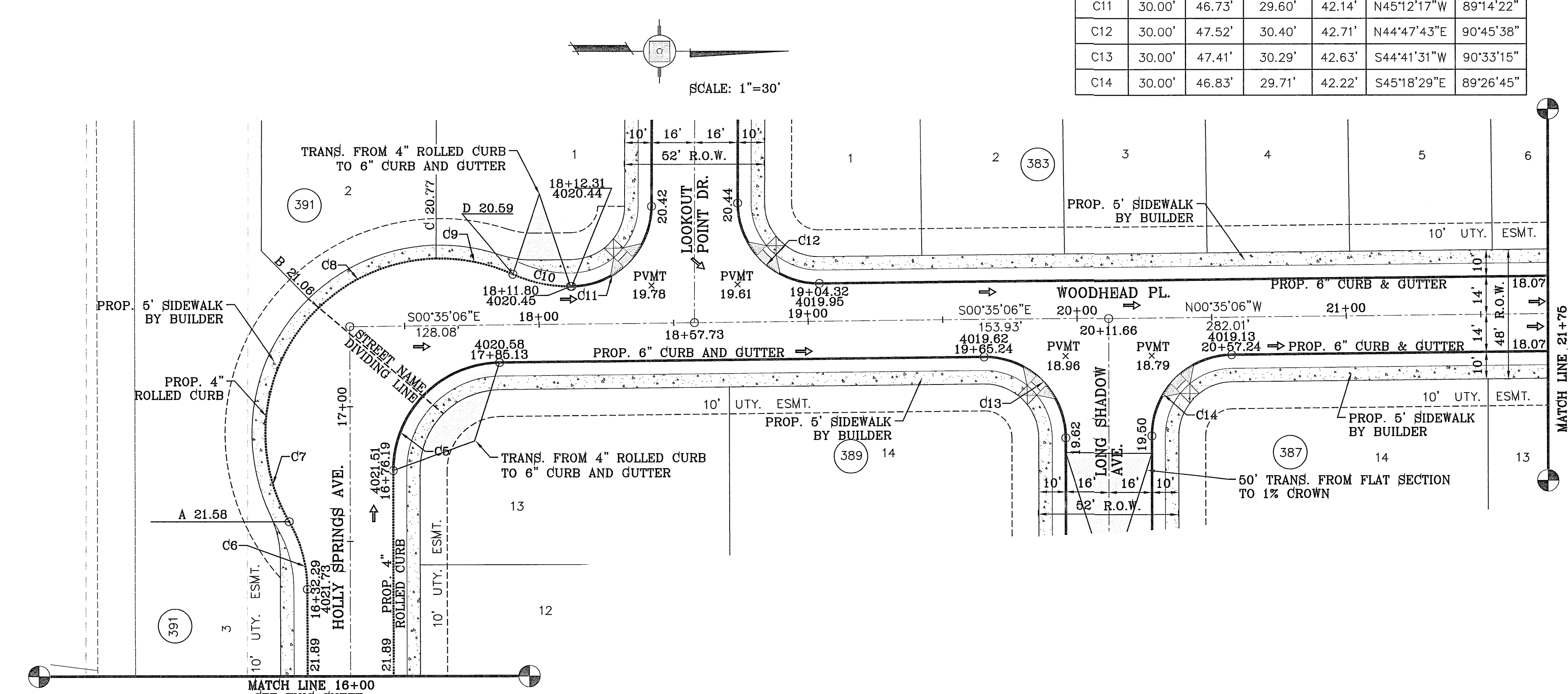
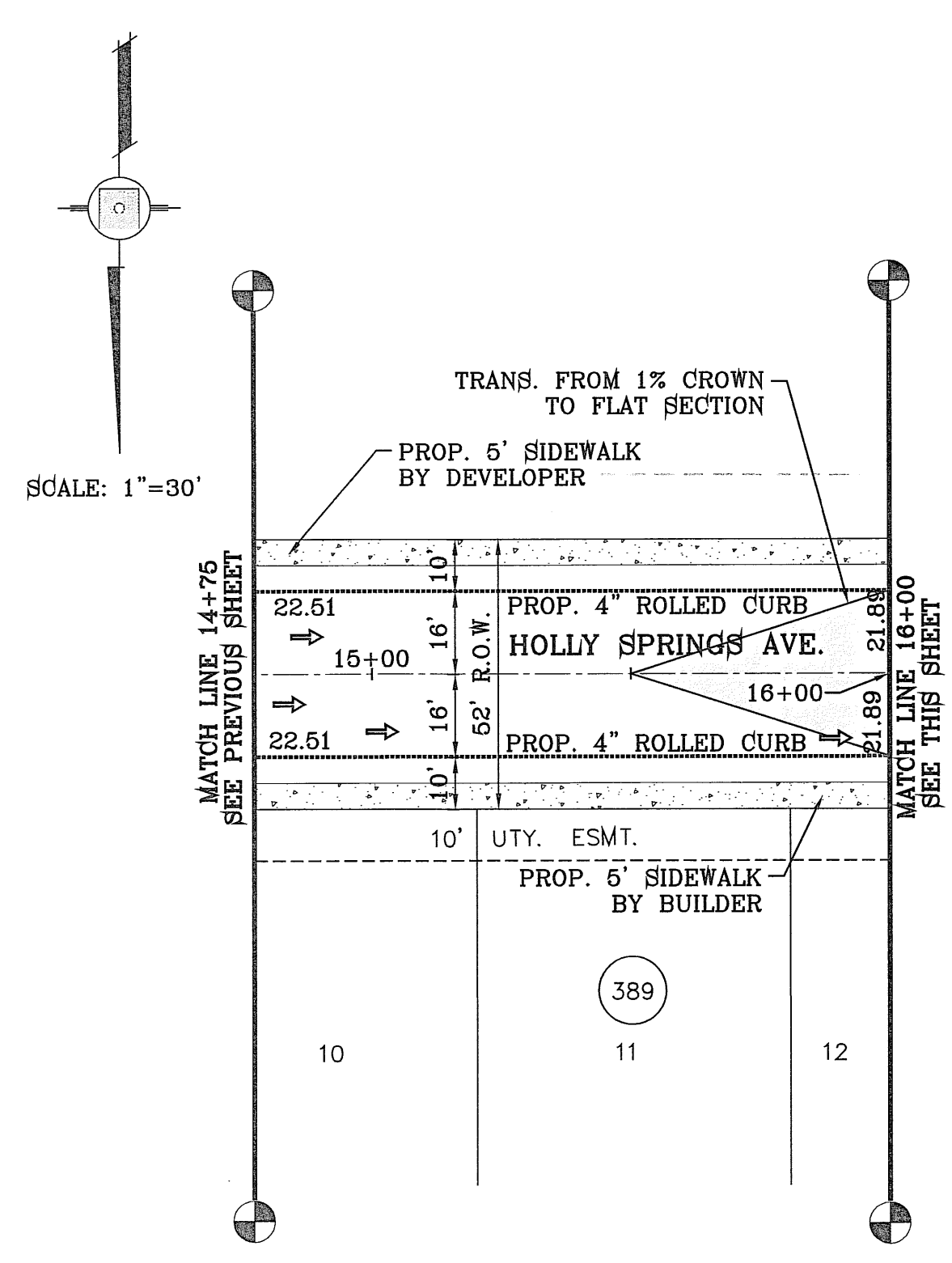
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-60

ENGINEER'S SEAL

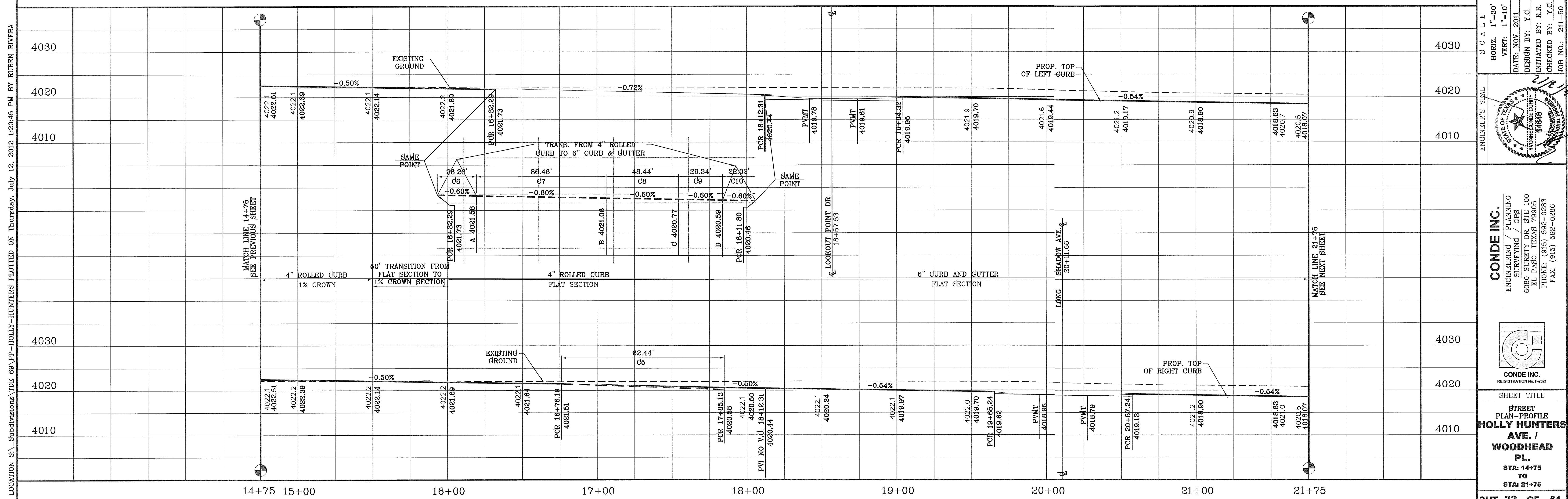
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

SHEET TITLE
STREET
PLAN-PROFILE
HOLLY SPRINGS AVE.
STA: 7+00
TO
STA: 14+75

FILE LOCATION: s:_Subdivisions\DE 69\PP-HOLLY-HUNTERS PLOTTED ON Thursday, July 12, 2012 1:20:45 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C5	40.00'	62.44'	39.61'	56.29'	S45°18'29"E	89°26'45"
C6	50.00'	26.26'	13.44'	25.96'	S74°55'22"W	30°05'33"
C7	65.00'	86.46'	50.98'	80.22'	S82°01'04"E	76°12'41"
C8	65.00'	48.44'	25.41'	47.33'	S22°33'44"E	42°41'59"
C9	65.00'	29.34'	14.92'	29.09'	S11°43'10"W	25°51'48"
C10	50.00'	22.02'	11.19'	21.85'	N12°01'59"E	25°14'10"
C11	30.00'	46.73'	29.60'	42.14'	N45°12'17"W	89°14'22"
C12	30.00'	47.52'	30.40'	42.71'	N44°47'43"E	90°45'38"
C13	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"
C14	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"



BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.58

PROJECT NAME
TERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

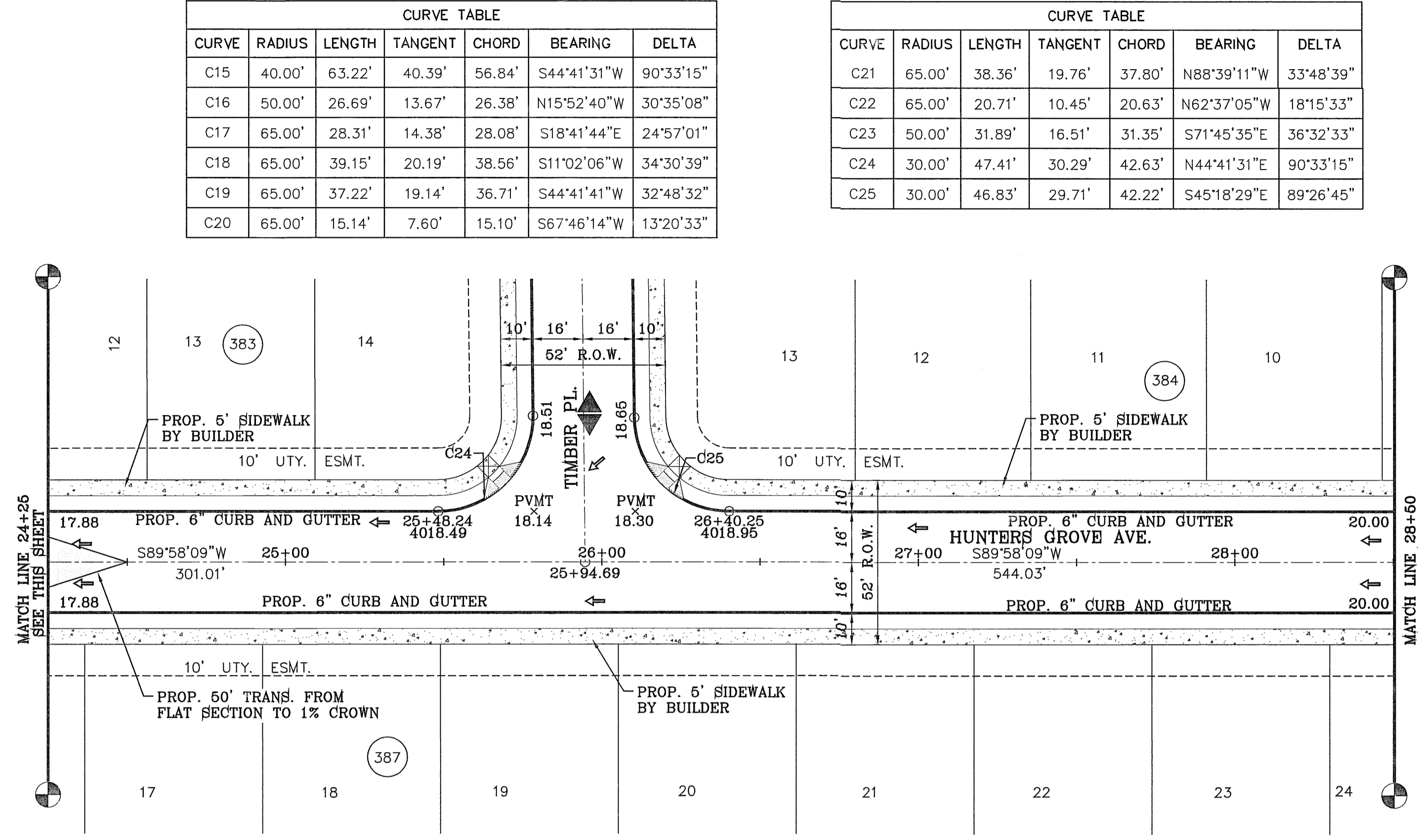
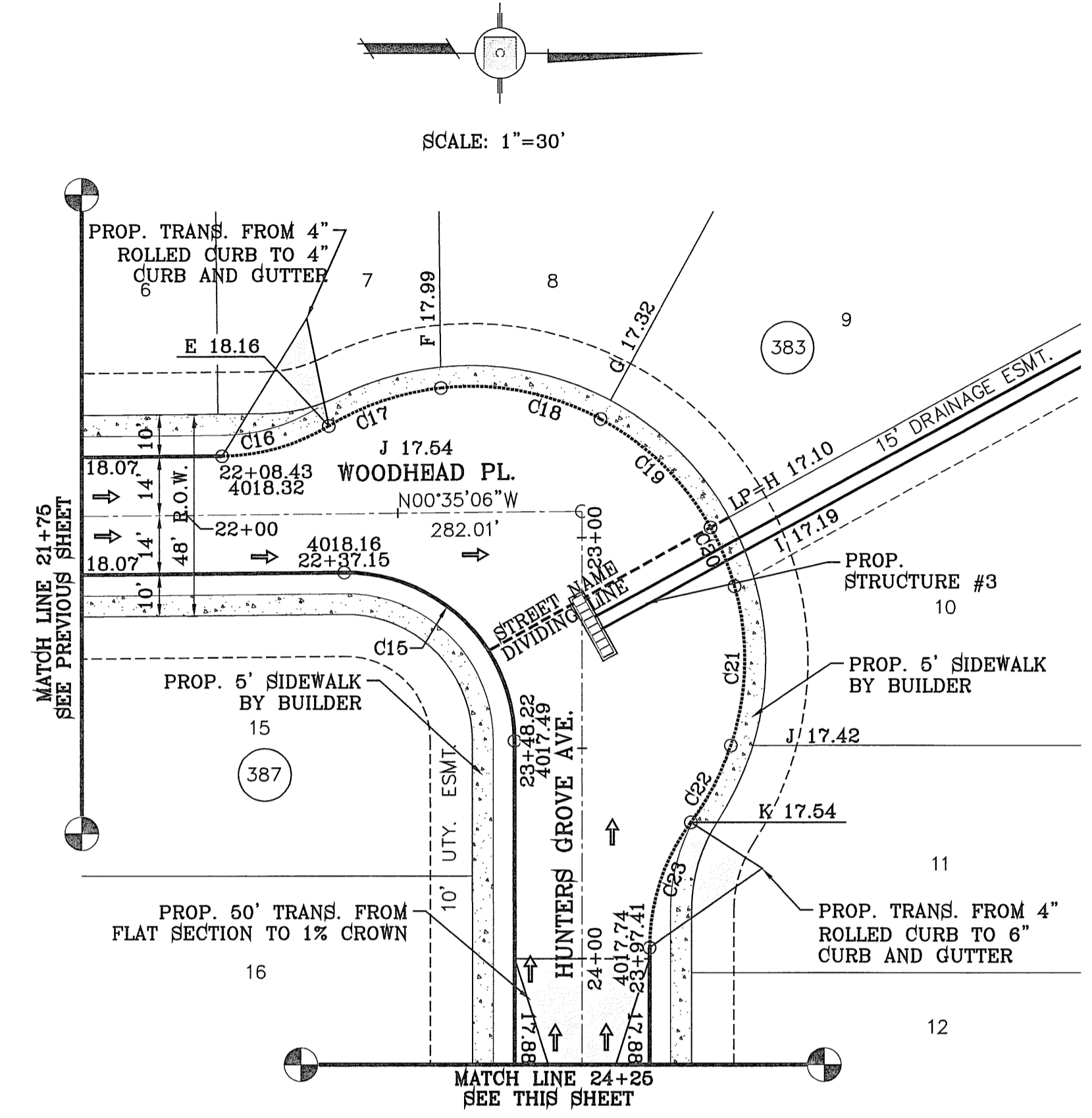
ENGINEER'S SEAL
STATE OF TEXAS
CONDE INC.
64648
REGISTERED PROFESSIONAL ENGINEER
NOVEMBER 1998

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



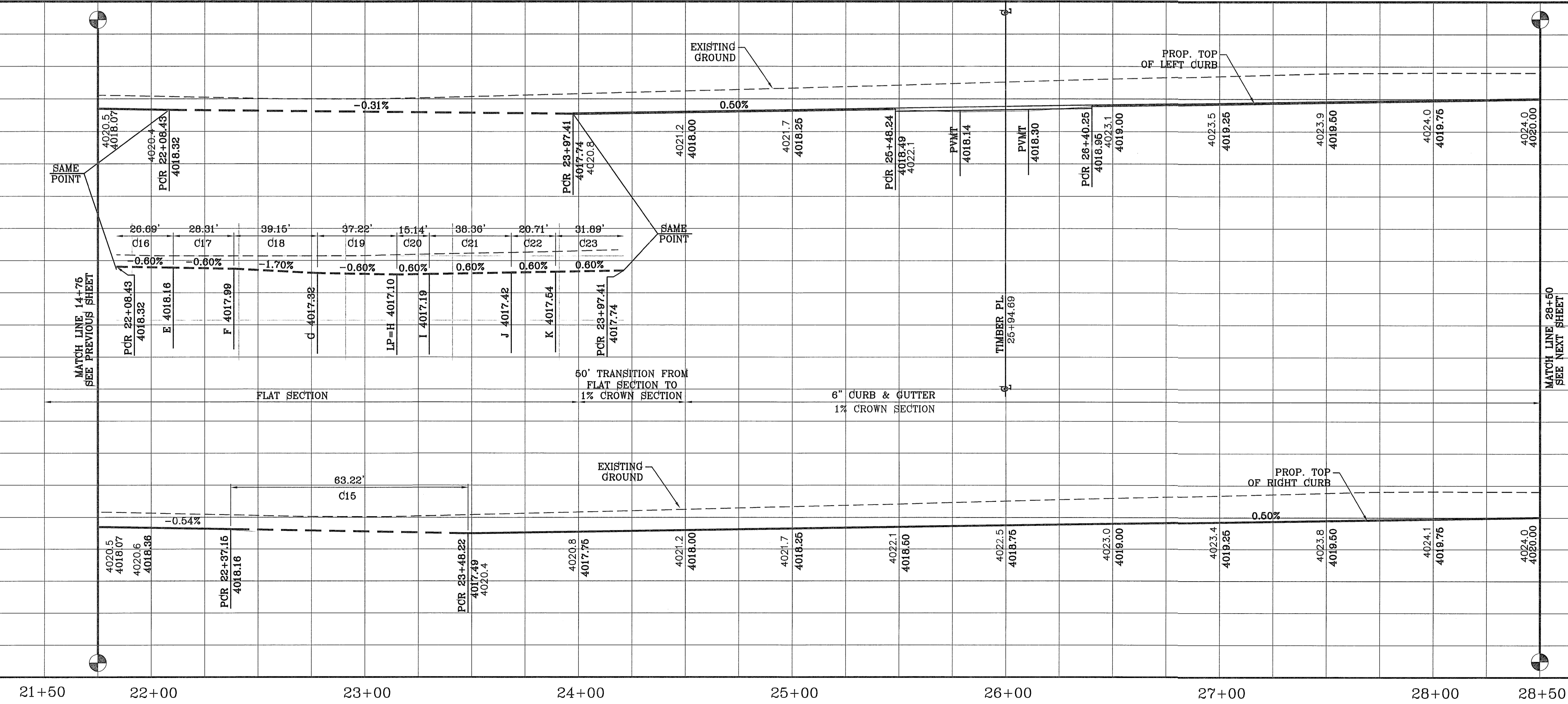
SHEET TITLE
STREET
PLAN - PROFILE
**HOLLY HUNTERS
AVE. /
WOODHEAD
PL.**
STA: 14+75
TO
STA: 21+75

FILE LOCATION S:\Subdivisions\TDE 69 PP-HOLLY-HUNTERS PLOTTED ON Thursday, July 12, 2012 1:20:10 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C15	40.00'	63.22'	40.39'	56.84'	S44°41'31"W	90°33'15"
C16	50.00'	26.69'	13.67'	26.38'	N15°52'40"W	30°35'08"
C17	65.00'	28.31'	14.38'	28.08'	S18°41'44"E	24°57'01"
C18	65.00'	39.15'	20.19'	38.56'	S11°02'06"W	34°30'39"
C19	65.00'	37.22'	19.14'	36.71'	S44°41'41"W	32°48'32"
C20	65.00'	15.14'	7.60'	15.10'	S67°46'14"W	13°20'33"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C21	65.00'	38.36'	19.76'	37.80'	N88°39'11"W	33°48'39"
C22	65.00'	20.71'	10.45'	20.63'	N62°37'05"E	18°15'33"
C23	50.00'	31.89'	16.51'	31.35'	S71°45'35"E	36°32'33"
C24	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C25	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"

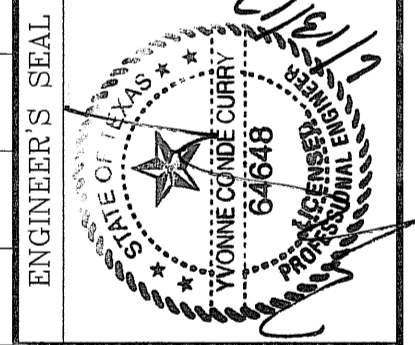


BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58	DATE	BY
REVISIONS		

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

SCALE: 1"=30'
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50

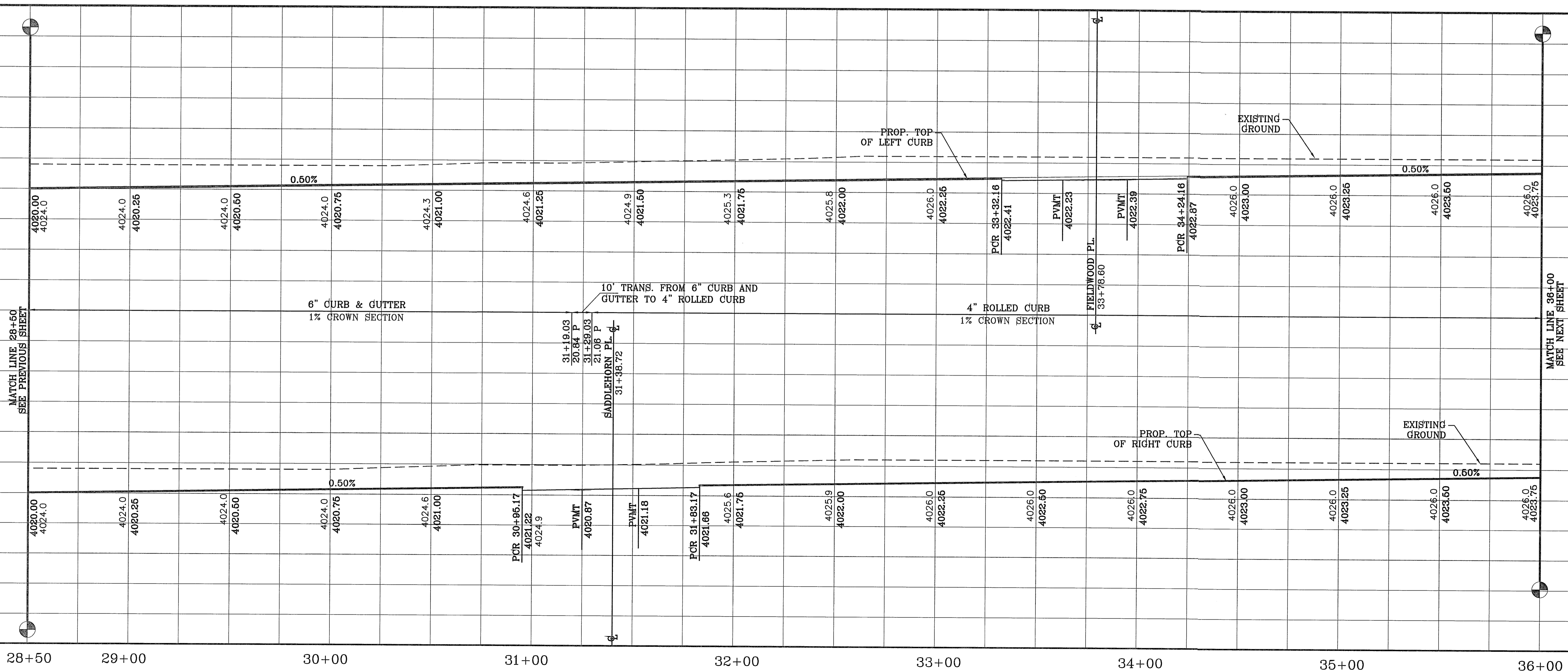
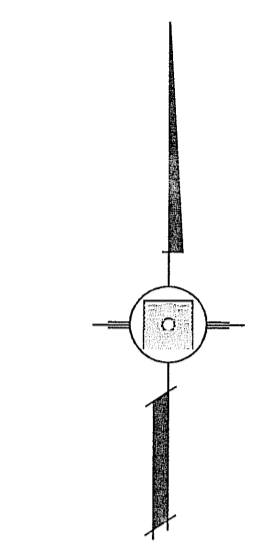
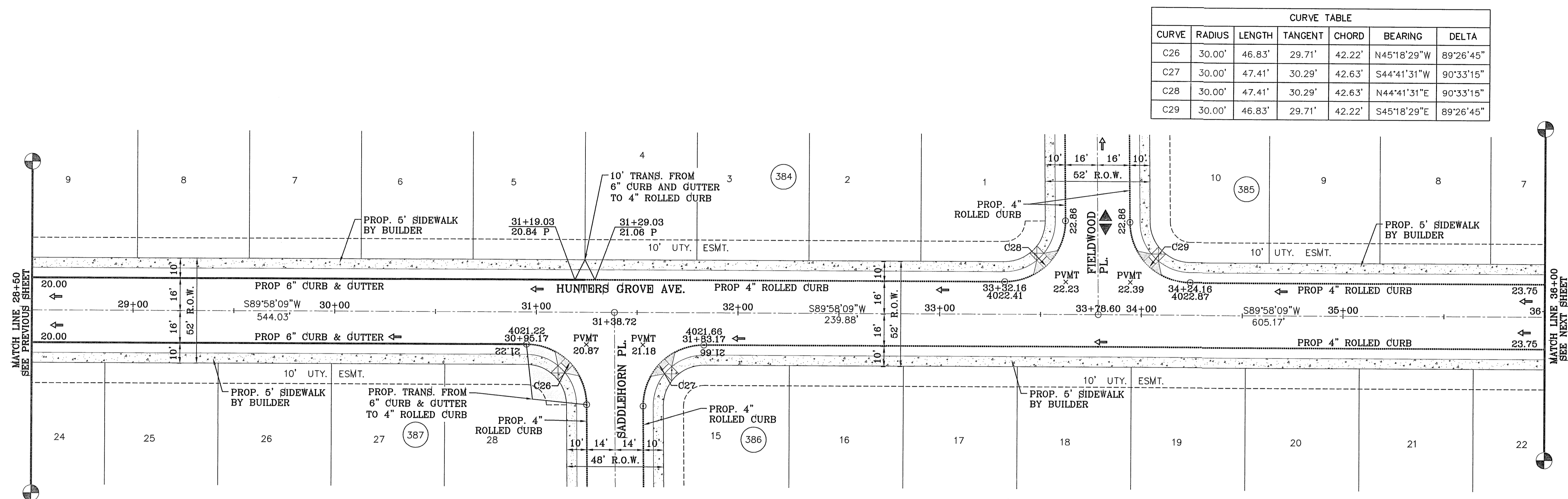


CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURVEY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0285
 FAX: (915) 592-0286



SHEET TITLE
STREET PLAN-PROFILE WOODHEAD PL. / HUNTERS GROVE AVE.
 STA: 21+50 TO STA: 28+50

FILE LOCATION S:_Subdivisions\TDE 69\PP-HOLLY-HUNTERS PLOTTED ON Thursday, July 12, 2012 1:19:44 PM BY RUBEN RIVERA



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR AND JOHN HAYES ST
ELEVATION 4020.58

DATE: _____

REVISIONS

BY: _____

PROJECT NAME

TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

SCALE

HORIZ: 1"=50'

VERT: 1"=10'

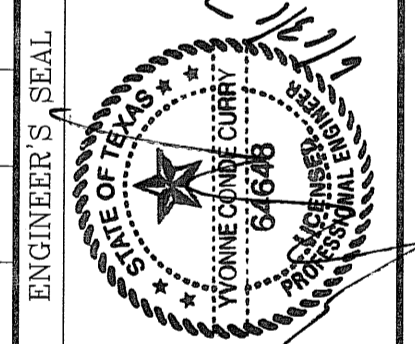
DATE: NOV. 2011

DESIGN BY: Y.C.

INITIATED BY: R.R.

CHECKED BY: Y.C.

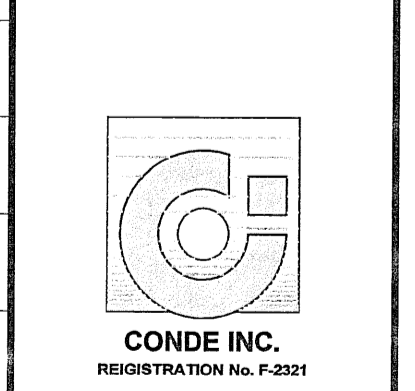
JOB NO.: 211-50



CONDE INC.

ENGINEERING / PLANNING
SURVEYING / GPS

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

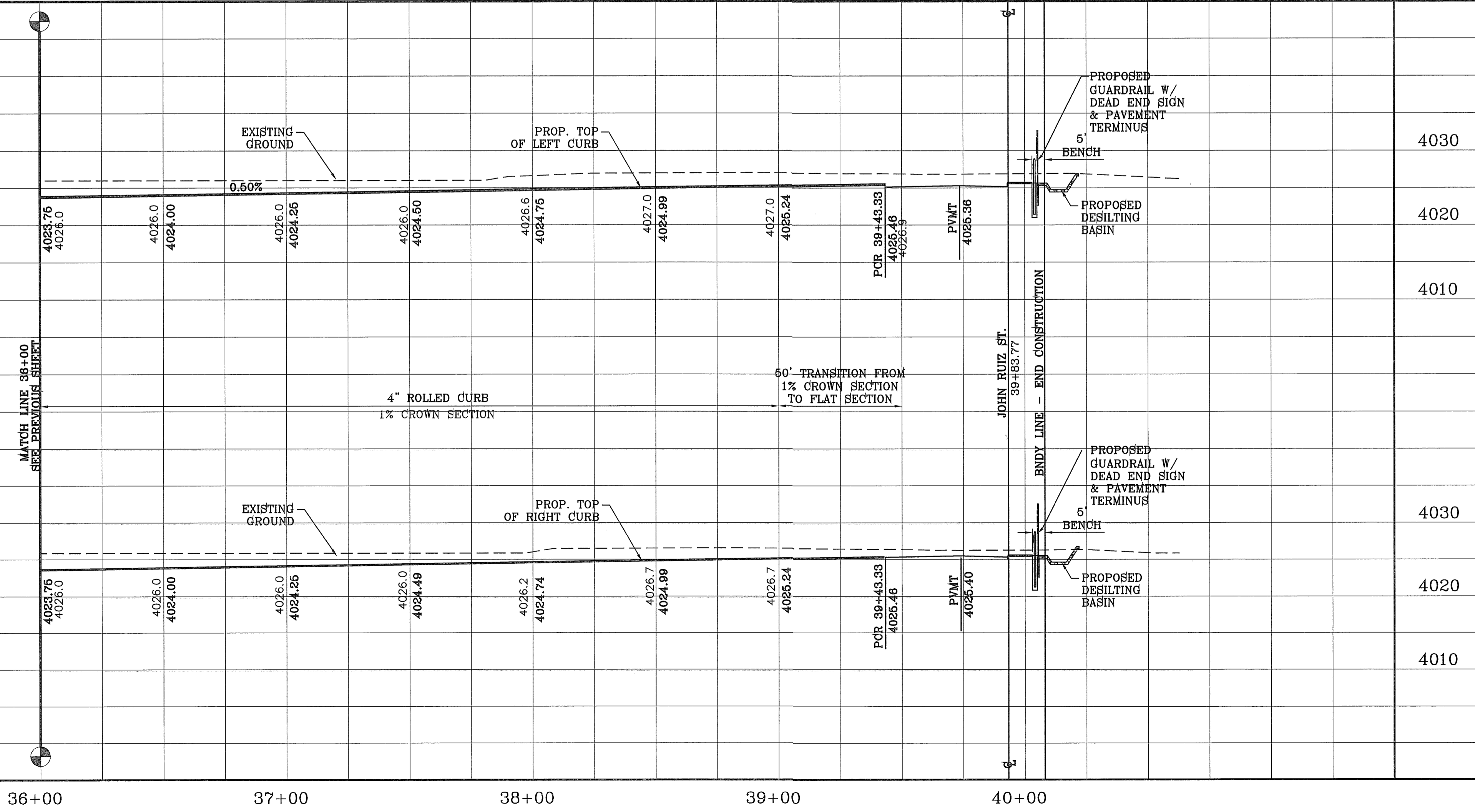
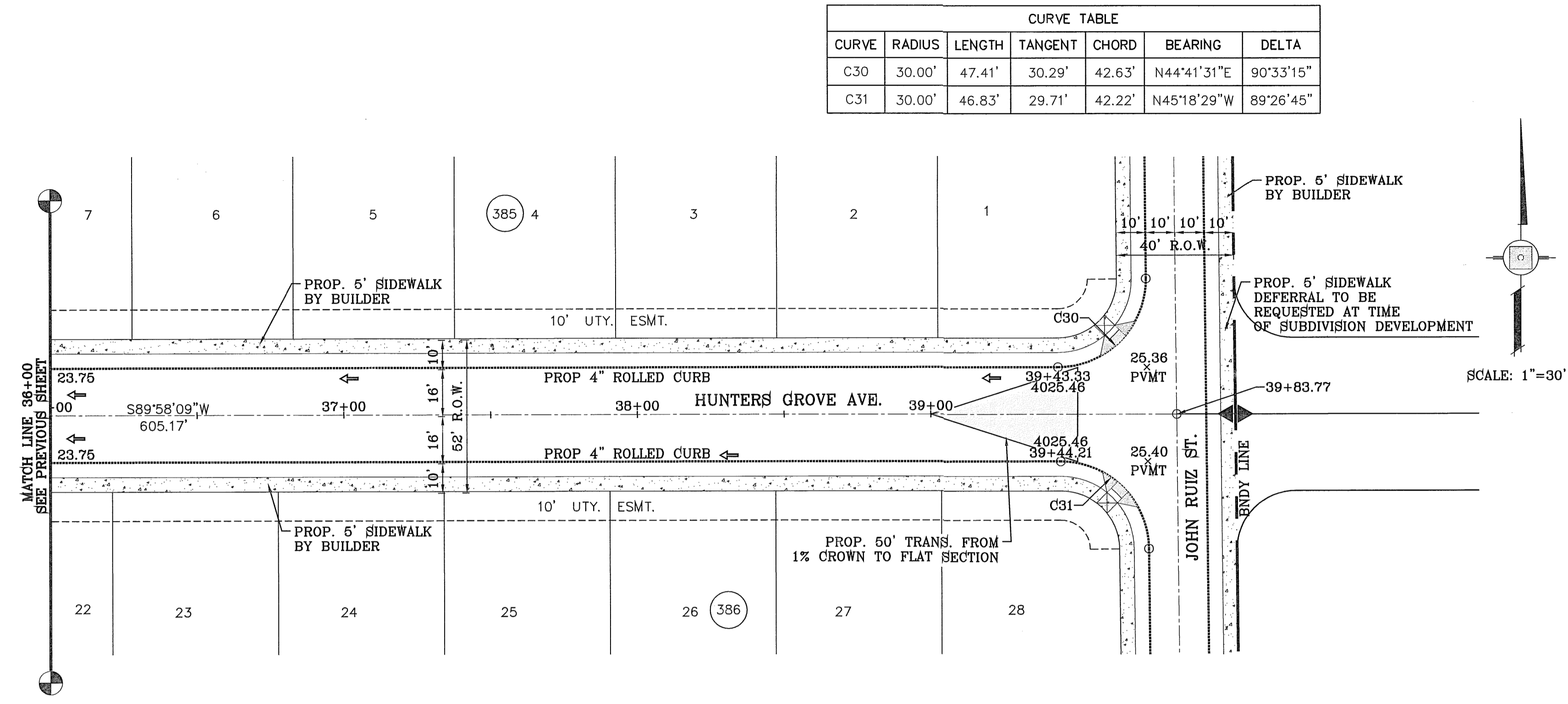


SHEET TITLE

**STREET
PLAN-PROFILE**

**HUNTERS
GROVE AVE.**

STA: 28+50
TO
STA: 36+00



BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.	ELEVATION 4020.58

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING: 90.166± ACRES

SCALE
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-60

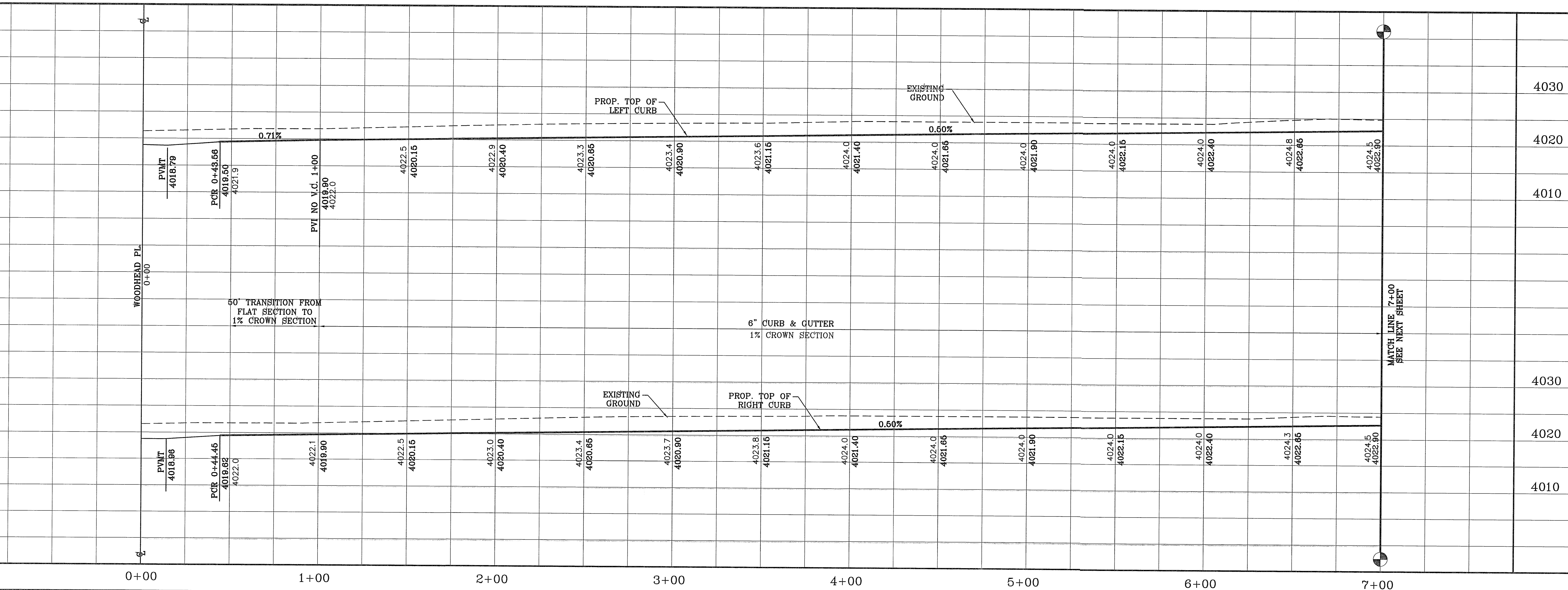
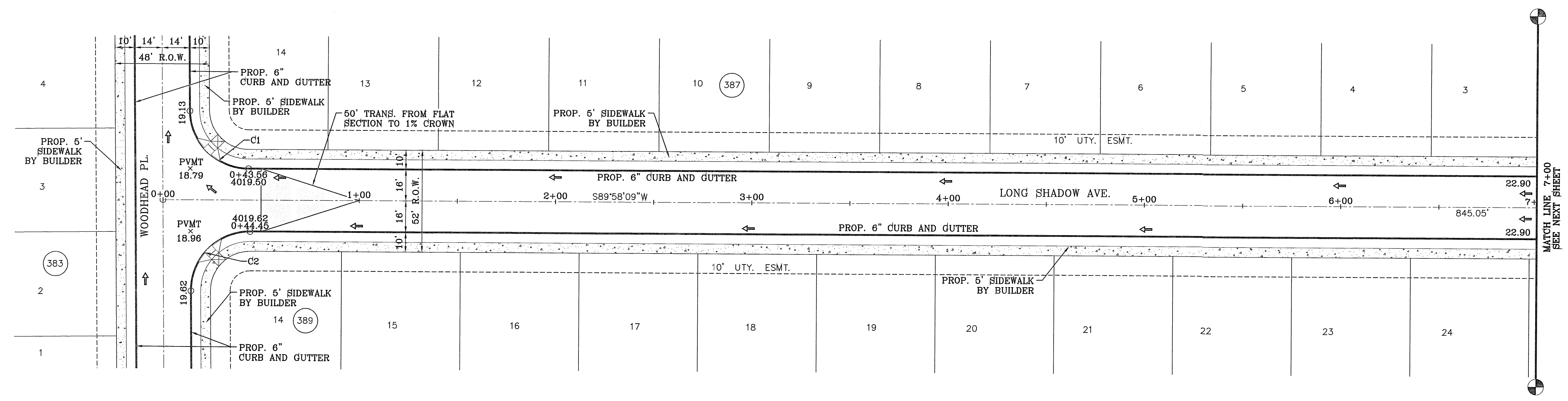
ENGINEER'S SEAL

CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 8080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

SHEET TITLE
STREET PLAN-PROFILE
HUNTERS GROVE AVE.
 STA: 36+00
 TO
 STA: 39+83.77

FILE LOCATION S:\Subdivisions\DE 69\PP-LONG SHADOW PLOTTED ON Thursday, July 12, 2012 1:25:33 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C2	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"



BENCHMARK	
DATE	REVISIONS
03/09/12	CITY REDLINES AS PER 03/08/12 COMMENTS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

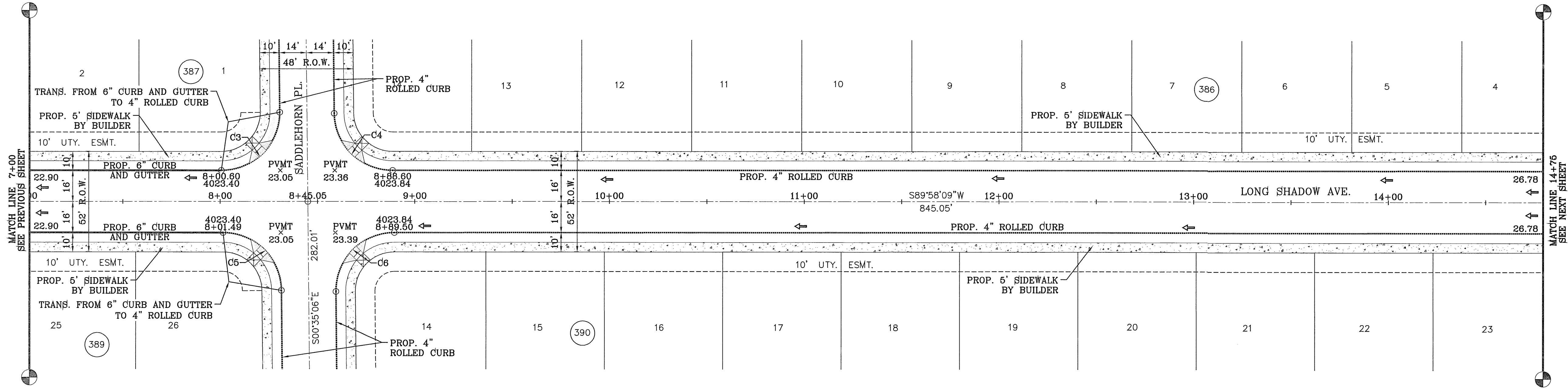
SCALE
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-60

ENGINEER'S SEAL
 STATE OF TEXAS
 YOUNG CONDE CURRY
 64648
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEERING

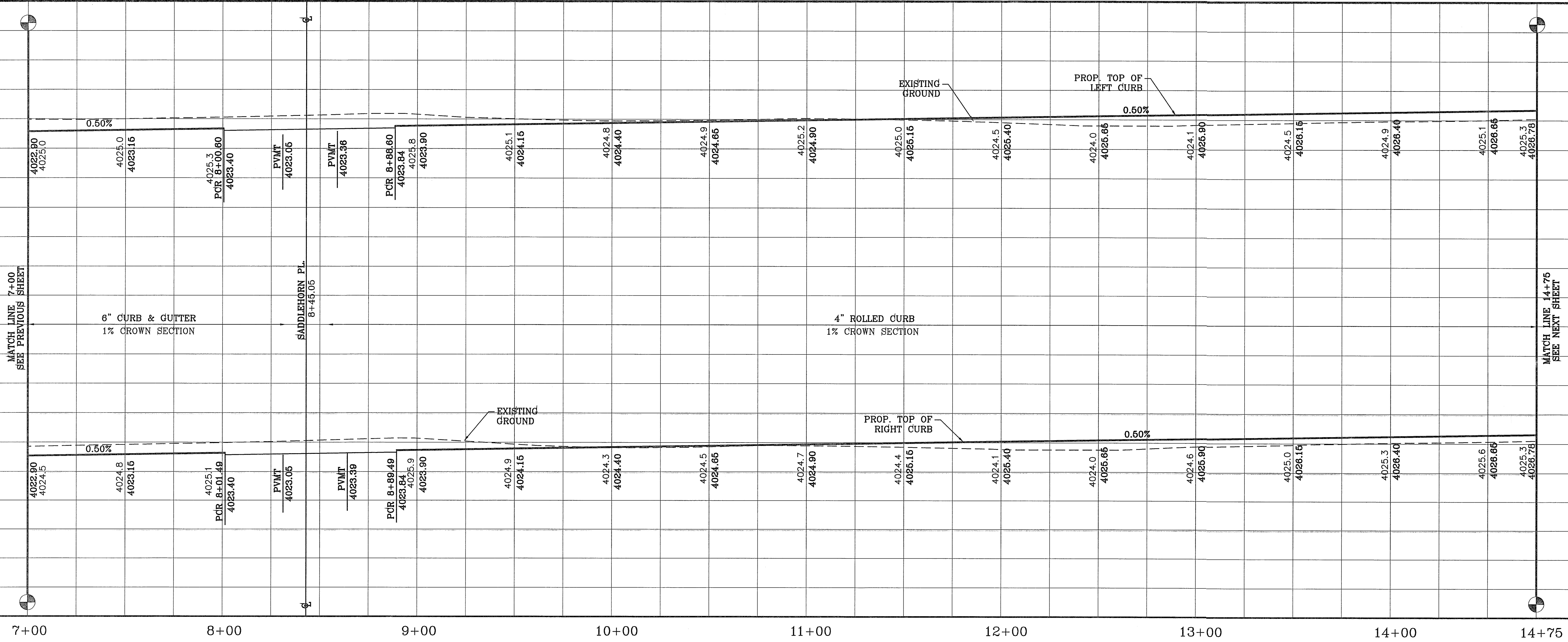
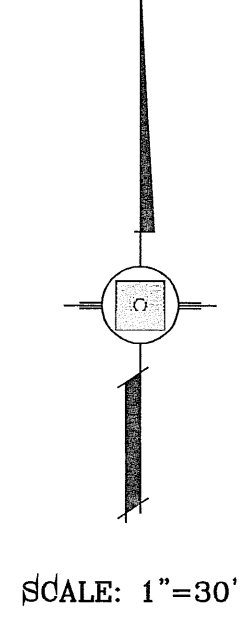
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURVEY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

SHEET TITLE
STREET PLAN-PROFILE
LONG SHADOW AVE.
 STA: 0+00 TO STA: 7+00

FILE LOCATION: S:\Subdivisions\TDE 69_PP-LONG SHADOW PLOTTED ON Thursday, July 12, 2012 1:25:08 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C3	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C4	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C5	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"
C6	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"



BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58
DATE	
REVISIONS	
BY	

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

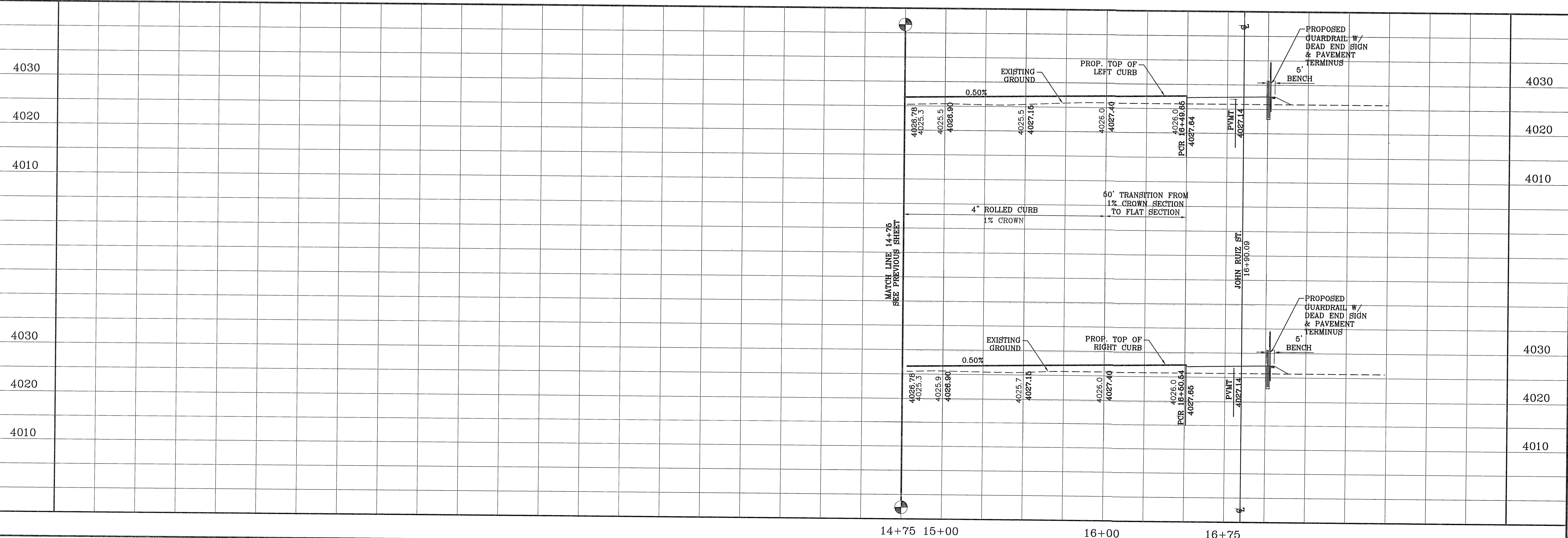
SCALE
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50

ENGINEER'S SEAL

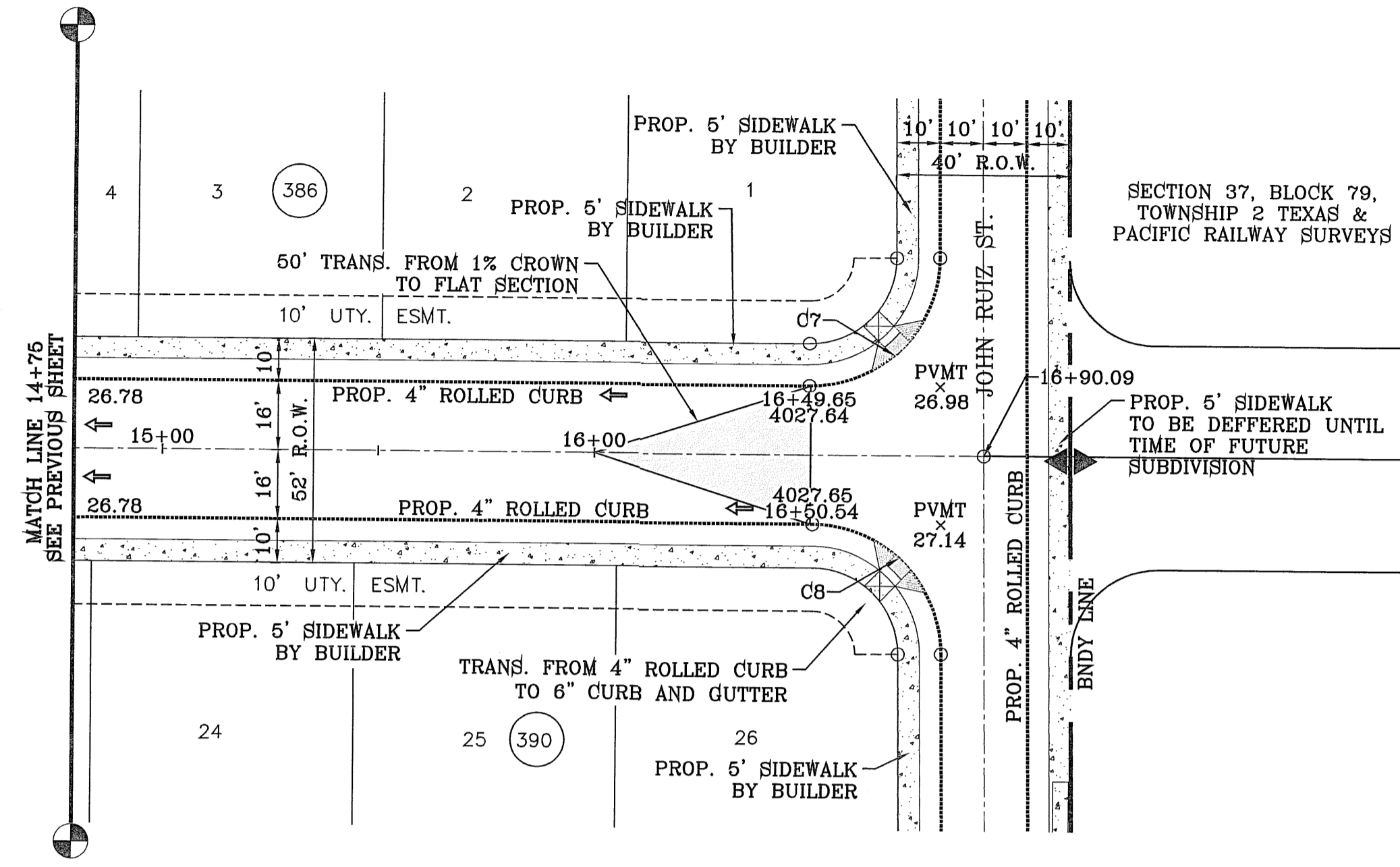
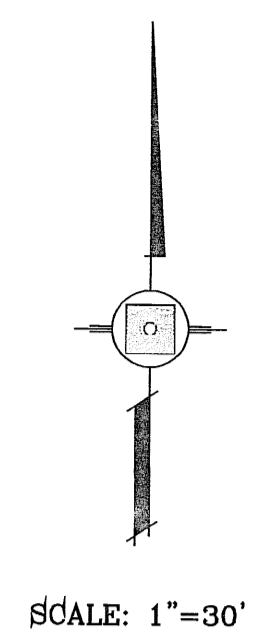
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SUBURY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

SHEET TITLE
LONG SHADOW AVE.
 STA: 7+00 TO 14+75

FILE LOCATION S:\Subdivisions\TDE 69\PP-LONG SHADOW PLOTTED ON Thursday, July 12, 2012 1:24:52 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C8	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"



BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58
DATE	03/09/12
BY	R.R.
REVISIONS	CITY REDLINES AS PER 03/09/12 COMMENTS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

SCALE
 HORIZONTAL: 1"=30'
 VERTICAL: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50

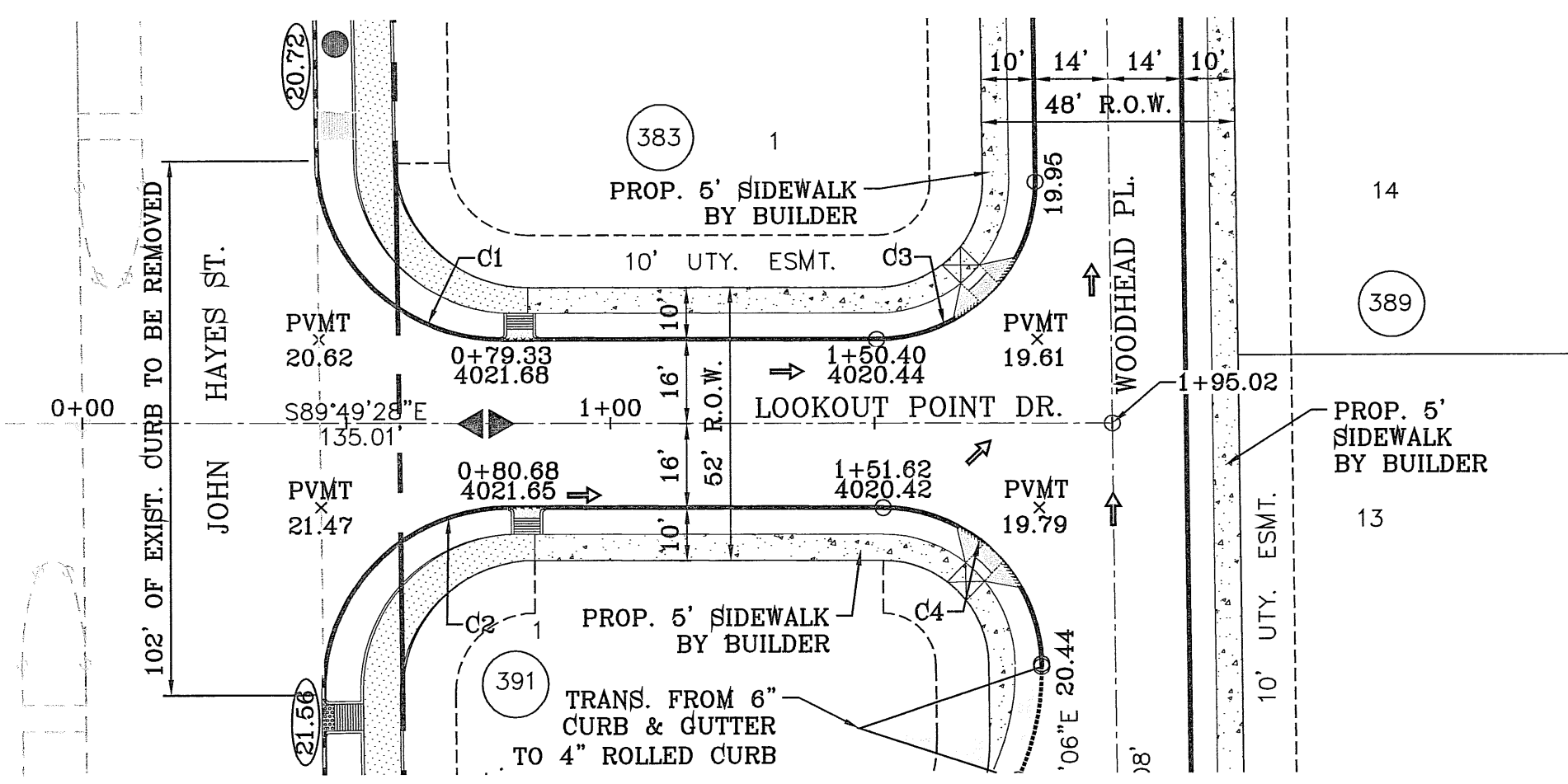
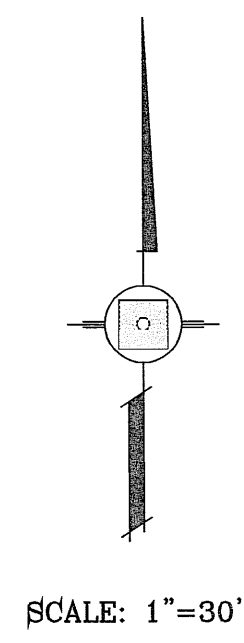
ENGINEER'S SEAL

CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE. 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0285
 FAX: (915) 592-0286

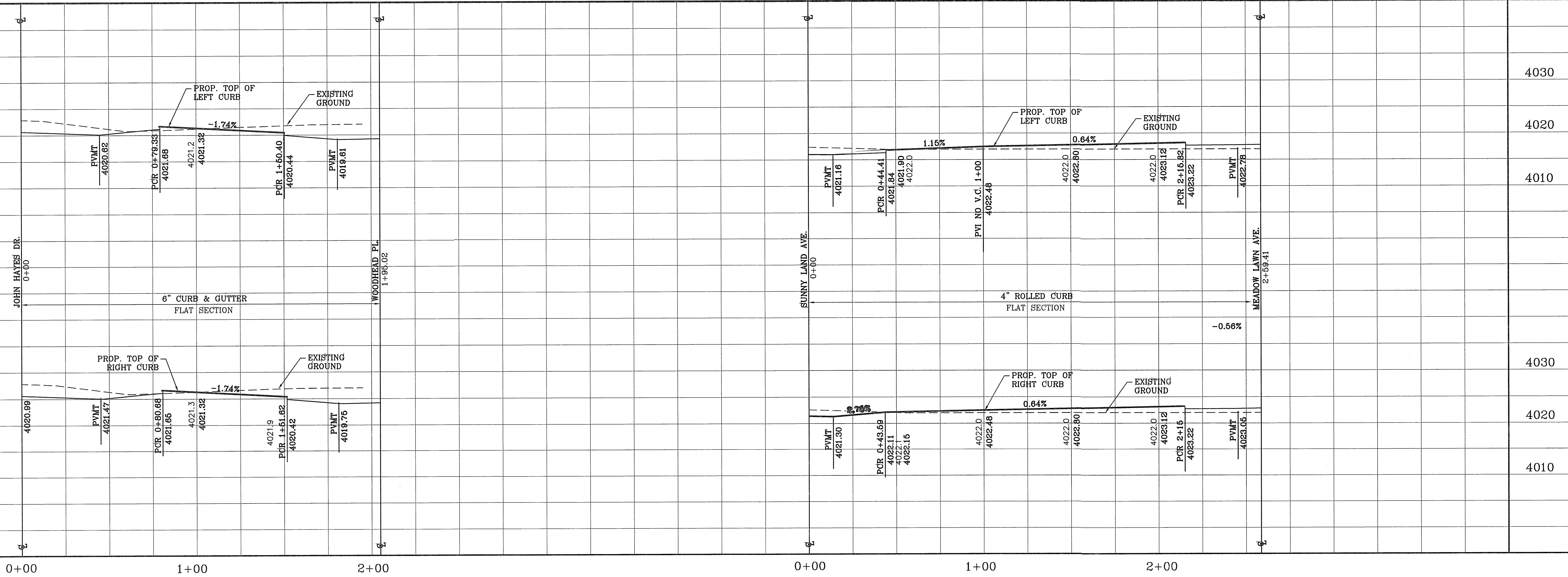
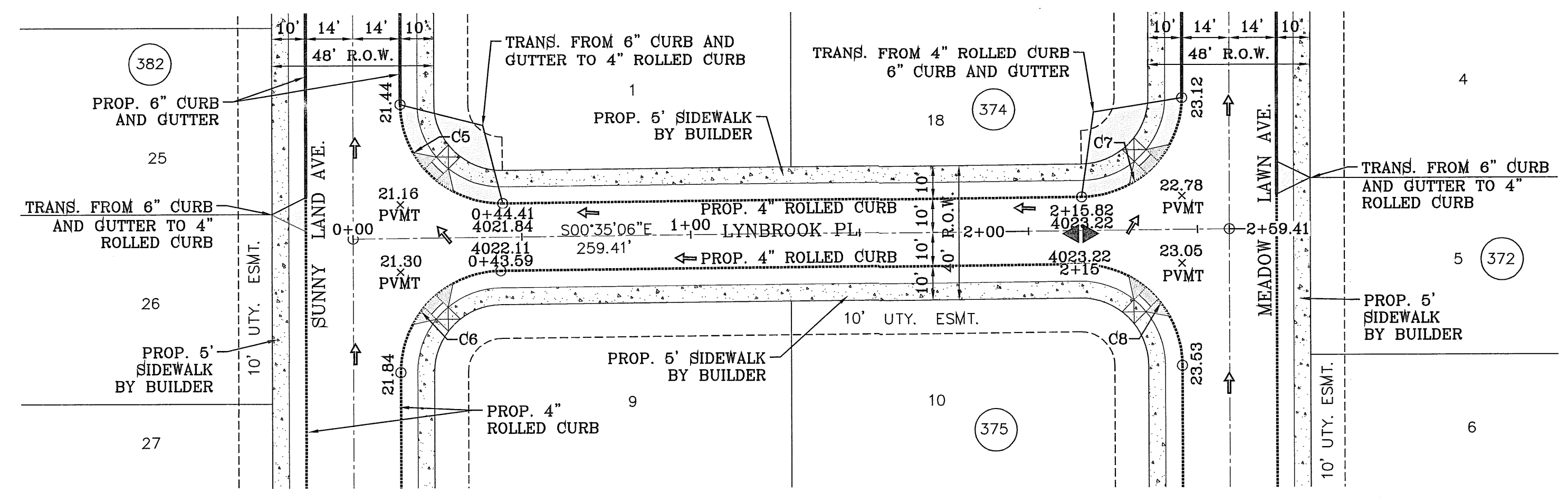
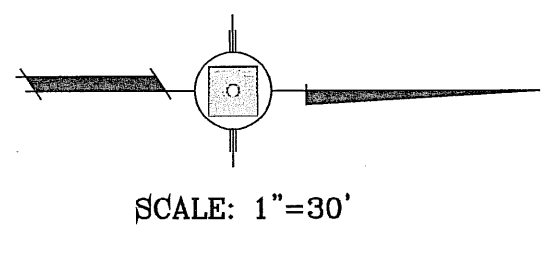
SHEET TITLE
LONG SHADOW AVE.
 STA: 14+75 TO STA: 16+90.09

FILE LOCATION: s:_Subdivisions\TDE 69\pp-LOOKOUT-LYNBROOK PLOTTED ON Thursday, July 12, 2012 1:26:08 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	35.00'	54.51'	34.54'	49.17'	S45°12'17"E	89°14'22"
C2	35.00'	55.44'	35.47'	49.82'	S44°47'43"W	90°45'38"
C3	30.00'	47.52'	30.40'	42.71'	N44°47'43"E	90°45'38"
C4	30.00'	46.73'	29.60'	42.14'	N45°12'17"W	89°14'22"



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C5	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C6	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C7	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C8	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"



BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.66

DATE: 03/06/12

BY: Y.C.

REVISIONS

CITY REDLINES AS PER 03/06/12 COMMENTS

R.R.

PROJECT NAME

TERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

S C A L E

HORIZ: 1"=30'

VERT: 1"=10'

DATE: NOV. 2011

DESIGN BY: Y.C.

INITIATED BY: R.R.

CHECKED BY: Y.C.

JOB NO.: 211-50

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

LOOKOUT PT. & LYNBROOK PL.

SHT 29 OF 64

TERRA DEL ESTE UNIT SIXTY NINE

TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.165± ACRES

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	25.00	39.53	25.26	35.54	N44°42'37"E	90°35'27"
C2	25.00	39.53	25.26	35.54	S44°42'37"W	90°35'27"
C3	20.00	31.21	19.79	28.14	S45°17'23"E	89°24'33"
C4	20.00	31.21	19.79	28.14	S45°18'29"E	89°26'45"
C5	1200.00	588.41	284.35	553.38	S76°38'17"W	26°39'43"
C6	1268.00	585.55	298.18	580.28	S76°38'30"W	26°40'09"
C7	1242.00	578.10	294.39	572.90	N76°38'30"E	26°40'09"
C8	1300.00	604.94	308.75	599.50	N76°38'17"E	26°39'43"
C9	1250.00	581.83	296.28	576.59	N76°38'30"E	26°40'09"
C10	1260.00	581.67	296.20	576.44	S76°38'17"W	26°39'43"
C11	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C12	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C13	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C14	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C15	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C16	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C17	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C18	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C19	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C20	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C21	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C22	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C23	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C24	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C25	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C26	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C27	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C28	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C29	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C30	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C31	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C32	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C33	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C34	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C35	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C36	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C37	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C38	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C39	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C40	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C41	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C42	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C43	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C44	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C45	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C46	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C47	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C48	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C49	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C50	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C51	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C52	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C53	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C54	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C55	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C56	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C57	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C58	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C59	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"
C60	20.00	31.22	19.81	28.15	N45°18'29"E	89°26'45"

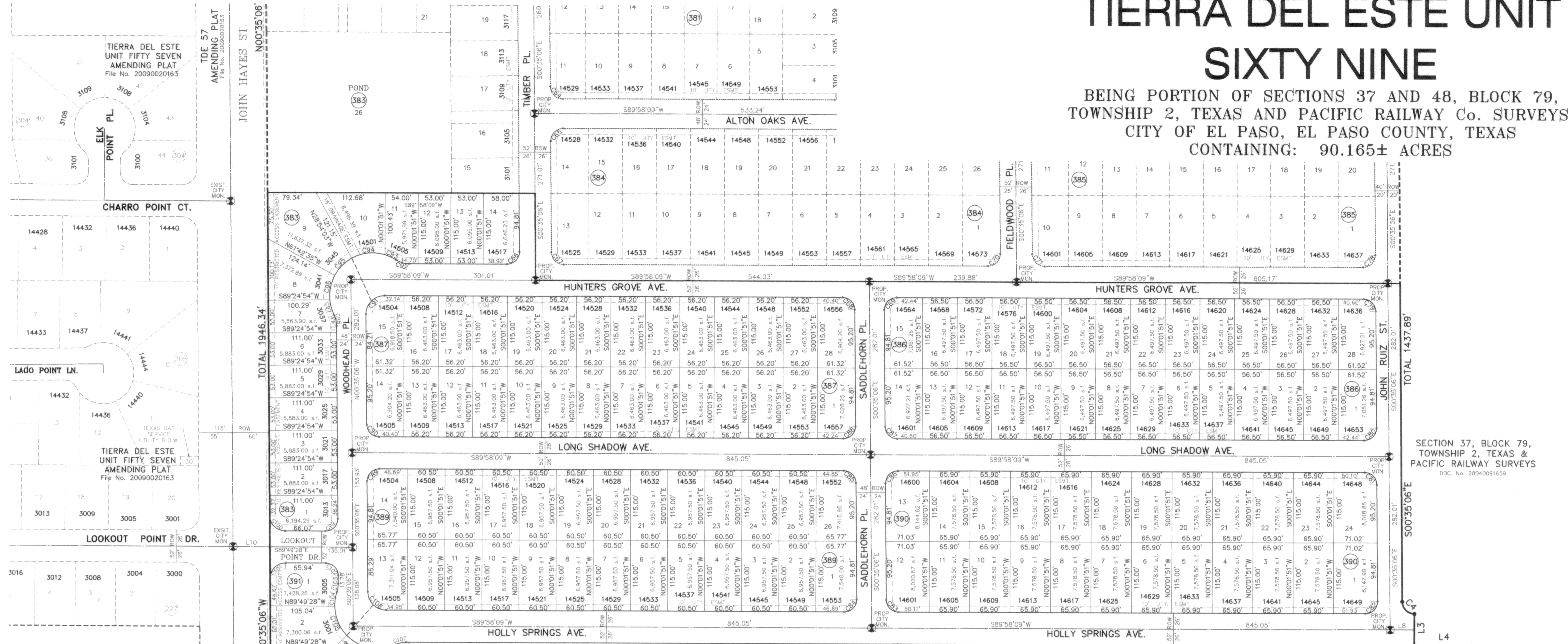
LINE	LENGTH	BEARING
L1	65.95	S00°35'06"E
L2	16.56	S89°59'39"E
L3	52.00	S00°01'51"E
L4	92.76	N89°58'09"E
L5	30.00	S89°58'09"W
L6	30.00	N89°58'35"E
L7	30.00	S89°58'09"W
L8	39.56	S89°58'09"W
L9	25.00	S45°41'09"W
L10	60.01	N89°49'28"W
L11	60.00	S89°59'39"E
L12	60.00	S89°59'39"E
L13	57.26	S00°35'06"E
L14	32.00	S00°35'06"E
L15	32.00	S00°35'06"E
L16	32.00	S00°35'06"E
L17	56.11	S89°59'39"E

Tierra Del Este Unit 69 Notes:

Tierra Del Este Subdivision Unit 69 is subject to the Annexation Agreement entered into by Ranchos Real IV LTD with the City of El Paso on January 31, 2008. Among other conditions the agreement required the following:
 Item #11 Owner agrees to pay a water and wastewater connection fee to the El Paso Water Utilities Department of the City for each three quarter inch (3/4") equivalent water meter that is connected to the public water system as shown below. The water and wastewater connection fee shall be increased by three (3) percent on March 1, 2006, and each year thereafter. Payment of the water and wastewater connection fee shall be due at the time of application for water and wastewater to the system.

Meter Size	Water (\$)	Wastewater (\$)
5/8" x 3/4"	566	328
1"	1,396	809
1 1/2"	2,830	1,640
2"	4,528	2,624
3"	9,056	5,248
4"	14,150	8,200
6"	28,300	16,400
8"	52,827	30,613
10"	75,467	43,733

LOCATION MAP SCALE: 1"=1000'



DATE OF PREPARATION: FEBRUARY 18, 2011

CONDE INC.
 ENGINEERING / PLANNING
 GPS / SURVEYING / CAD
 6800 SURETY DR. STE 100
 EL PASO, TEXAS 79960
 PHONE: (915) 582-0283
 FAX: (915) 582-0286

SCHOOL DISTRICT
 SOCORRO INDEPENDENT SCHOOL DISTRICT
 12300 EASTLAKE DRIVE

ATTEST: NOT REQUIRED

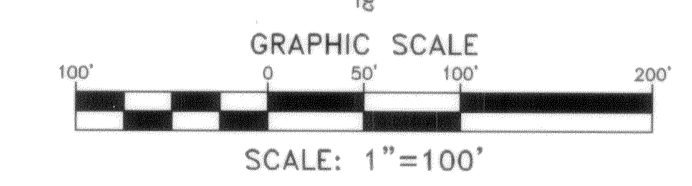
STATE OF TEXAS
 COUNTY OF EL PASO

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

Given under my hand and seal of office this 3rd day of July, 2011.

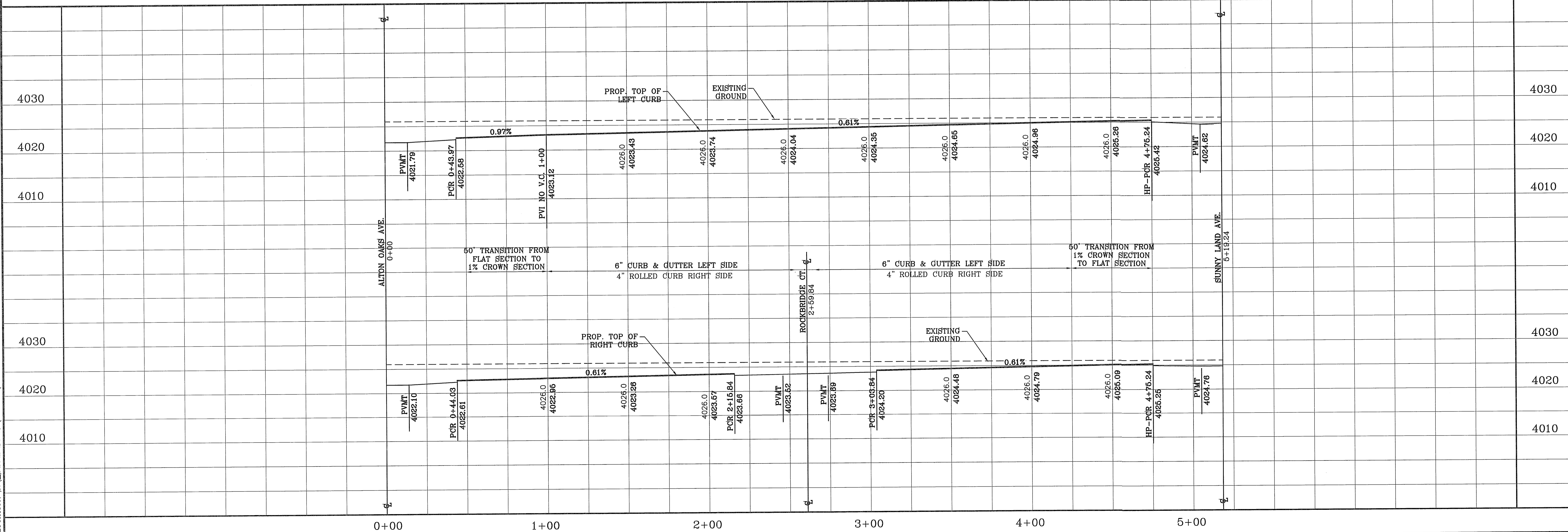
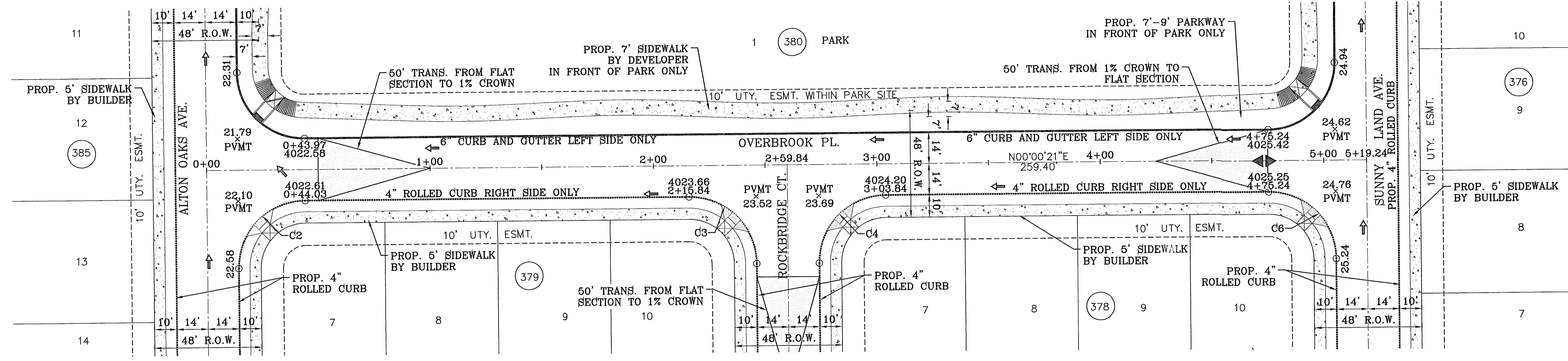
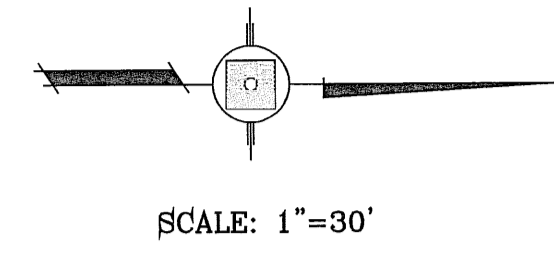
Susan McMillan
 Notary Public in and for El Paso County, Texas
 My Commission Expires 3-16-17

SUSAN McMILLAN
 Notary Public
 My Commission Expires MARCH 16, 2017



FILE LOCATION S:\Subdivisions\TDE 69_PP-OVERBROOK PLOTTED ON Thursday, July 12, 2012 1:27:30 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.10'	29.98'	42.41'	N44°59'15"E	89°57'48"
C2	30.00'	47.14'	30.02'	42.44'	S45°00'45"E	90°02'12"
C3	30.00'	47.12'	30.00'	42.43'	S45°00'21"W	90°00'00"
C4	30.00'	47.12'	30.00'	42.43'	S44°59'39"E	90°00'00"
C5	30.00'	47.12'	30.00'	42.43'	N44°59'39"W	90°00'00"
C6	30.00'	47.12'	30.00'	42.43'	S45°00'21"W	90°00'00"



BENCHMARK	
DATE	REVISIONS
03/09/12	CITY REDLINES AS PER 03/08/12 COMMENTS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

ENGINEER'S SEAL

 Y.C. WANNER
 64648
 STATE OF TEXAS
 PROFESSIONAL ENGINEER

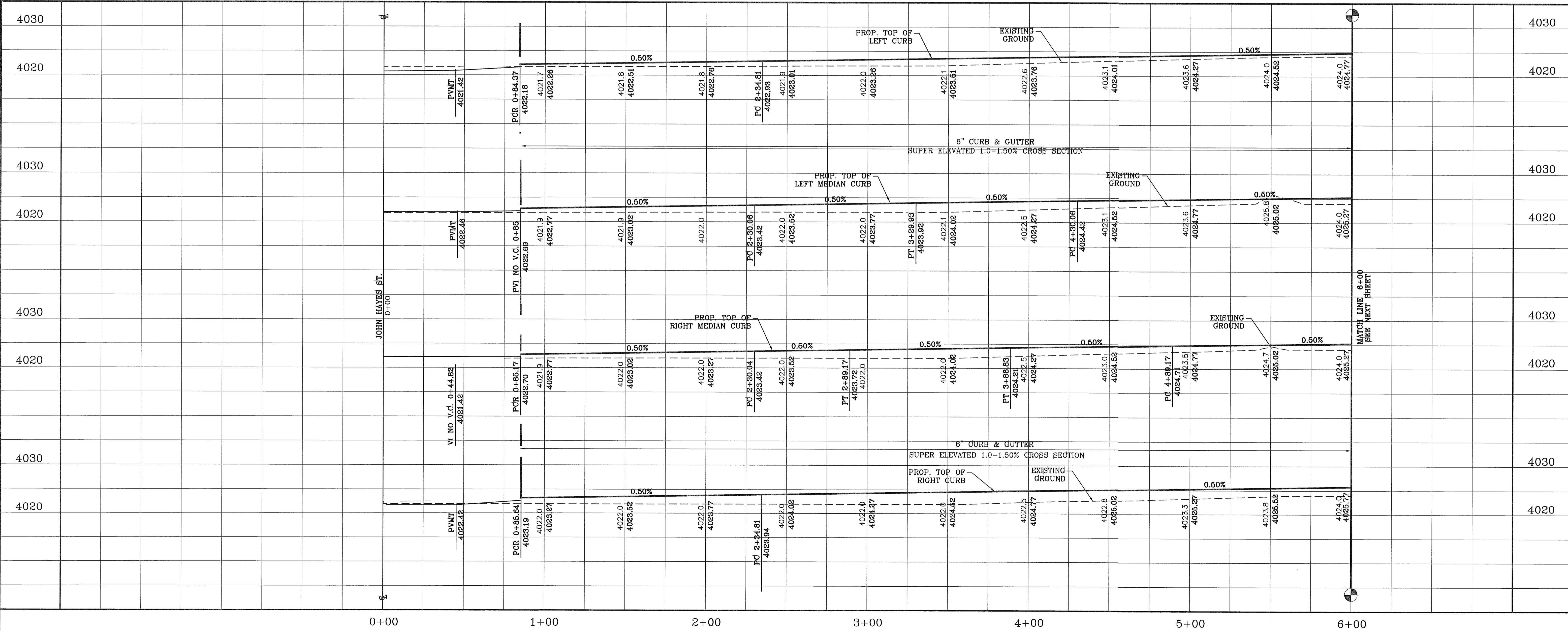
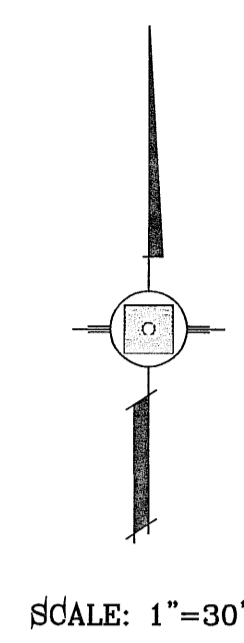
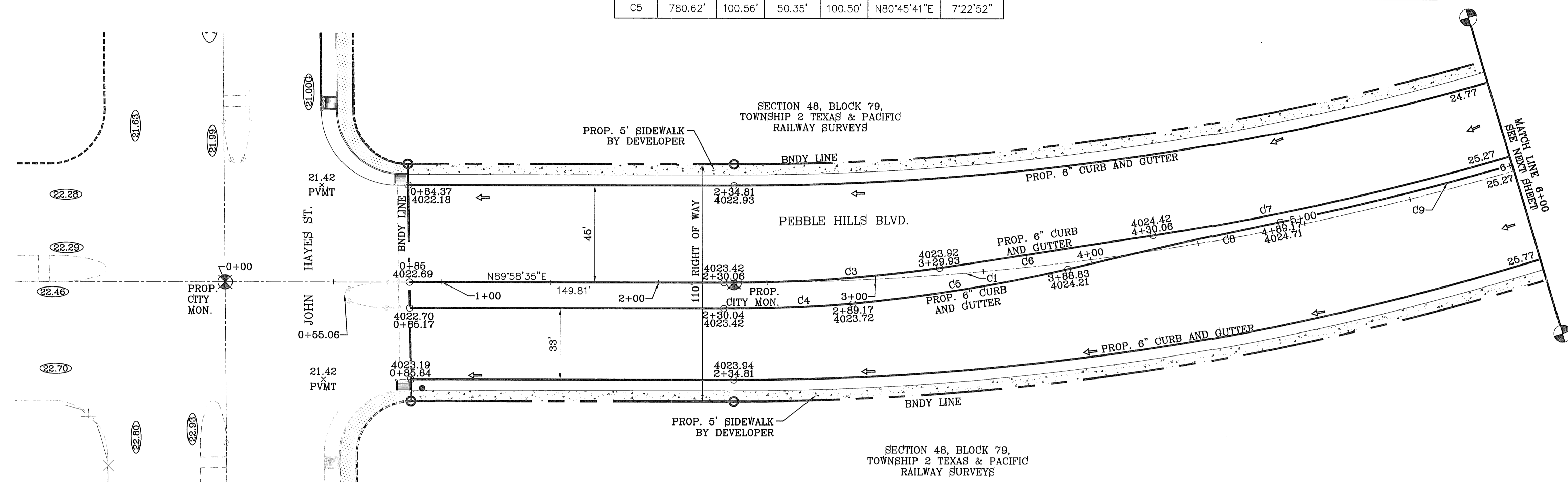
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0263
 FAX: (915) 592-0266

SHEET TITLE
STREET PLAN-PROFILE
OVERBROOK PL.
 STA: 0+00 TO STA: 5+19.24
 SHT 30 OF 64

FILE LOCATION: S:\Subdivisions\TDE 69\PP-PEBBLE HILLS PLOTTED ON Thursday, July 12, 2012 1:28:35 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	1250.00'	581.83'	296.28'	576.59'	N76°38'30"E	26°40'09"
C2	1250.00'	581.67'	296.20'	576.44'	S76°38'17"W	26°39'43"
C3	696.78'	99.85'	50.01'	99.76'	N86°03'43"E	8°12'38"
C4	707.78'	59.64'	29.84'	59.63'	N87°45'11"E	4°49'42"
C5	780.62'	100.56'	50.35'	100.50'	N80°45'41"E	7°22'52"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C6	79578.19'	99.76'	49.88'	99.76'	S81°08'30"W	0°04'19"
C7	1243.00'	230.80'	115.73'	230.47'	N75°42'27"E	10°38'19"
C8	2994.58'	100.50'	50.25'	100.50'	S77°08'35"W	1°55'22"
C9	1247.00'	172.57'	86.43'	172.44'	N74°21'10"E	7°55'45"



TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 90.166± ACRES

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
PEBBLE HILLS BLVD.
STA: 0+00 TO 6+00

SHT 31 OF 64

TIERRA DEL ESTE UNIT SIXTY NINE

SCA L E
HORIZ: 1" = 30'
VERT: 1" = 10'
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

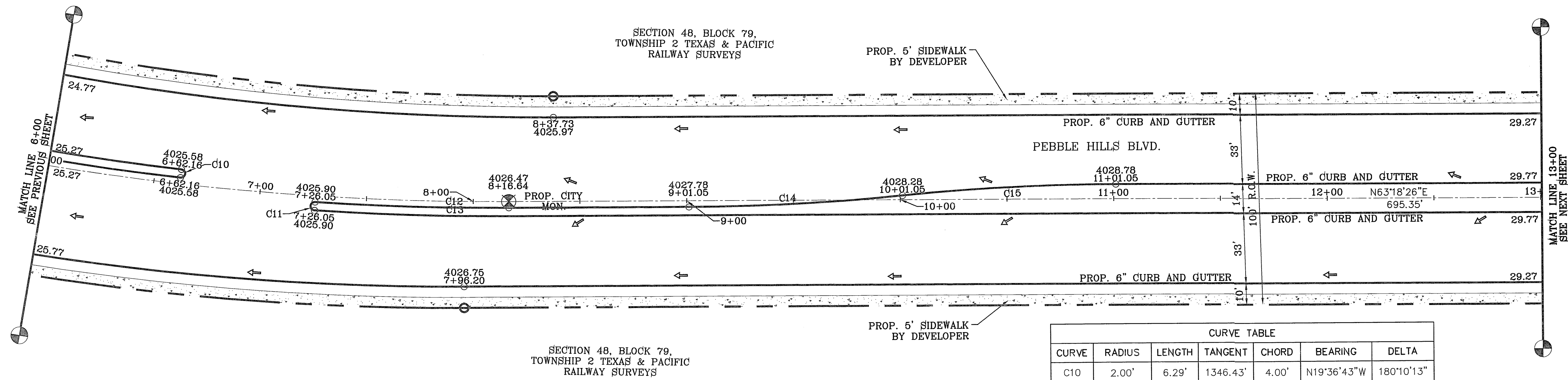
ENGINEER'S SEAL
STATE OF TEXAS
Y. C. CONDE
Professional Engineer
No. 66218
Exp. 08/31/2012

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

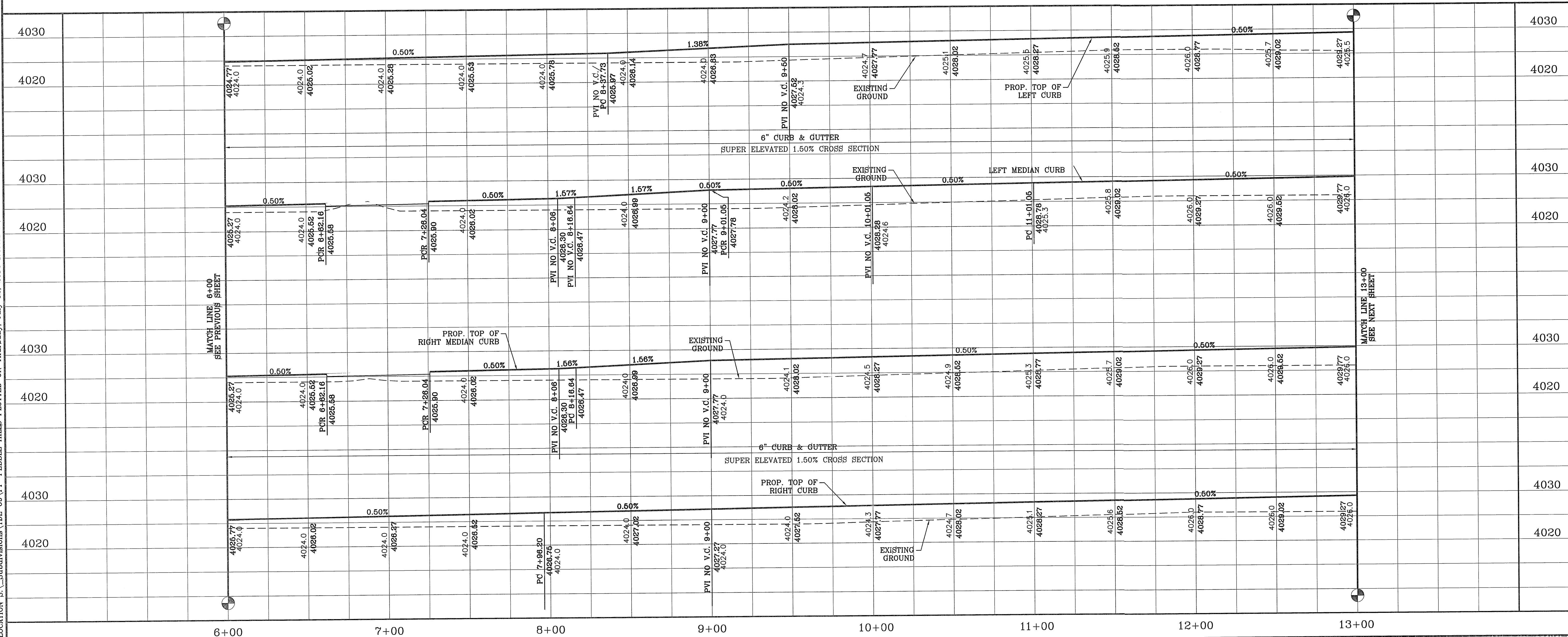
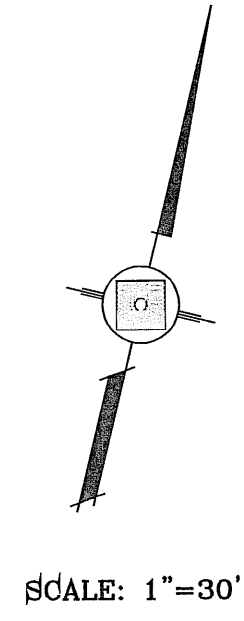
BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.56

REVISIONS
DATE 05/09/12 CITY REDLINES AS PER 05/09/12 COMMENTS R.R.
04/01/12 CITY REDLINES AS PER 04/01/12 COMMENTS R.R.
06/29/12 MEDIAN OPENING ADDITION R.R.

FILE LOCATION: SA_Subdivisions\TDE 69\PP-PEBBLE HILLS PLOTTED ON Thursday, July 12, 2012 1:29:01 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C10	2.00'	6.29'	1346.43'	4.00'	N19°36'43"W	180°10'13"
C11	2.00'	6.38'	83.86'	4.00'	S22°38'13"E	182°44'00"
C12	1253.00'	90.81'	45.42'	90.79'	N65°23'00"E	4°09'08"
C13	1257.00'	91.10'	45.57'	91.08'	N65°23'01"E	4°09'09"
C14	1001.83'	100.16'	50.12'	100.12'	N60°26'41"E	5°43'43"
C15	1001.83'	100.16'	50.12'	100.12'	S60°26'41"W	5°43'43"



BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.	ELEVATION 4020.58
DATE	03/09/12
REVISIONS	CITY REDLINES AS PER 03/09/12 COMMENTS
BY	R.R.

TERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS

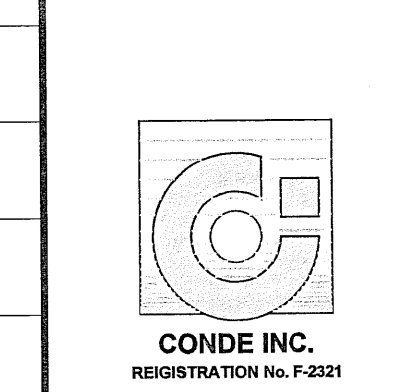
CONTAINING: 90.166± ACRES

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

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50



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



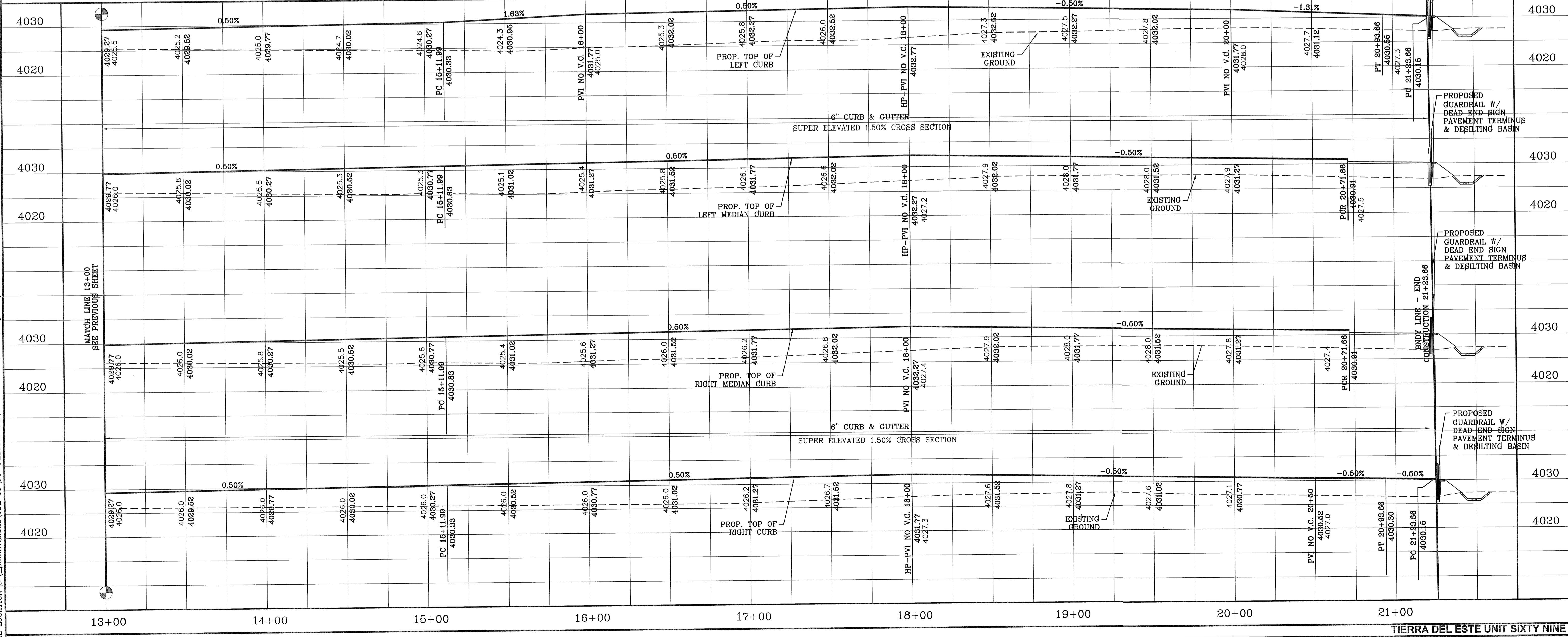
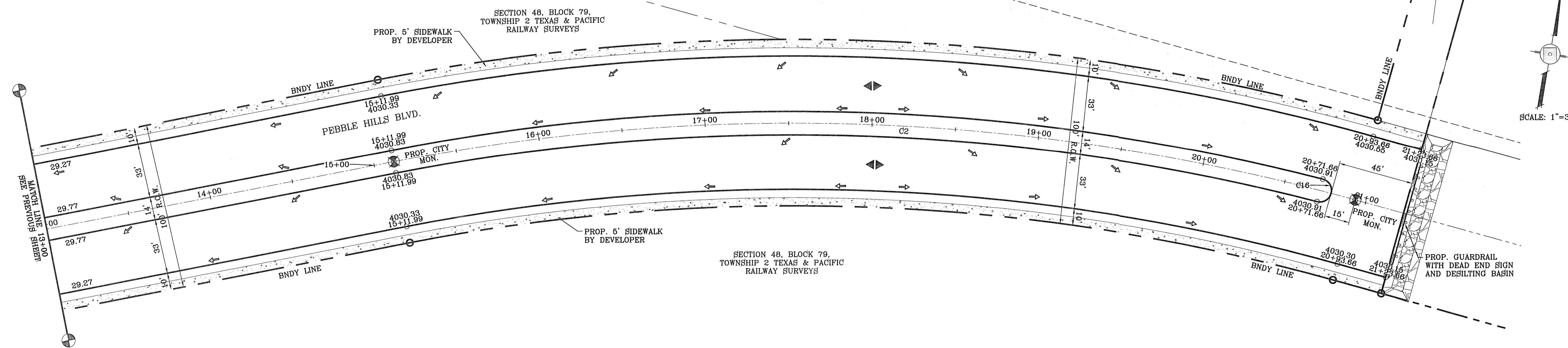
SHEET TITLE

PEBBLE HILLS BLVD.
STA: 6+00
TO
13+00

SHT 32 OF 64

FILE LOCATION S:\Subdivisions\TDE 69\PP-PEBBLE HILLS PLOTTED ON Thursday, July 12, 2012 1:28:10 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C16	1250.00'	581.67'	296.20'	576.44'	S76°38'17"W	26°39'43"



TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.165± ACRES

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

PEBBLE HILLS BLVD.
STA: 13+00 TO 21+23.66

SHT 33 OF 64

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.

DATE: 03/09/12
CITY REDLINES AS PER 03/09/12 COMMENTS
R.R.

REVISIONS

PROJECT NAME: TIERRA DEL ESTE UNIT SIXTY NINE

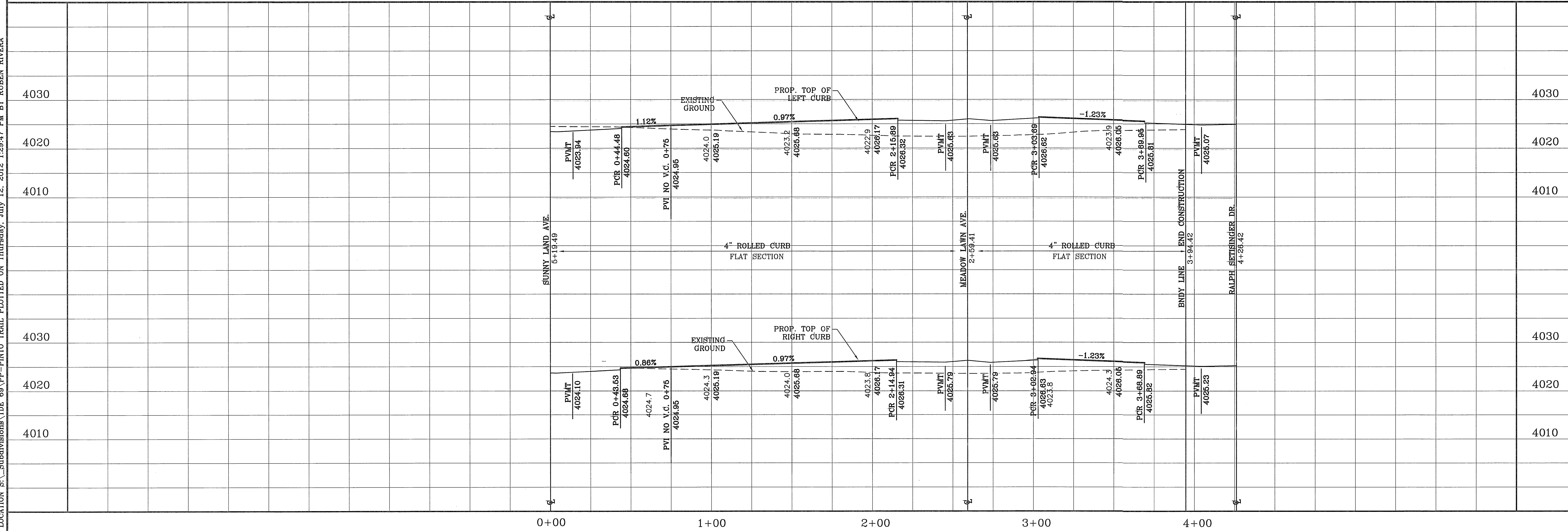
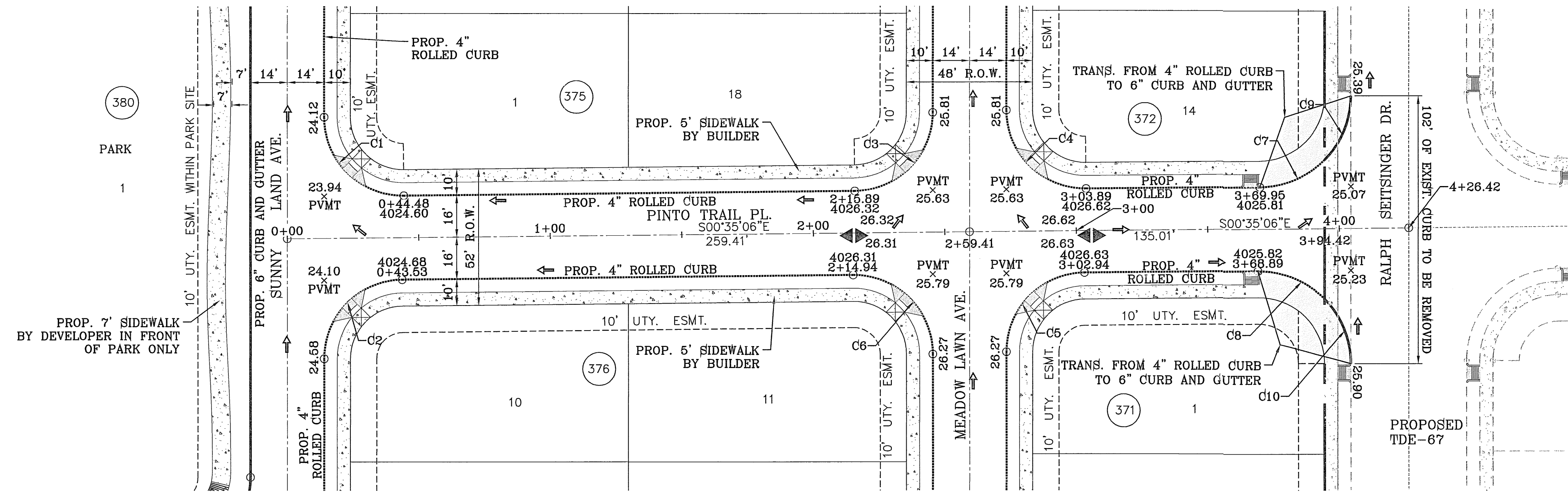
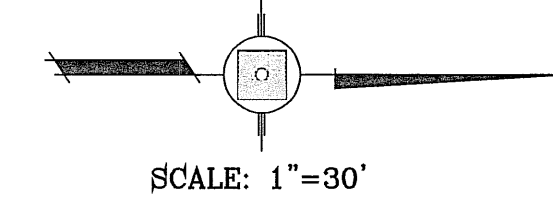
BENCHMARK: CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4090.56

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

JOB NO.: 211-60

FILE LOCATION S:_Subdivisions\TDE 69 PP-PINTO TRAIL PLOTTED ON Thursday, July 12, 2012 1:29:47 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C2	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C3	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C4	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C5	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C6	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"
C7	35.00'	27.49'	14.50'	26.78'	N23°04'55"W	44°59'38"
C8	35.00'	28.21'	14.92'	27.45'	S22°30'10"W	46°10'32"
C9	35.00'	27.13'	14.29'	26.46'	N67°47'12"W	44°24'55"
C10	35.00'	27.13'	14.29'	26.46'	S67°47'53"W	44°24'55"



BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOWMOUNT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58	DATE
REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS
	R.R.

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 87 AND 46 BLOCK 79 TOWNSHIP 14N AND RANGE 14E EL PASO COUNTY TEXAS. CITY OF EL PASO, EL PASO COUNTY TEXAS. CONTAINING: 90.166± ACRES

SCALE
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: Y.C.
 CHECKED BY: Y.C.
 JOB NO.: 211-60

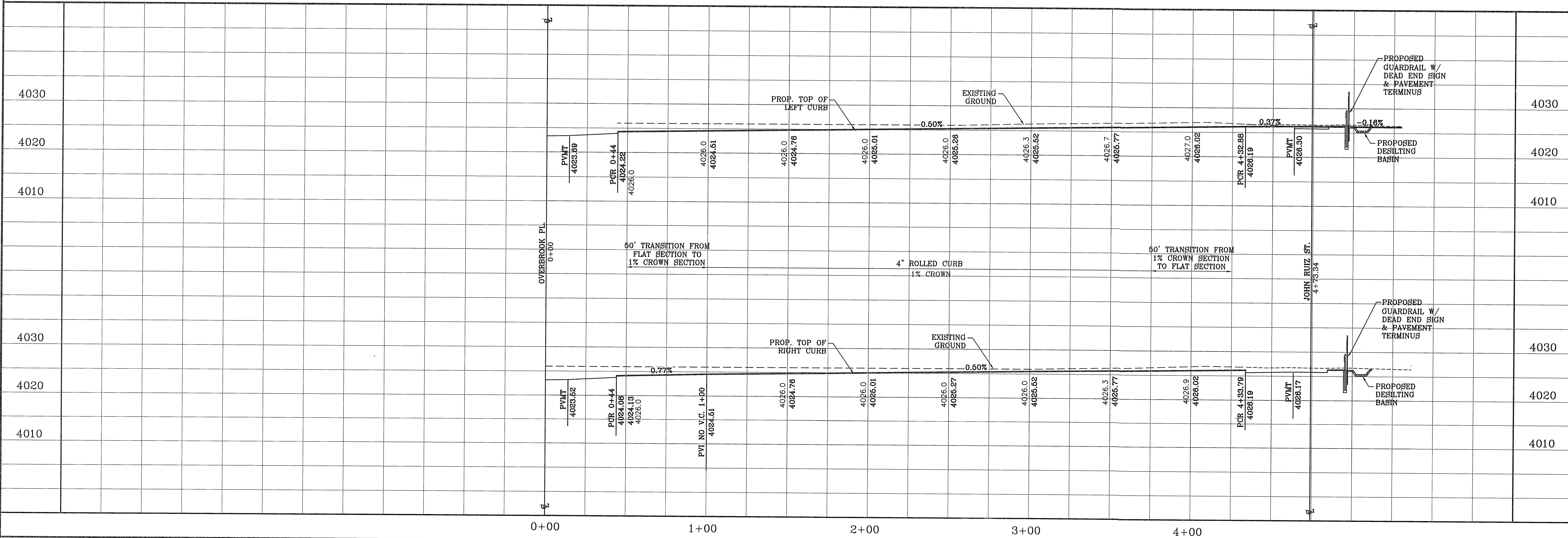
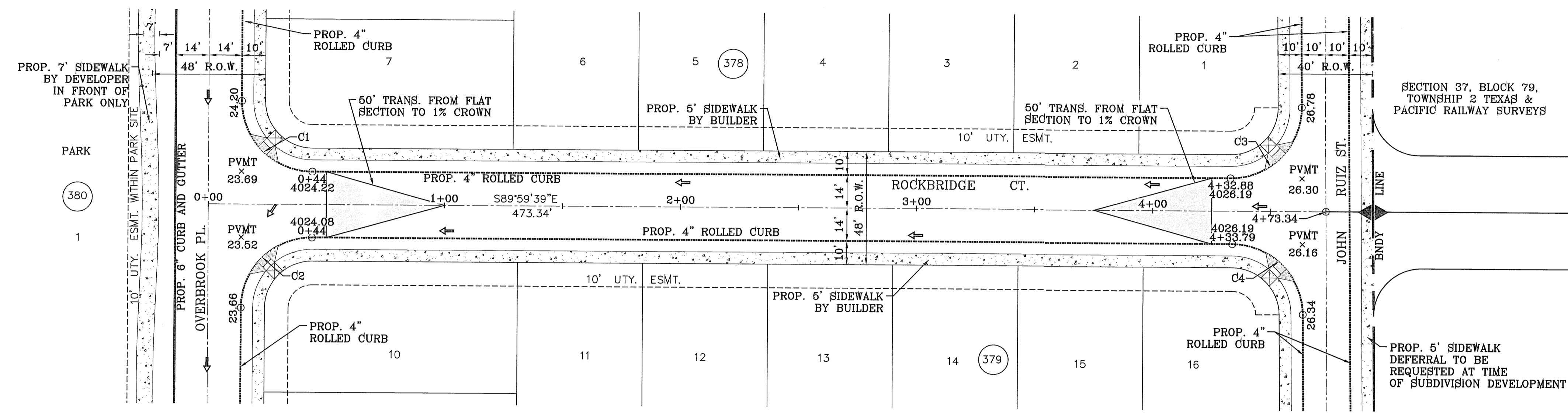
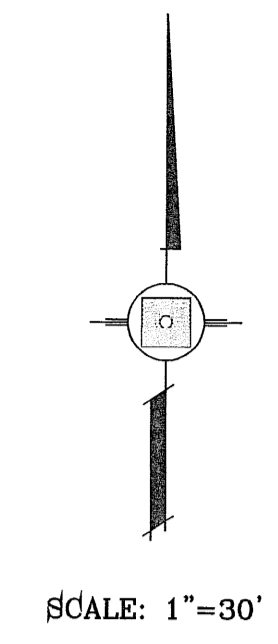
CONDE INC.
 ENGINEERING / PLANNING SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286



SHEET TITLE
STREET PLAN-PROFILE
PINTO TRAIL PL.

FILE LOCATION S:\Subdivisions\TDE 69\PP-ROCKBRIDGE PLOTTED ON Thursday, July 12, 2012 1:31:00 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.12'	30.00'	42.43'	S44°59'39"E	90°00'00"
C2	30.00'	47.12'	30.00'	42.43'	S45°00'21"W	90°00'00"
C3	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C4	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"



DATE	REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS	R.R.

TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, RANGE 10 AND PACIFIC RAILWAY CO. SURVEYS, CITY OF PASO, TEXAS. PL. 100-100000-0000, TEXAS. CONTAINING: 90.166± ACRES

SCA L E
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-60

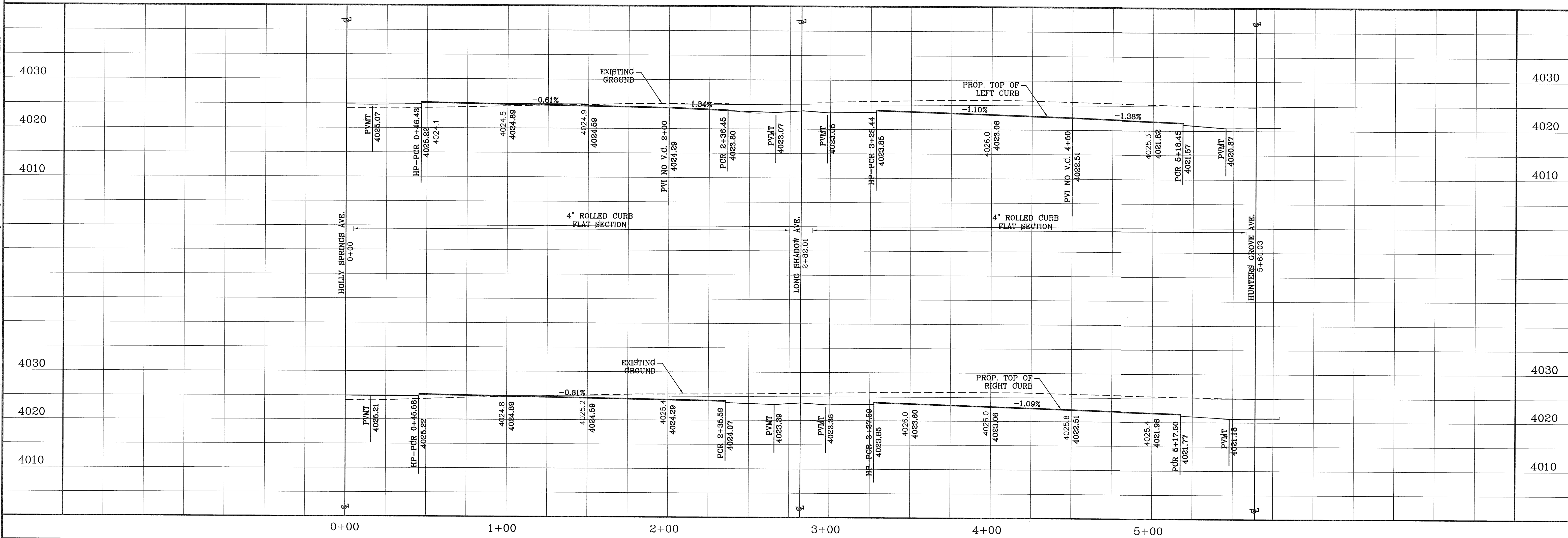
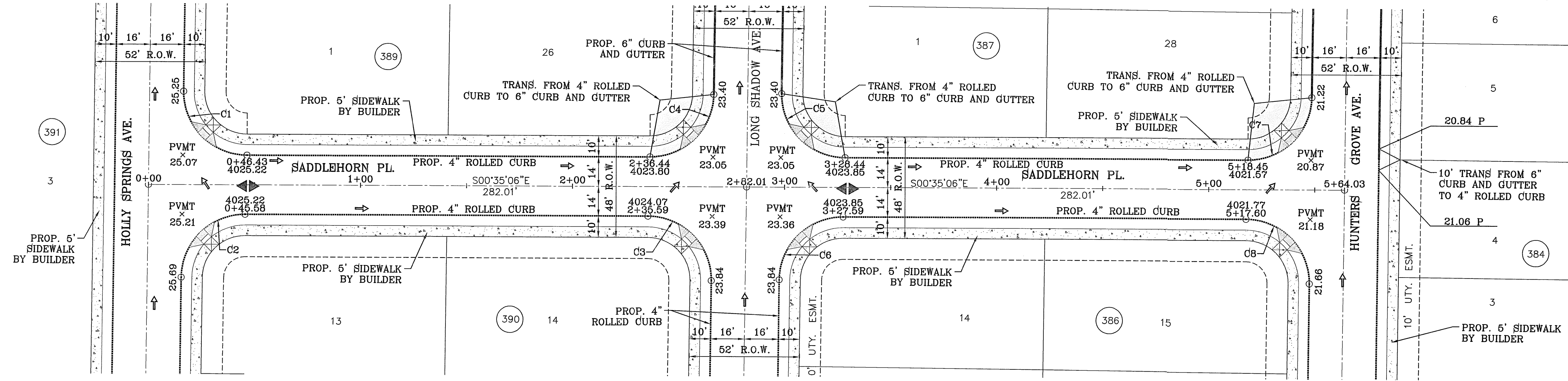
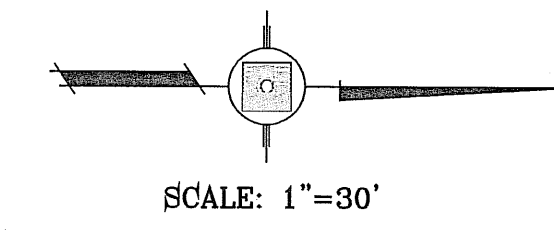
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79906
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

CONDE INC.
 REGISTRATION No. P-221

SHEET TITLE
STREET PLAN-PROFILE
ROCKBRIDGE CT.
 STA: 0+00 TO 4+73.34

FILE LOCATION: E:\Subdivisions\TDE 69\PP-SADDELEHORN PLOTTED ON Thursday, July 12, 2012 1:32:09 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C2	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C3	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"
C4	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"
C5	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C6	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C7	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"
C8	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"



BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.66
DATE	03/08/12
REVISIONS	CITY REDLINES AS PER 03/08/12 COMMENTS
BY	R.R.

TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
 TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING: 90.166± ACRES

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 S C A L E
 HORIZ: 1" = 30'
 VERT: 1" = 10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-60

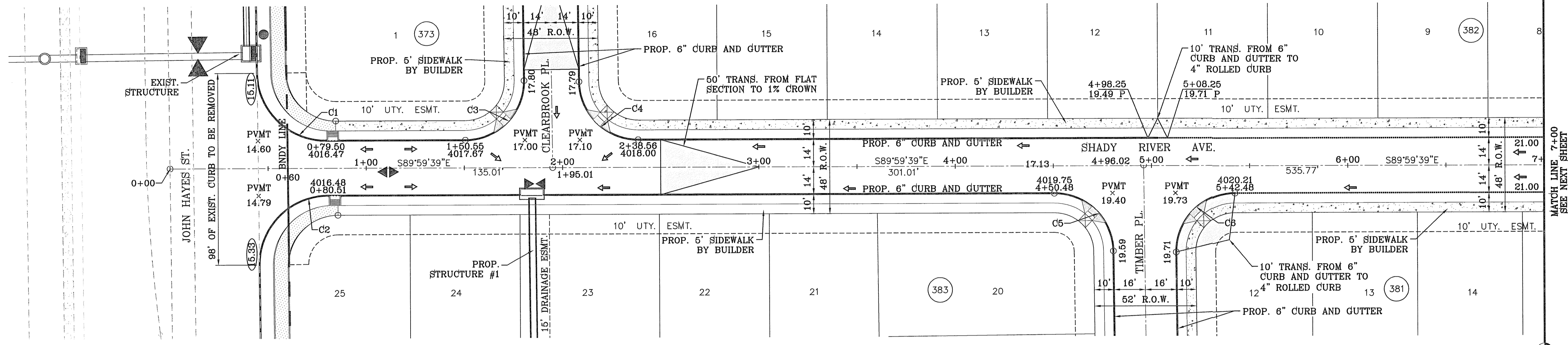
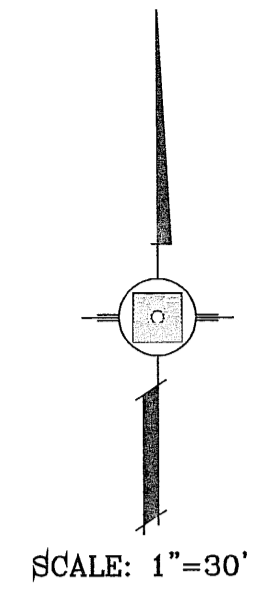
ENGINEER'S SEAL

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

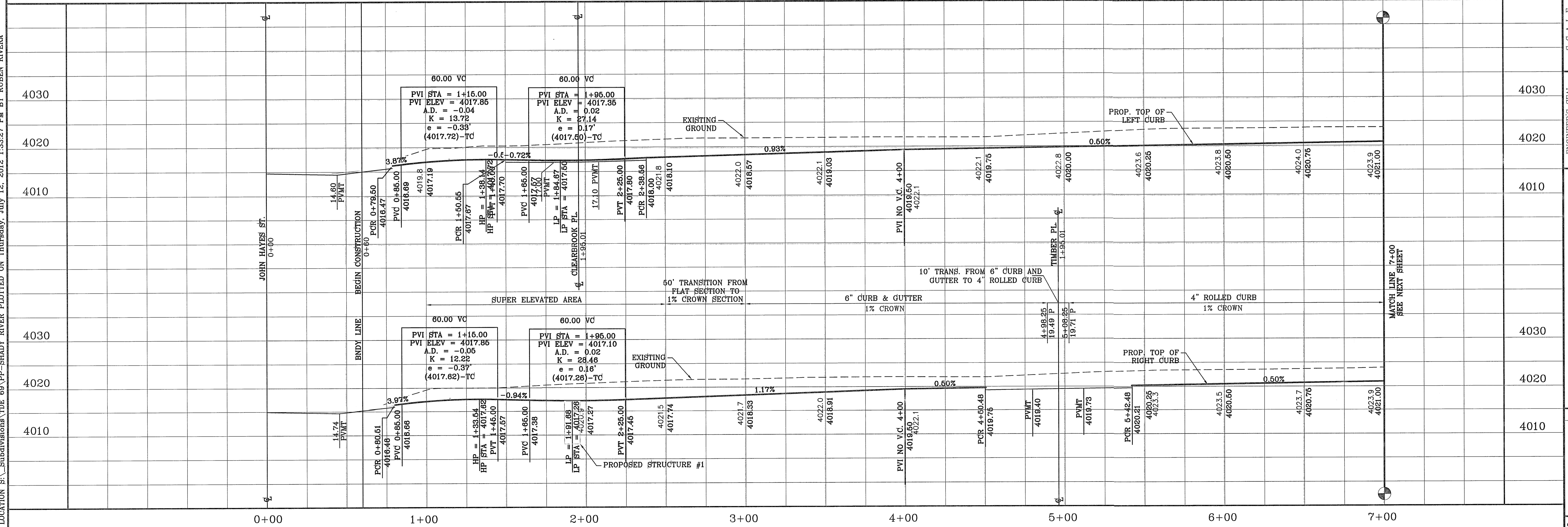
SHEET TITLE
**STREET
 PLAN-PROFILE**
**SADDELEHORN
 PL.**

FILE LOCATION S:\Subdivisions\TDE 69\PP-SHADY RIVER PLOTTED ON Thursday, July 12, 2012 1:33:27 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	35.00'	54.62'	34.64'	49.24'	S45°17'23"E	89°24'33"
C2	35.00'	55.34'	35.36'	49.75'	S44°42'37"W	90°35'27"
C3	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C4	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C5	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C6	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"



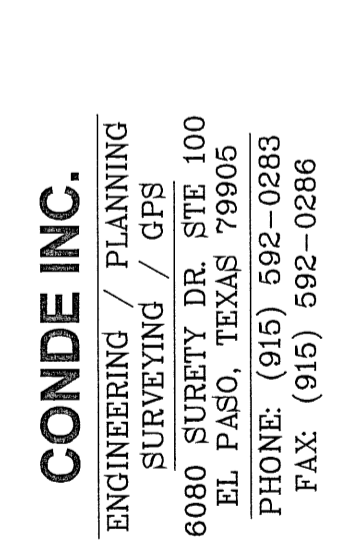
XX.XX DENOTES AS BUILT CONDITIONS



DATE	REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.

TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.160± ACRES

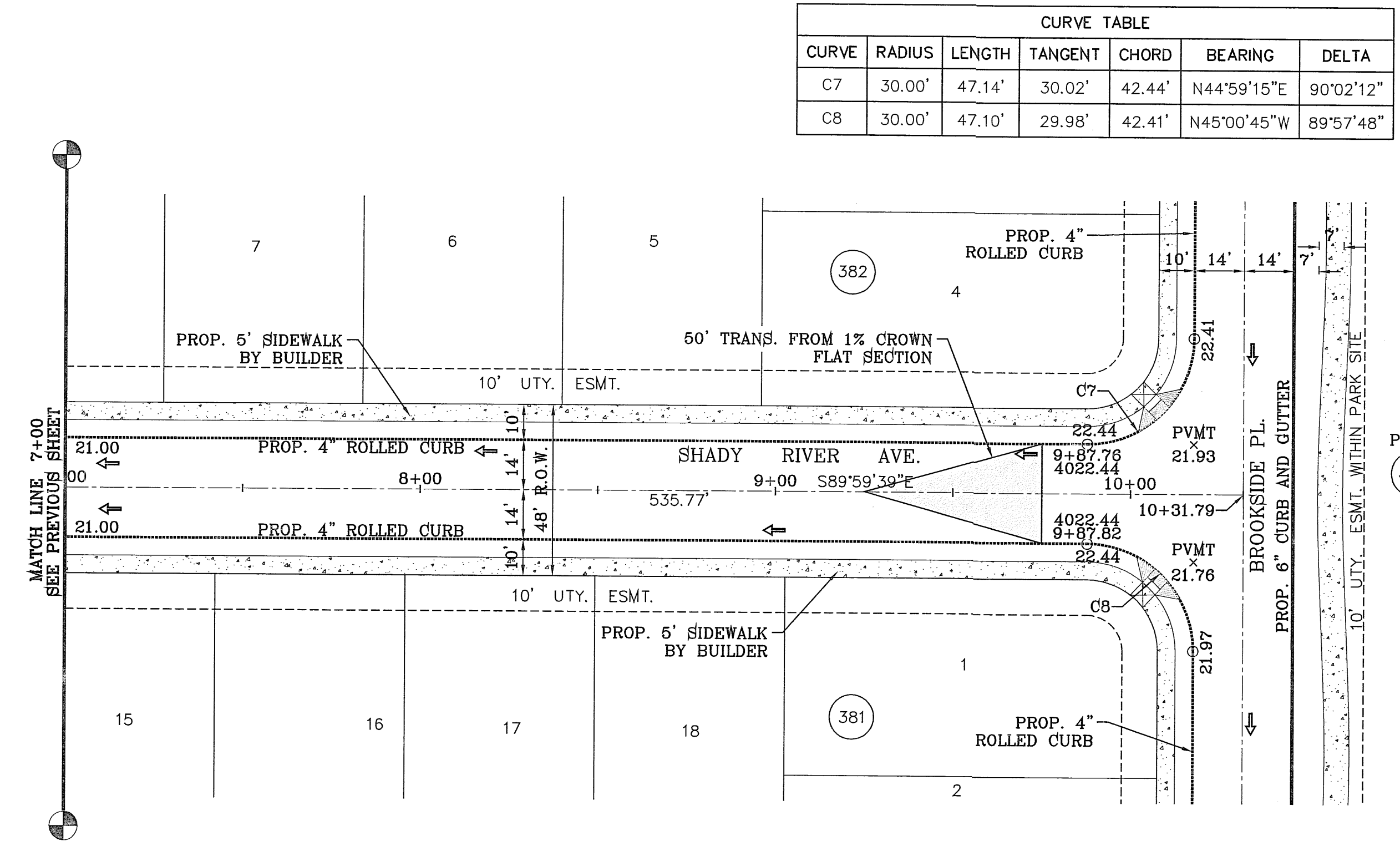
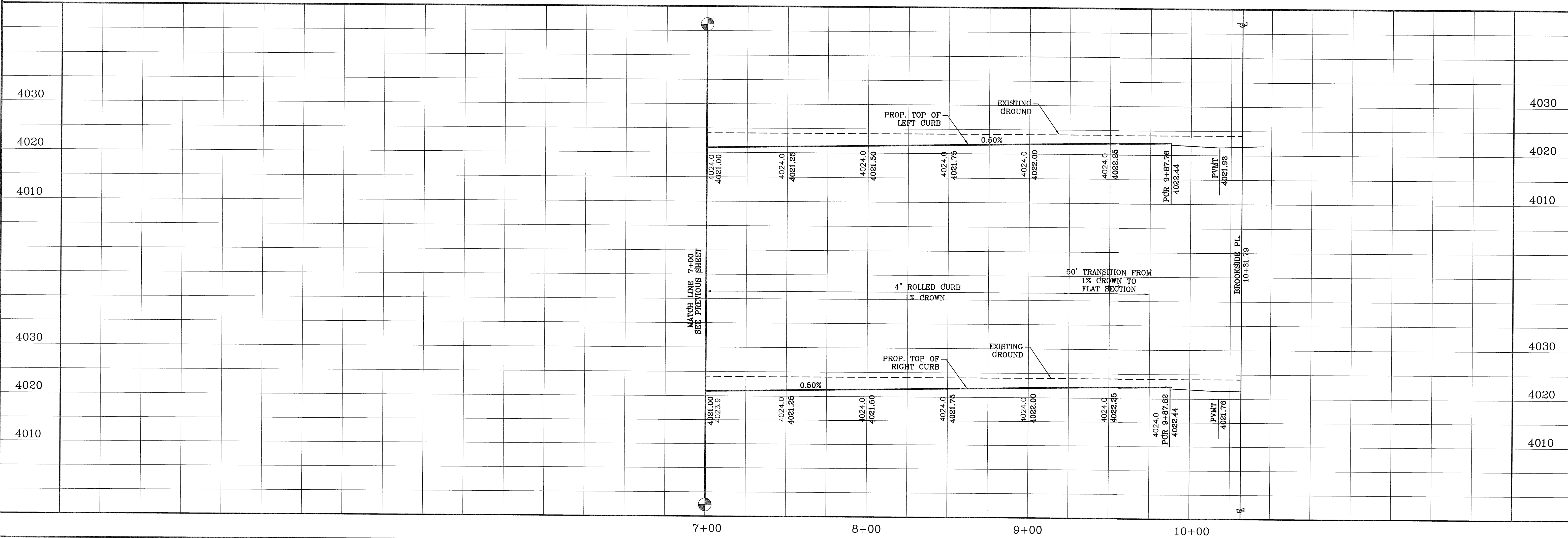
PROJECT NAME
 S C A L E
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50



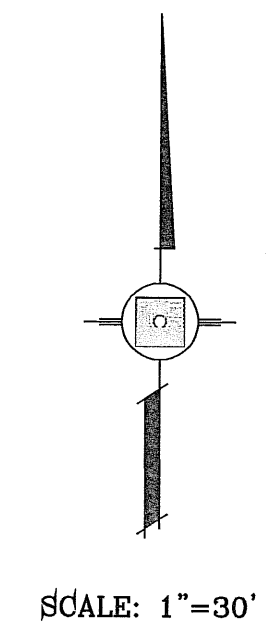
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURVEY DR. STE. 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

SHEET TITLE
STREET PLAN - PROFILE
SHADY RIVER AVE.
 STA: 0+00 TO STA: 7+00

FILE LOCATION S:\Subdivisions\TDE 69\PP-SHADY RIVER PLOTTED ON Thursday, July 12, 2012 1:33:06 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	47.14'	30.02'	42.44'	N44°59'15"E	90°02'12"
C8	30.00'	47.10'	29.98'	42.41'	N45°00'45"W	89°57'48"



BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF COUNTY POINT DR. AND JOHN HAYES ST. ELEVATION 4663.56
DATE	REVISIONS
BY	

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BRING PORTION OF SECTIONS 97 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS, AND PLAT 10, R.W. 4, CANTON, TEXAS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

SCALE
HORIZ: 1"=90'
VERT: 1"=10'
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-60

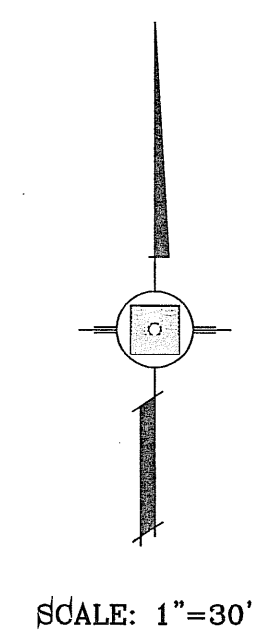
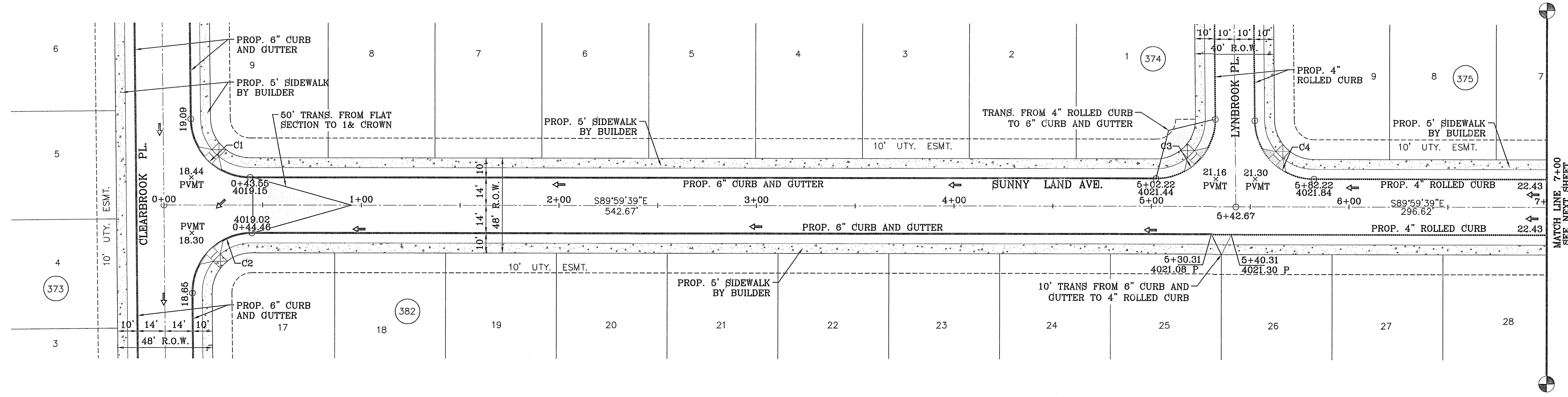
ENGINEER'S SEAL

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
SHADY RIVER AVE.
STA: 7+00
TO
STA: 10+31.79

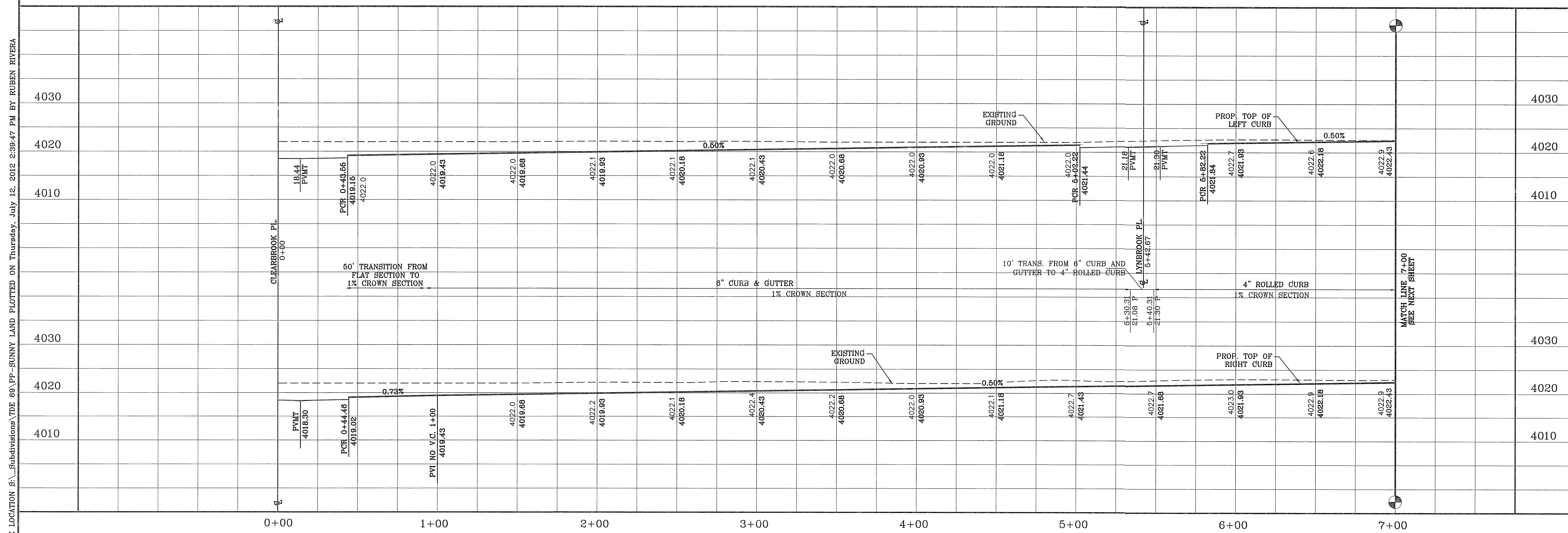
FILE LOCATION S:\Subdivisions\TDE 69\PP-SUNNY LAND PLOTTED ON Thursday, July 12, 2012 2:39:47 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C2	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"
C3	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C4	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"



BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOCKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.56
DATE	05/08/12
REVISIONS	CITY DATUM
BY	R.R.
COMMENTS	CITY REDLINES AS PER 05/08/12

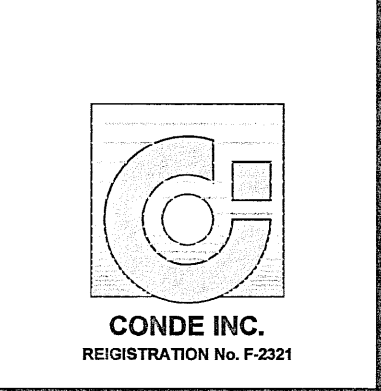
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 21, TEXAS AND PACIFIC RAILWAY SURVEY, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES



SCALE
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50



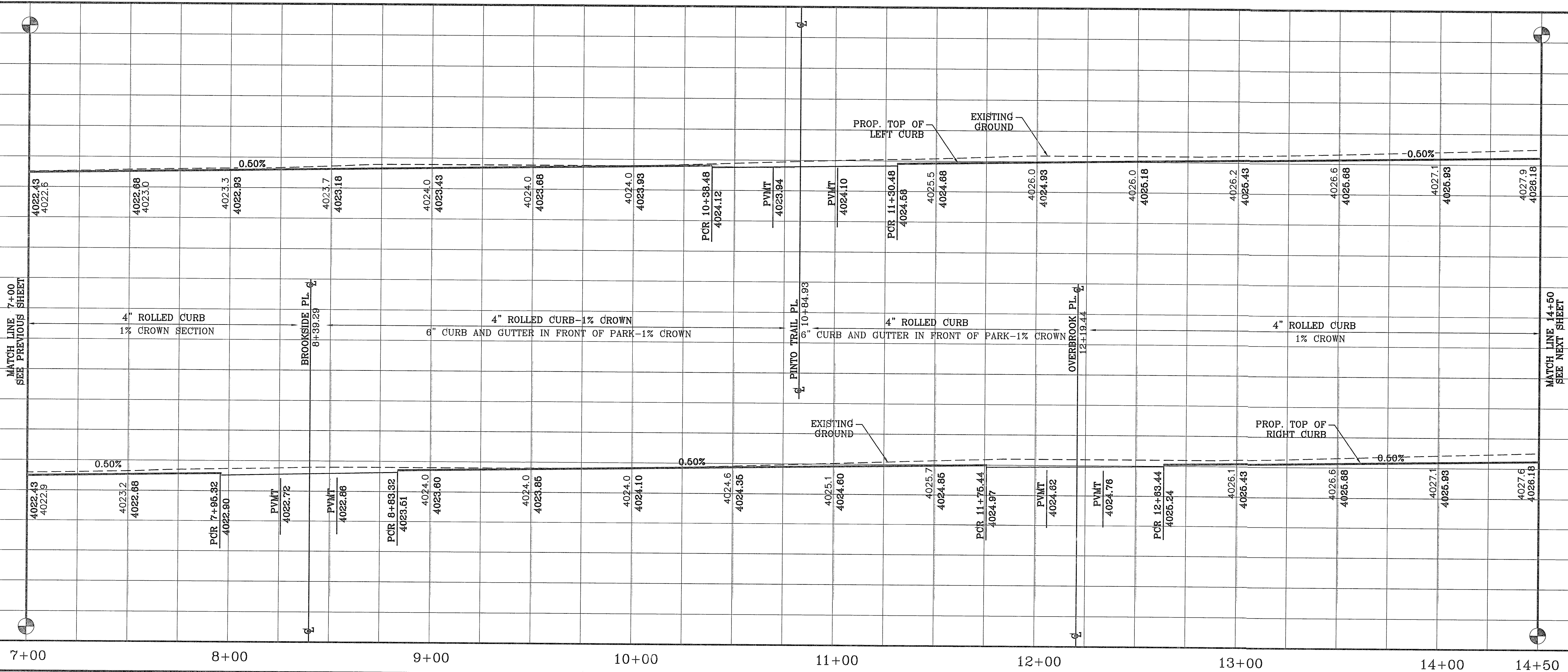
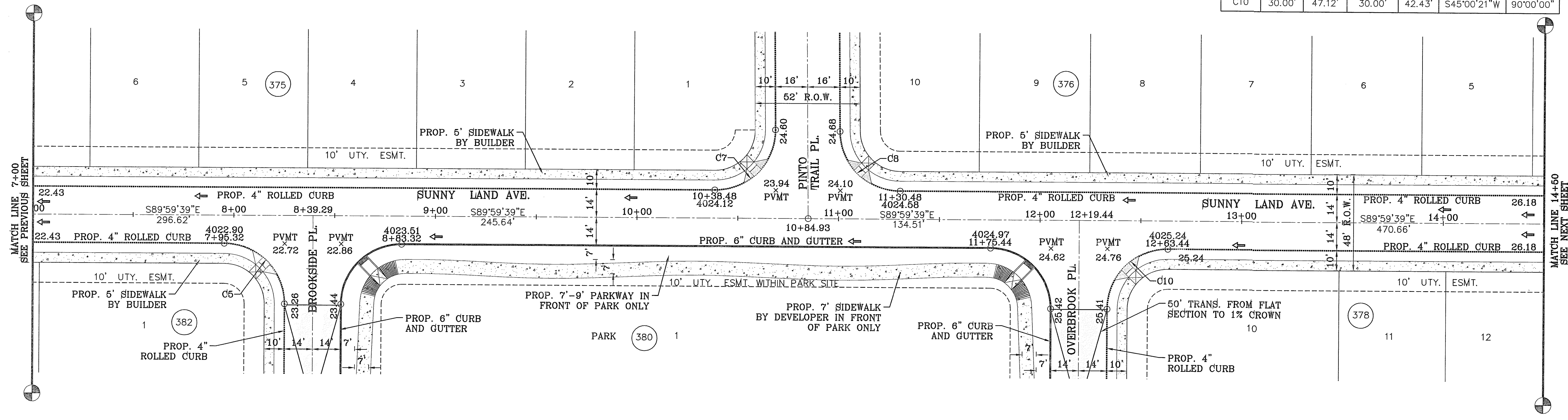
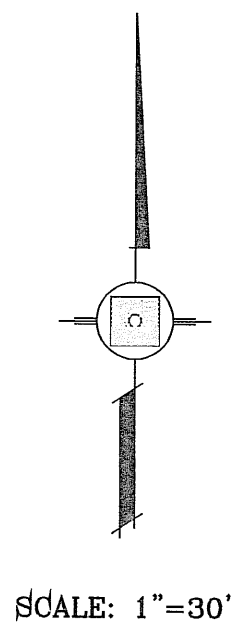
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286



SHEET TITLE
SUNNY LAND AVE.
 STA: 0+00
 TO
 STA: 7+00

FILE LOCATION S:\Subdivisions\TDE 69\PP-SUNNY LAND PLOTTED ON Thursday, July 12, 2012 2:40:05 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C5	30.00'	47.10'	29.98'	42.41'	N45°00'45"W	89°57'48"
C6	30.00'	47.14'	30.02'	42.44'	S44°59'15"W	90°02'12"
C7	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C8	30.00'	46.81'	29.69'	42.21'	S45°17'23"E	89°24'33"
C9	30.00'	47.12'	30.00'	42.43'	N44°59'39"W	90°00'00"
C10	30.00'	47.12'	30.00'	42.43'	S45°00'21"W	90°00'00"



DATE	REVISIONS	BY	R.R.
03/08/12	CITY REDLINES AS PER 03/09/12 COMMENTS		

TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.168± ACRES

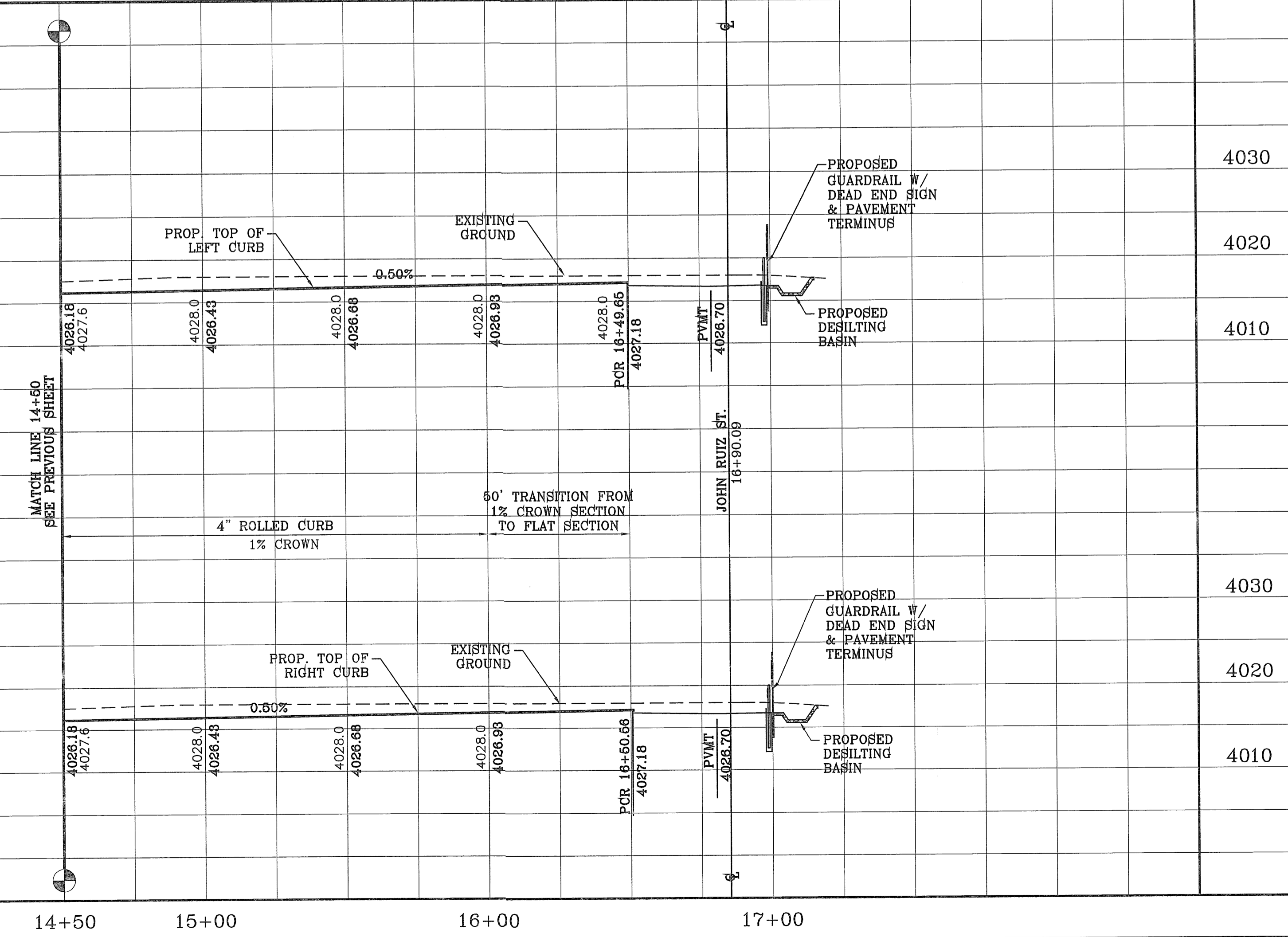
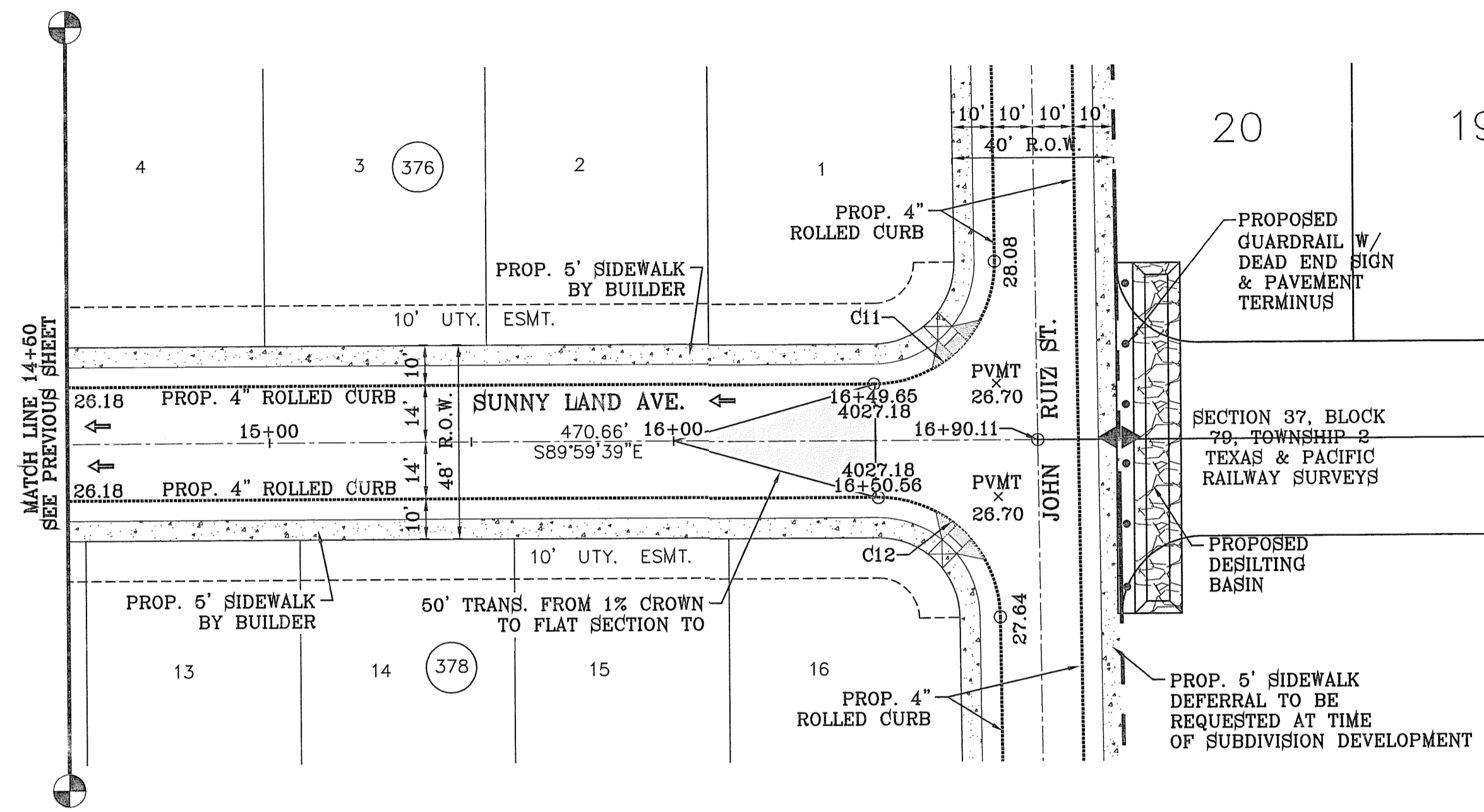
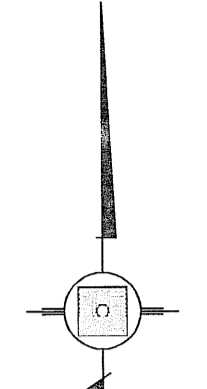
CONDE INC.
 ENGINEERING / PLANNING SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

CONDE INC.
 REGISTRATION NO. F-231

SHEET TITLE
STREET PLAN - PROFILE
SUNNY LAND AVE.
 STA: 7+00 TO STA: 14+75

FILE LOCATION S:\Subdivisions\TDE 69\PP-SUNNY LAND PLOTTED ON Thursday, July 12, 2012 2:40:25 PM BY RUBEN RIVERA

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C11	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C12	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"



BENCHMARK	
DATE	REVISIONS
03/09/12	CITY REDLINES AS PER 03/09/12 COMMENTS
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING: 90.166± ACRES

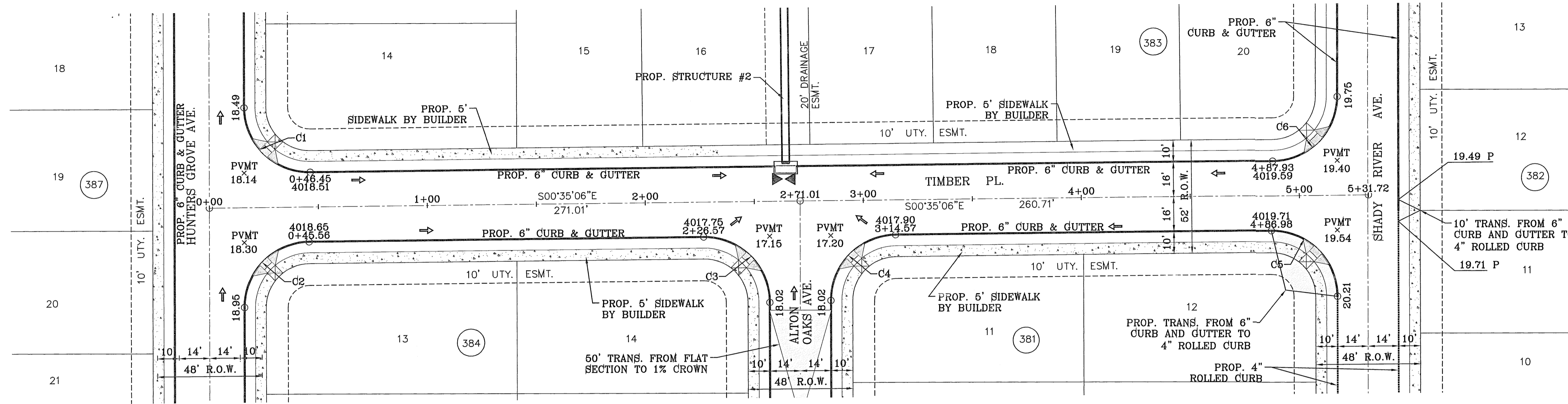
SCALE
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-60

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

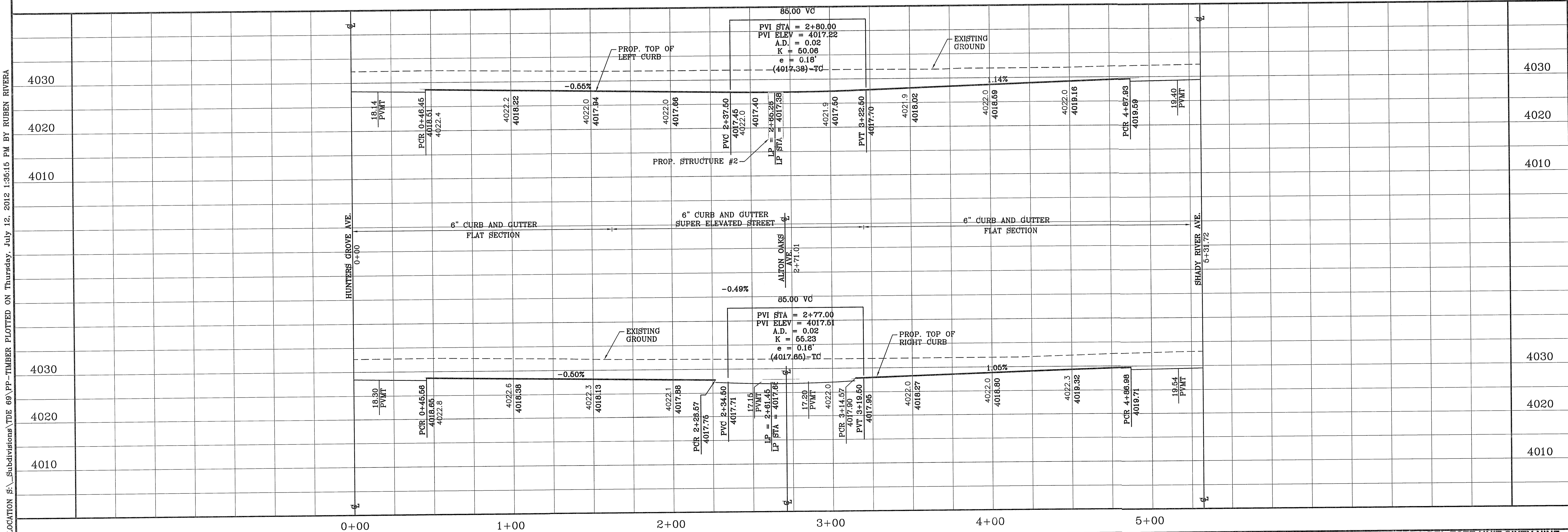
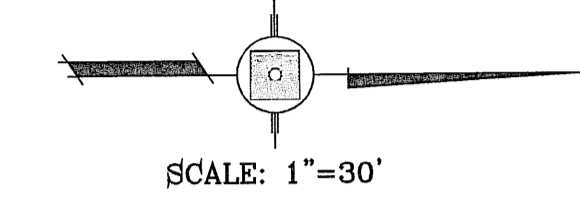


SHEET TITLE
STREET PLAN - PROFILE
SUNNY LAND AVE.
 STA: 14+75 TO STA: 16+90.11

FILE LOCATION S:_Subdivisions\TDE 69\TP-TIMBER PLOTTED ON Thursday, July 12, 2012 1:36:15 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C2	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C3	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"
C4	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C5	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"
C6	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"



DATE	REVISIONS	BY	R.R.
05/09/12	CITY REDLINES AS PER 05/08/12 COMMENTS		

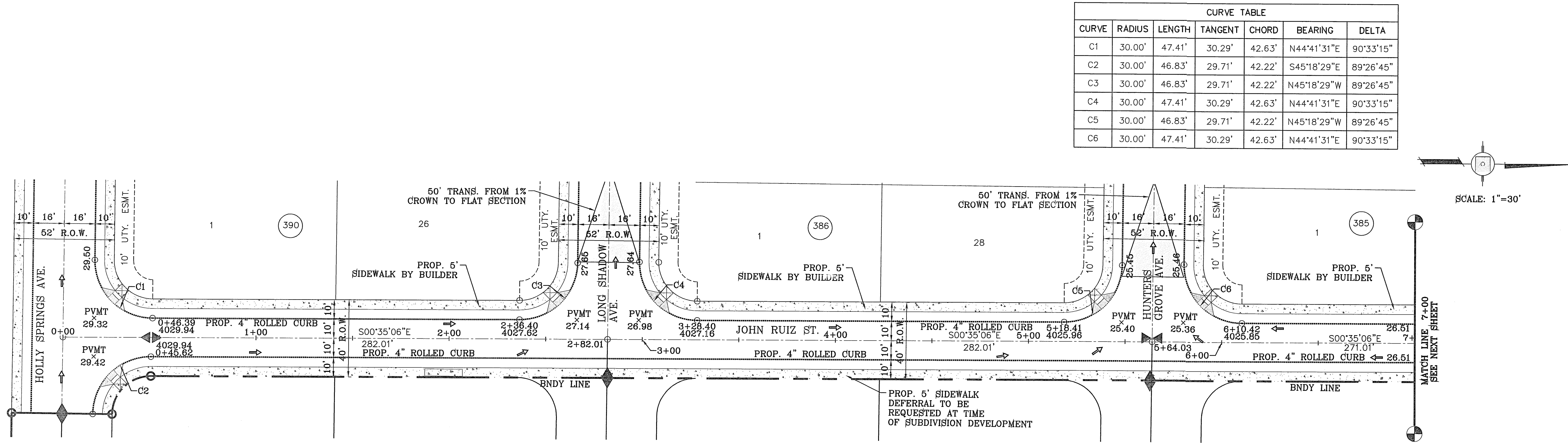
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PARTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING: 90.166± ACRES

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

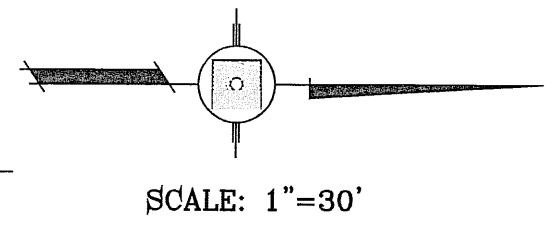
CONDE INC.
 REGISTRATION No. F-2321

TIERRA DEL ESTE UNIT SIXTY NINE
 SHEET TITLE
STREET PLAN-PROFILE
TIMBER PL.

FILE LOCATION S:\Subdivisions\TDE 69\PP-John Ruiz PLOTTED ON Thursday, July 12, 2012 1:25:54 PM BY RUBEN RIVERA



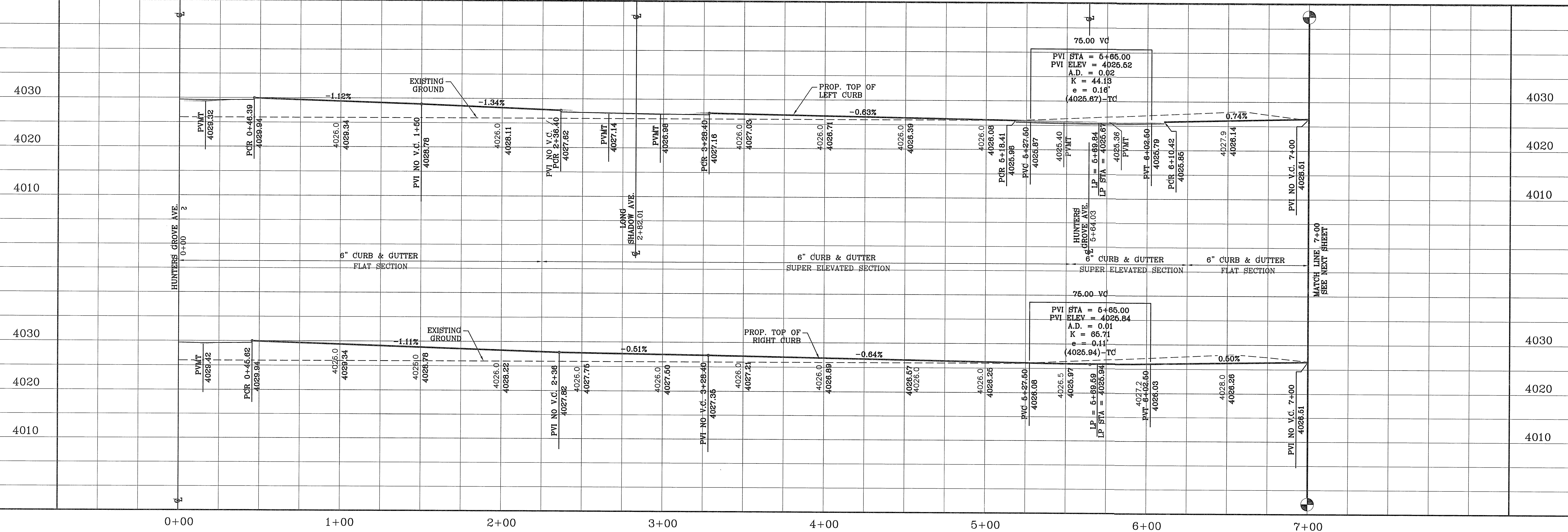
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C2	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C3	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"
C4	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C5	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"
C6	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"



BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.	ELEVATION 4020.58

REVISIONS	
DATE	BY
03/09/12	CITY REDLINES AS PER 03/09/12 COMMENTS
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS

PROJECT NAME
TERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING: 90.166± ACRES



SCALE
 HORIZ: #####
 VERT: ---
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50

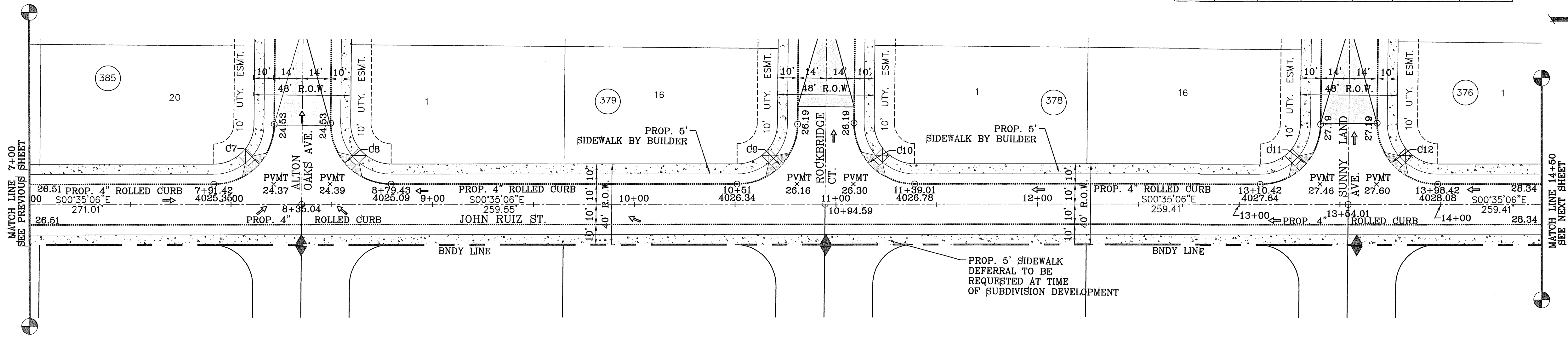
ENGINEER'S SEAL

CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. SUITE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0265
 FAX: (915) 592-0266

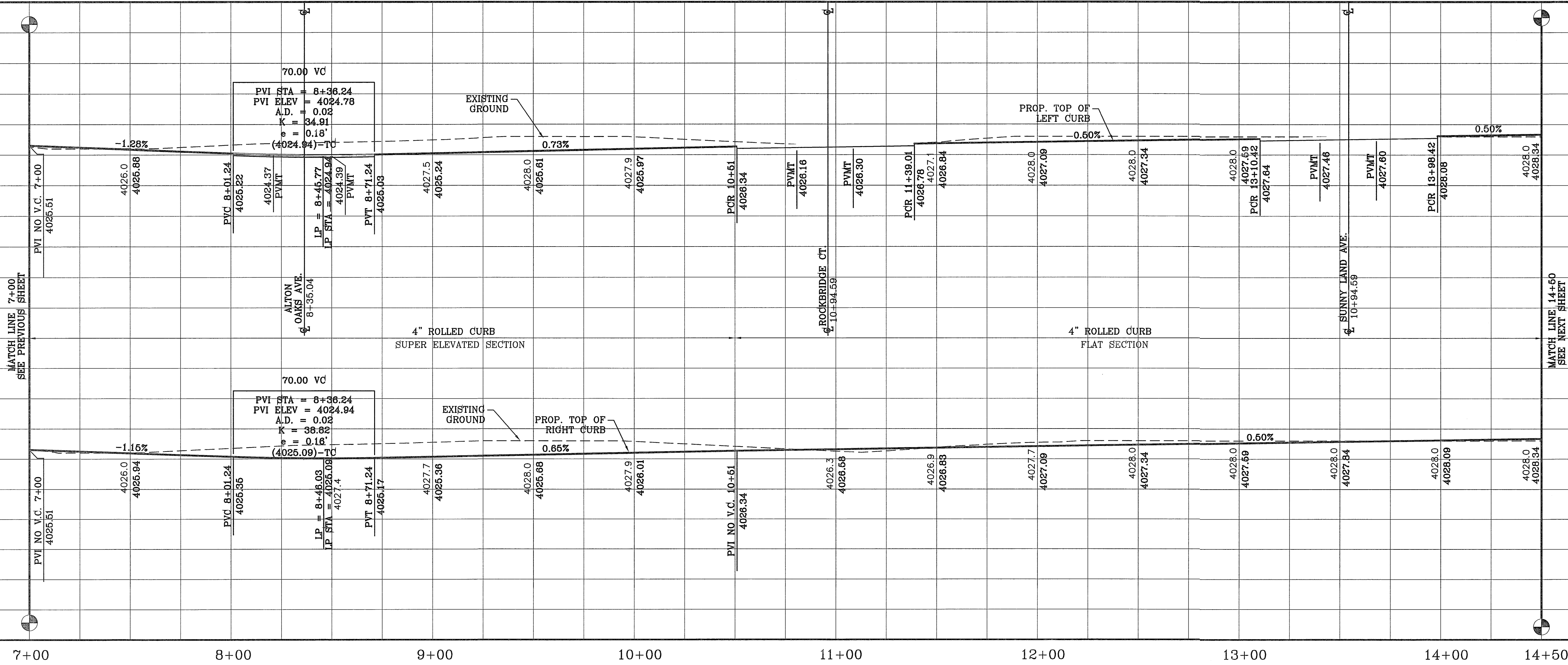
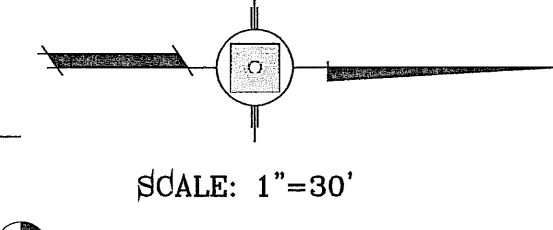
CONDE INC.
 REGISTRATION NO. P-2321

SHEET TITLE
 STREET
 PLAN-PROFILE
JOHN RUIZ ST.
 STA: 0+00 TO 7+00

FILE LOCATION S:_Subdivisions\TDE 69 PP-John Ruiz Plotted on Thursday, July 12, 2012 1:23:35 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C7	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"
C8	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C9	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C10	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"
C11	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C12	30.00'	47.43'	30.31'	42.64'	N44°42'37"E	90°35'27"



REVISIONS		BY
03/08/12	CITY REDLINES AS PER 09/08/12 COMMENTS	R.R.
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS	R.R.

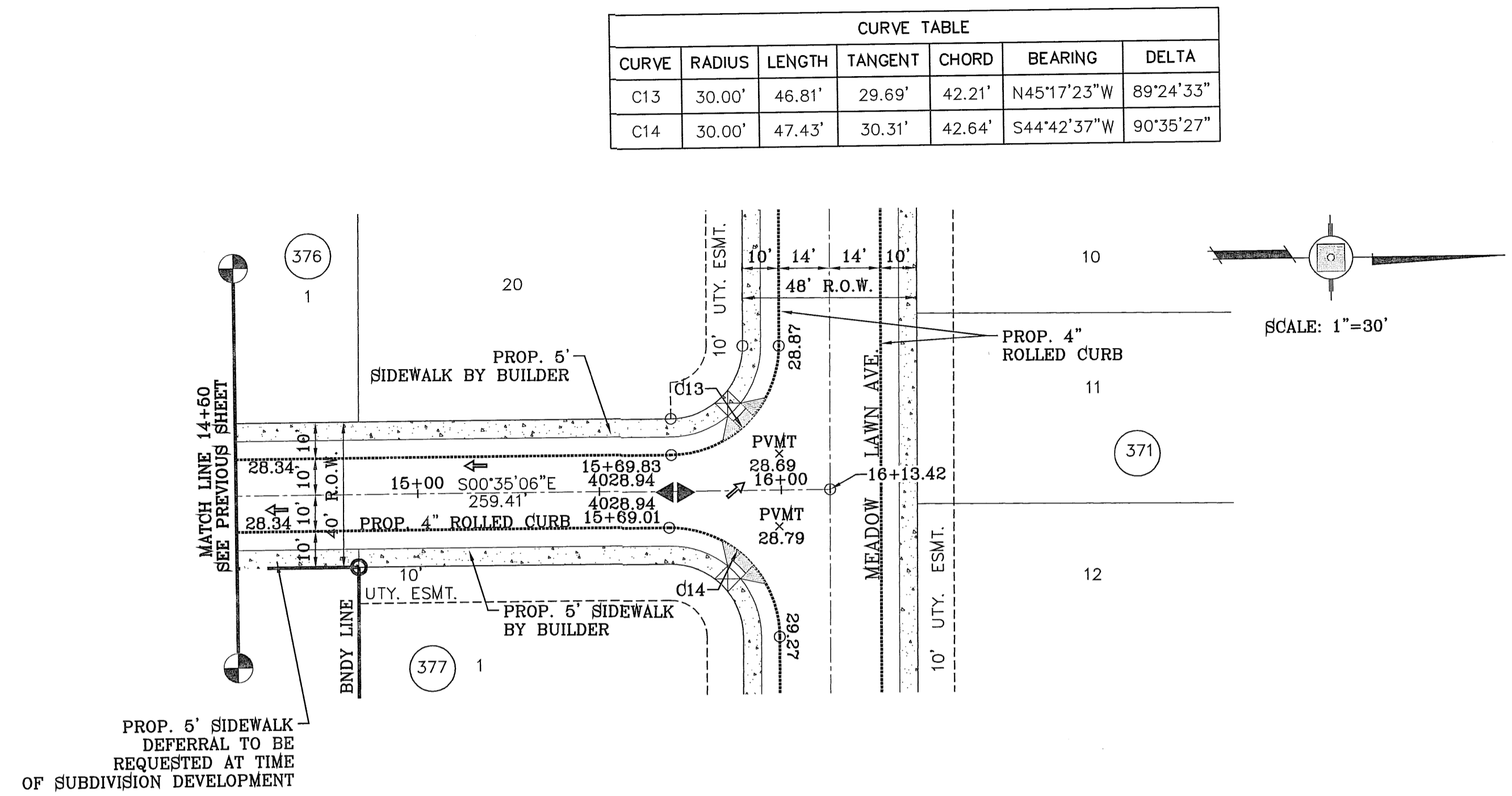
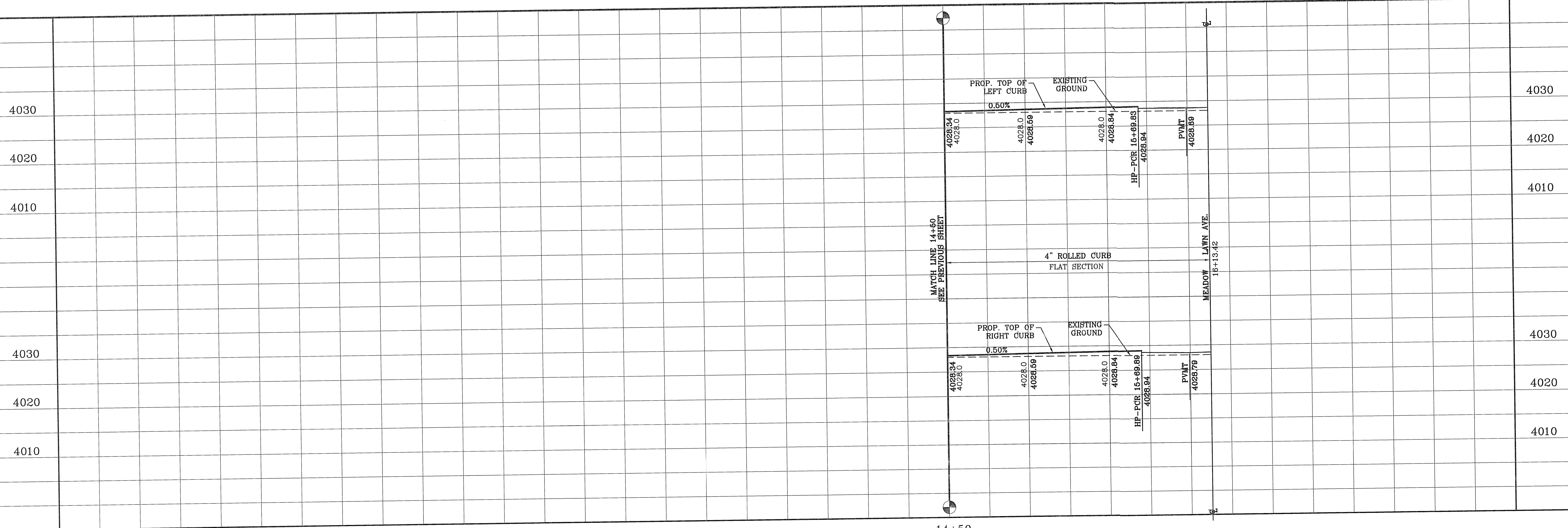
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING: 90.165± ACRES

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

CONDE INC.
 REGISTRATION No. F-2321

JOHN RUIZ ST.
 STA: 7+00 TO 14+00

FILE LOCATION S:\subdivisions\TDE 69\PP-JOHN RUIZ PLOTTED ON Thursday, July 12, 2012 1:22:59 PM BY RUBEN RIVERA



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C13	30.00'	46.81'	29.69'	42.21'	N45°17'23"W	89°24'33"
C14	30.00'	47.43'	30.31'	42.64'	S44°42'37"W	90°35'27"

SCALE: 1"=30'

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.58

DATE	REVISIONS	BY
03/05/12	CITY REDLINES AS PER 03/05/12 COMMENTS	R.R.
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS	R.R.

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 46, BLOCK 79,
TOWNSHIP 2, RANGE 10, COUNTY OF EL PASO, TEXAS,
CITY OF EL PASO, TEXAS.
CONTAINING: 80.166± ACRES

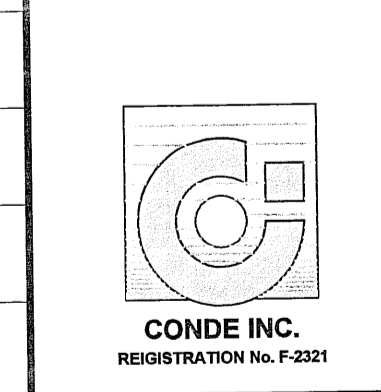
SCALE
HORIZ: 1" = 30'
VERT: 1" = 10'

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.

JOB NO.: 211-50



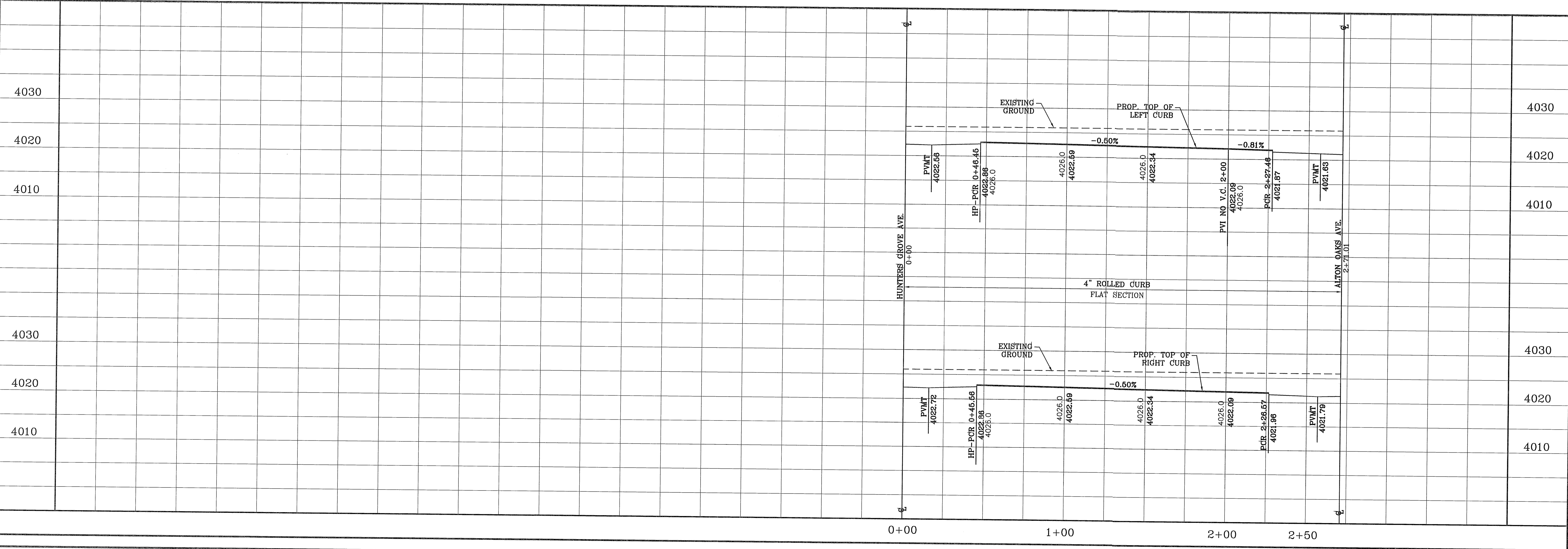
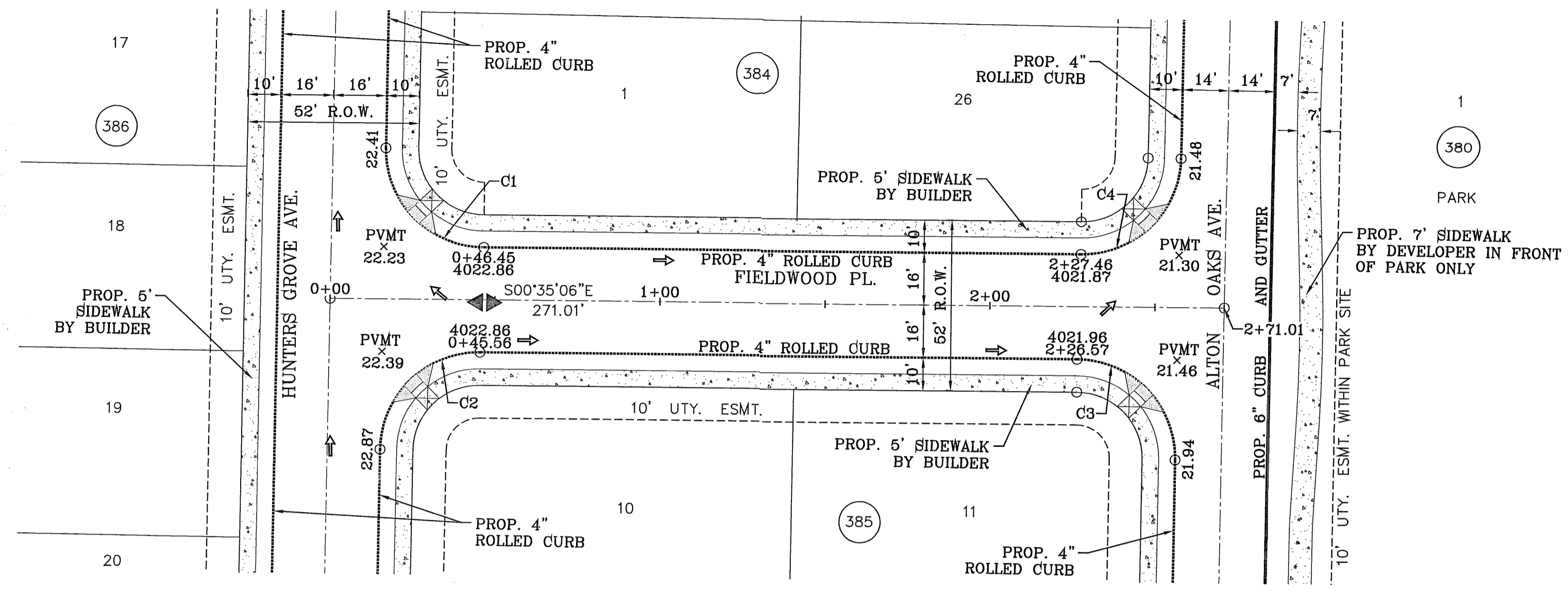
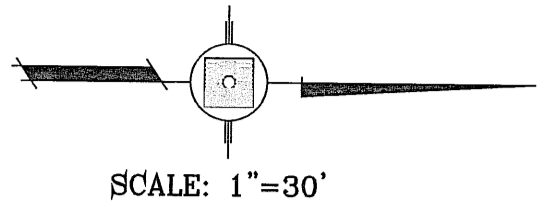
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETT DR. STE. 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286



SHEET TITLE
**STREET
PLAN-PROFILE
JOHN RUIZ
ST.**
STA: 14+00
TO
16+13.42

FILE LOCATION S:_Subdivisions\TDE 69\PP-FIELDWOOD PLOTTED ON Thursday, July 12, 2012 1:17:59 PM BY RUBEN RIVERA

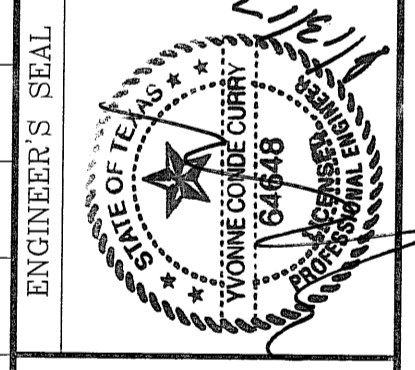
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	30.00'	47.41'	30.29'	42.63'	N44°41'31"E	90°33'15"
C2	30.00'	46.83'	29.71'	42.22'	S45°18'29"E	89°26'45"
C3	30.00'	47.41'	30.29'	42.63'	S44°41'31"W	90°33'15"
C4	30.00'	46.83'	29.71'	42.22'	N45°18'29"W	89°26'45"



BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOWERY POINT DR. AND JOHN HAYES ST.
DATE	03/08/12
BY	R.R.
REVISIONS	CITY REDLINES AS PER 03/08/12 COMMENTS
ELEVATION	4020.58

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.165± ACRES

SCALE
 HORIZ: 1"=30'
 VERT: 1"=10'
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50



CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0285
 FAX: (915) 592-0286



SHEET TITLE
FIELDWOOD PL. IN ITS ENTIRETY
 STREET PLAN-PROFILE
TIERRA DEL ESTE UNIT SIXTY NINE
 SHEET 46 OF 64

MATCH LINE A-A
SEE NEXT SHEET

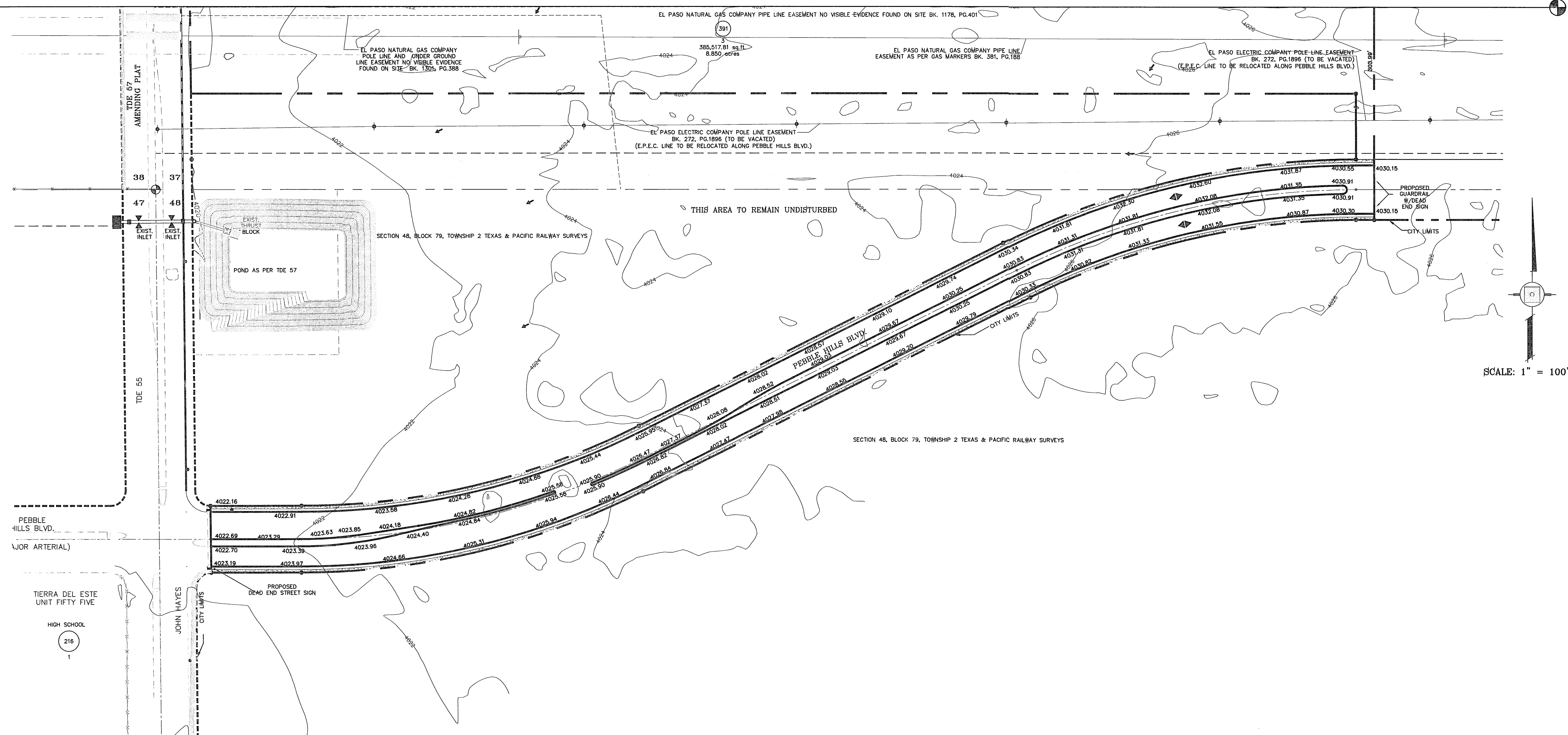
DETAIL No. 314
SECTION DETAIL SHEET
SECTION REFERENCE SHEET

LEGEND

FF=0.67	PROPOSED FINISH FLOOR
FG=00.00	PROPOSED FINISH GROUND
00.00	PROPOSED SPOT ELEVATION
▲	HIGH POINT
▼	LOW POINT
---	EXISTING CONTOUR
---	EXISTING SPOT ELEVATION
---	PROPOSED CONTOUR
---	PROPOSED ROCK WALL
---	PROPOSED RETAINING WALL

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

SEE SHEET 49 AND 50 FOR DRAINAGE STRUCTURES #1, #2 AND #3



SCALE: 1" = 100'

GENERAL NOTES:

- IMPROVEMENT WITHIN CITY R.O.W. SHALL COMPLY WITH TITLE 19-SUBDIVISION ORDINANCE-"SUBDIVISION IMPROVEMENT DESIGN STANDARDS".
- 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.
- 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.
- 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.
- EQUIPMENT OF A CONDITION AND DESIGN SUFFICIENT TO ENSURE A THOROUGH AND WORKMANLIKE PROSECUTION OF THE PROJECT SHALL BE USED AT ALL TIMES.
- ALL ELEVATIONS ARE TO CITY DATUM UNLESS OTHERWISE NOTED.
- ALL WASTE MATERIALS INCLUDING EXCAVATION, CURBING, PAVEMENT, ETC. SHALL BE DISPOSED OF AS DESIGNATED BY THE OWNER OR HIS REPRESENTATIVE.
- 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.
- SAFE AND REASONABLE ACCESS FOR THIS SITE MUST BE MAINTAINED AT ALL TIMES DURING THE LIFE OF THE PROJECT.
- ANY CAVITY REMAINING OPEN DURING NONWORKING HOURS MUST BE GUARDED BY FLASHER TYPE BARRICADES WITH STRINGERS PLACED BETWEEN THE TOPS OF THE BARRICADES.
- DEVELOPER SHALL COMPLY WITH SECTION 13.08.170 "EXCESSIVE PAVING CUTS" AS PER EL PASO MUNICIPAL CODE.

GENERAL BARTHWORX NOTES:

- ALL GRADING SHALL CONFORM TO THE CITY OF EL PASO GRADING ORDINANCE SECTION 18.44.
- 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.
- 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.
- TEMPORARY DUST AND EROSION CONTROL MEASURES SHALL BE PROVIDED FOR AT ALL TIMES. SEE SHEET 10 & 11.
- 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.
- ALL SLOPES AND SWALES WITHIN LOTS SHALL BE MAINTAINED BY LOT OWNER.
- ALL GRADE SLOPES TO BE 3:1 MAX.

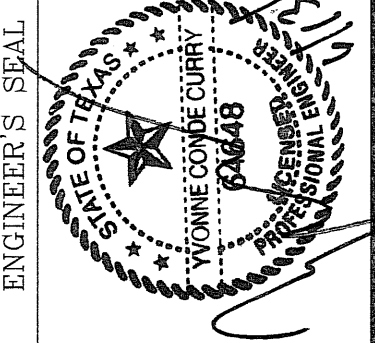
CONSTRUCTION NOTES:

- ALL CONCRETE FOR STRUCTURES SHALL BE 3000 PSI. UNLESS OTHERWISE NOTED.
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
- 95% COMPACTION REQUIRED FOR STRUCTURES AS PER ASTM D1557.
- REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
- 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.
- 85% COMPACTION REQUIRED ON CUTS & 95% COMPACTION REQUIRED ON FILLS.

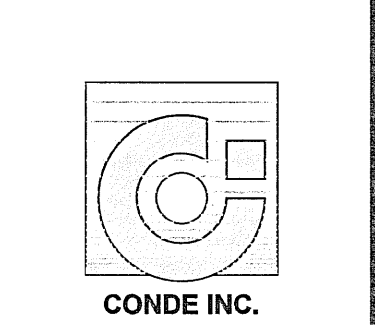
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.56	REVISIONS	BY
	DATE	REVISIONS
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.
06/29/12	ADDITION OF MEDIAN OPENING	R.R.

TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 90.1651 ACRES

S C A L E
HORIZ: #####
VERT: ---
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50



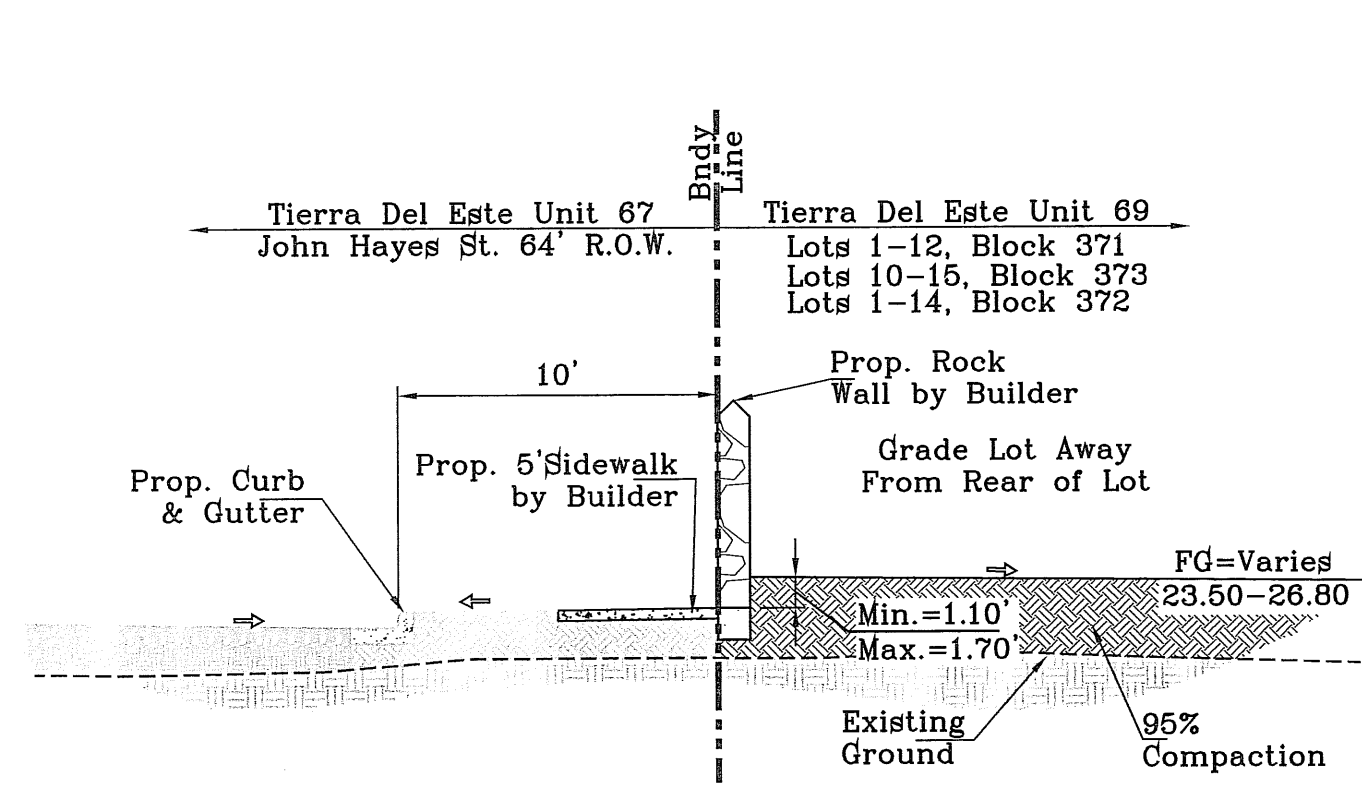
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GFS
6080 SURETY DR. STE. 100
EL PASO, TEXAS 79905
PHONE: (915) 582-0283
FAX: (915) 582-0286



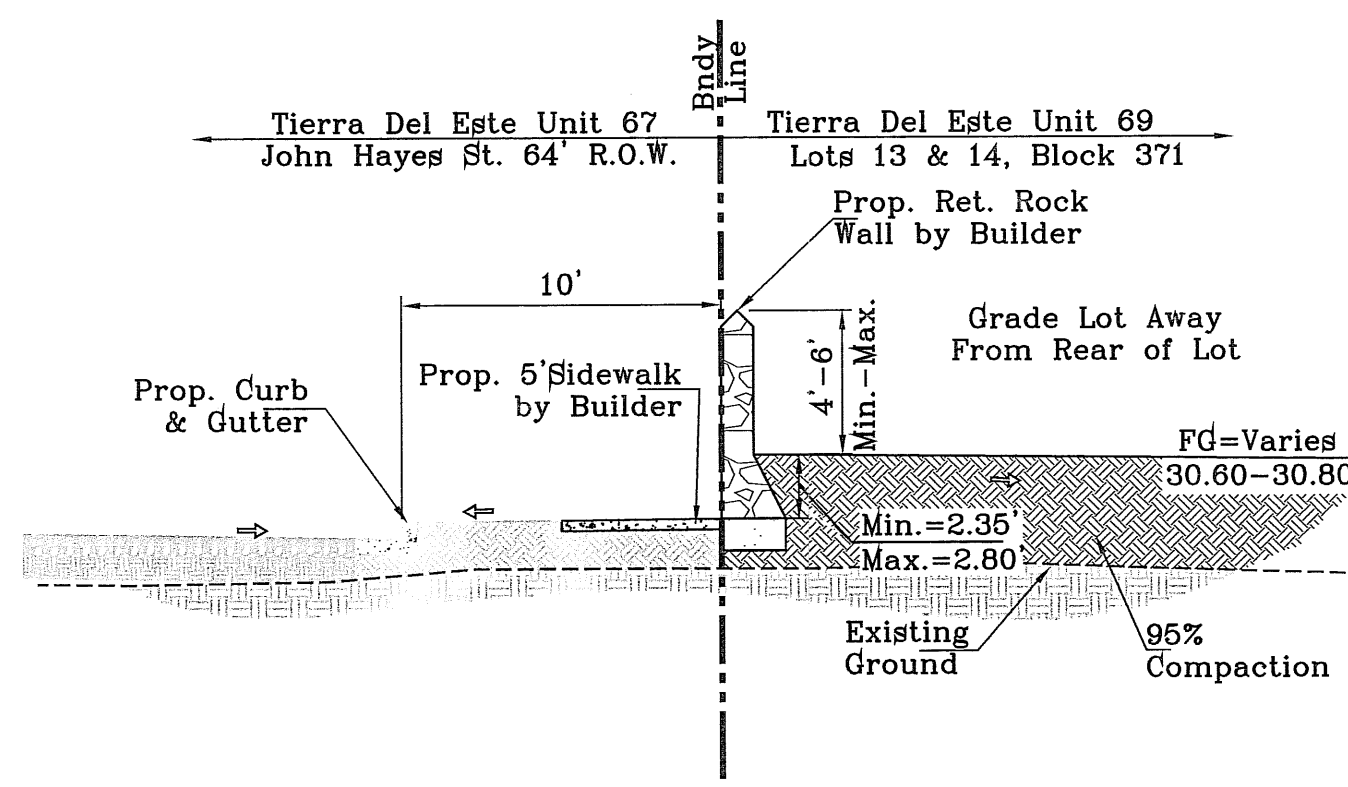
SHEET TITLE

GRADING PLAN

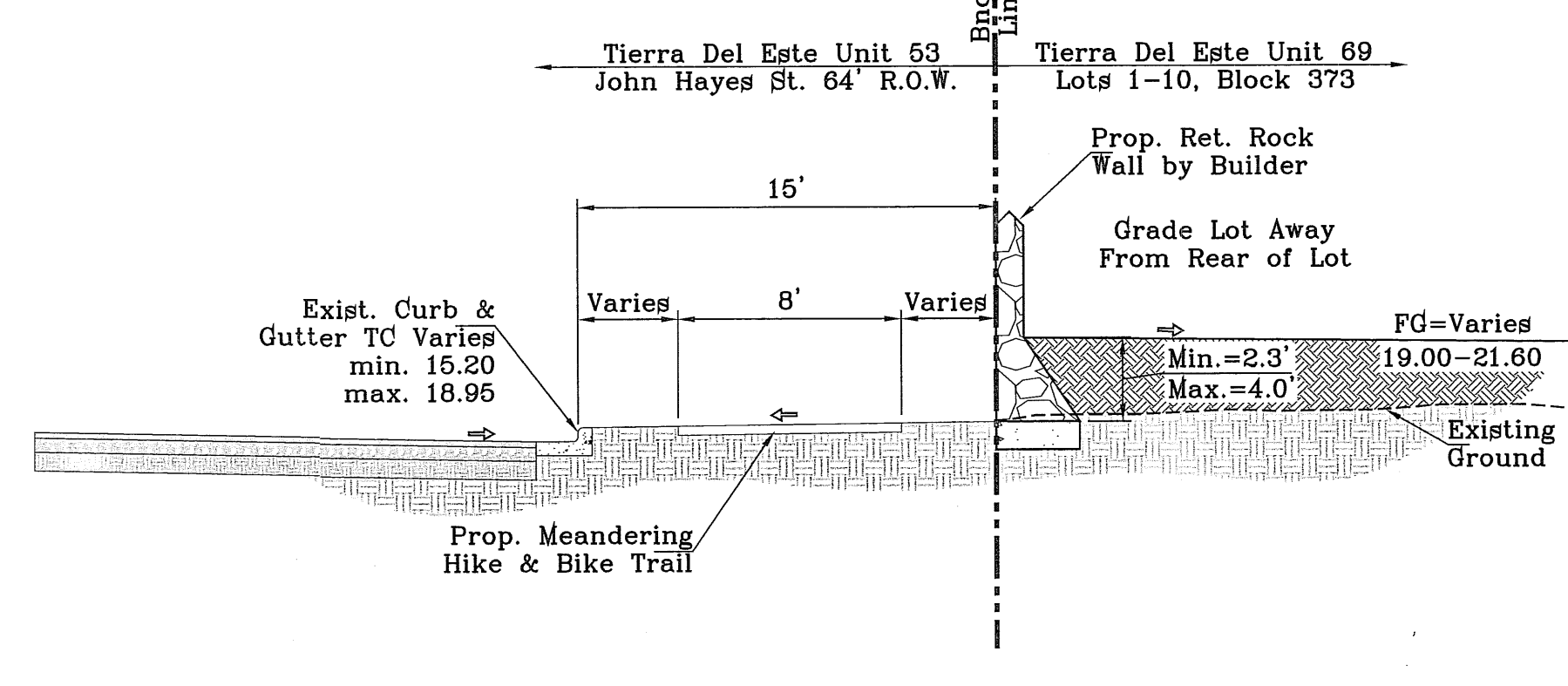
FILE LOCATION S:\Subdivisions\TDE 69\GRADING SECTIONS PLOTTED ON Thursday, July 12, 2012 1:06:56 PM BY RUBEN RIVERA



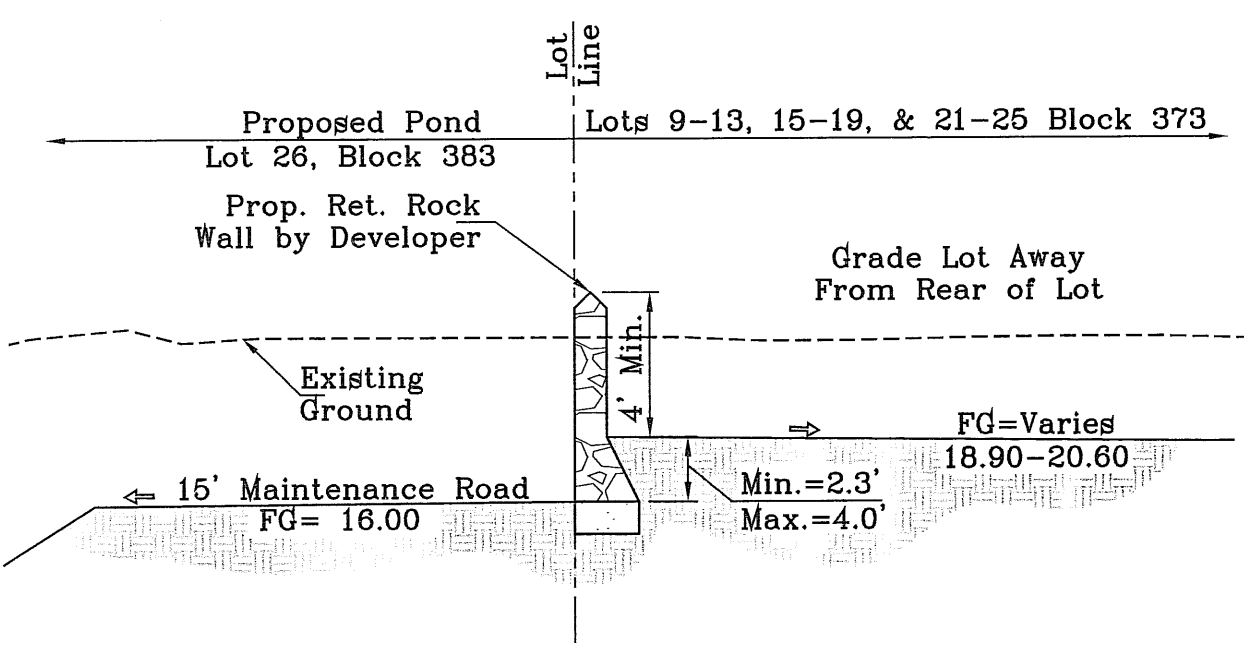
SECTION A
SCALE: 1" = 6'



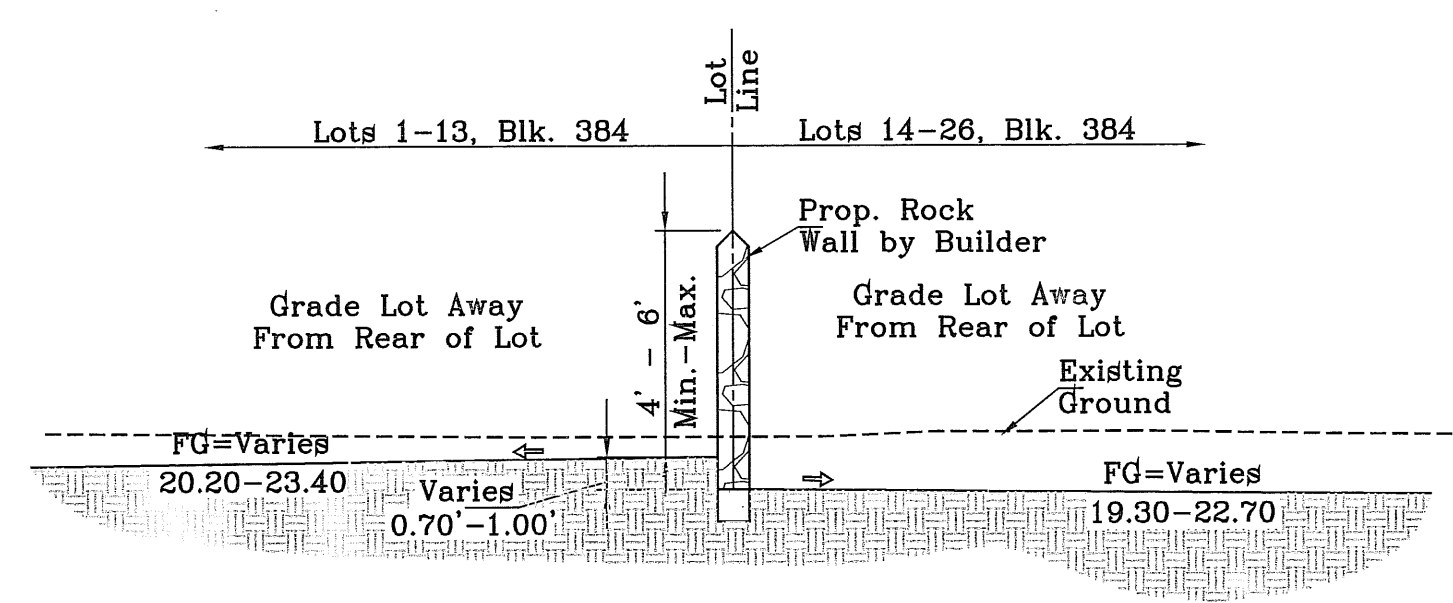
SECTION B
SCALE: 1" = 6'



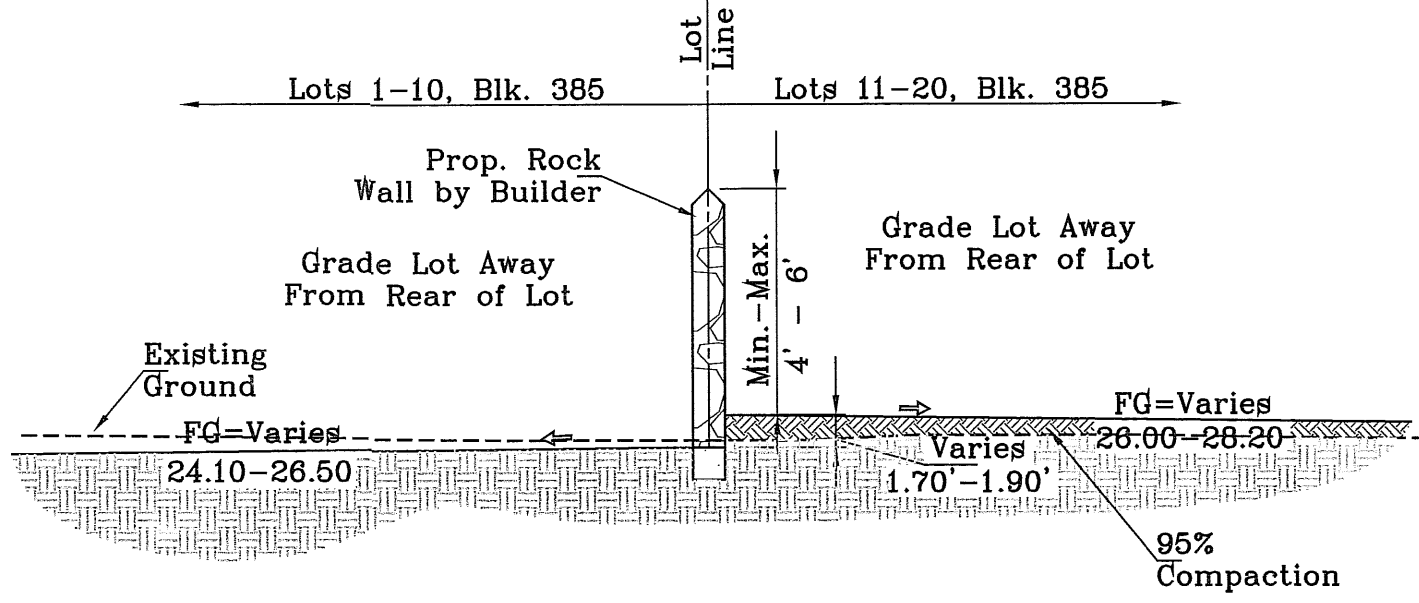
SECTION C
SCALE: 1" = 6'



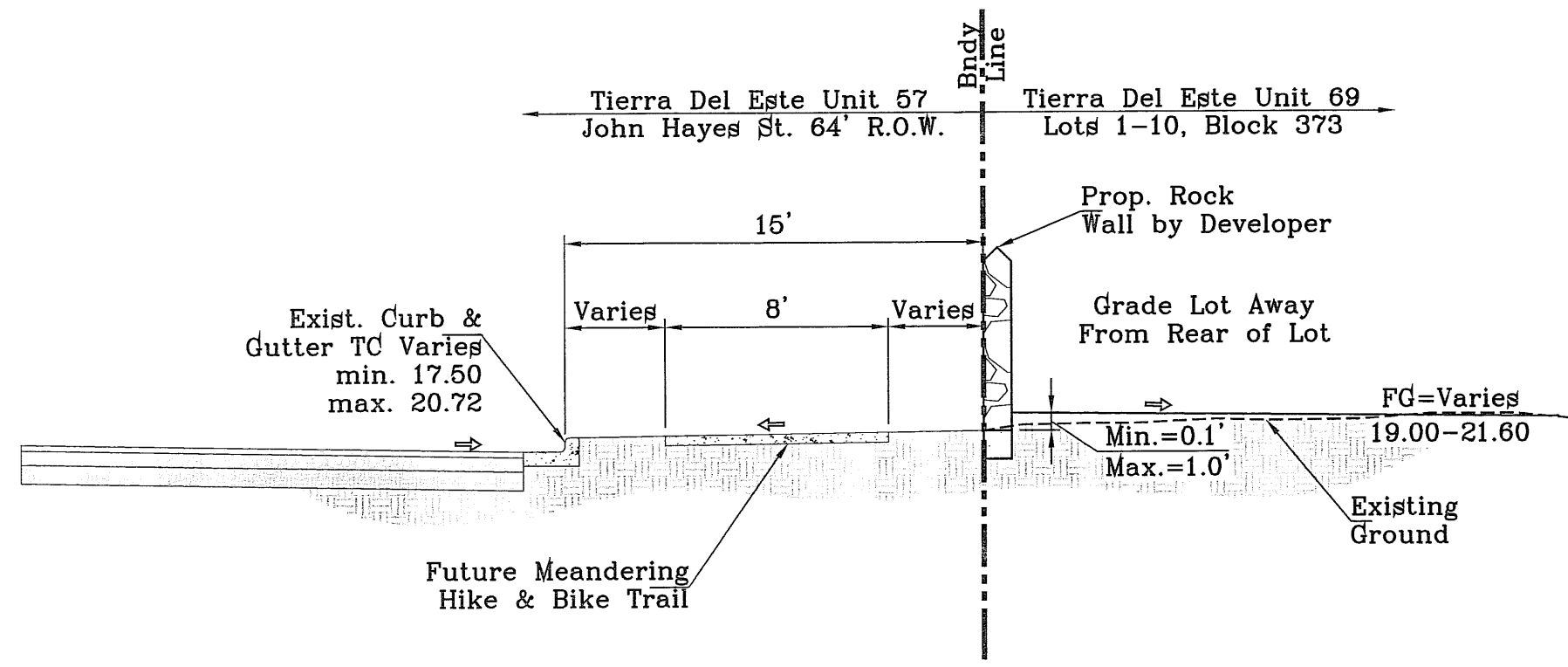
SECTION D
SCALE: 1" = 6'



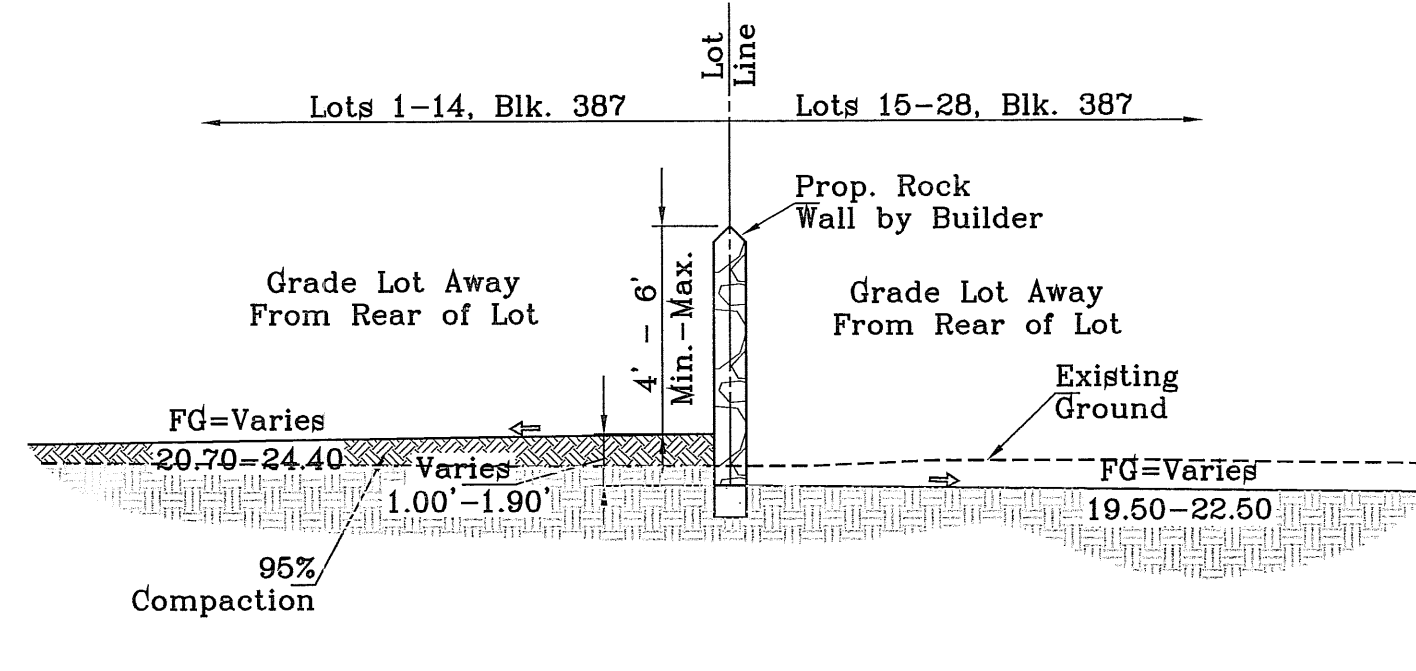
SECTION E
SCALE: 1" = 6'



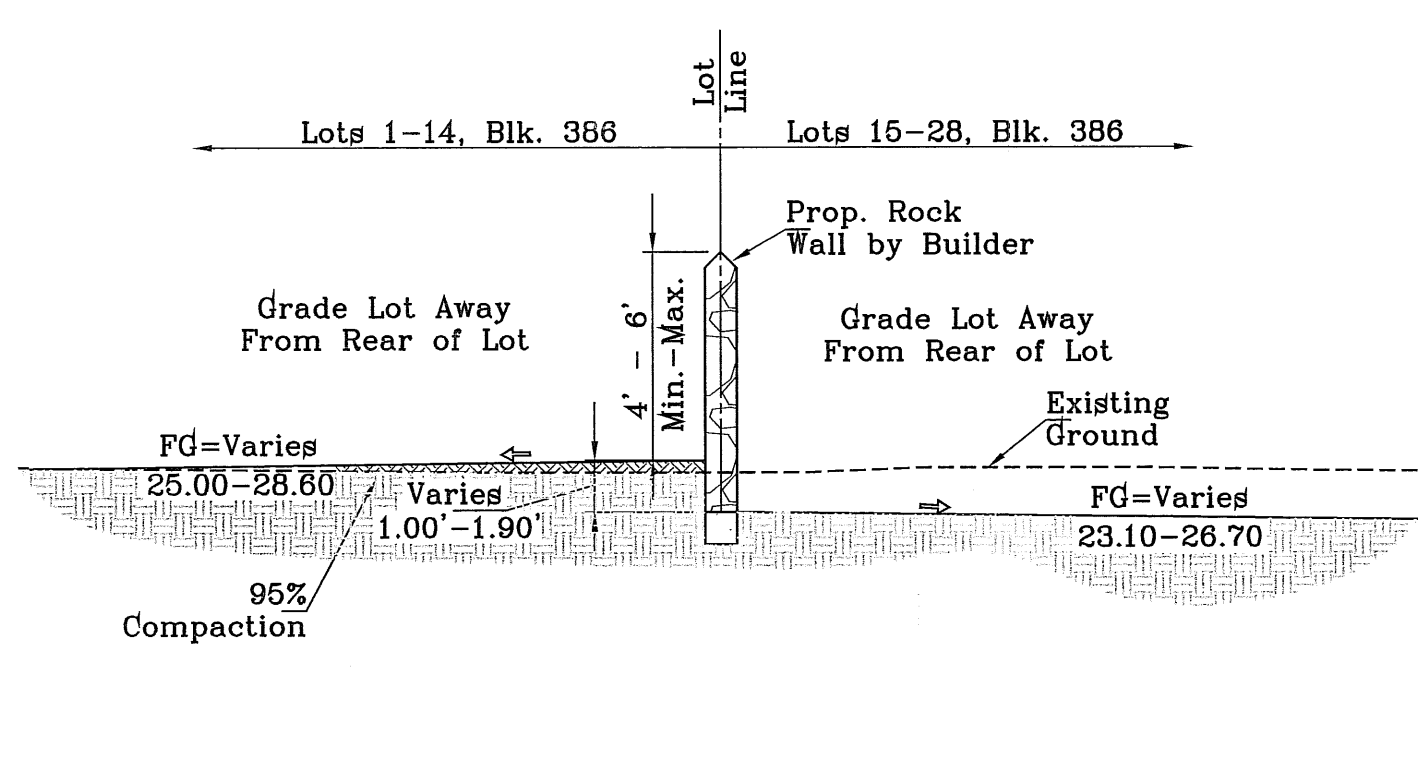
SECTION F
SCALE: 1" = 6'



SECTION G
SCALE: 1" = 6'



SECTION H
SCALE: 1" = 6'



SECTION I
SCALE: 1" = 6'

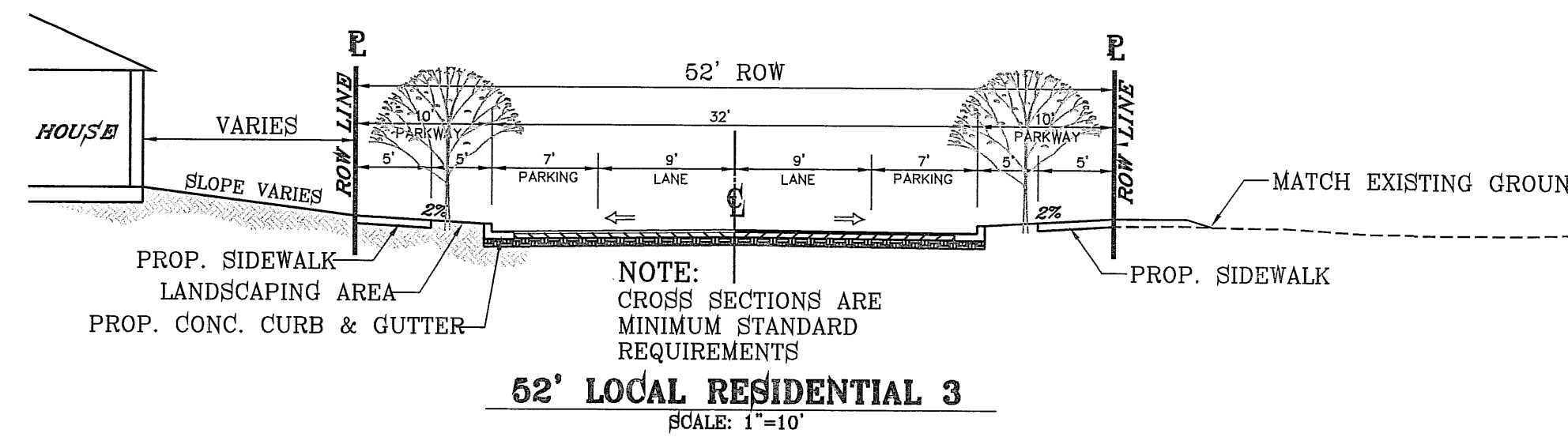
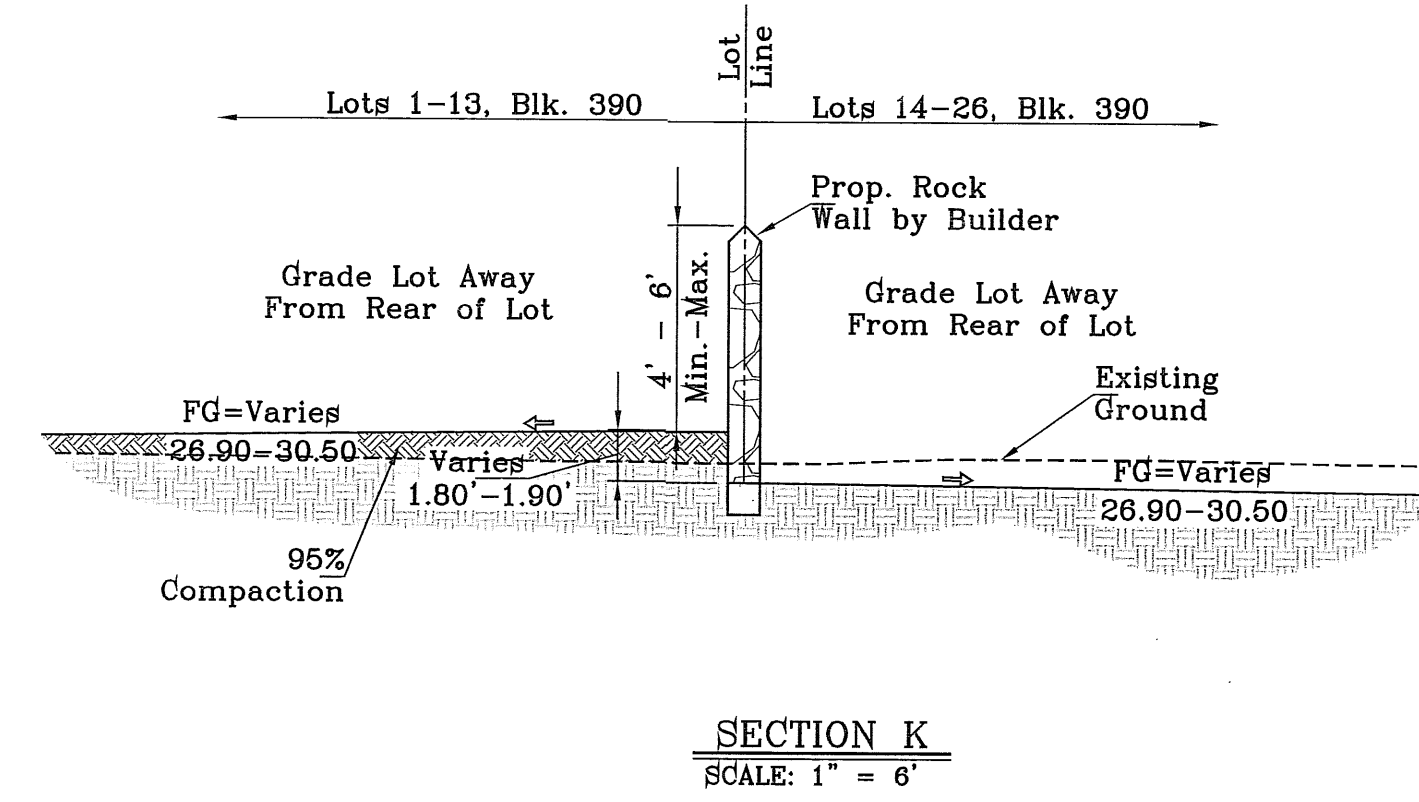
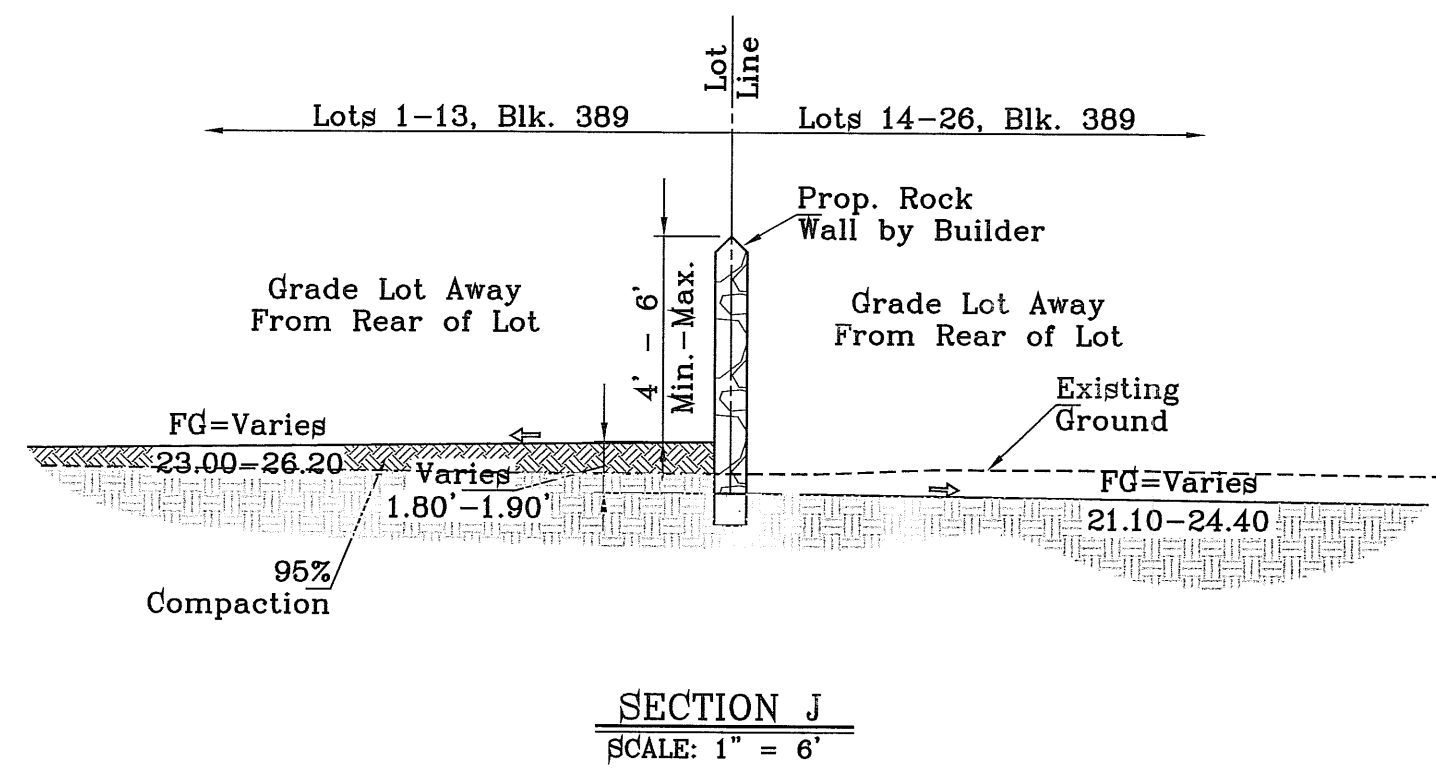
BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION	4020.58
DATE	09/06/12
REVISIONS	CITY COMMENTS AS PER 3-8-12
BY	R.R.
DATE	04/01/12
REVISIONS	CITY COMMENTS AS PER 04/01/12
BY	R.R.

PROJECT NAME
Tierra Del Este Unit SIXTY NINE
BRING PORTION OF SECTIONS 97 AND 48, BLOCK 79, TOWNSHIP 2S, RANGE 10E, COUNTY OF EL PASO, TEXAS TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS.
CONTAINING: 90.166± ACRES

SCALES
HORIZ: AS NOTED
VERT: -- --
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

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

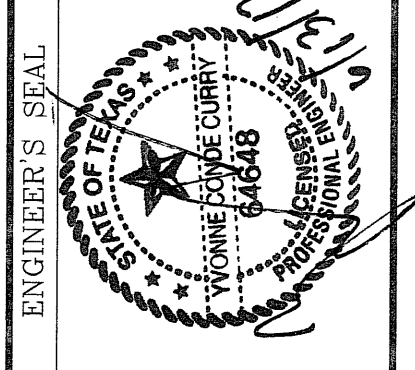


BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.CITY DATUM
ELEVATION 4020.58	
DATE	REVISIONS
03/06/12	CITY COMMENTS AS PER 03/06/12
BY	R.R.

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

S C A L E	
HORIZ. AS NOTED	VERT. ---
DATE: NOV. 2011	DESIGN BY: Y.C.
INITIATED BY: R.R.	CHECKED BY: Y.C.
JOB NO.: 211-60	



CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GFS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 582-0283
FAX: (915) 582-0286



SHEET TITLE

GRADING SECTIONS

SHT 7 OF 64

DRAINAGE AREAS							
DRAINAGE AREA	AREA (acres)	TC (min.)	c	I ₁₀ (in/hr)	Q ₁₀₀ CFS	I ₁₀ (in/hr)	Q ₁₀₀ CFS
I	26.21	28	0.58	3.05	46.37	3.69	58.02
II	14.34	27	0.58	3.10	25.78	3.75	32.27
III	30.16	28	0.58	3.05	53.35	3.69	66.77
IV	4.06	20	0.95	3.54	13.85	4.27	16.47
V	0.74	15	0.95	3.95	2.77	4.75	3.34
VI	0.18	10	0.58	3.10	0.33	5.35	0.58
VII	0.11	10	0.95	4.46	0.48	5.35	0.56
VIII	0.09	10	0.95	4.46	0.38	5.35	0.46
PARK	3.59	SEE PARK SHEET FOR CALCS					
POND	1.80	SEE POND SHEET FOR CALCS					

BASIN CALCS.					
BASIN No.	REQUIRED CAPACITY (ac. ft.)	AVAILABLE CAPACITY (ac. ft.)	PEAK INFLOW (cfs)	HIGH WATER SURFACE ELEV. (ft)	FREE BOARD (ft)
I	15.37	19.57	53.35	4012.19	3.17
PARK	0.65'	0.79	0.00	4020.85	0.14'

INLET DATA					
INLET No.	INLET TYPE	No. GRATES	Q _d yr. cfs	Q _c cfs	
1-1	I	6	46.37	64.32	
2-1	I	4	25.78	42.88	
3-1	III	8	53.35	61.76	

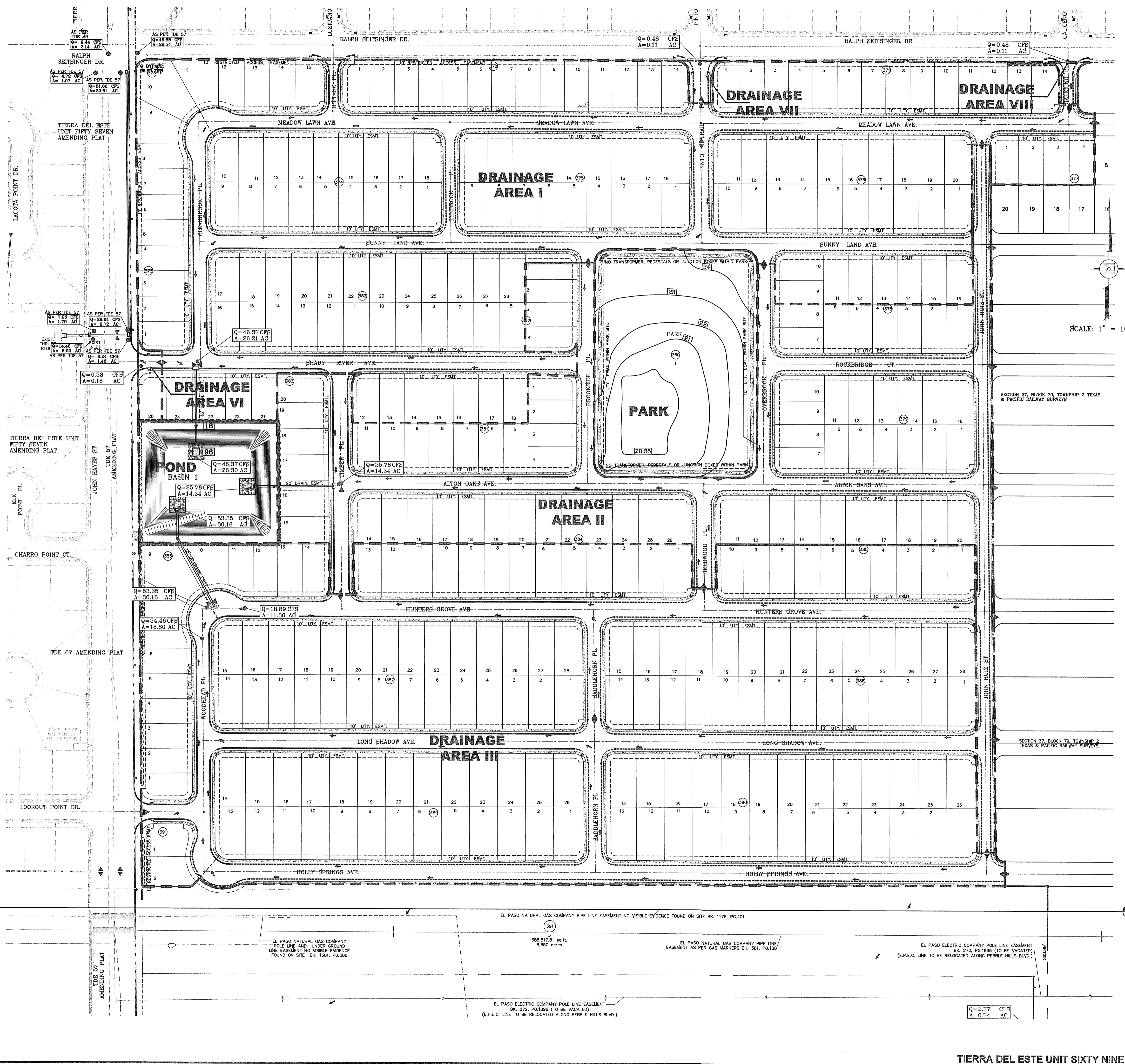
STREET CARRYING CAPACITY-FLAT SECTION					
STREET NAME	STATION	Q _p CFS	Q ₁₀₀ CFS	Velocity	Depth
ALTON OAKS AVE.	0+50.00	25.78	45.34	3.09	0.30'
CLEARBROOK PL.	0+50.00	40.00	47.29	3.76	0.38'
WOODHEAD PL.	21+50.00	34.46	45.34	3.46	0.36'

- LEGEND**
- Q RUN-OFF QUANTITY (CUBIC Ft./Sec)
 - A WATERSHED AREA (ACRES)
 - ▲ HIGH POINT
 - ▼ LOW POINT
 - DRAINAGE FLOW
 - - - PROPOSED DRAINAGE AREA
 - PROPOSED DRAINAGE LIMITS

MATCH LINE A-A
SEE NEXT SHEET

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

SEE SHEET 49 AND 50 FOR DRAINAGE STRUCTURES #1, #2 AND #3



SCALE: 1" = 100'

FILE LOCATION S:\Subdivisions\TDE 69\GDPL PLOTTED ON Thursday, July 12, 2012 1:03:04 PM BY RUBEN RIVERA

TIERRA DEL ESTE UNIT SIXTY NINE

BRING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.165± ACRES

PROJECT NAME: **TIERRA DEL ESTE UNIT SIXTY NINE**

SCALE: 1" = 100'

HORIZ. 1" = 100'
VERT. 1" = 100'

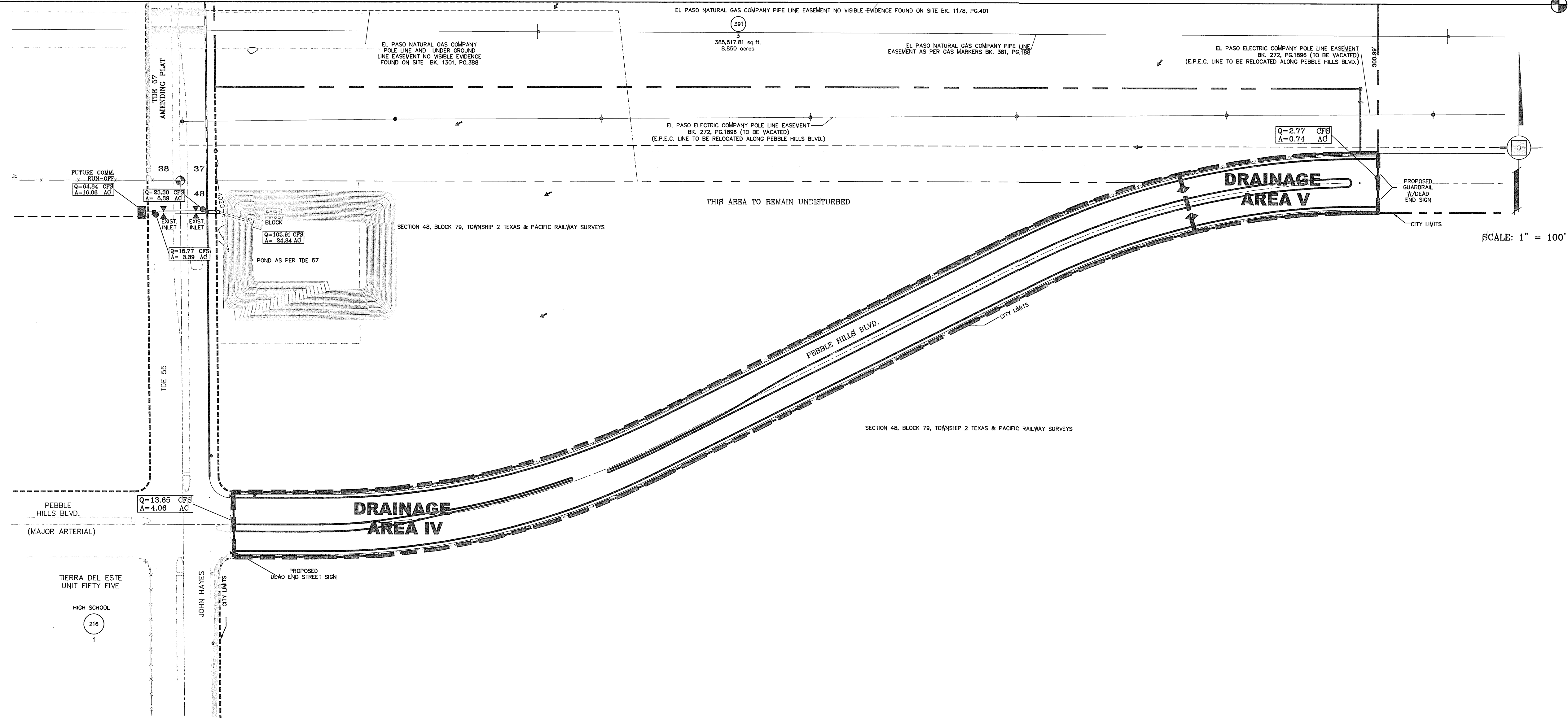
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-60

CONDE INC.
ENGINEERING / PLANNING / SURVEYING / GPS
8080 SURVEY DR. STE. 100
EL PASO, TEXAS 79905
PHONE: (915) 562-0283
FAX: (915) 562-0286

SHEET TITLE: **DRAINAGE PLAN**

SHT 8 OF 64

MATCH LINE A-A
SEE NEXT SHEET



DRAINAGE AREAS								
DRAINAGE AREA	AREA (acres)	TC (min.)	C	I ₁₀₀ (in/hr)	Q ₁₀₀ CFS	I ₁₀₀ (in/hr)	Q ₁₀₀ CFS	
I	26.21	28	0.58	3.05	46.37	3.69	58.02	
II	14.34	27	0.58	3.10	25.78	3.75	32.27	
III	30.16	28	0.58	3.05	53.35	3.69	66.77	
IV	4.06	20	0.95	3.54	13.65	4.27	16.47	
V	0.74	15	0.95	3.95	2.77	4.75	3.34	
VI	0.18	10	0.58	3.10	0.33	5.35	0.58	
VII	0.11	10	0.95	4.46	0.48	5.35	0.58	
VIII	0.09	10	0.95	4.46	0.38	5.35	0.46	
PARK	3.59	SEE PARK SHEET FOR CALCS						
POND	1.80	SEE POND SHEET FOR CALCS						

BASIN CALCS.							
BASIN No.	BASE ELEVATION (ft.)	REQUIRED CAPACITY (ac. ft.)	AVAILABLE CAPACITY (ac. ft.)	PEAK INFLOW (cfs)	OUTLET TOWER FLOW (cfs)	HIGH WATER SURFACE ELEV. (ft)	FREE BOARD (ft)
1	3996	15.37	19.57	53.35	0.00	4012.19	3.17

INLET DATA				
INLET No.	INLET TYPE	No. GRATES	Q _{d100} vs. cfs	Q _c cfs
1-1	I	6	46.37	64.32
2-1	I	4	25.78	42.88
3-1	III	8	53.35	61.76

LEGEND

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

NOTE:
HEREON DESCRIBED TRACT LIES IN ZONE X, COMMUNITY PANEL NO. 480212 0176B. DATED SEPTEMBER 4, 1991.

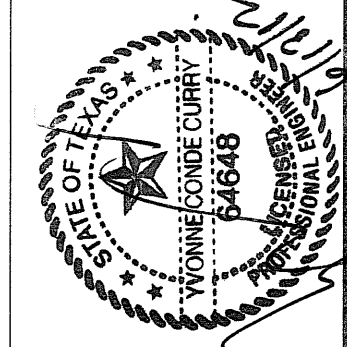
SEE SHEET 49 AND 50 FOR DRAINAGE STRUCTURES #1, #2 AND #3

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF JOHNSON POINT DR. AND JOHN HAYES ST. ELEVATION 4020.56 CITY DATUM

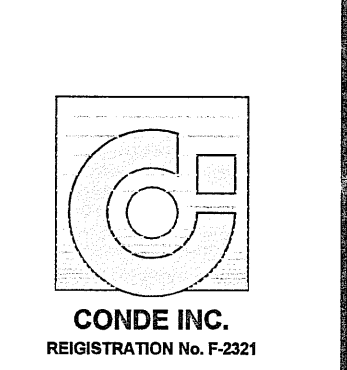
DATE: 03/08/12
BY: R.R.
REVISIONS: 06/29/12 CITY REVISIONS AS PER 03/08/12 COMMENTS: ADDITION OF MEDIAN OPENING

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BRING PORTION OF SECTIONS 97 AND 48 BLOCK 79 TOWNSHIP 2 TEXAS AND PACIFIC RAILWAY SURVEYS. CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

S C A L E
HORIZ: #####
VERT: ---
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50



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
DRAINAGE PLAN

FILE LOCATION S:\Subdivisions\TDE 69\GDPL PLOTTED ON Thursday, July 12, 2012 1:04:05 PM BY RUBEN RIVERA

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

SEE LANDSCAPE AND IRRIGATION PLANS FOR DETAILS

**PARK AREA 1
ON SITE PONDING CALCULATIONS**

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

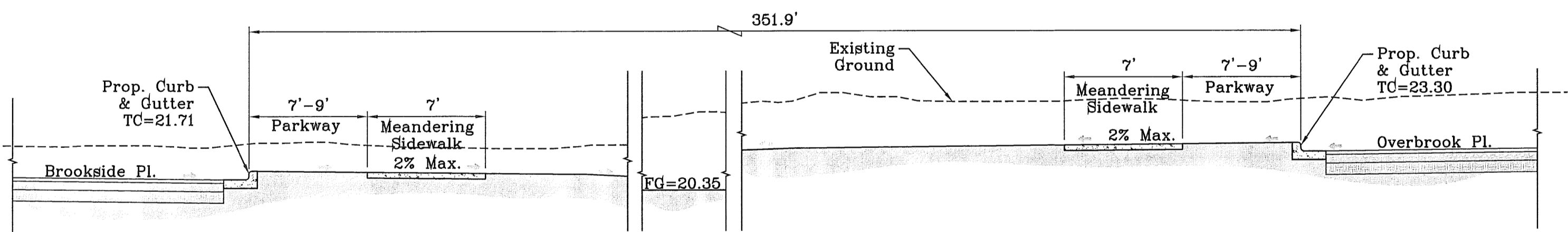
$$Q = \frac{ARC}{12} = \frac{3.95(4)(0.6)}{12} = 0.79$$

$$HW \text{ ELEV} = 4020.89 = 0.79 \text{ ac-ft}$$

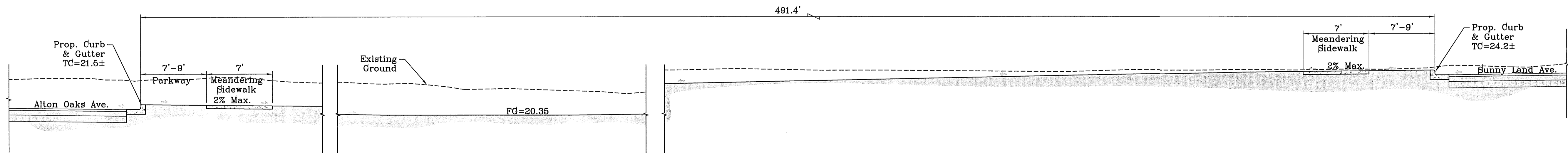
DRAINAGE COMPUTATIONS

Park Output		
Units=Elevation,ft.	Volume,acft.	Volume,acft
Elev ft	Conic Vol acft	Cumml Avg acft
4021.00	0.79	0.79
4020.95	0.00	0.00

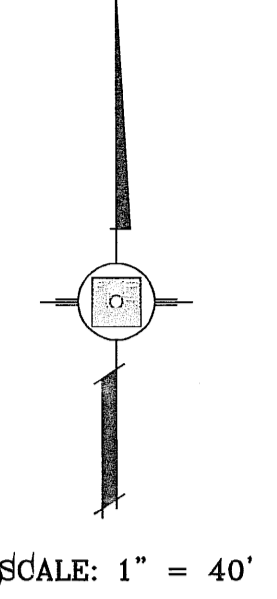
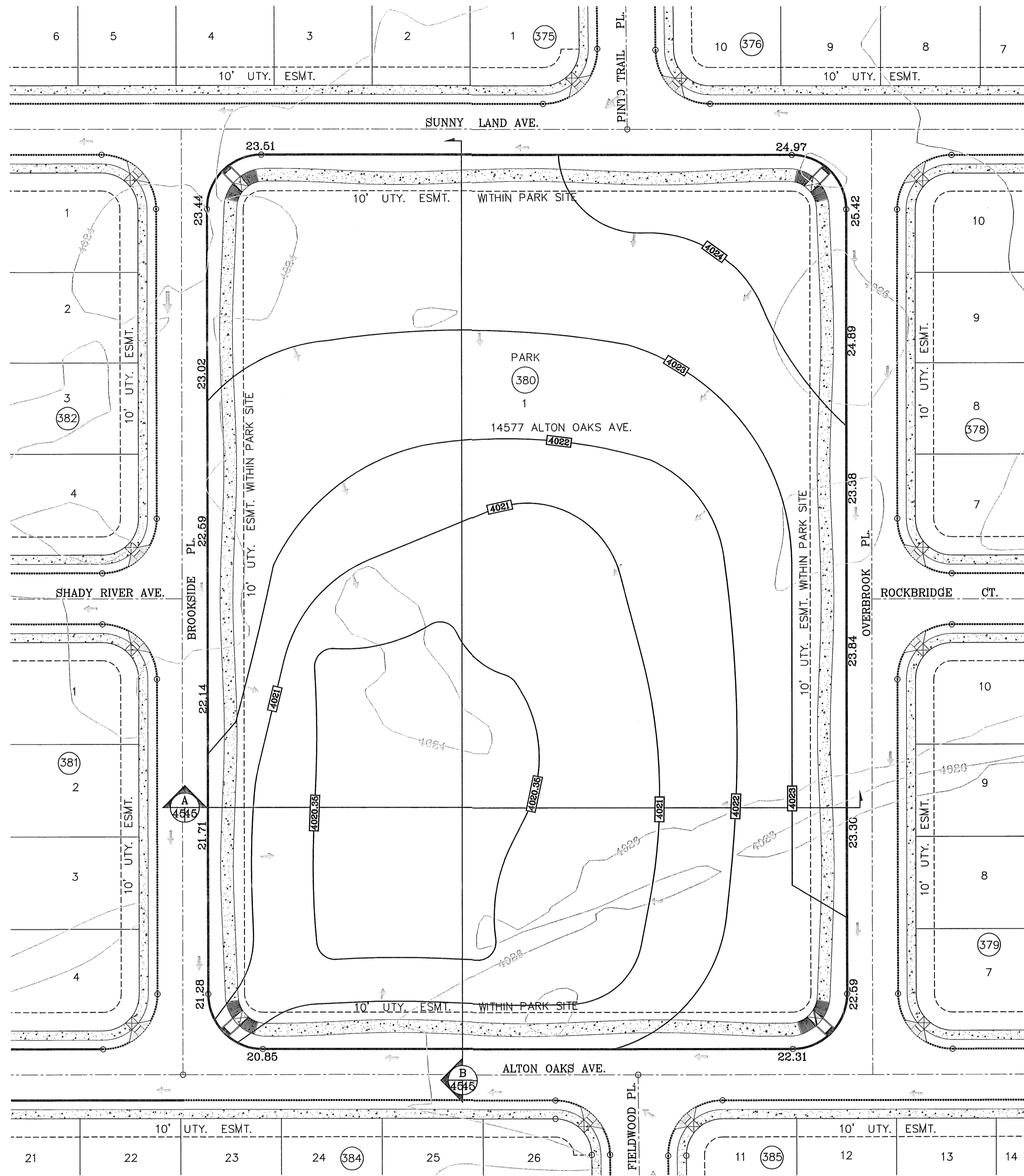
PARK AREA	LOT NO.	BLOCK NO.	PARK AREA (AC)	POND VOLUME (AC FT.)	DEPTH (FEET)	HIGH WATER ELEV.
1	1	380	3.95	0.79	0.65'	4020.85



SECTION A
SCALE: 1" = 6'



SECTION B
SCALE: 1" = 6'



FILE LOCATION S:\Subdivisions\TDE 69 PARK PLOTTED ON Thursday, July 12, 2012 1:09:27 PM BY RUBEN RIVERA

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58

DATE	REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS	R.R.

**14577 ALTON OAKS AVE.
TIERRA DEL ESTE UNIT SIXTY NINE**

BEING ALL OF LOT 1, BLOCK 380 OF TERRA DEL ESTE UNIT 69 PL. ASSO. EL PASO, TEXAS CITY OF EL PASO, TEXAS CONTAINING: 3.956 ACRES

PROJECT NAME

SCALE

HORIZ: AS SHOWN
 VERT: Y.C.
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-60

ENGINEER'S SEAL

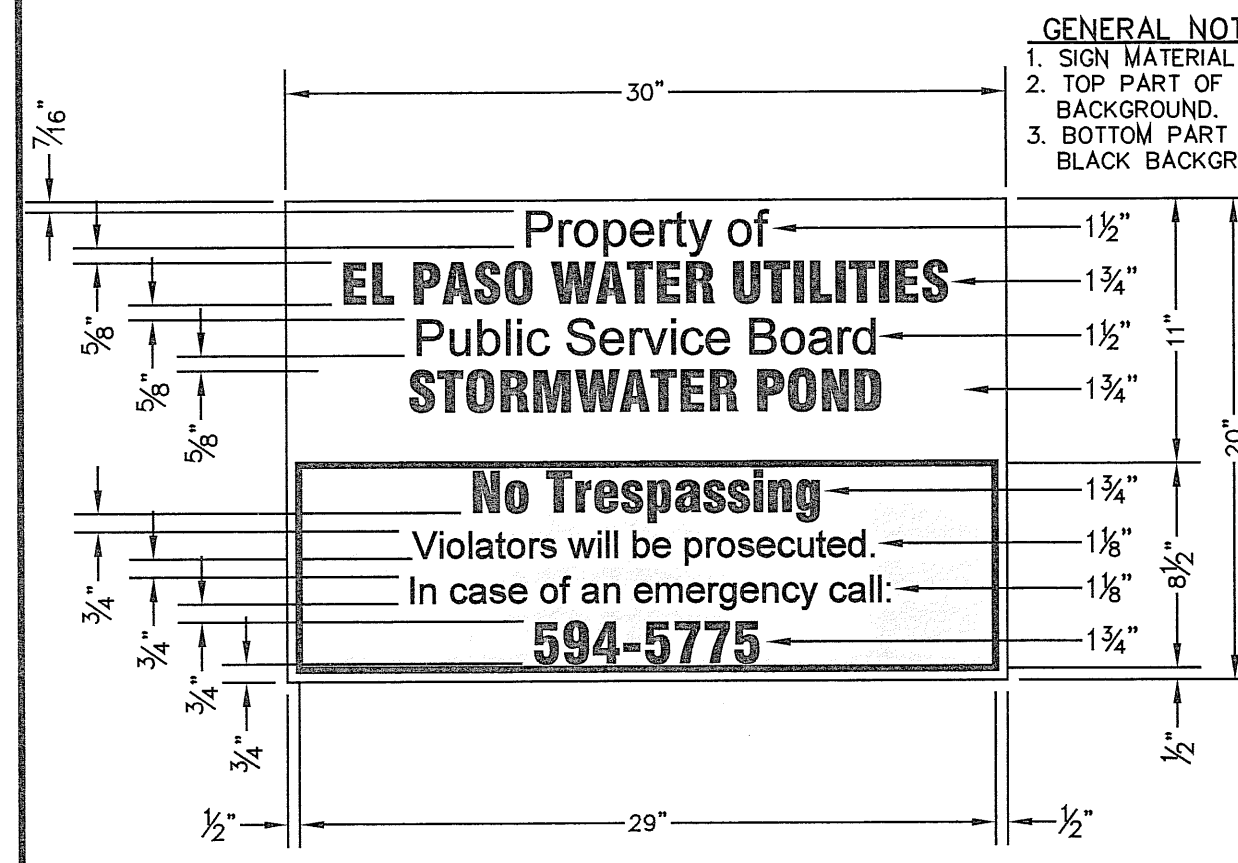
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

SHEET TITLE

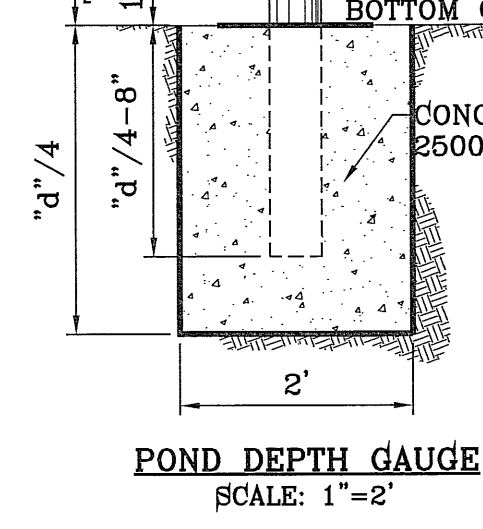
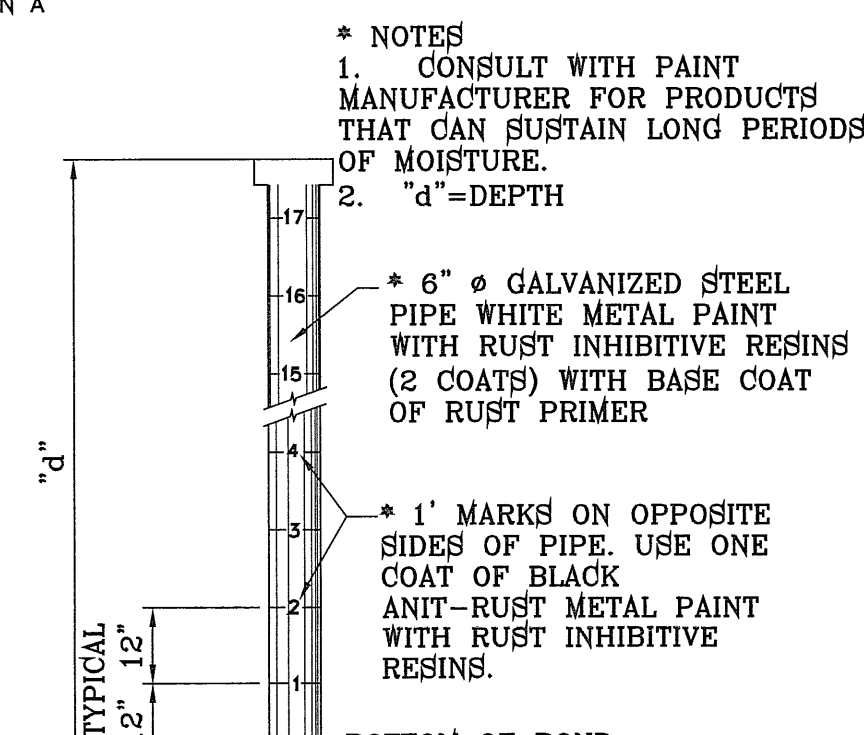
STREET PLAN-PROFILE

PROPOSED PARK AND SECTIONS

FILE LOCATION S:\Subdivisions\TDE 69 POND PLOTTED ON Thursday, July 12, 2012 1:10:30 PM BY RUBEN RIVERA



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.



ELEVATION FT	AREA SQ-FT	CONIC VOL. AC-FT	VOLUME CAP. AC-FT
4016	61040.64	1.37	19.57
4015	58731.38	1.33	18.19
4014	56776.94	1.28	16.87
4013	54847.79	1.24	15.59
4012	52946.89	1.19	14.35
4011	51074.22	1.15	13.15
4010	49229.96	1.11	12.00
4009	47413.98	1.07	10.89
4008	45626.13	1.03	9.83
4007	43866.51	0.99	8.80
4006	42134.84	0.95	7.81
4005	40431.45	0.91	6.86
4004	38766.37	0.87	5.95
4003	37109.66	0.83	5.08
4002	35491.27	0.80	4.25
4001	33901.14	0.76	3.45
4000	32339.52	0.72	2.69
3999	30806.42	0.69	1.97
3998	29301.87	0.66	1.28
3997	27822.56	0.62	0.62
3996	26456.0	0.00	0.00

WATERSHED-POND 2:1 SLOPE

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

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

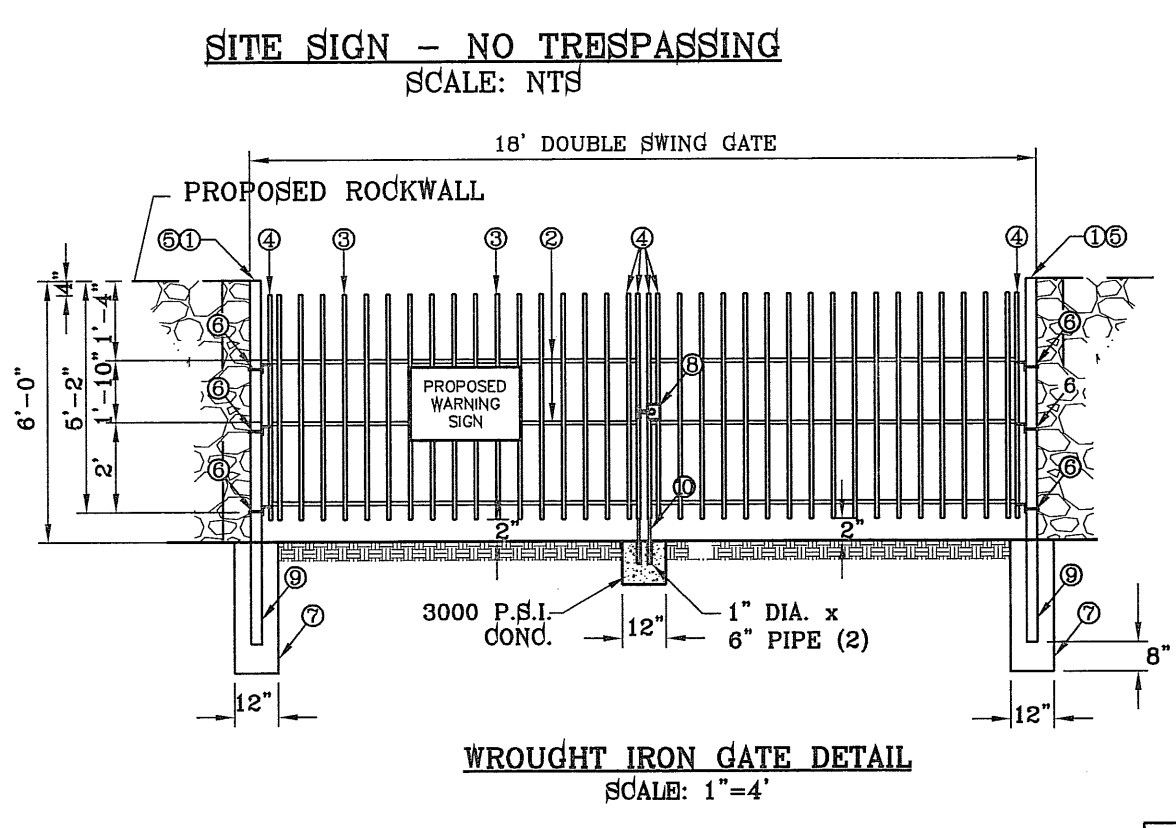
PROP. TDE 69 $\frac{72.51(4)0.60}{12} = 14.50$ ac-ft AND POND

TOTAL = 14.50 ac-ft

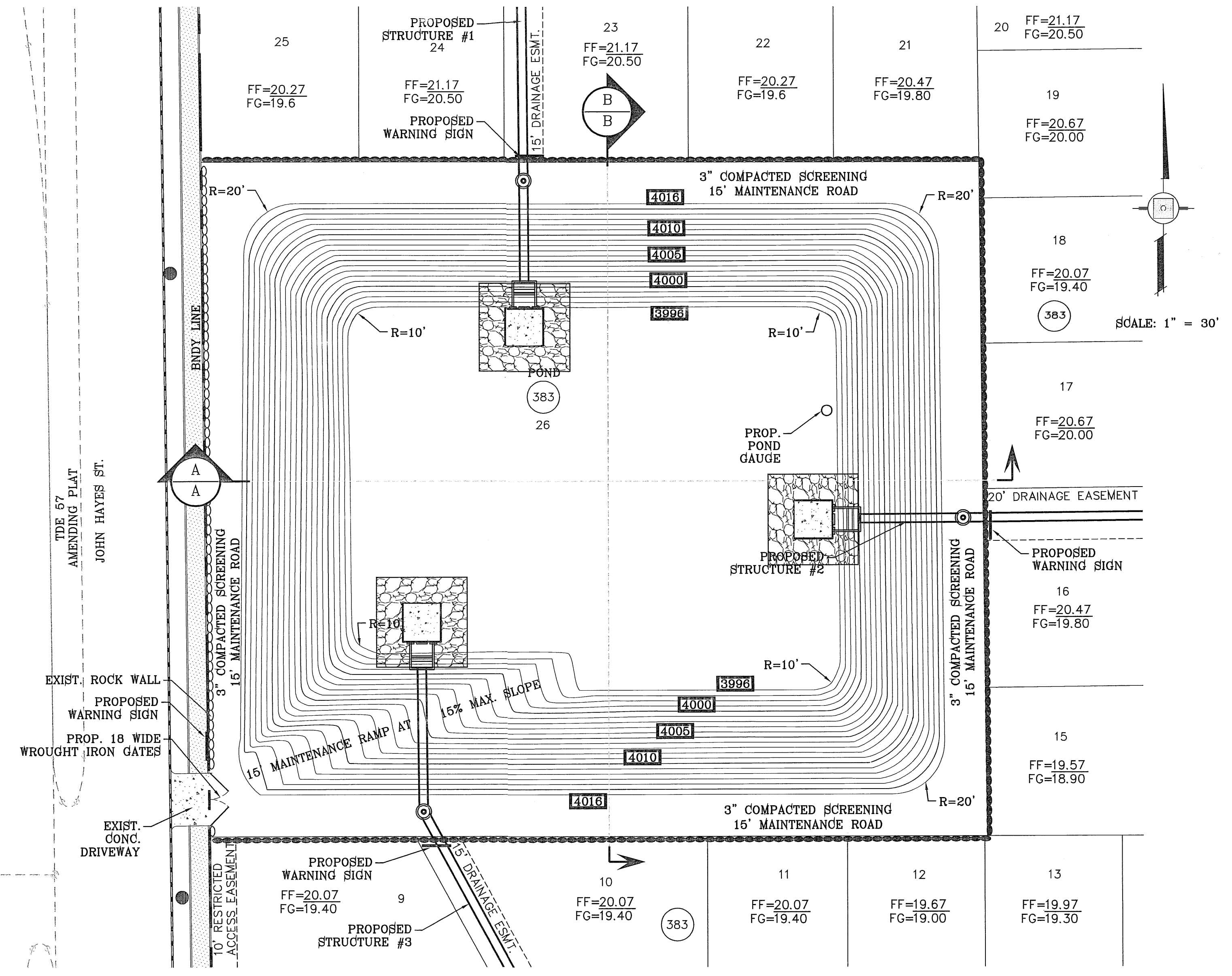
SILT & DEBRIS = 0.87 ac-ft

Qreq (TOTAL) = 15.37
 Qcap (TOTAL) = 18.19

100 YEAR HW ELEVATION = 4012.19
 100 YEAR PONDED DEPTH = 4012.83

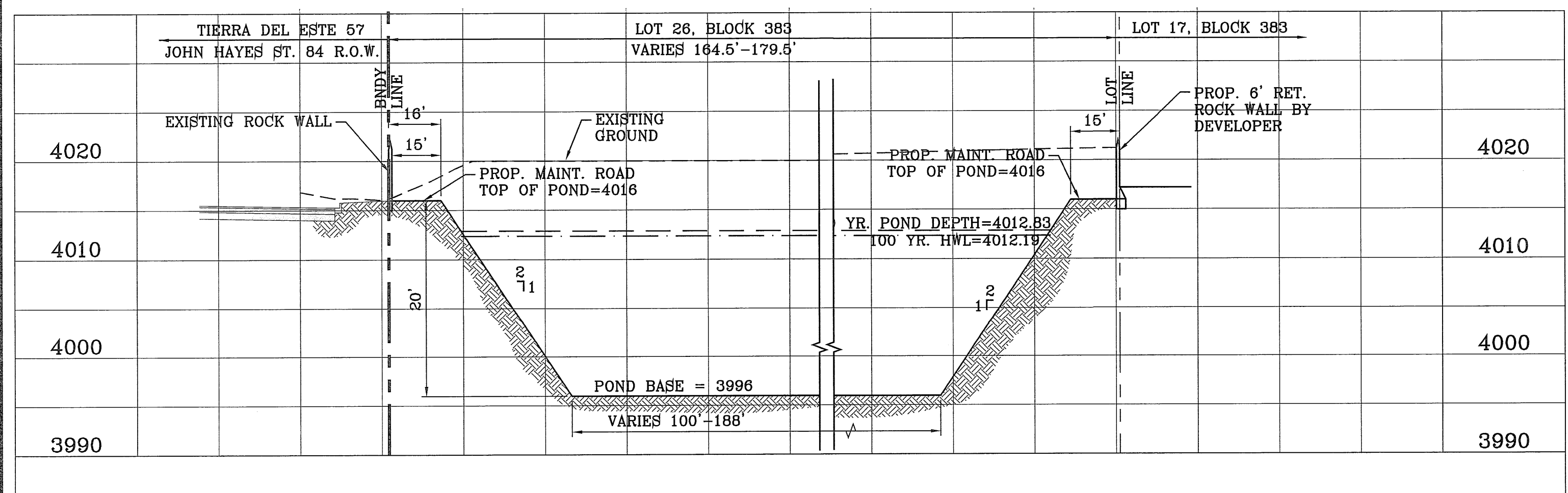
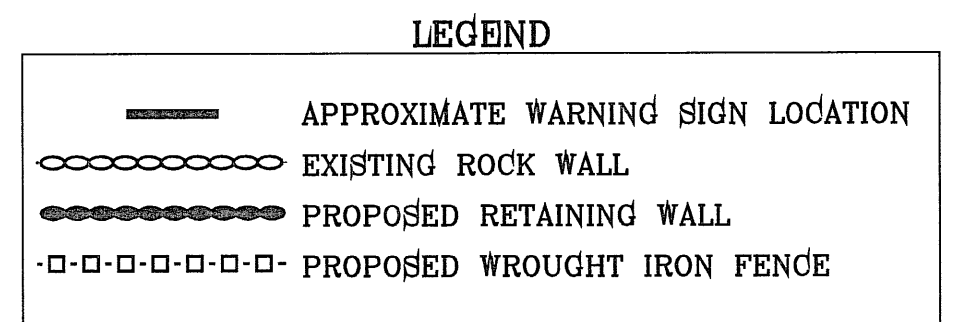


- ① 3"x3"x3/16" SQUARE STEEL TUBING
- ② 2"x1"x1/4 GA. RECTANGULAR STEEL TUBING
- ③ 1 1/2"x1/2"x1/8 GA. RECTANGULAR STEEL TUBING
- ④ 2"x1"x10 GA. RECTANGULAR STEEL TUBING
- ⑤ FLAT TOP POLYVINYL CAP
- ⑥ BOLT HOOK AND STRAP HINGE
- ⑦ 1"x3' DEEP 3000 PSI CONCRETE POST FOOTING
- ⑧ DOUBLE GATE HEAVY DUTY INDUSTRIAL LATCH W/PAD LOCK
- ⑨ 5"x5"x3/8" SQUARE STEEL SLEEVE W/7"x7"x3/8" STEEL BASE PLATE
- ⑩ CANE BOLT LATCH W/KEEPER 6-8" X18" LONG (2 REQUIRED)

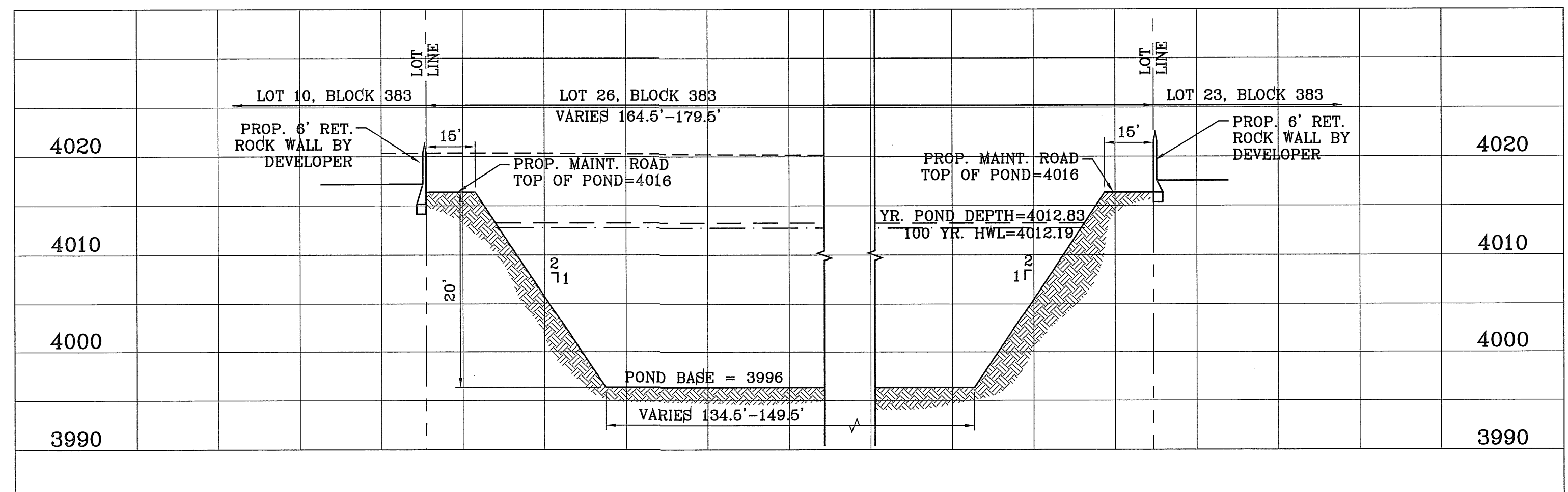


NOTES:

- POND SLOPE TO BE STABILIZED WITH HYDROMULCH SEED FORMULA GSD SHEET 7
- THE RESULTS OF THE RETENTION BASIN BORING AND PERCOLATION TESTS PERFORMED AT THE TIME OF EXCAVATION IN ACCORDANCE TO CITY OF EL PASO DESIGN STANDARDS FOR CONSTRUCTION ARE REQUIRED BEFORE ACCEPTANCE OF ANY STORMWATER MANAGEMENT FACILITIES.



SECTION A
 SCALE: 1"=30' HOR.
 SCALE: 1"=10' VERT.



SECTION B
 SCALE: 1"=30' HOR.
 SCALE: 1"=10' VERT.

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.
 ELEVATION 4020.58

DATE: 03/08/12
 CITY REDLINES AS PER 03/08/12 COMMENTS

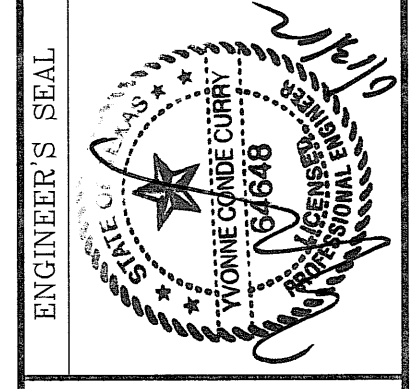
DATE: 04/01/12
 CITY REDLINES AS PER 04/01/12 COMMENTS

PROJECT NAME: **TERRA DEL ESTE UNIT SIXTY NINE**

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS

CONTAINING: 90.166± ACRES

S.C.A.L.E. AS SHOWN
 HORIZ: NOV. 2011
 VERT: Y.C.
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50

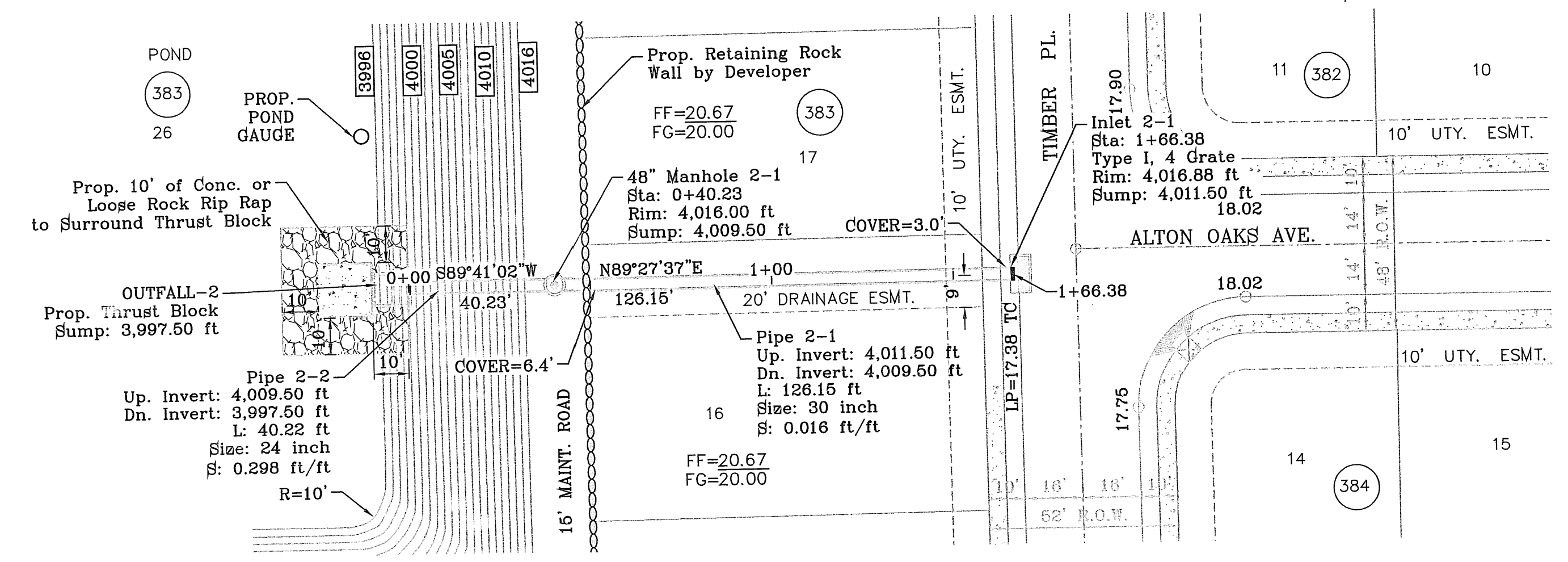


CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

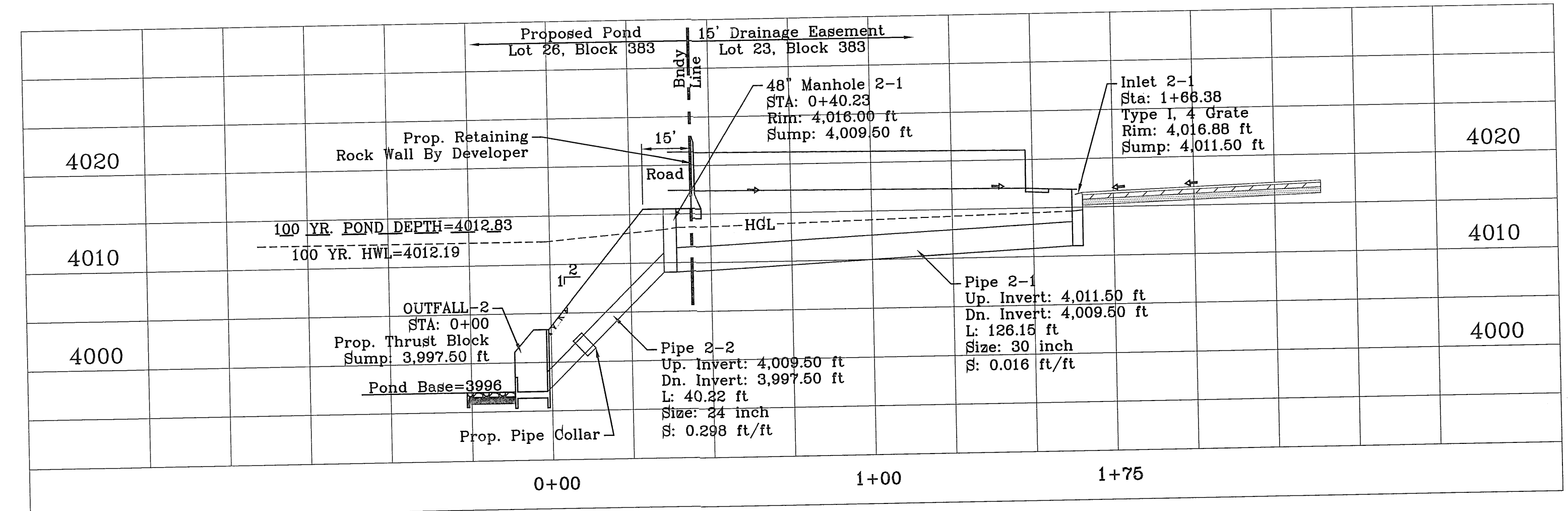


SHEET TITLE: **PROPOSED POND AND SECTIONS**

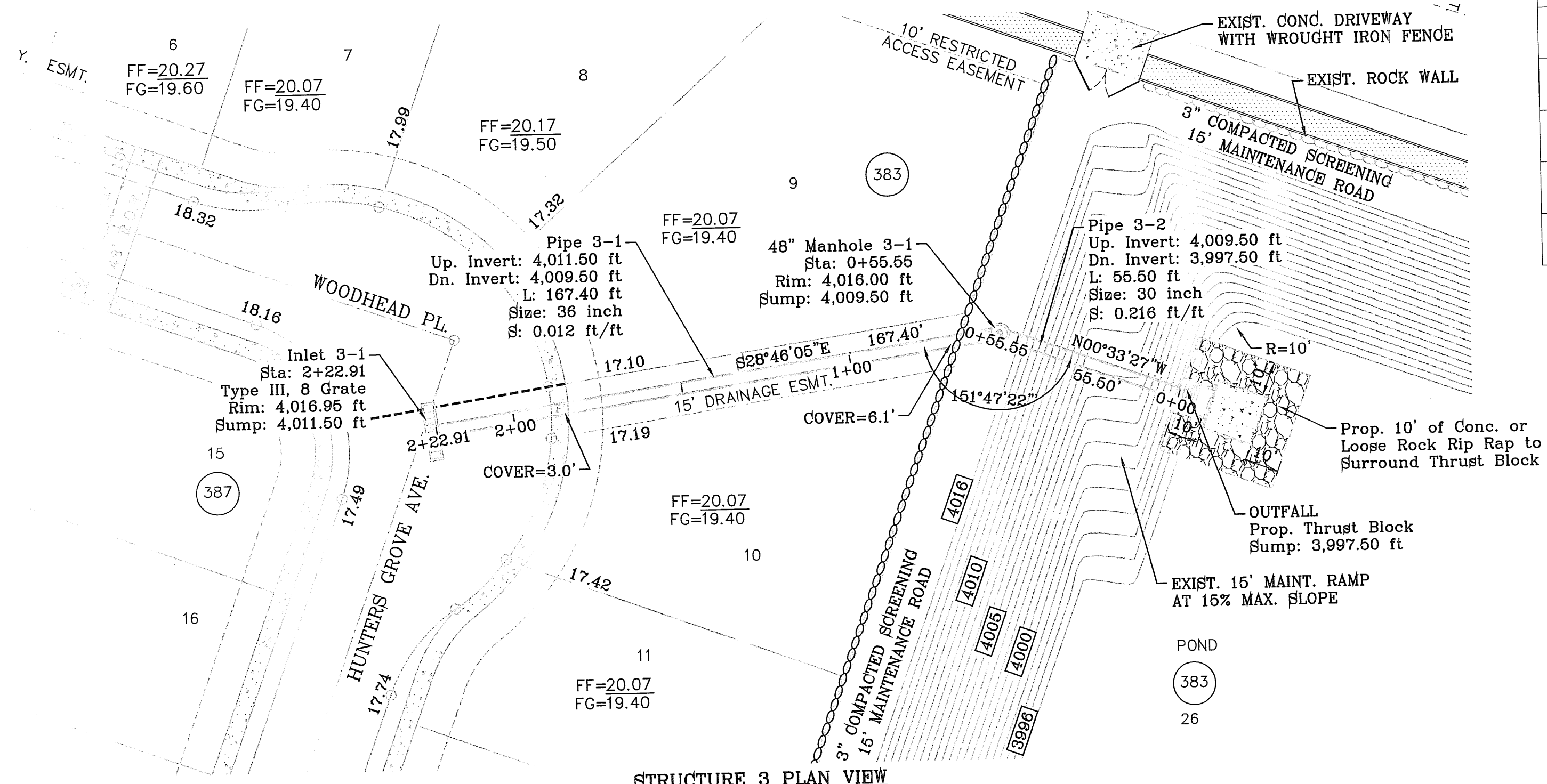
FILE LOCATION: S:\Subdivisions\TDE 69\STRUCTURES2 PLOTTED ON Thursday, July 12, 2012 1:39:14 PM BY RUBEN RIVERA



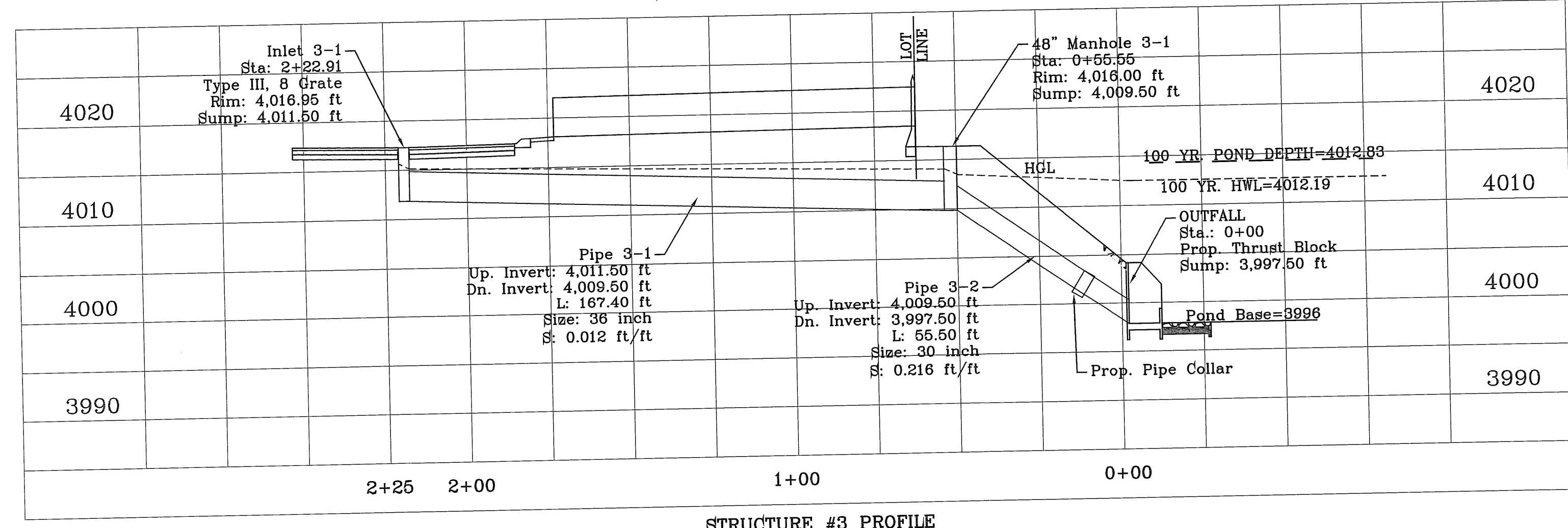
STRUCTURE 2 PLAN VIEW
SCALE: 1"=30'



STRUCTURE #2 PROFILE
HORIZONTAL: 1"=30' VERTICAL: 1"=10'



STRUCTURE 3 PLAN VIEW
SCALE: 1"=30'



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

R.C.P. IS CLASS III

- 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.

R.C.P. PIPE DATA

PIPE	SECTION SIZE (in)	LENGTH (ft)	SLOPE (ft/ft)	DISCHARGE (cfs)	CAPACITY (cfs)	AVERAGE VELOCITY (fps)	DOWN STREAM GROUND	DOWN STREAM HGL	DOWN STREAM INVERT	UPSTREAM GROUND	UPSTREAM HGL	UPSTREAM INVERT
2-1	30	126.15	0.016	25.78	51.64	7.44	4016.00	4014.08	4009.50	4015.08	4016.83	4011.50
2-2	24	40.22	0.298	25.78	123.56	11.62	4016.00	4012.83	3997.50	4013.88	4016.00	4009.50
3-1	36	167.40	0.012	53.35	72.90	7.55	4016.00	4013.73	4009.50	4016.95	4014.80	4011.50
3-2	30	55.50	0.216	53.35	190.72	10.87	4007	4012.19	3997.50	4016.00	4013.13	4009.50

INLET DATA

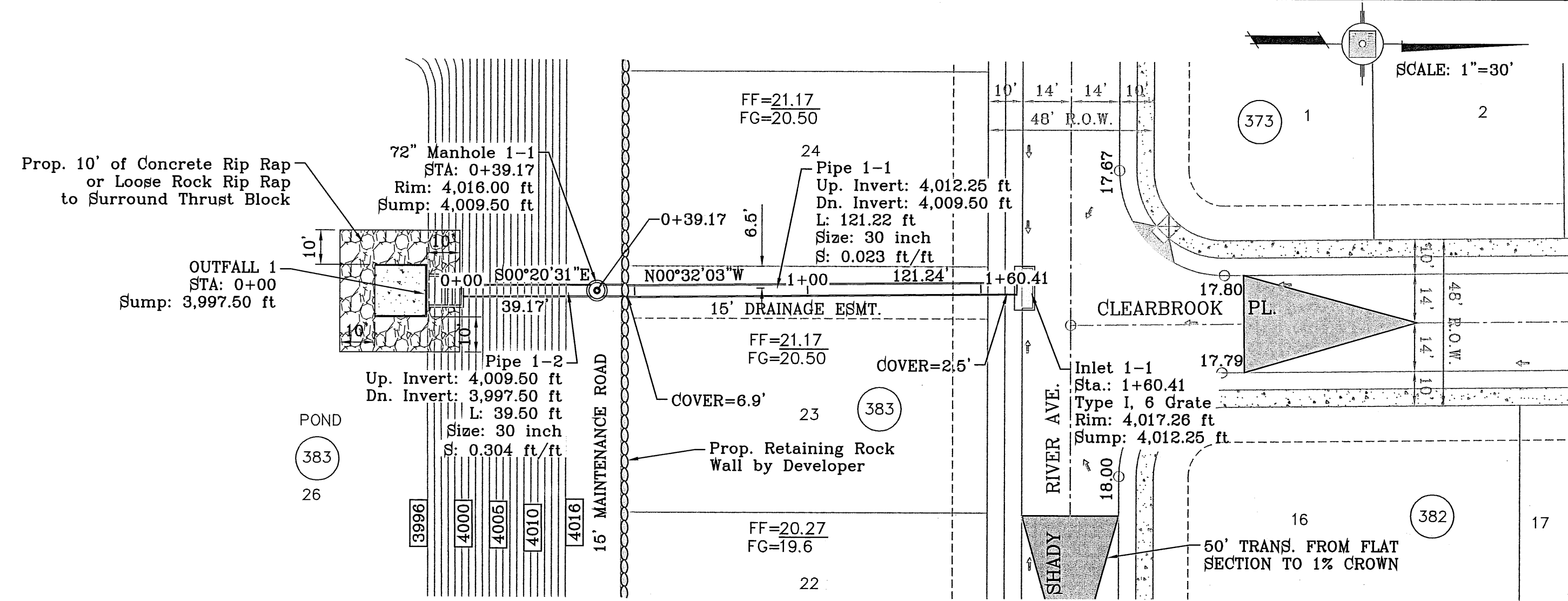
INLET No.	INLET TYPE	No. GRATES	Q _d vs. cfs	Q _c cfs
2-1	I	4	25.78	42.88
3-1	III	8	53.35	61.76

BENCHMARK
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
 LOOKOUT POINT DR. AND JOHN HAYES ST.
 ELEVATION 4020.58
 CITY DATUM
 REVISIONS
 DATE 03/09/12
 CITY REDLINES AS PER 03/09/12 COMMENTS R.R.
 PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
 BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND FARMWAY SURVEYS, CITY OF PASCO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES
 S.C.A.L.E.
 HORIZ: AS SHOWN
 VERT: SHOWN
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50
 ENGINEER'S SEAL

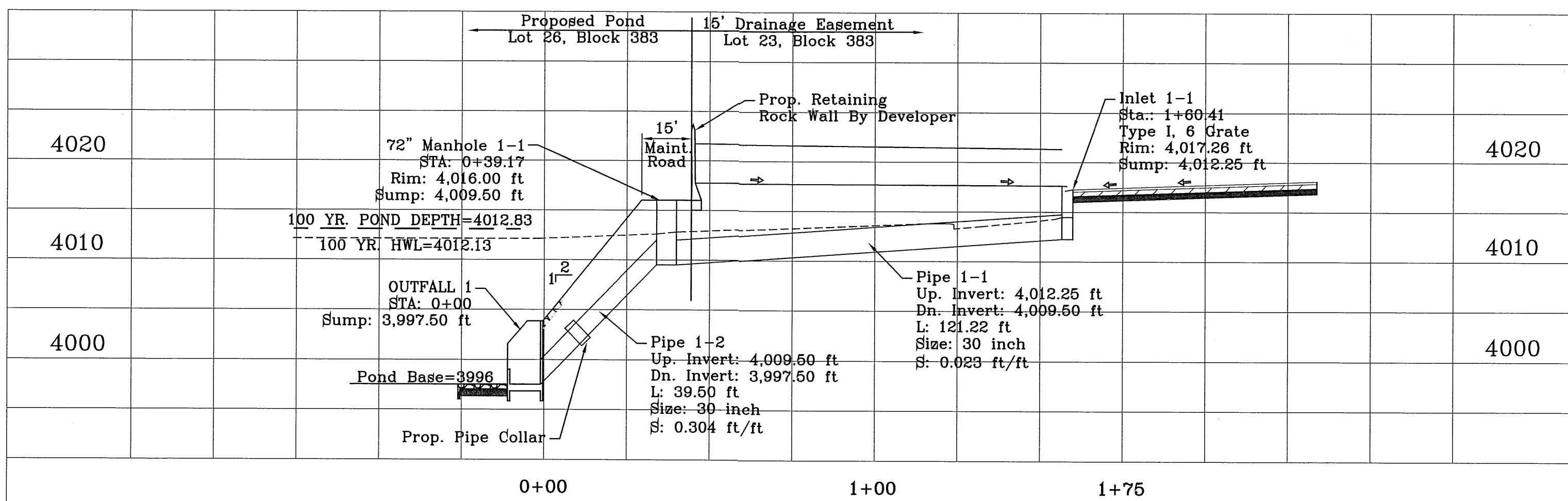
CONDE INC.
 ENGINEERING / PLANNING
 SURVEYING / GPS
 6080 SURETY DR. STE 100
 EL PASO, TEXAS 79905
 PHONE: (915) 592-0283
 FAX: (915) 592-0286

 CONDE INC.
 REGISTRATION No. F-2251
 SHEET TITLE
PROPOSED STRUCTURES 2 AND 3
 SHT 50 OF 64

FILE LOCATION S:\Subdivisions\YDE 69\STRUCTURES PLOTTED ON Wednesday, July 18, 2012 7:37:26 AM BY RUBEN RIVERA



STRUCTURE 1 PLAN VIEW
SCALE: 1"=30'



STRUCTURE #1 PROFILE
HORIZONTAL: 1"=30' VERTICAL: 1"=10'

R.C.P. PIPE DATA

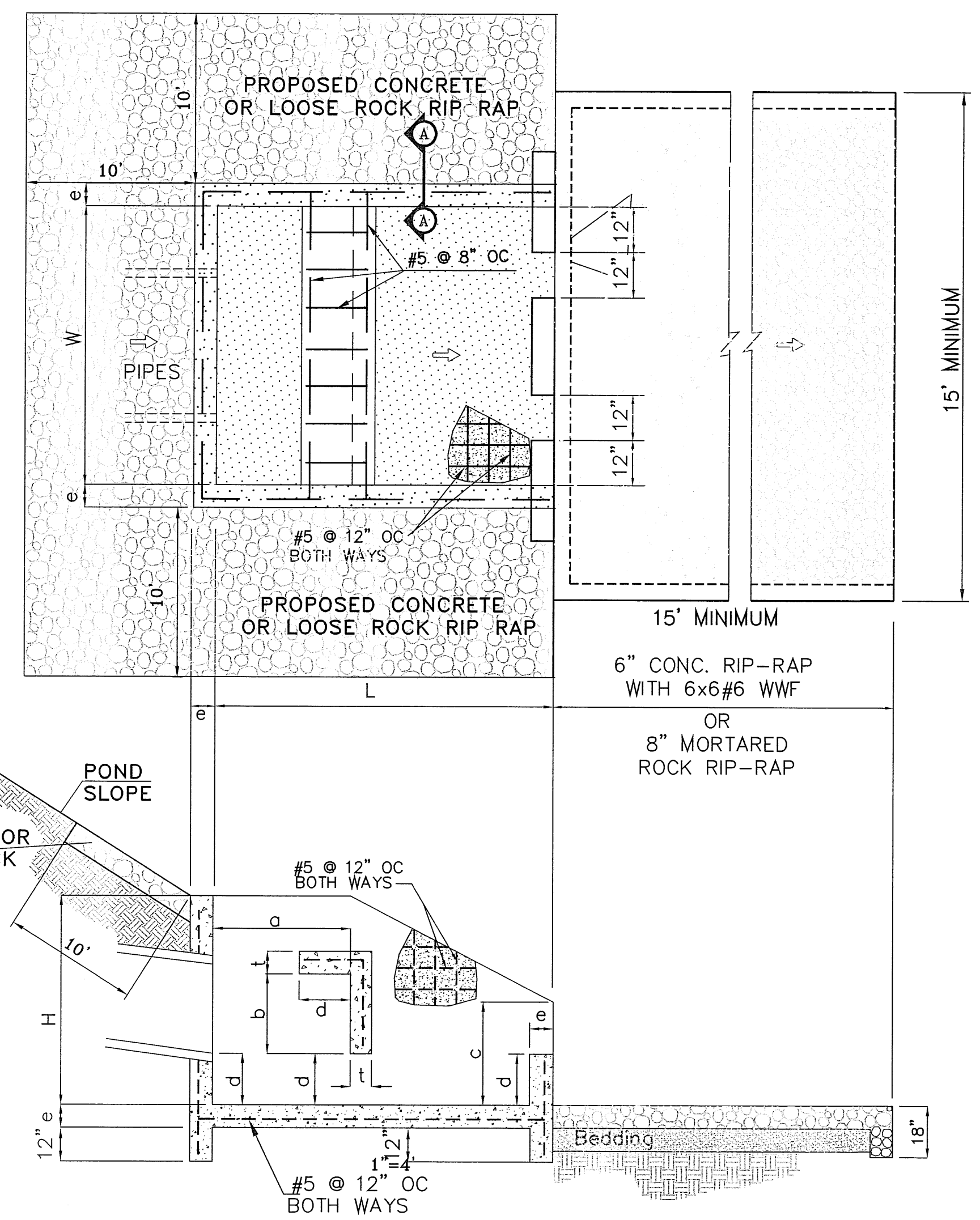
PIPE	SECTION SIZE (in)	LENGTH (ft)	SLOPE (ft/ft)	DISCHARGE (cfs)	CAPACITY (cfs)	AVERAGE VELOCITY (fps)	DOWN STREAM GROUND	DOWN STREAM HGL	DOWN STREAM INVERT	UPSTREAM GROUND	UPSTREAM HGL	UPSTREAM INVERT
1-1	30	121.22	0.023	46.37	61.78	9.54	4016.00	4013.13	4009.50	4017.26	4014.62	4012.25
1-2	30	39.50	0.304	46.37	226.07	9.45	4005.00	4012.13	3997.50	4016.00	4012.63	4009.50

INLET DATA

INLET No.	INLET TYPE	No. GRATES	Qd ₆₀ yr. cfs	Qc cfs
1-1	1	6	46.37	64.32

R.C.P. IS CLASS III

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



THRUST BLOCK DETAILS

THRUST BLOCK DIMENSIONS

STRUCTURE NO.	W	H	L	A	B	C	D	E	F
STRUCTURE #1	3'-7"	2'-8 1/2"	4'-9 1/4"	1'-9 1/2"	1'-4"	1'-9 1/2"	0'-5 1/4"	0'-3 1/2"	0'-3 1/2"
STRUCTURE #2	3'-6"	2'-7 1/2"	4'-8"	1'-9"	1'-3 3/4"	1'-9"	0'-5 1/4"	0'-3 1/2"	0'-3 1/2"
STRUCTURE #3	5'-4"	4'-0"	7'-1 1/2"	2'-8"	2'-0"	2'-8"	0'-8"	0'-5 1/4"	0'-5 1/4"

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.58
DATE 03/09/12
CITY REDLINES AS PER 03/09/12 COMMENTS R.R.

PROJECT NAME
TERRA DEL ESTE UNIT SIXTY NINE
BRING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166+ ACRES

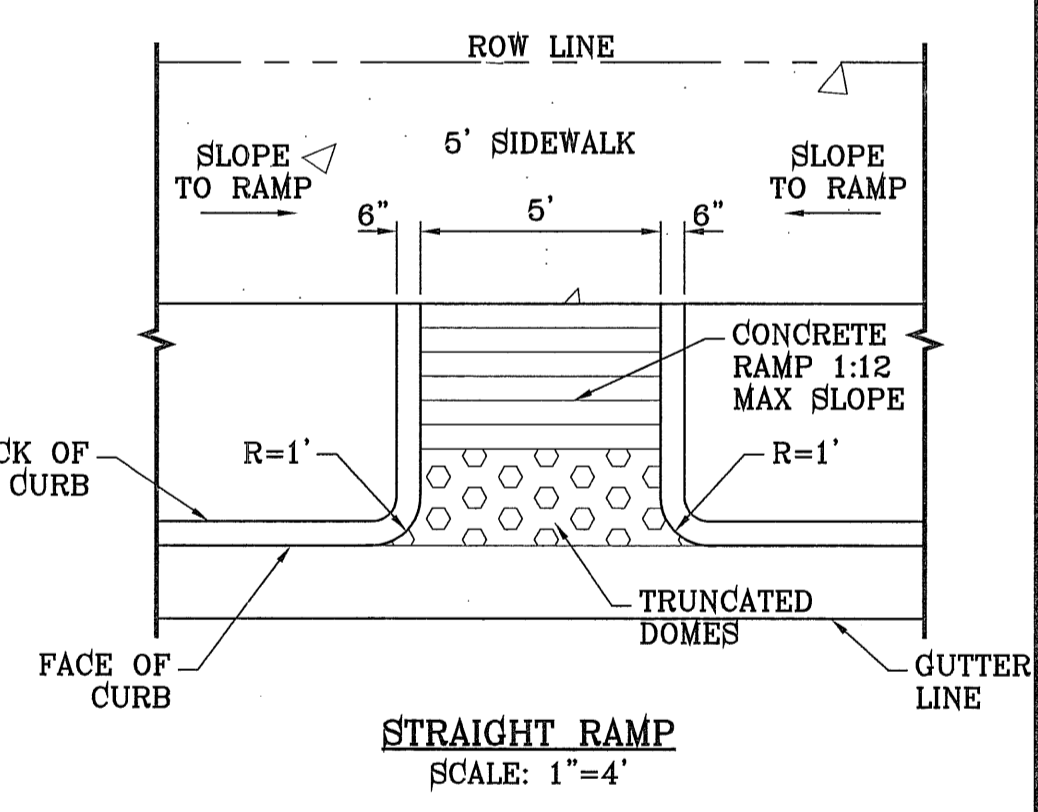
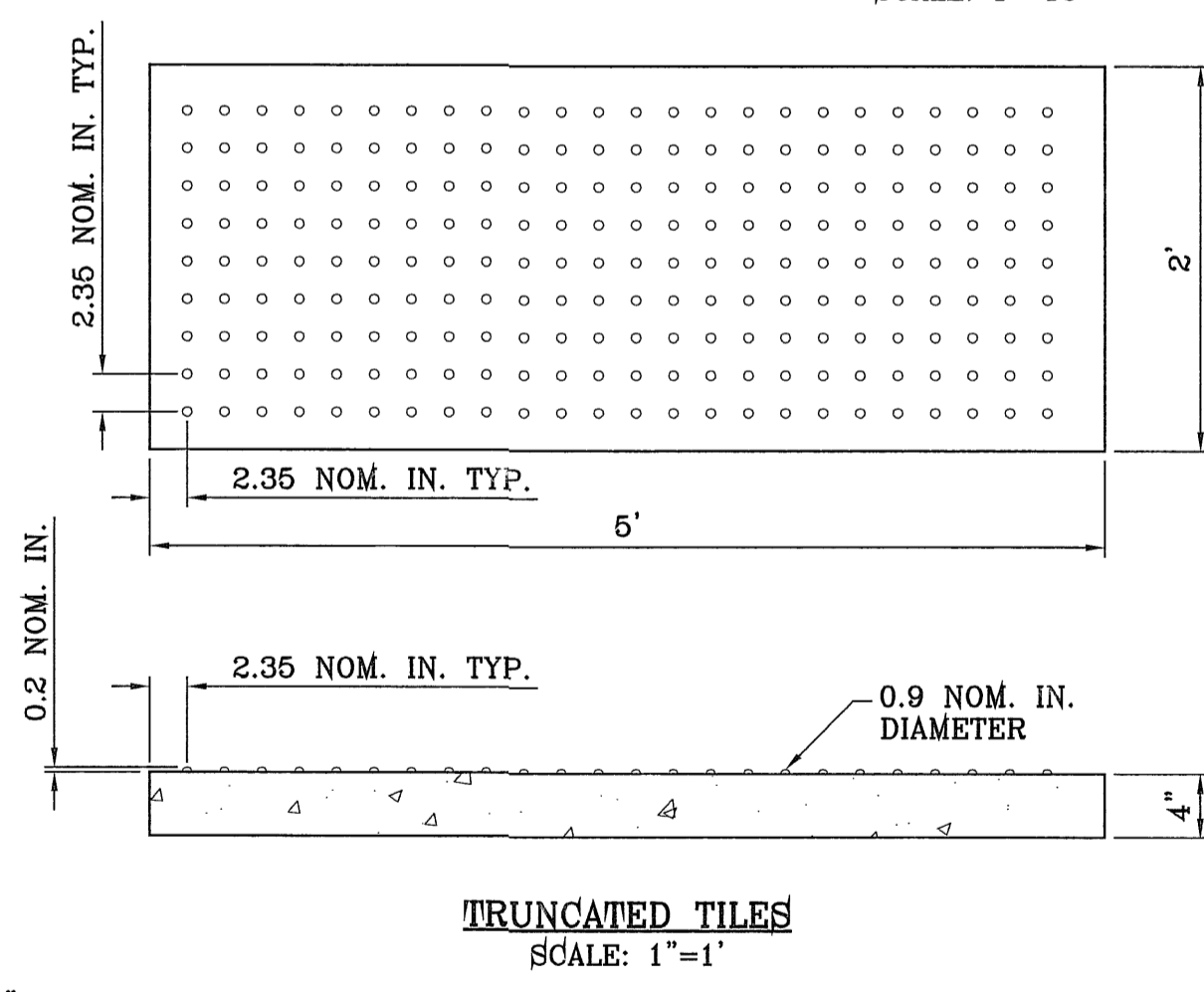
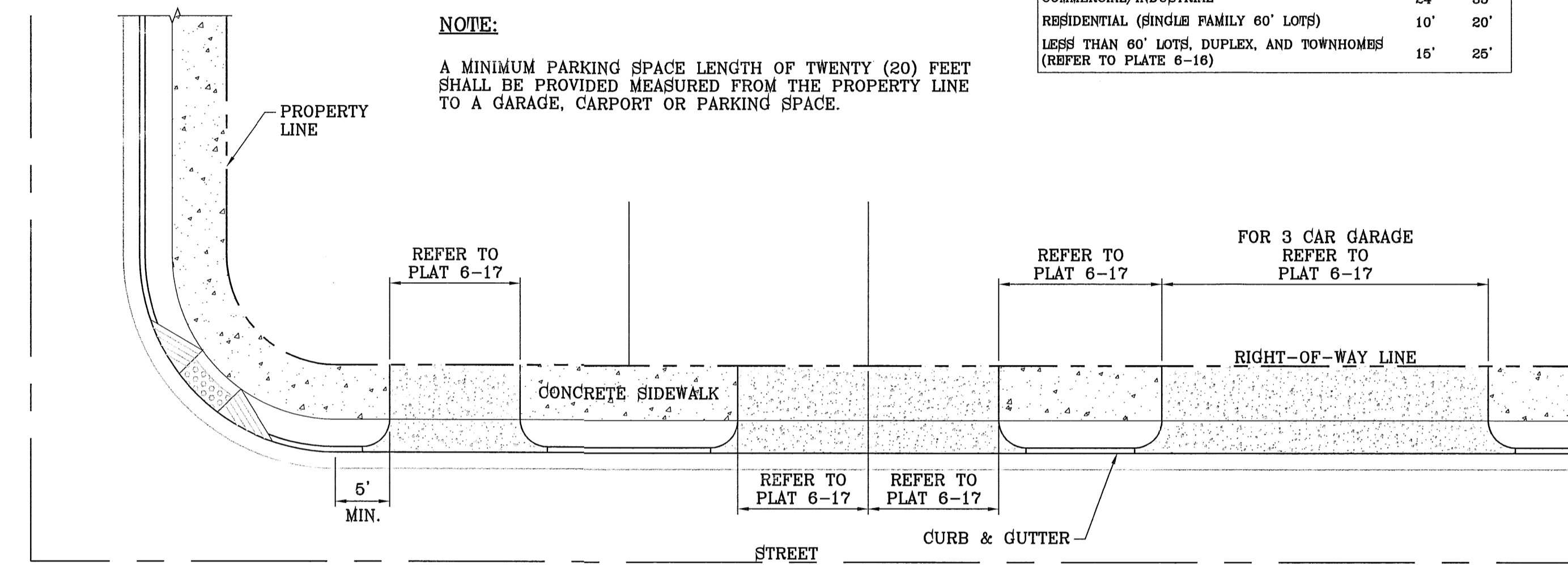
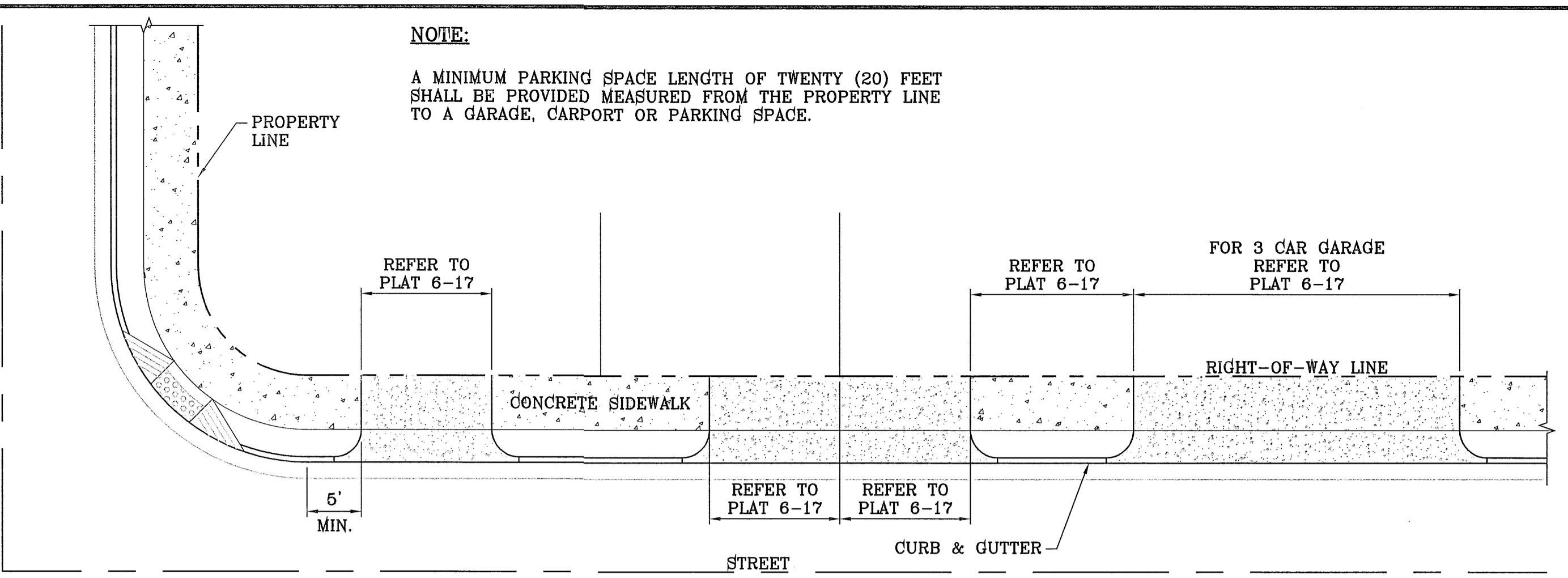
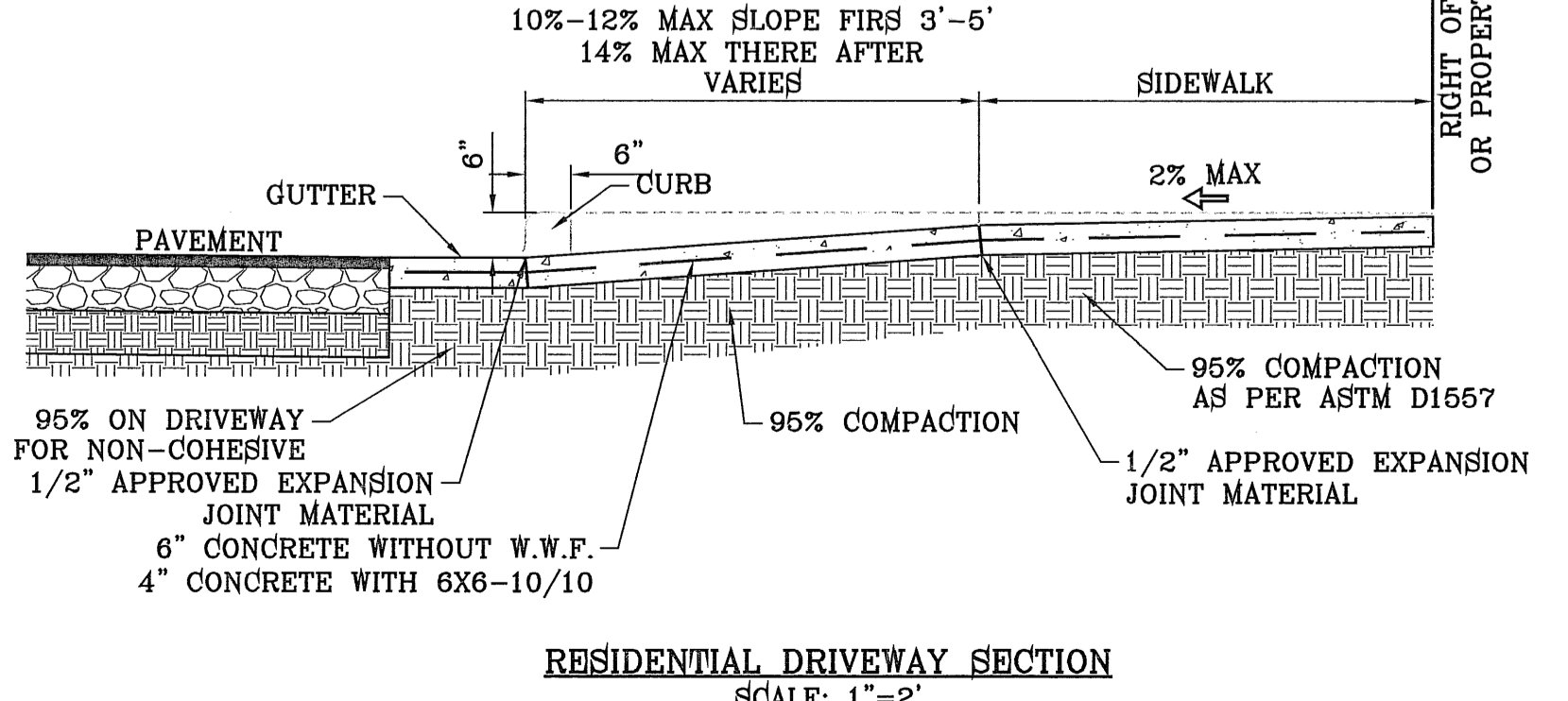
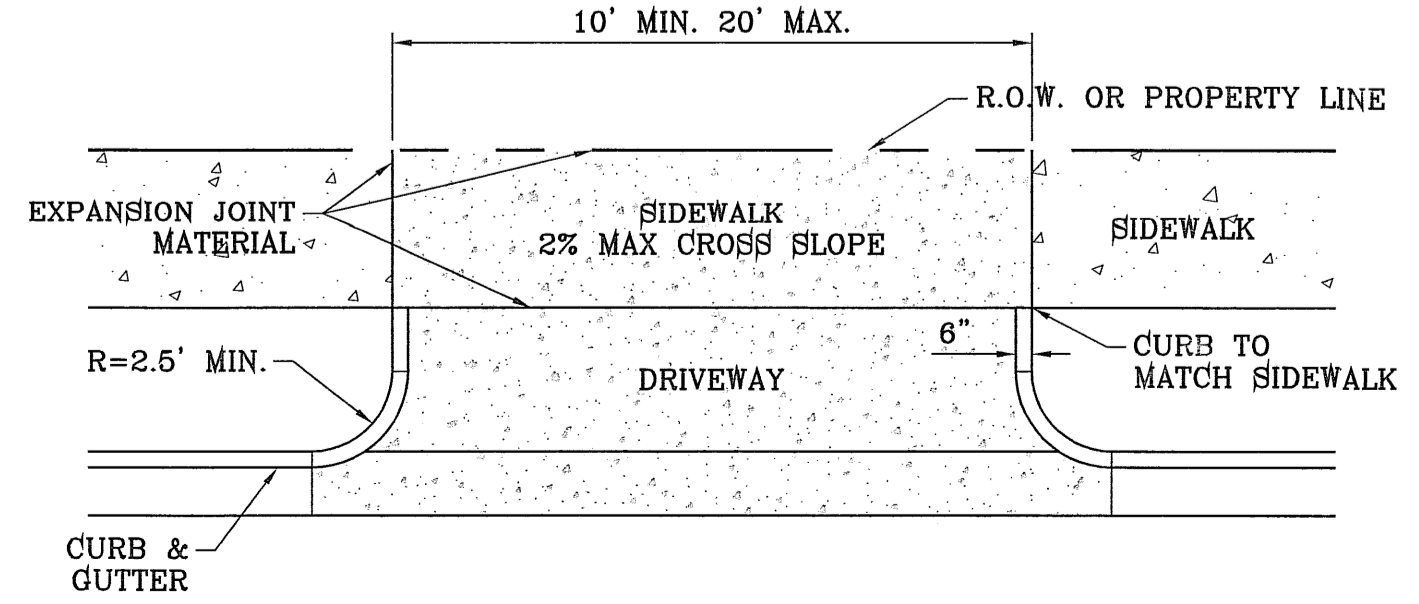
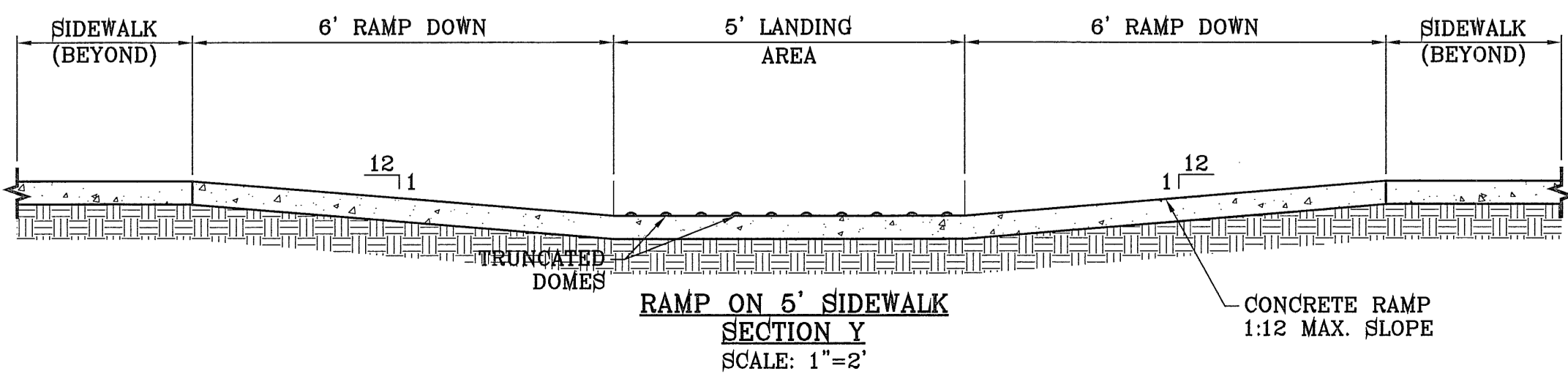
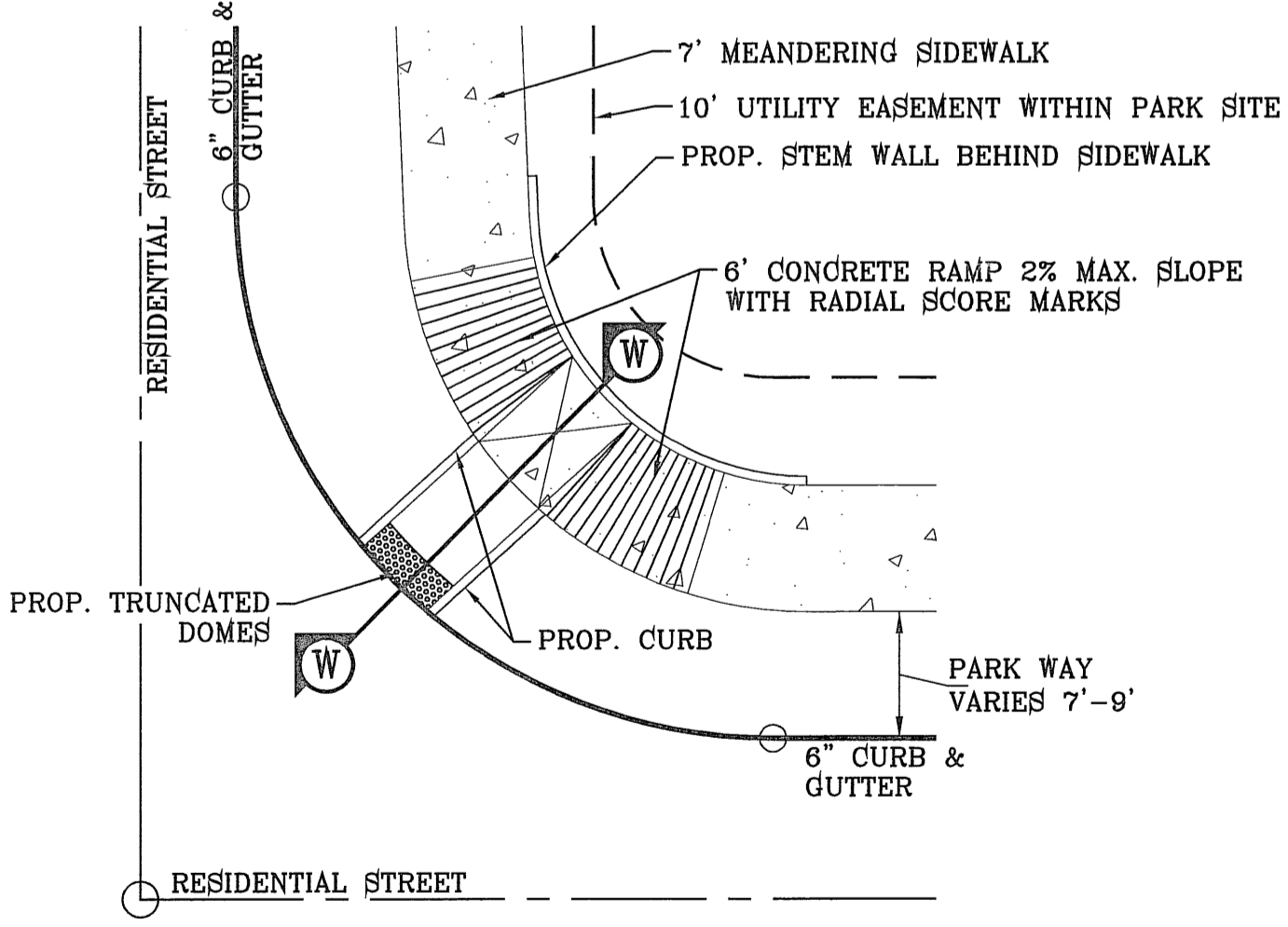
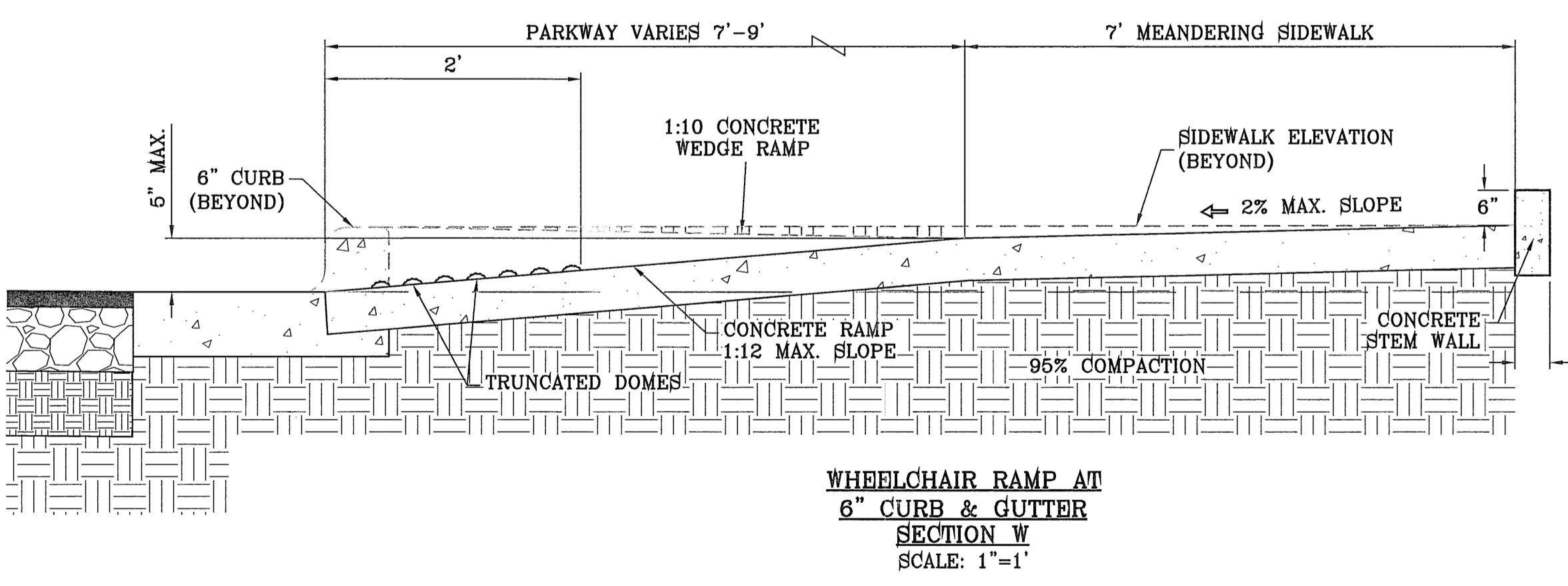
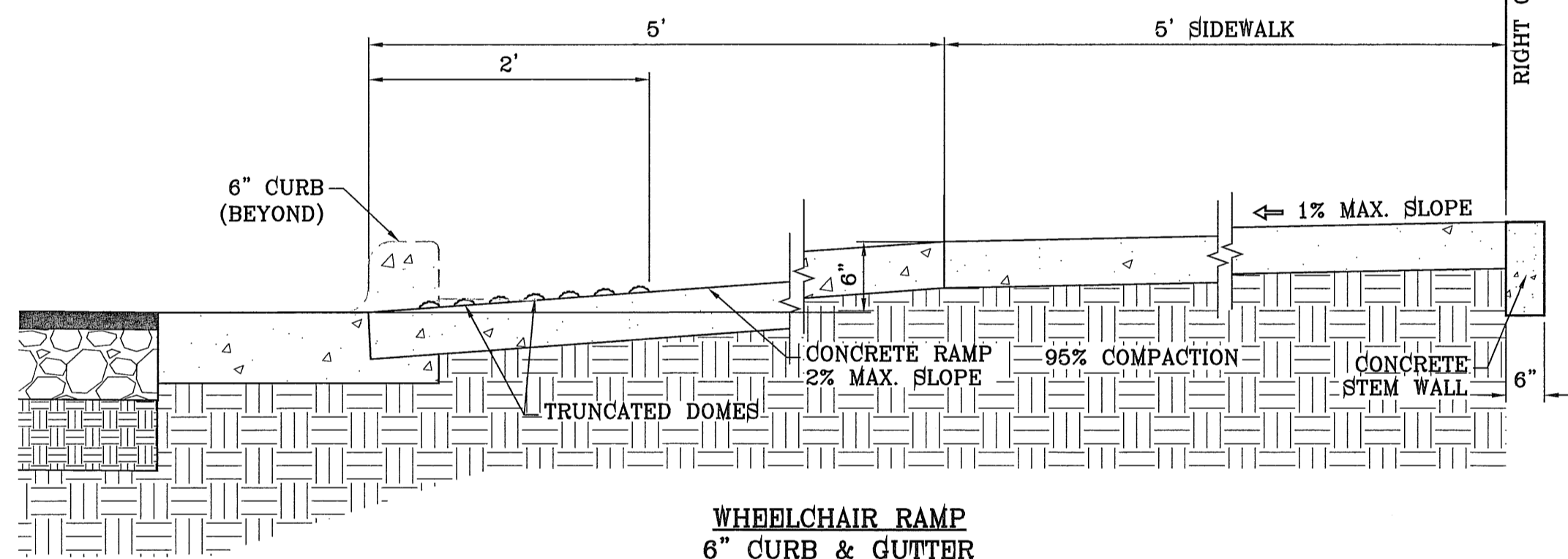
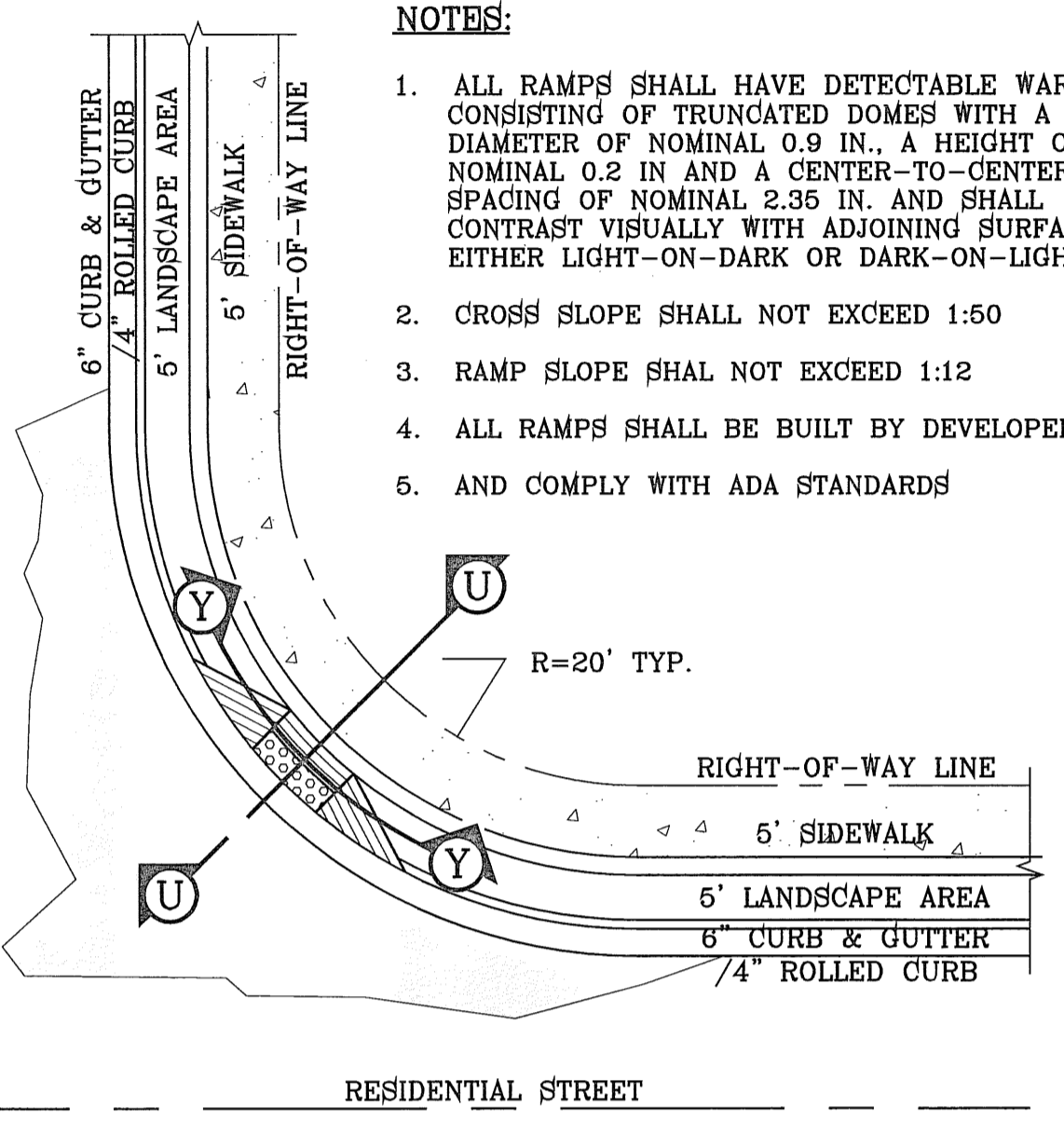
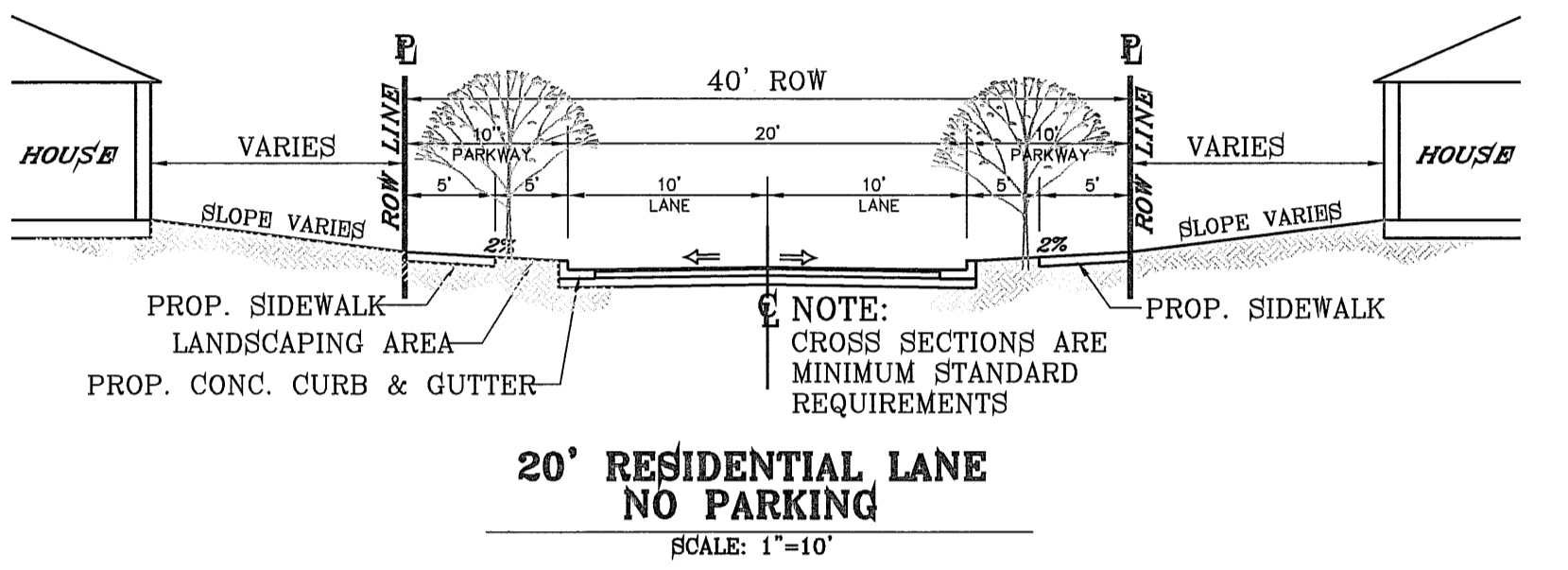
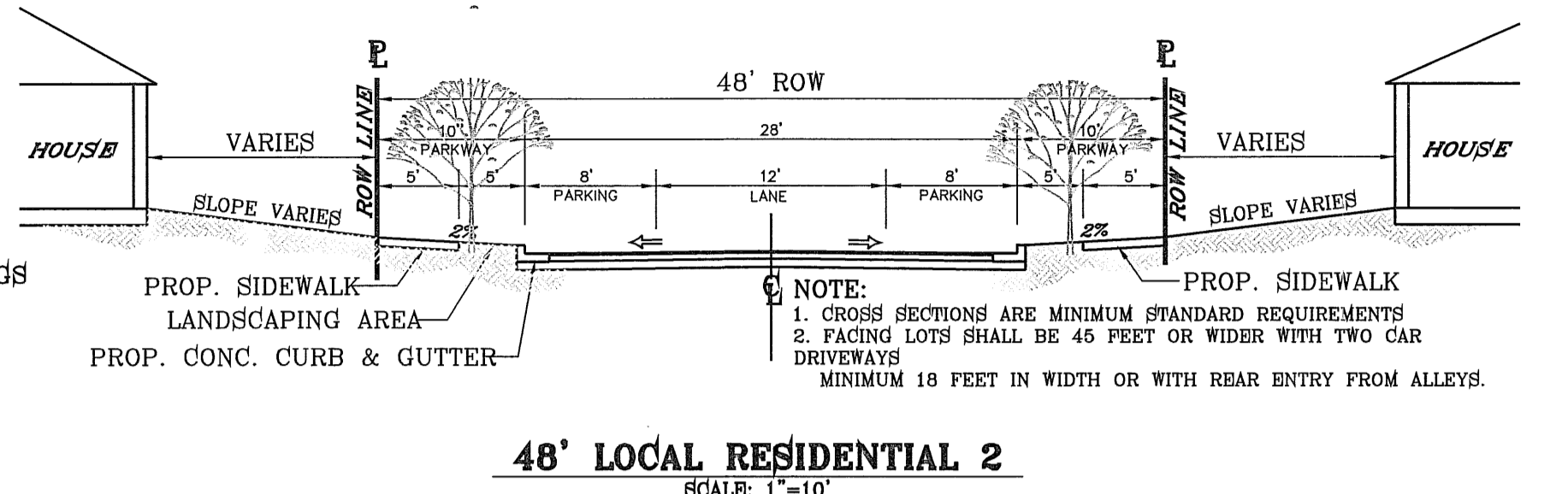
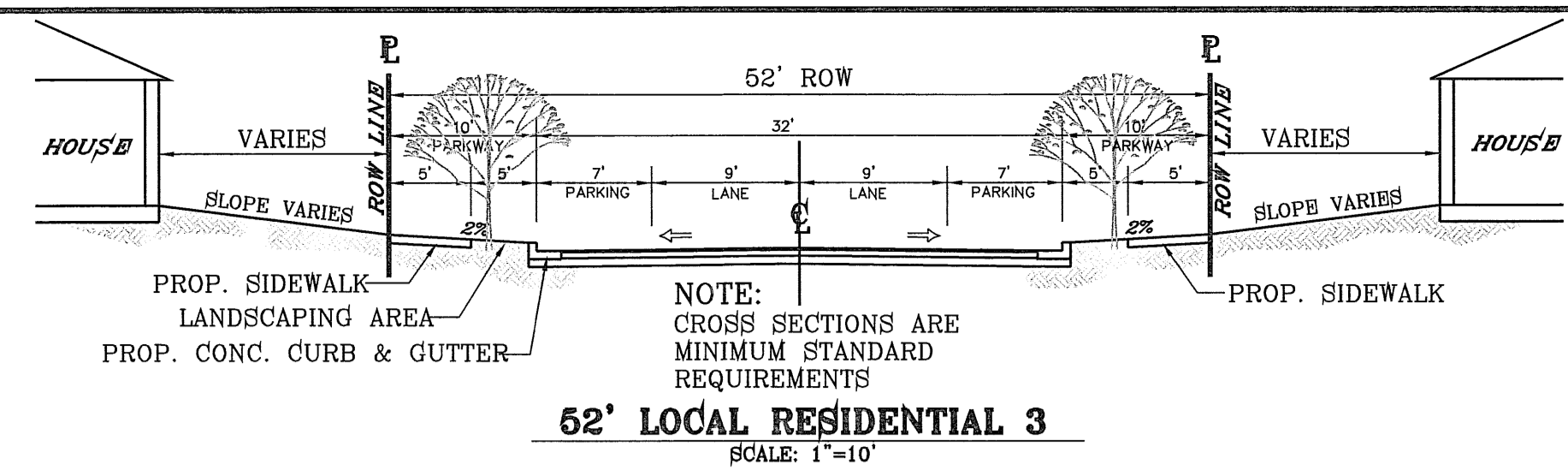
SCALE
HORIZ: AS SHOWN
VERT: SHOWN
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

ENGINEER'S SEAL
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0285
FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. P-2321

SHEET TITLE
PROPOSED STRUCTURE #1

FILE LOCATION S:\Subdivisions\YDE 69\DETAILS PLOTTED ON Thursday, July 12, 2012 1:01:29 PM BY RUBEN RIVERA



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

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'

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOWLAND POINT DR. AND JOHN HAYES CITY DATUM
ELEVATION 4090.56

DATE

REVISIONS

TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, PLANNED AND PLACED BY C. RIVERA, CO. SURVYOR, TOWNSHIP 20 NORTH, RANGE 10 EAST, PLAS WILCOX COUNTY, TEXAS. CONTAINING: 90.166± ACRES

ENGINEER'S SEAL

ENGINEER'S SEAL NOT REQUIRED.

DATE: NOV. 2011

DESIGN BY: Y.C.

INITIATED BY: R.R.

CHECKED BY: Y.C.

JOB NO.: 211-50

CONDE INC.

ENGINEERING / PLANNING SURVEYING / GPS

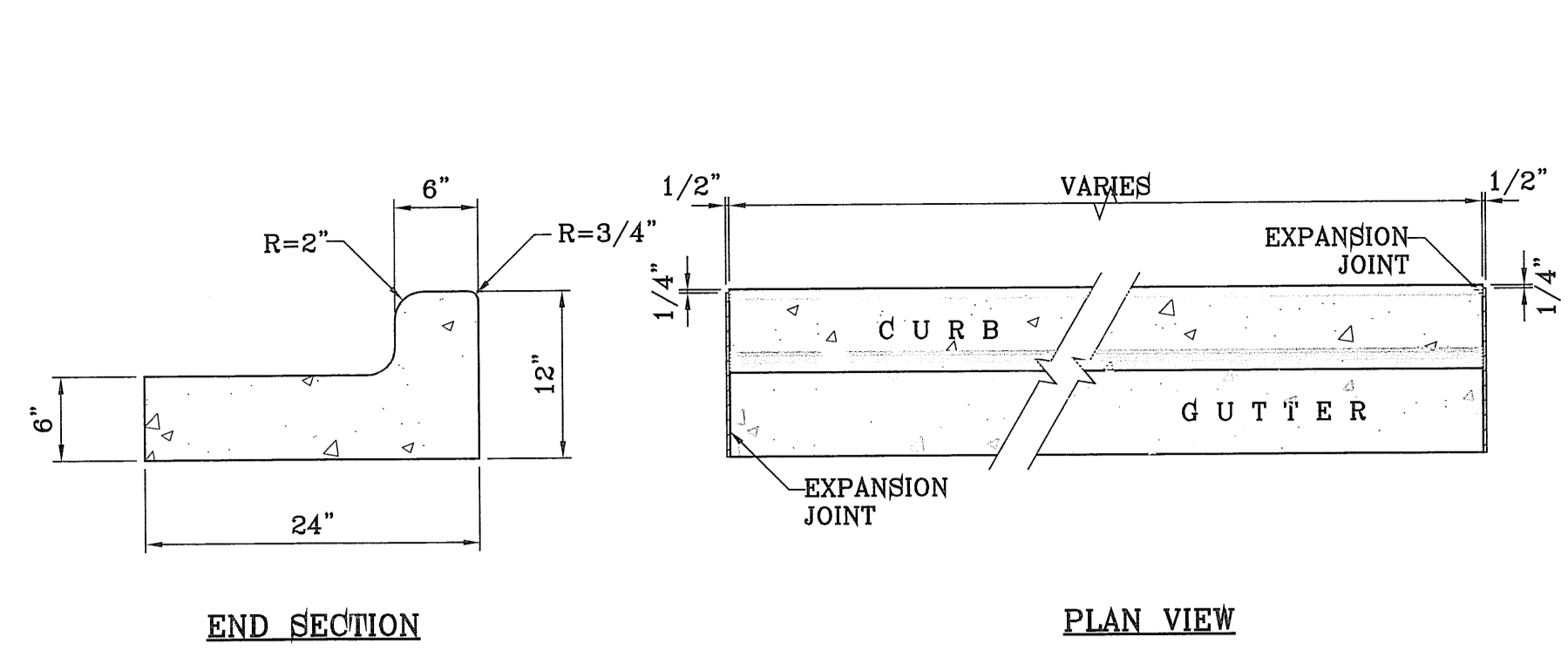
6080 SURETY DR. STE 100 EL PASO, TEXAS 79905

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



SHEET TITLE

STANDARD DETAILS



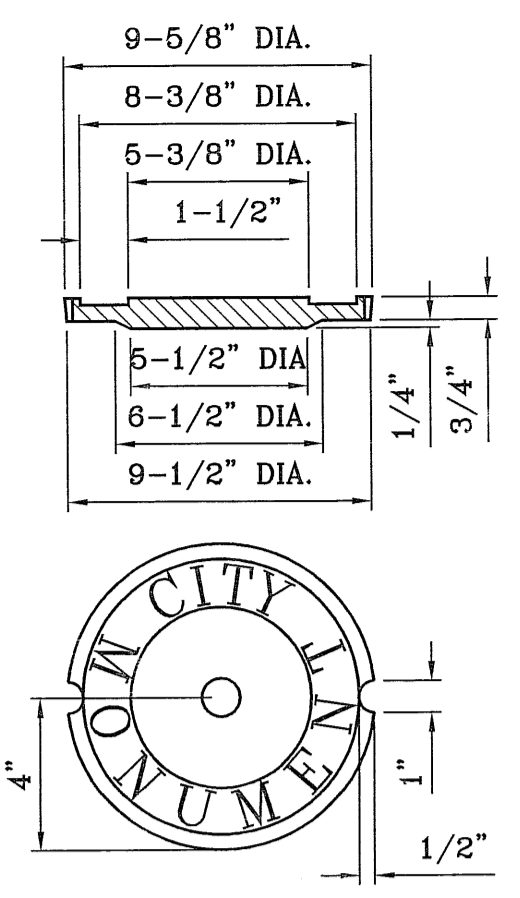
END SECTION

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'



COVER
SCALE: 1"=6"

COUNTERSUNK DETAIL
SCALE: 1"=3"

SIZE AND CONSTRUCTION:

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

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

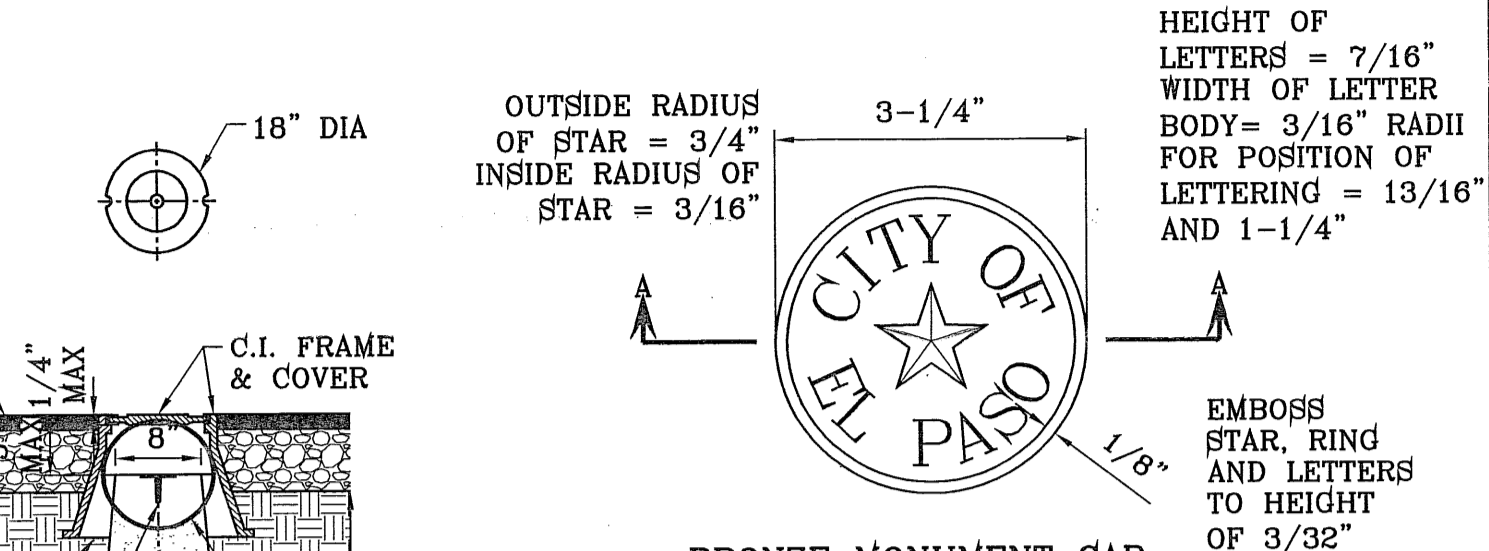
NUMBER AND LOCATIONS:

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

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

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

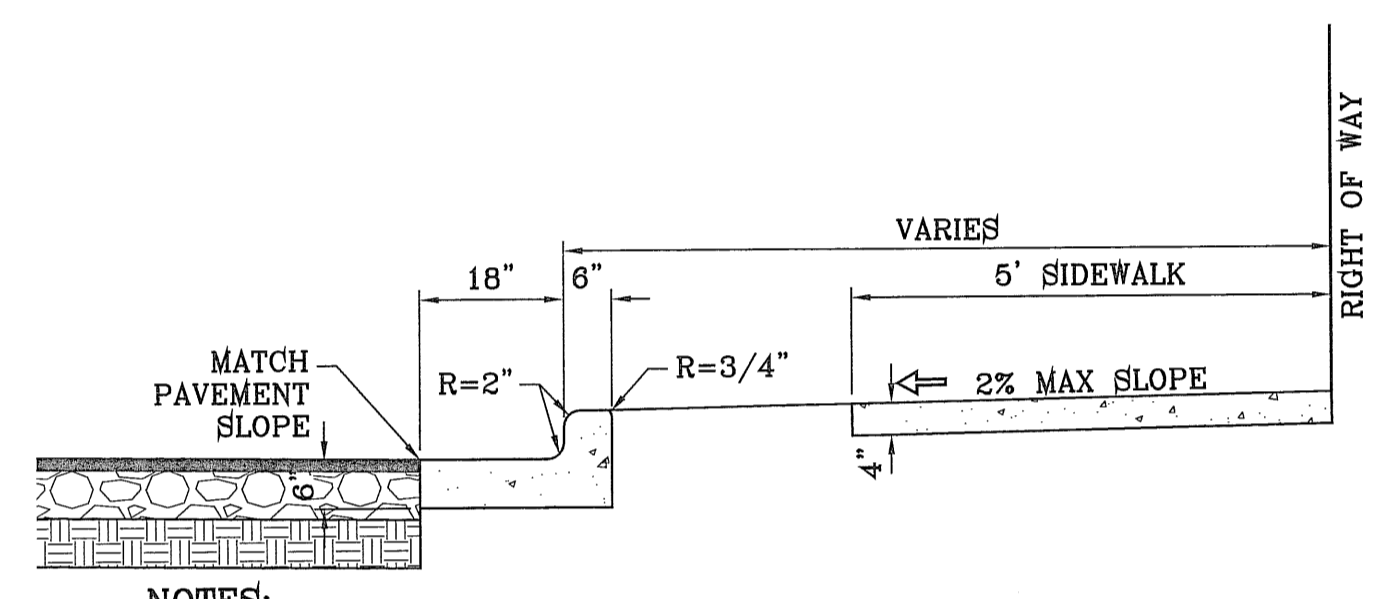
AT LEAST ONE (1) MONUMENT SHALL BE PLACED ON EACH HORIZONTAL CURVE. TWO SHALL BE PLACED IF THE POINT OF INTERSECTION (P.I.) OF THE TANGENTS LEADING INTO THE CURVE FALLS OUTSIDE OF CITY RIGHT-OF-WAY. MONUMENTS SHALL BE INSTALLED SO THAT ALL FRONT PROPERTY CORNERS OF ALL LOTS IN THE SUBDIVISION ARE WITHIN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

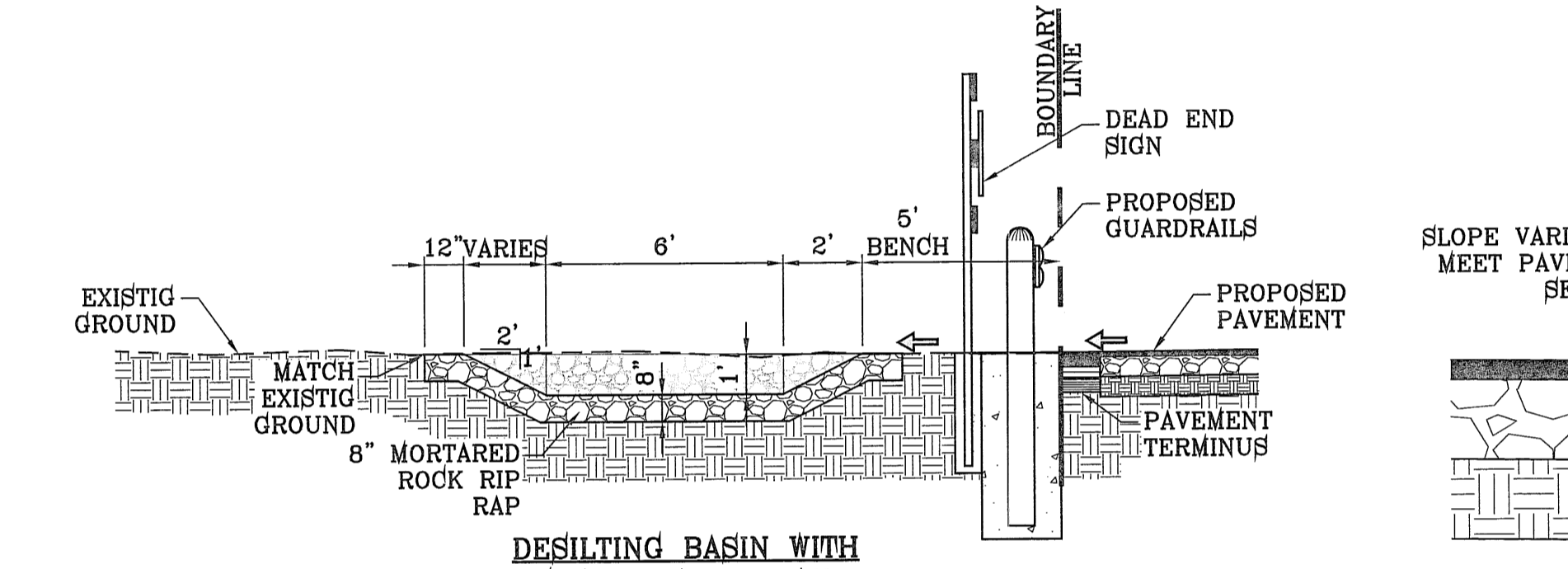
SECTION A-A
SCALE: 1"=2"



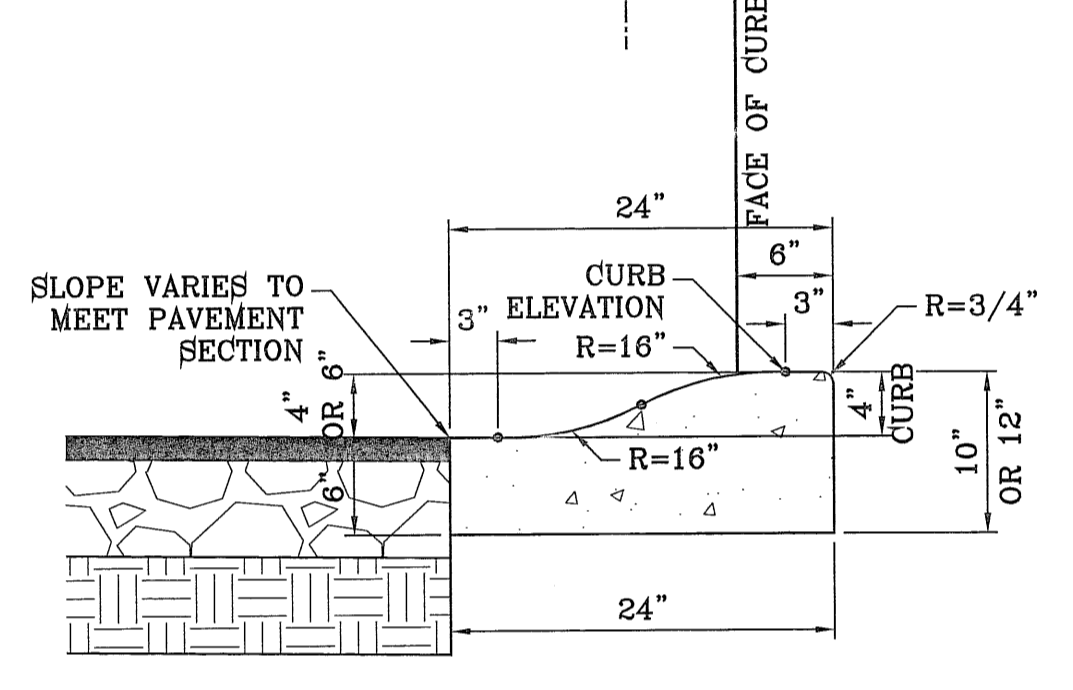
CURB & GUTTER AND SIDEWALK DETAIL
SCALE: 1"=2"

NOTES:

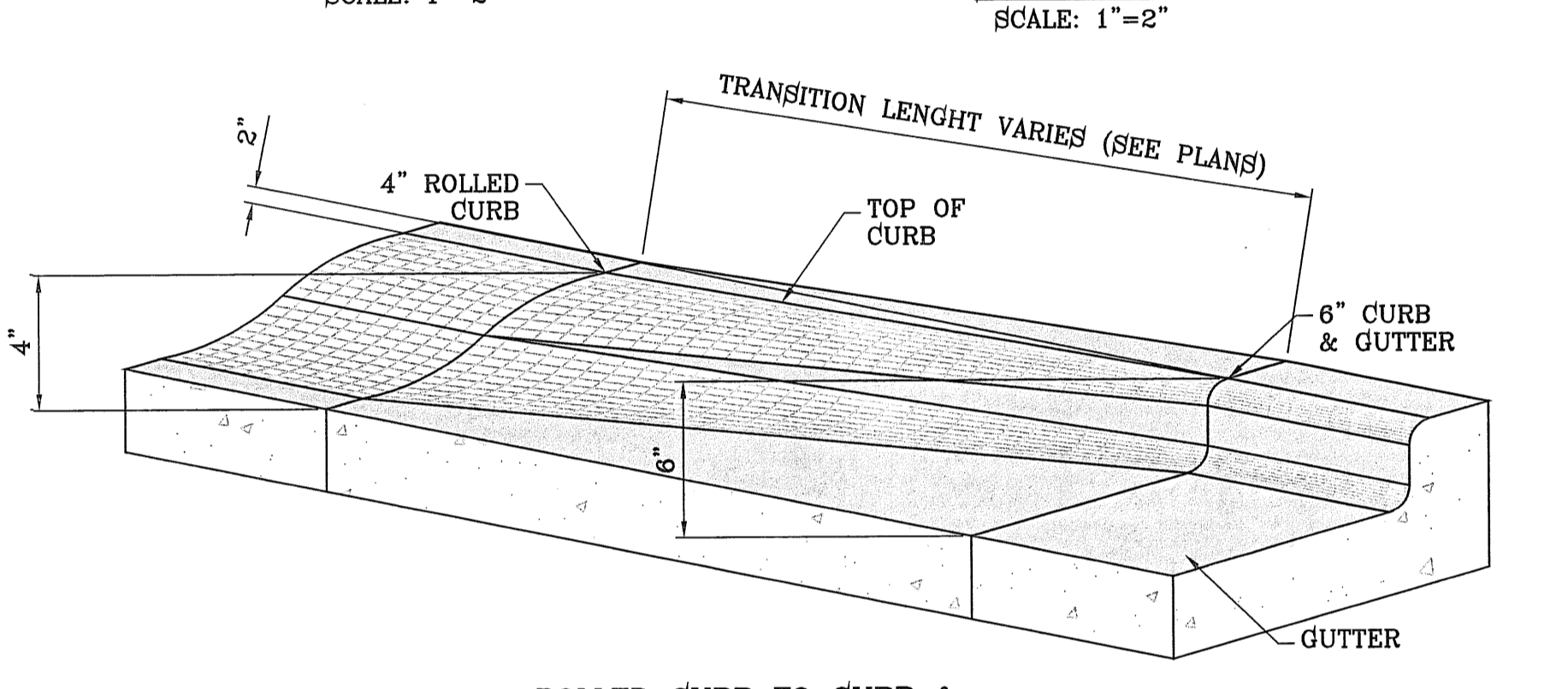
1. CONCRETE SHALL BE 3000 P.S.I. MINIMUM.
2. DUMMY JOINTS REQUIRED AT 10' O.C. FOR CURB/GUTTER AND 5' O.C. FOR SIDEWALK.
3. EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.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



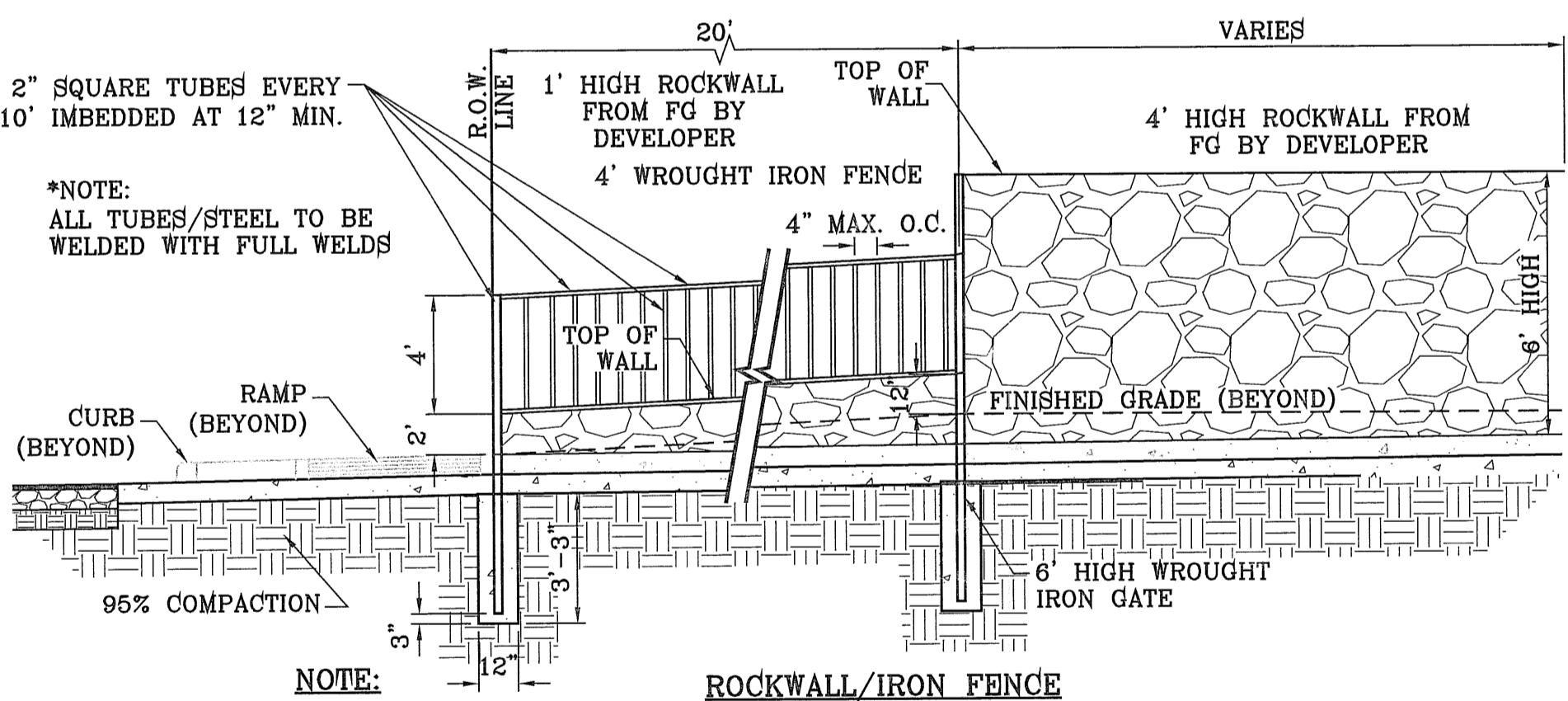
DESILTING BASIN WITH GUARD RAIL DETAIL
SCALE: 1"=4'



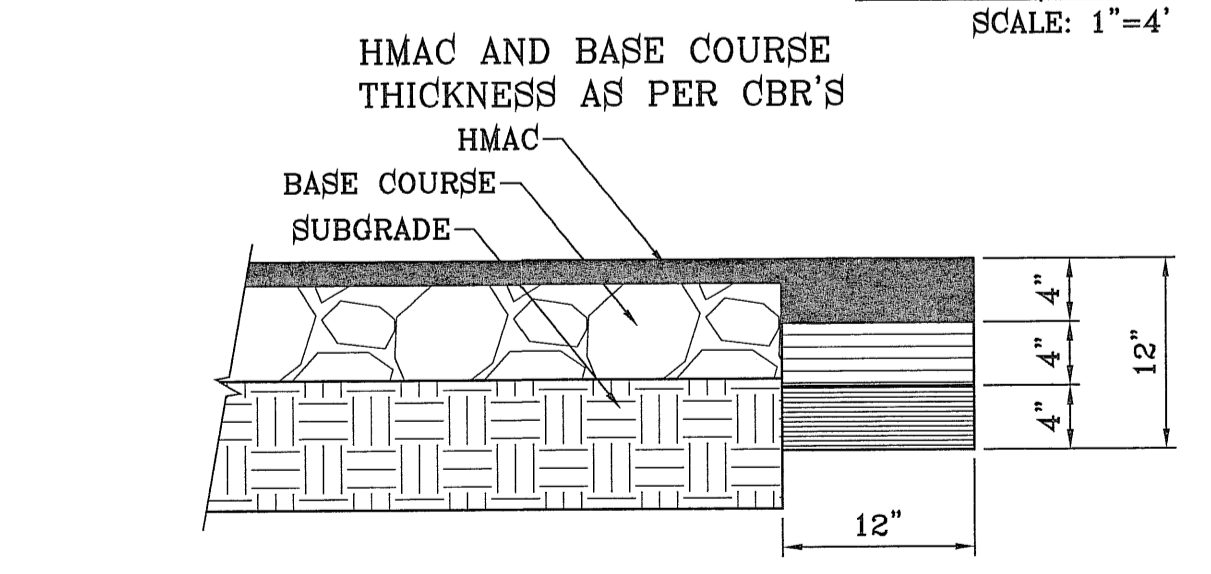
ROLLED CURB DETAIL
SCALE: 1"=1'



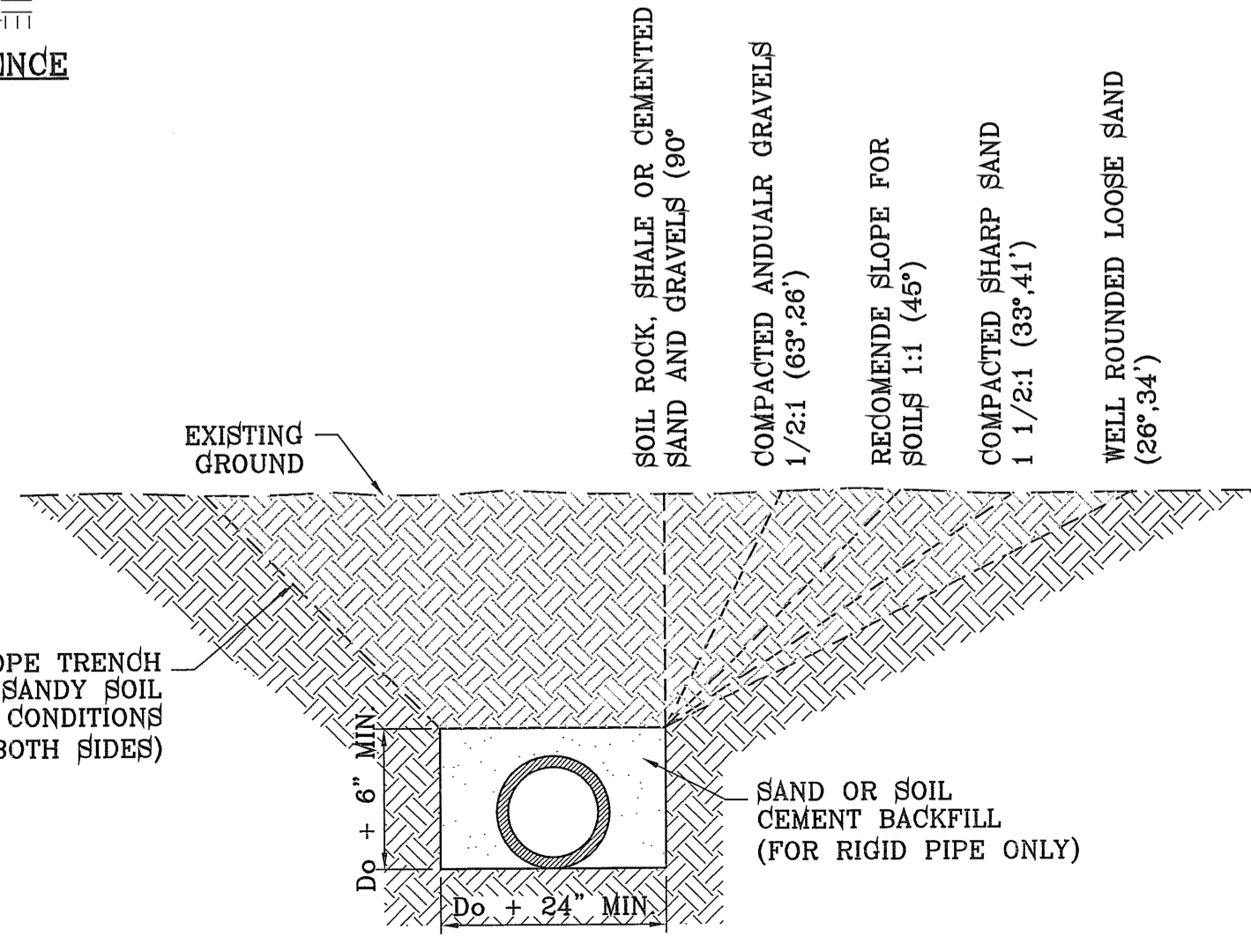
ROLLED CURB TO CURB & GUTTER TRANSITION
SCALE: 1"=1'



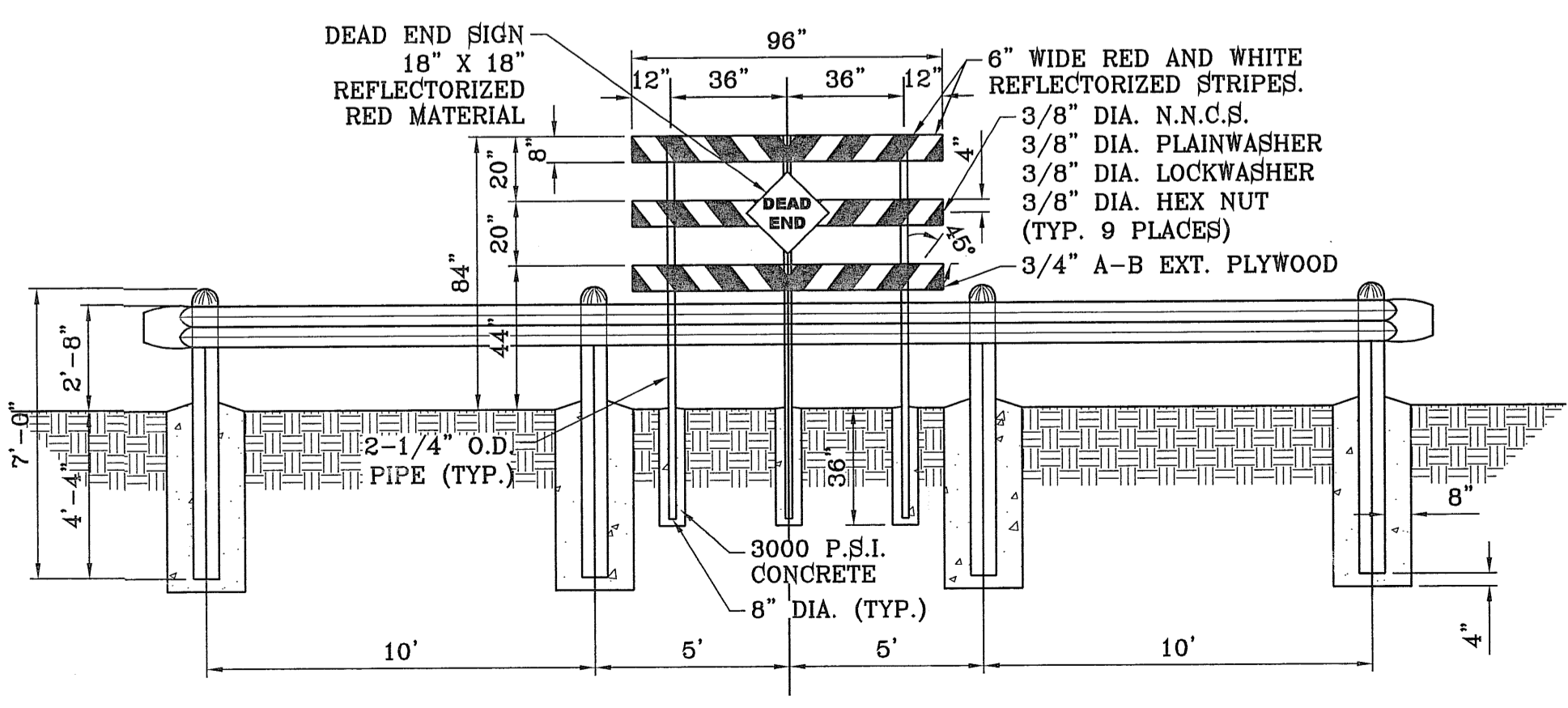
ROCKWALL/IRON FENCE
SCALE: 1"=4'



PAVEMENT TERMINUS
SCALE: 1"=1'

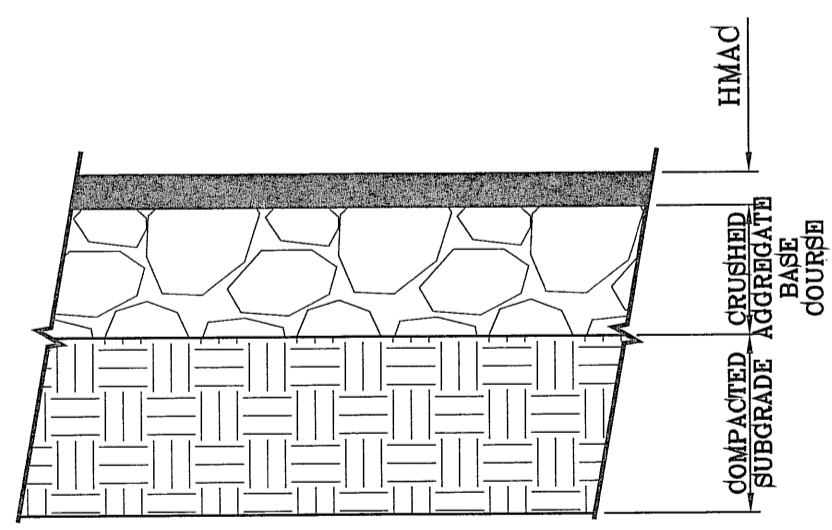


TYPICAL TRENCH SECTION
SCALE: 1"=3"



GUARD RAIL DETAIL
SCALE: 1"=4'

NOTE: DEAD END SIGN TO BE USED WITH GUARDRAILS. RED AND WHITE PORTIONS TO BE REFLECTIVE SHEETING. DEAD END SIGN MUST COMPLY WITH THE CITY OF EL PASO SUBDIVISION DESIGN STANDARDS.



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.

BENCHMARK	
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST	
ELEVATION 4620.86	
DATE	
REVISIONS	
BY	

TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

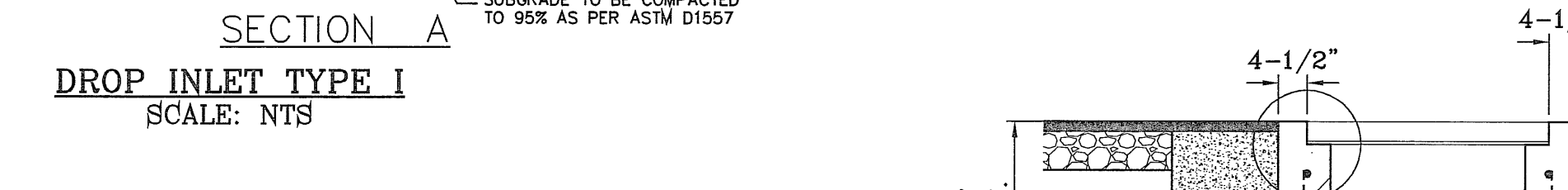
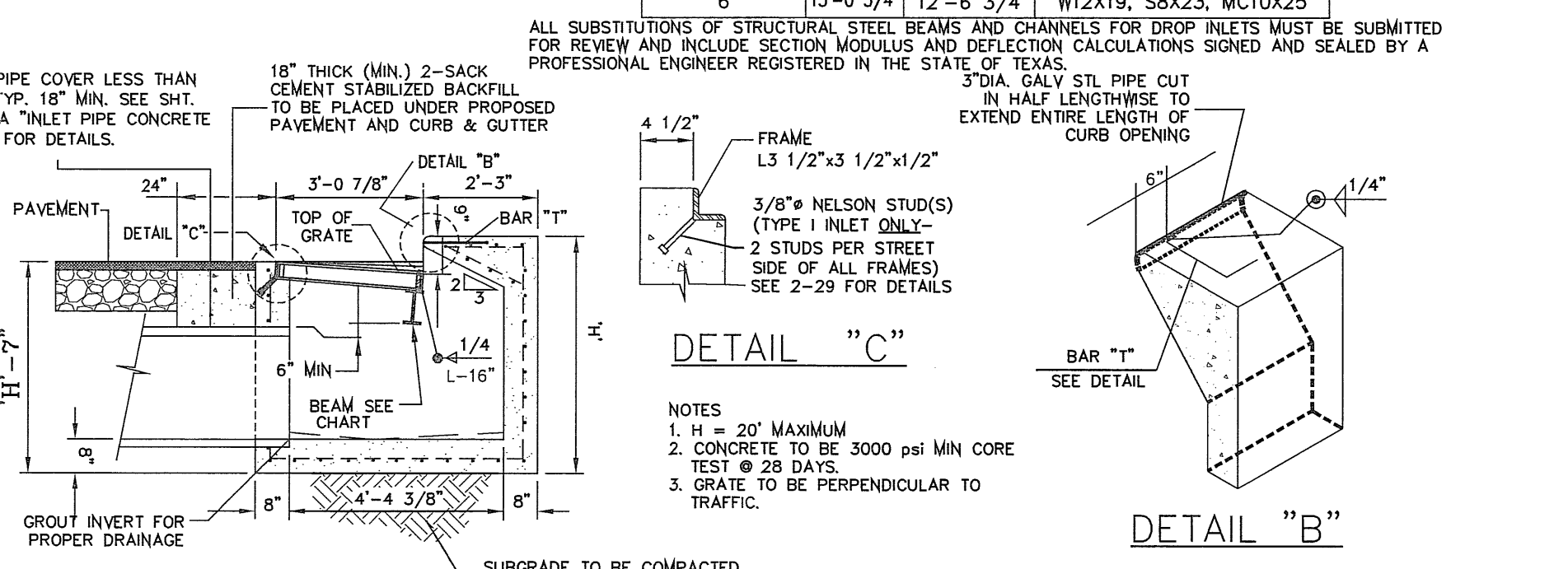
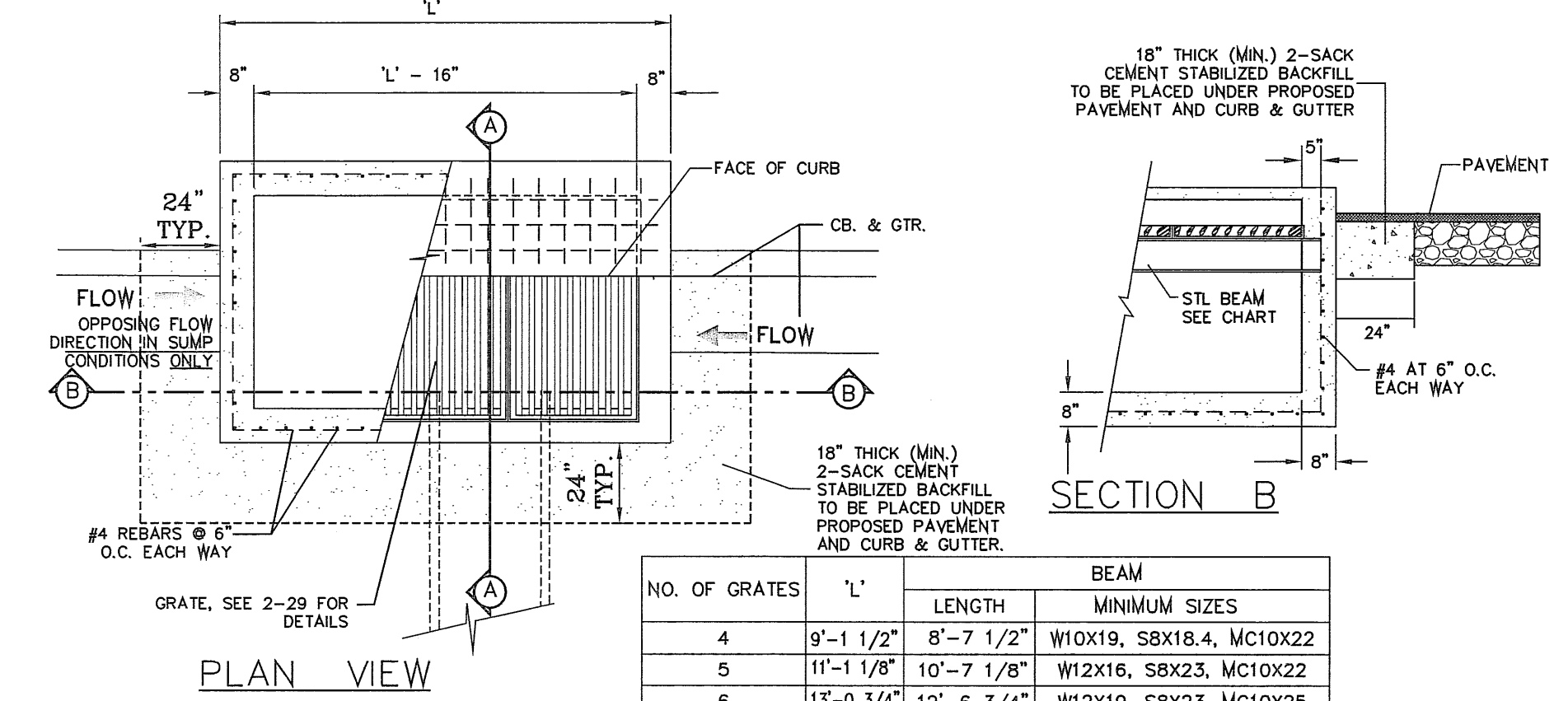
ENGINEER'S SEAL	
ENGINEER'S SEAL NOT REQUIRED. THIS SHEET IS PRODUCED IN ACCORDANCE WITH SUBDIVISION DESIGN STANDARDS	
SCALE	AS NOTED
HORIZ:	AS NOTED
VERT:	AS NOTED
DATE:	NOV. 2011
DESIGNED BY:	Y.C.
INITIATED BY:	R.R.
CHECKED BY:	Y.C.
JOB NO.:	211-50

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

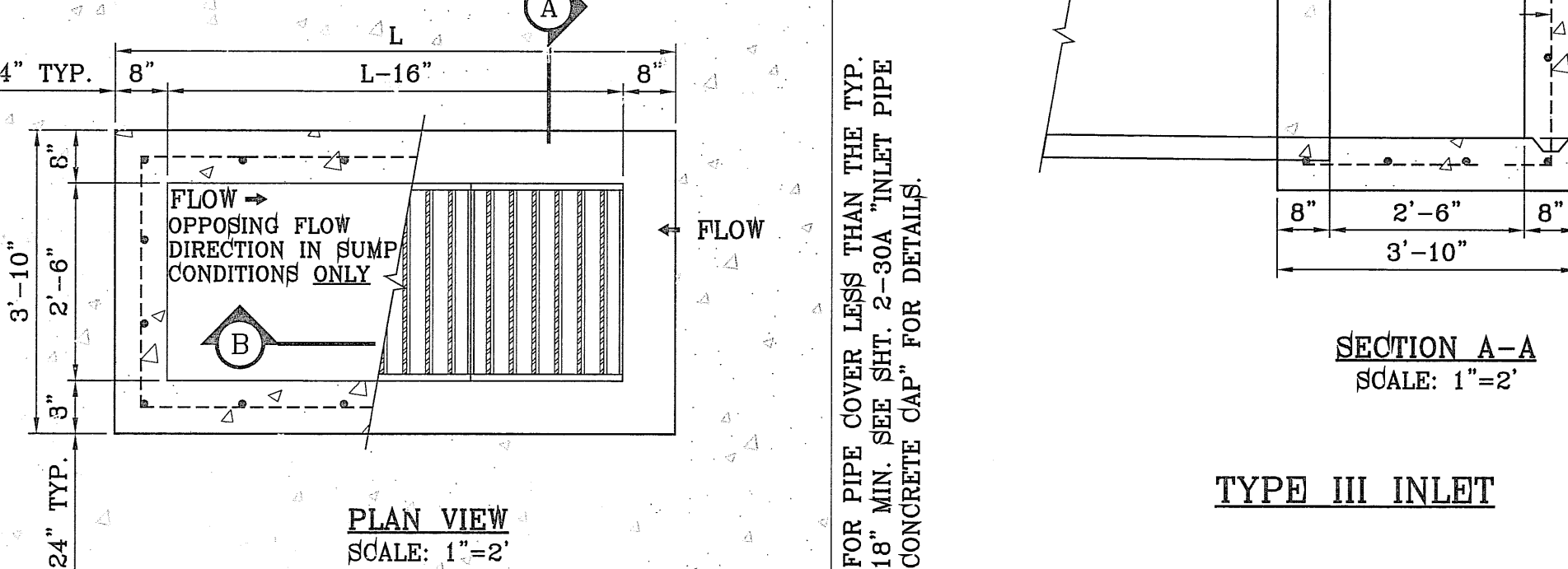
CONDE INC.
REGISTRATION NO. P-221
SHEET TITLE

STANDARD DETAILS
SHT 52 OF 64

FILE LOCATION: E:\Subdivisions\TDE 68\DETAILS PLOTTED ON Thursday, July 12, 2012 2:44:01 PM BY RUBEN RIVERA

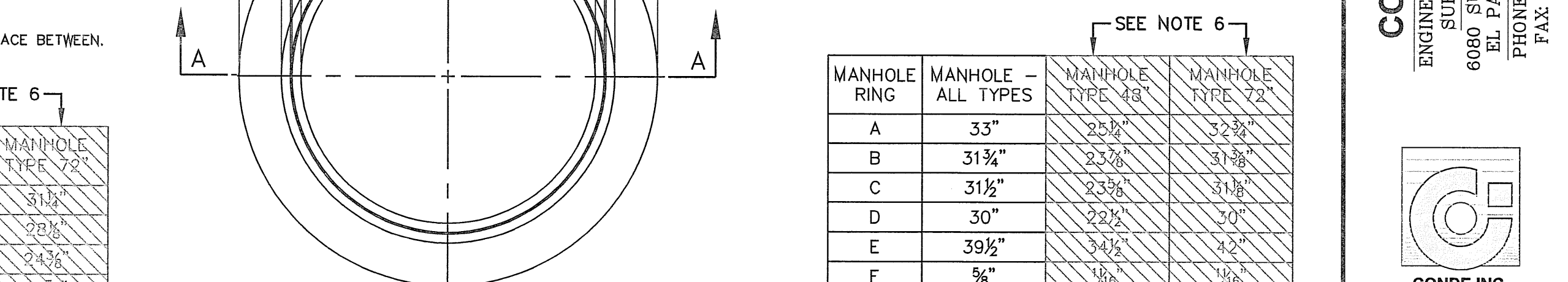
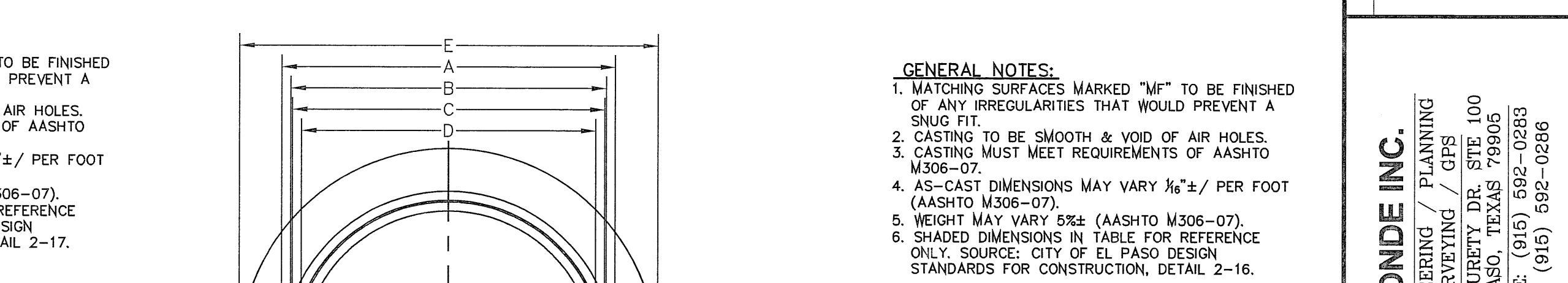
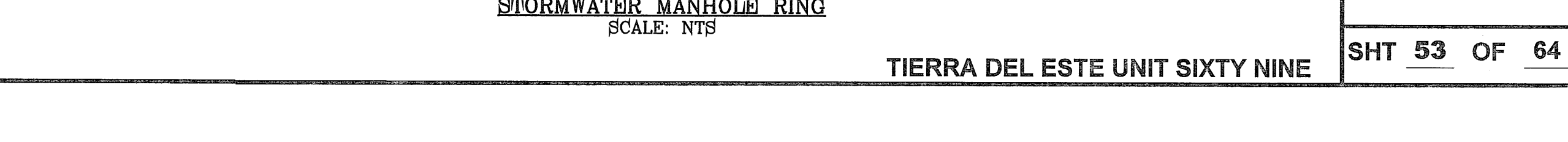
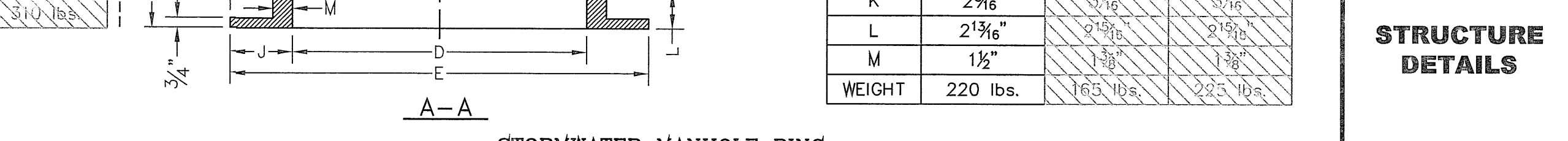
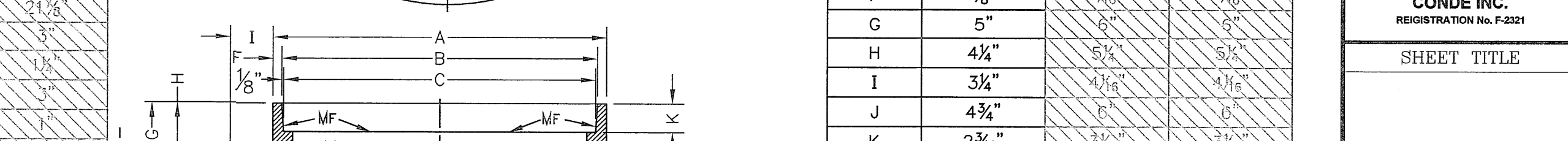
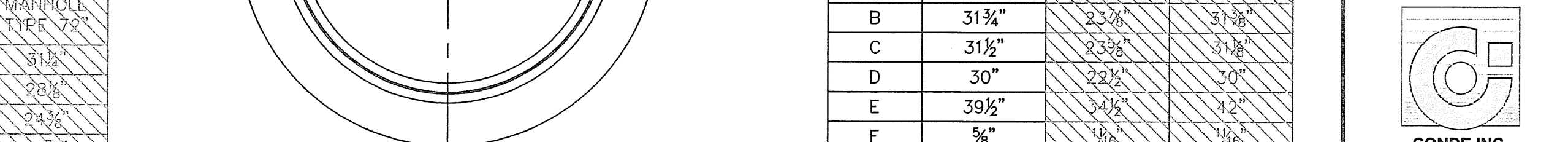
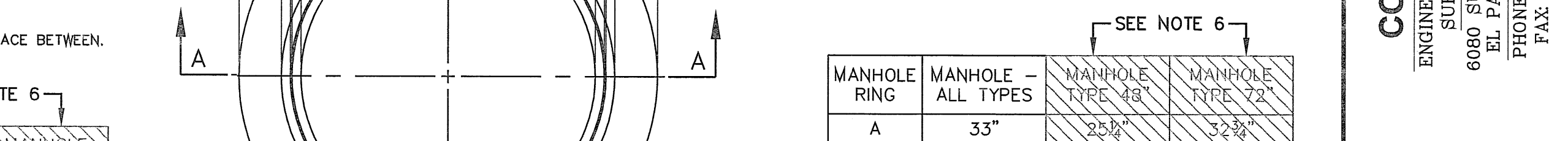
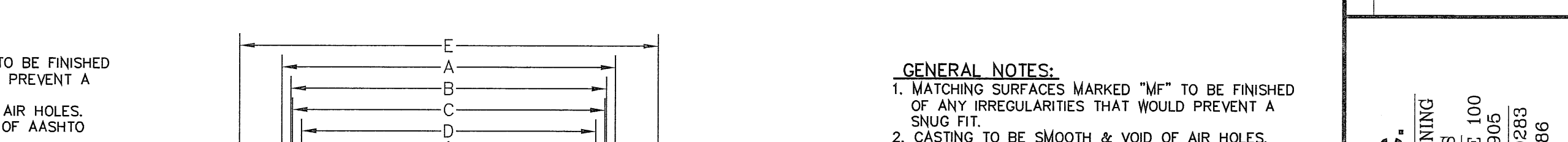
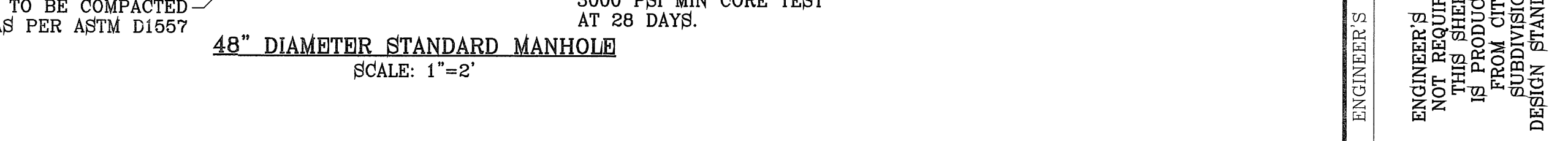
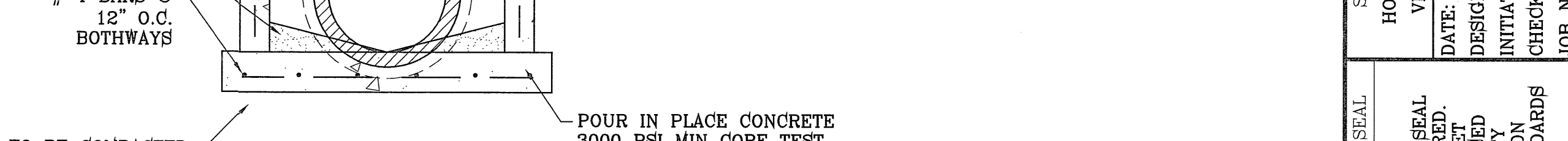
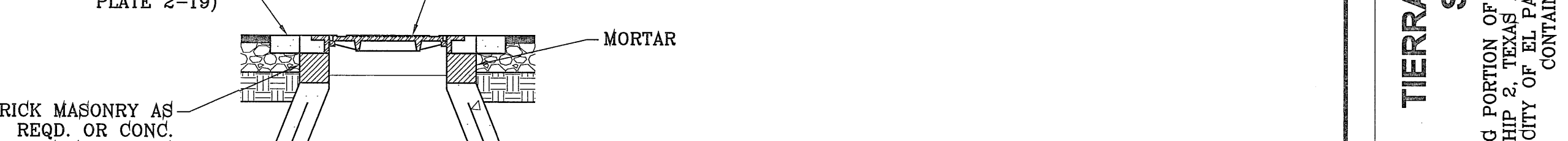
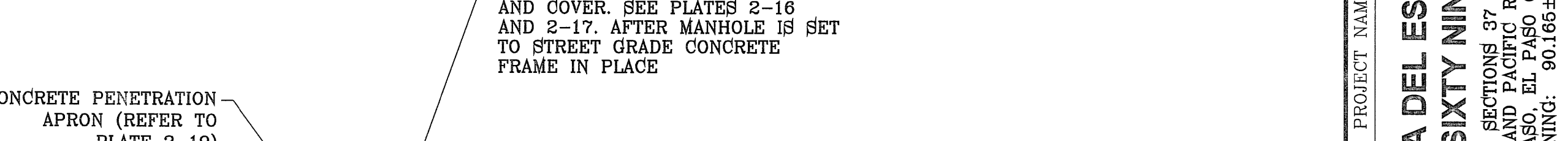
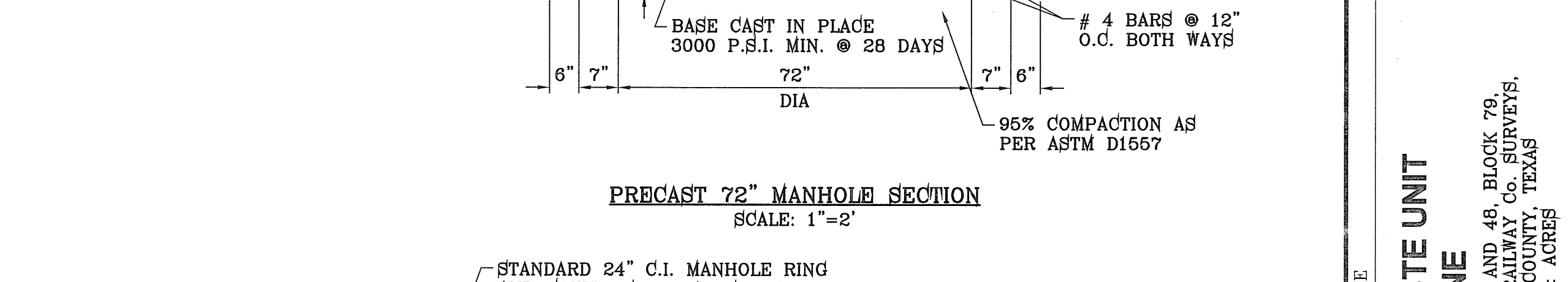
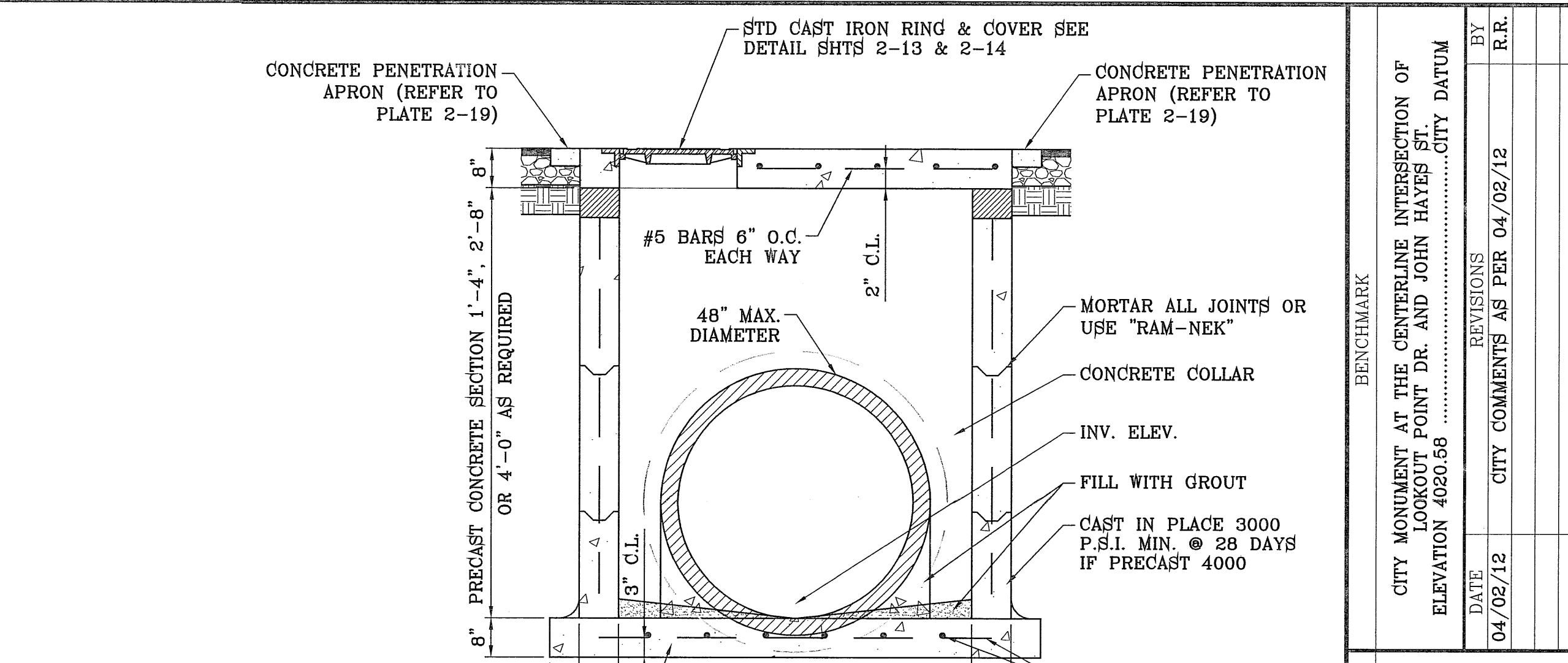
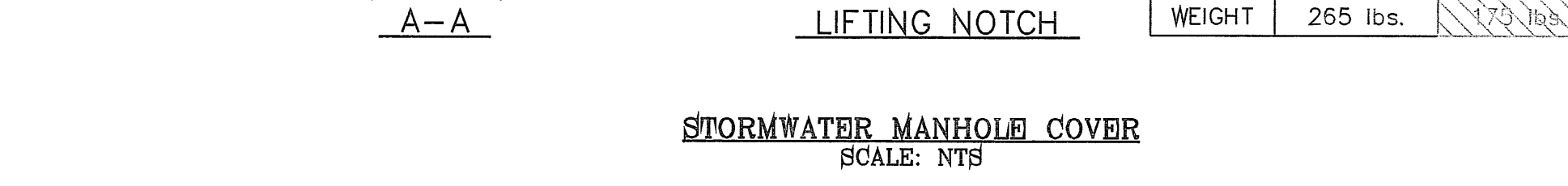
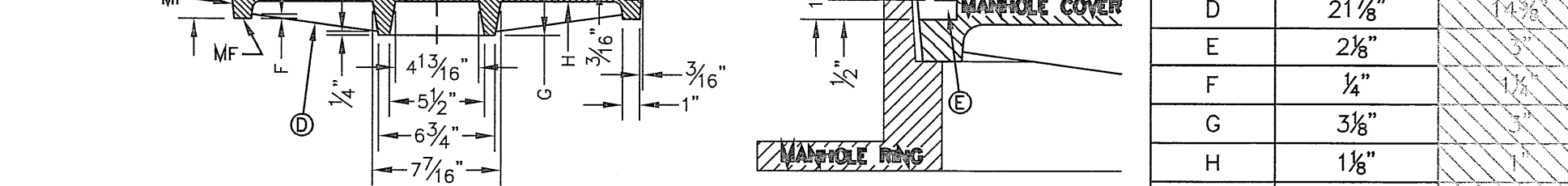
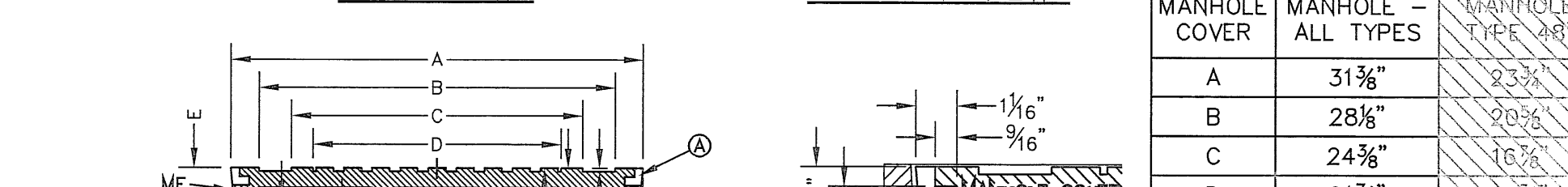
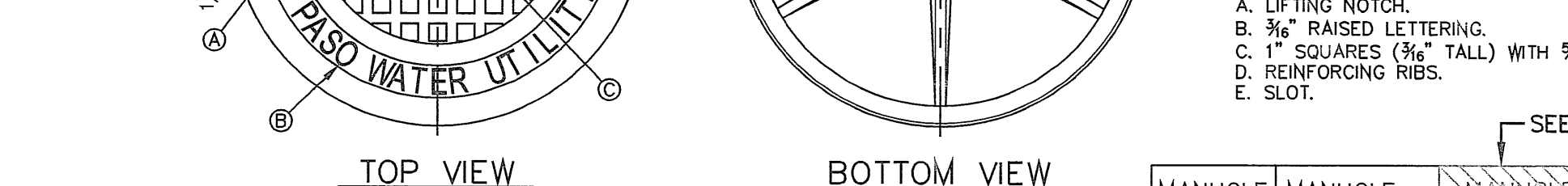
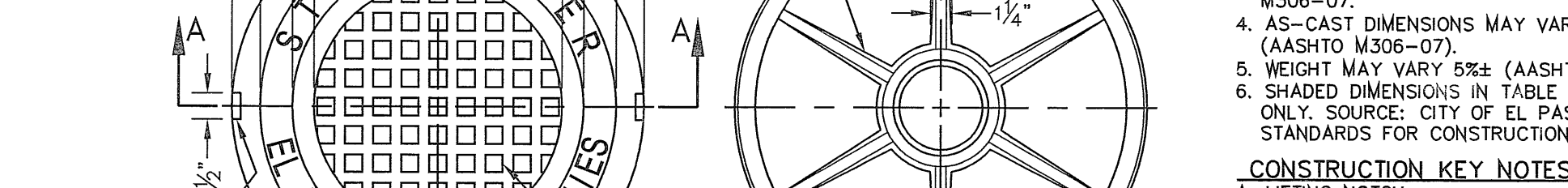
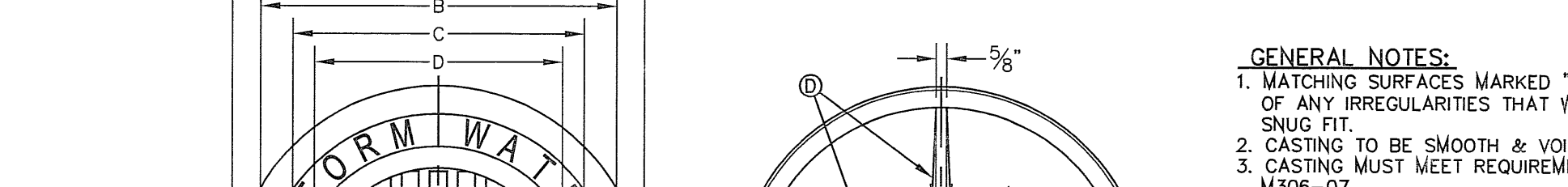
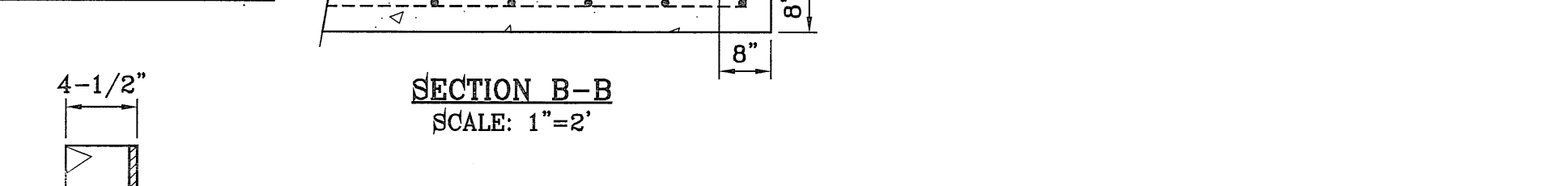
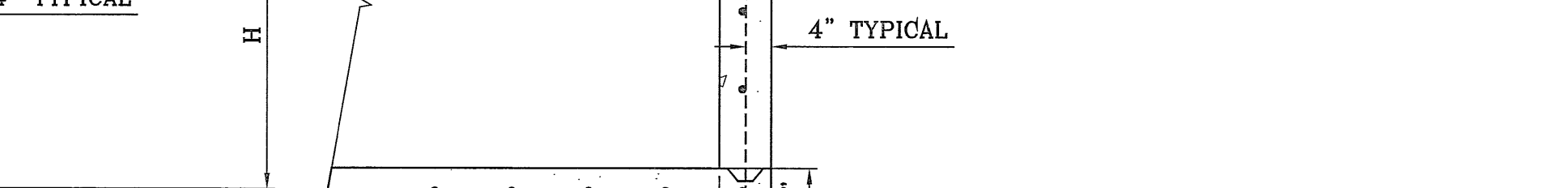
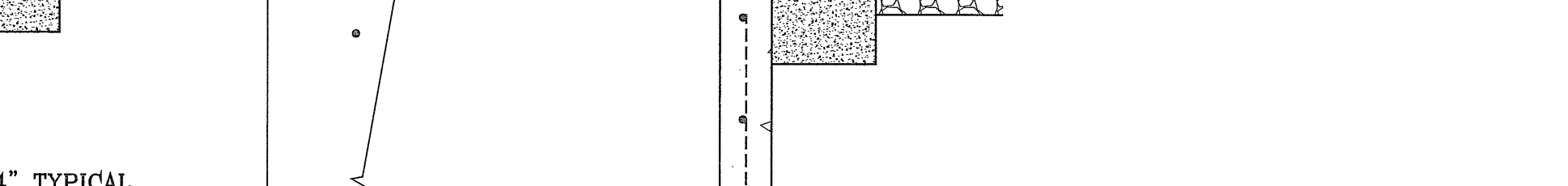
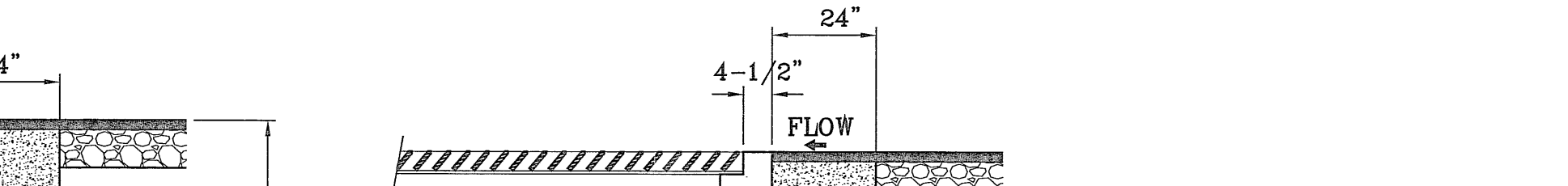
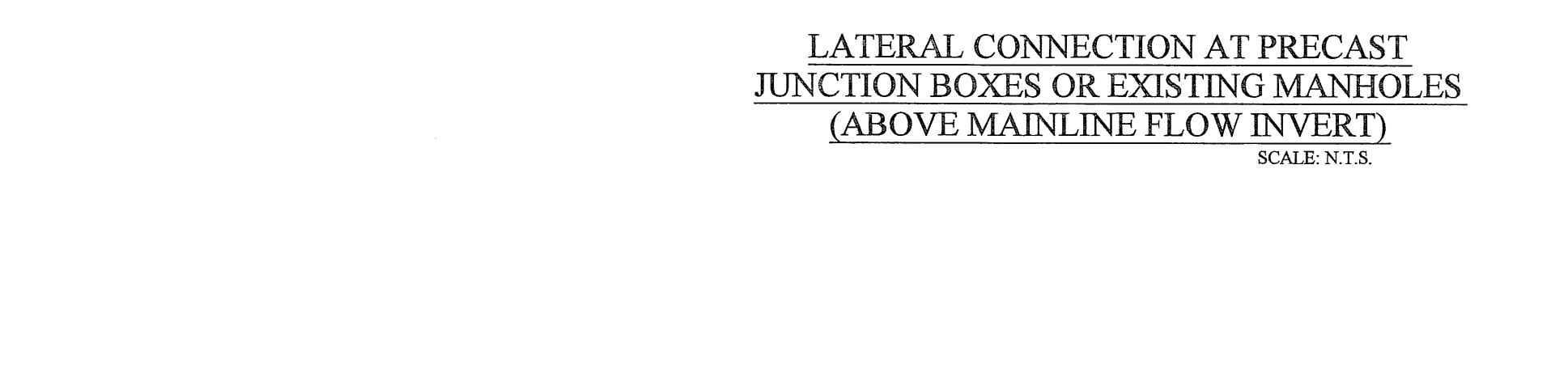
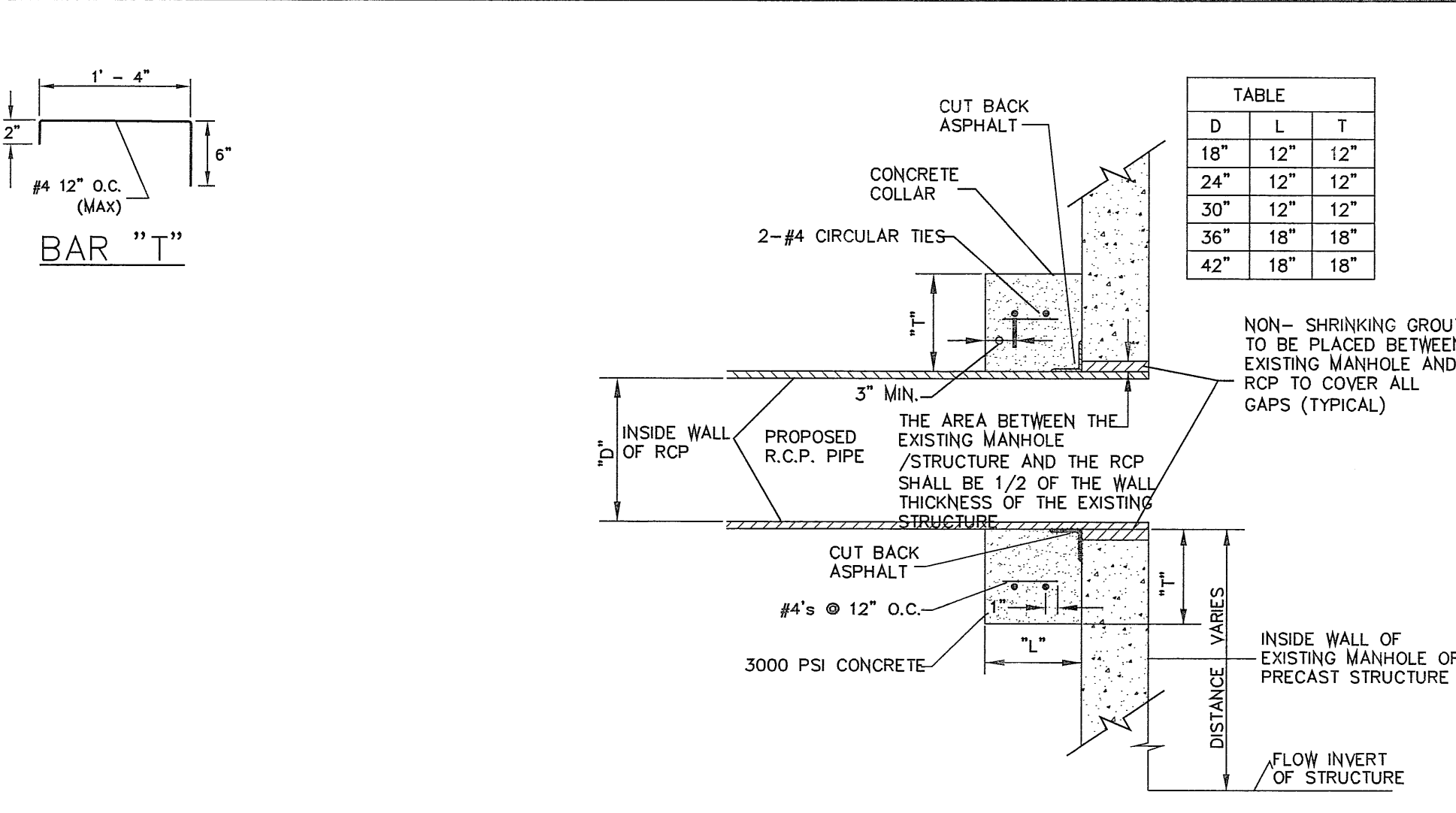
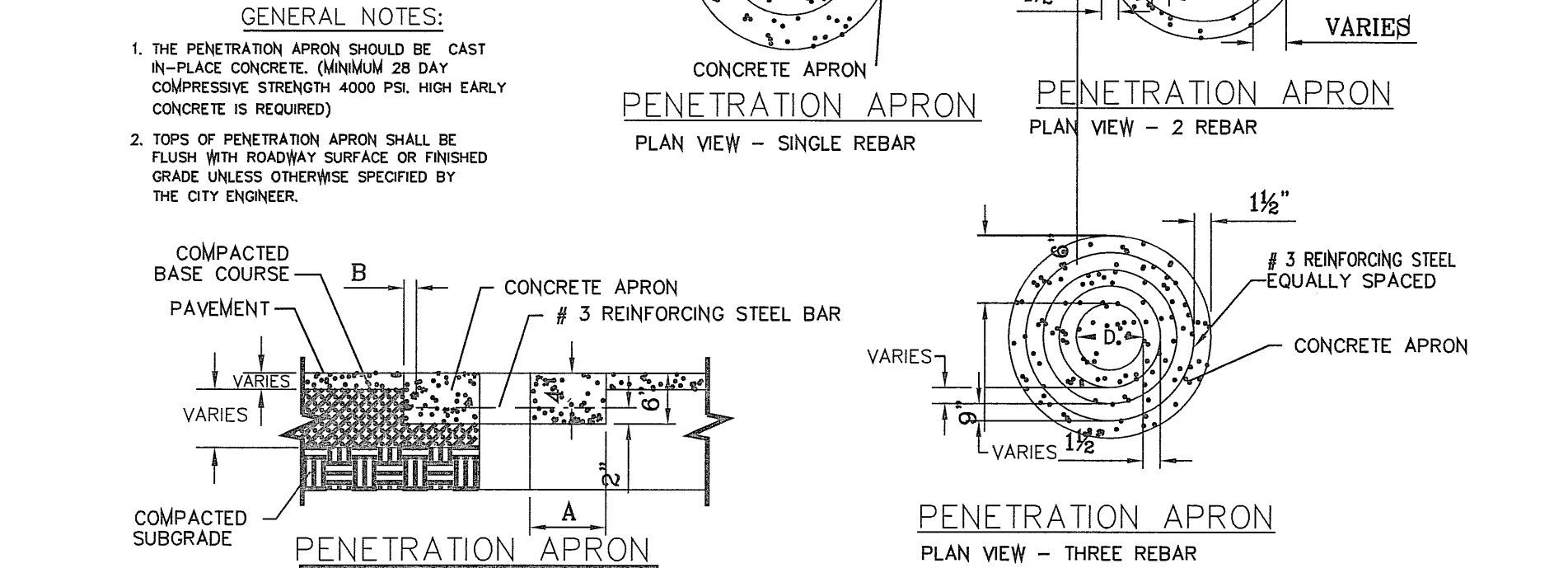
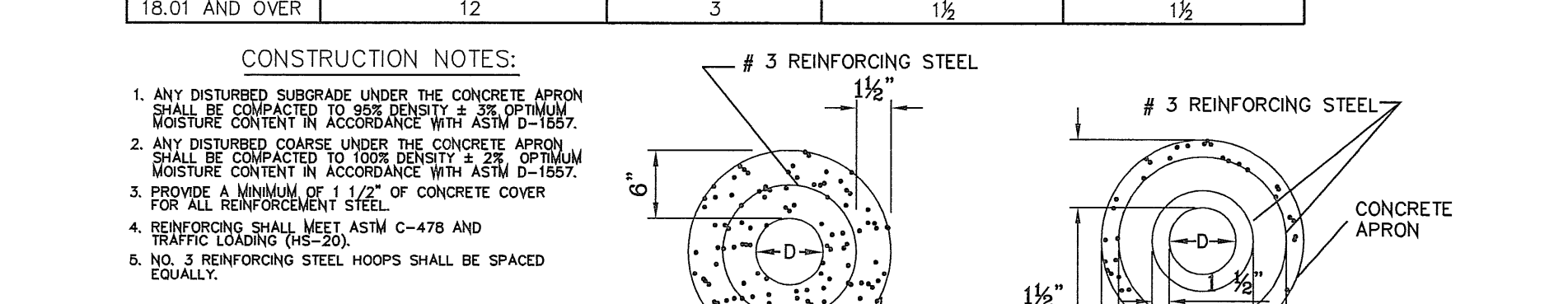


ALL SUBSTITUTIONS OF STRUCTURAL STEEL BEAMS AND CHANNELS FOR DROP INLETS MUST BE SUBMITTED FOR REVIEW AND INCLUDE SECTION MODULUS AND DEFLECTION CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS

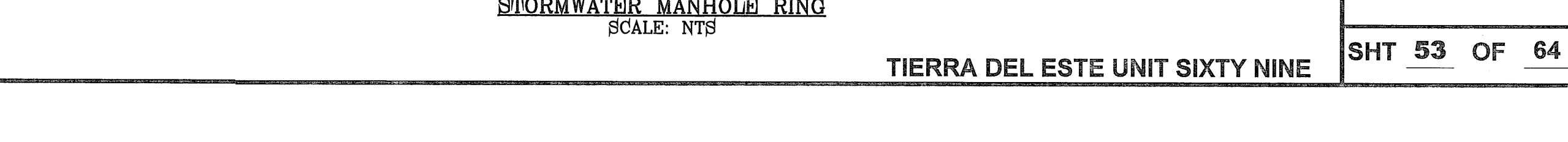


FOR PIPE COVER LESS THAN THE TYP. 18" MIN. SEE SHT 2-30A INLET PIPE CONCRETE CAP FOR DETAILS.

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



MANHOLE COVER	MANHOLE - ALL TYPES	MANHOLE TYPE 48"	MANHOLE TYPE 72"
A	31 3/8"	23 3/8"	31 3/8"
B	28 1/8"	20 3/8"	28 1/8"
C	24 3/8"	16 3/8"	24 3/8"
D	21 7/8"	14 3/8"	21 7/8"
E	2 1/8"	1 3/8"	2 1/8"
F	1/4"	1/4"	1/4"
G	3 3/8"	3 3/8"	3 3/8"
H	1 1/8"	1 1/8"	1 1/8"
WEIGHT	255 lbs.	175 lbs.	314 lbs.



BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.56
DATE 04/02/12
REVISIONS
BY R.R.
CITY COMMENTS AS PER 04/02/12

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

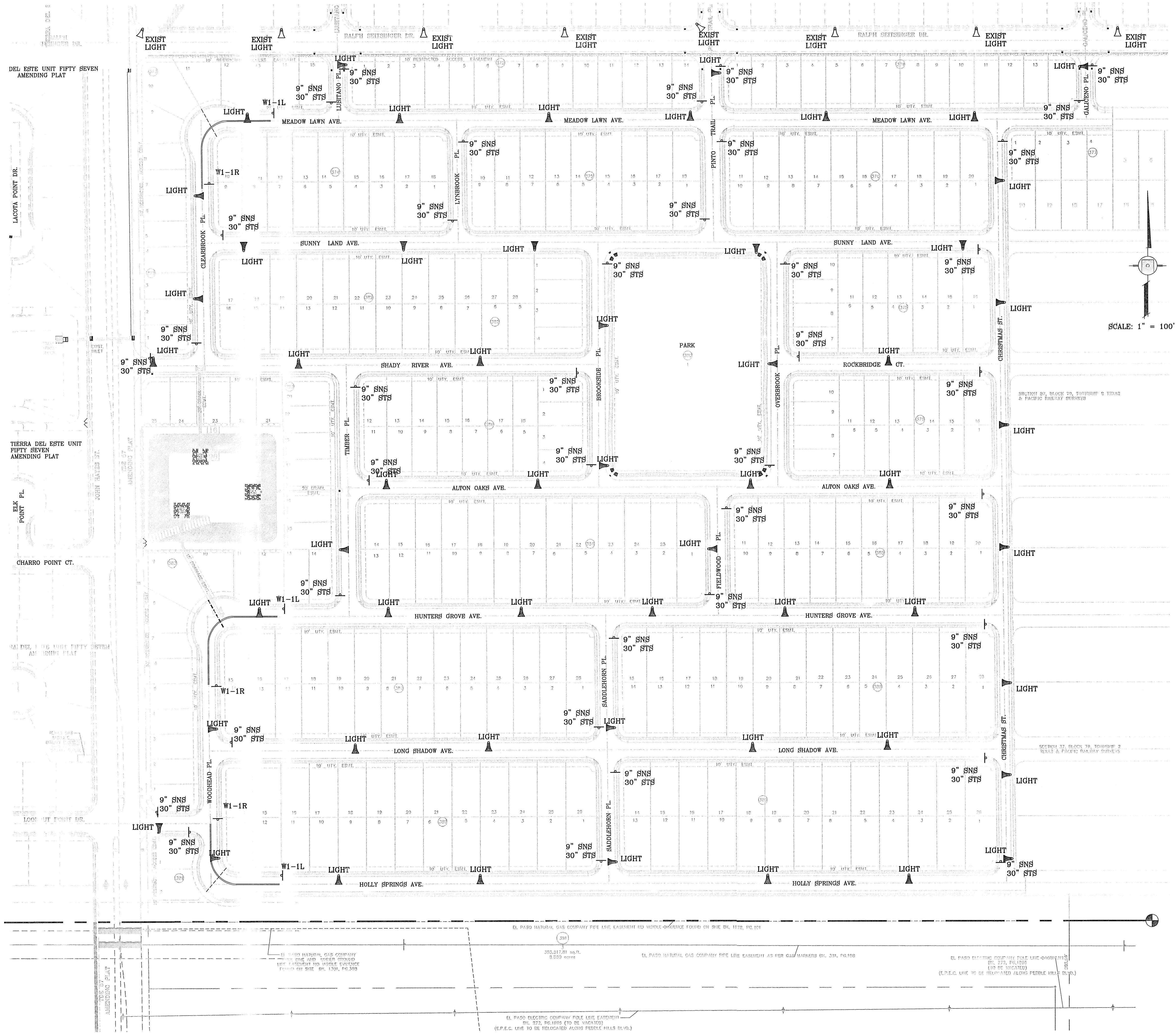
ENGINEER'S SEAL
ENGINEER'S SEAL NOT REQUIRED. THIS SHEET IS PRODUCED FROM THE SUBDIVISION DESIGN STANDARDS

SCALE
HORIZ: AS NOTED
VERT: AS NOTED
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

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

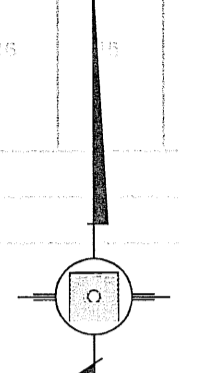
SHEET TITLE
STRUCTURE DETAILS

FILE LOCATION S:_Subdivisions\TDR 69 ILLUMINATION PLAN PLOTTED ON Thursday, July 12, 2012 1:07:58 PM BY RUBEN RIVERA



MATCH LINE A-A
SEE NEXT SHEET

SCALE: 1" = 100'



PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58

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

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

REVISIONS

NO.	DATE	DESCRIPTION

ENGINEER'S SEAL

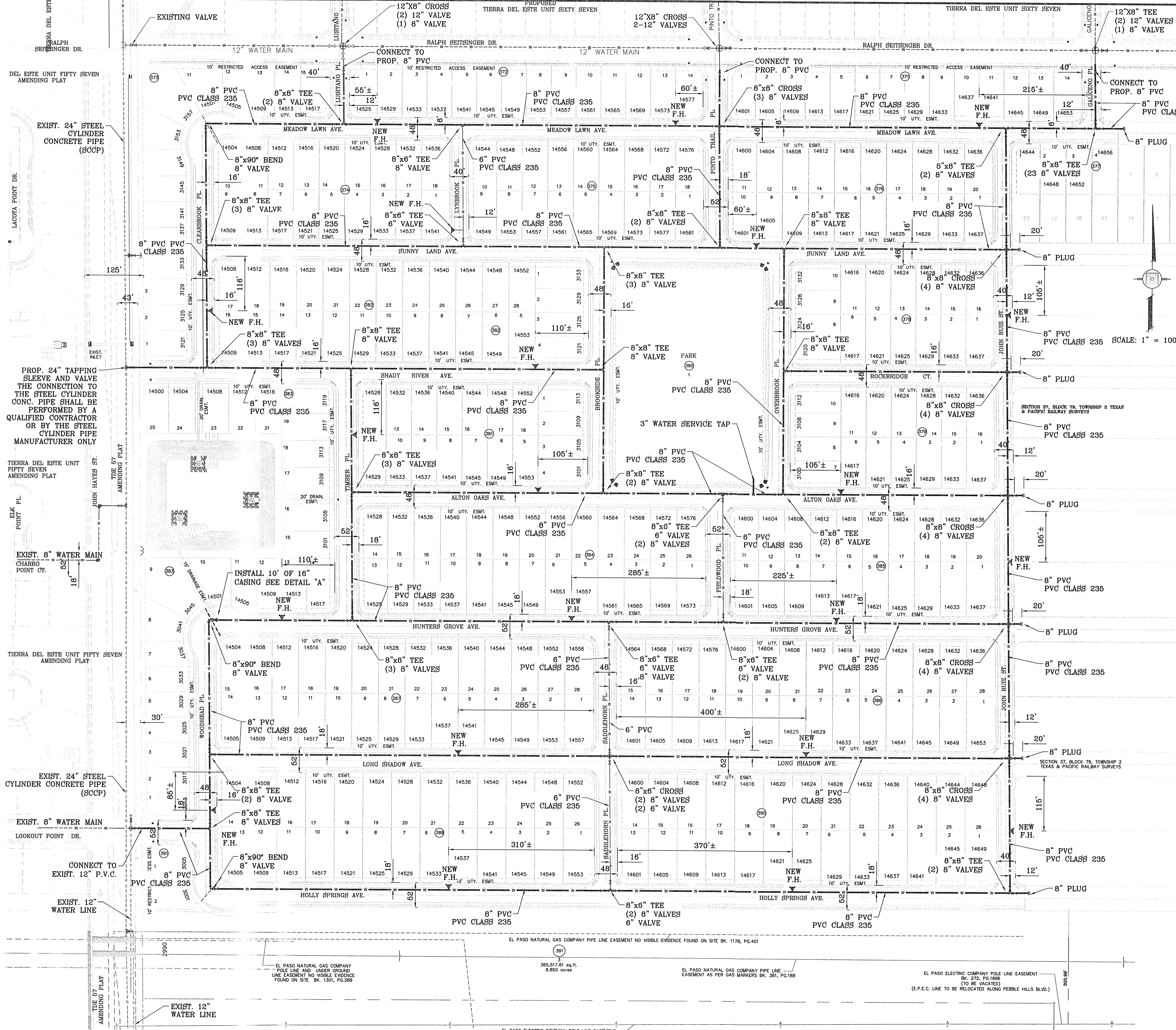
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 582-0283
FAX: (915) 582-0286

SHEET TITLE
ILLUMINATION AND TRAFFIC CONTROL PLAN

SHT 54 OF 64

TIERRA DEL ESTE UNIT SIXTY NINE

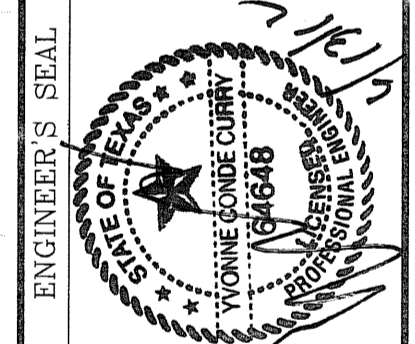
FILE LOCATION: S:\Subdivisions\TDE 69\WATER DISTRIBUTION PLAN PLOTTED ON Thursday, July 12, 2012 1:39:44 PM BY RUBEN RIVERA



BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.68
DATE: 03/08/12
REVISIONS: CITY REDLINES AS PER 03/08/12 COMMENTS R.R.
04/10/12 CITY REDLINES AS PER 04/10/12 COMMENTS R.R.

PROJECT NAME
**Tierra del Este Unit
Sixty Nine**
BRING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

SCALE
HORIZ: 1" = 100'
VERT: 1" = 100'
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-60



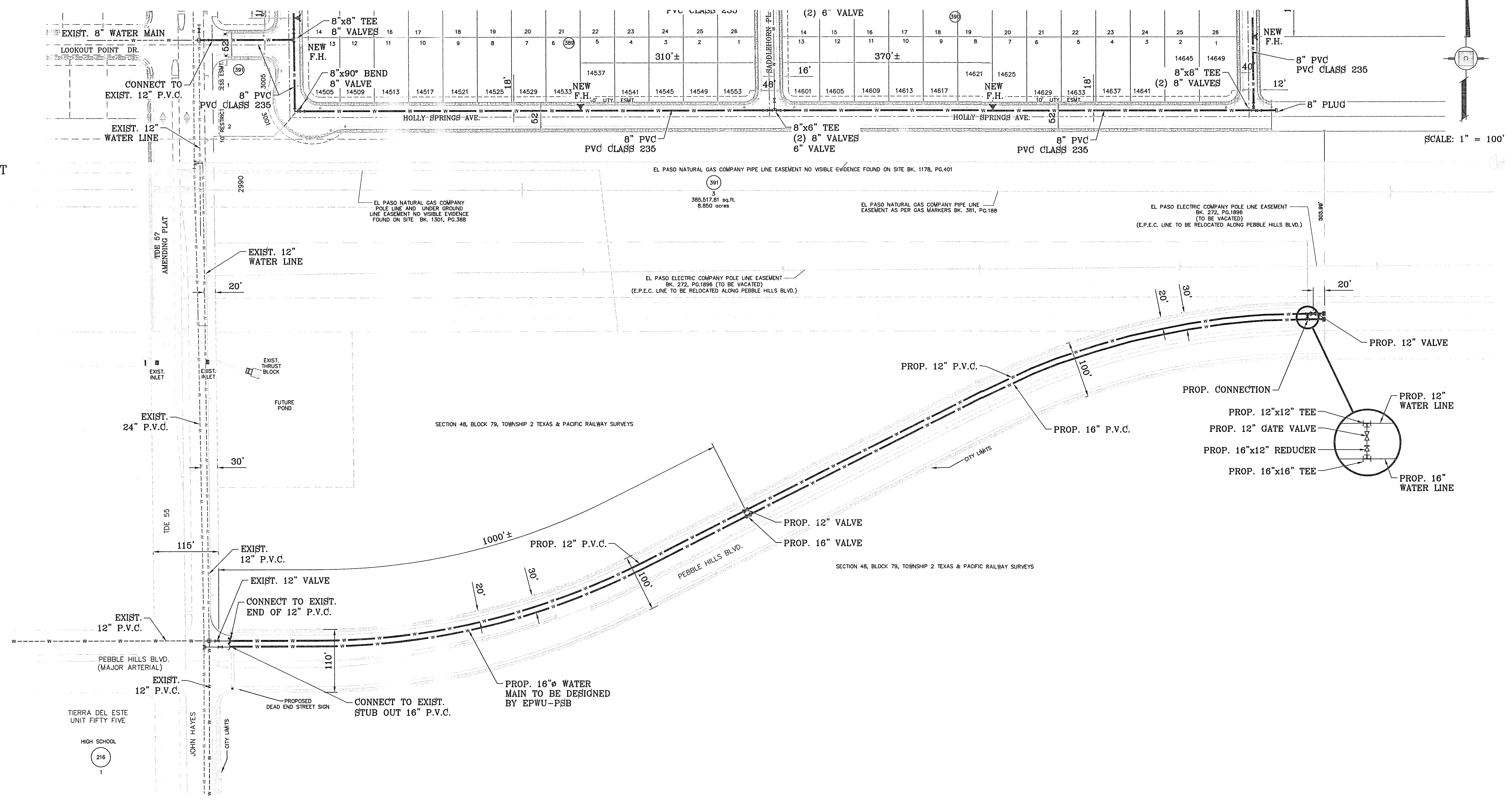
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE. 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286



SHEET TITLE
**WATER
DISTRIBUTION
PLAN**
SHT 56 OF 64

FILE LOCATION S:_Subdivisions\TDE 69 WATER DISTRIBUTION PLAN PLOTTED ON Thursday, July 12, 2012 1:40:02 PM BY RUBEN RIVERA

MATCH LINE A-A
SEE PREVIOUS SHEET



SCALE: 1" = 100'

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.58

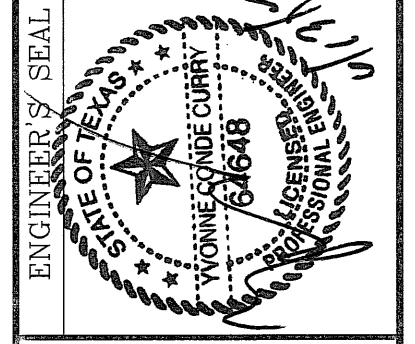
DATE	REVISIONS	BY
09/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.
04/10/12	CITY REDLINES AS PER 04/10/12 COMMENTS	R.R.

PROJECT NAME
TERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.165 ± ACRES

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

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50



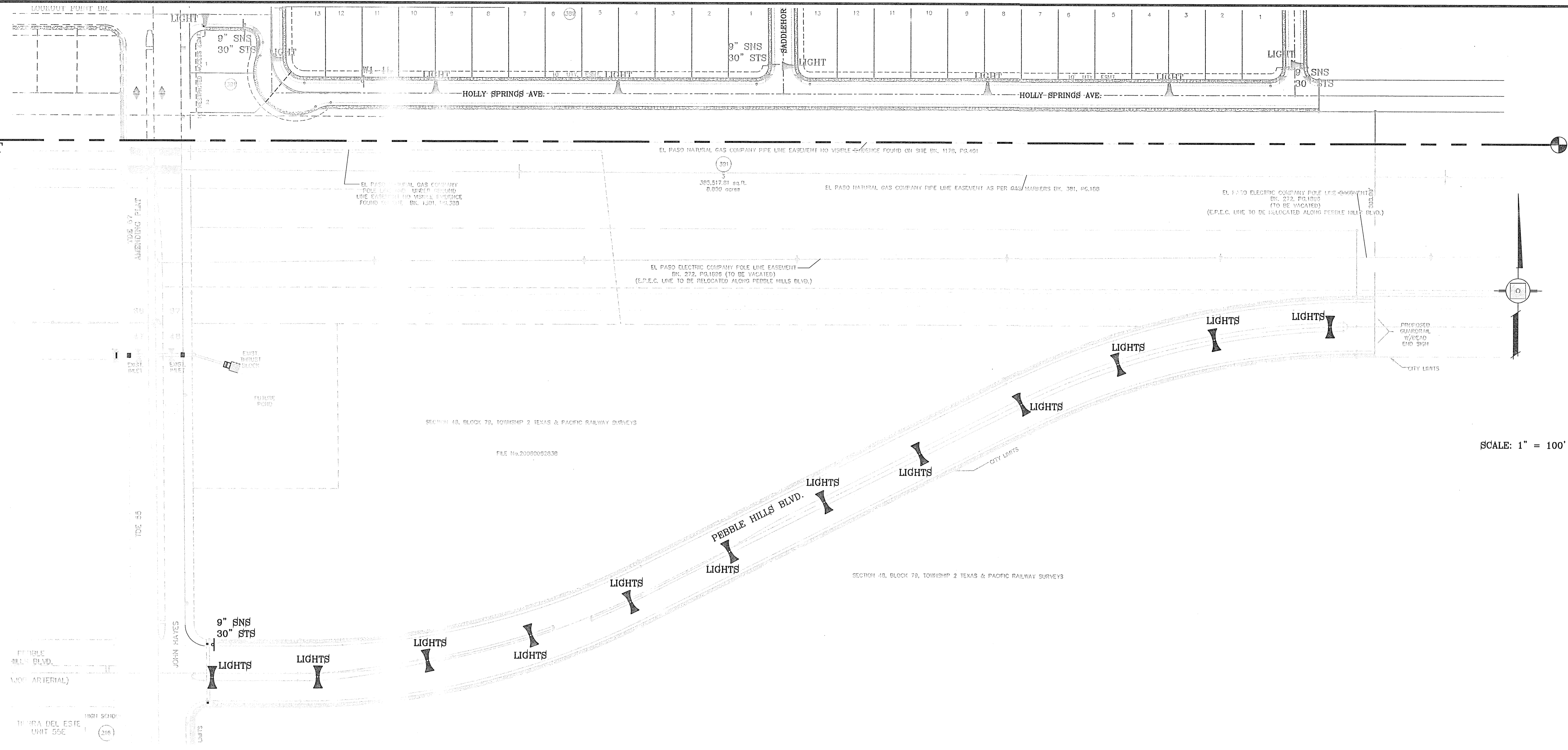
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SUBURBY DR. STE. 100
EL PASO, TEXAS 79905
PHONE: (915) 692-0283
FAX: (915) 692-0286



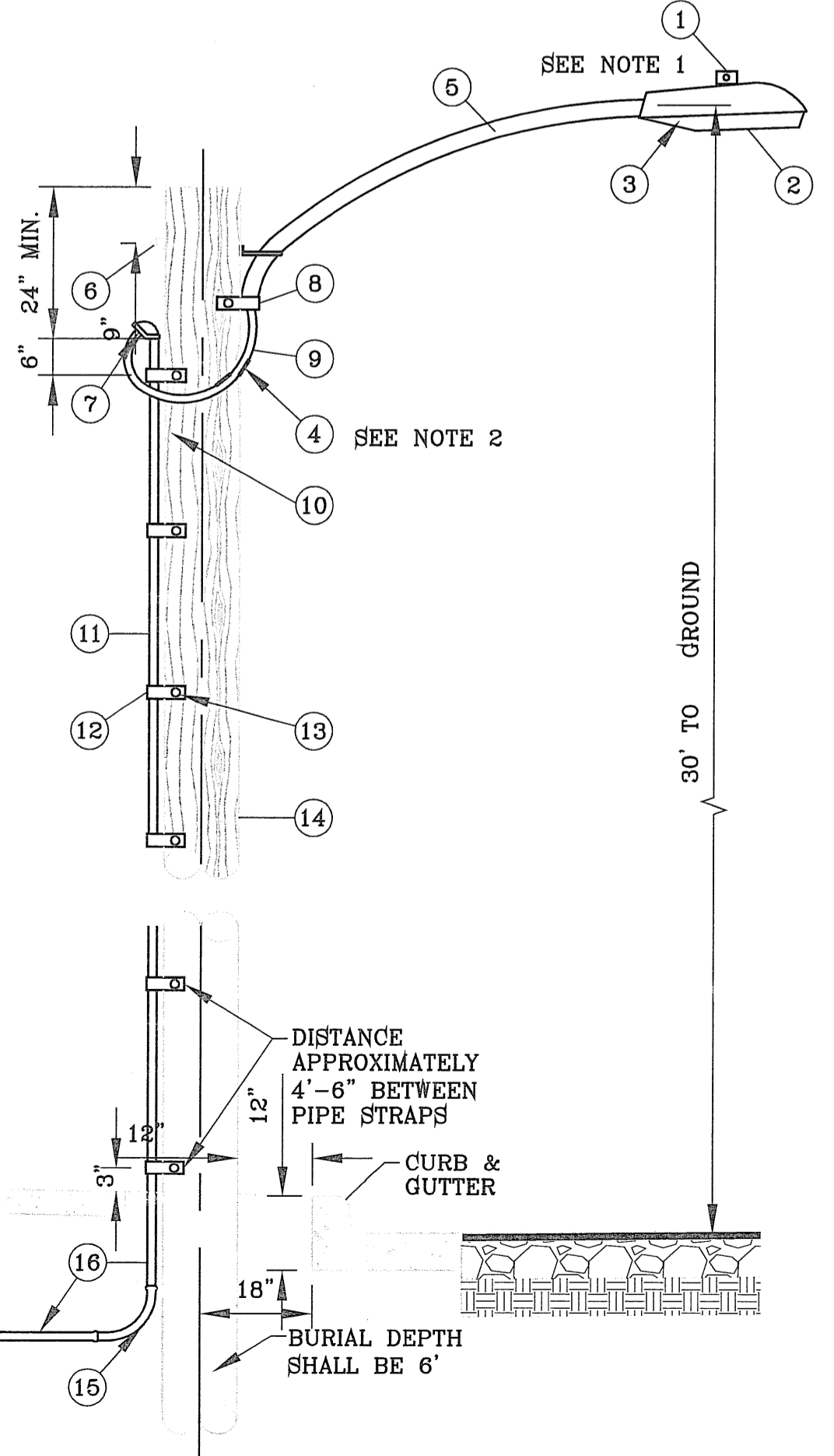
SHEET TITLE
WATER DISTRIBUTION PLAN

SHT 57 OF 64

MATCH LINE A-A
SEE PREVIOUS SHEET



SCALE: 1" = 100'



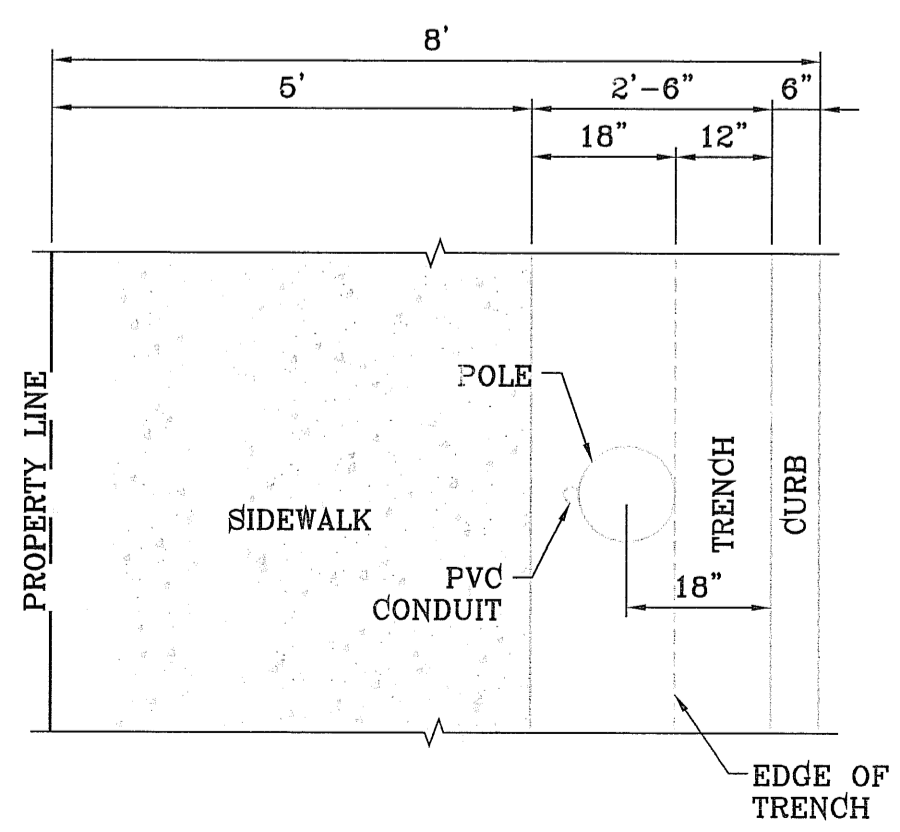
UNDERGROUND RESIDENTIAL
STREET LIGHT WOOD POLE
E.P.E.C. STD. DSU 805
SCALE: 1"=2'

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

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

LEGEND

▲ PROPOSED LIGHT
* EXISTING LIGHT
- - - PROPOSED SIGN



PLAN VIEW
SCALE: 1"=2'

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

ITEM	No.	DESCRIPTION	STOCK\DSU No.	QTY.	C\U CODE	MACRO CODE
1		PHOTOCELL, 240 V--SEE NOTE 1	21-225	1		
2		HPS LAMP 100 W	21-085	1	LCOBRAHD	
3		LUMINAIRE, 100 W HPS	21-335	1		
4		SLEEVES, #12-10	05-140	2		
5		MAST ARM, 6" x 1 1/4"	21-200	1	LBRKT1*6	
6		MACHINE BOLT, 5/8" x 12"	02-470	1		LCOBRAUG
		SQUARE GALV. WASHER, 2 1/4"x2 1/4"	02-760	1		
		COIL SPRING WASHER, 5/8"	02-786	1	LMB5/812	
		LOCK NUT, 5/8"	02-706	1		
7		SERVICE ENTRANCE CAP FOR 1" PVC CONDUIT	17-281	1	LSVCCAP1	
8		LAG BOLT, 1/2" x 3"	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 CONDUIT 2 HOLE	17-283	7	LPVCSRTP	
13		NAIL, STAINLESS STEEL SCREW 2.5"	14-427	.25#	LNALI4*2	
14		POLE, 35' CLASS 4	09-035	1	L35AUG	
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	LOPLG1	

ENGINEER'S SEAL

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GFS
6090 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

CONDE INC.
REGISTRATION NO. F2221

ILLUMINATION AND TRAFFIC CONTROL PLAN

TIERRA DEL ESTE UNIT SIXTY NINE

SHT 55 OF 64

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF JOHNSON POINT DR. AND JOHN HAYES CITY DATUM
ELEVATION 4020.68

DATE
06/29/12

BY
R.R.

REVISIONS
ADDITION OF MEDIAN OPENING

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

DATE
NOV. 2011

DESIGN BY
Y.C.

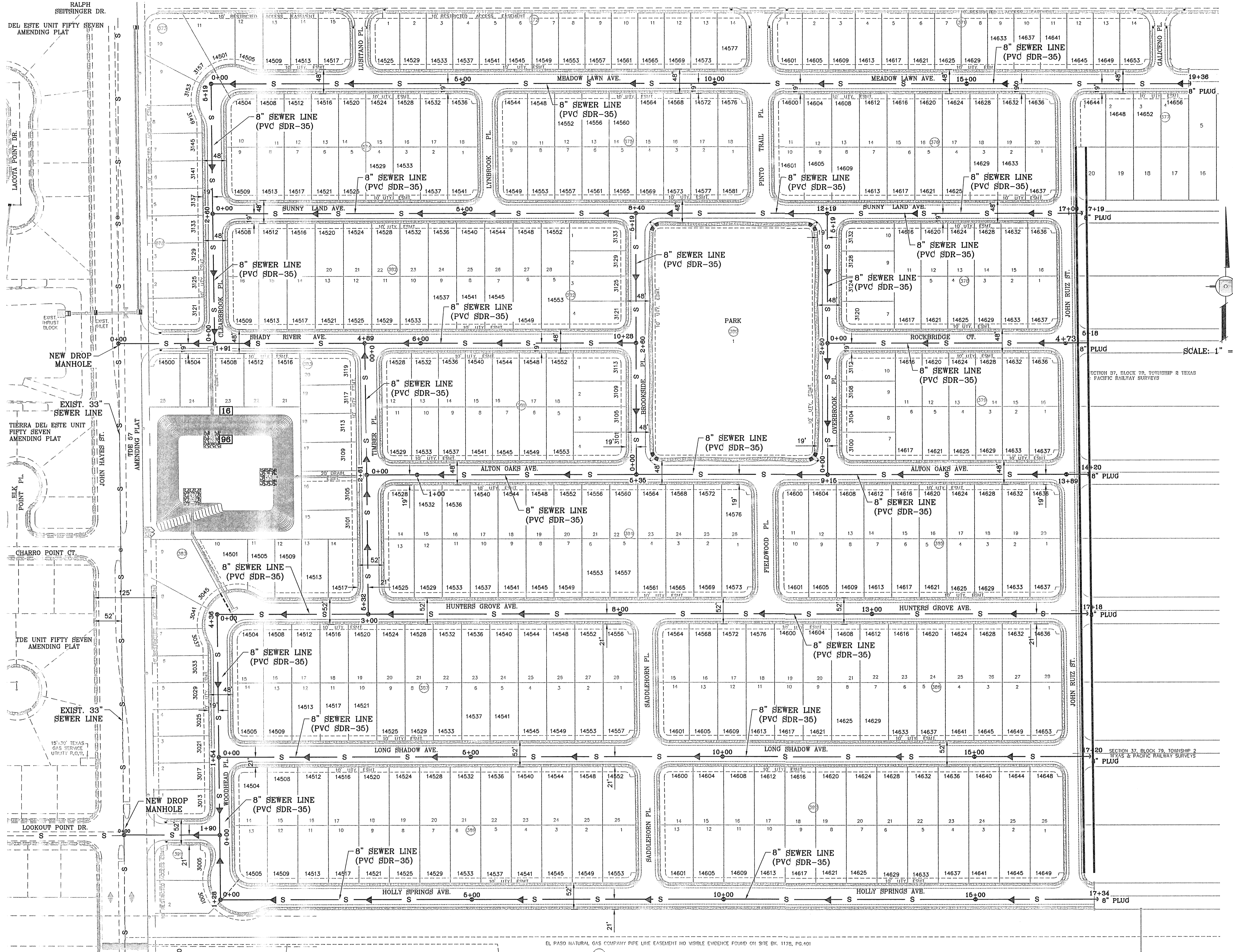
INITIATED BY
R.R.

CHECKED BY
Y.C.

JOB NO.
211-60

BRING PORTION OF SECTIONS 97 AND 48 BLOCK 79, TOWNSHIP 2 S, RANGE 10 E, COUNTY OF EL PASO, TEXAS TO THE CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

FILE LOCATION: s:\Subdivisions\TDE 69\SEWER DISTRIBUTION PLAN PLOTTED ON Thursday, July 12, 2012 1:35:58 PM BY RUBEN RIVERA



EL PASO NATURAL GAS COMPANY PIPE LINE EASEMENT NO. 1178, PG. 401

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.58

DATE	REVISIONS	BY
09/08/12	CITY REDLINES AS PER 09/08/12 COMMENTS	R.R.

PROJECT NAME
Tierra Del Este Unit Sixty Nine

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.166± ACRES

ENGINEER'S SEAL

STATE OF TEXAS
CIVIL ENGINEER
WOMIE CONDE CURRIE
061618

DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50

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

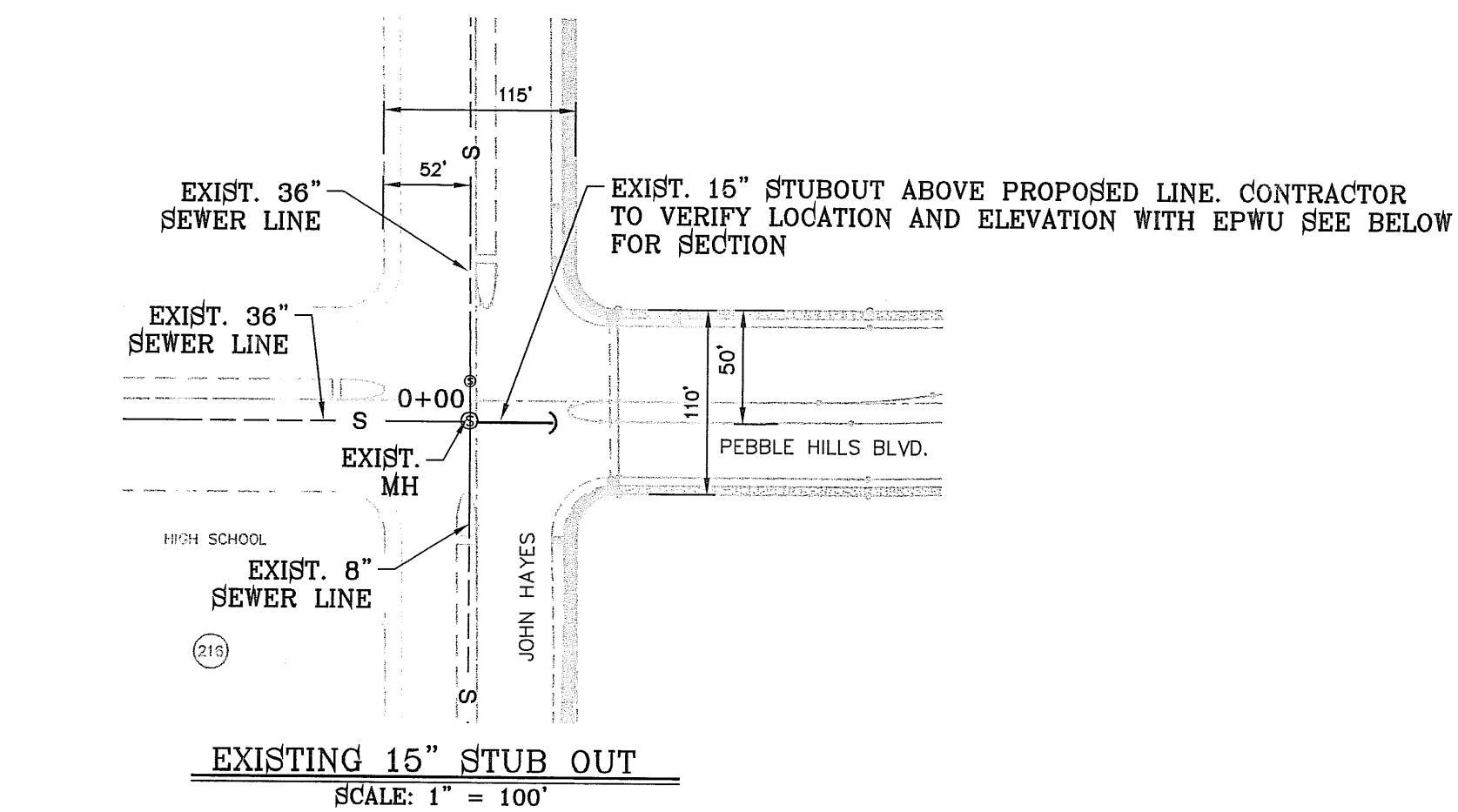
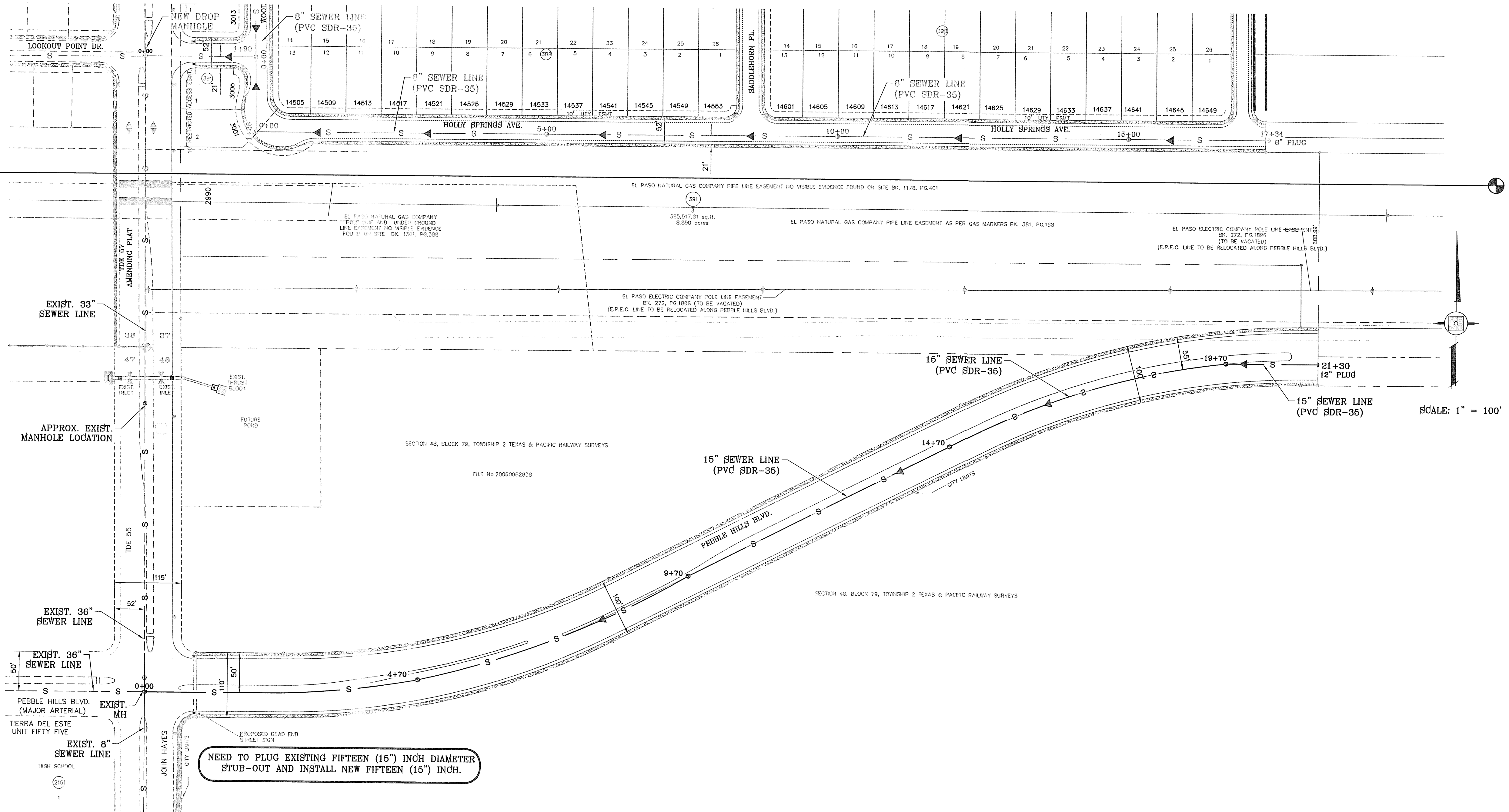
REGISTRATION NO. F-2321

SHEET TITLE

SEWER DISTRIBUTION PLAN

FILE LOCATION S:\Subdivisions\TDE 69 SEWER DISTRIBUTION PLAN PLOTTED ON Thursday, July 12, 2012 1:36:43 PM BY RUBEN RIVERA

MATCH LINE A-A
SEE PREVIOUS SHEET



BENCHMARK

DATE	REVISIONS	BY
03/08/12	CITY REDLINES AS PER 03/08/12 COMMENTS	R.R.
04/01/12	CITY REDLINES AS PER 04/01/12 COMMENTS	R.R.

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.68

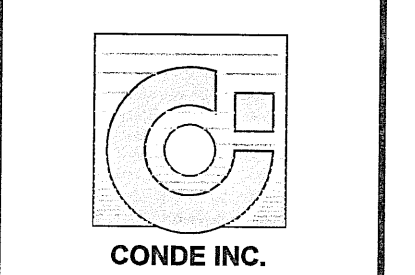
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

ENGINEER'S SEAL

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

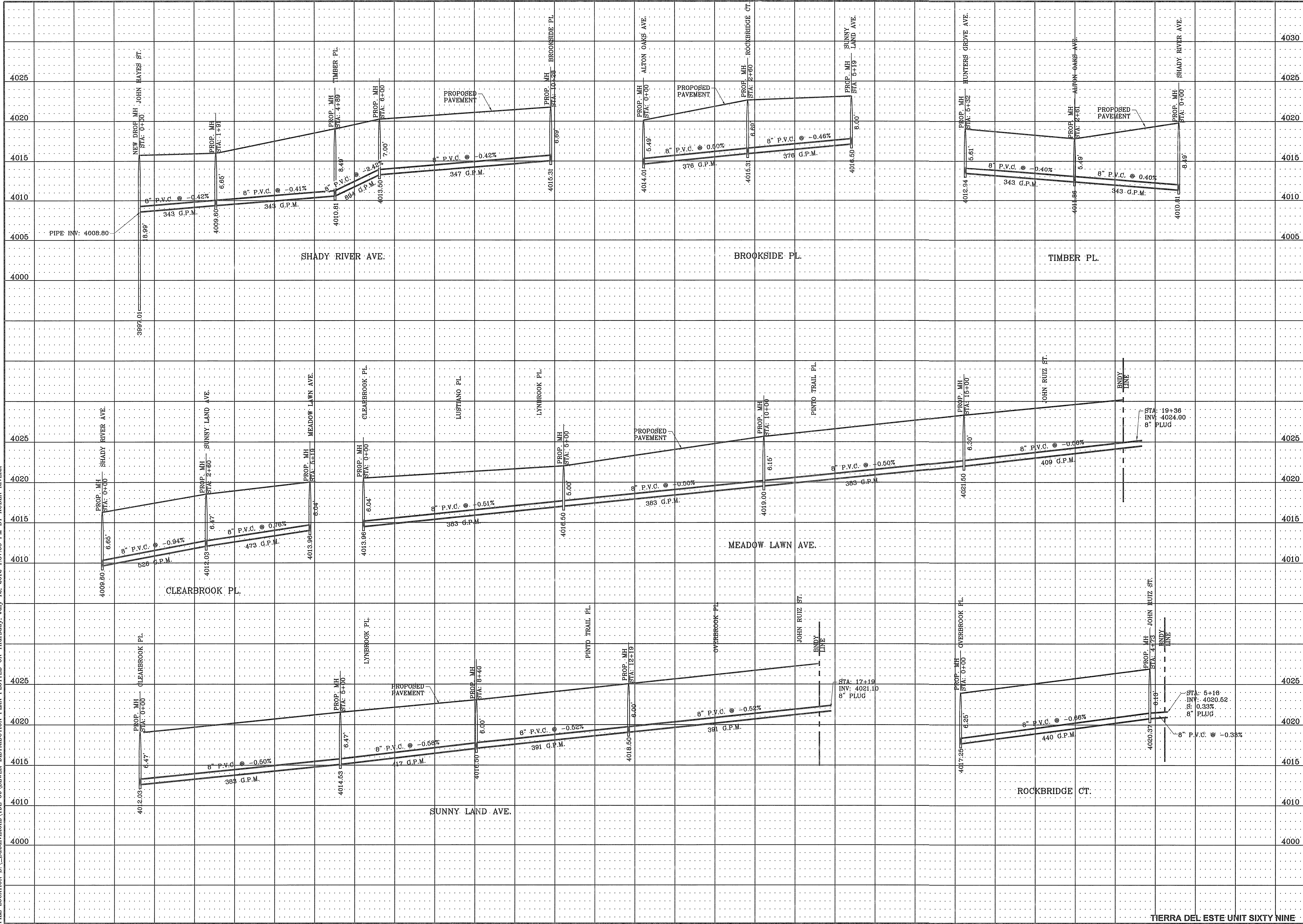
DATE: NOV. 2011
DESIGN BY: Y.C.
INITIATED BY: R.R.
CHECKED BY: Y.C.
JOB NO.: 211-50


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
SEWER DISTRIBUTION PLAN

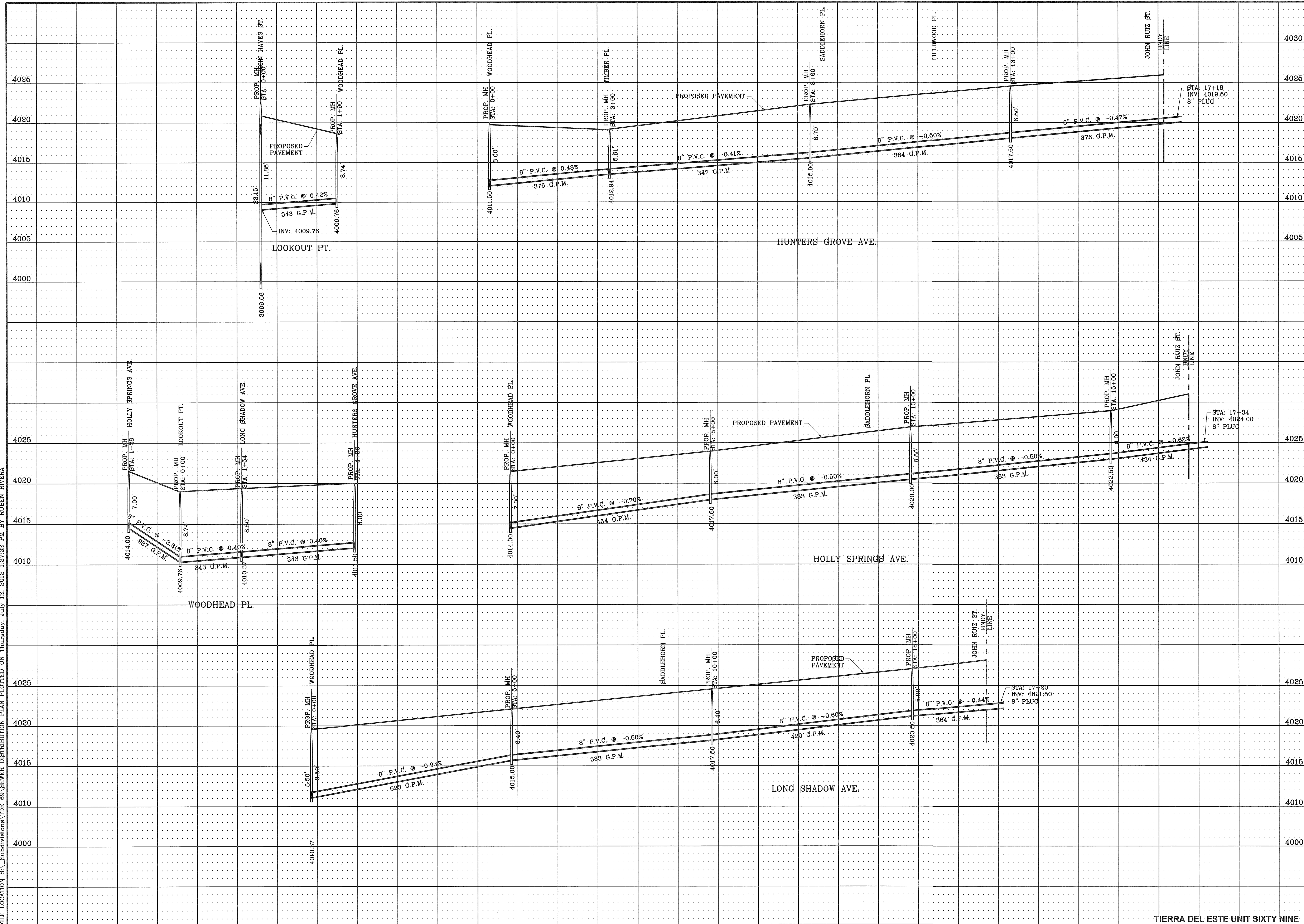
FILE LOCATION S:\Subdivisions\TDE 69 SEWER DISTRIBUTION PLAN PLOTTED ON Thursday, July 12, 2012 1:37:05 PM BY RUBEN RIVERA



ENGINEER'S SEAL 	SCALE HORIZ: 1" = 100' VERT: 1" = 5'	PROJECT NAME TIERRA DEL ESTE UNIT SIXTY NINE	BENCHMARK CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58 CITY DATUM	REVISIONS DATE: 03/08/12 CITY REDLINES AS PER 03/08/12 COMMENTS: R.R. 04/10/12 CITY REDLINES AS PER 04/10/12 COMMENTS: R.R.	
CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURVEY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0285 FAX: (915) 592-0286					
SHEET TITLE SANITARY SEWER PROFILES					
SHT 60 OF 64					

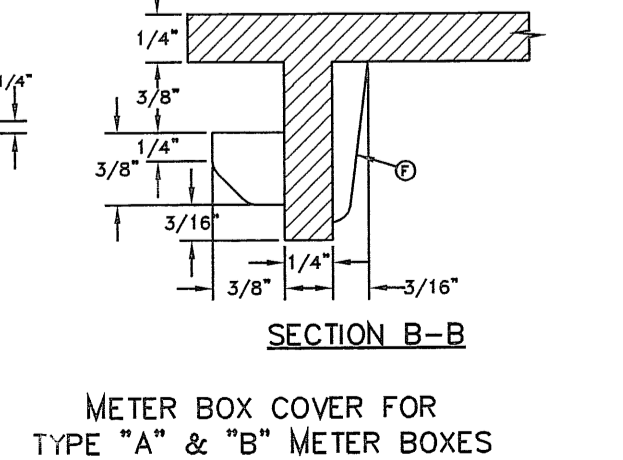
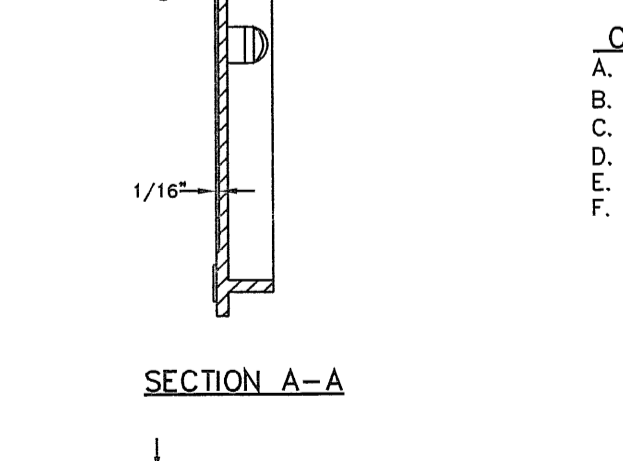
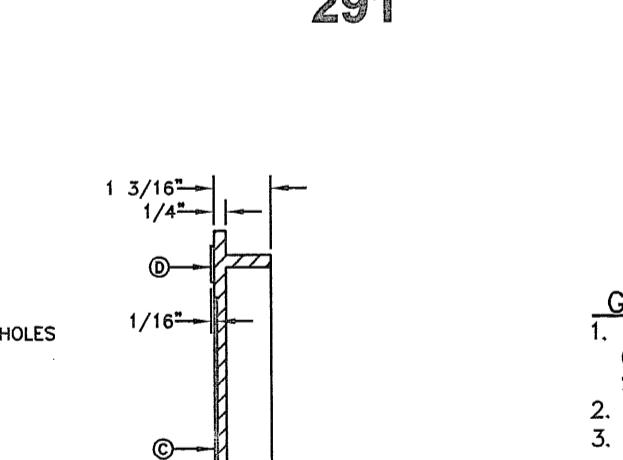
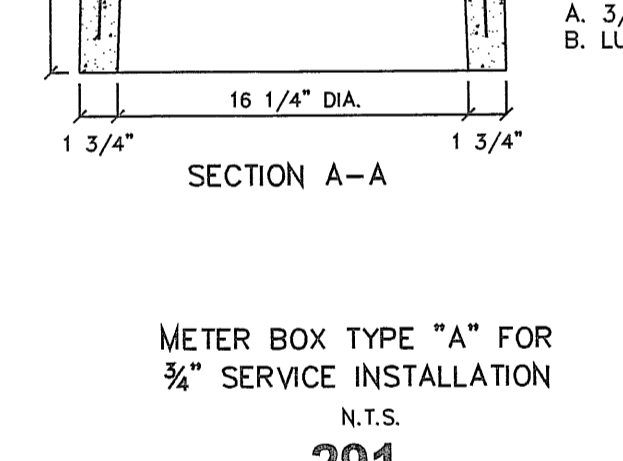
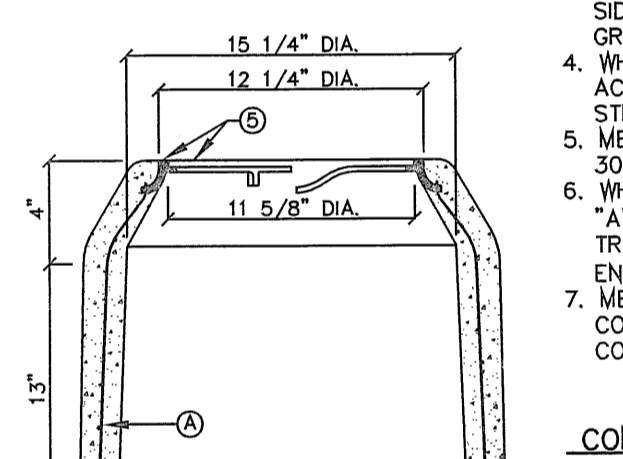
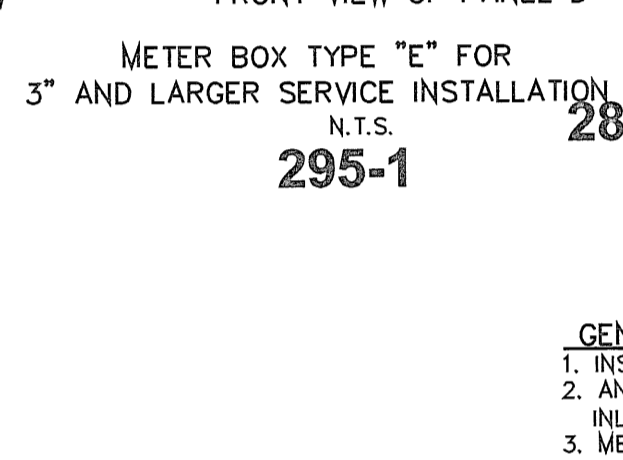
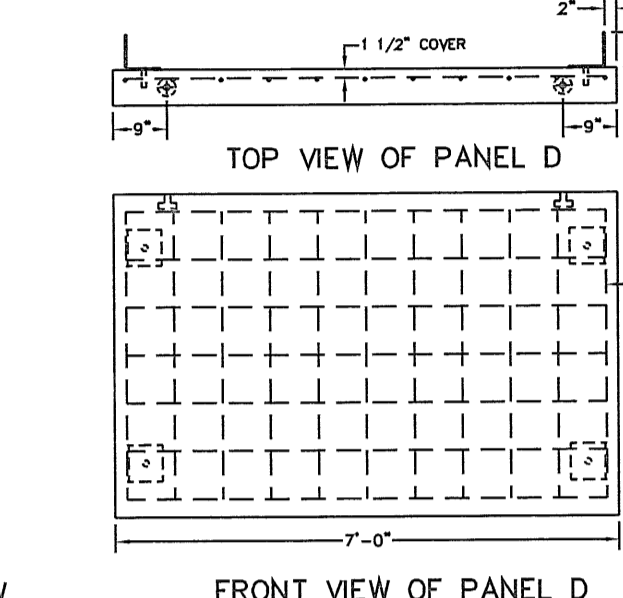
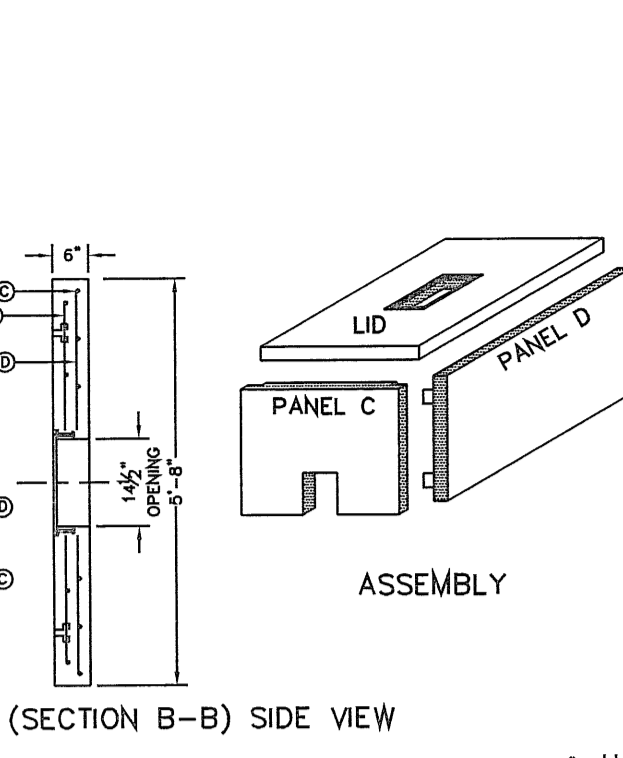
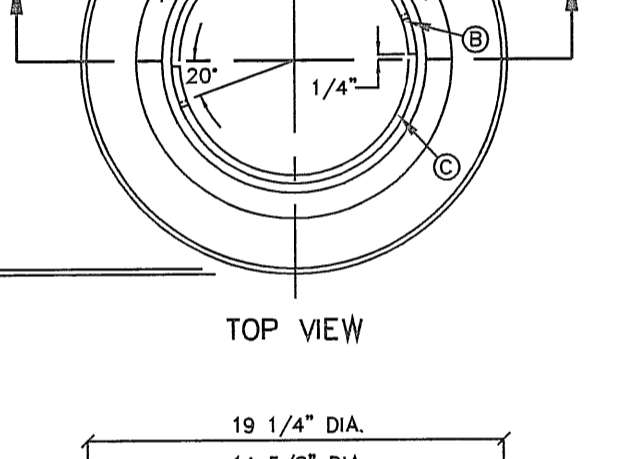
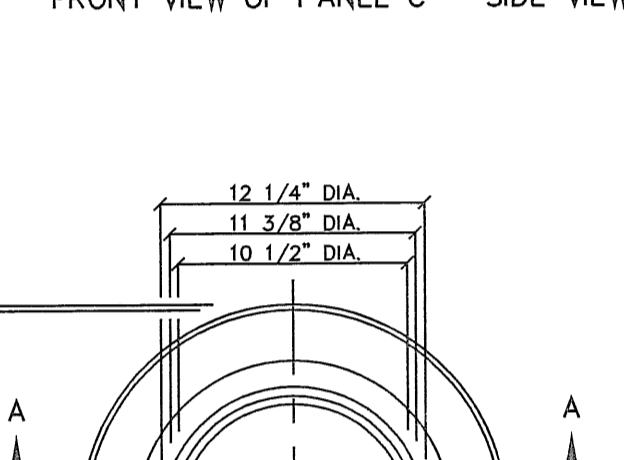
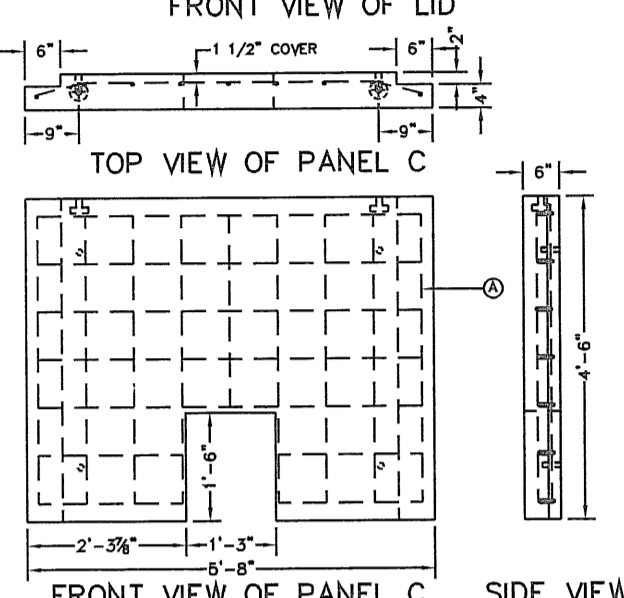
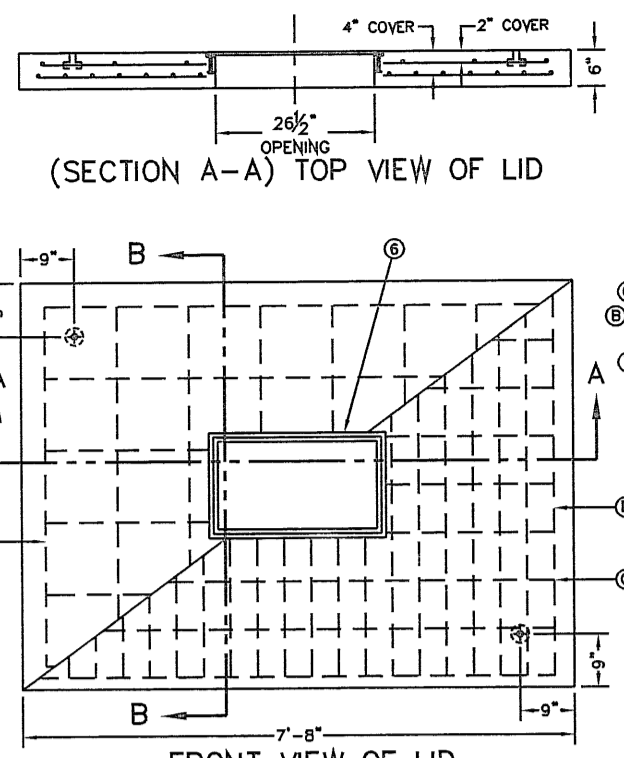
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 78,
 TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
 CITY OF EL PASO, EL PASO COUNTY, TEXAS
 CONTAINING: 90.165± ACRES

FILE LOCATION: s:_subdivisions\TDE 69 SEWER DISTRIBUTION PLAN PLOTTED ON Thursday, July 12, 2012 1:37:32 PM BY RUBEN RIVERA



<p>CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURETY DR. STE 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0283 FAX: (915) 592-0286</p>		<p>TIERRA DEL ESTE UNIT SIXTY NINE BENCHMARK: CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58</p>	
<p>DATE: NOV. 2011 DESIGN BY: Y.C. INITIATED BY: R.R. CHECKED BY: Y.C.</p>		<p>DATE: 03/09/12 CITY REDLINES AS PER 03/08/12 COMMENTS 04/10/12 CITY REDLINES AS PER 04/10/12 COMMENTS</p>	
<p>HORIZ: 1" = 100' VERT: 1" = 5'</p>		<p>PROJECT NAME: TIERRA DEL ESTE UNIT SIXTY NINE CONTAINING: 90.186± ACRES</p>	
<p>ENGINEER'S SEAL</p>		<p>REVISIONS</p>	
<p>CONDE INC. REGISTRATION No. F-2321</p>		<p>BY: R.R.</p>	
<p>SHEET TITLE</p>		<p>DATE: 03/09/12</p>	
<p>SANITARY SEWER PROFILES</p>		<p>DATE: 04/10/12</p>	
<p>SHT 61 OF 64</p>		<p>DATE: 04/10/12</p>	

FILE LOCATION S:\Subdivisions\TDE 69 W&S NOTES AND DETAILS PLOTTED ON Thursday, July 12, 2012 2:45:41 PM BY RUBEN RIVERA



GENERAL NOTES:
 1. WATER CEMENT RATIO 0.5 OR LESS BY WEIGHT OR NOT MORE THAN 5.5 GALLONS PER SACK.
 2. REINFORCING SHALL COMPLY WITH ASTM A615 GRADE 60 STEEL F_y 40000 PSI.
 3. BAR BENDING AND PLACEMENT TO COMPLY WITH LATEST ACI STANDARDS.
 4. LIFTERS FOR HANDLING SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS AND RATED TO HANDLE THE WEIGHT.
 5. METER BOX SHALL BE MODULAR; CONCRETE TO HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 4000 PSI.
CONSTRUCTION KEY NOTES:
 A. No. 4 REBAR AT 8" ON CENTER, BOTH WAYS (TOP LAYER).
 B. No. 4 REBAR AT 12" ON CENTER, BOTH WAYS (TOP LAYER).
 C. No. 4 REBAR AT 8" ON CENTER, LONG SPAN (BOTTOM LAYER).
 D. No. 5 REBAR AT 4 1/2" ON CENTER, SHORT SPAN (BOTTOM LAYER).
 E. METER BOX FRAME (SEE DETAIL 302), INTEGRALLY CAST & CENTERED ON LID, SET FRAME SO COVER (SEE DETAIL 302) IS FLUSH WITH TOP SURFACE OF LID.

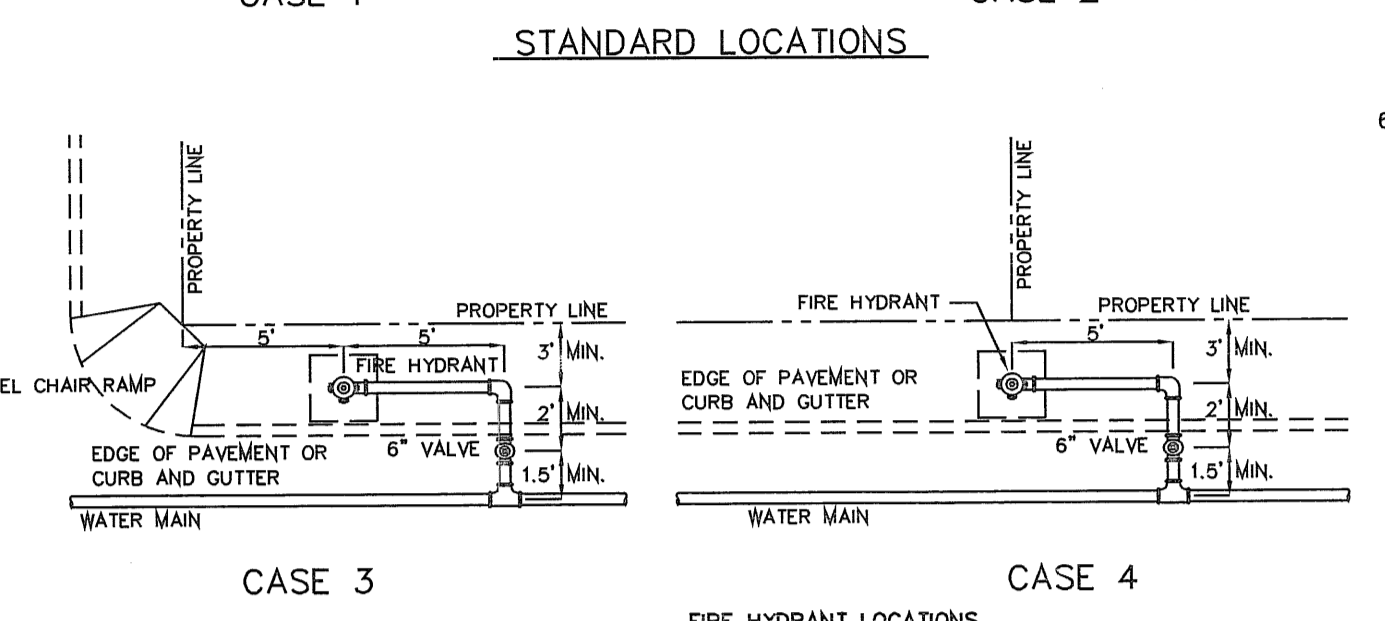
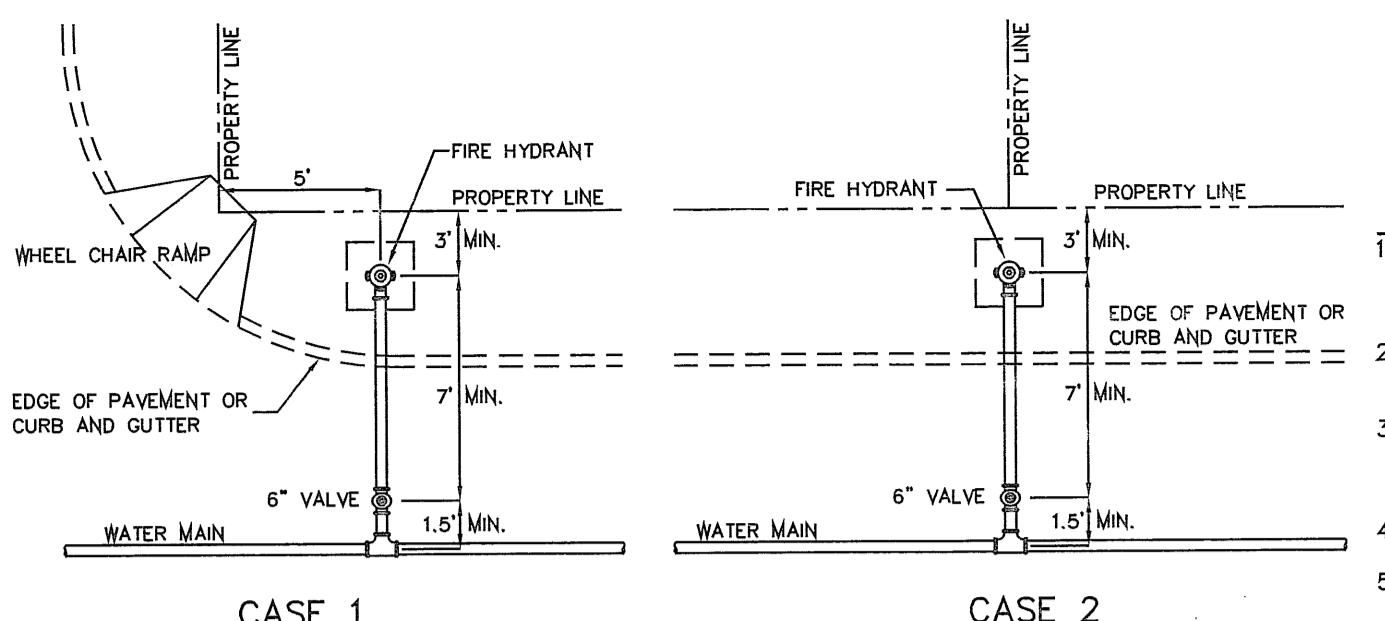
METER BOX TYPE "E" FOR 3" AND LARGER SERVICE INSTALLATION
 N.T.S.
295-1
282

GENERAL NOTES:
 1. INSTALL TO GRADE MATCHING TOP OF CURB.
 2. ANGLE VALVE SHALL BE IN LINE WITH THE INLET/OUTLET PORTS OF THE METER BOX.
 3. METER BOXES SHALL NOT BE INSTALLED UNDER SIDEWALKS, DRIVEWAYS, OR PROPOSED ABOVE GROUND STRUCTURES.
 4. WHERE NO CURBING EXISTS, INSTALL BOXES IN ACCESSIBLE LOCATIONS BEYOND LIMITS OF STREET SURFACING, WALKS AND DRIVEWAYS.
 5. METER BOX RING AND COVER PER EPWU DETAILS 300 AND 301.
 6. WHERE IT IS NECESSARY TO INSTALL A TYPE "A" BOX FOR 3/4" METER UNDER ROADWAYS OF TRAFFIC BEARING SURFACES, BOX SHALL BE ENCASED IN 12" CONCRETE, 3000 PSI, MINIMUM.
 7. METER BOX SHALL BE SINGLE UNIT CONSTRUCTION; CONCRETE TO HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 4000 PSI.
CONSTRUCTION KEY NOTES:
 A. 3/16" 9 GAUGE BLACK ANNEALED WIRE
 B. LUG-STOP C. CAST IRON RING

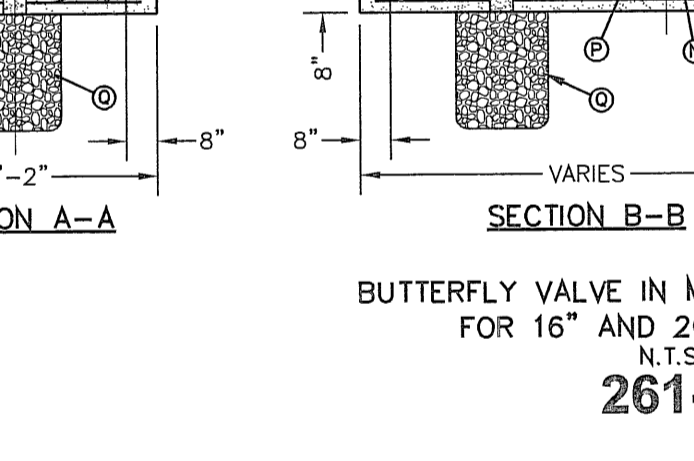
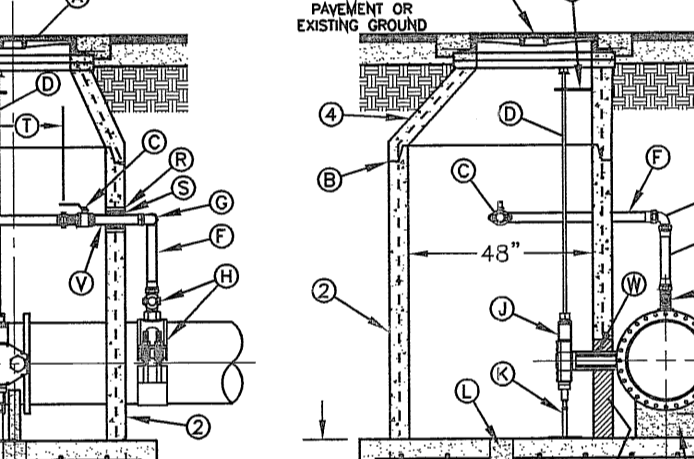
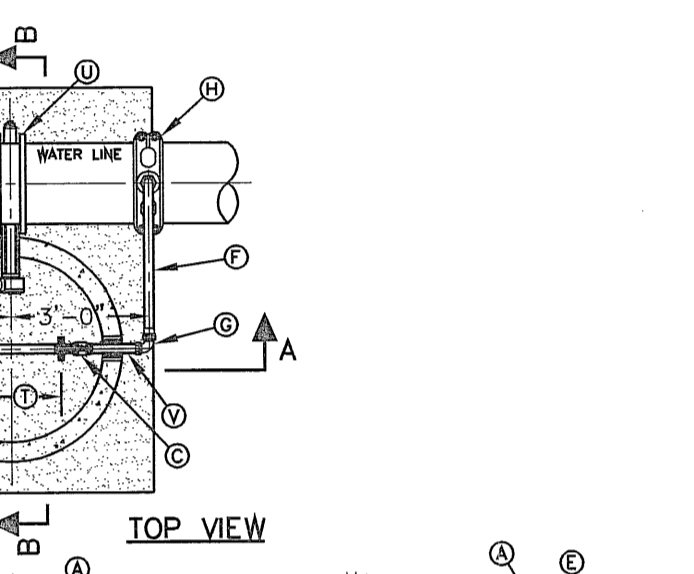
METER BOX TYPE "A" FOR 3/4" SERVICE INSTALLATION
 N.T.S.
291

GENERAL NOTES:
 1. MATCHING SURFACES TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
 2. CASTING TO BE SMOOTH AND VOID OF AIR
 3. METER BOX COVER WEIGHT= 1 1/4 lbs.
CONSTRUCTION KEY NOTES:
 A. LETTERS TO BE 1" HIGH, 3/4" WIDE, 1/8" THICK
 B. LETTERS TO BE 3/4" HIGH, 1/2" WIDE, 1/8" THICK
 C. INSIDE LETTERS & RIBS 1/2" TALL
 D. OUTSIDE LETTERS 1/2" TALL
 E. REINFORCE BACK OF LUG
 F. REINFORCEMENT

METER BOX COVER FOR TYPE "A" & "B" METER BOXES
 N.T.S.
301

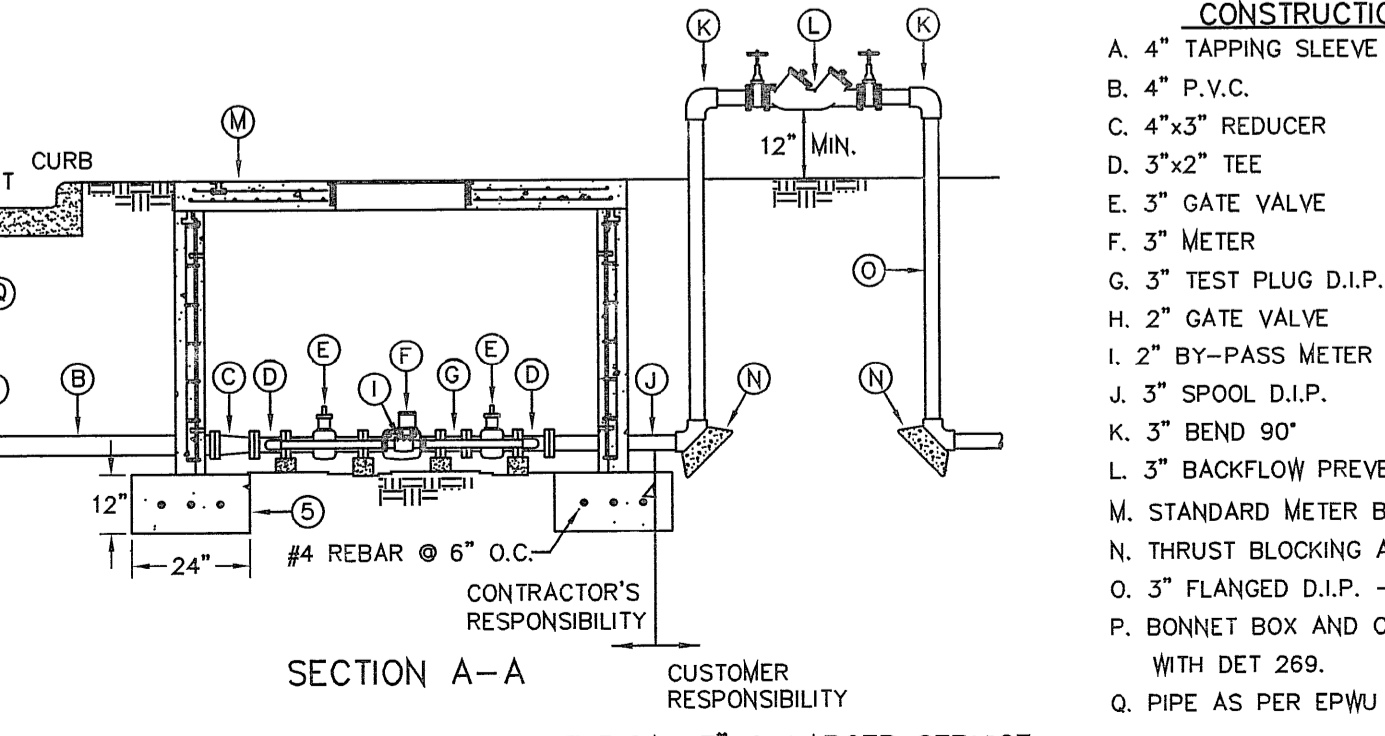
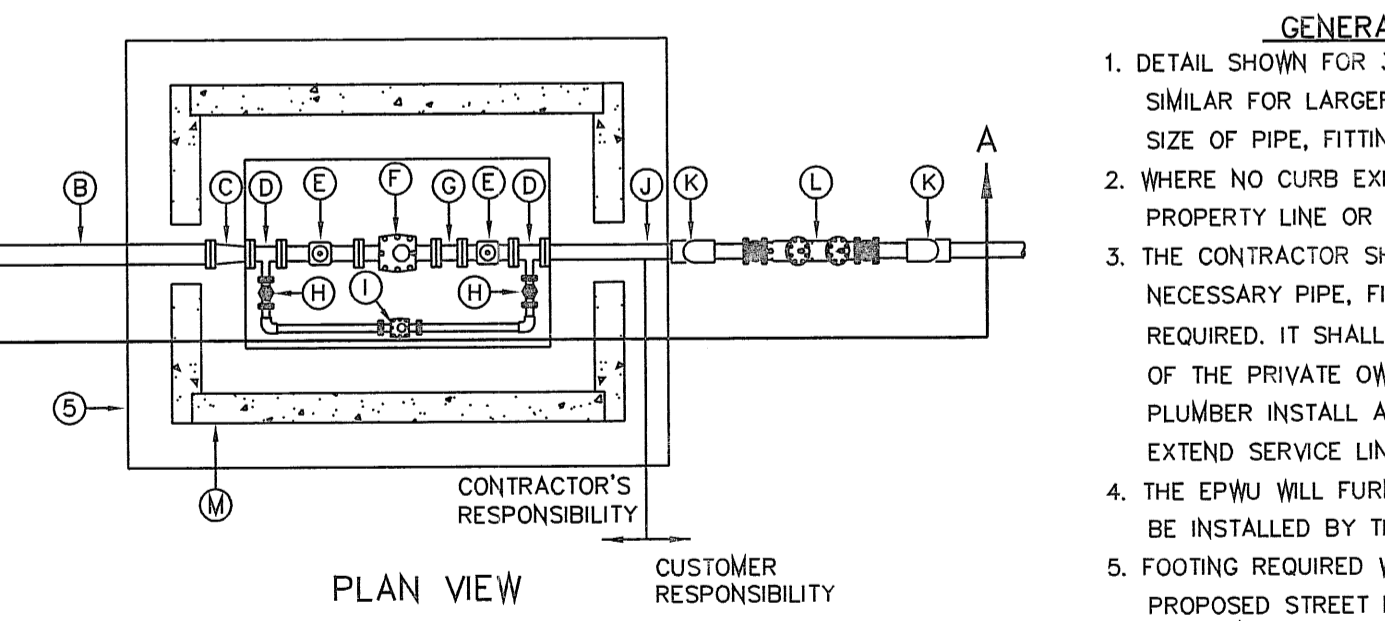


GENERAL NOTES:
 1. FOR CASE 1 FIRE HYDRANT SHALL BE LOCATED AT A DISTANCE OF 5 FT. MINIMUM FROM THE PROPERTY LINE OR AT THE BEGINNING OF CURB RETURN.
 2. FOR CASE 2 FIRE HYDRANT SHALL BE LOCATED AT THE PROPERTY LINE COMMON TO ADJOINING LOTS.
 3. FOR CASE 3 AND 4 WHERE THE DISTANCE BETWEEN THE VALVE AND THE HYDRANT IS LESS THAN 7 FT. PLACE HYDRANT AS SHOWN.
 4. FOR INSTALLATION OF FIRE HYDRANT SEE DETAIL 280-1 OR 280-2.
 5. A MINIMUM CLEARANCE OF 3 FT. WILL BE PROVIDED BETWEEN A FIRE HYDRANT AND A PERMANENT OBSTRUCTION (UTILITY POLE, LIGHT STANDARD, TRAFFIC SIGNAL, WHEEL CHAIR RAMP, FENCE PROTECTIVE POSTS, ETC.).
 6. WHEN INSTALLATION IS WITHIN TYPICAL RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.



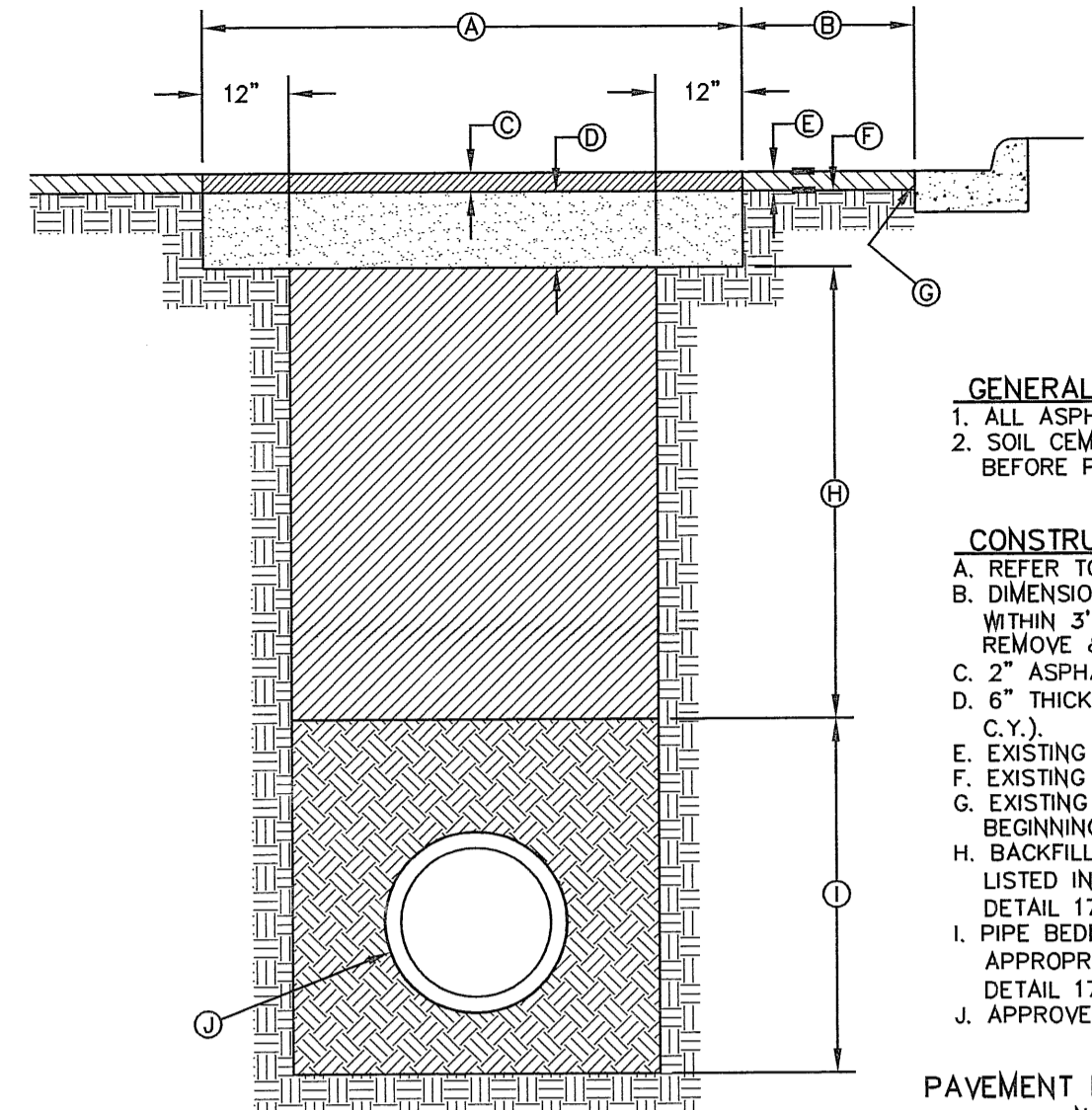
GENERAL NOTES:
 1. INSTALLATION APPLICABLE TO P.V.C. & DUCTILE IRON WATER MAINS ONLY. INSTALLATION FOR OTHER PIPE MATERIALS REQUIRE E.P.W.U. APPROVAL.
 2. PRE-CAST MANHOLE SECTIONS SHALL BE OF REINFORCED CONCRETE CONFORMING TO ASTM C-478 AND SHALL MEET HS-20 LOADING. PROVIDE REINFORCEMENT WITHIN 3" OF OPENINGS OR KNOCKOUTS. OPENINGS (UP TO 8") MADE IN FIELD SHALL BE CORE DRILLED.
 3. MANUFACTURER TO PROVIDE LIFTERS OF ADEQUATE SIZE AS NEEDED.
 4. ECCENTRIC CONE SECTION REINFORCEMENT IN ACCORDANCE WITH ASTM C-478.
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. 2" BALL VALVE (NORMALLY CLOSED).
 D. 1 1/2" DIAMETER SOLID STEEL EXTENSION STEM WITH SQUARE SOCKET ON BOTTOM TO FIT 2" SQUARE VALVE NUT AND 2" SQUARE OPERATOR NUT ON TOP.
 E. ADJUSTABLE EXTENSION STEM GUIDE (AS PER DETAIL 261-3) @ 6" MAX. INTERVALS.
 F. 2" COPPER PIPE (TYPE-K).
 G. THREADED END TO FLARED END 90° ELBOW (TYP.).
 H. 20"x2" OR 15"x2" SADDLE TAP WITH 2" CORPORATION STOP.
 J. BUTTERFLY VALVE OPERATOR.
 K. ADJUSTABLE SUPPORT OR APPROVED EQUAL.
 L. 6" DIAMETER DRAIN HOLE FILLED WITH GRAVEL.
 M. #5 @ 12" O.C.W.
 N. CONCRETE SUPPORT.
 P. NOTCH MANHOLE SECTION FOR VALVE OPERATOR. FILL WITH BRICK AND MORTAR AFTER VALVE INSTALLATION.
 Q. 24" DIAMETER BY 2'-6" DEEP GRAVEL SUMP.
 R. CEMENT GROUT.
 S. 1" PREMOULDED ASPHALT EXPANSION JOINT.
 T. INSTALL A 2" DIA. BRASS SPOOL PIECE WITH FLANGED ENDS. ONE SPOOL PIECE TO BE PROVIDED FOR EACH BUTTERFLY VALVE LOCATION. PROVIDE A 1" THREADED OUTLET WITH PLUG ON SPOOL PIECE. ALL SPOOL PIECES TO BE PROVIDED WITH FULL FACE GASKETS.
 U. BUTTERFLY VALVE.
 V. 2" BRASS NIPPLE PIECE (TYP.).
 W. VALVE OPERATOR EXTENSION - 12" LONG.
 X. FLARED END TO FLARED END 90° ELBOW (TYP.).

BUTTERFLY VALVE IN MANHOLE INSTALLATION FOR 16" AND 20" WATER LINES
 N.T.S.
261-2



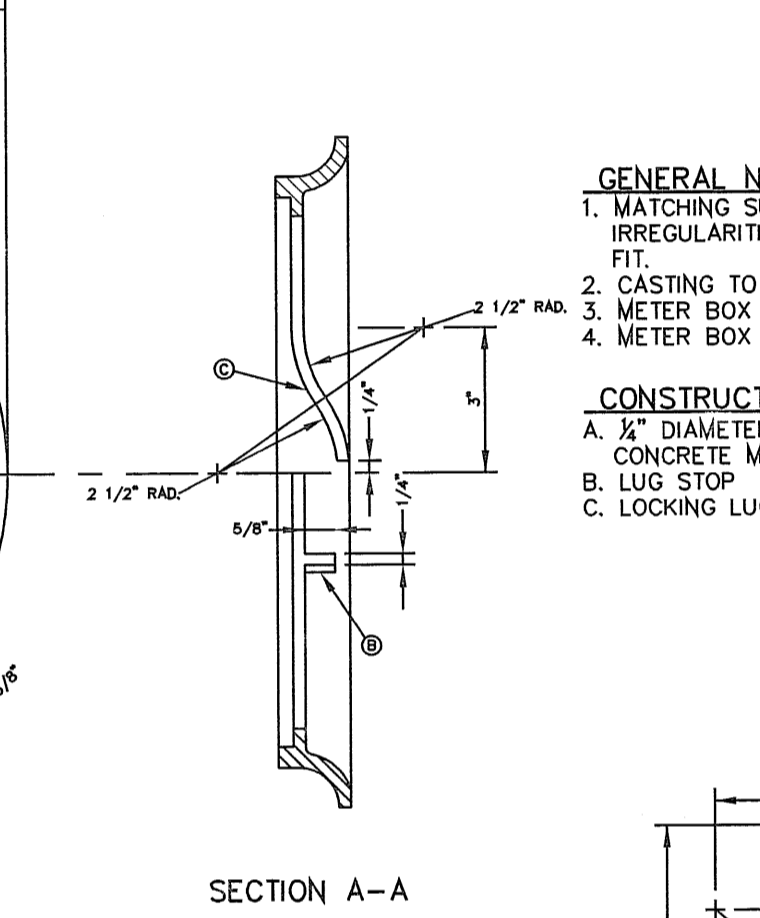
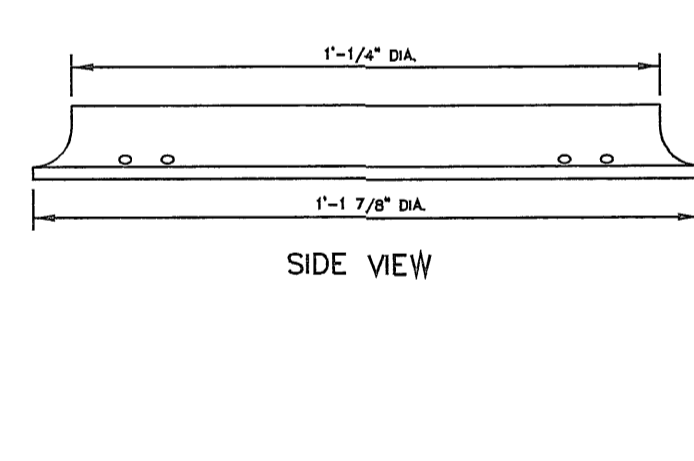
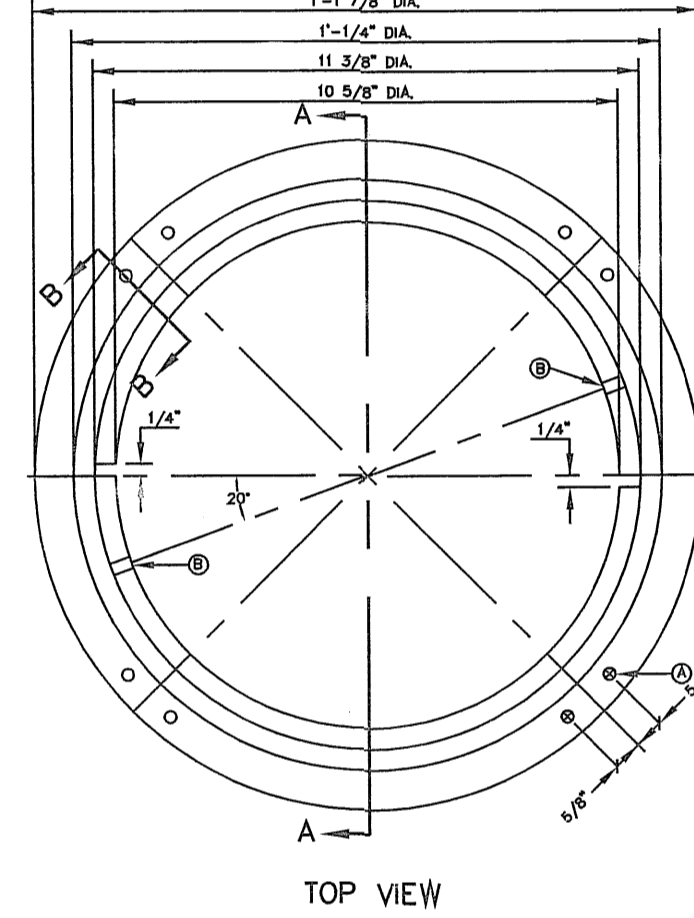
GENERAL NOTES:
 1. DETAIL SHOWN FOR 3" SERVICE; INSTALLATION SIMILAR FOR LARGER SERVICES EXCEPT FOR SIZE OF PIPE, FITTINGS AND METER.
 2. WHERE NO CURB EXISTS, METER IS TO BE SET NEAR PROPERTY LINE OR AT DESIGNATED LOCATION.
 3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, AND METER BOXES REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE PRIVATE OWNER TO HAVE A CERTIFIED PLUMBER INSTALL A BACKFLOW PREVENTER AND EXTEND SERVICE LINE ON DISCHARGE SIDE OF METER.
 4. THE EPWU WILL FURNISH THE METER, WHICH SHALL BE INSTALLED BY THE CONTRACTOR.
 5. FOOTING REQUIRED WHEN PLACED UNDER EXISTING OR PROPOSED STREET PAVING.
CONSTRUCTION KEY NOTES:
 A. 4" TAPPING SLEEVE AND VALVE
 B. 4" P.V.C.
 C. 4"x3" REDUCER
 D. 3"x2" TEE
 E. 3" GATE VALVE
 F. 3" METER
 G. 3" TEST PLUG D.I.P.
 H. 2" GATE VALVE
 I. 2" BY-PASS METER
 J. 3" SPOOL D.I.P.
 K. 3" BEND 90°
 L. 3" BACKFLOW PREVENTER
 M. STANDARD METER BOX TYPE "D"
 N. THRUST BLOCKING AS REQUIRED
 O. 3" FLANGED D.I.P. - LENGTH AS REQUIRED
 P. BONNET BOX AND COVER IN ACCORDANCE WITH DET 259.
 Q. PIPE AS PER EPWU STANDARD DET 260.

TYPICAL 3" & LARGER SERVICE LINE INSTALLATION BY CONTRACTOR
 N.T.S.
261-2



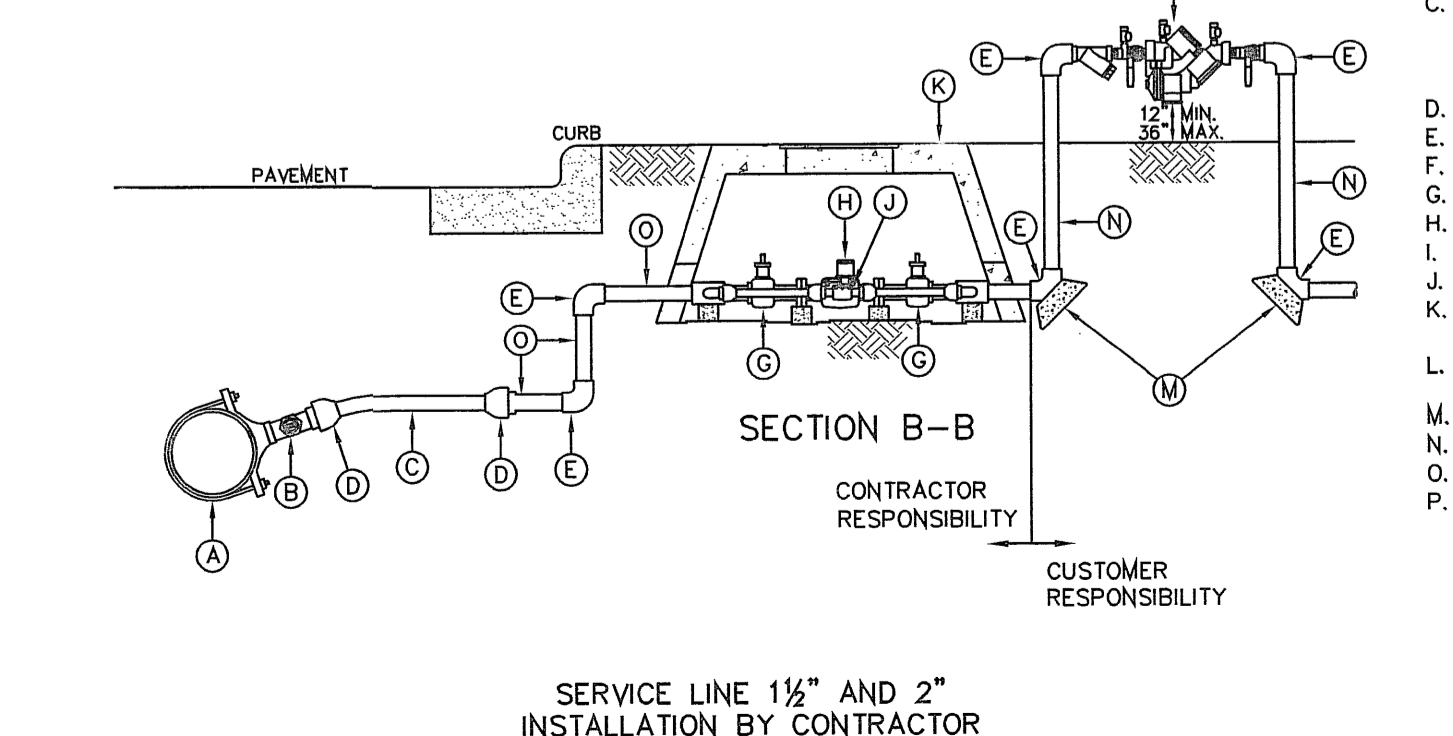
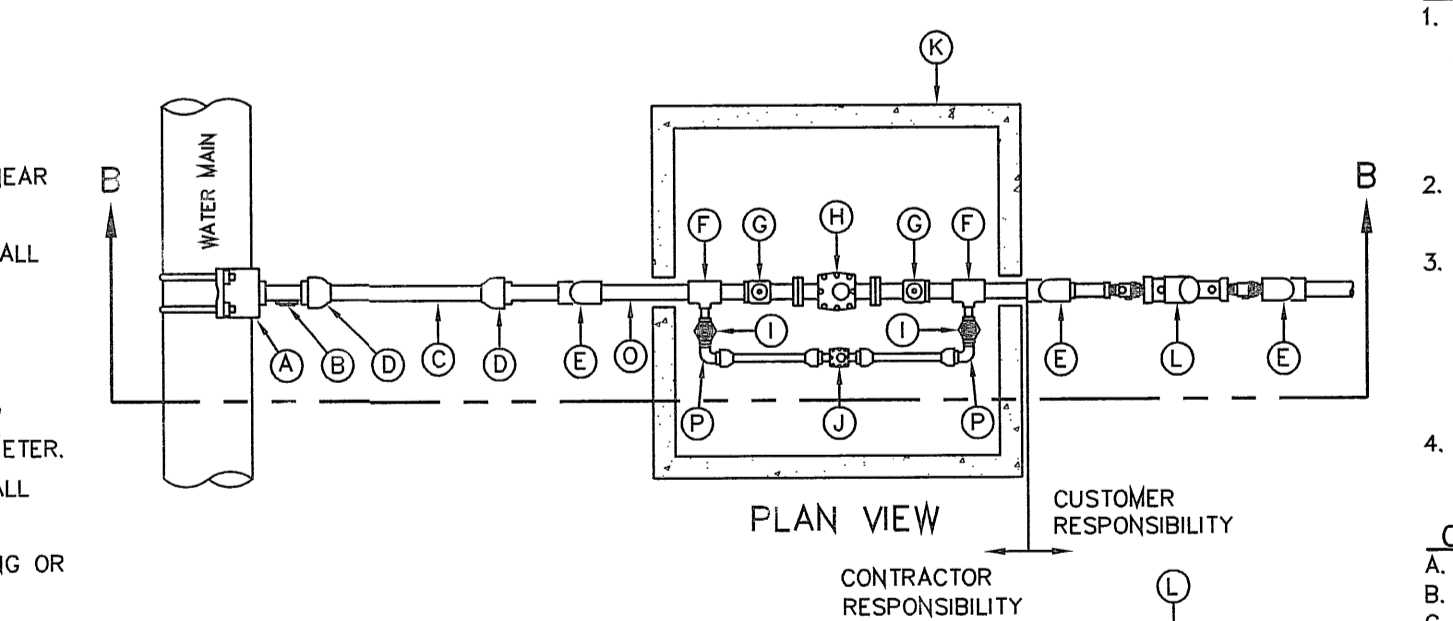
GENERAL NOTES:
 1. ALL ASPHALT CUTS MUST BE SAW CUT.
 2. SOIL CEMENT SLURRY SHALL BE ALLOWED TO CURE BEFORE PAVING OR OPENING TO ALL TRAFFIC.
CONSTRUCTION KEY NOTES:
 A. REFER TO SPECS FOR LIMIT OF PAVING WIDTH.
 B. DIMENSION VARIES. WHERE GUTTER FACE, ETC. IS WITHIN 3" OF SAW CUT EDGE, CONTRACTOR SHALL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

PAVEMENT REPLACEMENT
 N.T.S.
179



GENERAL NOTES:
 1. MATCHING SURFACES TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
 2. CASTING TO BE SMOOTH AND VOID OF AIR HOLES.
 3. METER BOX RING WEIGHT = 7 LBS.
 4. METER BOX RING MADE OF CAST IRON.
CONSTRUCTION KEY NOTES:
 A. 1" DIAMETER HOLES FOR ANCHORING RING TO CONCRETE METER BOX.
 B. LUG STOP
 C. LOCKING LUG SLIDE

METER BOX RING FOR TYPE "A" & "B" METER BOXES
 N.T.S.
300



GENERAL NOTES:
 1. DETAIL SHOWN FOR 1 1/2" SERVICE; INSTALLATION SIMILAR FOR 2" SERVICE EXCEPT FOR SIZES OF PIPE, FITTINGS, METER AND METER BOX. WHEN SPECIFIED A BY-PASS METER SHALL BE INSTALLED WITH A 1 1/2" SERVICE, A 2" SERVICE SHALL INCLUDE A 1" BY-PASS METER.
 2. WHERE NO CURB EXISTS, METER IS TO BE SET NEAR PROPERTY LINE OR AT DESIGNATED LOCATION.
 3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, AND METER BOXES REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE PRIVATE OWNER TO HAVE A CERTIFIED PLUMBER INSTALL A BACKFLOW PREVENTER AND EXTEND SERVICE LINE ON DISCHARGE SIDE OF METER.
 4. THE EPWU WILL FURNISH AND INSTALL THE METER.
CONSTRUCTION KEY NOTES:
 A. SERVICE SADDLE
 B. 1 1/2" TAP WITH CORPORATION STOP
 C. 1 1/2" COPPER PIPE FOR 1 1/2" & 2" SERVICE INSTALLATIONS. ALL PIPING SHALL BE COPPER AND ALL FITTINGS SHALL BE BRONZE UNLESS OTHERWISE SPECIFIED.
 D. 1 1/2" FLANGED CONNECTION
 E. 1 1/2" FEMALE THREADED 90° ELBOW
 F. 1 1/2" FEMALE THREADED TEE
 G. 1 1/2" FLANGED BY FEMALE THREADED GATE VALVE
 H. 1 1/2" TURBINE METER
 I. 1" FEMALE THREADED CURB VALVE
 J. 1" BY-PASS METER
 K. METER BOX TYPE "C" (SEE DETAIL 293) FOR 1 1/2" OR TYPE "D" (SEE DETAIL 294) FOR 2"
 L. 1 1/2" BACKFLOW PREVENTER WHEN REQUIRED BY EPWU
 M. THRUST BLOCKING AS REQUIRED
 N. 1 1/2" BRASS PIPE-LENGTH AS REQUIRED
 O. 1 1/2" THREADED NIPPLE
 P. 1" FLARED BY MALE THREADED 90° ELBOW

SERVICE LINE 1 1/2" AND 2" INSTALLATION BY CONTRACTOR
 N.T.S.
290-5

EL PASO WATER UTILITY DETAILS NUMBERS:
 170, 179, 282, 291, 295-1, 300, 301, 261-2

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.68

DATE

REVISIONS

BY

PROJECT NAME

TIERRA DEL ESTE UNIT SIXTY NINE

BRING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS. CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

ENGINEER'S SEAL

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

DATE: NOV. 2011

DESIGN BY: Y.C.

INITIATED BY: R.R.

CHECKED BY: Y.C.

JOB NO.: 211-60

CONDE INC.

ENGINEERING / PLANNING SURVEYING / GPS

6080 SURETY DR. STE 100 EL PASO, TEXAS 79905

PHONE: (915) 592-0283

FAX: (915) 592-0286

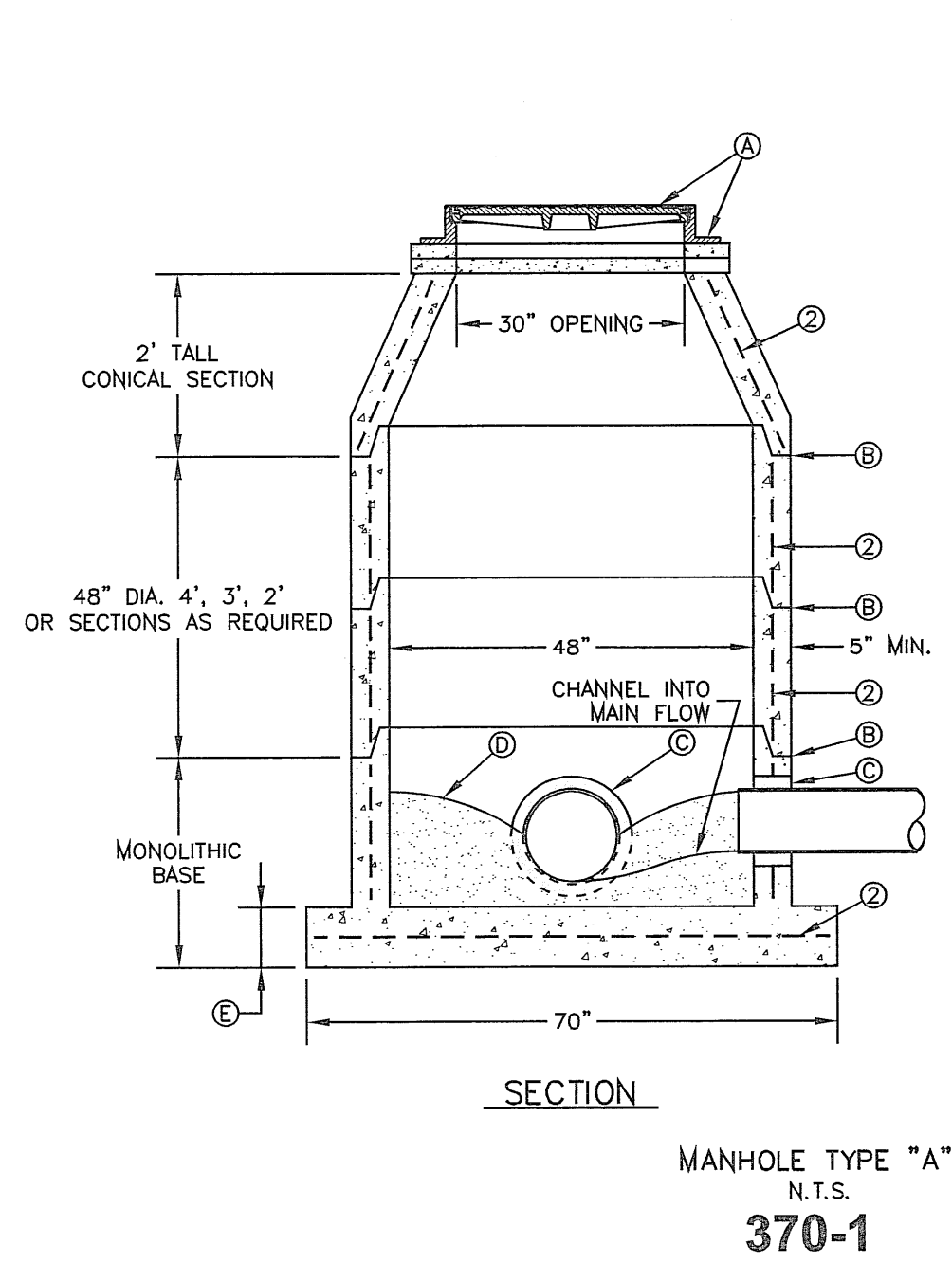
REGISTRATION NO. F-2521

SHEET TITLE

WATER DETAILS

SHT 63 OF 64

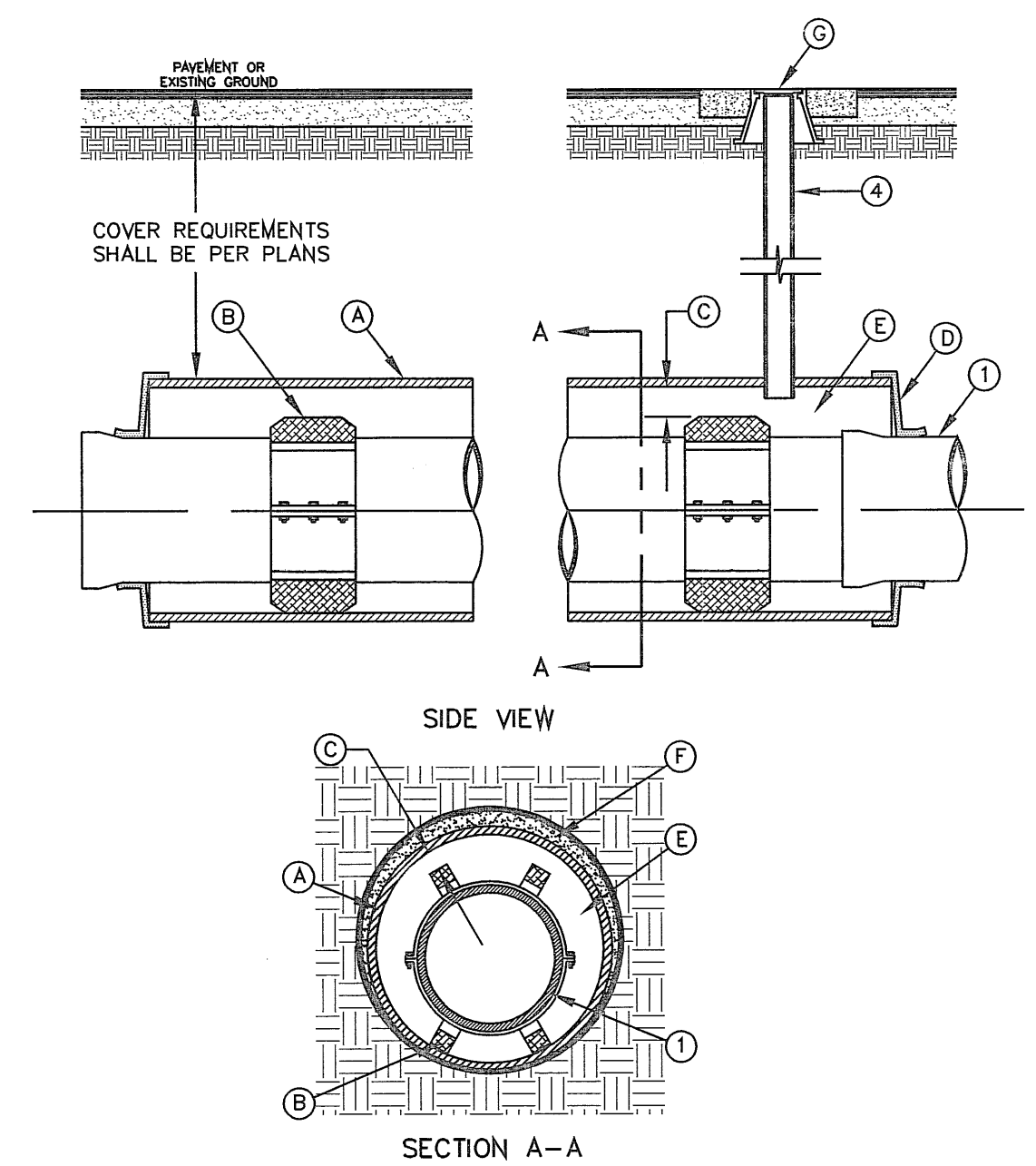
FILE LOCATION S:\Subdivisions\TDE 69 WAS NOTES AND DETAILS PLOTTED ON Thursday, July 12, 2012 2:45:19 PM BY RUBEN RIVERA



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

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

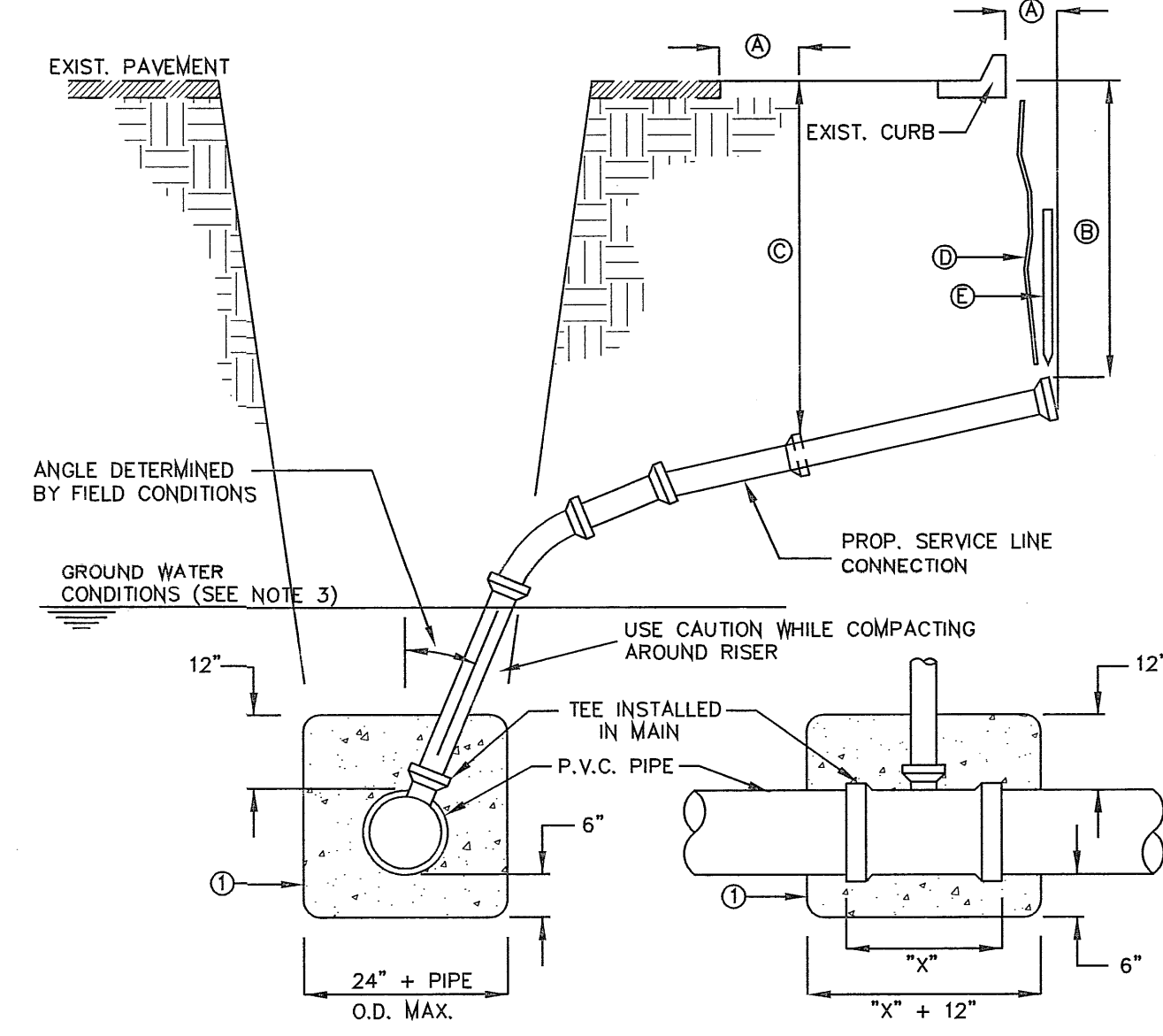
- CONSTRUCTION KEY NOTES:**
- MANHOLE RING AND COVER (SEE DETAILS 377 & 378). SET FRAME AND COVER FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE (SEE DETAIL 185).
 - ALL JOINTS TO BE TONGUE, GROOVE AND SEALED WITH RAM-NEK OR APPROVED EQUAL.
 - PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE AND SHALL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



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

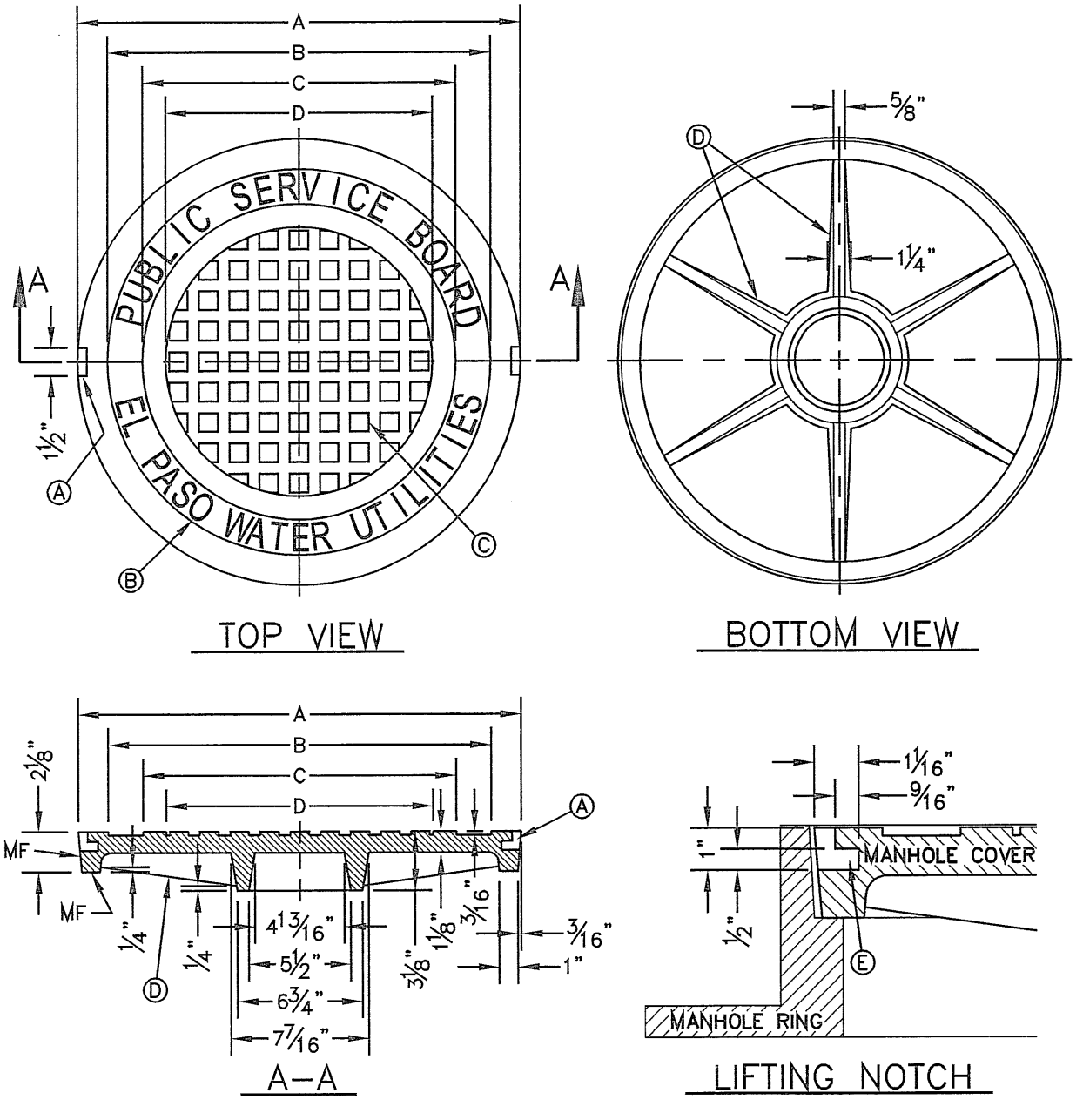
- GENERAL NOTES:**
- INSTALLATION FOR APPROVED CARRIER PIPE.
 - CASING SHALL BE INSTALLED USING EITHER JACKING, BORING OR TUNNELING METHODS FROM THE END WHICH CREATES A MINIMUM OF ACCESS AND RELOCATION PROBLEMS.
 - INSULATED SPACERS SHALL BE USED WHEN SPECIFIED, TO PROVIDE CORROSION PROTECTION.
 - PRECAUTIONARY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

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



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

- GENERAL NOTES:**
- IN GROUNDWATER CONDITIONS ONLY, P.V.C. SADDLES OR TEES ARE TO BE ENCASED WITH CLASS B CONCRETE.
 - UNDER CERTAIN CONDITIONS FIELD INVESTIGATIONS WILL BE REQUIRED TO DETERMINE THE ADEQUACY OF THE DEPTH OF THE LATERAL.
 - WHEN GROUND WATER IS ENCOUNTERED SERVICE RISER SHALL BE EXTENDED ABOVE ANTICIPATED WATER TABLE LEVEL.
- CONSTRUCTION KEY NOTES:**
- CONTRACTOR TO INSTALL SEWER SERVICE LINE FROM THE MAIN TO A LOCATION 6" BEHIND THE CURB OR 18" BEYOND THE EDGE OF PAYMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.
 - 18" FOR STANDARD SUBDIVISION, 3.0' FOR SUBDIVISIONS WITH ON-SITE PONDING OR FLAT TERRAIN.
 - RISERS OR LATERALS EXTENDING BEYOND EXISTING PAVING SHALL BE INSTALLED TO 3.5' MINIMUM TOP OF GROUND OR PAYMENT, UNLESS CONDITIONS REQUIRE OTHERWISE.
 - PLASTIC METALLIC MARKING TAPE RISING TO WITHIN 6" OF GROUND SURFACE OR METALLIC DISK.
 - WOODEN STAKE (1"x2"x36") VERTICALLY PLACED AT PLUGGED END OF PROPOSED SERVICE LINE.



SEWER MANHOLE COVER
N.T.S.
378

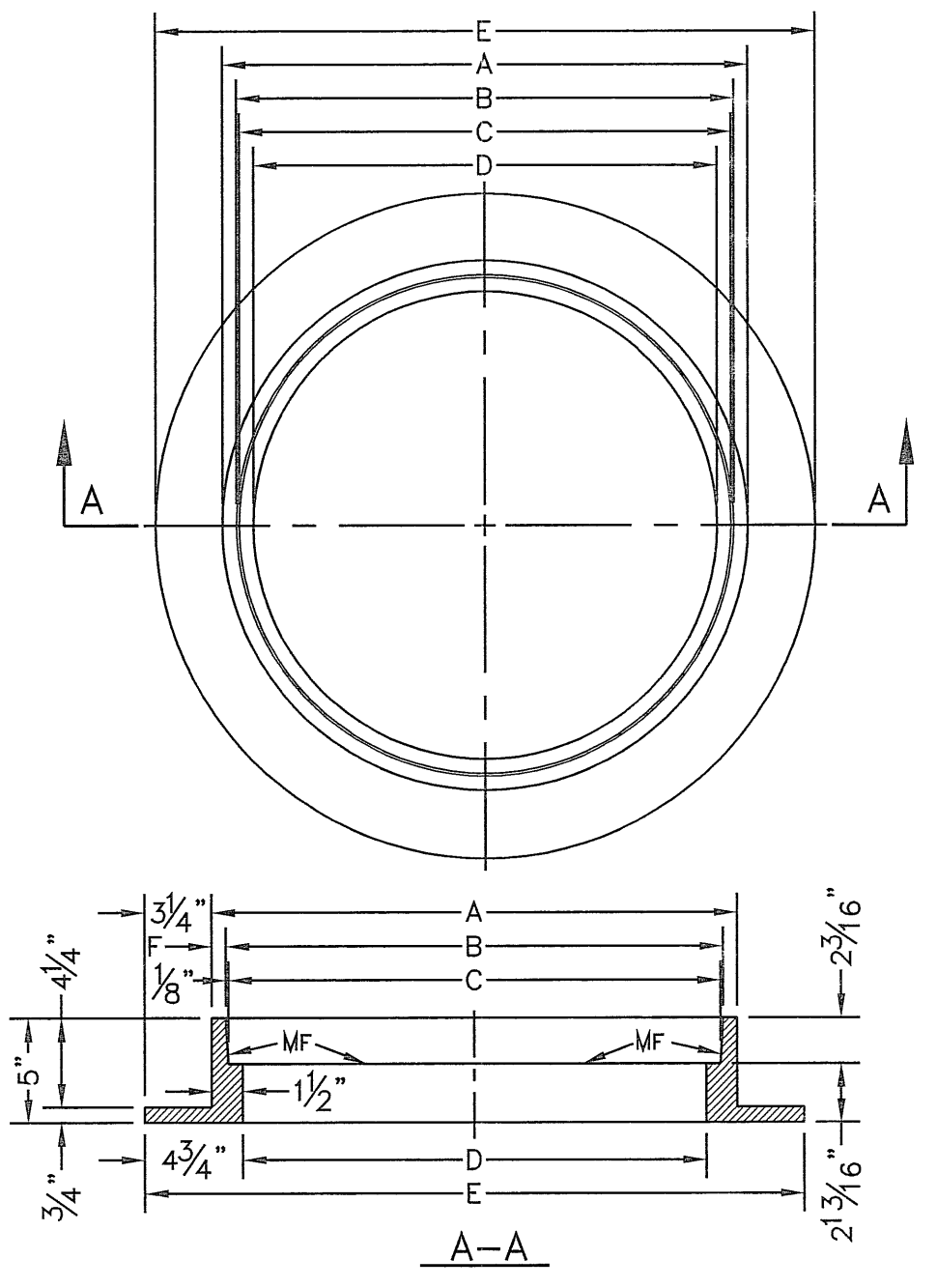
- GENERAL NOTES:**
- MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
 - CASTING TO BE SMOOTH & VOID OF AIR HOLES.
 - CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
 - AS-CAST DIMENSIONS MAY VARY 1/8"±/ PER FOOT (AASHTO M306-07).
 - WEIGHT MAY VARY 5%± (AASHTO M306-07).

CONSTRUCTION KEY NOTES:

- LIFTING NOTCH.
- 1/4" RAISED LETTERING.
- 1" SQUARES (3/8" TALL) WITH 3/8" SPACE BETWEEN.
- REINFORCING RIBS.
- SLOT.

MANHOLE COVER	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	31 3/8"	23 3/8"
B	28 1/2"	20 3/8"
C	24 3/8"	16 3/8"
D	21 7/8"	14 3/8"
WEIGHT	265 lbs.	165 lbs.

*OBsolete - DO NOT USE (FOR REFERENCE ONLY)

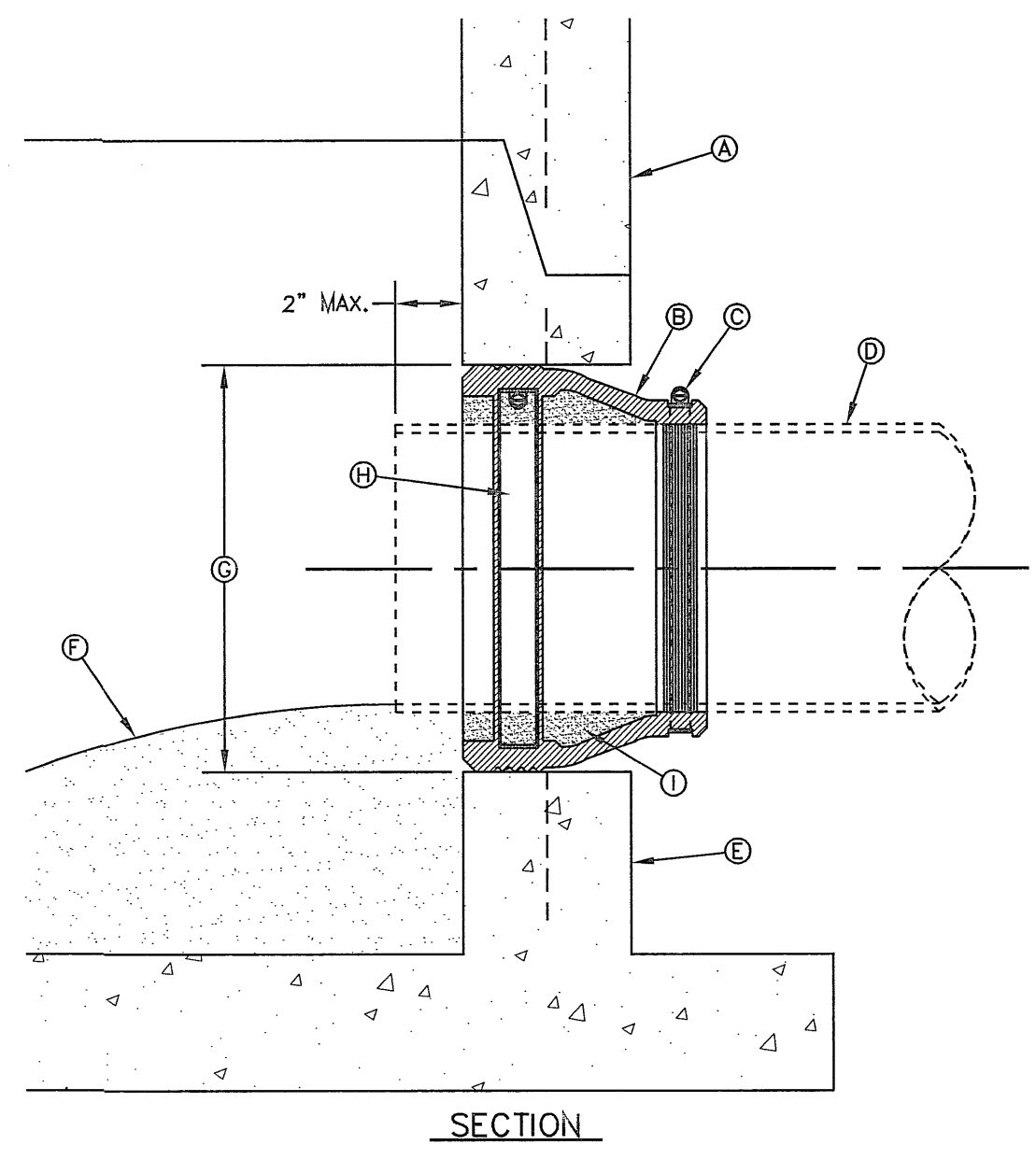


SEWER MANHOLE RING
N.T.S.
377

- GENERAL NOTES:**
- MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
 - CASTING TO BE SMOOTH & VOID OF AIR HOLES.
 - CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
 - AS-CAST DIMENSIONS MAY VARY 1/8"±/ PER FOOT (AASHTO M306-07).
 - WEIGHT MAY VARY 5%± (AASHTO M306-07).

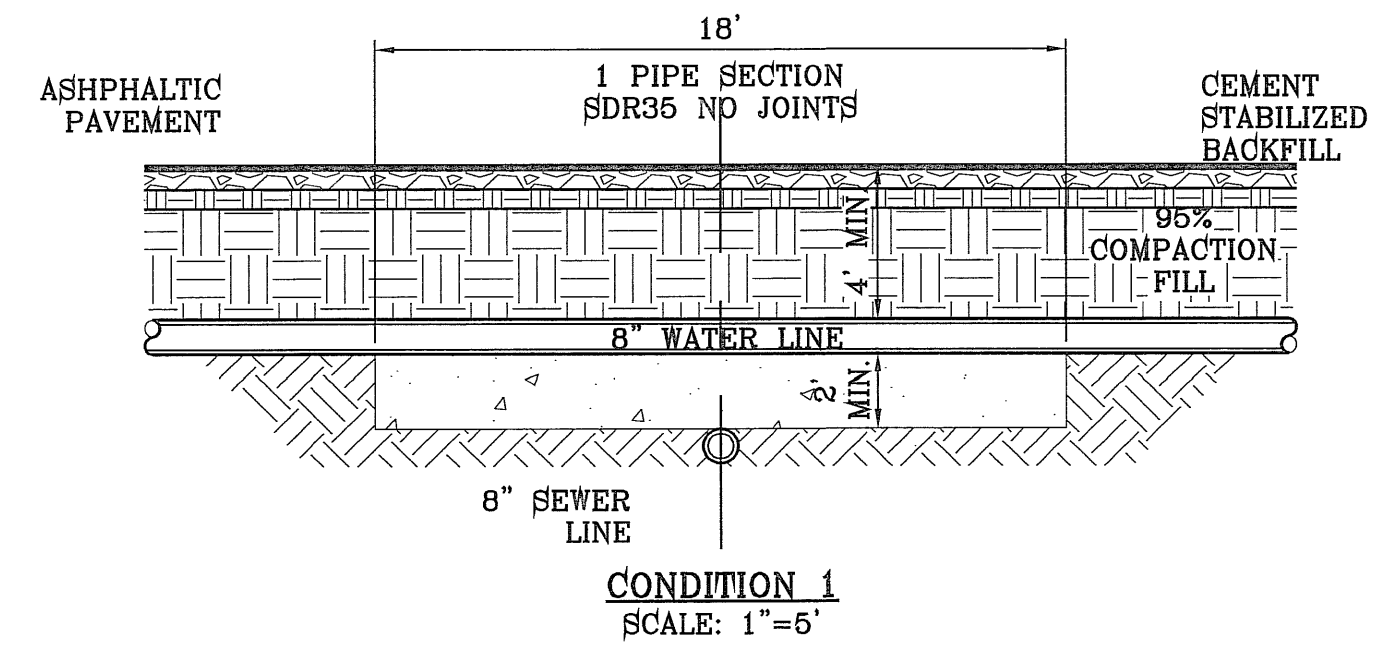
MANHOLE RING	MANHOLE - ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	33"	25 1/2"
B	31 3/4"	24 1/8"
C	31 1/2"	23 3/8"
D	30"	22 1/2"
E	29 1/2"	22"
F	28 1/2"	21 1/8"
WEIGHT	220 lbs.	170 lbs.

*OBsolete - DO NOT USE (FOR REFERENCE ONLY)

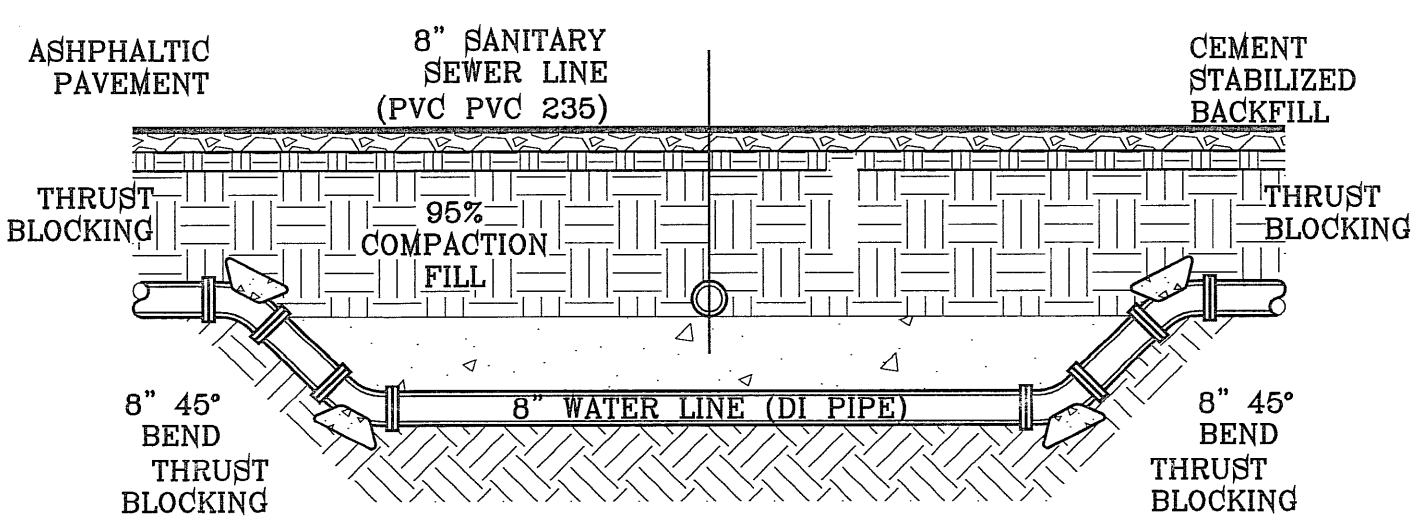


PIPE CONNECTION TO MANHOLE
N.T.S.
376

- GENERAL NOTES:**
- 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:**
- PRECAST MANHOLE BARREL.
 - FLEXIBLE CONNECTOR.
 - PIPE CLAMP SS 316.
 - APPROVED PIPE.
 - PRECAST MANHOLE BASE.
 - GROUT AS REQUIRED TO FORM SMOOTH CHANNEL TO MANHOLE INVERT.
 - PIPE OPENINGS/KNOCKOUTS AS REQUIRED TO FIT PIPE SIZE.
 - EXPANSION BAND SS 316.
 - FILL SPACE WITH GROUT.



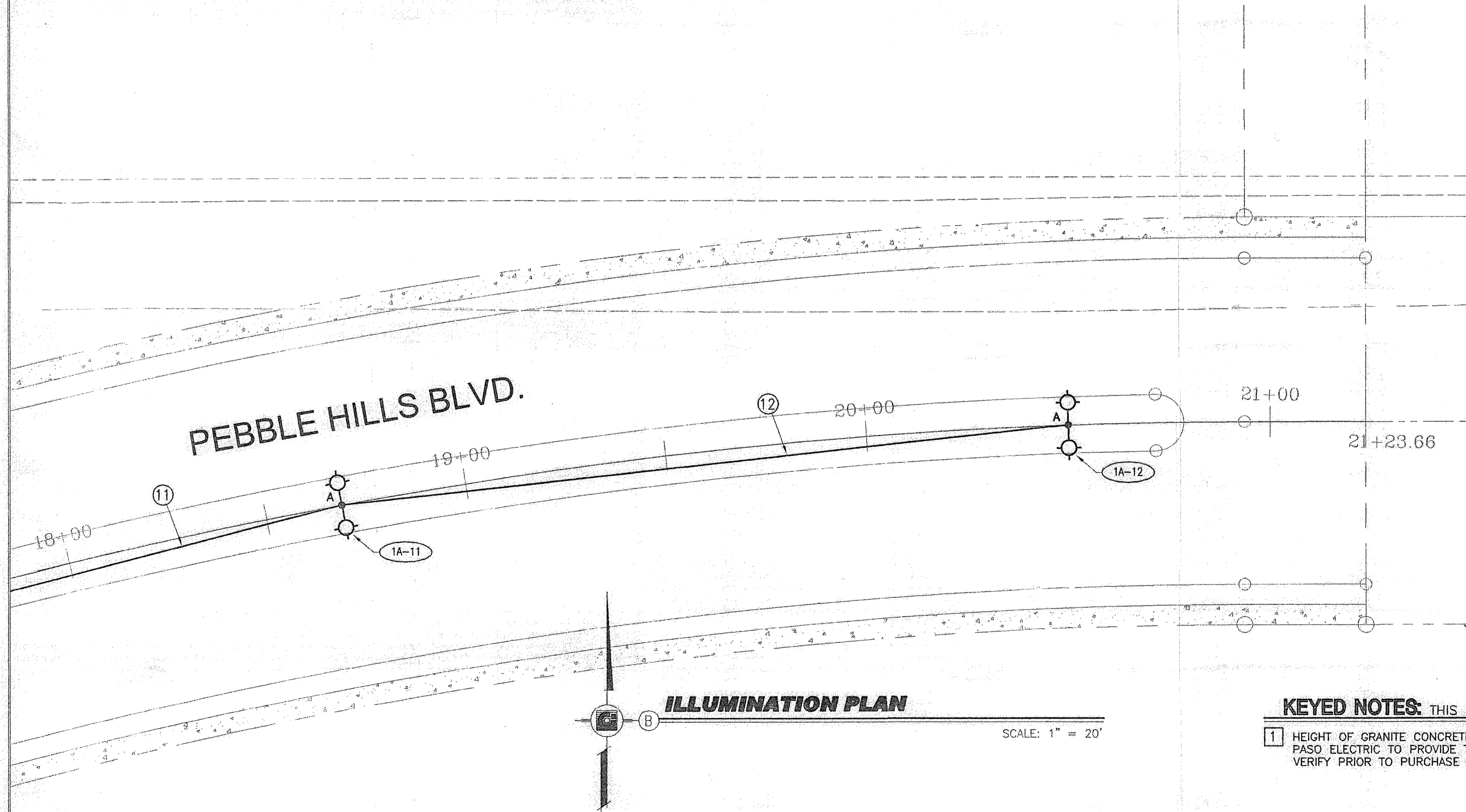
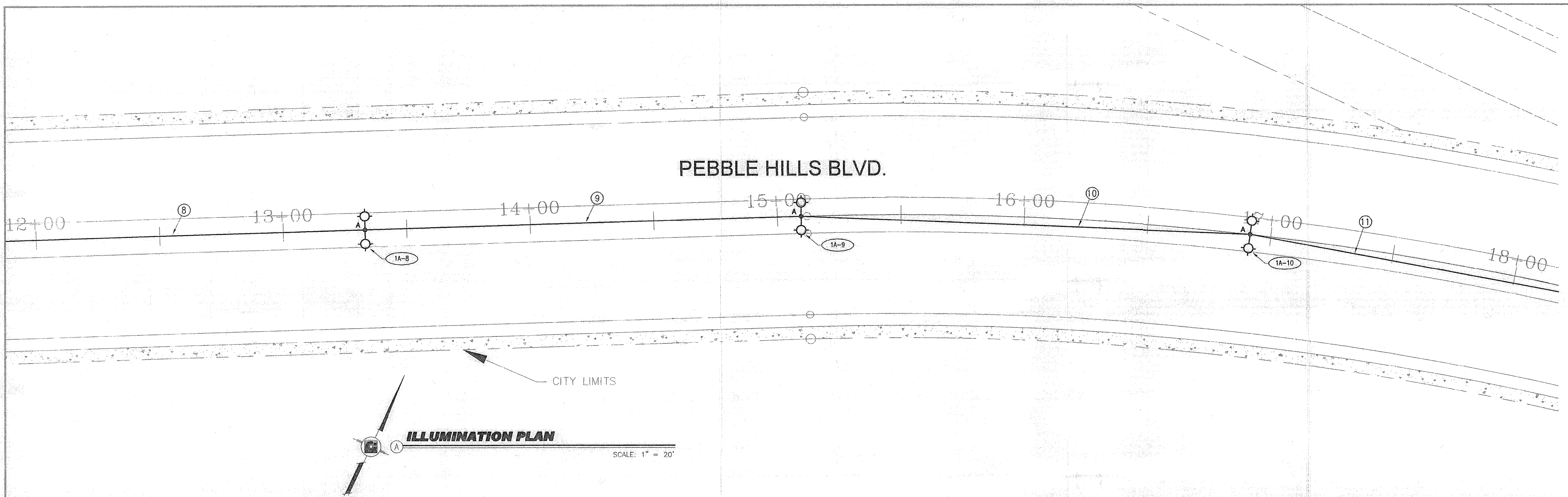
CONDITION 1
SCALE: 1"=6"



CONDITION 2
SCALE: 1"=5"

PROJECT NAME: TIERRA DEL ESTE UNIT SIXTY NINE
 CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.88
 CITY DATUM
 DATE: NOV. 2011
 DESIGN BY: Y.C.
 INITIATED BY: R.R.
 CHECKED BY: Y.C.
 JOB NO.: 211-50
 S.C.A.L.E. HORIZ: --- VERT: ---
 ENGINEER'S SEAL NOT REQUIRED. THIS SHEET IS TO BE FILED FROM CITY SUBDIVISION DESIGN STANDARDS
 CONDE INC. ENGINEERING / PLANNING SURVEYING / GPS 6080 SURREY DR. STE. 100 EL PASO, TEXAS 79905 PHONE: (915) 592-0285 FAX: (915) 592-0286
 REGISTRATION No. F-2321
 SHEET TITLE: SEWER DETAILS
 SHT 64 OF 64

EL PASO WATER UTILITY DETAILS
 NUMBERS:
 180, 370-1, 376, 377, 378, 391
 TIERRA DEL ESTE UNIT SIXTY NINE



PEBBLE HILLS BLVD.

ILLUMINATION PLAN

SCALE: 1" = 20'

ILLUMINATION PLAN

SCALE: 1" = 20'

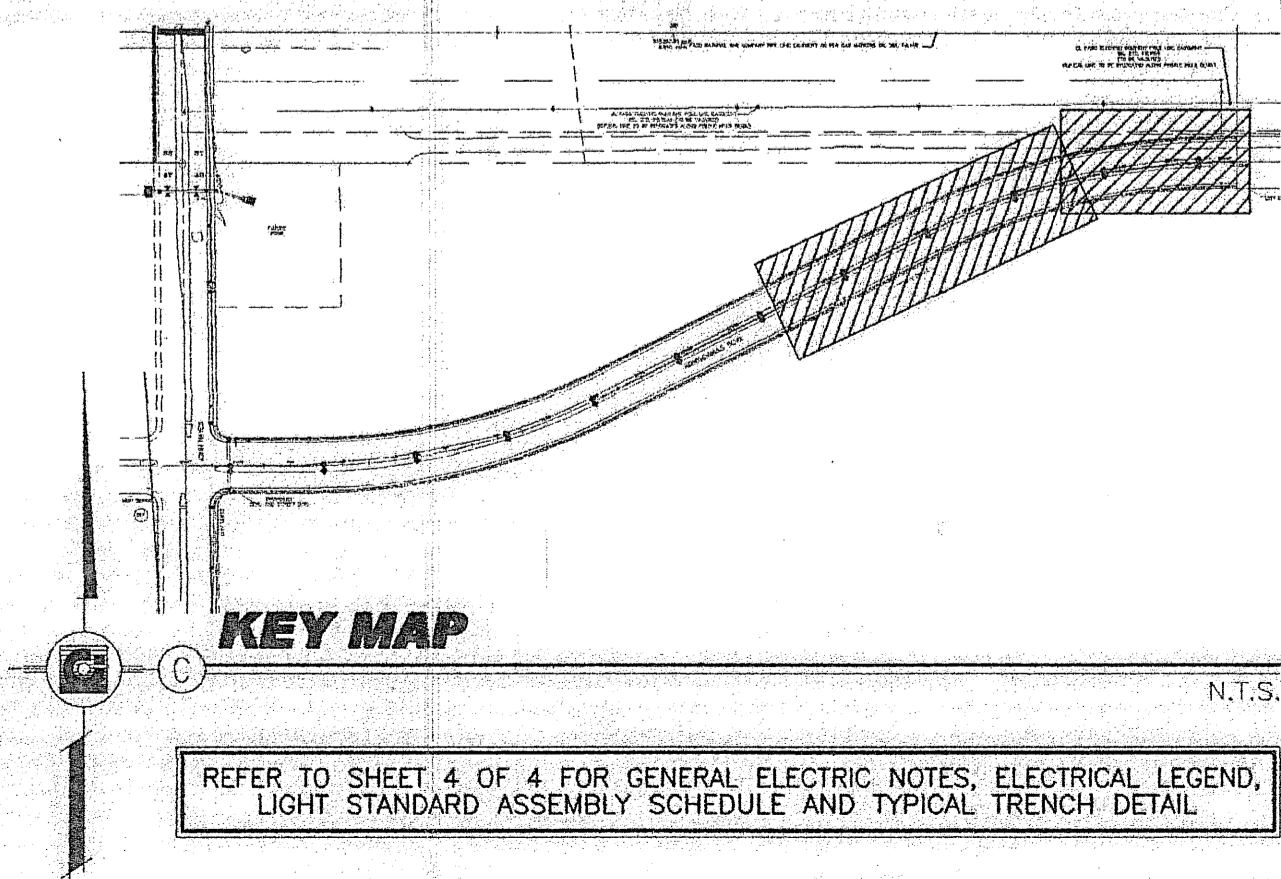
1(1) = TXDOT TY A(240/480) 100(NS) SS(E) GC(O) SEE SHEET ED(4)-03, NO METER, NO SAFETY SWITCH, 2 EACH 30A-2P BRANCH BREAKERS, 100A-2P MAIN BREAKER

PEBBLE HILLS SERVICE SOURCE (1)			
LIGHT NO.	STATION	BASELINE	OFFSET
1A-1	0+85	PEBBLE HILLS BLVD.	-
1A-2	2+63	PEBBLE HILLS BLVD.	-
1A-3	4+40	PEBBLE HILLS BLVD.	-
1A-4	6+20	PEBBLE HILLS BLVD.	-
1A-5	7+98	PEBBLE HILLS BLVD.	-
1A-6	9+77	PEBBLE HILLS BLVD.	-
1A-7	11+55	PEBBLE HILLS BLVD.	-
1A-8	13+33	PEBBLE HILLS BLVD.	-
1A-9	15+10	PEBBLE HILLS BLVD.	-
1A-10	16+92	PEBBLE HILLS BLVD.	-
1A-11	18+70	PEBBLE HILLS BLVD.	-
1A-12	20+50	PEBBLE HILLS BLVD.	-

CONDUIT/CABLE SCHEDULE-SERVICE NO. (1)				
RUN NO.	(PVC) (SCHD 40) (2 INCH) TRENCH BORE	GROUND WIRE LENGTH	CONDUCTORS QUANTITY & LENGTH	ESTIMATED LENGTH OF RUN (LINEAR FT.)
1	178	178	2 @ 178	178
2	177	177	2 @ 177	177
3	180	180	2 @ 180	180
4	178	178	2 @ 178	178
5	179	179	2 @ 179	179
6	153	153	2 @ 153	153
7	25	25	2 @ 25	25
8	178	178	2 @ 178	178
9	177	177	2 @ 177	177
10	182	182	2 @ 182	182
11	178	178	2 @ 178	178
12	180	180	2 @ 180	180
13	50	50	2 @ 50	50

KEYED NOTES: THIS SHEET ONLY

- 1 HEIGHT OF GRANITE CONCRETE SERVICE SUPPORT POLE SHALL BE COORDINATED WITH EL PASO ELECTRIC TO PROVIDE THE REQUIRED CLEARANCES AND DISTANCES PER DSO1870. VERIFY PRIOR TO PURCHASE AND CUTTING OF SERVICE SUPPORT POLE.



REFER TO SHEET 4 OF 4 FOR GENERAL ELECTRIC NOTES, ELECTRICAL LEGEND, LIGHT STANDARD ASSEMBLY SCHEDULE AND TYPICAL TRENCH DETAIL.

BENCHMARK

CITY MOVEMENT AT THE CENTERLINE INTERSECTION OF COCKSCOOT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.56

DATE	REVISIONS	BY

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS, AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING: 90.165± ACRES

SCALE
HORIZ: 1" = 20'
VERT: 1" = 20'

DATE: JAN. 27, 2012
DESIGN BY: G.A.
INITIATED BY: G.A.
CHECKED BY: G.A.
JOB NO.: 211-50

ENGINEER'S SEAL
GONZALO AGUIAR, P.E.
Professional Engineer
No. 297-12724

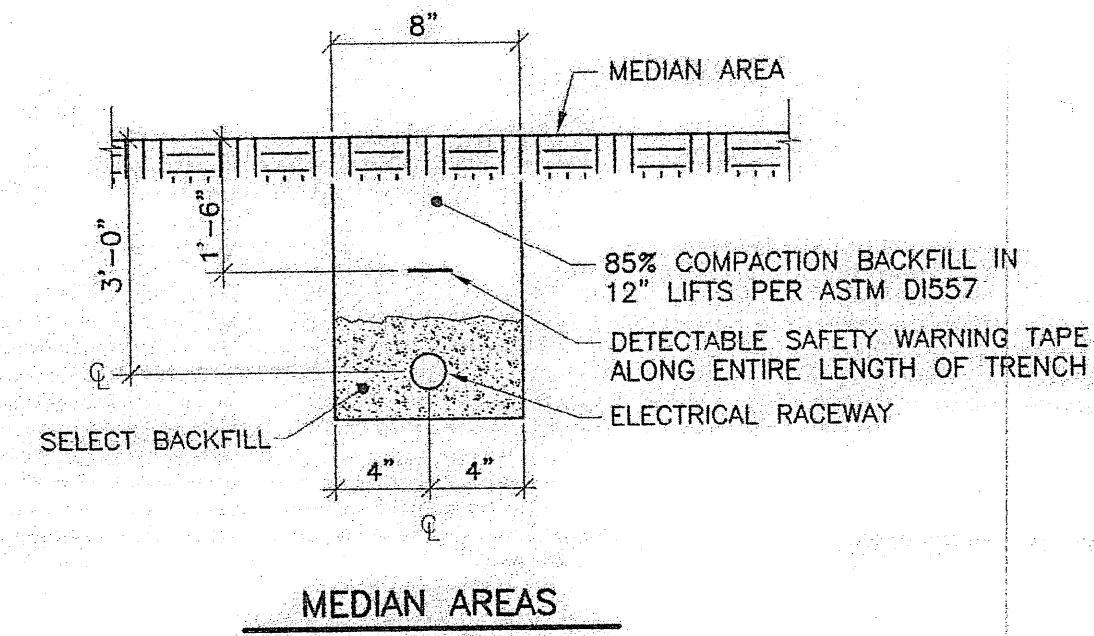
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286

CONDE INC.
REGISTRATION NO. P-2321

SHEET TITLE
ILLUMINATION PLAN
STA 12+00
END STA 21+23.66
E-2

SHT 2 OF 4

LIGHT STANDARD ASSEMBLY SCHEDULE						
TYPE	SYMBOL	LAMPS	STEEL POLE		LUMINAIRE	
			MNTG. HGT.	DESCRIPTION	QTY.	DESCRIPTION
A		2-250W HPS	30'	FLUTED STEEL POLE, TRANSFORMER BASE, MOSS GREEN FINISH, BREAK AWAY FUSES (4) [1][2]	2	TXDOT APPROVED ROADWAY LUMINAIRE, DARK SKY COMPLIANT, 480 VOLTS, WITH LEVELING BUBBLE.



TYPICAL TRENCH DETAIL - MEDIANS

N.T.S.

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	NEW LIGHT STANDARD ASSEMBLY AS SCHEDULED ON NEW CONCRETE BASE
	DENOTES NEW LIGHT STANDARD ASSEMBLY NUMBER. SEE SERVICE SOURCE TABLES.
	DENOTES NEW CONDUIT/CABLE RUN. SEE CONDUIT/CABLE SCHEDULES
	DENOTES NEW ELECTRICAL SERVICE POINT NUMBER
	DENOTES KEYED NOTE
	NEW UNDERGROUND ELECTRICAL (TRENCHED)
	NEW UNDERGROUND ELECTRICAL (BORED)
	NEW GROUND BOX PER CITY OF EL PASO STREETS DEPARTMENT STANDARDS (TXDOT TYPE "A") LABELED "ILLUMINATION"

KEYED NOTES: THIS SHEET ONLY

- 1 PROVIDE 8' ARM WITH DECORATIVE ARM SUPPORT WITH MOSS GREEN FINISH TO MATCH ARMS AND SUPPORTS USED ON LEE TREVINO. COORDINATE AND VERIFY WITH CITY OF EL PASO STREETS DEPT. PRIOR TO SUBMITTING SHOP DRAWINGS AND PRIOR TO PURCHASE.
- 2 POLES, ANCHOR BOLTS AND ANCHOR BOLT CIRCLES SHALL MATCH THE GREEN FLUTED STEEL POLES USED ON LEE TREVINO. COORDINATE AND VERIFY WITH CITY OF EL PASO STREETS DEPT. PRIOR TO SUBMITTING SHOP DRAWINGS AND PRIOR TO PURCHASE.

GENERAL ELECTRICAL NOTES: APPLICABLE TO ALL ELECTRICAL SHEETS

1. CONTRACTOR SHALL COORDINATE WITH E.P.E.Co. THE EXACT LOCATIONS OF ELECTRICAL SERVICE. SERVICE SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST VERSION OF THE E.P.E.Co. ELECTRICAL SERVICE REQUIREMENTS BOOK. ANY EQUIPMENT THAT IS STATED IN THE E.P.E.Co. REQUIREMENTS TO BE PROVIDED AND INSTALLED BY THE OWNER, SHALL BE PROVIDED AND INSTALLED BY THIS CONTRACTOR UNDER THIS CONTRACT.
2. CITY STANDARDS: ALL WORK, MATERIALS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF EL PASO, TEXAS CITY STANDARDS SPECIFICATIONS, STREETS DEPARTMENT, STREET ILLUMINATION.
3. ALL TRENCHING AND CONDUIT SHALL BE INSTALLED WITHIN CITY OF EL PASO RIGHT-OF-WAYS. TRENCHING AND CONDUIT SHALL NOT BE INSTALLED WITHIN PRIVATE PROPERTY. MINIMUM BURIAL DEPTH OF CONDUITS SHALL BE 24" FROM TOP OF FINISHED GRADE OR FINISHED SURFACE TO TOP OF CONDUITS.
4. USE SONOTUBE FOR FORMING POLE CONCRETE BASES. SONOTUBE SHALL BE LEFT IN PLACE. USE 2 SACK CEMENT TO BACKFILL HOLES. TOP OF BASES SHALL BE 4" ABOVE FINAL FINISHED GRADE.
5. ALL EXPOSED CONDUIT SHALL BE RIGID GALVANIZED STEEL. PROVIDE TRANSITION ELBOW FROM PVC TO RIGID STEEL BELOW GRADE. WRAP STEEL CONDUIT IN CONTACT WITH EARTH TO PREVENT CORROSION.
6. ALL GROUND RODS SHALL BE 5/8"x10'-0" COPPER CLAD.
7. SPLICES SHALL ONLY BE ALLOWED IN GROUND BOXES OR HAND HOLES.

PROJECT NAME

**TIERRA DEL ESTE
UNIT SIXTY NINE**

BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY Co. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.165± ACRES

SCALE

HORIZ. 1" = 20'
VERT. 1" = 20'

DATE: JAN. 27, 2012

DESIGN BY: G.A.

INITIATED BY: G.A.

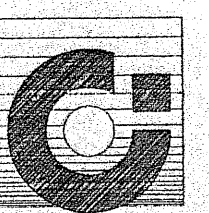
CHECKED BY: G.A.

JOB NO.: 211-50

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



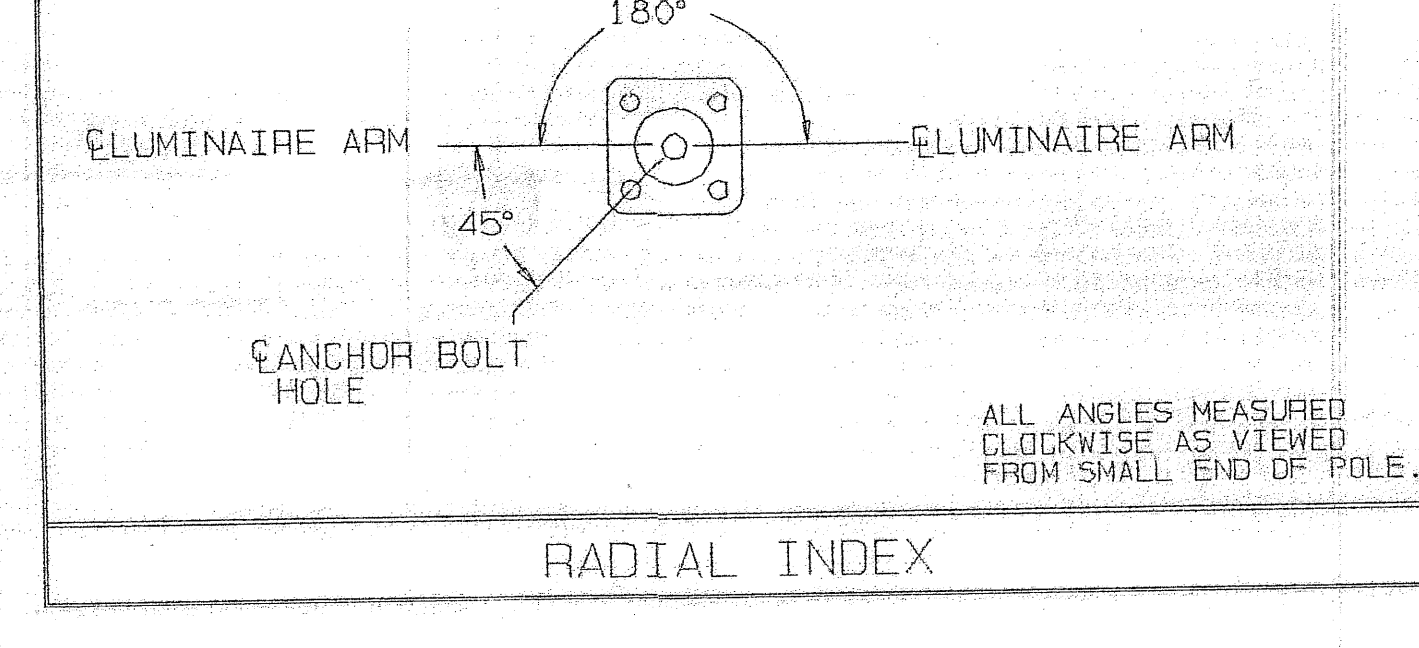
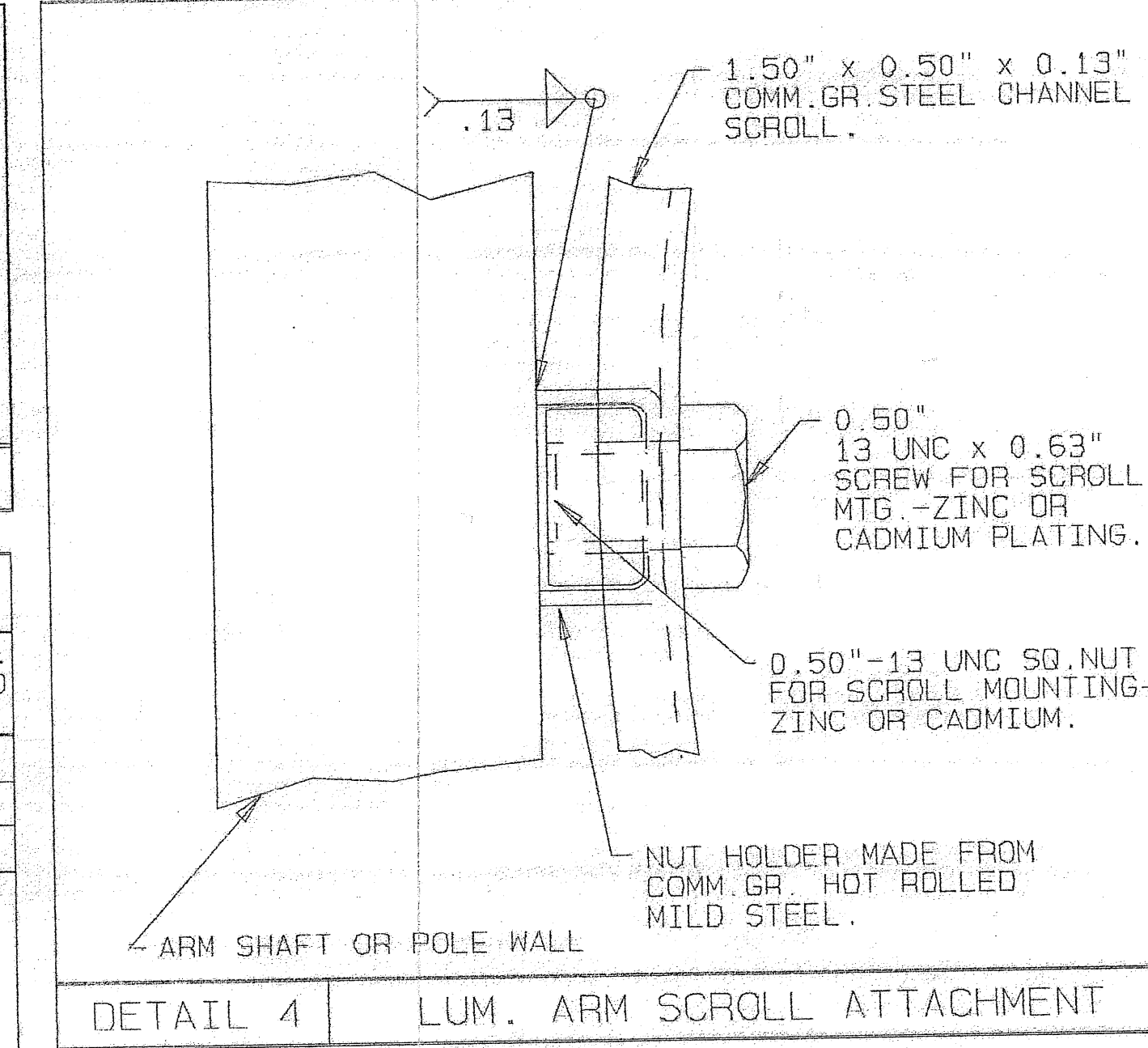
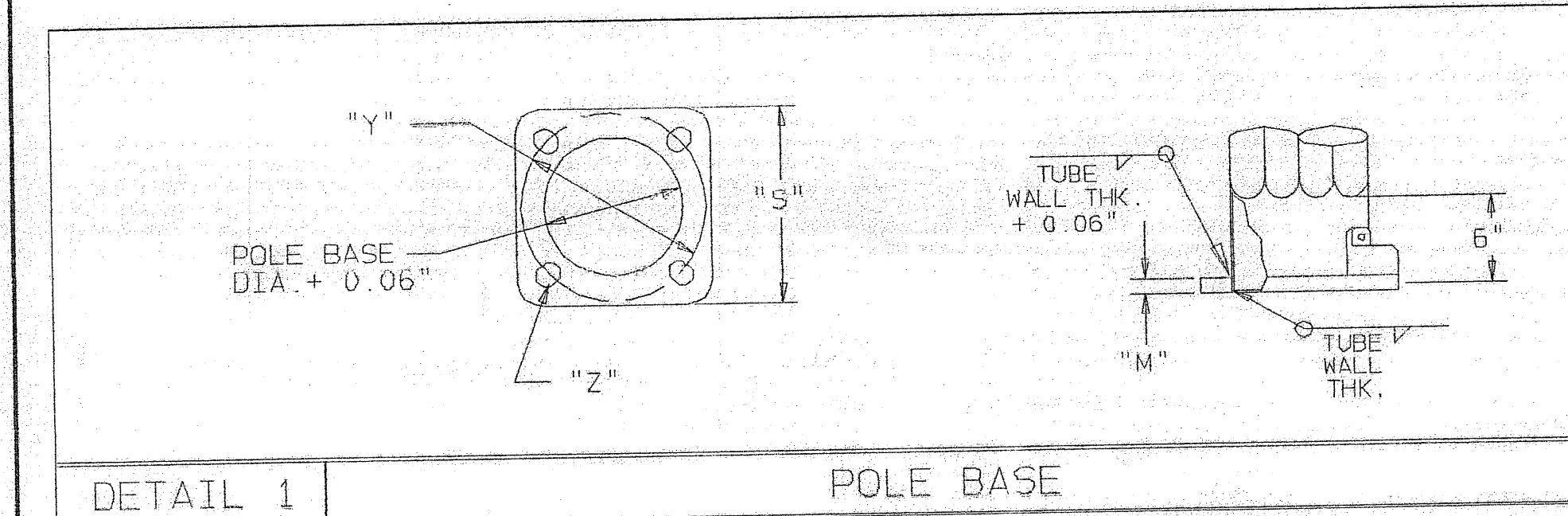
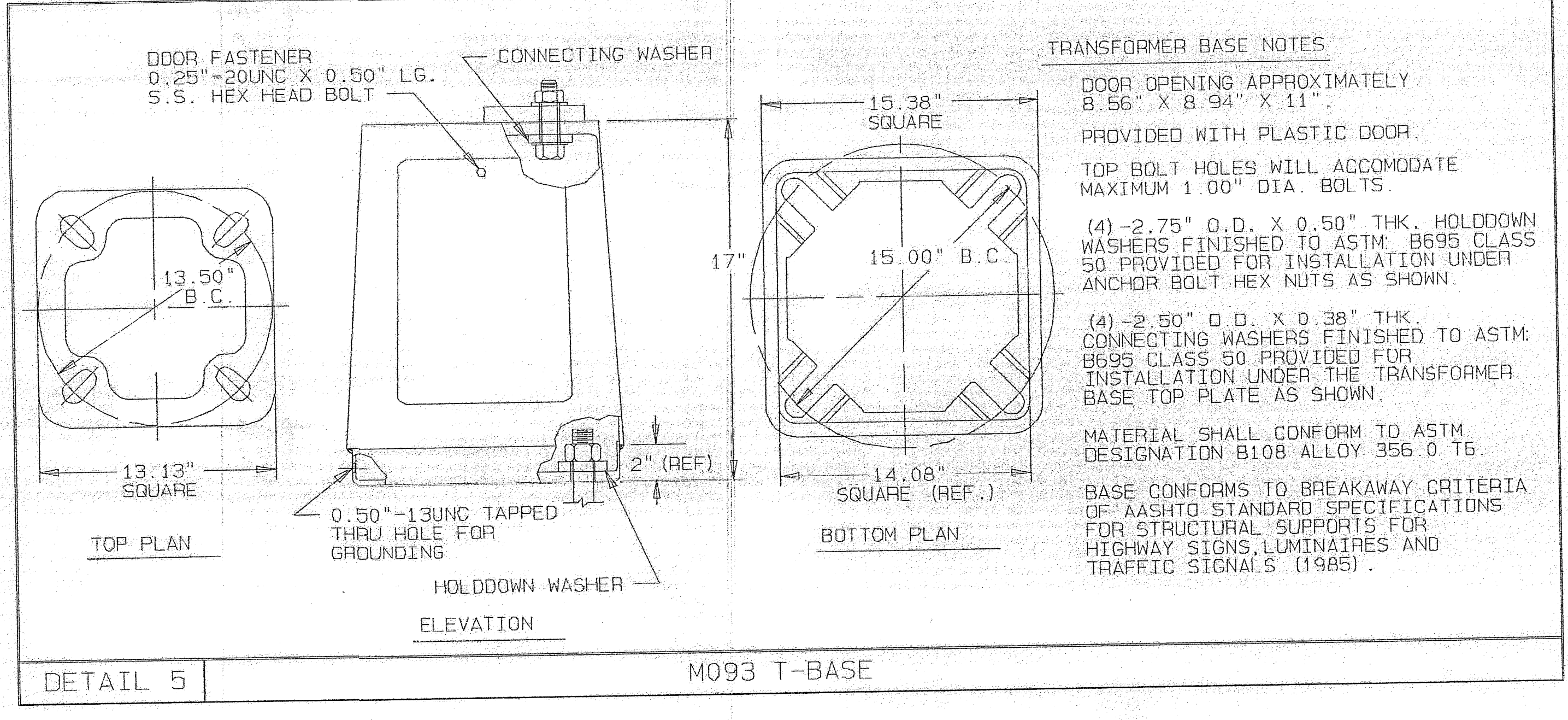
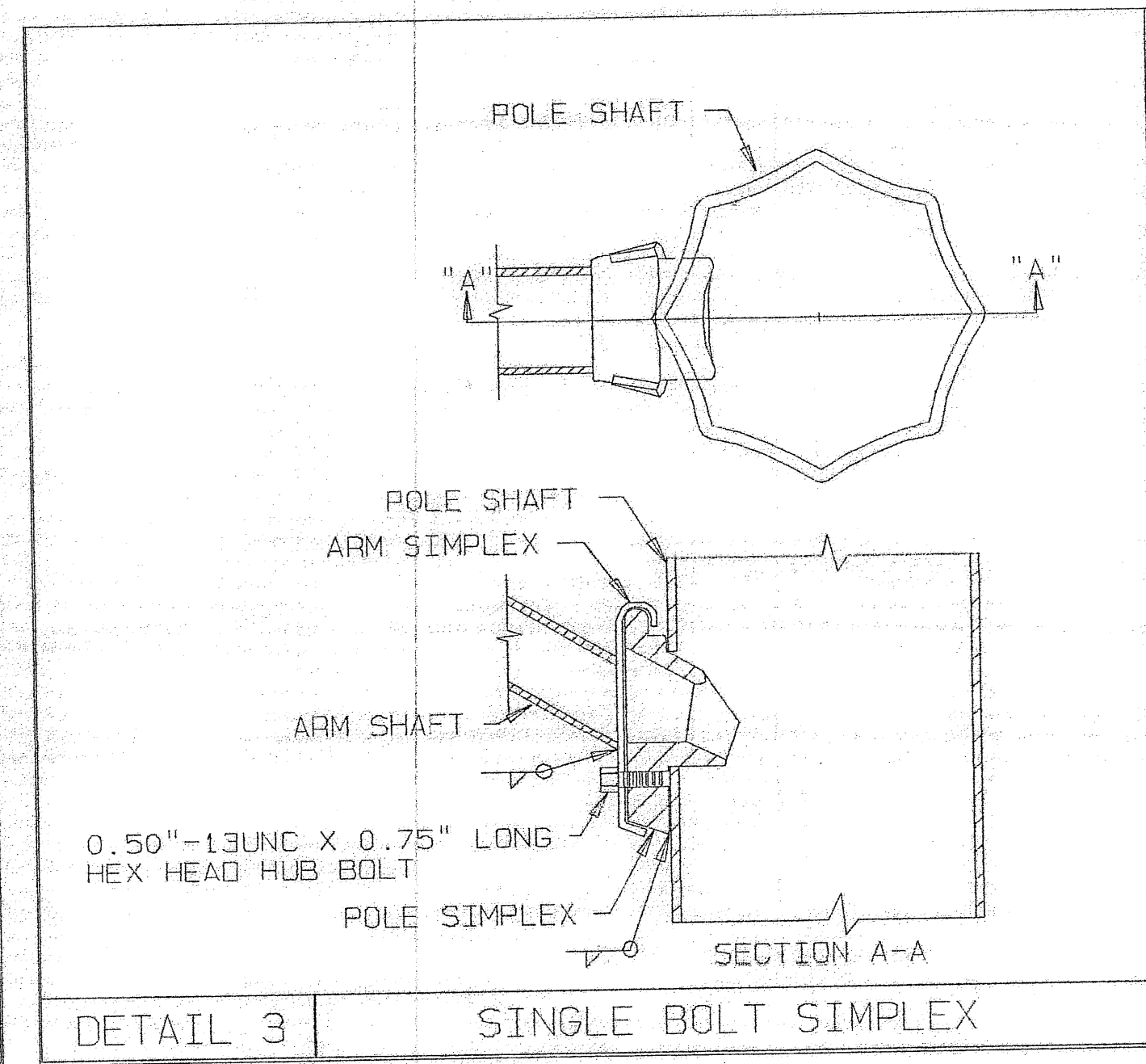
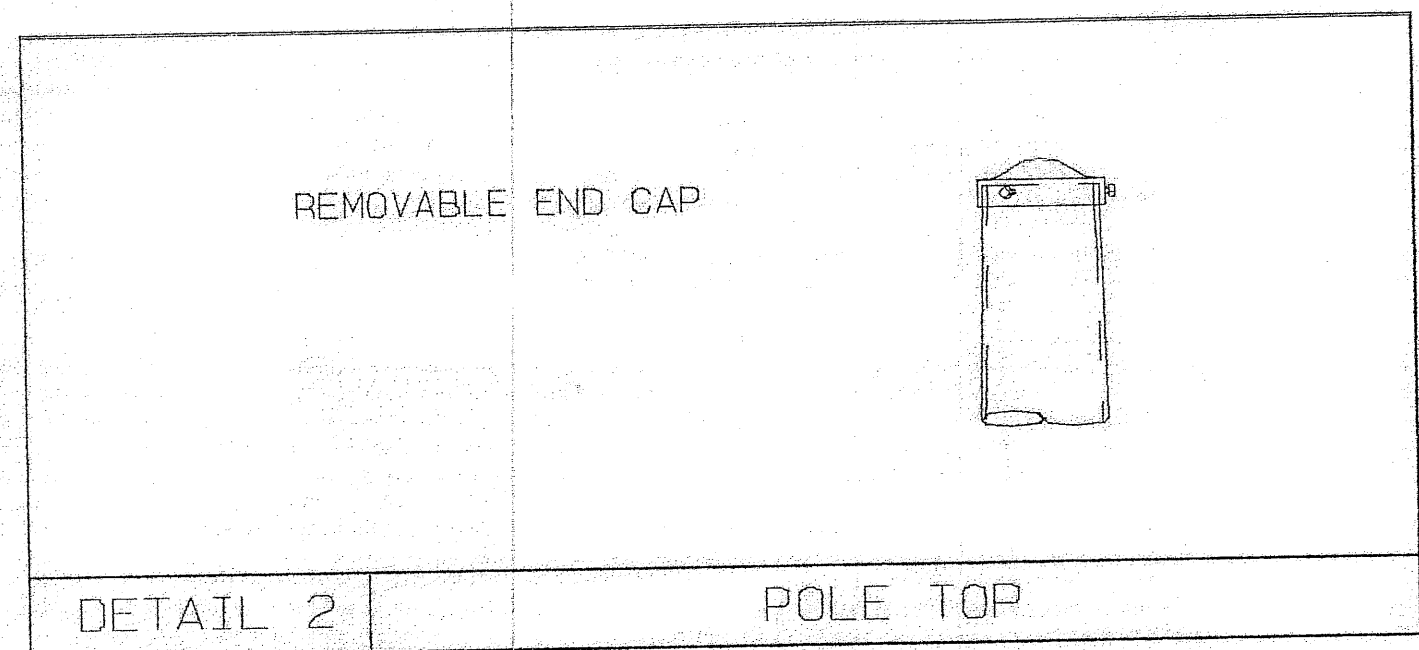
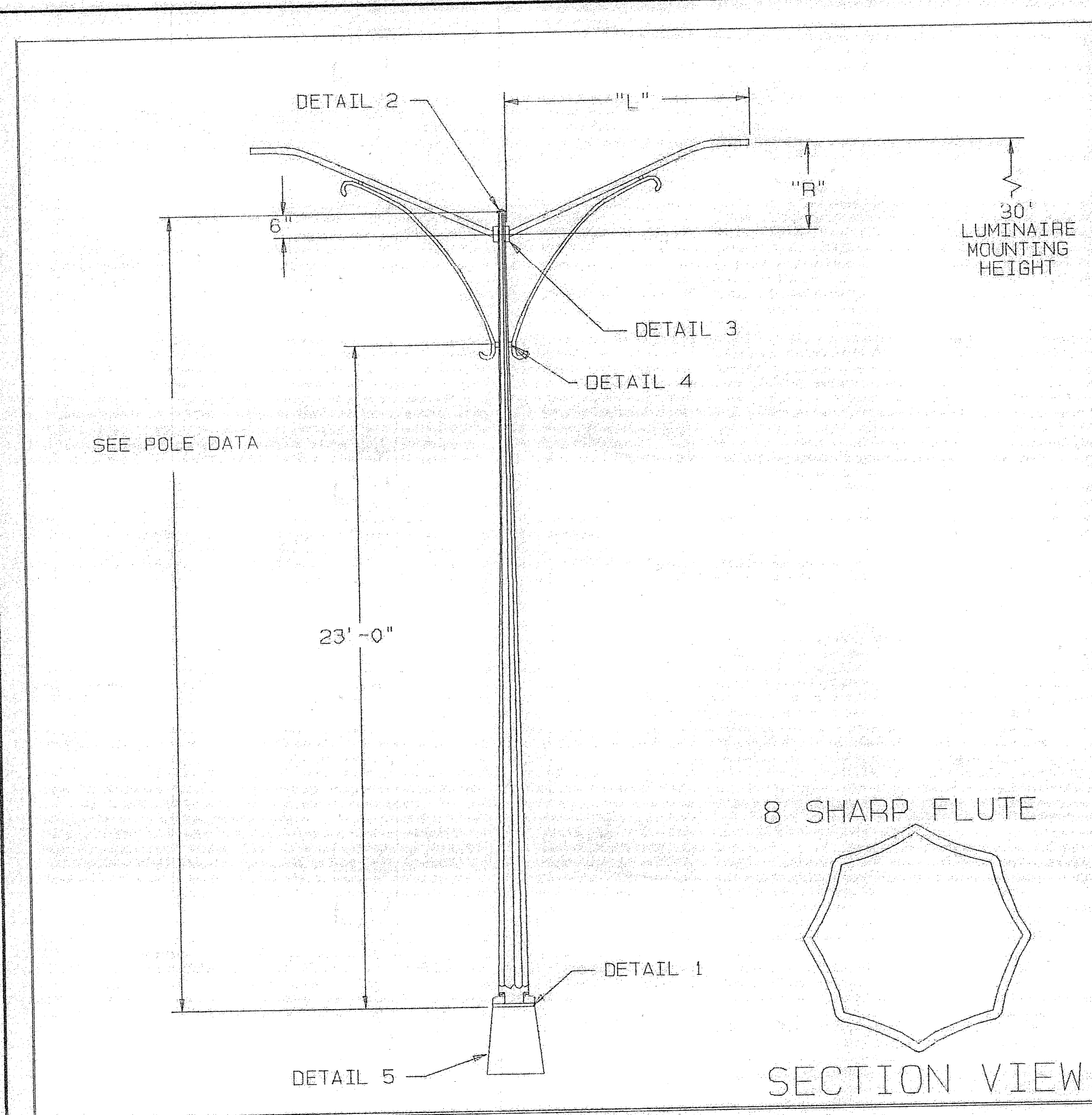
CONDE INC.
REGISTRATION NO. P-2317

SHEET TITLE

**LIGHT STANDARD
ASSEMBLY,
LEGEND &
DETAIL**

E-3

SHT 3 OF 4



NOTES:

1. DETAILS ARE TYPICAL FOR TYPE "A" LIGHT STANDARD ASSEMBLIES.

MATERIAL DATA

COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)	COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)
POLE SHAFT	A595 GR. A	55	GALVANIZING	A153	
ARM PIPE		36	SIMPLEX ATTACHMENT	A27 65-35	
POLE BASE	A36	36			

FINISH: VALMONT SPECIFICATION F283BQ
 BASE COAT: HOT-DIP GALVANIZE TO ASTM: A123
 FINISH: TGIC OR URETHANE POLYESTER POWDER
 COLOR: MOSS GREEN

POLE AND SIGNAL ARM DATA

ITEM	QTY.	POLE TUBE				POLE BASE				ANCHOR BOLT				LUMINAIRE ARM TUBE			
		BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THICK (IN)	SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	PIPE O.D. (IN)	WALL THK. (IN)	RISE HEIGHT (FT) "R"	SPAN (FT) "L"
		7.50	3.79	26.50	11	13.00	13.00	1.25	1.25	1.00	SEE TX DOT SHEETS		2.38	0.154	2.50	8.00	

REV.	DATE	REVISION	valmont	
A	11/14/02	CHG. BOLT CIRCLE FROM 13.5	Valley, NE 68054 (402) 359-2201	
JOB NAME			VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.	
SOLD TO			EL PASO ELECTRIC	
SHIP TO				
P.O. NO.				
AGENT			CLARK POWER PRODUCTS	
DATE: 10/22/02			ORDER NO.:	
DRWN: MLR4			SHEET 4 OF 4	
RCV 10/28/02			DRAWING NO. DB00638	
TITLE			REV. A	

The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DISCLAIMER: DATE: FILE:

I. GENERAL REQUIREMENTS FOR ALL ELECTRICAL WORK

The location of all conductors, conduits, junction boxes, ground boxes, and electrical services is diagrammatic only and may be shifted by the Engineer to accommodate local conditions.

Materials shall be new and unused. Materials and installation shall comply with the applicable provisions of the National Electrical Code (NEC), National Electrical Manufacturers Association (NEMA) standards, and shall be Underwriters Laboratories (UL) Listed unless otherwise shown on the plans or specifications or approved by the Engineer in writing. Faulty fabrication or poor workmanship in any material, equipment, or installation shall be justification for rejection. When reference is made to UL, it can be considered to mean a Nationally Recognized Independent Testing Lab (NRTL). Comparable standards of Canadian Standard Association, Electrical Testing Laboratories or Factory Mutual can be equal to the referenced UL standard. Where reference is made to NEMA listed devices, IEC listed devices shall not be considered to be an acceptable equal to a NEMA listed device. Acceptable devices may have both a NEMA and IEC listing.

With the exception of high strength bolts, miscellaneous nuts, bolts and hardware may be stainless steel when plans specify galvanized, provided that bolts are 1/2 inch or less in diameter. The Contractor shall provide the following electrical test instruments as required by the Engineer to confirm compliance with the contract and the NEC. Those test instruments are voltmeter, amp probe, megger (1000 volt DC) and torque wrenches. All meters shall have been properly calibrated within one year. Calibration certification shall be provided to the Engineer upon request. Calibration certification tag shall also be applied to the meter. The Contractor shall operate meters during inspection as requested by the Engineer. Grounding shall be as shown on the plans and in accordance with the NEC. Metallic conduit, light poles, luminaires on bridge structures, and all metal enclosures shall be bonded to the system-grounding conductor. The ground rod in each ground box or junction box at the bridge ends, and in each ground box installed for underpass lighting will also be bonded to the system grounding conductor. The grounding conductor shall be bare or, if insulated, shall be green. Ground rods, connectors, and bonding jumpers will not be paid for separately, but will be subsidiary to the various bid items.

SUBMITTALS:

The contractor shall submit for approval six (6) copies of catalog cut sheets for each of the following three (3) categories.

- Category 1. Electrical services including photocell.
- Category 2. Breakaway disconnects, heat shrink tubing, heat shrink filler tape, GelCaps and ground boxes which will include loading capacity certification.
- Category 3. Highmast assembly kits, when applicable. See Item 614 "Highmast Illumination Assemblies". Submittals shall be legible and shall be marked to indicate which product on a cut sheet is to be supplied. Where manufacturers provide warranties and guarantees as a customary trade practice, the Contractor shall furnish to the State such warranties and guarantees. Any deviation from plans or specifications, including deviations due to plan error should be prominently displayed on the submittal. Any changes not prominently noted in submittal and incorporated into the work without proper authorization will constitute grounds for rejection of that portion of the work.

II. CONDUIT

A. MATERIALS

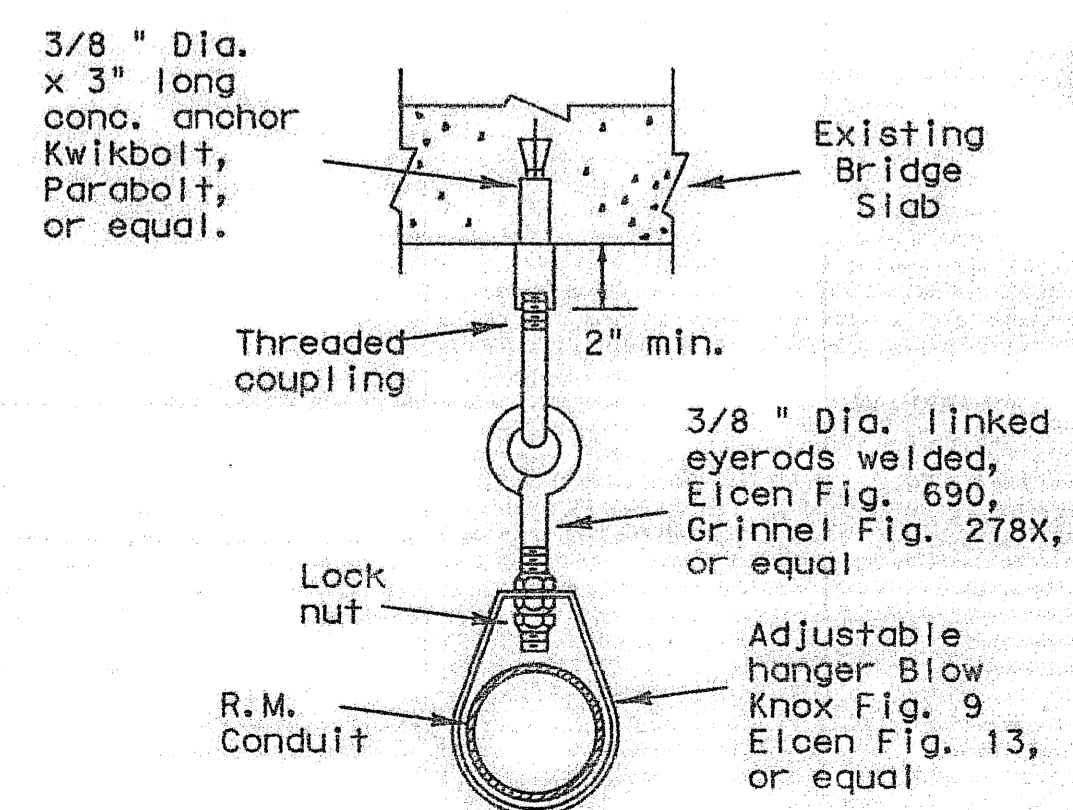
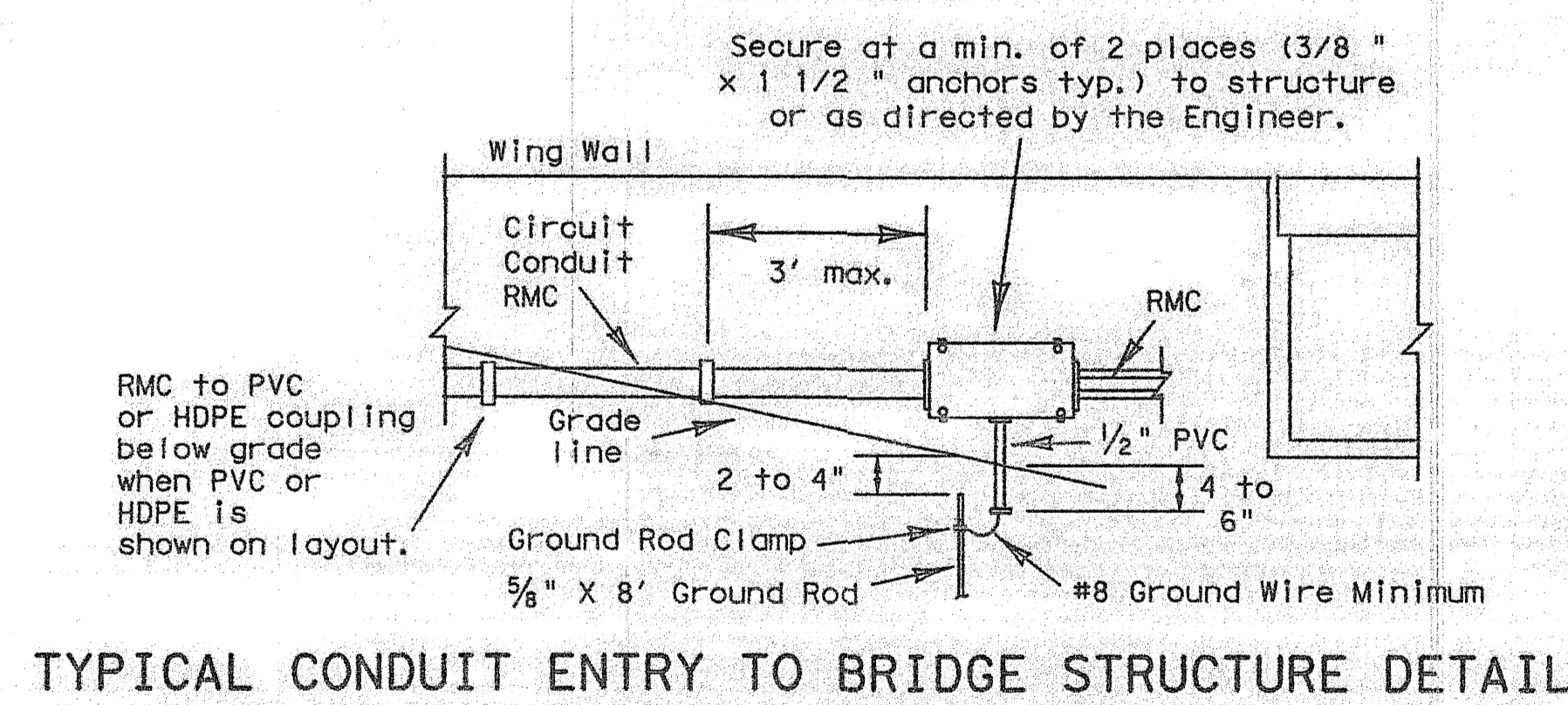
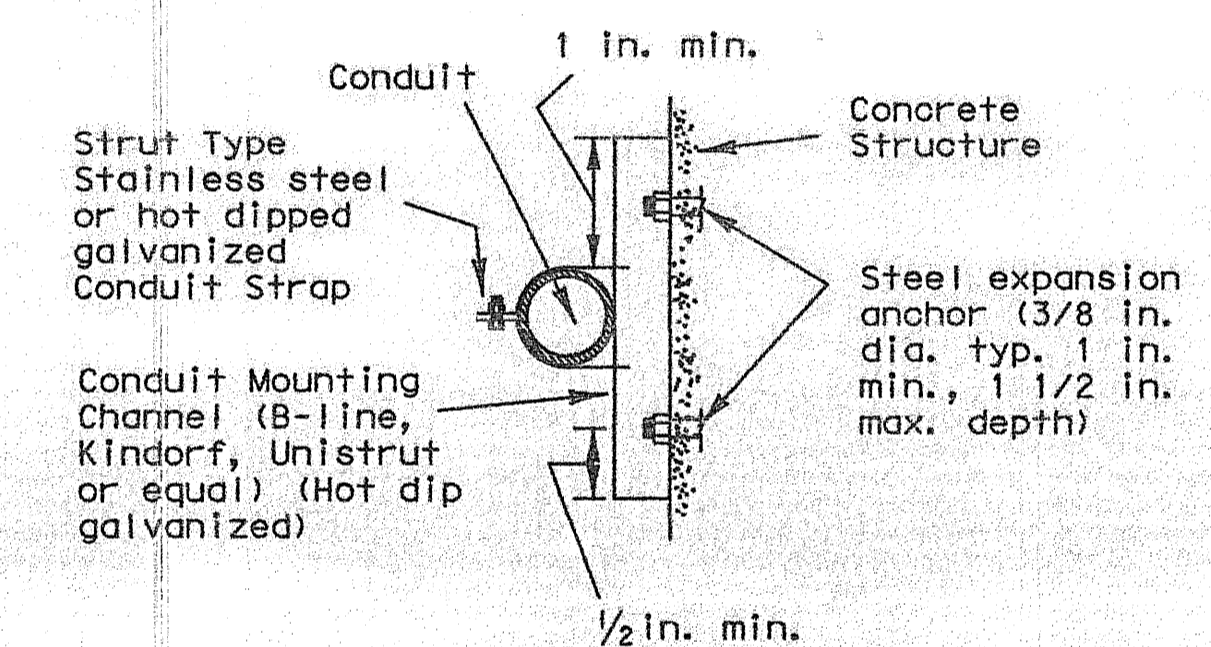
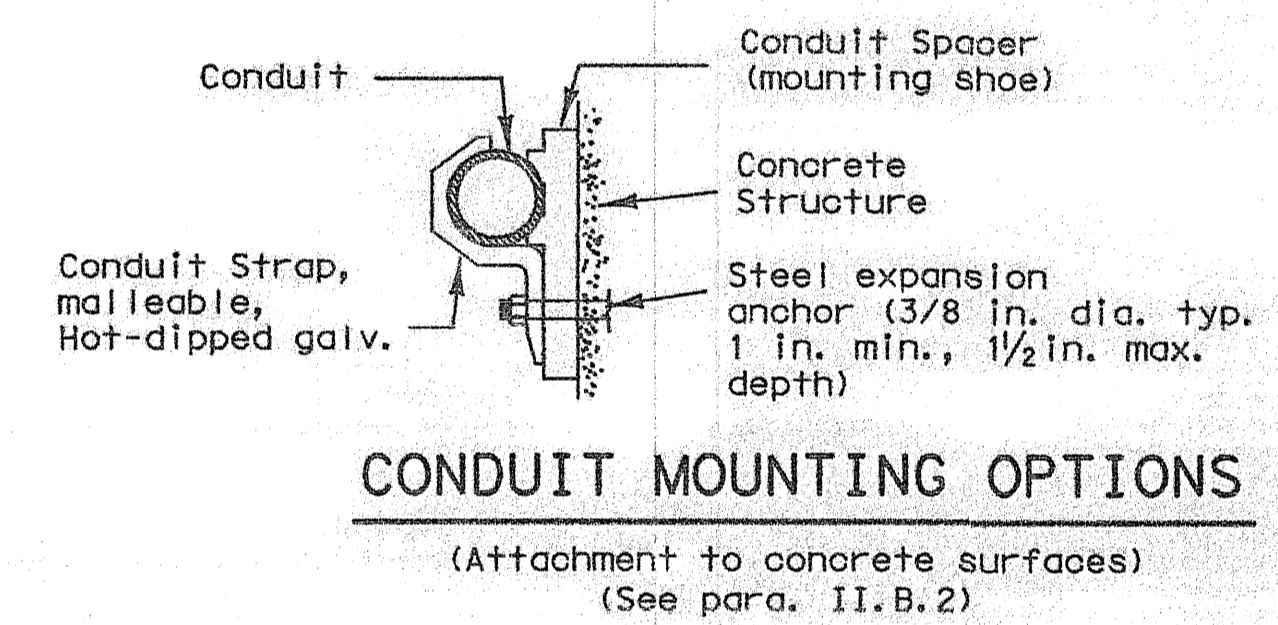
1. Conduit and fittings shall be UL Listed for the intended use shown on plan sheets.
2. Conduit shall be the type shown by descriptive code or shown elsewhere on the plans. Substitution of the various types of conduits will not be permitted. All flexible conduit in rigid metallic conduit (RMC) systems shall be Liquidtight Flexible Metal (LFMC) conduit. All flexible conduit in PVC systems shall be Liquidtight Flexible Non-metallic conduit (LFNC).
3. All exposed conduits shall be RMC, unless otherwise specifically shown on the plans. All metal conduit shall be properly grounded. Couplings, connectors, conduit bodies, grounding bushings, and offset nipples for RMC shall be electro-zinc plated steel or hot dipped galvanized malleable iron, threaded or threadless compression type, rain-tight and shall be UL listed for the intended use.
5. Expansion joints for metal conduit shall be provided with an internal or external bonding jumper and shall be UL listed.
6. Unless otherwise shown on the plans, junction box minimum sizes shall be in accordance with the following table which applies to the greatest number of conductors entering the box through one conduit with no more than four conductors per box. When a mixture of conductor sizes are present, the conductors shall be counted as if all are of the larger size. Situations not applicable to the table shall be sized in accordance with NEC 370-28.

AWG	3 CONDUCTORS	5 CONDUCTORS	7 CONDUCTORS
#1	10" x 10" x 4"	12" x 12" x 4"	16" x 16" x 4"
#2	8" x 8" x 4"	10" x 10" x 4"	12" x 12" x 4"
#4	8" x 8" x 4"	10" x 10" x 4"	10" x 10" x 4"
#6	8" x 8" x 4"	8" x 8" x 4"	10" x 10" x 4"
#8	8" x 8" x 4"	8" x 8" x 4"	8" x 8" x 4"

7. RMC system junction boxes equal to or smaller, in any dimension, than 12 x 12 x 6 (HxWxD), surface mounted and containing conductors #8 or larger, shall be hot dipped galvanized cast iron with minimum wall thickness of 3/16 inch, shall have external mounting lugs, and shall be UL listed Crouse-Hinds Type WAB, OZ/Gedney Type YS or approved equal. Unless otherwise shown elsewhere on the plans, RMC system junction boxes larger than the aforementioned boxes but equal to or smaller, in any dimension, than 18 x 18 x 6 (HxWxD) shall be 14-ga. stainless steel; RMC system junction boxes larger than 18 x 18 x 6 (HxWxD) shall be 12-ga. stainless steel. All metal junction boxes shall be equipped with a threaded hole or lug for grounding. Stainless steel boxes 12 x 12 x 6 and larger need not be UL Listed but shall meet the other requirements of the NEC and shall have ribs, stiffeners, or thicker metal and shall have external mounting feet. Junction boxes with an internal volume of more than 100 cu. in. may be supported by connection of two or more rigid metal conduits, where specifically shown on the plans or where approved by the Engineer.
8. Junction boxes containing only #10 or #12 AWG conductors shall be Crouse Hinds Type GRFX, Appleton Type JBOX, two-gang FD, or similar approved cast iron box. Boxes shall be sized according to NEC Table 370-16(a).
9. IMC and EMT conduit shall not be used unless specifically required by the plan layout sheets. Junction boxes in EMT conduit systems shall be made from galvanized sheeting and shall be UL listed and approved for outdoor use, unless otherwise noted on the plans. Sheet metal junction boxes shall be sized in accordance with the NEC. Junction boxes for IMC conduit systems shall meet the requirements of boxes used with RMC systems.
10. Junction boxes in PVC conduit systems shall be PVC, intended for outdoor use, unless otherwise noted on the plans.
11. Elbows in PVC conduit systems one inch and larger shall be rigid metal, with the exception of traffic signal systems which may have PVC elbows instead of rigid. If any part of the rigid metal elbow is buried less than 18 inches underground the elbow and rigid metal extension shall be grounded. Grounding shall be accomplished by means of a grounding bushing installed on the extension. Unless specifically shown on the plans, rigid metal elbows containing, or entering ground boxes containing only communications conductors, loop detectors, or other low voltage power limited circuits need not be grounded unless a ground wire is present in the conduit or ground box. The rigid metal elbows located in concrete foundations may be extended with PVC conduit and need not be grounded provided that the end of the elbow nearest the end of the conduit run exiting the foundation is at least 2 inches below the concrete. RMC elbows will not be eliminated. RMC elbows will not be paid for directly, but will be subsidiary to various bid items.
12. High-Density Polyethylene (HDPE) conduit shall meet the requirements of Item 622, Duct Cable, except that the HDPE conduit, when bid under Item 618, Conduit, shall not contain factory installed conductors. Fittings for HDPE conduit shall be UL listed as an electrical conduit connector or shall be thermally fused using an electrically heated wound wire resistance welding method. HDPE conduit may be substituted for bored schedule 40 or schedule 80 PVC conduit. When such substitution is made, bored HDPE shall be schedule 40 of the size PVC being replaced. The HDPE conduit shall transition to PVC (or RMC elbow when required) at the bore pit. Size and schedule shall be as shown on the plans. Substituted conduit may not be extended to ground boxes or foundations; RMC elbows shall be installed at ground boxes and foundations. RMC elbows will not be eliminated.
13. All conduit support hardware including straps, nuts, bolts, screws, retaining anchors and washers shall be hot dipped galvanized or stainless steel. Strut type conduit straps shall be stainless steel or hot dipped galvanized. Strut type straps need not be made of malleable type material. Stamped-cadmium plated straps will not be allowed. Straps having only one mounting hole shall not be allowed for use on conduits 2 inches and larger with the exception of electrical service poles where stainless steel standoff straps will be allowed. Two piece conduit straps designed to be used with a mounting shoe shall be installed only with the correctly sized shoe.

B. CONSTRUCTION METHODS

1. Conduit in structures shall have expansion fittings at structure expansion joints. All straight runs of RMC conduit exposed on structures such as bridges shall have expansion joints installed at maximum intervals of 150 feet. Expansion joints shall be installed so they allow for movement of the conduit. Installation of the joint in such a manner that will not allow for movement shall be repaired at no expense to the state. The method of determining the final setting length of the expansion joint shall be provided to the Engineer upon request.
2. Conduit supports shall be spaced at maximum intervals of 5 feet. Conduit spacers shall be used with metal conduit placed on surfaces of concrete structures (See conduit mounting options).
3. Conduit supports shall not be attached directly to prestressed concrete beams except as shown specifically in the plans and approved by the Engineer.
4. Unless otherwise shown on the plans, conduit placed beneath existing roadways, driveways, or sidewalks, or after the base or surfacing operation has begun, shall be accomplished by jacking or boring. The Contractor shall back fill and compact the bore pits to the bottom of the conduit prior to installing connecting conduit or duct cable to prevent bending of the connection.
5. Conduit trenched in the subgrade of new roadways shall be backfilled with excavated material, unless otherwise noted on the plans. Conduit trenched in the sub-base of new roadways shall be backfilled with cement-stabilized base.
6. Open ends of all conduit and raceways shall be fitted with temporary caps or plugs to prevent entry of dirt, debris and rodents during construction. The temporary cap may be constructed of duct tape, but in all cases shall be tightly fixed to the conduit and shall be durable. The contractor shall clean out the conduit and prove it clear in accordance with Standard Specifications Item 618.3 prior to installing any conductors.
7. Conduit entry into the top of enclosures such as safety switches, meter cans, service enclosures, auxiliary enclosures and junction boxes shall be made weatherproof using conduit sealing hubs, or threaded bosses.
8. A bonding jumper shall be installed from each grounding bushing to the nearest grounding rod, grounding lug, and/or equipment grounding conductor. All jumpers shall be the same size as equipment grounding conductor. Conduit used as casing under roadways for duct cable need not be grounded if duct extends full length through the casing. At electrical services, grounding electrode conductor shall be a solid Copper #6 AWG.
9. Metal junction boxes shall be bonded to the grounding conductor in accordance with the NEC.
10. Conduits entering ground boxes shall be placed so that the conduit ends shall be not less than 3 inches nor more than 6 inches from bottom of box (See ground box detail on sheet ED(3)).
11. Conduit ends shall be sealed with heat shrink boots with waterproof sealant, urethane foam, or by other methods approved by the Engineer. Sealing shall be done after completion of any required pull tests. Duct tape shall not be used as a permanent conduit sealant. Silicone caulking shall not be used as a sealant.
12. All strut mounting material and hardware shall be hot-dip galvanized or shall be stainless steel. The cut ends of strut and non-galvanized rigid metal conduit threads shall be coated with a zinc rich paint (90% or more zinc content). Zinc rich paint may only be used to touch up galvanized material as allowed under item 445.6 galvanizing. The painting of non-galvanized material with a zinc rich paint shall not be considered as an approved alternative for galvanized materials.
13. All PVC conduit terminations shall be fitted with bushings or bell ends. All metal conduit terminations shall be fitted with a grounding type bushing.



CONDUIT HANGER DETAIL
(Attachment to horizontal surfaces)
Hangers need not be UL listed for electrical use
i.e. plumber pipe hangers are acceptable

5/03 Revision
Revised notes.

- NOTES**
1. Ground rod clamp to be UL listed for direct burial.
 2. For conduit placed in structure, use flush-mounted box.
 3. Bond junction box and metal conduits to equipment grounding conductor and grounding electrode conductor using listed connector.
 4. Seal all conduits entering the junction box from underground.
 5. Install bell end or bushing on 1/2" PVC conduit both ends.
 6. Ground rod to be driven within 8 inches of 1/2 inch PVC conduit end.

Texas Department of Transportation
Traffic Operations Division

**ELECTRICAL DETAILS-
CONDUIT**

ED(1)-03

© TxDOT January 1992		REV. TXDOT	CRK TXDOT	MLL TXDOT	CRK TXDOT
4-98	REVISIONS	CUNT	SECT	JUB	HIGHWAY
12-00					
3-03					
5-03					
					SHEET NO.

71A

The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:

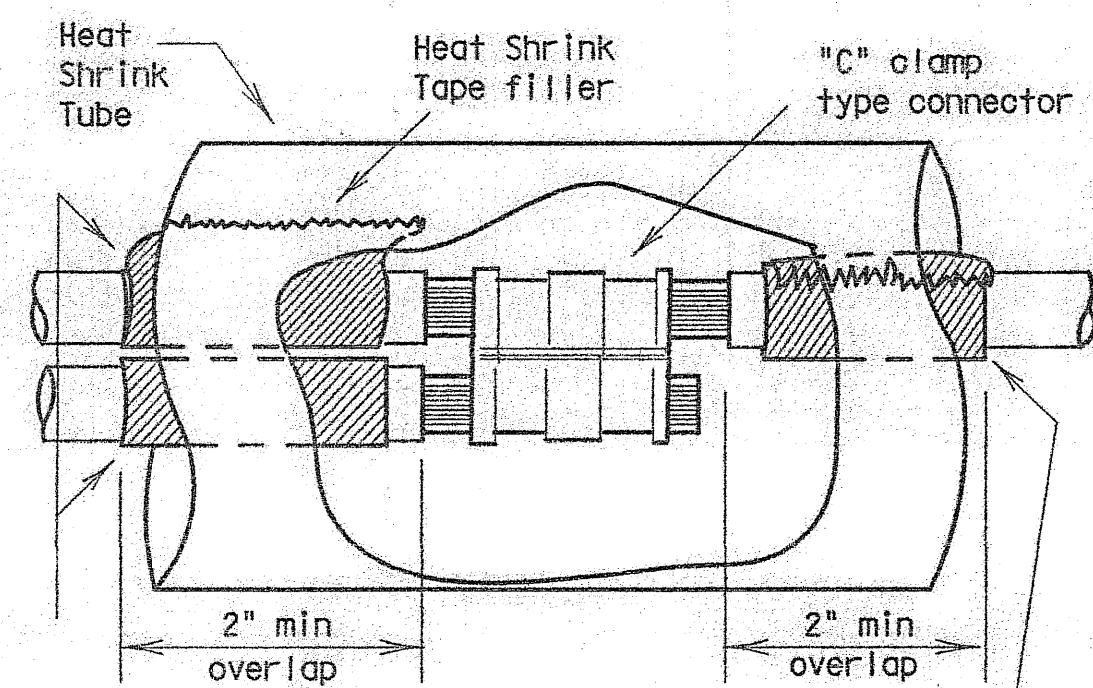
I. ELECTRICAL CONDUCTORS

A. MATERIALS

1. Insulated conductors shall be NEC Type XHHW. Insulated conductors shall be color coded in accordance with the NEC, articles 200, 250, and 310; i.e. insulation of grounded conductors (neutrals) shall be white. Grounding conductors (ground wires) shall be bare or insulation shall be green. Insulation of ungrounded conductors (hots) shall be any color except green, white, or gray. Identification of conductors #6 American Wire Gauge (AWG) and smaller shall be by continuous jacket color. Color coding of electrical conductors #4 AWG and larger shall be either by continuous color jacket or by colored tape. Colored tape marker shall consist of a half-lap of tape covering a 6-inch length of conductor.
2. Where two or more circuits are present in one conduit or enclosure, the conductors of each circuit shall be identified by a permanent non-metallic tag at each accessible location. The tag shall be fastened to the conductors by two plastic straps. Each tag shall indicate circuit number, letter, or other identification shown in the plans.
3. Grounding electrode conductor #6 AWG for bonding to ground rod at electrical service, shall be solid. Connection of conductor to ground rod shall be made using UL Listed connectors designed for such purposes.
4. Heat Shrink Tape filler shall be used to seal the ends of heat shrink tubing around two or more conductors that are insulated with heat shrink tubing. Tape material shall have a minimum dielectric strength of 225 volts per mil and shall be cross-linked butyl rubber. Tape shall be supplied in rolls and shall have a backing (release paper) to prevent the tape from sticking to itself.
5. Heat shrink tubing shall be heavy wall, UL listed for 600 volts or greater and shall have factory applied internal sealant.
6. GelCaps shall be UL listed for 600-volt applications. GelCap shall have see-through elastomer molded cover. Cover shall be filled with high dielectric insulating gel silicone sealant to provide watertight seal. Cover shall be held in place by snap-lock, molded clamp made of UV stable polypropylene.
7. Splicing materials, insulating materials, breakaway disconnects, GelCaps and fuse holders will not be paid for directly but shall be subsidiary to various bid items.

B. CONSTRUCTION METHODS

1. After conductors have been installed in conduit, a pull test shall be made on conductors. When any length of conductor cannot be freely pulled, the Contractor shall make any needed alterations or repairs at no expense to the State.
2. The Contractor shall perform insulation resistance tests in accordance with Item 620, "Electrical Conductors." The Contractor shall coordinate with the Engineer to witness the tests.
3. A sufficient length of conductor for making up connections shall be left in ground boxes (2 feet minimum, 3 feet maximum, to point of splice, 3 feet minimum, 4 feet maximum, when conductor is pulled through with no splice), enclosures, weatherheads and pole bases (1 foot minimum, 1.5 feet maximum).
4. Splices shall be made only in junction boxes, ground boxes, pole bases, or electrical enclosures and shall be made with listed compression or screw type pressure connectors, terminal blocks, bolted lugs, or split bolt connectors. Splices shall be insulated with heavy wall heat shrink tubing or GelCaps and shall be made so as to provide a watertight splice. Heat shrink sleeve shall overlap conductor insulation a minimum of 2 inches on both sides of the splice. Where heat shrink tubing may not shrink sufficiently to provide a watertight seal around the individual conductors, prior to heating the tubing, the Contractor shall increase the diameter of the conductors insulation using heat shrink filler tape to provide a watertight seal between the individual conductors and the heat shrink tubing. Tape shall be visible after completion of all splices. Where filler tape is used but not visible, the Engineer shall approve each individual splice by conducting a physical inspection of each splice. When it appears the tubing has been burned, or overheated the tubing shall be considered to be defective and shall be replaced.
5. GelCaps when used in place of heat shrink method of splicing, shall be sized and installed according to manufacturer's specifications. (Raychem GelCap and GelCap SL or equal.)
6. Wire nuts may be used for #8 AWG or smaller conductors in above-ground junction boxes, but not in pole bases or ground boxes. Wire nuts shall be positioned upright to prevent the accumulation of water. Wire nuts used at these locations shall have factory applied waterproof sealant.
7. Conductors in illumination poles shall be supported by a J-hook in the top of the pole.
8. All conductors bid under Item 620 "Electrical Conductors" shall have breakaway electrical disconnects installed anytime conductors pass through a break-away support device.
9. For terminating the conductors, insulation-jacketing material shall be removed in such a manner as to not nick any of the individual strands of the conductor. When individual conductor strands are removed, the conductor shall be considered to be damaged.
10. When a conductor or cable has been damaged, or fails to pass an insulation resistance test, the conductor shall be replaced.
11. Duct tape, black electrical tape, or wire nuts shall not be used in the repair of a damaged conductor.
12. For terminations, no more than one wire may be installed under a single pressure connector, unless the device is listed for more than one wire.
13. Conductors connected to break-away in line fuse holders must be installed in accordance with the specific manufacturer's installation instructions. Where threaded connections are made, they shall be properly torqued. Where crimp type connections are made, crimps shall be made using properly sized crimping pliers. Proper conductor terminations are critical to the safe operation of break-away devices.
14. Waterproofing boots shall be properly trimmed to fit snugly around the conductor so as to provide a water proof connection. No more than one wire may enter a single opening in any one boot. Water proofing boots must provide the correct number of openings. Where only one wire is to be connected to a boot, the boot may not be a two wire type.

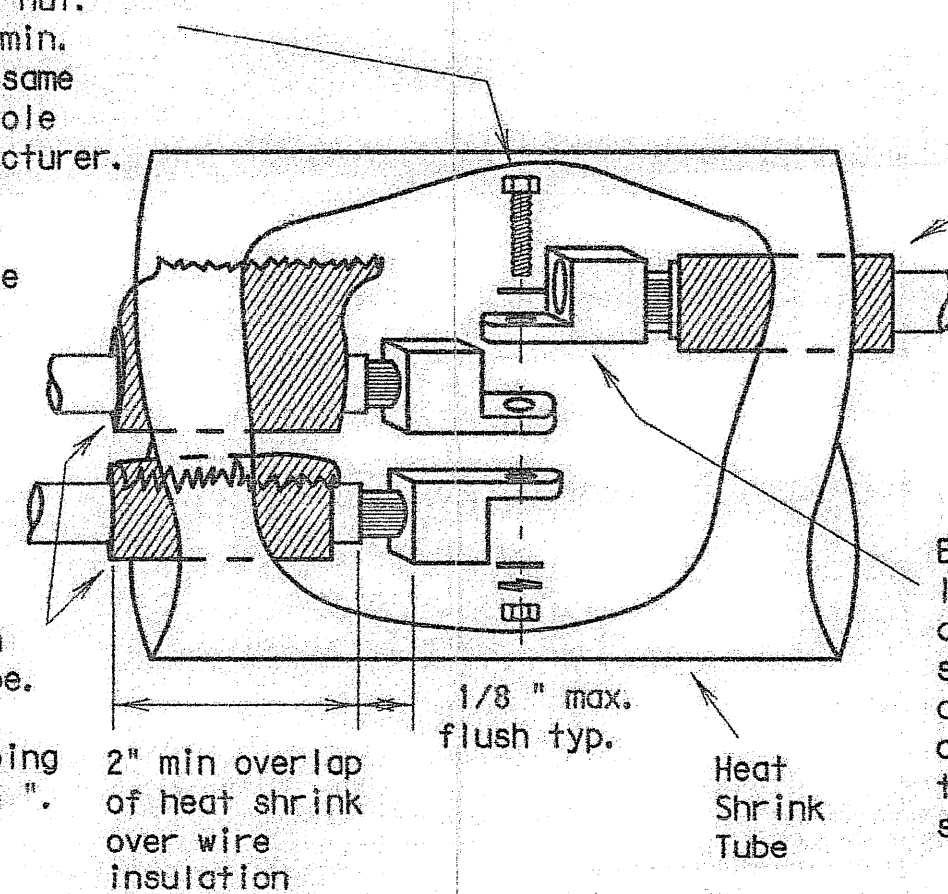


Seal between conductors with heat shrink tape. Tape to extend past end of tubing by 1/8" to 1/4".

Increase insulation diameter with heat shrink tape if necessary. Tape to extend past end of tubing by 1/8" to 1/4".

SPLICE OPTION 1
C-CLAMP

Stainless steel or brass machine screw, nut, 2 flat washers, lock washer or self locking nut. Machine screw to be a min. of 10-24, 3/16 or the same size as the mounting hole provided by the manufacturer. Secure wrench tight. Movement of lugs after final assembly shall be considered to be a defective connection.



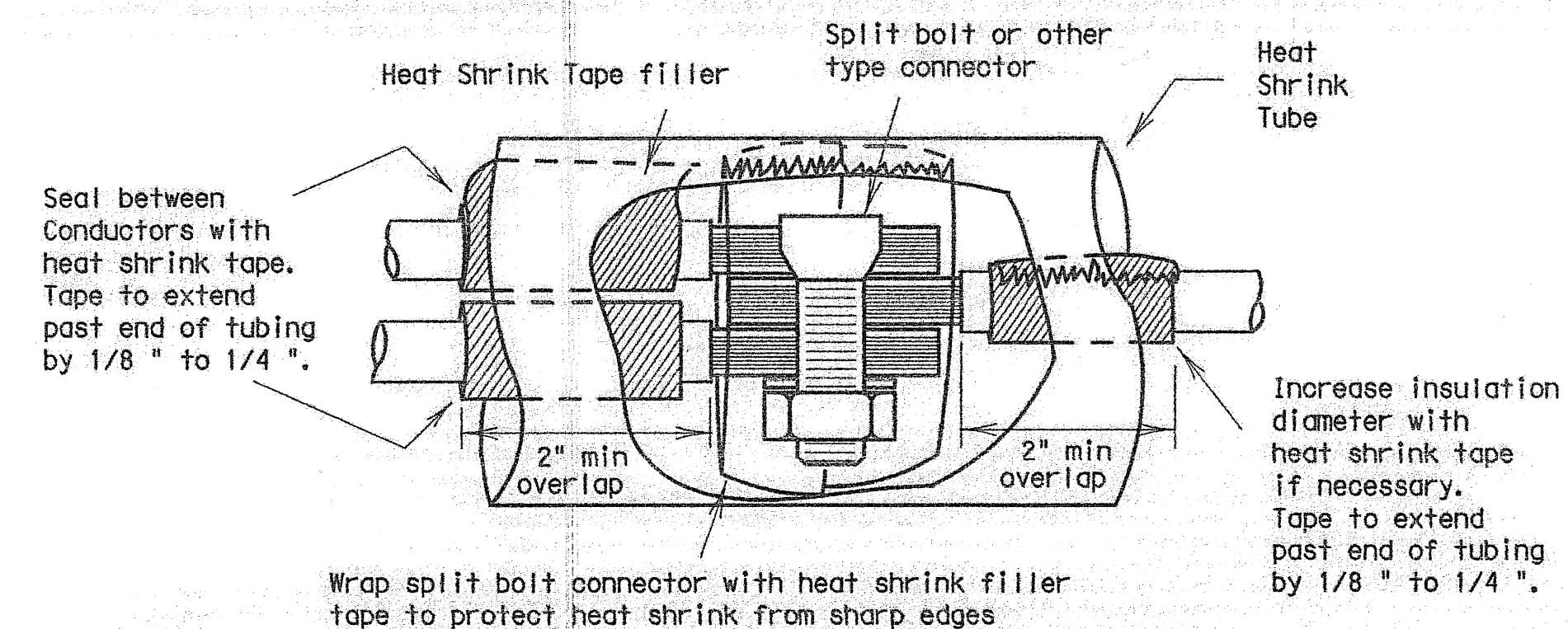
Seal between conductors with heat shrink tape. Tape to extend past end of tubing by 1/8" to 1/4".

Increase insulation diameter with heat shrink tape if necessary. Tape to extend past end of tubing by 1/8" to 1/4".

Bolt together lugs and prior to applying heat shrink tubing, apply two layers of heat shrink tape to cover sharp edges.

SPLICE OPTION 2
BOLTED WIRE LUGS

SPLICE OPTION 3
SPLIT BOLT



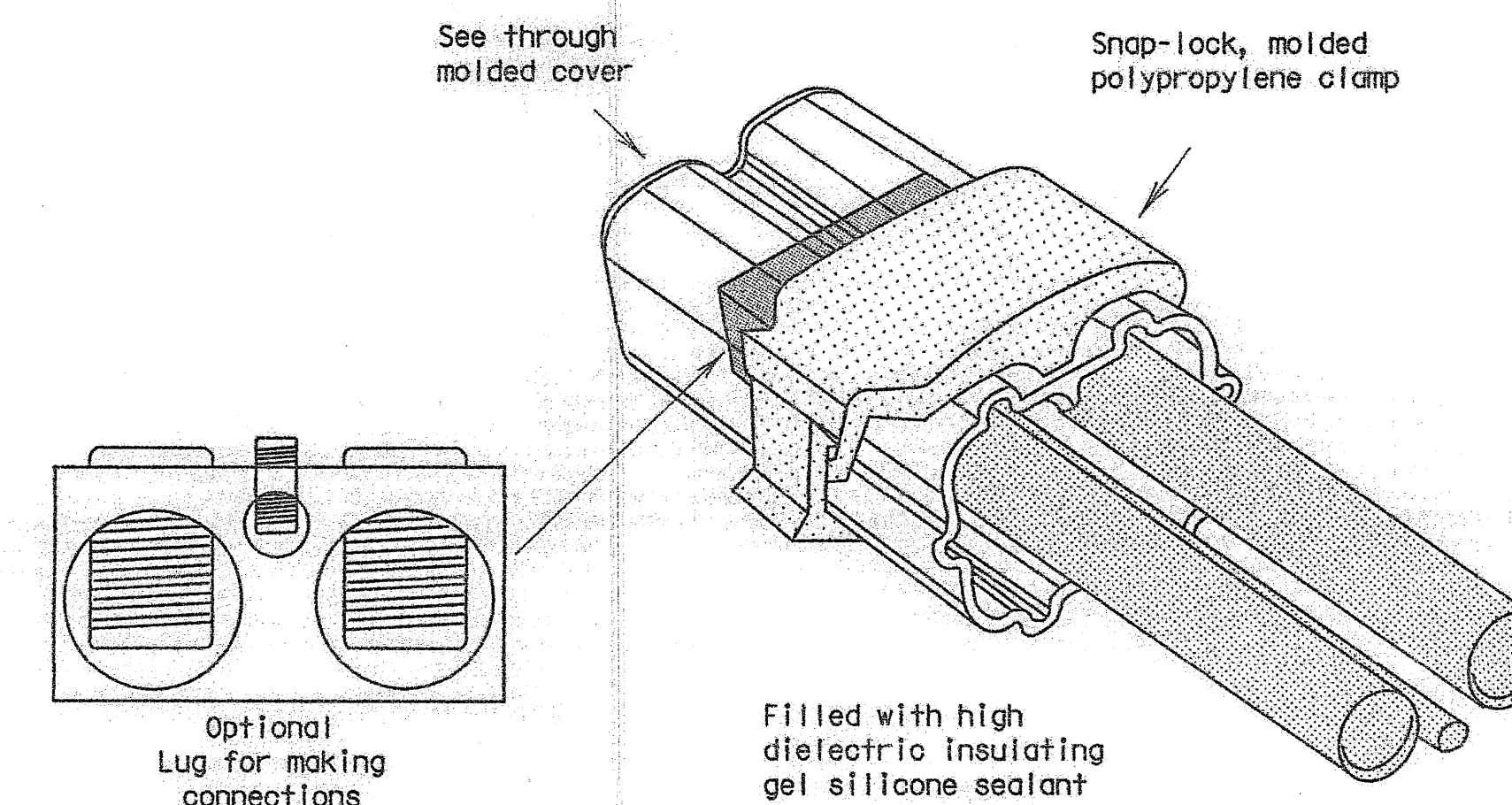
Seal between conductors with heat shrink tape. Tape to extend past end of tubing by 1/8" to 1/4".

Wrap split bolt connector with heat shrink filler tape to protect heat shrink from sharp edges

Increase insulation diameter with heat shrink tape if necessary. Tape to extend past end of tubing by 1/8" to 1/4".

SPLICE OPTION 4
GELCAP

GelCap shall be sized and installed according to manufacturer's specifications



Optional Lug for making connections

Filled with high dielectric insulating gel silicone sealant

15. All conduits that contain circuit wiring of 50 volts or more shall contain an equipment grounding conductor (EGC). Conduit for traffic signals shall have an EGC, with a minimum size of #8 AWG stranded. Unless otherwise shown on the plans, the EGC for all other conduits shall be the same AWG size as the largest current carrying conductor contained in that conduit. The EGC shall be paid for item 620-Electrical Conductors.

C. TEMPORARY WIRING

1. Temporary conductors and electrical equipment to provide power for utilization equipment, shall be installed in accordance with the NEC article 305. All temporary wiring materials and methods shall comply with the standard sheets. All power outlets for portable electrical equipment, power tools, ice machines, ice storage bins and refrigerators located outdoors at grade, supplied from a utility power source, shall be provided with a ground fault circuit interrupter.
2. Residual current protective devices (GFCI) may be any one of the following: molded cord and plug set, receptacle, or circuit breaker type.
3. Where wire nuts are approved for temporary wiring, they shall be of the self-sealing type.
4. All conductor splices must be contained within a listed enclosure, ground box or the splices will be more than ten feet above grade vertically and more than five feet horizontally from any metal structure. Where temporary conductors are installed in any area that is likely to be subjected to vehicle traffic, or mobile construction equipment, the vertical clearance to ground shall be at least 18 feet when measured at the lowest point. Where power conductors are to be supported by a span wire, the span wire shall be properly grounded.
5. Existing conduit containing service conductors uncovered during the construction process shall be repaired in a timely manner in accordance with the NEC. Existing non-metallic conduit exposed during construction shall not be left exposed above grade, or with less than eighteen inches of cover, without protective methods approved by the Engineer.

**ELECTRICAL DETAILS-
CONDUCTORS**

ED(2)-03

© TxDOT January 1992		REVISED	DATE	BY	REASON
10-93	REVISIONS	CUA/T	SECT	JU9	HIGHWAY
4-98					
12-00					
3-03					

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the use of this standard in any format or for incorrect results or damages resulting from its use.
 DATE: FILE:

II. GROUND RODS

A. MATERIALS

- All ground rods installed at electrical services, including supplemental lightning protection ground rods specified by the plans in other locations such as pole bases, shall be copper clad and UL listed. Rods shall be a minimum diameter of 5/8 inch. The length shall be a minimum of 8 feet. Larger diameter or longer length rods may be called for in some specific locations, see the individual plans sheets.
- Ground rod clamps shall be listed to be in direct contact with the soil. Where concrete encasement is required, the clamp shall be listed for concrete encasement.

B. CONSTRUCTION METHODS

- Ground rods installed in locations such as pole bases, to provide supplemental lightning protection need not be totally in contact with the soil. Where called for in the plans, rods may be encased in soil or concrete or any combination of soil and concrete. When concrete encased, the connection of the conductor to the rod shall be readily accessible for inspection or repairs. When driven into the soil the upper end shall be between 2 to 4 inches below finished grade. Ground rods shall not be placed in the same drilled hole as a timber pole.
- Ground rods shall be installed such that the end imprinted with the rod's part number is installed as being the upper end.
- Non-conductive coatings such as concrete spatter shall be removed from the rod at the clamp location.
- Routing of lightning protection ground rod wires shall be run as short and straight as possible. Where bends are required they shall have a minimum radius of four inches.
- Unless specifically called for by the plans, conduits used for ground rod wires shall be non-metallic. Where metal conduits are specified, a grounding bushing and properly sized bonding jumper shall be provided and properly installed on each end.
- Where rocky soil or a solid rock bottom is encountered when driving a ground rod and the horizontal trench placement method is the only viable solution, written authorization from the Engineer must be obtained.

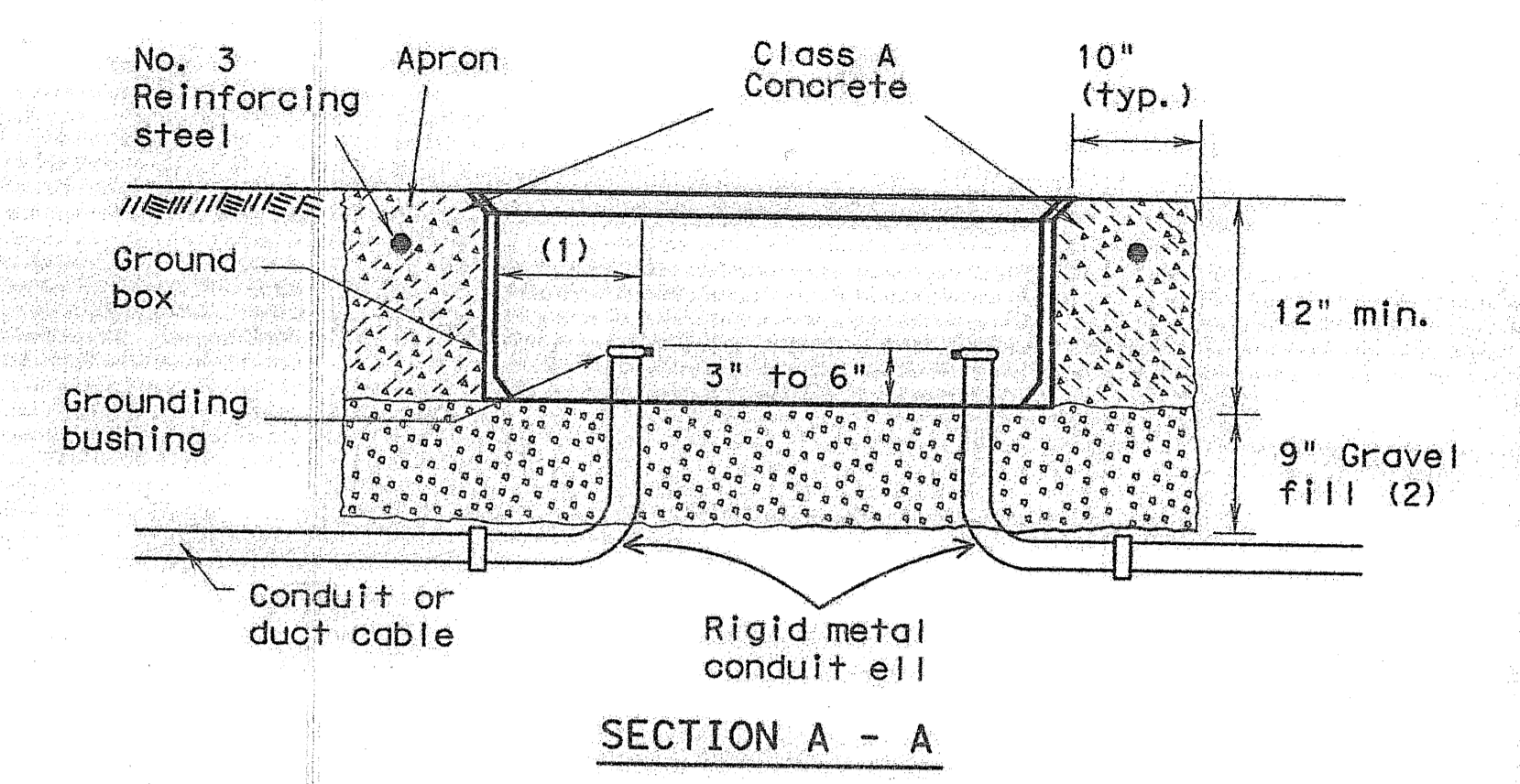
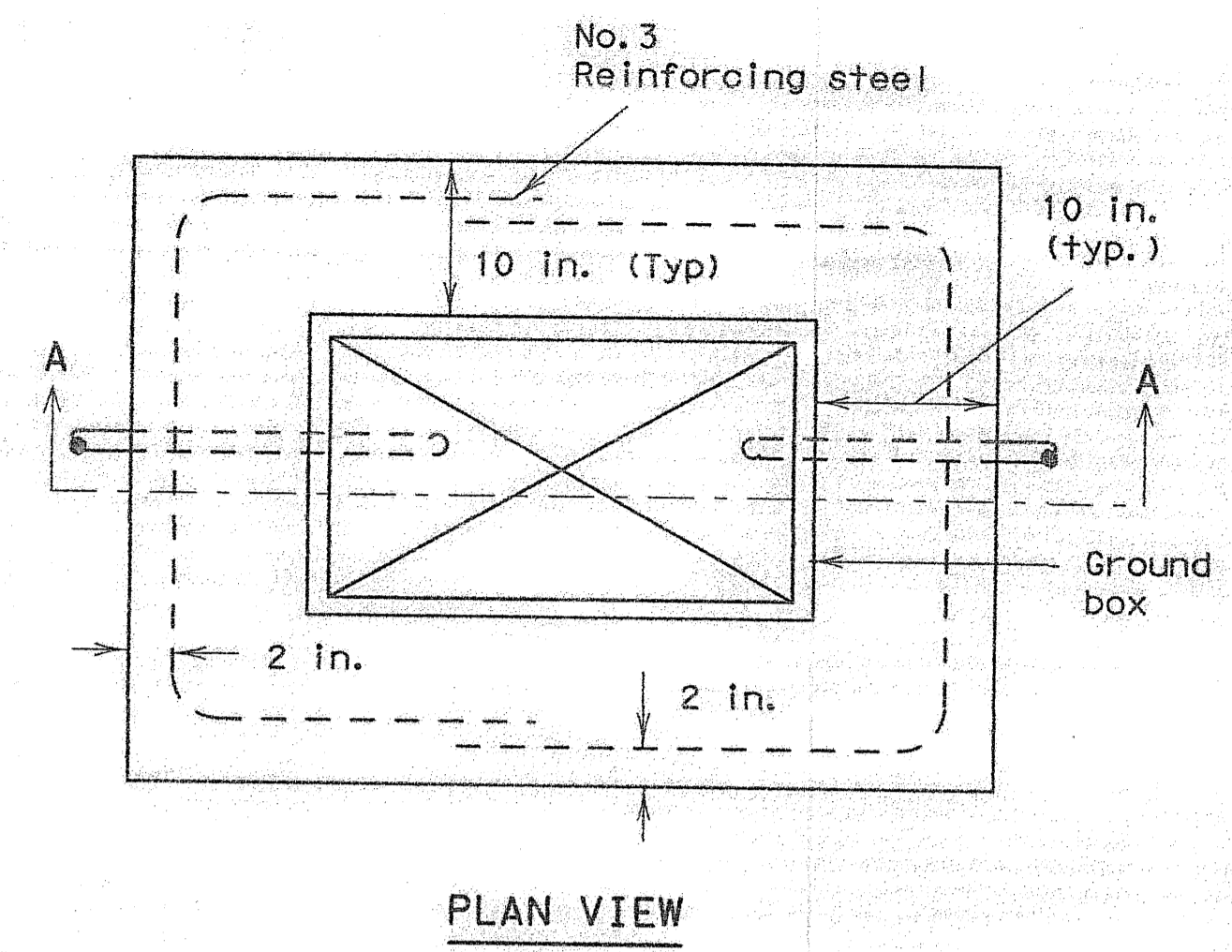
III. GROUND BOX

A. MATERIALS

- Ground boxes 16x30x24 inches (WxLxD) or smaller shall be polymer concrete of the type required by the descriptive code shown elsewhere. Larger ground boxes shall be as shown elsewhere in the plans.
- All ground boxes and covers shall be permanently marked either by impress or by permanent ink, with manufacturer's model number and manufacturer's name or logo.
- Covers shall be bolted down, and bolt holes in the box shall be arranged to drain dirt.
- Ground box Types A, B, C, D & E shall meet the following requirements:
 - Ground boxes and covers be manufactured from polymer concrete reinforced with continuous strands of woven or stitched borosilicate fiberglass cloth. The polymer concrete shall be made from catalyzed polyester resin, sand and aggregate, and shall have a minimum compressive strength of 11,000 psi. Polymer concrete containing chopped fiberglass or fiberglass reinforced plastic is not acceptable.
 - Minimum inside dimensions shall be as follows (width x length x depth):
 - Type A shall be 11.5 inches x 21 inches x 10 inches, (122311)
 - Type B shall be 11.5 inches x 21 inches x 20 inches, (122322)
 - Type C shall be 15.25 inches x 28.25 inches x 10 inches, (162911)
 - Type D shall be 15.25 inches x 28.25 inches x 20 inches, (162922)
 - Type E shall be 11.5 inches x 21 inches x 16 inches, (122317)
 - Bottom edge of box or extension shall be footed with a minimum 1 1/4 inch flange.
 - Ground boxes shall withstand 600 lbs. per sq. ft. applied over the entire sidewall with less than 1/4 inch deflection per foot length of box. Ground boxes and covers shall withstand a test loading of 20,000 lbs. over a 10 inch by 10 inch area centered on the cover with less than 1/2 inch deflection. Ground boxes and covers shall meet Western Underground Standards 3.6. Manufacturer shall supply certification by an independent laboratory or sealed by a Texas-Licensed Professional Engineer.
 - Covers shall be 2 inch (nominal) thick polymer concrete. All hardware shall be stainless steel. Cover shall be secured with two 1/2 inch stainless steel bolts. Bolts shall be self-retaining and shall withstand a minimum of 70 ft-lbs. torque and shall have a minimum 750 lbs. straight pull out strength. Nuts shall be floating and shall provide a minimum of 1/2 inch movement from the center of the nut. Covers shall be skid resistant, minimum 0.5 coefficient of friction. Covers shall be interchangeable between manufacturers and shall conform to the dimensions shown herein. Unless otherwise approved by the Engineer, cover shall be legibly imprinted with the following words in minimum 1 inch letters:
 - Ground Boxes containing wiring for traffic signals shall be labeled, Danger High Voltage Traffic Signal.
 - Ground boxes containing wiring for illumination systems shall be labeled, Danger High Voltage Illumination.
 - Ground boxes containing wiring for traffic management systems shall be labeled, Danger High Voltage Traffic Management.
 - Ground boxes containing wiring for sign illumination systems shall be labeled, Danger High Voltage Sign Illumination.
 - Ground boxes containing wiring for traffic signals that also contain illumination, powered by the signal electrical service, shall be labeled, Danger High Voltage Traffic Signal.

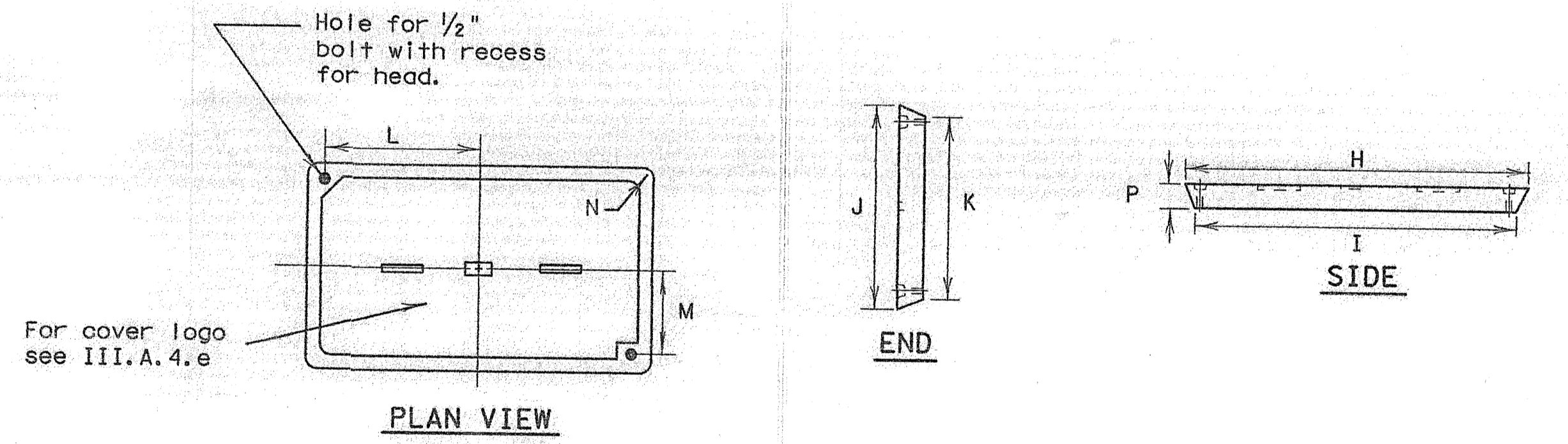
B. CONSTRUCTION METHODS

- Ground boxes shall be set on a 9 inch (minimum) bed of aggregate from 3/4 " up to 2" in size. Aggregate shall be in place prior to setting box and conduits shall be capped. Any gravel or dirt in conduit shall be removed.
- When required by Item descriptive code, construction of an apron encasing a ground box including concrete and reinforcing steel shall not be paid for directly but shall be subsidiary to the ground box. Reinforcing steel may be field bent. Concrete for aprons shall be considered miscellaneous concrete for testing purposes. Aprons shall be cast in place.
- Conduit holes may be cut in the walls of type B & D boxes at least 18 inches beneath the cover.
- If, within the limits of this project, the Contractor must utilize an existing ground box equipped with a metal cover, the Contractor shall bond the cover to the grounding conductor with a 3 foot long flexible stranded jumper the same size as the grounding conductor. Connection of bonding jumper to metal ground cover shall not be paid for directly but shall be subsidiary to various bid items. The box(es) must be clearly shown on the plans with plan notes fully describing the work required.
- If there are other ground boxes with metal covers within the project limits but not involved in the contract, the Engineer may direct the Contractor to ground the covers, designating and identifying the specific boxes in writing. This work will be paid for separately.
- Termination to metal ground box covers shall be made using a tank ground type lug.



APRON FOR GROUND BOXES
(Where required)

- Final position of end of conduit shall not exceed one-half the distance to the side of box opposite the conduit entry.
- Place gravel "under" the box, not "in" the box. Gravel should not encroach on the interior volume of the box.
- Install bushing on the upper end of all ells.
- Where a ground rod is present in the ground box, connect it to any and all equipment grounding conductors using a listed connector.
- Maintain sufficient space between all conduits so as to allow for proper installation of bushings.
- All conduits shall be installed in a neat and workmanlike manner.
- All conduits installed in the ground box shall be sealed after completion of conductor installation and any required pull tests. Silicone shall not be used as sealant.



GROUND BOX COVER

GROUND BOX COVER DIMENSIONS								
BOX	DIMENSIONS (INCHES)							
SIZE	H	I	J	K	L	M	N	P
A, B & E	23 1/4	23	13 3/4	13 1/2	9 7/8	5 1/8	1 3/8	2
C & D	30 1/2	30 1/4	17 1/2	17 1/4	13 1/4	6 3/4	1 3/8	2

Texas Department of Transportation
 Traffic Operations Division

**ELECTRICAL DETAILS-
GROUND BOXES**

ED(3)-03

© TxDOT January 1992		DATE	BY	CHKD	APP'D
4-98	REVISIONS	DATE	BY	CHKD	APP'D
12-00					
3-03					
5-03					

5/03 Revision
 Revised notes.

The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

ELECTRICAL SERVICES NOTES

All work, materials, services, and incidentals, whether or not specifically shown on the plans, which may be necessary for a complete and proper electrical service installation as specified in the plans to obtain electrical power shall be paid for, performed, furnished and installed by the Contractor. The Contractor shall contact the Utility for metering and shall comply with all Utility requirements.

Primary line extensions, connection charges, meter charges, and other charges by the Utility company to provide power to the location shown, when required, shall be paid for under force account work. The costs associated with these charges shall be approved by the Engineer prior to engaging the Utility company to do the work. The Contractor shall consult with the appropriate Utility to determine costs and requirements, and shall coordinate the Utility's work as approved by the Engineer. The Contractor shall be reimbursed only the amount billed by the Utility. No additional amount for supervision of the Utility's work will be paid.

Materials shall be new and unused, materials and installation shall comply with the applicable provisions of the National Electrical Code (NEC) and National Electrical Manufacturers Association (NEMA) standards and shall be Underwriters Laboratories (UL) Listed. Electrical Service conduits, conductors, disconnects, contactors, circuit breaker panel sizes, and branch circuit breakers, shall be as shown in the Electrical Service Data elsewhere in the plans. Faulty fabrication or poor workmanship in any material, equipment, or installation shall be justification for rejection.

The Contractor shall submit for approval no less than six (6) copies of catalog cut sheets on electrical service materials. Submittals shall be legible and shall be marked to indicate which product on a cut-sheet is to be supplied. Where manufacturers provide warranties and guarantees as a customary trade practice, Contractor shall furnish to the State such warranties or guarantees.

The Contractor shall provide locks keyed with Master #2195 for all lockable electrical enclosures. Keys and locks become property of the State. Unless otherwise approved by the Engineer, enclosures shall not be energized until locks are provided and all bolts are installed.

Circuit directories, where provided, shall be filled out. All breakers and components in shop built panels and enclosures shall be labeled with duo-colored plastic labels. Letters shall be a minimum 3/8" in height.

Enclosures with external disconnects that de-energize all equipment inside the enclosure, need not have dead front trim, except that incoming line terminations shall be protected from incidental contact.

When galvanized is specified for nuts, screws, bolts or miscellaneous hardware, stainless steel may be used. All wiring and components shall be rated for 75 degrees C. Minimum size for service entrance conductors shall be #6 XHHW.

I. Safety Switch. A safety switch, placed ahead of the meter, shall only be used when specified by the Utility and when shown on the Electrical Service Data. The switch shall be UL Listed, heavy duty type, 600 volt, unfused, with a UL type 3R enclosure and equipped with a solid neutral (s/n) assembly. The switch shall be padlockable in the "on" position.

II. Service Type. Electrical service types A, C, D, and T shall be as schematically detailed on ED(4) or ED(5). Other service types shall be as detailed elsewhere on the plans.

III. Branch Circuit Breakers. Circuit breakers shall be thermal magnetic and have a minimum interrupting capacity of 10,000 amps and a voltage rating compatible with their use. Circuit breakers shall be sized as shown in the electrical service data. Circuit breakers in panelboards and load centers shall be full size and designed exclusively for the panelboard or load center in use. Tandem and half-width breakers shall not be used. All circuit breakers shall be permanently and clearly marked identifying the circuit or device supplied. Circuit breakers shall be UL Listed to UL489.

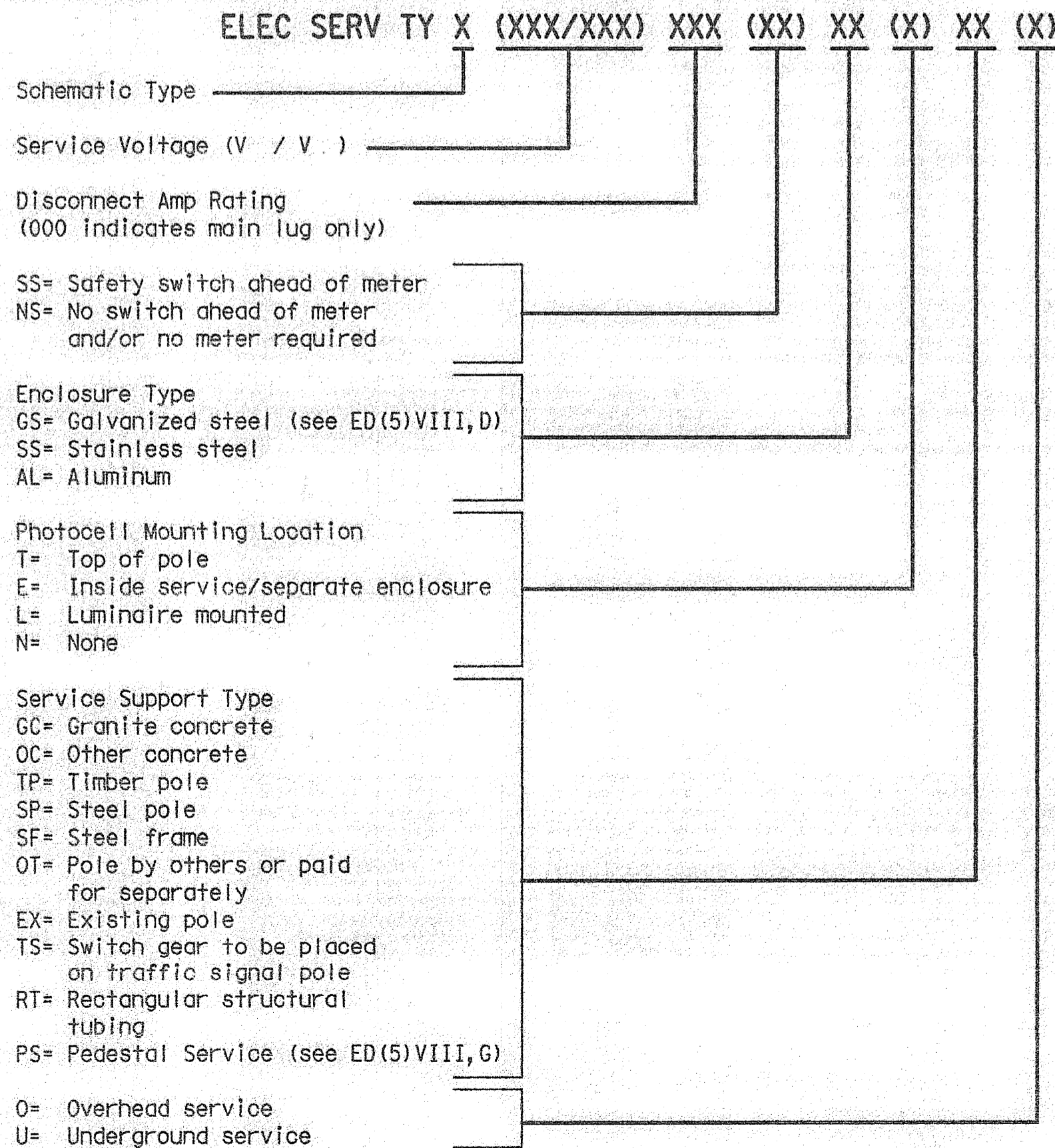
IV. Circuit Breaker Panelboard. Panelboards shall be UL Listed. Panelboards shall have copper busses, a minimum of 6 one-pole spaces or as required in the electrical service data, and when required will be rated for service equipment. Enclosure shall meet UL type 3R classification. Panelboards shall have a threaded hub conduit entry for conduit entering the top of the enclosure. Circuit breakers shall be bolt-in type only.

V. Circuit Breaker Load Center. Load centers shall be UL Listed. Load centers for type T services may have copper or aluminum busses, all other load centers will be copper bus only. Load center will have a minimum of 4 one-pole spaces, and shall be rated for service equipment. Enclosure shall meet UL type 3R classification. Load centers shall have a threaded hub conduit entry for conduit entering the top of the enclosure. Circuit breakers shall be plug-in type only. Load centers for type T services shall accommodate a maximum of 6 one-pole breakers.

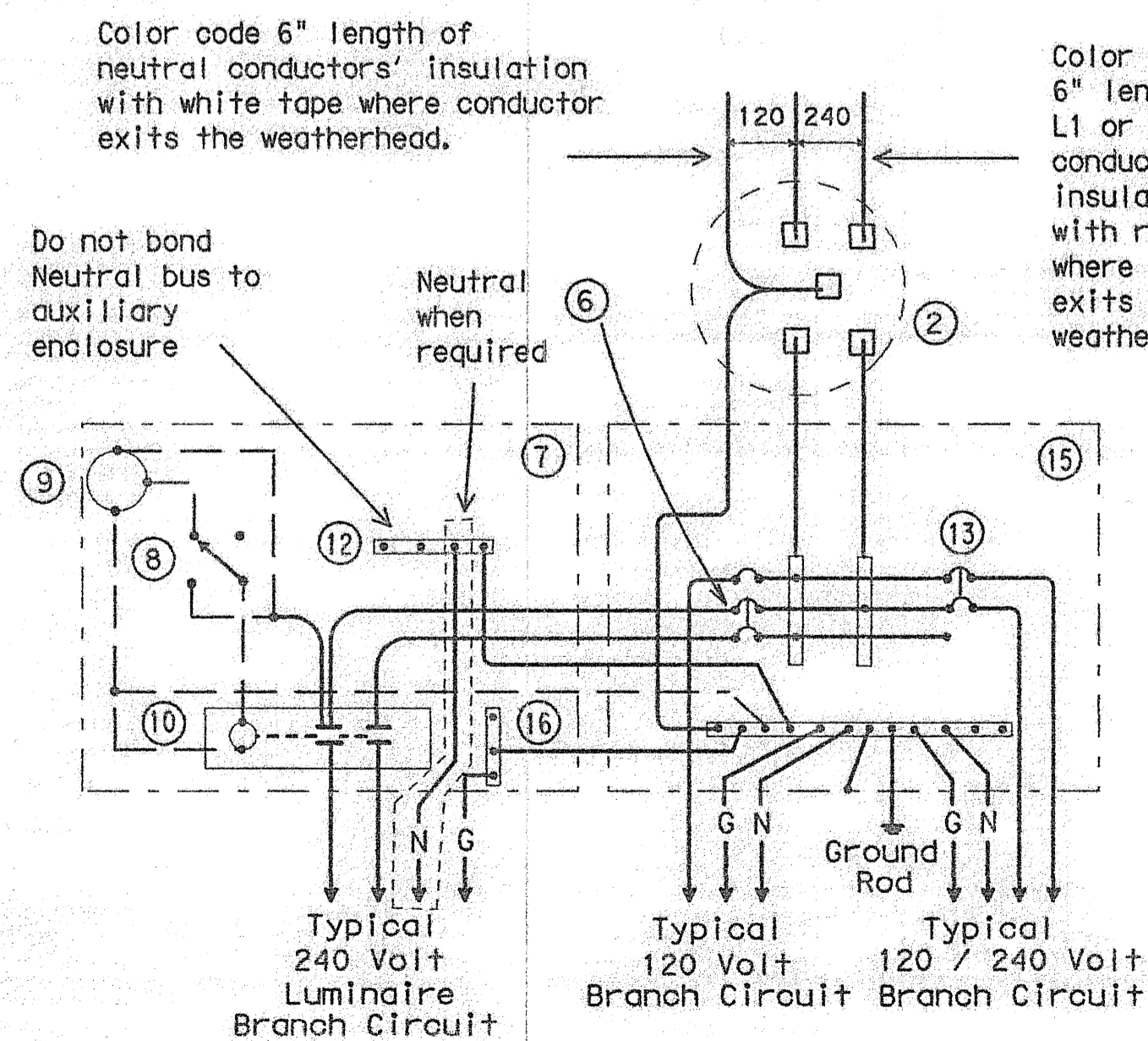
VI. Separate or Auxiliary Enclosure. Separate enclosures for HOA, photocell and lighting contactors for types D & T Services shall be a UL Listed assembly with outer door. Interior shall have dead front trim. HOA switch operator shall extend through the dead front trim. Photocell shall be mounted inside the enclosure as described in paragraph XIII when required by descriptive code. Separate enclosures shall meet the construction requirements of paragraph VIII. E, except that separate enclosure shall not have external operating handle, need not have a data pocket and door may latch at only one point. All equipment may be located in one enclosure instead of two, when approved by the Engineer.

VII. Where a Type D or T service is provided, laminated "as built" drawings are required as shown on ED(5) VIII E; shall be delivered before completion of the work, to the Engineer in lieu of placement within these smaller enclosures. Conduit may not enter the back wall of a service enclosure penetrating the equipment mounting panel. Provide grounding bushings on all metal conduits, terminate bonding jumper to grounding bus. Grounding bushing is not required when the end of the metal conduit is fitted with a conduit sealing hub or threaded boss such as a meter base.

EXPLANATION OF ELECTRICAL SERVICE DESCRIPTIVE CODE

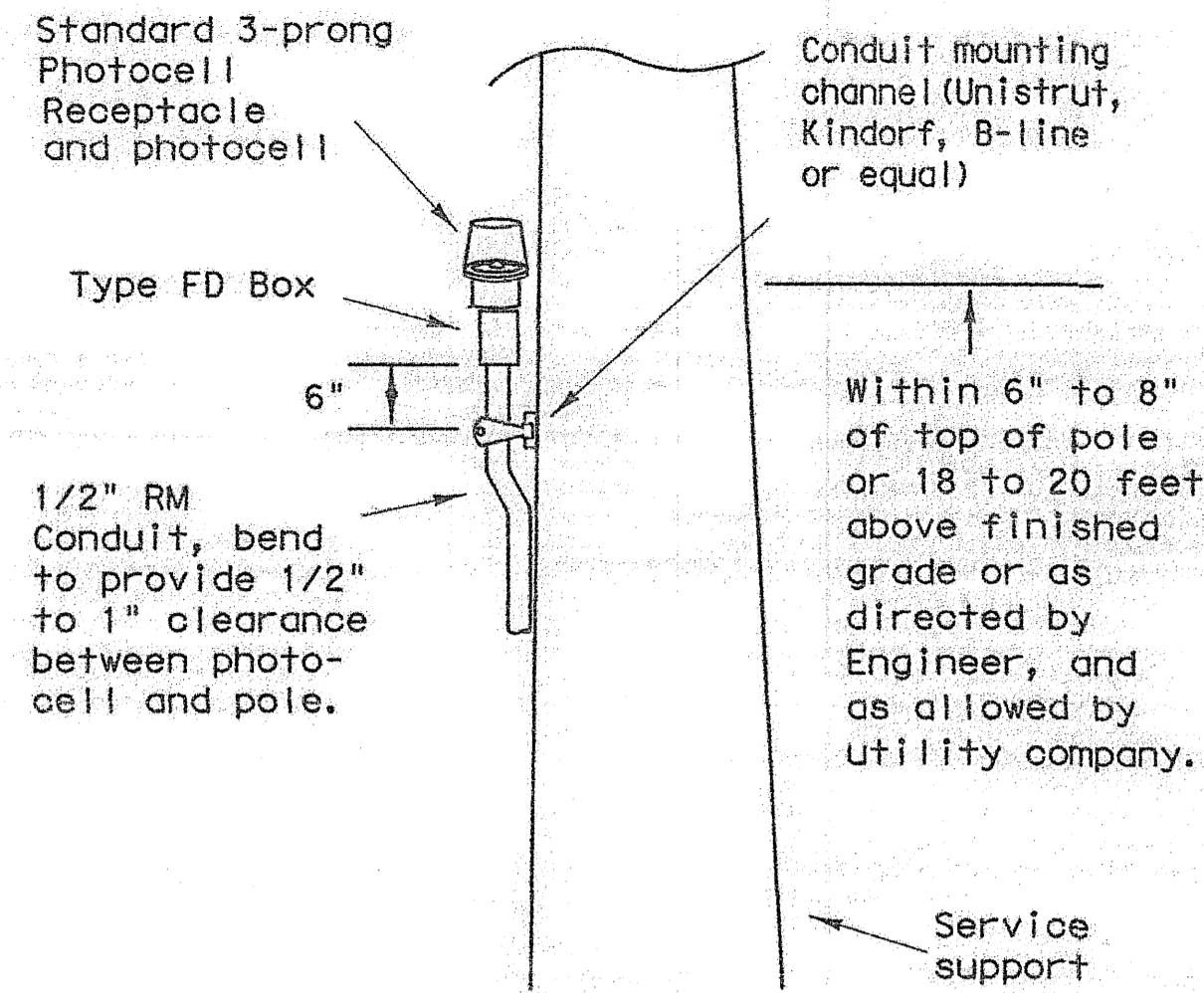


Example: ELEC SERV TY A (240/480) 100 (NS) SS (E) GC (O)



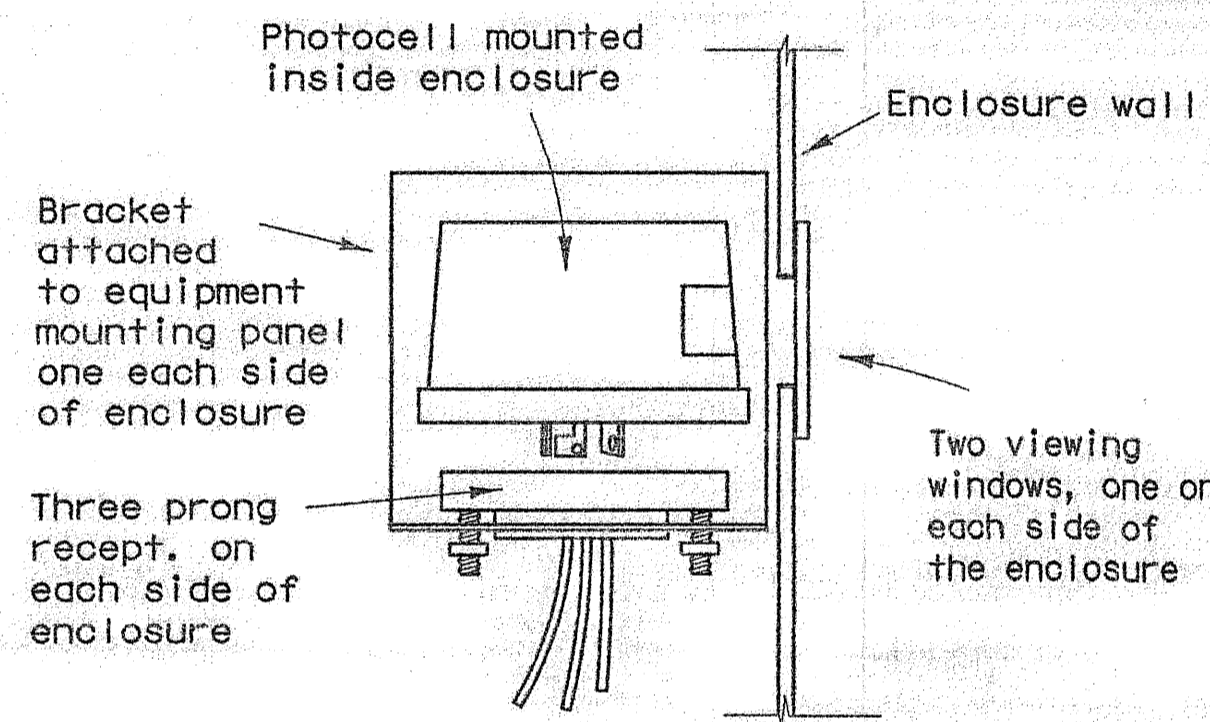
SCHMATIC TYPE T
120/240 VOLTS - THREE WIRE

Install photocell and lighting contactor when shown on Electrical Service Data.



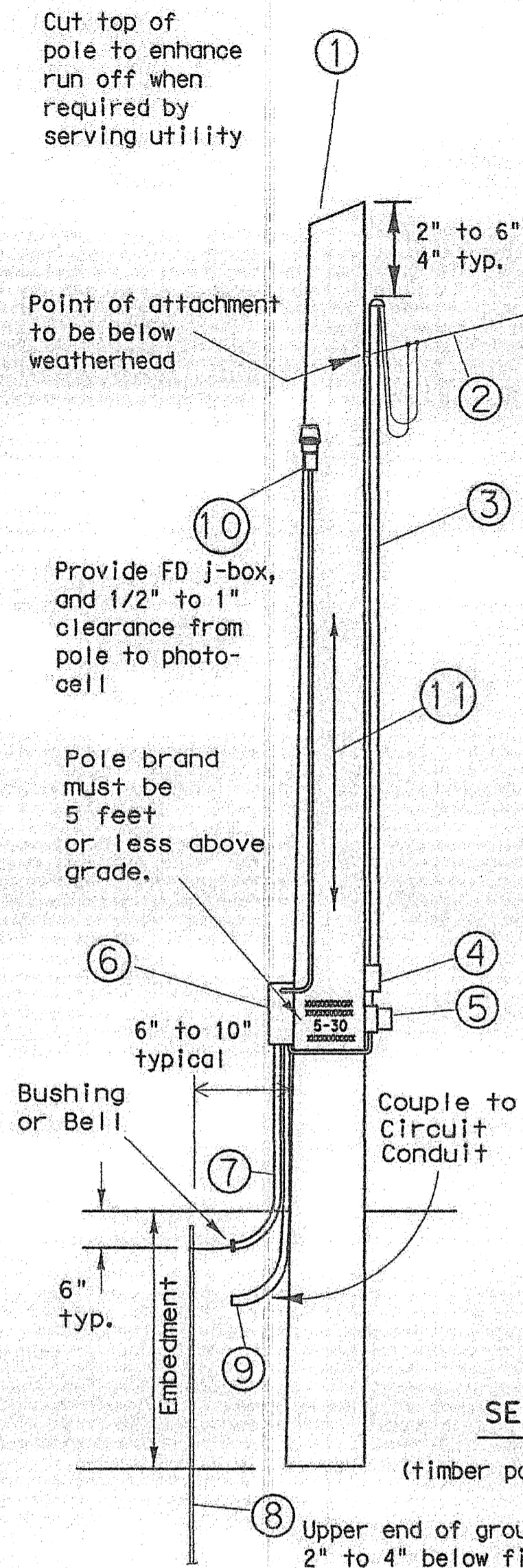
TOP MOUNTED PHOTOCELL

Conduit support spacing 3 feet from enclosure; 5 feet max.



ENCLOSURE MOUNTED PHOTOCELL

For photocell specifications see ED(5), XIII.



- 1 - Class 5 pole, height as required
- 2 - Service drop from utility company (attached below weatherhead)
- 3 - Service conduit and service entrance conductors (RMC) (See Electrical Service Data)
- 4 - Safety switch (when required)
- 5 - Meter (when required)
- 6 - Service enclosure
- 7 - No. 6 bare grounding electrode conductor in 1/2" PVC to ground rod - extend 1/2" PVC 6" underground.
- 8 - 5/8" x 8' Copper clad ground rod - drive ground rod completely underground unless otherwise approved by the Engineer.
- 9 - RMC conduit - same size as branch circuit conduit.
- 10 - Photocell and conduit - if top mounted. (See Electrical Service Data)
- 11 - When required by the serving utility provide bare #6 awg copper conductor. Run wire from pole top to butt wrap or copper butt plate. Protect conductor to a height of 8 ft above finish grade.

LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC)

- (If applicable)
- Liquidtight flexible metal conduit, may be used when meter and service enclosure are mounted 90 to 180 degrees to each other. Size shall be same as service entrance conduit.
 - LFMC shall not exceed 3 ft. and shall be securely supported within one ft. of each end. No strap required for LFMC shorter than 12"
 - Each end of LFMC must have a grounding bushing or be terminated with a grounding fitting.
 - A neutral conductor must be installed within the LFMC.
 - Bend in liquidtight flexible metal conduit shall not exceed 180 degrees.
 - A pull test is required on all installed conductors, at least six inches of free conductor movement shall be demonstrated to the satisfaction of the Engineer.

SERVICE SUPPORT TYPE TP (O)

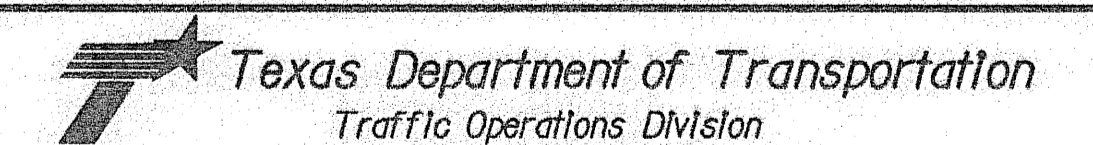
(timber pole, overhead service, typical arrangement)

TIMBER POLE NOTES

1. Conduit and electrical conductors attached to the electrical service pole and underground within 12 inches of service pole shall not be paid for directly but shall be subsidiary to the service pole.
2. Pole top mounted photocell, install on north side of pole or in service enclosure as required. See Electrical Service Data.
3. Attach meter and service equipment with stainless steel or galvanized channel (Unistrut, Kindorf, or equal). Gain pole as required to provide flat surfaces for each strut. Paint ends of galvanized channel with zinc rich paint. Gain depth 5/8" max. Gain height 1 7/8" max. Strut to be 1" max. deep, and 1 5/8" wide max. Secure each strut section to timber pole with two galvanized or SS lag bolts, 1/4" diameter min. by 1 1/2" length min. Place flat cut galvanized or SS washer on each lag bolt; Gain pole in a neat and workmanlike manner.
4. Embedment depth shall be as required in Item 627 Treated Timber Poles.
5. Poles trimmed for excess length shall be trimmed from the top end only.

SCHMATIC LEGEND

- 1 - omitted
 - 2 - Meter (when required)
 - 3 - Service Assembly Enclosure
 - 4 - Main Disconnect Breaker (Not Used)
 - 5 - Omit
 - 6 - Circuit Breaker, 15 Amp typical for control circuit wiring
 - 7 - Auxiliary Enclosure
 - 8 - Control Station ("H-O-A" Switch)
 - 9 - Photo Electric Control (enclosure-mounted shown)
 - 10 - Lighting Contactor
 - 11 - Power Distribution Terminal Blocks (Not Used)
 - 12 - Neutral Bus required when 120 v. lights are controlled by lighting contactor
 - 13 - Branch Circuit Breaker (See Electrical Service Data)
 - 14 - Circuit Breaker Panelboard (Not Used)
 - 15 - Load Center
 - 16 - Ground Bus
- Power Wiring
 - - - Control Wiring
 - N - Neutral Conductor (when required to serve 120 v. loads only)
 — G — Equipment grounding conductor-always required



**ELECTRICAL DETAILS-
SERVICE SCHEMATICS AND
SUPPORT-TYPE TP (OVERHEAD)**

ED(4)-03

© TxDOT April 1998		REV. TxDOT	CHK. TxDOT	DATE TxDOT	CHK. TxDOT
12-00	REVISIONS	CURT	SECT	JUN9	HIGHWAY
3-03					
		DIST		COUNTY	SHEET NO.

The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DISCLAIMER:

DATE:
FILE:

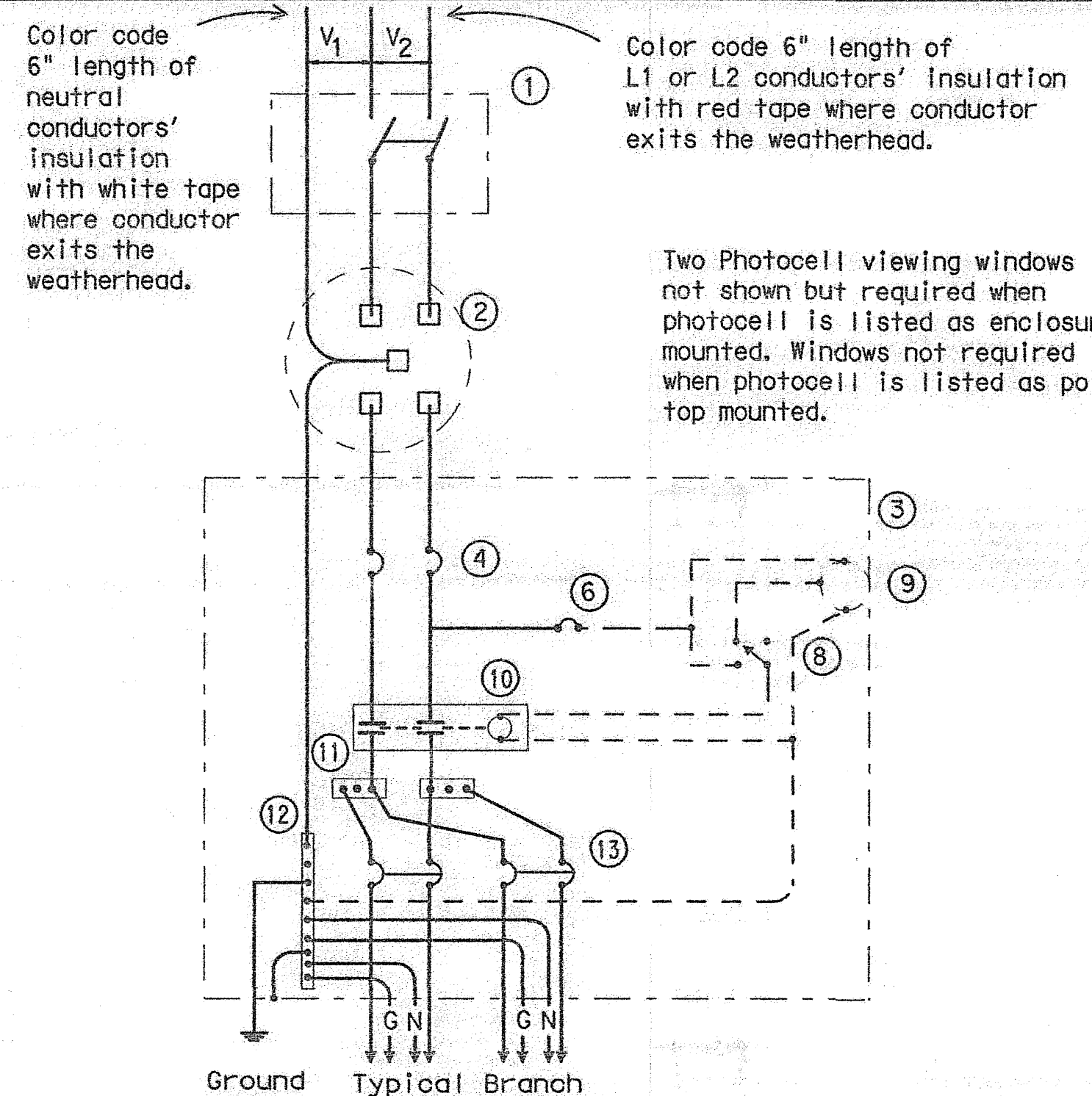
SERVICE ENCLOSURE NOTES

VIII. Service Assembly Enclosures. All service assemblies and enclosures shall be UL Listed for the intended purpose.

- A. Shop built or shop assembled service assemblies (all types except Type T and Type D without lighting contactor or enclosure mounted photocell) and all auxiliary equipment enclosures mounted with service equipment and paid for as part of Item 628, "Electrical Services", shall be built or assembled by a UL Listed Industrial Control Panel shop and shall have a unique serial numbered UL Label with the words "LISTED ENCLOSED INDUSTRIAL CONTROL PANEL". The same or an additional label shall have the name, location, and phone number of the shop, the UL file number of the shop, the shop order or drawing number, date of manufacture or assembly, and the line voltage. The service assembly enclosure shall also be labeled "SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT".
- B. Conduit entries into the top of enclosures shall have threaded hubs. Conduit entries through the equipment mounting back plate will not be allowed.
- C. All service enclosure front doors shall be permanently labeled "DANGER HIGH VOLTAGE". Label shall be a self sticking type, intended for outdoor installation. Lettering style, layout and colors of red, black and white shall be as required by OSHA. Label letters shall be 1 to 1 1/2 inches high or as high as the enclosure door width will permit for smaller services. Separate or auxiliary lighting enclosures need not be OSHA labeled when mounted in the same viewing plane as the service enclosure front door. Where only one type of load is served by the service, the service door shall be marked using duo-colored plastic labels or self adhesive vinyl weather resistant labels, minimum of 1 inch high; applied in a neat and workmanlike manner. On the label will be the service number shown on the plans as well as identifying the load served specifically (i.e. lighting, landscaping, signals, traffic management or other wording as directed by the Engineer). Safety switches need not be OSHA labeled unless specifically required by the serving utility.
- D. Type GS enclosures will only be allowed for service Types D and T without an enclosure mounted photocell and/or lighting contactor and the Type C panelboard. This spec will allow an "off the shelf" product meeting these specifications to be used. Type GS enclosures shall be made from pre-galvanized steel sheeting, hot dipped galvanized steel, or powder coat painted steel unless shown differently on the plans. Steel enclosures shall be painted inside and outside; galvanized enclosures may be painted. Unless otherwise approved by the Engineer, painted enclosures shall be gray, beige, white or light green. Panelboard/loadcenter enclosures shall meet UL type 3R requirements, shall have a dead front trim, and an outer padlockable door preventing unauthorized persons from operating contained equipment. Galvanized steel is no longer allowed for Types A, C, or custom-built D or T enclosures. If GS is shown in the descriptive code for any of these, an AL shall be provided.
- E. Type AL enclosures for service Types A and C shall meet UL type 3R requirements and shall also meet additional requirements of this paragraph. The enclosure shall have both a main disconnect remote operator handle and a door latch handle. Die-cast handles are not acceptable. The main disconnect remote operator shall be flange-mounted, shall interlock the door when in the "on" position, and shall be padlockable in both the "on" or "off" positions. Door latch shall latch at two or more points, operate by a handle separate from disconnect switch and be capable of being locked. Door closure clamps will not be allowed. Lock must be keyed to Master #2195. All the enclosures shall have either a continuous stainless steel piano hinge with stainless steel pin or enclosures less than 30 inches may have two heavy duty hinges, those over 30 inches must have three. Heavy duty two and three point hinges shall have a 0.185 inch minimum diameter electro-zinc plated steel pin or a stainless steel pin. Two point hinged doors shall be rated for 56 lbs of loading. Three point hinged doors shall be rated for 70 lbs of loading. The door shall have an attached data pocket constructed of either thermoplastic or metal. Pocket shall be 12" x 12", unless that size will not fit in enclosure. The pocket shall then be as large as possible, as approved by the Engineer, and mechanically attached with stainless steel nuts and bolts, or stainless steel or aluminum rivets. Enclosure shall include an equipment mounting panel installed inside the enclosure on collar studs or tapped bosses, and constructed of a minimum 12 gauge galvanized steel. Equipment mounting panels shall not be painted. Enclosure shall have factory installed external mounting feet. Enclosure door shall be capable of opening at least 130 degrees, with arm or other approved means to hold the door open. Only the enclosure exterior will be primed and painted. Paint color shall be beige or gray and shall be powder coat paint as shown below. Condensation drainage shall be provided in the bottom of the enclosure before leaving the factory. The Contractor shall prepare and submit a schematic drawing unique to an individual service. The approved drawing shall be laminated and placed in the document pocket of the service at the time of shipment to the job site. All applicable wiring diagrams and plan sheet layouts for all equipment and branch breaker circuits supplied by that service shall also be laminated and placed in the document pocket prior to shipping. Type AL enclosures for Type D and T services with enclosure mounted photocell and/or lighting contactor shall have the loadcenter interior mounted in an enclosure with properly adapted dead front trim. Types D and T shall not have a loadcenter exterior "can" mounted inside another enclosure meeting these specifications. (Do not put one enclosure inside another enclosure). Types D and T with enclosure mounted photocell and/or lighting contactor shall meet the additional requirements of this paragraph except that remote-operating handle will not be provided.
- F. Type SS enclosures for Type A and C shall meet all the requirements above for their respective type AL. Type SS enclosures for D and T shall meet all the requirements above for their respective type AL. Stainless Steel shall not be painted.
- G. PS enclosure shall be as detailed and specified on ED(8). Galvanized steel will not be allowed for any pedestal service. If GS is shown in the descriptive code an AL will be provided.
- IX. Powder Coat Paint. Powder coating shall be either a polyester thermosetting resin, a zinc rich primer with a TiO₂ (triglycidyl isocyanurate) powder overcoating, or a zinc-rich epoxy powder, applied by either electrostatic spray or fluidized bed immersion, high temperature oven cured, high density, low gloss, 4 mil thick (minimum), coating. Adhesion shall meet the 5A or 5B classifications of ASTM D3359. Finish shall be uniform in appearance and free of scratches.
- X. Main Disconnect. Main disconnect device shall be a circuit breaker, as specified in the Electrical Service Data, shall be two or three pole, and rated for the voltage and amperage specified. Circuit breaker shall be an UL Listed thermal-magnetic circuit breaker controlled by flange-mounted remote operator in the service assembly enclosure when required. Circuit breakers shall have a minimum interrupting rating of 10,000 Amps. When the utility company provides a transformer larger than 50 KVA, Contractor shall verify that the available fault current is less than the circuit breaker amperes interrupting capacity (AIC) rating and shall provide documentation from the Utility to the Engineer. Documentation shall be submitted at the same time as other electrical submittals. Circuit breaker shall be UL Listed to UL489. No backfed breakers will be allowed for use as a main disconnect.
- XI. Control Circuit. Control circuit protection shall be 15 amp circuit breaker.
- XII. Control Station ("H-O-A" Switch). Control station shall be a maintained-contact, three position selector switch in an UL type enclosure. Switch shall be rated 600 volts and shall be fitted with "Hand-Off-Auto" legend.
- XIII. Photo Electric Control. Photo electric control shall consist of a photocell, internal lightning arrester, and relay or bimetallic switch mounted inside a weatherproof enclosure with standard 3-prong twist lock photocell plug and receptacle. The enclosure shall be made of poly-acrylic with clear acrylic window. Enclosure chassis shall be molded thermosetting plastic. The photocell shall have a polyethylene gasket, and shall have a hermetically sealed cadmium sulfide cell. The arrester shall have an enclosed type expulsion arrester rated 2.0 kV sparkover with 5,000 amps follow-through. Relay or switch shall be time delay type with normally closed contacts. Photo electric control shall be rated a minimum of 1800 VA, voltage as required. Enclosure mounted photocells shall be the same as above except that the photocell shall be mounted inside the enclosure. The enclosure shall have two acrylic paneled windows, or other material approved by the Engineer, one on each side of the enclosure. Each window shall be rectangular approximately one inch by two inches, round 2 inch diameter, or as otherwise approved by the Engineer. Bracket and photocell's receptacle will be mounted inside enclosure next to each window. Except for window side, 2" of clearance is required on all sides of photocell for ease of replacement. The photocell's receptacle is held in place by two mounting screws on bracket and located next to each window of the enclosure. The 3-prong twist lock photocell shall be mounted in a position to receive light from the window closest to the photocell. The photocell shall be mounted in a position to receive light from one window. Top of pole mounted photocells shall be mounted as shown on ED(4). The Contractor shall be responsible for proper operation of the photo-electric control. The Contractor shall move and/or adjust or shield the photocell from stray or ambient nighttime light or shall make any other adjustments required for proper operation. The photocell shall face North when practicable. Unless otherwise shown on the plans, the photocell shall turn on the illumination system at 1.0 +/- 0.5 footcandle and turn off the illumination system at two footcandles higher than turn on.
- XIV. Lighting Contactor. Lighting contactor shall be a UL Listed NEMA rated lighting contactor, two-pole or multipole as required, electrically held type designed to control high pressure sodium lighting loads, with silver alloy double break contacts rated at 240 volts, 480 volts or 600 volts as required. Lighting contactor shall not be the DIN rail mounted type.
- XV. Power Distribution Terminal Blocks. Power distribution terminal blocks shall be rated for 600 volts and shall be used for line side connections to branch circuit breakers where more than one circuit breaker is required. Lugs on blocks shall be properly sized for conductors being used. Only one conductor shall be placed under each lug.
- XVI. Neutral/Ground Bus. Neutral/ground bus shall be a factory made bus permanently bonded to the enclosure with properly sized lugs for grounding and neutral conductors.

SCHEMATIC LEGEND

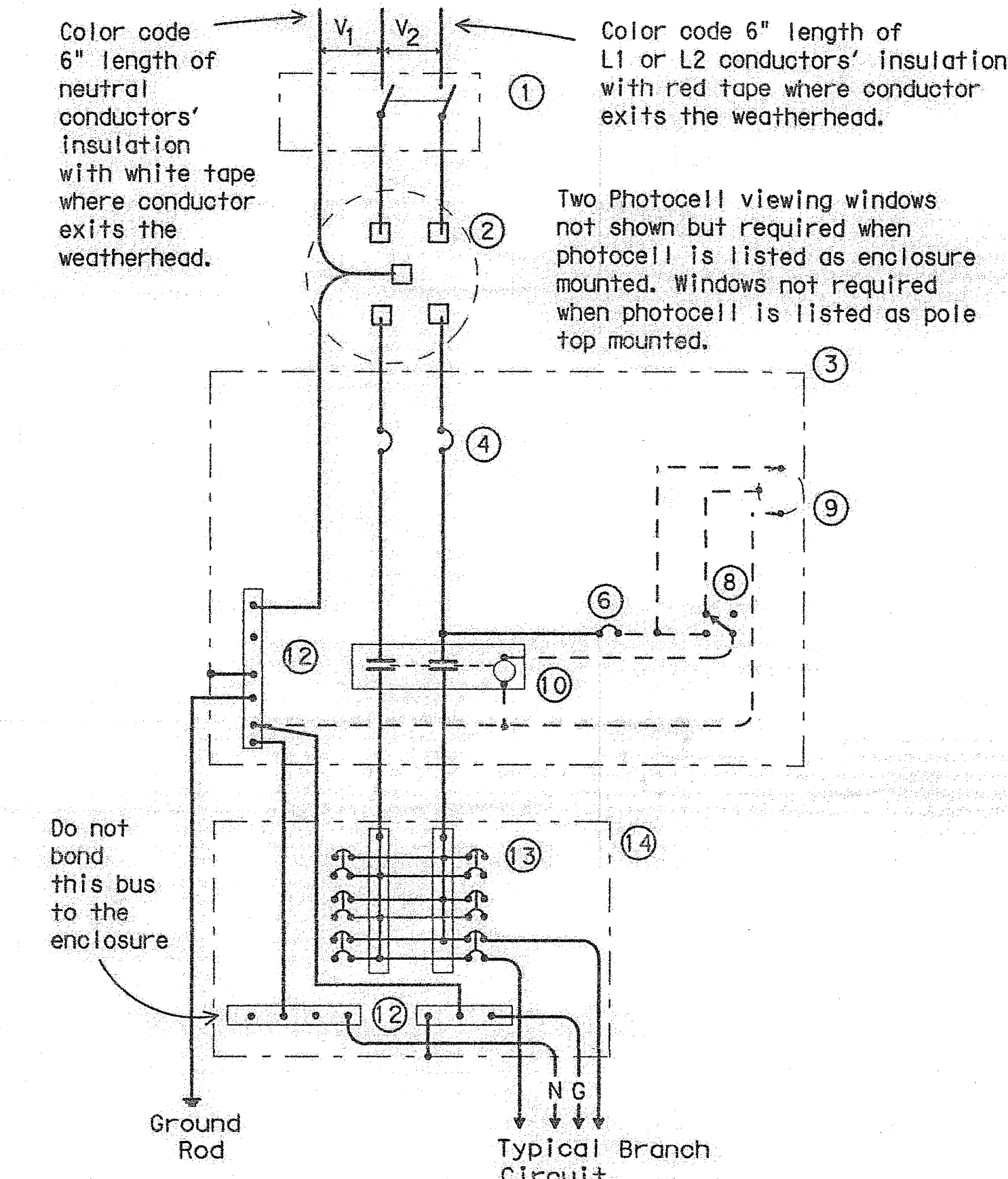
- | | |
|---|---|
| 1 - Safety Switch (when required) | 12 - Neutral/Ground Bus |
| 2 - Meter (when required) | 13 - Branch Circuit Breaker (See Electrical Service Data) |
| 3 - Service Assembly Enclosure | 14 - Circuit Breaker Panelboard (See Electrical Service Data) |
| 4 - Main Disconnect Breaker (See Electrical Service Data) | (If Type C is shown as AL or SS on descriptive code, this is the service assembly enclosure only. Panelboard enclosure is GS unless otherwise noted.) |
| 5 - Omit | 15 - Load Center |
| 6 - Circuit Breaker, 15Amp | |
| 7 - Auxiliary Enclosure | |
| 8 - Control Station ("H-O-A" Switch) | — — — — — Power Wiring |
| 9 - Photo Electric Control (enclosure-mounted shown) | — — — — — Control Wiring |
| 10 - Lighting Contactor | — N — — — Neutral Conductor (when required) serve 120 v. loads only |
| 11 - Power Distribution Terminal Blocks | — G — — — Equipment grounding conductor-always required |



SCHEMATIC TYPE A

THREE WIRE

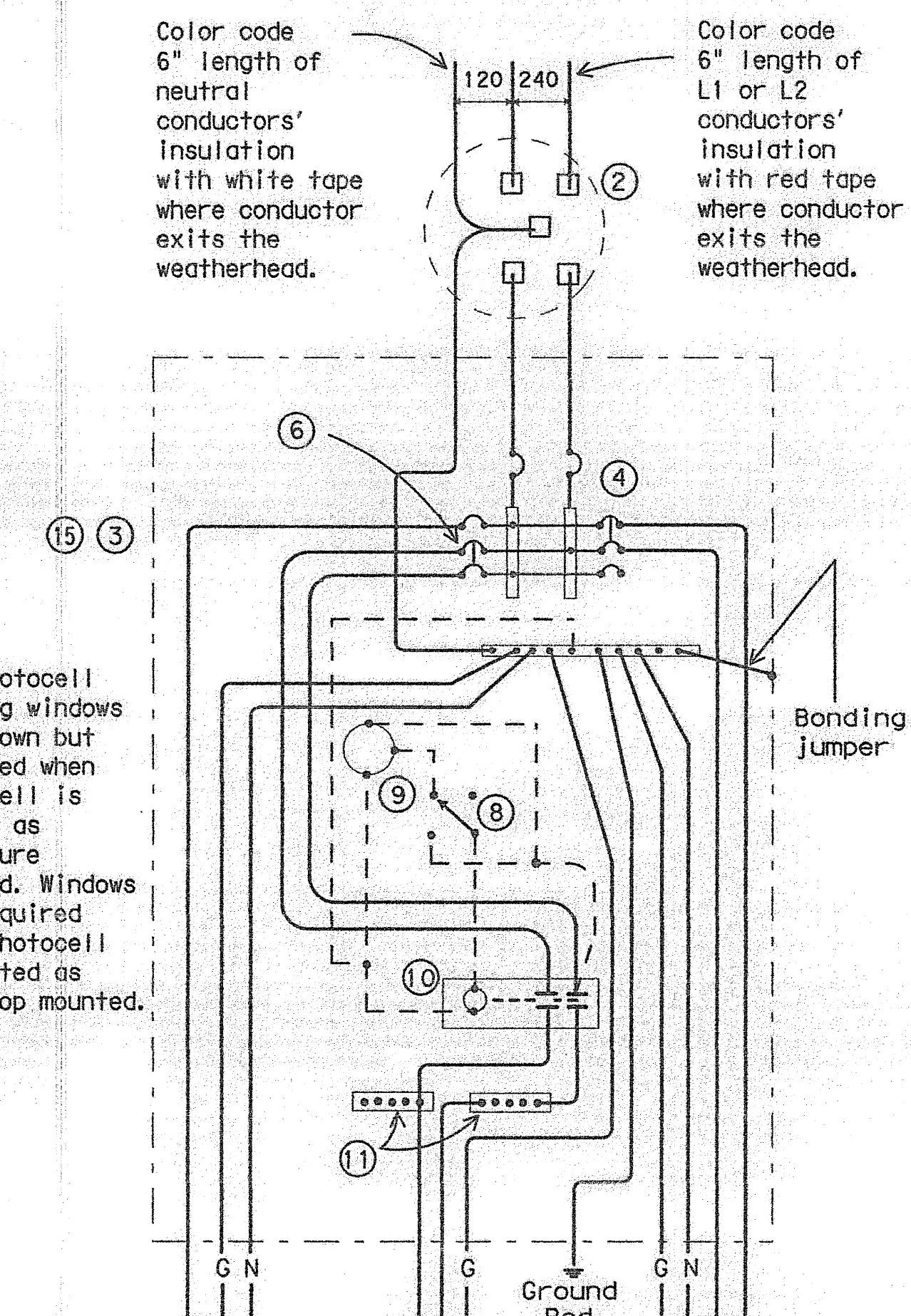
Maximum feeder circuit size (High Mast Poles): 100 amps for two pole 480V, 125 amps for one or two pole 120V or 240V. Maximum branch circuit size: 50 amps.



SCHEMATIC TYPE C

THREE WIRE

Maximum feeder circuit size (High Mast Poles): 100 amps for two pole 480V, 125 amps for one or two pole 120V or 240V. Maximum branch circuit size: 50 amps.



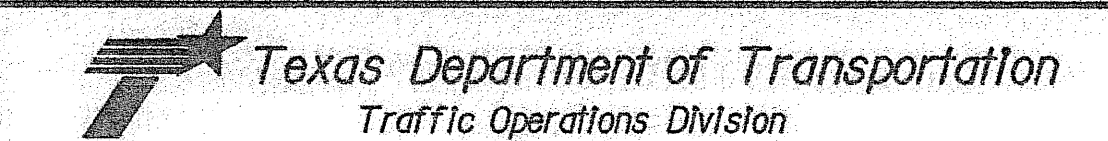
SCHEMATIC TYPE D

120/240 VOLTS - THREE WIRE

Install photocell and lighting contactor when shown on Electrical Service Data. See Type D service notes.

TYPE D SERVICE NOTES

Photocell and lighting contactor shall be located either in the same UL type 3R enclosure with load center or, if approved by Engineer, in separate enclosure. There shall be a window on each side of enclosure to allow operation of photocell. Both photocell contactor and breaker area shall have dead front trim. Enclosure, except for RT and PS supports, shall not exceed 36 inches in height or 16 inches in width unless approved by the Engineer. Ty D load center with lighting controls or TY D separate lighting control enclosure shall have power distribution blocks for a minimum of 4, #8 conductors per phase.



ELECTRICAL DETAILS- SERVICE ENCLOSURE & NOTES

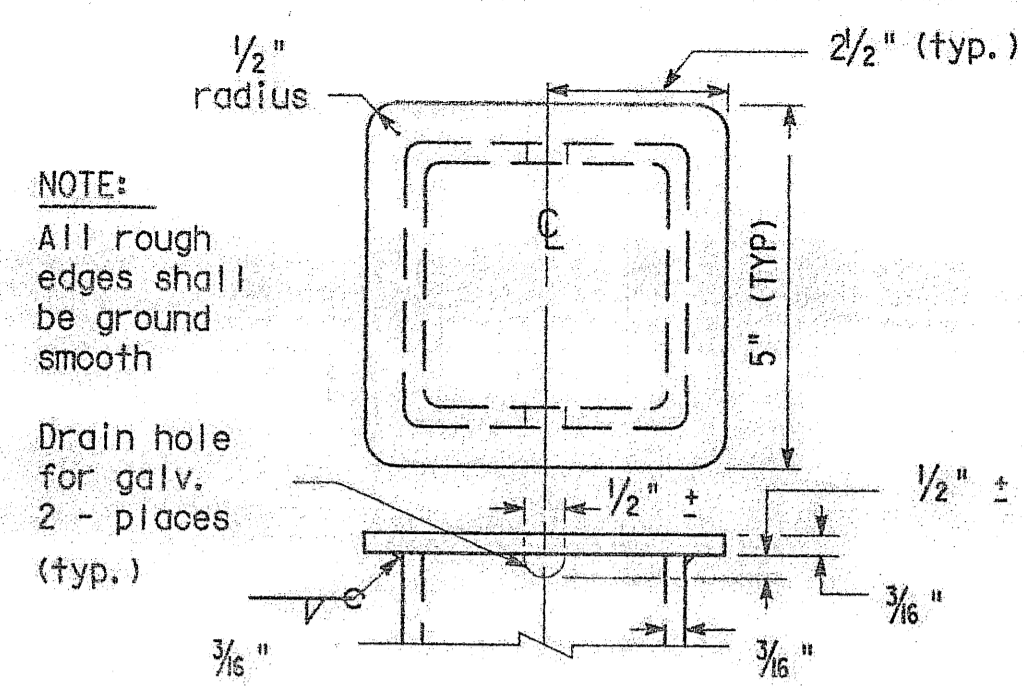
ED(5)-03

© TxDOT April 1998		REV. TXDOT	CHK. TXDOT	APP. TXDOT	CR. TXDOT
12-00	REVISIONS	CUK.T	SECT	JUB	HIGHWAY
3-03					
		DIST	COUNTY		SHEET NO.

The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by the Texas Department of Transportation, TXDOT, for any purpose whatsoever. TXDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

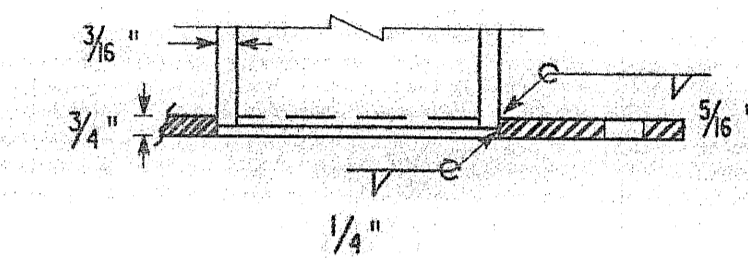
DISCLAIMER:

DATE: FILE:



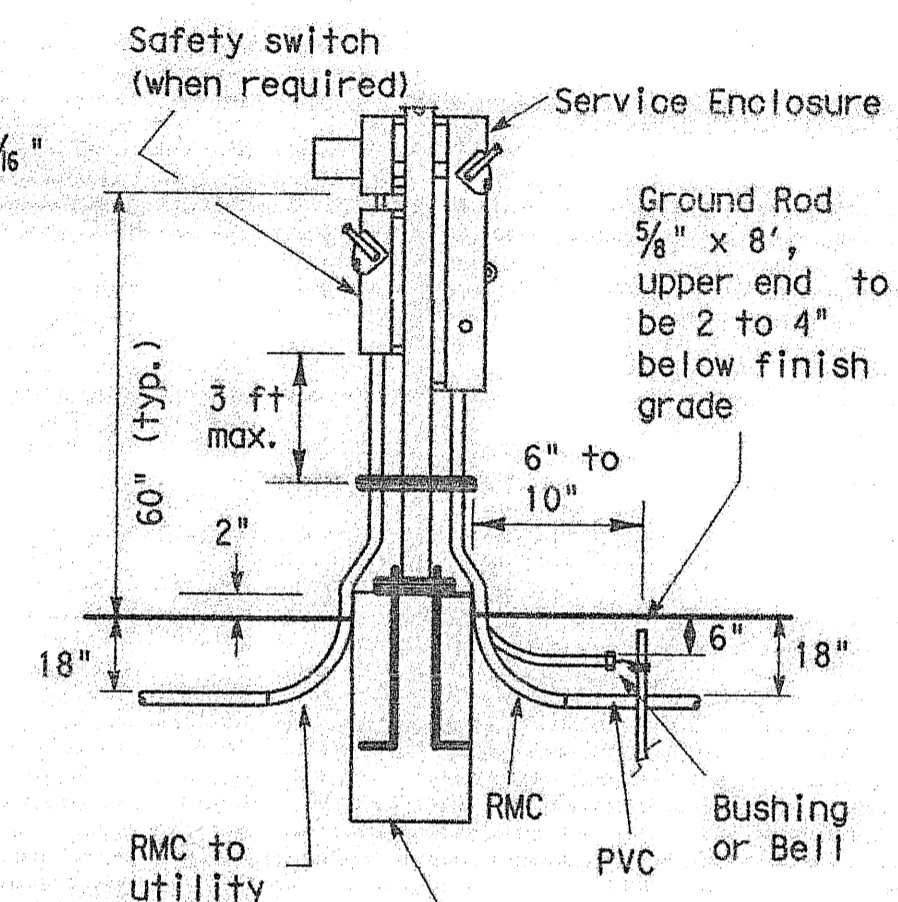
NOTE:
All rough edges shall be ground smooth

**TOP OF POLE
TYPE SF & SP**

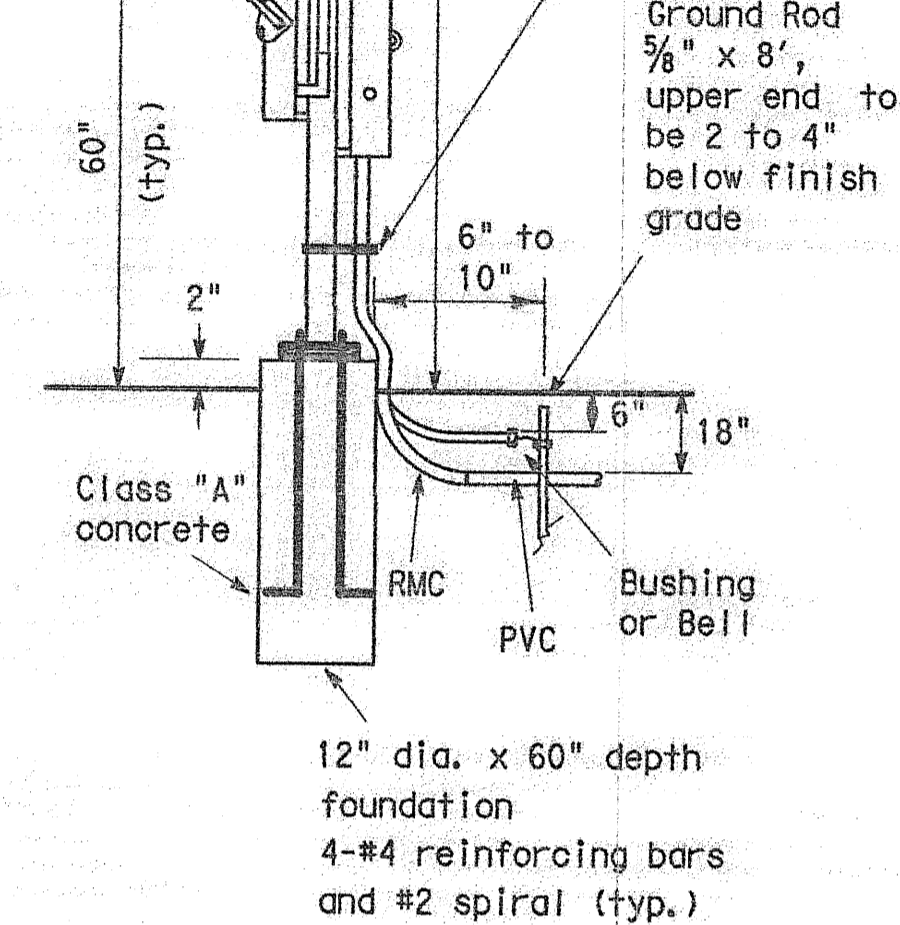


**BOTTOM OF POLE
TYPE SF & SP**

Color code 6" of grounded neutral conductors insulation with white tape where conductor exits the weatherhead. Color code 6" of L1 or L-2 Hot-ungrounded conductors insulation with red tape where conductor exits the weatherhead. Conductor free length, 12" min., 18" max.



**SERVICE SUPPORT
TYPE SP (U)
UNDERGROUND SERVICE
WITH SAFETY SWITCH**



**SERVICE SUPPORT
TYPE SP (O)
OVERHEAD SERVICE
WITH SAFETY SWITCH**

Provide grounding bushings on all metal conduits, terminate bonding jumpers (min. #6 AWG. Copper) to grounding bus. Grounding bushing not required when conduit end is fitted with a conduit sealing hub or a threaded type of boss such as a meter hub.

Channel bracket or other arrangement approved by the Engineer. (Kindorf, Unistrut, B-line or equal.)

Stand off type conduit support hardware shown. Provide when required by the utility.

RMC unless otherwise called for by the utility.

Conduit support spacing, 3' from the ends, max. and 5' in between unless otherwise called for by the utility.

**UNDERGROUND RISER
AT UTILITY POLE
(for underground service)**

Top of weatherhead to be 2" to 6", 4" typical below the top of pole.

As required by utility co. min. 20' max. 25' above grade

Point of attachment of service drop to be below weatherhead

RMC size as shown elsewhere

Meter, Switch or enclosure, as required

Color code 6" of grounded neutral conductors insulation with white tape where conductor exits the weatherhead. Color code 6" of L1 or L-2 Hot-ungrounded conductors insulation with red tape where conductor exits the weatherhead. Conductor free length, 12" min., 18" max.

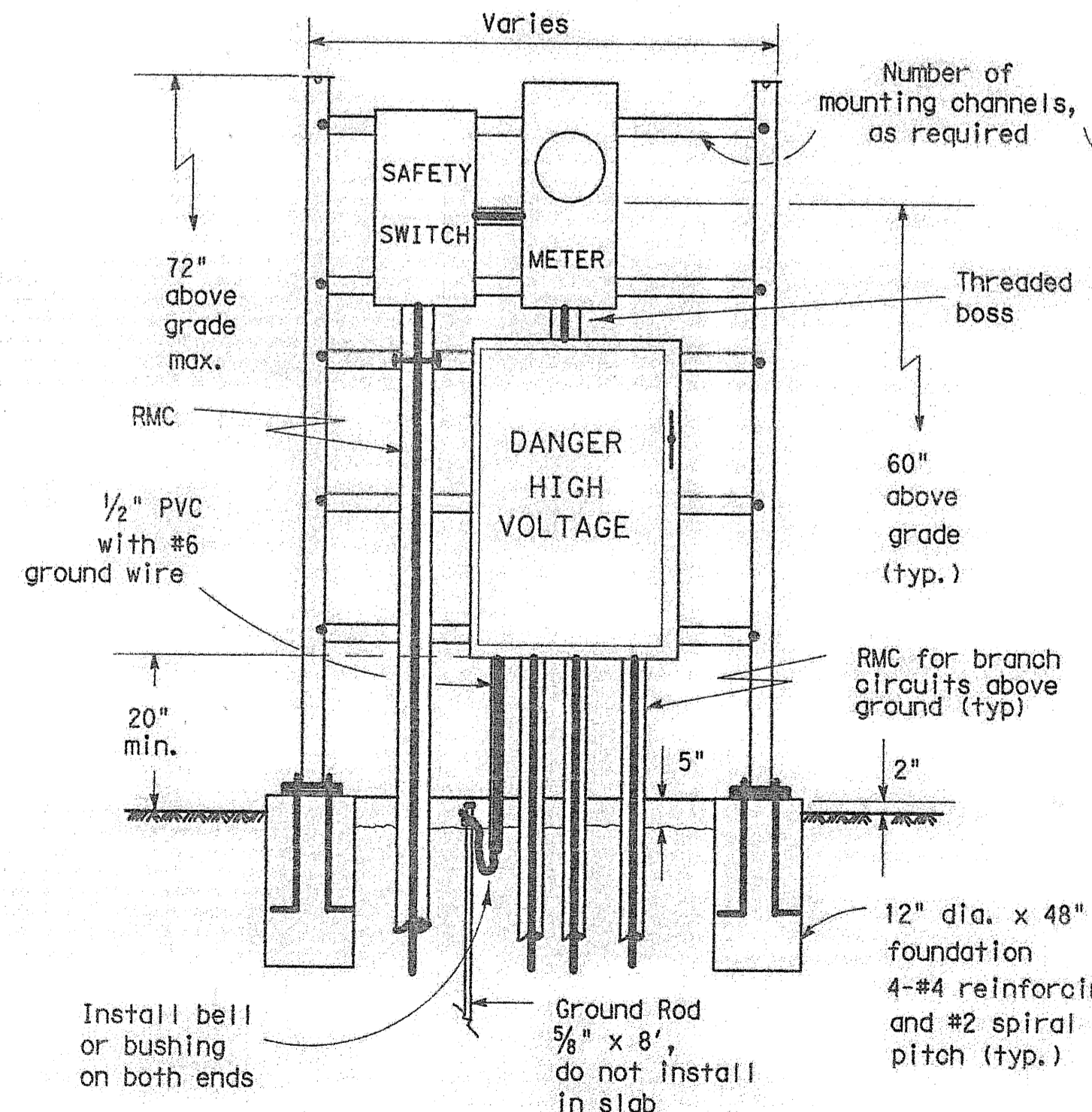
Conduit support spacing, 3' from the ends, max. and 5' in between unless otherwise called for by the utility.

12" dia. X 60" foundation
4-#4 reinforcing bars and #2 spiral at 6" pitch (typ.)

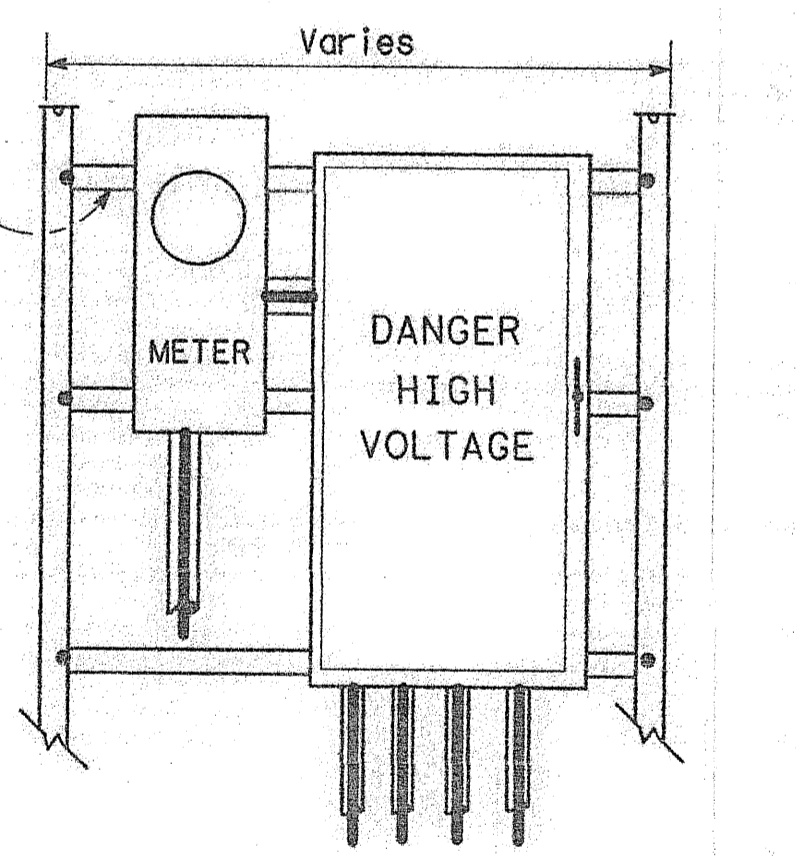
**SERVICE SUPPORT TYPE SF (O)
OVERHEAD SERVICE**

NOTES:

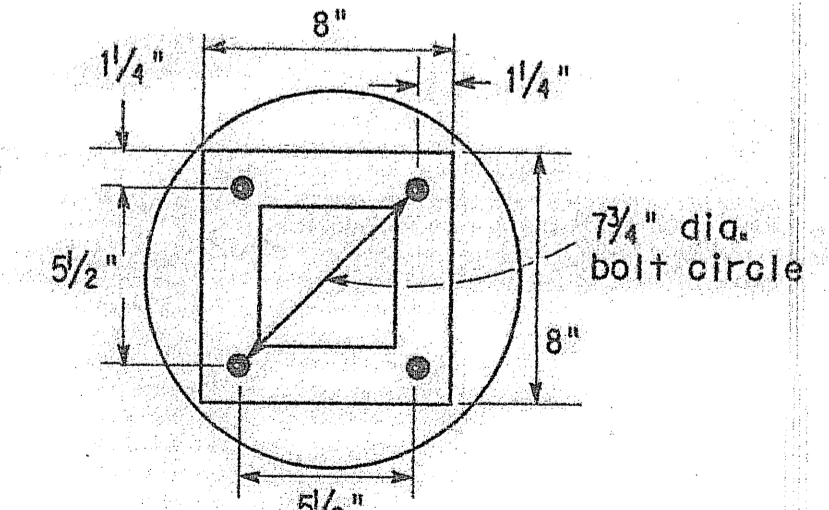
- Support Type SP and SF: Fabricated from 4" x 4" x 3/16" square structural tubing, ASTM A500 Grade A or G or equal. Base plate shall be 3/4" plate, ASTM A36 or equal. All equipment and conduit shall be mounted on galvanized channel strut, 1 1/2" x 1 5/8" x 12 gauge galvanized steel channel (Unistrut, Kindorf, B-line or equal) clamped with channel hardware, bolted or welded to vertical member as approved by the Engineer.
- Paint field out ends of all channels with zinc-rich paint.
- All Steel Poles (SP and SF) shall be hot-dip galvanized after fabrication. Poles for overhead service shall be fitted with eyebolt or similar fitting, as approved by the utility company, for attachment of service drop to the pole.
- All conduit and conductors attached to the electrical service and within 12 inches of the electrical service will not be paid for directly, but shall be subsidiary to the electrical service. All conduit and conductors from the utility company pole to the point 12 inches from the electrical service, including conduit and conductors required for the utility pole riser when furnished by the Contractor, will be paid for separately.
- All mounting hardware and installation details of services shall be in accordance with utility company specifications.
- Anchor bolts for underground service supports shall be 3/4" x 18" x 4" (dia. x length x hook length). Anchor bolts for overhead services shall be 3/4" x 56" x 4". Anchor bolts shall be provided with leveling nuts.
- Conduit for grounding electrode conductor (ground rod wire) shall be 1/2" PVC. All other conduit on electrical services shall be rigid metal conduit. Service entrance conduit size shall be as shown elsewhere. Conduit for branch circuit entry to enclosure shall be the same size as that shown on the layout sheets for branch circuit conduit. Rigid metal conduit shall extend to the rigid metal elbow and then be coupled to the type conduit shown on the layout for that particular branch circuit. RMC shall have grounding bushings in enclosures.
- If pole is painted, each separate painted piece shall have a bonding jumper attached to a tapped hole.
- Sheet metal screws are not allowed for bonding. Provide 1/4-20 machine screws. Remove all non-conductive material at contact points. Terminate bonding jumper using listed device. Bonding jumper min. #6 AWG Copper. Make up all threaded bonding connections wrench tight.
- Conduits entering enclosure from underground shall be sealed at both ends. Silicone sealant will not be allowed.
- Ground rod clamp to be UL listed for direct burial.
- Service entrance conductors shall exit separately bushed non-metallic openings in weatherhead.
- Free conductor at weatherhead to be 12 in. min., 18 in. max., or as required by utility. Color code grounded-neutral conductor with white tape covering 6 in. of conductor. Color code L1 or L2 Hot un-grounded conductor with red tape covering 6 in. of conductor. Service drop and service entrance conductors must not contact metal pole in such a manner as to result in abrasion of insulated conductors.
- Conduit support spacing to be max. 3 ft. from ends, and max. 5 ft. in between.
- Shop drawings are not required for service support structure unless specifically stated elsewhere or as directed by the Engineer.
- Service enclosure to be labeled as specified on ED(5) VIII C.
- Liquidtight flexible metal conduit (LFMC) may be used between the meter and service enclosure when they are mounted 90 to 180 degrees to each other. LFMC shall be the same size as service entrance conduit. LFMC shall not exceed 3 ft. and shall be securely supported within one foot of each end. LFMC shorter than 12" need not be strapped. Each end of LFMC must have a grounding bushing or be terminated with a grounding fitting. A neutral conductor must be installed within the LFMC. Bend in LFMC shall not exceed 180 degrees. A pull test is required on all installed conductors, at least six inches of free conductor movement shall be demonstrated to the satisfaction of the Engineer.



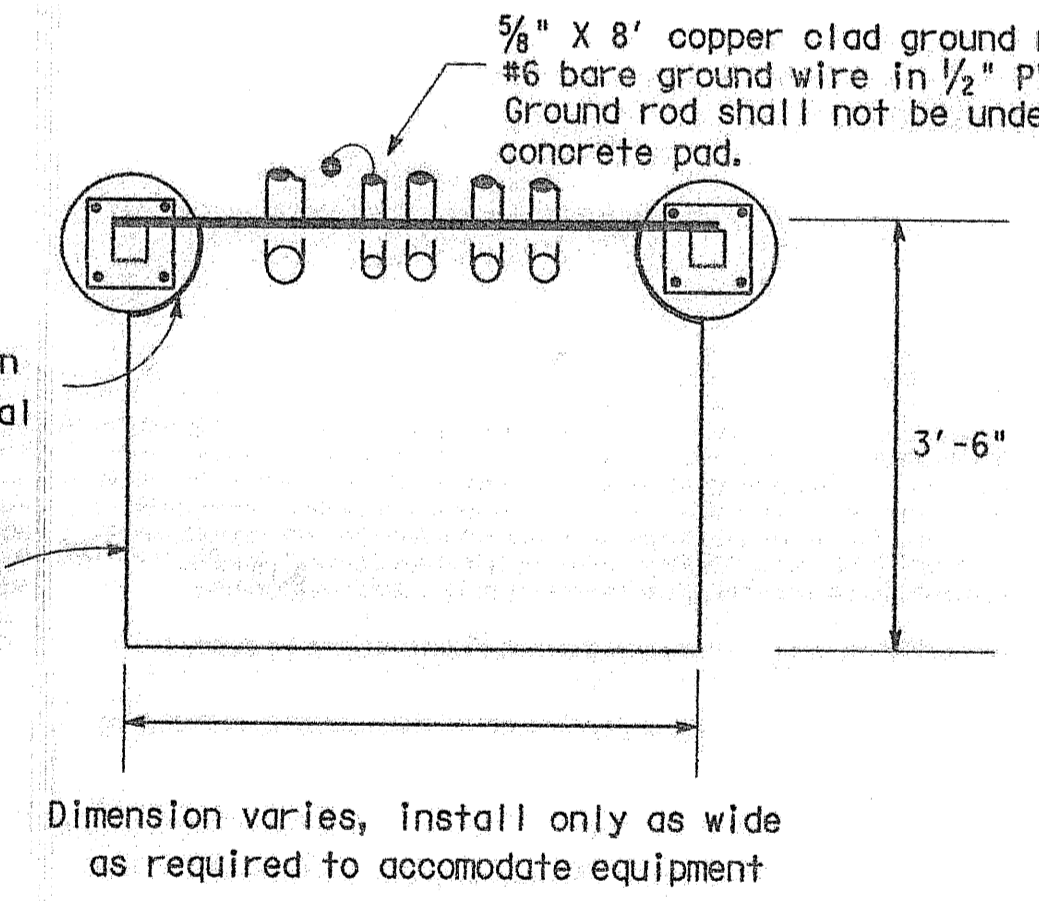
**SERVICE SUPPORT TYPE SF (U)
UNDERGROUND SERVICE
WITH SAFETY SWITCH
(Typical Arrangement)**



**SERVICE SUPPORT TYPE SF (U)
UNDERGROUND SERVICE
WITHOUT SAFETY SWITCH**



**BASE PLATE DETAIL
TYPE SF & SP**



**SERVICE SUPPORT TY SF (O) & SF (U)
TOP VIEW**

Texas Department of Transportation
Traffic Operations Division

**ELECTRICAL DETAILS-
SERVICE SUPPORT
TYPES SF & SP**

ED(6) -03

5/03 Revision Revised notes.	© TXDOT January 1992	TXDOT	TXDOT	TXDOT	TXDOT
	4-98	REVISIONS	QUAT	SECT	HIGHWAY
	12-00				
	3-03				
		QUAT	SECT	SHEET	TOTAL

71F

The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DISCLAIMER: DATE: FILE:

ROADWAY ILLUMINATION LIGHT FIXTURES

Fixture Housing:

- A. Provide *UL listed fixture suitable for use in wet locations. Ensure optical compartment meets IEC Standard 60529-IP 65. Place a permanent label inside fixture indicating fixture meets *UL, IP 65 optical, and shows date of manufacture. Meet ANSI 136.15 wattage label requirements.
- B. Construct fixture housing, lens frame, and door from 96% copper-free, die cast aluminum. Provide fixture mounting to a 2-in. pipe arm. Equip fixture with a 4-bolt clamp capable of adjustments plus or minus 5 degrees from level. Meet ANSI 136.31 3.0 G vibration requirements.
- C. Attach a level bubble to the fixture housing. Ensure the level bubble is sensitive to 1 degree changes in position at any point within 5 degrees of the level position. Ensure the level bubble is clearly visible from the ground up to a 50 ft. mounting height. Ensure level bubble corresponds to level position of fixture.
- D. Do not exceed 1.6 sq. ft. effective projected area. Do not exceed 60 lb. maximum weight.
- E. Equip fixture with a 3-prong photocell receptacle with shorting cap installed.
- F. Paint inside and outside of fixture light gray, when installing on galvanized poles. For all other fixtures, paint to match the color of the pole as directed by the Department.
- G. Use a thermoset powder coat system. Ensure paint exceeds 1000-hr. salt-spray test in accordance with ASTM B117. Ensure a nominal thickness of 2.5 mil and no pigment loss upon 50 double-rubs using Methyl Ethyl Ketone (MEK) solvent in accordance with ASTM D5402, "Standard Practice for Assessing the Solvent Resistance of Organic Coatings Using Solvent Rubs."
- H. Fabricate brackets, nuts, bolts, washers, ballast tray, and parts from stainless-steel, or aluminum of adequate thickness as approved by the Department except that:
 - 1. The 4 bolts/studs, 4 flat washers, 4 lock washers, and clamp that attach the luminaire to the arm may be galvanized in accordance with ASTM A123, A153 or B633. Provide means to ensure clamp is in the open position when installing.
 - 2. Glass lens retainer spring clips may be fabricated from galvanized steel in accordance with ASTM A153.
 - 3. Provide nylon throat or other approved locking means for all stainless steel nuts.
- I. Provide optical assemblies which meet the following:
 - 1. Polished aluminum reflectors with Alzak or equal coating.
 - 2. Do not paint reflectors, except that, when approved by the Engineer, some surfaces may be painted with 92% reflective white paint.
 - 3. Reflectors may be one piece or segmented as follows.
 - a. One piece reflectors:
 - 1. Seal photometric compartment by the use of a seamless or vulcanized seam, closed-cell silicone gasket, or other method approved by the Department.
 - 2. Provide a non-adjustable lamp socket mounting method so the lamp center is consistent with the reflector.
 - b. Segmented reflectors:
 - 1. Attach segments at both ends (or opposite sides if segments are square) of the segment to a rigid aluminum base plate and side wall support assembly. Seal glass lens to lens frame with a one piece seamless silicone gasket.
 - 4. Equip the optical assembly with a lamp support in addition to the lamp socket to ensure the outer envelope is positioned as intended.
- J. Provide 5/32 in. thick (min.) clear heat tempered or borosilicate glass.

Electrical Components:

- K. Meet the following ballast requirements and pass tests in accordance with Test Method Tex-1130-T, "Ballasts of Lighting Assemblies."
 - 1. Mount electrical components on a removable stainless steel or aluminum tray of adequate thickness.
 - 2. Provide a fixture wiring diagram on or near the ballast.
 - 3. Use a copper wound magnetic regulating three isolated coil ballast.
 - 4. Provide ballast factor between 0.95 and 1.0.
 - 5. When the circuit voltage indicated on the plans is applied, the ballast input wattage during fluctuations of the test voltage of plus 10 percent and minus 10 percent, do not exceed the following:
 - a. 220 Watts for 150 watt nominal lamp rating
 - b. 440 Watts for 250 watt nominal lamp rating
 - c. 552 Watts for 400 watt nominal lamp rating
 - 6. During fluctuation of the test voltage of plus 10 percent and minus 10 percent, ensure the lamp wattage fluctuation does not exceed a total of 20 percent and ballast maintains lamp wattage within the following limits.
 - a. 110 Watts minimum and 180 Watts maximum for 150 Watt nominal lamp rating
 - b. 175 Watts minimum and 370 Watts maximum for 250 Watt nominal lamp rating
 - c. 280 Watts minimum and 475 Watts maximum for 400 Watt nominal lamp rating
 - 7. Ensure the ballast power factor, when tested at circuit voltage indicated on the plans, is not less than 90%.
 - 8. Permanently and clearly mark ballast or fixture to indicate following:
 - a. Lamp type
 - b. Catalog number
 - c. Voltage rating
 - d. Connection diagram
 - e. Manufacturer
 - f. *UL listing
- L. Meet the following electronic starting aid requirements and pass tests in accordance with Test Method Tex-1140-T, "Electronic Starting Aids of High Pressure Sodium Vapor Lighting Assemblies."
 - 1. Provide a starting pulse with an amplitude of 2500 volts minimum, 4000 volts maximum.
 - 2. Ensure the pulse width is a minimum of 0.8 microseconds at 2250 volts.
 - 3. Ensure the pulse occurs when the open circuit voltage is equal to or greater than 90 percent of peak open circuit voltage.
 - 4. Ensure pulse repetition rate is a minimum of one per cycle.
 - 5. Provide a pulse current of 0.18 amperes (min.).
 - 6. Discontinue to pulse when, either,
 - a. the lamp starts, or
 - b. after a minimum of 3 minutes and a maximum of 10 minutes if the lamp fails to start.
- M. Do not place fuses inside pole mounted luminaires. For wall mount or underpass mounted luminaires, provide internal 10 amp time-delay fuses.
- N. Provide a two position terminal block for connecting supply wires which meet the following requirements:
 - 1. Insulate using nylon, porcelain, or phenolic material. Ensure phenolic terminal block is of adequate construction as approved by the Department.
 - 2. Fabricate terminals from nickel, tin plated brass, or aluminum.
- O. Equip fixture with MOV surge protection in accordance with IEEE recommendations.
 - 1. Connect MOV from line to neutral or from line to line.
 - 2. Install MOV on the terminal block.


Lamp & Socket:

- P. Provide *UL listed mogul base lamp sockets rated for 600 V, 1500 W that can withstand a 5000 V pulse. Meet *UL 496 requirements. Use porcelain-insulated lamp sockets with nickel plated copper alloy screw shells. Equip socket shell with a spring tensioned contact. Use nickel-plated copper alloy or stainless steel for the spring and contact.
- Q. Supply and secure lamps inside the fixture that meet the following:
 - 1. Use pre-qualified high pressure sodium (HPS) lamps from TxDOT's material producers list of the wattages shown on the plans. No alternatives allowed.
 - 2. Average rated lamp life 30,000 hours.
 - 3. Fully extinguish at end of usable lamp life and remain extinguished without cycling.
 - 4. Do not provide lamps that burn at reduced output at end of life.
 - 5. Meet the Federal Toxic Characteristic Leachate Procedure (TCLP) limits.

Performance:

- R. Meet the following photometric requirements using published photometric data and photometric data obtained by testing sampled fixtures.
 - 1. 150 Watt mast arm (underpass) mounted luminaire. Meet IESNA Cutoff requirements. Provide a minimum intensity of 0.20 foot-candle in a rectangular area measuring 110.0 ft. by 30.0 ft., when mounted in a level position as indicated on the properly mounted fixture level bubble 20.0 ft. above the midpoint of either long side of the surface area. Do not exceed 50:1 maximum to minimum horizontal illuminance uniformity ratio within the rectangular area.
 - 2. 250-watt mast arm mounted luminaire. Meet IESNA Cutoff requirements. Provide a minimum intensity of 0.20 foot-candle in a rectangular area measuring 190.0 ft. by 45.0 ft., when mounted properly in a level position as indicated on the level bubble 40.0 ft. above the midpoint either long side of the surface area. Ensure light intensities along a line parallel to and 20.0 ft. in from the long side of this rectangular area do not decrease by more than 0.50 foot-candles in any 5.0 ft. interval along the line from 10.0 ft. to 90.0 ft. on both sides of the luminaire and provide a minimum intensity of 0.30 foot-candles at any point along the line. Do not exceed 20:1 maximum-to-minimum horizontal illuminance uniformity ratio within the rectangular area.
 - 3. 400-watt mast arm mounted luminaire. Meet IESNA Cutoff requirements. Provide a minimum intensity of 0.20 foot-candle in a rectangular area measuring 220.0 ft. by 60.0 ft. when mounted properly in a level position as indicated on the level bubble 50.0 ft. above the midpoint of either long side of the surface area. Ensure light intensities along a line parallel to and 30.0 ft. in from the long side of this rectangular area do not decrease by more than 0.75 foot-candle in any 10.0 ft. interval along the line from 10.0 ft. to 90.0 ft. on both sides of the luminaire and provide a minimum intensity of 0.30 foot-candle at any point along the line. Do not exceed 20:1 maximum-to-minimum horizontal illuminance uniformity ratio within the rectangular area.
- S. Ensure photometric data is consistent from fixture to fixture. Match published photometric data (or approved photometric reports submitted during the prequalification process as the typical photometric output instead of published data) as follows:
 - 1. Point of maximum candela within 5 degrees horizontally and vertically.
 - 2. Maximum candela within 20% of published maximum candela.
 - 3. Fixture efficiency within 10% of published efficiency.

* When reference is made to UL, it can be considered to mean a Nationally Recognized Independent Testing Lab (NRTL). Comparable standards of Canadian Standard Association, Electrical Testing Laboratories or Factory Mutual can be equal to the referenced UL standard.


Texas Department of Transportation
 Traffic Operations Division
ROADWAY ILLUMINATION DETAILS
 (RDWY ILLUM LIGHT FIXTURES)
RID (LUM1) -07

© TxDOT January 2007		TxDOT	CKI TxDOT	TxDOT	CKI TxDOT
REVISIONS		DATE	SECT	JOB	HIGHWAY
			COUNTY	SHEET NO.	

The use of this standard is governed by the "Texas Engineering Practices Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DISCLAIMER:

DATE:
FILE:

Prequalification:

- T. Use only pre-qualified fixtures. No alternates will be considered.
1. Only materials with approved product codes or designations from prequalified producers are accepted on bids. The Construction Division (CST) of the Texas Department of Transportation (TxDOT) maintains the material producers list of approved producer product codes or designations. Use the following website to view this list: http://www.dot.state.tx.us/business/producer_list.htm
Use of prequalified material does not relieve the contractor of the responsibility to provide materials that meet the specifications. All materials, including those shown on the prequalified material list, may be inspected and tested at any time and may be rejected if not in compliance with the specifications.
 2. Notify the Department in writing as to which fixture from the prequalified list of approved fixtures will be supplied on each project.
 3. To have a fixture listed as pre-qualified:
 - a. Submit a sample of each type of luminaire and all pertinent data, including published photometric data and recently tested photometric data (IES format, both "averaged" and both sides of "un-averaged" data) to: TxDOT- TRF 118 East Riverside Dr. Austin, TX 78704
 - b. Demonstrate a commitment to quality.
 - c. Submit the following documentation:
 1. QA/QC program documentation with the following minimum requirements:
 - a. Written statement of the companies QA/QC policy.
 - b. QA/QC person employed that has special QA/QC training and has QA/QC as their primary job responsibility.
 - c. A written procedure specifically for handling orders for fixtures built to TxDOT specifications.
 - d. A written procedure for keeping track of fixtures built, certified, and tested for TxDOT orders.
 - e. A check list of features for TxDOT fixtures with QA/QC person signature.
 2. Fixture UL certification
 3. IP 65 certification
 4. 3G certification
 5. Aluminum casting and paint analysis
 6. Socket, MOV, and shutoff ignitor data
 7. Stainless steel and aluminum bracket data
 8. Ballast electrical data
 9. Photometric data
 10. Lamp data
 - d. Prequalification samples, if approved, will not be returned to the manufacturer but will be retained by the Department for comparison testing. Once a fixture has been approved, do not change any material or manufacturing method without prior approval of the Department. Unapproved changes will result in rejection of the fixture.
 - e. In addition, luminaires will be tested for compliance with this specification. Luminaires that inconsistently pass testing or that are inconsistent with published photometric information will be removed from the pre-qualified list at the discretion of the Department.

Sampling:

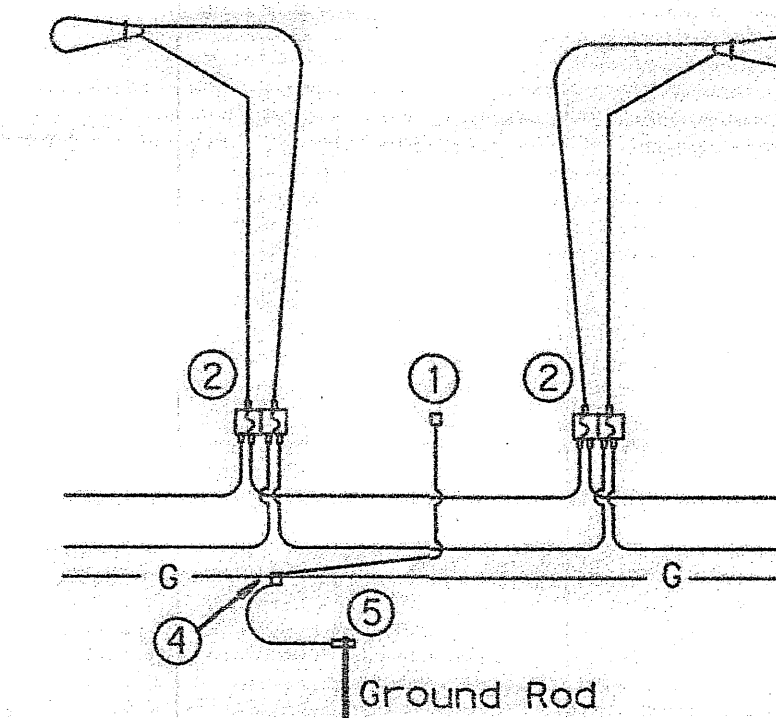
- U. Sample in accordance with Test Method Tex-1110-T, "Sampling Lighting Assemblies."

Manufacturer Warranty:

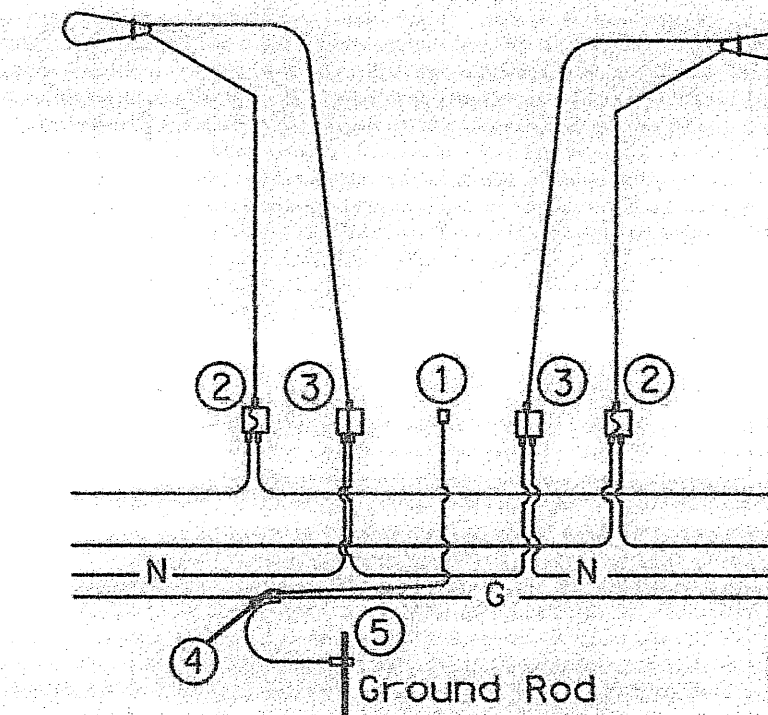
- V. Replace failed fixtures, when non-operable due to defects in materials or workmanship within five years of installation with a fixture that passes all testing, delivered to the project location. Lamps and photocells are subject to the warranties of their respective manufacturers.

Testing:

- W. Conduct electrical testing required in the Ballast section. Provide photometric testing of fixtures. Test fixtures at the following rates.
1. Manufacturer Testing. Before fixtures are shipped from the manufacturer, test fixtures as follows. From each lot or manufacturing run, select one completed fixture of each 25, with a minimum of 2 and a maximum of 5. Test photometrics at an independent test lab inspected and approved by TxDOT. Electrical testing may be performed at manufacturer's facility.
 - a. Provide IES photometric report in two formats:
 1. Standard averaged format for asymmetric fixtures.
 2. Un-averaged format showing both sides. Un-averaged data may be supplied in two files or as approved by the Department.
 - b. Provide electrical and photometric test data directly to TRF-TE electronically for evaluation prior to shipping fixtures to the project. Do not ship fixtures until test data for each lot is approved by TRF-TE.
 - c. Provide the following information on test reports:
 1. TxDOT's Control-Section-Job number, maintenance contract number, or purchase order number the fixtures are assigned to,
 2. a unique fixture test number per fixture,
 3. date of manufacture, and
 4. quantities supplied and lot number per fixture type.
 - d. Write the unique lab report number on the top of the fixture housing with permanent marker. Ensure the test lab retains the results for 5 years. Provide the Department access to documentation.
 - e. Retain records of manufacturing lots, test reports, lot quantities, and other pertinent details. Submit records to the Department upon request.
 - f. Submit to TRF-TE a daily shipment report for shipments to each job.
 - g. Make available to TxDOT inspectors upon request, all manufacturing facilities involved in the production of fixtures for use on Department projects, inventories of fixtures produced to Department specifications, and records of fixture testing and tracking.
 2. Departmental Test Reporting. Departmental test reports will be issued in accordance with Tex 1110-T.



FOR THREE-WIRE CIRCUIT-CENTER GROUNDED
 LUMINAIRES SERVED AT 480V ON 240/480 VOLT SERVICE OR LUMINAIRES SERVED AT 240V FOR 120/240 VOLT SERVICE.



FOUR-WIRE CIRCUIT-CENTER GROUNDED
 LUMINAIRES SERVED AT 240V (240/480 VOLT SERVICE)

NOTES:

- ① Use 1/2 in.-13 UNC threaded, copper or tin-plated copper, pole bonding connector, sized appropriately for conductors.
- ② ③ Use pre-qualified Breakaway Connectors for both T-Base and Shoe-Base installations.
- ④ Split Bolt or other connector.
- ⑤ Use Ground Rod Clamp listed for its intended purpose (i.e. concrete, direct burial...)

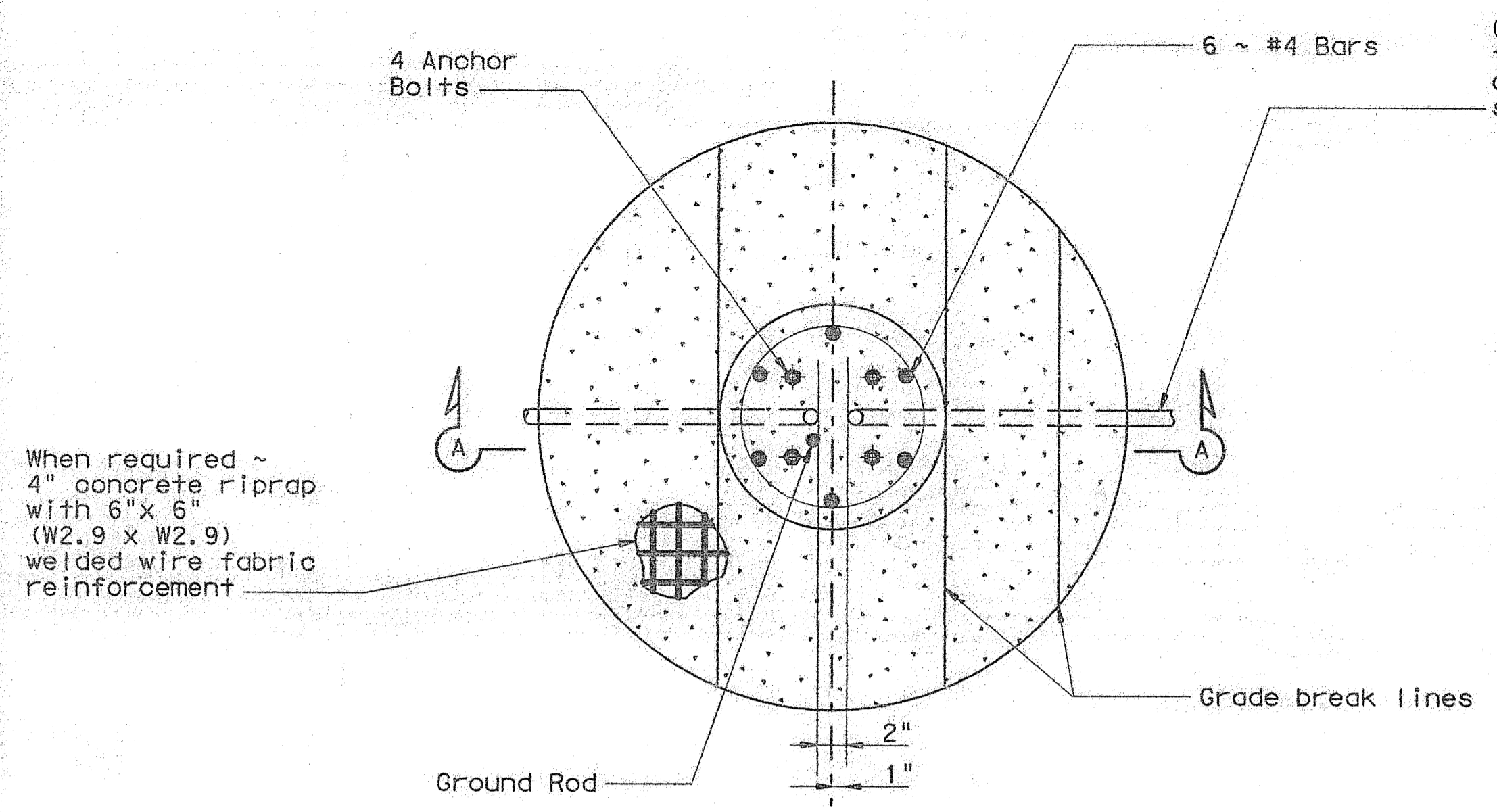
Sheet 2 of 2

Texas Department of Transportation
 Traffic Operations Division
ROADWAY ILLUMINATION DETAILS
 (RDWY ILLUM LIGHT FIXTURES)
RID (LUM2) -07

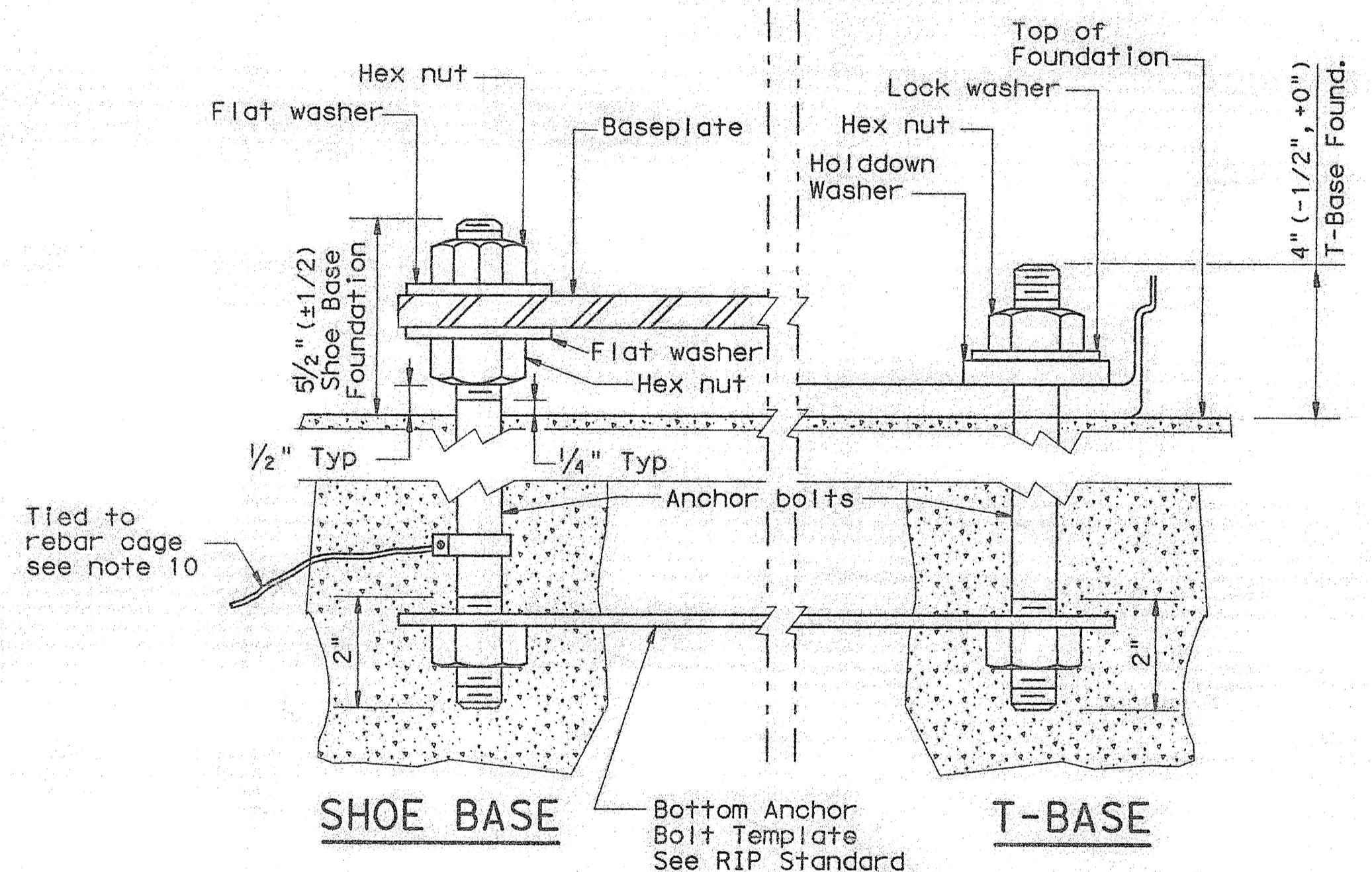
© TxDOT January 2007		CHK1 TxDOT	CHK2 TxDOT	CHK3 TxDOT	CHK4 TxDOT
REVISIONS		CHK1	SECT	JUL3	HIGHWAY
DIST		COUNTY		SHEET NO.	

72B

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever, including but not limited to, the use of this standard to other formats or for incorrect results or damages resulting from its use.



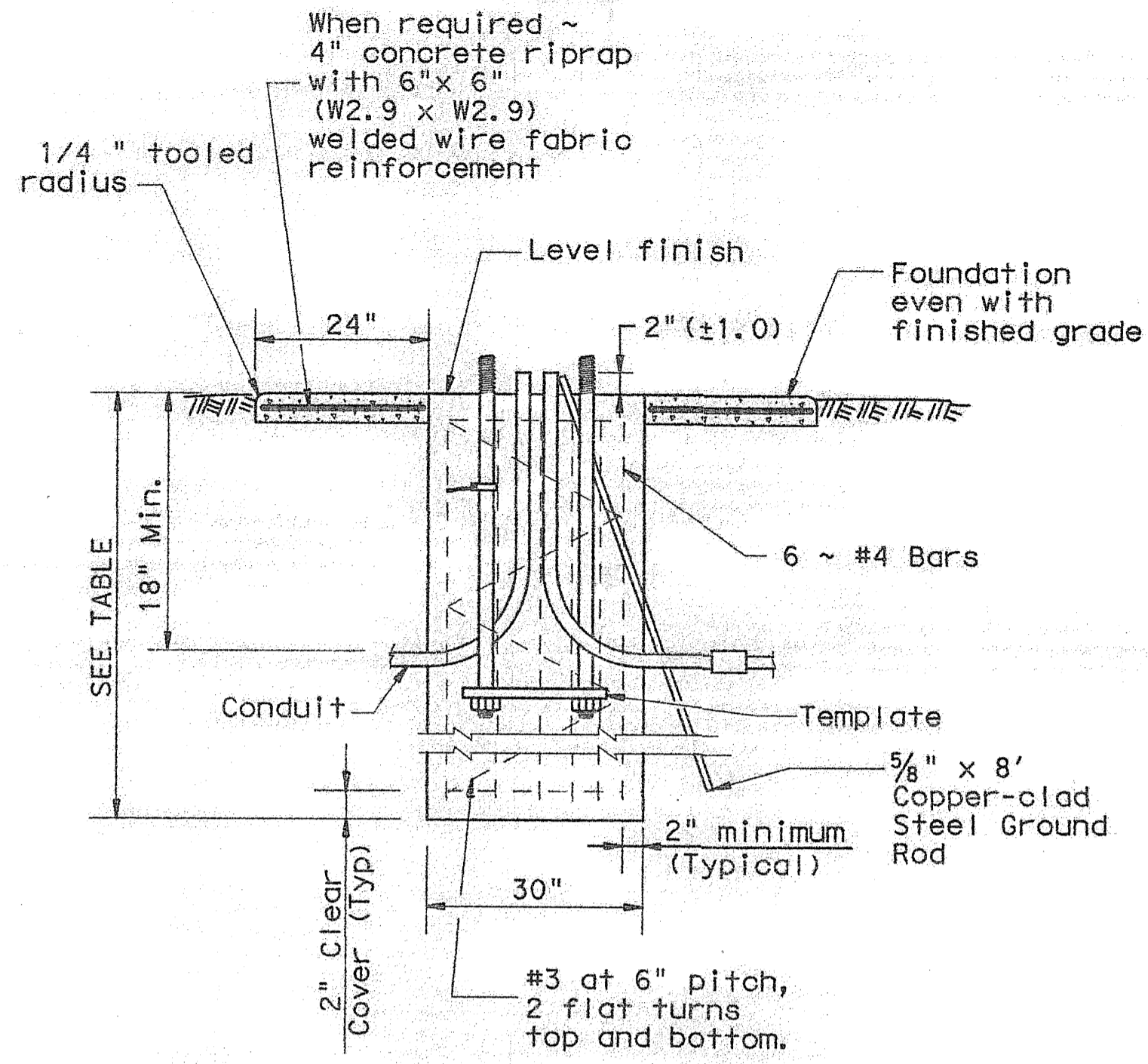
FOUNDATION DETAIL



ANCHOR BOLT DETAIL

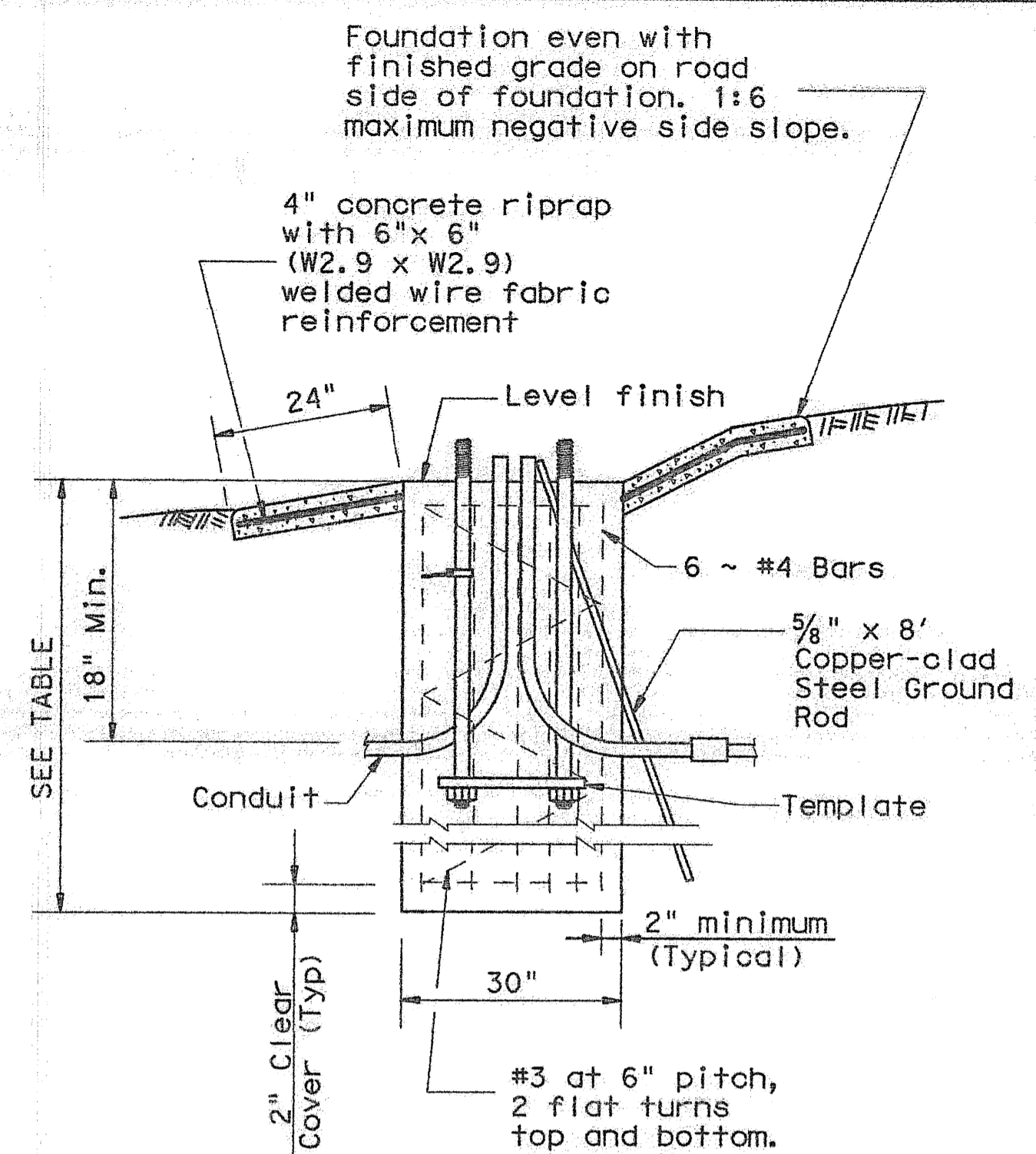
- "Recommended Foundation Lengths" table is for information purposes only. Foundation lengths shall be as shown on the plans, or as directed by the Engineer. Foundations will be paid for under Item 416, "Drilled Shaft Foundations," unless otherwise shown on the plans.
- Erect roadway illumination assembly poles plumb and true. Form and level the top 6" of the foundation so the pole will be plumb. Use leveling nuts to plumb shoe base poles. Do not use shims or leveling nuts under transformer bases. Do not grout between baseplate and the foundation.
- Ensure Class 2A and 2B fit for anchor bolts and nuts. Tap and chase nuts after galvanizing. Anchor bolt body with rolled threads need not be full size.
- Use appropriate class of concrete as specified in Items 416 and 432.
- Place riprap around the foundation when called for elsewhere in the plans. Riprap will be paid for under Item 432.
- Locate breakaway roadway illumination assemblies as shown in the placement table, unless otherwise dimensioned on the plans. Protect non-breakaway illumination assemblies from vehicular impact (i.e. 2 ft. behind guard rail or mounted on traffic barrier), or located outside the clear zone, except that 2.5 ft. from curb face is minimum desired for light poles on city streets, 45 mph or less, see design guidelines for further information.
- Use 8 hold down washers on transformer base poles as recommended by the manufacturer and supplied with base.
- Install a minimum of 2 conduits in each foundation. See lighting layout sheets for locations of foundations with more than 2 conduits. Cap unused conduits in foundations on both ends.
- Conduit location in foundations is critical for breakaway devices. Place conduits 2 in. apart on centerline as shown.
- Bond anchor bolt to rebar cage with #6 bare stranded copper conductor. Use listed mechanical connectors rated for embedment in concrete.
- Use rip rap on T-base foundations that are located on a sloped grades.

Conduit (See lighting layout for conduit size. Match duct cable size if used. See ED standard sheets.)



SECTION A-A

SHOWING CONSTANT GRADE



SECTION A-A

SHOWING SLOPED GRADE

PAY QUANTITY OF RIPRAP PER FOUNDATION
(Install only when shown on the plans)

Foundation Diameter	RIPRAP DIAMETER	RIPRAP (CONC) (CL B)
30 in.	78 in.	0.35 CY

RECOMMENDED FOUNDATION LENGTHS
(See note 1)

MOUNTING HEIGHT	TEXAS CONE PENETROMETER N Blows/ft		
	10	15	40
<20 ft.	6'	6'	6'
>20 ft. to 30 ft.	8'	6'	6'
>30 ft. to 40 ft.	8'	8'	6'
>40 ft. to 50 ft.	10'	8'	6'

ANCHOR BOLTS

POLE MOUNTING HEIGHT	BOLT CIRCLE		ANCHOR BOLT SIZE
	Shoe Base	T-Base	
<40 ft.	13 in.	14 in.	1 in. x 30 in.
40-50 ft.	15 in.	17 1/4 in.	1 1/4 in. x 30 in.

BREAKAWAY POLE PLACEMENT (See note 6)

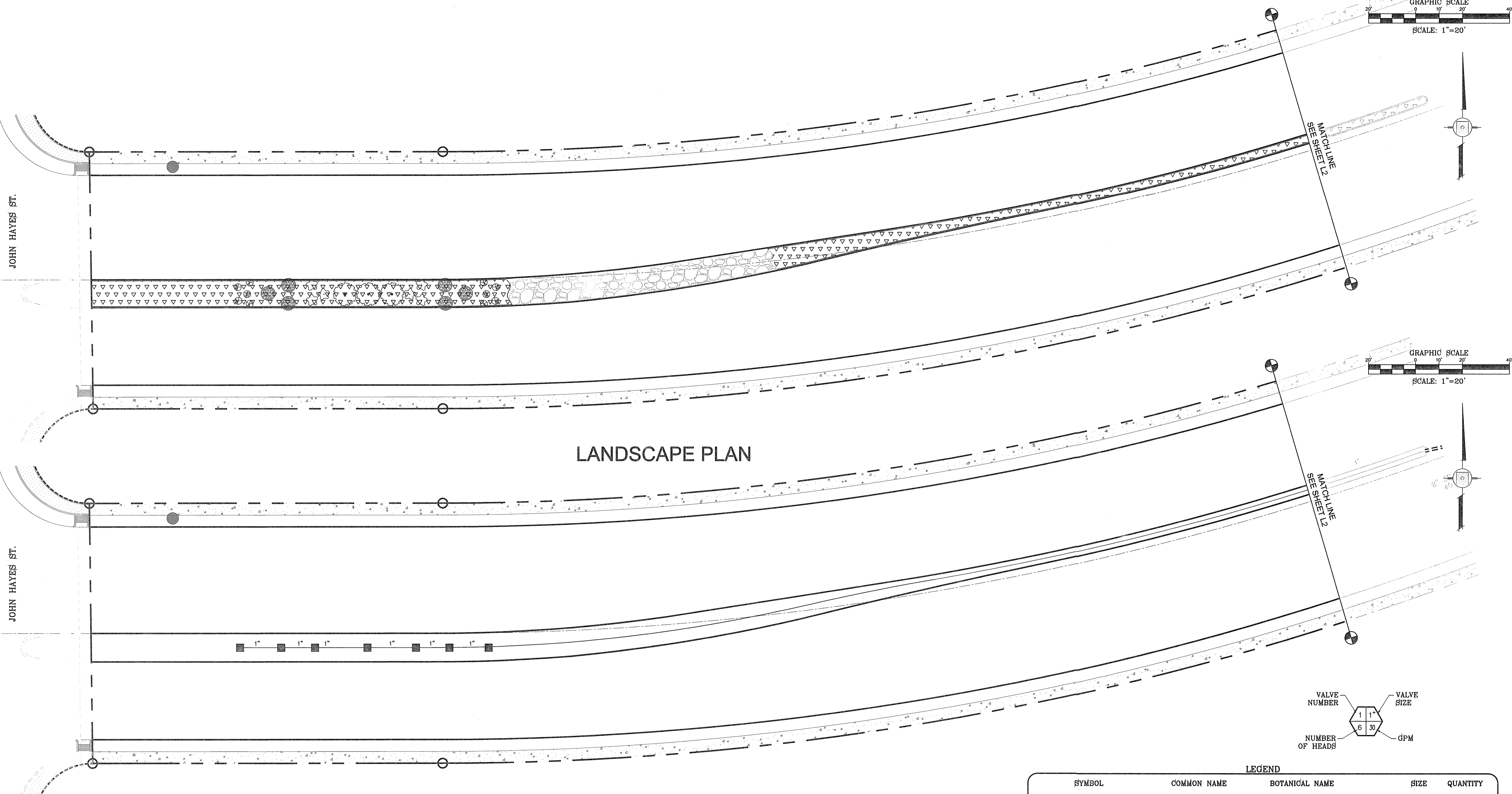
Roadway Functional Classification	** Pole offset (distance to transformer base, tolerance + 6 in. - 0 in.)
Freeway Mainlanes (roadway with full control of access)	15 ft. (minimum and typical) from lane edge
All curbed, 45 mph or less design speed	2.5 ft. minimum (15 ft. desirable) from curb face
All others	10 ft. minimum*(15 ft. desirable) from lane edge

* or as close to ROW line as is practical
 ** provide 2/5 of the luminaire mounting height behind the pole for "falling area" to prevent encroachment on the other travel lanes. See design guidelines.

Texas Department of Transportation
 Traffic Operations Division
ROADWAY ILLUMINATION DETAILS
 (RDWY ILLUM FOUNDATIONS)
RID (FND) -07

© TxDOT January 2007	014 TxDOT	021 TxDOT	024 TxDOT	021 TxDOT
REVISIONS	DATE	BY	APP'D	DESCRIPTION

FILE LOCATION S:\LANDSCAPE\TDE 69\TDE_69-LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:37:38 PM BY OSCAR MEDINA

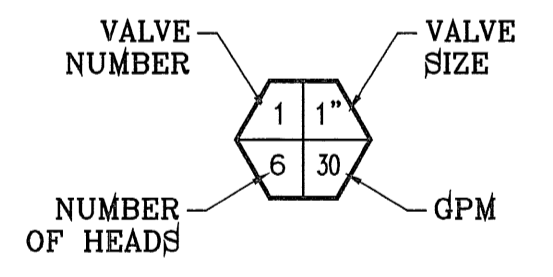


LANDSCAPE PLAN

IRRIGATION PLAN

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

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHADE SHAPE	FRAXINUS VELUTINA	2" CAL.	6
	RAYWOOD ASH Q TIPPED SHAPE	FRAXINUS ANGUSTIFOLIA	2" CAL.	6
	NEW GOLD LANTANA	LANTANA CAMARA 'NEW GOLD'	1 GAL.	42
	AUTUM SAGE	SAVLIA GREGGII	5 GAL.	42
	OLEANDER PINK	DWARF NERIUM OLEANDER	5 GAL.	42
	TEXAS SAGE	LEUCOPHYLLUM 'FRUTESCENS'	3 GAL.	70
	3/4" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3" ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			
	RIVER ROCK, WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3" ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			



IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13087, AUSTIN, TX 78711-3088, (512) 239-6719

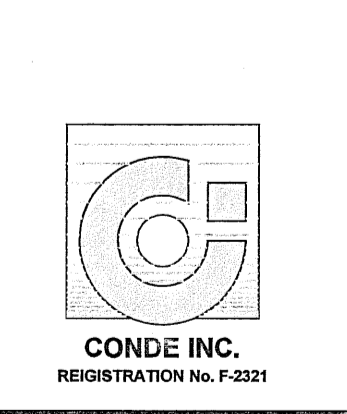
BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOGROOT POINT DR. AND JOHN HAYES ST., ELEVATION 4620.66
DATE	
REVISIONS	
BY	

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 78, TOWNSHIP 20 TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF DALLAS, TEXAS
CONTAINING: 90.66± ACRES

SCALE	HORIZ: 1" = 20'
VERT:	---
DATE:	JAN. 2012
DESIGN BY:	O.M.
INITIATED BY:	O.M.
CHECKED BY:	Y.C.
JOB NO.:	211-50

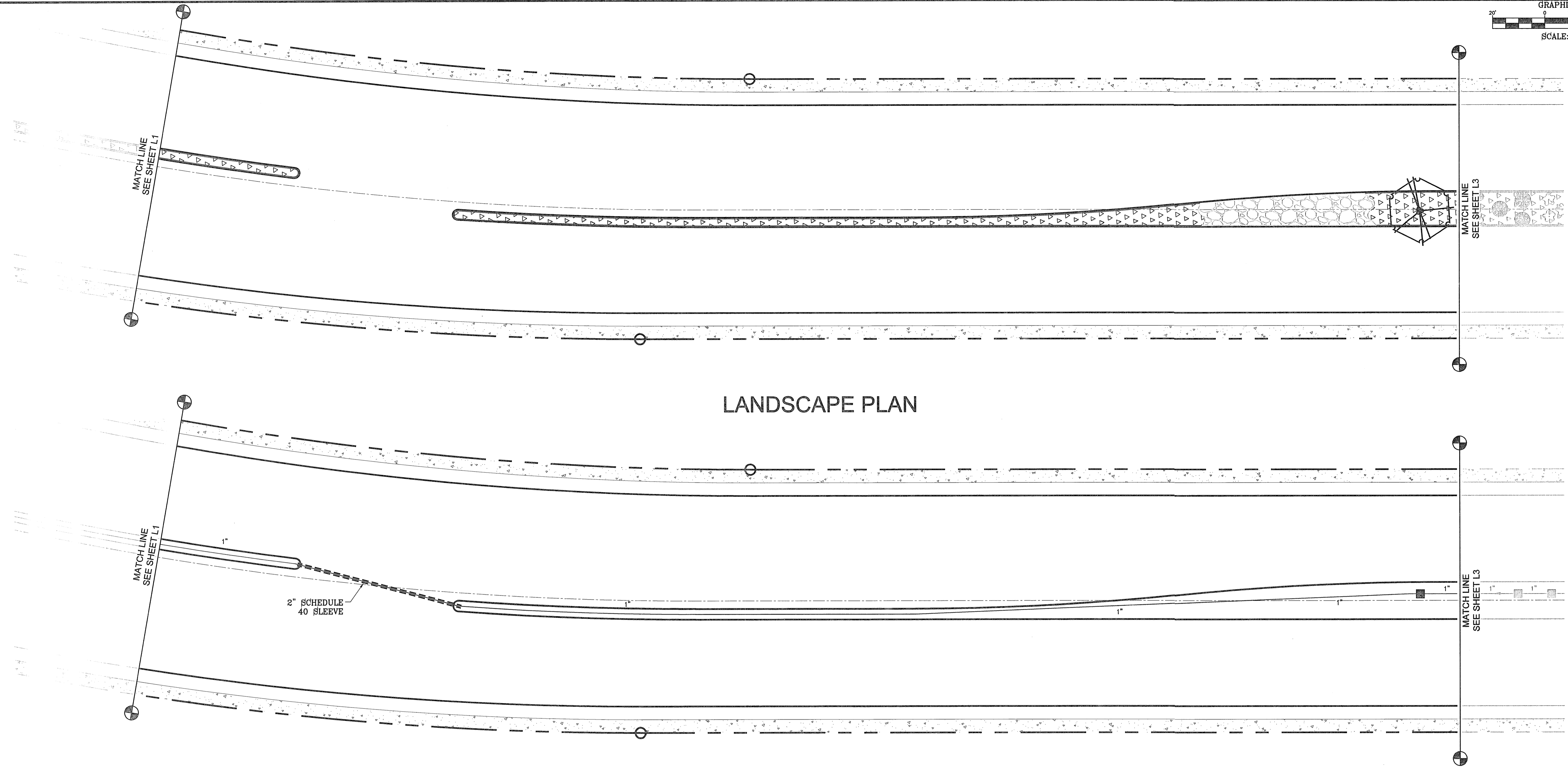


CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286



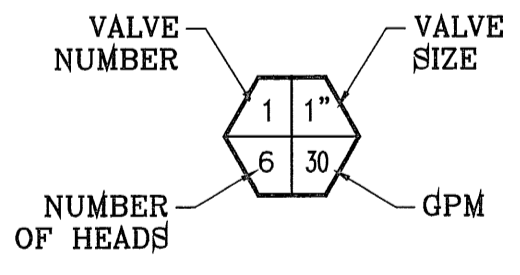
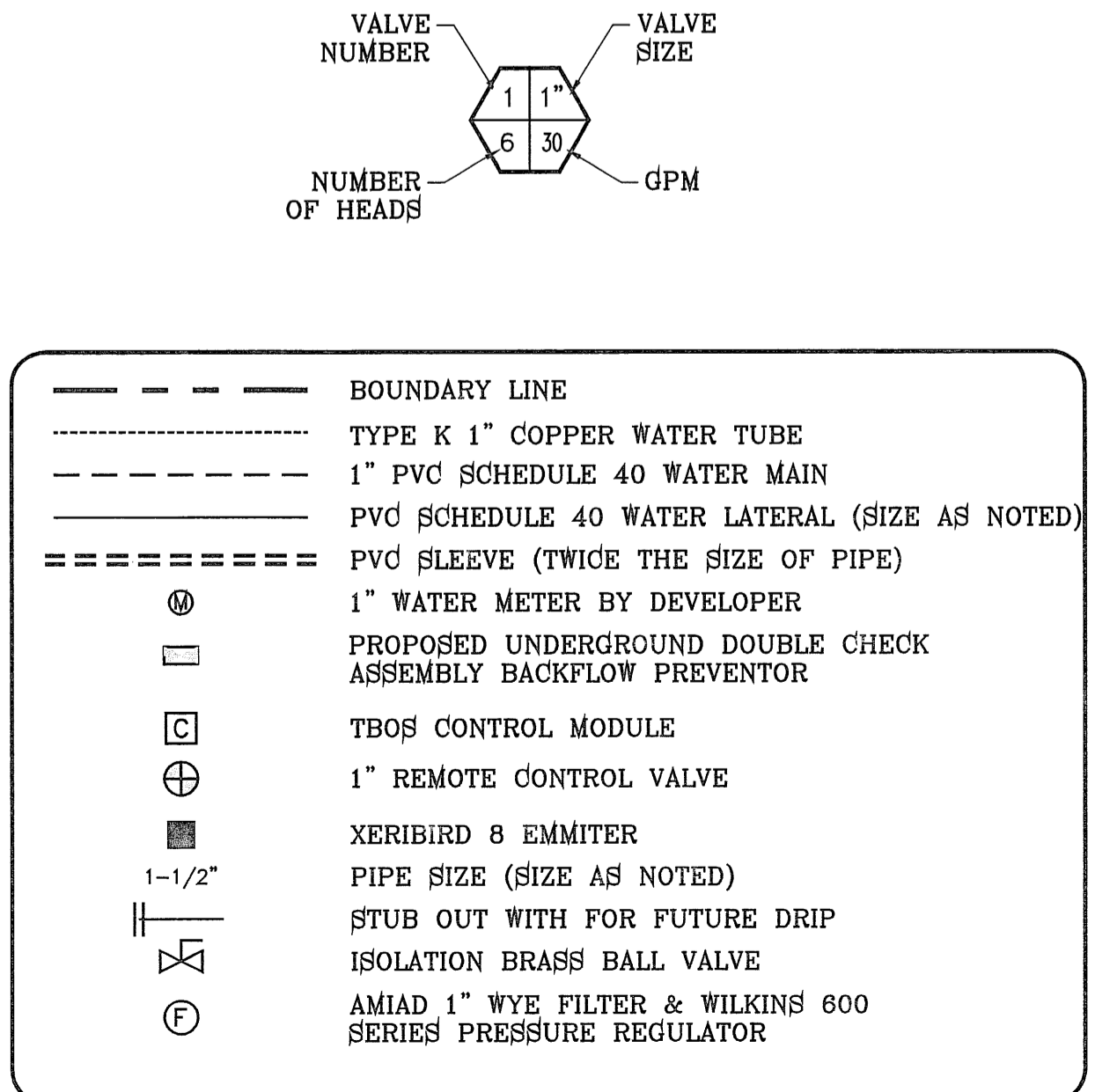
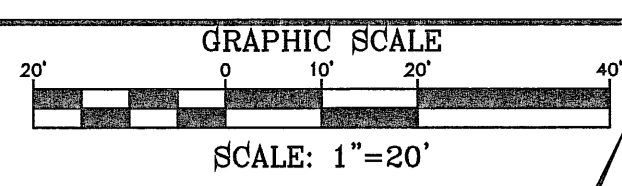
SHEET TITLE
PEBBLE HILLS BLVD. MEDIAN LANDSCAPE AND IRRIGATION

FILE LOCATION IS: \LANDSCAPE_VDE_69\YDE_69-LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:37:49 PM BY OSCAR MEDINA



LANDSCAPE PLAN

IRRIGATION PLAN



SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHADE SHAPE	FRAXINUS VELUTINA	2" CAL.	6
	RAYWOOD ASH Q TIPPED SHAPE	FRAXINUS ANGSTIFOLIA	2" CAL.	6
	NEW GOLD LANTANA	LANTANA CAMARA 'NEW GOLD'	1 GAL.	42
	AUTUM SAGE	SALVIA GREGGII	5 GAL.	42
	OLEANDER PINK	DWARF NERIUM OLEANDER	5 GAL.	42
	TEXAS SAGE	LEUCOPHYLLUM 'FRUTESCENS'	3 GAL.	70
	3/4" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12' ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			
	RIVER ROCK, WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12' ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			

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

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

REGISTRATOR'S SEAL
7/13/12
REYNOLDO MARTINEZ
PROF.
REGISTERED PROFESSIONAL SURVEYOR

SCALE
HORIZ: 1" = 20'
VERT: ---
DATE: JAN. 2012
DESIGN BY: O.M.
INITIATED BY: O.M.
CHECKED BY: Y.C.
JOB NO.: 211-60

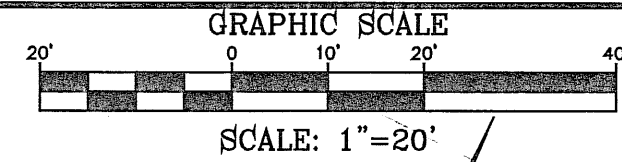
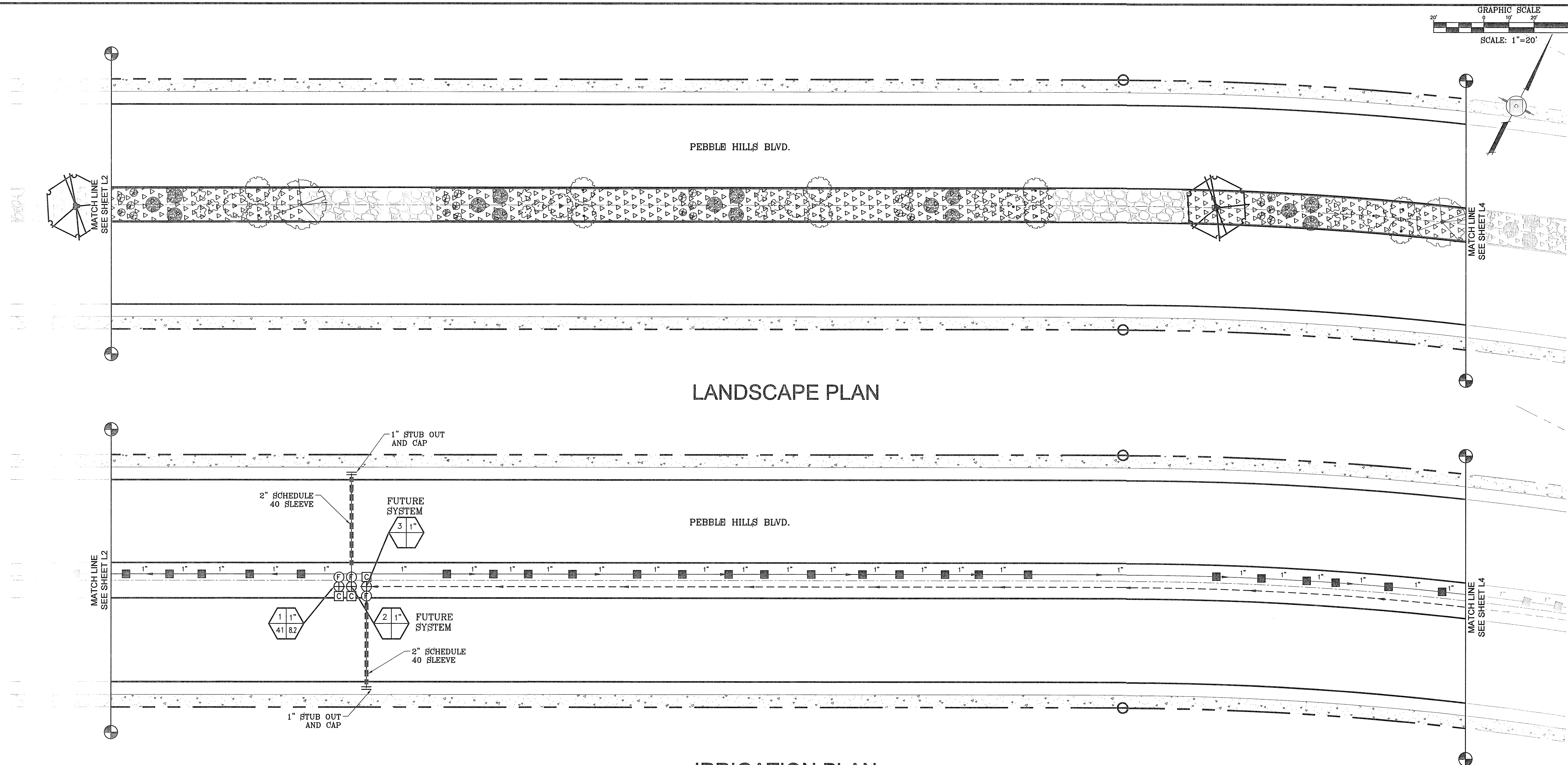
PROJECT NAME
TERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY Co. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.186± ACRES

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58
DATE: _____
BY: _____
REVISIONS

SHEET TITLE
PEBBLE HILLS BLVD. MEDIAN LANDSCAPE AND IRRIGATION

SHT L2 OF L12

FILE LOCATION: S:\LANDSCAPE\TDE 69\TDE 69-LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:35:00 PM BY OSDIAR MEDINA

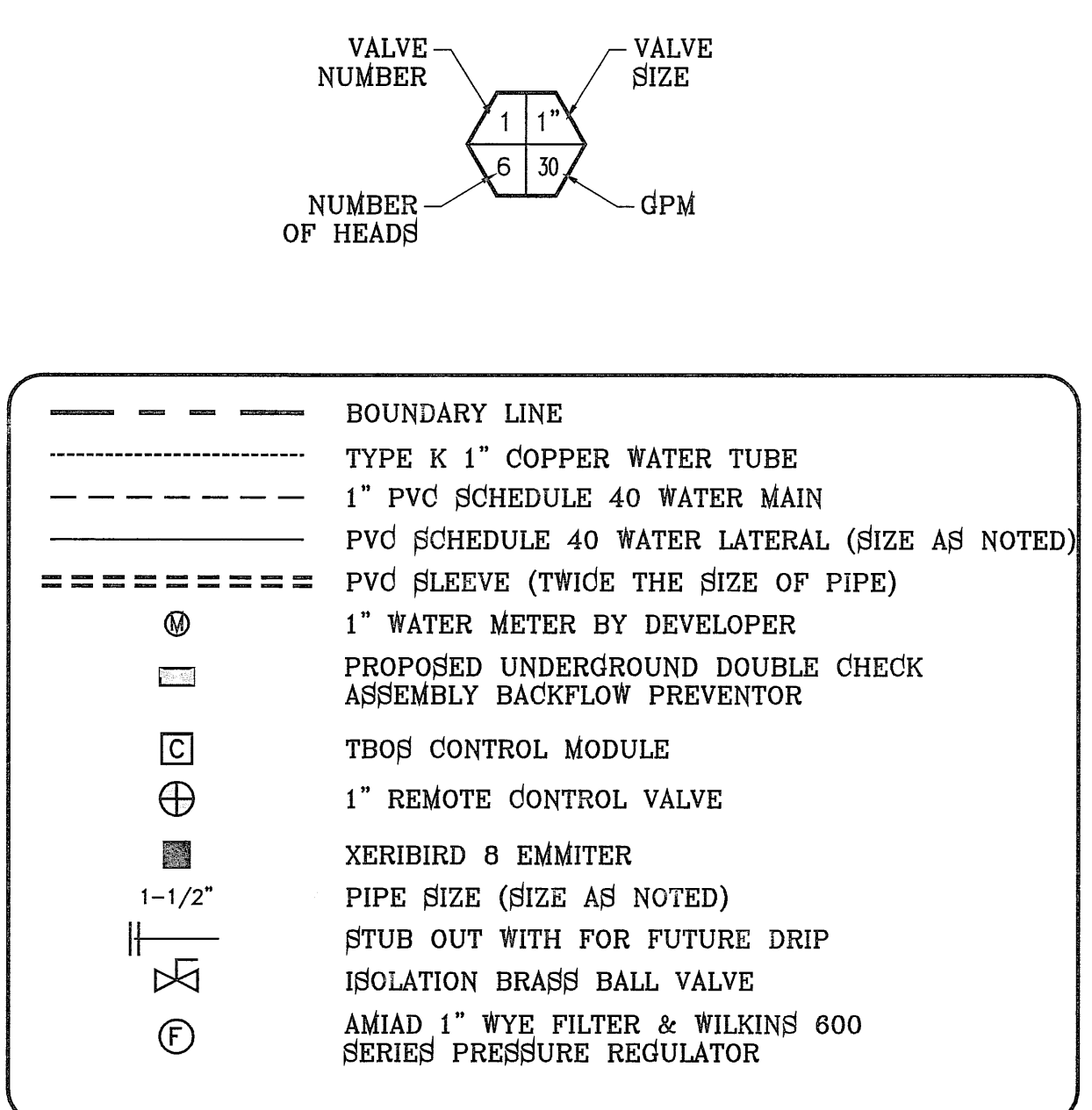


PEBBLE HILLS BLVD.

LANDSCAPE PLAN

PEBBLE HILLS BLVD.

IRRIGATION PLAN



SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHADE SHAPE	FRAXINUS VELUTINA	2" CAL.	6
	RAYWOOD ASH Q TIPPED SHAPE	FRAXINUS ANGUSTIFOLIA	2" CAL.	6
	NEW GOLD LANTANA	LANTANA CAMARA 'NEW GOLD'	1 GAL.	42
	AUTUM SAGE	SALVIA GREGGII	6 GAL.	42
	OLEANDER PINK	DWARF NERIUM OLEANDER	5 GAL.	42
	TEXAS SAGE	LEUCOPHYLLUM 'FRUTESCENS'	3 GAL.	70
	3/4" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			
	RIVER ROCK, WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			

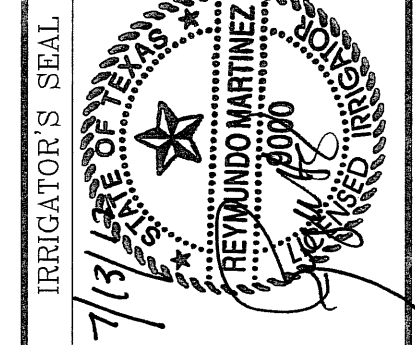
IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13087, AUSTIN, TX 78711-308, (512) 239-6719

BENCHMARK

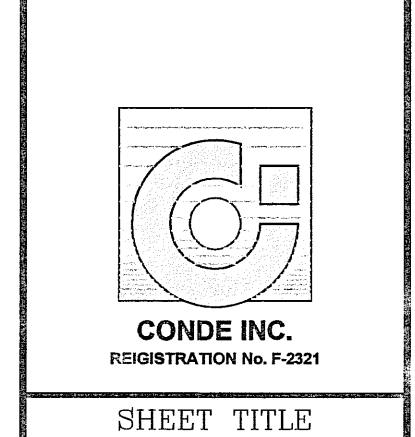
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST.	BY
ELEVATION 4020.68	DATE
REVISIONS	

PROJECT NAME
TERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79, TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 90.166± ACRES

SCALE
HORIZ: 1" = 20'
VERT: ---
DATE: JAN. 2012
DESIGN BY: O.M.
INITIATED BY: O.M.
CHECKED BY: Y.C.
JOB NO.: 211-60

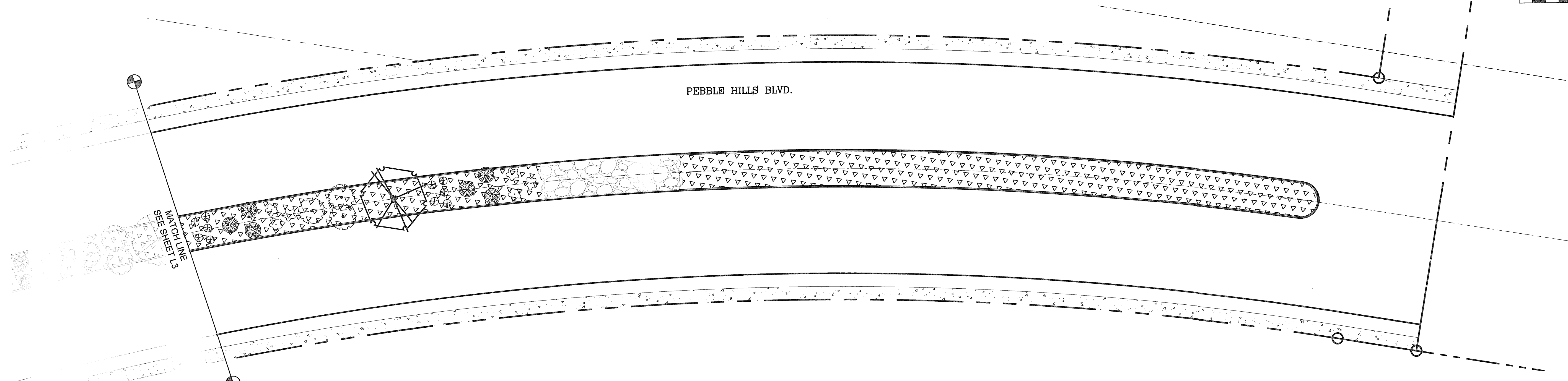
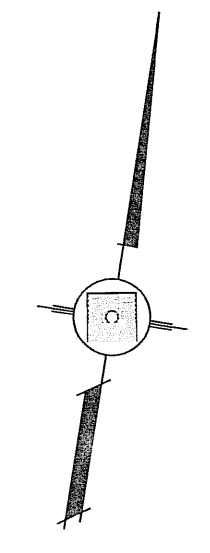
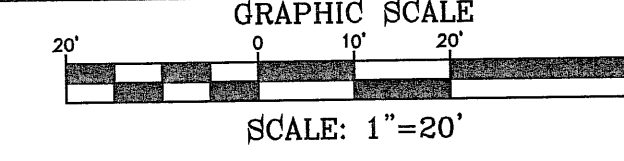


CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 692-0283
FAX: (915) 692-0286

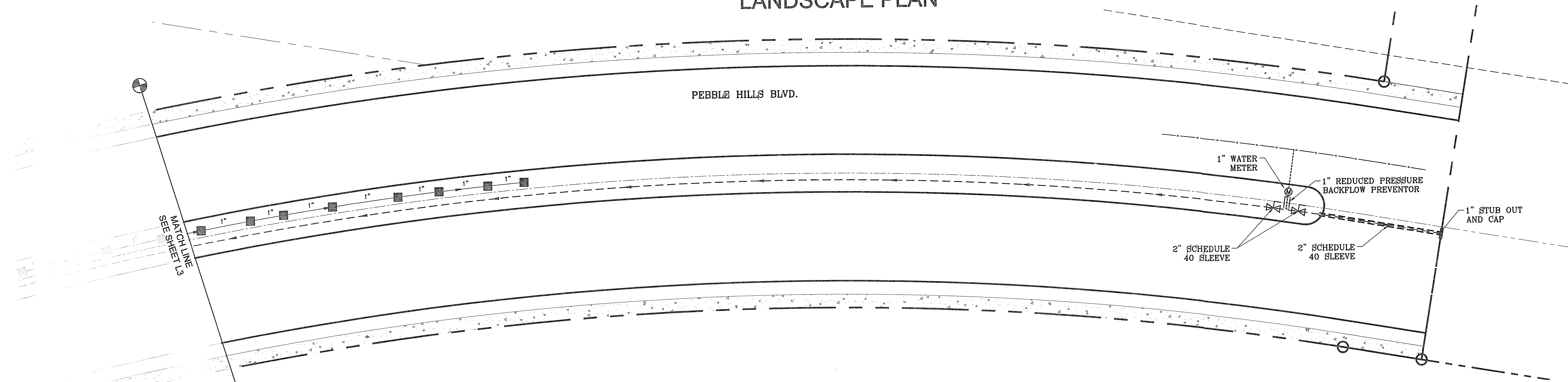


SHEET TITLE
PEBBLE HILLS BLVD. MEDIAN LANDSCAPE AND IRRIGATION

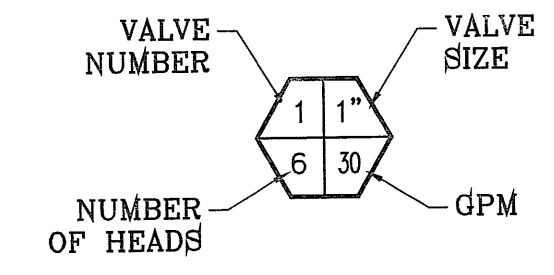
FILE LOCATION S:\LANDSCAPE\TDE 69 YDE 69 LANDSCAPE.TDE 69 YDE 69 LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:38:07 PM BY OSCAR MEDINA



LANDSCAPE PLAN



IRRIGATION PLAN



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

LEGEND				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHADE SHAPE	FRAXINUS VELUTINA	2" CAL.	6
	RAYWOOD ASH Q TIPPED SHAPE	FRAXINUS ANGSTIFOLIA	2" CAL.	6
	NEW GOLD LANTANA	LANTANA CAMARA 'NEW GOLD'	1 GAL.	42
	AUTUM SAGE	SAVLIA GREGGII	5 GAL.	42
	OLEANDER PINK	DWAF NERIUM OLEANDER	5 GAL.	42
	TEXAS SAGE	LEUCOPHYLLUM 'FRUTESCENS'	3 GAL.	70
	3/4" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			
	RIVER ROCK, WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			

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

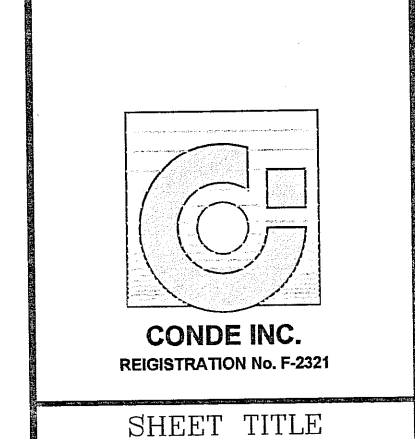
TIERRA DEL ESTE UNIT SIXTY NINE

BENCHMARK	CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.68	DATE	REVISIONS	BY

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 46, BLOCK 79, TOWNSHIP 2, TEXAS AND RANGE 130, COUNTY TARRANT, TEXAS CITY OF TARRANT, TEXAS
CONTAINING: 90.186± ACRES

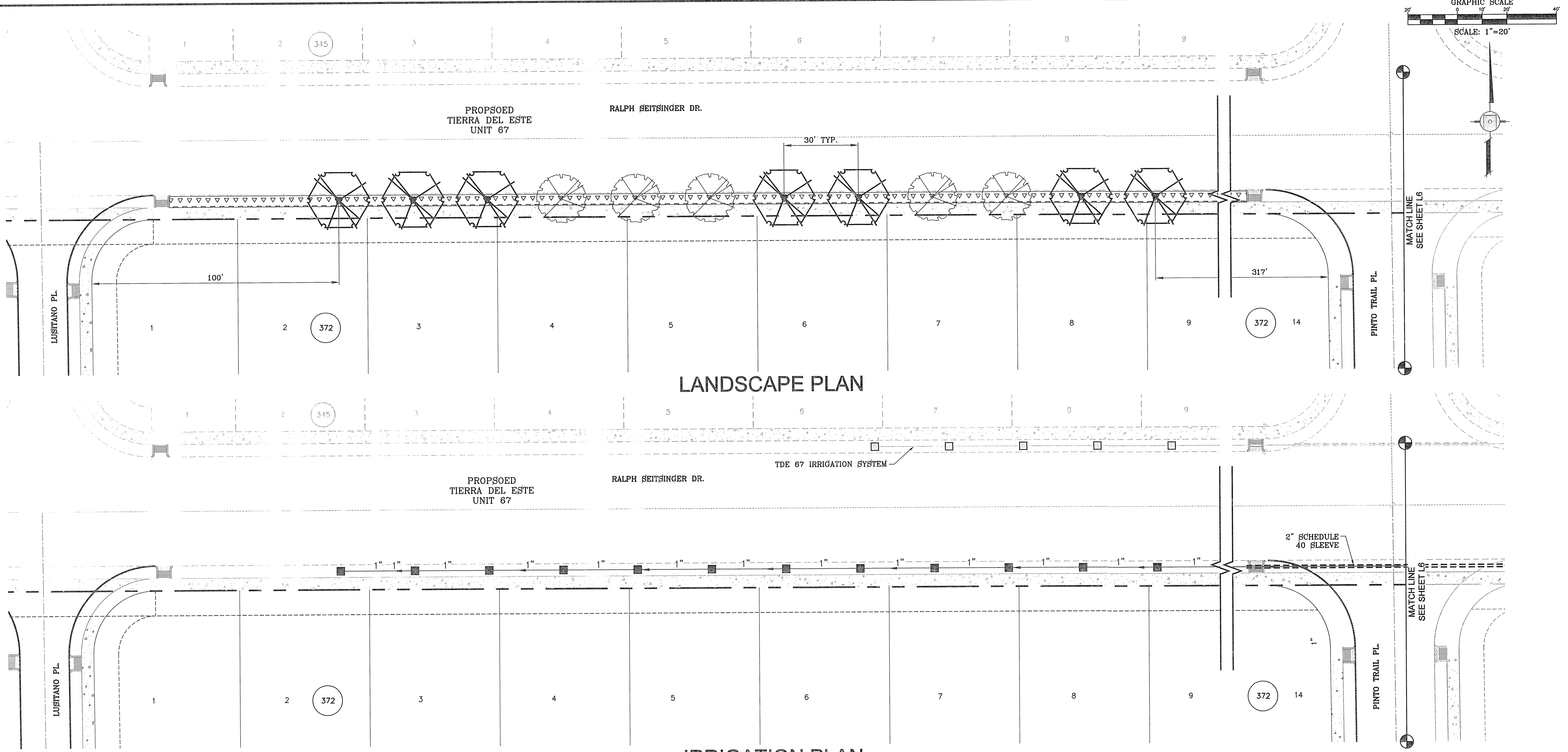
SCALE
HORIZ: 1" = 20'
VERT: ---
DATE: JAN. 2012
DESIGN BY: O.M.
INITIATED BY: O.M.
CHECKED BY: Y.C.
JOB NO.: 211-50

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0583
FAX: (915) 592-0286



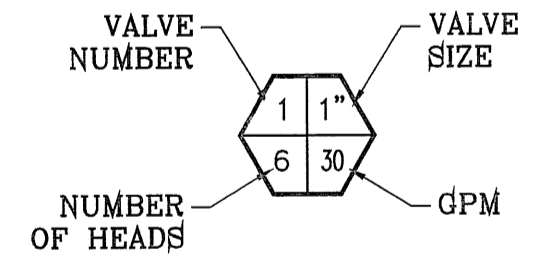
SHEET TITLE
PEBBLE HILLS BLVD. MEDIAN LANDSCAPE AND IRRIGATION

FILE LOCATION S:\LANDSCAPE\TDE 69\TDE 69-LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:38:17 PM BY OSCAR MEDINA



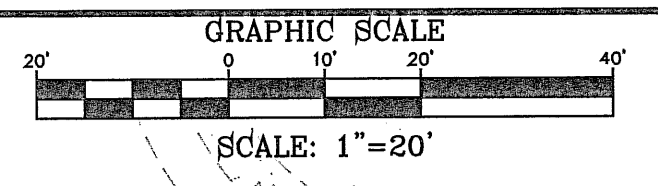
LANDSCAPE PLAN

IRRIGATION PLAN



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

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHADE SHAPE	FRAXINUS VELUTINA	2" CAL.	8
	RAYWOOD ASH Q TIPPED SHAPE	FRAXINUS ANGUSTIFOLIA	2" CAL.	10
	3/4" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3" ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			



BENCHMARK	BY
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58	
DATE	REVISIONS

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 97 AND 48, BLOCK 70, TOWNSHIP 22 S., RANGE 10 E., COUNTY OF EL PASO, TEXAS. CITY OF EL PASO, EL PASO COUNTY, TEXAS. CONTAINING: 90.166± ACRES

SCALE
HORIZ: 1" = 20'
VERT: ---
DATE: JAN. 2012
DESIGN BY: O.M.
INITIATED BY: O.M.
CHECKED BY: Y.C.
JOB NO.: 211-60

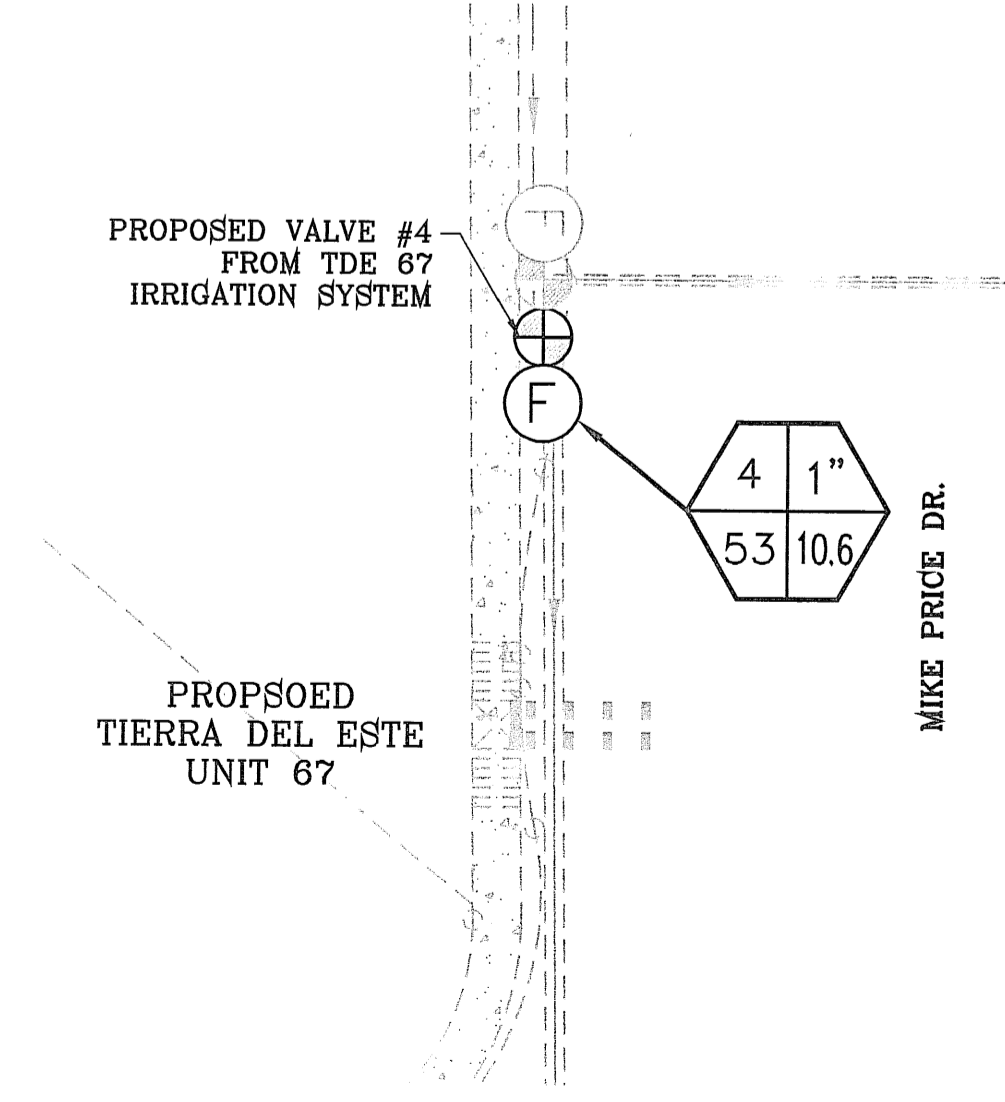
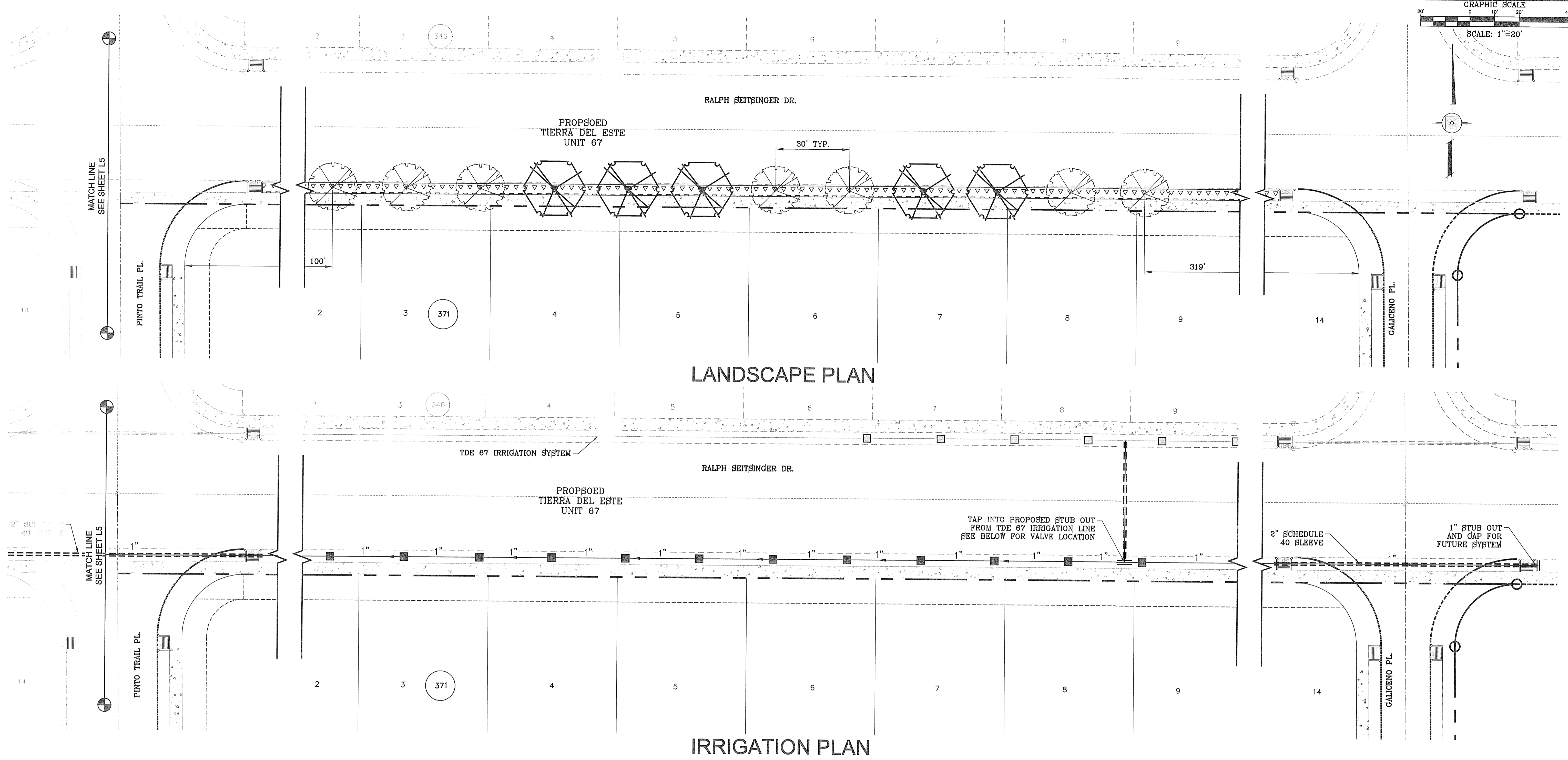
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0263
FAX: (915) 592-0286

CONDE INC.
REGISTRATION No. P-2321

SHEET TITLE
RALPH SEITSINGER LANDSCAPE & IRRIGATION

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

FILE LOCATION S:\LANDSCAPE\TDE 69\TDE_69_LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:38:29 PM BY OSCAR MEDINA



- BOUNDARY LINE
- TYPE K 1" COPPER WATER TUBE
- 1" PVC SCHEDULE 40 WATER MAIN
- PVC SCHEDULE 40 WATER LATERAL (SIZE AS NOTED)
- PVC SLEEVE (TWICE THE SIZE OF PIPE)
- 1" WATER METER BY DEVELOPER
- ⊕ FEBCO 825YD 3" RPBA W/ HYDRO-COWL ENCLOSURE
- ⊕ TBO'S CONTROL MODULE
- ⊕ 1" REMOTE CONTROL VALVE
- ⊕ XERIBIRD 8 EMMITER
- 1-1/2" PIPE SIZE (SIZE AS NOTED)
- ⊕ STUB OUT WITH FOR FUTURE DRIP
- ⊕ ISOLATION BRASS BALL VALVE
- ⊕ AMIAD 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
	ARIZONA ASH CLASSIC SHADE SHAPE	FRAXINUS VELUTINA	2" CAL.	8
	RAYWOOD ASH Q TIPPED SHAPE	FRAXINUS ANGUSTIFOLIA	2" CAL.	10
	3/4" PADRE CANYON SCREENING, 3" DEPTH W/ NON-WOVEN POLYPROPYLENE WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12" ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			

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

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

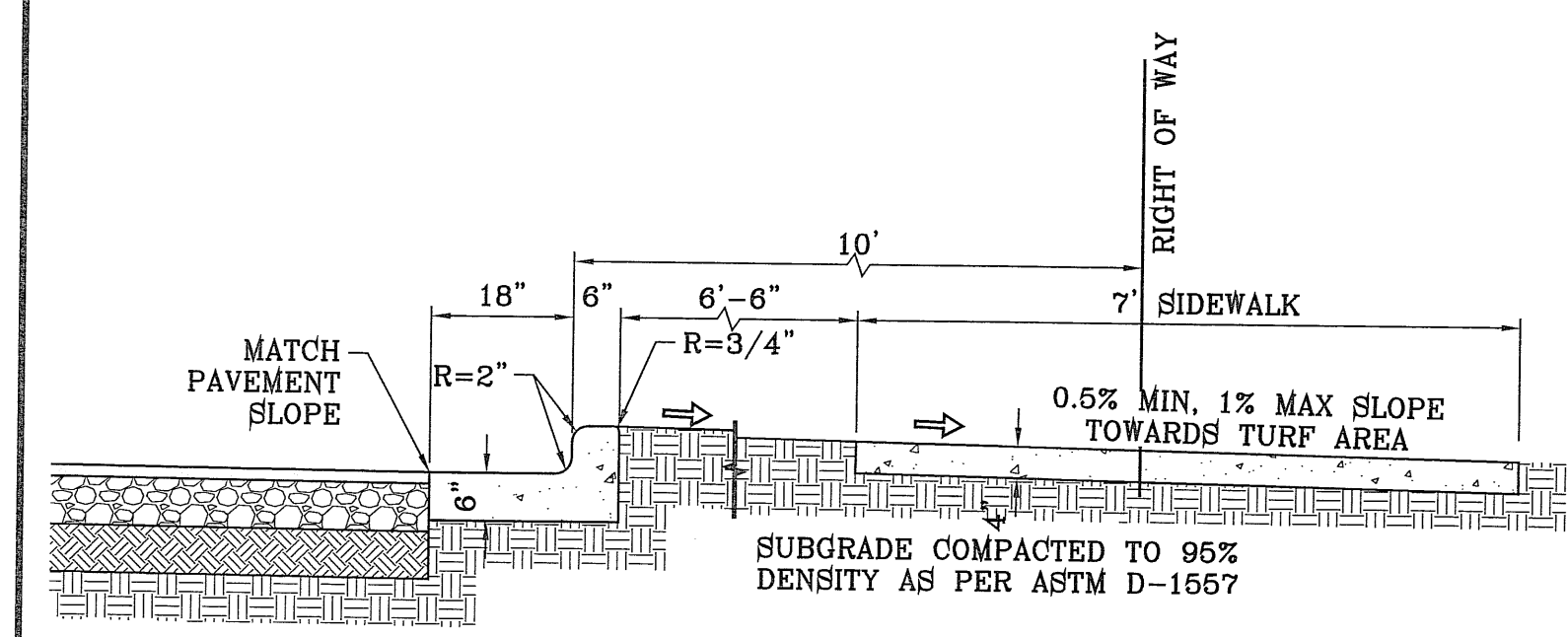
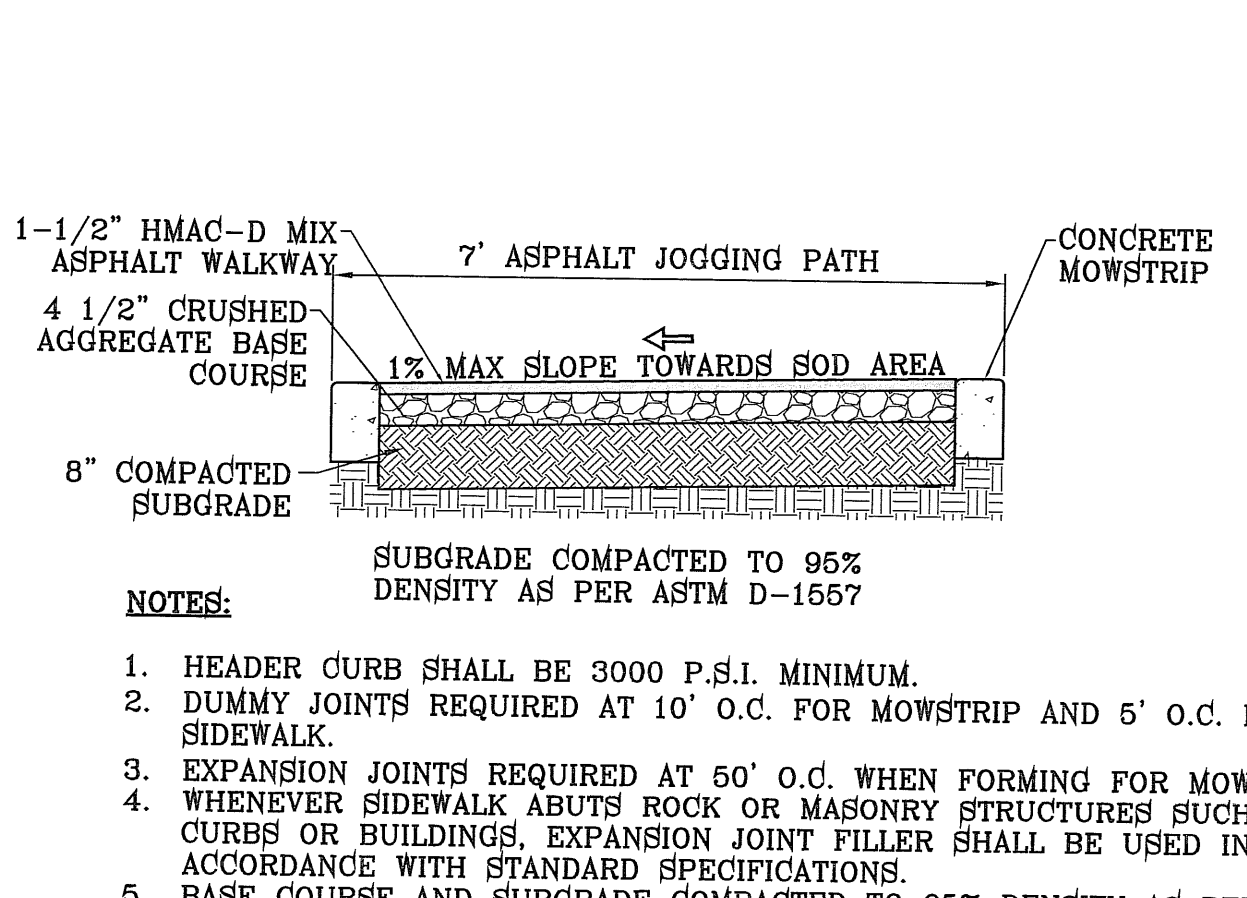
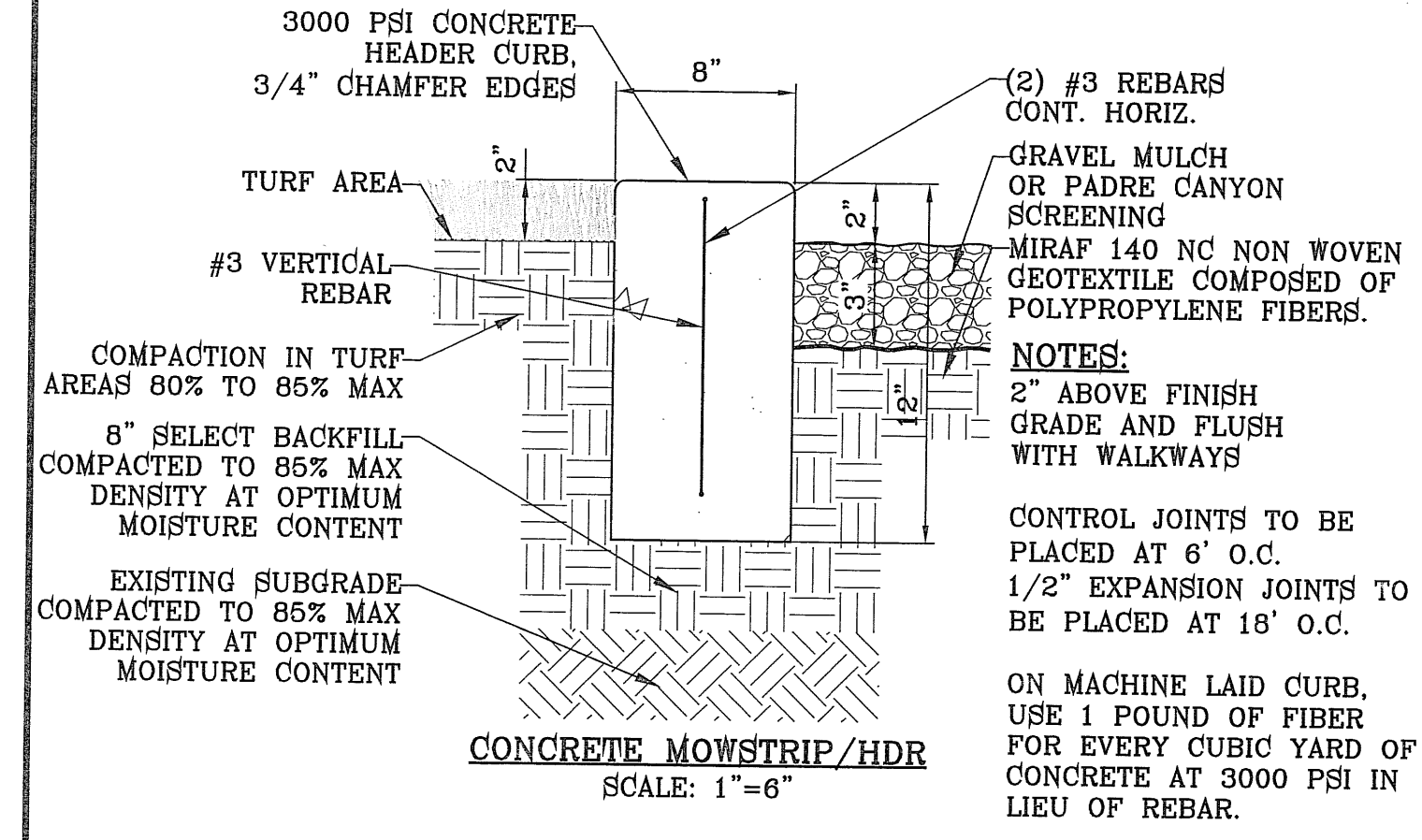
TIERRA DEL ESTE UNIT SIXTY NINE
BEING PORTION OF SECTIONS 37 AND 48, BLOCK 79,
TOWNSHIP 2, TEXAS AND PACIFIC RAILWAY CO. SURVEYS,
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 90.165± ACRES

RALPH SEITSINGER LANDSCAPE & IRRIGATION

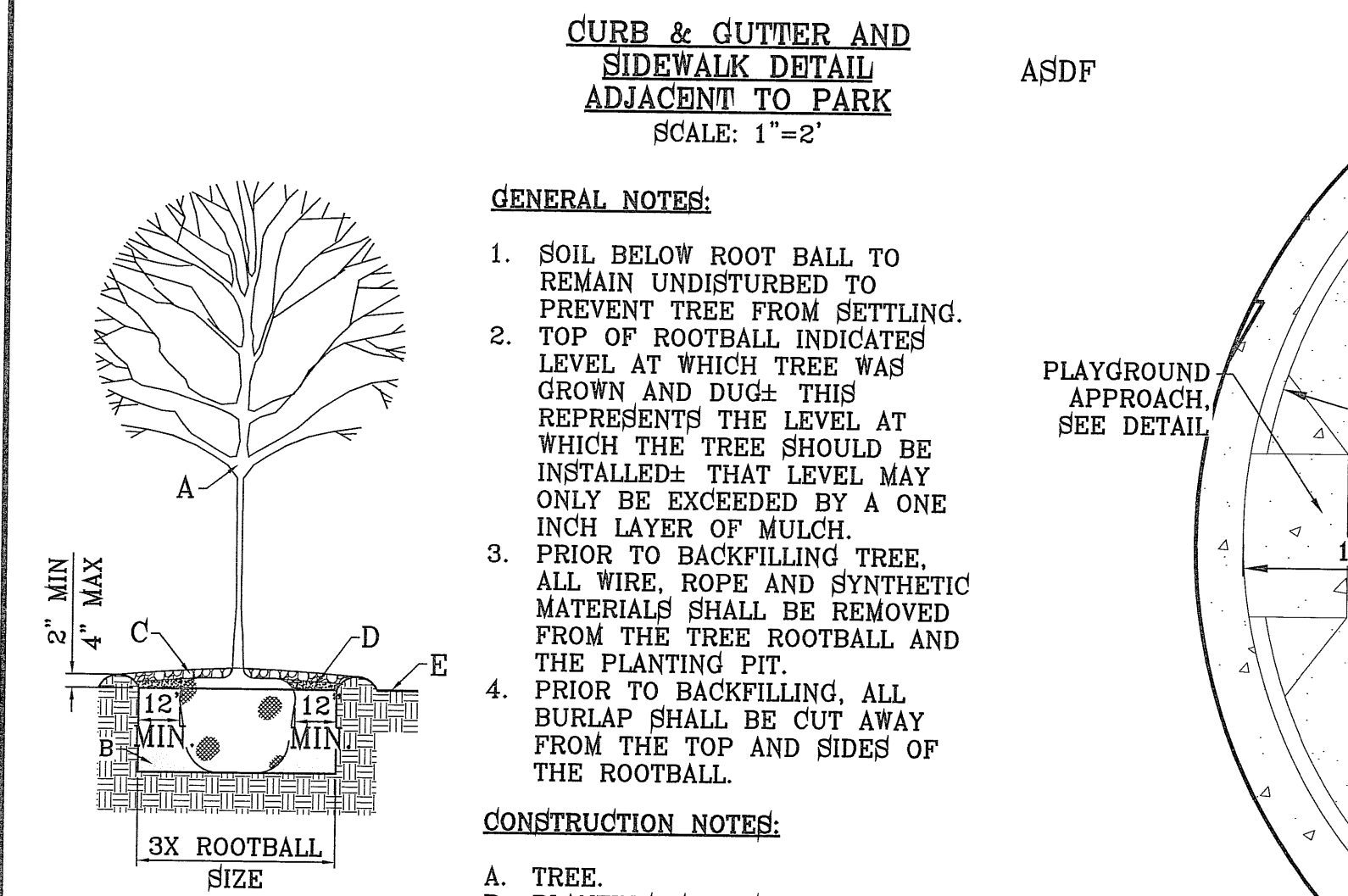
TIERRA DEL ESTE UNIT SIXTY NINE

SHT L6 OF L12

FILE LOCATION S:\LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:38:45 PM BY OSCAR MEDINA



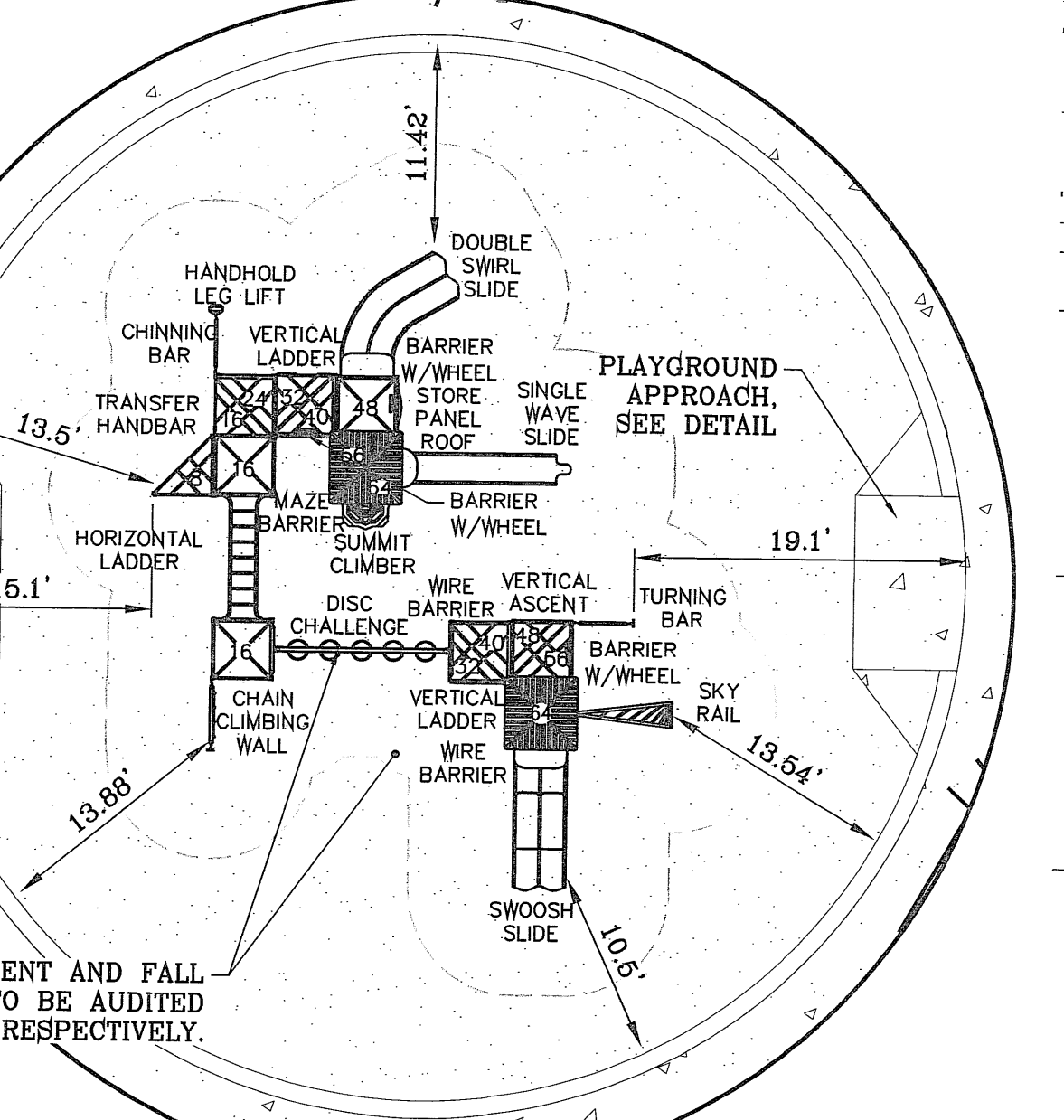
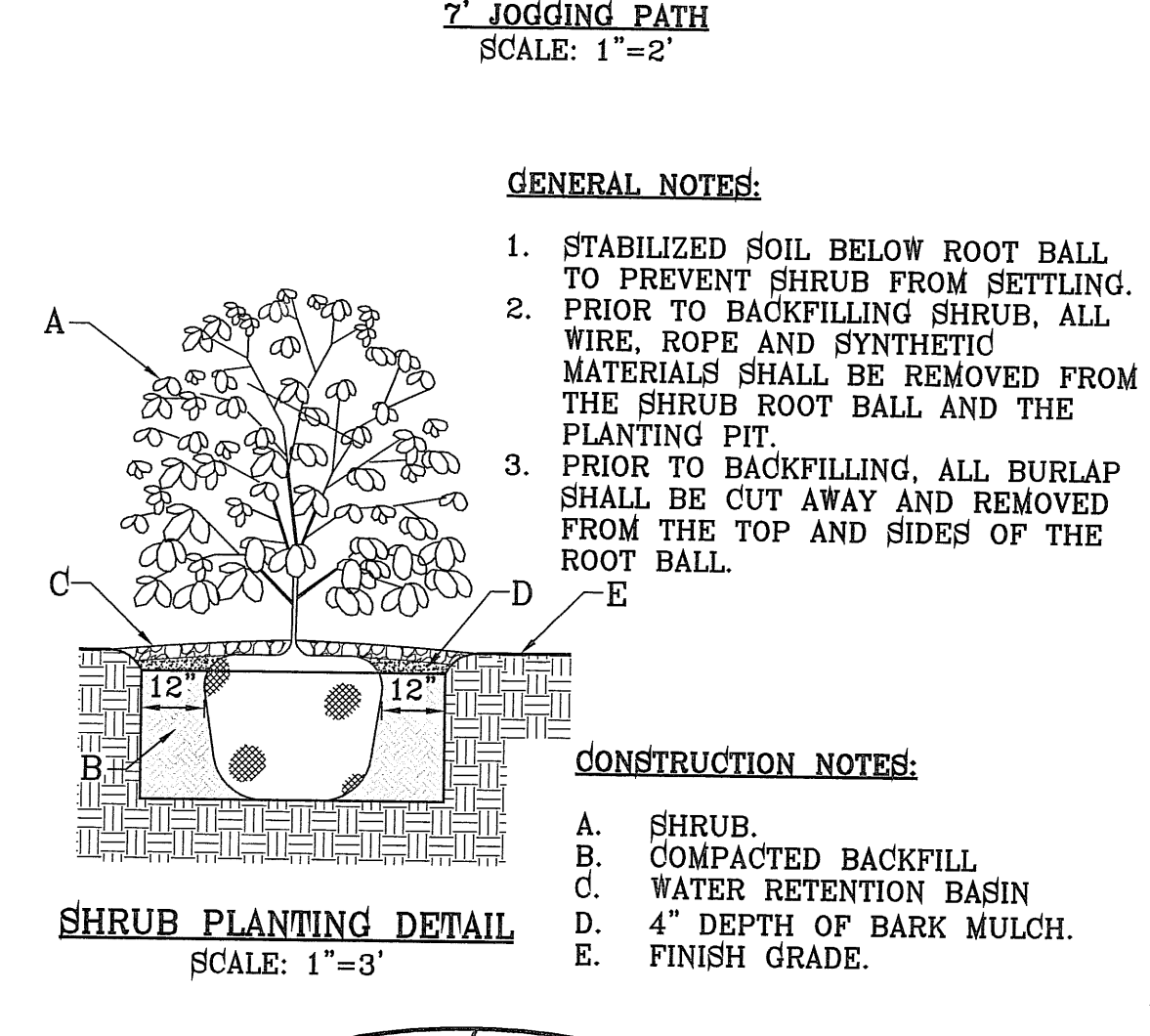
- NOTES:**
- CONCRETE SHALL BE 3000 P.S.I. MINIMUM.
 - DUMMY JOINTS REQUIRED AT 10' O.C. FOR CURB/GUTTER AND 5' O.C. FOR SIDEWALK.
 - EXPANSION MATERIAL REQUIRED AT CURB RETURNS WITH 1/2" PREMOLED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
 - EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR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



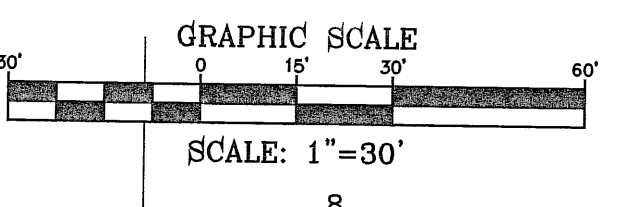
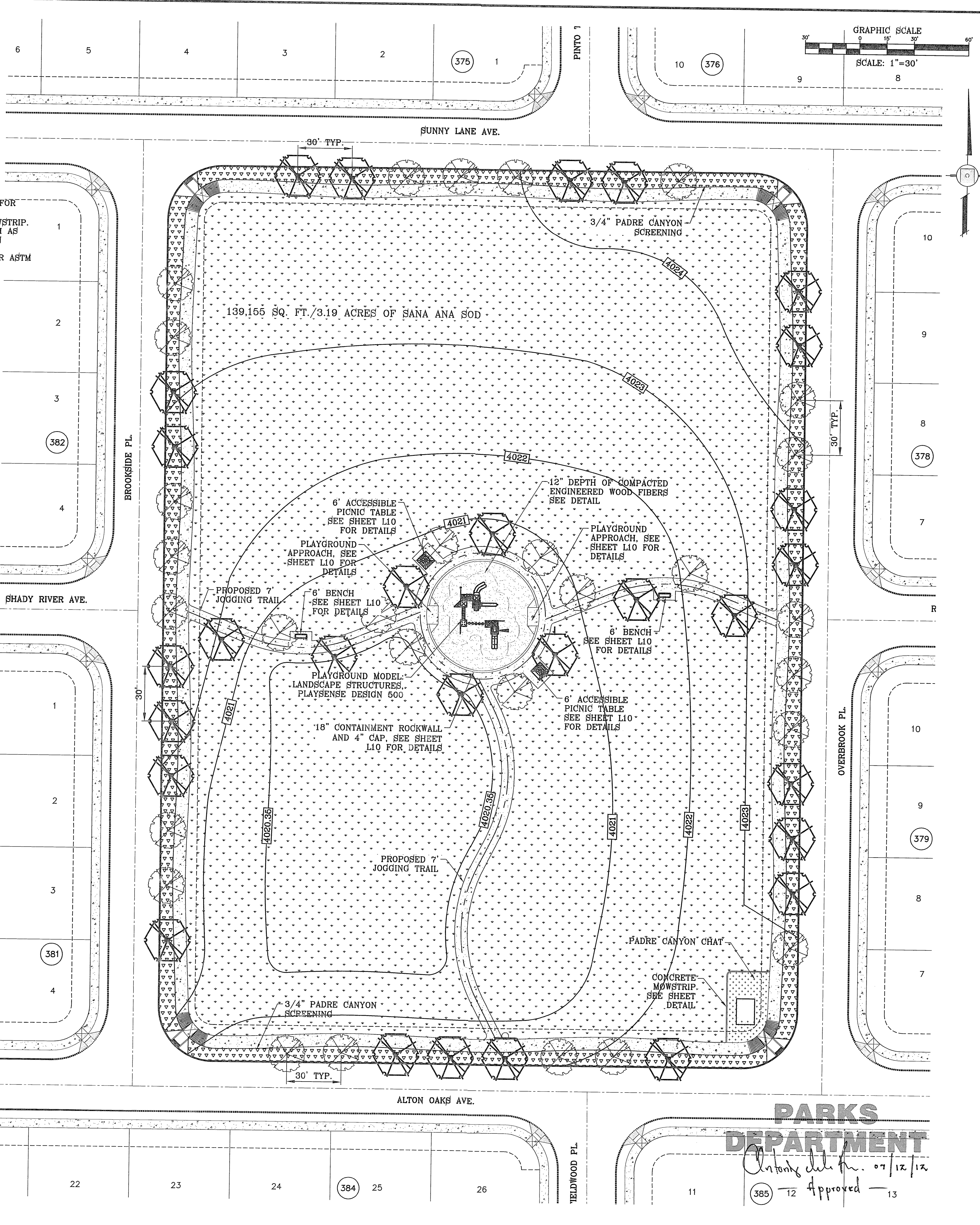
- GENERAL NOTES:**
- SOIL BELOW ROOT BALL TO REMAIN UNDISTURBED TO PREVENT TREE FROM SETTLING.
 - TOP OF ROOTBALL INDICATES LEVEL AT WHICH TREE WAS GROWN AND DUG; THIS REPRESENTS THE LEVEL AT WHICH THE TREE SHOULD BE INSTALLED; THAT LEVEL MAY ONLY BE EXCEEDED BY A ONE INCH LAYER OF MULCH.
 - PRIOR TO BACKFILLING TREE, ALL WIRE, ROPE AND SYNTHETIC MATERIALS SHALL BE REMOVED FROM THE TREE ROOTBALL AND THE PLANTING PIT.
 - PRIOR TO BACKFILLING, ALL BURLAP SHALL BE CUT AWAY FROM THE TOP AND SIDES OF THE ROOTBALL.
- CONSTRUCTION NOTES:**
- TREE.
 - PLANTING SOIL MIXTURE (REF. SPECIFICATIONS).
 - WATER RETENTION BASIN.
 - 4" DEPTH OF BARK MULCH.
 - FINISH GRADE.

LEGEND

COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY
ARIZONA ASHES	FRAXINUS SPECIES	2" CAL.	25
FRAGRANT ASH	FRAXINUS CUSPIDATA	3" CAL.	25
HYBRID BERMUDA "SANTA ANA" SOD			
3/4" PADRE CANYON SCREENING, 3" DEPTH WITH DeWitt Pro-5 WEED BARRIER FABRIC TO BE PINNED DOWN AT 3' ON CENTER EACH WAY & AT 12' ON CENTER ALONG PERIMETER, OVERLAP MIN. 12" AT SEAMS			
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			
12" DEPTH OF ENGINEERED WOOD FIBERS TO BE COMPACTION AS PER SUPPLIERS RECOMMENDATIONS, SEE NOTE #4.			
8" CONCRETE MOWSTRIP/HDR			



- GENERAL NOTES:**
- STABILIZED SOIL BELOW ROOT BALL TO PREVENT SHRUB FROM SETTLING.
 - PRIOR TO BACKFILLING SHRUB, ALL WIRE, ROPE AND SYNTHETIC MATERIALS SHALL BE REMOVED FROM THE SHRUB ROOT BALL AND THE PLANTING PIT.
 - PRIOR TO BACKFILLING, ALL BURLAP SHALL BE CUT AWAY AND REMOVED FROM THE TOP AND SIDES OF THE ROOT BALL.
- CONSTRUCTION NOTES:**
- SHRUB.
 - COMPACTED BACKFILL.
 - WATER RETENTION BASIN.
 - 4" DEPTH OF BARK MULCH.
 - FINISH GRADE.
- PLAYGROUND NOTE:**
SELECTION OF EQUIPMENT COLORS TO BE DONE BY PARK AND RECREATION STAFF.



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

CONDE INC.
REGISTRATION No. F-2321

PARKS DEPARTMENT
SHEET TITLE
PARK LANDSCAPE PLAN

TIERRA DEL ESTE UNIT SIXTY NINE
SHT L8 OF L12

TIERRA DEL ESTE UNIT SIXTY NINE PARK
14577 ALTON OAKS AVE.
BEING ALL OF LOT 1, BLOCK 980
TIERRA DEL ESTE UNIT SIXTY NINE
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 3.656± ACRES

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE PARK

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

DATE: JAN. 2012
DESIGN BY: O.M.
INITIATED BY: O.M.
CHECKED BY: Y.C.
JOB NO.: 211-60

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.56

REVISIONS

DATE

BY

APPROVED
07/12/12

PRECIPITATION AND WATERING SCHEDULE TABLE

VALVE NUMBER	VALVE SIZE	SPRINKLER MODEL TYPE	GPM	NUMBER OF HEADS	NOZZLE	PRECIPITATION RATES	TIME FOR 1.2" OF WATER IN MINUTES PER DAY
1	3"	1-60 ADJUSTABLE	105	10	#13	1.10	65
2	3"	1-60 ADJUSTABLE	115.5	11	#13	1.10	65
3	3"	1-60 FULL CIRCLE	126	12	#13	0.55	131
4	3"	1-60 ADJUSTABLE	105	10	#13	1.10	65
5	3"	1-60 FULL CIRCLE	126	12	#13	0.55	131
6	3"	1-60 ADJUSTABLE	105	10	#13	1.10	65
7	3"	1-60 FULL CIRCLE	126	12	#13	0.55	131
8	3"	1-60 ADJUSTABLE	105	10	#13	1.10	65
9	3"	1-60 FULL CIRCLE	126	12	#13	0.55	131
10	3"	1-60 ADJUSTABLE	105	10	#13	1.10	65
11	1"	XERI-BIRD 8	5.8	29	PC-05		30
12	1"	XERI-BIRD 8	5.8	29	PC-05		30
TOTAL RUN TIME, THREE DAYS PER WEEK (ROTORS):			7 HOURS 37 MINUTES				
TOTAL RUN TIME, THREE DAYS PER WEEK (EMMITERS):			20 MINUTES				

HYDRAULIC CALCULATION TABLE

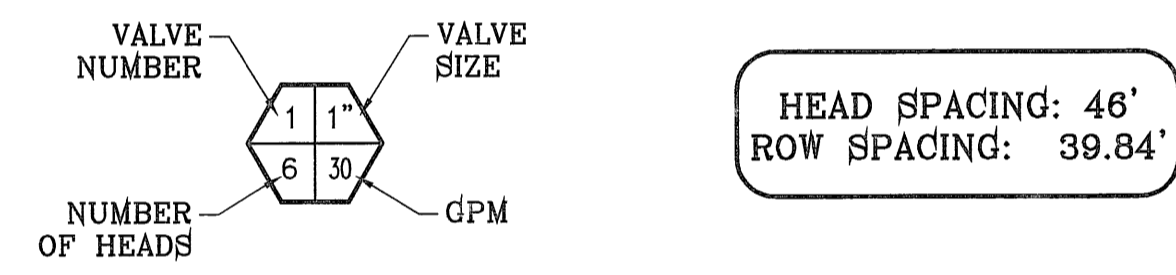
ZONE # 6		STATIC PRESSURE AS PER PSB 60		SECTION GPM 126	
LATERAL PIPE SECTION	PIPE LENGTH (FEET)	FLOW (GPM)	SIZE (IN.)	PRESSURE LOSS PER 100 FEET	ACCUMULATED PRESSURE LOSS
A-PVC CLASS 200	46	10.5	1"	1.56	0.718
B-PVC CLASS 200	46	21.0	1-1/4"	1.8	0.828
C-PVC CLASS 200	40	31.5	1-1/2"	2.2	0.880
D-PVC CLASS 200	40	63	2-1/2"	0.93	2.798
E-PVC CLASS 200	37	126	3"	1.28	3.271
LATERAL PIPING PRESSURE LOSS IN PSI					3.271
IRRIGATION ITEM					
ZONE VALVE		126	3"		2.4
MAIN LINE-PVC SCH 40 (LOOPED)	601	126	4"	0.40	2.404
MAIN LINE-PVC SCH 40 (TEE)	86	*252	6"	0.05	0.043
BACKFLOW		*252	4"		11
WATER METER		*252	4"		5.5
TYPE K COPPER LINE	43	*252	4"	1.6	0.688
TOTAL PRESSURE LOSS					25.306
MINIMUM HEAD PRESSURE					40
DESIGN PRESSURE					65.306
ACTUAL PRESSURE AT CRITICAL HEAD					34.694
*PUMP REQUIREMENTS: 60(STATIC PRESSURE)-34.694(ACTUAL PRESSURE AT CRITICAL HEAD)=25.306 PSI					
25.306 PSI X 2.31 FT. HD. = 58.457+10%=64.303 FT. HD. @ 252 GPM					

HYDRAULIC CALCULATION TABLE

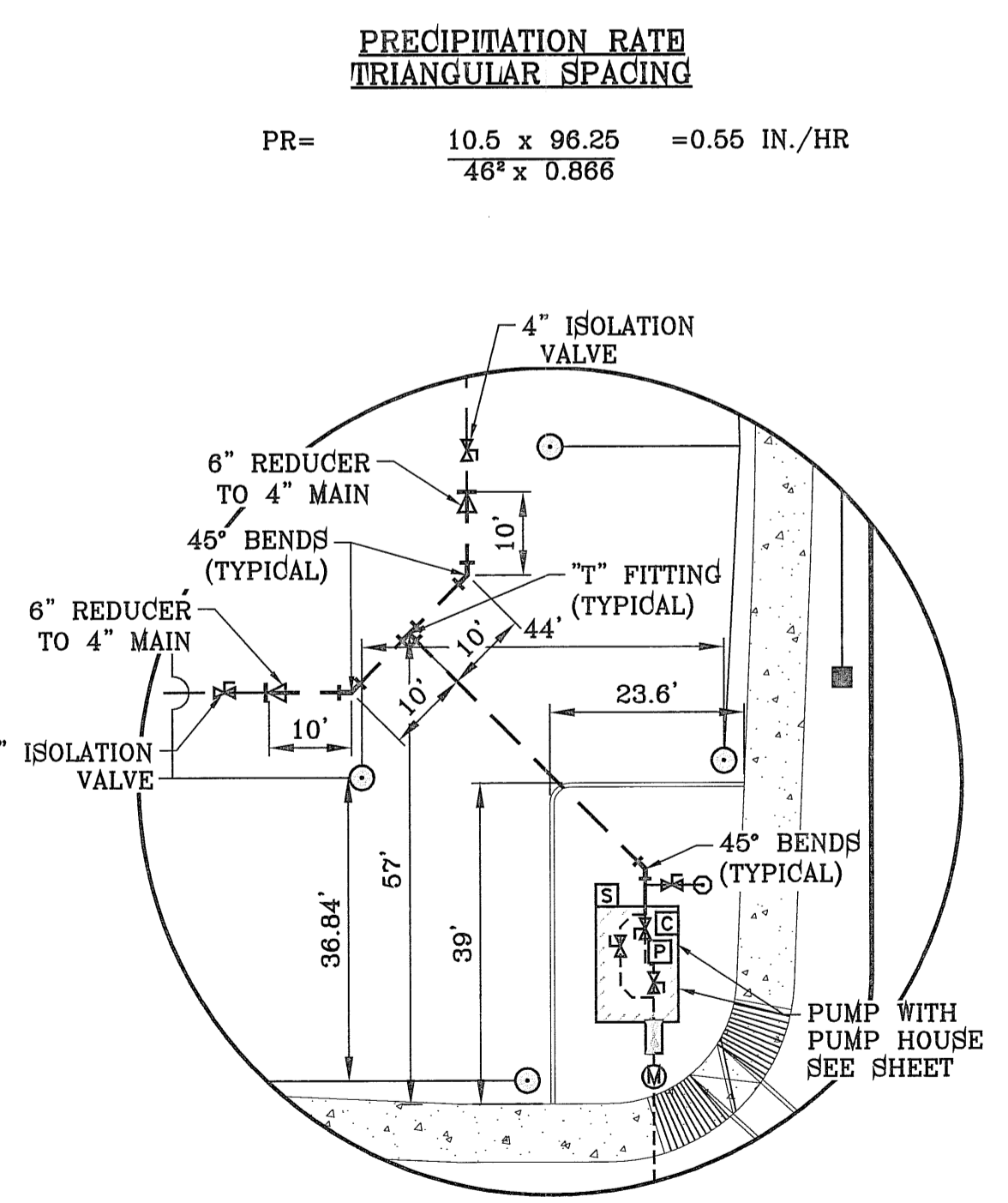
ZONE # 7		STATIC PRESSURE AS PER PSB 60		SECTION GPM 126	
LATERAL PIPE SECTION	PIPE LENGTH (FEET)	FLOW (GPM)	SIZE (IN.)	PRESSURE LOSS PER 100 FEET	ACCUMULATED PRESSURE LOSS
F-PVC CLASS 200	19	10.5	1"	1.56	0.296
G-PVC CLASS 200	26	21.0	1-1/4"	1.80	0.764
H-PVC CLASS 200	9	31.5	1-1/2"	2.20	0.962
I-PVC CLASS 200	32	42.0	2"	1.44	1.423
J-PVC CLASS 200	13	52.5	2"	1.72	1.647
K-PVC CLASS 200	5	63	2-1/2"	0.93	1.693
L-PVC CLASS 200	87	105	3"	0.94	2.511
LATERAL PIPING PRESSURE LOSS IN PSI					1.647
IRRIGATION ITEM					
ZONE VALVE		105	3"		1.8
MAIN LINE-PVC SCH 40 (LOOPED)	601	105	4"	0.29	1.743
MAIN LINE-PVC SCH 40 (TEE)	86	*210	6"	0.15	0.129
BACKFLOW		*210	4"		11
WATER METER		*210	4"		3.9
TYPE K COPPER LINE	43	*210	4"	1.1	0.473
TOTAL PRESSURE LOSS					20.583
MINIMUM HEAD PRESSURE					40
DESIGN PRESSURE					60.583
ACTUAL PRESSURE AT CRITICAL HEAD					39.437
*PUMP REQUIREMENTS: 60(STATIC PRESSURE)-35.531(ACTUAL PRESSURE AT CRITICAL HEAD)=24.469 PSI					
24.469 PSI X 2.31 FT. HD. = 56.523+10%=62.176 FT. HD. @ 210 GPM					

LEGEND

- LOT LINE
- STREET CENTERLINE
- 4" PVC SCHEDULE 40 LOOPED WATER MAIN
- 6" PVC SCHEDULE 40 TEE SECTION, SEE DETAIL "A"
- TYPE K 4" 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) SEE DETAIL ON L12
- ⊙ 4" WATER METER BY DEVELOPER
- FEBCO 825YD 4" RPBA W/ HYDROCOWL ENCLOSURE
- ⊞ RAIN SENSOR
- ⊞ STATION CONTROLLER
- ⊞ BERKELEY PUMP-B2TRMS, 1 PHASE, 5HP/3.73 KW, 130 GPM, 75.90 FT. HD., W/ TUFF SHED ENCLOSURE
- ⊞ WEATHERMATIC 8200CR-20 REMOTE CONTROL VALVE
- ⊞ HUNTER 1-60 36S STAINLESS STEEL RISER ROTOR NOZZLE #13 LIGHT BLUE @ 40 PSI RADIUS: 56" FLOW: 10.5 GPM
- ⊞ HUNTER 1-60 ADJUSTABLE STAINLESS STEEL RISER ROTOR NOZZLE #13 LIGHT BLUE @ 40 PSI RADIUS: 56" FLOW: 10.5 GPM
- ⊞ XERIBIRD 8 EMMITER
- 1-1/2" PIPE SIZE (SIZE AS NOTED)
- ⊞ STUB OUT WITH VALVE WIRES FOR FUTURE DRIP
- ⊞ ISOLATION BRASS BALL VALVE
- ⊞ PIPE REDUCER
- ⊞ AMIAD 1" WYE FILTER & WILKINS 600 SERIES PRESSURE REGULATOR
- ⊞ BUCKNER DOUBLE LUG 1" QUICK COUPLER VALVE WITH PURPLE BOLT CAP W/ BRASS STABILIZER IN VALVE BOX WITH PURPLE LID

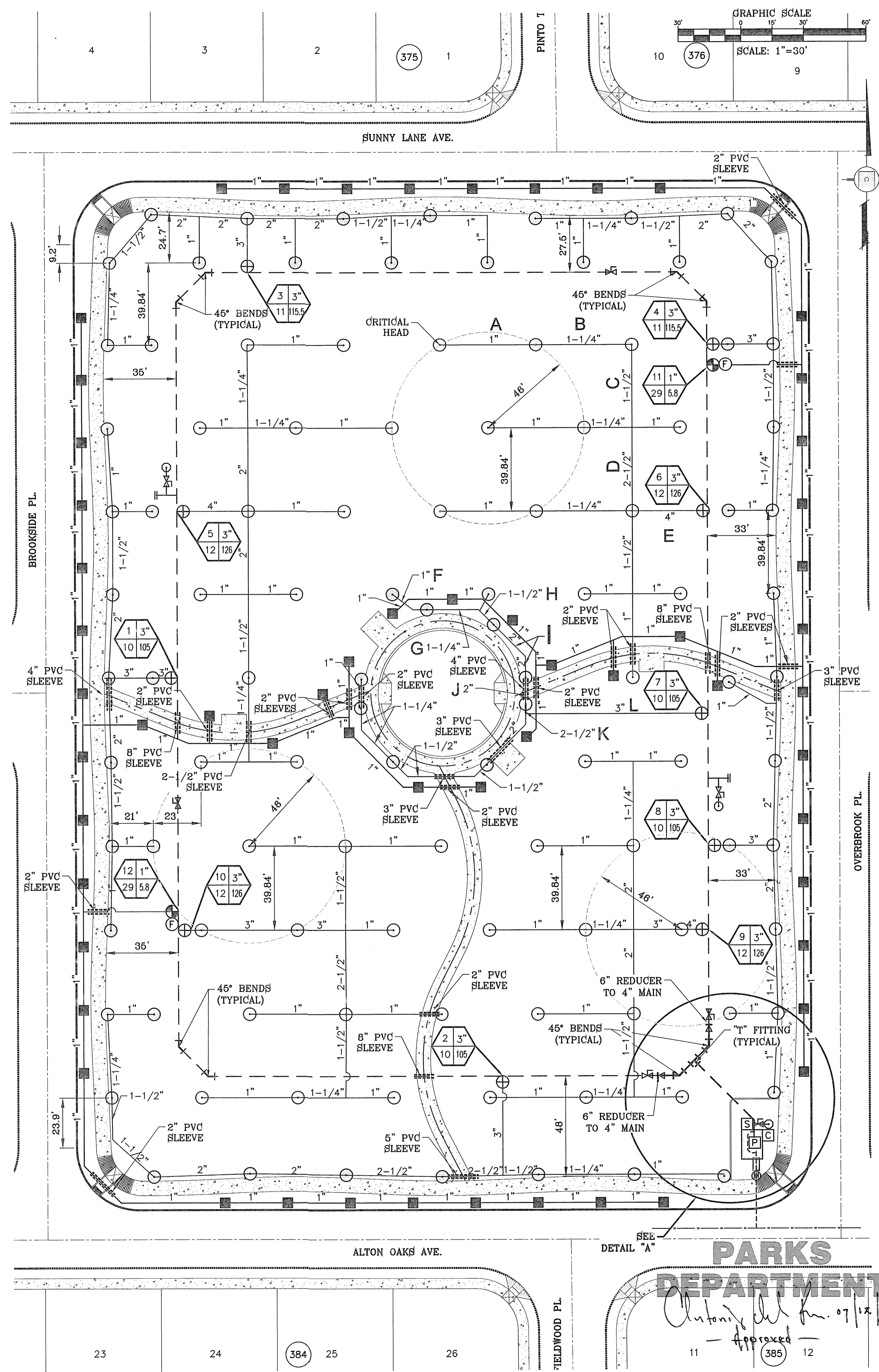


HEAD SPACING: 46'
ROW SPACING: 39.84'



DETAIL "A" SCALE: 1"=20'

*TOTAL GPM WITH 2 ZONES RUNNING AT THE SAME TIME, SEE WATERING SCHEDULE
**SEE SHEET L12 FOR PUMP DETAILS



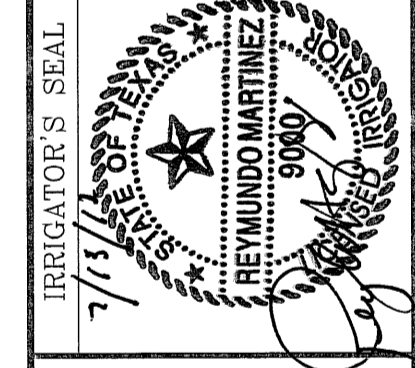
IRRIGATION IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, P.O. BOX 13087, AUSTIN, TX 78711-308, (512) 239-6719

TIERRA DEL ESTE UNIT SIXTY NINE

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF
LOOKOUT POINT DR. AND JOHN HAYES ST.
ELEVATION 4020.68
DATE
REVISIONS
BY

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE PARK
14577 ALTON OAKS AVE.
BEING ALL OF LOT 1, BLOCK 380
TIERRA DEL ESTE UNIT SIXTY NINE
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 3.586± ACRES

SCALE
HORIZ: 1" = 30'
VERT: ---
DATE: JAN. 2012
DESIGN BY: O.M.
INITIATED BY: O.M.
CHECKED BY: Y.C.
JOB NO.: 211-60



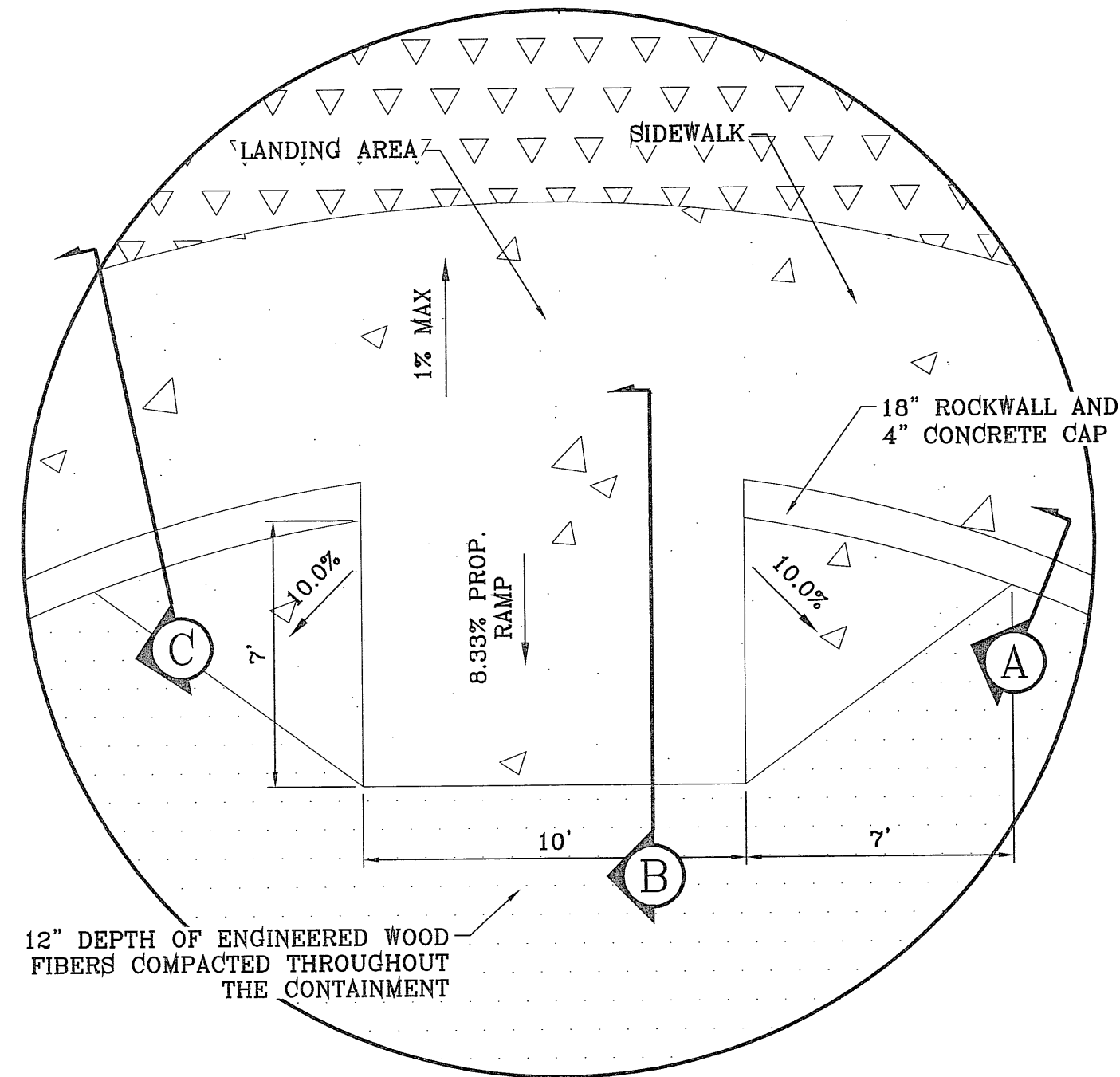
CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SURVEY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 592-0283
FAX: (915) 592-0286



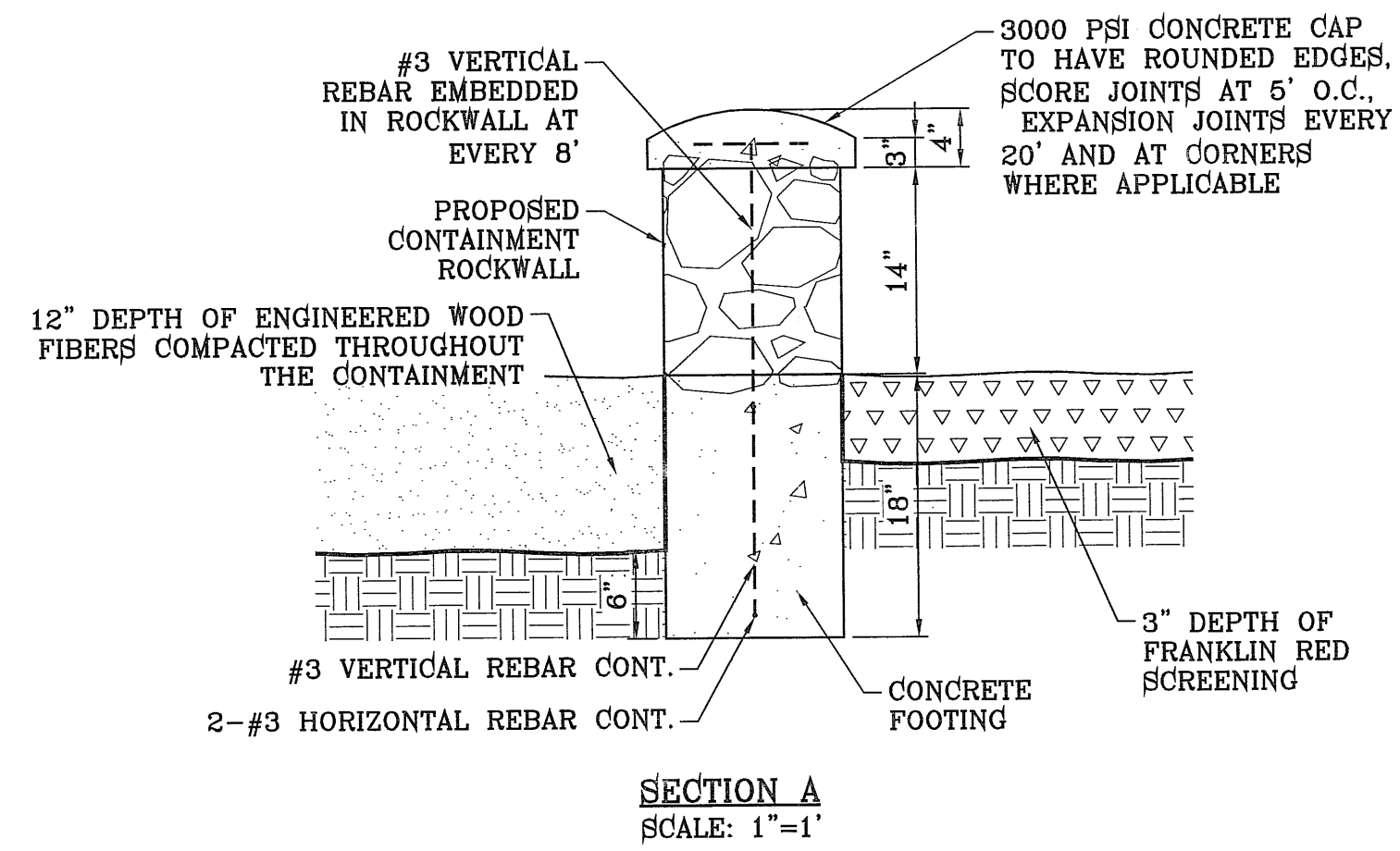
SHEET TITLE
PARK IRRIGATION PLAN

SHT L9 OF L12

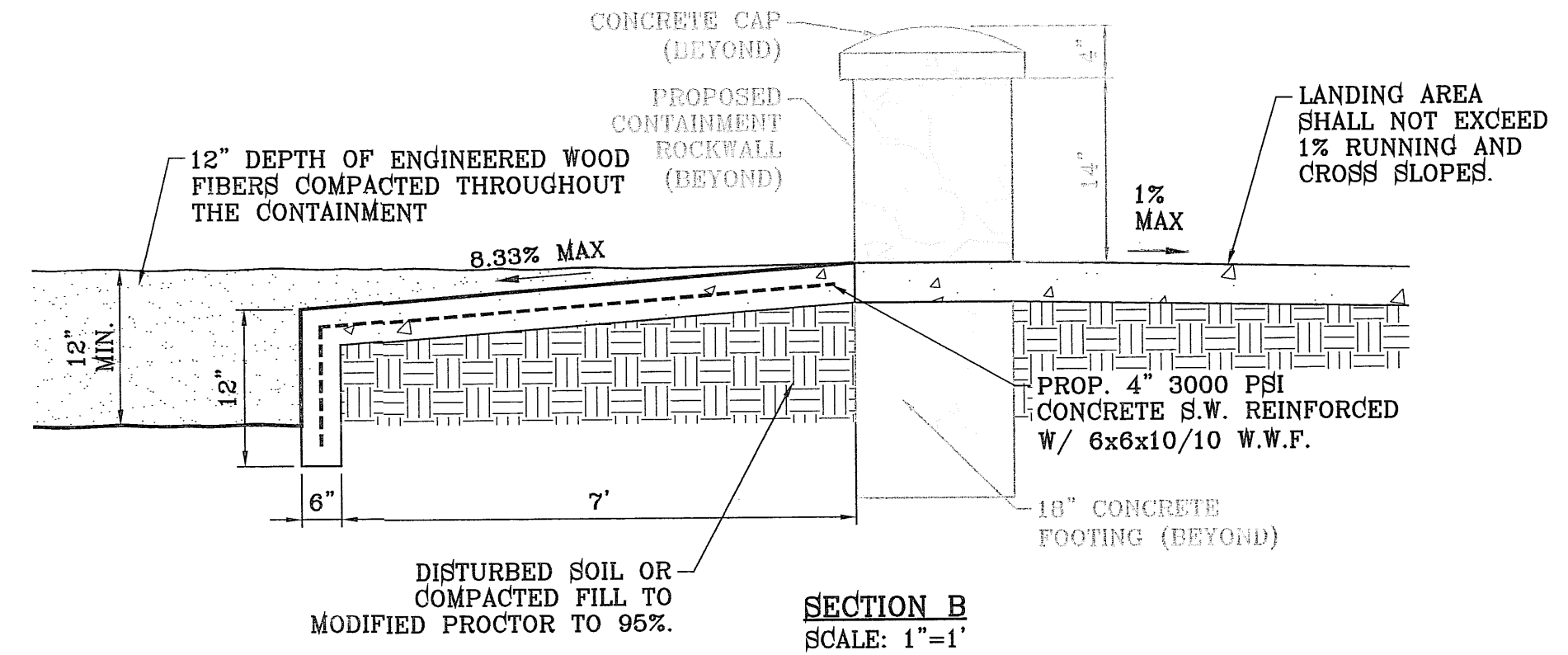
FILE LOCATION S:\LANDSCAPE\IDE 68\IDE_68_LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:39:02 PM BY OSCAR MEDINA



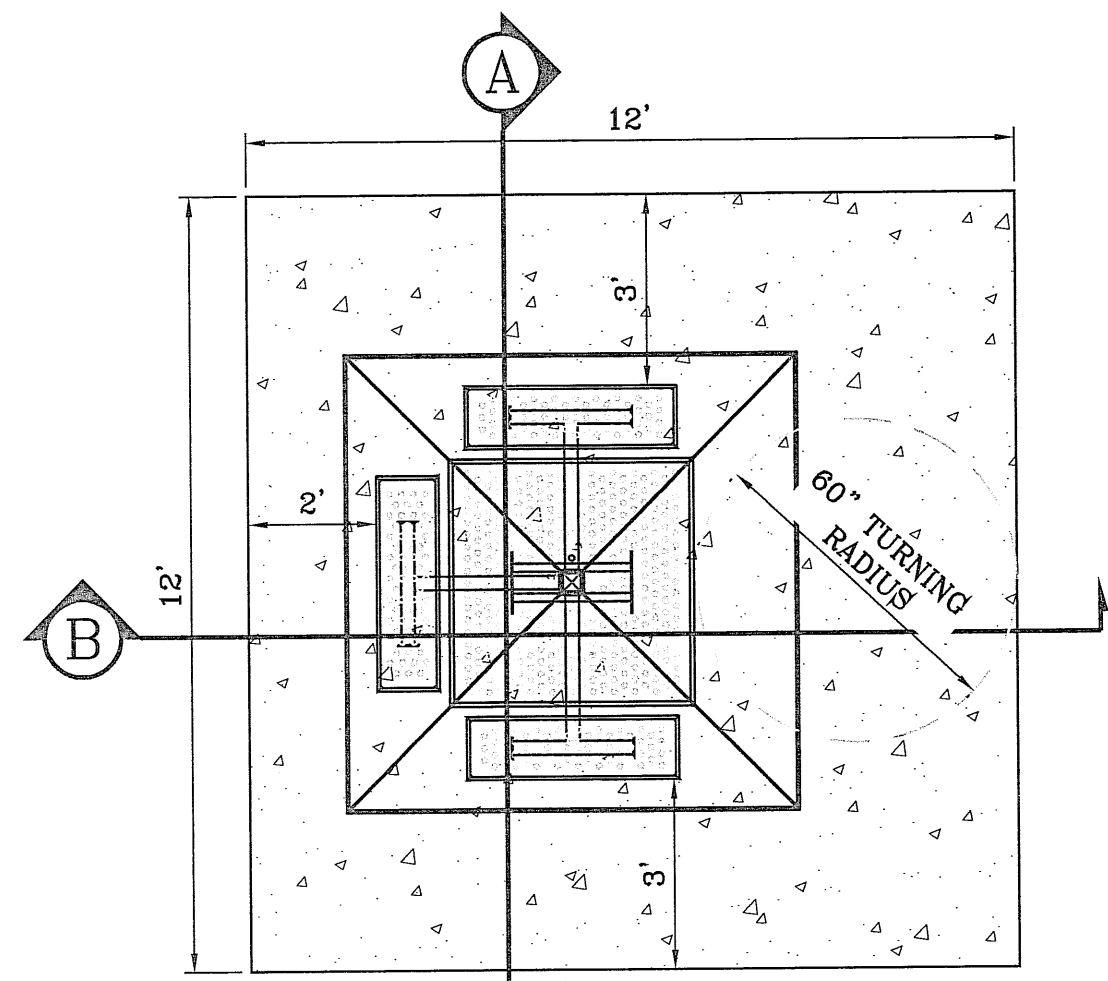
PLAYGROUND APPROACH DETAIL
SCALE: 1"=4'



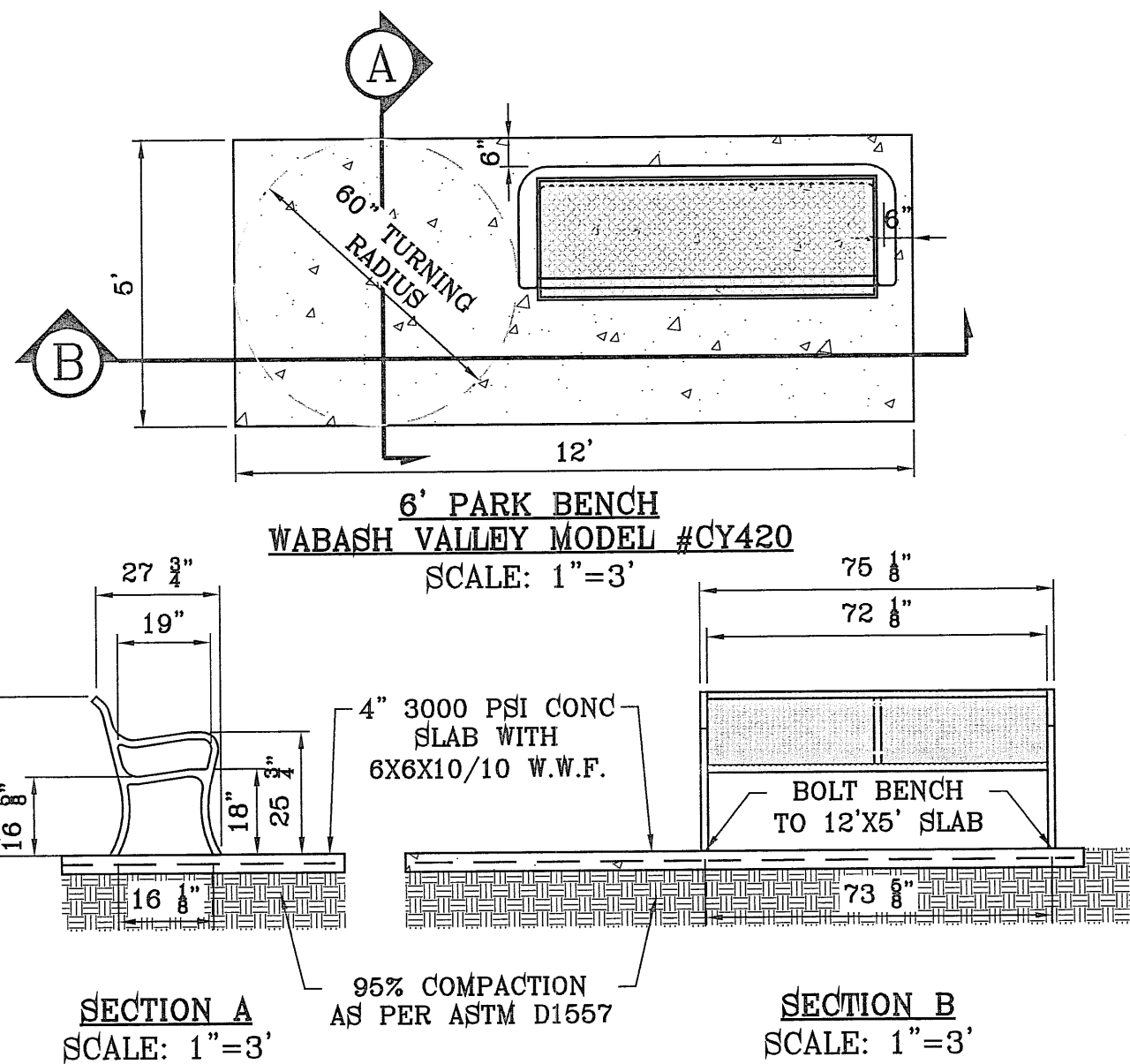
SECTION A
SCALE: 1"=1'



SECTION B
SCALE: 1"=1'

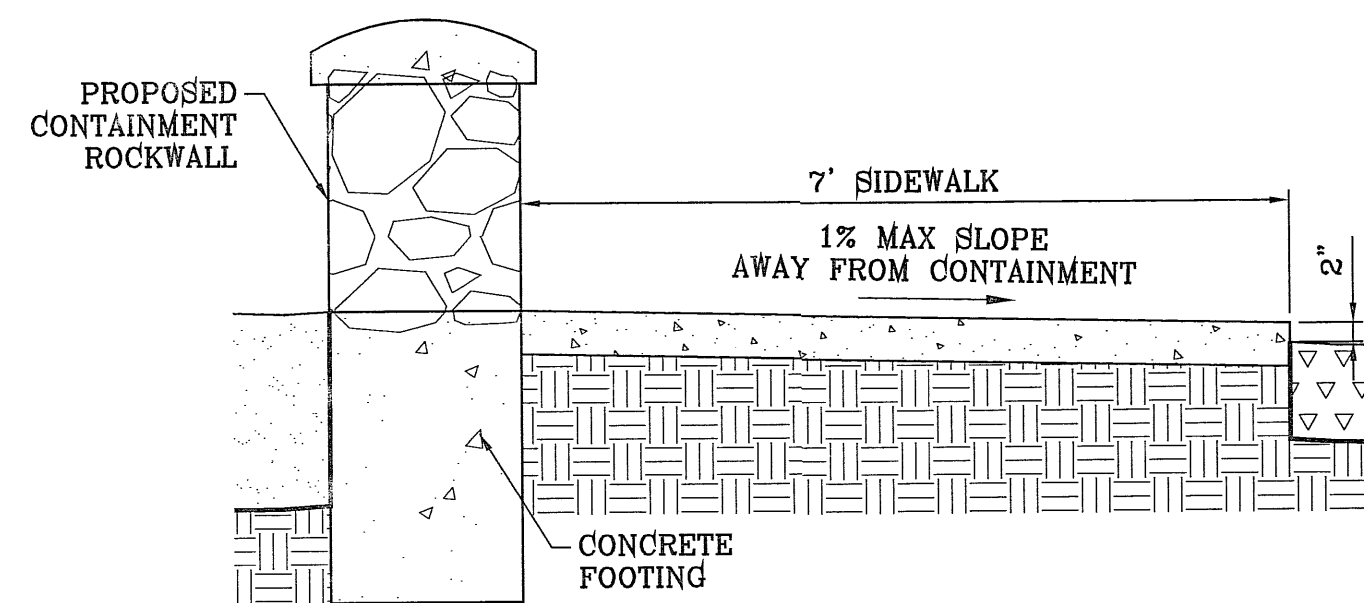


46" SQUARE TABLE
PARIS SPS-APS ACCESSIBLE
SCALE: 1"=3'



SECTION A
SCALE: 1"=3'

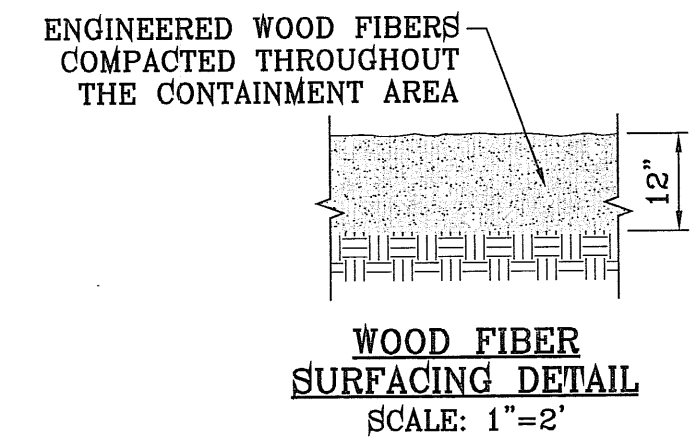
SECTION B
SCALE: 1"=3'



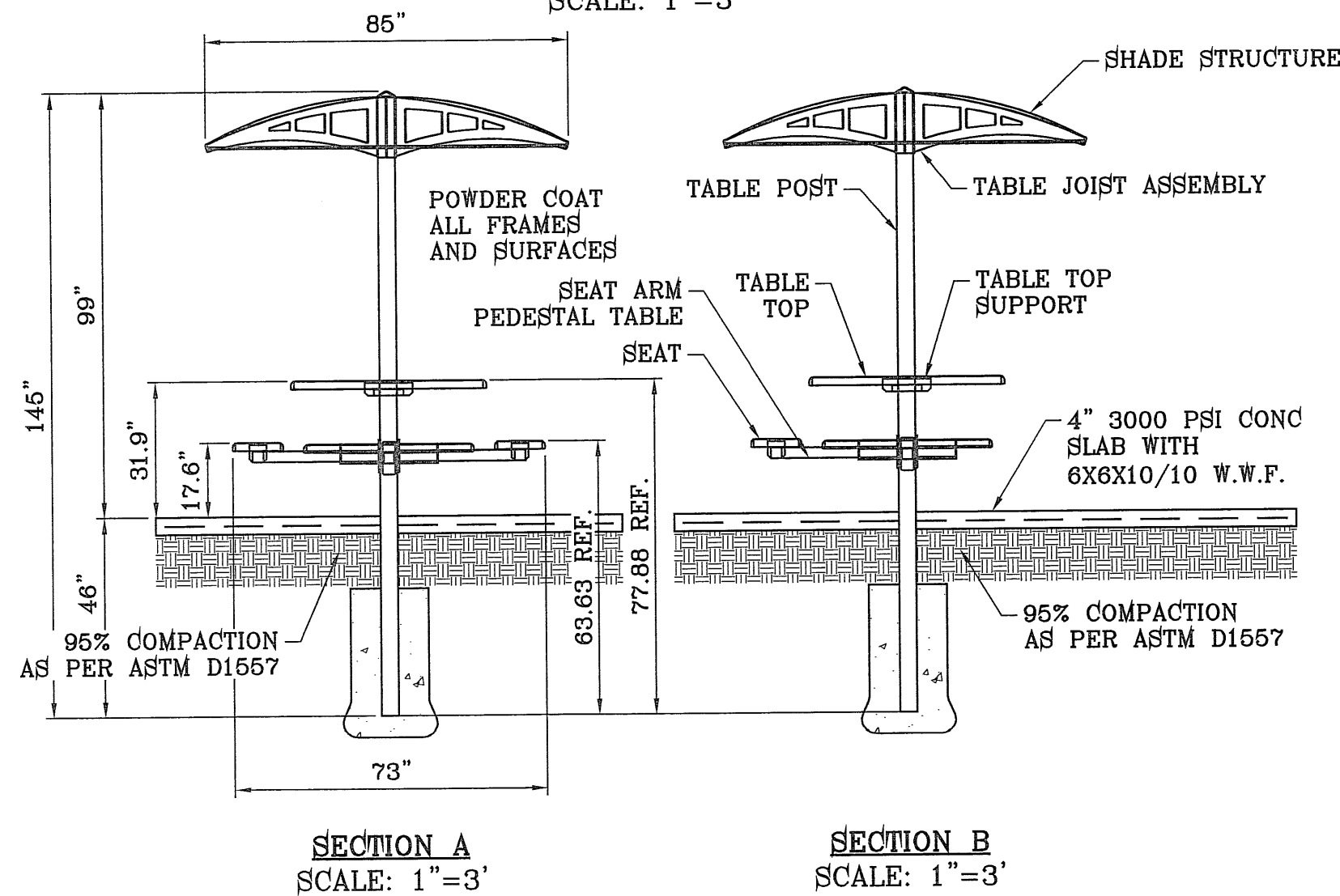
5 SIDEWALK NOTES:

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

SECTION C
SCALE: 1"=1'

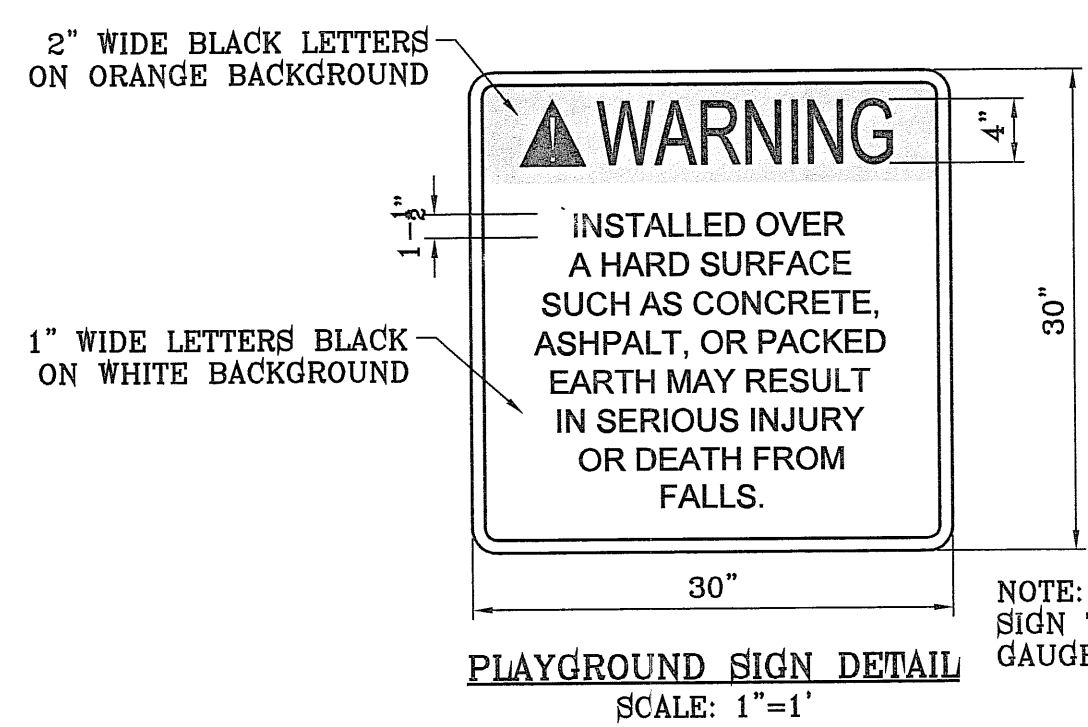


WOOD FIBER SURFACING DETAIL
SCALE: 1"=2'

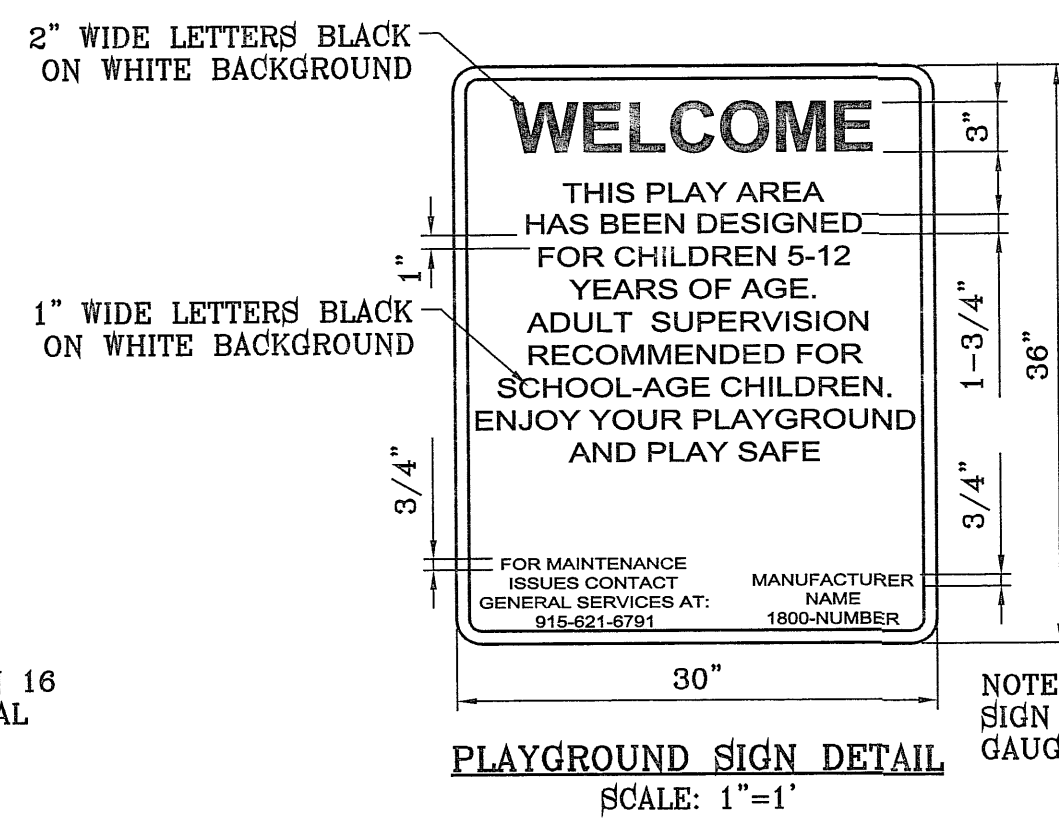


SECTION A
SCALE: 1"=3'

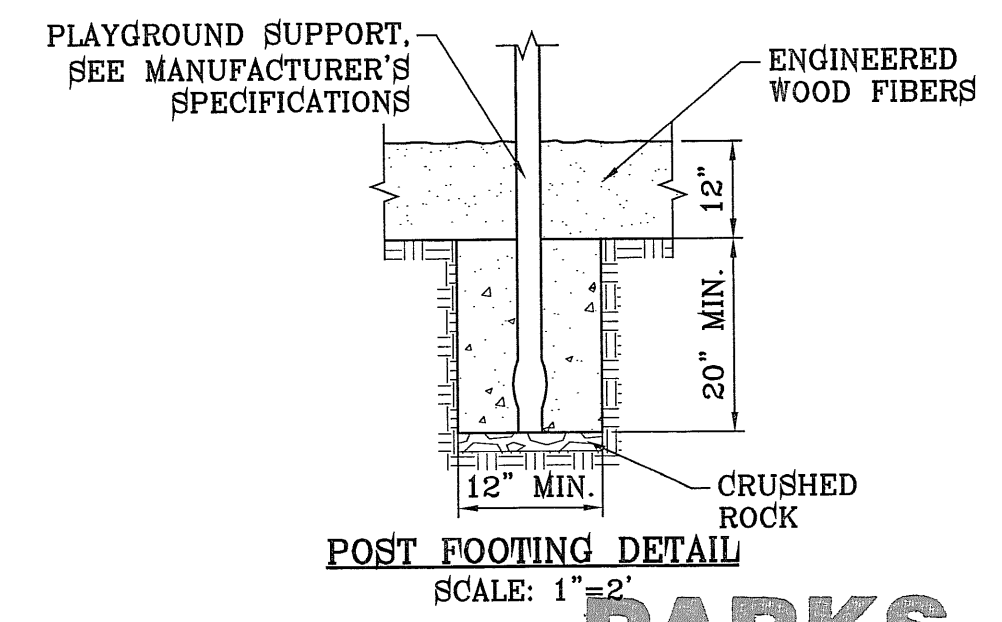
SECTION B
SCALE: 1"=3'



PLAYGROUND SIGN DETAIL
SCALE: 1"=1'



PLAYGROUND SIGN DETAIL
SCALE: 1"=1'



POST FOOTING DETAIL
SCALE: 1"=2'

PARKS DEPARTMENT
Approved
Antonio del... 07/12/12

TIERRA DEL ESTE UNIT SIXTY NINE

BENCHMARK	BY
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF	DATE
LOUISIANA POINT DR. AND JOHN HAYES ST.	REVISIONS
ELEVATION 4620.66	

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE PARK
14577 ALTON OAKS AVE.
BEING ALL OF LOT 1, BLOCK 980
TIERRA DEL ESTE UNIT SIXTY NINE
CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 3.686± ACRES

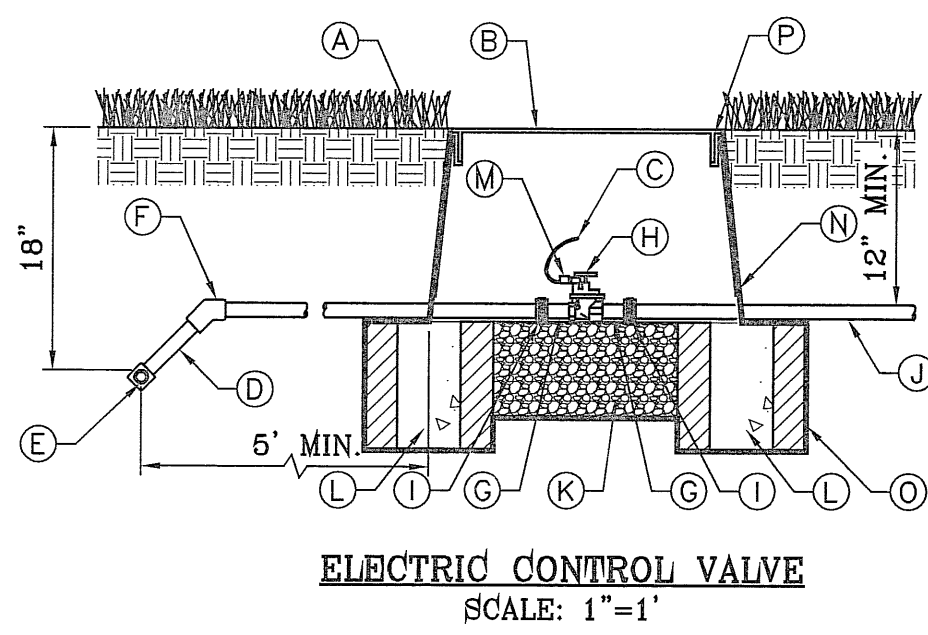
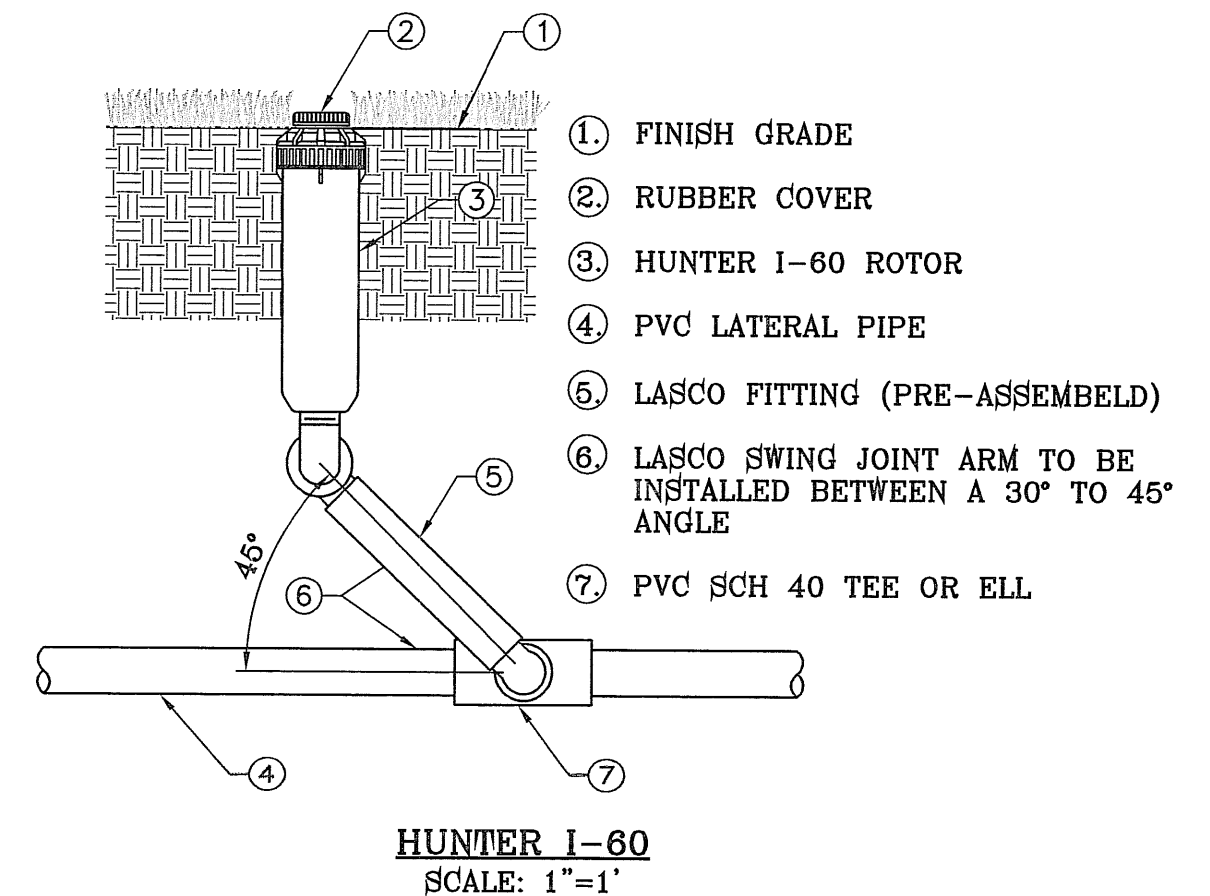
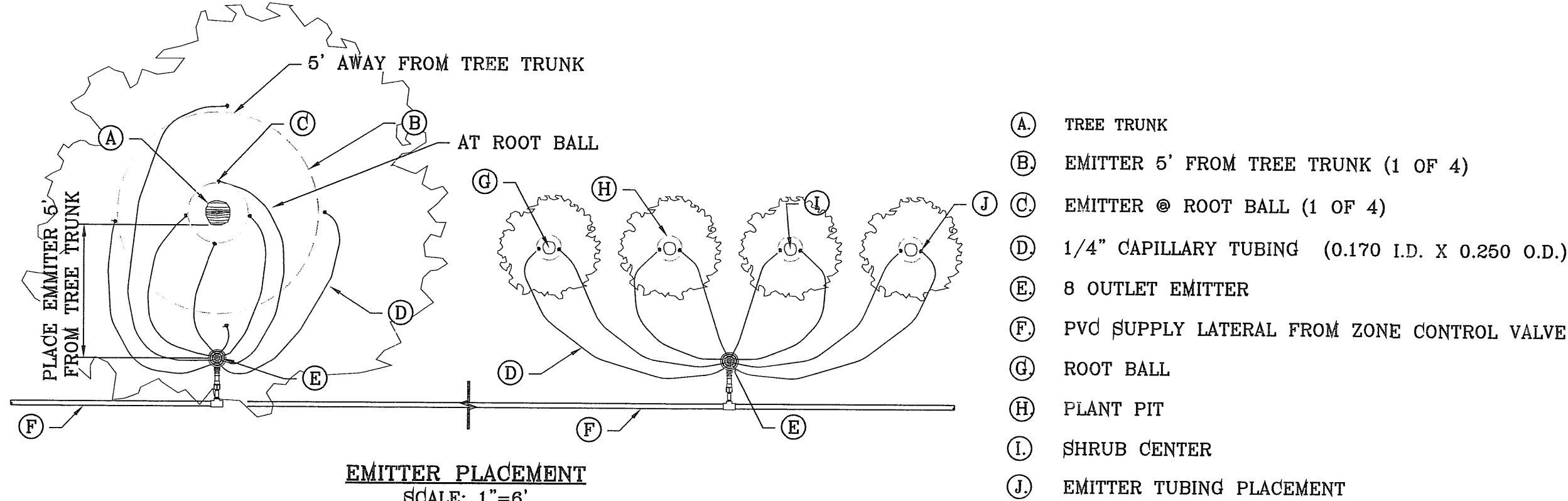
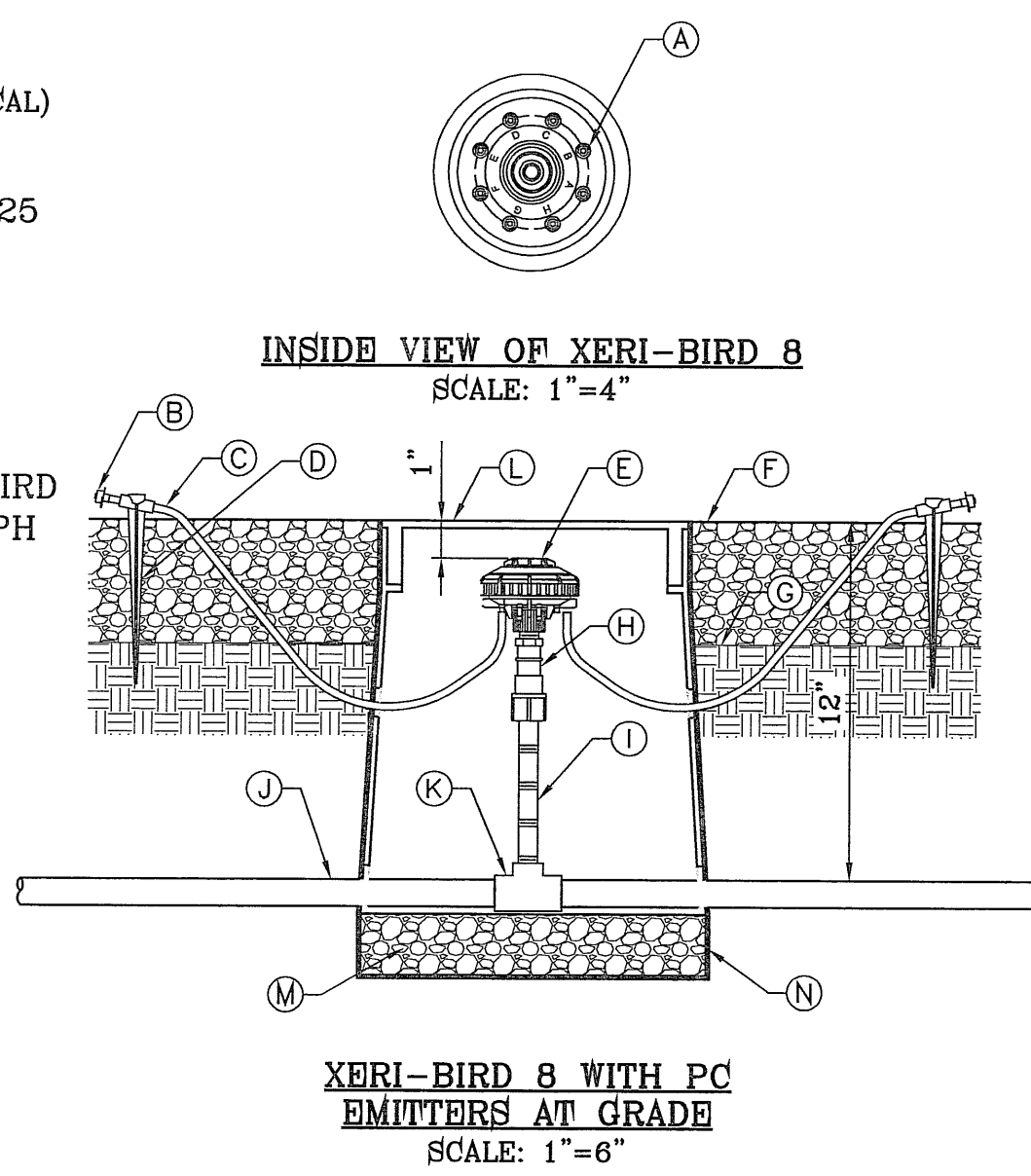
SCALE	HORIZ. AS NOTED
VERT. ---	DATE: JAN. 2012
	DESIGN BY: O.M.
	INITIATED BY: O.M.
	CHECKED BY: Y.C.
	JOB NO.: 211-60

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6050 SURETY DR. STE 100
EL PASO, TEXAS 79905
PHONE: (915) 692-0283
FAX: (915) 692-0286

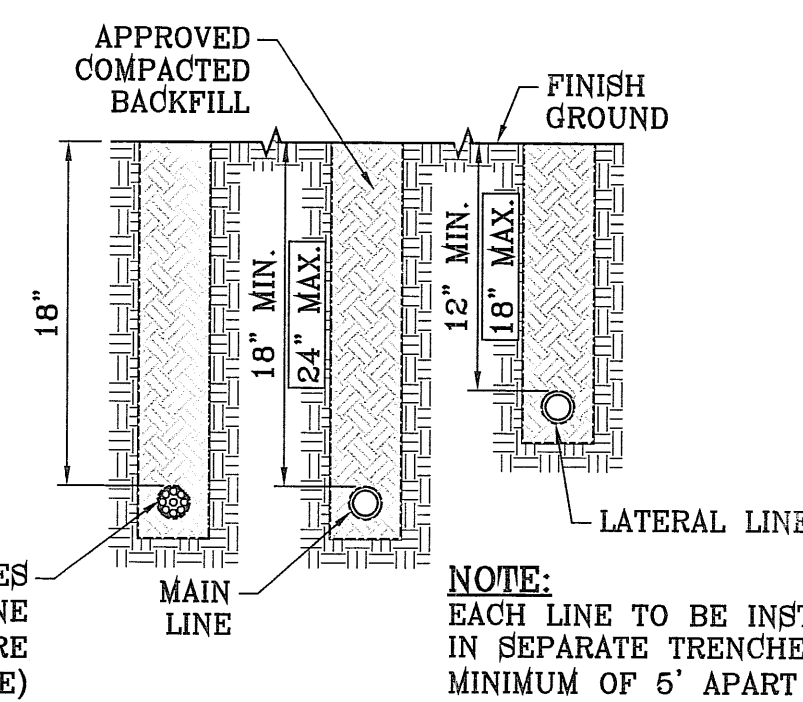
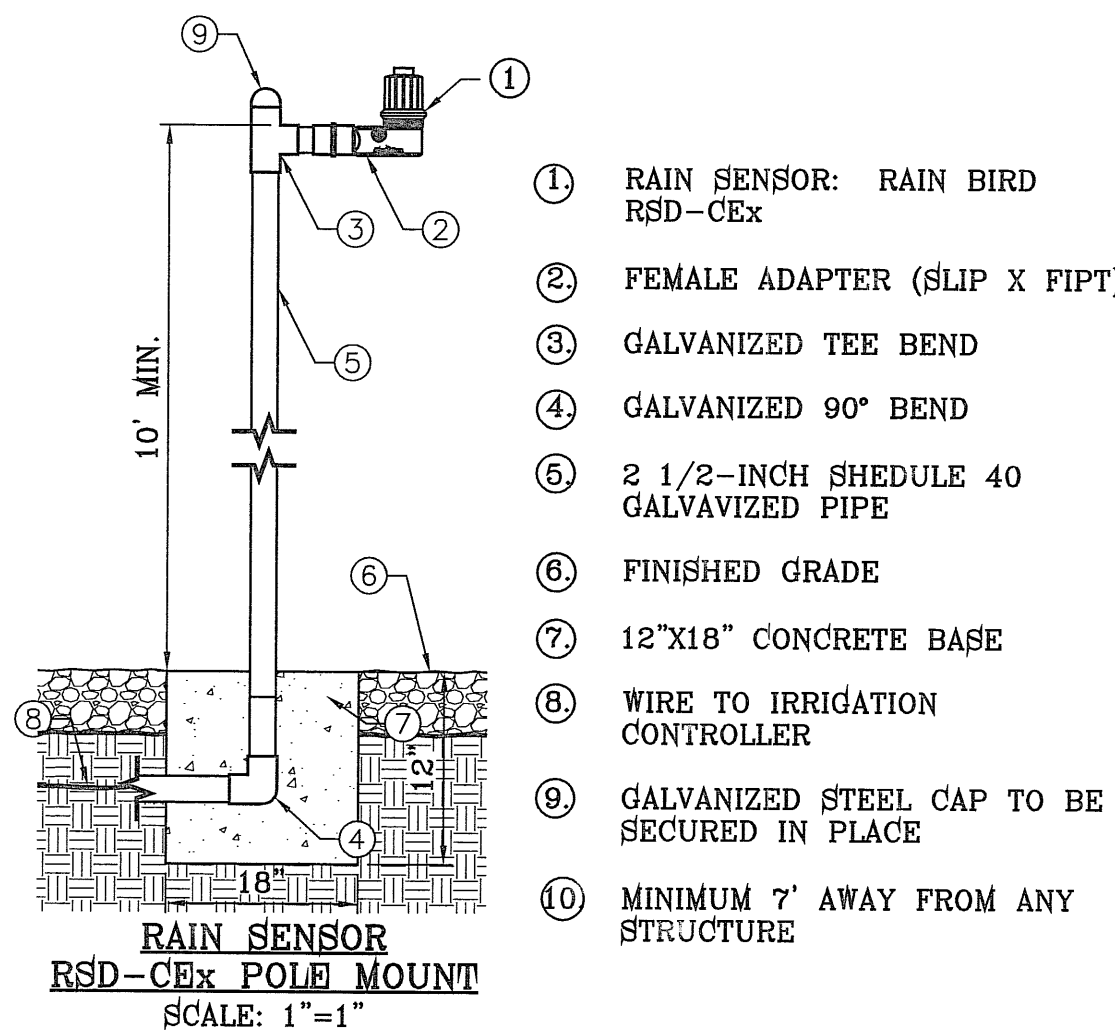
SHEET TITLE
LANDSCAPE DETAILS
SHT L10 OF L12

FILE LOCATION S:\LANDSCAPE\IRRI... PLOTTED ON Thursday, July 12, 2012 2:39:07 PM BY OSCAR MEDINA

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

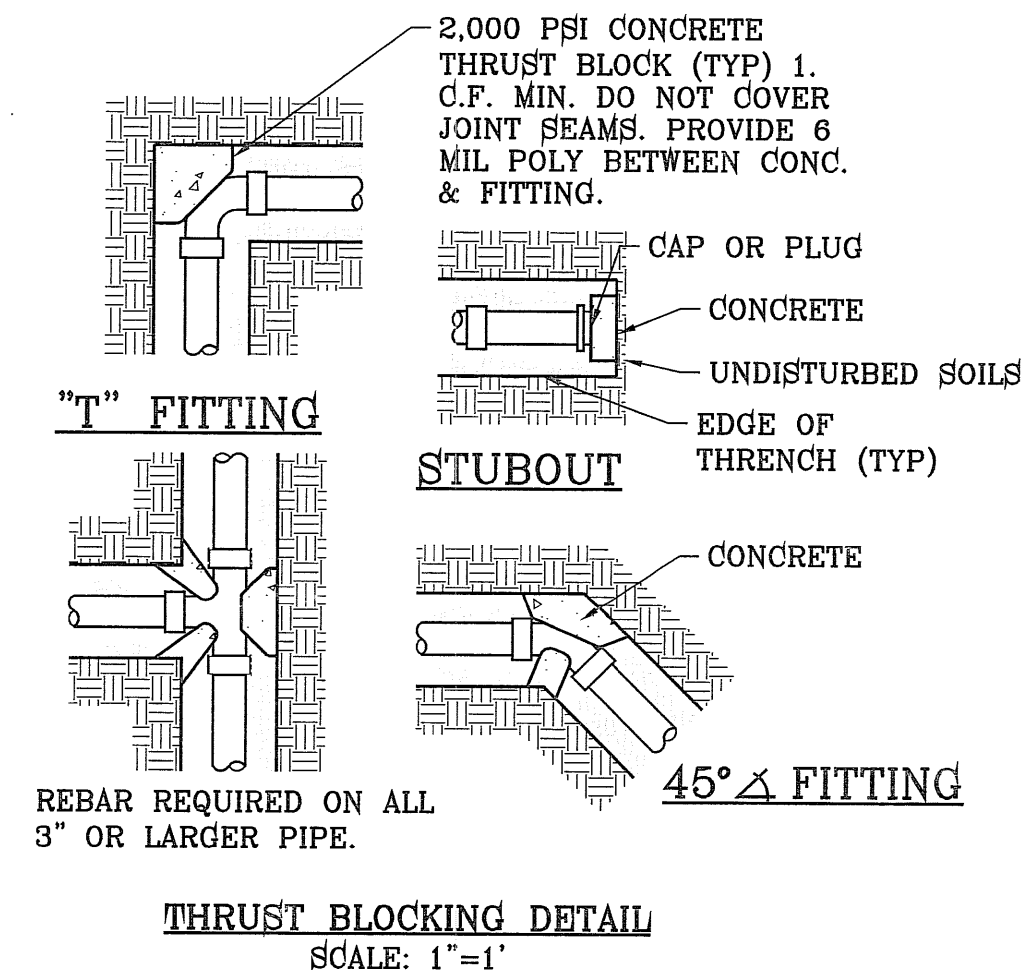


- (A) FINISH GRADE
- (B) 1419 CARLSON VALVE BOX WITH LID AND BOLT. COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
- (C) 3M SCOTCHLOK CONNECTORS OR APPROVED EQUAL
- (D) IRRIGATION MAINLINE/LATERAL MAINLINE
- (E) IRRIGATION MAINLINE SERVICE TEE OR ELL
- (F) SCHEDULE 80 PVC ELBOW
- (G) SCHEDULE 80 PVC CLOSED NIPPLE
- (H) WEATHERMATIC 8200CR-20 ELECTRIC CONTROL VALVE
- (I) SCHEDULE 80 PVC UNIONS ON LINES 3" OR SMALLER, AND FLANGES ON LINES 3" OR LARGER
- (J) LATERAL LINE
- (K) 1 CUBIC FOOT 1" DIAMETER WASHED ROCK
- (L) 8"x8"x16" SOLID CMU BLOCK
- (M) 24" WIRE EXPANSION COIL
- (N) 6 mm BLACK POLYETHYLENE OUTLET PIPE TAPE TO ALL INLET AND OUTLET PIPE
- (O) PROVIDE WEED BARRIER FABRIC "DeWITT PRO 5" UNDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS

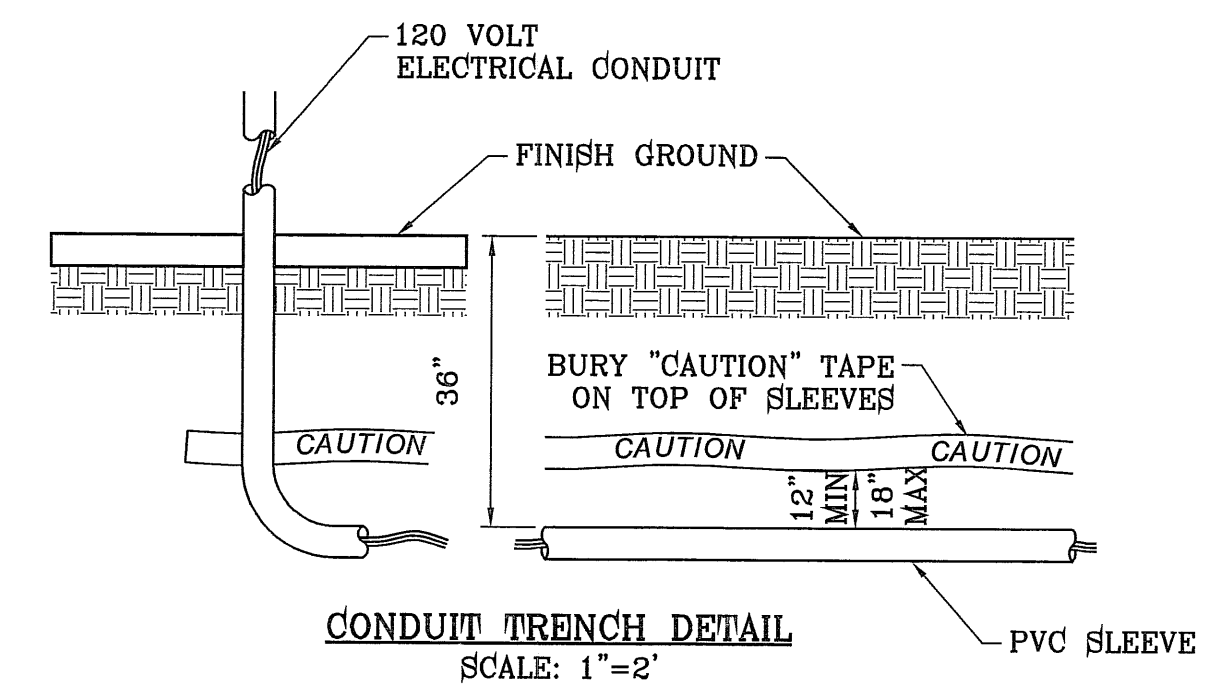
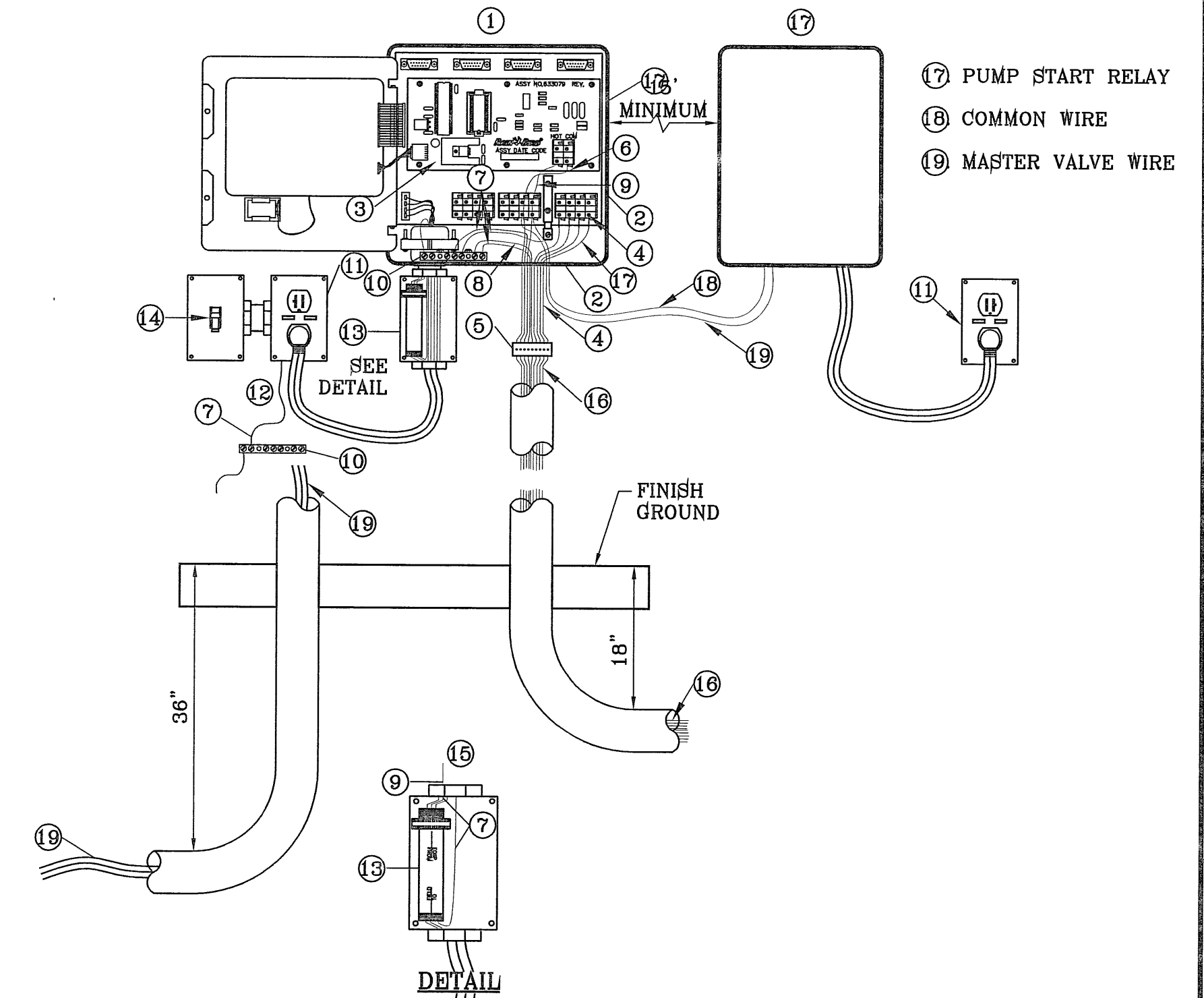


VALVE ELECTRICAL WIRES 5' FROM THE MAIN LINE (PROVIDE ADDITIONAL WIRE IN BUNDLE FOR FUTURE)

NOTE: EACH LINE TO BE INSTALLED IN SEPARATE TRENCHES AT A MINIMUM OF 6" APART



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 SEPARATE FROM THE ONE ON THE CLOCK (CONTROLLER)
5. PLACE A QUICK DISCONNECT IN THIS GENERAL LOCATION SEPARATE FROM THE ONE ON THE CONTROLLER AND MOUNTED WITHIN METAL PEDESTAL ENCLOSURE.
6. COMMON WIRE (BLACK) FROM MSP-1 SURGE ARRESTOR TO MAXICOM INTERFACE BOARD (MIB)
7. ALL GROUND WIRES (GREEN) TO GROUNDING BUSS BAR
8. #10 COPPER GROUND WIRE FROM ESP FIELD SATELLITE CONTROLLER GROUNDING BUSS BAR TO GROUNDING GRID (SEE GROUNDING GRID MAXICOM DETAIL 305)
9. HOT WIRE (RED) FROM MSP-1 SURGE ARRESTOR TO MAXICOM INTERFACE BOARD (MIB)
10. GROUNDING BUSS BAR IN CABINET SEPARATE OF CONTROLLER
11. 120 VOLT POWER SUPPLY W/ G.F.C.I. PROTECTION
12. REFER TO LOCAL ELECTRIC CODE FOR CONNECTIONS
13. RAIN BIRD MSP-1 RECOMMENDED SURGE ARRESTOR TO BE IN SEPARATE JUNCTION BOX WITH COVER
14. POWER ON/OFF TOGGLE SWITCH
15. RAIN BIRD WARRANTY REQUIRES PROPER SURGE PROTECTION IN A METAL BOX WITH LID. USE INTERMATIC AG2401 OR TRIPPLITE ISOBAR.
16. ALL LOW VOLTAGE IRRIGATION VALVE WIRES TO BE BURIED AT 18" AND LABELED AT QUICK DISCONNECT, CONTROLLER AND CONTROL VALVES WITH WEATHER PROOF PERMANENT TAGS.
17. 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.
18. FINISH GRADE, SEE PLAN FOR MATERIAL.
19. ELECTRICAL POWER CONDUIT FOR 120 VOLT POWER TO BE BURIED AT 36" DEPTH FROM FINISH GROUND TO TOP OF PIPE AND LABELED WITH PERMANENT TAGS. SEE TRENCH DETAIL.



- (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. BACKFLOW ENCLOSURE (SEE PLAN) MUST MEET R VALUE OF 25, & PROVIDED MINIMUM CLEARANCES.
- (L) STEEL SUPPORT BRACKETS BOLTED TO CONCRETE PAD
- (M) BRASS ISOLATION VALVE. BRICK BLOCK AT EACH CORNER FLANGE
- (N) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX)
- (O) SET IN CARLSON VALVE BOX WEED CLOTH ALL AROUND BOX PIPE AND UNDER PEA GRAVEL. TAPE TO SEAL ALL GAPS AND PENETRATIONS. USE 3M HIGH GRADE PLASTIC TAPE.
- (P) 1419 CARLSON VALVE BOX WITH LID AND BOLT. COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
- (Q) PVC MAINLINE AS PER IRRIGATION PLAN

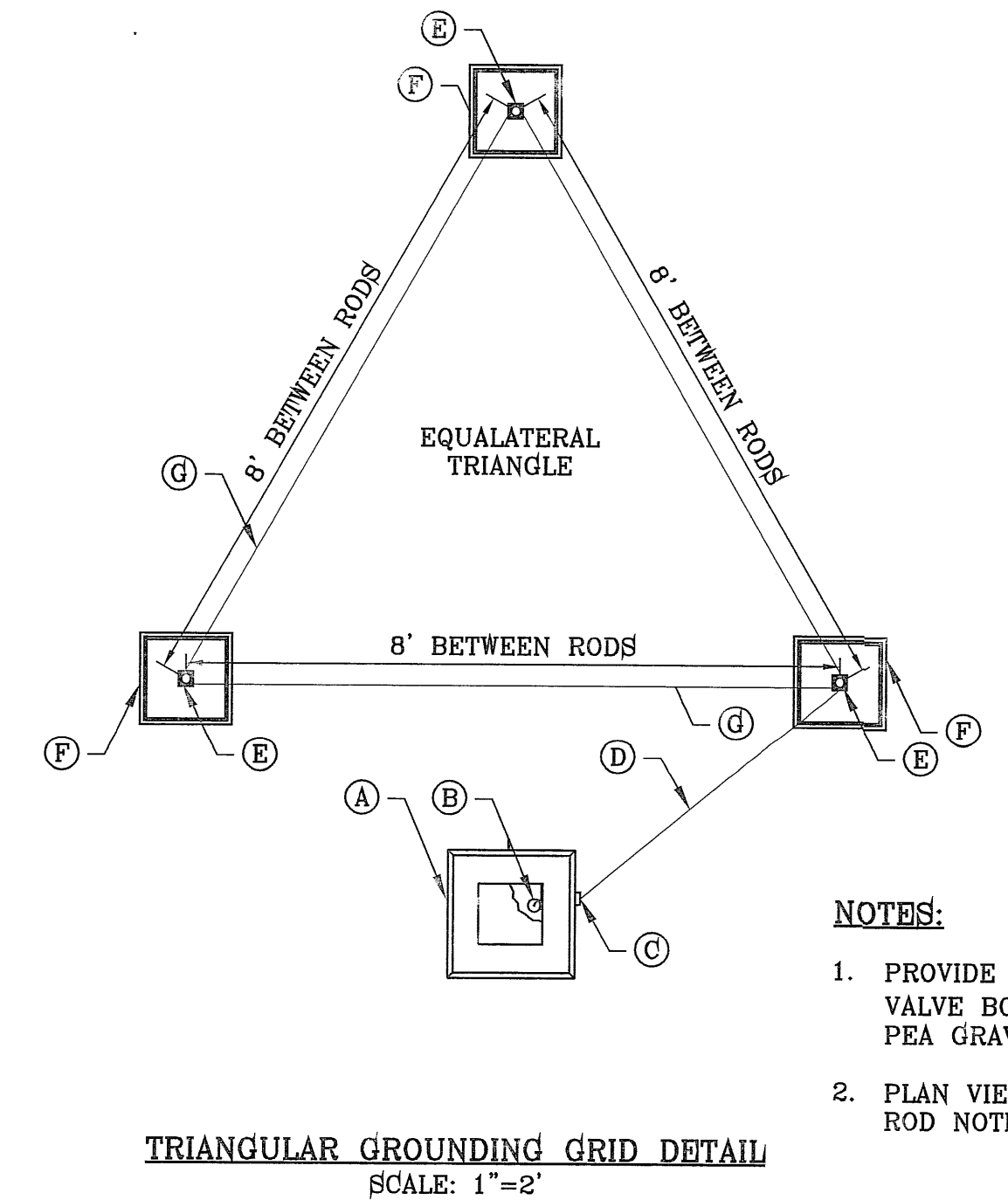
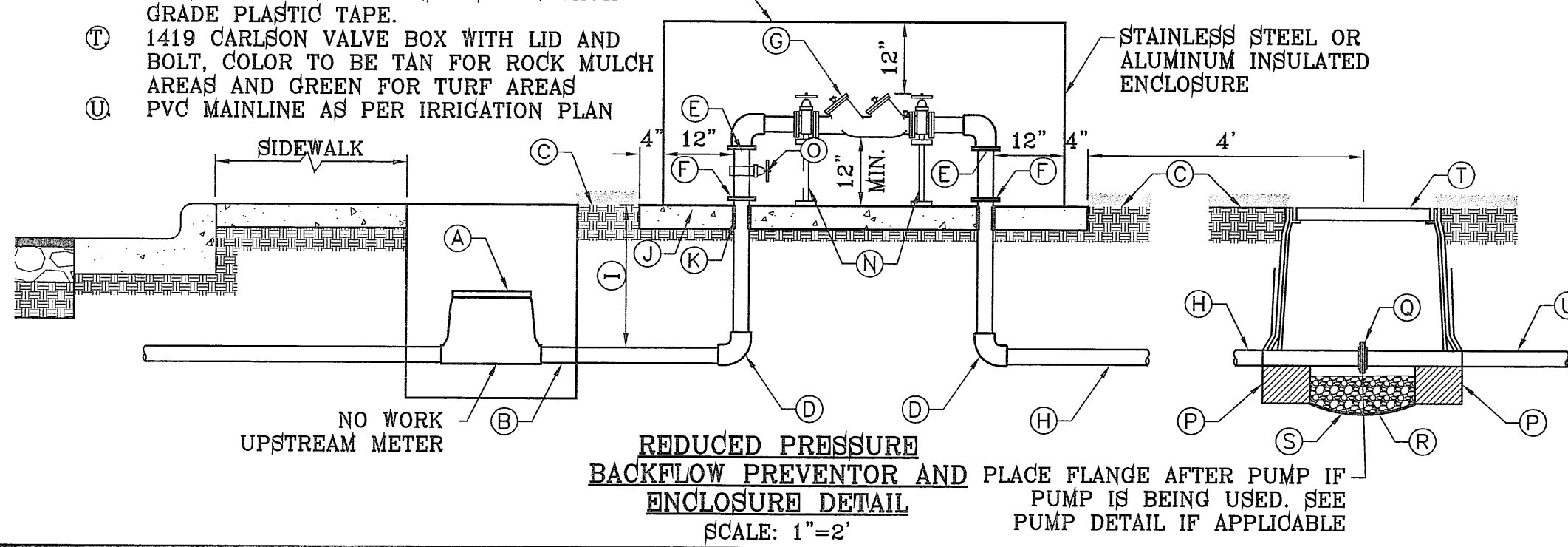
GENERAL NOTES:

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

ELECTRICAL NOTES:

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

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



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

NOTES:

1. PROVIDE WEED CLOTH UNDER AND AROUND THE VALVE BOX AND TAPE IT. PROVIDE WASHED 3/8" PEA GRAVEL 4" DEEP
2. PLAN VIEW FOR LAYOUT ONLY. SEE GROUNDING ROD NOTES FOR INSTALLATION INSTRUCTIONS.

PARKS DEPARTMENT
Antonio del Rio 7/12/12
Approved

BENCHMARK
CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.66
DATE: _____ BY: _____
REVISIONS: _____

PROJECT NAME
TIERRA DEL ESTE UNIT SIXTY NINE PARK 14577 ALTON OAKS AVE.
BEING ALL OF LOT 1, BLOCK 380 TIERRA DEL ESTE UNIT SIXTY NINE CITY OF EL PASO, EL PASO COUNTY, TEXAS
CONTAINING: 3.686± ACRES

SCALE
HORIZ: AS NOTED
VERT: ---
DATE: JAN. 2012
DESIGN BY: O.M.
INITIATED BY: O.M.
CHECKED BY: Y.C.
JOB NO.: 211-60

CONDE INC.
ENGINEERING / PLANNING
SURVEYING / GPS
6080 SUBURBY DR. STE. 100
EL PASO, TEXAS 79903
PHONE: (915) 592-0283
FAX: (915) 592-0286

REGISTRATION No. F-2321
SHEET TITLE
IRRIGATION DETAILS

SHT L11 OF L12

FILE LOCATION S:\LANDSCAPE\TDE 69 TDE_69 LANDSCAPE & IRRIGATION PLOTTED ON Thursday, July 12, 2012 2:59:12 PM BY OSCAR MEDINA

LANDSCAPE NOTES:

- PLANT MATERIAL SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN PERMISSION OF THE OWNER. THE USE OF MATERIALS DIFFERING IN KIND, QUALITY OR SIZE FROM THAT SPECIFIED WILL BE ALLOWED ONLY AFTER OWNER IS CONVINCED THAT ALL MEANS OF OBTAINING THE SPECIFIED MATERIAL HAVE BEEN EXHAUSTED. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS SPECIFIED. ALL REQUESTS FOR SUBSTITUTIONS MUST BE SUBMITTED NO LATER THAN TWO WEEKS PRIOR TO THE INITIATION OF WORK.
- PLANT MATERIAL QUALITY, SIZE AND CONDITION SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK, 1980 EDITION, AS PUBLISHED BY THE COMMITTEE ON HORTICULTURAL STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUNSCALED INJURIES, PLANT DISEASES, INSECT EGGS, BORES AND ALL OTHER FORMS OF INFECTIONS.
- UNLESS OTHERWISE STATED ON THE DRAWINGS OR APPROVED BY THE OWNER'S REPRESENTATIVE, ALL PLANTS SHALL BE NURSERY GROWN AND SHALL BE TAGGED WITH NURSERY LABELS INDICATING SPECIES AND VARIETY.
- NON-CONTAINER GROWN PLANTS SHALL HAVE A SOLID BALL OF EARTH OF MINIMUM SPECIFIED SIZE AND HELD IN PLACE SECURELY BY BURLAP AND A STOUT TWINE OR ROPE. SEE TREE AND SHRUB PLANTING DETAIL. BROKEN OR LOOSE BALLS WILL BE REJECTED.
- UNLESS SPECIFICALLY NOTED ON DRAWING, ALL TREES SHALL HAVE A SINGLE TRUNK THAT IS STRAIGHT AND FREE OF "DOG-LEGS", "CROOKS", "Y-CROTCHES", OR OTHER DISFIGURING SHAPES. THE CENTRAL LEADER OF ALL TREES SHALL NOT HAVE BEEN PRUNED. TREES WITH DOUBLE LEADERS ARE NOT ACCEPTABLE, UNLESS SPECIFIED AS MULTI-TRUNKED.
- ALL PLANT MATERIAL SHALL HAVE A UNIFORMED SHAPE AROUND ITS COMPLETE CIRCUMFERENCE. PLANT MATERIAL WITH IRREGULAR BRANCHING PATTERNS OR WITH BRANCHING PATTERNS MORE HIGHLY DEVELOPED ON ONE SIDE THAN ON OTHER SIDES SHALL NOT BE ACCEPTABLE.
- THE OWNER'S REPRESENTATIVE SHALL BE THE JUDGE OF THE QUALITY AND ACCEPTABILITY OF ALL PLANT MATERIALS. ALL REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIALS AT NO ADDITIONAL COST TO OWNER.
- ALL TREES, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR THE PERIOD OF ONE FULL YEAR BEGINNING ON THE DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS WITHIN 10 WORKING DAYS OF WRITTEN NOTIFICATION AT NO EXPENSE TO THE OWNER. THE CONTRACTOR SHALL NOT BE RESPONSIBLE NOR VANDALIZED PLANT MATERIAL.
- ALL PLANTING BEDS SHOWN ON PLANS SHALL BE MULCHED. NO BEDS WILL BE LEFT UNCOVERED OR NOT TOP DRESSED, UNLESS OTHERWISE SPECIFIED.

GRADING

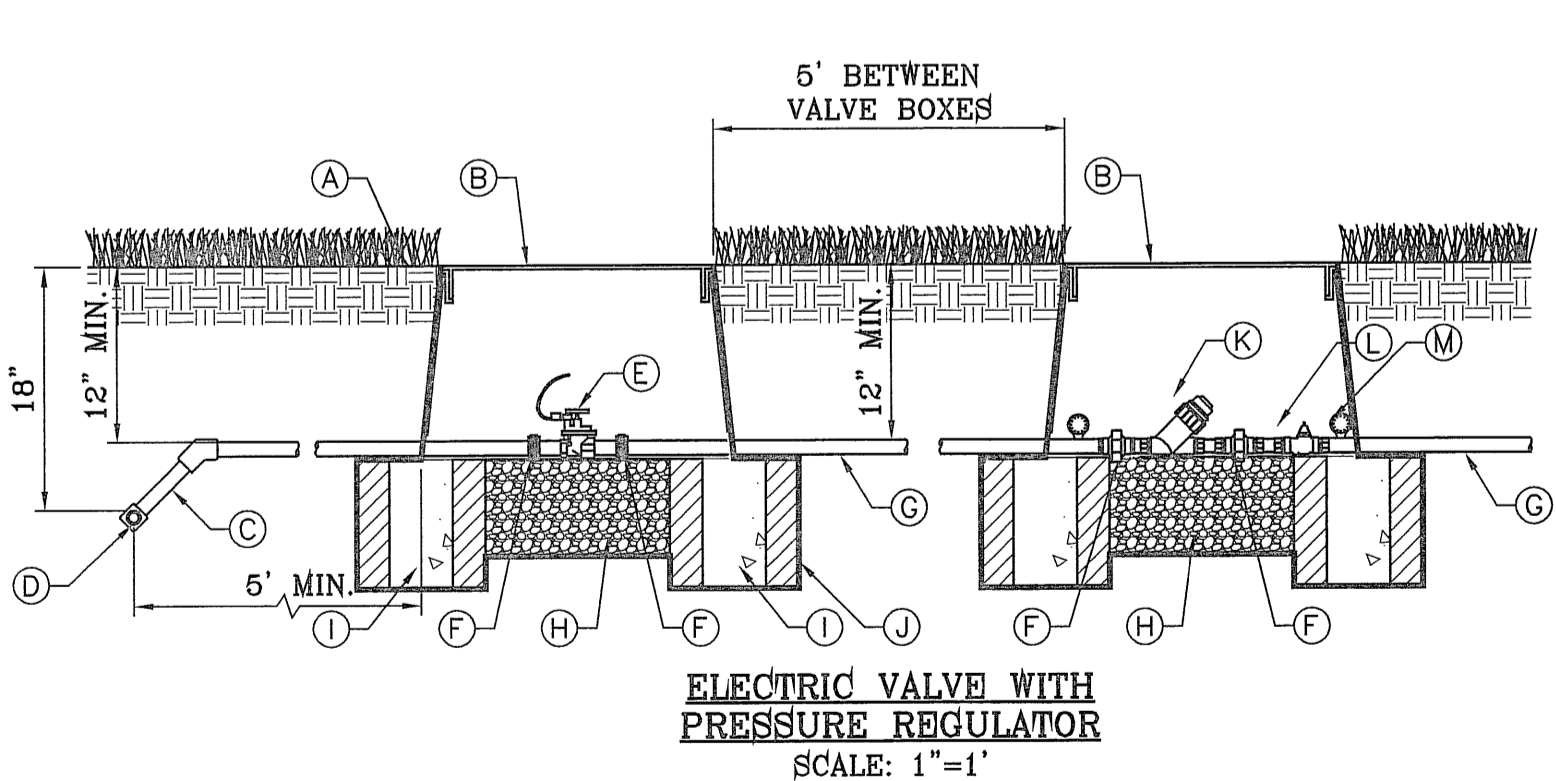
- PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF ALL GOVERNING BODIES HAVING JURISDICTION.
- FINE GRADING: SURFACE SHALL BE RAKED FREE OF STONES AND EXTRANEOUS MATERIALS AND DEBRIS TO A SMOOTH AND EVEN TEXTURE. ALL EXTRANEOUS MATTER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

PROTECTIONS:

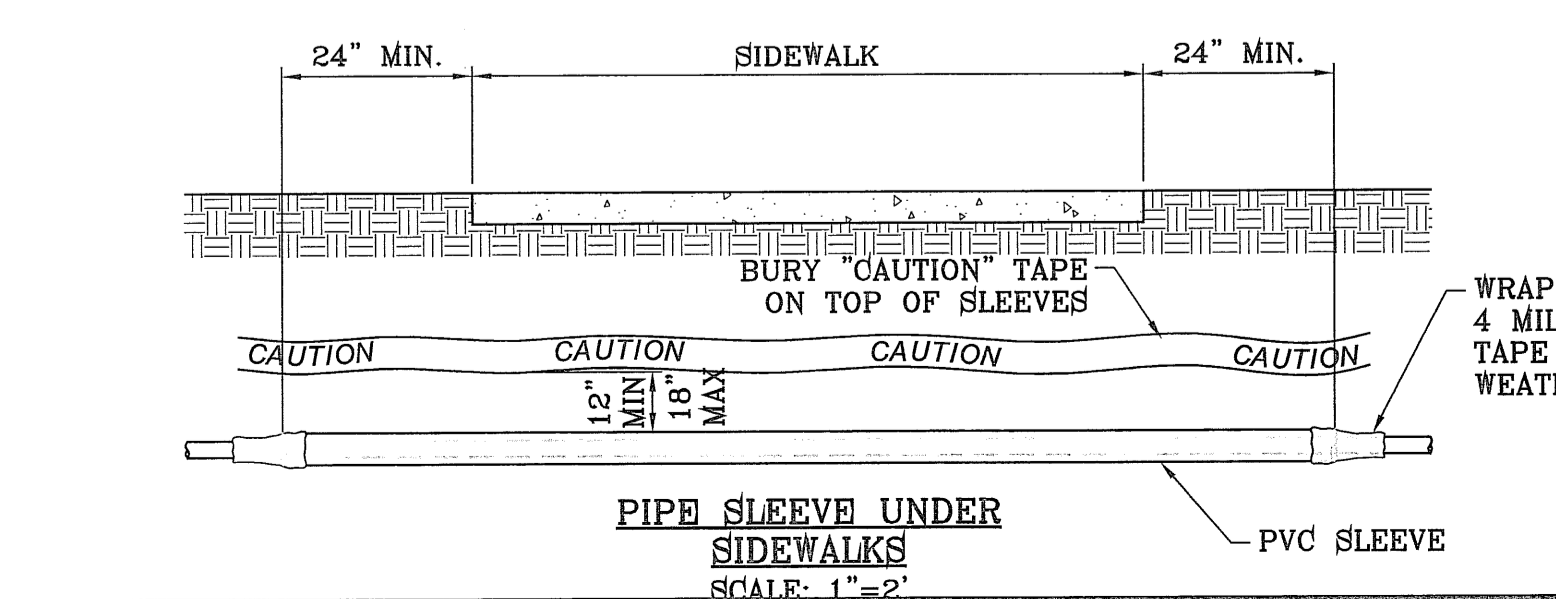
- CONTRACTOR SHALL BE FAMILIAR WITH PLANS, DETAILS AND SPECIFICATIONS AS THEY PERTAIN TO THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IF ANY ITEMS CONTAINED WITHIN THE SCOPE OF WORK DEFINED HEREIN ARE IN CONFLICT WITH PROPOSED CONTRACT.
- EXISTING UTILITY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

GENERAL NOTES:

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



- (A) FINISH GRADE
- (B) 1419 CARSON VALVE BOX WITH LID AND BOLT, COLOR TO BE TAN FOR ROCK MULCH AREAS AND GREEN FOR TURF AREAS
- (C) IRRIGATION MAINLINE/LATERAL MAINLINE
- (D) IRRIGATION MAINLINE SERVICE TEE OR ELL
- (E) WEATHERMATIC 8200CR-20 ELECTRIC CONTROL VALVE
- (F) SCHEDULE 80 PVC UNIONS ON LINES 3" OR SMALLER, AND FLANGES ON LINES 3" OR LARGER
- (G) LATERAL LINE
- (H) 1 CUBIC FOOT 1" DIAMETER WASHED ROCK
- (I) 6"x8"x16" SOLID CMU BLOCK
- (J) PROVIDE WEED BARRIER FABRIC 'DeWITT PRO 5' UNDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS
- (K) ANGLED AMIAD WYE FILTER TO BE ABLE TO DRAIN AND BE SERVICED READILY
- (L) WILKINS BF4 BRONZE BODY OR IN-LINE PRESSURE REGULATOR
- (M) GAUGE



IRRIGATION NOTES

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

TRENCHING

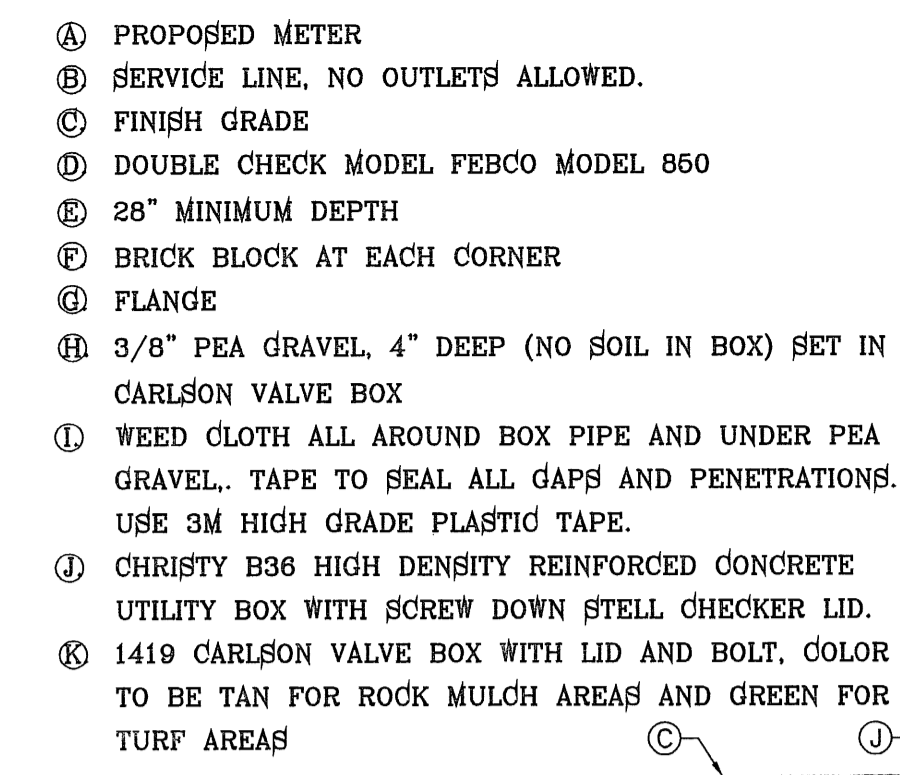
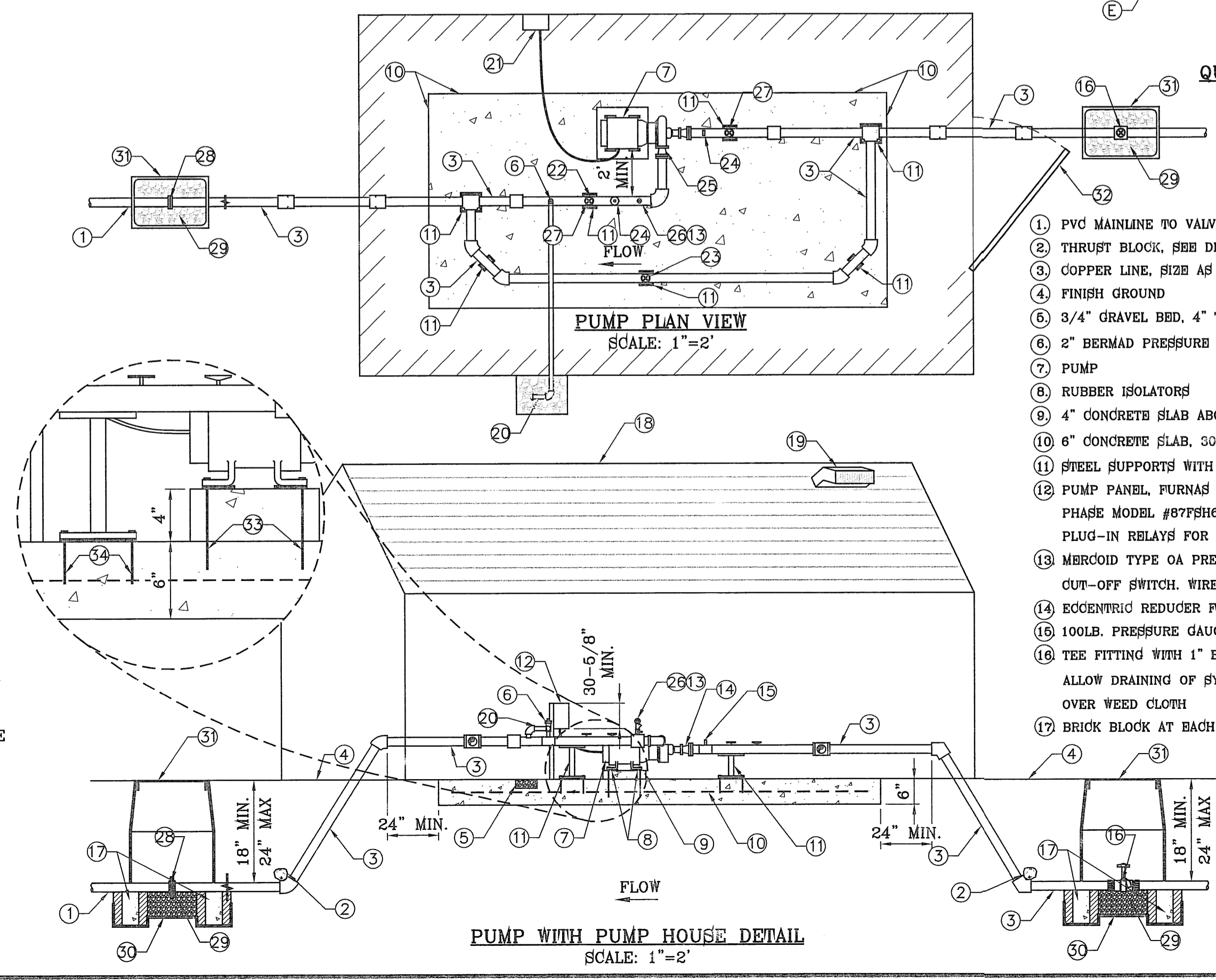
- CONTACT LOCAL UTILITY COMPANIES AND BLUE STAKE ALL UTILITIES PRIOR TO EXCAVATION.
- ALL TRENCHING SHALL BE DONE IN STRICT ACCORDANCE WITH OSHA-2226.
- PIPES MUST BE FLUSHED AND INSPECTED BY PROJECT INSPECTOR BEFORE INSTALLING VALVES AND SPRINKLERS.
- PIPES SHALL NOT BE BURIED UNTIL INSPECTED BY PROJECT INSPECTOR. CONTRACTOR MUST UNCOVER THE WORK TO BE INSPECTED AND/OR TESTED AND BE RE-BURIED AT THEIR EXPENSE.
- AVOID OBSTACLES (UTILITIES, TREE ROOTS, BOULDERS etc. etc.) ALLOW A MINIMUM OF TWO INCHES OF COVERAGE
- BACKFILL MATERIAL SHALL CONTAIN NO LUMPS, ROCKS LARGER THAN ONE INCH OR ORGANIC MATERIAL. BACKFILL MATERIAL MUST BE APPROVED BY PROJECT INSPECTOR PRIOR FILLING OF TRENCHES.
- IF EXCAVATING 16 INCHES OR DEEPER WITH POWER EQUIPMENT, YOU MUST BY LAW CALL 1-800-DIG TESS (800-344-8377) 48 HOURS BEFORE EXCAVATING.
- LATERAL LINES SHALL BE TO A DEPTH OF 12". MAIN LINES SHALL BE TO A DEPTH OF 18" AND VALVE ELECTRICAL WIRES TO A DEPTH OF 18". SEE TRENCH DETAIL ON L11 OF L12.

SOLVENT WELDING

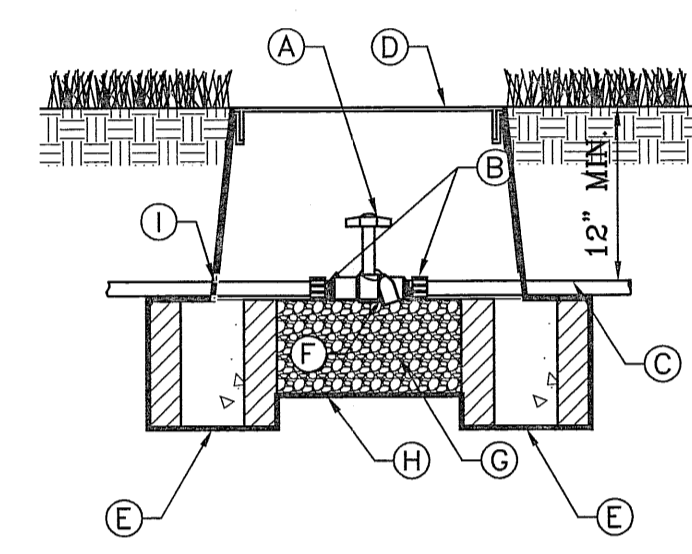
- USE IPS WELD-ON CLEANER AND PURPLE PRIMER P68 OR P70 TO CLEAN AND PREPARE THE PIPES BEING JOINED.
- USE IPS WELD-ON GRAY GLUE #711 HEAVY DUTY.
- LACK OF SUFFICIENT SOLVENT WILL RESULT IN A WEAK CONNECTION. EXCESS SOLVENT WILL WEAKEN THE STRUCTURE. USE THE RIGHT AMOUNT OF SOLVENT FOR A SOUND INSTALLATION.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

ELECTRICAL WIRING

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



- (A) ISOLATION BRASS BALL VALVE (SAME SIZE AS PIPE)
- (B) THREADED MALE ADAPTERS
- (C) PVC LATERAL
- (D) 419 PURPLE CARSON VALVE BOX W/ FLAT LID
- (E) SOLID BRICK BLOCK AT EACH CORNER
- (F) WATER PROOF TAGS THAT READ "NON-POTABLE WATER"
- (G) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX)
- (H) PROVIDE WEED BARRIER FABRIC 'DeWITT PRO 5' UNDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS
- (I) 6 mm BLACK POLYETHYLENE PLASTIC TAPE TO ALL INLET AND OUTLET PIPE



- (A) BUCKNER DOUBLE LUG QUICK-COUPLING VALVE WITH PURPLE CAP
- (B) LASCO PRE-ASSEMBLED SWING JOINT WITH SNAP LOCK STABILIZER ASSEMBLY AND BRASS FITTING
- (C) PVC LATERAL
- (D) 1419 PURPLE CARSON VALVE BOX W/ FLAT LID
- (E) SOLID BRICK BLOCK AT EACH CORNER
- (F) 3/8" PEA GRAVEL, 4" DEEP (NO SOIL IN BOX)
- (G) WATER PROOF TAGS THAT READ "NON-POTABLE WATER"
- (H) PROVIDE WEED BARRIER FABRIC 'DeWITT PRO 5' UNDER AND AROUND VALVE BOX AND SEAL ALL PIPE PENETRATIONS
- (I) 6 mm BLACK POLYETHYLENE PLASTICTAPE TO ALL INLET AND OUTLET PIPE
- (J) PVC PIPE STABILIZER

QUICK COUPLER VALVE SCALE: 1"=1"

- (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 MODEL 730-Q
- (7) PUMP
- (8) RUBBER ISOLATORS
- (9) 4" CONCRETE SLAB ABOVE DOOR THRESHOLD.
- (10) 6" CONCRETE SLAB, 3000 PSI W/ 6X8 #W/F
- (11) STEEL SUPPORTS WITH ISOLATORS BOLTED TO CONCRETE
- (12) PUMP PANEL, FURNAS MODEL ESP100, NEMA2 460 VOLT, 3 PHASE MODEL #9775HP8 WITH VOLTAGE MONITOR AND 3 PLUG-IN RELAYS FOR EACH CONTROLLER AND STALL TIMER.
- (13) MERCROID TYPE OA 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) 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) 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-160 SPRING LOADED CHECK VALVE
- (24) 100lb. PRESSURE GAUGE
- (25) CONCENTRIC REDUCER
- (26) MERCROID SWITCH ON DISCHARGE SIDE OF PUMP
- (27) BRASS BALL VALVE
- (28) FLANGE
- (29) 3/8" PEA GRAVEL 4" DEEP (NO SOIL IN BOX)
- (30) WEED CLOTH ALL AROUND BOX, PIPE AND UNDER PEA GRAVEL. TAPE TO SEAL ALL GAPS AND PENETRATIONS. USE 3M HIGH GRADE PLASTIC TAPE.
- (31) CARSON VALVE BOX, 1419 SERIES WITH EXTENSIONS AS NEEDED & BOLT DOWN FLAT LID
- (32) DOOR TOWARDS STREET
- (33) 7" LONG, 6/8" CONCRETE ANCHORS (DRILLED) WITH NUTS
- (34) 4" LONG, 6/8" CONCRETE ANCHORS (DRILLED) WITH NUTS

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

- GENERAL NOTES:**
- DO NOT INSTALL IN FLOOD PRONE AREAS.
 - METAL RISER PIPING REQUIRED.
 - JOINTS TO BE ADEQUATELY RESTRAINED.
 - HORIZONTAL INSTALLATION REQUIRED AS SHOWN.
 - INSTALLATION TO MEET E.P.W.U. REQUIREMENTS
- 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.

PROJECT NAME TERRA DEL ESTE UNIT SIXTY NINE PARK SIXTY NINE PARK 14577 ALTON OAKS AVE. BRING ALL OF LOT 1, BLOCK 380 TERRA DEL ESTE UNIT SIXTY NINE CITY OF EL PASO, EL PASO COUNTY, TEXAS CONTAINING: 3.586± ACRES	BENCHMARK CITY MONUMENT AT THE CENTERLINE INTERSECTION OF LOOKOUT POINT DR. AND JOHN HAYES ST. ELEVATION 4020.58 DATE REVISIONS
	SCALE HORIZ: AS NOTED VERT: --- DATE: JAN. 2012 DESIGN BY: O.A.M. INITIATED BY: O.A.M. CHECKED BY: Y.C. JOB NO.: 211-60
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 IRRIGATION DETAILS
SHT L12 OF L12	

PARKS DEPARTMENT
Approved: [Signature]
TERRA DEL ESTE UNIT SIXTY NINE

Dedicated to Outstanding Customer Service for a Better Community

SERVICE SOLUTIONS SUCCESS

CITY DEVELOPMENT DEPARTMENT

August 15, 2013



Mr. Andrew Castillo
BIC Homes, LLC
P.O. Box 960277
El Paso, Texas 79996

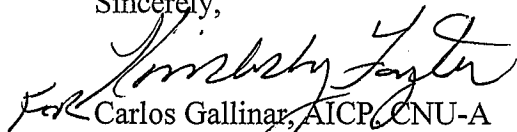
Re: Tierra del Este Unit 69 - Vesting Petition

Dear Mr. Castillo:

In accordance with Title 1.04.070.C of the El Paso City Code, you are hereby informed that the vested rights petition dated 8/13/13 for Tierra del Este Unit 69 has been granted. The subdivision is subject to the landscape code requirements that were applicable at the time the subdivision application was submitted for initial review (May 2011). At that time, street trees were not required for single family residential lots.

Please feel free to contact me if you need further assistance.

Sincerely,


Carlos Gallinar, AICP, CNU-A
Deputy Director - Planning

Mayor
Oscar Leaser

City Council

District 1
Ann Morgan Lilly

District 2
Larry Romero

District 3
Emma Acosta

District 4
Carl L. Robinson

District 5
Dr. Michiel R. Noe

District 6
Eddie Holguin Jr.

District 7
Lily Limón

District 8
Cortney C. Niland

City Manager
Joyce A. Wilson