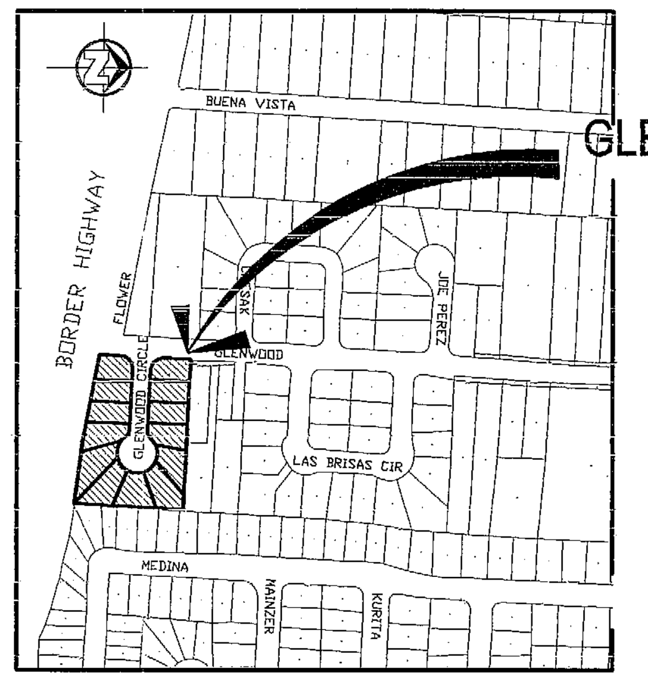
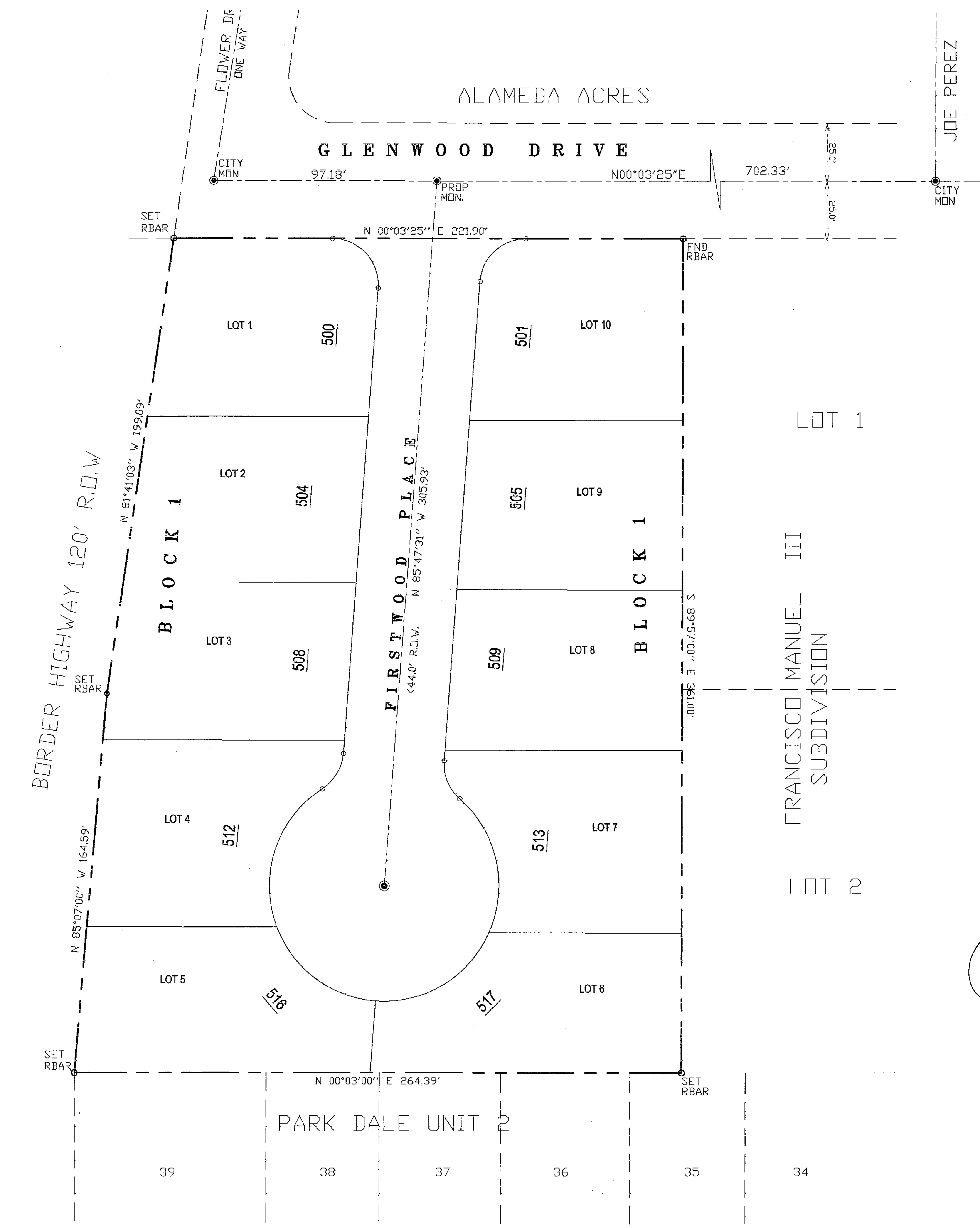
GLENWOOD CIRCLE PLACE SUBDIVISION



LOCATION MAP
SC: 1" = 600'



SCALE: 1"=30'

INDEX OF SHEETS

COVER SHEET	1
FINAL PLAT	2
PLAN AND PROFILE	3
LOT GRADING AND DRAINAGE PLAN	4
DETAILS	5
ILLUMINATION PLAN	6
DRAINAGE PLAN & S.W.P.P.P.	7
WATER & SEWER IMPROVEMENTS	8–10

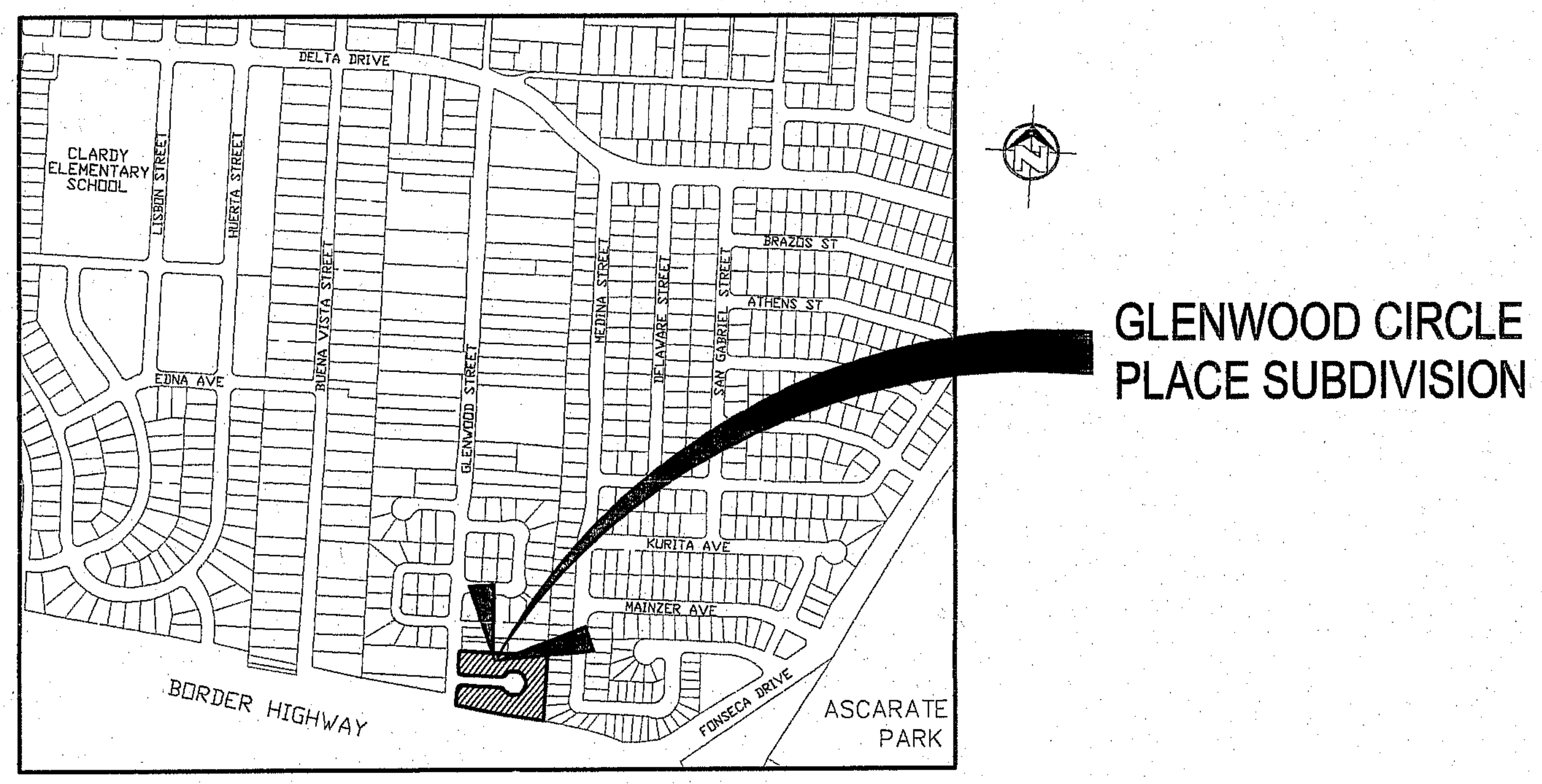
CITY DEVELOPMENT DEPARTMENT
Reviewed For Conformance For Condition Related To:
Sidewalks — Driveways
Grading & Drainage — Retaining Rock Walls
Wheelchair Ramps — On Site Ponding of Storm Waters
On Site Parking Layout
Contractor Must Call 24 Hours Prior To Construction for Inspections
JAVIER GUTIERREZ · SEPT. 11/13
By — Date

Fermin Dorado
STATE OF TEXAS — FERMIN DORADO — 57518 — REGISTERED
09.12.13

DORADO
ENGINEERING, INC.
ENGINEERS SURVEYORS PLANNERS
2717 E. YANDELL EL PASO, TEXAS 79903 (915)562-0002

GLENWOOD CIRCLE PLACE SUBDIVISION

BEING A REPLAT OF ALL OF SAN ANGELINO ESTATES, CITY OF EL PASO, COUNTY OF EL PASO, TEXAS
CONTAINING 2.03 ACRES



LOCATION MAP
SC: 1" = 600'

NUMBER	DIRECTION	DISTANCE
L1	S 85°47'31" E	5.65'
L2	S 85°47'31" E	4.51'

NUMBER	DELTA	CHD BEARING	TAN '	RADIUS '	ARC LEN '	CHD LEN '
C1	286°15'37"	N 04°12'29" E	37.50	50.00	249.81	60.00
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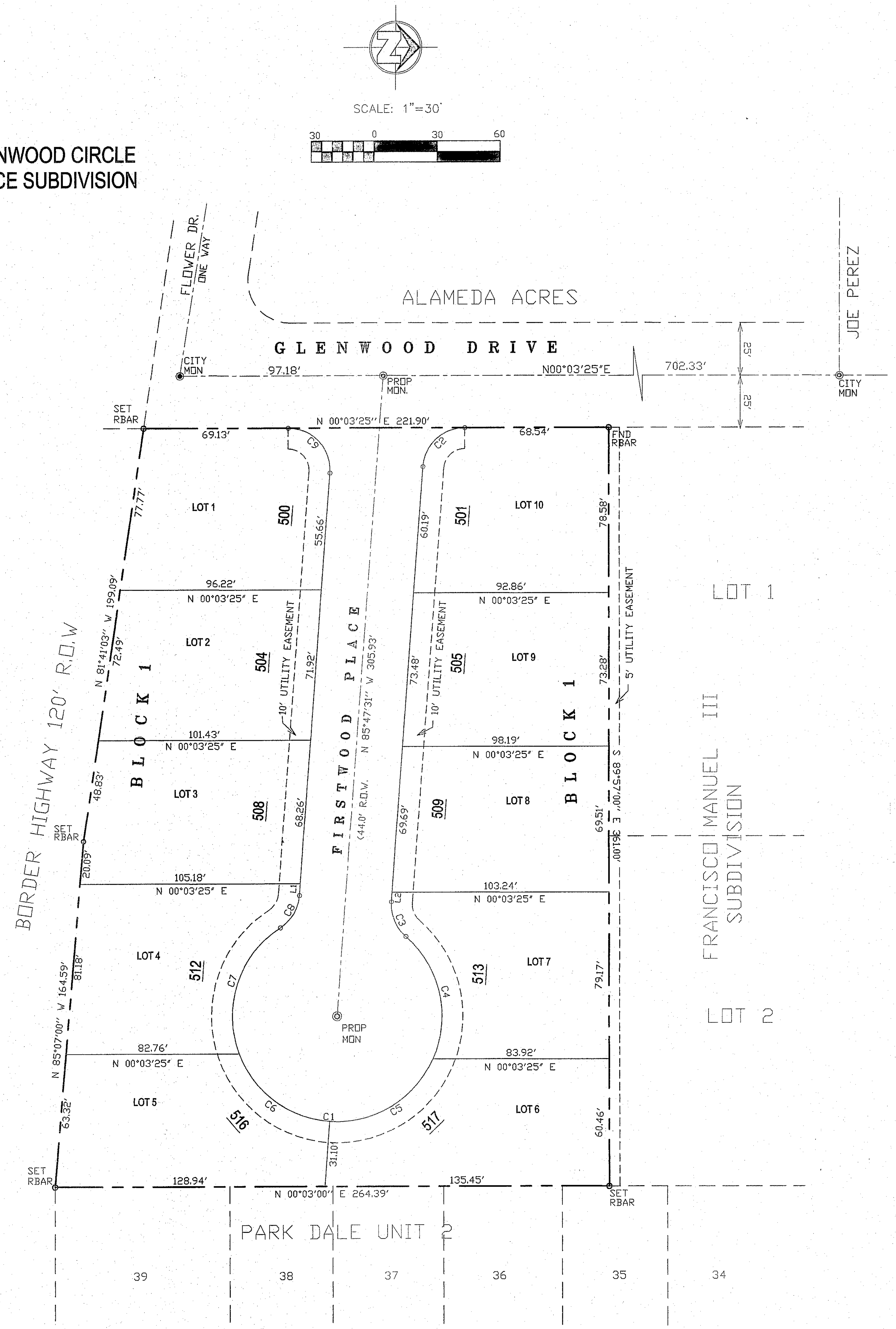
C9	94°09'04"	N 47°07'57" E	21.50	20.00	32.86	29.29

LOT NO.	AREA	
	SQ. FT.	ACRES
1	7089.00	0.163
2	7089.00	0.163
3	7089.00	0.163
4	7089.00	0.163
5	7097.00	0.163
6	7010.00	0.161
7	7000.00	0.161
8	7000.00	0.161
9	7000.00	0.161
10	7000.00	0.161



DATE OF PREPARTION JULY 03, 2012

NOTES

RESTRICTIVE COVENANTS FOR THIS SUBDIVISION ARE 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 RECORD SECTION.

INSTRUMENT No. 20140002870-82 DATE: 01/15/14

TIES SHOWN TO EXISTING CITY MONUMENTS ARE BASED ON RECORD INFORMATION ONLY.

WATER SUPPLY AND SEWER SEWAGE DISPOSAL IS PROVIDED BY EL PASO WATER UTILITIES.

THIS PROPERTY LIES IN ZONE "C", "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL FLOOD" PANEL NO. 480214-0040 B, MAP REVISED ON OCTOBER 15, 1982.

ROCKWALLS OR STRUCTURES THAT HINDER OR BLOCK ACCESS TO THE PRIVATE ACCESS AND UTILITY EASEMENT WILL BE PROHIBITED.

GRADING PERMIT SHALL BE REQUIRED AT TIME OF BUILDING PERMIT ISSUANCE

U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS TO THIS SUBDIVISION

TWO FIRE HYDRANTS WILL BE INSTALLED IN THE PROPOSED DEVELOPMENT
A. ONE FIRE HYDRANT INSTALLED ON GLENWOOD STREET.
B. ONE FIRE HYDRANT INSTALLED AT THE END OF THE CUL-DE-SAC.

NON PARKING ON ONE SIDE OF THE STREET AND THE CUL-DE-SAC AND THE CURBS TO PAINTED RED WITH THE WORDS FIRE LANE IN CONTRASTING COLOR AND SIGNS ON POST.

THE REQUIREMENT THAT ALL BUILDINGS BE PROTECTED BY SPRINKLER SYSTEM IS WAIVED.

DORADO ENGINEERING, INC.
ENGINEERS SURVEYORS PLANNERS
2717 E. YANDELL ST., EL PASO, TEXAS 79903 (915) 562-0002

THE STATE OF TEXAS
COUNTY OF EL PASO

I MARIO ORNELAS, PROPERTY OWNER(S) OF THIS LAND, HEREBY PRESENT THIS PLAT AND DEDICATE TO THE USE OF THE PUBLIC THE STREET RIGHT-OF-WAY, UTILITY EASEMENTS, AS HEREON LAID DOWN AND DESIGNATED, INCLUDING EASEMENTS FOR OVERHANG OF SERVICE WIRES FOR POLE TYPE UTILITIES AND BURIED SERVICE WIRES, CONDUITS AND PIPES FOR UNDERGROUND UTILITIES, AND THE RIGHT TO INGRESS AND EGRESS FOR SERVICE AND CONSTRUCTION AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS.

________ 11-11-13
MARIO ORNELAS DATE

ACKNOWLEDGEMENT

THE STATE OF TEXAS
COUNTY OF EL PASO

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 11th DAY OF November, 2013 BY
Mario Ornelas.

____
NOTARY PUBLIC IN AND FOR EL PASO, COUNTY, TEXAS

FERMIN DORADO JR.
Notary Public, State of Texas
My Commission Expires
August 15, 2013

MY COMMISSION EXPIRES:
August 15, 2017

CITY PLAN COMMISSION

THIS SUBDIVISION IS HEREBY APPROVED AS TO THE PLATTING AND AS TO THE CONDITIONS OF THE DEDICATION IN ACCORDANCE WITH CHAPTER 212 OF THE LOCAL GOVERNMENT CODE OF TEXAS THIS 5th DAY OF December, 2013 A.D.

________ ________
EXECUTIVE SECRETARY CHAIRPERSON

____
CITY DEVELOPMENT DIRECTOR

FILING

FILED AND RECORDED IN THE OFFICE OF THE COUNTY CLERK OF EL PASO COUNTY, TEXAS, THIS 15th DAY OF January, 20 14, A.D., INST. NO. 2014000 28609

FOR RECORDING PURPOSES ONLY
________ Charlie Quiroga
COUNTY CLERK BY DEPUTY

THIS PLAT REPRESENTS A SURVEY MADE ON THE GROUND UNDER MY SUPERVISION AND IN IS COMPLIANCE WITH THE CURRENT TEXAS BOARD OF PROFESSIONAL LAND SURVEYING PROFESSIONAL AND TECHNICAL STANDARDS

Fermin Dorado 11.11.13
FERMIN DORADO, R.P.L.S., No. 3190

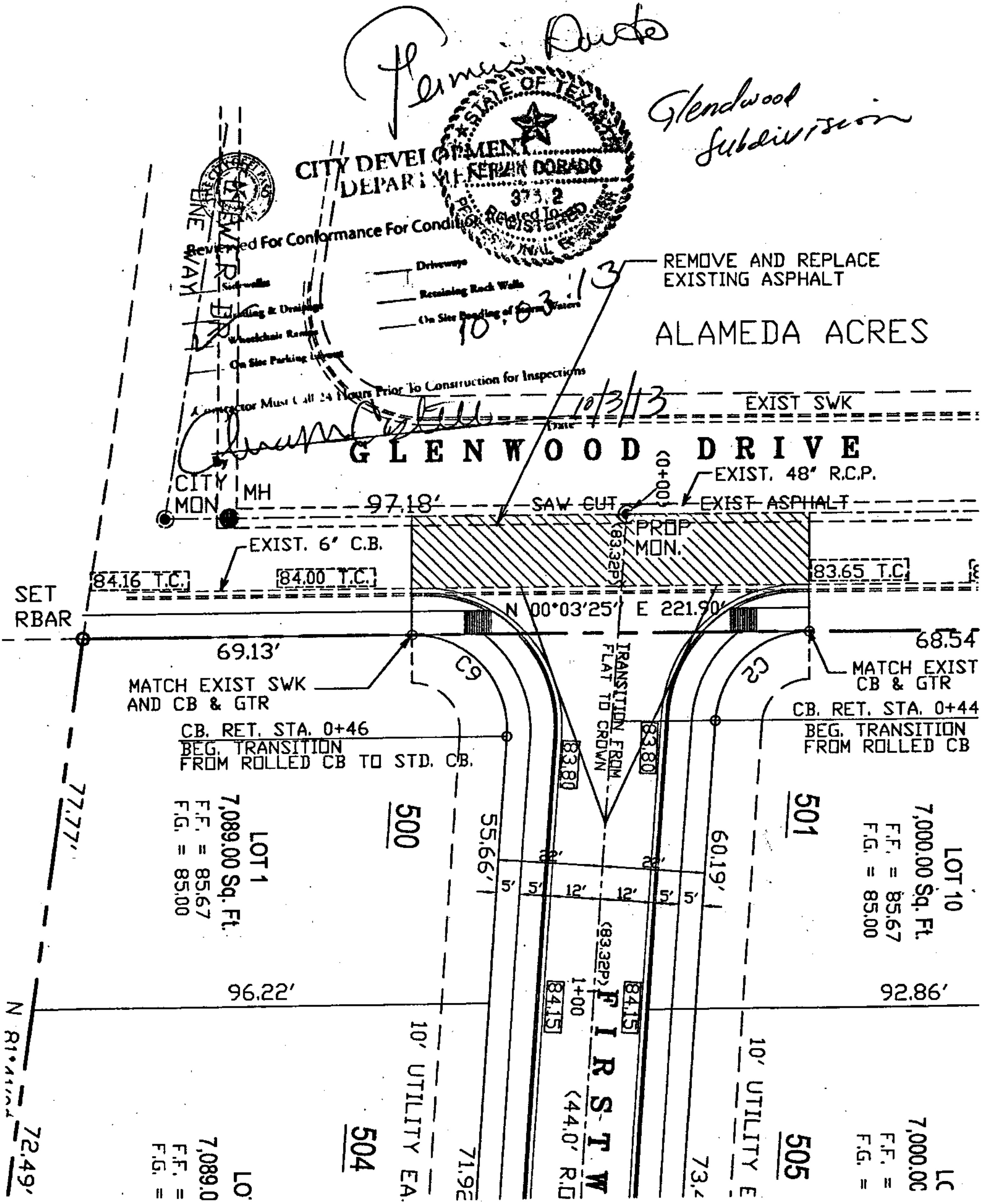
SUBDIVISION IMPROVEMENT PLANS PREPARED BY AND UNDER THE SUPERVISION OF FERMIN DORADO, REGISTERED PROFESSIONAL ENGINEER NO. 37512

Fermin Dorado 11.11.13
FERMIN DORADO, P.E.

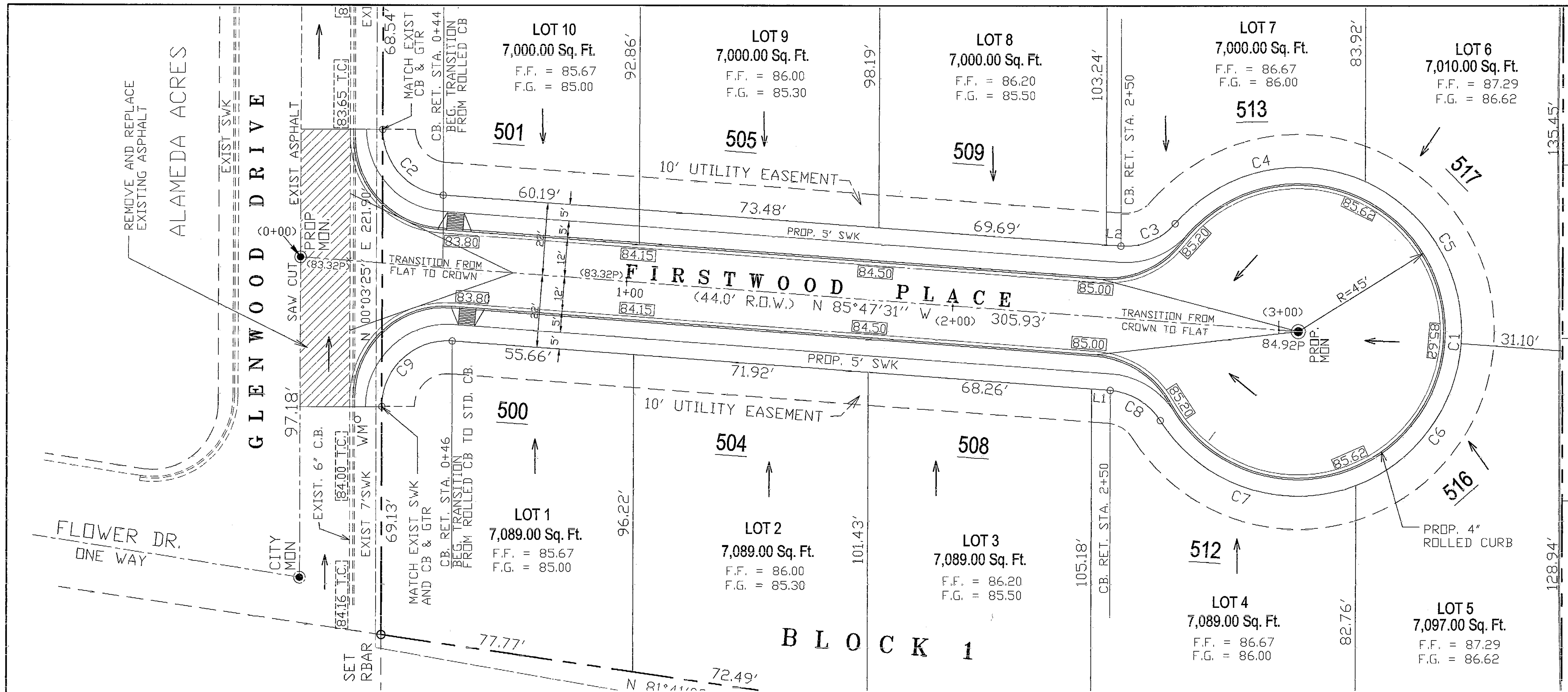
STATE OF TEXAS REGISTERED FERMIN DORADO 3190 PROFESSIONAL LAND SURVEYOR

STATE OF TEXAS FERMIN DORADO 37512 REGISTERED PROFESSIONAL ENGINEER

01-09-13



Glendwood Subdivision
CITY DEVELOPMENT DEPARTMENT
Reviewed For Conformance For Conditions Related To:
Sidewalks
Driveways
Retaining Rock Walls
Grading & Drainage
On Site Ponding of Storm Waters
Wheelchair Ramps
On Site Parking Layout
Contractor Must Call 24 Hours Prior To Construction for Inspections
By
Date
10/3/13
10.03.13
STATE OF TEXAS
FERMIN DORADO
PROFESSIONAL ENGINEER
REGISTERED
ONE WAY
LEBEWR DR.
REMOVE AND REPLACE EXISTING ASPHALT
ALAMEDA ACRES
EXIST SWK
GLENWOOD DRIVE
EXIST. 48" R.C.P.
CITY MON
MH
97.18'
SAW CUT
(0+00)
EXIST ASPHALT
PROP MON.
(83.32P)
EXIST. 6' C.B.
84.16 T.C.
84.00 T.C.
83.65 T.C.
SET RBAR
N 00°03'25" E 221.90'
69.13'
68.54'
MATCH EXIST SWK AND CB & GTR
MATCH EXIST CB & GTR
C9
C3
TRANSITION FROM FLAT TO CROWN
CB. RET. STA. 0+46
BEG. TRANSITION FROM ROLLED CB TO STD. CB.
CB. RET. STA. 0+44
BEG. TRANSITION FROM ROLLED CB
83.80
77.77'
LOT 1
7,089.00 Sq. Ft.
F.F. = 85.67
F.G. = 85.00
500
55.66'
22'
5'
12'
60.19'
501
LOT 10
7,000.00 Sq. Ft.
F.F. = 85.67
F.G. = 85.00
96.22'
92.86'
(83.32P)
1+00
84.15
FIRST W
(44.0' R.O.
10' UTILITY EA.
10' UTILITY E
504
505
71.92
73.4
72.49'
7,089.0
7,000.0



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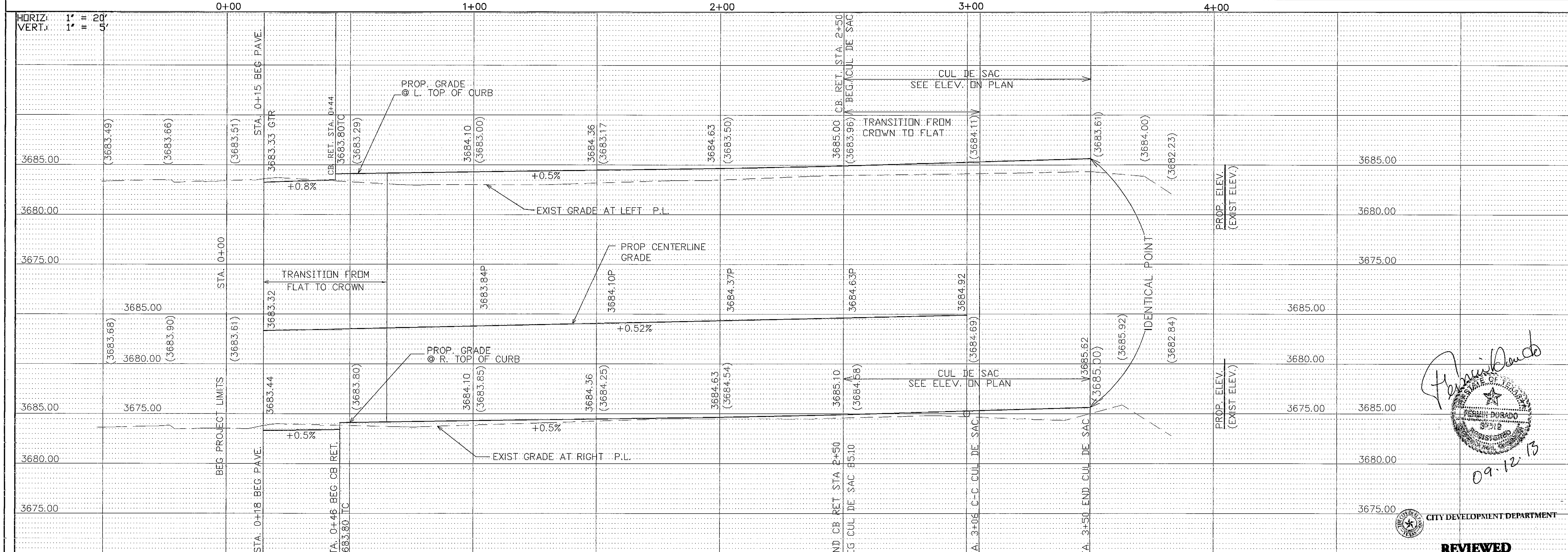

SCALE:
DATE 01/05/12
DESIGN BY FD
DRAWN BY S.G.G.
CHKD. BY FD
APPD. BY FD

REFERENCES - BENCHMARKS
S:/drawings/SN_ANGLNR/R-PLAT.dwg

REVISIONS | DATE | BY

ENGINEERS SEAL

DORADO ENGINEERING, INC.
TEXAS REGISTERED ENGINEERING FIRM F-884

DORADO
ENGINEERING, INC.
ENGINEERS SURVEYORS PLANNERS
2717 E YANDELL EL PASO, TEXAS 79903 (915)562-0002

PROJECT NAME
GLENWOOD CIRCLE PLACE SUBDIVISION

FERMIN DORADO
37512
09.12.13

CITY DEVELOPMENT DEPARTMENT
REVIEWED

SHEET TITLE
PLAN AND PROFILE GLENWOOD CIRCLE

SHEET
3 OF 7

ROCKWALL GENERAL NOTES

STONE

- STONE FOR ROCKWALLS SHALL CONSIST OF QUARRIED LIMESTONE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE.
- FIELD STONE OR SALVAGED STONE FROM ROCKWALL SHALL BE USED ONLY WHERE DIRECTED BY THE ENGINEER.
- THE STONE SHALL BE DENSE, RESISTANT TO THE ACTION OF AIR AND WATER, CLEAN OF OLD MORTAR AND RIVER ROCK WILL NOT. BE ALLOWED.

MORTAR

- MORTAR FOR THE ROCKWALL SHALL CONSIST BY VOLUME OF ONE (1) PART PORTLAND CEMENT, THREE AND ONE HALF (3 1/2) PART OF CLEAN, HARD, DURABLE SAND AND ONE QUARTER (1/4) PART (MORTAR) LIME THOROUGHLY MIXED WITH WATER.
- MORTAR SHALL HAVE A CONSISTENCY SUCH THAT IT CAN BE EASILY HANDLED AND SPREAD BY TROWEL
- MORTAR SHALL BE TYPE S, ASTM SPECIFICATION C270-73. COMPRESSIVE STRENGTH=1800 p.s.i. (28 DAYS)

CONCRETE

- CONCRETE FOR ROCKWALL FOUNDATION SHALL HAVE A COMPRESSIVE STRENGTH = 3000 p.s.i. (28 DAYS)

FOUNDATION WORK

- PRIOR TO PLACING THE CONCRETE FOUNDATION, THE EXCAVATION FOR THE ROCKWALLS SHALL BE MADE TO THE PROPER SECTION, AND COMPACTED TO 95% AS PER ASTM #1557
- THE EXCAVATION AREA FOR ROCKWALL SHALL BE MOIST WHEN THE CONCRETE IS PLACED.
- REINFORCING STEEL SHALL BE PLACED CONTINUOUSLY AS SHOWN ON THE PLANS AND PROPERLY SUPPORT THROUGHOUT THE PLACEMENT OF CONCRETE.
- THE SURFACE OF THE CONCRETE SHALL NOT BE TROWELED.
- THE CONCRETE SHALL BE BE CURED TO A MINIMUM OF 48 HOURS BEFORE MORE THAN 300 POUNDS PER SQUARE FOOT OF STONE AND MORTAR IS PLACED ON THE FOUNDATION. CONTRACTOR SHALL EMBED THE FIRST FOUR INCHES OF THE FIRST LAYER INTO THE FRESH CONCRETE OF THE FOOTING.

STONE WORK

- STONE, AS FAR AS PRACTICABLE, SHALL BE SELECTED AS TO SIZE AND SHAPE IN ORDER TO SECURE FAIRLY LARGE, FLAT -SURFACE STONE WHICH MAY BE ERECTED WITH TRUE AND EVEN SURFACE FACES AND A MINIMUM OF EXPOSED MORTAR.
- ALL STONE SHALL BE THOROUGHLY CLEANED, WATER SOAKED (24 HOUR MINIMUM), HAND PLACED AND EMBEDDEDE IN MONRTAR SO THAT NO STONE SHALL TOUCH EACH OTHER OR THE CONCRETE FOUNDATION BUT SHALL BE FIRMLY BOUND TOGETHER WITH MORTAR.
- THE FINISHED SURFACE SHALL PRESENT A NEAT, CLEAN AND WORKMANLIKE AND TRUE TO LINE OF TYPICAL SECTIONS AS SHOWN IN THE PLANS.
- THE INTERIOR OF THE ROCKWALL SHALL BE COMPLETELY FILLED WITH SPALLS AND PIECES OF THE SPECIFIED STONE, COMPLETELY EMBEDDED AND SURROUNDED BY MORTAR WITH NO VOIDS.
- THE SPACING BETWEEN STONES SHALL BE NO MORE THAN 1 INCH.

ERECTION

- THE ERECTION OF THE ROCKWALL SHALL NOT BE MORE THAN THREE FEET IN HEIGHT FOR EVERY 24 HOUR PERIOD TO ALLOW TIME FOR THE LOWER PORTION TO BECOME SUFFICIENTLY SET. ALL STONE SHALL BE THOROUGHLY WET BEFORE BEING PLACED IN FRESH MORTAR.
- THE LAST LAYER OF ROCK PRIOR TO BREAK OF CONSTRUCTION PHASE SHALL NOT HAVE ANY MORTAR ON TOP.
- FRESH MORTAR MUST BE USED FOR CONTINUATION

EXCAVATION, BACKFILL AND COMPACTION

- CONTRACTOR SHALL PROVIDE ALL FILL MATERIAL NECESSARY FOR BACKFILLING AS PER ASTM D-422
- FILL MATERIAL SHALL BE COMPACTED ON 12 INCH LAYERS AFTER COMPACTION TO A DENSITY OF 95% AS PER ASTM 1557.

SITE

- SHALL BE KEPT CLEAN OF ALL DEBRIS AT ALL TIMES. EXCESS CONSTRUCTION MATERIAL AND DEBRIS SHALL BE DISPOSED OFF THE SITE AT A LEGAL LOCATION

NOTES:

1. IMPROVEMENTS SHALL COMPLY WITH TAS.
2. 5'X5' LANDING SHALL BE PLACED WITHIN 200 FT. ALONG THE ACCESSIBLE ROUTE.
3. DEVELOPER SHALL COMPLY WITH SECTION 13.08.170, EXCESSIVE PAVING CUTS, OF EL PASO MUNICIPAL CODE.
4. TYPICAL LOCATION OF NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NECBU'S), SIGNAGE, FIRE HYDRANTS, LIGHT POLES, SHALL NOT BE PLACED IN THE SIDEWALK.
5. RETAINING WALL WILL BE REQUIRED WHERE THERE IS A GRADE DIFFERENCE OF 2 OR MORE FEET BETWEEN LOT AND STREET. RETAINING WALL DESIGN AT TIME OF BUILDING PERMIT.
6. COMPACTION ON FILL WILL BE 95%
   COMPACTION ON CUTS WILL BE 85%

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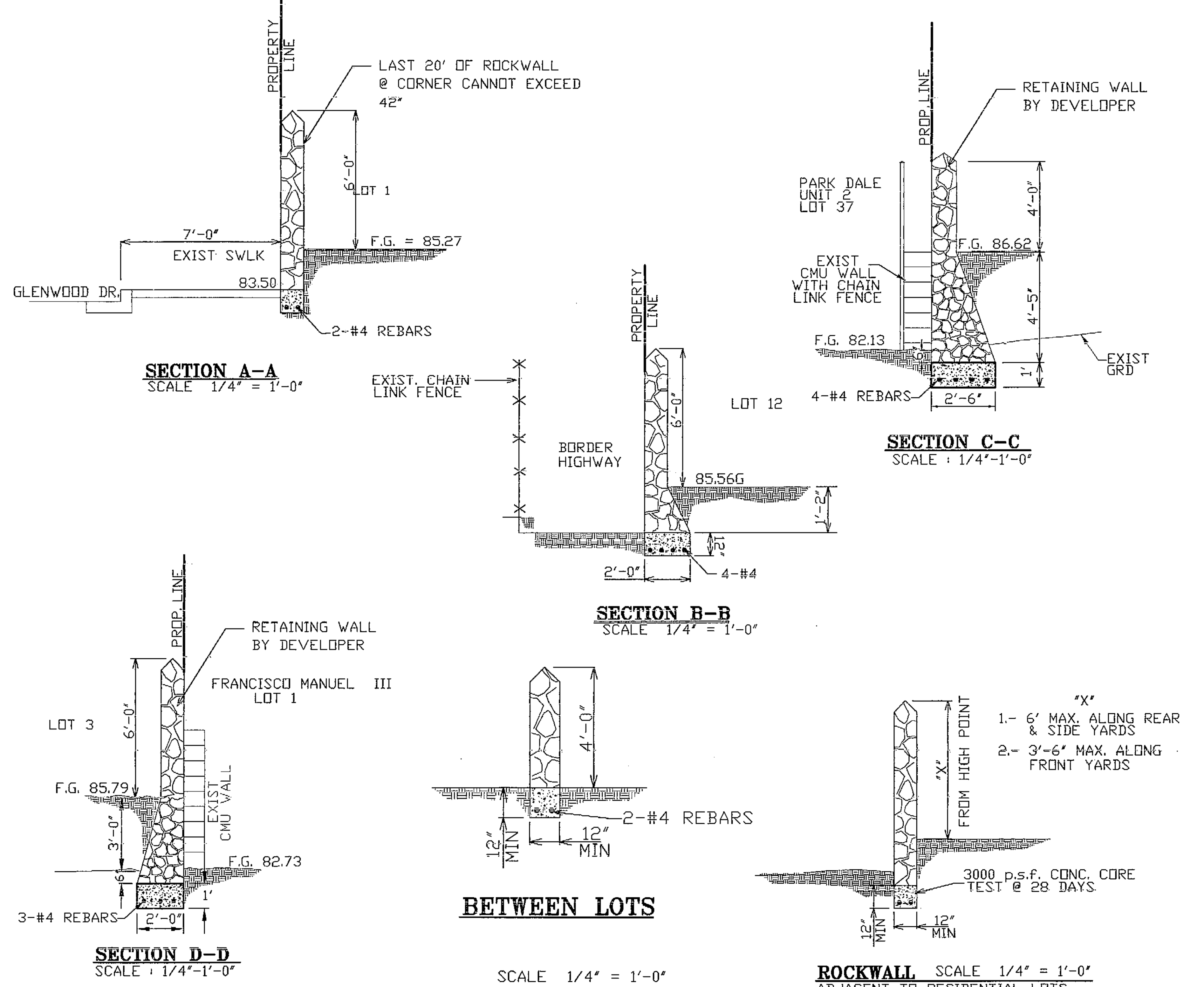

ROCKWALL DETAILS

GLENWOOD CIRCLE PLACE SUBDIVISION

BEING A REPLAT OF ALL OF SAN ANGELINO ESTATES, CITY OF EL PASO, COUNTY OF EL PASO, TEXAS CONTAINING 2.03 ACRES

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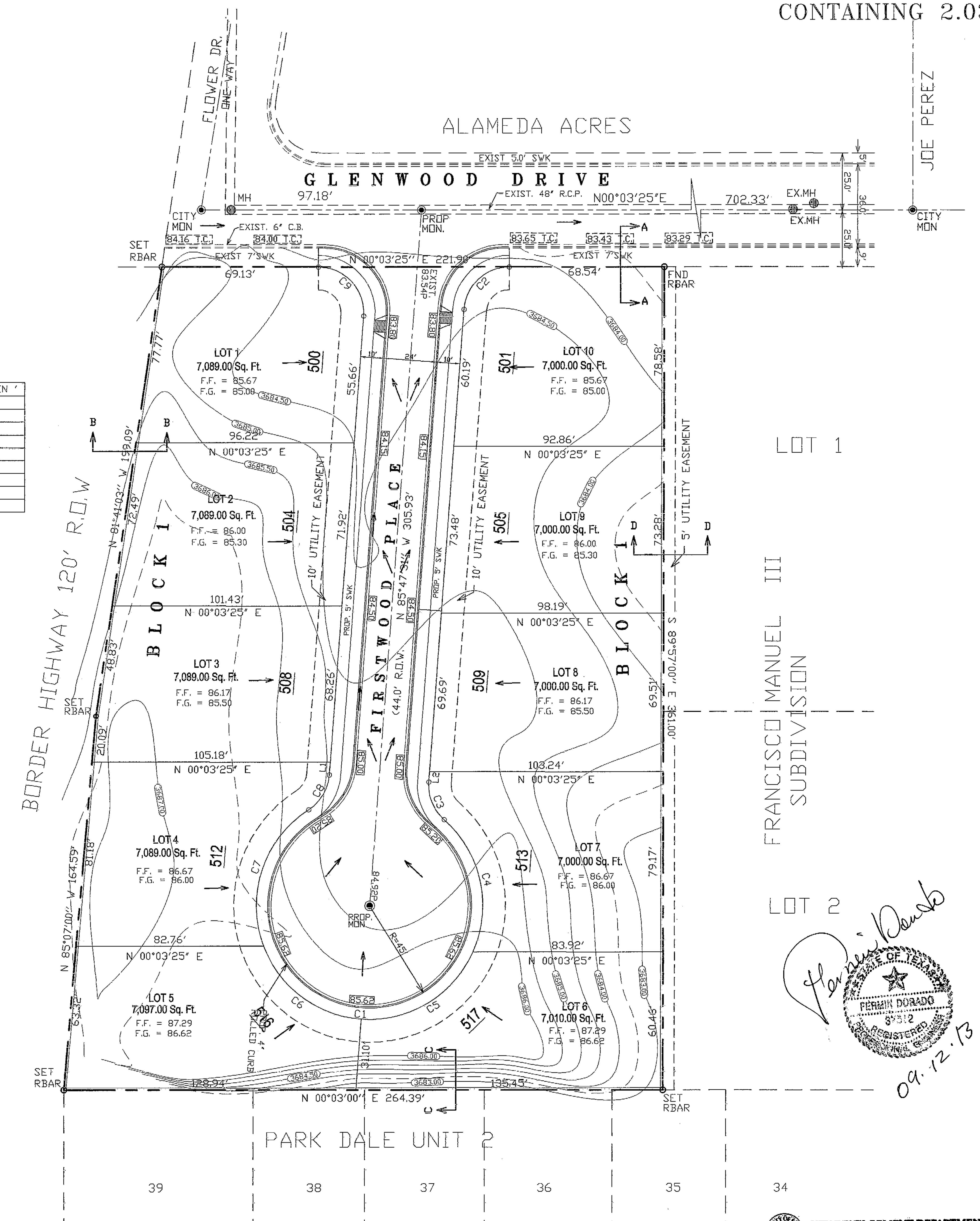

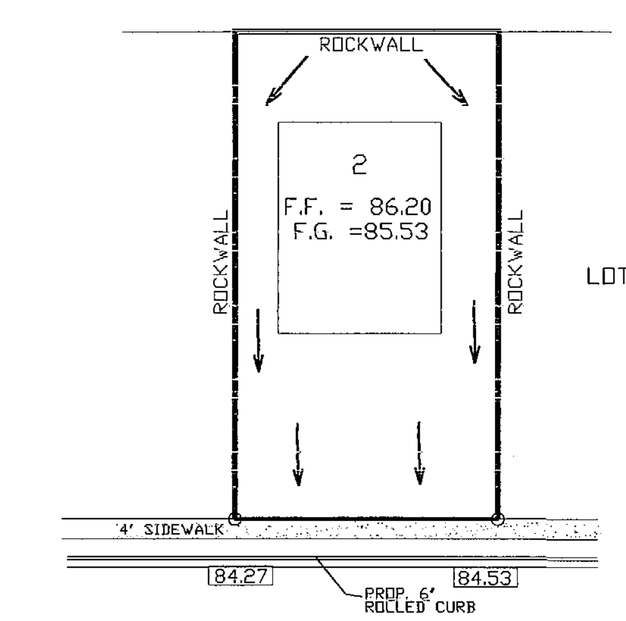

TYPICAL LOT GRADING

L E G E N D

- PROPOSED RETAINING ROCKWALL
75.08 - PROPOSED TOP OF CB. GRADE
(75.08) - EXIST.TOP OF CB. GRADE
FF - FINISHED FLOOR
FG - FINISHED GROUND

DRAINAGE CALCULATIONS

Q_{50} = AIC
A = 2.03 AC
I = 3.5
C = .60
Q_{50} = 2.03 x 3.5 x .60 = 4.26 C.F.S

BENCHMARK:

CITY MONUMENT LOCATED AT GLENWOOD AND FLOWER ELEV.= 3683.31

FLOOD ZONE:

PROPERTY IS LOCATED IN FLOOD ZONE "C" WHICH IS NOT WITHIN THE 100 YEAR FLOOD PLAIN AS PER FIRM 480214 PANEL NUMBER 48B DATED OCT. 15,1982

FERMIN DORADO 37512 REGISTERED PROFESSIONAL ENGINEER

09.12.13

CITY DEVELOPMENT DEPARTMENT
REVIEWED

DATE OF PREPARATION JULY 03, 2012 PREPARATION JULY 13, 2006

01/09/13

SCALE:
DATE 01/05/12
DESIGN BY FD
DRAWN BY S.G.G
CHKD. BY FD
APPD. BY FD

REFERENCES - BENCHMARKS
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DATE | REVISIONS | BY

ENGINEERS SEAL

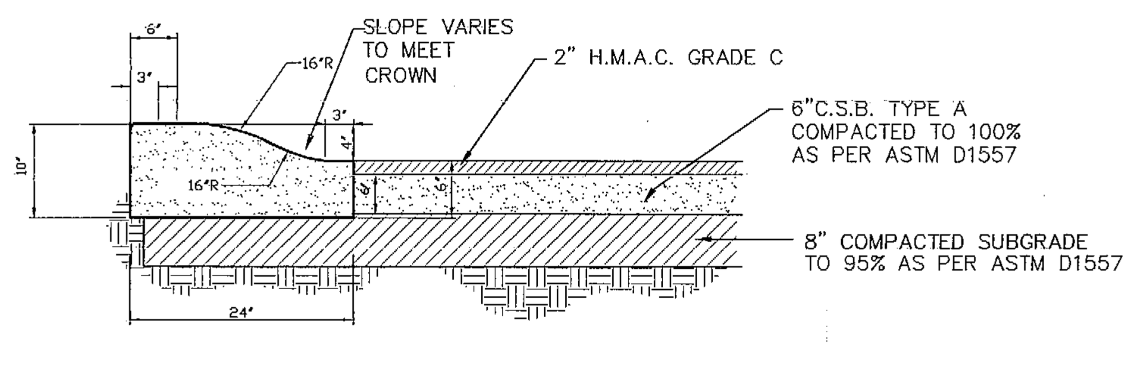
DORADO ENGINEERING, INC. TEXAS REGISTERED ENGINEERING FIRM F-884

DORADO ENGINEERING, INC.
ENGINEERS SURVEYORS PLANNERS
2717 E YANDELL EL PASO, TEXAS 79903 (915)562-0002

PROJECT NAME
GLENWOOD CIRCLE PLACE SUBDIVISION

SHEET TITLE
LOT GRADING & DRAINAGE PLAN

SHEET 4 OF 7



4" ROLLED CURB AND ASPHALT

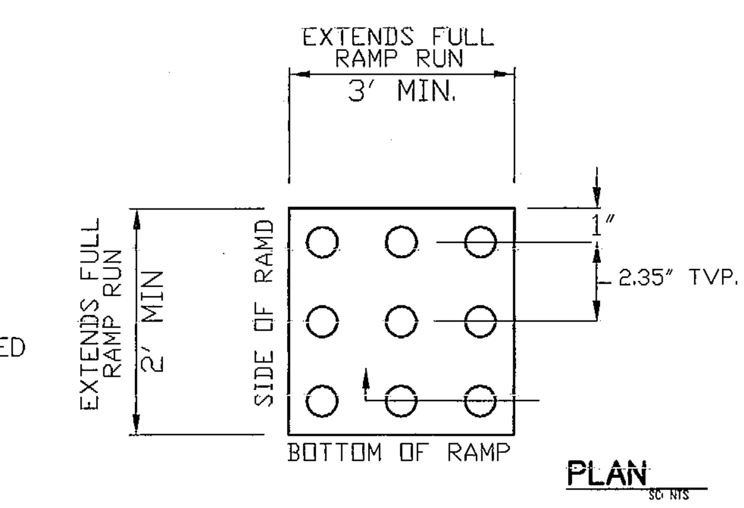
SC: 3/4" = 1'-0"

4" ROLLED CURB WITH DRIVEWAY

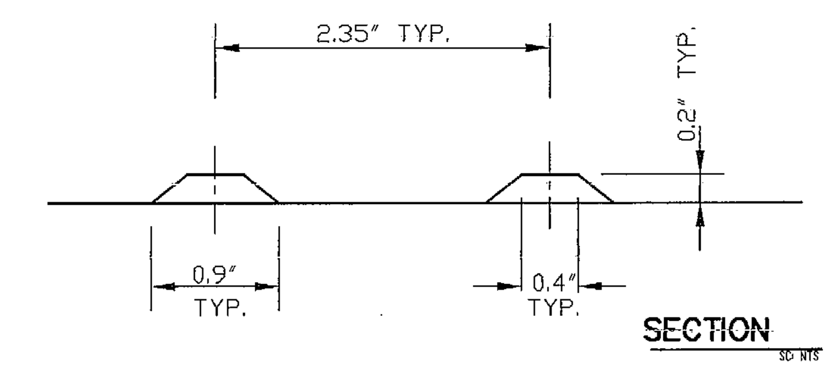
NOTES:
1. ALL CONCRETE TO BE 3000 P.S.I. MIN. @ 28 DAYS
2. DUMMY JOINT REQUIRED AT 18' O.C. FOR HEADERS & GUTTER AND 5' O.C. FOR SIDEWALKS.
3. EXPANSION JOINTS REQUIRED AT CURB RETURNS. JOINTS SHALL BE PACKED WITH 1/2" PREMOLDED ASPHALT IMPREGNATED EXPANSION MATERIAL OR EQUAL.
4. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR HEADERS
5. EXPANSION JOINTS REQUIRED FOR SIDEWALK AT 20' O.C.

GENERAL NOTES:
1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER
2. LANDINGS SHALL BE 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
3. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED
4. ALL CONCRETE SIDEWALK SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PANS.
5. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOMED SURFACED. REFER TO TRUNCATED DOME DETAIL.

NOTES:
1. ALL CONCRETE SHALL BE 3,000 P.S.I. MIN. AT 28 DAYS.
2. CONCRETE SLABS SHALL BE A MIN. 4" THICK.
3. DETECTABLE WARNING SURFACE SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A NOMINAL DIAMETER OF 0.9 IN, A NOMINAL HEIGHT OF 0.2 IN AND A CENTER TO CENTER NOMINAL SPACING OF 2.35 IN, AND SHALL NOT BE STAGGERED. THE SURFACE SHALL HAVE A COLOR CONTRAST VISUALLY WITH ADJOINING SURFACES.
4. ALL NEW RAMPS SHALL COMPLY WITH T.A.S. AND A.D.A. REQUIREMENTS. ANY SECTIONS NOT CONFORMING WILL BE REMOVED AT THE CONTRACTORS EXPENSE
5. SAW CUT ALL EXISTING CONCRETE IN A SMOOTH STRAIGHT LINE WHEN MATCHING ALL PROPOSED IMPROVEMENTS.

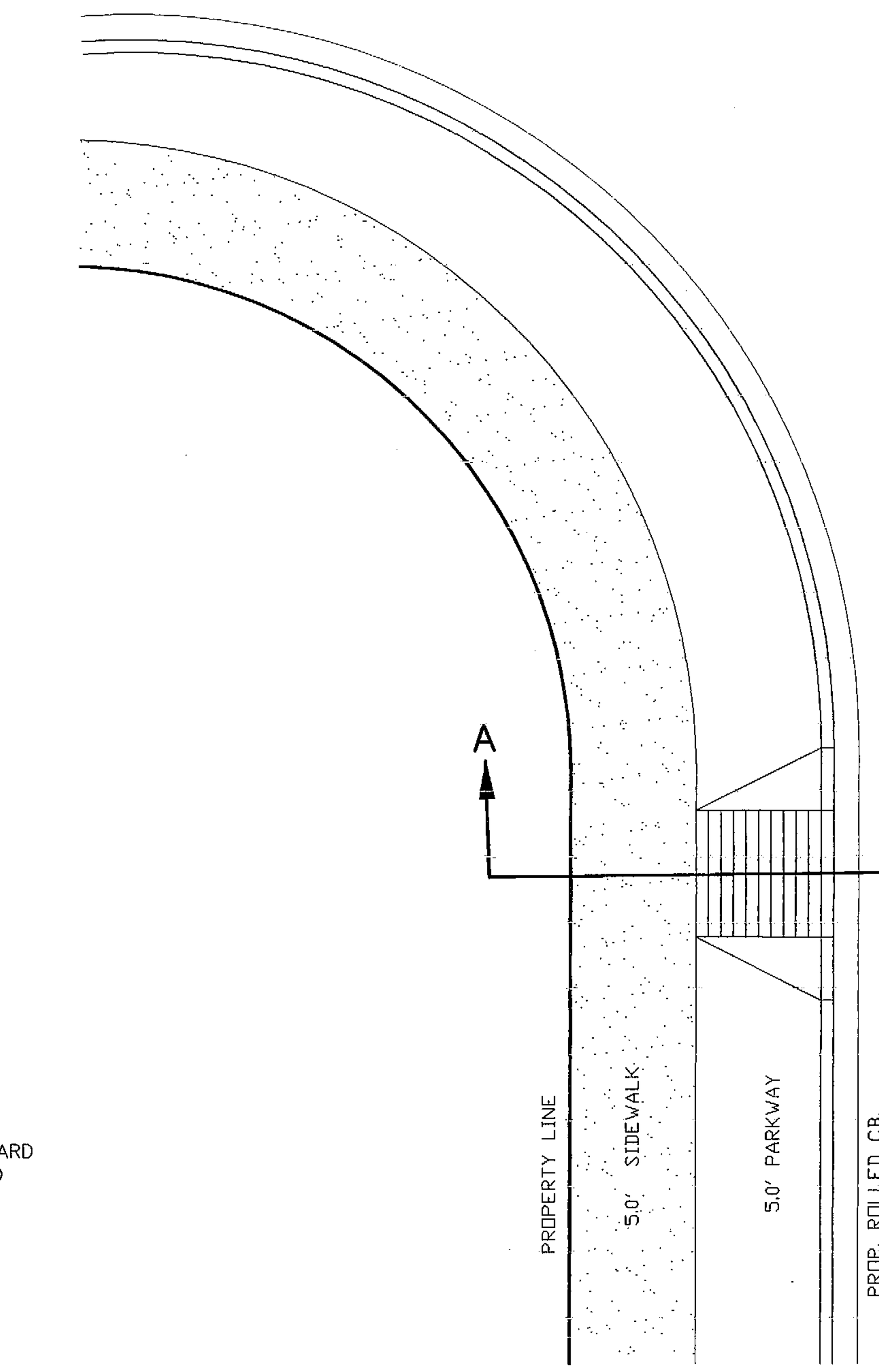


PLAN



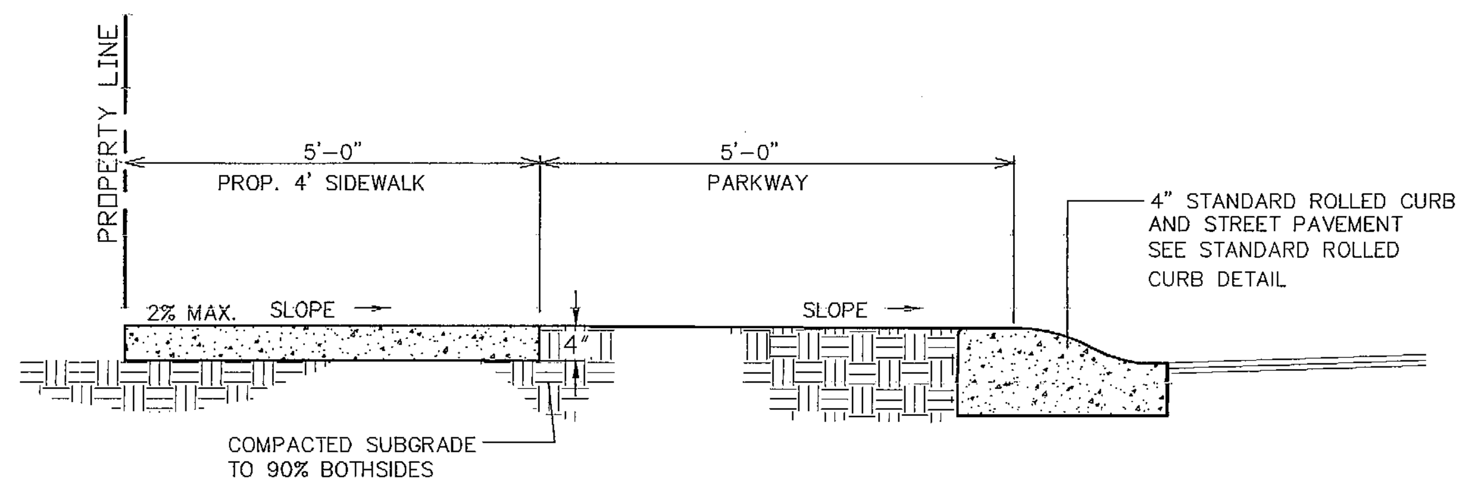
SECTION

TRUNCATED DOME



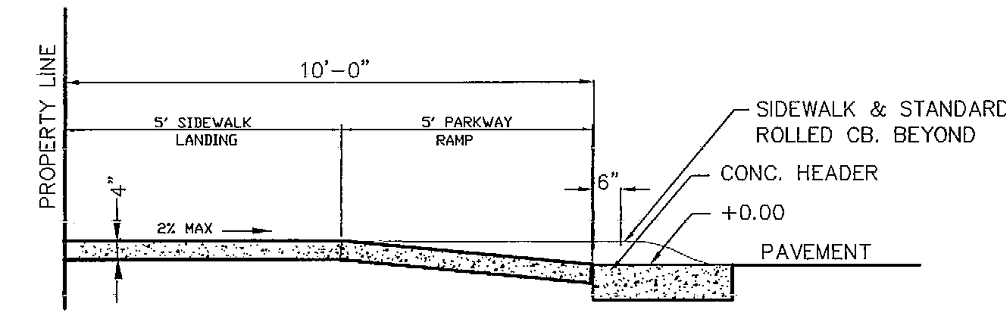
WHEEL CHAIR RAMP PLAN

SCALE: 1/4"=1'-0"



TYPICAL DRIVEWAY DETAIL

Sc.3/4"=1'



SECTION A - A

WHEEL CHAIR RAMP DETAIL SCALE: 1/2"=1'-0"

NOTES:

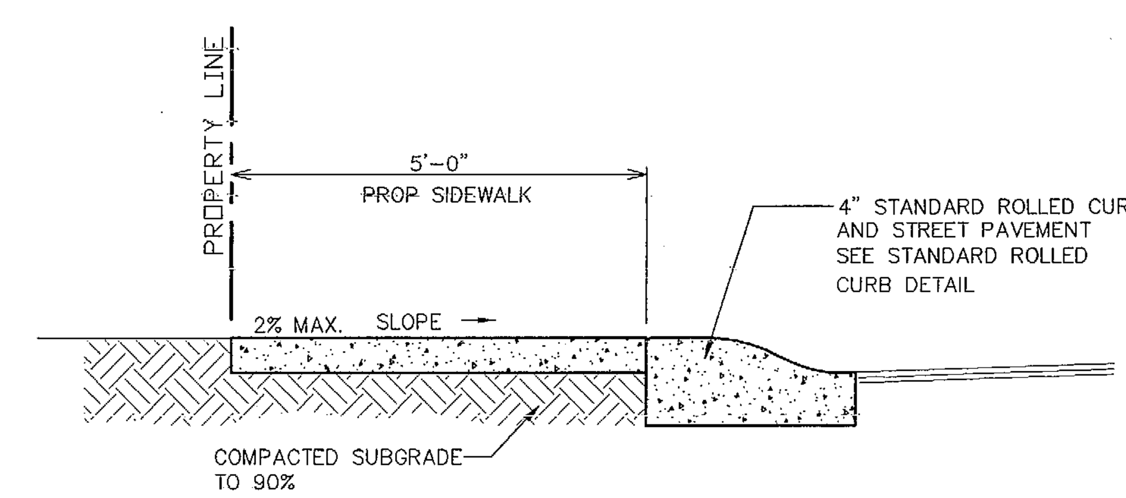
PROVIDE RAMPS AS NOTED ON PLANS.

REMOVE EXIST. CURB FOR INSTALLATION OF NEW HANDICAPPED RAMP.

RAMP TEXTURE SHALL BE ROUGH IN SURFACE OF RAMP.

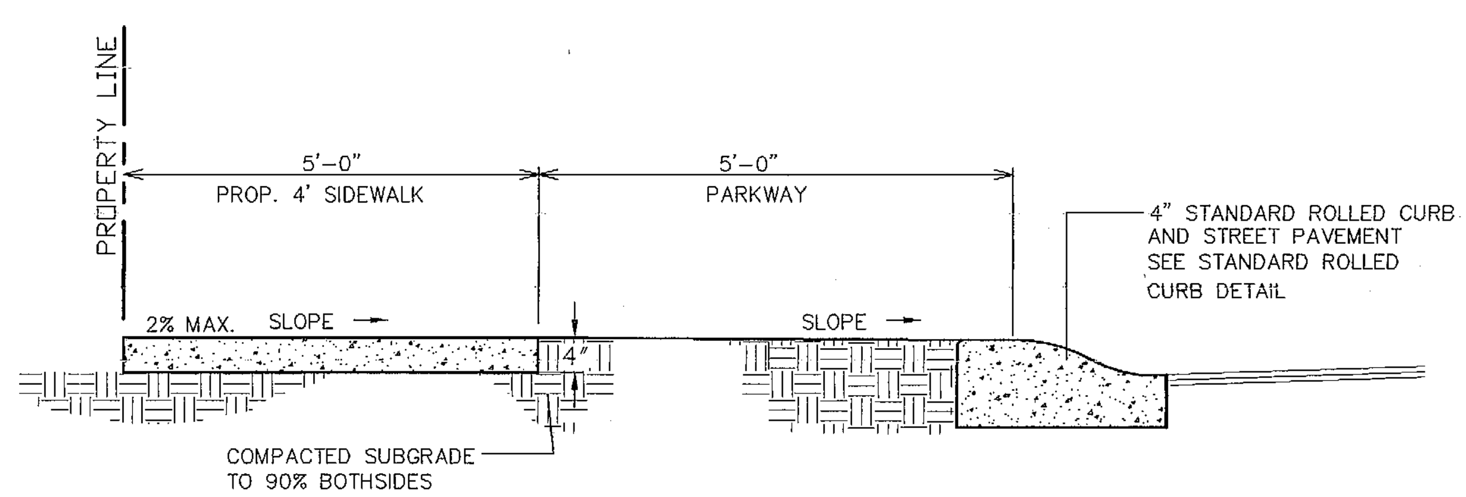
FERMIN DORADO
37512

09.12.13



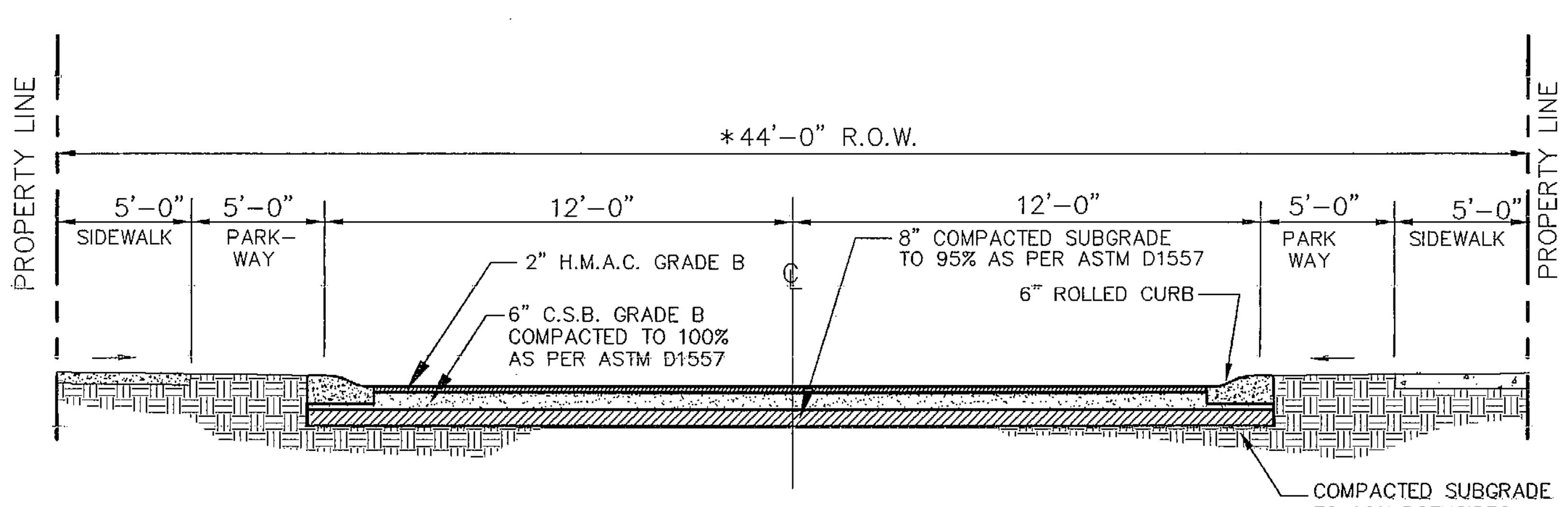
SIDEWALK SECTION @ CUL-DE-SAC

Sc.3/4"=1'



4" ROLLED CURB WITH SIDEWALK SECTION

Sc.3/4"=1'

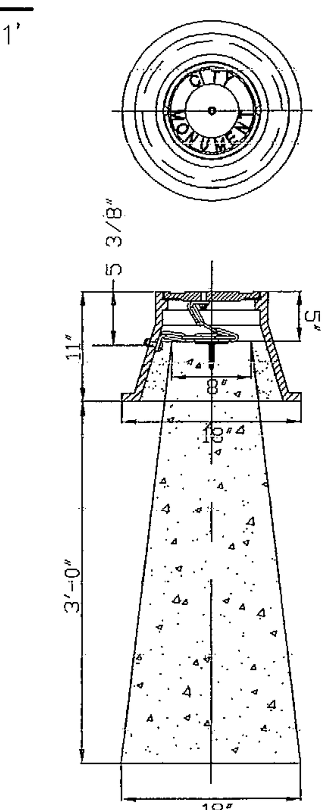


* ON-STREET PARKING PERMITTED ON ONE SIDE OF STREET ONLY.

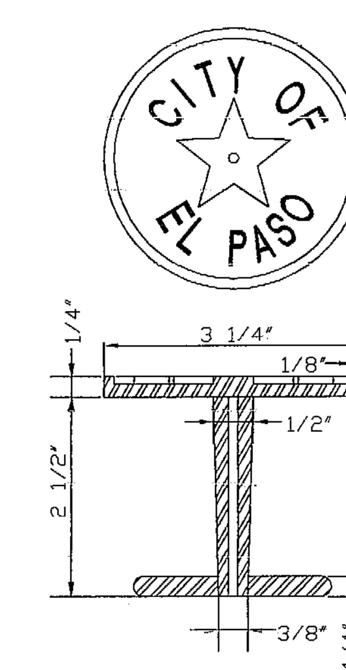
TYPICAL STREET SECTION
FIRSTWOOD PLACE

Sc.: 1/4"=1'-0"

NO FORMS REQUIRED, CONCRETE TO BE POURED IN PLACE. 3000 P.S.I. CONCRETE.

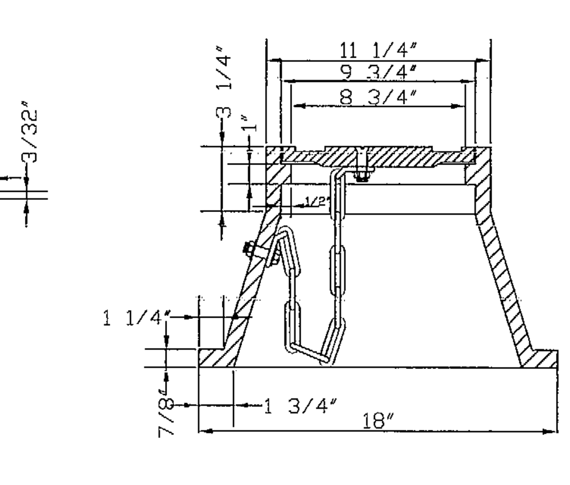


SECTION VIEW



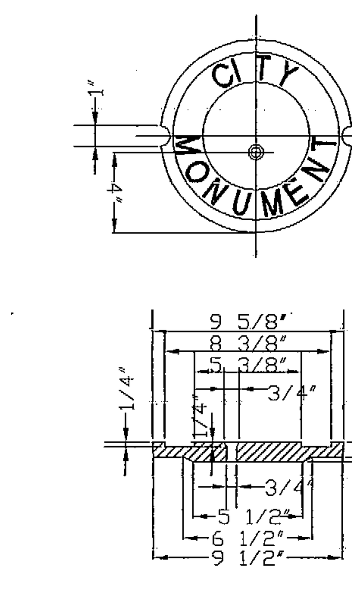
OUTSIDE RADIUS OF STARS = 3/4" INSIDE
INSIDE RADIUS OF STARS = 3/16"

CITY MONUMENT



MONUMENT BOX

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



BOX COVER

CITY SURVEY MONUMENT

CITY DEVELOPMENT DEPARTMENT
REVIEWED

DATE OF PREPARATION JULY 03, 2012 PREPARATION JULY 13, 2006

01/09/13

SCALE:
DATE 01/05/12
DESIGN BY FD
DRAWN BY S.G.G.
CHKD. BY FD
APPD. BY FD

REFERENCES - BENCHMARKS
S:/drawings/SN_ANGLNR/R-PLAT.dwg

DATE	REVISIONS	BY

DORADO ENGINEERING, INC.
TEXAS REGISTERED ENGINEERING FIRM F-884

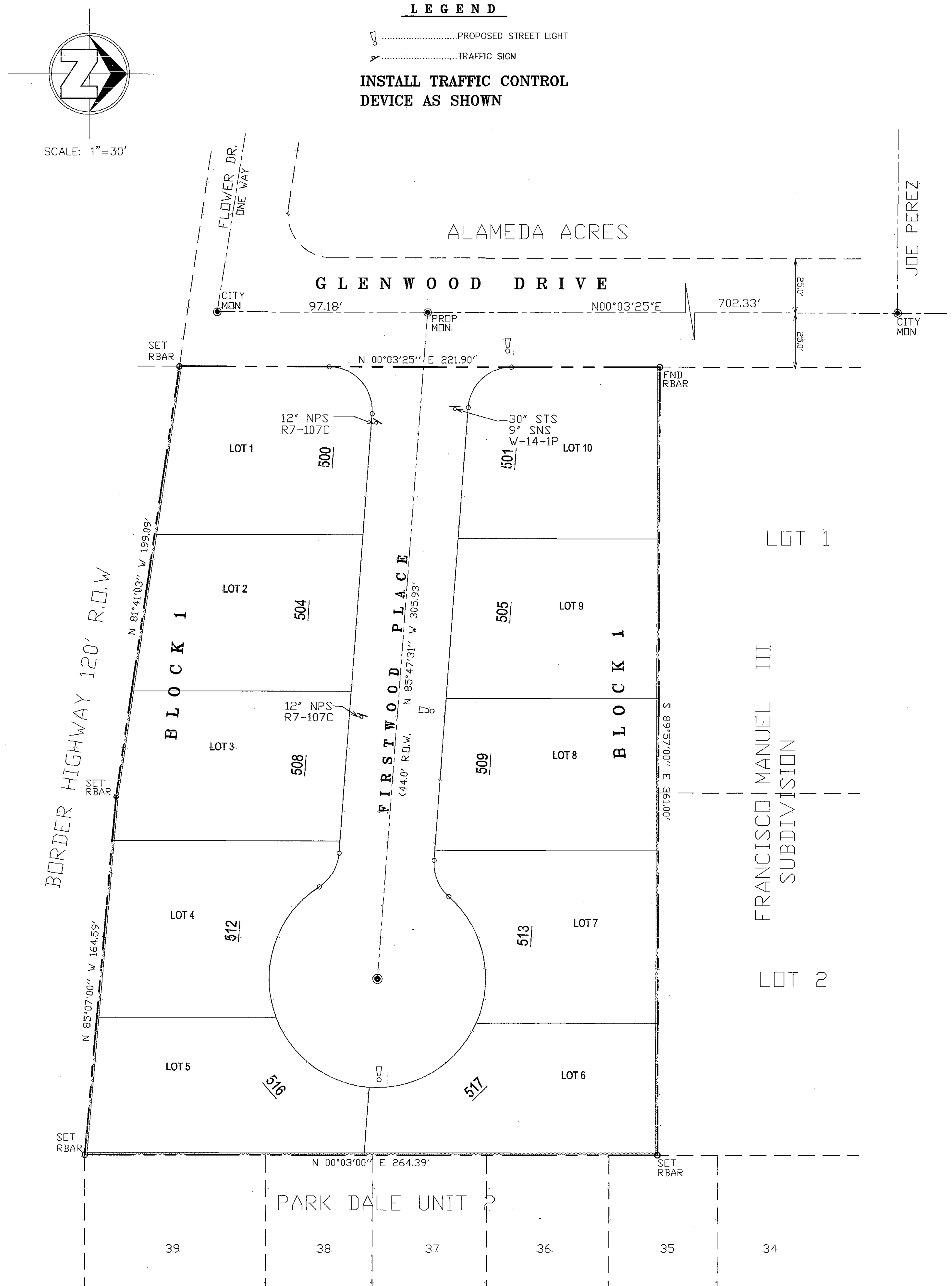
ENGINEERS SEAL
FERMIN DORADO 37512

DORADO
ENGINEERING, INC.
ENGINEERS SURVEYORS PLANNERS
2717 E. YANDELL EL PASO, TEXAS 79903 (915)562-0002

PROJECT NAME
GLENWOOD CIRCLE PLACE SUBDIVISION

SHEET TITLE
DETAILS

SHEET
5 OF 7



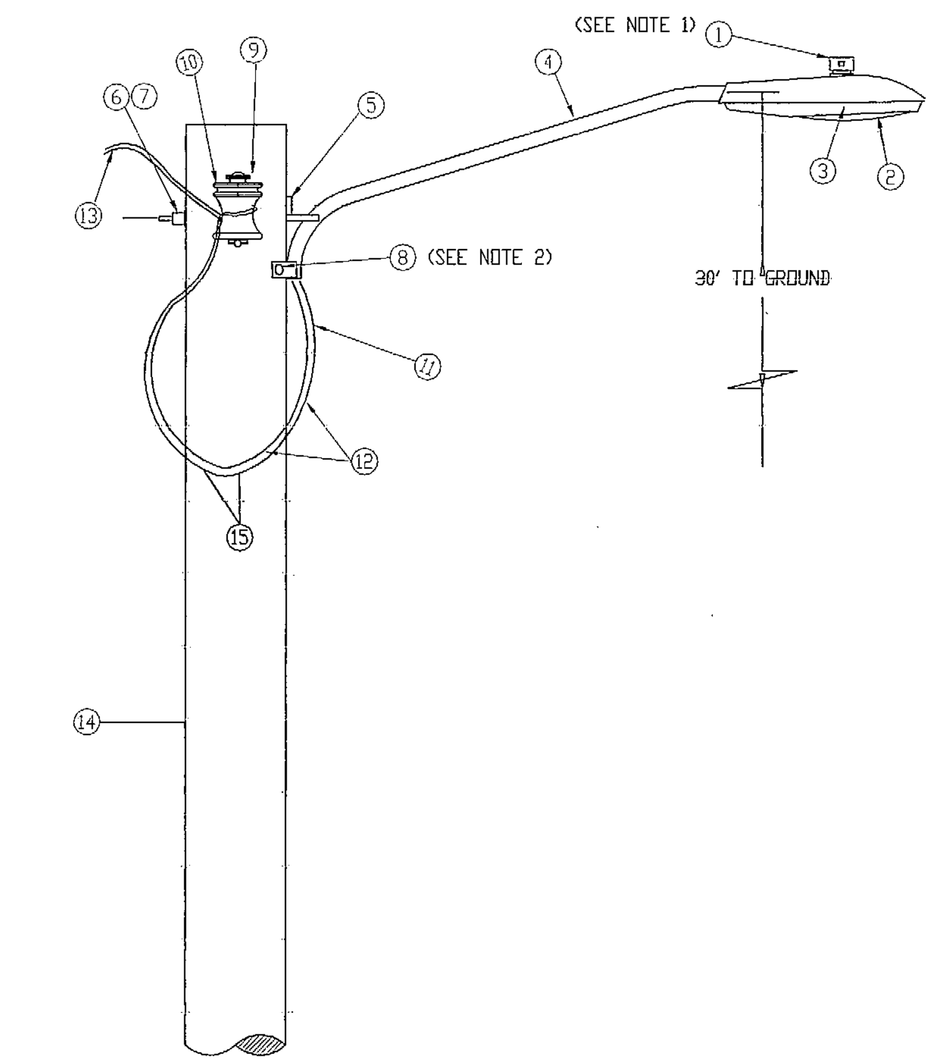
ITEM NO.	DESCRIPTION	STOCK/DSU NO.	QTY.	C/U CODE	MACRO CODE
1	PHOTOCELL, 240V - SEE NOTE 1	21-225	1		L100WCSL OR L1500WCSL
2	LUMINAIRE-HPS,CUT OFF, 240V 100W	21-335	1		
	OR 150W	21-340	1		
3	LAMP-HPS, 100W -9,500 LUMEN	21-085	1		
	OR 150W- 16,000 LUMEN	21-090	1		
4	LUMINAIRE SUPPORT -6' X 1 1/4"	21-200	1		
5	MACHINE BOLT, 5/8" X 10"	02-460	2		
6	SQUARE GALV. WASER, 2 1/4" X 2 1/4"	02-760	1		
7	COIL SPRING WASHER, 5/8"	02-786	1		
8	LAG BOLT, 3/8" X 3"	02-343	2		
9	CLEVIS SECONDARY	07-550	1		
10	INSULATOR, SPOOL 3"	06-150	1		
11	CABLE, #10.2 CONDUCTOR, 600V UF	13-600	8'		
12	H- TAP CONNECTOR	04-951	2		
13	# 6 DUPLEX	11-206	AS REQ	L6D	
14	POLE, 35 FT. - CLASS 4	09-035	1	L354	

NOTES:

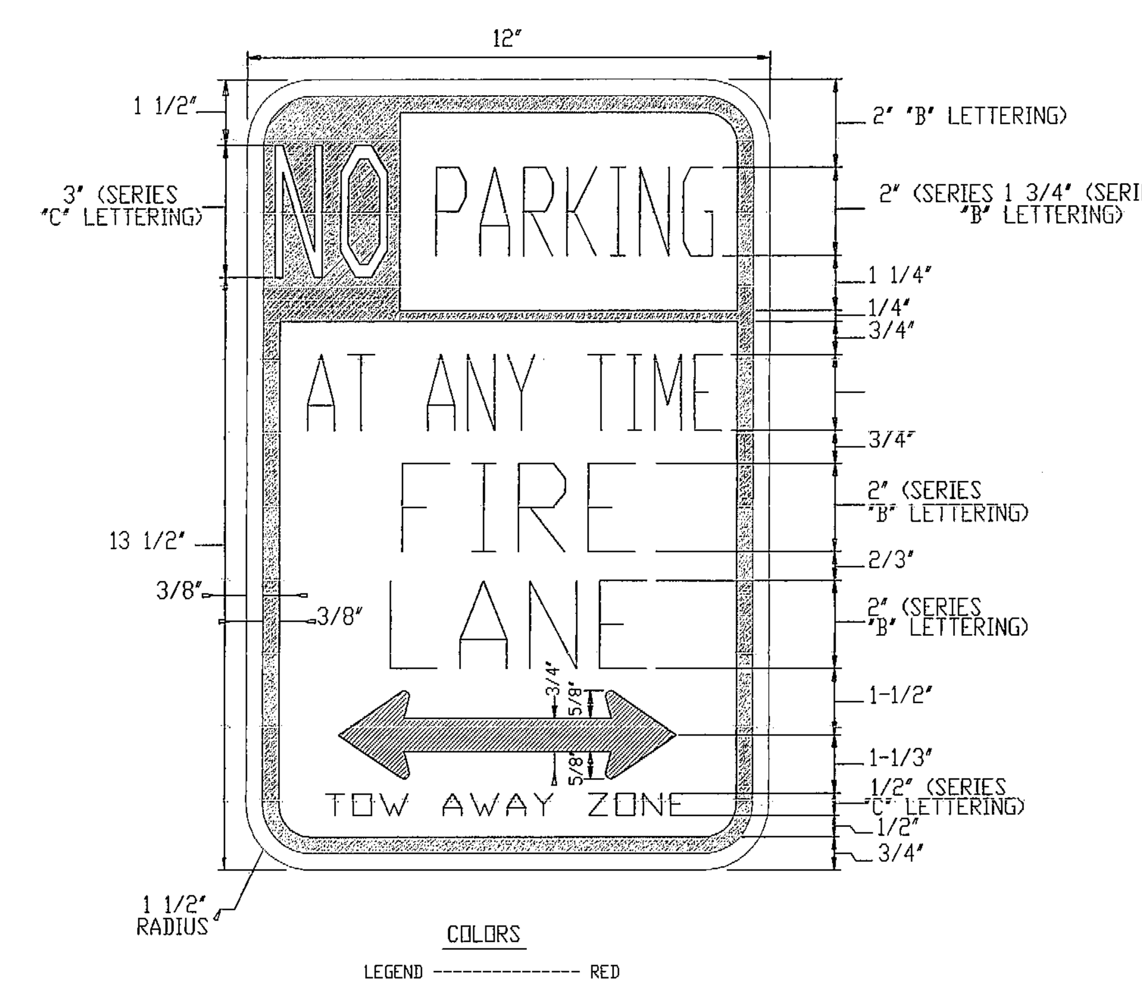
1. MOUNT SO THAT CONTROL FACES NORTH
2. ITEM 17 SHALL NOT BE SPLICED INSIDE ITEM 14

DESIGN NOTES

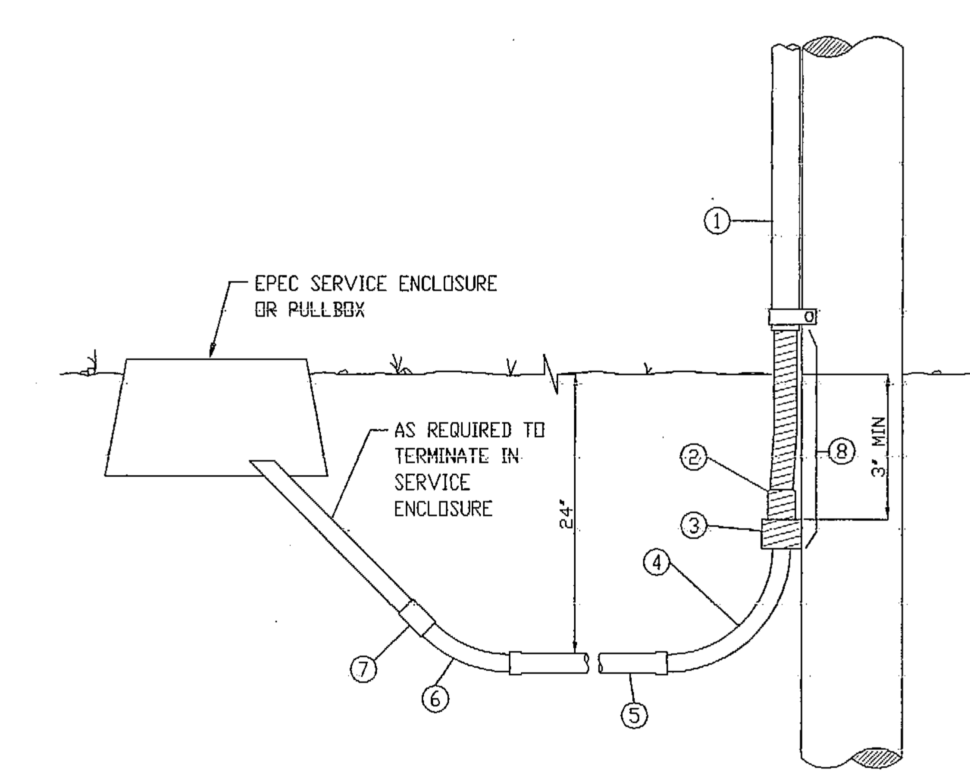
1. INSTALLATION SHALL COMPLY WITH ALL LOCAL CODE REQUIREMENTS. AND THE CITY OF EL PASO SUBDIVISION STANDARDS
2. FOR ANY CLARIFICATION, EXCEPTIONS OR QUESTIONS REGARDING CODE INTERPRETATION, CALL THE EL PASO ELECTRIC CO. DISTRIBUTION DEVELOPMENT DEPARTMENT.



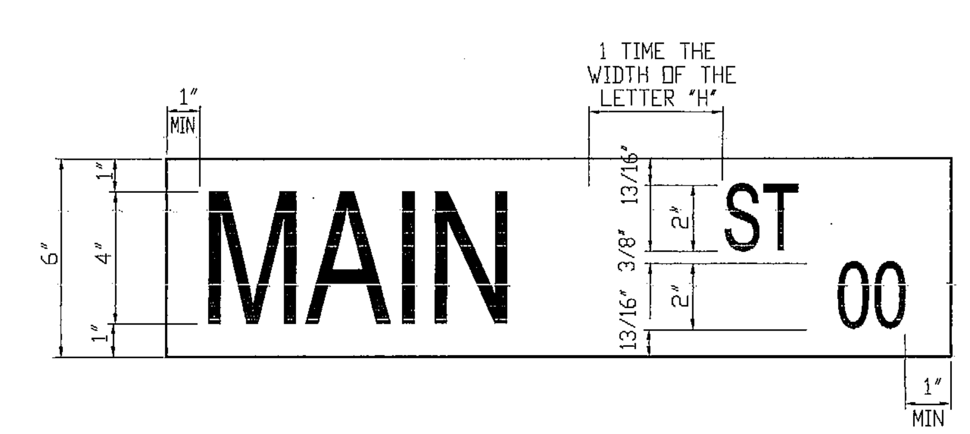
RESIDENTIAL STREET LIGHT WOOD POLE



FIRE LANE SIGNAGE

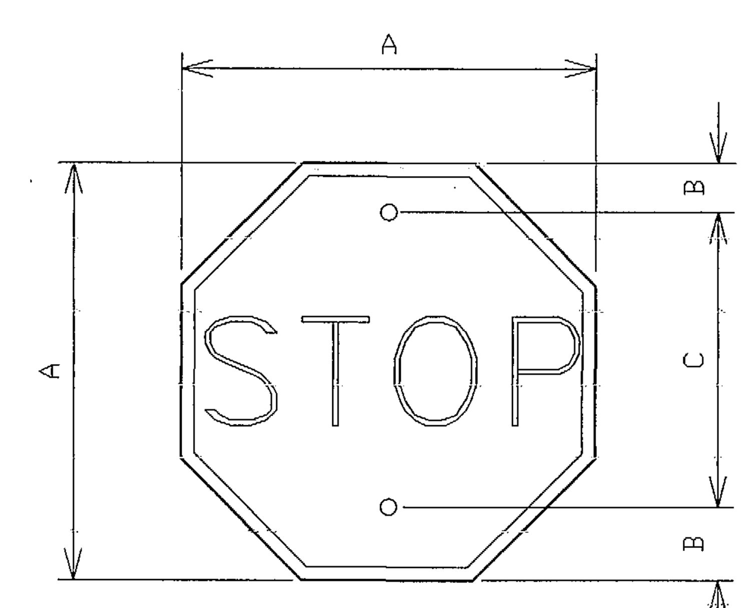


RESIDENTIAL STREET LIGHT WOOD POLE



SIGN CLASS	SIGN LENGTH	PRIMARY LETTERS SIZE & SERIES	SUFFIX & BLOCK NUMBER SIZE & SERIES
6" LOCAL STREETS	24" 30" 36"	4" B,C,D SERIES 4" B,C,D SERIES 4" A,B,C,D SERIES	2" C SERIES 2" C SERIES 2" C SERIES

6" STREET NAME SIGN



R1-1

3/8" HOLE DIA.

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

STOP SIGN

FERMIN DORADO
09.12.13

CITY DEVELOPMENT DEPARTMENT
REVIEWED

SCALE:

DATE 01/05/12
DESIGN BY FD
DRAWN BY S.G.G.
CHKD. BY FD
APPD. BY FD

REFERENCES -- BENCHMARKS
S:/drawings/SN_ANGLNR/R-PLAT.dwg

DATE	REVISIONS	BY

ENGINEERS SEAL
DORADO ENGINEERING, INC. TEXAS REGISTERED ENGINEERING FIRM F-884
FERMIN DORADO 37512

DORADO ENGINEERING, INC.
ENGINEERS SURVEYORS PLANNERS
2717 E. YANDELL EL PASO, TEXAS 79903 (915)562-0002

PROJECT NAME
GLENWOOD CIRCLE PLACE SUBDIVISION

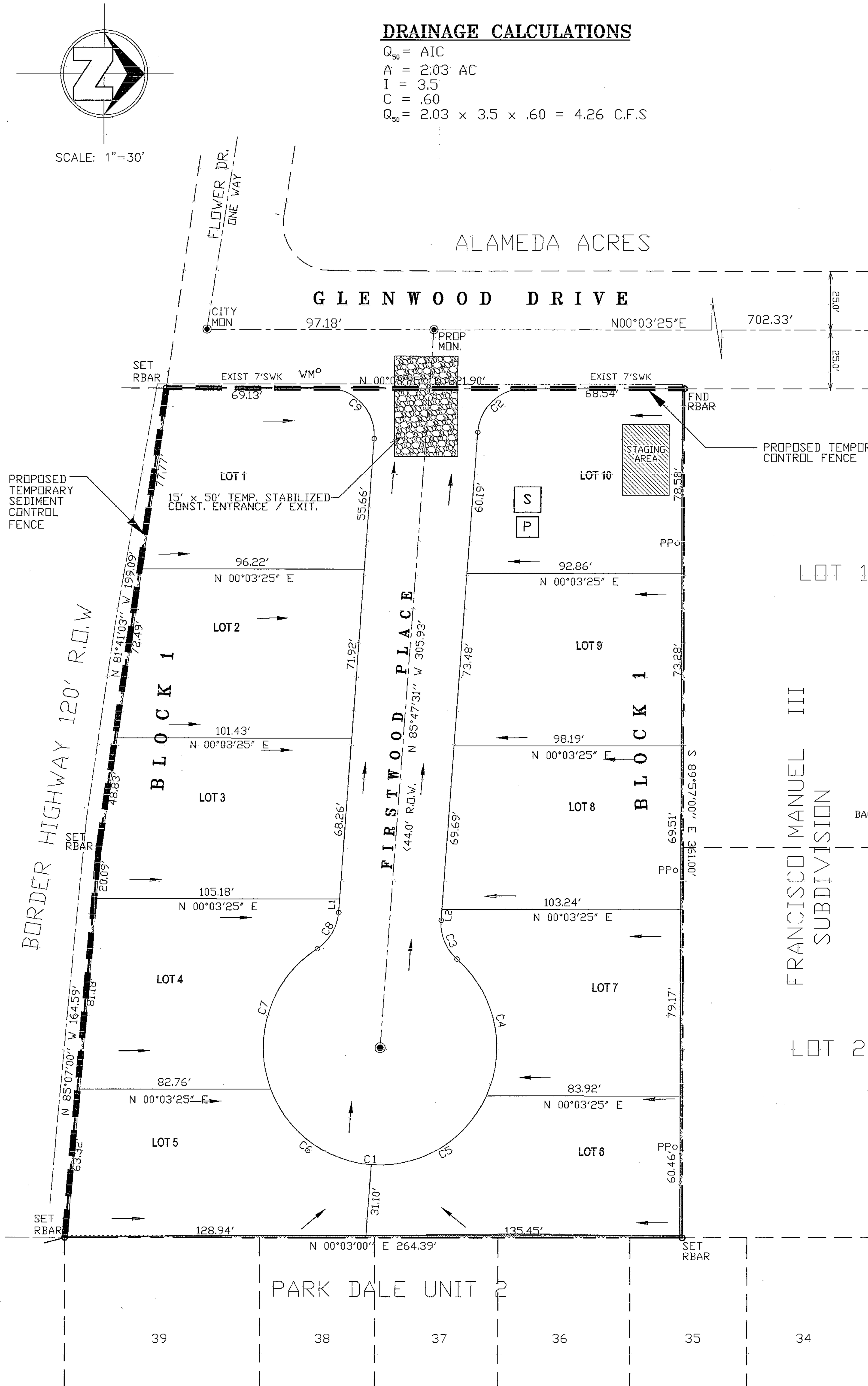
SHEET TITLE
ILLUMINATION PLAN

SHEET
6 OF 7

01-09-13

DRAINAGE CALCULATIONS

Q_{50} = AIC
A = 2.03 AC
I = 3.5
C = .60
Q_{50} = 2.03 x 3.5 x .60 = 4.26 C.F.S

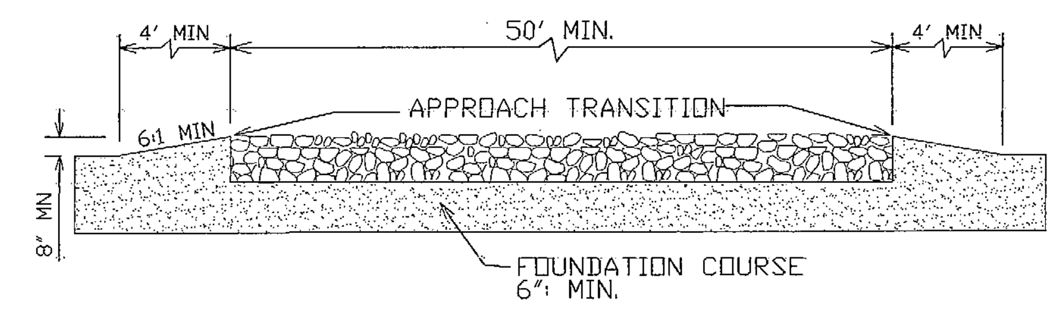


LEGEND	
	PROPOSED TEMPORARY SEDIMENT CONTROL FENCE
	PROPOSED TEMPORARY STABILIZED CONSTRUCTION ENTRANCE /EXIT (TYE 1)
S	STAGING AREA
P	PORTABLE TOILETS
	FLOW

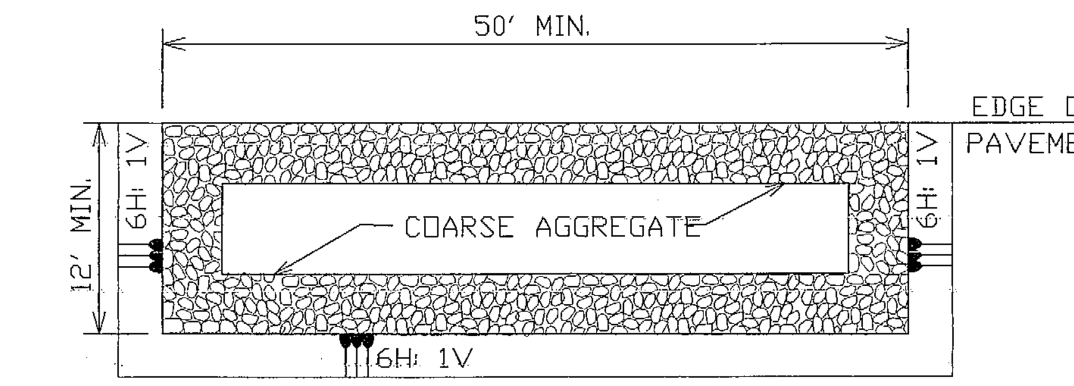
UTILITY LOCATOR SERVICES	
EL PASO ELECTRIC COMPANY	(915) 543-5720
EL PASO ENERGY CORPORATION	(915) 496-5244
EL PASO WATER UTILITIES	(915) 594-5500
MCI SURVEILLANCE	(800) MCI-WORK
TIME WARNER COMMUNICATIONS	(915) 772-1123
TEXAS GAS SERVICE	(915) 680-7200
SBC	(800) 545-6005
AT&T	(800) 852-3786
U.S. SPRINT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

WARNING ! BEFORE YOU DIG

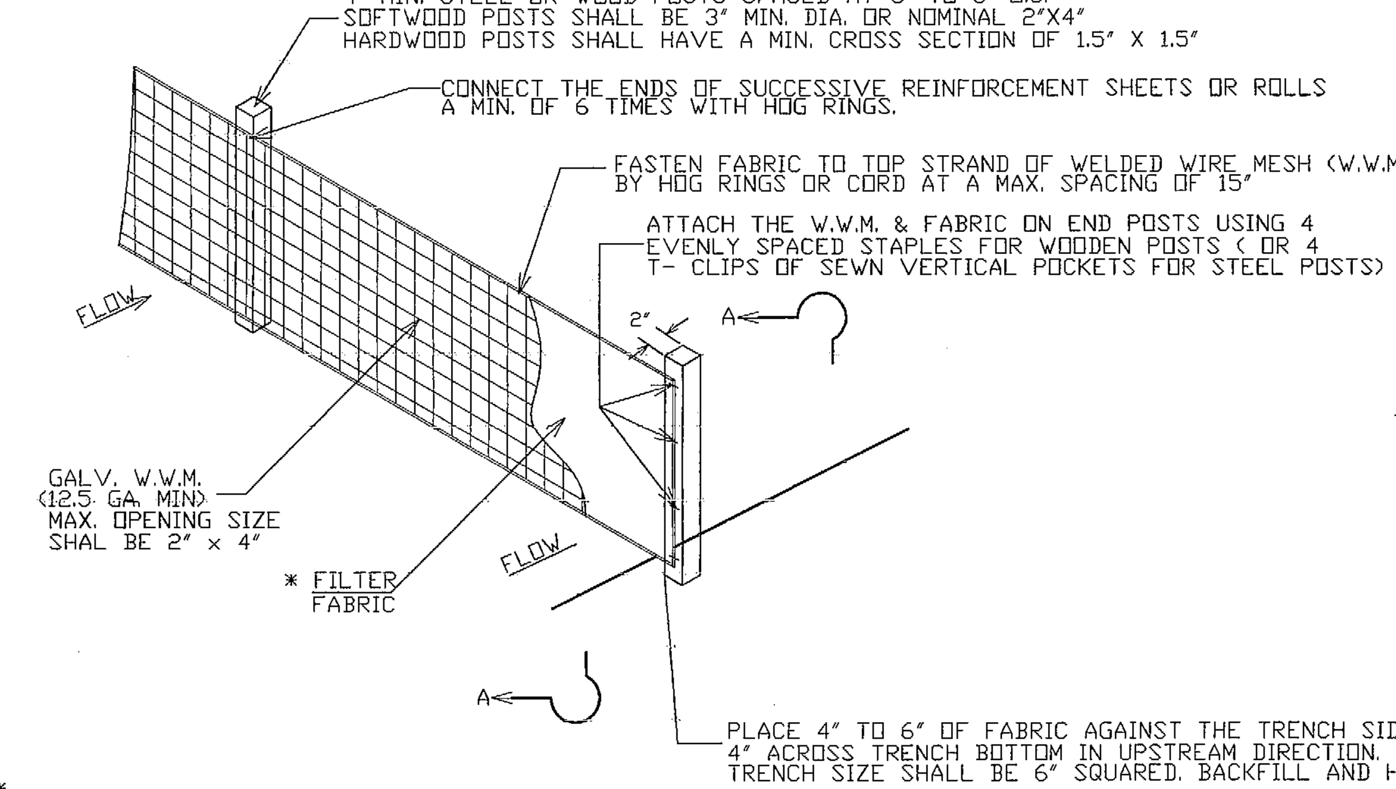
CALL
1-800-DIG-TESS
1-800-344-8377
FOR FIELD LOCATING EXISTING UTILITIES



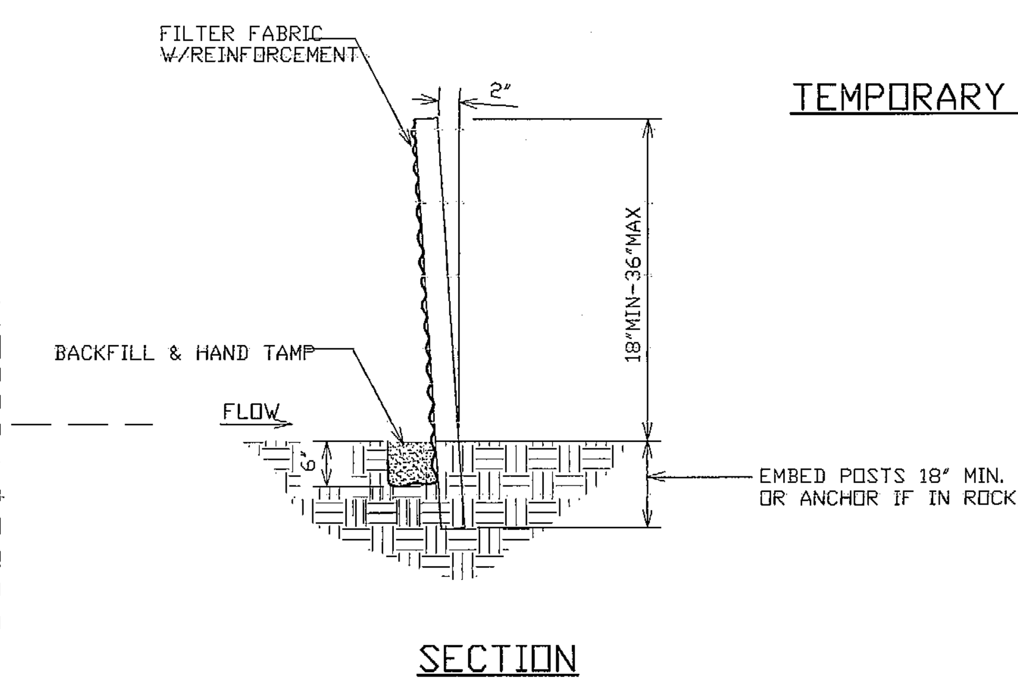
PROFILE



PLAN

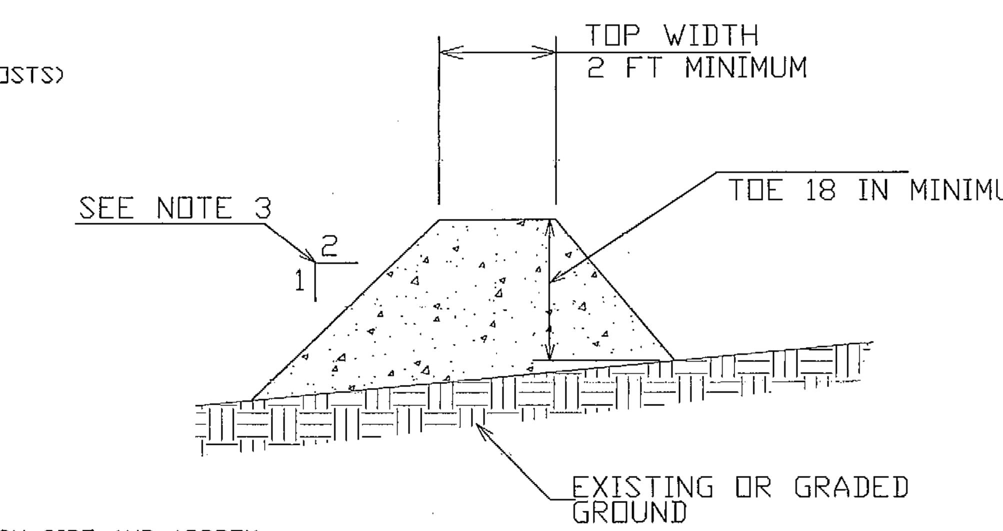


* FILTER FABRIC AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY (TYPE GTF- 180 OR APPROVED EQUAL)



SECTION

TEMPORARY SEDIMENT CONTROL FENCE



TYPICAL BERM CONSTRUCTION

SCALE: N.T.S

GENERAL NOTES:

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

FERMIN DORADO
09.12.13

GENERAL NOTES

1. SOIL USED IN BERM CONSTRUCTION SHALL BE MACHINE COMPACTED
2. SIDE SLOPES WITHIN THE SAFETY CLEAR ZONE OF A ROADWAY SHALL BE 6:1 OR FLATTER.
3. THE ENGINEER RESERVES THE RIGHT TO MODIFY THE DIMENSIONS SHOWN FOR THE BERM DEPENDENT ON RUNOFF VOLUME CHARACTERISTICS.

GENERAL NOTES:

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS. BUT NOT LESS THAN FIFTY (50) FEET.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 2-INCH TO 3-INCH.
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COARSE SHALL BE FLEXIBLE BASE. BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREIN ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

BERM USAGE GUIDELINES

A BERM MAY BE USED TO INTERCEPT RUNOFF AND DIVERT IT AROUND UNSTABILIZED AREAS OR TO DIVERT SEDIMENT LADEN RUNOFF TO AN EROSION CONTROL DEVICE (SEDIMENT BASIN OR TRAP, ROCK FILTER DAM, ETC.).

THE DRAINAGE AREA CONTRIBUTING RUNOFF TO A BERM SHOULD NOT EXCEED 5 ACRES. THE SPACING OF BERMS SHOULD BE AS FOLLOWS:

SLOPE OF DISTURBED AREAS ABOVE BERMS	GREATER THAN 10%	5 - 10%	LESS THAN 5%
	100'	200'	300'

INTERCEPTED RUNOFF FLOWING ALONG A BERM SHOULD OUTLET TO A STABILIZED AREA (VEGETATION, ROCK, ETC.).

SEDIMENT CONTROL FENCE USAGE GUIDELINES

1. A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2-YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.
2. SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 0.22 CFS/FT. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.
3. SEDIMENT CONTROL FENCES AT RIGHT-OF-WAY SHALL BE PLACED SO AS NOT TO BLOCK ANY EXISTING DRIVEWAYS.

SWPPP GENERAL NOTES:

1. PLACEMENT OF SILT FENCE SHALL BE ADJUSTED AS NECESSARY TO PREVENT THE BLOCKING OF DRIVEWAYS OR DRIVING LANES.
2. THE SWPPP MANUAL IDENTIFIES THE DUTIES AND RESPONSIBILITIES OF THE GENERAL CONTRACTOR IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. THIS ITEM SHALL BE SUBSIDIARY TO THE SWPPP BEST MANAGEMENT PRACTICES (COMPLETE IN PLACE) ITEMS. THE CONTRACTOR SHALL MAINTAIN THIS MANUAL AT THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL COMPLETE AND SUBMIT ALL NECESSARY REGULATORY FORMS AND APPLICATIONS. AS PROVIDED IN THE SWPPP MANUAL, INCLUDING, BUT NOT LIMITED TO: NOI, NOT SDPCP, AND ANY OTHER FORM REQUIRED BY THE CITY OF EL PASO AND TCEQ.
4. ALLOWABLE STORM WATER AND NON- STORMWATER DISCHARGE SHALL COMPLY WITH 15.20.080 (GENERAL PROHIBITION) AND 15.20.0900 (SPECIFIC PROHIBITIONS AND REQUIREMENTS) OF THE CITY OF EL PASO STORM DRAIN POLLUTION CONTROL PLAN ORDINANCE. NON-STORMWATER DISCHARGES MAY CONSIST OF , BUT ARE NOT LIMITED TO, THE DISCHARGE RESULTING FROM FIRE FIGHTING, LAWN WATERING, LANDSCAPE IRRIGATION, NATURAL SPRING, AND/OR AGRICULTURAL STORM WATER RUNOFF.
5. REFER TO GRADING & DRAINAGE PLAN SHEET 4, FOR DETAILED INFORMATION ON WATERSHED AREAS. DRAINAGE PATTERNS AND RUNOFF QUANTITIES (Q).
6. THE FOLLOWING HAVE BEEN IDENTIFIED AS POTENTIAL CONTAMINATION SOURCES: CLEARED AND GRADED AREAS: CONSTRUCTION SITE ENTRANCE AND ASPHALT PARKING AREA CONSTRUCTION: ASPHALT LOADING/UNLOADING AREAS: CONCRETE LOADING/UNLOADING AREAS: AND, ALL UNDISTURBED AREAS.
7. THE FOLLOWING 15 A LIST OF POTENTIAL CONSTRUCTION SITE STORM WATER POLLUTANTS: ASPHALT: CONCRETE: GLUE/ADHESIVE PAINTS: CURING COMPOUNDS: WASTEWATER FROM CONSTRUCTION EQUIPMENT WASHING: HYDRAULIC OIL/FLUIDS: GASOLINE: DIESEL FUEL: KEROSENE: ANTIFREEZE / COOLANT: AND EROSION.

CITY DEVELOPMENT DEPARTMENT

01/09/13

REVIEWED

SCALE:

DATE 01/05/12
DESIGN BY FD
DRAWN BY S.G.G.
CHKD. BY FD
APPD. BY FD

REFERENCES -- BENCHMARKS

S:/drawings/SN_ANGLNR/R-PLAT.dwg

DATE	REVISIONS	BY

DORADO ENGINEERING, INC. TEXAS REGISTERED ENGINEERING FIRM F-864

ENGINEERS SEAL

FERMIN DORADO 37512

DORADO ENGINEERING, INC.

ENGINEERS SURVEYORS PLANNERS

2717 E YANDELL EL PASO, TEXAS 79903 (915)562-0002

PROJECT NAME

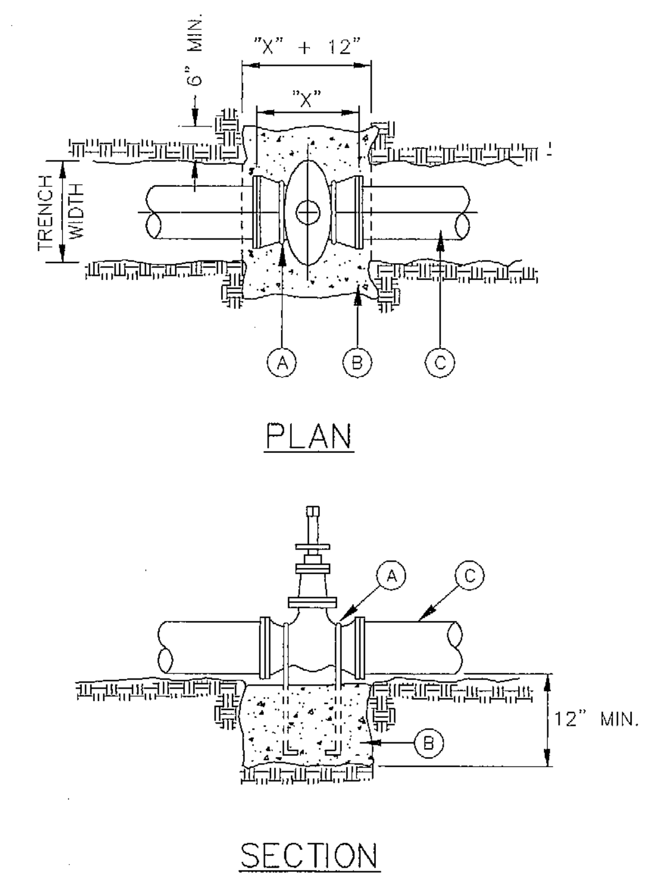
GLENWOOD CIRCLE PLACE SUBDIVISION

SHEET TITLE

DRAINAGE PLAN & SWP3

SHEET

7 OF 7



VALVE ANCHOR

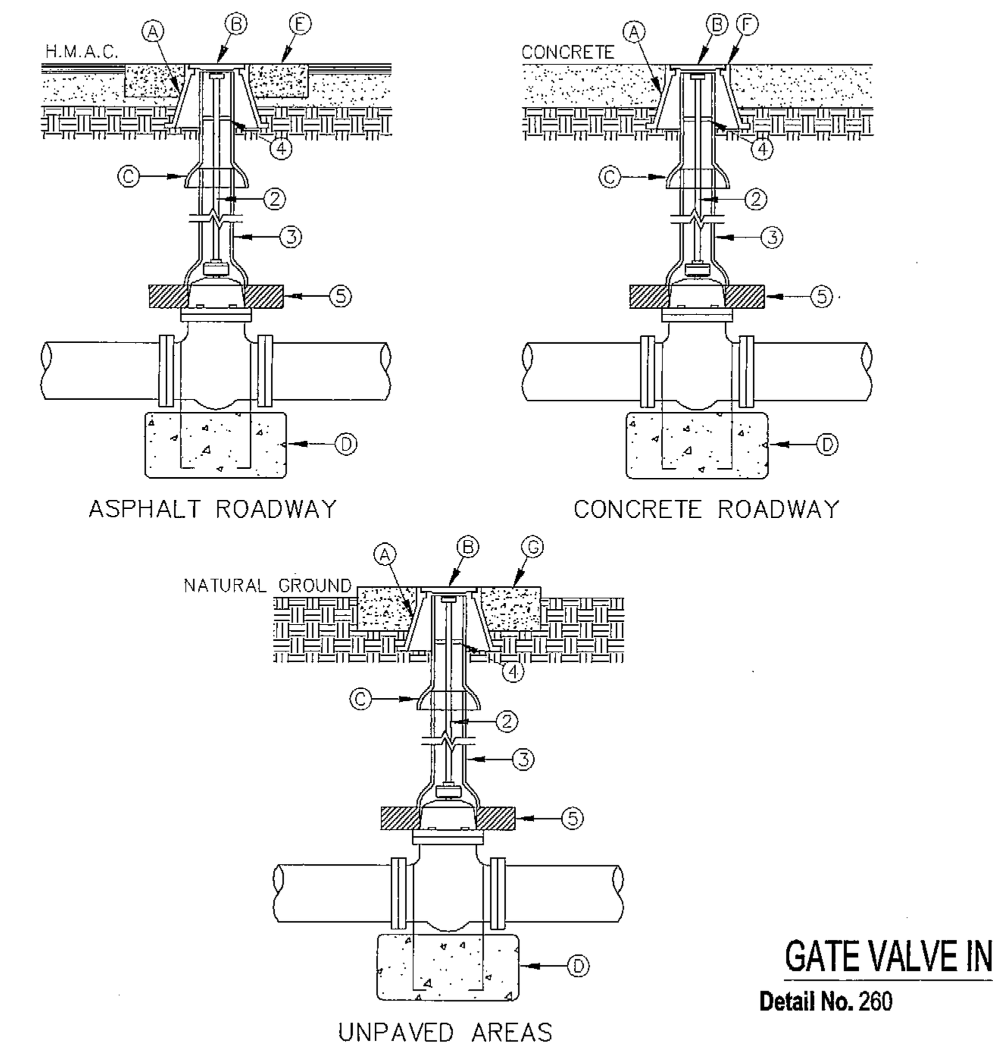
Detail No. 271 N.T.S.

GENERAL NOTES:

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

CONSTRUCTION KEY NOTES:

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



GATE VALVE INSTALLATION

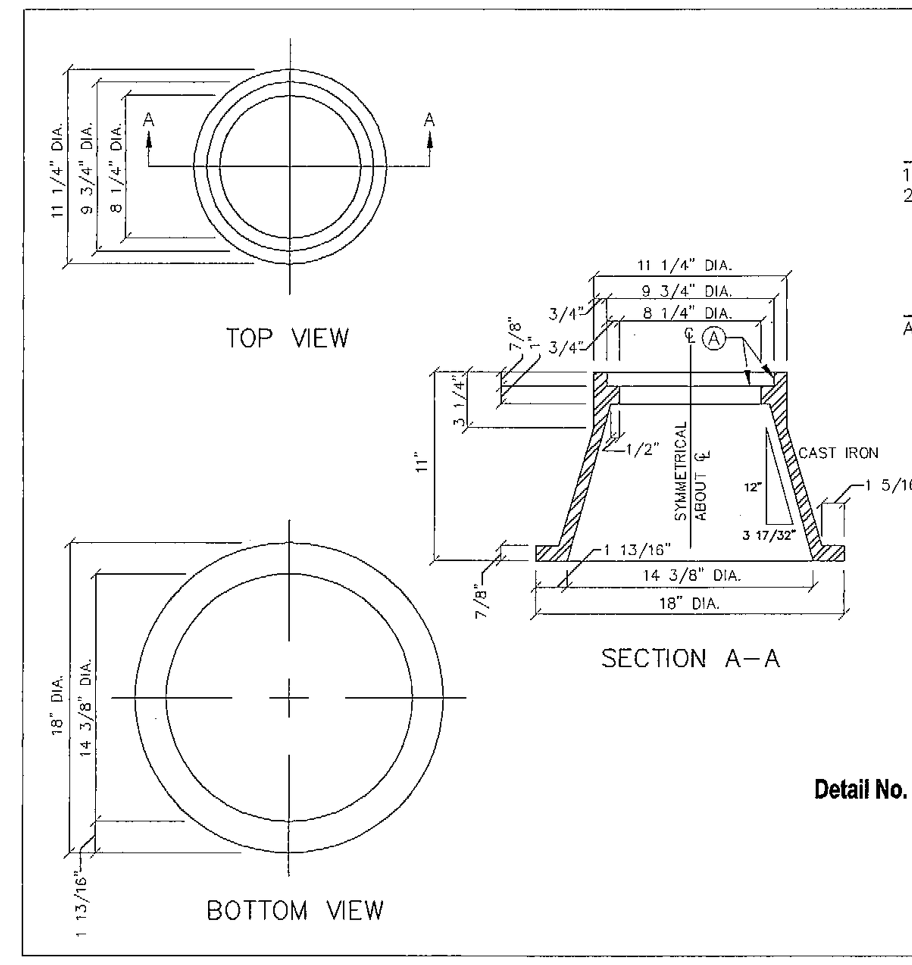
Detail No. 260 N.T.S.

GENERAL NOTES:

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

CONSTRUCTION KEY NOTES:

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



BONNET BOX

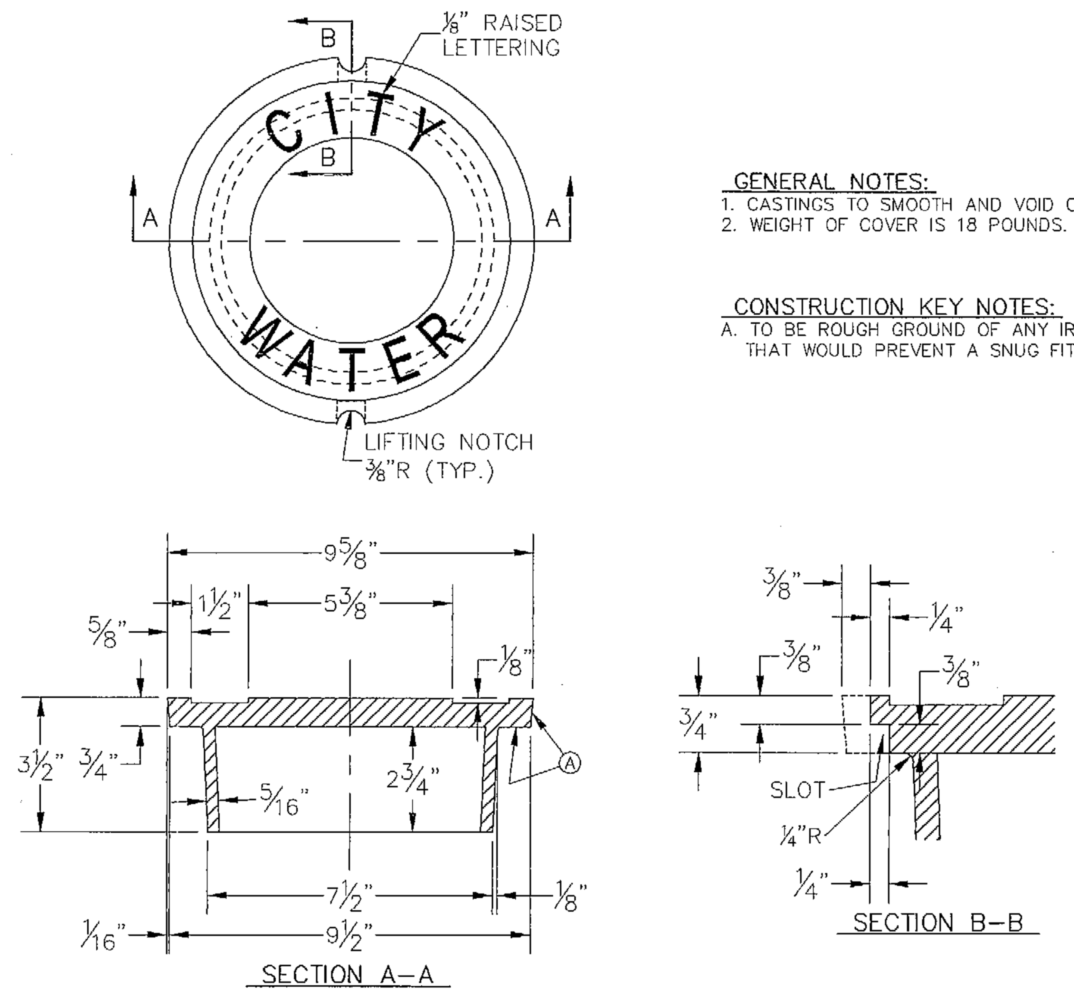
Detail No. 268 N.T.S.

GENERAL NOTES:

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

CONSTRUCTION KEY NOTES:

A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.



BONNET BOX COVER (FLIP RESISTANT)

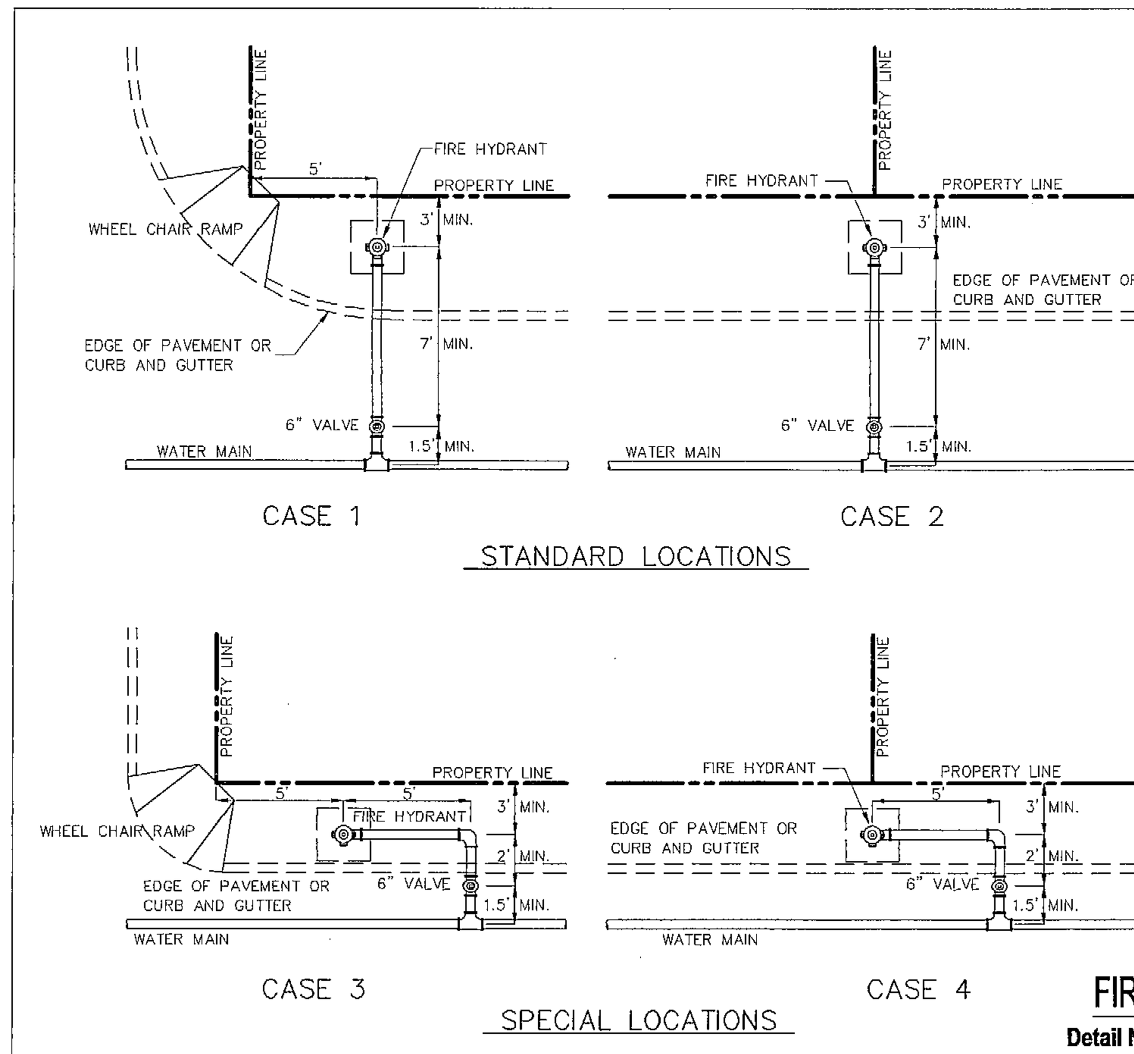
Detail No. 269-2 N.T.S.

GENERAL NOTES:

1. CASTINGS TO SMOOTH AND VOID OF AIR HOLES.
2. WEIGHT OF COVER IS 18 POUNDS.

CONSTRUCTION KEY NOTES:

A. TO BE ROUGH GROUND OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.

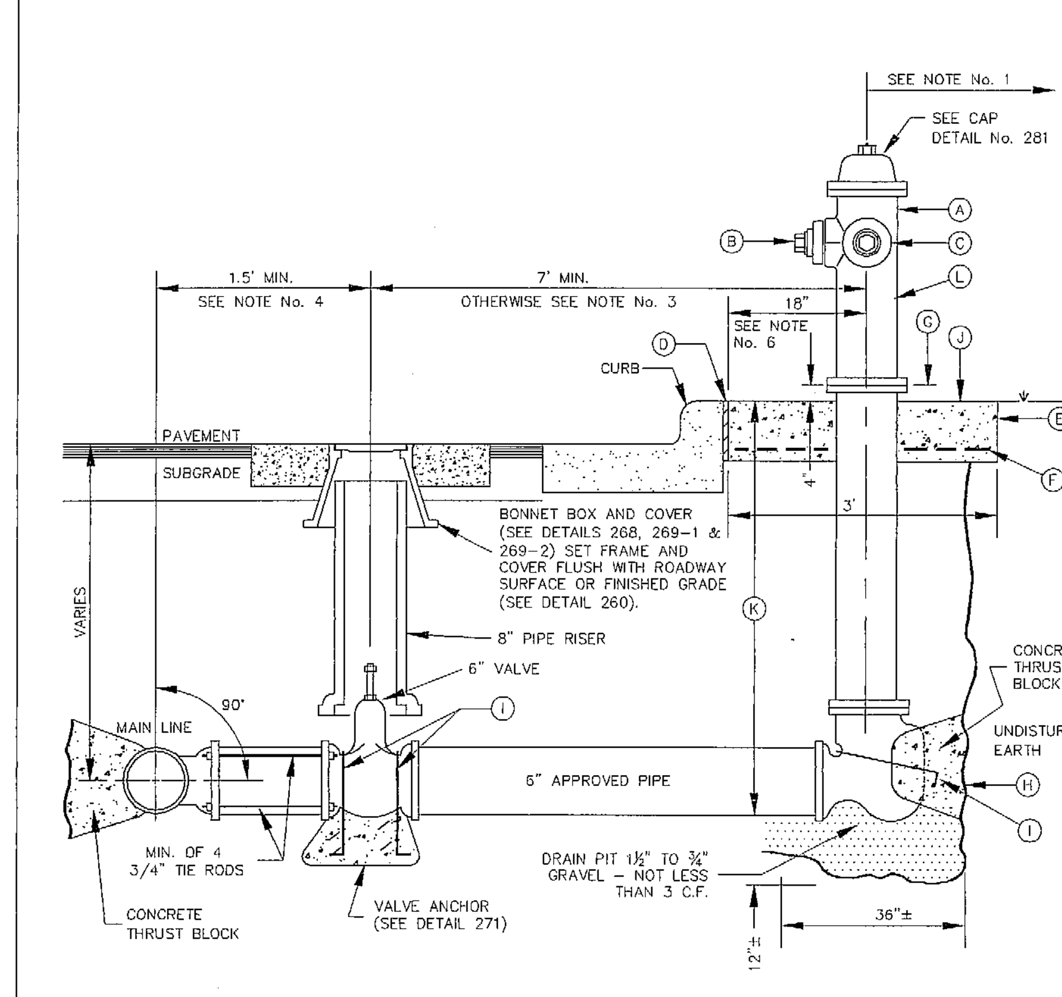


FIRE HYDRANT LOCATIONS

Detail No. 282 N.T.S.

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 IV 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 TxDOT RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.



GENERAL NOTES:

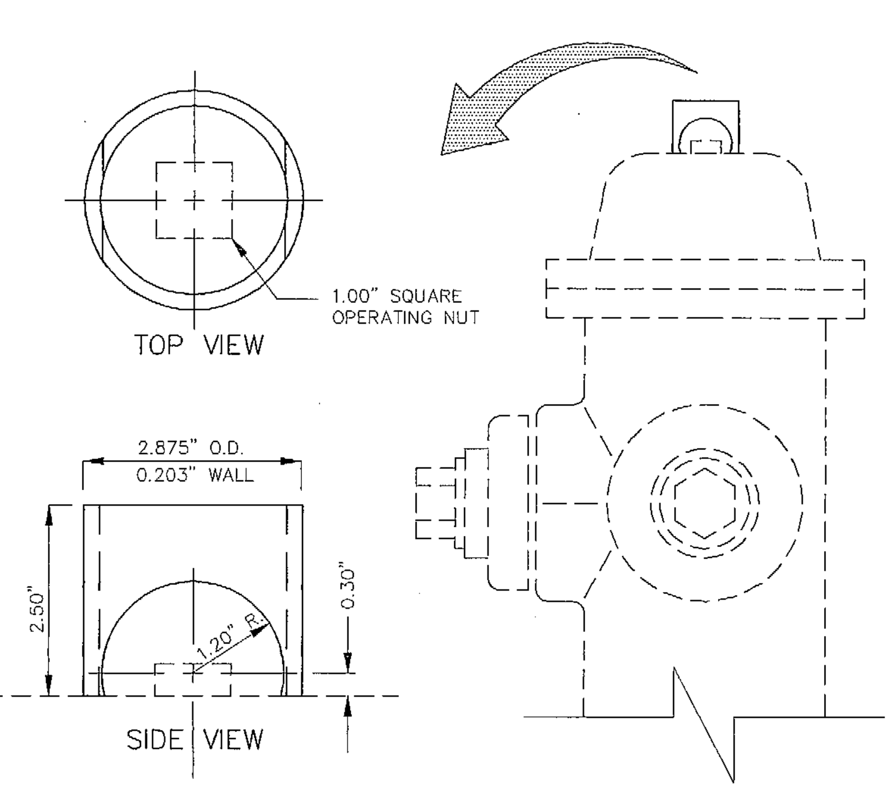
1. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 5 FT. IN ALL DIRECTIONS OF FIRE HYDRANT (PER EL PASO MUNICIPAL CODE, TITLE 12). FIRE HYDRANT SHALL NOT BE PLACED IN WHEEL CHAIR RAMP OR DRIVEWAY.
2. FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB RETURN OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE SHOWN ON PLANS. REFER TO DETAIL No. 282 FOR SPECIAL CASES.
3. WHERE DISTANCE IS LESS THAN 7', HYDRANT SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL No. 282.
4. VALVE MAY BE CONNECTED TO TEE AT MAIN LINE. USE FLANGED MECHANICAL JOINT ENDS. WHERE SPOOL IS REQUIRED BETWEEN TEE AND VALVE, USE FLANGED MECHANICAL ENDS WITH ¾" DIAMETER TIE RODS.
5. COMPLY WITH REQUIREMENTS OF AWWA C-502, DRY BARREL FIRE HYDRANTS AND AWWA C-550, PROTECTIVE EPOXY INTERIOR COATINGS FOR VALVES AND HYDRANTS.
6. WHEN INSTALLATION IS WITHIN TxDOT RIGHT OF WAY, HYDRANT SHALL NOT BE PLACED IN SIDEWALK AREA OR ANY CLOSER THAN 5' FROM BACK OF CURB.

CONSTRUCTION KEY NOTES:

A. FIRE HYDRANT PER SPEC'S.
B. PUMPER NOZZLE 4½" TO BE FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED IN THE PLANS.
C. HOSE NOZZLE 2½".
D. ½" PREMOLDED EXPANSION JOINT WITH 1" TOP FILLER.
E. 3'x3'x6" CONC. SQ. PAD, TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.
F. #10; 6/6 WWF.
G. CONTROLLED ELEVATION LINE, LEVEL IN ALL DIRECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF THE HYDRANT TO CONTROLLED ELEVATION.
H. CONC. THRUST BLOCK, APPROX. 2'x2'x3' TO BE POURED AGAINST UNDISTURBED EARTH, F.H. WEEP HOLE MUST BE UNOBSTRUCTED.
I. 2"x1/4" STEEL ANCHOR PINS.
J. TOP OF SLAB SHALL BE AT CURB LEVEL 4" BELOW THE BREAK LINE OF THE HYDRANT. UNDER SPECIAL CONDITIONS THE ENGINEER MAY ALLOW VARIATIONS TO THIS CONSTRUCTION.
K. MAXIMUM OF ONE (1) SPOOL EXTENSION ALLOWED TO MAINTAIN THE CONTROLLED ELEVATION LINE TO TOP OF SLAB. ADDITIONAL ADJUSTMENT MUST ME MADE WITH OFFSETS & FITTINGS AS NEEDED.
L. REQUIRED – DAVIDSON ANTI TERRORISM CORROSION RESISTANT VALVE KIT (DATV).

FIRE HYDRANT ISTALLATION

Detail No. 280-1 N.T.S.



GENERAL NOTES:

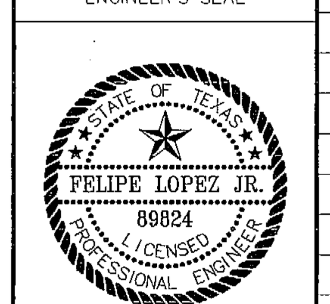
1. STEEL CAPS TO BE MACHINED FROM STEEL PIPE:
   NOMINAL SIZE = 2 1/2" DIA.
   OUTSIDE DIA. = 2.875"
   WALL THICKNESS = 0.203
   LBS/FT. = 5.79
2. CAPS ARE TO BE TACK WELDED OR BRAZED ON FIRE HYDRANT BONNET OR WEATHER CAP.
3. THE CAPS OVER THE OPERATING NUT WILL PREVENT ACCESS TO THE UNAUTHORIZED USE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

FIRE HYDRANT CAP

Detail No. 281 N.T.S.

CHECK PRINT 05/29/2013

ENGINEER'S SEAL

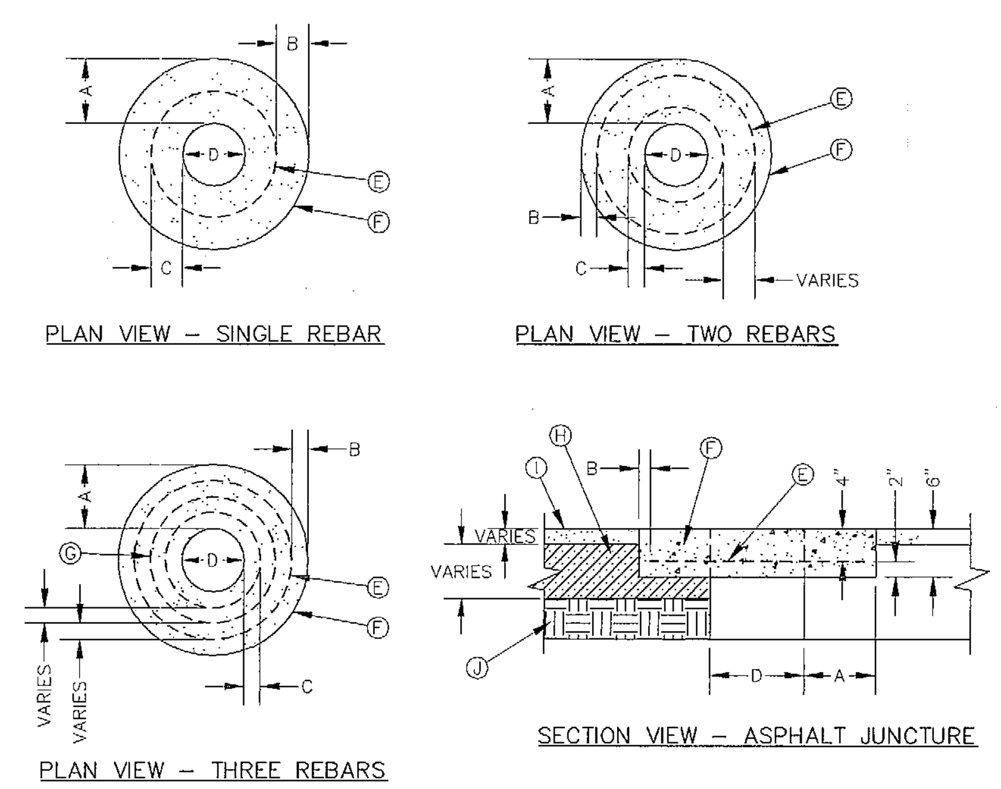


REVISIONS	DATE	REVISED BY

EL PASO WATER UTILITIES
PUBLIC SERVICE BOARD

GLENWOOD CIRCLE PLACE
WATER DETAILS

SCALE	DRAWN BY	JOB NO.	DATE
HOR. 1" = XXX'	R.L./R.A.R.	13-5049/13-9031	05/29/2013
VERT. 1" = XX'	CHECKED BY A.Q./J.A.	DESIGNED BY X.X.	SHT 2 OF 3

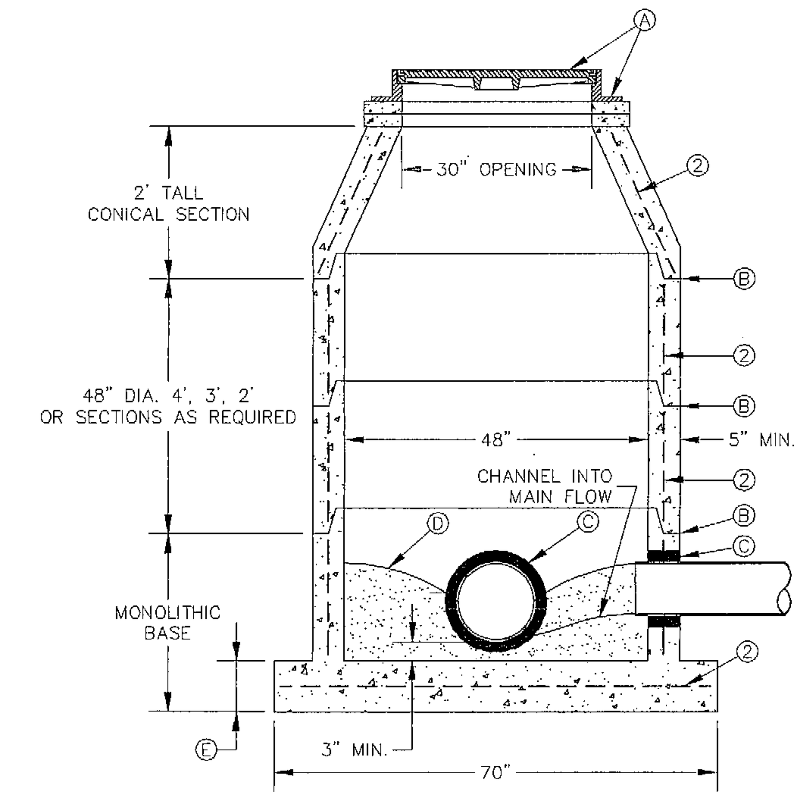


GENERAL NOTES:
1. THE CONCRETE COLLAR SHOULD BE CAST IN-PLACE CONCRETE. (MINIMUM 28 DAY COMPRESSIVE STRENGTH 4000 PSI. HIGH EARLY CONCRETE IS REQUIRED)
2. TOPS OF CONCRETE COLLAR SHALL BE FLUSH WITH ROADWAY SURFACE OR FINISHED GRADE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
3. ANY DISTURBED SUBGRADE UNDER THE CONCRETE COLLAR SHALL BE COMPACTED TO 95% DENSITY ± 3% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
4. ANY DISTURBED BASE COARSE UNDER THE CONCRETE COLLAR SHALL BE COMPACTED TO 100% DENSITY ± 2% OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D-1557.
5. PROVIDE A MINIMUM OF 1 1/2" OF CONCRETE COVER FOR ALL REINFORCEMENT STEEL.
6. REINFORCING SHALL MEET ASTM C-478 AND TRAFFIC LOADING (HS-20).
7. NO. 3 REINFORCING STEEL HOOPS SHALL BE SPACED EQUALLY.

CONSTRUCTION KEY NOTES:
E. #3 REINFORCING STEEL TYP.
F. CONCRETE COLLAR.
G. #3 REINFORCING STEEL EQUALLY SPACED.
H. COMPACTED BASE COARSE.
I. PAVEMENT.
J. COMPACTED SUBGRADE.

"D" DIAMETER OF PENETRATION	NUMBER OF #3 REINFORCING STEEL BARS	"A" MINIMUM CONCRETE HORIZONTAL DIMENSION FROM PENETRATION	"B" MINIMUM CLEARANCE FROM EDGE OF CONCRETE COLLAR TO CENTER OF NEAREST REBAR	"C" MINIMUM CLEARANCE FROM PENETRATION EDGE TO CENTER OF NEAREST REBAR
0" TO 6"	1	6"	1½"	4½"
6.1" TO 18"	2	6"	1½"	1½"
18.1" AND OVER	3	9"	1½"	1½"

STANDARD DETAIL | DATE: 8/9/2006 REV: 11/6/2008 | CONCRETE COLLAR INSTALLATION IN PAVED AREAS | N.T.S. | EL PASO WATER UTILITIES PUBLIC SERVICE BOARD | DETAIL No. 184-1

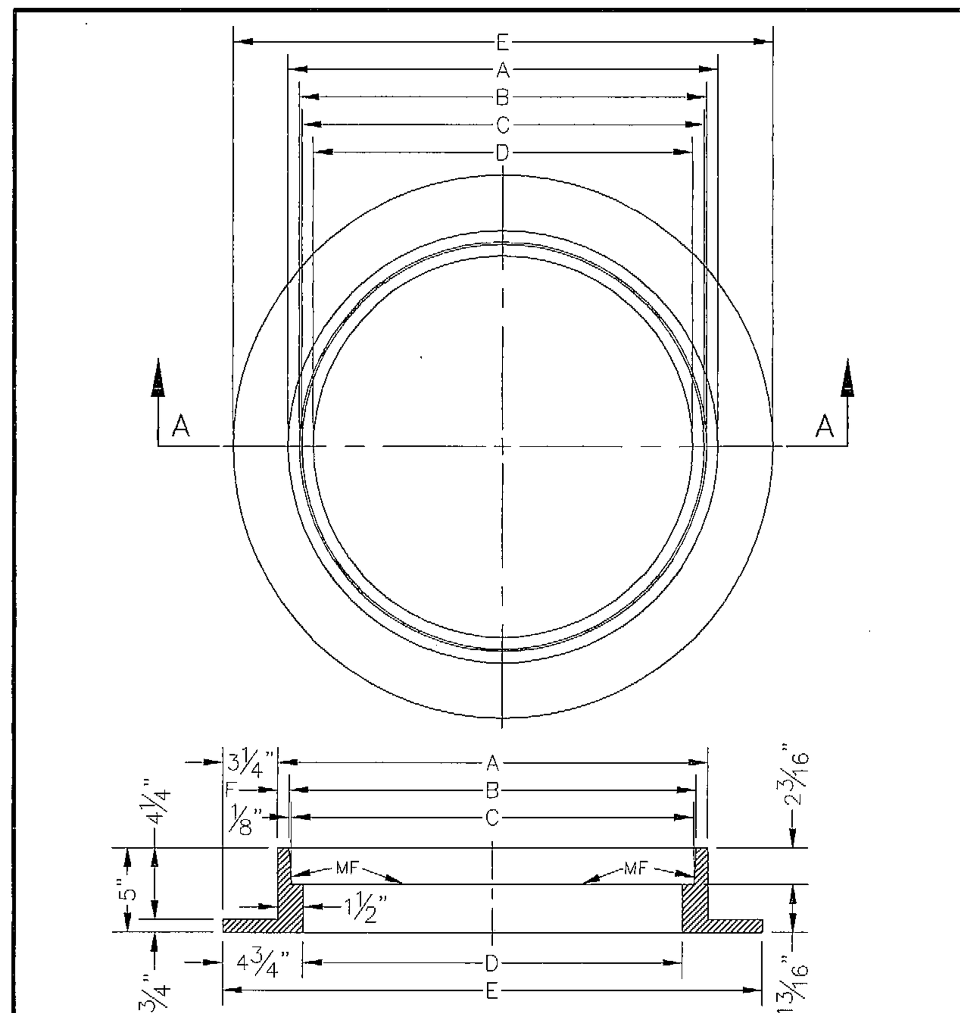


SECTION

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

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

STANDARD DETAIL | DATE: 11/1992 REV: 2/8/2013 | MANHOLE TYPE "A" | N.T.S. | EL PASO WATER UTILITIES PUBLIC SERVICE BOARD | DETAIL No. 370-1



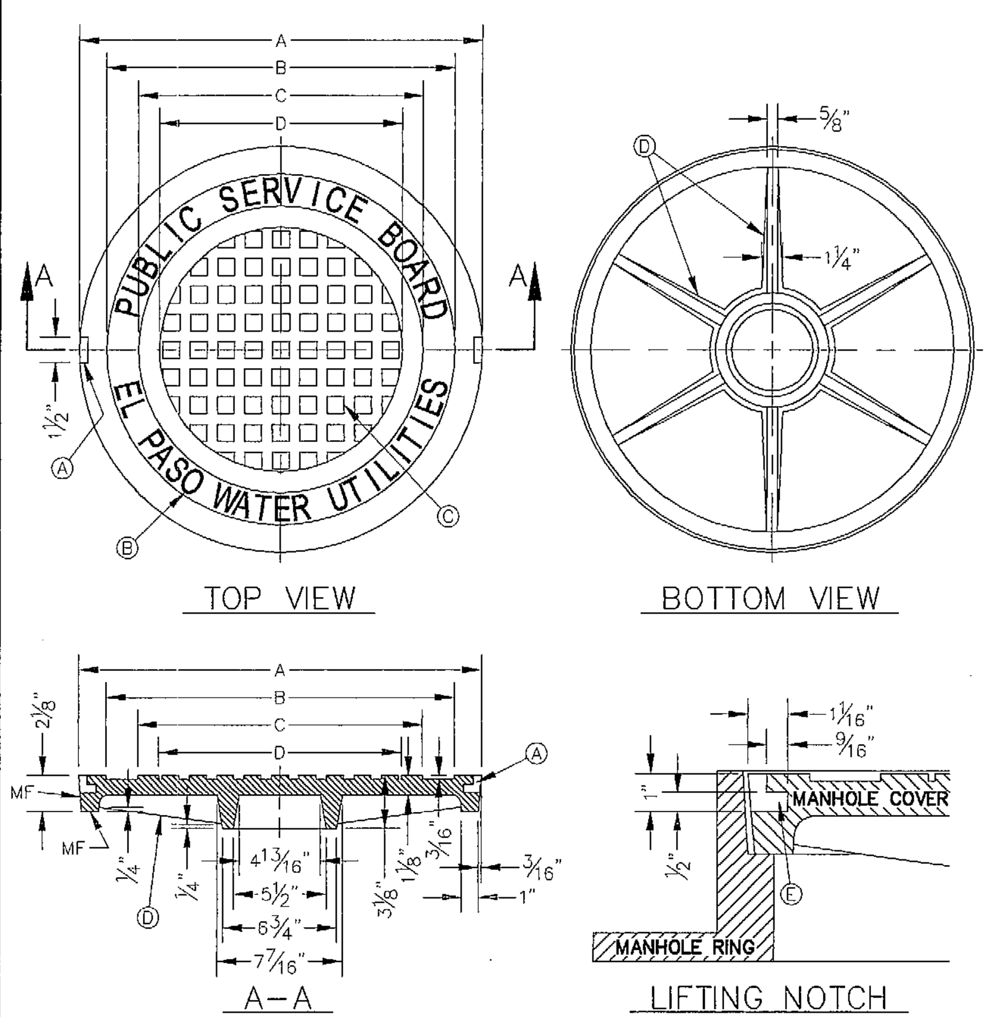
A–A

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

MANHOLE RING	MANHOLE – ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	33"	25½"
B	31¾"	24⅛"
C	31½"	23⅞"
D	30"	22½"
E	39½"	32"
F	⅝"	11/16"
WEIGHT	205 lbs.	170 lbs.

*OBSOLETE –DO NOT USE (FOR REFERENCE ONLY)

STANDARD DETAIL | DATE: 11/1992 REV: 2/21/2011 | SEWER MANHOLE RING | N.T.S. | EL PASO WATER UTILITIES PUBLIC SERVICE BOARD | DETAIL No. 377



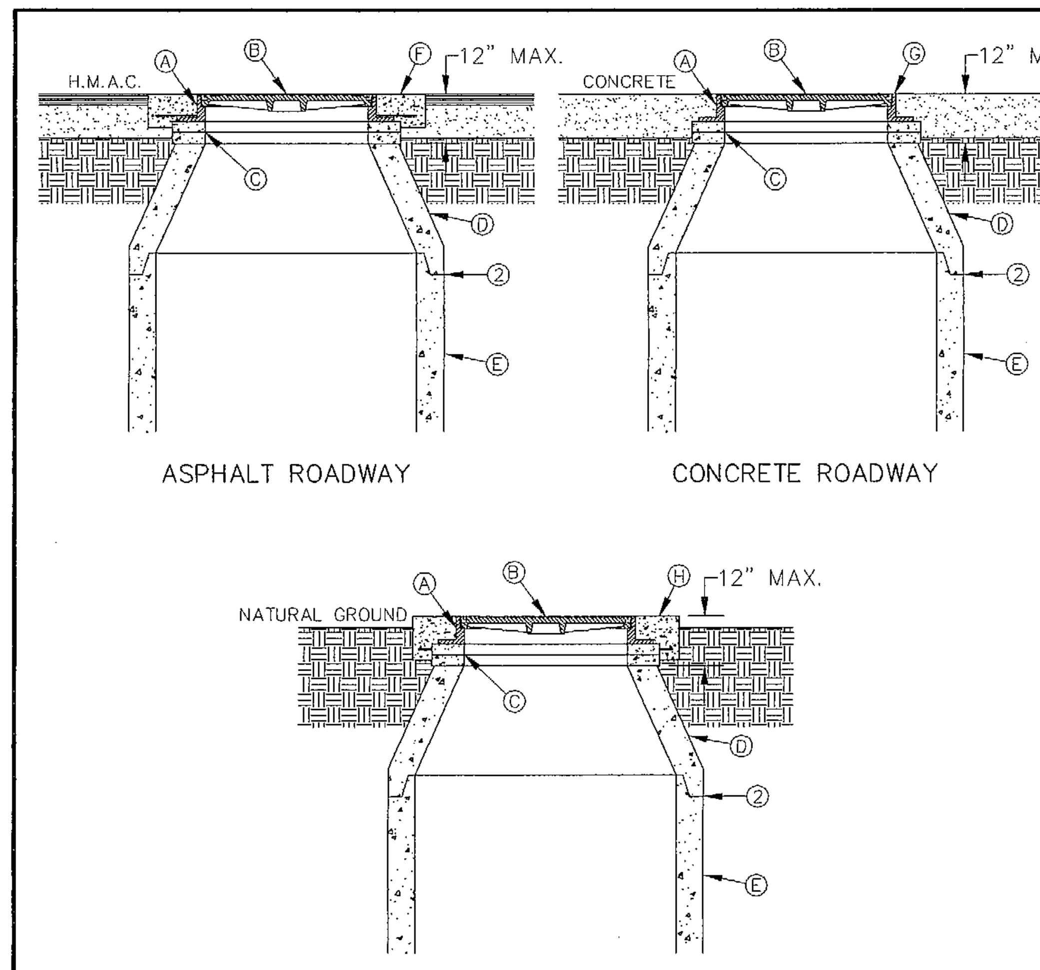
GENERAL NOTES:
1. MATCHING SURFACES MARKED "MF" TO BE FINISHED OF ANY IRREGULARITIES THAT WOULD PREVENT A SNUG FIT.
2. CASTING TO BE SMOOTH & VOID OF AIR HOLES.
3. CASTING MUST MEET REQUIREMENTS OF AASHTO M306-07.
4. AS-CAST DIMENSIONS MAY VARY 1/16"±/ PER FOOT (AASHTO M306-07).
5. WEIGHT MAY VARY 5%±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

CONSTRUCTION KEY NOTES:
A. LIFTING NOTCH.
B. 3/16" RAISED LETTERING.
C. 1" SQUARES (3/16" TALL) WITH ⅝" SPACE BETWEEN.
D. REINFORCING RIBS.
E. SLOT.

MANHOLE COVER	MANHOLE – ALL TYPES	*MANHOLE TYPE A, A1, A2 & C
A	31⅜"	23⅞"
B	28⅛"	20⅝"
C	24⅜"	16⅞"
D	21⅞"	14⅜"
WEIGHT	200 lbs.	165 lbs.

*OBSOLETE –DO NOT USE (FOR REFERENCE ONLY)

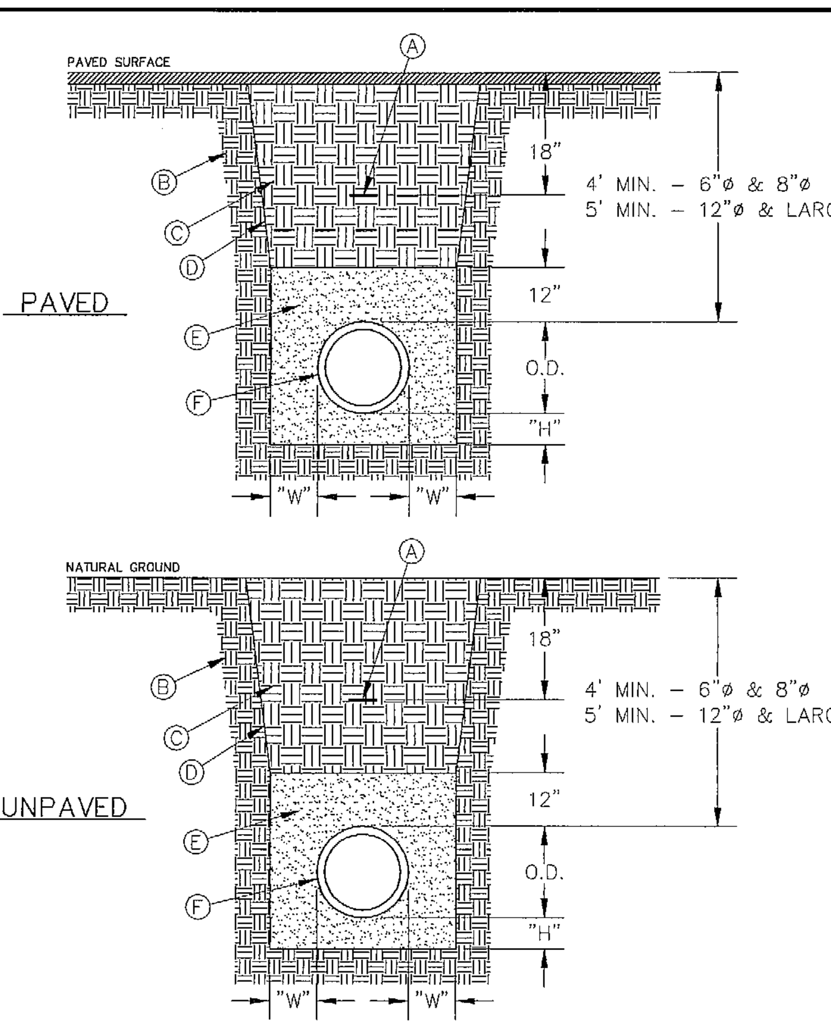
STANDARD DETAIL | DATE: 11/1992 REV: 2/21/2011 | SEWER MANHOLE COVER | N.T.S. | EL PASO WATER UTILITIES PUBLIC SERVICE BOARD | DETAIL No. 378



GENERAL NOTES:
1. MANHOLE TYPE SHALL BE AS SHOWN ON THE PLANS.
2. SEAL JOINTS PER SPECIFICATIONS.

CONSTRUCTION KEY NOTES:
A. MANHOLE RING (SEE DETAIL 377).
B. MANHOLE COVER (SEE DETAIL 378).
C. CONCRETE ADJUSTMENT RINGS AS REQUIRED.
D. MANHOLE CONE SECTION.
E. MANHOLE BARREL SECTION.
F. CONCRETE COLLAR (SEE DETAIL 184-1) FLUSH WITH TOP OF H.M.A.C.
G. MANHOLE RING FLUSH WITH TOP OF CONCRETE, CONCRETE COLLAR NOT NEEDED.
H. CONCRETE APRON (SEE DETAIL 184-2) FLUSH WITH MANHOLE RING AND 2" ABOVE NATURAL GROUND.

STANDARD DETAIL | DATE: 6/22/2009 REV: | MANHOLE RING AND COVER INSTALLATION | N.T.S. | EL PASO WATER UTILITIES PUBLIC SERVICE BOARD | DETAIL No. 185



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

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

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

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

STANDARD DETAIL | DATE: 4/24/2007 REV: 2/21/2011 | EMBEDMENT CLASS "A" FOR PRESSURE PIPE AND GRAVITY PIPE DRY CONDITIONS | N.T.S. | EL PASO WATER UTILITIES PUBLIC SERVICE BOARD | DETAIL No. 171

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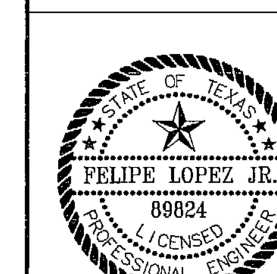
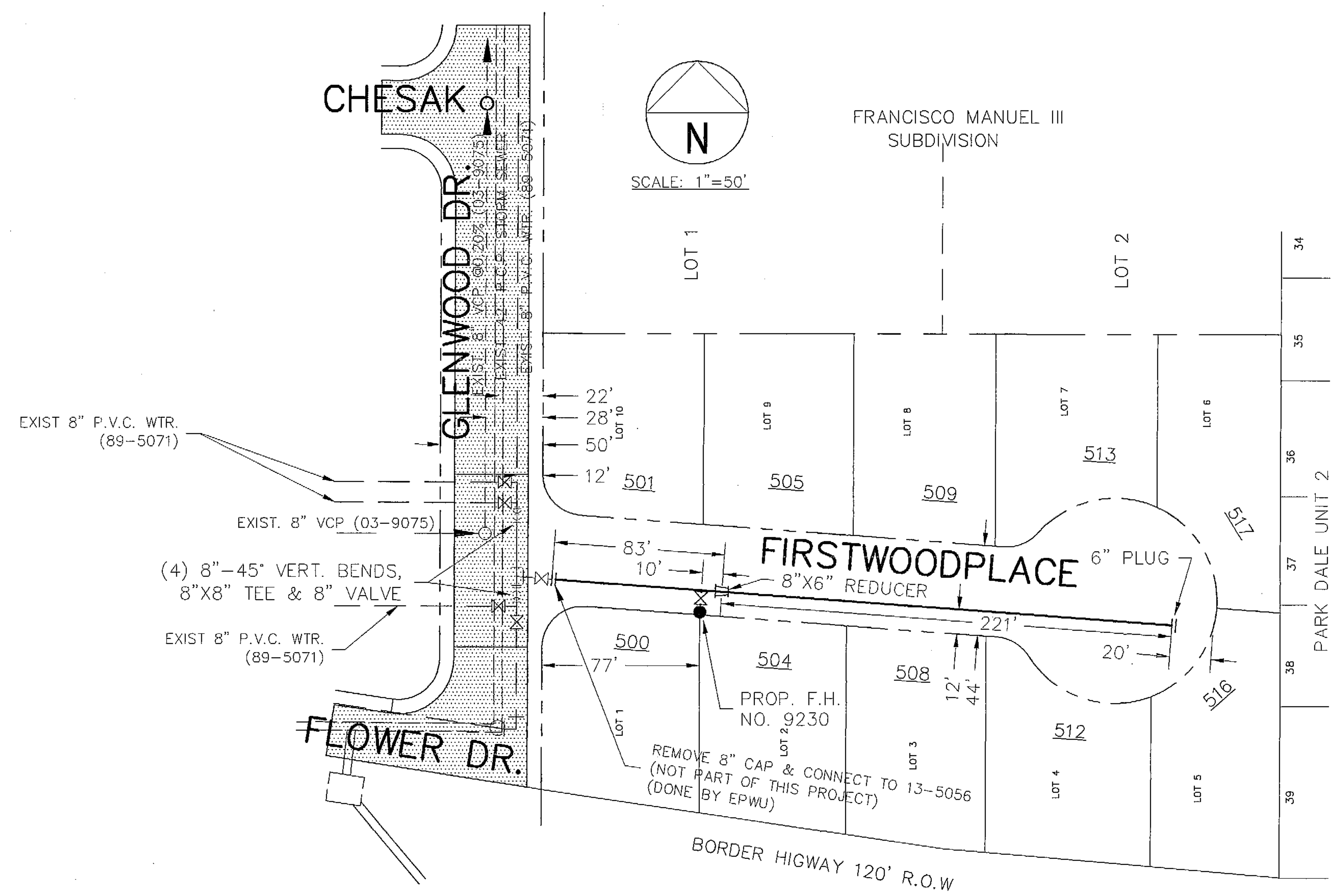
ENGINEER'S SEAL	REVISIONS	DATE	REVISED BY



EL PASO WATER UTILITIES
PUBLIC SERVICE BOARD

GLENWOOD CIRCLE PLACE SEWER DETAILS

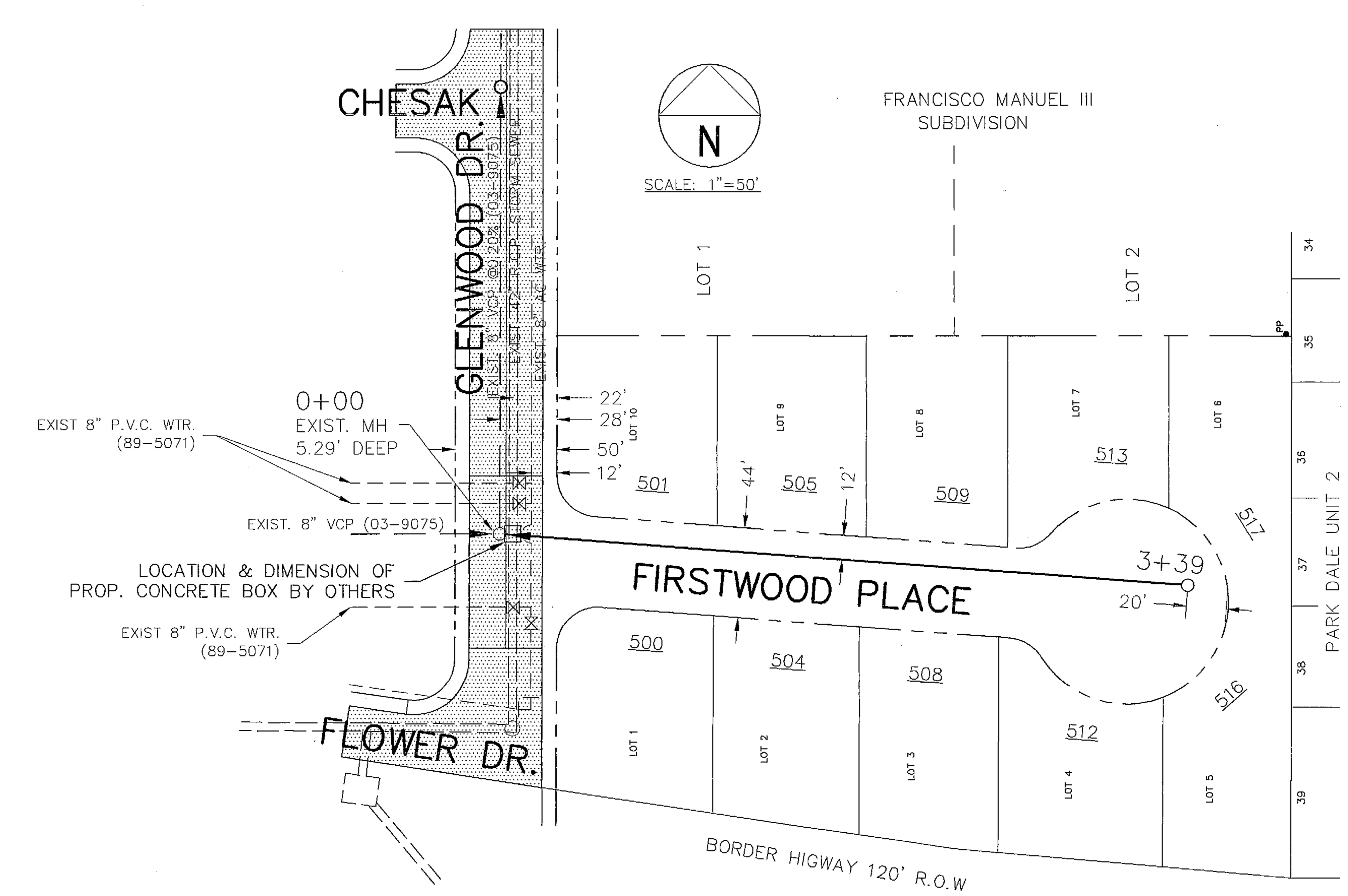
SCALE	DRAWN BY	JOB NO	DATE
HOR. 1" = XXX' VERT. 1" = XX'	R.L./R.A.R.	13-5049/13-9031	05/29/2013
	CHECKED BY: A.Q./J.A.	DESIGNED BY: X.X.	SHT 3 OF 3

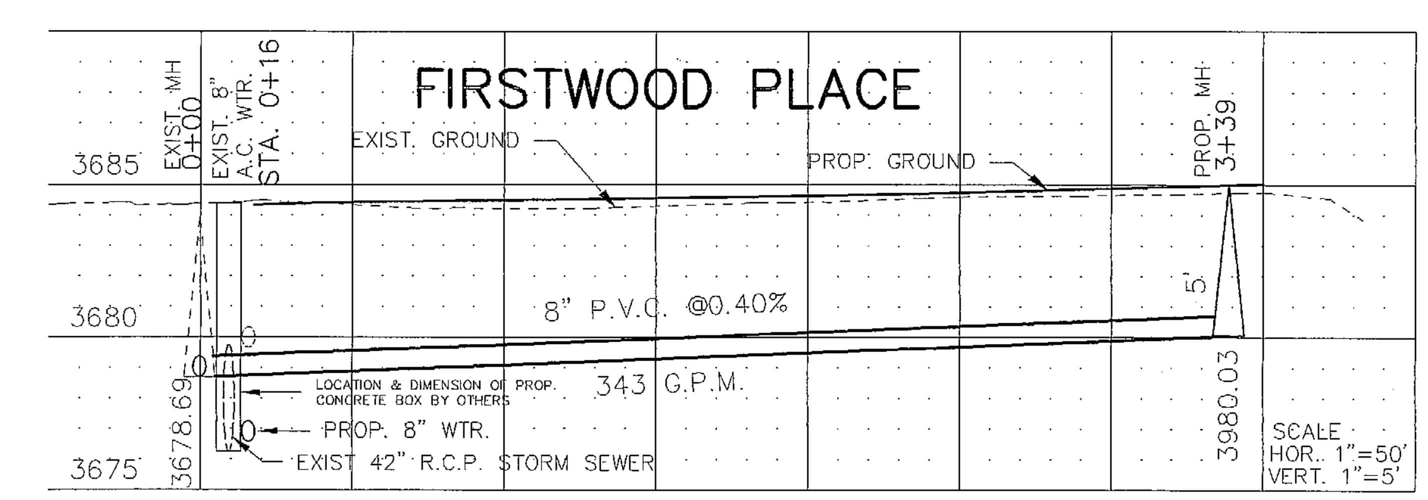


STREET NAME	LENGTH, SIZE, & TYPE OF PIPE
FIRSTWOOD PLACE	83 FT. OF 8" P.V.C. (C-900)
FIRSTWOOD PLACE	221 FT. OF 6" P.V.C. (C-900)

WATER NOTES:

1.) CONTACT UTILITY COMPANIES FOR EXACT LOCATION OF UNDERGROUND UTILITIES IN THIS AREA, BEFORE EXCAVATION.
2.) INSTALL A TRENCH SAFETY SYSTEM TO PROVIDE FOR THE SAFE EXCAVATION OF ALL TRENCHES EXCEEDING A DEPTH OF (5') FIVE FEET AS PER O.S.H.A. STANDARDS.
3.) PROVIDE ADEQUATE CONCRETE THRUST BLOCKING AT THE FOLLOWING: TAPPING SLEEVES, TEES, BENDS, PLUGS AND ALL FITTINGS.
4.) ALL VALVES ON P.V.C. WATER MAINS SHALL BE ANCHORED IN CONCRETE. (SEE DETAIL IN THIS SHEET)
5.) P.V.C. PIPE SHALL BE PLACED WITH SELECT BEDDING MATERIAL ALL AROUND.
6.) CITY PAVING PERMIT CUT REQUIRED.





SEWER NOTES

1.) CONTACT UTILITY COMPANIES FOR EXACT LOCATION OF UNDERGROUND UTILITIES IN THIS AREA, BEFORE EXCAVATION.
2.) INSTALL A TRENCH SAFETY SYSTEM TO PROVIDE FOR THE SAFE EXCAVATION OF ALL TRENCHES EXCEEDING A DEPTH OF (5') FIVE FEET AS PER O.S.H.A. STANDARDS.
3.) PROVIDE MANHOLE ADAPTER WHERE P.V.C. CONNECTS TO MANHOLE.
4.) P.V.C. PIPE SHALL BE PLACED WITH SELECT BEDDING MATERIAL ALL AROUND.
5.) WATER & SANITARY SEWER MAIN SEPARATION REQUIREMENTS SHALL COMPLY WITH "TCEQ" MINIMUM VERTICAL SEPARATION REQUIREMENTS. (REFER TO SPECIFICATIONS.)
6.) CITY PAVING PERMIT CUT REQUIRED.
7.) VERIFY DEPTH & LOCATION OF EXISTING 8"AC WTR. MAIN, BEFORE CONSTRUCTION.

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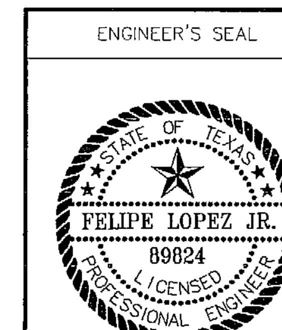

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GLENWOOD CIRCLE PLACE WATER AND SEWER

SCALE	DRAWN BY	JOB NO.	DATE
HOR. 1" = 50' VERT. 1" = 5'	R.L./R.A.R.	13-5049/13-9031	05/29/2013
	CHECKED BY	DESIGNED BY	
	A.Q./J.A.	X.X.	SHT 1 OF 3