

PROPOSED DRAINAGE, GRADING, PAVING AND UTILITIES CONSTRUCTION PLANS

TO SERVE
FOREST PARK LANE

AT
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

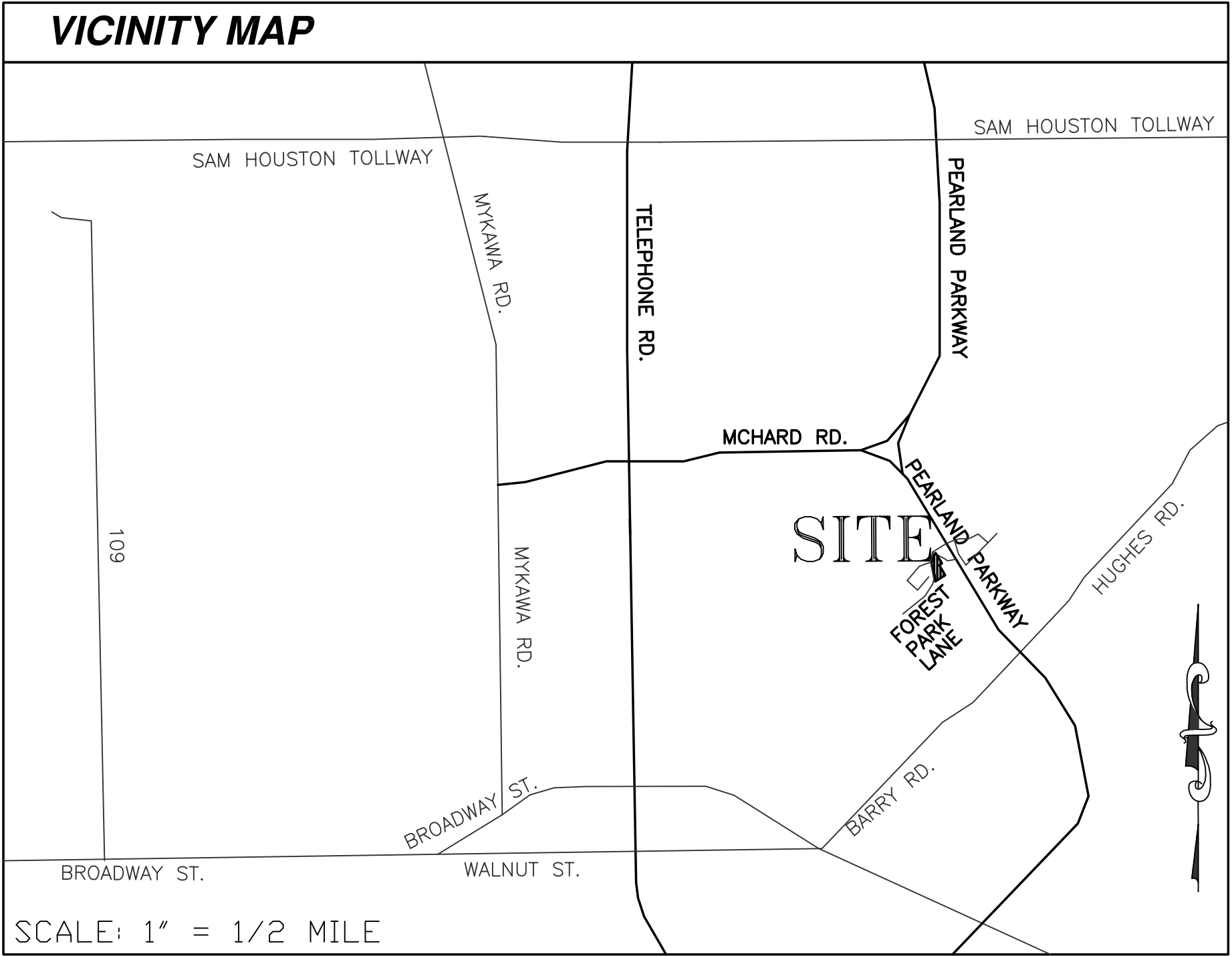
AUGUST, 2022

NOTE:
THESE PLANS ARE BASED ON RECEIVED SITE SURVEY INFORMATION THAT HAS NOT BEEN FIELD VERIFIED BY RSG ENGINEERING. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF KEY UTILITIES AND KEY SITE ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND SITE CONDITIONS SHALL BE PROMPTLY COMMUNICATED WITH PROJECT ENGINEER.

NOTE:
THE SCOPE OF THESE PLANS IS STRICTLY LIMITED TO CIVIL SITE WORK AND INFRASTRUCTURE DESIGN. COMPLIANCE WITH CODES AND REGULATIONS RELATED TO THE DESIGN OF IMPROVEMENTS INSIDE THE BUILDING ENVELOPE ARE NOT WITHIN THE SCOPE OF RSG ENGINEERING. BUILDING CODE COMPLIANCE IS NOT THE RESPONSIBILITY OF RSG ENGINEERING.

NOTE:
CONTRACTOR IS RESPONSIBLE TO CONTACT CITY OF PEARLAND CHIEF INSPECTOR "MR. NESTER" MIN. 48 HOURS BEFORE CONSTRUCTION. @281-851-2314

INDEX OF DRAWINGS	SHEET
COVER SHEET	C1.0
TOPOGRAPHIC MAP	R2.0
SITE PLAN	C3.1
SITE LANDSCAPING PLAN	C3.2
DRAINAGE AREA MAP	C4.0
DRAINAGE CALCULATIONS	C4.1
SITE DRAINAGE PLAN	C4.2
SITE GRADING PLAN	C4.3
SITE PAVING PLAN	C4.4
PAVING DETAILS	C4.5
STORM WATER POLLUTION PREVENTION PLAN	C5.1
STORM WATER POLLUTION PREVENTION DEAILS	C5.2
STORM WATER POLLUTION PREVENTION DEAILS	C5.3
SITE UTILITIES PLAN	C6.1
CONSTRUCTION NOTES AND DETAILS	C7.0
CONSTRUCTION DETAILS	C7.1
CONSTRUCTION DETAILS	C7.2
CONSTRUCTION DETAILS	C7.3
CONSTRUCTION DETAILS	C7.4
CONSTRUCTION DETAILS	C7.5
CONSTRUCTION DETAILS	C7.6



RSG ENGINEERING

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PH. 713-783-7777

TBPE FIRM #: 15488

project

FOREST PARK LANE

at

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PEARLAND, TEXAS 77581

REVISIONS					

STATE OF TEXAS

SALIM NAZH OBEID
118989
LICENSED PROFESSIONAL ENGINEER

01.24.2023

COVER SHEET

DRAWN BY:
CM

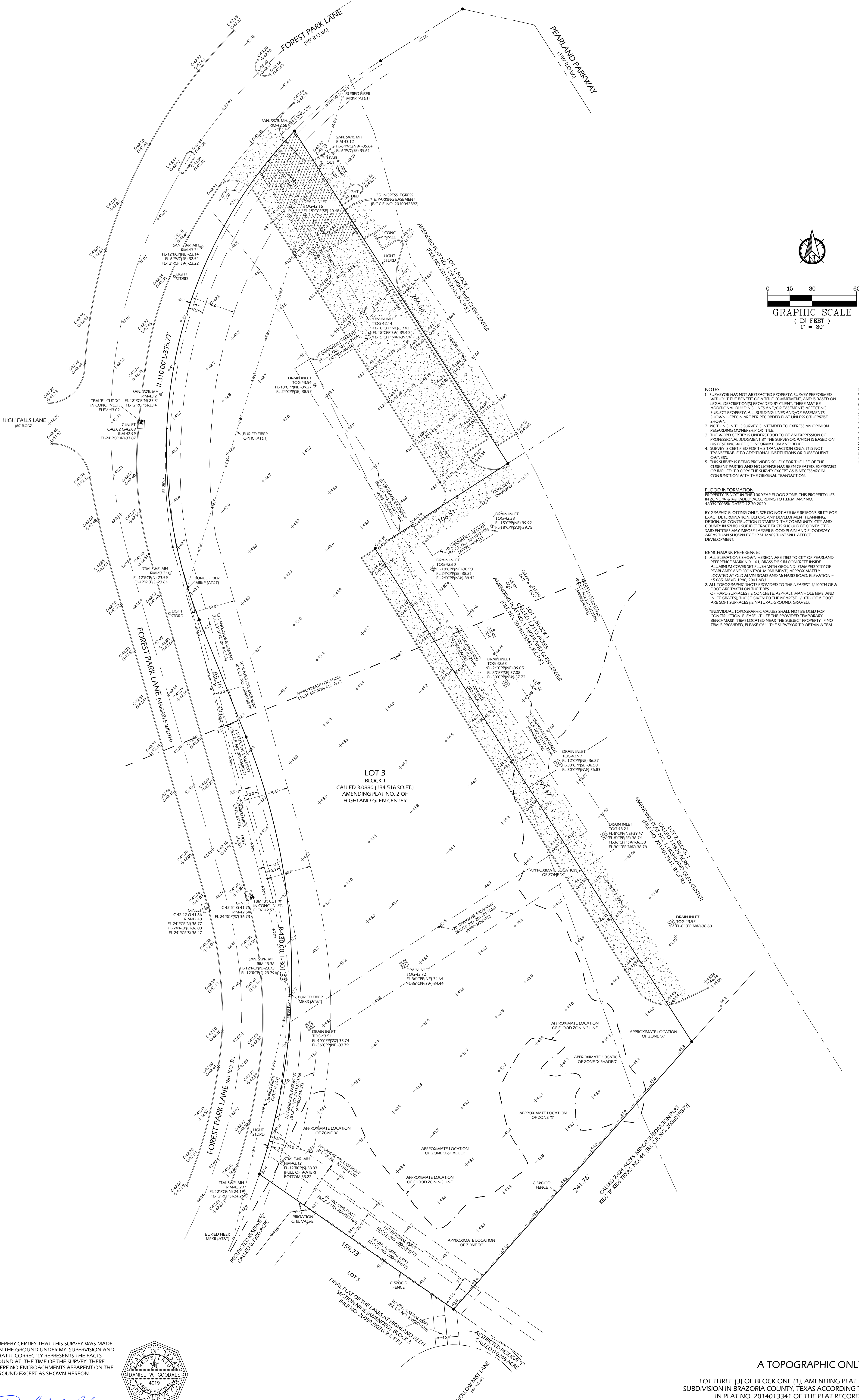
CHECKED:
SNO

PROJECT No

2286.12

SHEET No:

C1.0



NOTES:

1. SURVEYOR HAS NOT ABSTRACTED PROPERTY. SURVEY PERFORMED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND IS BASED ON LEGAL DESCRIPTION(S) PROVIDED BY CLIENT. THERE MAY BE ADDITIONAL BUILDING LINES AND/OR EASEMENTS AFFECTING SUBJECT PROPERTY. ALL BUILDING LINES AND/OR EASEMENTS SHOWN HEREON ARE PER RECORDED PLAT UNLESS OTHERWISE SHOWN.
2. NOTHING IN THIS SURVEY IS INTENDED TO EXPRESS AN OPINION REGARDING OWNERSHIP OR TITLE.
3. THE WORD CERTIFY IS UNDERSTOOD TO BE AN EXPRESSION OF PROFESSIONAL JUDGMENT BY THE SURVEYOR, WHICH IS BASED ON HIS BEST KNOWLEDGE, INFORMATION AND BELIEF.
4. SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
5. THIS SURVEY IS BEING PROVIDED SOLELY FOR THE USE OF THE CURRENT PARTIES AND NO LICENSE HAS BEEN CREATED, DRESSED OR IMPLIED, TO COPY THE SURVEY EXCEPT AS IS NECESSARY IN CONJUNCTION WITH THE ORIGINAL TRANSACTION.

FLOOD INFORMATION

PROPERTY IS NOT IN THE 100 YEAR FLOOD ZONE. THIS PROPERTY LIES IN ZONE "X" SHADE. ACCORDING TO F.I.R.M. MAP NO. 48035C00328 DATED 12-30-2020.

BY GRAPHIC PLOTTING ONLY, WE DO NOT ASSUME RESPONSIBILITY FOR EXACT DETERMINATION, BEFORE ANY DEVELOPMENT PLANNING, DESIGN, OR CONSTRUCTION IS STARTED, THE COMMUNITY, CITY AND COUNTY IN WHICH SUBJECT TRACT EXISTS SHOULD BE CONTACTED. SAID ENTITIES MAY IMPOSE LARGER FLOOD PLAIN AND FLOODWAY AREAS THAN SHOWN BY F.I.R.M. MAPS THAT WILL AFFECT DEVELOPMENT.

BENCHMARK REFERENCE:

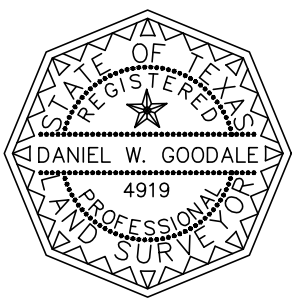
1. ALL ELEVATIONS SHOWN HEREON ARE TIED TO CITY OF PEARLAND REFERENCE MARK NO. 101, BRASS DISK IN CONCRETE INSIDE ALUMINUM COVER SET FLUSH WITH GROUND, STAMPED: CITY OF PEARLAND AND CONTROL MONUMENT, APPROXIMATELY LOCATED AT OLD ALVIN ROAD AND MARSH ROAD. ELEVATION = 45.085, NAVD 1988, 2001 ADJ.
2. ALL TOPOGRAPHIC SHOTS PROVIDED TO THE NEAREST 1/100TH OF A FOOT ARE TAKEN ON THE TOPS OF HARD SURFACES (IE CONCRETE, ASPHALT, MANHOLE RIMS, AND INLET GRATES); THOSE GIVEN TO THE NEAREST 1/10TH OF A FOOT ARE SOFT SURFACES (IE NATURAL GROUND, GRAVEL).

*INDIVIDUAL TOPOGRAPHIC VALUES SHALL NOT BE USED FOR CONSTRUCTION. PLEASE UTILIZE THE PROVIDED TEMPORARY BENCHMARK (TBM) LOCATED NEAR THE SUBJECT PROPERTY. IF NO TBM IS PROVIDED, PLEASE CALL THE SURVEYOR TO OBTAIN A TBM.

LEGEND:

B.C.F.R. - BRAZORIA COUNTY PLAT RECORD
B.C.D.R. - BRAZORIA COUNTY DEED RECORD
B.C.C.F. - BRAZORIA COUNTY CLERK FILE
R.O.W. - RIGHT OF WAY
C.M. - CONTROL MONUMENT
I.R./I.P. - IRON ROD/IRON PIPE
P.T.P. - PINCHED TOP PIPE
R.C.P. - REINFORCED CONCRETE PIPE
P.V.C. - POLYVINYL CHLORIDE PIPE
T.B.M. - TEMPORARY BENCHMARK
C. - CURB ELEVATION
G. - GUTTER ELEVATION
T.O.G. - TOP OF GRATE ELEVATION
R.M. - MANHOLE RIM ELEVATION
F.L. - FLOW LINE ELEVATION

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND UNDER MY SUPERVISION AND THAT IT CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF THE SURVEY. THERE WERE NO ENCROACHMENTS APPARENT ON THE GROUND EXCEPT AS SHOWN HEREON.



Daniel W. Goodale
DANIEL W. GOODALE, R.P.S. NO. 4919

DATE: 06-14-2022	CLIENT
UPDATE: 12-20-2022 (ADD'L UTILITIES)	NAZAR INVESTMENTS INC
DRAWN BY: EIL	DANILAR MUSAYEV
APPROVED BY: DWG	1810-1830 PEARLAND PKWY
PROJECT NO: GL-10661	PEARLAND, TX 77581

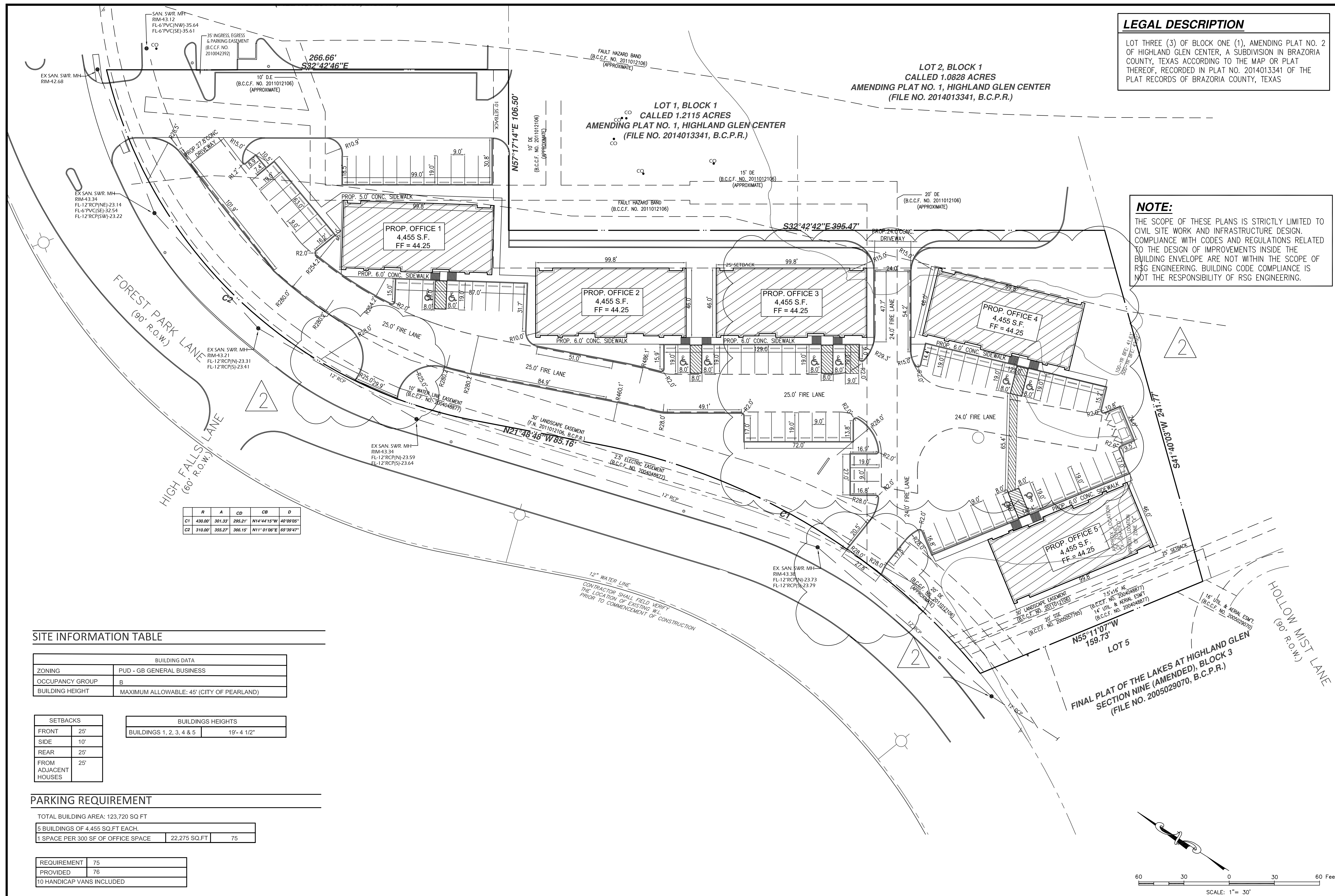
1810-1830 PEARLAND PARKWAY
PEARLAND, TEXAS 77581

A TOPOGRAPHIC ONLY SURVEY OF

LOT THREE (3) OF BLOCK ONE (1), AMENDING PLAT NO. 2 OF HIGHLAND GLEN CENTER, A SUBDIVISION IN BRAZORIA COUNTY, TEXAS ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED IN PLAT NO. 2014013341 OF THE PLAT RECORDS OF BRAZORIA COUNTY, TEXAS.



GREENLEAF LAND SURVEYS, LLC
11500 NORTHWEST FWY SUITE # 160
HOUSTON, TEXAS 77092
DIR: 832-668-5003 FAX: 832-553-7210
FIRM# 10193977
orders@gillsurveys.com
www.greenleaflandsurveys.com

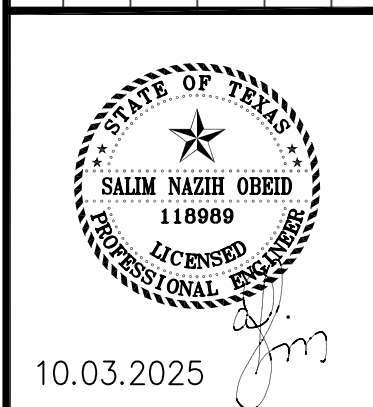


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OF HIGHLAND GLEN CENTER, A SUBDIVISION IN BRAZORIA
COUNTY, TEXAS ACCORDING TO THE MAP OR PLAT
THEREOF, RECORDED IN PLAT NO. 2014013341 OF THE
PLAT RECORDS OF BRAZORIA COUNTY, TEXAS

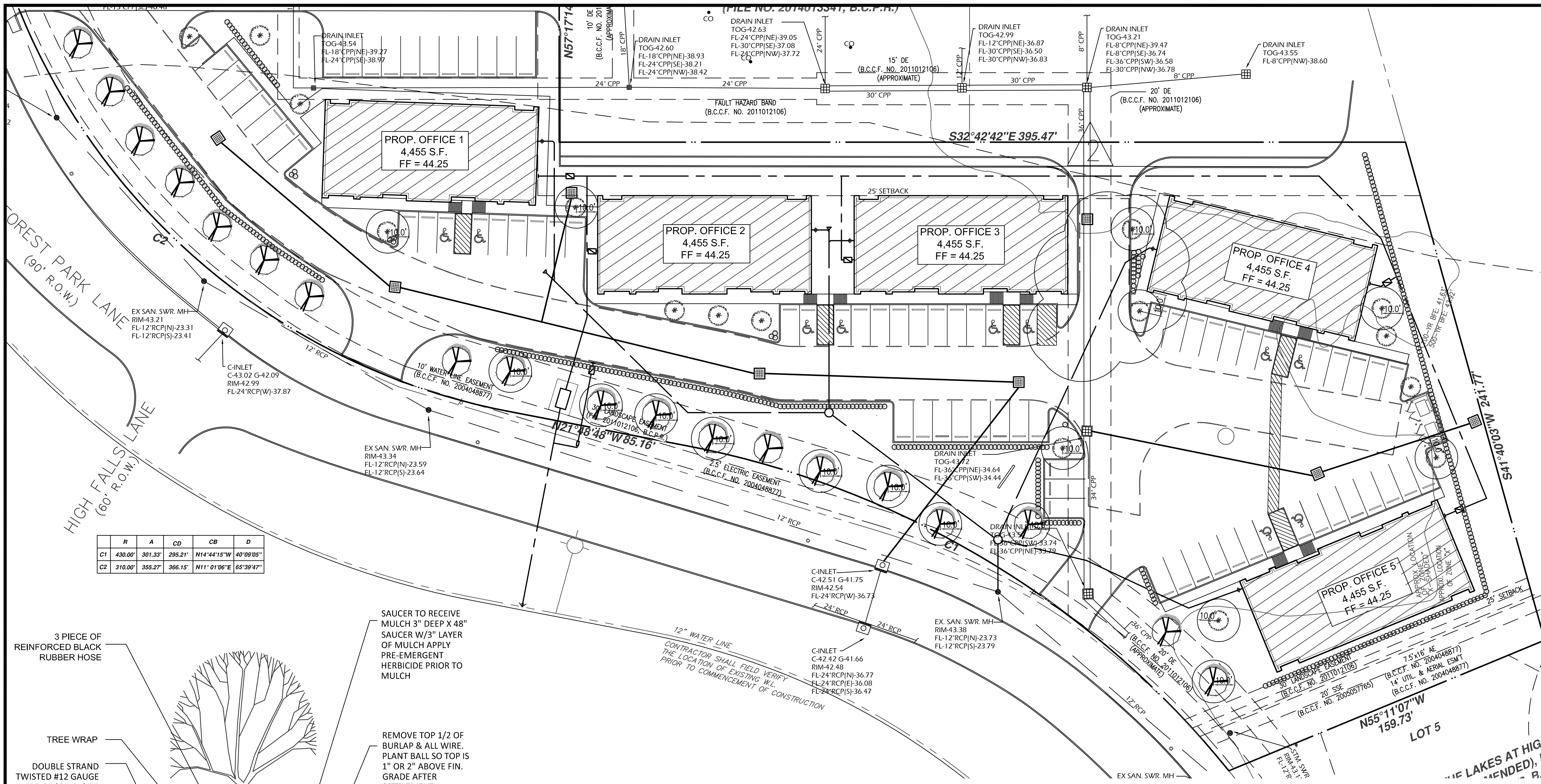
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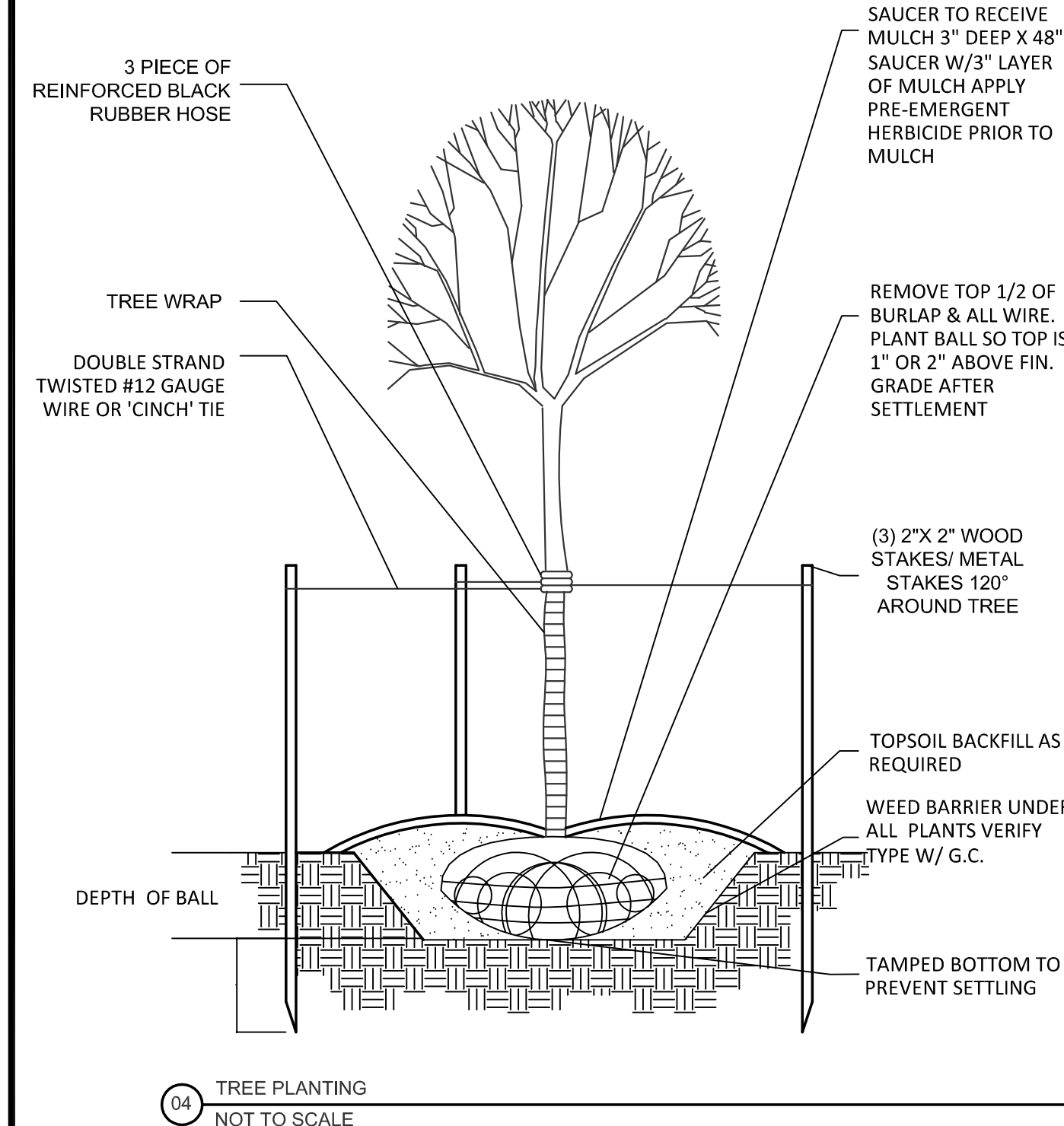
REVISIONS		
Δ	ADDED SEPARATE RPZ BFP	7.15.24
Δ	PAVEMENT REVISION	10.3.25



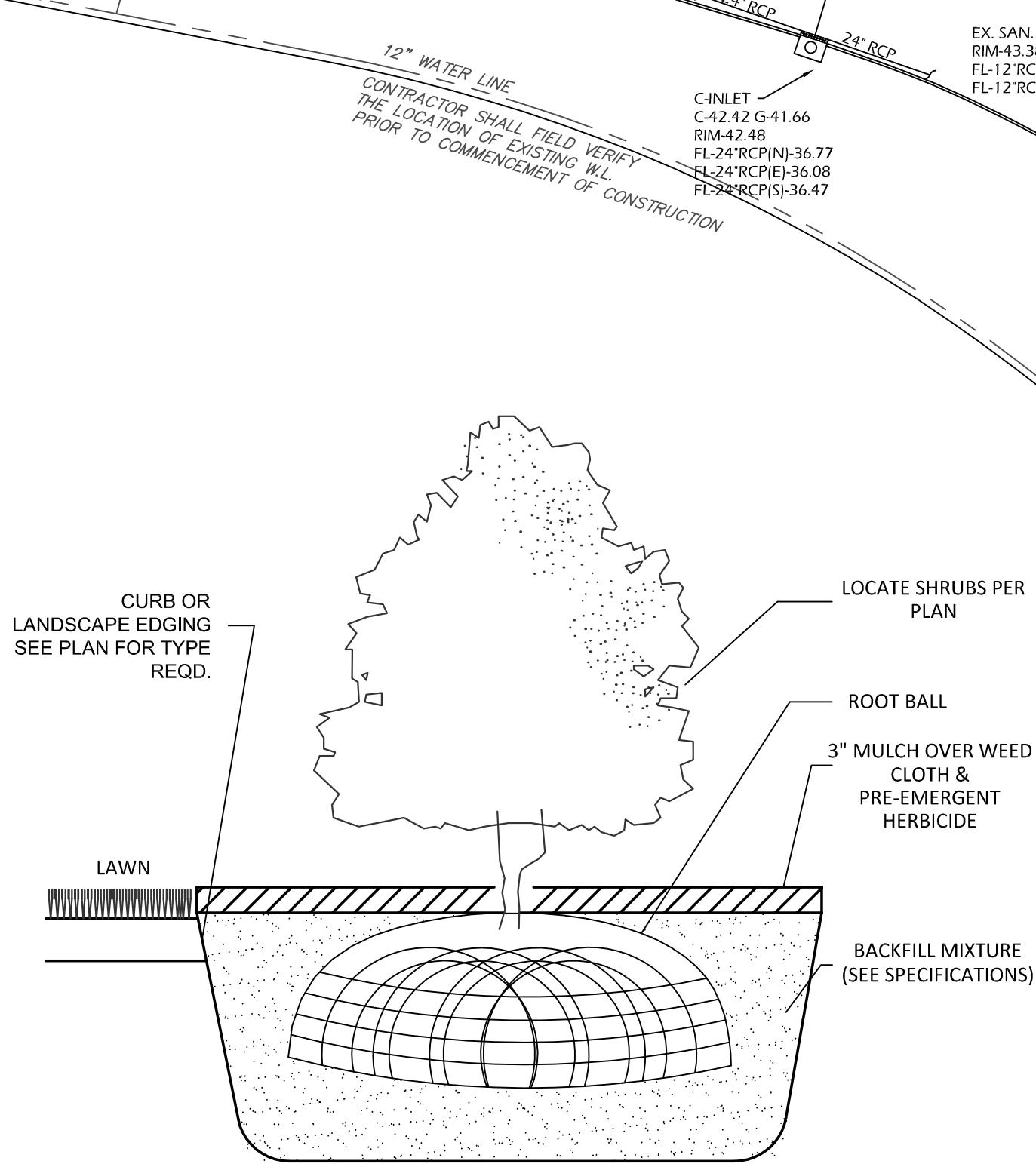
DRAWN BY: CM	CHECKED: SNO
PROJECT No 2286.12	SHEET No: C3.1



	R	A	CD	CB	D
C1	430.00'	301.33'	295.21'	N14°44'15"W	40°09'05"
C2	310.00'	355.27'	366.15'	N11°01'06"E	65°39'47"



NOTE:
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NOTE:
NO TREES ARE TO BE ADDED WITHIN 8' OF ANY UTILITY LINES AND 10' FROM ANY WATER METER OR FIRE HYDRANT.

SYMBOL LEGEND

- STREET TREE - Live Oak
- PARKING LOT TREE - Dwarf Magnolia "Little Gem"
- SHRUB - Dwarf Oleander
- SCREENED SHRUB DOCKS - EVERY 3 FT ON CENTER AND MINIMUM 3FT IN HEIGHT - Dwarf Oleander
- PER CHAPTER 2, SECTION 2.4.5.1 UDC - CITY OF PEARLAND

- ### GENERAL LANDSCAPE NOTES
- ALL PLANTS SHALL BE FULL POT AND HEAD. SYMMETRICAL FOLIAGE AND BRANCHING STRUCTURE.
 - CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION OR TRENCHING. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING OR REPLACING ANY DAMAGE TO UTILITIES OR OTHER IMPROVEMENTS.
 - GRADE SURFACE TO ENSURE AREAS DRAIN AWAY FROM STRUCTURES AND TO PREVENT PONDING AND POCKETS OF SURFACE DRAINAGE SPREAD AIR AVERAGE OF 1" SHARP SAND OVER ENTIRE AREA TO BE SOLID SODDED. HAND RAKE ENTIRE AREA PRIOR TO SODDING. OBTAIN OWNER'S REPRESENTATIVE'S APPROVAL OF GRADE PRIOR TO SODDING.
 - IRRIGATION SPRINKLER ALL LANDSCAPING AND GRASS AREAS. IRRIGATION PLAN WILL BE PROVIDED AND PERMITTED BY LANDSCAPE CONTRACTOR BASED ON PEARLAND REGULATIONS.
 - ALL AREAS NOT COVERED WITH CONCRETE SHALL BE SOD WITH (SAN AGUSTINI)
 - ALLOW FOR FINISHED GRADE AT EDGE OF WALKS AND CURBS TO BE A MINIMUM OF 1" TO 1 1/2" BELOW TOP OF SIDEWALK AND CURBS AREAS SO GRASS WILL NOT HOLD WATER ON WALK AND SHALL BE CONSISTENT ALONG EDGE.
 - LANDSCAPE CONTRACTOR TO COORDINATE AND SCHEDULE HIS WORK WITH OTHER CONTRACTORS WORKING ON THE PROJECT SITE.
 - GENERAL CONTRACTOR TO PROTECT ALL EXISTING TREES TO REMAIN.
 - ALL LANDSCAPE BEDS SHALL BE RAISED TO PROVIDE ADEQUATE DRAINAGE
 - AFTER PLANTS/TREES HAVE BEEN INSTALLED PROVIDE AND INSTALL MULCH TO ALL LANDSCAPE BEDS
 - TREES ARE TO BE ADDED WITHIN 8' OF ANY UTILITY LINES AND 10' FROM ANY WATER METER OR FIRE HYDRANT.

- ### NOTES
- CONTRACTOR SHALL APPLY FOR AND PROCURE ALL REQUIRED PERMITS TO COMMENCING WORK.
 - CONTRACTOR SHALL LOCATE ALL L UNDERGROUND UTILITIES PRIOR COMMENCING WORK. CONTACT UTILITIES COMPANIES MINIMUM 48 HOURS PRIOR ANY WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, ETC. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF THESE UTILITIES.
 - CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGN WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN FORESEEN IN THE DESIGN. SUCH CONDITIONS SHALL BE BROUGHT UP TO THE OWNERS REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL REASONABILITY FOR ANY NECESSARY CHANGES DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
 - CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER SUBCONTRACTORS ON THE JOBSITE AS REQUIRED TO COMPLETE CONSTRUCTION.
 - CONTRACTOR TO PROVIDE SAMPLES OF EACH SHRUB AND GROUNDCOVER SPECIES OR NURSERY SOURCE FOR APPROVAL BY LANDSCAPE DESIGNER PRIOR TO INSTALLATION. ALL PLANTS ARE TO BE SPECIMEN QUALITY. FULL POT AND HEAD, SYMMETRICAL FOLIAGE AND BRANCHING STRUCTURE. SHRUBS SHALL BE FULL TO GROUND. PLANT MATERIAL OF THE SAME SPECIES SHALL BE OBTAINED FROM THE SAME SOURCE. MATERIAL SHALL BE SHIPPED DIRECTLY FROM NURSERY AND NOT FROM CONTRACTOR'S HOLDING YARD AFTER AN EXTENDED PERIOD.
 - CONTRACTORS SHALL BE RESPONSIBLE FOR QUANTITIES ON PLAN SHOWN BY SYMBOLS. THE PURPOSE IS FOR CONVENIENCE ONLY.

LANDSCAPE CALCULATIONS

SITE AREA: 3.088 A.C. (134,516 SQ.FT.)
15% LANDSCAPING REQUIRED / 36% PROVIDED: 49,199 SF

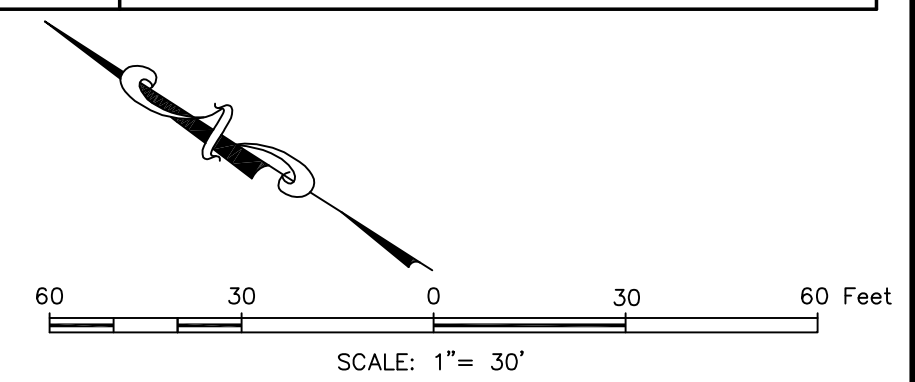
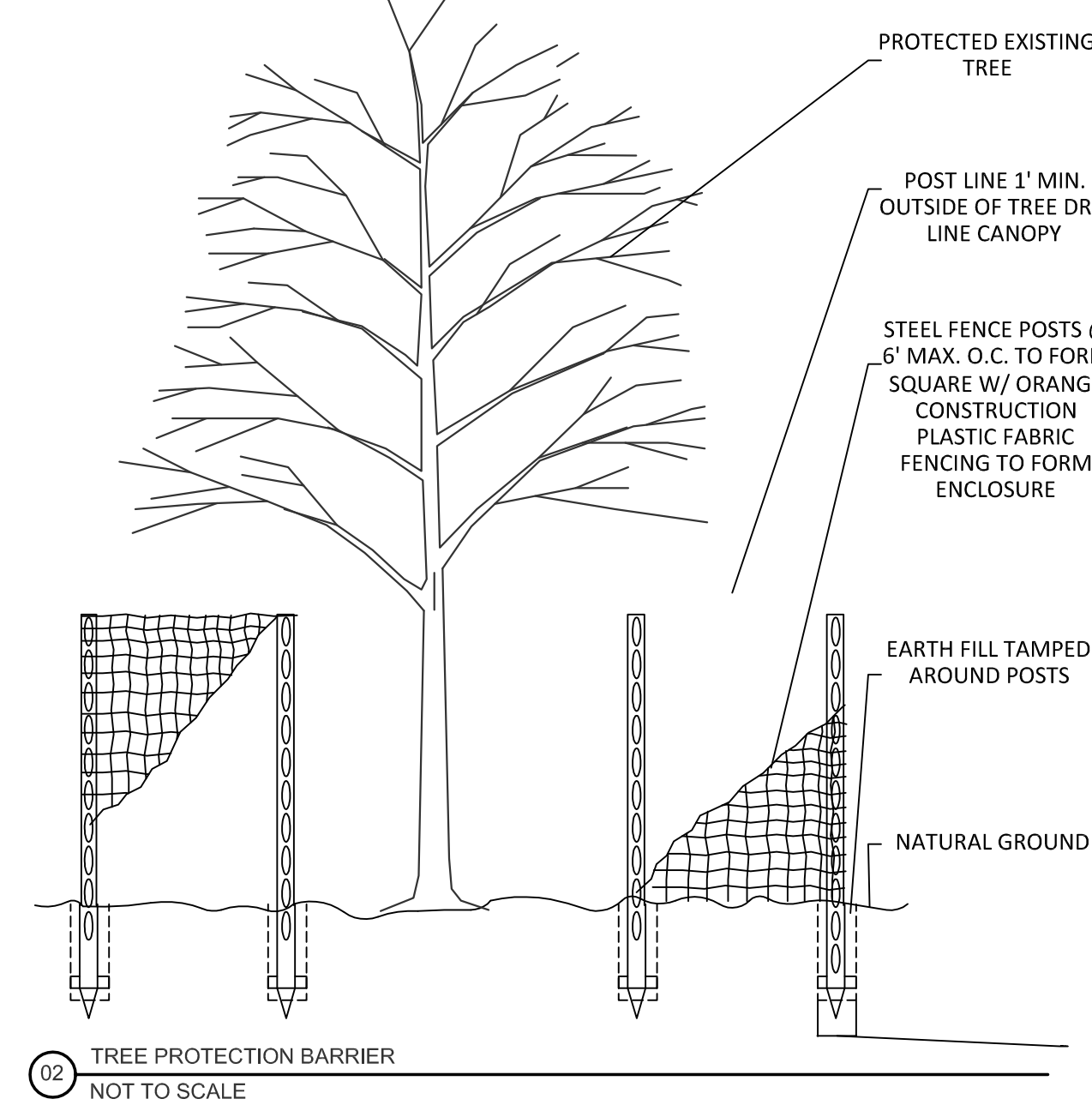
STREET TREES REQUIRED: 1 INCH PER 15 FEET OF STREET FRONTAGE	3-INCH CALIPER SIZE
FRONTAGE ROAD 742' LF.	49'-5"
TOTAL STREET TREES PROVIDED	17 TREES

SIDE YARD LANDSCAPING: 35% OF THE PARKING LOT LENGTH	
FRONTAGE ROAD 716' LF.	251' FT
PROVIDED	401'6" FT

PARKING LOT TREES REQUIRED: 1 INCH PER 5 PARKING SPACES	3-INCH CALIPER SIZE
76 SPACES / 5	16
TOTAL PARKING LOT TREES PROVIDED	16 PKNG. LOT TREES

TOTAL NUMBER OF TREES: 46	
NUMBER OF TREES AT THE FRONT YARD: 23	

SCREENING SHRUBS REQUIRED: 5 TIMES THE TOTAL CALIPER INCHES OF STREET TREES	
STREET TREES * 74'-2"	371 SHRUBS MIN
TOTAL SHRUBS PROVIDED	478 SHRUBS MIN



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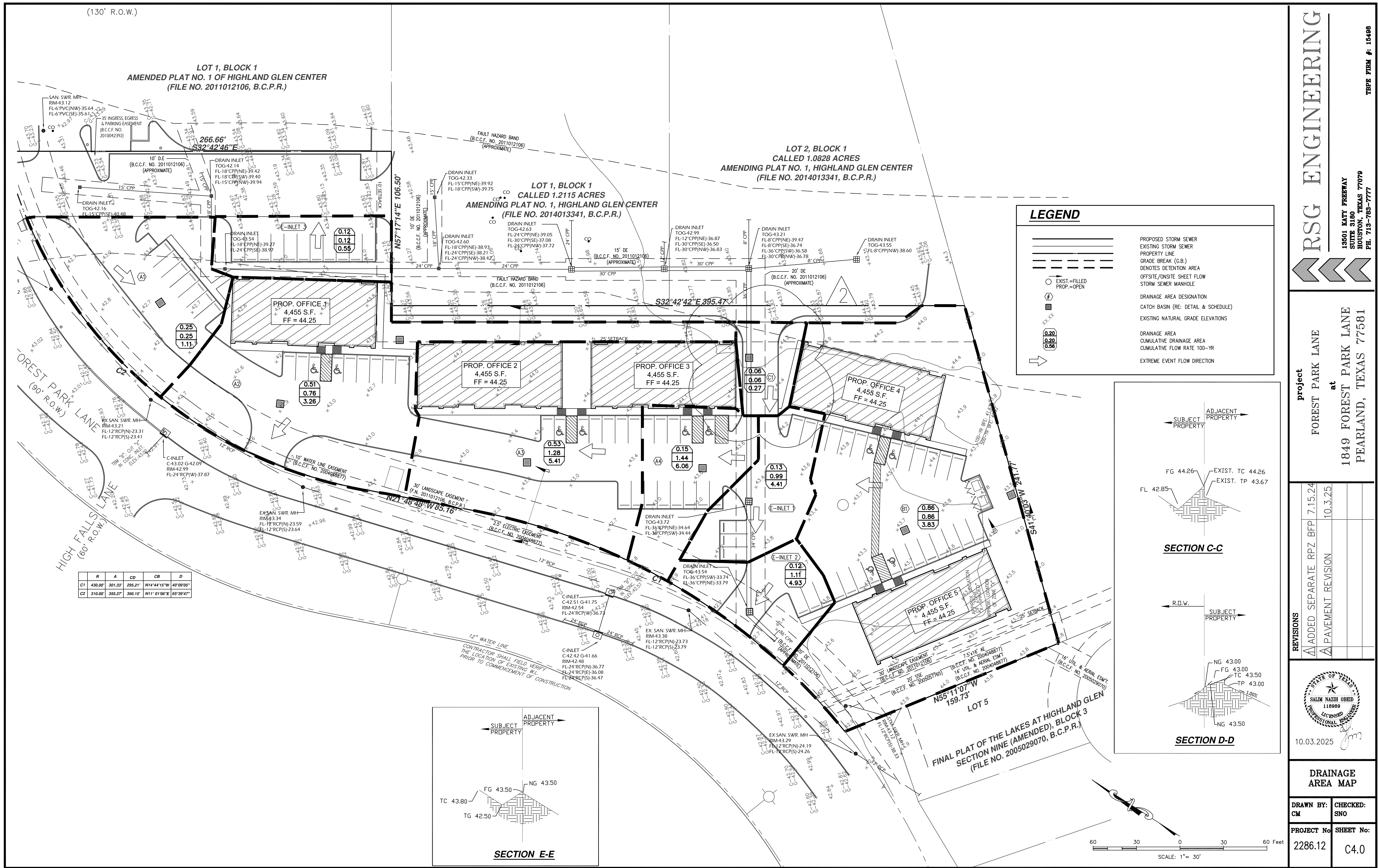
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REVISIONS	ADDED SEPARATE RPZ BFP	7.15.24
	PAVEMENT REVISION	10.3.25

10.03.2025

SITE LANDSCAPING PLAN

DRAWN BY: CM	CHECKED: SNO
PROJECT No 2286.12	SHEET No: C3.2



FLOODPLAIN MITIGATION CALCS:

FILL VOLUME HAS BEEN CALCULATED BASED ON CITY OF PEARLAND DRAINAGE MANUAL SECTION 5.2.3.C.
ALL FILL PLACED IN THE 100-YEAR FLOODPLAIN, AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP SHALL BE MITIGATED. ANY FILL PLACED BETWEEN THE 100-YEAR AND ANY PROPOSED GRADE UP TO THE 500-YEAR WATER SURFACE ELEVATION SHALL BE MITIGATED BY THE REMOVAL OF A LIKE AMOUNT (I.E. 1 CUBIC YARD FILL TO 1 CUBIC YARD REMOVAL) OF COMPENSATING CUT IN THE VICINITY OF THE FILL, WHILE MAINTAINING HYDRAULIC CONNECTIVITY TO THE EXISTING FLOODPLAIN. NO FILL MITIGATION REQUIRED FOR THE FILL PLACED ABOVE 500-YEAR FLOODPLAIN.

FILL VOLUME UNDER THE 500-YR BFE, 42.92, HAS BEEN COMPUTED USING CIVIL 3D SURFACE MODEL SHOWN ON TABLE ON THIS SHEET. FILL VOLUME IS COMPUTED BY COMPARING TWO SURFACES, THE NATURAL GROUND WITH THE PROPOSED TOP OF PAVEMENT ELEVATIONS
FILL VOLUME = 680.47-2,292.52 = -1,162.05 CY. = -43,525.35 CF.
CUT VOLUME IS NOT REQUIRED.

Name	Bou...	Mid-...	Cut Factor	Fill Factor	Style	2d Area(Sq. Ft.)	Cut(adjusted)(Cu. ...	Fill(adjusted)(Cu. ...	Net(adjusted)(Cu. Yd.)	Net Graph
<input checked="" type="checkbox"/> 500YEAR - PROP			1.000	1.000	Standard	76051.30	15.21	2292.52	2277.31<Fill>	
<input checked="" type="checkbox"/> NG-PROP			1.000	1.000	Standard	71832.06	272.92	680.47	407.56<Fill>	

Storm Sewer Calculations

PROJECT:	FOREST PARK LANE	DESIGN STORM																		
JOB NO:	2286.12	2-YR	10-YR	100-YR																
SYSTEM:	100 YR STM DESIGN	b=	57.44	57.52	46.32															
BY:	CM	d=	11.51	7.78	1.56															
CHCKD BY:	SNO	e=	0.754	0.676	0.533															
DA FROM	DA TO	AREA (ACRES)	TOTAL AREA (ACRES)	COMPOSITE RUNOFF COEFF. C	SUM OF C * A	TC (MIN.)	INTENSITY I (IN/HR)	SUM OF FLOWS (CFS)	REACH LENGTH (FT)	DIAM. OR RISE (IN)	Slope %	Manning's "n"	Design Capacity (CFS)	Design Velocity (ft/s)	Fall (FT)	FL Elev. UP (FT)	FL Elev. DS (FT)	Actual Velocity (ft/s)	Friction Loss (ft)	TG ELEV UP (FT)
A1	A2	0.25	0.25	0.80	0.20	10.60	12.23	2.45	108	12	0.32	0.011	2.39	3.04	0.35	38.01	37.67	3.12	0.37	42.60
A2	A3	0.51	0.76	0.80	0.61	11.57	11.74	7.12	175	15	0.25	0.011	3.83	3.12	0.44	37.67	37.23	5.80	1.52	42.50
A3	A4	0.53	1.28	0.80	1.03	12.24	11.43	11.74	121	18	0.20	0.011	5.57	3.15	0.24	37.23	36.99	6.64	1.08	42.90
A4	OUT	0.15	1.44	0.80	1.15	12.23	11.44	13.15	105	24	0.18	0.011	11.37	3.62	0.19	36.99	36.80	4.19	0.25	43.10
B1	E-INLET 1	0.86	0.86	0.80	0.69	10.61	12.23	8.42	109	15	0.32	0.011	4.33	3.53	0.35	37.65	37.30	6.86	1.32	42.85
C1	EXISTING INLET	0.06	0.06	0.80	0.05	10.00	12.57	0.60												43.40
E-INLET 1	E-INLET 2	0.13	0.99	0.80	0.79	10.61	12.23	9.69												43.02
E-INLET 2	OUT	0.12	1.11	0.80	0.89	10.61	12.23	10.84												42.84
E-INLET 3	EXISTING INLET	0.12	0.12	0.80	0.10	10.00	12.57	1.23												42.14

Storm Sewer Calculations

PROJECT:	FOREST PARK LANE	DESIGN STORM																		
JOB NO:	2286.12	2-YR	10-YR	100-YR																
SYSTEM:	2 YR STM DESIGN	b=	57.44	57.52	46.32															
BY:	CM	d=	11.51	7.78	1.56															
CHCKD BY:	SNO	e=	0.754	0.676	0.533															
DA FROM	DA TO	AREA (ACRES)	TOTAL AREA (ACRES)	COMPOSITE RUNOFF COEFF. C	SUM OF C * A	TC (MIN.)	INTENSITY I (IN/HR)	SUM OF FLOWS (CFS)	REACH LENGTH (FT)	DIAM. OR RISE (IN)	Slope %	Manning's "n"	Design Capacity (CFS)	Design Velocity (ft/s)	Fall (FT)	FL Elev. UP (FT)	FL Elev. DS (FT)	Actual Velocity (ft/s)	Friction Loss (ft)	TG ELEV UP (FT)
A1	A2	0.25	0.25	0.80	0.20	10.60	5.56	1.11	108	12	0.32	0.011	2.39	3.04	0.35	38.01	37.67	1.42	0.08	42.60
A2	A3	0.51	0.76	0.80	0.61	11.57	5.39	3.26	175	15	0.25	0.011	3.83	3.12	0.44	37.67	37.23	2.66	0.32	42.50
A3	A4	0.53	1.28	0.80	1.03	12.24	5.27	5.41	121	18	0.20	0.011	5.57	3.15	0.24	37.23	36.99	3.06	0.23	42.90
A4	OUT	0.15	1.44	0.80	1.15	12.23	5.27	6.06	105	24	0.18	0.011	11.37	3.62	0.19	36.99	36.80	1.93	0.05	43.10
B1	E-INLET 1	0.86	0.86	0.80	0.69	10.61	5.56	3.83	109	15	0.32	0.011	4.33	3.53	0.35	37.65	37.30	3.12	0.27	42.85
C1	EXISTING INLET	0.06	0.06	0.80	0.05	10.00	5.68	0.27												43.40
E-INLET 1	E-INLET 2	0.13	0.99	0.80	0.79	10.61	5.56	4.41												43.02
E-INLET 2	OUT	0.12	1.11	0.80	0.89	10.61	5.56	4.93												42.84
E-INLET 3	EXISTING INLET	0.12	0.12	0.80	0.10	10.00	5.68	0.55												42.14

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TEPE FIRM # 15498

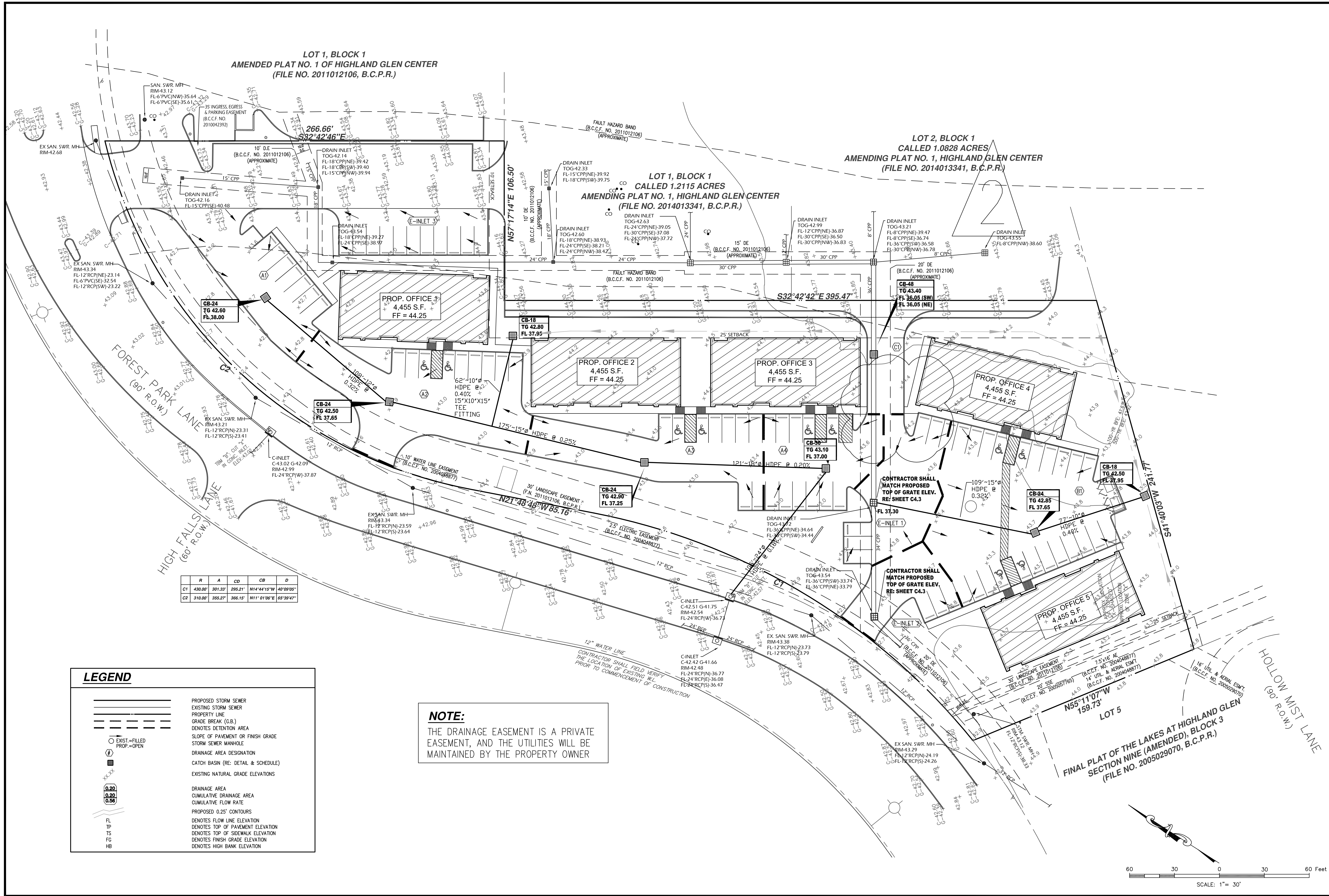
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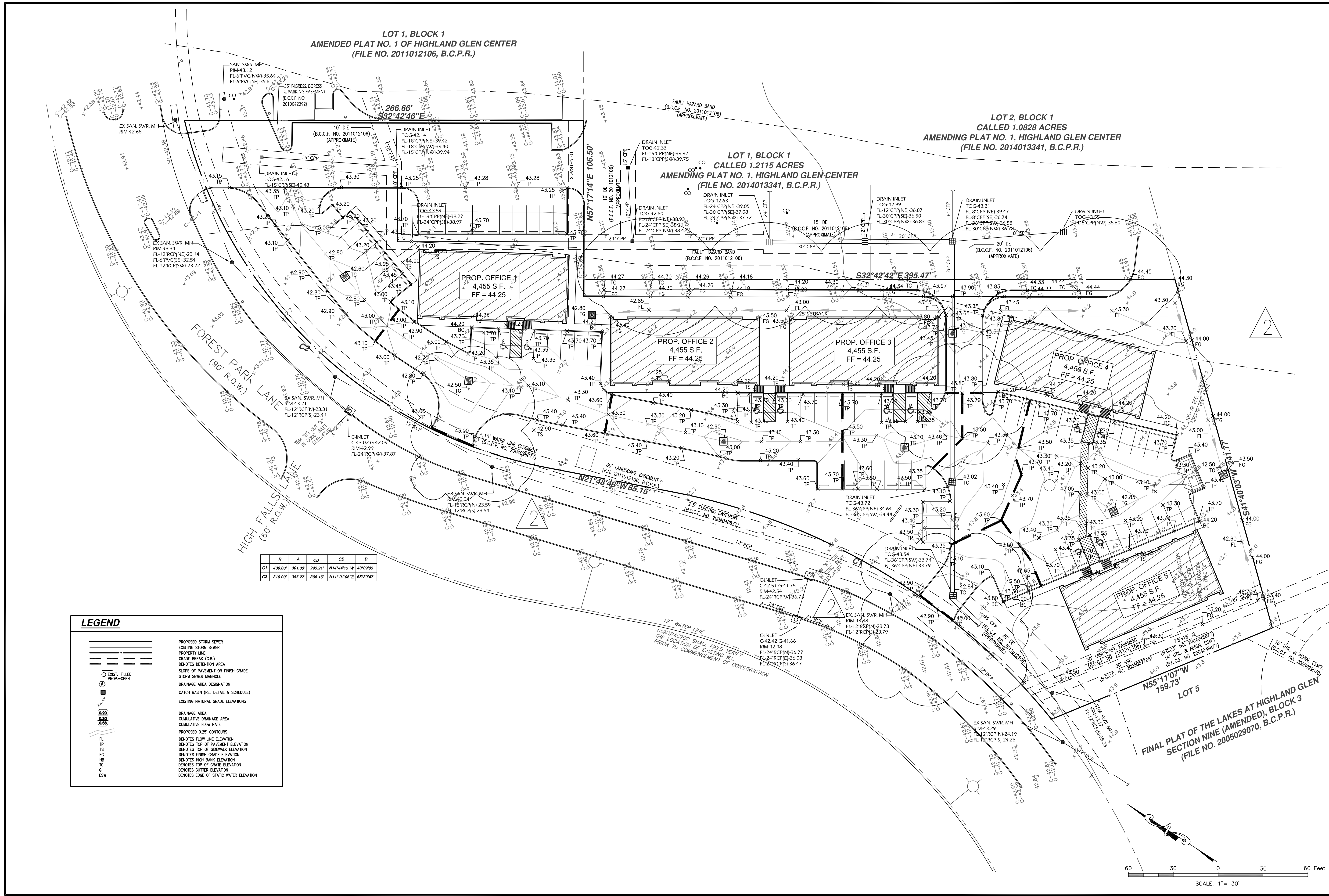
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DRAINAGE CALCULATIONS

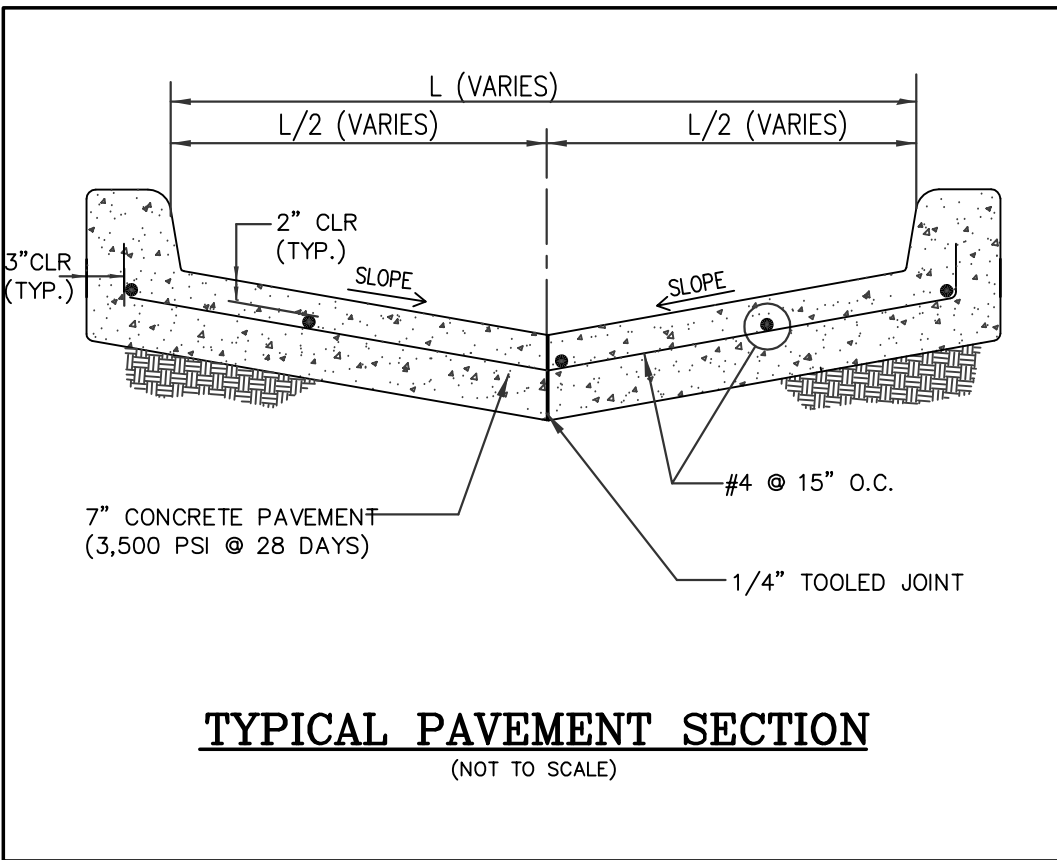
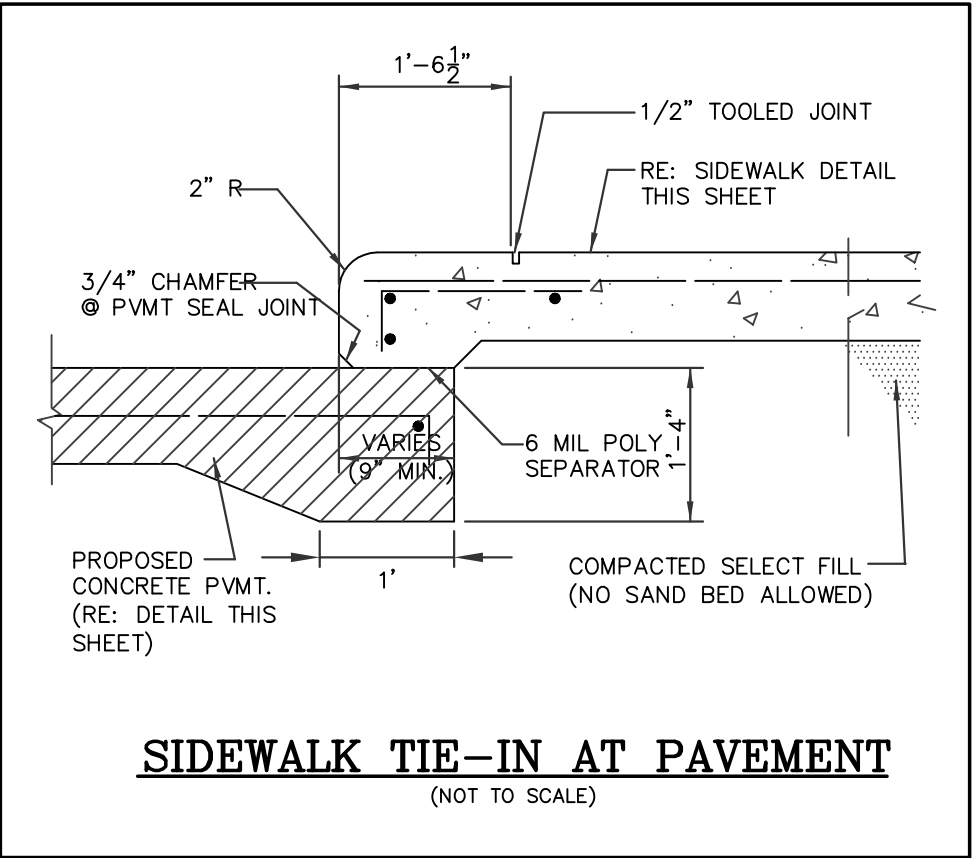
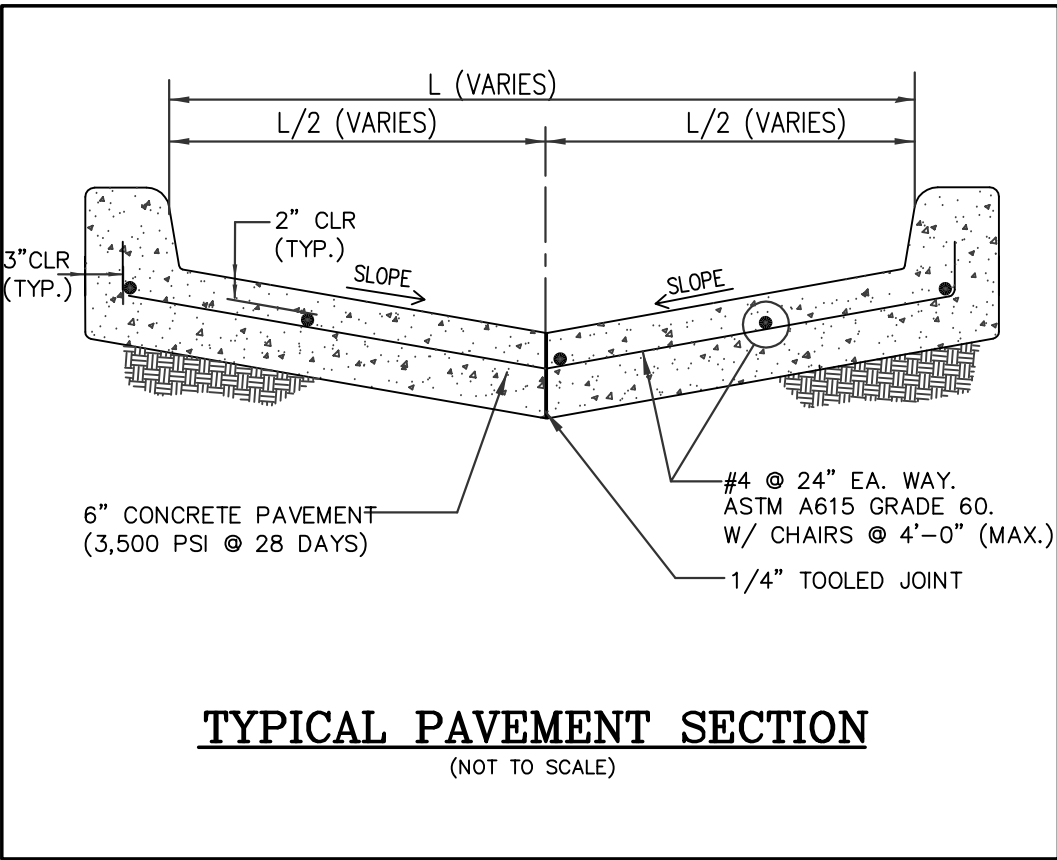
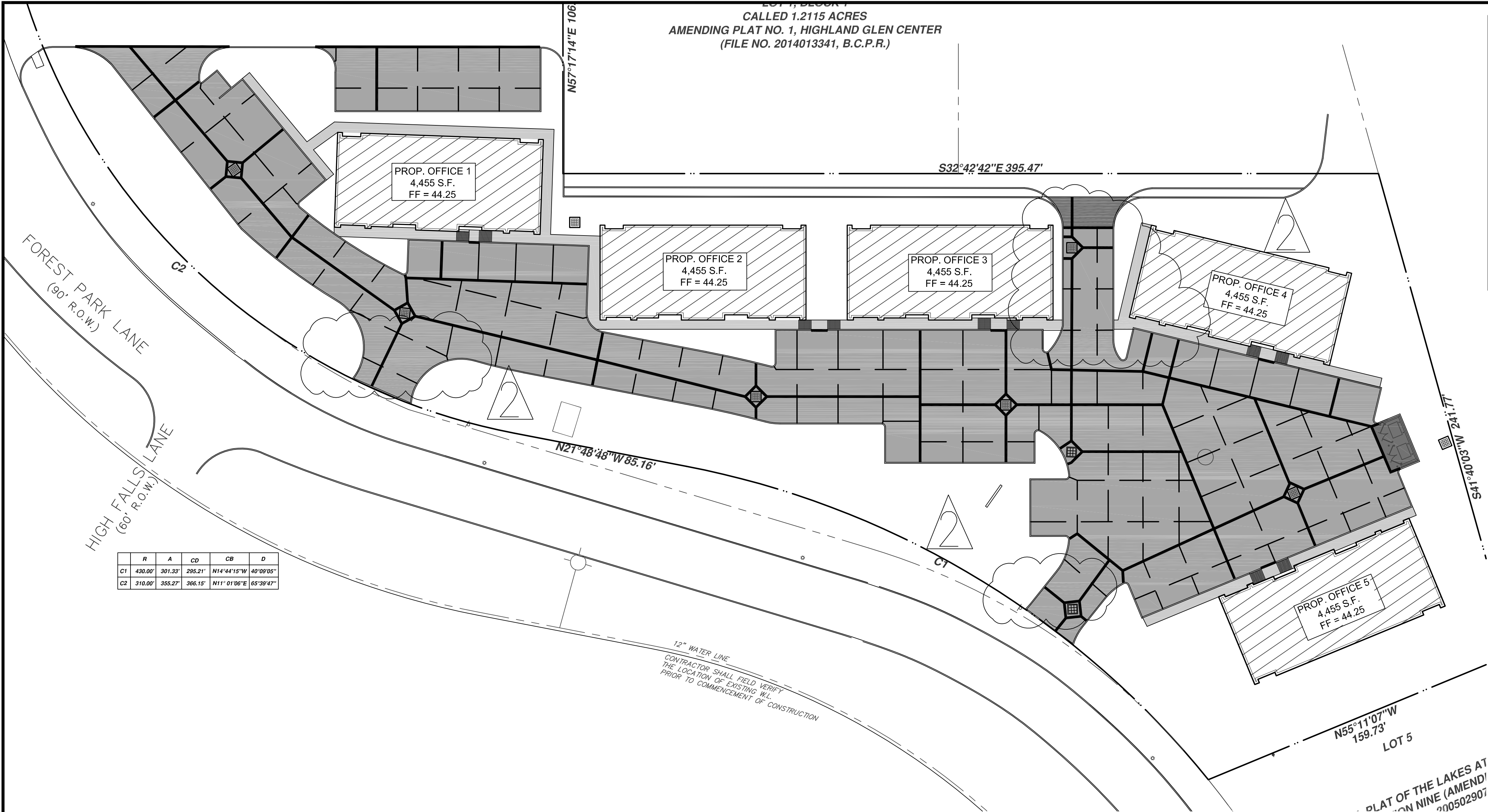
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PROJECT No 2286.12	SHEET No: C4.1



ADDED SEPARATE RPZ BFP	7.15.24
PAVEMENT REVISION	10.3.25



REVISIONS	ADDED SEPARATE RPZ BFP	7.15.24
1	PAVEMENT REVISION	10.3.25



LEGEND

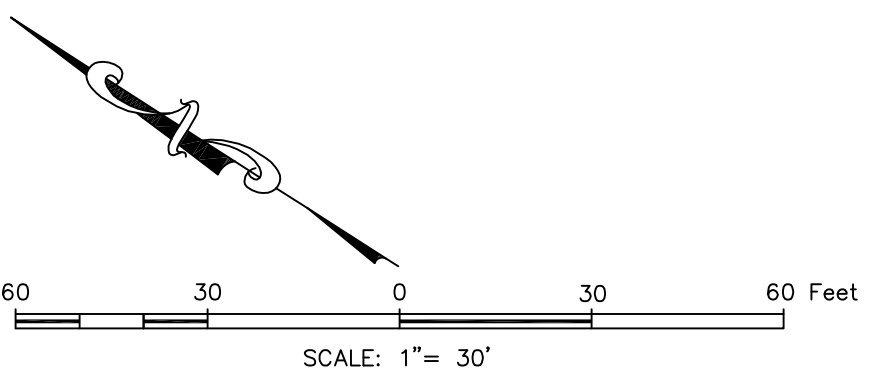
- EXPANSION JOINT
- CONTROL JOINT
- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED 6" CONCRETE PAVEMENT
- PROPOSED 7" CONCRETE PAVEMENT
- PROPOSED BUILDING SLAB

PLAN NOTES:

1. JOINTING LAYOUTS INDICATED ARE APPROXIMATE IN NATURE AND ARE INTENDED TO INDICATE THE ENGINEER'S RECOMMENDATION TO THE JOINTING OF THE PROPOSED PAVEMENT. THE JOINTING LAYOUT MAY BE REVISED BY CONTRACTOR TO SUIT HIS VARIED CONSTRUCTION NEEDS WITH THE APPROVAL OF THE ENGINEER AND OWNER.
2. EXPANSION JOINTS, CONTROL JOINTS AND CONSTRUCTION JOINTS ADJACENT TO A CURB SHOULD EXTEND INTO THE CURB.
3. JOINTS SHOULD TIE RADIAL TO ALL CURVES. THIS DRAWING MAY NOT INDICATE SUCH RADIAL TIES DUE TO THE SCALE OF THE DRAWING.
4. CONTRACTOR SHALL MATCH AND CONTINUE ANY EXPANSION JOINTS ALREADY EXISTING AT LOCATIONS WHERE PROPOSED PAVEMENT CONNECTS TO EXISTING PAVEMENT.
5. ALL CONTROL JOINTS MUST BE SAWCUT AND SEALED AS PER SPECIFICATIONS.
6. BLOCKOUTS ARE INDICATED LARGER THAN REQUIRED FOR CLARITY.

PAVING & GRADING CONSTRUCTION NOTES

1. SUBGRADE PREPARATION:
*STRIP PAVEMENT AREAS TO REMOVE ALL TOP SOIL, DEBRIS AND VEGETATION. REMOVE TREE STUMPS AND ROOTS.
*OVER-EXCAVATE SOFT AREAS AND REPLACE WITH SELECT FILL, FREE OF ORGANIC MATTER, WITH PLASTICITY INDEX OF 7 TO 20 AND A MINIMUM LIQUID LIMIT OF 28 PERCENT.
FILL SHALL BE PLACED IN SIX(6) TO EIGHT(8) INCH LOOSE LIFTS AND COMPACTED TO 95% OF STD. PROCTOR (ASTM D698-78) MAX. DRY DENSITY.
*STABILIZE SUBGRADE PER SOILS REPORT OR GEOTECHNICAL ENGINEERS RECOMMENDATION.
*PROOF-ROLL TO 95% OF STD. PROCTOR (ASTM D698-78) MAX. DRY DENSITY.
*COMPACT TO 95% OF STD. PROCTOR (ASTM D698-78) MAX. DRY DENSITY.
2. PROVIDE 6" THICK CONCRETE PAVEMENT, UNLESS NOTED OTHERWISE ON PLANS.
3. CONCRETE COMPRESSIVE STRENGTH = 3,500 PSI (5 SACK) @ 28 DAYS.
4. REINFORCEMENT: #4 @ 24" EA. WAY. ASTM A615 GRADE 60.
5. REINFORCEMENT SHALL BE SUPPORTED ON METAL OR PLASTIC CHAIRS, SPACED AT A MAXIMUM OF THREE (3) FEET EACH WAY.
6. PROVIDE EXPANSION JOINTS @ A MAXIMUM SPACING OF FORTY (40) FEET EACH WAY WITH CONSTRUCTION JOINT @ EVERY TWENTY (20) FEET. FORM JOINTS WITH METAL KEY.WAYS AND PROVIDE 3/4" SMOOTH DOWELS x 2'-0" @ 24" O.C., GREASE & WRAP ONE END.
7. RECOMMENDED PAVEMENT SLOPE TO DRAIN IS 0.50%, BUT IN NO INSTANCE LESS THAN 0.35% OR GREATER THAN 5%. U.N.O. ON PLANS.
8. EXCESS SOIL MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR & IS TO BE DISPOSED OFFSITE RESPONSIBLY AT NO EXTRA COST TO OWNER.



RSG ENGINEERING

13501 KATY FREEWAY
SUITE 3180
HOUSTON, TEXAS 77079
PH. 713-763-7777
TELE FIRM #: 15496

project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

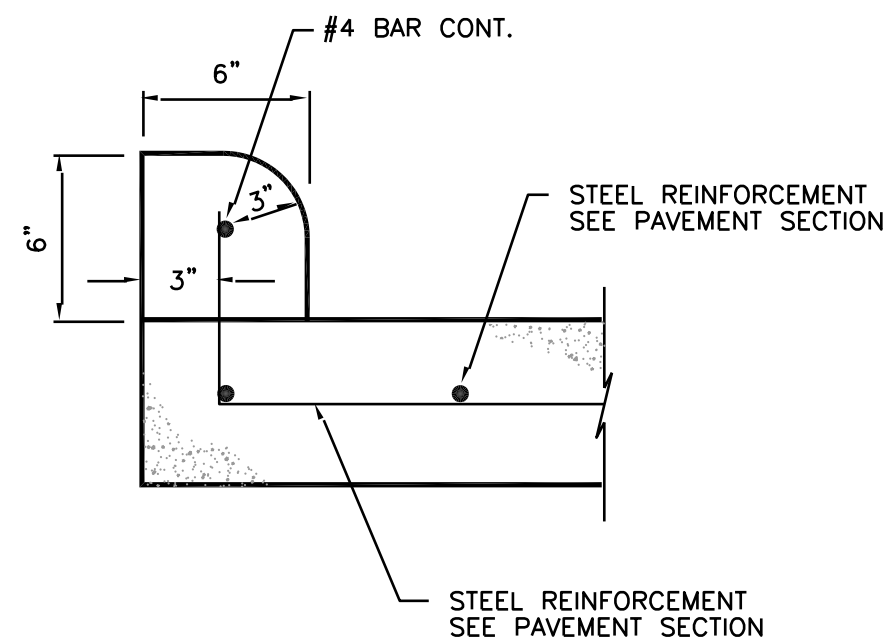
REVISIONS	ADDED SEPARATE RPZ BFP	7.15.24
	PAVEMENT REVISION	10.3.25

10.03.2025

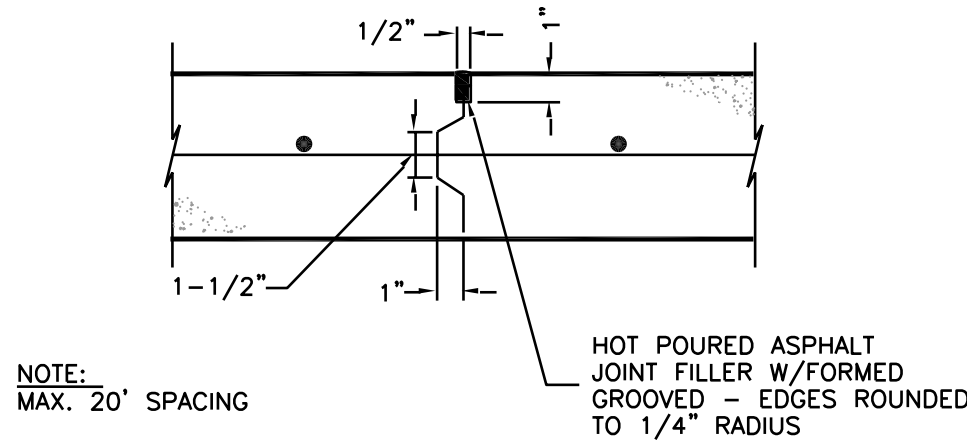
SITE PAVING PLAN

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CM	SNO

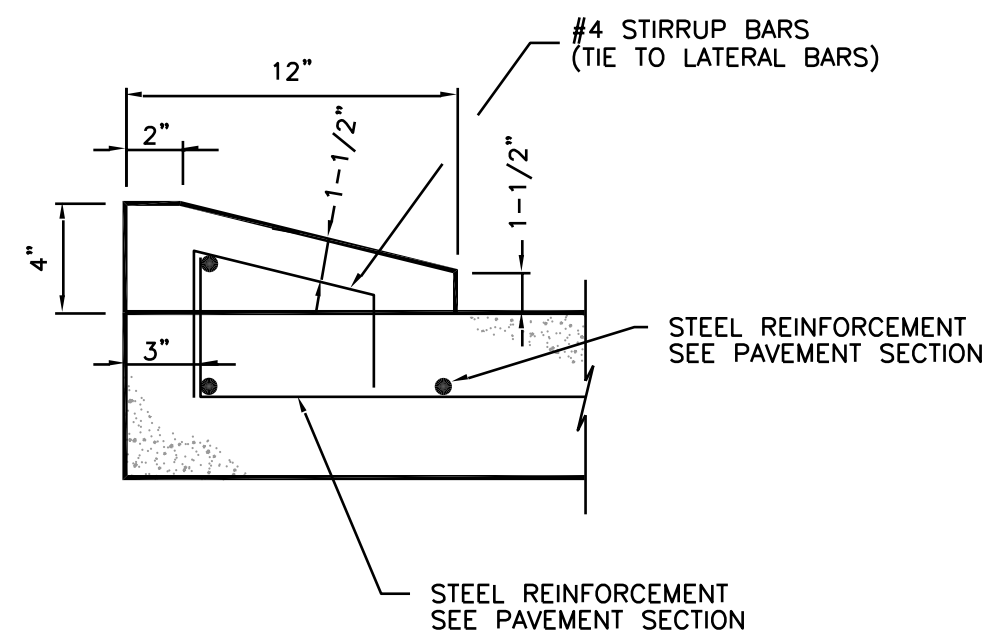
PROJECT No	SHEET No:
2286.12	C4.4



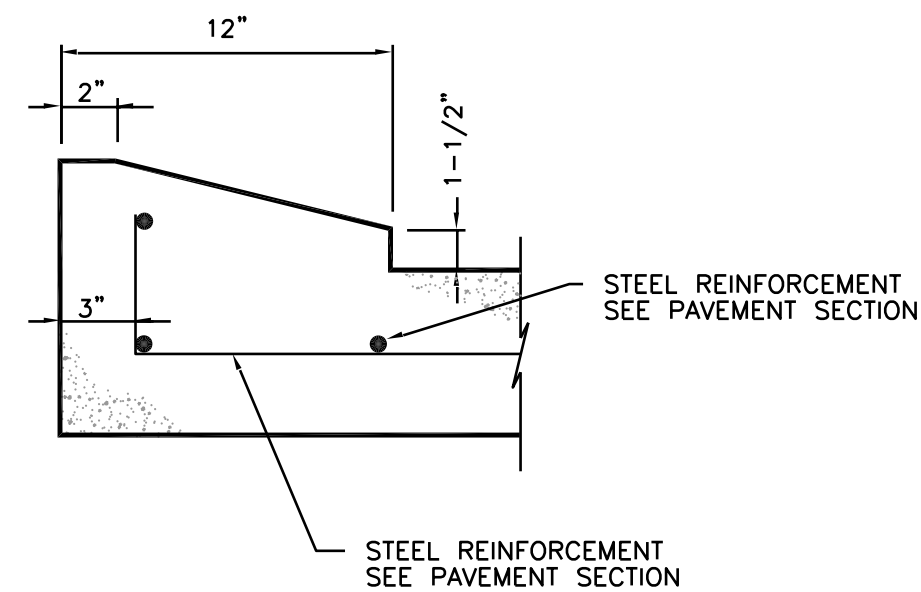
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2 **DETAIL - CONCRETE CURB**
SCALE: 1" = 0.5'



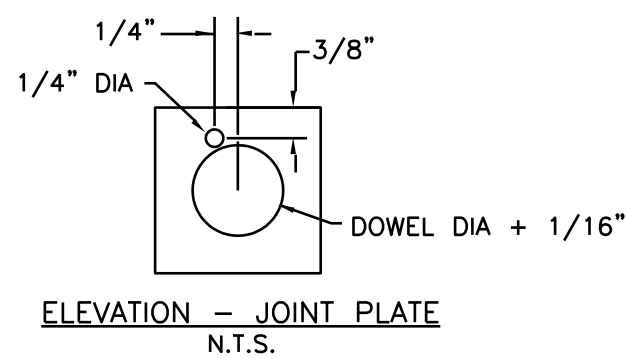
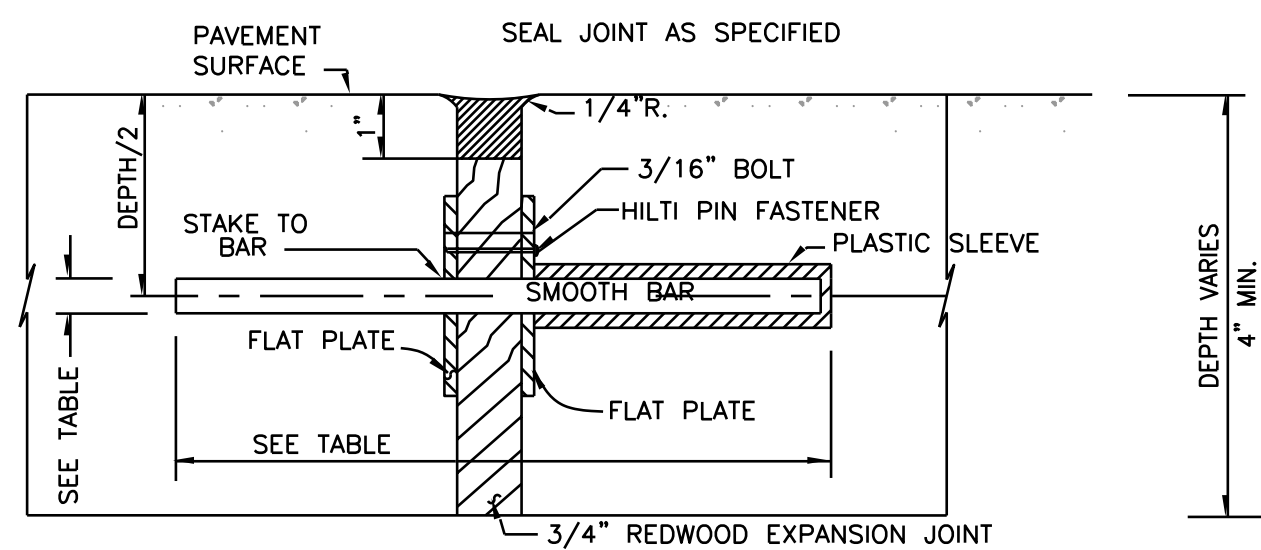
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2 **DETAIL - CONSTRUCTION JOINT**
SCALE: 1" = 0.5'



7
2 **DOWEL-ON MOUNTABLE CURB**
SCALE: 1" = 0.5'



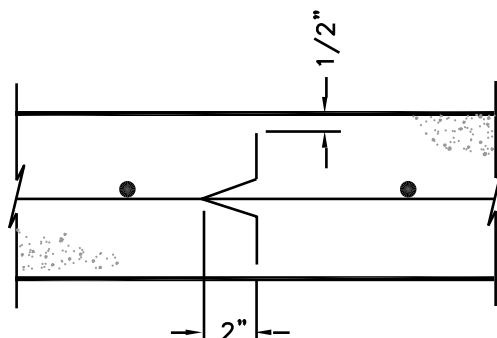
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2 **MONOLITHIC MOUNTABLE CURB**
SCALE: 1" = 0.5'



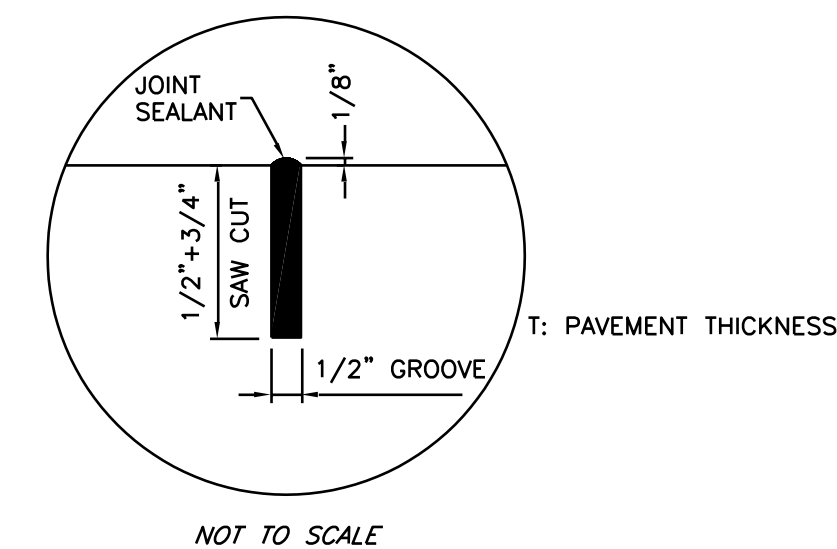
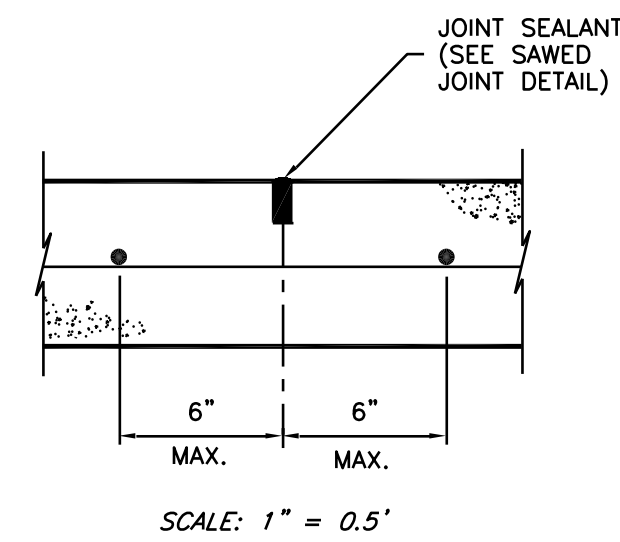
PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACING		
	DIA (IN)	LENGTH (IN)	SPACING (IN)
4 - 5	1/2	20	12
6	3/4	20	12
7 - 8	1	20	12
9 - 10	1-1/4	20	12

- NOTE:
1. STEEL TO MEET ASTM STANDARD SPECIFICATION FOR CONCRETE. REBAR UNIT TO BE 20" C.-C., AND 10" MIN., 20" MAX.
 2. MAX. 20' SPACING
 3. SPEED DOWEL EXPANSION ALLOWED.

2
2 **DETAIL - DOWEL TYPE EXPANSION JOINT**
N.T.S.



3
2 **DETAIL - DEFORMED METAL STRIP CONTROL JOINT**
SCALE: 1" = 0.5' (20' SPACING TYP.)



9
2 **SAW CUT CONTROL JOINT**

- NOTE:
1. WHILE TIEING INTO EXISTING PAVEMENT, MATCH EXISTING REBAR SIZE AND SPACING AND PAVEMENT THICKNESS.
 2. SAWING FOR CONTROL JOINTS SHALL BE COMPLETED WITHIN THE FIRST 6 TO 18 HOURS AFTER POURING THE CONCRETE PAVEMENT.
 3. EXTENSION/WIDENING OF EXISTING ROADWAY MUST MATCH EXISTING PAVEMENT DEPTH, SUBGRADE, AND REINFORCEMENT REQUIREMENTS

THIS DETAIL SHEET HAS BEEN PREPARED FOR USE ON STANDARD CITY OF PEARLAND PROJECTS. AN ENGINEER WHO INCORPORATES THE DETAILS ON THIS SHEET BECOMES RESPONSIBLE FOR ITS USE IN THE END PRODUCT IN ACCORDANCE WITH RULE 137.33 (b) AND (c) OF THE TEXAS STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS.



City of Pearland, Texas

STANDARD DETAILS

PAVING

Job No.:	Scale:	SHEET
Date: JAN 2020	HORZ: 1"=NONE VERT: 1"=NONE	2
Dwn By: PRP	CAD FILE:	OF 2
Chkd By: RS	COP- PAV2	

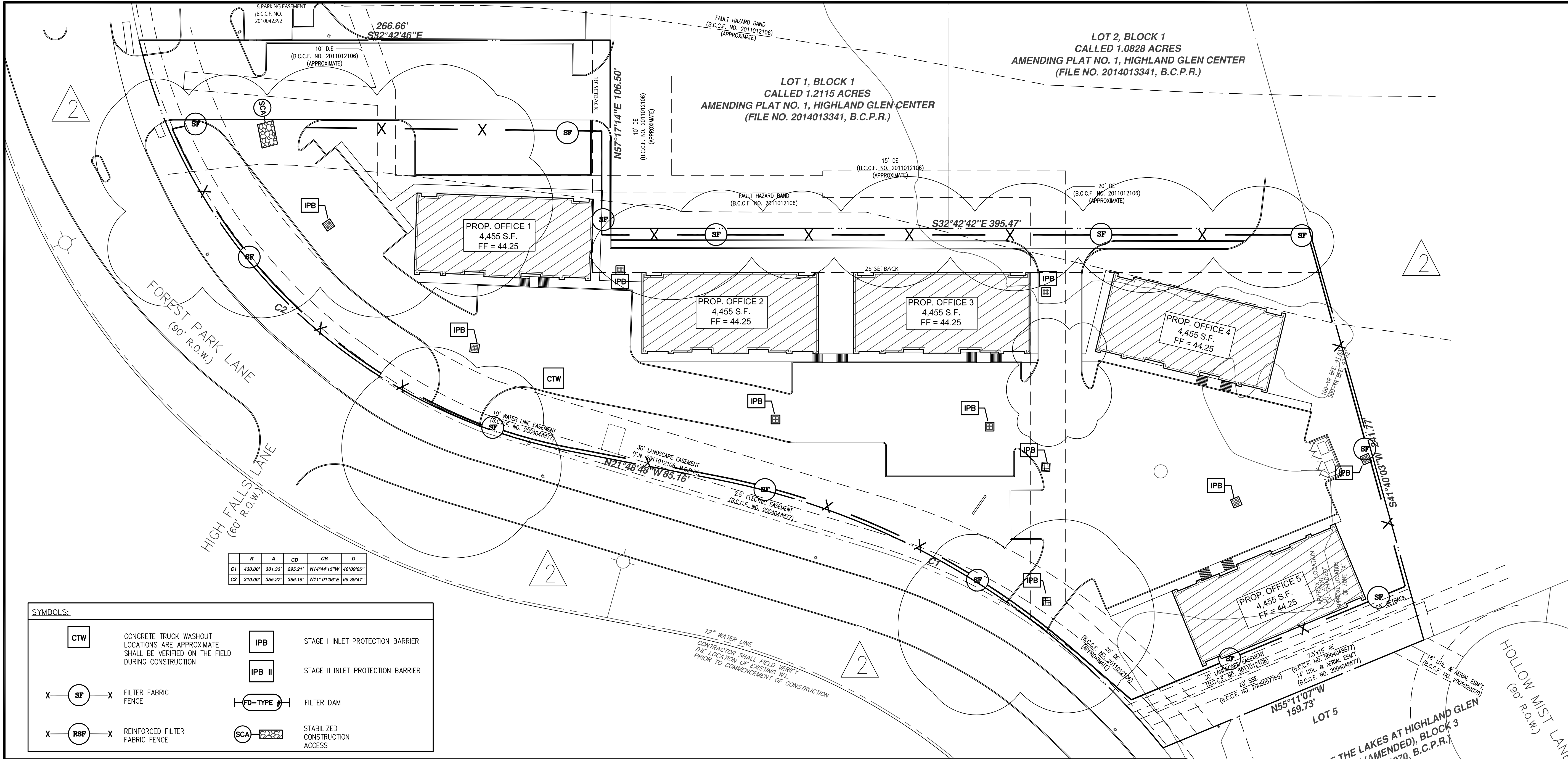
project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS		

01.24.2023

PAVING DETAILS

DRAWN BY:	CHECKED:
CM	SNO
PROJECT No	SHEET No:
2286.12	04.5



SYMBOLS:

CTW	CONCRETE TRUCK WASHOUT LOCATIONS ARE APPROXIMATE SHALL BE VERIFIED ON THE FIELD DURING CONSTRUCTION	IPB	STAGE I INLET PROTECTION BARRIER
X—SF—X	FILTER FABRIC FENCE	IPB II	STAGE II INLET PROTECTION BARRIER
X—RSF—X	REINFORCED FILTER FABRIC FENCE	FD-TYPE	FILTER DAM
		SCA	STABILIZED CONSTRUCTION ACCESS

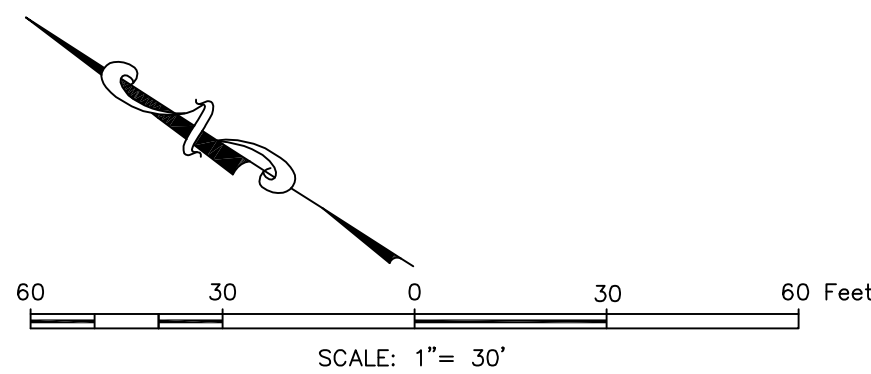
EROSION CONTROL SYSTEM NOTES :

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING BERMS, SILT FENCES, STRAW BALES, OR OTHER MEANS TO PREVENT EROSION FROM REACHING ADJACENT PROPERTY. IN THE EVENT THE PREVENTION MEASURES ARE NOT EFFECTIVE, THE CONTRACTOR SHALL REMOVE ANY EROSION DEBRIS AND RESTORE ADJACENT PROPERTY AND/ OR THE RIGHT-OF-WAY TO ORIGINAL OR BETTER CONDITION.
2. EROSION CONTROL FEATURES SHOWN ARE THE MINIMUM REQUIREMENTS ACCEPTABLE. PLACE ADDITIONAL EROSION CONTROL DEVICES AS RUNOFF AND DRAINAGE PATTERNS CHANGE DURING CONSTRUCTION TO PROHIBIT LOSS OF SOIL FROM THE SITE. A RERECORD OF REVISION FORM MUST BE COMPLETED WHEN EROSION CONTROL FEATURES ARE MODIFIED. RED-LINED REVISIONS OF SWPPP/ECP WILL BE NEEDED WITHIN 7 DAYS OF WHEN MODIFICATION NEEDS ARE IDENTIFIED.
3. MINIMIZE THE AMOUNT OF SURFACE AREA EXPOSED TO THE EXTENT PRACTICABLE.
4. LEAVE GRADED AREAS WITH A ROUGH TEXTURE TO PROMOTE INFILTRATION.
5. LIMIT UNNECESSARY TRAFFIC ON GRADED AREAS.
6. INSTALL SILT FENCES OR STRAW BALE DIKES ON DOWNSTREAM SLOPES FOR THE EXTENT OF THE CONSTRUCTION LIMITS PRIOR TO BEGINNING ANY GRADING OPERATIONS.
7. SILT FENCES:
 - A. INSTALL SILT FENCES AT LOCATIONS SHOWN GENERALLY ALONG THE CONTOUR OF DOWNSTREAM SLOPES.
 - B. INSTALL POSTS ANGLING SLIGHTLY UPSTREAM. SPACE POSTS AT 10 FEET IF WIRE FENCING IS TO BE USED TO SUPPORT FABRIC, OTHERWISE SPACE POSTS AT 6 FEET.
 - C. EXCAVATE 4 INCH BY 4 INCH TRENCH ON UPSTREAM SIDE, EMBED FABRIC 8 INCHES, BACKFILL TRENCH AND COMPACT.
 - D. FASTEN FABRIC (AND WIRE FENCE, IF USED) SECURELY TO POSTS.

STRAW BALE DIKES:

- A. INSTALL STRAW BALE DIKES AT LOCATION SHOWN GENERALLY ALONG THE CONTOUR OF DOWNSTREAM SLOPES.
 - B. INSTALL STRAW BALE DIKES AND DITCH CHECKS AS SHOWN.
 - C. EXCAVATE TO 4 INCH DEPTH, PLACE BALES FIRMLY AGAINST DOWNSTREAM FACE OF EXCAVATION AND BACKFILL UPSTREAM SIDE OF TRENCH TO 4 INCHES ABOVE EXISTING GROUND.
 - D. PLACE BALES FIRMLY ABUTTING DOWNSTREAM FACE OF EXCAVATION AND EACH OTHER.
 - E. ANCHOR EACH BALE WITH TWO STAKES. ANGLE FIRST STAKE TOWARDS PREVIOUSLY ANCHORED BALE TO FORCE BALES TOGETHER.
 - F. CHINK SPACES BETWEEN BALES WITH LOOSE STRAW.
 - G. STRAW BALES SHOULD BE REPLACED EVERY TWO MONTHS OR WHEN REQUIRED BY WET WEATHER
8. MAINTAIN EROSION CONTROL DEVICES IN GOOD CONDITION AT ALL TIMES. INSPECT FREQUENTLY AND AFTER EACH RAINFALL.
 9. REDISTRIBUTE ACCUMULATED SEDIMENT UPSTREAM OF DEVICES.
 10. EROSION CONTROL DEVICES SHALL BE REMOVED AFTER FINAL STABILIZATION IS ACHIEVED.
 11. PROPERLY DISPOSE OF SOLID WASTE, PAINTS, SOLVENTS, CLEANING COMPOUNDS, ETC.
 12. STORE CONSTRUCTION MATERIALS AWAY FROM LOW AREAS AND DRAINAGEWAYS.
 13. PROVIDE PORTABLE TOILETS AND PROPERLY DISPOSE OF SANITARY SEWAGE. PROVIDE MINIMUM 2 ADJACENT TO OFFICE TRAILER. CONSTRUCT CONTAINMENT BERMS AND USE DRIP PANS AT FUEL AND LIQUID STORAGE TANKS.

14. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A LINER UNDER ABOVE GROUND STORAGE TANKS. USE SILT FENCING, HAY BALES, OR BERMS AROUND FUEL STORAGE AREAS. (NO SEPARATE PAY)
15. FUEL AND MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET AWAY FROM STREAM BANKS AND WETLANDS. MATERIAL STORAGE AREAS SHALL BE LOCATED UNDER ROOF OR OTHER ENCLOSURE STRUCTURE. FUELING MUST BE ATTENDED BY PERSONNEL AT ALL TIMES TO REPORT ANY SPILLS.
16. CONTRACTOR WILL ADVISE OWNER IMMEDIATELY, VERBALLY, AND IN WRITING, OF ANY FUEL SPILLS ONTO THE PROJECT/ CONSTRUCTION AREA AND THE ACTIONS TAKEN TO REMEDY THE PROBLEM.
17. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
18. CONTRACTOR IS RESPONSIBLE FOR DISPOSING FUELS, MATERIALS, AND EXCAVATIONS IN A LEGALLY APPROVED MANNER.
19. CONTRACTOR IS TO INSPECT ALL STRUCTURAL CONTROLS SPECIFIED HEREIN, AT A MINIMUM, ONCE EVERY 7 CALENDAR DAYS OR WITHIN 24 HOURS AFTER EVERY STORM EVENT THAT MEETS OR EXCEEDS 0.5 INCHES/24 HOUR PERIOD.
20. CONTRACTOR WILL PROVIDE STORAGE AREAS FOR CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER POTENTIALLY TOXIC MATERIALS.
21. FILTER FABRIC (SILT FENCE) FLOWRATE WILL BE 30 GALLONS PER SQUARE FOOT PER MINUTE.
22. FILTER FABRIC WILL BE STAPLED OVER BOARDS ON ALL STAGE ONE STORM SEWER INLETS.



project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS	ADDED SEPARATE RPZ BFP	7.15.24		
	PAVEMENT REVISION	10.3.25		

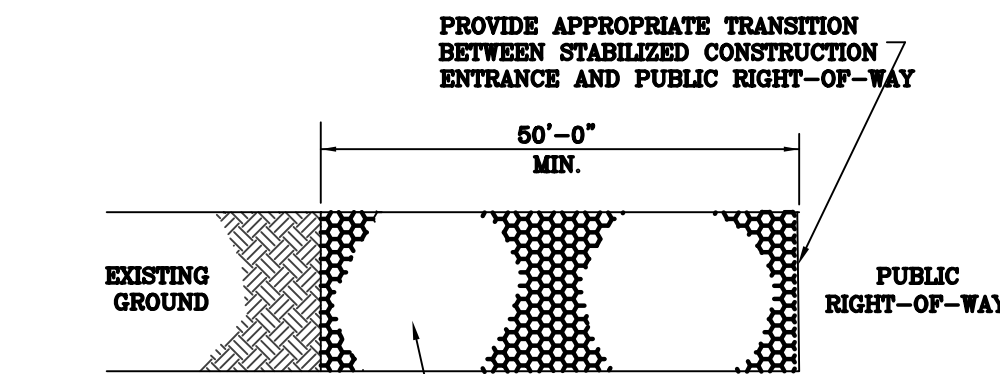
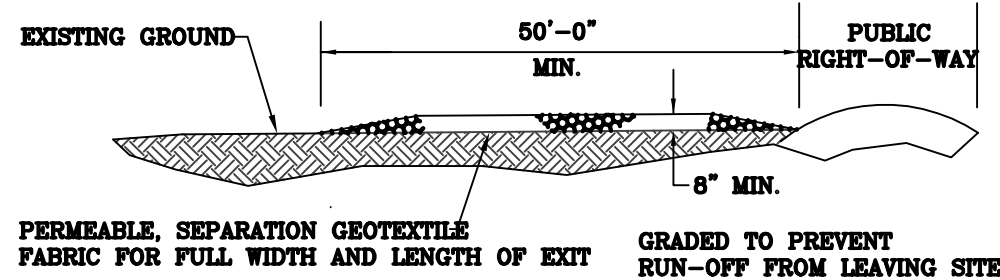
10.03.2025

SALIM NAZIH OBEIDI
118989
LICENSED PROFESSIONAL ENGINEER

STORM WATER
POLLUTION
PREVENTION
PLAN

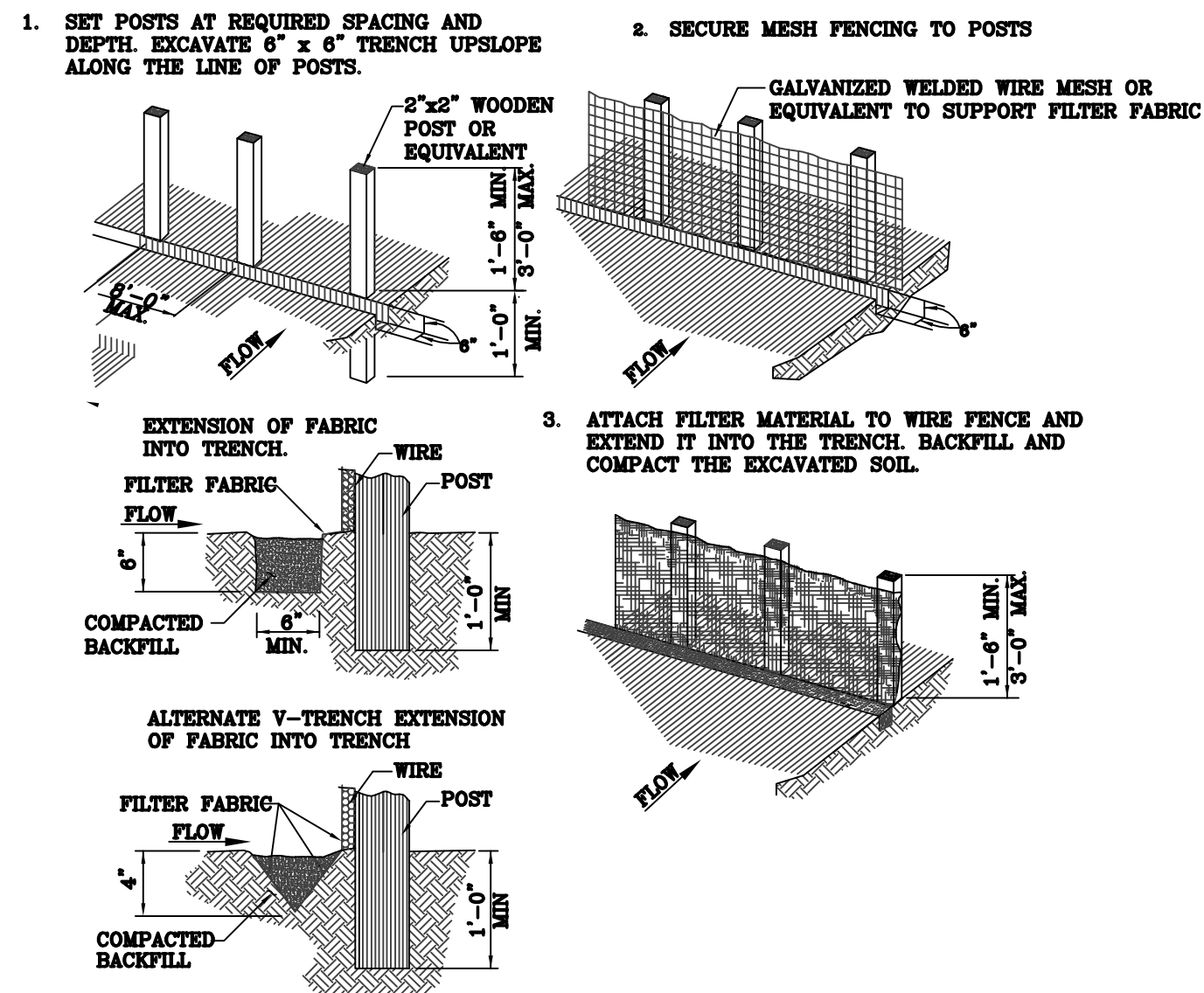
DRAWN BY: CM
PROJECT No: 2286.12

CHECKED: SNO
SHEET No: C5.1



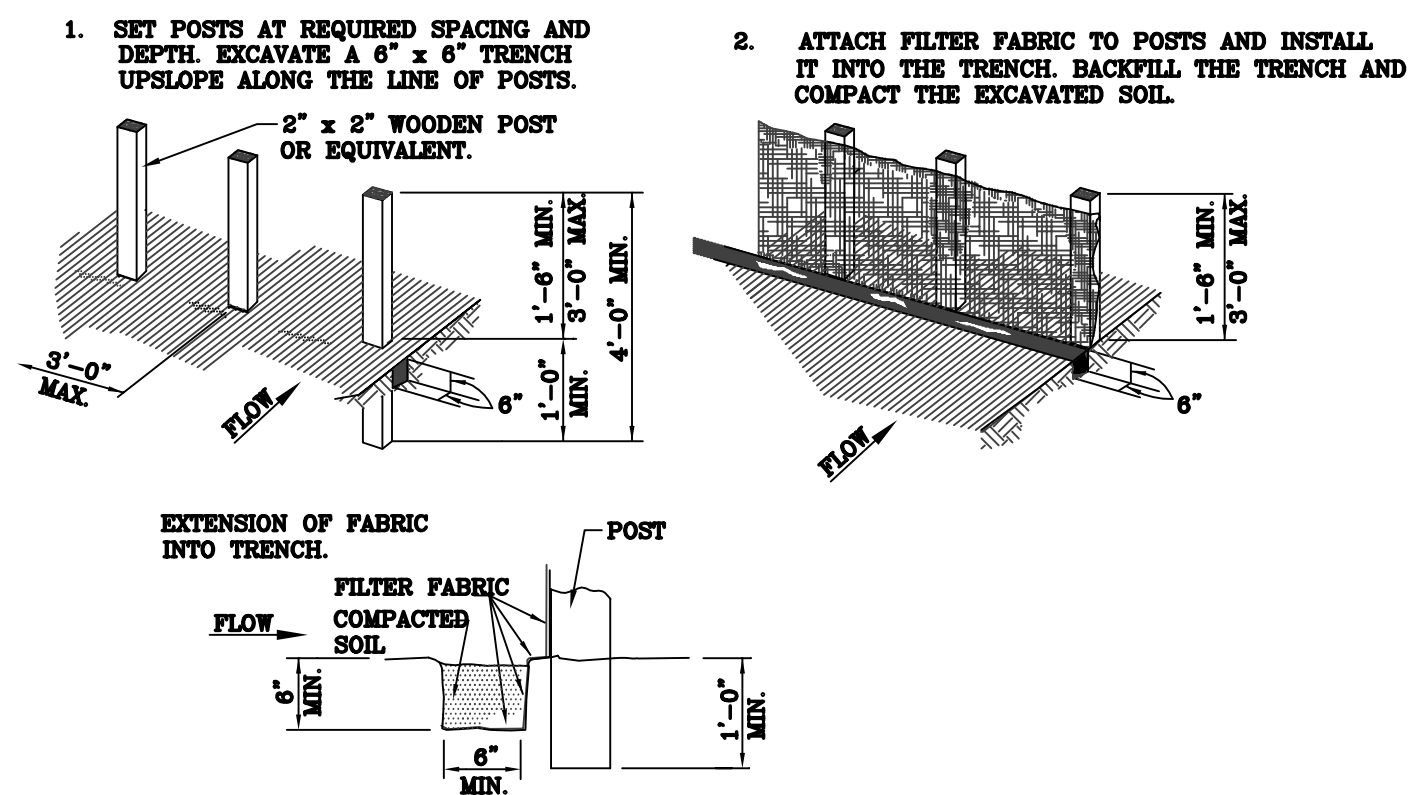
- COARSE AGGREGATE** - OPEN GRADED FROM 3" TO 6" (BROKEN CONCRETE IS NOT PERMITTED)
- GENERAL NOTES:**
1. MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
 2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
 3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
 4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
 5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
 6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
 7. ALTERNATIVE METHODS OF CONSTRUCTION MAY BE UTILIZED WHEN SHOWN ON PLANS OR WHEN APPROVED BY ENGINEER.
 8. MINIMUM 14' WIDTH FOR ONE WAY TRAFFIC AND 20' WIDTH FOR TWO WAY TRAFFIC.

STABILIZED CONSTRUCTION ACCESS/ EXIT



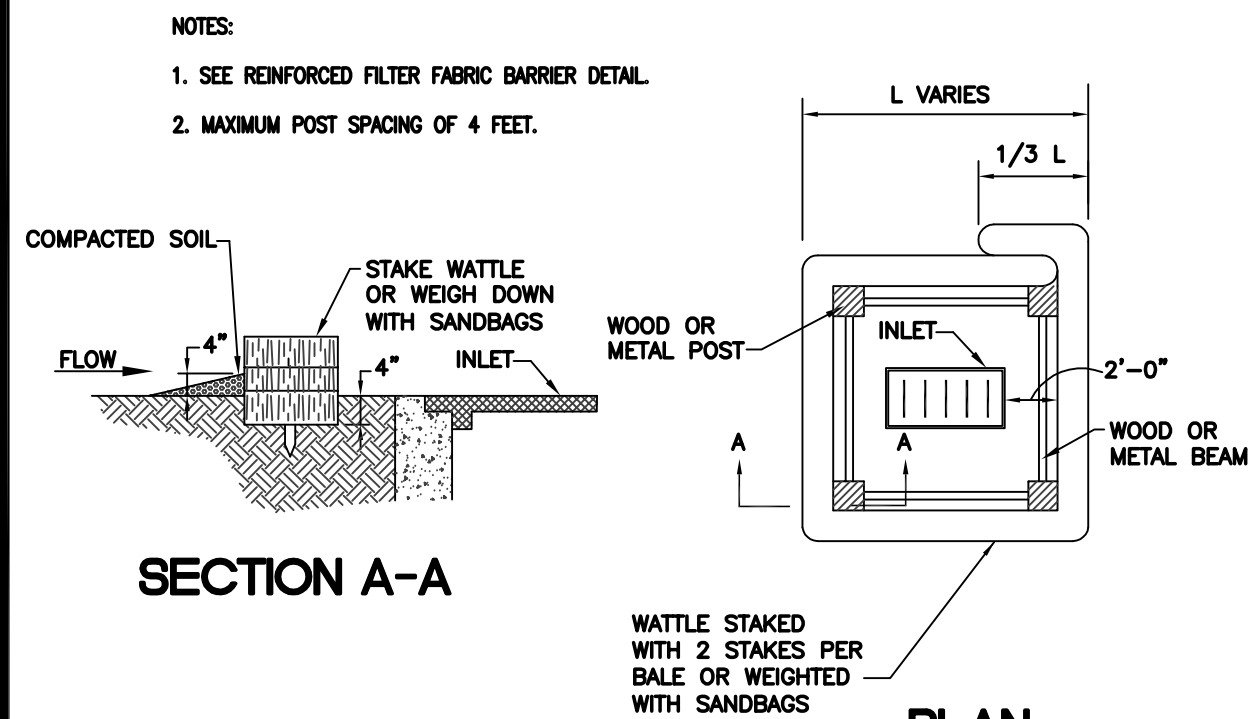
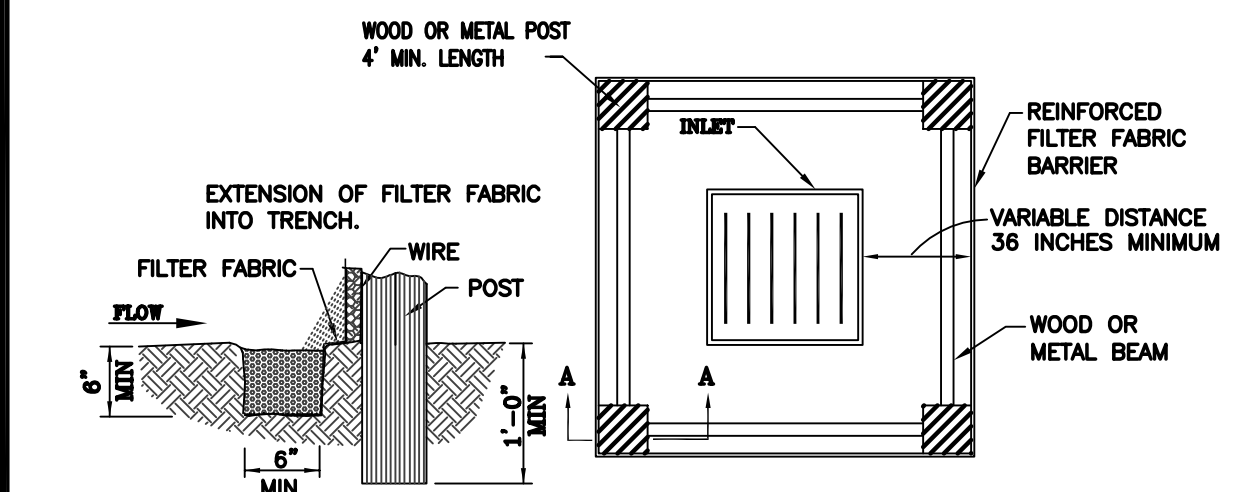
- GENERAL NOTES:**
1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
 2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
 3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
 4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH OR 6 INCHES WHICHEVER IS LESS.

REINFORCED FILTER FABRIC BARRIER

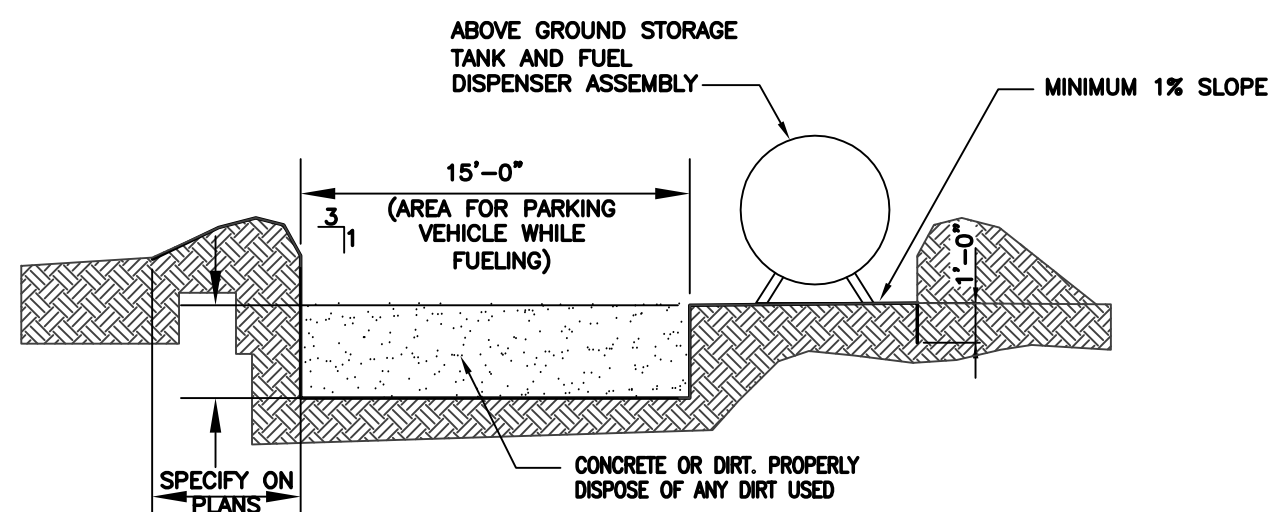


- GENERAL NOTES:**
1. SET POSTS AT 3- FEET MAXIMUM SPACING. IF FACTORY PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM.
 2. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT THE POST, FOLD TOGETHER, AND ATTACH TO THE POSTS.
 3. REMOVE SEDIMENT DEPOSITS WHEN SILT DEPTH REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE OR 6 INCHES WHICHEVER IS LESS.

FILTER FABRIC FENCE

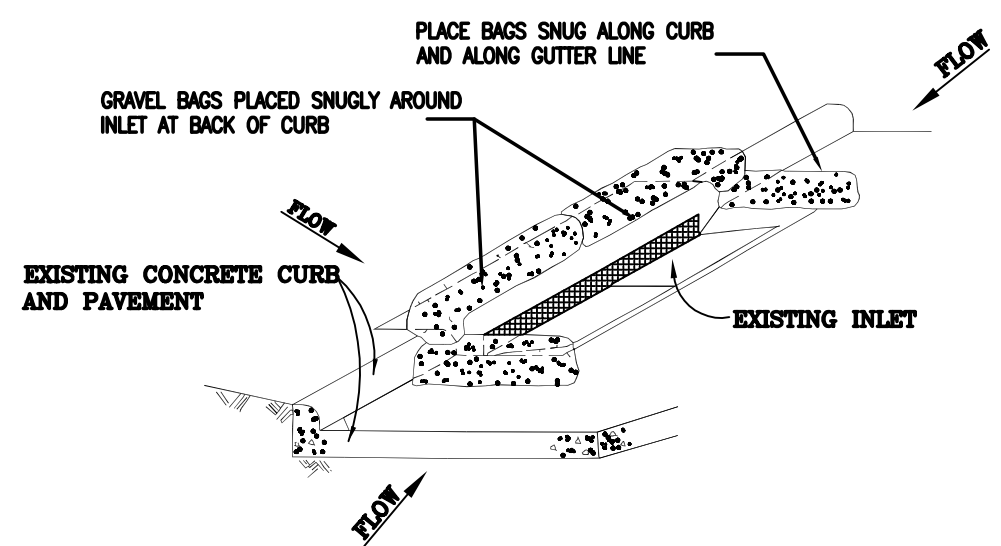


INLET PROTECTION BARRIERS FOR STAGE I INLETS



- GENERAL NOTES:**
1. THE SIZE OF TANK FOUNDATION AREA DEPENDS ON THE SIZE OF ABOVE GROUND STORAGE TANK AND DISPENSER ASSEMBLY.
 2. PROVIDE A MINIMUM OF 1 FOOT CLEARANCE TO THE EDGE OF THE CONCRETE CURB.
 3. PROVIDE A MINIMUM SLOPE OF 1 % TOWARD THE SLUMP PIT.
 4. INSTALL IMPERMEABLE LINER AS PER MANUFACTURER'S RECOMMENDATIONS.
 5. DO NOT PLACE TANK OR SKID DIRECTLY ON LINER

AREA GROUND TEMP. VEHICLE AND EQUIPMENT FUELING AREA WITH DOUBLE WALL TANK OR EQUIVALENT

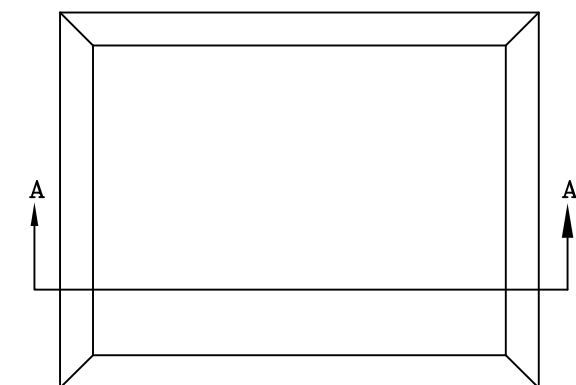


- GENERAL NOTES:**
1. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.
 2. GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE II INLETS



SECTION A-A



- GENERAL NOTES:**
1. POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.
 2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.
 3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASH OUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.
 4. CONCRETE WASH OUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
 5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

CONCRETE TRUCK WASHOUT AREA

PLEASE READ THE APPLICABLE COP SPECIFICATION SECTIONS FOR DETAILED INFORMATION.

THIS DETAIL SHEET HAS BEEN PREPARED FOR USE ON STANDARD CITY OF PEARLAND PROJECTS. AN ENGINEER WHO INCORPORATES THE DETAILS ON THIS SHEET BECOMES RESPONSIBLE FOR ITS USE IN THE END PRODUCT IN ACCORDANCE WITH RULE 137.33 (b) AND (c) OF THE TEXAS STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS.

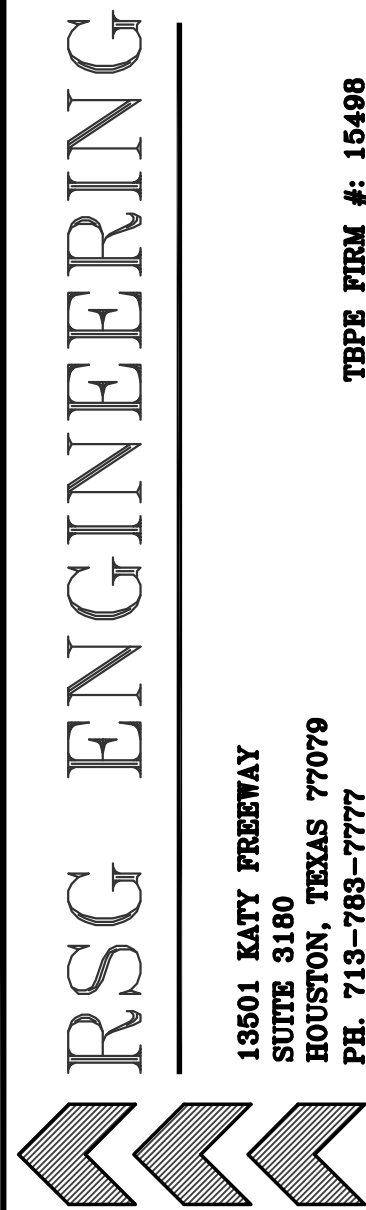


City of Pearland, Texas

STANDARD DETAILS

STORM WATER POLLUTION PREVENTION PLAN

Job No.:	Scale:	SHEET
Date: SEPT 2016	HORIZ: 1"= NONE	1
Dwn By:	VERT: 1"= NONE	OF 2
Chkd By: R. SHRESTHA	CAD FILE: CDP-SWPPP1	



project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

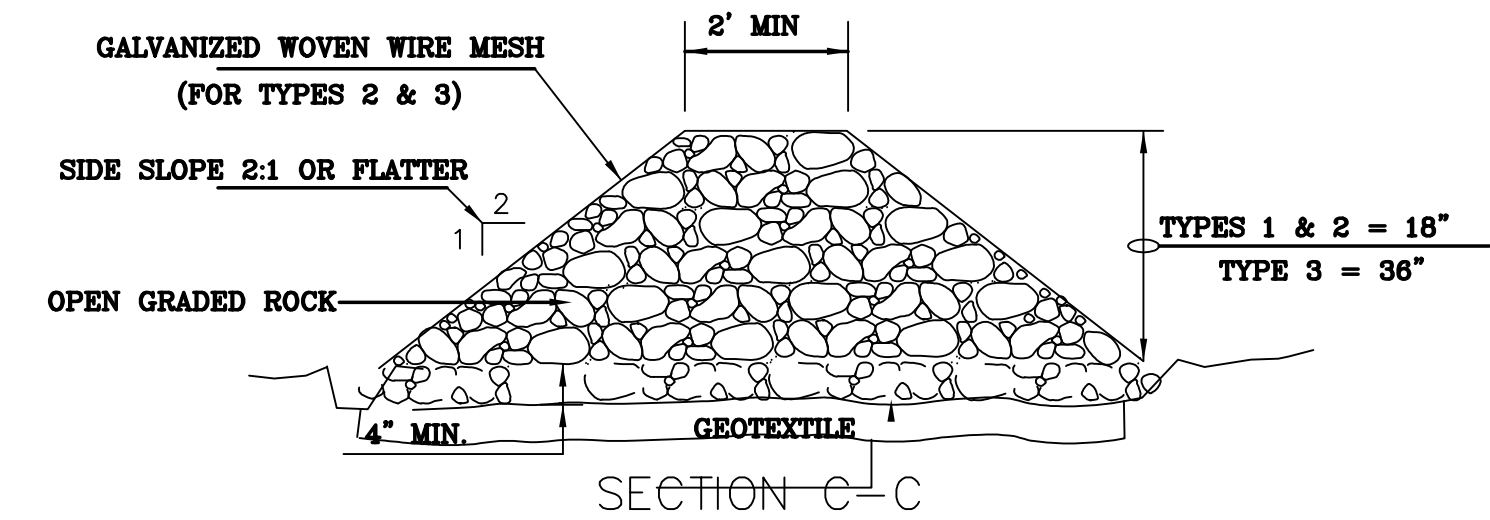
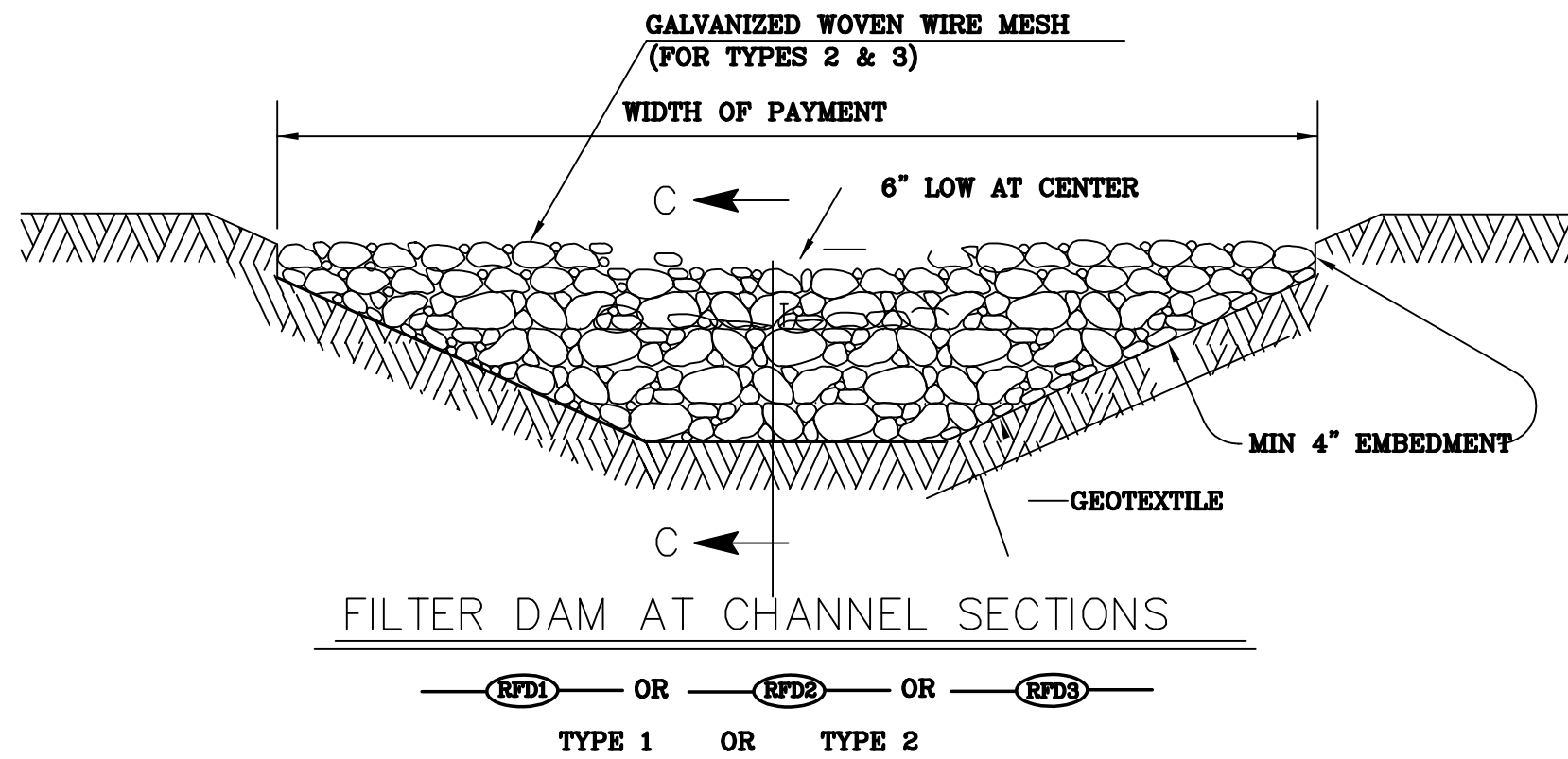
REVISIONS



SWPPP DETAILS

DRAWN BY:	CHECKED:
CM	SNO
PROJECT No	SHEET No:
2286.12	C5.2

TBPE FIRM #: 15498



ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND/OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THROUGH RATE OF 60 GPM/FT OF CROSS SECTIONAL AREA. A 3-YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18" HIGH WITH NO WIRE MESH): TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES, AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 4 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROX. 8 FT/SEC OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR DIRECTED BY THE ENGINEER.

TYPE 2 (18" HIGH WITH WIRE MESH): TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH): Type 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

ROCK FILTER DAM

NOTE: THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

PROJECT DESCRIPTION

TOTAL PROJECT AREA	
TOTAL AREA TO BE DISTURBED	
WEIGHTED RUNOFF COEFFICIENT AFTER CONSTRUCTION	
NAME OF RECEIVING WATER	

SOIL STABILIZATION PRACTICES

TEMPORARY SEEDING	
PERMANENT PLANTING, SODDING, OR SEEDING	
MULCHING	
SOIL RETENTION BLANKET	
BUFFER ZONE	
PRESERVATION OF NATURAL RESOURCES	

STRUCTURAL PRACTICES

SILT FENCES	
HAY BALES	
ROCK FILTER DAMS	
PIPE SLOPE DRAINS	
PAVED FLUMES	
CHANNEL LINERS	
SEDIMENT BASINS/ DETENTION PONDS	
ROCK BEDDING AT CONSTRUCTION EXIT	
CURBS AND GUTTERS	
VELOCITY CONTROL DEVICES	
EROSION CONTROL LOGS	

OFFSITE VEHICLE TRACKING

HAUL ROADS DAMPENED FOR DUST CONTROL	
LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN	
EXCESS DIRT ON ROAD REMOVED DAILY	
STABILIZED CONSTRUCTION ENTRANCE	

MAINTENANCE

ALL EROSION AND SEDIMENT CONTROL WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIRS NECESSARY IT WILL BE DONE AT THE EARLIEST DATE POSSIBLE, BUT NO LATER THAN 7 CALENDAR DAYS AFTER THE SURROUNDING EXPOSED GROUND HAS DRIED SUFFICIENTLY TO PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. THE AREA ADJACENT TO CREEKS AND DRAINAGE WAYS SHALL HAVE PRIORITY FOLLOWED BY DEVICES PROTECTING STORM SEWER INLETS.

INSPECTION

ALL INSPECTION WILL BE PERFORMED BY A XXX INSPECTOR EVERY SEVEN DAYS OR TWO WEEKS, AS WELL AS AFTER EVERY HALF-INCH OR MORE OF RAIN (AS RECOMMENDED ON A NON-FREEZING RAIN GAUGE TO BE LOCATED AT THE PROJECT SITE). AN INSPECTION AND MAINTENANCE REPORT SHOULD BE MADE FOR EACH INSPECTION. BASED ON THE INSPECTION RESULTS, THE CONTROLS SHALL BE REVISED ACCORDING TO THE INSPECTION REPORT.

WASTE MATERIALS

THE DUMPSTER USED TO STORE ALL WASTE MATERIAL WILL MEET ALL STATE AND THE CITY OF PEARLAND SOLID WASTE ORDINANCE. ALL TRASH AND CONSTRUCTION DEBRIS WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION AND THE TRASH WILL BE HAULED TO A LOCAL DUMP. NO CONSTRUCTION WASTE MATERIAL WILL BE BURIED ON SITE.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING)

IN THE EVENT OF A SPILL WHICH MAY BE CONSIDERED HAZARDOUS, THE CITY OF PEARLAND FIRE DEPARTMENT SHALL BE CONTACTED IMMEDIATELY AT 281-997-4650.

SANITARY WASTE

CONTRACTOR SHALL PROVE SANITARY WASTE FACILITIES IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS AND SPACING. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR OR FIRM AS NEEDED OR AS REQUIRED BY LOCAL REGULATIONS.

ADDITIONAL

DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE SEDIMENT THAT MAY ENTER RECEIVING WATERWAYS.

CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER WHICH MINIMIZES THE RUNOFF OF ALL POLLUTANTS.

ALL WATERWAYS SHALL BE CLEARED AS SOON AS PRACTICAL OF TEMPORARY EMBANKMENTS, TEMPORARY BRIDGES, MATTING, FALSEWORK, PILING, DEBRIS, AND OTHER OBSTRUCTIONS PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT PART OF THE FINISHED WORK.

THIS DETAIL SHEET HAS BEEN PREPARED FOR USE ON STANDARD CITY OF PEARLAND PROJECTS. AN ENGINEER WHO INCORPORATES THE DETAILS ON THIS SHEET BECOMES RESPONSIBLE FOR ITS USE IN THE END PRODUCT IN ACCORDANCE WITH RULE 137.33 (b) AND (c) OF THE TEXAS STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS.



City of Pearland, Texas

STANDARD DETAILS

STORM WATER POLLUTION PREVENTION PLAN

Job No.:	Scale:	SHEET
Date: SEPT 2016	HORIZ: 1" = NONE	VERT: 1" = NONE
Drawn By:	CAD FILE:	2
Checked By: R. SHRESTHA	CDP-SWPPP2	OF 2

RSG ENGINEERING

13601 KATY FREEWAY
SUITE 3180
HOUSTON, TEXAS 77079
PH. 713-783-7777

TBPE FIRM #: 15488

project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS



12.20.2022

SWPPP DETAILS

DRAWN BY: CM
CHECKED: SNO

PROJECT No: 2286.12
SHEET No: C5.3

LEGEND

	PROPERTY LINE
	STORM SEWER
	WASTEWATER (6" OR SMALLER-PVC SCH 40 8" OR LARGER-PVC SDR 35)
	WATER LINE
	FIRE HYDRANT (FH)
	GATE VALVE
	DOUBLE WATER LEADS
	SINGLE WATER LEAD
	DOUBLE SANITARY LEADS
	SINGLE SANITARY LEAD
	WASTEWATER MANHOLE
	STORM SEWER MANHOLE
	C.O. CLEAN-OUT
	C.O. INLINE CLEAN OUT
	PROPOSED WATER METER
	PIPELINE CROSSING
	EXIST.=FILLED PROP.=OPEN
	EXIST.=FILLED PROP.=OPEN

GENERAL NOTES: SITEWORK

(THESE NOTES CONTROL EXCEPT AS NOTED OTHERWISE IN PLANS & DETAILS)

- CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION OF PROPOSED FACILITIES. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY 48 HOURS PRIOR TO EXCAVATING NEAR THEIR UTILITY.
- CONTRACTOR SHALL TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF CONSTRUCTION OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

B. DOMESTIC WATER SYSTEM

- ALL WATER LINE MAINS SIZES 1 THRU 3 INCH SHALL BE PVC SCH 40. 1" AND 2" PUBLIC WATER LINES: CTS POLYETHYLENE TUBING SDR-9 (3" NOT PERMITTED)
- ALL WATER MAINS SIZES 4 THRU 12 INCH SHALL BE AWWA C-900 CLASS 150 DR-18.
- ALL WATER METERS SHALL BE FIRE RATED ACCORDING TO COP STANDARDS
- WATER LINE SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH COP SPECIFICATION FOR WATER MAIN CONSTRUCTION AS CURRENTLY AMENDED.
- WATER LINE SHALL HAVE BANK SAND BEDDING AND BACKFILL.
- PROVIDE THRUST BLOCKING ACCORDING TO COP STANDARDS & SPECIFICATIONS.
- PROVIDE A MINIMUM 6-INCHES OF CLEARANCE AT STORM SEWER AND WATER LINE CROSSING.

C. SANITARY SEWER SYSTEM

- POLY-VINYL-CHLORIDE (PVC) PIPE SHALL CONFORM TO ASTM SPECIFICATIONS D3034 AND BE INSTALLED ACCORDING TO ASTM D2321.
- ALL SANITARY SEWER SERVICE LINES SHALL BE CONSTRUCTED TO TRUE ALIGNMENT AND GRADE. WRAPPED AND SAGGING LINES WILL NOT BE PERMITTED.
- BUILDING TIE-ON CONNECTION WILL BE MADE DIRECTLY TO THE STUB-OUT FROM THE BUILDING PLUMBING AT THE FOUNDATION ON ALL WASTES OUTLETS.
- WATER-TIGHT ADAPTERS OF A TYPE COMPATIBLE WITH THE MATERIALS BEING JOINED WILL BE USED AT THE POINT OF CONNECTION OF THE SERVICE LINE TO THE BUILDING PLUMBING. NO CEMENT GROUT MATERIALS ARE PERMITTED.
- NO BENDS OR TURNS AT ANY POINT WILL BE GREATER THAN 45 DEGREES.
- EACH CLEANOUT WILL BE INSTALLED SO THAT IT OPENS IN A DIRECTION OPPOSITE TO THE FLOW OF THE WASTE AND, EXCEPT IN THE CASE OF "WYE" BRANCH AND END-OF-THE-LINE CLEANOUTS, CLEANOUTS WILL BE INSTALLED VERTICALLY ABOVE THE FLOW LINE OF THE PIPE.
- CLEANOUT WILL BE MADE WITH AIRTIGHT MECHANICAL PLUG.
- THE PHYSICAL CONNECTION TO THE DISTRICT'S SEWER MAIN WILL BE MADE BY USE OF AN ADAPTER OF A TYPE COMPATIBLE WITH MATERIALS BEING JOINED. THE CONNECTION SHALL BE WATERTIGHT. NO CEMENT GROUT MATERIALS ARE PERMITTED.
- BACKFILLING OF SERVICE LINES TRENCH MUST BE ACCOMPLISHED WITHIN TWENTY-FOUR (24) HOURS OF INSPECTION AND APPROVAL. NO DEBRIS WILL BE PERMITTED IN THE TRENCH.
- INLINE CLEAN OUTS SHALL BE INSTALLED AT EVERY 90° FEET.
- ALL SANITARY SEWER LINES 6" OR SMALLER SHALL BE PVC SCHEDULE 40. PIPE SIZES 8" OR LARGER SHALL BE PVC SDR 35.

SANITARY KEYED PLAN NOTES

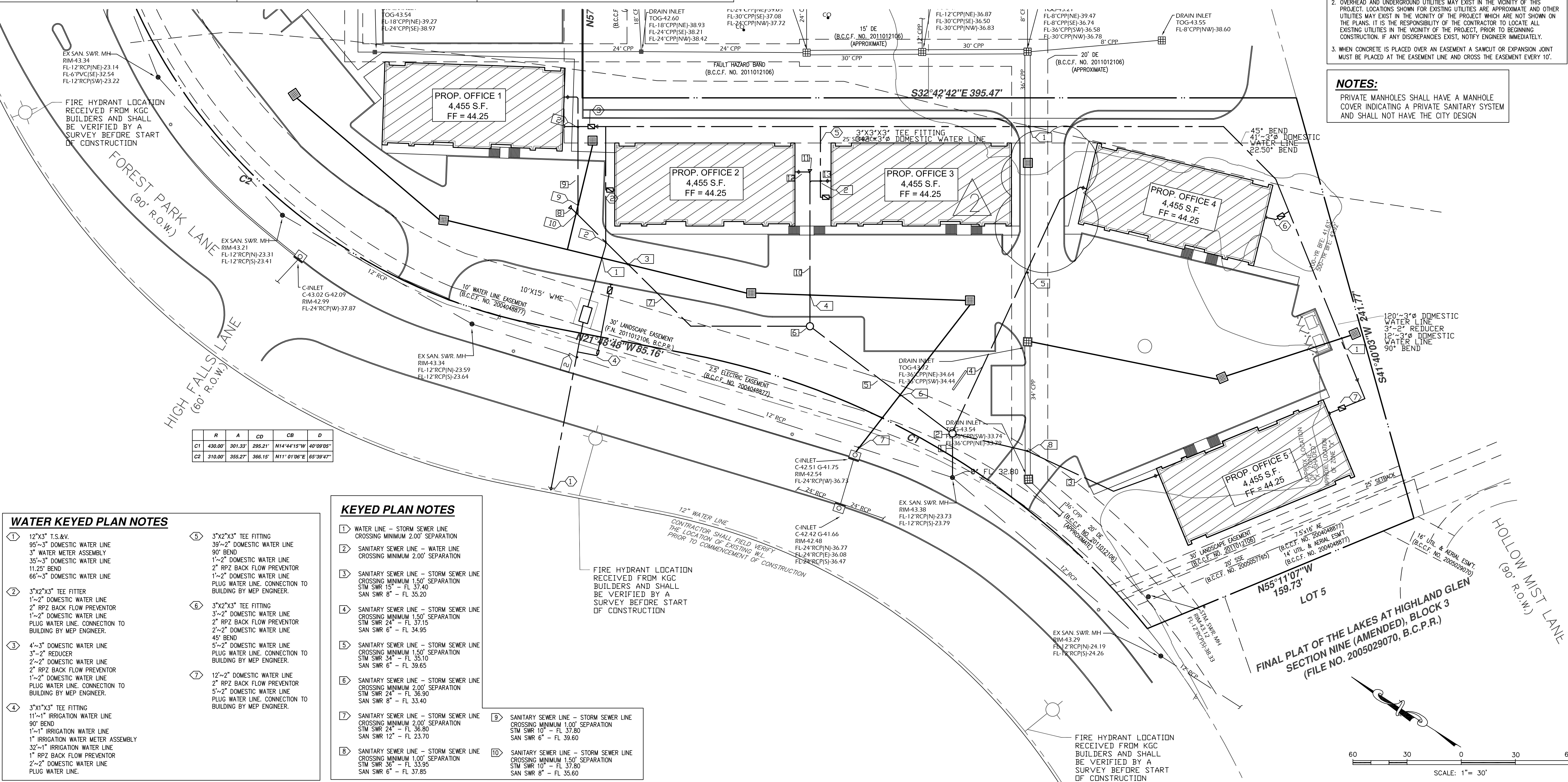
- 24"~8" PVC SDR-26 SANITARY SEWER @ 1.00%
- PROP. SANITARY SEWER MANHOLE
RIM 44.80
FL 33.05 (SW)
FL 37.40 (SE)
FL 33.05 (NW)
FL 38.65 (NE)
- 43"~6" SCH-40 SANITARY SEWER @ 1.00%
1125' BEND
53"~6" SCH-40 SANITARY SEWER @ 1.00%
45' BEND
25"~6" SCH-40 SANITARY SEWER @ 1.00%
PROP. SANITARY SEWER CLEANOUT
RIM 43.45
FL 38.60
2"~6" SCH-40 SANITARY SEWER @ 1.00%
PLUG SANITARY SEWER LINE
CONNECTION TO BUILDING WITH MEP ENGINEER
- 143"~6" SCH-40 SANITARY SEWER @ 1.00%
45' BEND
13"~6" SCH-40 SANITARY SEWER @ 1.00%
45' BEND
2"~6" SCH-40 SANITARY SEWER @ 1.00%
PROP. SANITARY SEWER CLEANOUT
RIM 43.45
FL 40.25
2"~6" SCH-40 SANITARY SEWER @ 1.00%
PLUG SANITARY SEWER LINE
CONNECTION TO BUILDING WITH MEP ENGINEER
- 99"~8" PVC SDR-26 SANITARY SEWER @ 1.00%
- PROP. SAN. SWR MANHOLE
RIM 43.00
FL 34.05 (NW)
FL 34.05 (S)
FL 34.75 (NE)
- 66"~8" PVC SDR-26 SANITARY SEWER @ 1.00%
45' BEND
93"~8" PVC SDR-26 SANITARY SEWER @ 1.00%
- PROP. SANITARY SEWER CLEANOUT
RIM 43.50
FL 35.65
- 45' TEE FITTING
1"~6" SCH-40 SAN. SWR @ 2.00%
45' BEND
65"~6" SCH-40 SAN. SWR @ 2.00%
PROPOSED SAN. SWR CLEANOUT
RIM 43.50
FL 40.25
2"~6" SCH-40 SAN. SEWER @ 2.00%
PLUG SANITARY SEWER LINE
CONNECTION TO BUILDING WITH MEP ENGINEER
- 45' TEE FITTING
1"~6" SCH-40 SAN. SWR @ 2.00%
45' BEND
9"~6" SCH-40 SAN. SWR @ 2.00%
PROPOSED SAN. SWR CLEANOUT
RIM 43.50
FL 40.25
2"~6" SCH-40 SAN. SEWER @ 2.00%
PLUG SANITARY SEWER LINE
CONNECTION TO BUILDING WITH MEP ENGINEER
- 86"~6" SCH-40 SAN. SEWER @ 1.00%
- PROPOSED SAN. SWR CLEANOUT
RIM 43.50
FL 35.65

NOTES:

- OWNER/CONTRACTOR SHALL REFER TO ARCHITECTURAL SITE PLAN FOR ALL DIMENSIONS, PAD LOCATIONS AND ALL OTHER SITE RELATED ITEMS.
- OVERHEAD AND UNDERGROUND UTILITIES MAY EXIST IN THE VICINITY OF THIS PROJECT. LOCATIONS SHOWN FOR EXISTING UTILITIES ARE APPROXIMATE AND OTHER UTILITIES MAY EXIST IN THE VICINITY OF THE PROJECT WHICH ARE NOT SHOWN ON THE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES IN THE VICINITY OF THE PROJECT, PRIOR TO BEGINNING CONSTRUCTION. IF ANY DISCREPANCIES EXIST, NOTIFY ENGINEER IMMEDIATELY.
- WHEN CONCRETE IS PLACED OVER AN EASEMENT A SAWCUT OR EXPANSION JOINT MUST BE PLACED AT THE EASEMENT LINE AND CROSS THE EASEMENT EVERY 10'.

NOTES:

PRIVATE MANHOLES SHALL HAVE A MANHOLE COVER INDICATING A PRIVATE SANITARY SYSTEM AND SHALL NOT HAVE THE CITY DESIGN



WATER KEYED PLAN NOTES

- 12"x3" T.S.&V.
95"~3" DOMESTIC WATER LINE
3" WATER METER ASSEMBLY
35"~3" DOMESTIC WATER LINE
1125' BEND
66"~3" DOMESTIC WATER LINE
- 3"x2"x3" TEE FITTER
1"~2" DOMESTIC WATER LINE
2" RPZ BACK FLOW PREVENTOR
1"~2" DOMESTIC WATER LINE
PLUG WATER LINE. CONNECTION TO BUILDING BY MEP ENGINEER.
- 4"~3" DOMESTIC WATER LINE
3"~2" REDUCER
2"~2" DOMESTIC WATER LINE
2" RPZ BACK FLOW PREVENTOR
1"~2" DOMESTIC WATER LINE
PLUG WATER LINE. CONNECTION TO BUILDING BY MEP ENGINEER.
- 3"x1"x3" TEE FITTING
11"~1" IRRIGATION WATER LINE
90' BEND
1"~1" IRRIGATION WATER LINE
1" IRRIGATION WATER METER ASSEMBLY
32"~1" IRRIGATION WATER LINE
1" RPZ BACK FLOW PREVENTOR
2"~2" DOMESTIC WATER LINE
PLUG WATER LINE.
- 3"x2"x3" TEE FITTING
39"~2" DOMESTIC WATER LINE
90' BEND
1"~2" DOMESTIC WATER LINE
2" RPZ BACK FLOW PREVENTOR
1"~2" DOMESTIC WATER LINE
PLUG WATER LINE. CONNECTION TO BUILDING BY MEP ENGINEER.
- 3"x2"x3" TEE FITTING
3"~2" DOMESTIC WATER LINE
2" RPZ BACK FLOW PREVENTOR
2"~2" DOMESTIC WATER LINE
45' BEND
5"~2" DOMESTIC WATER LINE
PLUG WATER LINE. CONNECTION TO BUILDING BY MEP ENGINEER.
- 12"~2" DOMESTIC WATER LINE
2" RPZ BACK FLOW PREVENTOR
5"~2" DOMESTIC WATER LINE
PLUG WATER LINE. CONNECTION TO BUILDING BY MEP ENGINEER.

KEYED PLAN NOTES

- WATER LINE - STORM SEWER LINE
CROSSING MINIMUM 2.00' SEPARATION
- SANITARY SEWER LINE - WATER LINE
CROSSING MINIMUM 2.00' SEPARATION
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 1.50' SEPARATION
STM SWR 15" - FL 37.40
SAN SWR 8" - FL 35.20
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 1.50' SEPARATION
STM SWR 24" - FL 37.15
SAN SWR 6" - FL 34.95
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 1.50' SEPARATION
STM SWR 34" - FL 35.10
SAN SWR 6" - FL 39.65
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 2.00' SEPARATION
STM SWR 24" - FL 36.30
SAN SWR 6" - FL 33.40
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 2.00' SEPARATION
STM SWR 24" - FL 36.30
SAN SWR 12" - FL 23.70
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 1.50' SEPARATION
STM SWR 36" - FL 33.95
SAN SWR 6" - FL 37.85
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 1.00' SEPARATION
STM SWR 10" - FL 37.80
SAN SWR 6" - FL 39.60
- SANITARY SEWER LINE - STORM SEWER LINE
CROSSING MINIMUM 1.50' SEPARATION
STM SWR 10" - FL 37.80
SAN SWR 8" - FL 35.60

RSG ENGINEERING

13501 KATY FREEWAY
SUITE 3180
HOUSTON, TEXAS 77079
PH. 713-763-7777

project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS	DATE	BY	DESCRIPTION
1	7.15.24		ADDED SEPARATE RPZ BFP
2	10.3.25		PAVEMENT REVISION

10.03.2025

SALIM NAZIH OBEIDI
118989
PROFESSIONAL ENGINEER

SITE UTILITIES PLAN

DRAWN BY: CM	CHECKED: SNO
PROJECT No 2286.12	SHEET No: C6.1

GENERAL CONSTRUCTION NOTES;

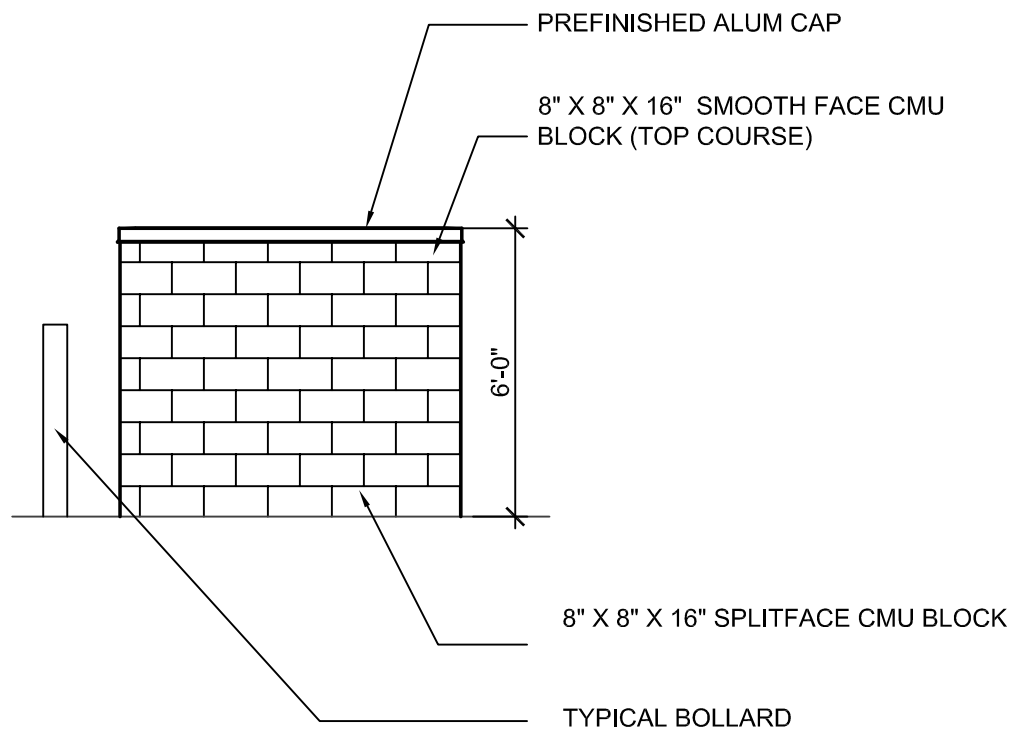
- UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATERLINE AND APPURTENANCES, WASTEWATER, STORM WATER LINES, PAVING, SIDEWALKS AND TRAFFIC CONTROL DEVICES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF PEARLAND STANDARD AT NO ADDITIONAL COST.
- CONTRACTOR SHALL ADEQUATELY PROTECT EXISTING STRUCTURES, UTILITIES, TREES, SHRUBS, AND PERMANENT OBJECTS WHICH ARE NOT SCHEDULED TO BE REMOVED AS A PART OF THIS PROJECT. PRIOR TO THE REMOVAL OF ANY TREES A CLEAR AND GRUB PERMIT MUST BE OBTAINED FROM THE URBAN FORESTER 281.652.1983.
- THE CONTRACTOR SHALL NOT DUMP ANY DIRT OR OTHER MATERIALS ONTO A PROPERTY OUTSIDE OF THE BOUNDARY OF THE PERMITTED PROJECT AND WITHIN THE CITY OF PEARLAND CITY LIMITS WITHOUT A VALID DEVELOPMENT/GRADING PERMIT. IF SUCH DUMPING OCCURS WITHOUT A VALID PERMIT, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE REMOVAL OF ANY DISCARDED DIRT OR OTHER MATERIALS TO AN APPROVED LOCATION AT THE CONTRACTOR EXPENSE.
- ON SITE MECHANICAL SWEEPERS (ROAD BROOM) IS REQUIRED FOR THE PROJECTS HAULING DIRT TO AND FROM THE SITE IN EXCESS OF 70 CUBIC YARDS PER DAY.
- ALL PAVEMENT TO BE REMOVED, INCLUDING CONCRETE DRIVEWAYS AND SIDEWALKS, THE PAVEMENT SHALL BE SAWCUT TO FULL DEPTH PRIOR TO REMOVAL.
- ALL WORK WITHIN CITY OF PEARLAND RIGHTS-OF-WAY OR PUBLIC EASEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF PEARLAND SPECIFICATIONS, ACCEPTED STANDARDS AND APPROVED DETAILS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND UNDERSTANDING ALL RELEVANT INFORMATION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT THE CITY OF PEARLAND CHIEF ENGINEERING INSPECTOR AT 281.851.2314 TO EITHER SCHEDULE OR NOTIFY HIM OF A PREVIOUSLY SCHEDULED PRE-CONSTRUCTION MEETING. THE PRE-CONSTRUCTION MEETING SHALL BE HELD A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DAMAGE TO DITCH OR STRUCTURES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITION OR BETTER.
- CONSTRUCTION SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION, ALL WORKS, SERVICES, AND LABOR SHALL CONFORM TO THE RULES AND REGULATIONS OF THE CITY OF PEARLAND.
- THE CONTRACTOR SHALL NOTIFY THE LOCAL AUTHORITY OR GOVERNING AGENCY OF THE BEGINNING DATE OF CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT NO WORK IS DONE WITHOUT THE PROPER INSPECTIONS AND PERMITS BY THE LOCAL AUTHORITY OR GOVERNING AGENCY.
- THE CONTRACTOR SHALL VERIFY THE DIMENSIONS SHOWN ON THE CONSTRUCTION PLANS WITH THOSE MEASURED IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS UNLESS NOTIFIED TO OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING AND PROTECTING ALL MATERIALS AND EQUIPMENT STORED ON THE JOB SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STORAGE OF MATERIALS IN A SAFE AND GOOD WORKMANLIKE MANNER TO PREVENT INJURIES, DURING AND AFTER WORKING HOURS, UNTIL PROJECT COMPLETION.
- AT THE END OF ALL CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL RESTORE THE EXISTING FACILITIES, IE THE PROPERTY, EQUAL TO OR GREATER THAN EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. ALL AREAS DISTURBED ALONG THE SITE SHALL BY HYDROMULCHED SEEDED IN ACCORDANCE WITH SPECIFICATION UNLESS OTHERWISE NOTED.
- MINIMIZE AND CONTROL SPREADING OF DUST AND FLYING PARTICLES, AS REQUIRED BY GOVERNING REGULATIONS. USE TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS SUCH AS WATERING TO PREVENT THE SPREAD OF DUST, DIRT, AND DEBRIS.
- ALL WORKS SHALL BE CONDUCTED WITHIN THE RIGHT-OF-WAY AND/ OR EASEMENTS SHOWN UNLESS OTHERWISE APPROVED BY THE OWNER OR ENGINEER.
- NO EXCAVATION AREA SHALL BE LEFT OPEN DURING NON-WORKING HOURS. ALL UNATTENDED EXCAVATION OVER 2 FEET IN DEPTH SHALL BE PROTECTED BY BRIGHT ORANGE SAFETY FENCING DURING NORMAL WORKING HOURS AND COVERED SECURELY IF LEFT OPEN AFTER HOURS.
- THE CONTRACTOR IS NOT AUTHORIZED TO OPERATE WATER/SANITARY INFRASTRUCTURE UTILITIES, OWNED OR OPERATED BY THE CITY OF PEARLAND. CONTRACTOR SHALL CONTACT THE CITY OF PEARLAND PUBLIC WORKS DEPARTMENT TO REQUEST CITY OF PEARLAND PUBLIC WORKS AUTHORIZED PERSONNEL TO PERFORM ALL UTILITY OPERATIONS.
- THE CONTRACTOR SHALL NOT OBTAIN WATER FROM THE CITY OF PEARLAND FIRE HYDRANTS OR OTHER SOURCES FROM THE DISTRIBUTION SYSTEM WITHOUT PRIOR PERMISSION. CONTRACTOR MAY OBTAIN WATER FROM THE CITY OF PEARLAND PUBLIC WORKS SERVICE CENTER AT THE LOCATION DESIGNATED BY THE OWNER.
- CONTRACTOR SHALL MAINTAIN ACCESS TO RESIDENTIAL AND COMMERCIAL PROPERTIES ADJACENT TO THE WORK AREA AT ALL TIMES.
- THE CONTRACTOR SHALL OBTAIN APPROVAL ON INGRESS/EGRESS ROUTES, HAULING ROUTES, ETC. FROM THE CITY AND BRAZORIA COUNTY.
- THE WORK AREA SHALL BE BARRICADED AND ILLUMINATED DURING DARKNESS AND PERIOD OF INACTIVITY, WHEN IN AN AREA DIRECT PUBLIC ACCESS, AND AS DIRECTED BY THE CITY.
- THE LOADING AND UNLOADING OF ALL PIPE, VALVES, FIRE HYDRANTS, MANHOLES AND OTHER ACCESSORIES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICES AND SHALL AT ALL TIMES BE PERFORMED WITH CARE TO AVOID ANY DAMAGE TO THE MATERIAL. THE CONTRACTOR SHALL LOCATE AND PROVIDE THE NECESSARY STORAGE AREAS FOR THE MATERIALS AND EQUIPMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHIPPING AND STORAGE OF ALL MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE SUCH MATERIAL AT THE POINT OF DELIVERY AND TO REJECT ALL DEFECTIVE MATERIAL. ANY DEFECTIVE MATERIAL INCORPORATED INTO THE WORK SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THERE SHALL BE NO PAYMENT MADE FOR STORED MATERIAL.
- SEE THE STORM WATER POLLUTION PREVENTION PLAN FOR ADDITIONAL ENVIRONMENTAL NOTES AND DETAILS.
- IRON RODS DISTURBED DURING CONSTRUCTION ARE TO BE REPLACED BY A REGISTERED PROFESSIONAL LAND SURVEYOR FOR THE ORIGINAL PROPERTY OWNER AT NO SEPARATE PAY.
- MOWING, MAINTENANCE AND CLEAN-UP IS REQUIRED FOR THE PROJECT LIMITS AND DURATION, REGARDLESS OF THE CONTRACTOR'S SCOPE OF ACTIVITIES WITH THE PROJECT.

STORM AND DRAINAGE

- ALL DETENTION AND PERIMETER DRAINAGE SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF OTHER IMPROVEMENTS.
- STORM SEWER SYSTEM (MANHOLES, INLETS, STORM SEWER, BEDDING AND BACKFILL ETC.) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF PEARLAND STANDARD DETAIL AND IN COMPLIANCE WITH THE ENGINEERING DESIGN CRITERIA MANUAL.
- THE FINAL ELEVATION OF STORM SEWER MANHOLE RIMS SHALL BE AT FINISHED GRADE. PLAN RIM ELEVATIONS ARE APPROXIMATE AND ARE NOT INTENDED TO REPRESENT FINISHED GRADES.
- EXISTING STORM MANHOLES SHALL BE ADJUSTED TO INCLUDE NEW CITY OF PEARLAND RING AND COVERS.
- ALL CHANNEL OR SWALE SIDE SLOPES AND/OR OTHER AREAS REQUIRING SEEDING AS DETERMINED BY THE ENGINEER, TO BE HYDROMULCH SEEDED.

SANITARY SEWER

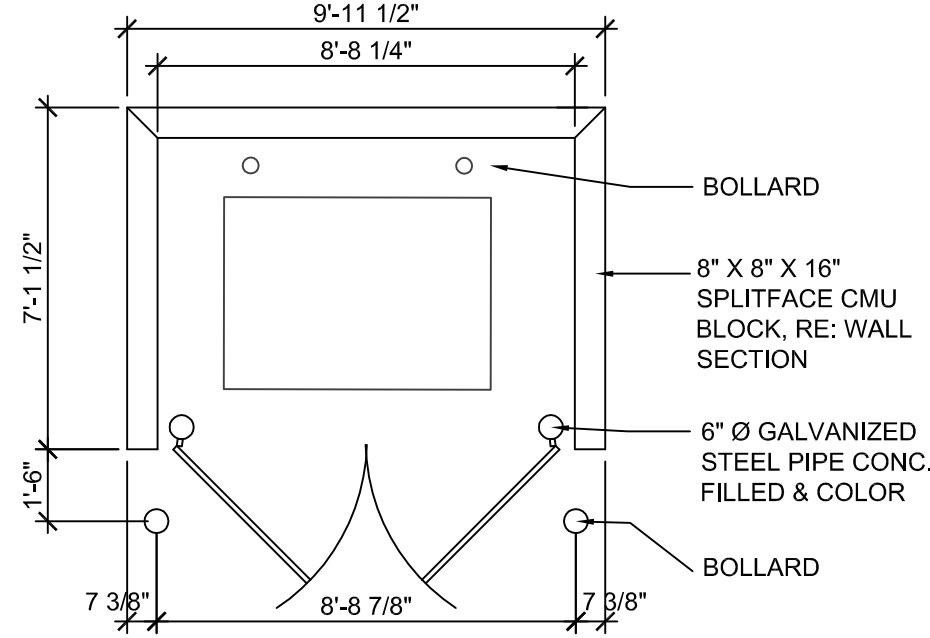
- SANITARY SEWERS SHALL BE BUILT ACCORDING TO THE CITY OF PEARLAND DESIGN STANDARDS AS CURRENTLY AMENDED AND THE T.C.E.Q. RULES AND DESIGN CRITERIA.
- ALL SANITARY MANHOLES MUST BE STANDARD TYPE (PRECAST) AND BACKFILLED WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH CITY OF PEARLAND STANDARD DETAIL SHEET 3 OF 3. BRICK MANHOLES ARE NOT ALLOWED. ALL SANITARY MANHOLES SHALL INCLUDE STAINLESS STEEL INFLOW PROTECTORS.
- ALL SANITARY SEWER PIPES SHALL BE BEDDED AND BACKFILLED PER CITY OF PEARLAND STANDARD DETAILS, AS APPLICABLE. NO SEPARATE PAY. THE ENGINEER AND CITY OF PEARLAND SHALL BE NOTIFIED IMMEDIATELY IF WET SANDS ARE ENCOUNTERED. BACKFILL UNDER OR WITHIN 1-FOOT OF EXISTING, PROPOSED OR FUTURE PAVEMENT SHALL BE CEMENT STABILIZED SAND UP TO 1' BELOW THE BOTTOM OF THE PAVING SUBGRADE. TEST REPORTS SHALL BE SUBMITTED PRIOR TO PLACEMENT OF PAVEMENT.
- NO CONNECTIONS SHALL BE MADE TO THE EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE ENGINEER. THE ENGINEER AND THE CITY SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE CONTRACTOR CONNECTING TO ANY EXISTING SEWER LINES.
- THE CONTRACTOR SHALL CONTACT THE CITY OF PEARLAND CHIEF ENGINEERING INSPECTOR AT 281.851.2314 AT LEAST 24 HOURS PRIOR TO PRESSURE AND DEFLECTION TESTS ON ALL SANITARY LINES.
- ALL SANITARY SEWERS SHALL BE TESTED PER TCEQ GUIDELINES.
- DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID PIPE, EXCEPT SERVICE LEADS. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST FOR 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. THE TEST IS TO BE RUN USING A MANDREL HAVING AN OUTSIDE DIAMETER EQUAL TO 95% OF THE AVERAGE INSIDE DIAMETER OF THE PIPE. THE MANDREL SHALL HAVE A MINIMUM OF 9 RUNNERS, WITH THE CONTACT LENGTH OF EACH RUNNER EQUAL TO OR GREATER THAN THE PIPE'S NOMINAL DIAMETER. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
- ALL SANITARY SEWER MANHOLE RIMS SHALL BE SET 3-INCHES ABOVE FINISHED GRADE WITHIN STREET R.O.W. OR WITHIN EASEMENTS. CLEAN FILL SHALL BE ADDED AND SLOPED AWAY FROM THE RIM FOR SURFACE WATER DRAINAGE. PLAN RIM ELEVATIONS ARE APPROXIMATE AND ARE NOT INTENDED TO REPRESENT FINISHED GRADES. COSTS FOR ALL ADJUSTMENTS, INCLUDING PRECAST CONE SECTIONS, AND PRECAST ADJUSTMENT RINGS, ARE TO BE INCLUDED IN THE UNIT PRICE FOR SANITARY SEWER MANHOLES. BRICKS ARE NOT ALLOWED. ALL EXISTING/PROPOSED MANHOLE RIMS WITHIN THE SIDEWALK SHOULD BE FLUSH WITH GRADE.
- SEALED MANHOLES ARE REQUIRED FOR MANHOLES CONSTRUCTED IN 100-YEAR FLOOD PLAIN.
- SANITARY SEWER LINES PARALLEL TO WATER LINES SHALL BE INSTALLED WITH AT LEAST 9-FOOT HORIZONTAL AND 2-FOOT VERTICAL CLEARANCE AND IN SEPARATE TRENCHES. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.
- SANITARY SEWER LINES CROSSING WATER LINES MUST HAVE A FULL LENGTH JOINT (18" NOMINAL) CENTERED AT THE CROSSING WITH A MINIMUM SEPARATION DISTANCE OF 6 INCHES.
- ACCESS TO MANHOLES WILL BE BY PORTABLE LADDER, AS STEPS ARE PROHIBITED.
- ALL SANITARY SEWER CROSSING EXISTING ROADS IN PEARLAND SHALL BE CASED PER SANITARY SEWER DETAIL SHEET 2 OF 3 UNLESS EXEMPT BY THE CITY ENGINEER.



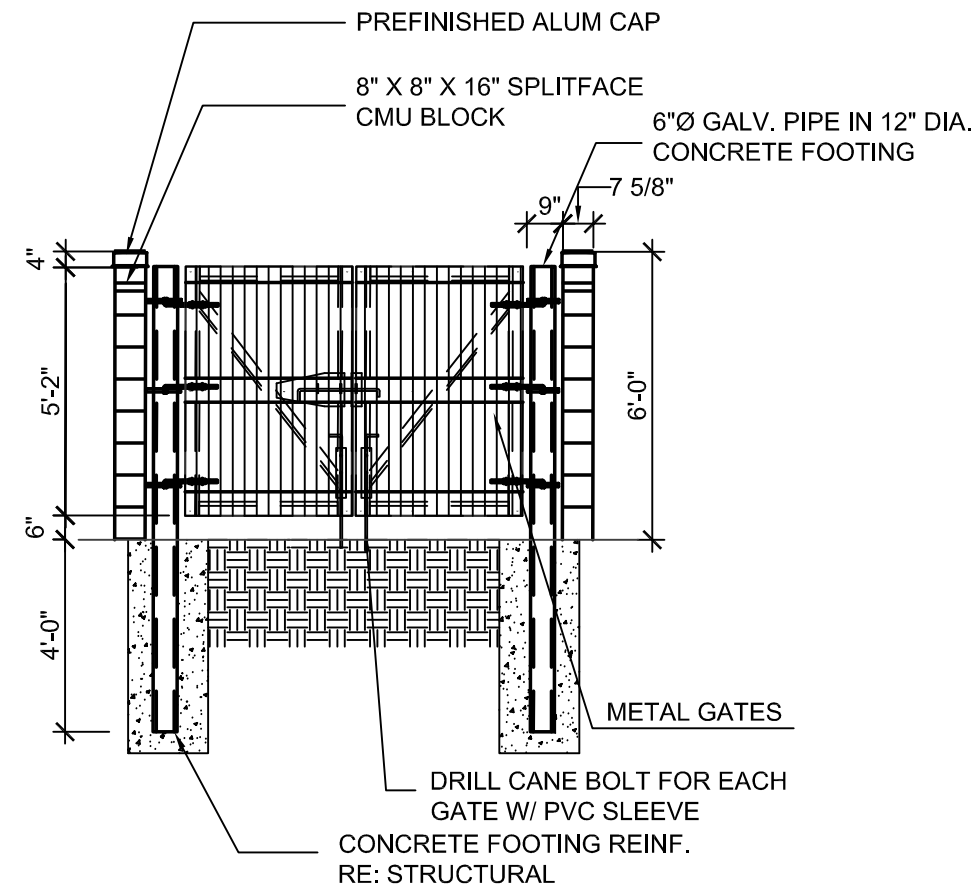
03 DUMPSTER RIGHT ELEVATION RETAIL
Scale 1/4" = 1'-0"

WATER MAIN

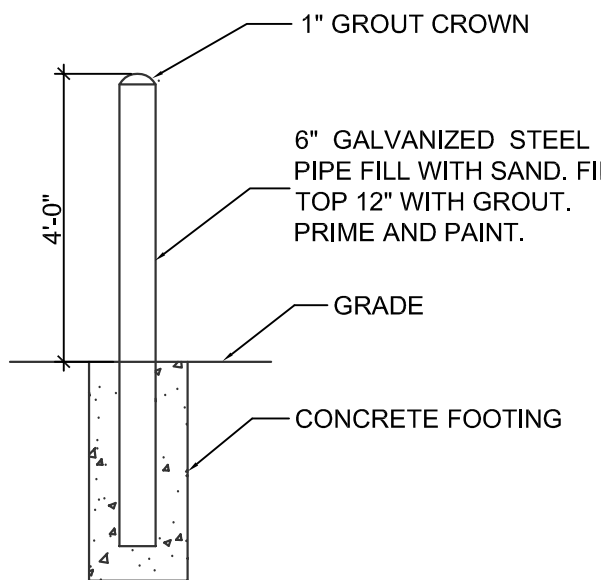
- WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PEARLAND EDCM AND STANDARD DETAIL.
- UNLESS OTHERWISE NOTED, ALL WATER LINES SHALL HAVE A MINIMUM OF 4' OF COVER FOR THE WATERLINE DIAMETER LESS THAN 12 INCH AND 5' FOR 12 INCH AND LARGE PIPES TO FINISHED GRADE.
- ALL WATER LINES, AFTER INSTALLATION, SHALL BE THOROUGHLY DISINFECTED ACCORDING TO AWWA SPECIFICATION C-651 AND THEN FLUSHED BEFORE BEING PLACED INTO SERVICE.
- NOTIFY THE CHIEF ENGINEERING INSPECTOR 24 HOURS BEFORE THE SYSTEM IS PRESSURE TESTED AND DISINFECTED. THE CITY WILL TAKE ALL SAMPLES FOR BACTERIOLOGICAL TESTING AS REQUIRED BY TCEQ.
- ALL WATER LINES ARE TO BE HYDROSTATICALLY TESTED BY THE CONTRACTOR AT 125 P.S.I. 08 HOURS OR 150 P.S.I. 04 HOURS IN ACCORDANCE WITH THE CITY OF PEARLAND DESIGN STANDARDS. CONTRACTOR SHALL NOTIFY CHIEF ENGINEERING INSPECTOR AT (281) 851-2314 AT LEAST 24 HOURS PRIOR TO THE HYDROSTATIC TESTS.
- SEE APPROVED PRODUCT LIST (CITY ENGINEERING WEBPAGE) FOR ALLOWABLE WATER LINE PIPE MATERIAL.
- CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL UNDERGROUND TEES, BENDS AND LATERALS. THEY SHALL BE BUILT AS PER THE DETAILS PROVIDED TO PREVENT PIPE MOVEMENT. RESTRAINED JOINTS SHALL BE USED WHERE PREVENTING MOVEMENT OF 16-INCH DIAMETER OR GREATER PIPE IS NECESSARY DUE TO THRUST OR WHERE SPECIFIED ON PLANS.
- ALL WATER VALVES SHALL OPEN COUNTER-CLOCKWISE. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
- ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
- ALL WATER LINES SHALL BE BEDDED AND BACKFILLED PER CITY OF PEARLAND STANDARD DETAILS, AS APPLICABLE. BACKFILL UNDER OR WITHIN 1-FOOT OF PROPOSED PAVEMENT SHALL BE CEMENT STABILIZED SAND UP TO 1' BELOW THE BOTTOM OF THE SUBGRADE. TEST REPORTS SHALL BE SUBMITTED PRIOR TO PLACEMENT OF PAVEMENT. THE COST OF BEDDING AND BACKFILL IS TO BE INCLUDED IN THE UNIT PRICE OF WATER LINE.
- CONTRACTOR SHALL PROVIDE FOR A MINIMUM OF 6 INCHES CLEARANCE AT THE STORM SEWER AND WATERLINE CROSSINGS AND THE SANITARY SEWER AND WATERLINE CROSSINGS. THE WATERLINE SHALL BE LOCATED AT A HIGHER LEVEL THAN THE SEWER WHENEVER POSSIBLE.
- NECESSARY PRECAUTIONS MUST BE TAKEN DURING WATER LINE CONSTRUCTION. PRECAUTIONS INCLUDE KEEPING THE PIPE CLEAN AND EFFECTIVELY COVERING OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.
- NO CONNECTIONS SHALL BE MADE TO THE EXISTING WATER LINES UNTIL ALL PROPOSED WATER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE ENGINEER AND THE CITY OF PEARLAND. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY OF PEARLAND AT LEAST 48 HOURS PRIOR TO CONNECTING TO ANY EXISTING WATER LINES.
- THE CENTER OF FIRE HYDRANTS ARE TO BE LOCATED 3'-0" BEHIND THE BACK OF CURB AND AS SHOWN ON PLANS. THE STEAMER NOZZLE SHALL BE A MINIMUM OF 22" (MAXIMUM OF 24" INCHES ABOVE FINISHED GRADE) AND SHALL FACE THE STREET PAVEMENT UNLESS OTHERWISE SHOWN. ALL FIRE HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH THE CITY OF PEARLAND WATERLINE STANDARDS DETAIL SHEET 2 OF 2.
- THE CONTRACTOR SHALL SALVAGE AND RETURN ALL FIRE HYDRANTS REMOVED DURING CONSTRUCTION TO THE CITY OF PEARLAND PUBLIC WORKS DEPARTMENT. THIS WORK IS INCIDENTAL TO SITE PREPARATION.
- WATERLINES TO BE ABANDONED IN PLACE SHALL BE PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION PLAN. THIS WORK SHALL BE INCIDENTAL TO SITE PREPARATION.
- ALL WATERLINE CROSSING EXISTING ROADS IN PEARLAND WILL BE CASED PER WATERLINE STANDARD DETAIL SHEET 2 OF 2 UNLESS GIVEN EXEMPTION BY THE CITY ENGINEER.



01 DUMPSTER PLAN RETAIL
Scale 1/4" = 1'-0"



02 DUMPSTER FRONT ELEVATION RETAIL
Scale 1/4" = 1'-0"

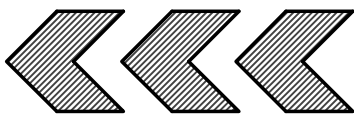


05 TRASH ENCLOSURE BOLLARD
Scale 3/8" = 1'-0"

GENERAL NOTES

- FOR DUMPSTER ENCLOSURE REFER STRUCTURAL DRAWINGS
- FOR SLAB FINISHED GRADES, SEE GRADING PLAN.
- ALL WOOD FOR GATES IS TO BE THRU-BOLTED TO TUBE FRAME WITH 3/8" GALVANIZED BOLTS AND HARDWARE.
- DUMPSTER ENCLOSURE MATERIAL: CONCRETE MASONRY UNIT (CMU)

RSG ENGINEERING



13601 KATY FREEWAY
SUITE 3180
HOUSTON, TEXAS 77079
PH. 713-763-7777

TBPE FIRM #: 15-488

project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS



01.24.2023

CONSTRUCTION
NOTES AND
DETAILS

DRAWN BY:
CM

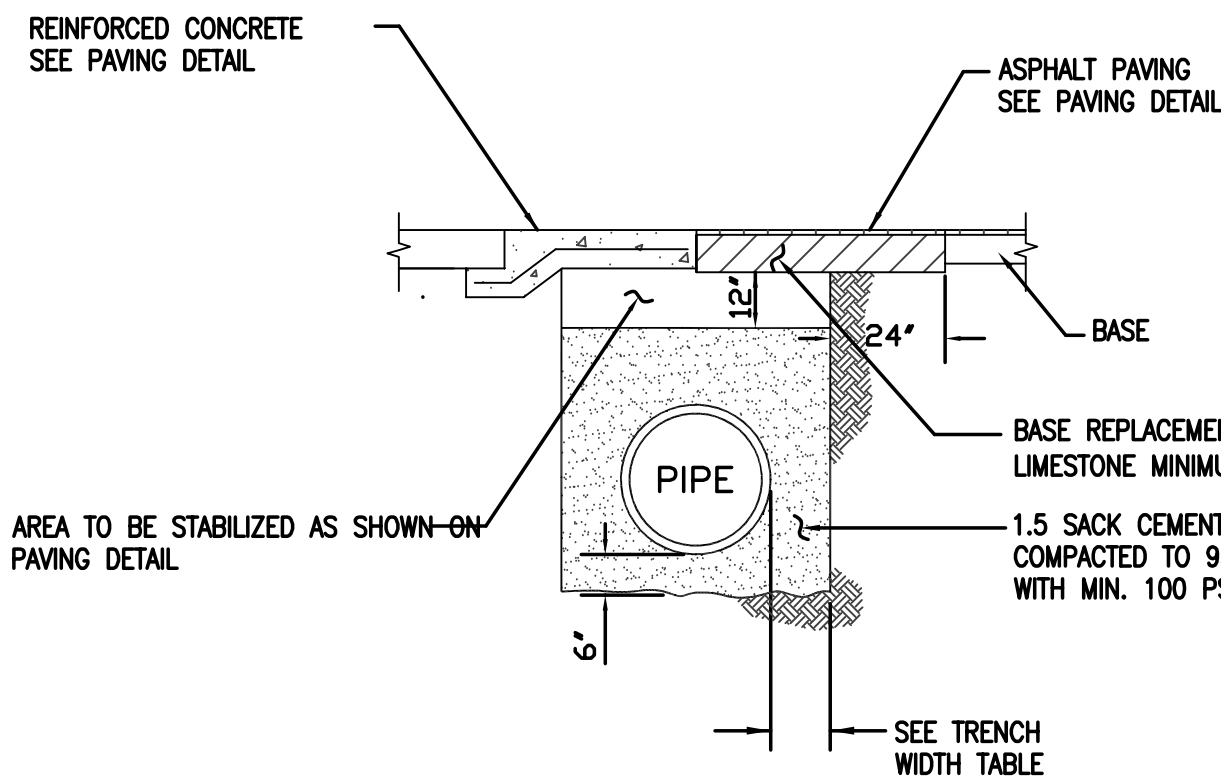
CHECKED:
SNO

PROJECT No

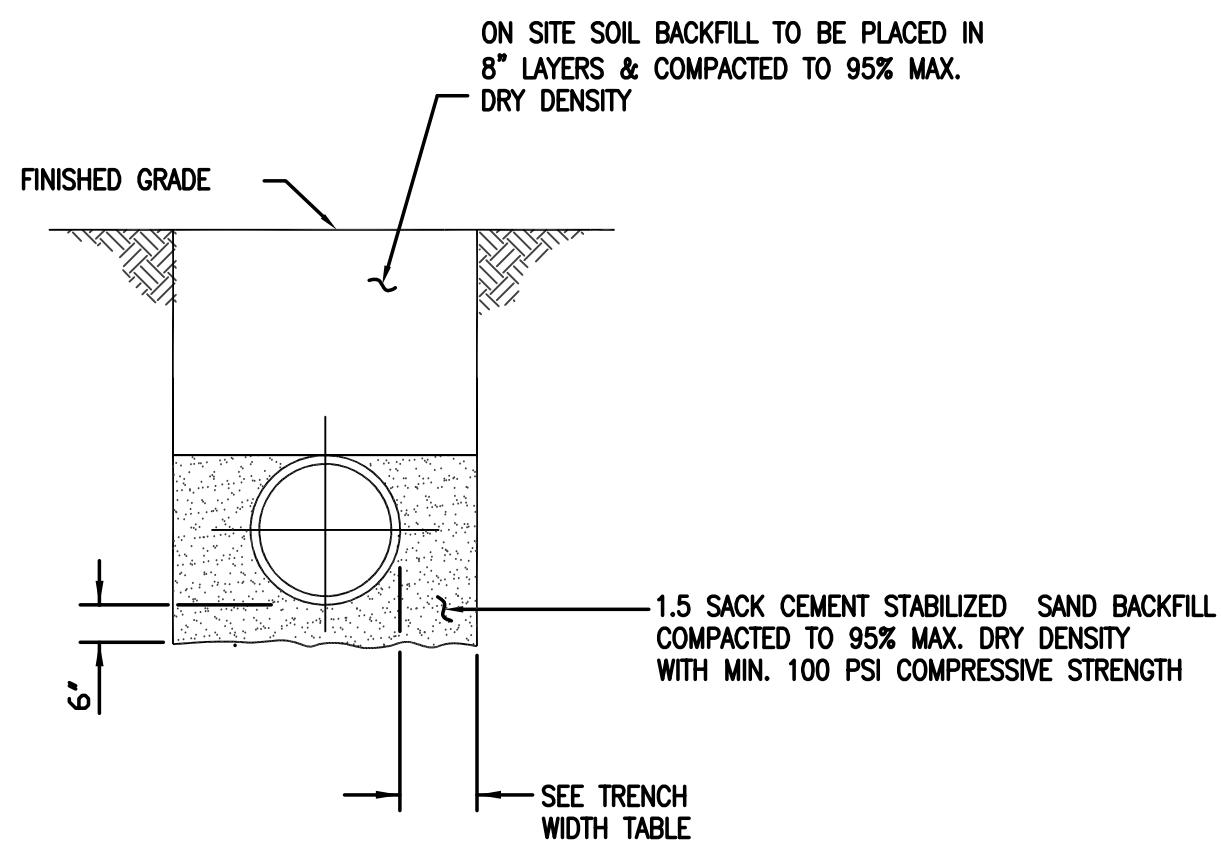
SHEET No:

2286.12

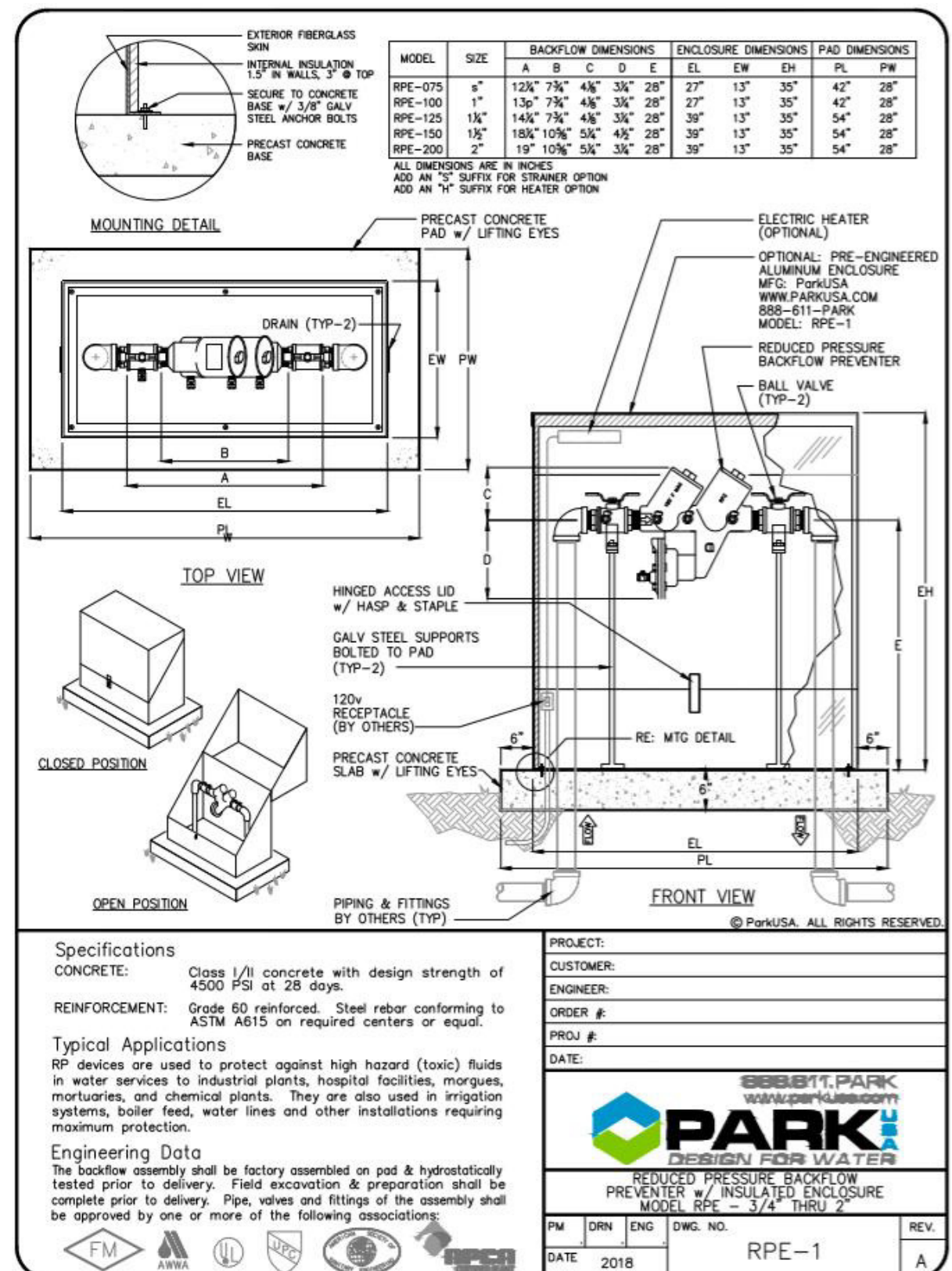
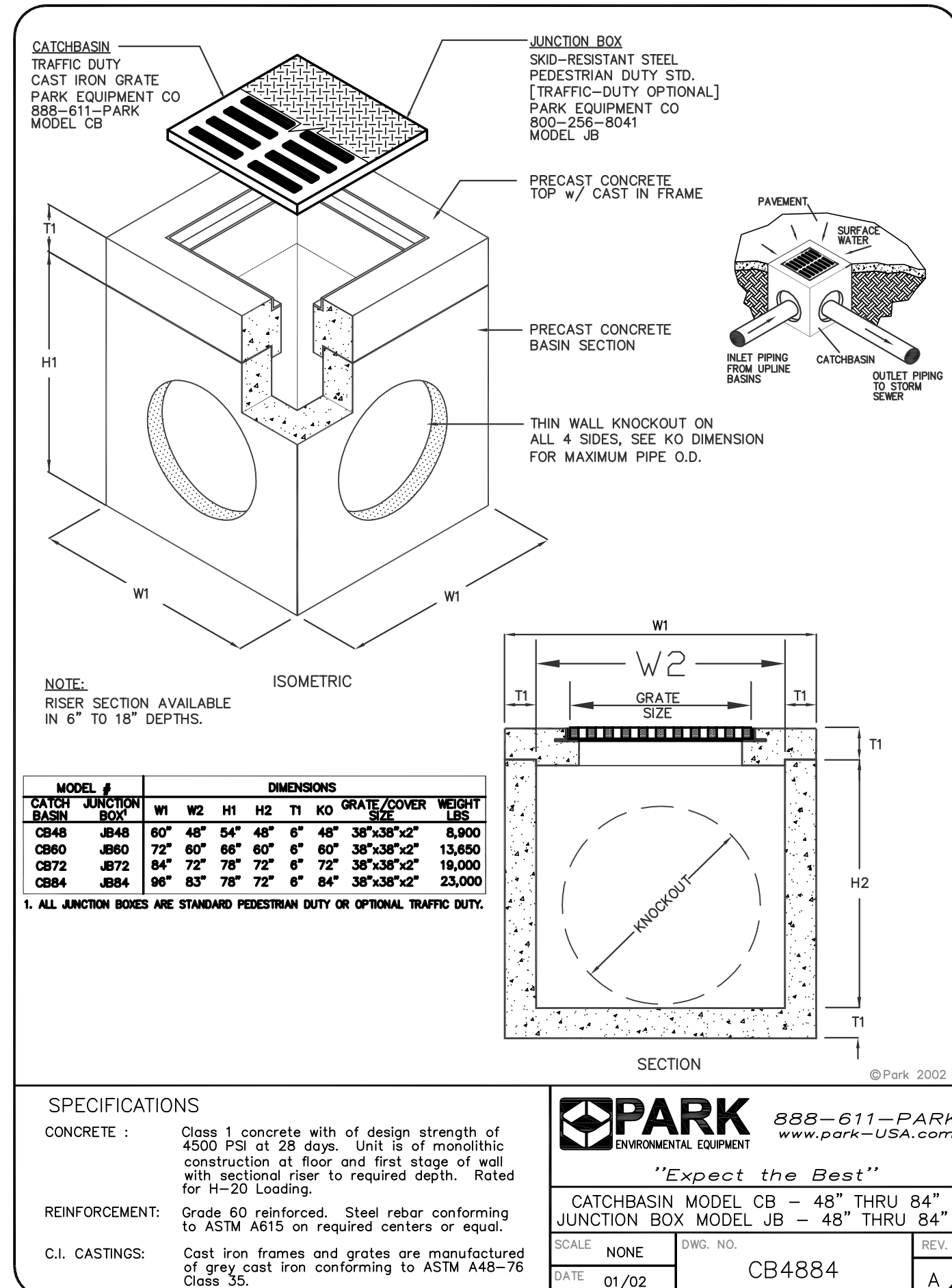
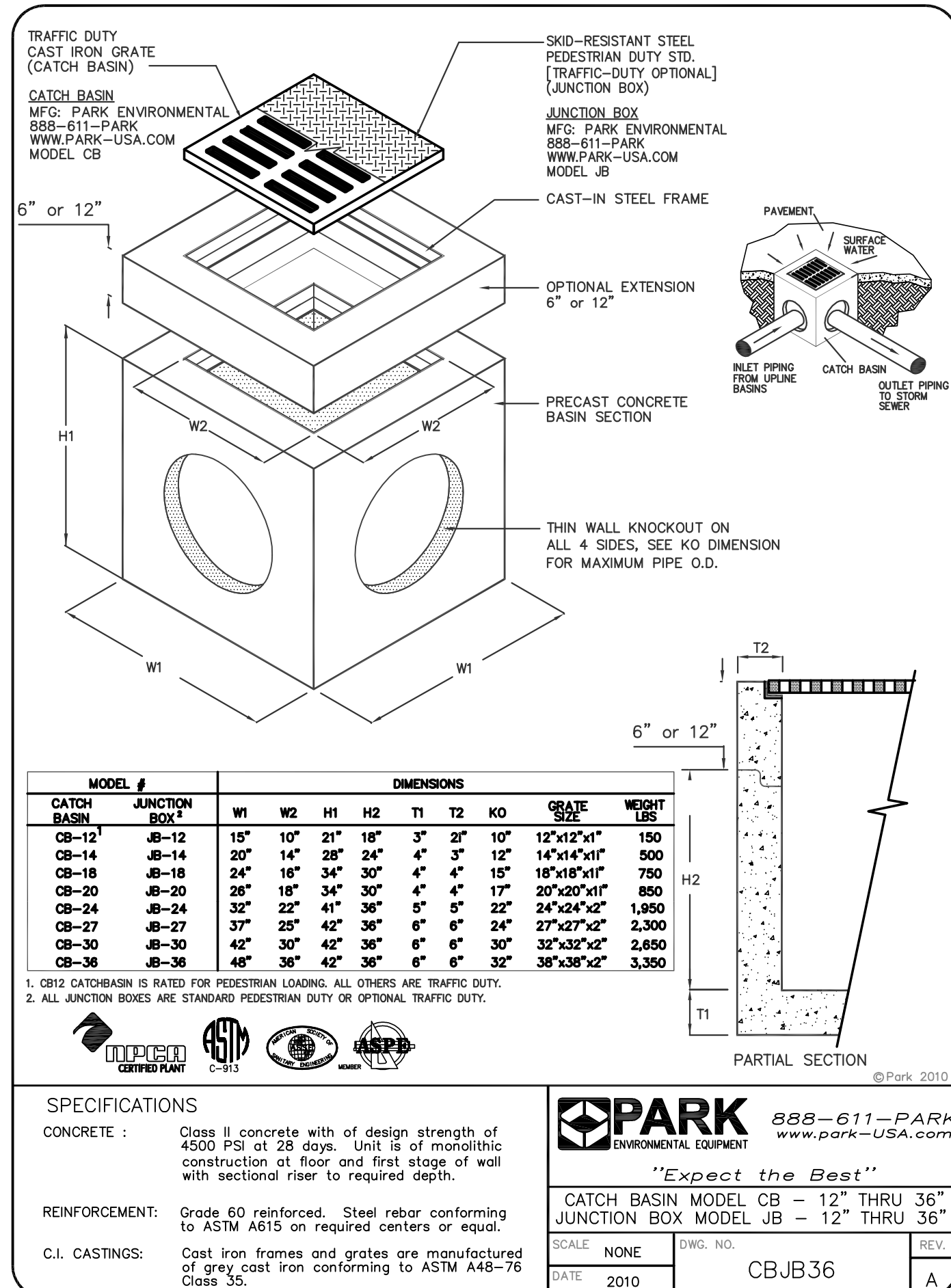
C7.0



1
3 TRENCH SECTION FOR GRAVITY SEWER
UNDER PAVEMENT



2
3 AA PIPE BEDDING DETAIL FOR GRAVITY SEWER
GRADED AREA



RS&G ENGINEERING

13501 KATY FREEWAY
SUITE 3180
HOUSTON, TEXAS 77079
PH. 713-783-7777

TEPE FIRM #: 15498

project
FOREST PARK LANE

at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS

Δ ADDED SEPARATE RPZ BFP 7.15.24

07.15.2024

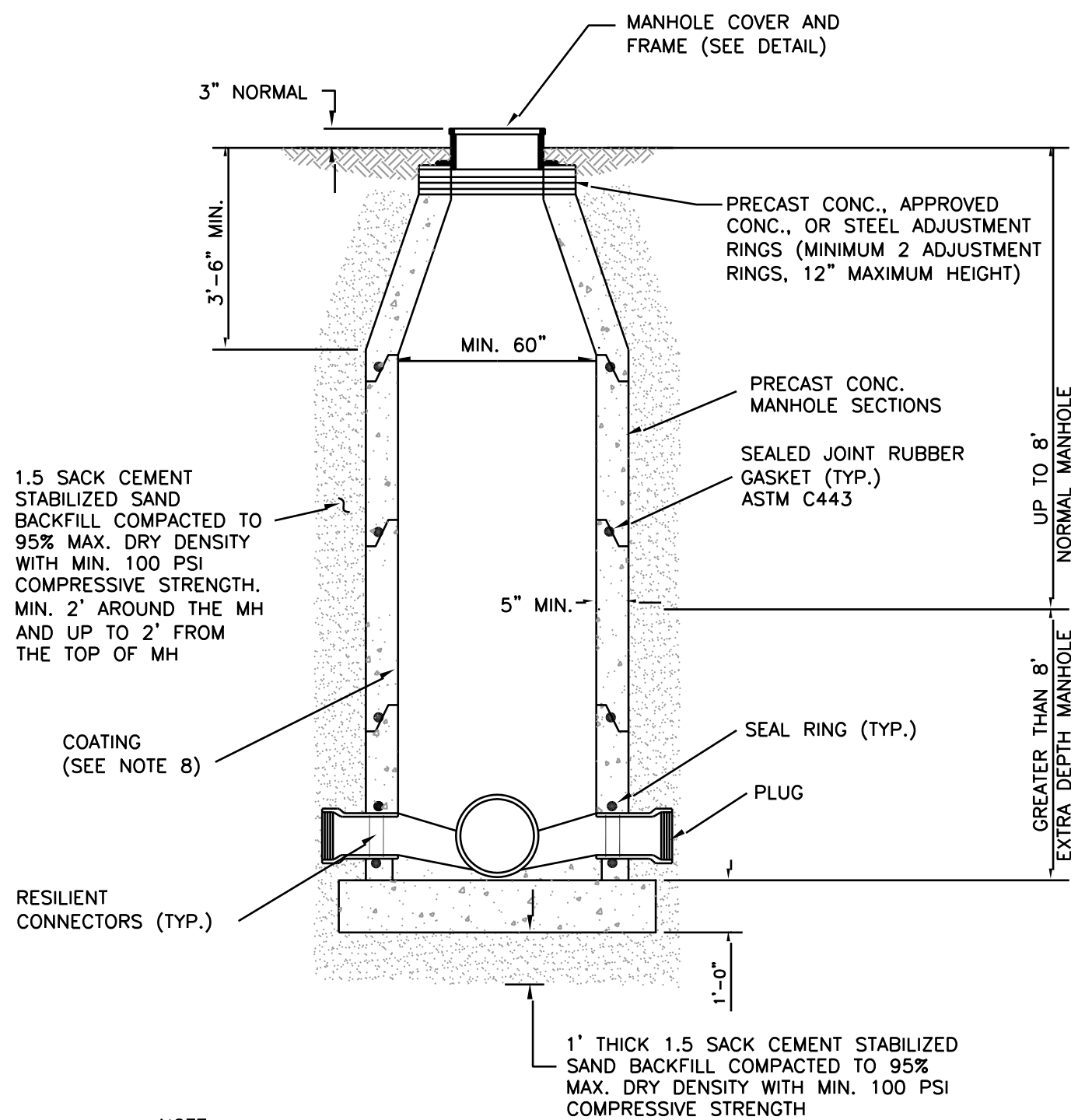
SALEM NAZIH OBEIDI
118989
PROFESSIONAL ENGINEER

CONSTRUCTION
DETAILS

DRAWN BY: CM
CHECKED: SNO

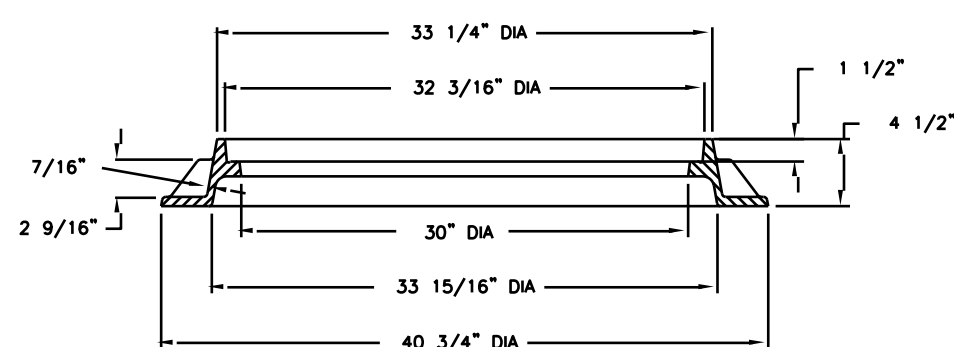
PROJECT No: 2286.12

SHEET No: C7.1



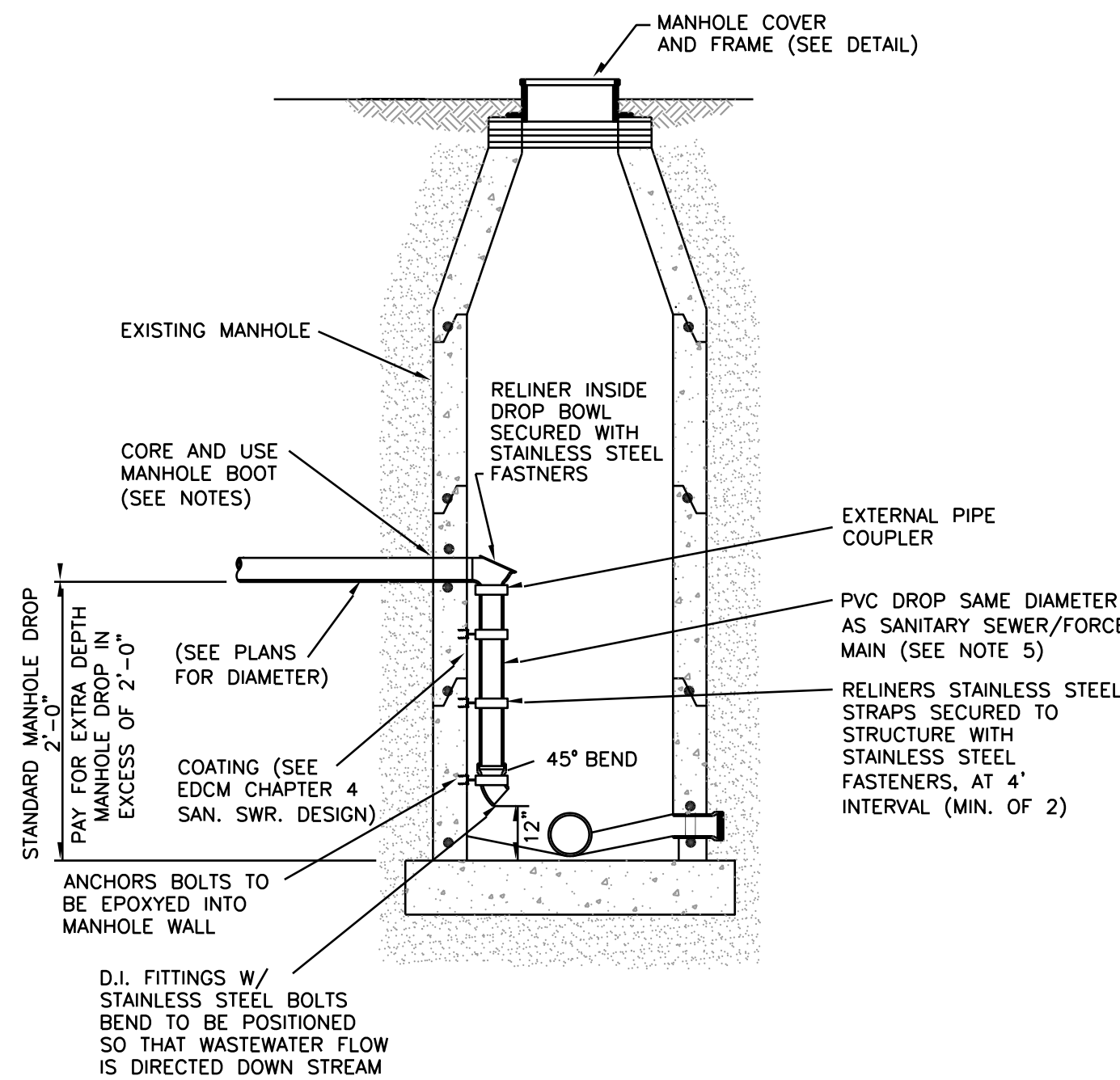
- NOTE:
1. CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATES FOR H-20 LOADING.
 2. PRECAST CONCRETE MANHOLE CONFORMING TO ASTM C478. STRUCTURAL REINFORCEMENT CONFORMING TO ASTM 615A.
 3. LIFTING INSERTS AS REQUIRED.
 4. ALL JOINTS SHALL BE SEALED WITH APPROVED GASKET.
 5. ALL MANHOLES IN WET SAND REQUIRE SPECIAL DESIGN. SEE GEOTECHNICAL REPORT.
 6. HORSE-SHOE SHAPED PIPE OPENINGS OR BREAKOUT PIPE OPENINGS WILL NOT BE ACCEPTED.
 7. SEALED MANHOLES ARE REQUIRED FOR MANHOLES CONSTRUCTED WITHIN 100-YEAR FLOODPLAIN.
 8. FOR INTERIOR COATING ON THE MANHOLE, SEE EDCM CHAPTER 4 (SAN. SWR. DESIGN).
 9. ALL MANHOLES IN OPEN DITCH SHALL HAVE HINGED FRAME AND COVER (SEE DETAIL).
 10. ALL MANHOLES ABOVE GRADE SHALL USE REVOLUTION ASSEMBLY RIM AND COVER (SEE DETAIL ON SHEET 3 OF 3).
 11. ALL MANHOLES IN PAVED AREAS SHALL HAVE BLOCK OUT (SEE DRIVEWAY DETAIL SHEET).
 12. VACUUM TEST SHALL BE COMPLETED PRIOR TO COATING OF THE MANHOLE.
 13. MANHOLE DEEPER THAN 12' SHALL BE A MINIMUM OF SIX FOOT (6') DIAMETER.

1 STANDARD PRECAST CONCRETE SANITARY SEWER MANHOLE



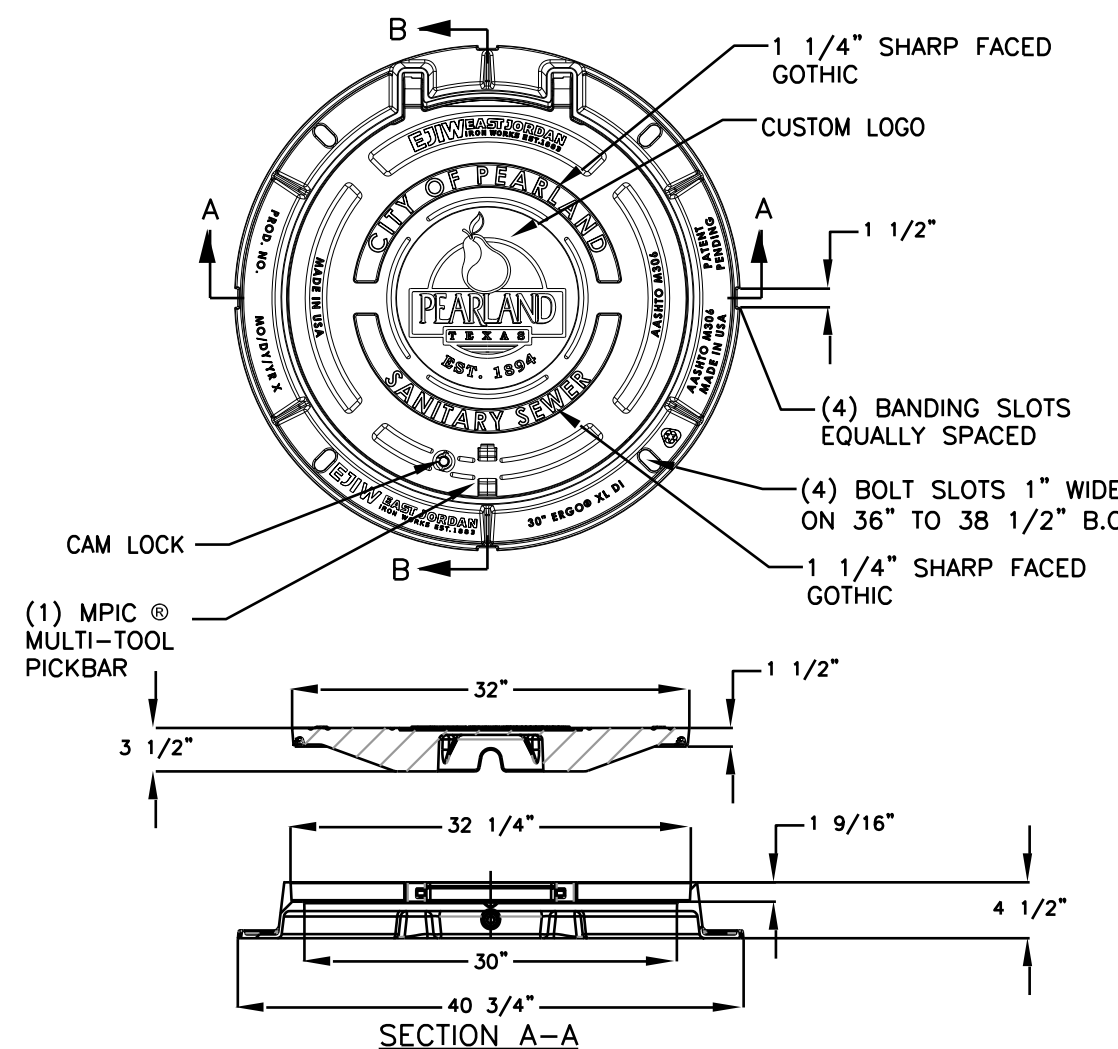
- NOTE:
1. MANHOLE FRAME AND COVER TO BE EJ IRON WORKS OR OTHER APPROVED EQUAL BY PUBLIC WORKS. WHERE SEWER IS LOCATED IN EASEMENTS, CONTRACTOR MAY USE LIGHTWEIGHT F AND C, APPROVED BY THE ENGINEER.
 2. STAINLESS STEEL INFLOW PREVENTERS MADE BY KOLO, INC., OR APPROVED EQUAL, SHALL BE USED ON ALL SANITARY SEWER MANHOLES. (SEE APPROVED PRODUCT LIST)

4 31-7/8" MANHOLE COVER AND FRAME



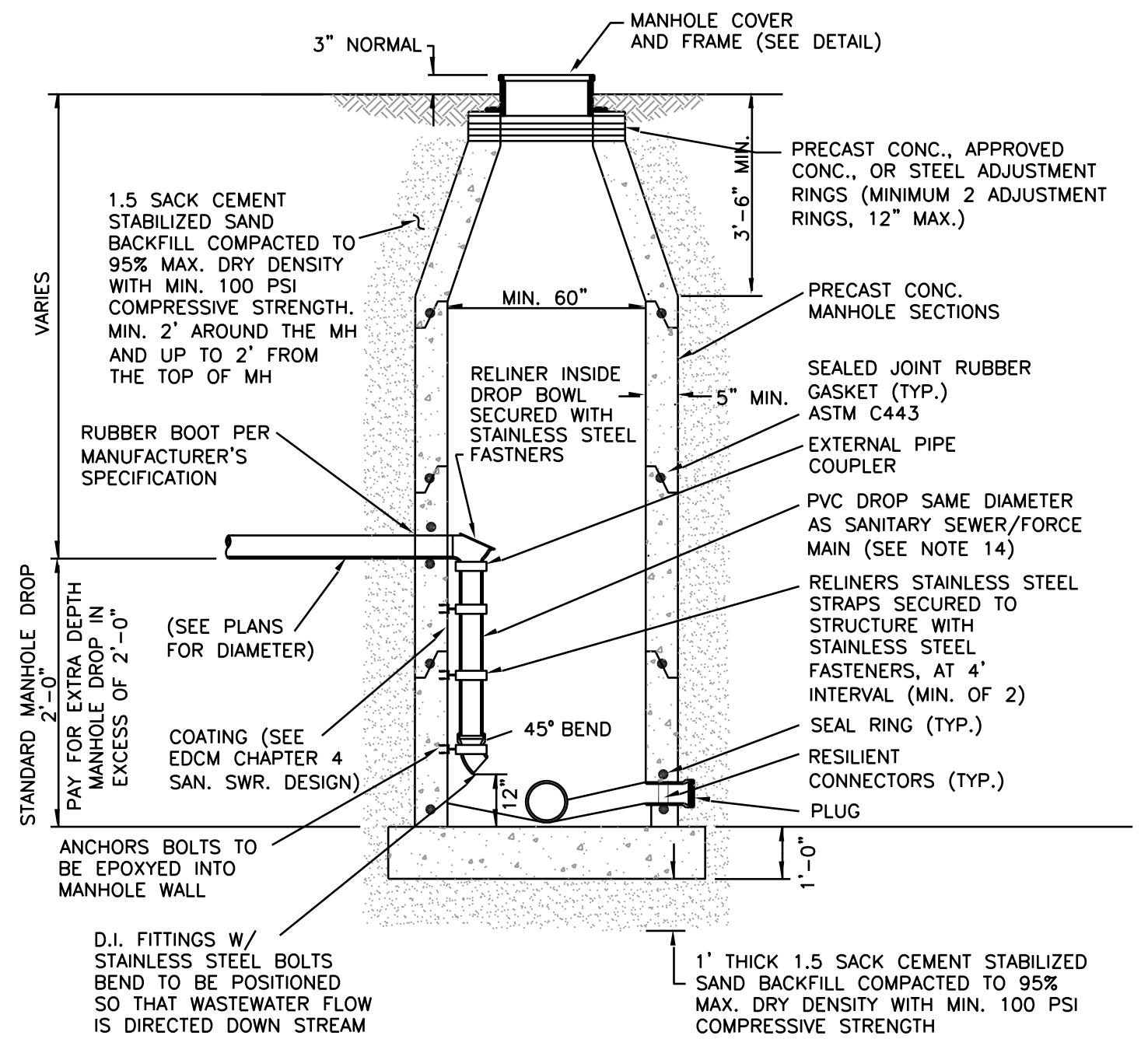
- NOTE:
1. FOR EXISTING SANITARY SEWER MANHOLE ONLY.
 2. CORE-DRILL CIRCULAR OPENING IN MANHOLE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE.
 3. KOR-N SEAL FLEXIBLE RUBBER BOOT SHALL BE USED FOR WATERTIGHT CONNECTION. THE PRODUCT MUST BE APPROVED BY PUBLIC WORKS DEPARTMENT.
 4. CLEAN EXISTING MANHOLE OF ANY DIRT, CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.
 5. IF BELL AND SPIGOT ARE NEEDED, USE JOINT CLAMPS WITH STAINLESS STEEL ALL-THREAD, NUTS AND WASHERS.

2 EXISTING SANITARY SEWER MANHOLE WITH PROPOSED INTERNAL DROP/ INTERNAL DROP FOR FORCEMAIN



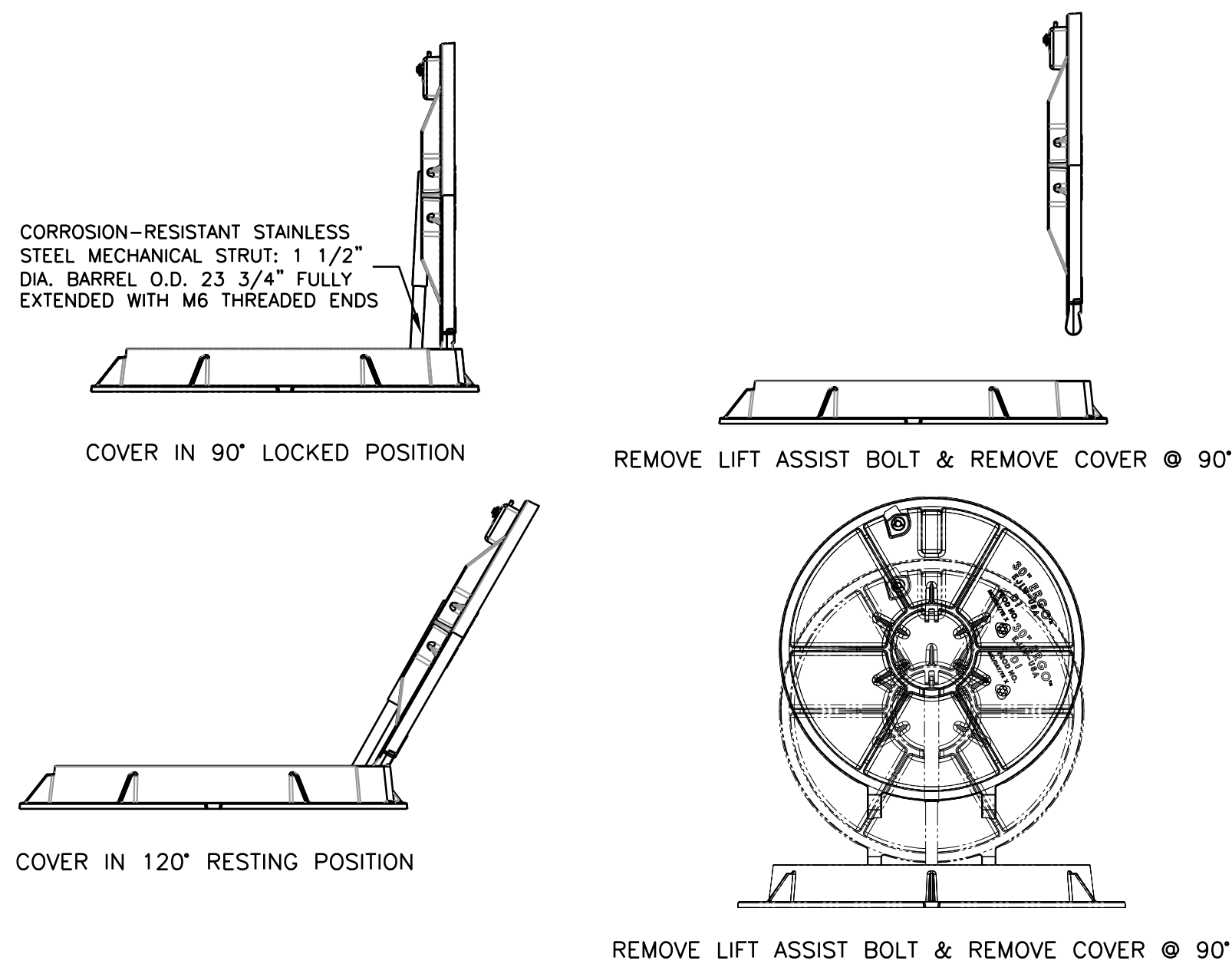
- NOTE:
1. HINGED MANHOLE FRAME AND COVER TO BE EJ IRON WORKS, OR OTHER APPROVED EQUAL BY PUBLIC WORKS. WHERE SEWER IS LOCATED IN EASEMENTS, CONTRACTOR MAY USE LIGHTWEIGHT F AND C, APPROVED BY THE ENGINEER

5 HINGED MANHOLE COVER AND FRAME



- NOTE:
1. FOR ALL NEW CONSTRUCTION.
 2. CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATES FOR H-20 LOADING.
 3. PRECAST CONCRETE MANHOLE CONFORMING TO ASTM C478. STRUCTURAL REINFORCEMENT CONFORMING TO ASTM 615A.
 4. LIFTING INSERTS AS REQUIRED.
 5. ALL JOINTS SHALL BE SEALED WITH APPROVED GASKET.
 6. MANHOLE MUST BE CORED TO APPROPRIATE OPENING.
 7. WATER TIGHT GASKET MUST BE USED TO SEAL PIPE TO MANHOLE.
 8. ALL PIPE FITTINGS TO BE 1 (ONE) BOLT TYPE RESTRAINT FITTINGS OR APPROVED EQUAL.
 9. PIPE SUPPORTS MUST BE STAINLESS STEEL (3' MAX SPACING).
 10. ALL MANHOLES IN OPEN DITCH SHALL HAVE HINGED FRAME AND COVER (SEE DETAIL).
 11. ALL MANHOLES 2' ABOVE FINISH GRADE SHALL HAVE REVOLUTION ASSEMBLY RIM AND COVER (SEE DETAIL SHEET 3 OF 3).
 12. ALL MANHOLES IN PAVED AREAS SHALL HAVE BLOCK OUT (SEE DRIVEWAY DETAIL SHEET).
 13. VACUUM TEST SHALL BE COMPLETED PRIOR TO COATING OF THE MANHOLE.
 14. IF BELL AND SPIGOT ARE NEEDED, USE JOINT CLAMPS WITH STAINLESS STEEL ALL-THREAD, NUTS AND WASHERS.

3 STANDARD PRECAST CONCRETE SANITARY SEWER MANHOLE AND INTERNAL DROP

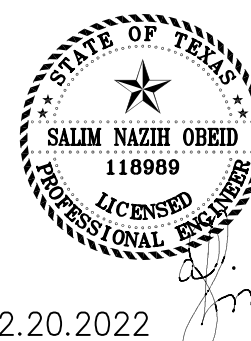


NOTE:

1. ONLY PRE-CAST MANHOLES SHALL BE USED.
2. NO BRICKS OF ANY KIND WILL BE ALLOWED IN CONSTRUCTION OF MANHOLES.
3. MANHOLES SHOULD BE PLACED HALF WAY BETWEEN THE FRONT LOT CORNERS IN MULTI LOT SUBDIVISION.
4. IF LOTS ARE LESS THAN 60' IN WIDTH, MANHOLES ARE TO BE PLACED AT PROPERTY CORNERS.
5. ALL CEMENT STABILIZED SAND BACKFILL SHALL CONFORM TO SPECIFICATION CEMENT STABILIZED SAND - EDCM CHAPTER 10.
6. FINAL DECISION SHALL BE MADE BY PUBLIC WORKS FOR ALL APPROVED EQUAL ITEMS.

project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS



12.20.2022



City of Pearland, Texas

STANDARD DETAILS

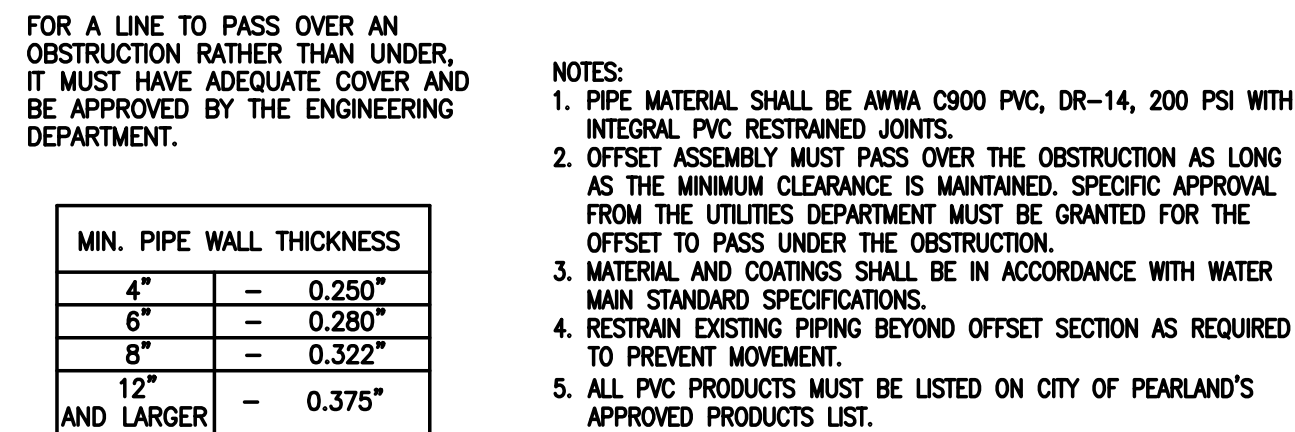
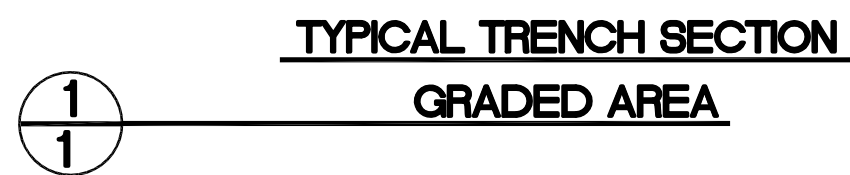
SANITARY SEWER

Job No.:	Scale:	SHEET
Date: JAN 2020	HORZ: 1"=NONE	1
Own By:RS	VERT: 1"=NONE	OF 3
Chkd By:RU	CAD FILE:	
	COP-SAN1	

CONSTRUCTION
DETAILS

DRAWN BY: CM	CHECKED: SNO
PROJECT No 2286.12	SHEET No: C7.2

TBPE FIRM #: 15488



MIN. PIPE WALL THICKNESS		
4"	—	0.250"
6"	—	0.280"
8"	—	0.322"
12" AND LARGER	—	0.375"

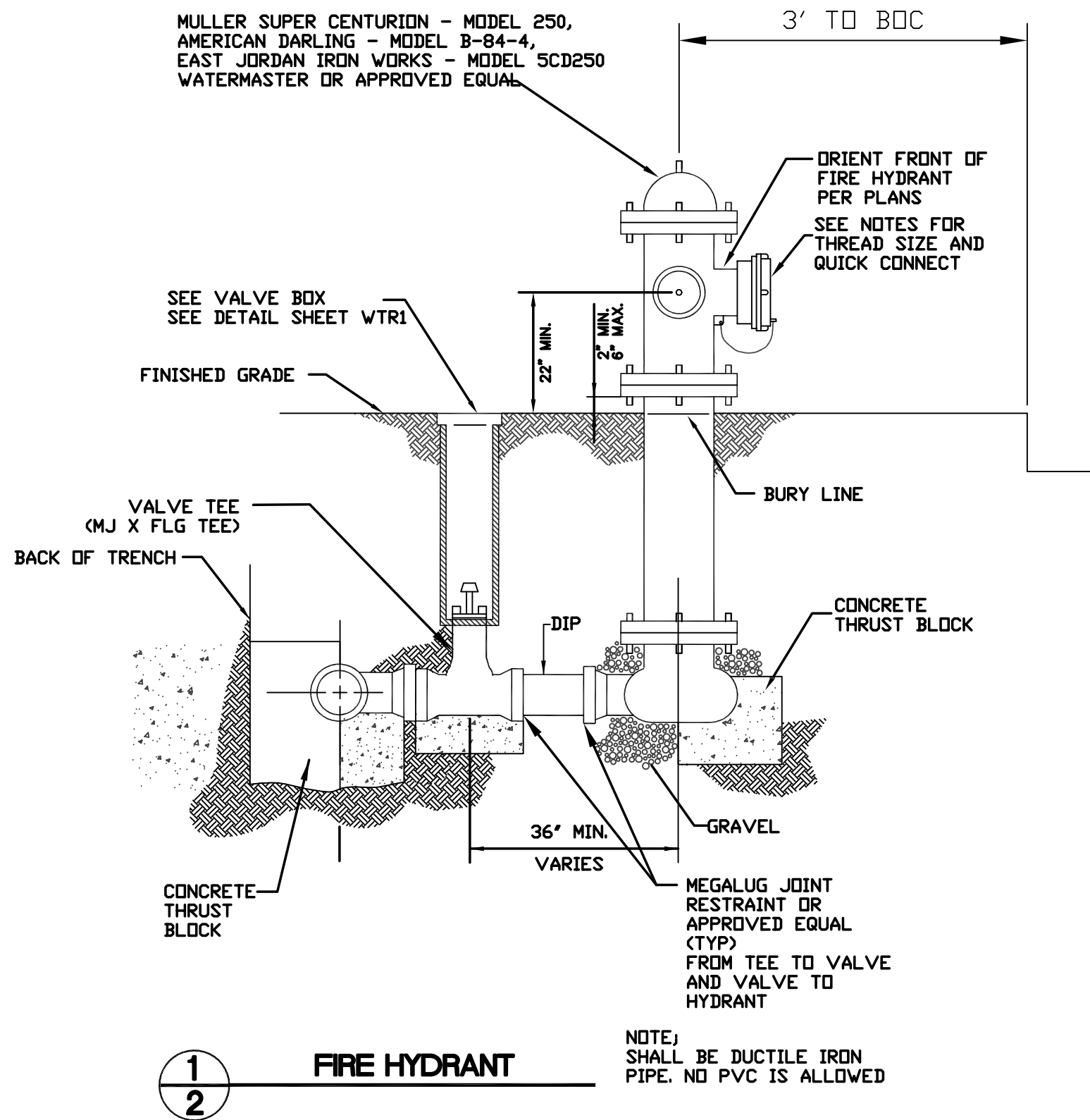


1. ALL WATER METER BOXES SHALL BE MODEL NO. DFW 1600 (FOR 1/2-2")OR DFW 1200 (FOR 5/8-1") OR APPROVED EQUAL. (BOX NEEDS TO BE COMPATIBLE TO NEPTUNE PRO-READ.) LOCKING LIDS WILL NOT BE ACCEPTED.
2. PROVIDE "UNI-FLANGE" OR APPROVED EQUAL PIPE RESTRAINT AND CASING SYSTEM ON UNDERGROUND PRESSURE PIPE SYSTEMS.
3. ALL WATER TAPS TO BE PLACED IN LINE WITH PROPERTY CORNER OR PLACED HALF WAY BETWEEN THE FRONT LOT CORNERS, OR AT PC OF CURB RETURN IN MULTI LOT SUBDIVISIONS.
4. IF LOTS ARE LESS THAN 60' WIDE, TAPS ARE TO BE PLACED AT PROPERTY CORNERS.



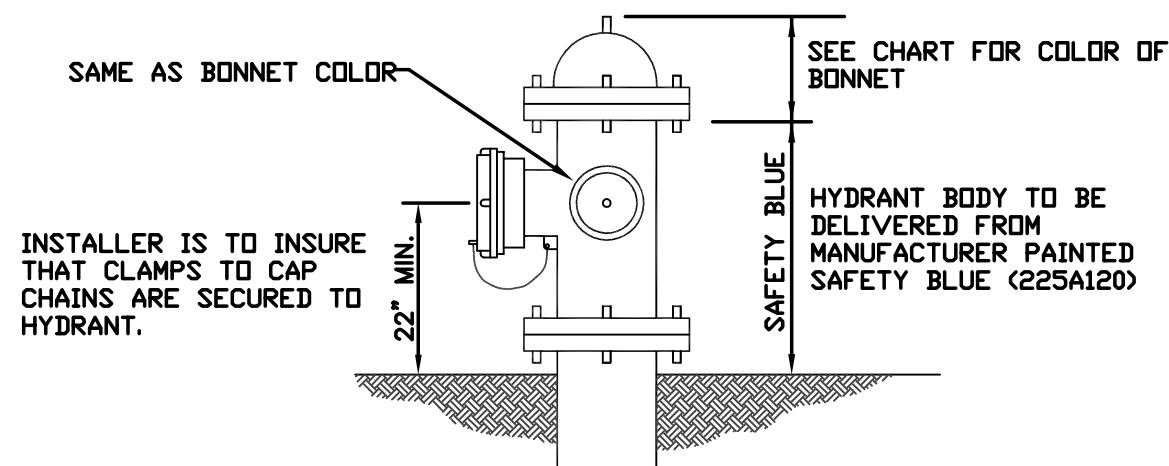
S Z E	90° BEND		45° BEND		22 ½° BEND		TEES		PLUGS	
	A	B	A	B	A	B	A	B	C	D
4" 6"	16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
10"	26"	17"	14"	17"	10"	13"	16"	20"	14"	36"
12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
14"	35"	24"	19"	24"	12"	20"	22"	27"	18"	48"
16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"
18"	42"	30"	24"	30"	12"	24"	24"	30"	24"	60"
24"	50"	40"	30"	40"	18"	30"	30"	40"	30"	*78"
30"	60"	48"	36"	48"	20"	36"	36"	48"	36"	*96"

2286.12



1 FIRE HYDRANT

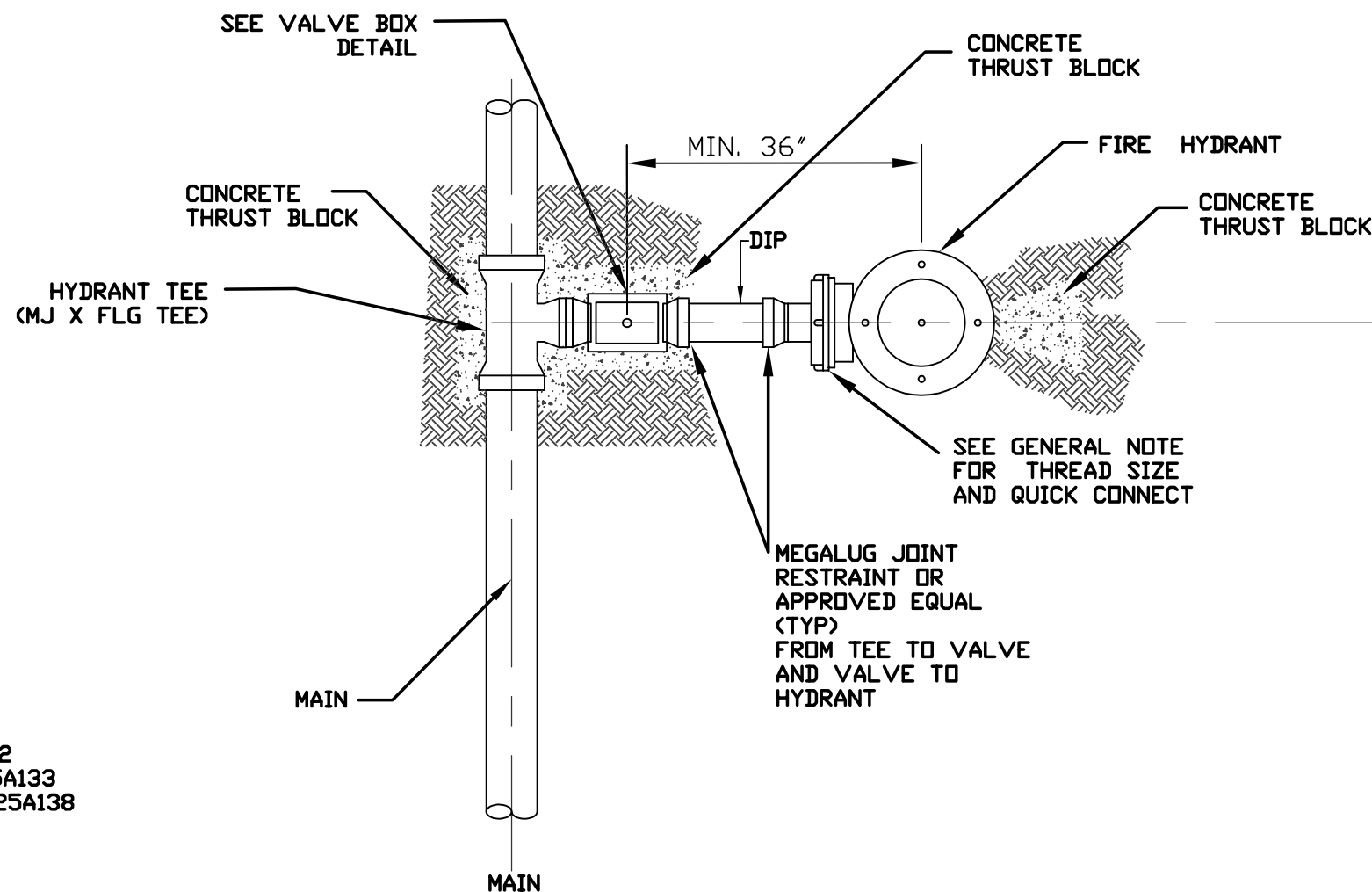
NOTE:
SHALL BE DUCTILE IRON PIPE. NO PVC IS ALLOWED



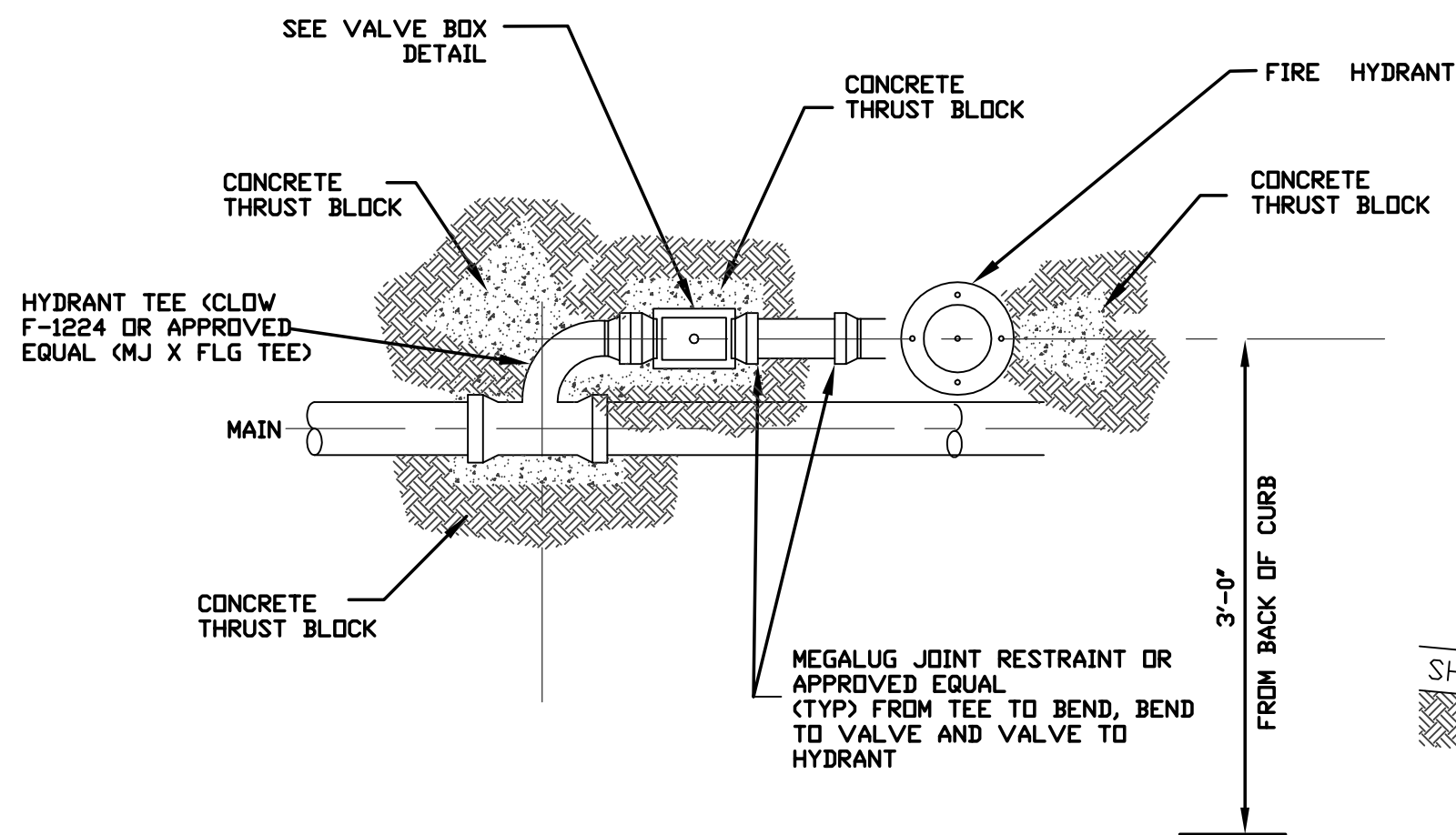
COLOR CODE
FIRE HYDRANT BARREL SAFETY BLUE CODE NO. 225A120
FIRE HYDRANT CAPS SAME AS BONNET COLOR

COLOR CODE (BONNETS AND CAPS)
MAIN SIZE
6\"/>

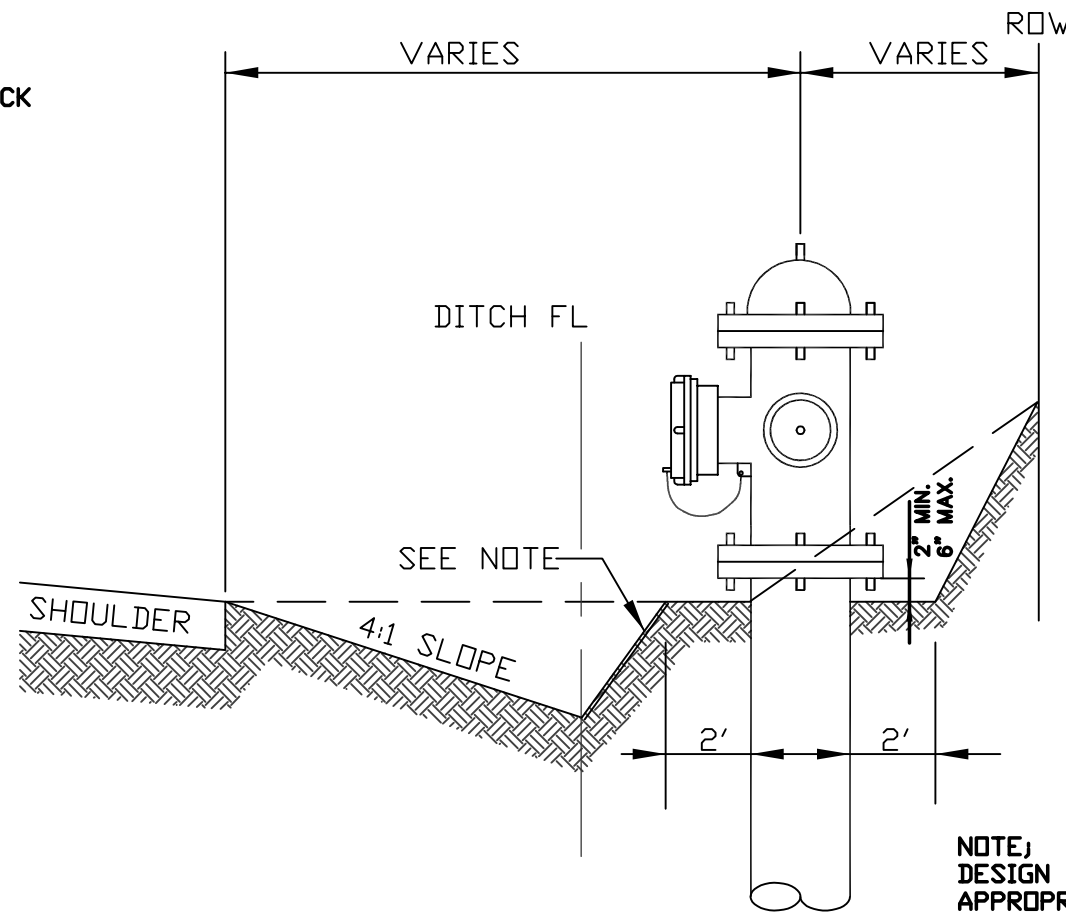
2 FIRE HYDRANT - COLOR CODE



3 FIRE HYDRANT - PLAN

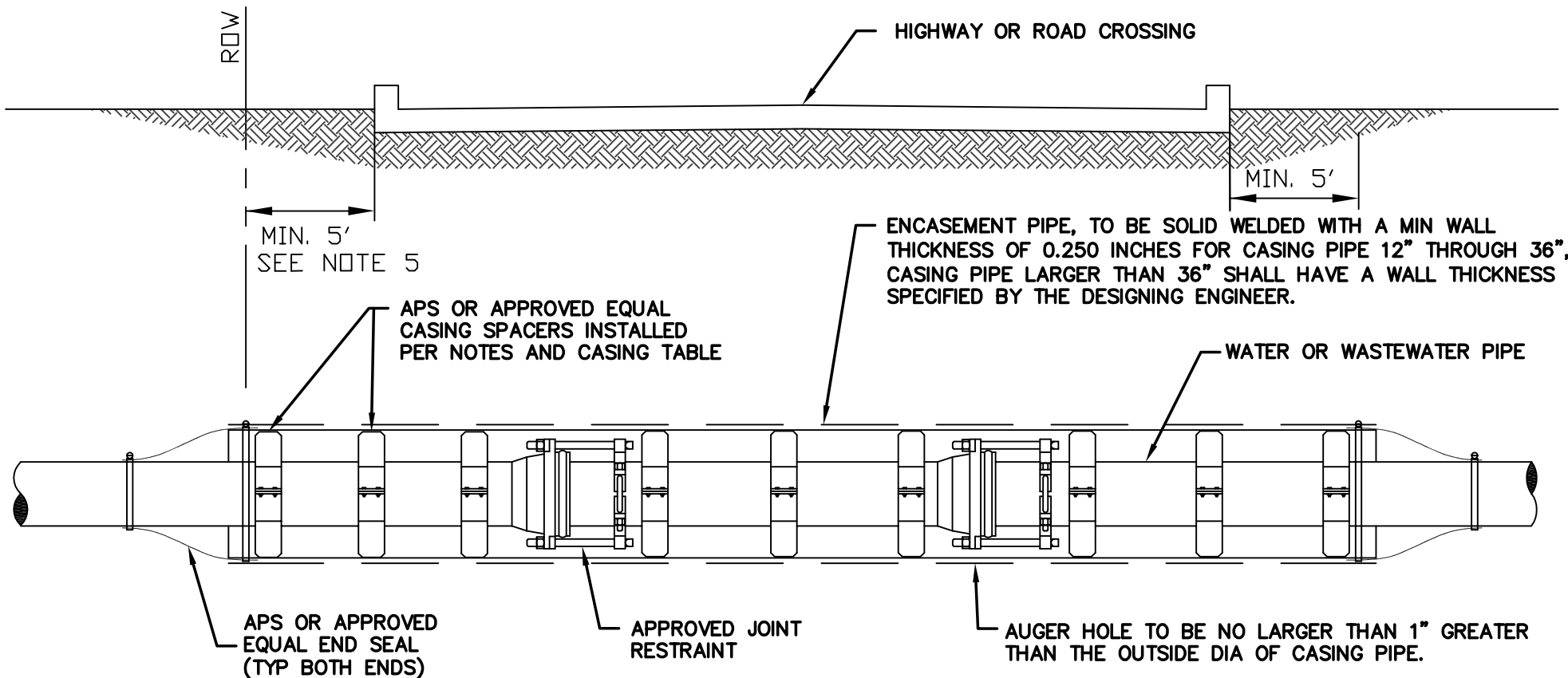


4 ALTERNATE FIRE HYDRANT - PLAN



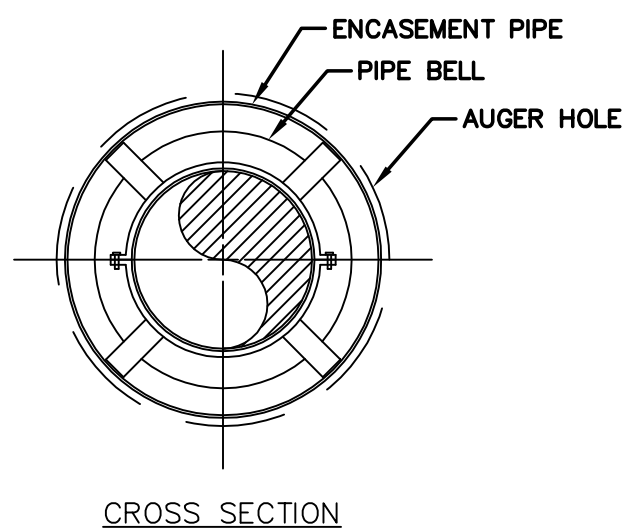
NOTE:
DESIGN ENGINEER TO RECOMMEND APPROPRIATE DESIGN WHICH MAY INCLUDE SLOPE, NO STEEPER THAN 3:1 OR SLOPE PAVING OR VERTICAL WALL.

5 TYPICAL SECTION
2 STREET WITHOUT CURB AND GUTTER



LONGITUDINAL SECTION

NOMINAL PIPE SIZE DIA IN INCHES	MIN CASING SIZE INSIDE DIA IN INCHES	MAX SKID SUPPORT SPACING IN FEET
4	12	4.7
6	12	6.3
8	16	7.4
10	18	8.5
12	20	9.6
15 & 16	22	11.0
18	26	12.0
20 & 21	30	12.0
24	33	12.0
27	36	12.0



CROSS SECTION

- NOTES:**
- SPACERS FOR CARRIER PIPE SHALL BE STAINLESS STEEL, NEOPRENE OR APPROVED EQUAL AND SHALL BE INSTALLED TO CENTER CARRIER PIPE WITHIN CASING WITH A MAX TOLERANCE OF 1/4\"/>

NOTES:

- THE FIRE HYDRANT SUPPLY LINE FROM PUBLIC WATER MAIN TO THE FIRE HYDRANT SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE. PVC SHALL NO BE ALLOWED.
- FIRE HYDRANT THREAD SIZE: PUMPER CONNECTION 4-492 SIZE=4.492\"/>



City of Pearland, Texas

STANDARD DETAILS

WATER

Job No.:
Date: JAN 2020
Dwn By: PRP
Chkd By: RS

Scale:
HORZ: 1\"/>

SHEET
2
OF 2

RS&G ENGINEERING

13601 KATY FREEWAY
SUITE 3180
HOUSTON, TEXAS 77079
PH. 713-763-7777

project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS

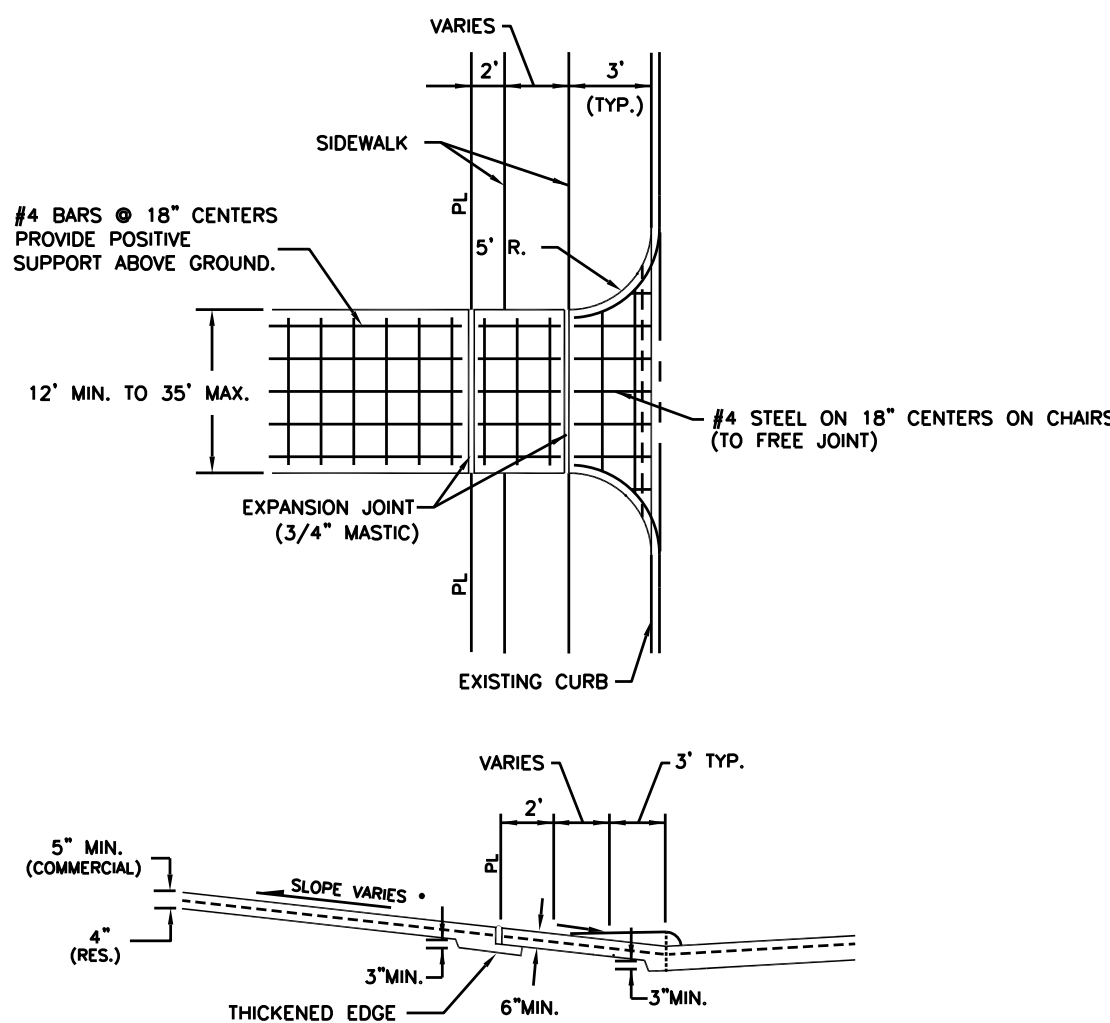
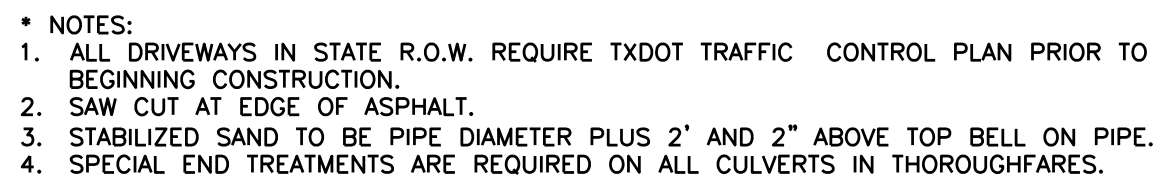
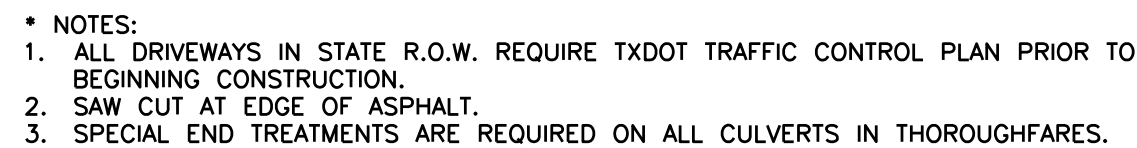


12.20.2022

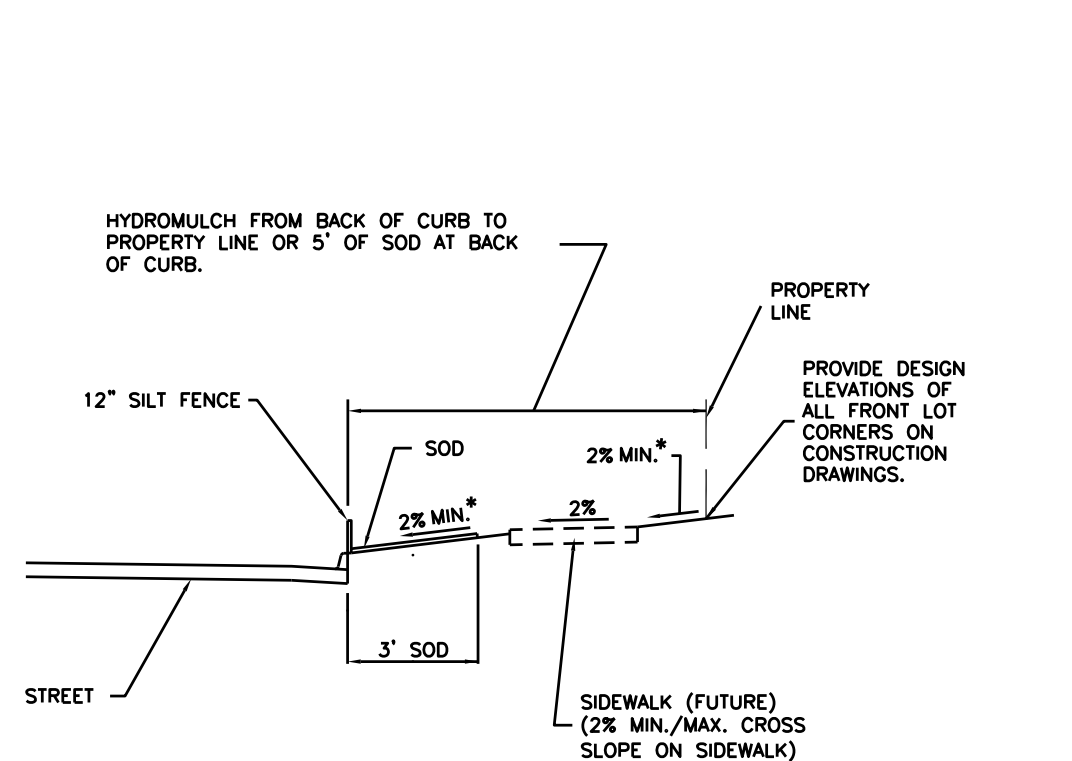
**CONSTRUCTION
DETAILS**

DRAWN BY:
CM
CHECKED:
SNO
PROJECT No:
2286.12
SHEET No:
C7.4

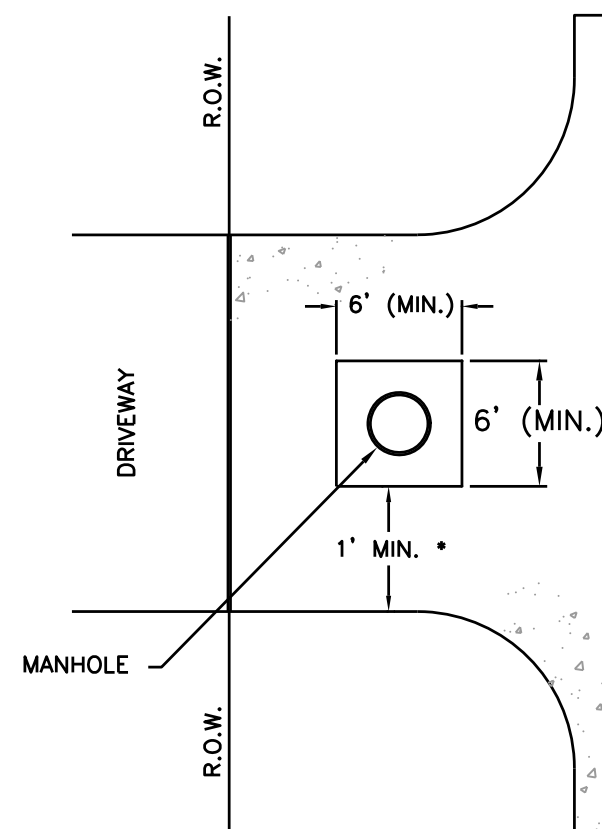
TBPE FIRM #: 15488



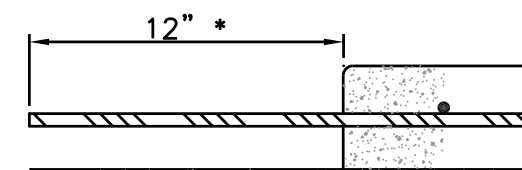
- * NOTES:
- 1. CITY STREETS ONLY. NO CUTOUTS ARE PERMITTED ON TEXAS STATE HIGHWAYS.
- 2. ALL CUTOUTS MUST HAVE BARRICADES INSTALLED UNTIL DRIVEWAYS ARE POURED.
- 3. ALL DRIVEWAYS IN STATE R.O.W. REQUIRE TXDOT PERMIT AND TRAFFIC CONTROL PLAN PRIOR TO BEGINNING CONSTRUCTION.
- 4. DESIRABLE DRIVEWAY SLOPE MAY VARY BETWEEN 2% AND 8%.



- NOTES:
1. MAINTAIN SILT FENCE UNTIL AT A MINIMUM OF 70% STABILIZATION OF DISTURBED AREA IS PERMANENTLY STABILIZED.
 2. 90% COMPACTION MUST BE MAINTAINED FROM BACK OF CURB TO PROPERTY LINE.

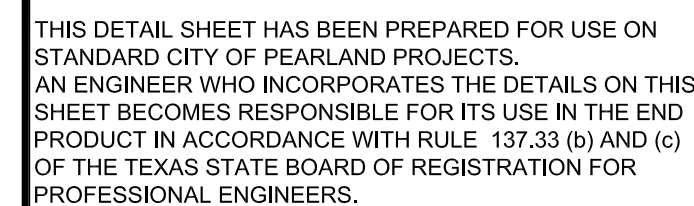


* IF LESS THAN 12" CONTINUE
BLOCK-OUT TO DRIVEWAY EDGE.



SCALE: 1"=0.5'

- LEAVE 12"x #4 REINF. (MIN.) STEEL STUB-OUT ON ALL BLOCK-OUTS.



City of Pearland, Texas

STANDARD DETAILS

DRIVEWAY DETAILS

Job No.:	Scale:	SHEET 1 OF 1
Date: SEPT 2016	HORZ: 1"=NONE VERT: 1"=NONE	
Dwn By: R. Shrestha	CAD FILE:	
Chkd By: R. Mancilla	COP-DW.dwg	

project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

TBPE FIRM #: 15498

REVISIONS



12.20.2022

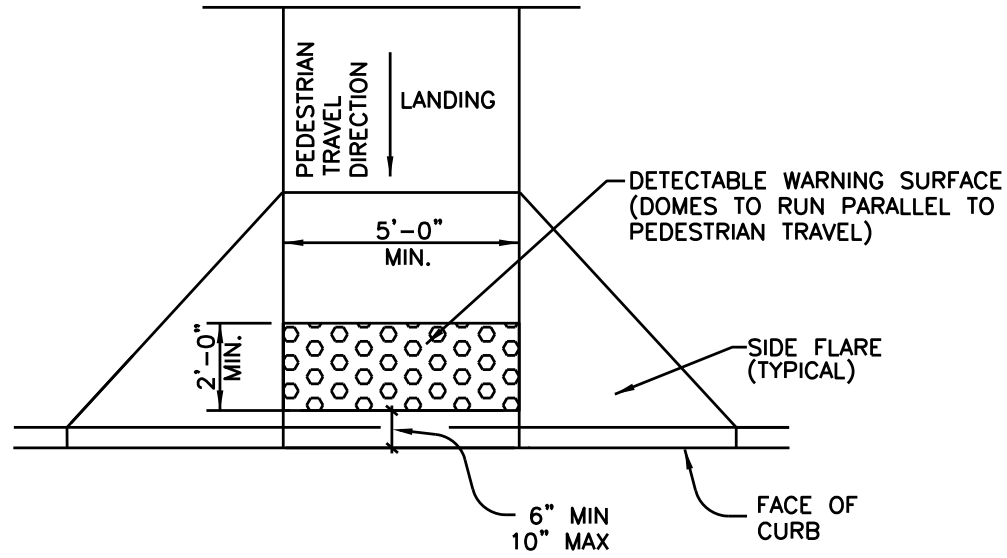
CONSTRUCTION DETAILS

DRAWN BY: CM	CHECKED: SNO
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PROJECT No	SHEET No
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C7.5

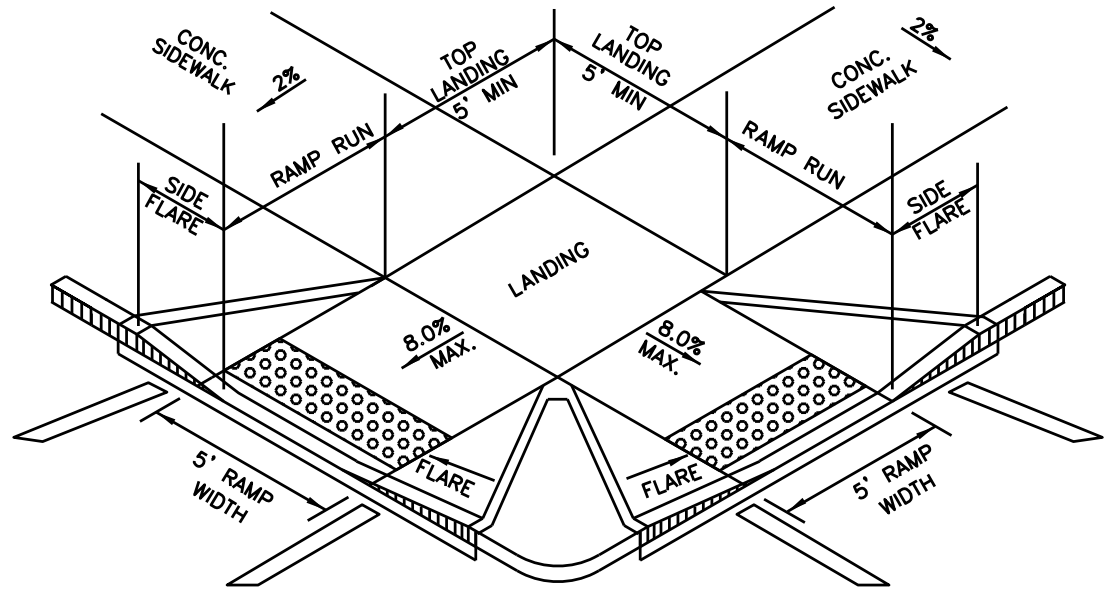
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TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.

NOTES:

1. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 4.29 OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACES, INCLUDING SIDE FLARES. FURNISH DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE, INCLUDING SIDE FLARES.
2. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
3. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
4. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL, AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR OTHER HAZARDOUS VEHICULAR AREA.
5. THE ACCEPTABLE LIST OF QUALIFIED DETECTABLE WARNING MATERIALS FOR THE CITY OF PEARLAND INCLUDES ARMOR-TILE CAST IN PLACE TILE, CAST-IN-PLACE COMPOSITE TILES BY ADA SOLUTIONS, INC AND ANY OTHER PRODUCT THAT IS DEEMED TO BE EQUAL TO OR BETTER THAN THE ABOVE REFERENCED PRODUCTS BY THE CITY ENGINEER. (DETECTABLE WARNING PAVERS ARE NOT PERMITTED.)
6. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS A MINIMUM OF 6" AND A MAXIMUM OF 10" FROM THE EXTENSION OF THE FACE OF CURB.
7. CURB RAMPS SHALL MEET THE CURRENT ADA AND TEXAS ACCESSIBILITY STANDARDS FOR SLOPE AND DETECTABL SURFACES.

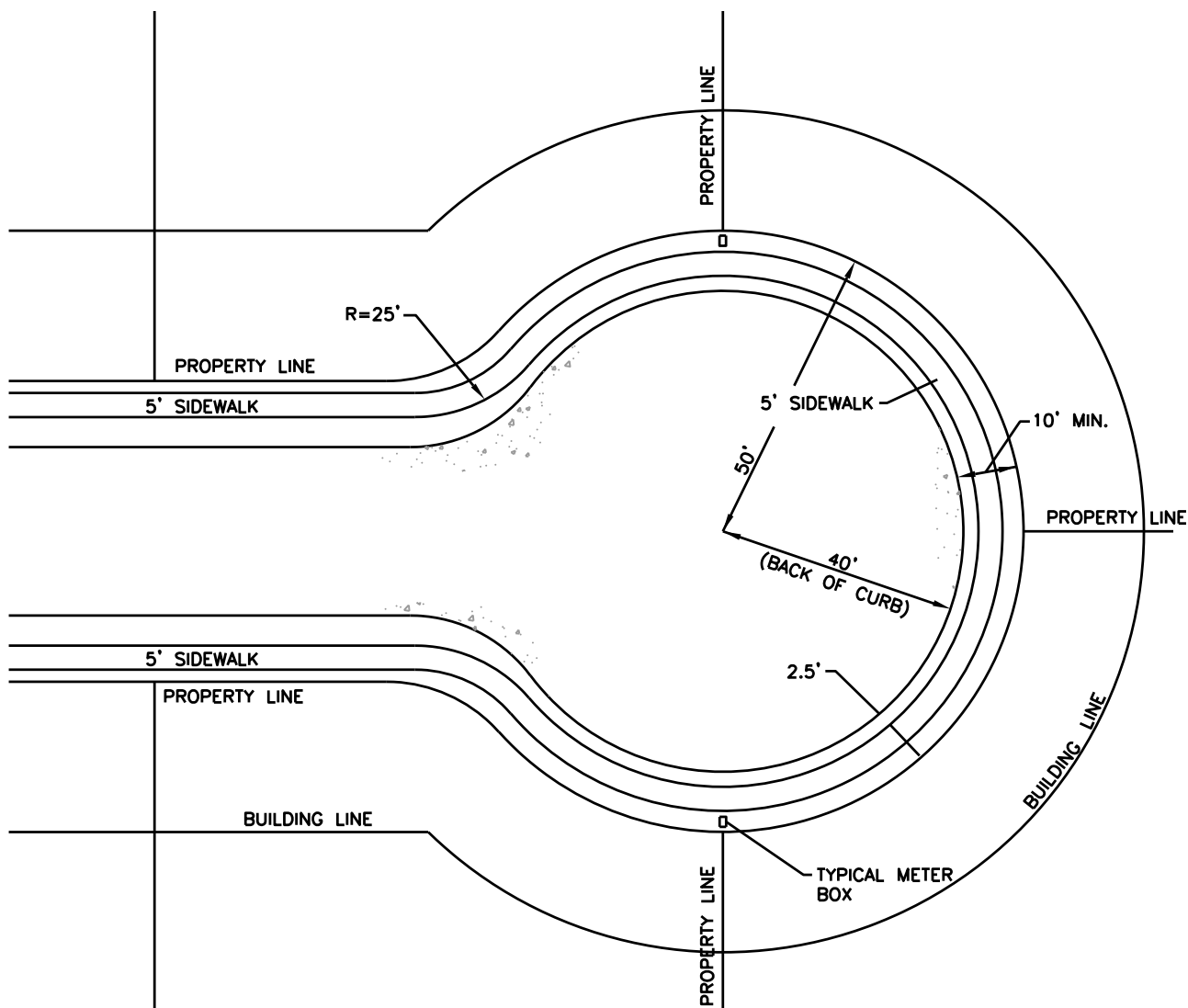


NOTES:

1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. ADJUST CURB RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS AS DIRECTED.
2. LANDINGS SHALL BE 5'X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
3. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 968.102.
4. SEPARATE CURB RAMP AND LANDINGS FROM ADJACENT SIDEWALK AND ANY OTHER ELEMENTS WITH AN EXPANSION JOINT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMPS CONNECT TO THE STREET.
6. CURB RAMPS SHALL MEET THE CURRENT ADA AND TEXAS ACCESSIBILITY STANDARDS FOR SLOPE AND DETECTABLE SURFACES.

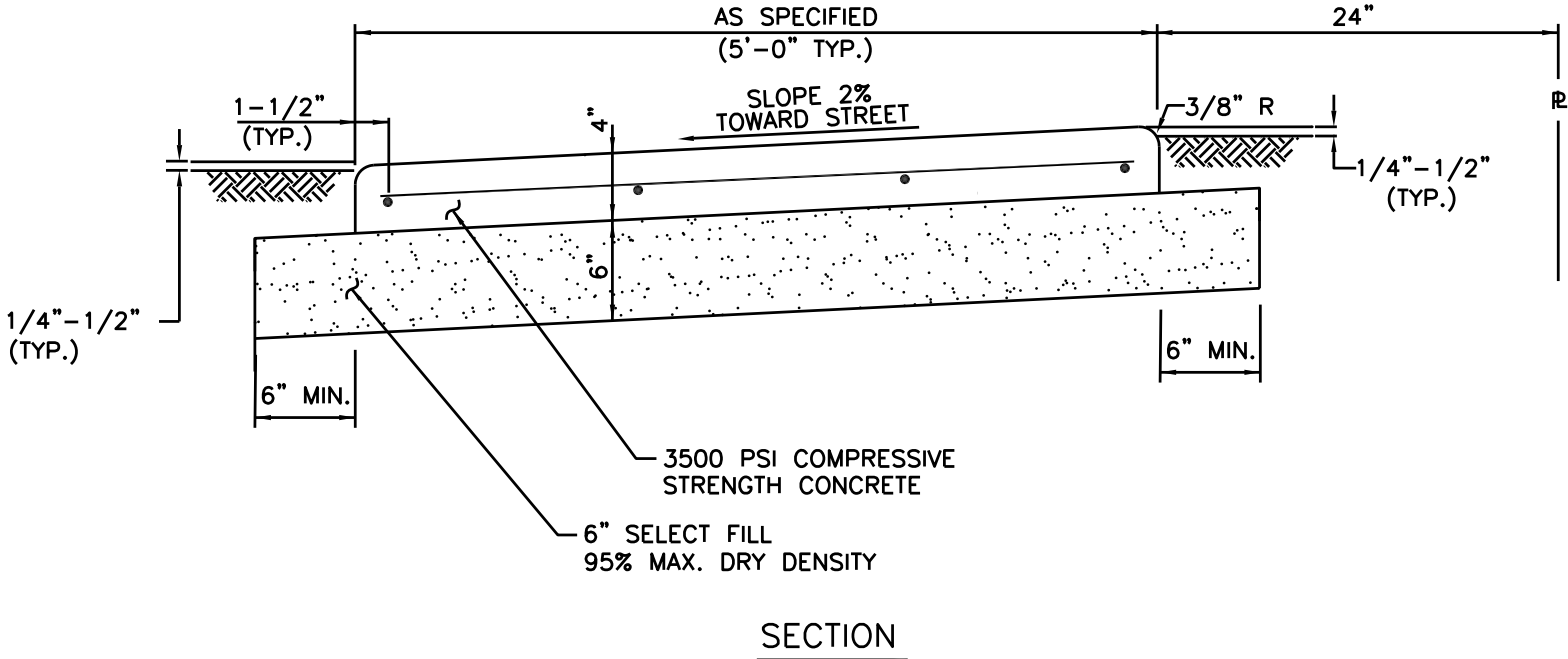
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CURB RAMP

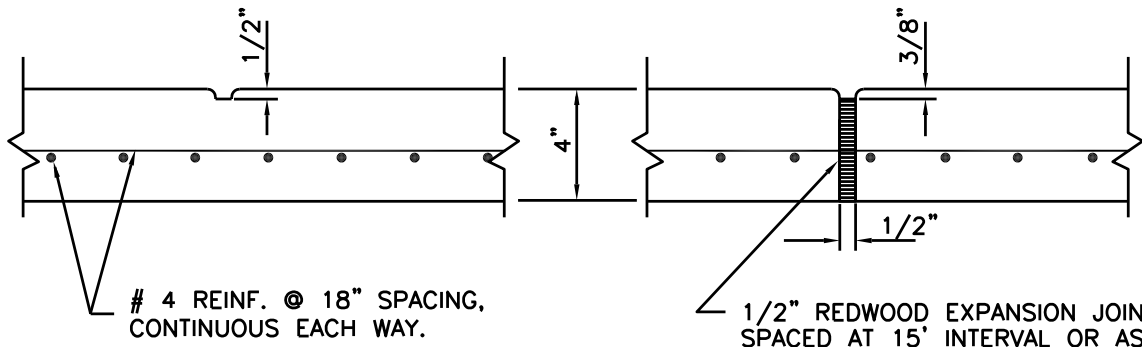


2
1

CUL-DE-SAC SIDEWALK

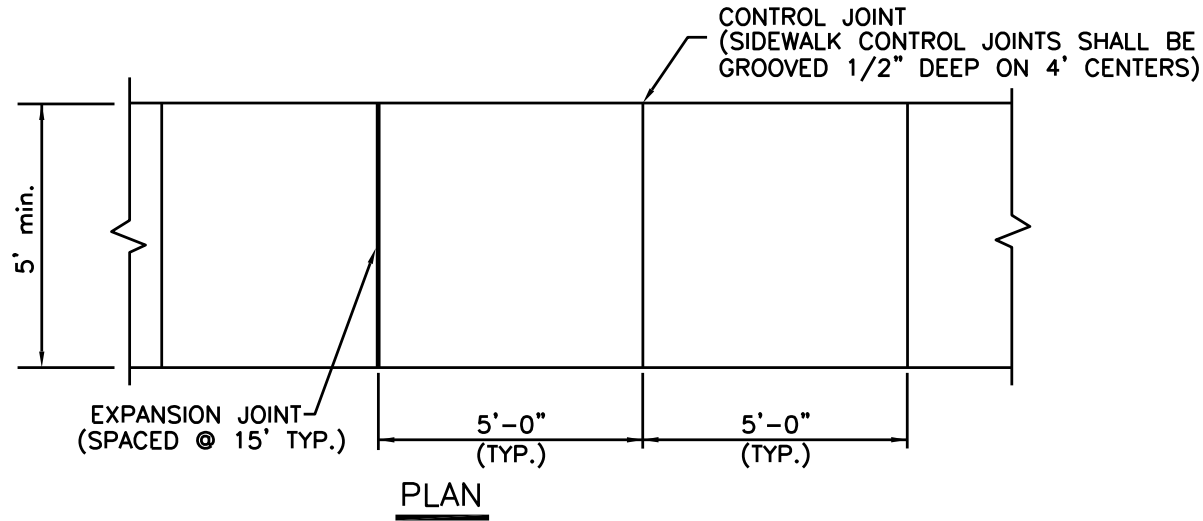


SECTION



CONTROL JOINT

EXPANSION JOINT



PLAN

NOTES:

1. ALL EDGES SHALL BE ROUNDED WITH 3/8" RADIUS.
2. CONTROL JOINTS SHALL BE SPACED AT INTERVALS SAME AS WIDTH OF SIDEWALK.
3. CONTROL JOINTS SHALL BE 1/2" DEEP AND TROWEL EDGE.
4. 1/2" EXPANSION MATERIAL REQUIRED WHERE SIDEWALKS ABUT BUILDINGS, CURBS, DRIVEWAYS, OR EXISTING SIDEWALKS.
5. EXPANSION JOINTS SHALL BE SPACED AT 15 FT. INTERVALS TYPICALLY.
6. WHERE NEW SIDEWALK IS PLACED AGAINST EXISTING SIDEWALK, SAWCUT EXISTING SIDEWALK FULL DEPTH TO AN EVEN STRAIGHT LINE PRIOR TO INSTALLATION OF THE NEW SIDEWALK.
7. ALL NEW SIDEWALK SHALL BE DOWELED INTO ADJACENT CONCRETE STRUCTURES.

NOTE:

1. ALL STREET LIGHTS ARE TO BE INSTALLED WITHIN ONE YEAR AFTER ACCEPTANCE OF SUBDIVISION BY CITY COUNCIL.
2. ALL INTERIOR STREETS WITHIN THE SUBDIVISION MAY HAVE SIDEWALKS INSTALLED BY THE HOMEBUILDER. THE SIDEWALKS ON PERIMETER STREETS SHALL BE INSTALLED BY THE DEVELOPER. SIDEWALKS ON COLLECTOR AND THOROUGHFARE STREETS WILL BE A MINIMUM OF 6 FEET IN WIDTH.
3. ALL H.L.& P. UNDERGROUND CABLE WILL BE BURIED IN RIGID CONDUIT NOT LESS THAN ASTM-A-53 TYPE F GRADE A (DOMESTIC) PIPE, GALVANIZING ASTM-A-123. THIS CONDUIT IS TO BE USED WHEN PLACED UNDER ANY STREET OR DRIVEWAY CROSSING, WATER/SEWER EASEMENTS, OR IN ANY STREET RIGHT OF WAYS.

THIS DETAIL SHEET HAS BEEN PREPARED FOR USE ON STANDARD CITY OF PEARLAND PROJECTS. AN ENGINEER WHO INCORPORATES THE DETAILS ON THIS SHEET BECOMES RESPONSIBLE FOR ITS USE IN THE END PRODUCT IN ACCORDANCE WITH RULE 137.33 (b) AND (c) OF THE TEXAS STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS.



City of Pearland, Texas

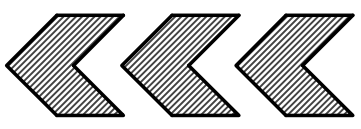
STANDARD DETAILS

SIDEWALK DETAIL

Job No.:	Scale:	SHEET
Date: SEPT 2016	HORZ: 1"=NONE	1
Dwn By: R. Shrestha	VERT: 1"=NONE	OF 1
Chkd By: R. Mancilla	CAD FILE:	
	COP-SW.dwg	

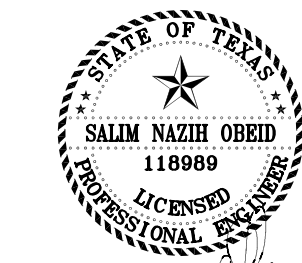
RSG ENGINEERING

13601 KATY FREEWAY
SUITE 3180
HOUSTON, TEXAS 77079
PH. 713-783-7777



project
FOREST PARK LANE
at
1849 FOREST PARK LANE
PEARLAND, TEXAS 77581

REVISIONS



12.20.2022

CONSTRUCTION
DETAILS

DRAWN BY: CM	CHECKED: SNO
PROJECT No 2286.12	SHEET No: C7.6