



COUNTY PURCHASING AGENT
Fort Bend County, Texas

Jaime Kovar
County Purchasing Agent

(281) 341-8640
Fax (281) 341-8645

July 2, 2021

TO: All Prospective Bidders

RE: Addendum No. 1 – Fort Bend County Bid 21-092 Construction of Detention Pond for the Precinct 3 North Library in Fort Bend County

Addendum 1:


Attached is addendum 1. Vendors are to use Addendum 1 document while preparing their solicitation response. Changes are to Section 29.0 - Enclosure and Section 30.0 Pricing.

Immediately upon your receipt of this addendum, please fill out the following information and email this page to Jessica Carabajal at jessica.carabajal@fortbendcountytexas.gov

Company Name

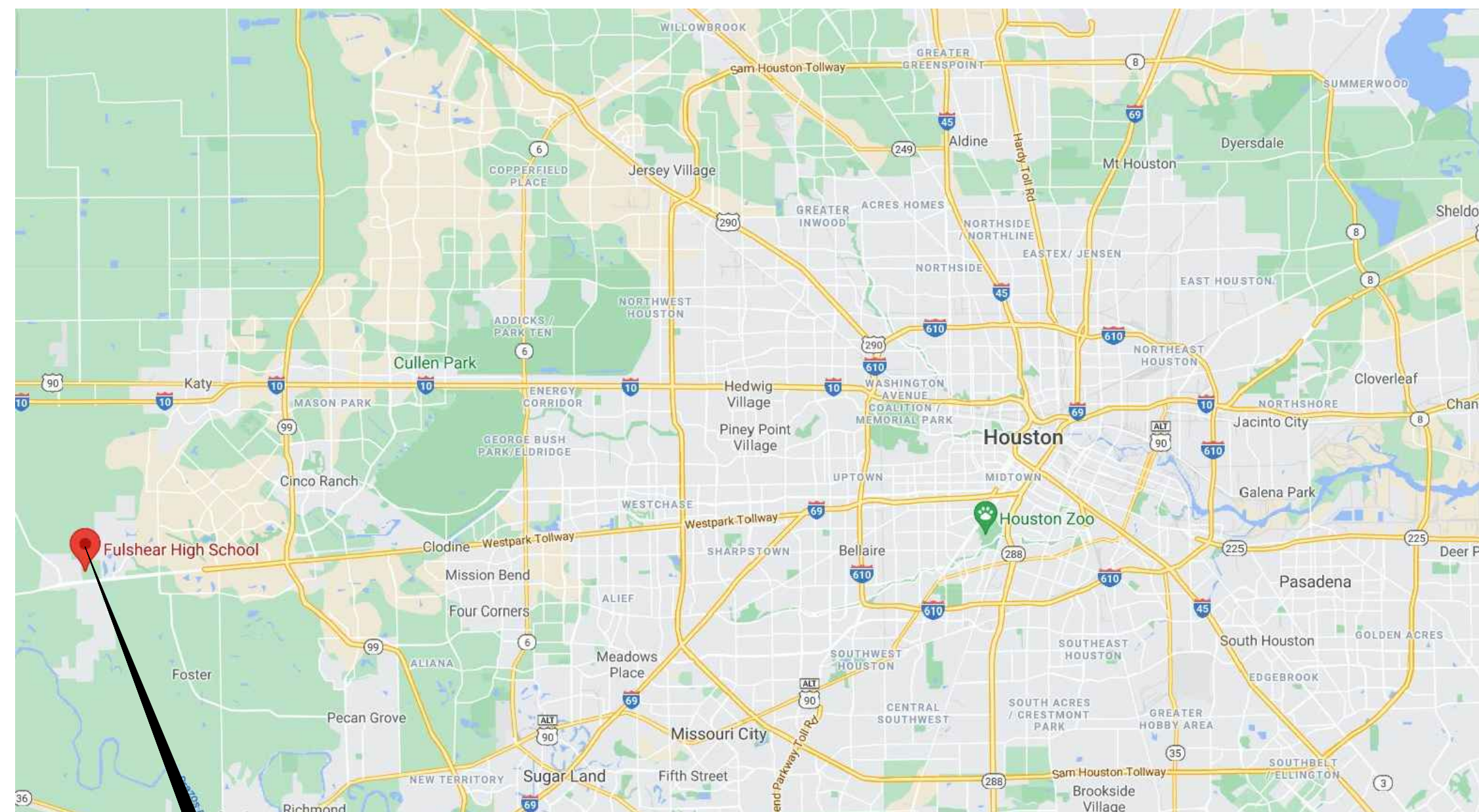
Signature of person receiving addendum Date

If you have any questions, please contact this office.

Sincerely,

Paige McInnis
County Purchasing Agent Assistant

FORT BEND COUNTY

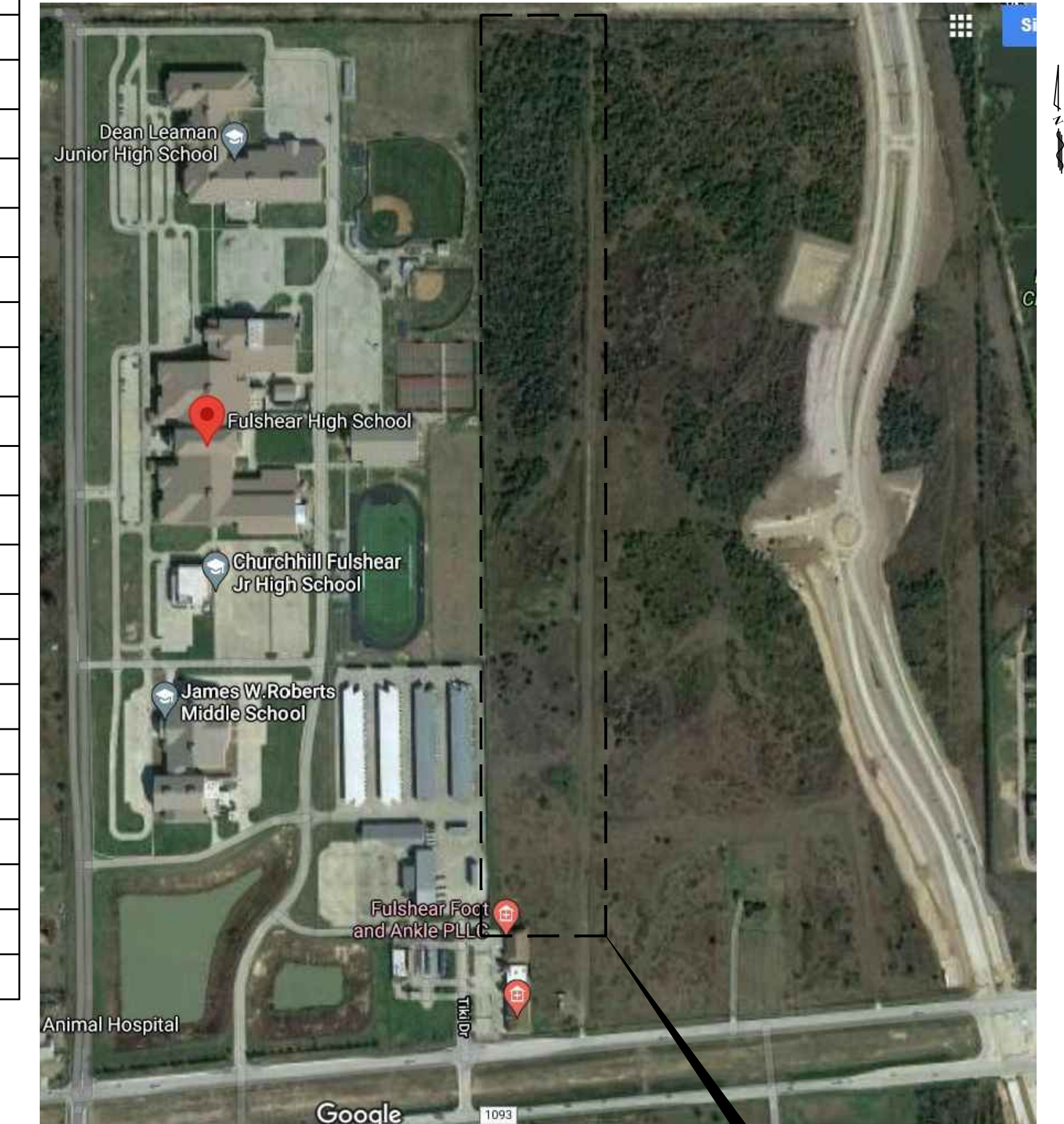
DETENTION POND FOR PRECINCT 3 NORTH LIBRARY



LOCATION MAP
SCALE: N.T.S.

PROJECT LOCATION

SHEET INDEX	
SHEET NO.	SHEET TITLE
01	COVERSHEET
02	GENERAL NOTES
03	OVERALL SITE LAYOUT
04	WORK LIMITS BOUNDARY
05	CONTROL POINT LOCATIONS
06	SITE PLAN
07	DETENTION POND (SOUTH)
08	DETENTION POND (NORTH)
09	DETENTION POND (CENTRAL – ENLARGED VIEW)
10	DETENTION POND SECTIONS 1
11	DETENTION POND SECTIONS 2
12	DETENTION POND SECTIONS 3
13	DETENTION POND SECTIONS 4
14	DETENTION POND SECTIONS 5
15	STORMWATER POLLUTION PREVENTION PLAN
16	FENCE & GATE DETAILS
17	TYPICAL BACKSLOPE DRAIN DETAIL
18	TYPICAL BEDDING AND BACKFILL DETAIL FOR C.G.M.P. OUTFALL
19	STORMWATER POLLUTION PREVENTION PLAN DETAILS
20	BAR SCREEN DETAILS



VICINITY MAP
SCALE: N.T.S.

PROJECT LOCATION

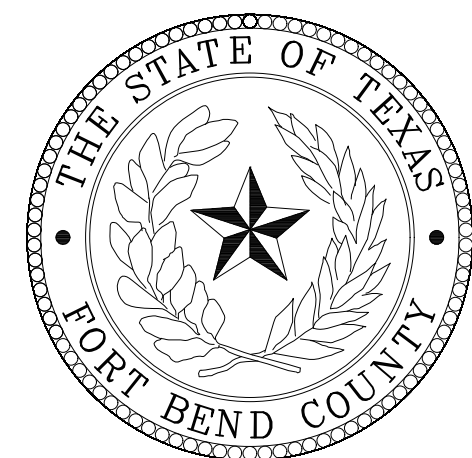
VINCENT M. MORALES, JR.
COMMISSIONER
PRECINCT 1

GRADY PRESTAGE
COMMISSIONER
PRECINCT 2

KP GEORGE
COUNTY JUDGE

ANDY MEYERS
COMMISSIONER
PRECINCT 3

KEN R. DeMERCHANT
COMMISSIONER
PRECINCT 4



MAY 2021
PRECINCT #3
Fort Bend County, Texas



Huitt-Zollars Inc.
Firm Registration No. F-761

1 ADDENDUM #1 07/01/21 F.A.

HUITT-ZOLLARS

HUITT-ZOLLARS, INC. Firm No. F-761
10350 Richmond Ave, Ste 300 | Houston, TX 77042-4248
Phone 281.496.0066 | Fax 281.496.0220
www.huitt-zollars.com

FORT BEND COUNTY GENERAL NOTES

- 1. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL CALL 8-1-1 (ONE CALL NOTIFICATION SYSTEM) PRIOR TO ANY EXCAVATION WORK.
3. THE REQUIREMENTS OF THE TEXAS UTILITY CODE CHAPTER 251 FOR LOCATING UNDERGROUND UTILITIES SHALL BE ADHERED TO IN THE PERFORMANCE OF THIS WORK.
4. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND PROPOSED DIMENSIONS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SECURITY TO PROTECT THE PROJECT SITE, CONTRACTOR PROPERTY, EQUIPMENT, AND WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING STREETS OF CONSTRUCTION DIRT AND DEBRIS AT CLOSE OF EACH WORK DAY.
7. THE CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF THE JOB SHALL BE AS GOOD AS OR BETTER THAN PRIOR TO STARTING WORK.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR, ALONG WITH CONCURRENCE FROM THE FIELD ENGINEER, SHALL DETERMINE HIS/HER LAY-DOWN AND/OR STAGING AREA LOCATIONS.
9. THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS A MINIMUM OF 24 HOURS PRIOR TO BLOCKING DRIVEWAYS OR ENTERING UTILITY EASEMENTS.
10. TRAFFIC INGRESS AND EGRESS FOR DRIVEWAYS AND PEDESTRIAN ACCESS FACILITIES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
11. THE CONTRACTOR SHALL REMOVE ANY FENCES, POSTS, MAILBOXES, PLANTERS, PERMANENT TRASH CONTAINERS, CULVERTS, ETC. OR SECTIONS THEREOF, THAT ENCRUACH WITHIN THE COUNTY'S RIGHT-OF-WAY.
12. PAVED SURFACES, PAVEMENT MARKERS AND MARKINGS SHALL BE PROTECTED FROM DAMAGE BY TRACKED EQUIPMENT.
13. THE CONTRACTOR SHALL MAINTAIN UPDATED RED-LINED RECORD DRAWINGS ON SITE FOR INSPECTION BY THE ENGINEER.
14. MOWING, MAINTENANCE, AND CLEAN-UP OF THE PROJECT SHALL MEET THE REQUIREMENT OF SPECIFICATION ITEM 560 (NO SEPARATE PAY).
15. THE REMOVAL OF ANY ABANDONED UTILITIES REQUIRED TO COMPLETE THE WORK SHALL BE INCIDENTAL AND NO SEPARATE PAYMENT SHALL BE MADE.
16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STOCKPILE NECESSARY MATERIAL ON-SITE OR AT A SECURED OFF-SITE LOCATION AT NO ADDITIONAL EXPENSE TO FORT BEND COUNTY.
17. MANHOLES, JUNCTION BOXES, INLETS, AND RISERS ARE TO BE PRE-CAST OR CAST IN PLACE.
18. THE FOLLOWING DETAILS ARE MINIMUM REQUIREMENTS AND MAY BE SUPERSEDED BY GEOTECHNICAL ENGINEER RECOMMENDATIONS OR MORE STRINGENT REQUIREMENTS FROM THE CITY'S ETJ PROJECT IS WITHIN.
19. BERMS TO BE COMPACTED SUITABLE FOR VEHICULAR TRAFFIC.

FORT BEND COUNTY CONSTRUCTION NOTES

- 1. FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING.
2. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION@FORTBENDCOUNTYTX.GOV.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY ROAD RIGHT OF WAYS.
4. ALL PAVING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY "RULES, REGULATIONS AND REQUIREMENTS" RELATING TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISIONS AS CURRENTLY AMENDED.
5. ALL ROAD WIDTHS, CURB RADI AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.
6. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.
7. ALL CONCRETE PAVEMENT SHALL BE 5/8 SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.
8. ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
9. 4"X 12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.
10. AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACE IN ACCORDANCE WITH TXDOT PED-18 STANDARD DETAIL SHEET. A.D.A.-HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS.
11. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.
12. ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED.
13. GUIDELINES ARE SET FORTH IN THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION - BOTH DAY AND NIGHT.
14. ALL R1-1 STOP SIGNS SHALL BE A MINIMUM OF 30"X30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
15. STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE W/REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWERCASE LETTERING WITH UPPERCASE LETTERS OF 6" MINIMUM AND LOWERCASE LETTERS OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.
16. A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF OF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.
17. THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER.
18. STABILIZED SUBGRADE: DETERMINE THE THICKNESS OF THE STABILIZED SUBGRADE AFTER CURING AND COMPACTION. IF THE SUBGRADE DEPTH IS GREATER THAN THE PROPOSED THICKNESS BY 20% OR MORE, THE CMT LAB MUST PROVIDE VERIFICATION THE PERCENTAGE OF MATERIAL BEING USED TO STABILIZE THE SUBGRADE MEETS OR EXCEEDS PROJECT REQUIREMENTS. TEST RESULTS REQUIRED.

PRIVATE UTILITY NOTES

- 1. ALL UTILITY SERVICE LINES ARE NOT SHOWN ON THE DRAWINGS. CONTRACTORS SHALL ANTICIPATE THAT SUCH SERVICE LINES EXIST AND REPAIR THEM IF DAMAGED DURING CONSTRUCTION. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UTILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATIONS AND/OR DEPTHS, AND TO DETERMINE WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THESE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL DETERMINE IF ANY OF THESE UTILITIES ARE CLEAR, AND SHALL PRESERVE AND PROTECT ALL OF THESE UTILITIES SHOWN OR FOUND. IF CONFLICTS ARISE REGARDING PUBLIC UTILITIES, THE CONTRACTOR SHOULD IMMEDIATELY NOTIFY THE PROJECT ENGINEER. UTILITY RELOCATIONS REQUIRED BY CONSTRUCTION SHALL BE PERFORMED BY THE APPROPRIATE UTILITY COMPANY; ANY RELOCATIONS OR TEMPORARY BRACING NOT DEEMED NECESSARY BY THE ENGINEER, BUT DESIRED FOR CONVENIENCE BY THE CONTRACTOR, SHALL BE PERFORMED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.
TEXAS ONE CALL 1- 800- 245- 4545
AT&T 281 - 341-4312
CENTERPOINT ENERGY-GAS 281-342-8881
CENTERPOINT ENERGY-ELECTRIC 281-341-4930
COMCAST 713-462-1900
2. COMCAST - THE CONTRACTOR SHALL NOTIFY COMCAST AT LEAST 72 HOURS BEFORE COMMENCING WORK TO LOCATE EXISTING UNDERGROUND CABLE.

AT&T TEXAS/SWBT FACILITIES

- 1. THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL CALL 1-800-344-8377 (TEXAS 811) A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED.
3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBT FACILITIES.
4. WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.
6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713) 567-4552 OR E-MAIL HIM AT rl7259@att.com, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR OUR AT&T TEXAS/SWBT FACILITIES.

CENTERPOINT ENERGY

- CAUTION: UNDERGROUND GAS FACILITIES
THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
1. WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 207-5463 OR (713) 945-8037 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
2. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
3. WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.
4. FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3552 OR (713) 207-4200.
5. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

WARNING : OVERHEAD ELECTRICAL LINES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:

- 1. ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
2. OPERATING A CRANE DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.

PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY

NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-6348 OR (713) 207-5769.

STORM CONSTRUCTION NOTES

- 1. FOR PROP. INLET, SET TOP OF GRATE APPROX. 3-IN BELOW NATURAL GROUND AND INSTALL 1-FEET CONC. COLLAR AROUND INLET UNLESS OTHERWISE NOTED.
2. FOR PROPOSED STORM SEWERS 10-IN AND LESS, PROVIDE PVC SDR 26 PIPE WITH GASKET JOINTS; AND 12-IN AND LARGER, PROVIDE CORRUGATED HDPE PIPE WITH SMOOTH INTERIOR AND GASKET JOINTS UNLESS OTHERWISE NOTED.
3. STORM SEWER SHALL BE AS SHOWN ON THE DRAWINGS, AND SHALL BE INSTALLED, BEDDED, AND BACK FILLED IN ACCORDANCE WITH FORT BEND COUNTY STANDARD DETAIL DRAWINGS AS APPLICABLE UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
4. ALL TRENCH BACKFILL SHALL BE IN 6' LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS IN EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM D-698/AASHTO 199).
5. CONTRACTOR SHALL PROVIDE 12' MINIMUM VERTICAL CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF THIS WORK.
7. ALL DITCHES SHALL BE GRADED TO PROPOSED ELEVATIONS TO ENSURE PROPER DRAINAGE. PROVIDE 0.5% MINIMUM SLOPE AT ALL DITCH FLOWLINES AND 3:1 MAXIMUM SIDE SLOPE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREA SHALL BE REGRADED, SEEDED, AND FERTILIZED.

EROSION AND SEDIMENTATION CONTROLS

- 1. CONTRACTOR TO PROVIDE EROSION CONTROL AND INLET PROTECTION AROUND ALL DISTURBED AREAS.
2. CONTRACTOR TO USE BEST MANAGEMENT PRACTICES (BMP) WHEN PLACING EROSION CONTROL MEASURES (SEE SWPPP DETAIL SHEETS.)
3. CONTRACTOR TO PROVIDE STORM WATER POLLUTION PREVENTION PLAN COMPLYING WITH FEDERAL REGULATIONS.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTATION AND SUBMISSION OF ALL REQUIRED STATE, AND FEDERAL FORMS RELATED TO STORM WATER POLLUTION PREVENTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION IMPLEMENTATION, MAINTENANCE, INSPECTION AND REMOVAL OF ALL STORM WATER POLLUTION PREVENTION ITEMS, ADHERENCE TO STORM WATER MANAGEMENT AND POLLUTION PREVENTION PLANS, WASTE COLLECTION & DISPOSAL, OFF-SITE VEHICLE TRACKING & OTHER PRACTICES.

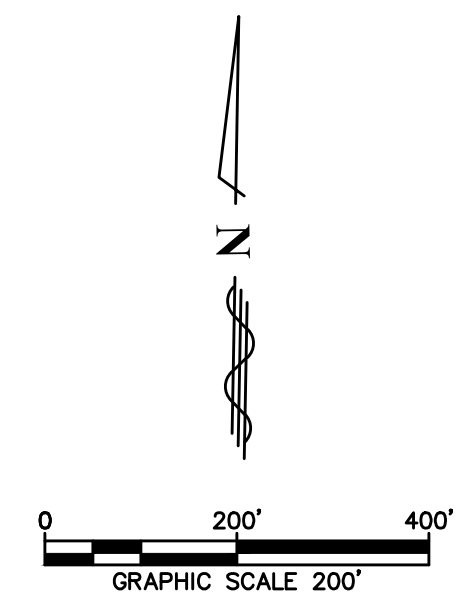
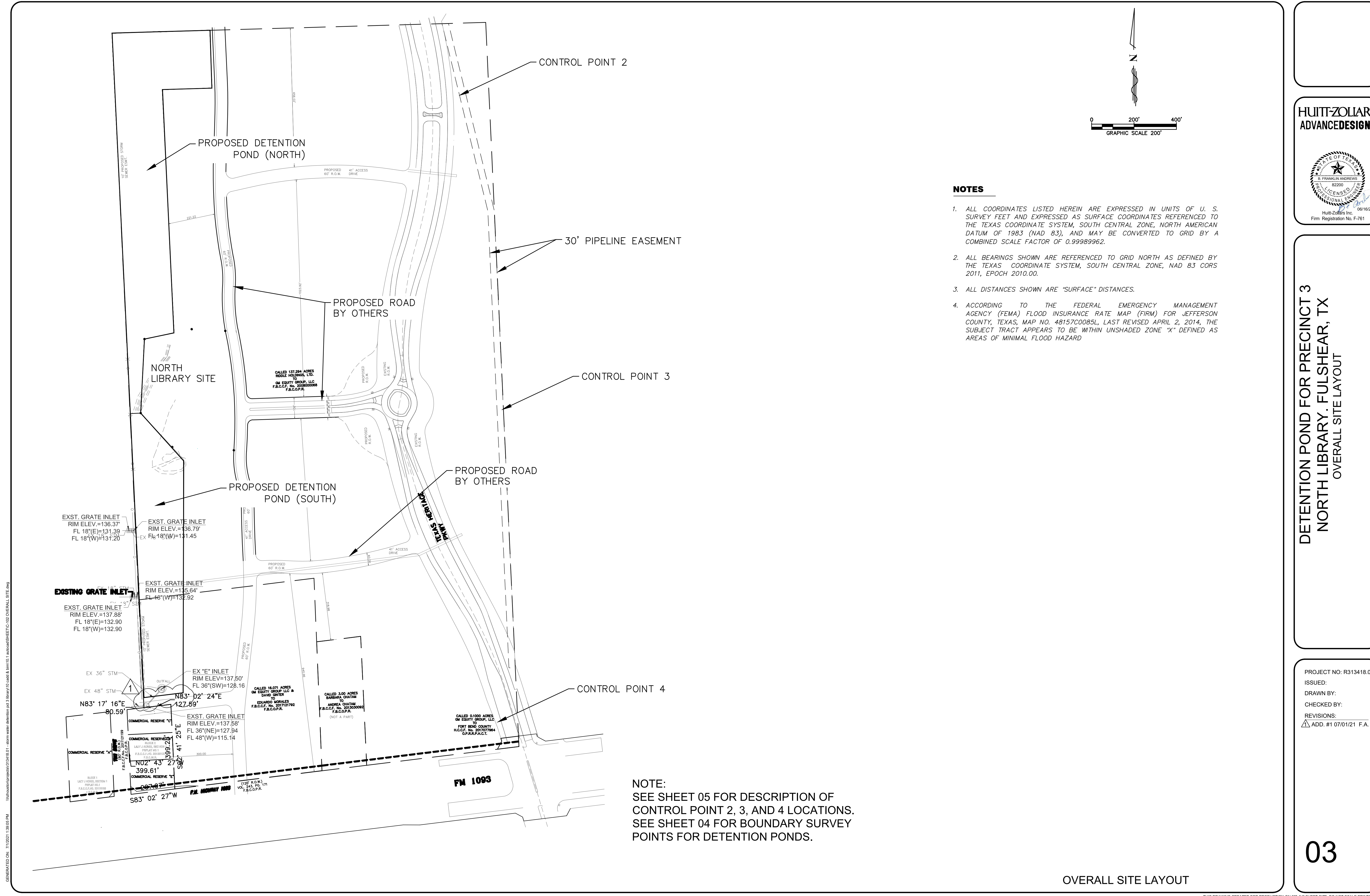
HUITT-ZOLIARS ADVANCEDDESIGN™



DETENTION POND FOR PRECINCT 3 NORTH LIBRARY, FULSHEAR, TX GENERAL NOTES

PROJECT NO: R313418.01 ISSUED: DRAWN BY: CHECKED BY: REVISIONS: ADD. #1 07/01/21 F.A.

02



NOTES

1. ALL COORDINATES LISTED HEREIN ARE EXPRESSED IN UNITS OF U. S. SURVEY FEET AND EXPRESSED AS SURFACE COORDINATES REFERENCED TO THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83), AND MAY BE CONVERTED TO GRID BY A COMBINED SCALE FACTOR OF 0.99989962.
2. ALL BEARINGS SHOWN ARE REFERENCED TO GRID NORTH AS DEFINED BY THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83 CORS 2011, EPOCH 2010.00.
3. ALL DISTANCES SHOWN ARE "SURFACE" DISTANCES.
4. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR JEFFERSON COUNTY, TEXAS, MAP NO. 48157C0085L, LAST REVISED APRIL 2, 2014, THE SUBJECT TRACT APPEARS TO BE WITHIN UNSHADED ZONE "X" DEFINED AS AREAS OF MINIMAL FLOOD HAZARD

NOTE:
SEE SHEET 05 FOR DESCRIPTION OF CONTROL POINT 2, 3, AND 4 LOCATIONS.
SEE SHEET 04 FOR BOUNDARY SURVEY POINTS FOR DETENTION PONDS.

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ADVANCEDDESIGN™



DETENTION POND FOR PRECINCT 3
 NORTH LIBRARY. FULSHEAR, TX
 OVERALL SITE LAYOUT

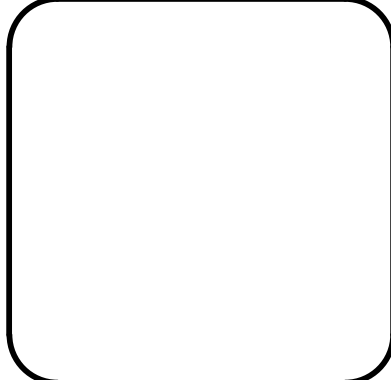
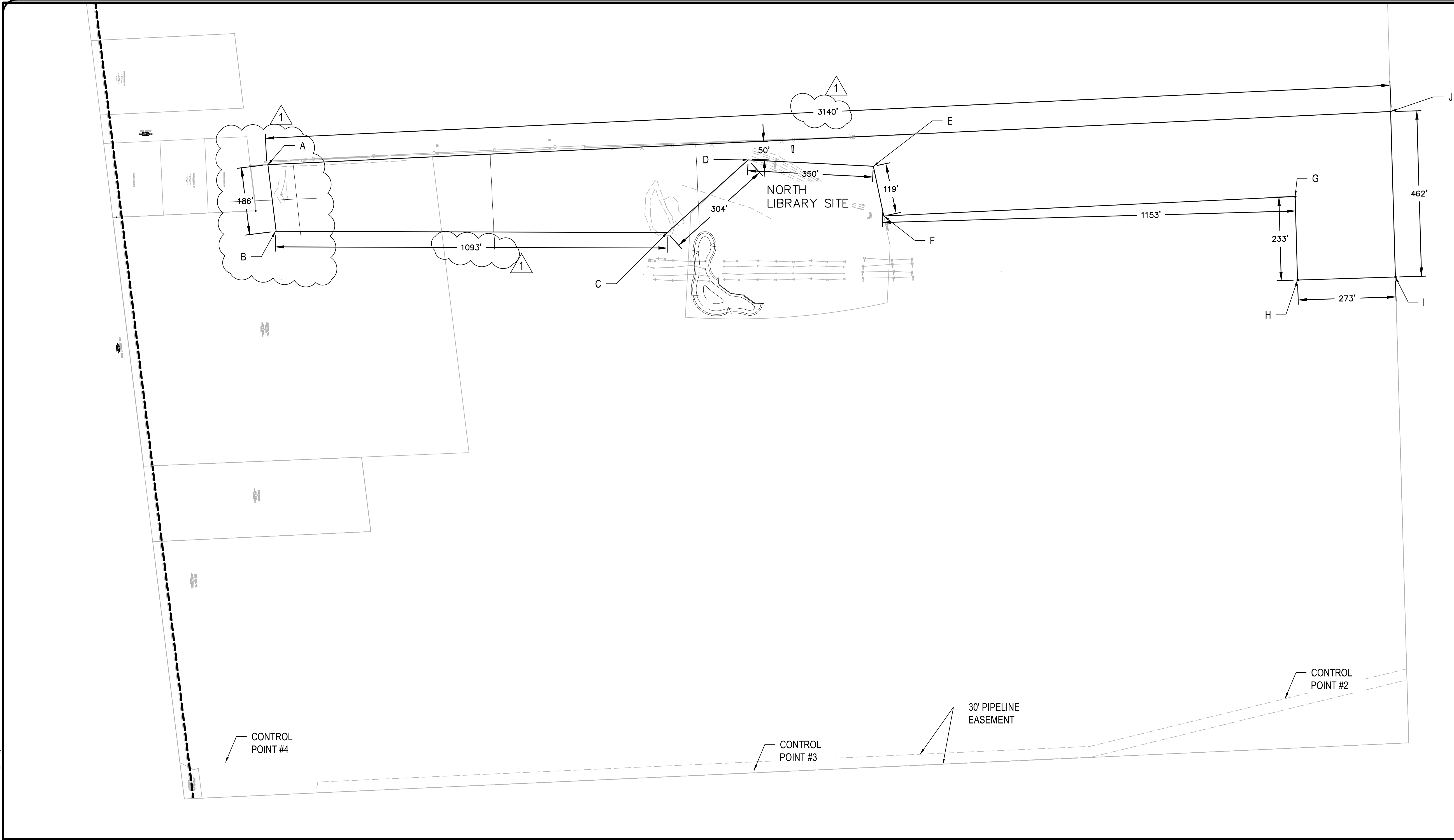
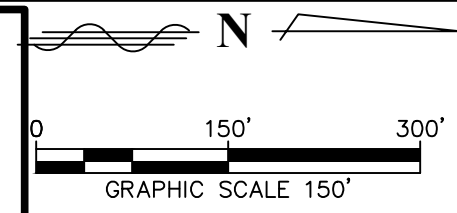
PROJECT NO: R313418.01
 ISSUED:
 DRAWN BY:
 CHECKED BY:
 REVISIONS:
 ▲ ADD. #1 07/01/21 F.A.

03

OVERALL SITE LAYOUT

GENERATED ON: 7/1/2021 1:30:05 PM
 \\houston\projects\1313418.01 - storm water detention pond 3.library\10_cadd & layout\10 - autocad\sheet\03 OVERALL SITE.dwg

THIS DRAWING CREATED FOR PRODUCTION ON 22"x34" SHEET SIZE. DO NOT SCALE PRINTS.



DETENTION POND FOR PRECINCT 3
 NORTH LIBRARY, FULSHEAR, TX
 WORK LIMITS BOUNDARY

SEE SHEET 05

NUMBER	CONTROL POINT TYPE	X	Y
1	5/8" Iron Rod w/Aluminum Disk	2,959,416.7	13,818,750.9
2	5/8" Iron Rod w/Aluminum Disk	2,959,709.5	13,817,323.2
3	5/8" Iron Rod w/Aluminum Disk	2,959,910.1	13,815,841.6
4	5/8" Iron Rod w/Aluminum Disk	2,959,888.0	13,814,367.5

POINT	X	Y
A	2958220.77	13814485.77
B	2958407.19	13814508.49
C	2958410.45	13815599.49
D	2958207.48	13815825.21
E	2958225.33	13816174.23
F	2958364.03	13816203.38
G	2958310.20	13817350.80
H	2958542.98	13817357.45
I	2958534.39	13817630.25
J	2958072.59	13817617.23

- CONTROL POINT 1 IS A 5/8" IRON ROD W/ALUMINUM DISK IN CONCRETE APPROXIMATELY 4,535' NORTH OF THE NORTH ROW LINE OF FM 1093, 100' NORTH OF THE NORTH ROW LINE OF FULSHEAR BEND DR, 50.5' NORTHEAST OF THE CORNER OF A WIRE FENCE, 76.5' WEST OF THE CORNER OF A CONCRETE WALL, 61.7' NORTHWEST OF AN ENTERPRISE PIPELINE MARKER.
- CONTROL POINT 2 IS A 5/8" IRON ROD W/ALUMINUM DISK IN CONCRETE APPROXIMATELY 3,080' NORTH OF THE NORTH ROW LINE OF FM 1093, 1,250' SOUTH OF THE SOUTH ROW LINE OF FULSHEAR BEND DR, 341.1' SOUTH OF A WIRE FENCE, 344.3' SOUTHWEST OF THE CORNER OF A CONCRETE WALL, 100.7' NORTH OF AN ENTERPRISE PIPELINE MARKER.
- CONTROL POINT 3 IS A 5/8" IRON ROD W/ALUMINUM DISK IN CONCRETE APPROXIMATELY 1,585' NORTH OF THE NORTH ROW LINE OF FM 1093, 2,745' SOUTH OF THE SOUTH ROW LINE OF FULSHEAR BEND DR, 152.9' NORTH OF AN ENTERPRISE PIPELINE MARKER, 43.3' NORTHWEST OF A POWER POLE, 11.7' WEST OF A WIRE FENCE.
- CONTROL POINT 4 IS A 5/8" IRON ROD W/ALUMINUM DISK IN CONCRETE APPROXIMATELY 135' NORTH OF THE NORTH ROW LINE OF FM 1093, 4,195' SOUTH OF THE SOUTH ROW LINE OF FULSHEAR BEND DR, 102.4' WEST OF A WIRE FENCE, 136.0' NORTHWEST OF A MANHOLE.

PROJECT NO: R313418.01
 ISSUED:
 DRAWN BY:
 CHECKED BY:
 REVISIONS:
 ADD. #1 07/01/21 F.A.

WORK LIMITS BOUNDARY

GENERATED ON: 7/1/2021 1:36:12 PM
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DATE: 10/14/2019 4:25:56 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 1
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,816,954.74 E = 2,959,032.06
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,818,750.94 E = 2,959,416.73
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	139.73'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	18 & 20
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 19
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 4,535' TO FM 1093
 APPROX 100' TO FULSHEAR BEND DR

Control Point 19 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 4,535' north of the north ROW line of FM 1093, 100' north of the north ROW line of Fulshear Bend Dr, 50.5' northeast of the corner of a wire fence, 76.5' west of the corner of a concrete wall, 61.7' northwest of an Enterprise pipeline marker.

CONTROL DATA SHEET
 CONTROL POINT 1
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 1 OF 2 SCALE: N/A

DATE: 10/14/2019 4:26:03 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 2
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,815,527.20 E = 2,959,324.80
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,817,323.22 E = 2,959,709.51
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	137.95'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	19 & 21
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 20
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 1,250' TO FULSHEAR BEND DR
 APPROX 3,080' TO FM 1093

Control Point 20 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 3,080' north of the north ROW line of FM 1093, 1,250' south of the south ROW line of Fulshear Bend Dr, 341.1' south of a wire fence, 344.3' southwest of the corner of a concrete wall, 100.7' north of an Enterprise pipeline marker.

CONTROL DATA SHEET
 CONTROL POINT 2
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 2 OF 2 SCALE: N/A

DATE: 10/14/2019 4:25:59 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 3
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,814,045.77 E = 2,959,525.41
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,815,841.60 E = 2,959,910.14
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	135.40'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	20 & 22
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 21
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 2,745' TO FULSHEAR BEND DR
 APPROX 1,585' TO FM 1093

Control Point 21 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 1,585' north of the north ROW line of FM 1093, 2,745' south of the south ROW line of Fulshear Bend Dr, 152.9' north of an Enterprise pipeline marker, 43.3' north of a power pole, 11.7' west of a wire fence.

CONTROL DATA SHEET
 CONTROL POINT 3
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 2 OF 2 SCALE: N/A

DATE: 10/14/2019 4:26:01 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 4
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,812,571.86 E = 2,959,503.30
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,814,367.49 E = 2,959,888.03
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	134.58'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	21 & 23
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 22
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 4,195' TO FULSHEAR BEND DR
 APPROX 135' TO FM 1093

Control Point 22 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 135' north of the north ROW line of FM 1093, 4,195' south of the south ROW line of Fulshear Bend Dr, 102.4' west of a wire fence, 136.0' northwest of a manhole.

CONTROL DATA SHEET
 CONTROL POINT 4
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 1 OF 2 SCALE: N/A

DATE: 10/14/2019 4:26:05 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 4
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,812,571.86 E = 2,959,503.30
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,814,367.49 E = 2,959,888.03
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	134.58'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	21 & 23
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 22
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 4,195' TO FULSHEAR BEND DR
 APPROX 135' TO FM 1093

Control Point 22 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 135' north of the north ROW line of FM 1093, 4,195' south of the south ROW line of Fulshear Bend Dr, 102.4' west of a wire fence, 136.0' northwest of a manhole.

CONTROL DATA SHEET
 CONTROL POINT 4
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 2 OF 2 SCALE: N/A

DATE: 10/14/2019 4:26:03 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 3
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,814,045.77 E = 2,959,525.41
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,815,841.60 E = 2,959,910.14
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	135.40'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	20 & 22
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 21
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 2,745' TO FULSHEAR BEND DR
 APPROX 1,585' TO FM 1093

Control Point 21 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 1,585' north of the north ROW line of FM 1093, 2,745' south of the south ROW line of Fulshear Bend Dr, 152.9' north of an Enterprise pipeline marker, 43.3' north of a power pole, 11.7' west of a wire fence.

CONTROL DATA SHEET
 CONTROL POINT 3
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 1 OF 2 SCALE: N/A

DATE: 10/14/2019 4:26:03 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 3
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,814,045.77 E = 2,959,525.41
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,815,841.60 E = 2,959,910.14
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	135.40'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	20 & 22
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 21
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 2,745' TO FULSHEAR BEND DR
 APPROX 1,585' TO FM 1093

Control Point 21 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 1,585' north of the north ROW line of FM 1093, 2,745' south of the south ROW line of Fulshear Bend Dr, 152.9' north of an Enterprise pipeline marker, 43.3' north of a power pole, 11.7' west of a wire fence.

CONTROL DATA SHEET
 CONTROL POINT 3
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 2 OF 2 SCALE: N/A

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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 4
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,812,571.86 E = 2,959,503.30
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,814,367.49 E = 2,959,888.03
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	134.58'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	21 & 23
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 22
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 4,195' TO FULSHEAR BEND DR
 APPROX 135' TO FM 1093

Control Point 22 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 135' north of the north ROW line of FM 1093, 4,195' south of the south ROW line of Fulshear Bend Dr, 102.4' west of a wire fence, 136.0' northwest of a manhole.

CONTROL DATA SHEET
 CONTROL POINT 4
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 1 OF 2 SCALE: N/A

DATE: 10/14/2019 4:26:05 PM 10/19/19
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TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT		CONTROL POINT 4
Location Texas Heritage Parkway from FM 1093 to IH 10		
County	State	Established By
Fort Bend	Texas	BGE Inc
Unit of Measure	Date Established	Grid Coordinates
US Survey Feet	October 2019	N = 13,812,571.86 E = 2,959,503.30
Survey Method Hz	Survey Method Vt	Surface Coordinates
RTK GPS	RTK GPS	N = 13,814,367.49 E = 2,959,888.03
Monument(s) Held Hz	Elevation	
CORS: TXWH (PID DL9086), ZH71 (PID DF4062), TXHE (PID DH3608)	134.58'	
Monument(s) Held Vt	Surface Adjustment	
HGCCSD66	Factor	
Hz Datum	Projection Zone	1.00013
NAD83	Texas South Central 4204	
Hz Adjustment	Geoid Model	Intervisible Control
2011, Epoch 2010.00	GEOID99	21 & 23
Vt Datum	Mark Logo	Stamping
NAVD-88	BGE INC	CONTROL POINT 22
Vt Adjustment	Type of Marker	
2001	5/8" Iron Rod w/Aluminum Disk in Concrete	

APPROX 4,195' TO FULSHEAR BEND DR
 APPROX 135' TO FM 1093

Control Point 22 is a 5/8" Iron Rod w/Aluminum Disk in Concrete approximately 135' north of the north ROW line of FM 1093, 4,195' south of the south ROW line of Fulshear Bend Dr, 102.4' west of a wire fence, 136.0' northwest of a manhole.

CONTROL DATA SHEET
 CONTROL POINT 4
 TEXAS HERITAGE PARKWAY IMPROVEMENT DISTRICT
 OCTOBER 2019
 PAGE 2 OF 2 SCALE: N/A



DETENTION POND FOR PRECINCT 3
 NORTH LIBRARY, FULSHEAR, TX
 CONTROL POINT LOCATIONS

PROJECT NO: R313418.01
 ISSUED:
 DRAWN BY:
 CHECKED BY:
 REVISIONS:
 ADD. #1 07/01/21 F.A.

05

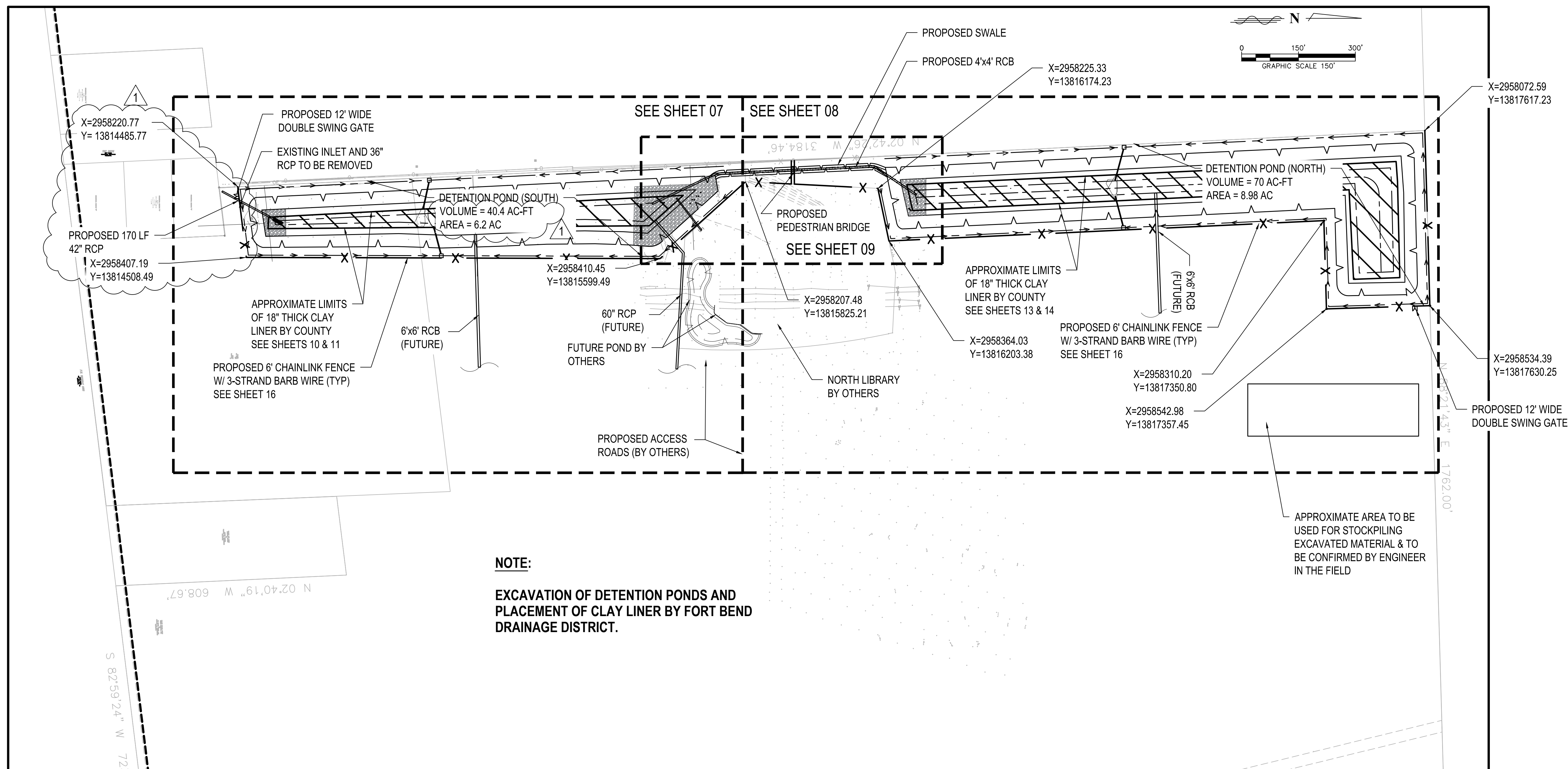
CONTROL POINT LOCATIONS

Table ES-1 137.32-Acre Ginter Tract Detention Summary			
Detention Basin Drainage Area	137.32 acres		
Proposed Development	137.32 acres		
Detention Rate Required	0.7 acre-feet/acre		
Floodplain Fill Mitigation Required	0.0 acre-feet		
Detention Rate Provided	0.72 acre-feet/acre		
Detention Storage Provided (100yr)	99.4 acre-feet		
	10-Year	25-Year	100-Yr
North Pond (G1) Peak WSEL	127.82	129.78	133.68
South Pond (G2) Peak WSEL	127.66	129.59	133.44
Allowable Q (cfs)	75.1	88.2	115.4
Provided Q (cfs)	72.6	78.1	88.1

NOTE:

THIS TABLE IS FROM PAGE ES-1 IN THE GINTER TRACT DRAINAGE IMPACT ANALYSIS REPORT FOR FORT BEND COUNTY AND THE CITY OF FULSHEAR PREPARED BY LJA ENGINEER, INC. DATED JUNE 2021.

	PROVIDED	
	Detention Pond (South)	Detention Pond (North)
Detention Pond Drainage Area	62.29 acres	75.03 acres
Detention Storage Provided (100 yr)	40.4 ac-ft	70.0 ac-ft
Proposed WSEL (NAVD88, 2001 adj)	133.44	133.68
Approximate Acreage of Pond	6.2 acres	8.98 acres



NOTE:

EXCAVATION OF DETENTION PONDS AND PLACEMENT OF CLAY LINER BY FORT BEND DRAINAGE DISTRICT.

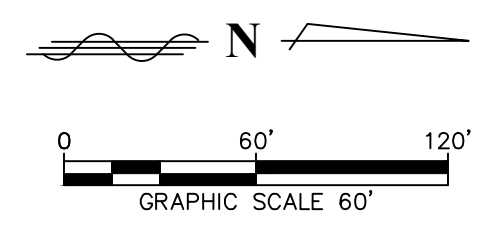
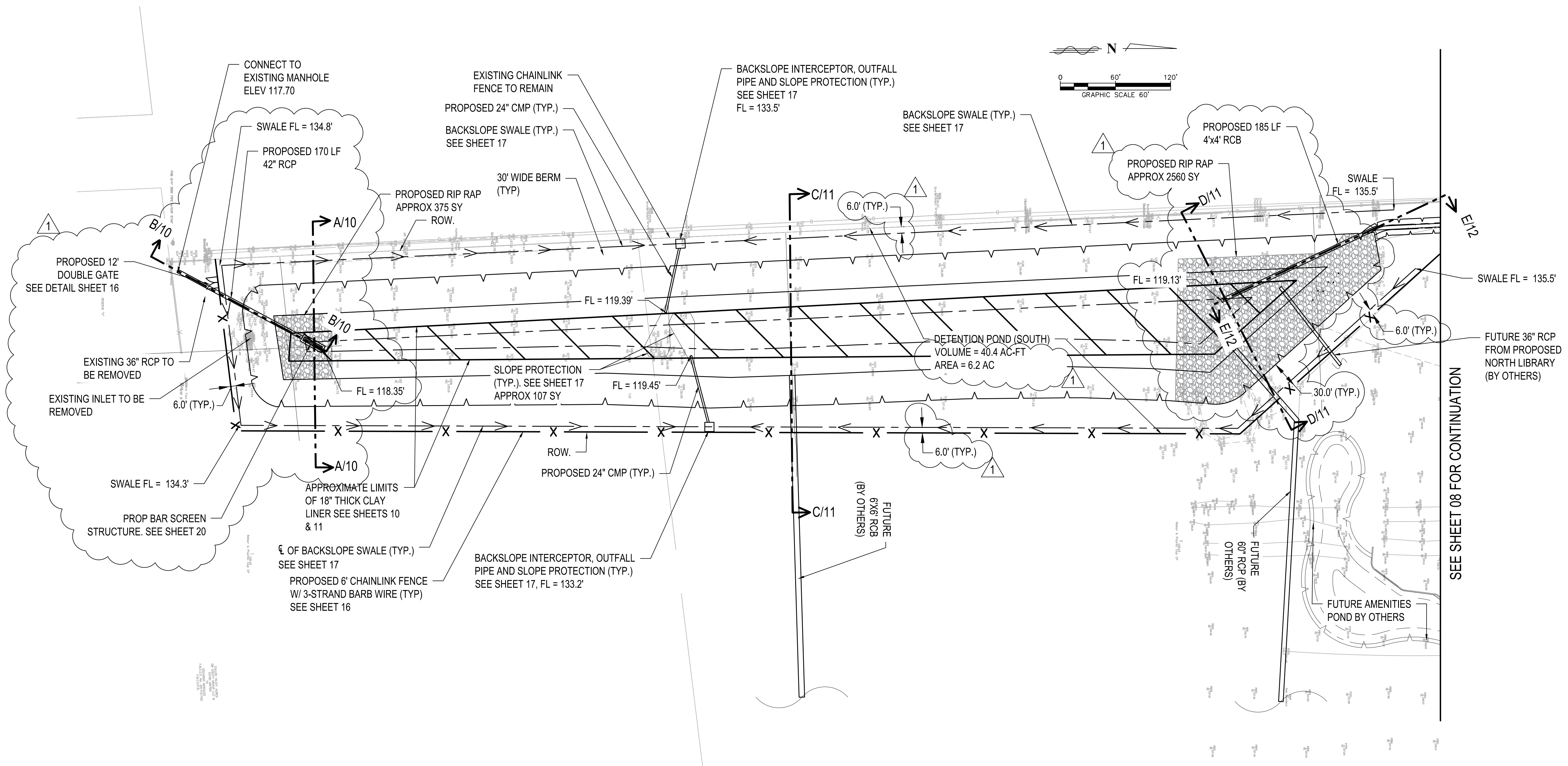
SITE PLAN

DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
SITE PLAN

PROJECT NO: R313418.01
ISSUED:
DRAWN BY:
CHECKED BY:
REVISIONS:
ADD. #1 07/01/21 F.A.

NOTE:

**EXCAVATION OF DETENTION PONDS AND
PLACEMENT OF CLAY LINER BY FORT BEND
DRAINAGE DISTRICT.**



NOTE:
FORT BEND COUNTY DRAINAGE DISTRICT SHALL STOCKPILE SUFFICIENT CLAY MATERIAL LOCATED AND EXCAVATED BETWEEN THE DEPTHS OF FOUR (4') FEET AND TWELVE (12') AND USE FOR PLACEMENT OF A CLAY LINER BY FORT BEND COUNTY DRAINAGE DISTRICT PER SHEETS 10 AND 11. ALL OTHER EXCAVATED MATERIAL SHALL BE STOCKPILED AT LOCATION SHOWN ON SHEET 06

**DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
DETENTION POND (SOUTH)**

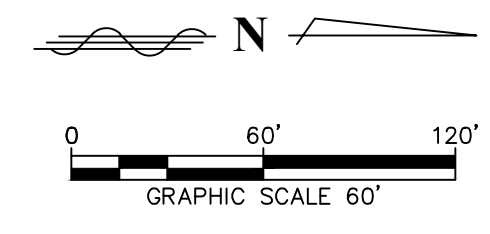
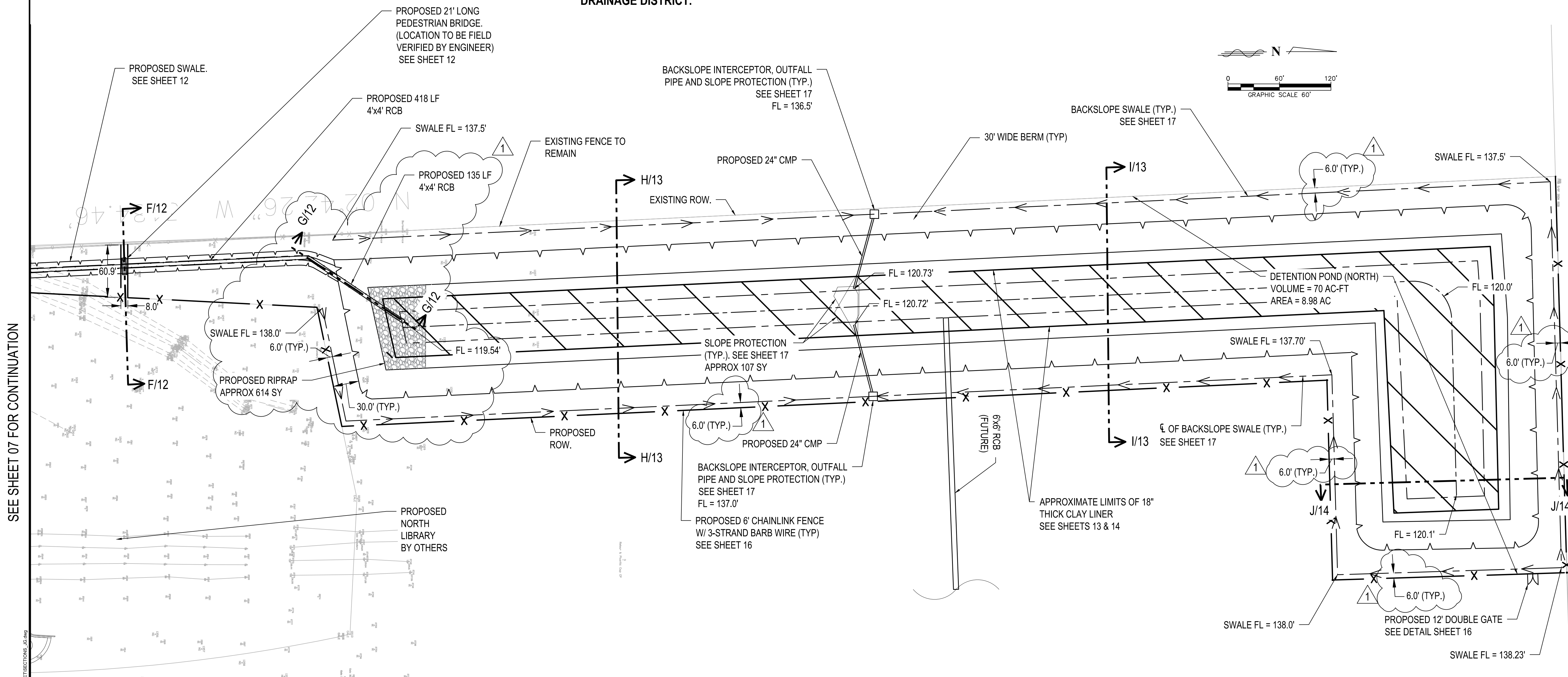
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 ISSUED:
 DRAWN BY:
 CHECKED BY:
 REVISIONS:
 ADD. #1 07/01/21 F.A.

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**HUITT-ZOLIARS
ADVANCED DESIGN™**

 Huit-Zoliars Inc.
 Firm Registration No. F-761

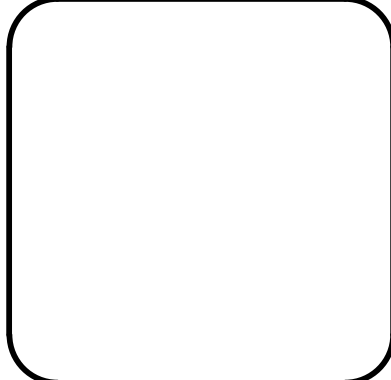
NOTE:
**EXCAVATION OF DETENTION PONDS AND
 PLACEMENT OF CLAY LINER BY FORT BEND
 DRAINAGE DISTRICT.**



SEE SHEET 07 FOR CONTINUATION

NOTE:
**FORT BEND COUNTY DRAINAGE DISTRICT SHALL STOCKPILE SUFFICIENT CLAY MATERIAL LOCATED AND EXCAVATED
 BETWEEN THE DEPTHS OF FOUR (4') FEET AND TWELVE (12') AND USE FOR PLACEMENT OF A CLAY BY FORT BEND COUNTY
 DRAINAGE DISTRICT LINER PER SHEETS 13 AND 14.
 ALL OTHER EXCAVATED MATERIAL SHALL BE STOCKPILED AT LOCATION SHOWN ON SHEET 06**

APPROXIMATE LOCATION FOR CONTRACTOR TO
 STOCK PILE EXCAVATED SOIL TO BE CONFIRMED
 BY ENGINEER IN FIELD

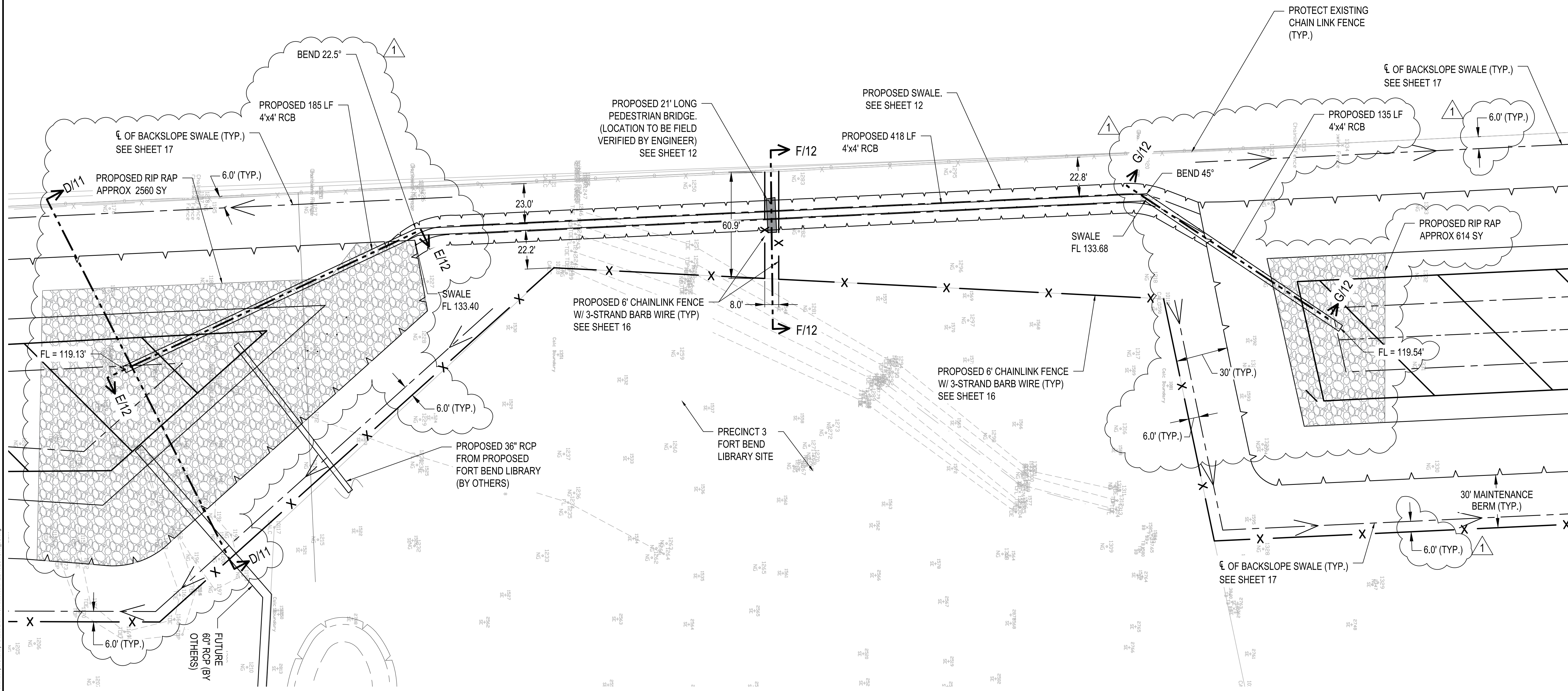
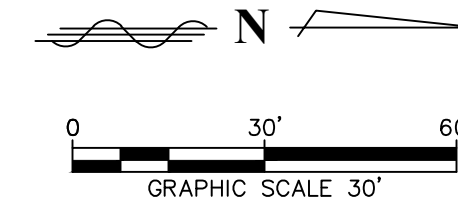


**DETENTION POND FOR PRECINCT 3
 NORTH LIBRARY, FULSHEAR, TX
 DETENTION POND (NORTH)**

PROJECT NO: R313418.01
 ISSUED:
 DRAWN BY:
 CHECKED BY:
 REVISIONS:
 ADD. #1 07/01/21 F.A.

NOTE:

**EXCAVATION OF DETENTION PONDS AND
PLACEMENT OF CLAY LINER BY FORT BEND
DRAINAGE DISTRICT.**



**DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
DETENTION POND (CENTRAL - ENLARGED VIEW)**

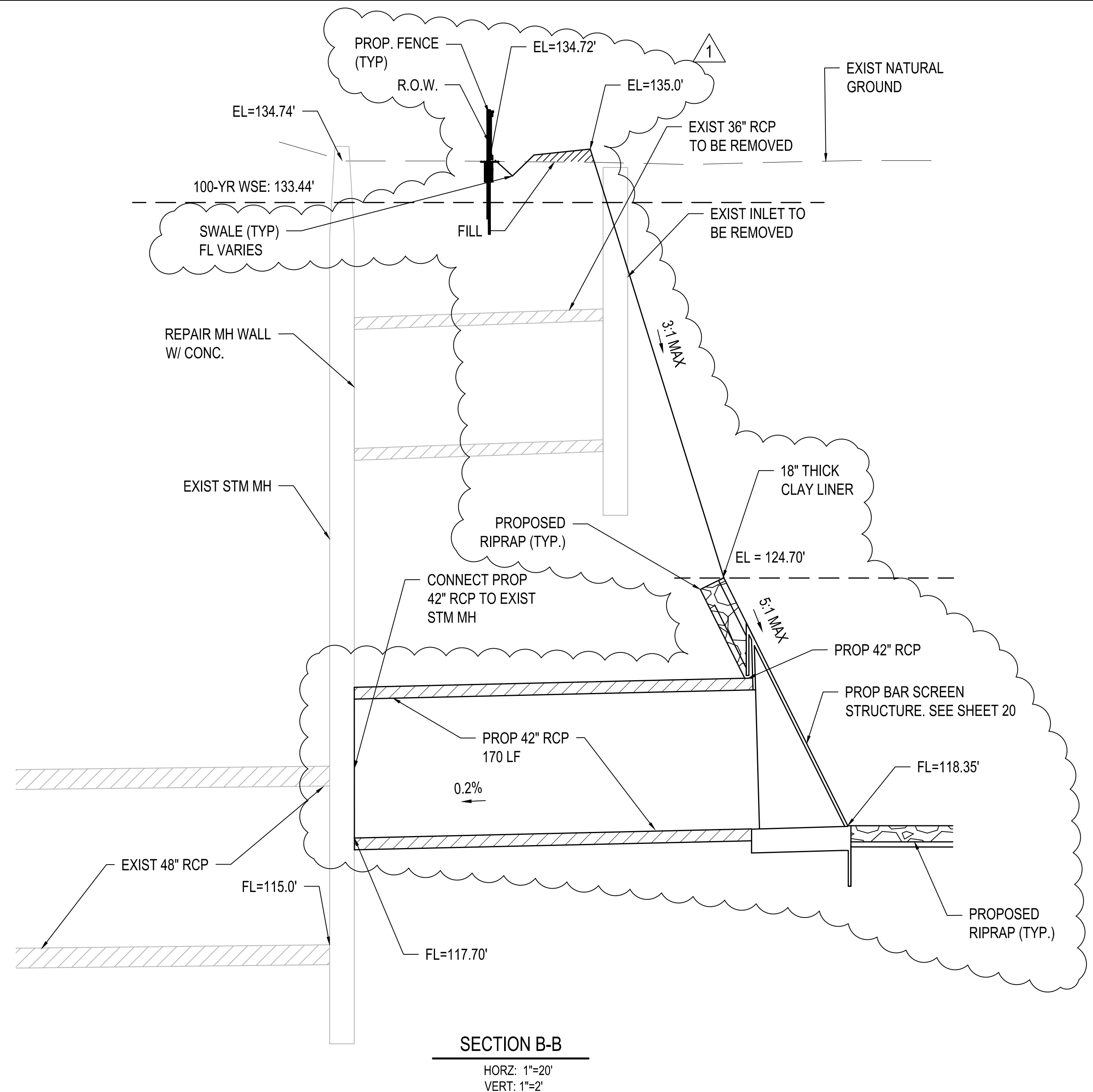
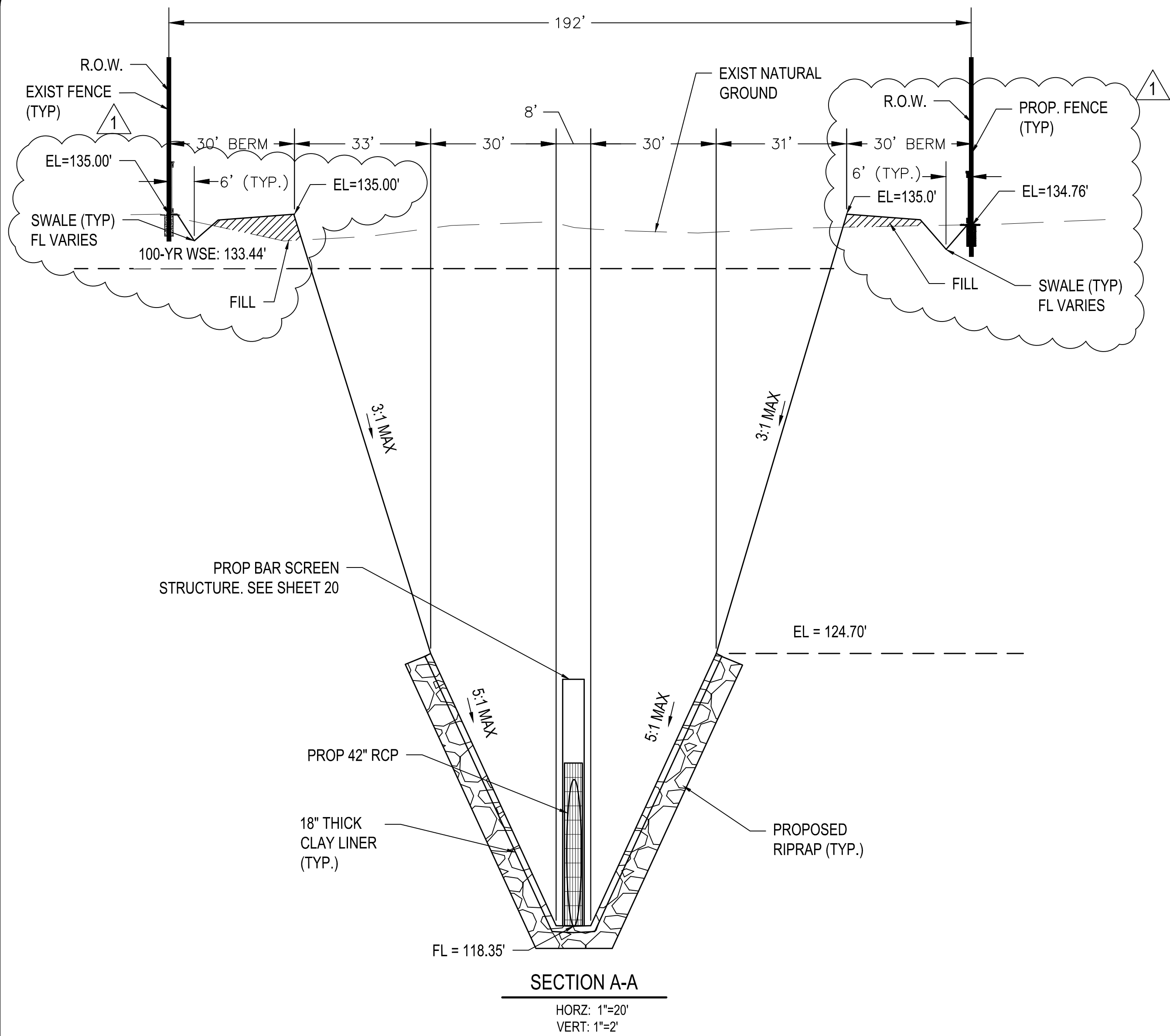
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CHECKED BY:
REVISIONS:
ADD. #1 07/01/21 F.A.

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**HUITT-ZOLIARS
ADVANCED DESIGN™**

Huitt-Zoliars Inc.
Firm Registration No. F-761

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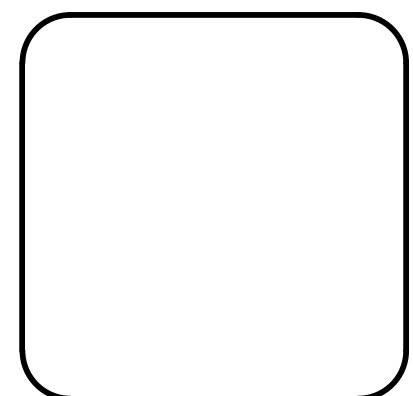
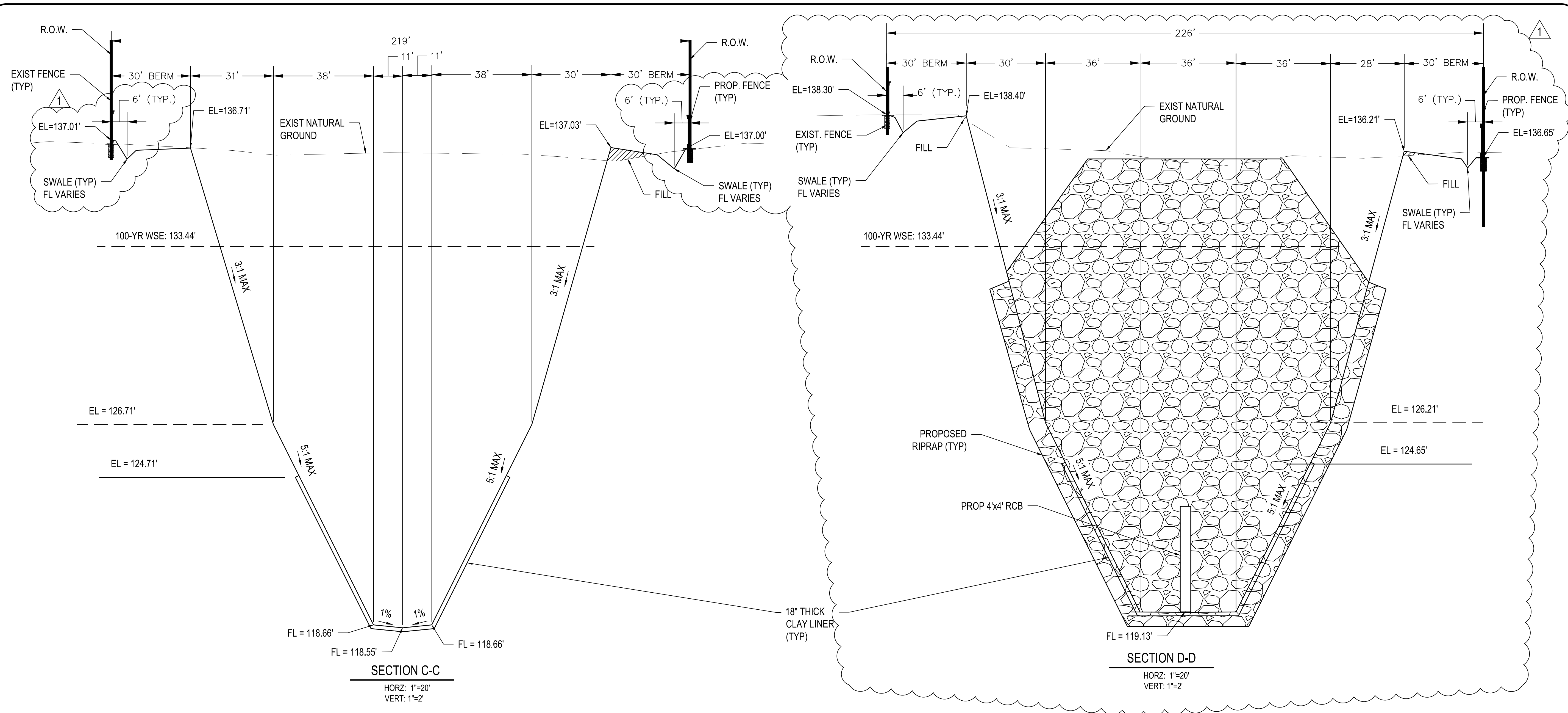


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DETENTION POND FOR PRECINCT 3
 NORTH LIBRARY, FULSHEAR, TX
 DETENTION POND SECTIONS 1

PROJECT NO: R313418.01
 ISSUED:
 DRAWN BY:
 CHECKED BY:
 REVISIONS:
 △ ADD. #1 07/01/21 F.A.



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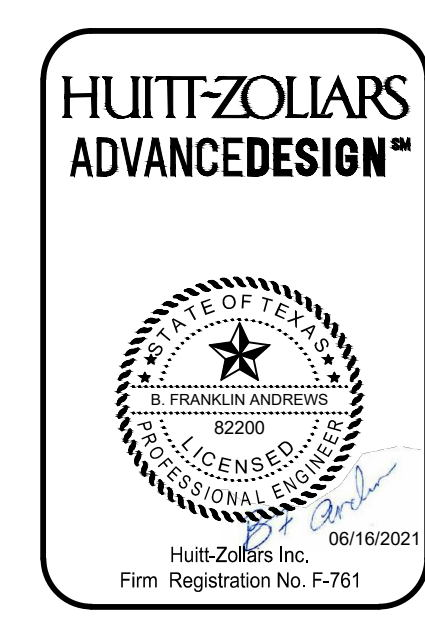
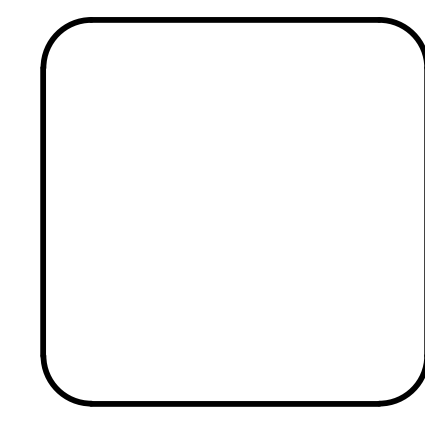
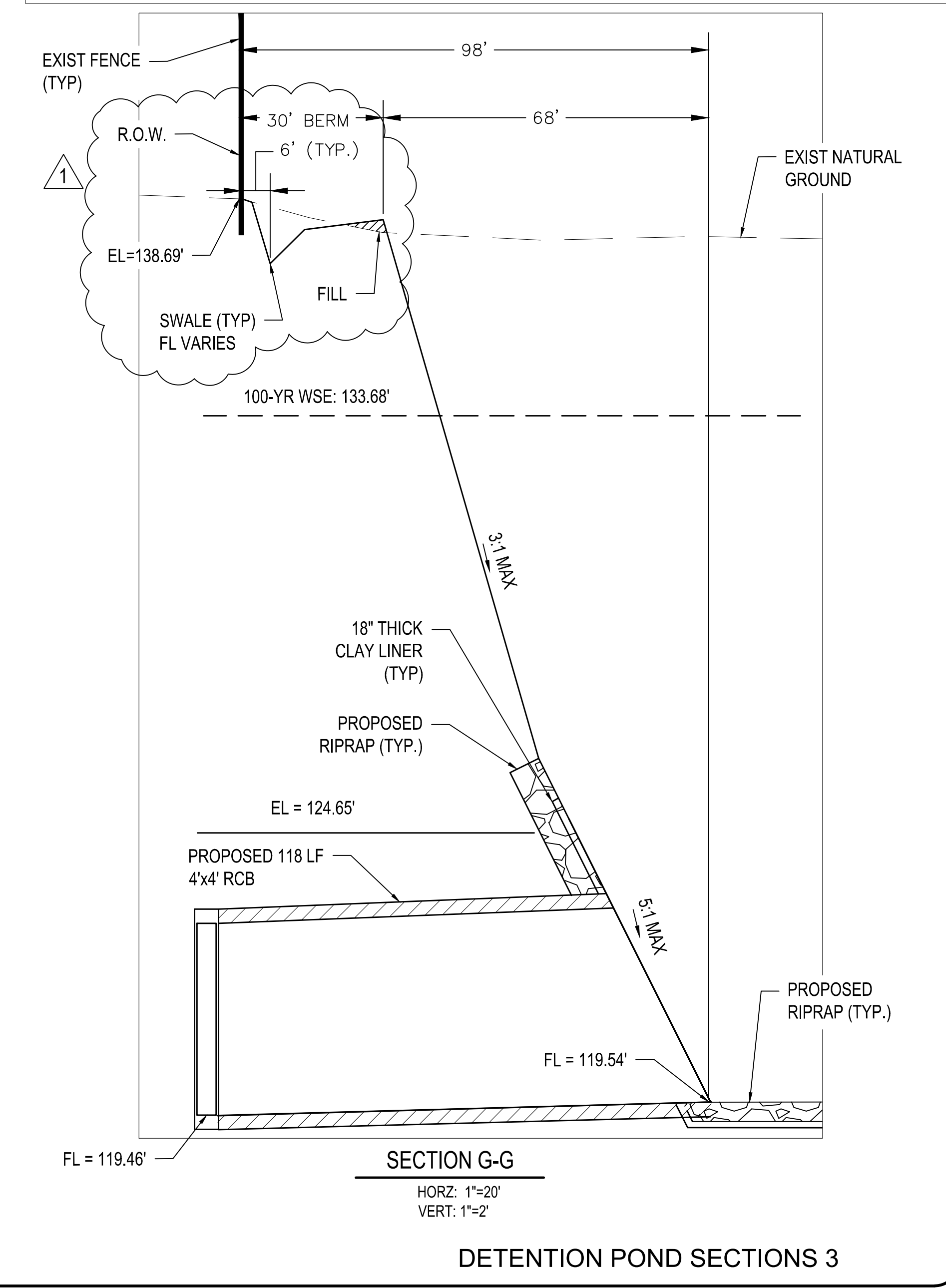
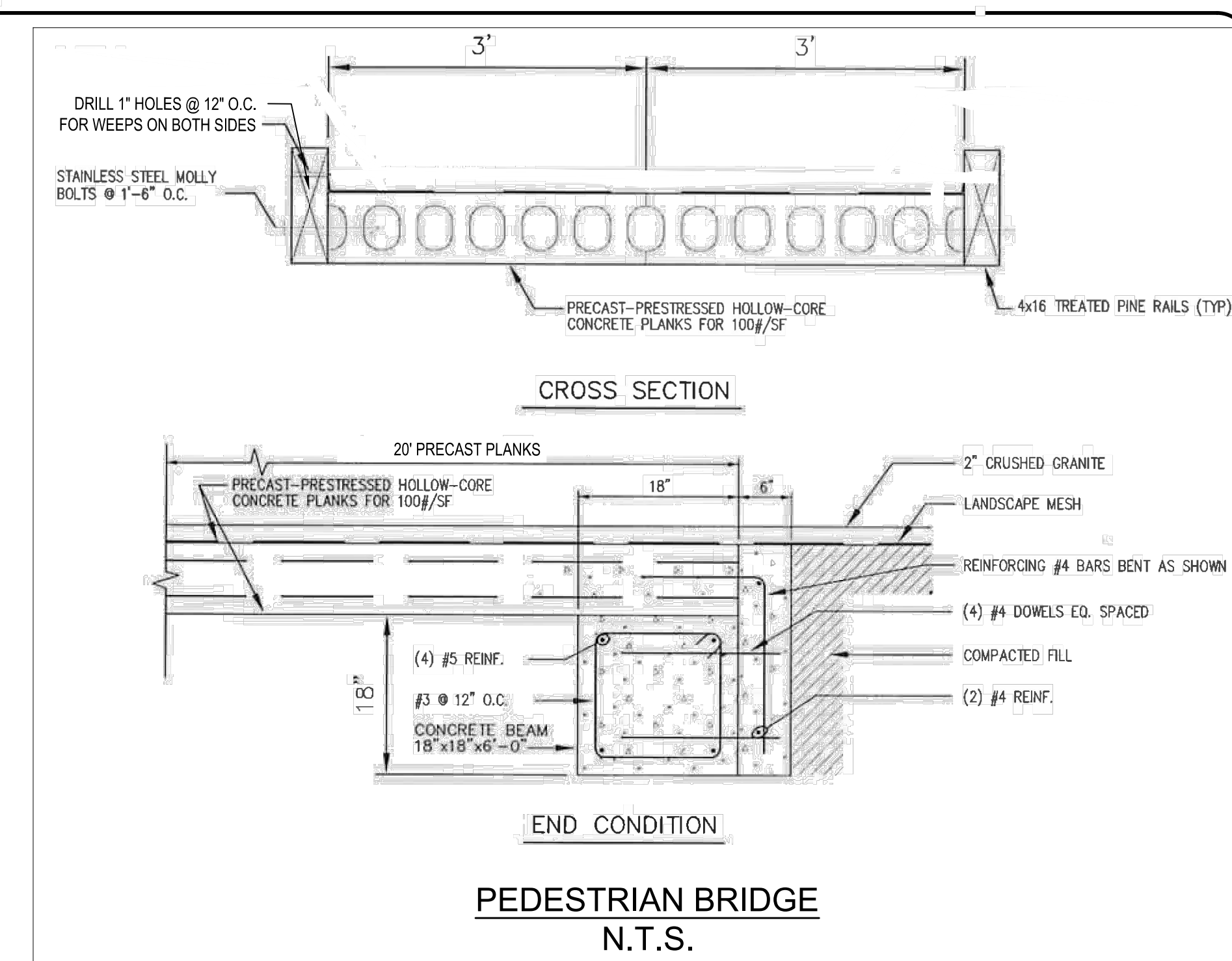
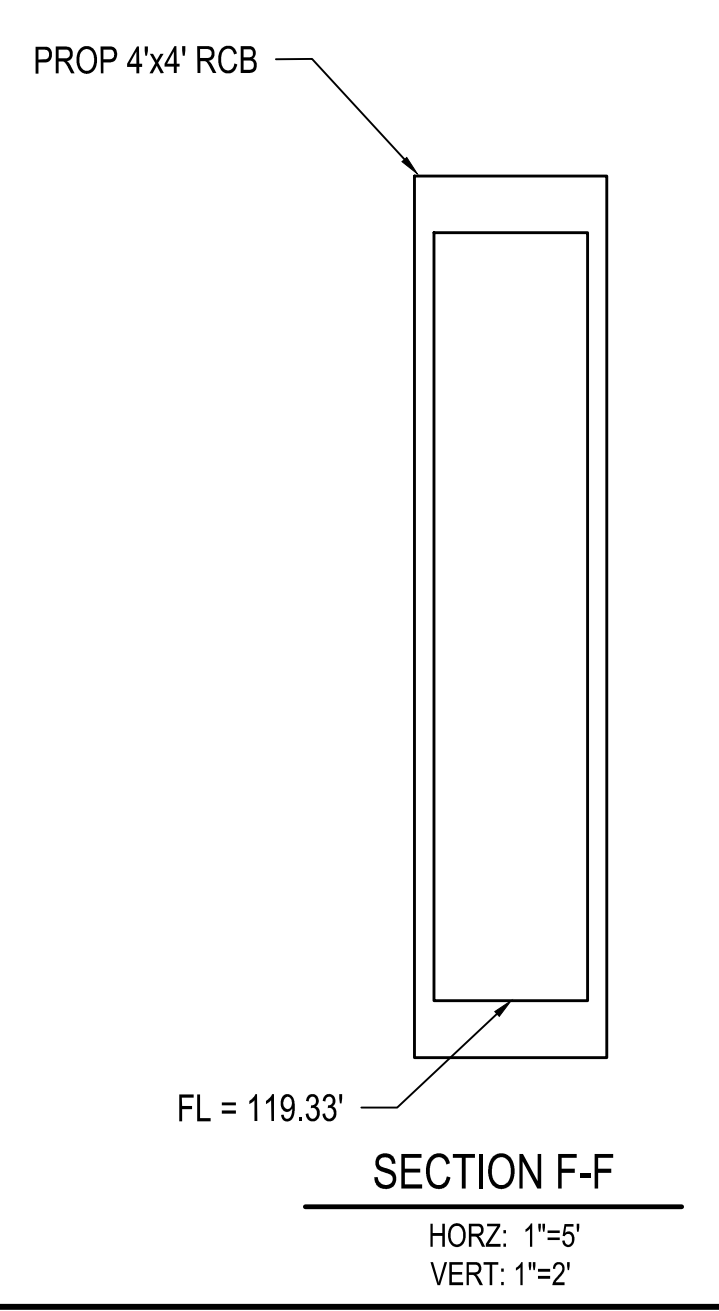
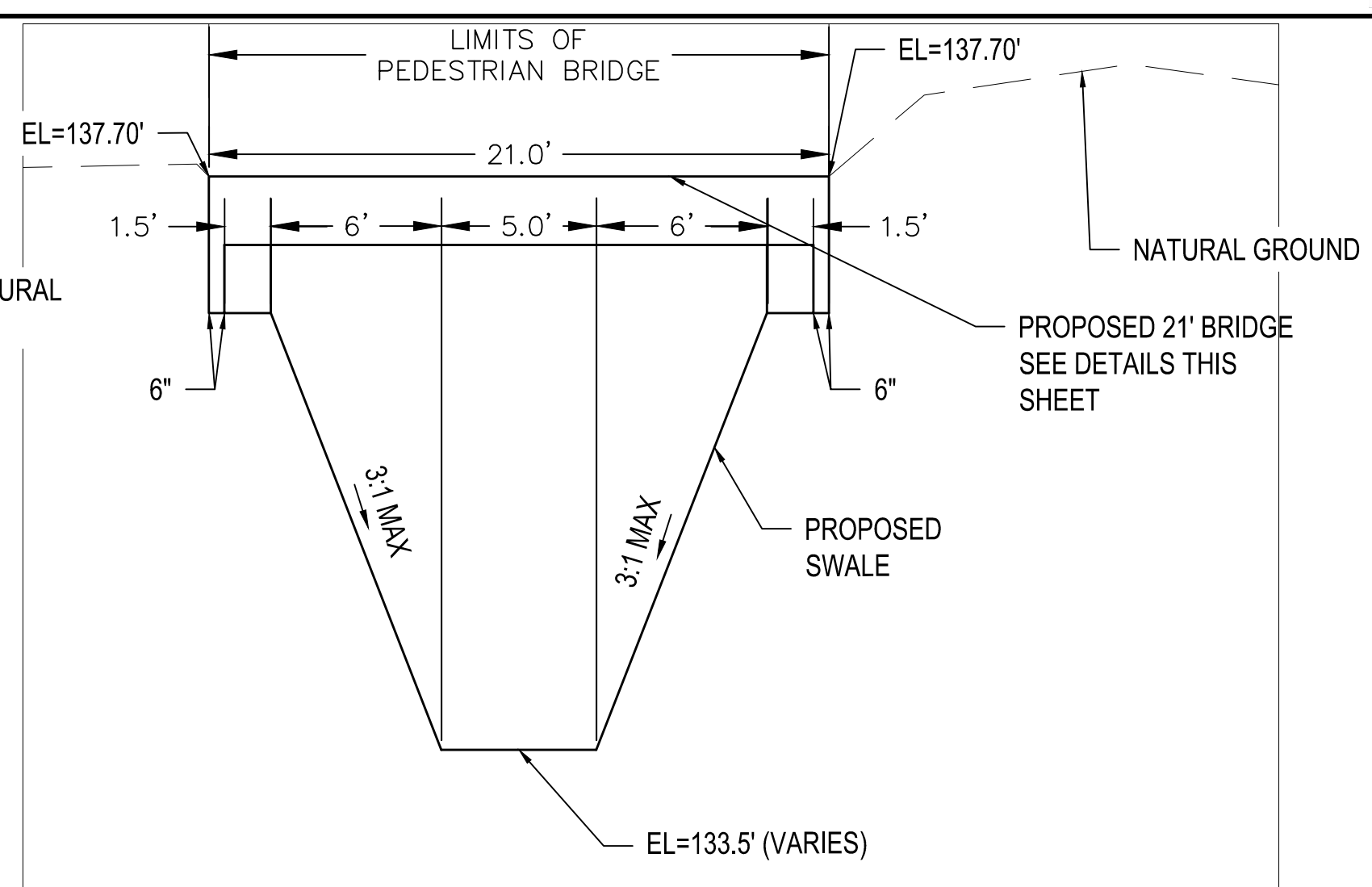
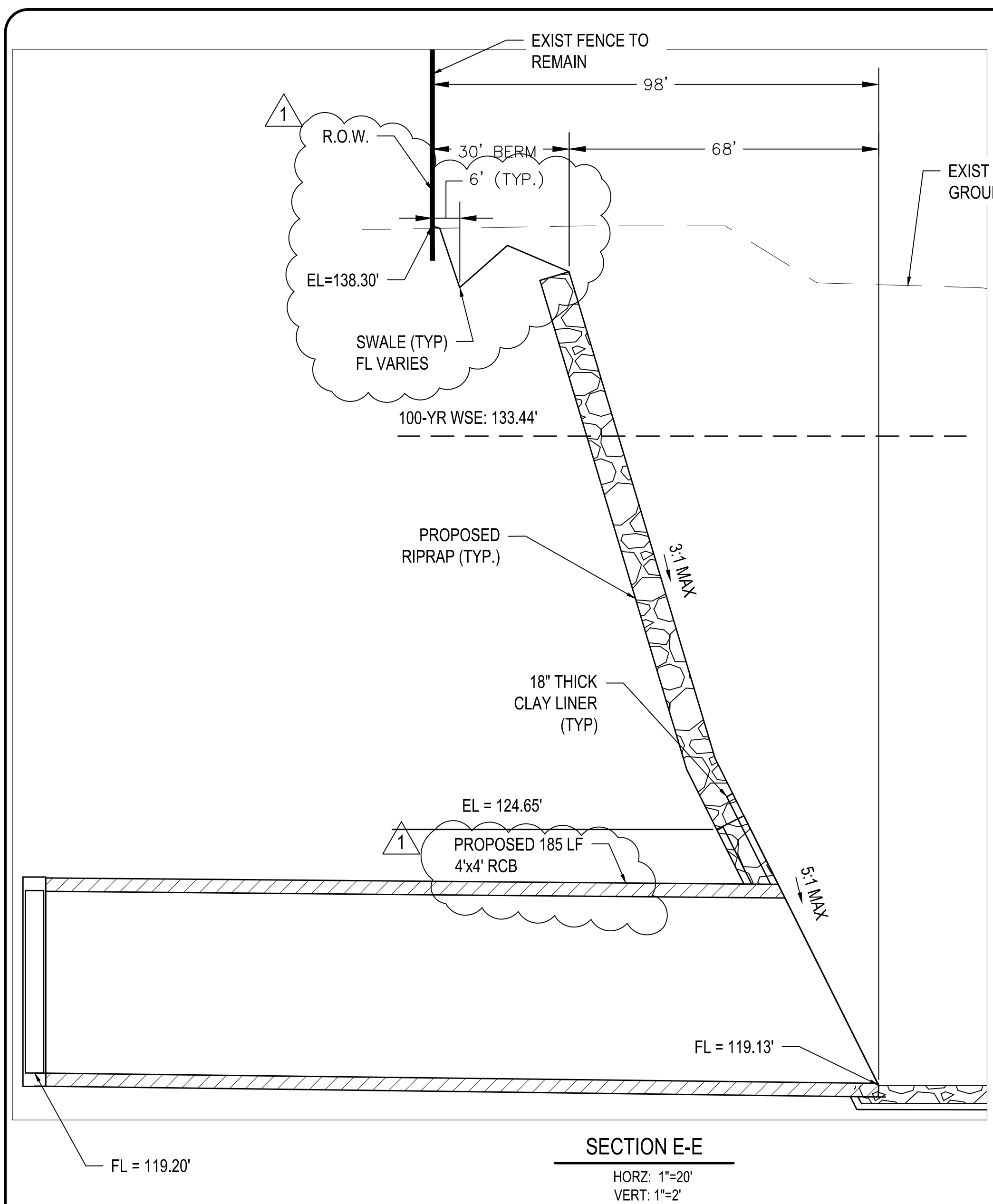
STATE OF TEXAS
FRANK J. ANDERSON
LICENSED PROFESSIONAL ENGINEER
06/16/2021
Huitt-Zoliars Inc.
Firm Registration No. F-761

**DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
DETENTION POND SECTIONS 2**

PROJECT NO: R313418.01
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REVISIONS:
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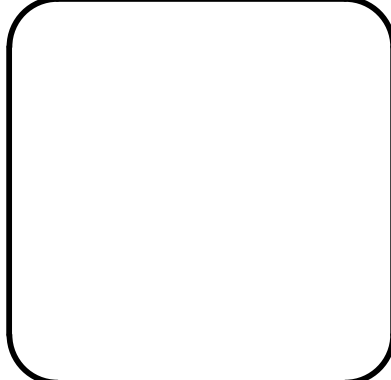
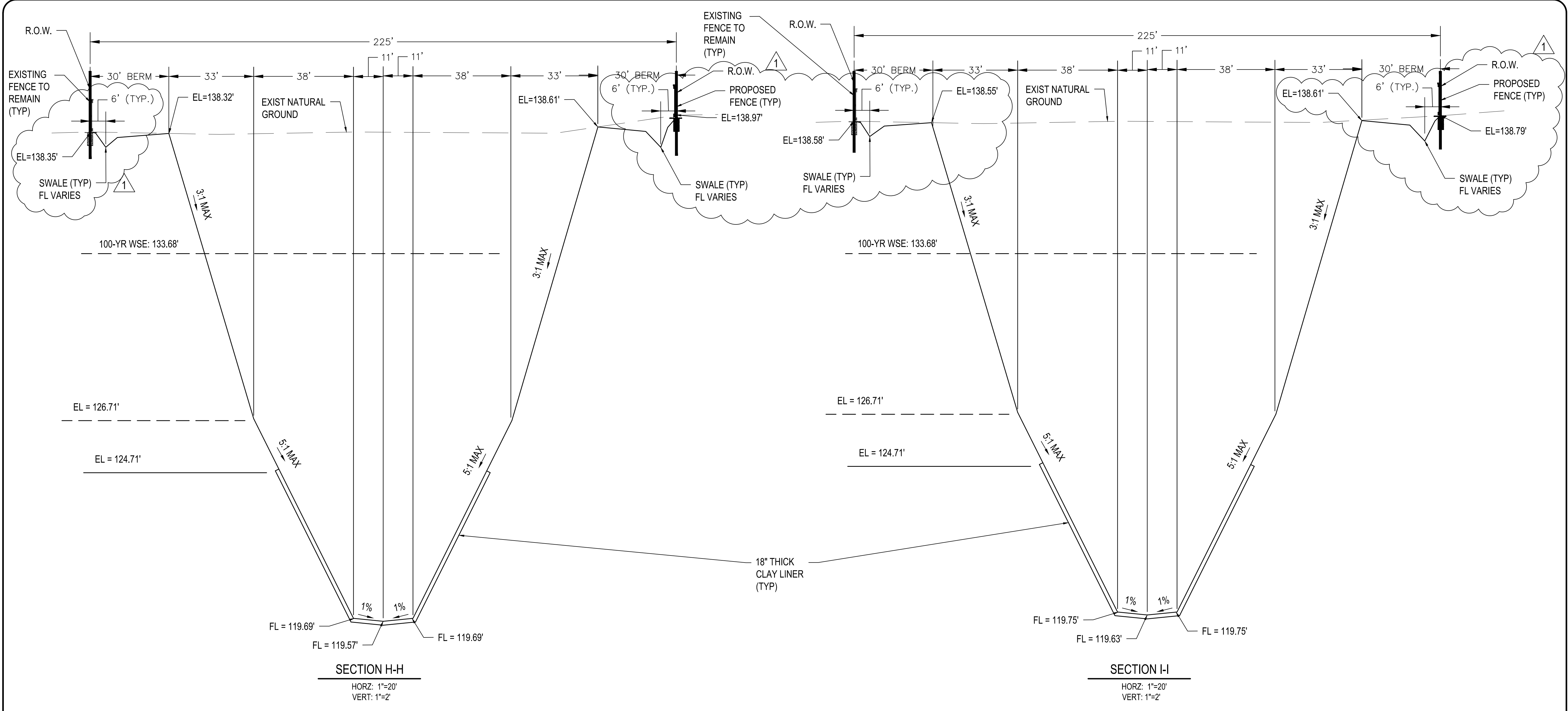
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DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
DETENTION POND SECTIONS 3

PROJECT NO: R313418.01
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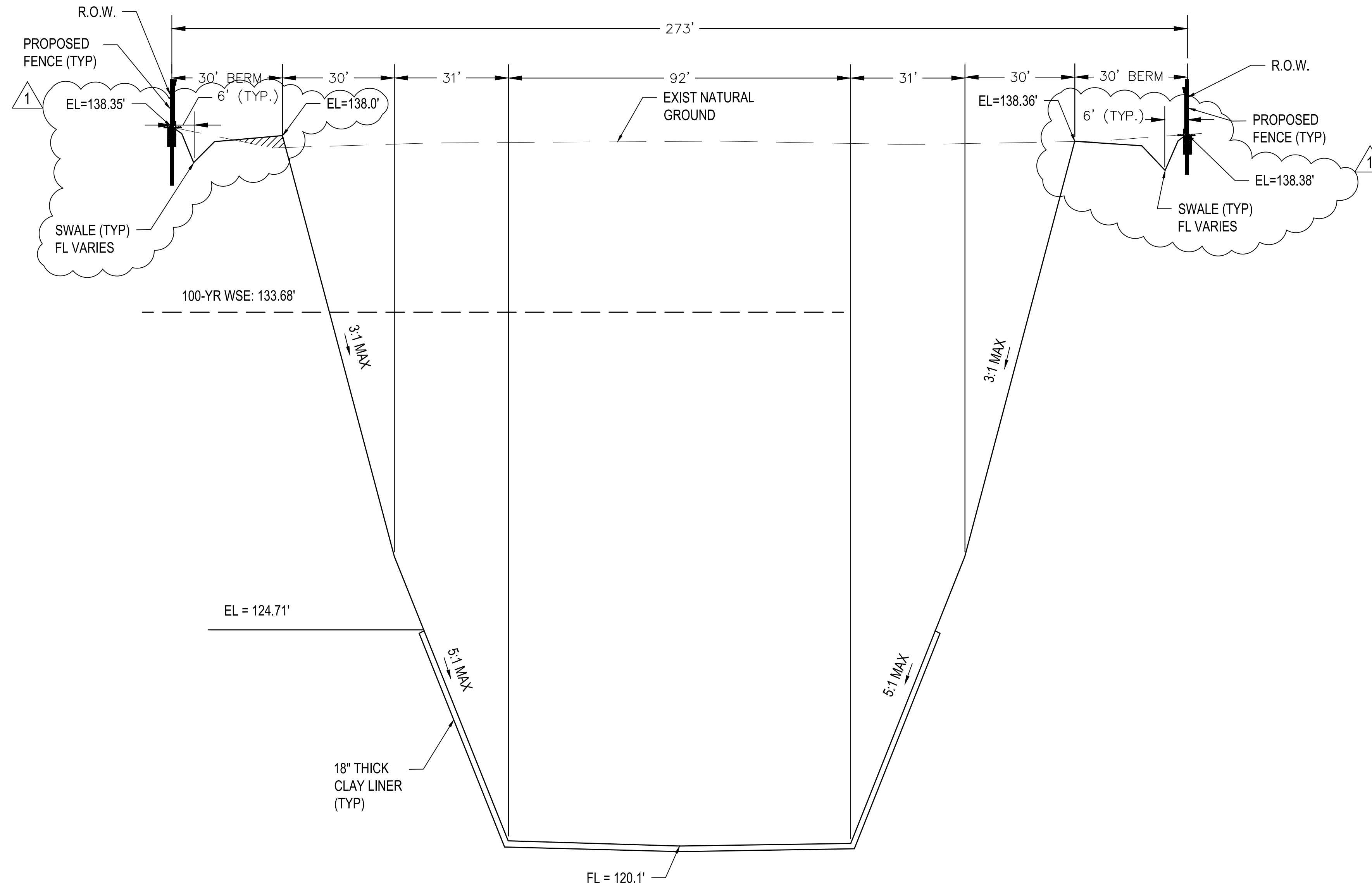
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**DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
DETENTION POND SECTIONS 4**

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SECTION J-J
 HORZ: 1"=20'
 VERT: 1"=2'

GENERATED ON: 7/1/2021 1:40:11 PM
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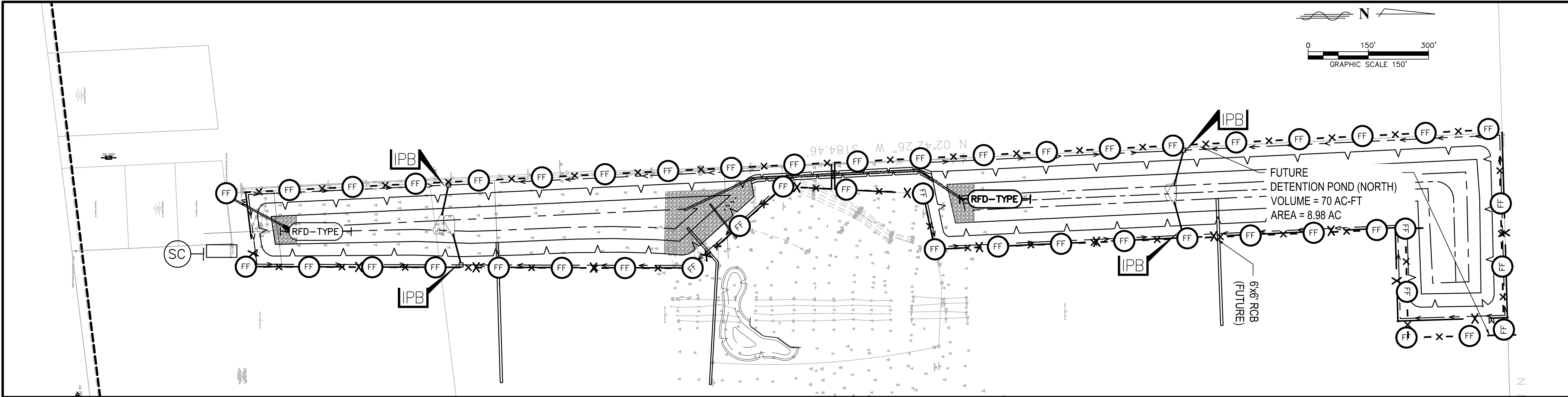


DETENTION POND FOR PRECINCT 3
 NORTH LIBRARY, FULSHEAR, TX
 DETENTION POND SECTIONS 5

PROJECT NO: R313418.01
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LEGEND

(FF) -x-	FILTER FABRIC FENCE
(SC)-I	STABILIZED CONSTRUCTION ACCESS
(CWA)	CONCRETE WASHOUT AREA
-RFD-TYPE-	FILTER DAM
IPB	INLET PROTECTION BARRIER



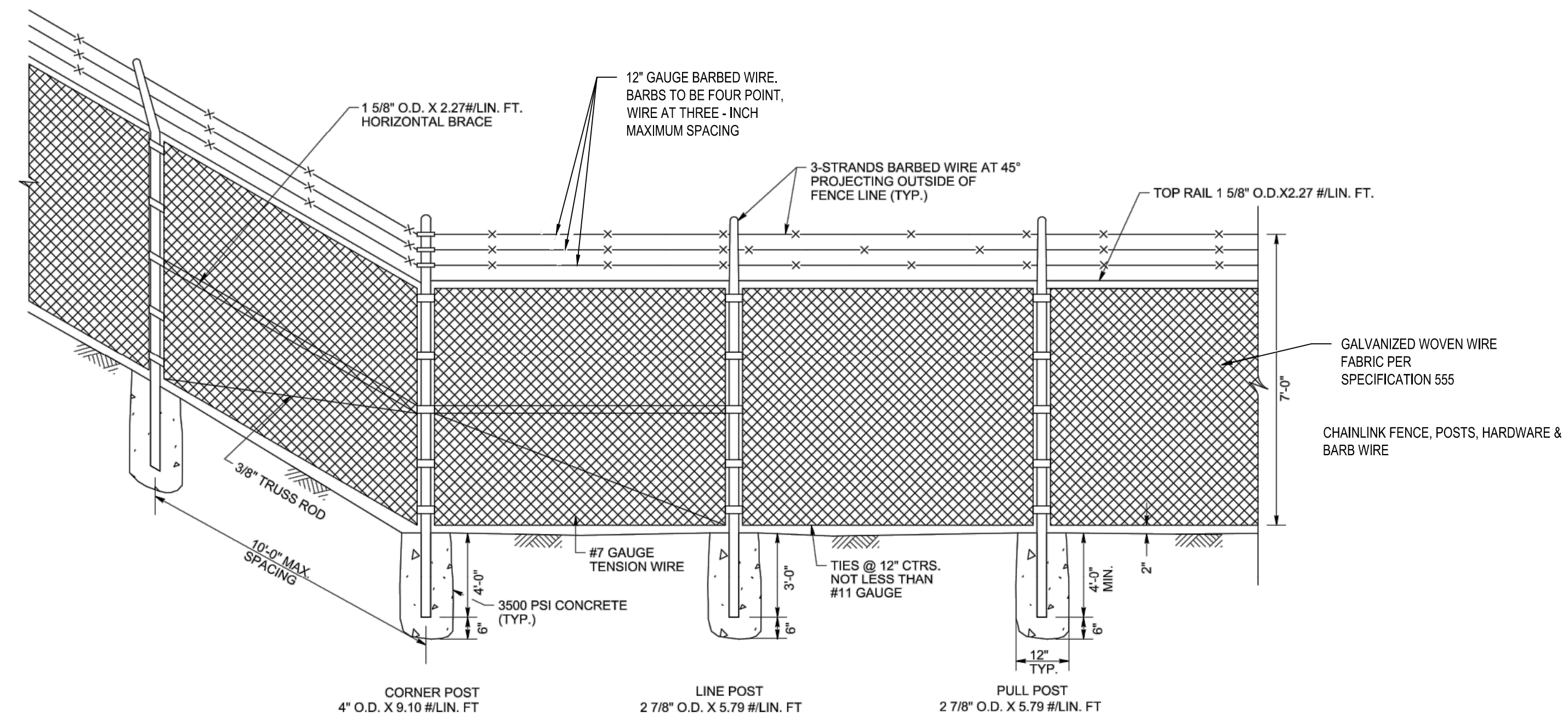
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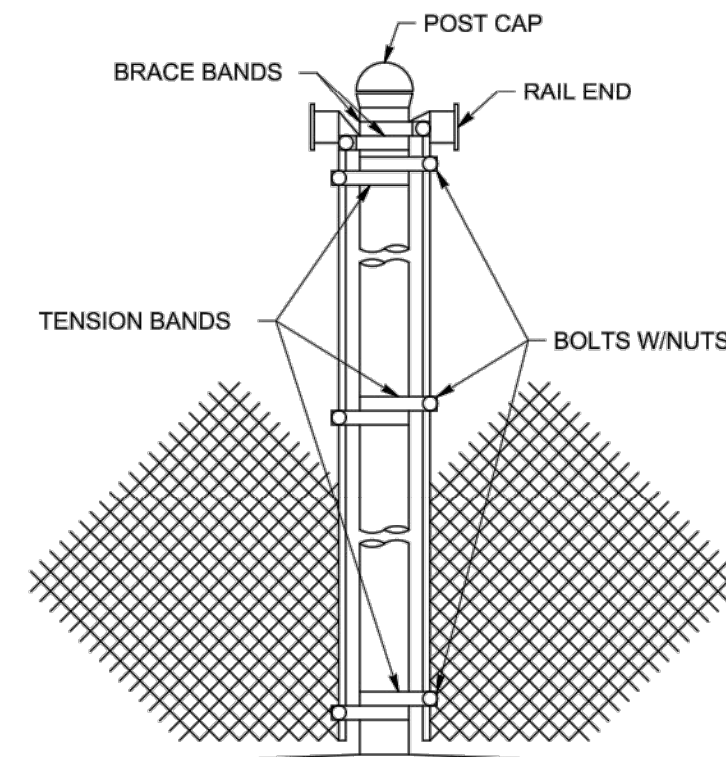
**DETENTION POND FOR PRECINCT 3
 NORTH LIBRARY, FULSHEAR, TX
 STORMWATER POLLUTION PREVENTION PLAN**

PROJECT NO: R313418.01
 ISSUED:
 DRAWN BY:
 CHECKED BY:
 REVISIONS:
 ▲ ADD. #1 07/01/21 F.A.

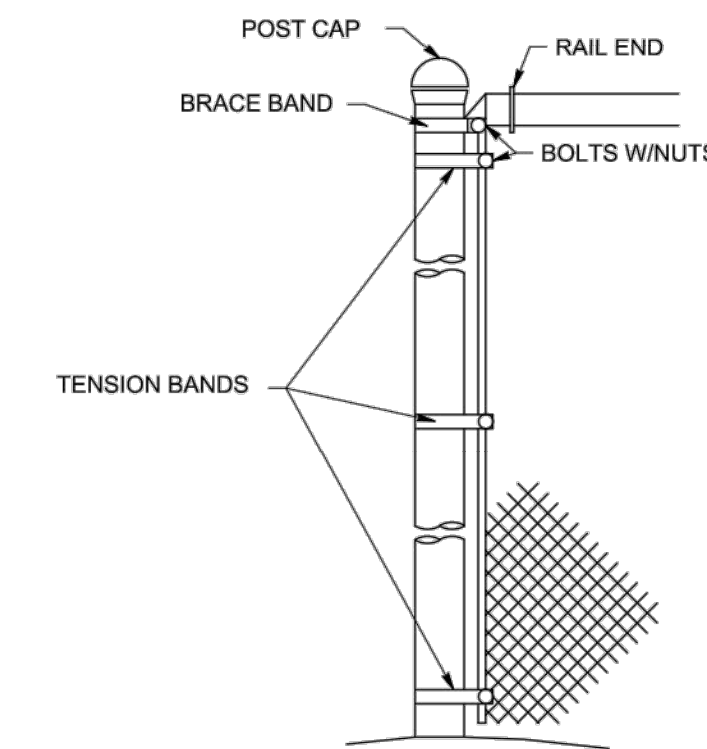
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1 TYPICAL CHAIN LINK FENCE DETAIL
N.T.S.

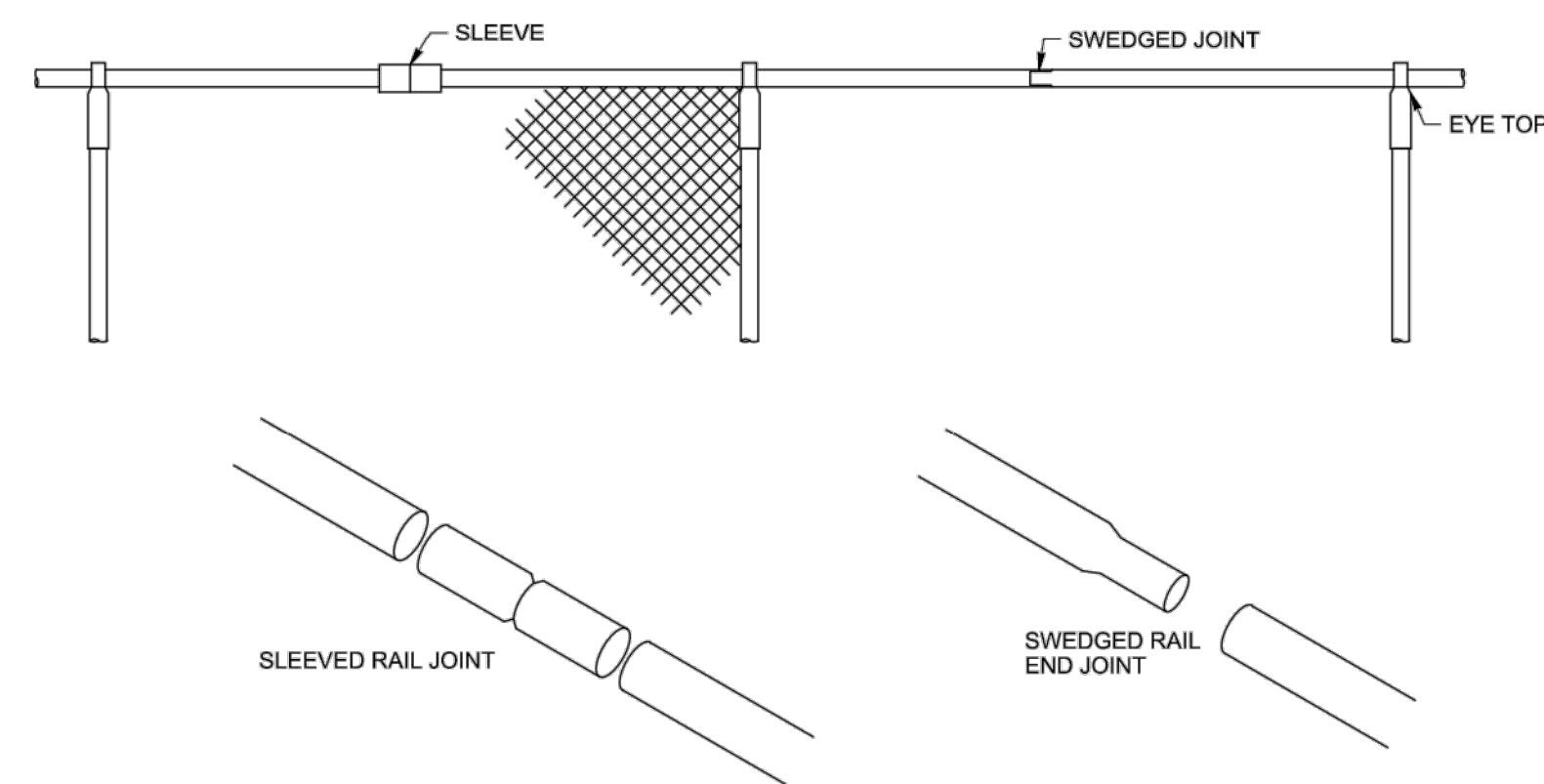


3 CORNER POST
N.T.S.

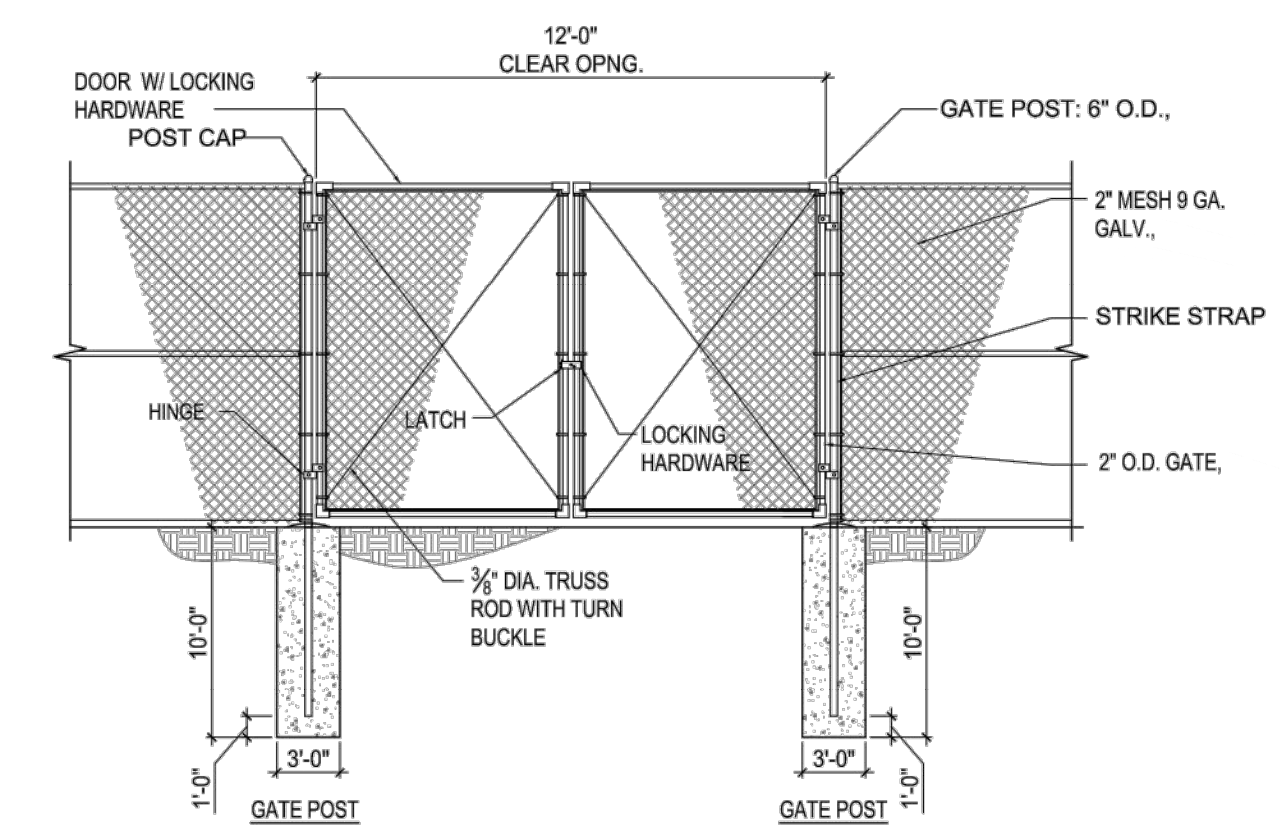


4 END OR GATE POST
N.T.S.

NOTE:
ALL FENCING MATERIALS TO BE HOT DIPPED GALVANIZED STEEL.
SEE SPECIFICATION SECTION 555



2 TOP RAIL JOINTS
N.T.S.



6 TYPICAL DOUBLE SWING GATE DETAIL
N.T.S.

GENERATED ON: 7/1/2021 1:40:21 PM \\troubleshoot\proj\13418.01 - storm water detention pad 3 library\10 add & km\10.1 autocad\sheet\sections_16.dwg

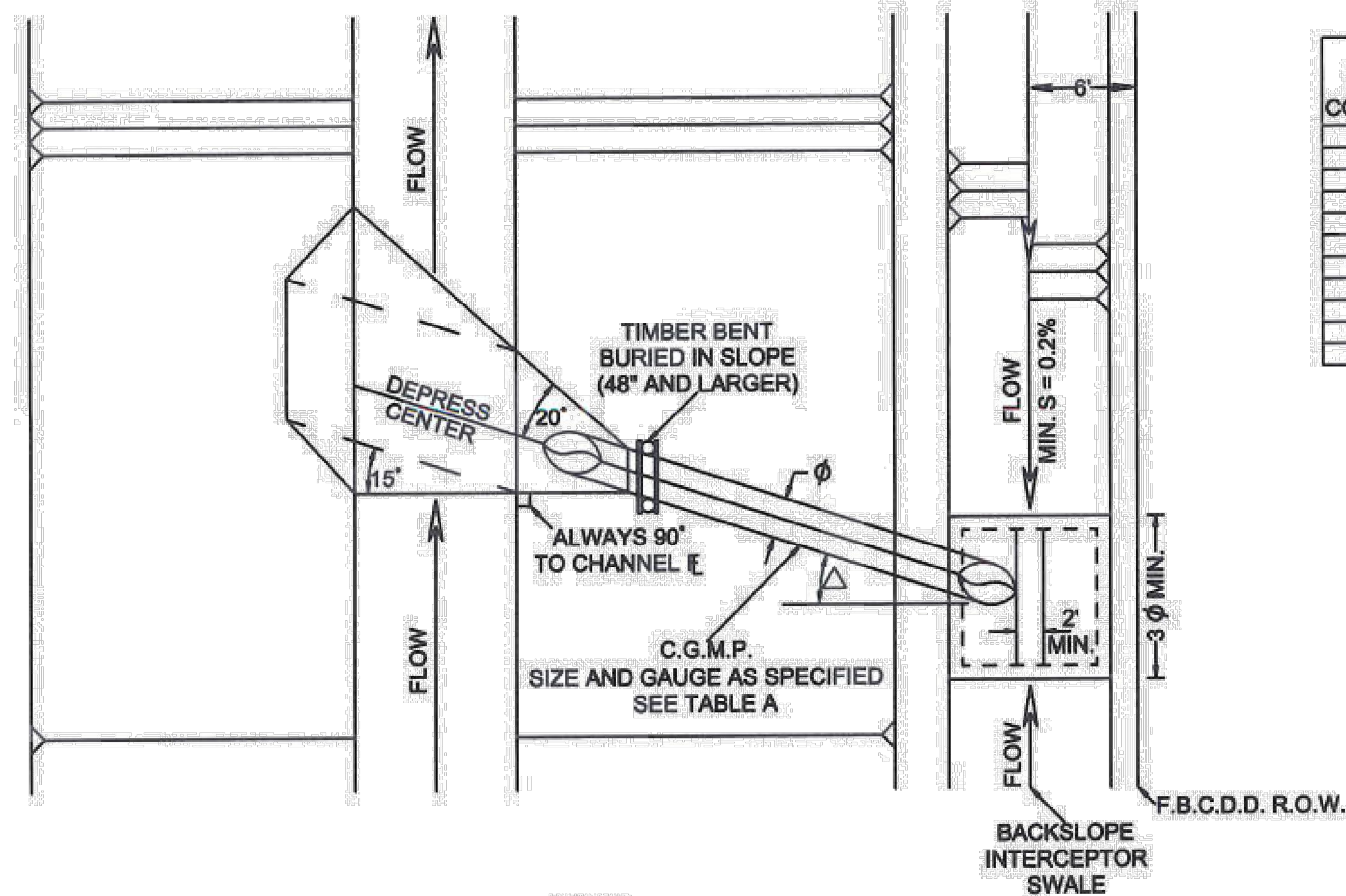
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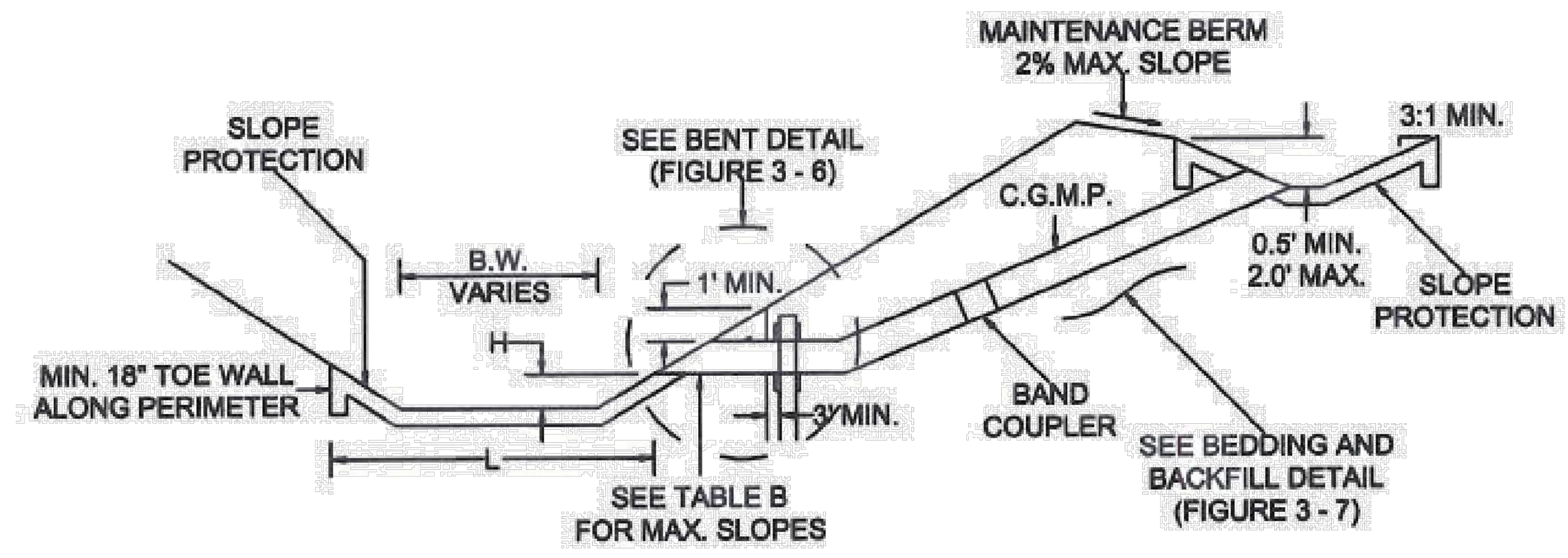
DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
FENCE & GATE DETAILS

PROJECT NO: R313418.01
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3-34



NOTE:
MAXIMUM BACKSLOPE DRAIN SPACING SHALL BE 800 FEET OR 400 FEET TO THE SWALE HIGH POINT.



NOTE:
CONCRETE SLOPE PAVING SHALL HAVE A MINIMUM THICKNESS OF 4\"/>

TABLE A

SIZE 2 2/3" x 1/2" CORRUGATION	PIPE GAUGE	BAND COUPLER GAUGE	SIZE 3" x 1" & 5" x 1" CORRUGATION	PIPE GAUGE	BAND COUPLER GAUGE
24"	16	16			
30"	16	16			
36"	16	16			
42"	14	16			
48"	14	16	48"	16	18
54"	12	14	54"	16	18
60"	12	14	60"	16	18
66"	10	12	66"	16	18
72"	10	12	72"	16	18
78"	8	10	78"	14	16
84"	8	10	84"	14	16

TABLE B

PIPE DIA.	SLOPE	VELOCITY
24"	0.6%	3.25 f.p.s.
36"	0.3%	3.00 f.p.s.
42"	0.2%	2.75 f.p.s.
48"	0.2%	3.00 f.p.s.
54"	0.2%	3.25 f.p.s.

△ PROP. 24" TO 42" Δ = 15"
PROP. 48" AND LARGER Δ = 30"

H FOR PIPE SIZES 24" TO 42"
H = 3' MAX. AND 1' MIN.
FOR PIPE SIZES 48" AND LARGER
H = 1' MAX. AND MIN.

L WILL EXTEND ONE PIPE
Φ ABOVE FLOWLINE ON
OPPOSITE BANK (MIN.)
B.W. / PIPE Φ ≤ 7'-6" ⇒
L = 6 Φ OR MIN. 1'-6"
INTO B.W., WHICHEVER
IS GREATER
B.W. / PIPE Φ > 7'-6" ⇒

REVISION 1) 07/13/88
REVISION 2) 05/20/97
REVISION 3) 12/01/10

TYPICAL BACKSLOPE DRAIN DETAIL
FOR
FORT BEND COUNTY, TEXAS

AUGUST, 1986	FIGURE 3-4
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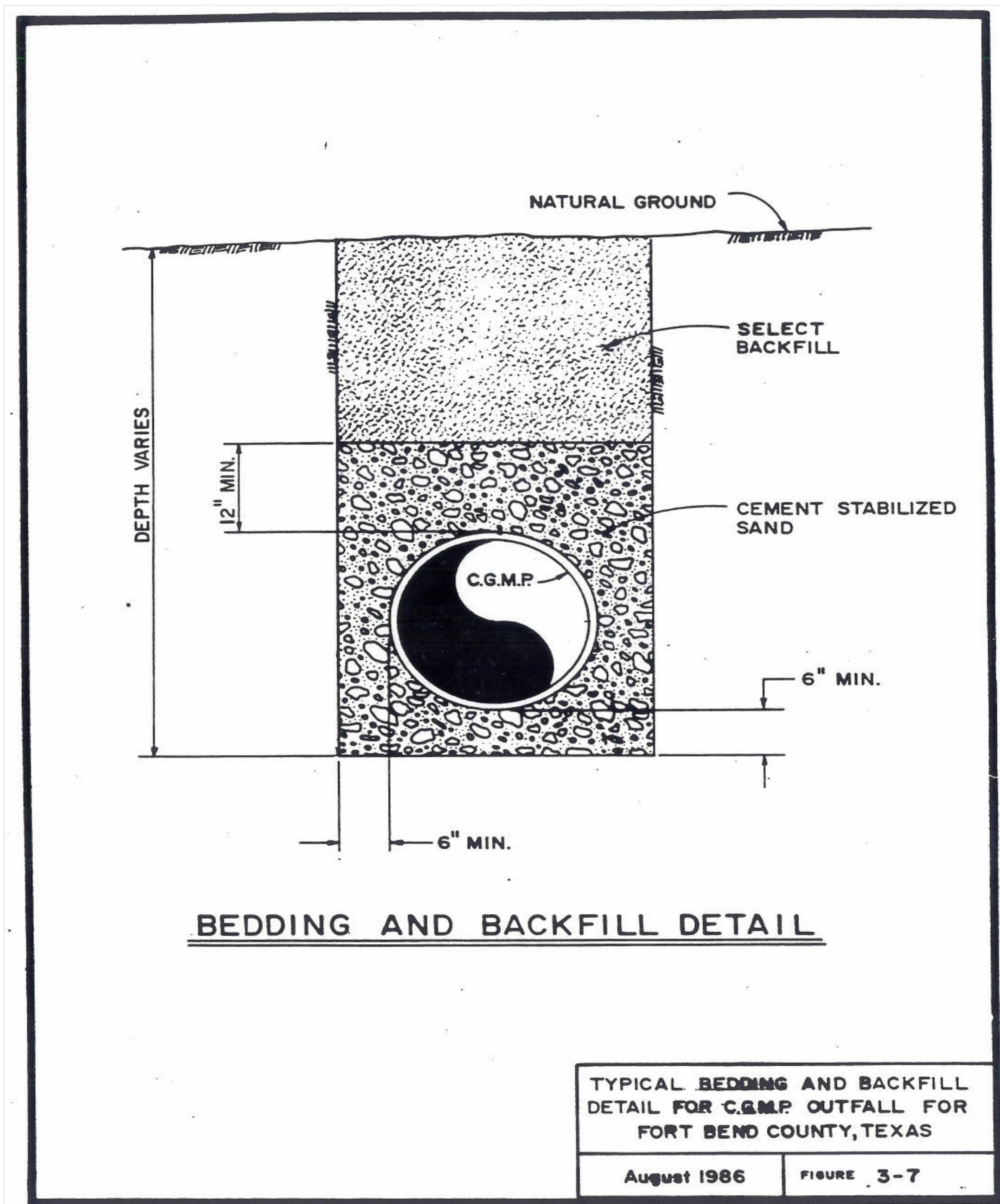
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DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
TYPICAL BACKSLOPE DRAIN DETAIL

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3-37

TYPICAL BEDDING AND BACKFILL DETAIL FOR C.G.M.P. OUTFALL

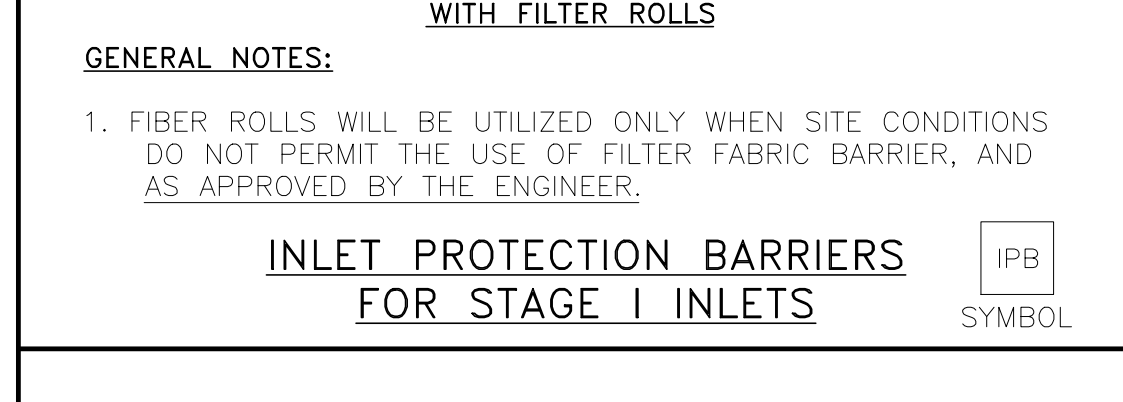
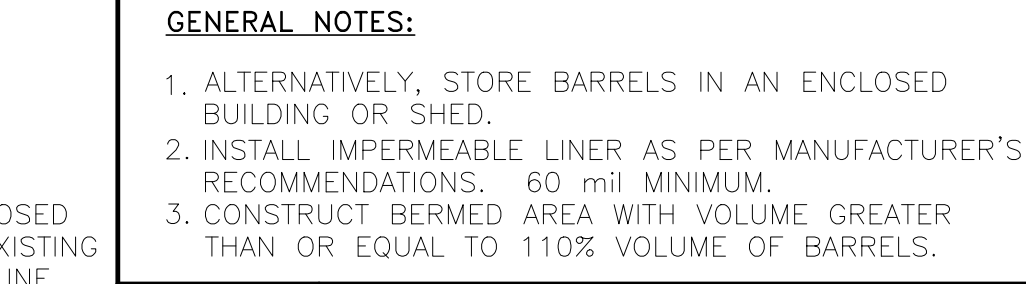
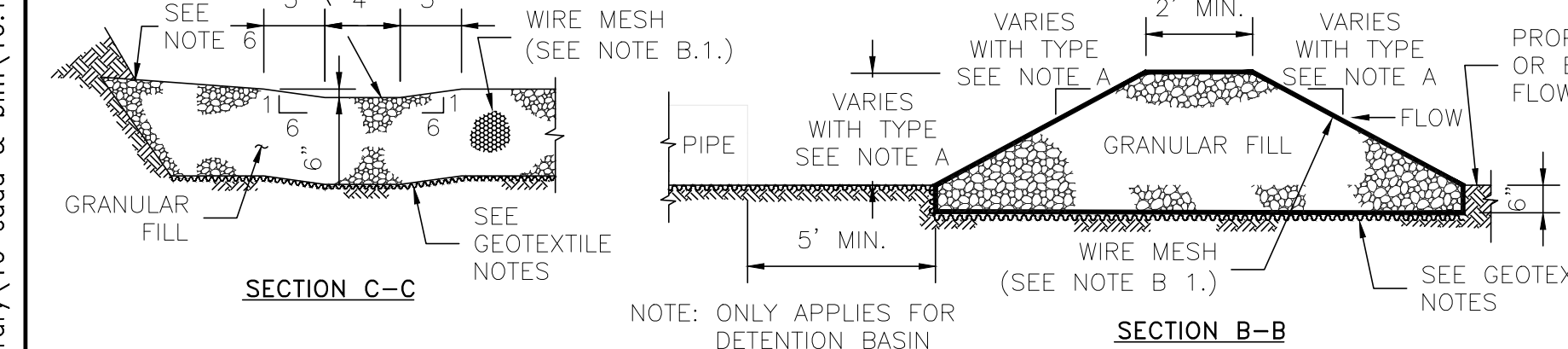
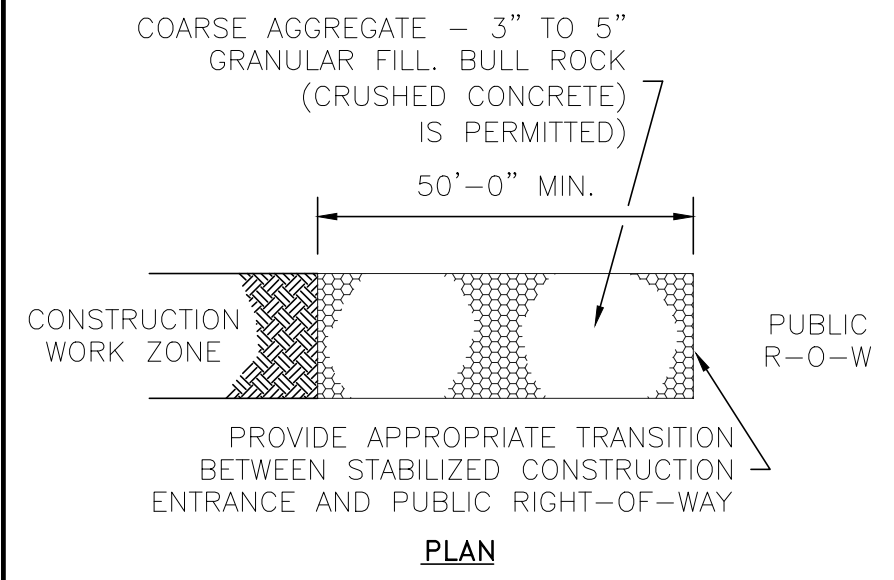
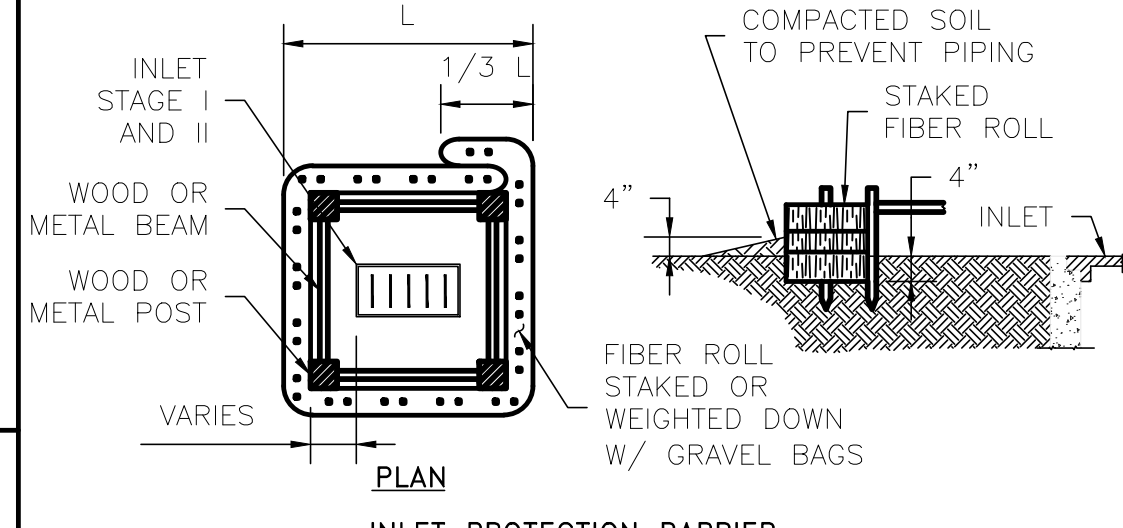
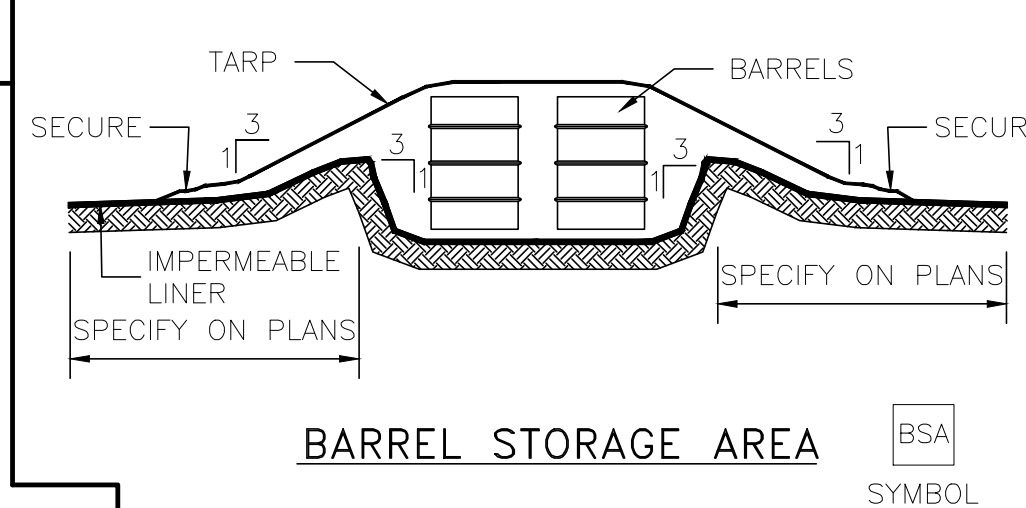
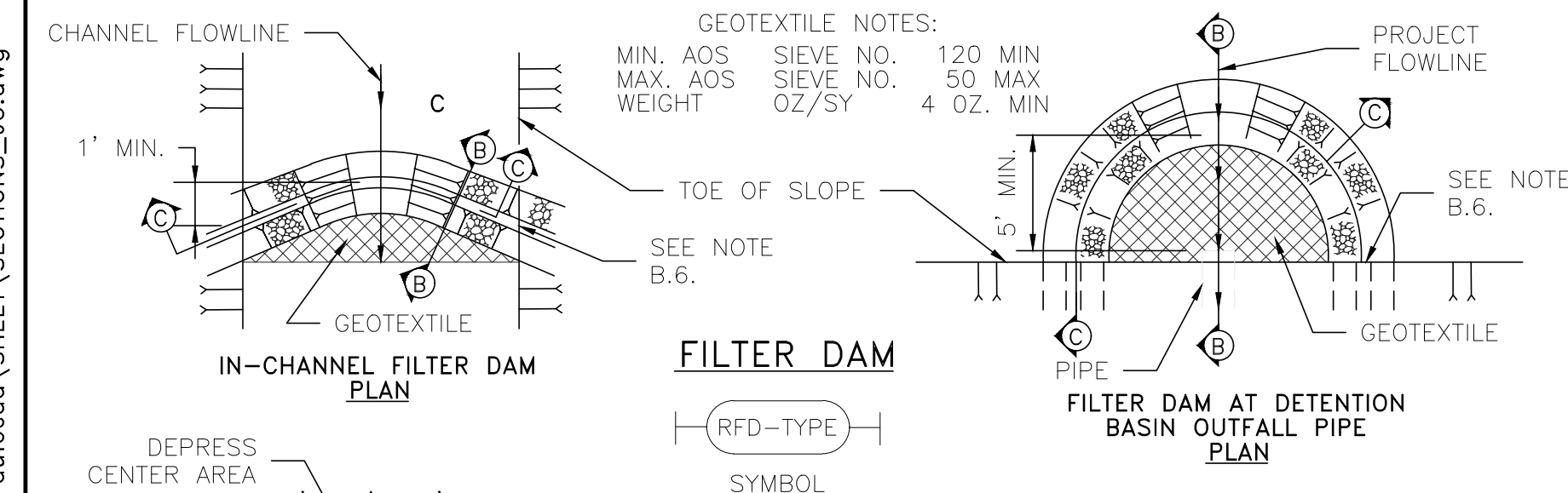
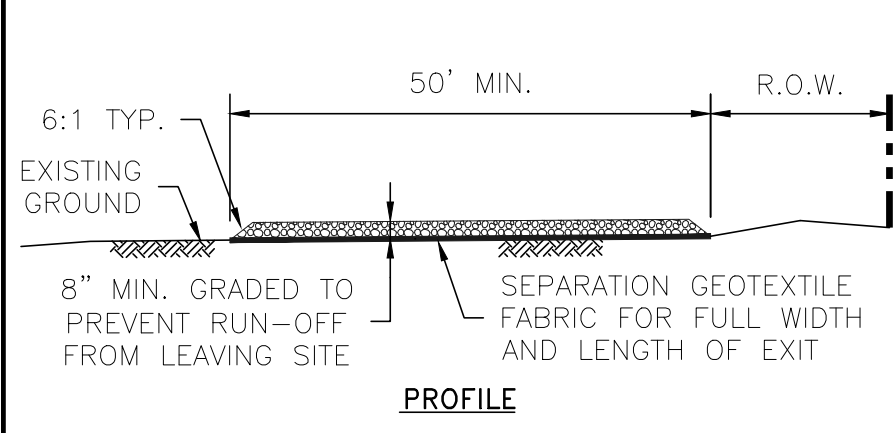
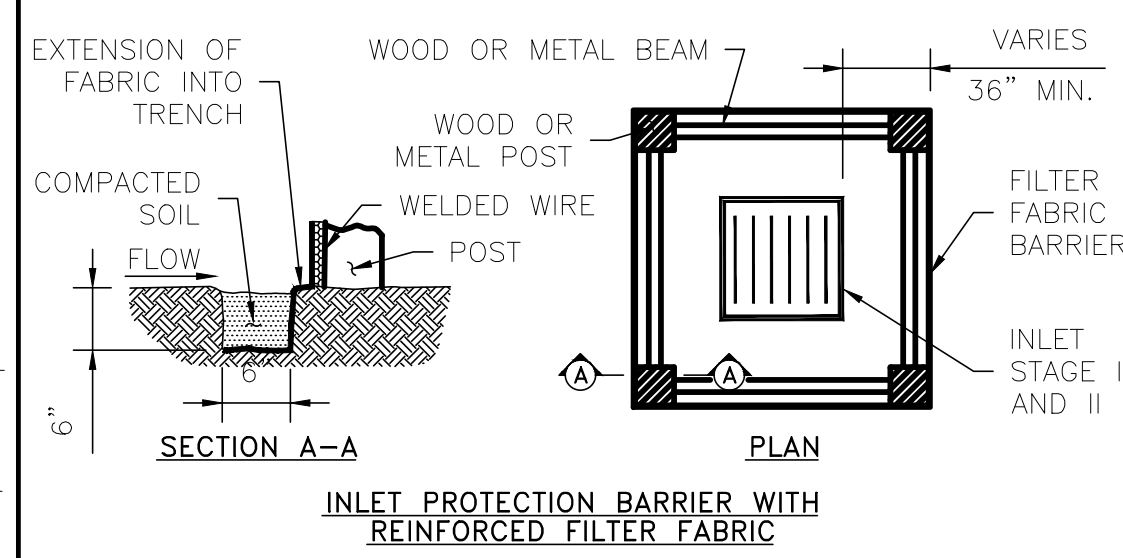
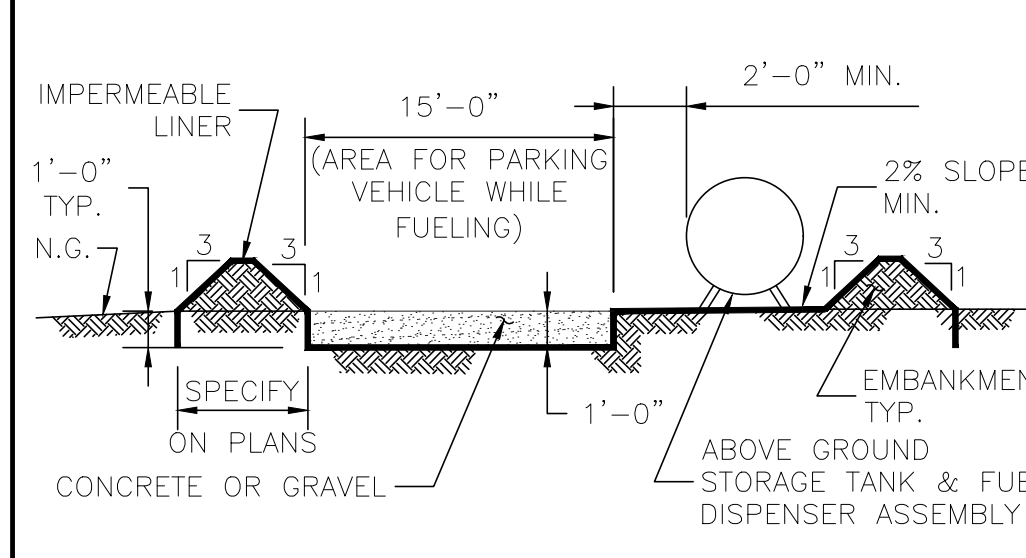
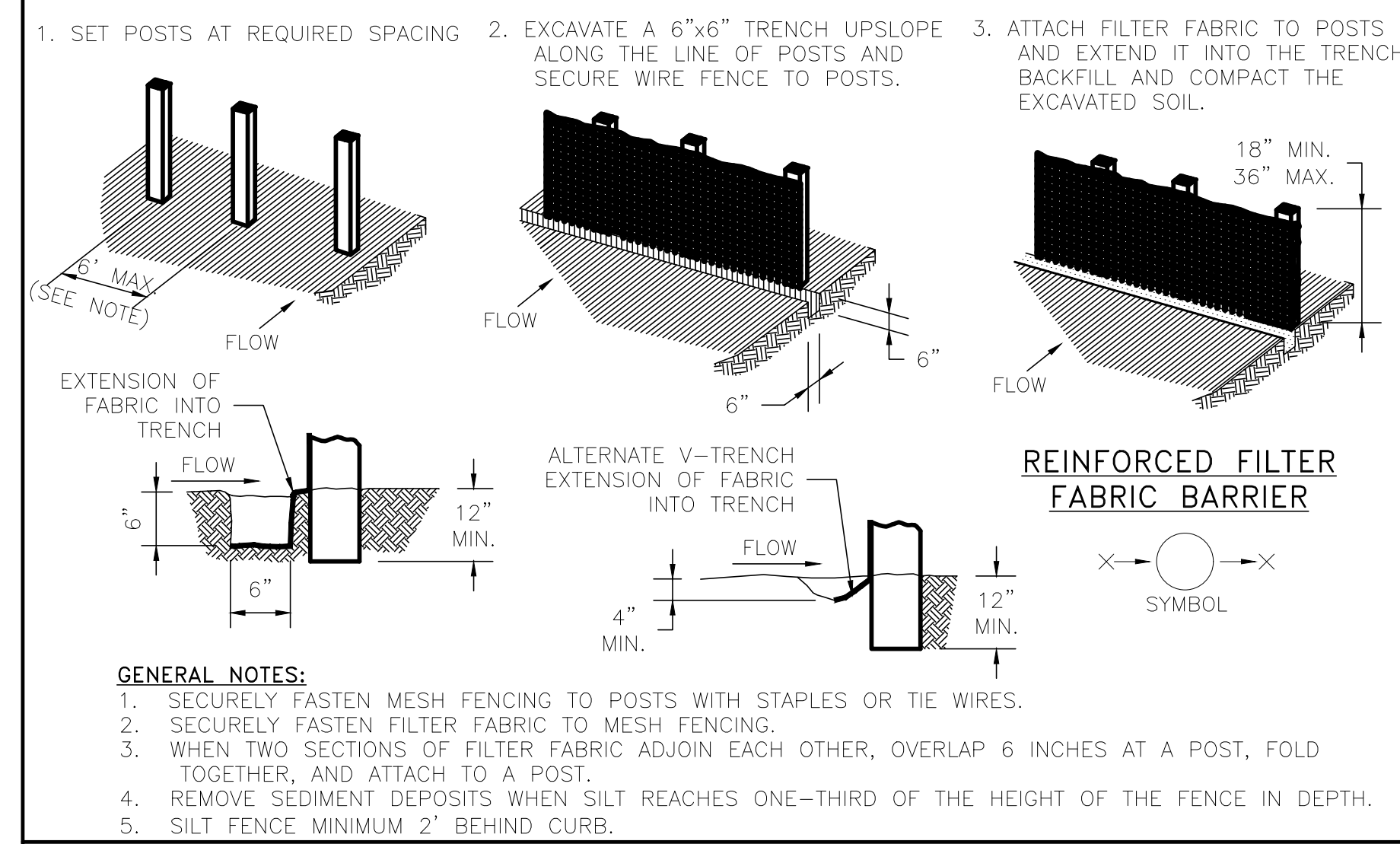
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Firm Registration No. F-761

DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
TYPICAL BEDDING AND BACKFILL DETAIL FOR C.G.M.P. OUTFALL

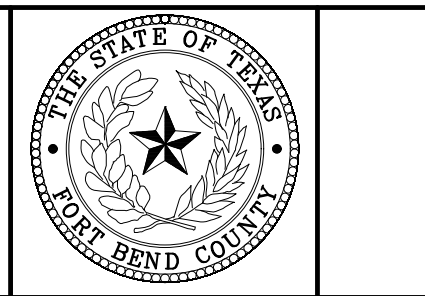
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- A. TYPES OF FILTER DAMS**
1. TYPE 1 (NON-REINFORCED)
 - a. HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 2:1 (MAXIMUM).
 2. TYPE 2 (REINFORCED)
 - a. HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 2:1 (MAXIMUM).
 3. TYPE 3 (REINFORCED)
 - a. HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 - c. SLOPES - 3:1 (MAXIMUM).
 4. TYPE 4 (GABION)
 - a. HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - b. TOP WIDTH - 2 FEET (MINIMUM).
 5. TYPE 5. AS SHOWN ON THE PLANS.
- B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.**
1. TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
 2. PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
 - a. 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4.
 - b. 4-8 INCHES FOR ROCK FILTER DAM TYPE REFER TO GRANULAR FILL IN SPECIFICATION SECTION No. 02378 RIPRAP AND GRANULAR FILL.
 3. FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
 4. IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
 5. SEE HCFCD SPECIFICATION SECTION NO. 02364-FILTER DAMS.
 6. EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.

NO.	REVISIONS	DATE	NAME

FORT BEND COUNTY ENGINEERING DEPARTMENT



FOR INTERIM REVIEW ONLY

DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES

ENGINEER:
P.E. SERIAL No.
DATE: 5/31/17

PROJECT TITLE:		FBCED STANDARD
DRAWN BY:	INIT	SHEET NO: # / #
CK'D BY:	INIT	
SCALE:	NONE	
DATE:	5/31/17	
APPROVED BY:		

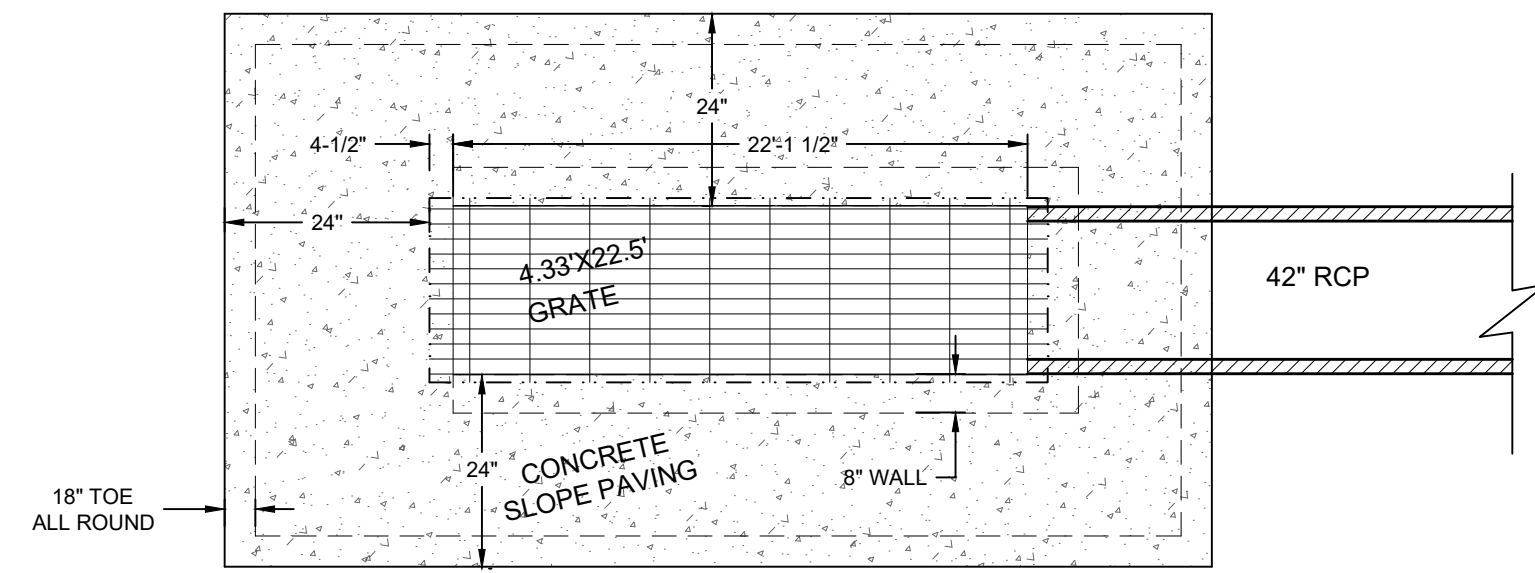
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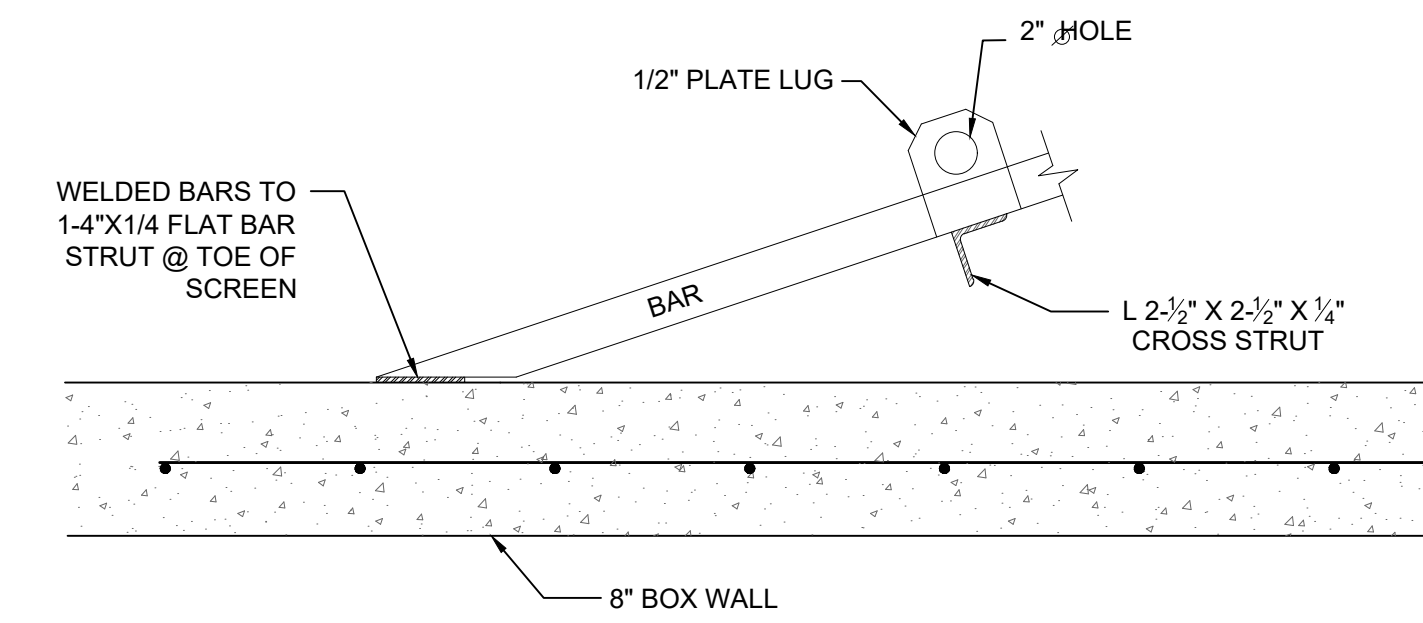


DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
STORMWATER POLLUTION PREVENTION PLAN DETAILS

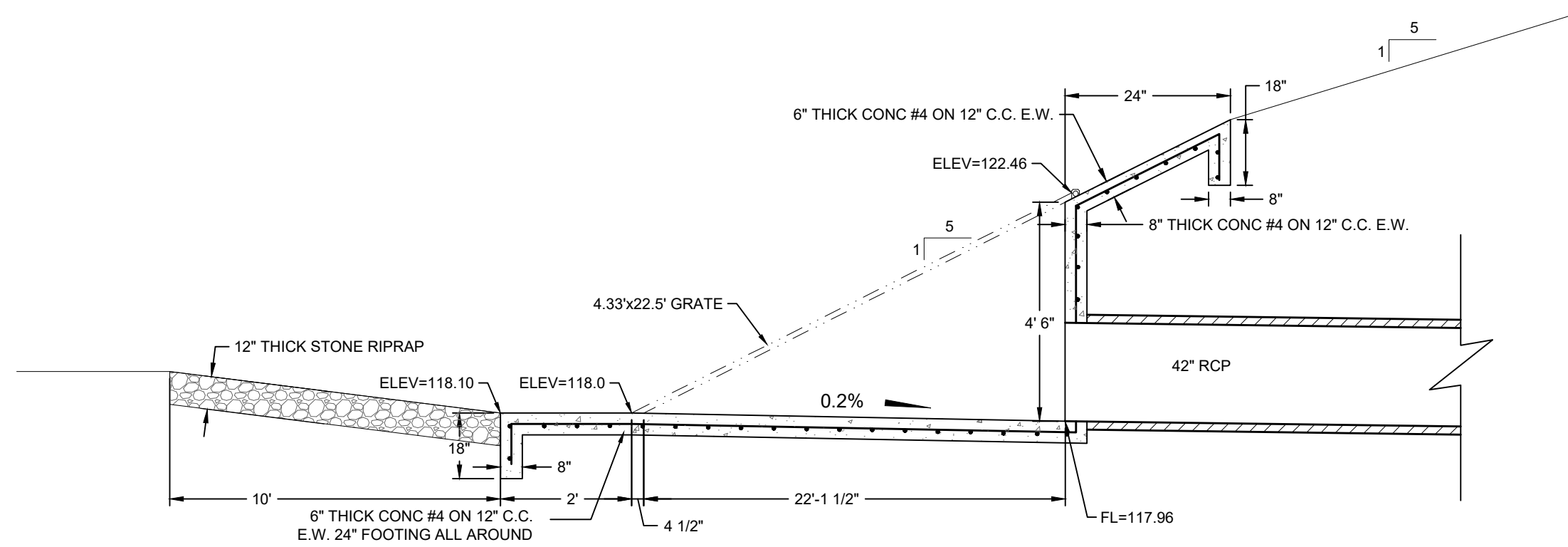
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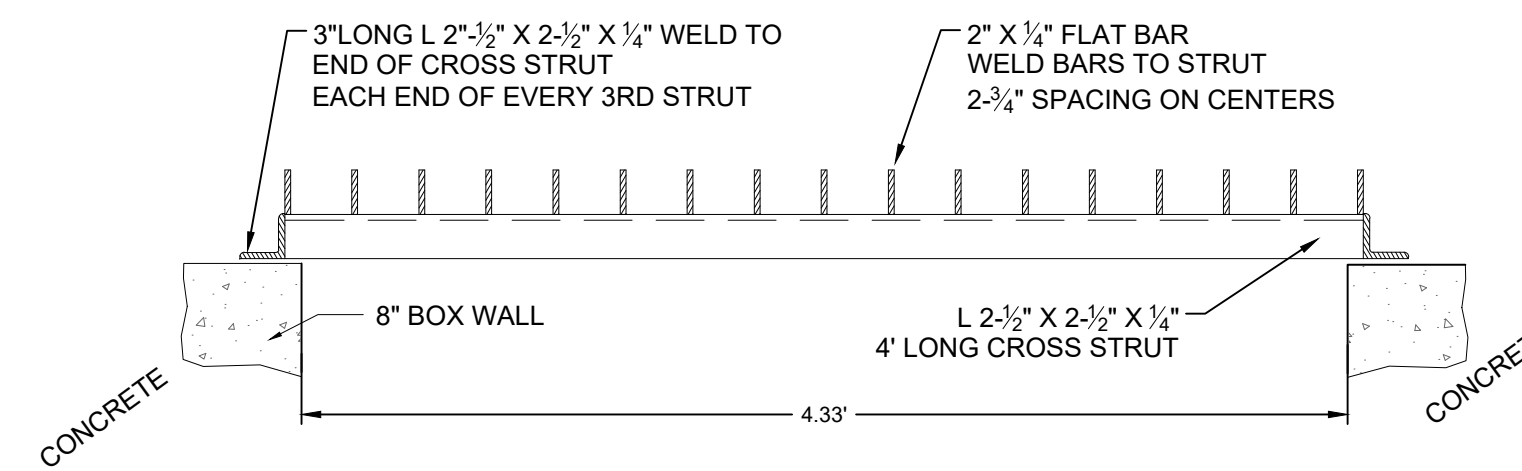
BAR SCREEN STRUCTURE
TOP VIEW
N.T.S.



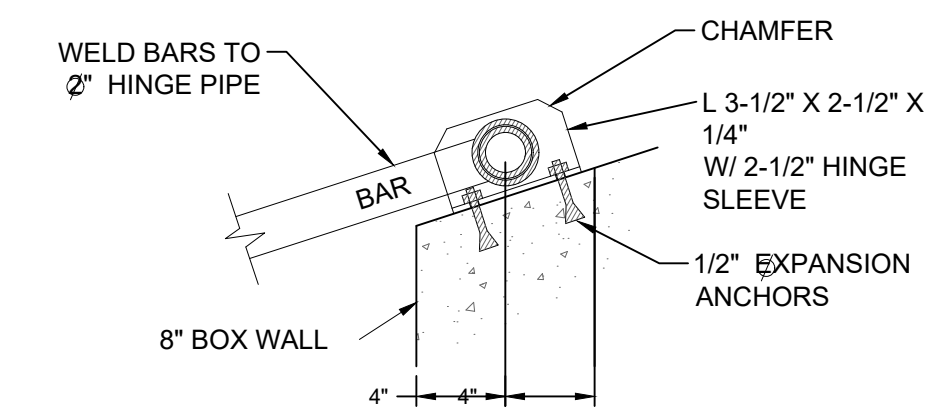
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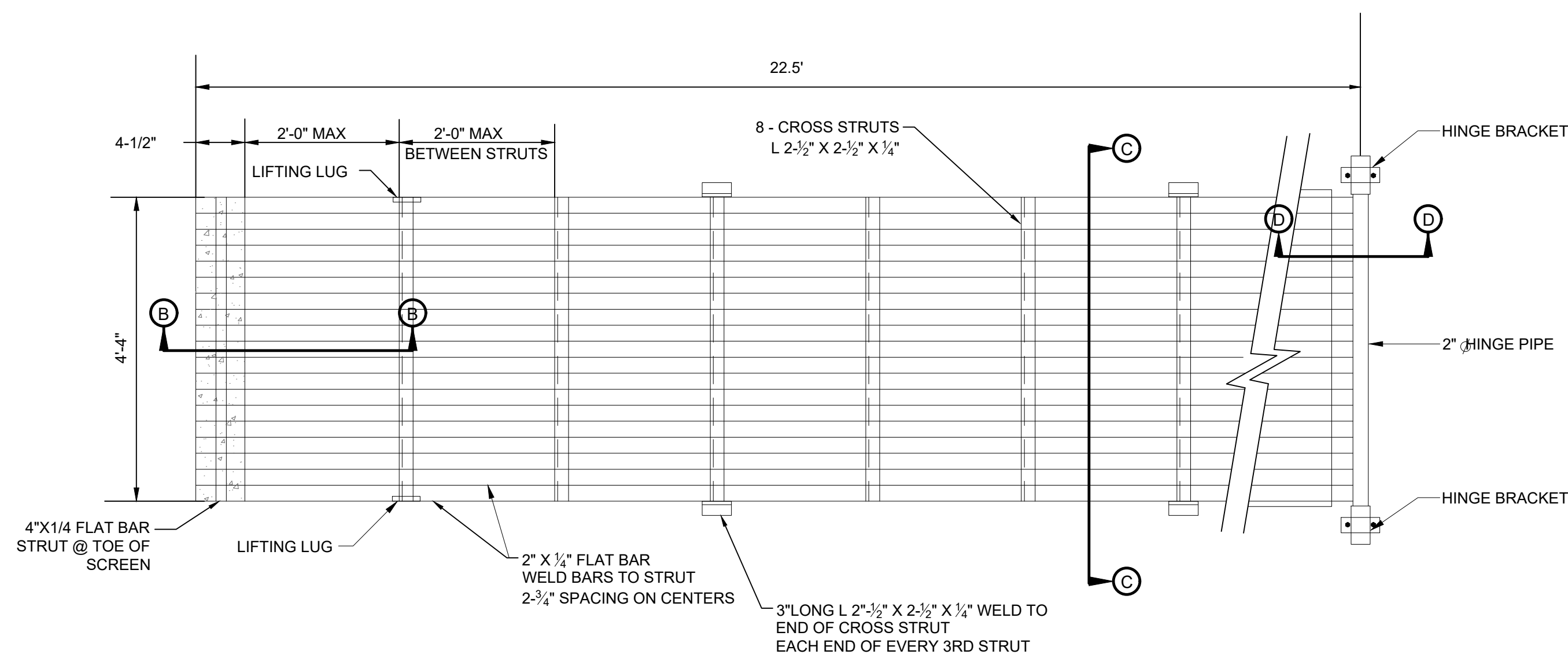
BAR SCREEN STRUCTURE
SIDE VIEW
N.T.S.



SECTION C-C
N.T.S.



SECTION D-D
N.T.S.



FABRICATED STEEL GRATE
HOT DIP GALVANIZE AFTER FABRICATION
N.T.S.

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DETENTION POND FOR PRECINCT 3
NORTH LIBRARY, FULSHEAR, TX
BAR SCREEN DETAILS

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BAR SCREEN DETAILS