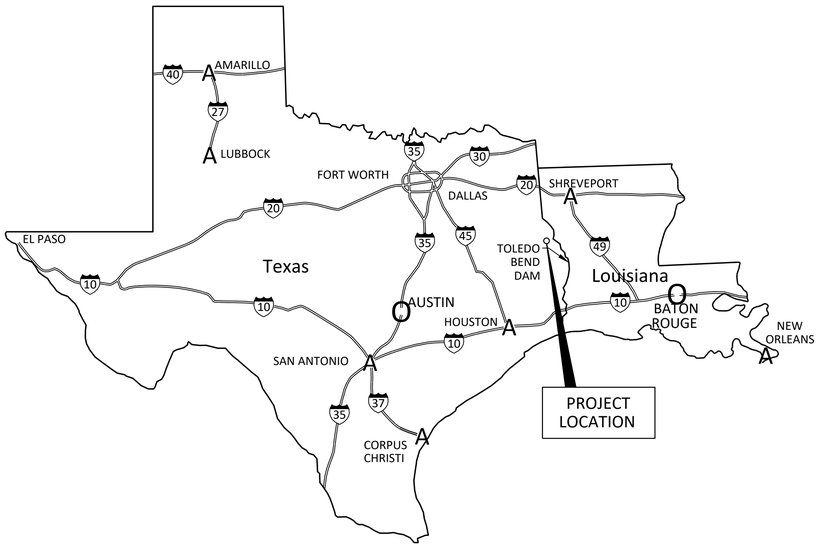
SABINE RIVER AUTHORITY OF TEXAS

PLANS FOR

SABINETOWN RECREATION AREA

(RFB 25-1202)

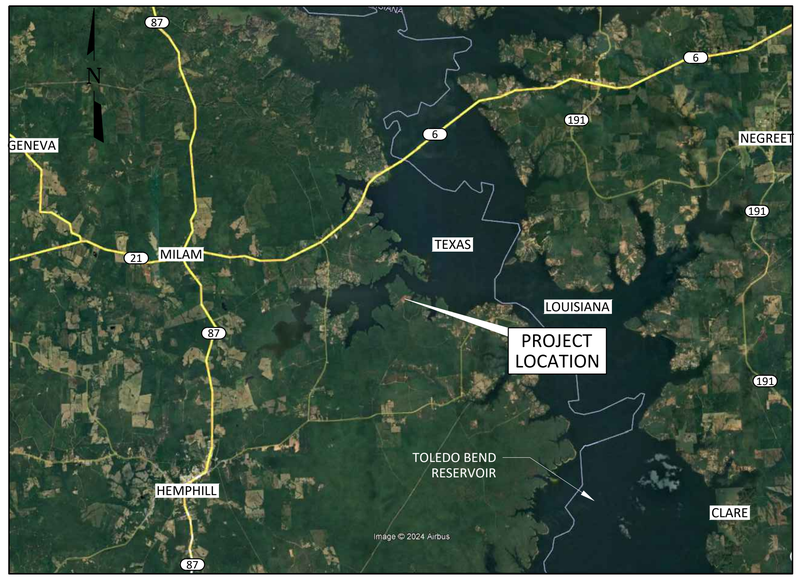
JULY 2024



LOCATION MAP

NOT TO SCALE

SABINE RIVER AUTHORITY OF TEXAS



VICINITY MAP

NOT TO SCALE

PREPARED BY:

INDEX OF SHEETS

SHEET NO.	SHEET TITLE
GENERAL	
G1	COVER SHEET
G2	GENERAL NOTES
G3	LEGEND AND QUANTITIES
CIVIL	
C1	OVERALL SITE PLAN
C2	EXISTING TOPOGRAPHY PLAN
C3	DEMOLITION PLAN
C4	TYPICAL PARKING LOT SECTION
C5	PROPOSED SITE PROFILE
C6	PROPOSED PARKING LOT STAKING & GRADING PLAN
C7	PROPOSED OPEN YARD AREA STAKING & GRADING PLAN
C8	PROPOSED WATERLINE PLAN
C9	STRIPING AND SIGNAGE PLAN
C10	VANTAGE POINT ROAD RECONSTRUCTION PLAN
C11	BOAT RAMP STRIPING PLAN
C13	EROSION CONTROL AND TURF ESTABLISHMENT PLAN
C12	(BID ALTERNATE NO. 2 & 3) BOAT RAMP ACCESSABILITY PLAN
C14	SW3P NOTES
C15	SW3P EPIC
C16	SW3P DETAILS
C17	CIVIL DETAILS I
C18	CIVIL DETAILS II
C19	CIVIL DETAILS III
C20	CIVIL DETAILS IV
C21	CIVIL DETAILS V
C22	CIVIL DETAILS VI
STRUCTURAL	
S1	STRUCTURAL NOTES (01)
S2	STRUCTURAL NOTES (02)
S3	BOAT RAMP PLAN AND SECTIONS
S4	BOAT RAMP SECTIONS
S5	BOAT RAMP DETAILS
S6	CONCRETE STAIR DETAILS
S7	CONCRETE RETAINING WALL DETAILS
S8	BID ALTERNATE #2 STRUCTURAL DETAILS
S9	RETAINING WALL MISCELLANEOUS DETAILS
LANDSCAPE ARCHITECTURE	
L1	PARK SIGN
L2	RESTROOM 1
L3	RESTROOM 2
L4	RESTROOM 3
L5	FURNISHING
L6	(BID ALTERNATE NO. 2 & 3) FLOATING DOCKS
L7	(BID ALTERNATE NO. 2 & 3) FLOATING DOCKS
L8	(BID ALTERNATE NO. 2 & 3) FLOATING DOCKS
L9	TIMBER LOADING RAMPS
L10	(BID ALTERNATE NO. 2 & 3) PERMATRAK DETAILS
ARCHITECTURE	
A2.0	PAVILION FLOOR PLAN
A2.1	PAVILION FLOOR PLAN
A3.0	PAVILION ROOF PLAN AND REFLECTED CEILING PLAN
A4.0	PAVILION ELEVATIONS
A5.0	PAVILION SECTIONS
A6.0	PAVILION COLUMN SECTION AND DETAILS
A7.0	PAVILION SECTIONS AND DETAILS
S1.1	STRUCTURAL GENERAL NOTES
S2.1	FOUNDATION PLAN AT PAVILION
S3.1	FRAMING PLAN AT PAVILION
S4.1	FOUNDATION DETAILS AT PAVILION STAGE AREA
S5.1	FRAMING SECTIONS AT STAGE
S5.2	FRAMING SECTIONS AT PAVILION
PLUMBING	
P1	OSSF SITE PLAN
P2	OSSF SYSTEM OVERVIEW
P3	OSSF SYSTEM DETAILS
ELECTRICAL	
E1.00	SITE PLAN - ELECTRICAL
E2.00	RESTROOM AND PAVILION FLOOR PLANS - ELECTRICAL
E3.00	ONE-LINE - PANEL SCHEDULES
E4.00	LIGHT FIXTURE SCHEDULE - LIGHTING CONTROL SCHEDULES INTERIOR AND EXTERIOR LIGHTING CONTROL SCHEDULE
E5.00	ENTRY AND PARKING PHOTOMETRICS
E6.00	DOCK AND PAVILION PHOTOMETRICS-EXTERIOR PAVILION PHOTOMETRICS-INTERIOR
E7.00	DETAILS-ELECTRICAL
E8.00	DETAILS-ELECTRICAL

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER

7-16-2024

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

FREESE AND NICHOLS
10497 Town and Country Way,
Suite 600
Houston, Texas 77024
Phone - (713) 600-6800
Web - www.freese.com

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION No. F-9622

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN
1300 WEST RANDOL MILL ROAD, ARLINGTON, TEXAS 76012
817.801.7200
www.ghla-inc.com

WAVECREST DESIGN, LLC
1502 ROSEWOOD DR.
KELLER, TEXAS 76248
(713) 376-1225 PH.
T.B.P.E. FIRM NO. 23292

SRA23985

ISSUED FOR BID

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-COVER.dwg
Last Saved: 7/16/2024 11:53 AM Saved By: 08661

Date: Jul 16, 2024 - 1:29pm User: 08661 File: N:\IF\Drawings\CV-SRA-PL-COVER.dwg

GENERAL CONSTRUCTION NOTES:

1. ALL EXISTING UTILITIES MAY NOT BE SHOWN AND MAY VARY FROM THE LOCATIONS SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES AND VERIFYING ALL UTILITIES LOCATED ON SITE OR IN RIGHT-OF-WAY PRIOR TO CONSTRUCTION.
2. THESE PLANS ARE BASED ON A TOPOGRAPHIC SURVEY PROVIDED BY BALLARD CLC, INC. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, IN WRITING, OF ANY DISCREPANCIES OR OMISSIONS TO THE SURVEY INFORMATION. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION (HORIZONTAL/VERTICAL) OF ANY BURIED CABLES, CONDUITS, PIPES, AND STRUCTURES (STORM SEWER, SANITARY SEWER, WATER, GAS, TELEVISION, TELEPHONE, ETC.) WHICH IMPACT THE CONSTRUCTION SITE. THE CONTRACTOR(S) SHALL NOTIFY THE OWNER AND ENGINEER IF ANY DISCREPANCIES ARE FOUND BETWEEN THE ACTUAL CONDITIONS VERSUS THE DATA CONTAINED IN THE CONSTRUCTION PLANS. ANY COSTS INCURRED AS THE RESULT OF NOT CONFIRMING THE ACTUAL LOCATION (HORIZONTAL/VERTICAL) OF SAID CABLES, CONDUITS, PIPES, AND STRUCTURES SHALL BE BORNE BY THE CONTRACTOR. ADDITIONALLY, THE CONTRACTOR(S) SHALL NOTIFY THE OWNER AND ENGINEER IF ANY ERRORS OR DISCREPANCIES ARE FOUND ON THE CONSTRUCTION DOCUMENTS (PS&E), WHICH NEGATIVELY IMPACT THE PROJECT. THE ENGINEER AND OWNER SHALL BE INDEMNIFIED OF PROBLEMS AND/OR COST WHICH MAY RESULT FROM CONTRACTOR'S FAILURE TO NOTIFY ENGINEER AND OWNER.
3. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, PAVEMENT, STRIPING, CURB, SIDEWALKS, DRIVEWAYS, FENCES, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS. DAMAGE TO ANY UTILITY SHALL BE REPAIRED BY THE UTILITY OWNER BUT AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURE. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED TO, ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
5. ALL WORK ON THESE PLANS SHALL BE DONE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS.
6. DURING CONSTRUCTION OF THESE IMPROVEMENTS, ANY DEVIATION FROM THESE SPECIFICATIONS WILL REQUIRE APPROVAL IN WRITING FROM THE OWNER AND HIS DESIGNEE BEFORE ANY CONSTRUCTION INVOLVING THAT DECISION COMMENCES.
7. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND REQUIREMENTS. CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE UTILITY COMPANIES AND OWNER'S INSPECTING AUTHORITIES.
8. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE REPLACED, AT CONTRACTOR'S EXPENSE, ALL CORNER MONUMENTS WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCURING ALL LEGALLY REQUIRED PERMITS AND LICENSES, PAY ALL CHARGES AND FEES, GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK, AND ARRANGE FOR ALL INSPECTIONS, PER THE CONTRACT DOCUMENTS.
10. ALL CONSTRUCTION STAKING WILL BE PROVIDED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING SANITARY FACILITIES FOR EMPLOYEES ON THIS PROJECT.
12. CONTRACTOR IS RESPONSIBLE TO KEEP VANTAGE POINT ROAD SWEPT AND MAINTAINED DURING THE CONSTRUCTION PHASE. ALL SEDIMENT OR OTHER DEBRIS THAT IS TRACKED ON SPILLED ONTO THE ROADWAY MUST BE REMOVED IMMEDIATELY.

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL BE REQUIRED DURING ALL PHASES OF CONSTRUCTION AND MAINTAINED TO FULLY FUNCTION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED THAN WHAT IS SHOWN ON THE PLANS.
2. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AND IMPLEMENTING A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE STORM WATER POLLUTIUON PREVENTION PLAND AND TPDES.
3. PLACE STABILIZATION FABRIC ON ALL SLOPES STEEPER THAN 3H:1V. CONTRACTOR SHALL PLACE FOUR (4) INCHES OF TOPSOIL (LOOSE) ON ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS UNLESS OTHERWISE NOTED. SEED OR SOD ALL DISTURBED AREAS IN ACCORDANCE WITH THE SPECIFICATIONS AND MAINTAIN SAME UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. THE SPECIFIC PLANT MATERIALS PROPOSED TO PROTECT FILL AND EXCAVATED SLOPES SHALL BE SUITABLE FOR USE UNDER LOCAL CLIMATE AND SOIL CONDITIONS. IN GENERAL, HYDROSEEDING OR SODDING BERMUDA GRASS IS ACCEPTABLE DURING THE SUMMER MONTHS (MAY 1ST TO AUGUST 31ST). WINTER RYE OR FESCUE GRASS MAY BE PLANTED DURING TIMES OTHER THAN THE SUMMER MONTHS AS A TEMPORARY MEASURE UNTIL SUCH TIME AS THE PERMANENT PLANTING CAN BE MADE.
4. AT COMPLETION OF THE PAVING AND FINAL GRADING, THE DISTURBED AREA(S) SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS.
5. SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINATAINED AND REMAIN IN PLACE UNTIL REVEGETATION HAS BEEN COMPLETED.
6. DISTURBED AREAS THAT ARE SEEDED OR SODDED SHALL BE CHECKED PERIODICALLY TO SEE THAT GRASS COVERAGE IS PROPERLY MAINTAINED. DISTURBED AREAS SHALL BE WATERED, FERTILIZED, AND RE-SEEDED OR RE-SODDED, IF NECESSARY.
7. THERE IS TO BE ONE CONCRETE WASH-OUT PIT LOCATED ON THE SITE. THE LOCATION OF THE CONCRETE WASH-OUT PIT IS TO BE LOCATED NEAR THE EXISTING CONSTRUCTION ENTRANCE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY DISPOSE OF ALL EXCESS CONCRETE MATERIAL.
8. LOCATION OF CONSTRUCTION EXITS SHALL BE PLACED IN THE FIELD AND APPROVED BY THE ENGINEER.
9. THE CONTRACTOR WILL BE REQUIRED TO FILE A NOTICE OF INTENT (NOI) PRIOR TO COMMENCEMENT OF CONSTRUCTION AND MONITOR SITE EROSION THROUGHOUT THE CONSTRUCTION PROCESS. ONCE THE PROJECT IS COMPLETED, THE CONTRACTOR SHALL FILE THE REQUIRED NOTICE OF TERMINATION (NOT) WITH THE TCEQ.
10. ALL WASTE MANAGEMENT PRACTICES (EXISTING HAZARDOUS WASTE, SOLID WASTE, CONCRETE WASTE, ETC.) SHALL COMPLY WITH TCEQ REQUIREMENTS.

DEMOLITION NOTES:

1. NO EARTH-DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED AND PERIMETER EROSION CONTROL MEASURES HAVE BEEN INSTALLED. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL T.P.D.E.S. PERMIT FRO STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.
2. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION, AND DISPOSAL OF ALL DEMOLITION DEBRIS.
3. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR DEMOLITION OF STRUCTURES.
4. NOTES SHOWN HEREON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND DETERMINING THE EXTENT OF EXISTING IMPROVEMENTS TO BE REMOVED FROM THE SITE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY COMPANIES ON THE DISCONNECTION OR TERMINATION OF ANY UTILITIES SERVING THIS AREA.
7. ALL FENCING AND OTHER MAN-MADE ELEMENTS, ETC., WITHIN CONSTRUCTION AREA, UNLESS OTHERWISE IDENTIFIED, SHALL BE REMOVED AND DISPOSED OF OFF SITE.
8. REMOVAL OF ANY TREES OTHER THAN THOSE SPECIFIED IN THESE PLANS SHALL BE COORDINATED WITH THE OWNER. THIS REMOVAL SHALL INCLUDE THE ROOT BALL OF THE TREES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY REQUIRED DEMOLITION PERMITS.
10. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING DEMOLITION, SITE PREPARATION AND EARTHWORK FOR THIS PROJECT.

PAVING / DRAINAGE NOTES:

1. ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE OF MAX. 5.0% AND CROSS SLOPE OF MAX. 2.0%, PER TAS REQUIREMENTS.
2. RIPRAP GRADATION SHALL BE IN ACCORDANCE WITH THE SITEWORK SPECIFICATIONS & DETAILS.
3. IF THE CONTRACTOR RELOCATES BENCHMARK WITH A NEW BENCHMARK, IT SHALL BE LOCATED WITHIN A TOLERANCE OF 0.010 FEET.
4. CONTRACTOR SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT, WHERE APPLICABLE.
5. CONTRACTOR SHALL MATCH EXISTING CURB AND GUTTER IN GRADE, SIZE, TYPE AND ALIGNMENT AT ADJACENT ROADWAYS.
6. ADJUST PAVEMENT AND/OR CURB ELEVATIONS AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE WITH EXISTING, WHERE APPLICABLE.
7. DRAINAGE SHALL BE MAINTAINED AWAY FROM FOUNDATIONS, BOTH DURING AND AFTER CONSTRUCTION.
8. ALL EARTHWORK AND PAVING OPERATIONS SHALL CONFORM TO THE RECOMMENDATIONS PER THE GEOTECHNICAL REPORT AND AS NOTED ON PLANS.
9. ALL PROPOSED CONTOURS AND SPOT GRADES ARE FOR THE FINISHED SURFACE. CONTRACTOR SHALL ADJUST ROUGH GRADING AS NEEDED TO ACCOUNT FOR IMPORT MATERIALS.
10. ALL PAVING AND DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CONTRACT SPECIFICATIONS. WHERE ANY QUESTIONS ARISE AS TO THE INTERPRETATION OF THE STANDARDS OF DESIGN, PLEASE CONTACT THE ENGINEER.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
GENERAL
GENERAL NOTES

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 7/17/24
DESIGNED NAC
DRAWN DKS
CHECKED RG
APPROVED NAC
FILE NAME CV-SRA-ALL-QUANTS.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1

SHEET G2
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-ALL-QUANTS.dwg
Last Saved: 7/16/2024 1:09 PM Saved By: 08661
Plot Date: 7/16/2024 1:29 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-ALL-QUANTS.dwg

BASE BID - ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUANTITY	UNIT
	PART A - SITE WORK		
A1	MOBILIZATION (5% MAX, BASE BID)	1	LS
A2	EXCAVATION	30500	CY
A3	EMBANKMENT (TY D) (FINAL)	35000	CY
A4	CLEARING AND GRUBBING	4363	SY
A5	EROSION CONTROL BLANKET	5638	SY
A6	HYDROMULCH	45575	SY
A7	SODDING	6204	SY
A8	4" TOPSOIL	6204	SY
A9	INSTALL NEW SILT FENCE	500	LF
A10	REMOVE SILT FENCE	4626	LF
A11	STORM WATER POLLUTION PREVENTION PLAN	1	LS
	PART B - PARKING AREA		
B1	12" COMPACTED SUBGRADE	31423	SY
B2	GEOGRID (TXDOT, TYPE II)	31423	SY
B3	6" LIMESTONE FLEXIBLE BASE, TYPE A, GRADE 1-2	5237	CY
B4	PRIME COAT (0.15 GAL/SY)	4591	GAL
B5	2" HMAC, TYPE C	30610	SY
B6	PAVEMENT MARKING, TYPE 2, (W) (4")	15397	LF
B7	PAVEMENT MARKING, TYPE 2, (Y) (4")	3750	LF
B8	PAVEMENT MARKING, TYPE 2, (Y) (4") (DBL)	369	LF
B9	PAVEMENT MARKING, TYPE 2, (RED) (4")	335	LF
B10	PAVEMENT MARKINGS (RED) (FIRST RESPONDER PARKING)	2	EA
B11	PAVEMENT MARKING, TYPE 2, (W) (24")	254	LF
B12	PAVEMENT MARKINGS (W)(NO PARKING)	4	EA
B13	PAVEMENT MARKINGS (W) (ARROW)	30	EA
B14	PAVEMENT MARKINGS (W) (WORD)	1	EA
B15	24" LAYDOWN CURB	233	LF
B16	CONCRETE VALLEY GUTTER	52	LF
B17	SMALL RDSD SIGN ASSM	6	EA
B18	ACCESSIBLE PAINTED SYMBOL	7	EA
B19	ACCESSIBLE PARKING SIGN	7	EA
B20	PRECAST WHEEL STOPS	7	EA
	PART C - VANTAGE POINT ROADWAY EXTENSION		
C1	EXCAVATION	150	CY
C2	EMBANKMENT (TY A) (FINAL)	50	CY
C3	GEOGRID (TXDOT, TYPE II)	903	SY
C4	6" LIMESTONE FLEXIBLE BASE, TYPE A, GRADE 1-2	151	CY
C5	PRIME COAT (0.15 GAL/SY)	118	GAL
C6	2" HMAC, TYPE C	783	SY
	PART D - WATERLINE		
D1	2" WATER SERVICE LINE	1540	LF
D2	3/4" HOSE BIB AND VALVE BOX	1	EA
D3	2" GATE VALVE AND VALVE BOX	3	EA
	PART E - STORM SEWER		
E1	15" CLASS III RCP	93	LF
E2	15" S.E.T.	2	EA
	PART F - BOAT RAMP		
F1	DEWATERING (COFFERDAMMING)	1	LS
F2	SHORELINE EXCAVATION	4500	CY
F3	FILTER FABRIC	2950	SY
F4	BOAT RAMP 8" GRAVEL BASE	685	CY
F5	CIP CONCRETE BOAT RAMP SLAB	675	CY
	PART G - SITE FACILITIES		
G1	PREFABRICATED RESTROOM BUILDING	1	LS
G2	EXCAVATION FOR RESTROOM BUILDING FOUNDATION	252	CY
G3	SELECT FILL FOR RESTROOM BUILDING FOUNDATION	272	CY
G4	GRAVEL BASE FOR RESTROOM BUILDING FOUNDATION	10	CY
G5	ONSITE SEWAGE FACILITY	1	LS
G6	PAVILION	1	LS
G7	PAVILLION FOUNDATION	1	LS
G8	6" CONCRETE DRIVEWAY	167	SY
G9	PARK ENTRY SIGNAGE	1	LS
G10	CONCRETE LOW RETAINING WALL	95	LF
G11	4" CONCRETE SIDEWALK AROUND PAVILION AND RESTROOM	891	SY
G12	CONCRETE RETAINING WALL AND STAIRS	310	CY
G13	RETAINING WALL DRAINAGE	360	LF
G14	CABLE GUARD RAIL AT TOP OF RETAINING WALL AND STAIRS	270	LF
	PART H - ELECTRICAL & ILLUMINATION		
H1	SITE PRIMARY POWER	1	LS
H2	SITE BRANCH POWER/CIRCUITS	1	LS
H3	FIXTURES	1	LS
H4	GEAR AND EQUIPMENT	1	LS
	PART I - ALTERNATE #1 - OVERFLOW PARKING LOT EXPANSION		
I1	MOBILIZATION (5% MAX, PART I)	1	LS
I2	12" COMPACTED SUBGRADE	13500	SY
I3	GEOGRID (TXDOT, TYPE II)	13500	SY
I4	6" LIMESTONE FLEXIBLE BASE, TYPE A, GRADE 1-2	2170	CY
I5	PRIME COAT (0.15 GAL/SY)	1950	GAL
I6	2" HMAC, TYPE C	13000	SY
I7	PAVEMENT MARKING, TYPE 2, (W) (4")	5000	LF
I8	SITE ELECTRICAL & ILLUMINATION (OVERFLOW PARKING AREA)	1	LS
I9	DEDUCT: HYDROMULCH (ITEM A6)	(13500)	SY
	PART J - ALTERNATE #2 - ADA WALKWAY AND FLOATING DOCK (NORTH)		
J1	MOBILIZATION (5% MAX, PART J)	1	LS
J2	PERMATRAK PRECAST ADA CONCRETE BOARDWALK	1	LS
J3	DRILL SHAFT (24") FOR BOARDWALK	578	LF
J4	CONCRETE PIER CAPS FOR BOARDWALK	15	CY
J5	HANDRAILS FOR CONCRETE BOARDWALK	670	LF
J6	ROCK RIPRAP (LABOR ONLY)	104	CY
J7	ACCUDOCK ADA ALUMINUM GANGWAY W/ ALL HARDWARE	1	LS
J8	ACCUDOCK FLOATING DOCK W/ ALL HARDWARE	1	LS
J9	12" DIA. TREATED TIMBER DRIVEN PILES	5	EA
	PART K - ALTERNATE #3 - FLOATING DOCK (SOUTH)		
K1	MOBILIZATION (5% MAX, PART K)	1	LS
K2	6" CONCRETE WALKWAY (MATCH BOAT RAMP SLOPE)	120	SY
K3	ACCUDOCK ALUMINUM GANGWAY W/ ALL HARDWARE	1	LS
K4	ACCUDOCK FLOATING DOCK W/ ALL HARDWARE	1	LS
K5	12" DIA. TREATED TIMBER DRIVEN PILES	5	EA
K6	ROCK RIPRAP (LABOR ONLY)	109	CY
K7	ADDITIONAL CLEARING AT SHORELINE	1	LS
	PART L - ALTERNATE #4 - TRANSFER PLATFORM		
L1	MOBILIZATION (5% MAX, PART L)	1	LS
L2	TIMBER LOADING RAMP	1	LS
L3	6" CONCRETE WALKWAY	5	SY
	PART M - ALTERNATE #5 - DECORATIVE STONE VENEER		
M1	MOBILIZATION (5% MAX, PART M)	1	LS
M2	4" STONE VENEER ON RETAINING WALLS	3000	SF
	PART N - ALTERNATE #6 - WOOD FRAMED ALTERNATIVE DESIGN		
N1	DEDUCT: WOOD FRAMED ALTERNATIVE DESIGN	(1)	LS

TESTING SCHEDULE

DESCRIPTION	MINIMUM RATE	EST. QUANTITY
SOILS:		
STANDARD PROCTOR - TRENCH BACKFILL	PER MATERIAL SOURCE	1
STANDARD PROCTOR - SUBGRADE	PER PARKING AREA	1
DENSITIES - TRENCH BACKFILL	PER 200 LF TRENCH/LIFT	4
DENSITIES - SUBGRADE (PARKING AREA)	PER 200 LF LANE/LIFT	120
DENSITIES - SUBGRADE (DRIVEWAYS)	PER 2 DRIVEWAYS	2
DENSITIES - SUBGRADE (SIDEWALK)	PER 5000 SF	4
FLEXIBLE BASE:		
SIEVE ANALYSIS	PER 3000 CY	2
ATTERBURG LIMITS	PER 3000 CY	2
MODIFIED PROCTOR	PER 3000 CY	2
L.S. ABRASION	PER 3000 CY	2
CBR (STANDARD)	PER MATERIAL SOURCE	1
WET BALL MILL TEST	PER MATERIAL SOURCE	1
TRIAXIAL TEST	PER MATERIAL SOURCE	1
DENSITIES OF COMPACTED BASE	PER 200 LF LANE/LIFT	120
HOT-MIX ASPHALT CONCRETE (HMAC):		
EXTRACTION, SIEVE ANALYSIS	PER 500 TONS OR DAY	6
LAB DENSITY & STABILITY	PER 500 TONS OR DAY	6
THEORETICAL DENSITY (RICE METHOD)	PER 500 TONS OR DAY	6
TEMPERATURE - DURING LAY-DOWN	CONTINUOUS AS NEEDED	1
THICKNESS - IN PLACE (CORE)	PER 1000 LF	4
% AIR VOIDS - IN PLACE (CORE)	PER 1000 LF	4
% THE ORETICAL DENSITY - IN PLACE (CORE)	PER 1000 LF	4
CONCRETE:		
(UNCONFINED COMPRESSION, 7, 14, & 28 DAY)		
SIDEWALKS	PER 4000 SF	2
CONCRETE RETAINING WALLS		4
CONCRETE BOAT RAMP:		
COMPRESSION STRENGTH (7 & 28 DAY)	PER DAY	6
FLEXURAL (BEAM) STRENGTH (7 & 28 DAY)	PER DAY	6
AIR CONTENT	PER DAY	6
SLUMP	PER DAY	6

TESTING SCHEDULE NOTES:

1. THE ABOVE TESTING RATES ARE ONLY ANTICIPATED GUIDELINES, THE ENGINEER RESERVES THE RIGHT TO CONDUCT ADDITIONAL TESTING AT THE ENGINEER'S DISCRETION. RE-TEST FOR FAILURES ARE NOT INCLUDED.
2. MOISTURE CONTENTS TO BE INCLUDED WITH DENSITY TEST.
3. IN THE EVENT OF FAILURES, ADDITIONAL TESTS WILL BE REQUIRED.
4. ALL TESTING WILL BE PROVIDED BY THE OWNER. SRA WILL CONTRACT FOR THE MATERIALS TESTING AND WILL PROVIDE THE CONTRACTOR WITH THE CONTACT INFORMATION.

LEGEND/ABBREVIATIONS

PROPOSED SYMBOLS

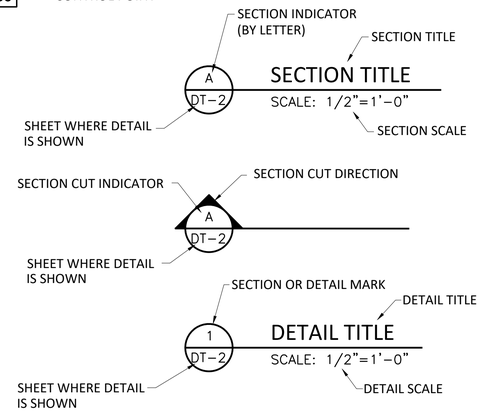
- CONCRETE CURB
- CONCRETE SIDEWALK OR PAVEMENT
- ASPHALT PAVEMENT
- -11.30% — SLOPE DIRECTION
- W — WATER LINE
- UE — UNDERGROUND ELECTRICAL
- 500 — PROPOSED CONTOUR
- RIP-RAP
- NORTH ARROW
- TRAFFIC FLOW ARROW
- STABILIZED CONSTRUCTION ENTRANCE
- TURF ESTABLISHMENT
- AREAS OF CLEARING
- B – 1 — BORE LOCATION
- CP5736 — CONTROL POINT

EXISTING SYMBOLS

- PP — POWER POLE
- LP — LIGHT POLE
- SP — SIGN POST
- T TP — TELEPHONE PEDESTALS
- E — ELECTRICAL LINE
- 500 — EXISTING CONTOUR
- PROPERTY LINE
- EXISTING ROADWAY
- SF — SILT FENCE
- LOC — LIMITS OF CONSTRUCTION

NOTE:

WHERE THE WORD "PROPOSED" OR "PROP." IS UTILIZED IN THIS SET OF DOCUMENTS, IT SHALL MEAN "NEW CONSTRUCTION TO BE PERFORMED AS PART OF THIS CONTRACT."



ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS — NICHOLAS A. CECAVA — 97391 — LICENSED PROFESSIONAL ENGINEER — 7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
GENERAL
LEGEND AND QUANTITIES

NO.	ISSUE	BY	DATE

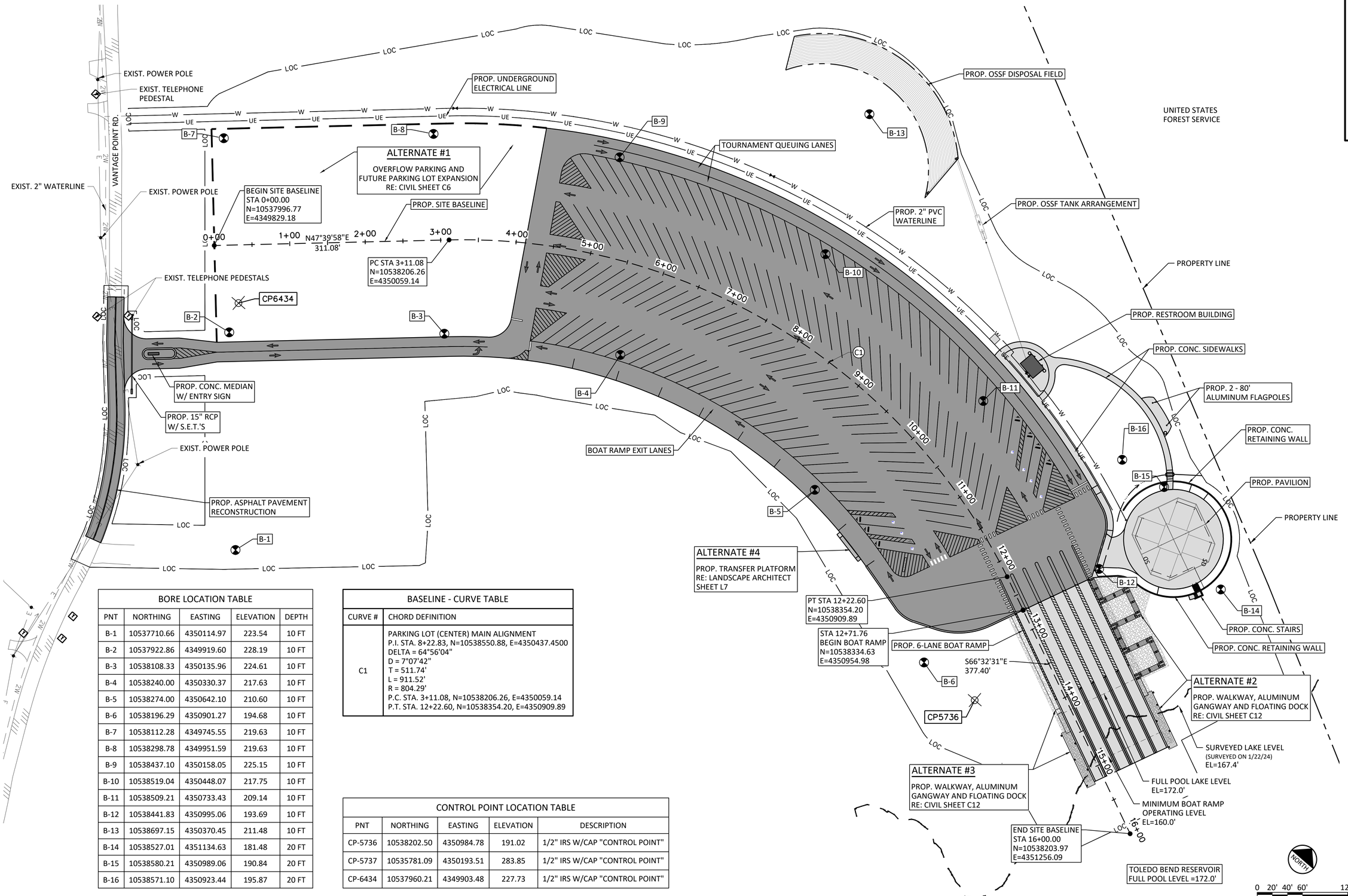
F&N JOB NO.	SRA23985
DATE	7/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-ALL-QUANTS.dwg

VERIFY SCALE — Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 — 1"

SHEET G3
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-ALL-QUANTS.dwg
Last Saved: 7/17/2024 8:52 AM Saved By: 08661

Plot Date: 7/17/2024 8:54 AM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-ALL-QUANTS.dwg



BORE LOCATION TABLE				
PNT	NORTHING	EASTING	ELEVATION	DEPTH
B-1	10537710.66	4350114.97	223.54	10 FT
B-2	10537922.86	4349919.60	228.19	10 FT
B-3	10538108.33	4350135.96	224.61	10 FT
B-4	10538240.00	4350330.37	217.63	10 FT
B-5	10538274.00	4350642.10	210.60	10 FT
B-6	10538196.29	4350901.27	194.68	10 FT
B-7	10538112.28	4349745.55	219.63	10 FT
B-8	10538298.78	4349951.59	219.63	10 FT
B-9	10538437.10	4350158.05	225.15	10 FT
B-10	10538519.04	4350448.07	217.75	10 FT
B-11	10538509.21	4350733.43	209.14	10 FT
B-12	10538441.83	4350995.06	193.69	10 FT
B-13	10538697.15	4350370.45	211.48	10 FT
B-14	10538527.01	4351134.63	181.48	20 FT
B-15	10538580.21	4350989.06	190.84	20 FT
B-16	10538571.10	4350923.44	195.87	20 FT

BASELINE - CURVE TABLE	
CURVE #	CHORD DEFINITION
C1	PARKING LOT (CENTER) MAIN ALIGNMENT P.I. STA. 8+22.83, N=10538550.88, E=4350437.4500 DELTA = 64°56'04" D = 7°07'42" T = 511.74' L = 911.52' R = 804.29' P.C. STA. 3+11.08, N=10538206.26, E=4350059.14 P.T. STA. 12+22.60, N=10538354.20, E=4350909.89

CONTROL POINT LOCATION TABLE				
PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP-5736	10538202.50	4350984.78	191.02	1/2" IRS W/CAP "CONTROL POINT"
CP-5737	10535781.09	4350193.51	283.85	1/2" IRS W/CAP "CONTROL POINT"
CP-6434	10537960.21	4349903.48	227.73	1/2" IRS W/CAP "CONTROL POINT"

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
OVERALL SITE PLAN

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

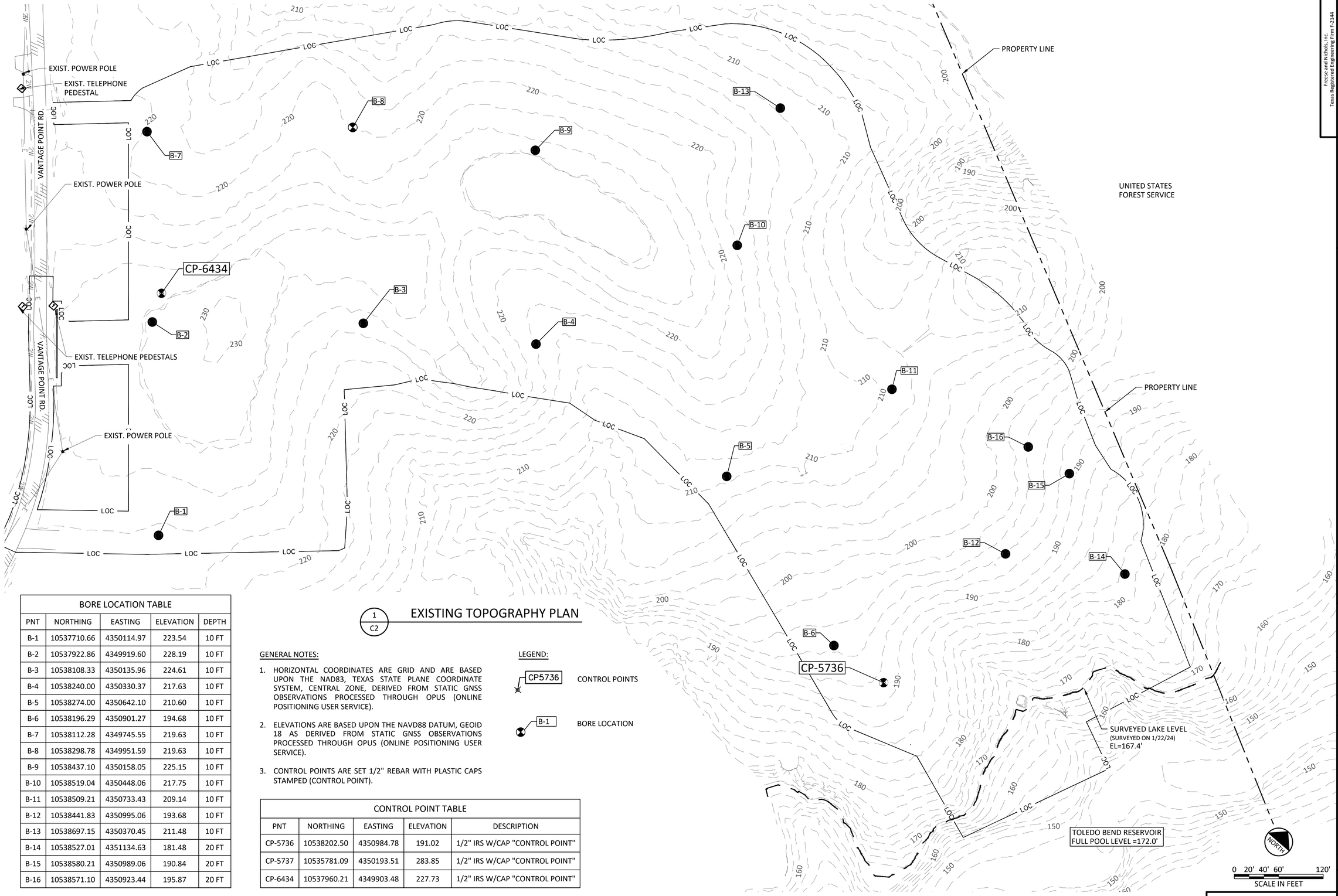
F&N JOB NO.	SRA23985
DATE	7/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-PL-OVERALL.dwg

SHEET C1
SEQ.

ISSUED FOR BID

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-OVERALL.dwg
Last Saved: 7/15/2024 4:57 PM Saved By: dks

Plot Date: 7/16/2024 11:27 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-OVERALL.dwg



BORE LOCATION TABLE				
PNT	NORTHING	EASTING	ELEVATION	DEPTH
B-1	10537710.66	4350114.97	223.54	10 FT
B-2	10537922.86	4349919.60	228.19	10 FT
B-3	10538108.33	4350135.96	224.61	10 FT
B-4	10538240.00	4350330.37	217.63	10 FT
B-5	10538274.00	4350642.10	210.60	10 FT
B-6	10538196.29	4350901.27	194.68	10 FT
B-7	10538112.28	4349745.55	219.63	10 FT
B-8	10538298.78	4349951.59	219.63	10 FT
B-9	10538437.10	4350158.05	225.15	10 FT
B-10	10538519.04	4350448.06	217.75	10 FT
B-11	10538509.21	4350733.43	209.14	10 FT
B-12	10538441.83	4350995.06	193.68	10 FT
B-13	10538697.15	4350370.45	211.48	10 FT
B-14	10538527.01	4351134.63	181.48	20 FT
B-15	10538580.21	4350989.06	190.84	20 FT
B-16	10538571.10	4350923.44	195.87	20 FT

1 / C2 EXISTING TOPOGRAPHY PLAN

GENERAL NOTES:

1. HORIZONTAL COORDINATES ARE GRID AND ARE BASED UPON THE NAD83, TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, DERIVED FROM STATIC GNSS OBSERVATIONS PROCESSED THROUGH OPUS (ONLINE POSITIONING USER SERVICE).
2. ELEVATIONS ARE BASED UPON THE NAVD88 DATUM, GEOID 18 AS DERIVED FROM STATIC GNSS OBSERVATIONS PROCESSED THROUGH OPUS (ONLINE POSITIONING USER SERVICE).
3. CONTROL POINTS ARE SET 1/2" REBAR WITH PLASTIC CAPS STAMPED (CONTROL POINT).

LEGEND:

CP5736 — CONTROL POINTS

B-1 — BORE LOCATION

CONTROL POINT TABLE				
PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP-5736	10538202.50	4350984.78	191.02	1/2" IRS W/CAP "CONTROL POINT"
CP-5737	10535781.09	4350193.51	283.85	1/2" IRS W/CAP "CONTROL POINT"
CP-6434	10537960.21	4349903.48	227.73	1/2" IRS W/CAP "CONTROL POINT"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL

EXISTING TOPOGRAPHY PLAN

NO.	ISSUE	BY	DATE

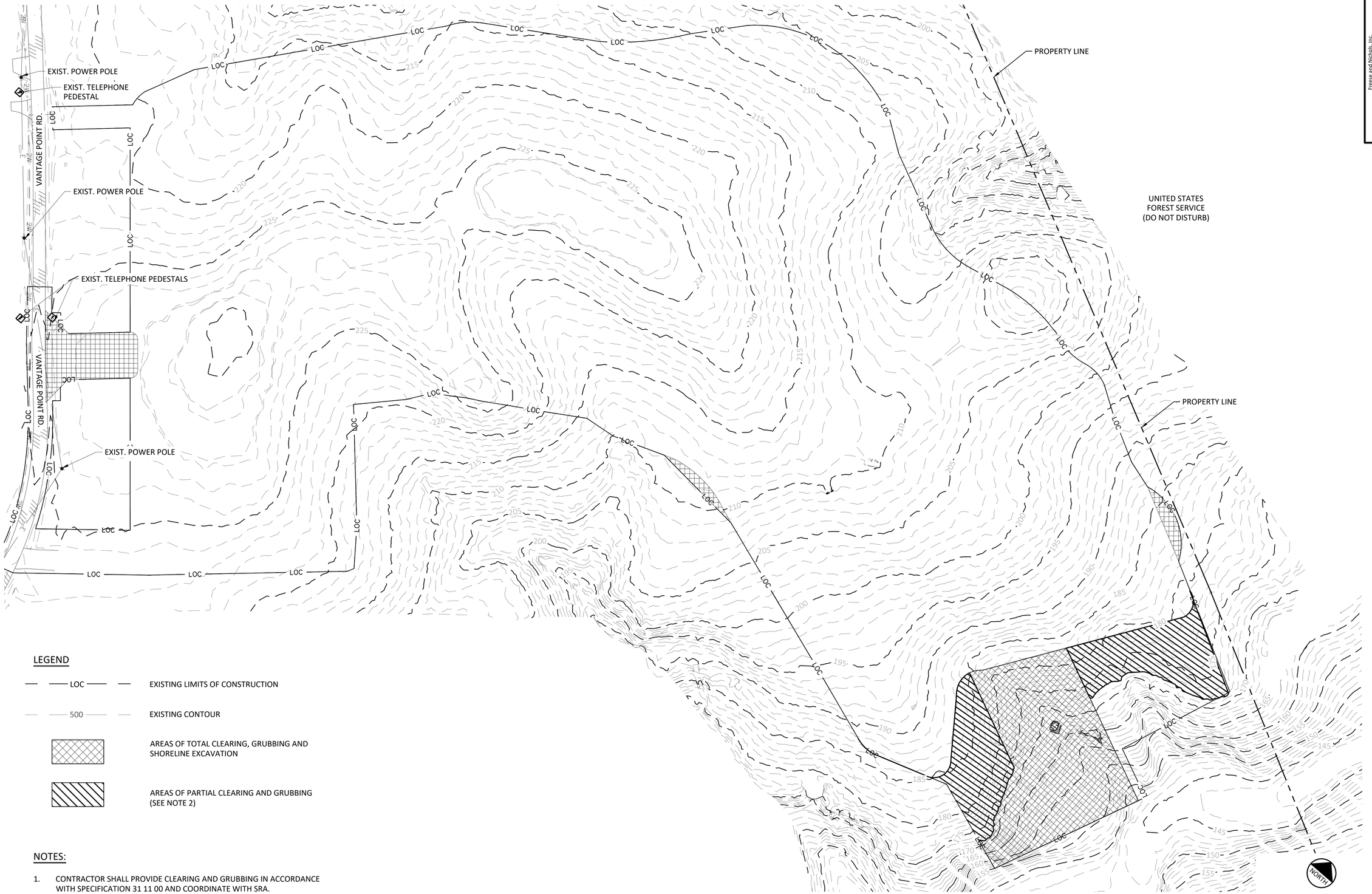
VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED NAC
FILE NAME CV-SRA-PL-TOPOGRAPHY.dwg

SHEET C2
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-TOPOGRAPHY.dwg
Last Saved: 7/15/2024 4:58 PM Saved By: dks

Plot Date: 7/16/2024 11:25 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-TOPOGRAPHY.dwg



LEGEND

- LOC — EXISTING LIMITS OF CONSTRUCTION
- 500 — EXISTING CONTOUR
- AREAS OF TOTAL CLEARING, GRUBBING AND SHORELINE EXCAVATION
- AREAS OF PARTIAL CLEARING AND GRUBBING (SEE NOTE 2)

NOTES:

1. CONTRACTOR SHALL PROVIDE CLEARING AND GRUBBING IN ACCORDANCE WITH SPECIFICATION 31 11 00 AND COORDINATE WITH SRA.
2. CONTRACTOR TO TAG ALL TREES OVER 12" AND COORDINATE REMOVAL WITH SRA.

1 / C3 DEMOLITION PLAN

0 20' 40' 60' 120'
SCALE IN FEET

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
DEMOLITION PLAN

NO.	ISSUE	BY	DATE

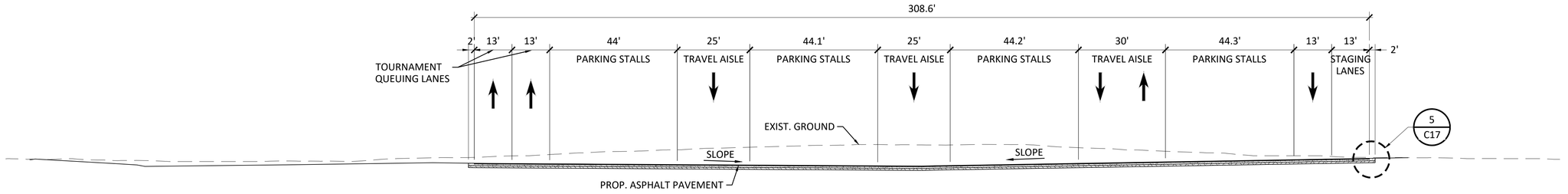
F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED NAC
FILE NAME CV-SRA-PL-DEMO.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

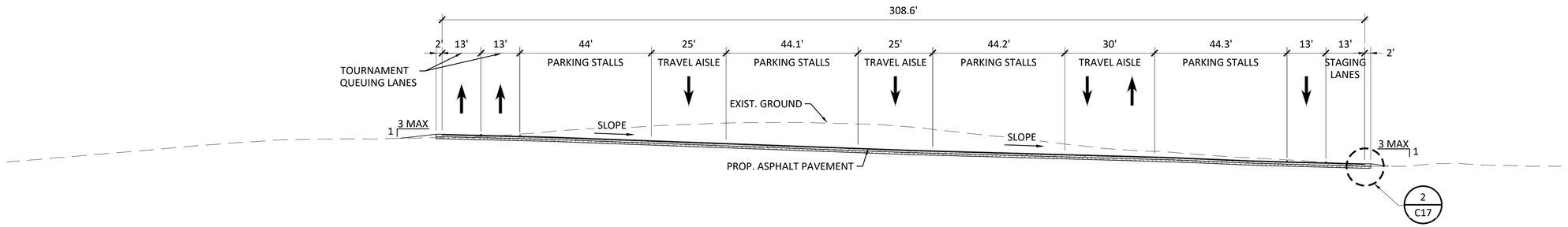
SHEET C3
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-DEMO.dwg
Last Saved: 7/15/2024 5:16 PM Saved By: dks

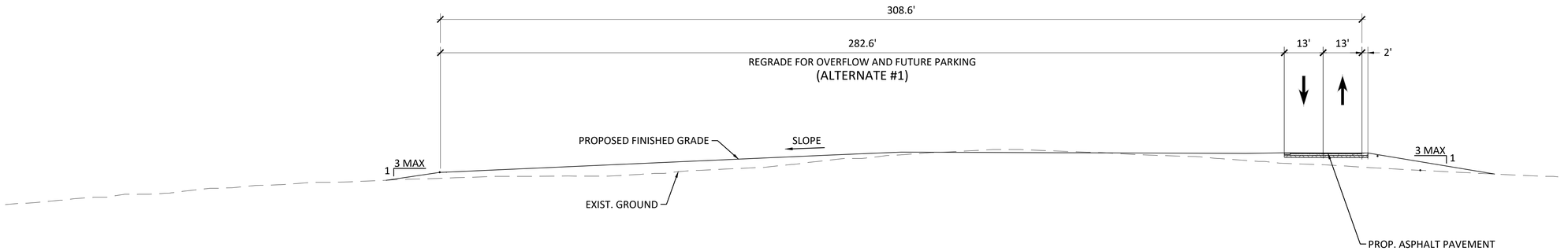
Plot Date: 7/16/2024 11:18 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-DEMO.dwg



C C6 TYPICAL PARKING LOT SECTION



B C6 TYPICAL PARKING LOT SECTION



A C6 TYPICAL PARKING LOT SECTION

0 20' 40'
SCALE IN FEET

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
TYPICAL PARKING LOT SECTION

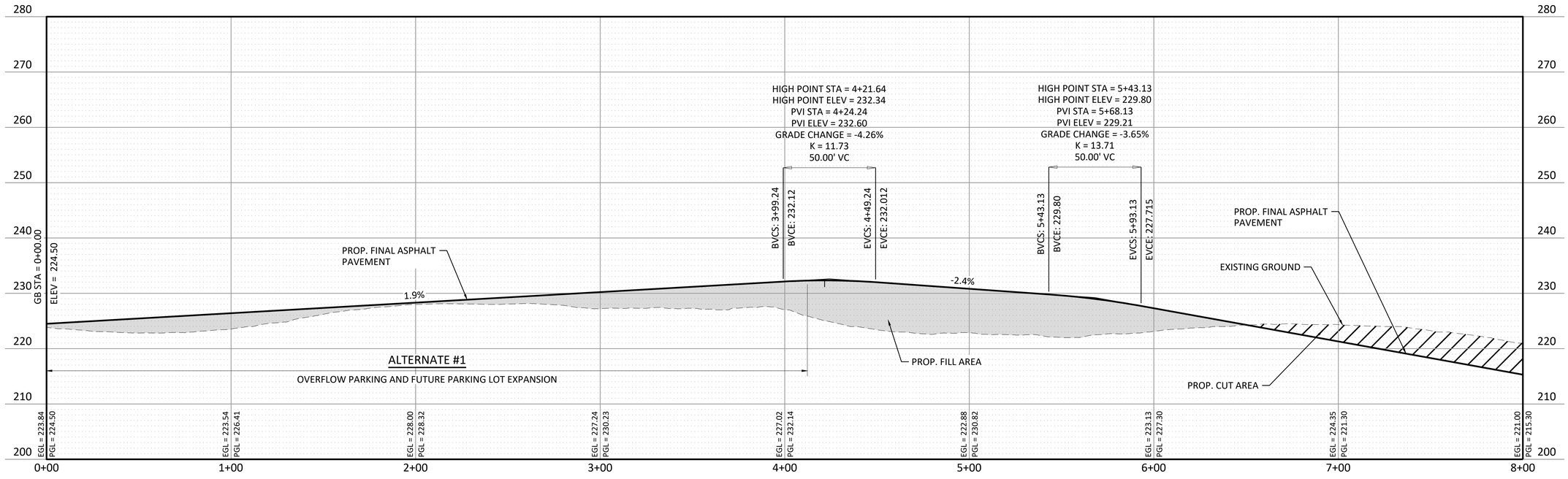
F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-SEC-PARKING(01).dwg

NO.	ISSUE	BY	DATE

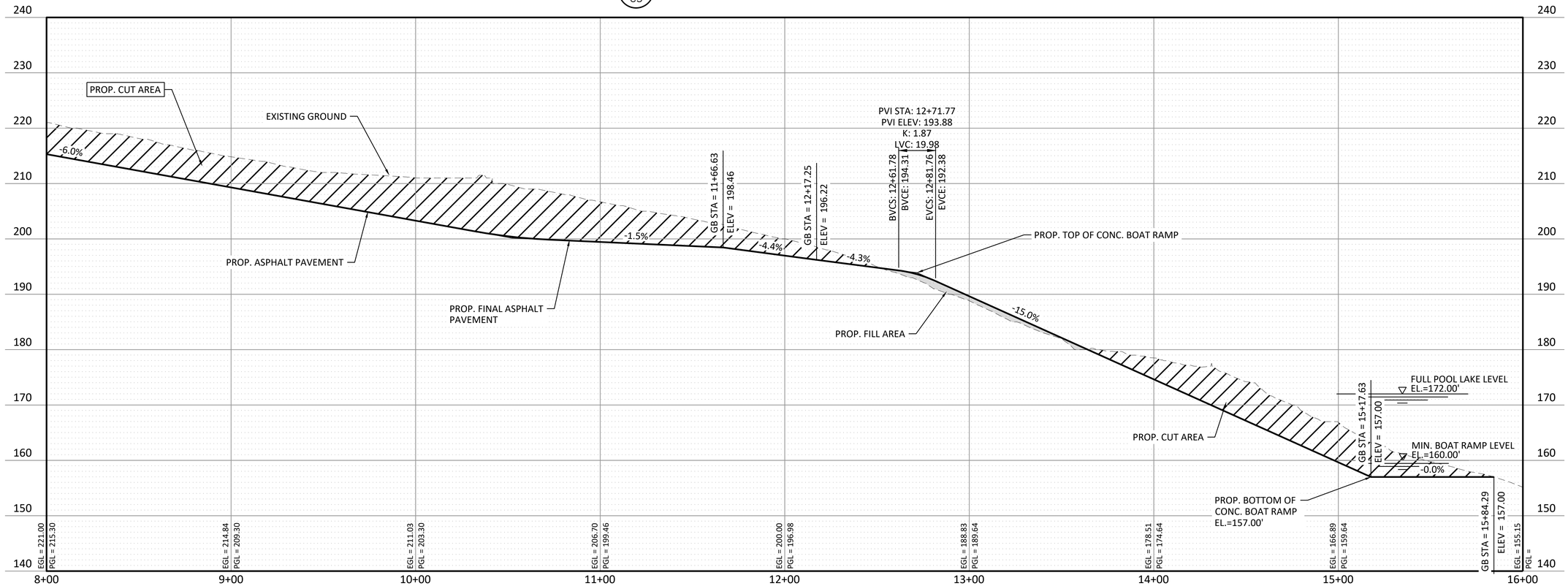
VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET C4
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-SEC-PARKING(01).dwg
Last Saved: 7/15/2024 5:27 PM Saved By: dks
Plot Date: 7/16/2024 11:30 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-SEC-PARKING(01).dwg



1 C5 PROPOSED SITE PROFILE (01)



2 C5 PROPOSED SITE PROFILE (02)

0 10' 20' 30' 60'
SCALE IN FEET
HORIZONTAL SCALE

0 10' 20'
SCALE IN FEET
VERTICAL SCALE

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
PROPOSED SITE PROFILE

NO.	ISSUE	BY	DATE

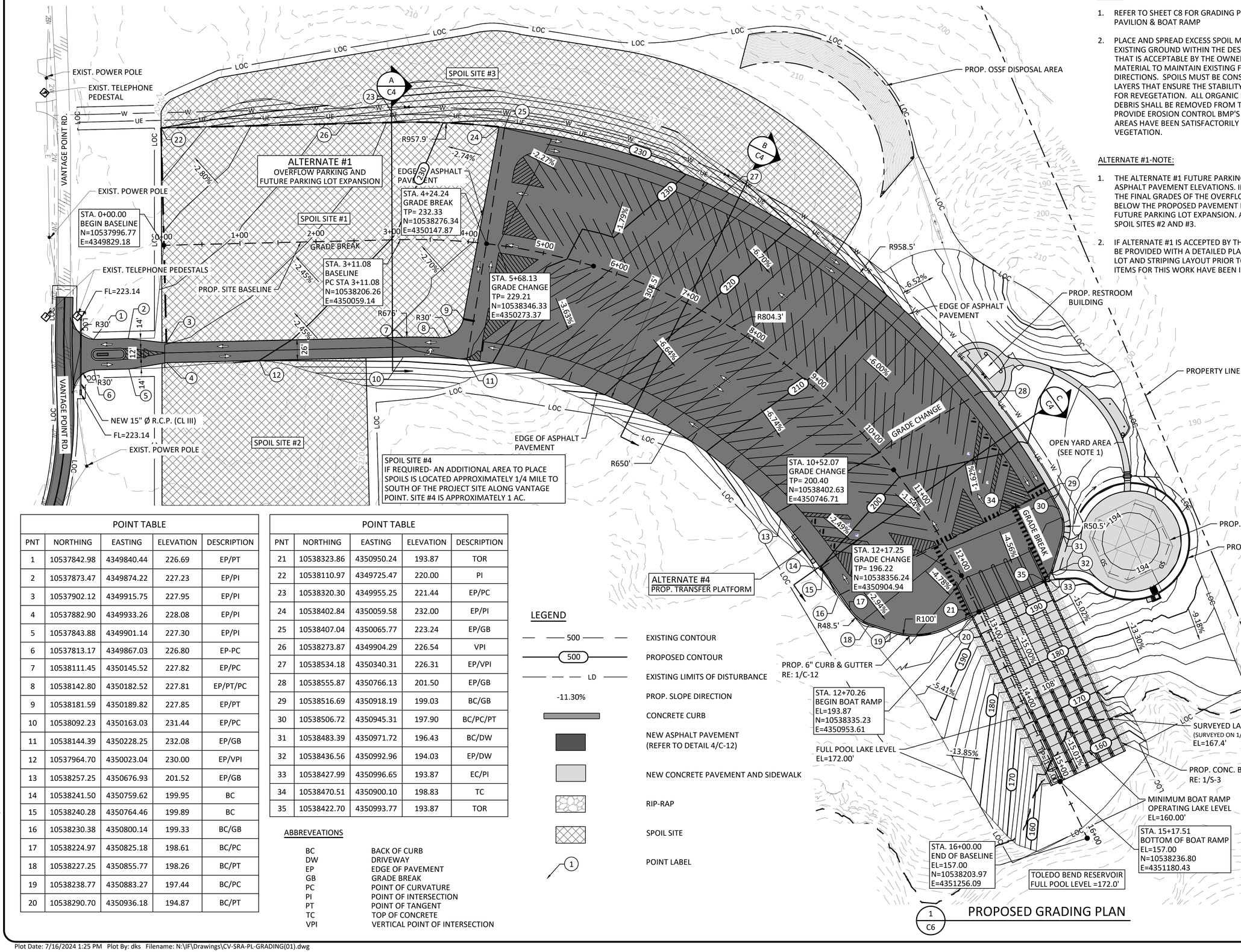
F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED NAC
FILE NAME CV-SRA-PRF-SITE(01).dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET C5
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PRF-SITE(01).dwg
Last Saved: 7/16/2024 12:03 PM Saved By: 08080

Plot Date: 7/16/2024 12:19 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-PRF-SITE(01).dwg



NOTES:

1. REFER TO SHEET C8 FOR GRADING PLAN OF THE OPEN YARD AREA, PAVILION & BOAT RAMP
2. PLACE AND SPREAD EXCESS SPOIL MATERIAL UNIFORMLY ABOVE EXISTING GROUND WITHIN THE DESIGNATED AREAS AND IN A MANNER THAT IS ACCEPTABLE BY THE OWNER, SRA. SPREAD THE EXCESS MATERIAL TO MAINTAIN EXISTING FLOW PATTERNS AND FLOW DIRECTIONS. SPOILS MUST BE CONSTRUCTED AND COMPACTED IN LAYERS THAT ENSURE THE STABILITY OF THE FILL AND WILL BE SUITABLE FOR REVEGETATION. ALL ORGANIC MATERIALS AND CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SPOILS. CONTRACTOR TO PROVIDE EROSION CONTROL BMP'S FOR SOIL STABILIZATION UNTIL AREAS HAVE BEEN SATISFACTORILY STABILIZED WITH PERMANENT VEGETATION.

ALTERNATE #1-NOTE:

1. THE ALTERNATE #1 FUTURE PARKING LOT GRADES SHOWN ARE FINAL ASPHALT PAVEMENT ELEVATIONS. IF ALTERNATE #1 IS NOT ACCEPTED, THE FINAL GRADES OF THE OVERFLOW PARKING AREA MUST BE SET 8" BELOW THE PROPOSED PAVEMENT ELEVATIONS SHOWN TO ALLOW FOR FUTURE PARKING LOT EXPANSION. ANY EXCESS FILL MUST BE PLACED IN SPOIL SITES #2 AND #3.
2. IF ALTERNATE #1 IS ACCEPTED BY THE OWNER, THE CONTRACTOR WILL BE PROVIDED WITH A DETAILED PLANS FOR THE PROPOSED PARKING LOT AND STRIPING LAYOUT PRIOR TO CONSTRUCTION. THE ANTICIPATED ITEMS FOR THIS WORK HAVE BEEN INCLUDED IN THE BID FORM.

POINT TABLE				
PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	10537842.98	4349840.44	226.69	EP/PT
2	10537873.47	4349874.22	227.23	EP/PI
3	10537902.12	4349915.75	227.95	EP/PI
4	10537882.90	4349933.26	228.08	EP/PI
5	10537843.88	4349901.14	227.30	EP/PI
6	10537813.17	4349867.03	226.80	EP-PC
7	10538111.45	4350145.52	227.82	EP/PC
8	10538142.80	4350182.52	227.81	EP/PT/PC
9	10538181.59	4350189.82	227.85	EP/PT
10	10538092.23	4350163.03	231.44	EP/PC
11	10538144.39	4350228.25	232.08	EP/GB
12	10537964.70	4350023.04	230.00	EP/VPI
13	10538257.25	4350676.93	201.52	EP/GB
14	10538241.50	4350759.62	199.95	BC
15	10538240.28	4350764.46	199.89	BC
16	10538230.38	4350800.14	199.33	BC/GB
17	10538224.97	4350825.18	198.61	BC/PC
18	10538227.25	4350855.77	198.26	BC/PT
19	10538238.77	4350883.27	197.44	BC/PC
20	10538290.70	4350936.18	194.87	BC/PT

POINT TABLE				
PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
21	10538323.86	4350950.24	193.87	TOR
22	10538110.97	4349725.47	220.00	PI
23	10538320.30	4349955.25	221.44	EP/PC
24	10538402.84	4350059.58	232.00	EP/PI
25	10538407.04	4350065.77	223.24	EP/GB
26	10538273.87	4349904.29	226.54	VPI
27	10538534.18	4350340.31	226.31	EP/VPI
28	10538555.87	4350766.13	201.50	EP/GB
29	10538516.69	4350918.19	199.03	BC/GB
30	10538506.72	4350945.31	197.90	BC/PC/PT
31	10538483.39	4350971.72	196.43	BC/DW
32	10538436.56	4350992.96	194.03	EP/DW
33	10538427.99	4350996.65	193.87	EC/PI
34	10538470.51	4350900.10	198.83	TC
35	10538422.70	4350993.77	193.87	TOR

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING LIMITS OF DISTURBANCE
- -11.30% PROP. SLOPE DIRECTION
- CONCRETE CURB
- NEW ASPHALT PAVEMENT (REFER TO DETAIL 4/C-12)
- NEW CONCRETE PAVEMENT AND SIDEWALK
- RIP-RAP
- SPOIL SITE
- POINT LABEL

ABBREVEATIONS

BC	BACK OF CURB
DW	DRIVEWAY
EP	EDGE OF PAVEMENT
GB	GRADE BREAK
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
TC	TOP OF CONCRETE
VPI	VERTICAL POINT OF INTERSECTION

1 C6 PROPOSED GRADING PLAN

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL
PROPOSED PARKING LOT
STAKING AND GRADING PLAN

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-PL-GRADING(01).dwg

NO.	ISSUE	BY	DATE

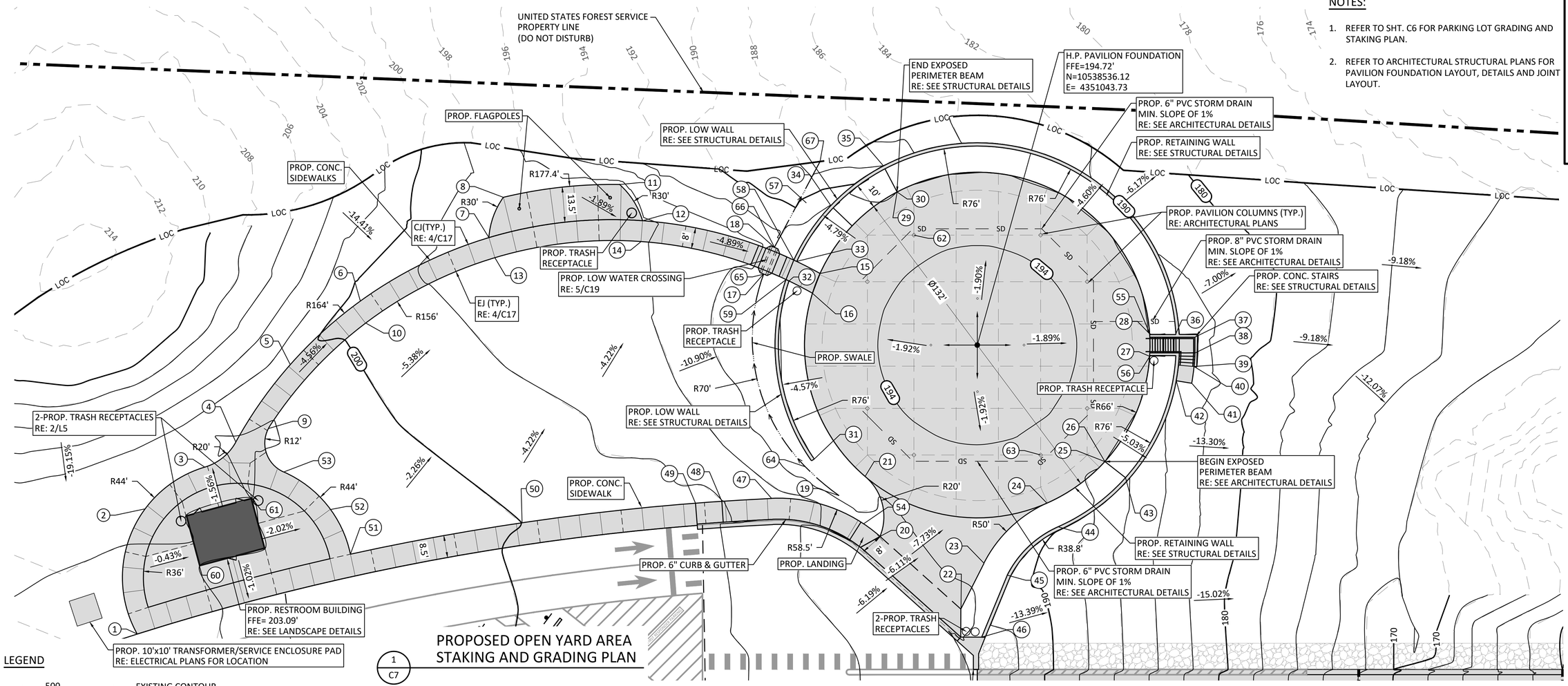
VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET C6

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-GRADING(01).dwg
Last Saved: 7/16/2024 12:22 PM Saved By: 08661

Plot Date: 7/16/2024 1:25 PM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-GRADING(01).dwg



NOTES:

1. REFER TO SHT. C6 FOR PARKING LOT GRADING AND STAKING PLAN.
2. REFER TO ARCHITECTURAL STRUCTURAL PLANS FOR PAVILION FOUNDATION LAYOUT, DETAILS AND JOINT LAYOUT.

LEGEND

- EXISTING CONTOUR (500)
- PROPOSED CONTOUR (500)
- EXISTING LIMITS OF CONSTRUCTION (LOC)
- SIDEWALK CONSTRUCTION JOINT (CJ)
- SIDEWALK EXPANSION JOINT (EJ)
- PAVILION FOUNDATTION CONSTRUCTION JOINT
- POINT LABEL (1)
- PROP. SLOPE DIRECTION (-11.30%)
- NEW CONCRETE PAVEMENT AND SIDEWALK
- RIP-RAP

ABBREVIATIONS:

BC	BACK OF CURB	PI	POINT OF INTERSECTION
DW	DRIVEWAY	PT	POINT OF TANGENT
EP	EDGE OF PAVEMENT	TC	TOP OF CONCRETE
EXB	EXPOSED PERIMETER BEAM	TS	TOP OF SIDEWALK
GB	GRADE BREAK	VPI	VERTICAL POINT OF INTERSECTION
SE	SWALE ELEVATION		
PC	POINT OF CURVATURE		

POINT TABLE

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	10538564.51	4350705.48	202.53	EP/SW
2	10538607.04	4350727.55	201.77	TS
3	10538612.43	4350754.81	201.75	TS
4	10538616.39	4350769.48	202.14	TS
5	10538635.07	4350800.45	200.61	TS
6	10538646.51	4350834.76	199.08	TS
7	10538648.90	4350889.49	196.75	TS
8	10538660.77	4350900.77	197.08	TS
9	10538616.13	4350782.98	202.12	TS
10	10538637.95	4350833.31	199.50	TS
11	10538647.35	4350943.37	196.63	TS
12	10538631.15	4350945.81	196.30	TS
13	10538640.96	4350888.50	196.59	TS
14	10538624.08	4350942.07	196.14	TS
15	10538585.35	4350999.78	193.47	TS
16	10538579.60	4350994.09	193.47	TS
17	10538593.87	4350979.93	193.76	TS
18	10538601.54	4350987.82	193.76	TS

POINT TABLE

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
19	10538504.78	4350972.20	193.44	SE
20	10538484.19	4350980.25	194.87	DW/GB
21	10538507.55	4350984.41	193.47	TS
22	10538446.45	4350997.45	194.30	DW/GB
23	10538458.79	4351012.47	193.66	TC
24	10538470.12	4351043.73	193.47	TC
25	10538475.70	4351070.42	191.47	TC
26	10538475.70	4351070.42	191.47	EXB
27	10538505.63	4351102.27	193.47	TW
28	10538513.50	4351105.74	193.47	TW
29	10538601.96	4351039.27	193.47	TC
30	10538602.01	4351039.27	191.47	EXB
31	10538521.40	4350969.17	192.97	TW
32	10538587.50	4350987.74	193.47	TW
33	10538593.19	4350993.56	194.47	TW
34	10538607.42	4351014.01	194.47	TW
35	10538613.19	4351038.51	190.97	TW
36	10538509.52	4351114.97	190.47	TW

POINT TABLE

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
37	10538505.33	4351121.11	187.47	TW
38	10538499.78	4351118.68	187.47	TW
39	10538495.21	4351116.29	185.03	TW
40	10538495.22	4351116.27	184.03	TW
41	10538489.74	4351112.86	184.59	TC
42	10538493.02	4351107.84	184.59	TC
43	10538466.92	4351075.17	190.97	TW
44	10538460.12	4351044.01	192.97	TW
45	10538451.06	4351018.81	193.40	TW
46	10538433.33	4351000.30	193.80	TW/PI
47	10538514.18	4350948.19	197.05	PC/TS
48	10538520.85	4350930.34	198.04	TS
49	10538524.24	4350920.84	198.87	TS
50	10538544.13	4350857.18	200.00	TS
51	10538559.59	4350792.30	201.12	TS
52	10538578.24	4350792.24	201.43	TS
53	10538598.60	4350781.62	201.82	TS
54	10538491.15	4350976.43	195.03	TS

POINT TABLE

PNT	NORTHING	EASTING	ELEVATION	DESCRIPTION
55	10538513.51	4351105.80	191.47	EXB
56	10538505.56	4351102.29	191.47	EXB
57	10538612.13	4351005.83	190.00	SE
58	10538594.07	4350992.66	193.30	TS
59	10538588.47	4350986.93	193.30	TS
60	10538578.68	4350737.66	202.00	SW
61	10538594.45	4350766.42	202.00	SW
62	10538584.31	4351038.52	193.79	COL
63	10538487.92	4351048.95	193.79	COL
64	10538520.08	4350964.85	192.72	SE
65	10538593.79	4350979.93	192.58	SE
66	10538601.57	4350987.85	192.58	SE
67	10538624.49	4351017.02	187.00	SE

NORTH

0 20' 40'

SCALE IN FEET

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

CIVIL

PROPOSED OPEN YARD AREA
STAKING AND GRADING PLAN

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-PL-YARD(01).dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

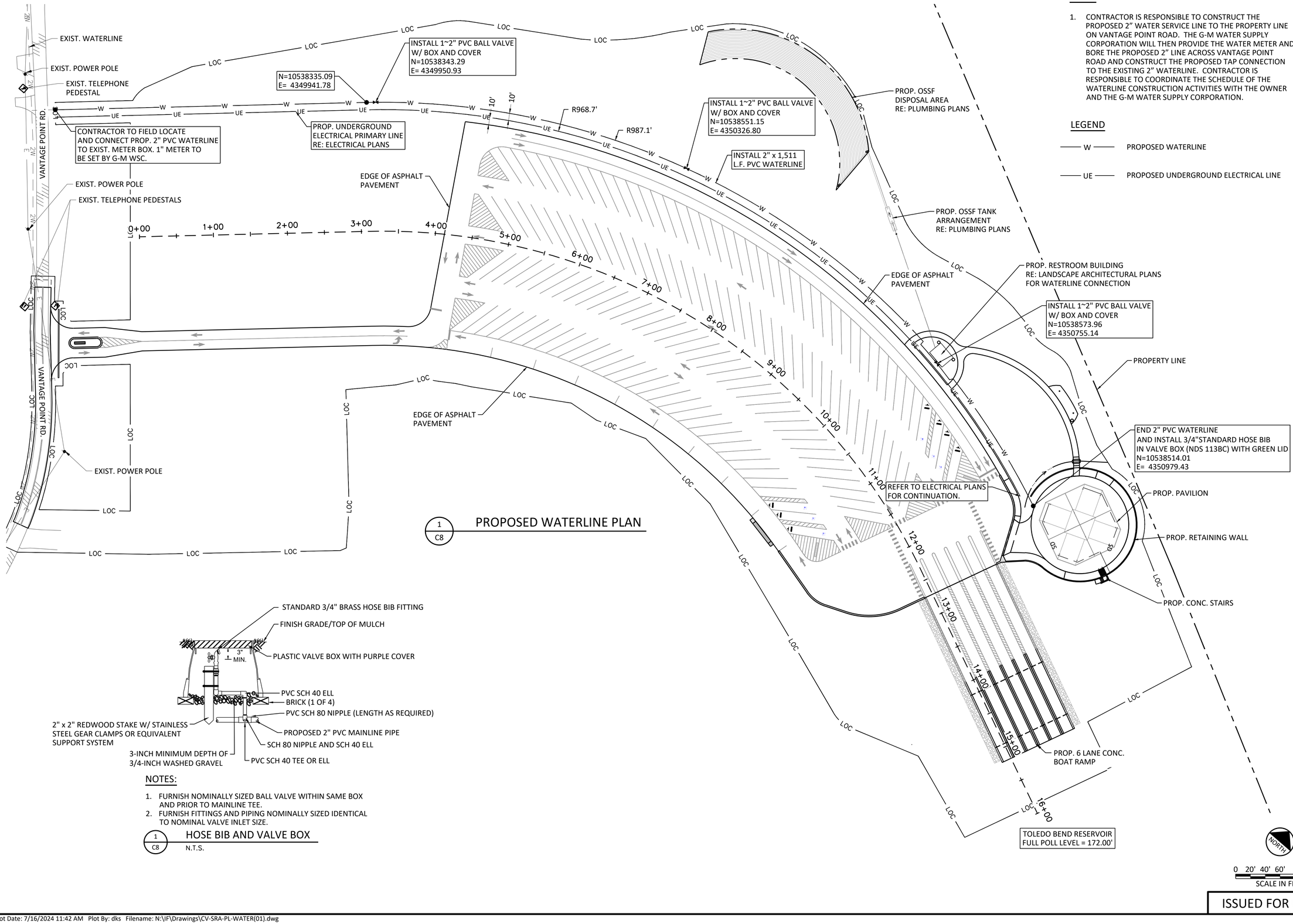
0 1"

SHEET C7

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-YARD(01).dwg
Last Saved: 7/16/2024 11:09 AM Saved By: dks

Plot Date: 7/16/2024 11:33 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-YARD(01).dwg



1 / C8 PROPOSED WATERLINE PLAN

NOTE:

1. CONTRACTOR IS RESPONSIBLE TO CONSTRUCT THE PROPOSED 2" WATER SERVICE LINE TO THE PROPERTY LINE ON VANTAGE POINT ROAD. THE G-M WATER SUPPLY CORPORATION WILL THEN PROVIDE THE WATER METER AND BORE THE PROPOSED 2" LINE ACROSS VANTAGE POINT ROAD AND CONSTRUCT THE PROPOSED TAP CONNECTION TO THE EXISTING 2" WATERLINE. CONTRACTOR IS RESPONSIBLE TO COORDINATE THE SCHEDULE OF THE WATERLINE CONSTRUCTION ACTIVITIES WITH THE OWNER AND THE G-M WATER SUPPLY CORPORATION.

LEGEND

W — PROPOSED WATERLINE

UE — PROPOSED UNDERGROUND ELECTRICAL LINE

NOTES:

1. FURNISH NOMINALLY SIZED BALL VALVE WITHIN SAME BOX AND PRIOR TO MAINLINE TEE.
2. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL VALVE INLET SIZE.

1 / C8 HOSE BIB AND VALVE BOX

N.T.S.

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
PROPOSED WATERLINE PLAN

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-PL-WATER(01).dwg

NO. | ISSUE | BY | DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not, one hinch on this sheet, adjust scale.

SHEET C8

SEQ.

ISSUED FOR BID

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-WATER(01).dwg
Last Saved: 7/15/2024 6:25 PM Saved By: dks

Plot Date: 7/16/2024 11:42 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-WATER(01).dwg

NOTES:

1. ALL PARKING LOT STRIPING TO BE 4" WHITE STRIPING UNLESS NOTED OTHERWISE
2. FOR BOAT RAMP STRIPING, SEE SHT. C11
3. FOR ADA ACCESSIBILITY PAINT MARKINGS AND SIGNAGE, SEE DETAILS ON SHT. C16
4. COORDINATES ARE BASED ON NAD83 TEXAS STATE PLANE, CENTRAL ZONE (4203)
5. ALL STRIPING SHALL BE CONSTRUCTED USING NON-REFLECTORIZED TYPE II, TRAFFIC PAINT. (TXDOT SPEC. NO. DMS 8200). THE CROSSWALKS, ARROWS, AND ACCESSIBLE SYMBOLS CAN BE EITHER TYPE I (PREFORMED THERMOPLASTIC) OR TYPE II (PAINT) PAVEMENT MARKINGS.

EXIST. POWER POLE
EXIST. TELEPHONE PEDESTAL
EXIST. POWER POLE
EXIST. TELEPHONE PEDESTALS
VANTAGE POINT RD.
STOP R1-1 30"x30"
PROP. ENTRANCE SIGN RE: SHEET L1
573 L.F. OF 4" DOUBLE YELLOW TRAFFIC STRIPE
EDGE OF ASPHALT PAVEMENT
N=10537892.40 E= 4349924.61
EXIST. POWER POLE
650.5 L.F. OF 4" DOUBLE YELLOW TRAFFIC STRIPE
N=10538110.10 E= 4350160.62
N=10538140.85 E= 4350196.91
N=10538153.80 E= 4350242.09
DO NOT ENTER R5-1 30"x30"
ONLY R3-5L 30"x36"
STOP R1-1 30"x30" STA.
N=10538175.73 E= 4350228.11
N=10538213.93 E= 4350205.59
N=10538239.81 E= 4350190.36
N=10538277.91 E= 4350167.93
N=10538299.48 E= 4350155.23
N=10538337.49 E= 4350132.86
N=10538359.05 E= 4350120.16
N=10538412.67 E= 4350123.21
N=10538426.98 E= 4350121.85
EDGE OF ASPHALT PAVEMENT
PROP. TOURNAMENT QUEING LANES
12' (MIN.) (TYP.)
EDGE OF ASPHALT PAVEMENT
ROW #4 39 PARKING SPACES W/ 4 ADA PARKING SPACES
ROW #3 40 PARKING SPACES
R945.5'
R932.5'
R888.5'
R863.5'
R819.5'
R794.5'
R750.3'
R720.3'
R676'
R650'
R663'
R30'
308.5'
61'±
45°±
INSTALL WHEELSTOP (TYP.)
N=10538428.34 E= 4350881.52
N=10538451.30 E= 4350891.64
N=10538491.68 E= 4350909.42
N=10538503.58 E= 4350914.66
N=10538515.48 E= 4350919.90
PROPERTY LINE
PROP. RESTROOM BUILDING
STAGING LANE
ROW #1 32 PARKING SPACES W/ 3 ADA PARKING SPACES
ROW #2 37 PARKING SPACES
STOP R1-1 30"x30" STA.
PROP. CONC. PAVILLION FOUNDATION
ALTERNATE #4 PROP.TRANSFER PLATFORM
N=10538261.03 E= 4350788.87
N=10538296.71 E= 4350823.55
N=10538324.29 E= 4350835.69
N=10538364.89 E= 4350853.58
N=10538387.83 E= 4350863.68
R20'
104'
108'
INSTALL 6' WIDE CROSSWALK (TYP.)
DO NOT ENTER R5-1 30"x30"
PROP. CONC. BOAT RAMP
207'
NORTH
0 20' 40' 60' 120'
SCALE IN FEET

PROP. HANDICAP PARKING WITH SIGNAGE
12' MIN. (TYP.)
61' (TYP.)
45°
PROP. 6' WIDE CROSSWALK
THE WORDS "FIRST RESPONDERS PARKING" PAINTED IN RED CAPITAL LETTERS MUST BE CENTERED (12" MIN. CHARACTER HEIGHT AND 2" MIN. STROKE WIDTH)
4'
2'
INSTALL WHEEL STOPS (TYP.)
541.6 L.F. OF 4" SINGLE RED TRAFFIC STRIPE
EDGE OF ASPHALT PAVEMENT
PROP. 6" CURB & GUTTER
60' STAGING LANE (TYP.)

1 / C9 ADA PARKING ENLARGMENT

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
STRIPING AND SIGNAGE PLAN

P&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-PL-STRIPING(01).dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

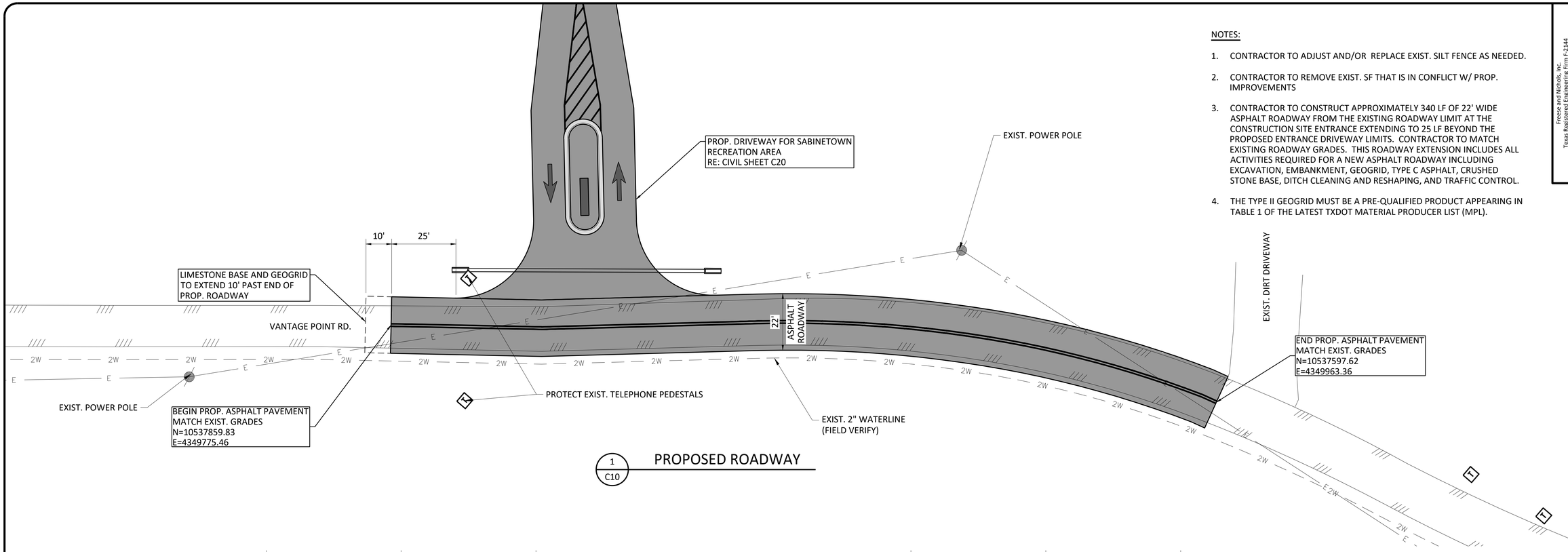
SHEET C9
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-STRIPING(01).dwg
Last Saved: 7/16/2024 10:50 AM Saved By: dks

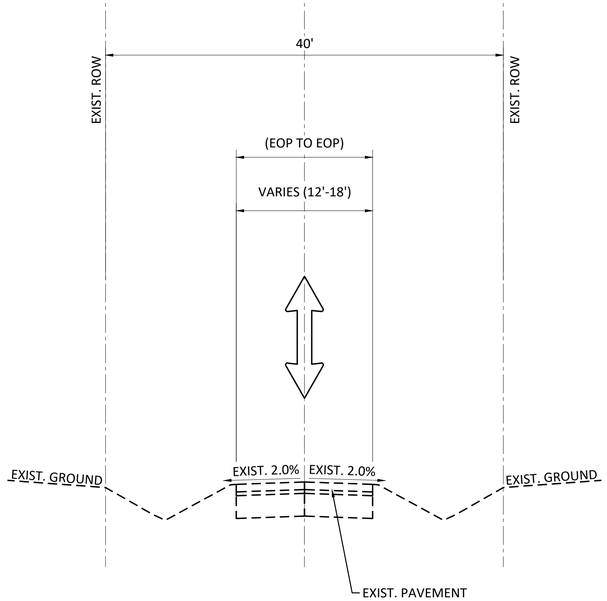
Plot Date: 7/16/2024 11:44 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-STRIPING(01).dwg

NOTES:

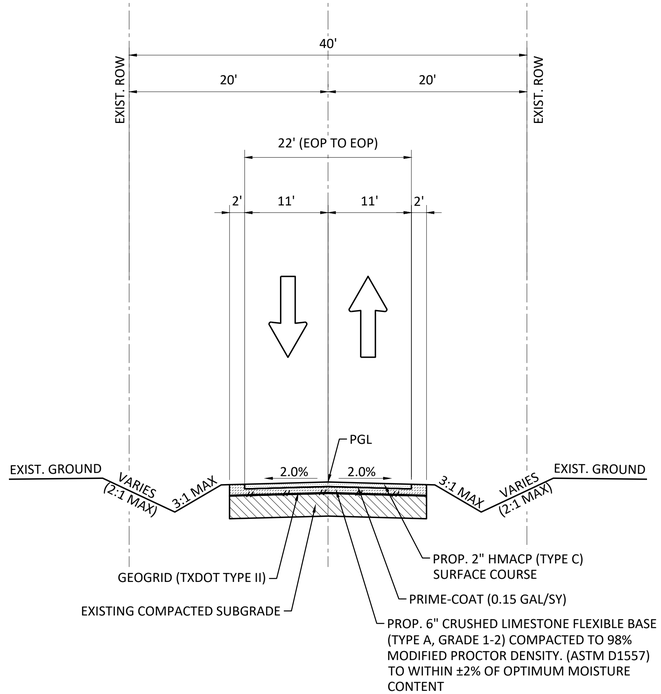
1. CONTRACTOR TO ADJUST AND/OR REPLACE EXIST. SILT FENCE AS NEEDED.
2. CONTRACTOR TO REMOVE EXIST. SF THAT IS IN CONFLICT W/ PROP. IMPROVEMENTS
3. CONTRACTOR TO CONSTRUCT APPROXIMATELY 340 LF OF 22' WIDE ASPHALT ROADWAY FROM THE EXISTING ROADWAY LIMIT AT THE CONSTRUCTION SITE ENTRANCE EXTENDING TO 25 LF BEYOND THE PROPOSED ENTRANCE DRIVEWAY LIMITS. CONTRACTOR TO MATCH EXISTING ROADWAY GRADES. THIS ROADWAY EXTENSION INCLUDES ALL ACTIVITIES REQUIRED FOR A NEW ASPHALT ROADWAY INCLUDING EXCAVATION, EMBANKMENT, GEOGRID, TYPE C ASPHALT, CRUSHED STONE BASE, DITCH CLEANING AND RESHAPING, AND TRAFFIC CONTROL.
4. THE TYPE II GEOGRID MUST BE A PRE-QUALIFIED PRODUCT APPEARING IN TABLE 1 OF THE LATEST TXDOT MATERIAL PRODUCER LIST (MPL).



1 C10 PROPOSED ROADWAY



2 C10 EXISTING TYPICAL CROSS SECTION



3 C10 PROPOSED TYPICAL CROSS SECTION

NORTH

0 20' 40'
SCALE IN FEET

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

CIVIL

VANTAGE POINT ROAD RECONSTRUCTION PLAN

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

0 1"

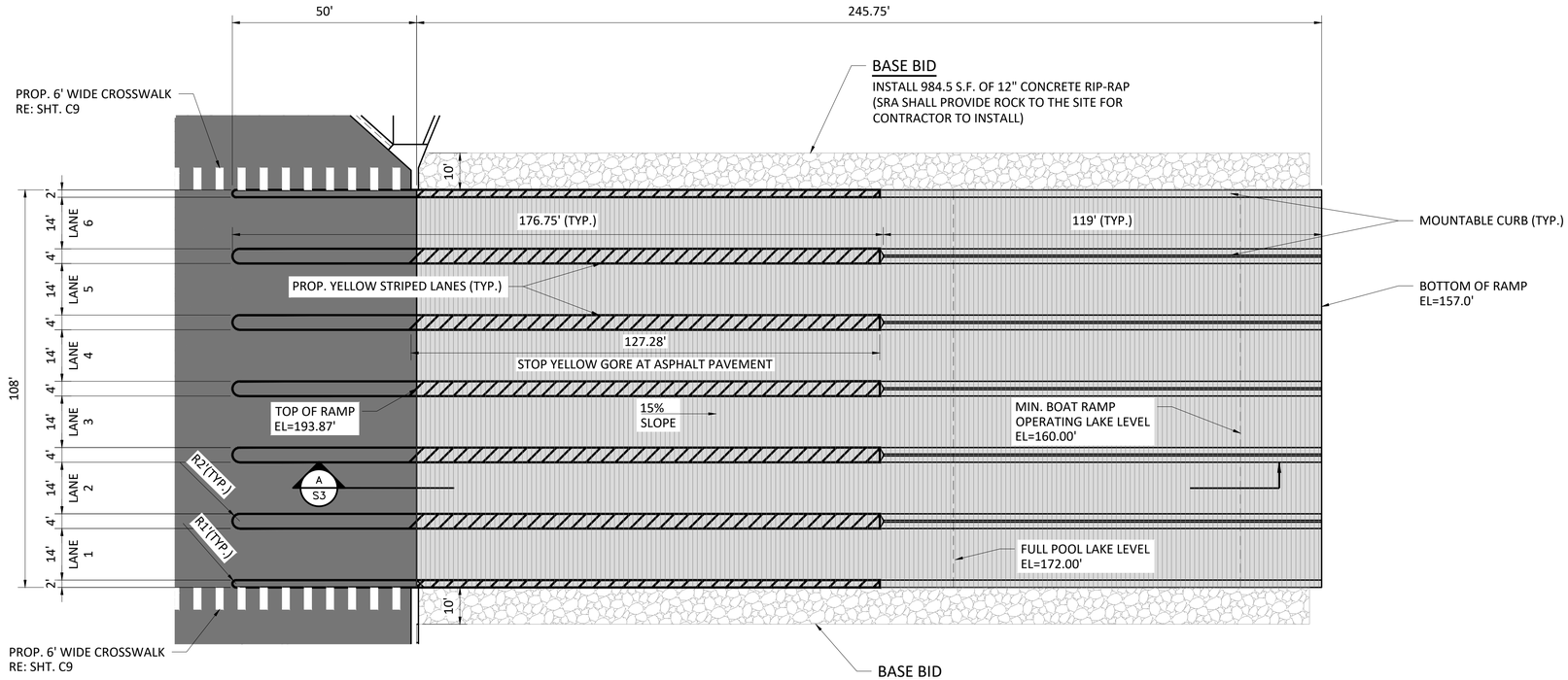
F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-PL-ROADWAY.dwg

SHEET C10

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-ROADWAY.dwg
Last Saved: 7/16/2024 1:11 PM Saved By: 08661

Plot Date: 7/16/2024 1:26 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-PL-ROADWAY.dwg



BASE BID
BOAT RAMP STRIPING PLAN

1
C11

NOTE:

1. THE BOAT RAMP CONCRETE PAVEMENT SURFACE SHALL BE GIVEN A ROUGH TRANSVERSE METAL-TINE FINISH. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST PROVIDE A 5'x 5' MINIMUM TEST SECTION OF THE PAVEMENT FINISH FOR SRA REVIEW AND APPROVAL PRIOR TO CONSTRUCTION OF THE BOAT RAMP PAVEMENT.

2. ALL STRIPING AT BOAT RAMP TO BE 4" YELLOW STRIPING AND CONSTRUCTED USING NON-REFLECTORIZED TYPE II, TRAFFIC PAINT.

0 6" 1' 2'
3/4"=1'-0

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL
BASE BID
BOAT RAMP STRIPING PLAN

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-DT-RAMP.dwg

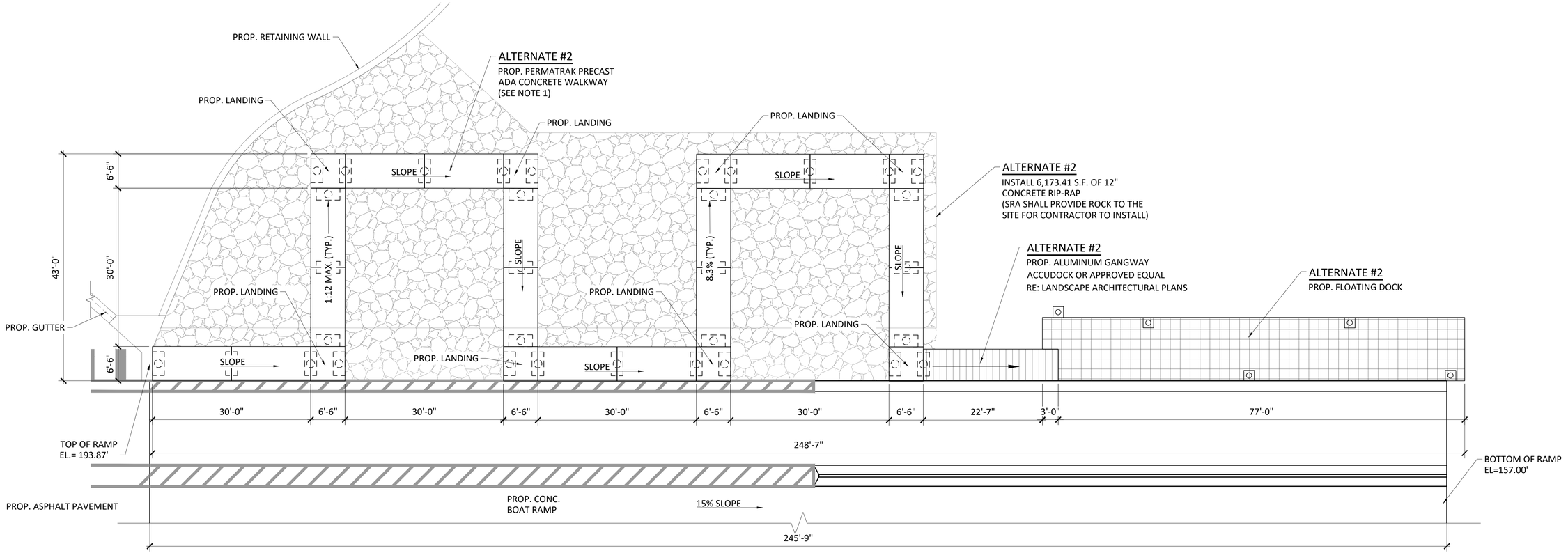
NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET C11
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-DT-RAMP.dwg
Last Saved: 7/16/2024 11:11 AM Saved By: dks

Plot Date: 7/16/2024 11:51 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-DT-RAMP.dwg

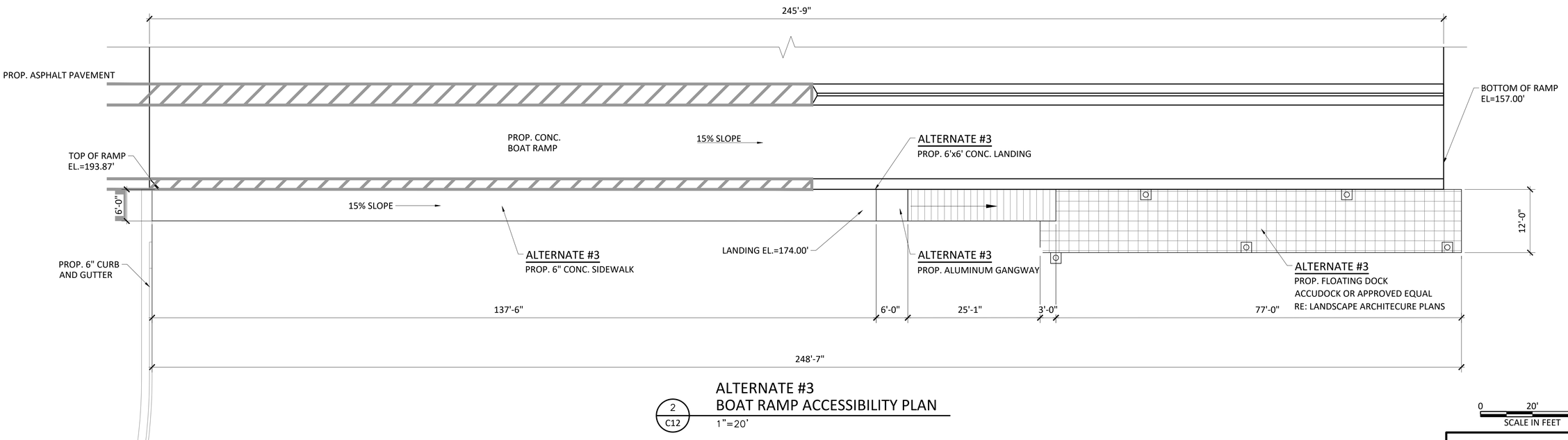


2 C12 ALTERNATE #2 BOAT RAMP ACCESSIBILITY PLAN

1"=10'

NOTE:

1. REFER TO LANDSCAPE ARCHITECTURAL DETAIL SHEET L8 FOR PERMATRAK DETAILS.



2 C12 ALTERNATE #3 BOAT RAMP ACCESSIBILITY PLAN

1"=20'

0 20' 40'
SCALE IN FEET

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL
(BID ALTERNATES NO. 2 AND 3)
BOAT RAMP ACCESSIBILITY PLAN

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-DT-RAMP(ALTERNATES).dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET C12
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-DT-RAMP(ALTERNATES).dwg
Last Saved: 7/16/2024 11:40 AM Saved By: 08661

Plot Date: 7/16/2024 11:54 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-DT-RAMP(ALTERNATES).dwg

EXIST. POWER POLE

EXIST. TELEPHONE PEDESTAL

EXIST. TEMPORARY SILT FENCE

VANTAGE POINT RD.

EXIST. POWER POLE

EXIST. TELEPHONE PEDESTALS

INSTALL 110.5 L.F. OF TEMPORARY SILT FENCE

INSTALL 112 L.F. OF TEMPORARY SILT FENCE

EXIST. POWER POLE

EXIST. CONSTRUCTION ENTRANCE (TO BE RENOURISHED WITH ADDITIONAL STONE AS REQ.)

PROP. OSSF DISPOSAL AREA

PROPERTY LINE

PROP. RESTROOM BUILDING

PROP. PAVILION

PROPERTY LINE

PROP. 6-LANE CONC. BOAT RAMP

CURRENT LAKE LEVEL (SURVEYED ON 1/22/24) EL=167.4'

FULL POOL LAKE LEVEL EL=172.0'

MINIMUM BOAT RAMP OPERATING LEVEL EL=160.0'

TOLEDO BEND RESERVOIR FULL POOL LEVEL =172.0'

NORTH

0 20' 40' 60' 120'

SCALE IN FEET

1 / C13 EROSION CONTROL PLAN

1"=60'

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING LIMITS OF CONSTRUCTION
- EXISTING SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED HYDROMULCH
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED SOLID SOD

NOTES:

1. CONTRACTOR TO ADJUST AND/OR REPLACE EXIST. SILT FENCE AS NEEDED.
2. CONTRACTOR TO REMOVE EXIST. SF THAT IS IN CONFLICT W/ PROP. IMPROVEMENTS
3. CONTRACTOR IS PERMITTED TO USE THE LAKE WATER FOR TEMPORARY WATERING IN ORDER TO ESTABLISH PERMANENT RE-VEGETATION OF DISTURBED AREAS INCLUDING SODDING, AND HYDROMULCHING. DELIVERY METHODS FOR THE TEMPORARY WATERING ARE CONSIDERED CONTRACTOR'S MEANS AND METHODS. CONTRACTOR MUST PROVIDE A TEMPORARY WATERING PLAN TO SRA FOR APPROVAL. WATERING WILL BE SUBSIDIARY TO THE BID ITEMS FOR HYDROMULCH AND SODDING.
4. ALL SLOPES 4:1 OR STEEPER SHALL BE SEEDED AND COVERED WITH EROSION CONTROL BLANKET (ECB), WESTERN EXCELSIOR EXCEL SR-1 (NATURAL), OR APPROVED EQUAL. THE ECB SHALL BE INSTALLED AND SECURED PER MANUFACTURER'S RECOMMENDATIONS.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

CIVIL

EROSION CONTROL AND TURF ESTABLISHMENT PLAN

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

0 1"

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	RG
APPROVED	NAC
FILE NAME	CV-SRA-PL-SW3P PLAN.dwg

SHEET C13

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-PL-SW3P PLAN.dwg
Last Saved: 7/16/2024 1:23 PM Saved By: dks

Plot Date: 7/16/2024 1:28 PM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-PL-SW3P PLAN.dwg

SITE DESCRIPTION

PROJECT LIMITS: SABINETOWN PARK AND FISHING FACILITY. TOTAL PROJECT AREA = 19.25 ACRES

PROJECT DESCRIPTION: GRADING, DRAINAGE, STRUCTURES, WATERLINES, WASTEWATER LINES, STABILIZED FLEXIBLE BASE, ASPHALT PAVEMENT, CONCRETE RAMP, CONCRETE DRIVEWAYS, SIDEWALKS & WHEELCHAIR CURB RAMPS AND CURB & GUTTER.

MAJOR SOIL DISTURBING ACTIVITIES: SOIL DISTURBING ACTIVITIES WILL INCLUDE PREPARING RIGHT-OF-WAY EXCAVATION AND EMBANKMENT FOR THE ROADWAYS, GRADING, INLETS, STORM SEWERS, WATERLINES, AND WASTEWATER AT THE TIMES AND LOCATIONS LISTED BELOW.

TOTAL PROJECT AREA: 19.25 ACRES

TOTAL AREA TO BE DISTURBED: 12.97 ACRES

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): ((Provide combined runoff coeff.))

EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER:

FAT CLAY SOIL (CH)
PAVEMENT AND FLATWORK 60%
GRASS LANDSCAPING 40%

NAME OF RECEIVING WATERS: TOLEDO BEND RESERVOIR

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- T TEMPORARY SEEDING
- P PERMANENT PLANTING, SODDING, OR SEEDING
- ____ MULCHING
- T SOIL RETENTION BLANKET
- ____ BUFFER ZONES
- P PRESERVATION OF NATURAL RESOURCES

OTHER: DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITY HAS CEASED SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITIES ARE SCHEDULED TO RESUME OR BE PERFORMED WITHIN 21 DAYS

STRUCTURAL PRACTICES:

- T SILT FENCES
- ____ HAY BALES
- ____ ROCK BERMS
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- ____ DIVERSION DIKE AND SWALE COMBINATIONS
- ____ PIPE SLOPE DRAINS
- ____ PAVED FLUMES
- T ROCK BEDDING AT CONSTRUCTION EXIT
- ____ TIMBER MATTING AT CONSTRUCTION EXIT
- ____ CHANNEL LINERS
- ____ SEDIMENT TRAPS
- ____ SEDIMENT BASINS
- ____ STORM INLET SEDIMENT TRAP
- ____ STONE OUTLET STRUCTURES
- P CURBS AND GUTTERS
- ____ STORM SEWERS
- ____ VELOCITY CONTROL DEVICES
- ____ EROSION CONTROL LOGS

OTHER:

NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:

1. Install silt fences:
   A. Around topsoil stockpiles and at embankment and excavation locations
2. Install stabilized construction entrance
3. Construct the proposed improvements in accordance with the plans and specifications.
4. Prepare topsoil and apply grass block sodding to areas specified in the contract documents.
5. Upon completion of construction activities, remove all temporary structural controls and re-seed areas disturbed by their removal.

STORM WATER MANAGEMENT:

During construction of the improvements, storm water runoff will be conveyed via existing ditches, curb & gutters, and such temporary drainage structures that may be required to be provided by contractor until the permanent storm water drainage improvements have been constructed.

OTHER EROSION AND SEDIMENT CONTROLS:

MAINTENANCE: All erosion and sediment controls will be maintained in good working order. If a repair is necessary it will be done at the earliest date possible, but no later than 7 calender days after the surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment. The area adjacent to the bayor drainageways shall have priority followed by devices protecting storm sewer inlets.

INSPECTION: An inspection will be performed by the contractor every 14 days as well as after every half inch or more of rain (as recorded on a non-freezing rain gauge to be located at the Project Site). An inspection and maintenance report should be made per 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 shall meet all state and local city solid waste management regulations. 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 landfill. 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 contractor must notify immediately the owner's authorized representative.

SANITARY WASTE: All sanitary waste will be collected from the portable units as necessary or as required by local regulations by a licensed sanitary waste management contractor.

OFFSITE VEHICLE TRACKING:

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

OTHER: Install stabilized rock construction entrance at appropriate point in construction sequence prior to any site work.

REMARKS: Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the sediment that may enter receiving waterways. Disposal areas shall not be located in any waterway, waterbody or streambed. 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.

PERMITS:

CONTRACTOR SHALL UTILIZE THE STORM WATER POLLUTION PREVENTION PLAN AND SHALL OBTAIN ALL PERMITS AND FULFILL ALL PERMIT REQUIREMENTS, INCLUDING FEES, FOR T.C.E.Q. GENERAL PERMIT NO. TXR 150000 RELATING TO DISCHARGES FROM CONSTRUCTION ACTIVITIES. THESE ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO NOTICE OF INTENT (NOI, REQUIRED SITE POSTINGS AND NOTICE OF TERMINATION (NOT). ALL ACTIVITIES WILL BE PERFORMED AT THE MILESTONES REQUIRED BY THE T.C.E.Q. NO SEPARATE PAYMENT WILL BE MADE FOR SUCH PERMITS.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
SW3P NOTES

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SHU-DT-SW3P.dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET C14
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SHU-DT-SW3P.dwg
Last Saved: 7/15/2024 11:26 AM Saved By: 08661

Plot Date: 7/16/2024 12:07 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SHU-DT-SW3P.dwg

Stormwater Pollution Prevention - Clean Water Act Section 402

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres distrubed soil. Projects with any disturbed soil must protect for erosion and sedimentation.

☐ No Action Required ☒ Required Action

Action No.

1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
2. Comply with the SW3P and revise when necessary to control pollution or required by the Engineer.
3. Post Construction Site Notice, (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
4. When Contractor project specific locations (PSL's) increase disturbed soil area to 5 acres or more, submit NOI to TCEQ and the Engineer.

Work in or near Streams, Waterbodies and Wetlands Clean Water Act Sections 401 & 404

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas.

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

- ☐ No Permit Required
- ☐ Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)
- ☐ Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)
- ☒ Individual 404 Permit Required
- ☐ Other Nationwide Permit Required: NWP* _____

Required Actions: List waters of the US permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post-project TSS.

1. CESWF-97-LOP-1 Activities at Certain Reservoirs and Federal and State Sponsored Projects
2.
3.
4.

Best Management Practices:

Erosion	*Sedimentation*	*Post-Construction TSS*
☐ Temporary Vegetation	☒ Silt Fence	☐ Vegetative Filter Strips
☒ Blankets/Matting	☐ Rock Berm	☒ Retention/Irrigation Systems
☐ Mulch	☐ Triangular Filter Dike	☐ Extended Detention Basin
☒ Sodding	☐ Sand Bag Berm	☐ Constructed Wetlands
☐ Interceptor Swale	☐ Straw Bale Dike	☐ Wet Basin
☐ Diversion Dike	☐ Brush Berms	☐ Erosion Control Compost
☐ Erosion Control Compost	☐ Erosion Control Compost	☐ Mulch Filter Berm and Socks
☐ Mulch Filter Berm and Socks	☐ Mulch Filter Berm and Socks	☐ Compost Filter Berm and Socks
☐ Compost Filter Berm and Socks	☐ Compost Filter Berm and Socks	☒ Vegetation Lined Ditches
	☐ Stone Outlet Sediment Traps	☐ Sand Filter Systems
	☐ Sediment Basins	

III. Cultural Resources

In the event historical issues or archeological artifacts (bones, burnt rock, flint, pottery, etc.) are found during construction, cease work in the immediate area and contact the Engineer immediately.

☒ No Action Required ☐ Required Action

Action No.

1.
2.
3.
4.
5.

IV. Vegetation Resources

Preserve native vegetation to the extent practical.

☒ No Action Required ☐ Required Action

Action No.

1.
2.
3.
4.

V. Federal Listed, and Proposed Threatened and Endangered Species, Critical Habitat, State Listed Species, Candidate Species and Migratory Birds.

☒ No Action Required ☐ Required Action

Action No.

1.
2.
3.
4.

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer Immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediated area, and contact the Engineer immediately.

VI. Hazardous Materials or Contamination Issues

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropiate for any hazardous materials used.

Obtain and keep on-site Material Safety Data Sheets, (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act.

Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the follwing are detected:

- *Dead or distressed vegetation (not identified as normal)*
- *Trash piles, drums, canister, barrels, etc.*
- *Undesirable smells or odors*
- *Evidence of leaching or seepage of substances*

Any other evidence indicating possible hazardous materials or contamination discoverd on site.

Hazardous Materials or Contamination Issues Specific to this Project:

☒ No Action Required ☐ Required Action

Action No.

1.
2.
3.
4.

VII. Other Environmental Issues

☒ No Action Required ☐ Required Action

Action No.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL
ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS (EPIC)

NO.	ISSUE	BY	DATE

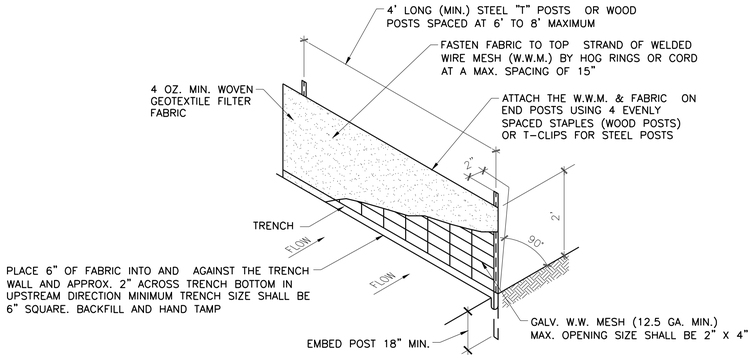
F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED NAC
FILE NAME CV-SHU-DT-SW3P.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET C15
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SHU-DT-SW3P.dwg
Last Saved: 7/15/2024 11:26 AM Saved By: 08661

Plot Date: 7/16/2024 12:07 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SHU-DT-SW3P.dwg



SYMBOL: ---SF---

TEMPORARY SEDIMENT CONTROL FENCE DETAIL (TYPE 1)

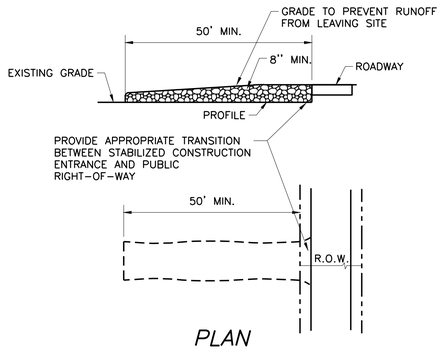
NOT TO SCALE

SEDIMENT CONTROL FENCE USAGE GUIDELINES:

SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 100 GPM/FT. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE LARGER THEN 2 ACRES.

* THE GUIDELINES SHOWN HERE ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



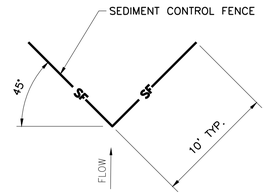
PLAN

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE: 3-5" OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 50'.
3. THICKNESS: NOT LESS THAN 8".
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



TEMPORARY SEDIMENT CONTROL FENCE DETAIL (TYPE 2)

NOT TO SCALE

SILT FENCE GENERAL NOTES:

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
CIVIL
SW3P DETAILS

NO.	ISSUE	BY	DATE

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SHU-DT-SW3P.dwg

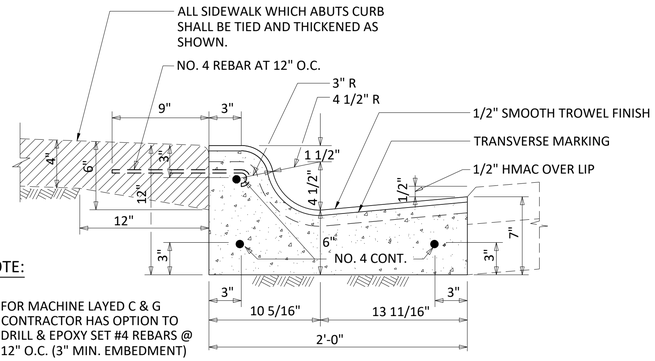
VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET C16

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SHU-DT-SW3P.dwg
Last Saved: 7/15/2024 11:26 AM Saved By: 08661

Plot Date: 7/16/2024 12:07 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SHU-DT-SW3P.dwg

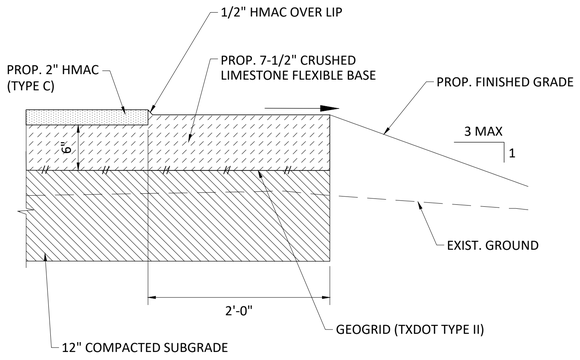


NOTE:

1. FOR MACHINE LAYED C & G CONTRACTOR HAS OPTION TO DRILL & EPOXY SET #4 REBARS @ 12" O.C. (3" MIN. EMBEDMENT)

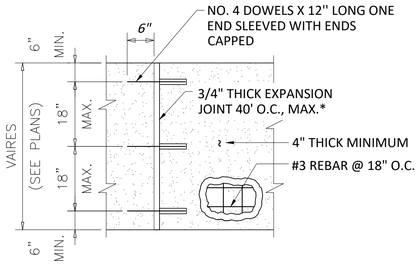
1 / C17 TYPICAL 6" CURB & GUTTER DETAIL

NOT TO SCALE



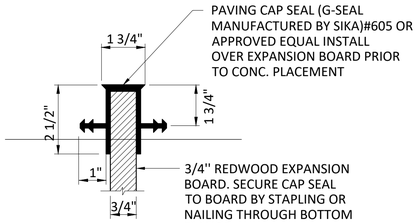
2 / C17 EDGE OF PAVEMENT

NOT TO SCALE



3 / C17 PLAN FOR SIDEWALK

NOT TO SCALE

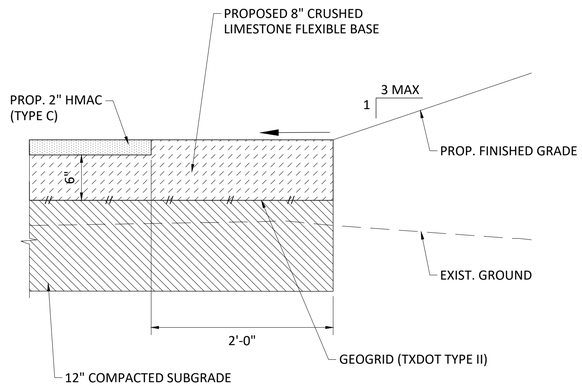


4 / C17 TYP. SIDEWALK CAP SEAL DETAIL (NEW CONC TO NEW CONC.)

NOT TO SCALE

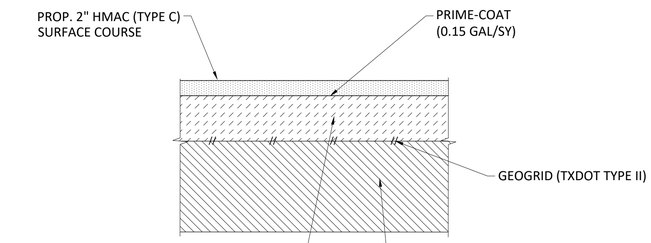
NOTE:

CONTRACTOR TO INSTALL PAVING CAP SEALS ON ALL EXPANSION JOINTS IN SIDEWALK AND DRIVEWAYS.



5 / C17 EDGE OF PAVEMENT

NOT TO SCALE



6 / C17 PROPOSED ASPHALT PAVEMENT SECTION

NOT TO SCALE

NOTES:

1. PROOF ROLL SUBGRADE WITHIN 24 HOURS OF PLACING GEOGRID AND FLEXIBLE BASE. PROOF ROLLING IS SUBSIDIARY TO THE BID ITEM FOR 12" COMPACTED SUBGRADE
2. THE TYPE II GEOGRID MUST BE A PRE-QUALIFIED PRODUCT APPEARING IN TABLE 1 OF THE LATEST TXDOT MATERIAL PRODUCER LIST (MPL).

CURB & GUTTER AND HEADER CURB NOTES:

1. ALL CONCRETE CLASS "A" 3,000 P.S.I. ALL STEEL GRADE 60 fy = 60,000 P.S.I., MIN.
2. TRANSVERSE GROOVES 1/8" WIDE BY 1/2" DEEP SHALL BE MADE IN ALL CURB & GUTTER AND HEADER CURB AT 10' O.C. (MAXIMUM).
3. 3/4" THICK EXPANSION JOINTS SHALL BE PROVIDED AT 40'-0" CENTERS* (MAXIMUM). REINFORCEMENT SHALL CONSIST OF THE NO. 4 DOWELS X 15'' LONG SPACED AS INDICATED . THE NO. 4 DOWEL SHALL BE EXTENDED ACROSS THE JOINT 9 INCHES AND THIS END SHALL BE SLEEVED WITH ENDS CAPPED.
4. WHERE NEW CURB & GUTTER OR HEADER CURB JOINS EXISTING CURB & GUTTER, TRANSITION THE LAST 10' OF THE NEW TO MATCH THE OLD IN SHAPE.
5. BASE, SUB-BASE, AND SUBGRADE THICKNESS UNDER CONCRETE CURB AND GUTTER TO BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS AND PROJECT DETAILS, PER LOADING DESIGN CONDITIONS. REFER TO THE PROJECT SPECIFIC STREET SECTION(S) AND RELATED PROJECT DETAILS SHOWN ON THE DRAWINGS. BOTH THE TREATED SUBGRADE (8" MINIMUM) AND THE FLEXIBLE BASE (4" MINIMUM) OR EQUIVALENT SHALL EXTEND A MINIMUM OF 1' BEYOND THE BACK OF CURB.
6. FINAL ACCEPTANCE OF THE PROJECT SHALL BE CONTINGENT UPON THE CONTRACTOR PROVIDING SRA WITH A CERTIFICATION LETTER, FROM THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR), POLICY AND STANDARDS DIVISION, ARCHITECTURAL BARRIERS SECTION, THAT ALL ADA (AMERICANS WITH DISABILITIES ACT) HANDICAP IMPROVEMENTS, AS CONSTRUCTED, COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) OF THE ARCHITECTURAL BARRIERS ACT ARTICLE 9102, TEXAS CIVIL STATUTES.
7. AT LEAST 1' OF THE AREA BEHIND THE CURB SHALL BE BACKFILLED AND COMPACTED (MINIMUM 95% STANDARD PROCTOR DENSITY) IN ACCORDANCE WITH THE SPECIFICATIONS AS SOON AS POSSIBLE AND NO LATER THAN 48 HOURS OF REMOVAL OF FORMS (OR SOONER IN THE EVENT OF INCLEMENT WEATHER) IN ORDER TO PROTECT THE MOISTURE OF THE PAVEMENT STRUCTURE.

SIDEWALK NOTES:

1. ALL EXPANSION JOINTS TO BE 3/4" REDWOOD EXPANSION BOARD, UNLESS OTHERWISE NOTED.
2. ALL CONCRETE CLASS "A", 3,000 psi. ALL STEEL, GRADE 60, fy = 60,000 psi.
3. CONCRETE TO RECEIVE BROOM FINISH.
4. TRANSVERSE CONTRACTION JOINTS 1/8": WIDE BY 1/2" DEEP SHALL BE CUT IN ALL SIDEWALKS AT 5'-0" INTERVALS (TYPICAL) OR THE INTERVALS SHALL BE SPACED TO MATCH THE WIDTH OF THE SIDEWALK.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024
FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL

CIVIL DETAILS I

NO.	ISSUE	BY	DATE

P&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC
FILE NAME	CV-SRA-STD-TxDOT(01).dwg

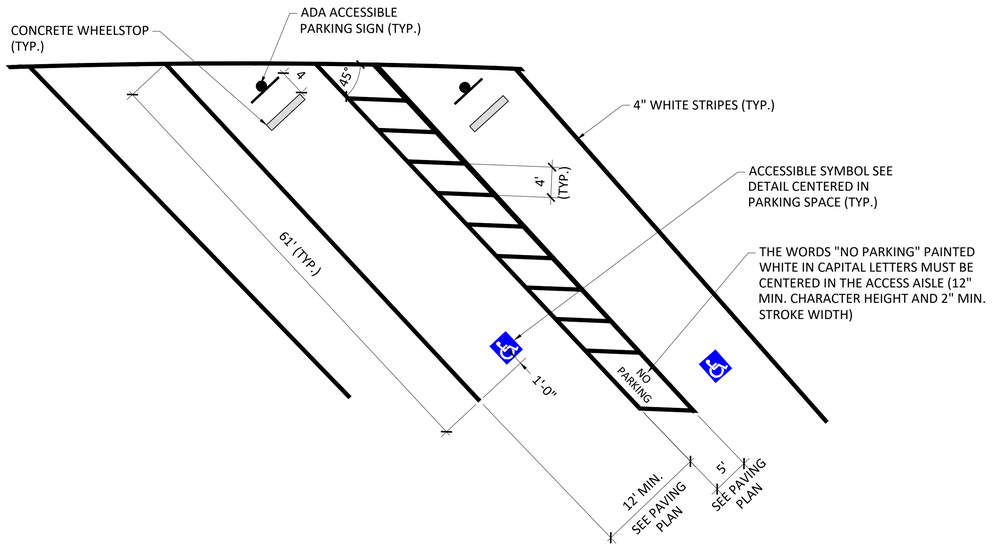
VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale. 0 1"

SHEET C17

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg
Last Saved: 7/16/2024 1:20 PM Saved By: 08661

Plot Date: 7/16/2024 1:25 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg

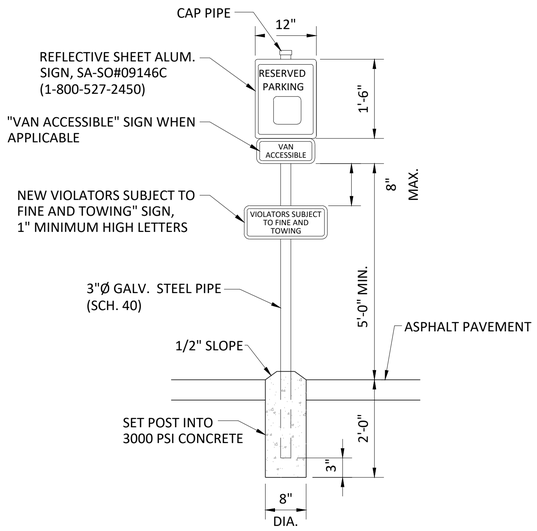


1 C18 ADA ACCESSIBLE BOAT AND TRAILER PARKING STALLS

1"=10'

NOTE:

1. PAINT TO BE SHERWIN-WILLIAMS HOTLINE FAST DRY WATERBORNE TRAFFIC MARKING PAINT (TT-P-1952) OR APPROVED EQUAL.

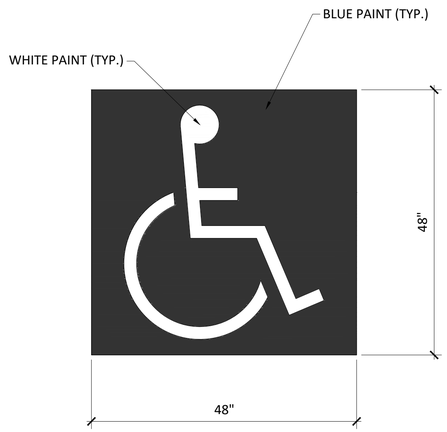


2 C18 ACCESSIBLE PARKING SIGN DETAIL

1"=1'-0"

NOTES:

1. SIGN FACE SHALL BE REFLECTORIZED FLAT SURFACE SHEETING.
2. SIGN SHALL HAVE WHITE LETTERS AND SYMBOLS ON A BLUE BACKGROUND.
3. SIGNS SHALL BE PROVIDED DIRECTLY IN FRONT OF PARKING SPACE AT BACK EDGE OF SIDEWALK OR AS SHOWN ON PLANS.

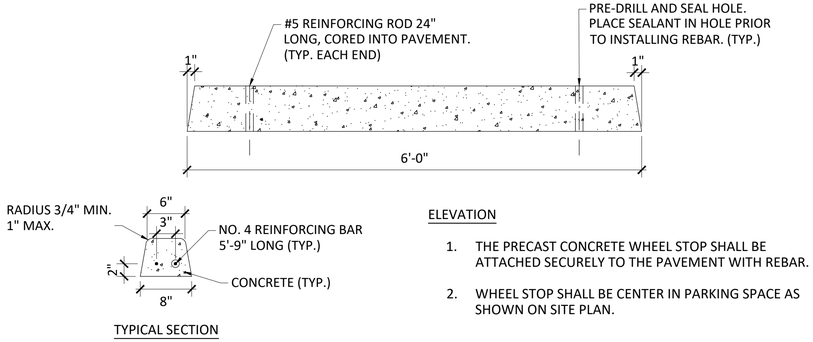


3 C18 ACCESSIBLE SYMBOL DETAIL

N.T.S.

NOTES:

1. WHEELCHAIR SYMBOL SHALL BE PAINTED WHITE ON A BLUE BACKGROUND
2. SYMBOL CAN BE EITHER PERFORMED THERMOPLASTIC OR TYPE I/II PAVEMENT MARKINGS



TYPICAL SECTION

ELEVATION

1. THE PRECAST CONCRETE WHEEL STOP SHALL BE ATTACHED SECURELY TO THE PAVEMENT WITH REBAR.
2. WHEEL STOP SHALL BE CENTER IN PARKING SPACE AS SHOWN ON SITE PLAN.

4 C18 PRECAST CONCRETE WHEEL STOP

1"=1'-0"

0 6" 1' 2"
1"=1'-0"

0 4' 8' 16'
1/8"=1'-0"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL

CIVIL DETAILS II

NO.	ISSUE	BY	DATE

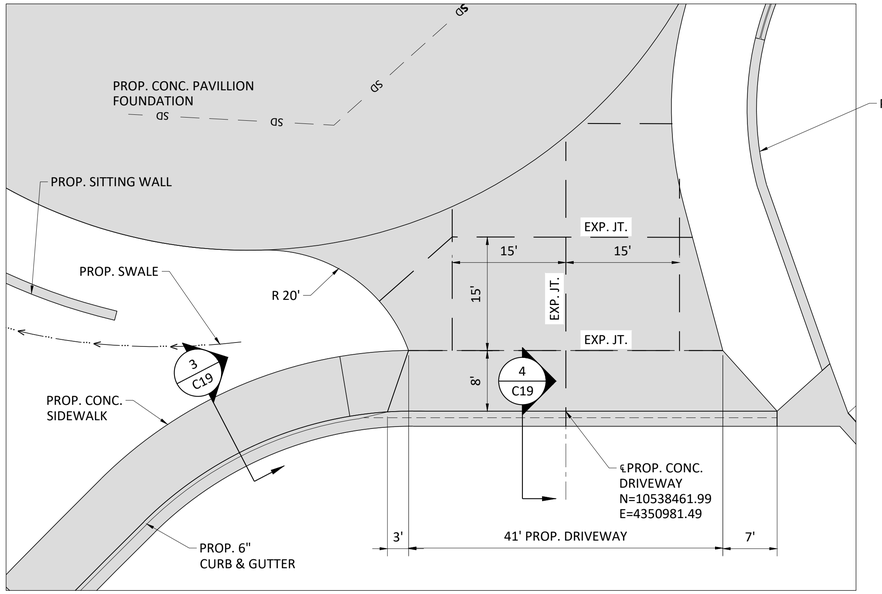
F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED NAC
FILE NAME CV-SRA-STD-TxDOT(01).dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET C18
SEQ.

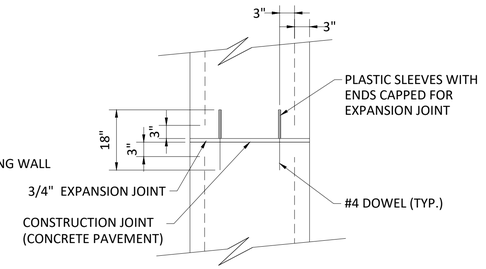
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg
Last Saved: 7/16/2024 9:46 AM Saved By: dks

Plot Date: 7/16/2024 12:10 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg



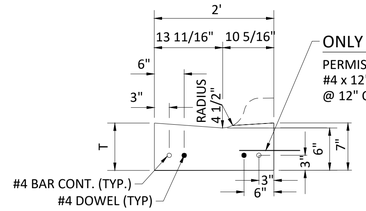
1 C19 — DRIVEWAY WITH TIED SIDEWALK JOINT PLAN

N.T.S.



2 C19 — DRIVEWAY GUTTER PLAN

N.T.S.

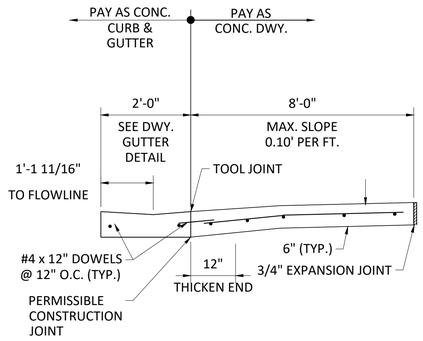


3 C19 — DRIVEWAY GUTTER SECTION

N.T.S.

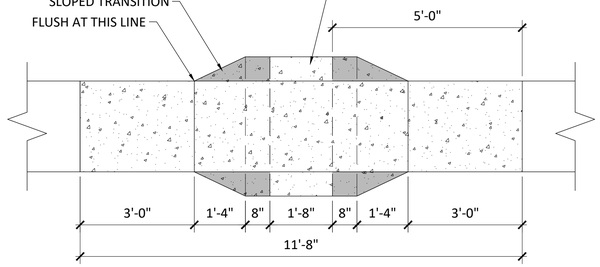
NOTE:

1. T = THICKNESS OF CONCRETE PAVEMENT OR CONCRETE CURB & GUTTER



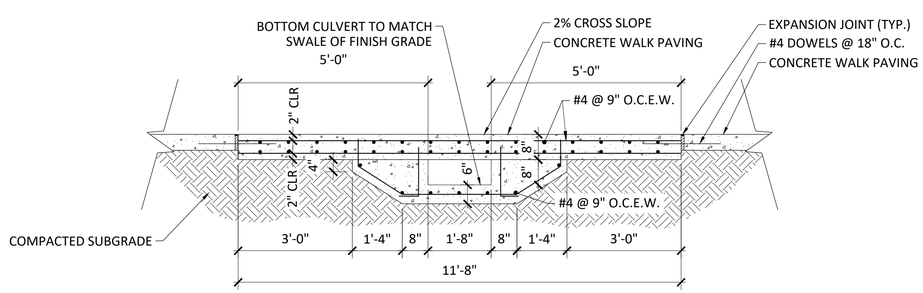
4 C19 — DRIVEWAY WITH TIED SIDEWALK SECTION

N.T.S.



PLAN VIEW

N.T.S.



5 C19 — LOW WATER CROSSING

1/2"=1'-0"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

CIVIL

CIVIL DETAILS III

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	NAC
DRAWN	DKS
CHECKED	
APPROVED	NAC

NO.	ISSUE	BY	DATE

FILE NAME: CV-SRA-STD-TxDOT(01).dwg

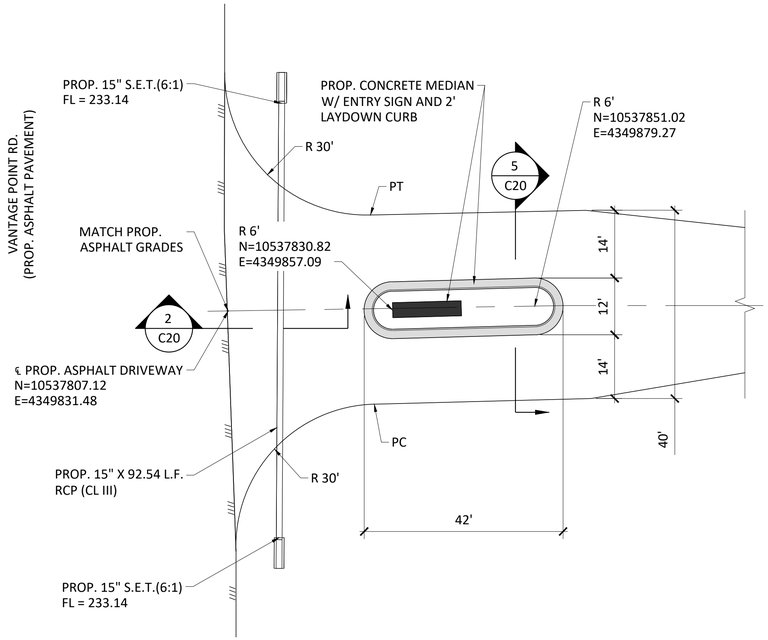
VERIFY SCALE: Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

SHEET C19

SEQ.

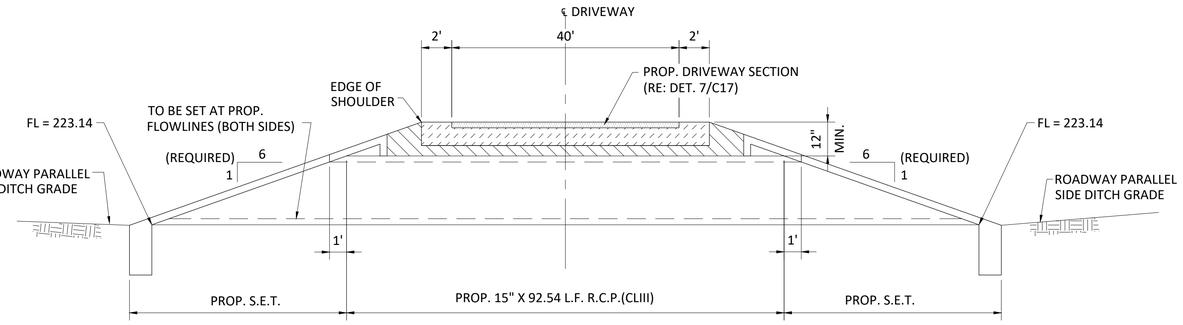
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg
Last Saved: 7/16/2024 9:46 AM Saved By: dks

Plot Date: 7/16/2024 12:10 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg



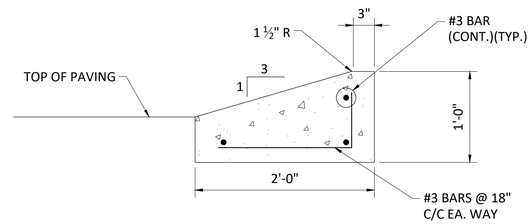
1 C20 PLAN OF PROP. DRIVEWAY

3/4"=1'-0"



3 C20 TYPICAL PROP. DRIVEWAY SECTION

N.T.S.



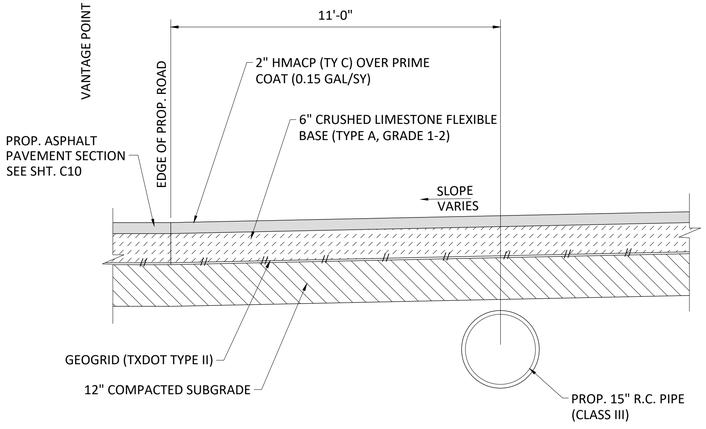
SECTION

4 C20 LAYDOWN CURB

N.T.S.

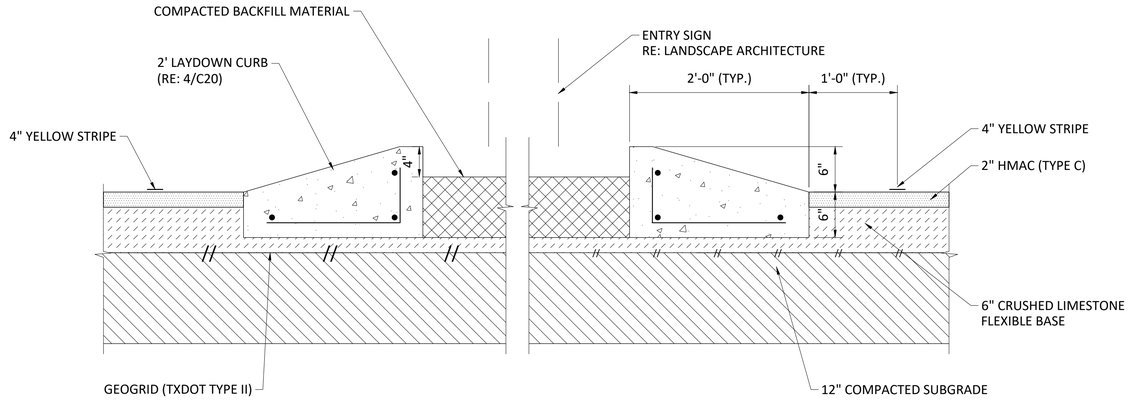
NOTE:

1. EXPANSION JOINTS FOR CURB SHALL BE INSTALLED AT EVERY 40' MAX. SPACING & SAWED JOINT AT EVERY 8' SPACING. CURB JOINTS SHALL MATCH SIDEWALK JOINTS.



2 C20 TYPICAL PROP. DRIVEWAY SECTION

N.T.S.



5 C20 CONCRETE MEDIAN SECTION AT ASPHALT PAVEMENT

NOT TO SCALE

0 6" 1' 2'

3/4"=1'-0

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NICHOLAS A. CECAVA
97391
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

CIVIL

CIVIL DETAILS IV

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

0 1

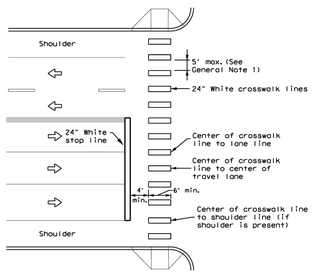
F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED NAC
FILE NAME CV-SRA-STD-TxDOT(01).dwg

SHEET C20

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg
Last Saved: 7/16/2024 1:20 PM Saved By: 08661

Plot Date: 7/16/2024 1:23 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg



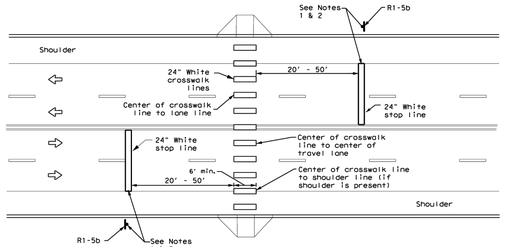
HIGH-VISIBILITY LONGITUDINAL CROSSWALK AT CONTROLLED APPROACH

GENERAL NOTES

1. Longitudinal crosswalk lines should not be placed in the wheel path of vehicles. Center the crosswalk lines on travel lanes, lane lines, and shoulder lines (if present).
2. A minimum 6" clear distance shall be provided to the curb face. If the last crosswalk line falls into this distance it must be omitted.
3. For divided roadways, adjustments in spacing of the crosswalk lines should be made in the median so that the crosswalk lines are maintained in their proper location across the travel portion of the roadway.
4. At skewed crosswalks, the crosswalk lines are to remain parallel to the lane lines.
5. Each crosswalk shall be a minimum of 6' wide.
6. The High-Visibility Longitudinal Crosswalk is the preferred crosswalk pattern on State Highways. Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used. All crosswalk designs and dimension shall comply with the "Texas Manual on Uniform Traffic Control Devices."
7. Final placement of Stop Bar and Crosswalk shall be approved by the Engineer in the field.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



UNSIGNALIZED MIDBLOCK HIGH-VISIBILITY LONGITUDINAL CROSSWALK

NOTES:

1. Use stop bars with Stop Here For Pedestrians (R1-5b) signs at unsignalized midblock cross walks.
2. Use stop bars with STOP HERE ON RED (R10-6 or R10-6a) signs at mid block crosswalks controlled by traffic signals or pedestrian hyporid beacons.

Texas Department of Transportation — Traffic Safety Division Standard

CROSSWALK PAVEMENT MARKINGS

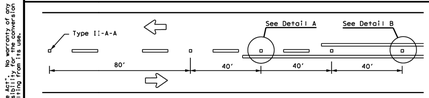
PM(4)-22A

FILE: pm4-22a.dgn — DN: CK: DW: CK:
©TxDOT December 2022 — CONT | SECT | JOB | HIGHWAY
REVISIONS
6-22
6-22
DIST | COUNTY | SHEET NO.

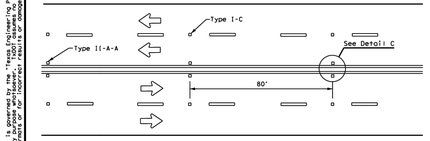
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

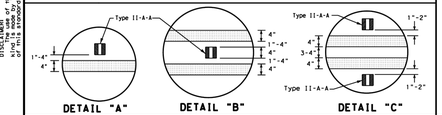
REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE

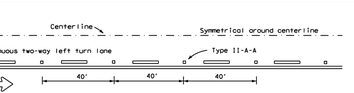


CENTERLINE FOR ALL TWO LANE ROADWAYS

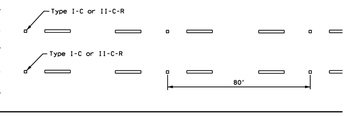


CENTERLINE & LANE LINES FOR FOUR LANE TWO-WAY HIGHWAYS



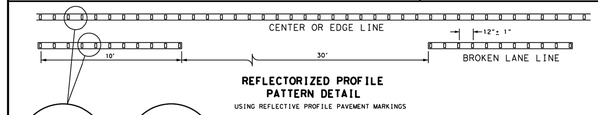


CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE



LANE LINES FOR ONE-WAY ROADWAY (NON-FREEWAY FACILITIES)

Raised pavement markers Type II-C-R shall have clear face toward normal traffic and red face toward wrong-way traffic.



REFLECTORIZED PROFILE PATTERN DETAIL

USING REFLECTIVE PROFILE PAVEMENT MARKINGS

A quick field check for the thickness of base line and profile marking is approximately equal to a stack of 5 quarters to a maximum height of 7 quarters.

NOTE

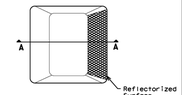
Profile markings shall not be placed on roadways with a posted speed limit of 45 MPH or less.

GENERAL NOTES

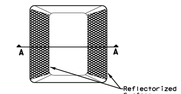
1. All raised pavement markers placed in broken lines shall be placed in line with and midway between the stripes.
2. On concrete pavements the raised pavement markers should be placed to one side of the longitudinal joints.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

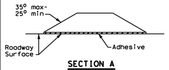
All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



Type I (Top View)



Type II (Top View)



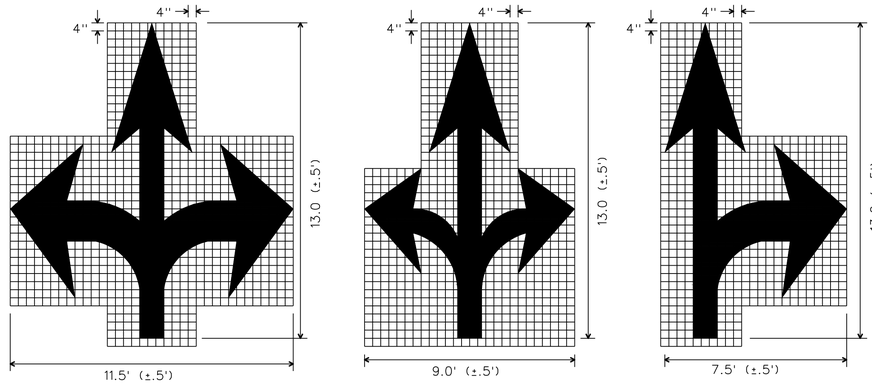
SECTION A

RAISED PAVEMENT MARKERS

Texas Department of Transportation — Traffic Safety Division Standard

POSITION GUIDANCE USING RAISED MARKERS RELECTORIZED PROFILE MARKINGS PM(2)-20

FILE: pm2-20.dgn — DN: CK: DW: CK:
©TxDOT April 1997 — CONT | SECT | JOB | HIGHWAY
REVISIONS
4-92 2-10
1-00 2-12
10-00 6-20
DIST | COUNTY | SHEET NO.



GENERAL NOTES:

1. Minimum 8 foot white markings should be used, unless otherwise noted. If message consists of more than one word, it should be placed with first word nearest the driver.
2. These details are standard size for normal installation; sizes may be reduced approximately one-third for low speed urban conditions; larger sizes may be needed for freeways, above average speed conditions or other critical locations.
3. The longitudinal space between markings should be at least four times the height of the markings, on low speed roads, but should not exceed ten times the height under any condition.
4. Markings considered appropriate for use when warranted include the following:
   - A. Regulatory: STOP; RIGHT (LEFT) TURN ONLY; 25 MPH; SYMBOL ARROWS
   - B. Warning: STOP AHEAD; SIGNAL AHEAD; SCHOOL; SCHOOL X-ING; PED X-ING; R X R (see RCPM standard)
   - C. Guide: US XXX; ROUTE XXX; STATE XXX; Other words or symbols may be necessary under certain conditions.
5. Uncontrolled use of pavement markings can result in driver confusion. Word and symbol markings should be no more than three lines.
6. The word "STOP" shall not be used on the pavement unless accompanied by a Stop line and Stop sign. The word "STOP" shall not be placed on the pavement in advance to a stop line, unless every vehicle is required to stop at all times.
7. Pavement markings should generally be no more than one lane in width, with School messages being the exception. For details of School and School crossing pavement markings, refer to Part VII of the "Texas Manual on Uniform Traffic Control Devices".
8. Spacing between letters should be approximately 4 inches. The width of letters may vary depending on the width of the travel lanes.
9. Lane-Use arrow markings may be used to convey either guidance or mandatory messages. Arrows used to convey a mandatory movement must be accompanied by standard signs and the pavement marking word "ONLY".
10. Pavement markings are to be located as specified elsewhere in the plans.

SPACING BETWEEN LINES OF PAVEMENT MARKINGS	
MPH	SPACING
≤45	MINIMUM 4 TIMES THE LETTER HEIGHT
>45	MINIMUM - 4 TIMES THE LETTER HEIGHT MAXIMUM - 10 TIMES THE LETTER HEIGHT

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

DATE:
FILE:

SIGN SUPPORT DESCRIPTIVE CODES

(Descriptive Codes correspond to project estimate and quantities sheets)

SM RD SGN ASSM TY XXXXX(X)XX(X-XXXX)

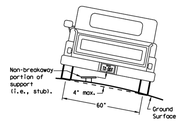
Post Type
FRP = Fiberglass Reinforced Plastic Pipe (see SMD(FRP))
TWT = Thin-Walled Tubing (see SMD(TWT))
10BWG = 10 BWG Tubing (see SMD(SLIP-1) to (SLIP-3))
SBD = Schedule 80 Pipe (see SMD(SLIP-1) to (SLIP-3))

Number of Posts (1 or 2)

Anchor Type
UA = Universal Anchor - Concreted (see SMD(FRP) and (TWT))
UB = Universal Anchor - Bolted down (see SMD(FRP) and (TWT))
WS = Wedge Anchor Steel - (see SMD(TWT))
WP = Wedge Anchor Plastic (see SMD(TWT))
SA = Slipbase - Concreted (see SMD(SLIP-1) to (SLIP-3))
SB = Slipbase - Bolted Down (see SMD(SLIP-1) to (SLIP-3))

Sign Mounting Designation
P = Prefab. "Plain" (see SMD(SLIP-1) to (SLIP-3), (TWT), (FRP))
T = Prefab. "T" (see SMD(SLIP-1) to (SLIP-3), (TWT))
U = Prefab. "U" (see SMD(SLIP-1) to (SLIP-3))
IF REQUIRED
IEXT or ZEXT = Number of Extensions (see SMD(SLIP-1) to (SLIP-3), (TWT))
BW = Extruded Wind Beam (see SMD(SLIP-1) to (SLIP-3))
WC = 1.12 #/ft Wing Channel (see SMD(SLIP-1) to (SLIP-3))
EXAL = Extruded Aluminum Sign Panels (see SMD(SLIP-1) to (SLIP-3))

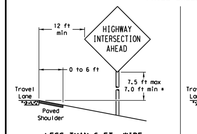
REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT



To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support, when it is broken away, should not project more than 4 inches above a 60-inch chord (i.e., typical space between wheel patrol).

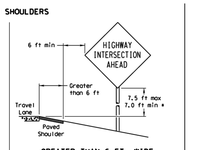
SIGN LOCATION

PAVED SHOULDERS



LESS THAN 6 FT. WIDE

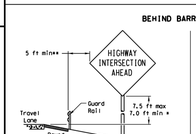
When the shoulder is 6 ft. or less in width, the sign must be placed at least 12 ft. from the edge of the travel lane.



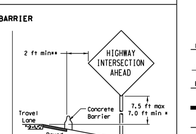
GREATER THAN 6 FT. WIDE

When the shoulder is greater than 6 ft in width, the sign must be placed at least 6 ft. from the edge of the shoulder.

BEHIND BARRIER



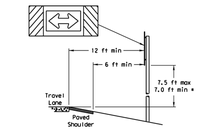
BEHIND GUARDRAIL



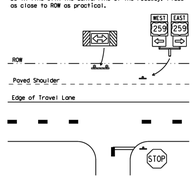
BEHIND CONCRETE BARRIER

**Sign clearance based on distance required for proper guard rail or concrete barrier performance.

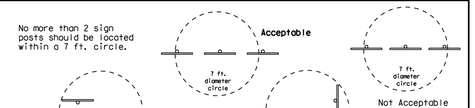
T-INTERSECTION



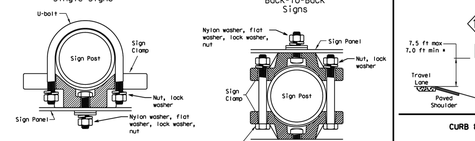
When this sign is needed at the end of a two-lane, two way roadway, the right edge of the sign should be in line with the centerline of the roadway. Place as close to ROW as practical.



* Signs shall be mounted using the following condition that results in the greatest sign elevation:
(1) a minimum of 7 ft to a maximum of 7.5 feet above the edge of the travel lane or
(2) a minimum of 7 ft to a maximum of 7.5 feet above the grade at the base of the support when sign is installed on the backslope.
The maximum values may be increased when directed by the Engineer.
See the Traffic Operations Division website for detailed drawings of sign clamps, Triangular Slipbase System components and Wedge Anchor System components.
The website address is: http://www.txdot.gov/publications/traffic.htm



TYPICAL SIGN ATTACHMENT DETAIL



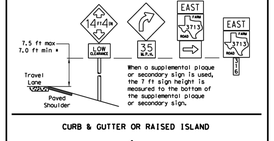
Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign clamps are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washer. The approximate bolt lengths for various post sizes and sign clamp types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

Sign clamps may be either the specific size clamp or the universal clamp.

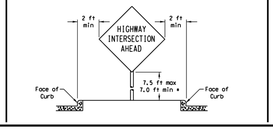
Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
2" nominal	3"	3 or 3 1/2"
2 1/2" nominal	3 or 3 1/2"	3 1/2 or 4"
3" nominal	3 1/2 or 4"	4 1/2"

SIGNS WITH PLAQUES

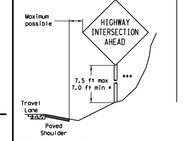


When a supplemental plaque or secondary sign is used, the 7 ft sign height is measured to the bottom of the supplemental plaque or secondary sign.

CURB & GUTTER OR RAISED ISLAND



RESTRICTED RIGHT-OF-WAY (When 6 ft min. is not possible.)



Right-of-way restrictions may be created by rocks, water, vegetation, forest, buildings, a narrow island, or other factors.

In situations where a lateral restriction prevents the minimum horizontal clearance from the edge of the travel lane, signs should be placed as far from the travel lane as practical.

*** Post may be shorter if protected by guardrail or if Engineer determines the post could not be hit due to extreme slope.

Texas Department of Transportation — Traffic Operations Division

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS GENERAL NOTES & DETAILS

SMD(GEN)-08

©TxDOT July 2002 — DN: TxDOT CK: TxDOT DW: TxDOT CK: TxDOT
9-08 REVISIONS — CONT | SECT | JOB | HIGHWAY
DIST | COUNTY | SHEET NO.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS — NICHOLAS A. CECAVA — 97391 — LICENSED PROFESSIONAL ENGINEER — 7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL

CIVIL DETAILS V

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED EG
FILE NAME CV-SRA-STD-TxDOT(01).dwg

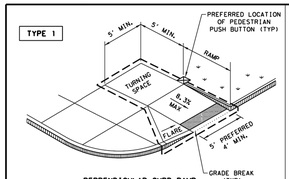
VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET C21
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg
Last Saved: 7/16/2024 9:46 AM Saved By: dks

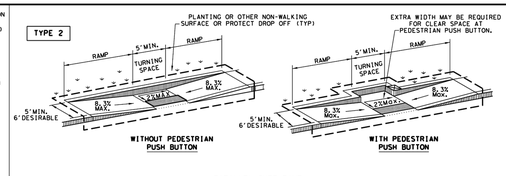
Plot Date: 7/16/2024 12:13 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg

TYPE 1



PERPENDICULAR CURB RAMP

TYPE 2

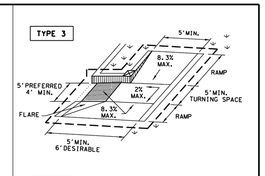


WITHOUT PEDESTRIAN PUSH BUTTON

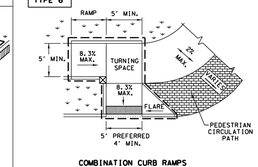
WITH PEDESTRIAN PUSH BUTTON

PARALLEL CURB RAMP

TYPE 3

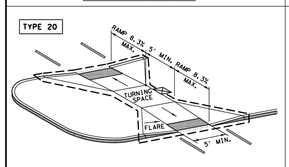


TYPE 6



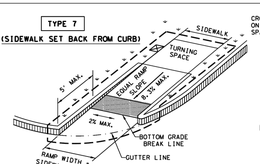
COMBINATION CURB RAMPS

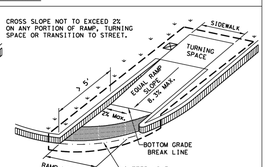
TYPE 20



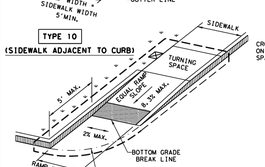
CURB RAMPS AT MEDIAN ISLANDS

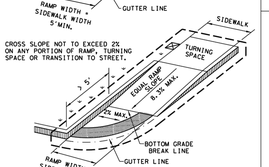
TYPE 7
(SIDEWALK SET BACK FROM CURB)





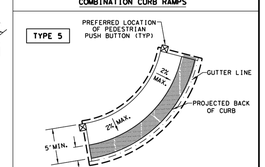
TYPE 10
(SIDEWALK ADJACENT TO CURB)





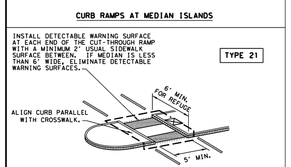
DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 5



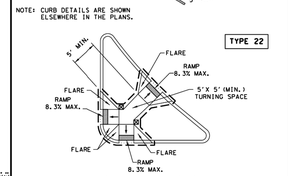
BLENDED TRANSITION (FLUSH LANDING)

TYPE 21

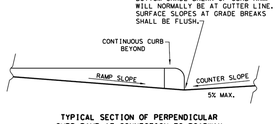


NOTE: CURB DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.

TYPE 22



COMBINATION ISLAND RAMPS



TYPICAL SECTION OF PERPENDICULAR CURB RAMP AT CONNECTION TO ROADWAY

NOTES / LEGEND:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.

DETECTABLE WARNING SURFACE

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE.

GUTTER LINE

GRADE BREAK

RAMP LIMITS OF PAYMENT

SHEET 1 OF 4

Texas Department of Transportation — Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-18

FILE: ped18	DN: TxDOT	CK:	DW: VTP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB		HIGHWAY
REVISIONS					
REVISED ON 2005	DIST		COUNTY		SHEET NO.
REVISED ON 2010					
REVISED ON 2014					

DATE:
FILE:

GENERAL NOTES

CURB RAMPS

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5' x 5' passing areas at intervals not to exceed 200' are required.
5. Turning Spaces shall be 5'x 5' minimum. Cross slope shall be maximum 2%.
6. Clear space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

DETECTABLE WARNING MATERIAL

19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

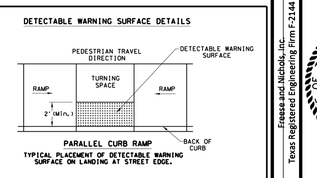
DETECTABLE WARNING PAVERS (IF USED)

25. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

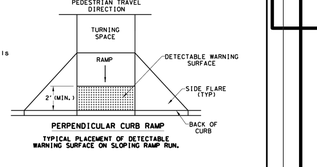
SIDEWALKS

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than five percent (5%) must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
34. Sidewalk details are shown elsewhere in the plans.

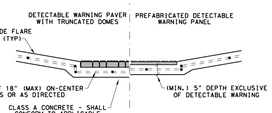
DETECTABLE WARNING SURFACE DETAILS



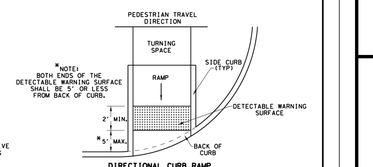
PARALLEL CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE.



PERPENDICULAR CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.



SECTION VIEW DETAIL
CURB RAMP AT DETECTIBLE WARNINGS



DIRECTIONAL CURB RAMP
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN.

SHEET 2 OF 4

Texas Department of Transportation — Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

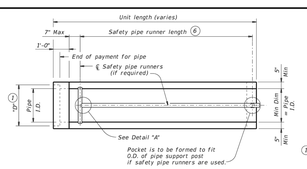
PED-18

FILE: ped18	DN: TxDOT	CK:	DW: VTP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB		HIGHWAY
REVISIONS					
REVISED ON 2005	DIST		COUNTY		SHEET NO.
REVISED ON 2010					
REVISED ON 2014					

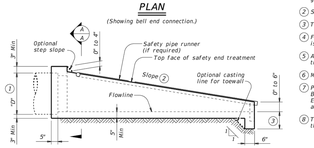
DATE:
FILE:

REQUIREMENTS FOR CULVERT PIPES AND SAFETY PIPE RUNNERS

Pipe I.D.	RCP Wall "B" Thickness	TP Wall Thickness (8)	"D" (1)	Slope	Min Length of Unit	Single Pipe Skew	Single Pipe Pipe Runners Required	Multiple Pipes Skew	Multiple Pipes Pipe Runners Required
12"	2"	1.15"	17.00"	3:1	2' - 11"	≤ 45°	No	≤ 45°	No
				4:1	3' - 6"				
				6:1	4' - 9"				
15"	2 ½"	1.30"	20.50"	3:1	3' - 8"	≤ 45°	No	≤ 45°	No
				4:1	4' - 7"				
				6:1	6' - 5"				
18"	2 ½"	1.60"	24.00"	3:1	4' - 6"	≤ 45°	No	≤ 45°	No
				4:1	5' - 8"				
				6:1	8' - 0"				
24"	3"	1.95"	31.00"	3:1	6' - 2"	≤ 45°	No	= 30°	No
				4:1	7' - 10"			> 30°	Yes
				6:1	11' - 3"				
30"	3 ½"	2.65"	38.50"	3:1	7' - 10"	= 15°	No	= 15°	No
				4:1	10' - 1"				
				6:1	14' - 8"	> 15°	Yes	> 15°	Yes
36"	4"	2.75"	45.50"	3:1	9' - 5"	= 0°	No		
				4:1	12' - 3"			≥ 0°	Yes
				6:1	17' - 11"	> 0°	Yes		
42"	4 ½"	2.7"	52.50"	3:1	11' - 1"	≥ 0°	Yes	≥ 0°	Yes
				4:1	14' - 5"				
				6:1	21' - 2"				



PLAN
(Showing bell end connection.)



LONGITUDINAL ELEVATION
(Showing bell end connection.)

SAFETY PIPE RUNNER DIMENSIONS

Max Safety Pipe Runner Length	Required Pipe Runner Size: Pipe Size	Pipe O.D.	Pipe I.D.
11' - 2"	3" STD	3.500"	3.068"
15' - 6"	3 ½" STD	4.000"	3.548"
20' - 10"	4" STD	4.500"	4.026"
25' - 4"	5" STD	5.563"	5.047"

(1) Dimension "D" is based on reinforced concrete pipe (RCP) meeting the requirements of ASTM C-76, Class III, (RCP Wall "B" thickness). Adjust "D" for any other wall thickness used. For thermoplastic pipe (TP) take into account the annular space requirements for grouted connections.

(2) Slope as shown elsewhere in plans. Slope of 3:1 or flatter is required for vehicle safety.

(3) Toewall to be used only when dimension is shown elsewhere in the plans.

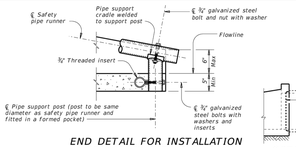
(4) Fill the top 4" of void between precast end treatments with concrete riprap. Concrete riprap is considered subsidiary to the Item 467, "Safety End Treatment."

(5) Adjust clear distance between pipes to provide for the minimum distance between safety end treatments.

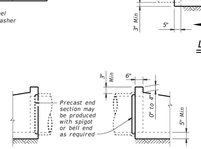
(6) Measured along slope.

(7) Provide cement stabilized bedding and backfill in accordance with the Item 400, "Excavation and Backfill for Structures." Bedding and backfill is considered subsidiary to the Item 467, "Safety End Treatment." When concrete riprap is specified around the safety end treatment, backfill as directed by Engineer.

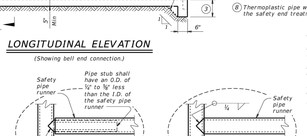
(8) Thermoplastic pipe wall thickness may vary. Adjust accordingly. Thermoplastic pipe requires the safety end treatments to have a bell end for grouted connections.



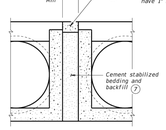
END DETAIL FOR INSTALLATION OF SAFETY PIPE RUNNERS
(If required)



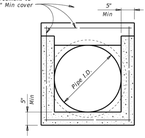
OPTIONAL JOINT FOR RCP
(Showing joint between RCP and precast safety end treatment)



GENERAL NOTES:
Precast safety end treatment for reinforced concrete pipe (RCP), and thermoplastic pipe (TP) may be used for TYPE II end treatment as specified in Item "Safety End Treatment."
When precast safety end treatment is used as a Contractor's alternate to mitered RCP, riprap will not be required unless noted otherwise on the plans.
Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.
Manufacture this product in accordance with Item 467, "Safety End Treatment" except as noted below :
A. Provide minimum reinforcing of #4 at 6" (Grade 40) or #4 at 9" (Grade 60) each way or 6"x6" – D12 x D12 or 9"x9" – D10 x D10 welded wire reinforcement (WWR).
B. For 42" and smaller formed sections, provide class "C" concrete (f'c = 3,600 psi).
At the option and expense of the Contractor, the next larger size of safety end treatment may be furnished as long as the "D" dimension cast is that of the required size of pipe.
Pipe runners are designed for a traversing load of 1,800 Lbs at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.
Provide safety pipe runners, cross pipes, pipe support posts, and pipe studs meeting the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5L42.
Galvanize all steel components except reinforcing steel after fabrication. Repair galvanizing damaged during transport or construction in accordance with the specifications.
Connect RCP using the Optional Joint for RCP detail shown or in accordance with Item 464 "Reinforced Concrete Pipe". Connect TP by grouting. See Pipe and Box Grouted Connections (PBGC) standard for grouted connections with TP and precast safety end treatment.

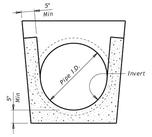


MULTIPLE PIPE INSTALLATION

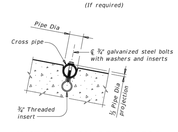


OPTION WITH SQUARE BOTTOM

SECTION A-A



OPTION WITH INVERT BOTTOM



INSTALLATION DETAIL FOR SAFETY PIPE RUNNERS
(If required)

Texas Department of Transportation — Bridge Division Standard

PRECAST SAFETY END TREATMENT
TYPE II ~ CROSS DRAINAGE

PSET-SC

Std: CD-PSET-SC-21.dgn	dn: RLB	ck: KLR	dw: JTR	ck: GAF
© TxDOT: February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
12-21: Minor AZ "D"	DIST		COUNTY	SHEET NO.

ISSUED FOR BID

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL

CIVIL DETAILS VI

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS — NICHOLAS A. CECAVA — 97391 — LICENSED PROFESSIONAL ENGINEER — 7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED NAC
DRAWN DKS
CHECKED
APPROVED EG
FILE NAME CV-SRA-STD-TxDOT(01).dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET C22
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg
Last Saved: 7/16/2024 9:46 AM Saved By: dks

Plot Date: 7/16/2024 12:13 PM Plot By: 08661 Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg

GENERAL

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE, INCLUDING LOCAL SUPPLEMENTS, EXCEPT WHERE APPLICABLE CODES OR THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE.

2. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH APPLICABLE OSHA, STATE, AND LOCAL REGULATIONS. THIS DESIGN IS NOT INTENDED TO CONFLICT WITH SAFETY OR APPLICABLE REGULATIONS OR TO RELIEVE THE CONTRACTOR OF COMPLIANCE WITH THESE REQUIREMENTS. IN CASE OF CONFLICT WITH SAFETY OR APPLICABLE REGULATIONS, CONTACT THE ENGINEER FOR GUIDANCE BEFORE PROCEEDING WITH FABRICATION OR CONSTRUCTION.

3. PRIOR TO FABRICATION OR CONSTRUCTION:
   - A. REVIEW OTHER DISCIPLINE DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS, DEPRESSIONS, OFFSETS, SLEEVES, CURBS, PADS, INSERTS, EQUIPMENT REQUIREMENTS, ETCETERA, WHICH ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
   - B. VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, DEPRESSIONS, OFFSETS, SLEEVES, CURBS, PADS, INSERTS, EQUIPMENT REQUIREMENTS, ETCETERA.
   - C. FIELD VERIFY ALL EXISTING CONDITIONS, INCLUDING LOCATION AND DIMENSIONS OF ALL EXISTING CONSTRUCTION AND UTILITIES.
   - D. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN DISCIPLINES, CONSTRUCTABILITY ISSUES, OR EXISTING CONDITIONS.

4. REMOVE ALL ABANDONED FOUNDATIONS, UTILITIES, PIPELINES, ETCETERA THAT INTERFERE WITH NEW CONSTRUCTION.

5. THE STRUCTURE IS DESIGNED FOR STABILITY IN THE FINAL CONDITION ONLY. PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED FOR STABILITY DURING CONSTRUCTION.

6. PLANS, SECTIONS, AND DETAILS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.

7. THE GENERAL NOTES AND TYPICAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY.

LOADS (SERVICE/STRENGTH LEVEL, UNO)

1. SUPERIMPOSED DEAD LOADS (NOT INCLUDING STRUCTURAL FRAMING SELF-WEIGHT):
   - A. ROOF: 13 PSF
   - B. ELEVATED FLOORS: 8 PSF

2. FLOOR LIVE LOADS:
   - A. MECH, ELECT, AND EQUIP ROOMS: 150 PSF
   - B. SLAB-ON-GRADE: 100 PSF
   - C. RESTROOMS: 50 PSF

3. ROOF LIVE LOAD:
   - A. ROOF: 20 PSF

4. LATERAL LOADS:
   - A. RISK CATEGORY **II**
   - B. WIND LOAD:
     - i. BASIC WIND SPEED: V = **110** MPH
     - ii. WIND EXPOSURE: **C**
     - iii. INTERNAL PRESSURE COEFFICIENT: GCpi = +/-**0.18**
   - C. SEISMIC LOAD:
     - i. SEISMIC IMPORTANCE FACTOR: I = **1.00**
     - ii. MAPPED SPECTRAL ACCELERATIONS: SS = **0.116**, S1 = **0.058**
     - iii. SITE CLASS: **D**
     - iv. SPECTRAL RESPONSE COEFFICIENT: SDS = **0.124**, SD1 = **0.093**
     - v. SEISMIC DESIGN CATEGORY: **A**
     - vi. BASIC SEISMIC FORCE-RESISTING SYSTEM:
       1. ORDINARY TIMBER CONCENTRICALLY BRACED FRAME
       2. ORDINARY TIMBER WITH SHEAR WALLS
     - vii. DESIGN BASE SHEAR V = 0.01W
     - viii. SEISMIC RESPONSE COEFFICIENT: CS = 0.032
     - ix. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATION

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT "GEOTECHNICAL ENGINEERING REPORT; SABINETOWN PARK DEVELOPMENT-PHASE 1; ; HEMPHILL, TEXAS", DATED APRIL 9, 2024, PREPARED BY RINER ENGINEERING, INC. A UES COMPANY (REPORT NO. 23-0711). A COPY OF THIS REPORT IS AVAILABLE FOR INSPECTION AT THE ENGINEER'S OFFICE FOR INFORMATIONAL PURPOSES ONLY. THE GEOTECHNICAL REPORT IS NOT PART OF THE CONTRACT DOCUMENTS.

2. EXCAVATION DESIGN AND SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY SLOPES SHOWN ARE A MAXIMUM AND SHALL BE DECREASED AS REQUIRED FOR SAFETY OR TO MEET OSHA REQUIREMENTS.

3. EXCAVATION AND SUBGRADE PREPARATION
   - A. IN THE AREAS OF IMPROVEMENTS REMOVE AND DISPOSE OF ALL CONCRETE, TREES, STUMPS, BRUSH, DEBRIS, ROOTS, RUBBISH AND ANY OTHER UNDESIRABLE MATTER. ALL VEGETATION SHALL BE REMOVED AND THE EXPOSED SURFACE SCARIFIED TO AN ADDITIONAL DEPTH OF AT LEAST 6 INCES.
   - B. BUILDING PAD AND PAVING SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK OR SIMILAR PNEUMATIC-TIRE EQUIPMENT TO LOCATE AREAS OF LOOSE SUBGRADE. IN AREAS TO BE CUT, THE PROOFROLL SHALL BE PERFORMED AFTER THE FINAL GRADE IS ESTABLISHED. IN AREAS TO BE FILLED, THE PROOFROOL SHALL BE PERFORMED PRIOR TO FILL PLACEMENT. AREAS OF LOOSE OR SOFT SUBGRADE ENCOUNTERED IN THE PROOFROLL SHALL BE REMOVED AND REPLACED WITH ENGINEERING FILL, MOISTURE CONDITIONED (DRIED OR WETTED, AS NEEDED) AND COMPACTED IN PLACE.
   - C. LIMIT EXTREME WETTING OR DRYING OF THE SUBSURFACE SOILS TO PREVENT SWELLING AND SHRINKAGE OF SOILS. STANDARD CONSTRUCION PRACTICES OF GOOD SURFACE WATER DRAINAGE MUST BE USED. POSITIVE SLOPE OF THE GROUND AWAY FROM ANY FOUNDATOIN SHALL BE PROVIDED. DITCHES OR SWALES SHALL BE PROVIDED TO CARRY RUN-OFF WATER DURING AND AFTER CONSTRUCTION.
   - D. SOFT AND/OR WET SURFACE SOILS MAY BE ENCOUNTERED DURING CONSTRUCTION, ESPECIALLY FOLLOWING PERIODS OF WET WEATHER. IF SPECIFIED COMPACTION CANNOT BE ACHIEVED DUE TO SOFT OR WET SURFACE SOILS, ONE OF THE FOLLOWING CORRECTIVE MEASURES WILL BE REQUIRED:
     - i. REMOVAL OF THE WET AND/OR SOFT SOIL AND REPLACEMENT WITH SELECT FILL
     - ii. CHEMICAL TREATMENT OF THE WET AND/OR SOFT SOIL TO IMPROVE THE SUBGRADE STABILITY, OR
     - iii. IF ALLOWED BY THE SCHEDULE, DRYING BY NATURAL MEANS
   - E. SELECT FILL SHALL CONSIST OF SOIL WITH A LIQUID LIMIT LIESS THAN 35 AND A PLASTICITY INDEX BETWEEN 7 AND 20. THE SELECT FILL HALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8-INCHES AND SHALL BE COMPACTED TO AT LEAST 95 PERCENT MAXIMUM DRY DENSITY (PER ASTM D-698) AND AT A MOISTURE CONTENT BETWEEN OPTIMUM AND 4 PERCENT ABOVE OPTIMUM MOISTURE CONTENT.
   - F. THE SUBGRADE TO RECEIVE SELECT FILL SHALL BE SCARIFIED TO A DEPTH OF 6-INCHES AND COMPACTED TO 92 TO 96 PERCENT OF THE MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D-698) AT A WORKABLE MOISTURE LEVEL AT LEAST 4 PERCENT POINTS ABOVE OPTIMUM.
   - G. BASED ON LABORATORY TESTING CONDUCTED FOR THIS PROJECT, THE NATIVE CLAY ON-SITE SOILS WILL NOT MEET REQUIREMENTS FOR SELECT FILL OUTLINED ABOVE. AS AN ALTERNATIVE TO IMPORTING SELECT FILL, THE NATIVE CLAY SOIL MAY BE BLENDED WITH LIME TO REDUCE THE PLASTICITY INDEX TO MEET SELECT FILL REQUIREMENTS. PRIOR TO PROCEEDING WITH THIS OPTION, LIME SERIES TESTS SHALL BE PERFORMED TO ASSESS THE AMOUNT OF LIME REQUIRED.
   - H. GENERAL FILL MAY BE PLACED IN IMPROVED AREAS OUTSIDE THE BUILDING PAD AREAS. GENERAL FILL SHALL CONSIST OF MATERIAL APPROVED BY THE GEOTECHINCAL ENGINEER WITH A LIQUID LIMIT LESS THAN 50. GENERAL FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8-INCHES AND SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY (PER ASTM D-698) AND WITH +/- 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
   - I. THE SUBGRADE MOISTURE CONTENT AND DENSITY SHALL BE MAINTAINED DURING CONSTRUCTION.

4. ALL BELOW GRADE FOUNDATION ELEMENTS ARE DESIGNED WITH FORMED SIDES. IF THE CONTRACTOR ELECTS TO USE EARTH FORMED SIDES, THE EXPOSED SURFACE AND 12 INCHES

   BELOW GRADE SHALL BE FORMED TO THE DESIGN DIMENSION AND ONE INCH SHALL BE ADDED TO EACH SIDE TO PROVIDE ADEQUATE COVER OVER THE REINFORCING AT THE CONTRACTOR'S EXPENSE.

5. DO NOT BACKFILL FOUNDATION WALLS UNTIL THE RESTRAINING SLABS OR ADEQUATE BRACING ARE IN PLACE.

6. EXTERIOR SLABS SHALL SLOPE AWAY FROM THE STRUCTURE A MINIMUM OF 1/4" PER FOOT UNLESS NOTED OTHERWISE. GRADING AROUND STRUCTURES SHALL BE SUCH AS TO DRAIN ALL WATER AWAY FROM BUILDINGS.

7. ALL FOUNDATIONS SHALL BEAR ON SOUND, UNDISTURBED, LEVEL EXCAVATIONS. REMOVE ANY AND ALL LOOSE DEBRIS FROM EXPOSED BEARING SURFACE. SUITABLE BEARING MATERIAL SHALL BE VERIFIED BY A GEOTECHNICAL PROFESSIONAL ENGINEER

8. ALLOWABLE NET BEARING PRESSURE USED FOR FOUNDATION DESIGNS IS 1,500 PSF (NET DEAD LOAD PLUS SUSTAINED LIVE LOAD) AND 2,250 PSF (NET TOTAL LOAD PRESURE). THE BEARING PRESSURE IS BASED ON A FACTOR OF SAFETY OF 3 AND 2, RESPECTIVELY, AGAINST SHEAR FAILURE OF THE FOUNDATION BEARING SOILS.

9. ALLOWABLE NET BEARING CAPACITY FOR CONTINUOUS STRIP FOOTING IS 2,000 PSF.

10. MOISTURE CONTENT IN FOOTING EXCAVATIONS SHALL BE MAINTAINED UNTIL FOOTING IS PLACED. FOOTINGS SHALL BE PLACED AS SOON AS PRACTICAL AFTER EXCAVATIONS ARE COMPLETED.

11. MUD SLABS, WHERE INDICATED, SHALL BE PLACED THE SAME DAY EXCAVATION IS COMPLETED. THE GEOTECHNICAL ENGINEER SHALL VERIFY THAT THE BEARING SURFACE IS FREE OF LOOSE AND/OR DELETERIOUS MATERIAL BEFORE PLACEMENT OF MUD SLAB.

12. WORKING PLATFORM: 8" OF COMPACTED CLEAN CRUSHED STONE (ASTM C33 NO. 57 COARSE AGGREGATE) OVER NON-WOVEN GEOTEXTILE (MIRAFI 1100N OR APPROVED EQUAL). LAP SEGMENTS A MINIMUM OF 3FEET BUT NOT LESS THAN THAT REQUIRED BY THE MANUFACTURER. EXTEND GEOTEXTILE BEYOND LIMITS OF CRUSHED STONE AS REQUIRED TO ENCLOSE ENDS OF CRUSHED STONE AND TOP WHERE EXPOSED. EXTEND GEOTEXTILE AN ADDITIONAL 12" TO RETURN/LAP UNDER CONCRETE SLAB.

13. PLACEMENT OF WORK PLATFORM SHALL BE [WITHIN 24 HOURS OF][THE SAME DAY AS] FINAL EXCAVATION. IF THIS TIME LIMITATION CANNOT BE MET, THEN AT A MINIMUM, 6" OF EXCAVATION SHALL REMAIN UNTIL WORK PLATFORM IS PLACED.

CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITIONS OF ACI 301 AND ACI 318.][CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITIONS OF ACI 301 AND ACI 350.

2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS NOTED OTHERWISE, SHALL BE IN ACCORDANCE WITH THE ACI DETAILING MANUAL (ACI SP-66), LATEST EDITION.

3. CONCRETE SHALL HAVE SPECIFIED COMPRESSIVE STRENGTHS, f'c, AT 28-DAYS AS FOLLOWS:
   - A. GRADE BEAMS: 4,000 PSI
   - B. RETAINING WALLS: 5,000 PSI
   - C. SIDEWALKS AND CURBS:3,000 PSI
   - D. OTHER: 3,000 PSI
   - E. CEMENT: PORTLAND CEMENT, ASTM C150, TYPE I/II, EQUIVALENT ALKALIES < 0.60%
   - F. W/C RATIO: 0.45 MAXIMUM
   - G. AGGREGATE: ASTM C 33, 1" MAXIMUM, CLASS 3M
   - H. ENTRAINED AIR: ACI 318-08, EXPOSURE CLASS F1
   - I. SLUMP: 5" (+/-1")

4. ALL REINFORCING SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60, DEFORMED.

5. CONCRETE CLEAR COVER OVER REINFORCING SHALL BE AS LISTED BELOW, UNLESS NOTED OTHERWISE.
   - A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
   - B. ALL OTHER: 2"
   - C. SEE DRAWINGS FOR EXCEPTIONS

6. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE FORMS OR TOOLED TO 3/4" RADIUS ON SLABS UNLESS NOTED OTHERWISE.

7. SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS AND/OR CONTROL JOINTS LOCATED AS SHOWN ON THE DRAWINGS OR AT 15 FEET MAXIMUM SPACING. DO NOT PROVIDE CONTROL JOINTS IN STRUCTURAL SLABS. CONTRACTOR SHALL LOCATE SLAB JOINTS ON RECORD INFORMATION SHOP DRAWINGS.

8. ALL CONSTRUCTION JOINTS (CXJ) SHALL BE THOROUGHLY CLEANED AND PURPOSELY ROUGHENED TO 1/4" PRIOR TO PLACING ADJACENT CONCRETE.

9. ADDITIONAL CONSTRUCTION JOINTS SHALL HAVE PRIOR APPROVAL OF THE ENGINEER.

10. PENETRATIONS OTHER THAN SHOWN SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

11. IN CASES WHERE REINFORCING BARS CANNOT BE EXTENDED AS FAR AS REQUIRED DUE TO THE LIMITED EXTENT OF THE ADJACENT CONCRETE STRUCTURE, THE BARS SHALL EXTEND AS FAR AS POSSIBLE AND END IN STANDARD HOOKS.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL FORMING, TEMPORARY BRACING AND SHORING.

13. CONDUITS AND PIPING EMBEDDED IN CONCRETE SHALL BE SPACED A MINIMUM OF FOUR DIAMETERS AND THE OUTSIDE DIAMETER SHALL BE LESS THAN 30% OF THE MEMBER THICKNESS PLACED BETWEEN LAYERS OF REINFORCING.

14. UNLESS NOTED OTHERWISE, HOOKS SHOWN ON DRAWINGS SHALL BE ASSUMED TO BE STANDARD HOOKS PER ACI 318.

15. UNLESS NOTED OTHERWISE, LAP SPLICES IN BEAMS AND WALLS SHALL BE STAGGERED.

16. BUNDLED BARS ARE BARS PLACED IN CONTACT WITH EACH OTHER IN GROUPS OF TWO, THREE, OR FOUR. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.

17. ALL REINFORCING SHALL BE CONTINUOUS. CONTINUOUS BARS SHALL LAP 48 BAR DIAMETERS OF SMALLER BAR LAPPED, UNLESS NOTED OTHERWISE. ALL REBAR EMBEDMENT LENGTHS SHALL BE 36 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

POST-INSTALLED ANCHORS (EXPANSION OR ADHESIVE)

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), BUT NOT LESS THAN THAT INDICATED BELOW.

2. INSTRUCTIONS BELOW ARE NOT INTENDED TO CONFLICT WITH APPLICABLE SAFETY OR OSHA REGULATIONS OR TO RELIEVE CONTRACTOR OF COMPLIANCE WITH ALL APPLICABLE SAFETY AND OSHA REGULATIONS. IN CASE OF CONFLICT WITH SAFETY OR OSHA REGULATIONS, CONTACT THE ENGINEER FOR GUIDANCE BEFORE PROCEEDING WITH FABRICATION OR CONSTRUCTION.

3. ADHESIVE ANCHORS SHALL ONLY BE INSTALLED BY CONSTRUCTION PERSONNEL CERTIFIED UNDER ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUAL. SUBMIT CERTIFICATIONS AS RECORD DATA PRIOR TO ANCHOR INSTALLATION.

4. SUBMIT ANCHOR MATERIAL CERTIFICATIONS AND ALLOW INSPECTION OF UNOPENED ANCHORS ONSITE, PRIOR TO INSTALLATION.

5. ANCHOR DIAMETER AND EMBEDMENT SHALL BE AS INDICATED.

6. HOLES SHALL BE DRILLED USING ROTARY HAMMER DRILLS WITH ANSI MATCHED TOLERANCE CARBIDE-TIPPED DRILL BITS. DRILL BIT DIAMETER SHALL MATCH DIAMETER RECOMMENDED BY MANUFACTURER. DRILL HOLES USING ANCHOR MANUFACTURER'S VACUUM DUST EXTRACTION SYSTEM OR APPROVED EQUAL.

7. USE CARE AND CAUTION WHEN INSTALLING TO AVOID CUTTING OR DAMAGING EXISTING REINFORCING STEEL. FIELD VERIFY EXISTING REINFORCING LOCATIONS PRIOR TO FABRICATION OR CONSTRUCTION, AND THEN COORDINATE REBAR LOCATIONS WITH SHOP DRAWINGS.

8. EXPANSION ANCHORS SHALL BE A STUD BOLT TYPE WITH HEX HEAD NUT AND SHALL BE 316 STAINLESS STEEL UNLESS NOTED OTHERWISE, AND AS NOTED BELOW:
   - A. ANCHORS SHALL BE DEWALT POWER STUD+, HILTI KWIK BOLT TZ2, OR SIMPSON STRONG-TIE STRONG-BOLT 2.
   - B. VERIFY HOLE IS CLEAR OF DUST AND DEBRIS.
   - C. DRIVE ANCHOR INTO HOLE WITH A HAMMER AND THEN TIGHTEN TO SPECIFIED TORQUE.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
SHANE RAY TORNO
89499
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

STRUCTURAL

STRUCTURAL NOTES (01)

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED SRT
DRAWN DKS
CHECKED
APPROVED SRT
FILE NAME ST-SRA-GN-NOTES(01).dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET S1
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-GN-NOTES(01).dwg
Last Saved: 7/16/2024 11:28 AM Saved By: 08661

Plot Date: 7/16/2024 11:46 AM Plot By: 08661 Filename: N:\ST\ST-SRA-GN-NOTES(01).dwg

9. ADHESIVE ANCHORS SHALL BE DEFORMED REINFORCING BARS (ASTM A615, GR 60) OR 316 STAINLESS STEEL THREADED ROD,UNLESS NOTED OTHERWISE, AND AS NOTED BELOW:
   A. ADHESIVE SHALL BE DEWALT PURE220+, HILTI HIT-RE 500 V3, OR SIMPSON STRONG-TIE SET-3G. USE DEWALT AC200, HILTI HIT-HY 270, SIMPSON STRONG-TIE SET-3G FOR HOLLOW AND GROUTED MASONRY.
   B. PRIOR TO INSTALLATION: ALL DEFORMED BARS AND THREADED ROD SHALL BE CLEAN, FREE OF OIL, GREASE, OR OTHER RESIDUE, IN ACCORDANCE WITH MPII.
   C. VERIFY HOLE IS CLEAR OF DUST AND DEBRIS.
   D. INSTALL ADHESIVE STARTING AT BACK OF HOLE. AS REQUIRED BY MPII, USE MANUFACTURER SUPPLIED PISTON PLUG INJECTION SYSTEM FOR ALL HORIZONTAL AND VERTICALLY INCLINED HOLES.
   E. INSTALL ANCHOR BY SIMULTANEOUSLY TWISTING AND INSERTING INTO HOLE.
   F. ALLOW ANCHOR TO SET REQUIRED TIME. DO NOT DISTURB.
   G. TIGHTEN NUT. DO NOT OVER-TORQUE.
   H. MINIMUM CONCRETE AGE AT TIME OF INSTALLATION: 28DAYS
   I. CONCRETE TEMPERATURE RANGE AT TIME OF INSTALLATION SHALL BE: 41DEG F TO 104DEG F.
   J. CONCRETE MOISTURE CONDITION AT TIME OF INSTALLATION: DRY.

PRE-ENGINEERED BUILDING

1. THE BUILDING SHALL BE A MANUFACTURER'S STANDARD PRE-ENGINEERED STRUCTURE OF THE APPROXIMATE INSIDE AREA SHOWN, EXCEPT AS NOTED. OVERALL DIMENSIONS AND CONSTRUCTION DETAILS MAY VARY TO SUIT MANUFACTURER'S STANDARD DESIGN.

2. THE BUILDING SHALL BE DESIGNED AND FABRICATED ACCORDING TO AISC, MBMA AND AISI LATEST SPECIFICATIONS. THE DIMENSIONAL TOLERANCES OUTLINED IN THE AWS CODE UNDER WORKMANSHIP AND THE TOLERANCES APPLICABLE TO ROLL FROM STEEL UNDER THE AISC "STANDARD MILL PRACTICE", SECTION SHALL BE REQUIRED IN THE FABRICATION OF THE STEEL BUILDING FRAMES.

3. THE BUILDING FRAME SHALL BE DESIGNED TO LIMIT THE LATERAL DEFLECTION TO L/180 AT THE BUILDING EAVE, WHERE L IS THE HEIGHT OF THE BUILDING EAVE.

4. THE BUILDING SHALL BE DESIGNED TO SUPPORT ALL MECHANICAL EQUIPMENT INCLUDING HEATERS, SPRINKLERS, EXHAUST SYSTEM, AND ALL OTHER SUCH DEVICES. ADDITIONAL GIRTS OR PURLINS SHALL BE PLACED IN CONVENIENT LOCATIONS FOR ATTACHMENT OF ALL MECHANICAL EQUIPMENT.

5. DESIGN LOADS SHALL CONFORM TO THE GENERAL NOTES AND LOAD COMBINATIONS SHALL COMPLY WITH MBMA SPECIFICATIONS.

6. UNLESS CROSS BRACING IS USED TO RESIST LATERAL LOADS, LOAD TESTS ON METAL PANEL WALLS AND ROOF MUST BE SUBMITTED WHERE THESE ARE USED AS A DIAPHRAGM.

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
SHANE RAY TORINO
89499
LICENSED
PROFESSIONAL ENGINEER
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

STRUCTURAL

STRUCTURAL NOTES (02)

NO.	ISSUE	BY	DATE

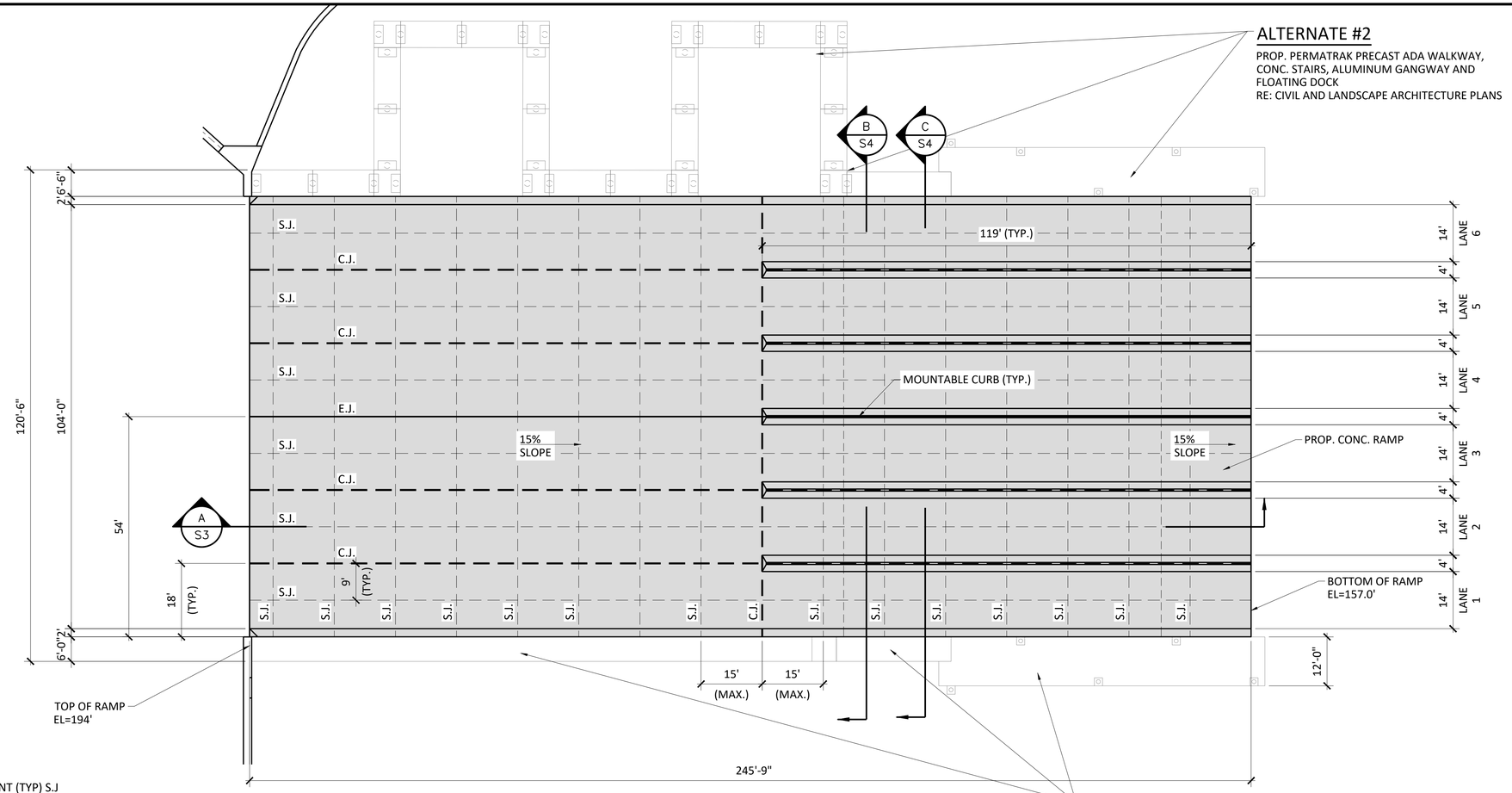
F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED SRT
DRAWN DKS
CHECKED
APPROVED SRT
FILE NAME ST-SRA-GN-NOTES(01).dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

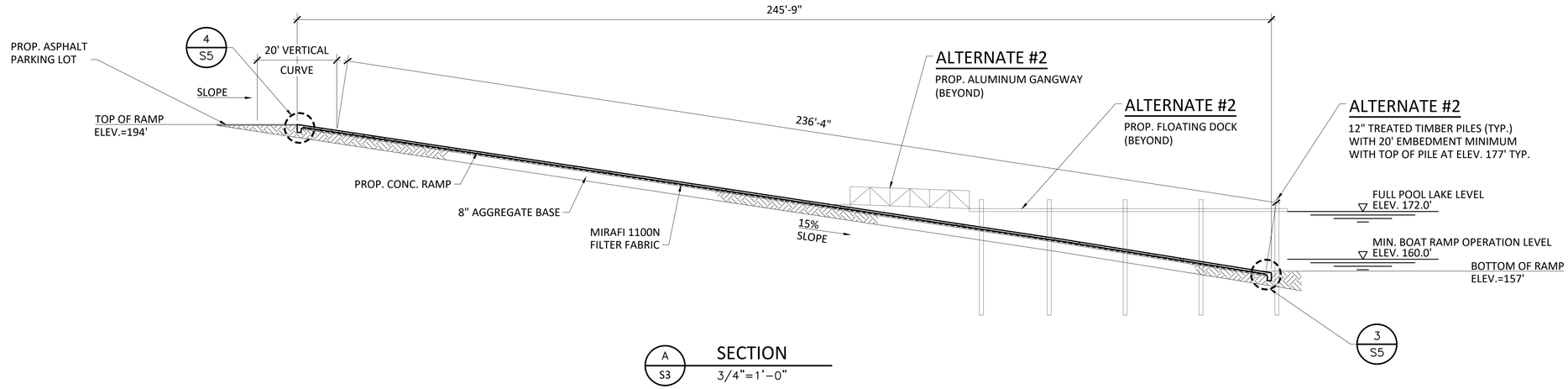
SHEET S2
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-GN-NOTES(01).dwg
Last Saved: 7/16/2024 11:28 AM Saved By: 08661

Plot Date: 7/16/2024 11:46 AM Plot By: 08661 Filename: N:\ST\ST-SRA-GN-NOTES(01).dwg



1 S3 **BOAT RAMP PLAN**
3/4"=1'-0"



A S3 **SECTION**
3/4"=1'-0"

0 6" 1' 2'
3/4"=1'-0

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SHANE RAY TORNO 89499 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
STRUCTURAL
BOAT RAMP PLAN AND SECTIONS

F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	SRT
DRAWN	DKS
CHECKED	
APPROVED	SRT
FILE NAME	ST-SRA-DT-RAMP.dwg

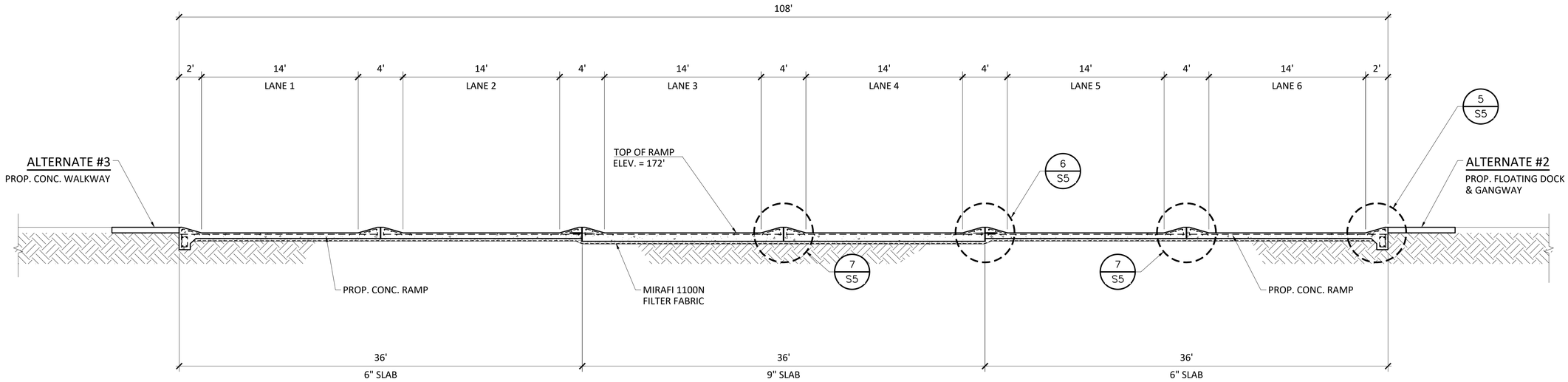
NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET S3
SEQ.

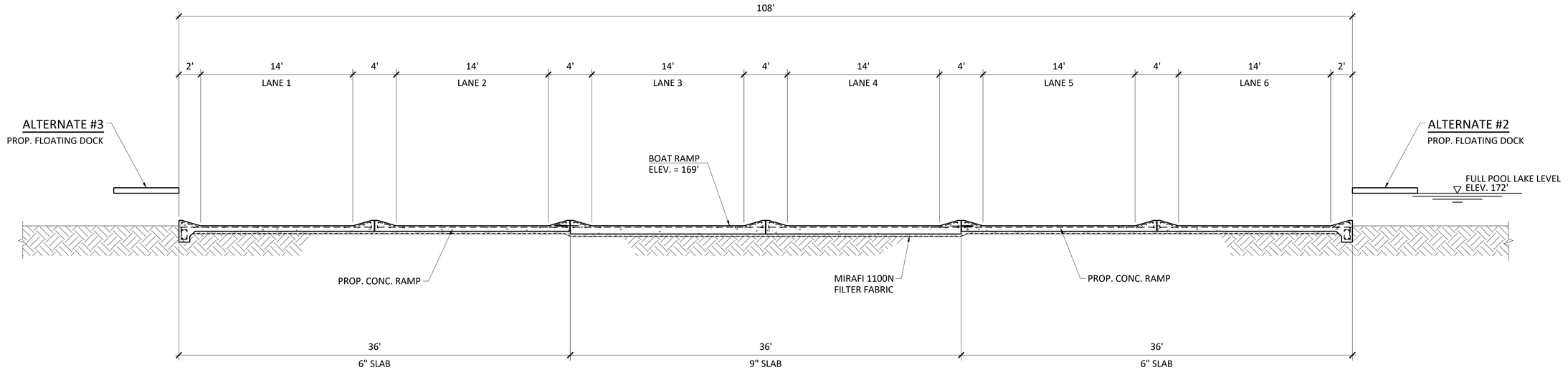
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-DT-RAMP.dwg
Last Saved: 7/16/2024 11:29 AM Saved By: 08661

Plot Date: 7/16/2024 11:48 AM Plot By: 08661 Filename: N:\ST\ST-SRA-DT-RAMP.dwg



B / S3 SECTION

1"=5'



C / S3 SECTION

1"=5'

0 5' 10'

SCALE IN FEET

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SHANE RAY TORNO
89499
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
7-16-2024

FREESE NICHOLS

800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

STRUCTURAL

BOAT RAMP SECTIONS

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

0 1"

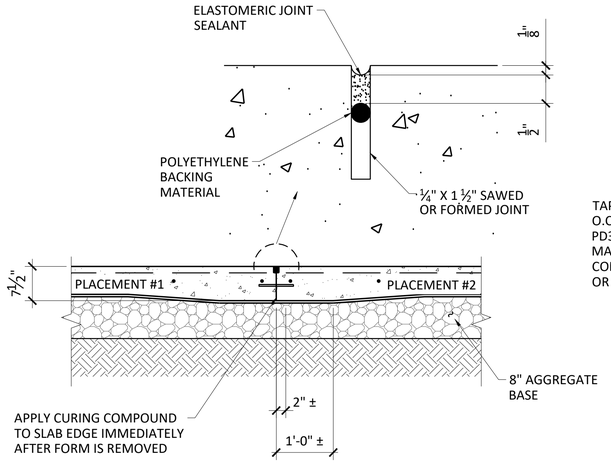
F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	SRT
DRAWN	DKS
CHECKED	
APPROVED	SRT
FILE NAME	ST-SRA-SEC-RAMP(01).dwg

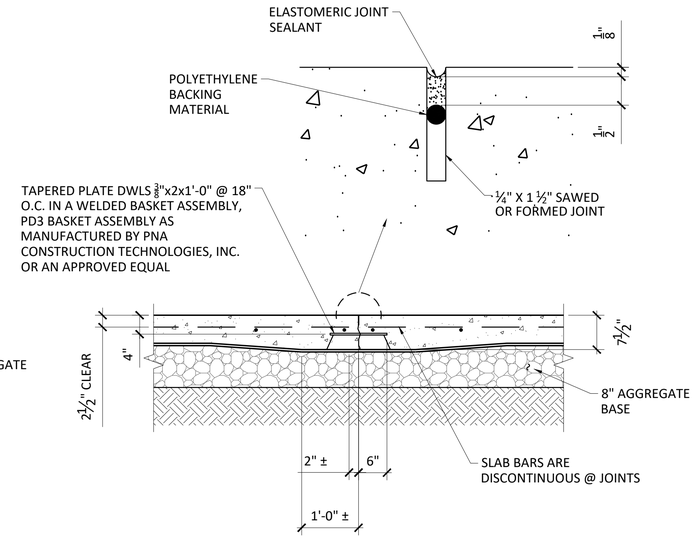
SHEET S4

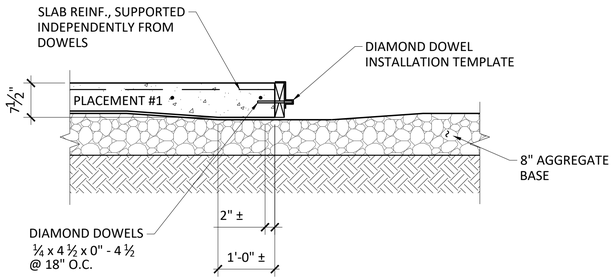
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-SEC-RAMP(01).dwg
Last Saved: 7/16/2024 11:28 AM Saved By: 08661

Plot Date: 7/16/2024 11:54 AM Plot By: 08661 Filename: N:\ST\ST-SRA-SEC-RAMP(01).dwg







1 S5 SLAB-ON-GRADE DOWELED JOINT DETAILS - 6" SLAB

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

NOTES:

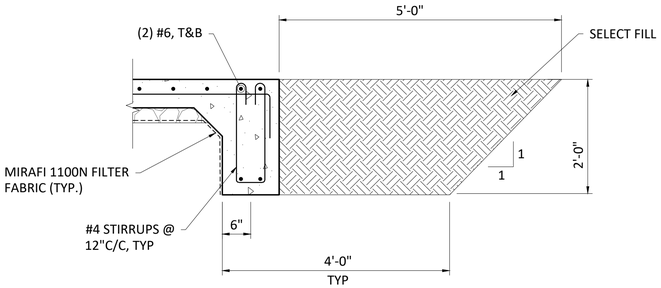
1. DOWELS SHALL BE SMOOTH, ALIGNED, AND SUPPORTED SO THAT THEY WILL REMAIN PARALLEL IN BOTH THE HORIZONTAL AND VERTICAL PLANES DURING PLACING AND FINISHING OF THE CONCRETE. ALL DOWELS SHALL HAVE SAWN AND DEBURRED EDGES.
2. ALL SUBGRADE RUTTING SHALL BE REPAIRED PRIOR TO SLAB PLACEMENT.

2 S5 SLAB-ON-GRADE DOWELED JOINT (D.J.) DETAILS - 6" SLAB

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

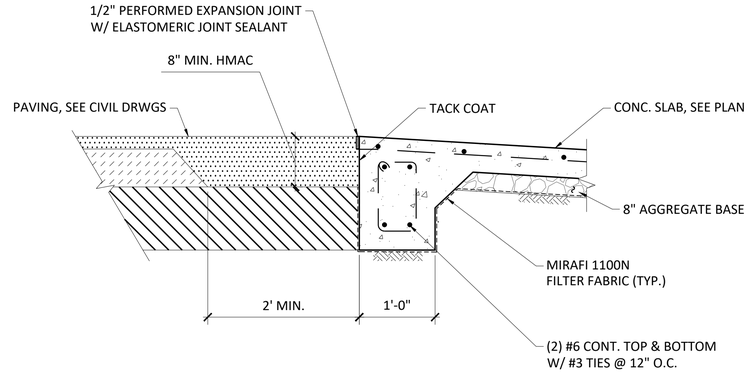
NOTES:

1. SAWED JOINTS SHOULD BE CUT 4 TO 12 HOURS AFTER THE SLAB HAS BEEN IN AN AREA - 4 HOURS IN HOT WEATHER AND 12 HOURS IN COLD WEATHER.
2. DOWELS SHALL BE SMOOTH, ALIGNED, AND SUPPORTED SO THAT THEY WILL REMAIN PARALLEL IN BOTH THE HORIZONTAL AND VERTICAL PLANES DURING PLACING AND FINISHING OF THE CONCRETE. ALL DOWELS SHALL HAVE SAWN AND DEBURRED EDGES.
3. ALL SUBGRADE RUTTING SHALL BE REPAIRED PRIOR TO SLAB PLACEMENT.



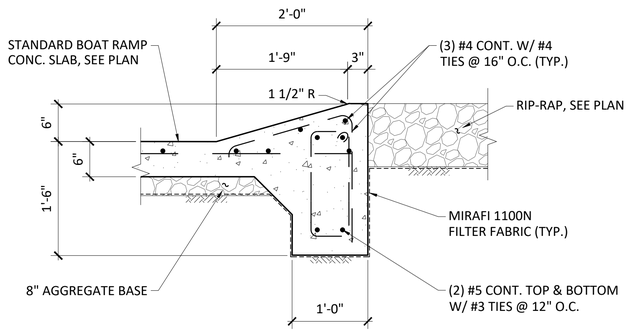
3 S5 TOE GRADE BEAM DETAIL

3/4"=1'-0"



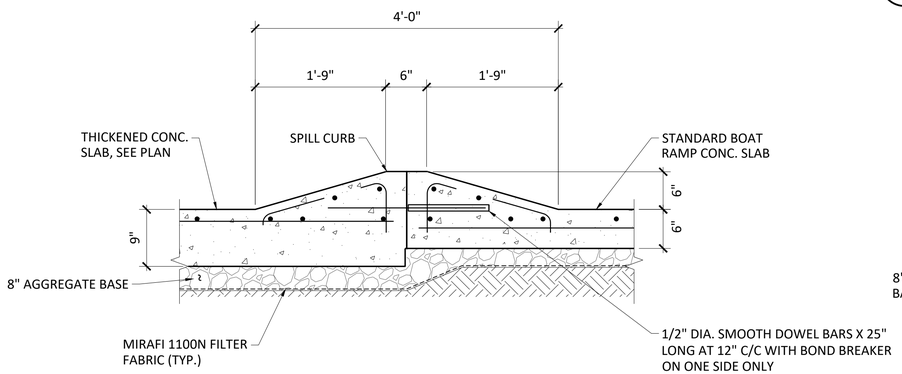
4 S5 CONCRETE TO ASPHALT TIE-IN

1"=1'-0"



5 S5 SECTION @ EDGE

1"=1'-0"

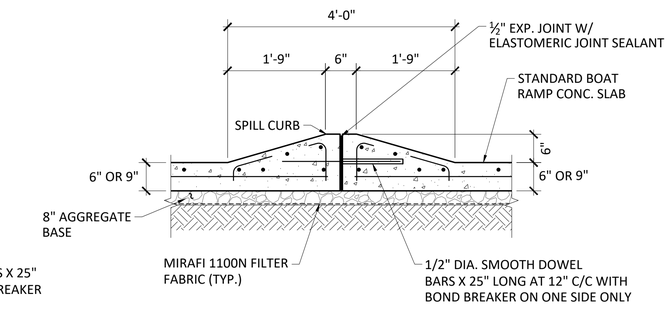


6 S5 SECTION @ LONGITUDINAL CONSTRUCTION JOINT

1"=1'-0"

NOTE:

1. SEE 3/S-13 FOR CURB REINFORCEMENT & DIMENSIONS



7 S5 SECTION @ LONGITUDINAL EXPANSION JOINT

1"=1'-0"

0 6" 1' 2'
3/4"=1'-0

0 6" 1' 2'
1"=1'-0"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
SHANE RAY TORNO 89499 LICENSED PROFESSIONAL ENGINEER
7-16-2024
FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
STRUCTURAL
BOAT RAMP DETAILS

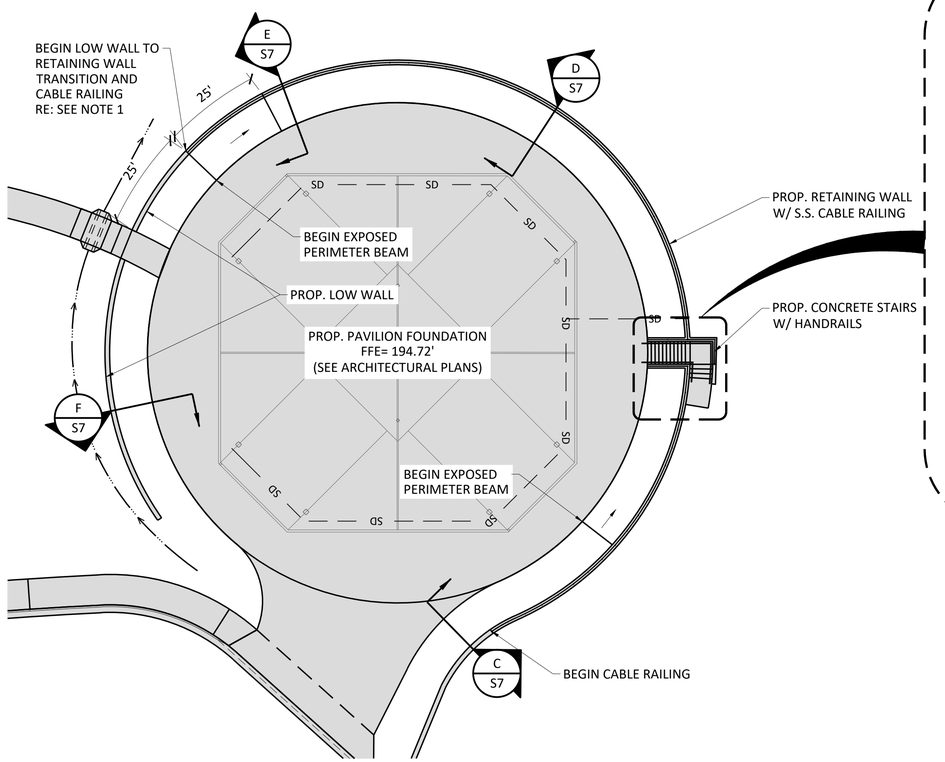
F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	SRT
DRAWN	DKS
CHECKED	
APPROVED	SRT
FILE NAME	ST-SRA-DT-RAMP(01).dwg

NO. | ISSUE | BY | DATE

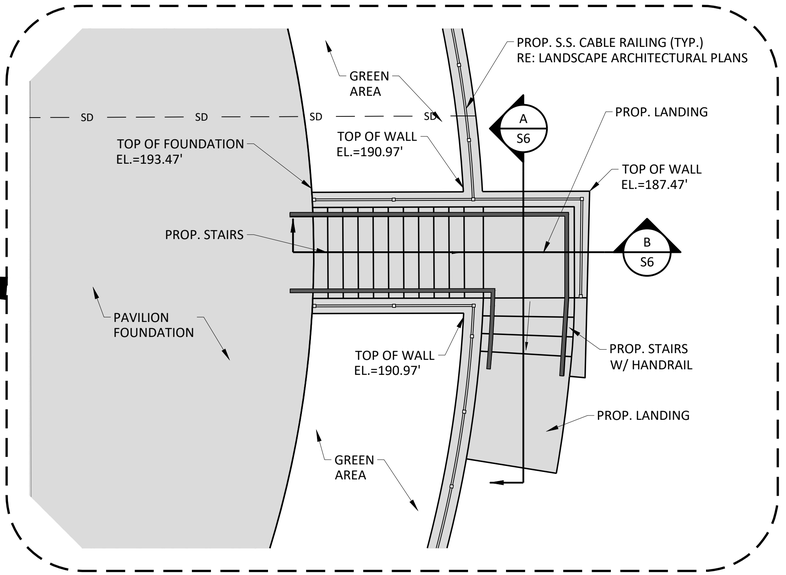
VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET S5
SEQ.

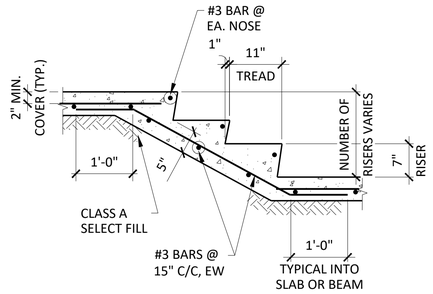
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-DT-RAMP(01).dwg
Last Saved: 7/16/2024 11:28 AM Saved By: 08661
Plot Date: 7/16/2024 11:55 AM Plot By: 08661 Filename: N:\ST\ST-SRA-DT-RAMP(01).dwg



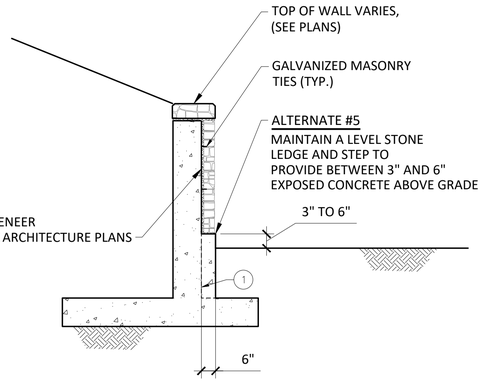
1 PAVILION PLAN
S6 — SCALE: 1"=20'



2 PAVILION STAIRS PLAN
S6 — SCALE: 1"=5'



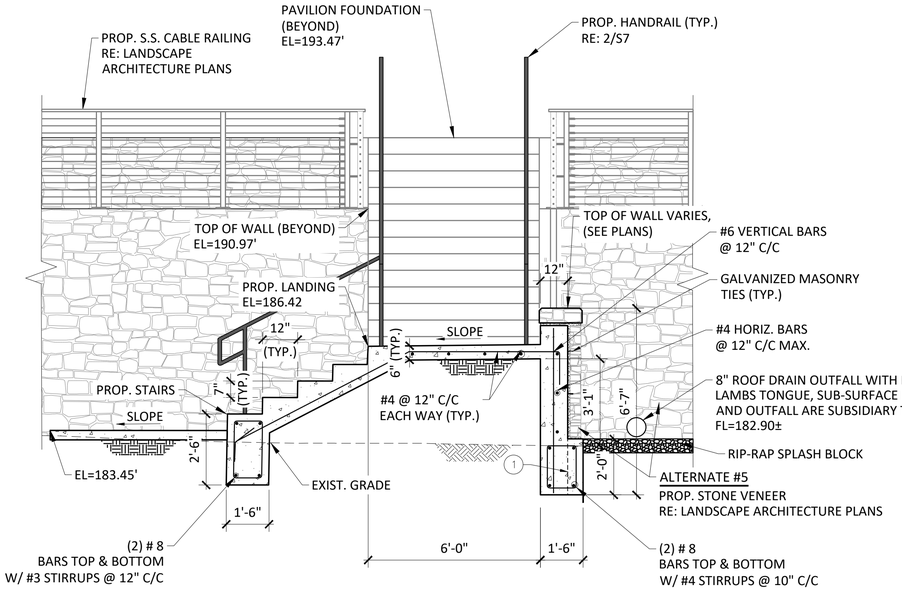
3 TYPICAL STAIR DETAIL
S6 — SCALE: 3/4"=1'-0"



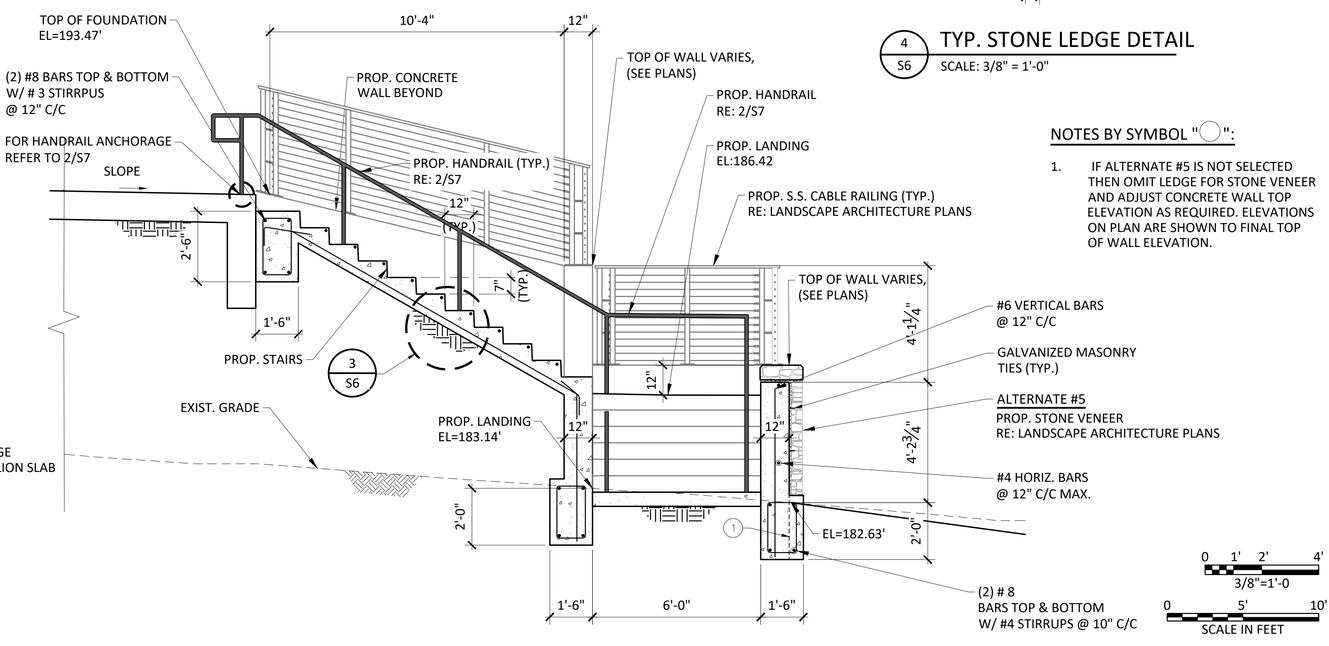
4 TYP. STONE LEDGE DETAIL
S6 — SCALE: 3/8" = 1'-0"

NOTES:

1. FOR PAVILION AND PARKING LOT GRADING PLAN, REFER TO SHEETS C6 & C7.



A PAVILION STAIRS SECTION (N TO S)
S6 — SCALE: 3/8"= 1'-0"



B PAVILION STAIRS SECTION (W TO E)
S6 — SCALE: 3/8"= 1'-0"

NOTES BY SYMBOL "◯":

1. IF ALTERNATE #5 IS NOT SELECTED THEN OMIT LEDGE FOR STONE VENEER AND ADJUST CONCRETE WALL TOP ELEVATION AS REQUIRED. ELEVATIONS ON PLAN ARE SHOWN TO FINAL TOP OF WALL ELEVATION.

0 1' 2' 4'
3/8"=1'-0
0 5' 10'
SCALE IN FEET
0 20' 40'
SCALE IN FEET

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
SHANE RAY TORNO 89499 LICENSED PROFESSIONAL ENGINEER
7-16-2024
FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
STRUCTURAL
CONCRETE STAIR DETAILS

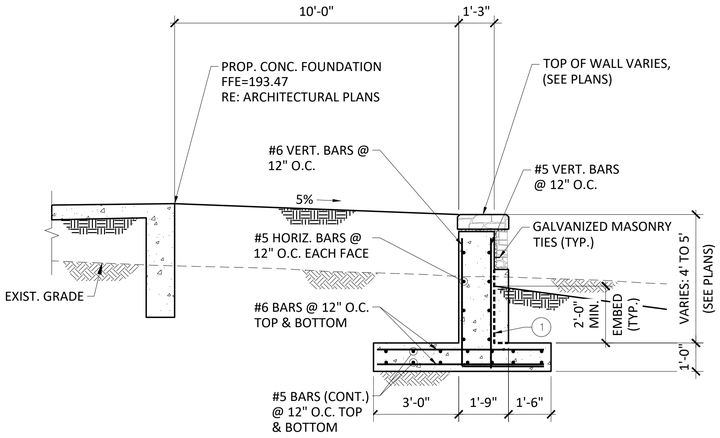
F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	SRT
DRAWN	DKS
CHECKED	
APPROVED	EG
FILE NAME	ST-SRA-DT-WALL(01).dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

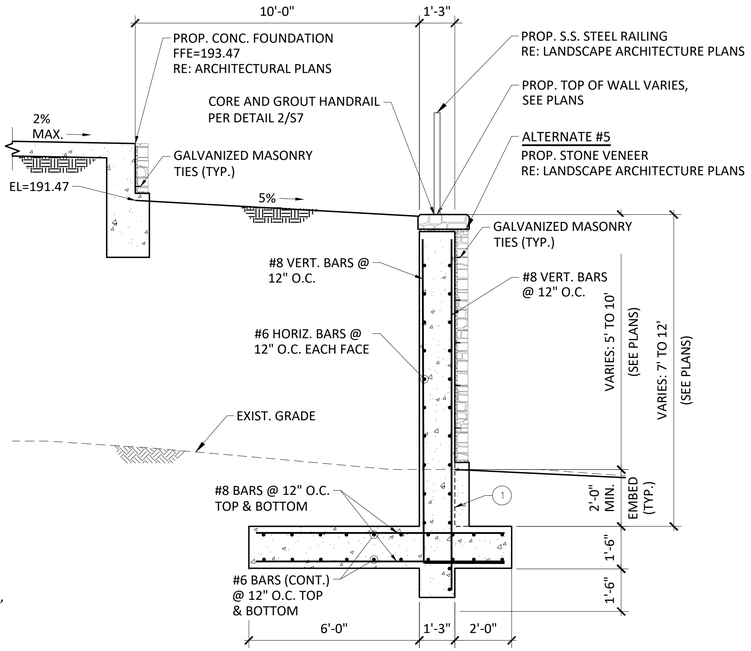
SHEET S6
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-DT-WALL(01).dwg
Last Saved: 7/16/2024 11:27 AM Saved By: 08661
Plot Date: 7/16/2024 11:56 AM Plot By: 08661 Filename: N:\ST\ST-SRA-DT-WALL(01).dwg



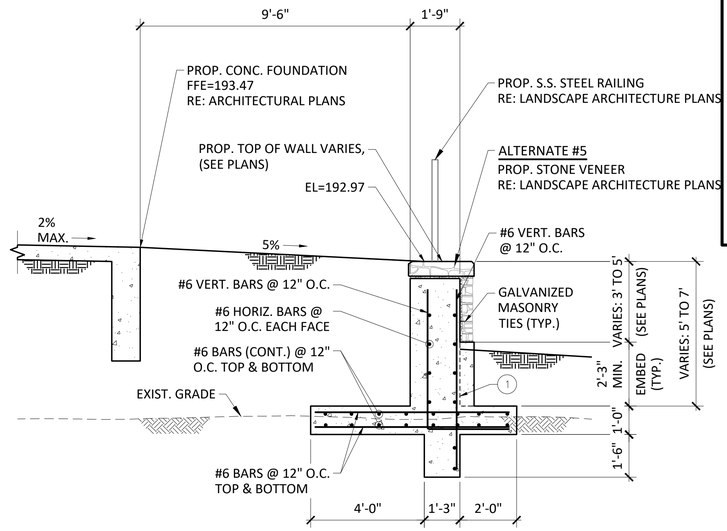
C / S7 RETAINING WALL SECTION

SCALE: 3/8"= 1'-0"



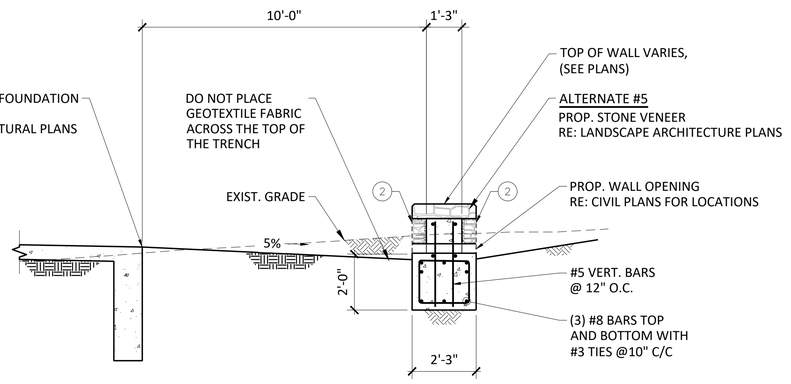
D / S7 RETAINING WALL SECTION

SCALE: 3/8"= 1'-0"



E / S7 RETAINING WALL SECTION

SCALE: 3/8"= 1'-0"



F / S7 LOW WALL SECTION

SCALE: 3/8"= 1'-0"

NOTE:

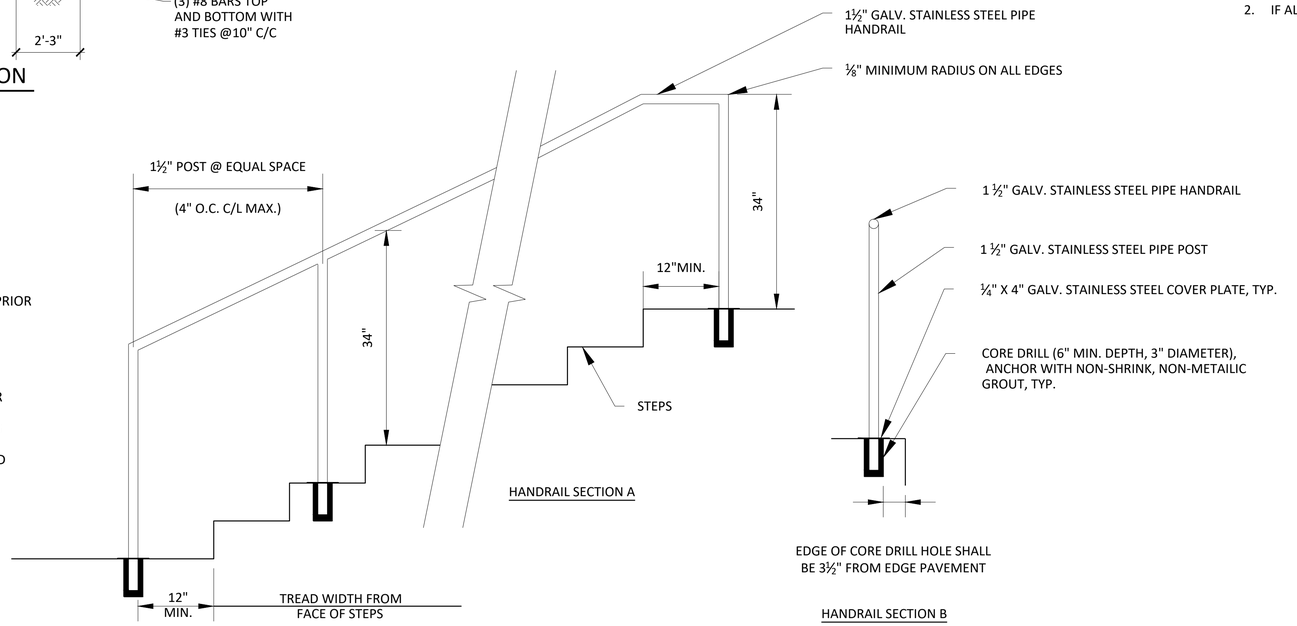
1. SEE SHEET S9 FOR BACKFILL AND DRAIN DETAILS FOR ALL RETAINING WALLS.

NOTES BY SYMBOL "◯":

1. IF ALTERNATE #5 IS NOT SELECTED THEN OMIT LEDGE FOR STONE VENEER AND ADJUST CONCRETE WALL TOP ELEVATION AS REQUIRED. ELEVATIONS ON PLAN ARE SHOWN TO FINAL TOP OF WALL ELEVATION.
2. IF ALTERNATE #5 IS NOT SELECTED THEN COMPLETE W/ CONCRETE AS SHOWN.

NOTES:

1. CONTRACTOR SHALL MAKE FIELD MEASUREMENTS OF AS BUILT STEPS PRIOR TO FABRICATION OF HANDRAILS.
2. STICK WELD ALL JOINTS (CONTINUOUS). GRIND WELDS SMOOTH.
3. THE CLEAR SPACE BETWEEN HANDRAIL AND AN ADJACENT WALL OR GUARDRAIL SHALL BE 1 ½" MINIMUM.
4. SPLICES AND EXPANSION JOINTS SHALL UTILIZE INTERNAL SPLICE CONNECTORS WITH SET SCREWS TO ALLOW FOR RAIL EXPANSION OVER AMBIENT TEMPERATURE CHANGE.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF RAILING, INCLUDING POST LOCATION OF EACH RUN.
6. AFTER INSTALLATION, CONTRACTOR SHALL PRIME AND PAINT ALL HAND RAILS BASED ON THE OWNER'S PREFERRED COLOR SELECTION



2 / S7 HANDRAIL

1"=1'-0"

0 6" 1' 2'
1"=1'-0"

0 1' 2' 4'
3/8"=1'-0

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SHANE RAY TORNO
89499
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS

7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

STRUCTURAL
CONCRETE RETAINING WALL DETAILS

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

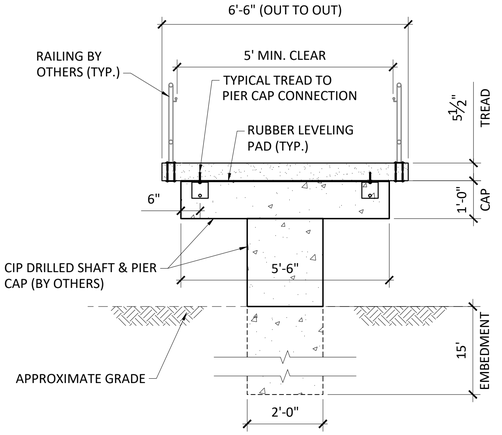
F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	SRT
DRAWN	DKS
CHECKED	
APPROVED	EG
FILE NAME	ST-SRA-DT-WALL(01).dwg

SHEET S7

SEQ.

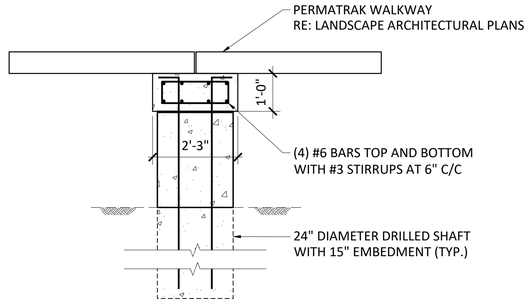
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-DT-WALL(01).dwg
Last Saved: 7/16/2024 11:27 AM Saved By: 08661

Plot Date: 7/16/2024 12:01 PM Plot By: 08661 Filename: N:\ST\ST-SRA-DT-WALL(01).dwg



G / S8 ALTERNATE #2
TYPICAL BOARDWALK SECTION

SCALE: 1/2"= 1'-0"



H / S8 ALTERNATE #2
TYPICAL BOARDWALK SECTION

SCALE: 1/2"= 1'-0"

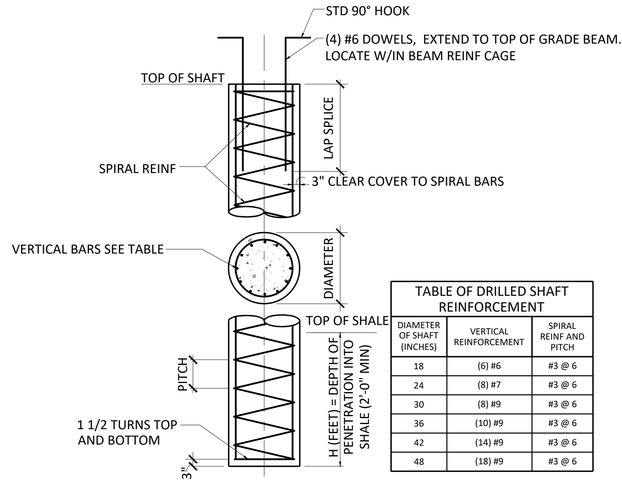


TABLE OF DRILLED SHAFT REINFORCEMENT

DIAMETER OF SHAFT (INCHES)	VERTICAL REINFORCEMENT	SPIRAL REINF AND PITCH
18	(6) #6	#3 @ 6
24	(8) #7	#3 @ 6
30	(8) #9	#3 @ 6
36	(10) #9	#3 @ 6
42	(14) #9	#3 @ 6
48	(18) #9	#3 @ 6

I / S8 ALTERNATE #2
TYPICAL DRILLED SHAFT

SCALE: 1/2" = 1'-0"

0 1' 2' 4'
1/2"=1'-0"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS · SHANE RAY TORNO · 89499 · LICENSED PROFESSIONAL ENGINEER · 7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

STRUCTURAL
BID ALTERNATE #2
STRUCTURAL DETAILS

NO.	ISSUE	BY	DATE

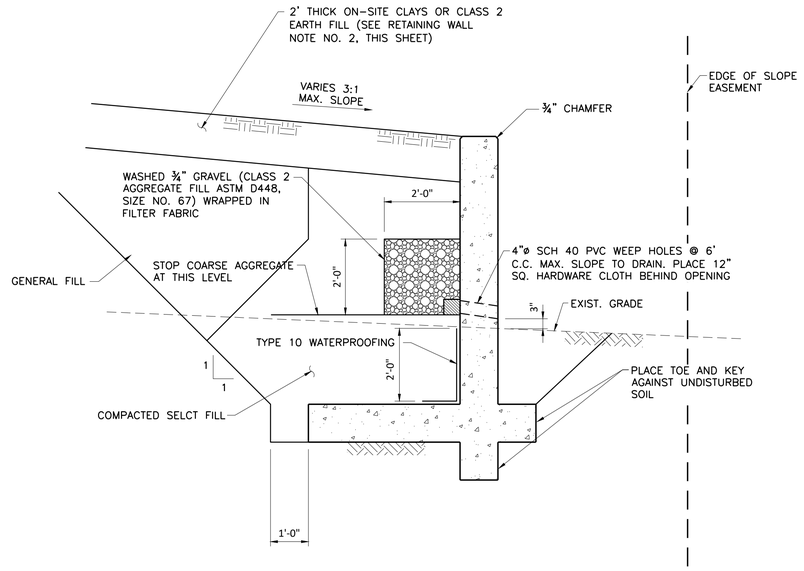
VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1

F&N JOB NO. SRA23985
DATE 07/17/24
DESIGNED SRT
DRAWN DKS
CHECKED
APPROVED EG
FILE NAME ST-SRA-DT-WALL(01).dwg

SHEET S8
SEQ.

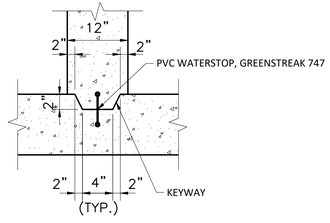
ACAD Rel.: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-DT-WALL(01).dwg
Last Saved: 7/16/2024 11:27 AM Saved By.: 08661

Plot Date: 7/16/2024 12:03 PM Plot By: 08661 Filename: N:\ST\ST-SRA-DT-WALL(01).dwg



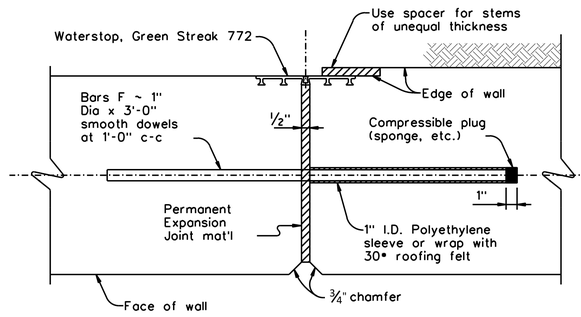
CANTILEVER RETAINING WALL EARTHWORK DETAIL

SCALE: 1/2"=1'-0"

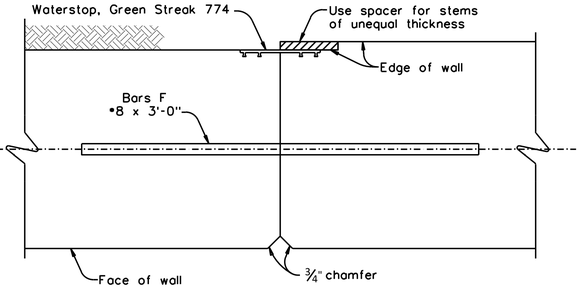


KEYWAY DETAIL

NOT TO SCALE



EXPANSION JOINT



CONSTRUCTION JOINT

RETAINING WALL NOTES:

1. SELECT FILL SHALL BE USED FOR BACKFILL AGAINST WALLS. SELECT FILL (CLASS 4 EARTH FILL) SHALL CONSIST OF MATERIALS WHICH ARE A VERY SANDY CLAY, CLAYEY SAND, OR CRUSHED LIMESTONE WHICH HAVE A LIQUID LIMIT LESS THAN OR EQUAL TO 35 AND A PLASTICITY INDEX BETWEEN A MINIMUM OF 4 AND A MAXIMUM OF 15, AND WHICH ARE FREE OF ORGANIC MATERIALS. PLACE IN 8" LOOSE LIFTS AND COMPACTED TO BETWEEN 95 AND 100 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 (STANDARD PROCTOR) AND WITHIN 2 PERCENT BELOW TO 2 PERCENT ABOVE OPTIMUM MOISTURE CONTENT.
2. AT AREAS NOT PAVED, BACKFILL SHALL STOP 2'-0" BELOW FINAL GRADE. THE UPPER 2'-0" SHALL BE BACKFILLED WITH ON-SITE CLAYS OR CLASS 2 EARTH FILL. EXTEND CLAY CAP A MINIMUM OF 3'-0" BEYOND LIMITS OF SELECT FILL. PLACE CLAY IN 8" LOOSE LIFTS AND COMPACT TO BETWEEN 95 AND 100 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 (STANDARD PROCTOR) AND AT OPTIMUM MOISTURE CONTENT TO 5 PERCENT ABOVE OPTIMUM MOISTURE CONTENT.
3. DO NOT BACKFILL AGAINST ANY WALL UNTIL THE CONCRETE HAS REACHED ITS SPECIFIED 28-DAY COMPRESSIVE STRENGTH OR 7 DAYS, WHICHEVER IS LONGER. COMPACTION WITHIN 5'-0" OF WALLS SHALL BE ACHIEVED WITH HAND COMPACTION EQUIPMENT. OVER COMPACTION IS NOT ALLOWED.
4. IN-PLACE FIELD DENSITY TESTS SHALL BE CONDUCTED AT A RATE OF 1 TEST PER 3000 SQUARE FEET FOR EACH LIFT, WITH A MINIMUM OF 2 TESTS PER LIFT. EACH LIFT SHALL BE COMPACTED, TESTED AND APPROVED BEFORE ANOTHER LIFT IS PLACED. ANY AREA FOUND NOT TO COMPLY WITH COMPACTION REQUIREMENTS SHALL BE REWORKED AND RETESTED. THE SUBGRADE MOISTURE CONTENT AND DENSITY SHALL BE MAINTAINED DURING CONSTRUCTION.
5. INCORPORATE EXPANSION JOINTS AT 60' SPACING (MAXIMUM). WALL REINFORCING SUBMITTAL WILL INCLUDE EXPANSION JOINT LOCATIONS FOR ENGINEER REVIEW AND APPROVAL.
6. LOCATIONS OF CONSTRUCTION JOINTS MUST BE APPROVED BY ENGINEER PRIOR TO PLACEMENT.

Texas Department of Transportation | Bridge Division Standard

RETAINING WALL MISCELLANEOUS DETAILS

RW 2

FILE: rwstde11.dgn	DN: _TxDOT_	CK: TxDOT	DW: __JGD__	CK: MJG__
©TxDOT March_2010___	CONT	SECT	JOB	HIGHWAY
REVISIONS	____	__	_____	_____
04-11: Added Note 2.	DIST	COUNTY		SHEET NO.
	___	_____		

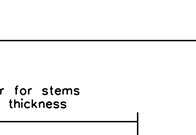
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: DATE TIME
FILE: DOCUMENT NAME

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\ST\ST-SRA-DTL-WALLS(01).dwg
Last Saved: 7/16/2024 11:18 AM Saved By: 08661

Plot Date: 7/16/2024 12:04 PM Plot By: 08661 Filename: N:\ST\ST-SRA-DTL-WALLS(01).dwg

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144



7-16-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
STRUCTURAL
RETAINING WALL MISCELLANEOUS DETAILS

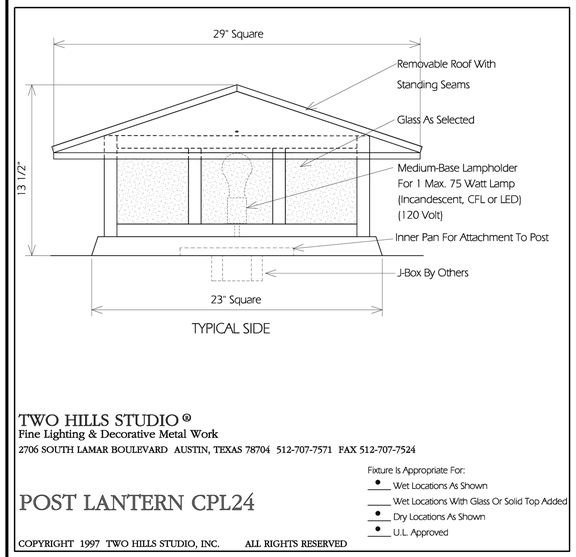
NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

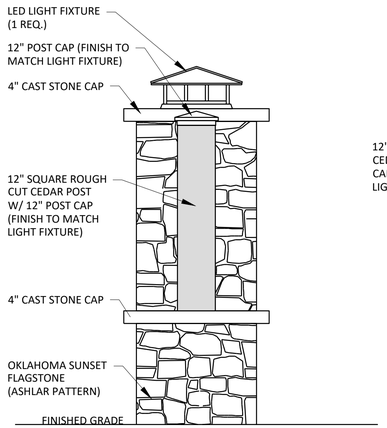
F&N JOB NO.	SRA23985
DATE	07/17/24
DESIGNED	SRT
DRAWN	DKS
CHECKED	RG
APPROVED	SRT
FILE NAME	ST-SRA-DTL-WALLS(01).dwg

SHEET S9
SEQ.

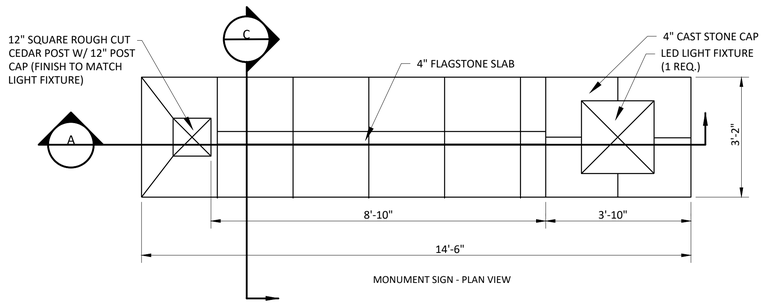
ISSUED FOR BID



1 L1 **POST LANTERN**
NTS

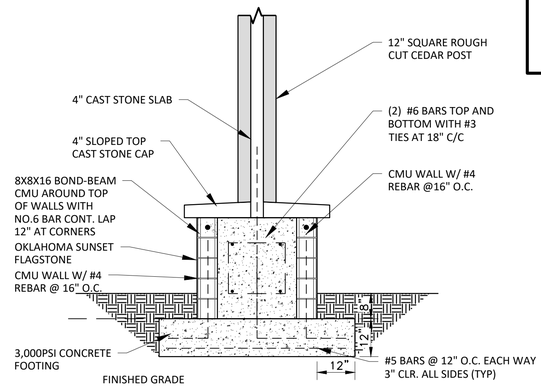


2 L1 **MONUMENT SIGN - END ELEVATION**
NTS

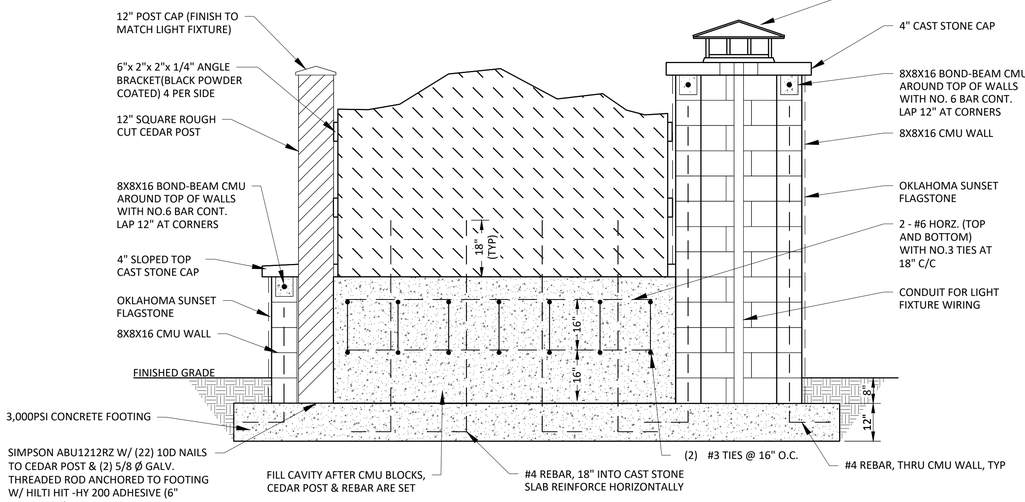


3 L1 **MONUMENT SIGN - PLAN VIEW**
NTS

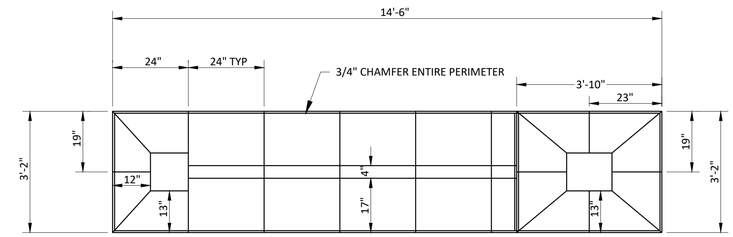
NOTES:
1. GROUT SOLID ALL CELLS
2. TOP OF ALL WALL SHALL HAVE A BONDBEAM W/ (2) #4 CONT. TYP
3. ALL MASONRY SHALL BE RUNNING BOND, UNLESS NOTED
4. REINFORCE ALL WALLS W/ HORIZONTAL TRUSS TYPE JOINT REINFORCING @ 16" O.C.
5. REINFORCE ALL WALL CORNERS W/ ONE TYP WALL REBAR



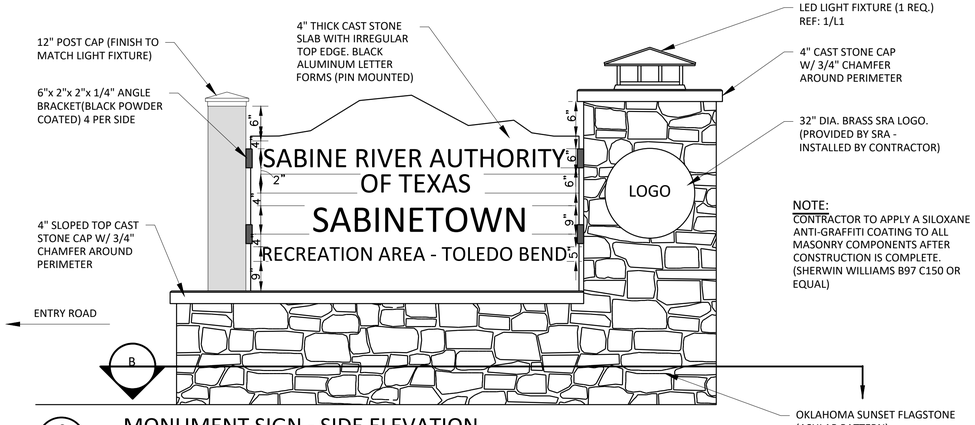
4 L1 **MONUMENT SIGN - CONSTRUCTION SECTION C**
NTS



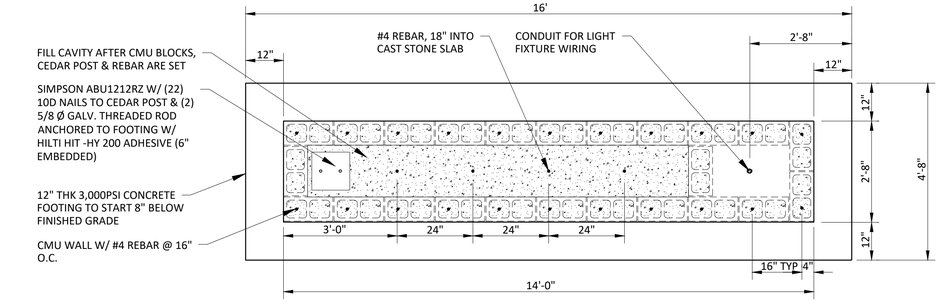
5 L1 **MONUMENT SIGN - CONSTRUCTION SECTION A**
NTS



7 L1 **MONUMENT SIGN - CAP STONE LAYOUT**
NTS



6 L1 **MONUMENT SIGN - SIDE ELEVATION**
NTS



8 L1 **MONUMENT SIGN - CONSTRUCTION SECTION B**
NTS

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED LANDSCAPE ARCHITECT
BRYAN PAUL JANNEY
6801
STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
LANDSCAPE ARCHITECTURE
PARK SIGN

NO.	ISSUE	BY	DATE

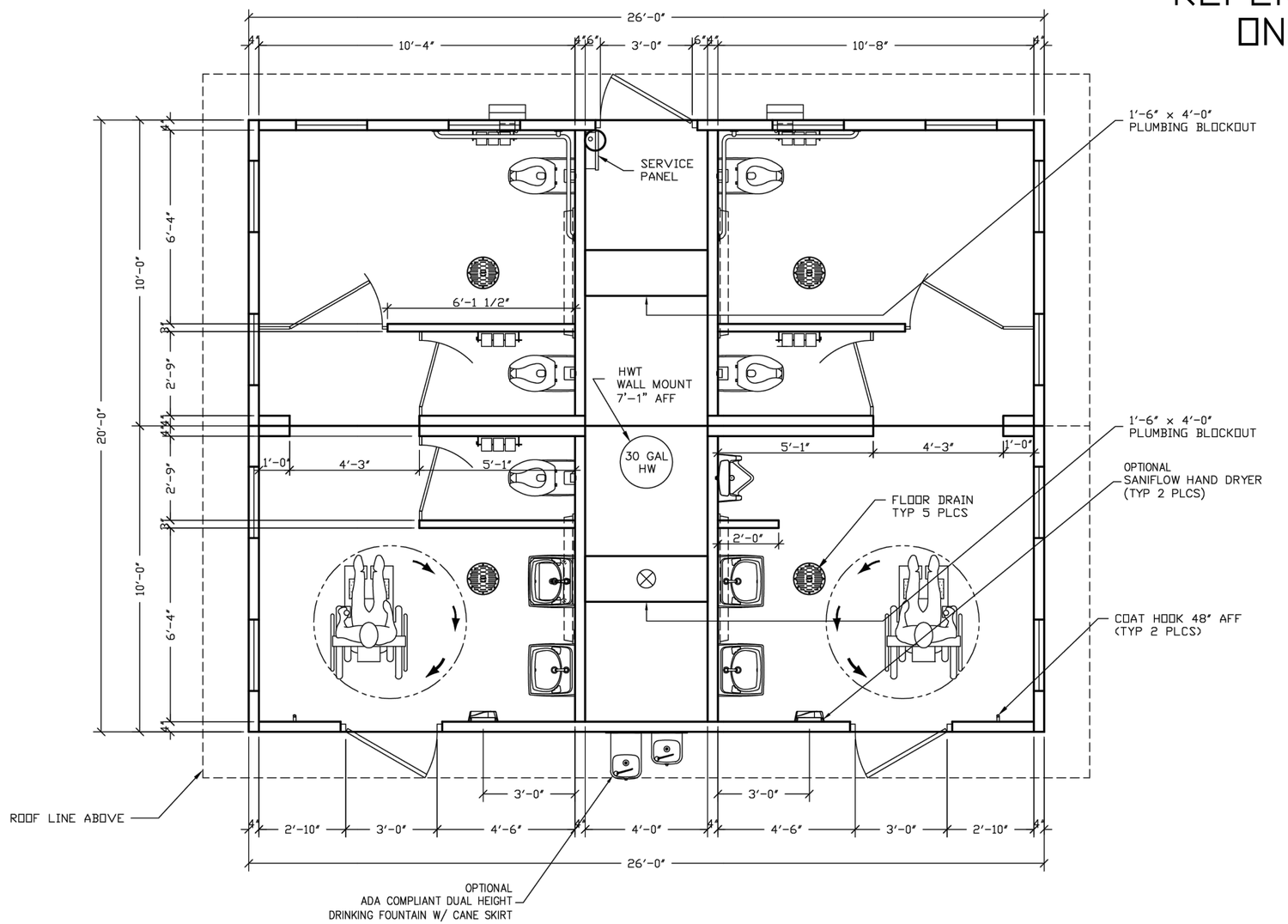
F&N JOB NO. SRA23985
DATE 07/15/2024
DESIGNED BPJ
DRAWN JMST
CHECKED JJHH
APPROVED
FILE NAME L-DT-DTL_BASE.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET L1
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:33 PM Saved By: 08457
Plot Date: 7/15/2024 4:40 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg

FOR REFERENCE ONLY



NOTES: 1. SEE DRAWING TA-28 FOR SIZE AND LOCATION OF FLOOR BLOCKOUTS

1 / L2 RESTROOM

NTS

CXT RESTROOM INTERIOR FINISH:

- MARINE PACKAGE (EXCLUDING FIBERGLASS DOORS AND FRAMES)(PER SECTION)
- EXTERIOR FROSTPROOF HOSE BIB WITH BOX (EACH)

CXT RESTROOM EXTERIOR FINISH:

- MARINE PACKAGE (EXCLUDING FIBERGLASS DOORS AND FRAMES)(PER SECTION)
- EXTERIOR FROSTPROOF HOSE BIB WITH BOX (EACH)

SALES REP:
ROBERT VEALS - LB FOSTER
M - 254.404.5147
RVEALS@LBFOSTER.COM

3808 N. Sullivan Bldg. #7 Spokane, WA 99216

CXT® Precast Products

901 N. Highway 77 Hillsboro, TX 76645

PROJECT TITLE
TAOS
CXT STANDARD BUILDING

REV.	DESCRIPTION	APPROVAL	DATE

SCALE	1/4"=1'-0"	DATE	04-30-16
DRAWN		FILE NO.	PD-TA03
CHECKED		PLOT	48

FLOOR PLAN

DWG NO.	SHEET	REV.
TA-03		

ISSUED FOR BID

NORTH

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED LANDSCAPE ARCHITECT BRYAN PAUL JAMES 2301 STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
LANDSCAPE ARCHITECTURE
RESTROOM 1

NO.	ISSUE	BY	DATE

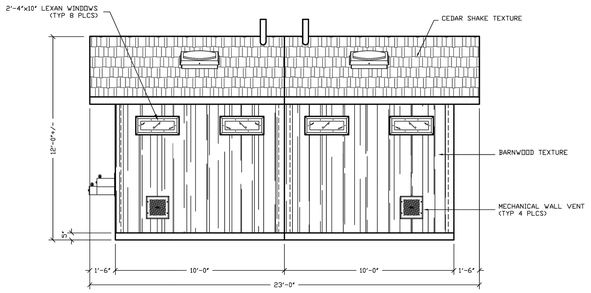
F&N JOB NO. SRA23985
DATE 07/15/2024
DESIGNED BPJ
DRAWN JMST
CHECKED JHH
APPROVED
FILE NAME L-DT-DTL_BASE.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1

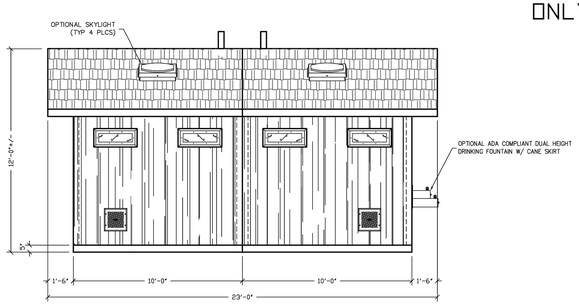
SHEET L2
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:12 PM Saved By: 08457

Plot Date: 7/15/2024 4:25 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg



RH SIDE ELEVATION



LH SIDE ELEVATION

FOR REFERENCE ONLY

3808 N. Sullivan Bldg. #7 Spokane, WA 99216

CXT

Precast Products

901 N. Highway 77 Hillsboro, TX 76645

PROJECT TITLE
TAOS
CXT STANDARD BUILDING

NOTICE

CXT Incorporated

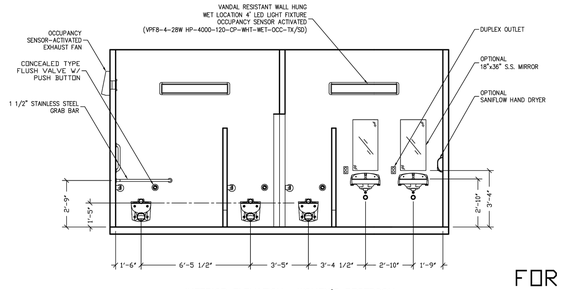
NO.	DESCRIPTION	APPROVED	DATE
SCALE	1/4"=1'-0"	DATE	04-30-18
DRAWN		FILE NO.	PC-TAOS
CHECKED		PLOT	48

BUILDING ELEVATIONS

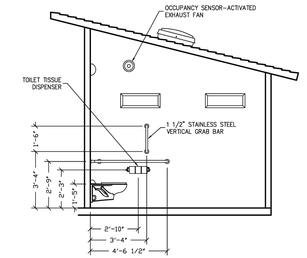
DWG NO. TA-05 SHEET REV.

1 L3 RESTROOM ELEVATIONS

NTS

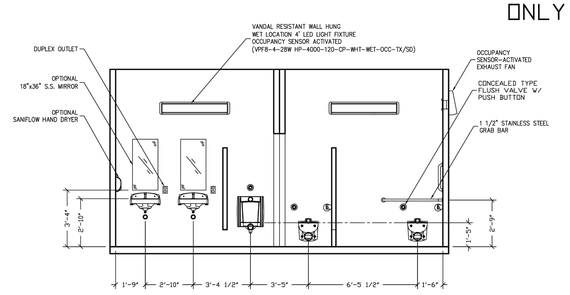


INTERIOR ELEVATION –WOMEN'S RESTROOM

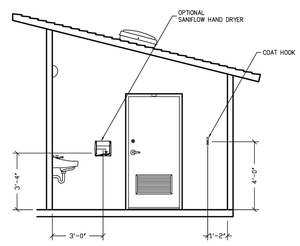


INTERIOR ELEVATION – MEN'S RESTROOM

FOR REFERENCE ONLY



INTERIOR ELEVATION – MEN'S RESTROOM



INTERIOR ELEVATION – WOMEN'S RESTROOM

MENS OPPOSITE HAND

3808 N. Sullivan Bldg. #7 Spokane, WA 99216

CXT

Precast Products

901 N. Highway 77 Hillsboro, TX 76645

PROJECT TITLE
TAOS
CXT STANDARD BUILDING

NOTICE

CXT Incorporated

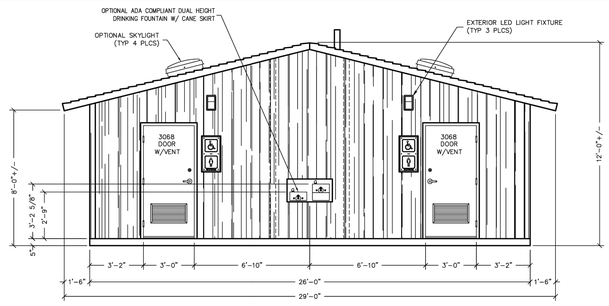
NO.	DESCRIPTION	APPROVED	DATE
SCALE	1/4"=1'-0"	DATE	04-30-18
DRAWN		FILE NO.	PC-TAOS
CHECKED		PLOT	48

INTERIOR ELEVATIONS

DWG NO. TA-06 SHEET REV.

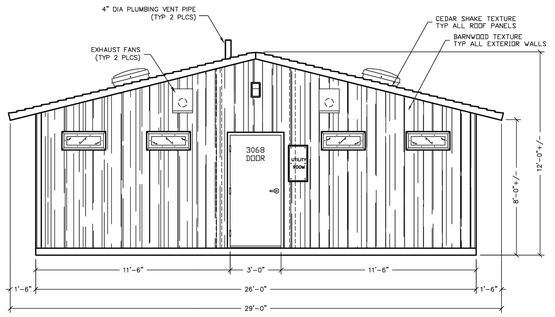
2 L3 RESTROOM ELEVATIONS

NTS



FRONT ELEVATION

FOR REFERENCE ONLY



REAR ELEVATION

3808 N. Sullivan Bldg. #7 Spokane, WA 99216

CXT

Precast Products

901 N. Highway 77 Hillsboro, TX 76645

PROJECT TITLE
TAOS
CXT STANDARD BUILDING

NOTICE

CXT Incorporated

NO.	DESCRIPTION	APPROVED	DATE
SCALE	1/4"=1'-0"	DATE	04-30-18
DRAWN		FILE NO.	PC-TAOS
CHECKED		PLOT	48

BUILDING ELEVATIONS

DWG NO. TA-04 SHEET REV.

3 L3 RESTROOM ELEVATIONS

NTS

SALES REP:
ROBERT VEALS - LB FOSTER
M - 254.404.5147
RVEALS@LBFOSTER.COM

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED LANDSCAPE ARCHITECT
BRYAN PAUL JANISCH
6301
STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
LANDSCAPE ARCHITECTURE
RESTROOM 2

NO.	ISSUE	BY	DATE

F&N JOB NO.	SRA23985
DATE	07/15/2024
DESIGNED	BPJ
DRAWN	JMST
CHECKED	JHH
APPROVED	
FILE NAME	L-DT-DTL_BASE.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. 1 if not one hinch on this sheet, adjust scale.
0 1"

SHEET L3

SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:12 PM Saved By: 08457

Plot Date: 7/15/2024 4:24 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg

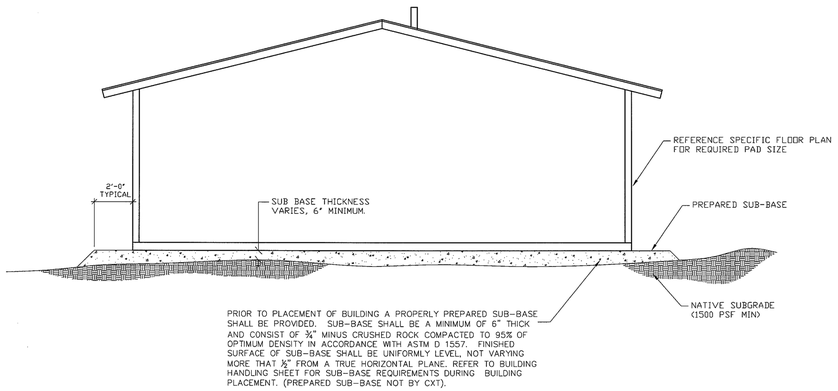
NOTE:

THIS FACTORY ASSEMBLED BUILDING AS CONSTRUCTED PROVIDES A RIGID BOX TYPE STRUCTURAL SYSTEM. VERTICAL LOADS ARE TRANSFERRED PRIMARILY THROUGH BEARING WALLS TO A PREPARED GRANULAR SUB-BASE WHICH DISSIPATES VERTICAL LOADS UNIFORMLY TO THE NATIVE SUBGRADE AND ALSO ACTS AS A FROST BARRIER. DUE TO THE INHERENT STIFFNESS OF THE BUILDING, IT WILL REMAIN SAFE AND STRUCTURALLY SOUND IN THE UNLIKELY EVENT OF FREEZING ACTION BELOW THE BUILDING.

LATERAL LOADS ARE TRANSFERRED TO THE GROUND THROUGH FRICTIONAL RESISTANCE WITHOUT SLIDING OR SHIFTING BETWEEN THE BUILDING FLOOR SLAB AND THE PREPARED SOIL AND GRAVEL SUB-BASE ON WHICH THE BUILDING RESTS. SEISMIC ANALYSES ARE BASED ON LOADS DETERMINED IN ACCORDANCE WITH THE 2003 INTERNATIONAL BUILDING CODE USING THE FOLLOWING PARAMETERS, WHICH MEET OR EXCEED THE CODE PRESCRIBED REQUIREMENTS FOR THIS INSTALLATION:

SPECTRAL ACCELERATIONS: SS = 3.41 & S1 = 1.59.
BEARING WALL SYSTEM WITH CONCRETE SHEAR WALLS, R = 5.5 & OMEGA0 = 2.5.
SITE CLASS: D
SEISMIC USE GROUP = I
20% OF THE 250 PSF SNOW LOAD IS INCLUDED TO DETERMINE SEISMIC LOADS
SOIL/CONCRETE FRICTION FACTOR = 0.35

THIS BUILDING, AS DESIGNED, RESTING ON A PROPERLY PREPARED GRANULAR SUB-BASE WILL BE SAFE AND STRUCTURALLY SOUND FOR VERTICAL AND LATERAL LOADS AS DISCUSSED ABOVE. A FULL DEPTH FOUNDATION WALL AT THE BUILDING PERIMETER, TYPICAL FOR OTHER TYPES OF BUILDING CONSTRUCTION, IS NOT REQUIRED FOR THIS BUILDING.



PRIOR TO PLACEMENT OF BUILDING A PROPERLY PREPARED SUB-BASE SHALL BE PROVIDED. SUB-BASE SHALL BE A MINIMUM OF 6" THICK AND CONSIST OF ¾" MINUS CRUSHED ROCK COMPACTED TO 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557. FINISHED SURFACE OF SUB-BASE SHALL BE UNIFORMLY LEVEL, NOT VARYING MORE THAT ½" FROM A TRUE HORIZONTAL PLANE. REFER TO BUILDING HANDLING SHEET FOR SUB-BASE REQUIREMENTS DURING BUILDING PLACEMENT. (PREPARED SUB-BASE NOT BY CXT).

CXT Precast Products
PROJECT TITLE
CXT STANDARD BUILDING

NOTICE

CXT Incorporated

NO.	DESCRIPTION	APPROVED	DATE
SCALE	3/8"=1'-0"	DATE	03-14-07
DRAWN	RW & WADE	FILE NO.	07-080F
CHECKED	LPLOY		32

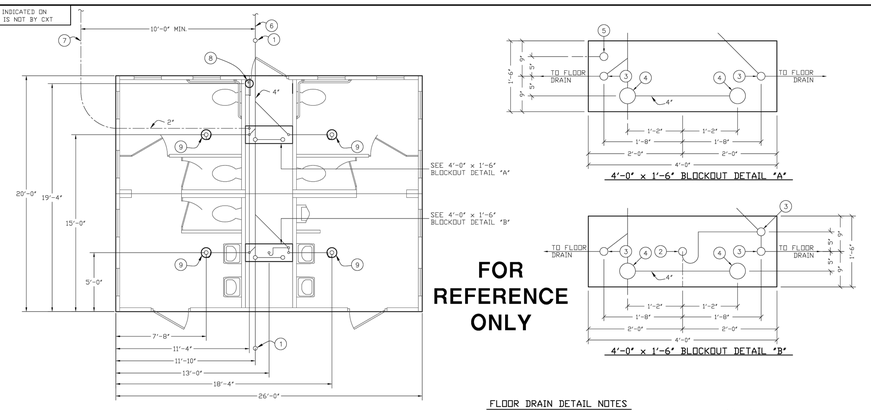
GRAVEL PAD DETAIL

DWG NO. | SHEET | REV.

1 / L4 GRAVEL PAD DETAIL

NTS

ALL PIPING INDICATED ON THIS SHEET IS NOT BY CXT



FOR REFERENCE ONLY

4'-0" x 1'-6" BLOCKOUT DETAIL "A"

4'-0" x 1'-6" BLOCKOUT DETAIL "B"

FLOOR DRAIN BLOCKOUTS & BELOW FLOOR PIPING

BELOW FLOOR PIPING - KEY NOTES

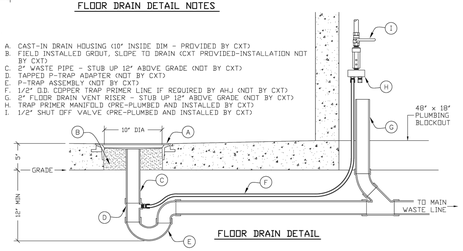
1. 4" CLEAN OUT TO GRADE.
2. 2" FLOOR DRAIN. FIELD INSTALLED TRAP PRIMER SYSTEM IF REQUIRED BY AUTHORITY HAVING JURISDICTION (1'-6"x4'0" BLOCKOUT)
3. 2" VENT PIPES EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE TEST PLUG. (1'-6"x4'0" BLOCKOUT)
4. 4" WASTE PIPE EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE TEST PLUG. (1'-6"x4'0" BLOCKOUT)
5. 2" TYPE K ANNEALED "SOFT" COPPER WATER SERVICE EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE CAP AT END. (1'-6"x4'0" BLOCKOUT)
6. 30" MIN. BURY, PROVIDE TRACER TAPE.
7. MIN. BURY PER LOCAL REQUIREMENTS TO PROTECT AGAINST FREEZING AND DAMAGE.
8. ELECTRICAL STUB UP, (8" DIA BLOCKOUT)
9. 2" FLOOR DRAIN. FIELD INSTALLED TRAP PRIMER SYSTEM IF REQUIRED BY AUTHORITY HAVING JURISDICTION (10" DIA BLOCKOUT)

PIPING LEGEND

- 2" TYPE "K" ANNEALED "SOFT" COPPER WATER SERVICE
- BELOW FLOOR WASTE PIPING SCH 40 ABS TYPE DWV.
- BELOW FLOOR VENT PIPING SCH 40 ABS TYPE DWV

FLOOR DRAIN DETAIL NOTES

A. CAST-IN DRAIN HOUSING (10" INSIDE DIM - PROVIDED BY CXT)
B. FIELD INSTALLED GROUT, SLOPE TO DRAIN (CXT PROVIDED-INSTALLATION NOT BY CXT)
C. 2" WASTE PIPE - STUB UP 12" ABOVE GRADE (NOT BY CXT)
D. TAPPED P-TRAP ADAPTER (NOT BY CXT)
E. P-TRAP ASSEMBLY (NOT BY CXT)
F. 1/2" O.D. COPPER TRAP PRIMER LINE IF REQUIRED BY AHJ (NOT BY CXT)
G. 2" FLOOR DRAIN VENT RISER - STUB UP 12" ABOVE GRADE (NOT BY CXT)
H. TRAP PRIMER MANIFOLD (PRE-PLUMBED AND INSTALLED BY CXT)
I. 1/2" SHUT OFF VALVE (PRE-PLUMBED AND INSTALLED BY CXT)



FLOOR DRAIN DETAIL

THIS DRAWING IS SUPPLIED FOR REFERENCE ONLY. PLEASE CONTACT CXT ENGINEERING DEPARTMENT FOR BUILDING SPECIFIC CONTROLLED DOCUMENTS PRIOR TO ANY FIELD WORK.

3808 N. Sullivan Bldg. #7 Spokane, WA 99216

CXT Precast Products
901 N. Highway 77 Hillsboro, TX 76645

PROJECT TITLE
TAOS
CXT STANDARD BUILDING

NOTICE

CXT Incorporated

NO.	DESCRIPTION	APPROVED	DATE
SCALE	3/4"=1'-0"	DATE	03-14-07
DRAWN	RW & WADE	FILE NO.	07-080F
CHECKED	LPLOY		32

FLOOR DRAIN LOCATION & BELOW FLOOR PIPING

DWG NO. TA-28 | SHEET | REV.

2 / L4 FLOOR DRAIN LOCATION & BELOW FLOOR PIPING

NTS

SALES REP:
ROBERT VEALS - LB FOSTER
M - 254.404.5147
RVEALS@LBFOSTER.COM

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED LANDSCAPE ARCHITECT
BRYAN PAUL JANSEN
6801
STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

LANDSCAPE ARCHITECTURE

RESTROOM 3

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/15/2024
DESIGNED BPJ
DRAWN JMST
CHECKED JHH
APPROVED
FILE NAME L-DT-DTL_BASE.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET L4
SEQ.

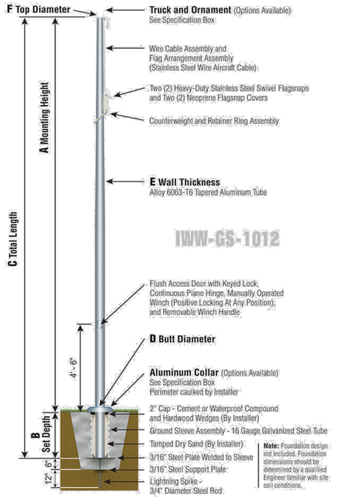
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:12 PM Saved By: 08457

Plot Date: 7/15/2024 4:23 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg

CONCORD AMERICAN FLAGPOLE
Pride. Quality. Tradition.

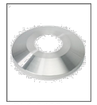
Titan Series
IWW - Internal with Winch
Wire Halyard
Ground Set Installation

IWW80H24 - SAT




TRK-9800-58
Int. Revolving Truck Sealed Bearings


BAL-1258-GLD
HD Gold Anodized Aluminum Ball


COL1-A12S
FC-11 Spun Alum 1-Piece


SAT
Satin Finish


IWW - WINCH
Flush Mount Hinged Door

Specifications
A. Mounting Height: 80'
B. Set Depth: 8'-0"
C. Total Length: 88'-0"
D. Butt Diameter: 12"
E. Wall Thickness: .375"
F. Top Diameter: 4"
Flagpole Sections: 4
Shaft Weight: 1140 lbs.
Hardware Weight: 59 lbs.
Ground Sleeve Weight: 119 lbs.
* Max Flag Size: 15' x 25'
* Max Wind Speed w/Nylon Flag: 89 mph
* Max Wind Speed No Flag: 121 mph
* Wind Speed Specifications from ANSI/NAAMM FP 1001-07

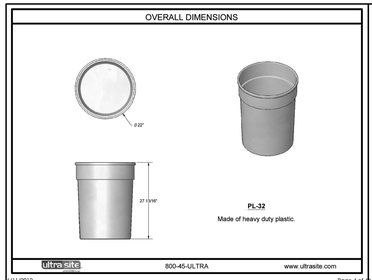
Customer Name: SRA			
Dealer:		Qty: 1	
Project:	Sabinetown Park/Fishing Facility	Location: TX	
Notes:			

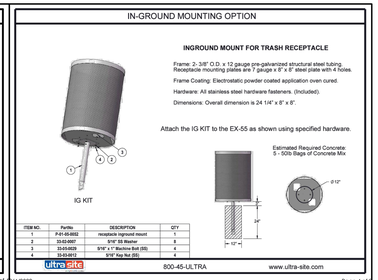
IWW80H24G-TAZ-O0G-C2N-FSA

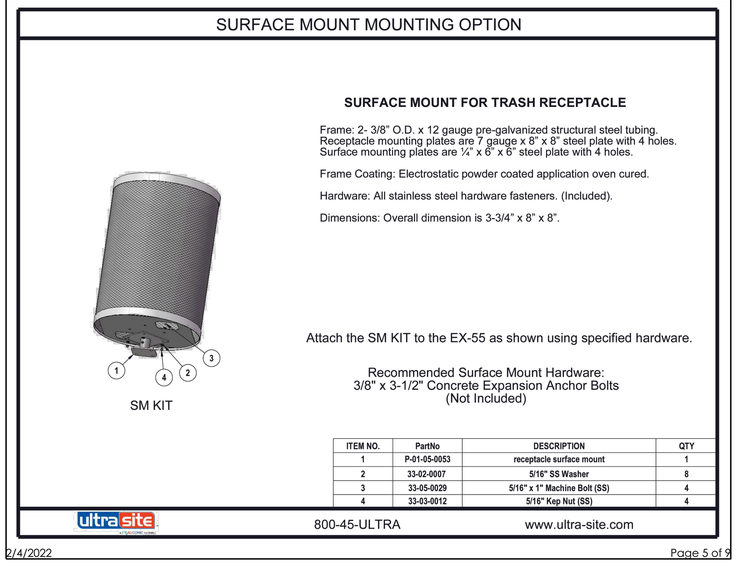
PROVIDE THE FOLLOWING:
1 - USA FLAG AND 1 - TEXAS FLAG

CAFP_010819_1pg - 1 -

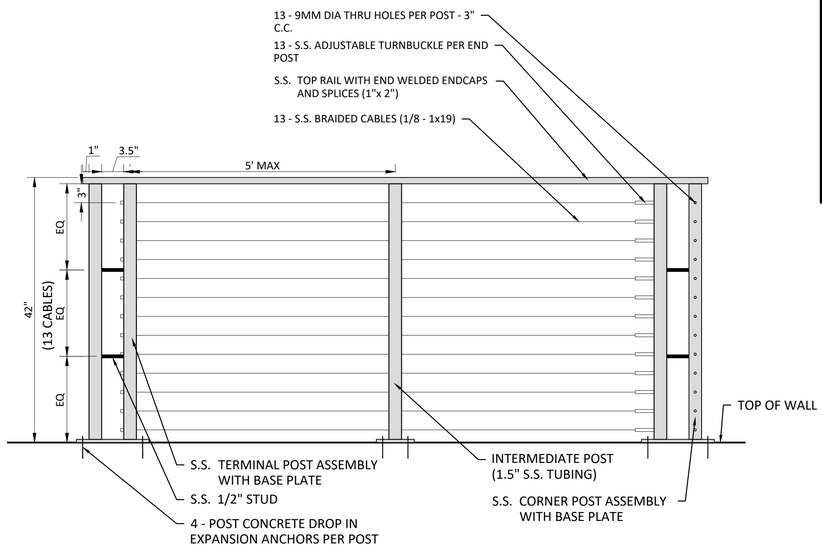
1 L5 **FLAG POLE**
NTS



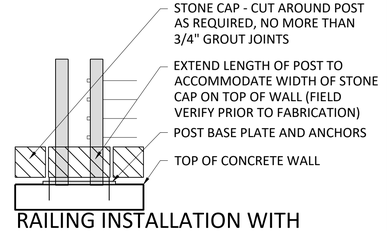




2 L5 **TRASH RECEPTACLE**
NTS

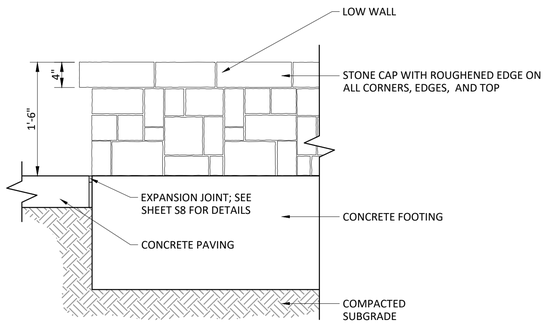


CABLE RAILING NOTES:
1. ALL POST AND RAILS SHALL BE 416 STAINLESS STEEL.
2. ALL WELDED CONNECTIONS SHALL BE CONTINUOUSLY FILLET TIG WELDED BY A QUALIFIED WELDER.
3. MINIMIZE FIELD WELDING WHERE POSSIBLE.
4. CLEAN AND PASSIVATE ALL STEEL COMPONENTS AND TREAT WITH PENETRATING RUST PROHIBITER SUCH AS RUST RESCUE 200 OR EQUAL.
5. ALL CABLE TERMINATIONS SHALL BE FITTED WITH A CROWN NUT OR OTHER CAPPING DEVICE.

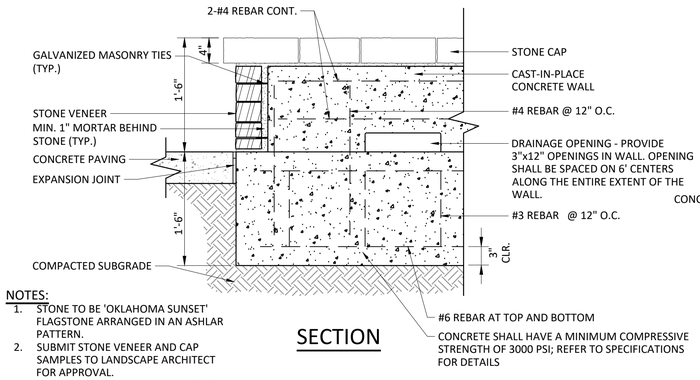


RAILING INSTALLATION WITH MASONRY CAP

3 L5 **CABLE RAILING**
NTS

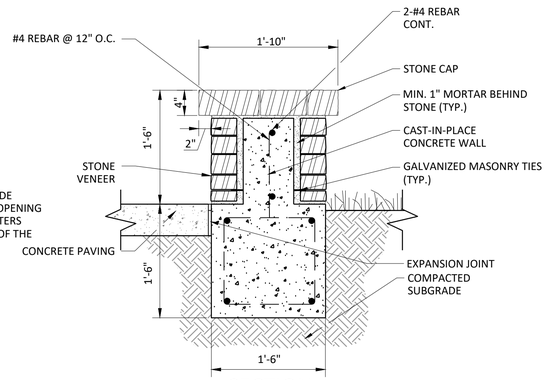


ELEVATION



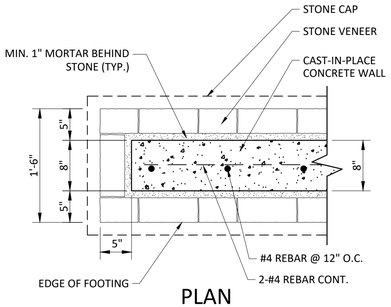
NOTES:
1. STONE TO BE 'OKLAHOMA SUNSET' FLAGSTONE ARRANGED IN AN ASHLAR PATTERN.
2. SUBMIT STONE VENEER AND CAP SAMPLES TO LANDSCAPE ARCHITECT FOR APPROVAL.
3. CAP STONE TO BE A MINIMUM OF 4" THICK. ARRANGE STONE JOINTS TO ENSURE A MINIMUM OF 6" LATERAL DISTANCE IS AFFIXED TO THE WALL BELOW.

SECTION



SECTION

NOTES:
1. FOOTING SHALL BEAR ON UNDISTURBED SOIL AND PROPERLY COMPACTED SUBGRADE.
2. STONE TYPE, SHAPE AND PATTERN SHALL BE A MILSAP BLEND SAWN CHOPPED, WITH FACE HEIGHTS BETWEEN 4"-8" AND BED DEPTHS OF 4"
3. STONE AND MORTAR CONSTRUCTION TO CONFORM TO SPECIFICATIONS.
4. PROVIDE GALVANIZED MASONRY TIES AT ALL STONE VENEER FASCIA AT 9" VERTICAL O.C.
5. SUBMIT STONE TYPE AND COLOR TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION. LANDSCAPE ARCHITECT TO APPROVE MOCKUP STONE VENEER INDICATING PATTERN, JOINTING, COLORS, ETC. PRIOR TO PROCEEDING WITH WORK.



PLAN

4 L5 **LOW MASONRY WALL DETAIL**
NTS

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED LANDSCAPE ARCHITECT
BRYAN PAUL JANYSEK
6801
STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

LANDSCAPE ARCHITECTURE

FURNISHINGS

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/15/2024
DESIGNED BPJ
DRAWN JMST
CHECKED JHH
APPROVED
FILE NAME L-DT-DTL_BASE.dwg

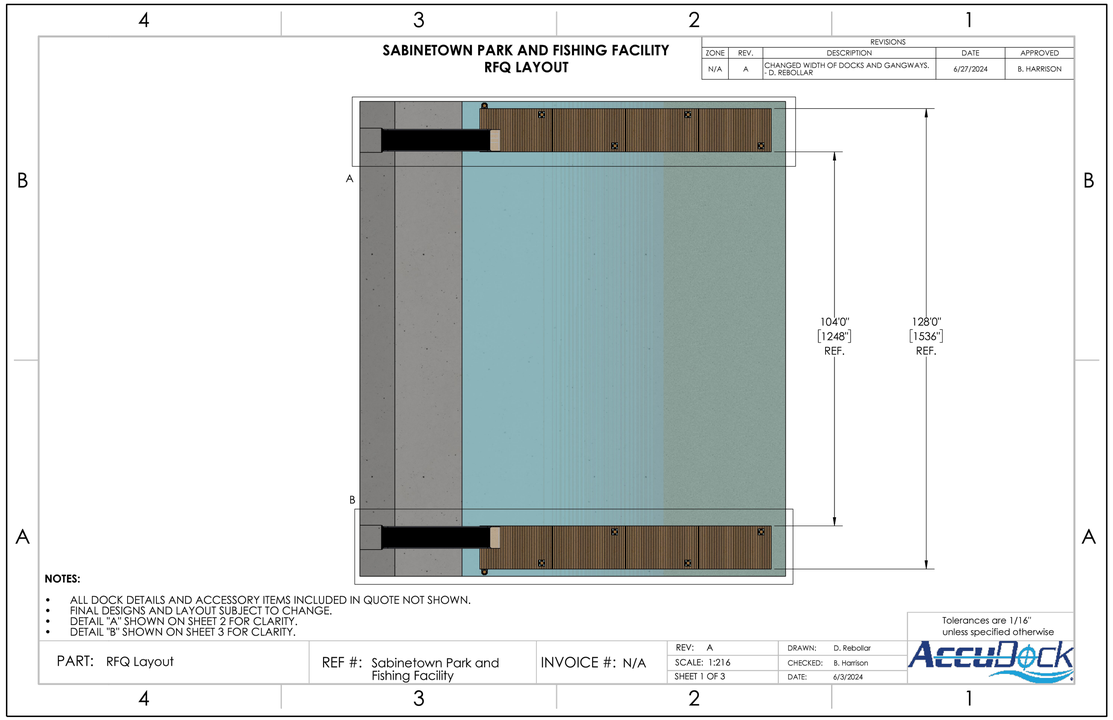
VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET L5
SEQ.

ISSUED FOR BID

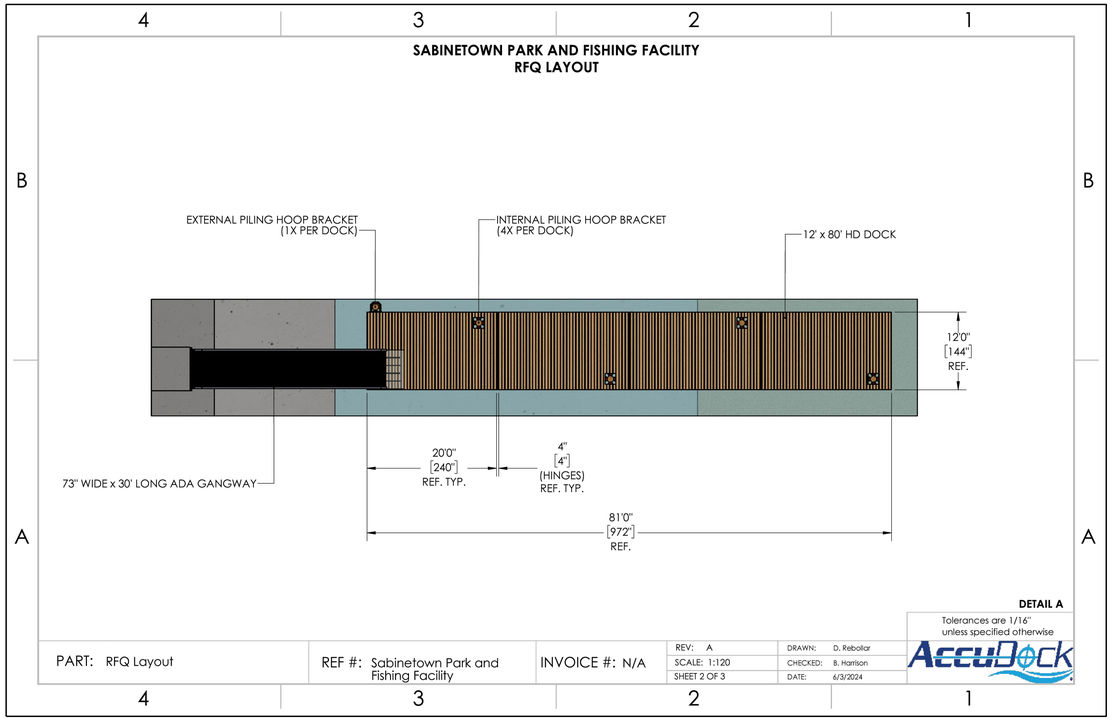
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/16/2024 3:57 PM Saved By: 08457

Plot Date: 7/16/2024 4:00 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg



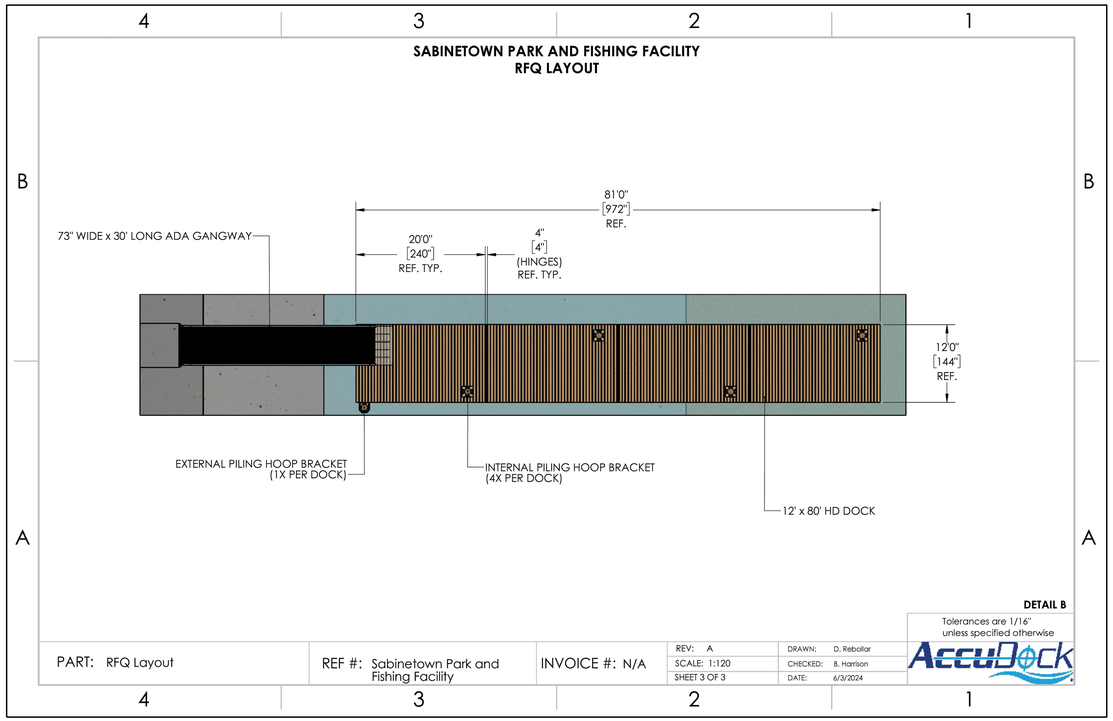
1 L6 OVERALL LAYOUT

NTS



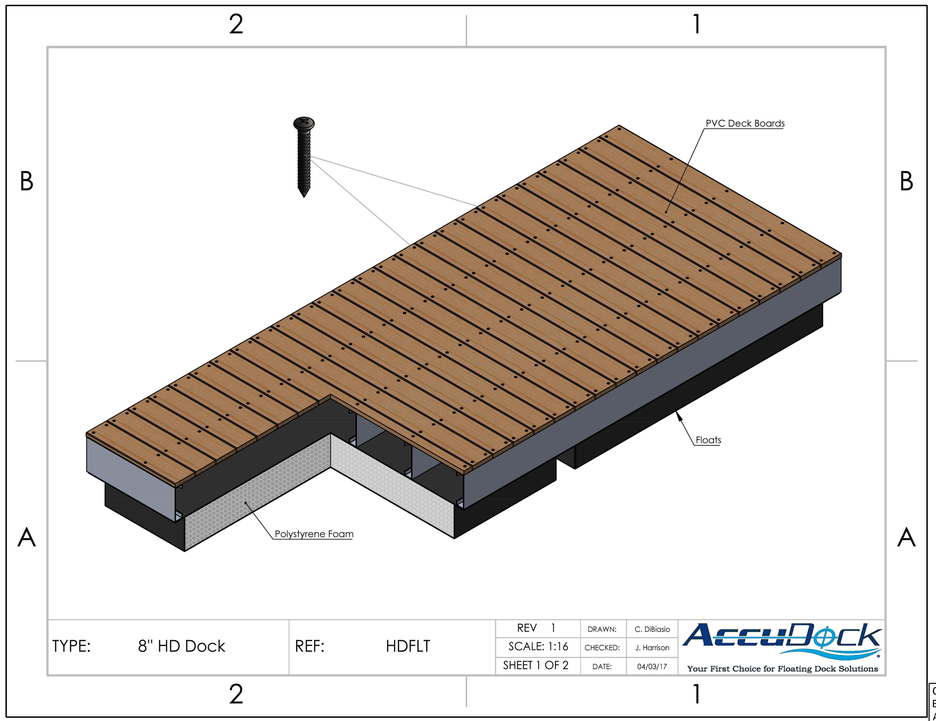
2 L6 NORTH LAYOUT

NTS



3 L6 SOUTH LAYOUT

NTS



4 L6 8" HD DOCK

NTS

CONTACT:
BRITTANY HARRISON - SALE REP
ACCUDOCK
954-774-2520
BRITTANY@ACCUDOCK.COM

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
REGISTERED LANDSCAPE ARCHITECT
BROWN, PAUL, JAMES
6801
STATE OF TEXAS
7/18/2024
FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

LANDSCAPE ARCHITECTURE
(BID ALTERNATE NO.2 & 3)
FLOATING DOCKS

NO.	ISSUE	BY	DATE
1	If not one inch on this sheet, adjust scale.		

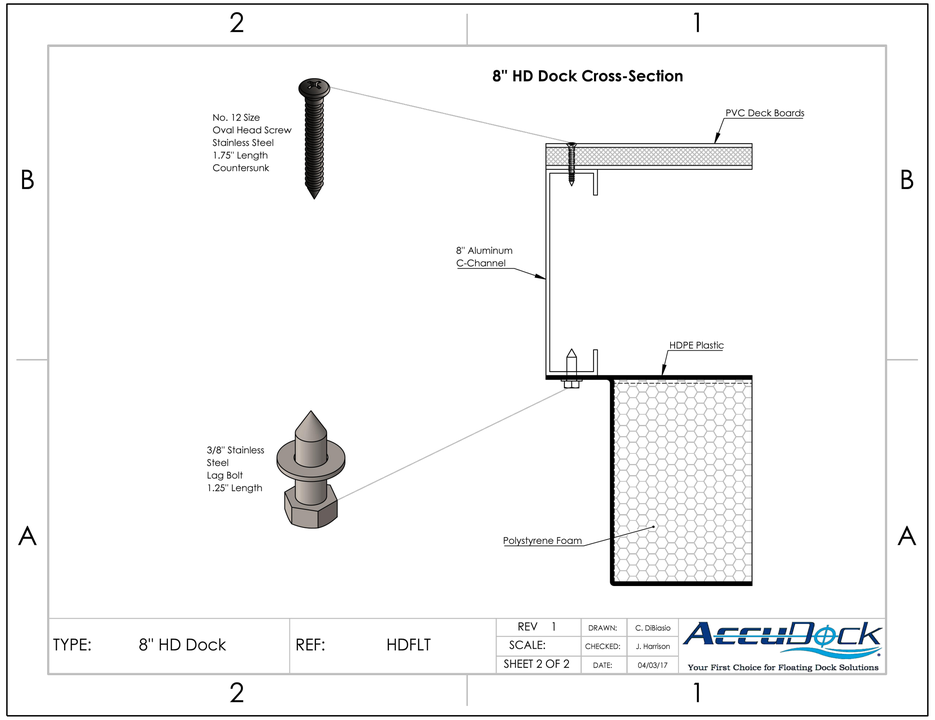
VERIFY SCALE Bar Scale is one inch on original drawing.

FAN JOB NO.	SRA23985
DATE	07/15/2024
DESIGNED	BPJ
DRAWN	JMST
CHECKED	JHH
APPROVED	
FILE NAME	L-DT-DTL_BASE.dwg

SHEET L6

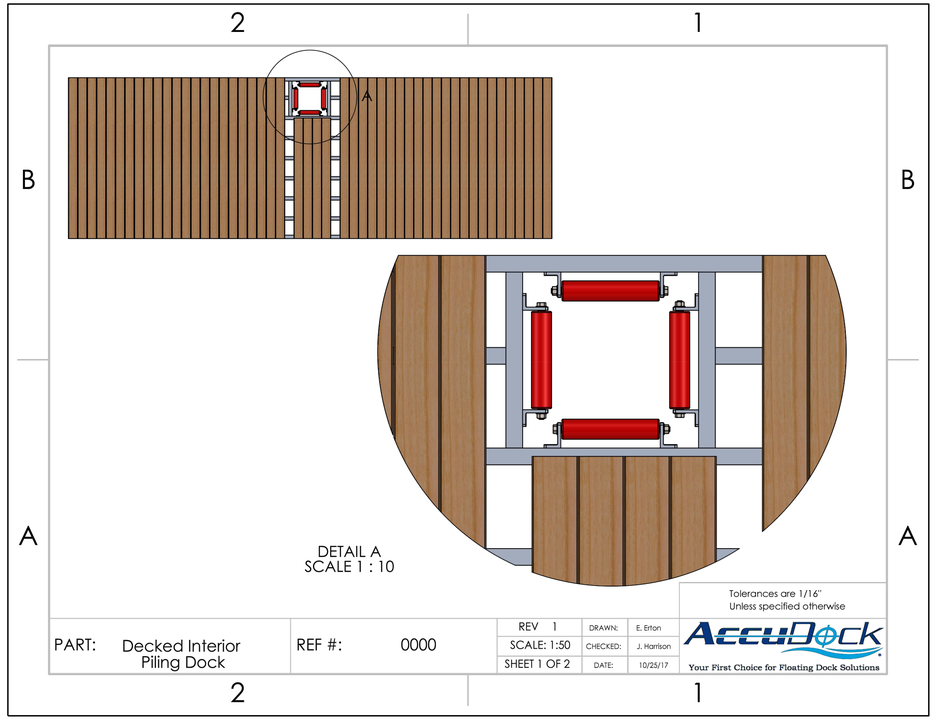
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:12 PM Saved By: 08457
Plot Date: 7/15/2024 4:22 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg



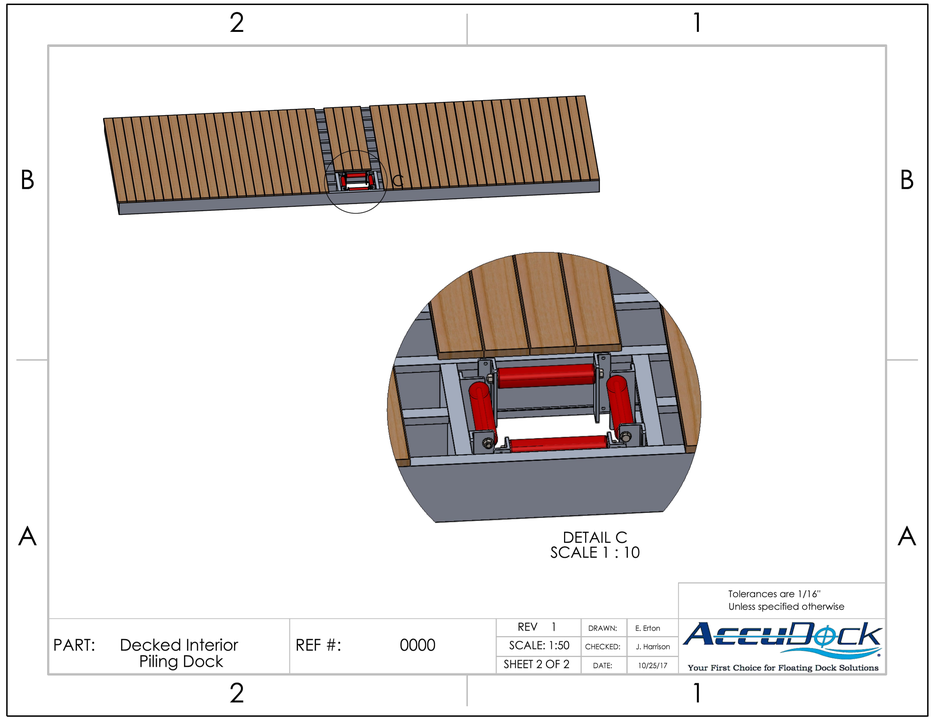
1 L7 — 8" HD DOCK CROSS-SECTION

NTS



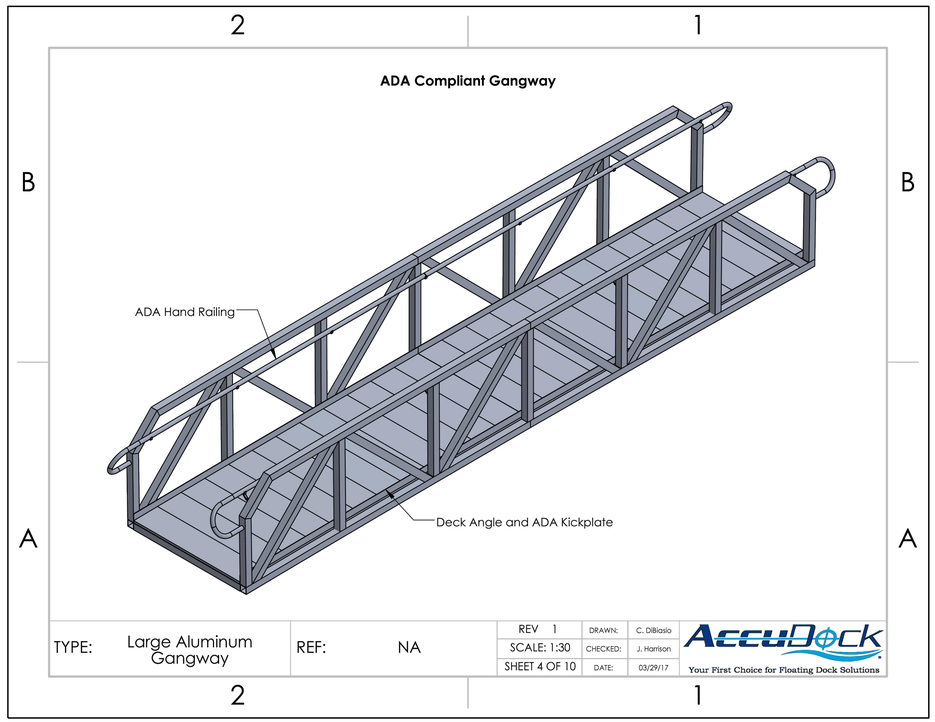
2 L7 — DECKED INTERIOR PILING DOCK

NTS



3 L7 — DECKED INTERIOR PILING DOCK

NTS



4 L7 — ADA COMPLIANT GANGWAY

NTS

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
REGISTERED LANDSCAPE ARCHITECT
BROWN, PAUL, JAMES
6301
STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

LANDSCAPE ARCHITECTURE
(BID ALTERNATE NO.2 & 3)
FLOATING DOCKS

F&N JOB NO.	SRA23985		
DATE	07/15/2024		
DESIGNED	BPJ		
DRAWN	JMST		
CHECKED	JHH		
APPROVED			
FILE NAME	L-DT-DTL_BASE.dwg		

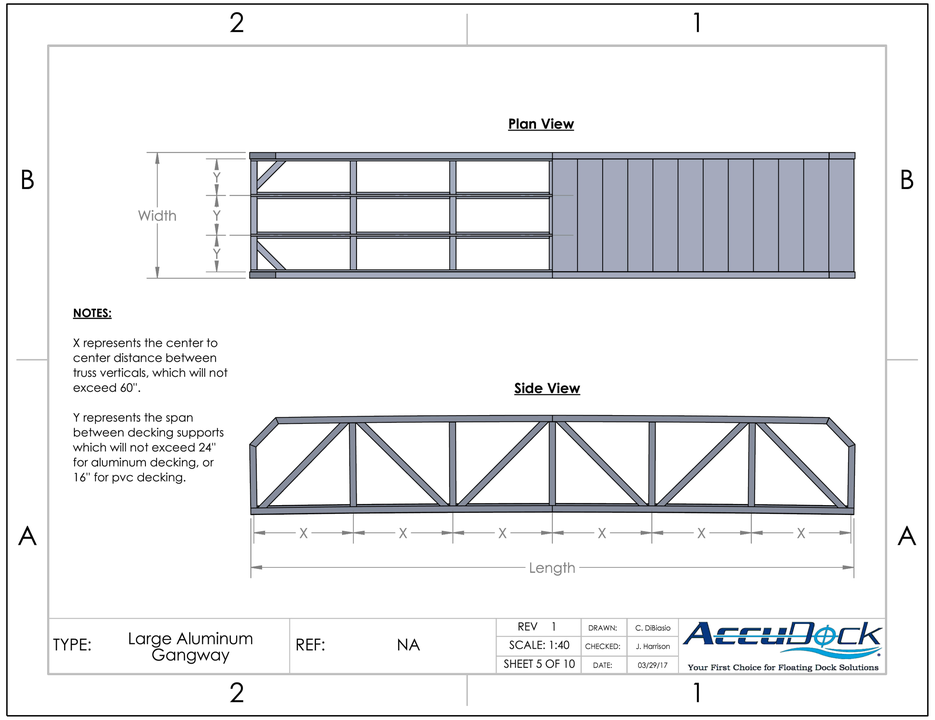
NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET L7
SEQ.

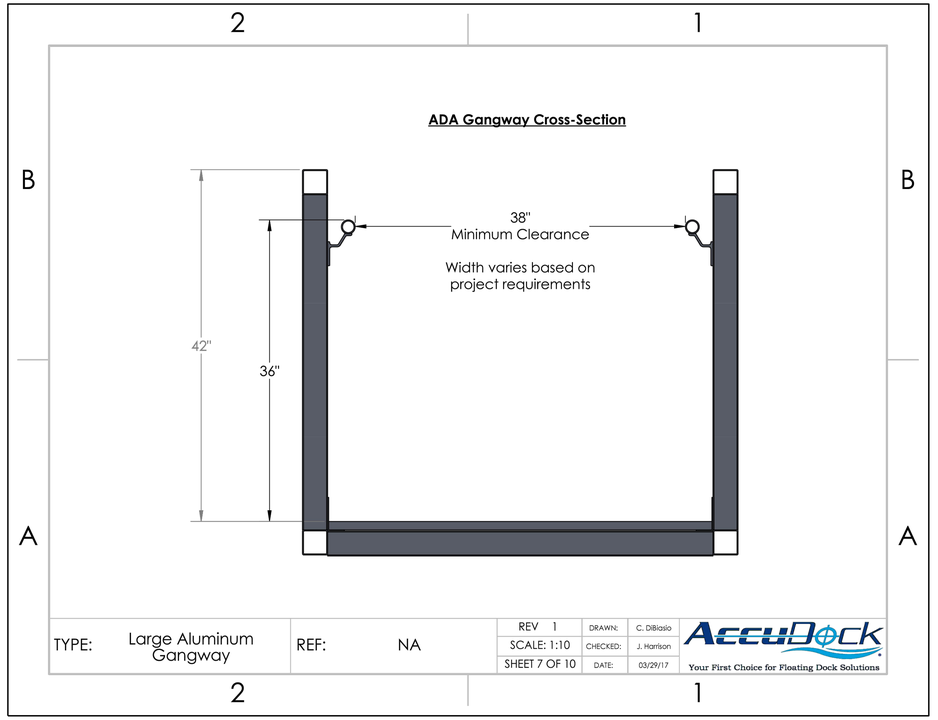
ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:12 PM Saved By: 08457

Plot Date: 7/15/2024 4:19 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg



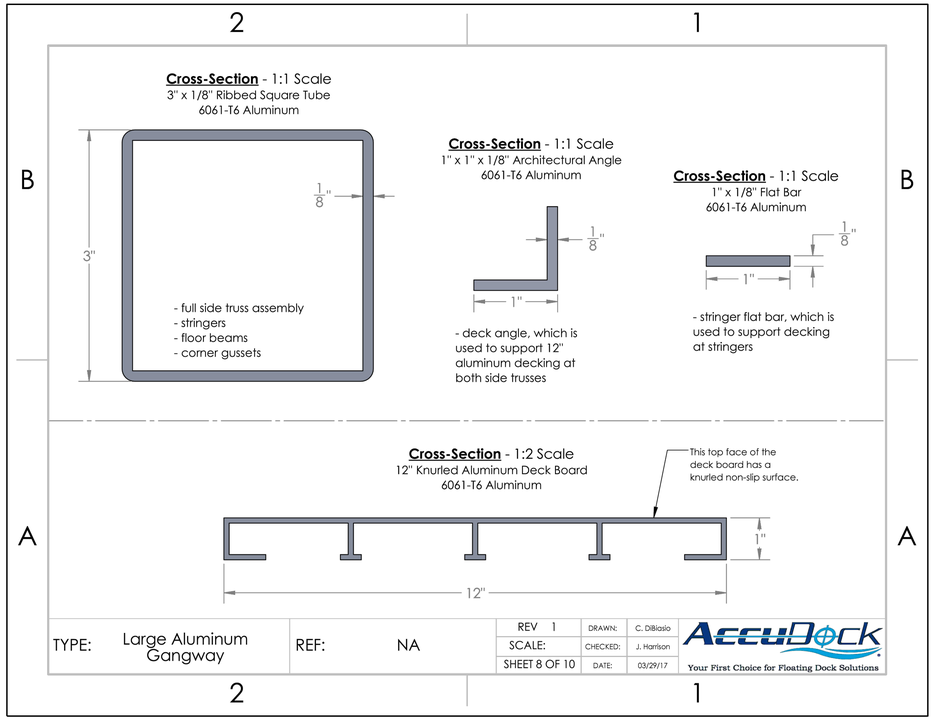
1 L8 LARGE ALUMINUM GANGWAY

NTS



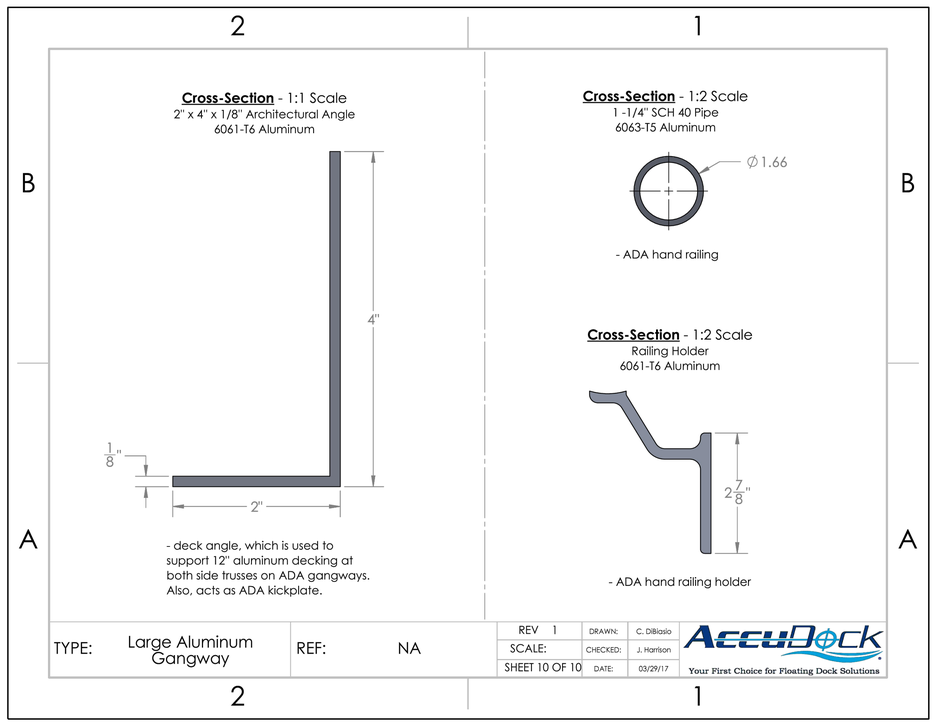
2 L8 ADA GANGWAY CROSS-SECTION

NTS



3 L8 LARGE ALUMINUM GANGWAY

NTS



4 L8 LARGE ALUMINUM GANGWAY

NTS

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
REGISTERED LANDSCAPE ARCHITECT
BROWN, PAUL, JAMES
6301
STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

LANDSCAPE ARCHITECTURE
(BID ALTERNATE NO.2 & 3)
FLOATING DOCKS

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/15/2024
DESIGNED BPJ
DRAWN JMST
CHECKED JHH
APPROVED
FILE NAME L-DT-DTL_BASE.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET L8
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:12 PM Saved By: 08457

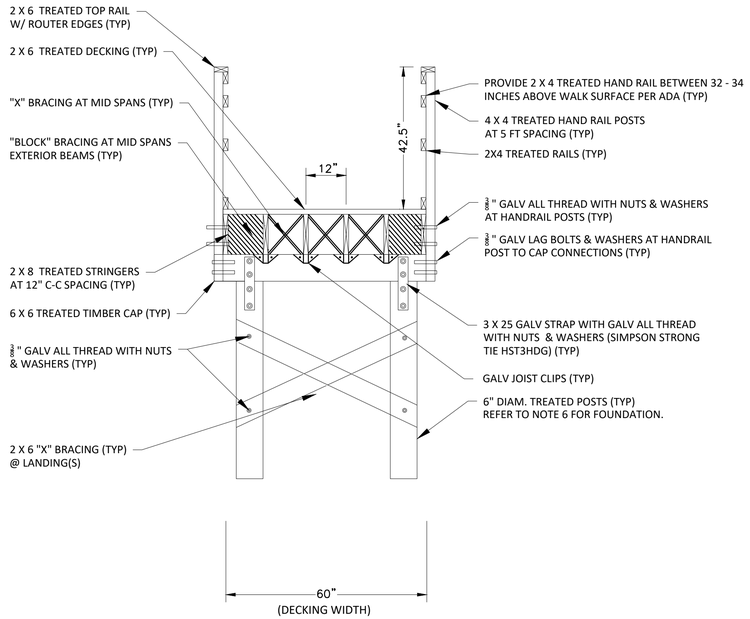
Plot Date: 7/15/2024 4:16 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg

GENERAL NOTES

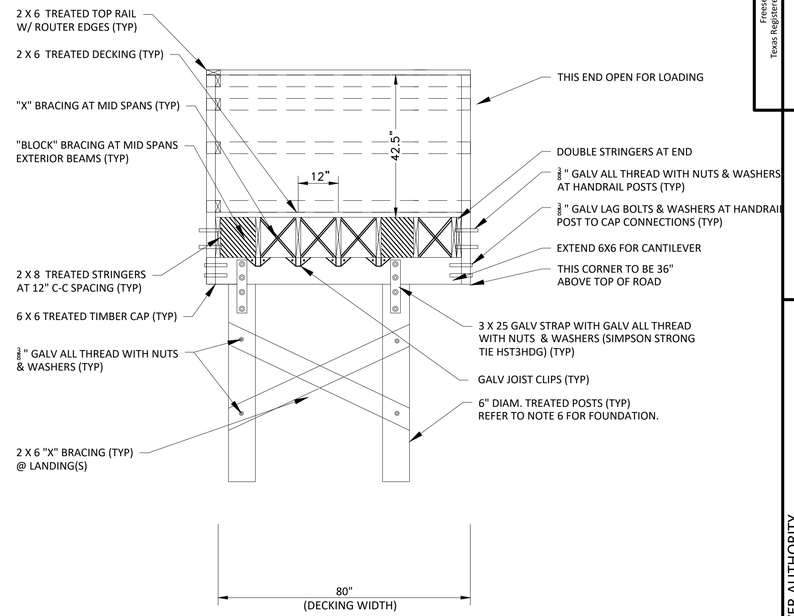
1. ALL HARDWARE INCLUDING BOLTS, WASHERS, SCREWS, NAILS, TO BE HOT DIPPED GALV.
2. STRINGERS SHALL BE CONNECTED TO CAPS USING CONNECTION BRACKETS AS SHOWN ON PLANS. ALL FASTENERS SHALL MEET MANUFACTURES RECOMMENDATIONS.
3. ALL TIMBER MEMBERS SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE.
4. HORIZONTAL RAIL MEMBERS SHALL BE SCREWED TO THE POSTS W/ 2.5 INCH GALV. SCREWS.
5. DECK PLANKS SHALL BE ATTACHED TO STRINGERS W/ 2.5 INCH GALV SCREWS, MIN. TWO SCREWS IN EACH PLANK PER STRINGER CONNECTION.
6. TIMBER POST FOUNDATIONS SHALL INSTALLED IN 12" DIAM. CONCRETE FOOTINGS INSTALLED BY AUGER OF SUFFICIENT DEPTH TO REACH BEARING CAPACITY.

ADA NOTES

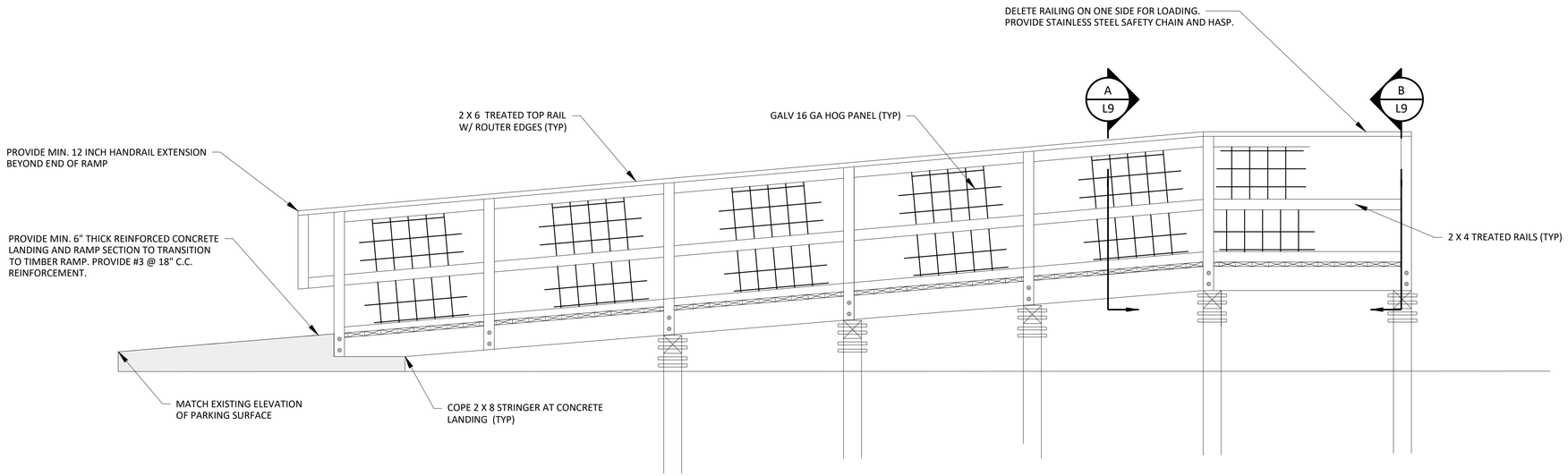
1. ALL LOADING RAMPS SHALL BE CONSTRUCTED TO MEET ALL CURRENT ADA COMPLIANCE CRITERIA IN ACCORDANCE WITH TDLR REGULATIONS.
2. MAXIMUM SLOPE SHALL BE 1:12 ON ALL RAMPS.
3. MAXIMUM RISE OF RAMPS SHALL BE 30 INCHES FROM STARTING NATURAL GROUND. PROVIDE ADDITIONAL LANDINGS AND RAMP LENGTHS TO ACHIEVE FINAL PLATFORM HEIGHT.
4. FINAL LANDING SHALL HAVE 60 INCH CLEAR TURNAROUND AREA.
5. HANDRAIL SHALL BE DELETED ON ONE SIDE OF FINAL LANDING AREA FOR LOADING INTO BOATS. PROVIDE STAINLESS SAFETY CHAIN AND HASP.



1 L9 SECTION B
NTS



2 L9 SECTION B
NTS



3 L9 TIMBER LOADING RAMP
NTS

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED LANDSCAPE ARCHITECT
BRYAN PAUL JANISCH
5801
STATE OF TEXAS
7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
LANDSCAPE ARCHITECTURE
TIMBER LOADING RAMPS

F&N JOB NO.	SRA23985
DATE	07/15/2024
DESIGNED	BPJ
DRAWN	JMST
CHECKED	JHH
APPROVED	
FILE NAME	L-DT-DTL_BASE.dwg

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET L9
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\LA\Base\L-DT-DTL_BASE.dwg
Last Saved: 7/15/2024 4:46 PM Saved By: 08457
Plot Date: 7/15/2024 4:48 PM Plot By: 08457 Filename: N:\LA\Base\L-DT-DTL_BASE.dwg

SABINETOWN PARK/FISHING FACILITY

GENERAL NOTES

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROJECT ENGINEER'S PLAN LAYOUT AND GUIDELINES. SUITABILITY FOR ACCESS AND INTENDED USAGE SHALL BE THE RESPONSIBILITY OF THE ARCHITECT.

2. NO VEHICULAR ACCESS IS PERMITTED ON THE BOARDWALK SHOWN ON THESE PLANS.

3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS THROUGH THE PROJECT ENGINEER.

4. ONLY PERMATRAK NORTH AMERICA MAY PROVIDE THE PRECAST STRUCTURE SHOWN ON THESE PLANS.

5. INSTALLER SHALL NOT CUT OR MODIFY ANY PERMATRAK COMPONENTS WITHOUT PERMATRAK'S APPROVAL.

6. THE INSTALLER IS RESPONSIBLE FOR THE APPROPRIATE MEANS AND METHODS FOR THIS PROJECT, INCLUDING ENSURING PROPER CONSTRUCTABILITY OF ALL COMPONENTS SHOWN ON THESE PLANS. NO EQUIPMENT MAY BE OPERATED ON THE STRUCTURE, UNLESS NOTED OTHERWISE IN THE DESIGN DATA ON THIS SHEET.

7. A MATERIAL CHANGE TO THE BOARDWALK SYSTEM IS NOT ALLOWED AND NOT CONSIDERED AN EQUAL.

DESIGN DATA

1. BOARDWALK SHALL BE DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC) AND ALL RELEVANT LOCAL AND PROJECT SPECIFICATIONS.

DESIGN LIVE LOAD:
PEDESTRIAN LOADING - 100 PSF UNIFORM
VEHICULAR LOADING - NONE

2. FOUNDATIONS SHALL BE DESIGNED FOR LATERAL EARTH PRESSURE, LIVE LOAD SURCHARGE AND STRUCTURE LOADS.

APPLIED DRILLED SHAFT LOADS (PER SHAFT, DOES NOT INCLUDE WEIGHT OF PIER CAP):

COMPRESSION - 17.0 KIPS (SERVICE, D+L)
LATERAL - 1.5 KIPS (W, WIND CONTROLS)

3. RAILING SHALL BE DESIGNED IN ACCORDANCE WITH IBC SPECIFICATIONS. THE RAILING SUPPLIER IS RESPONSIBLE FOR THE ENGINEERING OF THE DETAILED RAILING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

4. FOUNDATIONS SHOWN SHALL BE DESIGNED BY OTHERS.

MATERIAL

1. ALL BOLTS, NUTS, WASHERS, AND HARDWARE SHALL BE GALVANIZED FIBER-REINFORCED POLYMER (FRP) OR STAINLESS STEEL GRADE 316.

2. ALL REINFORCING SHALL BE UNCOATED GRADE 60 CONFORMING TO ASTM A615.

QUALITY ASSURANCE SPECIFICATIONS

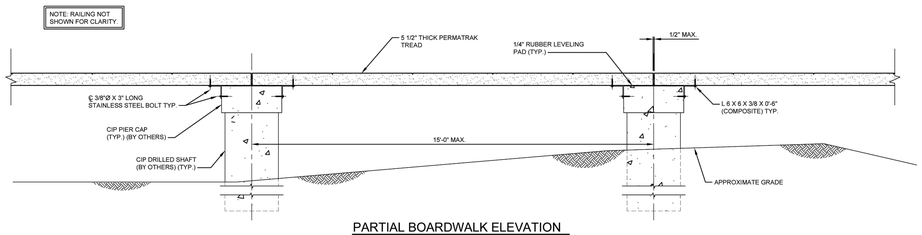
1. ACCEPTABILITY CRITERIA FOR TREADS AND CURBS (IF APPLICABLE): THE FINISHED VISIBLE (IN THE FINAL INSTALLED POSITION) SURFACE SHALL HAVE NO OBVIOUS IMPERFECTIONS OTHER THAN MINIMAL COLOR OR TEXTURE VARIATIONS FROM THE APPROVED SAMPLES OR EVIDENCE OF REPAIRS WHEN VIEWED IN GOOD TYPICAL DAYLIGHT ILLUMINATION WITH THE UNAIDED NAKED EYE AT A 20 FT. VIEWING DISTANCE. APPEARANCE OF THE SURFACE SHALL NOT BE EVALUATED WHEN LIGHT IS ILLUMINATING THE SURFACE FROM AN EXTREME ANGLE AS IT TENDS TO ACCENTUATE THE MINOR SURFACE IRREGULARITIES. THE FOLLOWING IS A LIST OF FINISH DEFECTS THAT SHALL BE PROPERLY REPAIRED, IF OBVIOUS WHEN VIEWED AT A 20 FT. DISTANCE. PATCHING (BY A TRAINED SKILLED CONCRETE REPAIR PERSON) IS AN ACCEPTABLE REPAIR METHOD.

a. RAGGED OR IRREGULAR SURFACES.
b. EXCESSIVE AIR VOIDS (COMMONLY CALLED BUG HOLES) LARGER THAN ¼ IN. EVIDENT ON THE TOP SURFACE OF THE TREAD OR CURBS (IF APPLICABLE).
c. ADJACENT FLAT AND RETURN SURFACES WITH GREATER TEXTURE AND/OR COLOR DIFFERENCES THAN THE APPROVED SAMPLES OR MOCKUPS.
d. CASTING AND/OR AGGREGATE SEGREGATION LINES EVIDENT FROM DIFFERENT CONCRETE PLACEMENT LIFTS AND CONSOLIDATION.
e. VISIBLE MOLD JOINTS OR IRREGULAR SURFACES.
f. RUST STAINS ON EXPOSED SURFACES.
g. UNITS WITH EXCESSIVE VARIATION IN TEXTURE AND/OR COLOR FROM THE APPROVED SAMPLES, WITHIN THE UNIT OR COMPARED WITH ADJACENT UNITS.
h. BLOCKING STAINS EVIDENT ON EXPOSED SURFACES.
i. AREAS OF BACKUP CONCRETE BLEEDING THROUGH THE FACING CONCRETE.
j. FOREIGN MATERIAL EMBEDDED IN THE SURFACE.
k. VISIBLE REPAIRS AT A 20 FT. VIEWING DISTANCE.
l. REINFORCEMENT SHADOW LINES.
m. CRACKS VISIBLE AT A 20 FT. VIEWING DISTANCE.

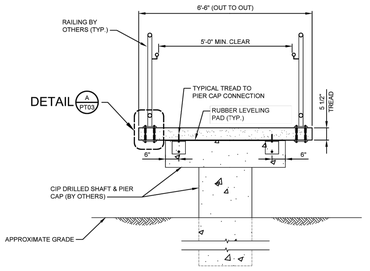
PROJECT COMPONENTS

SUPPLIED BY PERMATRAK
PRECAST CONCRETE TREADS
6" X 1/4" THICK RUBBER LEVELING PADS (TREAD TO PIER CAP)
RUBBER SPACER PADS (BETWEEN TREADS)
6 X 6 X 3/8 X 0'-6" CLIP ANGLE KITS (TREAD TO FOUNDATION CONNECTIONS)
SHIMS (LEVELING FOR PRECAST COMPONENTS)

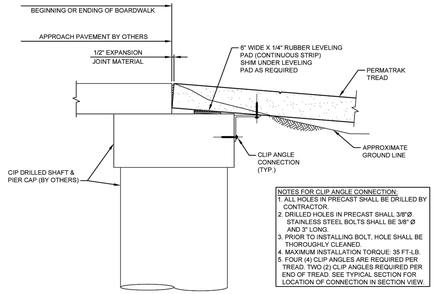
SUPPLIED BY CONTRACTOR
CAST-IN-PLACE CONCRETE (APPROACH SIDEWALK, DRILLED SHAFTS, AND PIER CAPS)
1/2" EXPANSION JOINT MATERIAL
RAILING AND CONNECTION HARDWARE
RAMP AND CONNECTION HARDWARE



PARTIAL BOARDWALK ELEVATION
SCALE: 3/4" = 1'-0"



TYPICAL BOARDWALK SECTION
SCALE: 3/4" = 1'-0"



TYPICAL APPROACH DETAIL
SCALE: 1 1/2" = 1'-0"

Patented Product: U.S. Patent #5,906,084 #8,302,362 #8,522,505 #8,839,588 #9,096,975

NO.	DATE	DESCRIPTION	BY:
6			
5			
4			
3			
2			
1			

PREPARED FOR: FREESE & NICHOLS, INC.

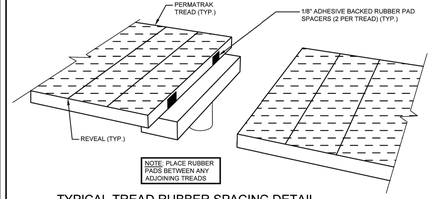
FOR BIDDING
NOT FOR CONSTRUCTION

PermaTrak® The Concrete Boardwalk Company
www.permatrak.com TEL: 877-332-7862

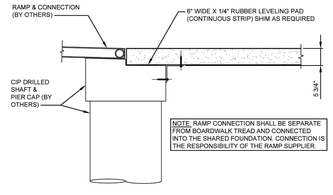
OFFICE LOCATIONS: FLORIDA, TEXAS, LOUISIANA, NORTH CAROLINA, OHIO

PROJECT TITLE: SABINETOWN PARK/FISHING FACILITY
HEMPHILL, TX

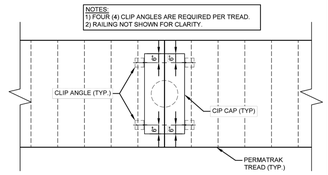
JOB NUMBER:	2024-2335
DATE:	07/08/2024
DESIGNED BY:	KAS
DRAWN BY:	KAS
CHECKED BY:	KAS
SHEET NO.	PT01



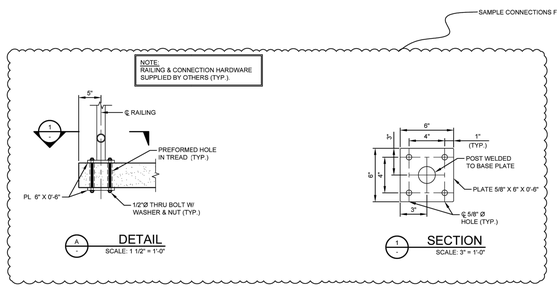
TYPICAL TREAD RUBBER SPACING DETAIL
SCALE: NOT TO SCALE



RAMP TO BOARDWALK TRANISTION DETAIL
SCALE: 1 1/2" = 1'-0"



TYPICAL TREAD TO CIP PIER CAP CONNECTION PLAN
SCALE: NOT TO SCALE



SCALE: 1 1/2" = 1'-0"
SCALE: 3" = 1'-0"
SCALE: 3" = 1'-0"

Patented Product: U.S. Patent #5,906,084 #8,302,362 #8,522,505 #8,839,588 #9,096,975

NO.	DATE	DESCRIPTION	BY:
6			
5			
4			
3			
2			
1			

PREPARED FOR: FREESE & NICHOLS, INC.

FOR BIDDING
NOT FOR CONSTRUCTION

PermaTrak® The Concrete Boardwalk Company
www.permatrak.com TEL: 877-332-7862

OFFICE LOCATIONS: FLORIDA, TEXAS, LOUISIANA, NORTH CAROLINA, OHIO

PROJECT TITLE: SABINETOWN PARK/FISHING FACILITY
HEMPHILL, TX

JOB NUMBER:	2024-2335
DATE:	07/08/2024
DESIGNED BY:	KAS
DRAWN BY:	KAS
CHECKED BY:	KAS
SHEET NO.	PT03

ELEVATED PRECAST CONCRETE BOARDWALK PROJECT SPECIFICATIONS

V4.1 UPDATED SEPTEMBER 2023

PRECAST CONCRETE BOARDWALK SYSTEM

PART 1-GENERAL

1.1 SUMMARY

A. These specifications are for a precast concrete boardwalk and shall be regarded as minimum standards for this project. These specifications are based upon products designed and supplied by:

PermaTrak North America LLC
Ph: (956) 229-1848
Ph: 877-332-7862
www.permatrak.com
Contact: Mr. Jonathan Dove
jdove@permatrak.com

This item shall also include the design, specification, and construction of a railing and foundation system that is attached to the proposed boardwalk system.

1.2 MINIMUM STANDARDS: The selected boardwalk shall have the following minimum characteristics:

A. The precast system shall be designed as a modular flexible system allowing a prescribed settlement at pier locations. Joints shall be designed for such movement to occur without damage to the structural integrity of the system.

B. Boardwalk system (beams, treads, and curbs if applicable) must be reinforced precast concrete. A material change, including cast-in-place concrete, is not considered an equal to the design shown on the bid documents.

C. Walking surface (treads) shall be made of reinforced precast concrete, and supported by reinforced precast concrete beams. Where applicable, edges of treads will receive precast concrete curbs.

D. Walking surface (finish) of top surface of treads shall have a formliner finish with one of PermaTrak's standard textures. Texture must be integral with the concrete and shall not be an applied post pour wearing surface.

E. Precast concrete treads shall be structural load bearing elements and shall interlock with one another via a "tongue and groove" connection.

F. All precast shall consist of integrally colored concrete in a color selected by the owner from one of PermaTrak's "standard colors". All color pigment shall meet ASTM C979 Standard Specification for Pigments for Integrally Colored Concrete.

G. DESIGN LOADS: See PT01 for pedestrian and vehicular design live loads.

H. Treads shall maintain a "boardwalk appearance", specifically meaning each tread shall have a width: length ratio ranging from a minimum of 3:1 to a maximum of 14:1. Width is defined as the tread dimension perpendicular to the normal direction of travel. Length is defined as the tread dimension measured in the direction of travel.

I. Tread width shall be as noted on the contract drawings. Alignment should follow the horizontal and vertical alignment shown on the contract plans.

J. Connectors for curbs (if applicable) to treads shall not be visible to boardwalk users while viewed from the top of the walkway.

K. All tread-to-beam connectors shall be non-corrosive, and hidden from view. Metallic tread-to-beam connectors are not acceptable for this project.

L. Boardwalk supplier shall provide a field representative on site for a minimum of 2 days. Field representative shall be knowledgeable in the installation of precast concrete boardwalks.

1.3 QUALITY ASSURANCE

A. The contractor performing the installation of the pile foundations shall have installed piles of size and length similar to those shown on the plans for a minimum of three (3) years prior to the bid date for this project. The contractor shall submit a list containing at least three (3) projects completed in the last three (3) years on which the contractor has installed piles of a size and length similar to those shown on the plans. The list of projects shall contain names and phone numbers of owner's representatives who can verify the Contractor's participation on those projects.

B. Manufacturer Qualifications: Not less than 10 years experience in the actual production of precast products as described below.

1. Components shall be factory fabricated and engineered by single entity. This entity shall be registered to do business in the State of the project location.
2. Boardwalk supplier (Precaster) for the boardwalk shall have in-house color mixing facilities for color pigmentation.
3. Boardwalk supplier (Precaster) shall have either a minimum experience of 5 years or 50 boardwalk projects in design, production, and field consultation.
4. Boardwalk supplier (Precaster) must be certified by PCI or NPCA.
5. Precast components must be manufactured with the use of hot rolled steel skin in reinforced steel forms. Temporary (i.e., Timber) and/or single use forms are unacceptable unless approved in writing by the Boardwalk Engineer.

C. Acceptability Criteria for Treads and Curbs (if applicable): The finished visible (in the final installed position) surface shall have no obvious imperfections other than minimal color or texture variations from the approved samples or evidence of repairs when viewed in good typical daylight illumination with the unaided naked eye at a 20 ft. viewing distance. Appearance of the surface shall not be evaluated when light is illuminating the surface from an extreme angle as it tends to accentuate the minor surface irregularities. The following is a list of finish defects that shall be properly repaired, if obvious when viewed at a 20 ft. distance. Patching (by a trained skilled concrete repair person) is an acceptable repair method.

1. Ragged or irregular surfaces.
2. Excessive air voids (commonly called bug holes) larger than ¼ in. evident on the top surface of the tread or curbs (if applicable).
3. Adjacent flat and return surfaces with greater texture and/or color differences than the approved samples or mockups.
4. Casting and/or aggregate segregation lines evident from different concrete placement lifts and consolidation.
5. Visible mold joints or irregular surfaces.
6. Rust stains on exposed surfaces.
7. Units with excessive variation in texture and/or color from the approved samples, within the unit or compared with adjacent units.
8. Blocking stains evident on exposed surfaces.
9. Areas of backup concrete bleeding through the facing concrete.
10. Foreign material embedded in the surface.
11. Visible repairs at a 20 ft. viewing distance.
12. Reinforcement shadow lines.
13. Cracks visible at a 20 ft. viewings distance.

D. Installer Qualifications: Firm with 3 years experience in installation of systems similar in complexity to those required for this Project.

E. Mock-Up: Provide, if required by Architect/ Engineer, a mock-up for evaluation of the boardwalk showing the surface preparation techniques and application workmanship.

1. Finish areas designated by Architect / Engineer.
2. Do not proceed with remaining work until mock-up is accepted by Architect / Engineer.
3. Refinish mock-up area as required to produce acceptable work.

1.4 DESIGN

A. For applications requiring minimum disturbance due to tree roots or other existing objects specified by the Owner to be avoided during construction, the Boardwalk Manufacturer requires the Contractor or Engineer/Architect to provide a survey of the proposed boardwalk location identifying items of interest including tree roots that cannot be disturbed per the Owner.

B. The designer of the boardwalk, foundation and railing system shall be a qualified registered Professional Engineer licensed in the State of the project location and having a minimum of 20 years of experience in the design of concrete structures, foundation and railing systems.

C. The foundation design shown on the boardwalk drawings are based recommendations found in the geotechnical report entitled referenced on PT01 (if applicable).

A. DESIGN CRITERIA: The design of the boardwalk and railing system shall comply with the following guidelines:

1. AASHTO LRFD Guide Specifications for The Design of Pedestrian Bridges, 2nd Edition with 2015 Interim Revisions.
2. Latest Version of AASHTO LRFD Bridge Design Specifications for Highway Bridges.
3. Latest Version of American Concrete Institute - Building Code and Commentary.
4. In addition to the dead loads of the system, the structure shall be designed for the live loads defined in Section 1.2 G above.

1.5 SUBMISSIONS: Prior to the start of fabrication or construction, the Contractor shall submit to the Engineer a design package, which shall include, but is not limited to, the following:

A. FOR APPROVAL SUBMISSIONS: Prior to the start of fabrication or construction, the Contractor shall submit to the Engineer a design package, which shall include but not limited to the following:

1. DETAILED PLANS:
   a. PLAN VIEW: Full plan view of the boardwalk, foundation and railing system drawn to scale. The plan view must reflect the proposed horizontal alignment as shown on the design plans.
   b. PARTIAL ELEVATION VIEW (IF REQUESTED): Full elevation view of the boardwalk, railing and foundation system drawn to scale which reflect the actual vertical alignment. Elevation views shall indicate the elevation at the top and bottom of the boardwalk and foundation system components.
   c. DETAILS: Details of all boardwalk and railing system components and their connections such as the length, size and where changes occur; connections; etc.
   d. CODE REFERENCE: Design parameters used along with AASHTO references.
2. CONSTRUCTION SPECIFICATIONS:
   a. Construction methods specific to the boardwalk vendor chosen. Submittal requirements such as certification, quality and acceptance/rejection criteria shall be included. Details on connection of boardwalk units and foundation system such that assurance of uniform load transfer shall be checked.

B. FINAL SUBMISSION: Once a boardwalk, foundation and railing system design has been reviewed and accepted by the Owner, the Contractor shall submit the final plans. The designer of the boardwalk, foundation and railing system is responsible for the review of any drawings prepared for fabrication. One set of all approved shop drawings shall be submitted to the Engineer's permanent records.

C. SUBMITTALS: Product Data: Submit Manufacturer's technical product data for railing components and accessories.
Manufacturer to supply submittal drawings for approval to include the following:

1. Section-thru details.
2. Mounting methods.
3. Typical Elevations.
4. Key plan layout.

D. SHOP DRAWINGS: Shop drawings shall:

1. Be stamped by a licensed Professional Engineer in the State of the project location.
2. Show actual field conditions and true elevation and location supplied after field verification.
3. Clearly detail reinforcement in beams, treads and curbs including clear dimension from concrete edge, size and amount of rebar.
4. Clearly state concrete compressive strength, steel type and strength, and a listing of all component weights including lifting locations.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Field Measurements: Where handrails and railings are indicated to fit to other construction, check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings:

1. Where field measurements cannot be made without delaying the railing fabrication and delivery, obtain guaranteed dimensions in writing by the Contractor and proceed with fabrication of products so as not to delay fabrication, delivery and installation.

C. Coordinate fabrication and delivery schedule of handrails with construction progress and sequence to avoid delay of railing installation.

1. Air entrained composed of Portland cement, fine and course aggregates, admixtures and water. The air-entraining feature may be obtained by the use of either an air entraining Portland cement or an air entraining admixture. The entrained air-content shall be not less than four percent or more than seven percent.

1.7 WARRANTY:

A. Contractor will be responsible for installation defects associated with the boardwalk and abutment components, foundation system, and railings for a period of 12 calendar months from the date of final acceptance by the Owner.

B. Boardwalk manufacturer shall warranty all precast concrete components against defects in material and workmanship for a period of 10 years.

C. Railing manufacturer shall warranty the railing against defects in materials and workmanship for a period of 12 months.

1.8 MEASUREMENT AND PAYMENT

A. Precast concrete boardwalk, railings, and foundations shall be paid for at the contract lump sum price as listed in the bid proposal for "Precast Concrete Boardwalk". This price shall include all materials, equipment, labor and work necessary for and incidental to the design, construction, delivery, unloading, assembly, and placement of the boardwalk and foundation as shown in the contract plans including all railings on the superstructure.

PART 2-MATERIALS & TESTING

2.1 PRECAST CONCRETE: shall conform to the following:

A. The minimum compressive strength of the concrete shall be 4000 psi measured at 28 days.
B. All precast concrete shall contain structural steel reinforcement as designed by the Engineer of record.
C. All precast concrete components shall be air entrained composed of Portland cement, fine and course aggregates, admixtures and water. The air-entraining feature may be obtained by the use of either an air entraining Portland cement or an air entraining admixture. The entrained air-content shall be not less than four percent or more than seven percent.
D. All reinforcing steel shall be standard uncoated steel conforming to ASTM A615

PART 3 - EXECUTION

1.1 PRECAST CONCRETE BOARDWALK

A. Installation of the precast concrete boardwalk system and railings, if applicable, shall be performed in accordance to the approved plans and manufacturers installation instructions. Boardwalk manufacturer shall provide a field representative to review installation instructions with the Contractor and Engineer and to certify that the installation has been performed according to the approved drawings and manufacturer's instructions.

NO.	DATE	DESCRIPTION	BY:
6			
5			
4			
3			
2			
1			

PREPARED FOR: FREESE & NICHOLS, INC.

FOR BIDDING
NOT FOR CONSTRUCTION

PermaTrak® The Concrete Boardwalk Company
www.permatrak.com TEL: 877-332-7862

OFFICE LOCATIONS: FLORIDA, TEXAS, LOUISIANA, NORTH CAROLINA, OHIO

PROJECT TITLE: SABINETOWN PARK/FISHING FACILITY
HEMPHILL, TX

JOB NUMBER:	2024-2335
DATE:	07/08/2024
DESIGNED BY:	KAS
DRAWN BY:	KAS
CHECKED BY:	KAS
SHEET NO.	SPECS

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED LANDSCAPE ARCHITECT
BRIAN PAUL TANNEHILL
2501
STATE OF TEXAS

7/18/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

CIVIL
(BID ALTERNATE NO. 2 & 3)
PERMATRAK DETAILS

NO.	ISSUE	BY	DATE

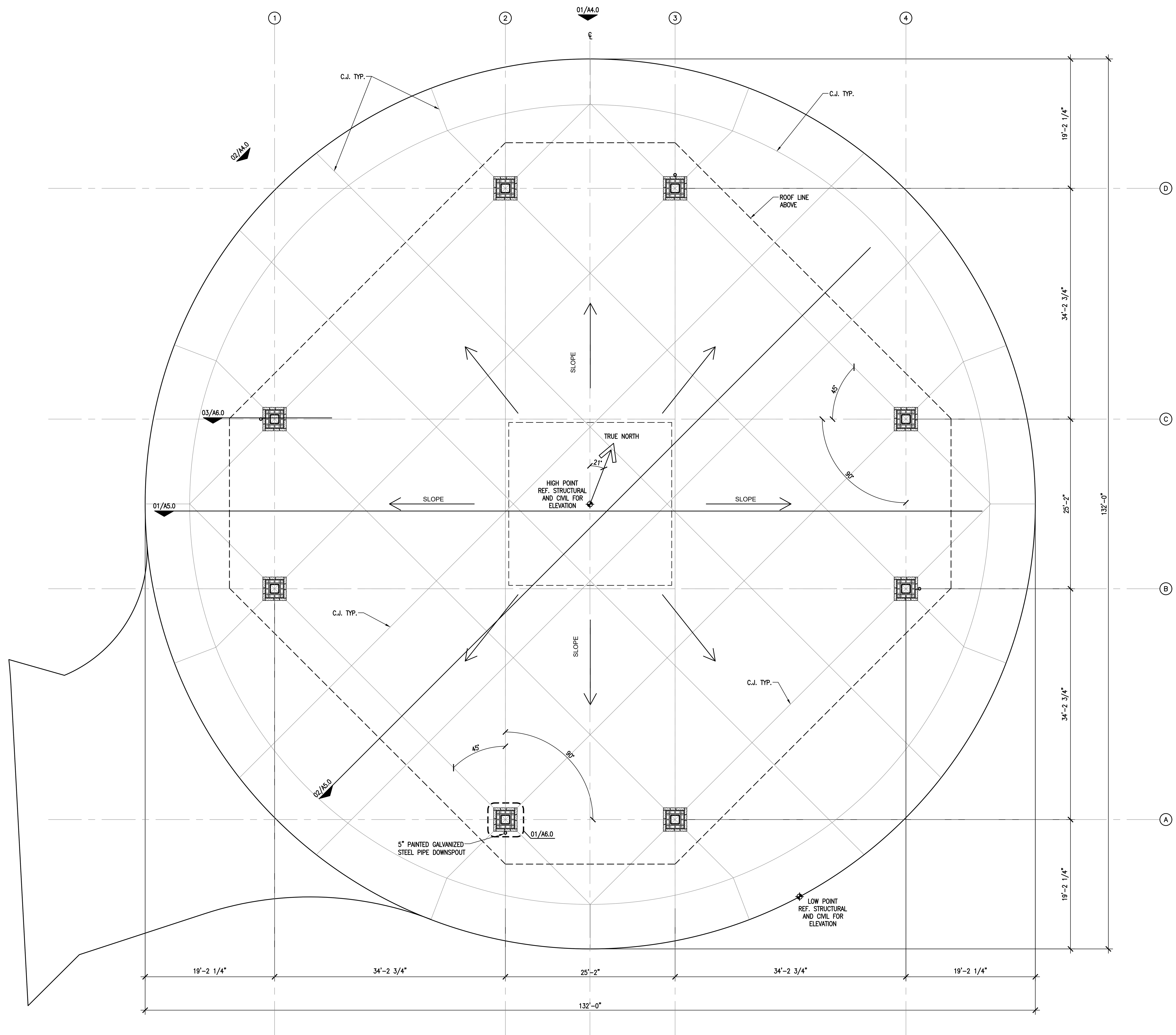
F&N JOB NO.	SRA23985	DATE	07/17/24
DESIGNED	NAC		
DRAWN	DKS		
CHECKED			
APPROVED	EG		
FILE NAME	CV-SRA-STD-TxDOT(01).dwg		

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET L10
SEQ.

ACAD Rel: 24.2s (LMS Tech)
Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg
Last Saved: 7/15/2024 4:01 PM Saved By: dks

Plot Date: 7/16/2024 9:07 AM Plot By: dks Filename: N:\IF\Drawings\CV-SRA-STD-TxDOT(01).dwg



01 A2.0 **PAVILION PLAN**
SCALE: 1/8" = 1'-0"

NORTH

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

7-15-24

GHLA ARCHITECTURE PLANNING INTERIOR DESIGN

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
ARCHITECTURE
PAVILION FLOOR PLAN

F&N JOB NO.	SRA23985
DATE	07/08/2024
DESIGNED	GHL
DRAWN	HCD
CHECKED	
APPROVED	

NO.	ISSUE	BY	DATE

FILE NAME A2.0.dwg

VERIFY SCALE 0 1
Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET A2.0
SEQ.

ISSUED FOR BID

ACAD Rel: 24.0s (LMS Tech)
Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A2.0.dwg
Last Saved: 7/11/2024 4:29 PM Saved By: hdawson

Plot Date: 7/15/2024 5:16 PM Plot By: hdawson Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A2.0.dwg

PAVILION FLOOR CONTROL JOINT PLAN

01 / A2.1

SCALE: 1/8" = 1'-0"

NORTH

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED ARCHITECT HOWARD T. HOLLMAN 12905 STATE OF TEXAS
7.15.24

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN
1100 WEST THIRD, HILL HOUSE, AUSTIN, TEXAS 78703
512.327.7080
www.ghlarchitects.com

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
ARCHITECTURE
PAVILION FLOOR PLAN

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/08/2024
DESIGNED GHL
DRAWN HCD
CHECKED
APPROVED

FILE NAME A2.1.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET A2.1
SEQ.

ACAD Rel: 24.0s (LMS Tech)
Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A2.1.dwg
Last Saved: 7/11/2024 4:29 PM Saved By: hdawson

Plot Date: 7/15/2024 5:17 PM Plot By: hdawson Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A2.1.dwg

GENERAL FINISH NOTES

ALL MATERIALS, FINISHES, COLORS AND PAINT TO BE SUBMITTED TO ARCHITECT FOR REVIEW, SELECTION, AND/OR APPROVAL.

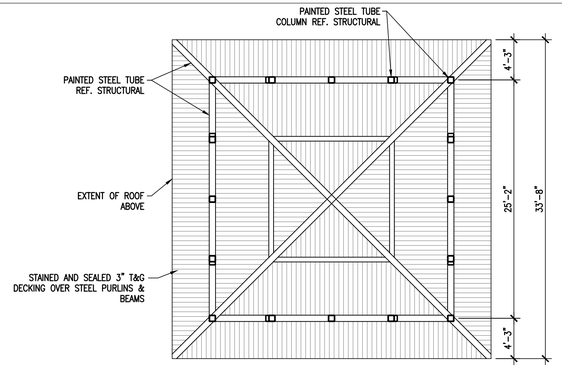
BID ALTERNATE #6

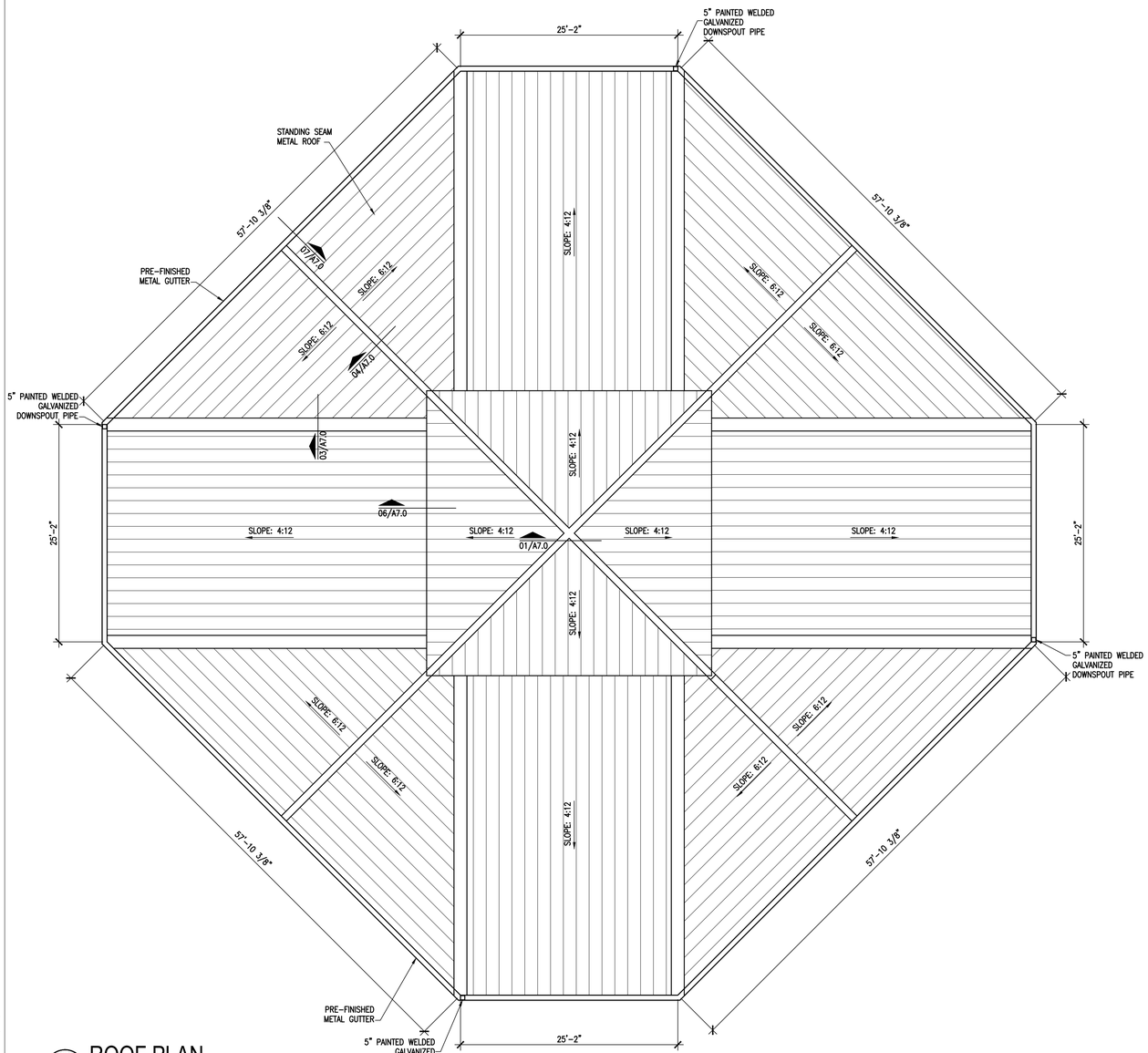
STRUCTURAL ROOF FRAMING ALTERNATE NUMBER ONE:

BASIS OF DESIGN – THE PRIMARY STEEL FRAME WITH SECONDARY GLU–LAM PURLINS WITH 3" X 6" TOUNGUE AND GROOVE STAINED WOOD DECKING AS SHOWN ON THE ARCVHITECTURAL AND STRUCTURAL CONSTRUCTION DRAWINGS DATED JULY 15, 2024.

ALTERNATE NUMBER TWO:

THE CONTRACTOR IS TO REQUEST AN ALTERNATE STRUCTURAL HEAVY TIMBER FRAMED ROOF SYSTEM INCLUDING ALL PRIMARY FRAMED, PURLINS AND DECKING TO BE COMPLETELY ENGINEERED BY 'STRUCTURAL WOOD COMPONENTS' PO BOX 35420, HOUSTON TEXAS 77235, 281–259–0668. THE THIRD–PARTY STRUCTURAL ENGINEER IS REQUIRED TO PROVIDE FULLY ENGINEERED SIGNED AND SEALED CONSTRUCTION DOCUMENTS FOR THE ALTERNATE HEAVY TIMBER DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST ASSOCIATED WITH THIS ALTERNATE DESIGN AND TO PROVIDE A COMPLETE FUNCTIONING AND FINELY DETAILED STRUCTURE



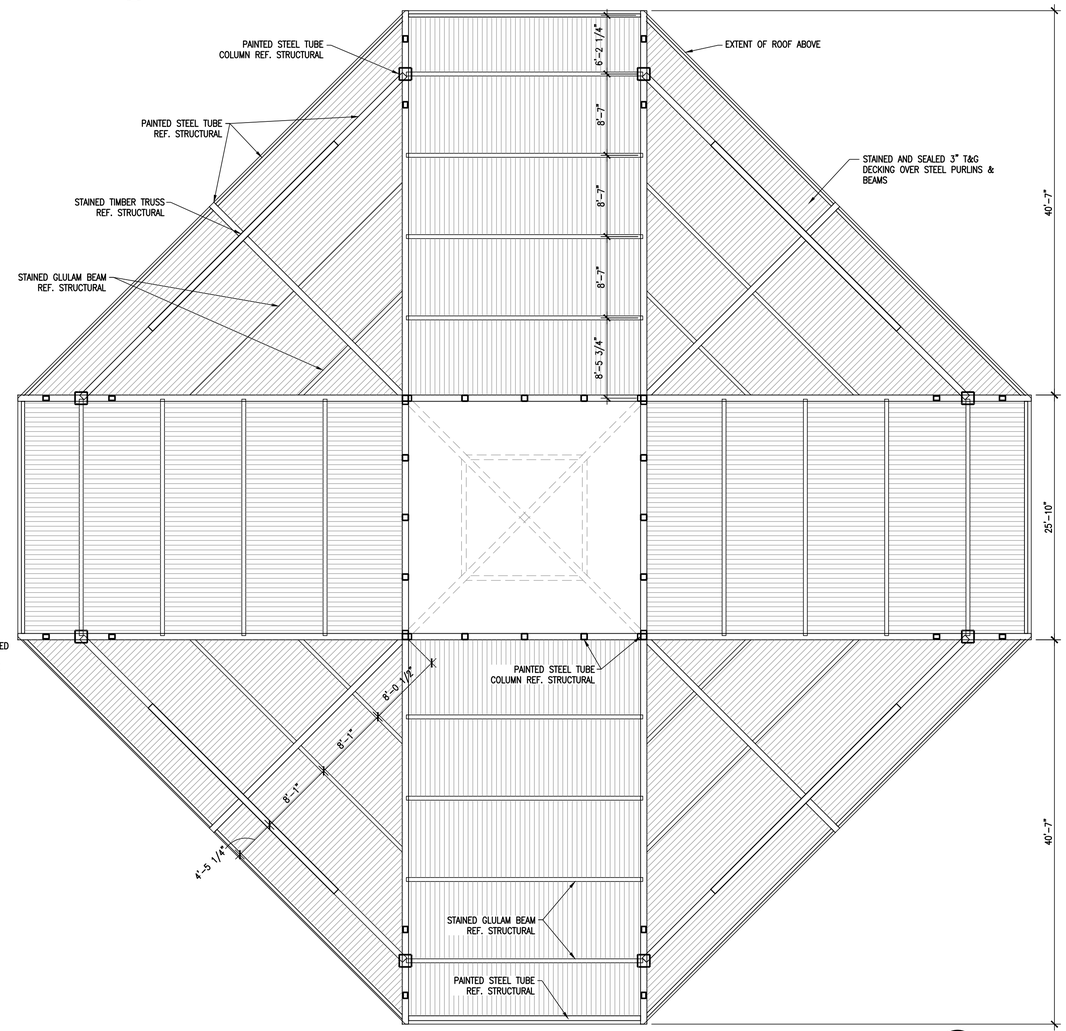


02 A3.0 ROOF PLAN

SCALE: 1/8" = 1'–0"

03 A3.0 CUPOLA REFLECTED CEILING PLAN

SCALE: 1/8" = 1'–0"



01 A3.0 PAVILION REFLECTED CEILING PLAN

SCALE: 1/8" = 1'–0"

NORTH

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED ARCHITECT HOWARD C. DAWSON 12305 STATE OF TEXAS
7.15.24

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

ARCHITECTURE

PAVILION ROOF PLAN AND REFLECTED CEILING PLAN

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/08/2024
DESIGNED GHL
DRAWN HCD
CHECKED
APPROVED

FILE NAME A3.0.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. if not one hinch on this sheet, adjust scale.

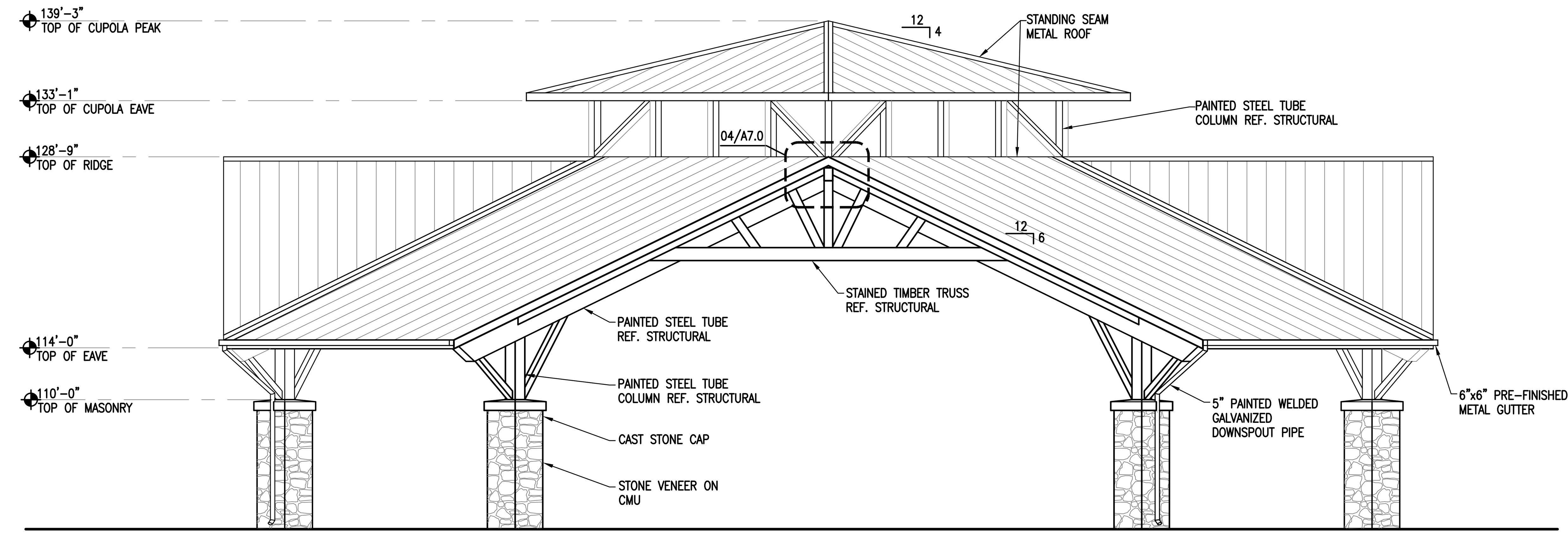
0 1"

SHEET A3.0

SEQ.

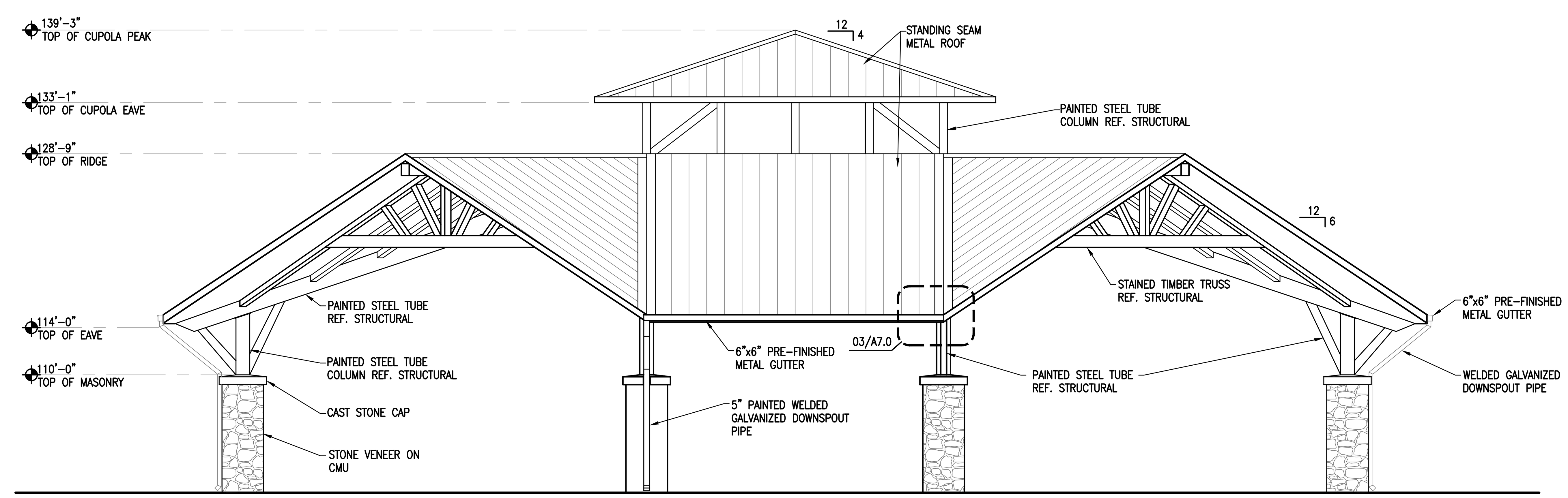
ACAD Rel: 24.0s (LMS Tech)
Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A3.0.dwg
Last Saved: 7/11/2024 4:29 PM Saved By: hdawson

Plot Date: 7/15/2024 5:17 PM Plot By: hdawson Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A3.0.dwg



02 / A4.0 **PAVILION ELEVATION**

SCALE: 1/8" = 1'-0"



01 / A4.0 **PAVILION ELEVATION**

SCALE: 1/8" = 1'-0"

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

7.15.24

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

ARCHITECTURE
PAVILION ELEVATIONS

F&N JOB NO.	SRA23985
DATE	07/08/2024
DESIGNED	GHL
DRAWN	HCD
CHECKED	
APPROVED	

NO.	ISSUE	BY	DATE

FILE NAME A4.0.dwg

VERIFY SCALE 0 1"
Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

SHEET A4.0

SEQ.

ISSUED FOR BID

ACAD Rel: 24.0s (LMS Tech)
Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A4.0.dwg
Last Saved: 7/12/2024 5:00 PM Saved By: hdawson

Plot Date: 7/15/2024 5:18 PM Plot By: hdawson Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A4.0.dwg

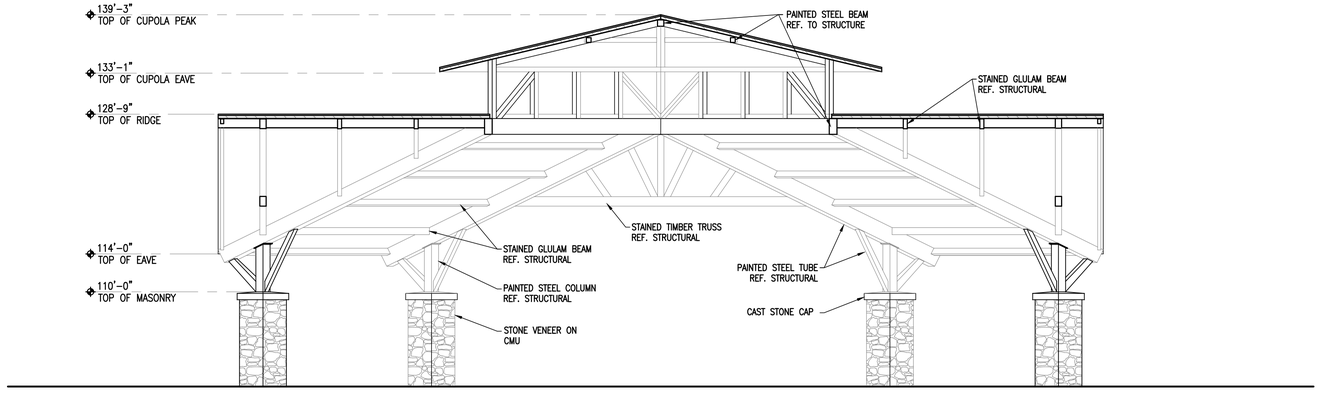
BID ALTERNATE #6

STRUCTURAL ROOF FRAMING ALTERNATE NUMBER ONE:

BASIS OF DESIGN – THE PRIMARY STEEL FRAME WITH SECONDARY GLU–LAM PURLINS WITH 3" X 6" TOUNGUE AND GROOVE STAINED WOOD DECKING AS SHOWN ON THE ARCVHITECTURAL AND STRUCTURAL CONSTRUCTION DRAWINGS DATED JULY 15, 2024.

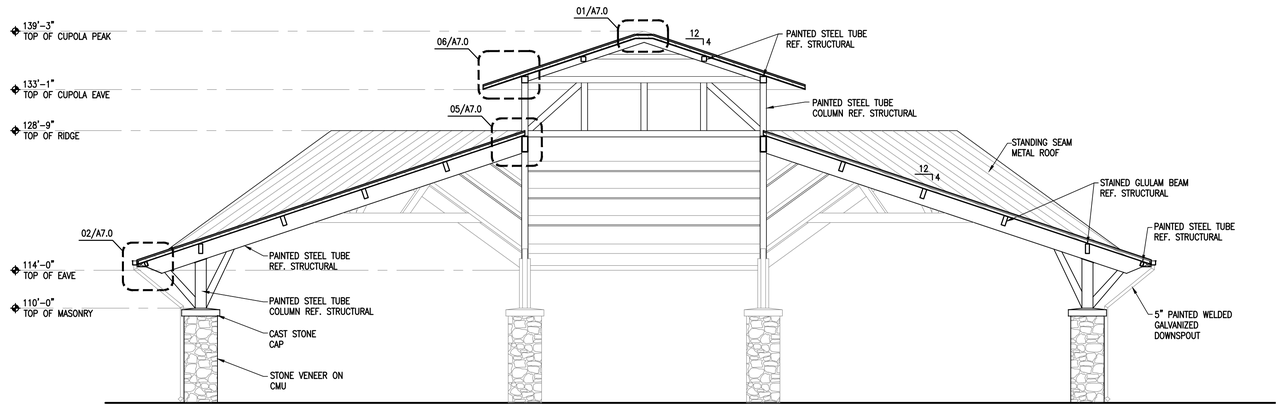
ALTERNATE NUMBER TWO:

THE CONTRACTOR IS TO REQUEST AN ALTERNATE STRUCTURAL HEAVY TIMBER FRAMED ROOF SYSTEM INCLUDING ALL PRIMARY FRAMED, PURLINS AND DECKING TO BE COMPLETELY ENGINEERED BY 'STRUCTURAL WOOD COMPONENTS' PO BOX 35420, HOUSTON TEXAS 77235, 281–259–0668. THE THIRD–PARTY STRUCTURAL ENGINEER IS REQUIRED TO PROVIDE FULLY ENGINEERED SIGNED AND SEALED CONSTRUCTION DOCUMENTS FOR THE ALTERNATE HEAVY TIMBER DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST ASSOCIATED WITH THIS ALTERNATE DESIGN AND TO PROVIDE A COMPLETE FUNCTIONING AND FINELY DETAILED STRUCTURE



02 A5.0 PAVILION SECTION

SCALE: 1/8" = 1'–0"



01 A5.0 PAVILION SECTION

SCALE: 1/8" = 1'–0"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED ARCHITECT HOWARD C. TAYLOR 12305 STATE OF TEXAS
7.15.24

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

ARCHITECTURE
PAVILION SECTIONS

F&N JOB NO. SRA23985
DATE 07/08/2024
DESIGNED GHL
DRAWN HCD
CHECKED
APPROVED

NO. | ISSUE | BY | DATE

FILE NAME A5.0.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.

0 1"

SHEET A5.0

SEQ.

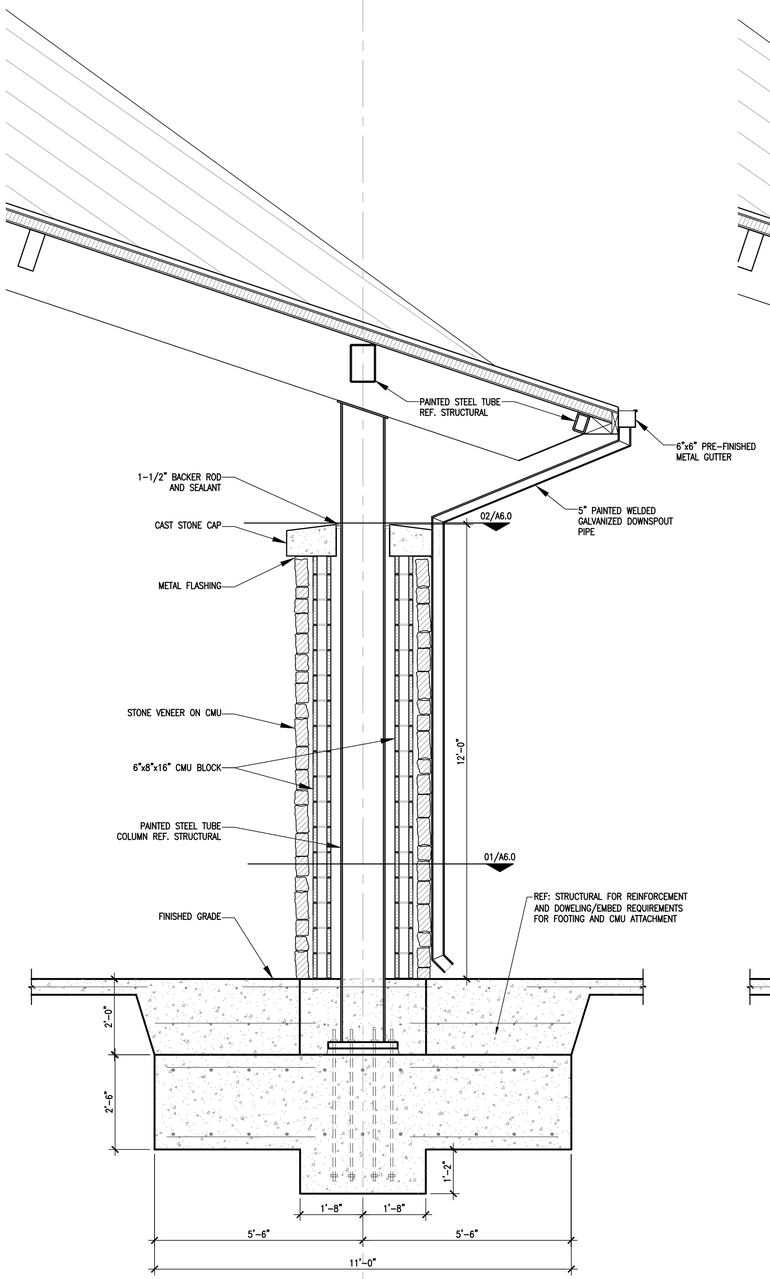
BID ALTERNATE #6

STRUCTURAL ROOF FRAMING ALTERNATE NUMBER ONE:

BASIS OF DESIGN – THE PRIMARY STEEL FRAME WITH SECONDARY GLU–LAM PURLINS WITH 3" X 6" TOUNGUE AND GROOVE STAINED WOOD DECKING AS SHOWN ON THE ARCVHITECTURAL AND STRUCTURAL CONSTRUCTION DRAWINGS DATED JULY 15, 2024.

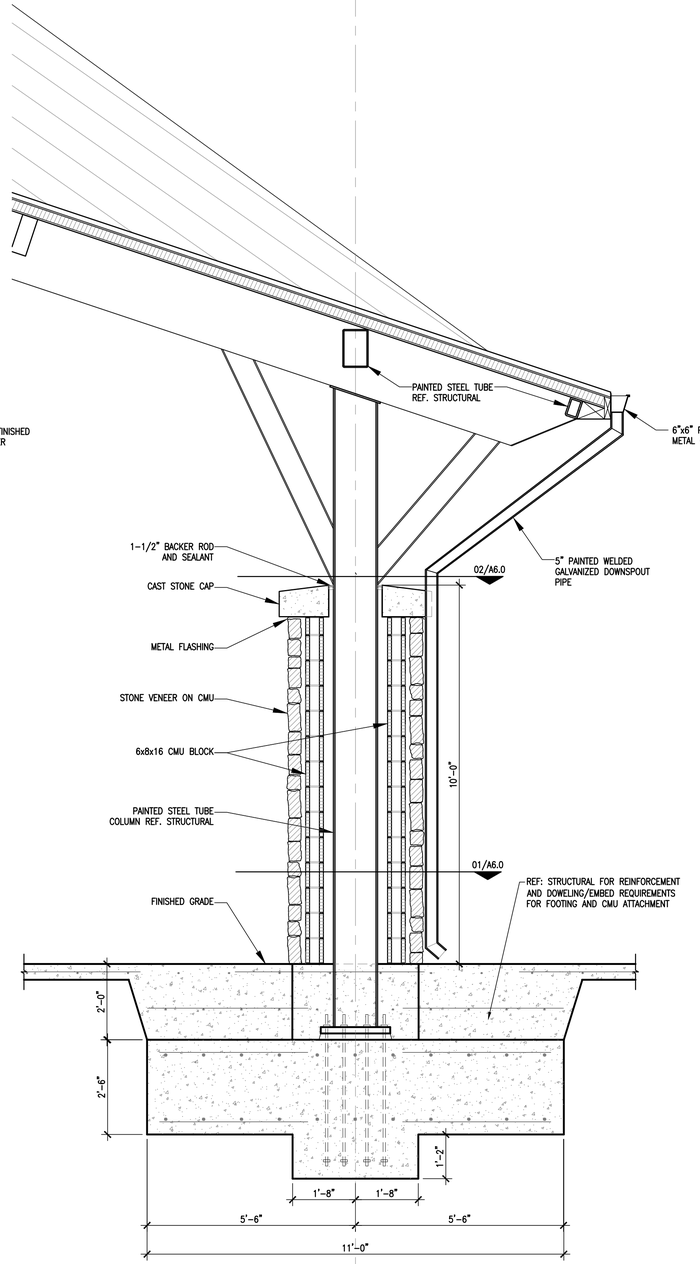
ALTERNATE NUMBER TWO:

THE CONTRACTOR IS TO REQUEST AN ALTERNATE STRUCTURAL HEAVY TIMBER FRAMED ROOF SYSTEM INCLUDING ALL PRIMARY FRAMED, PURLINS AND DECKING TO BE COMPLETELY ENGINEERED BY 'STRUCTURAL WOOD COMPONENTS' PO BOX 35420, HOUSTON TEXAS 77235, 281–259–0668. THE THIRD–PARTY STRUCTURAL ENGINEER IS REQUIRED TO PROVIDE FULLY ENGINEERED SIGNED AND SEALED CONSTRUCTION DOCUMENTS FOR THE ALTERNATE HEAVY TIMBER DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST ASSOCIATED WITH THIS ALTERNATE DESIGN AND TO PROVIDE A COMPLETE FUNCTIONING AND FINELY DETAILED STRUCTURE



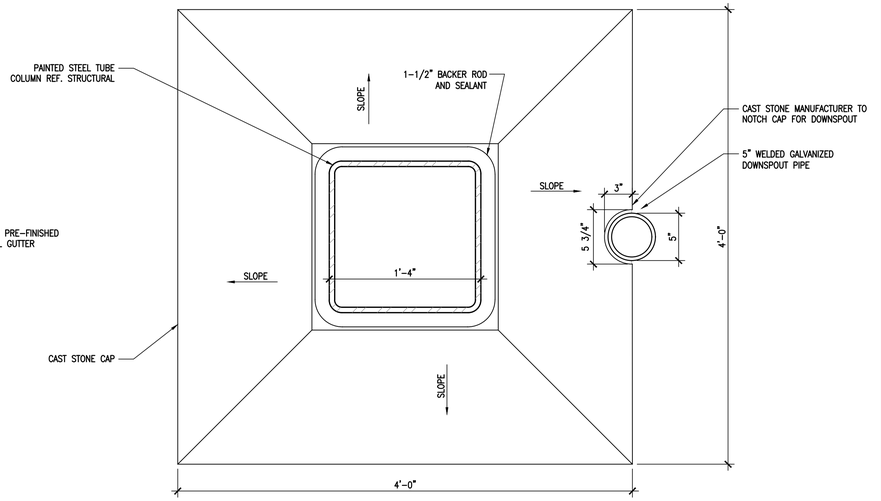
03 / A6.0 ALTERNATIVE #6 COLUMN SECTION DETAIL

SCALE: 1/2" = 1'–0"



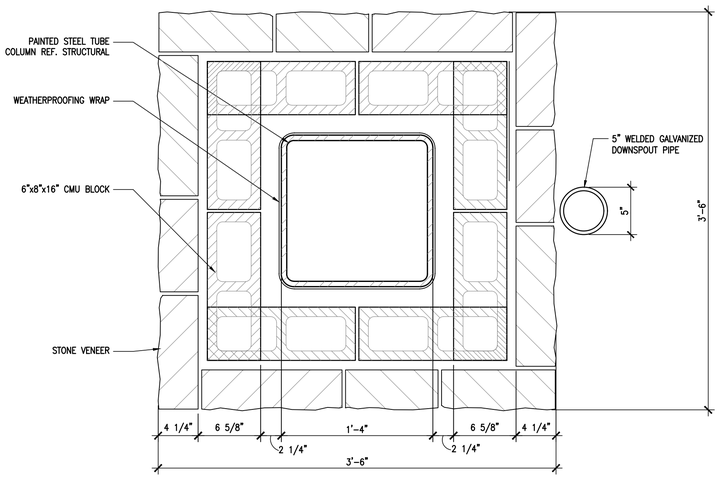
03 / A6.0 COLUMN SECTION DETAIL

SCALE: 1/2" = 1'–0"



02 / A6.0 COLUMN CAP DETAIL

SCALE: 1–1/2" = 1'–0"



01 / A6.0 COLUMN PLAN DETAIL

SCALE: 1–1/2" = 1'–0"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

REGISTERED ARCHITECT — IOWA — 12905 — STATE OF TEXAS
7.15.24

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

ARCHITECTURE
PAVILION COLUMN SECTION AND DETAILS

NO.	ISSUE	BY	DATE

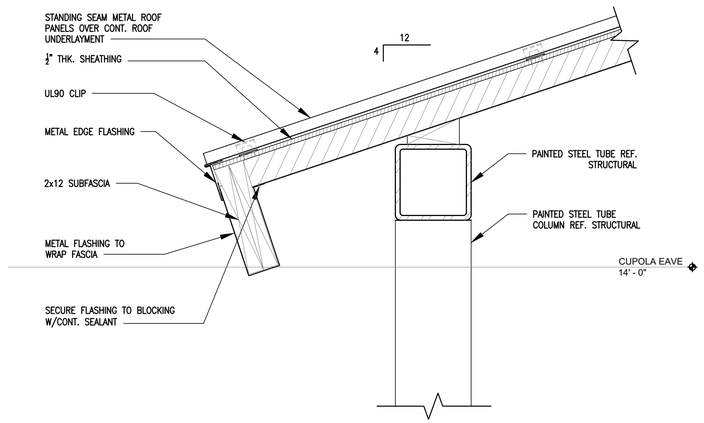
R&N JOB NO. SRA23985
DATE 07/08/2024
DESIGNED GHL
DRAWN HCD
CHECKED
APPROVED
FILE NAME A6.0.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET A6.0
SEQ.

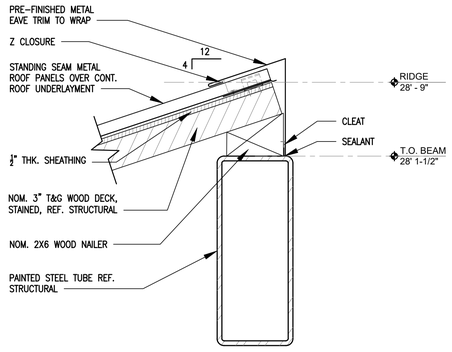
ACAD Rel: 24.0s (LMS Tech)
Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A6.0.dwg
Last Saved: 7/11/2024 4:29 PM Saved By: hdawson

Plot Date: 7/15/2024 5:22 PM Plot By: hdawson Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A6.0.dwg



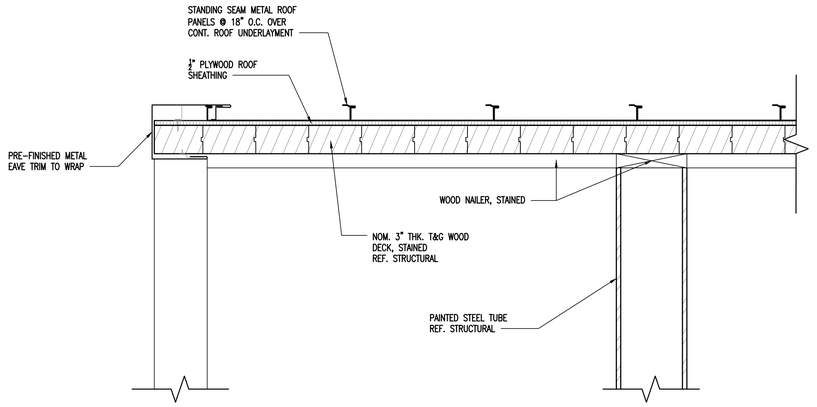
06 A7.0 **CUPOLA EAVE**

SCALE: 1-1/2" = 1'-0"



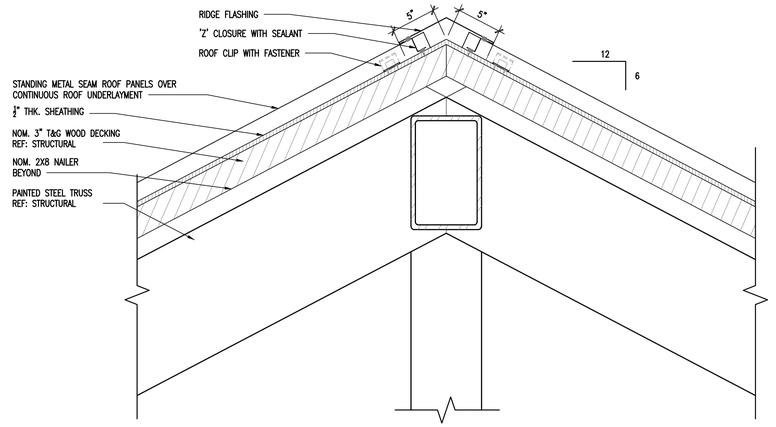
05 A7.0 **EAVE AT RAKE**

SCALE: 1-1/2" = 1'-0"



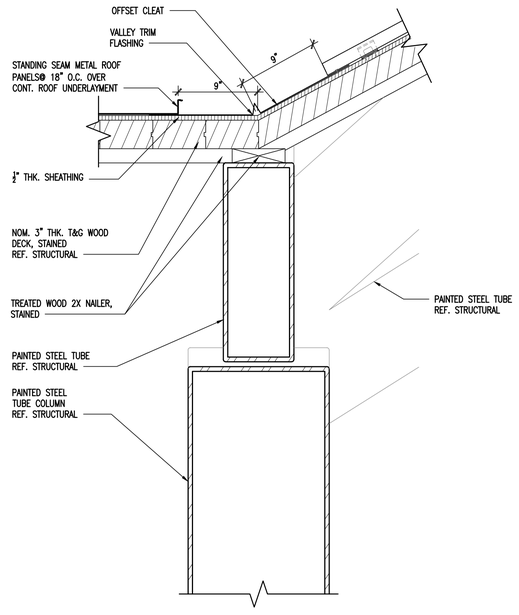
07 A7.0 **EAVE AT RIDGE**

SCALE: 1-1/2" = 1'-0"



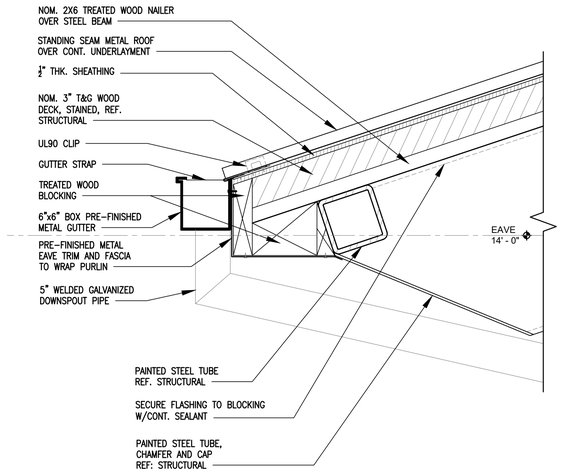
04 A7.0 **RIDGE DETAIL**

SCALE: 1-1/2" = 1'-0"



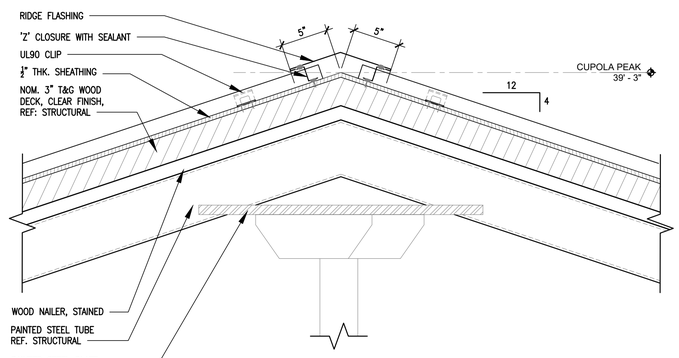
03 A7.0 **VALLEY AT STEEL**

SCALE: 1-1/2" = 1'-0"



02 A7.0 **GUTTER AND EAVE**

SCALE: 1-1/2" = 1'-0"



01 A7.0 **ROOF PEAK DETAIL**

SCALE: 1-1/2" = 1'-0"

ISSUED FOR BID

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

ARCHITECTURE
PAVILION SECTION AND DETAILS

F&N JOB NO.	SRA23985
DATE	07/08/2024
DESIGNED	GHL
DRAWN	HCD
CHECKED	
APPROVED	
FILE NAME	A7.0.dwg

NO. | ISSUE | DATE | BY

Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.

VERIFY SCALE 0 1"

SHEET A7.0

SEQ.

ACAD Rel: 24.0s (LMS Tech)
Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A7.0.dwg
Last Saved: 7/12/2024 5:00 PM Saved By: hdawson

Plot Date: 7/15/2024 5:20 PM Plot By: hdawson Filename: G:\Shared drives\Jobs\FNI\Sabinetown Park\Drawings\Arch\Sheets\A7.0.dwg

GENERAL NOTES:

DESIGNED BY KWS STRUCTURAL CONSULTANTS

THE STRUCTURAL COMPONENTS OF THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE IBC CODE, 2021 EDITION. THE DESIGN LOADS ARE AS FOLLOWS:

1. GROUND FLOOR LIVE LOADS:
   ALLOWABLE LOAD ALL AREAS 250 PSF

2. ROOF DEAD LOADS:
   ROOF TOP CHORD 12 PSF
   ROOF BOTTOM CHORD 8 PSF
   * FOR ROOF TRUSS UPLIFT CALCULATIONS, ASSUME A TOTAL DEAD LOAD OF 10 PSF.

3. ROOFS LIVE & SNOW LOADS:
   SNOW LOAD 5 PSF
   TOP CHORD LIVE LOAD 20 PSF

OTHER LOADS TO BE USED FOR THE DESIGN OF THE STRUCTURAL COMPONENTS ARE BASED UPON THE PROVISIONS OF CHAPTER 16 AS FOLLOWS:

GROUND SNOW LOAD P(g) = 5 PSF; C(e) = 1.0; I(s) = 1.0; C(t) = 1.0

WIND DESIGN DATA: (PRESSURES SHOWN ARE ALLOWABLE ASD)
BASIC WIND SPEED = 108 MPH, EXPOSURE C;
MAIN WIND FORCE RESISTING SYSTEMS = 20.0 PSF
ROOF COMPONENTS AND CLADDING = 27.6 PSF (ZONE 2); 41.8 PSF (ZONE 3)

EARTHQUAKE DESIGN DATA: (ASCE 7-16)
S(s) = 0.095g; S(1) = 0.059g; SOIL SITE CLASS = D; I(s) = 1.0
S(DS) = 0.101g; S(D1) = 0.094g; SEISMIC DESIGN CATEGORY = B;
C(S) = 0.042G; ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE

FOUNDATION NOTES:

F1. THE GEOTECHNICAL SOILS REPORT FOR THIS SITE WAS PRODUCED BY RINER ENGINEERING OF HOUSTON, TEXAS, RINER PROJECT NO. 23-0711, DATED JUNE 3, 2024. THE FOUNDATION DESIGN IS BASED UPON THE RECOMMENDATIONS CONTAINED WITHIN THIS SOILS REPORT, KNOWLEDGE OF THE EXISTING SOILS AS SHOWN IN THE BORING LOGS, AND PER THE DESIGN REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR SHALL OBTAIN, READ, & BE FAMILIAR WITH THE SOIL PREPARATION, RECOMMENDATIONS, GUIDELINES, AND THE BORING LOGS AS GIVEN IN THE GEOTECHNICAL REPORT.

F2. EARTHWORK: ALL DEBRIS, VEGETATION, AND TOPSOIL CONTAINING ORGANIC MATERIALS SHALL BE CLEARED AND REMOVED FROM THE BUILDING SITE FOR A MINIMUM OF FIVE (5) FEET BEYOND THE BUILDING FOOTPRINT. THE SITE SHALL BE PREPARED PER THE GEOTECHNICAL REPORT SECTION 5.11 TO LIMIT POTENTIAL DIFFERENTIAL SOIL MOVEMENTS TO ONE INCH (1.0") OR LESS. EXCAVATE EXISTING SOILS UNDER THE STRUCTURAL FOUNDATION FOOTPRINT, INCLUDING THE COVERED ENTRY AREA, AND 4'-0" BEYOND THE PERIMETER OF THE FOUNDATIONS, TO A DEPTH OF SEVEN FEET (7'-0") BELOW FINISHED FLOOR. MOISTURE CONDITION, REPLACE, AND COMPACT THE EXISTING SITE SOILS UNDER THE BUILDING FOOTPRINT TO A MOISTURE CONTENT OF +2.0 TO +6.0 PERCENTAGE POINTS ABOVE OPTIMUM MOISTURE, AND COMPACT THE SITE SOILS TO 95% to 99% OF ASTM D-698. CAP WITH A FIVE FOOT (5'-0") THICK LAYER OF SELECT FILL SOILS PER NOTES F3 AND F4. THE FINAL BUILDING PAD ELEVATION SHOULD BE SET AT ROUGHLY 6 INCHES BELOW FINISHED FLOOR. A GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING SUBGRADE PREPARATION TO VERIFY THE FILL MATERIALS, COMPACTION, AND MOISTURE CONTENT OF THE SOILS UNDER THE FOUNDATIONS. THE FOUNDATION SLAB SHALL BE PLACED UPON A 10 MIL VAPOR BARRIER OVER THE PREPARED SUBGRADE.

F3. SELECT FILL: SELECT FILL SHALL BE USED TO OBTAIN FINISHED CIVIL GRADES AS NEEDED. SELECT FILL SHALL BE PLACED AS SOON AS POSSIBLE AFTER COMPLETION OF COMPACTION OF THE SUBGRADE TO LIMIT MOISTURE LOSS OF THE SOIL. SELECT FILL SHALL NOT EXTEND BEYOND THE LIMITS OF THE STRUCTURES. SELECT FILL MATERIALS SHALL CONSIST OF CLAYEY SANDS OR SANDY CLAYS WITH A PI VALUE BETWEEN 7 AND 18, AND A LIQUID LIMIT LESS THAN 35. THE SELECT FILL SHALL BE FREE OF ORGANIC MATTER, ROCKS, DEBRIS AND DELETERIOUS MATERIALS. THE SELECT FILL MATERIALS SHALL BE APPROVED BY A LICENSED GEOTECHNICAL ENGINEER.

F4. COMPACTION OF SELECT FILL: SELECT FILL REQUIRED BENEATH THE GRADE SLAB SHALL BE PLACED IN 6 TO 8 INCH THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY AT A MOISTURE CONTENT BETWEEN +0 AND +4 PERCENT OF OPTIMUM AS DETERMINED BY THE STANDARD PROCTOR METHOD, ASTM SPECIFICATION D-698.

F5. EXTERIOR FILL: FILL PLACED ALONG THE OUTSIDE OF EXTERIOR GRADE BEAMS SHALL BE MOISTURE CONDITIONED ON-SITE SOILS. THE SITE FILL IS INTENDED TO REDUCE SURFACE WATER INFILTRATION BENEATH THE STRUCTURE. THE FINISHED GRADES OF EXTERIOR THE SITE FILL SHALL BE AS PER THE CIVIL GRADING PLANS. CARE SHALL BE TAKEN THAT NO LOW SPOTS EXIST THAT ALLOW WATER TO COLLECT AT OR NEAR THE BUILDING.

F6. POSITIVE SURFACE DRAINAGE AWAY FROM THE STRUCTURES SHALL BE ESTABLISHED AND MAINTAINED AT ALL TIMES BOTH DURING AND AFTER CONSTRUCTION. AT NO TIME SHALL WATER BE ALLOWED TO COLLECT NEAR THE BUILDING FOUNDATION (WITHIN 10 FEET). GUTTERS SHALL DISCHARGE ROOF WATER AT LEAST 10 FEET AWAY FROM ALL BUILDING FOUNDATIONS. EXTERIOR GRADING SHALL SLOPE AWAY FROM THE FOUNDATION 0.6" PER FOOT (1:20) FOR AT LEAST 10 FEET.

F7. UTILITY LINE TRENCHES: UTILITY LINES RUNNING UNDER THE EXTERIOR GRADE BEAMS SHALL HAVE A CLAY PLUG TO PREVENT WATER INFILTRATION BENEATH THE STRUCTURE THROUGH POROUS TRENCH BACKFILL MATERIALS. CLAY PLUGS SHALL BE LOCATED IMMEDIATELY OUTSIDE OF THE EXTERIOR GRADE BEAM. THE CLAY PLUG SHALL CONSIST OF A 5'-0" MINIMUM LENGTH OF TRENCH BACKFILLED WITH ON-SITE CLAYS COMPACTED IN ACCORDANCE WITH NOTE 4.

F8. SIDEWALKS AND PAVEMENT SHOULD NOT BE STRUCTURALLY CONNECTED TO THE BUILDING, EXCEPT AT ENTRIES AND EXITS, AND SHOULD SLOPE AWAY FROM THE BUILDING SO THAT WATER WILL BE DRAINED AWAY FROM THE STRUCTURES. PLANTER BEDS, PAVEMENT, AND SIDEWALKS SHALL BE PLACED AND DRAINED SUCH THAT THEY DO NOT TRAP SURFACE WATER NEAR THE FOUNDATIONS.

F9. A LICENSED GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING SUBGRADE PREPARATION TO VERIFY THE COMMON AND ENGINEERED FILL MATERIALS, COMPACTION, AND MOISTURE CONTENT OF THE COMMON AND SELECT FILL SOILS. THE LICENSED GEOTECHNICAL ENGINEER SHALL CERTIFY THAT THE FOUNDATION PAD HAS BEEN PREPARED ACCORDING TO THE GUIDELINES OF THE GEOTECHNICAL REPORT, WITH AN ALLOWABLE BEARING CAPACITY OF AT LEAST 2,250 PSF.

F10. LIMITATIONS: THE ENGINEERING SERVICES PROVIDED BY KWS ARE CONDUCTED IN A MANNER CONSISTENT WITH THAT LEVEL OF CARE AND SKILL ORDINARILY EXCERCISED BY MEMBERS OF THE PROFESSION CURRENTLY PRACTICING UNDER SIMILAR CONDITIONS. NO WARRANTIES, EXPRESSES OR IMPLIED, ARE MADE. WE DO NOT WARRANT OR GUARANTEE THE ACCURACY OR QUALITY OF THE WORK OR MATERIALS PROVIDED BY OTHER MEMBERS OF THE DESIGN TEAM, NOR ANY MEMBERS OF THE CONSTRUCTION TEAM.

CONCRETE NOTES:

C1. ALL STRUCTURAL CONCRETE SHALL WEIGH 140 TO 155 LBS. PER CU. FT., AND BE OF A HARDROCK AGGREGATE.

C2. MINIMUM CONCRETE STRENGTHS AT 28 DAY BREAK:

   GRADE BEAMS AND FOOTINGS . . . . . 4000 PSI
   SLABS ON GRADE . . . . . 4000 PSI

CONCRETE SLUMP SHALL BE:

   GRADE BEAMS AND FOOTINGS . . . . 3 IN. MIN./5 IN. MAX.
   SLABS ON GRADE . . . . . 3 IN. MIN./5 IN. MAX.

CONCRETE MIX DESIGNS AND TEST RESULTS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR EVALUATION AND APPROVAL. ALL CONCRETE SHALL CONTAIN A MINIMUM OF 450 POUNDS OF CEMENT PLUS 114 POUNDS OF FLY ASH PER CUBIC YARD. MAXIMUM SIZE OF AGGREGATE FOR FOOTINGS AND GRADE BEAMS SHALL BE 1½". MAXIMUM SIZE OF AGGREGATE FOR SLABS SHALL BE 1½".

C3. ALL CAST-IN-PLACE CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI-301, LATEST EDITION, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

C4. ALL REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH "PLACING REINFORCING BARS", PUBLISHED BY THE CONCRETE REINFORCING STEEL INSTITUTE, LATEST EDITION.

C5. CONCRETE REINFORCING: REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A615, GRADE 60 BARS.

C6. SLABS ON GRADE: SLABS ON GRADE SHALL BE OF HARDROCK CONCRETE OF THE THICKNESS AND WITH REINFORCEMENT AS SHOWN ON FOUNDATION PLAN. SLAB REINFORCING SHALL BE CENTERED IN SLAB. CARE SHALL BE TAKEN TO MAINTAIN SLAB REINFORCEMENT POSITION DURING POURING OPERATION.

C7. APPLY A DISSIPATING CURING COMPOUND TO FLOOR SLABS AND SLABS ON GRADE, W.R. MEADOWS 1100-CLEAR, OR EQUAL, MEETING ASTM C309, AT ALL FOUNDATION AREAS AS PER THE MANUFACTURER'S SPECIFICATIONS AND GUIDELINES. CLEAN CONCRETE SURFACES PER THE MANUFACTURER'S INSTRUCTIONS PRIOR TO THE APPLICATION OF FLOORING ADHESIVES, FINISHES, OR SEALERS.

C8. FOOTINGS: GRADE BEAMS & FOOTINGS SHALL BE OF HARDROCK CONCRETE OF SIZE AND REINFORCEMENT AS INDICATED ON PLANS. FOOTINGS MAY BE POURED NEAT, EXCEPT THAT EXPOSED SURFACES SHALL BE FORMED. CARE SHALL BE TAKEN TO ACCURATELY TRENCH FOOTINGS TO WIDTHS AND DEPTHS INDICATED. TRENCHES SHALL BE KEPT CLEAN AND CARE SHALL BE TAKEN TO PREVENT SLOUGHING OF TRENCH SIDES. DETAIL REINFORCING AND PROVIDE CORNER BARS AT FOOTING INTERSECTIONS TO MATCH HORIZONTAL REINFORCING.

C9. MINIMUM COVERAGE ON REINFORCING STEEL:

   CONCRETE CAST AGAINST EARTH . . 3" CLEAR TO STIRRUP
   CONCRETE CAST AGAINST FORMS. . . 2" CLEAR TO STIRRUP
   FOOTINGS . . . . . 2" TOP, 3" BOTTOM,
   2" ON FORMED SIDES
   SLABS ON GRADE . . . . . CENTER REINFORCING IN SLAB

C10. ALL OPENINGS FOR MECHANICAL EQUIPMENT, TRENCHES, SLOPES TO DRAINS, ETC., SHALL BE VERIFIED BY GENERAL CONTRACTOR AND INDICATED ON SHOP DRAWINGS. COORDINATE LOCATIONS AND SIZES OF ALL OPENINGS WITH APPLICABLE TRADES.

C11. THE MINIMUM REBAR LAP SPLICE LENGTH FOR ALL SLAB ON GRADE SLABS, FOOTINGS, AND GRADE BEAMS SHALL BE 48 BAR DIAMETERS.

WOOD FRAMING:

W1. ALL WOOD MEMBERS SHALL BE AS SHOWN ON THE PLANS AND TABLES AND SHALL BE GRADE #2 SOUTHERN PINE OR DOUGLAS FIR-LARCH, OR AN EQUIVALENT WOOD. LUMBER FOR BRACING, BRIDGING, AND BLOCKING SHALL BE GRADE #2 OR BETTER SOUTHERN PINE OR DOUGLAS FIR-LARCH. ANY SINGLE SPAN GLULAMS SHOWN SHALL BE VISUALLY GRADED SOUTHERN PINE OR DOUGLAS FIR SPECIES, GRADE 24F-V3 (F(b)=2400 PSI). ANY MULTI SPAN GLULAMS AND GLULAM CANTILEVERED OVER SUPPORTS SHALL BE GRADE 24F-V8.

W2. JOIST AND RAFTER CONNECTIONS TO SUPPORTING BEAMS SHALL BE MADE WITH SIMPSON SERIES, GALVANIZED STEEL JOIST HANGERS AND CONNECTORS, UNLESS DETAILED OTHERWISE. FLUSH-TYPE AND SKEWED CONNECTIONS USING THESE JOIST HANGERS SHALL UTILIZE THE HANGER TYPE AND SIZE, AND NUMBER OF FASTENERS SPECIFIED BY THE CONNECTOR MANUFACTURER FOR THE MEMBER SIZE TO BE SUPPORTED.

W3. FASTENING OF ALL WOOD-TO-WOOD CONNECTIONS AND WOOD-TO-CONCRETE CONNECTIONS SHALL MEET THE MINIMUM REQUIREMENTS OF CHAPTER 23 OF THE 2021 IBC, AND TABLE 2304.9.1

ROOF SHEATHING:

P1. ROOF SHEATHING, FOR THIS PROJECT SHALL CONSIST OF 3x6 TONGUE AND GROOVE SOUTHERN PINE OR DOUGLAS FIR WOOD DECKING MEMBERS LAID FLAT, GRADE #2. TREAT AND STAIN THE WOOD DECKING PER THE ARCHITECTURAL. PANELS SHALL BE CONTINUOUS OVER TWO OR MORE SUPPORTS AND SHALL BE APPLIED WITH LONG DIRECTION PERPENDICULAR TO THE SUPPORTS.

P2. FASTENERS SHALL BE TWO 4 INCH LONG #10 WOOD SCREWS THROUGH EACH PLANK INTO THE WOOD FRAMING AT SUPPORTS. MAXIMUM SPAN BETWEEN SUPPORTS SHALL NOT EXCEED 9'-0".

P3. ROOF SHEATHING SHALL BE INSTALLED WITH PROPER GAPS TO PREVENT BUCKLING OF DECKING.

FIRE SPRINKLERS:

FS1. IF THERE ARE ANY FIRE SPRINKLERS REQUIRED FOR THIS PROJECT, IT IS NOT IN THE SCOPE OF THE STRUCTURAL ENGINEER OF RECORD (KWS) TO INSPECT OR DESIGN THE INSTALLATION AND ATTACHMENT OF FIRE SPRINKLER SYSTEMS. THE DESIGN AND INSTALLATION OF THE FIRE SPRINKLER SYSTEM SHALL BE BY A QUALIFIED FIRE SPRINKLER COMPANY. DESIGN DRAWINGS SHALL BE SUBMITTED TO THE TRUSS MANUFACTURER WHICH CLEARLY SHOW ALL LOADS. IF ANY STRUCTURAL ENGINEERING IS REQUIRED FOR THE DESIGN, INSPECTION, OR ATTACHMENT TO THE STRUCTURE, THIS ENGINEERING SHALL BE DONE BY A THIRD PARTY ENGINEER PAID FOR BY THE FIRE SPRINKLER COMPANY.

STRUCTURAL STEEL:

S1. ALL WIDE FLANGE SECTIONS AND CHANNELS SHALL BE ASTM A992, GRADE 50. ALL PLATES SHALL BE ASTM A572, GRADE 50. ALL ANGLES SHALL BE ASTM A36, GRADE 36. ALL HSS TUBES SHALL BE ASTM A500, GRADE B. ALL PIPE SHALL BE ASTM A53, GRADE B.

S2. STRUCTURAL STEEL SHALL BE DESIGNED, DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE A.I.S.C. "STEEL CONSTRUCTION MANUAL", THIRTEENTH EDITION.

S3. ALL SHOP AND FIELD WELDING SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY SPECIFICATIONS. ALL WELDS SHALL BE CONTINUOUS WHERE LENGTH IS NOT GIVEN. ALL WELDS SHALL DEVELOP THE FULL STRENGTH OF THE WEAKER MEMBER. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES.

S4. SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. FIELD CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS.

S5. ALL ERECTION BOLTS SHALL BE A.S.T.M. A-325. ALL PERMANENT BOLTS SHALL BE A.S.T.M. A-325, BEARING TYPE, 3/4 INCH DIAMETER, UNLESS NOTED. ANCHOR BOLTS SHALL BE A.S.T.M. F-1554, GRADE 55, U.N.O., WITH LENGTHS AND HOOKS AS SHOWN ON THE DRAWINGS.

S6. ALL STRUCTURAL STEEL, EXCEPT EMBEDDED ITEMS, SHALL BE PAINTED WITH ONE SHOP COAT OF RUST INHIBITIVE PAINT AND FIELD RETOUCHED WHERE THE SHOP COAT HAS BEEN DAMAGED DUE TO PLACING, HANDLING, OR WELDING. GALVANIZE ALL STEEL ITEMS SET OUTSIDE OF, IN, ON, OR AT THE BUILDING EXTERIOR. STEEL LINTELS AND SHELF ANGLES SUPPORTING MASONRY SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.

S7. UNLESS NOTED ON THE DRAWINGS, ALL BEAM CONNECTIONS ARE SIMPLE FRAMED CONNECTIONS. UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS AND/OR DETAILS, ALL CONNECTION PLATES, BOLTS, AND WELDS SHALL BE DETAILED FOR A REACTION FORCE EQUAL TO OR GREATER THAN ONE-HALF OF THE TOTAL ALLOWABLE UNIFORM LOAD FOR THE ACTUAL LENGTH OF THE SMALLER MEMBER BEING CONNECTED, BASED UPON THE TABLES OF UNIFORM LOAD CONSTANTS, SECTION TWO, OF THE AISC "MANUAL OF STEEL CONSTRUCTION," THIRTEENTH EDITION. WHERE END REACTIONS OR MOMENTS ARE SHOWN ON THE DRAWINGS, THE CONNECTION SHALL BE DESIGNED TO TRANSFER THESE FORCES.

S8. STRUCTURAL STEEL SHOP DRAWINGS SHOWING PLACEMENT OF STRUCTURAL STEEL, CONNECTION DETAILS, ETC., SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION OF MATERIALS.

S9. PROVIDE MOMENT CONNECTIONS AT COLUMN BASE PLATES AND FOR OTHER CONNECTIONS DESIGNATED ON THE STRUCTURAL PLANS.

S10. ALL FULL PENETRATION WELDS SHALL BE VISUALLY INSPECTED BY AN APPROVED TESTING LABORATORY. THE ENGINEER OF RECORD SHALL REVIEW THE RESULTS OF THE VISUAL INSPECTION AND MAY, AT HIS OPTION, REQUIRE ULTRA-SONIC TESTING, ASTM A435, BEFORE CONNECTIONS ARE APPROVED.

WOOD FRAMED ALTERNATIVE DESIGN No 6:

A1. THE OWNER MAY SELECT AN ALTERNATIVE WOOD FRAMED PAVILION DESIGN FOR THIS PROJECT, IF DESIRED.

A2. THE GENERAL CONTRACTOR MAY SUBMIT AN ALTERNATIVE WOOD HEAVY TIMBER TRUSS OR WOOD GLULAM TRUSS FRAMED DESIGN-BUILD PROPOSAL DURING THE BIDDING PROCESS. A SEPARATE THIRD PARTY STRUCTURAL ENGINEER WOULD BE REQUIRED TO PROVIDE SIGNED AND SEALED STRUCTURAL DRAWINGS FOR THE ROOF FRAMING IF THE WOOD FRAMED DESIGN-BUILT PROPOSAL IS ACCEPTED. ALL ASSOCIATED ENGINEERING COSTS FOR THIS ALTERNATIVE DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR.

A3. THE STEEL COLUMN LOCATIONS WOULD REMAIN WHERE CURRENTLY SHOWN AND AS CURRENTLY SIZED, AND THE FOUNDATION WOULD NOT CHANGE IN THE ALTERNATIVE DESIGN.

SPECIAL INSPECTIONS:

STRUCTURAL SPECIAL INSPECTIONS ARE REQUIRED FOR THIS PROJECT PER CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE AND THE LOCAL BUILDING INSPECTION DEPARTMENT. INDEPENDENT THIRD PARTY INSPECTORS SHALL BE SELECTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE AND THEIR SERVICES SHALL BE PAID FOR BY THE OWNER. THE QUALIFICATIONS OF THE SPECIAL INSPECTORS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FINAL SELECTION. THE GENERAL CONTRACTOR SHALL COORDINATE THE TIMING OF ALL SPECIAL INSPECTIONS WITH THE SPECIAL INSPECTORS AS WORK CONTINUES. FIRMS PROVIDING CONSTRUCTION MATERIAL TESTING SERVICES FOR THIS PROJECT MUST INCLUDE CHAPTER 17 SPECIAL INSPECTIONS IN THEIR PROPOSALS. THE FOLLOWING STRUCTURAL SPECIAL INSPECTIONS ARE REQUIRED FOR THIS PROJECT.

SI1. SOIL PREPARATION - A LICENSED GEOTECHNICAL ENGINEER SHALL TEST AND CERTIFY THE SOIL PREPARATION TO INCLUDE COMPACTION, BEARING CAPACITY, MOISTURE CONTENT, SELECT FILL, EXCAVATION DEPTHS, ETC. PER THE SECTION TITLED "FOUNDATION NOTES" ON THIS SHEET, FOR ALL SOILS UNDERNEATH THE FOUNDATIONS OF THIS BUILDING. ALSO REFER TO SECTION 1705.6 OF THE IBC FOR SPECIAL INSPECTION REQUIREMENTS.

SI2. CONCRETE FOUNDATIONS - A THIRD PARTY TESTING AND INSPECTION COMPANY SHALL CERIFY THAT THE FOUNDATIONS ARE PLACED PER THE STRUCTURAL PLANS, NOTES, AND DETAILS. ALSO REFER TO SECTION 1705.3 OF THE IBC FOR SPECIAL INSPECTION REQUIREMENTS.

SI3. STRUCTURAL STEEL - THE STEEL FABRICATOR FOR THIS PROJECT SHALL BE REGISTERED AND APPROVED TO PERFORM SHOP STEEL FABRICATION WITHOUT SPECIAL INSPECTION PER SECTION 1704.2.5 OF THE IBC (AISC CERTIFICATION REQUIRED). A THIRD PARTY TESTING AND INSPECTION COMPANY SHALL CERTIFY THAT ALL STRUCTURAL STEEL IS PLACED PER THE STRUCTURAL PLANS, NOTES, AND DETAILS. ALSO REFER TO SECTION 1705.2 OF THE IBC FOR SPECIAL INSPECTION REQUIREMENTS.

REINFORCED MASONRY NOTES

1. GROUT AND REINFORCE ALL 6" AND 8" CMU BLOCK WALLS WITH (1) - #4 REBAR VERTICALLY AT 24" O.C. MAXIMUM SPACING (TYPICAL). GROUT AND REINFORCE ALL CORNER CELLS AND ON THE CELLS ON EACH SIDE OF ALL WINDOW AND DOOR OPENINGS WITH (1) - #4 REBAR VERTICALLY. VERTICAL REINFORCEMENT SHALL BE EPOXY GROUTED INTO THE FOUNDATION A MINIMUM OF 6".

2. HORIZONTAL JOINT REINFORCEMENT SHALL BE LADDER OR TRUSS TYPE WITH A MINIMUM OF (2)-#9 WIRES. HORIZONTAL REINFORCEMENT SHALL BE PLACED VERTICALLY AT 16" O.C.

3. BOND BEAMS SHALL BE REINFORCED WITH (2) - #4 REBAR CONTINUOUSLY.

4. REFER TO CMU SPECIFICATIONS FOR ADDITIONAL NOTES.

MISCELLANEOUS:

M1. IF STRUCTURAL OR ARCHITECTURAL PLANS AND SPECIFICATIONS DIFFER FROM THE REQUIRED MINIMUM STANDARDS SET FORTH IN THE BUILDING CODES AND ORDINANCES OF ALL GOVERNING AGENCIES, THE CODES AND ORDINANCES SHALL GOVERN.

M2. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WATERPROOFING, FLASHING, WALL OR ROOF ASSEMBLY DETAILING (CHAPTERS 14 & 15 OF IBC), AS THESE ARE NOT WITHIN THE SCOPE OF SERVICES OF THE STRUCTURAL ENGINEER FOR THIS PROJECT. ALL WATERPROOFING AND FLASHING OF THE ROOF AND WALLS SHALL BE THE RESPONSIBILITY OF THE ARCHITECT AND/OR CONTRACTOR. DRAINAGE AREA CALCULATIONS, DOWNSPOUT SIZING, AND OVERFLOW DRAINS SHALL BE THE RESPONSIBILITY OF THE ARCHITECT AND/OR CONTRACTOR.

M3. IT IS NOT WITHIN THE SCOPE OF THE STRUCTURAL ENGINEER TO SHOW OR PROVIDE FIRE RATINGS OR RATED ASSEMBLIES FOR THE STRUCTURAL MEMBERS, NOT OF THE VARIOUS BUILDING ASSEMBLIES.

M4. WHERE CONFLICTS EXIST BETWEEN THE PROJECT SPECIFICATIONS AND/OR WITHIN THE STRUCTURAL PLANS AND DETAILS, THE MORE RESTRICTIVE SHALL GOVERN. THE CONTRACTOR SHALL BRING THE DISCREPANCY TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.

M5. THE ELEVATIONS SHOWN ON THE STRUCTURAL SET OF PLANS ARE BASED UPON A FINISHED FLOOR ELEVATION OF 100'-0", AND NOT AN ELEVATION RELATIVE TO SEA LEVEL. TAKE THIS INTO CONSIDERATION DURING CONSTRUCTION.

M6. THE FRAMING CONTRACTOR AND PLUMBING CONTRACTOR SHALL COORDINATE THE FLOOR OR ROOF TRUSS LAYOUT AND LOCATIONS TO RESOLVE ANY CONFLICTS BETWEEN THE FLOOR OR ROOF TRUSSES AND THE PLUMBING PIPES PRIOR TO AND DURING THE INSTALLATION OF THE WOOD TRUSSES. TRUSSES MAY BE SHIFTED UP TO 4" TO AVOID PLUMBING CONFLICTS.

M7. ALL PLUMBING PENETRATIONS IN THE FOUNDATION SHALL BE SLEEVED AND/OR PLACED PRIOR TO THE PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL NOT CORE DRILL THROUGH THE CONCRETE FOUNDATION FOR PENETRATIONS UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. IF CORE DRILLING IS REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PLUMBING / STRUCTURAL CONFLICTS THAT MAY OCCUR, INCLUDING ANY STRUCTURAL REPAIRS, ADDITIONAL STRUCTURAL MEMBERS, AND THE STRUCTURAL ENGINEER'S TIME ON AN HOURLY RATE TO RESOLVE ANY CONFLICTS.

M8. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE DIMENSIONAL LOCATIONS FOR ALL BEARING AND NON-BEARING STUD WALLS. BE AWARE THAT THE ARCHITECTURAL DIMENSIONS MAY BE TO EDGE OF SHEATHING INSTEAD OF EDGE OF STUDS.

M9. THE ENGINEERING SERVICES PROVIDED BY KWS ARE CONDUCTED IN A MANNER CONSISTENT WITH THAT LEVEL OF CARE AND SKILL ORDINARILY EXCERCISED BY MEMBERS OF THE PROFESSION CURRENTLY PRACTICING UNDER SIMILAR CONDITIONS. NO WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE.

M10. A SEPARATE STRUCTURAL DETAIL IS NOT PROVIDED FOR EVERY SINGLE CONDITION THAT OCCURS IN THIS BUILDING, AS THAT WOULD NOT BE COMMON. LACK OF A DETAIL FOR A PARTICULAR CONDITION DOES NOT CONSTITUTE AN "ERROR OR OMISSION". THE CONTRACTOR SHALL BRING UP ANY QUESTIONS THAT ARISE WHERE THE STRUCTURAL PLANS AND DETAILS DO NOT PROVIDE SPECIFIC INSTRUCTIONS, AND THE CONTRACTOR IS UNSURE HOW TO PROCEED.

M11. WHERE THERE ARE CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND THE DRAWINGS OF OTHER DISCIPLINES, THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER IMMEDIATELY. DO NOT PROCEED WITH CONSTRUCTION OF AREAS WHERE THERE ARE CONFLICTS BETWEEN DISCIPLINES UNTIL THEY HAVE BEEN RESOLVED.

ISSUED FOR BID

STATE OF TEXAS
KEVIN SCHMUHL
87892
LICENSED PROFESSIONAL ENGINEER
7-17-24
Kevin W. Schmuhl
KWS STRUCTURAL CONSULTANTS
120 River Oaks Drive Suite 100 • Southlake, TX 76092
Phone (817) 337-3786 • Texas Firm No. FA201
www.kwsstructural.com • Email: schmuhl@tstar.net
GHLA ARCHITECTURE PLANNING INTERIOR DESIGN 817.801.7300 www.ghla-inc.com
FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

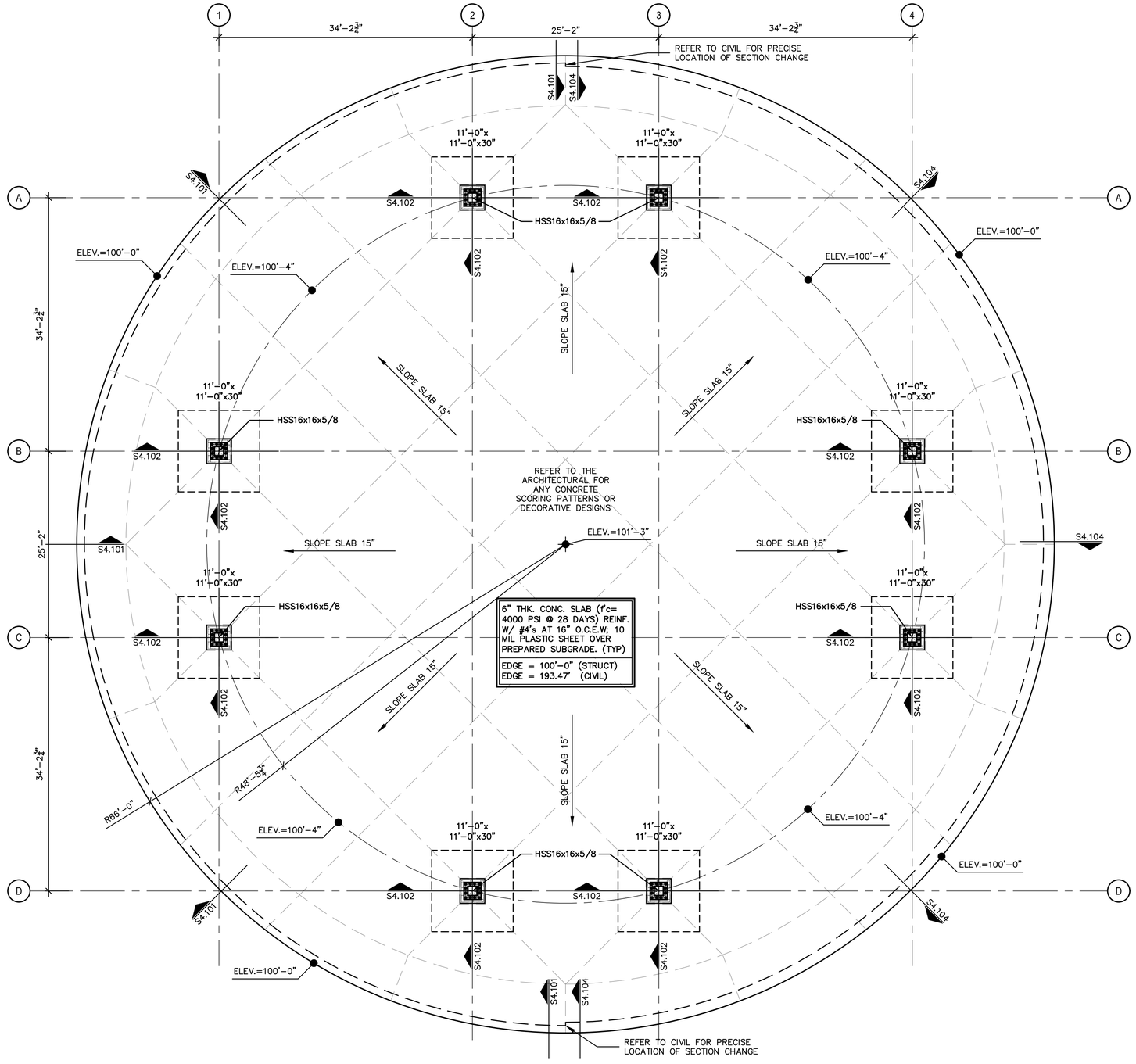
SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
STRUCTURAL
STRUCTURAL GENERAL NOTES

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/17/2024
DESIGNED
DRAWN
REVISED
CHECKED
FILE NAME

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET S1.1
SEQ.



S2.101 FOUNDATION PLAN AT PAVILION

1/8" = 1'-0"

S1.101
- DETAIL NUMBER
- SHEET NUMBER

SECTION KEY

ISSUED FOR BID

STATE OF TEXAS
KEVIN SCHMUHL
87892
LICENSED PROFESSIONAL ENGINEER
7-17-24
Kevin W. Schmuhl

KWS STRUCTURAL CONSULTANTS
120 River Oaks Drive Suite 100 • Southlake, TX 76092
Phone: (817) 337-3786 • Texas Firm No. FA201
www.kwsstructural.com • Email: schmuhl@flash.net

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN
817.801.7200
www.ghla-inc.com

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600
Corpus Christi, Texas 78401-3700
Phone – (361) 561-6500
Web – www.freese.com

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

STRUCTURAL

FOUNDATION PLAN AT PAVILION

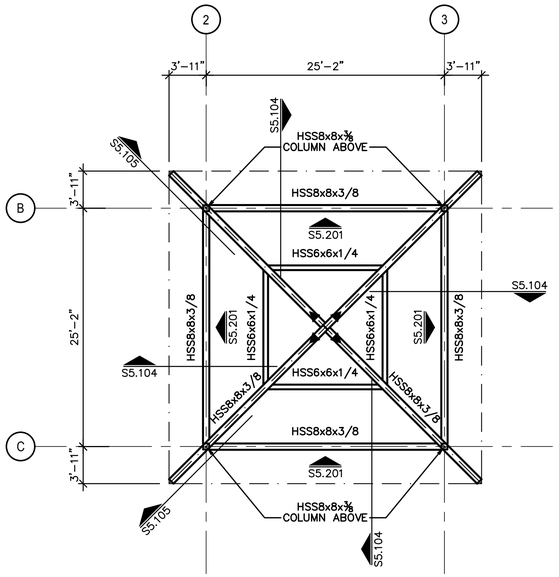
NO.	ISSUE	BY	DATE	FILE NAME

F&N JOB NO. SRA23985
DATE 07/17/2024
DESIGNED
DRAWN
REVISED
CHECKED

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

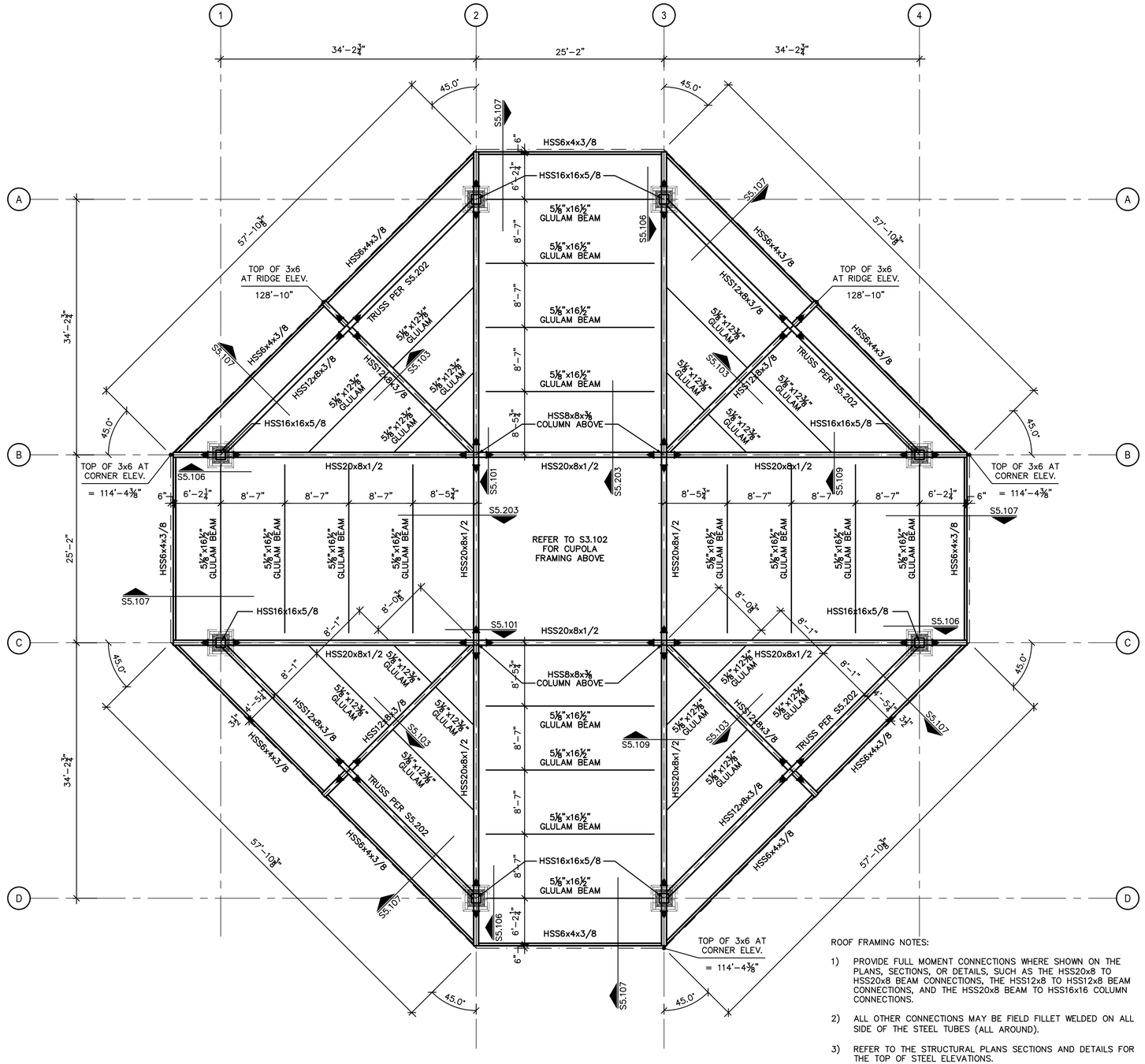
SHEET
S2.1

SEQ.



S3.102 FRAMING PLAN AT CUPOLA

1/8" = 1'-0"



S3.101 FRAMING PLAN AT PAVILION

1/8" = 1'-0"

S1.101
DETAIL NUMBER
SHEET NUMBER

SECTION KEY

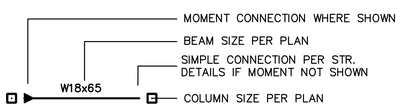
ROOF FRAMING NOTES:

1) PROVIDE FULL MOMENT CONNECTIONS WHERE SHOWN ON THE PLANS, SECTIONS, OR DETAILS, SUCH AS THE HSS20x8 TO HSS20x8 BEAM CONNECTIONS, THE HSS12x8 TO HSS12x8 BEAM CONNECTIONS, AND THE HSS20x8 BEAM TO HSS16x16 COLUMN CONNECTIONS.

2) ALL OTHER CONNECTIONS MAY BE FIELD FILLET WELDED ON ALL SIDE OF THE STEEL TUBES (ALL AROUND).

3) REFER TO THE STRUCTURAL PLANS SECTIONS AND DETAILS FOR THE TOP OF STEEL ELEVATIONS.

4) ROOF DECKING SHALL CONSIST OF SOUTHERN PINE 3x6 TONGUE AND GROOVE PLANKS. START LAYUPS AT EXTERIOR EDGES AND EXTEND PLANKS OVER AT LEAST TWO SPANS, WHERE POSSIBLE. STAIN AND TREAT ALL WOOD MEMBERS PER ARCHITECT.



ISSUED FOR BID

STATE OF TEXAS
KEVIN SCHMUHL
87892
LICENSED PROFESSIONAL ENGINEER
7-17-24
Kevin W. Schmuhl
KWS STRUCTURAL CONSULTANTS
120 River Oaks Drive Suite 100 • Southlake, TX 76092
Phone (817) 337-3786 • Texas Firm No. FA201
www.kwsstructural.com • Email: schmuhl@tsoh.net
GHLA ARCHITECTURE PLANNING INTERIOR DESIGN 817.801.7200 www.ghla-inc.com
FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600
Corpus Christi, Texas 78401-3700
Phone – (361) 561-6500
Web – www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

STRUCTURAL

FRAMING PLAN AT PAVILION

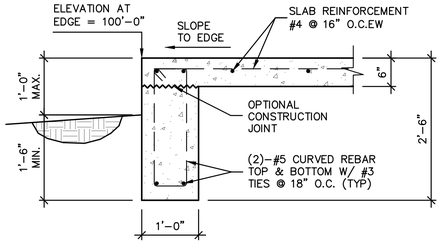
NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 07/17/2024
DESIGNED
DRAWN
REVISED
CHECKED
FILE NAME

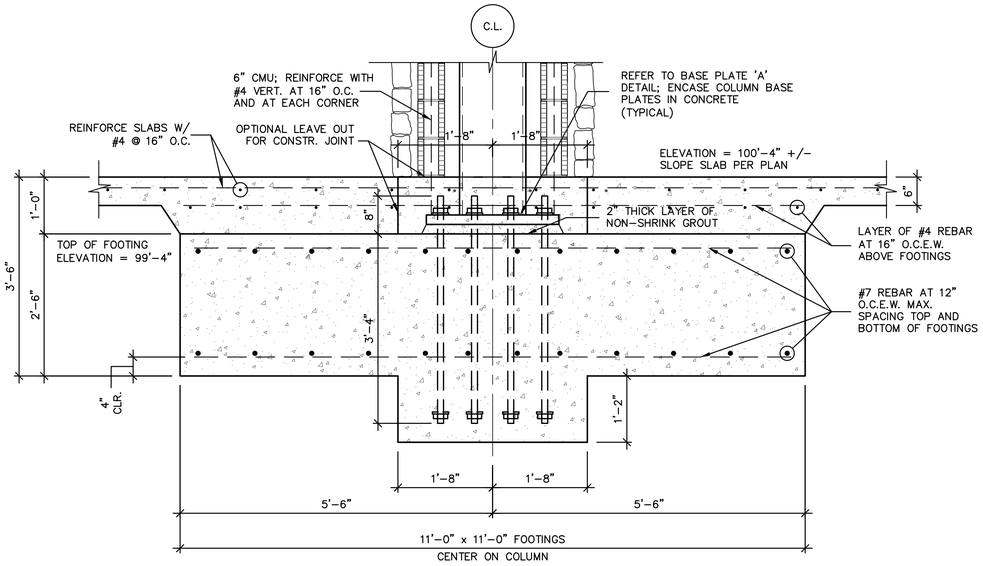
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET S3.1

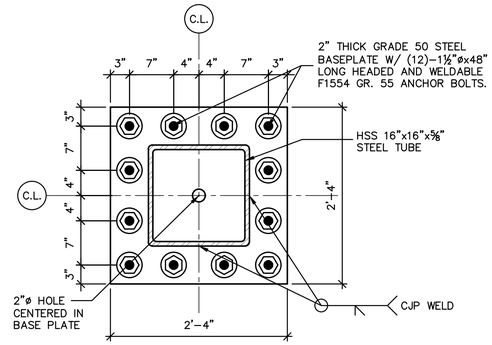
SEQ.



S4.101 SECTION AT FOUNDATION
3/4" = 1'-0"

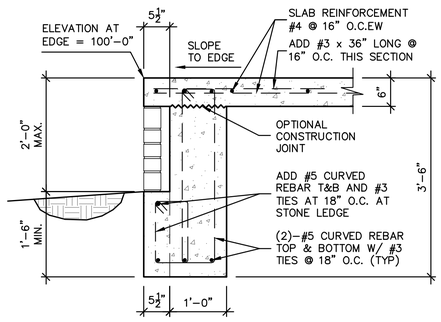


S4.102 COLUMN FOOTING AT PAVILION
3/4" = 1'-0"



HSS16x16x5/8 COLUMNS

S4.103 BASEPLATE 'A'
1" = 1'-0"



S4.104 SECTION AT FOUNDATION
3/4" = 1'-0"

ISSUED FOR BID

STATE OF TEXAS
KEVIN SCHMUHL
87892
LICENSED
PROFESSIONAL ENGINEER
7-17-24
Kevin W. Schmuhl
KWS STRUCTURAL CONSULTANTS
120 River Oaks Drive Suite 100 • Southlake, TX 76092
Phone (817) 337-3786 • Texas Firm No. F4201
www.kwsstructural.com • Email: schmuhl@tstar.net
GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN
817.801.7200
www.ghla-inc.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144
FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600
Corpus Christi, Texas 78401-3700
Phone – (361) 561-6500
Web – www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

STRUCTURAL

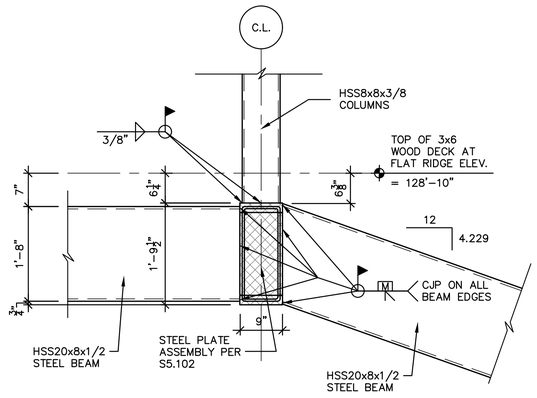
FOUNDATION DETAILS AT PAVILION

NO.	ISSUE	BY	DATE

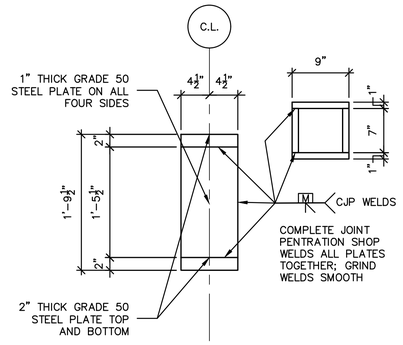
VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

F&N JOB NO. SRA23985
DATE 07/17/2024
DESIGNED
DRAWN
REVISED
CHECKED
FILE NAME

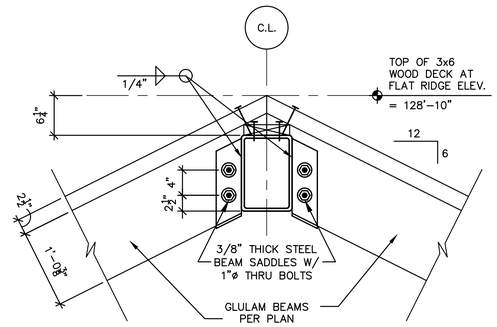
SHEET
S4.1
SEQ.



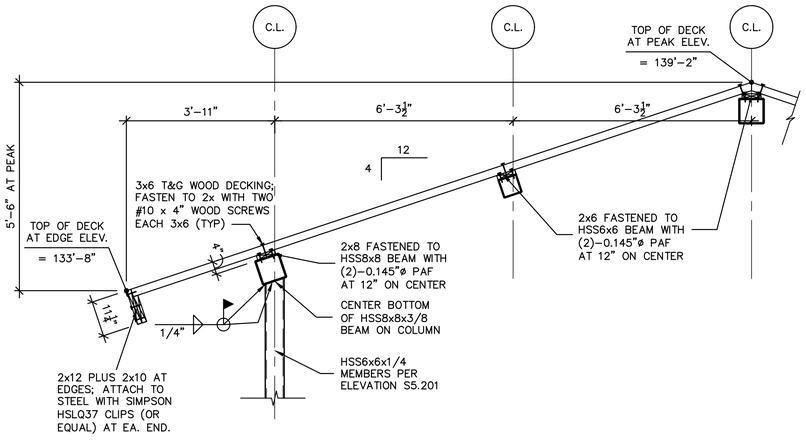
S5.101 ROOF SECTION
3/4" = 1'-0"



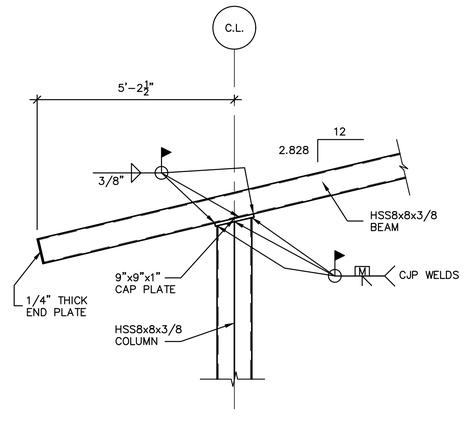
S5.102 PLATE ASSEMBLY
1" = 1'-0"



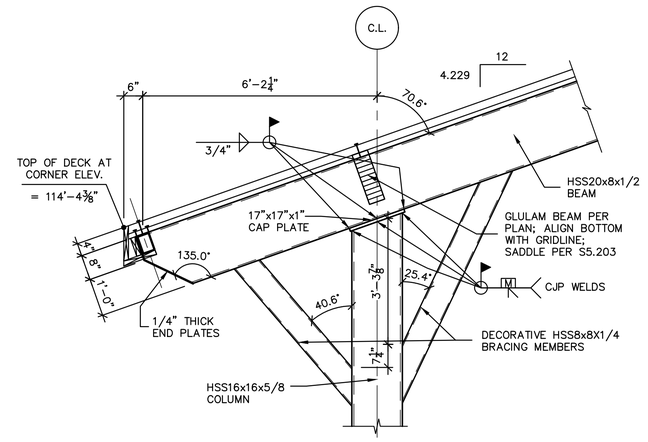
S5.103 SECTION AT RIDGE
1" = 1'-0"



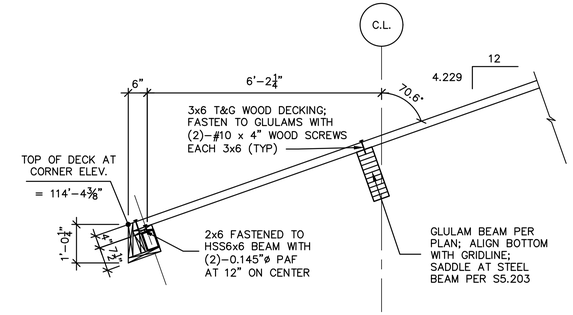
S5.104 CUPOLA ROOF SECTION
1/2" = 1'-0"



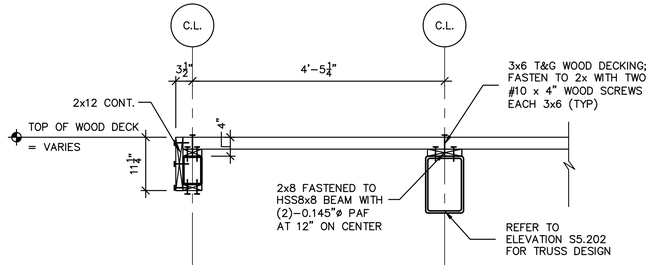
S5.105 CUPOLA ROOF SECTION
1/2" = 1'-0"



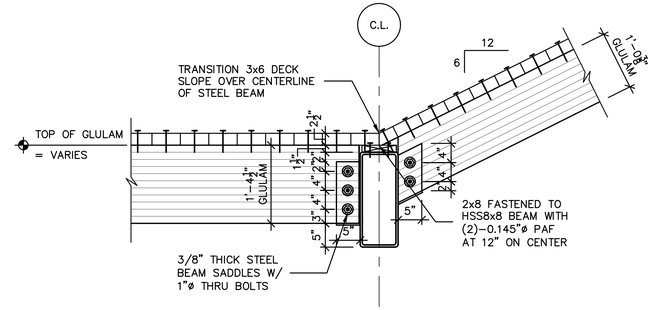
S5.106 SECTION AT COLUMN
1/2" = 1'-0"



S5.107 SECTION AT COLUMN
1/2" = 1'-0"



S5.108 SECTION AT GABLE RAKE
3/4" = 1'-0"



S5.109 ROOF SECTION
3/4" = 1'-0"

ISSUED FOR BID

STATE OF TEXAS
KEVIN SCHMUHL
87892
LICENSED
PROFESSIONAL ENGINEER
7-17-24

KWS STRUCTURAL CONSULTANTS
120 River Oaks Drive Suite 100 • Southlake, TX 76092
Phone (817) 337-3786 • Texas Firm No. F4201
www.kwsstructural.com • Email: schmuhl@tstar.net

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN
817.801.7200
www.ghla-inc.com

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600
Corpus Christi, Texas 78401-3700
Phone – (361) 561-6500
Web – www.freese.com

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

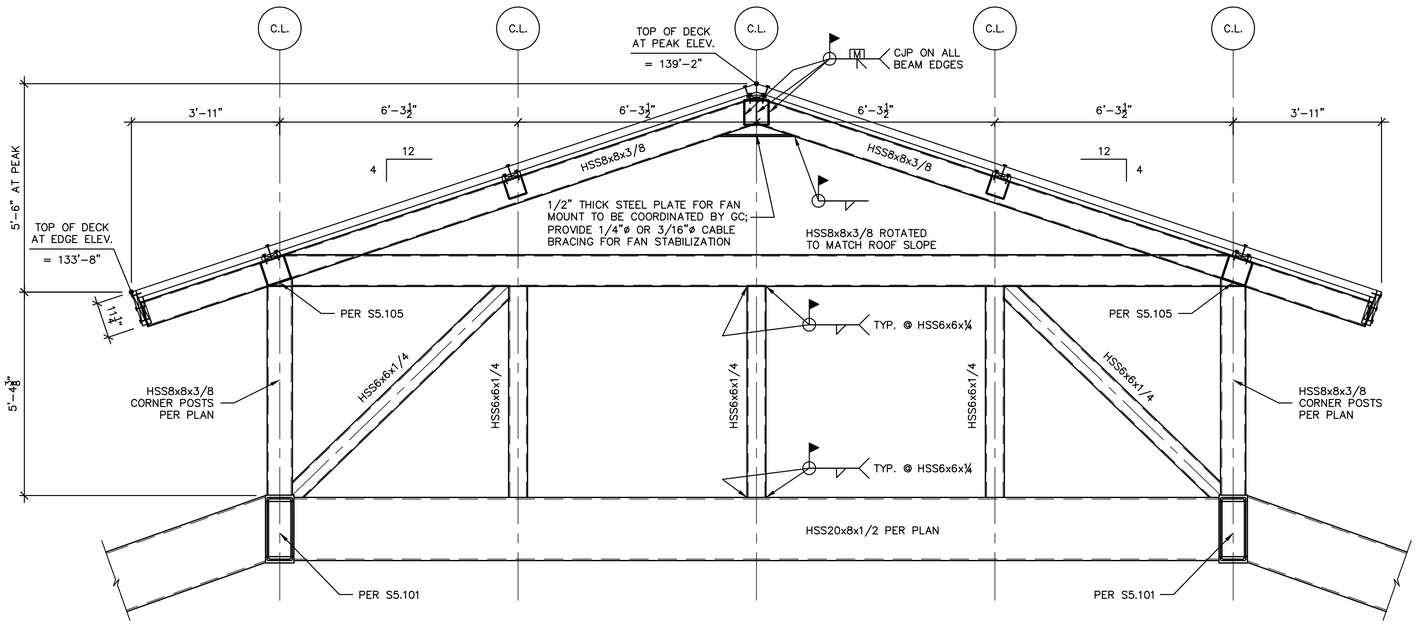
SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
STRUCTURAL
FRAMING SECTIONS AT PAVILION

NO.	ISSUE	BY	DATE	FILE NAME

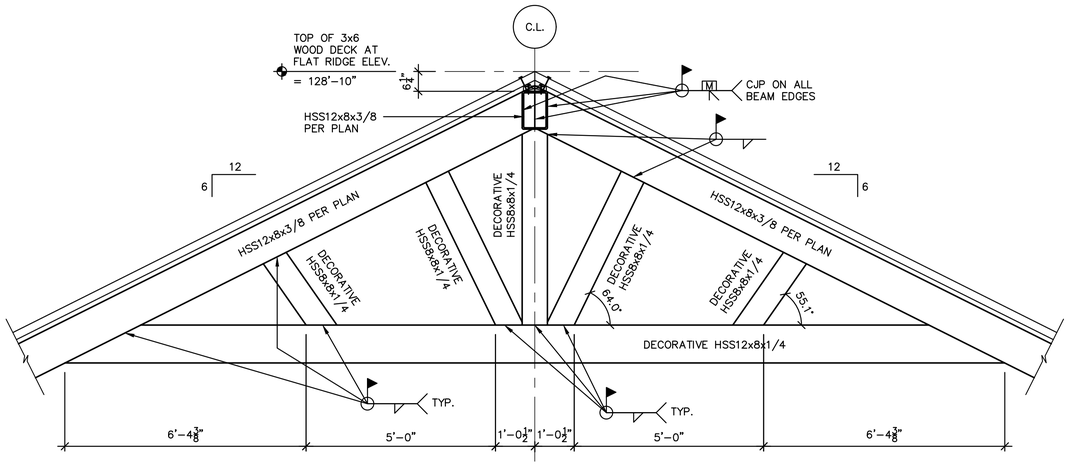
F&N JOB NO. SRA23985
DATE 07/17/2024
DESIGNED
DRAWN
REVISED
CHECKED

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

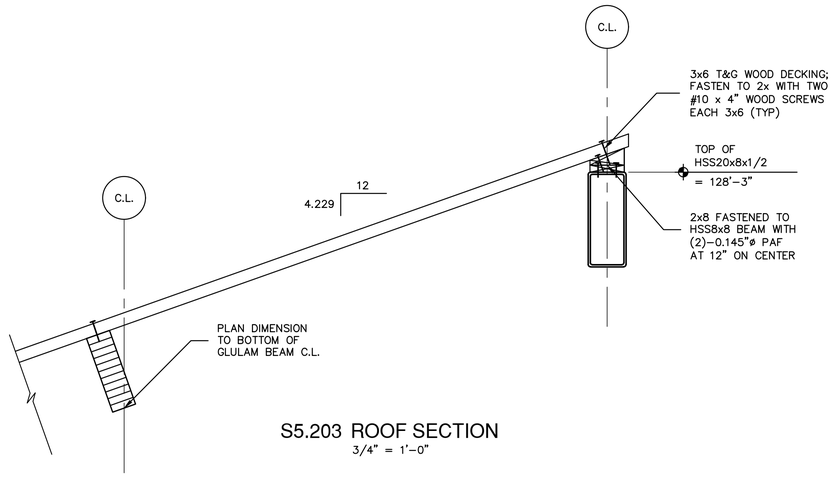
SHEET
S5.1
SEQ.



S5.201 CUPOLA ROOF ELEVATION
1/2" = 1'-0"



S5.202 DECORATIVE STEEL BEAM TRUSS
1/2" = 1'-0"



S5.203 ROOF SECTION
3/4" = 1'-0"

ISSUED FOR BID

STATE OF TEXAS
KEVIN SCHMUHL
87892
LICENSED
PROFESSIONAL ENGINEER
7-17-24
Kevin W. Schmuhl

KWS STRUCTURAL CONSULTANTS
120 River Oaks Drive Suite 100 • Southlake, TX 76092
Phone (817) 337-3786 • Texas Firm No. F4201
www.kwsstructural.com • Email: schmuhl@tstar.net

GHLA
ARCHITECTURE
PLANNING
INTERIOR DESIGN
817.801.7200
www.ghla-inc.com

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600
Corpus Christi, Texas 78401-3700
Phone – (361) 561-6500
Web – www.freese.com

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

STRUCTURAL

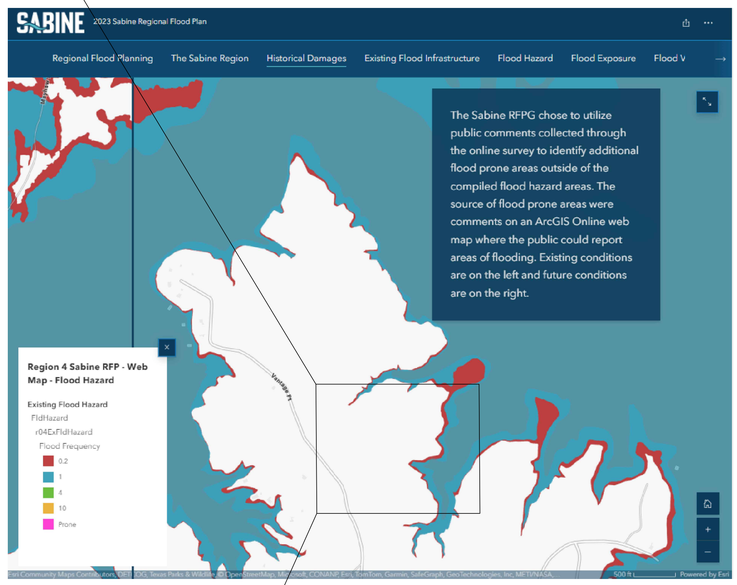
FRAMING SECTIONS AT PAVILION

NO.	ISSUE	BY	DATE	FILE NAME

F&N JOB NO. SRA23985
DATE 07/17/2024
DESIGNED
DRAWN
REVISED
CHECKED

VERIFY SCALE Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET
S5.2
SEQ.



OSSF SITE PLAN NOTES:

1. Design Effluent Flow (Qdesign) of 960 gal/day per day.
2. Limits of Treated Effluent disposal areas are a minimum of 5' from property lines and 100' from water wells.
3. No portion of the OSSF System lies within a 100-yr floodplain per above FEMA Floodmap.
4. Ground Slope in Disposal Area is between 5% and 15%.
5. All Gravity Lines shall be 4" PVC (SDR-35) with watertight gasket joints and minimum slopes of 1/8" per 1 foot of length.
6. That portion of any Gravity Line or Supply Line that passes beneath any roadway shall be "sleeved" in a large diameter SCH 40 PVC pipe for the crossing distance plus five feet.
7. That portion of any Gravity Line or Supply Line that passes within 10' of a water line, the waterline shall be "sleeved" in a large diameter SCH 40 PVC pipe for the crossing distance plus ten feet, either side.

N

0 100 200

SCALE IN FEET

ISSUED FOR BID

WAVECREST DESIGN, LLC
1502 ROSEWOOD DR.
KELLER, TEXAS 76248
(713) 376-1225 PH.
T.B.P.E. FIRM NO. 23292

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

NATHAN R. MILLER
123211
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
7/15/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

PLUMBING - ON-SITE SEWAGE FACILITY

OSSF SITE PLAN

NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale. 0 1"

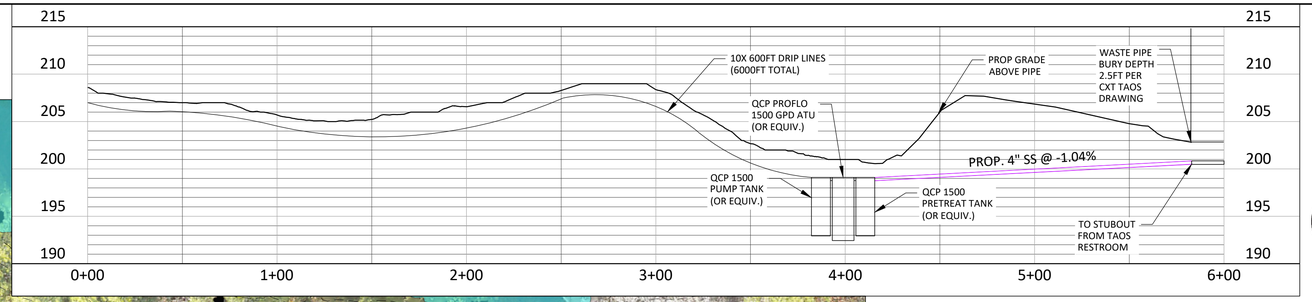
F&N JOB NO.	SRA23985
DATE	07/15/24
DESIGNED	NRM
DRAWN	NRM
CHECKED	NRM
APPROVED	NRM
FILE NAME	SABINETOWN - OSSF.dwg

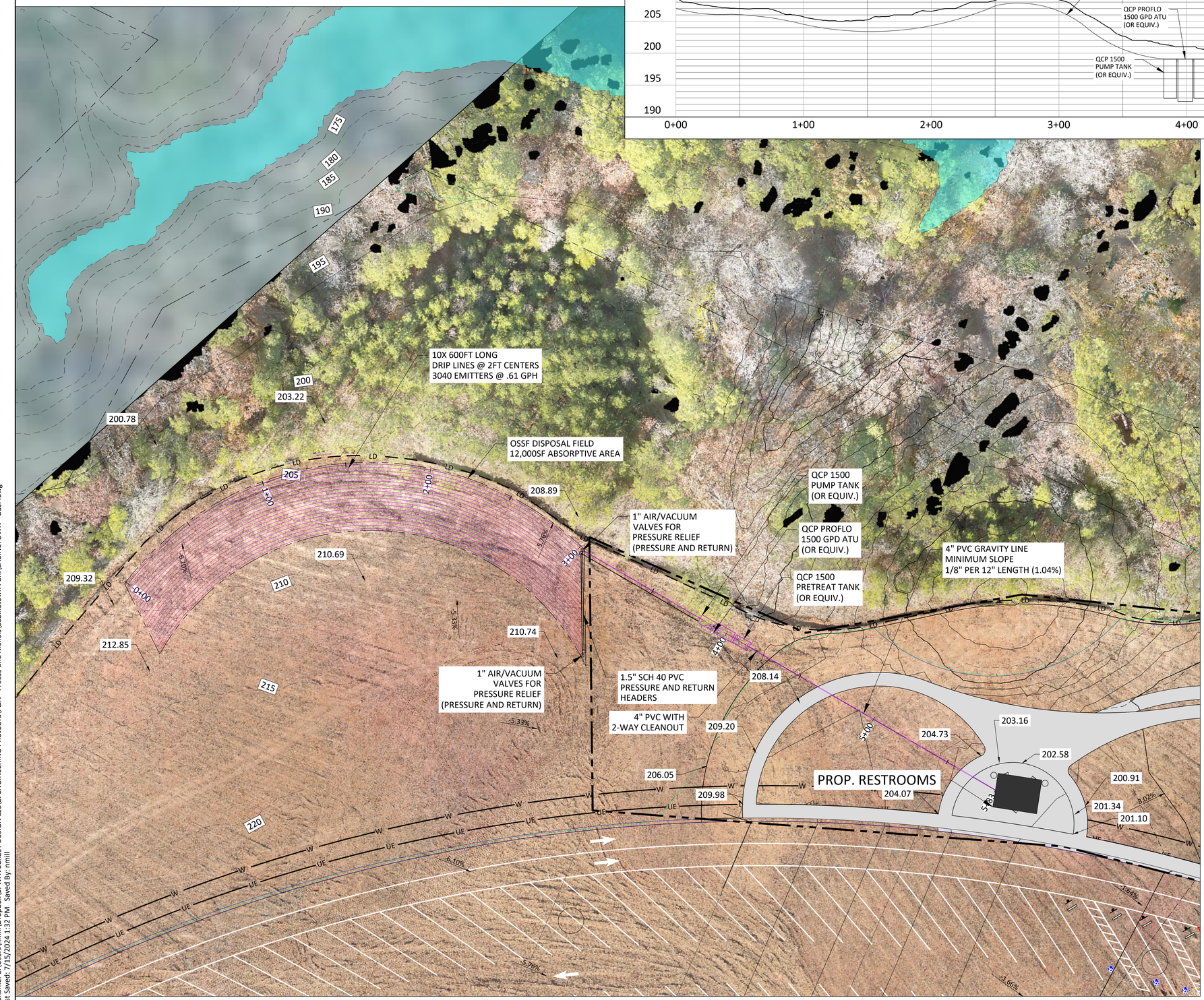
SHEET P1

SEQ. 1 OF 3

ACAD Rel: 24.3s (LMS Tech)
Filename: C:\Users\nmill\Dropbox\1. WAVECREST DESIGN LLC\2. ENGINEERING PROJECTS\F&N - Freese and Nichols\Sabinetown Park\SABINETOWN - OSSF.dwg
Last Saved: 7/15/2024 1:32 PM Saved By: nmill

Plot Date: 7/15/2024 1:33 PM Plot By: nmill Filename: C:\Users\nmill\Dropbox\1. WAVECREST DESIGN LLC\2. ENGINEERING PROJECTS\F&N - Freese and Nichols\Sabinetown Park\SABINETOWN - OSSF.dwg





GENERAL NOTES:

1. Design Effluent Flow (Qdesign) of 960 gal/day per day.
2. Limits of Treated Effluent disposal areas are a minimum of 5' from property lines and 100' from water wells.
3. ALL Supply Lines and Return Lines shall be 1.5" SCH 40 PVC Pressure Rated Pipe (Purple in Color).
4. All Gravity Lines shall be 4" PVC (SDR-35) with watertight gasket joints and minimum slopes of 1/8" per 1 foot of length.
5. That portion of any Gravity Line or Supply Line that passes beneath any roadway shall be "sleeved" in a large diameter SCH 40 PVC pipe for the crossing distance plus five feet, either side.
6. That portion of any Gravity Line or Supply Line that passes within 10' of a water line, the waterline shall be "sleeved" in a large diameter SCH 40 PVC pipe for the crossing distance plus ten feet, either side.
7. Coordinate building and site dimensions in field with owner before beginning work.
8. Coordinate ATU location with plumber before beginning work.
9. No vehicular traffic shall be allowed on the system. Landscape mowers with low-impact tires only.
10. No sprinkler system shall be installed in the system limits.
11. No subsurface construction shall be permitted within the system limits. Puncturing of the OSSF lines may possibly result.

N

0 30 60

SCALE IN FEET

ISSUED FOR BID

WAVECREST DESIGN, LLC
1502 ROSEWOOD DR
KELLER, TEXAS 76248
(713) 376-1225 PH.
T.B.P.E. FIRM NO. 23292

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NATHAN R. MILLER
123211
LICENSED PROFESSIONAL ENGINEER
7/15/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

PLUMBING - ON-SITE SEWAGE FACILITY

OSSF SYSTEM OVERVIEW

F&N JOB NO.	SRA23985
DATE	07/15/24
DESIGNED	NRM
DRAWN	NRM
CHECKED	NRM
APPROVED	NRM
FILE NAME	SABINETOWN - OSSF.dwg

NO.	ISSUE	BY	DATE

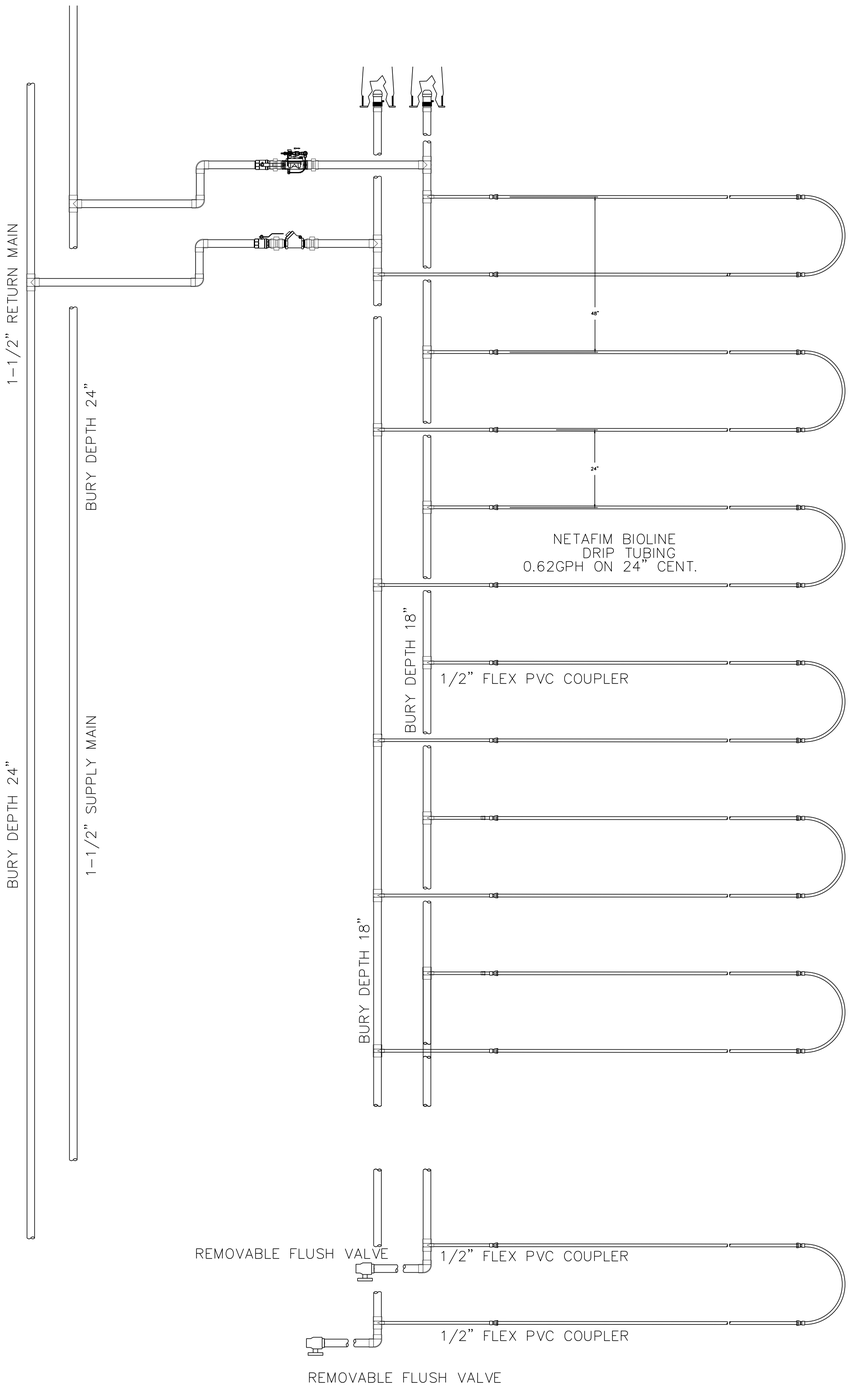
VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale. 0 1"

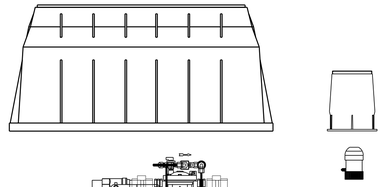
SHEET P2

SEQ. 2 OF 3

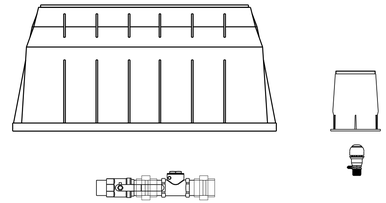
ACAD Rel: 24.3s (LMS Tech)
Filename: C:\Users\nmill\Dropbox\1. WAVECREST DESIGN LLC\2. ENGINEERING PROJECTS\F&N - Freese and Nichols\Sabinetown Park\SABINETOWN - OSSF.dwg
Last Saved: 7/15/2024 1:32 PM Saved By: nmill

Plot Date: 7/15/2024 1:33 PM Plot By: nmill Filename: C:\Users\nmill\Dropbox\1. WAVECREST DESIGN LLC\2. ENGINEERING PROJECTS\F&N - Freese and Nichols\Sabinetown Park\SABINETOWN - OSSF.dwg

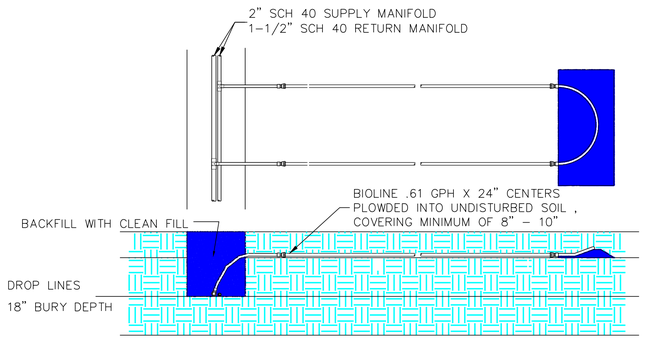


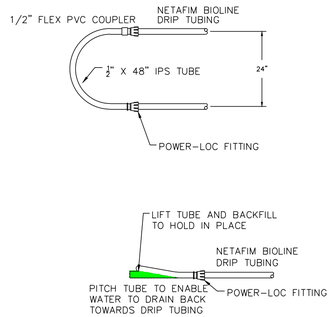


2" SUPPLY VALVE ASSEMBLY INCLUDES:
2" SCH 80 TOE, BALL VALVE, SCH 80 UNIONS, DOROT NYLON VALVE,
NDS PRO 17" X 30 X 18" VALVE BOX
2" ARI GUARDIAN AIR/VACUUM VENT,
AND 10" ROUND VALVE BOX



1-1/2" RETURN VALVE ASSEMBLY INCLUDES:
1-1/2" SCH 80 TOE, BALL VALVE, SCH 80 UNIONS, BRASS CHECK VALVE,
NDS PRO 17" X 30 X 18" VALVE BOX
1" ARI GUARDIAN AIR/VACUUM VENT,
AND 10" ROUND VALVE BOX





ISSUED FOR BID

WAVECREST DESIGN, LLC
1502 ROSEWOOD DR
KELLER, TEXAS 76248
(713) 376-1225 PH.
T.B.P.E. FIRM NO. 23292

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

STATE OF TEXAS
NATHAN R. MILLER
123211
LICENSED
PROFESSIONAL ENGINEER
7/15/2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

PLUMBING - ON-SITE SEWAGE FACILITY

OSSF SYSTEM DETAILS

NO.	ISSUE	BY	DATE

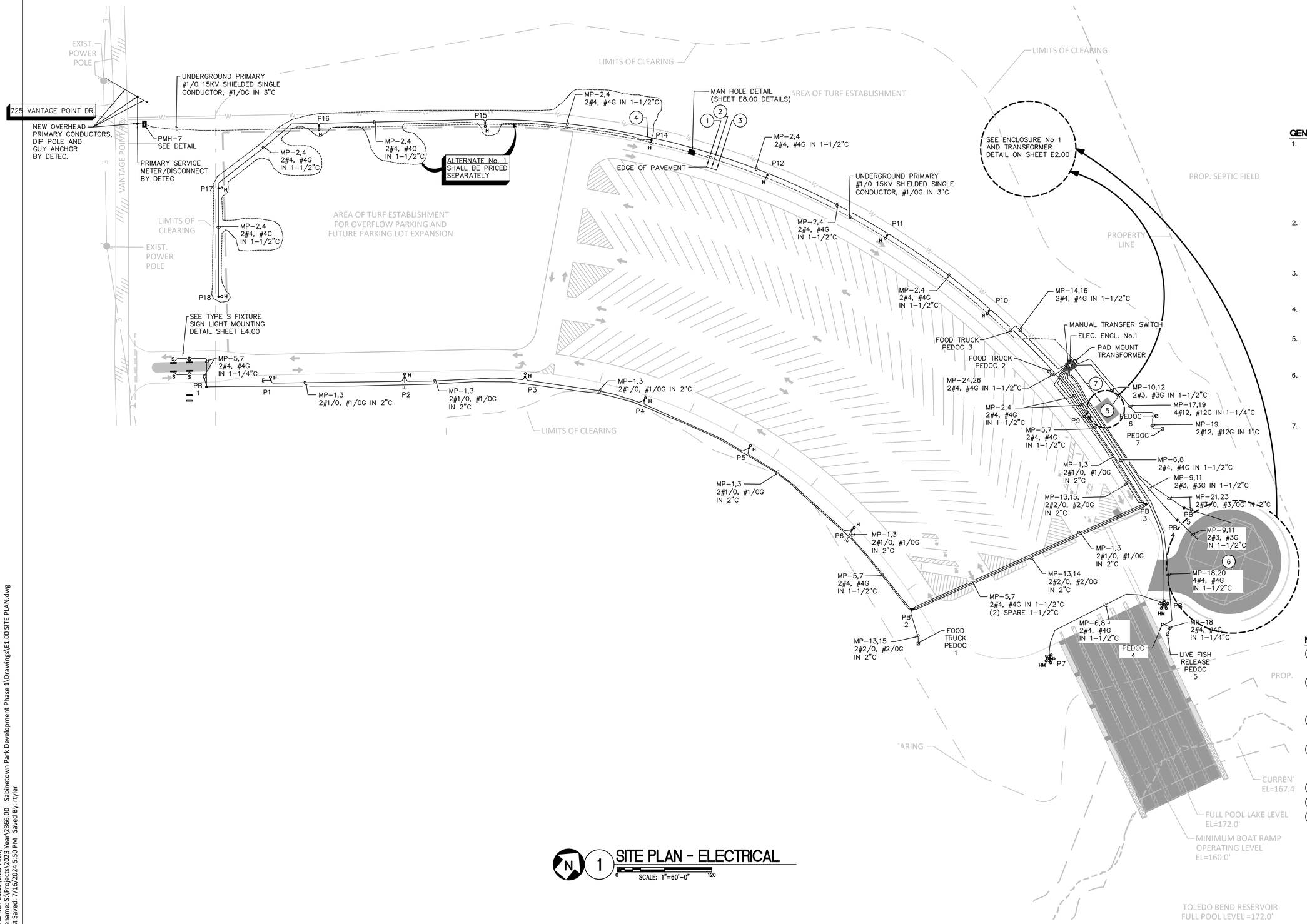
F&N JOB NO. SRA23985
DATE 07/15/24
DESIGNED NRM
DRAWN NRM
CHECKED NRM
APPROVED NRM
FILE NAME SABINETOWN - OSSF.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1"

SHEET P3
SEQ. 3 OF 3

ACAD Rel: 24.3s (LMS Tech)
Filename: C:\Users\nmill\Dropbox\1. WAVECREST DESIGN LLC\2. ENGINEERING PROJECTS\F&N - Freese and Nichols\Sabinetown Park\SABINETOWN - OSSF.dwg
Last Saved: 7/15/2024 1:32 PM Saved By: nmill

Plot Date: 7/15/2024 1:34 PM Plot By: nmill Filename: C:\Users\nmill\Dropbox\1. WAVECREST DESIGN LLC\2. ENGINEERING PROJECTS\F&N - Freese and Nichols\Sabinetown Park\SABINETOWN - OSSF.dwg



N 1 **SITE PLAN - ELECTRICAL**

SCALE: 1"=60'-0"

0 120

GENERAL NOTES

1. VERIFY EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES, IRRIGATION PIPING, IRRIGATION WIRING, TELEPHONE, GAS, NETWORK FIBER OPTIC, CONDUITS, ETC. PRIOR TO BID. EXISTING UTILITIES ARE NOT SHOWN. REFER TO OTHER DRAWINGS AND CONTACT TEXAS 811, PRIOR TO EXCAVATION. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
2. CONDUIT ROUTING SHOWN IS DIAGRAMMATIC. CONTRACTOR SHALL ADJUST ROUTING AS NECESSARY TO FACILITATE INSTALLATION. MAINTAIN REQUIRED COVER AND MAINTAIN REQUIRED SEPARATION BETWEEN OBSTRUCTIONS AND OTHER UTILITIES.
3. CONDUIT SHALL NOT EXCEED A TOTAL OF 270 DEGREE BENDS PER CONDUIT RUN. REFER TO SPECIFICATIONS FOR ADDITIONAL RESTRICTIONS.
4. UNLESS SPECIFIED OTHERWISE ALL UNDERGROUND CONDUCTORS SHALL BE XHHW. (SEE SPECIFICATIONS)
5. STAKE LOCATIONS OF ALL DEVICES, POLES, PULL BOXES, AND EQUIPMENT FOR OWNER, ARCHITECT AND ENGINEER APPROVAL BEFORE ANY EXCAVATION OR INSTALLATION.
6. ALL CONDUITS SHALL BE MINIMUM OF 36" DEEP. DEPTHS SHALL BE INCREASED AS NECESSARY TO COORDINATE WITH OTHER WORK AND AS REQUIRED BY UTILITY COMPANIES TO MAINTAIN SEPARATION AND COVER.
7. DEEP EAST TEXAS ELECTRICAL COOP COORDINATION CONTACT: 936-229-4000

NOTES BY SYMBOL

1. 5'-0" ALIGNMENT MEASUREMENT FROM EDGE OF PAVEMENT TO CENTER OF LIGHT POLE FOOTING.
2. 8'-0" ALIGNMENT MEASUREMENT FROM EDGE OF PAVEMENT TO UNDERGROUND ELECTRICAL CONDUIT AND CONDUCTORS. (120/240V FROM PANEL MP.)
3. 2'-0" ALIGNMENT MEASUREMENT FROM EDGE OF PAVEMENT TO UNDERGROUND PRIMARY CONDUCTORS.
4. IF ALTERNATE No. 1 IS NOT ACCEPTED, INSTALL 1-1/2" PVC CONDUIT STUB-OUT FROM POLE FOOTING (10'-0" MINIMUM).
5. RESTROOM BUILDING
6. PAVILION
7. CONCRETE PAD FOR ELECTRICAL EQUIPMENT SHALL BE 55'-0" FROM RESTROOM BUILDING (MINIMUM).

ISSUED FOR BID

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02

STATE OF TEXAS
R. TIM YAGGI
57030
REGISTERED PROFESSIONAL ENGINEER
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

SITE PLAN - ELECTRICAL

NO.	ISSUE	BY	DATE	FILE NAME
				E1.00 SITE PLAN.dwg

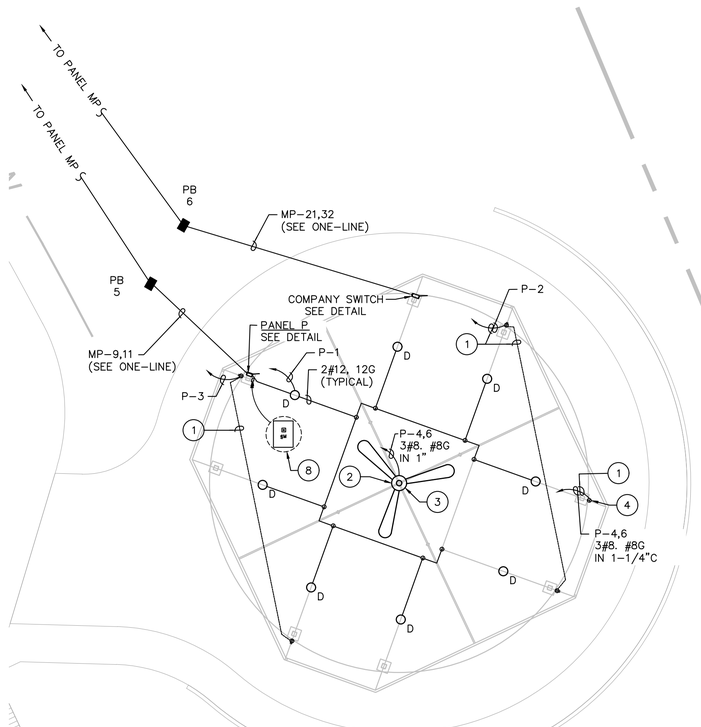
F&N JOB NO. SRA23985
DATE 7/17/24
DESIGNED RTY
DRAWN RLT
CHECKED RTY
APPROVED RTY

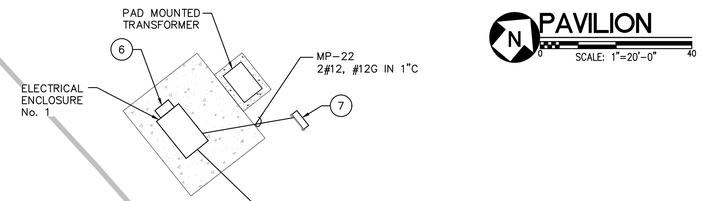
VERIFY SCALE Bar Scale is one inch on original drawing. if not one hinch on this sheet, adjust scale. 0 1

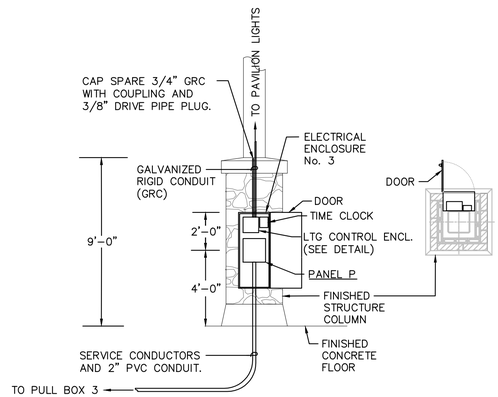
SHEET E1.00
SEQ.

ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E1.00 SITE PLAN.dwg
Last Saved: 7/16/2024 5:50 PM Saved By: rtyler

Plot Date: 7/16/2024 5:57 PM Plot By: rtyler Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E1.00 SITE PLAN.dwg







PAVILION COLUMN/PANEL P DETAIL

0 SCALE: 1/4"=1'-0" 8

NOTES:

1. EXPOSED CONDUIT INSTALLED IN PAVILION SHALL BE GALVANIZED RIGID CONDUIT (GRC).
2. PANEL P1 SHALL BE MOUNTED INSIDE ELECTRICAL ENCLOSURE.
3. ELECTRICAL ENCLOSURE SHALL BE MINIMUM 20"X48"X12", NEMA 3R RATED, PIANO HINGED, 1/4 TURN HANDLE, LOCKABLE, FULL INTERIOR MOUNTING PLANE. INCREASE SIZE AS NECESSARY TO FACILITATE PANEL P. AND LIGHTING CONTROL FOR PAVILION.

NORTH ELEVATION

PAVILION COLUMN/COMPANY SWITCH DETAIL

0 SCALE: 1/4"=1'-0" 8

NOTES:

1. COMPANY SWITCH SHALL BE MOUNTED INSIDE ELECTRICAL ENCLOSURE. EQUAL TO UNION CONNECTOR CSC SERIES. (SEE ONE-LINE)
2. ELECTRICAL ENCLOSURE SHALL BE 24"X60"X12", NEMA 3R RATED, PIANO HINGED, 1/4 TURN HANDLE, LOCKABLE, FULL INTERIOR MOUNTING PLANE. (INCREASE SIZE AS NECESSARY TO FACILITATE COMPANY SWITCH.)

GENERAL NOTES

1. VERIFY EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES, IRRIGATION PIPING, IRRIGATION WIRING, TELEPHONE, GAS, NETWORK FIBER OPTIC, CONDUITS, ETC. PRIOR TO BID. EXISTING UTILITIES ARE NOT SHOWN. REFER TO OTHER DRAWINGS AND CONTACT TEXAS 811, PRIOR TO EXCAVATION, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
2. CONDUIT ROUTING SHOWN IS DIAGRAMMATIC. CONTRACTOR SHALL ADJUST ROUTING AS NECESSARY TO FACILITATE INSTALLATION. MAINTAIN REQUIRED COVER AND MAINTAIN REQUIRED SEPARATION BETWEEN OBSTRUCTIONS AND OTHER UTILITIES.
3. CONDUIT SHALL NOT EXCEED A TOTAL OF 270 DEGREE BENDS PER CONDUIT RUN. REFER TO SPECIFICATIONS FOR ADDITIONAL RESTRICTIONS.
4. STAKE LOCATIONS OF ALL DEVICES, POLES, PULL BOXES, AND EQUIPMENT FOR OWNER, ARCHITECT AND ENGINEER APPROVAL BEFORE ANY EXCAVATION OR INSTALLATION.
5. ALL UNDERGROUND POWER CIRCUITS SHALL BE 2#12, #12 GROUND IN 1" PVC CONDUIT UNLESS OTHERWISE NOTED.
6. INSTALL ALL EXPOSED LIGHTING AND FAN CONDUIT IN 3/4" (MINIMUM) GALVANIZED RIGID CONDUIT (GRC) STRAPPED TIGHTLY TO STRUCTURE. PAINT ALL EXPOSED CONDUIT PRIOR TO INSTALLATION. COLOR TO BE VERIFIED BY ARCHITECT/OWNER. TOUCH UP PAINT AFTER INSTALLATION IS COMPLETE.
7. INSTALL ALL RECEPTACLES 12" A.F.F. TO BOTTOM OF DEVICE BOX. EACH RECEPTACLE SHALL INCLUDE WEATHERPROOF, SPRING LOADED CAST STEEL IN USE COVERS. PAINT ALL RECEPTACLE COVERS IN SAME MANNER AS CONDUIT. SEE GENERAL NOTE 6.
8. DEEP EAST TEXAS ELECTRICAL COOP COORDINATION CONTACT: 936-229-4000

NOTES BY SYMBOL - PAVILION/RESTROOM BLDG.

(1) ROUTE CONDUIT AND CONDUCTORS DOWN THROUGH COLUMN TO A MINIMUM 1'-6" BELOW GRADE. TURN UP AT COLUMN IDENTIFIED ON FLOOR PLAN.

(2) INSTALL FAN CONTROL CABLE IN 3/4" (GRC) TO COLUMN FLUSH MOUNT J-BOX. INCLUDE INSTALLATION OF DIGITAL FAN CONTROLLER IN SAID J-BOX. EXACT LOCATION TO BE VERIFIED BY ARCHITECT/OWNER. FAN CONTROLLER AND CABLE IS PROVICED BY FAN MANUFACTURER. PAINT EXPOSED CONDUIT PER GENERAL NOTE 6.

(3) PROVIDE AN INSTALL MACROAIR AIRVOLUTION HIGH VOLUME FAN. #M300-0035MA-60-30020-00-33-21010-00-60-50142-00-30-90308-00-51-F0300-02. OR APPROVED EQUAL. COLOR CHOICES SHALL BE APPROVED BY ARCHITECT/OWNER PRIOR TO ORDER.

(4) INSTALL 50A, 120/240V, 3P4W RECEPTACLE FLUSH IN MASONRY OF COLUMN.

(5) INSTALL PANEL P, COMPANY SWITCH, PAVILION LIGHTING CONTROL STATION AND PAVILION FAN CONTROLLER IN INDIVIDUAL NEMA 3R, PIANO HINGED, LOCKABLE, STEEL CABINETS. EACH CABINET SHALL BE INSTALLED FLUSH IN MASONRY SURROUNDING PAVILION COLUMNS. COORDINATE WITH PAVILION CONCRETE CONTRACTOR AND PAVILION MASONRY CONTRACTOR.

(6) INSTALL MANUAL TRANSFER SWITCH SHALL BE EQUAL TO ASCO MANUFACTURING. INSTALL CONDUIT AND CONDUCTORS PER ONE-LINE DIAGRAM.

(7) SEPTIC SYSTEM CONTROLLER PROVIDED BY SRA. CONTRACTOR SHALL INSTALL GALVANIZED STRUT RACK THEN MOUNT SEPTIC SYSTEM PER REQUIREMENTS OF SRA. INSTALL 120V CONTROL POWER TO SEPTIC SYSTEM CONTROLLER AS INDICATED ON DRAWING.

(8) INSTALL FAN CONTROLLER AND LIGHTING CONTROL STATION FOR PAVILION FIXTURES IN FLUSH MOUNT, LOCKABLE 1/4 TURN HANDLE, NEMA 3R, PIANO HINGED J-BOX. SAID J-BOX SHALL BE FLUSH IN MASONRY OF COLUMN MOUNTED PER ADA HEIGHT REQUIREMENTS.

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02

STATE OF TEXAS
R. TIM YAGGI
57030
REGISTERED PROFESSIONAL ENGINEER
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
RESTROOM AND PAVILION FLOOR PLANS - ELECTRICAL

NO.	ISSUE	BY	DATE:

F&N JOB NO. SRA23985
DATE 7/17/24
DESIGNED RTY
DRAWN RLT
CHECKED RTY
APPROVED RTY
FILE NAME E2.00 PAV.& RR PLANS.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. if not one hinch on this sheet, adjust scale.
0 1

SHEET E2.00
SEQ.

ISSUED FOR BID

ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E2.00 PAV.& RR PLANS.dwg
Last Saved: 7/15/2024 1:24 PM Saved By: rtyler
Plot Date: 7/16/2024 5:58 PM Plot By: rtyler Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E2.00 PAV.& RR PLANS.dwg

PANEL RR

SECTION 1 OF 1

V(L-L) 240 PHASE 3 BUS 100 A
V(L-N) 120 WIRE 4 MCB 100 A 42,000 A.I.C

DESCRIPTION	LOAD (KVA)	BKR POLES	BKR AMPS	CKT #	CKT #	BKR POLES	BKR AMPS	LOAD (KVA)	DESCRIPTION
		1		1	2	1			
		1		3	4	1			
		1		5	6	1			
		1		7	8	1			
		1		9	10	1			
		1		11	12	1			
		1		13	14	1			
		1		15	16	1	100	7.6	

	CONN. LOAD (KVA)	N.E.C. MULT. (KVA)
LIGHTING	2	3
MOTOR	2	3
HEATING	2	3
KITCHEN		
RECEPTACLE	2	2
MISCELLANEOUS		
SPARE		
TOTAL	8	9

1 PH 3 PH TOTAL

- CONN. LOAD (AMPS)
- N.E.C. MULT. (AMPS)
- PERCENT SPARE
- 1.00 KITCHEN MULTIPLIER
- 1.00 MISC. MULTIPLIER

PANEL INTEGRAL TO PREFABRICATED BUILDING. CONTRACTOR SHALL INSTALL FEEDER CIRCUIT TO PANEL. COORDINATE WITH CONCRETE INSTALLATION AND ARCHITECT FOR EXACT LOCATION OF POWER STUB-UP IN RESTROOM BLDG.

PANEL P

SECTION 1 OF 1

V(L-L) 240 PHASE 3 BUS 125 A SURFACE MOUNTED
V(L-N) 120 WIRE 4 MCB 100 A 42,000 A.I.C

DESCRIPTION	LOAD (KVA)	BKR POLES	BKR AMPS	CKT #	CKT #	BKR POLES	BKR AMPS	LOAD (KVA)	DESCRIPTION
PAVILION LIGHTS	0.7	1	20	1	2	1	20	0.4	PAVILION RCPTS.
PAVILION RCPTS.	0.4	1	20	3	4	2	20	1.2	MACRO AIR FAN
50A RECEPTACLE	7.8	2	50	5	6	-	-		-
-		-	-	7	8	1	20		SPARE
SPARE		1	20	9	10	1	20		SPARE
SPARE		1	20	11	12	1	20		SPARE
SPARE		1	20	13	14	1	20		SPARE
SPARE		1	20	15	16	1	20		SPARE
SPARE		1	20	17	18	1	20		SPARE
SPACE		1		19	20	1			SPACE
SPACE		1		21	22	1			SPACE
SPACE		1		23	24	1			SPACE

	CONN. LOAD (KVA)	N.E.C. MULT. (KVA)
LIGHTING	1	1
MOTOR	1	1
HEATING		
KITCHEN		
RECEPTACLE	9	9
MISCELLANEOUS		
SPARE		
TOTAL	10	11

1 PH 3 PH TOTAL

- CONN. LOAD (AMPS)
- N.E.C. MULT. (AMPS)
- PERCENT SPARE
- 1.00 KITCHEN MULTIPLIER
- 1.00 MISC. MULTIPLIER

PANEL MP

SECTION 1 OF 1

V(L-L) 240 PHASE 1 BUS 600 A SURFACE MOUNTED
V(L-N) 120 WIRE 3 MCB 600 A 42,000 A.I.C

DESCRIPTION	LOAD (KVA)	BKR POLES	BKR AMPS	CKT #	CKT #	BKR POLES	BKR AMPS	LOAD (KVA)	DESCRIPTION
POLE LTS (SW)	1.5	2	20	1	2	2	20	2.4	POLE LTS (NW)
-		-	-	3	4	-	-		-
ENTRY SIGN LTS	1.6	2	20	5	6	2	30	3.8	MIGH-MAST POLE LTS
-		-	-	7	8	-	-		
PAVILION - PANEL P -	10.9	2	100	9	10	2	100	7.6	RR BLDG - PANEL RR-
		-	-	11	12	-	-		
FOOD TRUCK P-DOC 1	8.0	2	50	13	14	2	50	8.0	FD. TRUCK P-DOC 3
		-	-	15	16	-	-		
PEDOCK 7 RECEPT.	0.8	1	20	17	18	1	20	0.8	PEDOCK 4 RECEPT.
PEDOCK 7 RECEPT.	0.8	1	20	19	20	1	20	0.8	FISH REL. PEDOCK 5
CO-SWITCH (PAVILION)	38.4	2	225	21	22	1	20	1.5	SEPTIC SYST. (@RR)
-		-	-	23	24	2	50	8.0	FD. TRUCK P-DOC 2
SPARE	0.3	1	20	25	26	-	-		-
EXT LTG. CTL CABINET	1.0	1	20	27	28	1	20	0.3	SPARE
SPARE	0.3	1	20	29	30	1	20	0.3	SPARE
SPARE	0.3	1	20	31	32	1	20	0.3	SPARE
SPARE	0.3	1	20	33	34	1	20	0.3	SPARE
SPARE	0.3	1	20	35	36	1	20	0.3	SPARE
SPARE	0.3	1	20	37	38	1	20	0.3	SPARE
SPARE	0.3	1	20	39	40	2	60		SPD
SPARE	0.3	1	20	41	42	-	-		-

	CONN. LOAD (KVA)	N.E.C. MULT. (KVA)
LIGHTING	12	16
MOTOR	3	4
HEATING	2	3
KITCHEN	24	24
RECEPTACLE	13	12
MISCELLANEOUS	41	41
SPARE	4	4
TOTAL	99	102

- 413 CONN. LOAD (AMPS)
- 424 N.E.C. MULT. (AMPS)
- 3 PERCENT SPARE
- 1.00 KITCHEN MULTIPLIER
- 1.00 MISC. MULTIPLIER

OVERHEAD PRIMARY POLES, DIP POLE, AERIAL PRIMARY CONDUCTORS, METERING C.T.'S AND ALL ASSOCIATED FUSING, MOUNTING, AND ANCHORING HARDWARE PROVIDED AND INSTALLED BY DEEP EASE TEXAS ELECTRIC COOP.

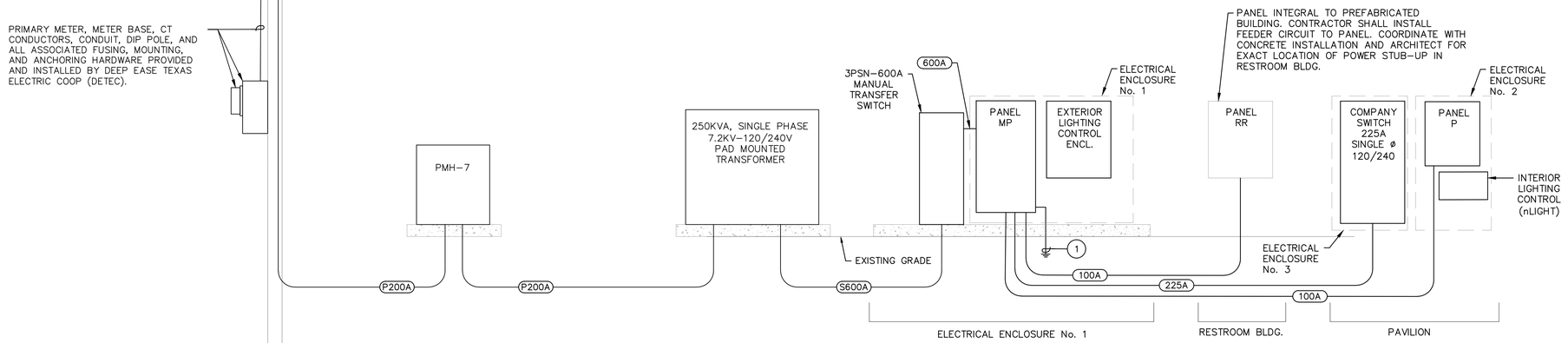
15KV, #1/0 SINGLE CONDUCTOR, UNDERGROUND CABLE AND #1/0 XHHW GROUND IN 3" PVC CONDUIT PROVIDED AND INSTALLED BY CONTRACTOR. CONTINUE INSTALLATION UP DETEC POLE TO WITH 5'-0" OF BOTTOM AERIAL CONDUCTOR. LEAVE ADDITIONAL LENGTH OF CABLE TO FACILITATE MV TERMINATION. COORDINATE WITH DETEC FOR TERMINATION OF CABLE AT POLE AND PRIMARY EQUIPMENT CONNECTIONS.

PRIMARY METER, METER BASE, CT CONDUCTORS, CONDUIT, DIP POLE, AND ALL ASSOCIATED FUSING, MOUNTING, AND ANCHORING HARDWARE PROVIDED AND INSTALLED BY DEEP EASE TEXAS ELECTRIC COOP (DETEC).

FEEDER SCHEDULE

AMPS	SIZE DESCRIPTION
100A	(4) #1, 1#8G IN 1-1/4"C
225A	(3) #250KCMILL, 1#4G IN 2-1/2"C
P200A	(1) 15KV #1/0, SHIELDED, 133% INSULATED, COPPER, PVC JACKETED, RIBBON TS, MV-105 CABLE AND 1/0G IN 3"C
600A	(2) 3"C WITH (4) 350 KCMIL, #1G IN EACH
S600A	(2) 3"C WITH (4) 400 KCMIL, #1G IN EACH

NOTES: FEEDERS HAVE ADJUSTMENT FOR VOLTAGE DROP (LESS THAN 2%). VERIFY AFTER FINAL LENGTH IS DETERMINED.



1 ONE-LINE DIAGRAM - PANEL SCHEDULES

NOT TO SCALE

ISSUED FOR BID

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 -- 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02

STATE OF TEXAS
R. TIM YAGGI
57030
REGISTERED PROFESSIONAL ENGINEER
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

ONE-LINE - PANEL SCHEDULES -

NO.	ISSUE	DATE	BY

F&N JOB NO. SRA23985
DATE 7/17/24
DESIGNED RTY
DRAWN RLT
CHECKED RTY
APPROVED RTY
FILE NAME E3.00 ONE-LINE, SCHEDs.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one inch on this sheet, adjust scale.
0 1"

SHEET E3.00
SEQ.

ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E3.00 ONE-LINE, SCHEDs.dwg
Last Saved: 7/16/2024 5:45 PM Saved By: rtyler

Plot Date: 7/16/2024 5:58 PM Plot By: rtyler Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E3.00 ONE-LINE, SCHEDs.dwg

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMPS	VOLTAGE
A	PARKING LOT PULL/LED FIXTURE. LUMINAIRE WITH MICRO STRIKE 320 OPTICS, INTEGRAL SURGE SUPPRESSION DEVICE, FIELD ROTATABLE OPTICS, UL 1598 WET LOCATION LISTED, DIE-CAST ALUMINUM HOUSING, COLOR CHOICE PER ARCHITECT/OWNER, SIZE 2, TYPE 4 DISTRIBUTION. EQUAL TO CURRENT VIPER SERIES. POLE: ROUND TAPERED STEEL (RTS) 30FT POLE. COLOR TO MATCH FIXTURE AND APPROVED BY ARCHITECT/ OWNER. INCLUDE VIBRATION DAMPER SYSTEM FOR EVERY POLE. EQUAL TO VALMONT POLE NUMBER: XXXX XXXX-XX-XX X- XXXX.	POLE MOUNTED	260.1W LED 32,642 LUMENS 5000K	240
B	NEXUS 750 WATT SPORTS LIGHTER LED. YOLK MOUNT FRAME, HEAVY DUTY DIE-CAST ALUMINUM HOUSING DESIGNED TO MINIMIZE GLARE AND BE WEATHER TIGHT WITH 3G VIBRATION RATINGS TO ENSURE IT CAN SURVIVE HARSH ENVIRONMENTS. NEXUS COMES STANDARD WITH 20KV SURGE PROTECTION AND 110 VOLT DIMMING INTEGRAL OR REMOTE DRIVER OPTIONS ARE AVAILABLE, 10 YEAR WARRANTY, CALCULATED LIFE HOURS 100,000+ CALM DRIVER MANUFACTURED BY MEANWELL, OPERATING TEMPERATURE -40°F TWO 122°F. BEAM OPTICS OPTIONS ARE 25° AND 30°. FIXTURE COMBS WITH ANTISTATIC POWDER COATING BLACK IN COLOR. FIXTURE ALSO INCLUDES POLYCARBONATE MATCHING HOOD VISOR. POLE: ROUND TAPERED STEEL 100 FOOT POLE. GALVANIZED STEEL POLE INCLUDES (3) SECTIONS. INCLUDE VIBRATION DAMPER SYSTEM FOR EACH HIGH MAST POLE ORDERED. EQUAL TO VALMONT POLE NUMBER: XXXX XXXX-XX-XX X- XXXX.	YOKE MOUNTED ON HIGH MAST FIXTURE RING. EACH POLE SHALL INCLUDE RAISE/LOWERING SYSTEM TO ALLOW FIXTURE MAINTENANCE AT GROUND LEVEL	760.1W LED 9,660 LUMENS 4000K	240 (100-277)
D	CANOPY LED FIXTURE DESIGNED FOR OUTDOOR AND INDOOR PAVILIONS. 19 INCHES IN DIAMETER WITH A LOW PROFILE OF 3.75 INCHES. CRI INDEX 80, TYPE 5 OPTICS, PENDANT MOUNTED, INCLUDE BIRD SHIELD WHEN ORDERING. ALSO INCLUDE 500 LUMEN UP-LIGHT OPTION. VERIFY WITH ARCHITECT/ OWNER FOR COLOR CHOICE. EQUAL TO LITHONIA THE VCPG LED SERIES. ALSO INCLUDE SENSORS AS REQUIRED TO CONTROL ALL TYPE D FIXTURES WITH nLIGHT CONTROL SYSTEM OF APPROVED EQUAL	PENDANT MOUNT WITH BIRD PROTECTION SHIELD/SHROUD	82W LED 11,027 LUMENS 5000K	120
S (SIGN)	LINEAR SIGN LIGHT FIXTURE, EXTRUDED ALUMINUM, STAINLESS STEEL FASTENERS, ACRYLIC/UV RESISTANT LENS, KMS KNUCKLE MOUNTING TO ALLOW AIMING, WFL DISTRIBUTION, SET-BACK DETERMINED DURING MOCK-UP, POWDER COATED BLACK FINISH, COLOR AS SELECTED BY OWNER, EQUAL TO HYDREL 4750L STATIC WHITE SERIES, 0-10V DIMMING.	GROUND REFER TO DETAIL SHEET E4.00	42 WATT LED 4594 LUMENS 3000K	240

NOTES:

1 VERIFY EXACT LOCATION, MOUNTING, AND METHOD OF INSTALLATION FOR ALL LIGHTING FIXTURES WITH ARCHITECT PRIOR TO ROUGH-IN.

2 SUBMIT POINT-BY-POINT FOOT-CANDLE CALCULATIONS FOR PAVILION AND SITE LIGHTING (10 FT. CENTERS FOR PAVILION AND 20 FT. CENTERS FOR SITE)

3 INCLUDE VIBRATION DAMPERING SYSTEM FOR EACH POLE.

EXTERIOR SITE LIGHTING CONTROL SCHEDULE

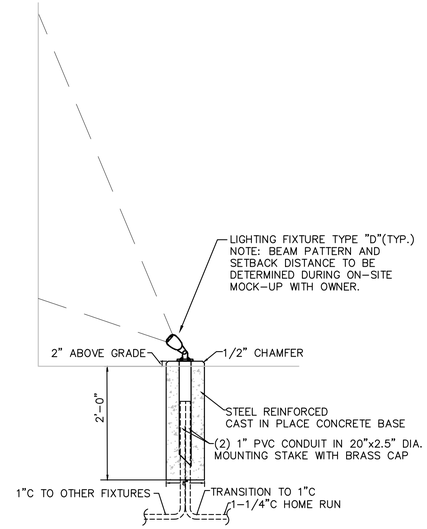
ZONE	EQUIP LOC.	PHOTOCELL	TIMECLOCK NUMBER	HOA SWITCH	CONTACTOR		
					CONTACTOR NO.	RATING	CIRCUITS
POLES P1-P6 & P9-P18	ENCL NO.1	1	TC-1	1	C-1	6P-30A	MP-1,3 MP-2,4
POLES P7 THRU P8	ENCL NO.1	1	TC-1	2	C-2	2P-30A	MP-6,8
ENTRY SIGN	ENCL NO.1	1	TC-1	3	C-3	2P-30A	MP-5,7
PAVILION LIGHTS	ENCL NO.2	2	TC-2	4	C-4	2P-30A	P-1
PAVILION FAN	ENCL NO.3	FAN OFF/ON AND SPEED BY CONTROLLER INCLUDED WITH FAN					P-4,6

NOTES:

1. PROVIDE AUXILIARY RELAYS AS REQUIRED FOR 2-WIRE CONTROL.
2. CONTACTORS SHALL BE LOCATED IN SEPARATE NEMA 1 ENCLOSURE IN ENCLOSURE No. 1
3. PHOTOCELL SHALL BE INSTALLED (WITH GRC PROTECTIVE COLLAR) ON EXTERIOR OF NORTH WALL OF ENCLOSURE No. 1 AS HIGH AS POSSIBLE AND FACING NORTH.
4. PROVIDE PHOTOCELL-ON, TIMECLOCK-OFF CONTROL AND HOA SWITCH FOR BY-PASS ON/OFF/AUTO OPERATION.
5. HOA SWITCHES SHALL BE INSTALLED IN HINGED COVER OF ABOVE CONTACTOR REFERENCED CONTACTOR ENCLOSURE.

POLE SCHEDULE

POLE NUMBER	POLE HEIGHT	FIXTURE TYPE	FIXTURE QUANTITY	VOLTAGE
P1	30'	A	1	240
P2	30'	A	1	240
P3	30'	A	1	240
P4	30'	A	1	240
P5	30'	A	1	240
P6	30'	A	1	240
P7	80'	B	5	240
P8	80'	B	5	240
P9	30'	A	1	240
P10	30'	A	1	240
P11	30'	A	1	240
P12	30'	A	1	240
P13	30'	A	1	240
P14	30'	A	1	240
P15	30'	A	1	240
P16	30'	A	1	240
P17	30'	A	1	240
P18	30'	A	1	240



SIGN LIGHTING MOUNTING DETAIL

NOT TO SCALE

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02

STATE OF TEXAS
R. TIM YAGGI
57030
REGISTERED PROFESSIONAL ENGINEER
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

LIGHT FIXTURE SCHEDULE - LIGHT POLE SCHEDULE - INTERIOR AND EXTERIOR LIGHTING CONTROL SCHEDULE

NO.	ISSUE	BY	DATE

FAN JOB NO. SRA23985
DATE 7/17/24
DESIGNED RTY
DRAWN RLT
CHECKED RTY
APPROVED RTY
FILE NAME E4.00 LTG SCHED..dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1

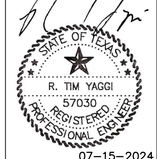
SHEET E4.00
SEQ.

ISSUED FOR BID

ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E4.00 LTG SCHED..dwg
Last Saved: 7/16/2024 7:43 AM Saved By: rtyler

Plot Date: 7/16/2024 6:00 PM Plot By: rtyler Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E4.00 LTG SCHED..dwg

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02



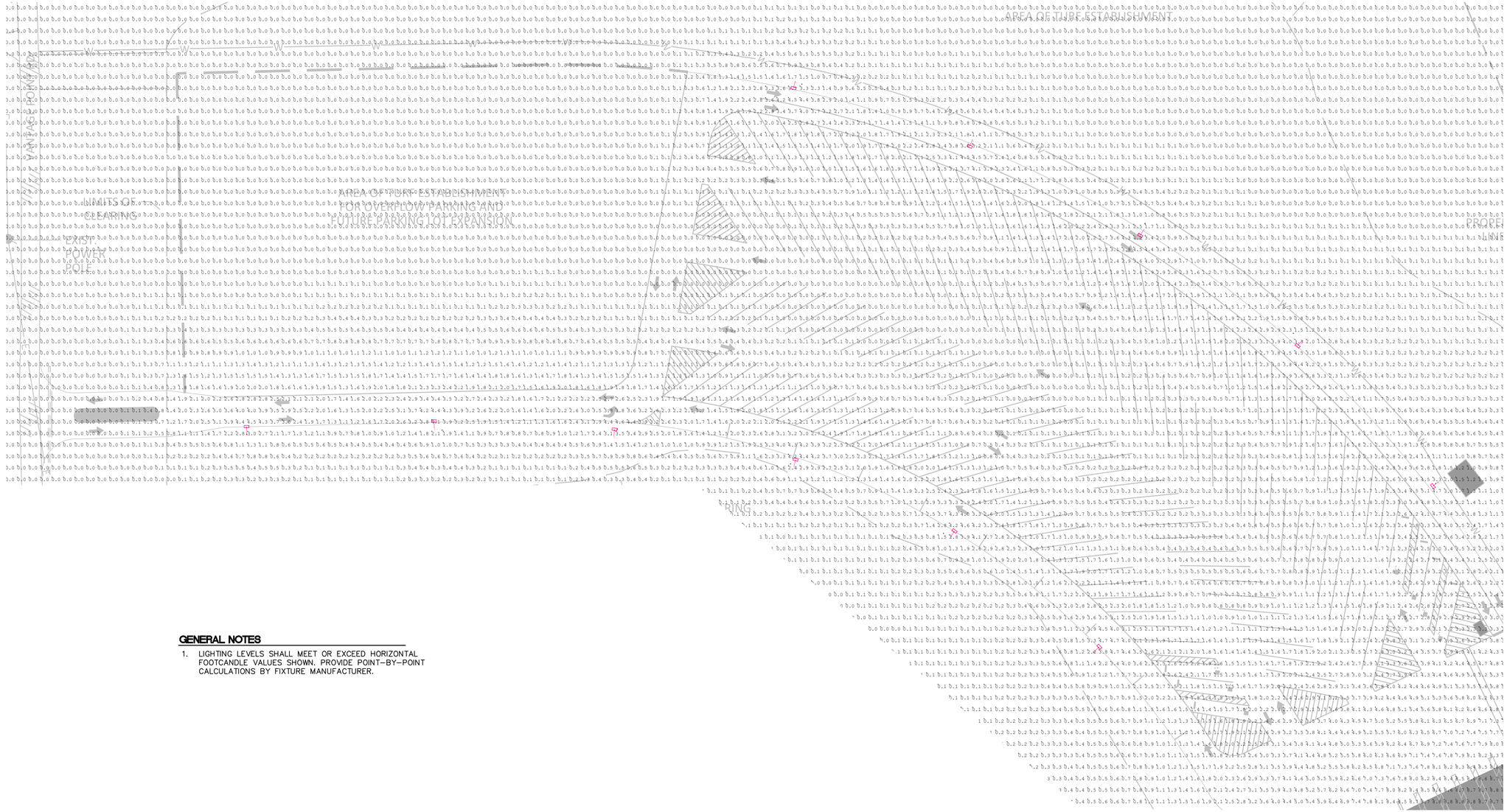
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY

SABINETOWN RECREATION AREA

ENTRY AND PARKING PHOTOMETRICS



GENERAL NOTES

1. LIGHTING LEVELS SHALL MEET OR EXCEED HORIZONTAL FOOTCANDLE VALUES SHOWN. PROVIDE POINT-BY-POINT CALCULATIONS BY FIXTURE MANUFACTURER.

N 1 ENTRY AND PARKING PHOTOMETRICS

SCALE: 1"=60'-0" (0 – 120)

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985

	DATE
DESIGNED	7/17/24
DRAWN	RTY
CHECKED	RLT
APPROVED	RTY

FILE NAME E5.00 PHOTO METRICS.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale. 0 1

SHEET E5.00

SEQ.

ISSUED FOR BID

ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E5.00 PHOTO METRICS.dwg
Last Saved: 7/15/2024 1:24 PM Saved By: rtyler

N 1 **PAVILION PHOTOMETRICS - INTERIOR**
NOT TO SCALE

N 2 **DOCK AND PAVILION PHOTOMETRICS - EXTERIOR**
NOT TO SCALE

GENERAL NOTES

1. LIGHTING LEVELS SHALL MEET OR EXCEED HORIZONTAL FOOTCANDLE VALUES SHOWN. PROVIDE POINT-BY-POINT CALCULATIONS BY FIXTURE MANUFACTURER.

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02

STATE OF TEXAS
R. TIM YAGGI
57030
REGISTERED PROFESSIONAL ENGINEER
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

DOCK AND PAVILION PHOTOMETRICS - EXTERIOR
PAVILION PHOTOMETRICS - INTERIOR

NO.	ISSUE	BY	DATE

F&N JOB NO. SRA23985
DATE 7/17/24
DESIGNED RTY
DRAWN RLT
CHECKED RTY
APPROVED RTY
FILE NAME E6.00 PHOTOMETRICS.dwg

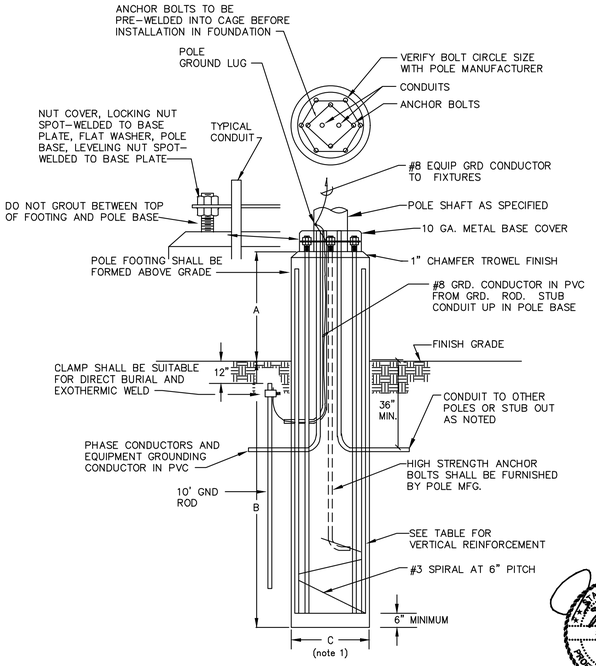
VERIFY SCALE Bar Scale is one inch on original drawing. if not one hinch on this sheet, adjust scale.
0 1"

SHEET E6.00
SEQ.

ISSUED FOR BID

ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E6.00 PHOTOMETRICS.dwg
Last Saved: 7/15/2024 1:24 PM Saved By: rtyler

Plot Date: 7/16/2024 6:01 PM Plot By: rtyler Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E6.00 PHOTOMETRICS.dwg



LIGHT POLE FOOTING

SABINETOWN PARK RECREATION AREA

POLE FOUNDATION SCHEDULE

POLE BASE	A	B	C	VERTICAL REINFORCEMENT
HIGH MAST (80'-6" POLE)	6"	20'-0"	42"	(14) #9
PARKING LOT (25'-6" POLE)	6"	14'-0"	24"	(6) #8

NOTES:

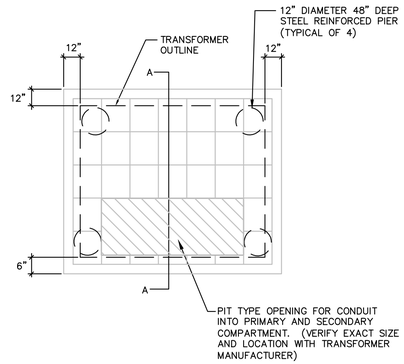
1. FOUNDATION DIAMETER SHALL NOT BE LESS THAN 4" LARGER THAN POLE BASE DIAMETER.
2. DRILLED SHAFT CONCRETE (f'c)=3500 PSI @ 28 DAYS
3. DRILLED SHAFT REINFORCING STEEL SHALL BE GRADE 60
4. PROVIDE LAPSPLICE LENGTH = 60" X BAR DIAMETER
5. CLEAR COVER SHALL BE 3" U.N.O.
6. REFER TO ELECTRICAL PLAN FOR ADDITIONAL INFORMATION NOT SHOWN.
7. FORMS SHALL BE USED FOR POLE FOOTING PORTION ABOVE GRADE.
8. LIGHT POLE DESIGN WIND SPEED = 130 MPH

LIGHT POLE FOOTING DETAIL

NOT TO SCALE

STATE OF TEXAS
SON H. NGO
97440
LICENSED
PROFESSIONAL ENGINEER
7-16-24

JAKAN ENGINEERING, PLLC
F-13414

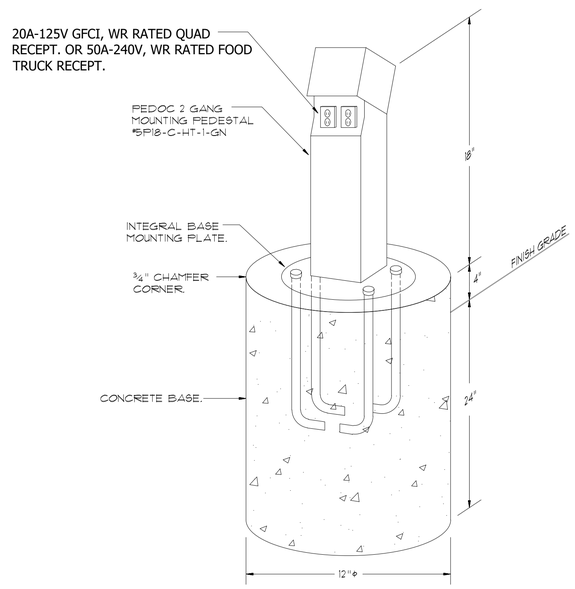


NOTES:

1. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI.
2. REBAR TO BE #4 DEFORMED PLACED ON 12" O.C. EACH WAY.
3. PAD SHALL BE TROWEL FINISHED WITH CHAMFERED EDGES.
4. TOP OF FINISHED PAD SHALL BE 5" ABOVE GRADE. PAD SHALL BE 9" THICK.
5. ALLOW PAD TO CURE A MINIMUM 3 DAYS BEFORE SETTING TRANSFORMER.
6. FURNISH AND INSTALL A 3/4" x 10' DRIVEN COPPERWELD GROUND ROD LOCATED AS SHOWN.
7. TRANSFORMER PAD DETAILS ARE TYPICAL. PAD SHALL BE DIMENSIONED 6" LARGER THAN TRANSFORMER ALL AROUND.
8. PAD SHALL BE POURED ON 6" WET SAND CUSHION.

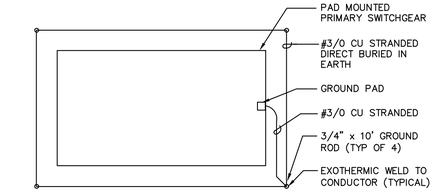
TRANSFORMER PAD DETAIL

NOT TO SCALE



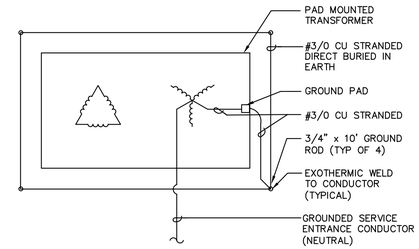
PEDOC FOOD TRUCK OR QUAD RECEPTACLE DETAIL

NOT TO SCALE



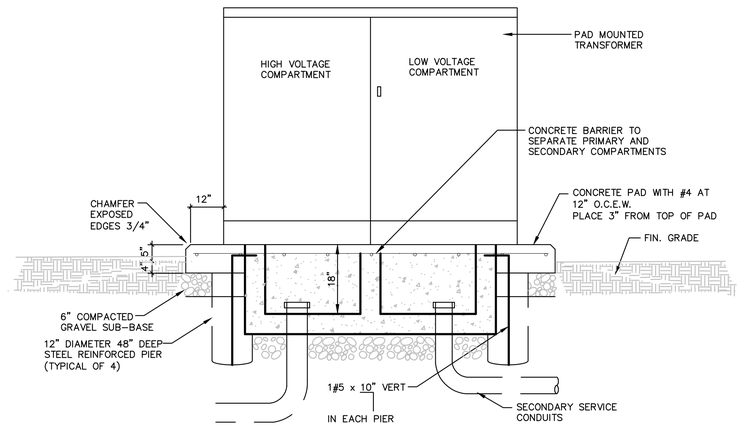
PAD MOUNTED PRIMARY SWITCHGEAR GROUND DETAIL

NOT TO SCALE



PAD MOUNTED TRANSFORMER GROUND DETAIL

NOT TO SCALE



TRANSFORMER PAD DETAIL (PMH PAD SIMILAR)

NOT TO SCALE

ISSUED FOR BID

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02

STATE OF TEXAS
R. TIM YAGGI
57030
REGISTERED
PROFESSIONAL ENGINEER
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA
DETAILS - ELECTRICAL -

F&N JOB NO.	SRA23985
DATE	7/17/24
DESIGNED	RTY
DRAWN	RLT
CHECKED	RTY
APPROVED	RTY
FILE NAME	E7.00 DETAILS.dwg

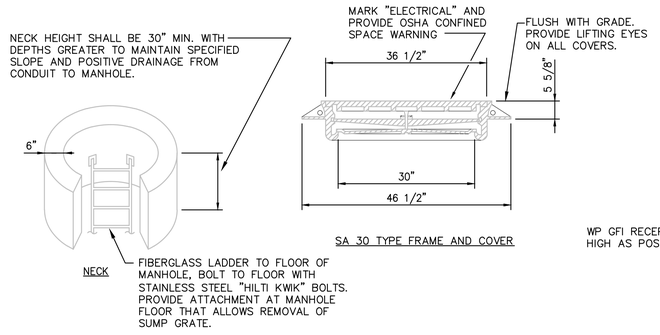
NO.	ISSUE	BY	DATE

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale.
0 1

SHEET E7.00
SEQ.

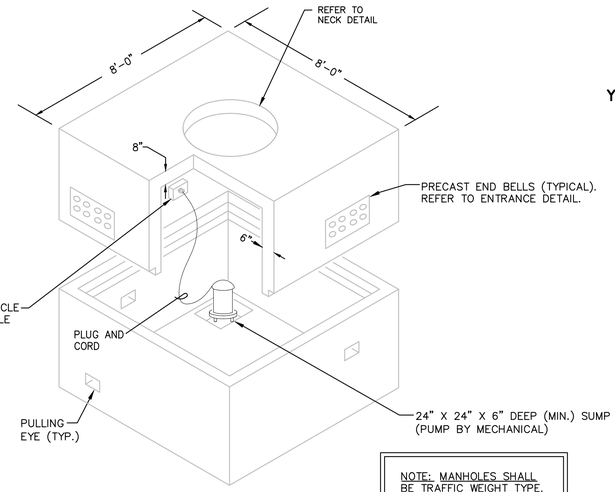
ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E7.00 DETAILS.dwg
Last Saved: 7/16/2024 7:51 AM Saved By: rtyler

Plot Date: 7/16/2024 6:19 PM Plot By: rtyler Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E7.00 DETAILS.dwg



1 MANHOLE NECK AND COVER DETAILS

SCALE: NOT TO SCALE

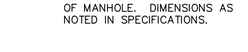


NOTE: MANHOLES SHALL BE TRAFFIC WEIGHT TYPE.

2 ELECTRICAL MANHOLE DETAIL (TYPICAL)

SCALE: NOT TO SCALE

NOTE:
1. 7'-0" X 7'-0" X 7'-0" (HEADROOM) CLEAR INSIDE DIMENSIONS.
2. PROVIDE NON-METALLIC END BELLS TO CORRESPOND WITH ACTUAL DUCT BANK CONFIGURATIONS. SUBMIT DETAIL FOR EACH MANHOLE.
3. REFER TO CABLE RACKING DETAIL, NECK, FRAME AND COVER DETAILS FOR ADDITIONAL MANHOLE INFORMATION.
4. SUBMIT CABLE TRAINING DETAIL FOR BOTH MANHOLES.
5. GROUND MANHOLE AND METAL COMPONENTS WITHIN MANHOLE PER NEC.

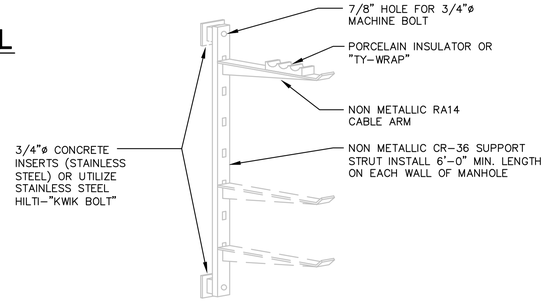


SUMP SECTION VIEW

NOTE: 1. SUMP SHALL BE MANUFACTURER'S STANDARD SUMP TYPE FOR ALL ELECTRICAL MANHOLES. IT SHALL NOT BE A LEAVE-OUT OR BLOCK-OUT. IT SHALL NOT PENETRATE THROUGH THE BOTTOM OF MANHOLE. DIMENSIONS AS NOTED IN SPECIFICATIONS.

3 MANHOLE SUMP DETAIL

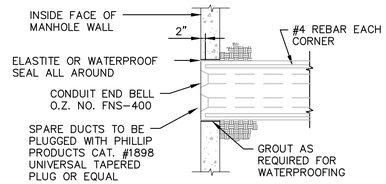
SCALE: NOT TO SCALE



NOTES:
1. ALL CABLE ROUTED AROUND MANHOLE SHALL BE LOCATED ON RACKS MOUNTED IN THE TOP 2'-0" OF MANHOLE. FILL RACKS FROM TOP FIRST.
2. ALL CABLES TO BE SUPPORTED EVERY 3'-0" HORIZONTALLY.
3. CIRCUITS SHALL BE SECURED TO INDIVIDUAL CABLE RACK INSULATORS WITH ADEQUATE SIZED CABLE TIES DURING INSTALLATION OF NEW CABLES OR REINSTALLATION OF EXISTING CIRCUITS.
4. PRODUCT NUMBERS ARE UNDERGROUND DEVICES ONLY.

4 CABLE RACK DETAIL

SCALE: NOT TO SCALE



5 TYPICAL DUCT BANK ENTRANCE DETAIL AT MANHOLE

SCALE: NOT TO SCALE

YAGGI ENGINEERING, INC.
CONSULTING • ENGINEERS
5840 WEST INTERSTATE 20, SUITE 270
ARLINGTON, TEXAS 76017 – 817-483-2373
TEXAS REGISTRATION #F-9622
YE PROJECT 2350.02

STATE OF TEXAS
R. TIM YAGGI
57030
REGISTERED PROFESSIONAL ENGINEER
07-15-2024

FREESE NICHOLS
800 N. Shoreline Blvd., Suite 1600N
Corpus Christi, Texas 78401-3700
Phone - (361) 561-6500
Web - www.freese.com
Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

SABINE RIVER AUTHORITY
SABINETOWN RECREATION AREA

DETAILS - ELECTRICAL -

NO.	ISSUE	BY	DATE

F&N JOB NO.	SRA23985
DATE	7/17/24
DESIGNED	RTY
DRAWN	RLT
CHECKED	RTY
APPROVED	RTY
FILE NAME	E8.00 DETAILS.dwg

VERIFY SCALE Bar Scale is one inch on original drawing. If not one hinch on this sheet, adjust scale. 0 1

SHEET E8.00

SEQ.

ISSUED FOR BID

ACAD Rel: 23.1s (LMS Tech)
Filename: S:\Projects\2023 Year\2366.00 Sabinetown Park Development Phase 1\Drawings\E8.00 DETAILS.dwg
Last Saved: 7/16/2024 6:03 PM Saved By: rtyler