ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.H.U.	AIR HANDLING UNIT
ALUM.	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BLT.	BUILT
BRK.	BRICK
BRKR.	BREAKER
BSMT.	BASEMENT
C.J.	CONTROL JOINT
CLG.	CEILING
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
C.O.	CLEAN OUT
CONC.	CONCRETE
CU	COPPER
CU. FT.	CUBIC FOOT
CU. IN.	CUBIC INCH
CU. YD.	CUBIC YARD
DIA./ø.	DIAMETER
DBL.	DOUBLE
DBT	DRY-BULB TEMPERATURE
DEG.	DEGREE
DEPT.	DEPARTMENT
DF	DRINKING FOUNTAIN
DISC.	DISCONNECT
DL	DEAD LOAD
DN.	DOWN
D.S.	DOWN SPOUT
DWG	DRAWING
E.F.	EXHAUST FAN
EXH	EXHAUST
EXP. JT.	EXPANSION JOINT
EXT.	EXTERIOR
FIN	FINISH
FL.	FLOOR
FLUOR.	FLUORESCENT
FP	FIREPLACE
FR	FIRE RATING
FT.	FOOT/FEET
FTG.	FOOTING
GALV.	GALVANIZED
GFI	GROUND FAULT CIRCUIT INTERRUPT
GOV'T.	GOVERNMENT
GR.FL.	GROUND FLOOR
GYP.	GYPSUM
H.C.	HOLLOW CORE
H.D.G.	HOT DIPPED GALVANIZED
HDR.	HEADER
HDWR.	HARDWARE
H.P.	HORSEPOWER
HT.	HEIGHT
HTR.	HEATER
HV.	HIGH VOLTAGE
HVAC.	HEATING, VENTILATING AND AIR CONDITIONING
HWY.	HIGHWAY
ID.	INSIDE DIAMETER
IN.	INCH
INCAND.	INCANDESCENT
INCL.	INCLUDED
INSUL.	INSULATION
INT.	INTERIOR
INV. EL.	INVERT ELEVATION
JST.	JOIST
KD.	KILN DRIED
KW.	KILOWATT
KWH	KILOWATT HOUR
LAM.	LAMINATED
LAV.	LAVATORY
LB.	POUND
LTG.	LIGHTING
LGTH.	LENGTH
LIN.	LINEAR
LL	LIVE LOAD
MANUF.	MANUFACTURE
MAX.	MAXIMUM
MF.	MILL FINISH
MIN.	MINIMUM
MLDG.	MOLDING
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
MSL	MEAN SEA LEVEL
MOD.	MODIFICATION
NTS	NOT TO SCALE
NO./#	NUMBER
OA.	OVERALL
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OFC.	OFFICE
O/H	OVER HEAD
OPP.	OPPOSITE
PARTN.	PARTITION
PC	PORTLAND CEMENT
PCF.	POUNDS PER CUBIC FOOT
P.E.	PROFESSIONAL ENGINEER
PERF.	PERFORATE
PERP.	PERPENDICULAR
PL.	PLATE
PLG.	PILING
PLYWD.	PLYWOOD
PNL.	PANEL
PREFAB.	PREFABRICATED
PRELIM.	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED
QS	QUARTER SAWN
R	RADIUS
RCPT.	RECEPTACLE
REBAR.	REINFORCING BAR
REFRIG.	REFRIGERATION
REINF.	REINFORCING
RFG	ROOFING
RGH	ROUGH
RM	ROOM
R.O.	ROUGH OPENING
RS	ROUGH SAWN
S.C.	SOLID CORE
SCH	SCHEDULE
SDG	SIDING
SECT.	SECTION
SFTWD	SOFTWOOD
SGD	SLIDING GLASS DOOR
SH	SHINGLES
SPEC	SPECIFICATION
SPR	SPRUCE
SQ.	SQUARE
SQ. FT.	SQUARE FOOT
SQ. IN.	SQUARE INCH
SQ. YD.	SQUARE YARD
SS	STAINLESS STEEL
STL.	STEEL
SUB. FL.	SUBFLOOR
SUP.	SUPPLY
SW.	SWITCH
SYM.	SYMMETRICAL
S.Y.P.	SOUTHERN YELLOW PINE
SYS.	SYSTEM
S4S	SURFACED FOUR SIDES
TEL.	TELEPHONE
T&G	TONGUE-AND-GROOVE
TYP.	TYPICAL
U.E.	UNDERGROUND ELECTRIC
U.G.	UNDER GROUND
UL	UNDERWRITERS LABORATORIES, INC.
V.	VOLT
VENT.	VENTILATOR
VERT.	VERTICAL
VIF	VERIFY IN FIELD
VOL.	VOLUME
VP	VENT PIPE
VTR.	VENT THRU ROOF
W.	WATER
WBT.	WET BULB TEMPERATURE
WC	WATER CLOSET
WD	WOOD
WP.	WATERPROOF
WWF.	WELDED WIRE FABRIC
YD.	YARD

REFERENCE LEGEND

G8 / A502 — SECTION IDENTIFICATION / SHEET NUMBER

G8 / A502 — DETAIL IDENTIFICATION / SHEET NUMBER

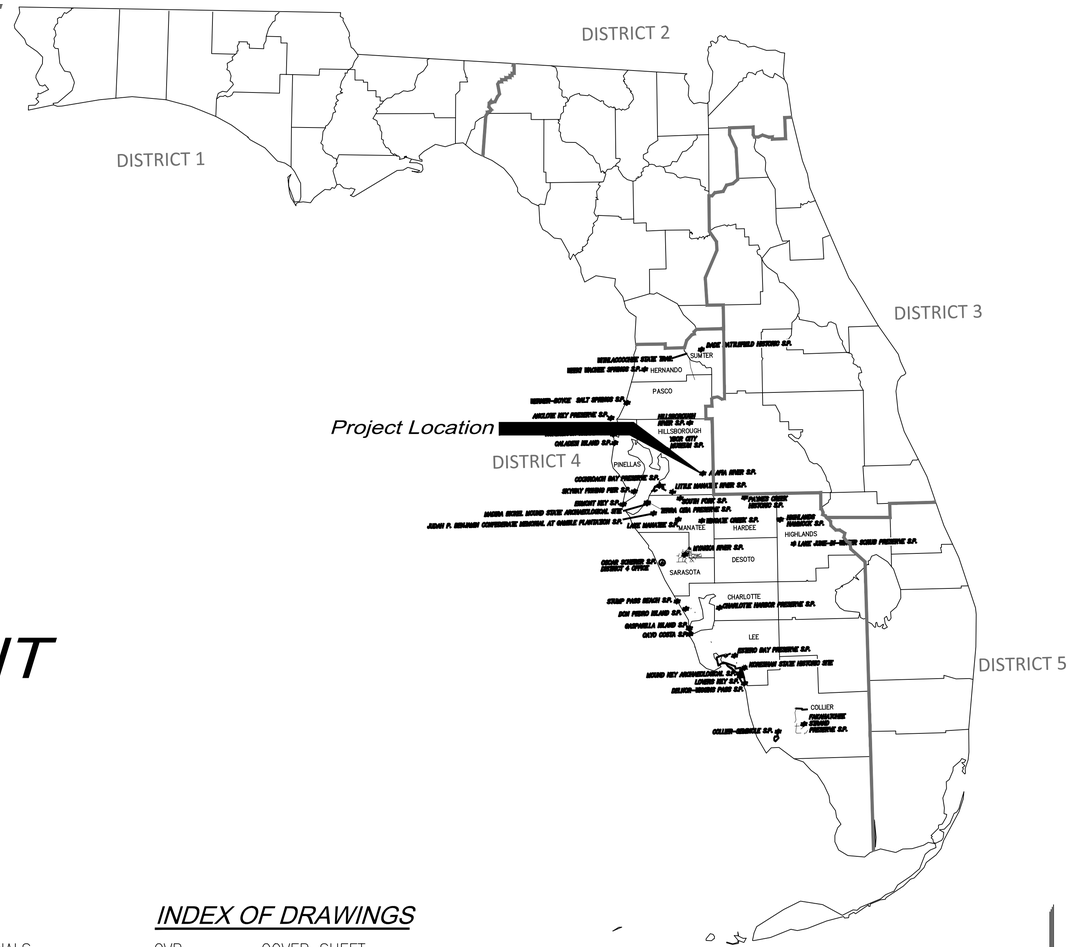
ALAFIA RIVER STATE PARK

DISTRICT 4

HILLSBOROUGH COUNTY

HURRAH CREEK BRIDGE REPLACEMENT

PROJECT # 61492C



APPLICABLE CODES AND DESIGN DATA

CODE LIST

FLORIDA BUILDING CODE, BUILDING (FBC-B)	2023 Edition
FLORIDA BUILDING CODE, FUEL GAS (FBC-FG)	2023 Edition
FLORIDA BUILDING CODE, MECHANICAL (FBC-M)	2023 Edition
FLORIDA BUILDING CODE, PLUMBING (FBC-P)	2023 Edition
FLORIDA BUILDING CODE, EXISTING BUILDING (FBC-EB)	2023 Edition
FLORIDA BUILDING CODE, RESIDENTIAL (FBC-R)	2023 Edition
FLORIDA FIRE PREVENTION CODE (FFPC)	2023 Edition
NATIONAL ELECTRICAL CODE NFPA-70	2023 Edition
FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONST.	Latest Edition
FDOT DESIGN STANDARDS	Latest Edition
FLORIDA ACCESSIBILITY CODE	2020 Edition

DESIGN DATA

CONSTRUCTION TYPE:	_____	TOTAL BUILDING AREA PER FLOOR:	_____
OCCUPANCY CLASS:	_____	BUILDING HEIGHT/NUMBER OF STORIES:	_____
OCCUPANT LOAD:	_____	REQUIRED SPRINKLER OR ALARM SYSTEM:	Yes / No
TOTAL EXITS:	_____	NUMBER OF BEDROOMS:	_____
SQ FT ALTERED AREA	_____	LEVEL OF ALTERATION:	_____

DESIGN LOADS (FBC-B CHAPTER 16):

WIND LOADS (FBC-B SECTION 1609):

LIFE SAFETY PLAN:

SCOPE OF PROJECT

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SUPERVISION, AND PERMITTING TO

INDEX OF DRAWINGS

HYDRA ENGINEERING & CONSTRUCTION, LLC.
DESIGNER

CN306
CONSULTANT CONTRACT No.

01/25/2024
INITIAL ISSUE DATE

LESLIE ANN WEISS — LICENSE — No. 56452 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

Digitally signed by Leslie A Weiss
Date: 2024.02.09 11:13:14 -05'00'

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ALAFIA RIVER STATE PARK
HURRAH CREEK BRIDGE REPLACEMENT

100% PLANS

Florida Department of Environmental Protection

Division of Recreation and Parks Bureau of Design and Construction

GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND ACCEPTING THE EXISTING CONDITIONS OF THE SITE PRIOR TO BIDDING.

2. ALL DISTURBED AREAS WITHIN THE LIMITS OF RESTORATION SHALL BE REVEGETATED AS SPECIFIED BY THE PARK SERVICE BIOLOGIST.

3. EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL ENSURE THAT THE UTILITY SYSTEMS DO NOT CONFLICT WITH THE PROPOSED PROJECT. CONFLICTS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.

4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES IN CONFLICT WITH THE WORK, CONSTRUCTION OF TEMPORARY UTILITIES IN THE EVENT THAT EXISTING UTILITY SERVICE MUST BE INTERRUPTED AND ANY OTHER CONSTRUCTION RELATED ACTIVITIES THAT MAY AFFECT EXISTING OR PROPOSED UTILITIES. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON INFORMATION PROVIDED BY THE UTILITY OWNERS, AVAILABLE RECORDS, AND SURVEYED FIELD INFORMATION. THE INFORMATION MAY NOT REFLECT ACTUAL CONDITIONS, INCLUDE ALL UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED, OR SHOW THE UTILITIES IN THE CORRECT HORIZONTAL OR VERTICAL LOCATIONS. THE CONTRACTOR WILL MAKE IS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS NECESSARY TO ESTABLISH THEIR LOCATIONS AND AVOID DAMAGE.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL GRADE STAKES, LINES AND LEVELS.

6. THE CONTRACTOR SHALL SOLID SOD ALL DISTURBED AREAS UNLESS OTHERWISE SPECIFIED OR SHOWN.

7. NO SEPARATE PAYMENT WILL BE MADE FOR DEWATERING. THE COSTS FOR DEWATERING ARE INCLUDED IN THE UNIT PRICES FOR CONSTRUCTING THIS PROJECT.

8. ALL AREAS, STREETS, DRIVEWAYS, PARKING LOTS, ETC. DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL OR BETTER CONDITION.

9. THE CONTRACTOR WILL HAVE ALL REQUIRED PERMITS IN-HAND PRIOR TO BEGINNING CONSTRUCTION, AND WILL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS OBTAINED BY THE OWNER AND THOSE PERMITS OBTAINED BY THE CONTRACTOR.

10. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR WILL SUBMIT TO THE OWNER'S PROJECT MANAGER A SCHEDULE OF VALUES, A CONSTRUCTION SCHEDULE, AND A SAFETY PLAN.

11. THE CONSTRUCTION SCHEDULE WILL DESCRIBE IN DETAIL HOW THE CONSTRUCTION IS TO BE PHASED, ESTABLISH START AND FINISH DATES FOR ALL SIGNIFICANT CONSTRUCTION ACTIVITIES, AND IDENTIFY ALL CONTROLLING ITEMS OF WORK. THE SCHEDULE IS TO BE APPROVED BY THE OWNER'S PROJECT MANAGER, AND WILL BE UPDATED ON A MONTHLY BASIS TO REFLECT ACTUAL WORK PROGRESS. PAYMENT FOR PREPARING, UPDATING AND SUBMITTING THE SCHEDULE WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION OR OTHER PAY ITEMS AS APPROPRIATE.

12. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN FOR APPROVAL BY THE OWNER'S PROJECT MANAGER AND WILL ADDRESS THE INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL DEVICES TO BE USED DURING EACH PHASE OF CONSTRUCTION, INCLUDING TREE REMOVAL, CLEARING AND GRUBBING, EXCAVATION, HAULING OF EXCAVATED MATERIALS, AND PLACEMENT OF EMBANKMENT AND BACKFILL. THE PLAN ALSO WILL DETAIL THE EROSION CONTROL MEASURES TO BE EMPLOYED AT ALL STOCKPILE AND CONSTRUCTION STAGING AREAS AND WILL DEFINE THE MAXIMUM LIMITS OF ALL ACTIVE CONSTRUCTION ZONES.

13. ANY NATIONAL GEODETIC SURVEY MONUMENT WITHIN THE LIMITS OF CONSTRUCTION MUST BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE PROJECT MANAGER AND:

FDEP, BUREAU OF SURVEY AND MAPPING, MS 105
3900 COMMONWEALTH BLVD.
TALLAHASSEE, FLORIDA 32399
(850) 245-2606 (OFFICE)
(850) 245-2645 (FAX)

14. PRIOR TO ANY SCHEDULED INTERRUPTION OF UTILITY SERVICE, THE CONTRACTOR WILL COORDINATE SUCH INTERRUPTION WITH THE UTILITY PROVIDER AND WILL PROVIDE A MINIMUM 24-HOUR NOTICE TO THE AFFECTED PARTIES. THE CONTRACTOR WILL NOTIFY THE ELECTRIC UTILITY A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES.

15. NO TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT.

16. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF VEGETATION ON AND ADJACENT TO THE PROJECT SITE, AND WILL BE SOLELY LIABLE FOR DAMAGE TO VEGETATION ON PROPERTIES ADJACENT TO CONSTRUCTION WORK ZONES. ALL TREES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED EXCEPT THOSE TREES IDENTIFIED ON THE PLANS TO BE REMOVED. ALL TREES OUTSIDE THE CONSTRUCTION WORK ZONE ARE TO BE PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE. TREE BARRICADES WILL BE INSTALLED AND MAINTAINED AROUND ALL TREES TO BE PROTECTED AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT MANAGER.

17. THE CONTRACTOR IS RESPONSIBLE TO PLACE AND MAINTAIN ROADSIDE WARNING SIGNS WHEN WORK IS BEING CONDUCTED IN THE PROPERTY RIGHT OF WAY OR WHEN MACHINERY IS ENTERING AND LEAVING THE PROJECT SITE.

18. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF EXCAVATED MATERIAL OFF-SITE UNLESS OTHERWISE DIRECTED BY THE PROJECT MANAGER.

19. ENSURE THAT ALL EQUIPMENT, PRIOR TO BRINGING ON-SITE, IS WASHED AND FREE OF SOIL, SEED, OR OTHER ORGANIC MATTER. EQUIPMENT MAY BE INSPECTED BY THE OWNER'S REPRESENTATIVE PRIOR TO OFF-LOADING FOR USE. ADDITIONAL CLEANING WILL BE PERFORMED OFFSITE BY THE CONTRACTOR IF THE OWNER'S REPRESENTATIVE DETERMINES IT IS NEEDED.

EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

2. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED DAILY AND REPAIRS MADE AS NECESSARY TO ENSURE THE PROPER AND CONTINUED FUNCTION OF THE CONTROL(S).

3. ALL EROSION AND SEDIMENTATION CONTROL SHALL REMAIN IN PLACE UNTIL A PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED.

4. UNDER NO CIRCUMSTANCES SHALL SEDIMENTS BE PERMITTED TO EXIT THE PROJECT LIMITS, INCLUDING TRACKING BY VEHICLES ONTO PAVED ROADWAYS. THE CONTRACTOR SHALL MAKE IMMEDIATE REPAIRS OR ENHANCEMENTS TO ANY EROSION CONTROL SYSTEM THAT ALLOWS THE RELEASE OF SEDIMENTS.

PROJECT SPECIFIC NOTES:

1. THIS PROJECT SHALL COMPLY WITH THE "FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", DATED JANUARY 2022. THE FOLLOWING SPECIFICATIONS SECTIONS APPLY:

   102 – MAINTENANCE OF TRAFFIC
   110 – CLEARING AND GRUBBING
   700 – HIGHWAY SIGNING

2. BENCHMARK DATA IS THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

3. CONTRACTOR TO PROVIDE FDEP PARK PERSONNEL 2 WEEKS ADVANCE NOTICE PRIOR TO STARTING CONSTRUCTION ACTIVITIES.

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SYMBOL	REVISION	DATE
(A)		
(B)		
(C)		
(D)		

DESIGNER : AEB
DRAWN BY: AEB
REVIEWED BY: LAW
Consultant : HYDRA ENGINEERING & CONSTRUCTION, LLC
36 Avenue One Road
Crawfordville, Fl 32327
Phone (850) 926-2693
Fax (850) 926-9257
www.hydraec.com
Florida CA#28124

ISSUE DATE: 01/25/2024
COMP. FILE No.:
STATE PROJECT No.: 61492C

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3800 Commonwealth Blvd., Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION
LESLIE ANN WEISS
State of Florida P.E.# 56452

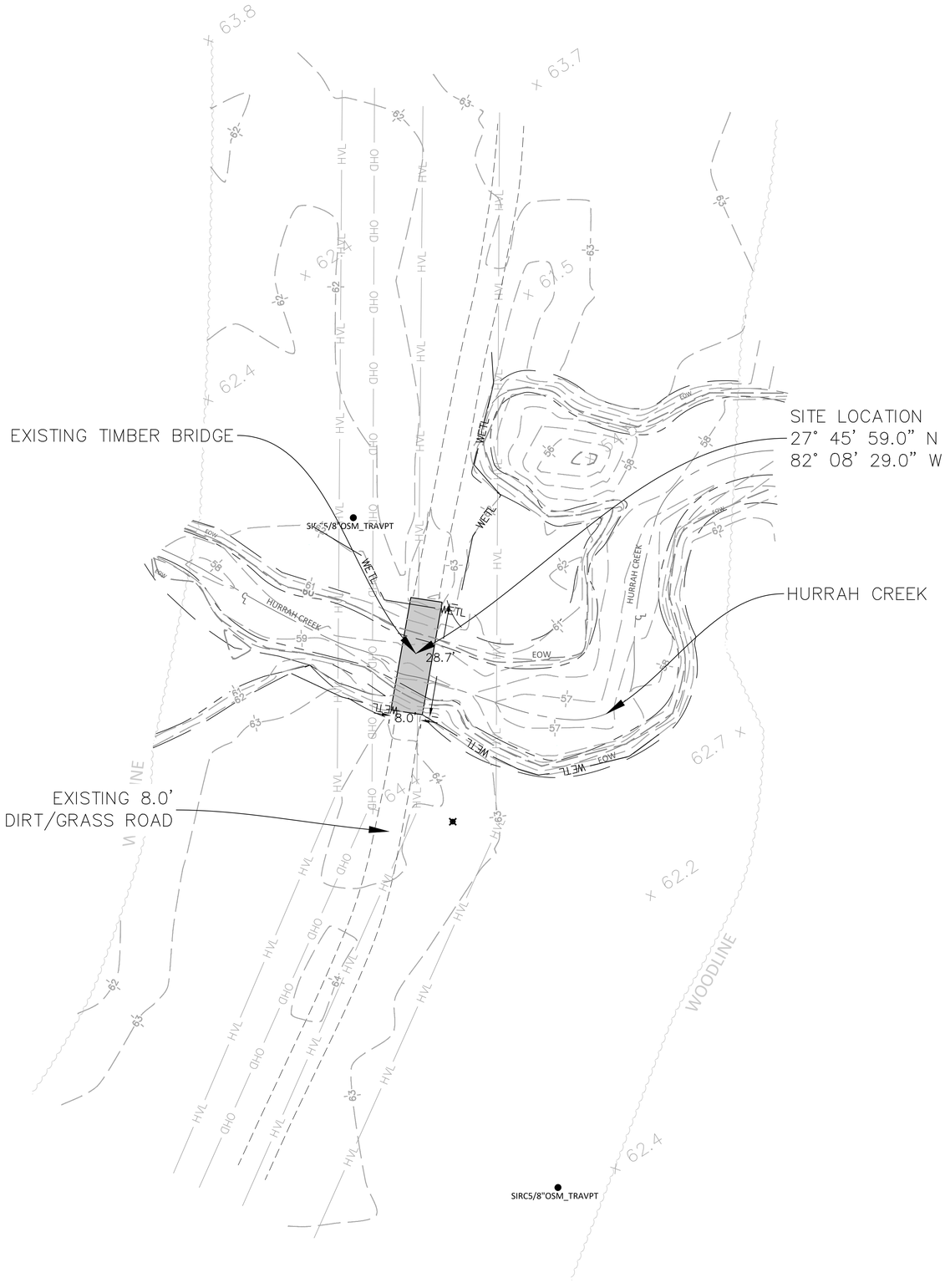
LESLIE ANN WEISS * No. 56452 * STATE OF FLORIDA * PROFESSIONAL ENGINEER

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE: GENERAL NOTES

PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
G100



LEGEND

- EXISTING TIMBER BRIDGE
- EXISTING DIRT/GRASS ROAD
- EXISTING CONTOURS
- EXISTING WATER
- EXISTING WOODLINE
- HVL — EXISTING HIGH VOLTAGE UTILITIES
- OHD — EXISTING OVERHEAD UTILITIES
- × 98.3 — EXISTING SPOT ELEVATIONS

FEET
15 0 15 30
1"=15'

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Bureau of Design and Construction
3800 Commonwealth Blvd., Tallahassee, FL 32399 (850) 245-2157

ISSUE DATE: 01/25/2024
COMP. FILE No.:
STATE PROJECT No.: 61492C

DESIGNER : AEB
DRAWN BY: AEB
REVIEWED BY: LAW

Consultant : HYDRA ENGINEERING & CONSTRUCTION, LLC
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Crawfordville, FL 32327
Phone (850) 926-2593
Fax (850) 926-9257
www.hydroec.com
Florida CA#28124

PROFESSIONAL REGISTRATION
LESLIE ANN WEISS
Status: Registered Engineer No. 56452

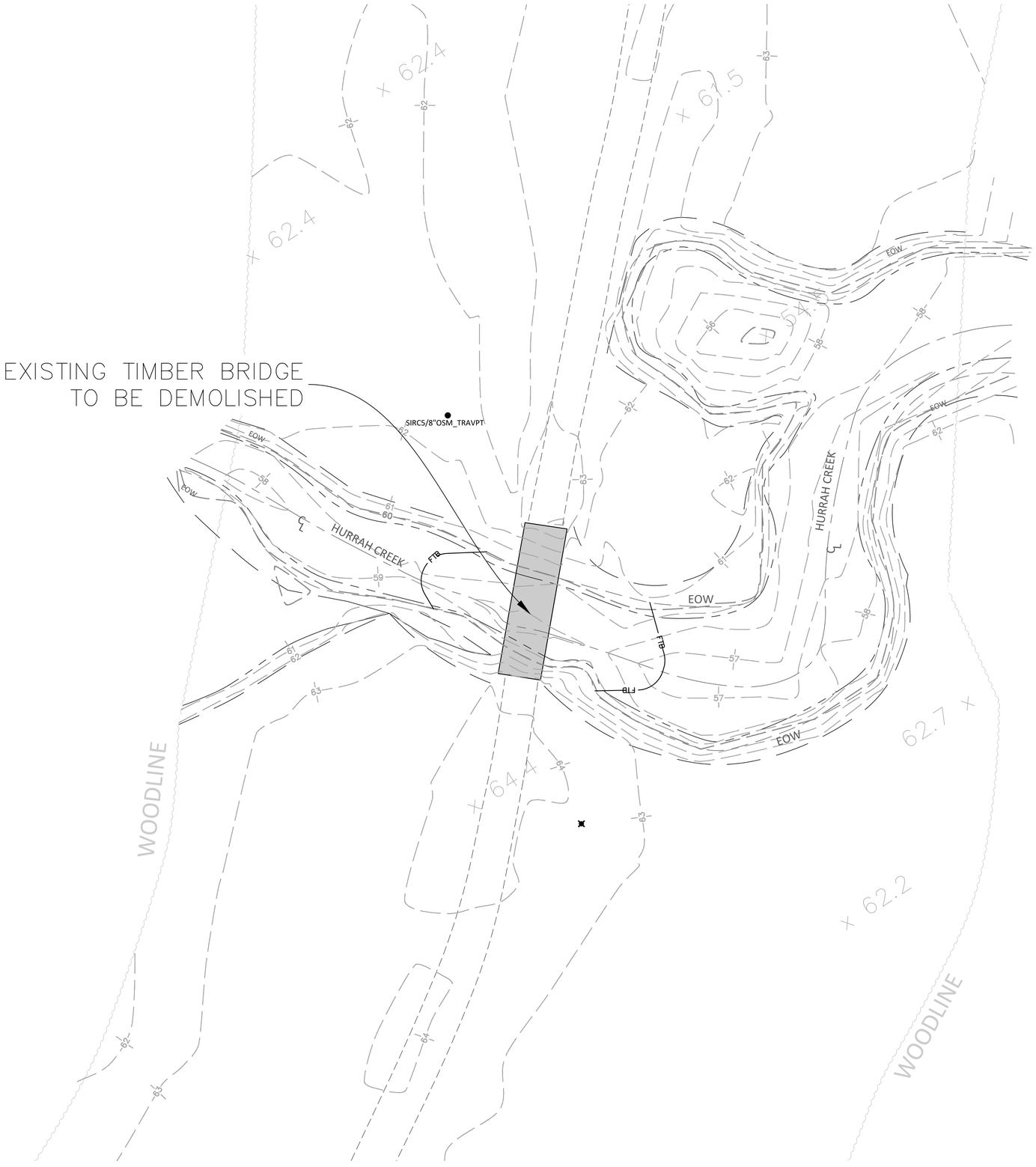
LESLIE ANN WEISS
No. 56452
STATE OF FLORIDA
REGISTERED PROFESSIONAL ENGINEER

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE: EXISTING CONDITIONS

PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C101



LEGEND

- EXISTING DIRT/GRASS ROAD
- FTB — FLOATING TURBIDITY BARRIER
- EXISTING CONTOURS
- EXISTING WATER
- EXISTING WOODLINE
- HVL — EXISTING HIGH VOLTAGE UTILITIES
- OHD — EXISTING OVERHEAD UTILITIES
- x 98.3 EXISTING SPOT ELEVATIONS

FEET
10 0 10 20
1"=10'

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Division of Recreation and Parks
Bureau of Design and Construction
3800 Commonwealth Blvd., Tallahassee, FL 32399 (850) 245-2157

DESIGNER : AEB
DRAWN BY: AEB
REVIEWED BY: LAW
Consultant : HYDRA ENGINEERING & CONSTRUCTION, LLC
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Crawfordville, FL 32327
Phone (850) 926-2593
Fax (850) 926-9257
www.hydraec.com
Florida CA#28124

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COMP. FILE No.:
STATE PROJECT No.: 61492C

PROFESSIONAL REGISTRATION
LESLIE ANN WEISS
Status of Florida License: No. 56452

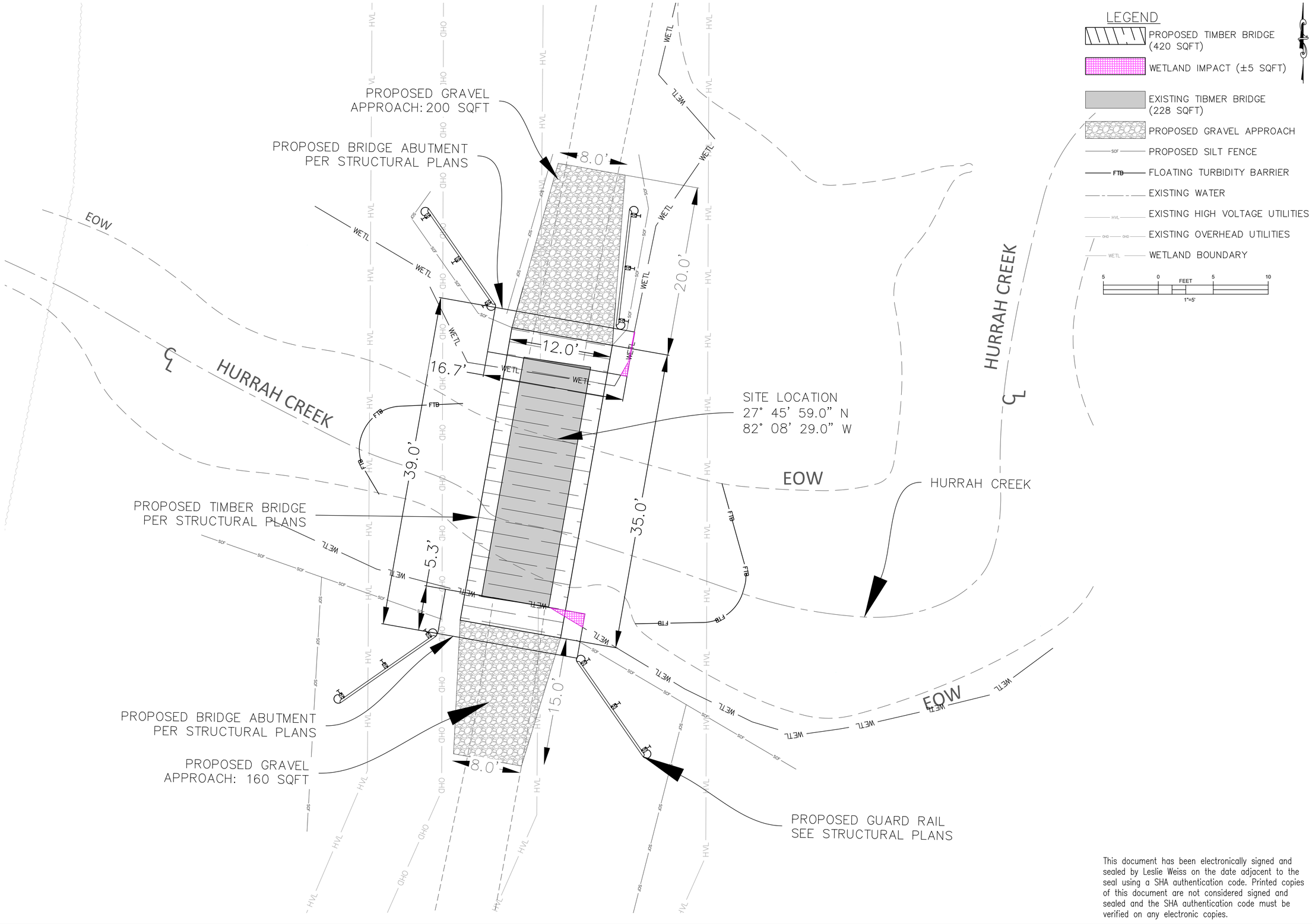
LESLIE ANN WEISS
No. 56452
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE
DEMOLITION PLAN

PROJECT TITLE
HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C102



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	DATE	REVISION	SYMBOL
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			B
			C
			D

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3800 Commonwealth Blvd., Tallahassee, FL 32399 (850) 245-2157

DESIGNER : AEB
DRAWN BY: AEB
REVIEWED BY: LAW
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Florida CA#28124

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COMP. FILE No.:
STATE PROJECT No.: 61492C

PROFESSIONAL REGISTRATION
LESLIE ANN WEISS
Status of Florida PE License No. 56452

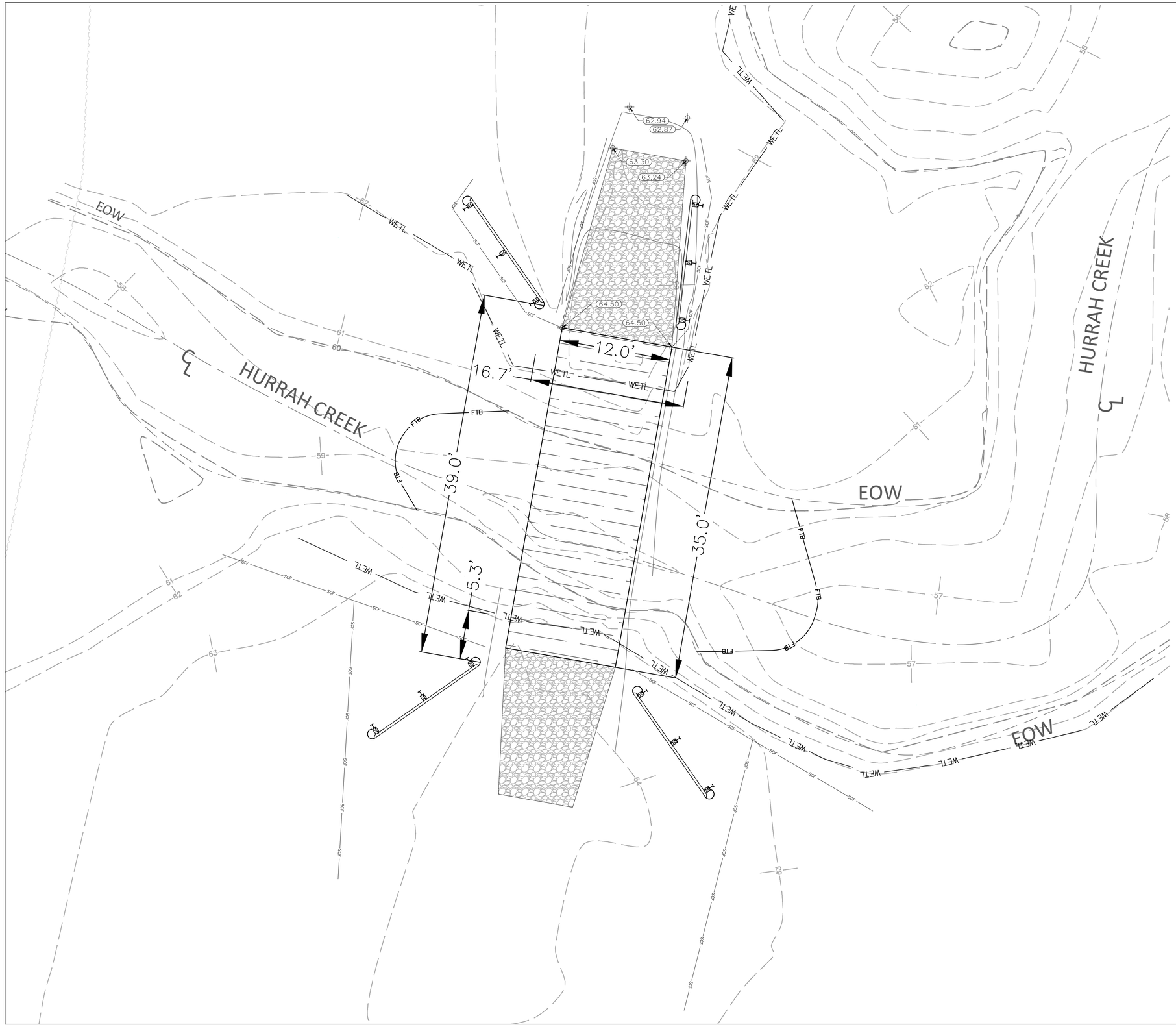
LESLIE ANN WEISS LICENSE No. 56452 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE: SITE PLAN

PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C103



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					DATE
					REVISION
				C	SYMBOL
				D	DATE
			A		REVISION
			B		SYMBOL

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3800 Commonwealth Blvd., Tallahassee, FL 32399 (850) 245-2157

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PROFESSIONAL REGISTRATION
LESLIE ANN WEISS
State of Florida License No. 56452

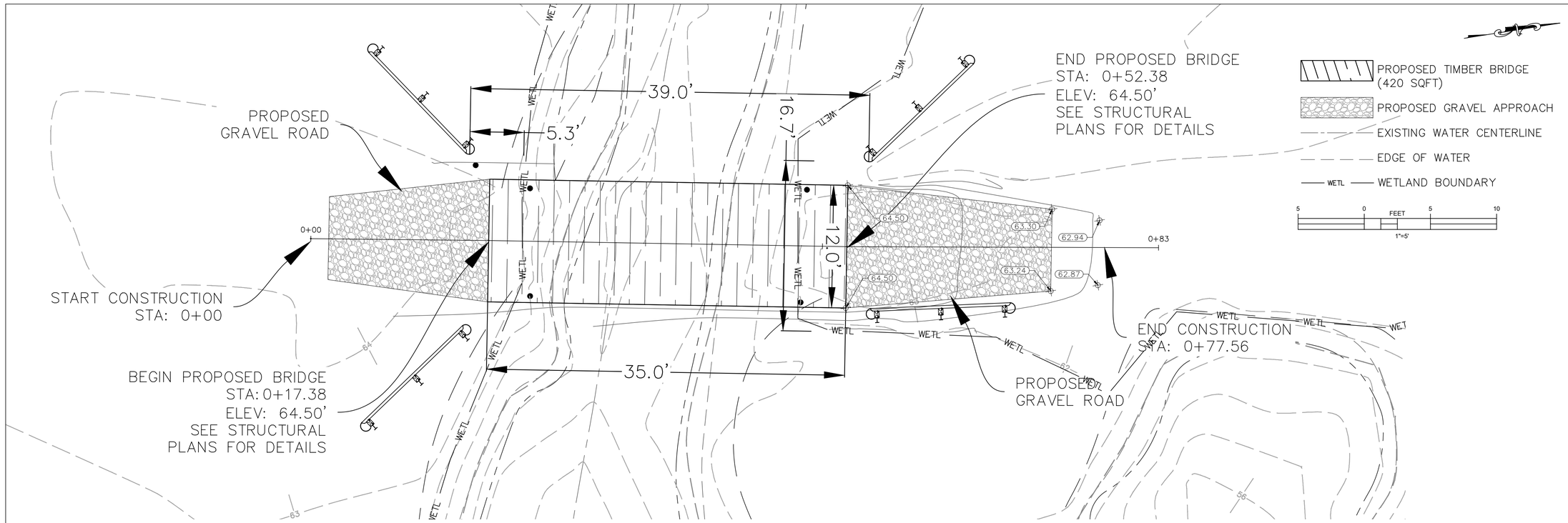
LESLIE ANN WEISS
No. 56452
STATE OF FLORIDA
PROFESSIONAL ENGINEER

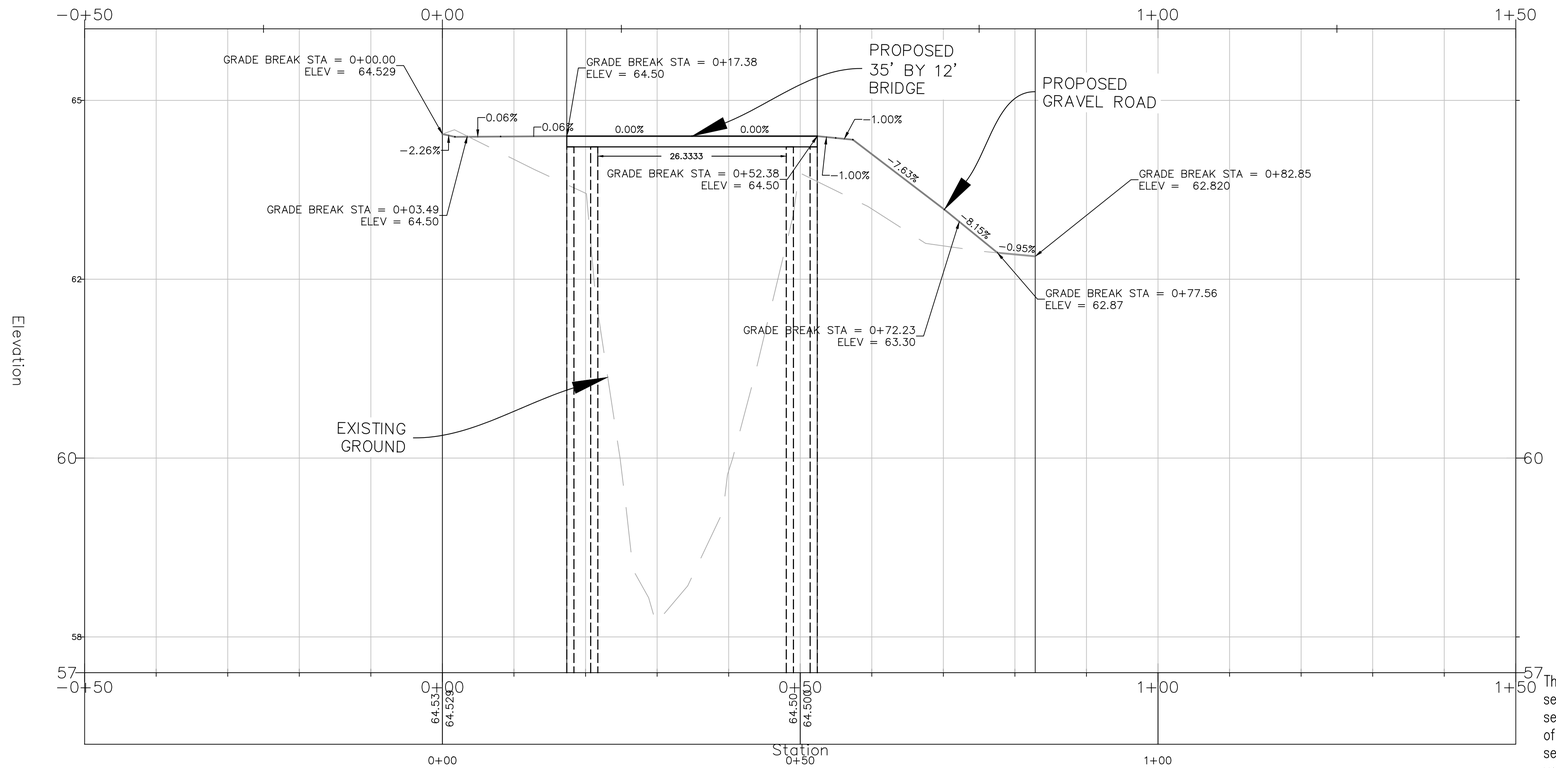
ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE
GRADING & EROSION CONTROL

PROJECT TITLE
HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C104





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DESIGNER :	AEB	ISSUE DATE:	01/25/2024	SYMBOL	REVISION	DATE	
DRAWN BY:	AEB	COMP. FILE No.:		A			
REVIEWED BY:	LAW	STATE PROJECT No.:	61492C	B			
Consultant :	HYDRA ENGINEERING & CONSTRUCTION, LLC 36 Jasper Thomas Road Crawfordville, FL 32327 Phone (850) 926-2483 Fax (850) 926-9257 www.hydrac.com Florida CA#28124			C			
				D			

Department of Environmental Protection
Division of Recreation and Parks
Bureau of Design and Construction
3800 Commonwealth Blvd., Tallahassee, FL 32399 (850) 245-2157

PROFESSIONAL REGISTRATION
LESLIE ANN WEISS
Scotland of Florida, Inc. LC-26452

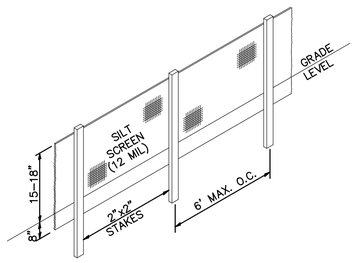
LESLIE ANN WEISS · LICENSE · No. 56452 · STATE OF FLORIDA · PROFESSIONAL ENGINEER

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE: PLAN & PROFILE

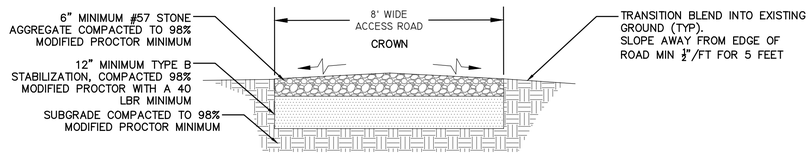
PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C105



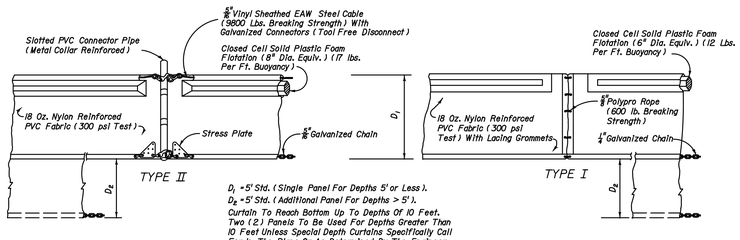
SILT FENCE DETAIL

NOT TO SCALE



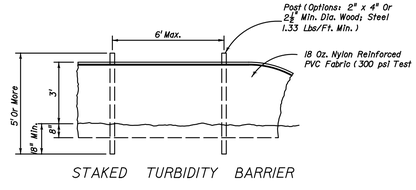
ACCESS ROAD SECTION

NOT TO SCALE



NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

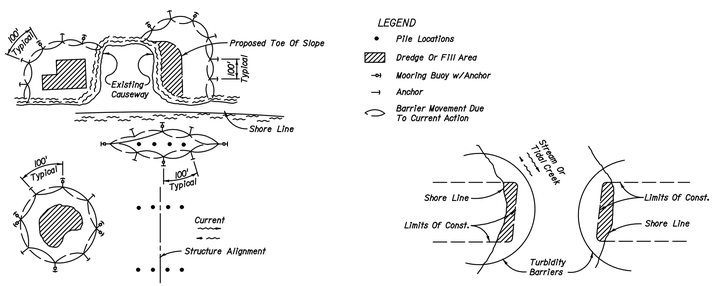
FLOATING TURBIDITY BARRIERS



STAKED TURBIDITY BARRIER

GENERAL NOTES

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.



NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.

Note: Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

TURBIDITY BARRIER APPLICATIONS

This document has been electronically signed and sealed by Leslie Weiss on the date adjacent to the seal using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

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A		
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D		

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Division of Recreation and Parks
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3800 Commonwealth Blvd., Tallahassee, FL 32399 (850) 245-2157

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DRAWN BY: AEB
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ISSUE DATE: 01/25/2024
COMP. FILE No.:
STATE PROJECT No.: 61492C

PROFESSIONAL REGISTRATION
LESLIE ANN WEISS
Status of Certification 56452

LESLIE ANN WEISS * No. 56452 * STATE OF FLORIDA PROFESSIONAL ENGINEER

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE: CONSTRUCTION DETAILS

PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C106

NOTES:

Technical Specification - construction shall conform to FDOT's Standard Specifications for Road and Bridge Construction FY 2023-24

Design: This project was designed to resist the following loads:

The self-weight of the structure

Live loads associated with a two axle, 10-ton vehicle (service truck, tractor, etc.)

Lateral water and earth pressures including active and passive earth pressures, in accordance with the Geotechnical Report No.81-28-23-01 prepared for this project by Environmental and Geotechnical Specialists, Inc. No other loads were considered (wind, seismic, boat impact, etc.).

These loads were factored and applied in various combinations and the structure analyzed using Risa 3d, a general-purpose structural design program. Steel members were designed according to AISC's 14th (360-10) LRFD Code, concrete members were designed according to ACI's 318-11 code.

Location: New bridge longitudinal and perpendicular centerlines coincide with the existing bridge longitudinal and perpendicular centerlines. Exact location is not critical.

Miscellaneous Materials for Construction:

1. Use CMI's SG 625 Vinyl Sheet Piles. Handle, store and install in strict accordance with the manufacturer's instructions.
2. Timber - use dressed; No.2 Southern Yellow Pine lumber treated to 2.5 pcf of chromated copper arsenate retention.
3. Nuts, Bolts & Washers - use any commonly available galvanized steel bolts and heavy hex nuts. Place a galvanized steel lock washer under each nut and a heavy galvanized steel plate washer under each bolt head.
4. Tieback Rods - use A-36 steel rods with treaded ends (any common thread pitch) or all-thread rods.
5. Epoxy Anchors - use Hilti's HAS 304 stainless steel all-thread rods, epoxy in place with Hiliti's HIT RE 500 epoxy adhesives. All aspects of the installation shall be in strict accordance with the manufacturer's literature.
6. Steel Beams - use ASTM A992 structural steel beams.
7. Steel Cross Members & Plates - use ASTM A36 structural steel
8. Elastomeric Bearing Pads - Use any commonly available elastomeric pad with a Duro Hardness 60
9. Coatings - All steel beams, cross members and plates shall be hot dipped galvanized or, at the Contractor's option, coated with 20 mils (dft) epoxy coal tar, two coats, 10 mils per coat.
10. Signage - see plans.
11. Shop drawings - submit rebar and steel fabrication shop drawings for Engineer's review/approval prior to fabrication.
12. Roofing Felt - use any commonly available 50# roofing felt.

Poured In Place Concrete:

Concrete Reinforcement - Use Grade 60 (ksi) steel conforming to ASTM A615. Reinforcement shall be placed in accordance with ACI 318 and ACI 117 Tolerances for Concrete Construction and Materials. Lap splice for reinforcement shall be not less than 44 bar diameters for reinforcement bar sizes less than #7 and 55 bar diameters for reinforcement bar sizes #7 and greater.

Formwork shall be constructed in a neat, workmanlike manner and shall be free of all debris and foreign matter prior to concrete pour. The CONTRACTOR shall construct formwork and shoring to the level necessary to support the weight of casting. At no time during casting shall the formwork fail, shift, bulge or leak excessive amounts of concrete.

Poured in place concrete - use an FDOT Class II 3400 psi mix, Type II Cement in accordance with FDOT Specifications, Section 346 & 400 Concrete, in particular.

Concrete shall be placed, finished and cured in accordance with ACI 318 and the Portland Cement Association's "Design and Control of Concrete Mixtures". A minimum of one 28-day compressive test per ASTM C39 shall be performed for each batch of concrete delivered to the site, documenting the concrete meets the requirements contained in these SPECIFICATIONS.

The edges of the abutment walls shall be chamfered 3/4".

Concrete Protection - unless otherwise noted, provide 3" concrete cover over or beneath the reinforcing bars.

Sheet Pile Installation

1. Use vibratory type equipment to install the sheet piling.
2. Vertical Alignment - install not more than 2 deg. out of vertical.
3. Horizontal Alignment - may not vary more than 2" from design.
4. Elevation - drive sheets to within ¼" of design elevation

General Sequence of Construction:

1. Install erosion & turbidity controls as required by local, state and federal regulations.
2. Demolish and remove existing bridge, dispose off-site.
3. Install sheet piles.
4. Install rock, filter fabric and geogrid.
5. Construct concrete abutments.
6. Install anchor bolts, bearing pads and bridge beams.
7. Grade approaches at 20:1
8. Install decking and curbs.
9. Install signage.
10. Seed, mulch & sod.
11. De-mobilize and clean up.
12. Fertilize, water and otherwise maintain sod and grass until viable.
13.

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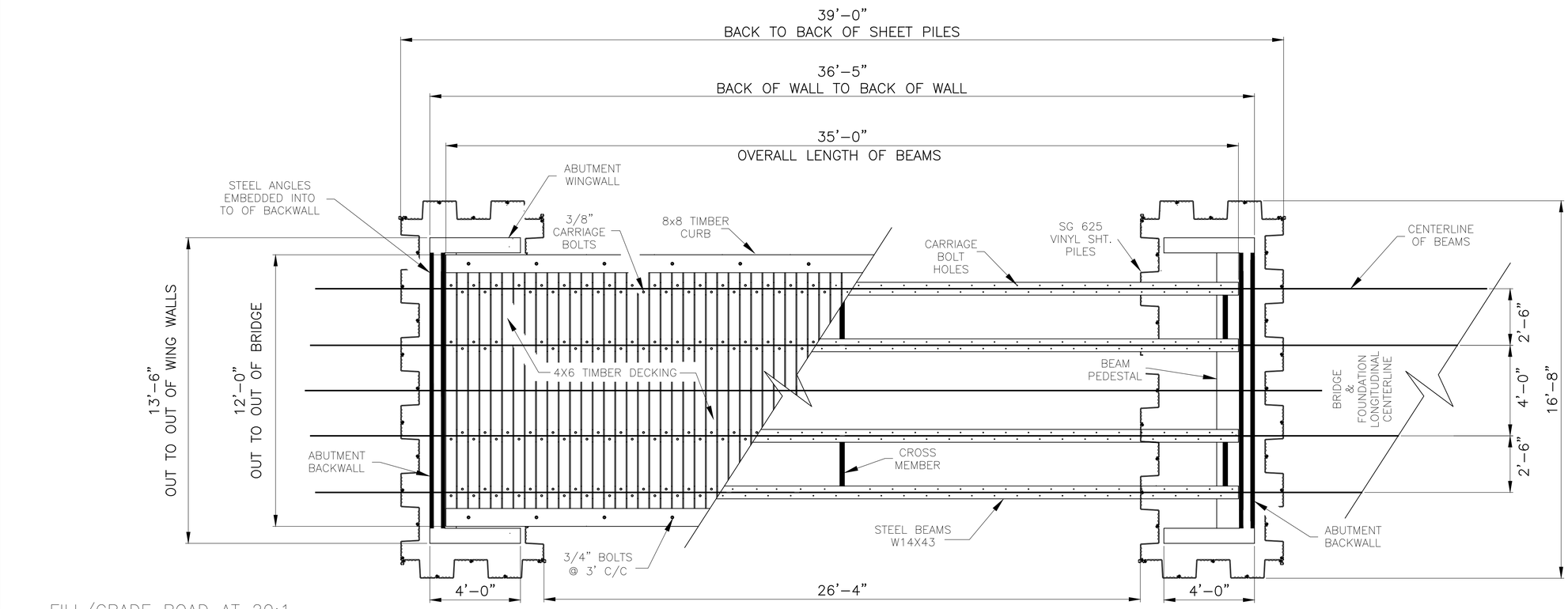
ISSUE DATE: 01/25/2024
COMP. FILE No.:
STATE PROJECT No.: 61492C

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE: CONSTRUCTION NOTES

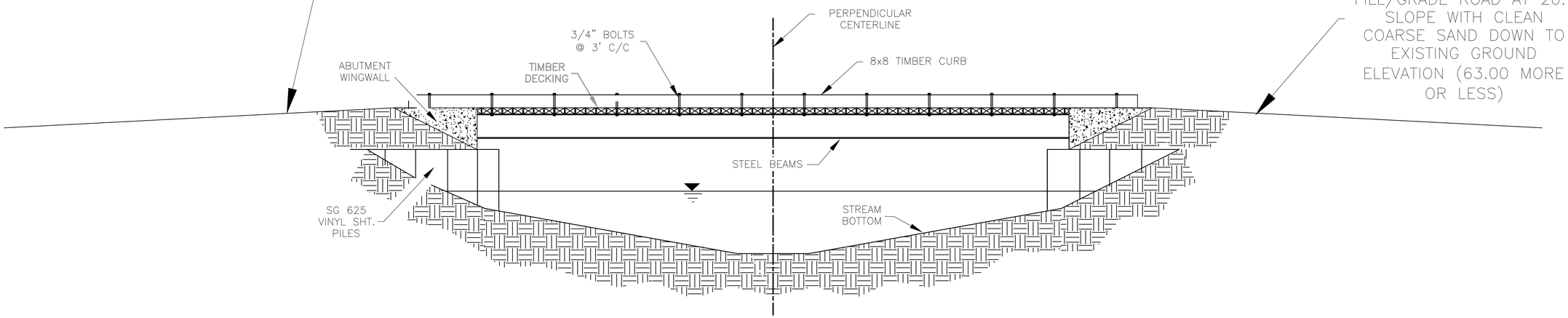
PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C200



FILL/GRADE ROAD AT 20:1 MAX SLOPE DOWN TO EXISTING GROUND ELEVATION (63.00 MORE OR LESS)

BASIC PLAN



FILL/GRADE ROAD AT 20:1 SLOPE WITH CLEAN COARSE SAND DOWN TO EXISTING GROUND ELEVATION (63.00 MORE OR LESS)

ELEVATION

NOTE: BRIDGE IS SYMMETRICAL ABOUT ITS LONGITUDINAL AND PERPENDICULAR CENTERLINES

SYMBOL	REVISION	DATE
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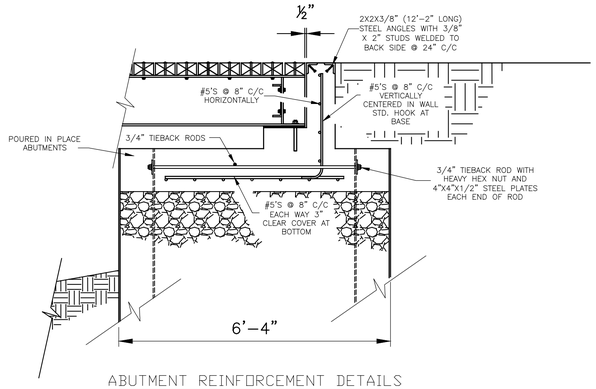
ISSUE DATE: 01/25/2024
COMP. FILE No.:
STATE PROJECT No.: 61492C

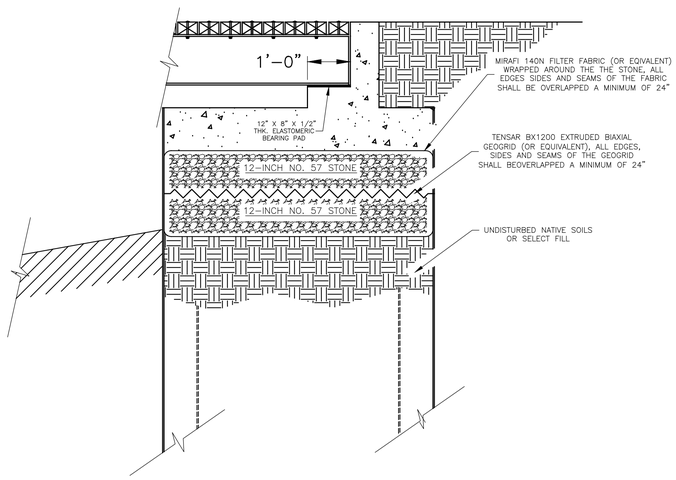
PROFESSIONAL REGISTRATION
DESCRIPTION: SEAL E
State of Florida P.E.# 34338

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT
SHEET TITLE
BASIC PLAN & ELEVATION
PROJECT TITLE
HURRAH CREEK BRIDGE REPLACEMENT

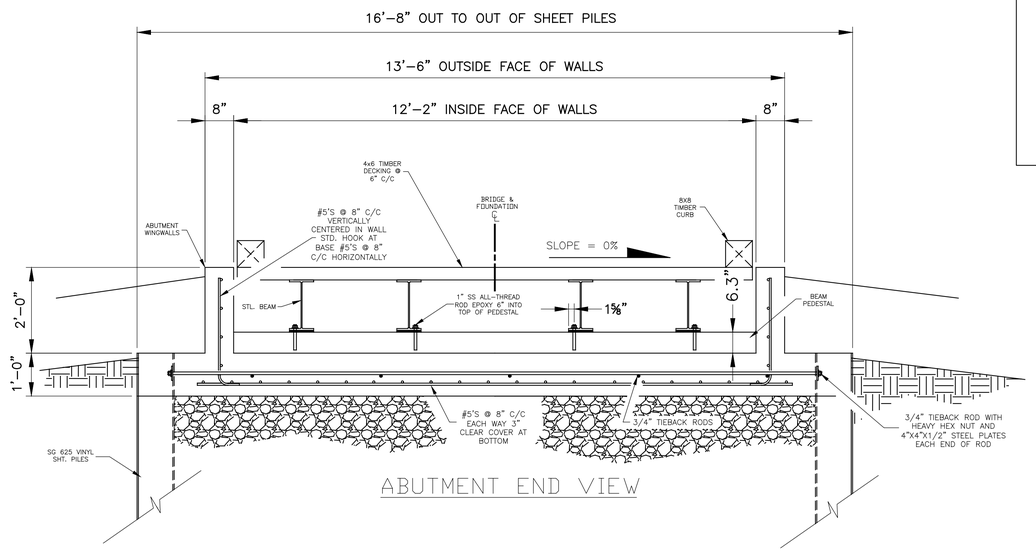
SHEET NO.
C201



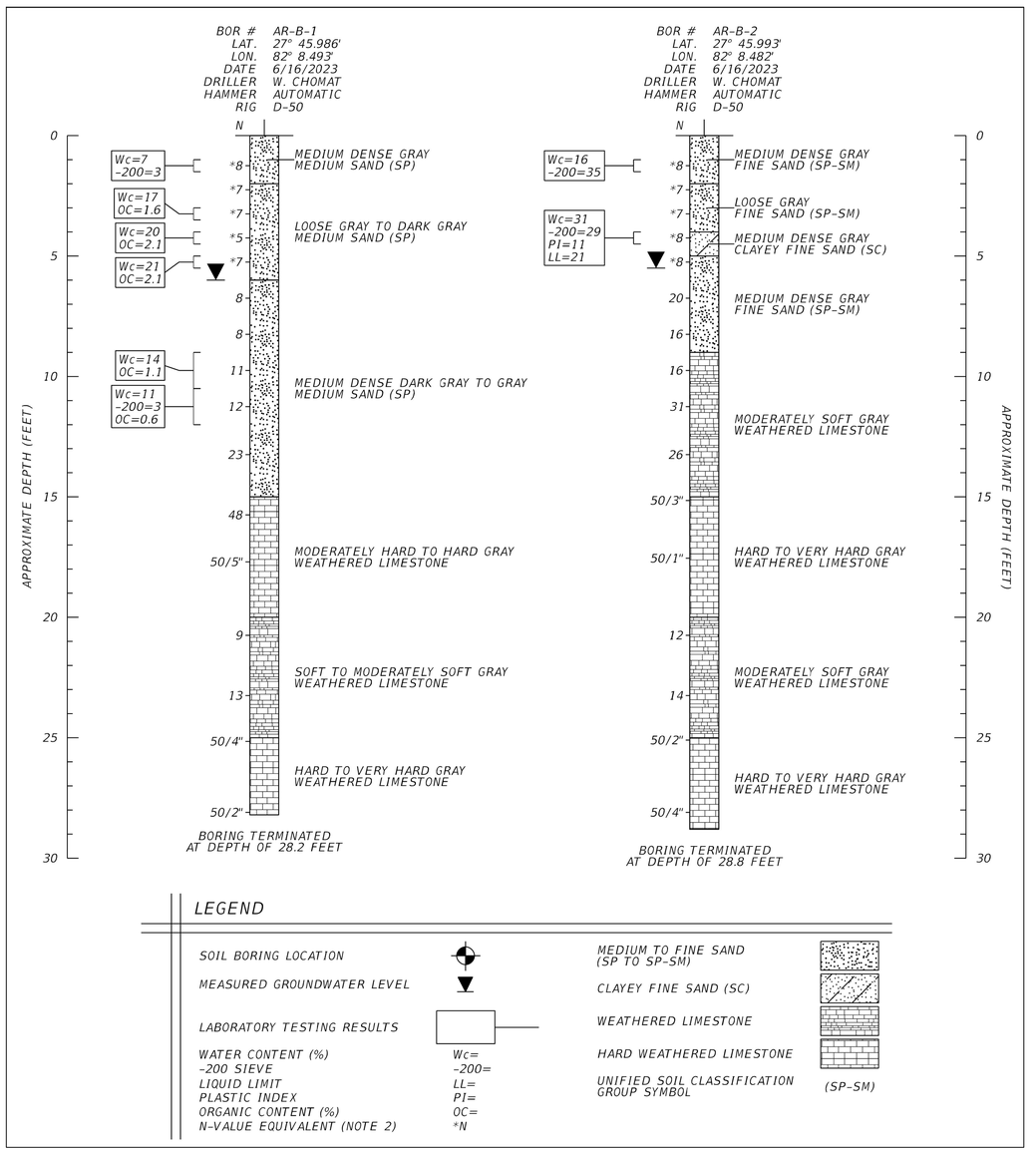
ABUTMENT REINFORCEMENT DETAILS



FOUNDATION PREPARATION DETAILS



ABUTMENT END VIEW



LEGEND

SOIL BORING LOCATION	⌖	MEDIUM TO FINE SAND (SP TO SP-SM)	
MEASURED GROUNDWATER LEVEL	▼	CLAYEY FINE SAND (SC)	
LABORATORY TESTING RESULTS	▭	WEATHERED LIMESTONE	
		HARD WEATHERED LIMESTONE	
WATER CONTENT (%)	Wc=	UNIFIED SOIL CLASSIFICATION GROUP SYMBOL	(SP-SM)
-200 SIEVE	-200=		
LIQUID LIMIT	LL=		
PLASTIC INDEX	PI=		
ORGANIC CONTENT (%)	OC=		
N-VALUE EQUIVALENT (NOTE 2)	*N		

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COMP. FILE No.:
STATE PROJECT No.: 61492C

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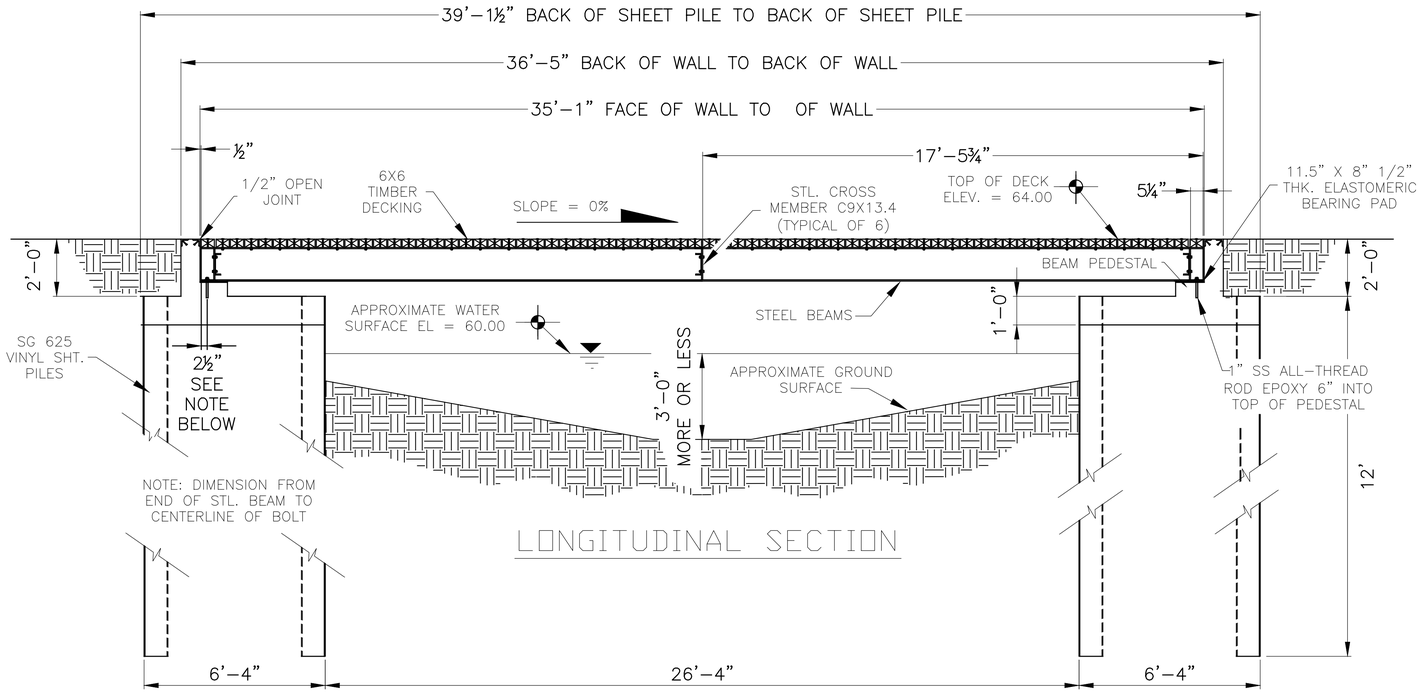
State of Florida P.E.# 34338

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

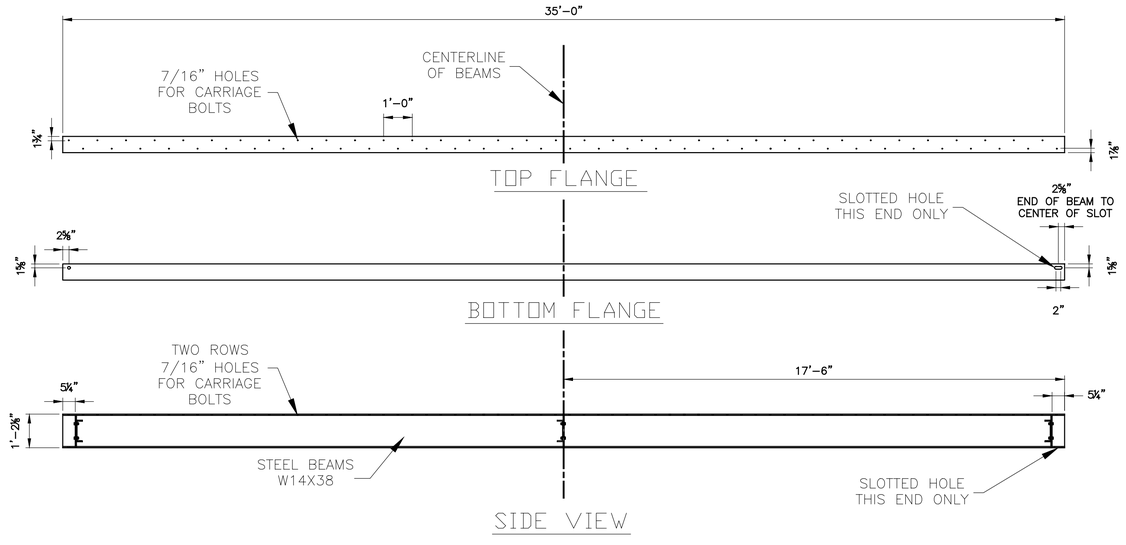
SHEET TITLE: FOUNDATION SECTIONS & DETAILS

PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C202



LONGITUDINAL SECTION



BEAM DETAILS

DESIGNER :	GSP
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REVIEWED BY:	GSP
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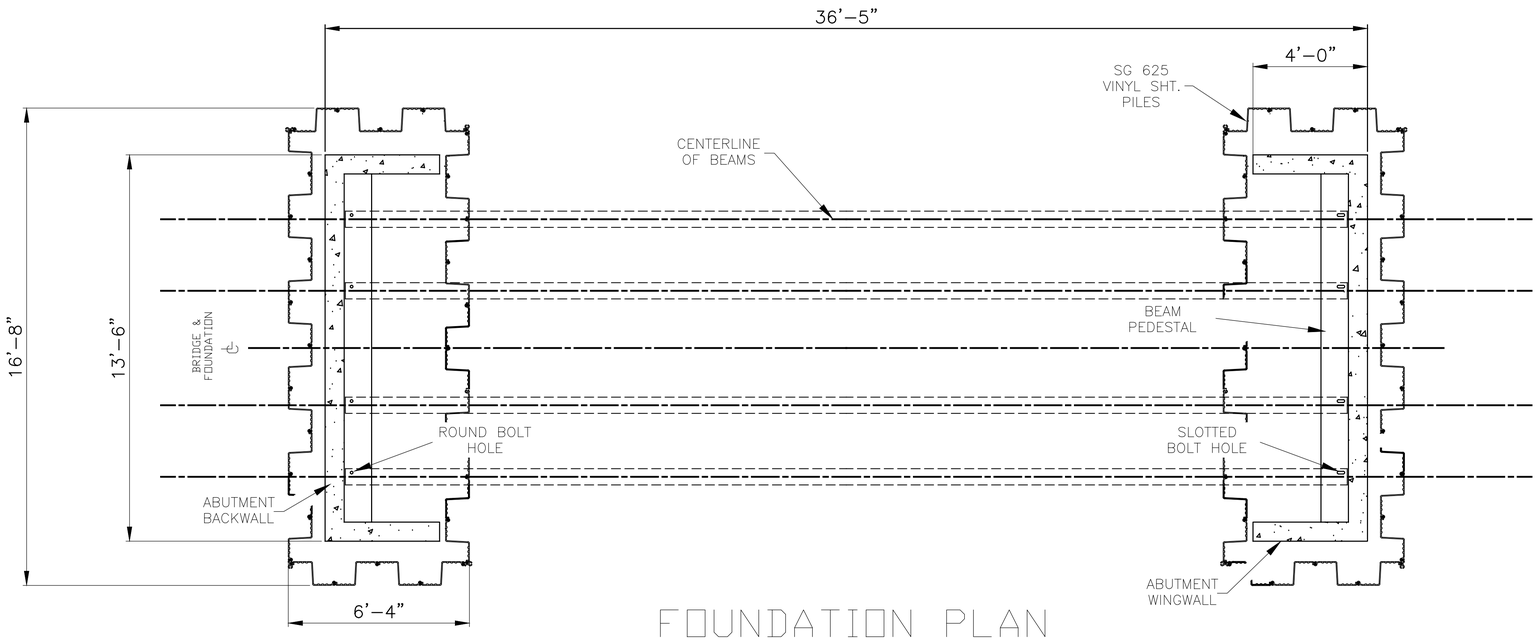
State of Florida P.E.# 34338

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE
LONGITUDINAL SECTION & BEAM DETAILS

PROJECT TITLE
HURRAH CREEK BRIDGE REPLACEMENT

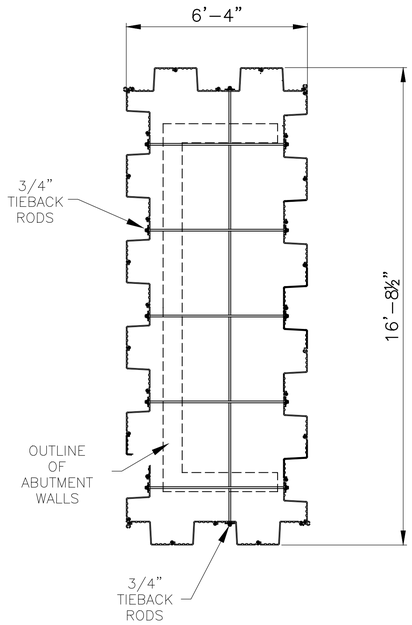
SHEET NO.
C203



FIXED END OF BEAMS

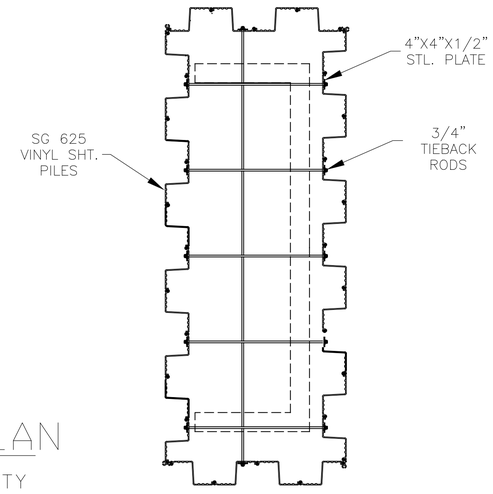
FOUNDATION PLAN

FREE END OF BEAMS



ANCHOR ROD PLAN

BEAMS NOT SHOWN FOR CLARITY



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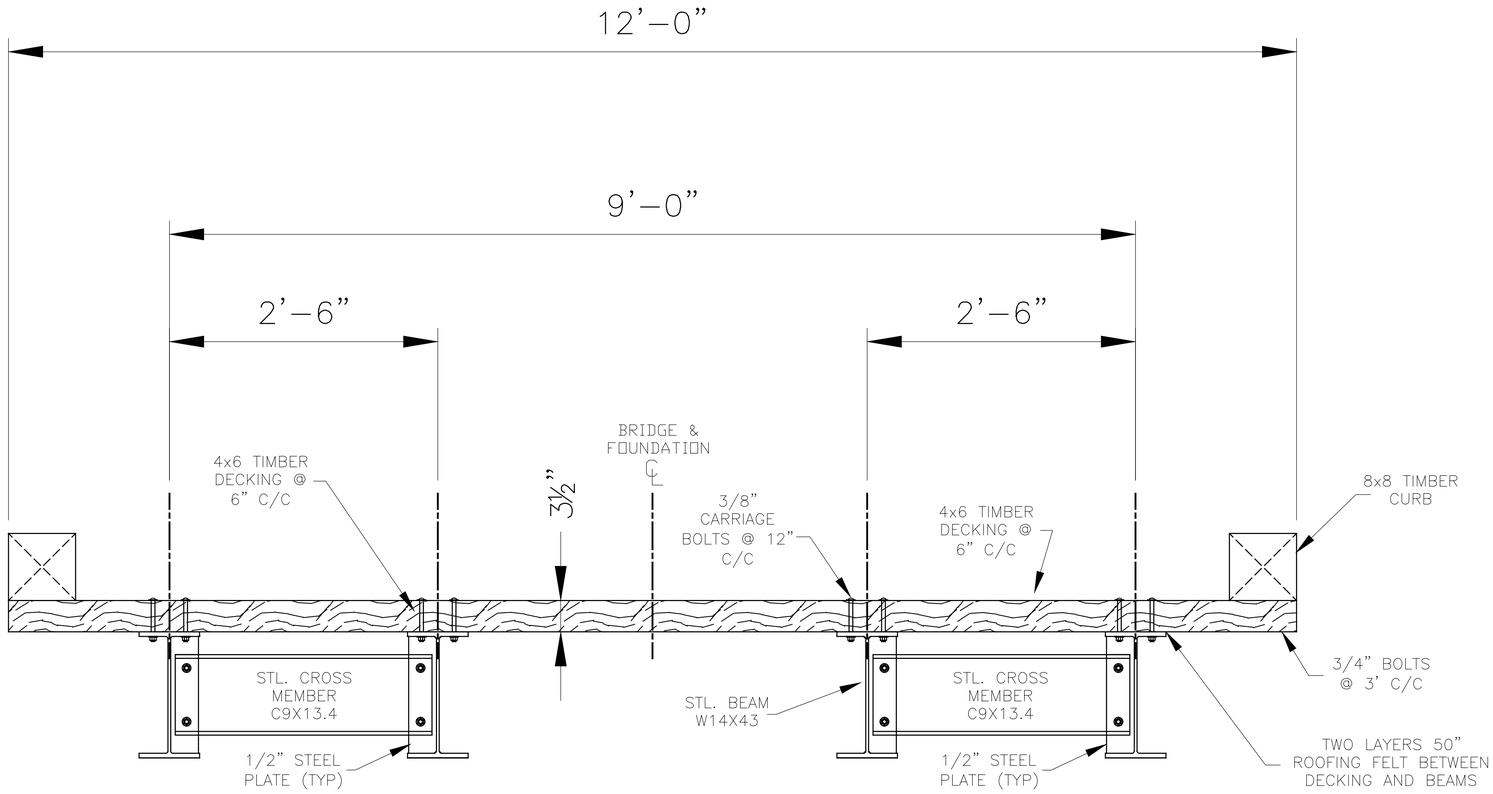
ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

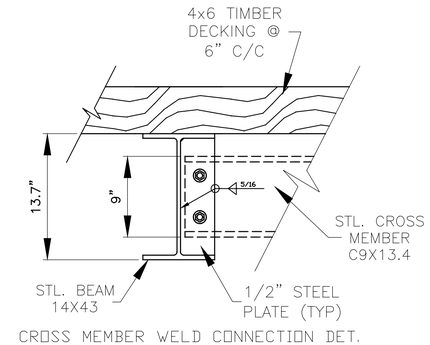
SHEET TITLE
FOUNDATION & ANCHOR ROD PLANS

PROJECT TITLE
HURRAH CREEK BRIDGE REPLACEMENT

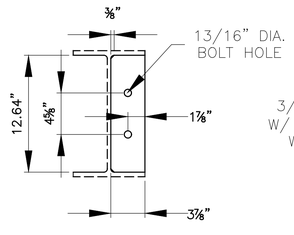
SHEET NO.
C204



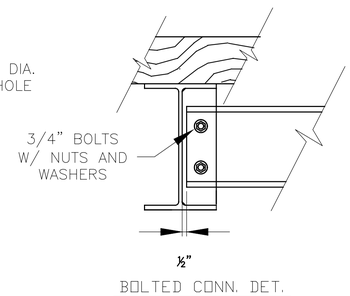
TYPICAL BRIDGE SECTION



CROSS MEMBER WELD CONNECTION DET.



1/2" STEEL PLATE DET.



BOLTED CONN. DET.

CONNECTION DETAILS

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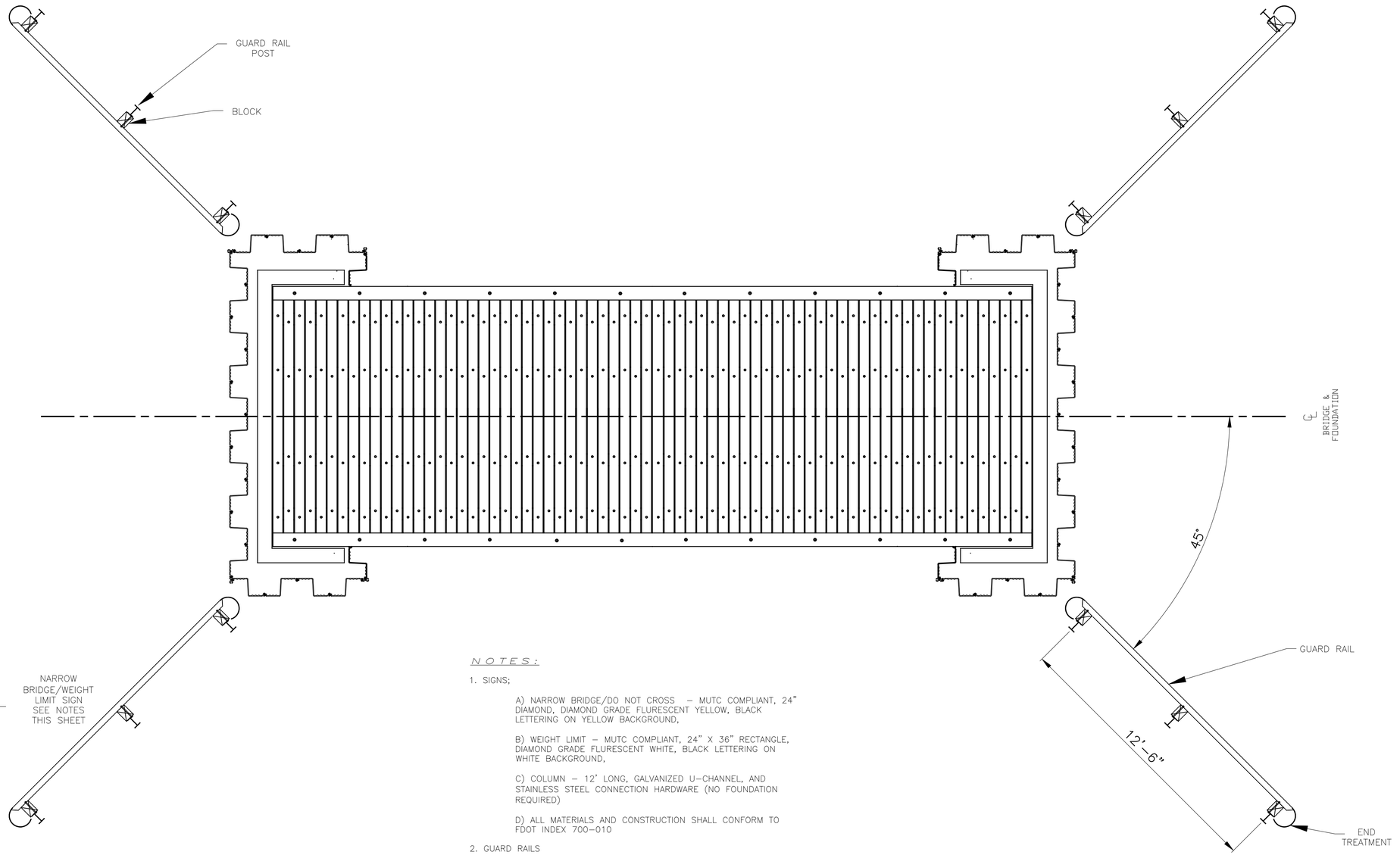
ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE
BRIDGE CROSS SECTIONS & CONNECTION DETAILS

PROJECT TITLE
HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C205



NOTES:

1. SIGNS;

   A) NARROW BRIDGE/DO NOT CROSS – MUTC COMPLIANT, 24" DIAMOND, DIAMOND GRADE FLURESCENT YELLOW, BLACK LETTERING ON YELLOW BACKGROUND,

   B) WEIGHT LIMIT – MUTC COMPLIANT, 24" X 36" RECTANGLE, DIAMOND GRADE FLURESCENT WHITE, BLACK LETTERING ON WHITE BACKGROUND,

   C) COLUMN – 12' LONG, GALVANIZED U–CHANNEL, AND STAINLESS STEEL CONNECTION HARDWARE (NO FOUNDATION REQUIRED)

   D) ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO FDOT INDEX 700–010

2. GUARD RAILS

   A) RAILS – USE 12 GA. 12'–6" W–BEAM WITH 6'–3" POST HOLE CENTERS

   B) GUARD RAIL POSTS – USE W6 X 8.5 X 9' STEEL LINE POST

   C) BLOCK – 6"X8"X14" TIMBER

   D) END TREATMENT – STANDARD ROUNDED END UNIT

   F) ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO FDOT INDEX 536

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State of Florida P.E.# 34338

ALAFIA RIVER STATE PARK – BRIDGE REPLACEMENT

SHEET TITLE: SIGNAGE & GUARD RAILS

PROJECT TITLE: HURRAH CREEK BRIDGE REPLACEMENT

SHEET NO.
C206