INDEX OF STRUCTURE PLANS

VILLAGE OF ESTERO

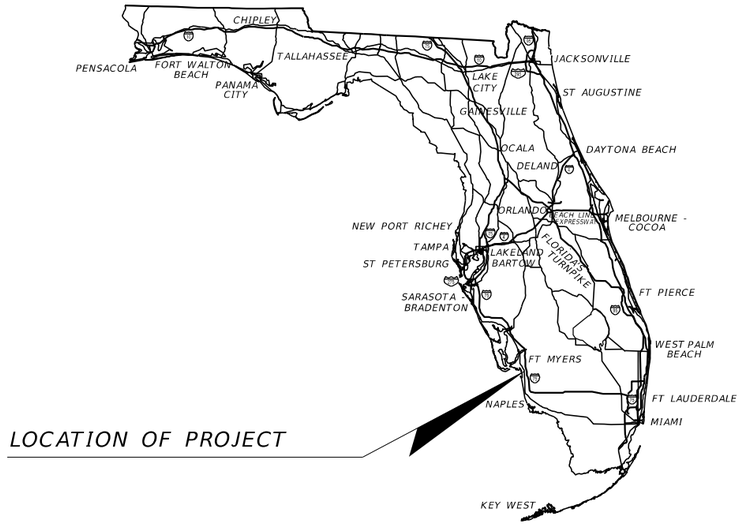
CONTRACT PLANS

ESTERO ON THE RIVER
PEDESTRIAN BRIDGE
VOE CONTRACT NO. 2022-41

STRUCTURE PLANS

LOCATION OF PROJECT

8791 CORKSCREW ROAD
ESTERO, FL 33928



LOCATION OF PROJECT

PRELIMINARY
NOT FOR CONSTRUCTION

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY 2023-24 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road and Bridge Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, FY 2023-24 Standard Specifications for Road and Bridge Construction at the following website: http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

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VILLAGE OF ESTERO PROJECT MANAGER:

DAVID WILLEMS, P.E.

100% SUBMITTAL
DECEMBER 2023

CONTRACT NO.	FISCAL YEAR	SHEET NO.
EC2022-41	24	1

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SUMMARY OF STRUCTURE QUANTITIES

SECTION	PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
					P	F	P	F		
SLOPE PROTECTION	530-3-3	RIPRAP- RUBBLE, BANK AND SHORE	END WALL 1	TN	119.1		477.1			
			PIER 1		108.4					
			PIER 2		108.4					
			END WALL 2		141.2					
	530-74	BEDDING STONE	END WALL 1	TN	41.8		373.6			
			BOARDWALK NO. 1		73.4					
			PIER 1		40.4					
			PIER 2		40.4					
			BOARDWALK NO. 2		128.0					
			END WALL 2		49.6					
FOUNDATION	455-34-2	PRESTRESSED CONCRETE PILING, 14" SQ.	PIER 1	LF	150		300			
			PIER 2		150					
	455-143-2	TEST PILES-PRESTRESSED CONCRETE, 14" SQ	PIER 1	LF	60		120			
			PIER 2		60					
SUBSTRUCTURE	400-4-5	CONCRETE CLASS IV, SUBSTRUCTURE	PIER 1	CY	11.9		24.9			
			PIER 2		13.0					
	415-1-5	REINFORCING STEEL - BRIDGE SUBSTRUCTURE	PIER 1	LB	2496		5263			
			PIER 2		2767					
	999-01	ANCHOR BOLT ASSEMBLY	PIER 1	EA	4		8			
			PIER 2		4					
SUPERSTRUCTURE	400-2-4	CONCRETE CLASS II, BRIDGE SUPERSTRUCTURE	STEEL TRUSS	CY	24.8		24.8			
	400-148	PLAIN NEOPRENE BEARING PADS	STEEL TRUSS	CF	0.2		0.2			
	415-1-4	REINFORCING STEEL - BRIDGE SUPERSTRUCTURE	STEEL TRUSS	LB	5467		5467			
	460-7	PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE	STEEL TRUSS	LS	1		1			
	515-2-356	PEDESTRIAN/BICYCLE RAILING, ALUMINUM ONLY, 42" STEEL CABLE SYSTEM	STEEL TRUSS	LF	268		268			
SPECIAL FEATURES	104-10-3	SEDIMENT BARRIER	CHANNEL BANKS	LF	647		647			
	104-11	FLOATING TURBIDITY BARRIER	PIER 2	LF	95		95			
	110-1-1	CLEARING & GRUBBING	PROJECT SITE	AC	0.32		0.32			
	400-0-11	CONCRETE CLASS NS, GRAVITY WALL INDEX 400-011	END WALL 1	CY	8.1		20.8			
			END WALL 2		12.7					
	455-2-12	TREATED TIMBER PILING FOR PEDESTRIAN BOARDWALK	BOARDWALK	LF	1020		1020			
	470-1	TREATED TIMBER, STRUCTURAL	BOARDWALK	MB	9.8		9.8			

PAY ITEM NOTES:

1. PAY ITEM 455-2-12 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO SHIP AND INSTALL TIMBER PILES FOR THE BOARDWALK. QUANTITY IS BASED ON ORDER PILE LENGTH REPORTED ON THE PILE DATA TABLE.
2. PAY ITEM 460-7 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO FABRICATE, SHIP, ASSEMBLE, AND INSTALL THE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE. INCLUDES COMPONENTS FOR BOARDWALK ATTACHMENT TO BEGIN AND END BRIDGE.
3. PAY ITEM 470-1 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY FOR THE CONSTRUCTION OF THE TIMBER BOARDWALK, TIMBER RAILINGS ALONG THE END WALLS, AND RELATED COMPONENTS, EXCLUDING TIMBER PILING. INCLUDES ALL HARDWARE, STRAPS, BOLTS, AND SCREWS. TIMBER MATERIALS AND CONSTRUCTION PER FDOT STANDARD SPECIFICATIONS SECTION 470.
4. PAY ITEM 515-2-356 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO FABRICATE, SHIP, ASSEMBLE, AND INSTALL THE ALUMINUM PEDESTRIAN RAILING WITH STEEL CABLE SYSTEM. THE STEEL TRUSS BRIDGE FABRICATOR SHALL SUBMIT SHOP DRAWING OF PROPOSED RAILING SYSTEM IN ACCORDANCE TO PLAN PROVISIONS AND GENERAL NOTES.
5. PAY ITEM 999-01 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO INSTALL THE ANCHOR BOLTS FOR THE STEEL TRUSS CONNECTION TO THE PIER CAPS. INCLUDES TWO NUTS AND ONE WASHER PER BOLT.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
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DESIGNED BY: JAH 09/23
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: SUMMARY OF STRUCTURE QUANTITIES

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 2

GENERAL NOTES

A. DESIGN SPECIFICATIONS
1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES (2009).
2. FDOT STRUCTURES MANUAL DATED JANUARY 2023 AND SUBSEQUENT STRUCTURES DESIGN BULLETINS.
3. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION (2020), AND ALL SUBSEQUENT INTERIMS.
4. FDOT DESIGN MANUAL DATED JANUARY, 2023 AND SUBSEQUENT ROADWAY DESIGN BULLETINS.

B. GOVERNING STANDARDS AND CONSTRUCTION SPECIFICATIONS
FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2023-24 STANDARD PLANS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND FY 2023-24 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

C. VERTICAL DATUM
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

D. ENVIRONMENT

BRIDGE NUMBER	SUPERSTRUCTURE	SUBSTRUCTURE	
		CONCRETE	STEEL
ESTERO RIVER BRIDGE	SLIGHTLY	MODERATELY	MODERATELY

E. DESIGN METHODOLOGY
1. LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD USING STRENGTH, SERVICE, AND FATIGUE LIMIT STATES.

F. DESIGN LOADINGS
1. PEDESTRIAN LIVE LOAD: 90 PSF
VEHICULAR LIVE LOAD: 4000 LB MAINTENANCE VEHICLE
2. DEAD LOADS:
TIMBER RAILING: 35 PLF
REINFORCED CONCRETE: 150 PCF
STRUCTURAL STEEL: 490 PCF
3. WIND LOAD: WIND LOADS SHALL BE COMPUTED IN ACCORDANCE WITH STRUCTURES DESIGN GUIDELINES SECTION 10.5 FOR PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGES.
4. THERMAL LOAD: CONCRETE COEFFICIENT OF THERMAL EXPANSION: 6.0 x 10^{-6} / °F
STEEL COEFFICIENT OF THERMAL EXPANSION: 6.5 x 10^{-6} / °F

SUPERSTRUCTURE MATERIAL	TEMPERATURE (°F)			
	MEAN	HIGH	LOW	RANGE
CONCRETE DECK ON STEEL TRUSS	70	110	30	80

5. UTILITIES: NO ALLOWANCE FOR UTILITY LOADS HAS BEEN INCLUDED IN DESIGN.
6. CONSTRUCTION LOADS: THE CONTRACTOR SHALL SUBMIT ALL TEMPORARY LOADING FOR REVIEW AND APPROVAL.
7. NO ALLOWANCE FOR FUTURE WEARING SURFACE HAS BEEN INCLUDED IN THE DESIGN.

G. MATERIALS
1. REINFORCING STEEL: GRADE 60 CARBON STEEL PER SPECIFICATIONS SECTION 931.
2. CONCRETE:

CONCRETE CLASS	MIN. 28-DAY COMPRESSIVE STRENGTH (PSI)	LOCATION OF CONCRETE IN STRUCTURE
II (BRIDGE DECK)	4500	C.I.P. BRIDGE DECK
IV	5500	C.I.P. SUBSTRUCTURE, ABUTMENTS
V (SPECIAL)	6000	PRESTRESSED CONCRETE PILES

3. CONCRETE COVER:

CAST-IN-PLACE BRIDGE DECK	2"
CAST-IN-PLACE SUBSTRUCTURE (CAST AGAINST EARTH)	4"
CAST-IN-PLACE SUBSTRUCTURE (FORMED SURFACES)	3"
CAST-IN-PLACE BEAM PEDESTAL	2"

CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE SPECIFICATIONS SECTION 415 FOR ALLOWABLE TOLERANCES. ALL DIMENSIONS PERTAINING TO THE LOCATION OF REINFORCING STEEL ARE TO CENTERLINE OF BAR EXCEPT WHERE CLEAR DIMENSION IS NOTED TO FACE OF CONCRETE.

4. STEEL TRUSS ANCHOR BOLTS
a. ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.
b. ALL ANCHOR BOLTS SHALL BE 1"x18" L-BOLTS, ASTM F1554 GRADE 105, UNLESS OTHERWISE NOTED.
c. ALL NUTS SHALL BE ASTM A563 GRADE A HEAVY HEX NUTS, UNLESS OTHERWISE NOTED.
d. ALL WASHERS SHALL BE ASTM F436 TYPE 1, UNLESS OTHERWISE NOTED. PROVIDE WASHERS UNDER THE NUT FOR ALL BOLTED ASSEMBLIES.

GENERAL NOTES (CONTINUED)

5. TIMBER BOARDWALK STRUCTURAL FASTENERS
a. ALL LAG SCREWS, BOLTS, NUTS, AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2329, UNLESS OTHERWISE NOTED.
b. ALL CONNECTING PLATES, BRACKETS, JOIST HANGERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123, UNLESS OTHERWISE NOTED.
c. ALL STRUCTURAL BOLTS SHALL BE ASTM F3125 GRADE A325, UNLESS OTHERWISE NOTED.
d. A325 BOLTS SHALL COMPLY WITH "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", INCLUDING COMMENTARY.
e. ALL NUTS SHALL BE ASTM A563 GRADE A, UNLESS OTHERWISE NOTED.
f. ALL WASHERS SHALL BE ASTM F436 TYPE 1, UNLESS OTHERWISE NOTED. PROVIDE WASHERS UNDER BOTH THE BOLT HEAD AND NUT FOR ALL BOLTED ASSEMBLIES.
6. LUMBER
a. LUMBER SIZES SHOWN ARE NOMINAL SIZES UNLESS OTHERWISE NOTED. LUMBER SHALL BE FURNISHED IN SIZES MEETING THE REQUIREMENTS OF THE NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION, 2018 EDITION.
b. ALL LUMBER SHALL BE TREATED IN ACCORDANCE WITH THE AWPA (AMERICAN WOOD PRESERVERS ASSOCIATION) USE CATEGORY UC4C.
c. ALL LUMBER SHALL MEET THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTION 952, SOUTHERN PINE, GRADE NO. 1, AND BE PRESSURE TREATED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS SECTION 955 FOR BRACKISH WATER ENVIRONMENTS.

H. CONCRETE SURFACE FINISH
A CLASS 5 FINISH COATING SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. SUBMIT COLOR AND TEXTURE FOR APPROVAL.

I. PLAN DIMENSIONS
ALL DIMENSIONS IN THESE PLANS ARE MEASURED IN FEET EITHER HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.

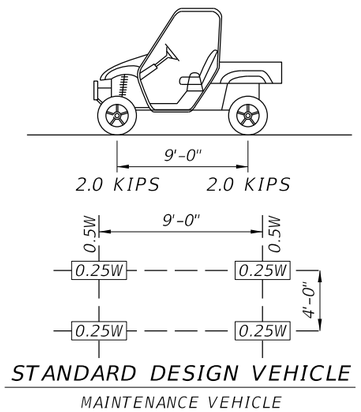
J. UTILITIES
FOR PLAN LOCATIONS OF EXISTING UTILITIES, SEE PLAN AND ELEVATION SHEET(S). LOCATIONS OF UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE.

K. JOINTS IN CONCRETE
CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS INDICATED IN THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

L. DECK SCREEDING
SCREED THE RIDING SURFACE OF THE BRIDGE DECK TO ACHIEVE THE FINISH GRADE ELEVATIONS SHOWN IN THE PLANS. ACCOUNT FOR THEORETICAL DEFLECTIONS DUE TO DECK SELF WEIGHT, DECK CASTING SEQUENCE, DECK FORMING SYSTEMS, CONSTRUCTION LOADS, OVERLAYS AND TEMPORARY SHORING, ETC. AS REQUIRED.

M. COORDINATION
CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES SUCH AS DELIVERIES, STORAGE, PARKING, AND WORK HOURS, WITH THE OWNER TO AVOID CONFLICTS WITH NORMAL PARK OPERATION.

N. DEWATERING
THE CONTRACTOR SHALL ANTICIPATE DEWATERING TO CONSTRUCT THE PIER FOUNDATIONS. THE CONTRACTOR IS TO INCLUDE THIS DEWATERING IN THE COST OF FOUNDATION CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING DEWATERING PERMITS AS REQUIRED BY THE SFWMD PRIOR TO COMMENCING DEWATERING ACTIVITIES.



STANDARD DESIGN VEHICLE
MAINTENANCE VEHICLE

W = TOTAL WEIGHT OF TRUCK AND LOAD

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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REVISIONS

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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: GENERAL NOTES (1 OF 2)

REF. DWG. NO.

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO. 3

PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE

A. EMPLOY THE SERVICES OF AN ELIGIBLE, QUALIFIED STEEL TRUSS BRIDGE FABRICATOR TO DESIGN, DETAIL, FABRICATE, AND DELIVER A STEEL TRUSS PEDESTRIAN BRIDGE MEETING THE DESIGN CRITERIA DESCRIBED ON THIS SHEET.

B. THE STEEL TRUSS BRIDGE FABRICATOR SHALL BE ON THE FDOT LIST OF QUALIFIED METAL FABRICATION FACILITIES AND, AT A MINIMUM, MUST BE CERTIFIED IN THE AISC SIMPLE BRIDGE ACCREDITATION PROGRAM AS DESCRIBED IN TABLE 460-1 OF SECTION 460-1.2 OF THE FDOT SPECIFICATIONS IN ORDER TO BE CONSIDERED QUALIFIED TO PERFORM THE REQUIRED WORK. IN ORDER TO BE CONSIDERED ELIGIBLE FOR THIS PROJECT THE STEEL TRUSS BRIDGE FABRICATOR MUST BE SELECTED FROM LIST OF FABRICATORS ON SHEET 5.

C. THE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING:
1. BRIDGE PLANS
2. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION (2020)
3. AASHTO GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES (2009)
4. AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION (2017)
5. FDOT DESIGN MANUAL (2023)
6. FDOT STRUCTURES MANUAL (2023)
7. FDOT STANDARD PLANS AND STANDARD SPECIFICATIONS (2023)

D. DESIGN LOADINGS
1. DEAD LOADS:
   a. REINFORCED CONCRETE: 150 PCF
   b. STRUCTURAL STEEL: 490 PCF
   c. ALUMINUM ALLOY: 175 PCF
   d. S.I.P. FORMS: 20 PSF
   e. FUTURE WEARING SURFACE IS NOT INCLUDED.
2. LIVE LOADS:
   a. PEDESTRIAN LIVE LOAD: 90 PSF
   b. VEHICULAR LIVE LOAD: 4000 LB MAINTENANCE VEHICLE
   c. PEDESTRIAN/BICYCLE RAILING LIVE LOAD: 50 PLF WITH 200 LB CONCENTRATED LOAD
3. WIND LOADS:
   a. WIND LOADS SHALL BE COMPUTED IN ACCORDANCE WITH STRUCTURES DESIGN GUIDELINES SECTION 10.5 FOR PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGES.
4. LOADS FROM BOARDWALK (LOADS ARE APPLIED BELOW THE DECK LEVEL AT BEGIN AND END BRIDGE, SEE BOARDWALK CONNECTION DETAILS):
   i. DEAD LOAD = 1.9 KIPS VERTICAL
   ii. LIVE LOAD = 6.5 KIPS VERTICAL
   iii. WIND LOAD: TRANSVERSE = ±0.63 KIPS
   LONGITUDINAL = ±0.55 KIPS

E. THE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE SHALL MEET OR EXCEED THE FOLLOWING PERFORMANCE REQUIREMENTS:
1. THE BRIDGE SHALL BE DESIGNED FOR A 75-YEAR DESIGN LIFE.
2. THE FINAL CAMBER OF THE BRIDGE AFTER DEAD LOAD DEFECTION SHALL FOLLOW THE PLAN PROFILE GRADE ON THE PLAN AND ELEVATION SHEETS.
3. THE MAXIMUM LIVE LOAD DEFLECTION SHALL BE LIMITED TO THE SPAN LENGTH DIVIDED BY 500.
4. THE MAXIMUM HORIZONTAL DEFLECTION DUE TO WIND LOADING SHALL BE THE SPAN LENGTH DIVIDED BY 500.
5. USE SLOTTED ANCHOR BOLT HOLES AT EACH SUPPORT TO ALLOW FOR THERMAL MOVEMENTS TO OCCUR IN BOTH DIRECTIONS.

F. THE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE SHALL BE DESIGNED TO ACCOMMODATE THE SUBSTRUCTURE CONFIGURATION SHOWN IN THE PLANS (i.e. ABUTMENT SIZE, SHAPE, ELEVATION, ETC.). BRIDGE SEAT ELEVATIONS AND ANCHOR BOLT INSERT LOCATIONS MAY BE VARIED TO SUIT BRIDGE BEARINGS.

G. TRUSS MATERIALS
1. TRUSS MEMBERS (GALVANIZED AND PAINTED): SQUARE/RECTANGULAR HSS SECTIONS ASTM A847, GALVANIZED ASTM A123 WITH A MINIMUM WALL THICKNESS OF 1/4-INCHES.
2. PLATES & SHAPES: ASTM A588 OR A709 GRADE 50, GALVANIZED ASTM A123.
3. BOLTS: ASTM A325, TYPE 3 WITH ASTM A563 GRADE C3 NUTS AND ASTM F436, TYPE 3 WASHERS.
4. ANCHOR BOLTS: ASTM F1554 GRADE 105 WITH ASTM A563 GRADE A HEAVY HEX NUTS AND ASTM F436, TYPE 1 WASHERS. ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.
5. WELD ELECTRODE: E70XX, REMOVE GALVANIZING OR PRIMER PRIOR TO WELDING.

H. RAILING MATERIALS
1. POSTS AND RAILS (NO COATING): ASTM B429 ALUMINUM WITH AN ALLOY AND TEMPER OF 6061-T6
2. SET SCREWS: ALUMINUM WITH AN ALLOY AND TEMPER OF 2024-T4 OR 7075-T73
3. WIRE ROPE (NO COATING): 1/4" Ø SS316, CLASS 1x19 STEEL STRAND
4. WELD ELECTRODE: ER40XX, CLEAN SURFACE PRIOR TO WELDING

I. PAINTING OF NEW STRUCTURAL STEEL COMPONENTS:
PAINT ALL NEW STEEL COMPONENTS, UNLESS NOTED OTHERWISE, WITH AN INORGANIC ZINC COATING SYSTEM IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 560 AND 975. ALL NEW STEEL COMPONENTS SHALL BE SHOP PRIMED AND INTERMEDIATE COATED IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS. FINISH COAT ALONG WITH A CLEAR COAT SHALL BE APPLIED IN THE FIELD. FABRICATOR SHALL COORDINATE WITH THE VILLAGE OF ESTERO TO DETERMINE ACCEPTABLE PAINT COLORS.

PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE (CONTINUED)

J. TOUCH-UP PAINT
BRIDGE SHALL BE PROVIDED WITH TOUCH-UP PAINT FOR AFTER ERECTION WHICH SHALL MATCH THE ACCEPTED COLOR. TOUCH-UP PAINTING INCLUDES ANY AND ALL PAINTING REQUIRED AFTER THE STRUCTURE REACHES THE SITE AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THIS PAINTING SHALL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING AREAS:
1. ANY AREAS DAMAGED DUE TO SHIPPING, HANDLING AND ERECTION OF THE BRIDGE.
2. BOLT HEADS AND EXPOSED AREAS OF BOLTS AND NUTS AS APPLICABLE.
3. UNGALVANIZED ANCHOR BOLTS IF NOT MADE OF CORROSION RESISTANT STEEL.
4. IF APPLICABLE, SMALL AREAS (2" EACH SIDE) AROUND BOLTED FIELD SPLICES, DESIGNED AS "SLIP CRITICAL" WHERE ONE OR ALL PAINT COATS MAY BE REQUIRED TO BE LEFT OFF THE FAYING SURFACES OF THESE CONNECTIONS.
5. ALL FIELD WELDS ARE REQUIRED TO BE PAINTED.

K. CAP ALL OPEN-ENDED TUBING AND COMPLETELY SEAL AROUND WELDED JOINTS SUCH THAT NO CREVICE OR OPENING EXISTS WHERE WATER CAN COLLECT ON OR PENETRATE THE JOINT.

L. FULLY DETAILED SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY THE CONTRACTOR'S ENGINEER OF RECORD (CEOR) SHALL BE PROVIDED TO THE EOR FOR REVIEW AND APPROVAL PRIOR TO BEGINNING THE FABRICATIONS OF THE BRIDGE. THE CEOR MUST BE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND SHALL BE AN EMPLOYEE OF THE QUALIFIED BRIDGE FABRICATOR OR SHALL BE AN EMPLOYEE OF AN ENGINEERING FIRM PREQUALIFIED IN THE FDOT WORK GROUP CATEGORY 4.2.2 MAJOR BRIDGE, STEEL.

M. STEEL MEMBER TESTING:
1. IDENTIFY ALL FRACTURE CRITICAL MEMBERS ON THE SHOP DRAWINGS.
2. ASTM A709 CHARPY V-NOTCH TESTING IS REQUIRED FOR ALL TENSION MEMBERS.
3. IMPACT TESTING SHALL BE PERFORMED AS FOLLOWS:
   a. TEST NON-FRACTURE CRITICAL TENSION MEMBERS IN ACCORDANCE WITH ASTM A709.
   b. PRIMARY TENSION CHORDS IN A TWO TRUSS BRIDGE MAY BE CONSIDERED NON-FRACTURE CRITICAL DUE TO FRAME ACTION.
   c. TEST FRACTURE CRITICAL MEMBERS IN ACCORDANCE WITH ASTM A709.

N. FABRICATION OF THE STEEL TRUSS PEDESTRIAN BRIDGE STRUCTURE SHALL BE PERFORMED IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 460.

O. THE MINIMUM THICKNESS OF BRIDGE DECK SHALL BE 6-INCHES WITH NO ALLOWANCE FOR ONE-HALF INCH SACRIFICIAL THICKNESS. STAY-IN-PLACE (S.I.P.) FORMS SHALL BE UTILIZED FOR THE DECK CONSTRUCTION. PROVIDE GALVANIZED OR VINYL COATED FORMS. SUBMIT THE PRODUCT TO THE EOR FOR APPROVAL.

P. PEDESTRIAN/BICYCLE RAILING ON BRIDGE:
1. STEEL TRUSS BRIDGE FABRICATOR SHALL SUBMIT SHOP DRAWING OF PROPOSED RAILING SYSTEM IN ACCORDANCE WITH THE PLAN PROVISIONS TO THE EOR FOR APPROVAL. SHOP DRAWINGS SHALL INCLUDE THE RAIL ANCHOR DESIGN, ALL WELD AND FASTENER DETAILS, AND THE STRAND TENSIONING PLAN AND DETAILS.
2. STEEL TRUSS BRIDGE FABRICATOR MAY ELECT TO SUBMIT SHOP DRAWINGS OF AN ALTERNATE RAILING SYSTEM WHICH MUST BE APPROVED BY BOTH THE EOR AND THE VILLAGE OF ESTERO. ANY ALTERNATE MUST MEET THE MINIMUM CRITERIA LISTED BELOW.
   a. DESIGN MUST BE IN ACCORDANCE WITH STATED DESIGN LOADING, AASHTO LRFD, FDOT STRUCTURES DESIGN MANUAL, AND THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS SECTION 505.
   b. RAILING SYSTEM MUST INCLUDE AN UNPAINTED CIRCULAR ALUMINUM TOP RAIL OR HANDRAIL.

REVISIONS

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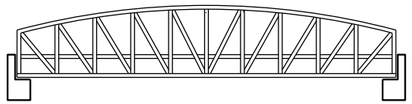
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: GENERAL NOTES (2 OF 2)

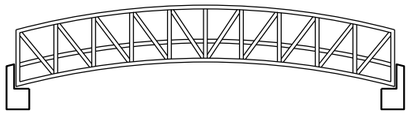
REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

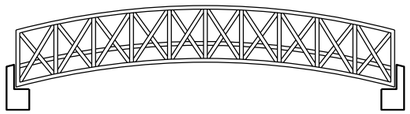
SHEET NO.: 4



TRUSS 1



TRUSS 2



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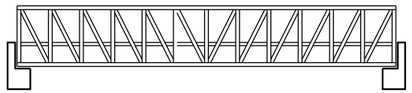

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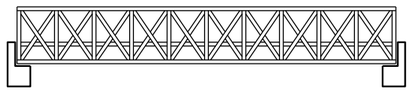
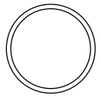


TRUSS 5

TRUSS CONFIGURATIONS

	ALLOWABLE TRUSS CONFIGURATIONS				
	TRUSS 1	TRUSS 2	TRUSS 3	TRUSS 4	TRUSS 5
PERMITTED (Y/N)	Y	N	N	Y	N

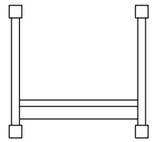
SHAPE 1
(STRUCTURAL TUBE)



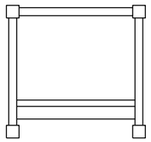
SHAPE 2
(STRUCTURAL PIPE)

TRUSS MEMBER SHAPES

	ALLOWABLE TRUSS MEMBER SHAPES	
	SHAPE 1	SHAPE 2
PERMITTED (Y/N)	Y	N



SECTION 1
(THROUGH TRUSS)



SECTION 2
(BOX TRUSS)

BRIDGE CROSS-SECTIONS

	ALLOWABLE BRIDGE * CROSS-SECTIONS	
	SHAPE 1	SHAPE 2
PERMITTED (Y/N)	Y	N

* THROUGH TRUSS BRIDGES ARE ACCEPTABLE ONLY FOR SPANS LESS THAN OR EQUAL TO 150'. FOR SPANS OVER 150' BOX TRUSS BRIDGES ARE REQUIRED.

LIST OF APPROVED FABRICATORS:
1. CONTECH BRIDGE SOLUTIONS
2. G&G STEEL, INC.
3. FLORIDA STRUCTURAL STEEL AND CONSTRUCTION, INC.

NOTES:
1. ELIGIBLE PEDESTRIAN BRIDGE PRODUCERS:
   INCLUDED IN THIS PLAN SET ARE PEDESTRIAN BRIDGE DATA SHEETS SUBMITTED BY BRIDGE PRODUCERS ELIGIBLE TO PARTICIPATE IN THIS PROJECT. PRODUCERS WHO FAILED TO SUBMIT A DATA SHEET ARE EXCLUDED FROM PARTICIPATION. NO COST SAVINGS INITIATIVE PROPOSAL SHALL BE ACCEPTED FOR THE TRUSS SUPERSTRUCTURE PORTION OF THE PROJECT. CONTACT INFORMATION FOR THE ELIGIBLE PRODUCERS IS INCLUDED IN THE DATA SHEETS.
2. ALLOWABLE SUPERSTRUCTURE OPTIONS:
   ALL ALLOWABLE SUPERSTRUCTURE OPTIONS ARE INDICATED BY A "Y" IN THE TABLES ON THIS SHEET. FOR MULTI-SPAN BRIDGES USE THE SAME TRUSS BRIDGE OPTIONS AND DEPTH OF TRUSS FOR EACH SPAN.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
NOT FOR CONSTRUCTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460
HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
FORT MYERS, FL 33901

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CHECKED BY: TMW 09/23
DESIGNED BY: JAH 09/23
CHECKED BY: TMW 09/23

VILLAGE OF ESTERO

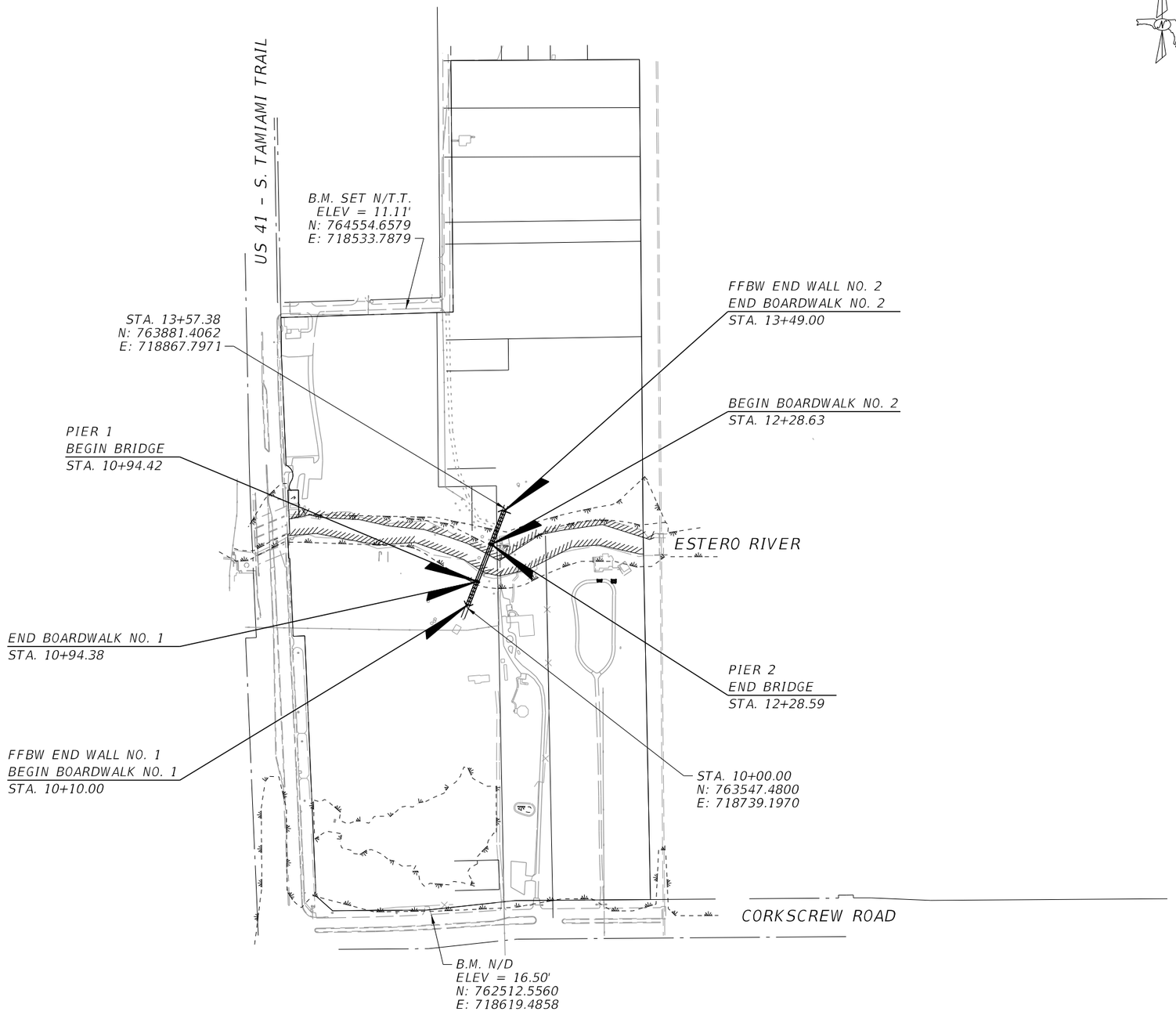
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: TRUSS CONFIGURATION

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

REF. DWG. NO.

SHEET NO. 5



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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PROJECT LOCATION

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 6

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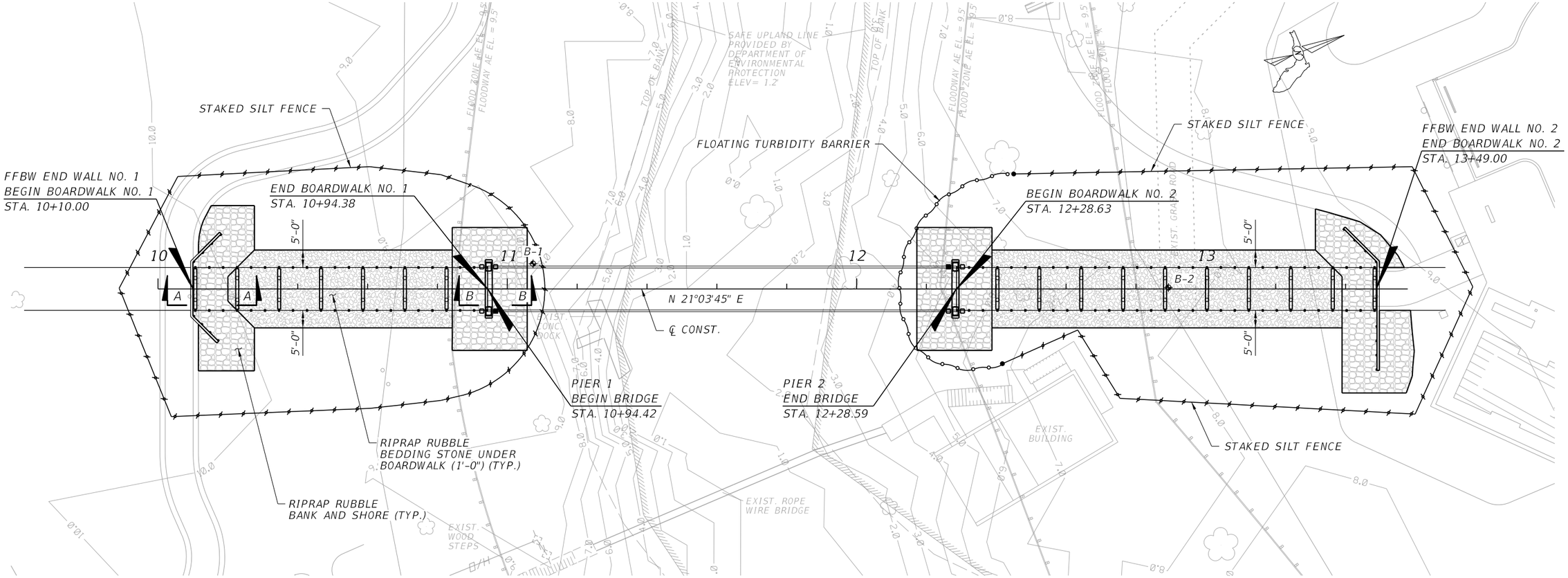

PLAN

NOTES:
1. RIPRAP RUBBLE AROUND END WALLS, TIMBER PILES, AND PIERS SHOULD BE PLACED BEFORE THE PEDESTRIAN BRIDGE AND TIMBER BOARDWALK SUPERSTRUCTURE IS INSTALLED. INSTALL TIMBER PILES BEFORE RIPRAP AROUND THE END WALLS.
2. RIPRAP RUBBLE MATERIALS, CONSTRUCTION, AND INSTALLATION PER FDOT STANDARD SPECIFICATIONS SECTION 530.
3. FILTER FABRIC SHALL BE TYPE D-2, IN ACCORDANCE WITH SPECIFICATIONS SECTION 985. SPLICE LENGTH SHALL BE IN ACCORDANCE WITH SPECIFICATIONS SECTION 514.

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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: SLOPE PROTECTION DETAILS (1 OF 2)

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 7

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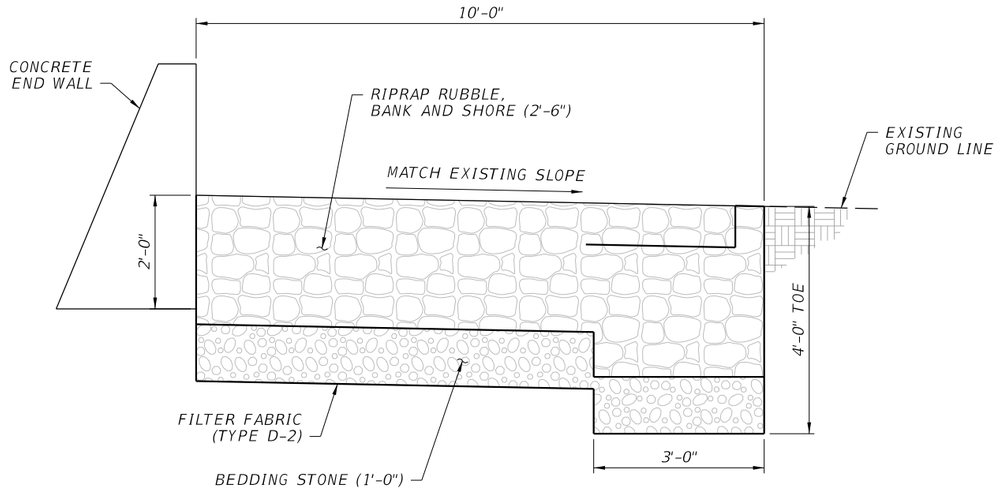
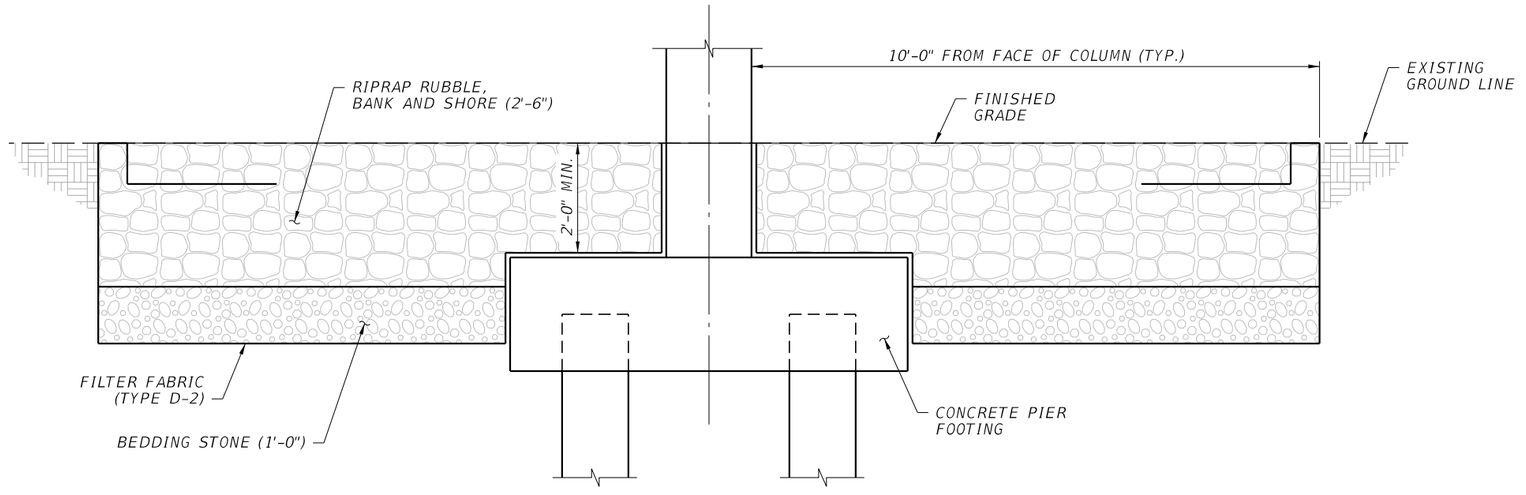


SECTION A-A - BANK AND SHORE DETAIL
FOR END WALLS 1 & 2 PROTECTION



SECTION B-B - BANK AND SHORE DETAIL
FOR PIERS 1 & 2 PROTECTION

REVISIONS					
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: *SLOPE PROTECTION DETAILS (2 OF 2)*

REF. DWG. NO.:

PROJECT NAME: *ESTERO ON THE RIVER PEDESTRIAN BRIDGE*

SHEET NO.: 8

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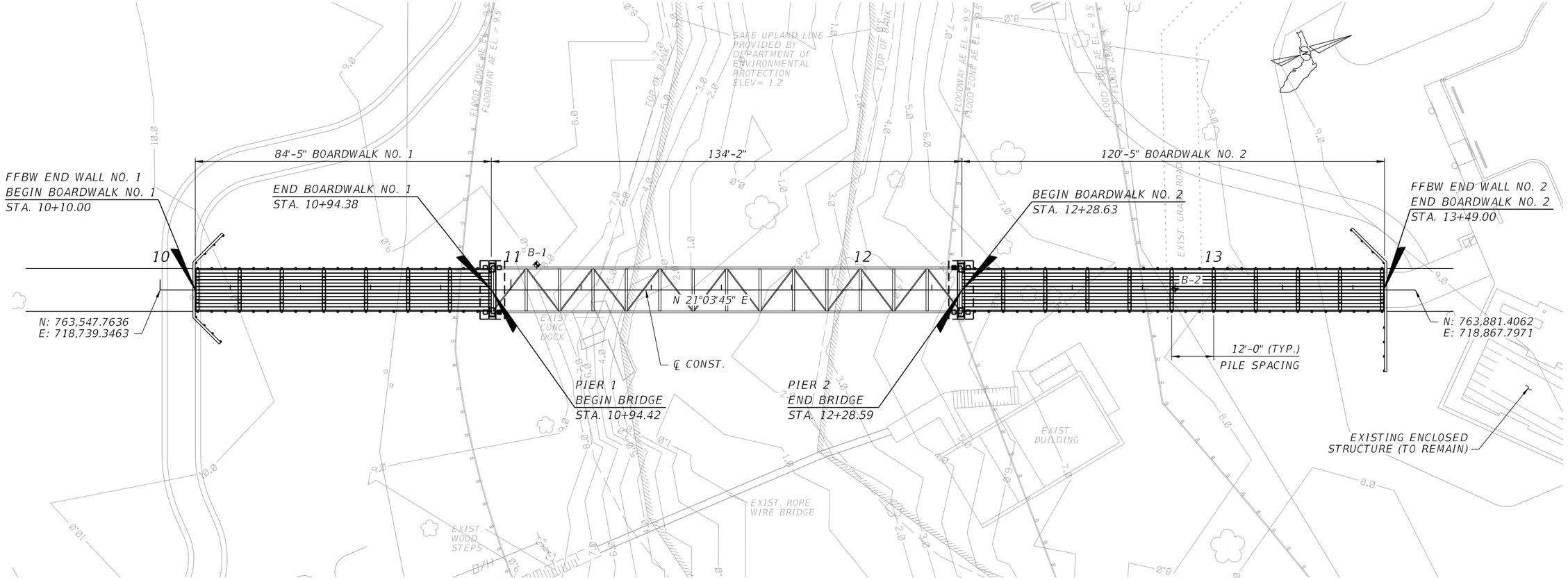
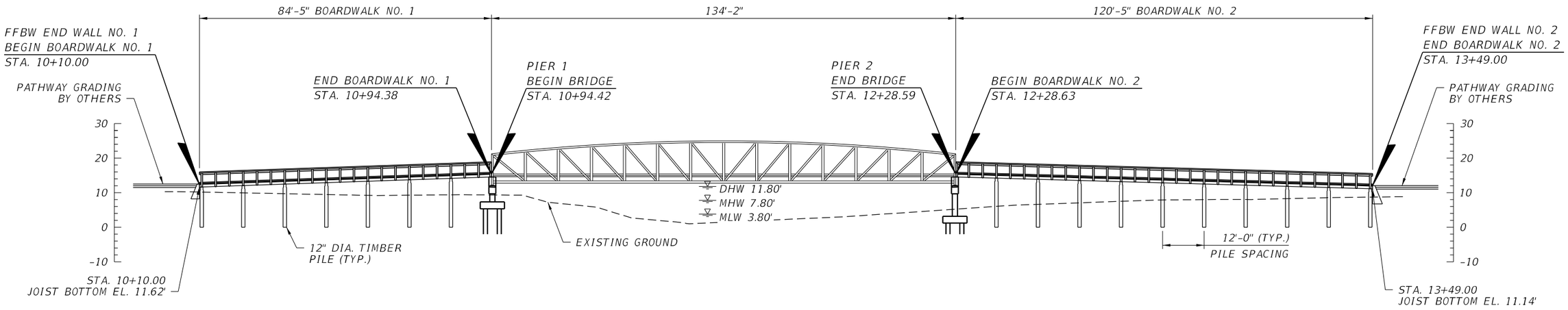


PLAN



ELEVATION

REVISIONS					
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CHECKED BY:	TMW 09/23

VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PLAN & ELEVATION (1 OF 2)

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 9

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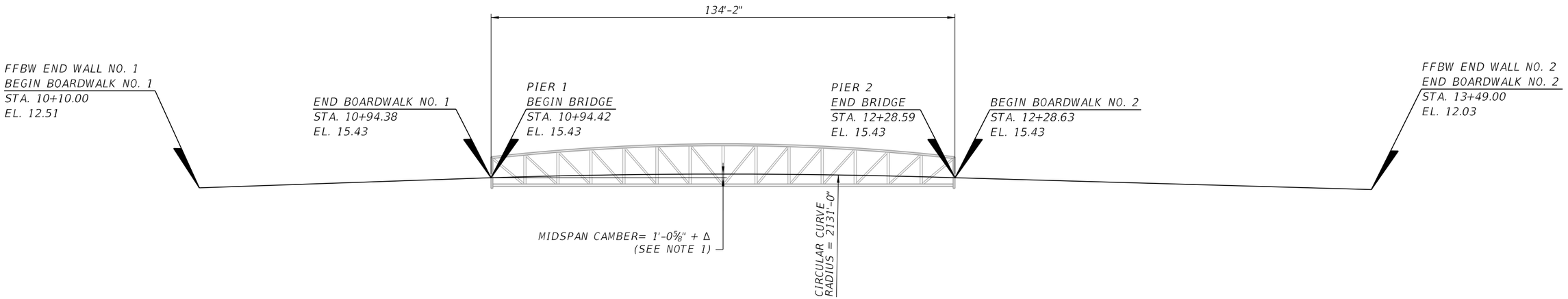

NOTES:
1. THE MANUFACTURED CAMBER OF THE STEEL TRUSS AT MIDSPAN SHALL BE 1'-0⅝" + Δ, WHERE Δ IS THE FINAL DEAD LOAD DEFLECTION OF THE BRIDGE INCLUDING ALL STEEL AND CONCRETE DECK COMPONENTS. SEE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE GENERAL NOTES FOR MORE INFORMATION.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PLAN & ELEVATION (2 OF 2)

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 10

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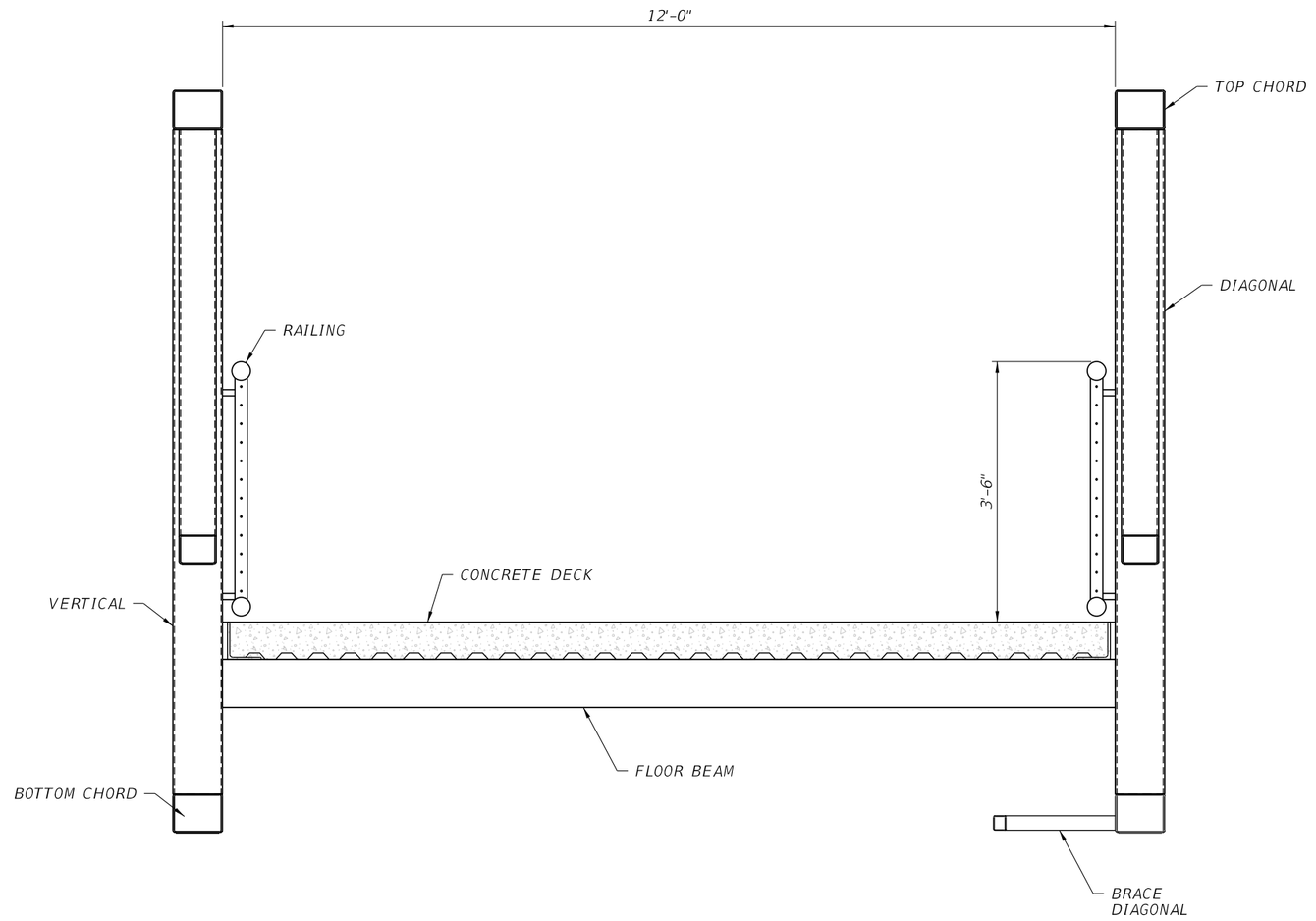

TYPICAL SECTION

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VILLAGE OF ESTERO

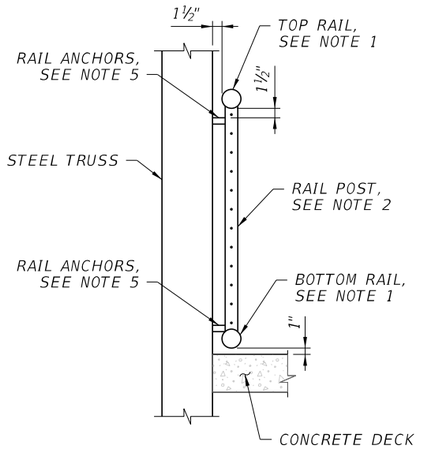
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: TYPICAL SECTION

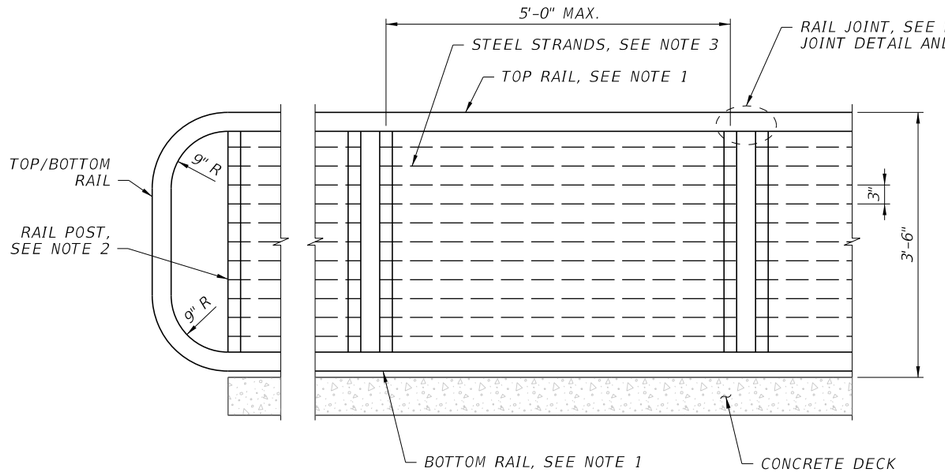
REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

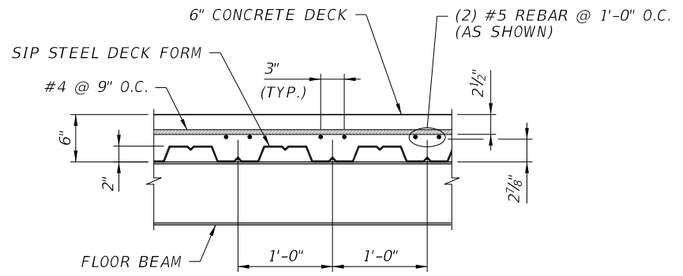
SHEET NO.: 11



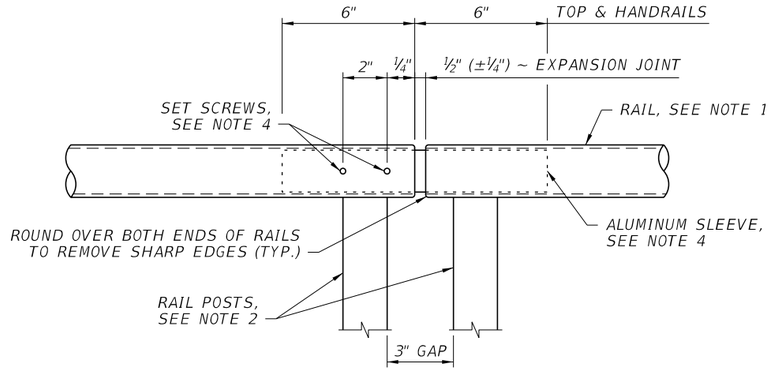
RAILING SECTION



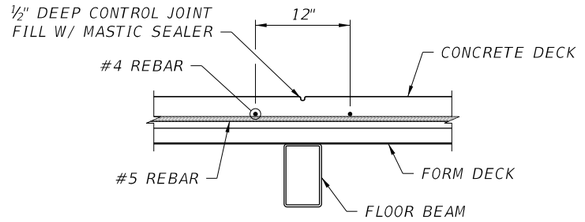
RAILING ELEVATION
(STEEL TRUSS AND TIMBER BOARDWALK OMITTED FOR CLARITY)



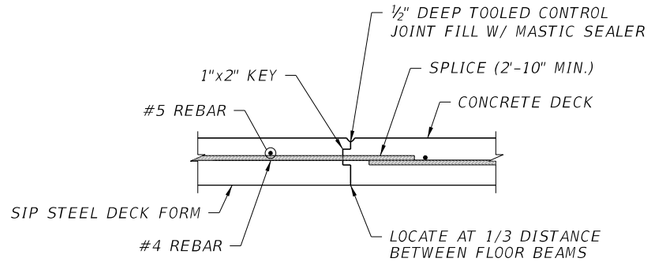
TYPICAL SLAB REINFORCEMENT DETAIL



RAIL JOINT DETAIL (TOP SHOWN, BOTTOM SIMILAR)



SECTION - CONTROL JOINT
(AT EVERY FLOOR BEAM)



CONSTRUCTION JOINT DETAIL
(AS REQUIRED)

NOTES:
1. TOP AND BOTTOM RAILS SHALL BE 3" Ø ALUMINUM PIPE WITH A 3/16" WALL THICKNESS.
2. RAIL POSTS SHALL BE 2"x2"x1/4" SQUARE ALUMINUM TUBING. SPACING BETWEEN RAIL POSTS SHALL NOT EXCEED 5 FEET. THROUGH-DRILL RAIL POSTS TO ACCOMMODATE STEEL STRANDS. PROVIDE DRAIN HOLES AT BOTTOM OF EACH RAIL POST.
3. WIRE ROPE SHALL BE 1/4" Ø SS316, CLASS 1x19 STEEL STRAND. STRAND SECTIONS SHALL BE TENSIONED AND ANCHORED AT RAIL JOINTS TO REMOVE SLACK. MAX TENSIONING PER STAND IS 200LB. ALL STEEL STRANDS SHALL BE ISOLATED FROM ALUMINUM RAILING BY RUBBER OR PLASTIC GROMMETS AND WASHERS TO PREVENT GALVANIC CORROSION.
4. RAIL JOINTS SHALL BE INCLUDED WITH A MINIMUM SPACING OF 10 FEET AND A MAXIMUM SPACING OF 24 FEET. SET SCREWS FOR RAIL JOINTS SHALL BE 1/4"x3/4" PAN HEAD ALUMINUM SCREWS AND MUST BE SET FLUSH AGAINST THE OUTSIDE FACE OF RAILS. DO NOT PROVIDE SET SCREWS FOR RAILS AT FREE END OF RAIL JOINTS. JOINT SLEEVE SHALL BE 2.5" Ø ALUMINUM PIPE WITH A 1/8" WALL THICKNESS.
5. TOP AND BOTTOM RAIL ANCHORS SHALL BE DESIGNED BY THE STEEL TRUSS BRIDGE FABRICATOR. RAIL ANCHORS SHALL BE SPACED AT A MAXIMUM OF 12 FEET WITH TOP AND BOTTOM ANCHORS PRESENT WITHIN 3 FEET OF THE RAILING ENDS. RAIL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS SECTION 505. INCLUDE RUBBER OR PLASTIC COMPONENTS AS NEEDED TO ISOLATE ALUMINUM RAILING AND RAILING CONNECTION FROM STEEL TRUSS TO PREVENT GALVANIC CORROSION.
6. ALL BURS AND SHARP EDGES ON THE RAIL SYSTEM SHALL BE GROUND AFTER INSTALLATION.
7. SEE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE NOTE P FOR ADDITIONAL PEDESTRIAN/BICYCLE RAILING NOTES.

DECK NOTES:
1. GALVANIZED FORM DECK SHALL BE METAL DECK GROUP (CFD2) 2" x 36" x 30'-0" 18 GAGE G-165 COMPOSITE DECKING. THE STEEL TRUSS BRIDGE FABRICATOR SHALL DETAIL THE FORM DECK LAYOUT AND ATTACHMENT TO THE FLOOR BEAMS.
2. CONCRETE COVER OF 2 1/2" ABOVE LONGITUDINAL REINFORCEMENT SHALL BE MAINTAINED.
3. THE CONCRETE DECK IS DESIGNED FOR 12'-0" MAXIMUM FLOOR BEAM SPACING. IF THE FLOOR BEAM SPACING PROVIDED BY THE STEEL TRUSS BRIDGE FABRICATOR IS GREATER THAN 12'-0", PROVIDE AN ALTERNATE DESIGN TO ACCOMMODATE THE PROPOSED SPACING.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
		PRELIMINARY NOT FOR CONSTRUCTION			

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DESIGNED BY:	JAH 09/23
CHECKED BY:	TMW 09/23

VILLAGE OF ESTERO

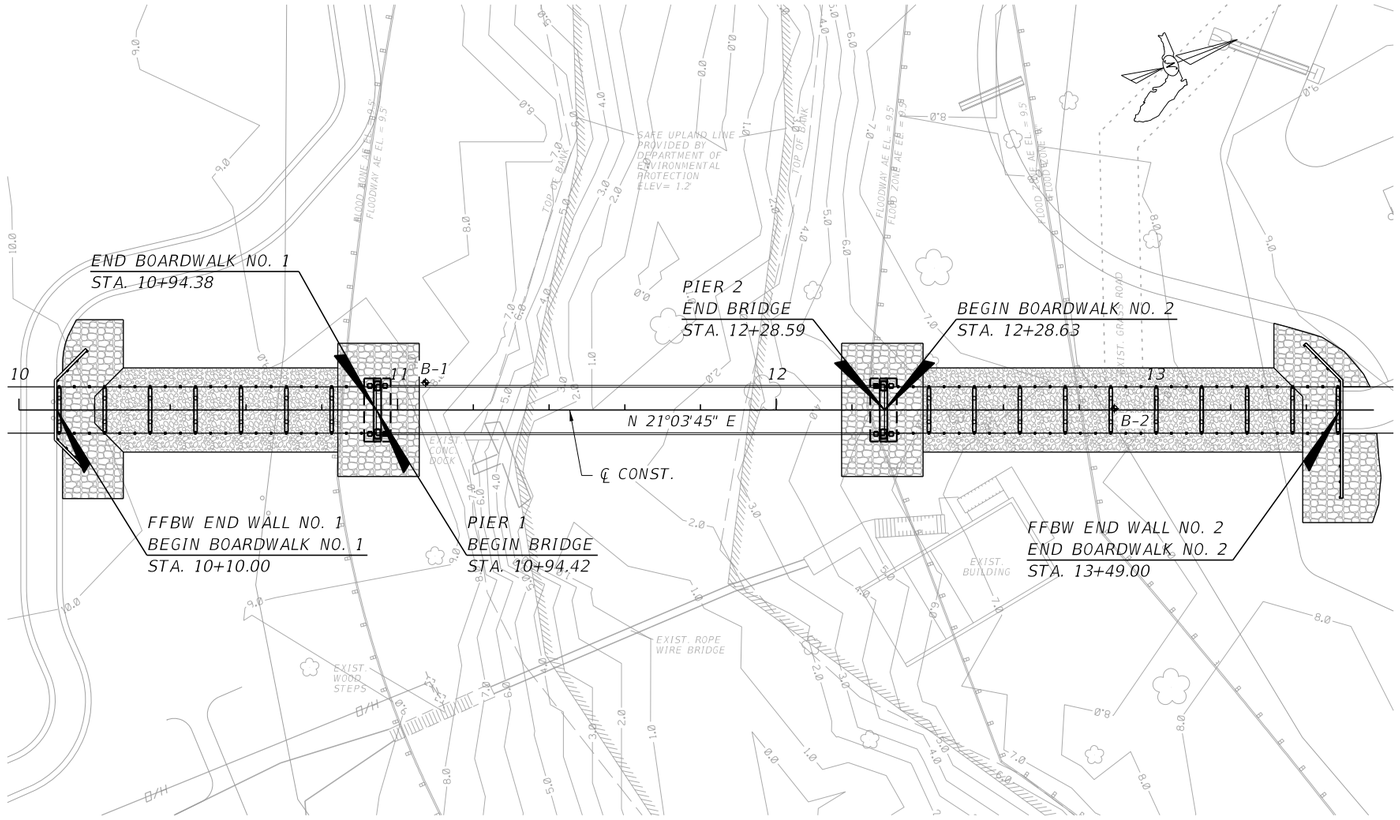
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

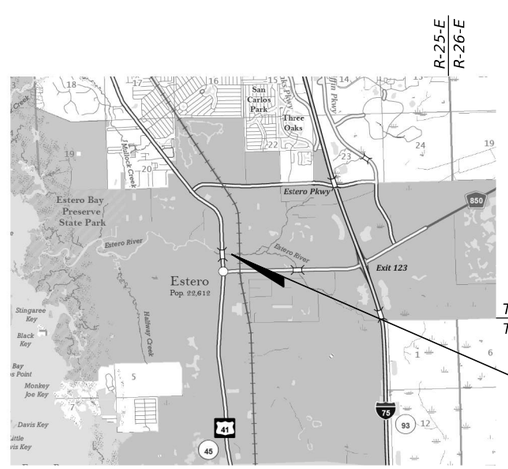
SHEET TITLE: SUPERSTRUCTURE DETAILS

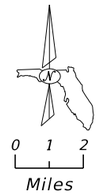
PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

REF. DWG. NO.

SHEET NO. 12







(REFERENCE)	EXISTING STRUCTURES (1)	(2)	(3)	(4)	PROPOSED STRUCTURE
FOUNDATION	N/A	N/A	N/A	N/A	CONCRETE PILES
OVERALL LENGTH	N/A	N/A	N/A	N/A	134'-2"
SPAN LENGTH	N/A	N/A	N/A	N/A	134'-2"
TYPE CONSTRUCTION	N/A	N/A	N/A	N/A	PREFAB. TRUSS
AREA OF OPENING@D.F.	N/A	N/A	N/A	N/A	-
BRIDGE WIDTH	N/A	N/A	N/A	N/A	12'-0"
ELEV. LOW MEMBER	N/A	N/A	N/A	N/A	12.76

HYDRAULIC DESIGN DATA

NOTE:
This hydraulic data is a summary of design calculations and is provided for informational purposes only. The user is cautioned against the assumption of precision for the discharge rates, units are in cubic feet per second and the design stages, feet-NAVD 1988.

TERMS:
Design Flood: Utilized to assure a desired level of hydraulic performance.
Base Flood: Has a 1% chance of being exceeded in any given year (100 year frequency)
Overtopping Flood: Causes flow over the highway, over a watershed divide, or thru emergency relief structures.
Greatest Flood: The most severe that can be predicted where overtopping is not practicable.

WATER SURFACE ELEVATIONS: N.H.W. (Non-Tidal) N/A M.H.W. (Tidal) 7.80
CONTROL (Non-Tidal) N/A M.L.W. (Tidal) 3.80

FLOOD DATA:	MAX. EVENT OF RECORD	DESIGN FLOOD	BASE FLOOD	☒ OVERTOPPING or ☐ GREATEST FLOOD
STAGE ELEV. NAVD (ft)	13.30	11.80	11.80	13.30
DISCHARGE (cfs)	-	5,331	5,331	7,250
AVERAGE VELOCITY (f/s)	-	1.37	1.37	3.42
EXCEEDANCE PROB. (%)	-	1	1	0.2
FREQUENCY (yr.)	-	100	100	500

SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE:

PIER INFORMATION NUMBERS	SIZE AND TYPE	TOTAL SCOUR ELEVATION LONG TERM SCOUR ELEV.	WORST CASE < 100 yr. FREQ. (yr.) 100	WORST CASE < 500 yr. FREQ. (yr.) 500
2	14" SQ. PILES	CONCRETE PILES WILL BE ARMORED WITH RIP-RAP RUBBLE, BANK AND SHORE		
17	12" TIMBER PILES	TIMBER PILES WILL BE ARMORED WITH BEDDING STONE		
2	GRAVITY WALL ABUTMENTS	ABUTMENTS WILL BE ARMORED WITH RIP-RAP, RUBBLE, BANK AND SHORE		

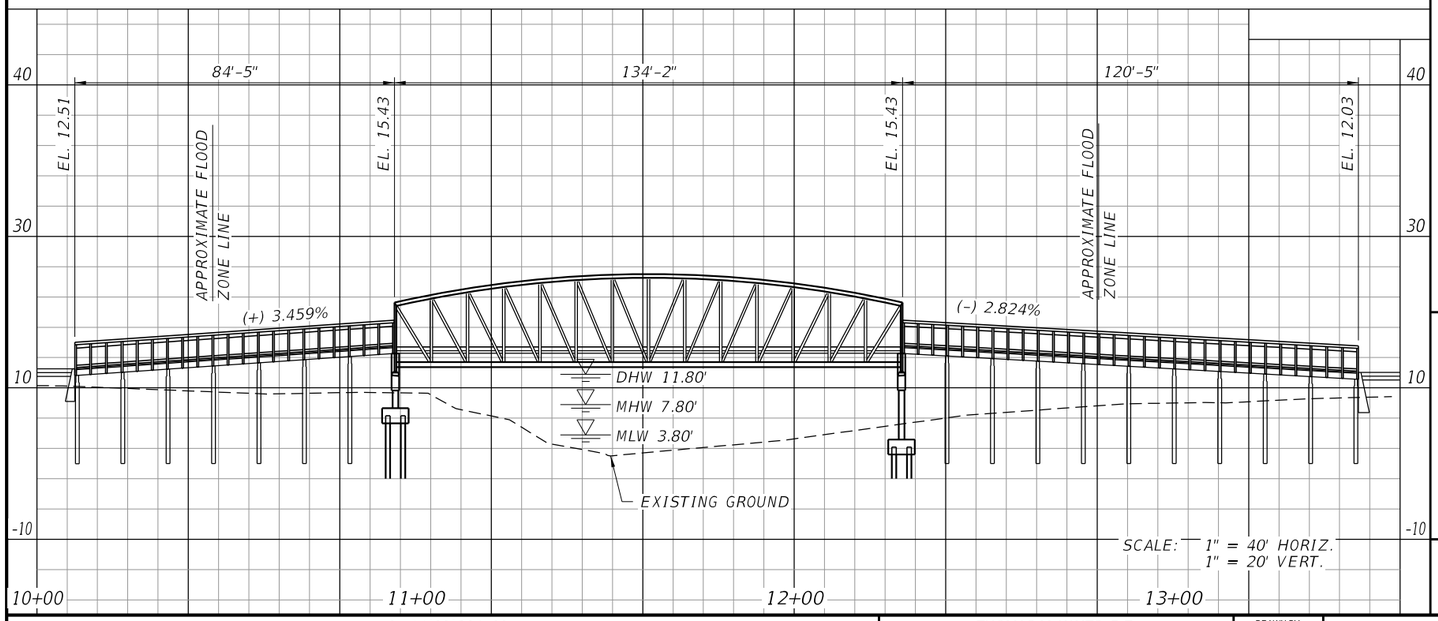
HYDRAULIC RECOMMENDATIONS

1. BEGIN BRIDGE STATION 10+94.42 END BRIDGE STATION 12+28.59 SKEW ANGLE 0°
2. CLEARANCE PROVIDED: NAV: HORIZ. N/A VERT. N/A ABOVE EL. N/A DRIFT: HORIZ. N/A VERT. N/A ABOVE EL. N/A
3. MINIMUM CLEARANCE: NAV: HORIZ. N/A VERT. N/A ABOVE EL. N/A DRIFT: HORIZ. N/A VERT. N/A ABOVE EL. N/A
4. ABUTMENTS:

	BEGIN BRIDGE	END BRIDGE
RUBBLE GRADE:	BEGIN RIP-RAP, RUBBLE	END RIP-RAP, RUBBLE
SLOPE:	MATCH EXISTING GRADE	MATCH EXISTING GRADE
BURIED OR NON-BURIED HORIZ. TOE:	BURIED TOE	BURIED TOE
TOE HORIZ. DISTANCE:	BURIED TOE, N/A	BURIED TOE, N/A
LIMIT OF PROTECTION:		

5. DECK DRAINAGE: THE PEDESTRIAN BRIDGE IS OPEN DECK AND DRAINS TOWARD THE RIVER AND SITE

REMARKS: FEMA NO RISE CERTIFICATION AND HYDRAULIC MODELING PROVIDED BY JR EVANS ENGINEERING, INC.



REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: BRIDGE HYDRAULIC RECOMMENDATIONS
REF. DWG. NO.
PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE
SHEET NO. 13

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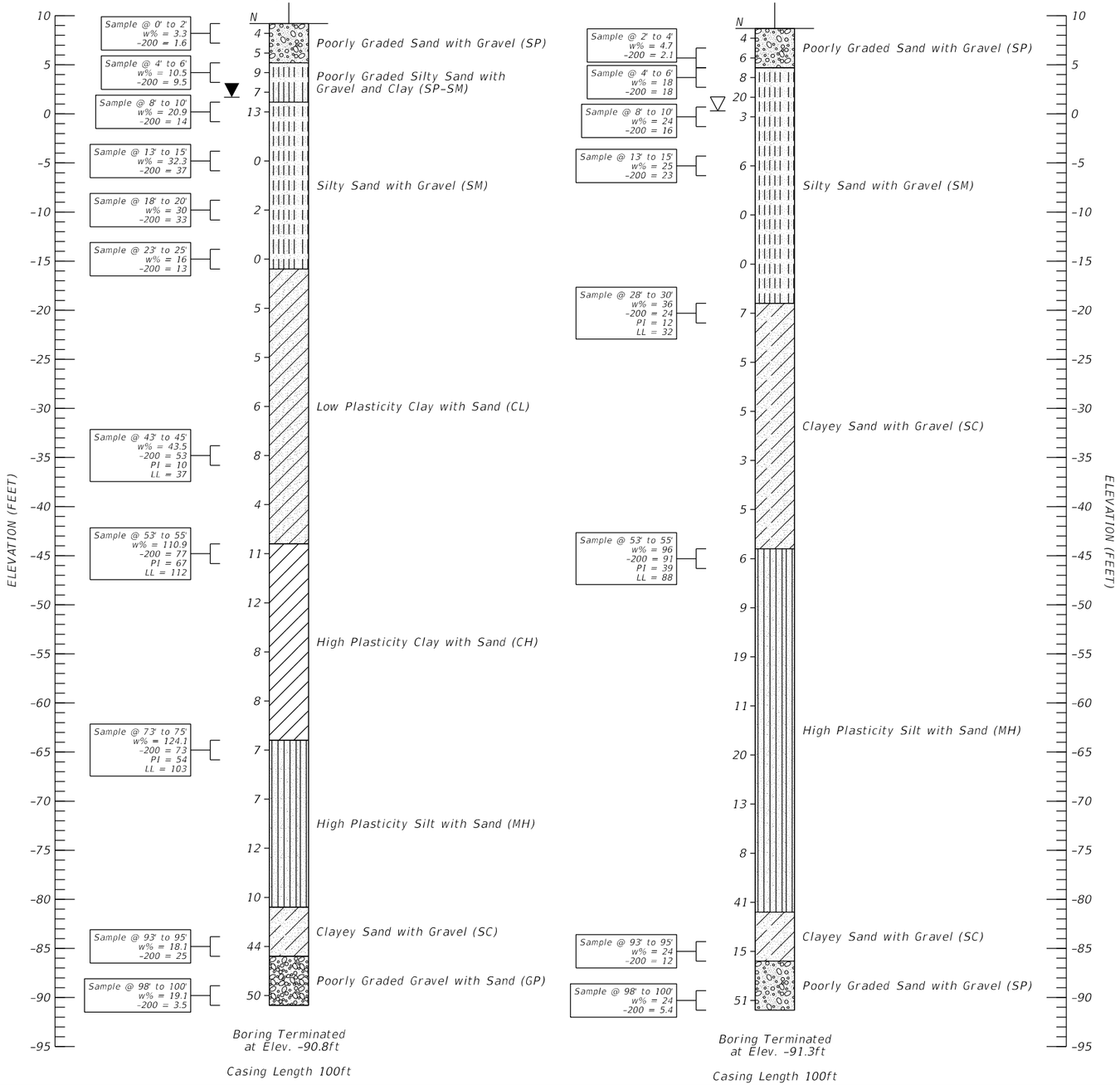

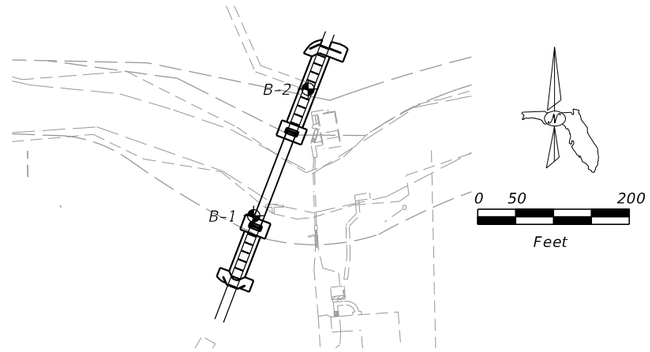

BORING LOCATION

LEGEND

- Gravelly SAND
- Silty SAND
- Sandy CLAY
- CLAY
- Sandy SILT
- Clayey SAND
- Sandy GRAVEL

⊕	APPROXIMATE SPT BORING LOCATION
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
▽	WATER LEVEL MEASURED ON DATE BORING INITIATED
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
w	MOISTURE CONTENT
-200	PERCENT PASSING THE NO. 200 STANDARD SIEVE

GRANULAR MATERIALS		
RELATIVE DENSITY	SAFETY HAMMER SPT N-VALUE (BLOW/FOOT)	AUTOMATIC HAMMER SPT N-VALUE (BLOW/FOOT)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 - 10	3 - 8
MEDIUM DENSE	10 - 30	8 - 24
DENSE	30 - 50	24 - 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40

SILTS AND CLAYS		
CONSISTENCY	SAFETY HAMMER SPT N-VALUE (BLOW/FOOT)	AUTOMATIC HAMMER SPT N-VALUE (BLOW/FOOT)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 - 4	1 - 3
FIRM	4 - 8	3 - 6
STIFF	8 - 15	6 - 12
VERY STIFF	15 - 30	12 - 24
HARD	GREATER THAN 30	GREATER THAN 24

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: REPORT OF CORE BORINGS

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

REF. DWG. NO.

SHEET NO. 14

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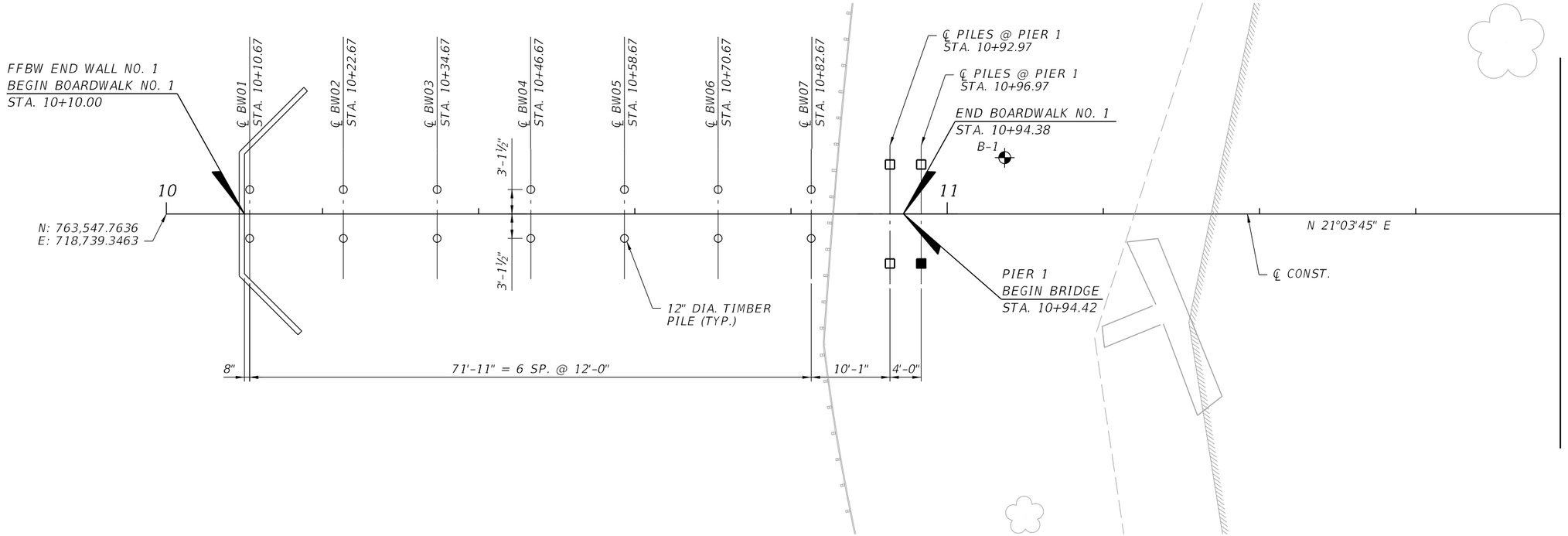

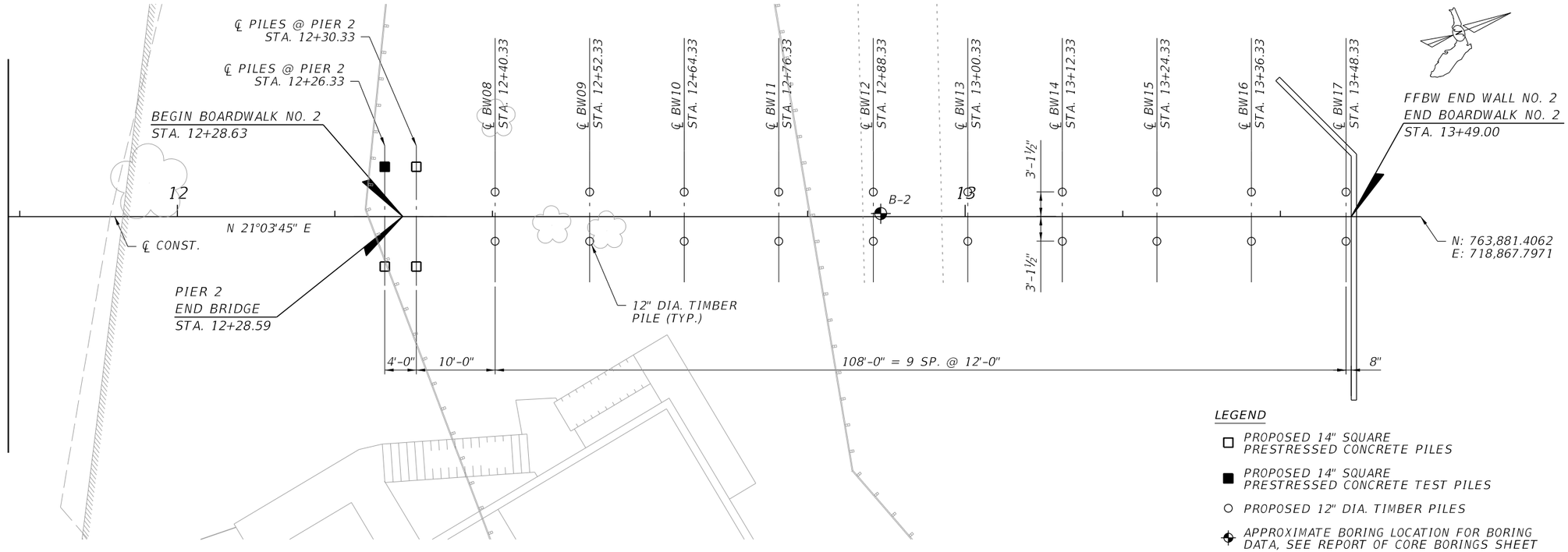

LEGEND

- PROPOSED 14" SQUARE PRESTRESSED CONCRETE PILES
- PROPOSED 14" SQUARE PRESTRESSED CONCRETE TEST PILES
- PROPOSED 12" DIA. TIMBER PILES
- APPROXIMATE BORING LOCATION FOR BORING DATA, SEE REPORT OF CORE BORINGS SHEET

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: FOUNDATION LAYOUT

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 15

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PILE DATA TABLE

Table Date 01/01/16

INSTALLATION CRITERIA									DESIGN CRITERIA								PILE CUT-OFF ELEVATIONS					
PIER or BENT NUMBER	PILE SIZE (in.)	NOMINAL BEARING RESISTANCE (tons)	NOMINAL UPLIFT RESISTANCE (tons)	MINIMUM TIP ELEVATION (ft.)	TEST PILE LENGTH (ft.)	ORDER PILE LENGTH (ft.)	REQUIRED JET ELEVATION (ft.)	REQUIRED PREFORM ELEVATION (ft.)	FACTORED DESIGN LOAD (tons)	FACTORED DESIGN UPLIFT LOAD (tons)	DOWN DRAG (tons)	TOTAL SCOUR RESISTANCE (tons)	NET SCOUR RESISTANCE (tons)	100-YEAR SCOUR ELEVATION (ft.)	Ø COMPRESSION	Ø UPLIFT	PILE 1	PILE 2	PILE 3	PILE 4		
PIER 1	14 *	69	N/A	-19	60	N/A	N/A	N/A	45	N/A	N/A	N/A	N/A	N/A	0.65	N/A	6.3	6.3	6.3	6.3		
PIER 2	14 *	71	N/A	-24	60	N/A	N/A	N/A	46	N/A	N/A	N/A	N/A	N/A	0.65	N/A	2.2	2.2	2.2	2.2		
TIMBER BOARDWALK	12 **	8	N/A	10 ***	N/A	30	N/A	N/A	5	N/A	N/A	N/A	N/A	N/A	0.65	N/A	SEE NOTE 4					

* 14" SQUARE PRESTRESSED CONCRETE PILES
** 12" DIA. TIMBER PILES
*** MINIMUM TIP ELEVATION REPORTED AS LENGTH OF PENETRATION BELOW EXISTING GRADE

$$\frac{\text{Factored Design Load} + \text{Net Scour Resistance} + \text{Down Drag}}{\text{Ø}} \leq \text{Nominal Bearing Resistance}$$

UPLIFT RESISTANCE – The ultimate side friction capacity that must be obtained below the 100 year scour elevation to resist pullout of the pile (Specify only when design requires uplift capacity).

TOTAL SCOUR RESISTANCE – An estimate of the ultimate static side friction resistance provided by the scourable soil.

NET SCOUR RESISTANCE – An estimate of the ultimate static side friction resistance provided by the soil from the required preformed or jetting elevation to the scour elevation.

100-YEAR SCOUR ELEVATION – Estimated elevation of scour due to the 100 year storm event.

PILE INSTALLATION NOTES:

1. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO ANY PILE INSTALLATION ACTIVITIES.
2. MINIMUM TIP ELEVATION IS REQUIRED FOR LATERAL STABILITY AT ALL LOCATIONS AND SHALL MEET THE REQUIREMENTS OF FDOT SPECIFICATIONS SECTION 455.
3. NO JETTING WILL BE ALLOWED WITHOUT APPROVAL OF THE ENGINEER.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF TIMBER PILE CUT-OFF ELEVATIONS AND SELECTED PILE DRIVING HAMMER TO EOR FOR APPROVAL PRIOR TO DRIVING PILES.
5. DURING INSTALLATION OF FOUNDATIONS, PROTECT AND MONITOR EXISTING STRUCTURES IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 455-1.1.
6. ALL TEST PILES SHALL BE DYNAMICALLY MONITORED IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 455.
7. TEST PILES SHALL BE DRIVEN IN POSITION OF A PERMANENT PLUMB PILE AT LOCATIONS SHOWN ON THE FOUNDATION LAYOUT SHEET OR AS DIRECTED BY THE ENGINEER.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
		PRELIMINARY NOT FOR CONSTRUCTION			

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VILLAGE OF ESTERO

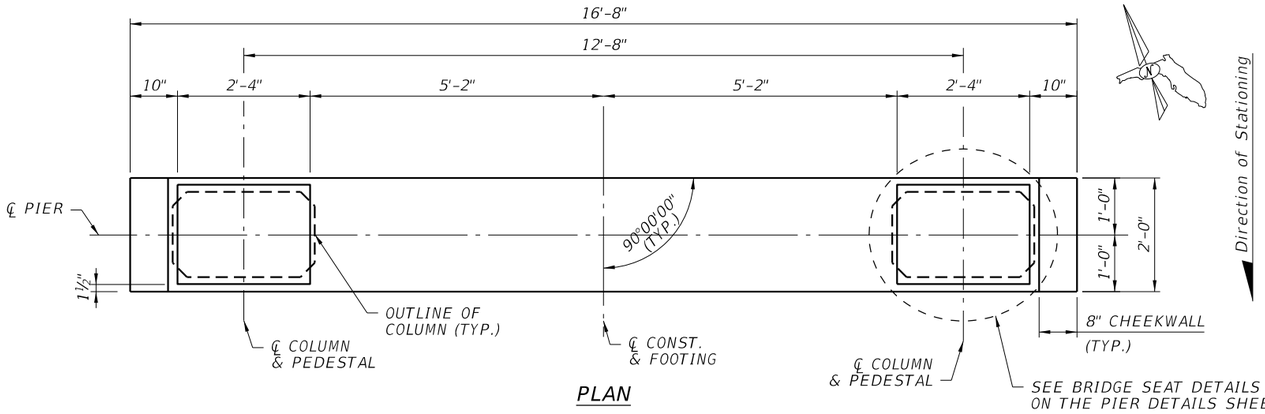
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PILE DATA TABLE

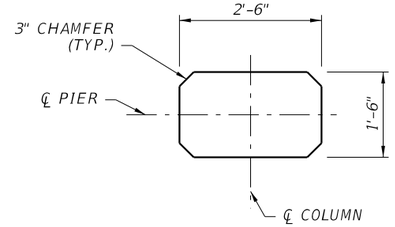
REF. DWG. NO.

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

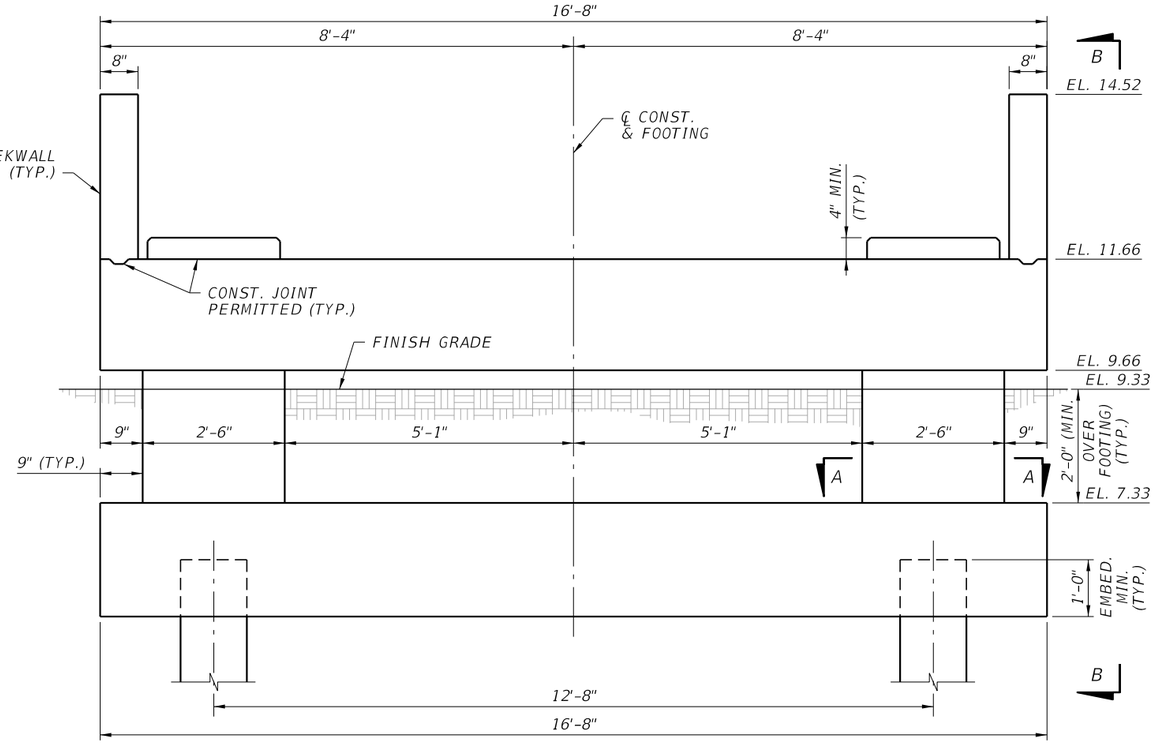
SHEET NO. 16



PLAN

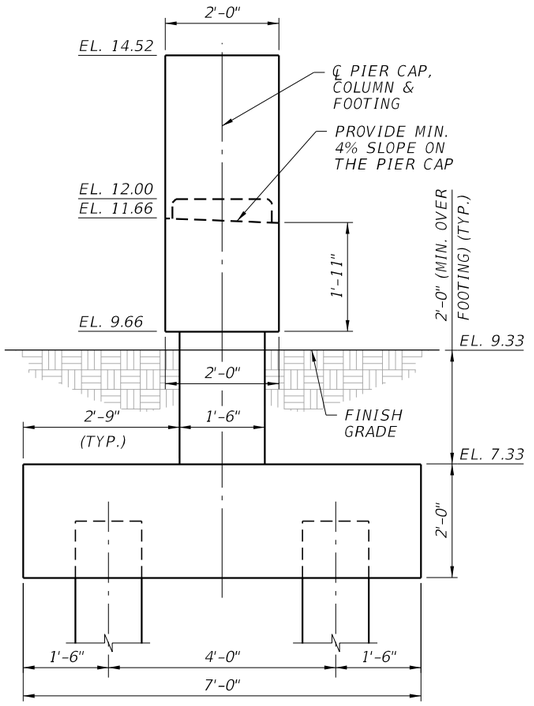


SECTION A-A



ELEVATION

LOOKING BACK STATION



SECTION B-B

Direction of Stationing

NOTES:
1. WORK THIS SHEET WITH FOUNDATION LAYOUT AND FOOTING DETAILS SHEET FOR DIMENSION, DETAILS, AND PILE LAYOUTS.
2. DIMENSIONS AND ELEVATIONS ARE TAKEN ALONG THE PIER CENTERLINE, UNLESS NOTED OTHERWISE.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY NOT FOR CONSTRUCTION

THOMAS M. WAITS, P.E.
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VILLAGE OF ESTERO

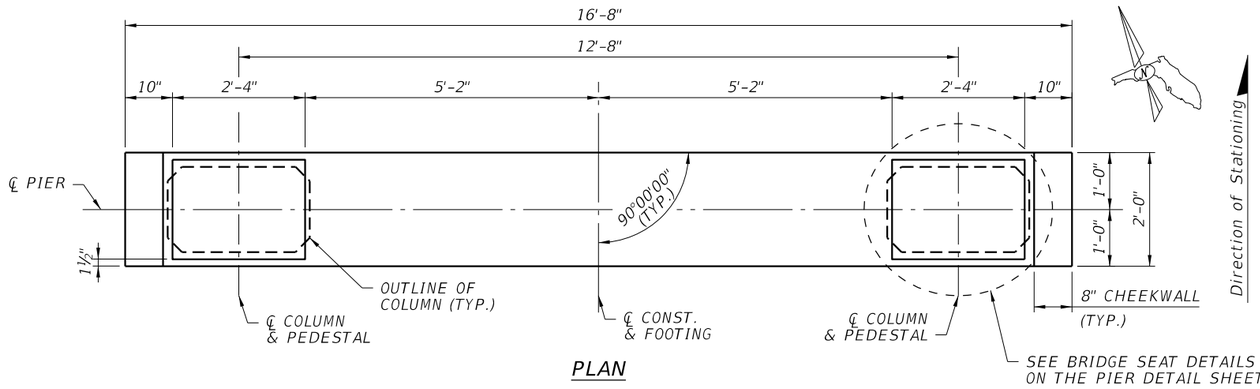
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PIER 1 PLAN & ELEVATION

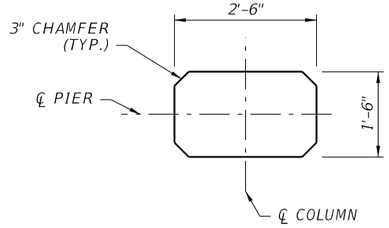
REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

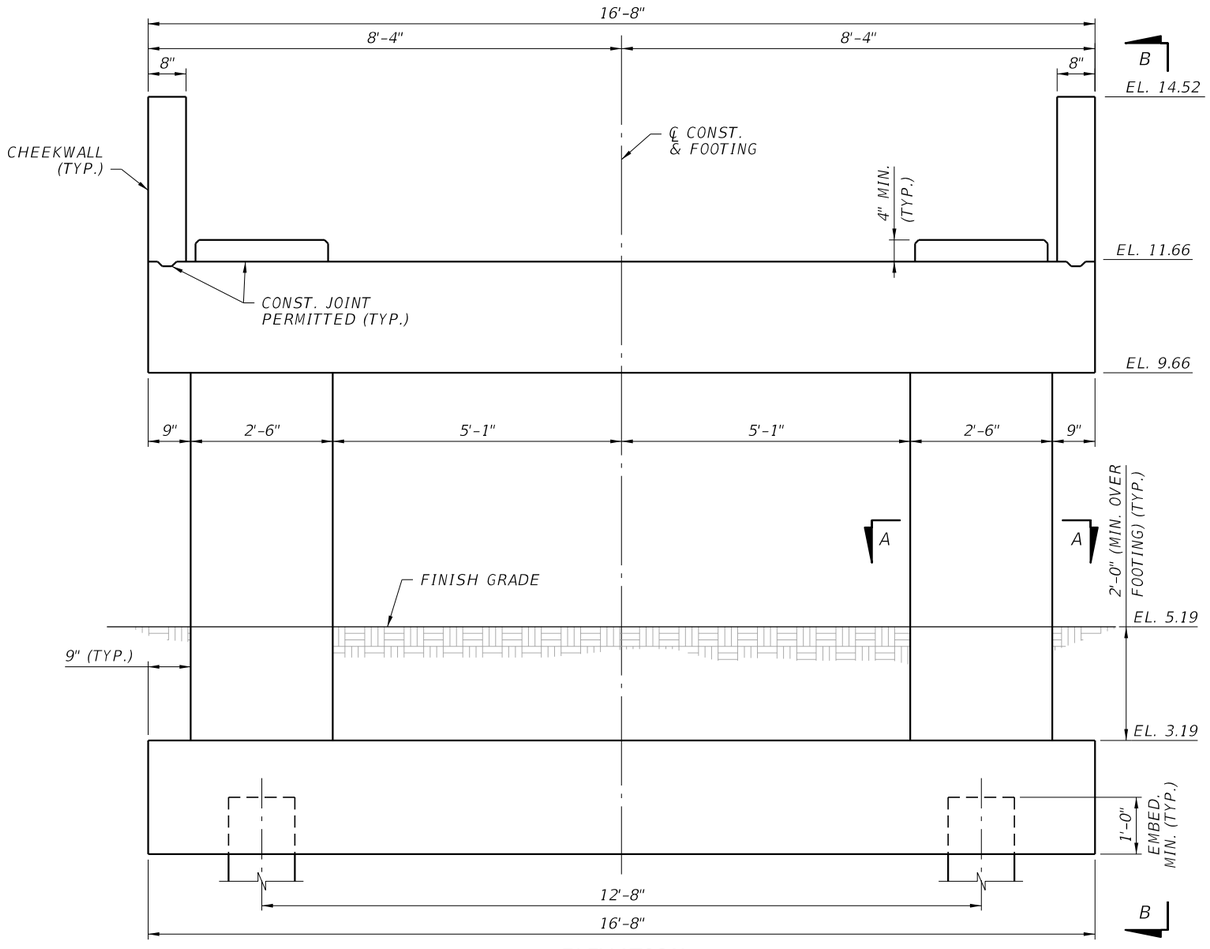
SHEET NO.: 17



PLAN

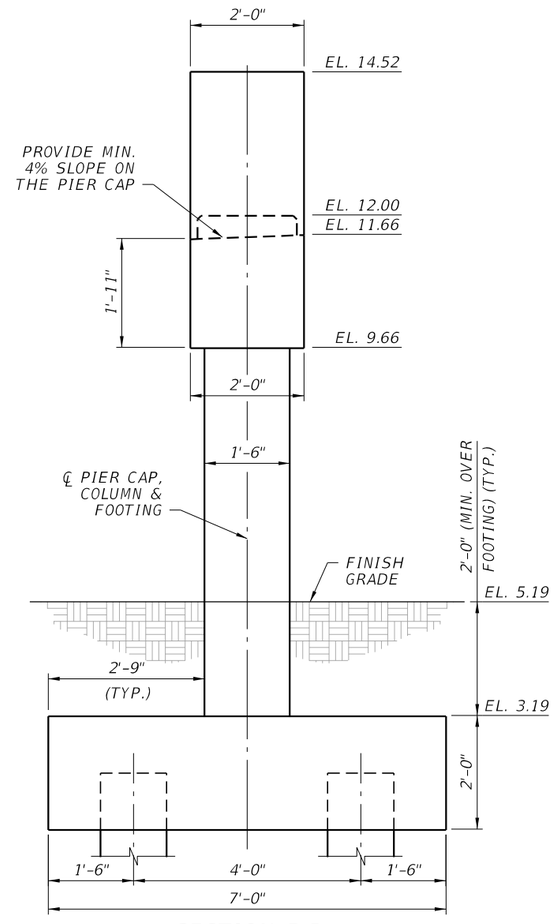


SECTION A-A



ELEVATION

LOOKING AHEAD STATION



SECTION B-B

Direction of Stationing

NOTES:
1. WORK THIS SHEET WITH FOUNDATION LAYOUT AND FOOTING DETAILS SHEET FOR DIMENSION, DETAILS, AND PILE LAYOUTS.
2. DIMENSIONS AND ELEVATIONS ARE TAKEN ALONG THE PIER CENTERLINE, UNLESS NOTED OTHERWISE.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PIER 2 PLAN & ELEVATION

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 18

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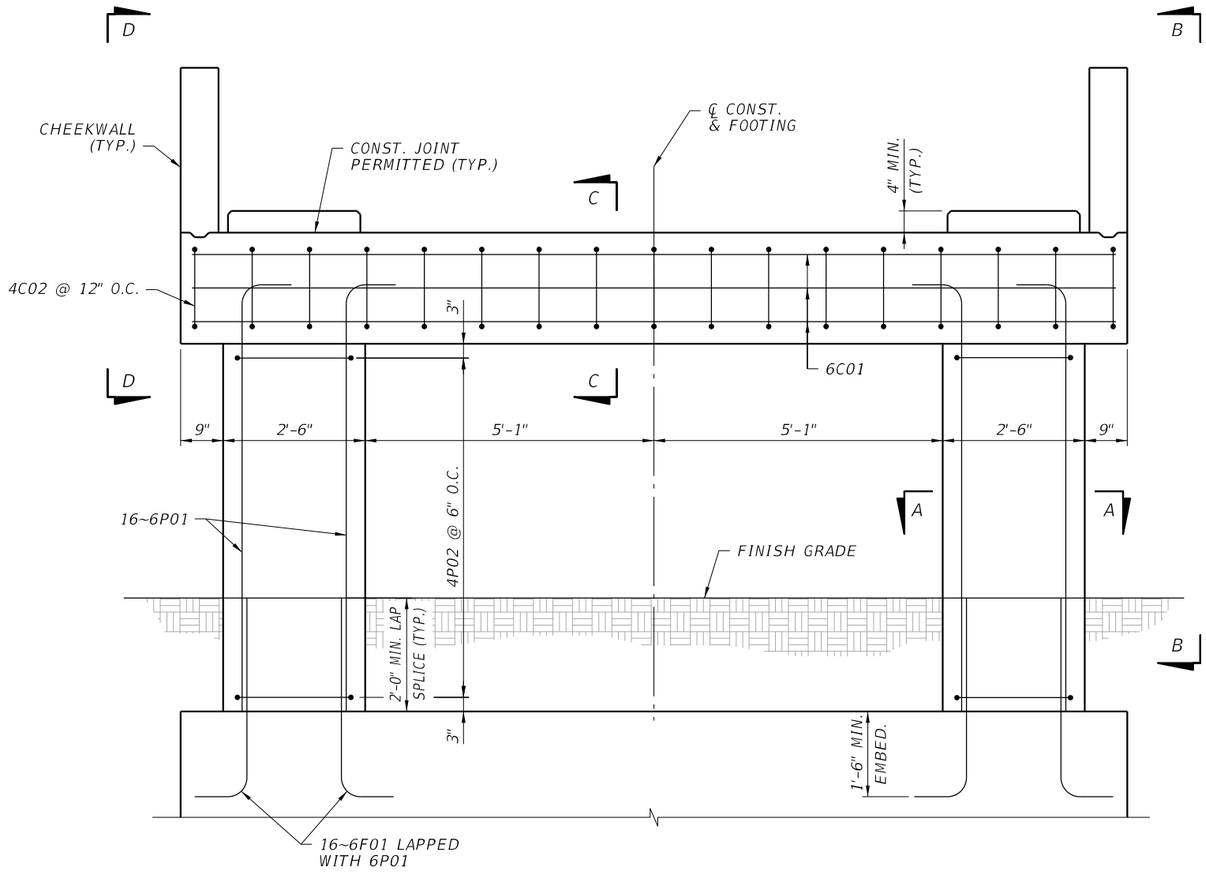
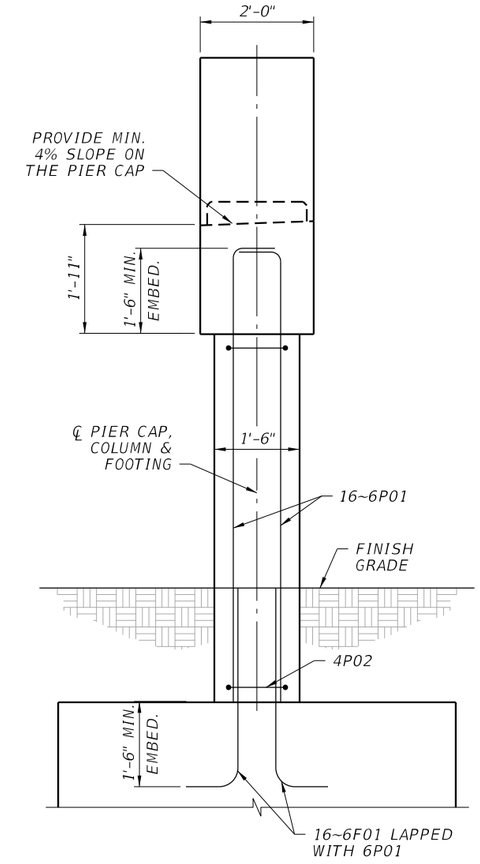


ELEVATION
(PIER 2 SHOWN, PIER 1 SIMILAR)



SECTION B-B

NOTES:
1. ROTATE 6F01 AND 6P01 BARS AS NECESSARY TO MAINTAIN REQUIRED COVER FROM THE CONCRETE EDGE AND PILE FACE.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
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VILLAGE OF ESTERO

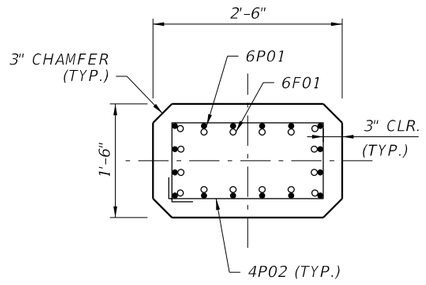
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PIER DETAILS (1 OF 3)

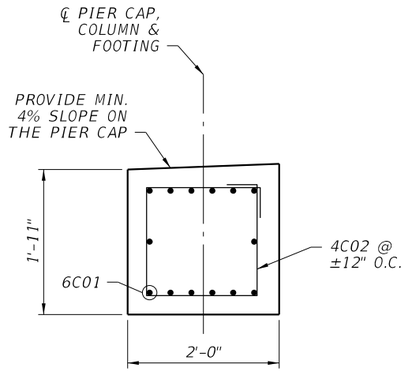
REF. DWG. NO.

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO. 19



SECTION A-A



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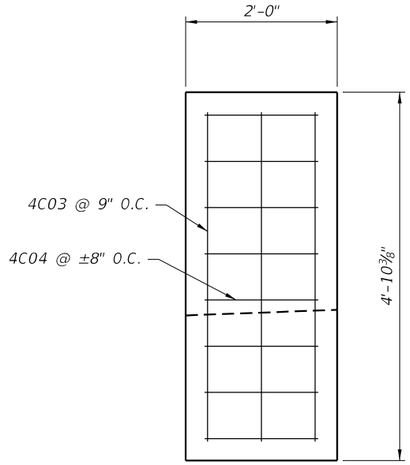

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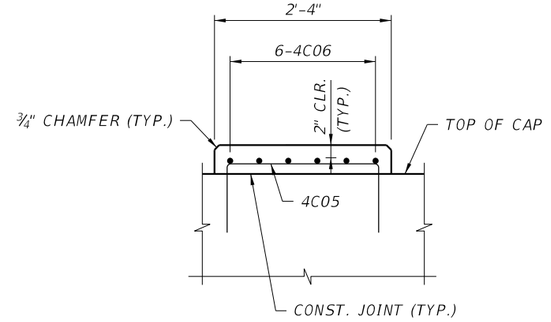

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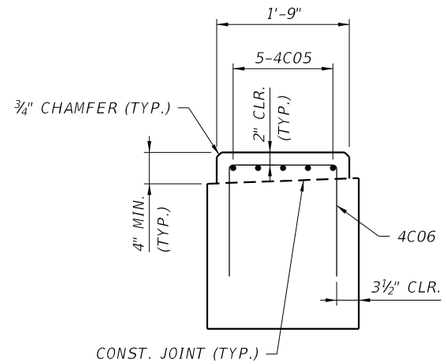

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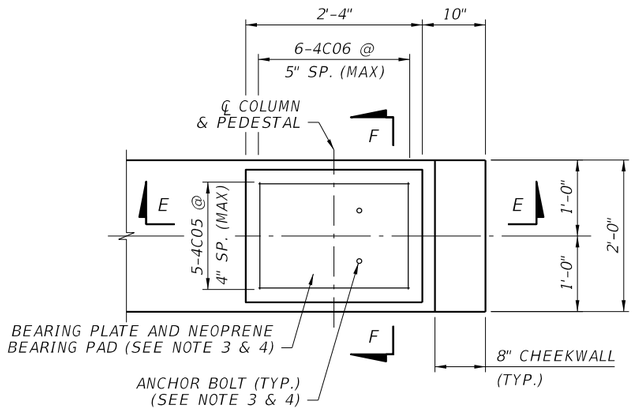

BRIDGE SEAT DETAILS

(PIER REINFORCEMENT NOT SHOWN FOR CLARITY)

NOTES:

1. ADJUST TOP OF BRIDGE SEAT ELEVATIONS TO ACCOMMODATE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE BEARING CONFIGURATION. SUBMIT FINAL TOP OF BRIDGE SEAT ELEVATIONS WITH SIGN AND SEALED PREFABRICATED STEEL TRUSS SHOP DRAWINGS AND CALCULATIONS FOR REVIEW AND APPROVAL.
2. IN THE VICINITY OF THE CONSTRUCTION JOINT, FIELD BEND REINFORCEMENT AS NECESSARY TO MAINTAIN MINIMUM REINFORCEMENT COVER.
3. NUMBERS AND LOCATIONS OF ANCHOR BOLTS SHALL BE DETERMINED BY THE STEEL TRUSS BRIDGE FABRICATOR. SUBMIT NUMBERS AND LOCATIONS OF ANCHOR BOLTS WITH SIGNED AND SEALED PREFABRICATED STEEL TRUSS SHOP DRAWINGS AND CALCULATIONS FOR REVIEW AND APPROVAL.
4. BEARING PAD, BEARING PLATE, AND ANCHOR BOLTS ARE TO BE DESIGNED AND DETAILED BY BRIDGE FABRICATOR. MEMBERS SHALL BE SIZED TO ACCOMMODATE SUBSTRUCTURE CONFIGURATION.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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VILLAGE OF ESTERO

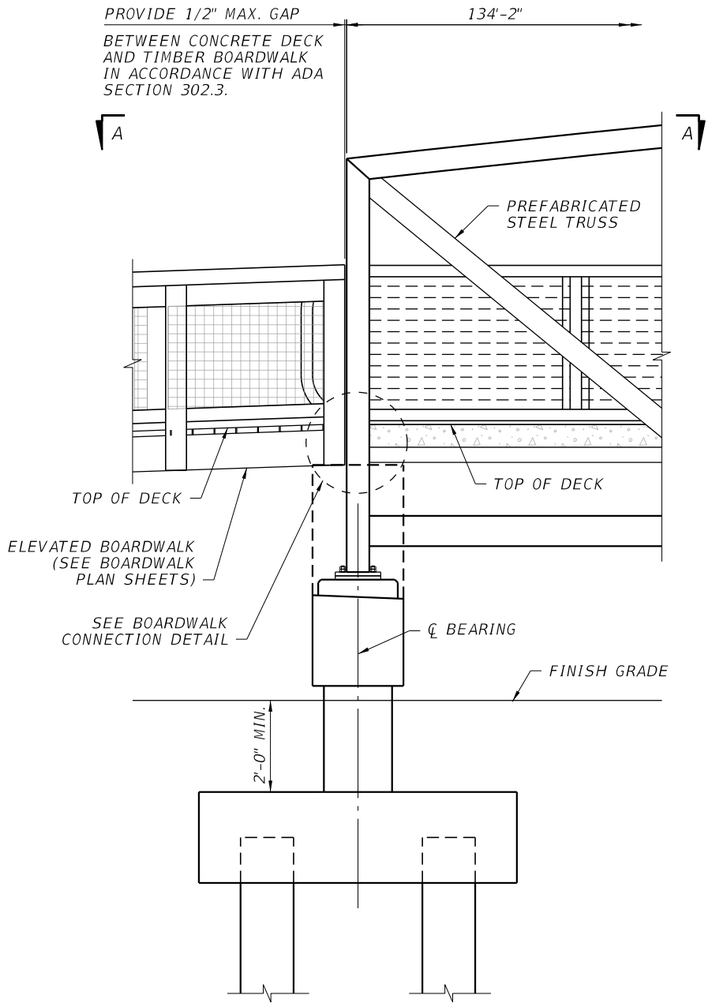
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PIER DETAILS (2 OF 3)

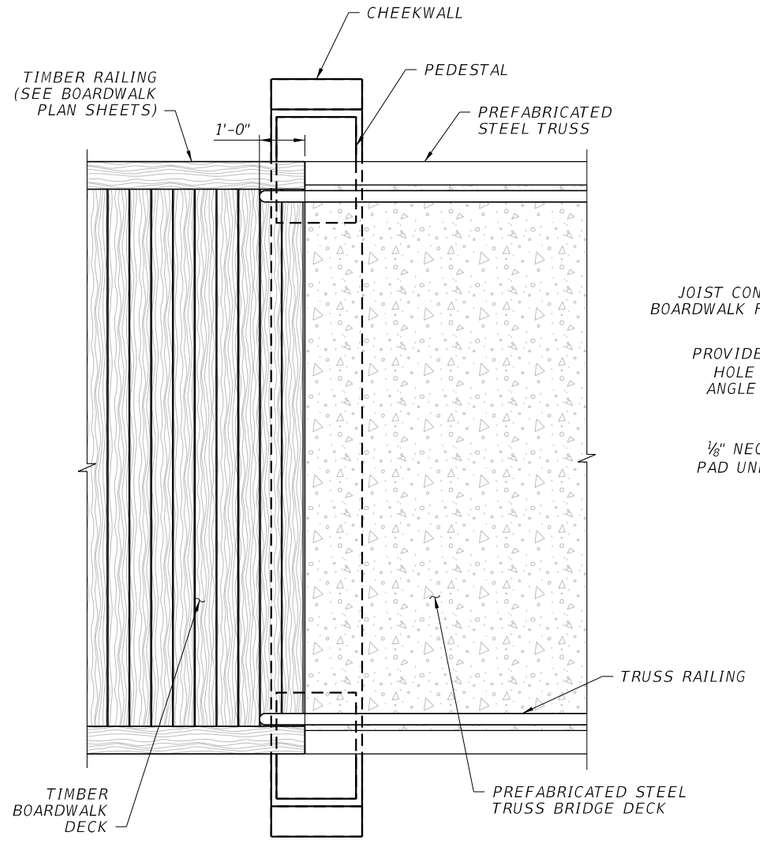
REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

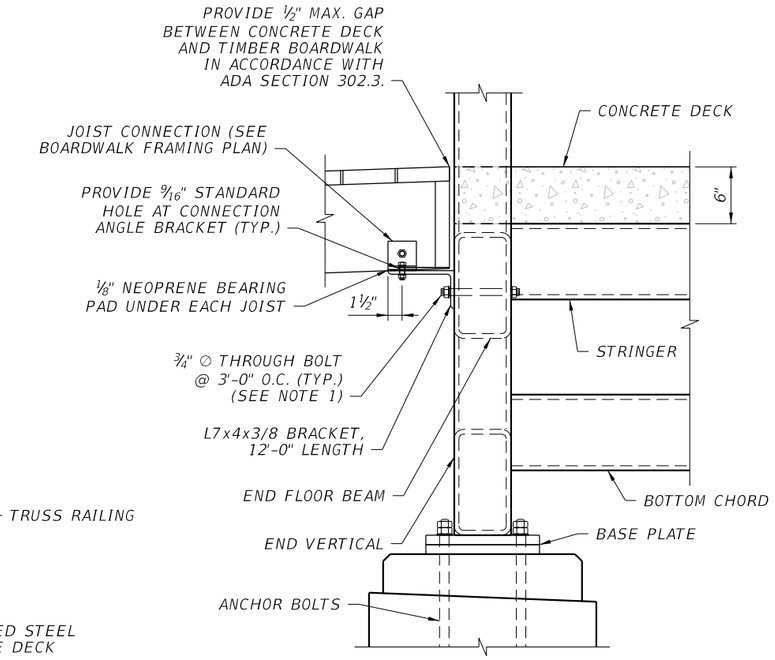
SHEET NO.: 20



BEGIN BRIDGE ELEVATION VIEW



SECTION A-A



BOARDWALK CONNECTION DETAIL AT BEGIN AND END BRIDGE

NOTES:
1. THE BRIDGE FABRICATOR SHALL ACCOMMODATE A BOARDWALK CONNECTION AT THE BEGIN AND END OF THE BRIDGE. THE BRIDGE FABRICATOR MAY PROVIDE AN ALTERNATE DESIGN AND DETAILS FOR THE BOARDWALK CONNECTION TO THE STEEL TRUSS. SEE PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE GENERAL NOTES FOR BOARDWALK LOADS ON ANGLE BRACKET. SUBMIT CONNECTION DESIGN WITH SIGNED AND SEALED PREFABRICATED STEEL TRUSS SHOP DRAWINGS AND CALCULATIONS FOR REVIEW AND APPROVAL.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
NOT FOR CONSTRUCTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460
HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
FORT MYERS, FL 33901

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CHECKED BY:	TMW 09/23
DESIGNED BY:	JAH 09/23
CHECKED BY:	TMW 09/23

VILLAGE OF ESTERO

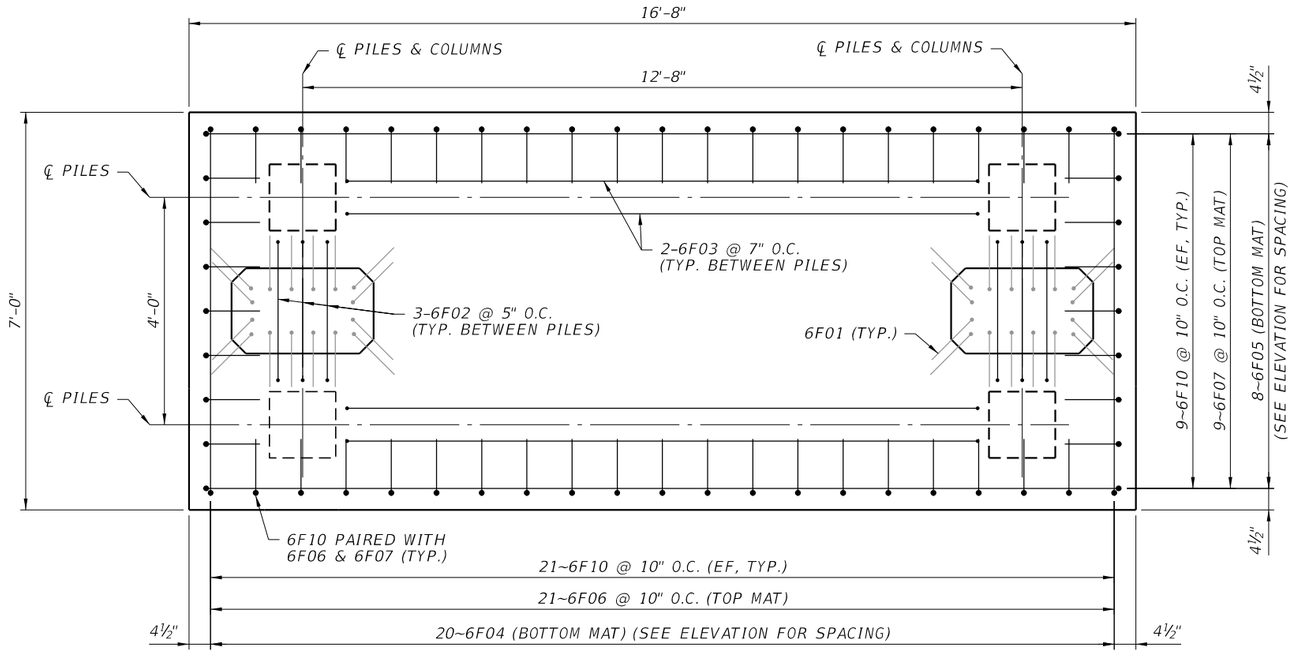
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: PIER DETAILS (3 OF 3)

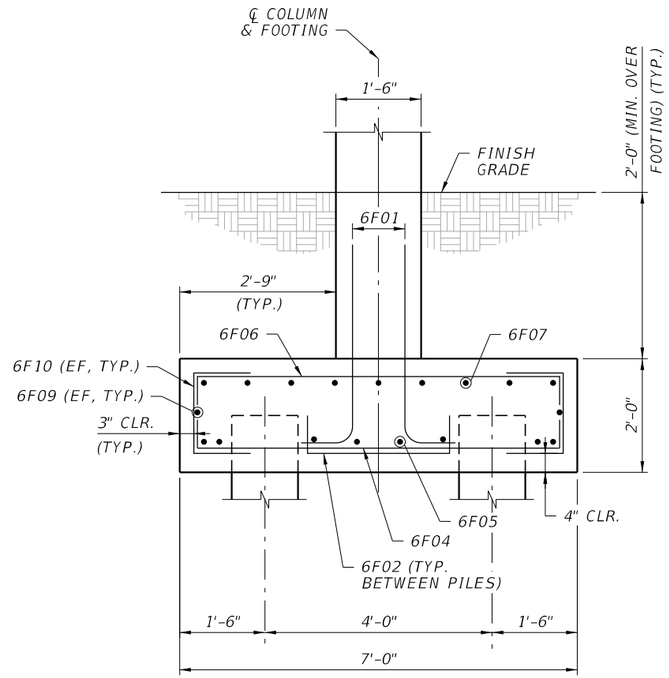
REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

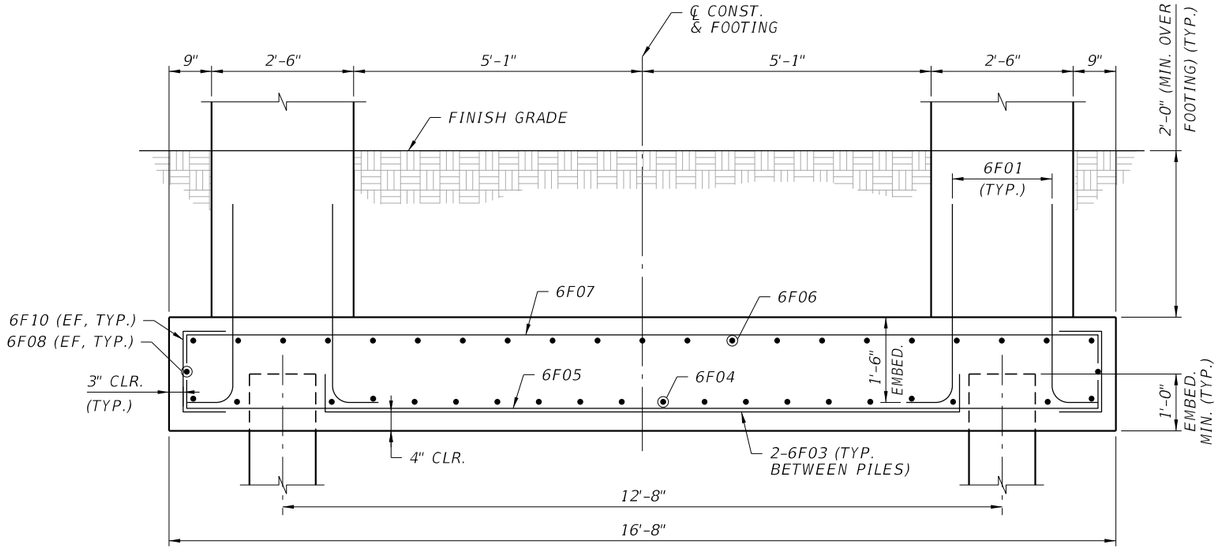
SHEET NO.: 21



PLAN



SIDE ELEVATION



ELEVATION

NOTES:
1. ROTATE 6F01 BARS AS NECESSARY TO MAINTAIN REQUIRED COVER FROM THE CONCRETE EDGE AND PILE FACE.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: FOOTING DETAILS

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 22

12/27/2023 12:27:29 PM Sabrina
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Mark		Length		No	TYP	STY		B		C		D		E		F		H		J		K		N	f
Size	Des	Ft	In	Bars	BAR	A	G	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	NO	ANG
PIER 1 AND 2 FOOTING																								No. Required = 2	
6	F01	4'-6"		32	17	3		3'-6"																	
6	F02	4'-6"		6	18	3	3	2'-6"																	
6	F03	13'-2"		4	18	3	3	11'-2"																	
6	F04	8'-6"		20	18	3	3	6'-6"																	
6	F05	18'-2"		8	18	3	3	16'-2"																	
6	F06	8'-6"		21	18	3	3	6'-6"																	
6	F07	18'-2"		9	18	3	3	16'-2"																	
6	F08	8'-6"		2	18	3	3	6'-6"																	
6	F09	18'-2"		2	18	3	3	16'-2"																	
6	F10	3'-5"		60	18	3	3	1'-5"																	
PIER 1 AND 2 CAP																								No. Required = 2	
6	C01	16'-2"		14	1			16'-2"																	
4	C02	6'-7"		17	4	5	5	1'-5"		1'-6"															
4	C03	4'-4"		6	1			4'-4"																	
4	C04	1'-6"		16	1			1'-6"																	
4	C05	4'-4"		10	11			1'-2"		2'-0"		1'-2"													
4	C06	3'-9"		12	11			1'-2"		1'-5"		1'-2"													
PIER 1 COLUMN																								No. Required = 2	
6	P01	4'-10"		16	17	3		3'-10"																	
4	P02	6'-9"		5	4	5	5	2'-0"		1'-0"															
PIER 2 COLUMN																								No. Required = 2	
6	P01	9'-0"		16	17	3		8'-0"																	
4	P02	6'-9"		13	4	5	5	2'-0"		1'-0"															
Note:																									

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
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DESIGNED BY: JAH 09/23
CHECKED BY: TMW 09/23

VILLAGE OF ESTERO

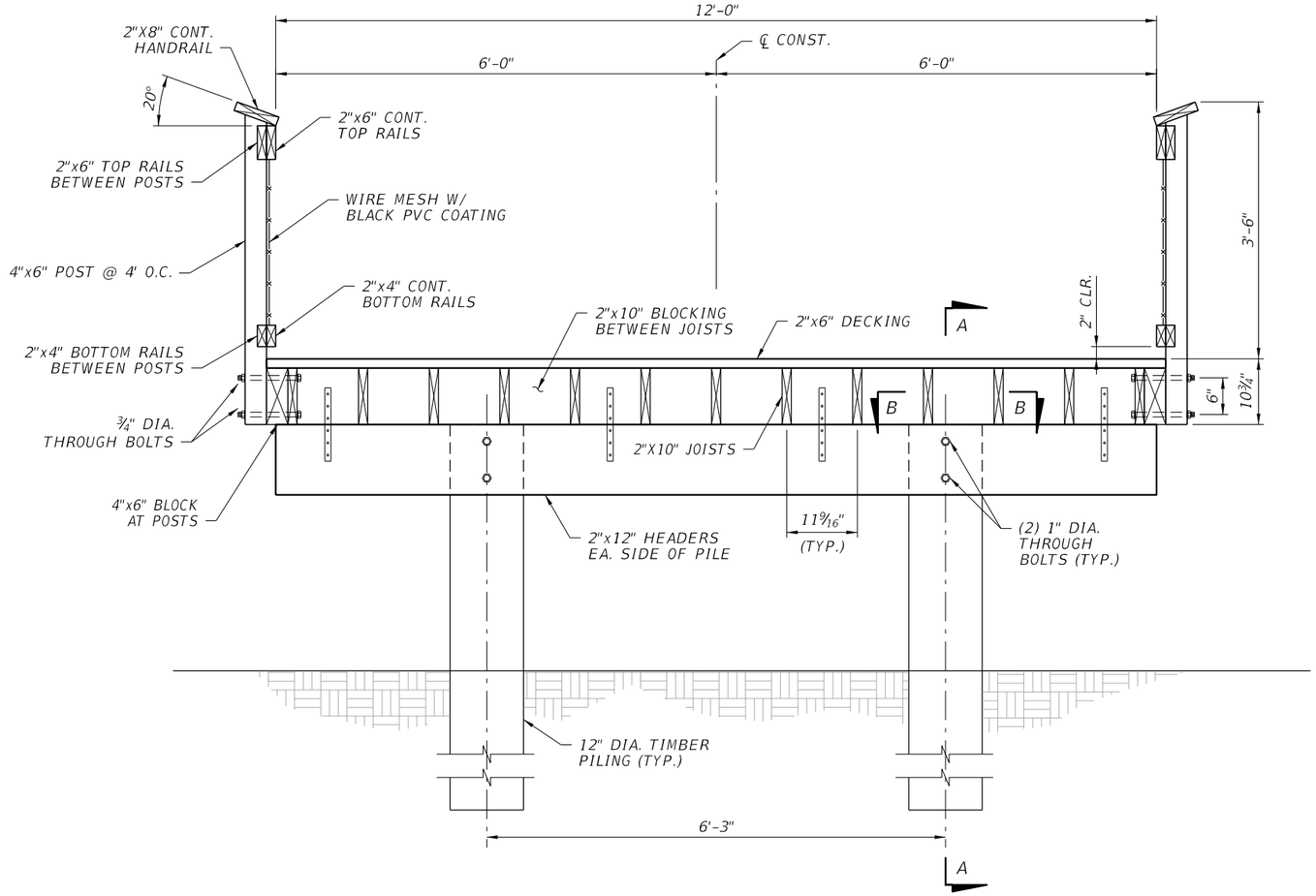
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: REINFORCING BAR LIST

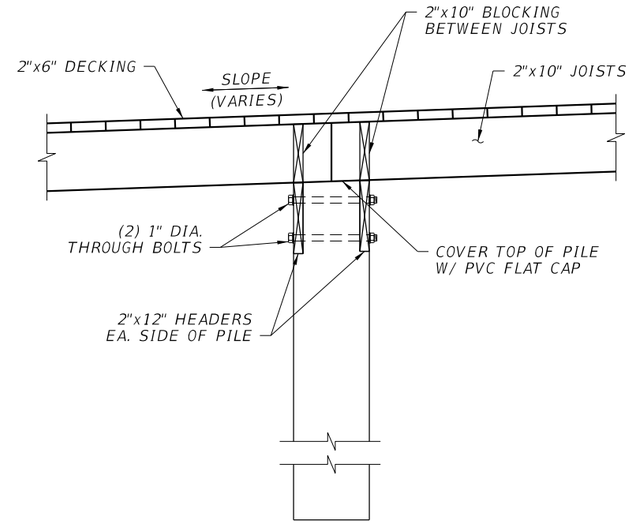
PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

REF. DWG. NO.

SHEET NO. 23



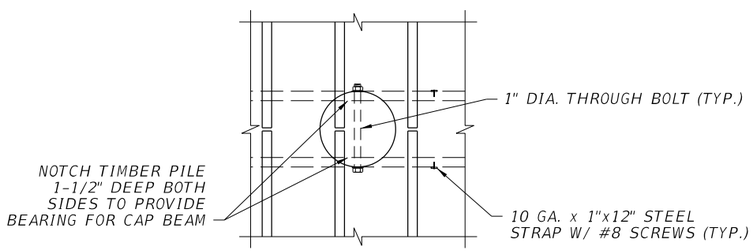
BOARDWALK TYPICAL SECTION



SECTION A-A

TABLE OF ELEVATIONS BOARDWALK	
BOARDWALK NUMBER *	TOP OF BOARDWALK HEADER
BW01	11.637
BW02	12.052
BW03	12.467
BW04	12.882
BW05	13.297
BW06	13.712
BW07	14.128
BW08	14.202
BW09	13.864
BW10	13.525
BW11	13.186
BW12	12.847
BW13	12.508
BW14	12.169
BW15	11.831
BW16	11.492
BW17	11.153

* SEE FOUNDATION LAYOUT SHEET



SECTION B-B

NOTES:
1. ATTACH ALL RAILING BOARDS TO RAILING POST WITH GRIP-RITE #9x3" WOOD CONSTRUCTION SCREW W/ PREDRILLING TIP, PRIMEGUARD PLUS COATING SPACED AT 6" O.C.
2. ATTACH WIRE MESH TO RAILING BOARDS WITH GRIP-RITE #8x1¼" WOOD CONSTRUCTION SCREW W/ PREDRILLING TIP, PRIMEGUARD PLUS COATING SPACED AT 6" O.C.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY NOT FOR CONSTRUCTION

THOMAS M. WAITS, P.E.
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: BOARDWALK TYPICAL SECTION

REF. DWG. NO.:

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

SHEET NO.: 24

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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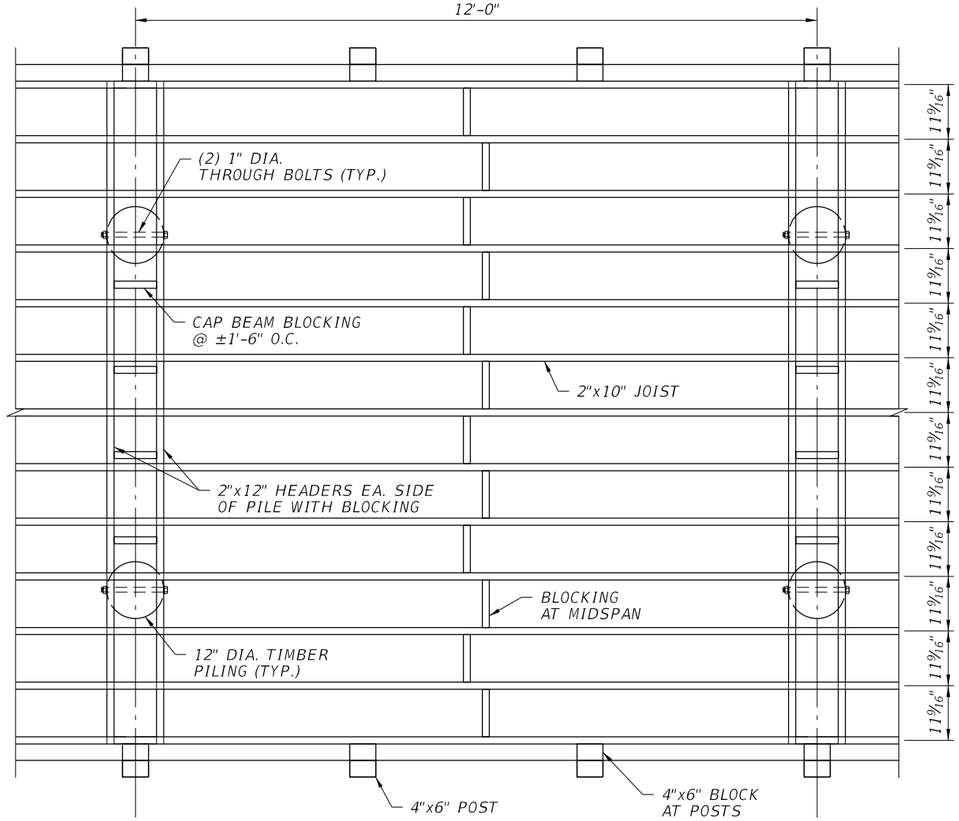
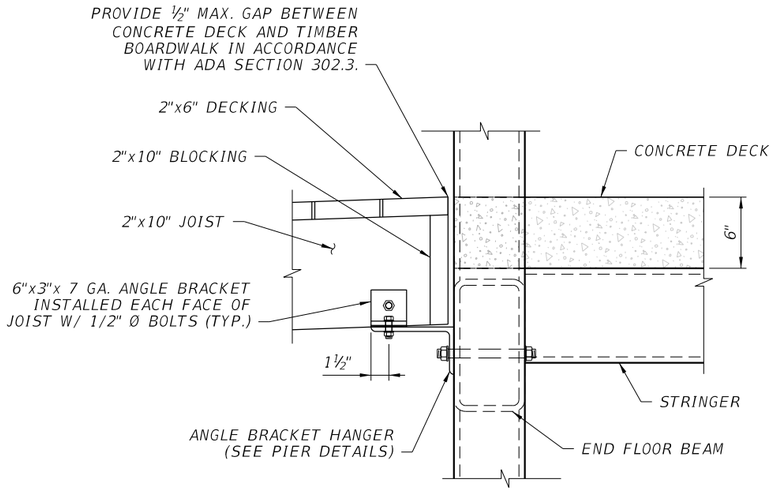
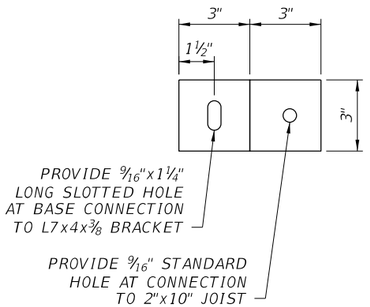


BOARDWALK FRAMING PLAN

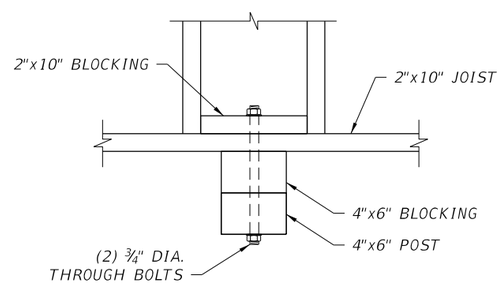


BOARDWALK CONNECTION DETAIL AT BEGIN AND END BRIDGE



JOIST BRACKET DETAIL

MATERIALS LIST	
PILES	12" DIA SYP ASTM D25, 2.5 CCA
HEADERS	2" x 12" x 12' SYP GRADE NO. 1, S4S 0.60 CCA
JOIST	2" x 10" x 12' SYP GRADE NO. 1, S4S 0.60 CCA
BLOCKING	2" x 10" SYP GRADE NO. 1, S4S 0.60 CCA
DECKING	2" x 6" x 12' SYP GRADE NO. 1, S4S 0.60 CCA
RAIL POST	4" x 6" SYP GRADE NO. 1, S4S 0.60 CCA
HAND RAIL	2" x 8" SYP GRADE NO. 1, S4S 0.60 CCA
TOP RAIL BOARDS	2" x 6" SYP GRADE NO. 1, S4S 0.60 CCA
BOTTOM RAIL BOARDS	2" x 4" SYP GRADE NO. 1, S4S 0.60 CCA
RAILING MESH	WWF GAUGE 10.5, 1.5" x 1.5" W/ BLACK PVC COATING



RIM JOIST TO RAILING POST CONNECTION AT INTERMEDIATE SUPPORTS

CONNECTOR AND FASTENER SCHEDULE		
CONNECTION LOCATION	TYPE	NUMBER OF FASTENERS PER CONNECTION
PILE TO CAP BEAM	1" DIAM HEX BOLT AND NUT, HDG W/ WASHERS, GRADE 2	2
BLOCKING CONNECTIONS	GRK RUGGED STRUCTURAL SCREW 5/16" X 6" W/ WASHSERS	3
DECKING TO JOIST	GRIPE RIGHT 3" X #9 WOOD CONSTRUCTION SCREW W/ PREDRILLING TIP, PRIMEGUARD PLUS COATING	2
POST TO RIM JOIST	3/4" DIAM HEX BOLT AND NUT, HDG W/ WASHERS, GRADE 2	2
BOARDWALK TO BRIDGE	(2) 7 GA. x 6" x 3" GALVANIZED STEEL ANGLE BRACKET W/ 1/2" DIAM HEX BOLTS AND NUTS, HDG W/ WASHERS, GRADE 2	SEE CONNECTION DETAILS
RAILING CONNECTIONS	SEE RAILING DETAILS FOR QUANTITY AND FASTENER TYPE	SEE RAILING DETAILS
STEEL STRAPS	10 GA. x 1" x 12" GALVANIZED STEEL PLATE W/ (6) GRIPE RIGHT #8 X 1 1/4" WOOD CONSTRUCTION SCREW W/ PREDRILLING TIP, PRIMEGUARD PLUS COATING	6

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY NOT FOR CONSTRUCTION

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DESIGNED BY: JAH 09/23
CHECKED BY: TMW 09/23

VILLAGE OF ESTERO

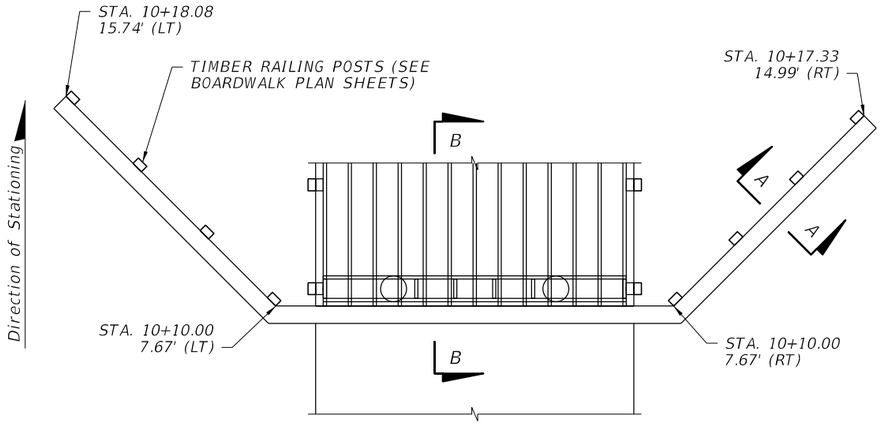
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: BOARDWALK FRAMING PLAN

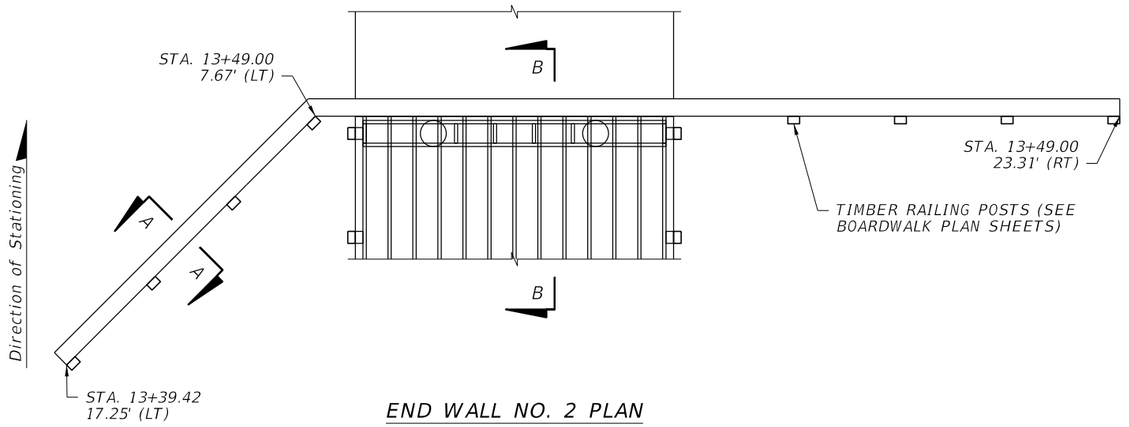
PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

REF. DWG. NO.

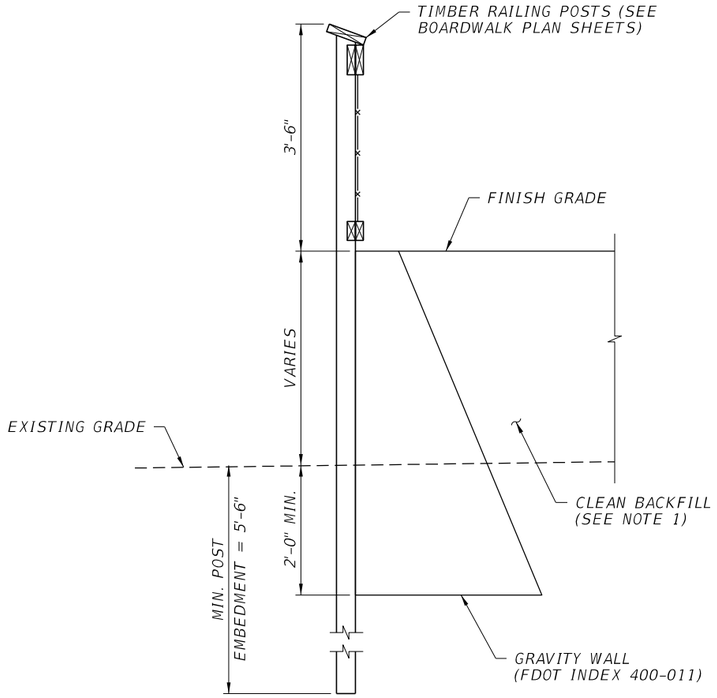
SHEET NO. 25



END WALL NO. 1 PLAN

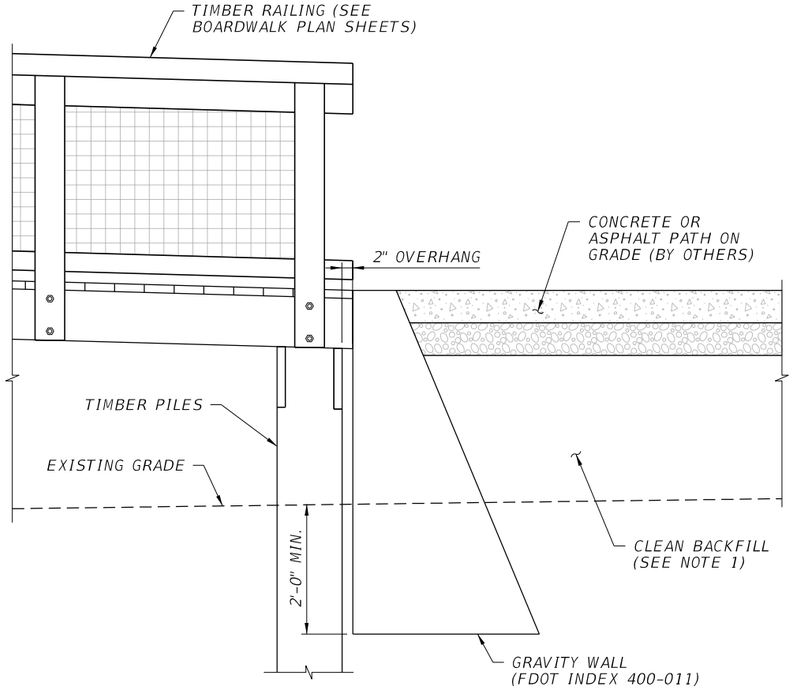


END WALL NO. 2 PLAN



SECTION A-A

TYPICAL SECTION ALONG GRAVITY WALL ABUTMENT



SECTION B-B

TYPICAL SECTION AT BEGIN AND END BOARDWALK

NOTES:
1. COMPACT THE SOIL BENEATH RETAINING WALL EXCAVATION WITH SUITABLE EQUIPMENT TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DENSITY AS DETERMINED BY FM 1-T180, FOR A MINIMUM DEPTH OF 2 FEET BELOW THE BOTTOM OF EXCAVATION BEFORE BACKFILLING BEGINS. PROVIDE CLEAN BACKFILL UP TO 6" BELOW THE FINISH GRADE WITHIN THE RETAINING WALL VOLUME.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

PRELIMINARY
NOT FOR CONSTRUCTION

THOMAS M. WAITS, P.E.
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JAH 09/23	TMW 09/23	JAH 09/23	TMW 09/23

VILLAGE OF ESTERO

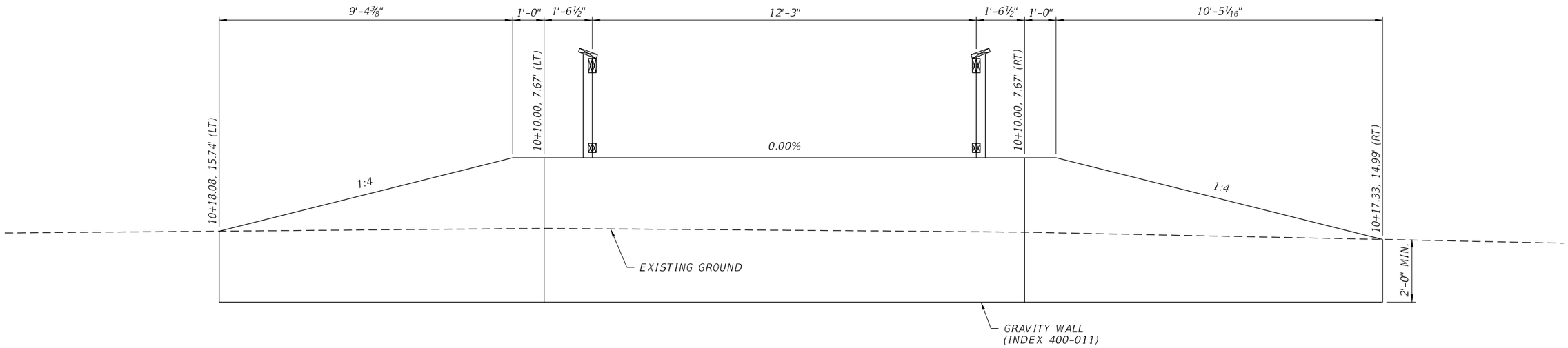
ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: ABUTMENT END TRANSITION

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

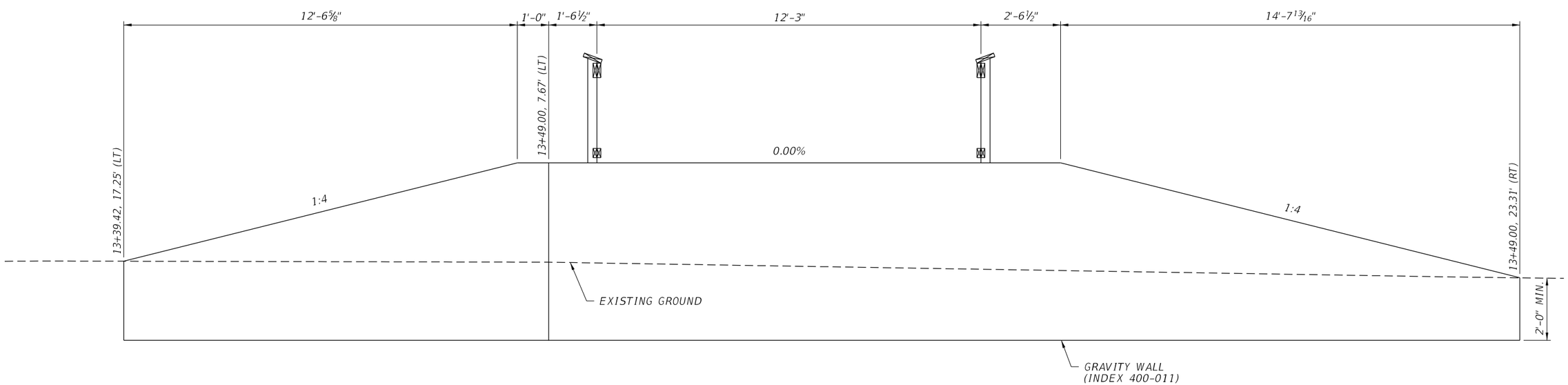
REF. DWG. NO.

SHEET NO. 26



END WALL NO. 1 ELEVATION

LOOKING AHEAD STATION
(WALL RAILINGS OMITTED FOR CLARITY)



END WALL NO. 2 ELEVATION

LOOKING AHEAD STATION
(WALL RAILINGS OMITTED FOR CLARITY)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
		PRELIMINARY NOT FOR CONSTRUCTION			

THOMAS M. WAITS, P.E.
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VILLAGE OF ESTERO

ROAD NO.	COUNTY	CONTRACT NO.
-	LEE	EC2022-41

SHEET TITLE: ABUTMENT END WALL ELEVATION

PROJECT NAME: ESTERO ON THE RIVER PEDESTRIAN BRIDGE

REF. DWG. NO.:

SHEET NO.: 27

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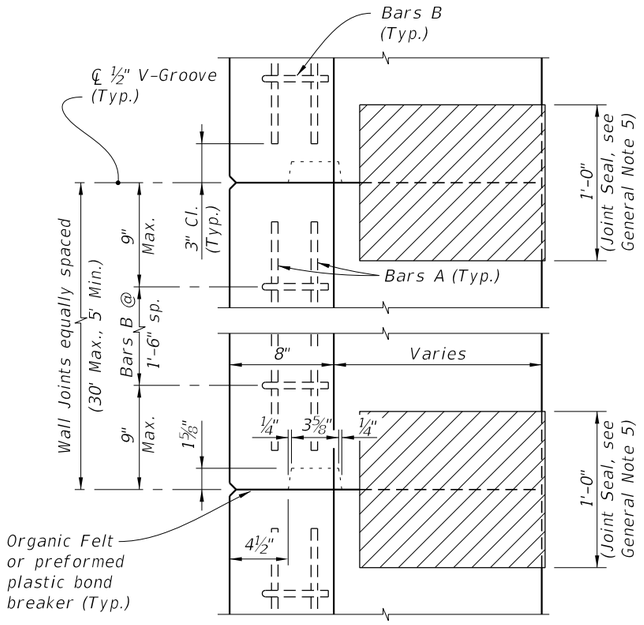
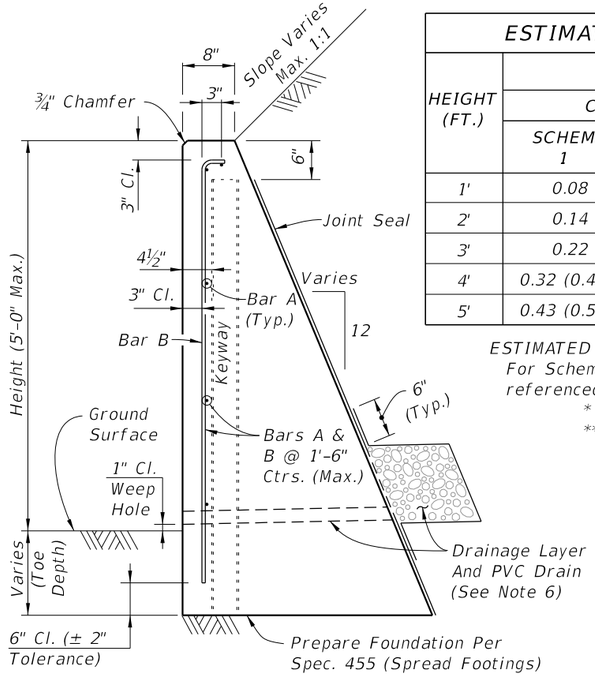


KEYWAY & WALL JOINT DETAIL
(TOP VIEW)



TYPICAL SECTION
C-I-P CONCRETE GRAVITY WALL

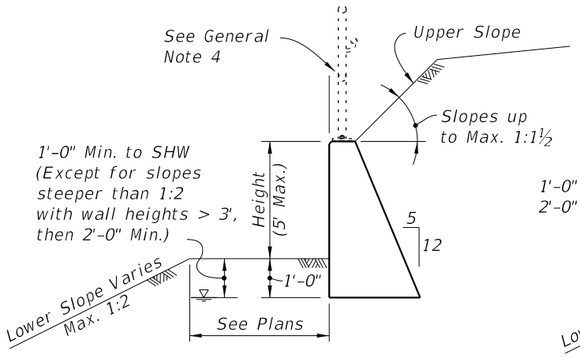
ESTIMATED QUANTITIES FOR C-I-P WALL

HEIGHT (FT.)	PER LINEAR FOOT OF WALL				WEEP HOLES & DRAIN REQD.
	CLASS NS CONCRETE (CY)			REINF. STEEL (LB.)	
	SCHEME 1	SCHEME 2	SCHEME 3**		
1'	0.08	0.11 (0.20*)	0.03	3 (4*)	No
2'	0.14	0.20 (0.32*)	0.09	4 (5*)	No
3'	0.22	0.32 (0.47*)	0.29	5 (6*)	Yes
4'	0.32 (0.43*)	0.47 (0.65*)	0.43	6 (7*)	Yes
5'	0.43 (0.55*)	0.65 (0.85*)	0.60	7 (8*)	Yes

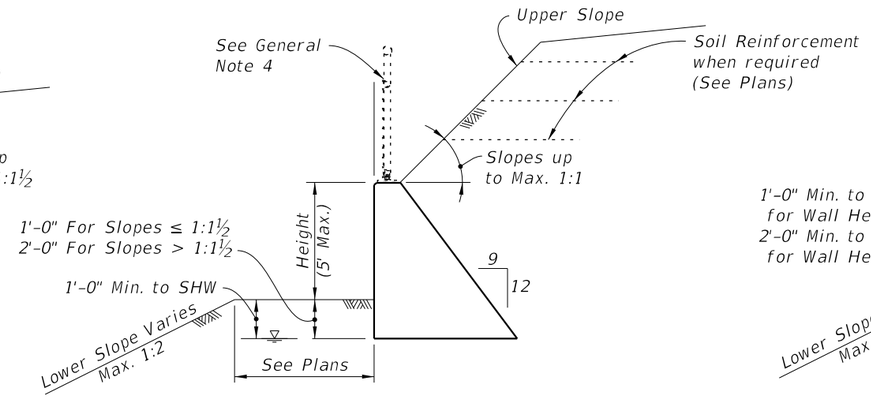
ESTIMATED QUANTITIES NOTES:
For Scheme 3 Junction Slab and Traffic Railing see the referenced Index for estimated quantities.
* Quantity for 2'-0" Toe Depth.
** Quantity for Scheme 3 assumes 1'-3" thick coping above Gravity Wall.

GENERAL NOTES

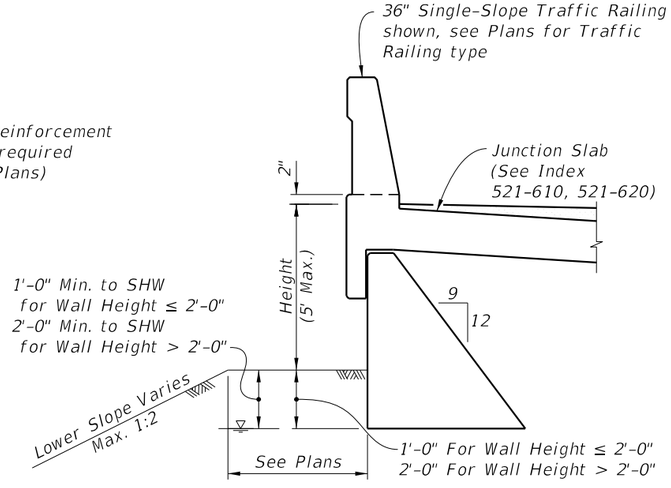
1. C-I-P Gravity Walls constructed as extensions of reinforced concrete retaining walls, except walls of proprietary designs, shall have the same face texture and finish as the reinforced concrete retaining wall.
2. Concrete for Gravity Wall shall be Class NS per Section 347. Concrete for Scheme 3 Junction Slab and Traffic Railing shall be Class II per Section 346, unless otherwise specified in the plans.
3. Reinforcing steel shall meet the requirements of Specification Section 931 (Grade 40 or 60). Smooth or Deformed Welded Wire Reinforcement (WWR) may be substituted on an equal area basis. Do not increase bar/wire spacing for Grade 60 reinforcing steel or WWR.
4. When required, for adjunct guiderail, see Index 515-070 or 515-080 as appropriate. For adjunct Type B fence see Index 550-002.
5. Joint Seal: Organic Felt bond breaker in accordance with Specification Section 400 or Type D-5 geotextile fabric in accordance with Specification Section 985. Mop all contact surfaces of concrete and Organic Felt or geotextile fabric with cut-back asphalt. Stop Organic Felt or geotextile fabric 6" below top of wall.
6. Provide a continuous 1'x1' clean gravel or crushed rock drain for wall heights 3 ft. and higher. Wrap drainage layer as shown, with Type D-3 geotextile fabric in accordance with Specification Section 985. Provide 8"x8" galvanized mesh with ¼" openings, at the inside end of the PVC Drain Pipe. Provide 2" Ø PVC Drain Pipe (Sch. 40) at 10 ft. max. spacing (when Drainage Layer is required). Locate outermost edge of Drain Pipe a minimum of 2'-0" from wall joints.
7. Cost of reinforcing steel, face texture, finish, joint seal, drain pipes, drainage layer, galvanized mesh and geotextile fabric to be included in the Contract Unit Price for Concrete Class NS, Gravity Wall. Cost of concrete for Junction Slab in Scheme 3, to be included in Contract Unit Price for Concrete Traffic Railing Barrier With Junction Slab. Adjunct railings or fences to be paid for separately.



SCHEME 1
(No Traffic Loading Effects &
Upper Slopes ≤ 1:1½)



SCHEME 2
(With Traffic Loading or
Upper Slopes > 1:1½)

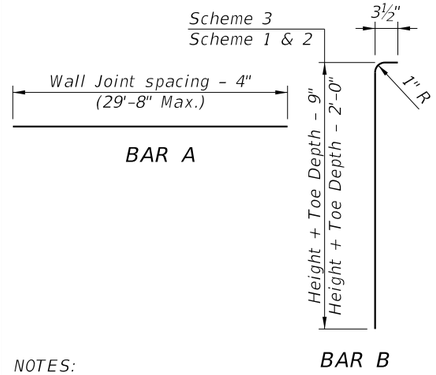


SCHEME 3
(With Traffic Railing)

BILL OF REINFORCING STEEL

MARK	SIZE	LENGTH
A	4	As Reqd.
B	4	As Reqd.

BAR BENDING DIAGRAM



NOTES:
1. All bar dimensions are out to out.
2. Lap splices for Bars A must be a minimum of 1'-10".

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10/6/2022

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	GRAVITY WALL	INDEX	SHEET
11/01/17					400-011	1 of 1