

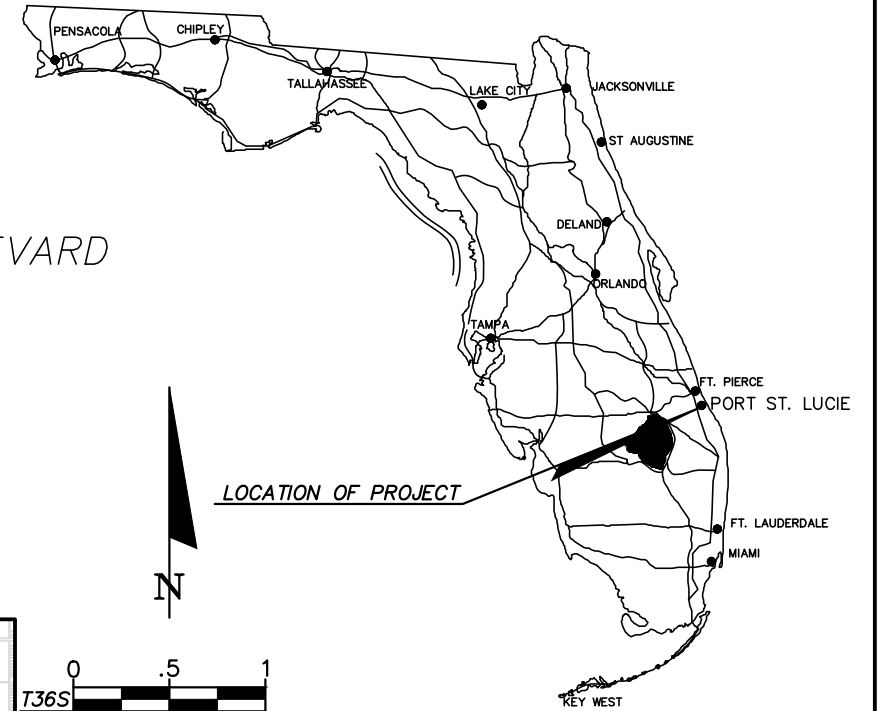


PLANS PREPARED FOR

**CITY OF PORT ST. LUCIE, FLORIDA  
ENGINEERING DEPARTMENT**

**CONTRACT PLANS**

**RIVERWALK SOUTH- BOARDWALK UNDER PORT ST. LUCIE BOULEVARD**



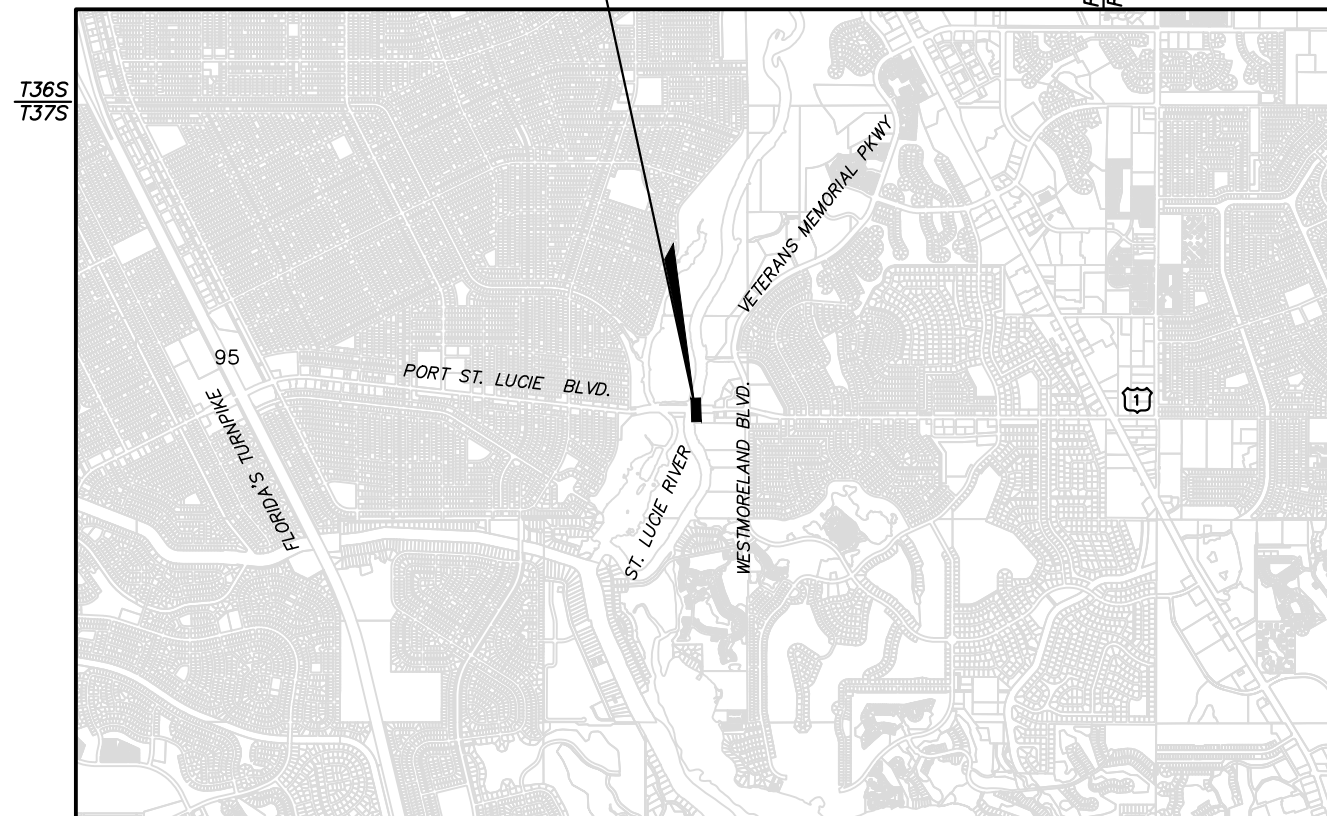
**COMPONENTS OF CONTRACT PLANS SET**

\* BOARDWALK & PEDESTRIAN BRIDGES CONSTRUCTION PLANS

**INDEX OF PLANS**

SHEET NO.	SHEET DESCRIPTION
1	COVER SHEET
2	LOCATION MAP
3-4	PLAN & PROFILE
5-6	SWPP DETAILS
7	SPECIFICATIONS
B1 TO 5	BRIDGE GENERAL DETAILS
B1-1 TO 6	BRIDGE 1 DETAILS
B2-1 TO 5	BRIDGE 2 DETAILS
S1 TO 5	BOARDWALK DETAILS

PROJECT LOCATION



LOCATION OF PROJECT

GOVERNING STANDARDS AND SPECIFICATIONS:  
FLORIDA DEPARTMENT OF TRANSPORTATION,  
DESIGN STANDARDS DATED MARCH 2020,  
AND STANDARD SPECIFICATIONS FOR ROAD  
AND BRIDGE CONSTRUCTION DATED 2020,  
AS AMENDED BY CONTRACT DOCUMENTS.

For Design Standards Modifications click on  
"Design Standards" at the following web site:  
<http://www.dot.state.fl.us/rdesign/>

CONSTRUCTION SHOP DRAWINGS  
TO BE SUBMITTED TO:

STEFAN K. MATTHES, PE  
CULPEPPER & TERPENING, INC.  
2980 SOUTH 25TH STREET  
FORT PIERCE, FLORIDA 34981

**CULPEPPER & TERPENING INC**  
2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA 34981  
PHONE 772-464-3537 • FAX 772-464-9497 • [www.ct-eng.com](http://www.ct-eng.com)  
STATE OF FLORIDA BOARD OF PROFESSIONAL  
ENGINEERS AUTHORIZATION NO. 4286

NOTE: THE SCALE OF THESE PLANS MAY  
HAVE CHANGED DUE TO REPRODUCTION.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

STEFAN K. MATTHES, PE  
2020.04.24

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED  
SIGNED AND SEALED AND THE SIGNATURE MUST BE  
VERIFIED ON ANY ELECTRONIC COPIES.

**LOCATION MAP**

SECTION 10 TOWNSHIP, 37 SOUTH, RANGE 40 EAST

SCALE: 1" = 5000'

LENGTH OF PROJECT		
	LIN. FT.	MILES
BOARDWALK	152 LF	0.029
BRIDGES	145 LF	0.027
NET LENGTH OF PROJ.	297 LF	0.056
EXCEPTIONS		
GROSS LENGTH OF PROJ.	297 LF	0.056

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

BOARDWALK PLANS  
ENGINEER OF RECORD: STEFAN K. MATTHES, P.E.  
SHEET 1-7 P.E. NO. : 38723

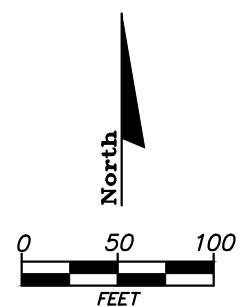
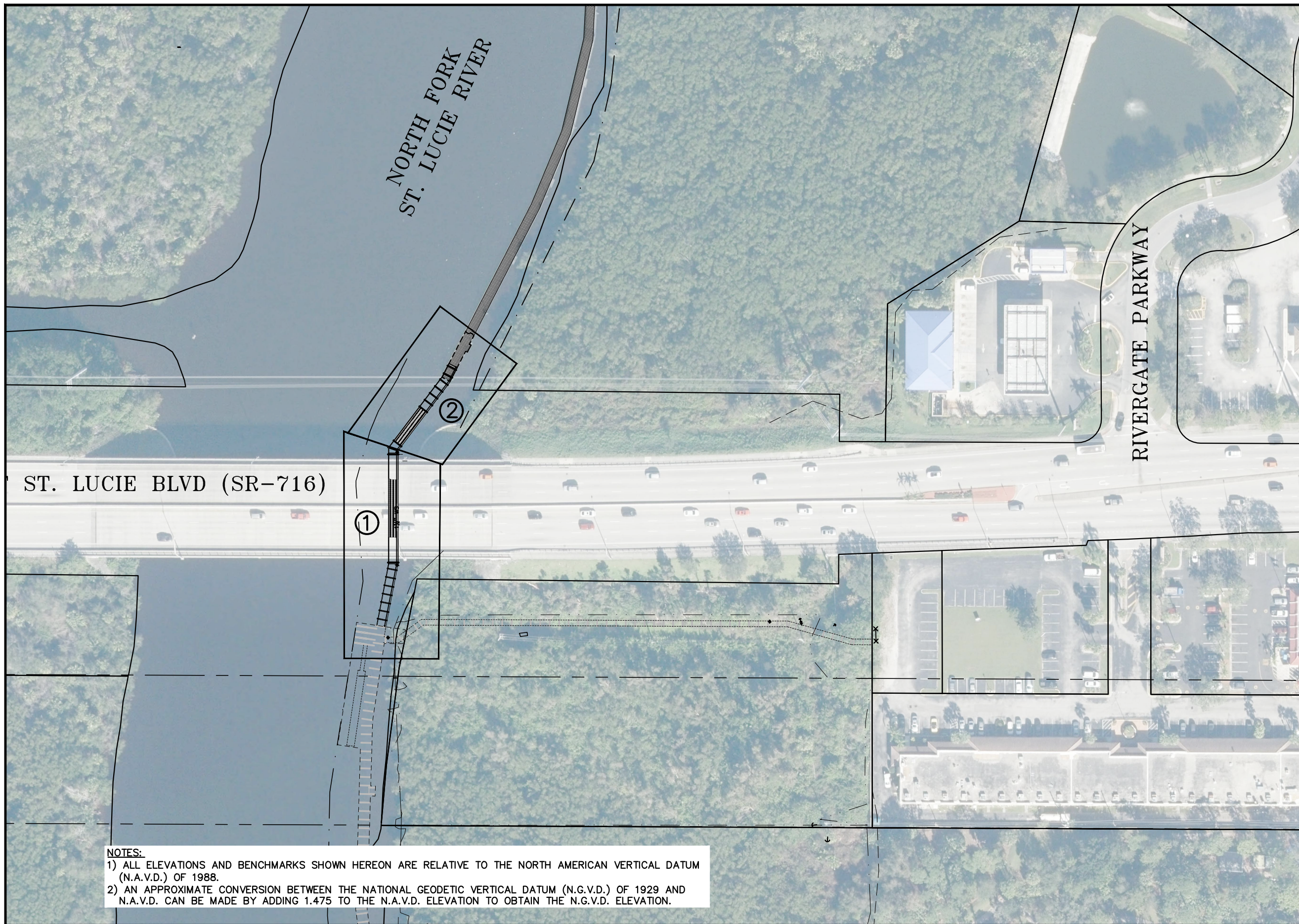
PRELIMINARY PLAN SET  
APRIL 24, 2020

FISCAL YEAR	SHEET NO.
20	1

PROJECT MANAGER: BRAD KEEN

C&T JOB NO.: 16-031.005

P:\Proj-2016\16-031.006\Eng\16-031.006 Base- Boardwalk North.dwg Plotted: 4/24/2020 12:10 PM By: KITHSRI UDUGAMA



**LEGEND**

② SHEET NUMBER

**NOTES:**  
 1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.  
 2) AN APPROXIMATE CONVERSION BETWEEN THE NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.) OF 1929 AND N.A.V.D. CAN BE MADE BY ADDING 1.475 TO THE N.A.V.D. ELEVATION TO OBTAIN THE N.G.V.D. ELEVATION.

STEFAN K. MATTHES, P.E.  
 FL. REG. NO. 38723

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

C&T JOB NO. 16-031.005  
 DESIGNED BY SKM 4-16-20 DRAWN BY KU 4-20-20  
 CHECKED BY SKM CHECKED BY SKM  
 ENGINEER OF RECORD:  
 STEFAN K. MATTHES, P.E. NO. 38723

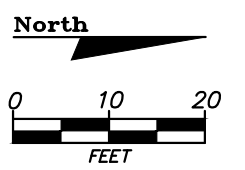
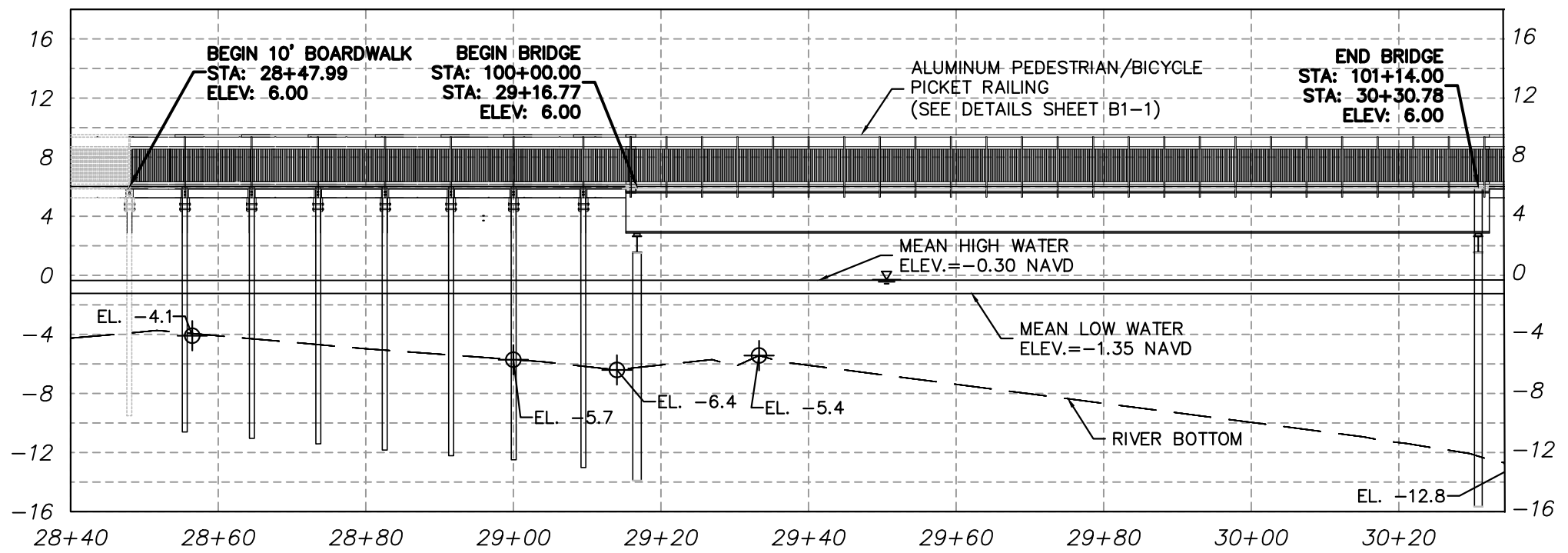
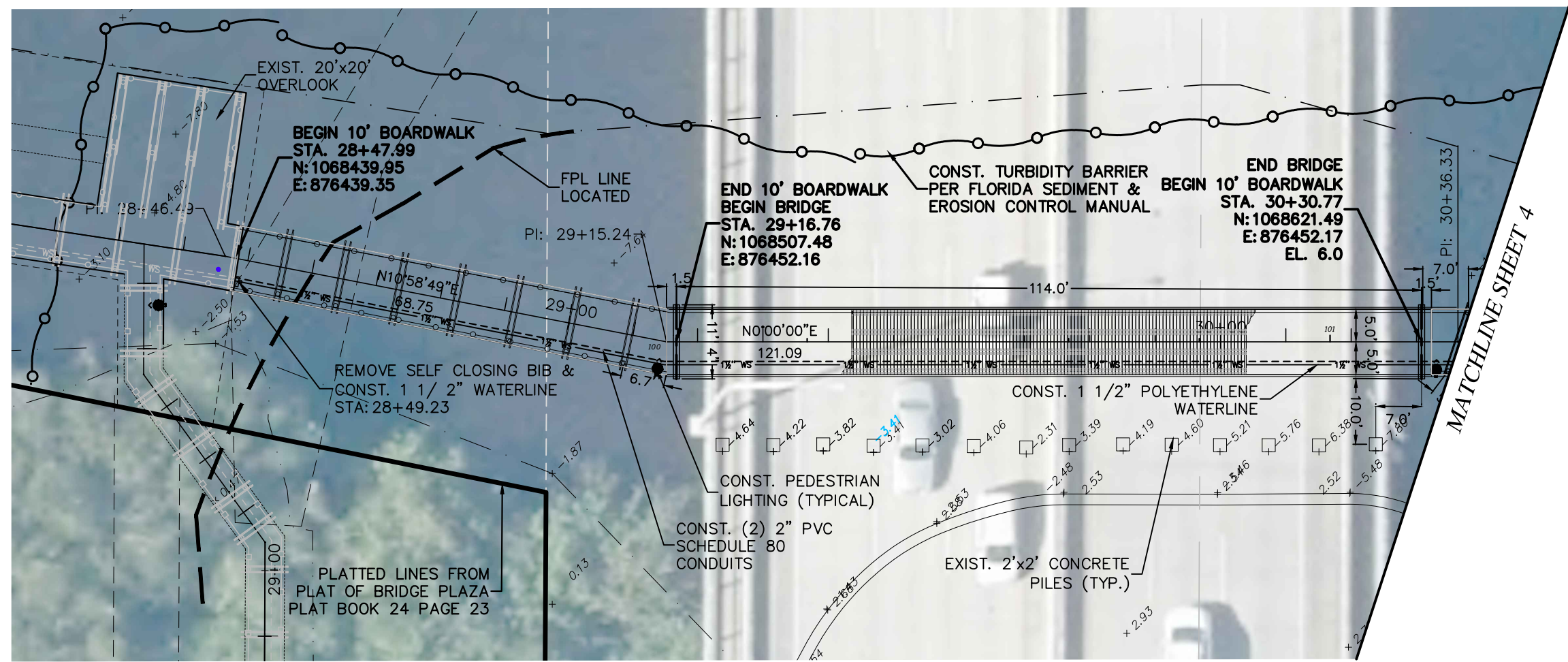


**CULPEPPER & TERPEPING INC**  
 2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA  
 PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com  
 STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
RIVERWALK SOUTH BOARDWALK UNDER PORT ST. LUCIE. BLVD	

**LOCATION MAP**

SHEET NO.  
**2 OF 7**



P:\Proj\2016\16-031\006\Eng\16-031.006 Base- Boardwalk North.dwg Plotted: 4/24/2020 12:10 PM By: KITHSIRI UDUGAMA

**REVISIONS**

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

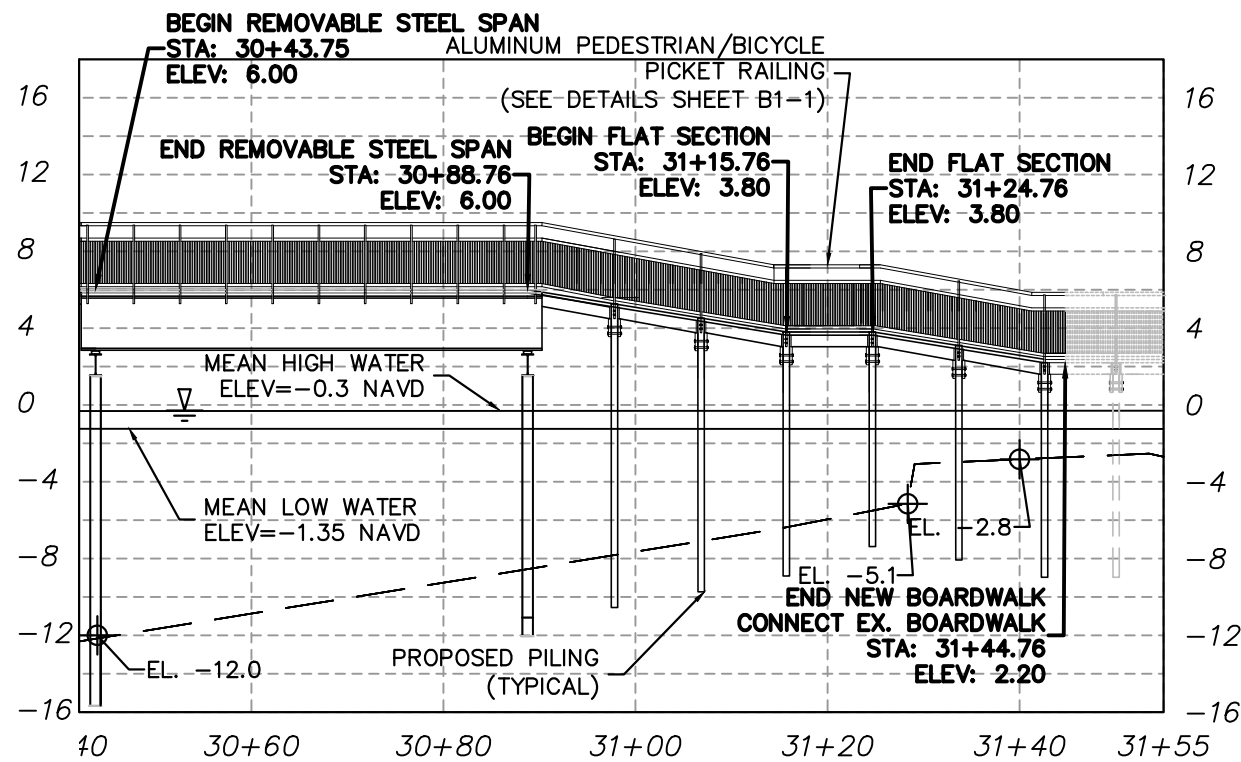
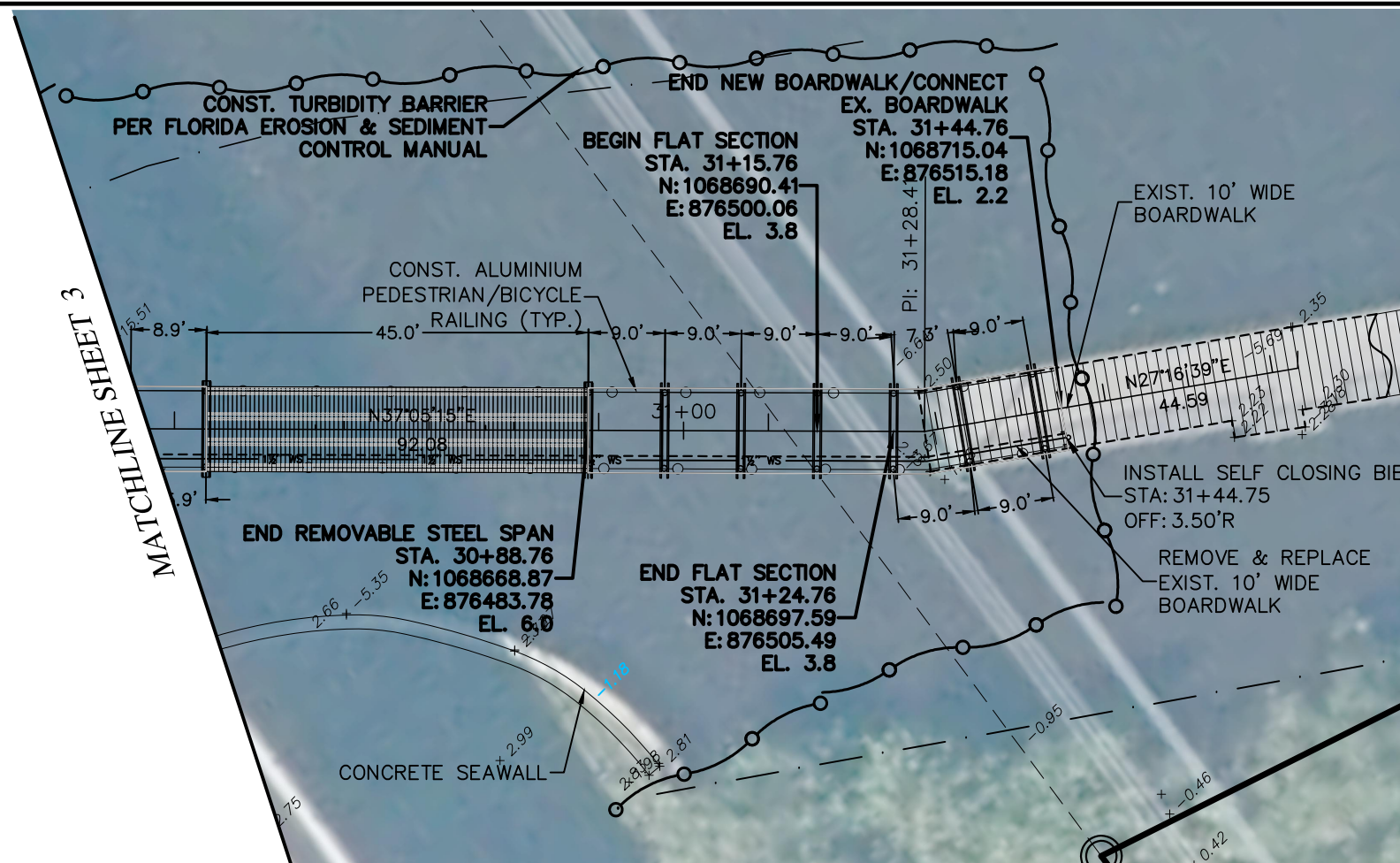
C&T JOB NO. 16-031.005  
 DESIGNED BY SKM 4-16-20 DRAWN BY KU 4-20-20  
 CHECKED BY SKM CHECKED BY .SKM  
 ENGINEER OF RECORD:  
 STEFAN K. MATTHES, P.E. NO. 38723

CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
RIVERWALK SOUTH BOARDWALK UNDER PORT ST. LUCIE. BLVD	

**PLAN & PROFILE**

SHEET NO.  
**3 OF 7**

STEFAN K. MATTHES, P.E.  
 FL. REG. NO. 38723



STEFAN K. MATTHES, P.E.  
FL. REG. NO. 38723

P:\Proj-2016\16-031.006\Eng\16-031.006 Base- Boardwalk North.dwg Plotted: 4/24/2020 12:11 PM By: KITHSIRI UGUGAMA

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

C&T JOB NO. 16-031.005  
 DESIGNED BY SKM 4-16-20 DRAWN BY KU 4-20-20  
 CHECKED BY SKM. CHECKED BY .SKM  
 ENGINEER OF RECORD: STEFAN K. MATTHES, P.E. NO. 38723

**CULPEPPER & TERPENING INC**  
 2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA  
 PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com  
 STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
RIVERWALK SOUTH BOARDWALK UNDER PORT ST. LUCIE. BLVD	

**PLAN & PROFILE**

SHEET NO.  
**4 OF 7**

P:\Proj-2016\16-031.006\Eng\16-031.006 Base- Boardwalk North.dwg Plotted: 4/24/2020 12:11 PM By: KITHSRI UDUGAMA

Project Name and location information:	Riverwalk Boardwalk & Westmoreland Park, Section 10, Township 37 South , Range 40 East, Port St. Lucie, Florida
Describe the nature of the construction activity:	Riverwalk South Boardwalk under Port St. Lucie Blvd
Describe the intended sequence of major soil disturbing activities:	<ul style="list-style-type: none"> <li>• 0-2 days, site prep and stabilized construction entrance;</li> <li>• 3-6 days, install perimeter sediment and erosion controls;</li> <li>• 7-60 days, install stormwater retention basin</li> <li>• 7-10 days, clearing/grubbing over all areas</li> <li>• 11-90 days, site grading;</li> <li>• 90-150 days, install storm sewer and utilities</li> <li>• 150-180 days, stabilize site.</li> </ul>
Total area of the site:	0.7 ACRES
Total area of the site to be disturbed:	0.7 ACRES
Existing data describing the soil or quality of any stormwater discharge from the site:	N/A
Estimate the drainage area size for each discharge point:	0.7 ACRES
Latitude and longitude of each discharge point and identify the receiving water or North Fork of St. Lucie River for each discharge point:	1. LAT : 27 deg 16' 11" N LON: 80 deg 19' 08" W Discharges to North Fork of the St. Lucie River
Give a detailed description of all controls, Best Management Practices (BMPs) and measures that will be implemented at the construction site for each activity identified in the intended sequence of major soil disturbing activities section. Provide time frames in which the controls will be implemented. NOTE: All controls shall be consistent with performance standards for erosion and sediment control and stormwater treatment set forth in s. 62-40.432, F.A.C., the applicable Stormwater or Environmental Resource Permitting requirements of the Department or a Water Management District, and the guidelines contained in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual, FDOT, FDEP (2007) and any subsequent amendments.	
<ul style="list-style-type: none"> <li>• All installation shall be commenced as depicted on the attached site map and installation "typicals" sheet.</li> </ul>	
Describe all temporary and permanent stabilization practices. N/A	
<ul style="list-style-type: none"> <li>• Temporary seeding shall be rye grass or other appropriate ground covers depending upon</li> </ul>	
Describe all structural controls to be implemented to divert stormwater flow from exposed soils and structural practices to store flows, retain sediment on-site or in any other way limit stormwater runoff. These controls include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, coagulating agents and temporary or permanent sediment basins.	
<ul style="list-style-type: none"> <li>• A floating turbidity barrier to be installed around the proposed boardwalk.</li> </ul>	
Describe all sediment basins to be implemented for areas that will disturb 10 or more acres at one time. The sediment basins (or an equivalent alternative) should be able to provide 3,600 cubic feet of storage for each acre drained. Temporary sediment basins (or an equivalent alternative) are recommended for drainage areas under 10 acres. N/A	
No temporary sedimentation basins are proposed. The detention basins (prior to being connected to a discharge structure) may be used as a temporary sediment basin if needed.	
Describe all permanent stormwater management controls such as, but not limited to, detention or retention systems or vegetated swales that will be installed during the construction process.	

• A stormwater detention basin shall be constructed per ERP permit and all disturbed areas shall be grassed.	
Waste disposal, this may include construction debris, chemicals, litter, and sanitary wastes:	All construction materials and debris will be placed in a dumpster and hauled off site to a landfill or other proper disposal site. No materials will be buried on site.
Offsite vehicle tracking from construction entrances/exits:	Off site vehicle tracking of sediments and dust generation will be minimized via a rock construction entrance, street sweeping and the use of water to keep dust down.
The proper application rates of all fertilizers, herbicides and pesticides used at the construction site:	N/A
The storage, application, generation and migration of all toxic substances:	All paints and other chemicals will be stored in a locked covered shed.
Other:	Port-o-lets will be placed away from storm sewer systems, storm inlet(s), surface waters and wetlands. No vehicle maintenance shall be conducted on-site. A washdown area shall be designated at all times and will not be located in any area that will allow for the discharge of polluted runoff. A small-vegetated berm shall be placed around the washdown area.
Provide a detailed description of the maintenance plan for all structural and non-structural controls to assure that they remain in good and effective operating condition.	
Contractor shall provide routine maintenance of permanent and temporary sediment and erosion control features in accordance with the technical specifications or as follows, whichever is more stringent: <ul style="list-style-type: none"> <li>• Maintenance shall be performed on the rock entrance when any void spaces are full of sediment.</li> <li>• Maintain all other areas of the site with proper controls as necessary.</li> <li>• Floating Turbidity Barriers will be inspected weekly and replaced or adjusted as needed.</li> </ul>	
Inspections: Describe the inspection and inspection documentation procedures, as required by Part V.D.4. of the permit. Inspections must occur at least once a week and within 24 hours of the end of a storm event that is 0.50 inches or greater (see attached form).	
Qualified personnel will inspect all points of discharges, all disturbed areas of construction that have not been stabilized, constructed areas and locations where vehicles enter and exit the site, and all BMPs at least once every 7 calendar days or within 24 hours of the end of a rainfall event that is 0.5 inches or greater. Where sites have been finally stabilized, said inspections shall be conducted at least once every month until the Notice of Termination is filed.	
Identify and describe all sources of non-stormwater discharges as allowed in Part IV.A.3. of the permit. Flows from fire fighting activities do not have to be listed or described.	
It is expected that the following non-stormwater discharges may occur from the site during construction period: N/A	
All contractor(s) and subcontractor(s) identified in the SWPPP must sign the following certification:	
"I certify under penalty of law that I understand, and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder."	

STEFAN K. MATTHES, P.E.  
FL. REG. NO. 38723

R E V I S I O N S					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

C&T JOB NO. 16-031.005	
DESIGNED BY SKM 4-16-20	DRAWN BY KU 4-20-20
CHECKED BY SKM	CHECKED BY .SKM
ENGINEER OF RECORD: STEFAN K. MATTHES, P.E. NO. 38723	



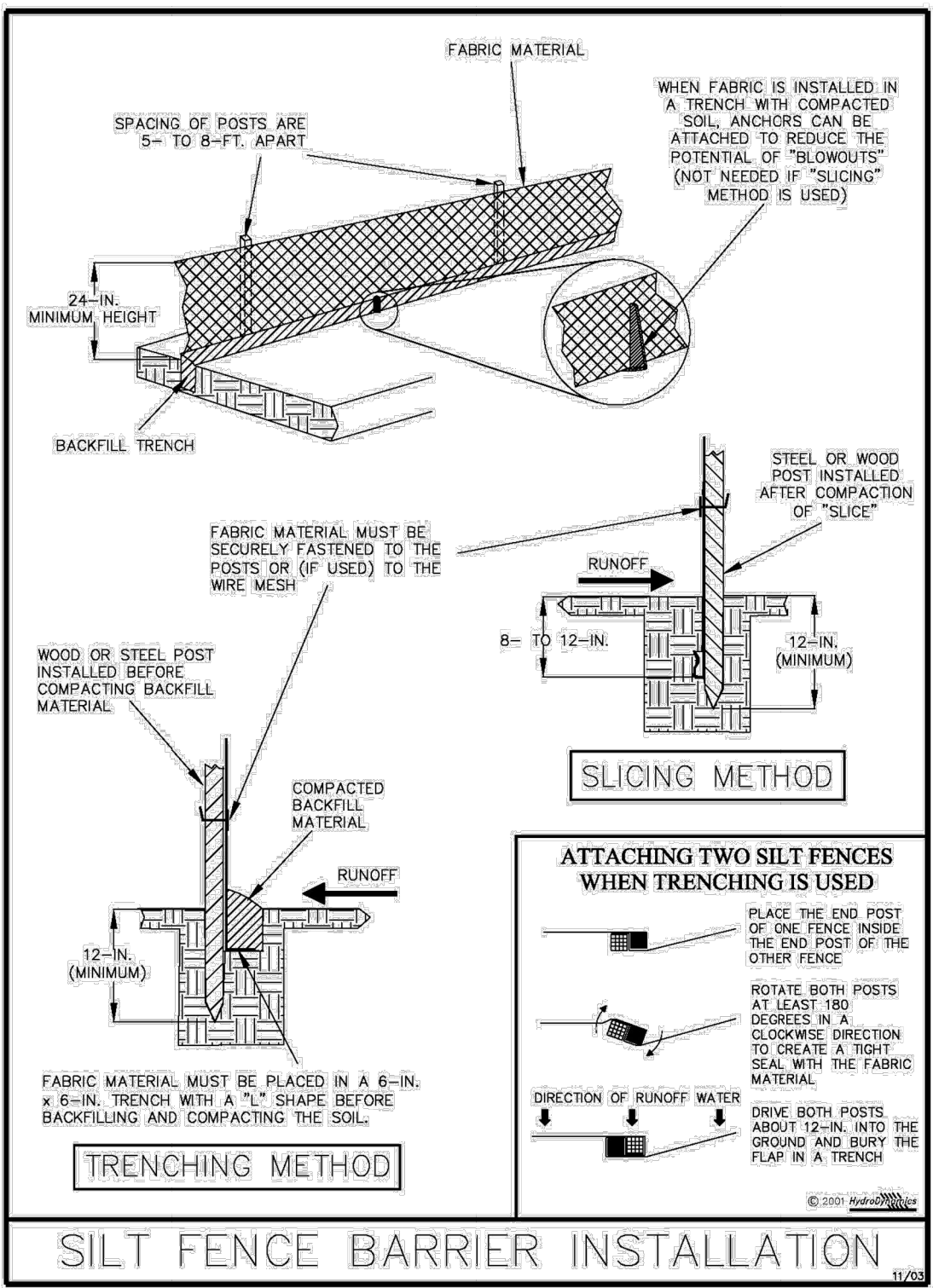
**CULPEPPER & TERPENING INC**  
2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA  
PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com  
STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
RIVERWALK SOUTH BOARDWALK UNDER PORT ST. LUCIE. BLVD	

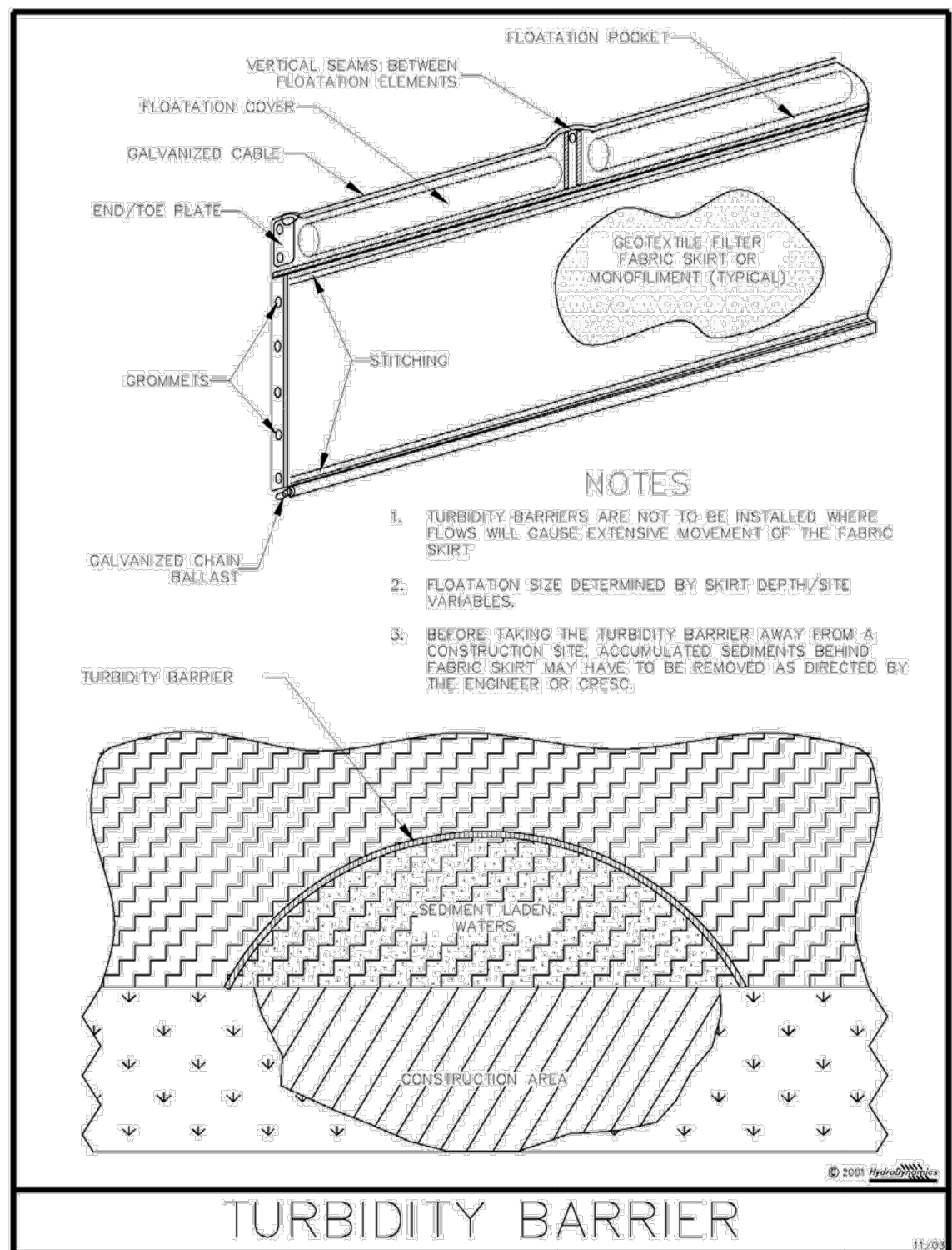
<b>SWPPP DETAILS</b>	
<b>5 OF 7</b>	

SHEET NO.
<b>5 OF 7</b>

P:\Proj-2016\16-031.006\Eng\16-031.006 Base- Boardwalk North.dwg Plotted: 4/24/2020 12:11 PM By: KITHSIRI UDUGAMA



**SILT FENCE BARRIER INSTALLATION**



**TURBIDITY BARRIER**

Name	Title	Company Name, Address and Phone Number	Date

STEFAN K. MATTHES, P.E.  
FL. REG. NO. 38723

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

C&T JOB NO. 16-031.005

DESIGNED BY SKM 4-16-20 DRAWN BY KU 4-20-20

CHECKED BY SKM CHECKED BY SKM

ENGINEER OF RECORD: STEFAN K. MATTHES, P.E. NO. 38723

**CULPEPPER & TERPENING INC.**

2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA  
PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com

STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

CITY OF PORT ST. LUCIE	
PROJECT NAME	FINANCIAL PROJECT ID
RIVERWALK SOUTH BOARDWALK UNDER PORT ST. LUCIE. BLVD	

**SWPPP DETAILS**

**3. POTABLE WATER DISTRIBUTION AND WASTEWATER COLLECTION SYSTEM**

Materials, construction methods, required tests, testing methods and construction tolerances for the wastewater collection and transmission system shall meet the requirements of the current AWWA Specifications, FDEP, and PSLUSD.

1. The Contractor and/or construction surveyor shall verify the elevation of the benchmark shown on construction plans. Verify all elevations of existing pavement, stubouts, and structures before starting construction and notify the Engineer if any discrepancy in elevations exist.
2. The Contractor is herein advised that "asbuilt drawings" will be performed on the project which will reflect the elevation and location of all structures and improvements on the project. These "asbuilt drawings" will be utilized by the Engineer to determine conformance of the project to required tolerances as set forth by permitting and/or approving public agencies. Tolerances established by these agencies must be met in order for the project to be accepted for final certification and approval. As Builts shall be in accordance with the Port St. Lucie Utilities Systems Department Standards.
3. All construction shall be in accordance with the City of Port St. Lucie Utility Systems Department's Technical Specifications and Construction Standards, latest revision, and with all applicable Florida Department of Environmental Protection Rules and Regulations.
4. No field changes or deviations from design are to be made without prior written approval of the Engineer of Record and Port St. Lucie Utilities Systems Department.
5. The contractor shall coordinate service grades and location with the Engineer.
6. All materials, construction methods, testing and disinfection shall conform to the requirements of the City of Port St. Lucie Utility Systems Department and AWWA current standards.
7. PVC Water Main: The Dimension Ration (DR) and Pressure Rating shall be C900, DR-18 (Pressure 6 class 235) for 4" to 12" pipe and C 905, DR-18 (Pressure rating 235) for 14" to 24" pipe. Minimum cover shall be 36 inches, unless otherwise noted. Water mains shall be blue in color.
8. Ductile Iron Fittings: Ductile iron fittings shall be used on all PVC C900 & C905 mains. Fittings shall conform to AWWA/ANSI C153/A21.53.06 with a minimum pressure rating of 350 psi. Fittings shall be coated as specified under c.(1) (d) Coating & Linings for DIP. Fittings shall be restrained with restrained joints as per the detail.
9. Gate Valve with Box: Valves 2" and larger shall be gray or ductile iron body, conforming to AWWA C509 or C515, with mechanical joints or flanged ends, and shall be equipped with a 2" square gray or ductile iron wrench nut. Valves shall be rated for 250-psi working pressure.
10. Water/Sewer lines shall be laid on undisturbed ground, compacted to 98% of maximum density in accordance with AASHTO T-180. Backfill shall be compacted to 98% of maximum density in accordance with AASHTO T-180. The contractor shall submit certified density tests on each 12" lift.
11. The contractor shall contact the Engineer of Record, the appropriate governmental jurisdictional agency and all utility companies at least 48 hours prior to commencement of construction for coordination of any utilities. The contractor shall schedule a pre-construction meeting with the Engineer, Port St. Lucie Utilities Systems Department and the City of Port St. Lucie Engineering Department a minimum of ten (10) working days prior to starting construction.

STEFAN K. MATTHES, P.E.  
FL. REG. NO. 38723

P:\Proj-2016\16-031.006\Eng\16-031.006 Base- Boardwalk North.dwg Plotted: 4/24/2020 1:07 PM By: KITHSIRI UDUGAMA

R E V I S I O N S						C&T JOB NO. 16-031.005		CITY OF PORT ST. LUCIE		SPECIFICATIONS	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DESIGNED BY	DRAWN BY	PROJECT NAME	FINANCIAL PROJECT ID		
						SKM 4-16-20	KU 4-20-20	RIVERWALK SOUTH BOARDWALK UNDER PORT ST. LUCIE. BLVD			
						CHECKED BY SKM	CHECKED BY SKM				
						 <b>CULPEPPER &amp; TERPENING INC</b> <small>2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA                  PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com</small>					7 OF 7
						<small>ENGINEER OF RECORD: STEFAN K. MATTHES, P.E. NO. 38723</small>					

INDEX OF STRUCTURE PLANS

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
<b>GENERAL</b>	
B-1	KEY SHEET
B-2	GENERAL NOTES
B-3	BENTS 1 AND 2
B-4	SUPERSTRUCTURE DETAILS
B-5	BEARING DETAILS
<b>BRIDGE 1</b>	
B1-1	PLAN AND ELEVATION
B1-2	TYPICAL SECTION THROUGH BRIDGE (1 OF 2)
B1-3	TYPICAL SECTION THROUGH BRIDGE (2 OF 2)
B1-4	DEFLECTION DIAGRAM
B1-5	STEEL GIRDER FRAMING PLAN AND ELEVATION
B1-6	STEEL GIRDER DETAILS
<b>BRIDGE 2</b>	
B2-1	PLAN AND ELEVATION
B2-2	TYPICAL SECTION THROUGH BRIDGE
B2-3	DEFLECTION DIAGRAM
B2-4	STEEL GIRDER FRAMING PLAN AND ELEVATION
B2-5	STEEL GIRDER DETAILS

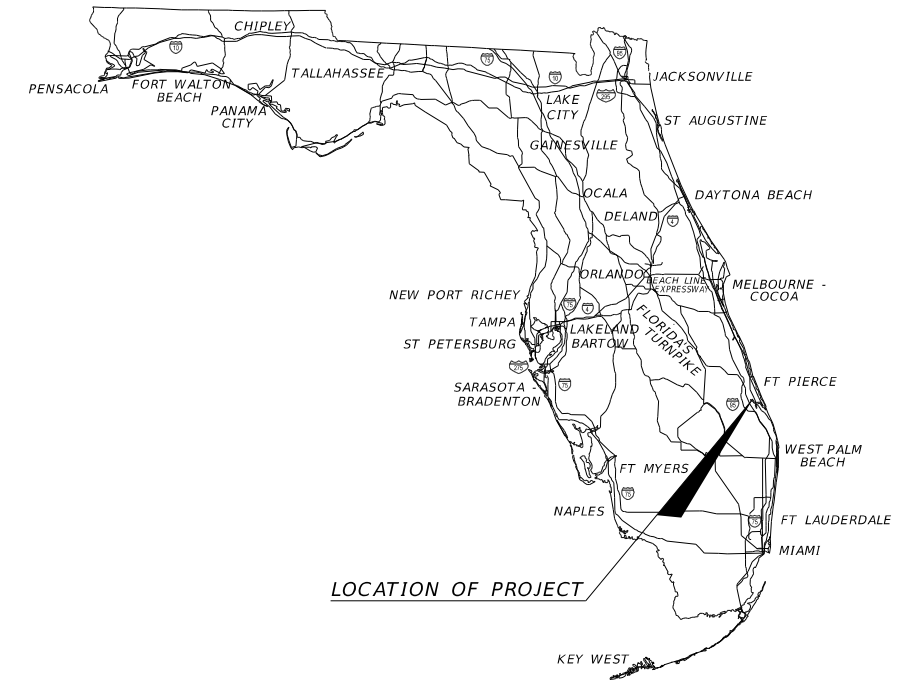
CITY OF PORT ST. LUCIE

CONTRACT PLANS

ST. LUCIE COUNTY

RIVERWALK AND WESTMORELAND PARK

STRUCTURE PLANS



**STRUCTURE PLANS**

**ENGINEER OF RECORD:**

RICHARD A. HUNTER, P.E.  
P.E. NO. 50601  
AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC  
2818 CYPRESS RIDGE BLVD, SUITE 200  
WESLEY CHAPEL, FLORIDA 33544  
PHONE: (813) 435-2600  
CONTRACT NO. C9P99  
VENDOR NO. F043682340-001  
CERTIFICATE OF AUTHORIZATION NO. 9302

SHEET NO.

B-1



**DESIGN SPECIFICATIONS**

FDOT Structures Manual dated January 2019.  
 AASHTO LRFD Bridge Design Specifications, 8th Edition.  
 AASHTO LRFD Guide Specification for the Design of Pedestrian Bridges, 2nd Edition.  
 FDOT Design Manual dated January 2020.

**GOVERNING STANDARDS AND CONSTRUCTION SPECIFICATIONS**

FDOT 2019-2020 Design Standard Plans.  
 FDOT January 2020 Standard Specifications for Road and Bridge Construction

**VERTICAL DATUM**

Elevations are based on the North American Vertical Datum (NAVD) of 1988.

**ENVIRONMENT**

Assumed Extremely Aggressive for both superstructure and substructure.

**DESIGN LOADING**

Pedestrian LL: 90 psf  
 Rail and Post LL: 200 lb + 50 plf  
 Timber DL: 34.3 pcf  
 Structural Plastic DL: 65 pcf  
 Structural Steel DL: 490 pcf  
 Utility Load: 10 plf on each exterior beam

**PLAN DIMENSIONS**

- All dimensions in these plans are measured in feet either horizontally or vertically unless otherwise noted.
- All dimensions are given for a mean temperature of 70°F.

**STRUCTURAL STEEL**

All structural steel, stiffeners, diaphragms, plates and other ancillary items, shall be in accordance with ASTM A709, Grade 50.

**CHARPY V-NOTCH**

All members subjected to tensile stresses identified as main load-carrying members shall be tested in accordance with Specifications Section 962.

**STEEL FABRICATION**

Shop assemblies are required in accordance with Section 460 of the Specifications.

**CONNECTIONS**

- Use bolts or screws, as shown, for assembly. Screws shall be countersunk and installed in holes drilled with a countersunk drill bit. Nails may only be used for pre-assembly. All stainless steel connection elements specified in this set of plans shall conform to ASTM F593C or F593D. Use the following material specifications unless noted otherwise:  
 Bolts: ASTM F3125, Grade A325, Type 1  
 Nuts: ASTM A563, Grade DH Heavy-Hex  
 Washers: ASTM F436, Type 1  
 Nails and Screws: ASTM F593C or F593D stainless steel
- A countersunk stainless steel bolt shall be used for the 1/2" Connection Bolt connecting the Timber Stringers to the steel girder top flanges. A standard stainless steel bolt may be used in lieu of a countersunk bolt provided that a 1 1/4" x 3/8" deep hole is cored in the top of the stringer where the bolt will be placed such that the bolt head may fully embed into the stringer.
- Bolt holes may be drilled either in the shop or in the field. If they are drilled in the field, steel near the drilled holes shall be touched-up and repaired per Section 560-10 of the Specifications.
- Bolts connecting the Intermediate Aluminum Railing Post to the WT 10.5 x 31 section and anchor bolts connecting the sole plate to the bent cap shall not be pretensioned.

**COATING**

Apply an inorganic zinc primer followed by a Type M coal tar epoxy coating to all surfaces of all steel components in accordance with sections 560 and 926 of the FDOT Specifications. The aluminum components of the handrail are not to be coated. Nuts and bolts are to be coated after final tightening of the nuts.

**LUMBER**

- Lumber sizes shown are nominal sizes. Lumber shall be furnished in sizes meeting the requirements of the American Softwood Lumber Standard, PS20-94. Lumber grade shall be No. 1, in accordance with Standard Specification 952. The decking shall be Structural Plastic (SP). Structural Plastic shall be Fiberglass Fiber Reinforced Composite Lumber (FFRCL) in accordance with FDOT Standard Specification 973.
- All lumber (timber) shall be treated in accordance with FDOT Standard Specification 955-2.2 for wood products on pedestrian bridges.
- The color of the Structural Plastic shall be Color No. 30227 in accordance with Federal Color Standard 595B.

**PILES**

Factored design load for piles is as follows:

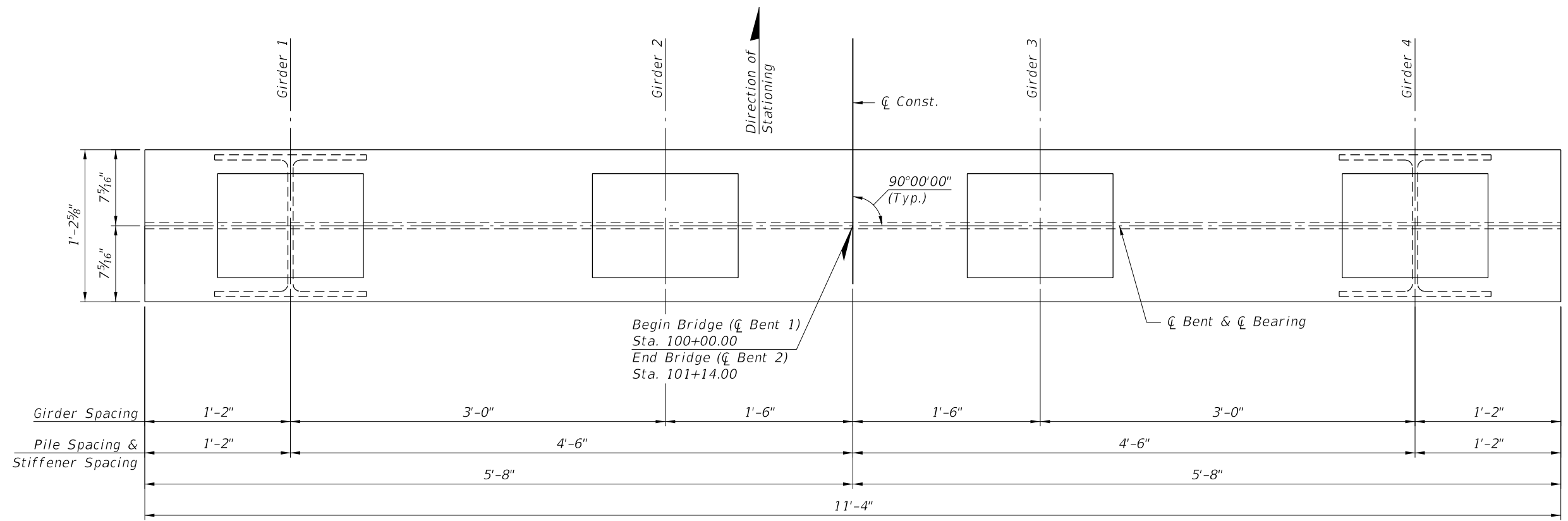
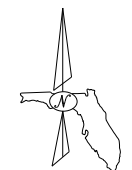
- Bridge 1: 39 tons per pile
- Bridge 2: 12 tons per pile

Pile heads shall be cut-off at a constant elevation so that the bottom of the bent cap lies flush against the pile cap plates after they are attached to each pile head. Pile cut-off elevations are as follows:

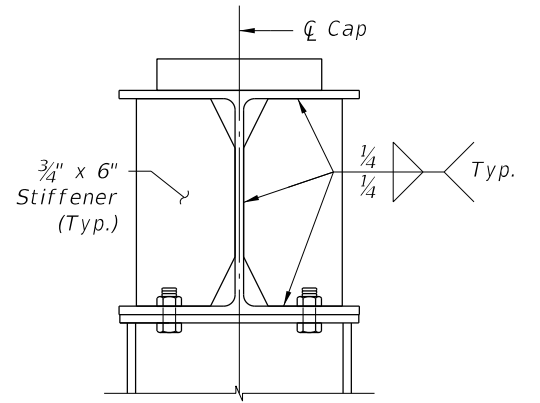
- Bridge 1: EL. 1.56
- Bridge 2: EL. 2.65

**BRIDGES 1 & 2**

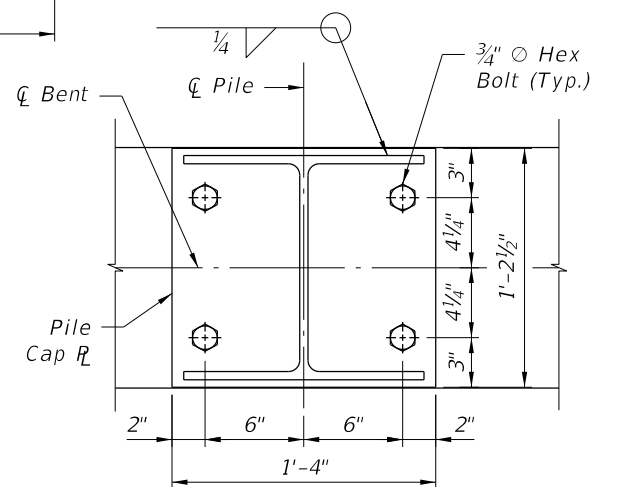
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: JV/AM CHECKED BY: RH DESIGNED BY: SS CHECKED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE:  GENERAL NOTES	REF. DWG. NO.		
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER				
								N/A	ST. LUCIE	516978-7			PROJECT NAME:  RIVERWALK AND WESTMORELAND PARK	SHEET NO.  B-2



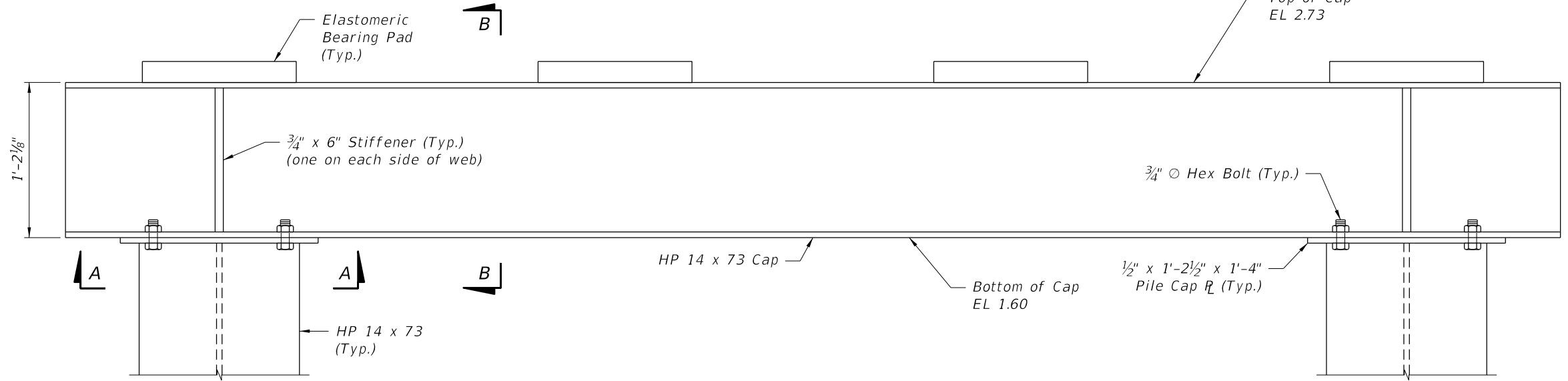
**PLAN**



**SECTION B-B**



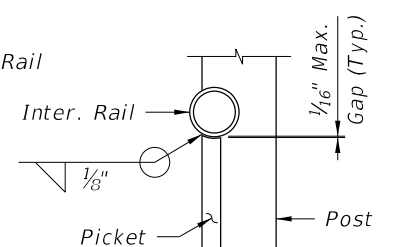
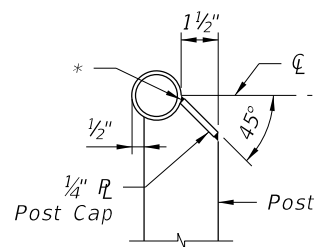
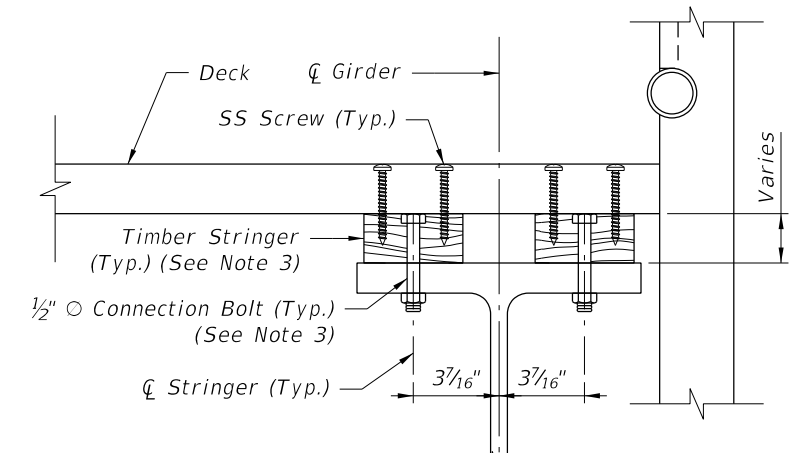
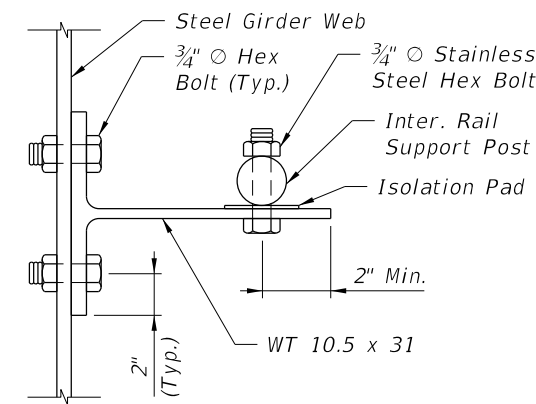
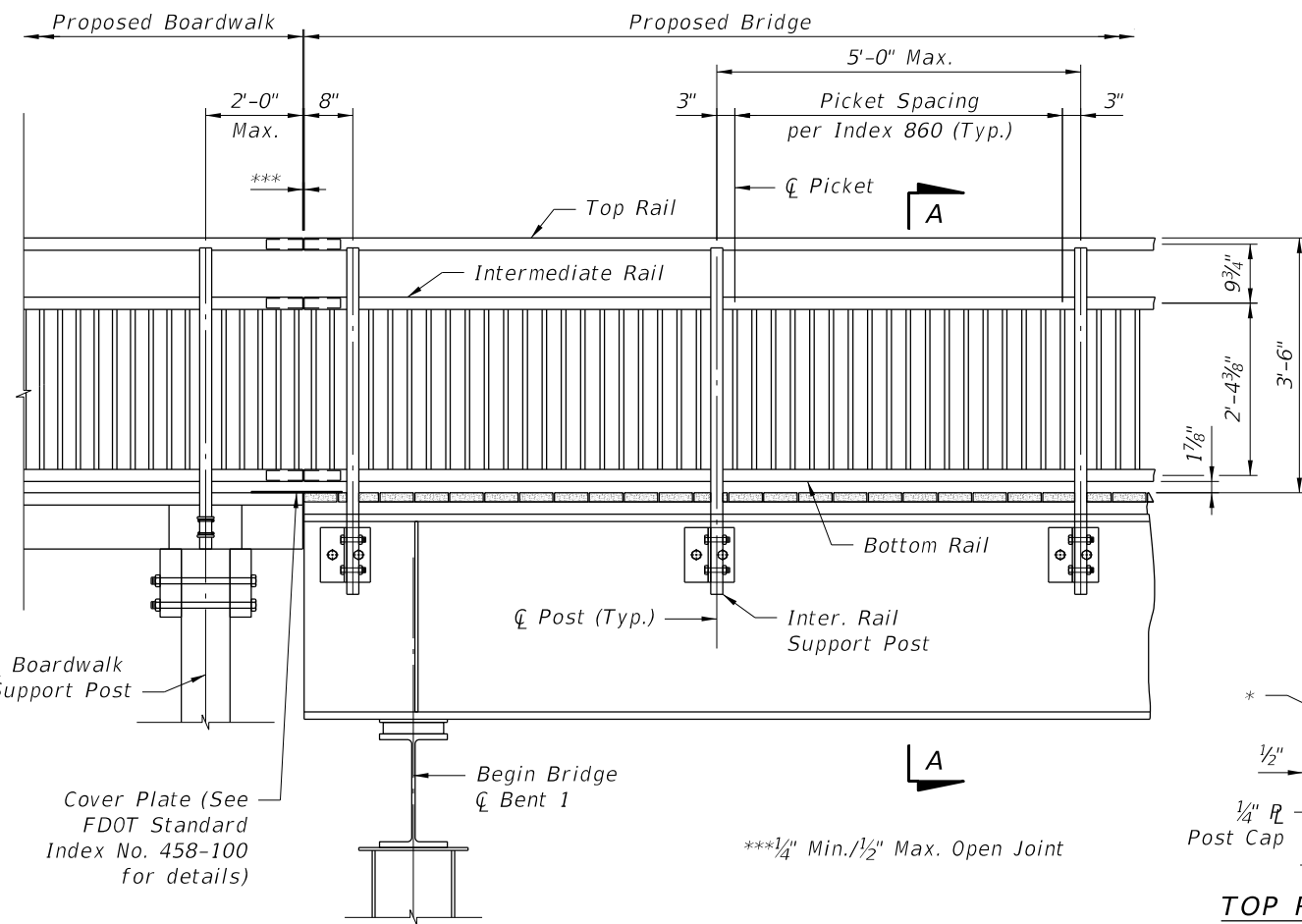
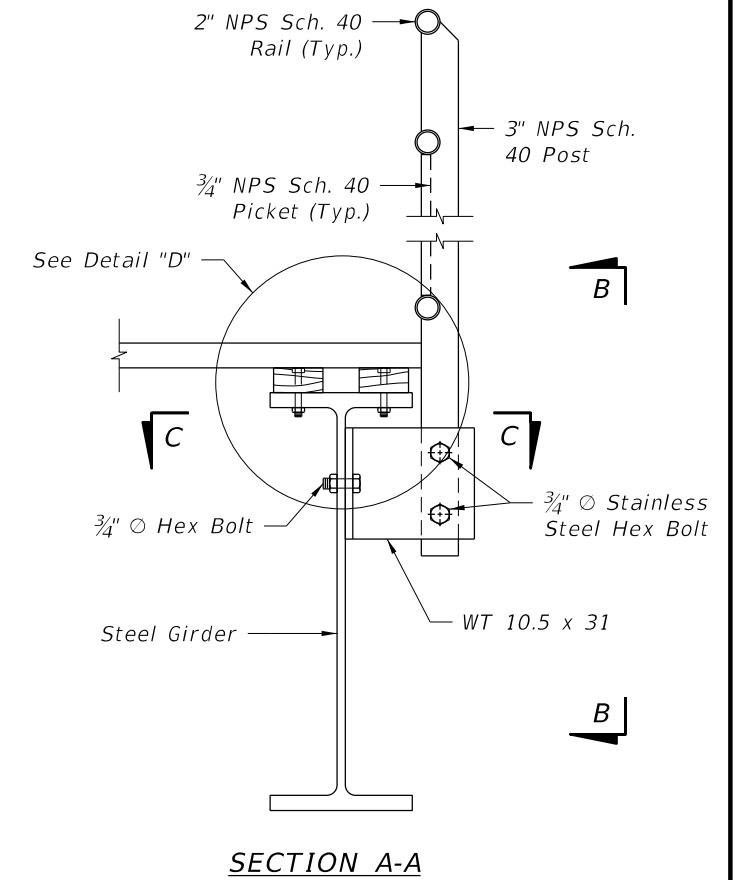
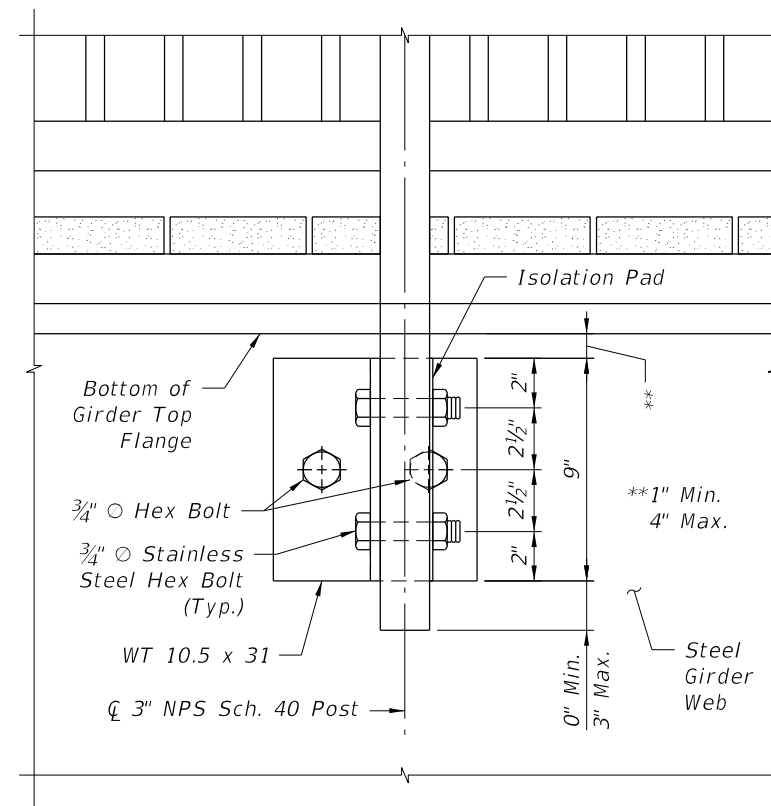
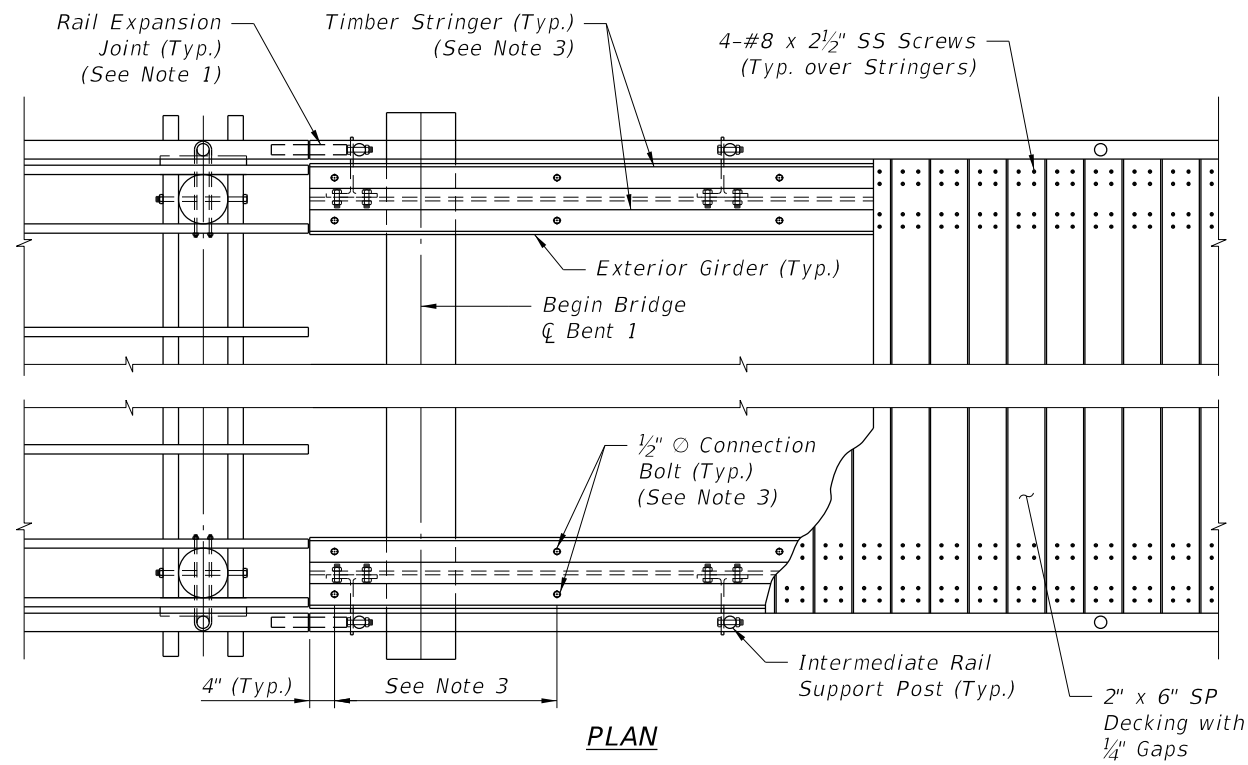
**SECTION A-A**



**ELEVATION**

CROSS REFERENCE:  
See Sheet B-9 for weld termination and corner clip details.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: JV CHECKED BY: RH DESIGNED BY: CHECKED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE:  <b>BENTS 1 AND 2</b>  RIVERWALK AND WESTMORELAND PARK	REF. DWG. NO.  SHEET NO. B-3
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
								N/A	ST. LUCIE	516978-7		



**TOP RAIL & POST CONNECTION**

**INTERMEDIATE RAIL & POST CONNECTION**

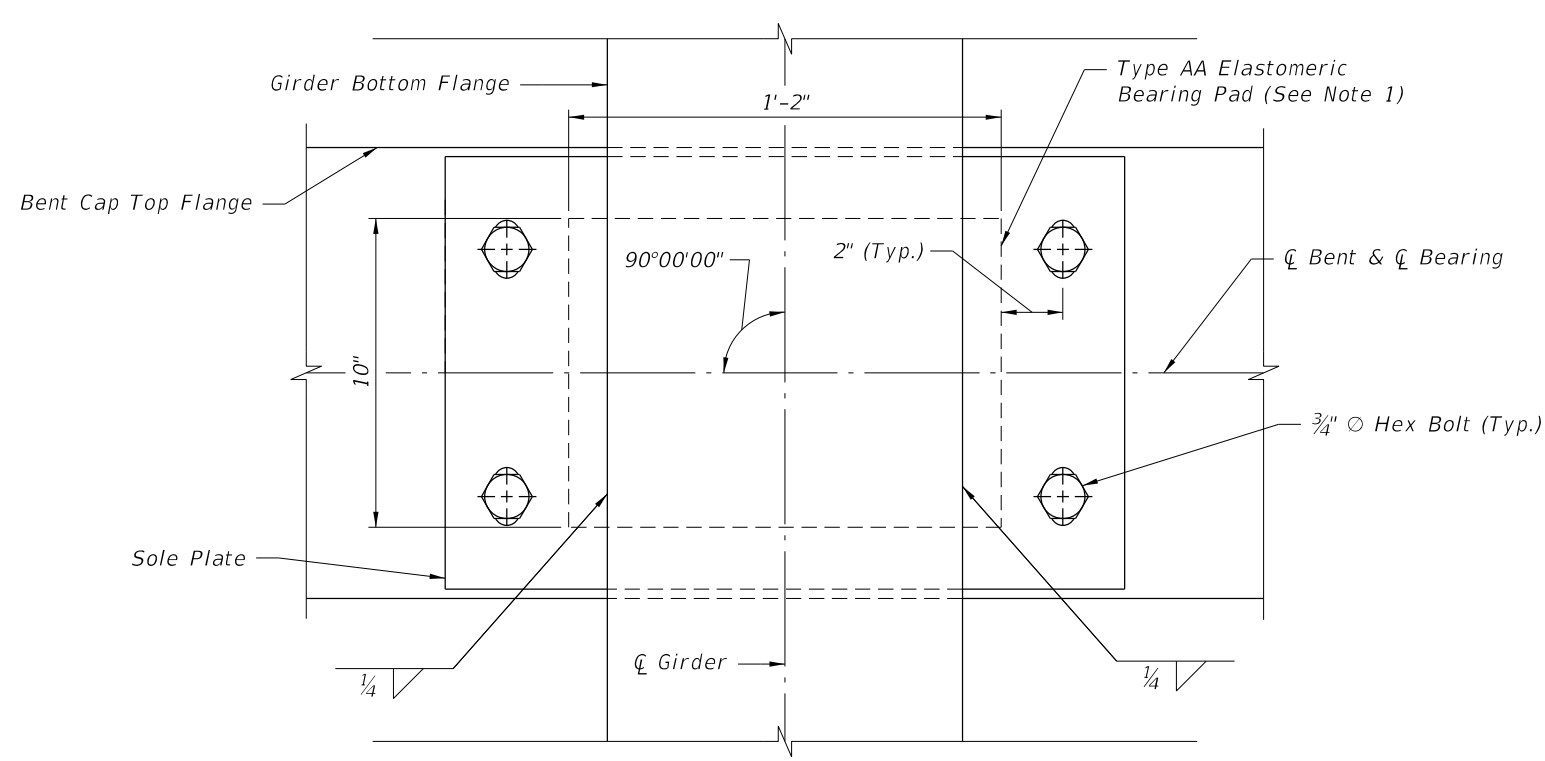
**DETAIL "D"**  
(Exterior Girder shown, Interior Girder similar)  
(Handrail connection not shown for clarity)

- NOTES:**
- For additional Aluminum Pedestrian/Bicycle Picket Railing details, see FDOT 2010 INTERIM DESIGN STANDARD INDEX NO. 860.
  - Contractor shall submit shop drawings for the Aluminum Pedestrian/Bicycle Picket Railing.
  - Timber stringers shall be 4" wide and shall have a minimum longitudinal length of 4'-0". Stringer heights shall vary as needed to adjust for the deflection of the girders as shown on Sheet B-7. Stringers shall be connected using a minimum of 2-1/2" diameter Connection Bolts per stringer. Longitudinal spacing between Connection Bolts shall not be greater than 4'-0". Connection Bolt heads shall be countersunk into the stringers as shown in Detail "D". Refer to the General Notes on Sheet B-2 for more information.

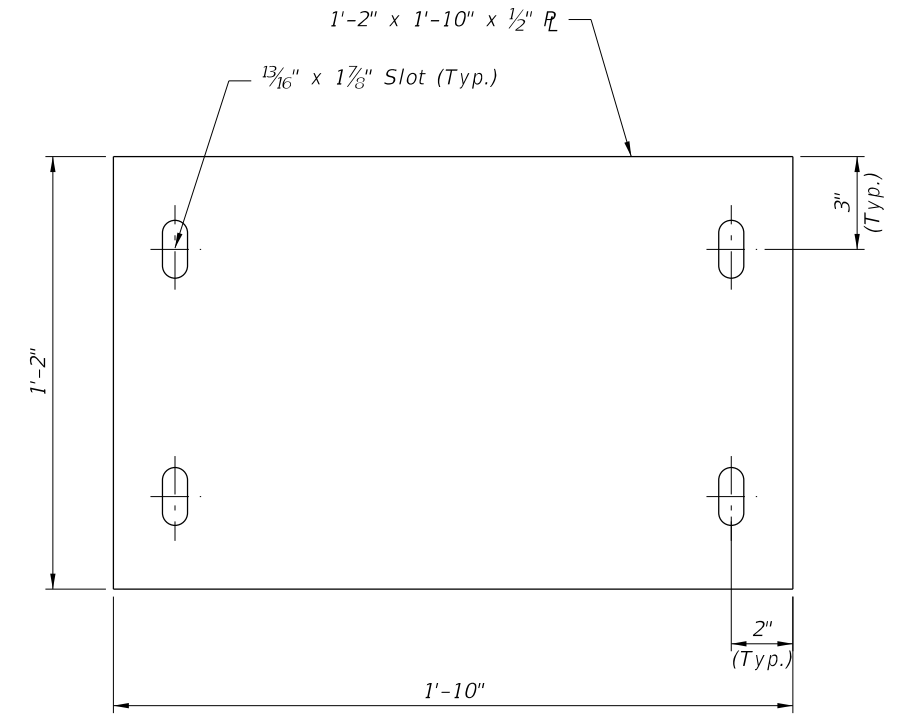
\*1/4" Seal Weld Cap to top of post, all sides

**ELEVATION**  
(Bent 1 shown, Bent 2 similar)

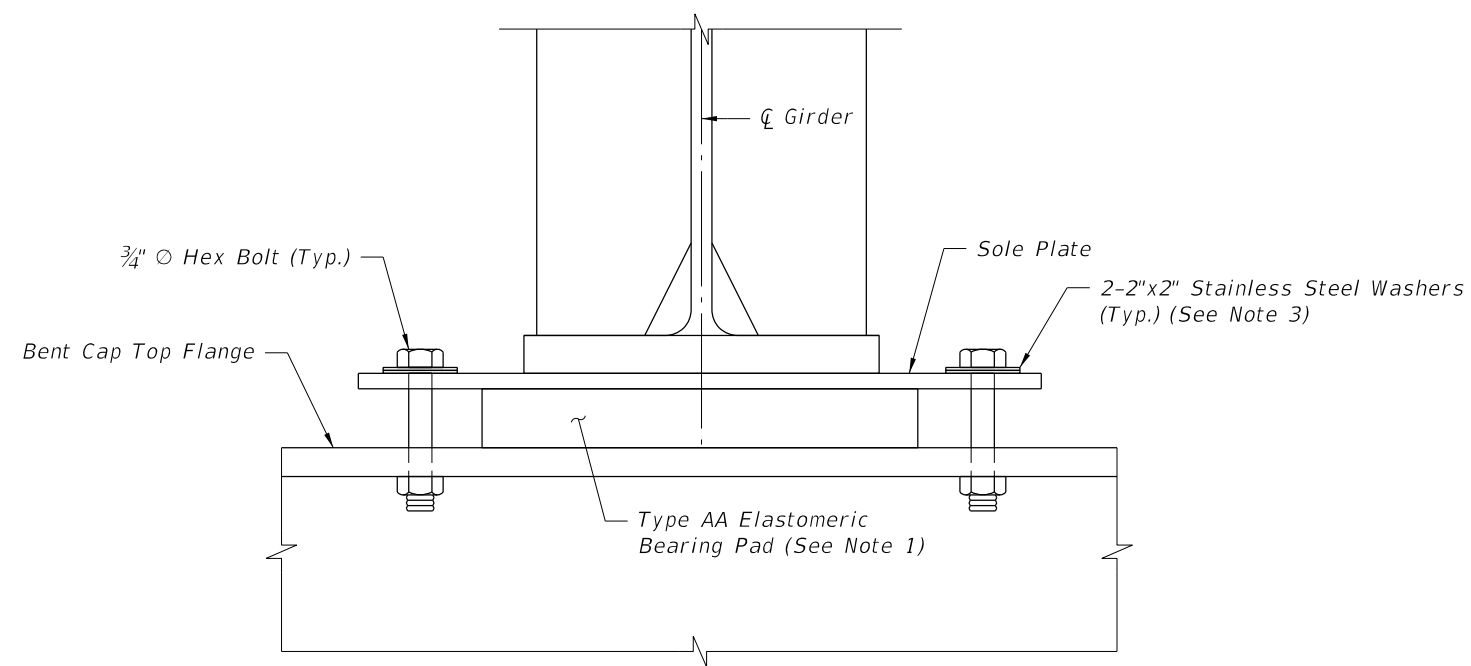
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: AM CHECKED BY: RH DESIGNED BY: SS CHECKED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE:  SUPERSTRUCTURE DETAILS	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B-4	



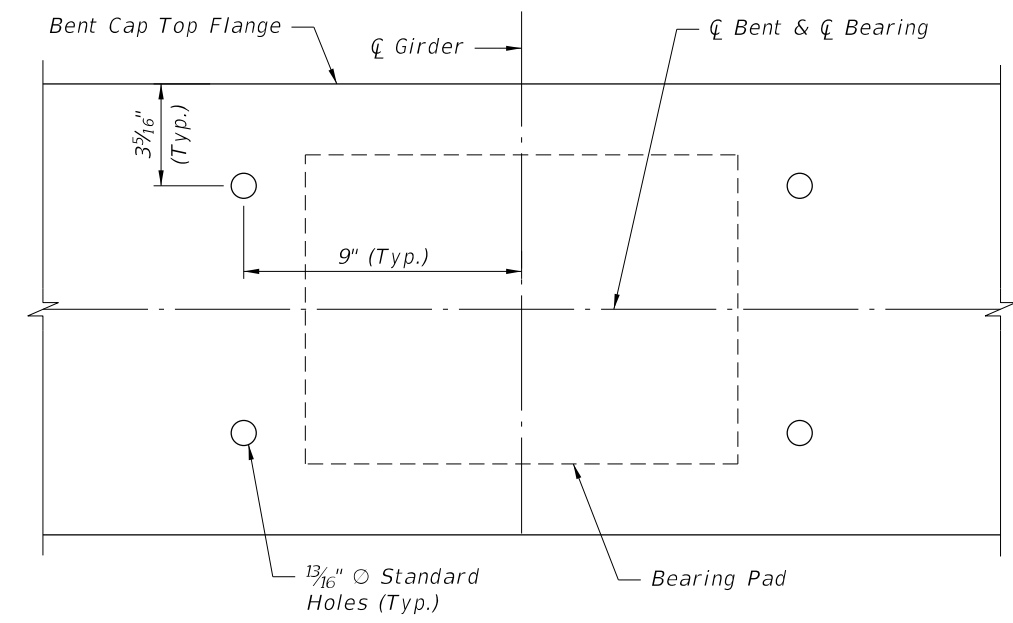
**BEARING AND SOLE PLATE PLAN**



**SOLE PLATE DETAIL**



**BEARING AND SOLE PLATE ELEVATION**




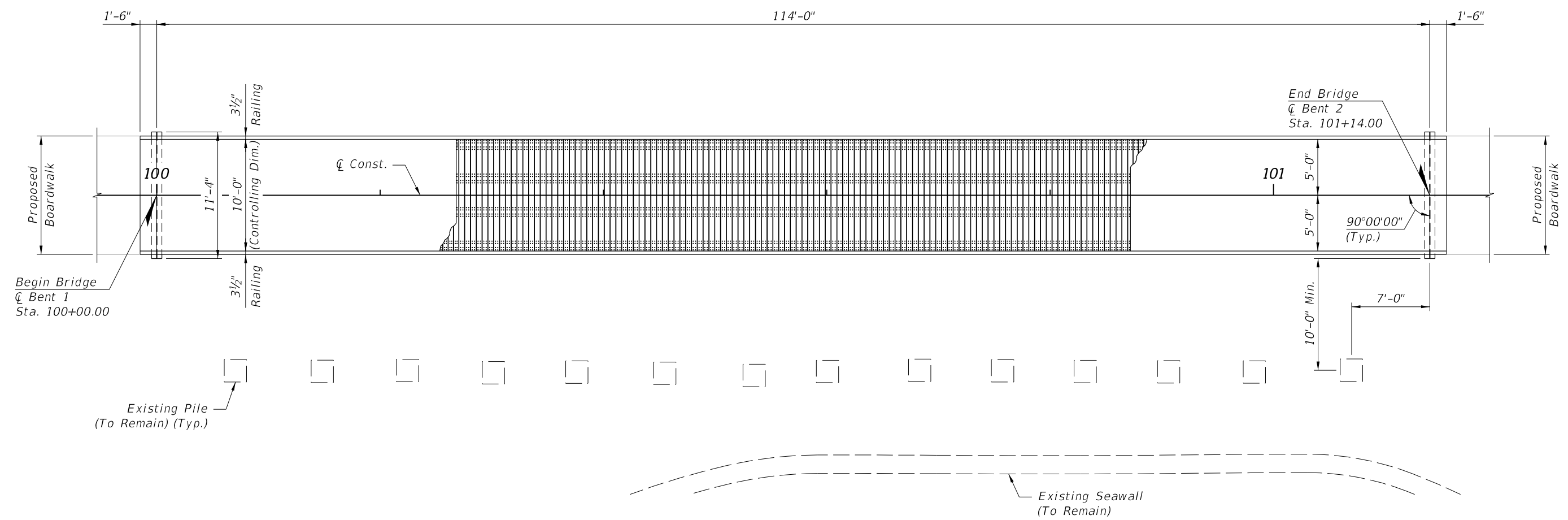
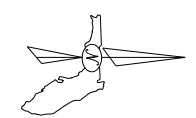
**BENT CAP DETAIL BELOW BEARING**

**NOTES:**

1. Refer to FDOT Standard Index No. 400-510 for further details regarding Type AA bearing pads.
2. Hex Bolts shall be centered in the slots at 70°F during installation. Adjust 0.045" per 10°F difference from 70°F.
3. Use two square 2" x 2" Stainless Steel Washers between 3/4" Hex Bolt & Sole Plate. Tack weld top washer to head of bolt and tack weld bottom washer to sole plate.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	CITY OF PORT ST. LUCIE			SHEET TITLE: BEARING DETAILS		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	ACE PROJECT NUMBER	PROJECT NAME:	SHEET NO.	
							N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B-5	

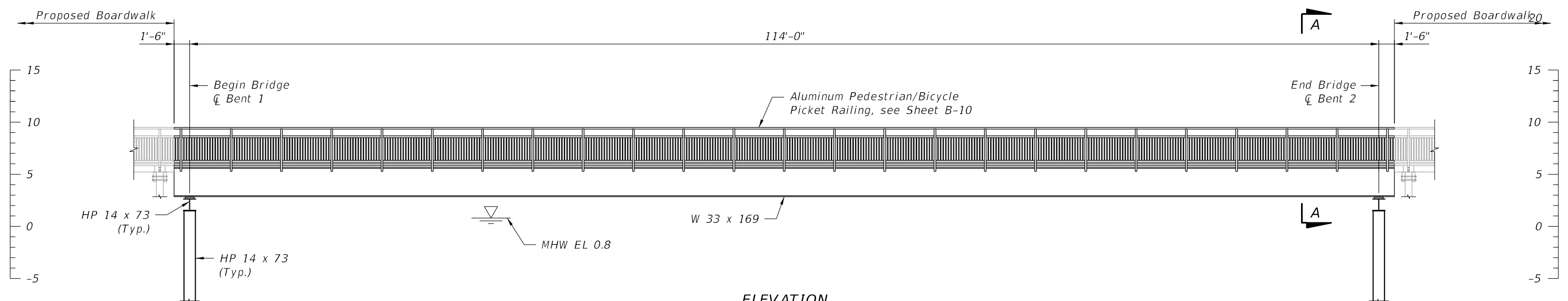
Direction of Stationing 



**PLAN**

(Superstructure of existing bridge not shown for clarity)

CROSS REFERENCE:  
 1. For Typical Section, see Sheet B1-2.  
 2. For Section A-A, see Sheet B1-3.

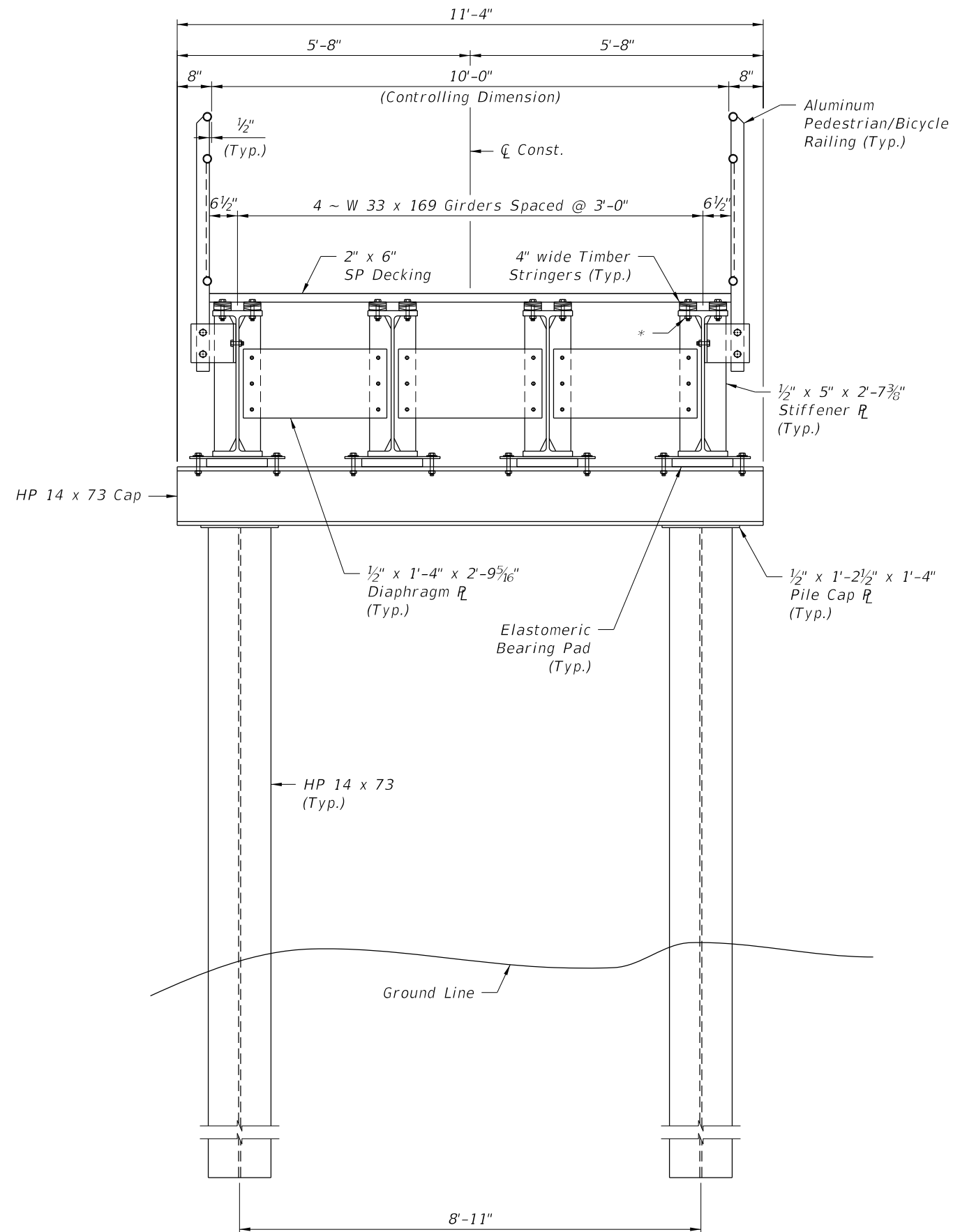


**ELEVATION**

(Existing bridge not shown for clarity)

REVISIONS						DRAWN BY: JV	CITY OF PORT ST. LUCIE			SHEET TITLE: PLAN AND ELEVATION	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	ACE PROJECT NUMBER		
						CHECKED BY: RH	N/A	ST. LUCIE	516978-7	PROJECT NAME: RIVERWALK AND WESTMORELAND PARK	SHEET NO. B1-1
						DESIGNED BY:					
						CHECKED BY: RH					

AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC  
 2818 Cypress Ridge Blvd, Suite 200  
 Wesley Chapel, Florida 33544  
 Phone: (813) 435-2600 Fax: (813) 435-2601  
 Certificate of Authorization No. 9302  
 Richard A. Hunter, P.E. No. 50601

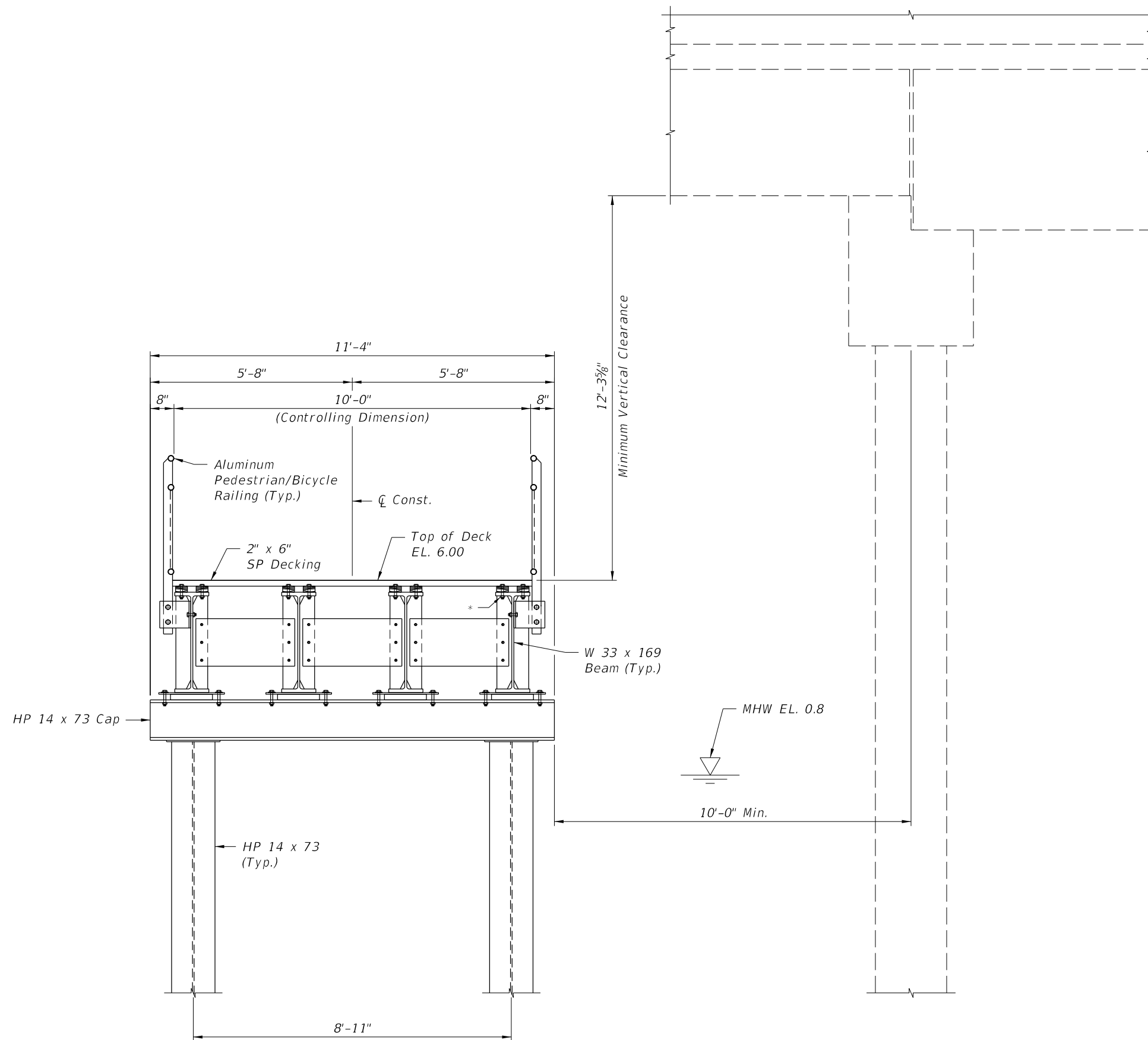


\*1/2" O Countersunk Bolt

- CROSS REFERENCE:  
 1. For Aluminum Pedestrian/Bicycle Railing, see Sheet B-4.  
 2. For Plan and Elevation, see Sheet B1-1.

**TYPICAL SECTION THROUGH BRIDGE AT BEGIN/END BRIDGE**

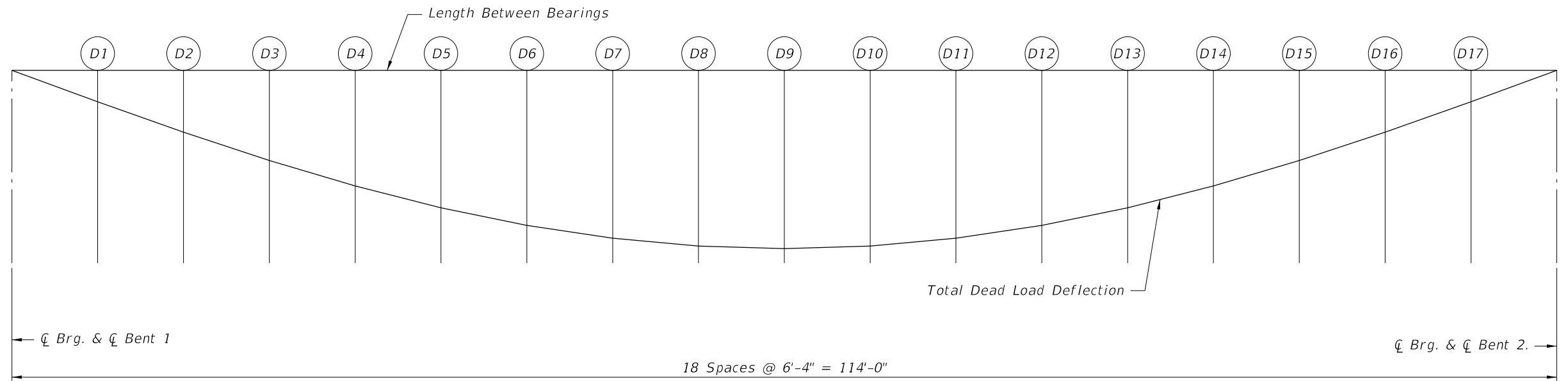
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: <i>JV/AM</i> CHECKED BY: <i>RH</i> DESIGNED BY: <i>RH</i> CHECKED BY: <i>RH</i>	CITY OF PORT ST. LUCIE			SHEET TITLE:  <b>TYPICAL SECTION THROUGH BRIDGE (1 OF 2)</b>	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B1-2	



**SECTION A-A**

- CROSS REFERENCE:**  
 1. For location of Section A-A, see Sheet B1-1.  
 2. For Typical Section Through Bridge, see Sheet B1-2.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: JV/AM CHECKED BY: RH DESIGNED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE: <b>TYPICAL SECTION THROUGH BRIDGE (2 OF 2)</b>	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B1-3	



**BENT 1**

**STEEL GIRDER DEFLECTION DUE TO DEAD LOAD**  
(Along  $\zeta$  Girders)

**BENT 2**

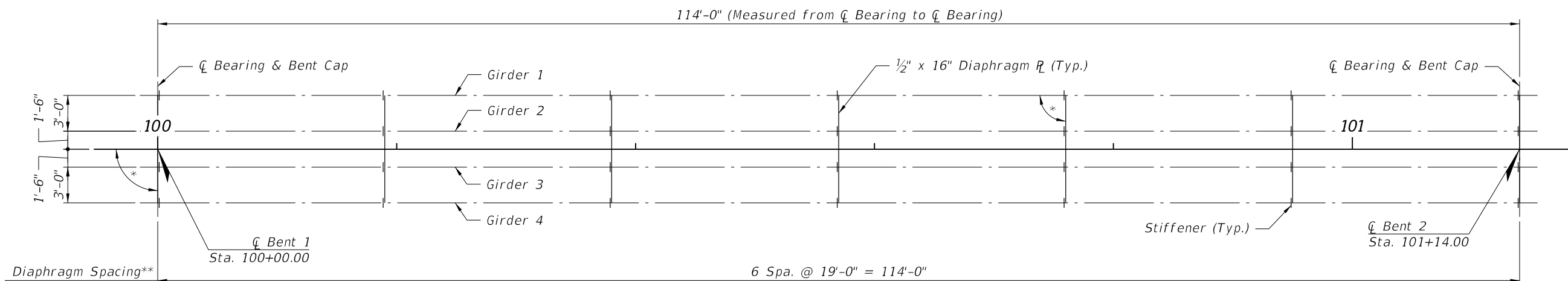
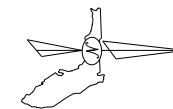
GIRDER	DEFLECTION DATA	SPAN 1																		
		$\zeta$ Bent 1	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	$\zeta$ Bent 2
All	Steel DL	0.000	0.445	0.875	1.275	1.634	1.941	2.189	2.370	2.481	2.518	2.481	2.370	2.189	1.941	1.634	1.275	0.875	0.445	0.000
	Composite DL	0.000	0.100	0.196	0.286	0.367	0.436	0.491	0.532	0.557	0.565	0.557	0.532	0.491	0.436	0.367	0.286	0.196	0.100	0.000
	Total DL	0.000	0.545	1.071	1.561	2.000	2.377	2.680	2.902	3.038	3.084	3.038	2.902	2.680	2.377	2.000	1.561	1.071	0.545	0.000

**CAMBER NOTES:**

1. All deflection ordinates are given in inches.
2. Steel DL - Includes the dead load due to the steel girder, stiffeners, diaphragms and other miscellaneous steel items.
3. Composite DL - Includes the superimposed dead load consisting of the railings, deck, and any other superstructure materials not included with the steel dead load defined above.
4. This bridge is not on a vertical curve, therefore no vertical curve deflection values are required.
5. Positive deflections are downward.
6. Longitudinal dimensions are measured from a chord between centerline of bearings.
7. 4" wide Timber Stringers shall be placed between the top of the girder and the bottom of the deck to ensure that the deck elevation remains constant as shown on Sheet B1-1 and does not follow the shape of the deflected girder. The bottom of the stringer shall be flush with the top flange of the girder while the top of the stringer is flush with the bottom of the deck. See Sheet B-4 for more information regarding the stringers.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: AM CHECKED BY: RH DESIGNED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE: <b>DEFLECTION DIAGRAM</b>		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER	PROJECT NAME: <b>RIVERWALK AND WESTMORELAND PARK</b>		SHEET NO.
								N/A	ST. LUCIE	516978-7			B1-4



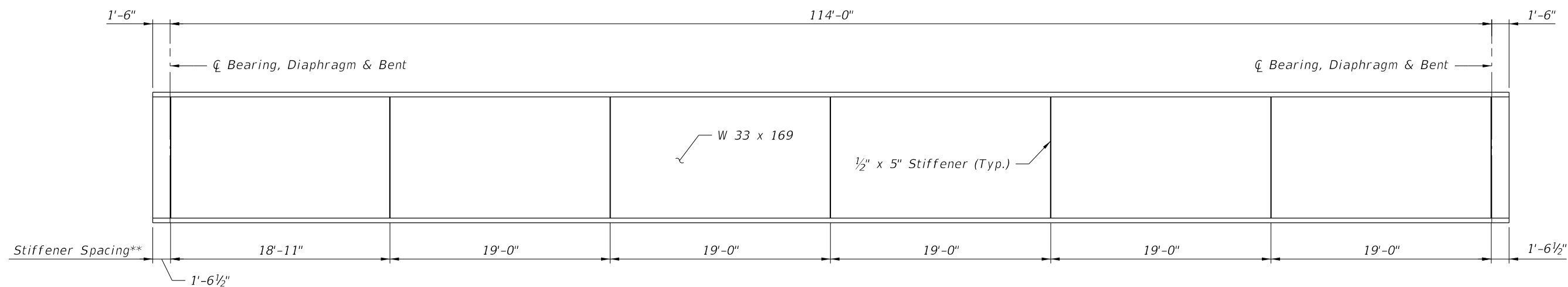


**FRAMING PLAN**

\*90°00'00" (Typ.)  
 \*\*All diaphragm and stiffener spacings given to  $\bar{C}$  Diaphragm and  $\bar{C}$  Stiffener, respectively.

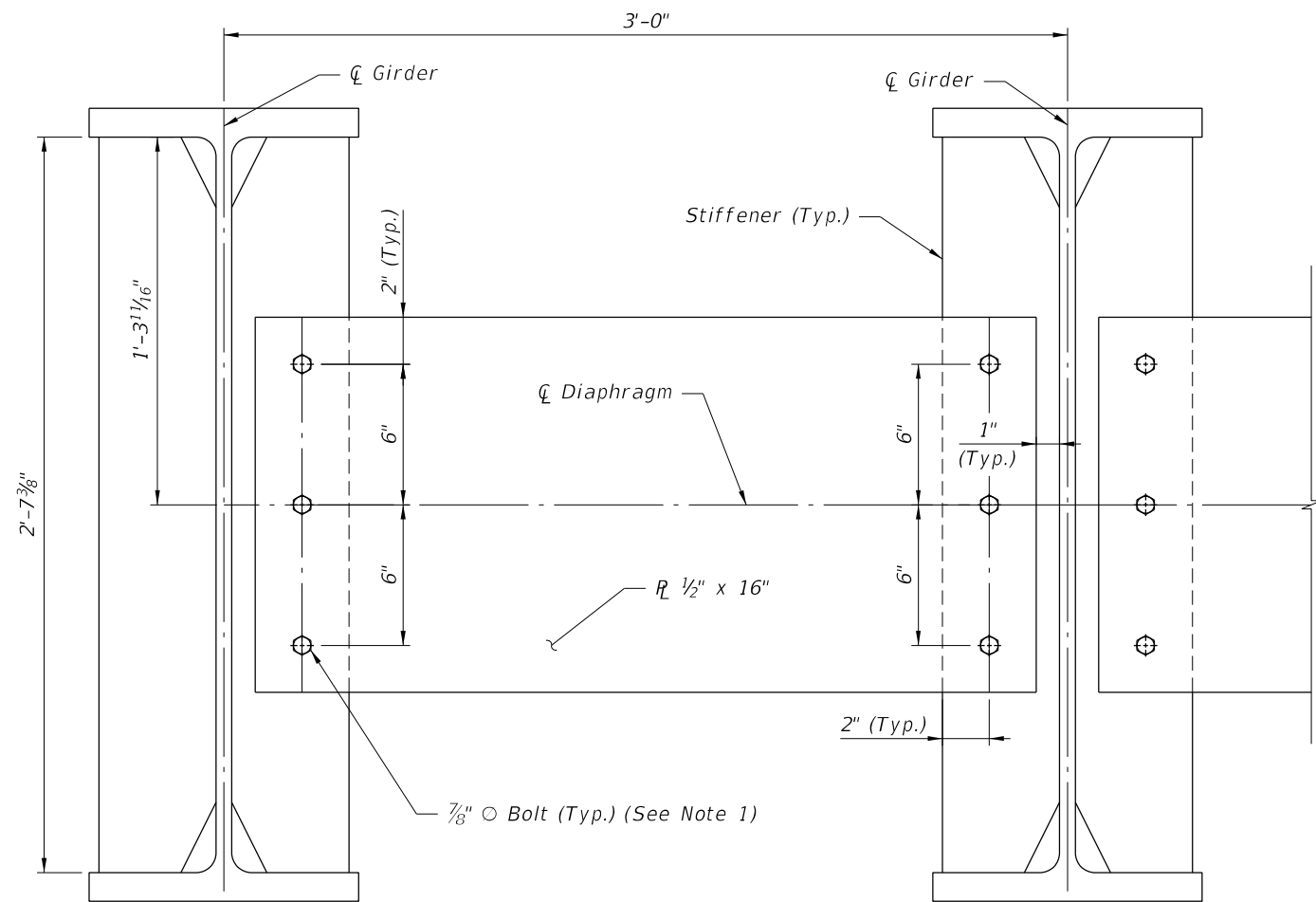
NOTE:  
 1. All stiffeners are on each side of the girder web.  
 2. All dimensions shown are horizontal and measured along  $\bar{C}$  Girder.

CROSS REFERENCE:  
 For girder details, see Sheet B1-6.

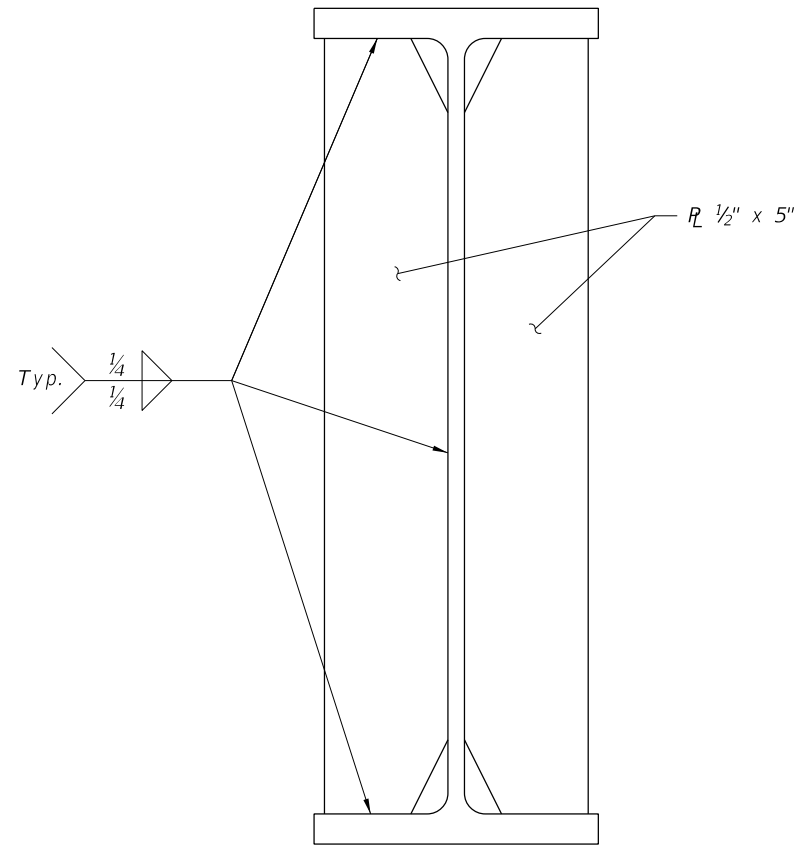


**TYPICAL GIRDER ELEVATION**

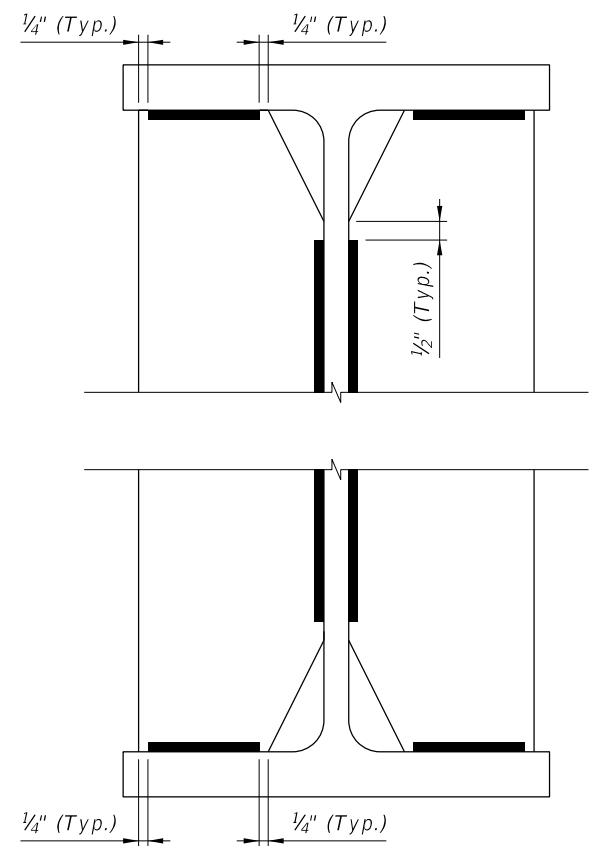
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: AM CHECKED BY: RH DESIGNED BY: RH	CITY OF PORT ST. LUCIE			STEEL GIRDER FRAMING PLAN AND ELEVATION		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER	PROJECT NAME:	SHEET NO.	
									N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B1-5



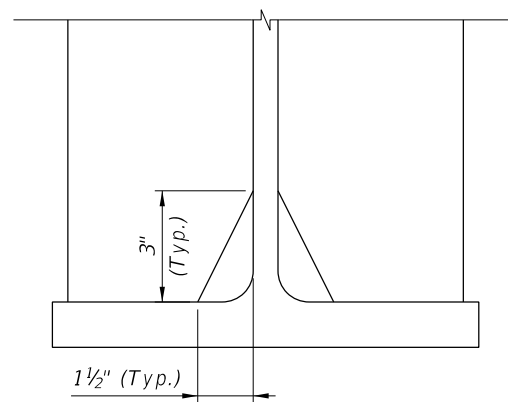
**DIAPHRAGM SECTION**  
(Exterior Bay Shown, Interior Bay Similar)



**STIFFENER DETAIL**  
(Bolt Holes Not Shown)



**WELD TERMINATION DETAIL**

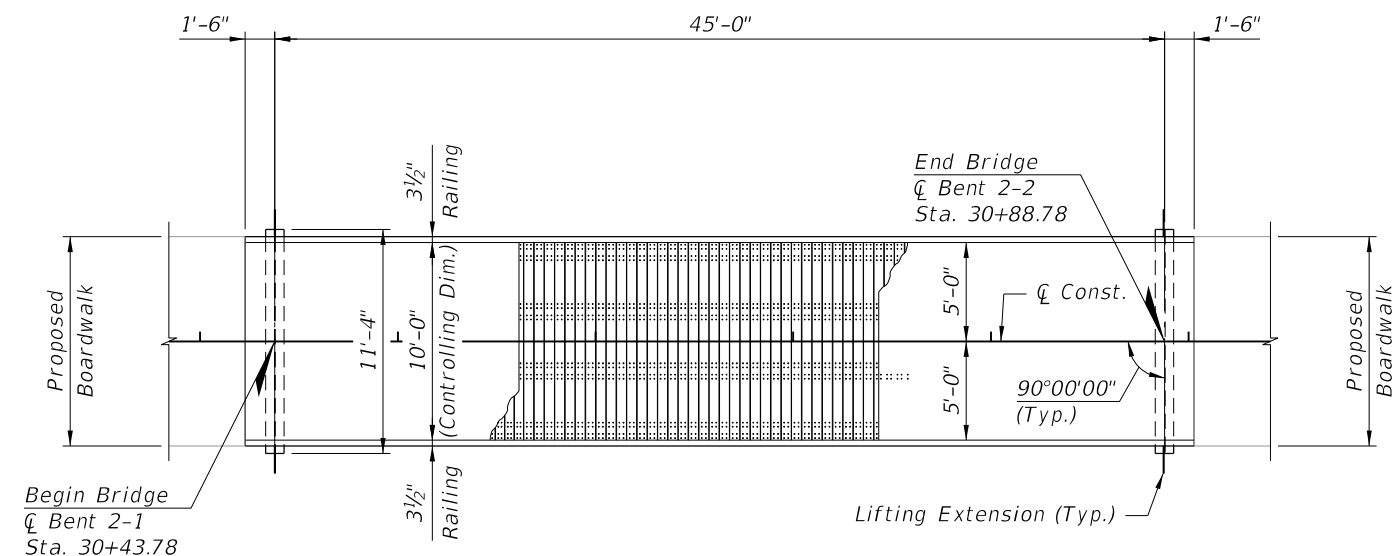
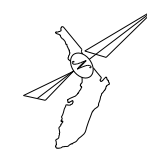


**CORNER CLIP DETAIL**

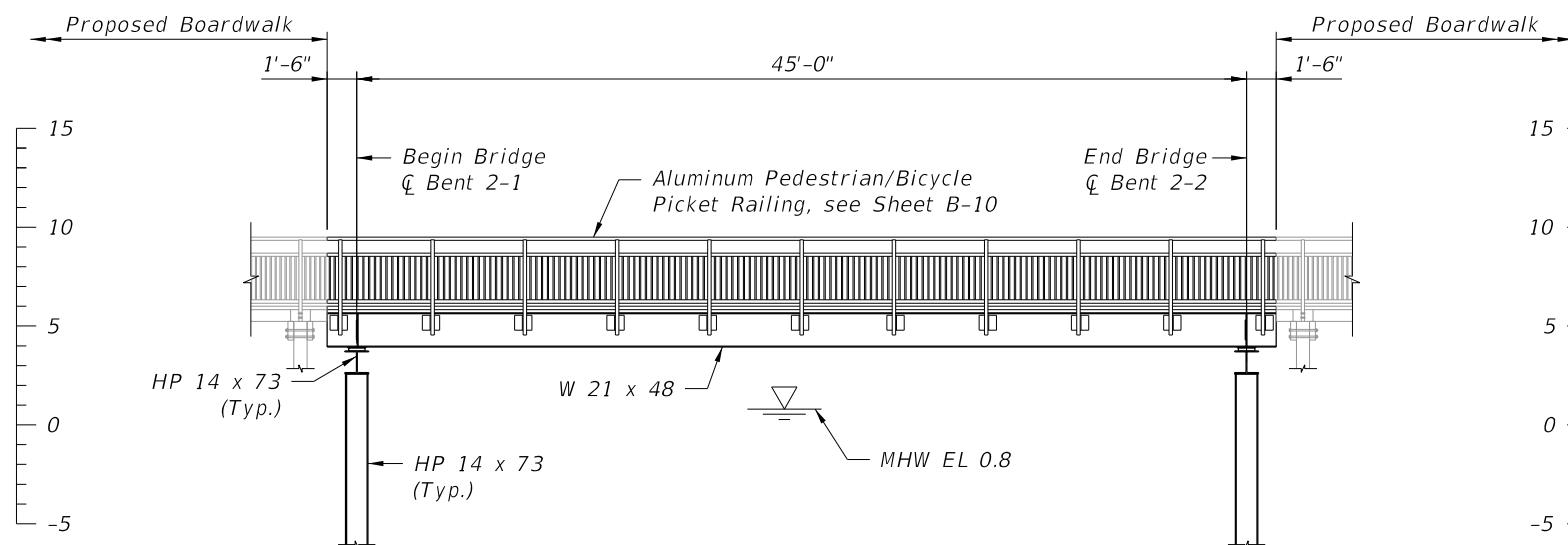
**NOTE:**  
All bolt holes are standard with a  $\frac{15}{16}$ "  $\varnothing$ . Bolts shall be High-Strength ASTM A325.

**CROSS REFERENCE:**  
For locations of cross frames and stiffeners, see Sheet B-8.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: AM CHECKED BY: RH DESIGNED BY: CHECKED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER	STEEL GIRDER DETAILS		
								N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK		
									PROJECT NAME:		SHEET NO.		
											B1-6		



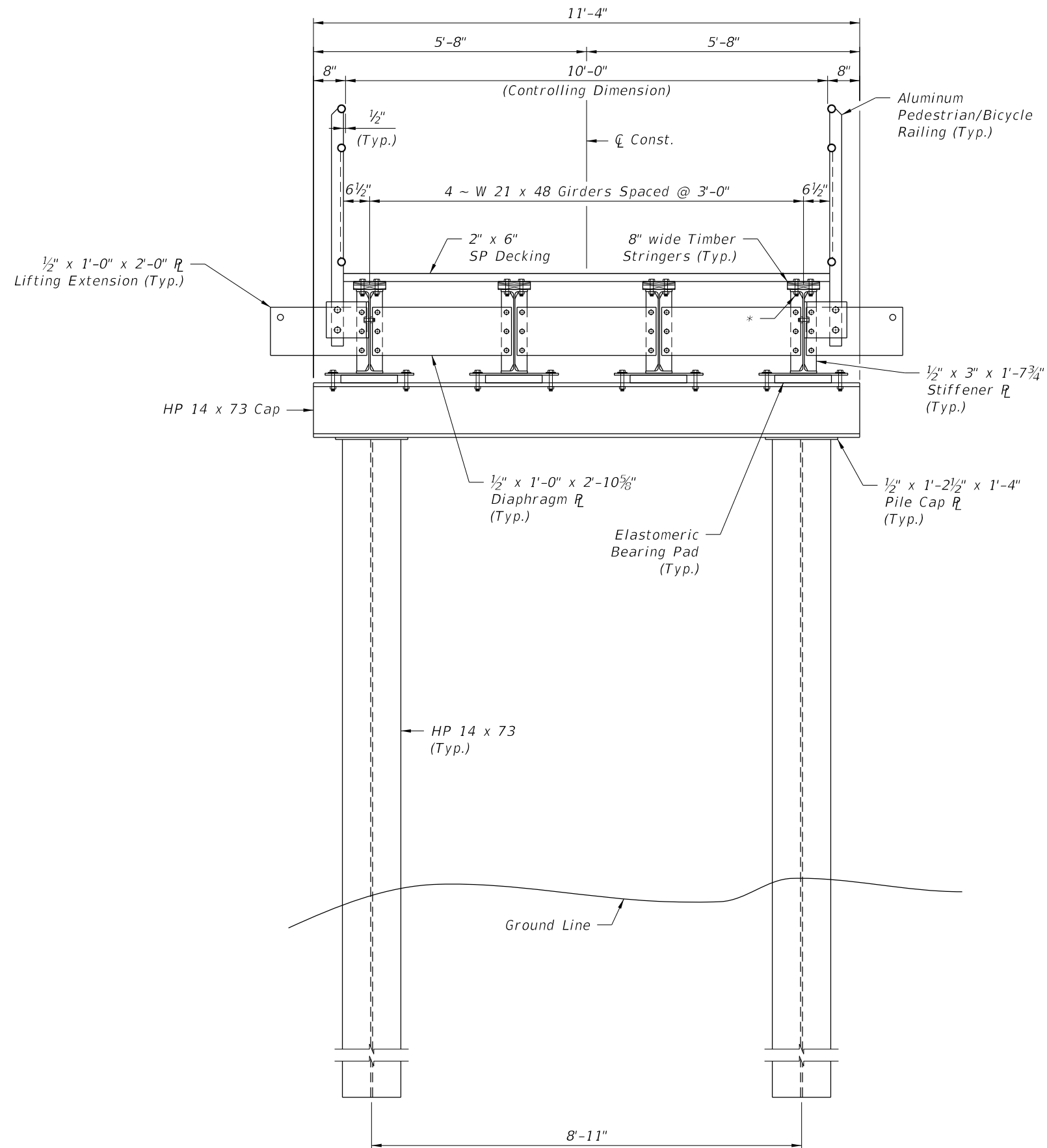
PLAN



ELEVATION

CROSS REFERENCE:  
1. For Typical Section, see Sheet B2-2.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: DP CHECKED BY: RH DESIGNED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE:  PLAN AND ELEVATION	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B2-1	

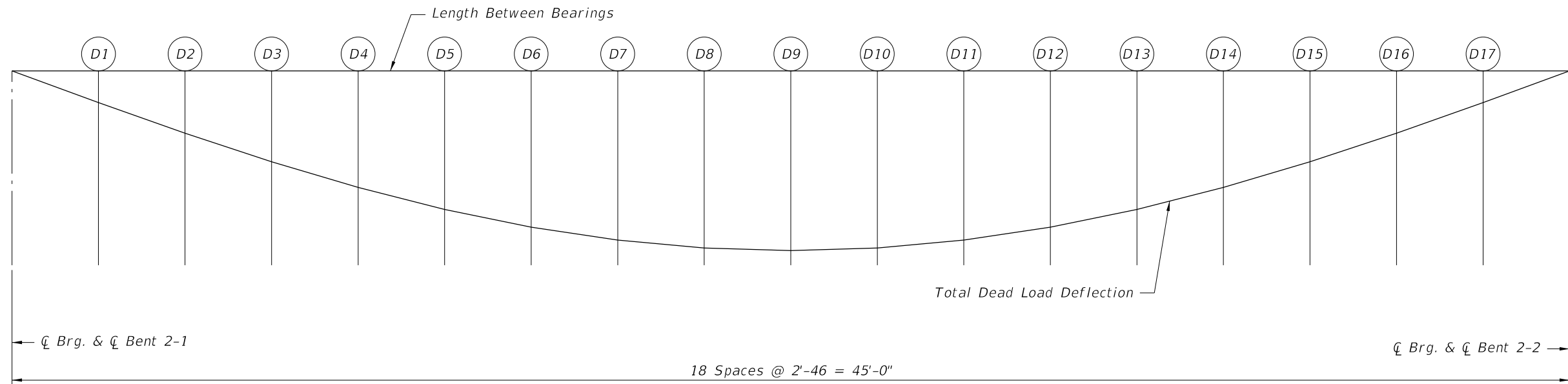


\*1/2" O Countersunk Bolt

- CROSS REFERENCE:
1. For Aluminum Pedestrian/Bicycle Railing, see Sheet B-4.
  2. For Plan and Elevation, see Sheet B2-1.

**TYPICAL SECTION THROUGH BRIDGE AT BEGIN/END BRIDGE**

REVISIONS						DRAWN BY: DP	CITY OF PORT ST. LUCIE			SHEET TITLE: TYPICAL SECTION THROUGH BRIDGE	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	ACE PROJECT NUMBER		
						CHECKED BY: RH	N/A	ST. LUCIE	516978-7	PROJECT NAME: RIVERWALK AND WESTMORELAND PARK	SHEET NO.
					DESIGNED BY:						B2-2
					CHECKED BY: RH						



**BENT 2-1**

**STEEL GIRDER DEFLECTION DUE TO DEAD LOAD**  
(Along  $\bar{C}$  Girders)

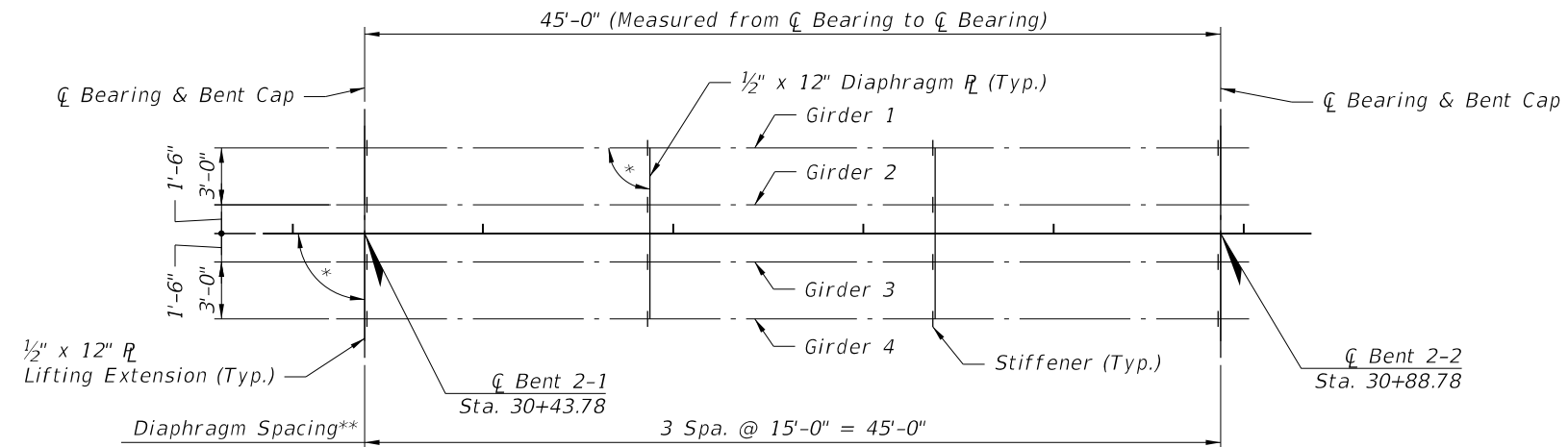
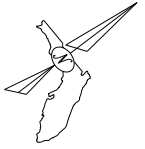
**BENT 2-2**

GIRDER	DEFLECTION DATA	SPAN 1																		
		$\bar{C}$ Bent 2-1	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	$\bar{C}$ Bent 2-2
All	Steel DL	0.000	0.035	0.069	0.101	0.129	0.153	0.173	0.187	0.196	0.199	0.196	0.187	0.173	0.153	0.129	0.101	0.069	0.035	0.000
	Composite DL	0.000	0.022	0.043	0.062	0.080	0.095	0.107	0.166	0.121	0.123	0.121	0.166	0.107	0.095	0.080	0.062	0.043	0.022	0.000
	Total DL	0.000	0.057	0.112	0.163	0.209	0.280	0.303	0.318	0.322	3.084	0.322	0.318	0.303	0.280	0.209	0.163	0.112	0.057	0.000

**CAMBER NOTES:**

1. All deflection ordinates are given in inches.
2. Steel DL - Includes the dead load due to the steel girder, stiffeners, diaphragms and other miscellaneous steel items.
3. Composite DL - Includes the superimposed dead load consisting of the railings, deck, and any other superstructure materials not included with the steel dead load defined above.
4. This bridge is not on a vertical curve, therefore no vertical curve deflection values are required.
5. Positive deflections are downward.
6. Longitudinal dimensions are measured from a chord between centerline of bearings.
7. 4" wide Timber Stringers shall be placed between the top of the girder and the bottom of the deck to ensure that the deck elevation remains constant as shown on Sheet B2-1 and does not follow the shape of the deflected girder. The bottom of the stringer shall be flush with the top flange of the girder while the top of the stringer is flush with the bottom of the deck. See Sheet B2-5 for more information regarding the stringers.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: DP CHECKED BY: RH DESIGNED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE:  DEFLECTION DIAGRAM	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B2-3	



**FRAMING PLAN**

\*90°00'00" (Typ.)

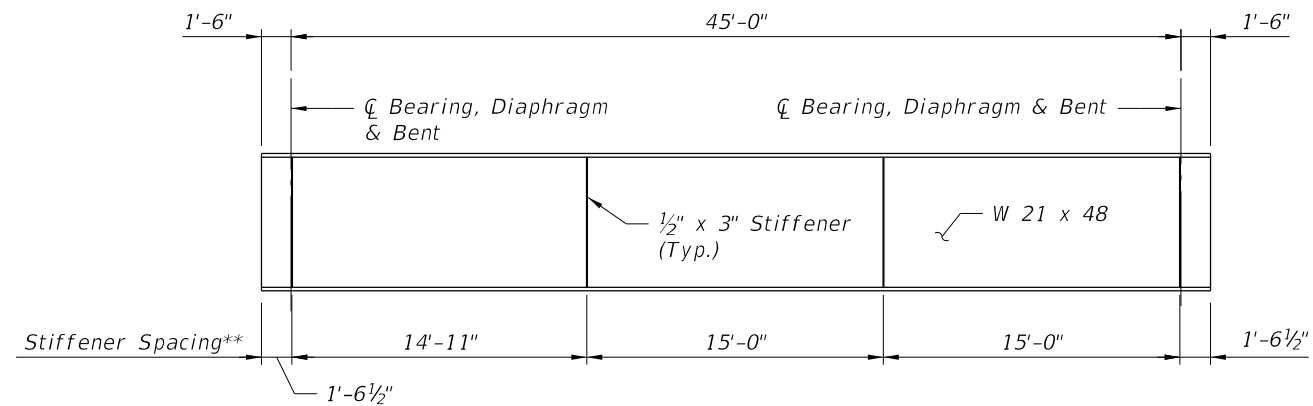
\*\*All diaphragm and stiffener spacings given to  $\bar{C}$  Diaphragm and  $\bar{C}$  Stiffener, respectively.

**NOTE:**

1. All stiffeners are on each side of the girder web.
2. All dimensions shown are horizontal and measured along  $\bar{C}$  Girder.

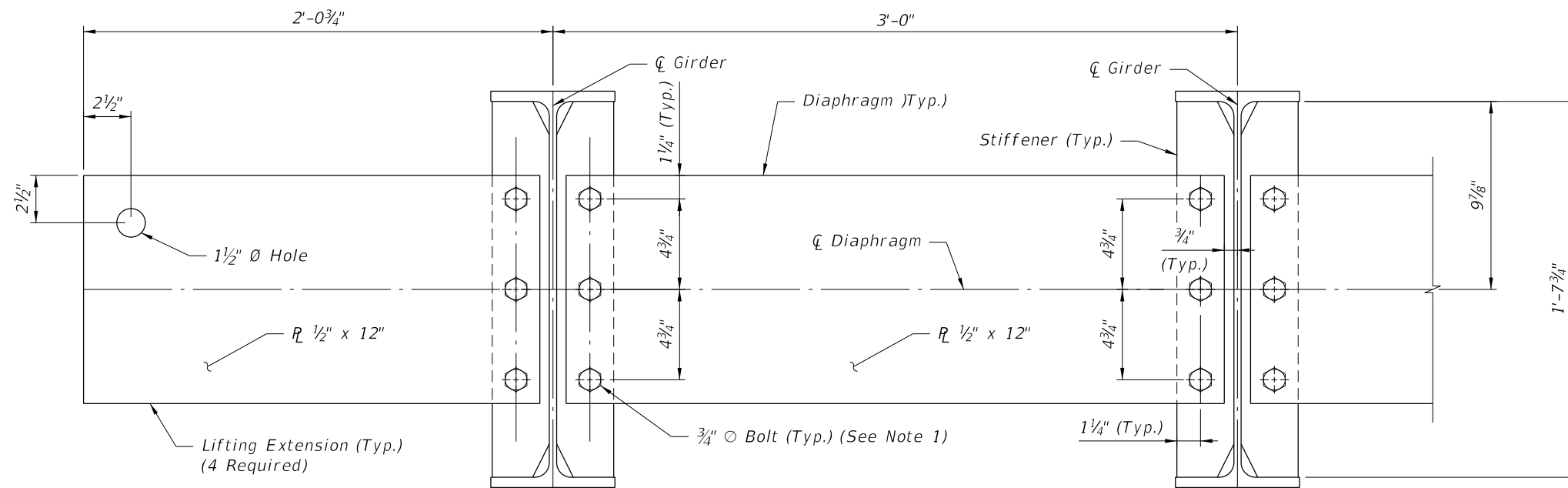
**CROSS REFERENCE:**

For girder details, see Sheet B2-5.

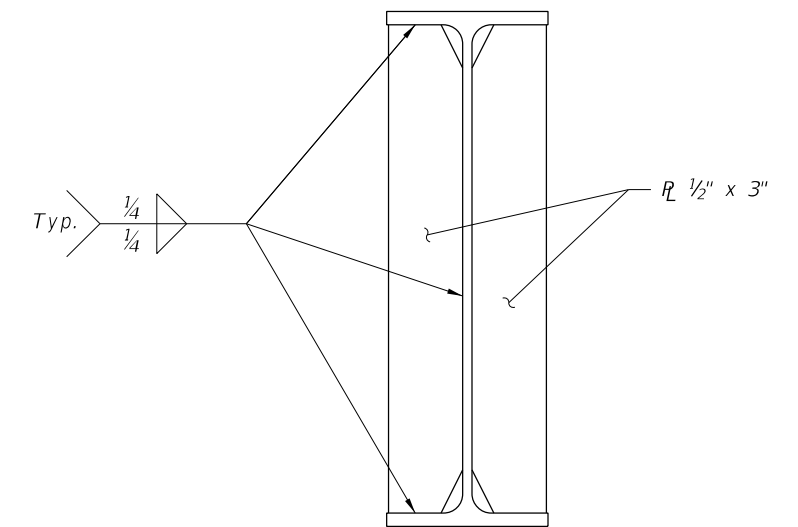


**TYPICAL GIRDER ELEVATION**

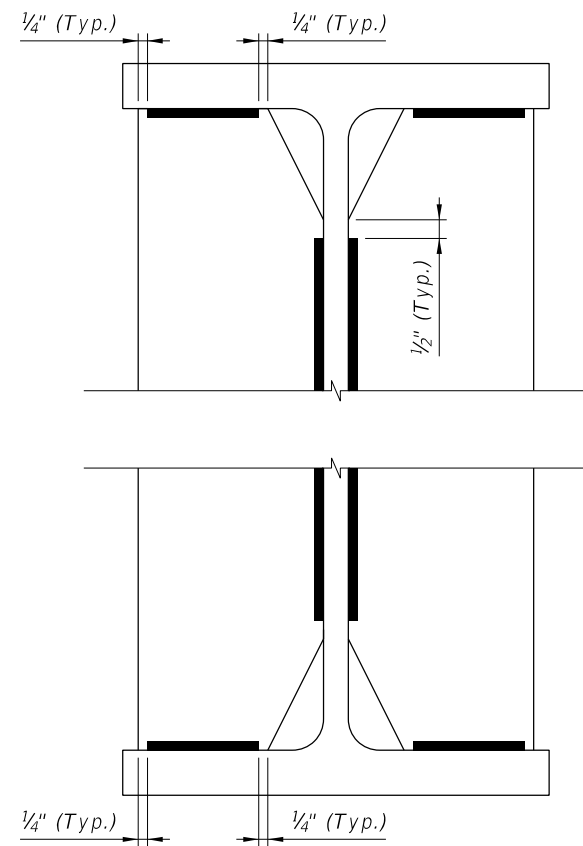
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: DP CHECKED BY: RH DESIGNED BY: RH	CITY OF PORT ST. LUCIE			SHEET TITLE:  STEEL GIRDER FRAMING PLAN AND ELEVATION	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	516978-7	RIVERWALK AND WESTMORELAND PARK	B2-4	



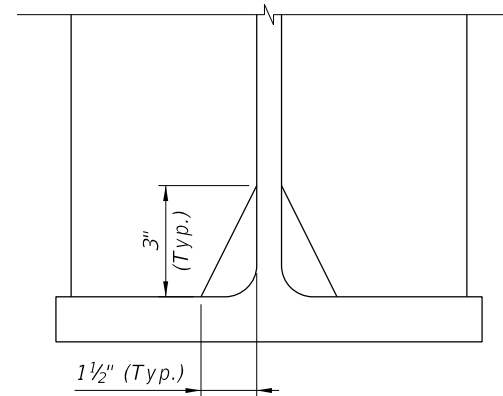
**DIAPHRAGM SECTION**  
(Exterior Bay Shown, Interior Bay Similar)



**STIFFENER DETAIL**  
(Bolt Holes Not Shown)



**WELD TERMINATION DETAIL**



**CORNER CLIP DETAIL**

**NOTE:**  
All bolt holes are standard with a  $13/16$ "  $\varnothing$ . Bolts shall be High-Strength ASTM A325.

**CROSS REFERENCE:**  
For locations of cross frames and stiffeners, see Sheet B2-4.

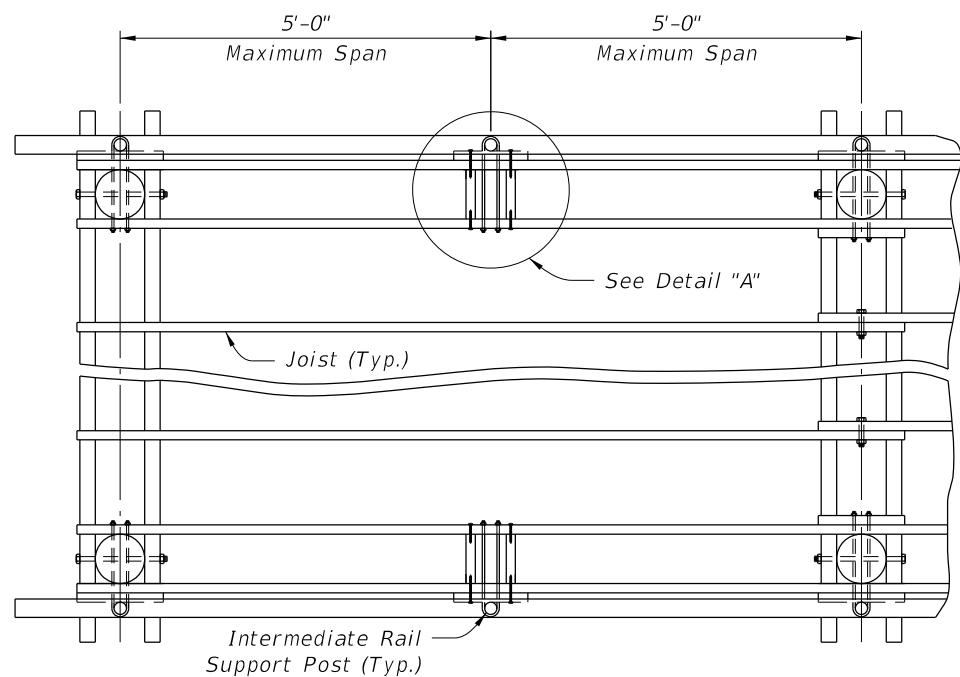
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	CITY OF PORT ST. LUCIE ROAD NO. COUNTY ACE PROJECT NUMBER N/A ST. LUCIE 516978-7			SHEET TITLE: STEEL GIRDER DETAILS PROJECT NAME: RIVERWALK AND WESTMORELAND PARK		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						SHEET NO.	
												B2-5

NOTES:

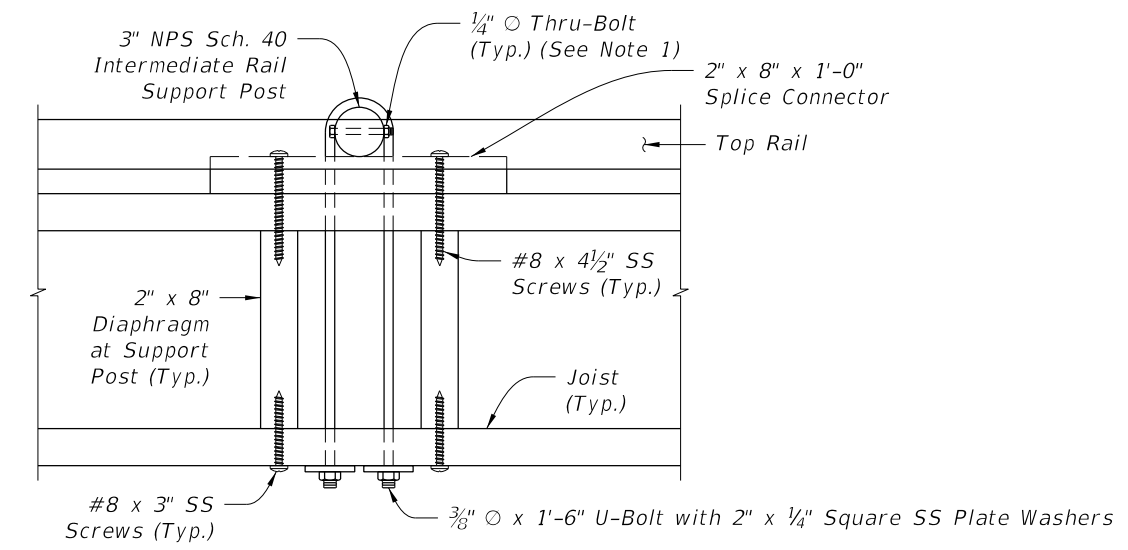
1. Specifications: Designed in accordance with:
  - AASHTO LRFD Bridge Design Specifications, 7th Edition
  - AASHTO LRFD Guide Specification for the Design of Pedestrian Bridges, 2nd Edition
2. Lumber sizes shown are nominal sizes. Lumber shall be furnished in sizes meeting the requirements of the American Softwood Lumber Standard, PS20-94. Lumber grade shall be No. 1, in accordance with Standard Specification 952. The decking and railing cap shall be Structural Plastic (SP). Structural Plastic shall be Fiberglass Fiber Reinforced Composite Lumber (FFRCL) in accordance with FDOT Standard Specification 973.
3. Design Loading:
  - Pedestrian LL: 90 psf
  - Rail and Post LL: 200 lb + 50 plf
  - Timber DL: 34.3 pcf
  - Structural Plastic DL: 65 pcf
  - Maximum Deck Weight: 8.13 psf
4. All lumber (Timber & Post) shall be treated in accordance with FDOT Standard Specification 955. All posts shall receive treatment as required for piling. All posts, except those for the boat dock, shall be treated with Chromated Copper Arsenate (CCA) in accordance with FDOT Standard Specification 955-2.1. All other timber, including boat dock posts, shall be treated in accordance with FDOT Standard Specification 955-2.2 for wood products of pedestrian bridges. All posts shall be wrapped with a high density polyethylene material that has a minimum thickness of 0.03". The seams of the wrap shall use a 6" minimum overlap with 1 1/4" stainless steel ring-shank roofing nails spaced every 2" along entire length of seam. The wrap shall extend from the mudline to the mean high water of approximately EL. 2.0.
5. Use bolts or screws, as shown, for assembly of the boardwalk. All bolt assemblies shall have washers under both the bolt head and nuts. Screws shall be countersunk and installed in holes drilled with a countersunk drill bit. Nails may only be used for pre-assembly as shown. All fasteners, including bolts, nuts, washers, screws, nails and plate washers, shall be ASTM F593C or F593D stainless steel.
6. Details for these standards are shown for straight sections only. Moderately curved (R > 1300') boardwalks shall use chorded sections and variable decking spacing. For smaller radius curves, (R > 350') wedge blocks at joist splices, mitered handrail splices and tapered decking at interior supports will be required for turns at interior bents.
7. The color of the Structural Plastic shall be Color No. 30227 in accordance with Federal Color Standard 595B.
8. Lengths of U-bolts are measured from the inner diameter to the end of bolt (End to end of bolt minus one bolt diameter). Lengths of all bolts given in this set of plans assume a maximum 8" post diameter and may not be sufficient for post diameters over 8". The contractor shall verify that the lengths of all bolts are sufficient prior to ordering bolts.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY:	CITY OF PORT ST. LUCIE			SHEET TITLE:	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY:				PROJECT NAME:	SHEET NO.
							JV/RR/CB RH AM LP	ROAD NO.	COUNTY	ACE PROJECT NUMBER	GENERAL NOTES	
								N/A	ST. LUCIE	5169787	RIVERWALK AND WESTMORELAND PARK	S - 1

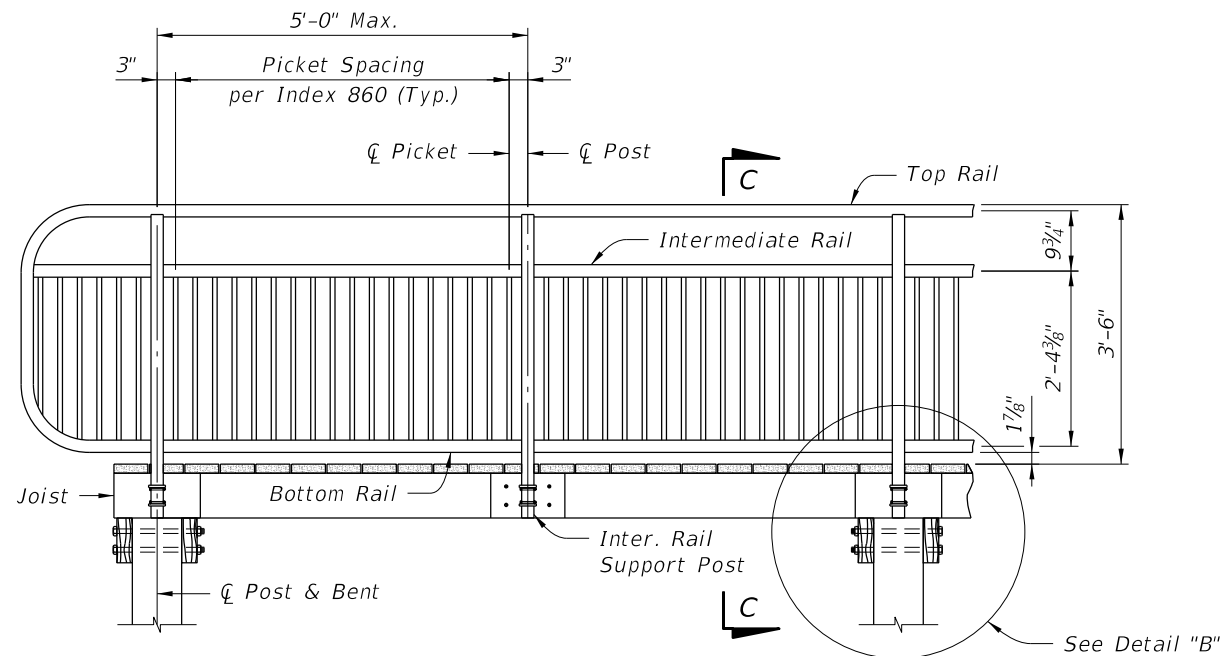




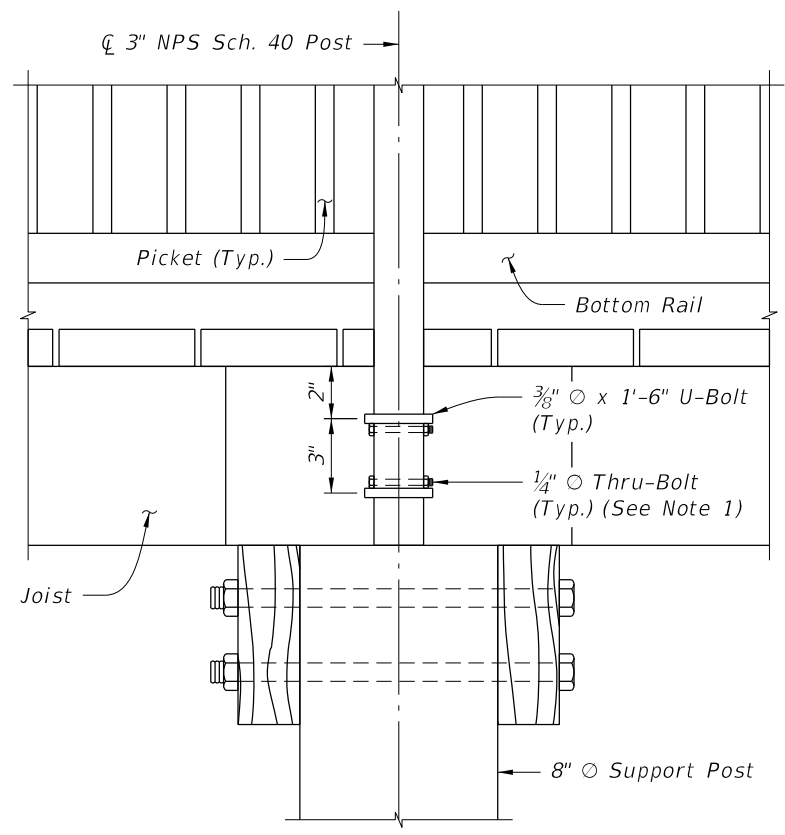
PLAN



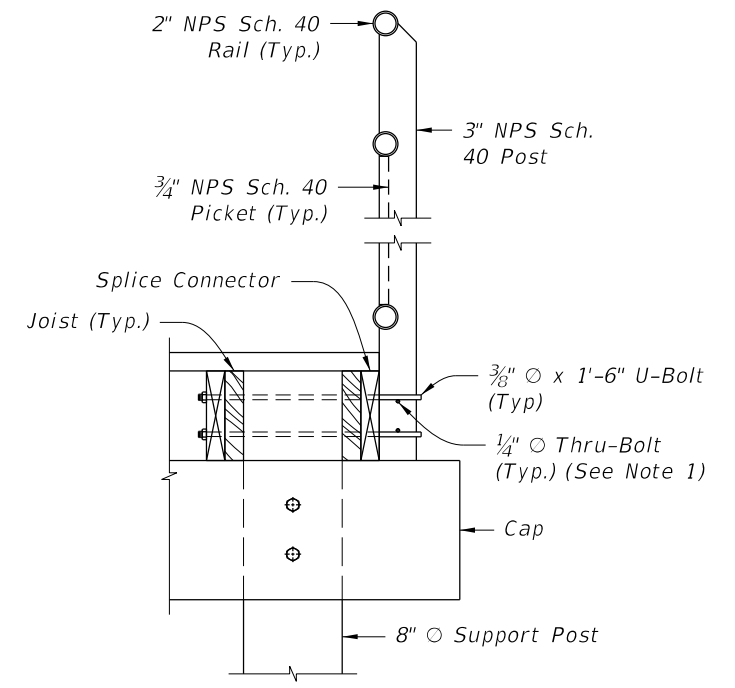
DETAIL "A"



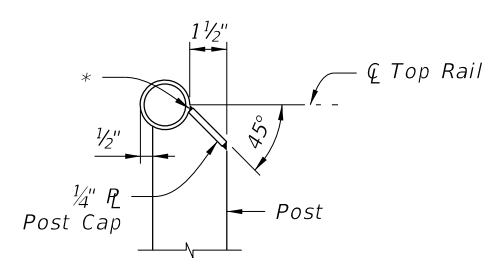
ELEVATION



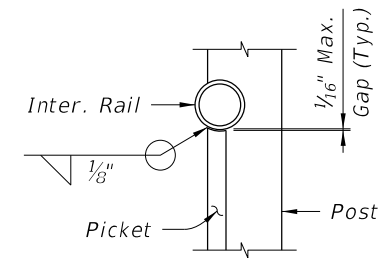
DETAIL "B"



SECTION C-C



TOP RAIL & POST CONNECTION

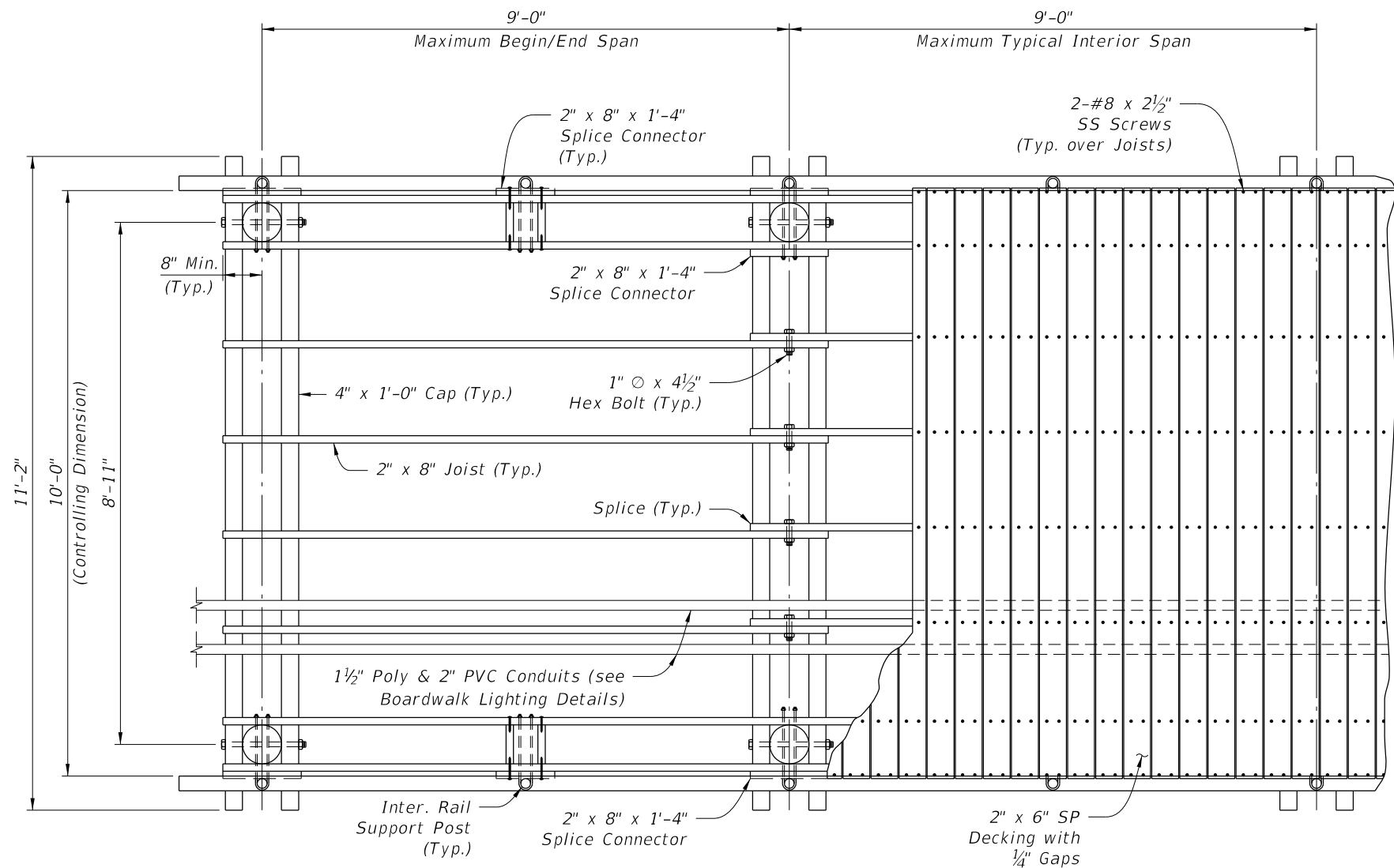


INTERMEDIATE RAIL & POST CONNECTION  
(Intermediate Rail shown, Bottom Rail similar)

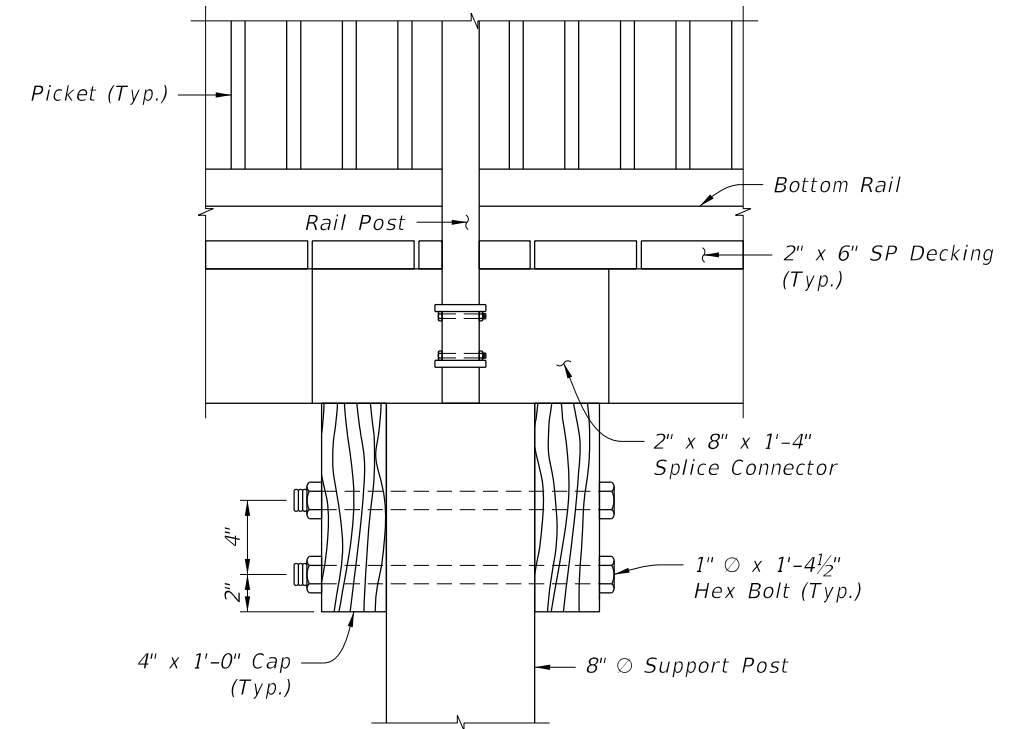
\*1/4" Seal Weld Cap to top of post, all sides

- NOTE:
- Contractor shall install bolts such that either the 3/8" U-Bolt bears on the head and nut of the 1/4" Thru-Bolt or the 3/8" U-Bolt bears on the 1/4" Thru-Bolt itself. Contractor shall deform the threads at the end of the 1/4" Thru-Bolt after installation to prevent the nut from working free.
  - For additional Aluminum Pedestrian/Bicycle Picket Railing details, see FDOT 2010 INTERIM DESIGN STANDARD INDEX NO. 860.
  - Contractor shall submit shop drawings for the Aluminum Pedestrian/Bicycle Picket Railing.

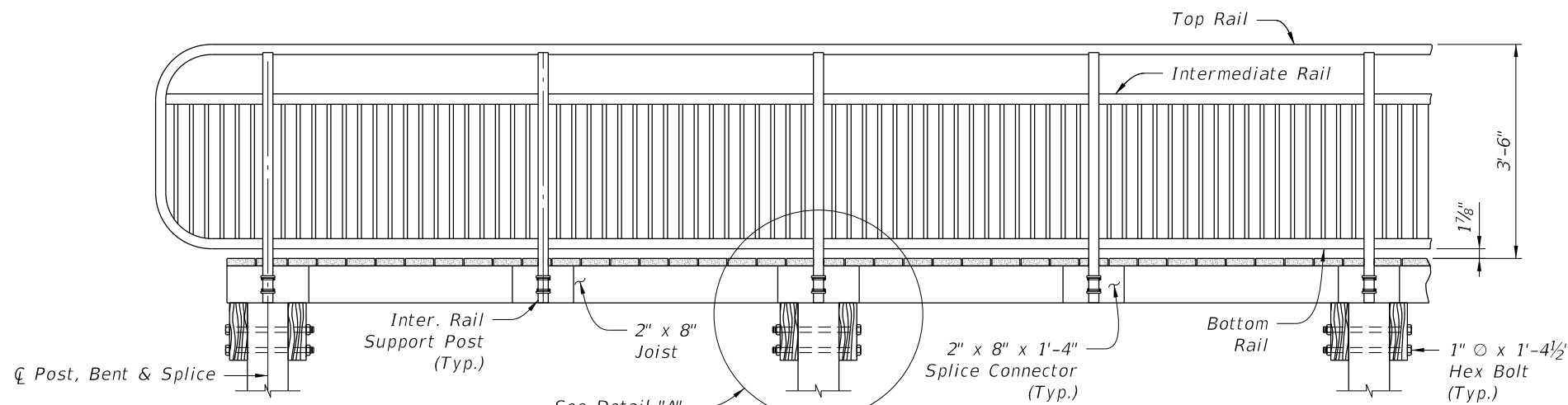
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: JV/RR/CB CHECKED BY: RH DESIGNED BY: AM CHECKED BY: LP	CITY OF PORT ST. LUCIE			SHEET TITLE:  ALUMINUM PEDESTRIAN/BICYCLE PICKET RAILING	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	5169787	RIVERWALK AND WESTMORELAND PARK	S-2	



PLAN



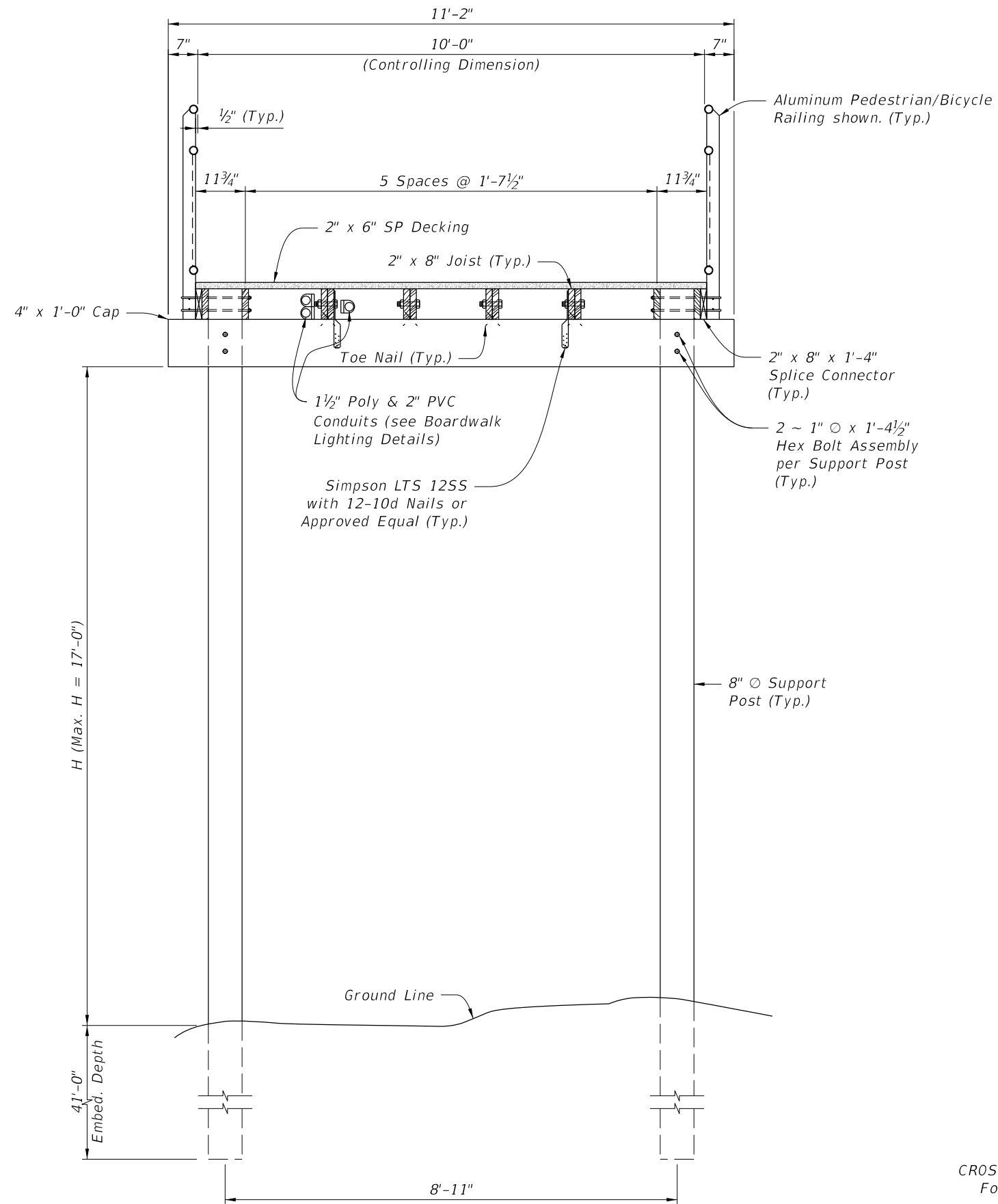
DETAIL "A"



ELEVATION

- CROSS REFERENCE:
1. For Aluminum Pedestrian/Bicycle Picket Railing, see sheet S-3.
  2. For Wire Mesh Railing, see sheet S-4.
  3. For Typical Section, see sheet S-8.
  4. For Boardwalk Lighting Details, see sheet S-18.

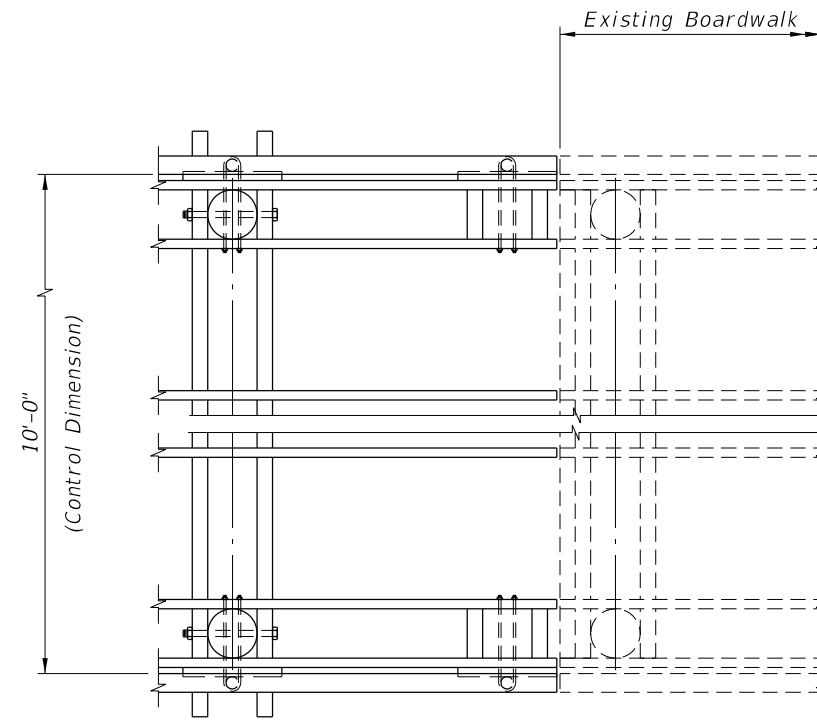
REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: JV/RR/CB CHECKED BY: RH DESIGNED BY: AM CHECKED BY: LP	CITY OF PORT ST. LUCIE			SHEET TITLE:  10'-0" BOARDWALK (1 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		
							N/A	ST. LUCIE	5169787	RIVERWALK AND WESTMORELAND PARK	S-3	



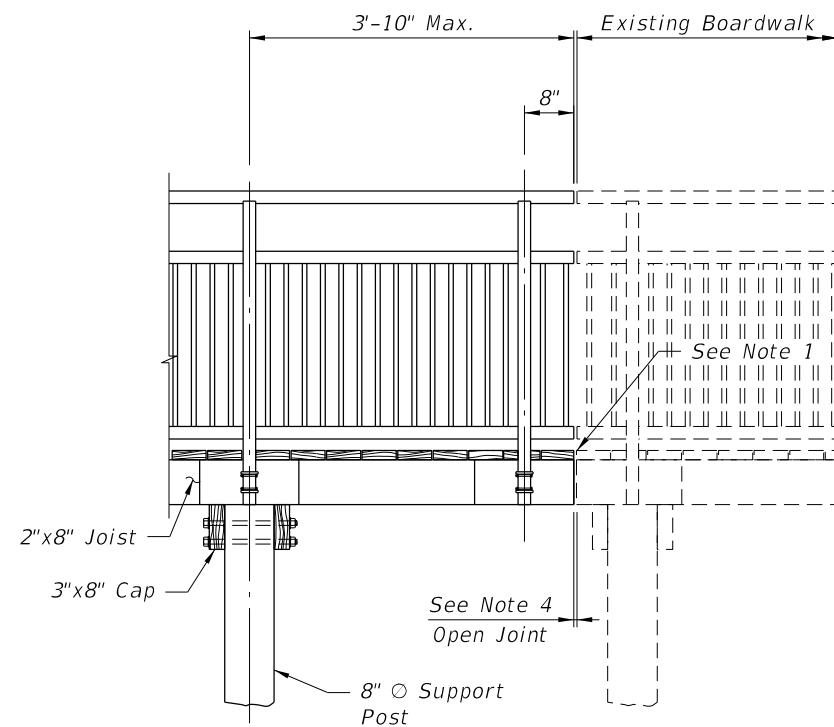
CROSS REFERENCE:  
For Aluminum Pedestrian/Bicycle Picket Railing, see sheet S-2.

TYPICAL SECTION THROUGH BOARDWALK

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: <i>JV/RR/CB</i> CHECKED BY: <i>RH</i> DESIGNED BY: <i>AM</i> CHECKED BY: <i>LP</i>	CITY OF PORT ST. LUCIE			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER	PROJECT NAME:	SHEET NO.	
								N/A	ST. LUCIE	5169787	10'-0" BOARDWALK (2 OF 2)	RIVERWALK AND WESTMORELAND PARK	S-4



PLAN VIEW AT BEGIN/END BOARDWALK



ELEVATION VIEW AT BEGIN/END BOARDWALK

- NOTES:
1. Top of boardwalk to be flush with top of existing boardwalk.
  2. 1/4" Min./1/2" Max. Open Joint Typical.

REVISIONS						AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2818 Cypress Ridge Blvd, Suite 200 Wesley Chapel, Florida 33544 Phone: (813) 435-2600 Fax: (813) 435-2601 Certificate of Authorization No. 9302 Richard A. Hunter, P.E. No. 50601	DRAWN BY: JV/RR/CB CHECKED BY: RH DESIGNED BY: AM CHECKED BY: LP	CITY OF PORT ST. LUCIE			SHEET TITLE:  END BOARDWALK DETAILS	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	ACE PROJECT NUMBER		PROJECT NAME:
10/10/19	RH	Removed Gravity Wall Option 3, added Blocking Detail, and expanded notes.					N/A	ST. LUCIE	FPID 5169787	RIVERWALK AND WESTMORELAND PARK	S-5	