

**Addendum No. 2  
to the Bidding Documents**

**State Project No. 117-161  
Federal Aid Project No. PEDS(227)**

**Branchville TOD Pedestrian Improvements  
Town of Ridgefield**

**September 12, 2022**

Bidders are informed that the Bidding Documents for the above-mentioned Project are modified, corrected, and/or supplemented as follows. Addendum No. 2 becomes part of the Bidding Documents and Contract Documents.

Bidders must acknowledge receipt of this addendum by signing the bottom of this Addendum and returning it as part of the Bid Submission. Failure to acknowledge receipt of the Addendum may subject the Bidder to disqualification.

**Project Manual**

The following changes have been made to the Project Manual:

**Special Provisions**

Special Provisions Item #0604301A – Pedestrian Bridge Superstructure (Site No. 1) has been revised.

**Item 1 Design Criteria**

**Delete the second sentence:** "The bridge shall be designed for a uniform live load of 90 lbs. per square foot with no deduction."

**And, replace the second sentence with:** "Footbridge steel members shall be designed for a uniform live load of 90 lbs. per square foot with no deduction."

**Item 2 Materials**

**Delete the entire section:** "Bridge shall be fabricated from high-strength, self-weathering, low alloy, atmospheric corrosion-resistant ASTM A606 Type 4 steel with a minimum yield stress of 50,000 psi. Material thickness and design shall be fully engineered for the length and loads specified. The minimum thickness for structural members shall be 3/16".

Decking material shall be solid composite wood decking designed to support a uniform load of not less than 150 lbs. per square foot with a maximum deflection of 1/150 of the span. The decking material shall be securely attached to the footbridge floor beams. Cover plates shall be provided at the ends of the bridge to cover the space between the decking and the abutments.

Footbridge shall be provided with 42" minimum high safety railing on both sides of the bridge for the entire length. The railings shall be continuous on the inside of the truss with vertical pickets with a maximum opening of 4 inches."

**And, replace the entire section with:** "The footbridge shall be fabricated from high-strength, self-weathering, low alloy, atmospheric corrosion-resistant steel with a minimum yield stress of 50,000 psi. Steel HSS members shall be in accordance with ASTM A847, Grade 50W. Steel plate and other steel shape products shall be fabricated in accordance with ASTM A709, Grade 50W. Material thickness and design shall be fully engineered for the length and loads specified. The minimum thickness for structural members shall be 3/16".

Footbridge decking material shall be solid composite wood decking designed to support a uniform load of not less than 150 lbs. per square foot with a maximum deflection of 1/150 of the span. The decking material shall be securely attached to the footbridge floor beams. Cover plates shall be provided at the ends of the bridge to cover the space between the decking and the abutments.

Footbridge shall be provided with 42" minimum high safety railing on both sides of the bridge for the entire length. The railings shall be continuous on the inside of the truss with horizontal safety rails with a maximum opening of 4 inches."

### **Drawing Changes**

#### **Item 1      Drawing S-101, Material Strengths Notes:**

**Within the Structural Steel Section, Delete** "AASHTO M270, Grade 50WT2"

**And, within the Structural Steel section replace the deleted text** with "(HSS) ASTM A847, Grade 50W" & "(Plates & Shapes) ASTM A709, Grade 50W"

#### **Item 2      Drawing S-101, Live Load Notes:**

**Add** "(\*See Special Provisions)" to Live Load under General Notes.

### **Bidding Period Questions & Responses**

The following responses/clarifications are based on questions raised during the bidding period.

#### **1. The bridge section view on sheet S-102 shows horizontal safety rails, while the specification notes vertical pickets. Please clarify.**

*Horizontal safety rails are preferable, as shown in the bridge section view on sheet S-102. Special Provision has been revised to note horizontal safety rails.*

- 2. Please clarify the uniform live load requirement for the pedestrian bridge, as the specification indicates that decking is to be designed for 150 psf in one paragraph and that the footbridge is to be designed for 90 psf in another paragraph. These numbers should match, and please note that 90 psf is a much more conventional standard.**

*The intent is for the bridge steel components to be designed for 90 psf loading, and the solid-composite wood deck material to be designed for 150 psf. Please see revised Special Provision #0604301A – Pedestrian Bridge Superstructure (Site No. 1) attached.*

- 3. Will the bridge manufacturer be subject to shop drawing review and/or in-plant inspections by CTDOT?**

*The bridge manufacturer shall generate shop drawings and design calculations per the bridge specification. The bridge manufacturer must provide documentation containing the firm's qualifications as well as the plant's quality control and assurance program to the engineer to review. Material certifications must be supplied for the bolts and structural steel members. The welds must also be checked/certified.*

- 4. Sheet S101 indicates that only AASHTO M270, Grade 50WT2 Steel will be allowed for the pedestrian bridge, while the specification requires ASTM A606 Type 4. Weathering steel HSS members are not produced in these ASTM designations. Weathering steel HSS members are produced in ASTM A847. Additionally, most weathering steel plate and shape products are stocked by industry producers in ASTM A588 or A709-50W. Are these material substitutions acceptable considering the structure is to be weathering steel?**

*No exceptions are taken to these ASTM material substitutions. Please see revised Special Provision #0604301A – Pedestrian Bridge Superstructure (Site No. 1) and revised Drawing S-101 attached.*

- 5. It appears that the pedestrian bridge will be inundated during the design storm, as the base flood elevation that is provided is 6" above the low chord elevation. In order to design for this horizontal pressure we will need to know the velocity of flow during this event. Please provide.**

*In the design storm event (100-Year storm) where the water surface elevation will be above the bridge low chord, the velocity of flow acting on the upstream side of the pedestrian bridge will be 3.52 feet/second.*

- 6. The pedestrian bridge floor beams are to avoid the existing wingwall to remain near Abutment 2. As shown the first floor beam is to be located in front of this wingwall, however is it OK to overspan existing wingwall if we can accommodate a great enough bay spacing? If so, what is the dimension of the wingwall along the length of the bridge so that we can make this determination?**

*Floor beams should be spaced to avoid the existing wingwall stem as noted in call-out in Elevation View on S-101. The existing wingwall stem is approximately 1'-3" wide at the top.*

- 7. If soil nailing is used for temporary earth retention, is there a limitation to length of nail allowable to extend under roadway?**

*No exception will be taken to the length of soil nailing. It is the Contractor's responsibility to verify existing conditions and location of any existing underground utilities and/or structures to avoid conflicts if soil nailing is utilized.*

- 8. We have a question in regard to the full depth reconstruction. The depth of pavement and base materials shown in some of the cross sections does not match the Full Depth Bituminous Pavement detail shown on Sheet C-1101. Please clarify whether the pavement installation should follow the cross sections or the detail.**

*Permanent pavement repair shall adhere to the Full Depth Bituminous Pavement detail shown on Sheet C-1101. Cross sections should not be utilized for dimensioning of material thicknesses.*

Company\_\_\_\_\_ Name:\_\_\_\_\_

Signature:\_\_\_\_\_ Date:\_\_\_\_\_

Attachments: Special Provision 0604301A – Pedestrian Bridge Superstructure (Site No. 1) –  
Addendum #2  
Drawing S-101 – Addendum #2

END OF ADDENDUM NO. 2

**ITEM #0604301A – PEDESTRIAN BRIDGE SUPERSTRUCTURE (SITE NO. 1)**

**Description:** Work under this Item, the Contractor shall supply all labor, tools, materials, and equipment necessary to design, manufacture, deliver and install the 8' wide by 76' long footbridge across the Cooper Pond Brook. Concrete for the pedestrian bridge abutments and footings are specified and paid for under Items #0601062 and #0601064.

The Contractor shall be responsible for obtaining a building permit from the Town of Ridgefield prior to the start of construction. Permit fees will be waived.

The Contractor shall submit for approval, five (5) copies of drawings of the materials and structural details for the footbridge and its components. Before placing orders for any manufactured item or part of structure, he shall also submit five (5) copies, for approval, of detailed lists and descriptions of the various materials and supplies which he proposes to use in the work, and also the names of individuals or companies who propose to furnish or manufacture the same.

**Design Criteria:** The footbridge shall be 8' wide (between handrails) with a total length of 76', and railings minimum 42" high on each side. Footbridge steel members shall be designed for a uniform live load of 90 lbs. per square foot with no deduction. The bridge shall meet ADA requirements. The bridge shall also be designed to withstand a moving vehicle load of 10,000 pounds, a wind load of 35 pounds per square foot, and a lateral water load based on the 100-year design storm and hydraulics data as shown on the plans. All bearings shall be anchored to the abutment pedestals, and adjustable mounting plates and Teflon bearings, or other approved means, shall be provided to allow for thermal expansion over a range of 120°F. The pedestrian bridge shall be a prefabricated steel "Pratt Style" truss superstructure type bridge as manufactured by Contech Engineered Solutions, LLC, by Bridge Brothers, Inc., or approved equal.

**Materials:** The footbridge shall be fabricated from high-strength, self-weathering, low alloy, atmospheric corrosion-resistant steel with a minimum yield stress of 50,000 psi. Steel HSS members shall be in accordance with ASTM A847, Grade 50W. Steel plate and other steel shape products shall be fabricated in accordance with ASTM A709, Grade 50W. Material thickness and design shall be fully engineered for the length and loads specified. The minimum thickness for structural members shall be 3/16".

Footbridge decking material shall be solid composite wood decking designed to support a uniform load of not less than 150 lbs. per square foot with a maximum deflection of 1/150 of the span. The decking material shall be securely attached to the footbridge floor beams. Cover plates shall be provided at the ends of the bridge to cover the space between the decking and the abutments.

Footbridge shall be provided with 42" minimum high safety railing on both sides of the bridge for the entire length. The railings shall be continuous on the inside of the truss with horizontal safety rails with a maximum opening of 4 inches.

**Construction Methods:** All welding shall be in accordance with the requirements of the American Welding Society.

All exposed members shall have mill scale removed by sand blasting.

Erection: The bridge shall be installed in strict accordance with the manufacturer's recommendations. All mounting hardware necessary to anchor the bridge shall be furnished and installed by the Contractor.

**Method of Measurement:** This work shall be at the Contract lump sum price for the completion of all work specified.

**Basis of Payment:** This work will be paid for at the Contract lump sum price for the " Pedestrian Bridge Superstructure (Site No. 1)" which price shall include all material, equipment and labor incidental to completion of this item.

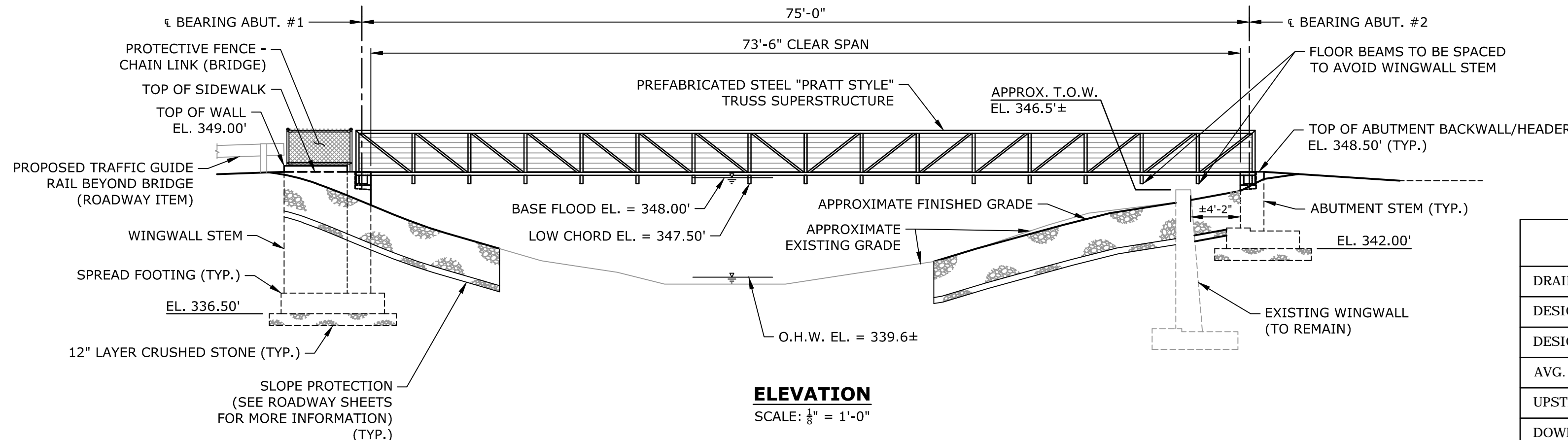
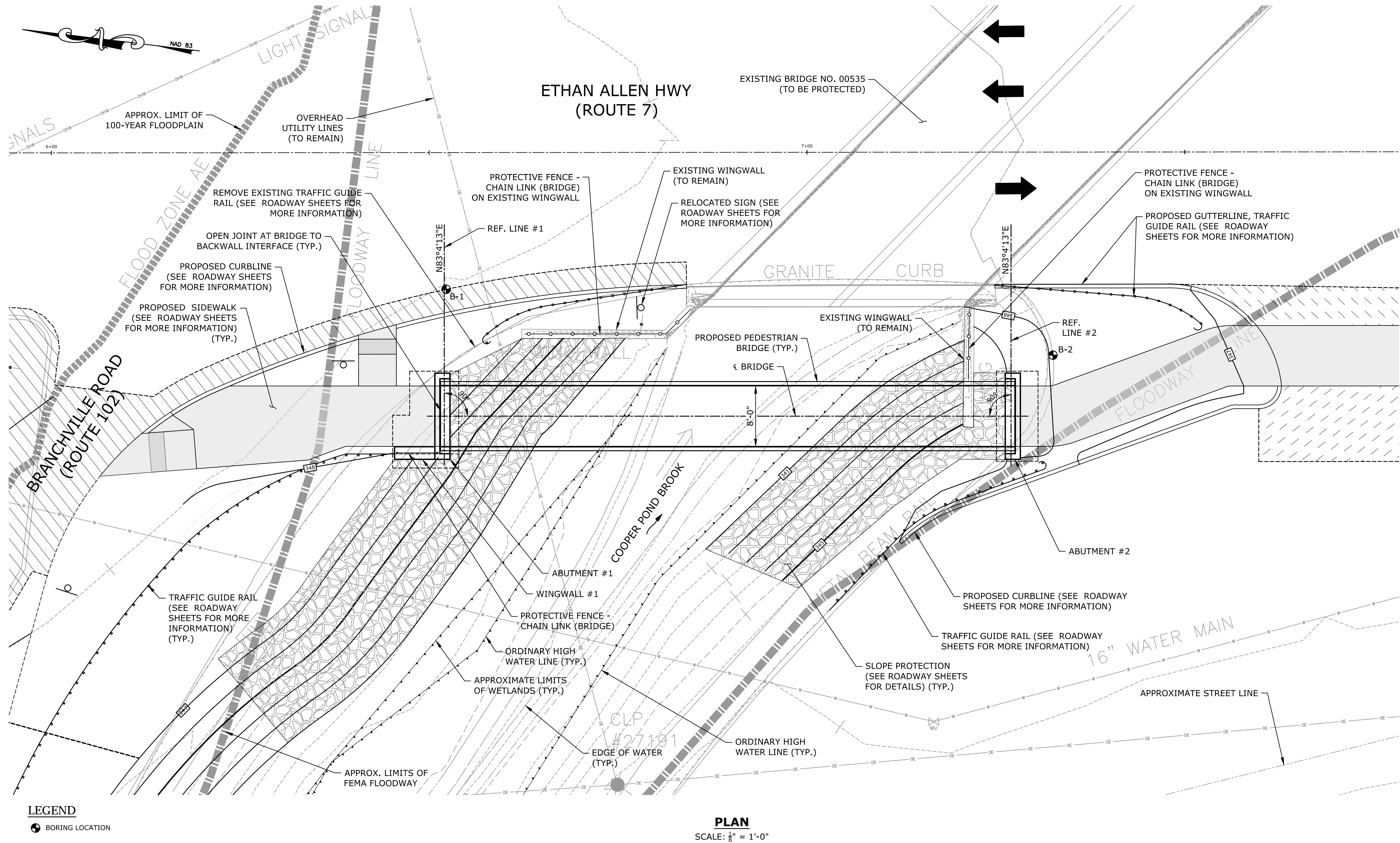
Concrete for the pedestrian bridge abutments and footings are specified and paid for under Items #0601062 and #0601064.

Pay Item  
Pedestrian Bridge Superstructure (Site No. 1)

Pay Unit  
L.S.



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#### GENERAL NOTES:

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818 (2020), SUPPLEMENTAL SPECIFICATIONS DATED JULY 2021, AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, NINTH EDITION (2020), AND AASHTO LRFD GUIDE SPECIFICATION FOR THE DESIGN OF PEDESTRIAN BRIDGES, SECOND EDITION (2009) WITH INTERIM REVISIONS (2015). AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003).

#### MATERIAL STRENGTHS:

CONCRETE:  
CLASS PCC 03340.....f<sub>c</sub> = 3,000 PSI

THE CONCRETE STRENGTH, f<sub>c</sub>, USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 6.01 - CONCRETE FOR STRUCTURES, AND M.03 - PORTLAND CEMENT CONCRETE.

REINFORCEMENT:  
ASTM A615 GRADE 60.....f<sub>y</sub> = 60,000 PSI

STRUCTURAL STEEL:  
(HSS) ASTM A847, GRADE 50W.....f<sub>y</sub> = 50,000 PSI  
(PLATES & SHAPES) ASTM A709, GRADE 50W.....f<sub>y</sub> = 50,000 PSI

LIVE LOAD: H5, \*90 PSF PEDESTRIAN LOADING (\*SEE SPECIAL PROVISIONS)

DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE SURVEY AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

#### CONCRETE NOTES:

CONCRETE CLASSES: THE FOLLOWING PAY ITEMS AND CONCRETE CLASSES ARE REQUIRED FOR CAST-IN-PLACE BRIDGE COMPONENTS:

ITEM	BRIDGE COMPONENTS	PCC CLASS
FOOTING CONCRETE	ABUTMENT FOOTINGS, WINGWALL FOOTINGS	PCC03340
ABUTMENT AND WALL CONCRETE	ABUTMENT STEMS, WINGWALL STEMS, CONCRETE BEARING PEDESTALS	PCC03340

JOINT SEAL: JOINT SEAL SHALL BE INCLUDED IN COST OF NEW CONCRETE, SEE STANDARD SPECIFICATIONS, SECTION 6.01 - CONCRETE FOR STRUCTURES.

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1"x1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE TWO INCHES COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCEMENT SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. ALL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENT SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS - GALVANIZED".

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

#### DECKING NOTES:

FOR DECKING MATERIALS AND HARDWARE, SEE SPECIAL PROVISIONS.

#### OVERHEAD UTILITY RESTRICTIONS:

THERE ARE OVERHEAD UTILITIES AT THIS SITE, INCLUDING ELECTRICAL POWER, CABLE, AND TELECOMMUNICATIONS. THESE LINES MUST REMAIN IN PLACE AND ENERGIZED THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL CONSIDER THIS AS A PART OF HIS BID WHICH INCLUDES BUT IS NOT LIMITED TO SETTING OF THE PROPOSED PREFABRICATED TRUSS SUPERSTRUCTURE.

TRANSPORTATION DATA				
(APPROXIMATE MAXIMUM ESTIMATED VALUES)				
MEMBER	SHIPPING LENGTH	SHIPPING HEIGHT	SHIPPING WIDTH	SHIPPING WEIGHT
TYP.	38	5	9	10,200 lbs

HYDRAULIC DATA - COOPER POND BROOK		
DRAINAGE AREA (SQ. MI.)	2.4	
DESIGN FREQUENCY (YR)	100	
DESIGN DISCHARGE (CFS)	845	
AVG. DAILY FLOW ELEV. (ESTIMATED) (FT)	339.08	
UPSTREAM DESIGN WATER SURFACE ELEV. (FT)	348.03	
DOWNSTREAM DESIGN WATER SURFACE ELEV. (FT)	348.03	
MAXIMUM SCOUR ELEVATION (FT)	339.64	337.75*
FREQUENCY (YR)	500	500
DISCHARGE (CFS)	1,215	1,215
WORST CASE SCOUR SUB-STRUCTURE UNIT	ABUT. #1	ABUT. #2

\*ABUTMENT #2 TO BE PROTECTED BY EXISTING ROUTE 7 CULVERT ABUTMENT/WINGWALL AND RIPRAP SLOPE PROTECTION.

#### NOTICE TO BRIDGE INSPECTORS

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING FOR COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE). THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF BRIDGE SAFETY AND EVALUATION.

COMPONENT OR DETAIL	STRUCTURE SHEET REFERENCE
FOLLOW NORMAL INSPECTION PROCEDURES	--

**Tighe&Bond**

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**CH**

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## BID DOCUMENTS

## Branchville TOD Pedestrian Improvements

## Town of Ridgefield

Ridgefield, CT

BRIDGE GENERAL PLAN

SCALE: AS SHOWN

S-101