

RON DESANTIS GOVERNOR 605 Suwannee Street Tallahassee, FL 32399-0450 JARED W. PERDUE, P.E. SECRETARY

Ben Goldsberry

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# STRUCTURES DESIGN BULLETIN 25-01 ROADWAY DESIGN BULLETIN 25-01

FHWA Approved: September 8, 2025

DATE: September 9, 2025

TO: District Directors of Transportation Operations, District Directors of

Transportation Development, District Design Engineers, District Construction Engineers, District Structures Design Engineers, District Maintenance Engineers, District Materials Engineers, District Consultant

Project Management Engineers, FDOT Structures Manual Holders

FROM: Ben Goldsberry, P.E., State Structures Design Engineer

Derwood Sheppard, P.E., State Roadway Design Engineer

COPIES: Will Watts, Jennifer Marshall, Rudy Powell, Will Potter, Tim Lattner, Lance

Grace, Christina Freeman, Alex Randell, Vickie Young, Daniel Strickland,

Rafiq Darji (FHWA)

SUBJECT: Corrosion Protection Requirements for Steel Truss Pedestrian Bridges

This bulletin updates corrosion protection requirements for steel truss pedestrian bridges. This bulletin affects the *Structures Design Guidelines (SDG)* and the *FDOT Design Manual (FDM)*.

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#### **REQUIREMENTS**

- 1. Replace *SDG* 10.4.C and 10.4.D with the following:
  - C. Specify ASTM A500 Grade B or C for structural tubing. The minimum thickness for structural tubing is 1/4-inch for primary members and 3/16-inch for verticals and diagonals.
  - D. For steel I-girder superstructures, see *SDG* 5.3.1 for structural steel material requirements.

### **Modification for Non-Conventional Projects:**

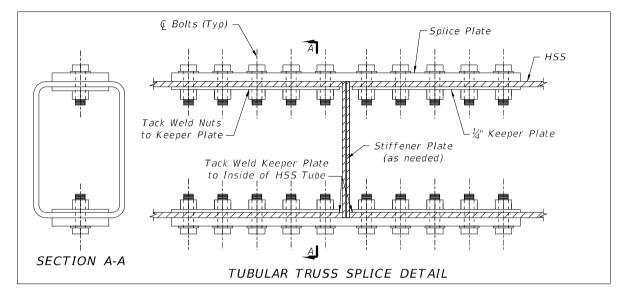
Delete *SDG* 10.4.D and see the RFP for requirements.

- 2. Replace *SDG* 10.5.D with the following:
  - D. Tubular Steel Connections:
    - 1. Cap all ends of structural tubing using a minimum 3/16-inch thick plate.
    - 2. Require that all field splices be shop fit.
    - 3. Specify or show field sections bolted together using splice plates.
    - 4. When through bolting is necessary, stiffen the tubular section to ensure the shape of the tubular section is retained after final bolting. See Figure 10.5-1.

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3. Replace *SDG* Figure 10.5-1 with the following:

Figure 10.5-1: Tubular Truss Splice Detail



4. Replace *SDG* 10.8 with the following:

#### 10.8 PAINTING/GALVANIZING

- A. Prefabricated steel trusses are required to be galvanized.
  - 1. Specify galvanizing in accordance with Section 962 of the *Specifications*.
  - 2. Galvanizers must be on the *State Materials Office Approved Materials/Producers* list.
  - 3. For closed members, provide drain and/or vent holes to accommodate the galvanizing process. All holes must be drilled prior to galvanizing and left open after galvanizing. See *FDM* 266.4 for painting over the galvanized finish for aesthetics.
  - 4. Welding components together after galvanizing is not allowed.
- B. For steel I-girders, see SDG 5.12.

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5. Add the following as the second paragraph of *FDM* 266.4:

Prefabricated steel trusses must be galvanized per *SDG* 10.8. They must not be painted or otherwise coated without written approval of the District Structures Design Engineer. If the local maintaining agency requests a painted or otherwise coated finish for aesthetics, the requesting agency is to provide the funding for the additional construction cost and be responsible for maintenance costs.

## **Modification for Non-Conventional Projects:**

Delete the above paragraph and replace with the following:

Prefabricated steel trusses must be galvanized per *SDG* 10.8 unless specified otherwise in the RFP.

- 6. Replace item (3) in *FDM* 266.4.4 with the following:
  - (3) After the BDR/30% plans have been approved, send out a Prefabricated Pedestrian Bridge Invitation to Participate (ITP) to all prefabricated pedestrian steel truss bridge producers on the Department's Production Facility Listing. Send the ITP through registered mail with return receipt to confirm delivery. Contact information for all qualified producers can be found at the following web address:

 $\underline{\text{https://www.fdot.gov/materials/quality/programs/qualitycontrol/materialslistings/postjuly20}}\\ \underline{02.\text{shtm}}$ 

The ITP is intended to solicit qualified producers for information required to design the foundation and substructure of the steel truss pedestrian bridge. The ITP cover letter should contain the following elements with links to websites as appropriate and applicable:

- (a) Introduction with brief Project Description
- (b) Project Requirements
  - i. Design Specifications Requirements
  - ii. Construction Specifications Requirements
  - iii. Design Standards Requirements
  - iv. Bridge Typical Section
  - v. Allowable Truss Options
  - vi. Aesthetic Painting Requirements
  - vii. Pedestrian Fence/Railing Requirements
  - viii. Vehicular Loading Requirements
  - ix. Project-Specific Aesthetic Requirements
  - x. Project Geometry including Vertical Clearance Requirements for Each Span

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- (c) Participation Requirements
- (d) Submittal Requirements

Include the following items in the ITP package:

- (e) Hard copy:
  - i. Invitation to Participate Cover Letter
  - ii. Project Location Plan
  - iii. Plan and Elevation
  - iv. Bridge Typical Section and Pedestrian Fence Concept
  - v. Pedestrian Bridge Data Sheet
- (f) Electronic files:
  - i. PDF file with all of the above
  - ii. Pedestrian Bridge Data Sheet in CADD format

For a sample Prefabricated Pedestrian Bridge ITP complete with all hard copy attachments, see Example 266.4.1. To aid plan development, CADD cells for the Pedestrian Bridge Data Sheet and Plan and Elevation sheet (2 of 2) are available in the FDOT Structures Cell Library. For the current FDOT CADD Software downloads, follow the link below:

https://www.fdot.gov/cadd/downloads/software/software.shtm

#### **BACKGROUND**

Galvanizing provides a long-lasting, low-maintenance protective coating that extends the service life of steel truss pedestrian bridges.

#### **IMPLEMENTATION**

#### **Department Projects:**

These requirements are effective immediately on all design-bid-build projects for which the Bridge Development Report has not been approved unless otherwise directed by the District.

These requirements are effective immediately on all design-build projects for which a price proposal has not been submitted. Design-build projects that have had the price proposal submitted are exempt from these requirements unless otherwise directed by the District.

## Non-Department Projects:

These requirements are effective immediately on all non-Department pedestrian bridges on or over Department right of way for which an agreement has not been executed.

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# **CONTACT**

Vickie Young, P.E. Assistant State Structures Design Engineer (850) 414-4301 Vickie.Young@dot.state.fl.us

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