

APPROVED:  
Division Administrator

January 1, 2023

By: \_\_\_\_\_  
FEDERAL HIGHWAY ADMINISTRATION

## SECTION 725

### SHOP PLANS AND WORKING DRAWINGS FOR STRUCTURES

Section 725 of the 2007 Standard Specifications is hereby deleted and replaced with:

#### 725.1 Description

- 1 This section contains specifications for submitting Shop Plans and Working Drawings for construction projects as required in other Sections of the Standard Construction Specifications, Supplemental Specifications, Supplemental Technical Specifications, and Special Provisions. Failure to follow the procedures herein may cause delay in processing of submittals. Any subsequent loss of construction time due to failure to follow these procedures will not be accepted by the Department as a valid reason to change the project's completion date.
- 2 Shop Plans are defined as plans prepared by the Contractor that contain manufacturing details or supplementary design plans of an item that will become a permanent part of the project, such as structural steel fabrication drawings, prestressed concrete beam drawings, or any other supplementary plans or similar data that the Contractor is required to submit to the RCE for review before fabrication. Shop Plans, including any red-lined revisions, become part of the as-built drawings for the completed structure.
- 3 Working Drawings are defined as sketches, calculations, etc., prepared by the Contractor for temporary structural features that may include erection plans, falsework plans, cofferdam plans, temporary structure plans, or any other supplementary plans or similar data that the Contractor is required to submit to the RCE for review before assembly of the subject of the drawings on the project site.

#### 725.1.1 Shop Plans

- 1 Submit Shop Plans and supporting Engineering Calculations to the RCE no later than 30 days before fabrication. Submit Shop Plans through an approved electronic system in Adobe PDF Format. No extension of contract time is granted for delays due to failure to observe this time requirement. Have the fabricator of the material component of the structure notify the OMR a minimum of 14 calendar days prior to the start of fabrication.
- 2 Clearly identify the SC File Number, Project ID, County Name(s), Route Number(s), and Project Description in the Shop Plan submittal.
- 3 Ensure that Shop Plans are accurate, complete, neat and legible. Shop Plans should be scaled such that they are legible on an 11in x 17in paper size, when printed.
- 4 Electronically submit Shop Plans for the following items:
  - Armor Plates,
  - Bridge Bearings,
  - Bearing or Sole Plates, Shims, Booster Plates and Other Structural Steel Bearing Assembly Components,
  - Anchor Bolt Assemblies,
  - Tie Rod Assemblies,
  - Intermediate Steel Diaphragms,
  - Structural Steel Members,
  - Expansion Joint Components,

---

## SUPPLEMENTAL SPECIFICATION

---

- Miscellaneous Steel Members except Piling and Sway Bracing,
- Metal Bridge Railings or Metal Bridge Railing Extensions,
- SIP Bridge Deck Forms,
- Prestressed and/or Post-tensioned Concrete Beam or Girder,
- Prestressed Concrete Piling,
- Miscellaneous Prestressed and Post-tensioned Concrete Members,
- Precast Box Culverts,
- Precast Floorless Culverts,
- Mechanically-Stabilized Earth (MSE) Walls,
- Prefabricated Retaining Wall Components,
- Sound Barrier Walls,
- Signage, and
- Other items specified in the Plans and Contract Documents.

- 5 Ensure that Shop Plans and supporting Engineering Calculations bear the seal and signature of a South Carolina registered Professional Engineer with the exception of the following items fabricated in accordance with details shown in Plans:

- Armor Plates,
- Bearing or Sole Plates, Shims, and Booster Plates,
- Anchor Bolt Assemblies,
- Tie Rod Assemblies,
- Intermediate Steel Diaphragms,
- Structural Steel Girders,
- Prestressed Concrete Piling,
- Elastomeric Bearing Pads, and
- Metal Bridge Railings or Metal Bridge Railing Extensions.

If the items listed above are in any way modified from the details shown in the plans, ensure that the Shop Plans and supporting Engineering Calculations bear the seal and signature of a South Carolina registered Professional Engineer.

### **725.1.2 Working Drawings and Engineering Calculations**

- 1 Ensure that the Working Drawings are accurate, complete, neat, legible, and supporting Engineering Calculations are included. Ensure that Working Drawings and Engineering Calculations are prepared in conformance with the latest edition of the AASHTO Guide Specifications for Bridge Temporary Works. Identify the title and edition of design specifications used to prepare Working Drawings and Engineering Calculations. Identify the design methodologies, material properties, design loads, load capacities, and any other parameters necessary to demonstrate that the design meets the necessary requirements.
- 2 Submit Working Drawings and Engineering Calculations to the RCE through an approved electronic system in Adobe PDF Format.
- 3 Submit Working Drawings and supporting Engineering Calculations to the RCE for SCDOT review and acceptance a minimum of 30 calendar days prior to erection or installation of the element.
- 4 Working Drawings and Engineering Calculations for falsework/form systems over or adjacent to

---

SUPPLEMENTAL SPECIFICATION

---

railroad tracks shall be reviewed and accepted by the designated railroad representative prior to SCDOT acceptance.

- 5 No extension of contract time is granted for delays due to failure to observe these time requirements.

**725.2 Materials**

- 1 None specified.

**725.3 Equipment**

- 1 None specified.

**725.4 Construction**

- 1 Do not begin fabrication of items that require Shop Plans until the reviewed Shop Plans have been accepted, stamped, and distributed by the Department. When Working Drawings are required, do not begin installation of such items until the accepted drawings have been received from the Department or from the Designer of Record (with Departmental concurrence).

**725.5 Measurement**

- 1 This work is not measured for payment.

**725.6 Payment**

- 1 No separate payment is made for compliance with this specification. All costs of the above work are considered incidental to the project and included in other items of work.