

705 - STRUCTURAL STEEL FABRICATION

SECTION 705

STRUCTURAL STEEL FABRICATION

705.1 DESCRIPTION

Fabricate the structural steel according to the Contract Documents.

705.2 MATERIALS

a. General. Provide materials that comply with the applicable requirements.

Castings .....	DIVISION 1600
Structural Steel .....	DIVISION 1600
Welded Stud Shear Connectors .....	DIVISION 1600
Fasteners .....	DIVISION 1600

When weathering steel is allowed or specified in the Contract Documents: ASTM A709 Grade 50W may be substituted for ASTM A709 Grade 36 or Grade 50, and AASHTO M270 Grade 50WT2 may be substituted for AASHTO M270 Grade 50T2. When substituting weathering steel for the structural steel shown in the Contract Documents, use the same size plate or rolled member. Do not use weathering steel in rocker bearing devices (or any component with finished surfaces), expansion devices or expansion device armoring.

b. Preliminary Shop Requirements.

(1) Point of Fabrication. Within 10 business days after signing the contract, notify the State Bridge Engineer and the Bureau Chief of Materials and Research in writing of the firm (name and location) that will fabricate the structure. Produce and fabricate all structural steel within the Continental United States (see **subsection 106.1c.**). Use fabricators of bridge beams and girders that are certified by the American Institute of Steel Construction in the appropriate category for the type of work being performed.

(2) Shop Drawings. The Contractor or fabricator must submit shop drawings of both structural steel and castings according to **subsection 105.10**. Do not perform any fabrication until the approved shop drawings are in the hands of the Inspector and fabricator, and the Engineer has authorized fabrication. Any purchase of materials before fabrication authorization is at the Contractor's risk.

Changes on approved shop drawings or contract plans are subject to the approval of the Engineer. Notify the Engineer with a record of such changes. Submit revised sheets of the same size as the shop drawings originally submitted.

Show approved welding procedure numbers in the tail of weld symbols on submitted shop drawings. Submit 2 copies of each procedure requiring approval to the Bureau of Materials and Research. All weld procedures referenced in a set of shop drawings must be approved before the shop drawings can be approved.

Provide a diagram on the shop detail plans for each span giving sufficient dimensions for accurate fabrication and inspection of the structure. These dimensions must include, but are not limited to:

- Bearing-to-bearing lengths; and
- Vertical and horizontal curvature offsets at bearing points and splices. Use the bottom of the web or the top of the bottom flange at the centerline of the web as the reference point.

The Contractor is responsible for the correctness of the shop fit-up and field connections, even though the shop drawings have been approved by the Engineer. See **subsection 105.10e**.

(3) Notice of Beginning of Work. In order to provide inspection, notify the Engineer before beginning work in the shop. Give a minimum of 24 hours notice before beginning work in shops in the State of Kansas, and give a minimum of 7 calendar days notice before beginning work in shops in the contiguous United States.

(4) Material Acceptance. Submit to the Bureau Chief of Materials and Research 1 copy of each mill test report for each heat number to be used before the layout, and use such steel in the fabrication of the structure.

Submit a fabricator's guarantee indicating that the attached certified mill test reports pertain to all heat numbers used in the structure, and all material complies with the Contract Documents. Include the following in the guarantee:

- fabricator's name;