

# **Work Type Definition and Submittal Requirements**

## **4.1 Structural Metals Inspection**

### **Work Type Definition**

**Pages 1-2 detail the work type definition. In order to become *pre-qualified* for this work type, please see the “Work Type Submittal Requirements” on page 3.**

#### **I. Description**

**Fabrication inspection of minor and major structural metal components (as defined below) and verification that materials and fabrication methods conform to the standards and specifications listed below.**

Minor structural components are defined as:

- A. Bridges: Bearing assemblies, sole plates, expansion joint devices, shear connectors, ballast plates, diaphragms for bridges (except curved steel bridges), pile and appurtenances, drainage systems, guardrail connections, railings, fencing, conduit systems, and protection angles.
- B. Electric lighting, traffic signs, and signal systems.
- C. Pedestrian Bridges.
- D. Any other system or component that is designated by the Engineer as a minor structural component.

*Note: Major structural components will mean all components other than minor structural components.*

#### **II. Standards and Specifications**

**Standards and specifications required for a project under this work type may include the following:**

- A. MnDOT Standard Specifications for Construction
- B. Design Plan, Special Provisions and Approved Shop Drawings
- C. American Welding Society (AWS) D1.5 Bridge Welding Code (Major Structural Components)
- D. AWS D1.1 Structural Welding Code-Steel (Minor Structural Components)
- E. Supplier's (Fabricator, Galvanizer, Paint shop, Blaster) Quality Control Plan

#### **III. Provided By MnDOT**

**Information to be supplied by MnDOT for a project may include the following:**

- A. Design Plan, Special Provisions and Approved Shop Drawings.

#### **IV. Provided by Consultant**

**Deliverables to be supplied by the consultant for a project may include the following:**

- A. Daily Progress Reports emailed to contact person.
- B. Nonconformance Reports (NCR's)

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- C. Mill Test Reports and Purchase Orders demonstrating material traceability (domestic origin).
- D. Supplier QC Reports
- E. Checklists verifying Clean Environment Development Facility (CEDF) requirements have been met.
- F. Shipping invoices; copy of signed inspection tags; copies of correspondence.
- G. Heat Numbers per MnDOT 2471.3C2.
- H. Dry Film Thicknesses (DFT's)/Environmentals from painter and/or galvanizer.
- I. All Non Destructive Testing (NDT) Reports; other miscellaneous related documents; E.G. Radiographic films, etc.
- J. Copies of signed inspection tags
- K. Copies of Correspondence
- L. Certificates of Compliance
- M. Final Inspection Report Package, including all required elements listed above.

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### 4.1 Structural Metals Inspection

### Work Type Submittal Requirements

**A consultant firm becomes pre-qualified based on the qualifications of the personnel that are employed by the firm.**

Key Personnel Requirements	
Minimum Number of Staff:	<ul style="list-style-type: none"> <li>At least one inspector with the proper professional certifications and years of experience.</li> </ul>
Professional Certification/Licensure:	<ul style="list-style-type: none"> <li>Personnel performing structural steel inspections must be an AWS Certified Welding Inspector (CWI) as per AWS D1.5 Bridge Welding Code. The inspector must have Radiographic Film Interpretation training and documented coatings training, if applicable.</li> <li>Personnel performing Nondestructive Testing (NDT) must be qualified in accordance with MnDOT 2471.3M.</li> </ul>
Work Type Submittal Requirements*	
<b>I. Resume and Relevant Project Experience Form</b> <b>(Form PQ1)</b>  <i>Submit in Word format</i>	A. Complete Parts 1 and 1A of Form PQ1 <b>Part 1:</b> Fill out general information and names of personnel <b>Part 1A:</b> Experience must be demonstrated by reference to at least three completed projects in the last five years and include the following requirements: <ul style="list-style-type: none"> <li>Inspector must have and demonstrate a minimum of five (5) years experience performing bridge fabrication inspection.</li> <li>NDT personnel must have and demonstrate a minimum two (2) years experience as a Level II operator per MnDOT 2471.3M.</li> <li>Inspector must have access to and a working knowledge of the AWS D1.5 Bridge Welding Code and the AWS D1.1 Structural Welding Code-Steel.</li> </ul> <b>Part 2:</b> Not Applicable for this work type. <b>Part 3:</b> Not Applicable for this work type.
<b>II. Proof of Professional Certification/Licensure</b>  <i>Submit in PDF format</i>	A. Provide a current copy of the applicable Professional Certification/Licensure.
<p style="text-align: center;"><b>*Work Type Submittal Instructions:</b></p> <p>Create a CD or flash drive that includes the following individual files or folders in this order:</p> <p>I. Resume and Relevant Project Experience Form (Form PQ1)</p> <p>II. Proof of Professional Certification/Licensure</p> <p style="text-align: center;"><b>Each file should be saved in the format identified above.</b>  <b>Submit 5 copies of the CD or flash drive.</b></p>	