



*Florida Department of Transportation*

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**M E M O R A N D U M**

**DATE:** November 9, 2016

**TO:** Specification Review Distribution List

**FROM:** Dan Hurtado, P.E., State Specifications Engineer

**SUBJECT:** Proposed Specification: **4600604 Structural Steel and Miscellaneous Metals.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

These changes are proposed by Cheryl Hudson of the State Structures Design Office to update an industry reference.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at <http://www2.dot.state.fl.us/ProgramManagement/Development/IndustryReview.aspx> . Comments received after **December 7, 2016**, may not be considered. Your input is encouraged.

DH/dt  
Attachment

## STRUCTURAL STEEL AND MISCELLANEOUS METALS.

(REV 9-~~192129~~-16)

SUBARTICLE 460-6.4 is deleted and the following substituted:

### **460-6.4 Welding of Hollow Structural Steel Sections (Pipes and Tubes):**

Except as noted in the Contract Documents, perform all shop and field welding of Hollow Structural Shapes in accordance with the AWS D1.1, Structural Welding Code as amended herein.

#### **460-6.4.1 Highway Sign ~~Structures~~, Luminaires ~~ighting~~ and Traffic Signals**

**Support Structures:** For structural steel ~~supports for~~ sign ~~structures~~, lighting ~~poles~~, and traffic signal ~~poles~~, comply with the AWS D1.1 Structural Welding Code as well and the weld inspection as the additional requirements in Section 14.4.4.8 of the AASHTO Standard LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Section 5.15, Welded Connections amended by the following.

Unless otherwise shown in the Plans, perform ultrasonic testing (UT) or radiographic testing (RT) on full penetration groove welds at the following frequency (use the AWS D1.1 Tubular Connections Class R Criteria for UT and Cyclically Loaded Criteria for RT.

One hundred percent of each joint subject to tension or reversal of stress.

Twenty-five percent of each joint subject to only compression or shear. If discontinuities are found in the joint, the remainder of the joint shall be tested.

Perform Magnetic Particle Testing at the following frequencies:

A minimum of 25% of all fillet or partial penetration groove welds in main members (Use the AWS D1.1 Tubular Connections Criteria). If discontinuities are found, the remainder of the welds on the members shall be tested.

**460-6.4.2 Tubular Bridge or Overhead Sign Structures:** Comply with the requirements of the AWS D1.1 Structural Welding Code as amended by the following:

Unless otherwise shown in the Plans, perform ultrasonic testing (UT) or radiographic testing (RT) on full penetration groove welds at the following frequency (use the AWS D1.1 Tubular Connections Class R Criteria for UT and Cyclically Loaded Criteria for RT.

One hundred percent of each joint subject to tension or reversal of stress.

Twenty-five percent of each joint subject to only compression or shear. If discontinuities are found in the joint, the remainder of the joint shall be tested.

Perform Magnetic Particle Testing at the following frequencies:

A minimum of 25% of all fillet or partial penetration groove welds in main members (Use the AWS D1.1 Tubular Connections Criteria). If discontinuities are found, the remainder of the welds on the members shall be tested.