

# EXPECTED IMPLEMENTATION JULY 2017

## D 700 HIGHWAY SIGNING.

(REV 9-19-16) (FA 12-14-16) (7-17)

SUBARTICLE 700-4.2 is deleted and the following substituted:

**700-4.2 Sign Housing Requirements for all DMS:** Ensure that the external skin of the sign housing is constructed of aluminum alloy 5052 H32 that is a minimum of 0.125 inches thick for a walk-in DMS and 0.090 inch thick a for front or embedded DMS. Ensure the interior structure is constructed of aluminum. Ensure that the sign housing design and appearance is approved by the Engineer. Ensure that no internal frame connections or external skin attachments rely upon adhesive bonding or rivets.

Ensure the sign enclosure meets the requirements of NEMA TS 4-2005, Section 3.1.1. Ensure that all drain holes and other openings in the sign housing are screened to prevent the entrance of insects and small animals.

Ensure that the sign housing complies with the fatigue resistance requirements of the AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. Design and construct the DMS unit for continuous usage of at least 20 years and the sign structure for a 50 year design life. The sign assembly must be designed and constructed to withstand loads, including a wind load of 150 miles per hour, as defined in the Department's Structures Manual.

Ensure that the top of the housing includes multiple steel lifting eyebolts or equivalent hoisting points. Ensure hoist points are positioned such that the sign remains level when lifted. Ensure that the hoist points and sign frame allow the sign to be shipped, handled, and installed without damage.

Ensure all assembly hardware, including nuts, bolts, screws, and locking washers less than 5/8 inch in diameter, are Type 304 or 316 passivated stainless steel and meet the requirements of ASTM F593 and ASTM F594. All assembly hardware greater than or equal to 5/8 inch in diameter must be galvanized and meet the requirements of ASTM A307.

Ensure all exterior, excluding the sign face, and all interior housing surfaces are a natural aluminum mill finish. Ensure signs are fabricated, welded, and inspected in accordance with the requirements of the current ANSI/AWS Structural Welding Code-Aluminum.

Ensure the sign housing meets the requirements of NEMA TS 4-2005, Section 3.2.8 for convenience outlets.