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Final Inspection of Support Structures for Highway Signs, Luminaires, and Traffic Signals

This bridge field services advisory serves as a reminder of the requirements for final inspection and disbursement of payment for all cantilever and truss sign supports, Dynamic Message Sign (DMS) and steel Closed Circuit Television (CCTV) support structures, light standards, tower lighting units and traffic signal mast arms. The Special Provision for *Support Structures for Highway Signs, Luminaires, and Traffic Signals*, 12SP810(A), requires the Contractor to notify the Engineer, in writing, requesting final inspection after the structure is installed and completed. The Engineer must notify the Structural Fabrication Engineer to schedule and complete the final inspection within 21 calendar days from the Contractor's written request.

The Engineer will pay 60 percent of the total contract value of all pay items associated with the above structures and foundations after they are installed and completed. The remaining 40 percent may only be paid after final inspection has occurred and the structure and foundation have been accepted. The Structural Fabrication Engineer will provide the field office the necessary final acceptance documentation, so that final payment can be processed.

Recent inspections of lighting structures, both frangible and non-frangible types, have noted many of the same deficiencies related to installation. Common deficiencies have included the following:

- loose nuts and bolts
- missing washers or nuts
- the presence of nut covers
- nuts that are not fully engaged on the bolts
- washers that are too thin for slotted holes
- nuts that are not per plans
- bolts that are out of plumb

The details for anchor bolts, nuts, and washers for the above structures and foundations can be found in the project plans. Nut covers should never be used as they accumulate debris and moisture and accelerate corrosion of anchor bolts and nuts, and the standard details have been updated to reflect this change. These lighting structures are not subject to biennial inspection as some other sign support structures are. Therefore, in order to ensure safety and the designed service life, proper installation and final inspection is critical. Non-frangible light standards, DMS and CCTV support structures, tower lighting units, and traffic signal mast arms require the turn of nut procedure on the anchor bolts to be witnessed by the Engineer. Light standards with frangible bases rely on the full compression of lock washers to prevent nuts from loosening.

Deficiencies noted during final inspection are compiled in a report and sent to the Engineer by the Structural Fabrication Unit. These deficiencies must be corrected by the Contractor at no additional expense. If the final inspection reveals non-conformance with the contract documents an additional 21 calendar day inspection period will be required and repeated until inspection of the item is in conformance with the contract documents. Beginning with the third inspection, a negative price adjustment shall be issued to cover the cost of the additional inspections. This contract price adjustment is based on the number of structures requiring three or more inspections before deficiencies are corrected. See 12SP810(A) for additional details.