

ORIGINATION FORM

THE INFORMATION BELOW IS TO BE PROVIDED BY THE ORIGINATOR (The person who receives or originates the issue and needs to forward the issue for action.)

Specification: SECTION 715

Subject: 715-3.3 Internal Vibration Damping Device
715-16 Method of Measurement.

Origination date: April 16, 2009

Originator: Andre Pavlov
Office/Phone: 850-414-4293

Problem statement: Experience has shown that internal vibration dampers are necessary for lighting structures when they are mounted on bridges, median barriers, walls and causeways.

Proposed solution: Add provisions to the Specifications to require an Internal Vibration Damping Device.

Information source: Structures Design Office

Recommended Usage Note:

Estimated fiscal impact, if implemented: None

Implementation of these changes, if and when approved, will begin with the January 2010 letting.

For State Specifications Office Use Only

Begin date:

File Number:

Scheduled completion date:

Implementation date:

Implementation team member:

Usage Note:

Notes:



Florida Department of Transportation

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STEPHANIE KOPELOUSOS
SECRETARY

MEMORANDUM

DATE: June 30, 2009

TO: Specification Review Distribution List

FROM: Rudy Powell, Jr., P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **7150100 Highway Lighting Systems**

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

This change was proposed by Andre Pavlov to add provisions to the Specifications to require an internal vibration damping device for lighting structures mounted on bridges, median barriers, walls and causeways.

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 to my attention via e-mail at ST986RP or rudy.powell@dot.state.fl.us. Comments received after **July 28, 2009**, may not be considered. Your input is encouraged.

RP/dt
Attachment

HIGHWAY LIGHTING SYSTEM.

(REV 6-4-09)

ARTICLE 715-1 (page 808) is expanded by the following

715-1 Description.

Install a highway lighting system in accordance with the details shown in the plans. Include in the system the light poles, bases, luminaires, ballasts, pull boxes, cable, conduit, substations, expansion joints, protective devices, transformers and control devices; all as specified or required for the complete facility. Use pole assemblies listed on the Department's Qualified Products List (QPL) when standard aluminum pole assemblies or standard high mast light assemblies are required by the Contract Documents.

Provide metal lighting poles, excluding high mast lighting, with internal vibration damping devices installed when shown in the contract plans and in all installations on bridges, walls, concrete median barriers, and causeways. When installed, the device shall provide a minimum 2 % critical damping. Submit documentation to the Engineer demonstrating the device and pole meet this requirement.

SUBARTICLE 715-16 (pages 812 - 813) is deleted and the following substituted:

715-16 Method of Measurement.

The quantities to be paid for will be as follows, completed and accepted:

(a) Conduit: The length, in feet, including elbows, sweeps, connecting hardware, trenching and backfill as indicated in the plans and the Design Standards, and the cost of restoring cut pavement, sidewalks, sod, and etc., to its original condition.

(b) Luminaire and Truss Arm: The Contract unit price will include the truss arm, luminaire with lamp, and all necessary mounting hardware as indicated in the plans and the Design Standards.

(c) Load Center: The Contract unit price will include the service pole, insulators, weatherheads, transformers, enclosures, panel boards, breakers, safety switches, H.O.A. switches, lighting protectors, fuses, photo electric assembly, meter base, and all external and internal conduit and conductors for the service as indicated in the plans and the Design Standards.

(d) Light Pole Foundation: The Contract unit price will include the foundation and anchor bolts with lock nuts and washers as indicated in the plans and the Design Standards.

(e) Luminaire: The Contract unit price will include the luminaire with lamp and necessary mounting hardware as indicated in the plans and the Design Standards.

(f) Pull Box: The Contract unit price will include the pull box and cover as indicated in the plans and the Design Standards.

(g) High Mast Parts: The Contract unit price will include the part specified with all mounting hardware as indicated in the Contract Documents and the Design Standards.

(h) Frangible Base for Light Pole: The Contract unit price will include the frangible base, attachments, bolts, and washers as indicated in the plans and the Design Standards.

(i) Photo Electric Control Assembly: The Contract unit price will include the photo electric control, transformers, conduit, and conductors as indicated in the plans and the Design Standards.

(j) Pre-Fab Pilaster: The Contract unit price will include the pilaster and all mounting hardware as indicated in the plans.

(k) High Mast Lighting Pole Complete: The Contract unit price will include the pole, luminaires with lamps, lowering system, breakers and anchor bolts with lock nuts and washers as indicated in the plans and the Design Standards.

(l) Conductor: The length, in feet, as indicated in the plans and the Design Standards.

(m) Lighting Pole Complete: The Contract unit price will include the pole, *internal vibration device*, truss arm, luminaire with lamp, anchor bolts with lock nuts and washers, frangible base and foundation.

(n) Pole Cable Distribution System: The Contract Unit price will include the surge protector, fuse holders with fuses, waterproof connectors and the waterproof wiring connection to the luminaries.