

ORINATION FORM

Proposed Revisions to the Specifications

(Please provide all information - incomplete forms will be returned)

Date:

Office:

Originator:

Specification Section:

Telephone:

Article/Subarticle:

email:

Will the proposed revision require changes to:

Publication	Yes	No	Office Staff Contacted
Standard Plans Index			
Traffic Engineering Manual			
FDOT Design Manual			
Construction Project Administration Manual			
Basis of Estimate/Pay Items			
Structures Design Guidelines			
Approved Product List			
Materials Manual			

Will this revision necessitate any of the following:

Design Bulletin

Construction Bulletin

Estimates Bulletin

Materials Bulletin

Are all references to external publications current?

Yes

No

If not, what references need to be updated? (Please include changes in the redline document.)

Why does the existing language need to be changed?

Summary of the changes:

Are these changes applicable to all Department jobs?

Yes

No

If not, what are the restrictions?

Contact the State Specifications Office for assistance in completing this form.

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Florida Department of Transportation

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MIKE DEW
SECRETARY

MEMORANDUM

DATE: November 1, 2018

TO: Specification Review Distribution List

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

SUBJECT: Proposed Specification: **7060000 Raised Pavement Markers and Bituminous Adhesive.**

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

This change was proposed by Ed Cashman to add internally illuminated raised pavement markers as an option.

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 **November 29, 2018**, may not be considered. Your input is encouraged.

DH/rf
Attachment

**RAISED PAVEMENT
MARKERS AND BITUMINOUS ADHESIVE
(REV 10-26-18)**

SECTION 706 is deleted and the following substituted:

706-1 Description.

Place raised pavement markers (RPMs) and adhesive, which upon installation produces a positive guidance system to supplement other reflective pavement markings.

706-2 Materials.

Use only Class B markers unless otherwise shown in the Plans.

Meet the requirements of Section 970.

706-2.1 Product Acceptance on the Project. Use only RPMs and bituminous adhesive that are listed on the Department's Approved Product List (APL). For Class F RPMs, provide a warranty assigned to the Department in accordance with Section 970.

706-3 Equipment.

Use equipment having either thermostatically controlled double boiler type units utilizing heat transfer oil or thermostatically controlled electric heating pots to install hot applied bituminous adhesive. Do not use direct flame melting units with flexible adhesives; however, this type of unit may be used with standard adhesive in accordance with manufacturer's recommendations. Use a melter/applicator unit suited for both melting and pumping the adhesive through heated applicator hoses.

Heat the adhesive to between 375°F and 425°F and apply directly to the bonding surface from the melter/applicator by either pumping or pouring. Maintain the application temperature between 375°F and 425°F. The adhesive may be reheated. However, do not exceed the manufacturer's recommendations for pot life at application temperatures.

706-4 Application.

Install RPMs in accordance with the Plans and Standard Plans, ~~Indexes 706-001 and 711-003.~~

Apply RPMs to the bonding surface using bituminous or epoxy adhesives only in accordance with the manufacturer's instructions. The Engineer will conduct field testing in accordance with FM 5-566. ~~Correct RPMs not applied in accordance with these requirements at no cost to the Department.~~

For Class F RPMs, installation may include the removal of roadway surface material to recess a portion of the RPM housing.

Prior to application of adhesive, clean the portion of the bonding surface of any material which would adversely affect the adhesive.

Apply the adhesive to the bonding surface (not the RPM) so that 100% of the bonding area of the RPM will be covered, in accordance with adhesive manufacturer's recommendations. Apply sufficient adhesive to ensure, that when the marker is pressed downward into the adhesive, adhesive will be forced out around the entire perimeter of the RPM.

Immediately remove excess adhesive from the bonding surface and exposed surfaces of the RPMs. Soft rags moistened with mineral spirits meeting Federal Specifications TT-T-291 or

kerosene may be used to remove adhesive from exposed faces of the RPMs. Do not use any other solvent. If any adhesive, pavement marking materials or other foreign matter adheres to the reflective-traffic face of the RPM, replace the RPM at no cost to the Department.

Restore any areas impacted by the installation of Class F RPMs to original condition.

Ensure that all final RPMs are in place prior to opening the road to traffic.

If more than 2% of the RPMs fail in adhesion or alignment within the first 45 days under traffic, replace all failed RPMs at no expense to the Department. If more than 5% of the RPMs fail in adhesion and or alignment during the initial 45 day period, the Engineer will extend the replacement period an additional 45 days from the date that all replacement RPMs have been installed. If, at the end of the additional 45 day period, more than 2% of all RPMs (initial installation and 45 day replacements combined) fail in adhesion or alignment, replace all failed RPMs at no expense to the Department.

706-5 Contractor's Responsibility for Notification.

Notify the Engineer prior to the placement of RPMs. At the time of notification, submit the APL number and the batch or Lot numbers of RPMs and bituminous adhesive to be used.

706-6 Method of Measurement.

The quantities to be paid for will be the number of RPMs, furnished and installed, completed and accepted.

706-7 Basis of Payment.

~~706-7.1 General: Price and payment will be full compensation for all work specified in this Section.~~

~~706-7.21 Lump Sum Payment~~**Class B RPMs:** Price and payment for Class B RPMs will not be measured or paid for separately, when the item for painted pavement markings (Final Surface) is included in the proposal. Price and payment for all work and materials in this Section will be made in accordance with 710-11.2.

706-7.2 Class F RPMs: Price and payment will be full compensation for all Class F RPMs shown in the Plans.

706-7.3 Payment Items: Payment will be made under:

Item No. 706- 1- Class F Raised Pavement Marker - per each.