

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 and date 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			

****This section must be completed prior to processing proposed revisions.**

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.

Daniel Strickland 850-414-4130 Daniel.Strickland@dot.state.fl.us Rebecca Frimmel 850-414-4155 Rebecca.Frimmel@dot.state.fl.us

Valencia Cunningham 850-414-4101 Valencia.Cunningham@dot.state.fl.us Darla Hunsicker 850-414-4114 Darla.Hunsicker@dot.state.fl.us



RON DESANTIS
GOVERNOR

KEVIN J. THIBAUT, P.E
SECRETARY

M E M O R A N D U M

DATE: December 10, 2020
TO: Specification Review Distribution List
FROM: Daniel Strickland, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **9760000 Surface Treatments.**

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

This change was proposed by Sarah Smith from the Program Management Office to move all material requirements to Division III from Section 523 and 527. Additional product types for newly constructed and existing surfaces have included in the specification.

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://fdotwp1.dot.state.fl.us/programmanagement/development/industryreview.aspx> . Comments received after **January 7, 2020**, may not be considered. Your input is encouraged.

DS/rf

Attachment

SURFACE TREATMENTS
(REV 12-7-20)

The following new Section is added after Section 967:

SECTION 976
SURFACE TREATMENTS

976-1 Description.

This section specifies the material requirements for detectable warnings and patterned pavement and shall be one of the products included in the APL as specified in Section 6.

976-2 Detectable Warnings

976-2.1 Performance Requirements: Provide detectable warnings that meet the following minimum material property requirements when tested in accordance with this Section and the following Table 976-1:

<u>Table 976-1</u>		
<u>Property</u>	<u>Documentation</u>	<u>Test Value¹</u>
<u>Visual and Microscopic Evaluation</u>	<u>Provide NTPEP Test Report</u>	<u>No significant defects with no significant changes after Exposed Specimen Testing. Installed product must meet the requirements with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705 and requirements of this section.</u>
<u>Domes and Spacing Dimensional Testing</u>	<u>Provide NTPEP Test Report</u>	<u>Meets the requirements with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705 and requirements of this section.</u>
<u>Slip Resistance</u>	<u>Provide NTPEP Test Report</u>	<u>Dry Coefficient of Friction – 0.8 min. Wet Coefficient of Friction – 0.65 min. (include recessed areas between truncated domes)</u>
<u>Color Measurement</u>	<u>Provide NTPEP Test Report</u>	<u>Meets the requirements of this section.</u>
<u>Resistance to Impact from Falling Tup</u>	<u>Provide NTPEP Test Report</u>	<u>No significant changes after Exposed Specimen Testing.</u>
<u>Wear Resistance</u>	<u>Provide NTPEP Test Report</u>	<u>Report values</u>
<u>Adhesion/Bond Strength**</u>	<u>Provide NTPEP Test Report</u>	<u>150 psi min. tensile adhesion strength</u>
<u>Non-Hazardous Classification</u>	<u>Submit Material Safety Data Sheet (SDS)</u>	<u>Non-Hazardous, per RCRA Subtitle C</u>

*Applies only to surface-applied materials.

¹ All property values measured apply to both before and after Exposure Specimen Testing unless otherwise specified.

976-2.2 Color/Contract: Color and texture shall be uniform. Acceptable detectable warnings shall meet the following criteria both before and after Exposure Specimen Testing in accordance with this Section and Table 976-2.

<u>Table 976-2</u>	
<u>Color</u>	<u>Light Reflectance Values</u>
<u>Safety Yellow</u>	<u>25 – 45</u>
<u>Brick Red</u>	<u>5 – 15</u>
<u>Black</u>	<u>0 – 5</u>

976-2.3 Approved Product List Submittal Requirements: Manufacturers seeking evaluation of products for inclusion on the APL shall submit an application in accordance with Section 6 and include the documentation identified in the Table 976-3.

<u>Table 976-3</u>	
<u>Documentation</u>	<u>Requirements</u>
<u>Product Photo</u>	<u>Displays the significant features of the product.</u>
<u>Technical Data Sheet</u>	<u>Uniquely identifies the product and includes product specifications, storage instructions, and recommended installation materials and equipment as applicable.</u>
<u>Safety Data Sheet (SDS)</u>	<u>SDS meeting OSHA requirements for product and manufacturer recommended installation materials as applicable</u>
<u>National Testing Product Evaluation Program (NTPEP) product testing report</u>	<u>Testing must be conducted using the Exposed Specimen Testing using Freeze-Thaw Durability, Abrasion Exposure Testing, and Ultraviolet Light Exposure Testing NTPEP Workplan protocol.</u>
<u>Installation Instructions</u>	<u>Include surface preparations, and touch-up and repair procedures. Separate installation instructions are required for different substrates. Instructions must be capable of producing a finished installation that meets the requirements with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705, and requirements of this Section.</u>
<u>Product Sample</u>	<u>Upon request from the Department, submit a product sample. If the product and installation is a system comprised of parts, a sample of each part must be submitted.</u>

Documentation and reports must demonstrate that the product meets the requirements of this Section, Section 527, and the Standard Plans, Index 522-002.

976-3 Patterned Pavement

976-3.1 Performance Requirements: Meet manufacturer's specifications for all patterns, textures, templates, sealers, coatings, and coloring materials.

Material coatings used to achieve the pattern and color shall produce an adherent, weather resistant, skid resistant, wear resistant surface that demonstrates that the product meets the requirements for this Section, and Section 523 when installed in accordance with the manufacture's specifications and procedures. Products must meet the requirements in Table 976-4. The composition of materials and product system is intended to be left to the discretion of the manufacturer.

<u>Table 976-4</u>		
<u>Property</u>	<u>Documentation</u>	<u>Test Method and Value</u>
<u>Skid Test (Nonvehicular Use only)</u>	<u>Independent Laboratory Report</u>	<u>*ASTM E-303 using the British Pendulum Tester and has a British Pendulum Number (BPN) of at least 40.</u>
<u>Integral Color (Nonvehicular Use only)</u>	<u>Independent Laboratory Report</u>	<u>*Visual inspection and has Color that is integral.</u>
<u>Non-Hazardous Classification</u>	<u>Submit Material Safety Data Sheet (SDS)</u>	<u>Non-Hazardous, per RCRA Subtitle C Table 1 of 40 CFR 261.24 "Toxicity Characteristic" and not exude fumes which are hazardous, toxic, or detrimental to persons or property</u>

*Prepare product samples of the product system in accordance with FM5-622, use panel size as needed for test.

In addition requirements of this section, APL approval for Vehicular Use will be contingent on a manufacturer's product sample panels and field service test installation testing of the product system within a marked crosswalk on a roadway in accordance with this section and FM5-592 demonstrating that the patterned pavement product meets the performance measures in Table 976-5.

<u>Table 976-5</u>	
<u>Product Sample Panel Testing*</u>	
<u>Property</u>	<u>Product Sample Panel Values</u>
<u>Friction Resistance</u>	<u>FM5-622 - Part A and shall provide an initial Dynamic Friction Test (DFT40) value of 40 or greater</u>
<u>Integral Color</u>	<u>Visual inspection and has Color that is integral.</u>
<u>Field Service Testing</u>	
<u>Property</u>	<u>Field Service Test Value</u>
<u>Thickness</u>	<u>The average thickness shall be a minimum of 50% of the original thickness.</u>
<u>Material Coating</u>	<u>Wearing shall not expose more than 15% of the underlying surface area as measured within the traveled way.</u>
<u>Friction</u>	<u>Performance of patterned/textured pavement materials shall be conducted by an independent testing facility and meet or exceed one of the following test methods:</u> <ol style="list-style-type: none"> <u>a. ASTM E-274, Skid Resistance of Paved Surfaces using a standard ribbed full-scale tire at a speed of 40 mph (FN40R), and has an initial FN40R value of 40, and a minimum FN40R value of 35 or greater at all testing</u>

Table 976-5

	<u>intervals, or</u> <u>b. ASTM E-1911, Measuring Paved Surface Frictional Properties Using the Dynamic Friction Tester (DFT), at a speed of 40 mph (DFT40), and has a minimum DFT40 value of 40 or greater at all testing intervals.</u>
<u>*Prepare product samples of the product system in accordance with FM5-622.</u>	

976-3.2 Approved Product List Submittal Requirements: Manufacturers seeking evaluation of products for inclusion on the APL shall submit an application in accordance with Section 6 and include the documentation identified in Table 976-6.