

523 PATTERNED/TEXTURED PAVEMENT.
(REV 7-25-05) (FA 9-12-05) (7-06)

PAGE 593. The following new Section is added after Section 522:

SECTION 523
PATTERNED/TEXTURED PAVEMENT

523-1 Description.

Apply a patterned and/or textured treatment to asphalt or concrete, in accordance with manufacturer's recommendations. Applications include the following:

1. Imprinting patterns into existing or new pavement and covering with a surface coating(s) of paint or thermoplastic.
2. Imprinting patterns into existing or new pavement and inlaying the imprint with preformed thermoplastic material.
3. Colored, preprinted, preformed texturized thermoplastic material that is applied over existing pavement.
4. Colored thermoplastic material that can be imprinted and texturized during or after application to existing pavement.

For applications requiring removal and replacement of existing pavement, meet the requirements of Section 350 for cement concrete pavement; the requirements of Section 334 for Superpave asphalt or Section 337 for FC 9.5 and FC 12.5 asphalt.

For the purpose of this Specification, patterns are defined as visible surface markings; imprinted textures are defined as palpable surface markings.

Use the location, pattern/texture type (brick, stone, etc.), and coating color as specified in the plans. Joint openings shall not exceed 1/2 inch [13 mm] in width.

523-2 Materials.

523-2.1 Qualified Products List: Use only patterned/textured pavement products listed on the Qualified Products List. Meet manufacturer's specifications for all pattern/texture templates, coating and coloring materials. Use only material that is delivered to the job site in sealed containers bearing the manufacturer's original labels.

Material coatings used to achieve the pattern/texture and/or color shall produce an adherent, weather resistant, skid resistant surface capable of resisting deformation to traffic. Paint and thermoplastic materials must meet the requirements of this Specification and Section 971, except that the requirements for Color and Retroreflectivity do not apply.

Manufacturers seeking approval for inclusion on the QPL must submit application and certifications in accordance with Section 6 along with the following documentation:

1. Manufacturer's specifications and procedures for materials and installation.
2. Manufacturer's certification with supporting test data and results that the patterned/textured pavement installed in accordance with the manufacturer's specifications and procedures has been tested in accordance with the ASTM E-274, Skid Resistance of Paved Surfaces using a standard ribbed full Scale Tire at a speed of 40 mph (FN40R), and has a minimum FN40R value of 35.

523-2.2 Performance Requirements: QPL approval will be contingent on a field service test demonstrating that the imprinted texture and coating materials meet the following performance measures at the end of three years from opening to traffic:

1. The imprint must maintain a depth of 50% of the original installed depth and width.
2. Wearing of the material coating shall not expose more than 15% of the underlying surface area.
3. Friction performance of patterned/textured pavement materials must meet or exceed a British Pendulum Number (BPN) of 40 in accordance with ASTM E-303, measuring surface frictional properties using the British Pendulum Tester, or an FN40R value of 35 in accordance with ASTM E-274 FN40R value of 35.

The field service test installation shall be within a marked crosswalk on a roadway with an ADT of 8,000 to 12,000 vehicles per day per lane, approved by the State Materials Office. The test installation shall be a minimum six feet wide and extend from pavement edge to pavement edge across all traffic lanes and shoulder pavement at the crosswalk location. The test installation will be tested for skid resistance and wear in accordance with the specifications.

523-3 Construction.

523-3.1 Surface Protection: Protect treated surfaces from traffic and environmental effects until the area is completely coated/imprinted, and any coatings have dried or cured according to the manufacturer's instructions.

523-3.2 Pavement Cuts: Complete all utility, traffic loop detector, and other items requiring a cut and installation under the finished surface, prior to pattern installation.

523-3.3 Installation Acceptance: For asphalt roadways, apply patterned/textured pavement a minimum of 14 days after placement of the adjacent pavement. Upon completion of the installation, the Engineer will check the area at random locations for geometric accuracy, as specified in the plans. If any of the chosen areas have an imprint width and depth that is less than the manufacturer's specifications, correct the entire textured area, at no additional cost to the Department.

Supply the specified pattern and color samples for the Engineer's use to visually determine that the material matches the color specified in the plans. For any continuous or abutting areas, i.e. all treated areas of an intersection, color materials must be from the same lot/batch.

Provide certification that the textured pavement was installed in accordance with the manufacturer's requirements.

523-4 Method of Measurement.

The quantity to be paid will be the plan quantity in square yards [square meters] of patterned/textured pavement, completed and accepted. No deduction will be made for the area(s) occupied by ornamental trees within the asphalt area, or any other areas occupied by manholes, inlets, drainage structures, or by any public utility appurtenances within the area. Asphalt or concrete materials placed prior to treatment will be paid separately under the appropriate pay items. Milling required for the placement of patterned/textured pavement will be included in the cost of the patterned/textured pavement.

523-5 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section. Surface materials, including colors, sealers, and/or resins, shall be included for payment under this Section.

Payment will be made under:

- Item No. 523- 1- Patterned/Textured Pavement-per square yard.
- Item No. 2523- 1- Patterned/Textured Pavement-per square meter.

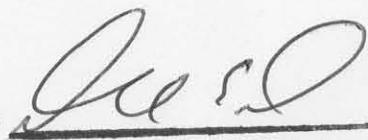
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Payment will be made under:

- 523- 1- Patterned/Textured Pavement-per square yard.
- 2523- 1- Patterned/Textured Pavement-per square meter.

APPROVED:



DATE: 9-12-05

For the Division Administrator

Duane F Brautigam/CO/FDOT

08/24/2005 08:14 AM

To

Clinton Shaw/CO/FDOT@FDOT, Shirley
Harvey/CO/FDOT@FDOT

cc

Subject

Fw: Approved Specs

OK, with this decision on 523, I think I hear the workbook clock striking midnight.

And Yes..... I am sure that's Cinderella I see racing down the stairs.

Will she find the errant (Larry Jones 4550000 spec) slipper on her way down the stairs, or will the big pumpkin coach be leaving without it? If Ann or Don don't have anything from Jeffrey Ger, it would appear we need to move on.

Please let me know - DFB

P.S. to Clinton - Check with Chester on that comment received from D2 to see if he wants to make a typo correction or let the current language ride. If he wants to change it, let's handle it as a pure typo - leave the FHWA date as is and issue as a Supplemental Spec with today's REV date. We will follow up with FHWA later.

Thanks

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----- Forwarded by Duane F Brautigam/CO/FDOT on 08/24/2005 08:04 AM -----

Robert Greer/CO/FDOT

08/24/2005 07:51 AM

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cc

Brian A Blanchard/CO/FDOT@FDOT, Clinton
Shaw/CO/FDOT@FDOT, Jim Mills/CO/FDOT@FDOT,
Ananth Prasad/CO/FDOT@FDOT

Subject

Re: Fw: Approved Specs

I agree with Duane. Let's proceed as he has outlined. Brian, I think FHWA has gone overboard with these types of tracking and studies. Please set up a meeting to discuss with them (Chris Richter).

Robert W. Greer, PE
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Duane F Brautigam/CO/FDOT

08/24/2005 07:42 AM

To
Jim Mills/CO/FDOT@FDOT, Brian A
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Greer/CO/FDOT@FDOT
cc
Clinton Shaw/CO/FDOT@FDOT
Subject
Fw: Approved Specs

The Districts are anxious to have us issue the January Workbook to meet their schedules. This spec is about the only thing that prevents us from wrapping the Workbook up and sending it out.

Since FHWA has expressed concerns only about policy, process and monitoring (administrative issues), with no apparent comment that would lead to modification of any of the specific technical language, my recommendation is to proceed immediately to implement the current version, as is, as a Special Provision in the January Workbook.

Although we cannot implement it as a Supplemental Specification without FHWA approval, our option of implementation as a Special Provision lets us get the January Workbook to the Districts for their production schedules, while still allowing sufficient time for us to work with FHWA to resolve their listed concerns before any of those jobs are let in January. In this case, since this is pretty much a stand alone spec, there is virtually no effect to spec packages between implementation as a Supplemental Spec or a Special Provision. However, this is a definite improvement in the process over the current Developmental Spec status. It would also allow us to start processing applications for QPL inclusion.

If you concur, we will pursue this immediately.

Please advise - DFB

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----- Forwarded by Duane F Brautigam/CO/FDOT on 08/24/2005 07:19 AM -----

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08/23/2005 09:13 PM

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Subject
FW: Approved Specs

Jim Mills and I discussed this proposed spec today on the phone. Here is what FHWA would like to do:

1. Consider this item "experimental"
2. FDOT prepare an experimental work plan similar to that under development for cable rail
3. The work plan also needs to contain the following:
 - Proposed criteria detailing where these can be installed
 - Tracking and monitoring process to be implemented
 - FDOT commitment for formal evaluation of the installations annually so the appropriate improvements can be made continually to the specification, etc.

We are concerned about installing these without any confidence how long they will last. Considering this experimental will provide the opportunity to install, monitor, and evaluate. Hope this helps.



Thanks. 5230000.D05.doc