Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

August 11, 2025

Daniel Holt, PE, PTOE
Director, Project Delivery
Director, Technical Services
FHWA
400 West Washington Street, Suite 4200
Orlando, FL 32801

Re: State Specifications Office
Section: 350
Proposed Specification: **3500100 Cement Concrete Pavement**

Dear Mr. Holt:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by James Greene to require new and existing concrete pavement joints be cleaned according to joint sealant manufacturer instructions rather than prescriptive directions.

Please review and transmit your comments, if any, within two weeks (10 business days). Comments should be sent via email daniel.strickland@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at (850) 414-4130.

Sincerely,

Signature on File

Daniel Strickland, P.E.
State Specifications Engineer

DS/jb
Attachment
cc: Florida Transportation Builders' Assoc.
State Construction Engineer

CEMENT CONCRETE PAVEMENT
(REV 5-27-25)

ARTICLE 350-2 is deleted and the following substituted:

350-2 Materials.

Meet the following requirements except as modified herein:

Concrete .....Section 346
~~Grinding Concrete Pavement .....Section 352~~
Curing ~~Materials~~Compound*.....~~Section~~ 925
~~Embedded Items~~Metal Materials for Joints .....~~Section~~ 931
Metal Dowel Bar Assemblies* 931
Joint Materials*~~Seal~~.....~~Section~~ 932
*Use products listed on the Department's Approved Product List (APL).

Provide concrete with a minimum 28-day compressive strength of 3,000 psi and maximum water to cementitious materials ratio of 0.50.

For concrete pavement placed using the slip-form method of construction, utilize concrete with a target slump of 1.5 inches plus or minus 1 inch. For concrete pavement placed by hand in constructed forms, utilize concrete with a target slump of 3 inches plus or minus 1.5 inches. Air content testing for concrete pavement mixes is not required.

SUBARTICLE 350-9 is deleted and the following substituted:

350-9 Sampling and Testing Methods.

350-9.1 General: Meet the requirements of 346~~-8 and 346-9~~, with the exception of air content.

350-9.2 Sampling Frequency for ~~Quality Control~~Acceptance Tests: Sample and test concrete of each design mix for temperature and compressive strength tests once per LOT.

A LOT is defined as the concrete placement of 2,000 square yards or one day's production, whichever is less. The LOT must be of the same type of placement method, such as slip form or formwork methods. Partial LOTs of less than 500 square yards will be combined with the previous LOT for testing and acceptance purposes.

350-9.2.1 Reduced Frequency for ~~Quality Control~~Acceptance Tests: The LOT size for reduced testing frequency of Class I (Pavement) may represent a maximum production quantity of 4,000 square yards, provided that the submitted historical compressive strength test results meet the requirements as described below:

1. The average of the acceptance compressive strengths is equal to or greater than 2,500 psi plus 2.33 standard deviations.

2. Every average of three consecutive strength test equals or exceeds the 3,000 plus 1.34 standard deviations.

Base calculations on a minimum of five consecutive compressive strength results. The average of the consecutive compressive strength test results can be established using historical data from a previous Department project. The tests from the previous Department project must be within the last calendar year or may also be established by a succession of samples on the current project. Only one sample can be taken from each LOT. Test data must be

from sample(s) tested by a laboratory meeting the requirements of Section 105. Obtain Department approval before beginning reduced frequency LOTs.

If at any time a compressive strength test is not verified or the average compressive strength of the previous five consecutive samples from the same mix design and the same production facility does not conform to the above conditions, return to the frequency represented by the LOT as defined in 350-9.2. Notify the Engineer that the initial frequency is reinstated. To reinitiate reduced frequency, submit a new set of strength test results.

350-9.2.2 Sampling Frequency for Verification: If Contractor Quality Control is used, t~~T~~he Engineer will verify one of every four consecutive LOTs, randomly selected, for each mix design in accordance with 346~~-8~~.

The Engineer may perform additional independent verifications tests. All QC activities, calculations and inspections may be randomly confirmed by the Engineer. The Engineer may obtain additional samples for informational purposes.

SUBARTICLE 350-11.2 is deleted and the following substituted:

350-11.2 Edging: After applying the final finish, but before the concrete has become nonplastic, carefully round the edges to a 1/84 inch radius on each side of transverse expansion joints and construction joints and along any structure extending into the pavement. Produce a well-defined and continuous radius, and obtain a smooth, dense mortar finish. Completely remove all concrete from the top of the joint that will obstruct the preformed joint filler installation.

SUBARTICLE 350-12.2 is deleted and the following substituted:

350-12.2 White-Pigmented Curing Compound: Uniformly apply a Type 2 (White) ~~white-pigmented~~ curing compound meeting the requirements of Section 925 to the surfaces to be cured, including the edges of slip-form produced paving, in a single coat of continuous film, at the minimum rate of 1 gallon per 200 square feet.

During application, thoroughly mix the compound in accordance with the manufacturer's recommendation.

Do not apply curing compound during periods of rainfall. Do not apply curing compound to the inside faces of joints to be sealed. Should the film become damaged from any cause within the required curing period, repair the damaged portions immediately with additional compound. If using forms, upon their removal, immediately coat the sides of the slabs exposed to provide a curing treatment equal to that provided for the surface.

SUBARTICLE 350-13.3.2 is deleted and the following substituted:

350-13.3.2 Transverse Construction Joints: Construct transverse construction joints at the end of all pours and at other locations where the paving operations are stopped for 30 minutes or longer. Do not place construction joints within 7 1/2 feet of any other transverse joint or within 7 1/2 feet of either end of a section of pavement. If sufficient concrete has not been placed to form a slab at least 7 1/2 feet long, remove the excess concrete, back to the last

preceding joint. Form the joints in place, in a plane perpendicular to the profile and centerline of the pavement. Saw or form construction joints, in a manner similar to contraction joints, so that a groove will be formed for holding the joint seal~~ing compound~~.

Check all joints with a straightedge before the concrete has become non-plastic. Make corrections as necessary if one side of the joint is higher than the other, or the entire joint is higher or lower than the adjacent slabs.

SUBARTICLE 350-13.5 is deleted and the following substituted:

350-13.5 Cleaning Joints and Cracks:

350-13.5.1 Cleaning Joints in New Pavement:

350-13.5.1.1 Sawed Joints: ~~Immediately after the final saw cut,~~ C~~c~~ompletely remove the resulting residue from the joint and the immediate area by flushing with a pressure washer and by using other tools as necessary.

1. After flushing, blow out the joints with compressed air.
2. Patch all spalled edges with an epoxy compound.
3. Immediately prior to joint seal installation, clean the joints ~~using compressed air to remove all traces of debris and dust within and on the joint surfaces~~ according to the joint sealant manufacturer's instructions.

350-13.5.1.2 Non-Sawed Joints: Thoroughly clean joints which require seal~~ing~~ of all foreign material for the full depth of the joint seal installation.

With the exception of residue removal due to sawing, meet the cleaning requirements as specified for sawed joints.

350-13.5.2 Cleaning Joints in Existing Pavement: Remove all existing joint-sealing material and foreign material for the full depth of the new joint seal by sawing, wire brushing, sandblasting, or other methods approved by the Engineer.

Remove any existing sealant or parting strip material below the bond breaker tape or backer rod bond breaker and replace it with additional backer rod bond breaker. When conditions require removal and replacement with additional backer rod bond breaker below the new joint seal, obtain the Engineer's approval of the type of backer rod bond breaker and its installation procedure. Perform cleaning by any method or combination of methods, as detailed in the Plans.

~~Flush the joint with a pressurized jet of water, and use other tools as necessary, to remove loose remnants and debris.~~

~~After flushing, blow out the joints with compressed air. After the flushed joints have dried, sandblast the joint faces to thoroughly remove all foreign material. Perform sandblasting in two passes, once for each face.~~

~~Patch all spalled edges with an epoxy compound.~~

~~Immediately prior to joint seal installation, clean the joints using compressed air to remove all traces of debris and dust within and on the joint surfaces.~~

Prior to joint sealing, clean the joints in accordance with 350-13.5.1.1.

350-13.5.3 Cleaning Random Cracks in Existing Pavement: Do not begin cleaning random cracks in existing pavement until all other concrete pavement repairs have progressed to the point where those operations will not adversely affect the installation of the new seal.

Cut the random cracks to be repaired and sealed into grooved joints to the depth and width detailed in the Plans. Clean the joints in accordance with 350-13.5.2.

CEMENT CONCRETE PAVEMENT
(REV 5-27-25)

ARTICLE 350-2 is deleted and the following substituted:

350-2 Materials.

Meet the following requirements except as modified herein:

Concrete .....Section 346
Curing Compound*.....925
Metal Materials for Joints 931
Metal Dowel Bar Assemblies* 931
Joint Materials*.....932
*Use products listed on the Department's Approved Product List (APL).

Provide concrete with a minimum 28-day compressive strength of 3,000 psi and maximum water to cementitious materials ratio of 0.50.

For concrete pavement placed using the slip-form method of construction, utilize concrete with a target slump of 1.5 inches plus or minus 1 inch. For concrete pavement placed by hand in constructed forms, utilize concrete with a target slump of 3 inches plus or minus 1.5 inches. Air content testing for concrete pavement mixes is not required.

SUBARTICLE 350-9 is deleted and the following substituted:

350-9 Sampling and Testing Methods.

350-9.1 General: Meet the requirements of 346, with the exception of air content.

350-9.2 Sampling Frequency for Acceptance Tests: Sample and test concrete of each design mix for temperature and compressive strength tests once per LOT.

A LOT is defined as the concrete placement of 2,000 square yards or one day's production, whichever is less. The LOT must be of the same type of placement method, such as slip form or formwork methods. Partial LOTs of less than 500 square yards will be combined with the previous LOT for testing and acceptance purposes.

350-9.2.1 Reduced Frequency for Acceptance Tests: The LOT size for reduced testing frequency of Class I (Pavement) may represent a maximum production quantity of 4,000 square yards, provided that the submitted historical compressive strength test results meet the requirements as described below:

1. The average of the acceptance compressive strengths is equal to or greater than 2,500 psi plus 2.33 standard deviations.

2. Every average of three consecutive strength test equals or exceeds the 3,000 plus 1.34 standard deviations.

Base calculations on a minimum of five consecutive compressive strength results. The average of the consecutive compressive strength test results can be established using historical data from a previous Department project. The tests from the previous Department project must be within the last calendar year or may also be established by a succession of samples on the current project. Only one sample can be taken from each LOT. Test data must be from sample(s) tested by a laboratory meeting the requirements of Section 105. Obtain Department approval before beginning reduced frequency LOTs.

If at any time a compressive strength test is not verified or the average compressive strength of the previous five consecutive samples from the same mix design and the same production facility does not conform to the above conditions, return to the frequency represented by the LOT as defined in 350-9.2. Notify the Engineer that the initial frequency is reinstated. To reinitiate reduced frequency, submit a new set of strength test results.

350-9.2.2 Sampling Frequency for Verification: If Contractor Quality Control is used, the Engineer will verify one of every four consecutive LOTs, randomly selected, for each mix design in accordance with 346.

The Engineer may perform additional independent verifications tests. All QC activities, calculations and inspections may be randomly confirmed by the Engineer. The Engineer may obtain additional samples for informational purposes.

SUBARTICLE 350-11.2 is deleted and the following substituted:

350-11.2 Edging: After applying the final finish, but before the concrete has become nonplastic, carefully round the edges to a 1/8 inch radius on each side of transverse expansion joints and construction joints and along any structure extending into the pavement. Produce a well-defined and continuous radius, and obtain a smooth, dense mortar finish. Completely remove all concrete from the top of the joint that will obstruct the preformed joint filler installation.

SUBARTICLE 350-12.2 is deleted and the following substituted:

350-12.2 White-Pigmented Curing Compound: Uniformly apply a Type 2 (White) curing compound meeting the requirements of Section 925 to the surfaces to be cured, including the edges of slip-form produced paving, in a single coat of continuous film, at the minimum rate of 1 gallon per 200 square feet.

During application, thoroughly mix the compound in accordance with the manufacturer's recommendation.

Do not apply curing compound during periods of rainfall. Do not apply curing compound to the inside faces of joints to be sealed. Should the film become damaged from any cause within the required curing period, repair the damaged portions immediately with additional compound. If using forms, upon their removal, immediately coat the sides of the slabs exposed to provide a curing treatment equal to that provided for the surface.

SUBARTICLE 350-13.3.2 is deleted and the following substituted:

350-13.3.2 Transverse Construction Joints: Construct transverse construction joints at the end of all pours and at other locations where the paving operations are stopped for 30 minutes or longer. Do not place construction joints within 7 1/2 feet of any other transverse joint or within 7 1/2 feet of either end of a section of pavement. If sufficient concrete has not been placed to form a slab at least 7 1/2 feet long, remove the excess concrete, back to the last preceding joint. Form the joints in place, in a plane perpendicular to the profile and centerline of

the pavement. Saw or form construction joints, in a manner similar to contraction joints, so that a groove will be formed for holding the joint seal.

Check all joints with a straightedge before the concrete has become non-plastic. Make corrections as necessary if one side of the joint is higher than the other, or the entire joint is higher or lower than the adjacent slabs.

SUBARTICLE 350-13.5 is deleted and the following substituted:

350-13.5 Cleaning Joints and Cracks:

350-13.5.1 Cleaning Joints in New Pavement:

350-13.5.1.1 Sawed Joints: Completely remove the resulting residue from the joint and the immediate area by flushing with a pressure washer and by using other tools as necessary.

1. After flushing, blow out the joints with compressed air.
2. Patch all spalled edges with an epoxy compound.
3. Immediately prior to joint seal installation, clean the joints according to the joint sealant manufacturer's instructions.

350-13.5.1.2 Non-Sawed Joints: Thoroughly clean joints which require seal of all foreign material for the full depth of the joint seal installation.

With the exception of residue removal due to sawing, meet the cleaning requirements as specified for sawed joints.

350-13.5.2 Cleaning Joints in Existing Pavement: Remove all existing joint-sealing material and foreign material for the full depth of the new joint seal by sawing, wire brushing, sandblasting, or other methods approved by the Engineer.

Remove any existing sealant or parting strip material below the bond breaker tape or backer rod bond breaker and replace it with additional backer rod bond breaker. When conditions require removal and replacement with additional backer rod bond breaker below the new joint seal, obtain the Engineer's approval of the type of backer rod bond breaker and its installation procedure. Perform cleaning by any method or combination of methods, as detailed in the Plans.

Prior to joint sealing, clean the joints in accordance with 350-13.5.1.1.

350-13.5.3 Cleaning Random Cracks in Existing Pavement: Do not begin cleaning random cracks in existing pavement until all other concrete pavement repairs have progressed to the point where those operations will not adversely affect the installation of the new seal.

Cut the random cracks to be repaired and sealed into grooved joints to the depth and width detailed in the Plans. Clean the joints in accordance with 350-13.5.2.