



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

July 28, 2020

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: **450**
Proposed Specification: **4501106 Precast Prestressed Concrete Construction.**

Dear Mr. Nguyen:

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

The changes are proposed by Ben Goldsberry by the Structures Design Office to prevent the strands from punching through the epoxy coating on the beam ends. Modifying the elapsed time for when the epoxy is applied will allow the majority of the camber and creep to occur and allow water to escape.

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

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

Sincerely,

Signature on file

Daniel Strickland, P.E.
State Specifications Engineer

DS/rf

Attachment

cc: Florida Transportation Builders' Assoc.



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STATE CONSTRUCTION ENGINEER PRECAST PRESTRESSED CONCRETE CONSTRUCTION.

(REV ~~75-2711~~-20)

SUBARTICLE 450-11.6.1 is deleted and the following substituted:

450-11.6.1 Beams Ends that will not be Permanently Encased in Concrete Diaphragms:

1. Remove any corrosion product from all accessible surfaces at the cut end of the strands.
 2. Apply two layers of epoxy to the exposed beam ends (including clipped and chamfered surfaces) ~~no later than fourteen days after detensioning~~ at the applicable time frame below:
 - a. For beams without debonded strands, at least three calendar days prior to shipping but no later than 50 calendar days after detensioning.
 - b. For beams with debonded strands, between 45 and 50 calendar days after detensioning. If the beam requires shipment prior to 42 calendar days, at least three calendar days prior to shipping.
 3. As an option to item 2b, the epoxy may be applied in two steps as follows:
 - a. To the upper area of the beam end within 4 inches of the outer stands of the bottom strand group any time after detensioning.
 - b. To the remaining area that includes the bottom strand group between 42 and 50 calendar days after detentioning. Ensure that the entire beam end is fully coated at least three calendar days prior to shipping.
- Ensure that the first epoxy layer is cured before applying the second layer. The finished thickness of the epoxy coating must be a minimum of 1/16 inch and form a vertical flat plane without deviations or localized depressions from recessed strands or other defects.
- Ensure that the epoxy coating is cured per the manufacturer's recommendations prior to shipping the products.
- Any modifications to the time limits above must be approved by the Engineer.

PRECAST PRESTRESSED CONCRETE CONSTRUCTION.**(REV 7-27-20)**

SUBARTICLE 450-11.6.1 is deleted and the following substituted:

450-11.6.1 Beams Ends that will not be Permanently Encased in Concrete**Diaphragms:**

1. Remove any corrosion product from all accessible surfaces at the cut end of the strands.
2. Apply two layers of epoxy to the exposed beam ends (including clipped and chamfered surfaces) at the applicable time frame below:
 - a. For beams without debonded strands, at least three calendar days prior to shipping but no later than 50 calendar days after detensioning.
 - b. For beams with debonded strands, between 45 and 50 calendar days after detensioning. If the beam requires shipment prior to 42 calendar days, at least three calendar days prior to shipping.
3. As an option to item 2b, the epoxy may be applied in two steps as follows:
 - a. To the upper area of the beam end within 4 inches of the outer stands of the bottom strand group any time after detensioning.
 - b. To the remaining area that includes the bottom strand group between 42 and 50 calendar days after detentioning. Ensure that the entire beam end is fully coated at least three calendar days prior to shipping.

Ensure that the first epoxy layer is cured before applying the second layer.
The finished thickness of the epoxy coating must be a minimum of 1/16 inch and form a vertical flat plane without deviations or localized depressions from recessed strands or other defects.
Ensure that the epoxy coating is cured per the manufacturer's recommendations prior to shipping the products.
Any modifications to the time limits above must be approved by the Engineer.