



## Florida Department of Transportation

JEB BUSH  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

JOSÉ ABREU  
SECRETARY

February 3, 2004

Mr. Donald Davis  
Program Operations Engineer  
Federal Highway Administration  
227 N. Bronough Street, Suite 2015  
Tallahassee, Florida 32301

Re: Office of Design, Specifications  
Section 455  
Proposed Specification: D4550001.D02

Dear Mr. Davis:

We are submitting, for your approval, two copies of a proposed Supplemental Specification for Structures Foundations.

This change was proposed by David Sadler of the State Construction Office to specify restrictions on the effects of vibration on freshly placed concrete and to simplify the method of measurement and basis of payment.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to SP965DB or [duane.brautigam@dot.state.fl.us](mailto:duane.brautigam@dot.state.fl.us).

If you have any questions relating to this specification change, please call Duane F. Brautigam, State Specifications Engineer at 414-4110.

Sincerely,

Signature on file

Duane F. Brautigam, P.E.  
State Specifications Engineer

DFB/jf

Attachment

cc: General Counsel  
Florida Transportation Builders' Assoc.  
State Construction Engineer

**STRUCTURES FOUNDATIONS.**  
**(REV 2-03-03)**

ARTICLE 455-1 (Pages 462-465) is expanded by the following:

**455-1.4 Vibrations on Freshly Placed Concrete (~~Footings or Drilled Shafts and Piers~~):** *Ensure that freshly placed concrete is not subjected to vibrations greater than 1.5 in/sec from any pile driving and/or drilled shaft casing installation sources located within the greatest dimension of three shaft diameters (measured from the perimeter of the shaft closest to the vibration source) or 30 feet [10 m] (from the nearest outside edge of freshly placed concrete to the vibration source) until that concrete has attained its final set as defined by ASTM C-403. ~~Vibrations from any source beyond 30 feet from freshly placed concrete shall not exceed 1.5 inch/second at any point within 30 feet from freshly placed concrete until the freshly placed concrete has attained its final set as described above.~~*

SUBARTICLE 455-11.8 (Page 499) is deleted and the following substituted:

**455-11.8 Pile Splices:** Authorized splices in concrete piling, steel piling and test piling, which are made for the purpose of obtaining greater lengths than originally authorized by the Engineer, or to incorporate test piling in the finished structure, or for further driving of test piling, will be paid for as described in 455-12.12. No separate payment will be made for splices required to obtain the authorized length.

For concrete piles, where the head of the pile to be spliced is not more than 2 feet [0.6 m] below the elevation of cut-off, the Contractor, if he so elects, may cast the pile build-up with the cap, under the following conditions:

- (a) Reinforcing steel and pile dimensions will conform in every respect to a standard splice.
- ~~(b) Reinforcing steel used for the build up will be paid for as an overrun in the Contract quantity for substructure reinforcing steel.~~
- ~~(c) Concrete used for the build up will be paid for as an overrun in the Contract quantity for substructure concrete.~~
- ~~(d) 9 feet [2.7 m] of piling, will be paid for as compensation for drilling and grouting the dowels and *reinforcing steel and concrete used for build up and* all other costs for which provision has not otherwise been made.~~
- ~~(e) No payment for the build up will be made under the item for Piling.~~

SUBARTICLE 455-11.13 (Page 500) is deleted and the following substituted:

**455-11.13 Preformed Pile Holes:** The quantity to be paid for will be *30% of one (1) foot [meter] of piling* the length in feet (meters) *for each foot [meter]* of completed Preformed Pile Holes acceptably provided, complete for the installation of the bearing piles, regardless of the type of pile installed therein. Only those holes authorized to be paid for, as provided in 455-5.9.3, will be included in the measurement for payment. The Engineer will authorize payment for Preformed Pile Holes only when the pile has been placed in proper position and has achieved the required penetration.

SUBARTICLE 455-12.8 (Page 501) is deleted and the following substituted:

**455-12.8 Preformed Pile Holes:** There will be no separate pay item for Preformed Pile Holes. Payment will be made as 30% *of (1) one foot [meter]* the unit price for Piling of the applicable pile type for each ~~linear~~ foot [meter] of hole, which is preformed when authorized by the Engineer. Price and payment will be full compensation for all labor, equipment, and materials required to perform this work.

**STRUCTURES FOUNDATIONS.  
(REV 2-03-03)**

ARTICLE 455-1 (Pages 462-465) is expanded by the following:

**455-1.4 Vibrations on Freshly Placed Concrete (Drilled Shafts and Piers):** Ensure that freshly placed concrete is not subjected to vibrations greater than 1.5 in/sec from pile driving and/or drilled shaft casing installation sources located within the greater dimension of three shaft diameters (measured from the perimeter of the shaft closest to the vibration source) or 30 feet [10 m] (from the nearest outside edge of freshly placed concrete to the vibration source) until that concrete has attained its final set as defined by ASTM C-403.

SUBARTICLE 455-11.8 (Page 499) is deleted and the following substituted:

**455-11.8 Pile Splices:** Authorized splices in concrete piling, steel piling and test piling, which are made for the purpose of obtaining greater lengths than originally authorized by the Engineer, or to incorporate test piling in the finished structure, or for further driving of test piling, will be paid for as described in 455-12.12. No separate payment will be made for splices required to obtain the authorized length.

For concrete piles, where the head of the pile to be spliced is not more than 2 feet [0.6 m] below the elevation of cut-off, the Contractor, if he so elects, may cast the pile build-up with the cap, under the following conditions:

(a) Reinforcing steel and pile dimensions will conform in every respect to a standard splice.

(b) 9 feet [2.7 m] of piling, will be paid for as compensation for drilling and grouting the dowels and reinforcing steel and concrete used for-build up and all other costs for which provision has not otherwise been made.

SUBARTICLE 455-11.13 (Page 500) is deleted and the following substituted:

**455-11.13 Preformed Pile Holes:** The quantity to be paid for will be 30% of one foot [meter] of piling for each foot [meter] of completed Preformed Pile Holes acceptably provided, complete for the installation of the bearing piles, regardless of the type of pile installed therein. Only those holes authorized to be paid for, as provided in 455-5.9.3, will be included in the measurement for payment. The Engineer will authorize payment for Preformed Pile Holes only when the pile has been placed in proper position and has achieved the required penetration.

SUBARTICLE 455-12.8 (Page 501) is deleted and the following substituted:

**455-12.8 Preformed Pile Holes:** There will be no separate pay item for Preformed Pile Holes. Payment will be made as 30% of one foot [meter] for Piling of the applicable pile type for each foot [meter] of hole, which is preformed when authorized by the Engineer. Price and payment will be full compensation for all labor, equipment, and materials required to perform this work.