



Florida Department of Transportation

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STRUCTURES DESIGN BULLETIN 12-05

DCE MEMORANDUM 12-12

(FHWA Approved: 3/23/2012)

DATE: March 23, 2012

TO: District Construction Engineers, District Specifications Engineers, District Materials Engineers, District Geotechnical Engineers

FROM: Robert V. Robertson, PE, State Structures Design Engineer
David A. Sadler, PE, Director, Office of Construction

COPIES: Brian Blanchard, Tom Byron, Tim Ruelke, Bob Burleson (FTBA), Chris Richter (FHWA), Chad Thompson, Jeffery Ger, Rafiq Darji, Rudy Powell, Larry Jones, Heather Dean

SUBJECT: Interpretation of Supplemental Specification 455 - Sections 455-5.11.5 & 455-5.13 (Dynamic Load Tests)

REQUIREMENTS

This memorandum clarifies that when an increased resistance factor is justified by 100% dynamic testing, all blows delivered to every pile shall be monitored with Dynamic Load Testing equipment utilizing internally or externally mounted sensors.

BACKGROUND

There have been conflicting interpretations regarding the requirements for bridges founded on driven piles where an increased resistance factor is justified through the 100% dynamic testing. On these projects, questions have arisen regarding whether utilizing instrumented set-checks provides the same confidence in future pile performance as monitoring all blows delivered to every pile. Monitoring all blows delivered to every pile allows for the determination of the wave speed of the pile material at the beginning of driving, and documentation of changes in wave speed during driving and the stress history during pile installation.

IMPLEMENTATION

These requirements are effective on all projects immediately and the Soils and Foundation Handbook will be revised accordingly.

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Interpretation of Supplemental Specification 455 - Sections 455-5.11.5 & 455-5.13 (Dynamic Load Tests)

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