

ORIGINATION FORM

Date: 10/28/11

Originator: Charles Boyd

Contact Information: 414-4275

Specification Title: Deviation from Above Tolerance; Drilled Shaft Excavations Constructed out of Tolerance

Specification Section, Article, or Subarticle Number: 455-5.15.5 and 21

Why does the existing language need to be changed? To clarify the requirements for using piles that have been driven out of tolerance and to make the driven pile and drilled shaft sections consistent with respect to these requirements.

Summary of the changes: Requirements for redesigning structures so as to utilize piles that have been driven out of tolerance and drilled shaft sections that are constructed out of tolerance have been clarified and made consistent between the two sections.

Are these changes applicable to all Department jobs? If not, what are the restrictions? All jobs with driven piles or drilled shafts.

Will these changes result in an increase or decrease in project costs? If yes, what is the estimated change in costs? No.

With who have you discussed these changes? Robert Robertson.

What other offices will be impacted by these changes? Construction

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? No

Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? No

Contact the State Specifications Office for assistance in completing this form.
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ANANTH PRASAD, P.E.
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M E M O R A N D U M

DATE: November 14, 2011

TO: Specification Review Distribution List

FROM: Rudy Powell, Jr., P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **4550515 Structures Foundations.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Charles Boyd to clarify the requirements for using piles that have been driven out of tolerance and to make the driven pile and drilled shaft sections consistent with respect to these requirements.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at SP965RP or rudy.powell@dot.state.fl.us. Comments received after **December 12, 2011**, may not be considered. Your input is encouraged.

RP/cah
Attachment

STRUCTURES FOUNDATIONS.
(REV 10-20-11)

SUBARTICLE 455-5.15.5 (of the Supplemental Specification) is deleted and the following substituted:

455-5.15.5 Deviation From Above Tolerances: When the Contractor has failed to meet the above tolerances, the Contractor may *propose a redesign to incorporate piles driven out of tolerance into* ~~request design changes in the~~ pile caps or footings ~~to incorporate piles driven out of tolerance.~~ Bear the expense of redesign and Unforeseeable Work ~~resulting from approved design changes~~ to incorporate piles driven out of tolerance. Ensure the Contractor's Engineer of Record performs any redesign and signs and seals the redesign drawings and computations. Do not begin any proposed ~~construction~~ *redesign* until *the redesign* ~~it~~ has been reviewed for acceptability and approved by the Engineer.

ARTICLE 455-21 (of the Supplement Specification) is deleted and the following substituted:

455-21 Drilled Shaft Excavations Constructed out of Tolerance.

Do not construct drilled shaft excavations in such a manner that the concrete shaft cannot be completed within the required tolerances. The Contractor may make corrections to an unacceptable drilled shaft excavation by any combination of the following methods:

- (a) Overdrilling the shaft excavation to a larger diameter to permit accurate placement of the reinforcing steel cage with the required minimum concrete cover.
- (b) Increasing the number and/or size of the steel reinforcement bars.
- (c) Enlargement of the bearing area of the bell excavation within tolerance

allowed.

When the tolerances are not met, the Contractor may *propose a redesign to incorporate shafts installed out of tolerance into* ~~request design changes in the~~ caps or footings ~~to incorporate shafts installed out of tolerance.~~ ~~The Contractor shall b~~ Bear the ~~expense~~ *costs* of redesign and Unforeseeable Work ~~resulting from approved design changes~~ to incorporate shafts installed out of tolerance. *Ensure* ~~T~~ the Contractor's Engineer of Record ~~will~~ performs any redesign and ~~will~~ signs and seals the redesign drawings and computations. Do not begin any proposed ~~redesign~~ *construction* until ~~it~~ *the redesign* has been reviewed for acceptability and approved by the Engineer.

Backfill any out of tolerance shafts in an approved manner when directed by the Engineer until the redesign is complete and approved. Furnish additional materials and work necessary, including engineering analysis and redesign, to effect corrections of out of tolerance drilled shaft excavations at no expense to the Department.