



Florida Department of Transportation

JEB BUSH
GOVERNOR

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Tallahassee, Florida 32399-0450


THOMAS F. BARRY, JR.
SECRETARY

March 18, 1999

THIS MEMO IS EXPIRED

M E M O R A N D U M NO. 10-99

TO: DISTRICT CONSTRUCTION ENGINEERS
DISTRICT MATERIALS ENGINEERS
DISTRICT GEOTECHNICAL ENGINEERS

FROM:  Sastry Putcha, State Construction Geotechnical Engineer

COPIES: Greg Xanders, Charles Goodman, William Nickas, Paul Passe,
Bob Ho, Area Construction Engineers

SUBJECT: STATEWIDE CONSTRUCTION GEOTECHNICAL MEETING

Please note the enclosed agenda for the Statewide Construction Geotechnical Meeting on April 6, 1999 in the Executive Conference Room in Burns Building. There will be a site visit from 8:00 A.M. to 10:00 A. M. on April 7, 1999 at the FSU Engineering building for demonstration of the shaft camera. Please send or bring any items you may want to discuss.

SP/sp
Enclosures

AGENDA
State Construction Geotechnical Meeting
April 6, 1999
Executive Conference Room, Burns Building

A. General

1. 8:00-8:15: Greg Xanders -----15% CEI Cost Performance Factor
2. 8:15-8:25: Richard Long/Dan Turner -----Applied Research for FDOT needs

B. Construction Geotechnical Issues (Details Enclosed)

8:25-12:00pm

C. Site Visit

4/7/99: 8:00am-10:00am

Construction Geotechnical Issues

1. Blow Count Criteria-Response time to Contractors:

It seems that CEI geotechnical engineers are going to the Department Engineers (construction and or geotechnical) for decisions. The CEIs need to have or exercise their authority to make such decisions (Plotkin/CO).

2. Contractor's speciality engineer needs to be the lead geotechnical engineer. This engineer would have qualifications specified by FDOT. This would eliminate millions of dollars of Supplemental Agreements. (Haggerty/D-2)

3. "PDA Operator/Engineer Certification" (Budnovich/D-5)

4. Currently, duplication is occurring in the inspection of drilled shafts during construction. Can the duties and responsibilities be well defined, so the duplication can be prevented? (Martin/D-3)

5. When do we need undisturbed sampling at the shaft bottom? (Goodman/CO)

6. Need to minimize nonuniformity between Districts in the way the CEI geotechnical consultants and the District geotechnical office interacts. (Paul Passe/CO)

7. Are the geotechnicals responsible to review and approve drilled shaft installations plans for signs, mast arms, etc? It seems some plans are forwarded to us and some are not depending on the construction personnel handling the job and the district involved. (Miro/D-6)

8. The time allowed to provide production pile lengths after test pile driving is completed is listed differently as follows:

a) According to 455-5.14.3 - Within 7 days (working or calendar?) after driving all test piles, all load tests, all redrives and receiving all test reports.

b) According to CPAM Topic No. 700-000-000-a, dated October 1, 1995, we have up to a maximum of 10 working days to provide production pile lengths. Have the CPAM been overlooked or are we to ignore this portion of it? (Miro/D-6)

9. On fender piles, why don't we specify a minimum hammer size. As it is, contractors are using small hammers which are not capable to drive the fender piles and then claim they need to preform the piles, at an additional cost to the department, because the piles cannot be driven. If we specify a minimum size hammer, or were given to perform wave equations to evaluate the hammer, we could reject hammer too small to do the job. The problem is that fender piles have no bearing capacity,

therefore, no such value to enter in wave equation calculations. (Miro/D-6)

10. In some instances the hammer delivered to the jobsite is different from the one submitted for approval. In such instances, we find out that the hammer at the site has not been approved because it is not the one submitted, and yet the contractors want to claim delays because we will not let them drive with the driving criteria which is available for the hammer submitted to us in the original installation plan. (Miro/D-6)

11. In the project which is ongoing some of the last piles to be driven in the pier has taken longer time than originally anticipated. This may be due to soil densification. How can we account for this in the driving criteria ? In this case the contractor is behind the schedule and they want to pin it on somebody or compensation. Any suggestions how to handle this situation ? (SamakurD-2)

12. Supplemental Specifications to the 1991 Standard Specifications for Road and Bridge Construction 1994 indicates, on page 145, in the first sentence of Section A455-3.17.4 Elevation that a pile head may be 1 ½ inches above or as much as 4 inches below the elevation shown in the plans (I assume this is plan stated Pile Cut Off elevation). What is the meaning, intent, and use for the second sentence of this section, which reads as follows, "in no case shall the pile embedment be less than six inches below the elevation shown in the plans unless a minimum penetration requirement is shown." (Gerber/Turnpike)

13. Index Sheet 600 Drawing of 2 of the Structural Design Standards 1994 Edition indicates (upper left hand corner) that Reinforced Precast Splices can be used for non drive pile extensions between 2 feet long and 5 feet long. The associated dowel bar detail drawings indicate that the dowels must be embedded 2 feet 5 inches into both the pile and into the Precast splice section. This works fine, so long as the extension is longer than 2 feet 5 inches. What is the procedure for Reinforced Precast Splice sections between 2 feet and 2 feet 5 inches long? For example, would a Reinforced Precast Splice section 2 feet 2 inches long have 3 inches of number 10 dowel protruding from the top end? (Gerber/Turnpike)

14. Note 50 in the back of the Orange Pile Book reads as follows, "Total Pile Driven - The total length of the pile actively driven. Do not take batter into account. To three decimal places."

Question: A. We are not understanding exactly what "actively" driven means. Is the length of pile placed in preformed holes exempt from payment? Or that portion of pile placed through water?

Question: B. Why is batter not to be taken into account? Is this a currently enforced payment procedure?
(Gerber/Turnpike)

15. Mechanical Splices: Do we need specifications? (FTBA)

16. Predrilling: The 4 feet that is currently allowed in the specifications is inadequate (FTBA)

17. Any other items?