



ROBERT BENTLEY
GOVERNOR

ALABAMA
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION BUREAU
1409 COLISEUM BOULEVARD, G-101
MONTGOMERY, ALABAMA 36110
PHONE (334) 242-6216
FAX (334) 264-3727



JOHN R. COOPER
TRANSPORTATION DIRECTOR

September 26, 2013

Construction Information Memorandum No. 2-2013

TO: Division/Region Engineers

ATTN: Division/Area Construction Engineers & Division/Region County Transportation Engineers

FROM: Curtis W. Vincent, P.E.
State Construction Engineer

RE: Bridge Construction Issues

Several bridge construction issues that were discussed in a recent liaison meeting with the Alabama Bridge Construction Association need clarification or emphasis as outlined below:

Steel Reinforcement – it is an acceptable practice to flame-cut reinforcing bars. The Concrete Reinforcing Steel Institute's Manual of Standard Practice, Article 8.11, reads as follows:

“Various means are used to cut reinforcing bars at the job-site. The smaller bars, #3 to # 5, can usually be cut with bolt cutters. All bar sizes can be cut with an abrasive saw or by flame-cutting such as using an oxy-acetylene torch.”

Article 502.03 does not allow for heating in bending of bars although some minor heating is allowed for reshaping reinforcement bent during shipping and handling. This wording for bending has led to some confusion on what means and methods the contractor could use since cutting was not specifically addressed.

Pile Driving to Refusal – Item 505.03(f)6. defines refusal as 240 blows per foot {300 mm} with a paren notation of 20 blows per inch {25 mm}, which is an acceptable, incremental measurement to prevent damage to the pile. The Geotechnical Section of the Materials & Tests Bureau has further clarified that 5 blows per ¼” {6 mm} is an acceptable, incremental measurement for refusal.

Load Tests – if piling is shown on the plans to be driven to refusal, a Static Load Test is not required. However, a Dynamic Load Test may be depending on the subsurface soil conditions and bridge design. If a Dynamic Load Test is recommended in the geotechnical report with specific reasoning for it, then a Test Pile pay item is required. This is the only time a test pile is required for piling driven to refusal.

Currently, there are many projects, especially for cities, counties, and those under the ATRP program, in which the plans indicate a Test Pile, a Static Load Test, possibly a Dynamic Load Test, and piling to be driven to refusal. The County Transportation and Innovative Program Bureaus have been notified to review geotechnical reports and bridge plans for projects with pending lettings and adjust the pay items accordingly. However, for projects already let to contract, project personnel need to communicate with the Materials & Tests Bureau and the Contractor and make any necessary adjustments prior to driving any piling.

Please forward this to your office staff, project managers, and city/county inspectors. Should you have questions, please contact Mr. Scott Overby in this office.

CWV/WJP/wjp

Attachment

pc: Mr. John Lorentson
Mr. Ronnie Baldwin
Mr. Ed Austin
Mr. Buddy Black
Mr. Buddy Cox
Mr. Ed Phillips
Mr. Clay McBrien
Mr. Mark Bartlett, FHWA
Alabama Bridge Builders Association
Alabama Road Builders Association
Alabama Asphalt Pavement Association
File