

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

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Northwest Corridor Project
PI No. 714130

OFFICE Materials and Research
Forest Park, GA.
DATE February 1, 2010

FROM 
Georgene M. Geary, P. E., State Materials and Research Engineer

TO Darryl Van Meter, P. E., Innovative Program Delivery Engineer
Attn: John Hancock, Program Development Design Group Manager

SUBJECT Bridge Foundation Investigation Review
I-75 Reversible Lanes to I-285 West Bound – Bridge 2A

As requested, we have reviewed the Bridge Foundation Investigation report, dated December 3, 2009, prepared by Willmer Engineering Inc. for the aforementioned site. We recommend as follows:

1. **PWR and Auger Refusal Elevations:** The top of PWR elevations are not correct according to the boring logs. We recommend correcting as follows:

Boring No.	Top of PWR
BR-6	946
BR-10	940

2. **Maximum Pile Design Loads:** We recommend a load transfer of 60% end bearing and 40% friction.
3. **Foundation Recommendations:** We recommend a spread footing at Bents 6, 7, 8 and 9 with a bearing of 6 ksf on dense soil or 10 ksf on PWR. Also, due to the groundwater we recommend Type II backfill material be set up on an as-needed basis, as directed by the Engineer.
4. **Elevations:** We recommend the bottom of footing be added and the minimum tip be changed as follows:

Elevations

<u>BENTS</u>	<u>BOTTOM OF SHAFT</u>	<u>BOTTOM OF FTG</u>	<u>MINIMUM TIP</u>	<u>ESTIMATED TIP</u>
1			850	827
2			855	826
3			855	
4			875	
5			877	875
6		946 or below		
7		938 or below		
8		957 or below		
9		968 or below		
10			950	
12			892	901

- 5. Points:** Points are not needed at this bridge.
- 6. Temporary Shoring:** We recommend changing "will be" to "may be".
- 7.** At Boring BR-5 change the location to Bent 5.

This report should be revised and resubmitted to this office for further review.

If additional information is needed, please contact Nancy Smith of the Geotechnical Engineering Bureau at 404-363-7546.

GMG: NFS

Copy: Paul Liles, P. E., State Bridge and Structural Design Engineer