



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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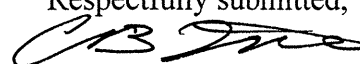
October 31, 2002

STATE PROJECT: 8.2801601 (B-3828)
COUNTY: Cleveland
DESCRIPTION: Bridge No. 233 over Buffalo Creek on SR 1906
SUBJECT: Geotechnical Report – Inventory

Project Description

The site is in east-central Cleveland county, approximately 3 miles west northwest of the town of Waco. This is a proposed bridge replacement project. The plans call for replacement in-place of the existing structure with an off-site detour. A two-lane roadway is proposed. The existing grade would be raised approximately 6 feet (maximum). Widening of existing embankments will result in a maximum fill height of about 12 feet. Minor cuts for ditches and scaling back of an existing cut slope is required near the end of the alignment.

The Geotechnical Investigation was primarily a reconnaissance. We did perform 4 hand auger borings to obtain soil samples of the floodplain material that will provide the foundation for the embankment widening. The borings indicate considerable variability in the floodplain soils. There is a general pattern of silty clay (A-6, A-7) or clayey silt (A-4) overlying sand and gravel. The clayey soils were stiff and less than 4 feet thick. We were able to advance the hand augers no more than 6 1/2' and in two instances only 3 to 4'. A sample collected from the stream channel (creek bed) returned A-1-a with 84% coarse sand. The existing roadway and slopes are in reasonably good condition. A structure foundation investigation will be conducted at a later date that will provide additional information.

Respectfully submitted,

Clint Little
Project Geologist