



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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STATE PROJECT: 33211.1.1 (B-3666)
F. A. PROJECT: BRZ-1799(1)
COUNTY: Henderson
DESCRIPTION: Approaches to Bridge No. 53 on SR-1799 over North Branch Hungry River

SUBJECT: Geotechnical Report – Inventory

Site Description

This project is located in eastern Henderson County near the Polk County Line. The site is rural, forested, with few residences. The replacement bridge will be constructed approximately 35 feet upstream from the existing crossing. The new structure will consist of a single span of 90 feet erected on a 90-degree skew.

The subsurface investigation was conducted with the use of a CME-550 ORV drill unit. Standard Penetration Tests (SPT's) were performed through NX casing with an automatic drop hammer. NXWL rock coring equipment was also used during the investigation. Rock core and soil samples were collected and submitted for appropriate testing parameters.

Areas of Special Geotechnical Interest

No specific areas were noted to pose any specific geotechnical concern.

Soil Materials

Roadway and Bridge Approaches

Approach fills will be founded on alluvium and existing fill soils. These materials consist of very loose to very dense interspersed sand, gravel, cobbles, and boulders. Depths of these deposits is generally 10 feet or less. Hard clayey colluvium was found at Station 17+80. Dense saprolitic sand or weathered rock underlies these soils.

Cut excavations will be developed in weathered rock or dense sandy saprolite. Approximately two feet of colluvium caps these residual soils.

Groundwater

Static groundwater was measured in the alluvial deposits at depths between 7 and 8 feet at the time of the investigation.

Respectfully Submitted,

J. W. Mann, L.G.
Project Engineering Geologist