## III. Archaeological Survey Methodology

### A. Previous Archaeological Testing

Extensive archaeological investigations have been previously conducted within the APE for this project. Several archaeological resources have been identified, three of which are potentially eligible for listing in the National Register of Historic Places. 7NC-B-11, identified by TAA (Taylor et al. 1989), is one of three potentially eligible recorded archaeological sites within the APE.

This site was identified by TAA in 1985 during Phase I Archaeological Survey testing for the proposed dualization of Rt. 141 (Centre Road), from Route 100 (Montchanin Road) to U.S. Route 202 (Concord Pike), New Castle County, Delaware. Foundations were visible above the ground during a surface reconnaissance; therefore TAA conducted extended Phase I Archaeological Investigations. A total of 24 shovel test pits (STPs) and 31 test units (TUs) were excavated during the Phase I testing. Four individual structures and a barn/barnyard complex were identified. Structure A was interpreted as the main residence, Structure B was believed to be a detached dependency to the main residence, Structure C was believed to be an equipment shed, and no interpretation was made for Structure D. TAA recommended a Phase II archaeological evaluation if proposed construction would impact the site (Taylor et al. 1989). The site is within the APE for the currently proposed Blue Ball Properties Area Transportation Improvement Project.

On behalf of FHWA and DelDOT, MTA completed additional testing to evaluate the National Register eligibility of the site. The testing was completed in December 2000 and January 2001.

### B. Archaeological Survey Methodology

The Archaeological Evaluation Survey was conducted in December 2000, and January 2001, in accordance with *Guidelines for Architectural and Archaeological Surveys in Delaware,* Delaware State Historic Preservation Office, October 1993, as amended and MTA's *Cultural Resources Scope of Work* (Shaffer and Arnold 2000).

Prior to the initiation of the archaeological testing, a vegetation survey was conducted ***(Appendix B)***. The vegetation survey inventoried the plant species that would have been naturally occurring, deliberately planted, or invasive due to human activities.

The site was tested with shovel test pits (STPs) measuring 1.9 feet in diameter placed at 20 foot intervals to define the boundaries of the site and identify artifact concentrations and potential features within the site ***(Figure 2).*** One hundred and seventy (170) STPs were excavated during the Evaluation Survey. After the excavation of the STPs, twenty 3x3 foot test units (TUs) were also excavated ***(Figure 2)***. The locations of the TUs were chosen based on the results of the STP excavation.

Transects of STPs were placed 10 feet from the edge of existing Weldin Road. The STPs were excavated on a grid with N-S transects perpendicular to Weldin Road. The first transect was

located adjacent to visible ground disturbance to the west of the site. The ground disturbance was caused by the construction of underground utilities to the west of the foundations and immediately south of Weldin Road. A manhole exists to the west of the first transect of STPs. The western 12 transects were placed at 20 foot intervals. Three additional transects were excavated at 40 foot intervals, due to the low density of artifacts that were recovered in the twelve transect from the west.

Twelve TUs were excavated in association with Structure A. TUs within the interior and adjacent to the exterior of Structure A were excavated in pairs as 3x6 foot TUs. Four TUs were placed in pairs within Structure A, and eight TUs were placed against the exterior walls of the structure. Two TUs were placed within Structure B (also a 3x6) and one on the exterior. The remaining TU locations were selected based on the recovery of early nineteenth century artifacts or the identification of possible features during the excavation of the STPs.

All soils removed from the STPs and TUs were screened through ¼ inch, mesh hardware cloth. STPs and TUs were excavated by natural strata (designated Levels). Notes regarding excavations as well as plan view and profile maps were recorded in the field. Black and white and color photographs were taken where appropriate.

The site is located on an upland setting on the Piedmont Plateau Physiographic Province. The mapped soils are Talleyville silt loam, with 2-5% slopes, moderately eroded (TaB2), a well drained soil (Mathews and Lavoie 1970).

All recovered artifacts were processed, inventoried, catalogued and analyzed as per *Curation Guidelines and Standards for Archaeological Collections*, Delaware State Museums, ca. 1997.