

IV. Archaeological Survey Results

A. Field Results

One hundred and seventy (170) STPs and twenty (20) TUs were excavated during the Phase II Archaeological Evaluation Survey (*Figure 2*). Representative STP soil profiles are shown in *Figure 3*. The artifact inventory is *Appendix C*. One goal of the field work was to attempt to differentiate between contexts that predated the Weldin occupation of the site and those that date to the Weldin occupation or later. As discussed above, Jacob Weldin purchased the property in 1862. STPs or TUs that contained strata appearing to date to the period prior to the Weldin occupation of the site are depicted on *Figure 4*. Structures that are believed to have been constructed after Weldin purchased the property are shown on *Figure 5*.

1. Vegetation Survey

The Vegetation Survey identified species located in the vicinity of Structure A, Structure B, the barn/barnyard, and various other locations around the site (*Appendix B*). Specific vegetation that may have been deliberately planted is identified, as well as vegetation that was probably deliberately planted somewhere on the property, but reproduced in other areas. The vegetation patterns changed after the property was no longer being maintained.

2. Shovel Test Pit Excavations

Groups of STPs are discussed very generally below.

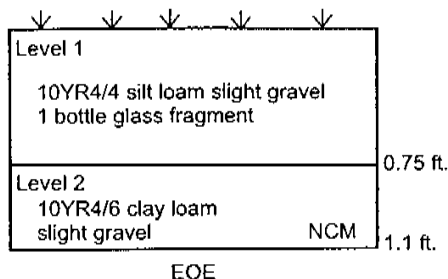
The STPs west of Structure A (1-33) generally consisted of a plowzone overlying subsoil. The soil profile of STP 5 is depicted in *Figure 3*. Scattered artifacts were recovered from these STPs (*Appendix C*).

The STPs immediately adjacent to Structure A contain contexts which date to the period before J.R. Weldin purchased the property in 1862. These ante-bellum artifacts are clustered to the north and the south of the structure. STP 49 (*Figure 3*) is representative of the soil profiles near Structure A. An A horizon is covering a fill level that extends to a depth of almost two feet. Sterile subsoil is directly under the fill. The fill is most likely related to the demolition of the Structure.

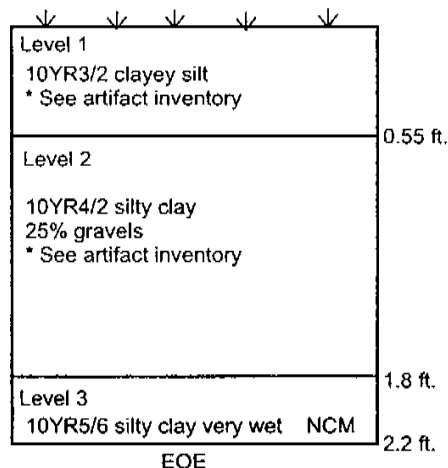
Immediately to the west of Structure C, the equipment shed, the STP profiles contained fill horizons, as is evidenced by the profile of STP 51 (*Figure 3*). It appears that fill may have been banked behind the equipment shed to create a level area in which domestic or farm related activities could have occurred.

The area bounded approximately by STPs 42, 45, 137, and 156 appears to have been used as a dump during the twentieth century. Therefore, most of these STPs contain twentieth century trash in all horizons above sterile subsoil. The integrity of this portion of this portion of the site is not as high as areas in which dumping has not occurred.

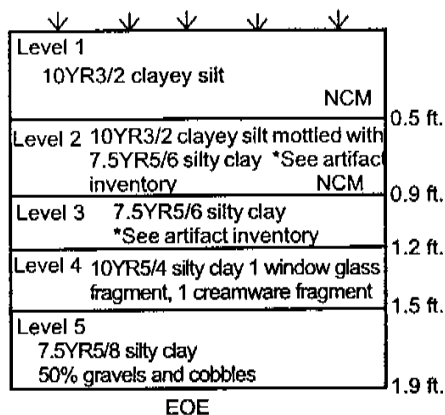
STP 5



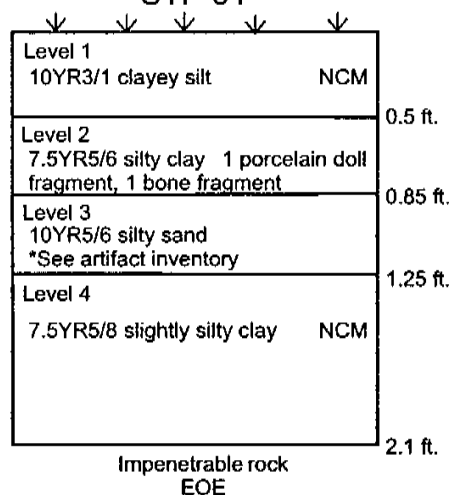
STP 49



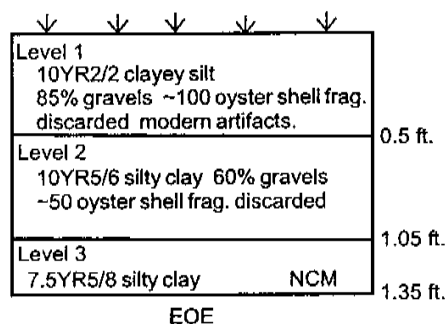
STP 51



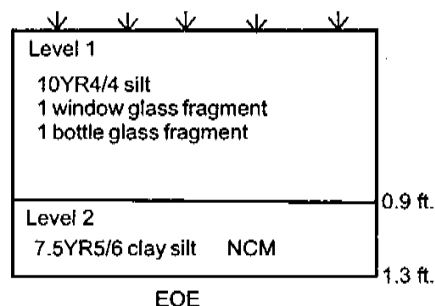
STP 91



STP 97



STP 164



1 foot

EOE = End of Excavation
NCM = No Cultural Material

Figure 3
New Castle County, Delaware
Blue Ball Properties Area
Transportation Improvement Project

Phase II Archaeological Evaluation Investigations
Weldin Plantation Site, 7NC-B-11
Representative Shovel Test Pit Profiles

STPs 74 through 103 were excavated in or adjacent to Weldin Plantation Drive, the original road for the site. The road was abandoned sometime after Weldin purchased the property in 1862. Weldin Road was constructed at some time during the third quarter of the nineteenth century; it is probable that the Weldin Plantation Drive was no longer in use as the main entrance to the property at that time. The Weldin Plantation Road was not being used as the entrance at the time that Structure D was constructed. As can be seen by the contour lines on *Figure 2*, Structure D was built in the center of the Weldin Plantation Road. STP 91 was excavated in the old road. The soil profile (*Figure 3*) consisted of several layers of fill overlying impenetrable rock. The rock was probably bedrock, as it was reached at a depth of over two feet. Artifacts from throughout the nineteenth century were recovered from the fill in the old road. The portion of the road north of Structure D was used as a driveway after the construction of Weldin Road. It is likely that additional fill was placed in the road after automobiles were used on the property. The STPs south of STP 79 and 94 contained a large amount of oyster shell, which appears to have been mixed in with the driveway or road fill. STP 97 (*Figure 3*) contained oyster shell and gravels.

The STPs immediately adjacent to Structure B contained various disturbances probably associated with the construction of the structure. However, other STPs to the south and east of the Structure appear to contain an A horizon overlying the subsoil. The remainder of the STPs to the west of Structure D follow the same pattern. The artifact density declines in the eastern portion of the site. The last transect was excavated east of the barn complex and contained very low artifact densities.

3. Test Unit Excavations Associated with Structure A

Structure A is the main house on the site. It is located approximately 25 feet south of Weldin Road at the northeast corner of the property. At ground surface, the structure is divided into two sections (an east section and west section) by a visible interior basement wall. Both sides of the cellar are filled with demolition debris.

Four TUs were excavated within structure A. Test Units 1 and 2 were adjacent to one another, forming a 3x6 foot unit, and were placed in the southeast corner of the structure (*Figure 2*). Level one consisted of demolition debris and was excavated as down to a concrete basement floor. The demolition fill contained mostly late nineteenth and twentieth century artifacts. During the excavation of Level 1, a brick-lined bulkhead entrance was discovered along the south wall of the structure (*Figure 6*). Level 2 involved the removal of the concrete floor which measured approximately 0.2 feet in thickness. The concrete floor overlaid a layer of coal slag and ash fill which was designated as Level 3. Artifacts from Level 3 included early to mid-nineteenth century artifacts. Beneath Level 3, a row of rocks appearing to be deliberately arranged (oriented N-S) was encountered. This was designated as Feature 3 (*Figure 7*). The rocks were interpreted as a step due to their location in front of the brick-lined bulkhead. After several of the larger rocks were removed it was apparent that the step was two rocks deep, with the second course being oriented E-W and intrusive to the subsoil. Artifacts recovered from the soil associated with the step included two sherds of pearlware and one piece of window glass.

East Wall (TU 1)
Line Level/Datum Elevation

South Wall (TU 1 & 2)
Line Level/Datum Elevation

Bulkhead Entrance

Void of
Stone
possible
location
of support
beam

Rock
from
Feature 3

1 foot

- | | | | |
|---|----------|---|----------------------|
|  | Brick |  | Humus |
|  | Concrete |  | Soil |
|  | Rock |  | Subsoil |
|  | Mortar |  | Ash/Coal Cinder Fill |

Figure 6

**New Castle County, Delaware
Blue Ball Properties Area
Transportation Improvement Project**

Phase II Archaeological Evaluation Investigations
Weldin Plantation Site, 7NC-B-11
East Wall Profile T.U.# 1, South Wall Profile T.U.# 1&2
Bulkhead Entrance in Test Units 1 and 2

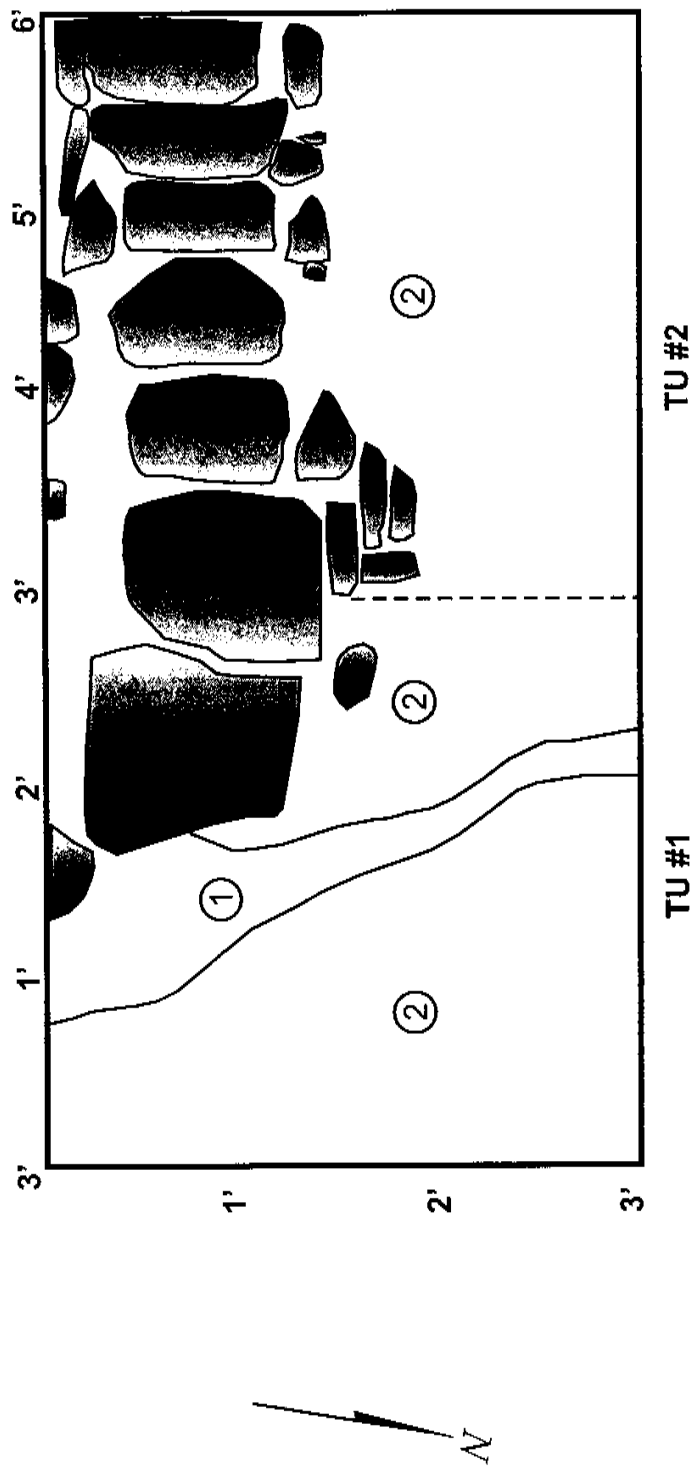


Figure 7

New Castle County, Delaware
 Blue Ball Properties Area
 Transportation Improvement Project
 Phase II Archaeological Evaluation Investigations
 Weldin Plantation Site, 7NC-B-11
 Test Unit Land 2
 Feature 3 Planview

- Munsell: ① 10YR4/6 silt probable root cast
 ② Mottled 7.5YR5/8, 7.5YR5/6, 2.5Y5/4 sandy silty clay
 w streaks of 5Y7/1 at east side of TU1.

Test Units 3 and 4 were also excavated as a 3x6 foot TU, placed in the northeastern corner of the western portion of Structure A (*Figure 2*). Levels 1 and 2 consisted of demolition debris, both producing artifacts dating mostly to the twentieth century. The demolition debris again was underlain by a basement floor, but made of brick in the western portion of the structure. The brick floor was laid in a herring-bone pattern (*Figure 8*) and was one course in depth. The brick floor was designated as Feature 7 and was excavated as Level 3. Underlying Feature 7, Level 4 was a horizon of sand fill (7.5YR5/6 in color) which was void of cultural materials. At the bottom of level 4, a trench-like feature was encountered, approximately 1.0-1.3 feet wide, oriented parallel to the interior basement wall (*Figure 9*). The feature (designated #8), was bisected and the northern portion was excavated. The feature fill consisted of rocks covered by deteriorating mortar and sand; three nails were recovered from the northern portion of the feature. Neither the interior basement wall nor the northern foundation wall appeared to be undercut by the feature.

A number of other architectural features were encountered during excavations in and around Structure A. A stone arch built into the interior of the northern foundation wall in the eastern portion of Structure A was investigated with TUs 5 and 6, located adjacent to the arch on the exterior of the northern foundation wall (*Figure 2*). Although the stone arch feature was not found to extend through to the exterior of the wall, an additional stone wall was discovered in TU6 (*Figure 10*). The wall runs perpendicular to the north foundation wall of Structure A and extends beyond the northern limits of excavation. A brick pier was located adjacent to the southeastern corner of the wall. The brick pier was four courses high and cemented to a stone footer. A similar brick pier was present on the south side of Structure A in TU 12. The brick piers are interpreted as the footers for a porch. Also, information obtained in TU 11 supports that the eastern portion of Structure A is earlier than the western portion. A finished corner, matching with the interior basement wall was noted, while the western portion of the foundation was butted against the east section. Soil disturbance in TUs 11 and 12 also indicate that the western portion of the structure was added later. The south wall profile for TUs 11 and 12 show that the original A horizon, a fill horizon overlying the original A, and the subsoil have been cut at the approximate location of the original southwest corner of Structure A (*Figure 11*).

The buried A horizon (10 YR 4/3 clay silt loam) was also present in TUs 9 and 10 on the west side of Structure A, and was also cut. Intrusive to the buried A was feature 4, a trench feature comprised of 7.5 YR 5/8 silty clay fill. This feature is interpreted as the upper portion of the cellar excavation and was filled after the lower foundation wall was constructed against the existing undisturbed subsoil. Notably, wood siding was still intact, resting on a metal L-shaped hangar on the exterior foundation wall, supporting deed research indicating that the house was indeed "wood frame."

TUs 7 and 8 were located adjacent to the south of the outside of a bulkhead wall on the eastern side of Structure A (*Figure 2*). The excavation of these TUs revealed disturbed soils as seen in *Figure 12*. Levels 1 and 2 were interpreted as fill horizons, both containing 20th Century artifacts. Several more pockets of fill were found between Level 2 and subsoil, while in the southeastern corner of TU 8, an anomaly containing modern artifacts, including plastic, was found intrusive to the subsoil. All of the strata post date the anomaly from which plastic was

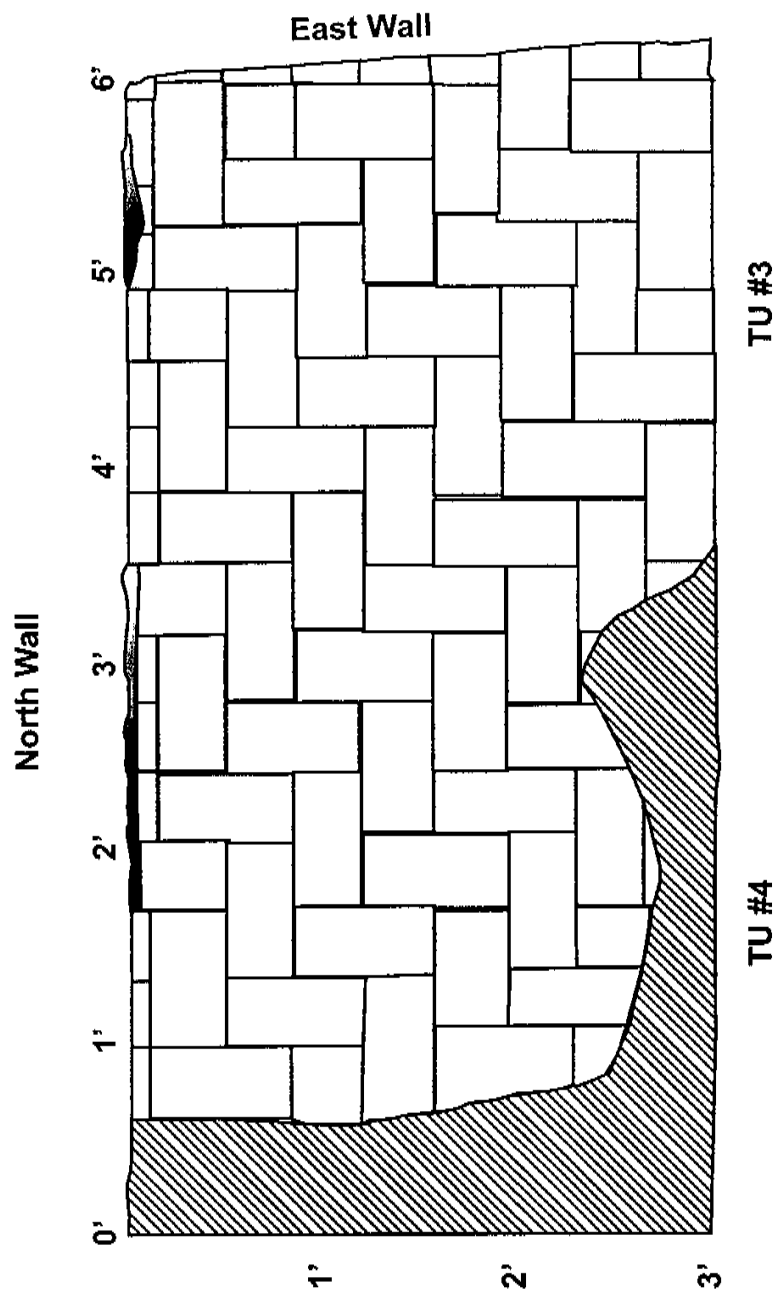
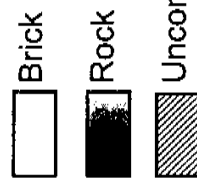


Figure 8

New Castle County, Delaware
 Blue Ball Properties Area
 Transportation Improvement Project
 Phase II Archaeological Evaluation Investigations
 Weldin Plantation Site, 7NC-B-11
 Brick Floor in Test Units 3 and 4
 Feature 7 Planview



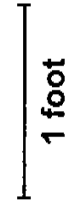
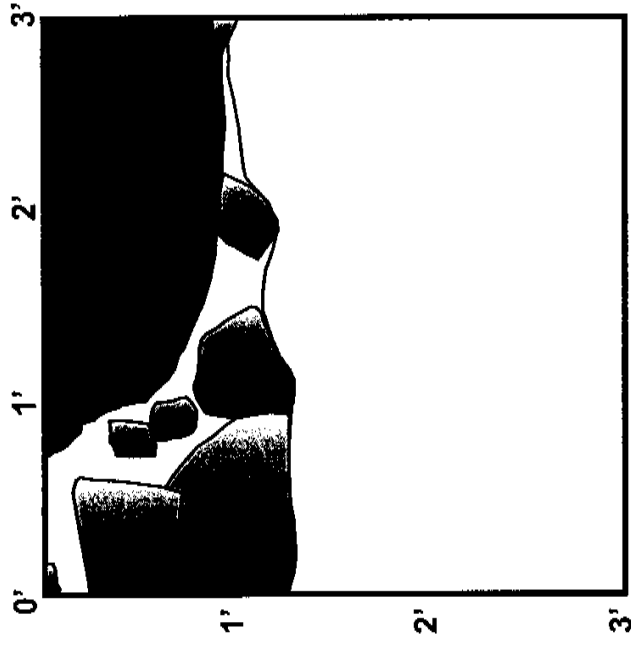


Figure 9

New Castle County, Delaware
 Blue Ball Properties Area
 Transportation Improvement Project
 Phase II Archaeological Evaluation Investigations
 Weldin Plantation Site, 7NC-B-11
 Test Unit 3
 Planview Feature 8

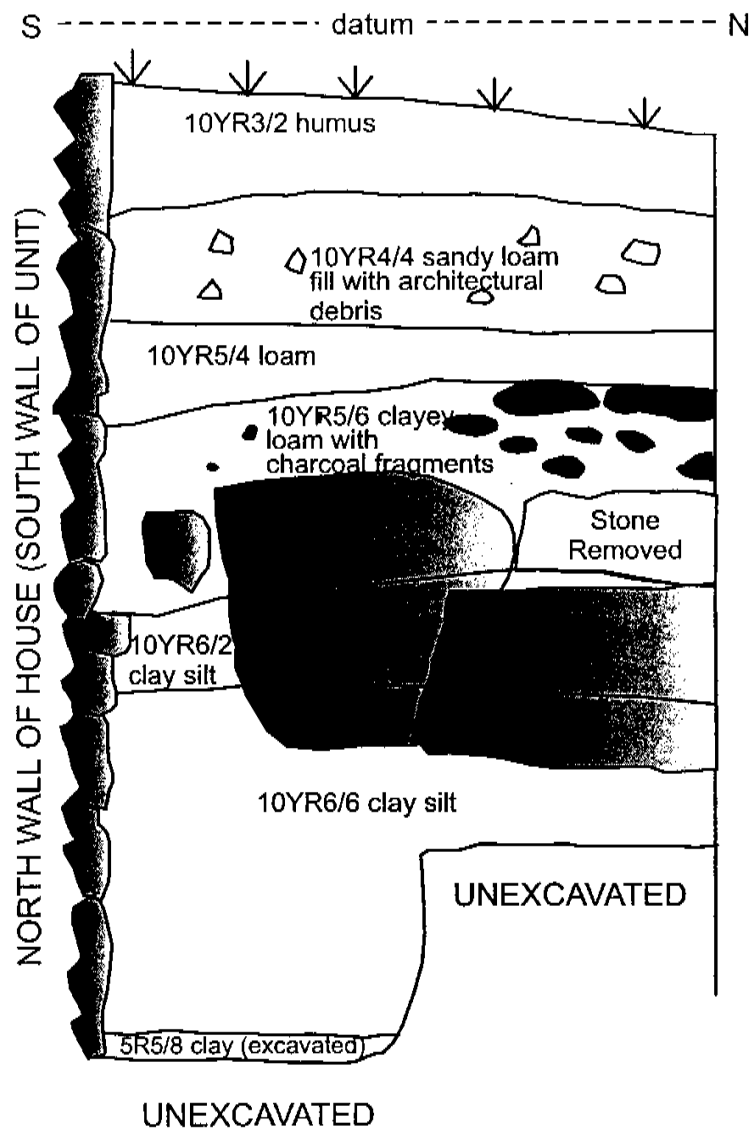


Figure 10
New Castle County, Delaware
Blue Ball Properties Area
Transportation Improvement Project

Phase II Archaeological Evaluation Investigations
 Weldin Plantation Site, 7NC-B-11
 Test Unit 6 West Wall Profile

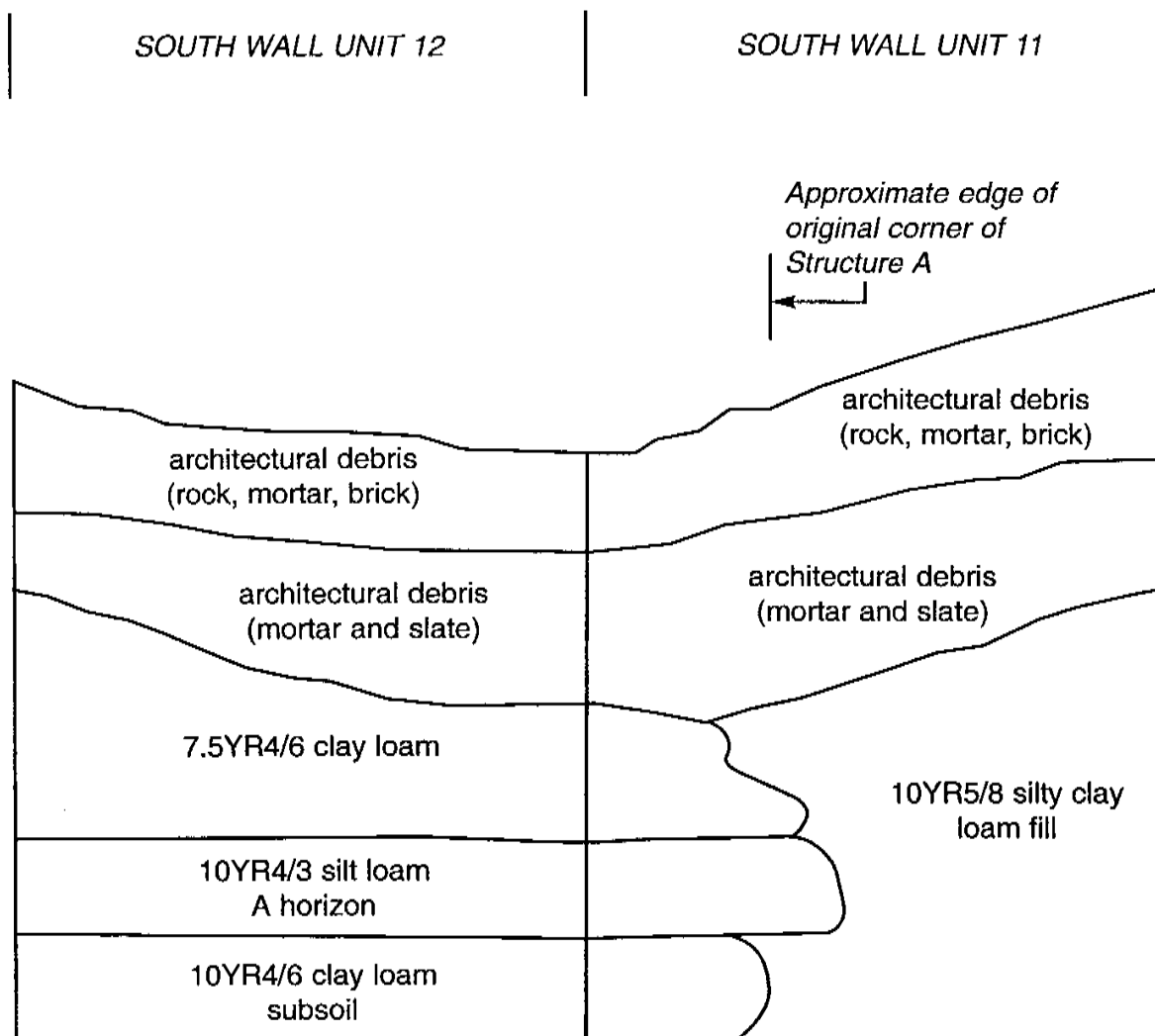
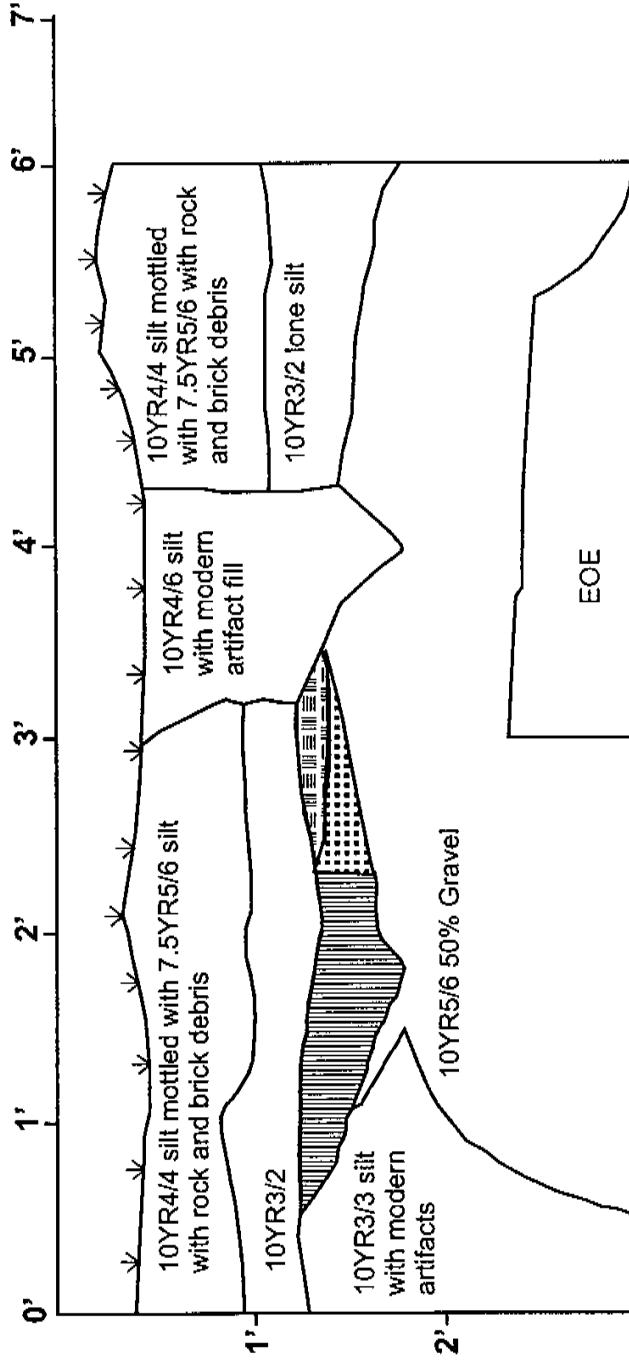


Figure 11
New Castle County, Delaware
Blue Ball Properties Area
Transportation Improvement Project
 Phase II Archaeological Evaluation
 Investigations
 Weldin Plantation Site 7NC-B-11
 South Wall Profiles Test Units 11 & 12

South Wall Profile



1 foot

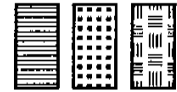


Figure 12
New Castle County, Delaware
Blue Ball Properties Area
Transportation Improvement Project
 Phase II Archaeological Evaluation Investigations
 Weldin Plantation Site, 7NC-B-11
 Test Units 7 & 8
 South wall Profile

recovered (*Figure 12*). Therefore, it appears that this area of the site has been subject to ground disturbing activities sometime during the 20th century.

4. Test Unit Excavations Associated with Structure B

Structure B is located approximately sixty feet east of Structure A, approximately ten feet south of Weldin Road. Presently, the foundation walls are roughly 80% intact. While fieldwork was in progress, MTA archaeologists were informed by the nephew of Jacob Weldin that this structure was in use during the Weldin dairy operation, utilized as a type of ice house necessary to keep milk cold. Structure B does not contain a cellar.

TUs 15 and 16 were excavated within the northeastern corner of Structure B. Demolition debris (level 1), containing predominantly 20th Century artifacts, was found to overlie a concrete floor (Level 2). Level 3 was a brick floor, one course deep, laid in no particular pattern (*Figure 13*). Another primitive floor, made of stone and mortar (level 3) was found beneath the brick. Overlying the subsoil was a thin fill horizon (level 4) from which architectural artifacts (brick fragments and a nail) were recovered.

TU 17 was excavated at the southwest corner of Structure B. Feature 10, a dark circular stain was located in the eastern portion of the TU at the top of level 3. One unidentifiable nail was recovered from Feature 10. It is interpreted as a posthole.

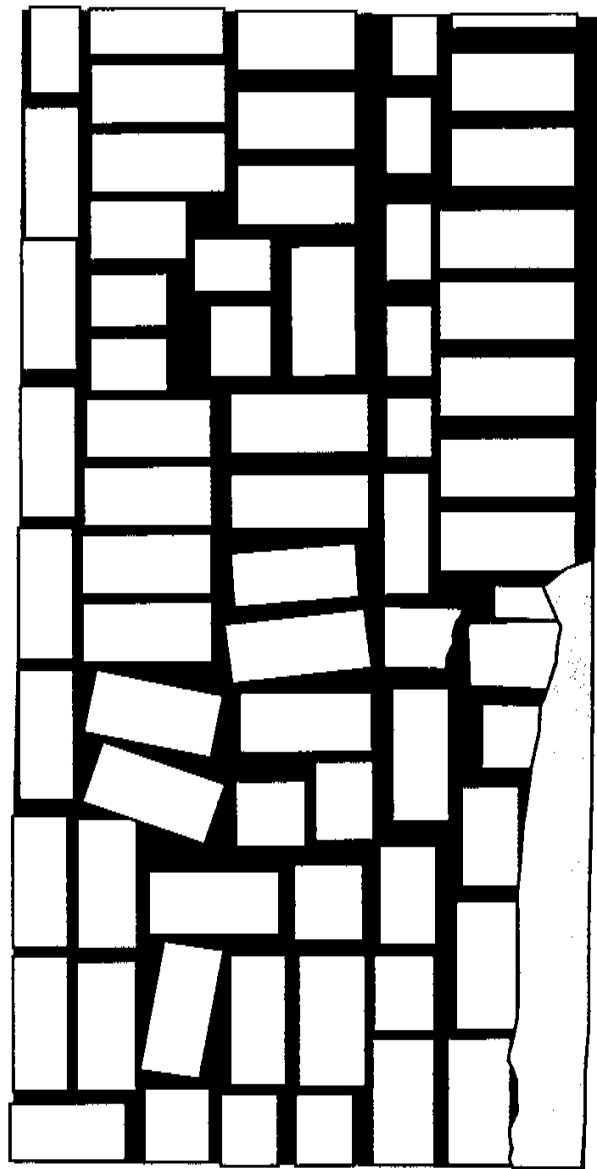
5. Test Unit Excavations Not Associated with Structures

TUs 13 (N842 E482), 14 (N820 E451), 18 (N867 E540), 19 (N790 E467), and 20 (N757 E390) were excavated in areas not directly associated with any structures. TUs 13 and 20 exhibited an A horizon sequence which was approximately a foot deep, on average. A silty clay subsoil was found to underlie the A horizons. The other three TUs contained a fill horizon under the A horizon. The fill horizons contained nineteenth century artifacts. A representative soil profile is shown in *Figure 14*.

TU 13 was excavated near the southeast corner of Structure A. Level 1 consisted of an A horizon just over a foot deep. Level 2 involved the excavation of a thin ash lens resting on a mottled silty clay fill horizon (Level 3). The ash lens contained architectural debris such as window glass, brick, and nails, as well as whiteware, pearlware, and ironstone/white granite. A remnant Ab horizon was found underlying Level 3. The Ab contained a relatively high concentration of 19th Century artifacts and was underlain by subsoil. In the southeast corner of TU 13, a semi-circular depression with elements of Levels 3, 4, and 5 were intrusive to the subsoil (*Figure 15*). This anomaly is interpreted as a collapsed rodent borrow or tree throw.

B. Recovered Artifacts

During the Phase II Archaeological Evaluation Survey conducted by MTA, 13,555 artifacts were recovered (*Appendix C*). Artifacts dated from the eighteenth century through the late twentieth century, due to the fact that the site was used as dump after the property was no longer occupied.



TU #16

TU #15

1 foot

Brick

Concrete

Figure 13

New Castle County, Delaware
Blue Ball Properties Area
Transportation Improvement Project
Phase II Archaeological Evaluation Investigations
Weldin Plantation Site, 7NC-B-11
Test Units 15 and 16
Top of Level 3, Brick Floor Planview

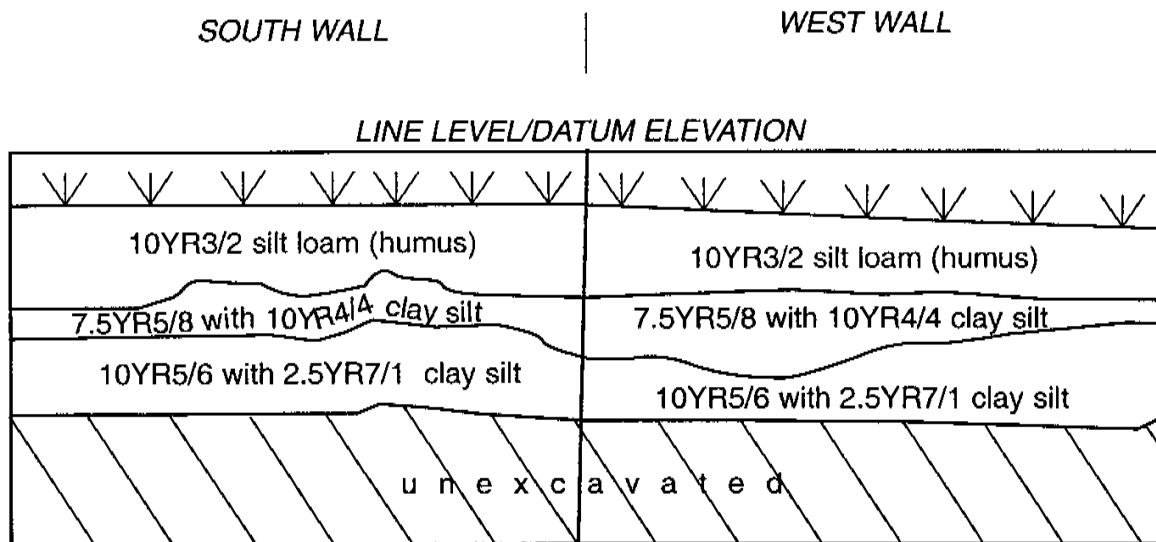


Figure 14
New Castle County, Delaware
Blue Ball Properties Area
Transportation Improvement Project
 Phase II Archaeological Evaluation
 Investigations
 Weldin Plantation Site 7NC-B-11
 Test Unit 18 South and West Wall Profiles

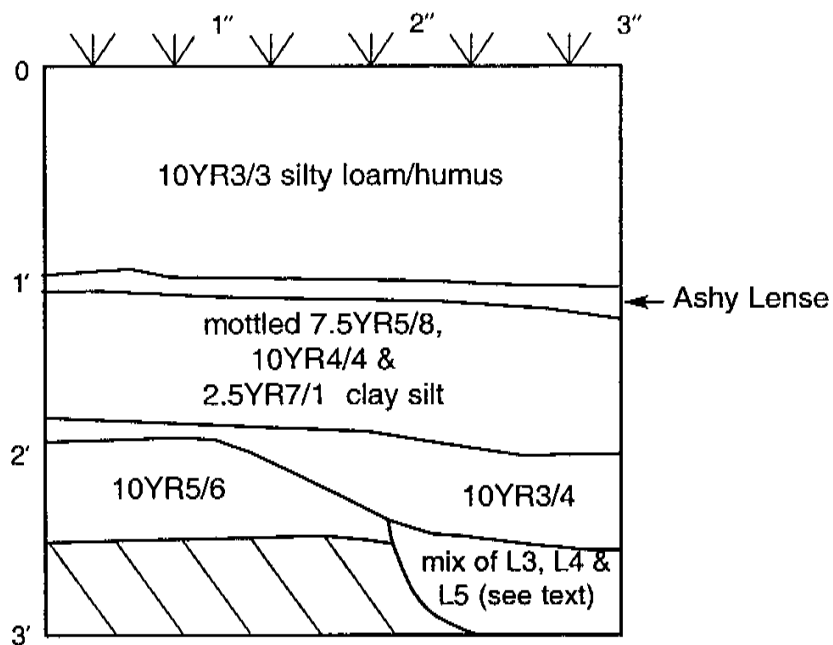


Figure 15
New Caste County, Delaware
Blue Ball Properties Area
Transportation Improvement Project
 Phase II Archaeological Evaluation
 Investigations
 Weldin Plantation Site 7NC-B-11
 Test Unit 13 East Wall Profile

The majority of the artifacts recovered date to the late nineteenth or twentieth century, and so would have been associated with the Weldin occupation or later. The ceramics recovered from the site are the best temporal indicator. The percentage of ceramics that can be definitely dated prior to the Weldin occupation is small. The recovered ceramics are summarized in *Table 1*.

The contexts from which artifacts dating prior to the Weldin occupation without late nineteenth or twentieth century artifacts are depicted on *Figure 4*. Most of these contexts are associated with Structure A, the main residence.

TABLE 1: Recovered Ceramics Sherds from 7NC-B-11

Datable Prior to Weldin Occupation		Not Datable Prior to Weldin Occupation	
Ceramic Type	N	Ceramic Type	N
Creamware	97	Ironstone	67
Delft	10	Thin Red Body	2
Jackfield	6	Redware	339
Jackfield style	19	Whiteware	249
Pearlware	177	Yellowware	8
Slipware/ Redware	22	Total	665
Salt Glazed Stoneware	6		
Total	337		

The faunal analysis indicates that cow, sheep, and pig were raised and butchered on site (*Appendix D*). The body parts represented in the assemblage as well as the methods used for butchering suggest that whole animals were being processed on the property.

C. Interpretations

The area west of the first transect of STPs has been severely disturbed through the construction of underground utilities. A manhole cover is visible in this area. It appears, however, from the data gathered from the excavation of the STPs, that the first two transects of STPs were excavated on the periphery of the site. The artifact density was low and there was no indication of features. The artifact density drops off drastically in the area of the barn yard. The site does not appear to extend east of the barn yard.

The excavations have demonstrated that, as TAA proposed, the eastern portion of Structure A was constructed prior to the western portion. Both portions were probably constructed in the eighteenth century. Jacob Weldin acquired the property in 1862 in a dilapidated condition. By 1870 Weldin had shifted the emphasis of the farm operation from crops to successful dairy production (Taylor et al. 1989).

Based on the Phase II Archaeological Evaluation Testing, it is believed that all of the visible structures on the property except for Structure A, the main residence, were constructed by Weldin after his acquisition of the property in 1862. Structures with massive foundations were

constructed during the Weldin occupation, which would have disturbed any eighteenth or early nineteenth century archaeological deposits on the property. **Figure 5** depicts all of the structures attributed to Weldin.

A Weldin descendant was interviewed who indicated that Structure B functioned as a milk house. Structure C is interpreted as an equipment shed, as proposed by TAA. It is believed that Structure D was a shed/corn crib. The corn cribs would have located on either side over the parallel foundation walls. A wagon could have been pulled in between the corn cribs to load and unload the corn. The area between the cribs could have been used as storage.