employed including screening of all soils through 1/4" mesh screens, and the recording of all artifacts and stratigraphic profiles. All test units were excavated by natural or cultural strata to sterile soils.

PHASE I AND II SURVEY RESULTS

GENERAL BACKGROUND RESEARCH RESULTS

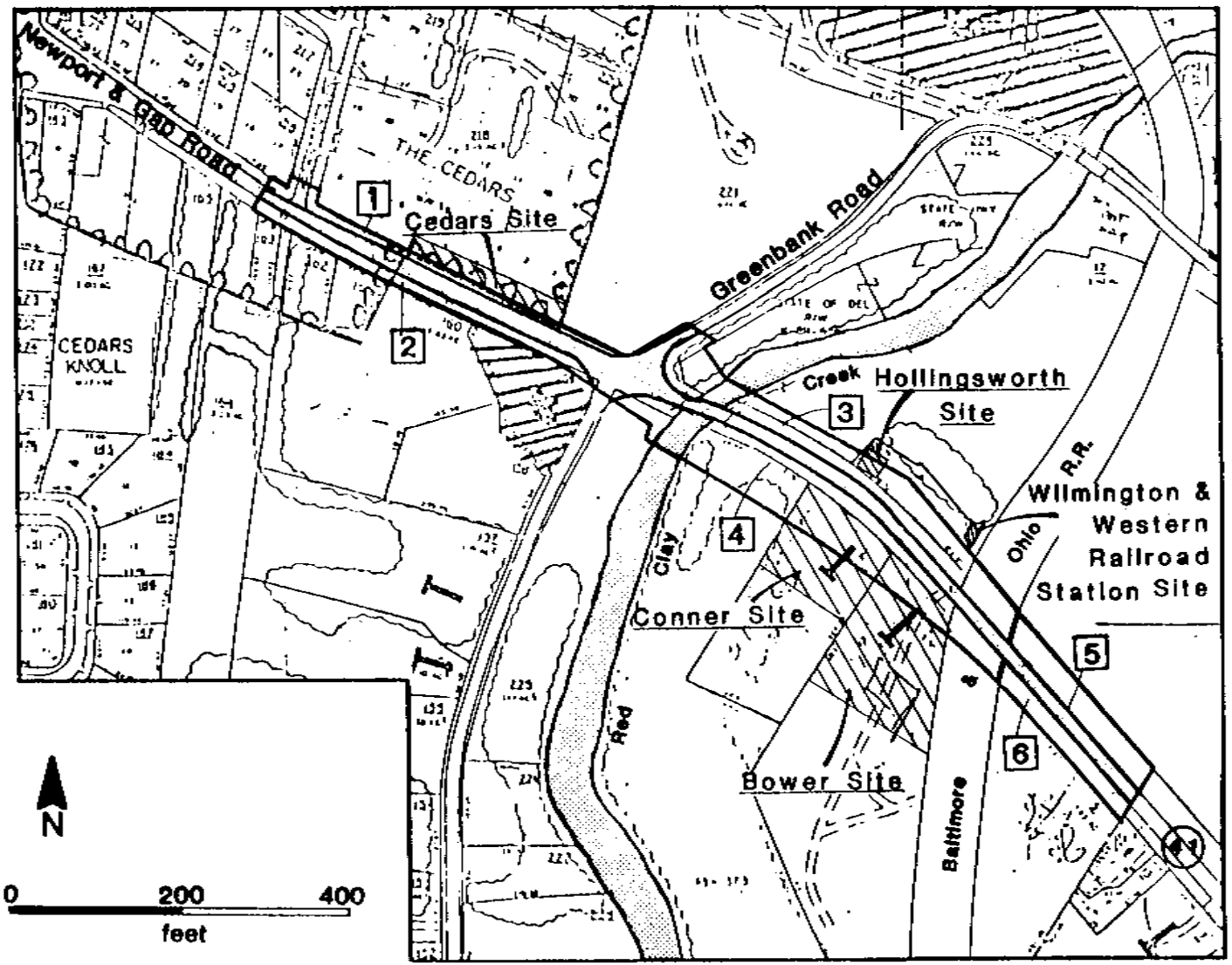
In order to facilitate the discussion of the results of background and field research, the project area was divided into six segments (Figure 3). Historic background research revealed that several locations within the ROW had the potential for yielding historic archaeological remains. These locations are noted in Figure 3 and include the Baum House (Segment 1), the DiSabatino House (Segment 2), the Hollingsworth House (Segment 3), the Wilmington and Western Railroad Station (Segment 3), the Conner House (Segment 4), and the Bower House (Segment 4). More detailed descriptions of the historical background research on each of these potential sites are included in the individual discussions of results for each segment.

Background research for prehistoric sites revealed that the BAHP site files do not include any sites within the project area ROW or in adjacent sections of the Red Clay Creek floodplain from Ashland, located four miles to the north, to Bread and Cheese Island, located two miles to the south of the project area.

In order to consider the potential of the study area for containing archaeological sites, regional (Custer 1986) and local (Custer and DeSantis 1986) archaeological resource management plans and other studies (Custer 1984; Custer and Wallace 1982)

FIGURE 3

Project Area Segments and Potential Archaeological Sites



were consulted. With respect to the state management plan, the project area lies within the Northern Delaware Management Unit (Custer 1986:180) which has a high probability of containing significant archaeological sites (Custer 1986:190-191), high data quality (Custer 1986:194), a medium density of known sites (Custer 1986:197), moderate research sensitivity (Custer 1986:198), and a high management priority (Custer 1986:208). The northern Delaware management plan includes the study area in the Red Clay Creek major drainage management unit (Custer and DeSantis 1986:70). Within this management unit, data quality is poor to fair and there are medium to high probabilities for base camps of all time periods and high probabilities for procurement sites of all time periods (Custer and DeSantis 1986:73). The sites found in this area are very likely to be significant (Custer and DeSantis 1986:79) and the project area is within a zone of high research sensitivity and has a high management priority (Custer and DeSantis 1986:89, 92).

Within the specific study area, the Red Clay Creek floodplain is a likely location for base camp sites of all time periods. Research at other Piedmont Upland floodplains (Custer 1980; Catts, Shaffer, and Custer 1986) has shown that intact stratified archaeological deposits can be present in these settings; however, in many cases these floodplains can be heavily disturbed by natural erosion. If base camps, or other sites, are present and preserved in the Red Clay Creek floodplain of the ROW, they are likely to be significant due to their potential to contribute important data and because natural erosion and commercial and residential development have made such sites

unique components of the local archaeological record. Procurement sites of all time periods may also be present within the ROW away from the floodplains. However, these areas are either too steep to be archaeological site locations or have been badly disturbed by development.

Segment 1

This segment is located on the north side of Route 41, between Washington Avenue on the west and Green Bank Road on the east (Figure 3). The proposed ROW varies in width from 0 to 25 feet from the existing ROW and is wholly owned by two separate parties: 1) Mr. and Mrs. Arthur A. Baum and 2) Cedars Church of Christ. Although the Baum property (Plate 1) covers over 3 acres, the proposed ROW includes only a narrow strip along the Route 41 road frontage.

The Baum property at 2311 Newport-Gap Pike, comprising the western section of this segment, has been occupied since at least 1832. A summary of deed transactions is given in Table 1. Tax records for the year 1837 show a David Justis living on the property and at this time, Justis was taxed for an 80-acre lot, a frame house, and a frame barn, all valued at $3845. The Justis family had been living in the area for several decades prior to that time and it is likely that they were occupying the site before 1832. Neither deed, tax, nor probate records could clarify this point. In any event, it is probable that transfer of ownership of the farm before 1837 was through inheritance and not recorded in a deed transaction.

The present house and grounds occupy the approximate location of the 19th century farmstead. However, the farmland

PLATE 1

The Cedars, Residence of Mr. and Mrs. Arthur A. Baum,
2311 Newport-Gap Pike

TABLE 1

PARTIAL CHAIN OF TITLE FOR THE BAUM PROPERTY ("THE CEDARS")

Transaction	Date	Deed Reference
Alexander Huston and wife to David Justis.	3-12-1832	O-4-12
Orphan's Court to Daniel Chaplin. (David Justis deceased Sept. 4, 1843, intestate).	2-21-1850	U-1-80
Daniel and Caroline Augusta Chaplin to Isaac and William G. Phillips.	11-1-1854	R-6-462
Isaac H. and Caroline Phillips, William G. and Hannah G. Phillips to John B. Robinson.	3-10-1855	T-6-416
John B. Robinson and wife to Christiana Robinson.	2-7-1878	C-11-106
Christiana Robinson to William H. and Elizabeth Mitchell.	12-22-1900	K-18-434
William H. and Elizabeth Mitchell to Cedars Land and Development Co.	12-24-1900	K-18-451
Cedars Land and Development Co. (Richard Crook, president) to Carrie Crook.	5-5-1902	Z-18-401
Richard W. and Carrie Crook to William Stewart Allmond.	6-28-1912	X-23-492
William Stewart Allmond to James R. and Elizabeth E. Morford	9-26-1931	T-37-415
Elizabeth E. Morford, widow of James R. Morford to Arthur A. Baum and wife	11-2-1959	Z-64-293

has been consumed by the early 20th century Cedars subdivision which was described earlier. The Baum's 3.15-acre property includes a large dwelling, an associated auto garage, other

outbuildings, including a stone springhouse near the ROW (Plate 2), and a spring-fed, artificial pond with a gazebo on the west bank. The property has also been extensively terraced and graded and the driveways are oriented not toward the older Newport-Gap Pike, but toward Washington Avenue, which dates to the construction of the early 20th century Cedars subdivision. The grading and reorientation of the driveways suggests substantial reworking of the landscape has occurred here. The stone springhouse may be the only survivor from the early farmstead.

Phase I testing at this location consisted of the excavation of eight shovel test pits placed at 30' intervals within the proposed ROW (Figure 4). These excavations revealed a truncated stratigraphy with very old subsoils lying directly beneath a thin topsoil containing only 20th century artifacts. Early 19th century or earlier artifacts were expected from these test pits; however, none were found and their absence suggests that this landscape is heavily disturbed. A 2'x 2' test unit placed at the southeast corner of the springhouse produced one rimsherd of a trailed slip redware pie plate, manganese glazed redware sherds, several fragments of dark green hand-blown bottle glass, and numerousbrickfragments and window glass. (See Appendix 1 fora listing of these and all other artifacts recovered during the Phase I and II survey.) Unfortunately, the entire test unit, which was taken to a depth of 31" below surface, contained mixed fill and the context of all of these artifacts is highly questionable.

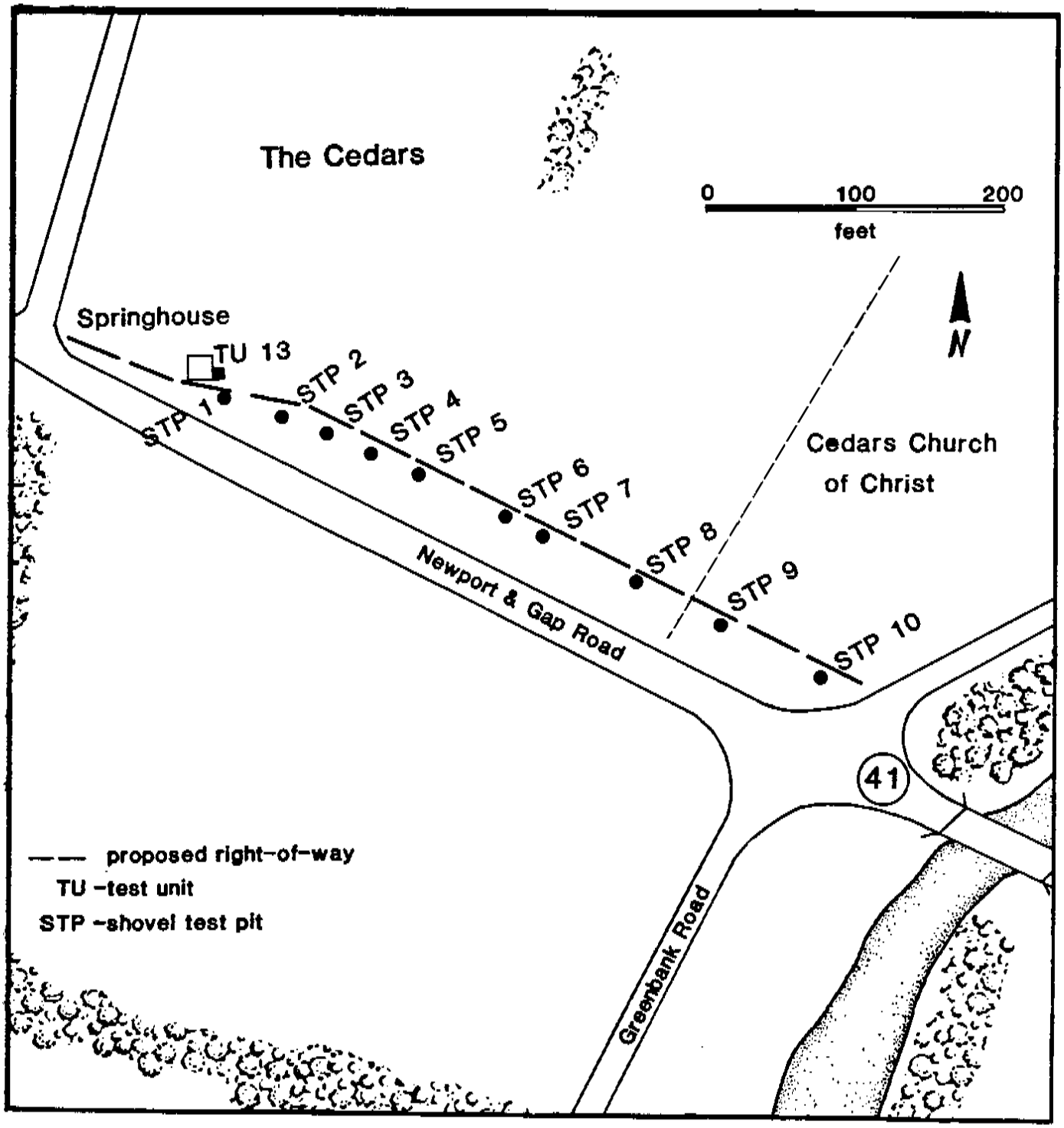
Phase I testing indicates that all of the surface soils on the Baum property within the proposed ROW have been extensively

PLATE 2

The Cedars Springhouse

FIGURE 4

Phase I Testing in Segment I of the Proposed ROW



graded and reworked. No intact historic or prehistoric landscapes with associated artifacts or features were identified and no further archaeological investigations are recommended.

Two shovel test pits were placed within the proposed ROW on the Cedars Church of Christ property (Figure 4), and as at the Baum property, a truncated stratigraphy was found. No artifacts were recovered. Nineteenth century atlases (Rea and Price 1849, Beers 1868, Hopkins 1881, Baist 1893) show no structures standing on this corner (Figures 5-8) and no further archaeological testing is recommended for this location.

Segment 2

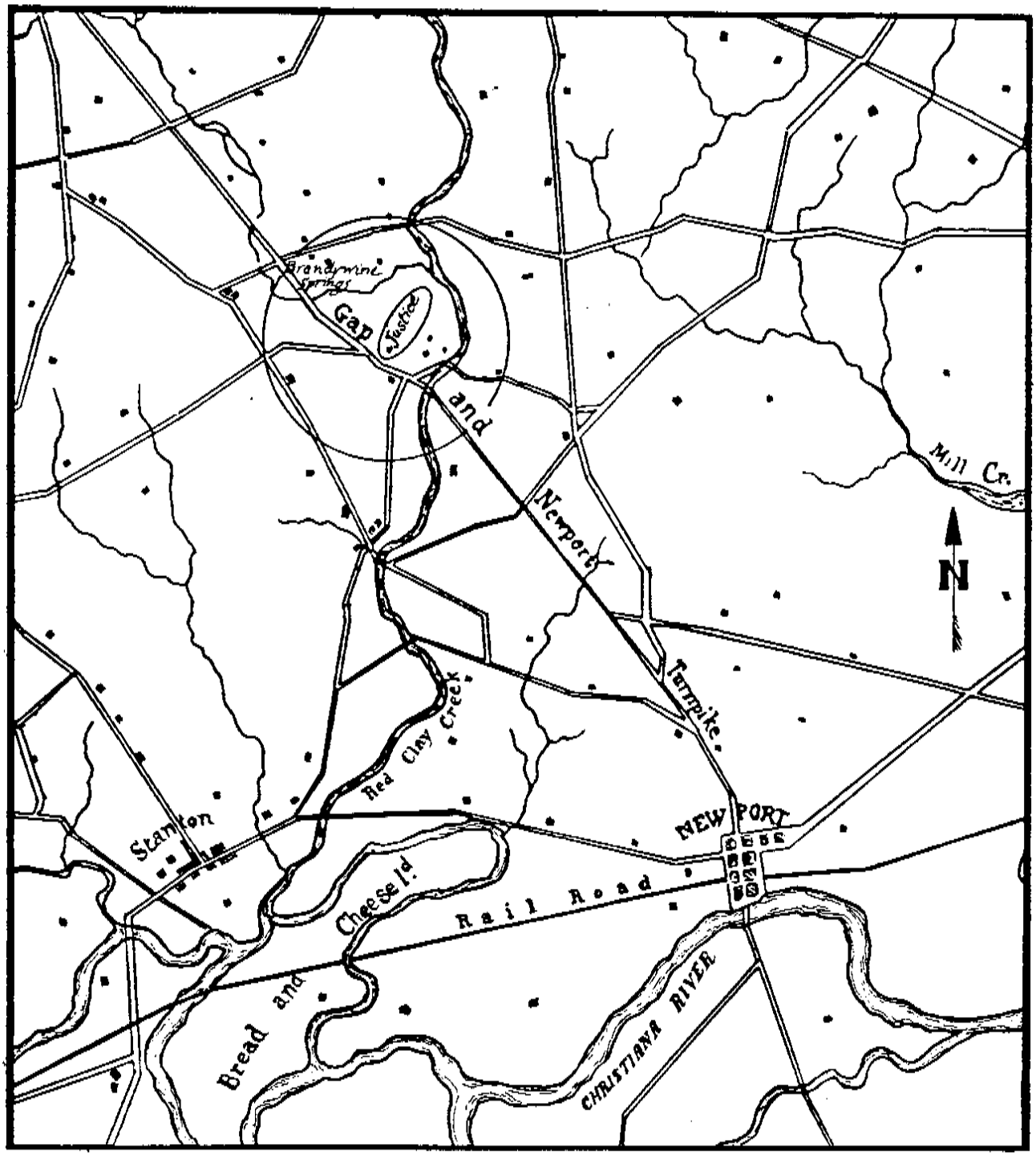
The proposed ROW follows the existing ROW in this segment; however, the proposed construction will take more of the existing ROW and will cut into the front lawn of the Paul A. DiSabatino property (Plate 3) at 2304 Newport Gap Pike. Early maps indicate that the only pre-1900 structure to have stood within or adjacent to this ROW segment is the mid-nineteenth century Italianate style W. G. Philips house on the southwest corner of Route 41 and Green Bank Road well outside of the ROW. The majority of the ROW in this segment has been disturbed by a sewer line and a concrete sidewalk and it is impossible to test for any intact subsurface cultural material. The existence of any such remains is highly unlikely thus no subsurface testing was conducted in this segment. No further work is recommended.

Segment 3

This segment consists of a stretch of proposed ROW along the north side of Route 41 from its intersection with Green Bank Road to the intersection with the former Wilmington and Western

FIGURE 5

Detail of Rea & Price's 1849 Map of New Castle County, Showing Project Area

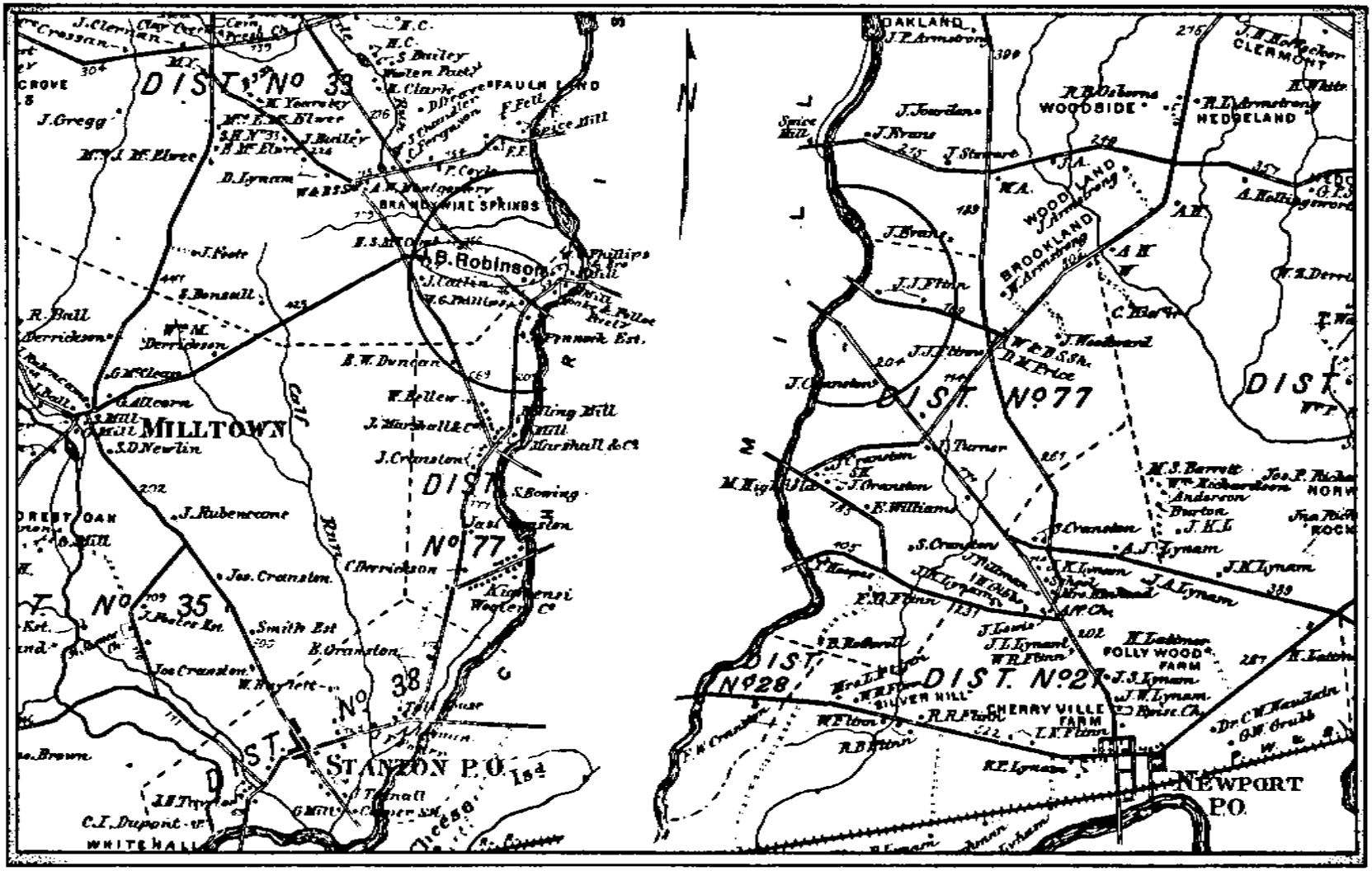


0 1 2
miles

enlarged and redrawn from original

FIGURE 6

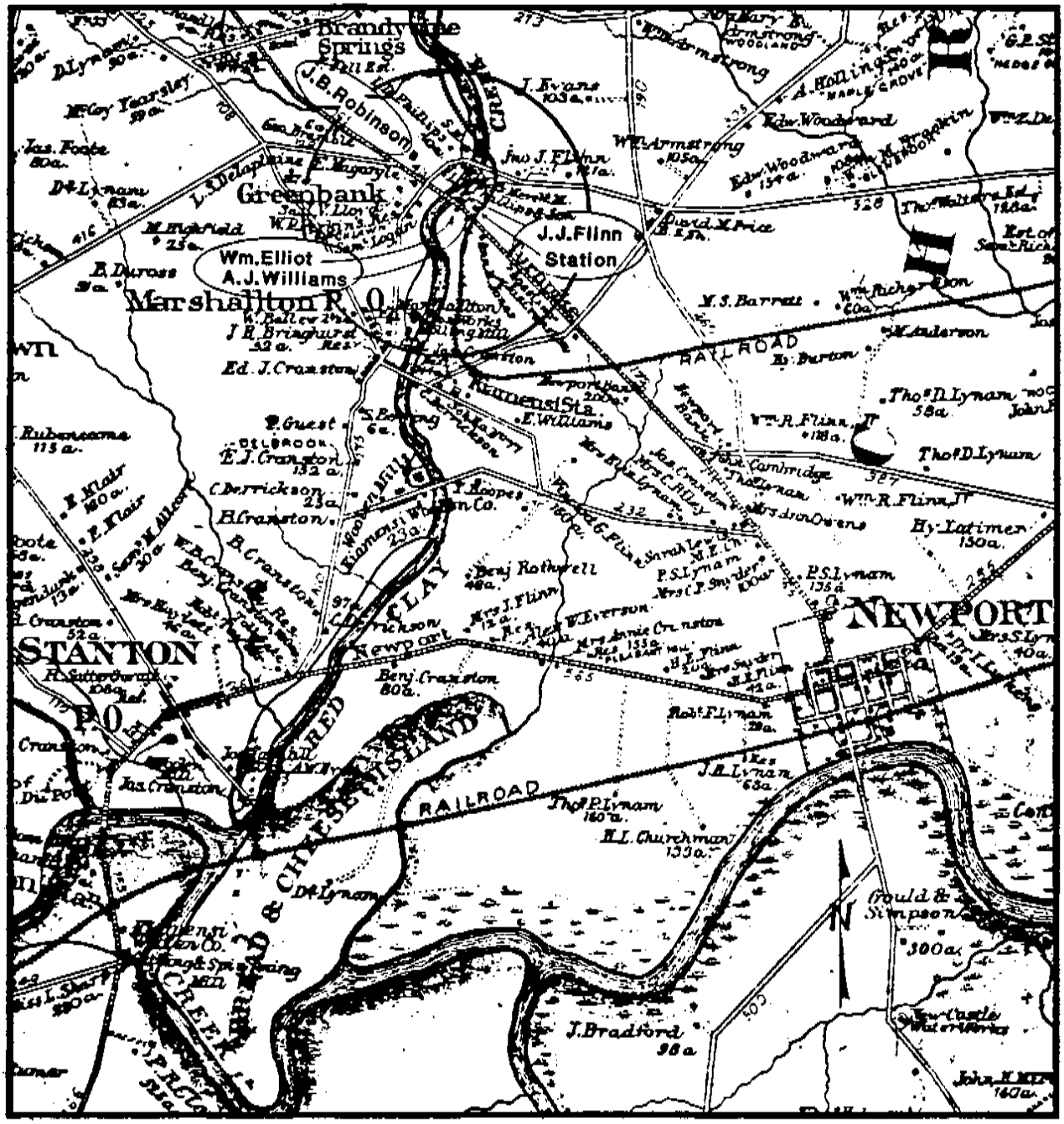
Detail of D. G. Beers' 1868 Atlas of Delaware, Showing Project Area



0 1 2
miles

FIGURE 7

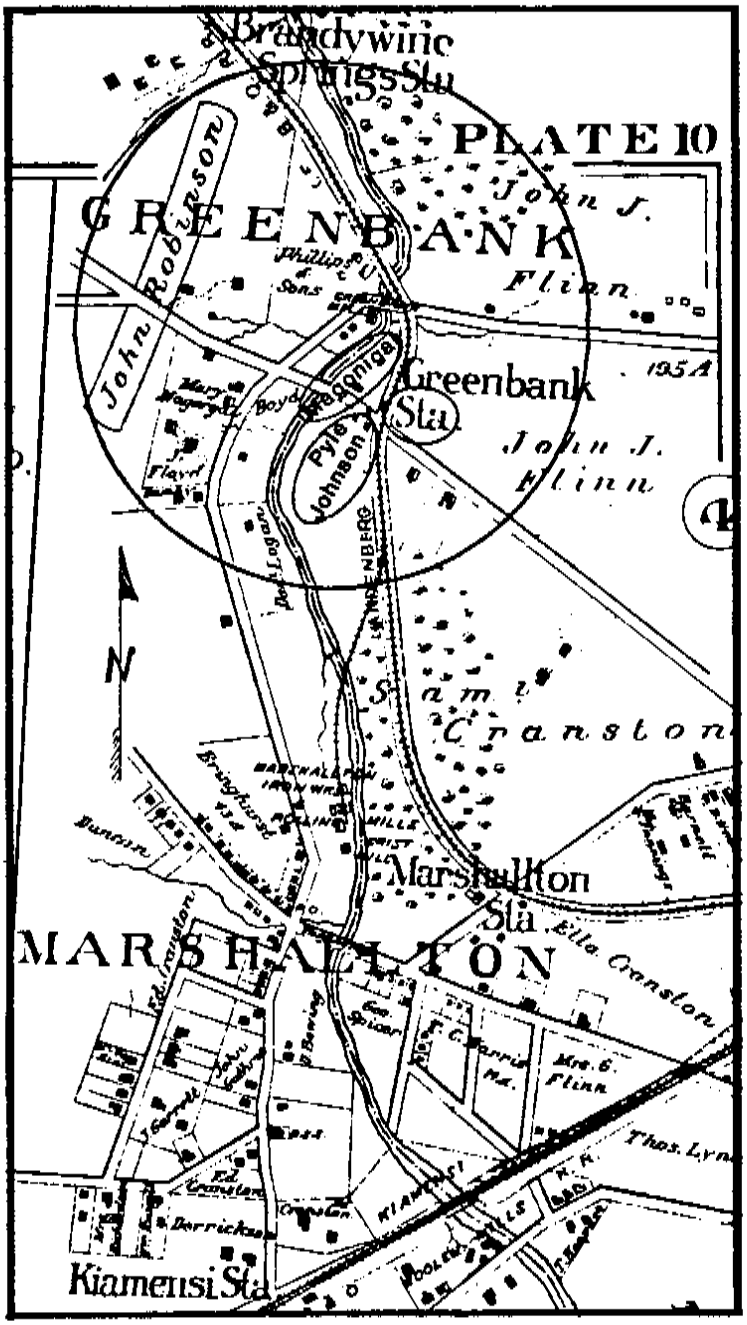
Detail of Hopkins' 1881 Atlas of New Castle County, Showing Project Area



0 1 2
miles

FIGURE 8

G. W. Baist's 1893 Atlas of New Castle County, Showing Project Area



0 800 1600
feet

PLATE 3

The Paul A. DiSabatino Residence, 2304 Newport-Gap Pike

Railroad (now Conrail). The proposed ROW extends about 35 feet north of the existing ROW along the entire length and, unlike the steep slopes present in segments 1 and 2, this entire segment is composed of Red Clay Creek floodplain (Plate 4). Two parties own all of the land making up this segment. New Castle County owns a strip extending from the creek bank eastward about 200 feet and Historic Red Clay Valley, Inc. owns the remaining land eastward to the railroad tracks (Figure 9). No standing structures are present within the proposed ROW and planned work included shovel testing and augering to test the integrity of the subsurface deposits.

Archival reasearch revealed no indications of historic structures for the 200 foot long section of floodplain owned by New Castle County and extending eastward from the Red Clay Creek bank. However, this area was thought to have a high potential for yielding intact prehistoric archeological remains because Woodland I and II Period sites have been found at similar locations in the Brandywine and White Clay Creek floodplains (Custer 1986:156).

One 3'x 6' test unit and two 3'x 3' test units were excavatedon the floodplain about 40' east of the Red Clay Creek to look for the presence of intact subsurface occupation levels and associated artifacts (Figure 10). The first unit (Test Unit 10) revealed that 26" of recent clay and sand fill had been placed over the early 20th century land surface (Figure 11). Dark brown organic loam, which contained only coal fragments, was found from 26" to 38" below the surface and this horizon is believed to be the 19th/early 20th century occupation surface.

PLATE 4

Segment 3, Red Clay Creek Floodplain, Looking West

FIGURE 9

Loci of Potential Archaeological Resources in Segment 3

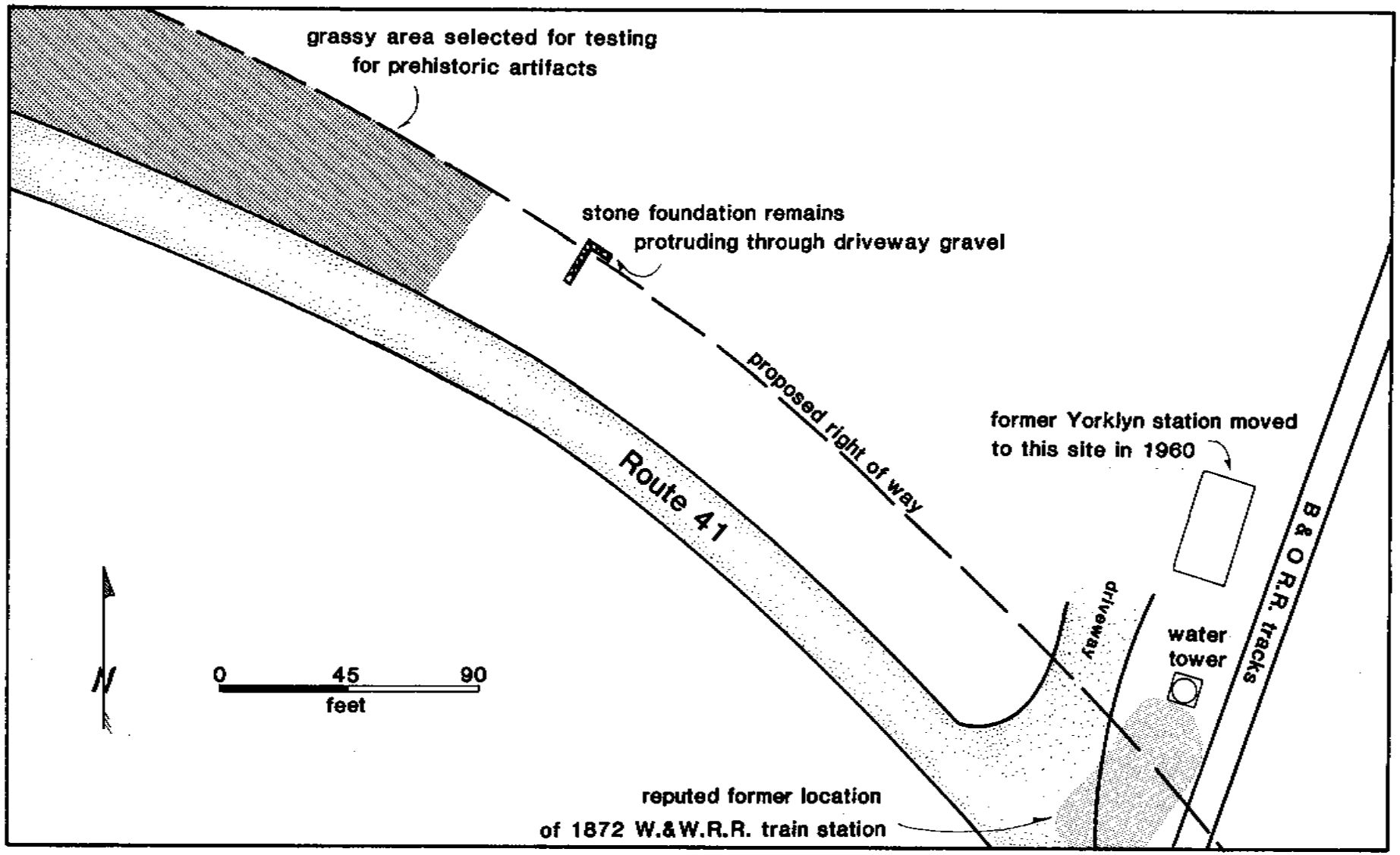
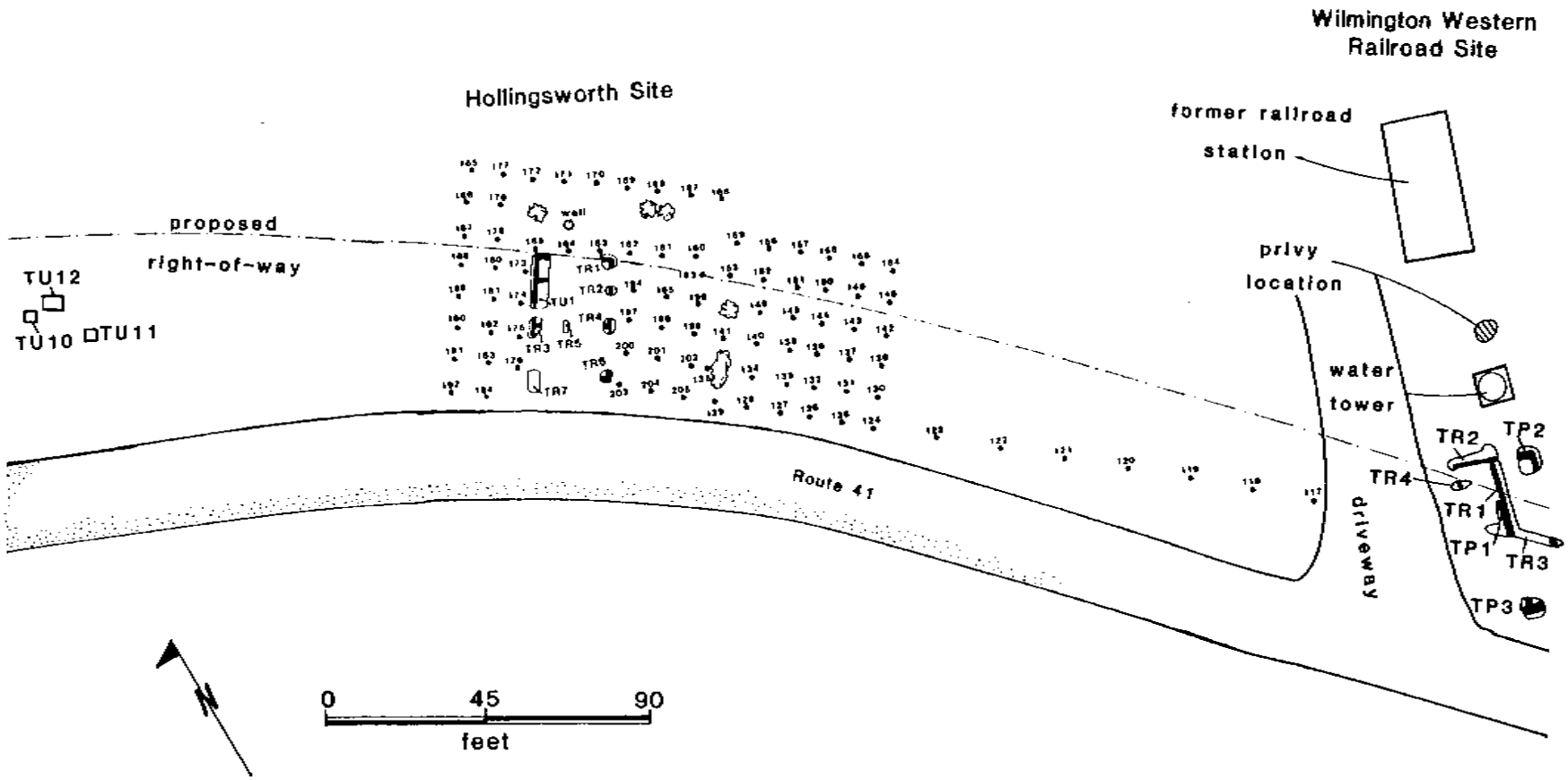


FIGURE 10

Location of Phase I and II Test Excavations in Segment 3



TR — trench

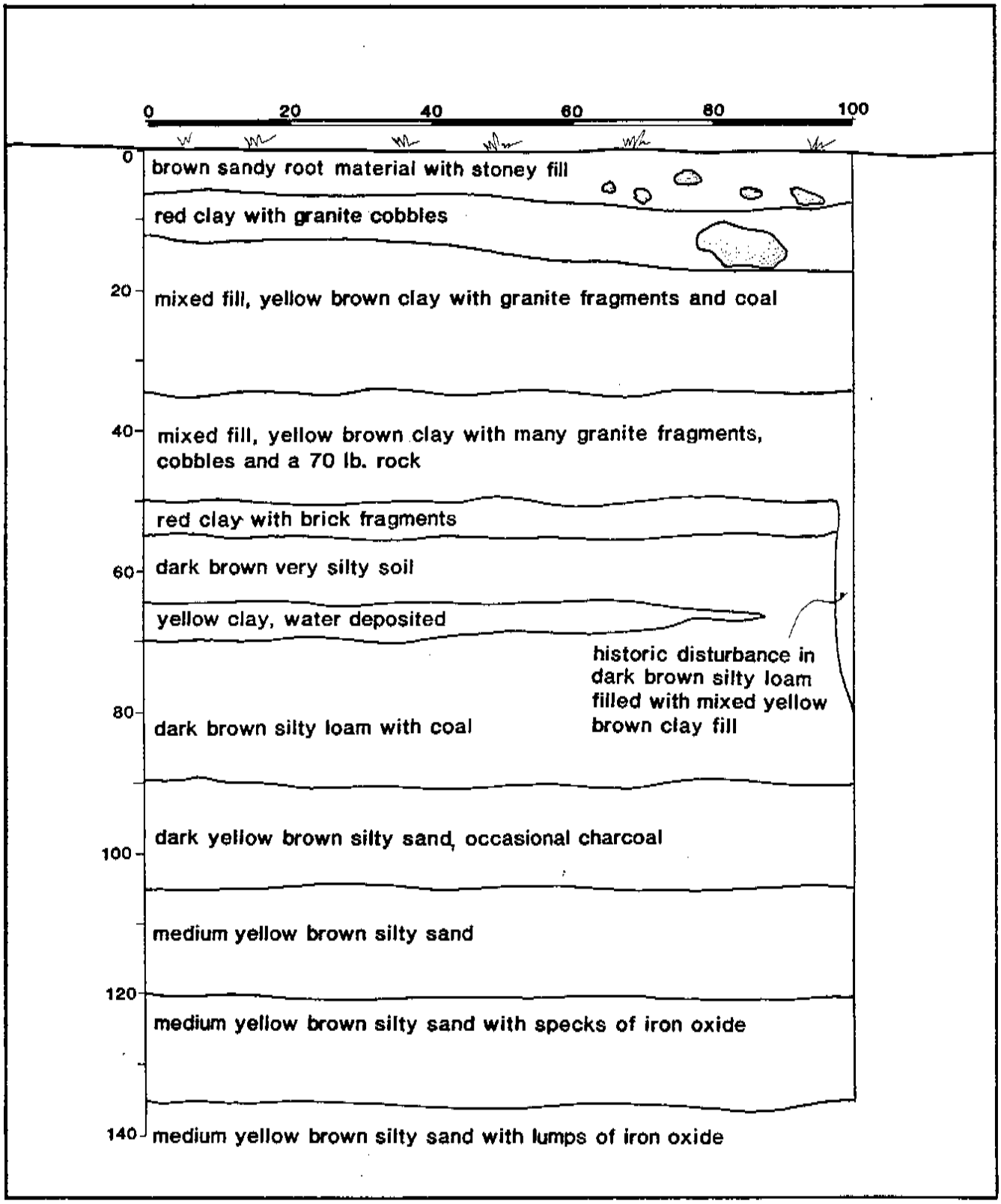
Tu — test unit

● / TP — shovel test pit

excavated foundation

FIGURE 11

Stratigraphic Profile of West Wall of Test Unit 10, New Castle County Property



Yellow-brown silt was found from 38" to 47" and contained only a few small charcoal flecks. At 47" below surface, the subsoil changed to a coarse sand with pockets of iron oxide staining and this soil is presumed to be at least 5,000 to 8,000 years old. No prehistoric artifacts or features were recovered from this test unit.

Test unit 11, measuring 3' x 3', and test unit 12, measuring 3' x 6', were also excavated in the floodplain and both were taken to sterile subsoil. The recent overburden, which consisted of very compact clay, sand, and large cobbles, was mechanically stripped and not screened. Soil screening commenced when the first intact organic horizon was encountered at 24" below the surface. Although a few fragments of whiteware, glass, and coal were found in the first intact level, no prehistoric or historic artifacts or features were found in either of these units. Becauseno artifacts or features were identified, no further work is recommended for the New Castle County property in this section of the floodplain.

Hollingsworth Site (Figure 10). Maps and deed records (Table 2) indicate that a structure was standing at this location by 1881. Hopkins' map of New Castle County, published in 1881, shows a "Jno. J. Flinn" occupying this structure along Route 41 and two others in the local area; however, no buildings appear at this location on Beers' 1868 Atlas of Delaware or Rea and Prices' 1849 map. The title chain indicates that the house was owned by just two families for its entire century of use. John Flinn, Ann (widow of John), and Darlington Flinn owned it from the date of construction until 1911. Darlington Flinn sold it to Emilie and

TABLE 2

PARTIAL CHAIN OF TITLE FOR THE HOLLINGSWORTH PROPERTY

Transaction	Date	Deed Reference
Estate of Ann C. Flinn* to Darlington Flinn, Sarah Flinn Dilworth, and Isaac Flinn	1-17-1901	Will book X-2-108, 348
Darlington Flinn, et al. to Enos J. and Emilie Hollingsworth	9-2-1911	M-23-356
Enos and Emilie Hollingsworth to Hollingsworth Co.	7-8-1920	Y-29-169
Hollingworth Co. to Perco Construction Co.	1-4-1963	P-70-124
Perco Construction Co. to Historic Red Clay Valley, Inc.	8-4-1967	H-79-345

*Though the property was in the Flinn family for many decades prior to 1901, the Hollingsworth house doesn't appear on maps before 1881.

Enos Hollingsworth at that time (N. C. County deed book Y-29-169) and they owned it until it was demolished as part of a fire department exercise in the mid 1960s. According to Mr. Conner, a local informant, the Hollingsworths occupied one side and various tenants the other. All post-1911 occupants of the house were black. It is doubtful that the Flinns ever lived in the house and little is known of the 19th and early 20th century tenants.

Tax parcel maps indicate that the Hollingsworth property formed a long narrow strip which paralleled the Newport-Gap Pike along its north side from the train station to the Red Clay Creek. It measured approximately 65' x 450' and was bounded on the north by land owned by New Castle County. Local residents and informants John Conner and Paul Bower provided recollections

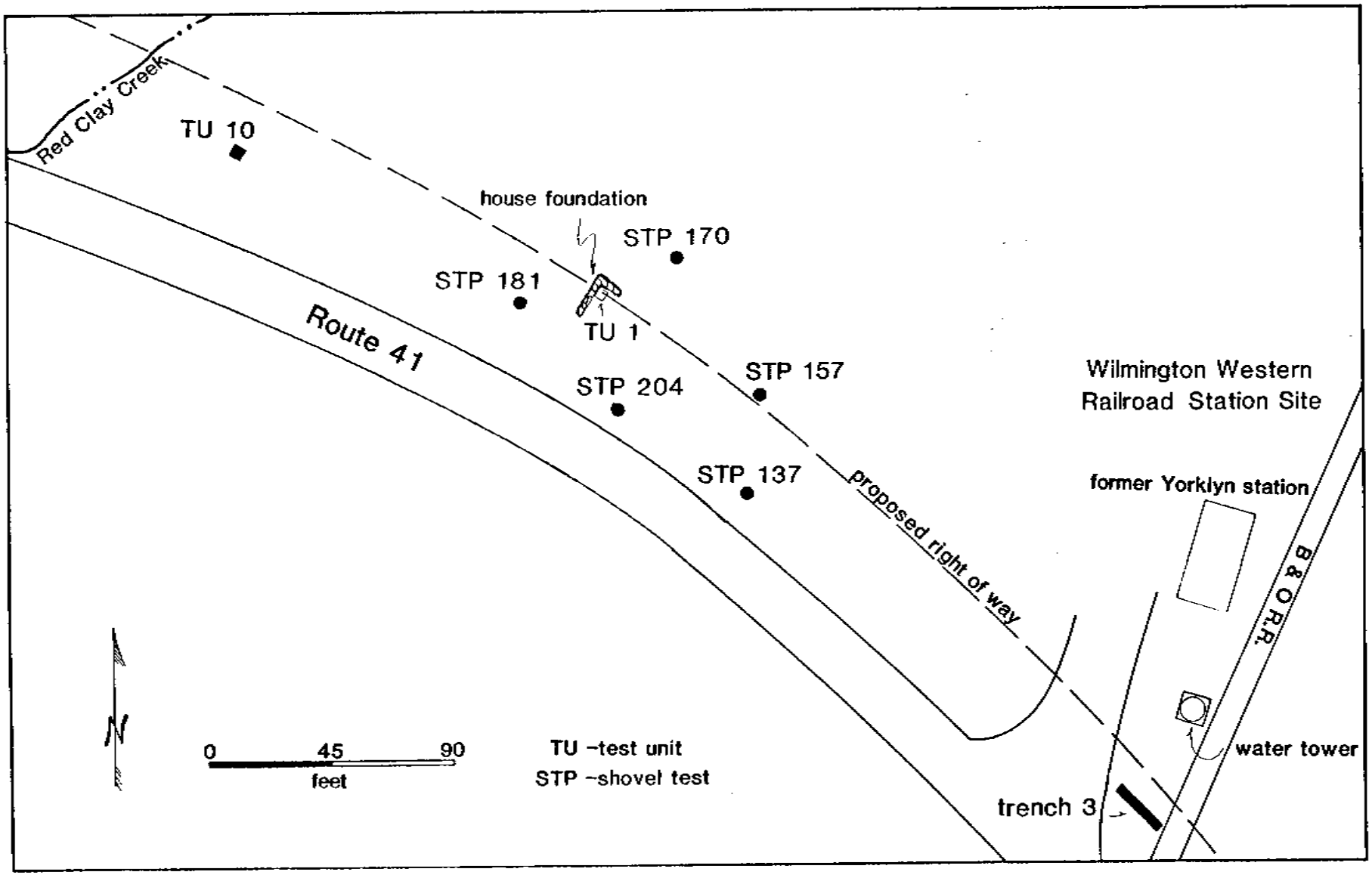
on how the Hollingsworth yards and surrounding properties have been used for the past several decades. The east yards were used for gardening and hog and pig slaughter. Also, several small sheds, a chicken coop, and an outhouse were situated northeast of the house along the rear property line. The lands to the west of the house were low-lying and apparently little used. The large open area to the north of the house outside of the proposed ROW, now an Historic Red Clay Valley, Inc. (HRCV) parking lot, was a truck garden maintained by the prisoners from New Castle County's Green Bank prison, formerly located nearby on the northwest corner of the Newport-Gap Pike and the Kirkwood Highway.

Pedestrian survey of the site area revealed the remains of a stone foundation which could be seen protruding through the surface of the HRCV driveway. Only a small section of what was thought to be the northwest corner was visible. A 1'x 2' test unit placed inside this corner indicated that the structure had a whitewashed cellar of an undetermined depth. The 16"-thick foundation wall was constructed of dressed gabbro mortared in place. The cellar fill consisted of displaced gabbro, broken bits of window glass, asphalt shingle, and loose organic fill.

No other features could be seen on the surface surrounding this property. Therefore, several shovel test pits were dug in the grassy areas southeast and northwest of the foundation to determine the presence or absence of buried occupation surfaces and any associated artifacts and features. Shovel test pits 137, 157, 170, 181, and 201 were placed around the house (Figure 12). Shovel test pit 137 revealed 12" of fill containing low amounts

FIGURE 12

Phase I Subsurface Tests at the Hollingsworth Site

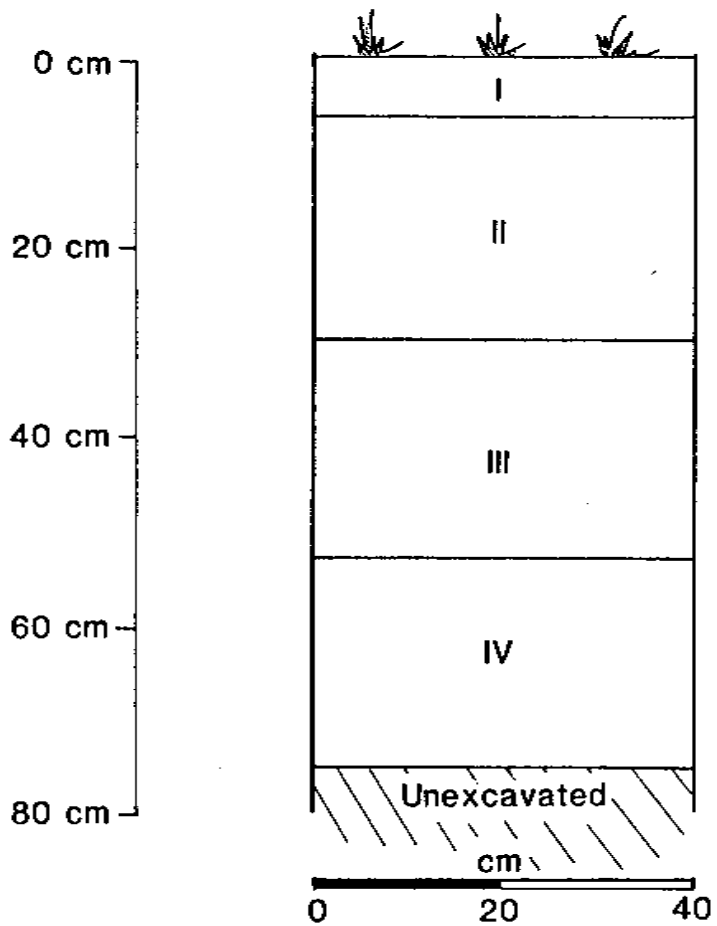


of coal ash, milk glass, clear bottle glass, and window glass; 9" of buried plow zone containing window glass, coal and coal ash, and one oxidized nail fragment; and 9" of yellow-brown silt containing 6 pieces of coal ash (Figure 13). The second level is interpreted as the occupation level associated with the Hollingsworth house. Presumably the ground was plowed when it was owned by Jno. J. Flinn, after which it became a yard/garden area when the house was constructed. It is felt that the artifacts postdate the construction of the house, since it is doubtful that so many domestic and architectural artifacts would have accumulated in a plow zone so far from any of the Flinn residences.

Shovel test pit 157 (Figure 12) produced a similar stratigraphy and was excavated to a depth of 27" below the surface. Artifacts were also similar, with the addition of one piece of whiteware and one piece of manganese glazed redware in the plow zone. Shovel test pit 170 (Figure 12) was placed north of (behind) the foundation near the rear of the lot and in the present gravel driveway. The stratigraphic sequence appeared to be the same as the other test pits, but with the layers reduced in thickness. The sand and gravel driveway fill, yellow-brown silty fill, and a narrow organic band all occurred in the first 11". Orange sandy silt was found from 11" to 18" below the surface. A total of 67 artifacts, including nails, bone, brick, coal, coal ash, redware, refined white earthenware (whiteware and ironstone), various colors of bottle glass, lamp chimney glass, and pressed glass were recovered from this unit. The stratigraphic sequence and quantity of artifacts suggest that a

FIGURE 13

Stratigraphic Profile of Shovel Test Pit 137, Hollingsworth Site



I–Brown silty loam with four pieces of coal ash.

II–Mixed yellow and brown silty loam fill with one piece of milk glass, two pieces of window glass, and one piece of clear bottle glass.

III–Brown silt (old plowzone) with two pieces of window glass, one oxidized nail fragment and coal with coal ash.

IV–Yellow brown silt with six small pieces of coal ash.

midden may have been encountered. Shovel test pit 181 (Figure 12) was placed on the west side of the foundation and produced a sequence similar to shovel test pits (STPs) 137 and 157. A half dozen pieces of clear bottle glass, window glass, an oxidized nail fragment, and 200-300 pieces of coal were found. STP 201 was excavated in the gravel driveway southeast of the foundation segment because it was suspected that cellar fill may lie beneath the surface here, depending upon the limits of the house. However, the stratigraphic sequence was similar to STPs 137, 157, and 181 and the artifacts recovered were similar as well with one exception being a single jasper flake found in the plowzone.

Phase II testing at the site consisted of a combination of a grid of shovel test pits, test trenches, and test units which were excavated to define features, yard activity areas, and the collection of any associated artifacts. The STP grid was placed at 10' intervals in the east and west yards and to the rear of the house foundation. The Phase I STPs were incorporated into the Phase II grid. Features found by the STPs were the subject of expanded excavations so that limits and cultural affiliation could be identified. Test trenches were placed at selected locations to define the limits of the house foundation and to document the method of its construction. The cellar was partially excavated in order to document its size and uses through time.

A total of 82 STPs (nos. 117 to 136, 138 to 156, 158 to 169, 171 to 180, 182 to 200, and 202 to 205) were dug during the Phase II testing at the Hollingsworth lot (Plate 5). The 10'-interval grid extended 100' to the east of the foundation, 25' to the west

PLATE 5

Excavation of the Phase II Shovel Test Pits at the Hollingsworth Site.
Conner House at right on the South Side of Newport-Gap Pike

of it, and 25' to the north. The contents of each shovel test pit were counted and plotted on a grid map and concentrations of artifacts were noted. The artifacts plotted were those believed to lie on the ca. 1870 to mid-1960s land surface which lay beneath the recent clayey fill deposited over the site. These artifacts are believed to be associated with the occupancy of the house and thus would help document its use. Artifacts recovered from the fill were not included in the counts depicted on the plot maps.

Artifacts were plotted for thirteen categories: faunal remains, refined white earthenware (whiteware and ironstone), flowerpot ware, porcelain, redware, milk glass, lamp chimney glass, bottle glass, window glass, coal and coal ash, brick, wire nails, and unidentified nails. These artifact types were plotted because they were the most commonly found items on the property and other studies in the area (Coleman et al. 1983, 1984, 1985) have demonstrated the utility of these artifacts for delineating yard activity areas in small rural farmsteads. Coal and coal ash occurred in large quanities in almost every test unit and in all levels, including the subsoil; therefore it was not included in the artifact distributions. Of the other categories, faunal remains, refined white earthenware, flowerpot ware, window glass, bottle glass, and unidentified nails were recovered in sufficient quantities to be plotted and analyzed (Figures 14-19). The artifact counts for the remaining categories were too low to provide meaningful analysis.

Faunal remains (Figure 14) were concentrated in small amounts in STPs 152, 153, and 159, about 35' to 40' east of the

FIGURE 14

Density Plot of Faunal Remains from Shovel Test Pits at the Hollingsworth Site

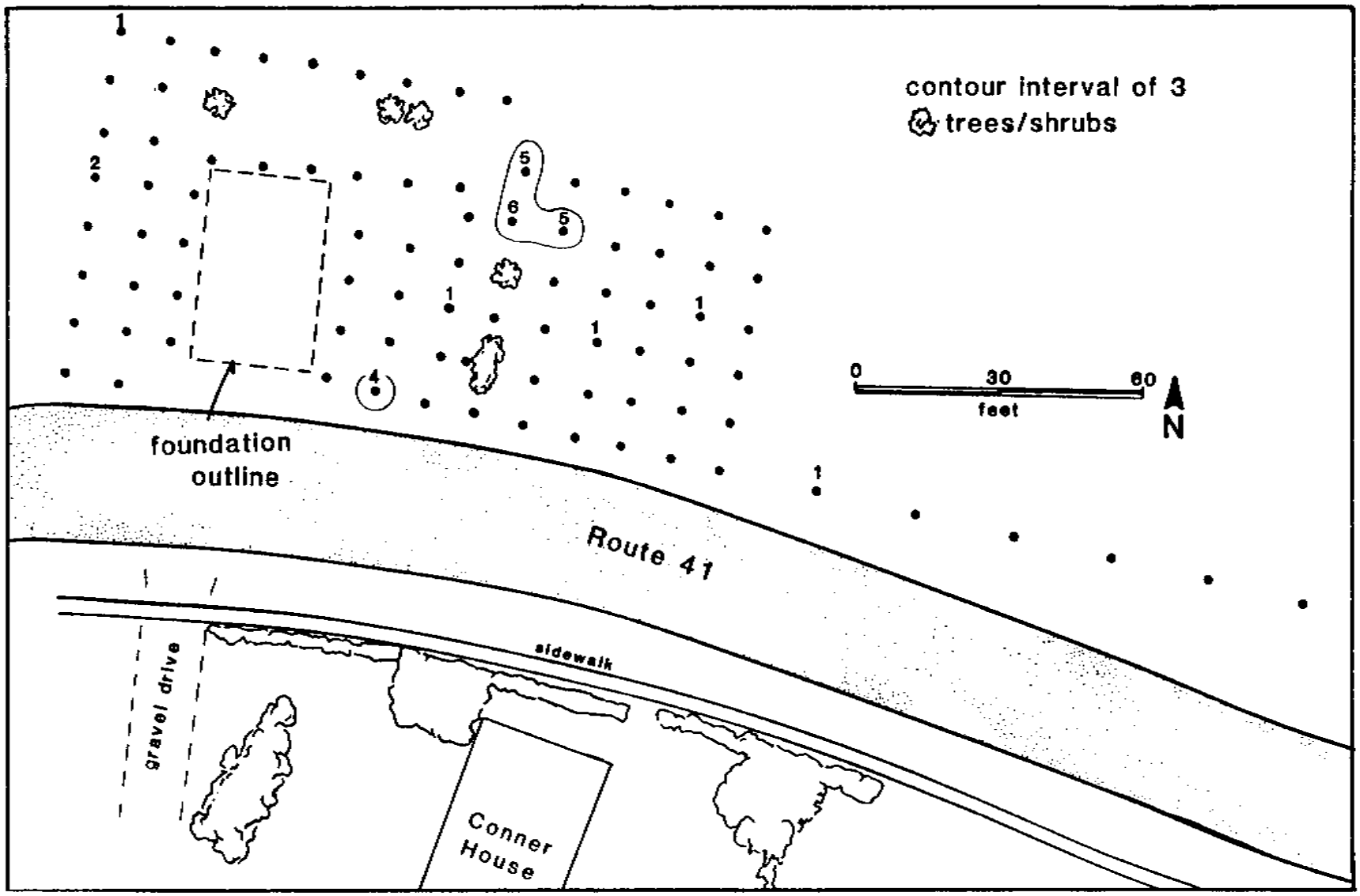


FIGURE 15

Density plot of Refined White Earthenware from the Shovel Test Pits at the Hollingsworth Site

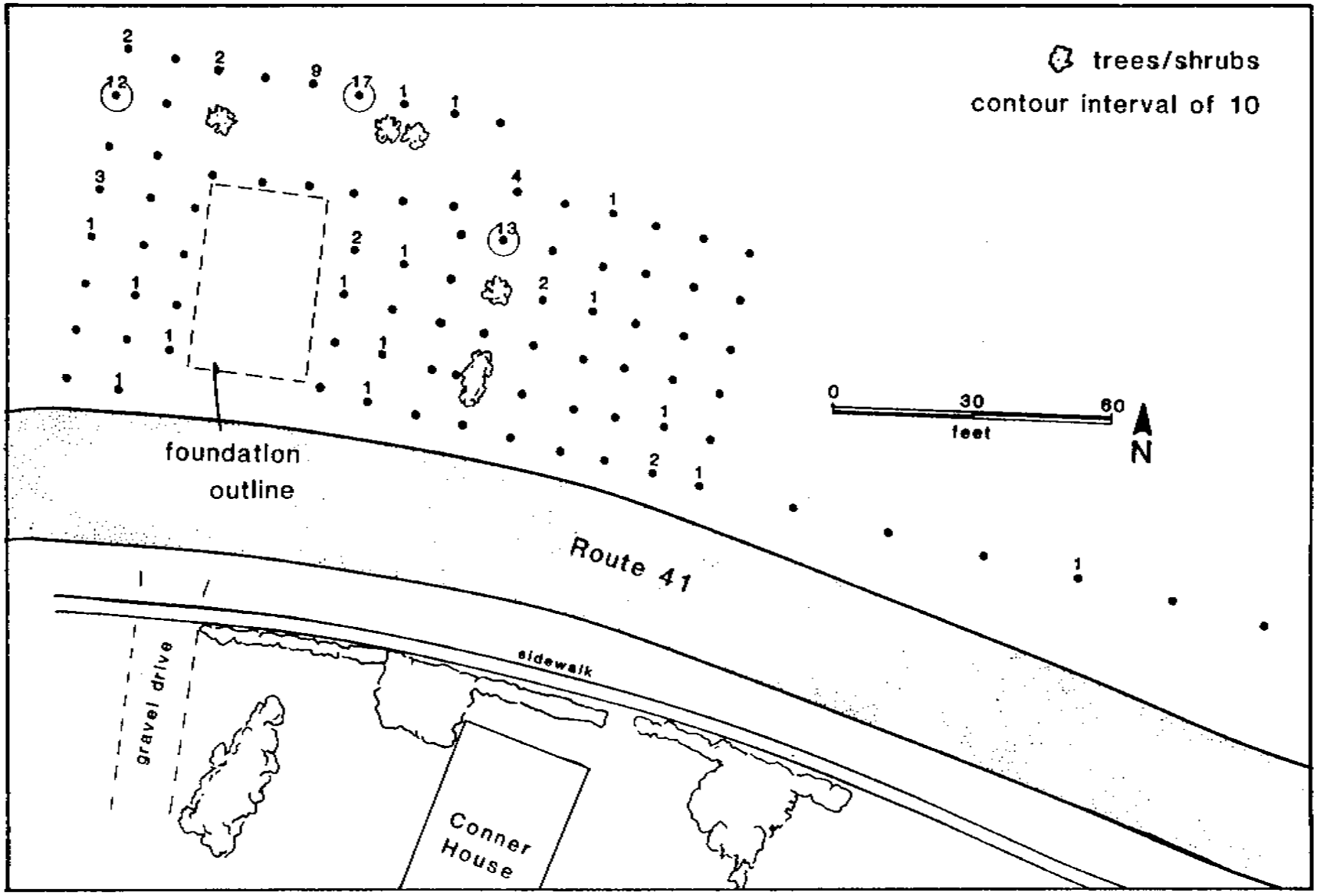


FIGURE 16

Density Plot of Flowerpot Ware from Shovel Test Pits at the Hollingsworth Site

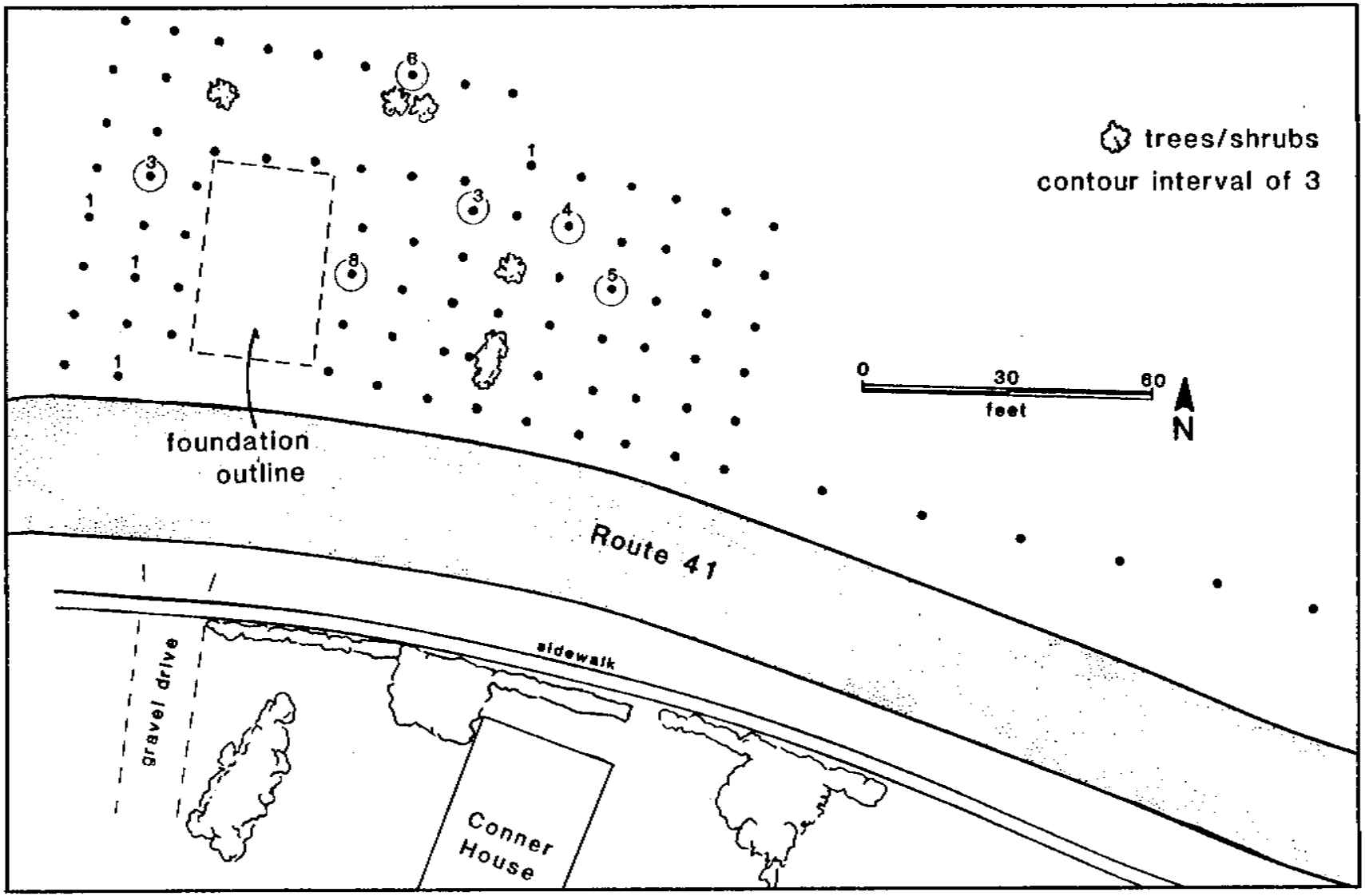


FIGURE 17

Density Plot of Window Glass Fragments from Shovel Test Pits at the Hollingsworth Site

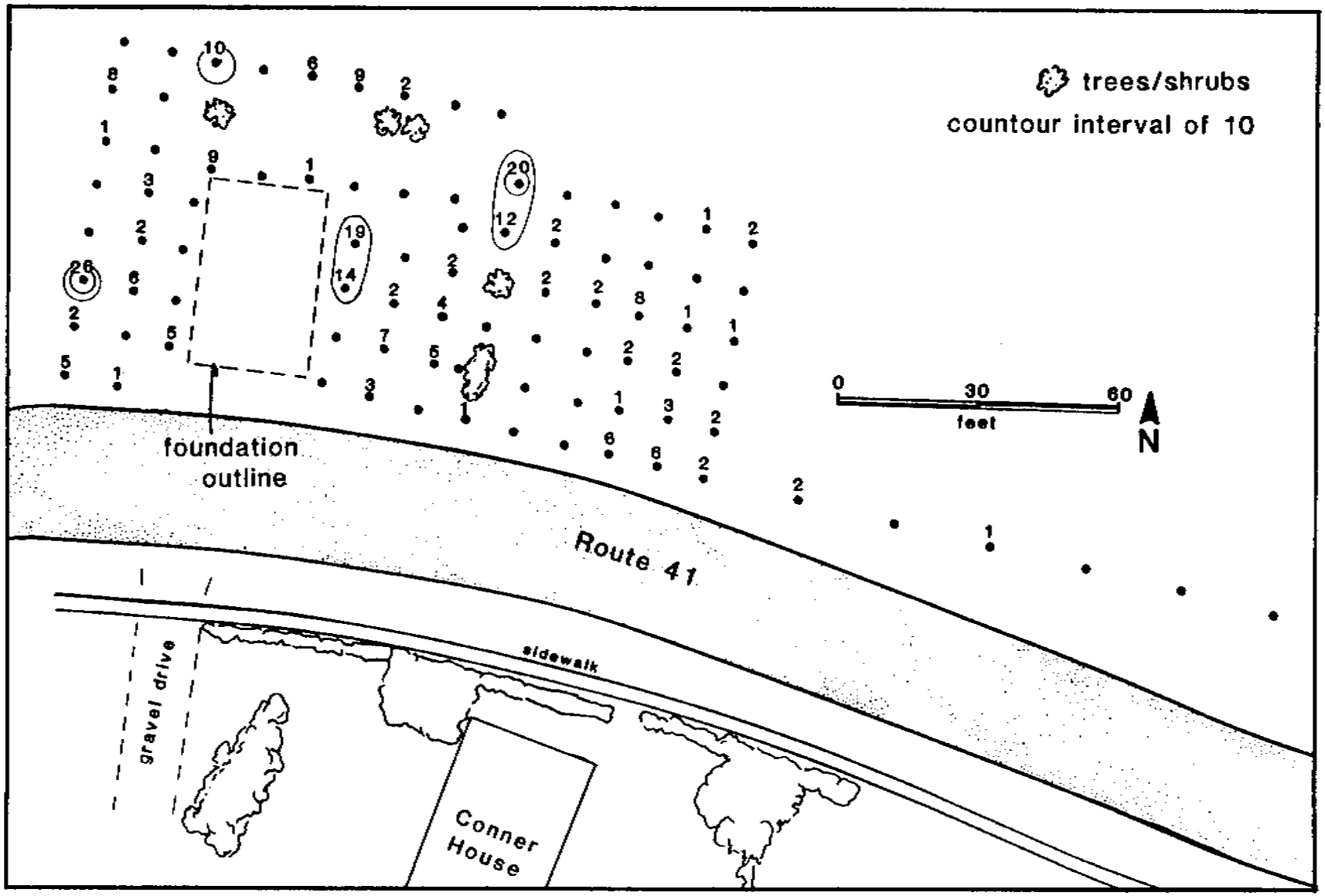


FIGURE 18

Density Plot of Bottle Glass Fragments from Shovel Test Pits at the Hollingsworth Site

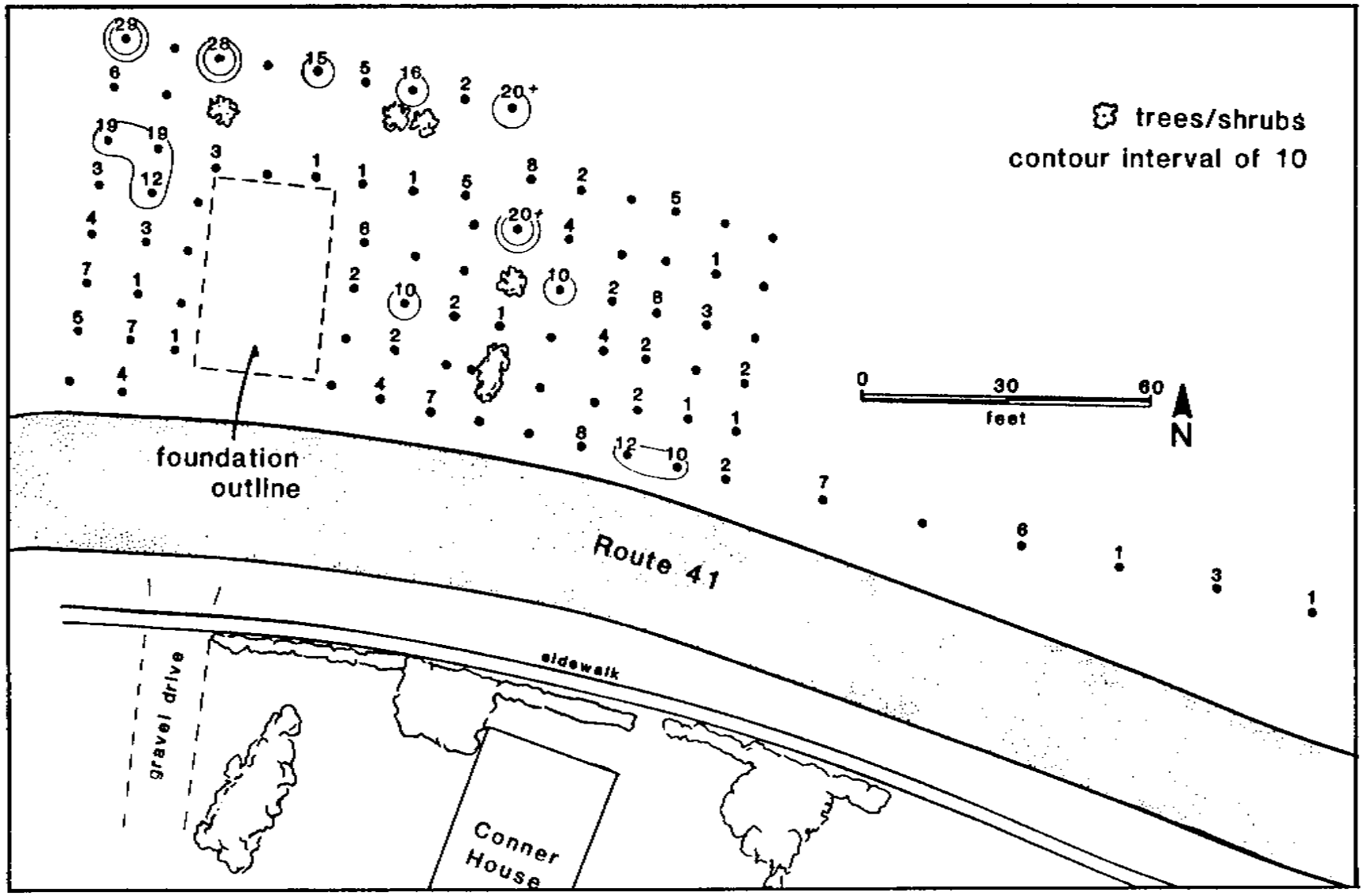
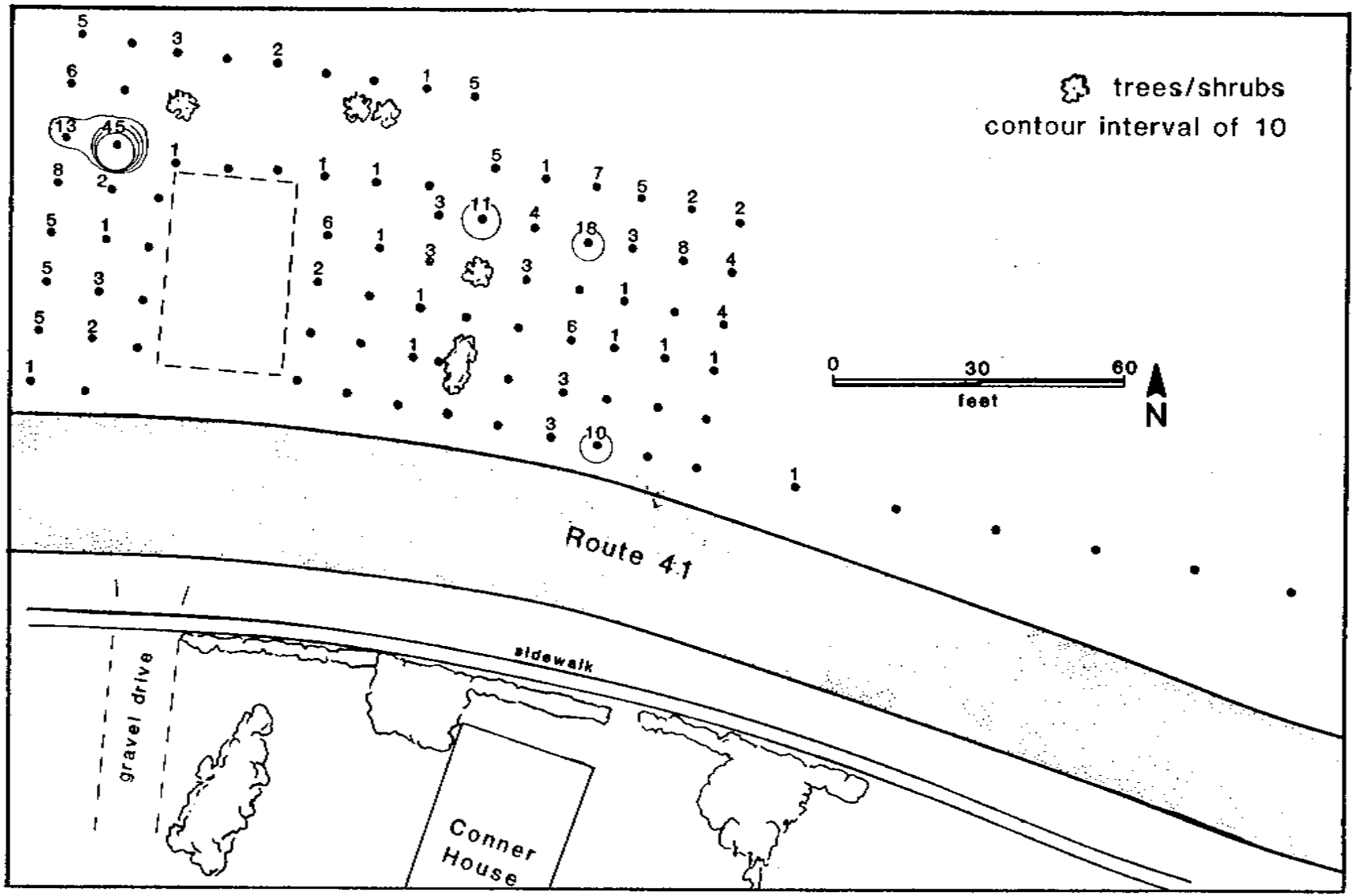


FIGURE 19

Density Plot of Unidentified Nails From Shovel Test Pits at the Hollingsworth Site



northeast corner of the house. These bones were found near the area where informants indicated that hog butchering took place. Although several mammal long bone and vertebral fragments were recovered, none could be positively identified as to species. Faunal remains (35 pieces) were recovered from other parts of the site, generally from the upper two disturbed levels in the stratigraphic sequence, and included the right distal phalange of a bovine (Bos taurus) in STP 185, the right humerus of a sheep (Ovis aries) in STP 123, and the left proximal radius fragment of a sheep (Ovis aries) in STP 158. Some of the bones had been sawn, which is not unexpected considering the temporal span of the occupation.

Several concentrations of window glass (Figure 17) occurred at dispersed locations around the house foundation, including STPs 166, 190, 194, and 197. The concentrations in 194 and 197 occurred within a few feet of the house and may represent broken windows. These counts do not occur on the west side of the house because a concrete sidewalk feature has disturbed the surface. The other two concentrations, in STPs 166 and 190, occur 25' and 45' from the house, respectively, and could represent the locations of outbuildings or refuse sites. Bottle glass (Figure 18) occurred in most shovel tests and in isolated concentrations in several units. Most of the concentrations represented one or two broken bottles however, and it is doubtful that they represent middens. Fragments of broken flowerpots were thought to be indicative of garden areas. However, these counts were rather low and the distribution was inconclusive (Figure 16). Refined white earthenware (whiteware and ironstone) occurred in

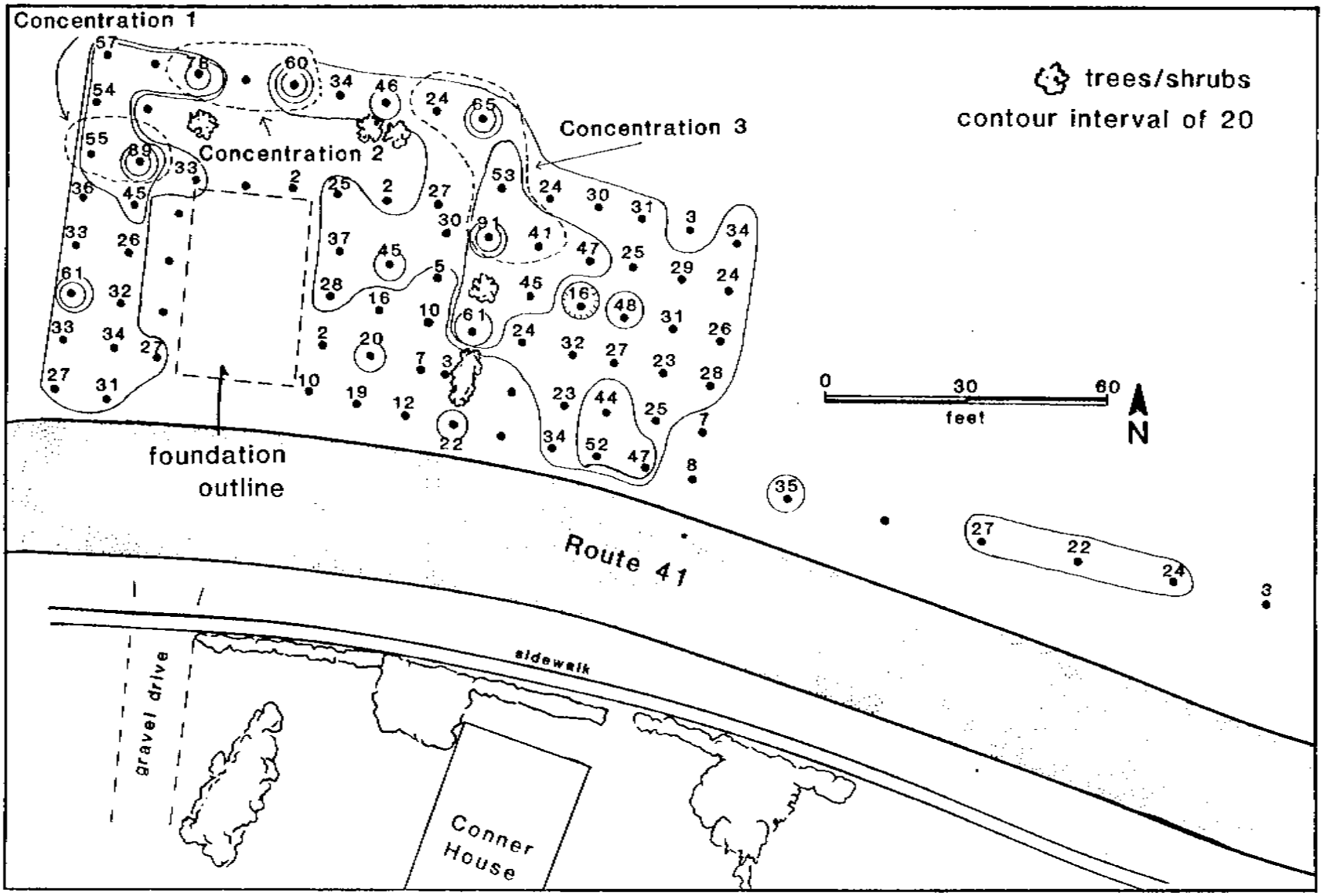
three concentrations, all at some distance from the house, and probably represent refuse disposal areas (Figure 15). The concentrations were in STP 153 (45' east of house), STPs 169 and 170 (25' north of the house), and STP 186 (30' northwest of the house). Finally, nails (Figure 19) were frequent and occurred in two concentrations, in STP 179 about 12' northwest of the foundation, and in STP 151, 55' east of the house. These may represent the locations of small outbuildings associated with the house.

The distribution of total artifacts (Figure 20) suggested three areas of intense activity or refuse disposal, all located beside or next to the foundation. Concentration #1 occurred in the vicinity of STPs 179 and 187 and contained mostly bottle glass, flowerpot ware, and unidentified nails. Concentration #2 was represented by test pits 169 through 172, which contained relatively large amounts of porcelain, refined white earthenware, bottle glass, lamp chimney glass, and window glass. Concentration #3 consisted of bone, brick, bottle glass, and window glass and occurred in the vicinity of STPs 152, 153, 159, 166, and 167. Concentrations 1 and 3 possess primarily architectural and utilitarian materials and are interpreted as the locations of ephemeral outbuildings or work stations where utilitarian activities took place. Concentration 2 is felt to be a general refuse area.

Five features were identified from the Hollingsworth site. The first was the stone house foundation, which was assigned the designation "Feature 1." Test trenching in the gravel driveway

FIGURE 20

Density Plot of Total Artifacts from Shovel Test Pits at the Hollingsworth Site



defined the limits of the stone foundation, an east-west trending brick partition footing which bisected the structure, and a stone-lined cellar which extended across the back of the house (see Figure 21 and Plate 6). Seven trenches were excavated to define the limits of the foundation, which was found to measure 24'x 38'. The long axis was oriented perpendicular to Route 41 and the front of the house stood only 7' from the edge of the modern asphalt road. The entire outer foundation was constructed of blue-gray gabbro. The brick partition footing was found to be 12" wide and heavily disturbed, as was the entire southwest corner of the foundation. Apart from the cellar, the foundation extended only a few inches into the subsoil and tapered toward the bottom. The foundation stones appeared to be placed in a shallow V-shaped trench and mortared in place. The average width of the foundation was 15", with a range of 12" to 16".

Several artifacts were recovered from the test trenches in direct association with the foundation. Trench #2 produced a small clear glass apothecary bottle, which was uncovered just beneath the fill atop the 19th century occupation surface (Plate 7). It bore the embossed lettering "F. W. Fenn/ 8th Street Near Tatnall/ Wilmington." According to Gopsill's Wilmington City Directory, Frederick Fenn operated a drugstore at 215-217 W. Eighth Street from 1887 to at least 1902 (Green n.d.).

Trench 4, along the east side of the foundation, yielded several fragmentary beverage bottles, which were found in an organic stain adjacent to the foundation. These fragments were embossed with the letters "Foord/Bottling Works/Wilm. Del." (Plate 8). William Foord had an established bottling business in

FIGURE 21

Locations of Features at the Hollingsworth Site

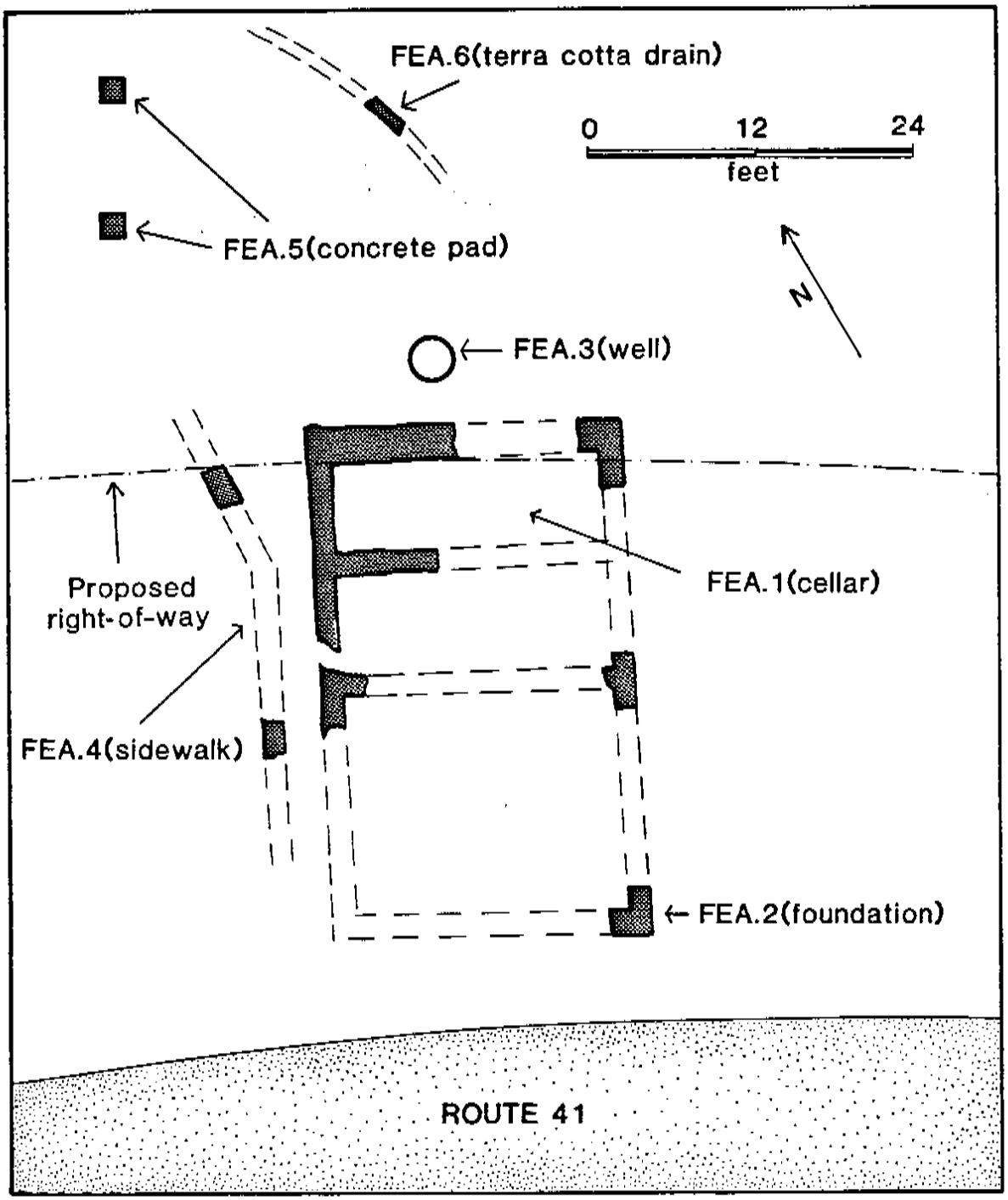


PLATE 6

View of Partial Excavation of the Hollingsworth House Cellar, Looking North

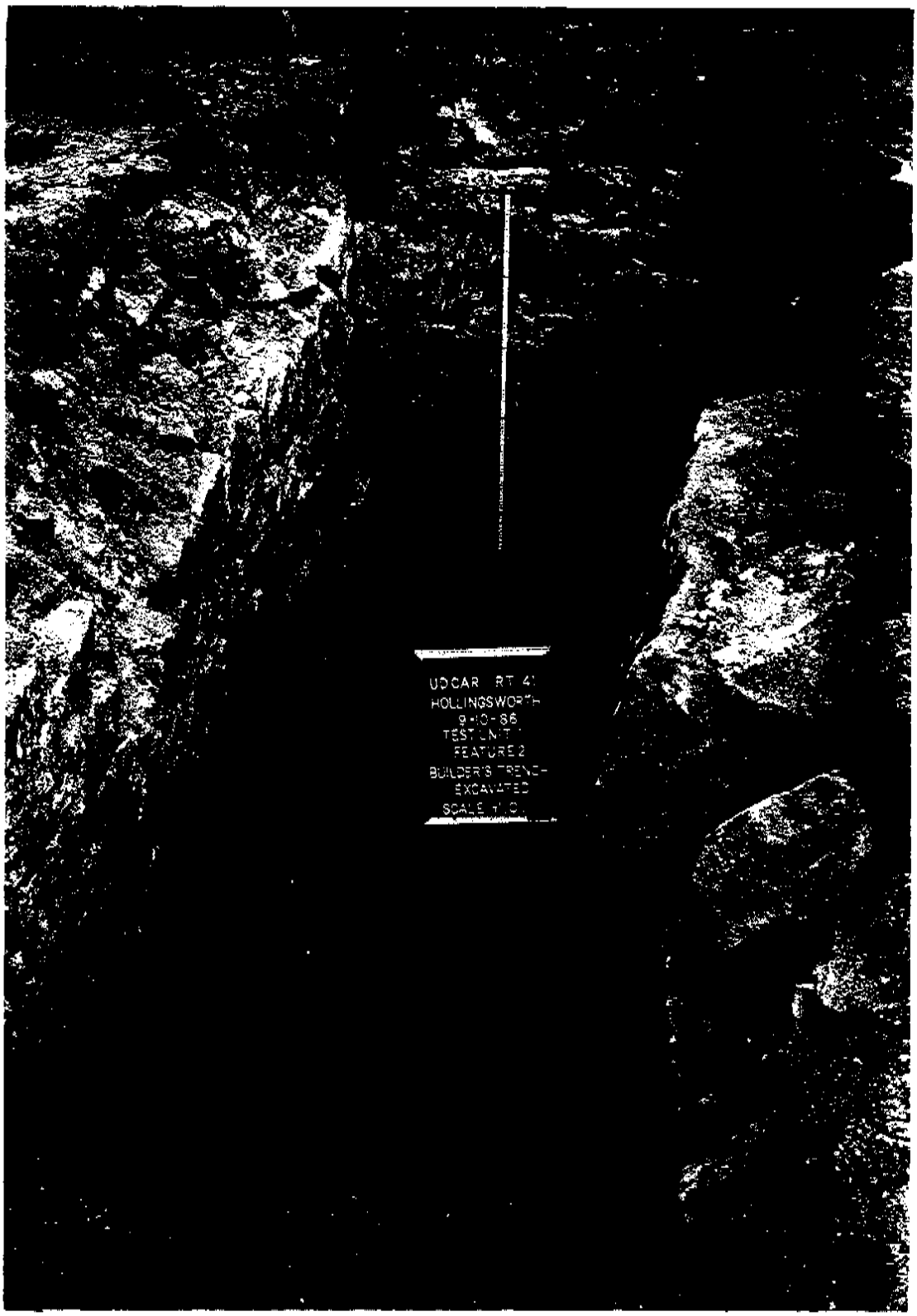
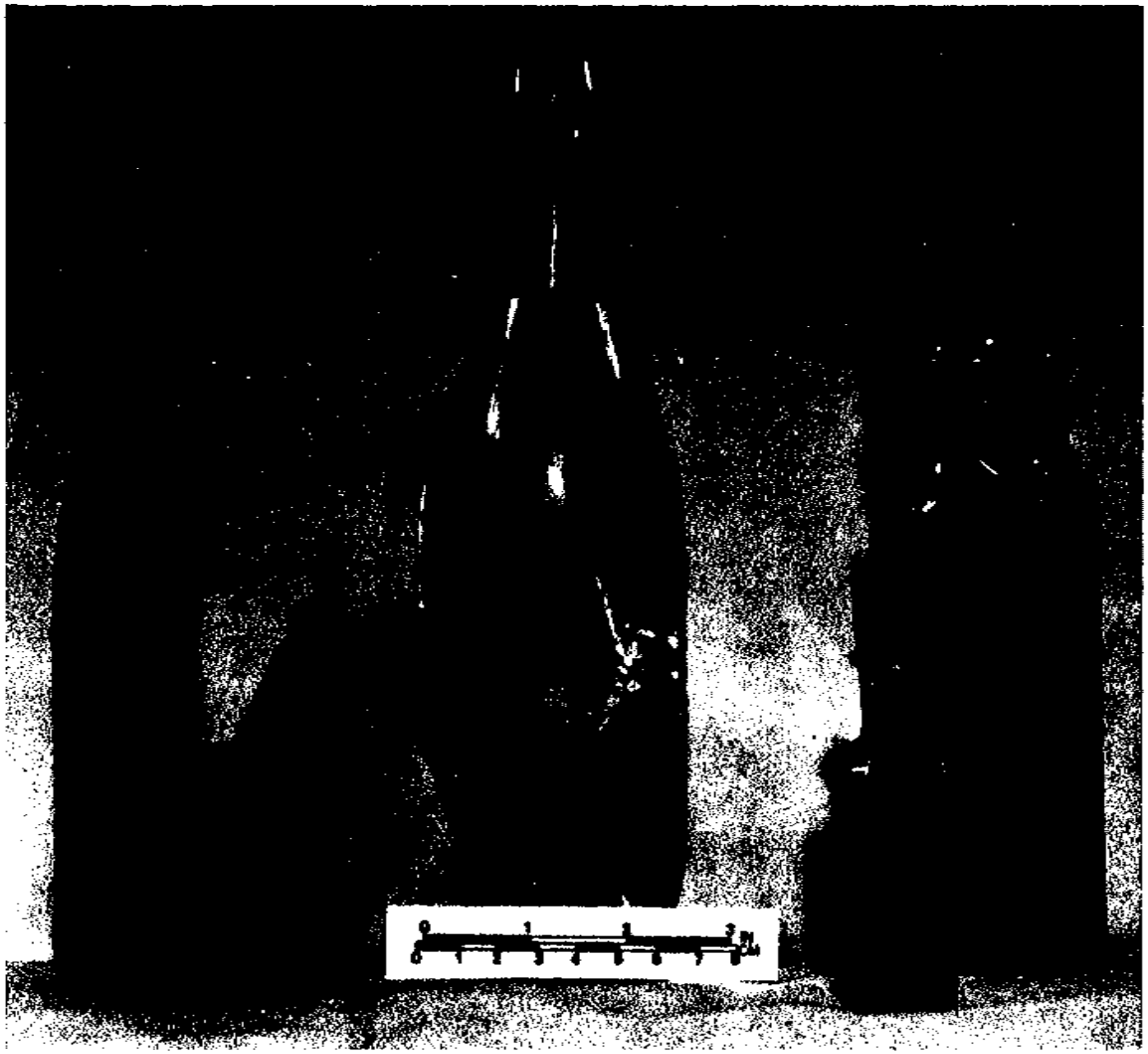


PLATE 7

Glass Bottles from the Hollingsworth Site



left to right: 1.- H & F bottle, Hollingsworth cellar
2.- P. Ebner bottle, Hollingsworth, Test Trench 3
3.- F.W. Fenn apothecary bottle Test Trench 2
4.- Pickle and preserve jar from Test Trench 3

PLATE 8

Glass Artifacts from the Hollingsworth Site

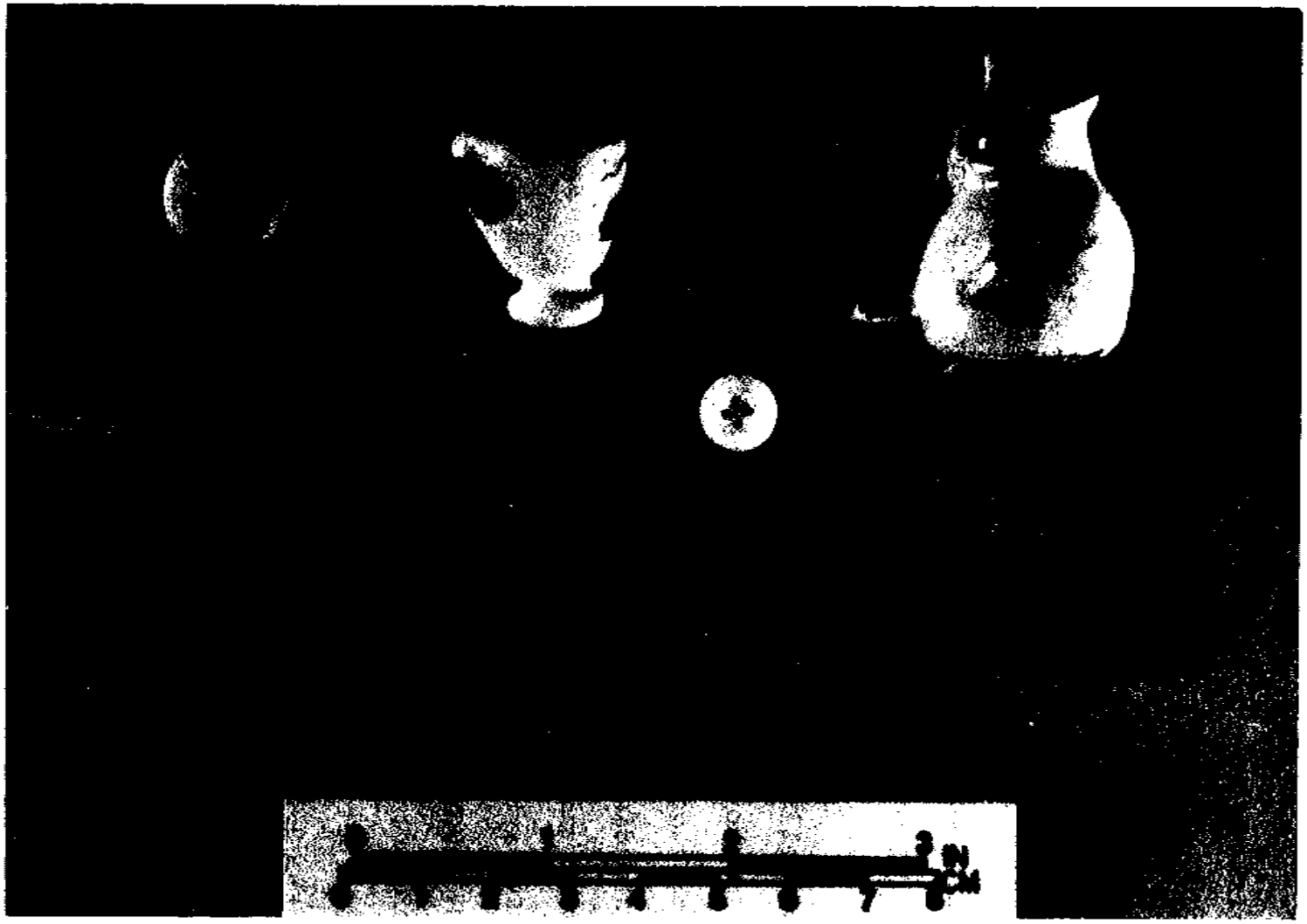
Wilmington as early as 1845. However, he did not use the above design logo until 1882, and his business appears regularly under this name in the Wilmington City directories thereafter through 1902 (Green n.d.). Also found in the same context was a ceramic bottle stopper bearing the designation "Pat'd K. Nutter Feb. 7, 1893," (Plate 9). It was originally hoped that the organic stain which contained the Foord and Nutter artifacts might be a builder's trench. However, the fact that these two artifacts postdate (1882 and 1893) the appearance of the Hollingsworth house on Hopkins' 1881 Atlas of New Castle County would tend to discount this idea because these artifacts would have had to exist before the structure was built in order for them to have been deposited in a builder's trench. Therefore, it is concluded that these artifacts came from a disturbed context. While they may offer some insight into the behavior of the occupants of the house, they can offer no more precise information about the exact date of construction of the foundation.

Test trench 5 produced a 1939 U.S. dime from the fill level, while trench 7 produced an I.D. bracelet, also from the fill level. Unfortunately, the bracelet was unmarked.

The cellar was partially excavated in the Phase I testing (Test Unit 1), although its depth and areal limits were not determined. The Phase II testing found that the cellar extended across the back of the dwelling and extended forward 10.1' from the back of the foundation (inside dimension). The demolition fill in the western end of the cellar was removed by a backhoe and the contents monitored for artifacts. Numerous bottles were recovered from the demolition fill, most of which were Mason

PLATE 9

Metal and Ceramic Artifacts from the Hollingsworth Site



jars. Fragments of milk bottles, perfume bottles, a brown tavern bottle with a Pegasus design, a brown Whitehall medicinal bottle, a molded olive-colored "Empire Spring" bottle, a blue external Christmas light bulb, baby food jars, an eyeglass case, a homemade wooden fishing lure painted red and white, a TV or radio tube, and a white General Electric alarm clock and other recent items were also recovered. The brown Pegasus bottle was made for Hartmann and Fehrenbach Brewing Company (possibly by the Whitney Glass Works, Glassboro, N.J.), Lovering and Scott Streets, Wilmington, Del. between 1890 and 1910 (Green n.d.).

After the fill was removed, a 3' x 10' section of the intact dirt cellar floor was exposed. This floor was determined to be 3.8' below the present truncated top of the foundation wall, which suggests that the cellar probably offered between 5' and 6' of standing room below the first floor joists. The exposed floor was excavated and screened in two 3' x 5' sections. A total of 695 artifacts were recovered from the controlled excavation of the basement (Appendix 1). Only 6 ceramic artifacts were recovered: 2 pieces of undecorated whiteware and 4 pieces of flowerpot ware (1% of the total). Architectural materials (36% of the total) included mostly nails and a few pieces of wood, mortar, and plaster, and a door hinge. Personal and miscellaneous items (6% of the total) included 2 glass marbles, a plastic hair comb, 2 plastic buttons, one plastic pearl, one leather shoe heel, a leather strap, and a burned fragment of a Christian Bible. The remaining 57% of the artifacts from the cellar was comprised of utilitarian glassware, most of which were storage jars and bottles (47% of the total). It appears as if

the primary function of the cellar was for the storage of canned foods.

Aside from the house foundation, four other features were identified at the Hollingsworth site. A concrete pad (Feature 4) was encountered about 6" below the surface in STPs 177 and 178 and was thought to be the floor for a garage or small outbuilding. A collapsed terra cotta drain pipe (Feature 2) was found in STP 171. It was located at 13" below the surface and was oriented grid northwest/southeast, or from the house foundation toward Red Clay Creek at a 45 degree angle away from the back of the house. The pipe trench fill contained window glass, clear bottle glass, one oxidized nail, whiteware, and much coal and coal ash. Feature 3 was a concrete sidewalk running parallel to the west side of the house foundation in STPs 173 and 174, but not in 175 or 176 to the south. This feature led to the concrete pad designated Feature 4, perhaps from a side door of the house located between STPs 174 and 175.

Feature 5 was a stone-lined well located 3.4' north of the foundation (Plate 10). First encountered in STP 164, the well was later fully excavated and its fill was sifted for artifacts. Initially, only 17" of loose fill, rubble (mostly 20- to 50-pound dressed gabbro foundation stones), and burned wood could be excavated out of STP 164, but a probe could be pushed down through rubble fill to a depth of 41" below the surface. It was felt that either a cellar entrance stairway or a well had been encountered and the 41" of fill was derived from the demolition of the house in the 1960s. Further excavation over an area of

PLATE 10

Partially Excavated Well at the Hollingsworth Site

several square feet revealed a circular ring of dry-laid, dressed gabbro rocks. These first intact courses occurred at depths of from 22" to 29" below surface and the stone was very similar to the material used to build the house foundation. At 34" below the surface, the inside diameter of the well was 36" and this measurement remained constant to the bottom of the feature.

At 33" below the surface, a 2" diameter intact pipe emerged from the center of the fill and entered the west wall of the feature. When later removed during excavation, this pipe was found to have a small check valve attached to the bottom. At this point, it was concluded that a well had been encountered and the decision was made to excavate it completely. It was hoped that the feature would yield datable artifacts associated with the occupation of the house.

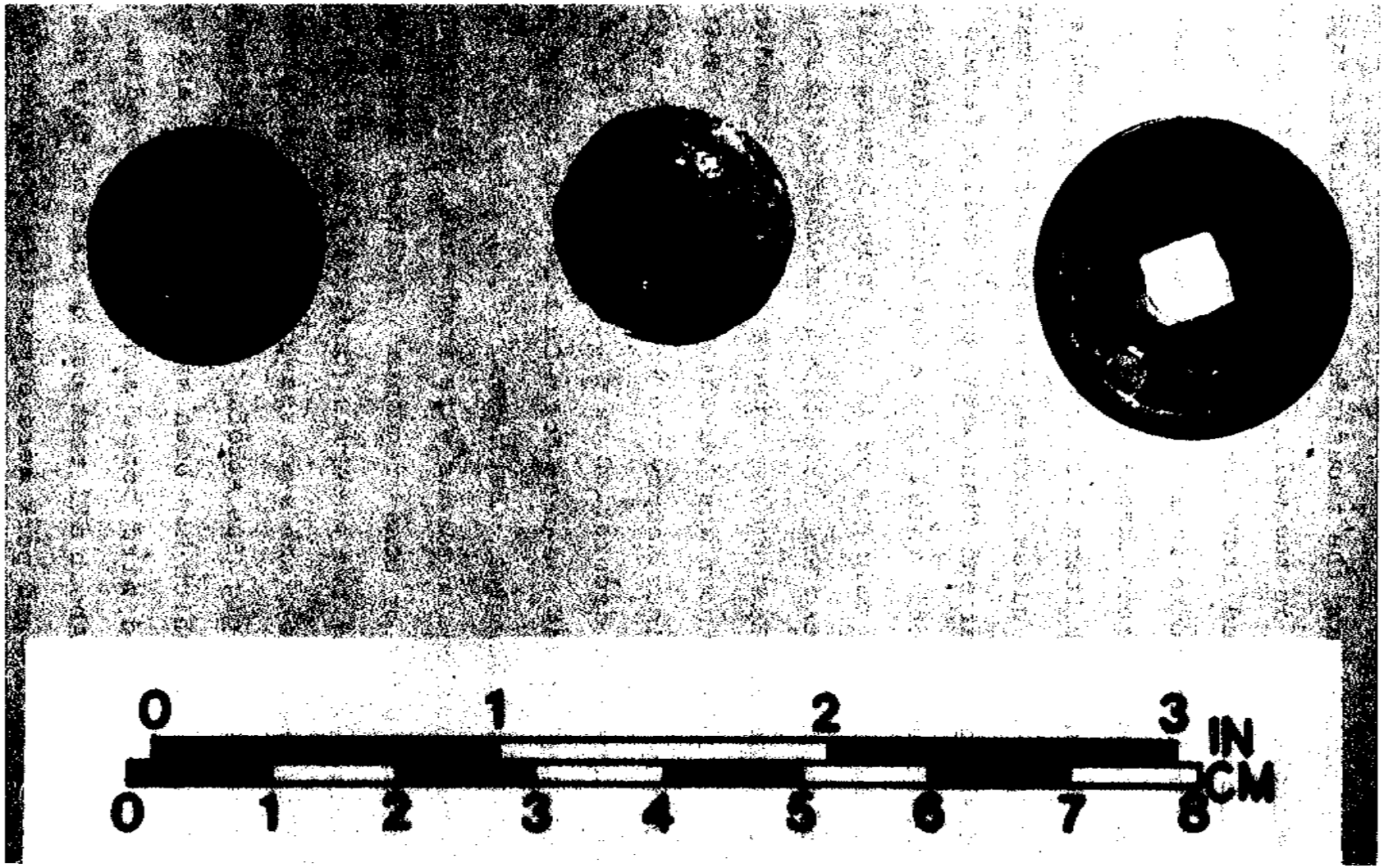
The rubble fill continued in the well to a depth of 72" below surface and contained small amounts of window glass, bottle glass, whiteware, brick, and fragments of a cast iron sink. At that depth, water was encountered and the fill changed to an organic muck containing 20- to 50- pound foundation stones. At this point, systematic screening of the wet muck through 1/4" screen was begun. It quickly became apparent that the water level and large foundation stones in the well would prevent the accurate recording of any cultural depositional strata. Therefore, the well fill was simply excavated as one level. Through continuous bailing, the water level in the well could be controlled and the well fill excavated. The coarse, sandy bottom of the feature was eventually found at 136" (11.3') below surface.

The artifacts recovered from the Hollingsworth well are summarized in Appendix 1 (See also a sample of artifacts in Plate 11). The most common single artifact below the water level was asphalt roofing shingle, which occurred by the hundreds and lent a sharp, pungent, petroleum feel and odor to the well water. These were present down to the bottom of the feature and are thought to be demolition materials suggesting that very few artifacts were deposited in the well prior to the demolition of the house. The artifact inventory presented in Appendix 1 is divided into five categories: ceramics, glass, architectural, personal, and miscellaneous. The contents of each category are discussed below.

The ceramics category is small (22 sherds total) and contained mostly undecorated whiteware and porcelain with one porcelain sherd being part of a child's tea set. No 18th century ceramics were recovered from this feature. The glass category is also small (124 fragments) and much of it is melted. This melting could have taken place during the intentional burning of the house in the 1960s. Window glass comprises one-third of the total, and bottle glass comprises one-half. Most of the bottle glass is non-diagnostic amber, aqua, green, and clear sherds. However, a shoulder-and-neck section of an aqua medicinal bottle, made in a two-piece mould and with an applied lip, was recovered and this bottle fragment probably dates to the late 19th century. However, there is no way of knowing precisely when it was placed in the well. The only tableware recovered were three small pieces of pressed glass, probably all from the same vessel.

PLATE 11

Artifacts Recovered from the Hollingworth Well



Aside from the thousands of fragments of asphalt roofing shingle found in the well, a total of 297 architectural objects were recovered from the well, most of which were wire nails. Other items found include burnt wood, plaster fragments, screws, and window screen fragments.

Personal items include one brass belt buckle fragment, a purple swirl glass marble, a bisque porcelain marble, a lead fishing sinker and fishhooks, burnt muslin fabric, an axle and attached plastic wheel from a toy truck, a 1903 U.S. dime, and a brass Chinese coin minted in the Ch'ing Dynasty during the reign of Emperor Kuang Hsu, 1875-1909 (Professor David Pong, University of Delaware History Department, personal communication) (Plate 11). Itis unknown whether any Chinese ever inhabited this site or any dwellings nearby and it is quite possible that this coin was used for decoration on a piece of clothing or utilitarian device, as was the case for a Chinese coin recovered from Block 1191 in Wilmington (Beidleman et al. 1986:222). Miscellaneous items include numerous wire fragments, walnut shells, and 36 animal bones or bone fragments. Included in the bone fragments were parts of two muskrats (Ondatra zibethicus), parts of two rats (Neotoma), one sawn sheep humerus (Ovis aries), the right humerus of a pig (Sus scrofa), several unidentified medium mammal long bones which had been sawn and smoked, and various other unidentified bird bones and large and medium mammal bone fragments. About all that can be said of this small sample is that mutton and pork were apparently consumed on the site and that the rats and muskrat probably fell into the hole accidentally.

In sum, excavations at the Hollingsworth house revealed sections of the house foundation, part of the rear cellar, the well, and associated features in the yard, as well as late 19th and 20th century artifacts in a grid of shovel test pits. The STP grid results proved to be inconclusive, as vertical artifact mixing was extremely common and no definitive patterns of yard use were revealed. The well yielded primarily recent demolition debris and produced very few artifacts dating from the earliest decades of the occupation of the property. All of the artifacts from the site are congruent with the documentary evidence, which indicates that the house was constructed in the 1870s. Because of the late date of the archaeological deposits, the site is not eligible for the National Register and no further work is recommended. Also, the absence of artifact disposal patterning and the kinds of data used to address questions on socio-economic status preclude eligibility for the National Register. Furthermore, small rural homesteads of the New Castle County Piedmont which possess lower levels of disturbance and greater numbers of diagnostic features and artifacts in good context have been reported elswhere (Coleman et al. 1983, 1984, 1985; Catts et al. 1986; Custer and Cunningham 1986; Taylor and Thompson 1986).

Wilmington and Western Railroad Station Site. The final locus investigated in this segment was the former site of the original 1872 Wilmington and Western Railroad passenger and freight station, immediately northwest of the intersection of Route 41 and the railroad bed. The Wilmington and Western Railroad operated for just five years, and was then reorganized

as the Delaware and Western Railroad in 1877. In 1883 it was purchased by the Baltimore and Ohio Railroad. The station currently occupying the railroad property (Plate 12) is not the original structure and was moved to the present site from Yorklyn, Pa. in the 1960s. However, of the original seven stations built on the line in 1872 it is the only one remaining and is identical to a lithograph (Plate 13) of the original Green Bank station (Volkman 1963:28). A one story frame structure with vertical board-and-batten siding, it measures 20.0' east-west and 40.6' north-south with a partition wall dividing it in half along the latter axis. However, this station is not sitting at the location of the original station. According to HRCV informants John Iwasyk and Dick Hall, the original Green Bank station was probably located in the grassy strip to the south of the present station (Plate 14).

An east-west shovel trench, later designated Test Trench 3, was excavated to locate remnant north-south trending foundation walls. The truncated sections of the original center partition and east walls were exposed, and then mapped and photographed (Figure 22). Artifacts recovered from this trench included 3 fragments of a late 19th century dark green soda bottle, several fragments of a clear glass soda bottle labeled "P. Ebner Bottling Co. Wilm, De.," two fragments of a clear glass vessel (The Hollingsworth Site also recovered similar artifacts, [Plate 7]), two fragments of ironstone, and one of whiteware. Peter Ebner was a Wilmington saloonkeeper from 1879 to 1889, first at 801 Orange Street and later at 405 King Street. In 1889 he established a bottling business at the southeast corner of 4th

PLATE 12

Former Yorklyn Station of the Wilmington and Western Railroad, Moved to Green Bank in the 1960s

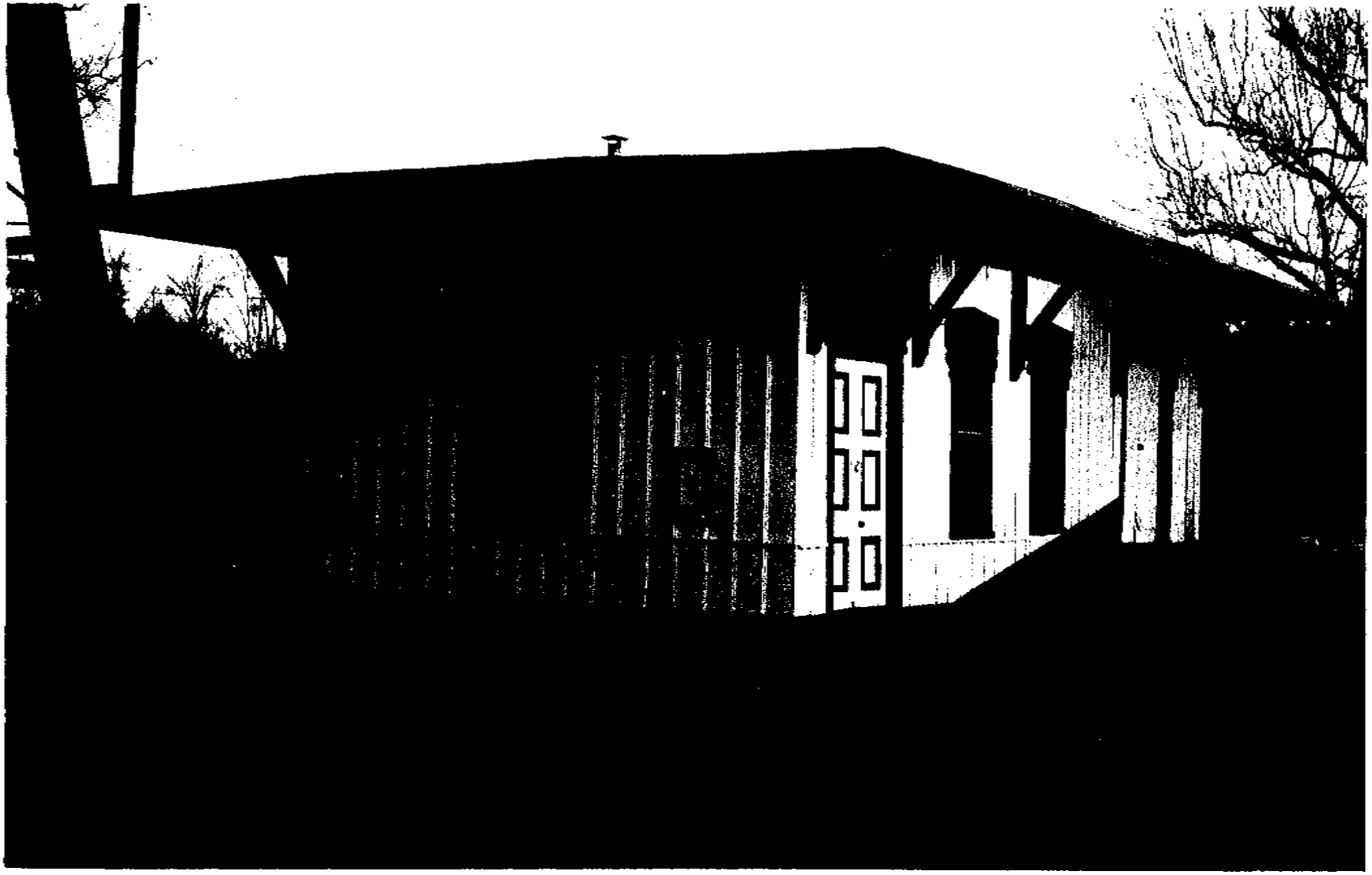


PLATE 13

Reproduction of 1870s Lithograph of the original Green Bank Station on the Wilmington and Western Railroad from Volkman (1963:28)

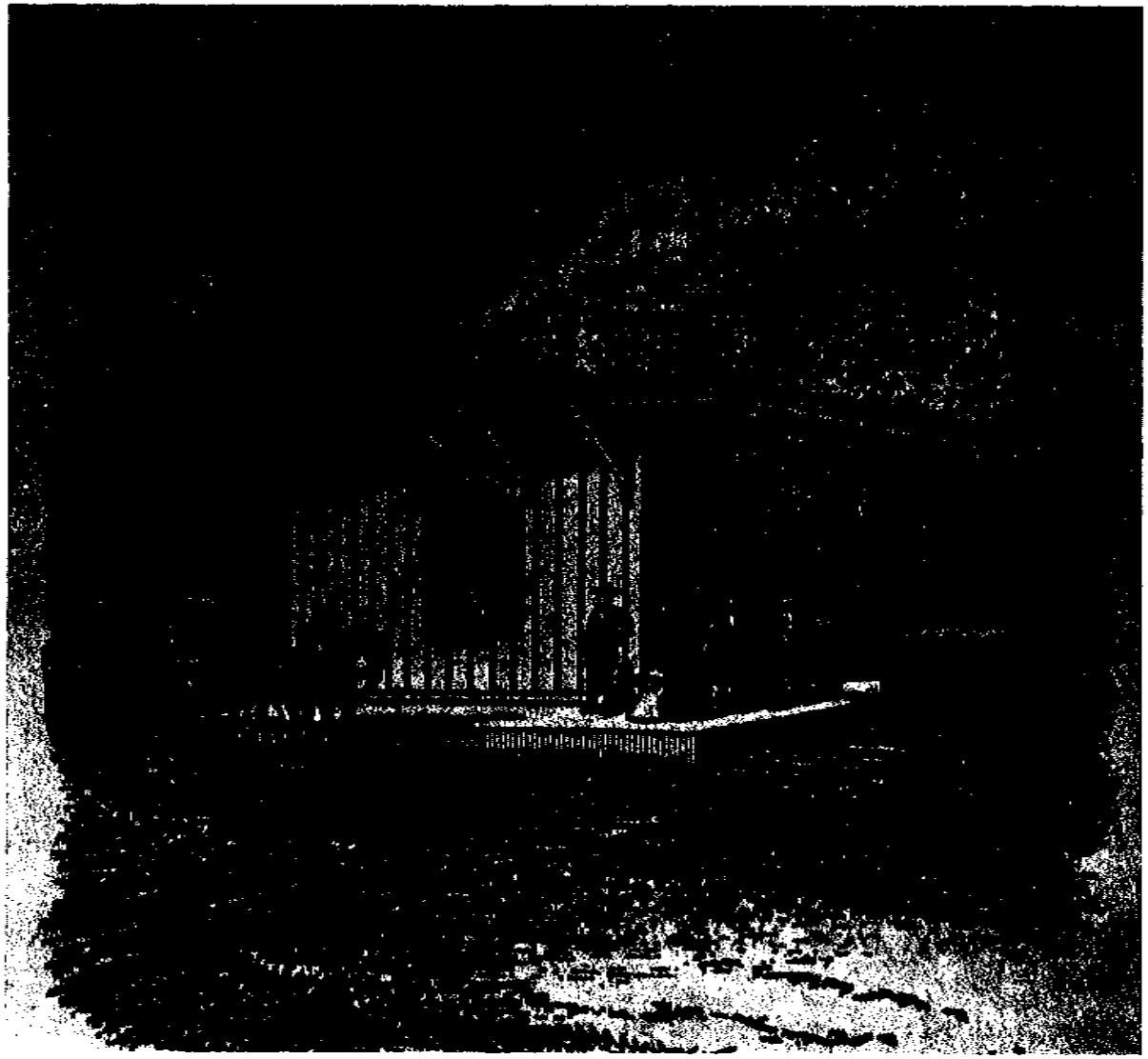
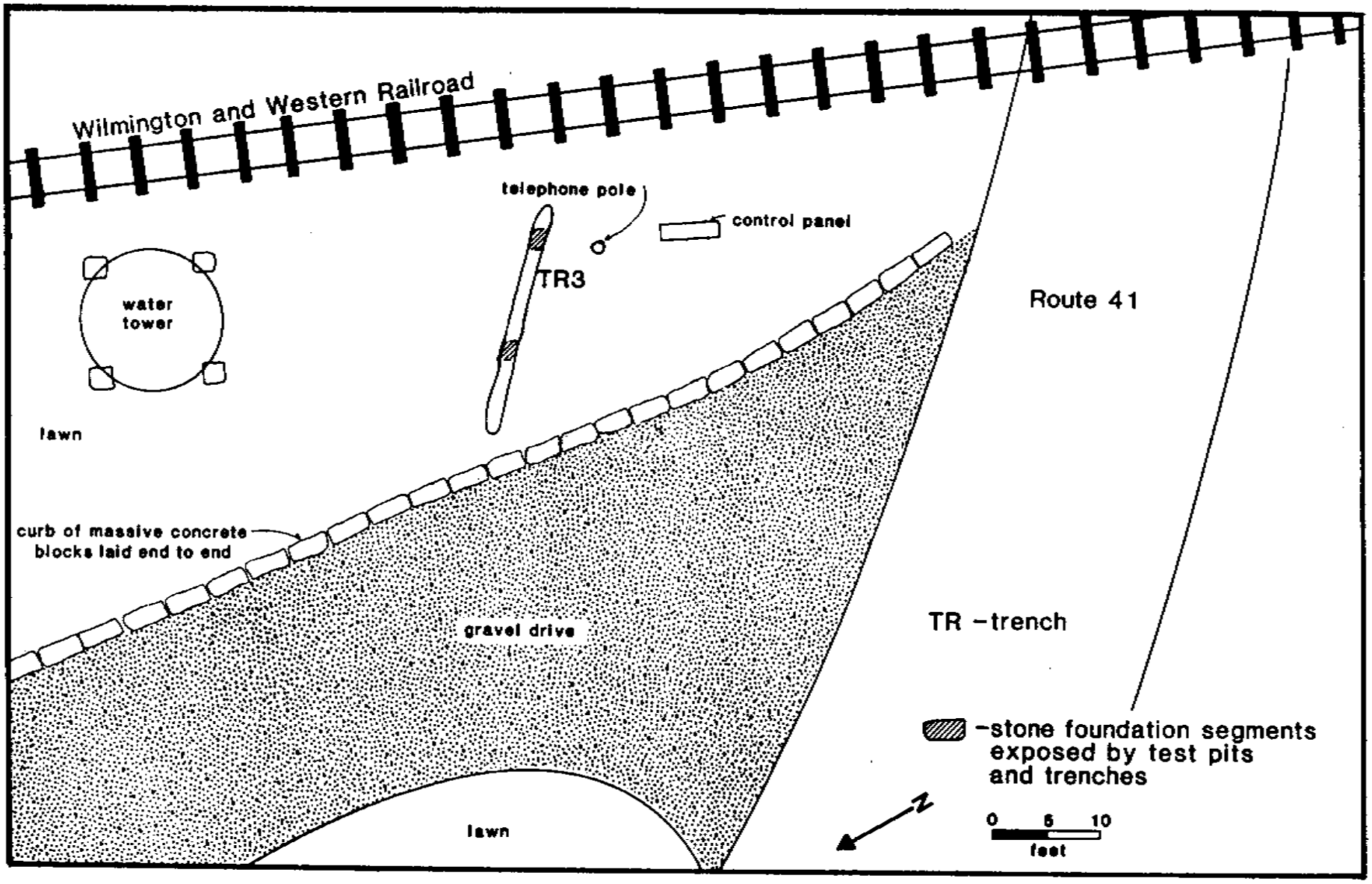


PLATE 14

Present Site of the 1870s Green Bank Station

FIGURE 22

Map of Phase I Excavation Trench and Exposed Foundation Section, 1872 Wilmington and Western Railroad Station



and Union Streets. The type of Ebner bottles found in this trench probably date from the late 1890s. All of these artifacts postdate the 1872 date of construction of the train station. The foundation sections are made of dressed and mortared igneous gabbro, similar to that used at the Hollingworth house. The outer east wall measured 24" across and the center partition wall was 17" wide. Like the Hollingsworth house foundation, the foundations here are shallow, beginning to taper only a few inches below their top. The central partition wall extended only 15" into the subsoil.

Further trenches were excavated in the vicinity of the train station foundation in order to define the limits of the structure, the method of construction of the foundation, and to recover artifacts associated with the construction and use of the building. Several intrusions are evident in the immediate vicinity of the foundation, including pipe trenches, signs, a telephone pole, a 20-year-old steam engine water tower, and an HRCV driveway. The extent of these disturbances were documented in order to assess the significance of the site. This was important because there was no evidence that a site of this type (i.e. a small rural 19th century train station) had been previously excavated in the region. Volkman (1963) mentions that a privy was located near the station and since these features are frequently repositories of diagnostic artifacts, a search for this feature was conducted as well.

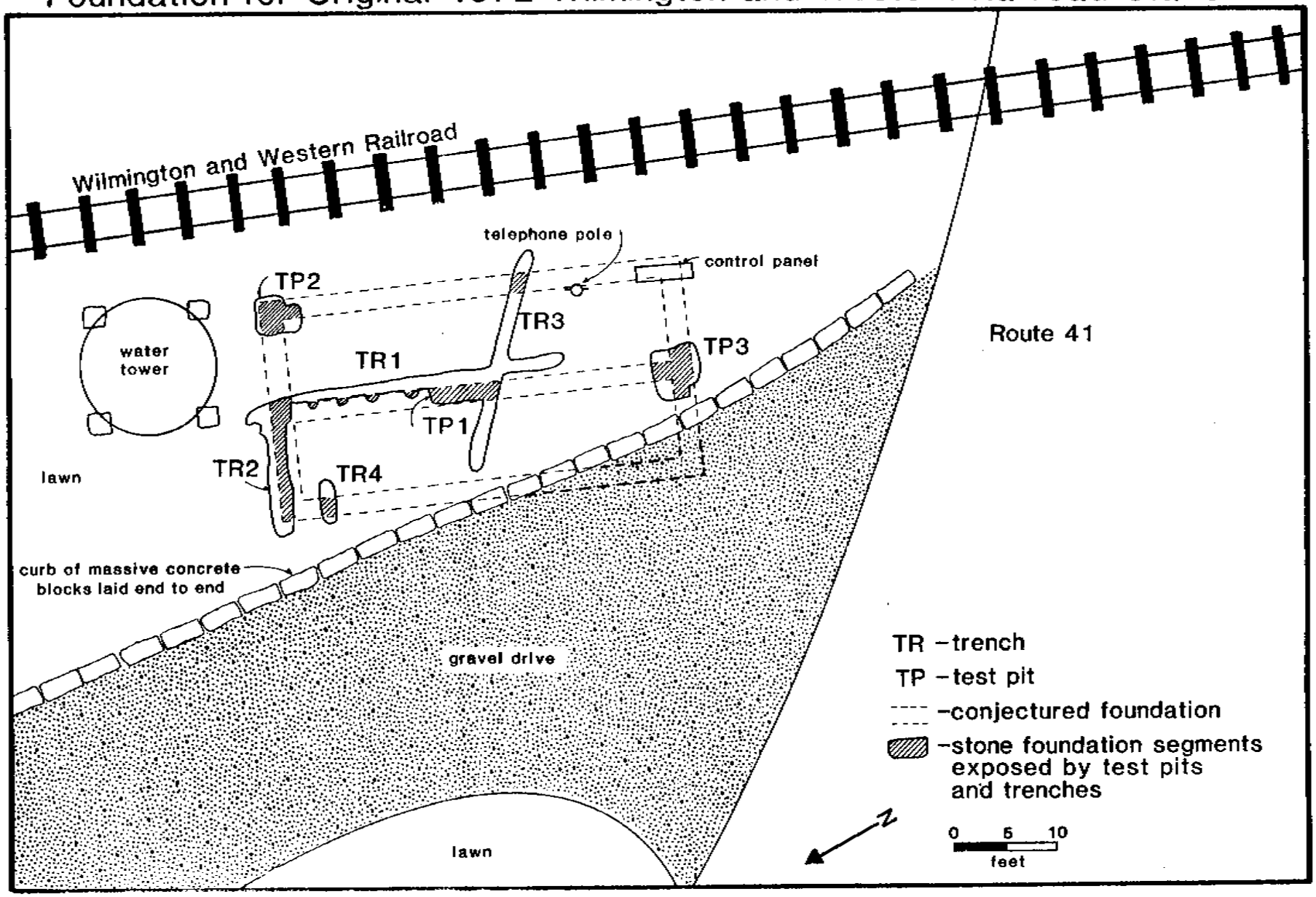
Based upon the orientation of the foundations located in Trench 3, Test Trenches 1, 2, and 4, and Test Pits 1, 2, and 3 were excavated and the limits of the feature were quickly defined

(Figure 23). The construction was similar to that described previously. Several later intrusions were found to have disturbed the foundation, including a telephone pole, an electrical switch box, an Artesian water line, and the eastern gravel driveway entrance to the HRCV property. The southwest corner of the foundation was also found to be disturbed, probably due to grading operations when the building was destroyed and the site covered with fill. The foundation measured 20.0' by 41.6' and is slightly larger than the former Yorklyn station. Several artifacts associated with the train station were recovered from the test pits and are discussed below. Determination of the exact provenience of some of these objects was difficult because the occupation surface was highly accretional in nature. In an active surface such as this one, which had a relatively short lifespan of about 60 years, and where coal and coal ash were commonly and heavily deposited, occupational surfaces were difficult to discern. Some of the recovered objects were found adjacent to the inside walls of the foundation, and thus greater confidence was placed in the provenience of these items.

The three test trenches served to further define the limits of the foundation, but yielded no artifacts. The center partition wall was located in Trench 1, which extended north from Trench 3. The north wall of the foundation was encountered in the process of excavating this trench and Trench 2 was initiated. This followed the north foundation section in a westerly direction until its disturbed corner was found. Trench 4 established that at least part of the west foundation wall was intact.

FIGURE 23

Map of Phase I and II Excavations and Conjectured Plan View of Foundation for Original 1972 Wilmington and Western Railroad Station



At this point in the excavation, the probable location of the remaining foundation sections could be surmised and Test Pits 1, 2, and 3 were placed in likely locations. Test Pit 1 further defined the center partition foundation, Test Pit 2 (Plate 15) clarified the northeast corner, and Test Pit 3 defined the junction of the center partition and the south foundation wall. Artifacts were found in all three of the test pits excavated in the Phase II operation and are summarized in Appendix I. Most of the artifacts were 20th century glass, ceramics, and metal objects. Some 19th century bottle fragments were recovered, including those from flask and soda bottles which were hand-blown into a two-piece mold (1870-1910). Some fragments of Mason jar lids and several more examples of "P. Ebner" bottles (similar to one recovered from the Hollingsworth Site, [Plate 8]) were also recovered. Ceramics included a few pieces of ironstone, undecorated porcelain, undecorated whiteware, terra cotta pipe, flowerpot ware, and a bisque marble about 0.6" in diameter. Metal objects included 3 iron angles, which measured 4" by 7" with square and round mounting holes. The square holes are the same size as a railroad spike and these objects are interpreted as mounting brackets, probably from a railroad switch. A switch is presently situated about 8' east of the foundation wall. Also recovered was a lead seal with the designation "B & O" on the obverse and the characters "91G" on the reverse. This dates from some time after 1883, when the Delaware and Western (formerly the Wilmington and Western) was purchased by the Baltimore and Ohio Railroad. The specific function of the seal is unknown.

PLATE 15

Excavated Foundation Section of the 1872 Green Bank Station

An attempt was also made to locate the privy associated with the 19th century use of the train station. Volkman merely mentioned that the privy existed but did not specify its location. The 1872 lithograph of the Green Bank station (Plate 13) shown in his 1963 history is a view from the southeast and does not depict the outhouse. This could have been because Victorian period sensibilities did not permit its illustration. More likely, the reason is that the outhouse is situated on the north or northwest side of the building and is obscured in the view shown. Much of this area north of the 1872 foundation is disturbed by: 1) the former Yorklyn station placed on the property in the 1960s, 2) the footings for the steam engine water tower, built in the 1960s, 3) trenches for water lines, 4) two signposts, and 5) the HRCV gravel driveway. Despite the disturbances, the lawn north of the foundation was subjected to random auger and spring steel probe testing in an attempt to locate organic privy remains, which should have been quite pungent considering how relatively recently the site was occupied. This testing proved fruitless as no remains of a privy were found. The testing was hampered by the 8" to 12" of rocky clay fill that had been placed over the yard, which frequently prevented penetration by the auger and probe tools. This served to make the testing quite random and to completely prevent testing in certain areas.

In early August, 1986, however, the water line suffered a leak and the pipe trench had to be partially reopened by HRCV personnel. A portion of the original pipe trench fill was also exposed (but not reexcavated) during repair work and mixed clay,

sand, rocks, and a small amount of pungent organic soil characteristic of privies were observed within the fill. It was located 27 feet north of the 1872 train station foundation. It appeared as if the 1960s water line trench had disturbed all or part of the privy and and then the privy fill had been backfilled into the trench along with other fill. The section of the pipe trench fill which contained the privy-stained soil was re-excavated by hand by UDCAR personnel in the hopes that intact structural remains (barrel, brick, or stone lining) and remnants of the privy fill and associated artifacts could be located. Although approximately 2.5 cubic yards of trench fill was removed, the attempt proved futile. No trace of structural remains or artifacts were found. It appears as if the privy was regularly cleaned during its useful life, and it is concluded that the privy hole was probably an unlined pit which had been completely destroyed by the installation of the water line.

The foundation remains of the 1872 railroad station were exposed and associated late 19th century and 20th century architectural, domestic, and transportation-related (railroad) artifacts were recovered. The search for the privy indicated that although the probable location was discovered, the feature had been completely destroyed by the excavation of a water line trench in the 1960s. It was also apparent that much of the area had been disturbed by recent utility construction, signs, and a driveway. Due to the fact that the station has been historically well documented (Volkman 1963) and the site has been subjected to high levels of disturbance, it is not considered eligible for

inclusion to the National Register and no further work is recommended.

Segment 4

This floodplain zone lies directly south of segment 3 and consists of three tracts of land owned by three different people. A small parcel adjacent to Red Clay Creek is owned by Ametek, Incorporated. Located to the east is the residence of Mr. and Mrs. John M. Conner with its adjacent outbuildings (Plate 16). The next property to the east, the Mr.and Mrs.Paul E. Bower, Jr. residence (Plate 17), abuts the Conrail (former Wilmington & Western Railroad tracks). The proposed ROW extends about 38 feet south of the existing ROW, necessitating the removal of the Conner and Bower residences.

The Ametek, Inc. property lies adjacent to the Red Clay Creek floodplain and was found to be covered with approximately 5 to 6 feet of fill consisting of massive concrete chunks weighing hundreds or thousands of pounds apiece. This disturbance precluded the survey of of this property and no further work is recommended due to the high degree of disturbance.

Conner Site. The John M. Conner residence presently consists of the dwelling and two small sheds situated west of the house in the 1-acre rear yard. Northwest of the house, across the gravel driveway, lies the 20' long segment of afoundation, identified by Mr. Conner as the site of a former stable/barn. The two story frame structure contained a stall for a mule, a loft for hay storage, and an open port for parking a car. The owner, who has lived on the property since 1930, noted that the structure stood until the 1940s and it was his impression that it

PLATE 16

Residence of Mr. and Mrs. John M. Conner,
2206 Newport-Gap Pike

PLATE 17

Residence of Mr. and Mrs. Paul E. Bower, Jr.,
2200 Newport-Gap Pike

probably dated to the construction of the house in the late 19th century. Parts of the foundation appeared to be disturbed. Mr. Conner does not recall any other former structures on the property. However, he did mention that as a boy he had found prehistoric projectile points on the surface in a one-acre plowed section south of the house and rear lawn. This plot has not been plowed since the late 1940s and the artifacts are no longer in his possession. This area is currently a lawn and surface visibility was nil. Since it is well outside the proposed ROW, no subsurface testing was conducted in the formerly cultivated area. No other surface features were encountered during the pedestrian survey of the Conner property.

Archival research on the Conner residence revealed that the house was most likely built between 1868 and 1881. The structure does not appear on Beers' 1868 Atlas of Delaware, but does on Hopkins' 1881 Atlas of New Castle County. A partial summary of deed transactions appears in Table 3.

Phase I subsurface testing at the Conner house consisted of one 3'x 3' test unit and 4 shovel test pits, which were placed in side and rear yard areas so as to obtain a sample of artifacts and determine the integrity of the underlying stratigraphy (Figure 24). Shovel test pit 78 was placed in the east yard about 12 feet away from a side door off the kitchen. The placement was intended to locate any refuse deposition pattern or features relating to that exit. The initial 4" of topsoil consisted of brown loam and roots and contained several brick fragments and coal chunks. The second 6" thick level was composed of a fill of mixed orange and brown loam containing more

TABLE 3

PARTIAL CHAIN OF TITLE FOR THE CONNER PROPERTY

Transaction	Date	Deed Reference
John Morrow to James Cranston	8-10-1865	I-8-166
James Cranston and wife to William Elliot	9-3-1875	O-10-177
Estate of William Elliot to Bowen Pyle	10-29-1885	W-18-558
Estate of Bowen Pyle to Albert T. Hyatt	1-17-1903	H-19-322
Albert T. Hyatt to George N. Hyatt	9-24-1942	M-43-55
George N. Hyatt and wife to John M. Conner	4-30-1947	C-47-192

coal and brick fragments, plus unidentified oxidized nail fragments. Beneath this was a 6" thick layer of medium brown silt which was presumed to be an old plowzone. This contained only a few pieces of coal. The final two levels, which consisted of orange and yellow silts and extended from 16" to 27" below the surface, contained only a few coal fragments in the upper part (Figure 25).

Shovel Test Pit 88 was placed in the yard to the west of the front porch and produced a stratigraphic sequence similar to STP 78, as well as low amounts of very similar artifacts. Shovel Test Pit 100 was placed about 60 feet west of the house to locate more distant refuse depostion and produced a slightly altered stratigraphy. The initial 2" of topsoil contained one piece of terra cotta pipe and a fragment of the metatarsal bone

FIGURE 24

Location of Phase I Subsurface Testing in Segment 4

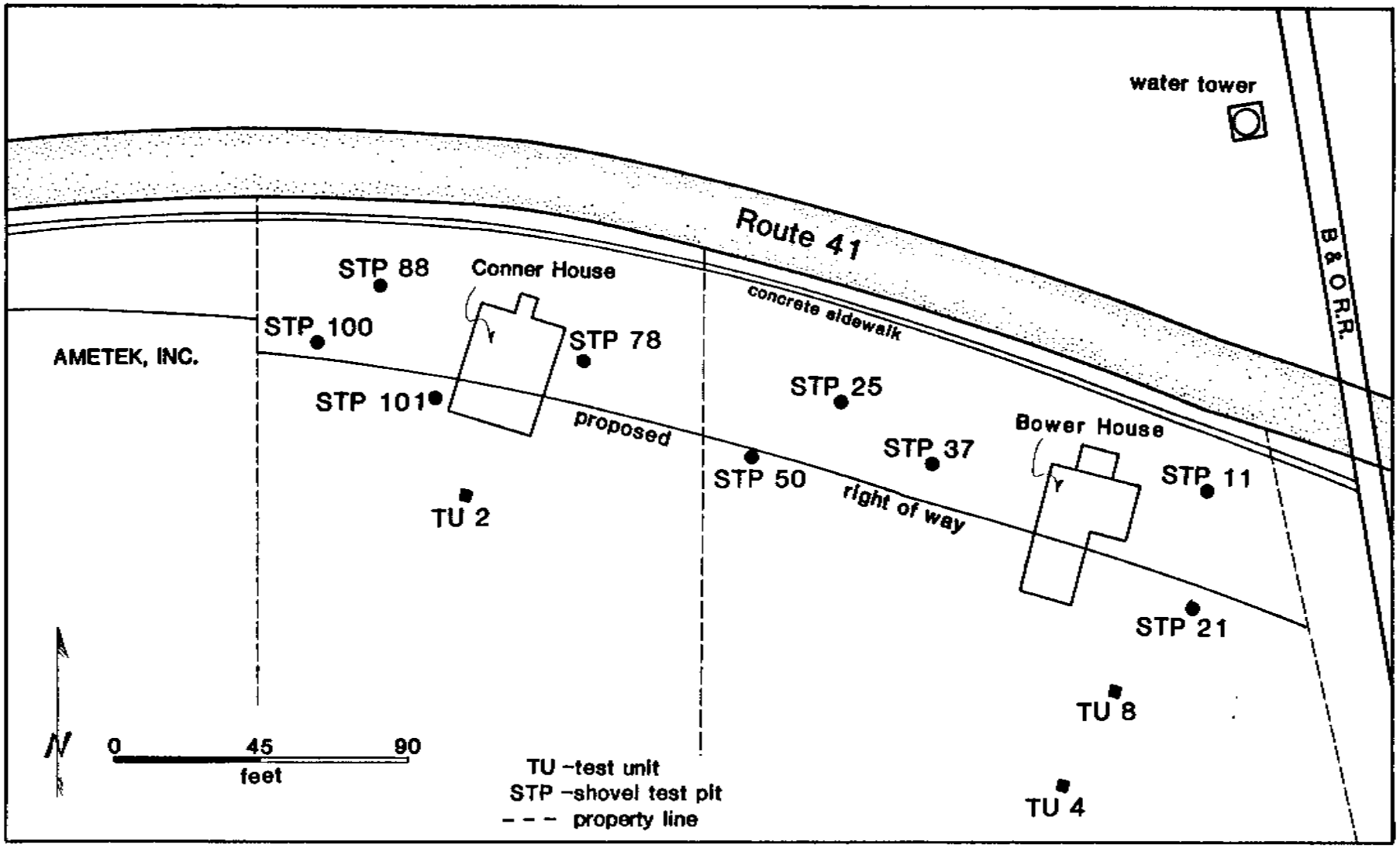
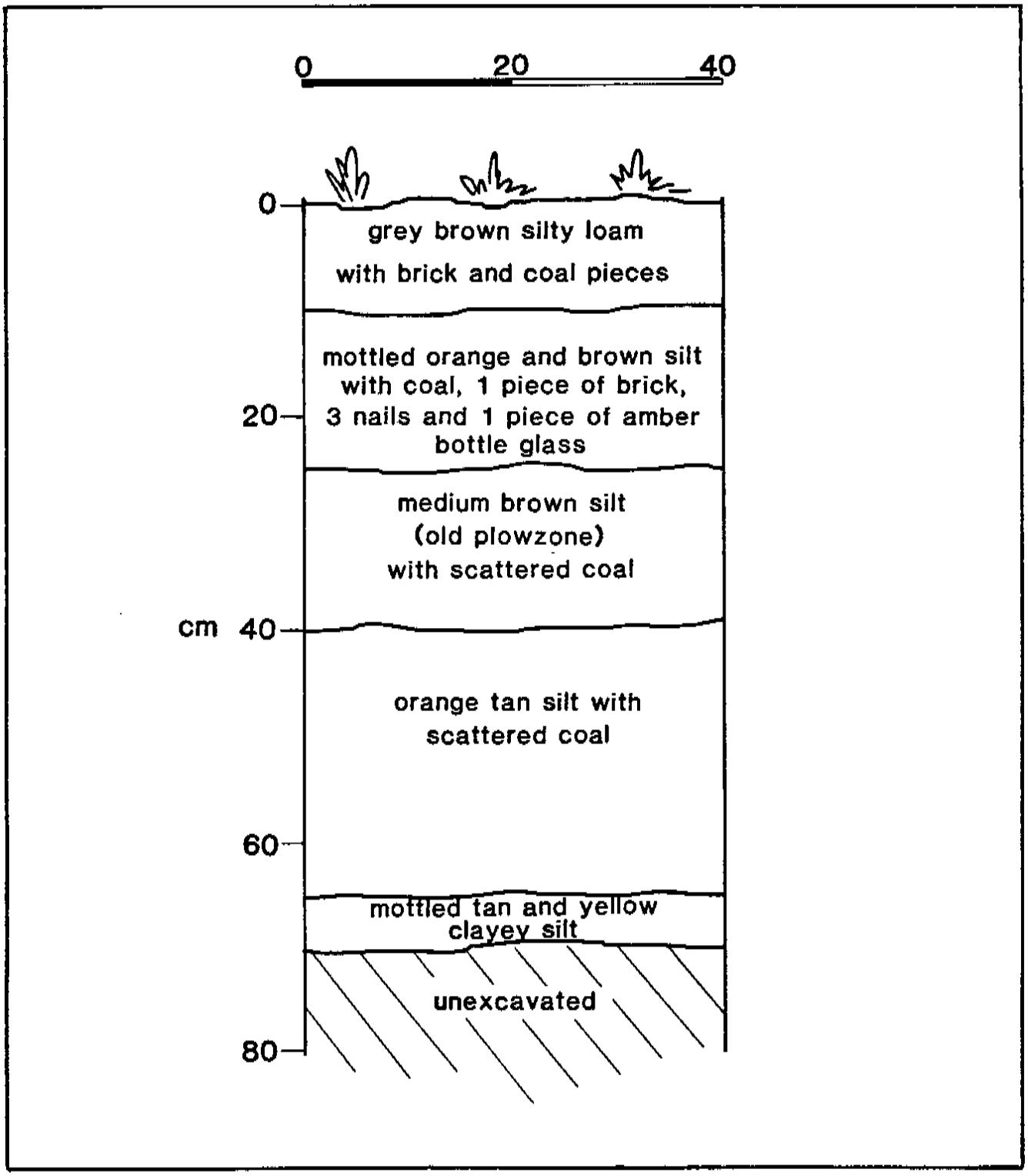


FIGURE 25

Stratigraphic Profile of Shovel Test Pit 78, Conner Yard

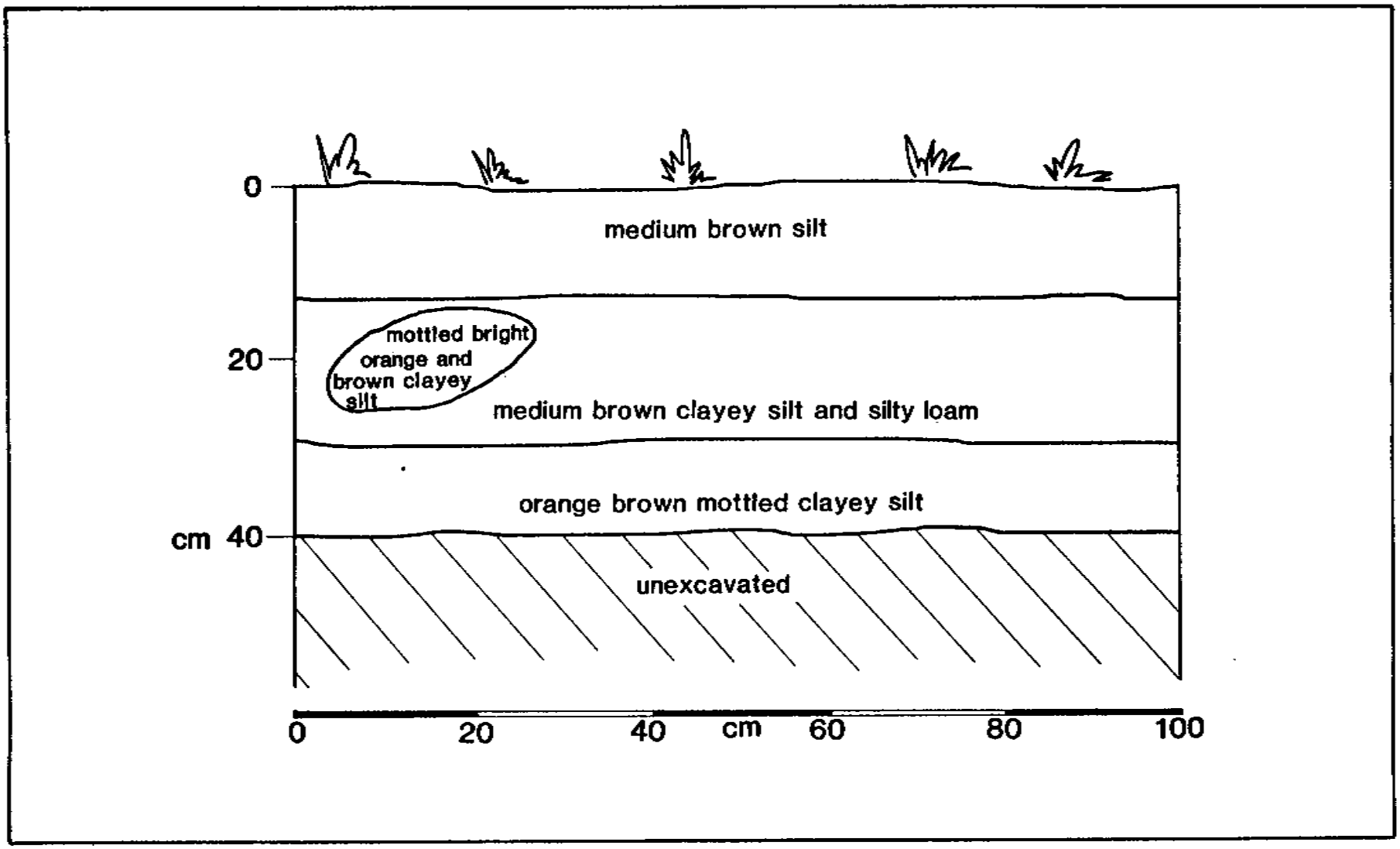


of an adult deer. The next 7" consisted of a medium-brown sandy silt and was interpreted as the original plowzone. One oyster shell, 1 piece of stoneware, 1 oxidized nail fragment, and several coal fragments were the only artifacts recovered from this level. The reddish-brown sandy silt subsoil was sterile and extended to 18" below surface. Shovel Test Pit 101 was placed southwest of an enclosed (formerly open) back porch and exhibited a stratigraphy similar to STP 100. The upper 4" of dark brown loam contained fragments of clear window and bottle glass, much coal and coal ash, and numerous facing flakes from the construction of the dwelling foundation. The 10" thick plowzone contained several dozen pieces of coal and coal ash, 3 pieces of brick, 1 piece of flowerpot ware, 1 neck from an amber bottle, and one copper snap containing the debossed word "Pioneer." Sterile subsoil extended from from 14" to 32" below the surface.

A 3'x 3' test unit (T.U. 2) was placed in the rear yard of the Conner residence, once again for the purpose of recording the presence and density of yard artifact scatter and features. Three natural strata were excavated to a depth of 16" below the surface (Figure 26). The initial 5" of brown loam produced whiteware, clear bottle and window glass fragments, coal, and oxidized nail fragments, but no redware. All probably date to the 20th century. More of the same material dating exclusively to the 20th century was found in the second 4" thick level, which consisted of mottled orange and brown silt loam and probably represented the lower half of the original plowzone. The third level, an orange silt, was sterile. No features were found in

FIGURE 26

Stratigraphic Profile of North Wall of Test Unit 2, Conner Yard



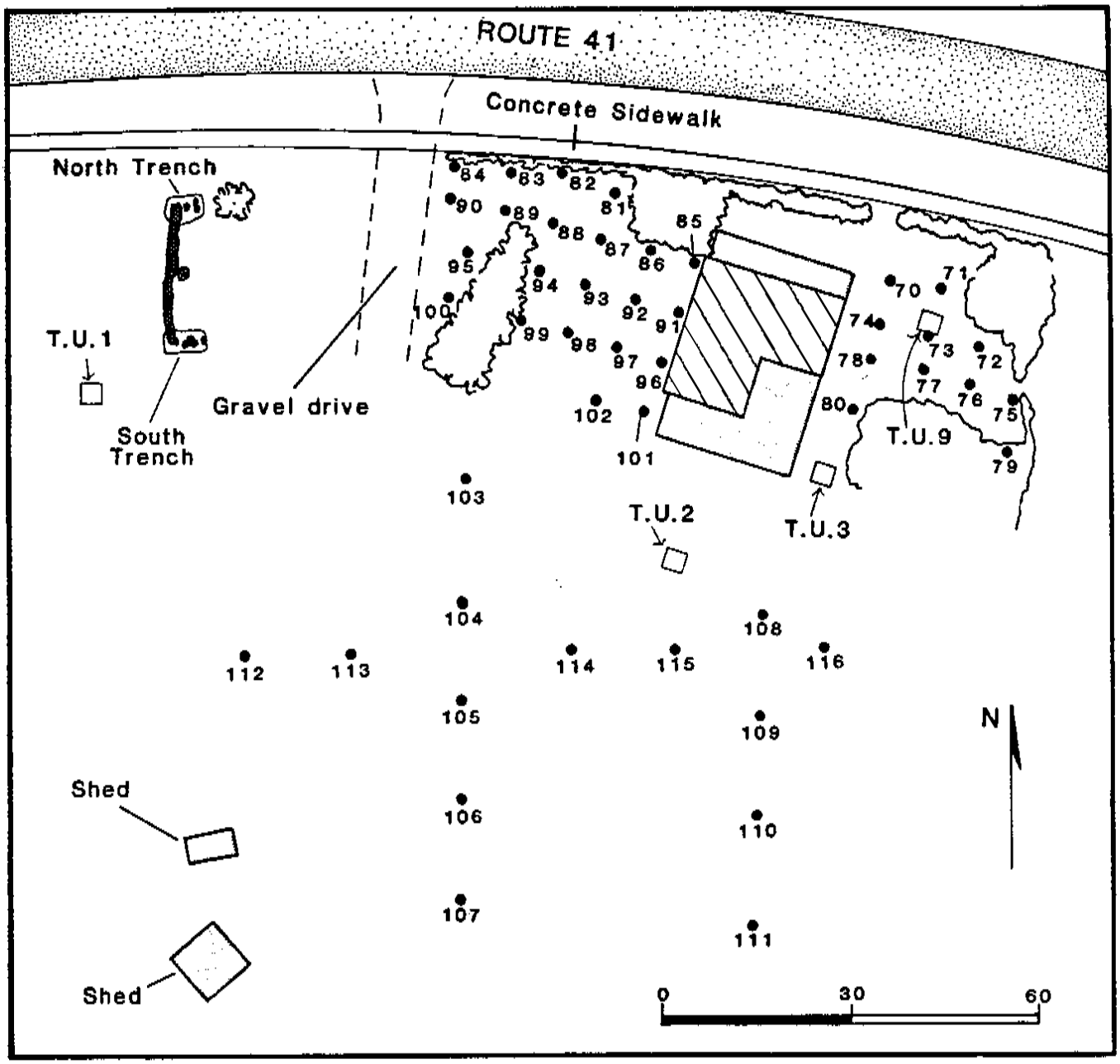
this test unit. The Phase I excavations at the Conner house demonstrated that the barn foundation and yard areas are intact and the artifacts recovered were consistent with the presumed date of construction of the Conner house, suggesting that their was no earlier historic occupation at this site and that there has been little fill disturbance or other reworking of the ground surrounding the house. No prehistoric artifacts were recovered during the Phase I excavations.

The Phase II excavations for this property included the excavation of a shovel test pit grid and test units, auger testing for the privy, and specific test trenches around the barn foundation. Shovel test pits 70-77, 79-87, 89-99, and 102-116 and 3' x 3' test units #1 and #3 were placed on the Conner property. A third test unit, #9, was later excavated to identify a feature encountered in STP 73. The STP grid was placed at 10' intervals within the proposed DelDOT ROW. In addition, two lines of STPs at 20' intervals extended in a southerly direction through the rear yard. Figure 27 shows the location of all subsurface test units at the Conner property.

Two trenches were excavated along the exposed foundation of the Conner barn. Trench 1 was placed at the northwest corner of the structure, while Trench 2 was dug in the supposed vicinity of the southwest corner. The upper one or two courses of the dressed and mortared gabbro stones had been disturbed, but several courses were still in place along the west (back) side. Probing with a spring steel probe established that three foundation sections had extended eastward from the west foundation to support the north and south barn walls and a

FIGURE 27

Map of Phase I and II Excavations at the Conner Site



Extant structure

Conner Barn Foundation Remnant

Original structure

● Shovel Test Pits

□ Test Units

Trees, shrubs

central partition wall. These latter three foundation sections were all heavily disturbed and their exact dimensions could not be determined. The rear foundation section measured 26 feet in length and the three eastward running sections are estimated to have extended out about 12 to 14 feet, based upon the limits of the disturbed gabbro stones. According to Mr. Conner, the northeastern quadrant of the structure was used as a stall for a mule, the southern half was open storage (later used as a carport), and the loft was used for hay storage.

Numerous artifacts were recovered from the two trenches, including a horseshoe from the northwest corner, where the mule was kept. Other artifacts included ceramics, glass, bone, nails, and miscellaneous metal fragments. Most of the ceramics was comprised of blue transfer print whiteware, flowerpot ware, and undecorated porcelain teacup basal fragmnents. The glassware included fragments of two different kinds of late 19th century molded lip beverage bottles and milk glass canning jar lids with the embossed lettering "The Hero Fruit Jar Company, Philadel., Pa."

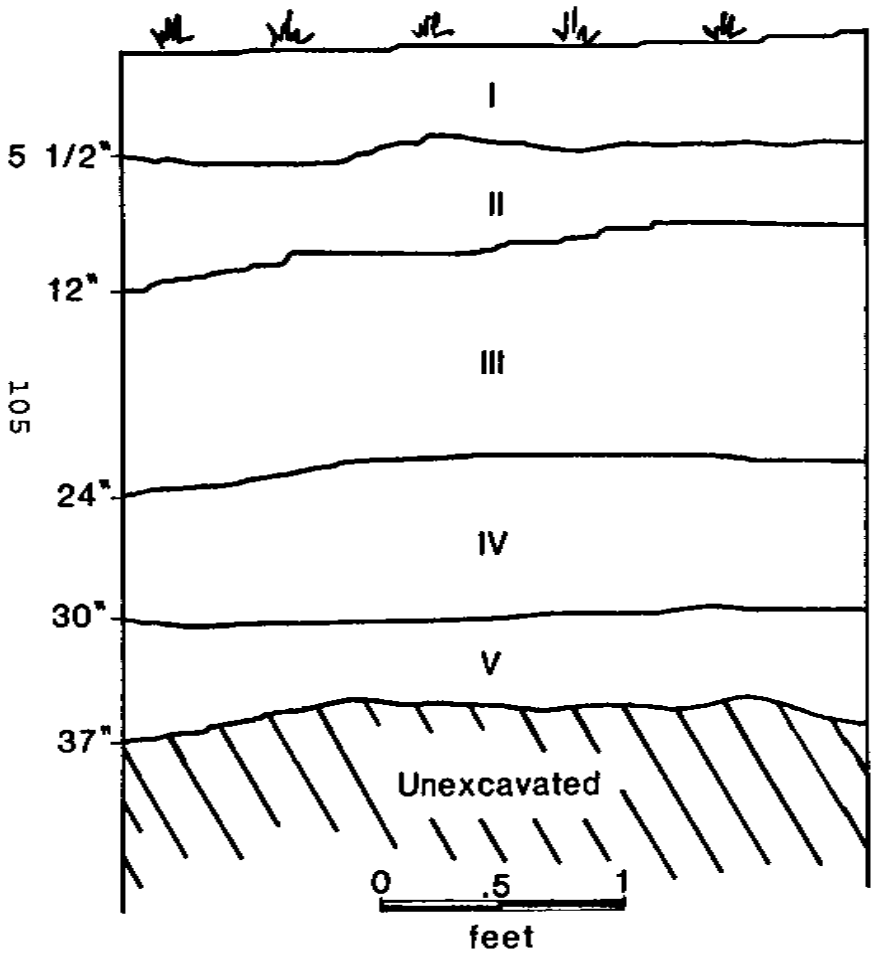
A search was also made for the privy associated with the house. Mr. Conner directed us to a spot 18 feet south of the barn and stated that the privy for the dwelling had been located there, against the lot line about 100 feet west of the rear door to the dwelling. An area measuring 6' x 9' was subjected to probe and auger testing in an attempt to locate organic stains, structural remains, or artifacts associated with the privy. However, the testing located only disturbed fill and no organic stains. It is probable that the feature was completely cleaned

out and backfilled soon after it fell into disuse.

Test Unit 1 was excavated a few feet to the west of the Conner barn foundation in a section of woodlot which apparently had not been filled or disturbed. The aims of the test unit were to 1) locate intact prehistoric archeological remains, 2) locate a historic midden or other refuse deposit associated with the Conner house occupation, and 3) examine the geomorphological history of the floodplain, with specific emphasis on identifying stable Holocene land surfaces which may contain prehistoric remains. Five natural strata were recorded from the unit, which was excavated to a depth of 40 inches below the surface (Figure 28). The top 5 and 1/2 inches was a dark brown humus which contained late 19th and 20th century artifacts in small quantities, mostly clear and brown bottle glass, whiteware fragments, brick fragments, coal and coal ash, aluminum can fragments, and miscellaneous plastic objects. The second level extended to 12 inches below the surface and contained ceramics, glass, and coal ash plus one red jasper flake and six fire-cracked rocks. This horizon is interpreted as the old plowzone. The next two levels extended to 30 inches below surface and consisted of culturally sterile orange and orange-brown sandy and clayey silts. The fifth and final level consisted of dark brown very coarse micaceous sands containing boulders weighing up to 30 pounds. This horizon extended to 40 inches below surface and was also culturally sterile. The sands in this lowest level probably date to the early Holocene (ca.10,000 years ago), or earlier. No disconformities were noticed in the soil profile, which

FIGURE 28

Stratigraphic Profile of Test Unit 1, Conner Yard



Levels

I-Humus, late 19th and early 20th century artifacts and fill.

II-Dark brown silt with same artifacts plus one red jasper flake.

III-Orange, brown clayey silt with much mica, no cultural material

IV-Orange, brown fine sandy silt or silty sand

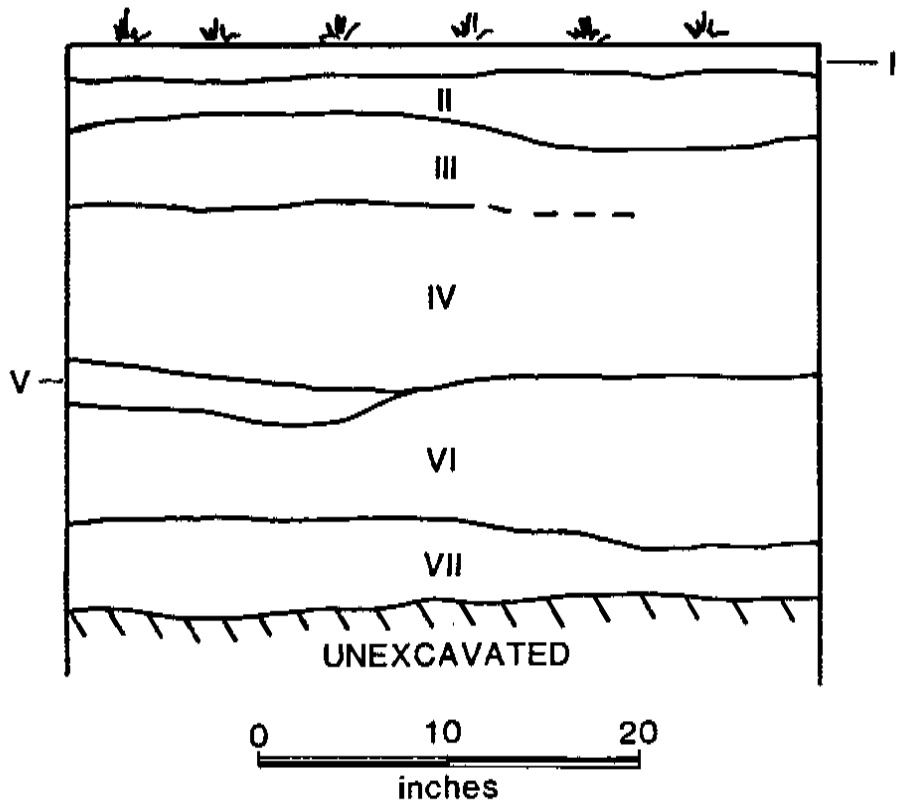
V-Dark brown coarse micaceous sand 30 lb. boulders

suggests that this floodplain has been relatively stable and the energy flow in this environment has been low for the past several thousand years. Mr. Conner noted that in the 56 years he has lived in the house, which is located about 300 feet from the stream channel, he has had flood waters in his yard only a few times and his basement has never been flooded. His neighbor Mr. Bower, who lives farther from the stream, added that he has never had flood water in his yard.

Test Unit 3 was placed about 25 feet southeast of the back door of the house and was intended to test for refuse patterns or other features associated with the occupation of the house. A total of 124 artifacts were recovered in the seven artifact-bearing levels of the unit. Figure 29 shows a profile of the unit and Figure 30 shows a plan view and recorded features. Fifty-three of these artifacts were oxidized metal fragments, which are presumed to be nails. Another 32 items were glass, most of which were fragments of window panes and Mason jar lids. From level 5, which was interpreted as an old plowzone, came a one-inch diameter dark blue faceted button, probably from a woman's coat, and a child's bisque porcelain marble. Ceramics were limited to just 15 sherds from all levels, most of which were whiteware and flowerpot ware. However, 2 small sherds of blue hand-painted pearlware and a single sherd of plain creamware were also recovered. These were the only sherds of these types found on the survey and probably represent field scatter from agricultural activity. Two features were also found in this test unit: a posthole/postmold and a pipe trench. The square postmold, probably from a wooden fence post, measured 5 inches

FIGURE 29

Stratigraphic Profile of Test Unit 3, Conner Yard



I Brown silt

II- Mottled orange, brown, yellow, gray clayey silt.

III -Medium brown slightly sandy silt

IV -Medium brown silt (burial plowzone).

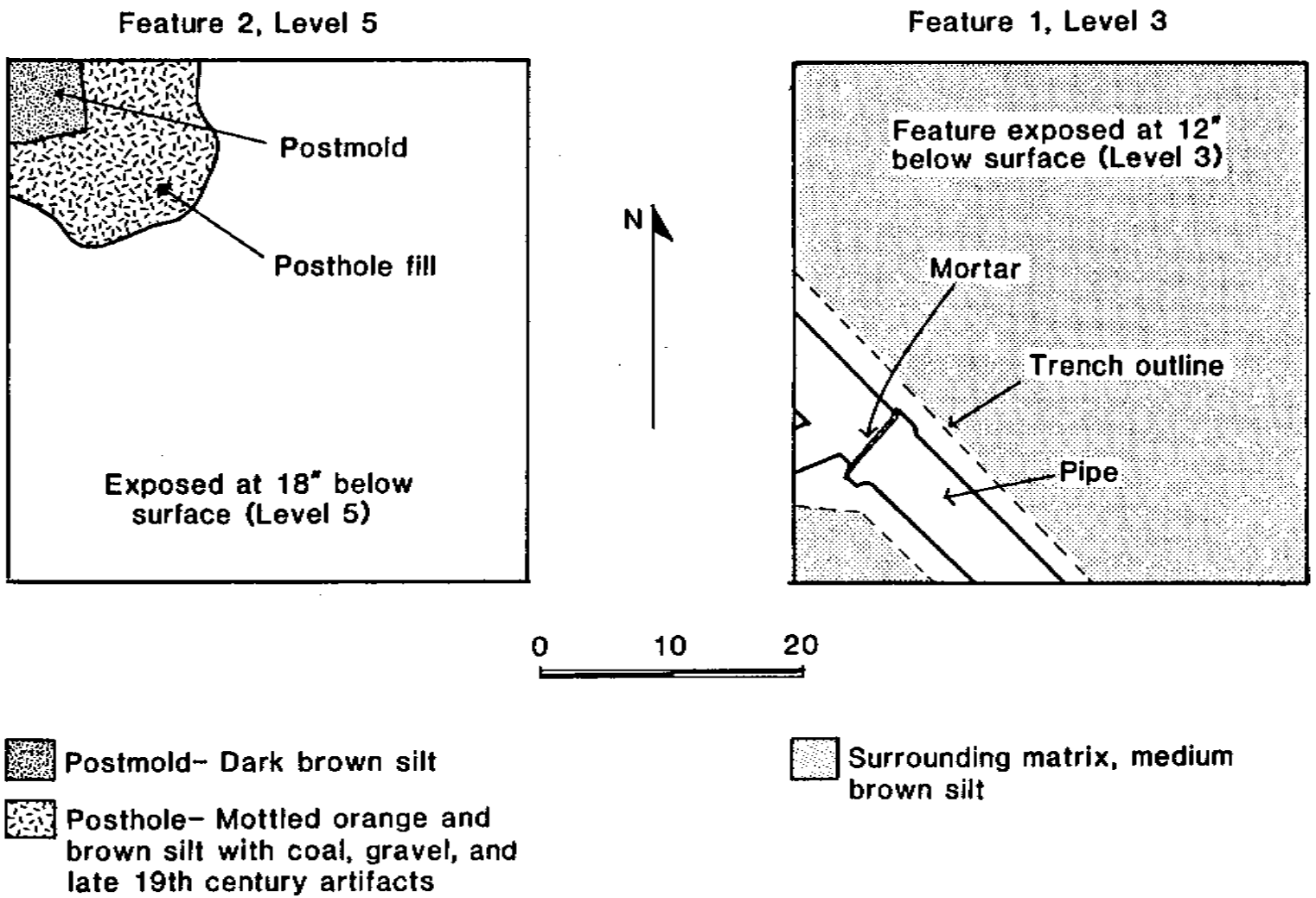
V -Mottled orange brown slightly sandy silt.

VI -Mottled orange brown clayey silt.

VII -Dark brown clayey silt (burial landscape).

FIGURE 30

Features 1 and 2 of Test Unit 3, Conner Yard



across and contained no artifacts. The posthole contained a few pieces of whiteware, window glass, and another bisque marble. The trench contained a 6-inch pipe of mixed terra cotta and iron sections but no artifacts. The pipe was oriented from the house toward a low area to the southeast and probably served as a water drain.

Test Unit 9 was excavated after a feature was discovered in STP 73. A heavy concentration of cemented coal ash was encountered in the shovel test pit and this was later expanded into a 51" x 55" test unit. The feature was sectioned and found to be a French drain which had been filled with coal, coal ash, and concrete fragments. A 4" diameter (inside) terra cotta pipe entered the feature from the west side at 8" below the surface. This pipe apparently extended from the northeast corner of the house, although no downspout is presently in place. The feature was roughly circular, with a diameter of about 34 inches and a depth of 31 inches below the 19th century land surface. Mr. Conner has no recollection of this feature or the downspouts, which suggests that this system probably fell into disuse prior to 1930.

Twenty-nine shovel test pits were placed in a grid at 10-foot intervals within the proposed ROW on the Conner property. Ten were located in the east yard and 19 in the west yard. Another 14 STPs were placed outside of the proposed ROW at 20-foot intervals in the rear yard in three different transects (Figure 27). The side yards contained relatively few artifacts, while the rear yard area, outside the proposed ROW, contained the most artifacts. Artifact densities were plotted for 12

categories: coal and coal ash, brick fragments, unidentified nails, window glass, bottle glass, refined white earthenware, porcelain, redware, stoneware, flowerpot ware, faunal remains, and prehistoric artifacts. For all types, the artifact count per STP was commonly less than five, a number which was felt to be relatively insignificant for plotting artifact densities. Most STPs contained no artifacts for many categories, which meant that a density map could not be adequately generated. About all that can be concluded from the density maps is that the side yards were not used for refuse deposit, but that the rear yard may have been, since it contained larger numbers of artifacts. However, the spacing of the STPs precluded making any significant statements about patterns of refuse disposal. The only feature found by the STPs has been discussed above in the summary of Test Unit 9.

Faunal remains from the Conner yard total just 29 specimens from all excavation units and included the remains of two white-tailed deer (Odocoileus virginianus), two bovines (Bos taurus), and one sheep (Ovis aries). The Bos fragments included parts from the radius, tibia, and scapula and some of these were sawn. Leg and shoulder cuts of meat are indicated by this limited assemblage. The other fragments from the site could not be identified beyond "large mammal" or "small mammal".

In sum, archival research for the Conner house site indicated that the house was built in the 1870s, a fact which was well corroborated by the archeological evidence. The only large feature found on the property during the archeological

excavations was the former site of the Conner barn. The archeological evidence coupled with the oral history of the property provided by Mr. Conner fully defined the limits and use of the structure through time. The shovel test pit grid excavated in the yards yielded artifacts associated with the temporal occupation of the site. However, no specific patterns of yard use could be determined from the Phase II excavations. Because of the late date of the archaeological deposits and the absence of any demonstrable activity areas, the site is not considered to be eligible for the National Register and no further work is recommended.

Bower Site. The Paul E. Bower, Jr. residence abuts the Conner property to the east and extends to the Wilmington and Western Railroad ROW. A partial chain of title for the property is listed in Table 4. Like Mr. Conner, Mr. Bower has also lived in his house since the late 1920s. The house is very similar architecturally to the Conner house and, like that house, fails to appear on Beers' 1868 Atlas but does initially appear on Hopkins' 1881 Atlas. Two sheds and a garage are located behind the house, all of which were built by the present owner after World War II. The garage stands on the location of a former structure of unknown size or function and one of the sheds is located on the former site of a large barn. Mr. Bower also recalled that several chicken coops, a rabbit hutch, and other small sheds once occupied the rear yard. The original well is located close to the foundation on the southeast side of the house and was last used in the 1930s. It is about 35' deep and is presently covered by a concrete pad which forms an open patio.

TABLE 4

PARTIAL CHAIN OF TITLE FOR THE BOWER PROPERTY

Transaction	Date	Deed Reference
John Morrow to James Cranston 17 acres, 2 rods, & 15 perches.	8-10-1865	I-8-166
James and Eleanor A. Cranston to Andrew Jackson Williams, 1 acre parcel.	12-6-1873	C-10-505/6
Mary E. Williams to Benjamin A. Groves. 2 lots for a total of 1 1/2 acres. M. E. Williams(daughter ?) probably received the property via Orphan's Court, as A. J. Williams died intestate in or before 1902. "dwelling house and other buildings erected thereon".	5-14-1902	Z-18-538
Benjamin A. Groves and wife to Orlando C. Magargle, 1 1/2 acres and house.	3-25-1909	H-22-48
Charles G. Rupert and wife to Orlando G. Magargle, 2 acres added to the original 1 1/2 acres, what is now the rear portion of the current owner's property.	5-11-1911	K-23-258
Clarence and Raymond Magargle (executors for Orlando C.) to Helena Bower. (Clarence actually deceased July 3, 1919).	4-25-1921	K-30-359
Helena Bower, deceased March 28, 1932, leaves 2 parts to Paul Bower, Sr. and 1 part to Charles Bower. Charles Bower sells his part to Paul Bower, Sr. April 11, 1932.	3-27-1946	A-46-27/8
Paul E. Bower, Sr. to Paul E. Bower, Jr. et al.	3-27-1946	A-46-26
Paul E. Bower, Jr. to: Bernard Bower, Paul E. Bower, Jr., Theodore Bower, Emma Bower Carney, and Helen Bower Thompson.	5-2-1968	P-80-525

According to Mr. Bower, it contains many domestic and household items, including furniture and marble mantel piece fragments which were thrown into the well by tenants who rented the house in the 1930s and early 1940s. The present water level in the well is unknown, as is the effect of this water on the cultural remains contained within it. The original wooden pumpstock is also still in place. According to Mr. Bower, the original privy was located in the lawn approximately 150' to 200' southeast of the house, well out of the proposed ROW. No attempt was made to locate this feature.

Land records indicate that the property was farmland until the 1870s. In 1865, John Morrow sold 17+ acres to James Cranston for $1759.10, or about $100 an acre. The metes and bounds of this property placed it on the south side of the Newport-Gap Pike and east of the Red Clay Creek. Cranston apparently did not erect any buildings, however, for three years later, Beers' 1868 Atlas of New Castle County does not depict any structures on the property. Andrew J. Williams purchased one acre of land from Cranston in 1873 for $200.00 (N. C. County Registry of Deeds C-10-505), a price which suggests that no dwelling stood on that acre at that time. The combined 1873-1877 tax list for Christiana Hundred does not list an Andrew Jackson Williams. However, in 1878, he was assessed for one and a half acres of land, a frame house and stable worth $1000, $50 worth of stock, and a poll tax of $300, so apparently he had erected a house on the property sometime between 1873 and 1878. The structure does appear on Hopkins' 1881 Atlas of New Castle County, so the house is definitely standing by that date. For the combined tax years

1881-1885, Williams was taxed for one and a half acres of land, a frame house, and a frame mill of an unspecified type. A different name is associated with the property on Baist's 1893 Atlas of New Castle County. Samuel T. Johnson is shown as the resident, and on the combined 1897-1901 tax list, he is assessed for a lot, one frame house and a stable. Johnson was most likely a tenant, for he was never listed as an owner of the property. There is no mention of the mill, so probably it was no longer in use. Although the reliability of the tax lists is a moot question, it appears as if Williams operated his mill from after 1878 to before 1897.

The purpose of the mill can be surmised from a study of the listings for A. J. Williams in the peninsular business directories for the late 19th century:

1876 - merchant (Directory of Delaware and the Eastern Shore of Maryland)
1882 - ladder manufacturer (Delaware State and Peninsula Directory)
1884 - ladder manufacturer (DPSD)
1888 - ladder manufacturer (DPSD)
1891 - mason (DPSD)

The mill was apparently in use after 1878 to before 1897 (possibly before 1893, if Johnson did not use it), while Williams was listed as a ladder manufacturer at least from 1882 to 1888. Oral tradition indicated Williams was a carpenter. Therefore, the mill was most likely a sawmill or some kind of woodworking lathe for the manufacture of ladders or ladder parts. Williams could have had lumber delivered to the Green Bank train station and produced finished ladders in the mill on the property.

The source of power for the mill was given some consideration. Since the Red Clay Valley was historically very

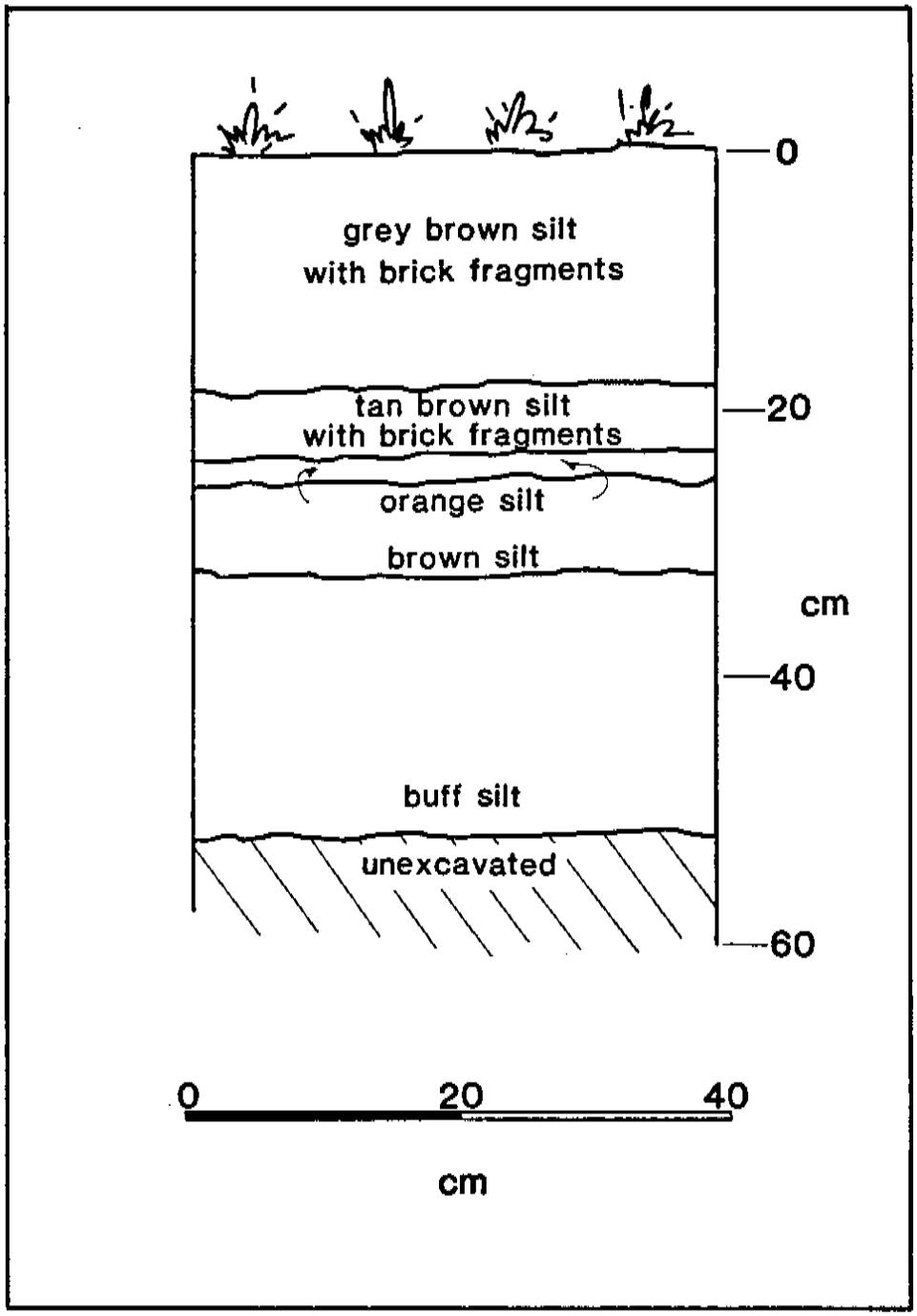
important as a center for water-powered milling, it was felt that dams, millponds, or millraces could have existed on the property. However, there is no indication that one of these features ever existed, so it is concluded that the mill was not water powered. Rather, it was probably run by a coal-fired steam engine.

As was the case at the Conner house, Phase I excavations at the Bower house consisted of test squares and several shovel test pits for the purpose of establishing the presence/absence of intact yard areas, features, and artifacts associated with the occupation. Shovel test pits 11 and 21 were placed in the east yard. In both units, the first 4" to 6" was modern fill and topsoil and contained very low numbers of brick fragments, flowerpot ware, coal, and milk glass. This horizon was underlain by about 8" of yellow-brown silt which contained low amounts of coal and oxidized nails. A sterile yellow silt was encountered at the bottom of the test pit.

Shovel test pits 25, 37, and 50 were placed in the west yard at dispersed locations. Test pit 25 was located about 70' northwest of the house within a few feet of Route 41 and produced a mixed stratigraphy (Figure 31) suggesting that it had been disturbed by sidewalk or utility construction. Several brick fragments were recovered from the upper 9", but a buried horizon at 10" to 13" below surface proved to be sterile, as was the buff-colored silt found from 13" to 21" below surface. Shovel Test Pit 37 was placed about 30' west of the house and possessed an undisturbed stratigraphy. The upper ten inches of brown silts contained late 19th and 20th century terra cotta pipe fragments,

FIGURE 31

Stratigraphic Profile of Shovel Test pit 25, Bower Yard



3 pieces of clear bottle glass, 1 piece of window glass, and dozens of pieces of coal, coal ash, and brick. The subsoil, excavated to a depth of 19", contained only a piece of brick and a piece of bottle glass, which were considered to be intrusive. Shovel test pit 50 was situated about 90' west of the house and exhibited stratigraphy and artifacts very similar to STP 37.

Test units 4 and 8 were placed in the rear yard of the Bower house in an area which previously contained numerous small outbuildings. Most of these were removed during the 1930s, 1940s, and 1950s. It was hoped that these excavations would locate foundations and concentrations of organic materials and/or artifacts which would verify the presence of these structures and help to identify their functions.

Test unit 4 was placed about 55 feet south of the house on the east side of the gravel driveway. A building foundation was uncovered at approximately 10" below the surface. The feature, which ran roughly east-west, measured 8" across and extended to 27" below the surface. The foundation was composed of about 90 to 95 percent slag, which was loosely cemented with small amounts of lime and sand. It was poured into a slit trench and a cross-section excavation of the foundation did produce a few artifacts including 1 pig's tooth, 1 fragment of lamp chimney glass, 1 brown beer bottle fragment, 2 sherds of whiteware, 3 oxidized nail fragments, and 10 fragments of flowerpot ware. Orange backfill from the excavation of the original trench was located as a thin lens along one side but it contained no artifacts.

Test Unit 8 was located closer to the house about 30' south of the rear door. Revealed here was a second foundation, very

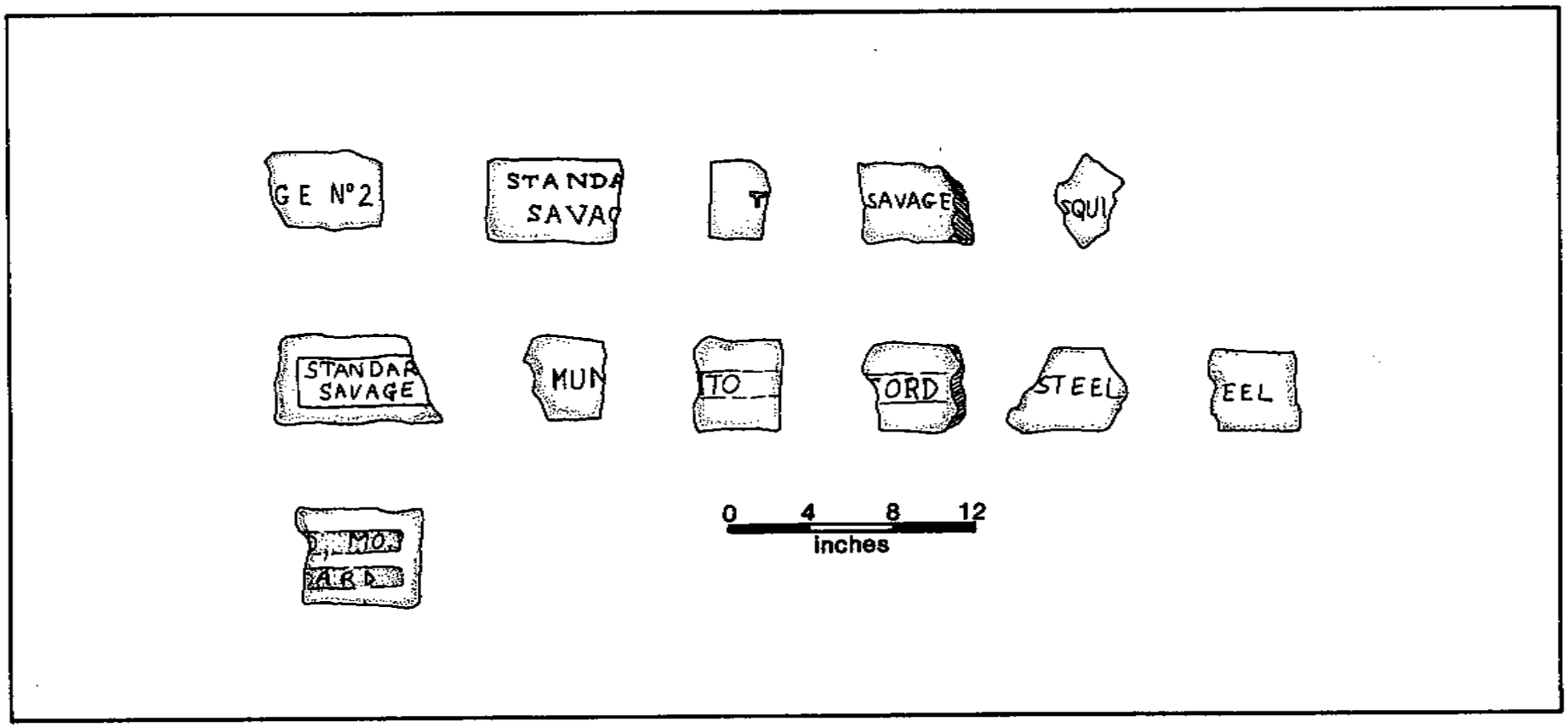
similar in construction and slightly larger than that found in Test Unit 4. It too ran east-west and appeared at a much shallower level, just 2" below the surface (Plate 18). The fill in the south half of the unit, the presumed interior of structure, was slightly darker than the soil from the outside and contained far greater amounts of artifacts, mostly heavily oxidized nail fragments, coal, slag, and brick fragments, with occasional pieces of whiteware, clear bottle glass, and window glass also present. This fill extended to a depth of 16" below the surface and was underlain by a jumbled, redeposited, eight inch thick layer of bricks. Three types of bricks were present including handmade red bricks, measuring 8 1/2" x 3 7/8" x 2 1/4"; one specimen of a brick made of a mortar-like material with the same dimensions as the red brick; and compressed chipped lime fire bricks, none of which were whole. This last type of brick was relatively numerous and many possessed debossed lettering which spelled out parts of the manufacturer's name. These included "Savage," "Standard Savage," "Steel," and several unidentified partial names (Figure 32). Examination of the Wilmington City Directories for the years 1875 to 1900 failed to list any of the above names and it is concluded that the bricks were made by a non-local manufacturer. The nearby railroad depot would have provided ready access to non-local brickyards. At 10" below the surface, a second feature was found in this test unit. A filled posthole containing an intact postmold was uncovered against the north side of the foundation and both the mold and the fill were excavated separately. The

PLATE 18

Foundation in Test Unit 8, Bower Yard

FIGURE 32

Examples of Stamped Chipped-Lime Bricks from the Fill of Test Unit 8, Bower Yard



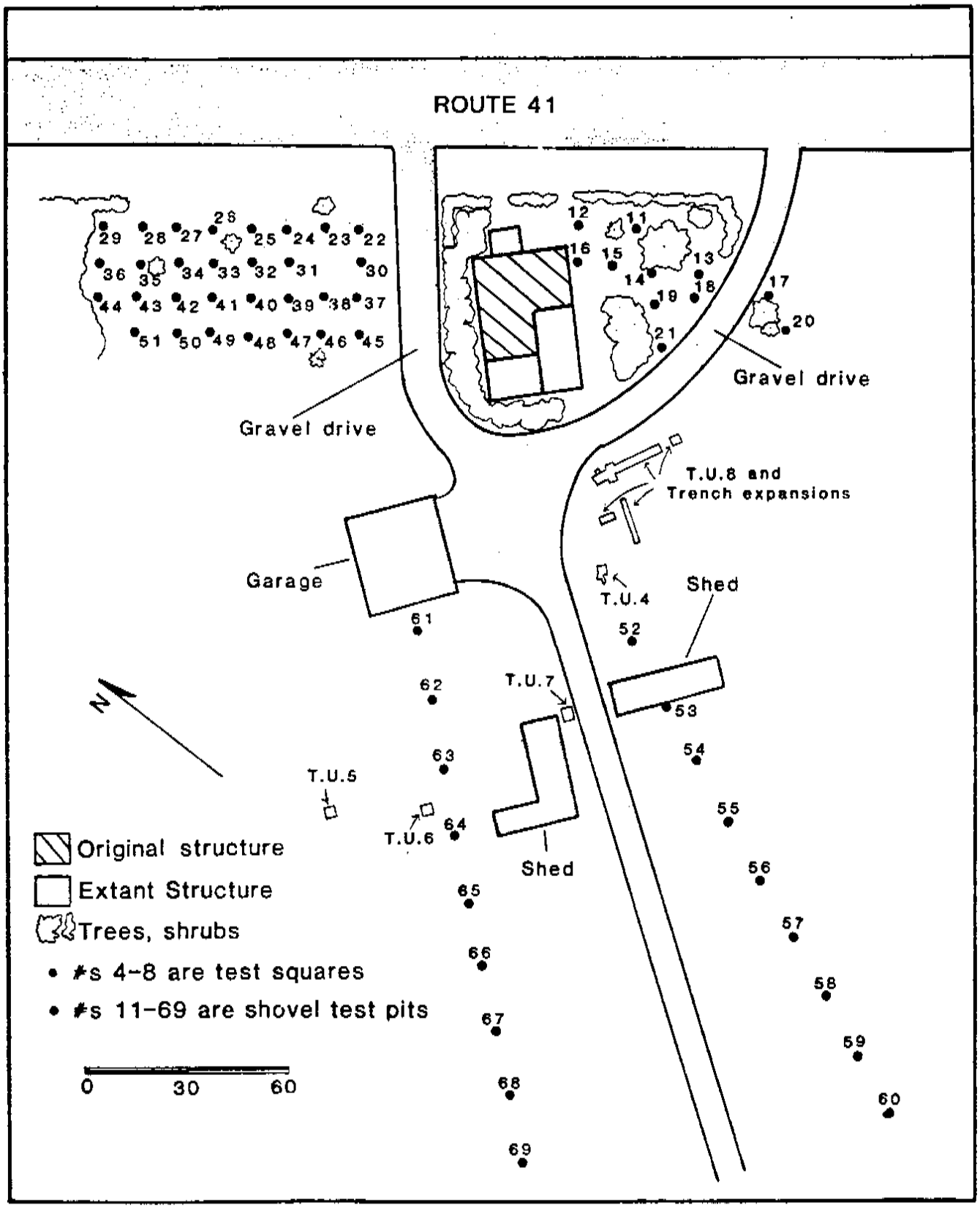
postmold fill contained 4 brick fragments and many unidentified heavily oxidized metal chunks, most of which were probably nail fragments. Screening of the posthole fill produced no cultural material.

Phase I archeological testing thus demonstrated that intact late 19th and 20th century landscapes do exist and are most likely associated with the dwellings currently situated on the properties. This contention is further supported by the historic documents, which suggest that the land was used solely for farming purposes until the period 1868 to 1881, when dwellings were erected on the landscape for the first time. Both rear yard test units produced intact features and artifacts, although the number of artifacts was small. The function of the features could not be determined, but it is presumed that they were small, single story frame structures of a utilitarian nature. No prehistoric artifacts were recovered from the Phase I excavations on this property.

The Phase II STP grid and test unit excavation placement planned for this property were similar to that for the Conner house. The Phase II testing included the excavation of nine shovel test pits (nos. 12-20) in the east yard, 27 STPs (nos. 22-24, 26-36, 38-49, and 51) in the west yard, and 18 STPs (nos. 52-69) in the south (rear) yard. Numbers 12-51 were placed at 10' intervals within the proposed ROW, while numbers 52-69 were placed at 20' intervals outside of the proposed ROW (Figure 33). Due to heavy landscape vegetation and packed gravel driveways, few STPs could be placed closer than 30 feet to the dwelling house.

FIGURE 33

Map of Phase I and II Excavations at the Bower Yard



Based upon the shovel test pits, artifact distributions were mapped for eleven types of artifacts: brick, coal and coal ash, heavily oxidized nail fragments, window glass, refined white earthenware (whiteware and ironstone), redware, porcelain, flowerpot ware, bottle glass, oyster and clamshell fragments, and prehistoric artifacts (flakes). A distribution map was also made for total historic artifacts. These items were mapped because they were the most common artifacts which were felt likely to yield information on patterns of yard use through time. Unfortunately, most of the artifcts occurred in such low quantities that the mapping proved useless. Brick fragments occurred in quantities up to several dozen per shovel test pit in the west yard. However, these were all small fragments, many of which were broken by the shovel in the process of excavation. No whole bricks or intact foundation remains were encountered or suggested by the pattern of brick fragments. Scattered nail fragments were found in the west yard, and somewhat more commonly in the rear yard, some distance from the house in what were formerly plowed fields. These artifacts most likely represent sheet refuse. Coal and coal ash were common in almost every unit. Late 19th and 20th century bottle glass occurred in low frequencies throughout the STPs, which again most likely represents sheet refuse. Counts for the remaining items were too low to allow for any conclusions.

Test Units 5, 6, and 7 were excavated in the south (rear) yard of the house, and Test Unit #8 was expanded in an attempt to define the limits of the footing discovered in the Phase I testing and determine its function. All of the excavated units

were placed in locations suggested by Mr. Bower as likely to yield historic subsurface features. These were places where he had performed gardening or landscape work and noticed concentrations of coal, coal ash, or concrete rubble a few inches below the surface, where utility buildings once stood, or where vegetation anomalies suggested subsurface disturbances.

Test Units 5 and 6 were located southwest of the house in an open yard where vegetation differences suggested that there may be some subsurface disturbances. This location was also felt to have promise for the recovery of prehistoric artifacts, for a relict drainage or flood chute to the Red Clay Creek was located just a few feet to the west of Test Unit 5. Test Units 5 and 6 produced totals of 95 and 53 artifacts, respectively, and contained mostly redware, whiteware, undecorated porcelain, window glass, clear bottle glass, oxidized nails, and five sawcut bovid bone fragments. No features were discovered and the location of these units can best be classified as an area of general refuse scatter.

Test Unit 7 was situated just west of the gravel driveway at the site of a former barn. That structure was demolished several decades ago and has been replaced by a much smaller shed erected by Mr. Bower. The test unit contained much coal and coal ash and late 19th and 20th century artifacts. In addition, a posthole/postmold feature was also found. The postmold contained only sterile brown silt and orange-clayey silt. The posthole feature contained mid-twentieth century automobile parts and plastic fragments and apparently was filled about 30 to 40 years

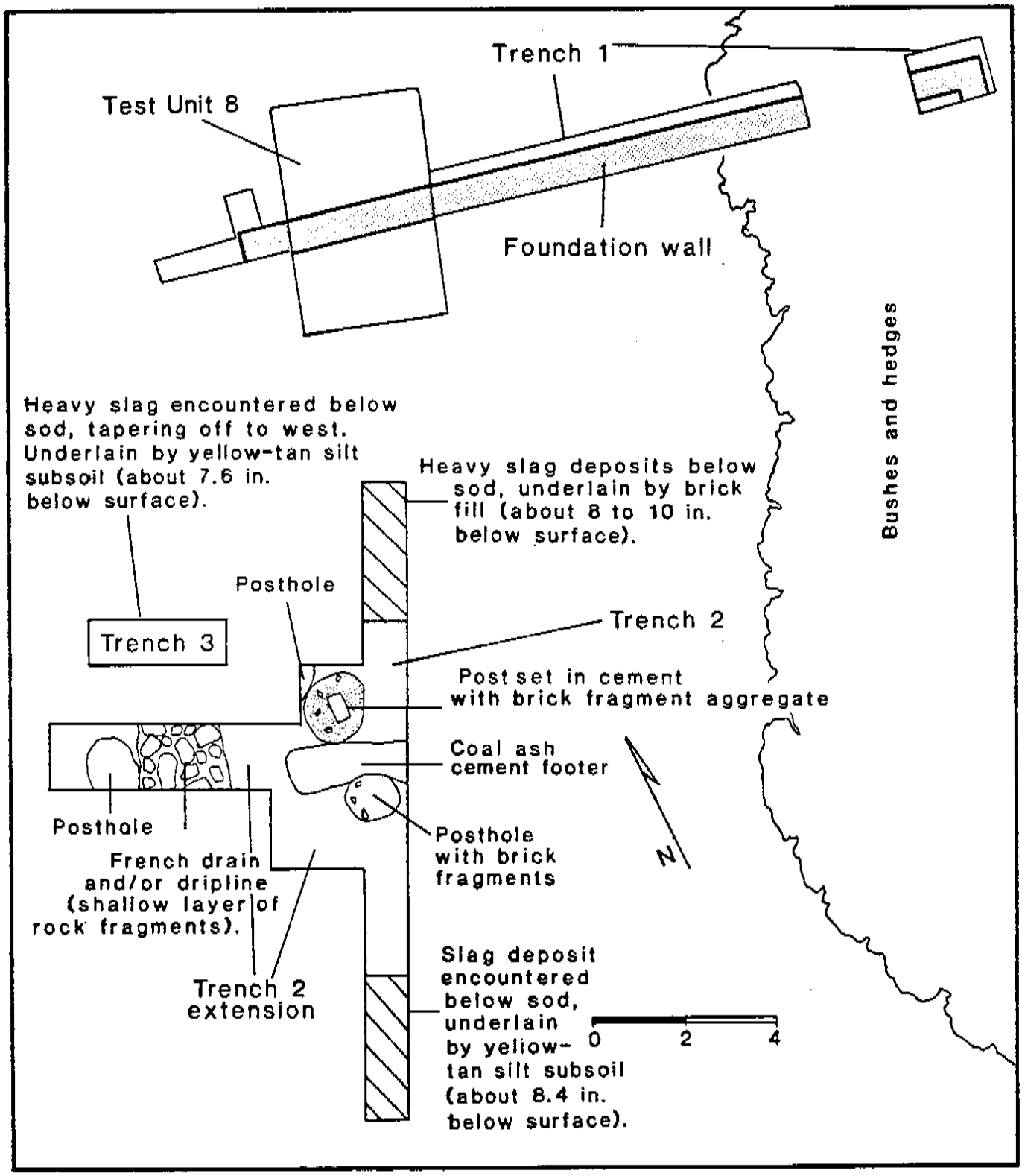
ago.

Test Unit 8 was greatly expanded in an attempt to fully define the extent of the foundation, identify the purpose of the structure, and recover associated artifacts (Figure 34). The foundation discovered in that unit was followed with trenches in both easterly and westerly directions and several other exploratory trenches were excavated in order to define the limits of the structure. The foundation, which was covered by several inches of ash, fill, and sod, ended only a few inches to the west of T.U.8 and did not appear to be disturbed. It was followed to the east (Trench 1) for another 12.3 feet where it made a right angle turn to the south. This turn was located in a heavily landscaped clump of shrubs and trees and could not be followed. Therefore it was decided to trench directly south from T.U.8 in order to find the corresponding south foundationof the structure (Trench 2). A second foundation was located at a distance of 12.0 feet south of that uncovered in T.U. 8 and was traced westward in an extension of Trench 2. The feature was found to end only about a foot west but was constructed of the same coal ash-and-lime "concrete" found in Test Units 4 and 8. The foundation was therefore defined as a three-sided structure open to the west which measured approximately 12 x 17 feet. It had only a dirt, or possibly a wooden, floor and was probably a one-story utility outbuilding.

Further excavation of Trench 2 revealed several more adjacent features, including all or part of four more postholes and a lens of pebbles which may have been a drain or drip line. The postholes extended from about 7 to 15 inches below the

FIGURE 34

Map of Test Unit 8 and Vicinity, Bower Yard, Showing Trenches and Features Located During the Phase II Survey



surface and contained only coal, coal ash, and brick fragments. Their random placement (Figure 34) suggests that these posts were set at various times but their dates and possible functions could not be determined.

Faunal remains from the Bower yard were limited to a total of just 18 pieces, all of which were recovered from test units 4, 5, 6, and 8 in the south (rear) yard. These included the right humerus, radius, and ulna fragments from one bovid (Bos taurus) in Test Unit 6 and the right maxillary incisor from an adult pig (Sus scrofa) in test unit 8. All that can be said is that beef (leg cuts) and pork were probably consumed at some point on the site, which is hardly surprising.

The A. J. Williams mill mentioned above was not located in the Phase II testing of the Bower property. The documentary evidence suggests that it had a short lifespan of only a few years and it may have been an ephemeral building constructed of vertical wooden or iron posts set in concrete footings which had open sides and a roof. The archeological evidence for such a structure would be the concrete footings for the posts, concrete or brick footings to support the machinery, a concentration of coal and coal ash from the firing of the steam engine, and a concentration of sawdust and wood chips. Mr. Bower does not recall encountering any feature of that description on his property, nor does he recall his mother, who lived in the house for many years before him, ever mentioning such a building. It is possible that mill-related features had been destroyed by later outbuilding construction.

The location of the original well for this property is beneath the northern end of the concrete pad which abuts the south side of the main block to the east of the rear ell. It was used as a source of potable water until the 1930s, when it was converted to a refuse recepticle. According to Mr. Bower, it contains pieces of household furniture, marble mantel pieces from the second floor bedrooms, and other items, as well as the original intact wooden pumpstock. No testing was undertaken due to the presence of the concrete pad.

In conclusion, archival documentation revealed that the Bower structure was probably built in the 1870s. The Phase II archeological investigations uncovered the remains of several features, including postmolds, concentrations of coal and coal ash, and the foundation remains of small utility outbuildings. Attempts to archeologically document the uses and lifespans of these structures proved futile. According to Mr. Bower, numerous small sheds, coops, and hutches have stood on the property since the 1920s and many of the features are probably the remains of these structures. The present outbuildings all postdate World War II. The STP grid placed on the property failed to produce definitive patterns of use in the yard, although numerous post-1870 artifacts were recovered. Because of the late date of the archaeological deposits at the Bower house and the absence of significant artifact distributions, the site is not considered to be eligible for the National Register of Historic Places and no further work is recommended.

Segment 5

The unnatural contours of this segment suggest that the area within the proposed ROW has been filled and graded. It is currently covered with grass and a pedestrian survey gave no indication of subsurface historic features. Historic maps (Beers 1868, Hopkins 1881, Baist 1893) suggest that this property was never used for anything more than farmland and the slope of the land (10% to 15%) precludes its use by prehistoric peoples as well. Studies of prehistoric site locations in northern Delaware (Custer and Wallace 1982; Custer and DeSantis 1985) have shown that slopes of greater than 10% are unlikely to contain prehistoric sites. No further work is recommended for this segment.

Segment 6

According to local informants, Bower and Conner, a two-story frame dwelling stood on this property until the late 1960s. A structure first appeared on Baist's 1893 Atlas of New Castle County, suggesting the house dates to sometime after 1881, (the date of the Hopkins' map on which nothingappears) and 1893. According to Mr. Bower's recollection of the placement of the house, it stood outside of the proposed ROW. He also noted that several feet of fill have been placed over the site since the house was razed and a pedestrian survey confirmed that the weed-choked surface of this lot is covered with large chunks of concrete and mixed sand and clay fill. As with segment 5, the slope of the land makes it very doubtful that it was ever used by prehistoric peoples. No further work is recommended for this segment.