FIELD RESEARCH

Methodology

Archaeological field testing began with a pedestrian reconnaissance of the entire project area from 450 feet (137 m) west of the intersection of Route 273 and Delaware Route 13 (the "Hares Corner" intersection [see Cavallo et al. 1988]) to the intersection of Delaware Route 273 and Delaware Route 7, near Christiana. Each dwelling or business located along the study corridor was contacted by CHRS personnel, and letters of intent to enter provided by the Delaware Department of Transportation (DelDOT) were distributed. If no one responded at a residence, the letter was left on the premises. During this portion of the survey occupants were interviewed concerning Route 273 and their knowledge concerning potential site locations.

The study corridor consisted of the right-of-way of the proposed upgrading. This consisted of an area approximately 41 feet (12.5 m) from the edge of the shoulder of the existing road on either side. Because of the narrowness and apparent disturbance of much of this right-of-way, a geomorphologist helped in the initial inspection of the corridor to more readily determine disturbed areas, as well as those containing intact buried horizons.

Archaeological testing was conducted in an organized manner and involved the use of both shovel test pits and measured test squares. Subsurface testing was carried out following a prescribed formula whereby those areas considered to be highly sensitive to cultural remains were tested at 10-meter (32.8-foot) intervals; those areas deemed to be moderately sensitive were tested at 20-meter (65.6-foot) intervals; and, those found to contain only low sensitivity were tested at 30-meter (98.4-foot) intervals. Areas found to be disturbed during the field reconnaissance were subject to minimal subsurface testing intended to document the extent of the disturbed area. The subsurface tests, for the most part, took the form of 50-centimeter by 50-centimeter (1.6-foot by 1.6-foot) shovel tests excavated by stratified levels into culturally sterile soil. Five-foot by five-foot (1.5-meter by 1.5-meter) test units were excavated in areas where the shovel test stratigraphy indicated the potential presence of historic sites. All soils were screened through one quarter (1/4") inch hardware cloth.

The Phase I testing was expected to provide data concerning:

1) The existence or non existence of additional sites within the study corridor.
2) The location of sites within the study corridor.
3) Preliminary data concerning the nature of the sites, both functional and chronological.
4) Preliminary data concerning the extent of the sites.
5) Information as to whether the site is stratified.
6) Data concerning the integrity of the site.
7) Negative data as to where no sites were found to exist within the study corridor, which have application in subsequent predictive models and management studies.
8) Information as to the nature of soil deposits extant within the corridor

i.e.,

A) the degree to which their integrity remains,
B) the extent to which they may have been disturbed,
C) the nature of any disturbances,
D) whether or not buried land surfaces which might contain cultural remains are present within the corridor.

Prehistoric Tests. Due to the considerable modern development along Route 273 and the degree of disturbance associated with that sort of activity, it seemed unlikely that any undisturbed prehistoric sites would remain. Testing for prehistoric sites was, nevertheless, conducted. The project area was stratified into areas considered as having high, moderate, or low potential for site occurrence. Both a pedestrian survey and subsurface testing were conducted in accordance with the prehistoric model developed for New Castle County.

Only two areas of high site probability for prehistoric remains were identified within the project area. One area was located at the western end of the study corridor near Appleby Road, the other at the eastern end of the study corridor near Army Creek and Churchmans Road. The presence of gravel deposits and a small stream in each suggested a high potential for procurement sites. How much of these areas remained undisturbed by gravel pits or modern development was not known at the beginning of the survey.

The areas between these two high site potential zones was defined as having a relatively low potential for intact prehistoric remains.

Historic Tests. Potential historic site locations can be determined on the basis of the historic models discussed above, in conjunction with documentary evidence, i.e., historic maps, deeds, literature, and the like. Based on this evidence, areas of high probability for historic sites were pinpointed. Coverage of those areas where undocumented historic sites may have been extant was provided by the general prehistoric testing strategy.

Based on available historic data, four areas were labeled as having high potential for historic archaeological sites: 1) in the vicinity of Airport Road; 2) west of Edinburgh Road; 3) in the vicinity of Prangs Lane, and 4) near Army Creek.

The first area, in the vicinity of Airport Road, was the location of a historic structure first shown on Beers Atlas of 1868 as one of two structures owned by P.R. Clark. Unfortunately this area was substantially disturbed by modern development.

The second area of historic archaeological potential was on either side of Route 273 just west of Edinburgh Road near Station 60+00. This area was the site of the second P.R. Clark house and the Taylor (Tylor) House.

The third area of historic archaeological potential was thought to be in the vicinity of Prangs Lane. Although the documents accompanying the scope-of-work for this project indicate that Bethel Church was located near Pleasant Lane, examination of the historic documents makes it seem more likely that this structure was located in the vicinity of Prangs Lane. Two structures, the church and a building belonging to C.J. Morley, are shown on the Rea and Price Map of 1849. The number of structures in this area increased to six by

1868. Three structures on the south side of Route 273 are owned by the Marley family, and two structures near the church on the north side of Route 273 are shown on Beers Atlas (Figure 8) as belonging to B. Booth. These same structures are also shown on Baist's Atlas of 1893 (Figure 4). Current conditions in these areas vary. South of Route 273 a portion of the area where one of the six structures stood had been severely disturbed by industrial development. The area where two other structures are thought to have stood was partially disturbed by residential development.

The final area of historic site potential was just east of Army Creek near Station 135. This area was identified as containing a farmhouse and barn in the early twentieth century. Although much of the area had been disturbed by the excavation of a gravel pit, the initial pedestrian reconnaissance indicated a small undisturbed area which was fronted by a set of concrete stairs. This suggested that historic remains might still be extant in the area.

Field Survey

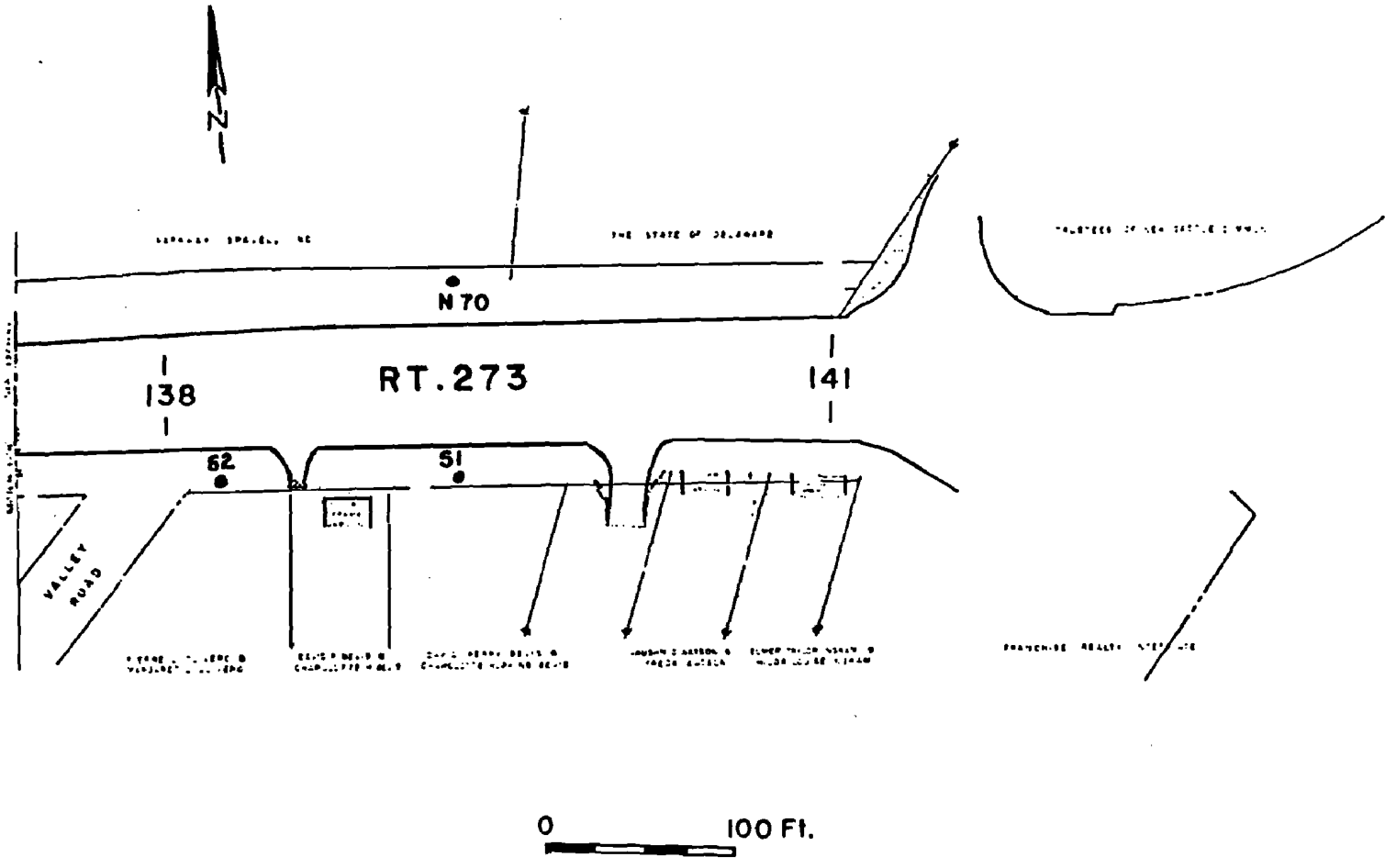
Archaeological Testing of Project Area, South of Route 273. Subsurface testing began at the southeastern end of the project area. As testing strategy varied due to local conditions and other factors, descriptions of tests will be grouped together according to their similarities.

Tests were first conducted on the south side of Route 273 and were numbered Shovel Test S-1, S-2, etc. Tests on the south side of the road moved from the eastern end of the project corridor to the western end. Testing on the north side proceeded in the opposite direction, from the western end to the eastern end.

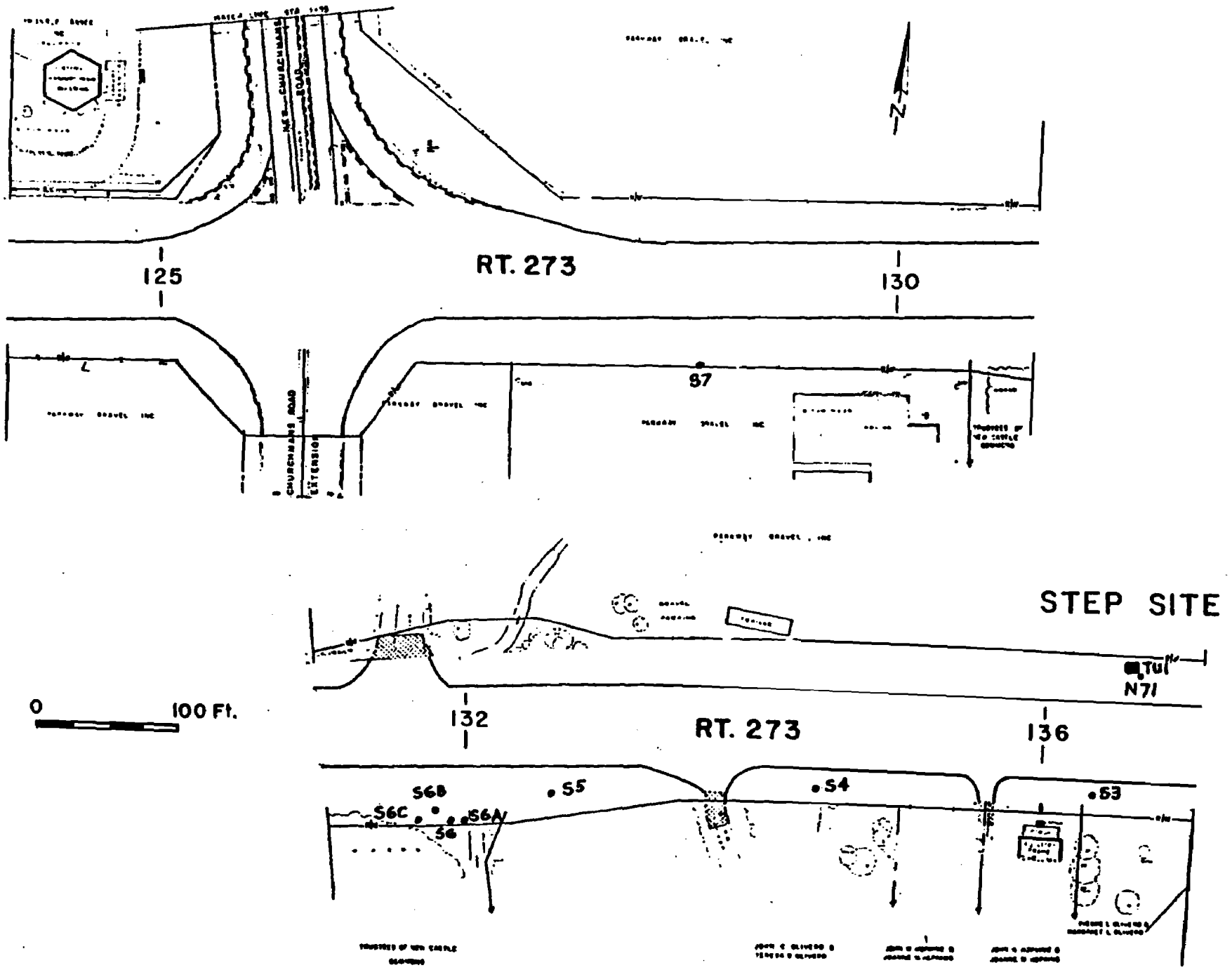
Testing began 450 feet (137 m) west of Hares Corner on the south side of Route 273 and continued towards the small, intermittent tributary of Army Creek. Soil in this area is classified as Matapeake-Sassafras-Urban (MsB) and is described as greatly altered by residential and commercial development. Approximately 75% of the area was covered by about 18 inches (45.7 cm) of fill or the soil profile had been cut away. Only 10% was left undisturbed (Mathews and Lavoie 1970:30). Prior to modern disturbance, this area had a high potential for prehistoric cultural material; based on a field view of the disturbances, the area was treated as being of low potential for intact prehistoric or historic sites.

Five tests were placed in this area (Maps 1 and 2) to verify soil disturbance and to determine its nature. Only tests S-2 and S-3 appeared to be undisturbed Matapeake Series soils; however, no artifacts were found in these tests.

Crossing a tributary of Army Creek, Shovel Test S-6 revealed a buried 'A' horizon beneath 0.8 feet (24.5 cm) of fill. A geomorphologist verified our findings but determined that the buried soil only dated to historic times. Three additional tests were, nevertheless, conducted 30 feet (9 m) apart. All three tests were covered by varying levels of fill. Raw sewage was encountered in one test, and the only artifact found was a piece of beer bottle glass in level 3 of Shovel Test S-6c.



MAP I


RT. 273
125
130
87
CHURCHMANS ROAD
EXTENSION
STEP SITE
Tu
N71
0
100 Ft.
132
RT. 273
136
S6B
S5
S4
S3
S6C
S6A
S6

MAP 2

The next 2,000 feet (1.2 km) along the south side of Route 273 are designated as "Gravel Pits and Quarries;" in areas of this designation, soils have been completely removed (Mathews and Lavoie 1970:24). This disturbance, detected in the pedestrian reconnaissance, was verified by three shovel tests (Map 3). All tests showed disturbance.

Testing resumed on the south-west side of Prangs Lane. For approximately 1,000 feet (30.5 m) the soil association is Aldino-Keyport-Mattapax-Urban and has been altered and disturbed by residential and community development (Mathews and Lavoie 1970:11-12). Once again this soil series was either covered by fill or cut away entirely. Tests between Prangs Lane and Rambelton Drive all had similar stratigraphy: a very dark grayish-brown silt loam, underlain by yellowish-brown clay. Because this is the normal stratigraphy for the Aldino series soils, the stratigraphy suggests relatively undisturbed soils.

Only Shovel Test S-13, in front of the Lestardo residence, contained any artifacts: one small fragment of redware. Tests 13a and 13b, in the same yard (Map 4), failed to locate any artifacts or subsurface features.

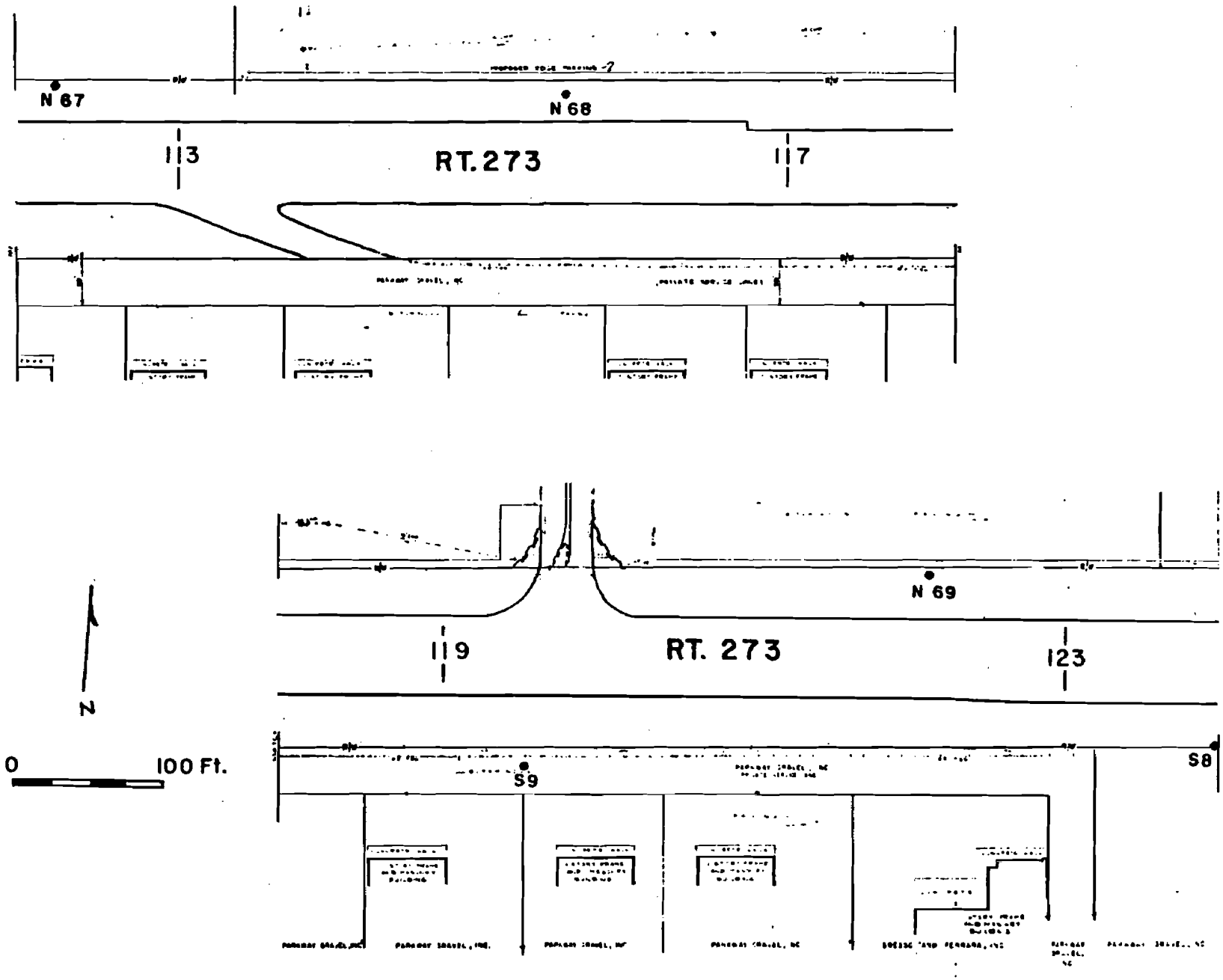
The occupants of the property occupied by Walls and Associates informed the CHRS staff that their property had been substantially altered by an earlier DelDOT project which removed the soil from one half of their property. The residents further stated that they had been trying to fill in this disturbed area for years. Shovel Tests S-14 and S-15 were conducted on the eastern and western edges of their property (Map 5). No artifacts were present.

Shovel Test S-16, on the White property, failed to recover any cultural materials; however, Mr. White informed CHRS staff that his house was built on the stone foundations of an earlier farm house. Mr. White believes the earlier farm house to have been the oldest structure on Route 273. Historic documentation also places an earlier building at this location. On the basis of this information, Shovel Tests S-16a and S-16b were also conducted in the Whites' yard. The soils appeared undisturbed. Test S-16a contained one redware fragment, three coal clinkers, four pieces of charcoal, four fragments of brick, and one unidentified nail. Shovel Test S-16b contained four brick fragments.

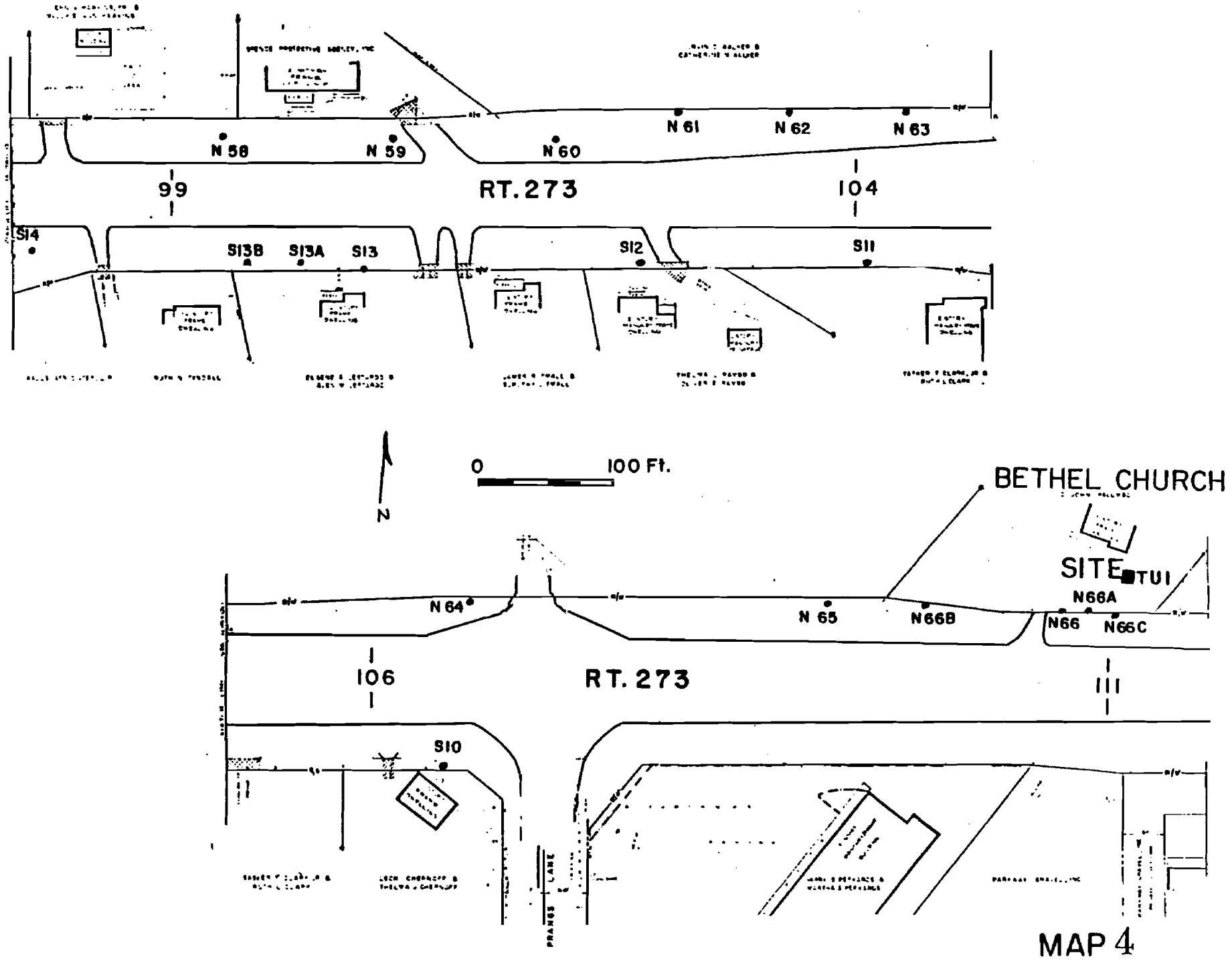
The next 2,000 feet (609.6 m) of the project area are located on MsB soils. Shovel Tests S-17 and S-18 were placed in the vicinity of the apartment houses owned by Marvest Inc. The tests were dissimilar; S-17 had dark grayish-brown loam over yellowish-brown clay, while S-18 had a mixture of dark yellowish-brown loam with rock fill. The soil was disturbed, and no artifacts were recovered.

Shovel Test S-19 was placed in a vacant yard. The dark yellowish-brown loam and rock fill contained no artifacts. This property belongs to Reed Maynard, Jr., and the house is scheduled to be removed according to DelDOT's plans. In place of the house, a road called Rambo Terrace will be constructed directly across from Pleasant Place on the north side of 273. Rambo Terrace will loop to the southeast and join with another road called Rambo Terrace in a housing development behind the apartments owned by Marvest, Inc.

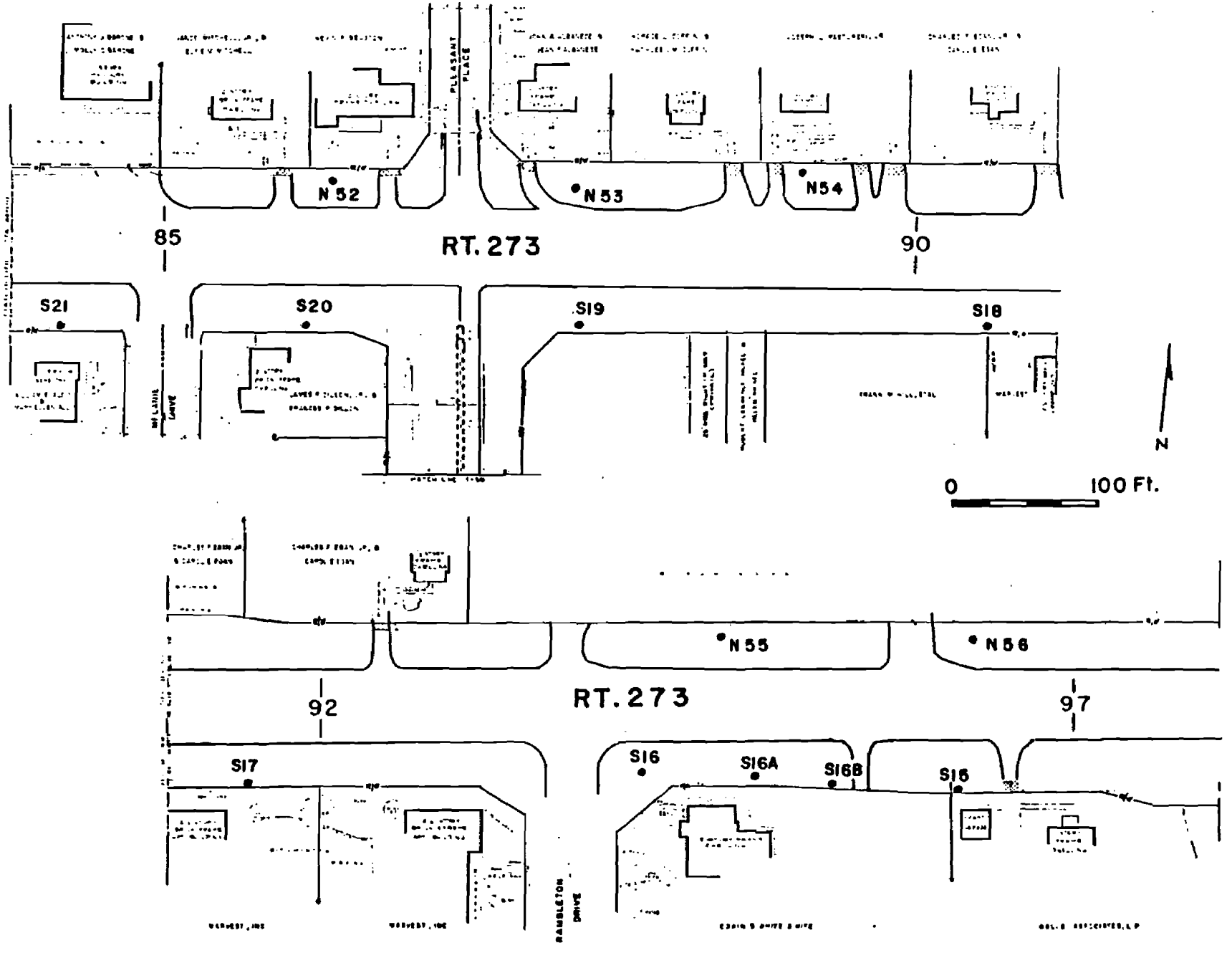
Accordingly, Shovel Tests Rambo Terrace (R.T.) 1, 2, 3, 4, and 5 were performed along this proposed alignment (Map 6). The first three tests



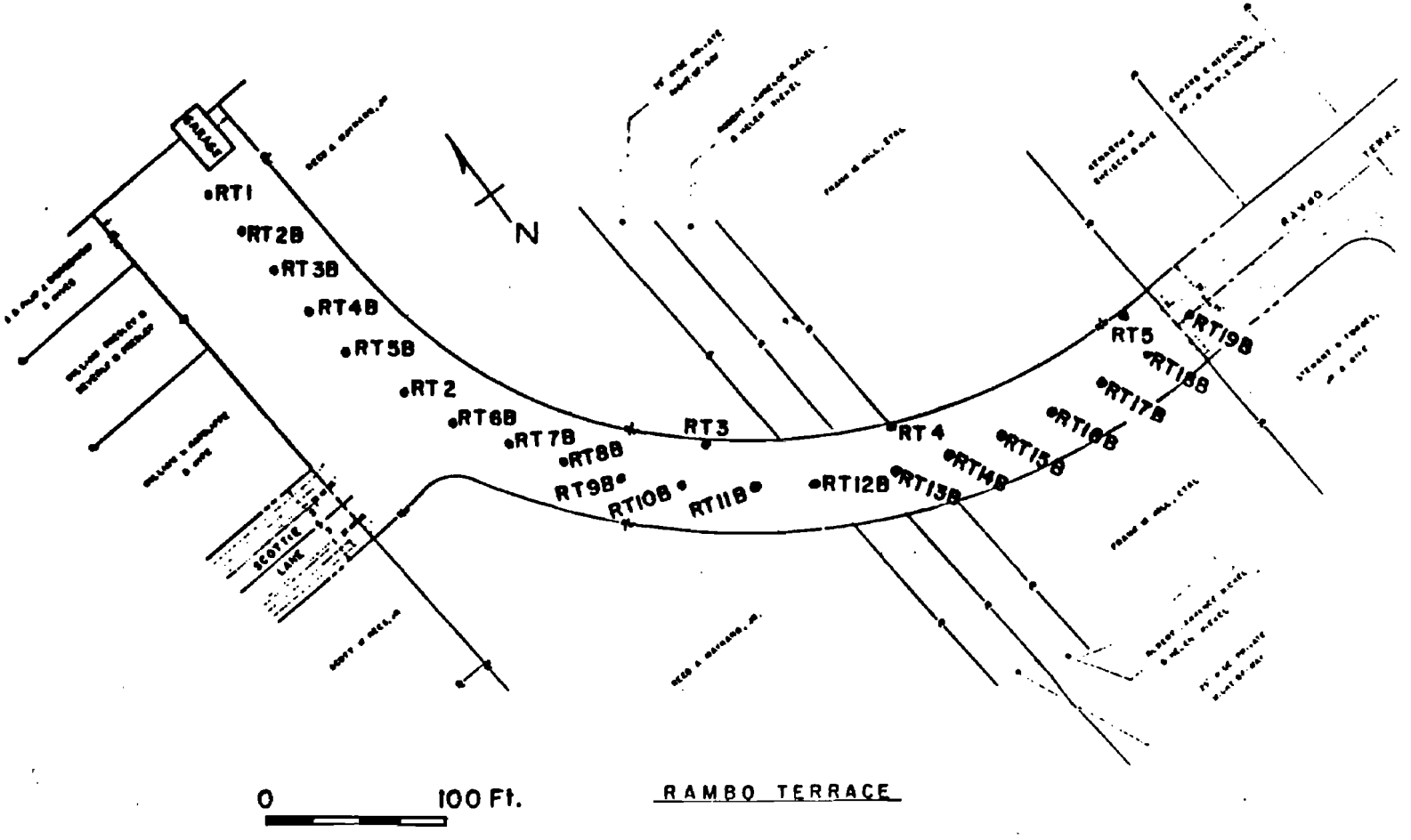
MAP 3


N 58
N 59
N 60
N 61
N 62
N 63
99
RT. 273
104
S14
S13B
S13A
S13
S12
S11
0
100 Ft.
N
BETHEL CHURCH
SITE
TU1
N 64
N 65
N66B
N66A
N66
N66C
106
RT. 273
111
S10
PRANGE LANE

MAP 4


N52
N53
N54
85
RT. 273
90
S21
S20
S19
S18
N
0
100 Ft.
N55
N56
92
RT. 273
97
S17
S16
S16A
S16B
S15
RAMBLETON DRIVE

MAP 5


GARAGE
RT1
RT2B
RT3B
RT4B
RT5B
RT2
RT6B
RT7B
RT8B
RT9B
RT10B
RT11B
RT3
RT12B
RT13B
RT4
RT14B
RT15B
RT16B
RT17B
RT18B
RT5
RT19B
N
SCOTTIE LANE
0
100 Ft.
RAMBO TERRACE

MAP 6

were located in the clearings behind the Maynard house, swinging to the east across land labeled "R.L. Rickle and H. Rickle." Another small, intermittent tributary of Army Creek flows through this area. All these tests contained wet soils with the upper portion of dark yellowish-brown silt loam varying widely in depth over a mottled, yellowish-brown clay loam subsoil. The soils in this area are classified as Fallsington loam, which represents a poorly drained soil of the uplands (Mathews and Lavoie 1970:22).

The last two shovel tests, R.T. 4 and 5, were placed in a drier, forested location (see Map 6) and, as a result had very different stratigraphy than the first three tests. Each had four levels, beginning with; a thin, dark yellowish-brown forest loam, followed by varying depths of dark brown silt loam, over a very loess-like, brown silt, and ending on dark yellowish-brown mottled, clay loam. Moderately well sorted gravel deposits were present in the last test between levels 2 and 3. These soils are mapped as being part of the MsB Series.

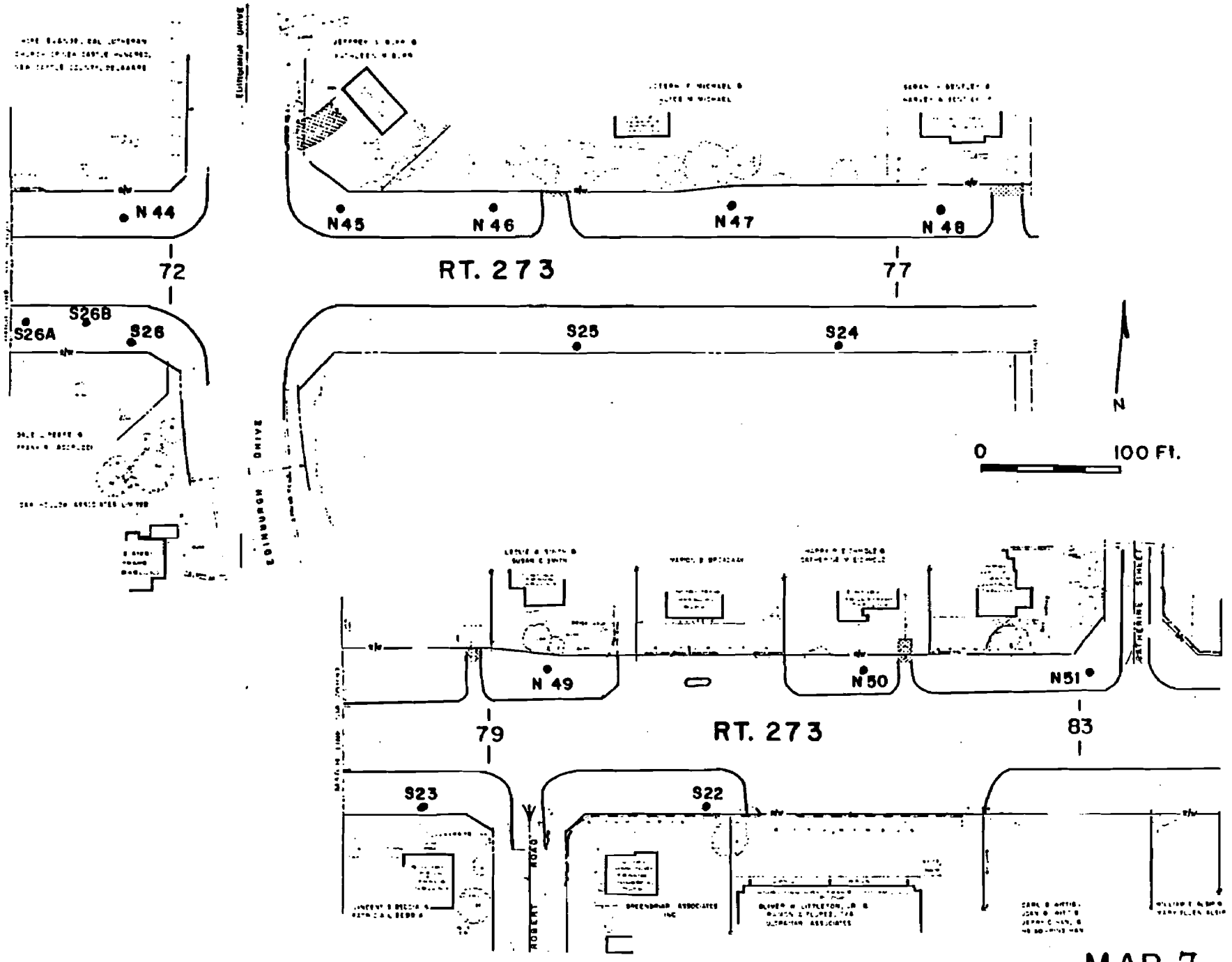
Although the soils and overlapping ecosystems, in conjunction with an old drainage or upland marsh, suggest the possibility of prehistoric materials, no artifacts were disclosed in any of the "Rambo Terrace" tests.

Shovel Test S-20 was done on the Dillon property east of Melanie Drive (see Map 6). The top of the test consisted of fill and river cobbles underlain by bed rock. Soils appeared quite disturbed. One aqua and three clear bottle glass fragments were found.

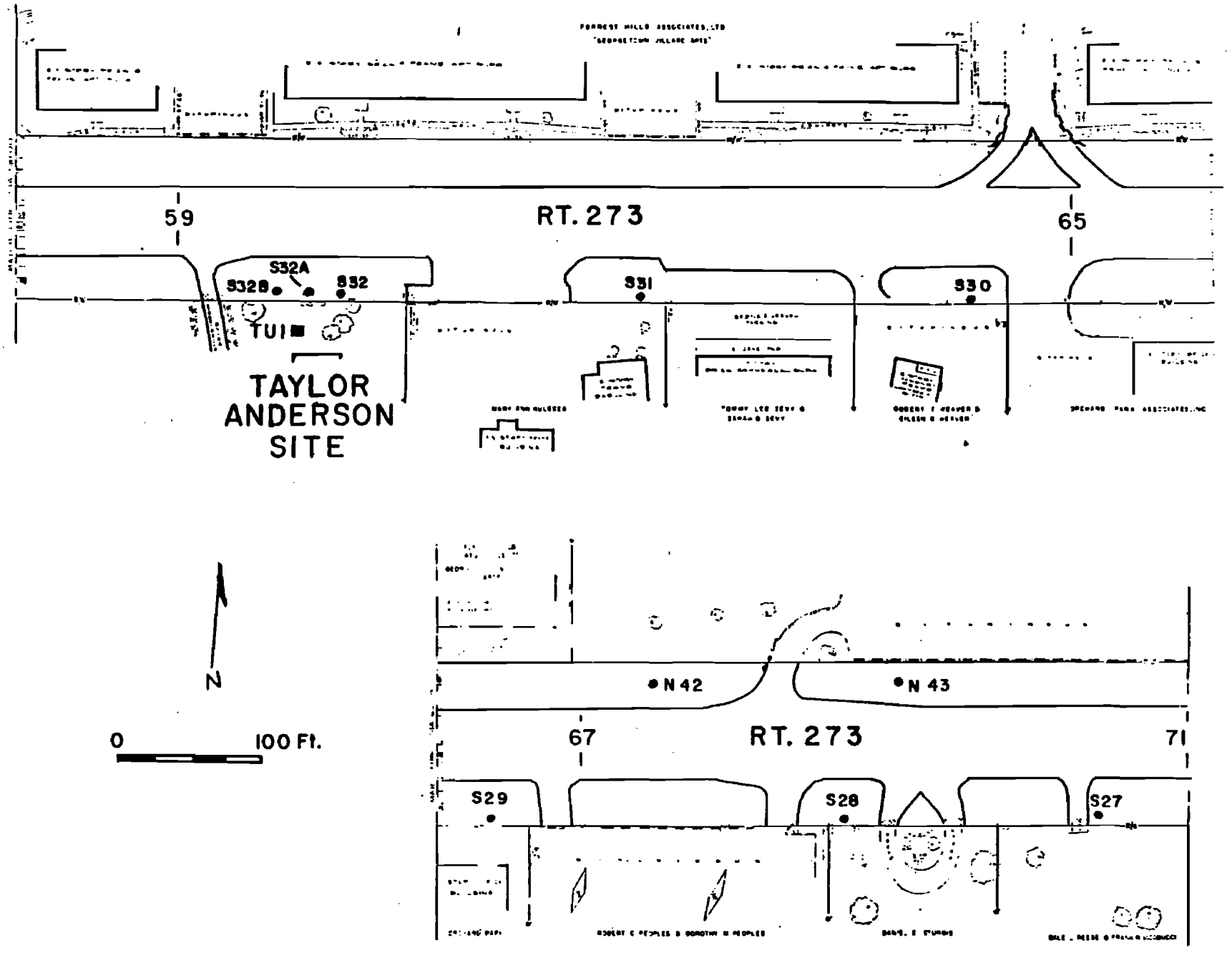
Across Melanie Drive, Shovel Tests S-21 to S-24 (see Maps 6 and 7) were placed on moderately well drained soils of the Keyport Series with typical profiles: dark yellowish-brown silt loam over yellowish-brown silty, clay loam. All these tests revealed disturbances. Shovel Test S-22 contained two unidentified bottle caps and nine lumps of charcoal; Shovel Test S-23 had one fragment of clear bottle glass with red lettering; Shovel Test S-24 yielded two pieces of plastic bag, one lump of asphalt, one unidentifiable nail, one amber fragment, and five clear fragments of bottle glass.

Shovel Tests S-25 through S-31, between the east and west sides of Edinburgh Drive (Maps 7 and 8), were located on the Matapeake silt loam (MeB2), which is described as moderately to severely eroded (Mathews and Lavoie 1970:29). Only Shovel Test S-29 was located on a different soil, Keyport silt loam (KeA), a moderately well drained soil of the uplands of the Coastal Plain developed on clay or silty clay (Mathews and Lavoie 1970:26). That the original soils have been greatly disturbed is evidenced by the fact that all of these tests, which were placed in front of commercial or residential buildings, had varying profiles. Only Shovel Test S-31 contained artifacts: one clear glass fragment, one cut nail, and two unidentifiable nails.

Shovel Test S-32 was placed in a small wooded area, in which the soils have been recently disturbed. One cut nail was found in this shovel test. Behind this area, but out of the right-of-way, stood the ruins of what appeared to be a late nineteenth to early twentieth-century structure. The surface was littered with artifacts including porcelain, whiteware, and pearlware sherds, clear and aqua bottle glass, panel prescription bottles, and cut nails. A sample of the surface artifacts was collected. Shovel Tests S-32a and S-32b placed at 20-foot (6-meter) intervals from test S-32, yielded


N44
N45
N46
N47
N48
RT. 273
72
77
S26B
S26A
S26
S25
S24
N
0
100 Ft.
EDINBURGH DRIVE
N49
N50
N51
79
RT. 273
83
S23
S22
ROBERT ROAD
CATHERINE STREET

MAP 7


59
RT. 273
65
S32A
S32B
S32
S31
S30
TUI
TAYLOR
ANDERSON
SITE
N
0
100 Ft.
N 42
N 43
67
RT. 273
71
S29
S28
S27

MAP 8

more artifacts: S-32a contained two clear glass fragments; three flat aqua glass fragments; one cut nail; one fragment of mortar; and one whole, clear jelly jar glass. S-32b had one porcelain vessel fragment, one frosted vessel glass fragment, one clear vessel glass fragment, three aqua vessel glass fragments, one cut nail, one wire nail, two unidentifiable nails, one brick fragment, and one mortar fragment. The large number of historic artifacts recovered in this shovel test indicated the presence of a site at this location.

The work on the S-32-series-tests (see Map 8) was performed on land belonging to Tony Anderson et al., a developer who is currently rapidly constructing town houses on his land. Historical research identified this site as the "Taylor house," which first appeared on Beers 1868 Atlas of the area (Figure 8). In addition to the shovel tests, a 5-foot by 5-foot (1.5-meter by 1.5-meter) measured unit was excavated. Unit 1 was placed towards the front of the property in hopes of locating a portion of the foundations of the historic house (see Map 8). The stratigraphy of this test unit consisted of an upper stratum of 10YR3/3 loam and 10YR6/3 clay loam, 0.5-1.0 feet (15-30.5 cm) thick, over buried topsoil (Figure 10). Two features were encountered in this test unit (Figure 11). Feature 1 was a portion of a brick foundation wall. This feature was constructed of two rows of brick laid end to end. The wall extended across the entire unit from north to south. Feature 2, which was found in the southwest corner of the unit, consisted of a row of cobbles. These may have been part of a walkway or garden edging. Artifacts recovered from the test unit were similar to those found in the shovel test pits.

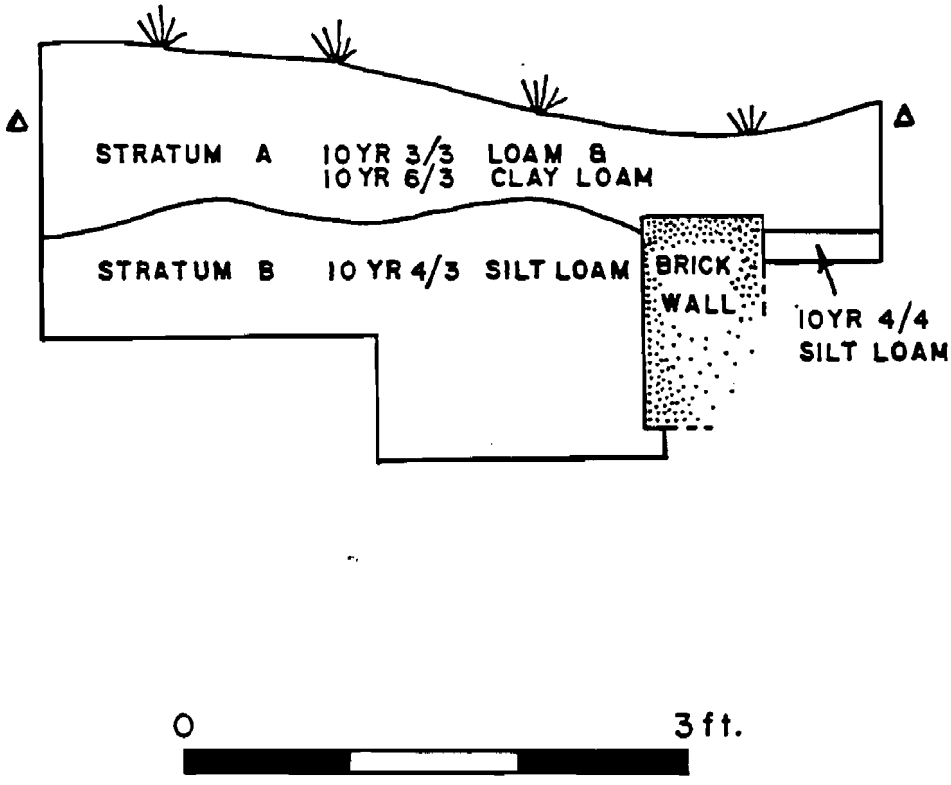
Because the 250 feet (76 m) west of the Taylor/Anderson site were highly disturbed, no testing was performed. The first 150 feet (46 m) of this section belonged to Tony Anderson et al., and was used as a driveway to give construction equipment access to a building site. The last 100 feet (30.5 m) belonged to AT&T and had also been substantially altered by modern construction and landscaping.

Testing resumed in front of the property belonging to Rose Richardson, a realtor (see Map 8). From here to a point just east of Appleby Road, the soil is mapped as Keyport silt loam (KeB2), which is susceptible to erosion. The normal profile consists of a dark yellowish-brown silt loam over a yellowish-brown silty clay loam. Shovel Test S-33 was apparently still within the disturbed soils, as red clay and fill were found in its profile.

Shovel Tests S-34 to S-36 were carried out in front of small businesses and residences (Map 9). The profiles of the first two tests matched the description of the Keyport soil series but contained no artifacts. Shovel Test S-36 was disturbed; its profile had a very dark loam over plastic piping at 0.3 feet (9.0 cm).

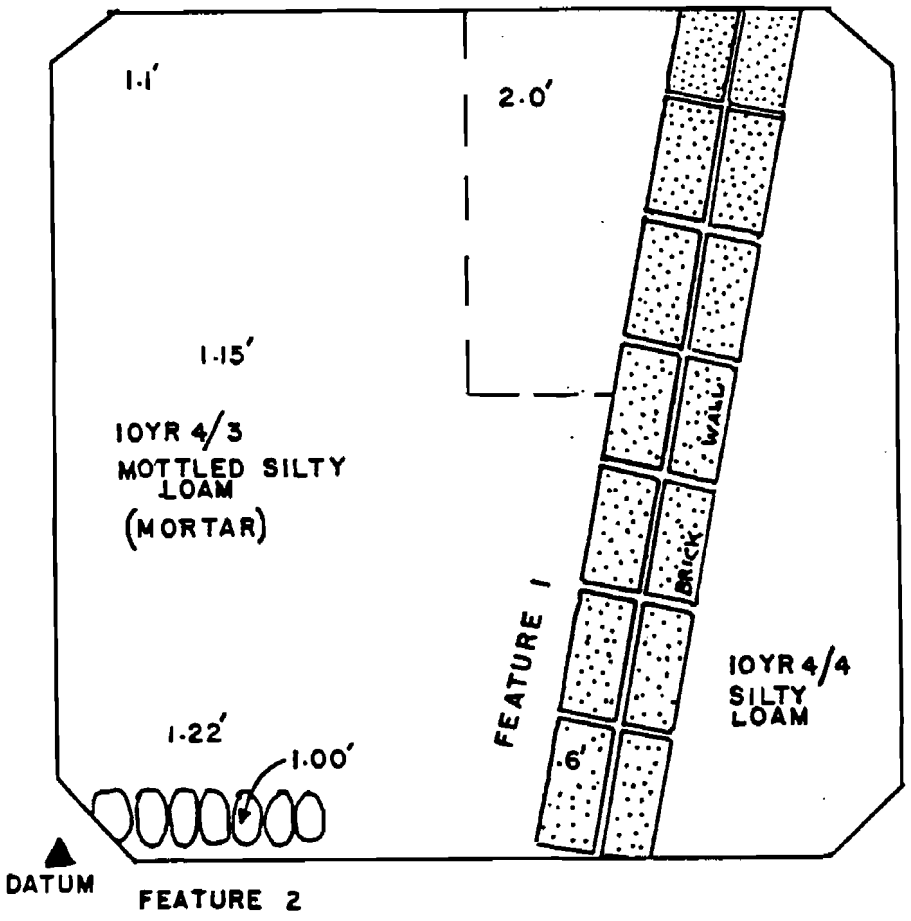
South of Airport Road there is a shopping center. Testing was conducted in the median strip between Route 273 and the parking lot of the shopping center (Map 9). These tests, S-37 to S-39, proved to be relatively undisturbed. One aluminum screw-on bottle cap marked "No Cal" was found.

The area in front of the shopping center was also tested. The soils, examined by the geomorphologist, had been determined to be relatively undisturbed; however, no artifacts were found.



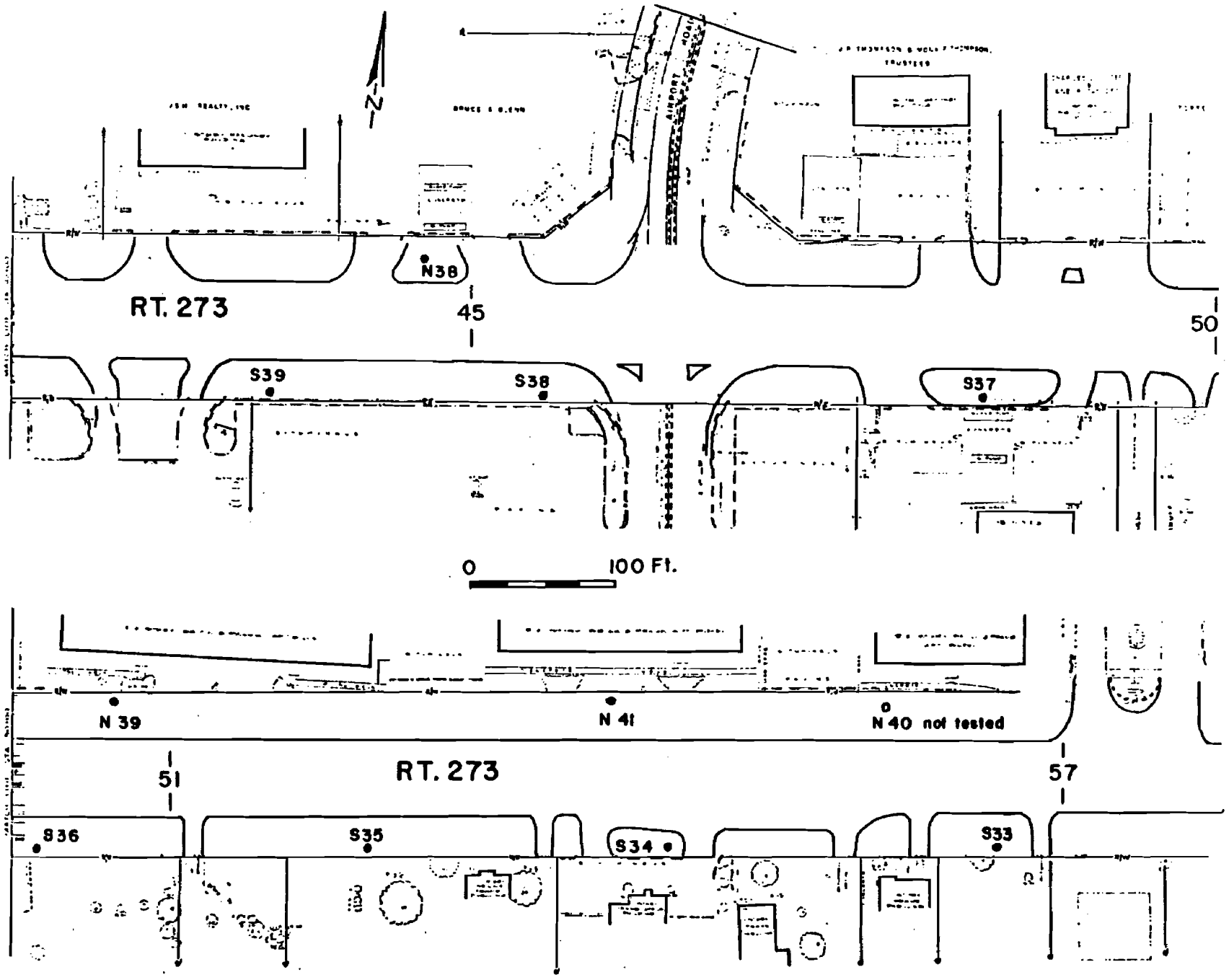
TAYLOR SITE - TEST UNIT 1 NORTH PROFILE

DELAWARE ROUTE 273 | FIGURE 10



TAYLOR SITE — TEST UNIT 1 PLAN VIEW

DELAWARE ROUTE 273 | FIGURE 11


N
N38
RT. 273
45
50
S39
S38
S37
0
100 Ft.
N 39
N 41
N 40 not tested
51
RT. 273
57
S36
S35
S34
S33

MAP 9

Across from the shopping center parking lot, are a series of residential houses. These houses are south of Route 273 and west of Appleby Road. Soils here are classified as Keyport silt loam (KeB2) having 5-10% slopes with rapid run-off and potential for severe erosion.

This portion of the project area appears to be landscaped, leaving the residences perched 7-10 feet (2.1-3 m) above Appleby Road. Testing was, nevertheless, conducted because of the potential for prehistoric sites, for both gravels and a small intermittent tributary of the Christiana River were present. Tests had to be placed on top of the high banks in front of these homes, as the slope down to the street ended on the shoulder of Appleby Road (Map 10).

Tests Appleby Road (A.R.) 1, 2, and 3 were similar, all having a thin level of brown to yellowish-brown silt loam over mixed clay fill. No artifacts were recovered.

The soil for approximately the next 1,000 feet (304.8 m) is Sassafras sandy loam with a 2-5% slope and moderate erosion. Some portions in the project area were gravely. A typical profile consisted of a dark grayish-brown sandy loam over a yellowish-brown light, sandy loam.

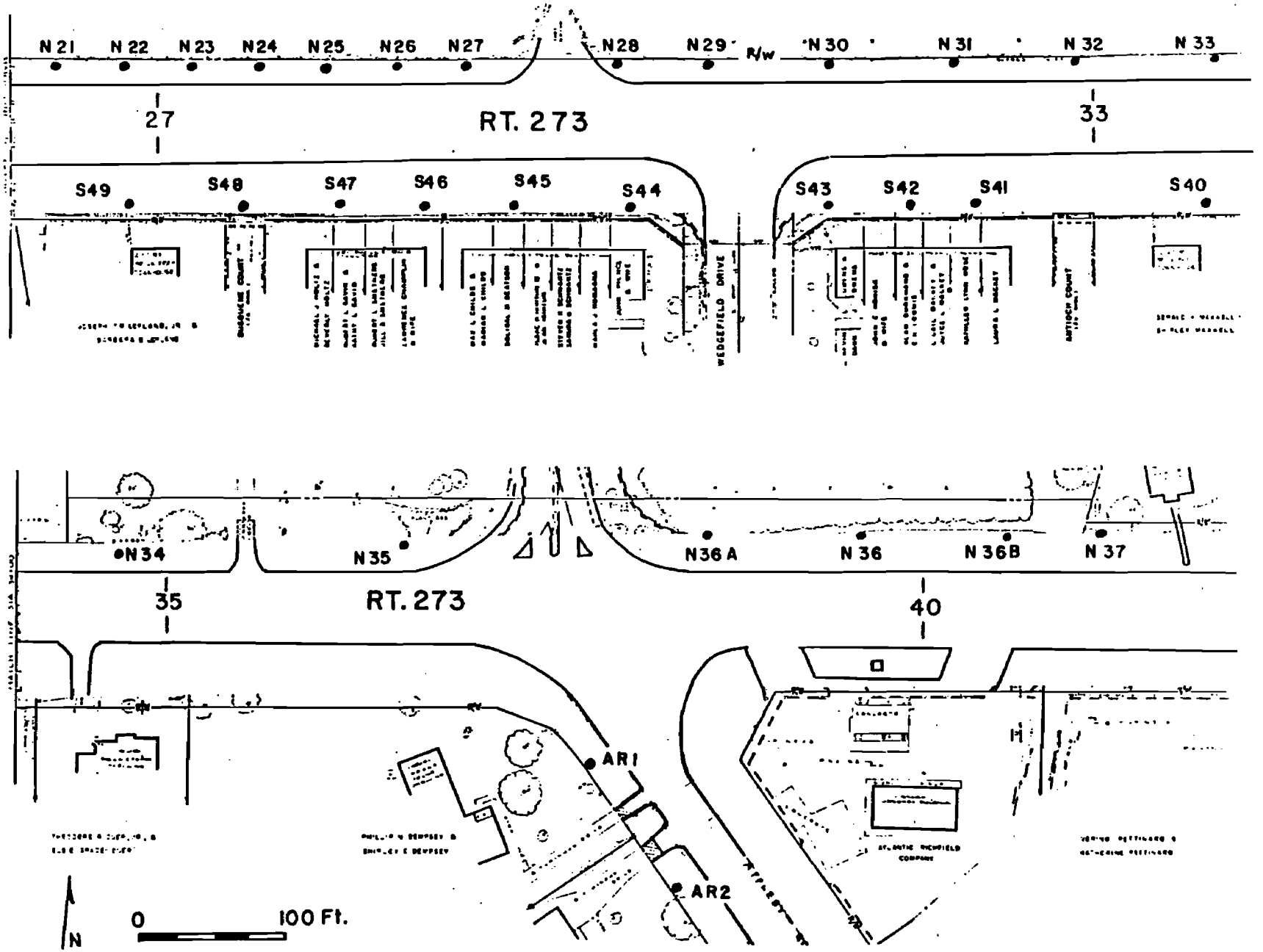
Due to the steepness of the bank, which continues from Appleby Road for about 350 feet (107 m), no tests were conducted. Testing resumed in front of the Maxwell residence with Shovel Test S-40. The interval between tests was shortened due to the possibility of a prehistoric site. Shovel Tests S-40 through S-45, however, had widely varying profiles, and the subsoil in each case was clay, rather than "light sand." A geomorphological examination of the area revealed nearly 2 feet (61 cm) of recent fill overlying gravel.

The soils in the remainder of the project area are classified as either KeB2 or, at the end, MeB2. Shovel Tests S-46 through S-51 met the description for these soils (Maps 10 and 11). Although all but Shovel Test S-49 appeared undisturbed, only two tests yielded artifacts. S-51 had one fragment of modern green bottle glass, and S-52 contained two large brick fragments.

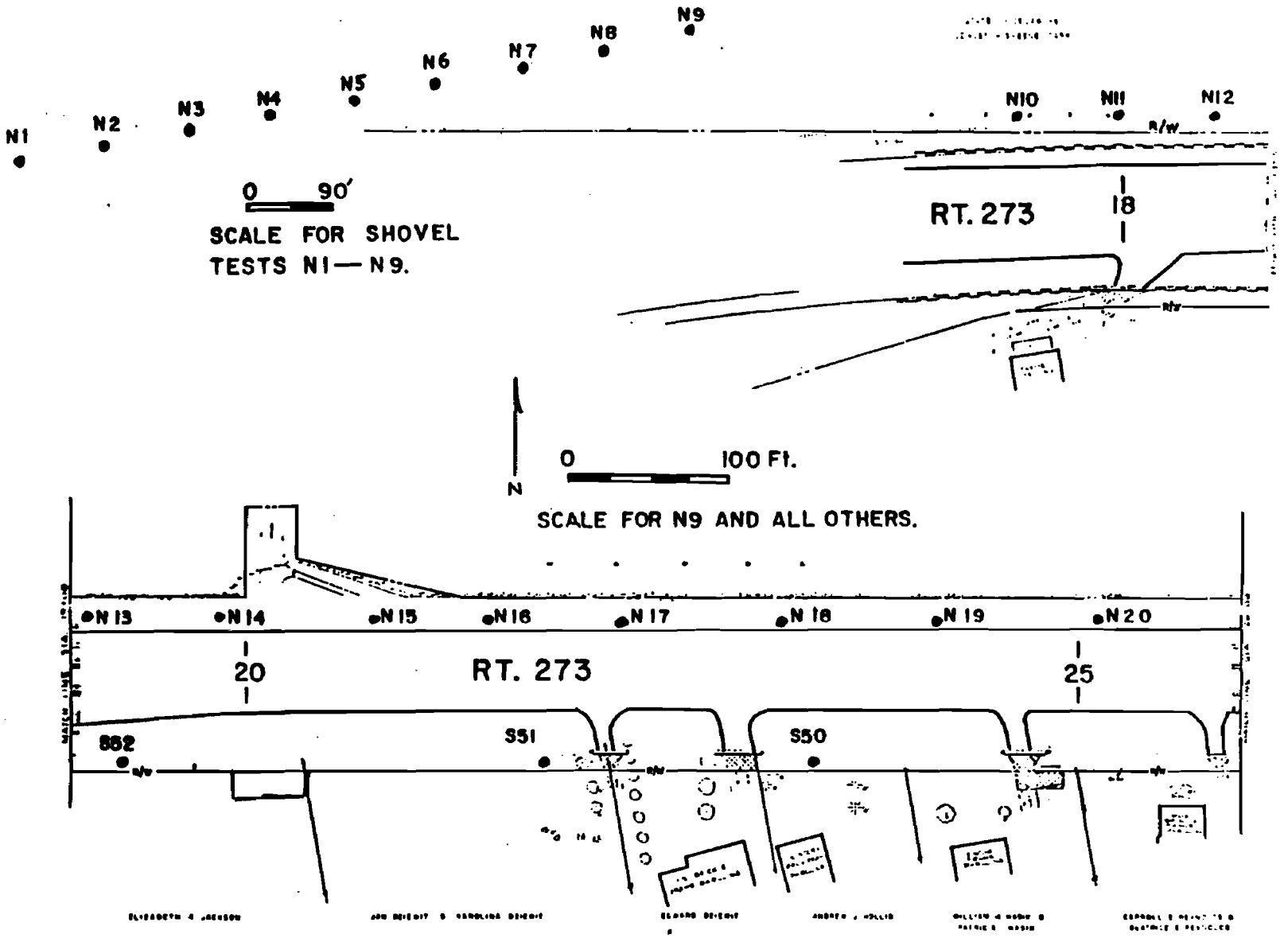
The remaining portion of the study corridor had been thoroughly altered by the realignment of the intersection of Routes 273 and 7. The realignment, which included grading and a drainage ditch dipped south resulting in the destruction of part of a small wooded area. This area had been archaeologically examined in the late 1970s (Thomas 1980). No tests were performed in this area.

Archaeological Testing of the Project Area, North of Route 273. Testing north of Route 273 began at the intersection of Route 7 and 273. Prior to the recent realignment of Route 273 to bypass the town of Christiana, this portion of the project area was an open field. Its soil is assigned to the Keyport silt loam series (KeB2), described as moderately eroded. The typical profile of this series is a dark yellowish-brown silt loam over a yellowish-brown heavy silty clay loam (Mathews and Lavoie 1970:26-27).

A total of nine shovel tests were placed just inside the chain-link fence separating the new alignment of Route 273 from the field (Map 11). Only Shovel Tests N-4 and N-6 contained any soils remotely described as typical for KeB2; it was, therefore, obvious that this section has been disturbed. Arti-


N 21
N 22
N 23
N 24
N 25
N 26
N 27
N 28
N 29
R/W
N 30
N 31
N 32
N 33
27
RT. 273
33
S49
S48
S47
S46
S45
S44
S43
S42
S41
S40
WEDGEFIELD DRIVE
N34
N35
N36 A
N 36
N 36B
N 37
35
RT. 273
40
AR1
AR2
N
0
100 Ft.

MAP 10


N1
N2
N3
N4
N5
N6
N7
N8
N9
N10
N11
N12
R/W
0 90'
SCALE FOR SHOVEL TESTS N1—N9.
RT. 273
18
N
0 100 Ft.
SCALE FOR N9 AND ALL OTHERS.
N13
N14
N15
N16
N17
N18
N19
N20
20
RT. 273
25
S52
S51
S50

MAP 11

facts recovered in these tests included three redware sherds in N-1, one brick fragment and one slip-decorated redware sherd in N-5, brick specks and two larger brick fragments in N-6, and brick specks in N-7.

At the point where the project corridor crossed the road bed of Old Route 273, no tests were excavated.

The next tests were performed in the woods of Lewden Green Park (see Map 11). Tests N-10 through N-14 were located in soils of the KeB2 series. The upper levels of all these tests varied widely; however, the subsoil appeared undisturbed. No artifacts were found in any of these tests.

Soils in the first 35 feet (10.5 m) east of the small, intermittent tributary of the Christiana River crossing the project area fall into the KeC2 category. These share the same soil profile as other Keyport soils but are more eroded. As expected, Shovel Test N-15 displayed a modified top soil, but a normal subsoil. No artifacts were found.

Testing in the woods continued on a different soil association. The new soil, Sassafras sandy loam, had a normal profile of dark grayish-brown sandy loam over yellowish-brown, light, sandy loam. Tests N-16 through N-33 were completed in the wooded park (see Map 11). The interval between tests was shortened due to the probability of prehistoric sites.

Shovel tests revealed a subsoil that varied mainly from silty or clay loam to sandy loam. All the upper levels were a very dark brown to black loam or silty loam. None of the tests in the woods of Lewden Green Park contained any artifacts.

Two tests, N-34 and N-35, were placed between the edge of the woods and the entrance to the "Villas Apartments" (see Map 11). Test N-34 had a profile similar to those in the woods. Test N-35 displayed disturbed fill and revealed a modern, clear glass bottle base at its bottom.

Beyond the driveway into the "Villas," four more tests were completed (see Map 11). They were primarily on KeB2 soils, and all but one were placed in a small wood.

Shovel Test N-36 uncovered four flat aqua glass fragments, one flat aqua frosted glass fragment, two clear flat glass fragments, two aqua vessel glass fragments, one dark green vessel glass fragment, one dark amber vessel glass, and a whiteware sherd; all were modern. Shovel Tests N-36a and N-36b were placed 30 feet (9 m) east and west of Shovel Test N-36. Nothing was found in these two tests.

Test N-37 was on the western edge of the West's property (see Map 10). This test contained no artifacts, and the soil appeared to be landscaping soils placed on top of subsoil fill.

A macadam lot associated with a gas station on the northeast corner of Route 273 and Airport Road made testing impossible for the next 200 feet (61 m).

Test N-38 was placed in a bed of plantings on the gas station property (see Map 9). The stratigraphy consisted of a dark grayish-brown silt loam over a very hard, compact dark yellowish-brown clay loam with gravel. No artifacts were discovered.

A series of shovel tests were conducted along both sides of Airport Road, which runs north of Route 273. The shovel tests were numbered Airport Road (APR) 1, 2, etc. (Map 12). This area originally was assigned to the Fallsington Series, but subsurface testing revealed soils unlike the descriptions of the Fs series, which indicates that this area is disturbed.

APR-1 was conducted on a grass median about 150 feet (46 m) northeast of the intersection of Route 273 and Airport Road. No other subsurface tests were conducted earlier than this because of the macadam and cement driveways associated with a "7-11" on the corner. The test revealed 0.2 feet (6 cm) of brown silt loam on top of fill containing chunks of road macadam. No artifacts were found.

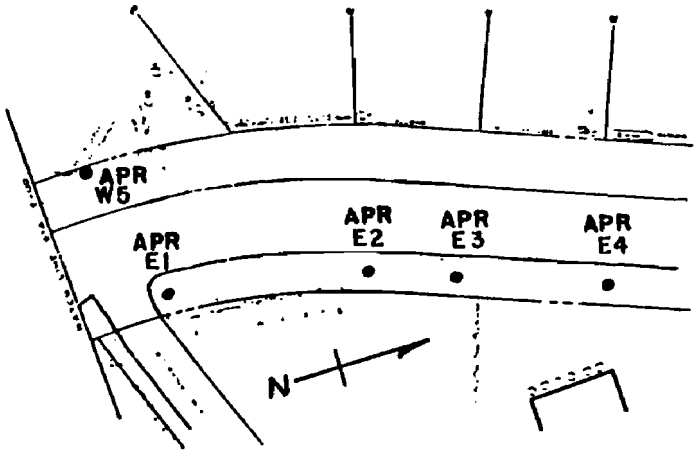
The next two tests were placed in these woods following APR-1. The stratigraphy of Shovel Tests APR-2 and APR-3 was a thin brown silt loam over a yellowish-brown friable silt loam, on top of a dark brown loam and ended with a hard, mottled, yellowish-brown clay loam subsoil. Both Shovel Test APR-2 and APR-3 had buried "A" horizons, and, thus, their interval was shortened to 30 feet (9 m). In APR-2 beer bottle glass was present on all levels; no cultural material was present in the other tests.

Test APR-4 was 90 feet (27 m) beyond the edge of the woods in the landscaped front yard of an apartment complex. The soil profile in this test, brown silt loam over yellowish-brown, hard, mottled clay loam, confirmed that landscaping work using fill had been done. No artifacts were recovered.

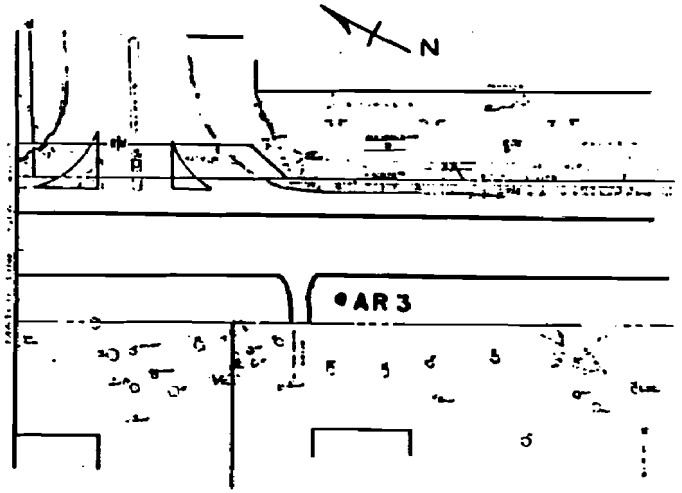
Crossing Airport Road, and working south, back towards the intersection, no tests were placed in the narrow shoulder of the road, from which all top soils had disappeared, leaving bare, dry subsoil, in which even weeds refused to grow.

Standing behind the Texaco station on the corner of Airport Road and Route 273 was another small wooded area. Shovel Test APR-5 was performed here, but these soils were also disturbed. The top level of dark yellowish-brown loam contained a child's "Hot Wheels" car. Plastic was found in the mottled, dark yellowish-brown silt loam of Level 2. The test ended in strong brown, sandy clay loam. Shovel Test APR-5 was the last test done on Airport Road.

On Route 273, after the intersection with Airport Road, the next 400 feet (122 m) consists of macadam parking lots for businesses. Immediately following this area are the "Georgetown Village Apartments." Their frontage on Route 273 continues for approximately 2,000 feet (609.6 m). This entire length was altered by landscaping activities. Two tests, N-39 and N-40, were conducted to verify the disturbance (see Map 9). Both tests had thin levels of top soil spread over very hard, mottled yellow clay, which was so compact as to be almost impenetrable. Following these two tests, the remaining frontage of the Georgetown Village Apartments was examined and found to have no top soil at all, just very compact clay. No further tests were conducted along this portion of the right-of-way.

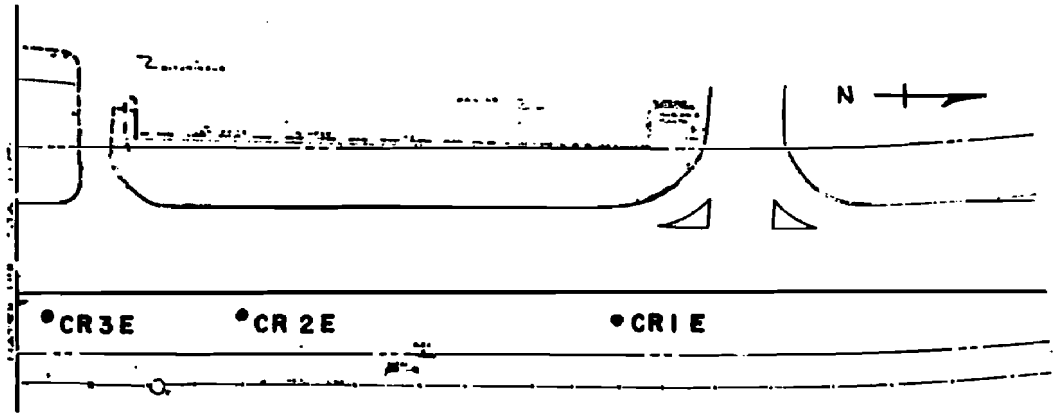


AIRPORT ROAD



APPLEBY ROAD

0 100 Ft.



CHURCHMANS ROAD

MAP 12

The findings of the geomorphologist indicated that there were 2 feet (61 cm) of fill over what might be relatively 'young' soils, i.e., dating only to historic times. This area had already been deemed to have a low potential for either historic or prehistoric sites.

Just beyond the land of the Georgetown Apartments, Shovel Test N-42 was placed on land belonging to the Hope Evangelical Lutheran Church (see Map 8). This MeB2 soil is described as either deeply eroded or uneroded. N-42 must have been in one of the uneroded positions, as its dark yellowish-brown silt loam extended to a depth of 1.2 feet (36.5 cm). No artifacts were recovered.

Test N-43 was opened on the church property between the parking lot and Route 273. The test pit's profile consisted of dark yellowish-brown silt loam over yellowish-brown sandy clay. This test was atypical of Meb2 soils. The only artifact recovered was a Budweiser beer can. The rest of this median strip between the church parking lot and Route 273 was not tested.

Shovel Test N-44 was positioned at the far eastern edge of the Lutheran Church property (see Map 7). The shovel test profile, which was yellowish-brown silty loam over yellowish-brown sandy clay, indicated that these soils were disturbed.

Crossing Edinburgh Drive, Shovel Tests N-45 through N-48 (see Map 7) exhibited characteristics for the Aldino-Keyport-Mattapax-Urban land series (Am). These soils are described as being so disturbed it is impractical to separate them. They have been covered with fill or cut away in the process of residential and other community activities (Mathews and Lavoie 1970:12). The following four shovel tests are quite varied in their profiles: N-45 had yellowish-brown silty loam over yellowish-brown silty clay; N-46, very dark grayish-brown loam over dark yellowish-brown silt loam; N-47, brown loam over yellowish-brown silty clay; and, N-48 very dark grayish-brown loam over dark yellowish-brown silt loam. None of these tests contained any artifacts.

The next series of tests crossed land belonging to Pleasantville, a mixed residential and commercial area (see Map 7 and 8); the soils here were part of the Matapeake-Sassafras-Urban land complex (MsB), which is also described as being substantially altered by residential and commercial development (Mathews and Lavoie 1970:30). Just prior to reaching the farm land of the Walker family, another small patch of Am soil is present.

Only two of the Shovel Tests from N-50 through to N-59 contained any cultural material. Shovel Test N-51 contained four fragments of modern green glass, and Shovel Test N-57 contained one piece of creamware and one cinder.

The profiles of Shovel Tests N-50 through N-59 were as follows: N-50, very dark grayish-brown loam over dark yellowish-brown silt loam; N-51, very dark grayish-brown loam over black fill with asphalt; N-52, dark yellowish-brown silt loam underlain by dark yellowish-brown sandy loam; N-53, brown loam over yellowish-brown sand with gravel; N-54, dark yellowish-brown silty loam over dark brown silt loam; N-55, brown loam mixed with fill over brownish-yellow sand and gravel; N-56, hard-packed, dark yellowish-brown, sandy clay loam; N-57, dark grayish-brown loam above yellowish-brown silty clay; N-58, dark yellowish-brown silt loam over a dark yellowish-brown loam subsoil; and, N-59, brown silty loam above yellowish-brown silty clay.

The largest plot of undeveloped land along the project corridor was that belonging to the Irvine Walker family. The soil on their land is classified as belonging to the Butlertown series; specifically, the farm land is Butlertown silt loam, moderately eroded (BuB2). Tests N-60 through N-65 were placed along the front of the Walker field (see Map 4). It was immediately evident that the field was badly eroded. Test N-60 consisted of very hard, yellowish-brown, sandy clay loam. Shovel Test N-61 had a thin, very dark grayish loam over yellowish-brown, hard, sandy clay. Tests N-62 through N-65, like Shovel Test N-60, contained a yellowish-brown, hard-packed, sandy clay loam. Only one artifact was recovered, a cinder in Shovel Test N-65.

Beyond the Walker Farm was the site of the old Bethel Church. Mr. Walker, a man in his 40s, said that his father and grandfather remembered a lot about the church. Mr. Walker also stated that the man who had donated the land for the church is buried on the Walker farm.

Mr. Walker showed us the site of the over-grown cemetery in the woods behind the house at 100 Christiana Road. The cemetery measured approximately 150 feet by 150 feet (46 m by 46 m), and was set back from Route 273 about 300 feet (91 m). Most of the tombstones, many of which had been broken by vandals, date to the nineteenth century. A few of the birth dates run into the seventeenth century. The most recent tombstone was of a man buried there in 1946.

Mr. Walker also told us about a well in the front of the property, just beyond the right-of-way. It was capped with concrete, which had broken open and was very likely a safety threat. The Historic Markers mentioned in the DelDOT Scope of Work were long gone, according to Mr. Walker. They had been twice broken off by DelDOT crews mowing the edge of the property.

Historic maps indicate that the Bethel Church was not the only building to occupy this site. Two earlier structures are shown, one behind the other, on the west side of the property.

Shovel Test N-66 was placed within the right-of-way in the center of the yard at 100 Christiana Road (see Map 4). The soil type remained BuB2. Its stratigraphy consisted of a layer of dark brown silt loam over dark yellowish-brown, silty loam fill. Artifacts found were one fragment of aqua vessel glass, two cut nails, three fragments of mortar, and three fragments of brick.

Test N-66a was excavated 20 feet (6 m) east of N-66. Its soils were a very dark grayish-brown loam over a light yellowish-brown, silty loam, which was underlain by a yellowish-brown silty clay. No artifacts were found in this test.

Shovel Test N-66b was positioned on the western end of the property, where the early maps showed the other houses. The first layer, a dark brown silt loam, contained six brick fragments, one piece slip-decorated redware, one lead-glazed redware rim, and one pearlware rim fragment. Below this was a dark yellowish-brown, silty loam fill, which had five brick fragments, two lumps of coal, one handpainted pearlware rim sherd, one annular pearlware shard, one yellowware sherd, and one piece of clear vessel glass.

Test N-66c was put on the eastern part of the yard near the well. Soils here consisted of dark grayish-brown silty loam above brownish-yellow, sandy

clay. The artifacts recovered included: twenty-three brick fragments; one piece of mortar; three unidentified nails; five pieces of coal; one fragment of olive vessel glass; one aqua vessel glass; one one-hole, white glass button; one piece of saltglaze stoneware; two pieces of slip-decorated redware; one piece of unglazed redware; two pieces of iron oxide glazed redware; and six plain whiteware sherds.

The large number of historic artifacts indicated that archaeological deposits relating to the Bethel Church and associated buildings were still present in this area. A test unit was placed in the front yard just inside the proposed right-of-way (see Map 4). The stratigraphy consisted of 0.4-0.9 feet (12-27.5 cm) of 10YR4/3 silty loam overlying a 10YR5/6 clayey loam subsoil (Figure 12a). All artifactual material was recovered from the upper stratum of topsoil. Artifacts were similar to those found in the shovel test pits. They included brick, redware, whiteware, bottle glass, and pipe stems.

Shovel test pitting continued to the east of the Bethel Church site (see Map 3). Shovel Test N-67 was placed 90 feet (27 m) east of Shovel Test N-66c and 100 feet (30.5 m) west of New Castle Square Mall parking lot. This area was obviously disturbed; in fact, Mathews and Lavoie (1970:Map 20) designate the remainder of the project area as "Gravel pits and Borrow" (Gp). This test penetrated only 0.3 feet (9 cm) of the yellowish brown, mottled clay fill. There were no artifacts.

Shovel Test N-68 was done in the median strip between the shopping center and Route 273. Its profile was identical to N-67, and no artifacts were found. Test N-69 was placed in another part of the median, east of the central entry to the shopping center. No artifacts were present here. The soils consisted of 0.1 feet (3 cm) of light yellowish-brown, silty clay over brownish-yellow, silty clay.

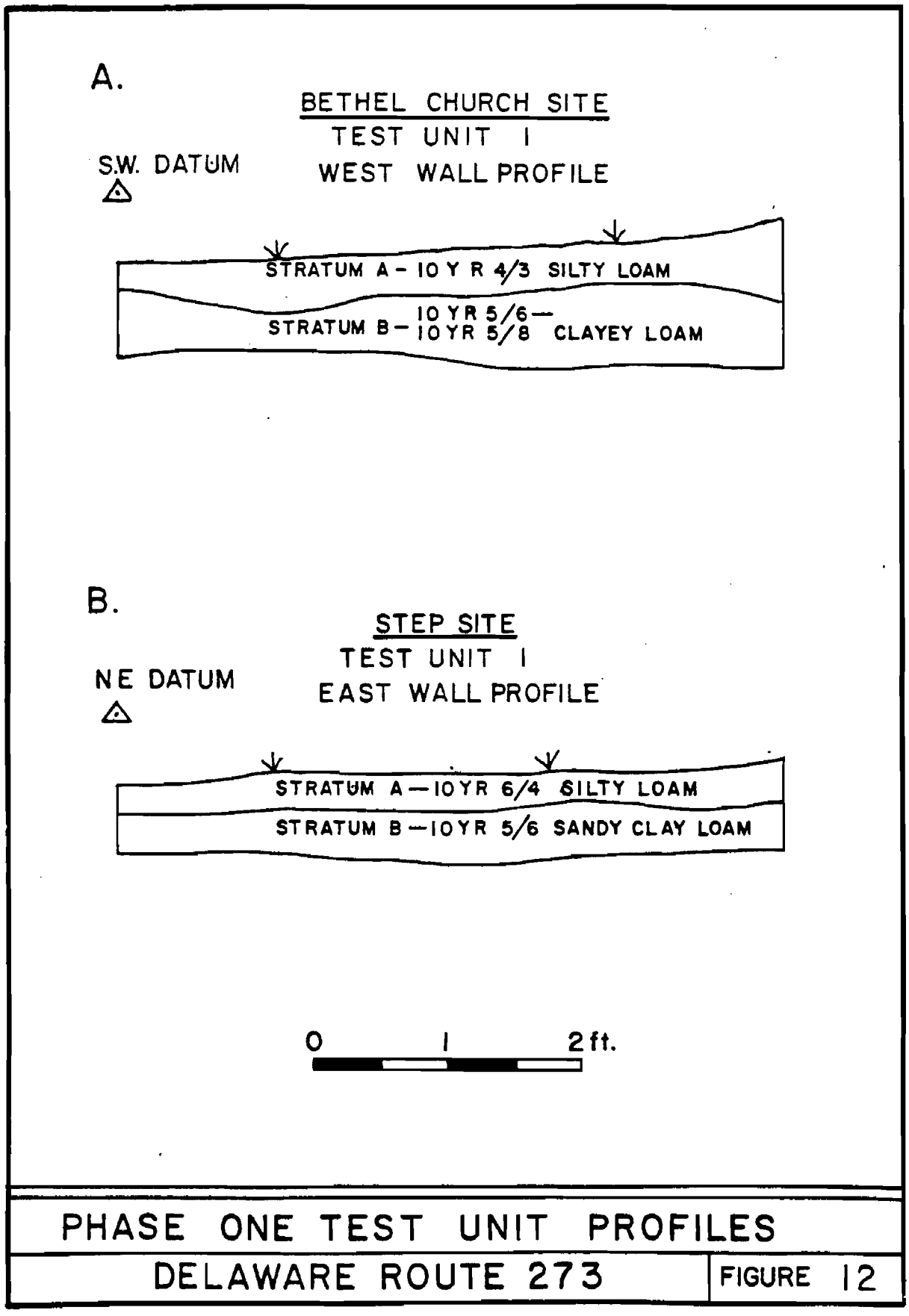
At this point the project area crosses New Churchman's Road. According to the proposed plan, this road is also to be modified. Three tests were performed here despite the fact that this edge of the road had obviously been severely impacted (see Map 12).

Shovel Test Churchmans Road (CR) 1 was placed 300 feet (91 m) north of the intersection of Churchmans Road and Route 273 (see Map 12). Only the east side of Churchmans Road was tested because a drainage ditch, which occupied the median strip on the west side between the shopping center parking lot and the road, prevented testing on the west.

CR-1 had a hard, dark yellowish-brown clay loam over cement and rock fill. No artifacts were present.

CR-2 was placed 150 feet (46 m) south of CR-1, heading back down towards Route 273. This test contained a very dark brown silt loam over a dark yellowish-brown, friable clay loam but did not contain any artifacts.

The interval between CR-2 and CR-3 was shortened to 90 feet (27 m) due to the more normal stratigraphy found in CR-2. The top layer was the same very dark grayish-brown silt loam, and it lay over a dark brown sandy loam. No artifacts were found.



PHASE ONE TEST UNIT PROFILES

DELAWARE ROUTE 273 | FIGURE 12

The next 800 feet (243 m) along the north side of Route 273 was impacted by the excavations of a gravel pit company. Between the company's chain-link fence and the edge of Route 273, stood the concrete steps that were the only remains of a structure and barn shown on historic maps. The last two shovel tests were placed here, in what was to be called the Step site (see Maps 1 and 2).

Shovel Test N-70 was 30 feet (9 m) west of the southeast property marker. There was no real line of demarcation between levels. Stratum A was a dark yellowish-brown silty loam, which gradually became a yellowish-brown silty clay. Artifacts present included one oyster shell, three brick fragments, one styrofoam cup rim, one piece of blue-edged whiteware, and one of undecorated whiteware.

Shovel Test N-71, between the top of the steps and the chain-link fence, had a Stratum A of yellowish-brown, very silty loam, while Stratum B was a yellowish-brown sandy clay. The final level was a yellowish-brown clay loam. No artifacts were present.

The presence of artifactual remains in the location of a known historic property prompted the excavation of a 5-foot by 5-foot (1.5-meter by 1.5-meter) square to ascertain the nature of the remains found in the shovel test pit (see Map 2). This unit (Figure 12b) revealed stratigraphy similar to that found in the shovel tests. Stratum A consisted of a 10YR6/4 silt loam 0.3 feet (9 cm) thick. Stratum B was a 10YR5/6 clayey loam. Artifacts recovered included a large quantity of oyster shell, bottle glass, coal, and some red-ware. All material was limited to the upper soil stratum. No features were found. This ended the testing on the north side of Route 273.

Architectural Survey

The existing architectural fabric along Route 273 in Delaware is extremely varied in character and is made up entirely of recent, twentieth-century construction, which has replaced all original structures. Historical development in New Castle County began early in the seventeenth century, with towns like Christiana, New Castle, and Wilmington. Development mainly occurred at the intersection of major roads or along rivers used for transportation. Route 273 was the earliest east-west road between New Castle and Christiana; however, nothing structural remains from the early periods of the road's use, nothing built prior to 1900.

Although the project is located within the Coastal Zone of the Delaware Comprehensive Historic Preservation Plan, it has little in common with the Economic and Cultural Trends discussed for the period of its development, 1900-1945. Development along the road seems to have occurred during this period in response to automobile travel and to the needs associated with the automobile. Residential development along the study corridor is varied in nature but limited in period to the twentieth century. The earliest dwellings found in the area are Craftsman-style bungalows. They are one-story buildings which vary in width, but which remain very small in scale. Materials used for these houses range from frame and brick to concrete block. Many have been covered with asbestos siding, shingles, or insulbrick. Window openings also range from contemporary one over one, double-hung aluminum and paired windows to 6/1, wooden framed, double-hung Colonial Revival windows. Windows also vary from small oculi and bull's-eyes to other, large-paned fixed windows.

There are also a number of small houses built during the period 1930-1950 (referred to as Minimal Traditionalist in McAlester and McAlester 1984:478). These are typically one-story houses with low-pitched roofs, constructed of brick, stone, frame, or combinations of materials. Intermixed with these are a number of Ranch houses (noted in the Delaware Comprehensive Historic Preservation Plan and in McAlester and McAlester 1984:479). These one-story houses follow a long, narrow plan and have shallow, gabled roofs with an occasional cross-gable and side-gabled plan. Materials are similar to those used for the first type of houses (Minimal Traditionalist). Windows in both types of houses are generally double-hung, aluminum-framed and have a variety of light patterns. Both types typically have large picture windows opening into the living rooms and have either separate or attached garages.

In addition to the large number of individual houses, the corridor also boasts apartment buildings and townhouse and condominium developments. The Georgetown Apartments is a large complex consisting of a number of three-story, multi-unit apartment buildings on the north side of Route 273. The Liberty Knoll Apartments, another set of apartment buildings, also stand on the north side of Route 273. Condominium and townhouse development seems to have remained on the south side of Route 273, among these are the completed Timber Ridge Townhouses and the Saddlebrook, which is still under construction.

Twentieth-century style commercial strip development permeates the study corridor. Mid-century malls sit along both sides of Route 273. New gas stations and other automobile-oriented service industries have established themselves along the road, including banks, fast food restaurants, Foto-Mat stores, and automobile repair and supply shops. New mini-malls are being constructed fronting Route 273.

The study corridor contains a varied set of twentieth-century structures and complexes, from individual dwellings and apartment buildings to malls and other commercial structures. All of the architectural fabric appears to date to the twentieth century. Forms were completed for eleven structures within the project area. Two structures were found of note: a Colonial Revival house on Edinburgh Drive and "Tat-Tat," a Neo-Egyptian temple front applied to a 1950s ranch house. None of the buildings appear to meet the criteria of eligibility for listing on the National Register of Historic Places.

The Oak Hollow Associates own the only Colonial Revival structure in the corridor, is a two and one-half story, two-bay, brick dwelling, which stands at the entry road to the Timber Ridge Townhouses development, on Edinburgh Drive. It has a gable roof that runs perpendicular to Route 273. The house, placed back from the road, has conifers along the north and south walls, while the east side of the property is landscaped with bushes and flowers. There is an in-ground pool immediately west of the house and a one-story, gable-roofed garage of concrete block to the rear (south).

The north (main) facade, two bays wide and two and one-half stories tall, has an external brick chimney at the ridge. The first story has two entrances, one on each side of the chimney base. The east entrance is a wooden door with a large, multi-paned window. The wooden porch at this corner of the house runs from the eastern edge of the chimney base on the north facade, around the corner, and along the eastern facade for approximately 5 feet. This porch is supported by three wooden Doric columns and has a shed

roof. The entrance west of the chimney base is a one-story, projecting bay capped by a gable roof. This entrance has an elaborate, broken triangular pediment. The paneled wooden door has a small six-paned window. Two four over one, double-hung, wooden windows open into the attic floor.

The east facade has two bays. The first story has a paired six over one, double-hung, wooden window on the south and a triple six over one, double-hung, wooden window on the north. The second story has two sets of paired six over one, double-hung, wooden windows aligned with the first story windows. All of the windows have wooden sills. Part of the north facade porch wraps around this facade at the north corner.

The south (rear) facade has a two-bay, projecting section on the west. This section is two stories in height with a hipped roof that ties into the main part of the house. The first story has a door on the western half of the south facade and two symmetrically placed six over one, double-hung, wooden windows. Above these windows is a line of four six over one, double-hung, wooden windows. This projecting rear section is only 6 feet in depth and has no fenestration on the east or west facades. The east section of the main house (south facade) has a six over one, double-hung, wooden window on the first story and an identical window directly above. At the gable is a six over one, double-hung, wooden window sheathed in horizontal wood siding.

The west facade of the main house is made up of three bays, which are irregularly placed. The northern bay has paired six over one, double-hung, wooden windows on the first and second stories. The center bay has one small, rectangular window in the center of the facade. The southern bay has paired six over one, double-hung, wooden windows on the first story (smaller than those in the northern bay) and a single six over one, double-hung, wooden window at the second story.

This building has a simple wooden cornice with returns, and the roof is sheathed in composition shingles. It is in good condition and appears to have been well-maintained over the years.

The significance of the Oak Hollow Associates' building is in its being a typical example of a Colonial Revival dwelling, probably constructed in the first quarter of the twentieth century. Its use of Colonial shapes and detailing illustrates the nature of the building; however, the building lacks the cohesiveness of a pure Colonial Revival dwelling. Many elements appear to be appended to the main box of the house, including the corner porch, the northern entry vestibule, and the southern sun-room or kitchen wing. The location of the entries on the northern facade also are unusual; the majority of Colonial Revival entrances are on the main (long) facades. This house has two entrances on the north (short) facade.

This building is significant as it is the only Colonial Revival dwelling in the study corridor; it is also significant for its size and condition. Few houses in the study corridor are two stories, and even fewer are in excellent condition with so few alterations. Many other better examples of Colonial Revival buildings do exist in New Castle County and in the State of Delaware. The lack of cohesiveness, the heavily altered garage to the south, and the in-ground pool immediately west of the house, all detract from its significance. Because of these detractions, Building 1 does not appear to meet the criteria of eligibility for listing on the National Register of Historic Places.

"Tat-Tat" is a complex of two buildings. The main structure was built in a Neo-Egyptian/Persian/Babylonian style in the middle 1950s. The building was not carried out with academic skill and is a combination of different historical elements. The main building was originally constructed as a one-story, "ranch" house, on a T-plan. In the 1950s a large, two-story temple front was constructed on the main facade of the "ranch" house. This massive front has two large piers one on each side and two smaller, narrow, square pilasters framing the center door. The larger end piers extend past the exterior walls of the temple and narrow considerably as they intersect with the cornice and roof. Between the outer and inner pilasters are narrow, painted glass windows. These windows are approximately 1 foot wide and 7 feet in height and rest on small concrete sills on both the first and second stories.

The central entrance is a double door, which is covered in metal and decorated with one male and one female (apparently Egyptian) figure. The door is topped with an Egyptian style, fluted flat pediment that flairs outward as it rises. Above the door, centrally placed between the second-story windows and pilasters, is a triangular decoration with an Egyptian Ankh painted upon it. The cornice, an exaggerated Egyptian/Persian type, is constructed of wood and metal and is painted in alternating vertical stripes of blue, red, and green. It does not continue around the rear of the temple. The entire structure is covered in a smooth pink stucco (or cement) finish. There are single, tri-partite windows on the second story on the east and west facades of the temple. The metal-framed windows swing outward. The original ranch house has also been covered in the pink finish. It has a flat roof, metal windows and doors, and a cement chimney at its center.

The second building in the complex is a small, two-room, cement-block structure with a gable roof. Located southeast of the main building, this building is oriented with the gable running parallel to the main road. It has a center entrance with a metal door and two glass-block windows to either side. The roof is metal. There are many decorative elements applied to the building, including a painting of an Egyptian style horseman in a chariot on the south facade. Applied features include shields, spears, banner-poles, and other designs. This building is also painted pink, but it appears to post-date the main building.

The Tat-Tat Temple is significant as one of the few Neo-Egyptian/Persian/Babylonian Temples in the United States. Although it is neither a pure interpretation nor an accurate reconstruction, the unique quality of the complex lends significance.

There are many possible inspirations for the shape of the Tat-Tat Temple. It seems likely that the form was taken from a variety of sources. First, the Temple of Horace at Edfu. Its massing, slanted buttress type walls and center entrance with a flaring cornice could have been borrowed here. The shape of the temple can be seen in the main entrance of the Temple of Khons, Karnak, Egypt from 1198 BC (Copplestone 1969:53), for the massive entry portal slims from base to the top, where it is capped by a narrow cornice. There are also parallels with the Ziggurat at Ur, Chaldea in Mesopotamia, 2125-2025 BC. The buttress form here was used for strength at a very early date, and is very similar to the large buttress type sections on the main facade of the Tat-Tat Temple.

The door surround appears to have been largely copied from the massive entrance arches at the Palace of Darius, Persepolis, from circa 500 BC (Gardner 1980:59). This Persian Empire site also probably influenced the design of the cornice at Tat-Tat, where the flaring and fluting is transposed into the vertical painted lines. The art used to decorate the building appears to be in an Egyptian style and can be compared to various wall paintings found beginning in 1500 BC. This can be seen in many illustrations including those at the tomb of Nebamun in Thebes, which date to circa 1450 BC, the Temple of Horus in Edfu, and the tomb of Nefertari in the Valley of the Kings.

Thus it appears that Tat-Tat is a compilation of historic styles, Egyptian, Persian, and Babylonian. Instead of being carried out in brick, as in the Persian structures, or in sandstone, like the Egyptian structures, Tat-Tat was built using twentieth-century materials: cement covered in a light coating of sand and painted pink (probably to resemble sand).

Although the "Tat-Tat" complex is unique to the project corridor and to the region it does not meet the age criteria set forth for properties on the National Register of Historic Places. As a result, the Tat-Tat Temple is not eligible for listing on the National Register on Historic Places.