for substantial historic resources in this segment low. Background research revealed no historic resources within this segment. Since at least the early 19th century, this area is known to have been a woodlot for the surrounding landowners.

SEGMENT 4 - SURVEY RESULTS

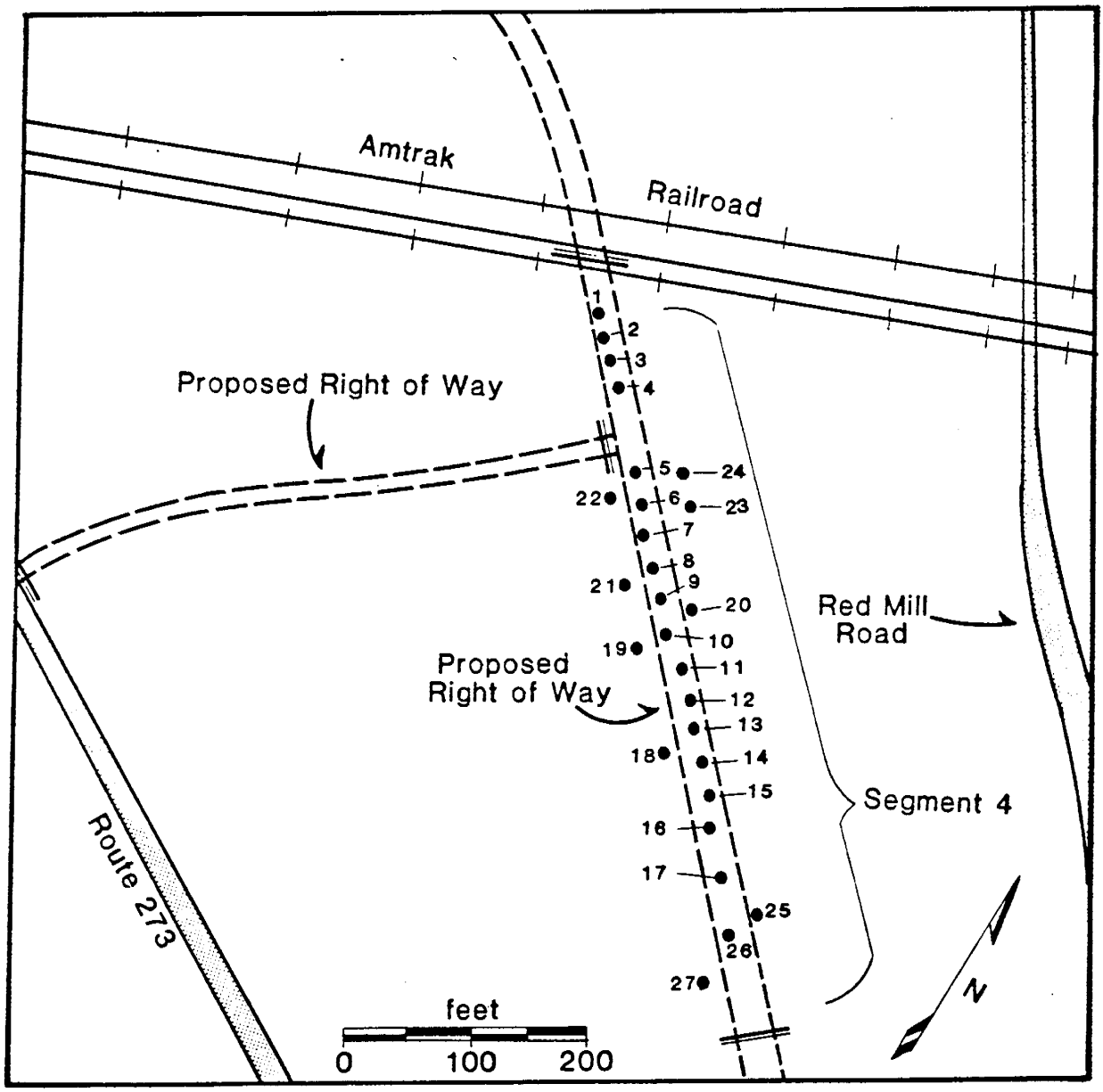
This segment traversed a heavily wooded area that necessitated extensive subsurface archaeological testing at 20m intervals (Figure 63). The excavation of a total of 27 1m units in this segment yielded either no historic or prehistoric archaeological materials or only a very low density of artifacts, such as one or two artifacts per unit (Appendix II). A heavily resharpened, basally-notched biface was found in one of the units; however, further intensive testing surrounding this unit did not recover any additional significant artifacts. The artifact scatters were not sufficiently dense to warrant definition as a site and no further work is recommended for this segment.

SEGMENT 5 - BACKGROUND RESEARCH

Segment 5 consists of that portion of the Route 273 alignment from the Amtrak railroad tracks to Cool Run (Figure 4, Plate 3). Background research indicated that this section of the proposed ROW had no previously recorded prehistoric sites. This portion of the project area has not been subject to recent development as have other segments. It remains almost entirely agricultural in character and both prehistoric or historic sites should be preserved in this area. Archival research failed to indicate the presence of any historic resources within this

FIGURE 63

Segment 4 Testing



segment.

There exists a low potential for the location of prehistoric resources in this segment based on the predictive models contained in Custer (1986) and Custer and DeSantis (1986) (Figure 12). The proposed ROW in this segment is located within very poorly-drained areas adjacent to well-drained rises and terrace slopes. The poorly-drained and hillslope location of the proposed roadbed also preclude a high potential for the location of historic resources. Additionally, the absence of transportation routes over this segment also precludes the potential for historic resources in this segment of the Project Area.

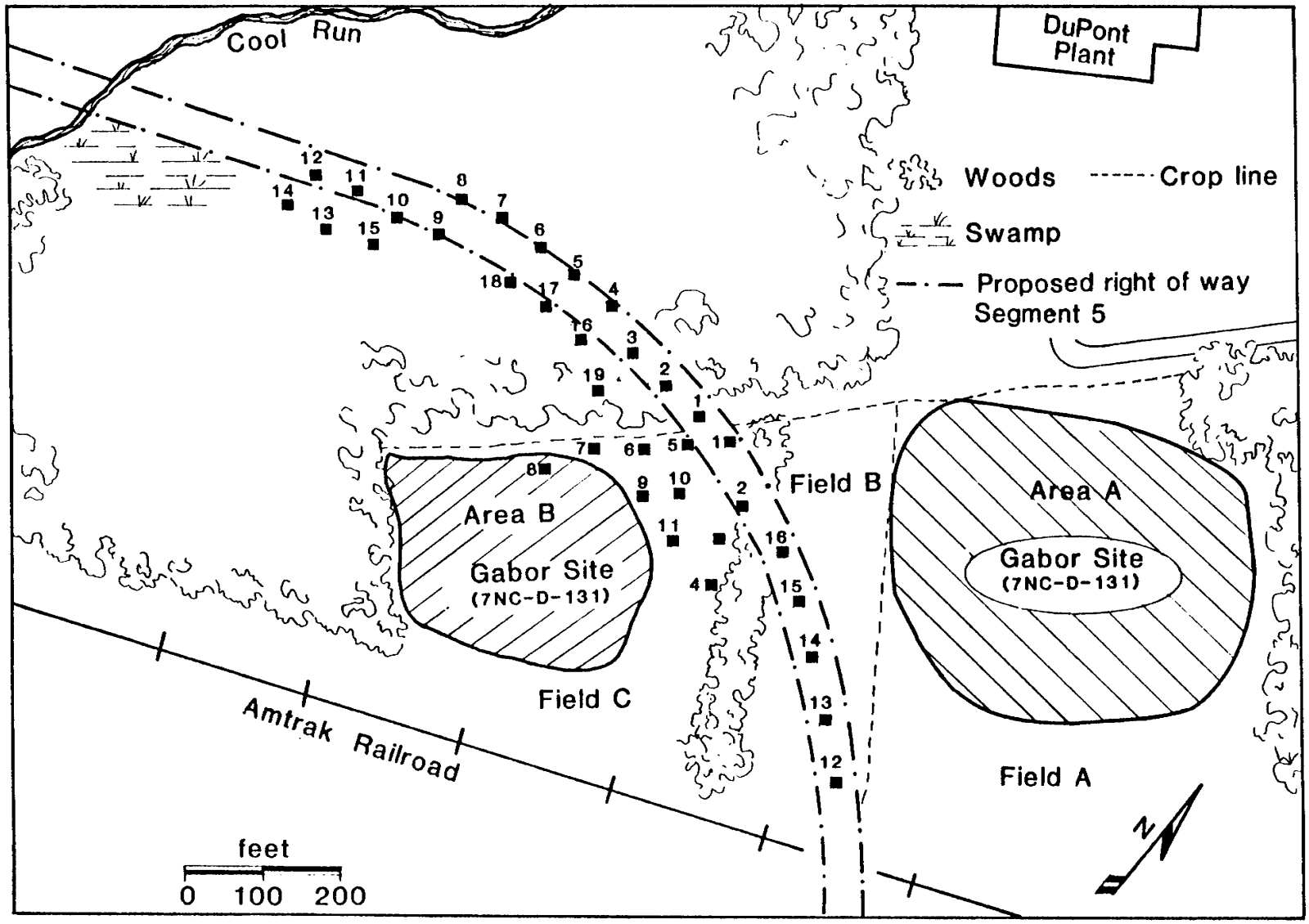
SEGMENT 5 - SURVEY RESULTS

The right-of-way within this portion of the project area consists of approximately one-half plowed fields and one-half heavily wooded areas. An uncontrolled surface collection of field "B" within the proposed ROW yielded two historic artifacts and because of poor surface visibility, a total of five 1m test units were excavated (Figure 64). No cultural materials were recovered and all units encountered very poorly drained soils. Based on these results no further testing was conducted at this location.

The ROW within agricultural field "C" was subjected to a controlled surface collection after a preliminary flagging of cultural materials. The controlled surface collection, utilizing 25 10m X 10m collection units, recovered seven prehistoric artifacts in only 4 units. Twenty-one units yielded historic artifacts; however, 90% of these were shotgun shells and plugs and can be attributed to late 20th century hunting activities. A

FIGURE 64

Segment 5 Testing



total of 11 1m test units were also excavated within and adjacent to the ROW in field "C" (Figure 64). A small number of artifacts were recovered from plowzone contexts, with none recovered from buried contexts beneath the plowzone. The lack of spatial patterning and low frequency of artifacts precluded identification of a specific archaeological site and any further testing.

Phase I field reconnaissance of fields A and C outside of the ROW resulted in the discovery of two areas of artifact concentrations (Figure 64, Plate 3) which are described below.

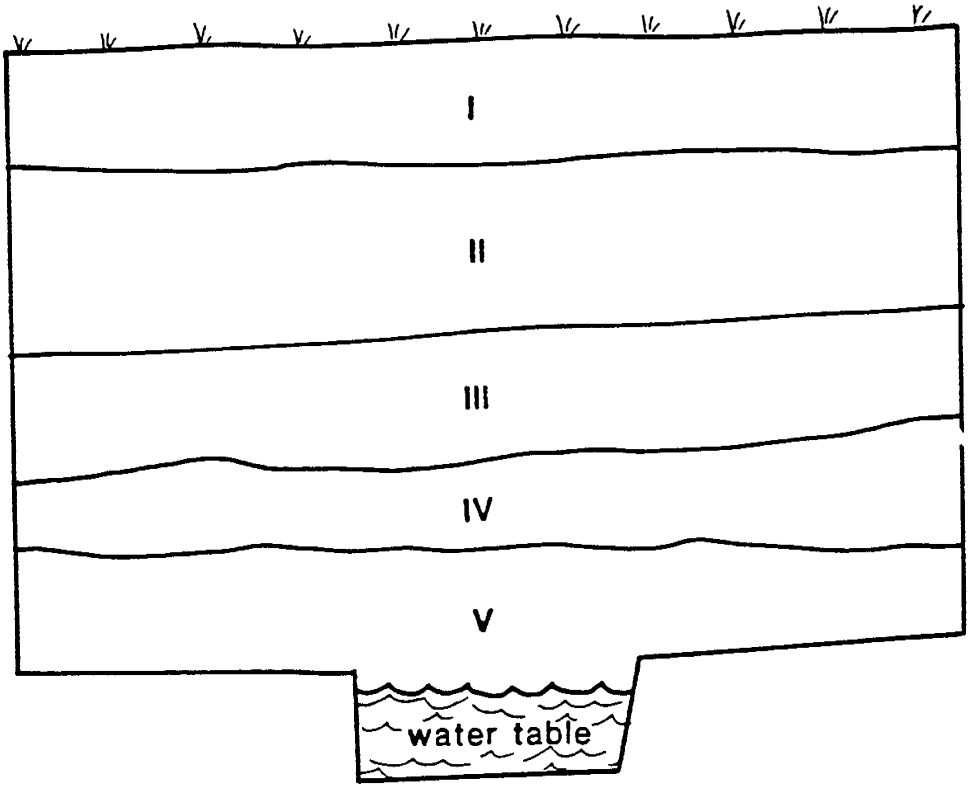
Gabor Site 7NC-D-131 Area A and Area B

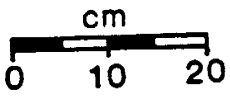
Phase I survey identified the Gabor site on ridge tops and slopes overlooking a poorly-drained area which the proposed right-of-way traverses. The Gabor site, Area A, 7NC-D-131 was located approximately 500 feet north of the ROW. Materials from the site, quartz and quartzite debitage, were discontinuously distributed over an area approximately 225m x 200m in extent (Figure 64). A single biface was among the 21 prehistoric artifacts recovered by the surface collection. Mid-19th to mid-20th century ceramics and glass were also found within the site area. All of this material lies outside of the proposed ROW and will escape impact from the proposed construction; therefore, no further work is recommended.

The Area B (7NC-D-131) was located on an east-facing rise approximately 300 feet south of the proposed ROW alignment (Figure 64). Two concentrations of lithic debitage, again predominantly quartz and quartzite, were identified as a discontinuous distribution over a 200m x 130m area (Figure 64).

FIGURE 65

Segment 5 Testing, Test Unit 10, North Wall Profile





Soil Descriptions

I-Dark brown silty loam, humus

II-Yellow-brown silty loam

III-Yellow-brown silty loam with ironstains, very compacted

IV-Yellow-brown sandy loam

V-Yellow -brown sandy clay with gray clay pockets

Eighty-four prehistoric artifacts were recovered, including two biface fragments, a Palmer point dated to the terminal Paleo-Indian Period and a Woodland I stemmed point. All of this material lies outside of the proposed ROW and will escape impact from the proposed construction; therefore no further work was recommended.

Phase I subsurface testing of the heavily vegetated area within the proposed right-of-way also located a buried historic roadbed dating from the late-19th to early-20th century (Figure 65) and a trash dump dating to the early- to mid-20th century. Neither of these features were subjected to further Phase II testing.

SEGMENT 6 - BACKGROUND RESEARCH

Segment 6 consists of that portion of the proposed Route 273 alignment extending from Cool Run to the Avon Plant entrance (Figure 4). The southern floodplain of Cool Run was not tested because the emplacement of a major New Castle County sewer line had totally disturbed a 55' wide corridor paralleling Cool Run. The remainder of the floodplain showed extensive scouring and redeposition of sediments.

Background research indicated that the proposed ROW alignment passes in proximity to two 18th century historic sites, the Levi Ruth Farmstead (Figure 8) and the Thomas Ogle II Saw and Brick Mill (Figure 19). Both of these resources have been impacted by subsequent development. The Levi Ruth Farmstead was destroyed by the 1965 construction and grading associated with construction at the Avon plant. Disturbance at the mill occured

with the 1835 construction of the Philadelphia, Wilmington, and Baltimore Railroad and also by later railroad construction and commercial development. A 1955 aerial photograph of the area shows a recreational complex and also the main house and tenancy house structure associated with the L. Ruth farmstead. Both of these historic resources lie outside of the project right-of-way.

There exists a low potential for prehistoric site locations within this segment adjacent to Cool Run, a low order stream (Figure 12). Based on settlement pattern models presented in Custer and DeSantis (1986), small procurement sites are expected on the adjacent floodplain and slope. The potential for historic site location is medium within this segment because the western terminus of the segment is in close proximity to the roadbed of Route 273. The present alignment of Route 273 is almost identical to the original 18th century roadbed along which numerous 18th, 19th, and 20th century houses were built (Figures 8, 9, 11, and 20).

SEGMENT 6 - SURVEY RESULTS

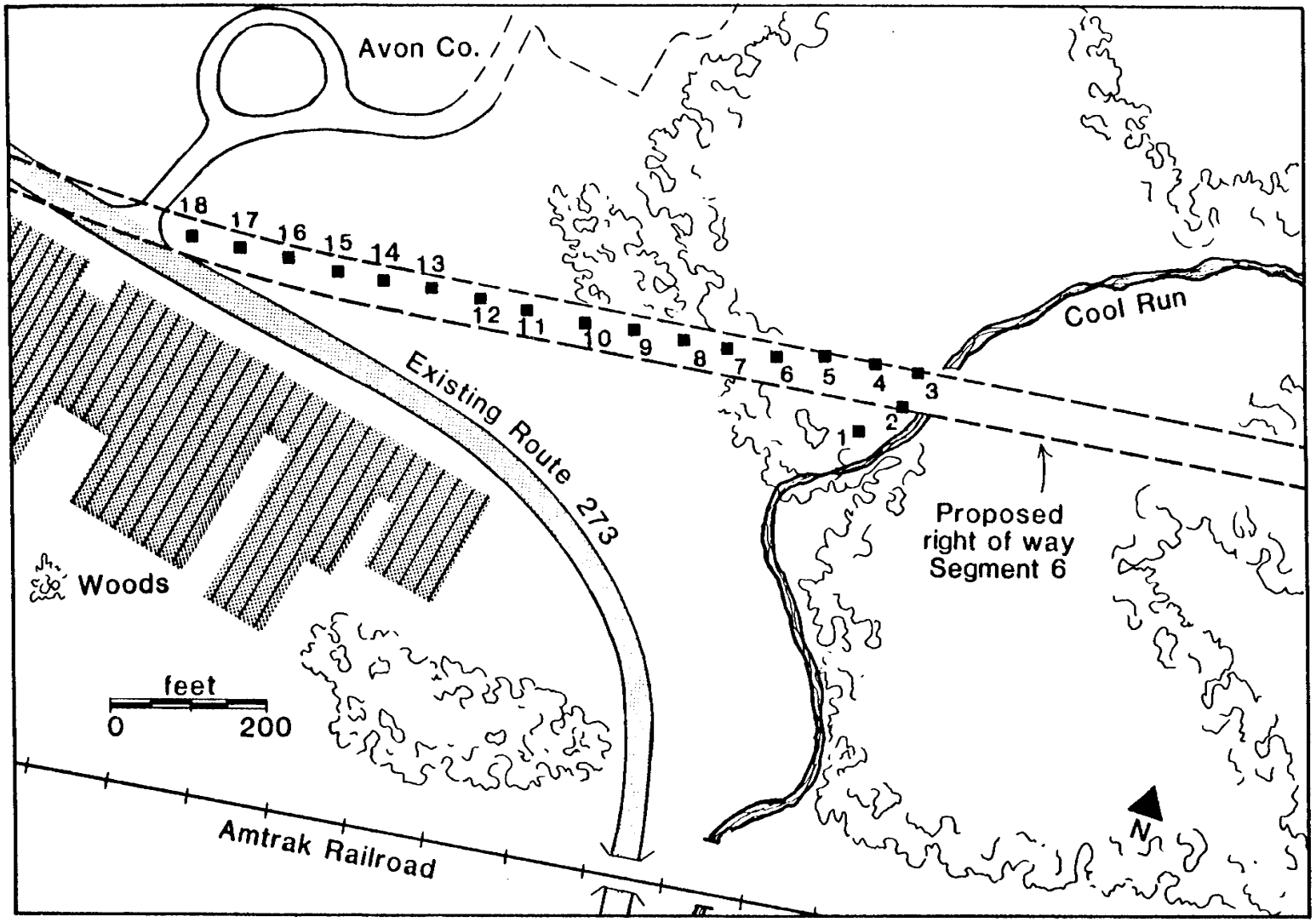
The current land use in this portion of the alignment consists of a heavily wooded narrow floodplain and adjacent terrace and hillslope areas and a ridge-top grass covered area now included within the Avon industrial plant. Disturbance from redevelopment and construction is restricted to the grass covered area, where construction and grading related to the industrial plant are severe. Again, the lack of exposed ground surfaces necessitated the employment of 1m test units in the Phase I/II testing.

A total of ten 1m units were excavated within the floodplain and terrace slopes adjacent to Cool Run (Figure 66). The floodplain stratigraphy showed 20th century sediments resting unconformably on Pleistocene sands and clays (Figure 67). Significant erosion of Holocene deposits was also evident on the terrace and hillslope areas (Figure 68). The only cultural materials encountered were single quartz flakes recovered from disturbed contexts within two of the units.

Testing through the excavation of eight 1m units within the western terminus of the proposed Route 273 realignment revealed significant soil disturbances caused by earthmoving activities associated with the Avon plant construction. Emplacement of numerous utility lines was also found to have significantly disturbed the soil stratigraphy. The area, now grass covered, was also found to have been plowed. Historic artifacts were recovered from disturbed contexts in all of these test units. Historic research revealed that no structures had existed within the ROW at this location before the ca. 1950 construction of an outdoor pool and recreation area. Artifacts and cultural features associated with the recreational complex were located in one of these test units. The Phase I background historic research had indicated that archaeological evidence of a bark mill (ca. 1830) might remain within the Project Area. Preliminary Phase I reconnaissance determined that the construction of the RR embankment over Cool Run had completely destroyed the site.

FIGURE 66

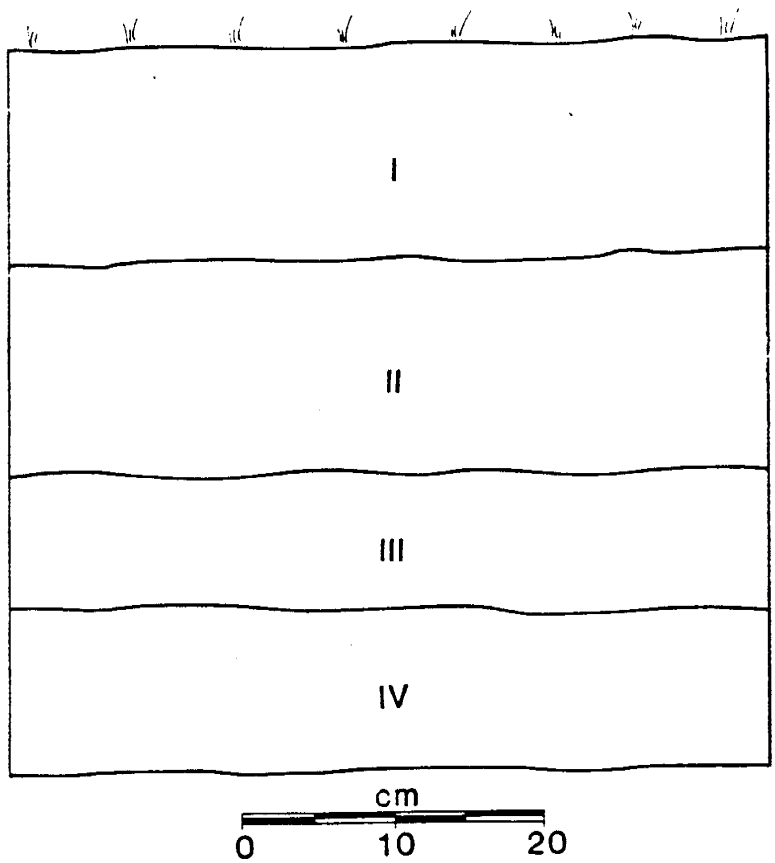
Segment 6 Testing



Industrial Complex

FIGURE 67

Segment 6 Testing, Test Unit 1, North Wall Profile

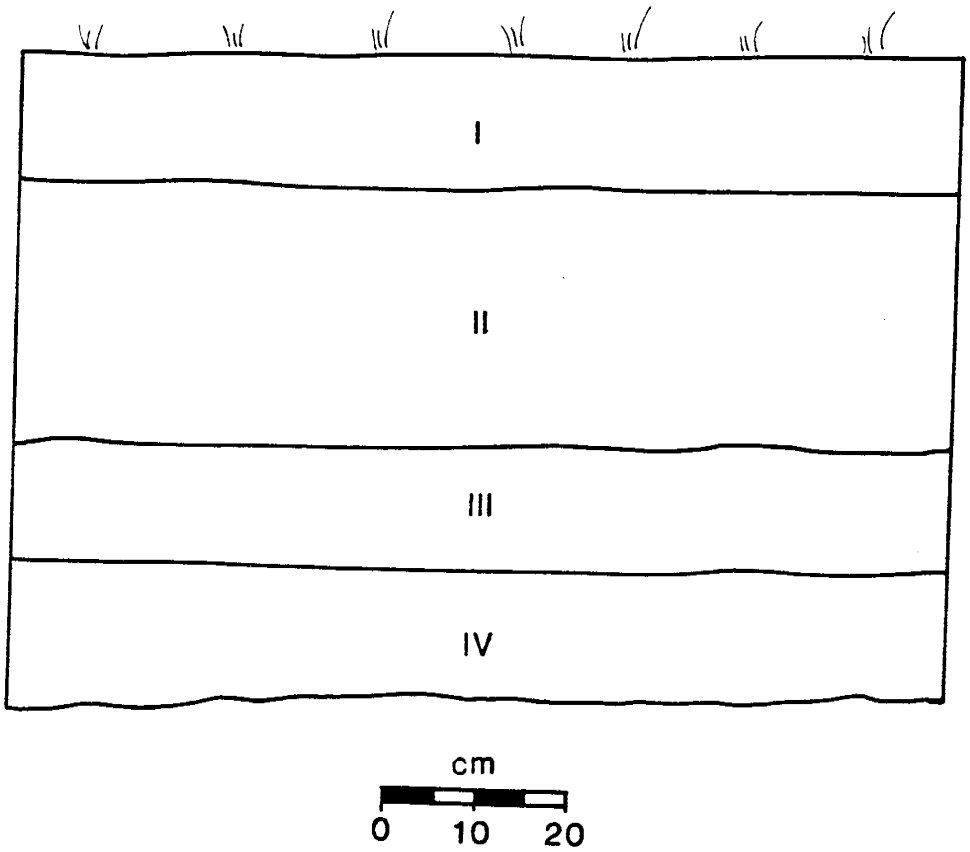


Soil Descriptions

I-Medium brown silty loam with 20th century artifacts
II-Yellow-brown silty loam
III-Grayish-brown silty loam
IV-Gray sandy loam with orange sand pockets

FIGURE 68

Segment 6 Testing, Test Unit 7, North Wall Profile



Soil Descriptions

I–Dark brown/black silty loam–humus

II–Yellow brown silty loam

III–Orange brown sandy clay with gray sand pockets

IV–Orange and gray sandy clay

Phase I survey of Segment 6 of the Route 273 alignment did not discover any archaeological sites. Phase I survey and testing through the excavation of 18 1m test units failed to locate significant prehistoric or historic resources. The low frequency of 19th and 20th century historic materials recovered were derived from the late 18th - early 19th century farm complex, the L. Ruth farmstead, located to the north of the proposed ROW and from a mid-20th century recreation area located within the ROW. Deposits from these two occupations were thoroughly mixed by construction activities associated with the Avon Plant. No further work is recommended.

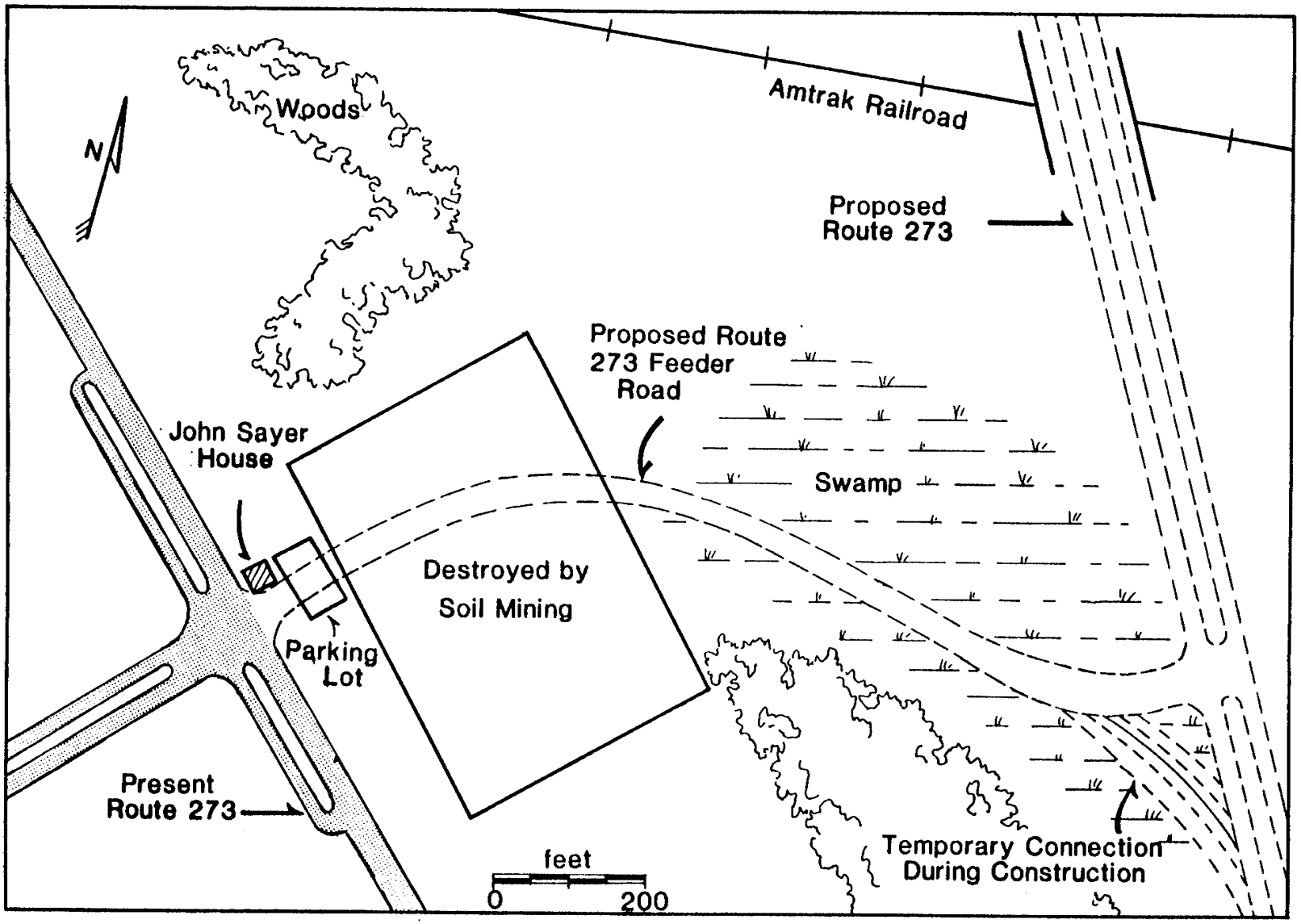
SEGMENT 7 - BACKGROUND RESEARCH

Segment 7 consists of the proposed ROW for an access connector from the new Route 273 with the present Route 273 roadbed (Figure 69).

Background research indicated that BAHP records included a prehistoric site, 7NC-D-38, was located within the vicinity of the western terminus of the segment. Historic resources related to a prominant 19th century White Clay Creek Hundred family, the Currinders, are located at the western terminus of the segment. At the intersection of Segment 7 with the present Route 273 roadbed is located the John Sayer House (N-11072). This two bay frame structure was one of several properties owned by the prosperous Currinder family during the mid and late 19th century. A second house owned by this family stood 200' to the northwest along Route 273 prior to demolition circa 1970. The northern structure is depicted on the 1849 Rea and Price map (Figure 8), and both structures are depicted on Beers' 1868 map (Figure 9),

FIGURE 69

Segment 7 Testing



and Baist's 1893 map (Figure 11).

There exists a moderate potential for prehistoric site location within this segment on small rises adjacent to poorly-drained areas (Figure 12). Based on settlement pattern models presented in Custer (1983) and Custer and DeSantis (1986) procurement or micro-band base camps would be expected in these environmental settings. The potential for historic site location is moderate within this segment because the western terminus is located at the original 18th century roadbed of the Ogletown-Newark Road along which numerous 18th, 19th, and 20th century houses were built (Figures 8, 9, 11, and 20).

SEGMENT 7 - SURVEY RESULTS

Previous research had located a prehistoric site approximately 200' to the east of the proposed ROW. The eastern terminus of this segment, located in a poorly-drained woodland, was not tested. The central section of the segment had been the site of a soil mining operation and also was not tested. At the western terminus of the segment near the intersection with the present Route 273, an extant mid-19th century frame structure, the John Sayer House (7NC-D-133, N-11072) is located within the direct impact zone of the proposed Route 273 feeder road. A preliminary surface reconnaissance of the surrounding yard area revealed that the yard area to the north and east had been extensively graded prior to the construction of a parking lot and that no outbuildings survived on the property. The western yard area was found to be relatively intact and there exists a good possibility that archaeological resources related

to the 19th century occupation of the site area are preserved. Permission to carry out Phase I/II archaeological research was denied by the present owner, A and L Associates. Phase I/II testing will have to be completed at this site after the condemnation process in order to complete the 106 compliance process.

INTERPRETATIONS AND CONCLUSIONS

IMPLICATIONS FOR REGIONAL PREHISTORY

Phase I/II archaeological research for the Ogletown Interchange project area resulted in the identification of four prehistoric sites (7NC-D-69, 125, 129, and 132) in the ROW and one outside the ROW (7NC-D-131). The locations of these sites confirmed existing models of prehistoric site locations. State and regional management plans (Custer 1986; Custer and DeSantis 1986) indicate that in areas with interior springheads and swamps, such as the project area, procurement sites dating to all time periods should be located on well-drained knolls adjacent to the swamps. Sites 7NC-D-129, 7NC-D-69, 7NC-D-132, and 7NC-D-131, which range in age from Paleo-Indian through Woodland I times fulfill this expectation. However, the range of artifacts recovered from the Dairy Queen site (7NC-D-129) may indicate a range of lithic reduction activities that are somewhat greater than what is normally expected at a procurement site. The Paradise Lane site (7NC-D-125) does not fit with the expectations of existing site distribution models in light of its large size and intensity of the occupation. The Paradise Lane site is certainly more than a procurement site and its location next to