

field investigations

DELAWARE ROUTE 7

The following discussion concerns the archaeological field survey of the proposed ROW of a Delaware Route 7 improvements project. The highway construction project lies entirely within the Christina River drainage basin and is drained directly into the Christina River at its southern terminus and into the White Clay Creek at its northern end.

The actual area of the investigation begins at the intersection of Route 7 and Interstate 95 (see Figure IV-1). It includes the interchange area, an intersection with New Churchmans Road, the crossing of several small residential and farm lanes, a new interchange with a relocated Route 4, the crossing over the main Amtrak Northeast Corridor tracks, a bridge over the White Clay and Mill Creeks, and the alignment with the current Route 4 and 7 in the town of Stanton. The total length of the Route 7 project is 1.8 miles.

Segment A

Segment A begins at the Interstate 95 interchange and continues in a northward direction to the Amtrak railroad tracks. The area traversed is relatively flat and, except for the northernmost portion, has been extensively disturbed by the excavation of a New Castle County sewer line. Segment A crosses New Churchmans Road after passing several small cultivated fields in which historic ceramics were found. Among the artifacts found were several redware sherds, a stoneware sherd and modern whiteware. A house site can be seen just south of New Churchmans Road on the east side of, and out of the ROW of, the proposed Route 7 project.

Locus A-1, from which all prehistoric artifacts found in this segment were recovered, is located on a slight knoll just south of the intersection of Route 7 with the present Route 4. This knoll has been partially graded and cut during the sewer construction operations. Locus A-1 lies adjacent to the Clyde Farm Site, a well-known aboriginal site, but is not included in that portion of the site currently listed on the National Register. Locus A-1 has been bisected by Route 7 and includes a small garden on the west side of that road.

Archaeological investigations were concentrated on a knoll of Elsinboro silt loam. Adjacent areas were heavily disturbed and no intact cultural resources can be expected. The surface examination of this knoll resulted in the recovery of prehistoric data consisting of an undiagnostic bifacial tool and over a dozen lithic flakes. Subsurface post-hole testing failed to reveal any additional information. The knoll, however, had been previously collected by a number of avocational archaeologists and much of the cultural material that it contained has probably been removed. It was possible, however, to confirm the extensive disturbance to the knoll. Post-hole tests # 5 through # 16, excavated in a transect across the berm of the knoll, verified that a layer of

disturbed soil, in some tests as much as 40 centimeters deep, capped most of the knoll. Surface and subsurface investigations were also conducted in that portion of Locus A-1 on the west side of Route 7. A single quartz flake was found in a garden plot. A recently razed structure was also noted within this locus. Subsurface post-hole tests (6) were excavated but the only items found consisted of mid-twentieth century artifacts apparently related to the demolished structure.

Several post hole tests were excavated north of Locus A-1 in an area found to have been extensively graded. No further investigations were considered necessary in segment A.

Segment B

Segment B (see Figure IV-1) begins at the Amtrak railroad tracks and continues in a northeastern direction to the crossing of the White Clay Creek. The surveyed area measures approximately 1125 feet in length. The topography of this area varies from a large knoll, which occupies most of the southern half, to a terrace slope leading down to the White Clay Creek floodplain. The area is crossed by a now-defunct spur of the Penn Central Railroad and by an area previously utilized as a storage yard for automobile-carrying railroad cars. It is also crossed by several sewer and water lines.

Locus B-1

Surface indications north of the Amtrak line were found over a large area, apparently occupied during various prehistoric periods. Consequently, subsurface excavations were scheduled. Many post-hole tests contained, at depths that exceeded the bottom of the plow zone, soil anomalies and flecks of charcoal, as well as an occasional lithic flake. In order to determine if this data suggested the presence of subsurface aboriginal features, more intensive excavations were undertaken. An additional 19 post holes were placed at three meter intervals and keyed in to a grid system. Data from the total of 31 post-hole tests seemed to verify that Locus B-1 contains detectable aboriginal features. Artifacts recovered from up to 80 centimeters in depth include quartz end-scrapers, quartz flakes and crude choppers, fire-cracked rock and charcoal.

Four test unit excavations were placed at points where features had been detected. In none of the units were features found at the interface of the top soil with subsoil strata. However, once the first 10 cm. of subsoil had been carefully removed, large aboriginal features were discovered. Each of the test units contained at least one feature and Test Unit # 4 contained a cluster of intruding, or overlapping, features (# 3, # 4 & # 5).

A fifth test unit, measuring 2.7 by 3.8 meters was initiated to connect Test Units 3 and 4. During the removal of the plow zone a small feature was detected at the interface of the plow zone and the subsoil (#6). A second feature (#7) was found after the removal of the top 10 centimeters of subsoil in this test unit.

Test Unit # 1

Test Unit # 1 was a one by two meter unit. The topsoil, averaging 17 centimeters thick, was excavated by shovel and sifted through $\frac{1}{2}$ " mesh screen to recover plowzone artifacts. Quartz end scrapers and quartz and quartzite flakes were recovered. Two arbitrary subsoil layers were shaved off and sifted before the large feature (# 1) became visible. The feature fill within Test Unit # 1 was excavated using trowels and small tools to a depth of 95 centimeters. Additional flakes and scraping tools were recovered as well as concentrations and scatters of charcoal. A small test probe was continued to a depth of 126 centimeters at which point another scraper and some flakes were recovered. The floor of this feature was not reached. The feature was mapped (both plan view and profiles), photographed, lined with plastic film and backfilled to original grade (see Figure IV-2, Feature 1, Test Unit One).

Test Unit # 2

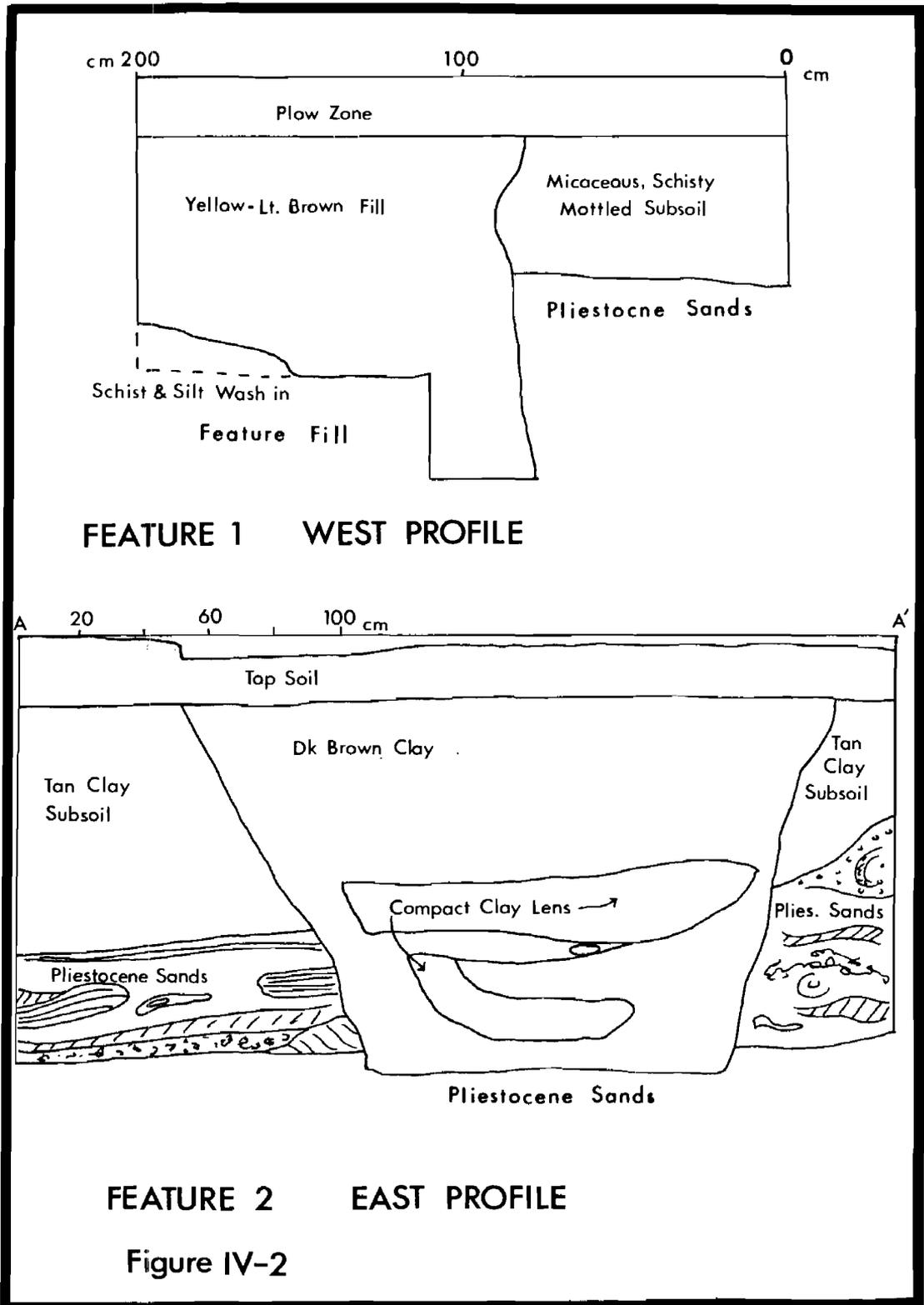
Test Unit # 2 was a 1 by 1.7 meter unit. It was excavated to expose the southern end of Feature 1. The topsoil averaged 18 centimeters thick. All topsoil was sifted through $\frac{1}{2}$ " mesh screen as was the first 10 centimeters of subsoil. Artifacts similar to those in Test Unit # 1 were recovered. The outline of Feature 1 was noted and recorded in the field notebook. This apparently oval feature measures approximately 3 by 4 meters at the interface of the plow zone and the subsoil. The feature was mapped, profiled, photographed, lined with plastic film and backfilled to original grade.

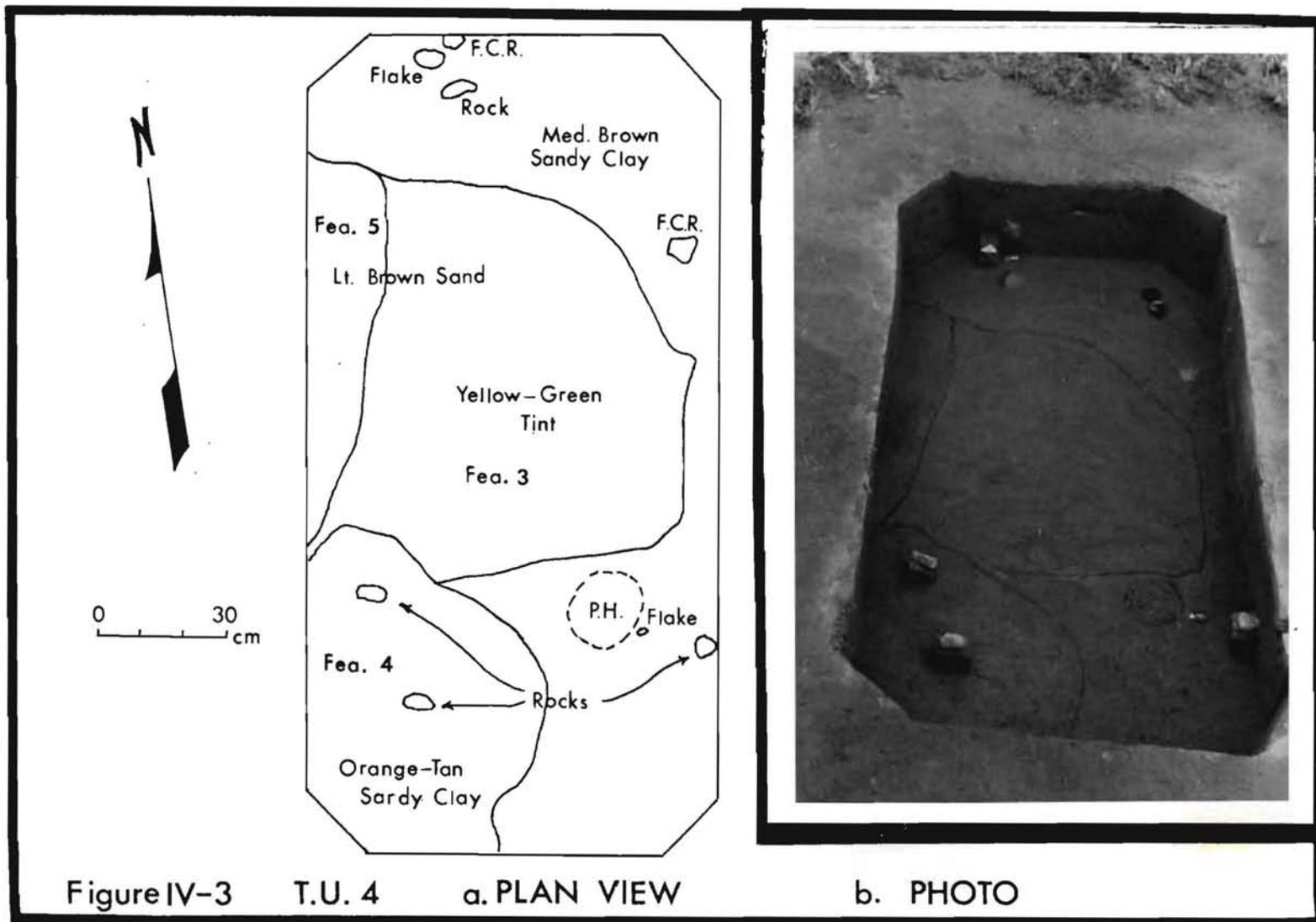
Test Unit # 3

This unit was a 1 by 2 meter test. It was excavated to expose a possible subsurface feature noted in a post hole profile. Methods described above were followed both for the 17 centimeter plow zone and the 10 centimeter subsoil level. Artifacts recovered through sifting were similar to those from Test Unit #'s 1 and 2. A feature was recorded as occupying the northern part of the unit. This feature (# 2) was mapped, photographed, lined with plastic film and backfilled.

Test Unit # 4

Test Unit # 4 excavation covered an area of 1 by 2 meters. Standard excavation practices, as noted above, were followed. Quartz flakes and quartz end-scrapers were recovered from the screened soil fill. Three intruding features (#'s 3,4 and 5) were noted and recorded (see Fig. IV-3). The features were mapped, photographed, lined with plastic film and backfilled to grade.





Test Unit # 5

Test Unit # 5 was a 2.7 by 3.8 meter unit. In this case the topsoil was removed with shovel and discarded without sifting. Several quartz flakes and scrapers were recovered during this operation. Features # 2 and # 6 were detectable within this test unit, both at the interface of the plow zone and the subsoil. Ten centimeters of subsoil were removed before Feature 7 became visible (see Figure IV-4).

A small test trench measuring 50 centimeters by 270 centimeters was excavated along the east wall of Test Unit # 5 sectioning Feature 2 on a north-south axis (see Fig. IV-4). Soils in this trench were excavated by shovel in arbitrary levels and sifted to recover any artifacts. A great amount of care was exhibited to assure that no levels would be mixed. The following is a description of artifacts recovered from each arbitrary level. Charcoal was present in each level.

Level 1, topsoil - quartz flakes and a few scraping tools.

Level 2, 17 - 25 cm. - quartz flakes.

Level 3, 25 - 50 cm. - 1 undiagnostic quartz biface, fire-cracked rock and 1 quartz flake.

Level 4, 50 - 75 cm. - fire-cracked rock, quartz flakes and 1 side scraper, red ochre (2 x 2 x 3 cm.).

Level 5, 75 - 100 cm. - quartz flakes, red ochre and 1 bifacially worn hammerstone with dorsal pitting

Level 6, 100 - 130 cm. - 1 large quartz chopper.

Level 7, 130 - 135 cm. - 1 fire-cracked rock

Locus B-1 has been determined to be a prehistoric aboriginal site with artifacts and subsurface archaeological features pertaining to a pre-ceramic occupation (s). The presence of at least seven features in the five test units excavated to date is unique in Delaware and probably in the Middle Atlantic Coast. The potential for uncovering significant information about aboriginal life in the Archaic Period is, as far as this writer knows, unsurpassed. A more detailed discussion of the significance of this site will be provided in the summary of this report.

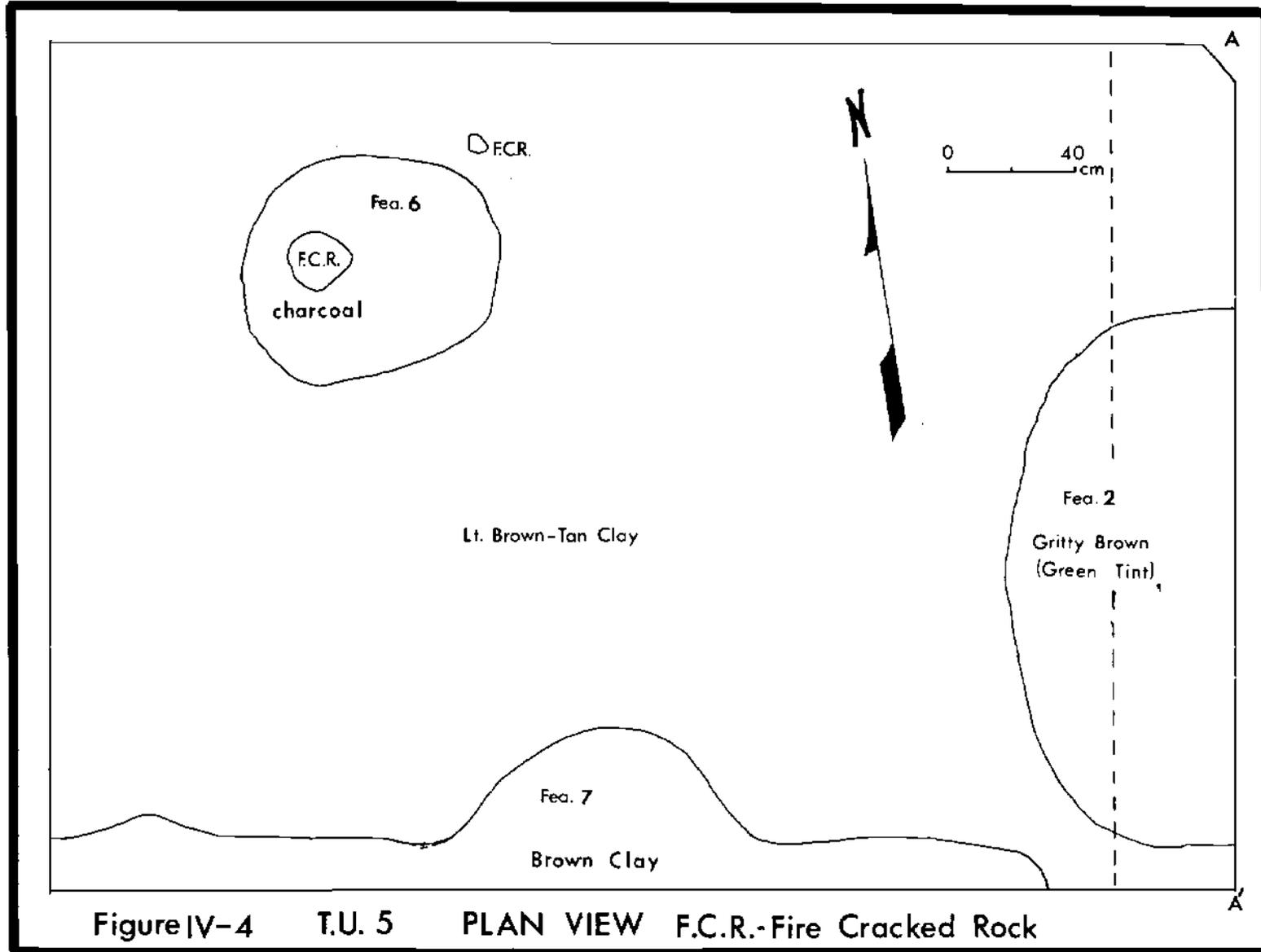


Figure IV-4 T.U. 5 PLAN VIEW F.C.R.-Fire Cracked Rock

Locus B-2

A surface survey and a strata cut were carried out within the area referred to as Locus B-2. This locus includes that portion of the right-of-way for the main Route 7 relocation and an access road leading from the present Route 7 which begins near an abandoned B & O railroad line to the White Clay Creek. This area is one of a low-lying and flat field, often flooded by the stream, which is now under a tended lawn cover. The area was walked and subsurface was inspected where natural rodent burrows and recent construction pierced through the sod. Also walked in this Locus were several gardens belonging to occupied structures along Route 7. Other gardens to the west were included in Locus B-1.

A few lithic flakes and some fire-cracked rock was found in a recent disturbance located immediately adjacent to the White Clay Creek at the Route 7 bridge. The stream embankments at this point have been extensively modified and it is entirely possible that the material found had actually been introduced into the locus. For this reason it was not felt justified to recommend further investigations. Post hole tests were also excavated in the area and no artifacts were recovered. The strata cut was excavated by backhoe for the purposes of examining the geological beds existing at this location. No cultural material was found within the excavated trench.

Segment C

Investigations within Segment C consisted of an examination of eroded stream banks, east of the White Clay Creek, and roadside cuts. No cultural material having any integrity was found. Ceramic sherds and an occasional questionable lithic flake were found during the pedestrian survey. The sherds related to a historic roadside dump on the east side of Route 7 in an area of considerable modern disturbance. The flakes were found in the eroded flood plain of the White Clay Creek.

During the strata cut made for geological study no cultural material was noted. Further investigations are not recommended for Segment C.