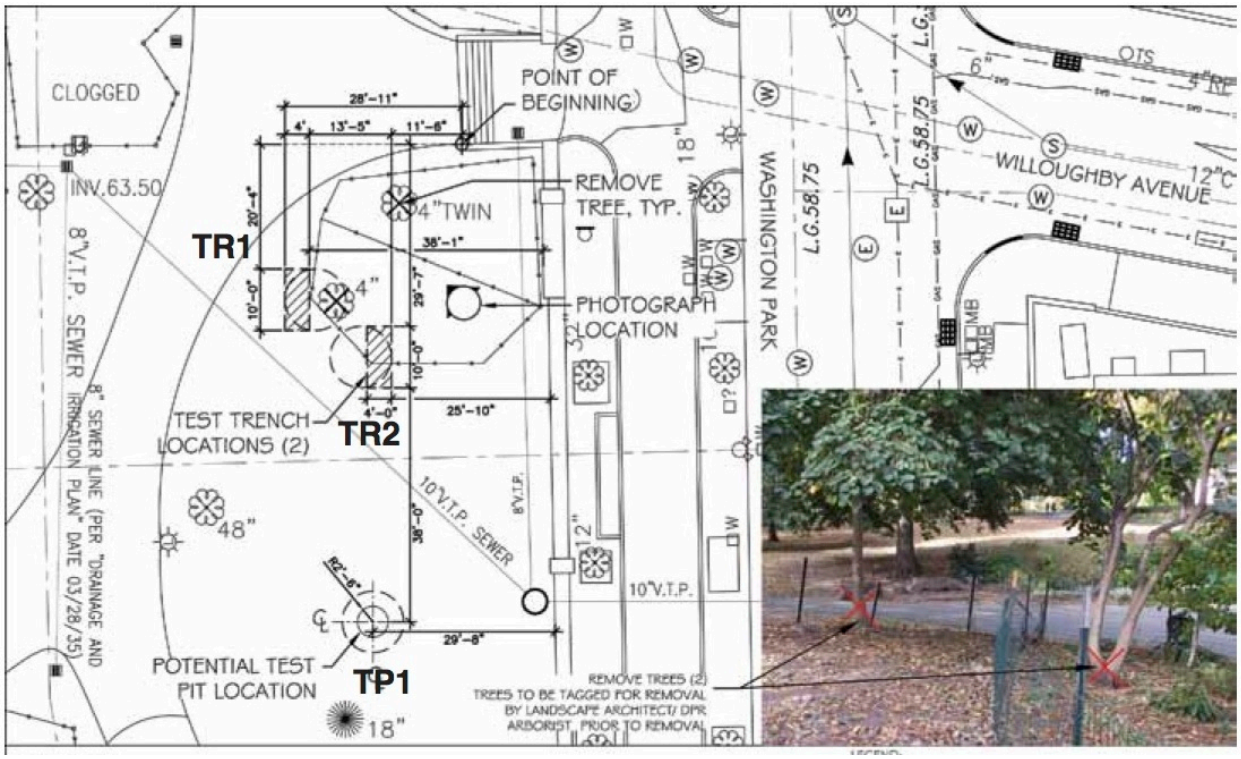
Fort Greene Park, Brooklyn
Dry Well Locations Near Willoughby Gate
Archaeological Testing Memo Report

Project No. B032 - 110M



Prepared for the New York City Department of Parks & Recreation
through Nancy Owens Studio, LLC
by Joan H. Geismar, Ph.D., LLC
May 19, 2014

To: Nancy Owens, Nancy Owens Studio, LLC
Joseph Disponzio, NYC Department of Parks & Recreation
From: Joan Geismar, Joan H. Geismar, Ph.D., LLC
Re: Fort Green Park, Dry Well Locations Near the Willoughby Gate
Archaeological Testing Project No. B032 - 110M
Date: May 19, 2014

Following an approved permit/scope of work, three dry well locations planned in Fort Greene Park south of the Willoughby Gate entrance (Figures 1 and 2) were tested for archaeological sensitivity. Joan H. Geismar assisted by Shelly Spritzer monitored the work. The excavation contractor was Malbro Inc. Sylvia Barnett from the Nancy Owens Studio LLC was on site throughout and David Weissman, also from the Nancy Owens Studio, joined her during the second afternoon of testing.

Located near the park's Willoughby Gate on Washington Park, the dry wells are planned where backyards associated with mid-19th-century houses were briefly located on Block 2088 prior to becoming Fort Greene Park. An earlier study[1] indicated these lots were developed before the introduction of municipal infrastructure. This suggested the possibility that backyard sanitary features, that is, privy pits and/or water cisterns, might remain under fill introduced to create the park in 1867. A monitored, narrow, geotechnical trench excavated in the vicinity of one dry-well location in December 2011, revealed that fill might extend 8 feet (2.4 m) below the current, sloping park grade.[2] However, the planned dry wells are to be 9.0 feet (2.7 m) deep (plus gravel), and one is located at a considerably lower elevation than the geotechnical test location. Therefore it was deemed prudent to explore subsurface conditions more carefully to ensure that the proposed undertaking would not impact viable archaeological features. The approved testing program called for two machine-excavated trenches with the option of a test pit for a third dry well.

On May 5, as required by Parks' Forestry, an arborist, William Mulligan, was on site when two test trenches and the test pit were hand excavated to what was planned to be a depth of 3 feet (0.91 m) below grade. This was to ensure that roots from nearby trees would not be harmed by the subsequent machine-excavated testing to determine subsurface conditions to the depth of the planned dry well excavations. However, existing conditions indicated to Mr. Mulligan that only one of the test trenches required hand excavation as deep as 2.5 feet (0.76 m) while less was required at the other test trench and the test pit locations (Photo 1 illustrates the position of TR1 and TR2 prior to backfilling). Thus TR1 was hand excavated to 3.5 x 8.0 x 2.5 feet (1.1 x 2.4 x 0.76 m) (Figure 3a). During the hand excavation, both TR2 and TP1, which were shallow, acquired a U-shape (see Figures 3b and 3c). All excavations were backfilled and plastic fencing was introduced for safety purposes. Machine-assisted testing was planned for the following day.

On May 6, as stipulated in the forestry permit, wood chips were spread to accommodate the backhoe and protective plastic fencing was again emplaced. As part of the archaeological undertaking, two Redbud trees scheduled for removal were cut down, with the stump of one later

[1]Geismar, Joan 2000/2005. The Restoration and Installation of the Bronze Eagles and Related Site Work in Fort Greene Park, Borough of Brooklyn, Archaeological Assessment. Contract No. B032-103M. Prepared for the New York City Department of Parks through Gandhi Engineering, Inc.
[2] Geismar, Joan H., 2012. Fort Greene Park, Borough of Brooklyn, New York, Willoughby Gate Test Pits, Archaeological Memo Report. Prepared for the New York City Department of Parks Through Nancy Owens Studio LLC, January 2012.

removed (see Photo 2) after it was determined that archaeological features were not an issue (with Parks' approval, the other tree stump was left in place for removal when its garden setting was eliminated). Plastic fencing was then reinstalled to delineate and secure the test area (which included part of a vernacular jogging path), and the backhoe excavation of TR1 began.

TR1, situated at the lowest point of excavation but still well above street level, was taken to 9.8 feet (3.0 m) in the center of the trench with relatively clean fill indicated throughout (roots from a Redbud tree scheduled for removal were present on the east side of the trench [see Figure 4b]. Metal tubing and oyster shells found at 6.0 feet (1.8 m) below grade and oyster shell noted at 8 feet (2.4 m) determined that the soil comprised fill. Perhaps most telling was the mottled soil, devoid of strata, that was found throughout. An electric conduit pipe was noted just beyond the southeast corner of the trench, and park drawings indicate there were water pipes and other electric lines nearby. TR1 was measured, a schematic profile was drawn, and it was photographed (Figure 4) and backfilled.

TR2, located upslope from TR1, and therefore higher above street level, contained the same mottled soil found in TR1 to a depth of ca. 7.5 feet (2.3 m) where it became siltier and darker with depth but with inclusions of small ceramic fragments, clinkers, and decomposed oyster shell to the bottom of the trench (9.2 feet [2.8 m] below grade; see Photo 3 for examples of the cultural material). Given the nature of the soil, only the east side of TR2 was taken to a depth of 9.2 feet (2.8 m); excavation on the west side of the trench was halted at 3 feet (0.91 m) below grade. Again, after a plan and schematic profile were drawn and photographs taken (Figure 5), the trench was backfilled.

TP1 ultimately was also tested. Since it was backhoe excavated, it became a small trench rather than a true pit. Considerably more debris was found at this location (a broken but worked building stone was found below the surface, as was a sizeable concrete fragment at 3 feet [0.92 m], a piece of wire at 7 feet [2.1 m], and a small ceramic fragment at 8 feet [2.4 m]). What appeared to be a brick concentration at 7 feet (2.1 m) was explored by widening the pit slightly, but it proved to be debris. A broken, earth-filled but perhaps *in situ* terra-cotta drainpipe was encountered 7 feet (2.1 m) below grade in the southern part of the pit and window glass fragments were found at 9.6 feet (2.9 m). The excavation was taken to a depth of 10.3 feet (3.1 m) in the southern portion of the pit/trench (a straight pin (?) was found in the backdirt at approximately this depth; see Photo 4 for an example of the cultural material from TP1). Again, measurements and photographs were taken and a schematic profile drawn (Figure 7) before the pit was backfilled. The archaeologists then left the site with the assurance of the backhoe contractor that all would be restored to its pre-testing condition. A site visit on May 12, 2014, indicated that this was, indeed, the case (Photo 5).

Testing the potentially archaeologically sensitive locations where three dry wells will be introduced determined that deep fill was present throughout. Consequently, no further archaeological investigation is required. However, it is recommended that an archaeologist be on call (not on site) during excavation for the drywells at these three locations in the unlikely event of an unanticipated discovery.

PHOTOS

Photo 1. Looking north with plastic protective fencing in the foreground during hand excavated testing. TR1 is to the left (left arrow) and TR2 to the right (right arrow). The Redbud trees in the center of the photo and to the right were to be removed and both were cut down. However, with Parks' approval, only the stump of the tree in the center was removed during this testing phase. (Geismar 5-5-14)

Photo 2. Stump of Redbud being removed from the site after it was extracted from its location just east of TR1 and protective fencing is being restored. (Geismar 5-6-14)

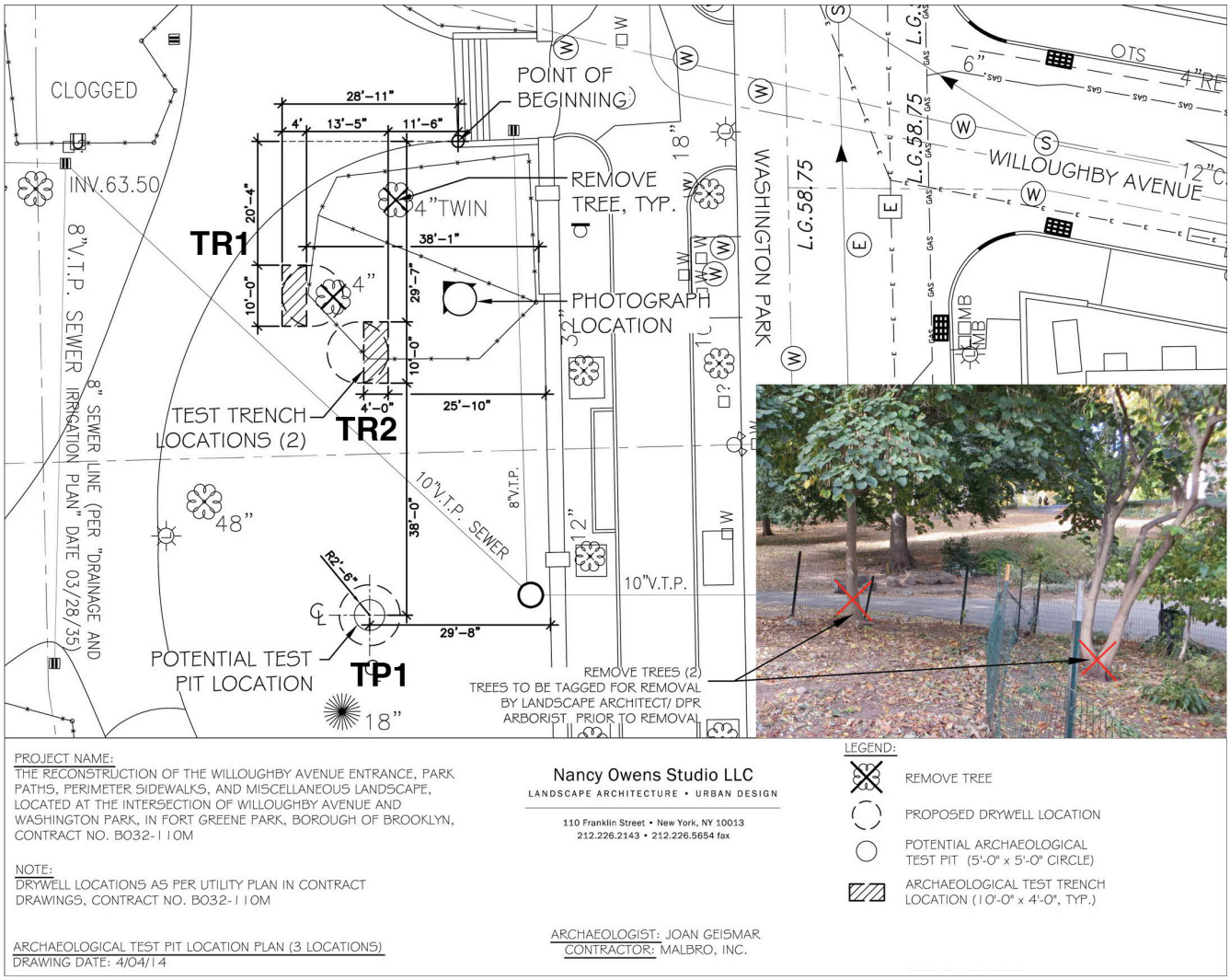
Photo 3. Fill artifacts (selected) from TR2 (quarter is for scale). (Geismar 5-6-14)

Photo 4. Fill artifacts (selected) from TP1 (quarter is for scale). (Geismar 5-6-14)

Photo 5. Looking south across the test area six days after it was restored. The Redbud tree stump (far left arrow) is to be removed when the garden becomes a work area. TR1 was to the right of the fence, just off the asphalt walkway (lower center arrow); TR2 was up slope and left of TR1 (upper left arrow), and TP1 was further up slope (right arrow), east of the elm and north of the pine tree. (Geismar 5-12-14).

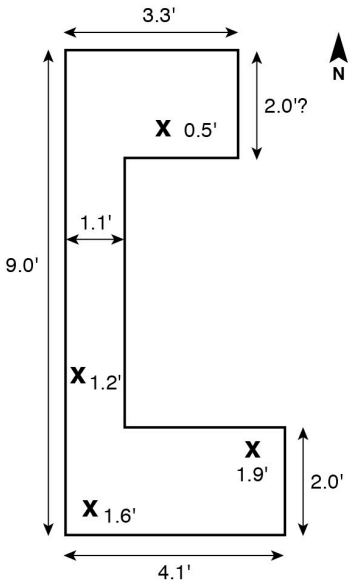
FORT GREENE PARK – WILLOUGHBY GATE TESTING Project and Site Locations
(USGS Brooklyn Quadrangle 1967-1979 (Geismar 2012)

1

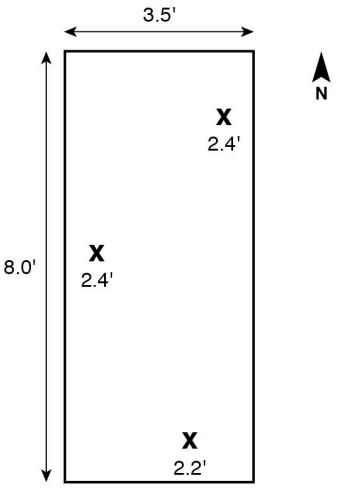


Plan and photo courtesy Nancy Owens studio LLC

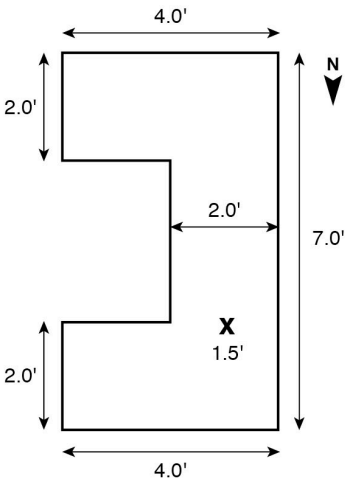
0 40 ft
0 12.192 m
N



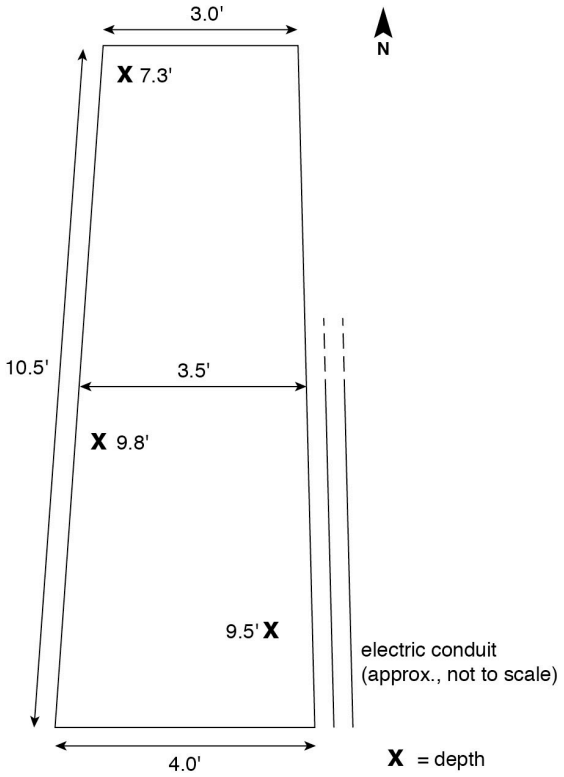
3a TR1



3b TR2



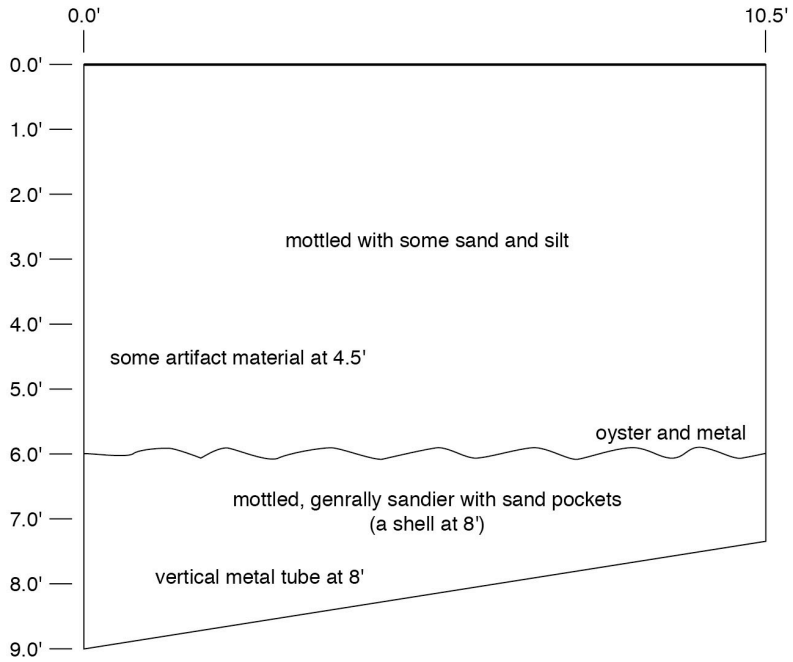
3c TP1



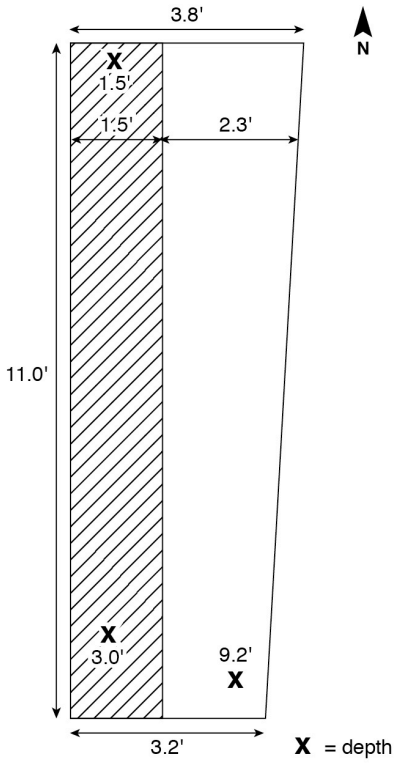
4a Schematic Plan

Note: roots on east side of trench (right) are from a Redbud tree, subsequently removed.

4b

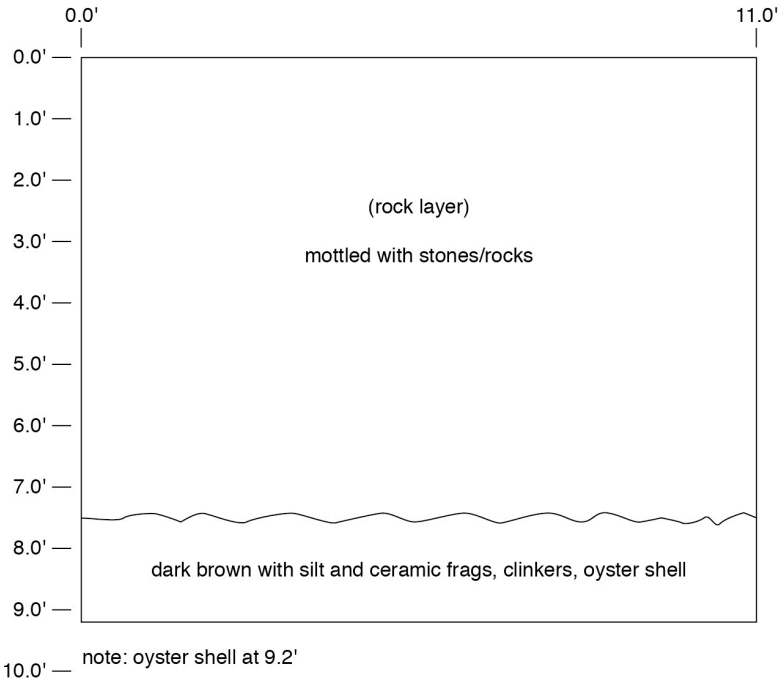


4c Schematic West Wall Profile

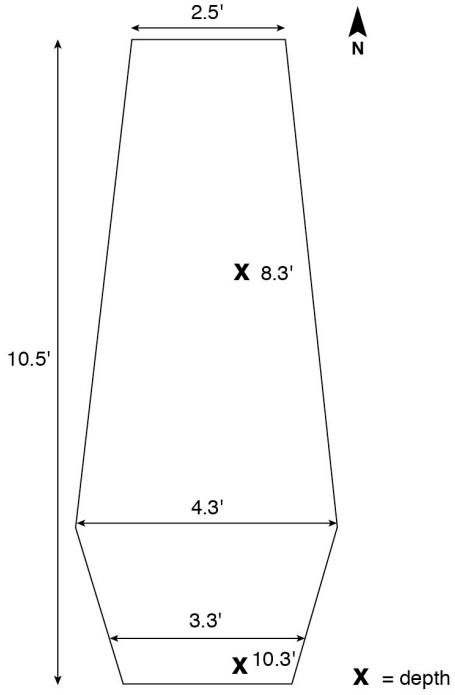


5a Schematic Plan

5b

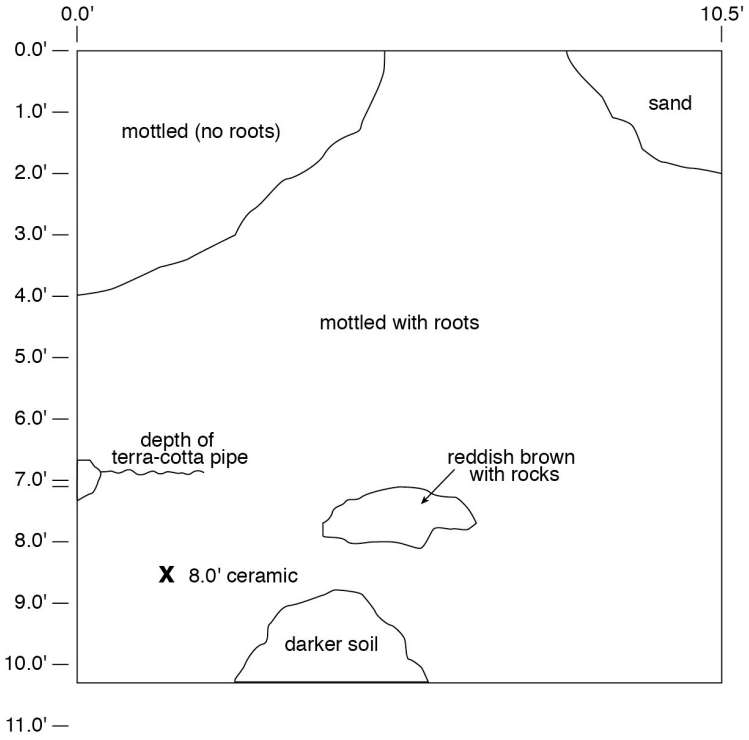


5c Schematic East Wall Profile



6a Schematic Plan

6b



6c Schematic West Wall Profile