

The Reconstruction of Battery Park and Perimeter Bikeway Borough of Manhattan, County of New York

Test Pit Letter Report

Contract No. M005-308M

DRAFT



TP4 selected fill artifacts

1357

Prepared for The New York City Department of Parks and Recreation
in Partnership with The Battery Conservancy

Prepared through Quennell Rothschild & Partners, LLP

Prepared by Joan H. Geismar, Ph.D., LLC

July 6, 2011

**Joan H. Geismar, Ph.D.
Archaeologist**

**40 East 83rd Street
New York, NY 10028
(212) 734-6512
(212) 650-1521 Fax**

July 6, 2011

Douglas P. Mackey
Historic Preservation Program Analyst/Archaeology
New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Bureau
PO Box 189
Waterford, NY 12188-0189

Re: FHWA
Battery Park Perimeter Bikeway and Infrastructure
MANHATTAN, New York County
10PR07480

Dear Mr. Mackey:

This brief letter report presents the methods and findings of archaeological testing at Battery Park in Lower Manhattan (Figure 1). It was carried out per your letter of February 7, 2011, as modified by a subsequent phone conversation that verified the goal was to assess the impact introduction of utilities might have on archaeological resources. In this regard, nine archaeologically monitored test pits were carried out where planned infrastructure will be introduced at points potentially sensitive for archaeological remains of the colonial Battery Wall erected in what is now Battery Park in 1755 and/or a post-colonial sea wall that extended the battery in 1820.

The nine areas of concern were identified in a 1A memo report (Geismar 2010)¹ coordinated with utility plans by the project engineer Steven L. Grogg of the McClaren Engineering Group (Figure 2). It should be noted that this coordination was carried out to the best of our mutual capabilities based on available information. The two-day field investigation was undertaken with my participation and under my direction assisted by Shelly Spritzer and by Denis, Kevin and Tom Maloney of Malbro Inc. working a Case 590 Extendahoe with either a 30- or a 20-inch backhoe bucket or providing hand excavation. Pat Kirshner, Director of Operations, The Battery Conservancy, was on hand throughout as were Bill Logan and Laura Wooley of Urban Arborists.

By the very nature of backhoe testing, the nine test pits (TP1 to TP9) were actually test trenches that ranged in depth from 3.0 to 6.2 feet and in length from 4.7 to 27.5 feet (see Table 1). The largest and deepest, and, therefore, the potentially most sensitive, was TP1 located in the southern most part of the project area (see Figure 2).

¹ I am grateful to the MTA, to AKRF, Inc., and Linda Stone for making available information recovered from archaeological investigations carried out during the introduction of the new subway tunnel in 2005-2006.

It should be noted that the Battery Walls and other archaeological features discovered during excavation for the new South Ferry subway tunnel in 2005 and 2006 were generally considerably deeper than this project's planned utility excavations. However, the shallowest discovery, Wall 3, a Battery Wall segment, and an unidentified log construction, was made in the vicinity of TP1 at depths of 4.4 to 8.2 feet below the ground surface, or 3.6 to -3.9 feet above sea level (noted in Geismar 2010:5). Therefore, this test pit at the southern limit of the project area, which was to be 6.0 feet deep, was the greatest concern in the current testing program.

Since the test pits were located in a park, tree damage was a consideration. To avoid this, one of the aforementioned arborists was in attendance during hand excavation of the first 1.5 feet of TP1, TP3, TP5, TP6, and TP9 to identify roots that could be damaged. Fortunately, none were found to be at peril and, in most cases, excavation then continued by machine (exceptions were TP5 where a gas line was a possibility and TP8 where a water main was a concern, so hand and machine excavation were combined, but neither utility line was encountered).

While common wisdom backed by historical research recognize that Battery Park was created through land reclamation, the fill material documented throughout the relatively shallow test pits could be described as later fill introduced above landfill. It proved to be a compacted, often mottled, stony soil with some ash as well as sand. It was generally laced with construction debris, such as brick fragments, with an occasional oyster shell and some modern trash. All in all, there was very little old cultural material. Moreover, the few ceramic fragments, one flat glass fragment, one clinker (burned coal), a small, possibly mid-19th-century bottle base fragment, and two small, ceramic pipe stem fragments (one of them marked PETER/DORNI) were associated with modern artifacts. These included tin foil, an "I ♥ NY" plastic bag, and, in one instance, a 1983 quarter. The "PETER DORNI" pipe stem fragment from TP4, identified as a post-1850 artifact by Diane Dallal,² was most interesting, but it was found in association with a rebar fragment that, again, identified it as a component of mixed fill (see Photo 6).³

Excavation of TP3, meant to be a 3-foot deep test pit located just south of Battery Green, exposed what appeared to be an east-west running stone wall. However, the "stones" proved to be concrete slabs that supported an old cast-iron utility pipe (see Photo 4), a construction that probably dated to the 1940s (Kirshener 2011:personal communication).

In general, the findings of this test pit exploration parallel the subsurface conditions documented in two soil borings (B-1, an observation well drilled to 63 feet BGS, and B-2 drilled to 51 feet BGS) undertaken prior to starting construction of the Seaglass Carousel now being built in the park southwest of the nine test pits described here (Langan 2008). The soil boring logs record a fill in the upper levels analogous to that found in the nine test pits discussed here (Langan 2008: Appendix A).

The test pits, several artifacts that were noted but not collected, and the DORNI pipe fragment that was collected and cataloged (BPBW TP4-1), are illustrated in Photos 1 to 13. In some cases, test pit photos are accompanied by schematic soil profiles (Figures 3 to 5).

²Diane Dallal notes that the first copy of the 18th-century PETER DORN pipes is thought to be the DORNI manufactured by Peter Dornier in northern France circa 1850 (Diane Dallal 2011:personal communication, citing Walker 1983. Via e-mail to JHG, June 29, 2011).

³The PETER DORNI fragment (BPBW TP4-1) was the only cataloged artifact.

In summary, nine test pits excavated where proposed utilities appear to cross identified mid-18th-century Battery Walls and an early 19th-century sea wall have determined that these utilities, if introduced as planned at this writing, will not impact these or any significant archaeological resources. No further testing is recommended. That said, should plans change and greater depths at these locations become an issue, an archaeological assessment should be made of any structural features that may be encountered.

Respectfully submitted,



Joan H. Geismar
Joan H. Geismar, Ph.D., LLC

Cc Warrie Price, The Battery Conservancy
Beth Franz, Quennell Rothschild & Partners, LLP

Table 1. BATTERY PARK Test Pits (TP) (6/27/11 - 6/28/11)

TP No.	Date	Length*	Width*	Depth*	Location	Remarks
TP1	6/27	27.5	3.2	6.2	S end of project area	Hand excavated to 1.5 ft. then machine excavated; several utility pipes cross pit; 20 th C fill throughout
TP2	6/27	6.2	3.2	3.0	W of park fence, on line with S side of Pearl St	Machine excavated; mixed or 20 th C fill (brick and other debris including concrete curb frag and Belgian Block)
TP3	6/28	5.1 - 6.1	2.5 - 4.0	3.8	C 133 ft N of TP2	Hand and machine excavated; Irregular shape; cast iron pipe (1.5 ft BGS) supported by concrete construction (see profile); recent artifacts (e.g., I♥NY plastic bag, tinfoil frag c. 2.5 ft BGS); mixed fill throughout
TP4	6/28	5.9 - 7.2	3 (at top)	5.0	Rose Garden	Hand and machine excavated (concern over possible water main); mixed fill throughout (brick frags, PETER/DORNI pipe frag; rebar at 4.5 ft BGS)
TP5	6/27	6.0	2.0 - 2.4	5.0	Off SE corner of Comfort Station	Hand and machine excavated (potential gas line); mixed or 20 th C fill (brick, Belgian Block, ash and other debris)
TP6	6/27	7.5	5.0	5.2	C 26 ft N TP5 (N of Comfort Station)	Hand excavated to 1.5 ft., then machine excavation; ash; almost whole marked, partially glazed brick (BURSLEM/ SNEVD); ⁴ asphalt layer at c 4.5 ft
TP7	6/27	4.7	2.0	3.0	S of Battery Pl. fence, c 15 N of TP6	Machine excavated; 4 inch cast iron pipe; less debris, but brick, etc. Mixed fill throughout
TP8	6/28	9.0	2.0 - 3.0	3.2	180 ft directly W of TP1	Machine excavated; mixed fill throughout; possible RR tie with 5-inch metal spike; 19 th -C ceramics and 1983 USA quarter
TP9	6/28	5.5	2.5	4.3	C 25 ft S of TP8	Hand excavated to 1.5 ft BGS; large and small stones; mixed fill throughout; brick and some ceramics

*Measurements in 10^{ths} of ft; BGS = below ground surface

⁴ Snved is in the Parrish of Burslem in Great Britain (Knight 1842:74), an early center of pottery and brick manufacture.

BIBLIOGRAPHY

Geismar, Joan H.,

2010 The Reconstruction of Battery Park and Perimeter Bikeway, Borough of Manhattan, County of New York. 1A Archaeological Assessment/Letter Report. Prepared for the New York Department of Parks and Recreation in Partnership with the Battery Conservancy. Prepared through Quennell Rothschild & Partners, LLP. Prepared by Joan H. Geismar, Ph.D., LLC. November 17, 2010.

Kirshner, Pat

2011 Personal communication. Director of Operations & Planning. The Battery Conservancy. One New York Plaza, Concourse, New York, NY 10004.

Knight, Charles

1842 *The Penny Cyclopaedia for the Society for the Diffusion of Useful Knowledge*. Vol. XXIII. Conducted by Charles Knight. Charles Knight & Co. London. Google Books.

Langan

2008 Geotechnical Engineering Study, Seaglass Carousel, New York, New York. Prepared for Warren George, Inc. Prepared by Langan Engineering and Environmental Services, P.C. May 19, 2008.

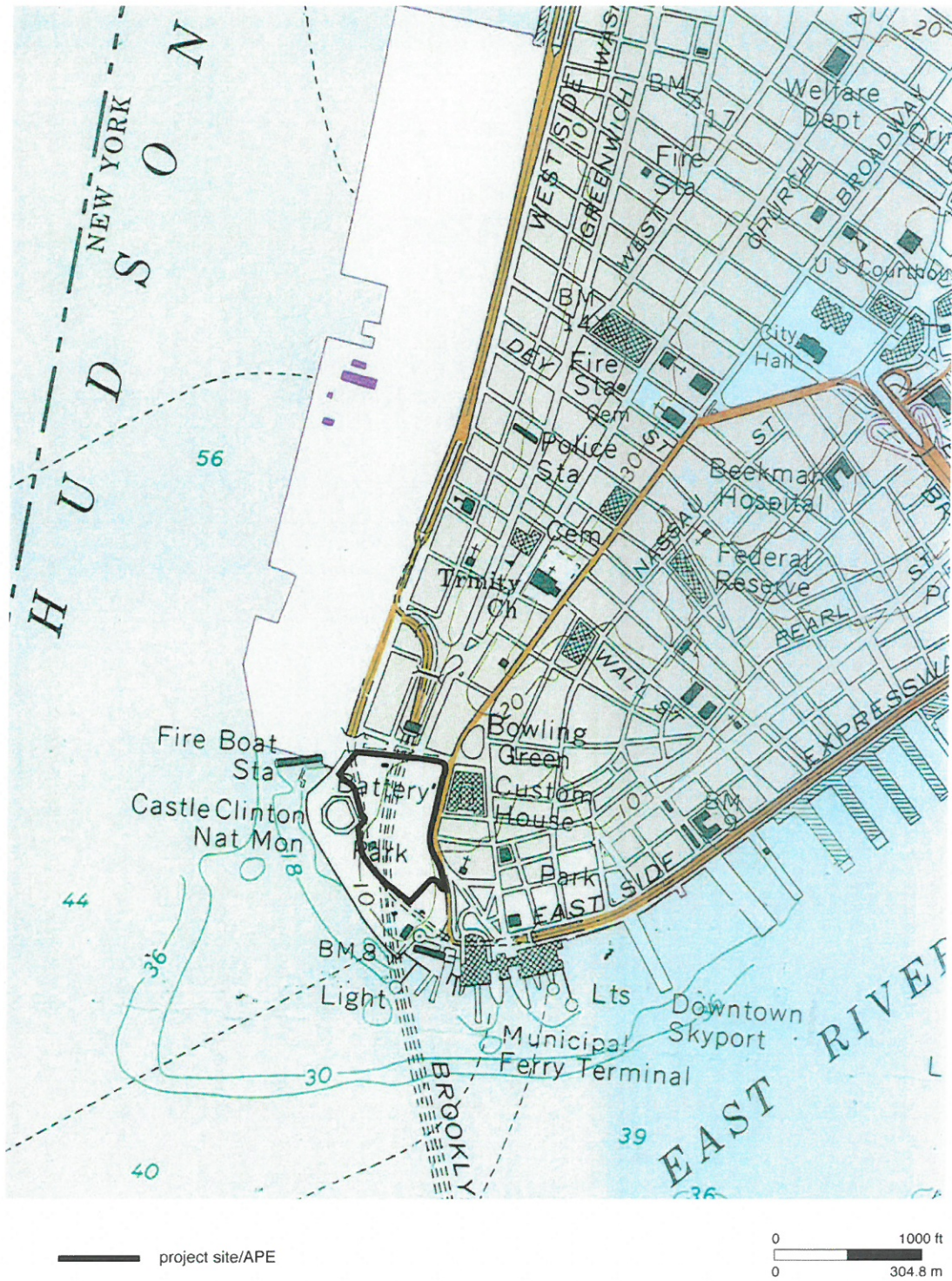
McClaren and Quennell

2011 Archeological Test Pit Location Map. Created by the Intersections of the Utility Plan with Historical Shoreline and Seawall Features from Geismar 2010. Produced for Quennell Rothschild & Partners, LLP.

USGS

1967. *Jersey City Quadrangle* Photorevised to 1981. Reston, VA.

FIGURES and PHOTOS

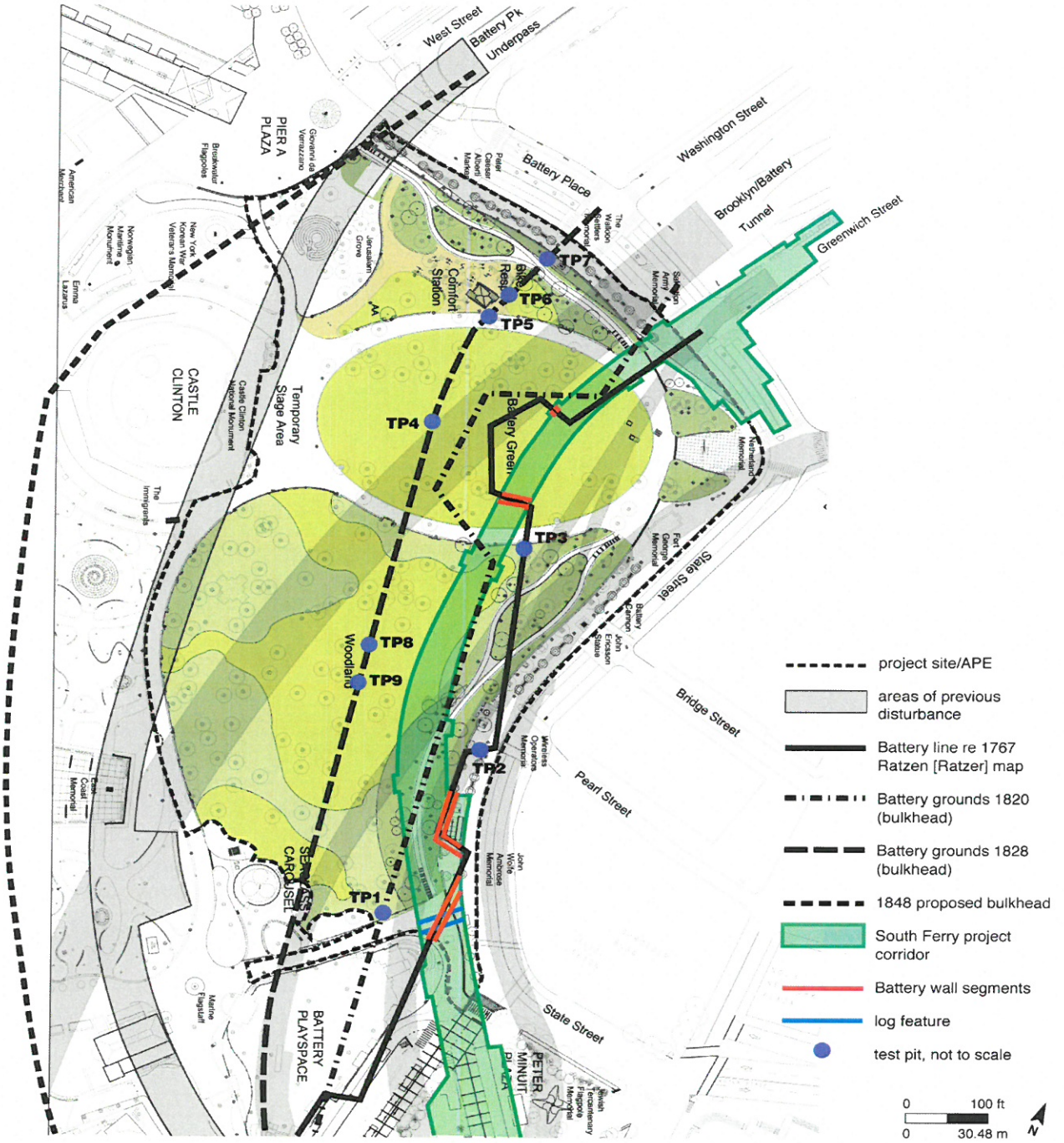


— project site/APE

0 1000 ft
0 304.8 m



BATTERY PARK TEST PITS Test Pit Location Plan with Disturbances and Battery and Bulkhead Lines Indicated (Geismar 2010: Figure 7 and McClaren and Quennell 2011)



South Ferry information courtesy of AKRF and the MTA (AKRF et al. 2010: Figure 2.3)



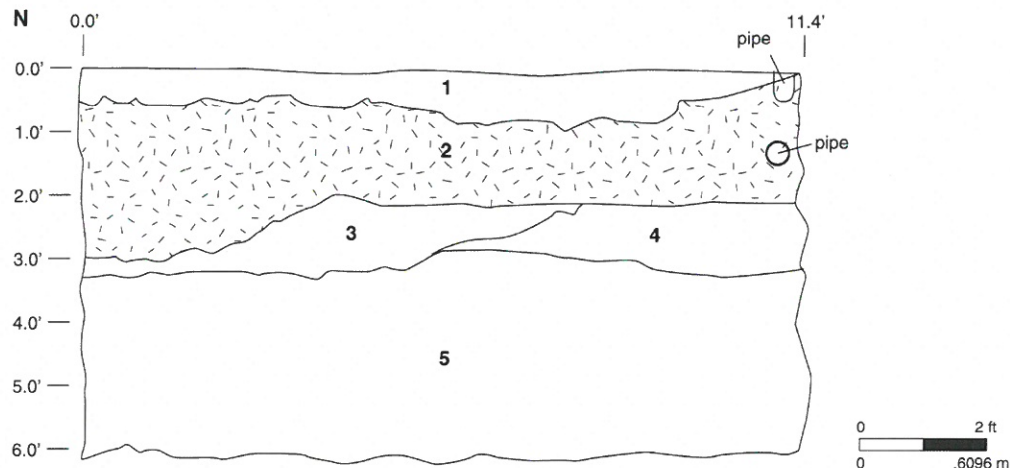
Photo 1. Test Pit I (TP1) looking south. The deepest of the planned test pits at 6.2 feet BGS, it comprised a mixed fill and was crossed by several utility pipes. (Geismar 6-27-11)



Photo 2. Detail of a utility pipe network found in TP1. (Geismar 6-27-11)

BATTERY PARK TEST PITS TP1 North End Schematic Profile

3



- 1 topsoil
- 2 fill with sand and ash
- 3 dark soil
- 4 mottled soil, brick etc.
- 5 reddish brown soil (5yr 4/6), some frags (fill)

BATTERY PARK TEST PITS TP1 North End Schematic Plan

4

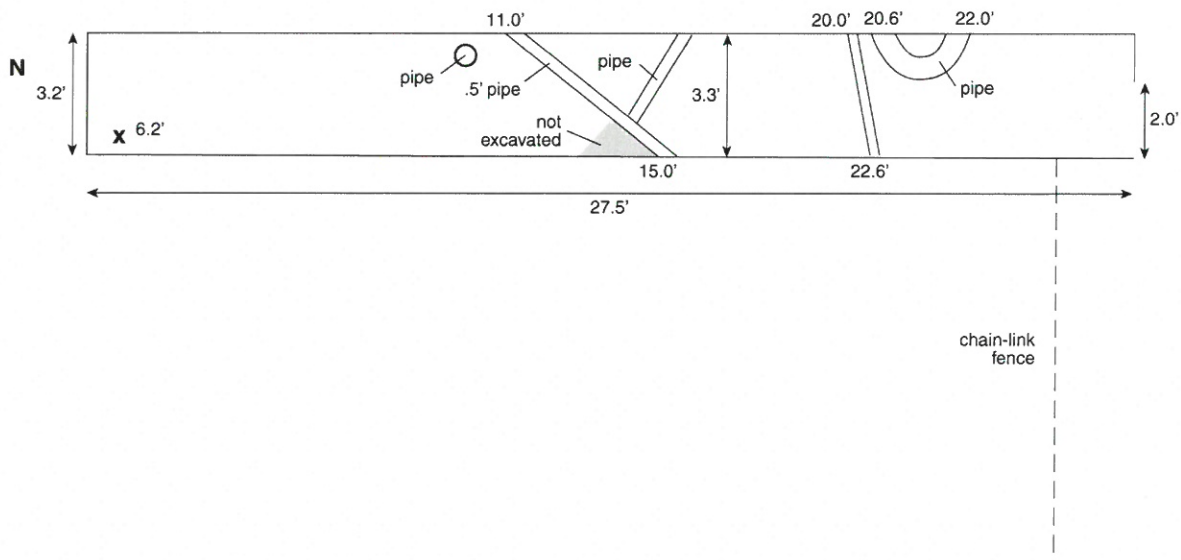




Photo 3. Test Pit 2 (TP2) located on the eastern edge of the park. The view is north, with State Street in the background. (Geismar 6-27-11)



Photo 4. Test Pit 3 (TP3) expanded to document what proved to be a shallow, concrete slab construction that supported an abandoned iron utility pipe (arrow). The view is east. (Geismar 6-28-11)



Photo 5. Test Pit 4 (TP4) located in the existing Memorial Rose Garden. The test pit was both hand and machine excavated on the chance that it might impact a water main. The view is south. (Geismar 6-28-11)



Photo 6. Grab sample artifacts noted in the TP4 fill that include the Belgian Block they sit on, an oyster shell (one of several found throughout the tested fill), a brick fragment, ceramic fragments, a PETER DORNI pipe stem fragment (right arrow), and a rebar fragment (left arrow) recovered at 4.5 BGS. The DORNI pipe stem fragment was collected. (Geismar 6-28-11)

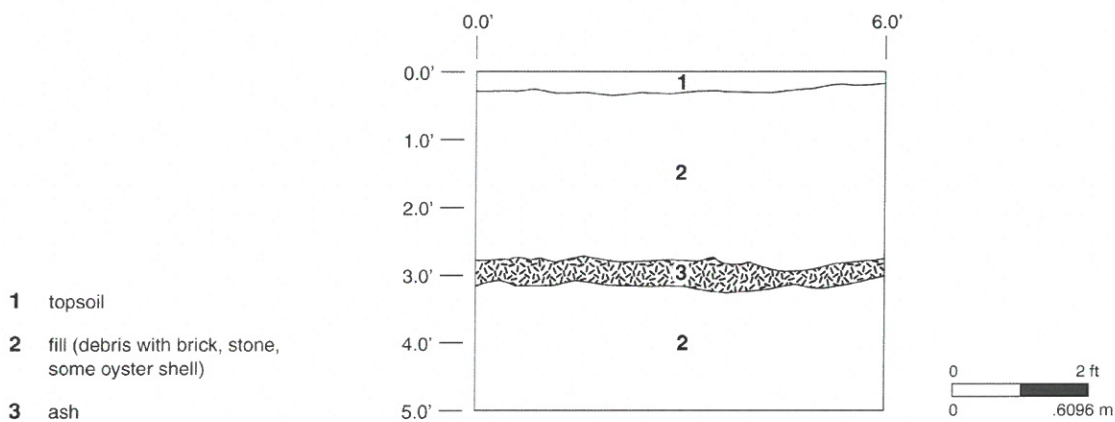


Photo 7. Test Pit 5 (TP5) looking northeast. Initial excavation was by hand because of concern about a potential gas line. The arborist in attendance trimmed the exposed tree roots. (Geismar 6-28-11)

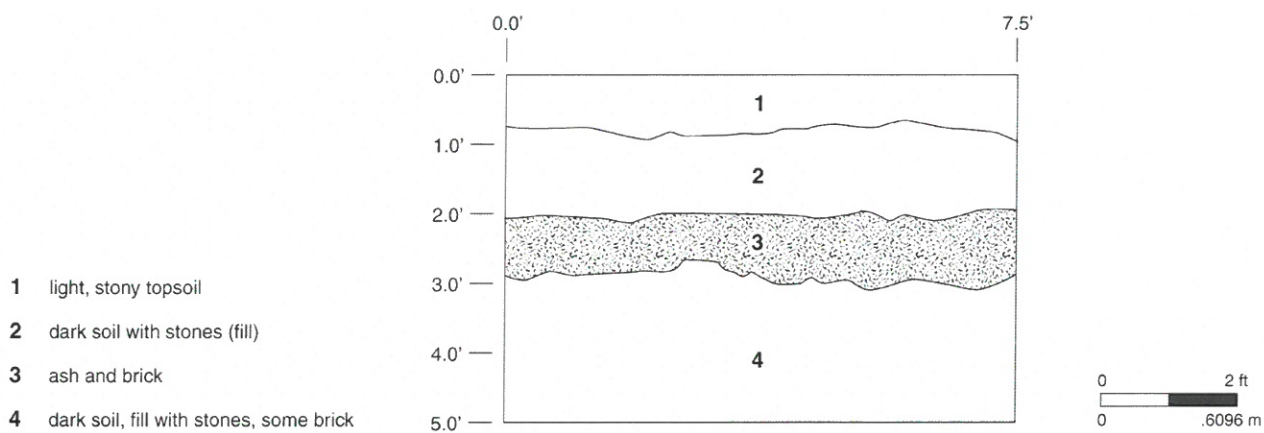


Photo 8. Test Pit 6 (TP6) looking south. Note the fill strata in the west wall (arrow). The fill in this pit included most of a brick marked BURSLEM/SNEVD that was glazed (white) on one edge. (Geismar 6-27-11)



Photo 9. Test Pit 7 (TP7) looking north with the Battery Place sidewalk in the background. (Geismar 6-27-11)



Photo 10. Test Pit 8 (TP8) looking east. What appeared to be a RR tie with an iron spike (arrow) was located in the northwest corner of this shallow excavation. (Geismar 6-28-11)



Photo 11. Test Pit 9 (TP9) looking north. Because tree roots were a concern in this test pit, the first 1.5 feet were hand excavated. (Laura Wooley, an arborist, is trimming exposed roots but none were considered significant). Here, as elsewhere throughout the tested area, the fill was a hard-packed soil with some small, redeposited artifacts mixed with modern debris. (Geismar 6-28-11)

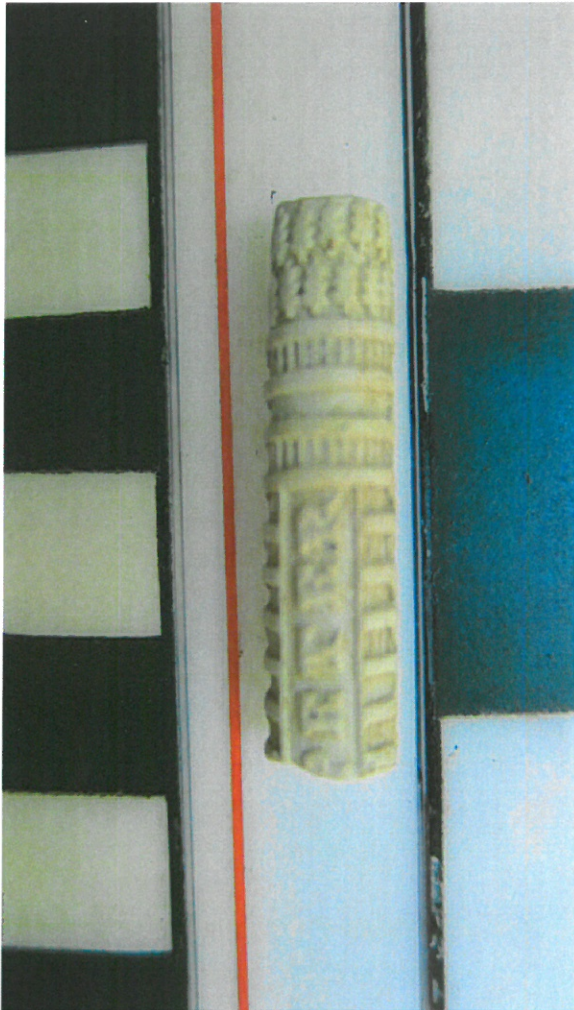


Photo 12. One side of the PETER DORNI pipe stem fragment from TP4 (BPBW TP4-1), the only collected artifact. (Geismar 6-29-11)

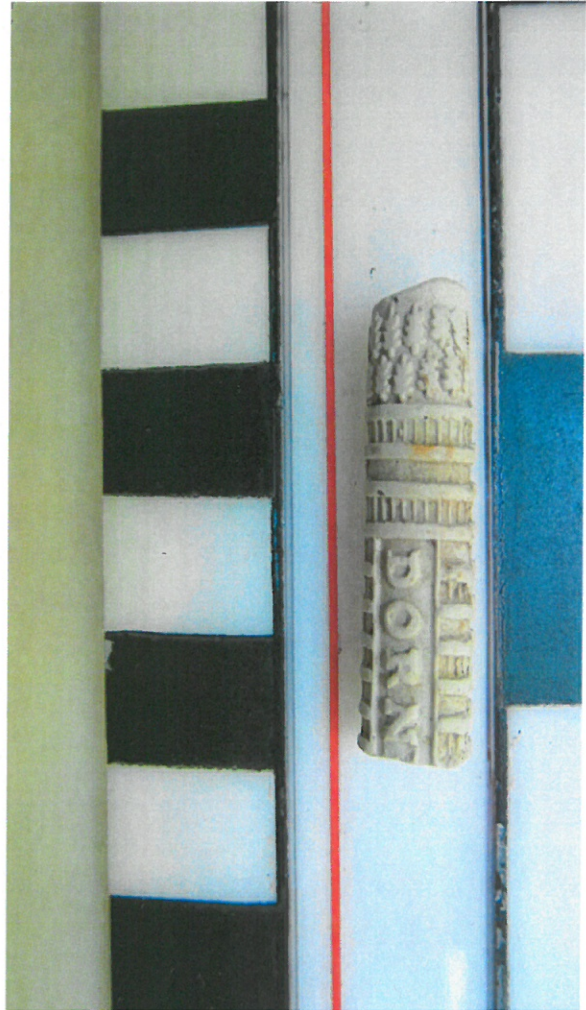


Photo 13. "DORNI" is on the other side of the pipe stem fragment from TP4. Identified as a mid-19th-century artifact (see text), it was found in fill with a rebar fragment. (Geismar 6-29-11)