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REPORT ON ARCHAEOLOGICAL TESTING AND MONITORING OF SEVEN LOCATIONS OF PLANNED ELECTRICAL POLES FOR A WATERFALL ART INSTALLATION ON GOVERNORS ISLAND NEW YORK, NEW YORK

Docket # 07-7004

Location of completed hole for Electrical Pole 3 facing north in relationship to the ferry dock with the tip of Manhattan in the background.

Prepared for: NYC Waterfalls LLC
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July 3, 2007

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EXECUTIVE SUMMARY

This report presents the results of the archaeological testing conducted along the shoreline on the north side of Governors Island, New York City in advance of a temporary waterfall art installation planned for the Summer 2008. The installation will require seven electrical poles. All these locations were tested for this project. The locations of the planned poles are within the boundaries of both the Governors Island National Historic Landmark District (outside of the National Monument) and the New York City Landmark District. This report has been prepared to meet the environmental review requirements. All work conducted for this project meets the standards of both the New York State Office of Parks, Recreation and Historic Preservation (SHPO) and New York City Landmarks Preservation Commission. The archaeological work was done to determine if potentially significant archaeological resoureces exist in these locations.

The electrical poles will be either five or ten feet deep (1.5 or 3 m). The fieldwork consisted of shovel tests and geoprobe excavations to the full depth of each hole. No features were identified during the field work. However documentation of stratigraphy and artifacts tell the story of the changing north shoreline of Governors Island around the turn of the twentieth century. It was hypothesized the fill in the waterfall project area was added as part of a shoreline reconfiguration around the time the southern part of the Island was created by fill excavated from the construction of the New York City subway system.

This report concludes by recommending the waterfall electrical pole installations can be conducted in these seven locations with no further archaeological field work.

MANAGEMENT SUMMARY FORM

SHPO Project Review Number (if available):

Involved State and Federal Agencies (DEC, CORPS, FHWA, etc): NYC Mayors Office, GIPEC

Phase of Survey: 1B

Location Information
- Location: Governors Island, New York City
- Minor Civil Division: n/a
- County: New York

Survey Area (Metric & English)
- Length: n/a
- Width: na/
- Depth: (when appropriate): n/a
- Number of Acres Surveyed: n/a
- Number of Square Meters & Feet Excavated (Phase II, Phase III only): n/a
- Percentage of the Site Excavated (Phase II, Phase III only): n/a

USGS 7.5 Minute Quadrangle Map: Jersey City, NJ - NY

Archaeological Survey Overview
- Number & Interval of Shovel Tests: 7 at varying intervals
- Number & Size of Units: n/a
- Width of Plowed Strips: n/a
- Surface Survey Transect Interval: n/a

Results of Archaeological Survey
- Number & name of prehistoric sites identified: n/a
- Number & name of historic sites identified: n/a
- Number & name of sites recommended for Phase II/Avoidance: n/a

Results of Architectural Survey
- Number of buildings/structures/cemeteries within project area: n/a
- Number of buildings/structures/cemeteries adjacent to project area: n/a
- Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts: n/a
- Number of identified eligible buildings/structures/cemeteries/districts: n/a

Report Author(s): Linda Stone, RPA

Date of Report: July 3, 2007

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INTRODUCTION

The Public Art Fund, in collaboration with the City of New York, is planning an art installation in New York City scheduled to open in the Summer 2008. One of the installations is a temporary waterfall on Governors Island. The location of the planned waterfall will be within the boundaries of both the Governors Island National Historic Landmark District (outside of the National Monument) and the New York City Landmark District.

The installation of this art work will include excavation for seven (7) electrical poles. See Figure 1 in Appendix A for location of the Island and Figures 2 and 3 for the location waterfall project work. The excavations are for poles to carry electricity to the installation. The holes necessary to place the poles will be eighteen inches (46 cm) in diameter and five or ten feet (1.5 or 3.0 m) deep. The proposed installation will be located along the north shore of Governors Island with poles to both the east and west of the ferry dock. Five of the poles will be along the seawall and the two others will be slightly inland. The two poles adjacent to the ferry dock will require holes excavated to ten feet deep. The other five poles will require five foot deep holes.

The approved archaeological work plan was to pre-excavate each pole location using archaeological methods to determine the presence or absence of archaeological resources (see Appendix A). This report presents the results of this archaeological testing on Governors Island. The work has been conducted in accordance with the guidelines of both the New York State Office of Parks, Recreation and Historic Preservation and the New York City Landmarks Preservation Commission. This report was prepared by Lind Stone, RPA for NYC Waterfalls, LLC. The archaeological fieldwork described in this report was conducted by Ms. Stone on April 23, 24 and 26, 2007. Tishman Corporation provided labor assistance and geoprobe services. The author would like to acknowledge the support of Rochelle Steiner of The Public Art Fund, Michael V. Tumulty of STV, Inc., Pamela Friedlander of Tishman Corporation, Elizabeth LoNigro of the Mayor's Office, Lap Yan of Tishman Corporation and Claire Kelly of GIPEC for facilitating this project.

SITE HISTORY AND ARCHAEOLOGICAL POTENTIAL

As part of the background research on the planned waterfall location, two of the historic maps of Governors Island were overlaid with the pole plan to determine what may have once existed there (see Figures 3 and 4 in Appendix A). The 1813 map shows the five holes along the shoreline formerly at or above the high water line. However the 1879 map depicts the two western pole locations within the water (after the seawall was built). The only logical explanation for this is that the earlier seawall was built to the south of the original shoreline and has been expanded to the north since 1879. This explanation can be reinforced by examining the current shoreline on the north side of the island (see Figure 2) and comparing it to the 1879 shoreline. The more recent map shows the shore as a straight line from the near the western end of Building 110 (formerly Building 34) eastward to east of where EP 5 is depicted on Figure 2. This is contrasted with the more jagged seawall depicted on Figure 4 of Appendix A.

The initial research demonstrates there were no structures located within the footprint of the planned holes as of 1813. However, by 1879 several buildings had been built in and around some of the pole locations. In addition to Building 140, there was a stable at the point where the line of the poles turns southeastward. It is labelled on Figure 4 of Appendix A as Building 41. That figure also depicts two unnumbered buildings to the north of Building 41, perhaps in the footprint of the planned holes.

The part of Governors Island where the electrical poles are planned is part of the original island. Unfortunately, it is not possible to say with certainty whether the five pole locations along the shore will disturb part of the original surface of the island. Once the seawall was constructed, fill would have been added to the island to stabilize the shoreline. The water table at the shore pole locations is currently between three to eight feet. It is deeper at the two other pole locations. Potential archaeological findings for the waterfall electrical poles could include original ground surface at the shoreline, prehistoric archaeological resources and/or structural remains or other evidence of the former stable and unidentified buildings shown on the 1879 map.

METHODOLOGY

A detailed archaeological work plan was submitted to NYC Waterfalls, LLC on April 17, 2007 (see Appendix A). It proposed archaeological shovel testing of all pole locations to three feet deep followed by archaeologically directed and recorded contractor excavations to six feet deep, although the poles should only require five foot deep holes. The two planned ten foot deep holes would then be geoprobed to full depth and archaeologically documented.

Field Testing

For purposes of establishing order to the project, each pole location was assigned a number. Electrical Pole 1 (EP 1) is the northwestern most of the poles and closest to where the actual waterfall will be placed. The poles were numbered sequentially 1 through 7 with EP 2 and 3 on either side of the ferry dock and EP 7 at the southeastern end of the run (see Figure 2). EP 1 and 2 were in paved areas. The remainder of the tests were located in grassy areas. The holes were not placed at fixed intervals, but rather at spacing ranging from 68 to 130 feet (20.7 – 39.6 m). All locations were cleared of potential unexploded ordinance hazards prior to archaeological testing.

Each of the holes was archaeologically shovel tested for the first three feet (91 cm). All soils thus excavated from the holes were screened through ¼ inch hardware mesh for the recovery of artifacts. The holes were excavated by laborers using a posthole digger with extended handles from three to six feet (91 – 182 cm) (see Photo 1). The soil removed with the posthole digger was also screened for artifact recovery, unless culturally sterile subsoil was reached (see descriptions of the individual holes below). This extent of the excavation was archaeologically recorded as an extension of the shovel test regardless of whether culturally sterile soil was reached. EP 3 was excavated from 6 to 10 feet (182 – 304 cm) using a geoprobe. The soil removed by the geoprobe was also screened for artifact recovery and was recorded on the shovel test form. The location of EP 2 did not enable access by the geoprobe. The additional four feet (122 cm) were excavated with a hand operated bucket auger similar in diameter to the geoprobe. The soil thus removed was also screened for artifact recovery and recorded on the shovel test form. Soils, stratigraphy and artifact inclusions were recorded on forms. Changes in soil color or texture were recorded as separate strata. Soil color descriptions were made using comparisons to the Munsell Soil Color Charts. Shovel test locations were mapped on the undated, circa 1960s, Governors Island Topographic Survey. Photo documentation was done as appropriate. The shovel test stratigraphy is included here as Appendix B. Upon completion of the archaeological testing, the contractor backfilled the holes and was planning to mark the locations so they could be easily identified next summer.

Artifact Collection and Processing

Unique context numbers were assigned for each field bag of artifacts recovered. The context numbers for this project are the electrical pole number followed by a decimal and a numeral representing the stratum. All recovered artifacts were washed and rinsed in tap water and left to air dry before labeling and rebagging in clean 4-mil perforated zip-lock bags. Most artifact categories, with the exception of metal and bone, were individually labeled with the site abbreviation "GI" and project identifier "WF" and the context number. All zip bags were labeled with the same information. Bags containing glass were not perforated.

Artifacts known in the field to be non-diagnostic modern materials or to be associated with known fill deposits were noted in the field and generally either sampled or not retained. These are all noted in the artifact inventory (Appendix C). All ceramic and glass artifacts are considered sherds, unless otherwise noted in the inventory. Artifact counts for artifacts not retained are only supplied when less than five pieces were not retained from a particular context. When an abundance of a non-retained artifact category was noted, such as coal, no count was done.

In the artifact inventory, ceramic identification and date ranges of manufacture for white-bodied refined earthenwares were based on style of decorations, when available, and are referred to in the inventory as "refined earthenwares". If identifications and/or dates of manufacture were also based on ware type, such as creamware/pearlware/whiteware, then these types are used as identifiers in the inventory. Governors Island is the current repository for all artifacts recovered during the conduct of work described in this report. Artifacts will be transferred there from the archaeological consultant upon acceptance of this report by the review agencies.

RESULTS

The following is a discussion of the excavation at each pole location, including the artifacts found and the stratigraphy within each hole. It is followed by an analysis of the stratigraphy throughout all seven locations and an interpretation of the findings. Appendix B contains the stratigraphic records for each hole location. Appendix C is the artifact inventory. Figure 2 depicts the actual hole locations on the topographic survey (c. 1960) and Figure 3 shows the locations on the aerial photograph.

Several of the locations originally marked for electrical poles had to be moved. This was because a number of pipes or conduits were encountered during excavation. Electrical pole locations 2, 3, 4, and 7 all required relocation (see below). Actual hole diameter was at least 1.5 feet through the six foot depth. The holes from six to ten feet were excavated by the geoprobe contractor and were about two inches in diameter. EP 1 and EP 2 were located within paved areas while the rest of the locations were grassy.

EP 1

EP 1 was in located in an existing parking lot. The paving extended to a depth of about 0.8 feet (24 cm). This was underlain with gravel and then a gravelly mix from the underlying deposit to a total depth of 2.2 feet (67 cm) below ground surface (bgs). That was underlain with brown silty sand that became wetter with depth. The hole was excavated to 5.8 feet (177 cm) deep because it was obstructed by a large rock at that depth. This was the only hole that was not excavated to the full six foot depth. However, the actual electrical poles will only require five feet of excavation so it was determined to be acceptable in the field. Three arbitrary levels of brown silty sand were established for artifact provenience. No artifacts from the upper soil levels were retained. However coal, slag, cinders, extremely corroded nails, fragments of red brick and sewer pipe, pieces of clam shell and flat glass sherds were noted.

Brick and coal were also observed and not retained from the basal stratum of EP 1. However a sample of flat glass and concrete were retained. Other artifacts recovered from this stratum include faunal bone, ceramic and glass sherds and several pieces of quartz that required closer examination after processing. The quartz shows no evidence of intentional modification or use as a Native American tool (see Photo 2). The ceramic sherds include white salt glazed stoneware, a type manufactured from about 1740 through the 1770s, and creamware, manufactured from about 1762 to 1820. This stratum also contains a sherd of whiteware which was manufactured beginning in the early-nineteenth century (see Photo 3). This sherd provides the *terminus post quem* (*tpq*) for this stratum (i.e. the earliest possible date of deposition).

EP 2

EP 2 was the ten-foot deep hole located to the west of and just off the ferry dock, in between the concrete side walk and the electrical supply house. This location was attempted three times. The first cut through the reinforced concrete revealed a metal pipe connection at 0.8 feet (24 cm) below ground surface (bgs). The second attempt encountered another metal pipe at 1.4 feet (43 cm) and a piece of cut wood at 1.8 feet (55 cm) bgs. The hole was offset to the south to avoid these impediments. The reinforced concrete extended for 0.5 feet (15 cm) bgs. It was underlain with junky fill to 1.4 feet (43 cm). As in EP 1, brown or dark yellowish brown silty sands were recorded, here extending to depths of 7.4 feet (226 cm) bgs, becoming increasingly wetter with depth.

A variety of artifacts were recovered from the silty sand, including ceramic, glass, corroded metal and quartz. However the upper levels were modern fill. Stratum 3 contained a pop top, manufactured from 1962 – 1983. After processing, it is clear that the quartz recovered from Stratum 4 shows no evidence of intentional modification or use as a Native American tool (see Photo 2). No diagnostic artifacts were recovered from Strata 5, 7 or 8. Stratum 6 contained a blue edge pearlware sherd, manufactured from the late-eighteenth through the early-nineteenth centuries.

A very dark gray wet sandy silt with some small stones was documented from 7.4 feet (226 cm) to 10 feet (305 cm). No artifacts were recovered from this stratum, although a piece of coal and a twig were observed at about 8.5 feet (259 cm) bgs. It is possible this stratum represents a buried surface.

EP 3

EP 3 was the ten-foot deep hole located in the grassy area east of the ferry landing, behind Building 140. This area is at an elevation of about 1.8 feet (55 cm) above the ferry landing. There is a retaining wall along the edge of the landing. The hole location is about twenty feet (6 m) south of the seawall. Two attempts were made for EP 3 excavation. The first resulted in exposing a buried PVC pipe at 3 feet (91 cm) bgs. The hole was relocated to the south to avoid the pipe. The sod was underlain with loam to 1.3 feet (40 cm) bgs. This deposit contained ceramic and glass sherds, as well as bone, shell, coal, brick fragments and corroded nails. The loam was underlain with yellowish brown gravelly coarse sand. Several arbitrary levels were established for artifact provenience; Strata 3 - 6. These strata contained more artifacts than the same soil in other EP locations. Diagnostic artifacts recovered from the yellowish brown sand include ceramic and glass sherds and smoking pipe stems. The *tpq* of the deposit is the late-nineteenth century, based on a bottle base recovered from Stratum 4 (see Photo 4). The initial location of the hole was later called EP 3B and the new and final location EP 3. This distinction was kept for maintaining artifact provenience and applies only to Stratum 3, the level directly above the PVC pipe, although the complete stratigraphy for both locations in detailed in Appendix B.

A relatively thin lens of brown coarse sand was documented directly beneath the lighter gravelly sand. This soil continued to a depth of 7.4 feet (226 cm) bgs. No artifacts were recovered from this stratum, however one brick fragment and one piece of coal were noted. Very dark gray or black wet gravelly sand were recorded at the bottom levels of EP 3. The basal level contained a glass sherd and a piece of cinder, neither diagnostic. It is possible the upper of these strata (Stratum 8) represents a buried surface.

EP 4

PVC pipe was encountered at 2.2 feet (67 cm) bgs and EP 4 was expanded to the south to avoid it. The sod and underlying loam in EP 4 extended to a depth of 0.8 feet (24 cm) bgs. The deposit underneath was yellowish brown sand. This deposit in EP 4 extended to a depth of 4.8 feet (146 cm) bgs. It was excavated in three arbitrary levels to establish a tighter provenience for artifact recovery. Artifacts recovered from the yellowish brown sand include ceramic and glass sherds and bone. Among the diagnostic artifacts found here are ceramic sherds of pearlware, whiteware and painted or printed refined earthewares. The *tpq* for this soil deposit comes from the whiteware recovered from Stratum 5. It could have been manufactured from the early 19th-century through the present.

The basal stratum of EP 4 was very dark grayish brown sand with some schist and an increasing amount of coal. A strong oily odor emanated from the hole at this depth, possibly indicating a buried surface or seepage of industrial waste. Artifacts recovered include ceramic and glass sherds and bone. One of the small ceramic sherds is possibly flow blue, a type manufactured from the early-nineteenth through the early-twentieth centuries, but it is too small a fragment to be certain. The amber glass sherd in this stratum provides the *tpq* of 1860 for this level.

EP 5

The sod and loam extended to a depth of 0.4 feet (12 cm) bgs in EP 5. The brown silty sand stratum extended to the base of excavation in this location; six feet. It was excavated in four arbitrary levels for tighter provenience control. A dense concentration of late-nineteenth/early-twentieth century red brick fragments was documented within Stratum 2 at 1.1 – 1.4 feet (34 – 43 cm) bgs. These included pieces of Reilly & Rose and DeNoyelles Company marked bricks. These companies were in the business of making these types of bricks from the late-nineteenth century through the early- to mid-twentieth century. Stratum 2 also contained milk glass which was first manufactured in the late-nineteenth century (see Photo 3).

Recovered artifacts from the bottom foot of EP 5 include ceramic and bone. A sample of concrete or plaster was also recovered. The ceramics are porcelain, pearlware and creamware. Pearlware sherds provide the *tpq*, manufactured beginning from about 1780.

EP 6

EP 6 was located inland, just south of the retaining wall along Carder Road. The retaining wall is three feet high. As in EP 5, the sod and loam extended to a depth of 0.4 feet (12 cm) bgs and brown or yellowish brown sand extended to the base of excavation; six feet. No artifacts were recovered from EP 6. The usual coal, cinder, corroded metal and concrete were noted in the field, but not retained. No cultural material at all was encountered

below 2.2 feet (67 cm) bgs. Screening for artifact recovery was done through 3.6 feet (110 cm) bgs. The remainder of the excavation was monitored according to protocol with no further findings in EP 6.

EP 7

EP 7 was located behind Building 108. The sod and loam in this location were to a depth of 0.3 feet (9 cm). This was underlain by yellowish brown silty sand. An electrical pipe was encountered in this deposit at 1.6 feet (49 cm) bgs. The hole was then expanded to the north. The yellowish brown silty sand contained more gravel with depth and became less silty. Strong brown sand was documented through 5 feet (1.5 m) bgs. Beyond this depth, the sand became moister and reverted to the yellowish brown color. This continued to the base of excavation.

Artifacts recovered from Stratum 3, after the hole was expanded to avoid the pipe, include a whiteware ceramic sherd. Stratum 4 contained a redware sherd, a type manufactured after 1775. No cultural material was found below a depth of 3.2 feet (98 cm) bgs. However a couple of shell fragments were recorded in the basal strata. Screening for artifact recovery was continued to the base of excavation, six feet (1.8 m).

Discussion

Excavations for EP 4 took place at low tide. This made it practical to measure the depth of the exposed sands along the seawall. The measurement from the top of the seawall to the exposed sand was 8.5 feet (2.6 m) here. Prior to construction of the seawall, the Island would have sloped up from the water. Therefore any buried surface encountered near the seawall would likely be no greater than 8.5 feet down. Possible historic ground surfaces were documented in two locations; EP 2 and EP 3. These were the two deep holes located on either side of the ferry dock, excavated to ten feet (3 m) each. The depth of the possible buried surface in both of these locations is 7.4 feet (226 cm) bgs.

The soils documented during excavation were fairly uniform throughout the electrical pole archaeological tests. Most of the soils were described as yellowish brown or brown sand or silty sand with slight variations. This is the typical soil of Governors Island. The tests located on the shoreline were also uniform in that they contained cultural material to the base of excavation. The two inland tests contained cultural material only to a maximum depth of 3.2 feet (98 cm) bgs. This shallower depth is more typical of what has been documented on Governors Island in past archaeological excavations, all of which have taken place inland (PAL: 1997: 31-36; Stone 2006: App. C; Stone: 2007:5). This indicates that landfilling was more extensive along the shoreline. Providing tangible evidence of this differential was an expected result of this field testing.

EP 1 and EP 2 are located in fill that was added since the locations were mapped in the water on the 1879 Map of Governors Island (Figure 4 – Appendix A). The brown silty sand that extended to about six feet (1.8 m) bgs in these locations contained a variety of diagnostic artifacts. The presence of a whiteware ceramic sherd in EP 1.6 puts the date of deposition of the fill no earlier than the early-19th century. Although EP 1 and EP 2 were in locations formerly under water and therefore certainly now covered with fill, EPs 3 – 5 were directly on the shore where landfill would have also been deposited. Those tests contained diagnostic artifacts in the same soil types dating from the late-19th century. EP 3.4 contained a bottle base dating from no earlier than the late-19th century and EP 5.2 contained two milk glass sherds dating not earlier than 1890. The combined information on the possible date of deposition of this ubiquitous soil type would place it toward the end of the nineteenth century or early-twentieth century.

The southern part of the Island was created between 1901 and 1912 with the addition of fill from the construction of the subway system in New York City. Although the records of that work have not been reviewed during the preparation of this report, it seems quite plausible that as a seawall was created to hold fill on the south side of the Island during that time, the seawall on the north side of the island may have been upgraded to be incorporated into and blend with the then new seawall. This theory dovetails with the findings of artifacts in the electrical pole location's fill dating from the time period of expansion of Governors Island. The theory is enforced by the examination of the 1903 Kinsey Blueprint of Governors Island (see Figure 4). This map clearly depicts the change in the seawall in the area to the west of the ferry dock, in the vicinity of where EP 1 and EP 2 were placed.

CONCLUSIONS AND RECOMMENDATIONS

This archaeological project, in advance of placing electrical poles for a temporary waterfall art installation, unearthed no potentially significant archaeological features. Seven shovel tests were completed. All of these were excavated by the archaeologist for three feet and then by labor support under archeological direction for another three feet. Two of the holes were excavated from six to ten feet by a geoprobe contractor. All of the soils were archaeologically documented and fill was screened for artifact recovery.

Stratigraphy was documented providing a certain amount of knowledge about the historic shoreline. The results of this work indicate the majority of the fill was deposited around the turn of the twentieth century. It was hypothesized the fill could have been related to an upgrade in the seawall in the area of the planned electrical poles around the same time as the southern part of the Island was created by landfill from the New York City subway beginning in 1901. A 1903 map shows the area had been filled by then.

It is recommended that the waterfall electrical pole installations can be conducted in these seven locations with no further archaeological field work.

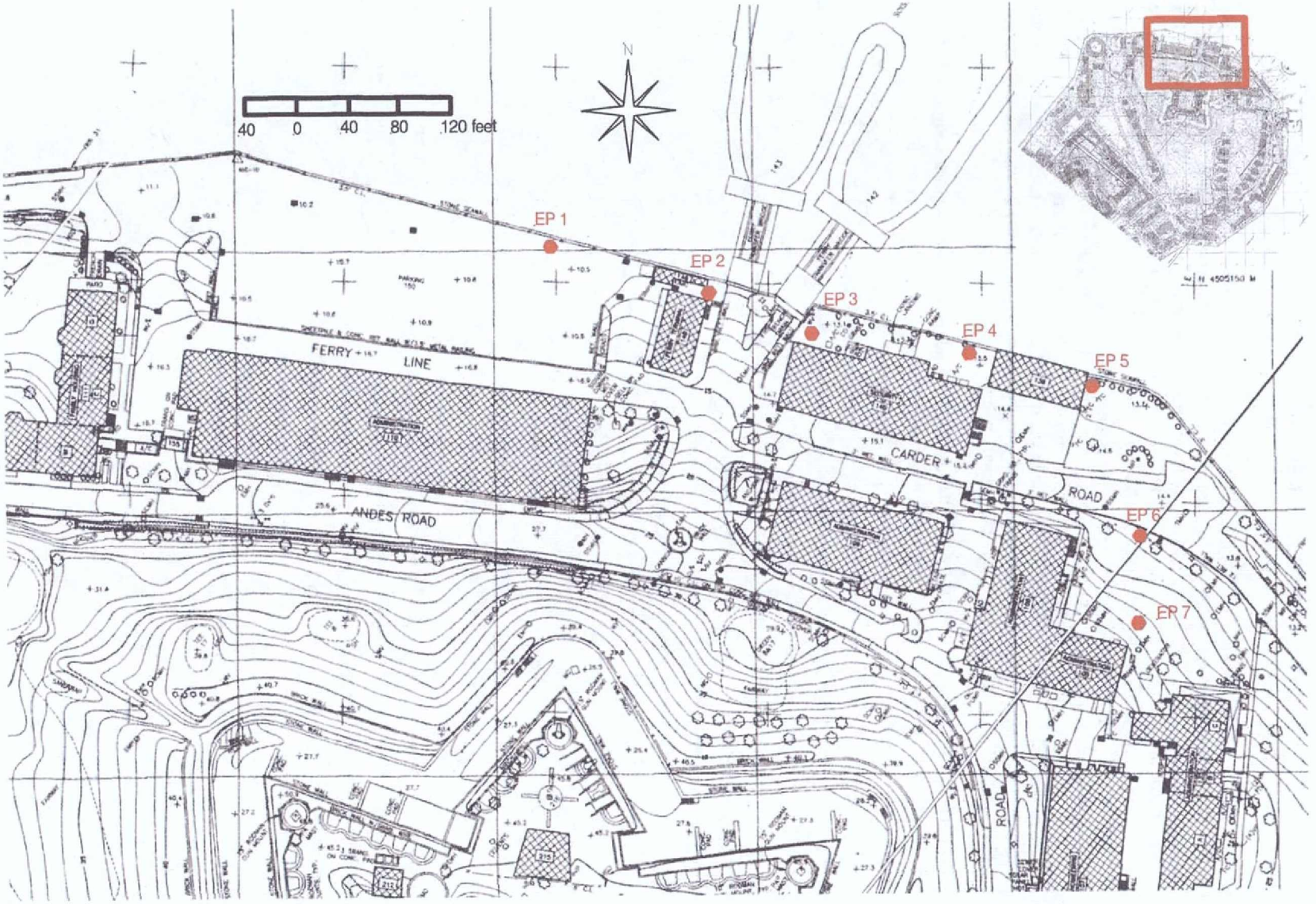

Figure 1 Location of the seven archaeological tests for the planned waterfall electric poles shown on a section of the Governors Island topographic survey.

Figure 2 Location of the seven archaeological tests for the planned waterfall electric poles shown on the Governors Island aerial photograph.

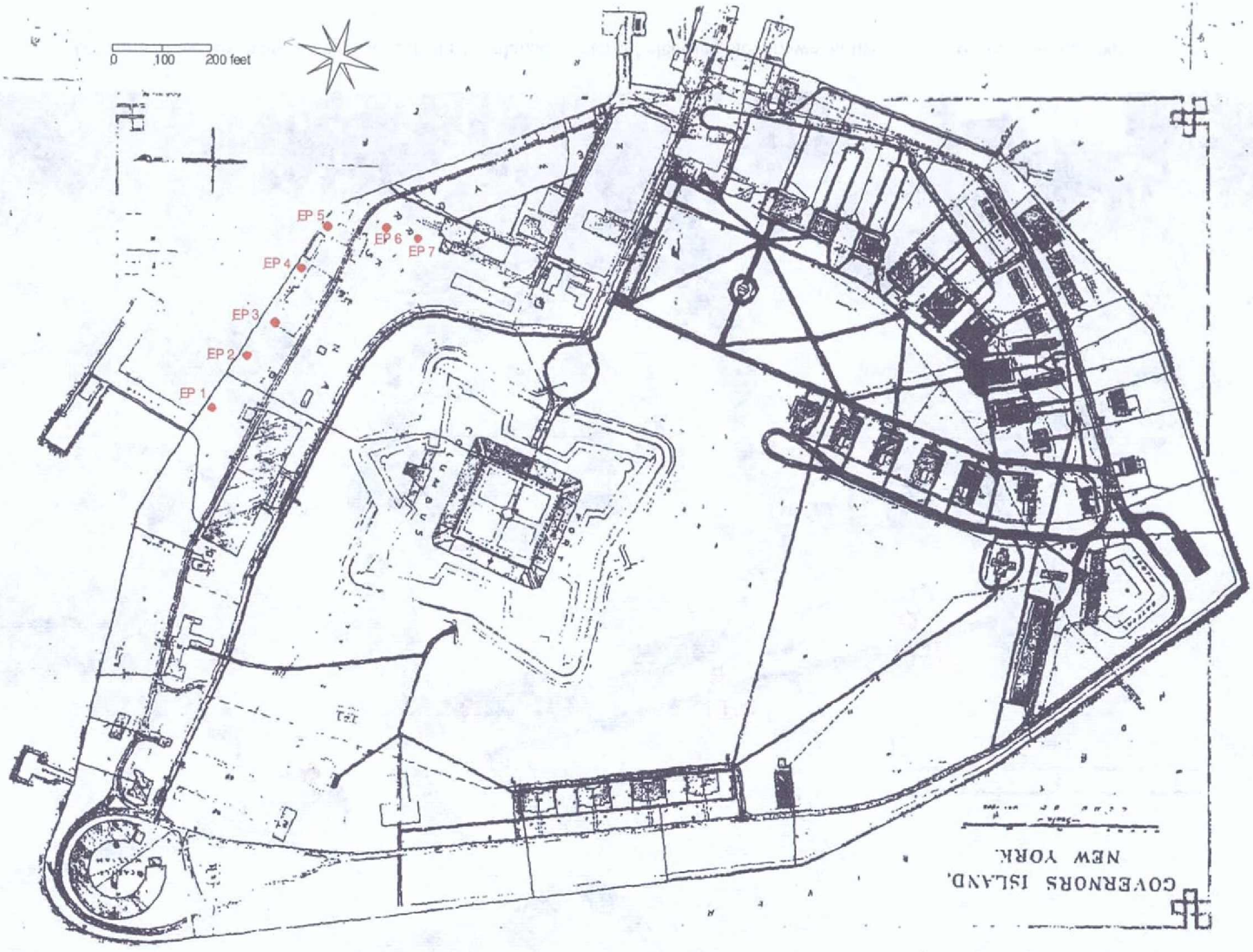

Figure 3 Kinsey's 1903 Blueprint of Governors Island with the location of the seven archaeological tests for the planned waterfall electric poles.

Photo 1 EP 5 in progress, facing northwest.

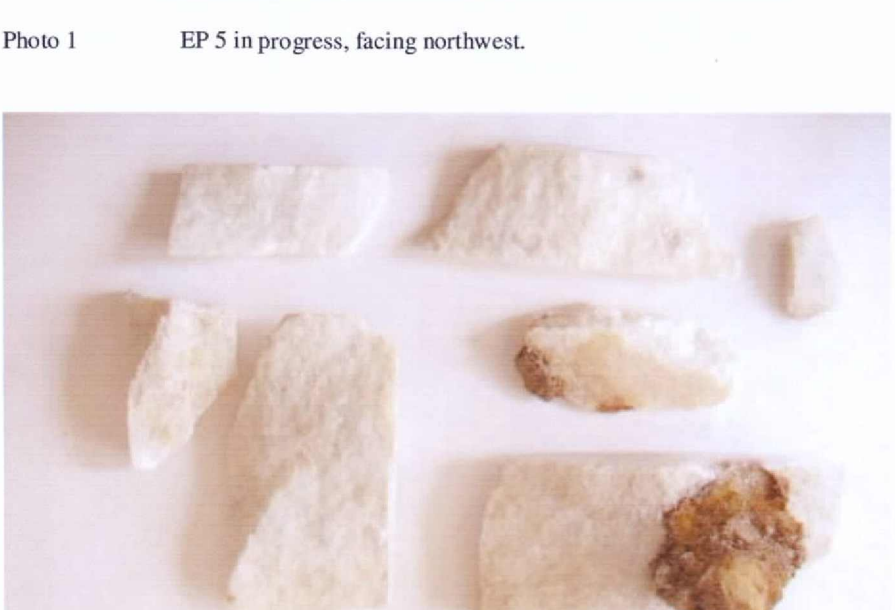

Photo 2 Quartz recovered from EP 1.6 (6 pieces on left) and EP 2.4 (1 piece on upper right).

Photo 3 Whiteware sherd recovered from EP 1.6 on left and three pieces of milk glass recovered from EP 5.2 on the right.

Photo 4 Bottle base recovered from EP 3.4.

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Appendix A

WORK PLAN

ARCHAEOLOGICAL WORK PLAN FOR
EXCAVATIONS ASSOCIATED WITH THE
WATERFALL ART INSTALLATION
ON GOVERNORS ISLAND
NEW YORK, NEW YORK

April 17, 2007

The Public Art Fund, in collaboration with the City of New York, is planning an art installation in New York City scheduled to open in the Summer 2008. One of the installations is a temporary waterfall on Governors Island. The installation of this art work will include excavation for seven (7) electrical poles. See Figure 1 for location of the Island and Figure 2 for the location waterfall project work. The excavations are for poles to carry electricity to the installation. The holes necessary to place the poles will be eighteen (18) inches in diameter and five (5) or ten (10) feet deep. The proposed installation will be located along the north shore of Governors Island with poles to both the east and west of the ferry dock. Five of the poles will be along the seawall and the two others will be slightly inland. The two poles adjacent to the ferry dock will require holes excavated to ten feet deep. The other five poles will require five foot deep holes.

The location of the planned work will be within the boundaries of both the Governors Island National Historic Landmark District (outside of the National Monument) and the New York City Landmark District. As such, this archaeological work is subject to review and approval by both the New York State Office of Parks, Recreation and Historic Preservation (SHPO) and the New York City Landmarks Preservation Commission (LPC). The archaeological standards and requirements of both agencies will apply.

Two of the historic maps of Governors Island were overlaid with the pole plan to determine what may have once existed there (see Figures 3 and 4). Relative to the shoreline, the two maps differ slightly because of their scale. The 1813 map shows the five holes along the shoreline formerly at or above the high water line. However the 1879 map depicts the two western pole locations within the water (after the seawall was built). Obviously this cannot be. Another indication that the scale of the 1879 map is somewhat distorted is the size of what is labelled as Building 35. This building was built in 1875 and is currently standing and now known as Building 140. It can be seen with a narrower profile in Figure 2.

This initial research demonstrates there were no structures located within the footprint of the planned holes as of 1813. However, by 1879 several buildings had been built in and around some of the pole locations. In addition to Building 140, there was a stable at the point where the line of the poles turns southeastward. It is labelled on Figure 4 as Building 41. Figure 4 also depicts two unnumbered buildings to the north of Building 41, perhaps in the footprint of the planned holes.

The part of Governors Island where the electrical poles are planned is part of the original island. Unfortunately, it is not possible to say with certainty whether the five pole locations along the shore will disturb part of the original surface of the island. Once the seawall was

constructed, fill would have been added to the island to stabilize the shoreline. The water table at the shore pole locations is currently between three to eight feet. It is deeper at the two other pole locations. Potential archaeological findings for the waterfall electrical poles could include original ground surface at the shoreline, prehistoric archaeological resources and/or structural remains or other evidence of the former stable and unidentified buildings shown on the 1879 map.

This is a plan to identify potential archaeological resources within these seven locations. The plan involves systematic archaeological field testing to determine if any archaeological resources are present in the location of each of the seven holes. However, should the testing lead to identification of potentially significant archaeological resources, the project may require redesign to preserve the resource(s) and/or additional archaeological work may be required.

The waterfall itself will be located in close proximity (less than 25 feet) to partially completed archaeological work associated with seawall reconstruction. That work involved excavation of a trench to repair a sinkhole along the seawall. The trench was about 4.5 feet deep and contained fill to the base of excavation. Therefore it is expected there will be fill to at least this depth in the electric pole excavations in this area.

The actual field testing will include two methods for the five-foot deep holes and three for the ten-foot deep holes. This will enable archaeological evaluation to the full depth of the planned poles. First, all six locations will be shovel tested. Generally shovel testing will enable examination of the deposits to about three feet deep. This is also the depth at which culturally sterile subsoil has been encountered on other parts of the island (PAL 1997:61; Stone 2006:4-5). Such may be expected in the two inland pole locations. In the paved locations, the asphalt and any underlying paving will be stripped and then the archaeologist will place shovel tests within these openings. One shovel test will be placed in each of the seven locations. Each test will be about one to one and a half feet in diameter and excavated to the depth of non-artifact bearing subsoil (around 3 feet if unimpeded) to identify the presence or absence of archaeological remains and evaluate the nature of the soils. All soils excavated from the shovel tests will be screened through 1/4 inch mesh for the recovery of artifacts. Soils, stratigraphy and artifact inclusions will be recorded on forms. Shovel test locations will be mapped on the site plan. Photodocumentation and drawings will be done as appropriate.

Once the shovel test reaches its full depth at a given location, three additional feet of soil will be excavated from each of the locations by the contractor under the direction of the archaeologist. The total of six feet will ensure archaeological assessment to more than the planned hole depth at five of the locations. The contractor will hand excavate using a posthole digger. Once the hole is too deep for the posthole digger, a specialized tool will be used to excavate to six feet deep. This tool resembles a cross between a small auger and a metal cup. Archaeological documentation will continue as in the shovel tests. Screening will continue for all locations where cultural deposits continue below three feet deep. The contractor will excavate the soil in increments as directed by the archaeologist to ensure no potentially significant features or deposits are destroyed. This will also facilitate the continuation of the archaeological documentation of the deposits.

In the two locations where ten foot holes are required, the remaining depth will be archaeologically examined using a geoprobe. This will be used from a depth of six to ten feet and will enable identification of possible archaeological material in the complete extent of each hole and documentation of the deposits to that depth. Soil brought up by the geoprobe will be screened for artifact recovery if culturally sterile subsoil was not reached by six feet deep. In any case, soils removed during the geoprobing will be documented using the same techniques as the shovel tests and contractor excavations.

Should any of this work unearth potentially significant archaeological resources, the excavations will stop. GIPEC will be notified of the find and initiate consultation with the review agencies on how to proceed with the project. Past experience indicates a preference for project redesign and preservation of the archaeological resource in place. Any changes to the plan for pole placement will also be archaeologically evaluated.

The Public Art Fund, or their surrogate, will be responsible for any necessary testing for unexploded ordinance and pavement removal and reconstruction. They will also be responsible for marking the locations of the poles on the ground prior to archaeological field testing. This plan assumes weather conditions for fieldwork will be favourable (i.e. no snow, rain or frozen ground). If artifacts are recovered, standard methods of artifact processing, labelling, identification, evaluation and documentation will be done on the recovered materials. Upon completion of all archaeological field work specified in this plan, the archaeologist will provide an end-of-field letter to The Public Art Fund that may be used to obtain a provisional sign-off from the reviewing agencies. This letter will be completed within one week of completion of the field work. A complete final report, detailing the results of the field testing will later be prepared for The Public Art Fund and GIPEC for submission to SHPO and LPC. The timing of the final report will depend on the findings. Map(s) at a scale of at least 1"=20' will be provided indicating results from such investigations with locations of the work and of archaeological resource recovered, if any.

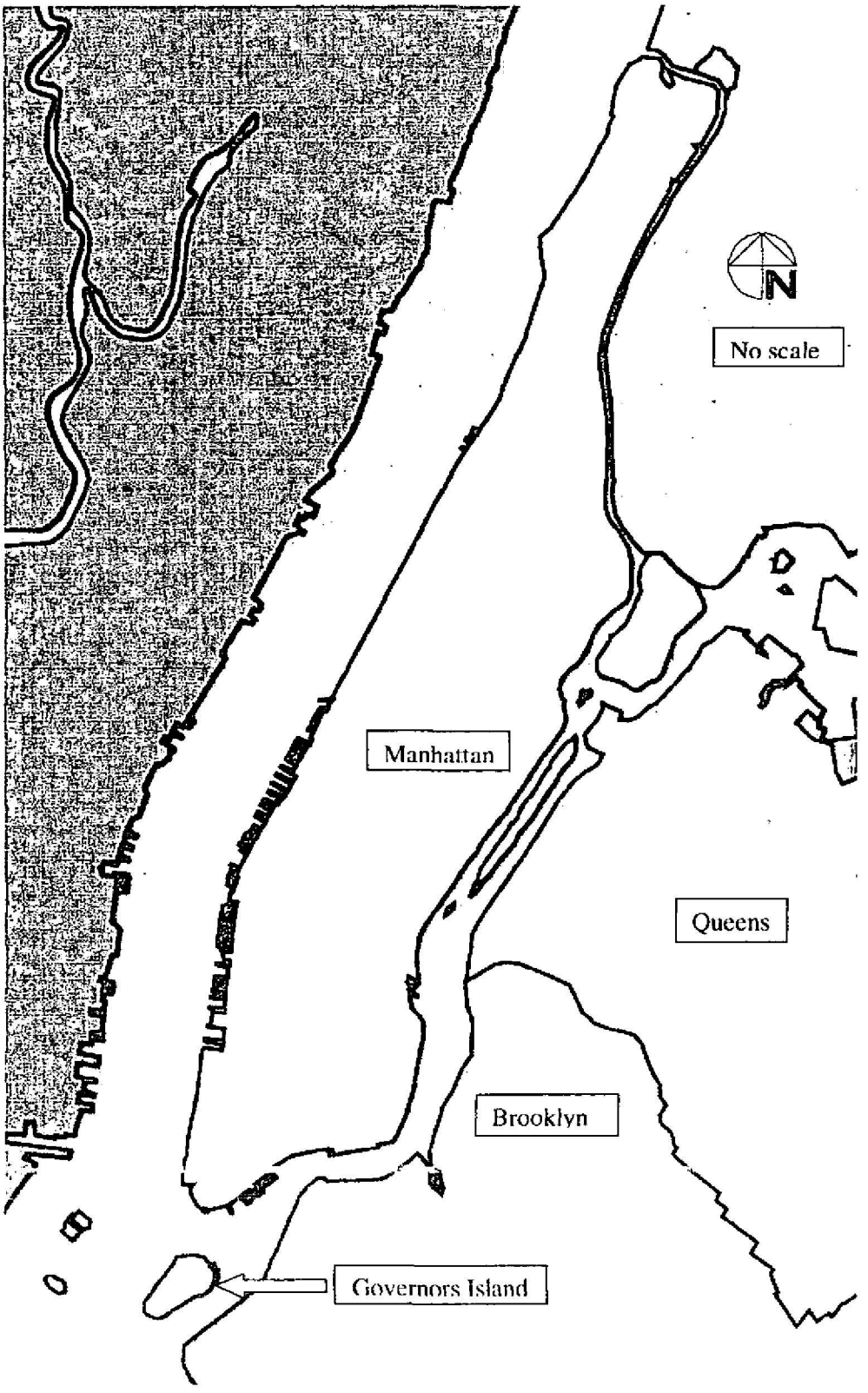

Figure 1 Location of Governors Island in New York City.

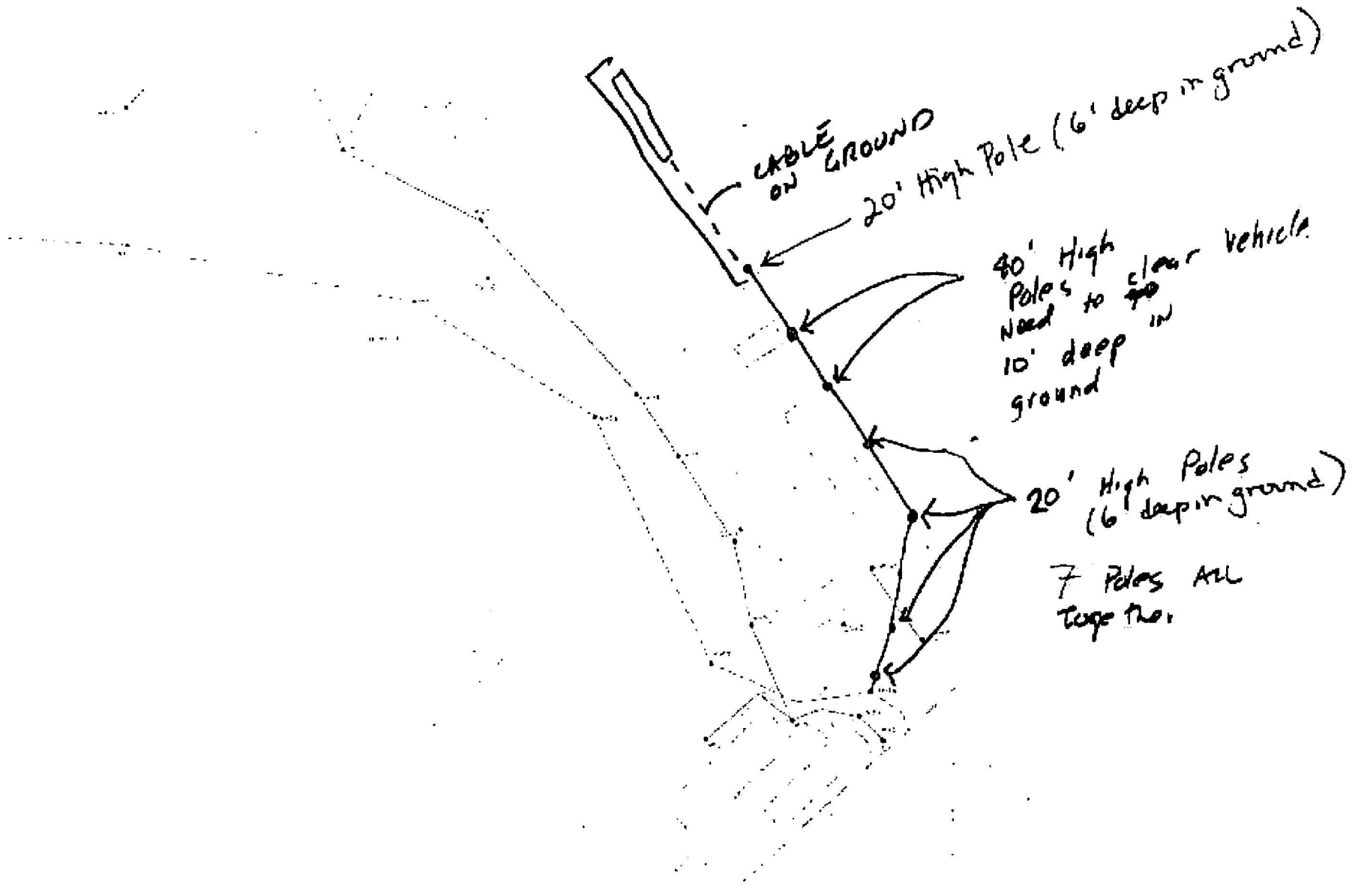

Figure 2 Copy of the Waterfall project plan for Governors Island showing the locations of seven utility poles.

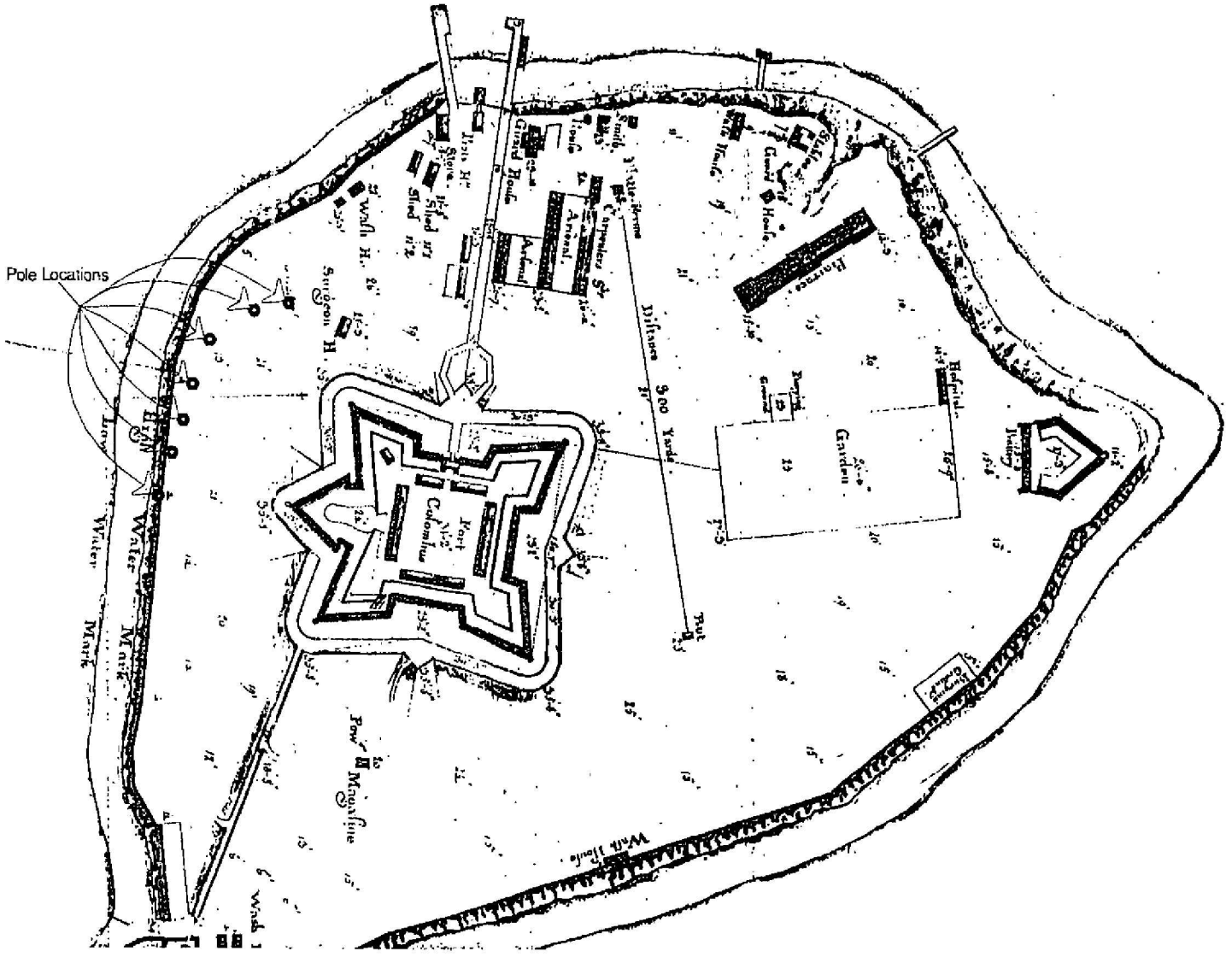

Figure 3 The 1813 Mangin Map of Governors Island showing the locations of the seven utility poles.

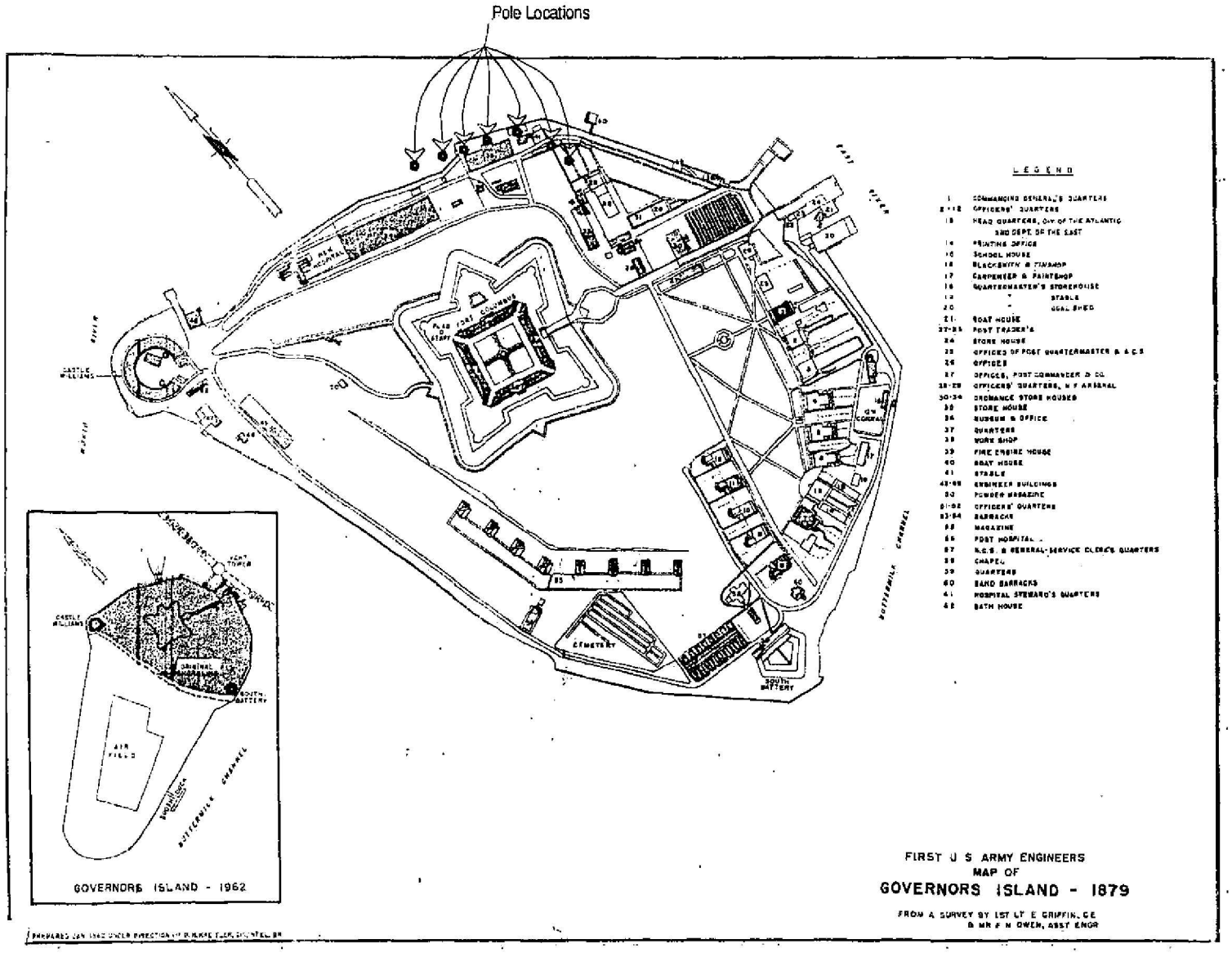

Figure 4 The Army Engineers 1879 Map of Governors Island showing the locations of the seven utility poles.

Appendix B

STRAGRAPHY

Governors Island Waterfall Project Stratigraphy

Test Stratum	Depth	Munsell	Color	Texture	Comment
1 . 1	0.4			asphalt	
1 . 2	0.8			gravel	
1 . 3	2.2	10YR3/3	dark brown	sandy silt & gravel	
1 . 4	3.0	10YR4/3	brown	moister silty sand	
1 . 5	4.5	10YR4/3	brown	wet silty sand	
1 . 6	5.8	10YR4/3	brown	very wet silty sand	
2 . 1	0.5			reinforced concrete	
2 . 2	1.4	10YR4/2	dark grayish brown	junky fill	hit metal pipe in NE corner and moved hole to SW
2 . 3	1.8	10YR4/3	brown	silty sand	hit another pipe and moved hole to SE corner of electrical building
2 . 4	3.0	10YR4/4	dark yellowish brown	silty sand	
2 . 5	4.2	10YR4/4	dark yellowish brown	moist silty sand	
2 . 6	6.0	10YR4/3	brown	moist silty sand	
2 . 7	7.4	10YR4/3	brown	moist silty sand	
2 . 8	10.0	10YR3/1	very dark gray	very wet sandy silt	
3 . 1B	0.3			sod	
3 . 1	0.4	10YR3/2	very dark grayish brown	sod & sandy loam	not screened
3 . 2B	0.8	10YR4/2	dark grayish brown	sandy loam	
3 . 2	1.3	10YR4/4	dark yellowish brown	sandy loam	
3 . 3	3.0	10YR5/4	yellowish brown	gravelly coarse sand	
3 . 3B	3.0	10YR5/4	yellowish brown	gravelly coarse sand	hit PVC and moved hole south
3 . 4	4.0	10YR5/4	yellowish brown	gravelly coarse sand	arbitrary level change
3 . 5	5.0	10YR5/4	yellowish brown	gravelly coarse sand	arbitrary level change
3 . 6	6.0	10YR5/4	yellowish brown	gravelly coarse sand	arbitrary level change
3 . 7	7.4	10YR4/3	brown	coarse sand	
3 . 8	8.0	10YR3/1	black	gravelly sand	
3 . 9	10.0	10YR3/1	black	wet sand	

Governors Island Waterfall Project Stratigraphy

Test Stratum	Depth	Munsell	Color	Texture	Comment
4 . 1	0.3			sod	
4 . 2	0.8	10YR3/2	very dark grayish brown	loamy sand	
4 . 3	2.2	10YR5/4	yellowish brown	gravelly coarse sand	hit PVC pipe in base of stratum on the north side of hole
4 . 4	3.2	10YR5/4	yellowish brown	gravelly coarse sand	
4 . 5	4.8	10YR5/4	yellowish brown	gravelly coarse sand	
4 . 6	6.0	10YR4/2	dark grayish brown	moist gravelly coarse sand	some schist toward the base of excavation
5 . 1	0.4	10YR3/3	dark brown	sod & loam	
5 . 2	2.0	10YR4/3	brown	compacted sandy silt	
5 . 3	3.2	7.5YR4/4	brown	silty sand	
5 . 4	5.0	7.5YR4/4	brown	silty sand	
5 . 5	6.0	7.5YR5/4	brown	sandy silt	
6 . 1	0.4	10YR3/2	very dark grayish brown	sod & loam	
6 . 2	2.2	7.5YR4/3	brown	sandy silt	
6 . 3	3.1	10YR5/4	yellowish brown	sand	
6 . 4	4.3	10YR5/4	yellowish brown	sand	stopped screening at 3.6'
6 . 5	6.0	7.5YR4/4	brown	moist sandy silt	wet soil began at 5'
7 . 1	0.3	10YR3/2	very dark grayish brown	sod & loam	
7 . 2	1.6	10YR5/4	yellowish brown	silty sand	hit conduit and expanded hole north
7 . 3	2.2	10YR5/4	yellowish brown	silty sand	
7 . 4	3.2	10YR5/6	strong brown	sand	
7 . 5	5.0	10YR5/6	strong brown	gravelly sand	
7 . 6	6.0	10YR5/4	yellowish brown	moist gravelly sand	

Appendix C

ARTIFACT INVENTORY

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	Date Range
1 . 3	Brick			red	1	3 1/2" x 2 1/4" x ?; not retained from field	
	Cinder					not retained from field	
	Coal					not retained from field	
	Glass		flat	clear	2	not retained from field	
	Slag					not retained from field	
1 . 4	Brick			red	1	not retained from field	
	Ceramic	earthenware	sewer pipe	buff	2	not retained from field	
	Cinder					not retained from field	
	Coal					not retained from field	
	Glass		flat		1	not retained from field	
	Slag					not retained from field	
1 . 5	Brick			red		not retained from field	
	Coal					not retained from field	
	Shell	clam			2	not retained from field	
	Slag					not retained from field	
1 . 6	Bone	faunal			1		
	Brick			red		not retained from field	
	Ceramic	creamware		white	1		1762-1820
	Ceramic	earthenware		red	1	possible sewer pipe frag.	
	Ceramic	redware		red	1	flower pot	c.1725-present
	Ceramic	refined earthenware		white	1	burned; blue hand painted line	
	Ceramic	white salt glazed stoneware		white	1	embossed; bead & reel pattern	1740-1770s
	Ceramic	whiteware		white	1		early 19th C.-present

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
1 . 6	Coal					not retained from field	
	Glass		curved	amber	2		
	Glass		curved	green	1		
	Glass		flat	aqua	2	sample	
	Glass		flat	clear	1	sample	
	Plaster				1	sample	
	Stone	quartz		white	4		
	Stone	quartz		white	2	with encrusted metal	
			Artifacts Recorded From Pole 1 (31 records)		29		
2 . 2	Brick			red		not retained from field	
	Coal					not retained from field	
	Concrete					not retained from field	
	Plastic		wrap	clear	1	not retained from field	
2 . 3	Brick			red		not retained from field	
	Coal					not retained from field	
	Glass		rim	clear	1		
	Metal	aluminum	pop top		1	applied lettering "PBG"/"..SIC../"..ANNOU..."; not retained from field	1962-1983
	Slag					not retained from field	
2 . 4	Brick			red	1	3 1/4" x 2 1/2" x ?; not retained from field	
	Brick			red		not retained from field	
	Coal					not retained from field	
	Slag					not retained from field	
	Stone	quartz		white	1		

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
2 . 5	Cinder					not retained from field	
	Coal					not retained from field	
	Glass		flat	aqua	1		
	Metal	iron			1	about 18"; some wood attached; possible door handle	
	Shell	oyster				not retained from field	
	Slag					not retained from field	
2 . 6	Brick			red		not retained from field	
	Ceramic	pearlware	rim	white	1	partial blue decoration on rim edge	1779-1820+
	Coal					not retained from field	
	Glass		flat	aqua	1		
	Slag					not retained from field	
2 . 8	Coal				1	not retained from field	
			Artifacts Recorded From Pole 2 (26 records)		10		
3 . 1	Bone	faunal			1	butchered	
	Glass		curved	clear	1		
	Shell	oyster			2	fragments	
3 . 2	Bone	faunal			2		
	Bone	faunal			1	mammal mandible	
	Bone	faunal			2	teeth	
	Brick			red	3	not retained from field	
	Ceramic	ball clay	smoking pipe stem	white	1		
	Ceramic	earthenware		yellow	1	clear glaze	1830-1900
	Ceramic	ironstone	rim	white	1		early 19thC.-present

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
3 . 2	Ceramic	pearlware		white	1		1779-1820+
	Ceramic	pearlware	rim	white	2		1779-1820+
	Ceramic	porcelain		white	1		
	Ceramic	refined earthenware		white	1	light blue and brown bands; mocha	1790s-1930s
	Ceramic	stoneware		buff	2	Albany slip ext.; clear int. glaze	c.1800-1900
	Ceramic	stoneware		gray	1	manganese glaze one side	c.1800-1870
	Ceramic	whiteware		white	6		early 19th C.-present
	Coal				4		
	Glass		bottle finish	aqua	1	1/2" dia; flanged flat top lip; devitrified	early 18th - late 19th C.
	Glass		curved	clear	4		
	Glass		curved	green	4		
	Glass		curved	aqua	2	devitrified	
	Glass		flat	clear	1	devitrified	
	Metal	iron	nail ?		1	badly corroded	
	Metal	iron	nails		2	1 1/4"; corroded	
	Shell	clam			3	fragments	
3 . 3	Bone	faunal			1	mammal	
	Brick			red	1	2" x 3 1/2" x ?; badly worn; not retained from field	
	Brick			red	1	not retained from field	
	Ceramic	ball clay	smoking pipe stem	white	1		
	Ceramic	creamware	base?	white	1		1762-1820
	Ceramic	pearlware		white	1		1779-1820+
	Ceramic	pearlware		white	1	blue decoration one side	1779-1820+

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
3 . 3	Ceramic	pearlware	base	white	1		1779-1820+
	Ceramic	pearlware	handle hold	white	1		1779-1820+
	Ceramic	refined earthenware		white	1	blue transfer print both sides; floral	c.1810-1860s
	Ceramic	refined earthenware		white	1	brown band	1790s-c.1810
	Ceramic	refined earthenware	rim	white	2	blue shell edge; scalloped	1780s-1840s
	Ceramic	refined earthenware	rim	white	1	blue transfer print both sides	c.1780-early 20th C.
	Ceramic	refined earthenware	rim	white	1	scalloped; impressed; brown transfer print	c.1830-early 20th C.
	Ceramic	refined earthenware	rim	white	1	shell edge, unscalloped	1841-1857
	Ceramic	stoneware		gray	1	clear glaze int.; brown slip ext.	c.1800-present
	Ceramic	stoneware	handle	gray	1	clear glaze	1720s-present
	Ceramic	whiteware		white	4		early 19th C.-present
	Ceramic	whiteware	rim	white	1		early 19th C.-present
	Cinder					not retained from field	
	Coal				1	sample	
	Glass		base	clear	1	devitrified	
	Glass		bottle base	green	1	ovoid with 2 flat sides; 2" long	
	Glass		curved	clear	1		
	Glass		curved	green	2		
	Glass		curved	light green	3	devitrified	
	Glass		flat	clear	4	devitrified	
	Glass		flat	clear	1	sample	
	Metal	copper alloy			1	1 1/2" x 1 3/4" sheet; corroded	
	Metal	iron			1	not retained from field	
	Metal	iron	nail		1	badly corroded; not retained from field	

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
3 . 3	Shell	clam			4		
	Shell	mud snail			2		
	Shell	oyster			1	sampled	
3 . 3B	Bone	faunal			7		
	Ceramic	ball clay	smoking pipe bowl	white	1	scorpion (?) motif	
	Ceramic	ball clay	smoking pipe stem	white	1	"Peter Dorni"; rouletted	post 1850
	Ceramic	creamware		white	1		1762-1820
	Ceramic	pearlware		white	2		1779-1820+
	Ceramic	refined earthenware		white	1	blue transfer print	c.1780-early 20th C.
	Ceramic	refined earthenware	rim	white	1	green shell edge; scalloped	1770s-1840s
	Ceramic	whiteware		white	4		early 19th C.-present
	Glass		curved	clear	1	devitrified	
	Glass		curved	aqua	1	devitrified	
	Metal	iron	nail		1	1 1/4"; corroded	
	Metal	iron	nail		1	badly corroded	
3 . 4	Bone	faunal			1		
	Ceramic	ball clay	smoking pipe bowl	white	3		
	Ceramic	ball clay	smoking pipe stem	white	1		
	Ceramic	ironstone	base	white	1		early 19th C.-present
	Ceramic	pearlware	rim	white	2	blue transfer print one side; impressed edge	c.1780-early 20th C.
	Ceramic	redware		red	1	manganese glaze one side; spall	c.1775-1900
	Ceramic	refined earthenware		white	1	burned; possible interior decoration	
	Ceramic	refined earthenware	rim	white	1	blue shell edge	mid 1770s-1890s

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
3 . 4	Ceramic	refined earthenware	rim	white	1	burned	
	Ceramic	stoneware	tile?	buff	1	brown slip one side; unglazed other	
	Coal					not retained from field	
	Glass		bottle base	green	1	3" dia.; valve mark; devitrified	late 19thC.-c.1930
	Glass		curved	clear	1		
	Glass		curved	green	2		
	Glass		curved	amber	1		1860- present
	Glass		flat	clear	4		
	Metal	iron			0	badly corroded; not retained from field	
	Slag					not retained from field	
3 . 5	Bone	faunal			1	bird	
	Bone	faunal			3	mammal	
	Ceramic	ball clay	smoking pipe stem	white	2		
	Ceramic	pearlware	rim	white	1		1779-1820+
	Ceramic	redware	rim	red	1	flower pot type	c.1725-present
	Ceramic	refined earthenware		white	3	mends; cream and brown stripes	1810-1833
	Ceramic	refined earthenware		white	1	red transfer print one side	1818-1880
	Ceramic	whiteware		white	4		early 19th C.- present
	Glass		base	clear	1	1 1/8" x 1 5/8"; oval; mold seam; impressed panels	
	Glass		bottle base	aqua	1	1 1/4" dia; square with concave chamfers; glass pontil scar	mid 18th - 187
	Glass		curved	aqua	1		
	Glass		curved	green	5		
	Glass		flat	clear	1		

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
3 . 5	Glass		flat	aqua	1		
	Glass		rim or base	green	2		
	Metal	iron				badly corroded; not retained from field	
	Shell	oyster			1	not retained from field	
	Slag					not retained from field	
3 . 6	Bone	faunal			1	mammal	
	Bone	faunal			1	mammal incisor	
	Brick			red		not retained from field	
	Ceramic	ball clay	smoking pipe bowl	white	1		
	Ceramic	ball clay	smoking pipe bowl	white	1	embossed "I"	
	Ceramic	earthenware	rim	buff	1	clear glaze	
	Ceramic	ironstone	tile	white	1		early 19thC.-present
	Ceramic	pearlware		white	2	spalls	1779-1820+
	Ceramic	pearlware	rim	white	1	turquoise ext. with white at rim edge	1779-1820+
	Ceramic	porcelain		white	1		
	Ceramic	refined earthenware		white	1	blue shell edge	mid 1770s-1890s
	Ceramic	refined earthenware		white	1	green hand painted underglaze decoration	1818-1859
	Ceramic	refined earthenware		white	1	spall; possible green shell edge	
	Ceramic	stoneware		gray	1	clear glaze ext.; brown slip int.	c.1800-present
	Cinder					not retained from field	
	Coal					not retained from field	
	Glass		bottle base	clear	1	molded; partial; hexagonal or octagonal	
	Glass		curved	green	1		

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
3 . 6	Glass		flat	aqua	2		
	Metal	iron				badly corroded; not retained from field	
	Stone	slate			2		
3 . 7	Brick			red	1	not retained from field	
	Coal				1	not retained from field	
3 . 9	Cinder				1		
	Glass		curved	clear	1		
			Artifacts Recorded From Pole 3 (133 records)195				
4 . 1	Cinder					not retained from field	
4 . 2	Brick			red	1	not retained from field	
	Ceramic	pearlware		white	1		1779-1820+
	Ceramic	redware		red	1		c.1750-1900
	Cinder					not retained from field	
	Coal				2		
	Glass		curved	clear	1		
	Glass		curved	green	4		
	Glass		flat	aqua	2		
	Metal	iron			1	badly corroded	
	Shell	clam			2		
4 . 3	Brick			red		not retained from field	
	Ceramic	ironstone	rim	white	1		early 19thC.-present
	Ceramic	porcelain	button	white	1	4-hole; 7/16" dia.	
	Ceramic	redware		red	1	clear glaze	c.1750-1900

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	Date Range
4 . 3	Ceramic	redware		red	1	manganese glaze both sides	1775-1900
	Ceramic	redware		red	1	manganese glaze int.	c.1775-1900
	Ceramic	whiteware		white	3		early 19th C.-present
	Cinder					not retained from field	
	Coal					not retained from field	
	Glass		bottle base	aqua	1	2 1/2" dia round; mold marks along bottom piece	
	Glass		bottle side panel	clear	1	indented panel; embossed "..PHIA"	1868-present
	Glass		bottle side panel	clear	1	protruded panel; embossed "..DE.."	1868-present
	Glass		curved	green	4		
	Glass		curved	clear	1		
	Glass		curved	green	1	devitrified	
	Glass		curved	aqua	1	possible case bottle sherd	
	Glass		flat	clear		not retained from field	
	Metal	iron	nails		2	badly corroded	
4 . 4	Brick			red		not retained from field	
	Ceramic	earthenware	tile?	buff	1	dull brown glaze one side	
	Ceramic	porcelain	bowl	white	1		
	Ceramic	refined earthenware	ointment pot?	white	1	burned	
	Ceramic	refined earthenware	rim	white	1	blue shell edge	mid 1770s-1890s
	Cinder					not retained from field	
	Glass		curved	aqua	1		
	Glass		curved	clear	2		
	Glass		curved	green	3		

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
4 . 4	Glass		curved	green	1	devitrified	
	Glass		curved	clear	1	devitrified	
	Glass		flat	aqua	2		
	Metal	iron	nail		1	badly corroded	
	Shell	oyster			1	not retained from field	
4 . 5	Bone	faunal			2		
	Ceramic	ball clay	smoking pipe stem	white	1		
	Ceramic	pearlware		white	1		1779-1820+
	Ceramic	pearlware	rim	white	1		1779-1820+
	Ceramic	refined earthenware	rim	white	1	burned	
	Ceramic	refined earthenware	rim	white	2	mends; hand painted polychrome; brown, green & pink	c.1795-1820s
	Ceramic	whiteware		white	2		early 19th C.-present
	Cinder					not retained from field	
	Coal					not retained from field	
	Glass		curved	green	1		
	Glass		flat	clear	2	not retained from field	
	Metal	iron	nail		2	badly corroded; not retained from field	
4 . 6	Bone	faunal			3		
	Ceramic	refined earthenware		white	1	blue glaze both sides; possible flow blue	
	Coal					not retained from field	
	Glass		curved	green	1		
	Glass		curved	amber	1	molded	1860-present
	Metal	iron	nail		1	badly corroded; not retained from field	
	Shell	oyster			1	not retained from field	

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
			Artifacts Recorded From Pole 4 (62 records)		74		
5 . 2	Asphalt				1	not retained from field	
	Bone	faunal			1		
	Brick			red	1	3 1/4" x 2 1/4" x ?; embossed frog "...EILLY & ROSE"; not retained from field	c 1883-1910+
	Brick			red	1	3 3/8" x 2 1/4" x ?; embossed frog "DeNBC.."; not retained from field	c.1883-c.1940
	Ceramic	whiteware		white	1	spall	early 19th C.-present
	Cinder					not retained from field	
	Coal				1		
	Concrete					not retained from field	
	Glass		curved	aqua	1		
	Glass		flat	aqua	1		
	Glass		flat	clear	2		
	Glass	milk glass	curved	white	1		1890s-1960s+
	Glass	milk glass	flat	green	2		1890s-1960s+
	Metal	iron	nail		2	badly corroded; not retained from field	
5 . 4	Brick			red		not retained from field	
	Coal					not retained from field	
	Shell	oyster			1	not retained from field	
5 . 5	Bone	faunal			4		
	Brick			red	2	not retained from field	
	Ceramic	creamware		white	1		1762-1820
	Ceramic	pearlware		white	2		1779-1820+
	Ceramic	porcelain		white	1		

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
5 . 5	Ceramic	porcelain		white	2	mends	
	Metal	iron	nails		2	badly corroded; not retained from field	
	Plaster				1		
	Shell	oyster			2	not retained from field	
			Artifacts Recorded From Pole 5 (26 records)		33		
6 . 2	Cinder					not retained from field	
	Coal					not retained from field	
	Concrete					not retained from field	
	Metal	iron	nails		2	badly corroded; not retained from field	
			Artifacts Recorded From Pole 6 (4 records)		2		
7 . 1	Coal					not retained from field	
	Glass		curved	clear		not retained from field	
	Plastic					not retained from field	
	Slag					not retained from field	
7 . 2	Brick			red	1	not retained from field	
	Glass		flat	clear	1	not retained from field	
	Shell	clam			1	not retained from field	
	Slag					not retained from field	
7 . 3	Bone	faunal			2		
	Ceramic	refined earthenware		white	1	hand painted polychrome; green & pink	c.1795-1820s
	Ceramic	whiteware		white	2	spalls	early 19th C.-present
	Cinder					not retained from field	
	Coal					not retained from field	
	Glass		curved	aqua	1		

Governors Island Waterfall Project Artifact Inventory

Context	Material	Identity	Form	Color	Count	Description	DateRange
7 . 4	Ceramic	redware		red	1	manganese glaze both sides	1775-1900
	Metal	iron	nail		1	badly corroded; not retained from field	
	Shell	clam			1	not retained from field	
	Shell	clam			2	not retained from field	
	Shell	oyster			1	not retained from field	
7 . 5	Shell	oyster			1	not retained from field	
7 . 6	Shell	oyster			1	not retained from field	
				Artifacts Recorded From Pole 7 (21 records)	17		
				Total Artifact Recorded =	360		