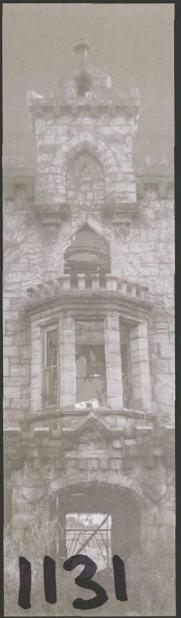
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# Phase 1b Archeological Survey and Ground Penetrating Radar (GPR) Survey of Southpoint Park

Roosevelt Island New York, New York





PREPARED FOR Wallace Roberts & Todd, LLC New York, New York

and The Trust for Public Lands

BY

John Milner Associates, Inc.

FEBRUARY 2009

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# PHASE 1B ARCHEOLOGICAL SURVEY AND GROUND PENETRATING RADAR (GPR) SURVEY OF SOUTHPOINT PARK

# **ROOSEVELT ISLAND NEW YORK, NEW YORK**

PREPARED FOR

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AND

THE TRUST FOR PUBLIC LANDS

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**FEBRUARY 2009** 

## MANAGEMENT SUMMARY

SHPO Project Review Number (if available):	08PR4554
Involved State and Federal Agencies:	-
Phase of Survey:	Phase 1B Archeological Survey Ground Penetrating Radar (GPR) Survey
Location Information: Location:	Southpoint Park Roosevelt Island, New York
Municipality:	City of New York New York County
Project Area:	12-acres
USGS 7.5 Minute Quadrangle Map:	Central Park, NY-NJ
Archeological Survey Overview: Number & interval of shovel tests: Ground-penetrating radar (GPR) survey:	8 30cm shovel tests, judgmental locations 2.7 acres (~11,000 m <sup>2</sup> )
Results of Archeological Survey: Number/name of pre-contact sites identified: Number/name of historic sites identified: Sites recommended for Phase 2/avoidance:	0 0 three areas within Project Area recommended for avoidance
Historic Resources: Buildings/ cemeteries within the Project Area: Number of buildings adjacent to the Project Area: Number of existing NRHP-listed/eligible properties: Number of identified eligible properties:	1 building, 1 ruin - Smallpox Hospital (Renwick Ruin), Strecker Memorial Laboratory, former location of City Hospital (demolished 1989) N/A
Report Authors:	Geraldine E. Baldwin, RPA William J. Chadwick, Ph.D., RPA Belinda J. Cox Patrick J. Heaton, RPA Grace H. Ziesing, RPA
Date of Report:	February 2009

#### **MANAGEMENT ABSTRACT**

JMA (John Milner Associates, Inc.) conducted a Phase 1B archeological survey of Southpoint Park, located on Roosevelt Island, New York, New York. The Phase 1B archeological survey was conducted on behalf of Wallace Roberts & Todd, LLC and the Trust for Public Lands in association with the ongoing redevelopment of Southpoint Park (the Project). The purpose of the Phase 1B archeological investigation at Southpoint Park was (1) to determine if intact land surfaces survive that were associated with the City Hospital and the Smallpox hospital or earlier occupation of the land; and (2) to locate and identify structural remains of the City Hospital and the kitchen associated with the Smallpox Hospital through the use of ground penetrating radar (GPR). The Phase 1B survey work was designed to address the recommendations presented in JMA's previous Phase 1A archeological sensitivity assessment (JMA 2007), and conducted in accordance with the work plan submitted to the Landmarks Preservation Commission and NYS Office of Parks, Recreation, and Historic Preservation, approved in December 2008.

Phase 1B survey work included a pedestrian surface reconnaissance of the Project Area, GPR survey, and excavation of shovel tests. JMA personnel conducted a systematic pedestrian survey of the overgrown area between the former site of the City Hospital and the Smallpox Hospital ruin to identify any locations that appear to be undisturbed. Concurrent with the surface inspection, JMA's geoarcheologist conducted a Ground Penetrating Radar (GPR) survey. The GPR survey was conducted to identify intact ground surfaces and/or subsurface features (walls, wells, cisterns, etc.) potentially associated with the City and Smallpox hospitals. JMA personnel excavated a total of eight shovel tests within the Project Area; five shovel tests were excavated in the vicinity of the City Hospital and three shovel tests were excavated in the vicinity of the kitchen area east of the Smallpox hospital.

Potentially intact stratigraphy was identified in one shovel test (shovel test 4) located along the northern perimeter of the Project Area, at depths of 55-84 cm below ground surface (b.g.s.). Ceramics, cut nails, bottle glass, clam shells and faunal material that date to the late-eighteenth and/or nineteenth century were recovered. The GPR survey conducted in this area also indicated the presence of apparently intact soils approximately 20 m long by 7 m wide (140 m<sup>2</sup>). Proposed landscaping plans in this area were revised following the Phase 1B survey to avoid the possibility of impacting any undisturbed archeological deposits. If any future ground disturbing activities are planned for this area, then additional archeological work would be appropriate.

The GPR survey conducted in the location of the former kitchen addition (Drennen Hall) identified a buried line of rock rubble between 25 and 40 feet east of the Smallpox Hospital ruin. The two shovel tests (7 and 8) excavated in this area encountered rock rubble below compact fill deposits between 27 and 29 cm b.g.s., which may represent foundation elements of the former structure. Project plans include adding fill material on top of the present ground surface in this area, and installing a perimeter fence. In the opinion of JMA these actions will not impact the structural remains of the Drennan Hall. No additional archeological work is recommended.

Archeological monitoring of trenching within the confines of the 1903-1905 wings of the Smallpox Hospital documented layers of demolition rubble and humus that extended 3-4 feet below the current ground surface, underlain by a concrete floor. In the opinion of JMA, the humic accumulation, ash, and demolition debris on top of the concrete floors are not historically significant. No further archeological work is recommended prior to or during the removal of these deposits above the concrete floor in the north and south wings. Should it become necessary to penetrate the floor to excavate below it, or should an area be encountered where the floor does not exist, a qualified archeologist should be consulted to determine if any undisturbed and potentially significant deposits may exist.

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#### **1.0** INTRODUCTION

#### 1.1 PURPOSE AND GOALS OF THE INVESTIGATION

JMA (John Milner Associates, Inc.) conducted a Phase 1B archeological survey of Southpoint Park, located on Roosevelt Island, New York, New York. The Phase 1B archeological survey was conducted on behalf of Wallace Roberts & Todd, LLC and the Trust for Public Lands. This work was performed in association with the ongoing redevelopment of Southpoint Park (the Project). The purpose of the Phase 1B survey was to determine if intact land surfaces survive in areas that were associated with the City Hospital and the Smallpox hospital, and to locate and identify structural remains of the City Hospital and the kitchen (Drennen Hall) associated with the Smallpox Hospital. This work was conducted through the use of ground penetrating radar (GPR), pedestrian survey and subsurface testing.

This work was designed to address the recommendations presented in JMA's Phase 1A report (2007), in accordance with the comments in the Landmarks Preservation Commission's environmental review of September 11, 2008. All research and report preparation were conducted in accordance with the New York City Landmarks Preservation Commission's *Guidelines for Archaeological Work in New York City* and the New York Archaeological Council's *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections* (NYAC 1994), recommended for use by the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP).

#### 1.2 PROJECT LOCATION AND DESCRIPTION

Southpoint Park is a 12-acre parcel located at the southern tip of Roosevelt Island (Figure 1). The 12-acre parcel (the Project Area) is currently vacant land that includes the ruins of the ca. 1855 Smallpox Hospital, an area of overgrown mounds that mark the site of the ca. 1858 City Hospital (demolished in 1989), and a V-shaped mound of landfill that extends south from the original southern end of the island.

In 2003, the State of New York and the Roosevelt Island Operating Corporation requested that the Trust for Public Lands (TPL) lead an effort to create a conceptual plan for the redevelopment of Southpoint Park. TPL has initiated the redevelopment of Southpoint Park (the Project), which will include: stabilization and/or restoration of the Smallpox Hospital ruins for public access; design and installation of a pedestrian and vehicular circulation system; development of a landscape strategy, the phased removal of invasive species, and the construction of new landscapes appropriate for the character of the new park; the possible location of an interim performance space; stabilization and access to the shoreline; design and installation of a water's edge promenade and/or park area; and the installation of a comfort station. The precise designs, locations, and scopes of these elements are ongoing.

#### 2.0 SUMMARY OF PREVIOUS RESEARCH

#### 2.1 PHASE 1A ARCHEOLOGICAL SENSITIVITY ASSESSMENT

JMA previously prepared a report entitled *Phase 1A Archeological Sensitivity Assessment for South Point Park* (JMA 2007). The Phase 1A report included detailed discussions of: the environmental setting, geology, and soils in the Project Area; previously identified archeological and historic sites on Roosevelt Island; the history of the Project Area (including a detailed historic map review); a description of existing conditions based on a preliminary field reconnaissance of the Project Area; an archeological sensitivity assessment of the Project Area (including a detailed discussion of the potential for human remains to be present); and an assessment of prior ground disturbance. All of this information is not repeated herein but is rather incorporated by reference.

The Phase 1A report concluded that the Project Area was extensively disturbed, but that there was limited potential for the presence of archeological deposits associated with the nineteenth-century hospitals formerly located within the Project Area. The conclusions below are repeated from the Phase 1A report (JMA 2007:20):

Historical accounts indicate that Roosevelt Island has been occupied since at least the 1630s but remained essentially undeveloped until the City of New York purchased the island in 1828. Since that time, the landscape of the island has been dramatically reconfigured by the construction, associated landscaping, and subsequent demolition of the nineteenth-century penal, charitable, and medical institutions. In general, the history of construction and existing conditions within the Project Area suggest that the entire landscape of Roosevelt Island, including the southern end around the Smallpox and former City Hospitals, is extensively disturbed. Previous archeological reports for Roosevelt Island are limited to Phase 1A reports. Previous researchers consistently conclude that the extent of previous disturbance (in selected areas) precludes the possibility that intact archeological deposits are present, despite the obvious historical interest of the island as a whole.

The areas immediately adjacent to the Smallpox Hospital ruins are relatively level, open, and exhibit generally fewer of the push piles and rubble mounds that are so pervasive in the vicinity of the former City Hospital and Strecker Memorial Lab. The yard area around the ruins also represents the former (natural) southern tip of the island (the elevated area that extends south of the ruin is entirely recent landfill). In addition to the possibility that Native American archeological deposits may be (or have once been) located in this area, historic maps depict the locations of various pavilions, tents, and outbuildings associated with the hospital and later dormitory. Archeological remains associated with the various outbuildings, tents, pavilions, and other features depicted on historic maps and/or buried yard surfaces with artifact scatters and/or rubbish heaps that date to the period of the hospitals' operation.

The Phase 1A report recommended that a limited Phase 1B archeological investigation of the Project Area would appropriate prior to the conduct of any substantial construction or landscaping work. The purpose of the Phase 1B work would be determine if any intact land surfaces associated with (or that pre-date) the City and Smallpox Hospitals (and associated facilities) are present.

PHASE 1B ARCHEOLOGICAL SURVEY SOUTHPOINT PARK ROOSEVELT ISLAND, NEW YORK

#### 2.2 PHASE 1B WORK PLAN

The Phase 1A Archeological Sensitivity Assessment for South Point Park (JMA 2007) was submitted to the City of New York Landmarks Preservation Commission (LPC) for review and comment on August 27, 2008. In correspondence dated September 11, 2008, LPC responded that they concurred with the recommendations in the report and requested that a Phase 1B work plan be submitted for review and comment (see Appendix I). JMA prepared a Phase 1B Work Plan in September, 2008 (see Appendix I), which was submitted to LPC and OPRHP in November 2008. The work plan identified four discrete tasks for the Phase 1B survey fieldwork:

#### Task 3a. GPR Survey

The GPR survey is designed to identify subsurface anomalies that are likely to represent surviving foundations of the City Hospital and the Smallpox Hospital's kitchen. The survey will focus on the north end of Southpoint Park, in the lawn areas where the hospital is thought to have stood and the area to the east of the Smallpox Hospital where the kitchen is thought to have stood.

#### Task 3b. Pedestrian Survey and Shovel Testing

The JMA field team will conduct a systematic pedestrian survey of the overgrown area between the site of the City Hospital and the Smallpox Hospital. Team members will walk across the area following transects spaced at 5-m intervals to identify locations that appear to be undisturbed. The team will excavate shovel tests in such areas to assess the integrity of the soils. Artifacts will be recovered only from contexts that appear undisturbed. JMA assumes a maximum of 12 shovel tests will be excavated. JMA has scheduled 1 day for a two-person team for the pedestrian survey and shovel testing

#### Task 3c. Subsurface Testing of Land Surfaces

The JMA team will test for intact land surfaces around the two hospital locations. The team will determine on site whether hand excavation of shovel tests or machine-added excavation is most appropriate. JMA has scheduled 1 day for a two-person team to test for intact surfaces.

#### Task 3d. Monitor Excavations within the Smallpox Hospital Ruin

A JMA field team member will monitor selected excavation locations with the Smallpox Hospital ruin. The revised shoring plan calls for excavation within the interior of the ruins. JMA estimates 3 field days to monitor a sample of areas within the three principal sections of the ruins. JMA assumes that Alternative Construction Concepts, Inc., will confirm that it is safe for the JMA field team member to monitor the excavations.

#### Additional Services: Subsurface Testing of GPR Anomalies

In the event that anomalies identified by GPR survey are determined to be in conflict with ground disturbances proposed for the Southpoint Park development, the JMA field team will conduct subsurface testing to ground truth these anomalies. Geophysical anomalies that are likely to represent building foundations will be tested by manual or machine excavation prior to construction, if necessary. JMA will provide a separate proposal for an archeologist and assistant archeologist to ground truth geophysical anomalies. [Note that this work was not conducted as part of the Phase 1B survey reported herein].

LPC and OPRHP approved the scope of work proposed in the work plan via email correspondence dated December 1 and December 4, 2008 (see Appendix I).

PHASE 1B ARCHEOLOGICAL SURVEY SOUTHPOINT PARK ROOSEVELT ISLAND, NEW YORK

#### 2.3 ARCHEOLOGICAL MONITORING

JMA personnel conducted archeological monitoring of construction/stabilization-related trenching within the Smallpox Hospital ruin on October 7, 2008. This monitoring was conducted in fulfillment of Task 3d in the Phase 1B work plan (see Section 2.2 and Appendix I). A letter report describing the results of this monitoring (dated October 8, 2008) is included in Appendix I, and is summarized below:

Archeological monitoring of construction activities on 7 October 2008 occurred within the confines of the 1903-1905 wings of the Smallpox Hospital, and the focus of the monitoring was to ensure that no earlier, undisturbed ground surfaces or intact archeological deposits associated with the 1858 core of the building were present. Both wings are currently filled with demolition debris that includes large quantities of brick, mortar, and ash in a highly organic, humic soil matrix. Plumbing fixtures (pipes, radiators, etc.) and floor and wall treatments (tiles, plaster, etc.) are incorporated into the debris.

Trenching was proposed around portions of the perimeter of each wing to accommodate a poured concrete footing that will be used to stabilize the buildings. The trenches were to be approximately 4 fect wide and extend 3-3.5 feet below the bottom of the old floor joists. Test holes excavated with a backhoe were placed along the north wall at its center and in the northwest and northeast corners. An additional test was placed along the south wall, at the west end of the easternmost chamber. In each of the tests, the demolition debris extended all the way to a concrete floor with a smooth, plastered surface. The floor ranged in depth from 3 to 3.5 feet below the bottom of the old floor joists (as measured from the base of the joist pockets). Subsequent trenching expanded the test areas in the northwest corner and along the south wall and confirmed that the concrete floor was continuous.

Work in the south wing was limited to three small test holes excavated with picks and shovels at the west end of the building. Two of the holes were located along the north and south perimeter walls and one was located between the south wall and the center dividing wall, all within 18 feet of the west wall of the building. The purpose was to ascertain if a concrete floor existed in this wing as well, and, if so, how far it was below the bottom of the old floor joists. All three test holes encountered a rough, aggregate surface at depths ranging between 3.8 and 4.2 feet below the base of the joist pockets. Unlike the north wing, the floor in the south wing did not have a smooth plastered surface. It also appeared to be more undulating. Deposits above the floor included a layer of humus that varied in thickness from .15 inches to 1.3 feet and appeared to have accumulated after the building was abandoned. In two of the test holes, this humus was overlain by a thick layer of ash (.4-.65 feet) that probably resulted from the burning of the roof. All units were capped with modern humus that incorporated tree roots and demolition debris.

In the opinion of JMA, the humic accumulation, ash, and demolition debris on top of the concrete floors in the north and south wings of the Smallpox Hospital are not historically significant because they post-date the abandonment of the building and are unlikely to contain materials that would contribute meaningful or important information concerning the former institutional buildings. No further archeological work is recommended prior to or during the removal of these deposits above the concrete floor in the north and south wings. Should it become necessary to penetrate the floor to excavate below it, or should an area be encountered where the floor does not exist, a qualified archeologist should be consulted to determine if any undisturbed and potentially significant deposits exist.

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# 3.0 PHASE 1B METHODS

#### 3.1 GROUND-PENETRATING RADAR (GPR) FIELD METHODS

As a component of the Phase 1B survey work, JMA conducted a Ground-Penetrating Radar (GPR) survey of the former locations of the City Hospital and Smallpox Hospital areas. At the request of the Project proponent, GPR survey included the area of the former City Hospital (demolished in 1989) to identify the former locations of walls or other architectural elements. This data may be used to inform future interpretive landscape design elements.

The GPR survey collected geophysical data to provide information to identify probable features related to historicperiod use of the landscape based on the interpretation of detected anomalies in the data. The identification of specific areas for the GPR survey was based on the locations of buildings as depicted historic maps of the area (see JMA 2007) and areas expected to be disturbed by future construction activities. A GSSI UtilityScan<sup>tm</sup> survey cart GPR system using a GSSI SIR-3000 Data Acquisition System and a 400MHz antenna. The total depth window for this system is 4 meters. Because GPR is a non-invasive method, it does not provide conclusive evidence regarding the origin of any anomalies identified during the survey. Confirmation of any interpretations of anomalies can only be accomplished through the excavation (or "ground-truthing") of the identified anomalies. In addition, because GPR uses the transmission of electromagnetic waves into the ground, any unanticipated or undetected electromagnetic interference within the project area may cause phantom anomalies in the data.

In the area of the former City Hospital, GPR transects were established in a grid with 10-meter spacing between individual transects. Because the primary goal of this survey was to identify the potential limits of the City Hospital, it was determined that this grid interval would be sufficient to establish those limits. In the area of the Smallpox Hospital, exploratory transects were placed in areas of interest and where current conditions allowed. An additional GPR transect was taken north of the City Hospital geophysical grid to aid in investigating the presence of intact soil deposits identified during shovel testing.

JMA identified numerous anomalies (walls, holes, unknown anomalies) that may have represented buried features associated with the City Hospital. The GPR survey conducted in the area of the Smallpox Hospital kitchen area also recorded anomalies that may represent the walls and corners of that structure.

#### 3.2 ARCHEOLOGICAL FIELD METHODS

JMA first conducted a pedestrian inspection of the Project Area to identify any potentially undisturbed or intact land surfaces. JMA's archeologists walked parallel transects spaced at a 5-m interval across the Project Area. Due to the numerous and massive piles of building demolition material across the Project Area, no readily apparent land surfaces were identified.

All shovel tests were excavated with shovels and the interfaces between all natural strata breaks were cleaned by trowel, where present. A pry bar was also used to get through the multiple layers of compact fill material. All shovel tests were excavated into sterile subsoil, unless an obstruction (impenetrable building rubble, compact fill, etc.) or water was encountered. Soil excavated from each test unit was passed through one-quarter inch hardware cloth onto

plastic tarpaulins to ensure uniform artifact recovery and aid in the backfilling of the shovel tests. Artifacts from each stratum were placed in plastic artifacts bags labeled with provenience information.

Shovel test excavations were documented on standard field forms. The field forms include information on soil type and composition, soil color (using standardized Munsell Soil Color Charts), type of deposit, and artifacts found for each stratum excavated. A profile of each excavated shovel test was drawn in during the field work. The soil profiles recorded for each excavated shovel test are listed in Appendix II. Figures 3-5 depict schematic illustrations of shovel test soil profiles.

The spatial location of all excavated shovel tests and field identified GPR anomalies points were taken using a hand held Trimble *GeoExplorer* 3c. These data points were used to map of the locations of excavated shovel tests and subsurface anomalies identified during the GPR survey.

#### 3.3 LABORATORY METHODS

All recovered cultural remains, notes, photographs and maps were returned to JMA's laboratory in Croton-on-Hudson, New York for processing and analysis. Artifacts were organized by shovel test and provenience. Artifacts were sorted by type and either dry brushed (metal) or cleaned with tap water (glass, ceramics, etc). All artifacts were catalogued and entered into JMA's Historic Artifact Management System (HMAS) artifact cataloging database. A complete inventory of artifacts recovered during the Phase 1B survey is included in Appendix III.

PHASE 1B ARCHEOLOGICAL SURVEY SOUTHPOINT PARK ROOSEVELT ISLAND, NEW YORK

#### 4.0 PHASE 1B RESULTS

#### 4.1 PEDESTRIAN SURVEY

JMA conducted a pedestrian inspection of the Project Area as part of the Phase 1B survey. The pedestrian survey was conducted to identify any potentially intact land surfaces. In general, the Project Area is a vacant land that includes heavily overgrown areas, open areas, ruins, and massive mounds of demolition rubble and push-piles occur across the entire northern portion of the Project Area. Photographs 1-4 show the area that was formerly occupied by the City Hospital near the northern perimeter of the Project Area. This area also contained numerous associated outbuildings and institutional structures located in the area between the City Hospital and Smallpox Hospital. These mounds and push-piles represent structural debris from the demolition of the City Hospital and associated outbuildings. Photograph 5 shows piles of rubble and fill material within the vicinity of the Smallpox Hospital and kitchen area.

Massive piles of demolition debris and fill material cover the majority of the Project Area, and other areas reflect an undulating ground surface related to filling and leveling. JMA did not identify any areas within the portions of the Project Area between the City and Smallpox hospitals that appeared to contain intact land surfaces. No archeological survey work was conducted within the approximately 3-acre, V-shaped area of landfill located at the southern tip of the island (south of the Smallpox Hospital ruin); this area is entirely made land that was filled beginning on the mid-1960s with rock and spoil derived from the excavation of subway tunnels (JMA 2007:18).

#### 4.2 GROUND-PENETRATING RADAR (GPR) SURVEY

JMA conducted GPR survey of the grounds associated with the City Hospital and Smallpox Hospitals on December 2 and 3, 2008 (Photographs 6 and 7). JMA ran 34 GPR transects recovering geophysical data over 2.7 acres  $(-11,000 \text{ m}^2)$  to a depth of 4 m within two areas of Southpoint Park (Figure 2). Within the City Hospital area, several anomalies were identified (Figure 6). These anomalies appear linear in the map view and as vertical features in cross-section (Figure 7). The distribution of these linear anomalies creates a gridded system. This gridded system of anomalies that appear as vertical features may be the carrying foundation walls for the City Hospital.

JMA also conducted GPR survey in the vicinity of shovel tests 3-5 (see Section 4.3, below) to determine the limits of an area of potentially intact buried soils identified in shovel test 4. To the north of the area of gridded anomalies in the area of City Hospital, and behind the stacks of building stone, JMA placed a GPR vertical section running from shovel test 3 towards shovel test 5 for a total of 62 feet (Figure 8). Based on the interpretation of the vertical cross-section, intact deposits begin at approximately 25.5 feet and continue past shovel test 4, located at approximately 43 feet, to the end of the section at 62 feet (see Figure 9).

In the area behind the Smallpox Hospital, the GPR survey resulted in the identification of two areas of anomalies (Figure 9). No standard geophysical grid was used in this area due to construction materials and environmental conditions. The anomalies identified in this area are vertical anomalies similar to those identified in the area of City Hospital, and likely represent foundation wall segments.

PHASE 1B ARCHEOLOGICAL SURVEY Southpoint Park Roosevelt Island, New York

#### 4.3 SUBSURFACE SURVEY

JMA conducted the Phase IB archeological survey fieldwork at Southpoint Park on December 2 and 3, 2008. The archeological survey was conducted in the areas surrounding the City Hospital and the Smallpox Hospital kitchen area (Drennen Hall) where potentially intact land surfaces may be and where the GPR survey identified the potential locations for former walls of these structures.

JMA excavated a total of eight, 30-cm diameter shovel tests. Of these, five (shovel tests 1-5) were placed around the former City Hospital (Photographs 8-11) and three (shovel tests 6-8) were placed in the vicinity of the kitchen area where historic maps and the GPR survey indicated the possible presence of structural remains associated with the former Smallpox Hospital kitchen addition (Photographs 5 and 12-13). Shovel test locations and photographic views are illustrated on Figure 2.

Cultural material was recovered from all fill layers recorded in the shovel tests; most of this material was either relatively recent rubbish or demolition debris, and was not collected. Cultural material was recovered from three shovel tests (2, 4 and 5). The majority of materials included nineteenth-and-twentieth-century rubbish (e.g., small glass, plastic and ceramic fragments) and architectural debris (e.g., nail and hardware fragments, window glass, and small brick rubble fragments). Potentially intact cultural strata were recorded in one of these shovel tests (shovel test 4) at a depth of 55-84 cm below ground surface (b.g.s.)(Appendix III). Most of the material recovered from the site are scattered rubbish and not considered archeologically or historically significant. Noteworthy or potentially significant finds are discussed below.

#### 4.3.1 City Hospital Area

JMA excavated five shovel tests (1-5) around the northern and northwestern sides of the former City Hospital location (Figure 2). This area is bounded in the north and west by a chain link fence, a dirt road in the south, and the East River on the east. This area is an undulating surface that has been overgrown with vegetation. Stacked cut stone structural material lines the northern and eastern boundaries of the former structure (Photographs 1-4). The stratigraphic profiles recorded in all but one of the shovel tests contain three to four layers of compact fill overlying impenetrable stone and broken bedrock. Fill materials recorded in the shovel tests consist of dark yellowish brown 10YR 3/2 silty sand with pebbles and cobbles that graded to a dark yellowish brown 10YR 3/2 sand with cobbles and brick. Impenetrable stone rubble was encountered in all but one (shovel test 4). The stone rubble was recorded between 35 to 52 cm b.g.s.

One shovel test (4) contained apparently intact stratigraphy. Shovel test 4 was placed to the north of the former City Hospital location, between the rows of stacked building materials and the chain link fence (Figure 2, Photograph 11). The stratigraphy recorded in this shovel test contained a 34 cm-thick layer of dark brown 10YR 2/2 fine sandy loam (Stratum I) overlying a 6 cm-thick layer of brown 7.5YR 4/4 coarse sand (Stratum II). An aluminum can pull tab, brick and glass were recorded in Stratum I. Stratum II was sterile. Stratum III was encountered at a depth of 40 cm b.g.s. and consists of a dark brown 10YR 4/6 very fine sand mottled with brown 10YR 4/4 very fine sand. Stratum III is 15 cm thick, and contained coal, brick, bottle glass, and two pieces of whiteware. Stratum I through III is considered to be fill. Stratum IV was recorded between 55 and 84 cm b.g.s. It consists of moist, dark brown 10YR 3/3 fine sand. A total of 58 artifacts were recovered from Stratum IV include biological food remains (mammal bone, clam shell), domestic remains (whiteware, yellowware, redware, hand-blown green bottle glass, and a kaolin

PHASE 1B ARCHEOLOGICAL SURVEY SOUTHPOINT PARK ROOSEVELT ISLAND, NEW YORK

pipe bowl fragment), and architectural debris (cut and wrought nails, coal and window glass). Stratum IV is interpreted as a potentially intact soil horizon which may contain a (possibly) late-eighteenth-century or nineteenth-century archeological deposit. Stratum V was recorded between 84 and 111 cm b.g.s. It consists of brown 7.5YR 4/4 very fine sand. Hard shell clam shell shells were the only material recovered. Stratum V is also interpreted as an intact soil horizon or land surface.

The GPR survey conducted within this portion of the Project Area identified also indicated that the land surface was intact. The area of apparently intact soils is approximately  $20 \times 7 \text{ m} (140 \text{ m}^2)$  (see Figure 9). If any future ground disturbing activities are planned for this area, additional shovel testing and stripping and/or trenching should be conducted prior to construction to determine whether this is in fact an intact land surface.

#### 4.3.2 Smallpox Hospital Kitchen Area (Drennen Hall)

JMA excavated three 30-cm diameter shovel tests in the area of the former kitchen addition that is depicted eastof the Smallpox hospital on a 1954 map of Roosevelt Island (see JMA 2007: Figure 21). The shovel test locations were determined by field observations and by the results of the GPR survey. Two of the shovel tests were placed within the perimeter fence in areas determined by the GPR to contain structural remains possibly associated with the kitchen structure. One was placed in a flat area outside of the fence where a relatively level area was identified, possibly representing an intact land surface. Most of the area outside of the fence contained large mounds of demolition debris (Photograph 5).

The GPR survey conducted in this portion of the Project Area identified a line of rock rubble in the former kitchen addition area, between 35 and 40 feet east of the Smallpox Hospital (Photograph 7). The survey suggested that the rock features lay approximately 30 cm b.g.s. To check these anomalies, JMA placed shovel tests 7 and 8 (Figure 2, Photographs 12 and 13) in these locations.

The excavation of these shovel tests encountered three layers of extremely compact fill material overlying impenetrable rock and cobbles. Generally, the stratigraphy consisted of a 9 to 19 cm layer of compact dark brown 10YR 4/4 sand mottled with yellowish brown 10YR 5/6 sand, with mortar, brick, firebrick, metal, glass and coal ash and/or slag. The second layer of fill material consisted of compact dark brown 10YR 3/3 fine to medium sands with large boulders. All shovel tests excavated in this location were terminated between 27 to 29 cm b.g.s. due to impenetrable rock.

The GPR survey conducted in this area identified a linear anomaly in the former location of the kitchen addition for the Smallpox Hospital. Shovel testing in this location did identify rock rubble between 27 to 29 cm b.g.s. that may represent walls of the former structure. However, the compact nature of the fill and the impenetrable nature of the rock boulders encountered, did not allow for more thorough investigation of these anomalies.

### 5.0 CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 SUMMARY AND CONCLUSIONS

Roosevelt Island has been occupied since at least the 1630's but remained essentially undeveloped until the City of New York purchased the island in 1828. Since that time, the landscape of the island has been dramatically reconfigured by the construction, associated landscaping, and subsequent demolition of the nineteenth-century penal, charitable, and medical institutions. In general, the history of construction and existing conditions within the Project Area suggest that the entire landscape of Roosevelt Island, including the southern end around the Smallpox and former City Hospitals, is extensively disturbed.

The areas immediately adjacent to the Smallpox Hospital ruins within the fence line are relatively level, open, and exhibit generally fewer of the push piles and rubble mounds that are so pervasive in the vicinity of the former City Hospital. However, this area appears to have been made artificially level by smoothing the landscape with fill material and packing it tightly. The areas outside of the fence exhibit large mounds of demolition debris that extend up to the seawall edge. JMA did not recover any significant cultural material or intact land surfaces in this location. The GPR survey identified the presence of potential foundation remains of the former kitchen of the Smallpox Hospital. However, the shovel tests excavated in the locations of the observed anomalies could not penetrate the compact fill materials to adequately determine the presence or absence of the structural remains.

The location of the former City Hospital is represented by an uneven surface of smoothed demolition debris and stacked stones from the former structure. The GPR survey conducted in this area identified several anomalies that may represent foundation footers and walls of the former structure. JMA identified one area on the northern edge of the hospital that contains potentially intact cultural stratigraphy between 55 to 84 cm b.g.s. (in shovel test 4) and a potentially intact land surface below that. The GPR survey conducted in this location suggests that the area that contains the potentially intact land surface is approximately 140 m<sup>2</sup> in size (see Figure 9).

#### 5.2 RECOMMENDATIONS

The results of JMA's Phase 1B work, GPR survey, and archeological monitoring resulted in the identification of three areas where archeological deposits may be present:

• One area was identified in the vicinity of the former City Hospital where an intact land surface is present. Intact soils with late-eighteenth-century and/or nineteenth-century artifacts were identified in shovel test 4 between 55 and 84 cm b.g.s. An intact land surface was identified below this deposit between 84 and 111 cm b.g.s. The GPR survey conducted in this portion of the Project Area also indicated the presence of an area of apparently intact soils approximately 20 m long by 7 m wide (140 m<sup>2</sup>)(see Figure 9 for limits of this area). Proposed landscaping plans in this area were revised following the Phase 1B survey to avoid the possibility of impacting any undisturbed archeological deposits. If any future ground disturbing activities are planned for this area, then additional archeological investigations should be conducted.

- The GPR survey conducted in the map-documented location of the former kitchen located east of the Smallpox Hospital ruin resulted in the identification a linear alignment of rock rubble located 35-40 feet east of the Smallpox Hospital ruin. The GPR data suggested that the line of rubble lay approximately 30 cm b.g.s. The two shovel tests (7 and 8) excavated in this area did encounter rock rubble below the compact fill deposits between 27 and 29 cm b.g.s., but could not specifically prove that this material is associated with the former structure. Project plans include adding fill material on top of the present ground surface in this area, and installing a perimeter fence. In the opinion of JMA these actions will not impact the structural remains of Drennan Hall. No additional archeological work is recommended. If project plans change and more intrusive ground disturbing activities are planned for this portion of the Project Area, then additional archeological work should be conducted.
  - Archeological monitoring conducted within the confines of the 1903-1905 wings of the Smallpox Hospital documented layers of demolition rubble and humic rubble that extended 3-4 feet below the current ground surface, underlain by a concrete floor. In the opinion of JMA, the humic accumulation, ash, and demolition debris on top of the concrete floors in the north and south wings of the Smallpox Hospital are not historically significant because they post-date the abandonment of the building and are unlikely to contain materials that would contribute meaningful or important information concerning the former institutional buildings. No further archeological work is recommended prior to or during the removal of these deposits above the concrete floor in the north and south wings. Should it become necessary to penetrate the floor to excavate below it, or should an area be encountered where the floor does not exist, a qualified archeologist should be consulted to determine if any undisturbed and potentially significant deposits may exist.

Current Project plans do not appear to include any areas where potentially intact archeological deposits or features will be affected. However, given the overall archeological sensitivity of the Project Area and the potential that intact archeological deposits may be present, it is the opinion of JMA that any changes or future Project plans should continue to be evaluated by a Registered Professional Archeologist to determine if any additional archeological work would be appropriate.

### 6.0 **REFERENCES CITED**

JMA (John Milner Associates, Inc.)

2007 Phase IA Archeological Sensitivity Assessment for Southpoint Park, Roosevelt Island, New York. John Milner Associates, Inc., Croton-on-Hudson, New York. November 2007.

New York Archaeological Council (NYAC)

1994 Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State. New York State Office of Parks, Recreation, and Historic Preservation, Waterford.

United States Geological Survey (USGS)

1995 Central Park, N.Y-N.J. 7.5-minute Topographic Quadrangle. United States Geological Survey, Denver.

# FIGURES

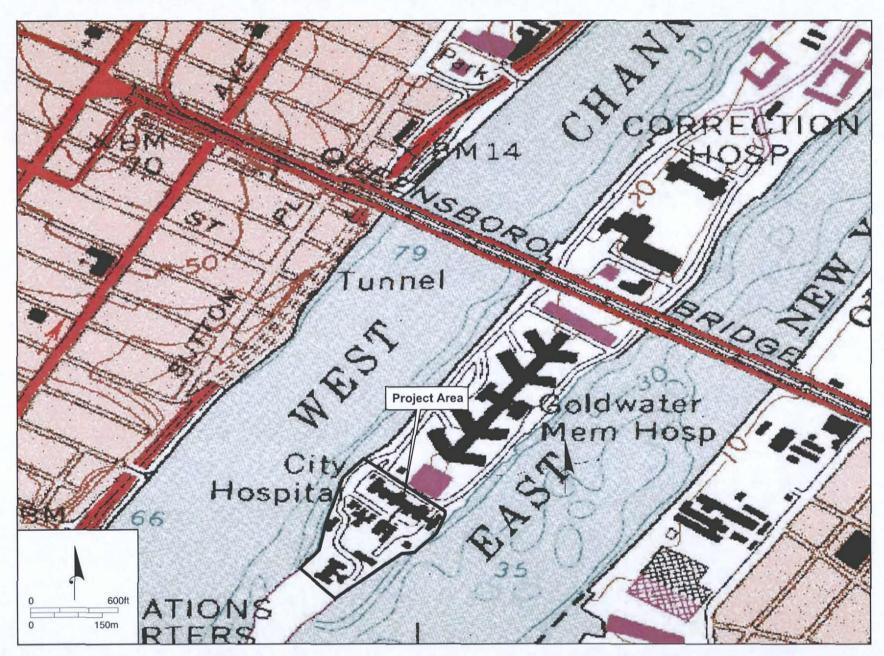
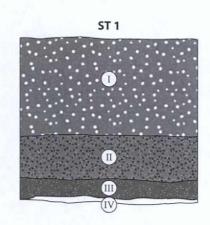


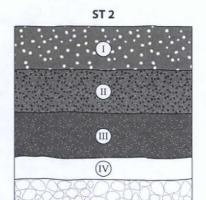
Figure 1. Detail of the Central Park, N.Y.-N.J. USGS (1995) 7.5-minute topographic quadrangle showing the location of the Southpoint Park Project Area.



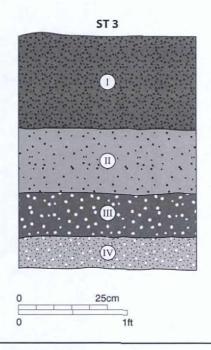
Figure 2. Plan map of the Southpoint Park Project Area showing the locations of excavated shovel tests, GPR survey areas, and photographic views referenced in the report.



- 10YR 3/2 very dark grayish brown silty sand with pebbles and cobbles
- II 10YR 3/2 very dark grayish brown fine sand with mortar, brick, burned wood/charcoal, ash, and demolition debris
- III 10YR 3/2 very dark grayish brown sand
- IV Rock, mortared

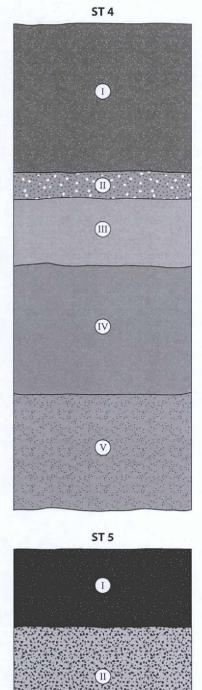


- I 10YR 3/2 very dark grayish brown silty sand with pebbles and cobbles
- II 10YR 3/2 very dark grayish brown fine sand with mortar, brick, burned wood/charcoal, ash, and demolition debris
- III 10YR 3/2 very dark grayish brown sand
- IV Rock, mortared



- I 10YR 2/2 very dark brown fine sandy loam with gravel, brick, metal, and coal
- II Very compact 10YR 3/6 dark yellowish brown mottled with 10YR 4/6 dark yellowish brown compact silt loam with coal
- III 10YR 3/2 very dark grayish brown fine sand with gravel, brick, and coal
- IV 10YR 5/6 yellowish brown with 10YR 4/2 dark grayish brown medium sand with gravel, coal, and slag

Figure 3. Stratigraphic profile drawing of shovel tests 1-3 excavated in the vicnity of the City Hospital.



- I 10YR 2/2 very dark brown fine sandy loam with brick and glass
- II 7.5YR 4/4 brown very coarse sand with gravel
- III Mottled 10YR 4/6 and 10YR 4/4 dark yellowish brown very fine sand with shell
- IV 10YR 3/3 dark brown moist sand
- V 7.5YR 4/4 brown very fine sand with shell

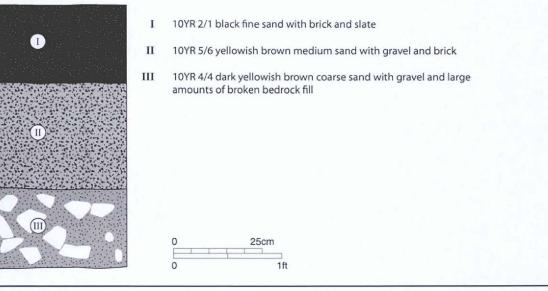
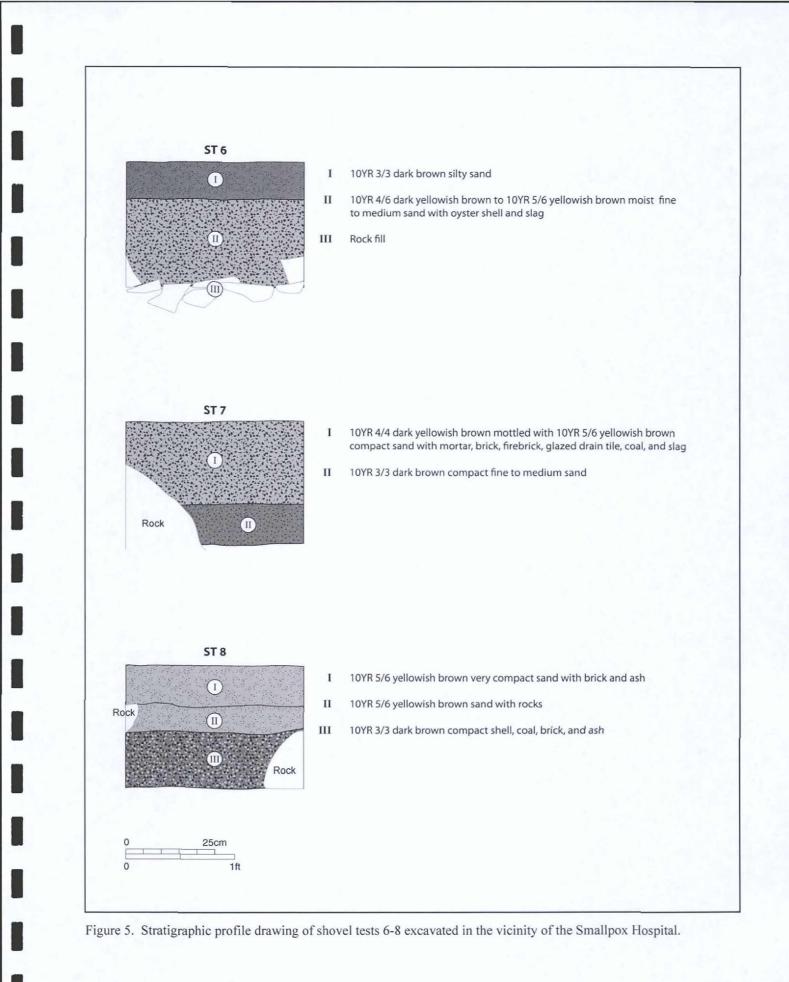
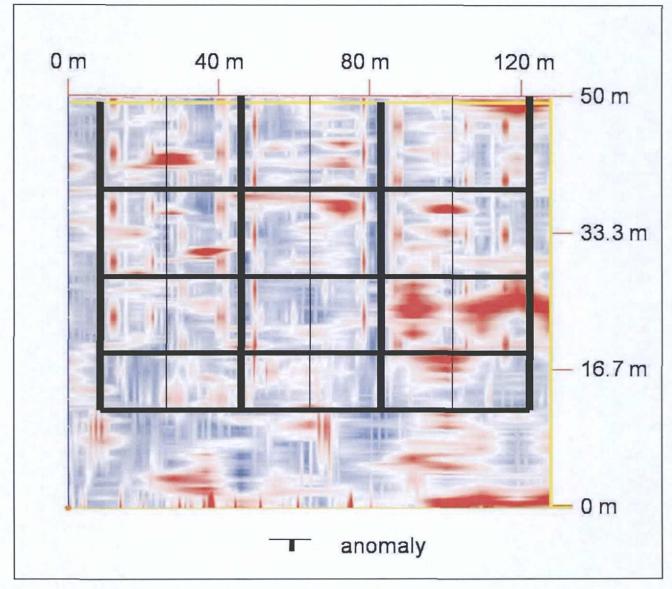


Figure 4. Stratigraphic profile drawing of shovel tests 4 and 5 excavated in the vicnity of the City Hospital.







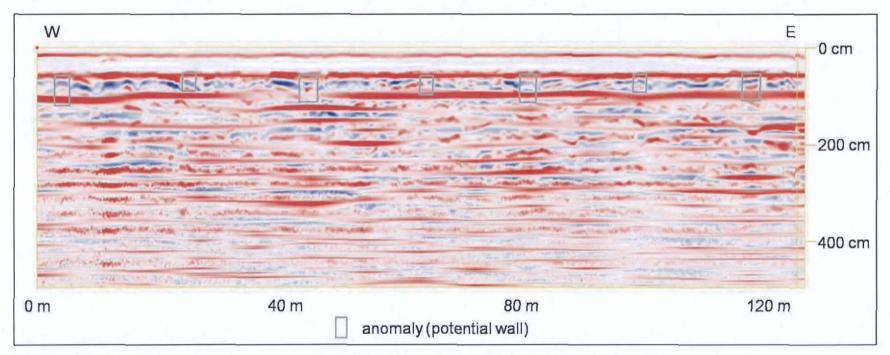


Figure 7. Interpreted vertical west-east cross-section within City Hospital geophysical grid showing location of vertical anomalies.

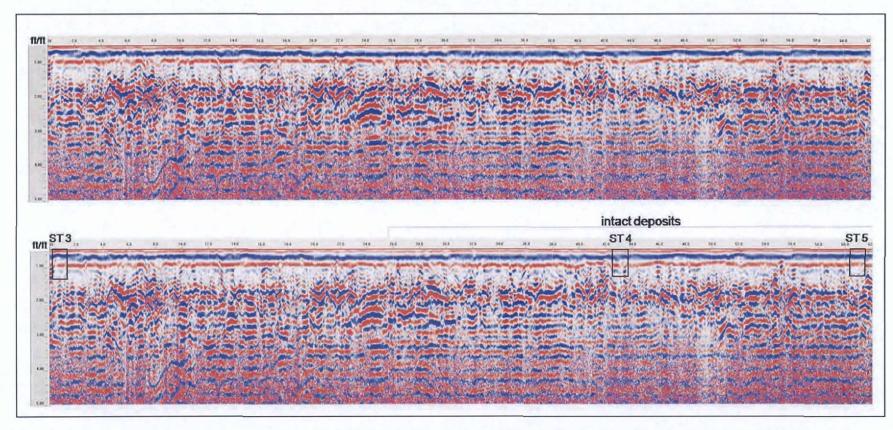
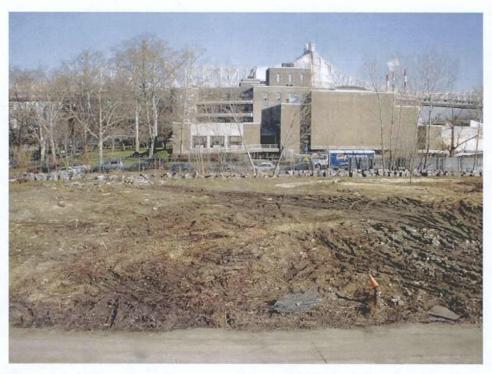


Figure 8. Interpreted vertical west-east cross-section north of City Hospital geophysical grid showing the location of intact deposits in relation to shovel tests.

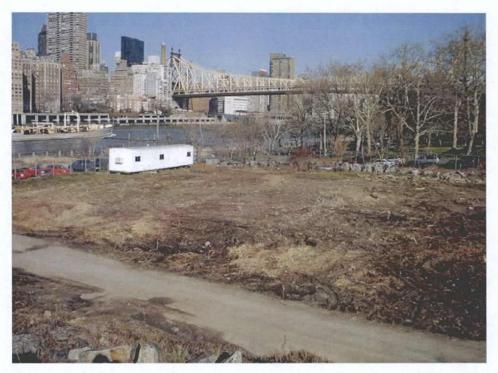


Figure 9. Map of GPR survey areas with anomalies and shovel test locations identified.

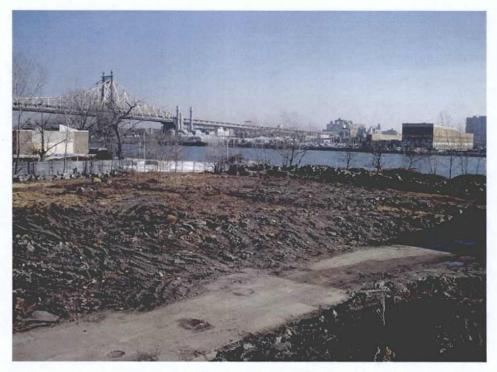
# PHOTOGRAPHS



Photograph 1. General overview of the existing conditions in the location of the former City Hospital; view to the north.



Photograph 2. General overview of the existing conditions in the location of the former City Hospital; view to the northwest.



Photograph 3. General overview of the existing conditions in the location of the former City Hospital; view to the northeast.



Photograph 4. General overview of the existing conditions in the location of the former City Hospital; view to the south.



Photograph 5. General overview of the existing conditions in the vicinity of the Smallpox Hospital and kitchen area ; view to the northwest. Note: large rubble mounds and push piles.



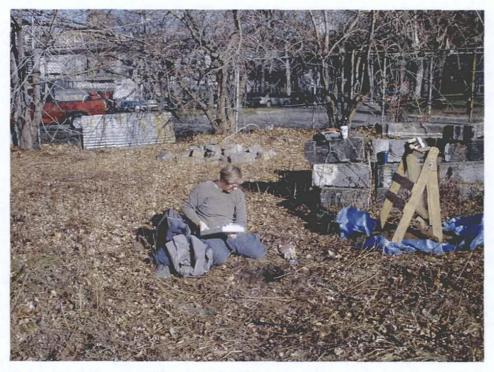
Photograph 6. JMA personnel conducting GPR survey in the former location of the City Hospital; view to the east.



Photograph 7. JMA personnel conducting GPR survey in the former location of the kitchen area of the Smallpox Hospital; view to the south.



Photograph 8. Location of Shovel test 1at the northern end of the rubble mound associated with the former City Hospital structure, view to the east.



Photograph 9. Location of shovel test 2 at the northwestern corner of the former City Hospital structure, view to the north/northwest.



Photograph 10. Location of shovel test 3 at the northern end of the rubble pile; view to the east.



Photograph 11. Location of shovel test 4 at the northern end of the former City Hospital location; view to the east. Note slight uphill slope representing potentially intact land surface.



Photograph 12. JMA archeologist excavating shovel test 7 within the former kitchen structure of the Smallpox Hospital, view to the south. Note GPR survey flags and tape.



Photograph 13. JMA archeologist excavating shovel test 8 within the former kitchen structure of the Smallpox Hospital, view to the southwest.

# APPENDIX I: PROJECT CORRESPONDENCE

1

THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION 1 Centre Street, 9N, New York, NY 10007 (212) 669-7700 www.nyc.gov/landmarks

# **ENVIRONMENTAL REVIEW**

NO LEAD AGENCY/SEQRA-M

9/11/2008

Project number

Date received

Project: Southpoint Open Space Project

**Comments:** The LPC is in receipt of the Phase 1A Archaeological Sensitivity Assessment for Southpoint Park, prepared by JMA, Inc and dated November 2007 and a review request letter dated August 27, 2008. We concur with the report and note that it recommends that archaeological testing occur within the project area. A scope of work for this testing should be submitted to the LPC for review and approval before it occurs, and then the information learned from the testing may be used to determine whether the project is likely to impact potentially significant archaeological resources.

rtoh 10n -9/11/2008

SIGNATURE

DATE

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# JMA

# Proposed Services Phase 1b Archeological Investigations for Southpoint Park, Roosevelt Island, New York, New York

#### 26 September 2008 revised November 4, 2008

# **Project Objectives**

The objectives of the Phase 1b archeological investigations at Southpoint Park are (1) to determine if intact land surfaces survive that were associated with the City Hospital and the Smallpox hospital or earlier occupation of the land; (2) and to locate and identify structural remains of the City Hospital and the kitchen associated with the Smallpox Hospital through the use of ground penetrating radar (GPR) and subsurface testing.

#### Scope of Work

The services described below are designed to address the recommendations presented in JMA's Phase 1a document, in accordance with the comments in the Landmarks Preservation Commission's environmental review of 11 September 2008.

JMA assumes that the Trust for Public Lands will secure permission to conduct the survey and excavation; that areas that will be surveyed with GPR will be clear of vegetation; and that a backhoe with a flat blade and an operator will be provided by the Trust for Public Lands. JMA assumes that the fieldwork will be conducted during 2008, though the analyses and reporting tasks may be completed in 2009.

#### **Task 1. Coordination and Meetings**

The JMA project manager will ensure that the archeological investigations are conducted according to professional standards and maintain contact with Wallace Roberts & Todd, conveying information about the results of the fieldwork and the potential for additional investigations.

#### Task 2. Background Research

The project team will review the Phase Ia finding and rely on the information presented in the Phase Ia document. New research to interpret unanticipated types of resources that might be encountered in the excavations may be performed as an additional service on an hourly basis.

#### Task 3. Fieldwork

The fieldwork includes several tasks, some of which must be sequenced: the GPR survey must precede the ground-truth excavations, and the systematic pedestrian survey must precede the excavation of shovel testing. The archeological subsurface testing and the monitoring of construction excavation inside the ruins of the Smallpox Hospital may be concurrent. For the fieldwork tasks 3a-3c (described below), JMA proposes a total of 6 field days for a two-person team plus 3 days of monitoring (3d) by an archeologist. If

additional field time is warranted, JMA can provide additional services on an hourly basis.

The fieldwork will be documented in digital photos and scale maps. Appropriate plan and profile views will be prepared to document features and soil stratigraphy. Controlled subsurface excavations will also be recorded on standard excavation forms.

After the completion of the fieldwork, the JMA archeologist will prepare a brief summary of the investigations and results and address whether or not additional investigations are warranted.

#### Task 3a. GPR Survey

The GPR survey is designed to identify subsurface anomalies that are likely to represent surviving foundations of the City Hospital and the Smallpox Hospital's kitchen. The survey will focus on the north end of Southpoint Park, in the lawn areas where the hospital is thought to have stood and the area to the east of the Smallpox Hospital where the kitchen is thought to have stood.

The team geoarcheologist will survey a series transects at 1-m intervals within geophysical 20-by-20-m grid units. JMA has scheduled 2 field days for the team geoarcheologist and one assistant archeologist to conduct the GPR survey.

JMA assumes that the areas to be surveyed for the City Hospital foundations and the Smallpox Hospital's kitchen will be land surfaces that have been cleared of vegetation. GPR survey cannot be conducted during inclement weather.

Subsurface anomalies will be flagged with survey flags or ground pins.

#### Task 3b. Pedestrian Survey and Shovel Testing

The JMA field team will conduct a systematic pedestrian survey of the overgrown area between the site of the City Hospital and the Smallpox Hospital. Team members will walk across the area following transects spaced at 5-m intervals to identify locations that appear to be undisturbed. The team will excavate shovel tests in such areas to assess the integrity of the soils. Artifacts will be recovered only from contexts that appear undisturbed. JMA assumes a maximum of 12 shovel tests will be excavated. JMA has scheduled 1 day for a two-person team for the pedestrian survey and shovel testing

#### Task 3c. Subsurface Testing of Land Surfaces

The JMA team will test for intact land surfaces around the two hospital locations. The team will determine on site whether hand excavation of shovel tests or machine-added excavation is most appropriate. JMA has scheduled 1 day for a two-person team to test for intact surfaces.

#### Task 3d. Monitor Excavations within the Smallpox Hospital Ruin

A JMA field team member will monitor selected excavation locations with the Smallpox Hospital ruin. The revised shoring plan calls for excavation within the interior of the ruins. JMA estimates 3 field days to monitor a sample of areas within the three principal sections of the ruins. JMA assumes that Alternative Construction Concepts, Inc., will confirm that it is safe for the JMA field team member to monitor the excavations.

## Additional Services: Subsurface Testing of GPR Anomalies

In the event that anomalies identified by GPR survey are determined to be in conflict with ground disturbances proposed for the Southpoint Park development, the JMA field team will conduct subsurface testing to ground truth these anomalies. Geophysical anomalies that are likely to represent building foundations will be tested by manual or machine excavation prior to construction, if necessary. JMA will provide a separate proposal for an archeologist and assistant archeologist to ground truth geophysical anomalies.

## Task 4. Laboratory Processing and Analyses

Artifacts recovered from contexts with integrity during the excavations will be returned to JMA's laboratory for processing and cataloguing and will be prepared for curation in accordance with current professional standards. JMA assumes a maximum of 500 artifacts will be recovered that warrant processing.

### **Task 5. Analyses and Report Preparation**

JMA will prepare a technical report of findings consistent with the guidelines of the New York State Historic Preservation Office. The report will address the purpose of the investigations, methods, results, interpretation, and recommendations. The report text will be illustrated by appropriate graphics and be accompanied by a list of references cited in the text and the artifact inventory. An electronic copy of the draft report (in .pdf format) will be submitted to Wallace Roberts & Todd for distribution. The artifact collection will be delivered to the curation facility designated by the land owner at the completion of the project. JMA will address review comments and submit an electronic copy of the final report to Wallace Roberts & Todd.

#### Schedule

JMA assumes that the GPR survey, ground-truth excavations, pedestrian survey, and testing for intact land surfaces can be conducted in a field session of 6 consecutive working days with a two-person team. An additional 3 days for one person are allocated for the monitoring. The laboratory processing and report preparation are expected to require 60 working days from the completion of the fieldwork. JMA will address review comments on the report and submit the final document within 30 days of receipt of all comments.

Approval of Phase 1B Work Plan Received from City of New York Landmarks Preservation Commission (LPC) and New York State Office of Parks, Recreation, and Historic Presvation (OPRHP):

-----Original Message-----From: "Amanda Sutphin" <ASutphin@lpc.nyc.gov>

Date: Thu, 04 Dec 2008 10:29:22 To: etmassoc.llc<etmassoc.llc@verizon.net> Cc: <Douglas.Mackey@oprhp.state.ny.us>; Lissa Schwab<lschwab@lpc.nyc.gov> Subject: RE: Southpoint Park Phase 1b Scope of Work

Hello:

This looks fine to us as well. Please note that we will want one paper copy to review and then upon acceptance will want a total of 2 bound paper copies and an electronic version.

Best,

Amanda

Amanda Sutphin, RPA Director of Archaeology New York City Landmarks Preservation Commission Municipal Building, 9th Fl 1 Centre St New York, NY 10007 (212) 669-7823

----- Original Message -----From: Douglas.Mackey@oprhp.state.ny.us To: Beth.Cumming@oprhp.state.ny.us Cc: etmassoc.llc@verizon.net Sent: Monday, December 01, 2008 11:37 AM Subject: RE: Southpoint Park Phase 1b Scope of Work

This looks fine, but be sure everyone is aware that we need to recieve one bound, paper copy, with high quality original images (on photo paper), as well as an electronic copy, for our library of reports.

Doug

Douglas Mackey

New York State Office of Parks, Recreation and Historic Preservation Peebles Island PO Box 189 Waterford, NY 12188 (518) 237-8643 x 3291

Douglas.Mackey@oprhp.state.ny.us



# JOHN MILNER ASSOCIATES, INC.

Restoration & Rehabilitation - Preservation Planning - Archeological & Historical Research - Cultural Landscapes - Materials Conservation

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SENIOR ASSOCIATES Joseph F. Balicki, RPA Peter C. Benton, AIA Ellen McLean Jenkins, AIA Robert G. Kingsley, Ph.D. Richard Meyer Alfonso A. Narvacz Elizabeth A. Sargent, ASLA Donna J. Seifert, Ph.D., RPA J. Sanderson Stevens B.J. Titus Rebecca Yamin, Ph.D., RPA

ASSOCIATES Tod L. Benedict William Chadwick, Ph.D., PG Juliette J. Gerhardt Patrick J. Heaton, RPA Douglas C McVarish Christopher Quirk, AIA Michael E. Roberts, RPA Sarah Jane Ruch October 8, 2008

Alfonso Narvaez JMA Alexandria via email (anarvaez@johnmilnerassociates.com)

Re: Roosevelt Island, Southpoint Park Archeological Monitoring 10/7/2008

Dear Alfonso:

On 7 October 2008 I traveled to Southpoint Park on Roosevelt Island in New York, New York, to monitor trenching within the north and south wings of the Smallpox Hospital in partial fulfillment of Task 3d in JMA's Phase 1b scope of proposed services dated 26 September 2008. As summarized in the November 2007 sensitivity study for the project (*Phase 1A Archeological Sensitivity Assessment for Southpoint Park* by Patrick J. Heaton), the purpose of archeological work within the project area is to determine if any intact land surfaces associated with (or that pre-date) the City and Smallpox Hospitals (and associated facilities) are present.

The construction activities on 7 October 2008 occurred within the confines of the 1903-1905 wings of the Smallpox Hospital, and the focus of the monitoring was to ensure that no earlier, undisturbed ground surfaces or intact archeological deposits associated with the 1858 core of the building were present.

Both wings are currently filled with demolition debris that includes large quantities of brick, mortar, and ash in a highly organic, humic soil matrix. Plumbing fixtures (pipes, radiators, etc.) and floor and wall treatments (tiles, plaster, etc.) are incorporated into the debris.

Trenching was proposed around portions of the perimeter of each wing to accommodate a poured concrete footing that will be used to stabilize the buildings. The trenches were to be approximately 4 feet wide and extend 3-3.5 feet below the bottom of the old floor joists. Work began in the north wing, where four small test areas were excavated with a backhoe to explore the nature of the deposits. Test holes were placed along the north wall at its center and in the northwest and northeast corners. An additional test was placed along the south wall, at the west end of the easternmost chamber. In each of the tests, the demolition debris extended all the way to a concrete floor with a smooth,

<sup>1216</sup> Arch Street, 5th Floor, Philadelphia, Pennsylvania 19107-2835 • 215-561-7637 / fax 215-977-7360

plastered surface. The floor ranged in depth from 3 to 3.5 feet below the bottom of the old floor joists (as measured from the base of the joist pockets). Subsequent trenching expanded the test areas in the northwest corner and along the south wall and confirmed that the concrete floor was continuous.

:"

Work in the south wing was limited to three small test holes excavated with picks and shovels at the west end of the building. Two of the holes were located along the north and south perimeter walls and one was located between the south wall and the center dividing wall, all within 18 feet of the west wall of the building. The purpose was to ascertain if a concrete floor existed in this wing as well, and, if so, how far it was below the bottom of the old floor joists. All three test holes encountered a rough, aggregate surface at depths ranging between 3.8 and 4.2 feet below the base of the joist pockets. Unlike the north wing, the floor in the south wing did not have a smooth plastered surface. It also appeared to be more undulating. Deposits above the floor included a layer of humus that varied in thickness from .15 inches to 1.3 feet and appeared to have accumulated after the building was abandoned. In two of the test holes, this humus was overlain by a thick layer of ash (.4-.65 feet) that probably resulted from the burning of the roof. All units were capped with modern humus that incorporated tree roots and demolition debris.

In JMA's opionion, the humic accumulation, ash, and demolition debris on top of the concrete floors in the north and south wings of the Smallpox Hospital are not historically significant because they post-date the abandonment of the building and are unlikely to contain materials that would contribute meaningful or important information concerning the former institutional buildings. No further archeological work is recommended prior to or during the removal of these deposits above the concrete floor in the north and south wings. Should it become necessary to penetrate the floor to excavate below it, or should an area be encountered where the floor does not exist, a qualified archeologist should be consulted to determine if any undisturbed and potentially significant deposits exist.

Thank you. Any questions should be addressed to me.

Jun 20 30

Grace H. Ziesing, M.A., RPA. Principal Archeologist/ Project Manager

# APPENDIX II: SHOVEL TEST PROFILES

# Southpoint Park - Roosevelt Island Phase IB Archeological Survey Appendix II: Shovel Test Stratigraphic Profiles

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Shovel Test	Stratum	Open (cm) (	lose (cm)	Soil Color	Soil Description	Comments
ity Hospital						
1	1	0	22	very dark grayish brown 10YR 3/2	silty sand with pebbles and cobbles	ជា
	II	22	32	very dark grayish brown 10YR 3/2	fine sand with cobbles	ឥម
	Ш	32	38	very dark grayish brown 10YR 3/2	sand with broken rocks	fill
	IV	38	40	very dark grayish brown 10YR 3/2	mortared rocks	
2	I	0	10	very dark grayish brown 10YR 3/2	silty sand with pebbles and cobbles	fill
	II	10		very dark grayish brown 10YR 3/2	fine sand with cobbles	fill
	hi	20	30	very dark grayish brown 10YR 3/2	sand with broken rocks	fill
	IV	30	36	very dark grayish brown 10YR 3/2	mortared rocks	
3	I	0		very dark brown 10YR 2/2	fine sandy loam with gravel	fill
	II	22	26	dark yellowish brown 10 YR 3/3	compact, silty loam	fill
	III	26	46	very dark grayish brown 10YR 3/2	fine sand with gravels	ឥរា
	IV	46	53	yellowish brown 10YR 5/6 with dark grayish brown 10YR 4/2	medium sand with gravel	intact?
4	1	0		very dark brown 10YR 2/2	fine sandy loam	ឥរ
	11	34	40	brown 7.5YR 4/4	very coarse sand with gravel	fill
	III	40		dark yellowish brown 10YR 4/6	very fine sand	fill
	IV	55	84	dark brown 10YR 3/3	fine sandy loam	historic fill dep
	V	84	117	brown 7.5YR 4/4	very fine sand	intact?
5	I	0	18	black 10YR 2/1	fine sand	fill
	11	18		yellowish brown 10YR 5/6	medium sand with gravels	fill
	111	42	60	dark yellowish brown 10YR 4/4	clay sand with gravels and broken bedrock	fill
litchen Area	i.					
6	I	0	-	dark brown 10YR 3/3	silty sand	fill
	11	8	20	dark yellowish brown 10YR 4/6	fine to medium sand	fill
	ш	20	30	dark yellowish brown 10YR 4/6	broken bedrock	fill
7	I	0	20	dark yellowish brown 10YR 4/4	compact sand with asphalt chunks	fill
	11	20	30	dark brown 10YR 3/3	compact fine to medium sand and boulders	kitchen wall?
8	1	0		yellowish brown 10YR 5/6	compact sand	611
	11	10	16	yellowish brown 10YR 5/6	compact sand with cobbles	fill
	III	16	27	dark brown 10YR 3/3	compact sand with cobbles	fill

# APPENDIX III: ARTIFACT CATALOG

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### Southpoint Park - Roosevelt Island Phase IB Archeological Survey Appendix III: Artifact Catalog

Lot	Shovel Test	Stratum	Depth	Count	Artifact Description	Date Range	Comments
1	2	I	0-10 cm	1	Pipe Stem: 6/64th-Inch Elliptical Ball Clay	1	Fragment
1	2	I	0-10 cm	1	Whiteware: Plain	1810-2000	
2	2	II	10-20 cm	1	Unidentified Glass Object: Burnt		
2	2	П	10-20 cm	1	Whiteware: Plain	1810-2000	_
2	2	II	10-20 cm	1	Window Glass: 2 - 3mm Thick		1
3	4	I	0-34 cm	1	Brick, Fragment: Unidentified, Unglazed	· · · · · · · · · · · · · · · · · · ·	
3	4	I	0-34 cm	1	Coal: Lump/Nugget		
3	4	I	0-34 cm	1	Unidentified Metal Object: Aluminum	1895-2000	
3	4	Ĩ	0-34 cm	1	Whiteware: Blue Transfer Print	1815-1915	
3	4	I	0-34 cm	1	Window Glass: 1 - 2mm Thick		T
4	4	III	40-55 cm	1	Brick, Fragment: Unidentified, Unglazed		· · · ·
4	4	111	40-55 cm	1	Unidentified Bottle Fragment: Aqua	1-	
4	4	ш	40-55 cm	1	Whiteware: Plain	1810-2000	1
4	4	111	40-55 cm	1	Whiteware: Transfer Print, Underglaze Paint	1880-1900	
4	4	III	40-55 cm	3	Coal: Lump/Nugget		
5	4	IV	55-84 cm	1	Coal: Lump/Nugget	· · · · · · · · · · · · · · · · · · ·	
5	4	IV	55-84 cm	1	Creamware: Unspecified	1762-1820	
5	4	IV	55-84 cm	1	Pipe Bowl Fragment: Ball Clay		
5	4	IV	55-84 cm	1	Redware: Molded, Black Glaze		
5	4	IV	55-84 cm	1	Redware: Unidentified		
5	4	IV	55-84 cm	1	Unidentified Nail: Shaft Only		
5	4	IV	55-84 cm	1	Window Glass: 1 - 2mm Thick		
5	4	IV	55-84 cm	1	Yellowware: Unspecified		
5	4	IV	55-84 cm	2	Unidentified Bottle Fragment: Olive Green		Hand Blown
5	4	IV	55-84 cm	2	Unidentified Nail: Cut or Wrought		
5	4	IV	55-84 cm	2	Whiteware: Flow Blue	1842-1910	
5	4	IV	55-84 cm	2	Window Glass: < 1mm Thick		i i
5	4	IV	55-84 cm	3	Whiteware: Red Transfer Print	1829-1915	[
5	4	IV	55-84 cm	4	Faunal: Bone		Unburned
5	4	IV	55-84 cm	4	Hardware, Metal: Unidentified		
5	4	IV	55-84 cm	6	Whiteware: Indeterminate Decoration	1810-2000	
5	4	IV	55-84 cm	11	Whiteware: Plain	1810-2000	10 500
5	4	IV	55-84 cm	13	Faunal: Clam		Hard Shell
6	5	11	18-42 cm	1	Faunal: Bone		Unburned
6	5	11	18-42 cm	1	Faunal: Clam		Hard Shell
6	5	II	18-42 cm	1	Hardware, Metal: Bracket, Window Shade		···-
6	5	II	18-42 cm	1	Pipe Bowl Fragment: Decorated Ball Clay		
6	5	II	18-42 cm	1	Stone: Roof Slate		
6	5	11	18-42 cm	1	Whiteware: Plain	1810-2000	
6	5	11	18-42 cm	2	Hardware, Metal: Unidentified		]

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