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**HISTORICAL
PERSPECTIVES INC.**



Phase IA Documentary Study

**Meredith Avenue Bus Depot Project Site
Block 2810, Lots 82, 91, 94 and part of 59
Staten Island, Richmond County, New York**

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Phase IA Documentary Study

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Block 2810, Lots 82, 91, 94 and part of 59
Staten Island, Richmond County, New York**

Prepared For:

**STV, Inc.
225 Park Avenue South
New York, NY 10003**

Prepared By:

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November 2008

MANAGEMENT SUMMARY

SHPO Project Review Number (if available):

Involved State and Federal Agencies: **New York City Transit (NYCT)**

Phase of Survey: **Phase IA Documentary Study**

Location Information

Location: **Block 2810, Lots 82, 91, 94 and part of 59, on the west side of Meredith Avenue.**

Minor Civil Division: **08501, Staten Island**

County: **Richmond**

Survey Area

Length: **varies**

Width: **varies**

Number of Acres Surveyed: **ca. 2.14**

USGS 7.5 Minute Quadrangle Map: **Arthur Kill**

Archaeological Survey Overview

Number & Interval of Shovel Tests: **N/A**

Number & Size of Units: **N/A**

Width of Plowed Strips: **N/A**

Surface Survey Transect Interval: **N/A, urban area**

Results of Archaeological Survey

Number & name of precontact sites identified: **None**

Number & name of historic sites identified: **None**

Number & name of sites recommended for Phase II/Avoidance: **None**

Report Authors(s): **Julie Abell Horn, M.A., R.P.A., Historical Perspectives, Inc.**

Date of Report: **November 2008**

EXECUTIVE SUMMARY

New York City Transit (NYCT), an operating entity of the Metropolitan Transportation Authority (MTA), is proposing to construct and operate a bus depot in the Chelsea area of Staten Island, Richmond County, New York. The depot would be used by NYCT's Department of Buses for the storage and servicing of NYCT buses. The proposed bus depot site, located on the west side of Meredith Avenue, is approximately 2.14 acres and is located within Tax Block 2810, Lots 82, 91, 94 and a part of 59 (Figures 1 and 2). The site is bordered by Meredith Avenue on the northeast, a paper road called West Street and Lots 96 and 98 on the north and northwest, tidal wetlands bordering the Arthur Kill on the west, and the remainder of Lot 59, which contains an active fill material transfer station, a large warehouse building, and a cell tower, on the south and southeast. As shown on Figure 3, the proposed project includes constructing a building along Meredith Avenue and filling a portion of the site on the west that is currently a borrow pit. There will be no construction within the tidal wetland portion of the site on the far west and northwest of the site. However, the remainder of the entire project site will be re-graded prior to any construction work (NYCT n.d.).

The NYCT is the lead state agency for the proposed project. An Environmental Assessment (EA) is currently being prepared to evaluate the potential environmental impacts from acquisition, construction and operation of the new bus depot pursuant to the New York State Environmental Quality Review Act (SEQRA). It is Historical Perspectives, Inc. (HPI)'s understanding that the proposed action will not entail any federal funding. In addition, because the proposed project is located in New York City, impact assessment guidance from the *New York City Environmental Quality Review Technical Guidance Manual (CEQR Technical Manual)* will be used where appropriate. The Area of Potential Effect (APE) is the area that could be affected by project development. Since project plans have not been finalized as of this writing, the APE for the proposed bus depot property includes the entire project site.

The Phase IA Documentary Study concluded that the project site is located in an area where numerous precontact period archaeological sites have been recorded. In its original state, the project site contained a strip of firm ground parallel to what is now Meredith Avenue, and low-lying areas and marshland adjacent to a perennial drainage to the south that emptied into the Arthur Kill. As noted by Louis Berger Associates (2005), some inland areas depicted on historic maps as marshland appear to have been dry enough at times to support precontact occupation. Finding sites within marshland is rare, however, and nearly all the precontact sites in the vicinity have been recorded on top of elevated hummocks, generally above the 10-foot contour line. These conditions suggest that in its natural state, the area of the project site formerly on firm ground may have had a higher precontact archaeological sensitivity than the lower marshy areas. However, based on the degree of grading, filling, construction and demolition on the project site, detailed above, the likelihood that any precontact resources could still remain on the project site may be lessened.

The portion of the project site along Meredith Avenue supported a structure by at least 1850 (and probably earlier), which was not demolished until the early 1960s. Sanborn maps indicate that the building was a dwelling, although specific occupancy of the house during the nineteenth century remains unknown. However, based on the similarity of residents in the Chelsea area observed in the federal censuses for this period, it is highly likely that any occupants were in households headed by oystermen, farmers, or laborers, which were the most common professions on the west shore of Staten Island during this period.

The former house on the project site predated the introduction of municipal water and sewer service to this area by at least 35 years (and probably longer), leaving the residents to rely on private wells, cisterns, privies, and cesspools for their needs. Privies, wells, and cisterns, which are often filled with contemporary refuse related to the dwellings and their occupants, can provide important stratified cultural deposits for the archaeologist and frequently provide the best remains recovered on sites. Other commonly occurring but more fragile backyard remains include fence lines, paths, traces of landscaping and sheet midden scatter. The level of disturbance to the project site in this former yard area is unclear, but any grading and/or filling here would not necessarily preclude the recovery of shaft features, and it is possible that other subsurface features, such as sheet middens or former outbuilding foundations, could be preserved as well if disturbance is not extensive.

Identifying and examining buried features associated with the nineteenth century occupation of the project site may reflect the daily activities of the residents and provide insight into cultural behavior of this very homogenous

population. If undisturbed deposits of cultural material do still exist in this location, they may have the potential to provide meaningful information regarding the lives of the people who lived there. When recovered from their original context and in association with a specific historical occupation, historical deposits can provide a wealth of information about consumption patterns, consumer choice, gender relations, ethnicity, economic status, and other important issues.

Based on the conclusions outlined above, HPI recommends that a program of Phase IB archaeological testing be undertaken in the former rear yard of the nineteenth-century house along Meredith Avenue (Figure 11). This testing would determine the presence or absence of both possible precontact resources on the project site, and nineteenth-century shaft features associated with the former house on the property. Field testing would involve using a backhoe to remove the gravel parking area surface and any underlying modern fill in order to ascertain whether any natural surfaces that may have contained precontact archaeological resources, or historic period shaft features, still exist on the project site.

Last, all archaeological testing should be conducted according to OSHA regulations and applicable archaeological standards (New York Archaeological Council 1994, NYSOPRHP 2005; LPC 2002; CEQR 2001). Professional archaeologists, with an understanding of and experience in urban archaeological excavation techniques, would be required to be part of the archaeological team.

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I. INTRODUCTION

New York City Transit (NYCT), an operating entity of the Metropolitan Transportation Authority (MTA), is proposing to construct and operate a bus depot in the Chelsea area of Staten Island, Richmond County, New York. The depot would be used by NYCT's Department of Buses for the storage and servicing of NYCT buses. The proposed bus depot site, located on the west side of Meredith Avenue, is approximately 2.14 acres and is located within Tax Block 2810, Lots 82, 91, 94 and a part of 59 (Figures 1 and 2). The site is bordered by Meredith Avenue on the northeast, a paper road called West Street and Lots 96 and 98 on the north and northwest, tidal wetlands bordering the Arthur Kill on the west, and the remainder of Lot 59, which contains an active fill material transfer station, a large warehouse building, and a cell tower, on the south and southeast. As shown on Figure 3, the proposed project includes constructing a building along Meredith Avenue and filling a portion of the site on the west that is currently a borrow pit. There will be no construction within the tidal wetland portion of the site on the far west and northwest of the site. However, the remainder of the entire project site will be re-graded prior to any construction work (NYCT n.d.).

The NYCT is the lead state agency for the proposed project. An Environmental Assessment (EA) is currently being prepared to evaluate the potential environmental impacts from acquisition, construction and operation of the new bus depot pursuant to the New York State Environmental Quality Review Act (SEQRA). It is Historical Perspectives, Inc. (HPI)'s understanding that the proposed action will not entail any federal funding. In addition, because the proposed project is located in New York City, impact assessment guidance from the *New York City Environmental Quality Review Technical Guidance Manual (CEQR Technical Manual)* will be used where appropriate. The Area of Potential Effect (APE) is the area that could be affected by project development. Since project plans have not been finalized as of this writing, the APE for the proposed bus depot property includes the entire project site.

This Phase IA Documentary Study was prepared to satisfy the requirements of SEQRA/CEQR, and to comply with the standards of the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) and the Landmarks Preservation Commission (LPC) (New York Archaeological Council 1994; NYSOPRHP 2005; LPC 2002; CEQR 2001). According to NYSOPRHP standards, a Phase IA archaeological survey should include evaluation of both precontact and historic period archaeological potential. Where guidelines for the archaeological evaluation and report format of the LPC and the NYSOPRHP varied, those of the LPC, which specifically address New York City conditions and resources, took precedent. The HPI project team consisted of Julie Abell Horn, M.A., R.P.A., who conducted site visit, the majority of the research, and wrote the report; Sara Mascia, Ph.D., R.P.A., who assisted with the research; and Cece Saunders, M.A., R.P.A. who managed the project and provided editorial and interpretive assistance.

II. METHODOLOGY

The present study entailed review of various resources.

- Historic maps were reviewed at the New York Public Library, the Staten Island Historical Society, the Staten Island Museum, and using various online websites. These maps provided an overview of the topography and a chronology of land usage and ownership for the study site. Because many of these maps also noted the owners of the project site over time, deeds specific to the project site were not reviewed.
- Tax assessment records and city directories, which are standard resources consulted as part of a documentary study, were not useful for this property. Nineteenth-century tax assessment records for this part of Staten Island, available at the Staten Island Historical Society, are only extant beginning in the mid-1890s, and nineteenth-century city directories generally did not cover this portion of Staten Island.
- Federal census records were reviewed, but also were minimally useful because they did not list specific addresses during most of the nineteenth century and so it was difficult to determine specific occupancy of the project site.
- Department of Building index records and certificates of occupancy for the project site were reviewed using the department's website.
- Several primary and secondary sources concerning the general precontact period and history of Staten Island and specific events associated with the project site were reviewed at the New York Public Library, the Staten Island Historical Society, and using online resources.

- Information about previously recorded archaeological sites and surveys in the area was compiled from data available at the NYSOPRHP and the LPC.
- STV, Inc. provided various maps and site data for the property.
- Last, a site visit was conducted by Julie Abell Horn of HPI on September 16, 2008 to assess any obvious or unrecorded subsurface disturbance (Photographs 1-10; Figure 2).

III. CURRENT CONDITIONS AND ENVIRONMENTAL SETTING

A. Current Conditions

As noted above, the proposed project site is located on Block 2810, Lots 82, 91, 94 and part of 59. In total, the site measures approximately 2.14 acres.

Lot 82 contains an auto wrecking facility that is primarily a parking area paved with gravel. There are a number of trailers on the lot, as well as several temporary garages (Photographs 1-3). The lot is enclosed by a chain link fence along Meredith Avenue. Tidal wetlands border the lot on the northwest (Photograph 4).

Lot 91 is also part of the auto wrecking facility area and is paved with gravel (Photograph 5). It formerly contained a nineteenth-century house, which was demolished by the early 1960s. The northeastern end of Lot 91, at Meredith Avenue, contains one of the entrance gates to the facility.

Lot 94 (346 Meredith Avenue) contains a house dating to the 1890s, which has been modernized over the years (Photograph 6). There is a small rear yard covered with grass. North of Lot 94 is a paper road called West Street. It is not open to traffic and presently also is covered with grass (Photograph 7).

Lot 59 contains a long warehouse building oriented perpendicular to Meredith Avenue, a T-Mobile cell tower southwest of the building, and an active fill material transfer station over the remainder of the lot (Photographs 8-10). The project site includes the northwestern end of Lot 59, but not the warehouse or cell tower. The portion of Lot 59 included within the project site contains a very large borrow pit used by the fill material transfer station, surrounded by a large berm separating the borrow pit from the wetlands. At the time of the field visit the northern end of the borrow pit was filled with rainwater, and the base of the borrow pit was lined with large cobbles. Very large stockpiles of soil are located on the southwestern side of the borrow pit. Heavy machinery was moving this soil at the time of the site visit.

B. Topography and Hydrology

In its natural state, the project site contained a strip of firm land paralleling what is now Meredith Avenue, which extended approximately 150-200 feet into the project site from the line of Meredith Avenue. The remainder of the project site was wetland or marshland (e.g. Whiting and Dorr 1857 [Figure 7], Beers 1874 [Figure 8], U.S.G.S. 1890 [Figure 9], Borough of Richmond 1911 [Figure 10]). The strip of land along Meredith Avenue ranged in elevation from 0-6 feet above the Richmond High Water Datum, with the land sloping down from Meredith Avenue towards the wetlands. During the twentieth century, the project site was filled to create the level parking area on Lots 82 and 91, and to raise the rear of Lot 94 up to the same grade as the parking lot. Comparison between historic and modern topographic maps reveals that ca. 0-5 feet of fill were placed within Lots 82, 91, and 94. The wetland areas of the project site on Lot 82 were also filled, and probably contain slightly more than 5 feet of fill owing to the depth below sea level of the wetlands. Lot 59 was also filled, but the presence of the active fill material transfer station on the southern part of Lot 59 attests to the artificial (and changing) topography created by the constant stockpiling and moving of soil.

As noted above, historic maps show that the western and southwestern portion of the project site was formerly wetlands. The 1890 U.S.G.S. map (Figure 9) shows that there were two small drainages within these wetlands on the project site. A larger creek was located about 700 feet south of the project site, as shown on the 1857 Whiting and Dorr map (Figure 7). The Arthur Kill is located just beyond the tidal wetlands bordering the project site.

C. Geology

The project site sits within the western edge of the Piedmont Lowlands. As described by Boesch (after Wolfe 1977),

The Piedmont Lowlands make up about one fifth of the land area of Staten Island and consist of gently rolling terrain, generally between 50 and 100 feet in elevation, which gradually slopes to the southeast. The undulating surface is interrupted by an intrusive ridge, 200 to 250 feet in elevation, and by slightly lower, plateau-like topographic features. The rolling lowlands are generally underlain by Triassic and Jurassic age shales, siltstones, and sandstones of the Brunswick Formation of the Newark Group[,] while the ridges are composed of basaltic lava flows and diabase traprock. The plateau-like features developed on erosion resistant Lockatong Formation Argillites. (Boesch 1994: 3)

During the precontact era the woodlands of the Piedmont Lowlands consisted of broadleaf deciduous trees, which provided a habitat for "game birds, small mammals, deer, bear, and during at least a portion of the precontact period, elk" (Boesch 1994: 6). Mixed wetland ecologies provided numerous floral and faunal resources, the most important faunal resources being the shellfish found in saltwater and brackish environments. Freshwater faunal resources include "mussels, fish, certain amphibians and reptiles, migratory fowl, and semi-aquatic mammals. Anadromous fish species would have been present seasonally within Staten Island via streams emptying into the estuary system" (Boesch 1994: 5-6).

D. Soils

According to the soil survey for New York City, the project site falls within a soil mapping unit called "Laguardia-Ebbets-Pavement & buildings, wet substratum complex, 0 to 8 percent slopes." It is described as:

Nearly level to gently sloping areas filled with a mixture of natural soil materials and construction debris over swamp, tidal marsh, or water; a mixture of anthropogenic soils which vary in coarse fragment content, with 15 to 49 percent of the surface covered by impervious pavement and buildings (USDA 2005:14).

Figure 4 illustrates the location of the project site on the soil survey map for New York City.

No soil borings have been conducted on the project site. However, as noted above, comparison of existing conditions on the project site (Rajakaruna & Ettlinger, PC 2008; Figure 2) with historic maps (e.g. Dripps 1850, Butler 1853 [Figure 6], Whiting and Dorr 1857 [Figure 7], Beers 1874 [Figure 8], U.S.G.S. 1890 [Figure 9], and Borough of Richmond 1911 [Figure 10]) confirms that much of the western portion of the project site was formerly wetlands or marshland. The dividing line between firm land and wetlands ran roughly parallel to Meredith Avenue, through what is now the approximate center of the gravel parking lot. All land west of this line that is not still covered by wetlands appears to consist of fill soil overlying wetlands. Within the gravel parking lot, the depth of the fill appears to range from ca. 0-5 feet in thickness. The degree to which the project site may have been graded in conjunction with filling is unknown, other than in the active fill material transfer station, where a large borrow pit is evident.

IV. BACKGROUND RESEARCH/HISTORICAL OVERVIEW

A. Precontact Summary

For this report, the word precontact is used to describe the period prior to the use of formal written records. In the western hemisphere, the precontact period also refers to the time before European exploration and settlement of the New World. Archaeologists and historians gain their knowledge and understanding of precontact Native Americans on Staten Island from three sources: ethnographic reports, Native American artifact collections, and archaeological investigations.

The Paleo Indian Period (c. 10,500 B.C. - c. 8000 B.C.) represents the earliest known human occupation of Staten Island. Approximately 14,000 years ago the Wisconsin Glacier retreated from the area leading to the emergence of a cold dry tundra environment. Sea levels were considerably lower than modern levels during this period (they did

not reach current levels until circa 5,000 B.C., in the Early to Middle Archaic Period). As such, Staten Island was situated much further inland from the Atlantic Ocean shore than today, and was characterized by higher ground amid glacial lakes and rivers (Boesch 1994). The material remains of the Paleo Indians include lithic tools such as Clovis-type fluted projectile points, bifacial knives, drills, gravers burins, scrapers, flake cores, and flake tools, although sites generally are represented by limited small surface finds. The highly mobile nomadic bands of this period specialized in hunting large game animals such as mammoth, moose-elk, bison, and caribou and gathering plant foods. It has been theorized that the end of the Paleo-Indian Period arose from the failure of over-specialized, big-game hunting (Snow 1980:150-157). Based on excavated Paleo-Indian sites in the Northeast, there was a preference for high, well-drained areas in the vicinity of streams or wetlands (Boesch 1994). Sites have also been found near lithic sources, rock shelters and lower river terraces (Ritchie 1980). Paleo-Indian materials have been recovered at several sites on Staten Island including Port Mobil, the Cutting site, Smoking Point and along the beach in the Kreischerville area.

During the Archaic Period (c. 8000 B.C. - 1000 B.C.) a major shift occurred in the subsistence and settlement patterns of Native Americans. Archaic period peoples still relied on hunting and gathering for subsistence, but the emphasis shifted from hunting large animal species, which were becoming unavailable, to smaller game and collecting plants in a deciduous forest. The settlement pattern of the Archaic people consisted of small bands that occupied larger and relatively more permanent habitations sites along the coast of Staten Island, its estuaries and streams and inland areas (Boesch 1994). Typically such sites are located on high ground overlooking water courses. This large period has been divided up into four smaller periods, the Early, Middle, Late and Terminal Archaic.

The environment during the Early Archaic (c. 8000 B.C. - 6000 B.C.) displayed a trend toward a milder climate and the gradual emergence of a deciduous-coniferous forest with a smaller carrying capacity for the large game animals of the previous period (Ritchie and Funk 1971). The large Pleistocene fauna of the previous period were gradually replaced by modern species such as elk, moose, bear, beaver, and deer. New species of plant material suitable for human consumption also became abundant. The increasing diversification of utilized food sources is further demonstrated by a more complex tool kit. The tool kit of the Early Archaic people included bifurcated or basally notched projectile points generally made of high quality stone. Tool kits were more generalized than during the Paleo-Indian period, showing a wider array of plant processing equipment such as grinding stones, mortars and pestles. Although overall evidence of Early Archaic sites on Staten Island is sparse, it should be noted that the Old Place site, located approximately two miles north of the project site, is recognized as one of the most important Early Archaic component sites in the area (Ritchie and Funk 1971; Ritchie 1980; Cantwell and Wall 2001). Other Early Archaic component sites on Staten Island include the Hollowell, Charleston Beach, Wards Point, Travis, and Richmond Hill sites (Ritchie and Funk 1971; Boesch 1994).

The archaeological record suggests that a population increase took place during the Middle Archaic Period (c. 6000 - c. 4000 B.C.). This period is characterized by a moister and warmer climate and the emergence of an oak-hickory forest. The settlement pattern during this period displays specialized sites and increasing cultural complexity. The exploitation of the diverse range of animal and plant resources continued with an increasing importance of aquatic resources such as mollusks and fish (Snow 1980). In addition to projectile points, the tool kits of Middle Archaic peoples included grinding stones, mortars, and pestles. Such artifacts have been found throughout Staten Island, including the Old Place and Wards Point sites (Boesch 1994).

Late Archaic people (c. 4000 - c. 1000 B.C.) were specialized hunter-gatherers who exploited a variety of upland and lowland settings in a well-defined and scheduled seasonal round. The period reflects an increasingly expanded economic base, in which groups exploited the richness of the now established oak-dominant forests of the region. It is characterized by a series of adaptations to the newly emerged, full Holocene environments. As the period progressed, the dwindling melt waters from disappearing glaciers and the reduced flow of streams and rivers promoted the formation of swamps and mudflats, congenial environments for migratory waterfowl, edible plants and shellfish. The new mixed hardwood forests of oak, hickory, chestnut, beech and elm attracted white-tailed deer, wild turkey, moose and beaver. The large herbivores of the Pleistocene were rapidly becoming extinct and the Archaic Indians depended increasingly on smaller game and the plants of the deciduous forest. The projectile point types attributed to this period include the Lamoka, Brewerton, Normanskill, Lackawaxen, Bare Island, and Poplar Island. The tool kit of these peoples also included milling equipment, stone axes, and adzes. A large number of Late Archaic Period sites have been found on Staten Island. These include the Pottery Farm, Bowman's Brook, Smoking Point, Goodrich, Sandy Brook, Wort

Farm, and Arlington Avenue sites. In addition, the Old Place Site contained a Late Archaic component (Boesch 1994).

During the Terminal Archaic Period (c. 1700 B.C. - c. 1000 B.C.), native peoples developed new and radically different broad bladed projectile points, including Susquehanna, Perkiomen and Orient Fishtail types. The use of steatite or stone bowls is a hallmark of the Terminal Archaic Period. Sites on Staten Island from the Terminal Archaic Period include the Old Place site, as well as the Pottery Farm, Wards Point, and Travis sites (Boesch 1994).

The Woodland Period (c. 1000 B.C. - 1600 A.D.) is generally divided into Early, Middle and Late Woodland on the basis of cultural materials and settlement-subsistence patterns. Settlement pattern information suggests that the broad based strategies of earlier periods continued with a possibly more extensive use of coastal resources. The Early Woodland was essentially a continuation of the tool design traditions of the Late Archaic. However, several important changes took place. Clay pottery vessels gradually replaced the soapstone bowls during the Early Woodland Period (c. 1000 B.C. to A.D. 1). The earliest ceramic type found on Staten Island is called Vinette 1, an interior-exterior cordmarked, sand tempered vessel. The Meadowood-type projectile point is a chronological indicator of the Early Woodland Period.

Cord marked vessels became common during the Middle Woodland Period (c. A.D. 1 to c. 1000 A.D.). Jacks Reef and Fox Creek-type projectile points are diagnostic of the Middle Woodland. Another characteristic projectile point of the early to Middle Woodland Period is the Rossville type, named for the site at Rossville where it predominated. It is believed to have originated in the Chesapeake Bay area and is found in New Jersey, southeastern New York and southern New England (Lenik 1989:29). The Early and Middle Woodland periods display significant evidence for a change in settlement patterns toward a more sedentary lifestyle. The discovery of large storage pits and larger sites in general has fueled this theory. Some horticulture may have been utilized at this point but not to the extent that it was in the Late Woodland period.

In the Late Woodland period (c. 1000 A.D. - 1600 A.D.), triangular projectile points such as the Levanna and Madison types, were common throughout the Northeast, including Staten Island (Lenik 1989:27). Made both of local and non-local stones, brought from as far afield as the northern Hudson and Delaware River Valleys, these artifacts bear witness to the broad sphere of interaction between groups of native peoples in the Northeast. Additionally, during this period collared ceramic vessels, many with decorations, made their appearance.

Woodland Period Native Americans in Staten Island and surrounding regions shared common attributes. The period saw the advent of horticulture and with it, the appearance of large, permanent or semi-permanent villages. Plant and processing tools became increasingly common, suggesting an extensive harvesting of wild plant foods. Maize cultivation may have begun as early as 800 years ago. The bow and arrow, replacing the spear and javelin, pottery vessels instead of soap stone ones, and pipe smoking, were all introduced at this time. A semi-sedentary culture, the Woodland Indians moved seasonally between villages within palisaded enclosures and campsites, hunting deer, turkey, raccoon, muskrat, ducks and other game and fishing with dug-out boats, bone hooks, harpoons and nets with pebble sinkers. Their shellfish refuse heaps, called "middens," sometimes reached immense proportions of as much as three acres (Ritchie 1980:80, 267). Habitation sites of the Woodland Period Indians increased in size and permanence. A large number of Woodland Period archaeological sites have been found on Staten Island in a variety of environmental settings. A favored setting for occupation during this period was well-drained ground near stream drainages and coastal waterways. The Old Place Site, which also had a Woodland component, exhibited all of these locational characteristics.

During the early Contact period (1500 to 1700 A.D.) there was a continuation of the Late Woodland settlement patterns of the coastal Algonquians. By the 17th century the Dutch settlers of lower New York were in frequent contact with the many Native Americans who lived in the vicinity. Historic accounts describe both peaceful and violent interchanges between these two groups (Brasser 1978, Flick 1933). Through at least the 1650s, Native Americans known as the Raritans occupied portions of Staten Island and New Jersey's Raritan Valley (Ruttenber 1872). The Raritans were but one of many native groups which as a whole were known as the Delaware Indians by the European settlers. As the European population increased, and internecine warfare due to increased competition for trade with the Europeans intensified, the Raritans, and the Delaware in general, retreated inland away from the eastern coast. By the 1800s their migration had scattered them across the Mid West and even into Canada (Weslager 1972), where they have continued living to the present day. Journal accounts by European explorers,

settlers and travelers describe Native settlements and lifeways. However, only a few Historic Contact Period sites have been found on Staten Island. Sites include those at Wards Point, Old Place, Corsons Brook, Travis, New Springfield, and at the PS56R Site in Woodrow (Boesch 1994; HPI 1996).

B. Previously Recorded Archaeological Sites and Surveys

Records on file at the NYSOPRHP and the New York State Museum as well as the Boesch (1994) *Archaeological and Sensitivity Assessment of Staten Island, New York* indicate that numerous precontact sites have been documented within one mile of the project site. The following table summarizes archaeological sites that have been documented by the NYSM, the NYSOPRHP, and by Boesch (1994) within a one mile radius of the project site (within New York; sites on the New Jersey shore that fall within one mile of the project site were not reviewed). In some cases, the sites appear to have been recorded duplicate times, often obtaining several different site number designations. Where the duplication was obvious, the sites and their attributes are combined into one listing in the table. Of note, NYSM site locations and descriptions often are vague, due to the fact that many of these sites were documented based on non-professional records (such as information from local landowners, avocational collectors, or historic accounts); descriptions and distances of these sites from the project site are given based on available mapping and other data, but should not be considered definitive.

NYSOPRHP Site # and Site Name	NYSM Site # and Site Name	Distance from project site	Time Period	Site Type
	NYSM #4596 Bloomfield	Vague location; see below	Unknown Precontact	Camps
	NYSM #4598 Long Neck Sites	Circa 0.3 mile southeast	Unknown Precontact	Camps? Hamlets? Middens?
	NYSM #4627 Chelsea 2	Circa 0.1 mile north	Unknown Precontact	Camps
	NYSM #7324	Circa 0.4 mile northeast	Transitional	Isolated point?
	NYSM #8323	Circa 0.1 mile south	Unknown Precontact	Unknown
	NYSM #8501	Circa 0.2 mile northeast	Unknown Precontact	Camp
	NYSM #8502	Circa 0.1 mile east	Unknown Precontact	Traces of occupation
	NYSM #8503	Circa 1.0 mile northeast	Unknown Precontact	Camp
	NYSM #8504	Circa 0.7 mile northeast	Unknown Precontact	Traces of occupation
08501.000135	NYSM #746, 4597; Chelsea Burying Ground	Circa 0.3 mile northeast	Archaic? Transitional?	Burying Ground

Several of the archaeological sites listed in the table are worth describing in further detail.

Bloomfield Site

The first mention of the Bloomfield archaeological site is from the Skinner (1909) publication, which summarized precontact period sites on Staten Island:

Bloomfield (Watchogue). There is no special large village site in this region, but relics occur more or less abundantly on all of the dunes and sand-hills. A stone plummet (?), grooved axes, Iroquoian pottery, pipes, arrow points, etc. have been found here. Mr. Isaiah Merrill has a fine

collection of objects said to have been collected about here, among which is a steatite bead. An inscribed clay bead, with incised figures, is also said to have been found here. This site is peculiar on account of the scarcity of shell pits and similar remains. Relics occur almost entirely as surface finds. Celts have been found. A fine perforated brass arrow point was found by the writer some years ago at a spot where Iroquoian pottery was frequent. Objects which seem to be gun flints, but are chipped from native yellow jasper, etc. were in the collection of Mr. Merrill. These seemed to the writer to be authentic, and it is possible that the Indians did manufacture these useful objects rather than buy the English flints from the Whites. The stone bead in Mr. Merrill's collection is of pink steatite – thick, square, and altogether remarkable. It is said that Mr. Merrill had at one time a "handful" of these beads; but when the writer viewed this collection, some years ago, only one remained. Other notable objects in his collection were a banner stone, fragments of others, and several celts (Skinner 1909:9).

According to historic maps, the property of Isaiah Merrill, who was interviewed by Skinner, was on the southwest corner of Bloomfield Road and Water/River Road. However, it appears that Merrill collected artifacts from various locations around Bloomfield, not just on his own property.

All subsequent references to this site derive from the original description (i.e. Parker 1920); no professional excavations ever occurred at this site and little new data were ever assembled beyond the Skinner description, above. The few bits of follow up information about this vaguely-defined site are from accounts in the local newspaper. Two *Staten Island Advance* articles noted that as late as 1934-1935, precontact period artifacts were still being found in Bloomfield. Local resident Marcellus T. Merrill found an "Indian Hatchet" on his farm property in 1934 (*Staten Island Advance* 11/20/1934). Merrill's property was on the west side of Bloomfield Road, two properties south of the road's intersection with Bloomfield/Decker Avenue. In 1935, the paper reported that high school students had befriended another Merrill family member, Orvil Merrill, who lived on Bloomfield Road, although the exact location was not given. He was quoted as saying he hunted for artifacts in sandy, "higher up" locations, but not in marshes. The students also were regularly collecting artifacts in Bloomfield at this time (*Staten Island Advance* 3/21/1935).

The last attempt to officially locate the Bloomfield site came in the early 1980s, when Edward Lenik undertook a development project just east of the West Shore Expressway, encompassing a portion of the former Bloomfield community. Despite a research strategy that included intensive archival work including comparison of historic and modern topographic maps, interviews with local residents, and a comprehensive field testing program, Lenik failed to find the Bloomfield site. He concluded:

The documentary references to the Bloomfield Site are vague and the community of Bloomfield or Watchogue is a general or ill-defined area. Furthermore, Skinner and Parker both describe Indian relics as being found on the surface of "dunes and sandhills" in the area (Skinner 1914: 102; Parker 1920:681). Such dunes and sandhills do not exist in this locality at the present time. The Bloomfield Site was undoubtedly destroyed by the construction of the West Shore Expressway, as well as by the continued development, utilization, and alteration of the landscape in the remaining portions of this former community (Lenik 1983:62).

Chelsea and Long Neck Sites

The Chelsea and Long Neck areas (the land surrounding modern day Victory Boulevard to the southeast of the project site) have had numerous precontact sites recorded in the vicinity. Skinner notes that there was a dune "with relics between Chelsea and Travisville." He also describes the Long Neck sites as having "scattered lodges" and a shell heap with pits, and additionally notes that "relics are found all over the end of the Neck, but nowhere abundant" (Skinner 1909:9). The NYSM sites that have been mapped for the Chelsea area likely represent more specific loci of the larger Chelsea and Long Neck sites.

Surveys

In addition to the previously documented archaeological sites, a number of cultural resources investigations have occurred within a one or two mile radius of the project site, although the project site itself has never been subjected

to an archaeological survey. Of note, although there is a recently erected cell tower on Lot 59, according to NYSOPRHP records, there was not an archaeological study performed prior to its construction (Mackey 2008).

Although the archaeological studies in the project site vicinity were completed for a variety of clients in a range of locational settings, several issues were addressed repeatedly in these reports and are worth reiterating here. Most importantly, archaeologists working in this part of Staten Island knew definitively that the area was once highly sensitive for precontact period sites. The sheer number of sites recorded in this vicinity is a testament to this fact. However, pinpointing the locations of precontact sites that had been previously recorded by amateur archaeologists, on the basis of historic accounts, or using data from early nineteenth century scholars such as Skinner or Parker proved to be difficult, and sometimes impossible. Often, locations or vicinities where sites were supposed to have been situated yielded no precontact materials, even where disturbance to the ground surface was minimal (e.g. Roberts and Stehling 1988). In other cases, modern construction and other earthmoving activities associated with recent development in the area rendered project sites too disturbed to recover any precontact resources, even if they had existed (e.g. Lenik 1983; Hunter and Liebeknecht 2003). Lenik (1983:63-64) summed up the frustrations of trying to pinpoint the location of the Bloomfield and Bulls Head sites this way:

In summary, the early twentieth century survey reports, which are often cited in cultural resource management studies, must be examined critically and with a great deal of skepticism. These early reports are often vague as to location, and frequently refer to collections long since gone or dispersed, or to hearsay reports. Such data must be carefully cross-checked and correlated with historical maps and present-day maps. The names, places, roads and sites often change or disappear entirely as time passes by.

In general, the only locations where precontact sites or artifacts in an undisturbed context have been documented have been north of Old Place Creek, where development through the late twentieth century has been less intense and intact soil horizons have survived (e.g. Payne and Baumgardt 1986; Louis Berger Associates 2005). In nearly all cases, these areas were upland landforms (generally terraces or hummocks) in close proximity to waterways. To date, the recent Goethals Bridge investigations provide the only example of precontact materials found in areas historically depicted as marshland in this part of Staten Island.

C. Historic Period Summary

Staten Island was the most sparsely settled portion of New York City during early Euro-American settlement. In 1630, while under Dutch rule, Michael Pauw purchased land from the Native Americans. Five years later, he sold it to the Dutch West India Company, which sold land rights to Pietersz De Vries in 1639. Native hostilities and Governor Kieft's War forced the abandonment of these settlements in 1643. In 1657, the Dutch repurchased the island. However, when the British gained control of the island in 1664, only a small group of settlers were present at South Beach on the northeastern shore.

In a 1690 treaty English Governor Lovelace extinguished all Native American rights to Staten Island. Labadist missionaries traveling through Staten Island in 1679 observed that "there are now about a hundred families on the island, of which the English constitute the least portion, and the Dutch and French divide between them about equally the greatest portion. They have neither church nor minister and live rather far from each other" (Dankers and Sluyter 1867:142).

While under British control economic activities focused on the raising of livestock, and oystering. Through to the 1830s, farming and fishing were the primary economic activities on Staten Island (WPA 1982: 600). Oystering developed into an extensive trade after about 1830, and continued through the nineteenth century (Leng and Delevan 1924:22).

Industrialization following the Civil War influenced the development of Staten Island. Industrial growth occurred along the north and northeastern shores. The Staten Island Rapid Transit railroad, located north of Old Place along the northern shore of the island, was in place by the mid-1880s, with the railroad bridge over the Arthur Kill opened in 1889 (Leng and Delevan 1924:24). Piped water and electricity were introduced on Staten Island in the 1880s and sewers in the 1890s (Leng and Delevan 1924:26-29). In 1916, water pollution became so bad that the Department of

Health condemned the oyster beds, effectively ending an era (Smith 1970:152). After this time, shipbuilding became the primary industry of Staten Island (WPA 1982: 601).

In the twentieth-century, Staten Island became tied to Manhattan through regular ferry service, and to New Jersey by a series of bridges – the Goethals Bridge in 1928, the Outerbridge Crossing in 1928, and the Bayonne Bridge in 1931. However, dramatic changes to Staten Island occurred only after the opening of the Verrazano Narrows Bridge in 1964, after which the island took on a suburban character.

D. History of the Project Site

The project site and what would later become the hamlet of Chelsea fall within an area originally situated between Daniel's Neck to the north and Long Neck to the south, and which was surrounded by marshland. According to a reconstructed map of colonial patents, a 120-acre parcel, including the project site and much of the surrounding Chelsea area, originally was granted to Jonissa Cronsoon in 1685, while the marshy areas were unpatented (Skene 1907).

The earliest known occupants of the Chelsea area were the Prall family, for which nearby Prall's Island is named. During the American Revolution, the area was known as Pralltown (Leng and Davis 1930). The Anglo-Hessian map of 1780-1783 (Figure 5) shows two structures attributed to Prall in the Chelsea area, one of the houses was located in close proximity to the project site, although the level of detail on this map makes it impossible to pinpoint the exact location.

By the mid-nineteenth century, when the 1850 Dripps map was published, the area containing the project site was known as Chelsea. A series of roads ran through the community, including what those now known as South Road and Meredith Avenue, and there were a number of structures depicted along them. The project site was part of land attributed to W.F. Carey, and contained one structure, along Meredith Avenue, on what is now Lot 91. A store was situated north of the project site, also along Meredith Avenue. Identical conditions were shown on the 1853 Butler map (Figure 6).

The 1857 Whiting and Dorr map (Figure 7) confirmed that the area of the project along Meredith Avenue was on firm ground, but that much of the remainder of the project site was within wetlands or marshlands. An extension of South Road (which formerly was located slightly south of the modern road alignment) ran south of the project site boundary (in the area now covered by the warehouse building on Lot 59) into the wetlands. It likely represented a small pier.

The 1859 Walling map, 1866 Colton map, and 1872 Dripps map showed similar conditions to the 1850 and 1853 maps, although did not show the same level of marshland as the 1857 map. The 1872 map indicates that W.F. Cary owned most of the land in and around Chelsea. The 1874 Beers map (Figure 8), the most detailed map to date showed the project site as part of a large parcel attributed to W.F. Cary. The portion of the project site along Meredith Avenue (here labeled Travisville Road) was shown as firm land and the remainder of the project site was depicted as wetlands. The structure shown on modern Lot 91 was illustrated here as well, with an L-shaped roadway leading from Meredith Avenue to the waterfront. The structure on Lot 91 continued to be shown on the 1890 U.S.G.S. map (Figure 9), which also noted two small creeks running from the shoreline through the project site and surrounded by wetlands.

Those historic maps from 1850-1890 that indicated property ownership all noted the project site attributed to W.F. Cary (or Carey). William Cary or Carey owned much of the land in and around the Chelsea hamlet, but appears to have lived elsewhere on Staten Island during this period. Cary does not appear as a Northfield resident in the 1850, 1860, 1870, or 1880 federal censuses, or in the descriptions of Chelsea in Staten Island histories, suggesting he was an absentee landlord who lived elsewhere. Residents of Chelsea who could be identified in the censuses lived almost exclusively in households headed by oystermen, farmers, or laborers, which were the most common professions on the west shore of Staten Island during this period. It is likely that any occupants of the house on the project site would similarly have been involved in the same kinds of work.

By at least the late 1890s, the property containing the project site had been sold to William T. Meredith, for whom Meredith Avenue is named. The 1898 Robinson map notes that Wm. T. Meredith owned a 38.83 acre parcel

containing the project site (as well as most of the other land formerly owned by Cary in Chelsea), and that there were now two structures along Meredith Avenue (here labeled Chelsea Road), the original nineteenth-century house shown on the earlier maps, as well as the house now standing at 346 Meredith Avenue. The paper street known as West Street was also shown on this map, albeit unnamed. The 1907 Robinson map showed nearly identical conditions to the 1898 map, except that a structure was shown within the West Street alignment, just north of the project site.

The 1911 Borough of Richmond Topographical Survey maps are some of the most detailed depictions of Staten Island ever made. For the project site, this map illustrates the two houses along Meredith Avenue shown on the nineteenth-century maps, as well as two outbuildings behind the earlier house, which is noted as a two-story frame building. The building formerly shown within the West Street corridor is not shown on this map, suggesting it may have been either short lived or recorded in error on the 1907 map. The 1911 map also shows the extent of the firm land and the wetlands within the project site (Borough of Richmond 1911; Figure 10). Elevations of the project site on this map range from 2-6 feet along Meredith Avenue where there was a small hummock of raised land, to 0 elevation or just below 0 elevation within the wetlands.

Sanborn insurance maps including the project site were published beginning in 1917. These maps were strikingly consistent in showing the two houses within the project site along Meredith Avenue with essentially the same details through the first half of the twentieth century, although because there was no development west of these houses the maps did not specifically depict the wetlands on the project site (Sanborn 1917, 1937, 1950). The western side of the project site appears to have been filled by the 1960s, although the earthmoving activities on this portion of the project site did not begin until the 1980s (U.S.G.S. 1947, 1966; New York City Planning Commission 1969).

By issuance of the 1962 Sanborn map, the original nineteenth-century house on the property had been demolished (although no demolition permit survives on file at the DOB for this action). A small automobile "office" had been erected on Lot 82, to the south of the now former house location. Sanborn maps through the mid-1980s continued to show similar conditions (Sanborn 1977, 1981, 1983). The 1986, 1989, and 1990 Sanborn maps noted that the area was used for an auto wrecking facility. In 1992 and 1996, the Sanborn map also depicted the one-story warehouse along the southern end of the project site. The cell tower on Lot 59 was installed in 2005.

The recently completed project site survey (Rajakaruna & Ettlinger, PC 2008, see Figure 2) illustrates the various buildings, both permanent and temporary, on and adjacent to the project site, as well as the contrast of the extreme topography stemming from the active fill material transfer station on Lot 59 and the very level gravel parking lot on Lots 82, 91, and 94.

V. CONCLUSIONS

A. Disturbance Record

Due to the lack of soil borings for the project site, the disturbance record must rely primarily on observations made during the field visit and comparison of historic maps with the modern site survey map.

There has clearly been significant filling on the project site, to reclaim the majority of the naturally occurring wetlands and create a firm and level surface for the gravel parking lot, which comprises Lots 82 and 91. Lot 94, which contains the extant house at 346 Meredith Avenue, also may have been filled to some extent. Lot 59 has been extensively filled and then significantly cut for the active fill material transfer station with the large borrow pit. The degree of grading that may have occurred over Lots 82, 91, and 94, in conjunction with, or prior to, filling activities, is unknown. It is anticipated that there is some unknown degree of disturbance to Lot 91 from construction and demolition of the former nineteenth-century house in that location.

B. Precontact Archaeological Sensitivity

The project site is located in an area where numerous precontact period archaeological sites have been recorded. In its original state, the project site contained a strip of firm ground parallel to what is now Meredith Avenue, and low-lying areas and marshland adjacent to a perennial drainage to the south that emptied into the Arthur Kill. As noted by Louis Berger Associates (2005), some inland areas depicted on historic maps as marshland appear to have been

dry enough at times to support precontact occupation. Finding sites within marshland is rare, however, and nearly all the precontact sites in the vicinity have been recorded on top of elevated hummocks, generally above the 10-foot contour line. These conditions suggest that in its natural state, the area of the project site formerly on firm ground may have had a higher precontact archaeological sensitivity than the lower marshy areas. However, based on the degree of grading, filling, construction and demolition on the project site, detailed above, the likelihood that any precontact resources could still remain on the project site may be lessened.

B. Historic Period Archaeological Sensitivity

The portion of the project site along Meredith Avenue supported a structure by at least 1850 (and probably earlier), which was not demolished until the early 1960s. Sanborn maps indicate that the building was a dwelling, although specific occupancy of the house during the nineteenth century remains unknown. However, based on the similarity of residents in the Chelsea area observed in the federal censuses for this period, it is highly likely that any occupants were in households headed by oystermen, farmers, or laborers, which were the most common professions on the west shore of Staten Island during this period.

The former house on the project site predated the introduction of municipal water and sewer service to this area by at least 35 years (and probably longer), leaving the residents to rely on private wells, cisterns, privies, and cesspools for their needs. Privies, wells, and cisterns, which are often filled with contemporary refuse related to the dwellings and their occupants, can provide important stratified cultural deposits for the archaeologist and frequently provide the best remains recovered on sites. Frequently, wells or cisterns would be located in reasonably close proximity to a residence, for use in washing or cooking (additional wells and/or cisterns might be located further away from a residence for other uses, such as watering livestock). Privies often were situated further away from the residence, for sanitary purposes. Portions of these shaft features are often encountered because their deeper and therefore earlier layers remain undisturbed by subsequent construction, and in fact, construction often preserves the lower sections of the features by sealing them beneath structures and fill layers. Wells would have been excavated as far as the water table, and cisterns and privies often were dug up to 10-15 feet below grade. Other commonly occurring but more fragile backyard remains include fence lines, paths, traces of landscaping and sheet midden scatter. The level of disturbance to the project site in this former yard area is unclear, but any grading and/or filling here would not necessarily preclude the recovery of shaft features, and it is possible that other subsurface features, such as sheet middens or former outbuilding foundations, could be preserved as well if disturbance is not extensive.

Identifying and examining buried features associated with the nineteenth century occupation of the project site may reflect the daily activities of the residents and provide insight into cultural behavior of this very homogenous population. If undisturbed deposits of cultural material do still exist in this location, they may have the potential to provide meaningful information regarding the lives of the people who lived there. When recovered from their original context and in association with a specific historical occupation, historical deposits can provide a wealth of information about consumption patterns, consumer choice, gender relations, ethnicity, economic status, and other important issues.

VI. RECOMMENDATIONS

Based on the conclusions outlined above, HPI recommends that a program of Phase IB archaeological testing be undertaken in the former rear yard of the nineteenth-century house along Meredith Avenue (Figure 11). This testing would determine the presence or absence of both possible precontact resources on the project site, and nineteenth-century shaft features associated with the former house on the property. Field testing would involve using a backhoe to remove the gravel parking area surface and any underlying modern fill in order to ascertain whether any natural surfaces that may have contained precontact archaeological resources, or historic period shaft features, still exist on the project site.

Last, all archaeological testing should be conducted according to OSHA regulations and applicable archaeological standards (New York Archaeological Council 1994, NYSOPRHP 2005; LPC 2002; CEQR 2001). Professional archaeologists, with an understanding of and experience in urban archaeological excavation techniques, would be required to be part of the archaeological team.

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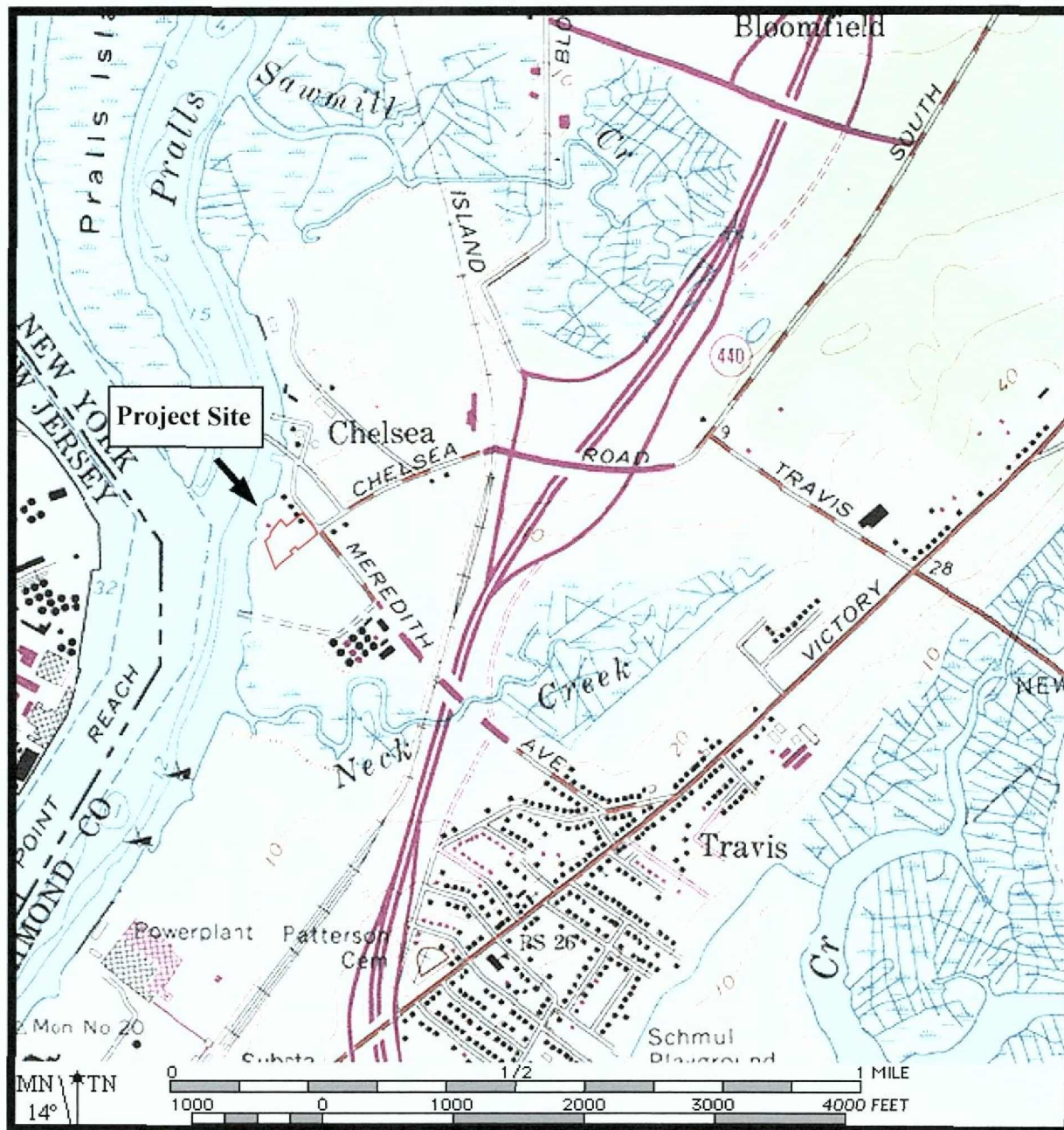
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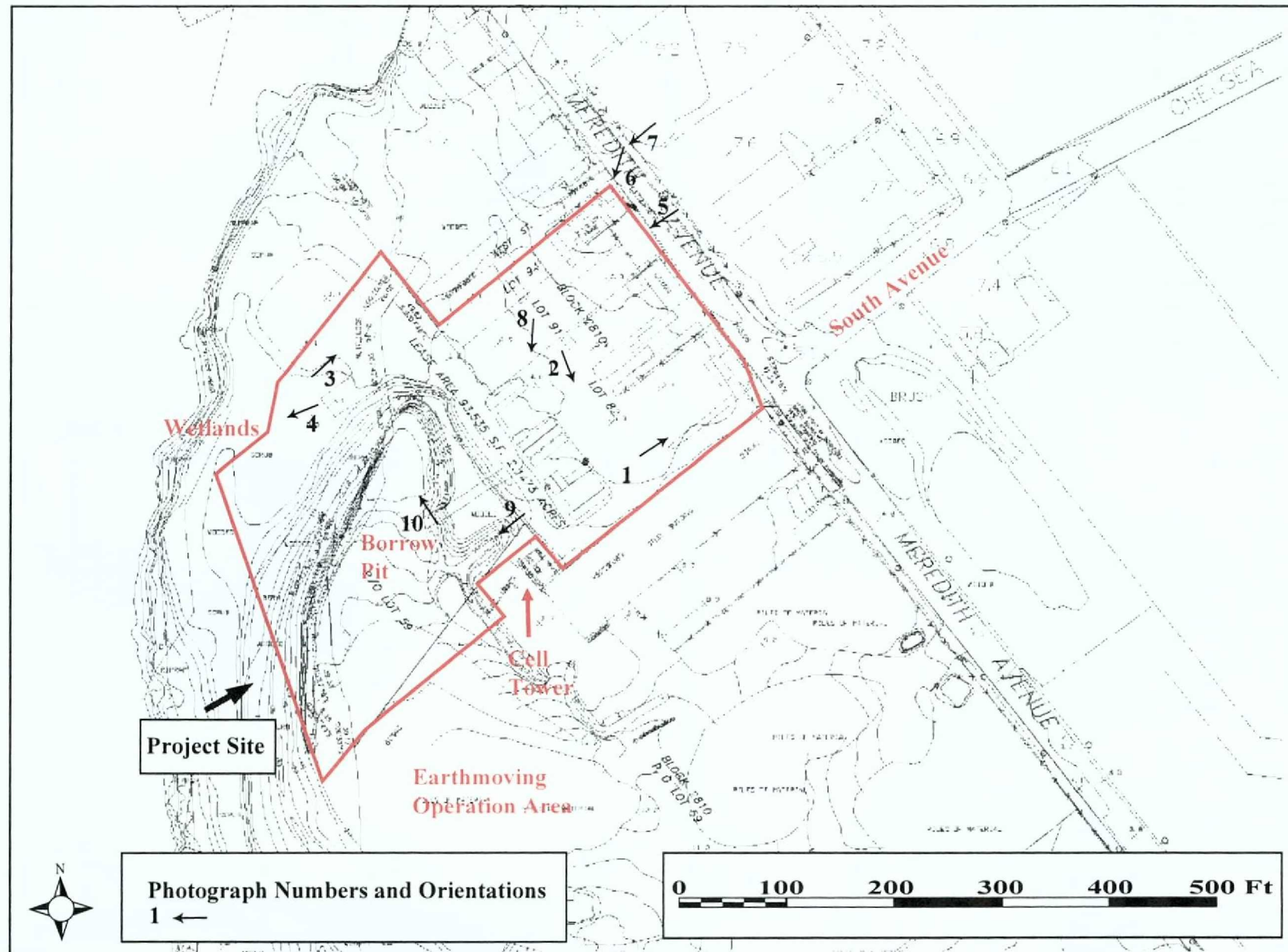
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Phase IA Documentary Study
 Meredith Avenue Bus Depot Project Site
 Block 2810, Lots 82, 91, 94 and part of 59
 Staten Island, Richmond County, New York



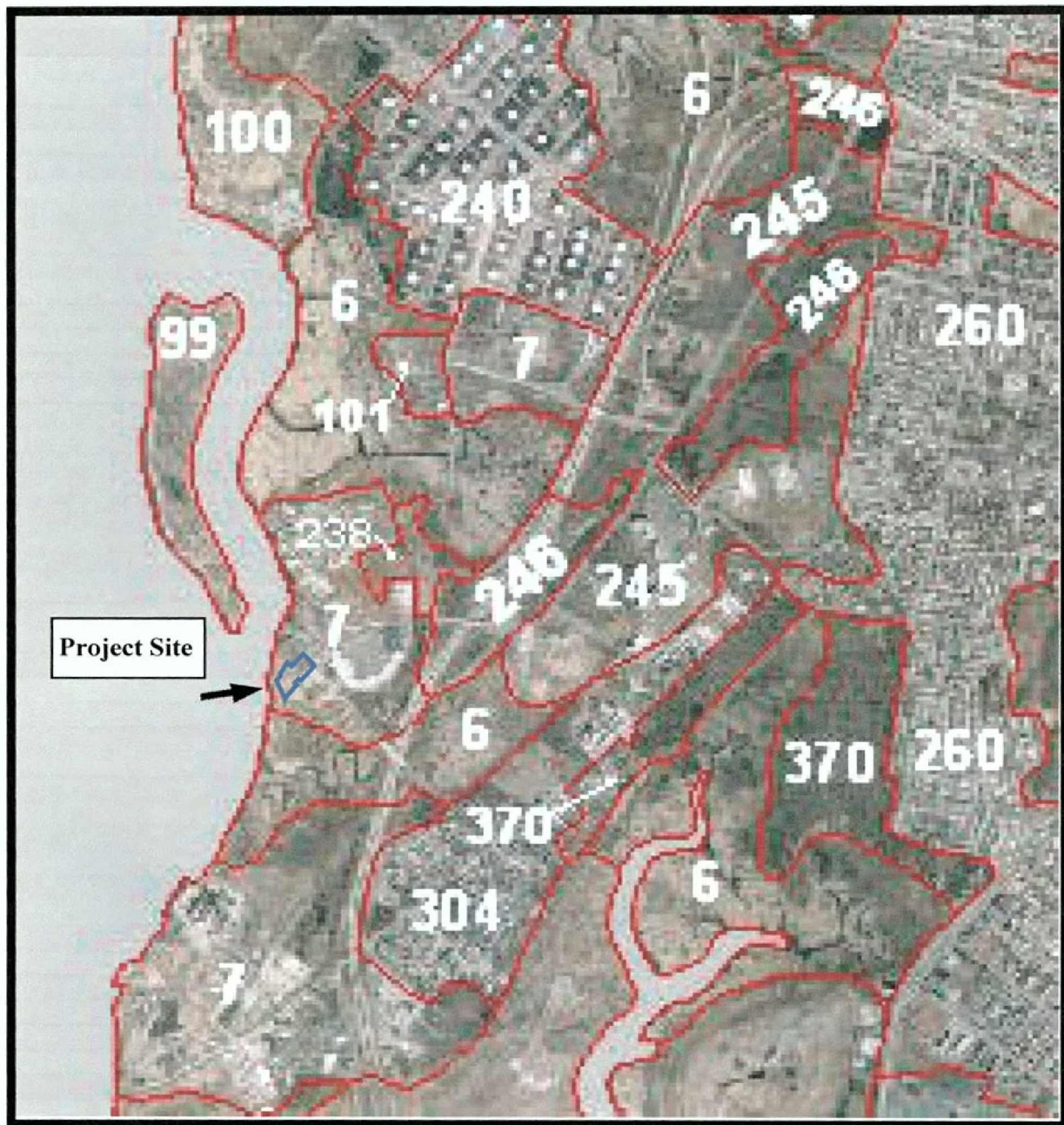
Figure 1: Project site on *Arthur Kill*, N.Y.-N.J. topographic quadrangle (U.S.G.S. 1976).



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Block 2810, Lots 82, 91, 94 and part of 59, Staten Island, Richmond County, New York

Figure 2: Project site, lot boundaries, and photograph locations on modern survey map (Rajakaruna & Ettlinger, PC and HPI 2008).



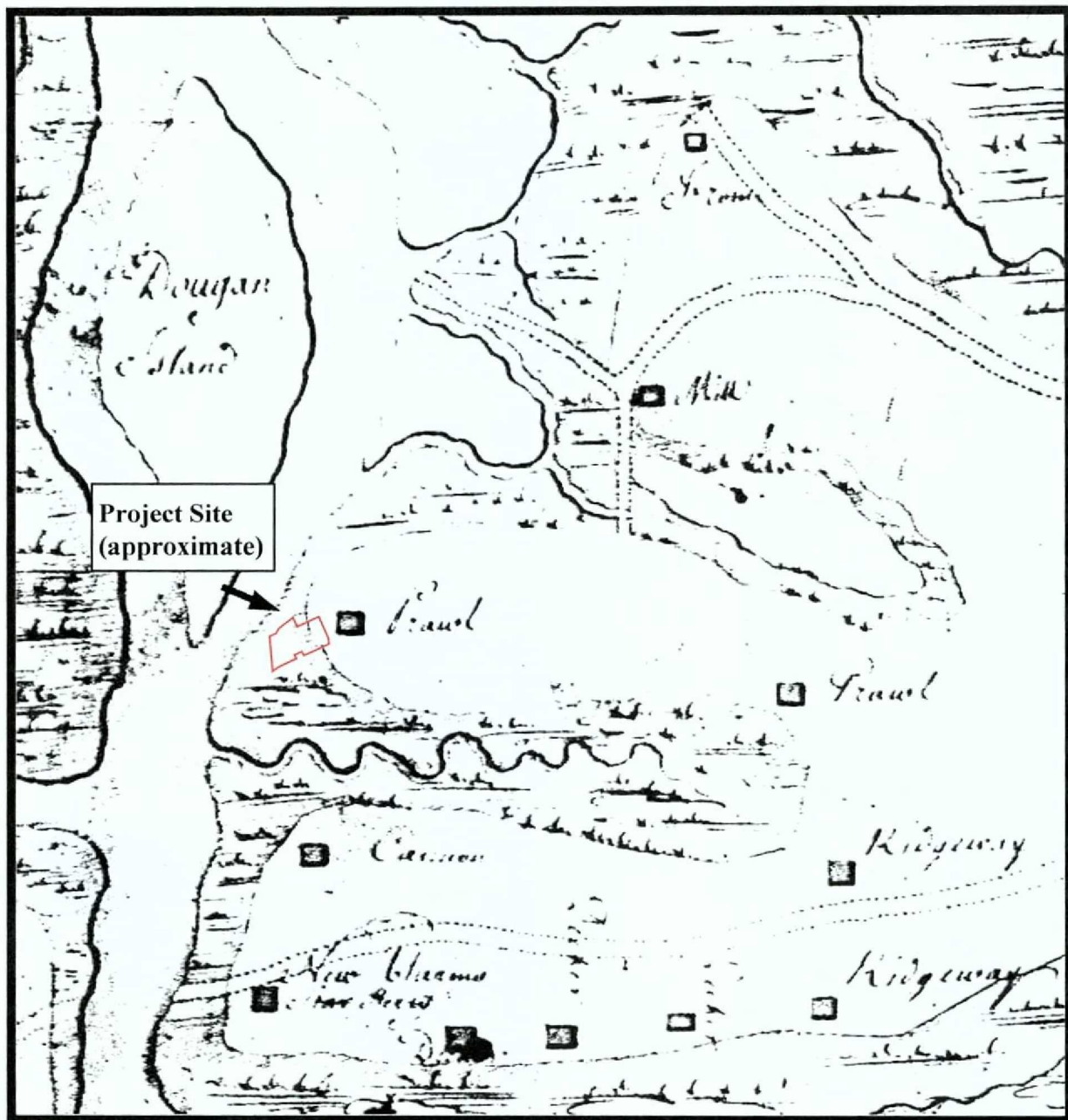


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Figure 4: Project site on *New York City Reconnaissance Soil Survey* (USDA 2005).

0 1000 2000 3000 4000 5000 FEET

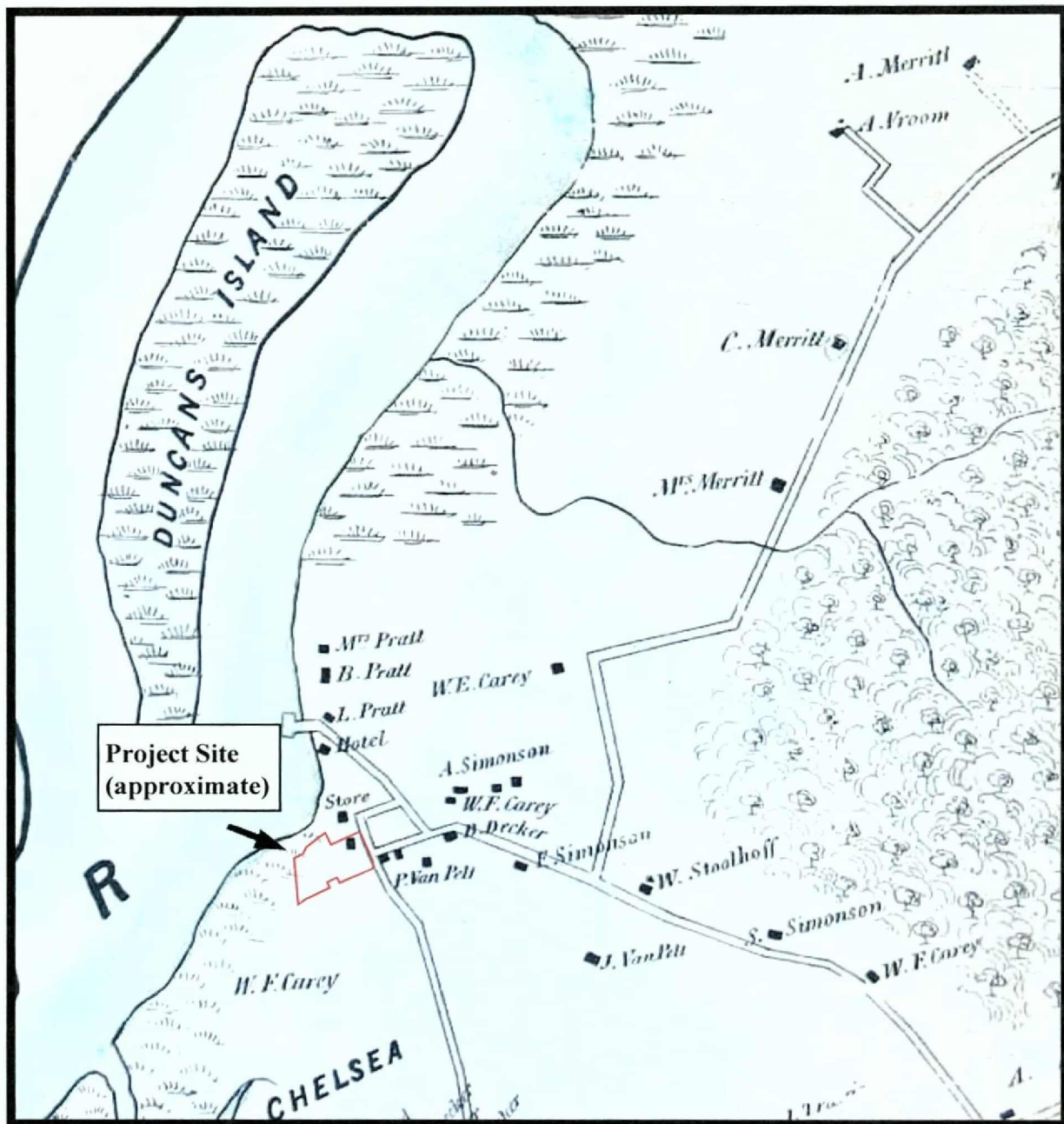


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Figure 5: Project site on *Plan (No. 31) du Camp Anglo-Hessois dans Staten Island, Baie de New York de 1780 à 1783* (Anglo Hessian 1780-1783).

No scale.

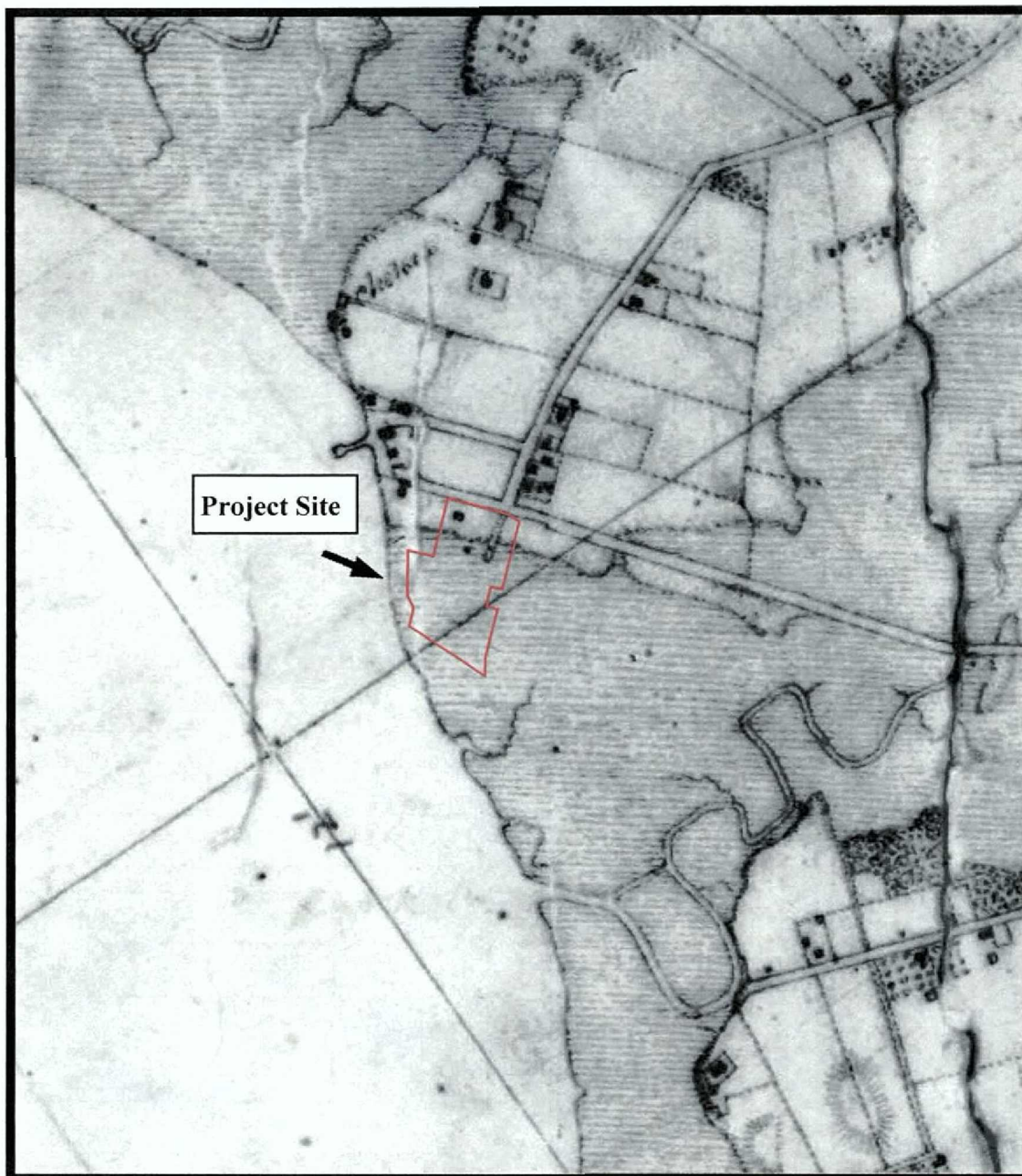


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Figure 6: Project site on *Map of Staten Island or Richmond County* (Butler 1853).

0 500 1000 1500 2000 2500 FEET

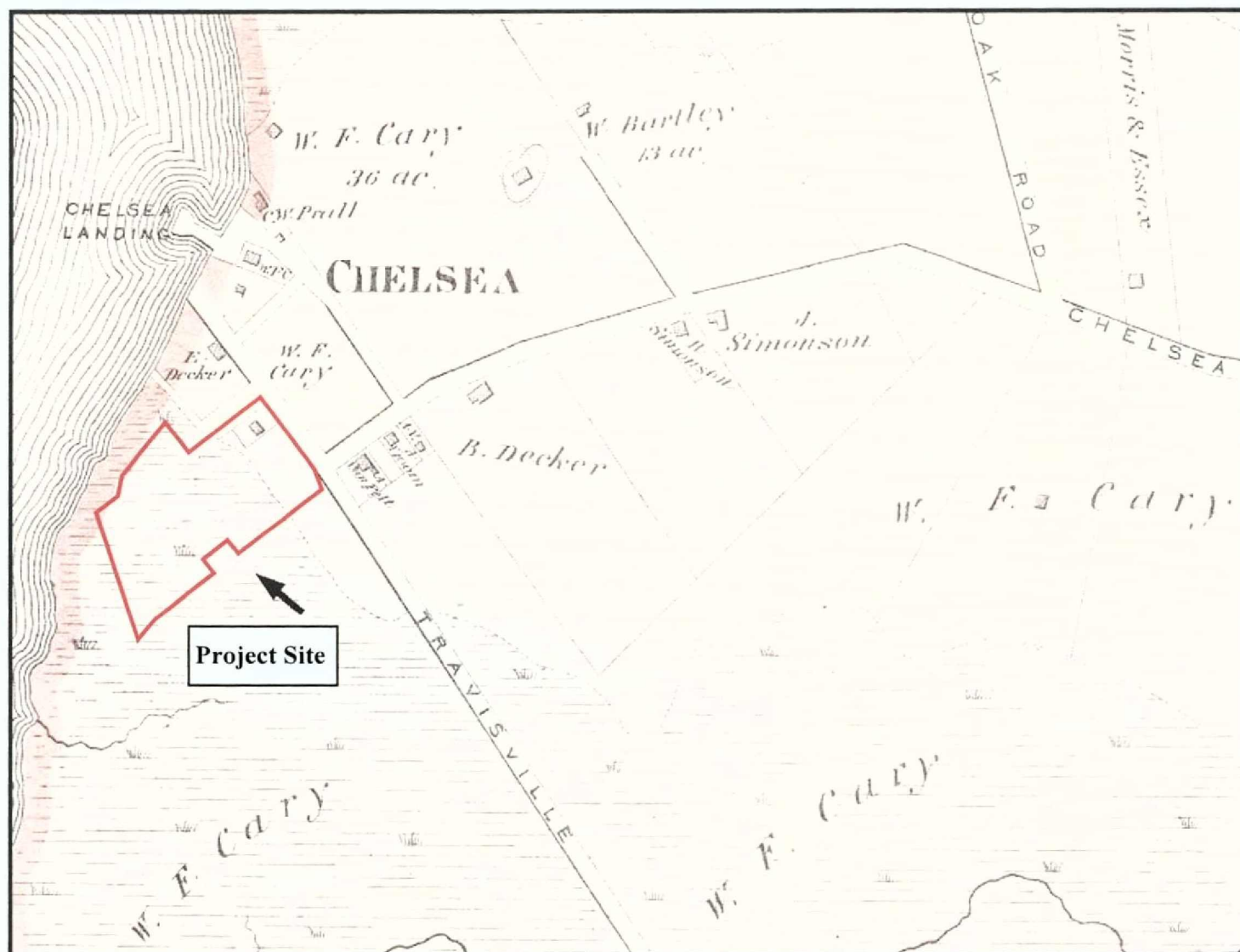


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Figure 7: Project site on Northwest Part of Staten Island and Bergen Point (Whiting and Dorr 1857).

0 250 500 750 1000 1250 Ft



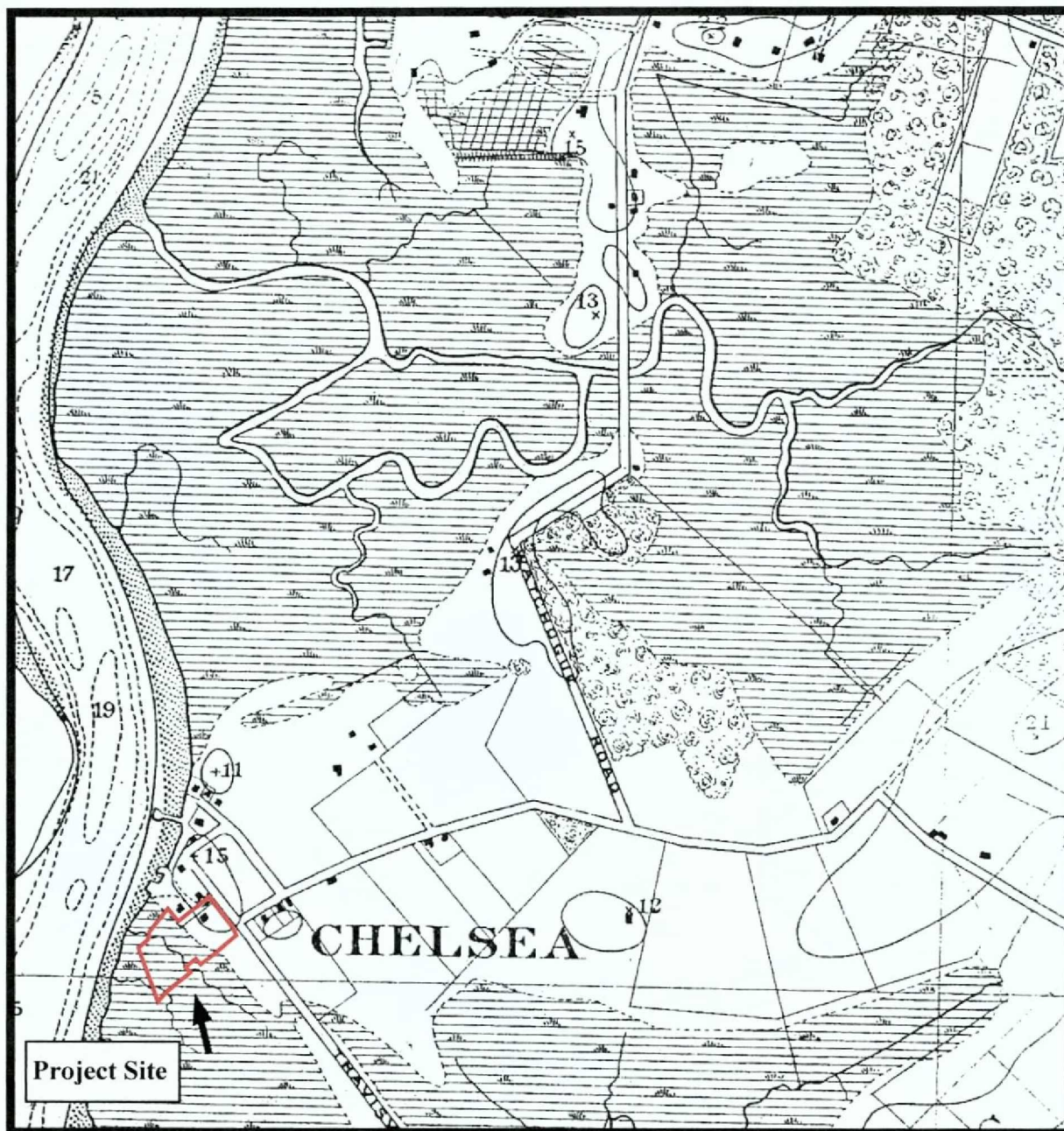
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0 200 400 600 800 1000 Ft



Figure 8: Project site on *Atlas of Staten Island, Richmond County, New York* (Beers 1874).

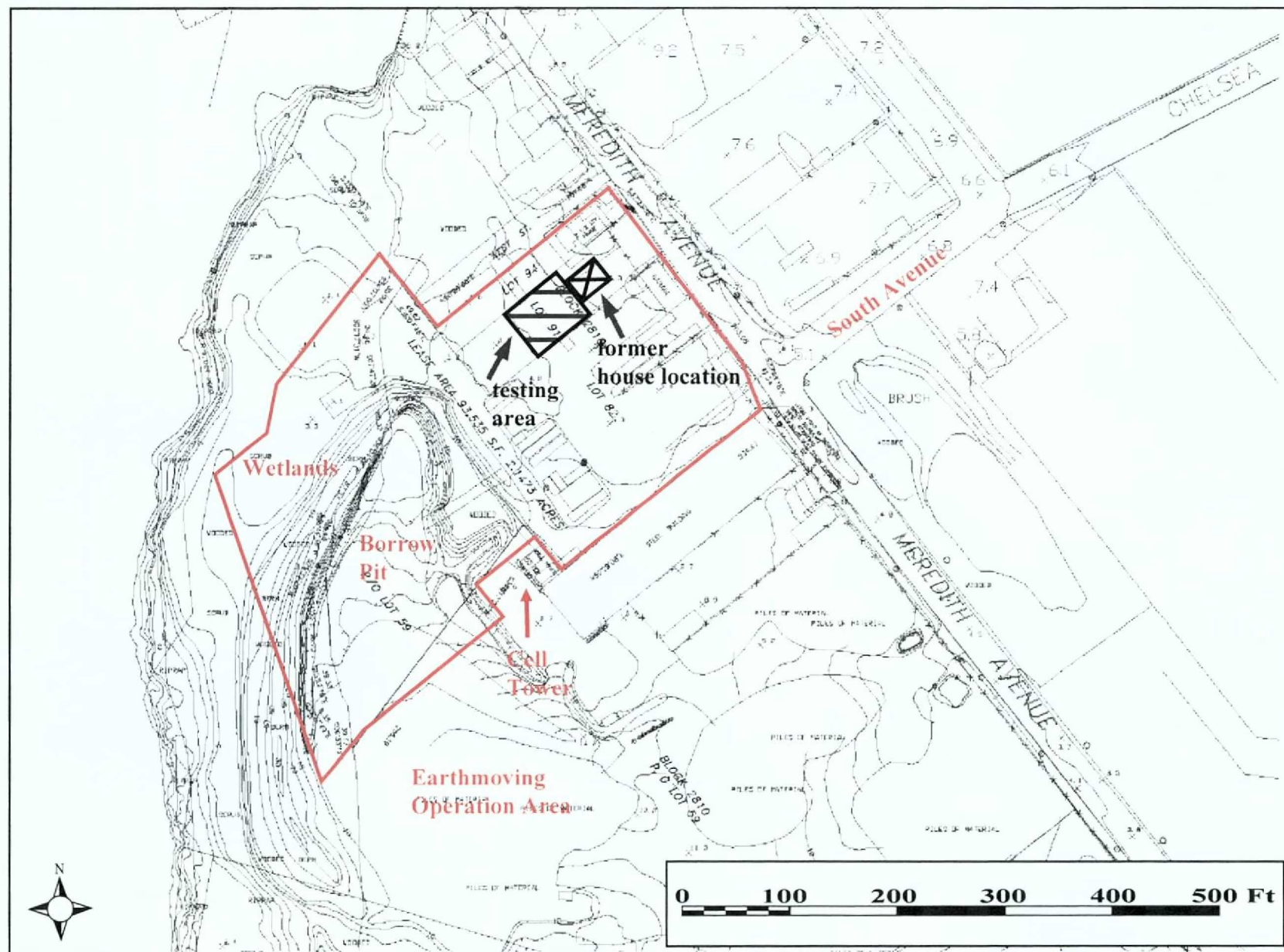


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 Staten Island, Richmond County, New York



Figure 9: Project site on *Staten Island, New York* 15 Minute Quadrangle (U.S.G.S. 1890).

0 500 1000 1500 2000 2500 FEET



Phase IA Archaeological Documentary Study, Meredith Avenue Bus Depot Project Site
Block 2810, Lots 82, 91, 94 and part of 59, Staten Island, Richmond County, New York

Figure 11: Project site showing archaeological sensitivity and proposed Phase IB testing area on modern survey map (Rajakaruna & Ettlinger, PC and HPI 2008).





Photograph 1: Entrance to auto wrecking facility on Lot 82, with storage building on Lot 59 to right and Meredith Avenue in background. View looking northeast from interior of Lot 82.



Photograph 2: Gravel parking area on Lots 82 and 91, showing temporary trailers and garage. Storage building on Lot 59 is in background. View looking southeast from interior of property.



Photograph 3: Northwestern side of project site, showing gravel parking area and vegetation on Lot 82. House on Lot 94 is in right background. View looking northeast from interior of property.



Photograph 4: Wetland vegetation beyond edge of gravel parking lot, at northwest side of Lot 82. View looking southwest from interior of property.



Photograph 5: Lot 91, now part of the gravel parking lot. Lot 94 (grassy area) is on right. View looking southwest from Meredith Avenue.



Photograph 6: Extant house dating to 1890s at 346 Meredith Avenue. West Street is grassy area on right. View looking southwest from Meredith Avenue.



Photograph 7: West Street, now covered with grass, bordering northwestern side of project site. View looking southwest from Meredith Avenue.



Photograph 8: Cell tower on Lot 59, with active fill material transfer station in far background. View looking south from interior of property.



Photograph 9: Large borrow pit and high berm on Lot 59. View looking southwest from boundary of Lot 82 with Lot 59.



Photograph 10: Rainwater collected at northern end of large borrow pit on Lot 59. View looking northwest from interior of Lot 59.