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Phase 1A Archaeological Documentary Study

Saint Elizabeth Ann's Health Care and Rehabilitation Center Expansion

91 Tompkins Avenue Stapleton, Richmond County, New York

Prepared for:

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A. PROJECT OVERVIEW

AKRF, Inc. has been retained by Saint Vincent Catholic Medical Centers of New York (SVCMC) for environmental services in connection with the proposed addition to the existing Saint Elizabeth Ann's (SEA) Health Care and Rehabilitation Center ("SEA Center"). The existing building is located at 91 Tompkins Avenue on the east side of the avenue between Tompkins Street and Vanderbilt Avenue in the Stapleton section of Staten Island (Figure 1). The archaeological Area of Potential Effect (APE) for the proposed project includes Block 534, Lot 120, on which the SEA Center is situated; a portion of Lot 150 (formerly part of Lot 1), an adjacent parking lot; and a portion of Lot 88, currently occupied by the New York Foundling Hospital (Figure 2). The project would require a special permit from the City Planning Commission (CPC) pursuant to Section 74-90 of the Zoning Resolution, which applies to any development, extension, enlargement, or change in use to all nursing homes and health-related facilities in Community Districts 1 and 2 in Staten Island. Granting this permit is a discretionary action which requires review under City Environmental Quality Review (CEQR). CPC will serve as lead agency during the environmental review process.

The SEA Center is a 228-bed Residential Health Care Facility (RHCF) although a total of 300 beds are licensed to the SEA Center by the New York State Department of Health. The additional 72 beds are neuro-behavioral beds located in a building on the adjacent Bayley-Seton Medical Campus owned by SVCMC. SVCMC has recently emerged from bankruptcy and while the sale of the Bayley-Seton Medical Campus to The Salvation Army is pending, the new owner does not intend to keep SEA as a tenant. In order to replace the 72 beds (which would otherwise be lost), SEA intends to build a 79,550-square-foot addition to the southern façade of the existing SEA Center on the site of an existing parking lot (Figure 3). This addition is expected to be constructed to a depth of between 6 and 12 feet. Approximately 2,000 square feet of the existing SEA Center would be renovated and eight of the RHCF beds would be converted to neuro-behavioral beds. In addition, a drainage system would be installed to the west of the existing SEA Center, within a grassy area bordering Tompkins Avenue. This would be installed at a depth of 4 to 8 feet below ground surface.

To replace the parking spaces currently located on the enlargement site and provide adequate parking for the enlarged facility, SEA purchased from SVCMC a 2.1 acre parcel adjacent to the SEA Center. This is currently in use as a parking lot however, as a result of its deteriorating condition, the parking area would be reconstructed. Portions of the parking lot will be graded to create an even surface and approximately 4 to 8 feet below the ground surface may be affected. The parking area contains the existing Chait building, also known as 75 Vanderbilt Avenue - Building 3 (soon to be known as 101 Tompkins Avenue) of the Bayley-Seton Medical Campus which is situated within its own tax lot, Lot 200 (formerly part of Lot 1). This structure houses two long-standing SVCMC congregate community residence programs and will not be affected by the proposed project. A road leading to the reconstructed parking lot would also be

constructed to extend an existing access road that connects Tompkins Avenue with the New York Foundling Hospital to the south of the project area within Lot 88. The majority of the road construction would extend to a depth of approximately 3 feet below ground surface, although in 1 or 2 to-be-determined locations, manholes will be installed which will extend to depths of 6 to 7 feet.

In 1990, in anticipation of the construction of the SEA Center, a Phase 1A Archaeological Documentary Study and Phase 1B Archaeological Investigation of the property (Lot 120) were completed by Clover Archaeological Services, Inc. A final report, Stage 1A and 1B Historical and Archaeological Investigation of the Bayley Seton Hospital Parcel, was prepared to document both the site's history and the results of archaeological testing which extended to a maximum depth of 2.6 feet. The report does mention the cemetery of the Seaman's Retreat Hospital, which was formerly located on the site of today's Bayley-Seton Medical Campus and which some sources suggest may have been located in the vicinity of the SEA Center. However, the report does not provide sufficient evidence to identify the presence or absence of human remains within the project site. The following Phase 1A Archaeological Documentary Study will attempt to identify the presence or absence of archaeological resources dating to the precontact and/or historic periods (including potential human remains) at depths greater than those studied by Clover Archaeological Services, Inc, in 1990.

B. RESEARCH GOALS AND METHODOLOGY

The following Phase 1A Archaeological Documentary Study has been designed to satisfy the requirements of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York City Landmarks Preservation Commission (LPC) and it follows the guidelines of the New York Archaeological Council (NYAC). The study documents the history of the proposed project area as well as its potential to yield archaeological resources including both precontact and historic cultural remains. In addition, it also documents the current conditions of the project area and previous cultural resource investigations which have taken place in the vicinity of the APE.

As part of the background research for this Phase 1A Archaeological Documentary Study, various primary and secondary resources were analyzed including historic maps and atlases, historic deeds, historic photographs, newspaper articles, local histories, building records, and utilities installation records. Information was accessed at many repositories, including the Humanities and Social Sciences branch of the New York Public Library (including the Main Reading Room, the Milstein Division of Local History and Genealogy, and the Lionel Pincus and Princess Firyal Map Division), the New York Historical Society, the Museum of the City of New York, the New York City Municipal Archives and City Hall Library, the National Archives, the archives of the Staten Island Institute of Arts and Science, the office of the Richmond County Clerk, the local history division of the Saint George branch of the New York Public Library, the Richmond County Topographical Bureau, the New York City Department of Environmental Protection Bureau of Water and Sewers, and the New York City Landmarks Preservation Commission, among others. Individuals from the organization Friends of Abandoned Cemeteries on Staten Island (FACSI) and the Staten Island Historical Society were also contacted.

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A. GEOLOGY AND TOPOGRAPHY

The geographic province in which the project area is situated is known as the Atlantic Coastal Plain (Isachsen et al 2000). The Atlantic Coastal Plain is composed of unconsolidated glacial sediments and the only location within the plain where bedrock is actually exposed is in Staten Island (NYSOFT 2004). The vicinity of the project area is characterized by Harbor Hill Moraine, a sedimentary rock dating to the Pleistocene (approximately 1.6 million to 10,000 years before present [BP]) while older Raritan formation sedimentary and Serpentine igneous rocks are located immediately to the north (Reeds 1925). The approximate depth to bedrock is more than 130 feet below the surface (75 feet below sea level), and the approximate depth to the water table is 35 feet (AKRF, Inc. 2007).

The island's physical setting was shaped by massive glaciers of up to 1,000 feet thick that retreated from the area towards the end of the Pleistocene. There were four major glaciations which began approximately 17,000 years ago and lasted until roughly 12,000 years ago when the Wisconsin period—the last glacial period—came to an end. During the Wisconsin ice age, a glacial moraine traveled southwest across Staten Island, resulting in the separation of the Atlantic Coastal Plain from the remainder of Staten Island, which is characterized by hard bedrock rather than glacial deposits (Reeds 1925).

The glacial movements also brought about the creation of hundreds of sand hills, or kames, throughout the New York City region, some of which reached heights of more than one hundred feet. These hills were contrasted by many small streams, rivers, and lakes that were fed by the glacial runoff. As temperatures increased, the small water courses were transformed into swamps and marshlands. However, historic maps and topographic surveys do not indicate that the shoreline near the project area was especially marshy. In addition, few water courses are depicted near the APE; a small stream is depicted on some early-to mid-19th century maps to the south of Vanderbilt Avenue and a small pond is depicted to the west of modern Tompkins Avenue, opposite the project area, only on Bien and Vermule's 1891 topographic atlas and Leng and Davis' 1896 map of Staten Island. That latter map also depicts several small ponds and a natural spring located to the south of the project area. The melting of the glaciers also caused the sea levels to rise by approximately 300 feet which subsequently caused the coastlines to recede between 60 and 90 feet, separating Staten Island from the mainland (Louis Berger & Associates, Inc. 2001).

The surface topography slopes down to the northwest from an elevated area to the southeast of the subject property. A topographical survey of Staten Island dating to 1907 (Figure 4) indicates that the maximum elevation, near the APE's southeast corner, was at approximately 73 feet above mean sea level (msl) while the minimum elevation, along modern Tompkins Avenue (then known as Centre Street) in the northwestern-most portion of the APE, was approximately 36 feet above msl. Current USGS maps indicate that the middle of the project area lies at an

elevation of approximately 60 feet above mean sea level, approximately the same as that seen in 1907.

B. PALEOENVIRONMENT

Due to the extended glacial period that left the Northeast blanketed in thick ice sheets for thousands of years, the area was not inhabited by humans until approximately 11,000 years ago. As temperatures increased, a variety of flora and fauna spread through the region. At this time, large open forests of spruce, fir, pine, and other tree species expanded across the Northeast, interspersed with open meadows and marshland. A wide variety of animal life could also be found, including large mammals such as mammoth, mastodon, caribou, musk ox, moose, as well as smaller mammals such as fox, beaver, hare, and many kinds of marine animals.

Climate changes continued to re-shape the environment of the Northeast as time progressed. As the climate grew increasingly warmer, jack pine, fir, spruce and birch trees were replaced with hardwood forests of red and white pine, oak, and beech (Ritchie 1980). By the time of the Early Archaic period, beginning approximately 10,000 BP, there was "considerable environmental diversity, with a mosaic of wetlands, oak stands, and a variety of other plant resources...[making it]...an attractive and hospitable quarter for both human and animal populations" (Cantwell and Wall 2001: 53).

Warmer temperatures forced the herds of large mammals to travel north before they eventually died out. The new surroundings attracted other animals such as rabbit, turkey, waterfowl, bear, turtles, and white-tailed deer. The expanded water courses became home to a variety of marine life, including many varieties of fish, clams, oysters, scallops, seals, and porpoises, among others (Cantwell and Wall 2001).

By 5,000 BP, sea levels were only a few meters away from their current locations (Hunter Research 1996) and the modern climate in the northeast was established by approximately 2000 BP (Louis Berger & Associates, Inc. 2001). By that time, the Native American population was flourishing in the area and had developed an intricate culture tied to the natural resources of the region (see Chapter III).

C. CURRENT CONDITIONS

The project is site located on the east side of Tompkins Avenue between Tompkins Street and Vanderbilt Avenue in the Stapleton section of Staten Island (Photographs 1 through 14). Two structures are currently located in the project area. The first is the SEA Center, a four-story brick and concrete building with a basement occupying most of Lot 120. The building contains patient and treatment rooms as well as administrative and lounge areas. Asphalt-paved parking areas are located to the north, south and southwest of the SEA building. Lawns are located on the site to the east and west of the building. The remainder of the lot contains a paved parking area, a small paved seating area and a small, hilly lawn at the bottom of which is a storm drain. The project site lot slopes up to the east.

The other structure located within the APE is Building 3 of the Bayley-Seton Medical Campus campus, also known as the Chait building, located within Lot 200. A relatively flat paved parking area surrounds this building, which is at a higher elevation than the SEA Center. The pavement contains visible cracks as well as utility manholes and storm drains. This portion of the project area is separated from the SEA Center by a chain link fence.

Two small structures are also located in the vicinity of the proposed easement. However, these appear to be temporary, 1-story outbuildings and they are not depicted on current Sanborn maps (Figure 2). The easement will extend an existing access road for a short distance through an area that is currently undeveloped and covered with grass, trees and brush.

A Phase 1 Environmental Assessment of the site completed by AKRF, Inc. in 2007 shows that the SEA Center and adjacent buildings are all connected to water, sewer, electric, and gas lines. An 8,000-gallon diesel storage tank is buried within the lawn near the northwestern corner of the SEA Center. It is connected to an emergency generator located in the building's basement. A potential underground transformer vault is also located within this western lawn, to the north of the underground storage tank. Finally, a liquid oxygen storage tank surrounded by a chain-link fence (visible in Photographs 1, 3, and 12) is located in the southeastern corner of Lot 120 in the location of the proposed building expansion. A similar storage tank is located to the east of the Chait Building, although it is not known is this if also used to store liquid oxygen.

D. PREVIOUS CULTURAL RESOURCE INVESTIGATIONS

Several previously conducted cultural resource studies within one half-mile of the project area indicate that the project area was situated within a region that has moderate to high sensitivity for the recovery of prehistoric and historic period archaeological resources (see Table 1). As mentioned in Chapter I, Lot 120 has been previously evaluated for archaeological sensitivity by Clover Archaeological Services, Inc. in 1990. In 2006, archaeologist Celia Bergoffen, PhD, completed a Phase 1A archaeological Documentary Study and Phase 1B Archaeological Testing of a site across Tompkins Avenue from the SEA Center project site (Block 556, Lot 100). This area was also identified as a possible location for the former Seaman's Retreat Hospital cemetery. Bergoffen completed extensive documentary research but could not confirm the presence or absence of human remains associated with the former hospital on the New 120th Police Precinct project site. Phase 1B Archaeological field testing associated with the project did not uncover evidence that any burials were present in that area and concluded that the likelihood of finding intact human burials within Block 556, Lot 100 was very low.

Table 1
Previous Cultural Resources Investigations Within 1 Mile of the Project Area

Project Name Location		Findings	Reference	
Stage 1A and 1B Historical and Archaeological Investigation of the Bayley Seton Hospital Parcel	Block 534, Lot 120	Phase 1A Documentary Study found the project area to be sensitive for the recovery of precontact and historic period archaeological resources. Phase 1B Testing did not identify any significant resources; excavations reached a maximum depth of 2.6 feet below ground surface.	Clover Archaeological Services, Inc. (1990)	
New 120th Police Precinct – Phase 1A and 1B Archaeological Investigations	Block 556, Lot 100	Phase 1A study recommended Phase 1B testing in order to determine the presence or absence of human remains on the project site. Phase 1B testing did not find evidence of a burial ground and no further archaeological investigations were recommended.	Bergoffen (July 2006, December 2006).	
Phase 1A Historical/Archaeological Sensitivity Evaluation of the Gateway Development Project	Along waterfront near Saint Mary's Avenue	A portion of the site determined sensitive for the recovery of prehistoric and historic period archaeological resources, Phase 1B testing recommended.	Greenhouse Archaeological Consultants (1988)	
New York Harbor Collection and Removal of Drift	Along waterfront near the Stapleton and Clifton sections of Staten Island.	Some areas in the river determined to be sensitive for the presence of precontact archaeological resources, though the project would not impact prehistoric cultural resources. Kardas and Larabee (1977) noted potential impact to historic resources and recommended further investigation.	Louis Berger and Associates (1983) Kardas and Larabee (1976, 1977)	
The Potential for Submerged Archaeological Resources in the Proposed Dredging Areal Surface Action Group Sources: The files of LPC	Along waterfront near the Stapleton section of Staten Island.	Project would not impact prehistoric or historic cultural resources.	Louis Berger and Associates (1985)	

A. INTRODUCTION

Archaeologists have divided the time between the arrival of the first humans in northeastern North America and the arrival of Europeans more than 10,000 years later into three precontact periods: Paleo-Indian (11,000-10,000 BP), Archaic (10,000-2,700 BP), and Woodland (2,700 BP-AD 1500). These divisions are based on certain changes in environmental conditions, technological advancements, and cultural adaptations, which are observable in the archaeological record.

B. PALEO-INDIAN PERIOD (11,000-10,000 BP)

As mentioned in Chapter II, human populations did not inhabit the Northeast until the glaciers retreated some 11,000 years ago. These new occupants included Native American populations referred to by archaeologists as Paleo-Indians, the forbearers of the Delaware—also called the Lenape Indians—who would inhabit the land in later years.

The Paleo-Indians most likely exploited all the different resources provided by their environment. It has been suggested that they did not only actively hunt the large mammals that roamed about the region (mammoths, mastodons, etc.), but they also hunted and trapped smaller animals and supplemented their diet with fish and gathered plants (Cantwell and Wall 2001).

There was a very distinct Paleo-Indian style of lithic technology, typified by fluted points. These were elaborately detailed stone points that would have been used for a variety of functions, most notably for hunting. They were often made of high-quality imported chert, but were also known to have been crafted from local materials. Other stone tools manufactured at this time included knives, scrapers, drills, and gravers. Wood, ivory, and other materials were also used for the manufacture of composite tools, such as hunting spears.

Archaeological evidence suggests that the Paleo-Indians were highly mobile hunters and gatherers. They appear to have lived in small groups of fewer than 50 individuals (Dincauze 2000) and did not maintain permanent campsites. In addition, most of the Paleo-Indian sites that have been investigated were located near water sources.

It is because of the close proximity of Paleo-Indian sites to the coastline that so few of them have been preserved in the New York City area. As glaciers continued to melt, sea levels rose and much of what was once adjacent to the water line became submerged. Of the few Paleo-Indian sites that have been discovered in New York City, nearly all have been found on Staten Island. One such site is that of Port Mobil, on Staten Island, to the southwest of the project area. Like most precontact sites, it is situated on high ground overlooking the water. Due to heavy disturbance in the area—it is currently an oil tank farm—the site has yielded nothing more than a collection of fluted points and other stone tools characteristic of the period (Ritchie 1980). Paleo-Indian artifacts were also found along the eroding shore line 500 yards south of the Port

Mobil site (Ibid) and at the Cutting site in the Rossville section of Staten Island (AKRF, Inc. 2003).

C. ARCHAIC PERIOD (10,000-2,700 BP)

The Archaic period has been sub-divided into three chronological segments, based on trends identified in the archaeological record which reflect not only the ecological transformations that occurred during this period, but the cultural changes as well. These have been termed the Early Archaic (10,000–8,000 BP), the Middle Archaic (8,000–6,000 BP) and the Late Archaic (6,000–2,700 BP) (Cantwell and Wall 2001). The Late Archaic is sometimes further divided to include the Terminal Archaic (3,000-2,700 BP).

The aforementioned environmental transformations included a continued post-glacial warming trend, the extension of hardwood forests, and a decrease in glacial runoff which resulted in the creation of lakes and other small bodies of water. There was a subsequent migration of new animal and plant species into the area, while the herds of large mammals traveled north, eventually dying out. The new surroundings attracted smaller animals, such as rabbit, turkey, waterfowl, and white-tailed deer.

As the Archaic period progressed and the number of plant and animal species inhabiting the area increased, the size of the human population did as well. In general, archaeologists have shown that Archaic Native American sites were most often located near water sources. The abundance of food resources which arose during this period allowed the Archaic Native Americans to occupy individual sites on a permanent or semi-permanent basis, unlike their nomadic Paleo-Indian predecessors. These individuals migrated on a seasonal basis within specific territories and consistently returned to and reoccupied the same sites.

The arrival of new food sources allowed the human population to expand their subsistence strategies and at the same time forced them to develop different technologies that would allow such resources to be exploited. Perhaps the most important of these developments was the advent of fishing technology, which occurred during the Middle Archaic in response to an increasing dependence on the area's marine resources. The new technology included hooks and stone net sinkers. In addition, the influx of nut- and seed-bearing foliage resulted in the development of stone mortars and pestles in addition to stone axes used to process plant material.

In order to successfully hunt the smaller game animals that had established themselves in the region, narrower spear points and knives were manufactured, along with weighted spear throwers. Domestic technology was advanced at the same time, with the development of a wider variety of hide scrapers and, later in the period, the introduction of bowls made from steatite or soapstone. Tools continued to be crafted in part from foreign lithic materials, indicating that there was consistent trade among Native American groups from various regions in North America throughout the Archaic period.

Rising sea levels coupled with the dominance of coniferous forests created a habitat that was ill-fitted to human habitation (Boesch 1994). Few Early Archaic sites have been identified in New York City. Most of those that have been identified are located on Staten Island; including Ward's Point, Richmond Hill, the H. F. Hollowell site, and the Old Place site. Sites such as Ward's Point—a domestic habitation location which due to lowered sea levels was originally inland—tend to be deep and stratified and have yielded stone tools related to cooking, woodworking, and hide processing. Many years of constant Native American occupation caused

the artifacts to be deeply buried under more recent debris deposits (Cantwell and Wall 2001). However, at the Old Place Site, the only artifacts which were discovered—stone tool assemblages—were found at relatively shallow depths of around 42 inches (3½ feet) (Ritchie 1980).

There are also few Middle Archaic sites in the region. The majority of these tend to consist of large shell middens, which are often found near major water courses such as the Hudson River, although stone points have also been found in such locations. These sites were in great danger of obliteration because of their proximity to the shrinking coastlines.

Unlike the Early and Middle periods, many Late Archaic sites have been found throughout the New York City area including many in Staten Island. Late Archaic habitation sites are often found in areas of low elevation near water courses and temporary hunting sites are often located near sandy areas (Boesch 1994). Late Archaic sites identified in Staten Island include the Pottery Farm, Bowman's Brook, Smoking Point, Goodrich, Sandy Brook, Wort Farm, and Arlington Avenue sites, among others (Ibid).

In addition, many Terminal Archaic sites from all across the city have provided examples of what archaeologists call the Orient culture, which is characterized by long fishtail stone points and soapstone bowls. There have been extremely elaborate Orient burial sites found on eastern Long Island, but none have been identified on Staten Island. Orient-style fishtail points have been discovered along the shores of Charleston, in southwestern Staten Island, it is assumed that they fell from eroding cliffs located nearby (Boesch 1994). In addition, most Richmond County sites dating to this period have been characterized by large shell middens (Louis Berger & Associates 2001).

D. WOODLAND PERIOD (2,700 BP-AD 1500)

The Woodland period represents a cultural revolution of sorts for the Northeast. During this time, Native Americans began to focus on a settled, agricultural lifestyle rather than one of nomadic hunting and gathering. Social rituals begin to become visible in the archaeological record and are represented by many elaborate human and canine burial sites. The first evidence of smoking has also been found—stone pipes have been uncovered at Woodland sites—and it was at this time that pottery began to be produced.

In general, there was a greater emphasis placed on composite tools during the Woodland period. While stone scrapers, knives, and hammerstones were still in use, there was an increased use of bone, shell, and wood in tool making. Furthermore, the development of bows and arrows revolutionized hunting practices. Fishing continued to be important to the local economy and wooden boats and bone hooks were often utilized (Historical Perspectives, Inc. 2005). Many tools were still made from imported materials, indicating that the trade networks established earlier were still being maintained (Cantwell and Wall 2001).

Pottery was introduced into Native American society early in the Woodland period and by the time of European contact in the 1500s, well-crafted and elaborately decorated pottery was being manufactured. Similar to the Archaic period, the Woodland has been divided into Early, Middle, and Late sections, which differ mostly based on the style of pottery which was produced at that time. Woodland pottery had simple beginnings; the first examples were coil pots with pointed bases, which were made with grit temper. These were replaced during the Middle Woodland period by shell-tempered vessels bearing a variety of stamped and imprinted decorations. As the

period drew to a close, the decorative aspect of the pottery was further augmented with the addition of intricate ornamental rims (Louis Berger Group 2004).

Woodland-era sites across North America suggest that there was an overall shift toward full-time agriculture and permanently settled villages. Archaic sites in New York City indicate that the Native Americans there continued to hunt and forage on a part-time basis. This was probably due to the incredibly diverse environmental niches that could be found across the region throughout the Woodland period (Cantwell and Wall 2001, Grumet 1995). Nevertheless, Woodland societies were considerably more sedentary than were their predecessors and there was, however, some farming of maize, beans, squash, and tobacco. The development of pottery, increasingly complex burial sites, and the presence of domesticated dogs are all consistent with sedentary societies, which have a close association with a particular territory or piece of land.

Woodland sites, like those of the Paleo-Indian and Archaic periods, are usually found alongside water courses. They were often occupied for long periods of time, although there was still some seasonal migration that may have left them unoccupied for brief periods throughout the year.

One Woodland period archaeological site that has been identified on Staten Island is the Bowman's Brook site, located along the island's northwest coastline. That site yielded a type of incised pottery which has since become known as the Bowman's Brook Phase. Sites with this particular type of pottery are most often located near tidal streams or coves and are usually associated with large shell middens and refuse pits, indicating long periods of occupation (Ritchie 1980). The Bowman's Brook site also contained several human and dog graves, as well as bundle burials (Cantwell and Wall 2001).

The Ward's Point site, located at the southernmost point of Staten Island, was also occupied during the Woodland period. Many Native American artifacts and elaborate burials with varied grave offerings have been uncovered there (Ibid).

E. CONTACT PERIOD (AD 1500-1700)

The Woodland period ended with the arrival of the first Europeans in the early 1500s. At that time, a division of the Munsee Indians known as the Raritan occupied southern Staten Island (Bolton 1975). They entered the area towards the end of the Woodland period (Boesch 1994). They referred to Staten Island as "Aquehonga Manacknong," possibly meaning "haunted woods," "bushnet fishing place," or "the high bank fort place" (Grumet 1981: 2). The name may have also referred to the village settlement at Ward's Point (Ibid). In land transactions with the Europeans, the island was also referred to as "Matawucks" and "Eghquaous" (Boesch 1994).

In 1524, Giovanni de Verazzano became the first European to view New York. However, Henry Hudson's expedition to New York in 1609 marked the true beginning of European occupation in the area. Hudson is rumored to have stopped at a spring, now known as Hudson's Spring, located near the corner of modern Vanderbilt Avenue and Shore Road, just a short distance southeast of the project area (Davis 1896). Hudson's arrival also marked the beginning of violent encounters with the Native Americans. Shortly after Hudson's men explored Staten Island, a skirmish ensued with the local Indians, resulting in the death of one of Husdon's crewmen.

Because of this incident, the Native Americans of Staten Island were extremely wary of Europeans. They even set up look-outs on tall hills in an effort to spot approaching ships so as to prevent such vessels from landing (Historical Records Survey 1942: xii). Although the land had been "sold" to the Europeans in 1630 (Grumet 1981), it was not until 1638 that a successful European colony, that of Olde Dorpe, could be established on the island. Violence between the

Native Americans and the Europeans would cause this village to be burned down and rebuilt several times throughout the contact period.

With the introduction of European culture into the indigenous society, the way of life once maintained by the Native Americans was thoroughly and rapidly altered. European guns, cloth, kettles, glass beads, and alcohol soon became incorporated into the Native American economy. The Native Americans began to suffer from the side-effects of European colonization: disease, alcoholism, and warfare. As land in other parts of New York City was sold off to the Europeans, many displaced Native Americans relocated to Staten Island to the point where "the Raritan consisted of a heterogenous assortment" of Native Americans from all over the New York metropolitan area (Grumet 1981: 45).

Native Americans at first maintained the village sites they had established near water sources. As their trade with European settlers intensified, they became increasingly sedentary. However, as the European population grew and required more land, the relationship between the two groups turned sour. Fierce wars broke out between the Dutch and the Indians. This was most intense during the early 1640s when Dutch Director-General William Kieft ordered many ferocious and unprovoked attacks on the Native population. While the Kieft war ended with a treaty signed in 1645, the Raritans did not agree to peace until 1649 (Grumet 1981).

The warfare was somewhat abated when Kieft was replaced by Peter Stuyvesant, who brought some stability to the area. However, the "Peach War" of 1655 caused more inter-cultural violence on Staten Island. After that war ended, the land was re-sold to the Dutch in 1657. The Native Americans were no match for the growing numbers of armed European settlers, and the natives agreed to sell what was left of their land on Staten Island in 1670, although some Native American villages remained until the early 20th century (Grumet 1981). In the land transaction recorded in 1670, the Native Americans sold all of their holdings on Staten Island in exchange for "four hundred fathom of wampum, thirty match coats, eight coats of dozens made up, thirty shirts, thirty kettles, twenty gunnes, a ffirkin of powder, sixty barres of lead, thirty axes, thirty howes, [and] fifty knives" (Bolton 1975: 73).

There are several Contact period archaeological sites that have been identified in New York City, including the aforementioned Ward's Point site on Staten Island (Grumet 1995).

F. PREVIOUSLY IDENTIFIED PRECONTACT ARCHAEOLOGICAL SITES

A review of the files at LPC, including precontact sensitivity models and previously conducted cultural resources surveys of projects in the immediate vicinity of the project area, showed that at least eight archaeological sites have been identified within a one mile radius of the APE (see Figure 5 and Table 2). In addition, LPC's precontact sensitivity model (Boesch 1994) indicates that the site is situated in an area that is expected to be moderately sensitive for the recovery of Native American archaeological resources.

The majority of the sites date to the Woodland period and many are small camp sites or locations where Native American artifacts were discovered. The closest previously identified site, the Clifton site (referred to as site "F" in Figure 5 and Table 2), located approximately 1,000 feet southeast of the project area, yielded a collection of Native American artifacts. Perhaps the largest and most well known site, Silver Lake, approximately .85 miles to the west of the project area (referred to as site "E" in Figure 5 and Table 2) consisted of several campsites where ceramic and lithic artifacts have been recovered.

Several Native American trails were formerly located in the vicinity of the project area. Grumet's map of Native American sites and place names suggests that one trail ran along the southern edge of the Silver Lake site, along the line of today's Victory Boulevard. Grumet's map depicts three Native American habitation sites surrounding Silver Lake. Another trail is illustrated along the approximate line of modern Richmond Road, although to the north of the Staten Island Expressway, it deviates from that path and appears to continue just north of the project area, terminating at a habitation site located along the shoreline. This trail is not, however, depicted on Bolton's 1922 map of Native American trails, on which Grumet's map is largely based, although it does appear as an early colonial road on some 18th century maps.

Table 2
Previously Identified Precontact Archaeological Sites Within 1 Mile of the
Project Area

Key			Approximate		Troject Area	
to Fig	Site Name	Relevant Site Number(s)	Distance from APE	Time Period	Site Type	
A	Tompkins ville	SIAAS: STD-PV, STD-T Boesch: 115	1 mile (5,280 feet)	Woodland	Small camp.	
В	Unnamed Site	NYSM: 4629 Parker: ACP-RICH-28 Boesch: 67	.75 miles (4,000 feet)	Woodland	Traces of occupation with many triangular stone points.	
С	Unnamed Site	SIAAS: STD-BS Boesch: 114	.38 miles (2,000 feet)	Woodland	Small campsite near intersection of Sands and Bay Streets.	
D	Pavilion/ Ward's Hill	NYSM: 28-23-8-8-8&9 SIAAS: STD-PV Boesch: 37	.57 miles (3,000 feet)	Precontact	Small site with lithic artifacts; exact location unknown.	
E	Silver Lake (Multiple Sites)	NYSM: 4613 SIAAS: STD-SL, STD-HSP Parker: ACP-RICH-23 Skinner: 19 Bolton (1975): 78 Boesch: 68	.85 miles (4,500 feet)	Woodland	Three campsites located around Silver Lake; ceramic sherds, shell middens, and lithic points have been found there.	
F	Clifton	SIAAS: STD-C Boesch: 103	.19 miles (1,000 feet)	Woodland	Native American artifacts.	
G	Fox Hills	SIAAS: STD-FH Boesch: 99	.75 miles (4,000 feet)	Precontact	Native American artifacts.	
н	Rosebank	SIAAS: STD-RB Boesch: 100	.95 miles (5,000 feet)	Precontact	Native American artifacts.	
1	Unnamed Site	<u>NYSM</u> : 6956	.38 miles (2,000 feet)	Precontact	Campsite.	
J	Unnamed Site	NYSM: 8972	.57 miles (3,000 feet)	Precontact	Unknown.	
Sources: Boesch (1994), Bergoffen (2006)						

A. STATEN ISLAND HISTORIC CONTEXT

As discussed in Chapter III, bad relations between the Dutch and the Native Americans had prevented the formation of a successful European settlement on Staten Island until the late 1630s. Even afterwards, peaceful relations between the two groups were not established until after the British had seized the colony in 1664. A large English population grew all throughout New Netherlands, and soon they outnumbered the Dutch, making it easy for them to seize the colony in 1664. Although the Dutch were able to re-take the colony, now known as New York, in 1673, they traded it back in 1674 for "the far more lucrative colony of Surinam" (Cantwell and Wall 2001: 181). New York would remain under British control for the next hundred years.

The exodus of the bulk of the Native American population beginning in 1670 made it easier for Staten Island to become a thriving part of the New York economy. Rumors of the island having been won for New York from New Jersey by Captain Christopher Billopp in a sailboat race are most likely false and there is no evidence to suggest that Staten Island was never considered to be a part of the New York colony (Botkin 1956). Without a substantial Indian presence, there were no longer any obstacles blocking the settlement of the island and Richmond County was officially established in 1683.

Under British rule, Staten Island's open farmland and vast coastline became essential for the production of agricultural goods and collection of marine resources for export to Manhattan. During the French and Indian War, which concluded in 1763, the colony's progress was both hindered and facilitated by the wartime economy. Although the region experienced the economic side effects of being at war, thousands of British armed forces were stationed throughout the New York City area, bringing money to the region while at the same time increasing its population. During this time, New Yorkers were not completely loyal to the English crown, and goods were secretly (and illegally) traded to French colonies via Staten Island's more secluded ports (Burrows and Wallace 1999).

Despite their questionable conduct during the French and Indian War, most colonial New Yorkers remained loyal to the British during the Revolutionary War. Staten Island proved to be a key asset during the latter confrontation. In 1776, unsuccessful peace negotiations were held at Captain Billopp's former house (now known as the "Conference House") at the southern tip of Staten Island. The British continued to use Staten Island as a rudimentary home base due to its strategic location (Historical Records Survey 1942). It was sufficiently close to both New York and New Jersey that British soldiers could easily be dispatched in the event of an impending battle. And, reminiscent of the activities of the Raritan Indians, the island's tall hills provided views essential to tracking ships approaching the city. However, the British troops stationed in New York City caused a great deal of trouble by burning farms and homes and stealing from private citizens. This resulted in horrible and brutal living conditions for many of Staten Island's civilians.

Despite New York City's loyalty to the British during the war, after the American victory the conversion to the new American government was relatively smooth. Land which had been previously owned by British loyalists was divided and sold, which brought about a surge in population and development in the outer boroughs, a trend which continued through the 19th century. In 1788, the island was officially divided into four townships, Castleton, Northfield, Westfield, and Southfield, where the project area is situated.

Between 1840 and 1880, the population of Staten Island nearly quadrupled. This surge was caused in part by the increasing population density in Manhattan, which drove many people to the outer boroughs. The region's prosperity caused the counties in the New York City region to become increasingly codependent, both economically and culturally. It was therefore suggested that the counties around New York Harbor be consolidated under the name New York City. Although there was some resistance from some Staten Island residents, it officially became a borough of New York City on New Year's Day, 1898.

As part of the city, Staten Island flourished throughout the 20th century. Increased mass transit connected all the boroughs and allowed more people to live outside of Manhattan while still having access to the city's varied resources. The remainder of the 20th century saw continued growth and increasing population density throughout Staten Island.

B. 17TH AND 18TH CENTURY SITE HISTORY

One of the earliest known maps depicting Staten Island is Vinckeboon's 1639 "Manatus Map." While this map shows the boroughs of Manhattan and Brooklyn as having multiple plantations and settlements, only one farm, that of David Pietersen de Vries, is depicted on Staten Island, along the island's northeast coast (Kouwenhoven 1953). As discussed previously, Native American resistance made it very difficult for the Europeans to settle the island. De Vries settlement was established in the Fort Wadsworth area, southeast of the project area, in 1637 (Tottenville Historical Society, n.d.) but was abandoned by 1641 as a result of conflict with the Native Americans (New York Public Library n.d.). However, after the exodus of Native Americans from Staten Island in 1670, settlements gradually grew there.

In the last decades of the 17th century, colonial land patents were granted to individual settlers. In 1680, Captain Cornelius Corsen II (originally Coursen, also spelled Corson), the grandson of Peter Corsen, a wealthy French Huguenot who arrived in New Amsterdam in 1612, was granted 60 acres of land in the vicinity of modern Port Richmond, to the northwest of the project area (Leng and Davis 1930). After this grant, Corsen "organized...a large investment company and received royal patents of large tracts" (Ibid III; 419).

Because they settled on Staten Island so early, the Corsens were "one of the oldest, and at one time, the most influential families" there (Clute 1877: 358). The family was granted two large plots of land in the late 17th and early 18th centuries: a 540 acre plot in 1687 and another plot of unknown size in 1713 granted to Christian Corsen, Cornelius II's son (Hubbell 1893). One of these grants may have included the project area, which was situated in one of the family's first farms (Leng and Davis 1930). The southern boundary of the Corsen farm was likely modern Vanderbilt Avenue, formerly known as Coursen Avenue, which passed through the former Corsen and Metcalfe farms (Morris 1898). In the Staten Island census of 1706, the first census taken in the region, 15 individuals with the last name Corsen, Corso, or Corson were recorded, more than nearly all other families (Appendix A).

The plantation on the northeastern coast of Staten Island remained in the Corsen family for generations and measured more than 500 acres by the time Cornelius Corsen V—born circa 1731 and a member of the New York Legislature from 1784-1785—inherited it (Leng and Davis 1930). Cornelius V and his wife, Nelly, had three sons, Cornelius VI, Richard, and Daniel, and a daughter, Jane (Ibid). Upon Cornelius V's death, his property was divided among his sons who each received approximately 165 acres (Ibid).

Records show that Richard Corsen was an ensign in the army in 1792, a lieutenant in 1797, and a captain in 1807 (Hastings 1901) and he went on to represent Staten Island in the legislature between 1816 and 1817 (Hubbell 1893). He appears in the first Federal census, taken in 1790, which indicates that he resided in the town of Southfield and that his household included, in addition to himself, 3 free white females, 1 free individual, and 1 slave. That census also lists Richard Corsen next to Nelly Corsen, his widowed mother, and Cornelius Corsen VI, his brother. In 1794, Richard Corsen and his wife granted a plot of land which included the project area to Cornelius VI, although the deed was not recorded until 1803 (Appendix B).

Although the Corsen family owned the project area during the 17th and 18th centuries, maps dating to the same time period do not depict much development in the area. Early 18th century maps of Staten Island, such as Henry Popple's map of 1733, depict nothing along the northeastern coast of Staten Island with the exception of a ferry which ran between Staten Island and Brooklyn at the Narrows, southeast of the project area. Jacques Bellin's 1764 map of Staten Island also depicts this ferry, as well as a small town or village labeled "Wets" to the northwest of the project area, although the inaccuracy of the map makes it difficult to determine exactly where this is. The map depicts a small road, possibly a precursor to modern Bay Street, running near the shoreline between the village and the ferry at the Narrows. Other ferries were depicted on various 18th and early 19th century maps in the vicinity of the project area. Multiple names for these ferries have been provided, including Watson's, Ducket's, Darby Doyle's, William Leake's, Cole's, and VanDuzer's Ferries, with ran near the intersection of former Richmond Road and Bay Street (Davis 1896). Ferry landings in the vicinity of the project area were located at the foot of modern Canal Street and Vanderbilt Avenue (Ibid).

Additional roads were constructed, and Joseph Des Barres 1776 map of British Army positions during the Revolutionary War shows that a road ran northwest-southeast in the vicinity of the project area but it does not appear to have a modern correlate. The map also depicts some type of military structure to the north of the project area near a fleet of ships. The map labels it "a," however the map's key does not identify it. It is possible, although it may be depicted too far south, that this represents the watering place located near modern Victory Boulevard and Bay Street (see Figure 6), where 32,000 British troops landed in 1776 (Dickinson 2004).

The first map to depict structures in the vicinity of the project area, or to associate the Corsen family with the property, is Loring McMillen's 1933 map of Staten Island during the Revolution (Figure 6). The map illustrates the home of C. Corsen (likely Cornelius) to the west of a shoreline road which was probably a precursor to modern Bay Street. However the structure's exact location is not shown, nor are any other buildings that may have been located on the farm property. No additional maps from the late 18th century depict the project area in significant detail. Although several maps suggest that ferries ran from various locations along the northeastern coast of Staten Island, the locations of these ferried are not consistent over time and it is not clear where the ferries were situated relative to the project area.

C. 19TH CENTURY SITE HISTORY

As previously mentioned, Cornelius Corsen VI was granted land which included the project area toward the end of the 18th century. Corsen appears in the 1800 Federal census alongside Daniel and Richard Corsen, his brothers. Cornelius VI also had a son named Richard who died ca. 1844, whose son was Cornelius Corsen VII, born ca. 1827 (Leng and Davis 1930). That year his household included in addition to himself, 4 children under the age of 10, two adult women between the ages of 26 and 44, and 8 slaves. He is also present in the 1810 and 1820 censuses, although with fewer household members and fewer slaves. The latter census showed that one member of the household, most likely Cornelius himself, was a farmer. Cornelius Corsen last appears in the Federal census of 1830, taken just a few years after slavery had been outlawed in New York State. The census shows that Corsen had 5 free individuals of African descent residing in his home at that time in addition to various family members.

The year before his death in 1832, Cornelius Corsen VI sold approximately 40 acres (although the original deed states that the property measured a little more than 36 acres) to the State of New York. At the time of the sale, the property was surveyed and a map was included with the deed (Richmond County Liber T, page 165). The map portrays the parcel of land involved in the transaction and depicts a single structure, the former Corsen farmhouse, to the east of the project area, along what the map refers to as the "Road to Quarantine," now known as Bay Street. The boundaries of the area included within the sale are marked on the 1907 Robinson atlas (Figure 7).

The State purchased the Corsen farm in order to establish a hospital to care for sick and disabled seamen. In 1797, the State had begun to collect a tax from all individuals entering New York Harbor (Zavin 1981). A similar tax had been passed in 1754 and the funds used to support quarantine hospitals, the first of which had been established on what is now Liberty Island (Moffat 1863). An additional quarantine hospital had been set up in northern Staten Island (north of the project area along the "Road to Quarantine" mentioned previously) in the early 19th century.

While the quarantine hospitals provided care for seamen, it was not year-round and was not exclusive to sailors (Ibid). There was insufficient medical care for seamen, who possessed "proverbial recklessness of health" and, as a result of their "habits of sensuality on shore...[and]...necessary exposure to the vicissitudes of different climate...[were]...as a class, more dependent than perhaps any other on hospital aid" (Seamen's Fund and Retreat [SFR] 1863: 7). Furthermore, the funding of the quarantine hospitals by the taxes paid by seamen entering the harbor was determined to be unjust, and in 1831, the "Act to Provide for Sick and Disabled Seamen" was passed to ensure that the money paid by the masters, mariners, and seamen entering the port went towards the care of their compatriots only (Morris 1898). As a result of this legislation, the Seamen's Fund and Retreat was established. The same year, Sailor's Snug Harbor was established in northern Staten Island to care for retired American Sailors (Leng and Davis 1930, Inskeep 2000).

By 1831, the Seamen's Fund had accrued \$12,197.68 with which the newly formed organization's Board of Trustees, which included then-mayor Walter Bowne, could purchase land to construct their new hospital and retreat (Moffat 1863). There were several possible locations for the new hospital, including another site in Staten Island and one in Brooklyn, however, the Corsen farm's "location of surpassing beauty and of commanding prominence"—not to mention its affordable price of \$10,000—were the deciding factors in choosing the location of the Seamen's Retreat (Ibid: 26).

Shortly after the land was purchased, the Seamen's Retreat requested proposals for the development of the property, including the construction of a new wharf, a new farmhouse adjacent to the former Corsen home, walls, barns, outhouses, fences, and wells (Moffat 1863, Zavin 1981). The old Corsen farmhouse was renovated and used as a hospital building until more suitable structures could be erected (Zavin 1981). The original buildings for the Seamen's Retreat were located at the eastern end of the property and several of the remaining acres were reserved as farmland which was used to grow food for the hospital's patients and staff (Ibid). The hospital officially opened on October 1, 1831 and 34 patients were brought there for treatment (Moffat 1863). A cemetery was located on the property as early as 1831; it is discussed in greater detail below.

The new building next to the Corsen farmhouse was completed by October 11th, but the high volume of patients during the Retreat's first month, 73 patients were treated, made it clear that additional facilities would be necessary (Moffat 1863). Construction began on a new brick hospital situated immediately east of the project area, at the top of the large hill on the site. The building was expected to be completed by January 1, 1832; however a fierce storm destroyed the nearly-complete structure. A replacement structure was erected in the same location and completed by June, 1832 (Ibid). This building, known as the "Hill Hospital," is depicted on the 1907 topographical survey of Staten Island (Figure 4).

In just a few short years, the Hill Hospital was also determined to be insufficient for the Seamen's Retreat's need. Between 1831 and 1835 more than 2,250 patients were treated at the hospital (SFR 1835-1844). The new building was only capable of holding 100 patients at a time and was later referred to as "a monument of somebody's folly" (SFR 1840: 12). In 1834 a new, larger hospital was constructed in the vicinity of the old Corsen farmhouse, along the waterfront. The structure is first depicted on a coastal survey maps dating to 1835-1856 and 1844, which also illustrate the new hospital near the waterfront but do not depict any other structures in the vicinity of the project area.

After remaining vacant for several years, the old Hill Hospital was converted into a lunatic asylum in 1841, at which time an oven was installed in the building's basement where the hospital's bread supply was baked and a fence was erected adjacent to the structure (Ibid). A fence is depicted to the west of the building on an early 20th century photograph published in Leng and Davis (1930) and while it may not be the original fence, it may be in the same location. The building was also used to house seamen of African descent, who were segregated from other patients (Zavin 1981). The structures are also depicted in more detail on an atlas of Staten Island published by C.H. Blood in 1845 (Figure 8). That map depicts several structures adjacent to the project area, including a "chapel" which may represent the Stapleton Union American Methodist Episcopal (A.M.E.) Church¹ (discussed in greater detail below) but does not depict any structures within the project area. The map also appears to depict some boundary lines within the Seamen's Retreat property, but it is unclear what these lines represent. In addition, a small road is depicted as running east-west though the southern half of the project area between a structure located southeast of the Hill Hospital and the open lands (probably used for farming) to the west.

In 1843, the Mariner's Family Asylum (MFA), an organization dedicated to the care of the mothers, wives, and daughters of seamen, was established (Leng and Davis 1930). The MFA

¹ The church is alternately referred to as the Stapleton Union African Methodist Episcopal Church.

was supported by surplus money from the Seamen's Fund (Morris 1898). Approximately 5 acres of the Seamen's Retreat property was sold to the MFA (Moffat 1863). In 1854 they were also granted a right-of-way through the Seamen's Retreat grounds until a public street could be constructed to provide access to the MFA (Mariner's Family Industrial Society 1854). In 1855 the newly-constructed MFA building, which is currently situated at 119 Tompkins Avenue, immediately south of the project area, was dedicated (Leng and Davis 1930). It is first depicted on James Butler's 1853 map of Staten Island (Figure 9). This structure is also depicted on several 19th century maps as the "Home for Old Ladies." The MFA owned the property for a long time, but in the late 1980s it became the New York Foundling Hospital, which it remains to this day. With the exception of the main MFA building, no structures appear to have ever been constructed on this property.

The 1853 Butler map, which is nearly identical to a map published by Matthew Dripps in 1850, appears to depict structures within the boundaries of the project area, however, this may be in error. Both maps illustrate three small buildings to the north and northeast of the old Hill Hospital which appear to have been situated in a portion of the project area where the proposed parking lot reconstruction will occur. However, the maps may depict the Hill Hospital too far to the north, making it appear that the other buildings were located within the project area. The structures were likely among those located to the south of Harrison Street and which are depicted on other maps as being outside the APE. A coastal survey dating to 1856 does not depict any structures within the project area.

The 1874 Beers map (Figure 10) is the first to depict modern Tompkins Avenue, then known as Centre Street, albeit as a proposed street. The 1887 Beers atlas (Figure 11) indicates that the street had been constructed. Both maps illustrate a Dead House—"a house or room for the temporary accommodation of dead bodies" (Sturgis 1905: 751)—on the Retreat property, which appears to have been situated immediately outside the APE in the rear of the Hill Hospital. The maps identify the Hill Hospital as a carpenter shop, although the layout of the buildings is somewhat inconsistent from that seen on other maps. The Dead House was constructed circa 1849, at which time the Retreat's superintendent asked the Board of Trustees to erect a dead house "separate from the hospital" (SFR 1843-1850); it was completed before 1854 (SFR 1854). Neither the 1874 nor the 1887 Beers maps depict any structures within the project area.

Around the mid-19th century, the number of patients being treated at the Retreat began to decline, and between 1854 and 1855, the number of patients dropped by almost forty percent (SFR 1882). The Retreat's annual report for 1864 suggested that this was because more men were joining the Navy rather than becoming merchant seamen, and were therefore treated at Federal marine hospitals rather than the State-controlled Retreat (SFR 1865). By the 1870's, the Retreat was "no longer self-sustaining" (Zavin 1981: 50) and the city took control of the Retreat in 1878 (Dickenson 2002). When the Seamen's Fund tax was declared unconstitutional in 1881 (Staten Island Advance 9/28/1935), the Retreat lost its funding and it was proposed that all but six acres of the property—the MFA's land—be sold off. Although advertisements offered the land in whole or in part (Brooklyn Daily Eagle 1882) in 1882, the entire property was sold by the State of New York to the Marine Society of the City of New York (Zavin 1981). The Marine Society leased the property to the Federal Government the following year (Leng and Davis 1930). The Federal government acquired the property to replace the marine hospital that was formerly located on Liberty Island but was removed upon the construction of the Statue of Liberty (Inskeep 2000). The U.S. Marine Hospital was one of the largest hospitals of its kind and it treated a great number of patients relative to other hospitals (Zavin 1985).

Although the 1887 Beers map should have depicted the change in ownership, it still refers to the property as the Seamen's Retreat and the 1898 Robinson atlas (Figure 12) is the first to refer to it as the property of the U.S. Marine Hospital (the lessees) and the Marine Society (the owners). While the 1898 Robinson map does not depict any structures within the project area, a Sanborn Insurance map from the same year depicts three small buildings in a portion of the project area, but the map does not depict the entire APE. The structures are all located in the area of the proposed parking lot reconstruction, to the west of the existing Building 3. One of these was a small, 1-story barn or shed situated along the northern boundary line of the portion of the APE which includes the proposed parking lot reconstruction. This barn or shed is located next to what may have been a proposed building outlined only with a dashed line. To the east of this, approximately 30 feet north of the former Hill Hospital, was another small, 1-story building. This may be a carriage house referred to in Zavin (1981) as being to the north of the Hill Hospital.

Although the purchase of the property by the Federal Government was recommended towards the end of the 19th century, the Marine Society did not sell the property until 1903 (Leng and Davis 1930).

D. 20TH CENTURY SITE HISTORY

As previously mentioned, the United States government formally purchased the portion of the former Seamen's Retreat property that was situated to the east of Tompkins Avenue, Early 20th century atlases continue to indicate that the area to the west of Tompkins Avenue remained in the hands of the Marine Society and the Mariner's Family Asylum. The 1907 Robinson atlas (Figure 7) does not depict any structures within the project area, although it does indicate that Quinn and Hill Streets were proposed to be extended through the project area. This construction does not appear to have taken place and a 1917 Bromley atlas depicts no discernible changes to the project area. A Sanborn Insurance map also dating to 1917 (Figure 12) similarly shows no development within the project area, although it, like the 1889 Sanborn, depicts the small structure to the north of the Hill Hospital. In addition, that map depicts a boundary line to the west of the Hill Hospital, suggesting that the area between the former Hill Hospital and Tompkins Avenue, a portion of which is occupied by the SEA Center property, had been designated as an individual lot. No structures are visible within the property now occupied by the SEA center on a photograph of the area taken circa 1910 (Figure 13) nor on a similar photograph taken circa 1918 (both on file at the Staten Island Institute of Arts and Sciences) although both photos depict the former Hill Hospital and its adjacent fence as well as several trees which would have been located within the project area.

In the 1930s, a new Marine Hospital structure was constructed adjacent to and southwest of the former Seamen's Retreat main hospital. In order to complete the construction, in 1931 the government purchased the vacant land to the south of the Marine Hospital— a 7 acre property known as "Vanderbilt's Lawn," after its original owner, Cornelius Vanderbilt (Davis 1896). This extended the Marine Hospital property as far south as Vanderbilt Avenue (New York Times 3/27/1931). Construction on the new hospital, which was to be the tallest building on Staten Island, began in 1933 and the building was scheduled to open in November, 1935 (Smith 1935). The new hospital is depicted on a Sanborn Insurance Map dating to 1937 (Figure 14). The building was extended in the late 1930s, when two wings were constructed on either side of the hospital (Staten Island Advance 7/30/1938).

The 1937 Sanborn map is the first to depict the Chait Building, designated on the 1937 map as Building 7 of the Marine Hospital property, while the former Hill Hospital is no longer present. The map shows that three additional buildings associated with the Marine Hospital were situated within the project area at that time. Two were 1-story storage structures located immediately to the east of the Chait Building. The third was a long rectangular building located adjacent to the MFA property in the southern portion of the project area. These three structures were all demolished by 1951, according to a Sanborn map published that year (Figure 15). A Sanborn map from 1962 depicts an additional structure located within the easternmost portion of the APE. It is still visible on current Sanborn maps, which identify it as a greenhouse, although no such building appears to be located on the property (Figure 2).

In 1951, the Marine Hospital system was reorganized and, because it was no longer exclusive to seamen, all former Marine Hospitals were renamed the United States Public Health Service Hospitals (Zavin 1981). While the hospital was well-known as one of the leading public health institutions in the area, or perhaps the nation—in the 1940s, doctors at the hospital discovered the use of penicillin to cure venereal diseases—by 1981 the Public Health Service Hospital system was disbanded by the government (Ibid). That year, the property was sold to the Sisters of Charity, founders of the Saint Vincent Catholic Medical Centers and it was renamed, the Bayley-Seton Medical Campus, after Saint Elizabeth Ann Bayley-Seton, who founded the Sisters of Charity in 1809 (New York Times 4/19/1959).

The project area remained largely vacant, with the exception of the aforementioned buildings, throughout most of the 20th century. In 1992, the Saint Elizabeth Ann's Nursing Home was constructed within the western half of the project area. The name was changed to Saint Elizabeth Ann's Health Care and Rehabilitation Center in 1996 (Gross 1996). Current Sanborn maps do not indicate that this structure has a basement; however, the Phase 1 Environmental Assessment of the SEA Center completed by AKRF Inc. in 2007 indicates that the building does have a basement. Archaeological field testing performed in conjunction with the SEA Center's construction identified 20th century refuse to a depth of almost 3 feet throughout most of the site (Clover Archaeological Services, Inc. 1990).

No additional developments appear to have occurred within the project area through the present time. The project plans (Figure 3) depict the presence of two small structures in the path of the proposed easement located within Lot 88, however, these appear to be small sheds and are not likely to have cause subsurface disturbance.

E. SEAMEN'S RETREAT HOSPITAL CEMETERY

The Seamen's Retreat maintained a cemetery on its grounds from its inception. The Retreat was "the last resort of the poor, afflicted mariner" and many of them were interred on the property after their death (SFR 1858: 6). The hospital's original death register shows that during the institution's first three months, 5 patients passed away from a variety of causes ranging from hepatitis to paraplegia. Shirley Zavin, a former member of the Research Department at LPC, noted that the original cemetery of the Seaman's Retreat was located "a relatively short distance west of the Hill Hospital" (1981: 3-19). If the cemetery was immediately to the west of the Hill Hospital, it is very likely that human interments were located within the project area.

Zavin also mentions that the cemetery was "nearly filled up" by 1837 at which time the Retreat's Trustees ordered the fence surrounding the cemetery to be moved 60-70 feet to the west to allow

for more burials (Ibid). However, the source of this information is unknown and could not be located.¹ It is possible that the information was present in a volume of the Trustees' minutes which no longer exists (the National Archives and Records Administration has Trustees' minutes dating between 1843 and 1850 on file but no minutes from earlier periods). Weekly reports made by the Retreat's superintendent between 1842 and 1844 mention that in August and September, 1842, laborers employed by the Retreat enlarged the cemetery and enclosed it with a fence. The cemetery appears to have been expanded yet again in 1847 (Zavin 1981).

In May, 1849, the Retreat's Visiting Committee, which made regular visits and made reports to the Trustees regarding the conditions of the Seamen's Retreat, presented a report before the Board recommending the removal of the burial ground. In their next meeting, the Board of Trustees agreed to remove the cemetery. An entry in the Trustees' minutes recommended that:

...the burying ground be changed from its present location and hereafter the interments be made at the extreme end of the grounds belonging to the Retreat. And the superintendent be instructed to have the headstones put up by order of the Trustees removed and the grounds leveled and seeded as far as practicable (SFR 1843-50).

Records show that between the Retreat's establishment in 1831 and the proposed removal of the original cemetery in 1849, approximately 1,294 individuals died at the Retreat and were presumably interred on the grounds.

It is not clear if the burials from the old cemetery were actually removed, but a new cemetery at the western end of the property was constructed shortly after the Trustees ordered it. In October, 1849, the Trustees' minutes show that the superintendent requested the construction of a fence around the new cemetery (SFR 1843-1850). The annual report of the Seamen's Retreat dating to 1854 mentions that the new burial ground had been laid out. The dead house is depicted on the 1874 and 1887 Beers atlases (Figures 10 and 11). It appears to have been located immediately outside the APE. The Retreat's annual report for the year 1880 mentions that a new Dead House was constructed that year "in the rear of the hospital" (SFR 1881: 14).

A road leading to the new cemetery from the rear of the hospital was constructed in 1851 (Zavin 1981). This may have been an extension of the small road which appears to be depicted on the 1845 Blood atlas and the road may be depicted on the 1856 coastal survey as well. The road is clearly depicted on the 1874 and 1887 Beers atlases, which depict the new cemetery location, as well. Both maps depict a large cemetery at the southwestern corner of the Retreat grounds (the 1874 map does not label the cemetery as such, but it depicts the area). A smaller cemetery is also shown on both maps just west of Center Street (modern Tompkins Avenue), opposite the Mariner's Family Asylum, outside of the APE. This cemetery was most likely associated with the Mariner's Family Asylum and may have been used by that organization exclusively (Salmon 2005). No burials from this cemetery are expected to have ever been located within the boundaries of the project area.

The index map to the 1887 Beers atlas depicts the entire area to the west of Tompkins Avenue as a cemetery, but this is likely in error, as the plate depicting the area in greater detail does not correspond. Bergoffen (2006a) mentions a cemetery list dating to 1910/1913 which indicates that the cemetery measured approximately 18.25 acres, or the whole portion of the Retreat property west of Tompkins Avenue. The list may correspond with the 1913 Map of the Borough

¹ Bergoffen (2006), despite attempts to contact Zavin, could also not identify the origin of this information.

of Richmond Showing Location of Cemeteries (on file at LPC) which suggests that the Seamen's Retreat cemetery was that large. However, there are no other indications that the Retreat's burial ground covered such a large area.

Several Retreat employees were involved with the care and maintenance of the cemetery. The Retreat's annual reports and the weekly reports of the superintendant all show that coffinmaking was among the many duties of the Retreat's carpenter while orderlies removed the dead "from the house to the examining room to the grave" and they also prepared the dead for burial (SFR 1854a: 21). The superintendant himself oversaw the cemetery in addition to the gardens and farms (New York Times 7/1/1871). The Retreat's bylaws stated that the Chaplain was to accompany the burials from the dead house to the hearse while the superintendent was in charge of the bodies to ensure that they were brought to the dead house and kept until they were put into the hearse (SFR 1854b). Chaplain's reports included within the Retreat's annual reports show that the Chaplain did preside over all funerals for those buried within the Retreat's cemetery (SFR 1874), but not for every individual who died at the Retreat. This indicates that not all were interred in the Seamen's Retreat Cemetery

In 1863, the Retreat's Physician-in Chief, Thomas Moffat, authored a history of the institution which was included in that year's annual report. In it, he said:

The cemetery of the retreat is located upon a knoll at the western end of the grounds, overlooking the bay and the city of New York. Here poor Jack finds a quiet resting place by the side of his comrades when his life of hardship, privation, and peril is ended. Funeral services are performed by the chaplain, who attends the remains to the place of interment (Moffat 1863: 60).

While the project area is situated upon a large hill, it is located in what would have been the center of the Seamen's Retreat property, not the western end. However, the topographical survey of 1907 depicts a large hill near the former western end of the property which reached a maximum height of 110 feet above sea level along Vanderbilt Avenue and 90 to 95 feet at the southern edge of the Retreat property. This is located within an area that is depicted as a cemetery on the 1887 Beers atlas. Because the maximum height of the land to the east of this area was 75 feet above sea level, it is possible that the area to the far west of the property could have provided the views mentioned in Moffat's description.

An additional description of the Retreat's cemetery was printed in the *New York Times* in 1871. It said of the cemetery:

When Jack lays his head down and casts anchor forever, his body is here treated with due ceremony beneath the shadows of the willows which cover the small cemetery of the hospital where the record of death and place of burial are entered in a book kept so well that a few days ago a woman from Chicago came to look after a brother she had not seen for years and was at once shown the spot where the body had laid for fourteen summers (New York Times 7/1/1871: 8).

The book mentioned in the article is unknown, but it may refer to the Retreat's death registry from the years 1831 to 1874, referred to above. The registry, however, does not indicate the

For example, the report for 1870 mentions that the Chaplain presided over 20 funerals, although 41 patients died at the Retreat that year. Similarly, in 1875, 23 patients died and the Chaplain presided over 18 funerals and in 1878, 29 patients died yet only 23 funerals were officiated by the Chaplain.

place of burial, although it does record the deceased's name, age, place of birth, cause and date of death, as well as other personal information. Furthermore, several maps, including the 1856 and 1860 coastal surveys and the 1907 topographical survey, depict trees or other vegetation at the far western end of the Retreat property and do not depict any tree growth in the vicinity of the project area. This may represent the willow trees referred to above.

In 1879, the Retreat's annual report mentioned that the cemetery "in the rear of the Hospital is in a sadly dilapidated condition. It has been used since the year 1831. Many of the graves are almost obliterated, and some of the headstones are broken, others defaced" (SFR 1880: 18). The report requested that a new iron fence be constructed around the cemetery to keep local boys and animals out of the cemetery and the Retreat grounds (Ibid). Similar comments were made in the annual report dating to the following year which suggested that the "graves...be re-mounded, headstones re-erected, and a substantial high iron fence erected around the property" (SFR 1881: 17). In 1881, the Retreat asked then-Governor Alonzo B. Cornell for monetary assistance, including \$1,500 to repair the cemetery and construct an iron fence around it, but the request was denied (Cornell 1881). However, the annual report from 1881 indicates that funding was provided "by reason of the return of another portion of the Hospital Fund from the State by the Honorable Legislature" and the money used to construct the iron fence (SFR 1882: 16).

The above quote appears to imply that the original cemetery located to the west of the Hill Hospital was never removed. However, no documentary evidence could be located which would indicate if the cemetery was removed. Bergoffen (2006a) suggests that because records show that the new cemetery had already been enclosed within a fence, the above quote was meant to request the construction of a fence around the old cemetery. However, the Retreat's annual report for 1879 mentions that local boys routinely stole wooden fence boards from the property, and it is entirely possible that the fence erected around the new cemetery was destroyed and its replacement is the one referred to above. In addition, although the 1879 report mentions that the cemetery was begun in 1831, this may reflect the age of burials that were moved from the old cemetery. However, in his report for 1869, the Retreat Chaplain stated that he had tried, "with partial success, to secure an attendance of all who were able to walk at the burial of their comrads [sic]," suggesting that the cemetery was in walking distance (SFR 1870: 20). Although the cemetery at the far western end of the grounds was less than half a mile from the hospital, this would have been a significant distance for ill patients, especially considering the hilly terrain, and it is possible that the older cemetery was, in fact, still in use.

The Retreat's cemetery, more likely the one located to the far west of the grounds, remained in use until the property was sold to the Marine Hospital. Afterwards, patients were interred at a variety of locations, including the New York City Farm Colony potter's field, the "Forgotten Acre" at Oceanview Cemetery, so named because of its neglected state, Hillside Cemetery, and Silver Mount Cemetery, among others. The Mariner's Family Asylum removed its burial ground to Moravian Cemetery in 1907 (Bergoffen 2006a).

Despite the entry in the Trustees' minutes which called for the burial ground to be removed and the land leveled and the fact that a new cemetery was established at the western end of the grounds, it cannot be said for certain that the remains from the original cemetery west of the Hill Hospital were removed. Human remains have been unearthed during construction on the

Much of the death registry, which is now on file at the National Archives and Records Administration's Northeast Region office, has been transcribed and is available online: http://www.rootsweb.com/~nyrichmo/facsi/facsi_cemeteries.shtml

Seamen's Retreat property on several occasions in recent years. An article published in the Staten Island Advance in 2003 noted that in the 1930s, when the main building of the Bayley-Seton Medical Campus was constructed "on the site of the [Retreat's] graveyard, many of the bodies were removed from the ground and reburied in the Bronx" (Lillis 2003: A9). The source of the article's information was a former hospital administrator and no other evidence was identified to indicate the disinterment of human remains during the construction of the main building.

Human remains were again encountered during the Construction of P.S. 14, located across from the project site at the northwest corner of Tompkins Avenue and Hill Street. According to Marjorie Johnson, a founding member of Friends of Abandoned Cemeteries of Staten Island (FACSI), a Staten Island group dedicated to the preservation of the area's cemeteries, the bones recovered from the school site were loaded into a truck and unceremoniously dumped into the bay before city officials arrived on the scene (Salmon 2005 and Johnson, personal communication). The school site is also west of the Hill Hospital, and the fact that human remains were discovered on the site confirms that the original Seamen's Retreat cemetery was located in the vicinity of the project area and that the human remains were not completely disinterred after the construction of the new cemetery to the west. Johnson also said that the cemetery was often the target of local teenagers who would search the graves for valuables and that many of the headstones were stolen and used to line the basements of houses in the Stapleton area.

Zavin (1981) mentions additional discoveries of human remains on the Seamen's Retreat property during construction in the 1960s. A comparison of Sanborn Insurance Maps dating to 1951, 1962, 1983, and 1990 shows that no new construction occurred within the project area or in the immediate vicinity during that time. However, multiple structures have been erected in the former locations of the cemetery at the extreme western end of the former Retreat property and in the vicinity of the former MFA cemetery.

Finally, Salmon (2005) states that additional human remains were discovered within the project area during the early 1990s. Salmon's source was a personal communication from Mamie Daniels, the historian of the Stapleton Union A.M.E. Church, the oldest African-American church on Staten Island and one of the oldest in the country (Inskeep 2000). According to Daniels, who did not witness the discovery of the bones, human remains were uncovered on the SEA Center property which is adjacent to the A.M.E. Church site during construction of the SEA Center (Daniels, personal communication 2007). The Stapleton Union A.M.E. congregation may date to as early at 1798 and as previously mentioned, the "chapel" depicted on the 1845 Blood map may represent this church. The church property has two known burials on its site, that of former pastor Bishop Isaac Barney and his wife; the graves date to the mid- to late-19th century (Salmon 2005, Daniels 2007). However, it is not known if the church ever had a more extensive cemetery. No documentary evidence has been identified to indicate that it did. In addition, historic maps do not indicate that the Seamen's Retreat expanded northward to occupy land formerly held by the church. Therefore, it is more likely that any remains discovered on the SEA Center property were originally part of the Seamen's Retreat Cemetery.

Bergoffen (2006a) attempted to find a successor organization to the Seamen's Retreat, but no such organization could be identified.

F. HISTORIC UTILITIES WITHIN THE PROJECT AREA

Water lines first appear in the vicinity of the project area on the 1898 Sanborn and Robinson maps, which illustrate a 6-inch water pipe running through Tompkins Avenue. A sewer is first depicted in Tompkins Avenue on the 1917 Bromley atlas. Sanborn maps from 1937 to the present depict a 6-inch water pipe running west-east through the northern half of the project area connecting the water line on Tompkins Avenue with a 10-inch line located to the east. An additional 6-inch water line travels north-south from the intersection of these two lines in the vicinity of the greenhouse that is currently within the project area.

Records on file at the Richmond County Department of Environmental Protection (DEP) Bureau of Water and Sewer Operations indicate that two water lines are located within Tompkins Avenue: a 72-inch line installed in 1970 and 1 16-inch line installed in 1938. In addition, 12- and 18-inch sewers are also present in Tompkins Avenue. DEP records do not indicate the date of the installation of these sewers, although at least one precedes 1938, when the Marine Hospital was connected to it. An additional 12-inch combined sewer was installed within Tompkins Avenue to service the SEA Center in 1993.

Before the installation of water and sewer mains in the area, the Seamen's Retreat Hospital used privies, cisterns, and wells for the purposes of water-gathering and sanitation. A report from the Retreat's Comptroller in 1840 accurately described the plumbing methods used by the Retreat, which included privies, cisterns, sewage vaults, rotary pumps, reservoirs, drains, culverts, and wells (SFR 1840, Zavin 1981). The hospital's sinks and privies were connected to an 800-foot long main drain, located 10 to 12 feet below the ground surface, which led out to the water (SFR 1840). The project area would have been at too great a distance from the main hospital for any of the early plumbing to have been located within the APE. However, privies, cisterns, and wells which may have been located in the rear of the former Hill Hospital may have entered the project area, although it is unlikely as the hospital was at a distance of approximately 75 feet from the APE, which would have been an inconvenient location for the placement of privies, cisterns, and wells.

IV-13

A. CONCLUSIONS

As part of the background research for this Phase 1A Archaeological Documentary Study, various primary and secondary resources were analyzed, including historic maps and atlases, historic deeds, historic photographs, newspaper articles, local histories, census records, historic directories, building records, and utilities installation records. The information provided by these sources was analyzed to reach both general and lot specific conclusions regarding the sensitivity of the project area.

PRECONTACT SENSITIVITY ASSESSMENT

Before European contact, the Stapleton area of Staten Island was an important hunting and fishing location for the local Raritan Indians who resided there. Many temporary campsites and traces of occupation dating from the Woodland period (2,700 BP to AD 1500) have been identified within one mile of the project area and several habitation sites were located near Silver Lake, less than a mile to the northwest. In addition, Several Native American trails ran through northeastern Staten Island in the vicinity of the project area.

The precontact sensitivity of project areas in New York City are generally evaluated by their presence of level slopes, vicinity to water courses, presence of well-drained soils, and proximity to previously identified precontact archaeological sites. In general, Native American habitation sites on Staten Island dating to all periods of occupation are most often found in proximity to "well-drained areas near streams or wetlands" and areas of high elevation (Boesch 1994: 9). Most sites are located along the coast near water courses. More specifically, Late Archaic sites have been identified mostly in low-lying areas near water courses and marshes, while temporary camping sites during the Late Archaic were commonly found on sandy knolls (Ibid). The project area is located on a large, steep hill and in the vicinity of former ponds and at least one natural spring. The project area is located within an area identified on LPC's sensitivity model as one that is moderately sensitive for the recovery of precontact archaeological resources.

Because the project area is located in an area that exhibited topographic features characteristic of other Native American archaeological sites, it may have been utilized by Native Americans as a temporary hunting, processing, or camping location, if not as a habitation site. It is possible that archaeological resources related to those activities, including stone tools and debitage, faunal remains, shell middens, fire-cracked rocks, and other artifacts associated with temporary camp sites may be located at the site. These types of resources are generally encountered within 1 to 3 feet of the ground surface. Therefore, undisturbed portions of the project area are determined to have moderate sensitivity for the recovery of archaeological resources dating to the precontact period and disturbed portions are considered to have low sensitivity.

HISTORIC SENSITIVITY ASSESSMENT

The project area was part of the Corsen farm until 1831, at which time it was sold to the State of New York for the construction of the Seamen's Fund and Retreat Hospital. A portion of this property was sold in the mid-19th century for the construction of the Mariner's Family Asylum, immediately south of the APE.

With the exception of a few 1-story outbuildings and the existing Chait Building, no structures appear to have been constructed within the project area until the late-20th century. In 1992, the SEA Center was constructed within Lot 120. Although the project area was located in the vicinity of hospital buildings and other structures which would have required the use of domestic shaft features including privies, cisterns, and wells for the purposes of water-gathering and sanitation, the project area appears to have been located at a distance that would have been too far for convenient access to such shaft features. Therefore, it is not likely that any such shaft features are present within the project area.

The project area may have been the site of the original Seamen's Retreat Hospital cemetery, located in the vicinity between 1831 and circa 1849, at which time a new cemetery was established at the far western end of the Retreat property. Although entries in the Retreat's Board of Trustees' minutes suggest that the cemetery was removed in 1849 and the ground graded and leveled, it is not known if this actually occurred. Furthermore, the exact boundaries of the cemetery could not be determined. It appears that the burial ground was located to the west of one of the original hospital buildings which was formerly located approximately 75 feet to the east of the project area. The western boundary of the cemetery was extended further west on at least two occasions during the early 19th century.

Sources indicate that human remains, assumed to have been associated with the first cemetery, were unearthed during the construction of both PS 14, opposite the SEA Center on the western side of Tompkins Avenue, and during the construction of the SEA Center itself (Salmon 2005, Johnson 2007, Daniels 2007). It therefore appears that the original cemetery was likely located, at least partially, within the project area. Even if the cemetery was "removed" in 1849, the discovery of human remains in the area in the 20th century suggests that this removal was incomplete and there may be human remains located within the APE. These remains could be present to a depth of 6 to 8 feet below ground surface. Therefore, the project area is determined to have moderate to high sensitivity for the recovery of historic period archaeological resources in the form of human remains except in areas where previous disturbance extends below a depth of 8 feet.

LOT 120

Within Lot 120, the construction of the SEA Center, a substantial building with a basement, would have destroyed any potential resources within the building's footprint and could also have impacted archaeological resources in the building's immediate vicinity. Construction of the parking lot adjacent to the SEA Center within Lot 120 would have impacted the original ground surface and in some areas appears to have involved 3 to 5 feet of grading (Photograph 2). Additional disturbances across the lot include a paved sitting area, a lighted pathway leading to the hospital entrance, at least one storm drain, a liquid oxygen storage tank area, a transformer vault, an 8,000 gallon underground diesel storage tank, and a water main (Photographs 1 through 7). Only isolated portions of Lot 120 appear to be undisturbed, such as the hill located southeast of the SEA Center. Therefore, undisturbed portions of Lot 120 are determined to have moderate sensitivity for the recovery of precontact archaeological resources, disturbed areas

have low sensitivity for precontact resources, and the entire lot has moderate to high sensitivity for the recovery of human remains except for the vicinity of the SEA Center.

LOT 150

Lot 150, east of the SEA Center, is entirely occupied by a parking lot. Construction of the parking lot would have disturbed the original ground surface in this area. Manholes, light poles, and storm drains were constructed within the parking lot and would have resulted in deeper disturbance (Photographs 8 through 14). The construction of the Chait Building, a 4-story building with a basement that is technically located on Lot 200, would have destroyed any potential resources within the building's footprint and could also have impacted archaeological resources in the building's immediate vicinity within Lot 150. Therefore, Lot 150 is determined to have low sensitivity for the recovery of precontact archaeological resources and moderate to high sensitivity for the recovery of human remains except for the vicinity of the Chait Building.

LOT 88

A paved access road currently extends along most of the proposed easement within Lot 88. The easternmost 40 feet of the easement are currently undeveloped with the exception of two small structures. Several 19th and 20th century atlases were reviewed and it appears that this small area has never been developed. Therefore, the undisturbed portion of the Lot 88 easement is determined to have moderate sensitivity for the recovery of precontact archaeological resources and low sensitivity for the recovery of human remains. The portion of the Lot 88 easement currently occupied by a paved access road is determined to have low sensitivity for the recovery of precontact archaeological resources and low sensitivity for the recovery of human remains.

B. RECOMMENDATIONS

The portions of Lots 88, 120, and 150 that appear to be undisturbed or are situated below disturbed levels and would be impacted by the proposed project are determined to have moderate sensitivity for precontact archaeological resources while the undisturbed portions of Lots 120 and 150 are determined to have moderate to high sensitivity for historic archaeological resources possibly including human remains. Through consultation with LPC (Environmental Review letter dated December 27, 2007 and personal communication, Amanda Sutphin, January 2, 2008), Phase 1B archaeological testing in advance of construction is recommended in these areas to determine the presence or absence of archaeological resources and/or human remains within the project site. Testing would involve the use of a backhoe in currently paved areas and would be conducted by hand in areas with exposed ground surface. A sensitivity map has been provided which indicates the areas where Phase 1B field testing is recommended (Figure 17).

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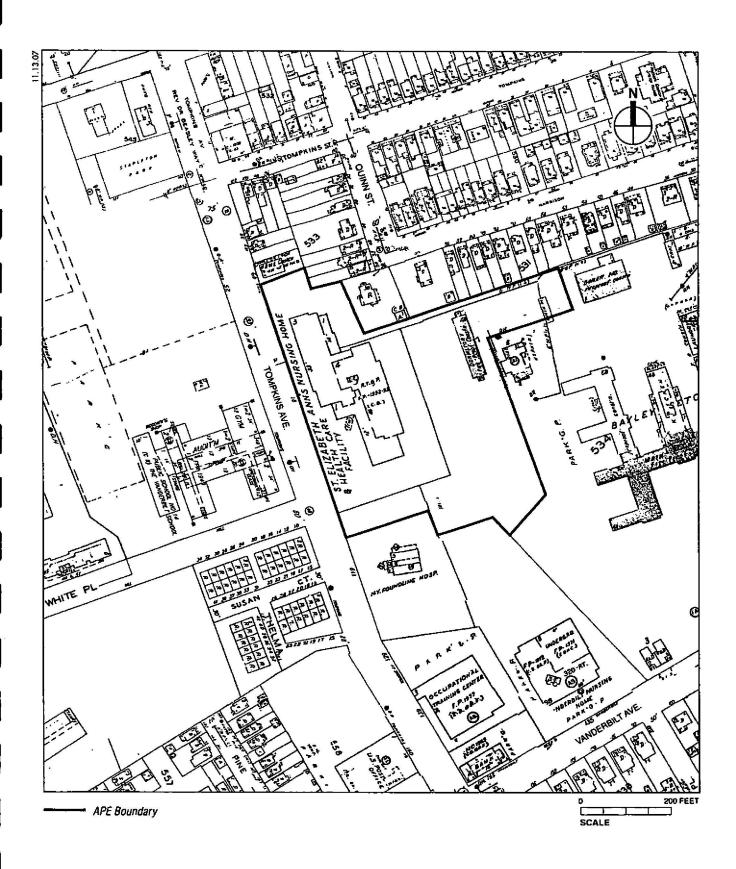
Retreat, Main Building.

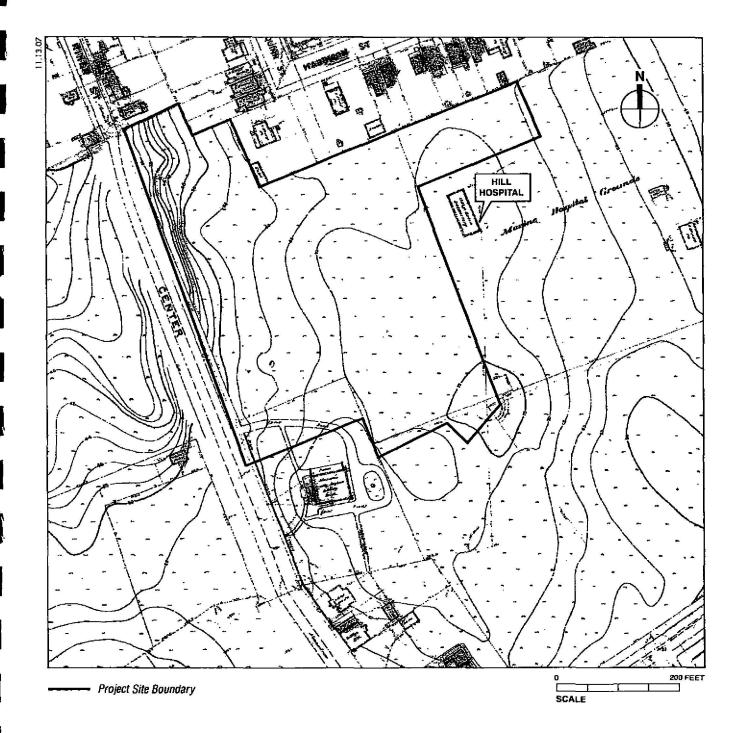
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Figures

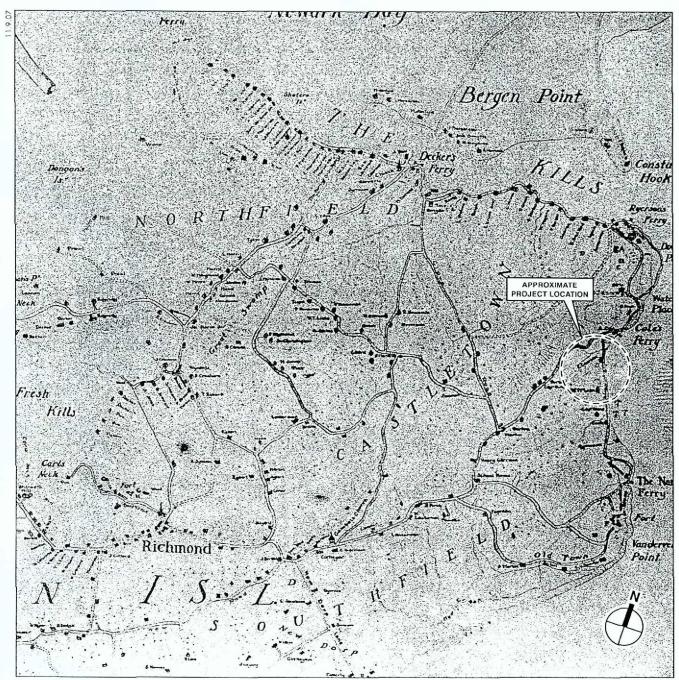


Project Location USGS Map, Jersey City and the Narrows Quadrangle

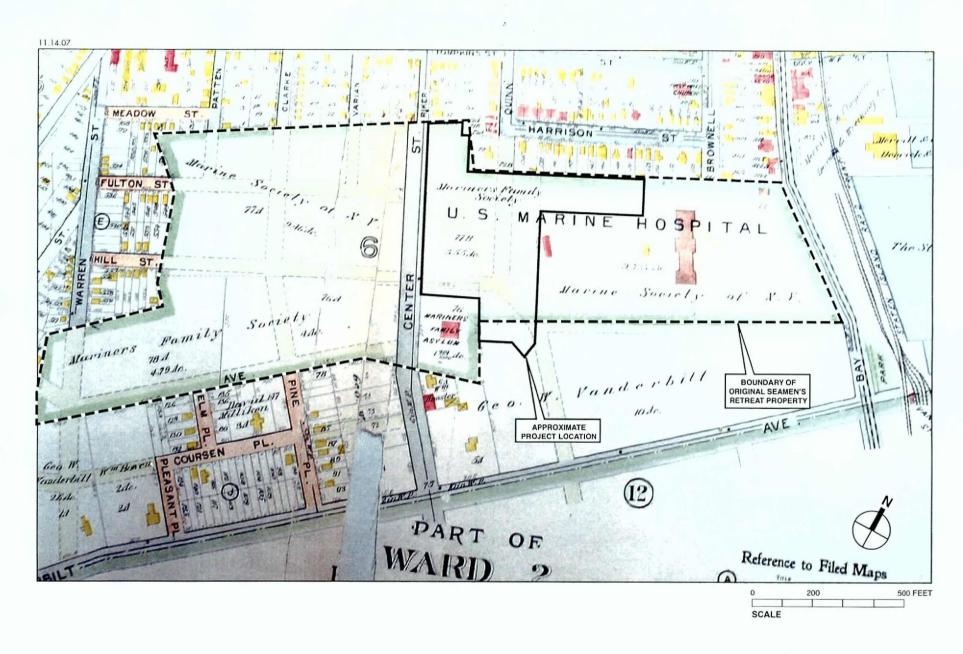




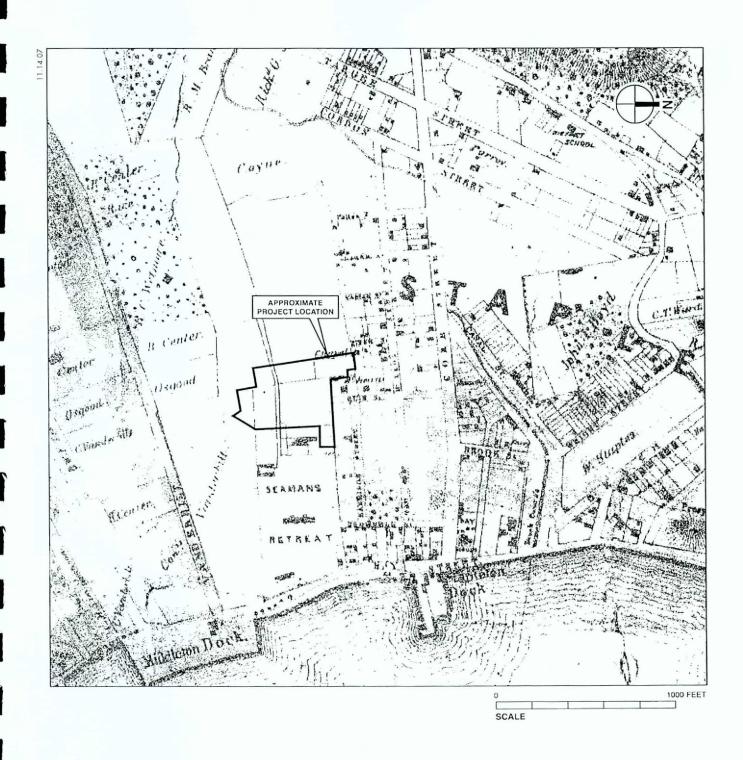




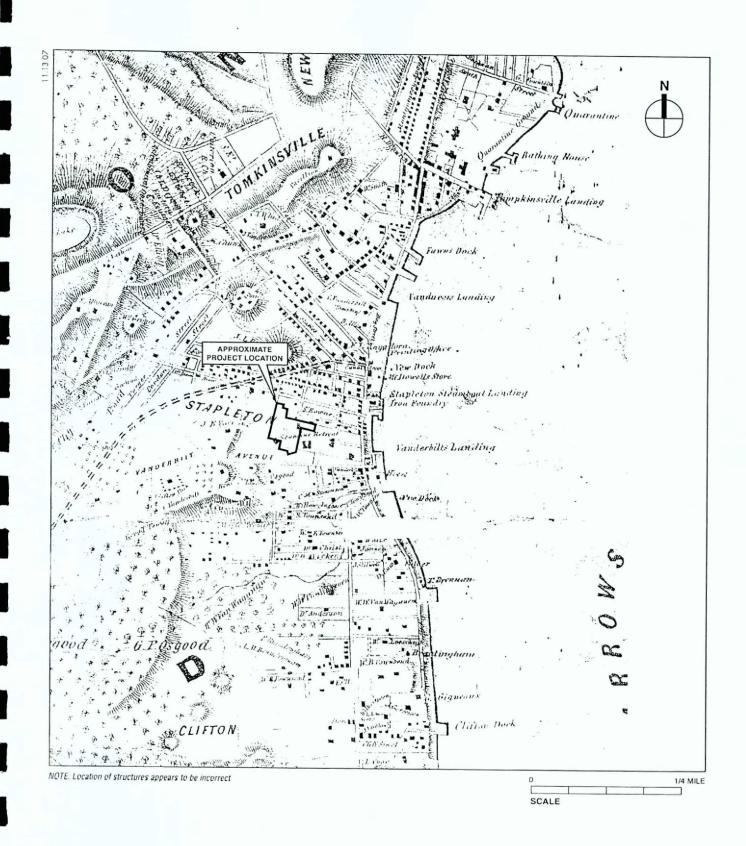
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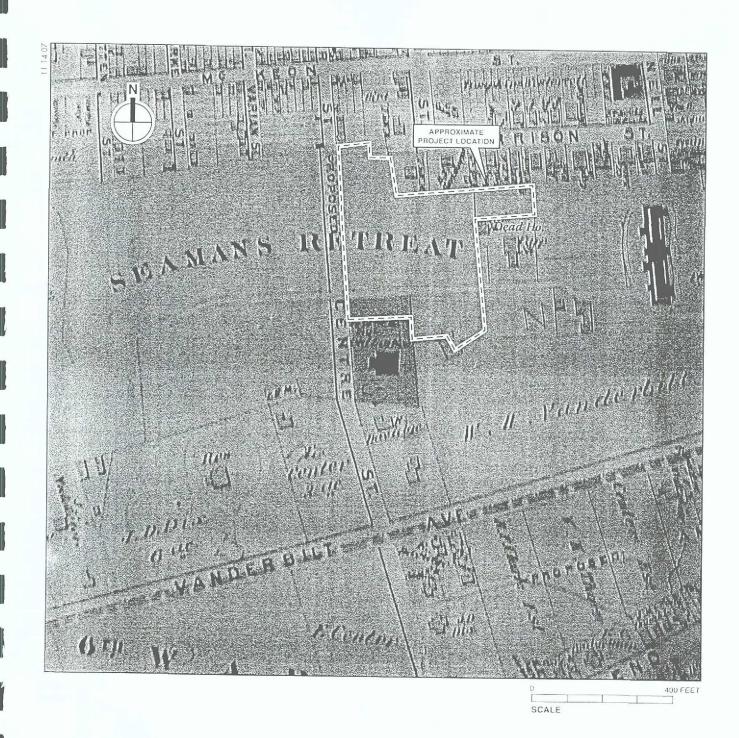


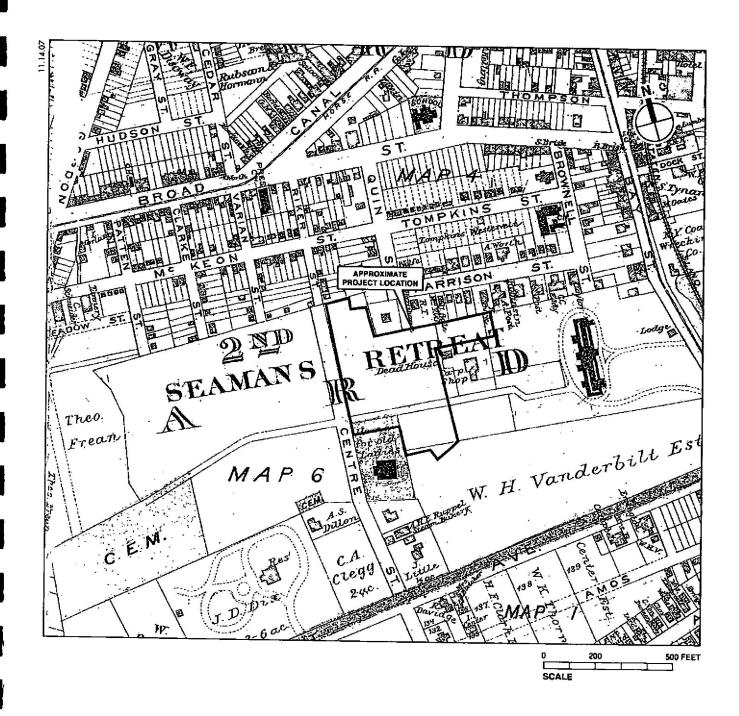
Atlas of the Borough of Richmond E. Robinson, 1907 Figure 7

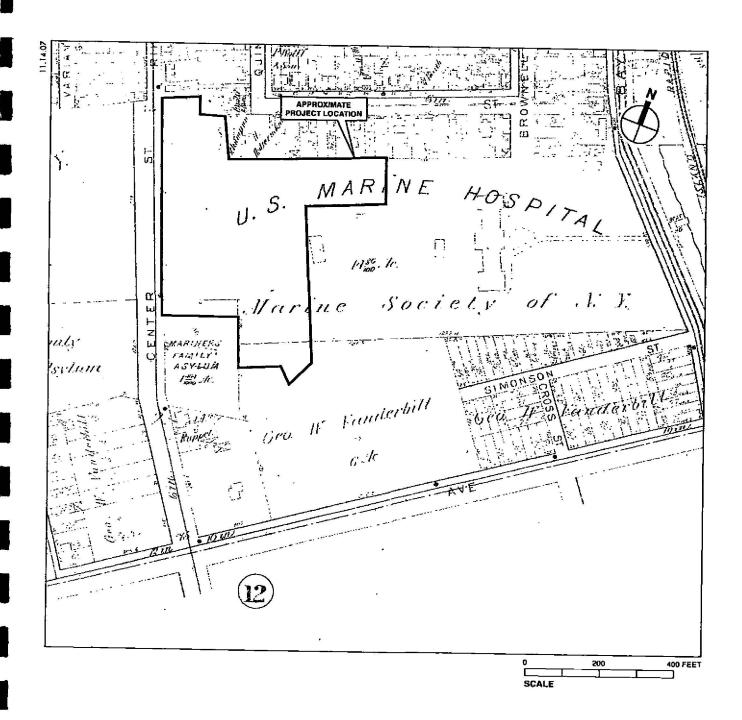


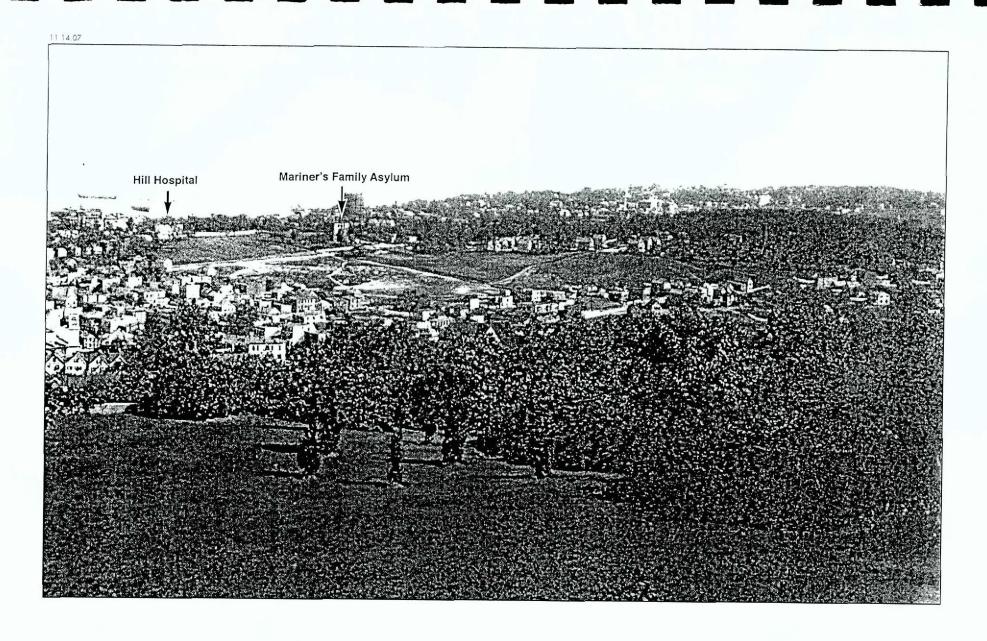
Staten Island Map of New Brighton, Tompkinsville, Stapleton and Clifton. C.H. Blood, 1845 Figure 8



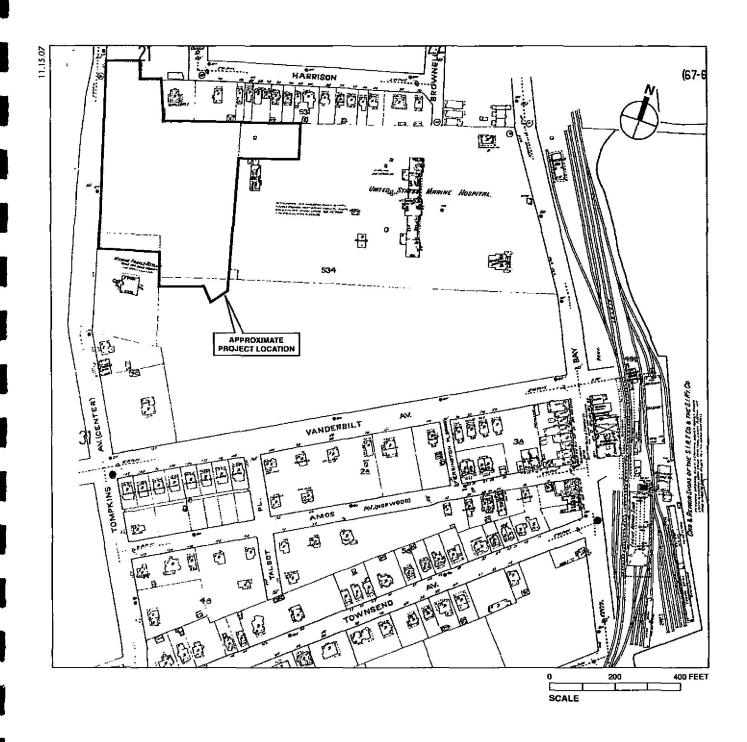


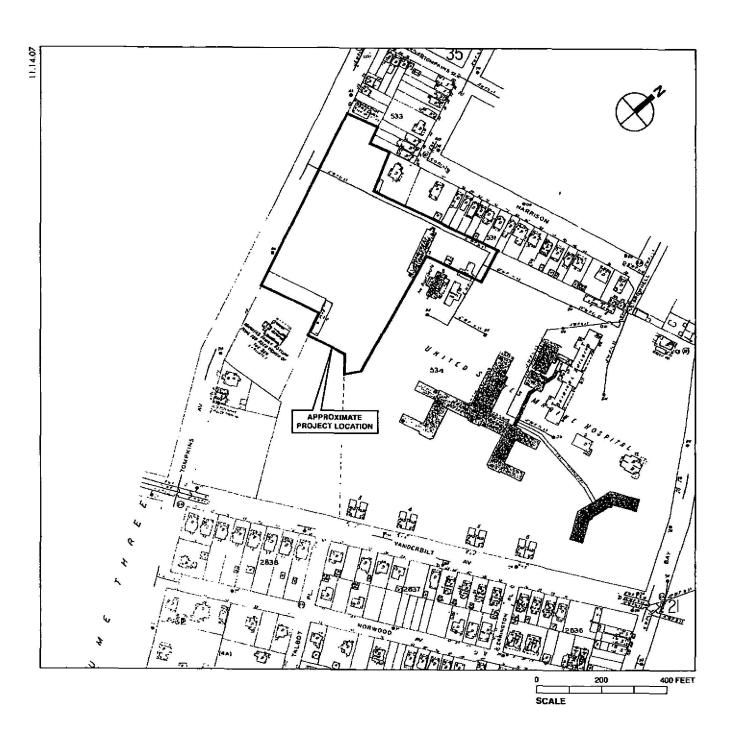


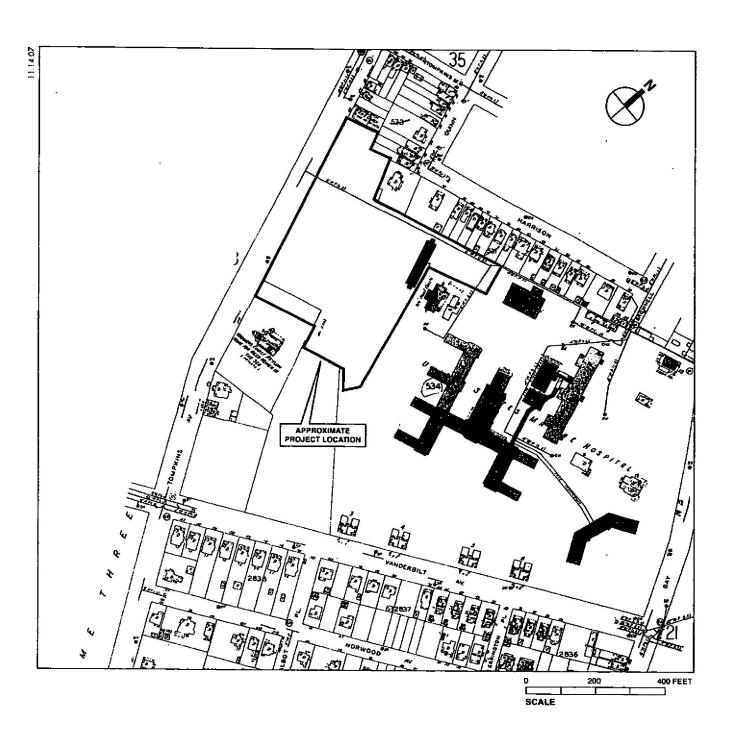


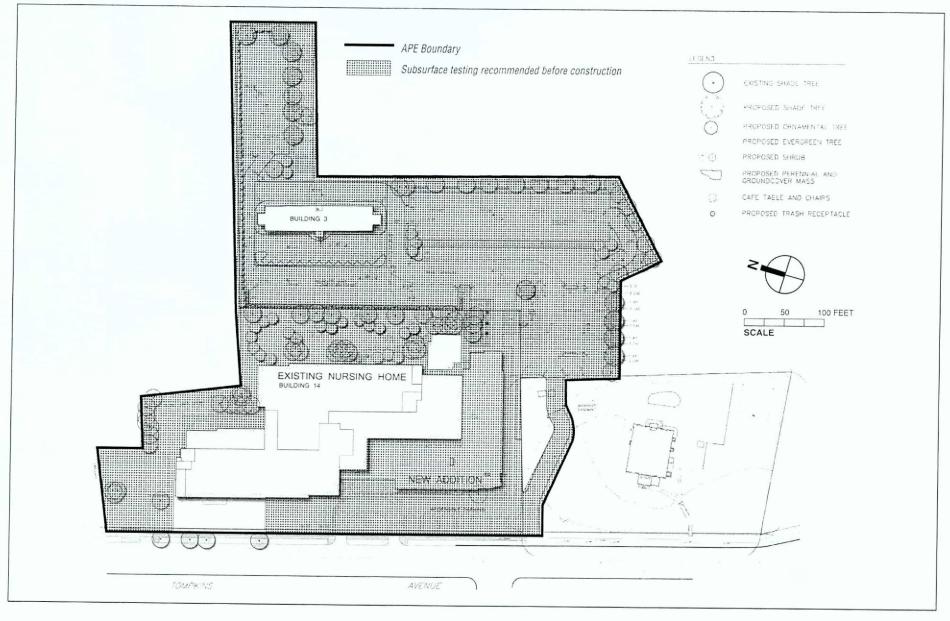


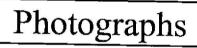
Photograph of Project Area ca. 1910. Looking southeast from Howard Avenue Figure 13

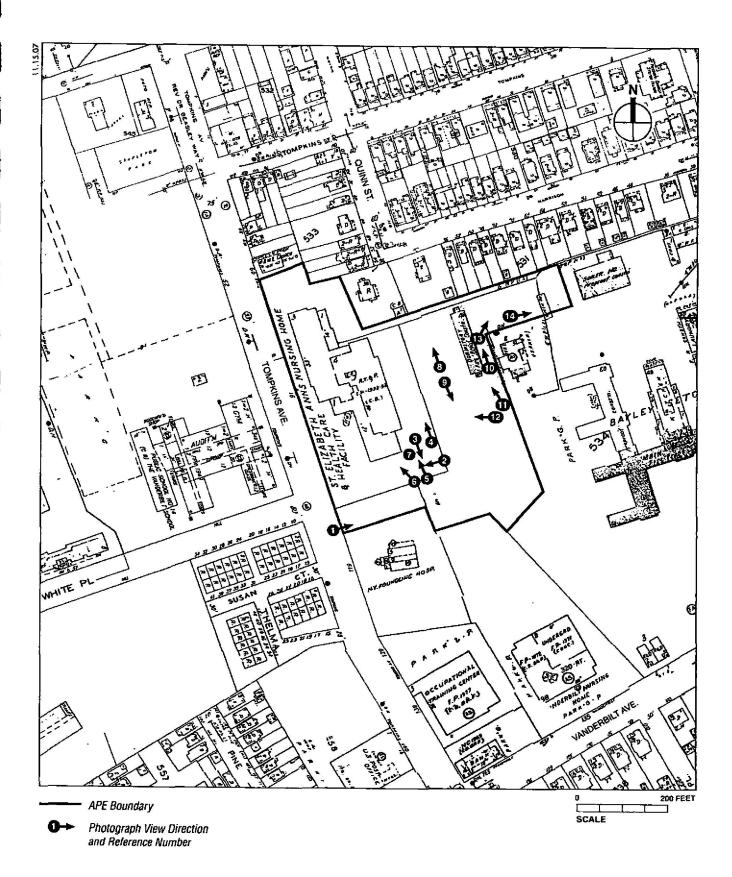






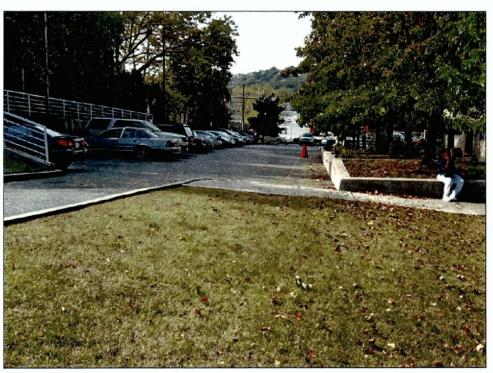








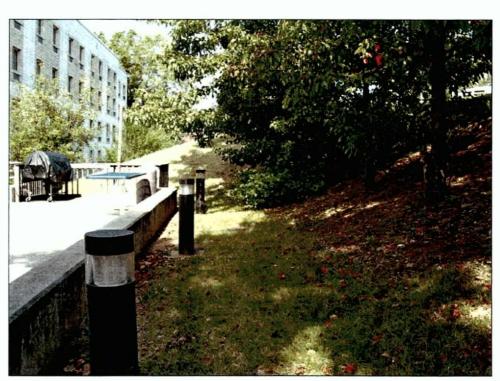
Parking lot to the south of the SEA Center, looking east



Parking lot to the south of the SEA Center, looking west



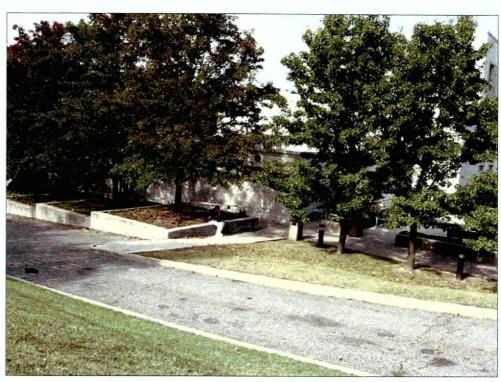
Hilly area to the south of the SEA Center, looking south



Hills and paved seating area to the east of the SEA Center, looking north



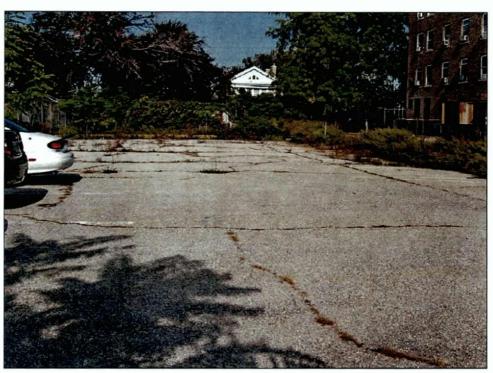
Paved seating area to the east of the SEA Center, looking north



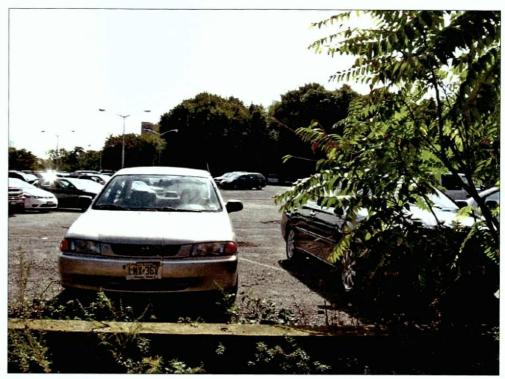
Southern façade of the SEA Center, looking northwest



Storm drain at foot of hills south of the SEA Center



Cracked pavement in parking lot to the west of the Chait Building, looking north



Parking lot, looking south



Parking lot east of the Chait Building, looking north

11

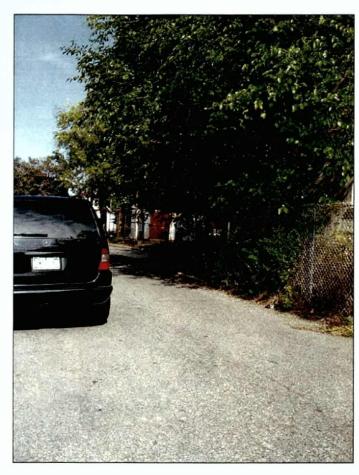


Manhole (foreground) and storm drain (at left) in parking lot, looking northwest



Cracked pavement in parking lot and liquid oxygen storage tank (in background), looking west

12



Parking lot east of the Chait Building, looking northeast



Parking lot east of the Chait Building, looking east

Appendices

Appendix A:

Summary of Census Research

Year/		T T			
Census	Residence	Name	_Occupation	Listed Age(s)	Place of Birth
1706 Staten Island	Staten Island	Daniel Corsen John Corso Hester Corso Daniel Corson Jacob Corson Mary Corson Mary Corson Mary Corson Sister Corson Benjamin Corson Criste Corson Daniel Corson	Not provided	36 20 30 18	Not provided
1790	Southfield,	Jacob Corson Anna Corson Elisabeth Corson Richard Corson*	Not provided	31 1 FWM 16<	Not provided
Federal Richmond County, NY				3 FWF 1 Free Person 1 Slave	
		Nelly Corson (widow)* Cornelius Corson*	Not provided	1 FWM <16 1 FWF 3 Slaves 1 FWM 16<	Not provided
			Not provided	1 FWM <16 3 FWF 3 Slaves	Not provided
1800 Federal	Southfield, Richmond County, NY	Daniel Corsen*	Not provided	1 FWM <10 1 FWM 26<44 3 FWM <10 1 FWF 26<44 3 Slaves	Not provided
		Richard Corsen*	Not provided	1 FWM <10 1 FWM 26<44 1 FWF 10<15 1 FWF 16<25 1 FWF 26<44 3 Slaves	Not provided
		Cornelius Corsen*	Not provided	3 FWM <10 1 FWM 26<44 1 FWF <10 2 FWF 26<44 8 Slaves	Not provided
1810 Federal	Southfield, Richmond County, NY	Cornelius Corsen	Not provided	1 FWM 10<15 1 FWM 16<25 1 FWM 45< 1 FWF 16<25 1 FWF 45< 1 Free Person 4 Slaves	Not provided

Saint Elizabeth Ann's Health Care and Rehabilitation Center: Phase 1A Archaeological Documentary Study

Year/ Census	Residence	Name	Occupation	Listed Age(s)	Place of Birth
1820 Federal	Southfield, Richmond County, NY	William Corsen*	1 member of household engaged in agriculture	2 FWM <10 1 FWM 26<45 1 FWF <10 1 FWF 16<26	Not provided
		Cornelius Corsen*	1 member of household engaged in agriculture	1 FWM 16<26 1 FWM 45< 1 FWF 45< 2 MS <14 1 MS 45< 2 FS <14 2 FS <26	Not provided
1830 Federal	Southfield, Richmond County, NY	Cornelius Corsen	Not provided	1 FWM 15<20 1 FWM 20<30 1 FWM 60<70 1 FWF 10<15 1 FWF 15<20 1 FCM <10 1 FCM 36<55 2 FCF <10 1 FCF 24<36	Not provided

Notes:

* Denotes adjacent census entries within the same census, indicating neighboring families.

FWM = Free White Male

FWF = Free White Female

MS = Male Slave

FS = Female Slave

FCM = Free Colored Male

FCW = Free Colored Female

Sources:

United States Federal Census data accessed online at http://www.ancestry.com, Staten Island Census data available online at: http://www.rootsweb.com/~nyrichmo/1706.txt

Appendix B:

Conveyance Records for Block 534 Lots 1 and 120[†]

		_			Lot # (if	· · · · · · · · · · · · · · · · · · ·
Date	Grantor	Grantee	Liber	Page	specified)	Remarks
2/1/1687	Unknown	Unknown Member of the Corsen family	В	95	540 acres	Referenced in Hubbell (1893)
1712	Cornwalace Bowman	Christian Corson	С	51		Referenced in Hubbell (1893)
5/10/1803	Richard Corson and wife	Cornelius Corson	F	274		Dated 5/5/1794
7/1/1835	Cornelius Corson	State of New York	т	165		
10/4/1875	Seaman's Fund and Retreat, Trustees of	J. Van Wyck Vandervoort	112	379		Three year lease.
12/23/1882	State of New York	Marine Society of the City of New York	144	490		Referenced in Zavin (1981)
9/26/1950	Cornelia S. Baer, by Trustee	Staten Island Equities, Inc.	1133	406		
9/24/1951	Staten Island Equities, Inc.	Rolos Equities, Inc.	1172	45		Vacated and set aside see Judgment 10/9/1952 #83- 5-2
5/16/1952	Rolos Equities, Inc.	Jacob H. Ampel	1196	127		Judgment vacated see order filed 2/25/1955 #82- 1952
2/6/1954	Edward C. Wagner, Ref.	Kings Mercantile Company, Inc.	1268	168		1002
3/15/1954	Treasurer of the City of New York	City of New York	1271	270		Blocks 532, 533, and 534
12/13/1954	Executors of William F. Keubler, deceased	East Coast Housing Corp.	1298	190		
3/7/1957	Stephen J. Ohaleck, Ref.	Kings Mercantile Company, Inc.	1383	310		_
8/7/1958	Kings Mercantile Company, Inc. and Stephen O. Raphael	Memorandum of Agreement	6	479		Misc. Bk.
9/25/1959	People of the City of New York (Cutters Patent)	Mariner's Family Home	1472	94	_	
6/3/1962	Kings Mercantile Company, Inc.	Vanderbilt House, Inc.	1555	500		
4/30/1962	Vanderbilt House, Inc.	Beaver Securities Co., Inc.	1567	83		
5/7/1962	Kings Mercantile Company, Inc. and Stephen O. Raphael	Release from Agreement	1568	9		
8/31/1962	Beaver Securities Co., Inc.	Exchange Place Corporation	1581	223		
1/10/1963	Kings Mercantile Company, Inc.	Exchange Place Corporation	1594	290		
3/20/1963	Exchange Place	Vanderbilt House,	1601	36		

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Date	Grantor	Grantee	Liber	Page	Lot # (if specified)	Remarks
	Corporation	inc.				
3/20/1963	Kings Mercantile Company, Inc. Ref.	Vanderbilt House, Inc.	1601	42		
12/4/1963	Vanderbilt House, Inc.	Tomvan Realty, Inc.	1624	229		
5/22/1964	Vanderbilt House, Inc.	Tomvan Realty, Inc.	1647	199		
11/23/1964	Maurice Crowley, Ref.	Milton Schwartz	1670	91	· · ·	···
7/30/1965	Anthony Crecca, Ref.	Tomvan Realty, Inc.	1701	272		
7750-1000	Charles M. Sparaccio,	Tomaci (today) mo.	1,70.			
5/11/1967	Ref.	Reuben L. Kershaw Reuben L. Kershaw	1779	72		
6/11/1967	Reuben L. Kershaw	and Murray Leeman	1781	353	•	
4/3/1968	Reuben L. Kershaw and Murray Leeman	County N1841ational Bank of Richmond	1813	35		
1000 1 100000 000000	Reuben L. Kershaw, Murray Leeman, and County National Bank				,,,	
4/10/1968	of Richmond	Easement	1814	237	ļ	
7/17/1969	Milton Schwartz	Jack Goodstein	1867	276		
7/17/1969	Milton Schwartz	Jack Goodstein	1867	279		
2/24/1971	Milton Schwartz and Jack Goodstein and Vanderbilt Nursing Home	Memorandum of Lease	1933	440		
2/24/1971	Vanderbilt Nursing Home, United States of America Department of Housing and Urban Development	Reg. Agreement	1933	443		
	County National Bank	Consolidated Edison				
3/2/1974	of New York (easement)	Company of New York, Inc.	1934	355		
3/2/13/4	Milton Schwartz and	Consolidated Edison	1934	333		
	Jack Goodstein	Company of New			i	
3/3/1971	(easement grant) Reuben L. Kershaw and	York, Inc.	1934	399	_	
11/1/1971	Murray Leeman	Hymil Realty Corp.	1965	63		
11/16/1971	Hymil Realty Corp.	Milton Schwartz and Jack Goodstein	1965	65		
11/16/1971	Hymil Realty Corp. Milton Schwartz and	Milton Schwartz and Jack Goodstein	1967	40	<u> </u>	
5/30/1973	Jack Goodstein	Hymil Realty Corp. Milton Schwartz and	2037	280	<u> </u>	6 M -
5/30/1973	Hymil Realty Corp.	Jack Goodstein	2037	282		Blocks 531 and
5/30/1974	Catherine Machaucer	Elsie Thompson	2084	434		534
5/6/1976	Vanderbilt Nursing Home, Solomon Heiser, and Michael Tenenbaum	Memorandum of Lease	2155	178		
3.3.101.0	Vanderbilt Nursing Home, Solomon Heiser, Michael Tenenbaum, Martin	2000	2100	.,,		,
5/6/1976	Goodstein, aka New Vanderbilt Nursing	Memorandum of Modification of Lease	2155	183		d and the second

Appendix A: Conveyance Records for Block 534, Lots I and 120

Date	Grantor	Grantee	Liber	Page	Lot # (if specified)	Remarks
,	Home					- torriar no
4/25/1978	Committee of Finance, City of New York	City of New York	2242	242		
12/2/1981	United States of America acting by and through the Secretary of Health and Human Services	Bayley Seton Hospital	Reel 2	4692	1	
12/2/1981	Bayley Seton Hospital	United States of America acting by and through the Secretary of Health and Human Services	Reel 2	4699	1	Mortgage
4/13/1982	Bayley Seton Hospital	New York State Medical Care Facilities Finance Agency	Reel 13	65	1 and 120	Mortgage
11/25/1982	United States of America acting by and through the Secretary of Health and Human Services	Bayley Seton Hospital	Reel 2	4692	1	orrigage
4/30/1992	Bayley Seton Hospital	Sisters of Charity Health Care Systems	Reel 3499	345	1	

'Early 20th century Conveyance records for this area are categorized by block number only and individual' lot numbers are not provided. Furthermore, 17th, 18th, and 19th century deeds are organized only by Grantor and Grantee name, therefore it is difficult to identify which transactions pertain specifically to Block 534 Lots 1 and 120. The above table was generated by tracing land grants back through time in an attempt to determine the owners of the SEA property throughout history but it may not represent all applicable conveyance records. In addition, because Lot 150 was so recently split from Lot 1, most records do not yet reflect this change.

Sources: Deed indices and Liber books on file at the Office of the Richmond County Clerk, Staten Island.