



Phase 1A Archaeological Documentary Study

CornellNYC Tech Roosevelt Island Campus

**Block 1373, Lot 20 and Block 1371, Lot 1 (part),
New York, New York**

Prepared for:

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A. PROJECT OVERVIEW

Cornell University is planning to construct a new applied sciences higher education campus on Roosevelt Island in the County of New York (see **Figure 1**). The approximately 12.4-acre project site is located on Block 1373, Lot 20 and Block 1371, part of Lot 1 at the southern end of Roosevelt Island, south of the Queensboro Bridge (see **Figure 2**).

The proposed project site is currently occupied by the Goldwater Specialty Hospital and Nursing Facility (Goldwater Hospital), which will relocate its services and facilities to a site in Manhattan independent of the proposed project (a Negative Declaration for the closure, relocation, and right-sizing of Goldwater Hospital was issued by the New York City Health and Hospitals Corporation (NYCHHC) on December 6, 2011 [CEQR No. 12HHC001M]). The CornellNYC Tech project would entail the demolition of the vacated Goldwater Hospital buildings and the construction (over a period of approximately 24 years) of a campus consisting of academic, research and development, residential buildings, an academic-oriented hotel with conference facilities, and publicly-accessible open space.

The proposed actions require environmental review and the preparation of a Draft Environmental Impact Statement (DEIS) under City Environmental Quality Review (CEQR). The Mayor's Office of Environmental Coordination (OEC), on behalf of the Office of the Deputy Mayor for Economic Development (ODMED), will serve as lead agency during the environmental review.

B. RESEARCH GOALS AND METHODOLOGY

The goal of this archaeological documentary study is to determine the likelihood that potential archaeological resources have survived within the study area despite the destructive forces of time, including landscape modification, building construction, basement excavation, utility installation, and street and parking lot construction. This report has been designed to satisfy the requirements of the New York City Landmarks Preservation Commission (LPC) and it follows the guidelines of the New York Archaeological Council (NYAC, 2005). This report includes a summary of previous archaeological investigations on Roosevelt Island. In addition, this Phase 1A study also documents the current conditions of the site and its environmental and physical contexts. Finally, the study documents the history of the project site and its potential to yield archaeological resources dating to both precontact and historic periods.

As part of the background research for this Archaeological Documentary Study, various primary and secondary resources were analyzed including historic maps and atlases, historic photographs, newspaper articles, local histories, and building records. These published and unpublished resources were consulted at various repositories, including the Main Research Branch of the New York Public Library (including the Local History and Map Divisions) and the Library of Congress Digital Collections. Digital archives such as Google Books (www.googlebooks.com) and the Internet Archive (www.archive.org) were also accessed. Finally, a thorough site walkover was completed to assess current conditions.

C. SUMMARY OF PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS OF ROOSEVELT ISLAND

Previous archaeological investigations have been completed for sites on Roosevelt Island. Reports on file at LPC were reviewed as part of this Phase 1A study are summarized below.

NORTHTOWN PHASE II, 1985

In 1985, archaeologist Joan H. Geismar prepared a Phase 1A Archaeological Documentary Study of the Northtown Phase II project area, a residential development located 0.23 miles (1,200 feet) north of the CornellNYC Tech project site. The report concluded that while the site likely contained remnants of the former City Workhouse that once stood on the site, the Workhouse was well documented and archaeological investigations were unlikely to provide new information about what life was like for its inmates. In addition, Dr. Geismar stated that if shaft features (i.e. cisterns, privies, or wells) were located within the Northtown site, they were likely disturbed by subsequent development. Furthermore, the potentially archaeologically sensitive portions of the site were to be preserved under a landscaped plaza and were therefore not expected to be impacted by the project at that time. Dr. Geismar noted in a separate archaeological investigation of the Southtown site completed several years later (see below), that the foundations of the former Workhouse were not encountered during the construction of the Northtown Phase II project and that they appeared to have been completely removed during the demolition of the Workhouse in the late 1930s.

SOUTHTOWN, 1989

Dr. Geismar completed another Phase 1A Archaeological Documentary Study of Roosevelt Island in 1989. The study analyzed the archaeological sensitivity of the Southtown site, an almost 20-acre residential development to the north of the CornellNYC Tech project site and north of the Queensboro Bridge. A portion of the Southtown site was located on part of the historic Penitentiary property on which the CornellNYC Tech site is also situated (discussed in greater detail below). As with the Northtown site, Dr. Geismar concluded that the project site was disturbed as a result of development, grading, quarrying, and farming. Therefore, the project site was determined to have no sensitivity for archaeological resources and no additional work was recommended.

PUBLIC SCHOOL 217, 1989

In 1989, Historical Perspectives, Inc. (HPI) completed an Archaeological Assessment Report of the site of PS 217 at the northern end of Roosevelt Island approximately .75 miles (4,000 feet) north of the CornellNYC Tech project site. This site was in the vicinity of the Workhouse and Almshouse that were historically located on the northern half of Roosevelt Island. Soil borings suggested that the site of PS 217 was covered with approximately 10 feet of fill (mostly construction and demolition debris) over a layer of natural glacial till that covered the bedrock. The report suggested that while Native American activity may have occurred on the shores of Roosevelt Island, historic and modern construction activities would have destroyed any precontact archaeological sites. The site of the school was first developed with structures, outbuildings associated with the historic Workhouse, in the late 1860s and early 1870s. However, the report concluded that subsequent construction, development, landscaping, and road construction would have impacted historic period archaeological resources. Similarly, the report concluded that archaeological testing would not produce information that was not already documented in the historic record. Therefore, no additional archaeological analysis or testing was recommended.

DUCT BANKS AT THE SOUTHERN END OF ROOSEVELT ISLAND, 1998

In 1998, Louis Berger and Associates, Inc. completed a Phase 1A Archaeological Documentary Study for a project involving the installation of duct banks at the southern end of Roosevelt Island adjacent to the

CornellNYC Tech project site. Soil borings completed in that part of Roosevelt Island in 1944 were examined to determine that 5 to 10 feet of fill were present on the site of the duct banks. The study concluded that the site was not sensitive for archaeological resources dating to either the precontact or historic periods and no further study was recommended.

SOUTHPOINT PARK, 2007

The firm John Milner and Associates (JMA) completed two archaeological investigations of the Southpoint Park site—encompassing all of Roosevelt Island to the south of the CornellNYC Tech project site—in 2007 and 2009. The report concluded that it was likely that the southern tip of Roosevelt Island was utilized by the Native Americans as a short-term fishing site. With respect to historic resources, the report concluded that while the island was of high historic value, the extensive disturbance associated with its repeated redevelopment would have had a significant impact on archaeological resources on the Southpoint Park project site. However, because that site was occupied by several hospitals, JMA concluded that there was a possibility that human remains were interred on that portion of the island. The Phase 1A recommended Phase 1B testing in the vicinity of the former Small Pox Hospital and in other areas that appeared to be undisturbed.

A Phase 1B report for this site was completed by JMA in 2009. The Phase 1B testing, which involved both subsurface testing and a non-invasive survey using ground penetrating radar, revealed disturbed soils and compact fills in most locations. However, a potentially intact ground surface was encountered in the vicinity of the former Small Pox Hospital and in the vicinity of the former City Hospital, which was formerly located immediately to the south of the CornellNYC Tech project site. The construction of Southpoint Park was not expected to impact these areas and would therefore not impact archaeological resources; however JMA's Phase 1B report concluded that additional testing (i.e., a Phase 2 survey) should be completed if these areas are to be impacted in the future.

A. GEOLOGY AND TOPOGRAPHY

Roosevelt Island is found near the boundary of several geographic bedrock regions: the Manhattan Prong of the New England (Upland) Physiographic Province (Manhattan), the Harlem Lowland Province (the Bronx), and the Atlantic Coastal Plain Province (Long Island). Whereas the bedrock making up other nearby East River Islands (i.e. Randall's or Ward's Islands) represents their proximity to these various regions, Roosevelt Island is underlain only by Fordham Gneiss, which is characteristic of much of the southern Bronx (Schuberth 1968). This metamorphic rock types date to the Lower Paleozoic and/or Precambrian Eras, formed approximately 500 to 4500 million years ago and Roosevelt Island represents one of only a few "isolated exposures" of Fordham Gneiss in New York City (ibid: 86). A series of soil borings completed in 1966 near the southern end of the project site indicates that a layer of schist and/or granite overlays the gneiss. These borings indicate the presence of weathered or decomposing rock in most locations at relatively shallow depths beginning between 5 and 13 feet below the ground surface. The bedrock (gneiss) was encountered between 6 and 23 feet below ground surface. The bedrock appears to slope downward from north to south.

The 1865 Viele map depicting the original topography of portions of New York City indicates that Roosevelt Island has been expanded with landfill to create a more regular shoreline. A small amount of landfill has been added to the eastern and western shores of the island in the vicinity of the project site. An 1886 topographical map of Roosevelt Island prepared by E. Hergesheimer (see **Figure 3**) shows that the majority of the filled areas appear to have expanded the shoreline by approximately 20 to 30 feet in most places, however other areas have been extended by approximately 100 feet while others appear not to be extended at all.

Topographic information from that map and from historic USGS maps dating to 1891, 1897, and 1900 and other topographical maps (i.e. Bien and Vermule's 1891 topographical atlas of New York City) depict the project site as generally level at approximately sea level rising gently to 20 feet above sea level to the north of the project site in the vicinity of the Queensboro Bridge. This comparison of topographic contour lines on modern and historic USGS and other topographic maps would suggest that the historic elevations of the project site have remained relatively consistent. However, because most historic topographic maps use 20-foot contour lines, topographic changes between 0 to 20 feet, such as those that appear to have historically characterized the project site, are not represented. Some historic maps, drawings, or other accounts of Roosevelt Island and the project site in particular suggest that the ground surface of Roosevelt Island originally sloped up from the waterfront and that the central portion of the island was at a higher elevation. One historic account states that the project site was situated at an elevation of 20 feet above mean high water (Stokes 1967). The island was subjected to significant landscape transformation and modification during the 19th century when, as the site of the City's Penitentiary, gangs of laboring convicts were used to grade the project site (discussed in greater detail below). Historic photographs taken in the early 1930s¹ after the demolition of the project site suggest that the project site was relatively flat, with a slight slope downward from the center of the island towards the river.

¹ Photographs are available from the New York Public Library Digital Gallery at: <http://digitalgallery.nypl.org/nypldigital/id?732192f>.

The project site as it is currently developed includes varying terrain; the existing hospital structures are at a higher elevation (between approximately 20 and 24 feet above sea level) and then sloping down—steeply in some areas—towards the river on either side. Portions of the project site are obviously graded, most notably the parking lots at the northern end of the site, that connect to the road lining the northern boundary of the project site via a steep slope. This slope appears to correspond with a steep and presumably artificial ridge that historically separated the Penitentiary from the Warden’s Residence located to the north. The area to the west of Buildings B, C, and E, appears to have been graded heavily, as well.

Other areas of the project site appear to have been built up with fill, although some of this may be the result of the deposition of construction and demolition debris during the demolition of the Penitentiary and the subsequent construction of the existing hospital buildings. The native soils overlying the shallow bedrock on Roosevelt Island are glacial till. Historic soil borings completed in 1966 in the location of existing Building J at the southern end of the project site did not indicate that significant quantities of fill were present in that portion of the project site, which has since been disturbed by the construction of Building J, which has a basement (AKRF 2011b). A second series of borings completed by AKRF in 2011 indicates that between 0 and 10 feet of fill are present on the site; however the soils identified as fill based on the presence of glass, brick, or other materials may simply be disturbed soils containing historic materials. In several locations, the soil borings were ended at shallow depths (2 to 13 feet below ground surface) because of refusals caused by boulders or compact fill (ibid). Therefore, it appears that both the recent and historic soil borings suggest the presence of a small but varying amount of fill covering the ground surface and that bedrock is very shallow.

B. HYDROLOGY

Historic maps show that Roosevelt Island was relatively dry, with no visible streams or ponds or other sources of fresh water, although this does not mean that fresh water sources (i.e., springs) were not present on the island. Late-19th century maps depict a pond on the project site, but this appears to have been artificially constructed as part of the prison complex that formerly occupied the site (discussed in greater detail below). Soil borings completed by AKRF in 2011 indicate that groundwater is at approximately 12 to 15 feet below ground surface.

C. SOILS

The New York City Soil Survey maps the soils on the project site as the “Laguardia-Centralpark-Pavement & buildings” complex. This soil type is characterized by 0 to 8 percent slopes, “urbanized till plains that have been cut and filled with natural soil materials and construction debris, a mixture of anthropogenic soils that vary in artifact content...[and] more than 15 percent [developed with] impervious pavement and buildings” (New York City Soil Survey Staff 2005: 16).

D. 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). Furthermore, a decrease in glacial runoff resulted in the creation of small bodies of water such as lakes as well as, later on, low-lying marshes and

swampy areas. 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 eventually dying 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).

E. CURRENT CONDITIONS

The project site is currently occupied by the Goldwater Hospital, a large complex of 9 buildings connected by a common central corridor (see **Figure 2** and **Photographs 1** through **10**). The buildings are identified as Buildings A through H and Building J, although the structures are not in alphabetical order. All of the buildings and the corridor have a shared basement that does not appear to extend beyond the footprint of the building. The depth of the basement appears to vary throughout the complex and, according to a set of building plans prepared by architects Butler & Kohn 1939, the foundation, some utilities, and other various facilities (i.e., an incinerator room) are located beneath the basement level, although some unexcavated areas within the foundation are depicted. However, footings and foundations are located in these “unexcavated” areas, so some disturbance has occurred in those locations. The central portion of the cellar of Building J, which was constructed in 1971, is also identified as unexcavated on plans from 1967 prepared by architect William L’Escaze.

Buildings A through D, the V-shaped structures that branch off the main central corridor, are the largest buildings within the hospital complex and are currently used for patient care. Buildings G and H are small structures located along the central corridor between Buildings A and B and Buildings C and D, respectively. These two buildings are also used for patient care. Building J, an addition constructed at the southern end of the hospital in the 1970s, is used as an auditorium and activity space. Building E is the large structure at the center of the complex which serves as the hospital’s main entrance and also houses its administrative offices. Building F is located at the northern end of the hospital and is used for office and administrative space.

The grounds of the hospital complex between the 9 structures are sloped down towards the river on both the west and east sides. The spaces between the structures to the east of the hospital are paved and used as parking and storage areas. On the west side of the hospital, these areas are landscaped and developed with paved seating areas, benches, and tables. A semi-circular driveway and parking area is located to the west of Building E at the center of the site. A one-way loop roadway encircles the project site, comprised of an unnamed street to the north, East Road/Main Street to the east, West Road to the west, and Road 3 to the south. An esplanade extends along the east and west sides of the Island along its waterfront, providing a walkway for pedestrians; a concrete seawall forms the barrier along the East River.

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 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 2, 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 not only actively hunted 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 crafted from local materials. Other stone tools manufactured at this time included knives, scrapers, drills, and graters. 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 the glaciers continued to melt, sea levels rose and much of what was once adjacent to the water line became submerged. In fact, only one Paleo-Indian site has been discovered in the entire New York City area—that of Port Mobil, on Staten Island. This location has yielded a collection of fluted points and other stone tools characteristic of the period.

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, archaeological research has 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 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 elaboration of Native American fishing technology, which occurred during the Middle Archaic in response to an increasing dependence on the area's marine resources. This 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, several Late Archaic sites have been found in the New York City area. Two notable sites, Tubby Hook and Inwood, are located at the northern end of the island of Manhattan. Both sites contain large shell middens, while the Inwood site also features rock shelters that were inhabited by Archaic populations. Both sites were continuously occupied for several thousand years.

In addition, many Terminal Archaic sites from all across the city have provided examples of the Orient culture, which is characterized by its long fishtail stone points and soapstone bowls. Although there are extremely elaborate burial sites attributed to the Orient culture on eastern Long Island, none have been identified in the immediate vicinity of New York City.

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

The Woodland period represents a notable cultural shift for the Northeast. During this time, Native Americans began to alter their way of life, focusing on a settled, agricultural lifestyle rather than one of nomadic hunting and gathering. Social rituals begin to become visible in the archaeological record at this time. Many elaborate human and canine burial sites have been identified from this period. 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, a greater emphasis was 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. 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. Like 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 indicate that there was an overall shift toward full-time agriculture and permanently settled villages. Sites in New York City, however, suggest that the Native Americans there continued to hunt and forage on a part-time basis. This was most likely due to the 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 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.

E. CONTACT PERIOD (AD 1500-1700)

The Woodland period ended with the arrival of the first Europeans in the early 1500s. The Delaware Indians who occupied New York City at that time spoke a dialect now referred to as Munsee. They lived in villages consisting of multiple longhouses and practiced some farming, but subsisted mostly on food resources obtained by hunting, gathering, and fishing (Grumet 1995). 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, glass beads, copper kettles, and alcohol soon became incorporated into the Native American economy, while European diseases brought about the demise of huge portions of the population.

Native Americans at first maintained the village sites they had established near water sources and the two groups co-existed. As their trade with European settlers intensified, they became increasingly sedentary and as the European population grew and required more land, the relationship between the two groups worsened. Fierce wars broke out between the Dutch and the Indians. Being armed with far more guns than the natives, the Dutch quickly forced the Indians out of the region.

F. PREVIOUSLY IDENTIFIED NATIVE AMERICAN ARCHAEOLOGICAL SITES

As has been reported in the archaeological investigations of sites on Roosevelt Island (see Chapter 1), no Native American sites have been recorded on the Island itself in the site files of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) or the New York State Museum (NYSM). However, several sources—mostly attributed to early 20th century avocational archaeologists who described Native American archaeological sites around New York City—suggest that there was some Native American occupation or use of Roosevelt Island. Reginald P. Bolton in his 1922 work *Indian Paths in the Great Metropolis* identifies Roosevelt Island as *Minnahanonck*¹ (site 112) and states that the island was owned and “perhaps occupied by natives of the *Marechkawick* or Brooklyn Chieftancy” (Bolton 1922: 238). Bolton suggested that the island may have originally been lined with fishing camps (ibid). According to a legend printed in an article about Roosevelt Island in *The New York Daily Tribune* in 1865, Native American folklore held that a Native American princess names Tarrapeta was the leader of the island, of which Manhattan was a tributary province. After her family disapproved of her relationship with a poor man from another tribe, Tarrapeta allegedly boarded a canoe and rowed to her death in the nearby Hell Gate waters (*New York Daily Tribune* 1865a).

While no sites were specifically recorded on Roosevelt Island, sites have been identified along the opposing shores in both Queens and Manhattan (see **Table 1**). The Native American village of *Sunwicks* was identified on the shore of Astoria, Queens on the opposite shore of the East River across from the northern end of Roosevelt Island (Grumet 1981). Arthur C. Parker (1922) identifies a shell heap and a burial site in this area as well. Finally, traces of Native American occupation were identified along the Manhattan waterfront near East 59th Street, opposite the northern end of the project site, and were recorded as NYSM Site 4061.

The precontact sensitivity of project sites in New York City is generally evaluated by a site’s proximity to high ground (but not exceeding 12 to 15 percent slopes), fresh water courses, well-drained soils, and previously identified precontact archaeological sites (NYAC 2005). The island’s original topographic setting does not indicate that it would have been an ideal place for a permanent or semi-permanent Native American habitation site. However, it is likely that the local Native American populations used the island for the exploitation of resources and it is possible that short-term campsites were present on the shores of the island.

Table 1
Previously Identified Native American Archaeological Sites

Site Name	Site #	Approximate Distance from study area	Time Period	Site Type	Additional References
<i>Minnahanonck</i>	Bolton: 122	Unknown	Precontact	Unknown	Bolton (1922)
Unnamed	NYSM: 4061	0.28 miles (1,500 feet)	Precontact	Traces of occupation on the shore of Manhattan near East 59th Street	Parker (1920)
Unnamed	NYSM: 4537	1 mile (5,280 feet)	Precontact	Burial site on the Queens waterfront.	Parker (1920)
<i>Sunwicks</i>	NYSM: 4538	1 mile (5,280 feet)	Precontact	Village site on the Queens waterfront.	Parker (1920)

Sources: Bolton (1922), Parker (1920), HPI (1989).

¹ This name is also attributed to Randall’s Island (Grumet 1981).

A. THE GENERAL HISTORY OF ROOSEVELT ISLAND

The historical context of Roosevelt Island's early settlement and development have been outlined in numerous archaeological reports (see Chapter 1) and will therefore be summarized here, with specific detail provided about the project site only. Roosevelt Island was historically used for agricultural purposes. The island was owned by a number of well-known Dutch and English settlers, including Wouter van Twiler, the Director General of New Netherland who first purchased the island from the Native Americans, and Captain John Manning, the Englishman responsible for surrendering New York City to the Dutch for a brief period in 1673. Beginning with Manning's daughter and son-in-law, members of the Blackwell family would inhabit the island for more than a century, giving it the long-lasting name "Blackwell's Island." The Blackwell residence, which is still standing, was located on the northern half of Roosevelt Island to the north of the project site. That name was used until the early 1920s, when the island was renamed "Welfare Island." The name was changed to "Roosevelt Island" in the 1970s.

B. THE HISTORY OF THE PROJECT SITE

Historic maps dating to the 18th and early 19th centuries—including the 1776 Ratzler plan (depicting New York City as it was in 1766 to 1767), the 1782 British Headquarters Map, the 1811 Bridges map, and the 1821 Randel map of New York City—do not depict any structures or other developments on the southern end of Roosevelt Island. It is likely that the project site was used for agricultural purposes during that time.

The City of New York purchased Blackwell's Island, then containing 100 acres of land, in 1828 for the purposes of constructing a new penitentiary to relieve the overcrowded city prisons in Manhattan. A special committee was formed to select the location of the new penitentiary and a site was chosen approximately 1,500 feet north of the original southern tip of the island and at an elevation of approximately 20 feet above mean high water. The Penitentiary was the first structure to be constructed at the southern end of Roosevelt Island and is the only building depicted within the project site and vicinity on J.H. Colton's 1836 map of New York City. During its first few years, the prison's location was praised by an author identified as "Byron" in the magazine *The Ladies Companion* as "the most advantageous spot that could have been chosen...being surrounded by water...a building of such noble structure and imposing appearance...seems to be too good a habitation for those despicable outcasts, chained to the floor of their cells" (1836: 145).

A penitentiary similar to "Sing Sing," the state facility in Westchester County, was recommended for Blackwell's Island. The cornerstone for the new penitentiary was laid on September 10, 1828, the first of a number of institutional buildings that the City had planned for the island (Stokes 1967). During its construction, more than 100 prisoners resided on the island in a shanty, which provided them with "comparative freedom" relative to the inmates imprisoned in other jails around the city (*Commercial Advertiser* 1828). The structure was built with stone quarried (by prisoners) from the natural rock formations on the island (King 1893).

In October 1829, the 200 by 50-foot stone structure that represented the original penitentiary was completed. The original structure was made up of a square central building used for office and

administrative purposes with two long, narrow wings stretching to the north and south in which the cells were located (see **Figure 4A**). The need for increased space for prisoners became clear to the city as soon as the prison opened, and additional wings and buildings for the prison grounds were proposed around the same time (Stokes 1967). A northern wing was added in 1858 for female prisoners (*The New York Daily Tribune* 1865a). The expanded prison comprised 800 cells in 4 tiers (King 1893). Painted over the entrance to the prison as a warning to incoming prisoners was the phrase, “The Way of the Transgressor is Hard” (*The New York Daily Tribune* 1865a).

THE DEVELOPMENT OF THE PENITENTIARY GROUNDS

Few maps depict structures other than the Penitentiary within the boundaries of the project site until the late 19th century, although other structures are known to have been located on the property during that time. The 1854 Dripps map depicts the Penitentiary, the washhouse to the northwest, and an artificial pond that was located on the project site north of the prison. The 1856 Colton map depicts only the Penitentiary and a cluster of three structures to the northwest, opposite East 58th Street in Manhattan, one of which is identified as an office. Numerous buildings would have been located on the grounds at that time, including many which do not appear to have been mapped, such as an outdated stable mentioned in the 1855 report of the Governors of the Alms House, who oversaw the prison at that time (Governors of the Alms House 1856).

A United States Coastal Survey map drawn by A. Boshcke circa 1855-1857 depicts the Penitentiary as well as two smaller structures immediately to the northeast, as well as another along the western shore of the Island, on the opposite side of a small road. However, the map’s poor quality makes it difficult to read or to discern any valuable information regarding structures on the project site. A map of the island published in the 1866 Annual Report of the Commissioners of Public Charities and Correction, the governmental body that oversaw the prison throughout most of the 19th century, depicts several structures scattered throughout the grounds, although none are identified. This map also includes a profile view of the eastern side of the island, which indicates that the area between the Warden’s Residence and the Penitentiary was graded almost to sea level, largely the result of quarrying in that area.

The 1872 Dripps and 1874 Viele maps each depict at least 4 structures to the north of the Penitentiary, although none are identified. The first map to accurately depict and identify the structures that made up the prison complex is the 1879 Bromley atlas (see **Figure 5**). A bird’s eye drawing of New York City created in 1879 by William L. Taylor also provides insight into how the project site was developed (see **Figure 6**).

The Penitentiary’s original workshops were located in two frame buildings on the eastern side of the island, near a toolhouse and a hog pen (*New York Daily Tribune* 1865a). At least one of the original structures was a 100- by 40-foot, 3-story workshop building that included a wash house, blacksmith shop, and shoe shop. It was located near the water between the Penitentiary and the Warden’s Residence and was destroyed by a fire in 1865 (*New York Daily Tribune* 1865b and *The New York Times* 1865). The workshops are depicted on the 1879 Bromley map, as is another unidentified outbuilding to the northeast of the Penitentiary. The map also depicts a wash house to the north of the Penitentiary, next to a large oval artificial pond. A bath house is depicted on the eastern shore of Roosevelt Island on the 1879 Bromley map. It is also depicted on the 1879 bird’s eye drawing, which depicts it as an enclosed pool. To the north, within the grounds of the prison but outside of the CornellNYC Tech project site, were a boat house, the Warden’s Residence, a reservoir, ice house, and the quarry. A large stone wall lined the northern edge of the prison grounds, separating it from the other institutional buildings on the northern half of the island.

The 1885 Robinson-Pidgeon map depicts the prison complex in almost the same manner, except that it reflects the construction of an eastern wing. An additional northern extension was added to the

Penitentiary circa 1900. The 1885 map also indicates that the Penitentiary and workshops were made of stone while the wash house, bath house, and another unidentified outbuilding were of wood frame construction. The unidentified outbuilding may have been the 1-story frame structure to the northeast of the Penitentiary that was damaged by fire in 1899 (*New York Herald Tribune* 1899). Additional structures are depicted throughout the prison grounds on a Coastal Survey published in 1929 (see **Figure 7**). Photographs from the early 20th century also show that the central portion of the original Penitentiary building, originally a 4-story structure with a cupola, had been renovated and floors added. Maps and photographs from the early 20th century depict the construction of numerous small buildings around the Penitentiary property, including in the prison yards and between the workhouse buildings.

PRISON LIFE

The prison was accessed only by boat (a “tub of misery”) departing from the shores of Manhattan, often rowed by inmates from the Workhouse at the northern end of Roosevelt Island, which led to a van known as “Black Maria,” that would transport incoming prisoners and visitors from the boathouse to the Penitentiary. The prisoners were therefore isolated within the middle of the East River, with only their guards and fellow inmates for company (Campbell 1896: 364). The majority of those interred in the Penitentiary had been convicted by the City Courts, mostly for misdemeanors or lesser crimes, such as vagrancy or drunkenness, and were serving terms of between 1 to 6 months (McCabe 1872). The population was relatively small in the Penitentiary’s early years. In 1839, the *New York Evangelist* reported that the prison was populated by 224 female and 232 male convicts, however by 1841, the *New York Herald* reported that the numbers had surged to 396 males and 446 females, and the latter called for the reform of the Penitentiary, as would many periodicals during the 19th century. By the early 20th century, despite repeated extensions to the building, overcrowding was a major problem on the island, with two to three prisoners crowded into each small cell.

The daily lives of prisoners was well documented during the 19th century, with many contemporary newspapers publishing accounts describing a day in the life of the inmates at the Penitentiary. Inmates received three meals a day: breakfast, dinner, and supper and attended either Catholic or Protestant church services on Sundays. Once a week, prisoners were allowed to bathe in the river at the bath house (*The Christian Union* 1883). Many accounts note that prisoners wore striped uniforms (see **Figure 4B**), while some were also forced to wear a ball and chain shackled to one ankle (*New York Herald* 1885 and *New York Daily Tribune* 1893). Each cell measured approximately 3.5 by 7 feet and had a grated door to let in light, with the exception of the “dark cells” which were used for solitary confinement as punishment for bad behavior (Stokes 1967). Cells had neither electricity nor heat (*The New York Times* 1936).

The prisoners held on Blackwell’s Island were made to do physical labor as part of their punishment. Female prisoners were typically tasked with cleaning or sewing and mending and they produced most of the clothing distributed to individuals residing in various City-operated institutions (Governors of the Alms House 1850). Most of the male prisoners were sent to work each day in the island’s quarries and spent their days breaking rocks and cutting stone. The stone quarried by the prisoners was then used to construct other buildings on Roosevelt Island, as well as in other parts of the city, and was also used to construct the island’s original sea wall. G.W. Bromley’s 1879 atlas (see **Figure 5**)—one of the first maps to accurately document and identify the structures that made up the prison complex—indicates that the prison quarry was located to the north of the project site. Although some sources (McCabe 1872) suggest that the stone supply was exhausted by the early 1870s, in 1885 the *New York Herald* quoted the Warden as saying that there was still sufficient stone deposits on the island to keep the prisoners busy for another year or two.

In addition to the quarries, male prisoners were also sent to work in the prison’s workshops, manufacturing items used elsewhere in the prison such as shoes, iron beds and quarry tools,

wheelbarrows, pails, and coffins, although there is no indication that any prisoners were ever buried on Roosevelt Island. Other prisoners assisted with farming, as vacant areas of the prison grounds were used to grow vegetables which were used to feed the inmates at the prison and other city institutions (ibid). In the early 20th century, an automobile shop was added (*New York Times* 1930).

Sanitation was not advanced at the prison, and toilet facilities and running water were not available in individual cells; the prisoner (or prisoners) residing in each cell were therefore reliant on a bucket or “jelly pail” for sanitation purposes. Toilet paper was not provided and newspapers were prohibited (Prison Association of New York 1916). This practice was in place until the prison was demolished in the 1930s (*The New York Times* 1936). Privies were in use in some areas of the Penitentiary; males used privies “near their work by day, while the women [used] one at the extreme southern end of the building, the vault having a sewer leading to the river...the hospital ward had cess-tubes, which were emptied daily or oftener if necessary” (Commissioners of Public Charities and Corrections 1867: 189). A circa 1890 photograph of the Penitentiary published in the digital collection of the Museum of the City of New York¹ depicts a small wood frame structure at the southern end of the Penitentiary which could have been the women’s outhouse.

In the late 19th century (and possibly earlier), a room with baths located near the entrance was used to clean prisoners upon their arrival at the Penitentiary (*New York Herald* 1885). However, aside from the once-weekly salt water bath in the river, it is not likely that bathing was part of the prisoner’s daily lives. After circa 1860, when Croton water was first made available on Blackwell’s Island, running water was made available to the prison. However, running water was not provided to individual cells and after waking up each morning at 5:00 AM, prisoners washed their faces and hands with fresh water at the communal facilities positioned at the end of each tier of cells (ibid). Within the prison there was allegedly a “maddening demand for water, and the little rivulet of Croton that trickled in from the prison pipe was prized as a priceless refreshment” (*The New York Herald-Tribune* 1867: 7).

THE DECLINE AND DEMOLITION OF THE PRISON

By the late-19th and early-20th centuries, the Penitentiary was embroiled in scandal, with many individuals calling for reform to relive overcrowding, abuse, gang activity, riots, drug-dealing, and other problems in the prison (Correction History n.d. and *The New York Times* 1936). The conditions continued, however, and it was not until the 1920s that real changes began to be initiated. The City decided that it was necessary to replace the antiquated and unsanitary Penitentiary with a larger, more modern facility that could accommodate the rising number of prisoners. In 1927, work began on a new Penitentiary on Riker’s Island, within the East River off the northern shore of Queens (*New York Times* 1927). With the opening of the new prison facilities on Riker’s Island, the old Penitentiary, by that time known as the “country’s worst prison” and the “city’s palace of misery” was closed (*The Hartford Courant* 1935). The last prisoners were removed from the Penitentiary and its demolition by WPA workers began in 1936, more than a century after the first prisoners had arrived (*The New York Times* 1936).

Although the administration of Mayor Fiorello LaGuardia had originally planned to turn the grounds of the former Penitentiary into a park, the prison was demolished so that the property could be redeveloped with a hospital to provide care for chronically ill residents of New York City and for the research of various diseases (*The New York Times* 1935a). As mentioned in Chapter 2, photographs of the site after the demolition of the Penitentiary suggest that the site was relatively flat after the removal of the

¹ Available at:

<http://collections.mcny.org/MCNY/C.aspx?VP3=CMS3&VF=SearchDetailPopupPage&VBID=24UPIGTRJ6W1&PN=7&IID=2F3XC5RK45B>

structures. The project site therefore appears to have been heavily modified by the construction and subsequent demolition of the prison complex.

THE CONSTRUCTION OF THE HOSPITAL

The hospital that was constructed was later named after Dr. S.S. Goldwater, the city’s Commissioner of Hospitals, who had convinced Mayor LaGuardia to construct the hospital on the property after a long, public fight with then-Parks Commissioner Robert Moses (*New York Times* 1935b). The foundations and steel infrastructure of the existing hospital buildings—with the exception of the southernmost, Building J, which was added in the early 1970s—were completed by March 1937 (*The New York Times* 1937a). The ceremonial corner stone of the new hospital was laid by Mayor LaGuardia on October 5, 1937 (*New York Times* 1937b). The hospital was completed and the first patients placed there in July 1939 (*The New York Times* 1939a). The hospital was designed in such a way that patients’ wards would receive “a maximum of sunshine” from the wards’ southern exposure and have an “unobstructed view of the river and the towers of the city” (*The New York Times* 1939b). The tunnels were connected to a nurse’s residence located to the north of the Queensboro Bridge, outside of the project site. Grassy areas planted with trees were located between the various buildings making up the hospital complex (*ibid*). The grassy areas on the hospital’s eastern side were converted to paved parking areas in the late-20th century. An underground tunnel originally connected the hospital with a nurses’ residence and power house that were located to the north of the project site.

The southern end of the hospital grounds were largely undeveloped until 1971, when Building J was constructed. Several maps of Roosevelt Island published in the mid-20th century show that there were two structures at the southeastern and southwestern corners of the hospital property; Janeway Hall to the east and a Superintendent’s Residence, which was identified as a laboratory on some maps, to the west. The two buildings, which are visible on the 1929 U.S. Coast and Geodetic Survey (**Figure 7**), were separated by a small, dead-end driveway. These structures would have been located in what are now the grassy areas to the east and west of Building J. These structures appear to have been constructed in the first decade of the 20th century and were associated with the City Hospital to the south of the Penitentiary.

C. SUBSURFACE INFRASTRUCTURE IN THE VICINITY OF THE STUDY AREA

HISTORIC UTILITIES

Despite its status as one of America’s largest and most industrial cities, New York did not have a reliable network of water and sewer lines until the mid-19th century. Instead, water and waste management in domestic lots was handled by the use of shaft features such as privies, cisterns, and wells. Early New Yorkers relied on public wells in the streets for water for drinking and cooking. The first water pipes were installed in the early 19th century by the Manhattan Water Company, the precursor to the Chase Manhattan Bank. However, standardized municipal networks of water and sewer lines would not be installed in Manhattan until the mid-19th century and would not be constructed on Roosevelt Island until slightly later.

It was not until 1842 that the Croton Aqueduct system brought significant amounts of clean water into Manhattan. Two “gutta percha” (a rubber material made from tree sap) pipes were laid on the floor of the East River to bring Croton water to Roosevelt Island in 1865 (*New York Herald* 1865). Prior to that, the island may have received water via underwater pipes “for many years” connected to the pipes in the 19th Ward of Manhattan on the opposite shore. The introduction of Croton Water to the prison pre-dated 1855, the year that inmates constructed a 1,250,000 gallon reservoir on the prison grounds to the north of the project site to store water in the event that the pipes running under the East River were damaged, as they

frequently were (Governors of the Alms House 1856). Of the two pipes installed in 1865, one connected to this reservoir, although, as described above, individual cells were not connected to running water.

Other infrastructure was in place to carry clean salt water from the river into different prison buildings, mostly to allow for water closets in the hospital to be flushed out (Governors of the Alms House 1856). Sewers were also connected to those water closets, carrying the waste out into the river (ibid). As mentioned previously, some privies or other shaft features may have been present within the project site, however, it is unknown if they were also drained out into the river. More advanced infrastructure was installed in the early 1900s, including water mains that were installed in 1902 and 1924 (AKRF Engineering 2011).

MODERN UTILITIES

As the project site is currently developed with a modern hospital, a number of subsurface utilities are located within and around the area providing electricity, gas, and telecommunications connections as well as water and sewer access among others. A Preliminary Site Assessment of the project site was completed by AKRF Engineering, PC for the New York City Economic Development Corporation (NYCEDC) in 2011 which describes the modern infrastructure within the project site. The majority of the utilities are located within the streetbeds surrounding the hospital, although numerous connections enter the project site to connect the mains with the buildings. Several electricity conduits are present along the western side of the project site.

The hospital is serviced by sewers, and a pump station is located at the southeast corner of the site to the east of Building J (see **Photograph 5**). Numerous stormwater catch basins and sewers are present throughout the site to collect and divert runoff from the project site to the East River. A steam plant located to the north is connected to the project site via a service tunnel that connects the site with the Coler Hospital at the northern end of Roosevelt Island. Each of the hospitals buildings has its own electric vaults on their western sides. In addition, an oxygen tank is located in the northeastern corner of the project site.

A. SENSITIVITY ASSESSMENT

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 photographs, newspaper articles, annual reports published by the institutions that managed the New York Penitentiary, and local histories. The information provided by these sources was analyzed to reach the following conclusions:

PRECONTACT SENSITIVITY ASSESSMENT

The precontact sensitivity of project sites in New York City is generally evaluated by a site's proximity to high ground (but not exceeding 12 to 15 percent slopes), fresh water courses, well-drained soils, and previously identified precontact archaeological sites (NYAC 2005). The island's original topographic setting does not indicate that it would have been an preferred place for a permanent or semi-permanent Native American habitation site. However, it is likely that the local Native American populations used the island for the exploitation of resources and it is possible that short-term campsites were present on the shores of the island. Despite this likelihood, the project site has been extensively disturbed as a result of the construction of the Penitentiary and its various buildings, the grading and excavation completed by gangs of laboring convicts throughout the 19th and early 20th centuries, the demolition of the prison, and the subsequent construction of the existing hospital and its associated infrastructure. Because precontact sites are typically shallow (often within 5 feet of the original ground surface), it is not likely that intact archaeological sites associated with the precontact occupation of Roosevelt Island are present within the project site. The project site is therefore determined to have no sensitivity for precontact archaeological resources.

HISTORIC SENSITIVITY ASSESSMENT

The project site was used for agricultural purposes until 1828, when New York City purchased it and constructed a Penitentiary on the project site. The Penitentiary stood through the late-1930s, when it was demolished and the existing hospital constructed. The grounds of the Penitentiary were constantly modified through grading or excavation associated with prison labor or the development and redevelopment of prison facilities. The subsequent construction of the existing hospital, despite the fact that portions appear to be constructed on fill deposits, would have resulted in additional disturbance to the project site.

Absent disturbance, archaeological resources associated with the Penitentiary could include foundation remnants, shaft features (i.e., cisterns, wells, and privies), and surface deposits. The locations of the major facilities associated with the Penitentiary that were located on the project site (i.e., the Penitentiary, the wash house, and the work shops) are all well documented by historic maps. Geismar (1989) noted that the foundations of the Work House—demolished at the northern end of the island around the same time as the Penitentiary—were completely removed during demolition and were not encountered during the construction of the Northtown Phase II project. It is possible, therefore, that the foundations of the Penitentiary buildings were removed in a similar manner. While other structures (i.e., stables, a hog pen, or other unsubstantial structures) were known to have been present on the site, the extensive grading and landscape modification that has occurred on the project site have likely resulted in the disturbance of any

archaeological resources associated with the site's minor structures. Similarly, any surface deposits (i.e., items dropped in prison yards, trash middens, etc.) would have been disturbed by the extensive grading and landscape modification.

While privies were in use on parts of the island during the 19th and early 20th centuries, for the most part the majority of the island's inhabitants (the inmates) lacked access to toilet facilities more advanced than the buckets located in their cells. The location of only one privy is known; that used by female prisoners at the southern end of the Penitentiary. This location is now below the existing hospital, which was constructed with a basement which would most likely have destroyed it. The locations of other privies is unknown, although there may have been some located near the workshops at the northeast corner of the project site, portions of which are also currently beneath the existing hospital structures. As described above, some privies on the island were later connected to sewer pipes that drained into the river. While cisterns may have been used for water gathering before the Penitentiary was connected to Croton Water (before 1855), the locations of such cisterns are unknown. In addition, given the shallow bedrock and the extensive grading and disturbance that took place on the project site, it is not likely that intact cisterns are present on the property. Finally, the shallow bedrock and close proximity to brackish water would most likely have made wells inefficient on Roosevelt Island. It therefore does not appear likely that intact shaft features are present within the project site.

While Roosevelt Island was a historically important location, it is unlikely that the project site contains archaeological resources that could provide new information about the lives of the individuals residing (either voluntarily or against their will) on Roosevelt Island during the 19th century. Therefore, the project site is determined to have low sensitivity for archaeological resources dating to the historic period.

B. RECOMMENDATIONS

As stated above, the project site has been extensively disturbed and is therefore determined to have no sensitivity for precontact archaeological resources and low sensitivity for archaeological resources dating to the historic period. Therefore, no archaeological testing is recommended for the project site.

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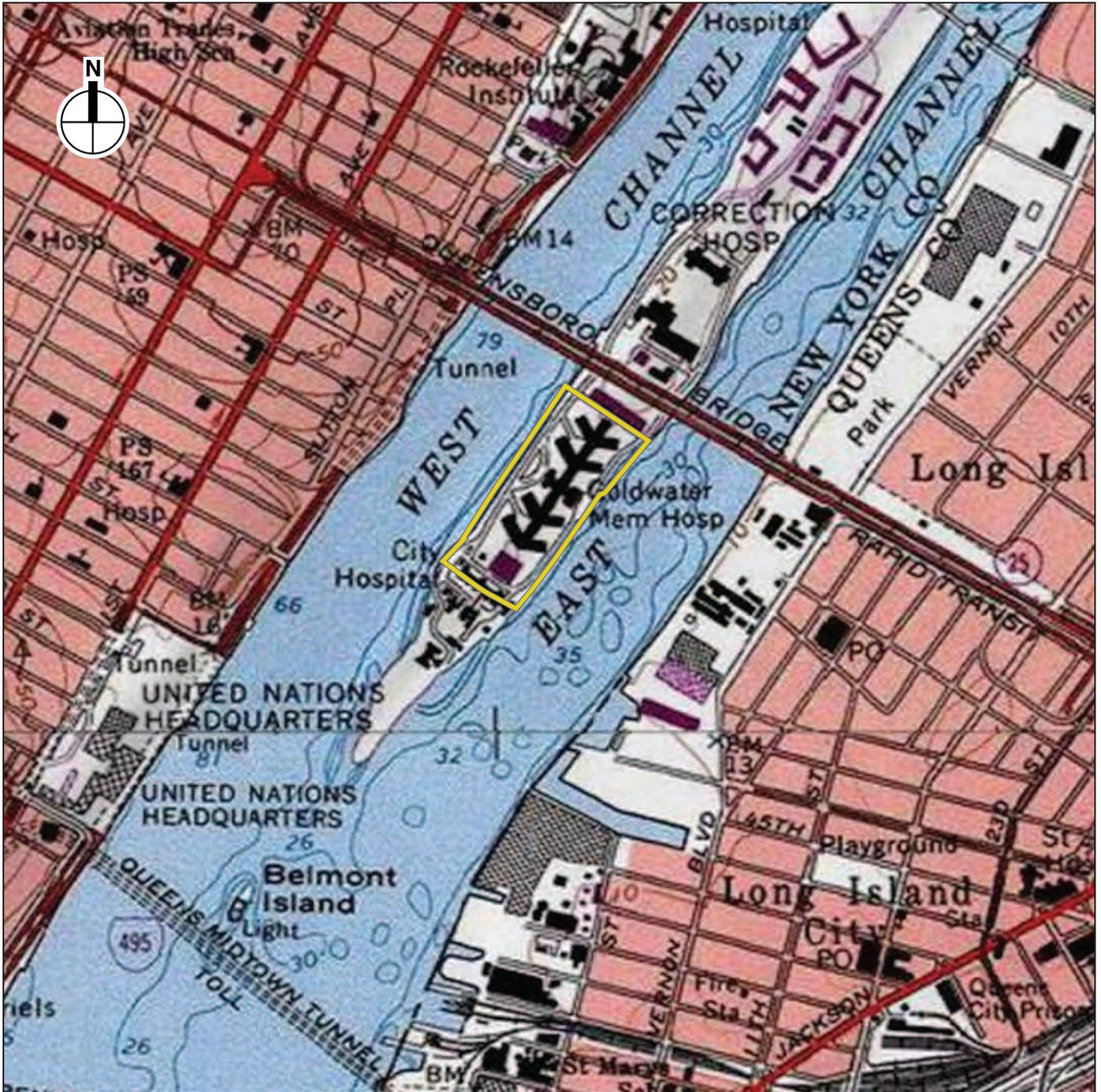
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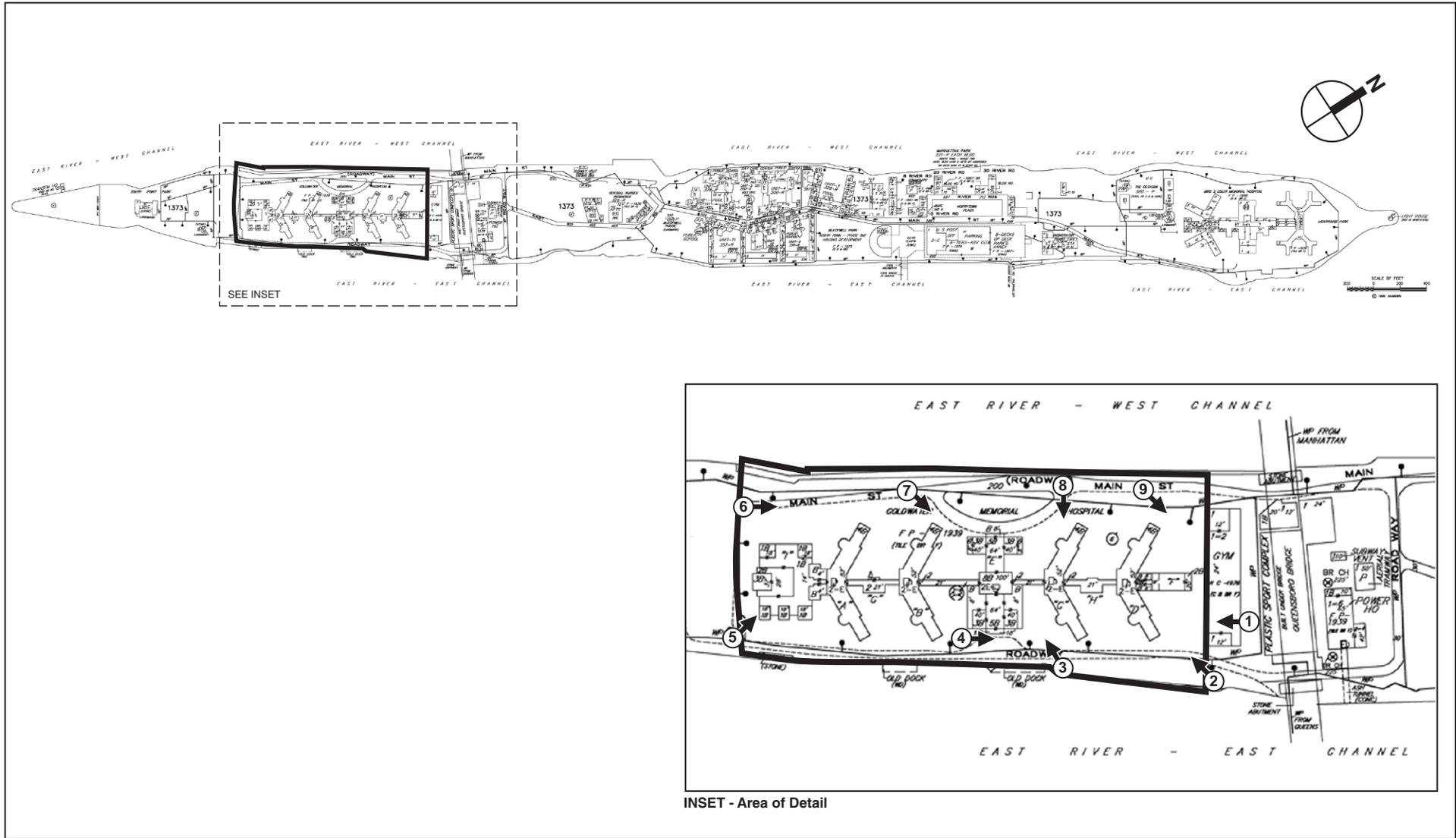
Figures



 *Approximate Study Area Boundary*

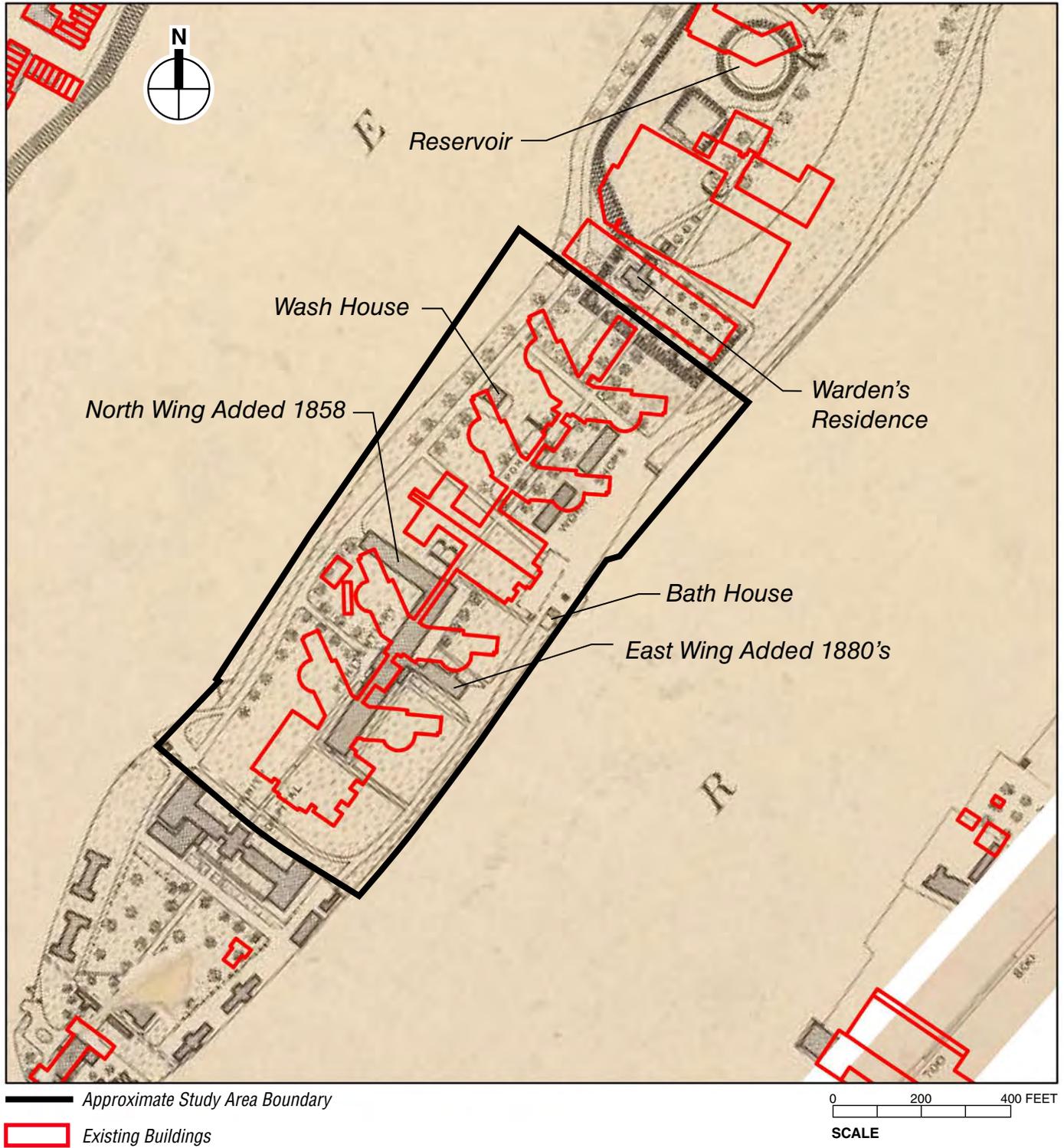
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USGS 7.5 Minute Topographic Map –
Central Park Quad
Figure 1

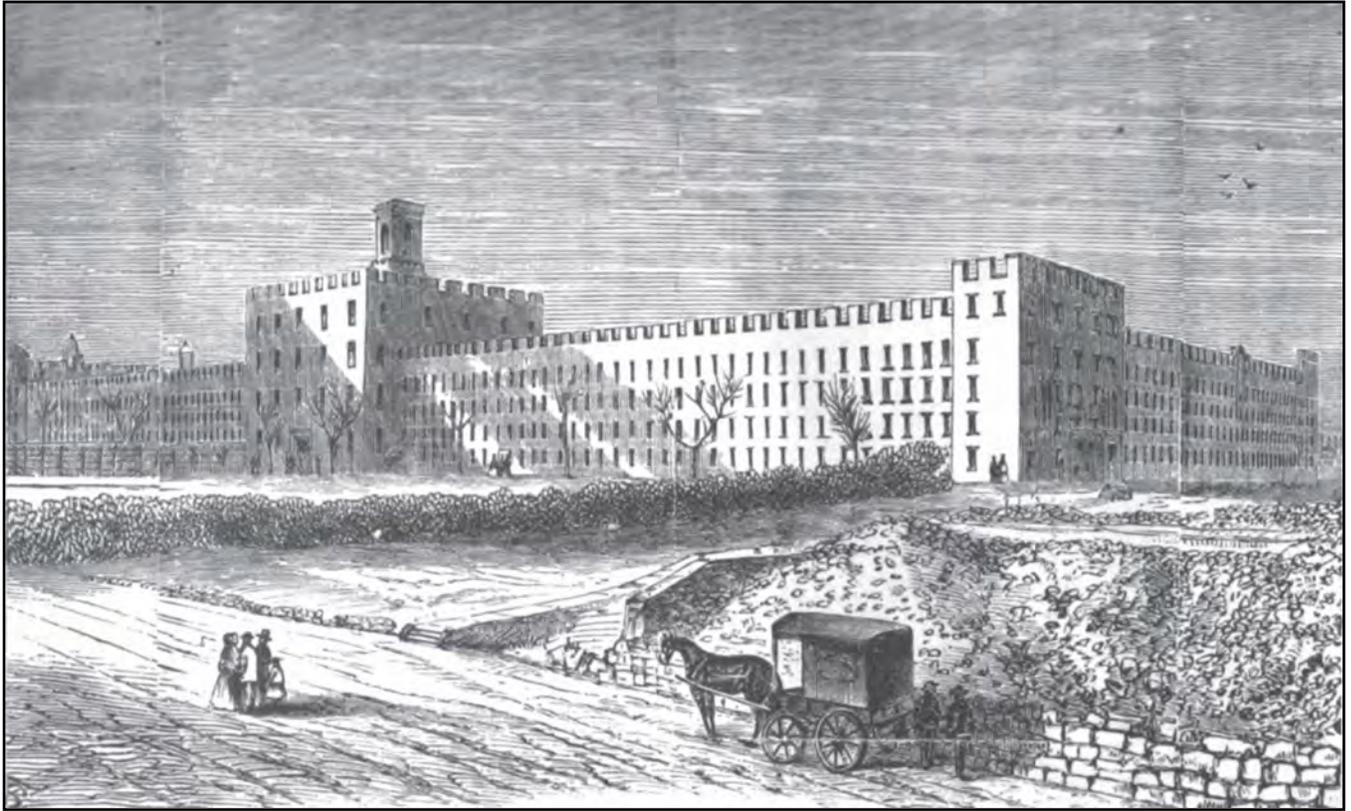


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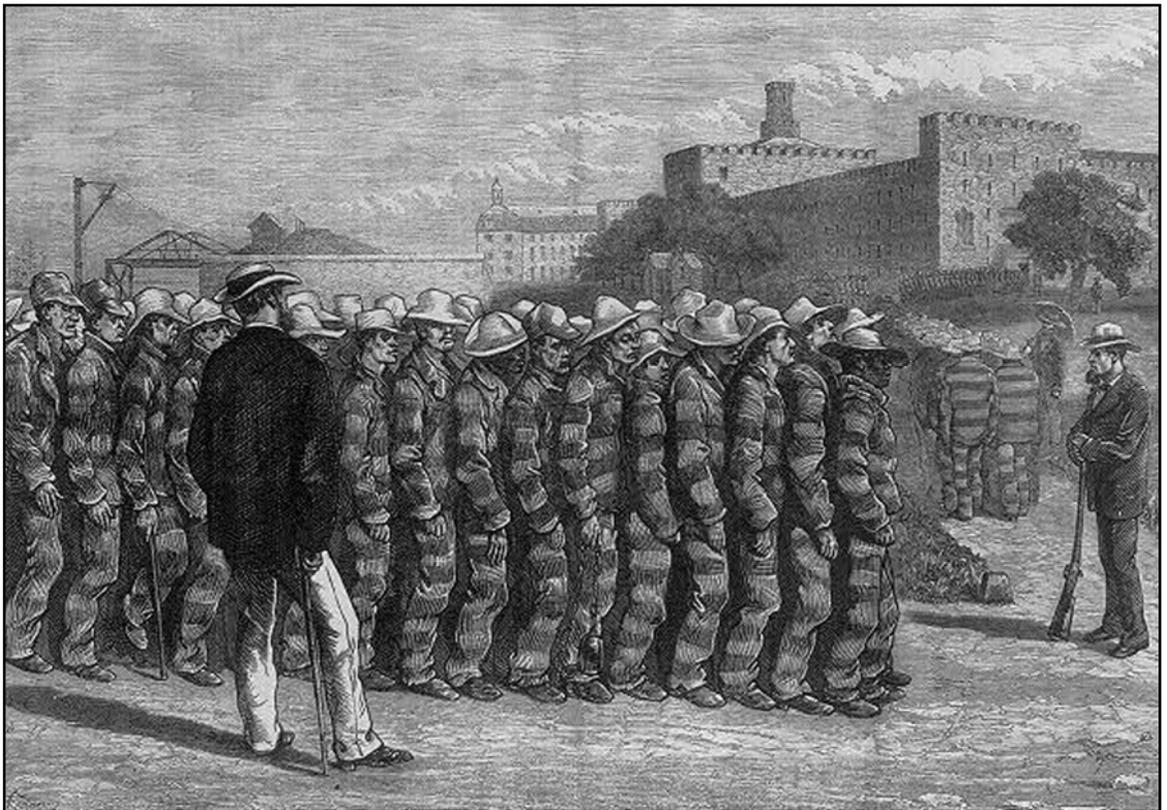
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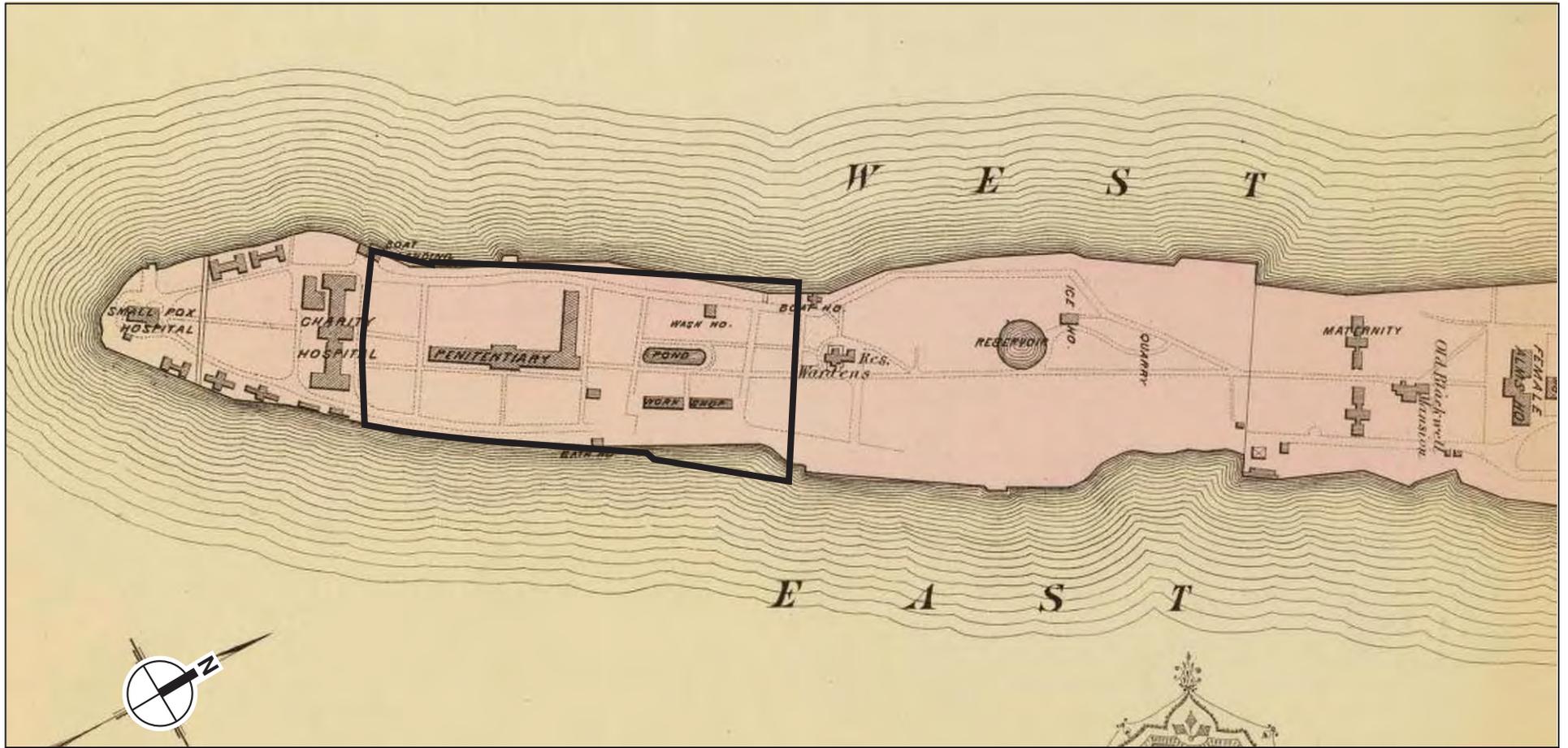
*U.S. Coast and Geodetic Survey of
Blackwell's, Ward's and Randall's Islands.
E. Hergesheimer, 1886*
Figure 3



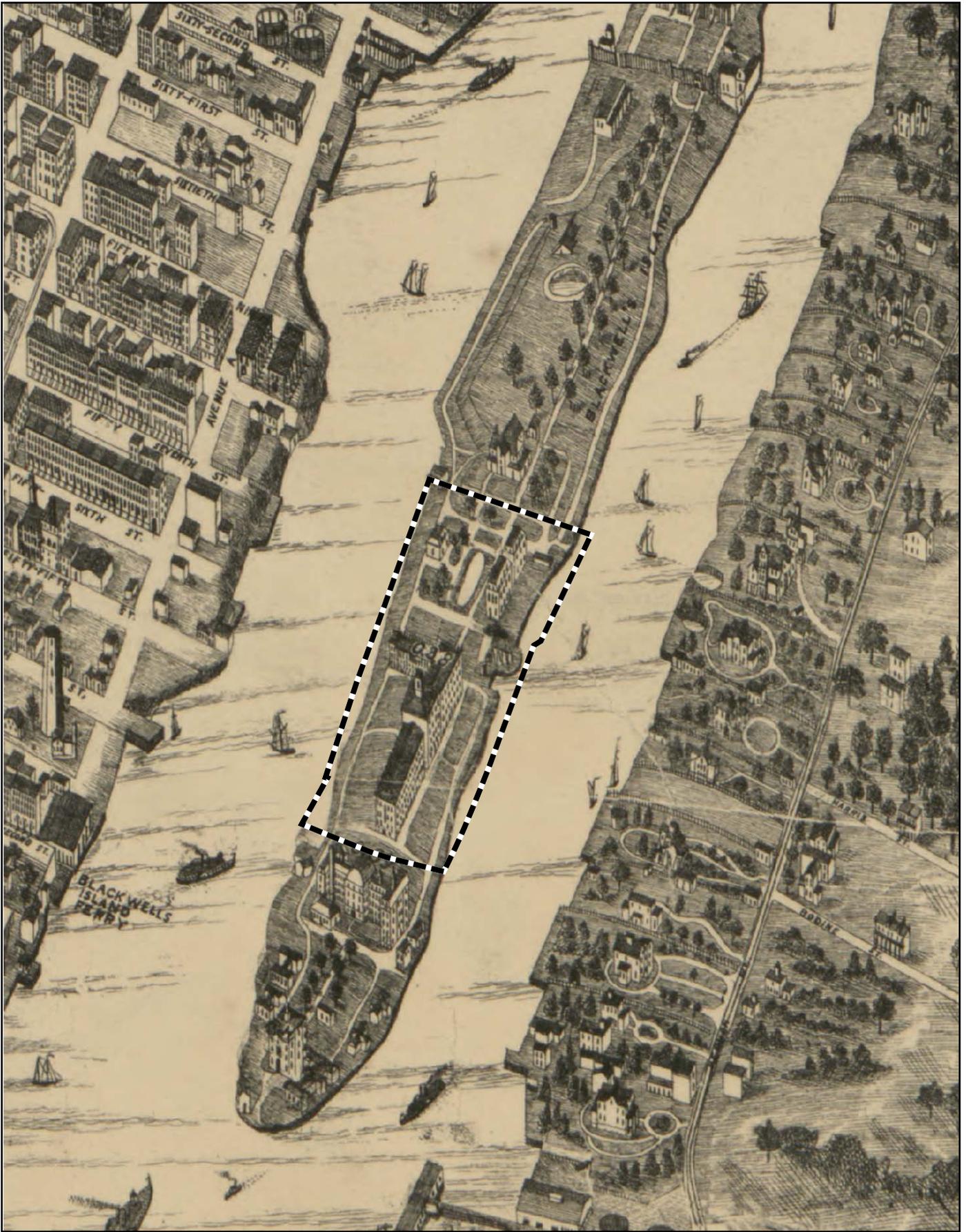
A late 19th century drawing of the prison's east facade.
From James D. McCabe's Lights and Shadows of New York Life (1872)



Wood engraving of prisoners returning from work.
Published in The Illustrated London News (February 1876). From the Library of Congress

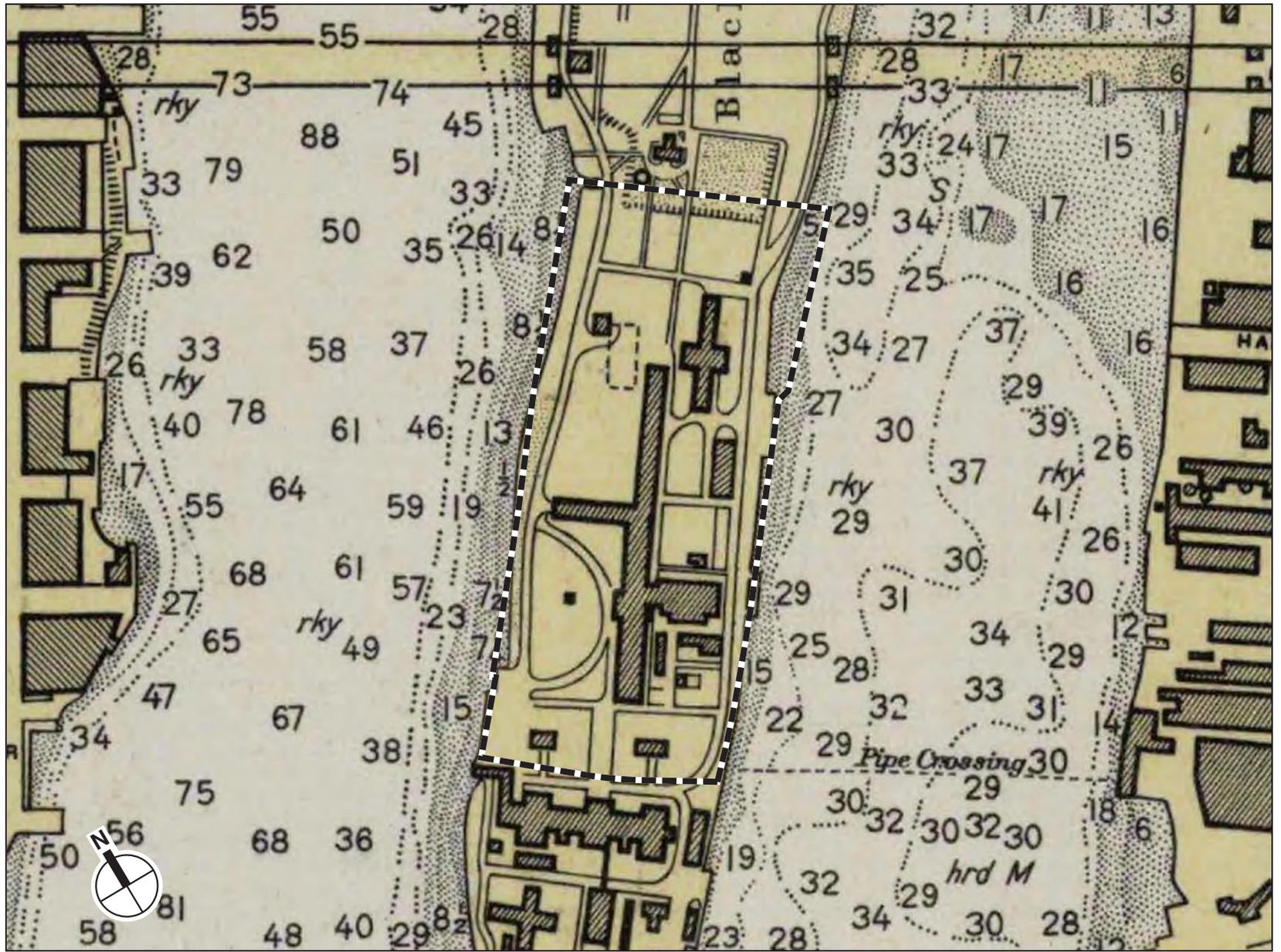


— Approximate Study Area Boundary



--- Approximate Study Area Boundary

1879 Bird's Eye drawing by Will L. Taylor
Figure 6



--- Approximate Study Area Boundary

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1929 U.S. Coastal and Geodetic Survey
Figure 7

Photographs



Looking south from the unnamed road at Building D in the northeastern corner of the project site. The slope down into the project site appears to be the result of grading in the 19th and 20th centuries

1



View southwest at the northeastern corner of the project site, showing the variable terrain in the area. Building D is to the left of the photograph and Building F is to the center

2



The eastern side of Building E, as seen from Main Street. 3
Note the steep slope of the parking lot to the north



The relatively flat area to the east of Building E, looking north towards 4
Building C and the Queensboro Bridge



Sewer pump station at the southeast corner of the project site; Building J is to the left of the photograph 5



Looking north at the gentle slope of the grassy area to the west of Building J with Building A in the background 6



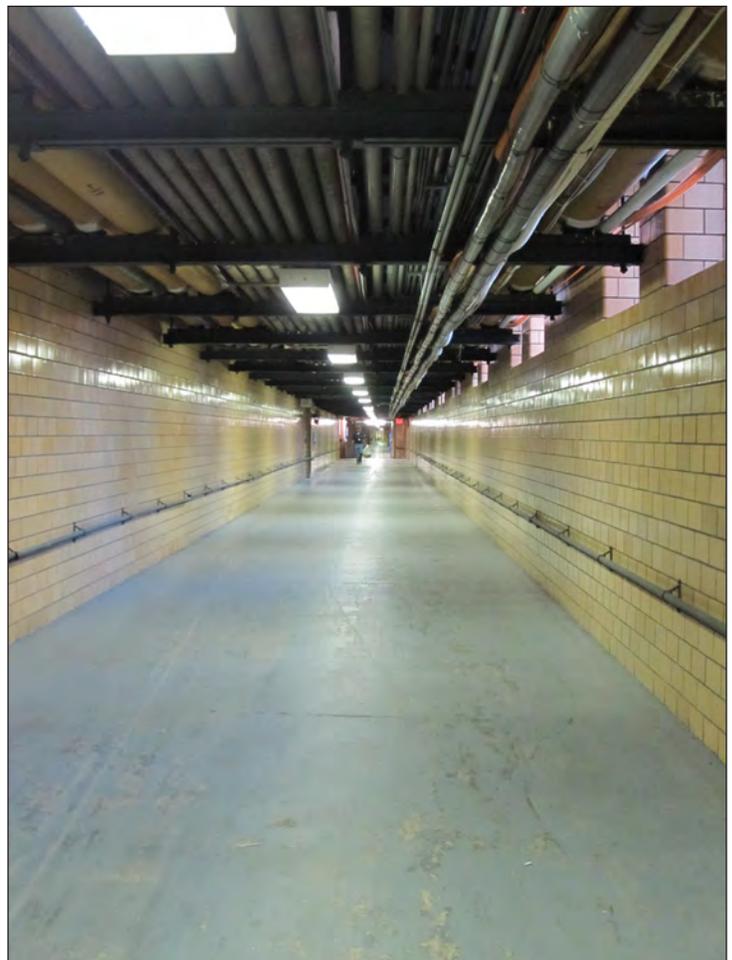
View northeast at the main entrance to the hospital in Building E (Building B is to the right of the photograph). This photograph shows how the area has been affected by grading and filling, resulting in its varying topography 7



The sloping parking lot between Buildings E and D, which are connected by the common corridor that runs the length of the hospital 8



Looking down at the parking area north of Building D and west of Building F from a balcony on Building D. This area has been extensively graded and is at a lower elevation than the road surface to the north (at the left of the photograph)



The basement of the corridor that connects all of the hospital buildings