New York City Economic Development Corporation

RANDALLS ISLAND

CULTURAL RESOURCES ASSESSMENT

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Randalls Island, New York, NY

Prepared for:

Parsons Brinckerhoff
One Penn Plaza
New York, NY 10119-0061

Prepared by:

Historical Perspectives, Inc.
P. O. Box 3037
Westport, CT 06880

Principals and Primary Authors:
Andrew Dolkart
Betsy Kearns
Cece Saunders
Richard Schaefer

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I. INTRODUCTION

The New York City Department of Parks and Recreation (DPR) has proposed the development of schematic designs for the first phase of work on Randalls Island park, as part of the creation of a long-term master plan for the parks of Randalls and Wards Islands. It is the goal of the DPR to reestablish Randalls and Wards Island Parks as a major local and regional recreation area.

Site 1 (hereafter referred to as the project site or study site), generally comprises the southwestern corner of present Randalls Island. It is bounded by the Harlem River on the west, the strait of Little Hell Gate on the south, the Queens arm of the Triborough Bridge to the east, and the current golf center to the north. (Fig. 1) Major facilities on the study site include the horseshoe-shaped Downing Stadium along the eastern side of the parcel. Most of the remaining area is occupied by soccer and baseball fields. (Fig. 2) Based on the concept plan provided by the Randall's Island Sports Foundation, the proposed actions include the demolition of Downing Stadium, the construction of a new track and field stadium and amphitheater to the west of the present stadium, and the construction, reconstruction and reorganization of various ballcourts and ballfields.

The purpose of this assessment report is to determine the presence, type, extent and significance of any cultural resources which may be present on the project site, and may be adversely impacted by redevelopment. It is based on archival research which documents the probability that the project site hosted any prehistoric or historical resources, and their likely survival of post-depositional disturbances, including modern construction, which may have accompanied subsequent development.

In addition, although the stadium has undergone some alteration since it was first constructed, it may be of historic significance. This report also assesses Downing Stadium in order to understand its design and role within the context of architecture and society in the 20th century. For a full discussion of this review, as well as recommendations for further action, see "Downing Stadium – Historic Resources Assessment," at the end of the Section IV, the historical period overview.

In order to address the above concerns, various sources of data were researched. Primary source material on the project site was collected to determine the original topography, and to compile a building history and disturbance record. Historical maps and descriptions of the study area were collected in, or provided by, the Local History and Map Divisions of the New York Public Library, and the Randalls Island Sports Foundation, Inc.

To place the project site within its prehistoric context, archaeological literature, available site reports and journal publications were researched for data specific to the project sites and their vicinity. These include the works of archaeologists Arthur C. Parker, Reginald P. Bolton and Robert Grumet. William Ritchie's *The Archaeology of New York State* provided a valuable overview of Native American culture and lifeways during the prehistoric period. The files of inventoried prehistoric and historical sites from the New York State Museum and the New York State Office of Parks, Recreation and Historic were also consulted. These are discussed within the report and can be found in Appendix A.

Although no subsurface investigations were conducted, site visits (10/12 and 10/13/00) and a photographic record of current conditions were made. (See Photos 1-14)

II. ENVIRONMENTAL SETTING

The Manhattan and the Bronx lie in the Hudson Valley region, in geological terms a section of the New England Upland Physiographic Province, a northern extension of the Great Appalachian Valley (Schuberth 1968:74). The underlying geology is "chiefly gneiss and mica schist with heavy, intercalated beds of coarse-grained, dolomitic marble and thinner layers of serpentine." There are areas of softer sedimentary deposits, such as the Tremont limestone belt, which extends south through the central Bronx to the Harlem River (Scharf 1886:6-7).

The original landscape was altered over the last million years by three known glacial periods. As the ice advanced and receded it eroded, carved, scoured and planed the landscape, and left behind tons of glacial debris, which formed low hills or moraines. In the Bronx these run north-south, directing the local creeks and streams (like Mill Brook, which has its oulet in the Bronx Kill, opposite Randalls Island), toward outlets along the Harlem River and the Bronx Kill. These watercourses have further eroded the limestone belts still exposed between the glacial deposits, creating a varied landscape of hills and valleys, and in the case of the East River, left island outcrops, such as Randalls, Wards and Roosevelt Islands. With the final retreat of the ice, the study area was colonized by plants suited to arctic and tundra conditions, which eventually gave way to a forest composed of conifers and deciduous trees. During the last 12,000 years, the fluctuating floral and faunal communities eventually stabilized, resulting in a landscape of oak, hemlock, beech and chestnut trees, generally characterized as a climax forest.

During the 20th century, a massive program of filling and construction joined Wards, Randalls and two smaller marshy islands,[1] greatly altering the project area vicinity from its appearance at the time of the arrival of the first Europeans. Before these changes, the roughly triangular island was divided from the mainland Bronx by the Bronx Kill, and from Wards Island by a strait known as Little Hell Gate. A narrow band of the marshland ringed the entire island, but at its northern corner and along its southeastern side were larger areas of marshy ground or meadow, partially inundated at high tide. Natural, low-lying channels drained the marshes east of the project site into the East River. (Figs. 5, 6, 8)

The remaining sections of the island were dry, elevated land. This includes the majority of the project site, at the southern corner of the island. Detailed 19th-century topographic maps record the southern half of the study site as an undulating landscape of low, grouped hills. The northwestern quarter of the project site was also dry ground, a level but less-elevated region between the hills on the south and the large elevated flat terrain which comprised the northern 2/3 of the island. Here were at least two large ponds which do not seem to have been connected to the shore by any stream or creek. Two sections of meadow extended into the eastern side of the project site, the smaller in a vale between the hills in the southern half of the study site, and a larger arm in the northeastern quarter of the project site. Both appear to have been on the location of Downing Stadium. (Fig. 5)

During the 1850s, with the construction of the House of Refuge, an institution for the rehabilitation of juvenile delinquents, the shoreline of the project site was regularized with the construction of a seawall, most of which is still in existence today. (See e.g., Photo 11) The small hills in the

[1]Both east southeast of Randalls Island, the larger was usually labelled "Sunken Meadow," and the smaller "The Hammock." (See e.g., Figs. 4, 5, 7)

southern half of the project site appear to have been levelled, either by the importation of fill, or the truncating of the existing hills, in order to fill in the intervening low spots. This created a large flat area for the House of Refuge's symmetrically arranged institutional buildings, yards and garden/farm plots.

The meadows along the east side of the project area appear to have remained relatively untouched during the 19th century, with construction confined to the already existing elevated areas. This changed radically with the construction of the Triborough Bridge and Downing Stadium in the early 1930s, when the remaining swampy zones were completely filled in. The buildings of the House of Refuge were razed, and the western and southwestern parts of the project site were reconstituted as a flat area of playing fields, now used for soccer and baseball. (Photos 6, 9, 10, 12) A paved road surrounds the current stadium which has a paved entrance plaza at its northeastern end. A unpaved and roughly-surfaced road runs along the shore and perimeter of the project site.

The formerly level and slightly depressed areas in the northwestern quarter of the site are now elevated ***above*** the southern half of the project site, covered with thick brush and tree growth, and cut through by rough paths and roads. The current U.S.G.S. shows elevations this area declining from above 30 feet at the stadium entry plaza, to below 10 feet as one approaches the shoreline road to the west, and the playing fields to the south. (Fig. 1)

East of the playing fields, abutting the western side of the stadium stands, a berm approximately 10 feet high was constructed. (Photos 6, 9) The current U.S.G.S. map records the berm as being above the 20-foot contour line, sloping down to below 10 feet on the playing fields to the west and below 20 feet on those to the south. (Fig. 1)

The rough road along the shore is generally level with the adjacent playing fields, although at the southwestern tip of the project site, along what remains of the mostly filled Little Hell Gate strait, a small hill and stand of trees abutting the ballfields is about four feet above the level of the road. (Photo 12)

The areas east of the stadium and playing fields, immediately west of the Triborough Bridge piers, are presently being used for the storage of landscaping plants and supplies, and by the New York City Riding Academy. (Photo 14)

III. PREHISTORIC ERA

The prehistoric era in the coastal New York region can be divided into three time periods, based on human prehistoric adaptation to changing environmental conditions. These are generally known as the Paleo-Indian (c.12,000 to 10,000 years ago), the Archaic (c.10,000 to 2,700 years ago) and the Woodland (c.2,700 to 300 years ago). In order to be able to assess the project site's potential for prehistoric exploitation, it is first necessary to review these time periods and their associated settlement patterns.

Paleo-Indian Period (c.12,000 y.a. - 10,000 y.a.)

Toward the end of the Wisconsin Glaciation, during the Late Pleistocene Epoch, the first humans wandered across the exposed land bridge which connected Siberia and Alaska. These small groups of hunters were probably following the roaming herds of megafauna which were their chief prey. The distinctive weapon in their chipped stone tool kit was the fluted point, which has been found in association with mammoth, mastodon, bison and horse remains at various sites in the southwestern United States. Although none of these "kill sites" is located east of the Mississippi, the discovery of campsites such as that at Port Mobil, Staten Island, suggest a scattered, highly mobile population in bands of approximately 20 individuals, who ranged across a vast area necessary to support lifeways organized around the hunting of migratory game (Ritchie 1980:1-3, 13).

The fluted, lanceolate points, two to five inches in length with concave bases and channelled or fluted faces, presumably to facilitate hafting, exhibit a considerable range in shape and size. They were usually made from a high-grade silicious stone, often exotic to the region in which they are recovered, a function of their makers' seasonal migrations. Other artifacts in the Paleo-Indian tool kit include scrapers, knives, borers and gravers, tools which indicate extensive handiwork in wood, bone and leather (Ritchie 1980:3,6).

From the locations of recorded sites in the Northeast, Paleo-Indians exhibited a marked preference for well-elevated situations. However, 30% of sites were found on or near the margins of swampy ground. Environmental characteristics which appear to have been attractive to Paleo-Indians include the proximity of major waterways, large fertile valleys and the coastal plain, where the densest population of desired food animals was supported (Ritchie 1980:7). However since 10,000 years ago, the rise in sea level estimated to be from 75 to 80 feet, has submerged large numbers of these sites.

The retreat of ice from the project area vicinity approximately 18,000 years ago and a global warming trend circa 14,000 years before present, encouraged Paleo-Indian settlement in the Northeast. The post-glacial environment of spruce and pine underwent a gradual modification in favor of deciduous hardwoods such as oak and hickory, which have greater importance in terms of nutritional value to both animals and humans than do conifers. By 8,000 B.C., these deciduous species dominated forests along the eastern seaboard. In addition, the megafauna on which Paleo-Indian diet was based "were rapidly becoming extinct, and were being replaced by the temperate-climate fauna that are indigenous today" (Gwynne 1982:190-191).

Archaic Period (c.10,000 y.a. - 2,700 y.a.)

The warming trend at the end of the last glaciation completely transformed the northeastern coastal environment from tundra and conifer-dominated forests, to the present deciduous woodlands with generally modern distributions of fauna. Due to the dwindling contribution of meltwater from disappearing glaciers, the reduced flow of streams and rivers promoted the formation of swamps and mudflats. These wetlands created a congenial environment for migratory waterfowl, and a host of edible plant species and shellfish. The new mixed hardwood forests of oak, hickory, chestnut, beech and elm attracted such mast-eating fauna as white-tailed deer, wild turkey, moose and beaver.

Although the Archaic diet was still based on hunting and gathering, due to the greater variety of plants available and exploited, excavated Archaic sites yield a wide array of plant processing tools, including grinding stones, mortars and pestles. The diagnostic tool was the grooved axe. In the coastal areas of New York, have been found numerous, small "nearly always multi-component sites variously situated on tidal inlets, coves and bays, particularly at the heads of the latter, and on fresh-water ponds" (Ritchie 1980:143). By the Late Archaic, these areas provided shellfish, small game, fish, salt hay and tuberous grasses making larger more permanent settlements possible. Semi-nomadic life is still indicated, but wandering occurred within well-defined territorial limits, with seasonal movements between camps near exploitable resources. A dietary shift to shellfish in coastal New York near the end of the Archaic suggests a scarcity of large game, and a change from the early Archaic inland adaptation of forest hunting. Coastal sites show a principal reliance upon shellfish, especially oysters, hard and soft shell clams and bay scallops, which were readily available in the waters of the East River and Long Island Sound. Characteristic of the Late Archaic were "fish-tailed" projectile points and soapstone bowls (Ritchie 1980:142,166, 167, 171). In contrast to conditions during the Paleo-Indian, Early and Middle Archaic, "by Late Archaic times sea level was so close to present levels that its subsequent small rise has failed to obliterate much of what remains on Long Island from that period" (Gwynne 1982:192). Hence the Late Archaic Wading River complex, four sites on the north shore of Suffolk County, was found at the edge of a salt marsh, on dry ground ranging only two to seven feet above mean high water (Wyatt 1982:71).

Woodland Period (c.2,700 y.a. - 300 y.a.)

From approximately 3,000 years ago until the arrival of the first Europeans, Native Americans of southern New York shared common attributes of the Woodland Stage: the advent of horticulture, extensive trade networks, large permanent or semi-permanent villages, pipe smoking, the bow and arrow and the production of clay vessels. The habitation sites of the Woodland Indians increased in size and permanence as they became ever more efficient in extracting food from their environment. The archaeological evidence from Woodland Period sites indicates a strong preference for large-scale habitation sites to be in close proximity to a major fresh water source, e.g., a river, a lake or an extensive wetland; and smaller scale sites for extractive operations, e.g., butchering stations, shell gathering loci and quarrying sites, to be situated at other resource locales. Late Woodland Stage sites of the East River Tradition in southern New York have been noted on the "second rise of ground above high water level on tidal inlets," and situated on "tidal streams or coves" and "well-drained sites" (Ritchie 1980:16). Carlyle S. Smith, who studied and analyzed the distribution of

prehistoric ceramics in coastal New York, stated that "village sites" are found on the margins of bays and tidal streams" (Smith 1950:130).

Woodland Period tool kits show some minor variations as well as some major additions from previous Archaic tool kits. Plant processing tools became increasingly common and their presence seems to indicate an intensive harvesting of wild plant foods that may have approached the efficiency of horticulture, which itself appeared during the second half of the Woodland Period. The advent of horticulture is tied in with the introduction of ceramic containers which allowed for more efficient cooking of certain types of food and may also have functioned as storage for surplus food resources. "With the onset of relative sedentary lifestyles and intensified food production, which might have produced occasional surpluses, incipient ranked societies may have begun to develop, as indicated by the presence of extensive trade and exchange and some caching of special artifact forms" (Grettler et al. 1988:10). Despite the advent of agriculture, shellfish and small game remained an important component of the Woodland diet. Shellfish refuse heaps, termed "middens," reached immense proportions, covering from one to over three acres. Deer, turkey, raccoon, muskrat, ducks and other game were stalked with bow and arrows, replacing the spear and javelin, while dug-out boats, bone hooks, harpoons and nets with pebble sinkers were employed in fishing (Ritchie 1980:179-180,267).

Historical narratives written by European travelers and settlers provide us with our only first-hand descriptions of Native American daily life and customs during 17th century. Johannes de Laet, in his *New World, or Description of West India*, published in Holland in 1625, wrote that the Native Americans:

> are divided into many nations and languages, but differ little in manners. They dress in the skins of animals. Their food is maize, crushed fine and baked in cakes, with fish, birds and wild game. Their weapons are bows and arrows, their boats are made from the trunks of trees hollowed out by fire.
>
> Some lead a wandering life, others live in bark houses, their furniture mainly mats and wooden dishes, stone hatchets, and stone pipes for smoking tobacco (Bolton 1972:16).

Anthropologists and linguists agree that when Europeans arrived in the project area vicinity, the Native Americans present were Munsee-speaking Upper Delaware Indians, a group known as the Wiechquaesgeck. At the time of European contact, c.1600, an estimated 900 Wiechquaesgeck occupied the Bronx, northern Manhattan Island and Westchester County. Henry Hudson's first meetings in 1609 with the Indians along the Hudson River shores of Westchester and the Bronx were not propitious. A mate rashly killed an Indian caught burgling one of the ship's cabins, and hostilities broke out which ended with the crew firing muskets on canoes crowded with hostile warriors, killing nine Indians (Brodhead 1854:33; Grumet 1981:25-26,60).

With the advent of Dutch settlement during the 17th century, the constant contact between peoples of two alien cultures, along with their competition for land and other natural resources was a source of frequent friction. Since the Wiechquaesgeck had few furs to trade with the Dutch, there was little motivation on either side for good relations. Several brutal wars with the Dutch and hostilities with other Indian groups during the 1640s and 1650s, coupled with the introduction of European diseases

against which Native American populations had no natural protection, decimated Indian populations in the New York City area. Many groups were forced to migrate and merge in order to maintain viable communities. By the end of the 17th century, the Wiechquaesgeck had abandoned Manhattan. Some moved to New Jersey, where they joined the Raritan, while many others settled in northern Westchester County, among the Wappingers in Dutchess County and also in the vicinity of Stamford, Connecticut. They and other small groups were referred to as "River Indians" during the 18th century, when they provided the English with laborers and warriors, but these Indians were driven off or moved in with other groups outside the Lower Hudson Valley (Grumet 1981:60-62).

Research by Robert S. Grumet and Reginald Bolton indicates that the Indian settlement nearest the project site was a habitation or campsite along the Manhattan shore of the Harlem River, between East 119th and 122nd Streets, about 1,300 feet west northwest of the project site. First recognized in 1855, after "numerous shells, flakes and weapons" were found between East 120th and 121st Streets. Bolton felt that it was a "native site of some importance . . . a place of landing and trade, or perhaps a fishing-place," because it was the nearest point by canoe to the Bronx. Bolton records a major Indian trail cutting diagonally eastward through the present Manhattan streetgrid, linking the shore and campsite area with the main trail running through the center of Manhattan Island. The trail and the settlement were on a broad area of level land (later the location of the Dutch town of Nieuw Haarlem) known to the Indians as ***Conykeekst***, probably meaning "little narrow tract." Bolton speculates that the name was probably applied to the settlement, which, due to the lack of sheltering high ground in the vicinity, was unlikely to have been occupied during the winter months (Bolton 1922:72-74,Map IV; Grumet 1981:9).

South of Conykeekst, archaeologist Arthur C. Parker's map of recorded prehistoric archaeological resources shows a village site (ACP-NYRK no#) at about East 110th Street and the East River, about 2,000 feet west of the study site (Parker 1920:627). The work of other researchers does not seem to support this, although Grumet does depict Native American planting fields in that area (Grumet 1981:68;). (Fig. 3)

Archaeology also records a substantial Indian presence in the nearby Bronx, adjacent to Randalls Island across the narrow Bronx Kill. The Indian village ***Ranachqua*** is generally located on the northern banks of the Kill near Cypress Avenue south of East 132nd Street, approximately 2,600 feet northeast of the project site. "Food pits and Indian implements" have been found here (Bolton 1972:136-137). Historian Robert Bolton reported in 1881 that "within a few years several Indian tumuli have been accidentally opened in the vicinity . . . and found to contain large-sized skeletons of the Aborigines" (Bolton 1881:451). The name Ranachqua has been defined in various sources as "the end place," "stop" or "point," most likely due to its position on the shore at the end of an Indian trail. This trail ran generally northeast-southwest and in its southern sections approximates Cypress Avenue. (Fig. 3) Despite or perhaps due to the existence of the village, the name Ranachqua was often used to refer to the part of the southwestern Bronx that juts out between the Harlem and East Rivers. (Grumet 1981:43; Brodhead 1854:43).

The archaeological site file inventories from the New York State Museum (NYSM) and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), record a number of inventoried sites within one mile of the project site, most of which have already been discussed above.

NYSM#4064 is a campsite identified by archaeologist Parker (ACP-NYRK no#), on the Manhattan shore of the Harlem River, in the vicinity of the approaches to the Triborough Bridge, about 1,000 feet northwest of the study lot. This corresponds to the location of the Conykeekst campsite, described in more detail earlier.

NYSM#5475; OPRHP #A005-01-0027, #A005-01-0031: a village site, the same location as the village discussed above and identified by Reginald Bolton as Ranachqua. The NYSM and OPRHP locate the site(s) more generally than does Bolton, in a broad area south of 133rd Street, extending as far west as the Bruckner Expressway, about 2,600 feet northwest of the study site.

NYSM#7248: traces of occupation were recorded on this site, approximately 1.0 miles west of the study lot on the Manhattan shore of the Harlem River, in the vicinity of Park Avenue.

NYSM#4539 (ACP Quns no#) These shell and kitchen *middens*, or refuse heaps, were along the East River shore, in what is now Ralph Demarco Park (north of Astoria Park), in the Ditmars area of northwestern Queens, about 3,000 feet southeast of the project site (Parker 1920: 672).

These sites all cluster along the shores of major waterways, the Harlem, Bronx and East Rivers, surrounding the project site to the north west and south. There were shellfish beds to be exploited in addition to marshland resources, and small freshwater creeks. The study site is similarly situated. Although there were no freshwater creeks on the island, early maps do indicate the existence of at least two small ponds on the project site, which may have served as fresh water sources. (Fig. 5)

Despite the location and the same wealth of natural resources, no inventoried prehistoric archaeological sites have been recorded on Randalls or Wards Islands. It is more than likely that this lack of known sites on the project site itself is a function of the early institutional development of the island. As the location of what were actually informal prisons, the project site was probably not open to survey by amateur or professional archaeologists until the mid-20th century, after the period during which such archaeological site inventories were being assembled.

Given the strong evidence of prehistoric occupation in the vicinity of the study site, and the presence of a water feature, marshland and elevated ground on the project lot itself, the study lot has a high potential for containing buried prehistoric cultural remains. However, it should be noted that due to the shallow nature of such deposits (i.e., within 3 to 4 feet of the predevelopment surface), subsequent historical construction and regrading may have destroyed any prehistoric archaeological potential. (See Section V for conclusions and recommendations concerning site sensitivity).

IV. HISTORICAL PERIOD

The earliest recorded European to sail through the channel now separating Astoria, Queens and Wards and Randalls Islands, was Adriaen Block, the Dutch captain of the *Onrust,* who passed from the East River to Long Island Sound in 1614. From Block we have the first mention of the ***Helle Gadt*** or ***Hellegat,***[2] the name by which the Dutch colonists referred to the entire East River. It eventually came to mean only the strait because of the dangerous shoals and unpredictable tidal currents and eddies (Brodhead 1853:56, 56n).

After the first European settlers arrived under the auspices of the Dutch West India Company, New Netherland Governor General Wouter van Twiller purchased both islands for his own private use. The sellers were identified as "two chiefs of Marechkawick," who appeared before him and the Council in 1637. At the time, Wards Island, known as Tenkenas, had an area of about 200 acres, and Randalls Island, or Minnahanonck, about 120 acres. Twiller also purchased Governors Island, becoming one of the largest landholders in the colony, and giving rise to criticism that he was enriching himself at the company's expense (Brodhead 1835:267; Stokes 1928:86; Grumet 1981:34). The 1639 Manatus Map shows Van Twiller's bouwerie or farm on Wards Island, but Randalls Island, including the project site, appears to be uninhabited (Brodhead 1853:55-56; Roberts 1990:1; Manatus 1639; WPA 1939:420).

With the capture of New Netherland by the English in 1664, the new government confiscated and renamed the islands. On Governor Richard Nicolls' map of 1664-68, Wards and Randalls Islands became Great Barn, and Little Barn Island respectively (Cohen and Augustyn 1997:44; Stokes 1922:4/26/1667). The next owner of the two islands was Thomas Delavall, Mayor of New York City. He declared his possession of the islands by January 1667, even though they were not officially confiscated until April, and he was not officially granted them until 1668. Among other "petitions" to the nearby Town of Harlem, Delavall, offered the islands to the inhabitants of the town, provided that they left the use of the meadows free to all. Despite the generous offer, no action appears to have been taken, and the islands remained in private ownership (Stokes 1922: 2/3/1668; 1/3/1667).

The colonial legislature joined both islands to New York County in 1683, and New York City in 1691 (Stokes 1922:11/1/1683; 10/1/1691). The ownership of the islands appears to have been split during the early 18th century. In 1735, Elias Pipon, a Harlem landowner held title to only Randalls or Little Barn Island (Stokes 1922:11/7/1735).

When Randalls Island was purchased by John Montresor in 1772, it had been called Belle and later Talbot's Island, suggesting some intermediate changes in ownership since Pipon. Continuing the custom, for many years it was referred to as Montresor's Island. Montresor was a British army engineer stationed in New York City by 1765, under the command of General Thomas Gage. As Gage's best engineer, he was responsible for surveying and drawing up a plan of the city, now known as the Montresor Plan.[3] This was done in case military action against the inhabitants became necessary during the difficult period of civil unrest following the passage of the Stamp Act in 1765. Montresor also completed a survey of New York Harbor and its islands,

[2]The consensus on translation of this term is literally "hell gate."
[3]Actually, "A Plan of the City of New-York & its Environs," 1766.

as well as one of Bunker Hill, Philadelphia and New York Province. He was appointed chief engineer of British forces in December 1775 (Cohen and Augustyn 1997:71-72).

While the Continental Army was in control of New York City, George Washington established a smallpox quarantine on Randalls Island during the Spring of 1776. When the British drove the Continental Army out in September, Wards Island became an army base, and a hospital was established on Randalls Island, in which Montresor's wife Frances served as matron. American forces were just to the north across the shallow, non-navigable Bronx Kill in the present Bronx, and were in contact with their counterparts on Randalls Island. An American attack on the island under General William Heath failed because the opposing soldiers had become so friendly with each other that many of the Americans refused to attack. (Seitz and Miller 1996:164).

It is not clear whether the earlier owners had ever occupied Randalls Island, but Montresor definitely used it as his residence, moving his family there. On January 13, 1777, Montresor reported that, "this night my House and out-houses, Barns and offices on Montrésor's Island . . . was burnt by the Rebels (Stokes 1922:1/13/1777; Cohen and Augustyn 1997:72). General Heath denied this, asserting that the British, folled into believing the Americans were about to mount a large-scale attack, panicked and burned down the buildings before retreating (Seitz and Miller 1996:164). A view of the Randalls Island, from October of the same year, seems to show no structures on the western side of the island (Stokes 1928:plate 86).

Following confiscation of the island after the war, Jonathan Randel or Randal acquired the island in 1784. Since Montresor's buildings were burned in the war, the group of three structures visible on the 1814 Commisssioners Map (about 1,200 feet north of the project site), and labelled "J. Randel" must be new or the Montresor's structures rebuilt. The buildings also appear on maps in 1811, 1821, 1827 and 1836 (Cohen and Augustyn 1997:107,109,115,121). Colton's 1836 map is particularly detailed, showing the Randel residence with an avenue of trees leading down to the dock on the Harlem River shore (Colton 1836). (Fig. 4) After he died in 1830, Randel's heirs sold the island, along with the separate 50-acre Sunken Meadow to the east, to the City of New York in 1835 for $60,000. Apparently, a misspelling in the deed altered Randel's name, and the island came to be called Randall's Island (WPA 1939:424)

As New York City's burgeoning population spread northward across Manhattan, Randalls Island was caught up in the general movement to place the poor, sick, orphaned and criminal on the city's various outlying islands. The Common Council moved c100,000 bodies from the Manhattan potter's field (50th Street and Fourth Avenue) to neighboring Wards Island, and a new potter's field was opened on Randalls Island in 1843, and called the city cemetery. In 1845, an almshouse was opened on Randalls Island, a children's hospital in 1848, and later an "Idiot Asylum" (WPA 1939:424; Seitz and Miller 1996:164; Stokes 1926:1,779, 1,790).

Some of these structures are visible on the 1851 coastal survey map. At the northeastern corner of the island, about 1,000 feet northeast of the project site, is a complex of twelve buildings arranged symmetrically around an east/west axis, labelled by later maps the "Randels Island Hospital." A T-shaped structure, about 1,200 feet north of the project site, is in the same location as the earlier Randel buildings, and appears to match in location, size and footprint the

institutional structure shown in the same spot in 1879, identified as the "Infants Hospital" on the 1885 map (Commissioners 1807; Galt and Hoy 1879; USCG&S 1851; Robinson 1885:30 inset).

In 1851, the southwestern part of Randalls Island, 36½ acres, including most, if not all of the project site, was appropriated for the Society for the Reformation of Juvenile Delinquents. The Society, incorporated by the State Legislature in 1824, was an outgrowth of the 19th-century movement to transform prisons from places of punishment to places of penitence and reform, hence the terms penitentiary and reformatory. The Society was privately managed, but with substantial state involvement. Courts throughout New York State could commit juvenile delinquents and vagrants to the "New York House of Refuge." Furthermore, the children were committed indefinitely. They were under the control of the House of Refuge until they reached their majorities. Funding was derived from private donations, as well as from a portion of the head tax on arriving transatlantic passengers and seamen, and license fees for New York City taverns, theaters and circuses. Since the Society's leaders generally blamed immigration, intemperance and commercial entertainment for juvenile delinquency, this seemed an appropriate source of revenue (NYSARA 1989:4; Seitz and Miller 1996:165).

After occupying several sites in New York City, the Society received $125,000 from the State and Federal Governments for the Randalls Island location. The new House of Refuge was completed there in 1854, and housing for the Female Division in 1860. The city was under no delusions as to the virtues of the inmates. The Society was directed to "erect a wall at least ten feet high" around the complex (Seitz and Miller 1996:165; Stokes 1926:1,836; NYSARA 1989:4).

The 1851 map shows four free-standing buildings on the southwesternmost hill on the site, and it is probable that these structures preceded the construction of the House of Refuge. (Fig. 5) However, their purpose is unclear. Since they appear on maps after c1836, they may also have been used by the staff of the other institutions which preceded the House of Refuge on the island (Colton 1836). Maps and photographs dating after 1854 show a large, formally laid out complex of 3- to 4-story brick buildings facing westerly toward the Harlem River and Manhattan Island, with the important central and terminal pavilions capped by domes. (Fig. 11) The project site also appears to have been regraded to form a flat expanse for the buildings and their courtyards. (Figs. 7 and 9)

An 1880 *New York Times* article, praising the institutional architecture and ornamentation, described the strict regimen established for the denizens. The children received four hours of religious and secular instruction each day. Religious instruction was strictly evangelical Protestant, and Roman Catholic clergy were excluded. In addition, there was 6½ hours of "industrial employment," *i.e.*, caning chairs and making shoes for outside contractors. Other sources record the boys producing brushes and brass nails as well. Girls made uniforms, worked in the laundry and did other domestic work. Some were eventually released to family members or friends, but most were later indentured for supervised employment, the girls as housekeepers, and the boys as farmers (Seitz and Miller 1996:165; NYSARA 1989:5).

The average population of inmates was between 500 and 600, but nearly a thousand were placed there during the 1860s and 70s. Most were teenage Irish boys with little education. Criminals

were housed separately from the "street urchins" (Seitz and Miller 1996:165). In 1857, the House of Refuge hosted a national convention of reformatory administrators, and at the time had the largest reformatory population in the United States. The New York State Committee on Social Agencies boasted that the "New York House of Refuge is now in the extent of its operations, the greatest reform school in the world" (Seitz and Miller 1996:165; NYSARA 1989:5).

The life of discipline was supposed to transform the inmates' lives and characters, but the Society's directors were either ignorant of, abetted, or simply turned a blind eye to the sweatshop conditions of the House of Refuge, as well as the beatings and torture inflicted on the children by their cruel taskmasters. The *Times* writer described the boys as having "a cowed way about them that is anything but pleasant" (Seitz and Miller 1996:165). In an 1872 state report, Superintendent Israel Jones was described as "a man wholly unfit and unworthy of the position and whose administration is characterized by brutality and neglect." Not surprisingly, given these conditions, armed revolts and arson plagued the institution throughout its existence (Seitz and Miller 1996:165-166).

Despite periodic state investigations, conditions were not improved until after 1887, prompted by the state prohibition (1884) on the use of inmates for cheap labor. Also, due to increased immigration which reduced labor costs, the indenture system was gradually abandoned. Apparently overall conditions improved slightly. The House of Refuge adopted a program of industrial education, under which the boys learned various trades, such as hosiery, printing, carpentry, painting, tailoring, horticulture, baking, gas and steam fitting. Girls were instructed in washing, ironing, sewing and other domestic work. After 1890, the boys were also led in military drills. However, investigations at the turn of the century still turned up underfed and poorly-clothed inmates, who were often mistreated by drunken officers. Corporal punishment might include being forced to stand handcuffed in a cell 19 hours a day, for weeks at a time (Seitz and Miller 1996:166).

The House of Refuge was closed and the Society dissolved by 1935, but not necessarily due to its illegal and irregular practices. It had simply become obsolete. The newer prototypical juvenile institution was expected to function properly in a rural setting. The Female Division had already been removed to a new House of Refuge for Women in Bedford earlier in the century. Eventually the boys were placed in the care of other institutions in Coxsackie and Warwick (NYSARA 1989:7).

Another reason for the removal of the House of Refuge was that Randalls and Wards Islands were coveted by powerful City Parks Department head Robert Moses for his new Triborough Bridge, linking Manhattan, Queens and the Bronx. In addition to connecting the Bronx and Manhattan with recreational parkways and other facilities on Long Island, Moses also planned to build a sports and recreational complex on Randalls and Wards Islands, including a stadium, parks and ballfields. Moses had sufficient influence and political connections to get the state legislature to evict most of the institutions that stood in the way of his plans.

The Triborough Bridge, forming the eastern boundary of the project site, opened in 1936, the same day as the adjacent, 21,000-seat Triborough or Municipal Stadium, later renamed Downing

Stadium (for an in-depth discussion of the stadium, see "Downing Stadium – Historic Resources Assessment" at the end of this section). Photographs of the project site taken at the completion of the stadium in July of 1936, show that the House of Refuge complex had been completely demolished, and ten or more construction shacks occupy the area south and southwest of the stadium. (Figs. 12)

Moses also instituted a massive landfill program to the east and south of the project site, not only connected Randalls and Wards Islands, but also bringing the area of Randalls Island up to 194 acres (from its original 120) by 1939. Although he never managed to acquire control over Wards Island, he was able to construct a series of ballfields and parks on Randalls Island, approximating the project site recreational facilities as they exist at present. (WPA 1939:424; Willensky and White 1988:475). (Fig. 2)

Downing Stadium – Historic Resources Assessment

Downing Stadium on Randalls Island, erected in 1935-36, is a sports facility that has played an important role in the social history of New York City and, in addition, is a reinforced concrete building designed in a Modern Classical style that typifies Depression-era park design in New York City. As such, this building is eligible for listing on the National Register of Historic Places and the New York State Register of Historic Places and mitigation measures should be undertaken before the building is demolished.

Randalls Island, located in the East River, had a long history of use for public facilities. Initially it was home to asylums that housed those whom the government wished to keep isolated from the general population. The site on which Downing Stadium would be built was the location of the House of Refuge, a reformatory for children under the age of sixteen, which was under the control of the Society for the Reformation of Juvenile Delinquents. The House of Refuge had been located on Manhattan Island, but by 1854 pressure from an expanding population forced the asylum to move to Randalls Island. By the 1930s, the House of Refuge was an antiquated facility and it was demolished for the construction of Downing Stadium

In July 1935, the New York City Department of Parks announced that the House of Refuge would be replaced by a horseshoe-shaped municipal stadium with permanent concrete stands that would seat 35,000 people, with space for temporary wooden stands seating an additional 10,000 spectators. The stadium would consist of a quarter-mile running track surrounding a regulation-size football field. The stadium was planned for use by intercollegiate track meets, college football games, public school athletics events, pageants, and concerts, and, it was hoped, for Olympic trials as well. Accord to the *New York Times,* Park Commissioner Robert Moses believed that "such a stadium was needed vitally in New York City . . . [since] New York was one of the few large cities in the country which did not have a municipal sports centre of some sort."[4] The stadium would be built by the Parks Department in cooperation with the Triborough Bridge Authority, which was building the Triborough Bridge with a roadway traversing Randalls Island. An exit ramp from the bridge roadway would permit easy vehicular access to the island.

[4] "New City Stadium Will Seat 35,000," *New York Times,* July 12, 1935, p. 20.

Construction would be paid for by the city and through federal relief funds, provided by the Works Progress Administration (WPA). The city would pay for all materials and the government would provide all of the labor. The city's contribution would be split between the Department of Parks and the Triborough Bridge Authority.

Downing Stadium was designed by the architectural staff of the New York City Department of Parks. Drawings in the collection of the Parks Department are signed by supervising park designers L. B. McCagg, Jr. and G. Logue, and by park engineer William Latham. The building is entirely constructed of reenforced concrete, a material that was popular for public-works projects during the 1930s. It is an austere structure with Classical detail, designed in a style that is sometimes referred to as Modern Classical. This was a style popular for post offices, court houses, and other public buildings of the Depression years and was used on many New York City park structures, designed by outside architects such as Aymar Embury, II, as well as by the Department of Parks' own staff. The exterior facades are ornamented with Greek fret motifs, over entrances and windows, classicized fluted detail at the parapet, and tall classical pylons at either end of the horseshoe. At the main entrance, on the north side of the building, in the center of the horseshoe, are seals of New York City and of New York State with classical fasces ornament. In addition, the building apparently was originally ornamented with impressive eagles (these are no longer extant). The actual form of the stadium is also based on that of ancient Roman stadiums and arenas (including the Coliseum in Rome), with an outer wall, inner walkways, and portals leading to stepped seating.

The stadium is built on a sloping site so that entry gates on the west side of the building become second-story windows on the east side. Earth from the excavations was employed as a foundation for the tiers of seats. The stadium is an impressive work of concrete construction when viewed from outside or from inside. The stadium has undergone alterations since its completion, but none have seriously compromised the initial design. In 1961, floodlights were added to the stadium so that it could be used at night. These floodlights are thought to have been salvaged from Ebbet's Field, the Brooklyn Dodger's stadium, before it was demolished. If this is true, then these historic lights should be carefully removed for future reuse at a public facility.

Construction of the building was undertaken on a fast-track, since Robert Moses was anxious to have the stadium completed by July 1936 so that Olympic track and field tryouts could inaugurate the new facility. Moses hoped to host this event despite the fact that many people sought to boycott the Olympics which were to take place in Nazi-ruled Berlin. In late April, 1936, a *New York Times* reporter visited the site, just as 140 Parks department gardeners were laying out a lawn. He noted that "the half-acre greensward appeared strangely out of place in the welter of trucks, cement bags, derricks, bull dozers, concrete forms, reinforcing rods and concrete mixers." "At present," the article continued, "the stadium is barely distinguishable as such. Three-fourths of the horseshoe looks like nothing but rows of columns."[5] Nonetheless, by early July 1936 Olympic finalists were testing the stadium's facilities and it was dedicated on July 11, 1936, the same day that the Triborough Bridge was also dedicated. During the planning stages, the stadium was known as the Randall's Island Stadium. By the time it was completed, it had been named Triborough Stadium, and this is the name inscribed in the concrete above the main entrance. It was also frequently called the New York Municipal Stadium. At some time in

[5] "Stadium Is Rushed For Olympic Tests," *New York Times*, April 23, 1936, p. 25.

the early 1950s, the stadium was renamed Downing Stadium in honor of John J. Downing, a former commissioner of recreation.

Downing Stadium has played host to a large number of events since it opened. It was an important site for city sporting events, hosting thousands of public-school and college sports programs. As Robert Moses had hoped, the building was the site of the Olympic trials in 1937, and was used for Olympic trials in other years, including track and field trials in 1964. It was later used, on many occasions, by the Amateur Athletic Union (later the National Amateur Athletic Union) for its National Track and Field championship meets and in 1994, the stadium hosted the track and field events of the international Gay Games. In addition to its continuing use for city sports events and for special national and international sports events, Downing Stadium has also hosted opera and many concerts, as well and patriotic and ethnic pageants and festivals.

Downing Stadium is an architecturally significant site that has also played an important role in the social life of New York City. As such, the structure is eligible for listing in the National Register of Historic Places and the New York State Register of Historic Places. Although now considered obsolete, the structure should not be demolished without being carefully recorded in accordance with requirements established by the Historic American Buildings Survey (HABS) and the New York State Office of Historic Preservation. This site is significant enough to warrant the completion of a HABS outline report. However, at a minimum the stadium should be recorded with high-quality archival photographs, with prints deposited at the New York City Municipal Archives and at another photographic archive, such as that at the New York Public Library or the Museum of the City of New York. Consultation should be undertaken with HABS and the New York State Office of Historic Preservation to determine the appropriate form of documentation. In addition, the seals of New York City and of New York State, located on the north side of the exterior of the stadium, should be salvaged and stored until they can be reused on another structure, possibly on the replacement stadium. No demolition work should be undertaken until the required recordation is completed.

V.CONCLUSIONS AND RECOMMENDATIONS

Prehistoric Potential

Overwhelming evidence exists that Native Americans exploited the natural resources of all the areas adjacent to Randalls and Wards Islands – northern Manhattan, the southern Bronx and northwestern Queens – for thousands of years before the arrival of Europeans. It is also clear that the tidal marshland which once existed on and adjacent to the elevated ground on the project site would have offered an extremely rich source of food and raw materials for prehistoric man.

As described in the prehistoric overview section, settlement pattern data of the prehistoric culture periods reveal a strong correlation between habitation and processing sites and the confluence of two water courses, proximity to a major waterway, a marsh resource and/or well-drained, elevated land. A review of the cartographic and historical evidence confirms that these criteria existed on and adjacent to the project site.

In addition to the topographic evidence from historical maps, there is also historical and documentary evidence. The research of archaeologists Arthur C. Parker, Robert Grumet and Reginald Bolton into Indian settlements, trails and toponyms, as well as the site inventories of the NYSM and the OPRHP, indicate that three major native trails, one each through Manhattan, Queens and the Bronx, led to the shoreline opposite Randalls and Wards Islands. At the Manhattan and Bronx shores, within 1,000 feet of the Randalls Island project site, were the locations of at least two documented prehistoric occupations.

It seems highly unlikely that prehistoric and historical Indians would have ignored the resources of an island that lay at the nexus of their trading, hunting, foraging, communication and travel routes. That Randalls Island was familiar to them, we know by the fact that they had a name for it, Minnahanonck. Although no documented prehistoric sites have been noted on Randalls Island, the collected documentary evidence indicates a very high potential for having been exploited by prehistoric man.

Prehistoric Sensitivity

Although the project site has a high potential for hosting prehistoric archaeological remains, at the same time it must be noted that such remains are extremely fragile. Due to the normally shallow nature of such deposits, usually three to four feet below the pre-development surface, they are extremely vulnerable to the ravages of historical period construction, utility installation and regrading. The construction of the massive institutional complex of the House of Refuge, and the subsequent construction of the Triborough Bridge and Downing Stadium, would have severely impacted any existing prehistoric cultural remains.

As described briefly in the environmental overview, early, predevelopment maps of the project site indicate three fairly distinct topographical regions: comprising most of the southern and southwestern portion of the project site was an elevated area of clustered hills; a small area of tidal marshland along the eastern side of the project site; and a depressed area of dry ground in the northwestern part of the project site. (Fig. 5)

Elevated Area (Southern and Southwestern Sections)

The House of Refuge was erected in the elevated area of the project site, depicted on the 1851 map as an group of small hills, with what appear to be small dales or hollows between their individual crests or crowns. This would have been the prime location for pre- and protohistoric settlement, and was probably chosen as the site of the House of Refuge for reasons the Indians would have appreciated: it was an elevated situation at the confluence of two waterways, providing an observation and embarkation point for both Manhattan and Wards Islands. However, the natural, undulating hills in this section of the project site did not conform to the formal, symmetrical layout of structures, lawns and yards designed for the House of Refuge. This required an expansive flat area, and photographs and maps of the project site subsequent to 1851 show the area to be quite level. (Figs. 7, 9, 12) The alteration would have required an extensive regrading program, most likely involving the truncation of the hills. The soil from this activity would have been used to fill in the hollows, creating the broad expanses necessary for the creation of the artificial, controlled landscape required by the reformatory's creators.

If the regrading program in the elevated section of the project site did not destroy the prehistoric cultural remains present, then the subsequent construction of the House of Refuge itself, and disturbance from the construction of the Tribourough Bridge and Downing Stadium (along the eastern portion of this area) would surely have completed the process. It is unlikely that any prehistoric archaeological sites would have survived these combined impacts, and therefore this elevated section of the project site should be considered NOT SENSITIVE for prehistoric archaeological remains.

Tidal Marshland (Eastern Section)

Although salt marshes provided rich hunting and foraging areas for prehistoric man, due to their regular inundation, marshes are extremely unlikely locations for any sort of prehistoric camp or settlement. It is possible that this location may have been used as a garbage dump for potential camps and settlements in the elevated areas to the west. However, since this section of the project site lies beneath Downing Stadium, and was also disturbed by the construction of the adjacent sections of the Triborough Bridge, it is highly unlikely that any buried prehistoric cultural remains have survived this massive 20th-century disturbance. Therefore the tidal marsh section of the project site should be considered NOT SENSITIVE for prehistoric archaeological remains.

Depressed Dry Ground (Northwestern Section)

Although this part of the project site has many of the same attributes of the elevated sections to the south, the low-lying nature of this location would have made it less enticing to the pre- and protohistoric man. The presence of more favored locations immediately to the south and north, meant that this area was more of a place to pass through than a location for settlement or other types of occupation. A similar discretion was employed by 19th-century builders, because this low-lying portion of the project site was much less densely-built than other sections of the House of Refuge grounds. Although Indians may have crossed and recrossed the site in the course of seasonal migration or hunting and gathering expeditions, it is unlikely that such use would provide the archaeologist with anything more than a few stray, out-of-context artifacts. Therefore, even though

historical subsurface disturbance in this part of the project site is confined only to isolated areas, due to the low prehistoric potential, further research and study concerning prehistoric archaeological resources on the depressed dry ground section of the project site is NOT RECOMMENDED.

Historical Potential

The earliest recorded historical construction on the project site is a group of four buildings which appear in the elevated section in the southwest quarter of the subject parcel by 1851. Their purpose is not clear. They may have been residences of the staff of the institutions that preceded the House of Refuge on the island. However, with the hypothesized regrading of the House of Refuge location, described above, followed by the construction of the institutional complex on the same site by 1854, it is highly unlikely that any traces of these earlier structures have survived.

House of Refuge (1854-1935)

In contrast, a considerable amount of information exists concerning the now-demolished House of Refuge complex on Randalls Island. The reasons for its construction, the date, approximately how many people were housed there, and in general what they did or were supposed to be doing, for example, have been discussed in books and articles, and are presumably recorded in stupefying detail in the multi-volume collection of the New York State Archives in Albany.[6] We can also probably deduce contemporary societal attitudes and concerns from reports and personal accounts of people associated with the House of Refuge, such as the Superintendent. Despite the surfeit of documentary evidence, what is lacking for the House of Refuge is corroborating social and economic data from the inmates and workers themselves. It is this data that comes from the archaeological context.

Like dwellings, institutional complexes, including their associated outbuildings and yards, have the potential to contain resources which may furnish information about past lifeways, socio-economic status, ethnicity and consumer choice issues. Such resources could be preserved in privies, cisterns or wells, which in the days before the availability of sewers and a municipal water supply, would have been necessary facilities in any workplace or residential facility. Once new shafts were excavated or water and sewer lines were installed, the old shafts, no longer in use for their original purposes, would be quickly filled with refuse, providing a valuable time capsule of stratified deposits for the modern archaeologist. Privies, cisterns and wells were often convenient dumping grounds for refuse even while they were still functioning. In any case, they frequently provide the best and most concentrated collection of remains recovered historical archaeological sites. Portions of these shaft features are often encountered because their deeper and therefore earlier layers remain undisturbed by subsequent construction, and in fact, construction often preserves the lower sections of the features by sealing them beneath structures and fill layers.

For most domestic sites, the next step in analysis would be to determine the date of installation of municipal services to provide a cut-off date after which the presence of shaft features would not be expected. Although it is probable that such data is in the New York State Archives collection,

[6]"A Guide to the Records of the New York House of Refuge" can be found at the web address: www.archives.nysed.gov/holding/aids/school/content.htm

it is also unlikely that such facilities were available to the inmates during the first few decades of the House of Refuge's operation (1854 to c.1880). The Workhouse on nearby Roosevelt Island, a similar institution in a similar environment, did not have the benefit of ***any*** indoor toilets until c1879 (Geismar 1985:55). Even with the advent of indoor running water, it is not clear when its use was made available to the entire populace of the institution, and not just to upper level staff members.

Remains from 19th-century shaft features would be valuable because such information is unlikely to be recovered from other sources. The importance of this data would be enhanced by knowledge of the inmates' and staff's identities and backgrounds, as well as documentary evidence of what products were purchased by, and made and used in the House of Refuge, since this enables the archaeologist to associate recovered artifacts with a specific historical context.

The location of these shaft features, and even trash dumps would be expected to be within 100 feet of the House of Refuge structures, given the necessity of having water and toilet facilities within a reasonable distance of dwelling, laundry and kitchen structures. Because the formal façade and approach to the House of Refuge faced Manhattan Island, no shaft features would have been placed along this west side of the complex. Also, because most of the complex was surrounded by a high fence or wall, shaft features would have been concentrated within the fenced area to the east of the main Refuge building, a situation made particularly clear by Figure 7, the 1879 bird's-eye view of the island. This would include an area extending approximately 350 feet east of the main Refuge building and about 1,050 feet south from its northern end, extending almost to the shore of the Little Hell Gate. Some related buildings also stood outside the wall to the north and east, most likely the residences of the superintendent and other staff members to the north, while the structures to the east appear to be storage buildings and a water tank. Continuing research into archived documents related to the House of Refuge will be focused on reducing the large and approximate area of possible sensitivity, depicted on Figure 13, to more specific and realistic zones of high potential.

In addition to shaft features, we have numerous cartographic "footprints" of the House of Refuge, but we do not know the function and size of each section of the complex. It is not even clear which wing or separate building was the female division. For example, Figure 13, a 1941 Coastal Survey, includes a number of unidentified buildings. Such information should be contained in the State Archives, and would of course be a necessary adjunct to the archaeological data. Because of the changing shoreline and landscape, the location of the House of Refuge foundations, if they still exist, would be necessary for the location of the shaft features, and the building functions would be vital to the study of the shaft features' contents. In addition, the data regarding the spatial organization of the buildings is important to our understanding of the functioning of the complex.

Disturbance

Since the completion of the House of Refuge in 1854 and its razing in c1935, only one major disturbance, the building of Downing Stadium, can be documented for the project site.[7] The

[7]Disturbance from the construction of the Triborough Bridge had occurred while the House of Refuge was still in operation.

depth and breadth of subsurface disturbance would have eliminated all earlier foundations as well as shaft features in its general area. This disturbed area can be seen in Fig. 13, which superimposes the outline of Downing Stadium on a map showing the House of Refuge. The disturbed area covers the water tank and outbuildings outside the wall, east of the complex, and extends west of the House of Refuge's surrounding wall, apparently impacting the northern and central wings that extend east of the main block. Due to map inaccuracies and the scale used, the extent of impact is difficult to assess completely, but the majority of the buildings and yards to the west, south and northwest of the existing stadium appear to be unaffected.

The present berm, into which the west side of the stadium appears to have been built, is actually a 20th-century creation, probably created from fill brought to the island after the completion of the stadium. It does not appear to be present in a 1936 photograph. (Fig. 12), and therefore probably did not impact pre-Stadium archaeological resources. In fact, it may have protected potential resources which it covered.

However, for the remainder of the project site, the subsequent construction of ballfields on an already level and flat location would have caused only minor subsurface disturbance if any, once the institutional complex had been demolished. The 1936 photograph of the newly-finished stadium complete with construction/demolition shacks suggests that although the buildings had been torn down, no effort had been made to excavate the old foundations, since mature trees are standing undisturbed in and around the former House of Refuge location. (Fig. 12)

Recommendations – House of Refuge

Based on this assessment of archaeological potential and disturbance, it is the recommendation of this report that additional historical data be gathered on the House of Refuge, including an investigation of the Albany archives, to identify further the different structures formerly present on the project site, and their functions. Once this has been completed, additional study is required. This would include research and testing conducted under a research design protocol, developed in conjunction with the review agency, once it has reviewed and accepted this Phase 1A report.

One component of this research design is a topic-intensive analysis concerning the occupation and occupants of the House of Refuge. The study of log books, inventories, employment and commitment records, budgets etc, and additional map resources can provide important data for the interpretation and understanding of life within the House of Refuge for both inmates and staff, and enable archaeologists to formulate research questions associated with work- and life-ways, ethnicity, diet and consumer behavior. This additional documentary research may also serve to eliminate, narrow or better define the areas of potential historical sensitivity (as shown on Fig. 13) since it was only possible to establish broad parameters for these areas based on the cartographic data available for this report.

As mentioned above, the data necessary for this research is in the collection of the New York State Archives in Albany. The information held there would go far toward achieving these research goals. Arrangements to access the data held in the State Archives is ongoing.

Recommendations – Downing Stadium

Because the construction of Downing Stadium would have adversely impacted all buried cultural remains in its general area, as delineated on Figure 13, that section of the project site is not considered sensitive for archaeological materials from the historical period. Because of this extensive construction disturbance, the proposed demolition of the stadium would not adversely affect archaeological resources there. Furthermore, Downing Stadium itself is not considered archaeologically sensitive.

However, as described in more detail in the architectural evaluation at the end of the previous section, Downing Stadium is an architecturally significant site that has also played an important role in the social life of New York City. As such, the structure is eligible for listing in the National Register of Historic Places and the New York State Register of Historic Places. Although now considered obsolete, the structure should not be demolished without being carefully recorded in accordance with requirements established by the Historic American Buildings Survey (HABS) and the New York State Office of Historic Preservation. This site is significant enough to warrant the completion of a HABS outline report. However, at a minimum the stadium should be recorded with high-quality archival photographs, with prints deposited at the New York City Municipal Archives and at another photographic archive, such as that at the New York Public Library or the Museum of the City of New York. Consultation should be undertaken with HABS and the New York State Office of Historic Preservation to determine the appropriate form of documentation. In addition, the seals of New York City and of New York State, located on the north side of the exterior of the stadium, should be salvaged and stored until they can be reused on another structure, possibly on the replacement stadium. Also, the 1961 stadium floodlights are thought to have been salvaged from Ebbet's Field, the Brooklyn Dodger's stadium, before it was demolished. If this is true, then these historic lights should be carefully removed for future reuse at a public facility. No demolition work should be undertaken until the required recordation is completed.

BIBLIOGRAPHY

Beers, F. W.
1873 *Atlas of Long Island, New York.* Beers, Comstock & Clive, New York.

Bone, Kevin, ed.
1997 *The New York Waterfront.* Monacelli Press, New York.

Bridges, William
1811 "This map of the city of New York and island of Manhattan as laid out by the commissioners." John Randel Jr., cartographer, adapted by William Bridges, New York.

Brodhead, John Romeyn
1853 *History of the State of New York.* Harper and Brothers, New York.

Caro, Robert A.
1975 *The Power Broker.* Vintage Books/Random House, New York.

Cohen, Paul E. And Robert Augustyn
1997 *Manhattan in Maps 1527-1995.* Rizzoli, New York.

Colton, G. W. and C. B. Colton
1878 "New York City, Brooklyn, Jersey City, Hoboken, etc." G. W. and C. B. Colton, New York.

Colton, J. H.
1836 "Topographical Map of the City and County of New-York and the adjacent Country." David H. Burr, cartographer. J. H. Colton & Co., New York.

Dripps, Matthew
1851 "Map of the City of New York North of Fiftieth Street. M. Dripps, New York.

1867 "Plan of New York City." Sheet 5 of 20. M. Dripps, New York.

Galt and Hoy
1879 "The City of New York." Galt and Hoy, New York.

Geismar, Joan H.
1985 "An Archaeological Evaluation of the Northtown Phase II Project Area, Roosevelt Island, New York." Prepared for the Starrett Housing Development Corporation, New York.

Grumet, Robert Steven
1981 *Native American Place Names in New York City.* Museum of the City of New York, New York.

New York State Archives and Records Administration (NYSARA)
1989 "The Greatest Reform School in the World: A Guide to the Records of the New York House of Refuge" (Collection of the New York Public Library).

Parker, Arthur C.
1920 "The Archaeological History of New York," Part 2. *New York State Museum Bulletin*, Nos. 237 & 238, September/October.

Photographic
n.d. "Photographic Views of New York City, 1870's-1970's. Microfiche edition. University Microfilms, Ann Arbor.

Randel, John Jr.
1814 "The City of New York as laid out by the Commissioners with the Surrounding Country."

Real Estate
1808-1871 New York City Real Estate Tax Assessments (microfilm). Collection of the Municipal Archives, City of New York.

Roberts, William I. IV, et al.
1990 "Archaeological Sensitivity Evaluation for Eight Water Pollution Control Plant Expansions in New York City: Wards Island." Prepared for Stone and Webster Engineering Corp. by Greenhouse Consultants, New York.

Robinson, Elisha
1885 *Atlas of the City of New York.*

Seitz, Sharon, and Stuart Miller
1996 *The Other Islands of New York City.* Countryman Press, Woodstock, Vermont.

Stokes, I. N. Phelps
1915 *The Iconography of Manhattan Island.* Vol. 1. Robert Dodd, New York.

1918 *The Iconography of Manhattan Island.* Vol. 3. Robert Dodd, New York.

1922 *The Iconography of Manhattan Island.* Vol. 4. Robert Dodd, New York.

1926 *The Iconography of Manhattan Island.* Vol. 5. Robert Dodd, New York.

1928 *The Iconography of Manhattan Island.* Vol. 6. Robert Dodd, New York.

USC&GS
1851 "Hell Gate and Its Approaches" (Coast Survey 369[5]). U.S. Coast and Geodetic Survey, Washington, D.C.

1889 "Bay and Harbor of New York" (Coast Survey #369). U.S. Coast and Geodetic Survey, Washington, D.C.

USGS
1891 "Harlem, N.Y." Surveyed 1888-89. U.S. Coast and Geodetic Survey, Washington, D.C.

1927 "Harlem, N.Y." Surveyed 1888-89, 1897. U.S. Coast and Geodetic Survey, Washington, D.C.

1979 "Central Park, N.Y. – N.J." Published 1966, photorevised 1979. U.S. Geological Survey, Reston, VA.

Viele, Egbert L.
1874 "Topographical Atlas of the City of New York Including the Annexed Territory." New York.

Willensky, Elliot and Norval White
1988 *AIA Guide to New York City.* Third edition. Harcourt Brace Jovanovich, New York.

Works Progress Administration (WPA)
1939 *The WPA Guide to New York City.* 1982 reprint. Pantheon Books, New York.

Figure 1. Study Site Location Map – U.S.G.S. Topographic Map, Central Park, N.Y.-N.J., 1979

Scale: 1 inch = c.1,000 feet

Project site boundaries

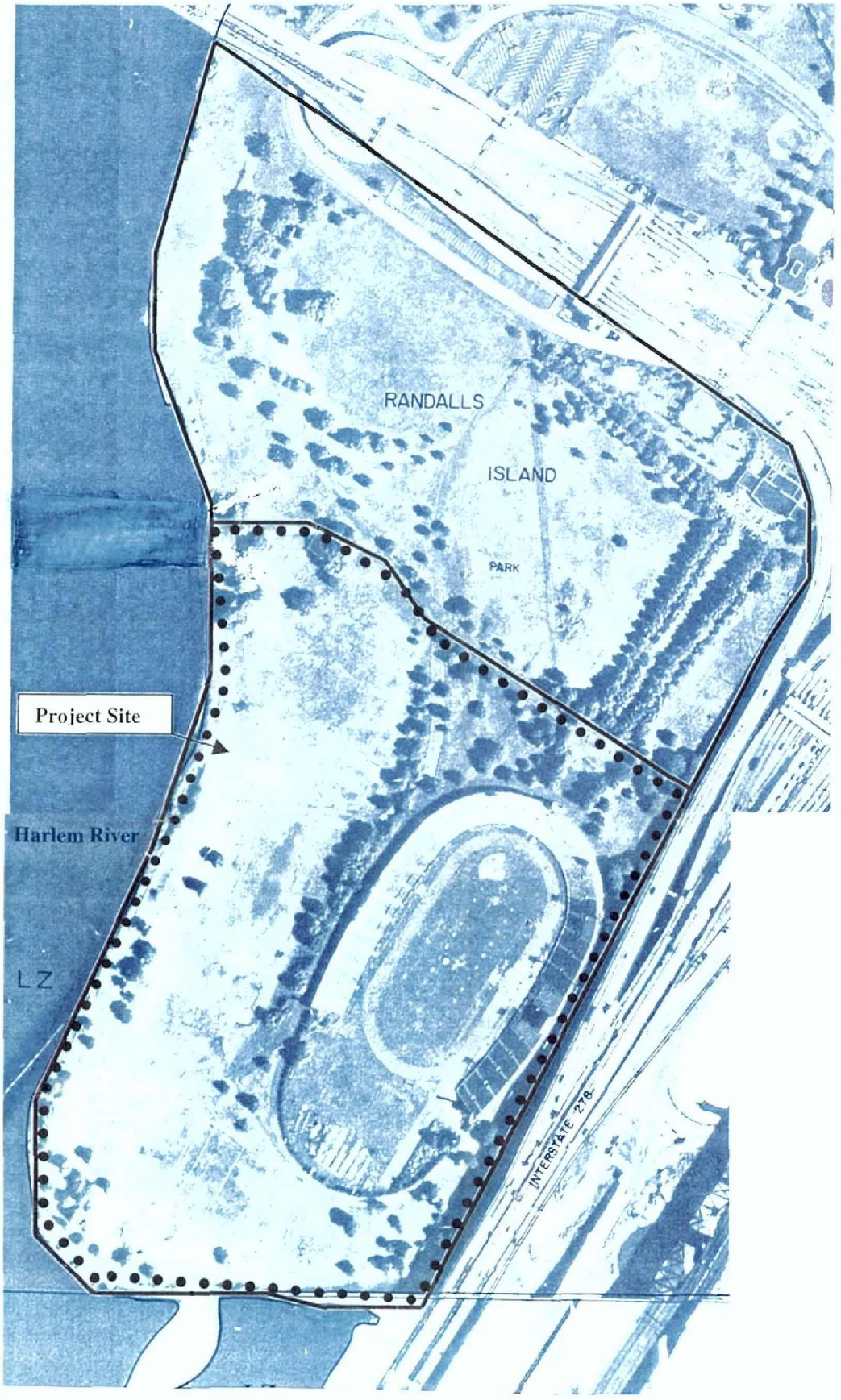

Figure 2. Study Site – Aerial Photograph, **circa 1966**

●●●●● Project site boundaries

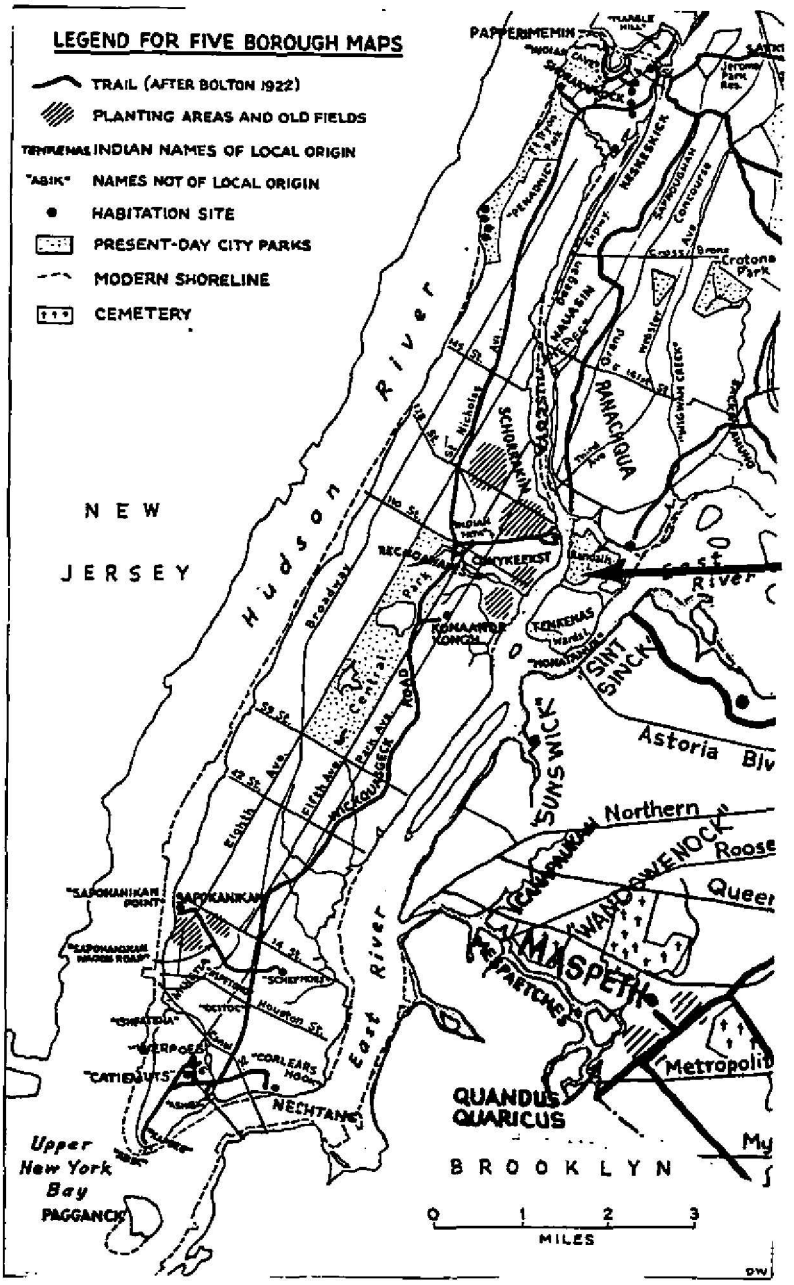

Figure 3. Grumet, Map of Native Trails, Planting Areas and Habitation Sites (1981:68, 69,71)

Arrow indicates approximate location of study site

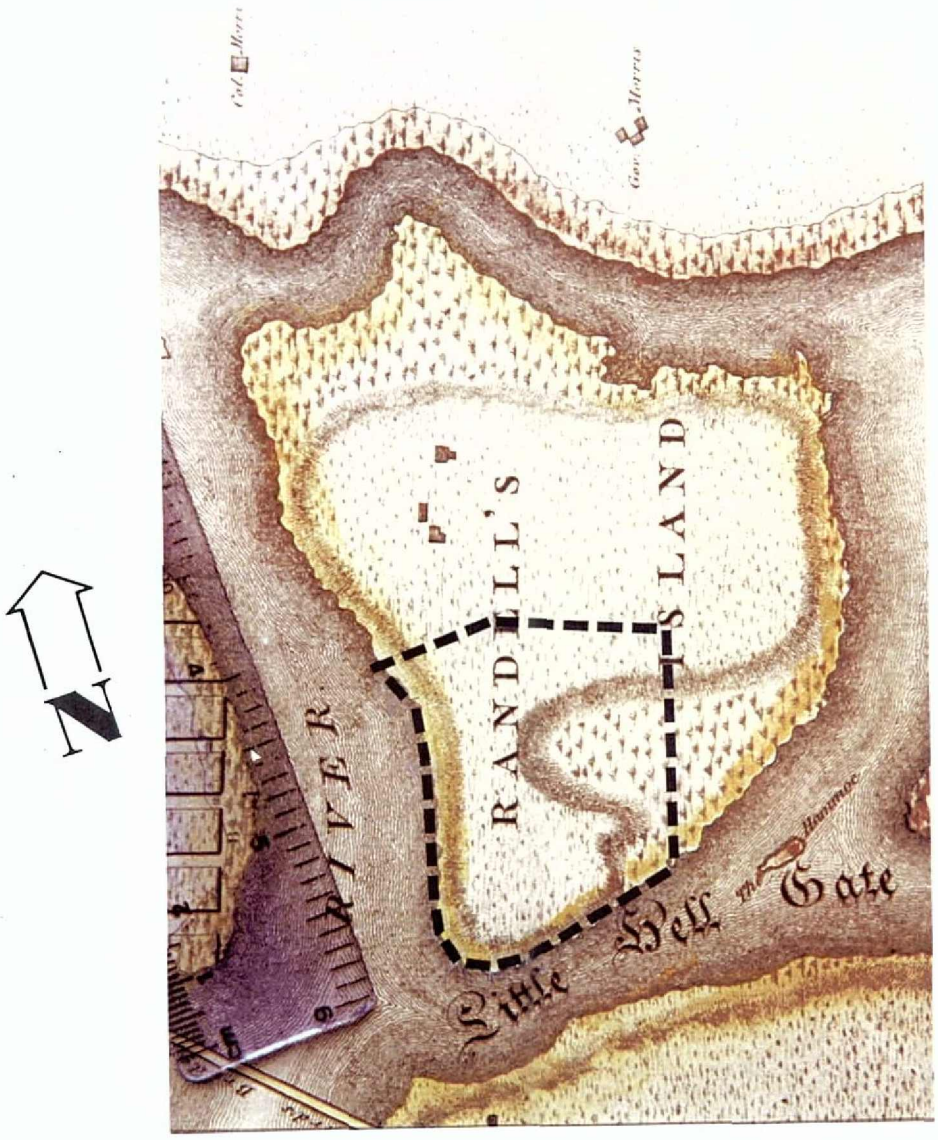

Figure 4. Bridges, This map of the city of New York and Island of Manhattan as laid out by the commissioners, 1811

– – – Project site boundaries

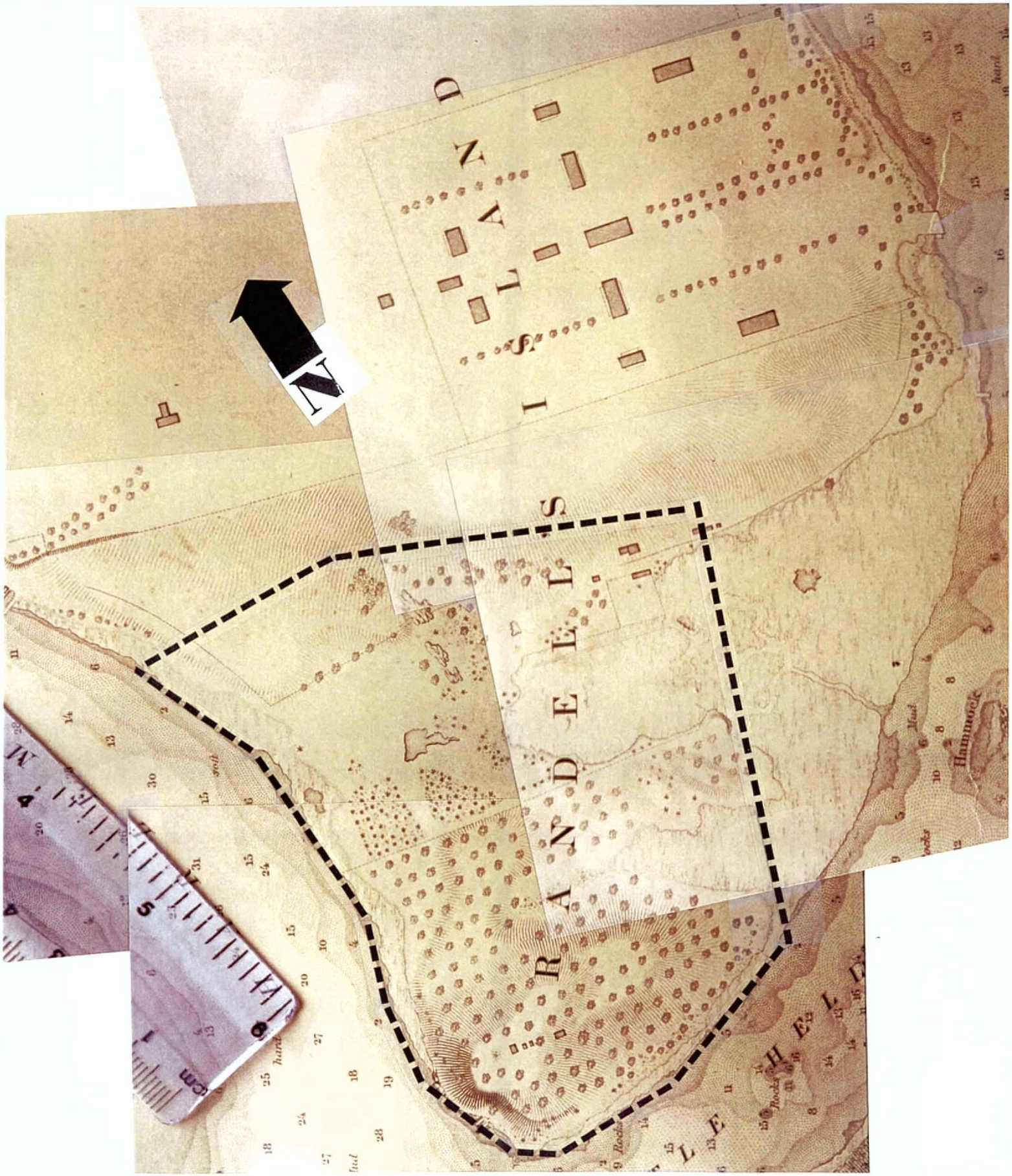

Figure 5. U.S.C.&G.S., Hell Gate and Its Approaches, 1851
Scale: 1 cm = ca. 136 feet

▬ ▬ ▬ Project site boundaries

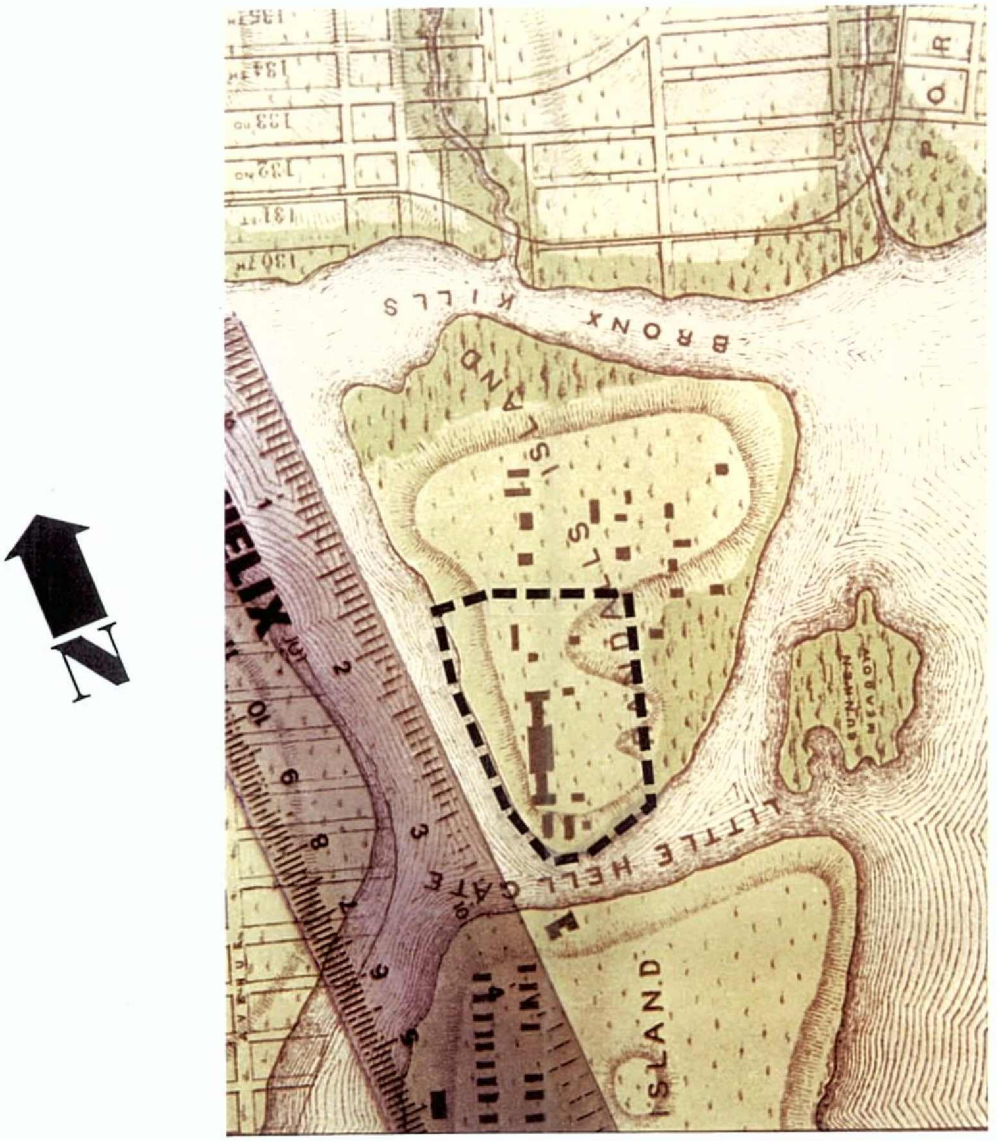

Figure 6. Viele, Topographical Map of the City of New York Showing Original Water Courses and Made Land, 1874

Project site boundaries

Figure 7. Galt and Hoy, The City of New York, 1879

------ Project site boundaries

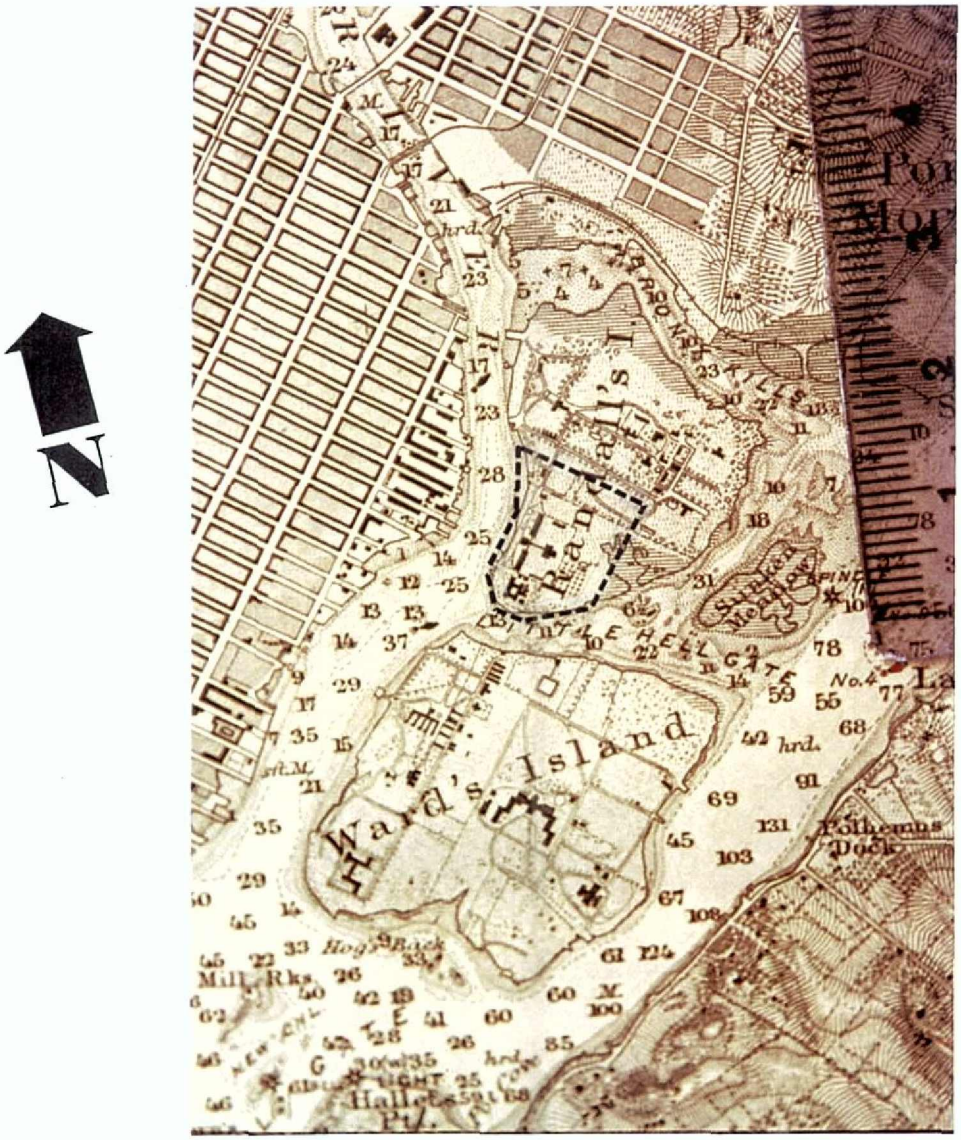

Figure 8. U.S.C.& G. S., Bay and Harbor of New York, 1889

----- Project site boundaries

Figure 9. Board of Estimate and Apportionment, New York City Aerial Set, 1924

▬ ▬ ▪ Project site boundaries

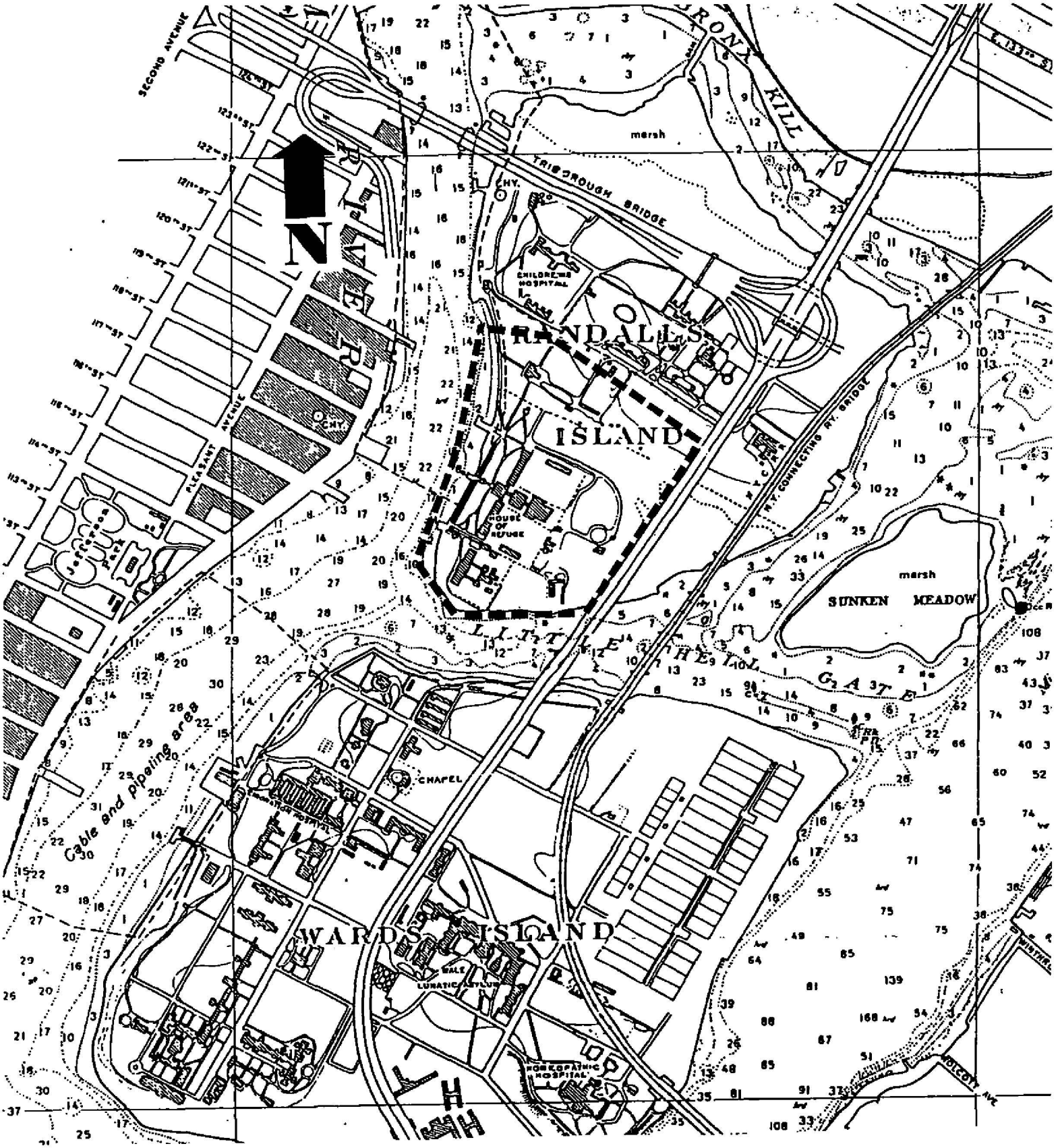

Figure 10. U.S.C.& G.S., Coastal Survey, 1937

▬ ▬ ▬ Project site boundaries

Figure 11. Photo: House of Refuge from Manhattan Island, 1934
(Photographic n.d.:1367/C9)

Figure 12. Photo: Downing Stadium Construction, 1936

Note construction shacks south and southwest of the new stadium. House of Refuge location behind shacks and to left (west) of stadium (Photographic n.d.:1367/B9-10)

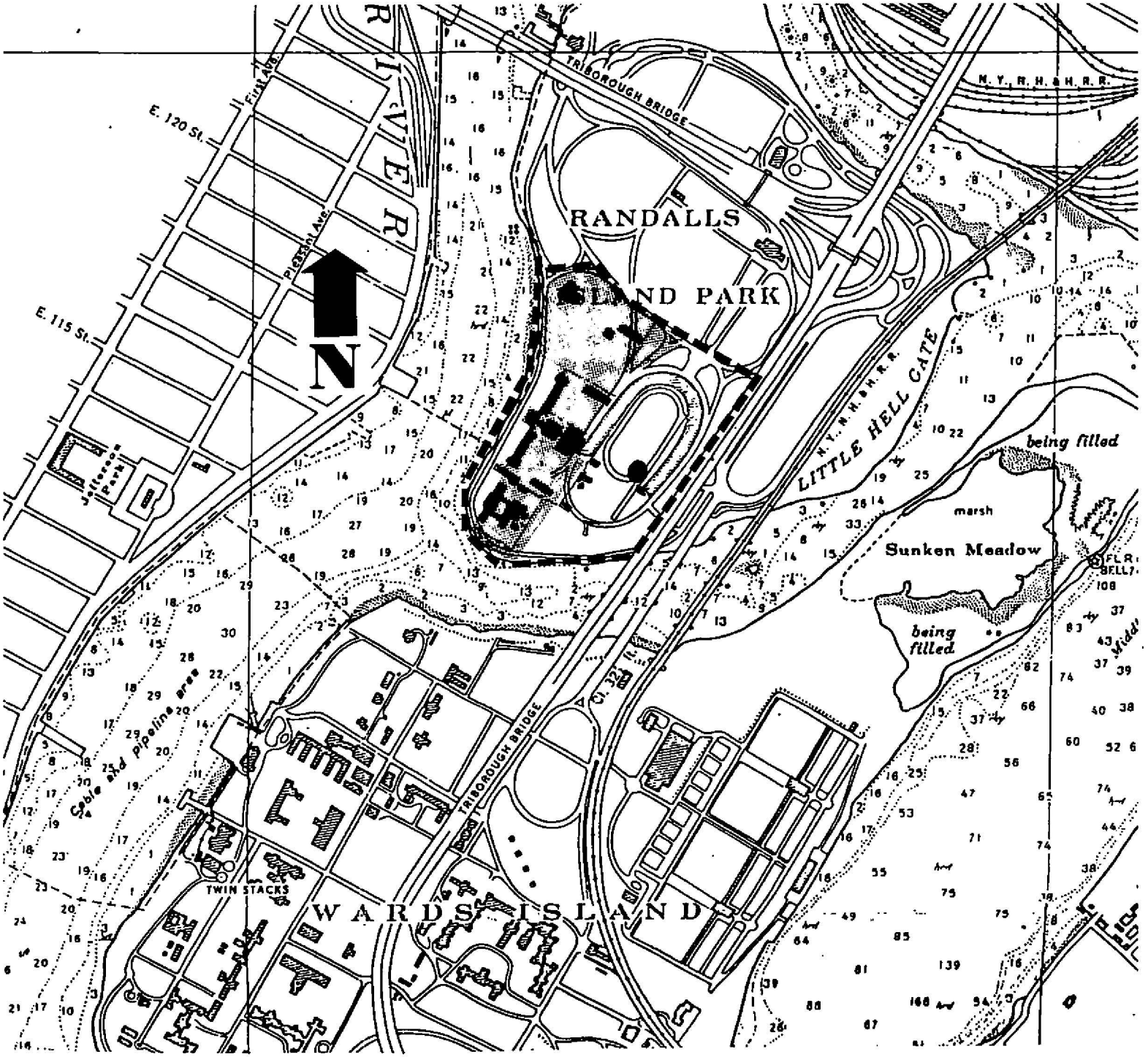

Figure 13. Map of Areas of Potential Archaeological Sensitivity

(Base map: U.S.C.& G.S., Coastal Survey, 1941, with House of Refuge in solid black superimposed over current configuration with Downing Stadium)

▬ ▬ ▬ Project site boundaries

▭ – **Approximate Area of Possible Archaeological Sensitivity: House of Refuge**

[Note: This Figure is a Working Draft. Ongoing research in State Archives on the function of each institutional building will focus the actual area(s) of potential sensitivity to specific loci.]

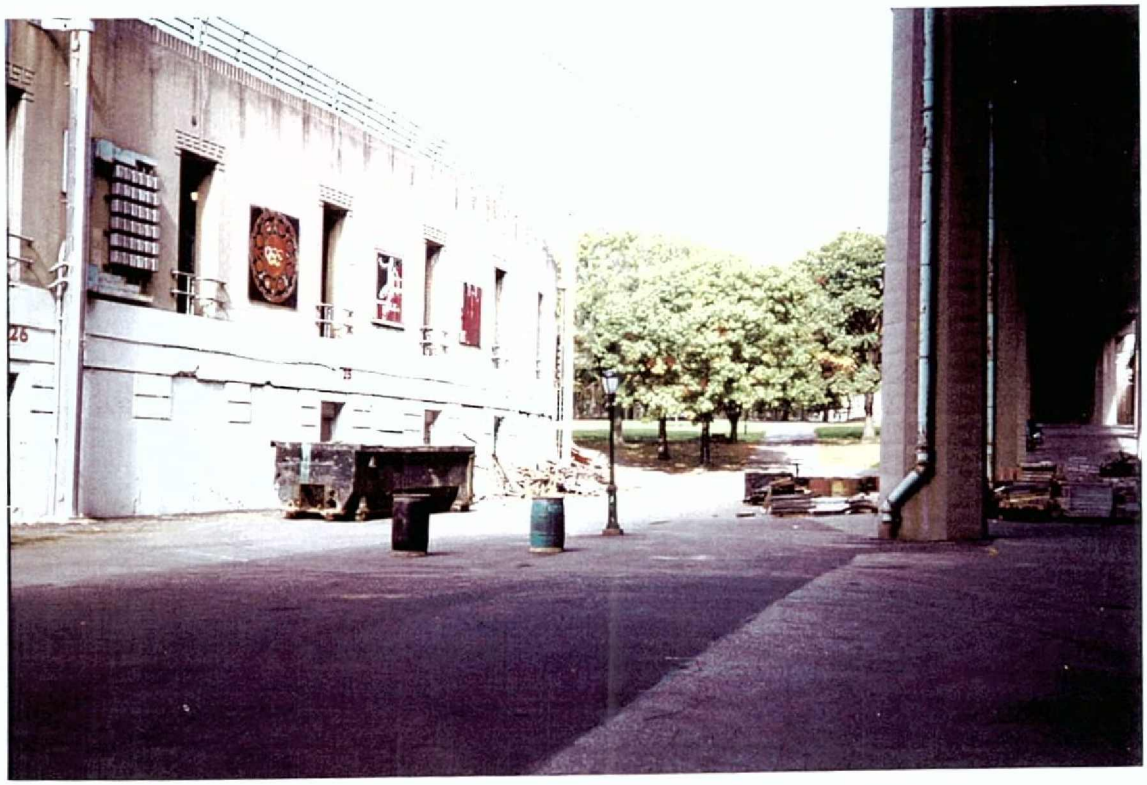

Photo 1. Looking north along the east side of Downing Stadium, toward main entry plaza. Note the rising slope as the north end of the stadium is approached. On right is a Triborough Bridge pylon.

Photo 2: View west at the north end of Downing Stadium and the entry plaza, from beneath the Triborough Bridge. Note the rising slope from the south (left) and the level plaza. The white ground floor of the stadium shown in Photo 1, is a basement here and on the west side of the stadium.

Photo 3: View south from the north end of entrance plaza toward the main entrance at north end of Downing Stadium

Photo 4: View south, of the project site from the stands (over the main entrance) at the north end of Downing Stadium. Building in the distance is the psychiatric center on Wards Island, outside the project site.

Photo 5: Looking northeast from the top of the stands on the west side of Downing Stadium. Triborough Bridge at far right, midground.

Photo 6: View west southwest from the northern end of the berm along the west side of the stadium, approximately 10 feet above the soccer fields in midground. This was the former location of the main section of the House of Refuge. Trees in distance line the perimeter road, with the Harlem River and Manhattan in distance.

Photo 7: View west northwest from just north of Downing Stadium. Terrrain slopes downward from berm and stadium entry plaza toward Harlem River, through thick brush. This was the former depressed dry ground in the northwest section of the project site.

Photo 8: From the foot of the hill and road shown in Photo 7, looking southward along the perimeter road west of the stadium plaza. Road near the shore is level with the soccer fields west of the stadium. Harlem River at right (west).

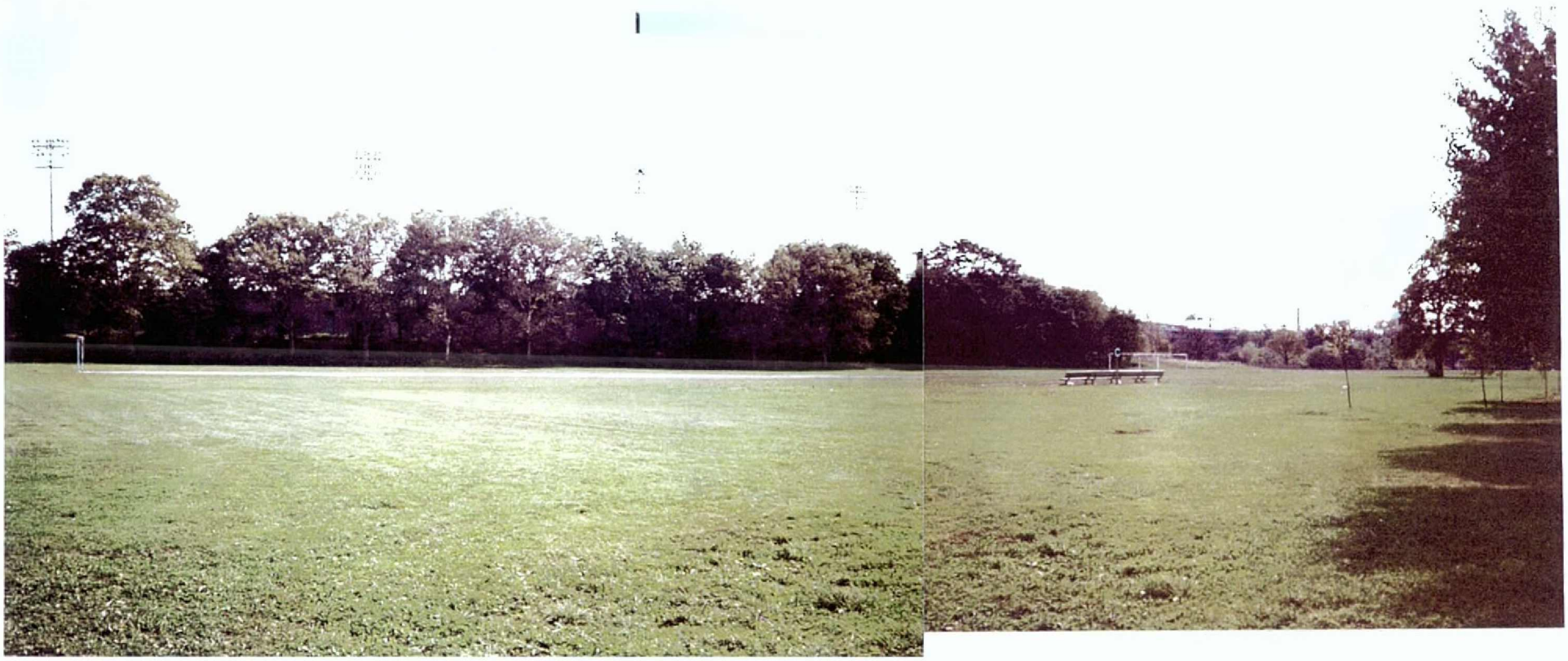

Photo 9: View east from perimeter road along the Harlem River across the present soccer fields toward the berm and the west side of Downing Stadium, obscured by the trees planted on the berm. This was the former location of the main section of the House of Refuge complex.

Photo 10: Looking southward along the east side of the perimeter road along the Harlem River. Western edge of the soccer fields east of Downing Stadium to the left. Part of the former location of the main section of the House of Refuge complex.

Photo 11: View northward from west of the present soccer fields, along the small Harlem River beach, showing a section of the still-standing seawall.

Photo 12: View north northeast from the perimeter road, along the remains of Little Hell Gate. Trees in the midground mark a 3- to 4-foot hill leading to the level baseball diamonds and soccer fields to the north. Downing Stadium is behind the trees at the far right.

Photo 13: Looking north toward the southern, open end of the stadium. Trees at midground on the right mark the southern end of the berm, as it slopes downward to the same elevation as the ballfields to the southwest and the stadium track.

Photo 14: Looking southward from the eastern side of the stadium along the Triborough Bridge, showing the area occupied by the New York City Riding Academy.