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PHASE IA HISTORICAL/ARCHAEOLOGICAL
SENSITIVITY EVALUATION OF THE
ST. GEORGE RAILYARD PROJECT
STATEN ISLAND, NEW YORK

(CEQR #86-163R)

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634

G.

TABLE OF CONTENTS

Introduction.....	page 1
Geography & Physical Setting.....	1
Prehistoric Sensitivity.....	2
Historic Sensitivity	
The 17th & 18th Centuries.....	4
The 19th & 20th Centuries.....	6
Conclusions and Recommendations.....	11
Bibliography.....	14

LIST OF FIGURES

1. Project area shown on portion of U.S.G.S. 7.5 minute series, Jersey City, N.J. Quadrangle.
2. Prehistoric sites located within a 2 mile radius of the project area.
3. From Skene's 1907 Map of Staten Island, showing the Colonial Land Patents from 1688-1712.
4. a) From an 1835 engraving of the New Brighton waterfront.
b) From an 1835 Map of New Brighton.
5. From C.H. Blood's 1845 Map of New Brighton, Tompkinsville, Stapleton, and Clifton.
6. From Butler's 1853 Map of Staten Island.
7. a) Portion of Beers' 1874 Atlas of Staten Island, showing approximate boundary of project area.
b) Portion of Beers' 1887 Atlas of Staten Island, showing approximate boundary of project area.
8. a) Portion of Robinson's 1898 Atlas of the Borough of Richmond, showing approximate boundary of project area.
b) Portion of the Borough of Richmond 1912 Topographical Survey of NY, showing approximate boundary of project area.

LIST OF PLATES

- Plate 1: View of project area, looking southeast, showing parking lot and Staten Island Ferry Terminal in background
- Plate 2: View of project area, looking northeast, showing disused pier with Manhattan Island in background.

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ST. GEORGE RAILYARD

The purpose of this Phase I Sensitivity Study is to document potential prehistoric and historic sensitivity of the proposed St. George Railyard Development Project through the review of existing archival, cartographic and published references and then to make recommendations regarding possible further testing. In order to provide a context for evaluating any identified resources within the parcel itself, this survey shall include a synthesis of published and unpublished prehistoric and historic resources in the immediate area surrounding the project area.

This study is organized in the following manner: first, a section describing the geography and physical setting; second, a section on the prehistoric sensitivity of the area; third, a review of the historic sensitivity of the area; and fourth, the conclusions and recommendations.

GEOGRAPHY AND PHYSICAL SETTING

The project area is located in the Atlantic Coastal Lowland Physiographic Province of New York State. There is only one other location in the state (Long Island) where this province occurs (Van Diver 1985:34). Geographically, Staten Island is part of New Jersey from which it is separated by the Kill Van Kull and the Staten Island Sound (Skinner 1909).

The surficial geology of Staten Island consists of landforms and deposits of glacial origin. The sediments were deposited by the Wisconsin Ice Sheet 55,000-10,000 years ago and generally consist of ground moraine, terminal moraine and outwash sediments (Jacobson 1980:5). The shoreline area in this portion of Staten Island is comprised of sandy embankments of beach sand adjacent to and at times overlying the area's geologically earlier glacial deposits of Cretaceous formations of sand and clay (Weingartner 1967:41). Local glacial deposits may be overlaid by fill as well as beach, marsh, dune, swamp, and estuarine deposits (Jacobson 1980:5).

On Wednesday, April 8, 1987, the Principal Investigator visited the St. George Railyard development in Staten Island. During this visit, a combination of pedestrian and windshield surveys was utilized to inspect the project area. The majority of the area is presently disused, with numbers of broken railroad ties strewn about and some growth of low grasses and a few small trees.

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PREHISTORIC SENSITIVITY

As part of the project evaluation process, this sensitivity study has surveyed published and unpublished resources in the Archives and Library of the Staten Island Institute of Arts and Sciences (hereinafter SIIAS), the library of the New York City Landmarks Preservation Commission, the files of the New York State Museum Division of Historical and Anthropological Services, the Research Branch of the New York Public Library, and the New York State Office of Parks, Recreation and Historic Preservation (NYSOHP). Most prehistoric archaeological work undertaken by both professional and avocational archaeologists has historically been concentrated on this southwestern portion of Staten Island (Baugher 1985 pers. comm.). This northeastern portion may suffer from the problems of inadequate archaeological survey coverage particularly evident in the interior of the island.

Table 1 presents the results of our search for prehistoric sites in the vicinity of the St. George Railyard project area. Included in the table are seven sites located two miles or less from the project area. The locations of these sites are presented on Figure 2 with letter code identifiers which correspond to those in Table 1.

Of the seven known occurrences of prehistoric occupation within two miles of the project area, none were excavated recently under controlled conditions. These sites represent either surface finds, very limited excavations by early 20th century professional archaeologists, less well documented excavated finds by local amateur archaeologists, or the usually completely undocumented finds of pothunters. The nearest prehistoric site to the St. George Railyard project area, designated "A" in Table 1 and Figure 2, is the Stuyvesant Place site reported by the former New York State Archaeologist Arthur C. Parker. This site, described only as a camp site with traces of occupation, is located approximately 0.3 miles south of the project area.

The second nearest site to the project area, designated "B" in Table 1 and Figure 2, is the Harbor Hill site, located approximately 1.5 miles to the southwest. This site is described only as a camp site, and no period of occupation is suggested, by the early 20th century archaeologist, Alanson Skinner.

An unnamed, Woodland period site (designated "C" in Table 1 and Figure 2), exists approximately 1.6 miles south of the project area. This site is described by Parker as traces of occupation with many triangular projectile points, which indicates a date range in the Woodland Period.

The Harbor Hill Golf Links site (designated "D" in Table 1 and Figure 2), is located approximately 2.3 miles southwest of the

TABLE I: PREHISTORIC SITES IN THE VICINITY OF THE ST. GEORGE'S RAILYARD

	Site Name	NYSM#	Parker #	Skinner #	SIIAS#	Ref's.	Period	Description
A	Stuyvesant Place	4629	ACP-RICH	--	STD-ST	--	--	Camp site, traces of occupation.
B	Harbor Hill	4614	ACP-RICH-24	20	--	Skinner 1909:16	--	Camp site.
C	--	4618	ACP-RICH-28	--	--		Woodland	Trace of occupation, many tri-angular points
D	Harbor Hills/Golf Links	4612	ACP-RICH-22	18	--	Parker 1922:684 Skinner 1909:16	--	Camp site w/ scattered relics
E	Silver Lake (3 loci)	4613	ACP-RICH-23	19	STD-SL	Parker 1922:684 Skinner 1909:16	Woodland	Camp sites, one w/ pottery
F	Upper or Pelton's Cove	4591	ACP-RICH-1	1	STD-WNB	Parker 1922:676 Skinner 1909:4	Woodland	Village w/ burials, now destroyed-- pottery, reported by SIIAS
G	Pelton's Cove	734	--	--	--		--	Village w/ burials

project area. This site is described by Alanson Skinner, as a camp site and scattered relics. No date range can be assigned as no diagnostic artifacts are described.

The Silver Lake site, designated "E" in Table 1 and Figure 2 is located approximately 2.4 to 3.8 miles southwest of the project area. Skinner and Parker describe at least three separate loci around the lake and Skinner describes recovering pottery at one of these. This indicates a date range in the Woodland period, although other periods may also be represented here.

Two sites, designated "F" and "G" in Table 1 and Figure 2, exist between 2.3 and 3.1 miles west of the project area. One is called Upper or Pelton's Cove and the other merely Pelton's Cove. Both are described as villages with burials. The former is noted in a list of sites with collections housed at the Staten Island Institute of Arts and Sciences as including pottery, so a date range including the Woodland period can be assigned. This site is noted by Parker as having been destroyed prior to 1922 (Parker 1922:676). The latter site is described only as a village with burials. It is possible that this site refers to the Upper or Pelton's Cove site with a slightly misplaced location, or that it represents another nearby village site. If the description of the latter site is accurate, it probably dates to the Woodland period.

Alanson Skinner, one of the first professional archaeologists to work extensively on Staten Island, characterized the locations chosen by prehistoric populations on the island as follows. "Throughout Staten Island, with very few exceptions, aboriginal sites are confined entirely to the sandy spots." (Skinner 1912:90).

In terms of potential prehistoric sensitivity, the project impact area was evaluated from two points of view:

- 1) the proximity of known prehistoric sites in or near the project area; and
- 2) the presence of fresh water drainage courses in general, and particularly the identification of river or stream confluence situations where two or more drainages come together, providing access to both water and food supplies of both systems.

This survey has documented the recorded or published locations of no less than seven (7) sites within a two mile radius of the St. George Railyard project area. Although sites have been identified in the general region of the proposed project impact area, none are known to exist within the project area itself. No evidence, is available based on previous survey work. No present

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or former river or stream courses can be documented for the project area although the former beach is likely to have been sand. It would appear that the only type of prehistoric site likely to be found on the fast land portion of the project area would be a small seasonal fishing camp. Such a site, should it exist, would likely be marked by fairly extensive shell middens which have been described at various other locations on all the shores of Staten Island. A good local example of such shell middens is reported at Mariners' Harbor, Arlington (Skinner 1909:5). Another example is the extensive Burial Ridge/Ward's Point complex in Tottenville, where "shells occur all over the point" (Skinner 1909:11). This site complex dates from the Early Archaic through the Woodland period to Contact (Jacobsen 1980:65-66), so similar dates could be expected for a shell midden site in the St. George area. The Archaic Period dates to approximately 4500-1300 B.C. in the New York State Region (Ritchie 1980:32), and the Woodland Period to approximately 100 B.C. to 1600 A.D. (ibid:179).

HISTORIC SENSITIVITY

The 17th and 18th Centuries:

Staten Island was called Eghquaous, Motanucke, Monockong or Aquehonga by the bands of Unami Delaware who inhabited the territory. The island was purchased from the Indians by the Dutch Director General in 1626. By 1630, a patent of the Island was granted to Michael Pauw. Two years later, the Directors in Holland ordered Cornelius Melyn to establish a colony. In turn, Melyn conveyed his right to title to land on Staten Island to the Dutch West India Company, which in turn granted land to "several French Waldenses and to a greater number of Huguenots" (Pickman 1978).

In 1664, Nieuw Amsterdam was ceded to the English. The final purchase of Staten Island from its aboriginal inhabitants was accomplished by the English Governor Francis Lovelace on April 13, 1670. By this time, however, there were a number of Dutch, French and English settlers on the Island who had obtained first Dutch and then English permission to settle. No surveys had been made, however, "and the boundaries of their lands, as well as their title to them, were quite indefinite" (Leng and Davis 1930:741). Governor Lovelace ordered land surveys to be undertaken and this task was completed under Governor Andros by 1677.

Frederick Skene's 1907 map of Staten Island, tentatively delineating Colonial Land Patents between 1668 and 1712, places

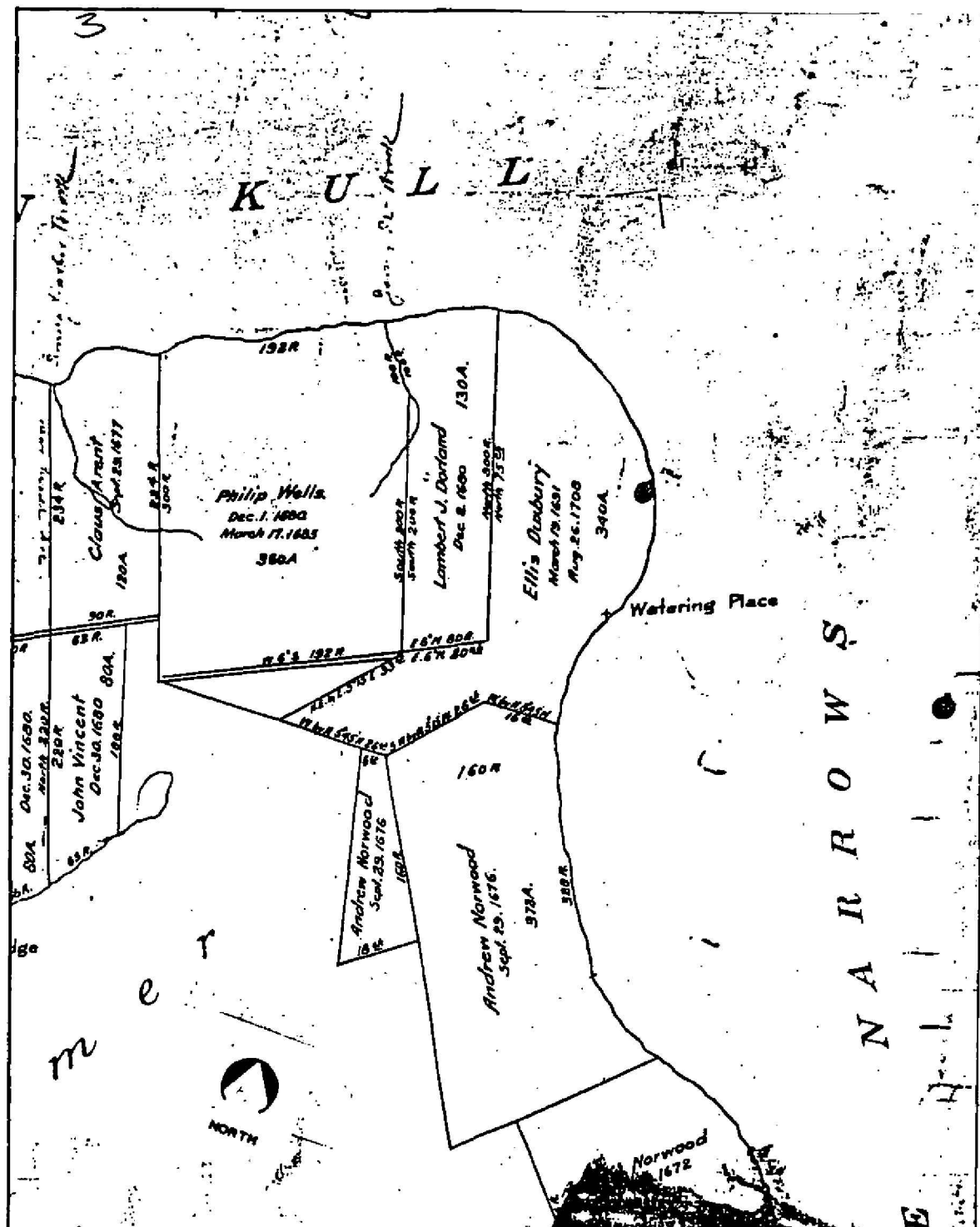


Figure 3 Portion of Skene's 1907 Map of Staten Island, showing Colonial Land Patents from 1688-1712 in the area of Saint George (New Brighton).

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the southwestern portion of the project area within land granted to Ellis Duxbury March 1691 and August 26, 1708 (340 acres) (see Figure 3).

Skene's 1907 map notes the location of the "Watering Place", which also appears on several 18th century maps, along the shore just south of the project area (Plan No. 31 Du Camp Anglo-Hessois dans Staten Island de 1780-1783; McMillen's 1933 Map of Staten Island during the Revolution 1775-1783; see Figure 3). Watering Place, present day Tompkinsville, was the name given to "a large spring that existed until 30 or 40 years ago near the bluff at the southerly end of the present railroad tunnel at Tompkinsville, where ships used to procure a supply of water before going to sea" (Davis 1896:64).

When Richmond County was established by the English in 1683, 200 families were living there. In 1688, the settlements comprising Richmond County were divided into four towns. The portion of the project area that existed at that date became part of Castletown (later Castleton).

Another designation of interest, "Duxbury Point", appears on early maps and located at the site of the present ferry station at St. George (Bew 1781, McMillen 1933). In 1718, Ellis Duxbury bequeathed 200 acres of land in Castleton to St. Andrew's Church. This farm, known as the Glebe, "included the present St. George landing (Duxbury Point), the Light House Department grounds, the old Quarantine, and the vicinity" (Morris 1898:402).

During the Revolution a number of Hessian troops were stationed in the project area's general vicinity. McMillen's 1933 Map of Staten Island During the Revolution (1775-1783), compiled from the Taylor-Skinner Map of 1781, Plan No. 31 du Camp Anglo-Hessois dans Staten Island de 1780 a 1783, as well as other sources, shows the route of Richmond Terrace, and the two designations noted above: Watering Place and Duxbury Point (spelled here "Ducksbury"). McMillen's 1933 map does not show any structures or camps within the project area. It notes the locations of a Block House and redoubt containing 60 men and a small fort containing about 250 men to the project area's west, as well as a small fort "made of earth containing 200 men" to the northwest (McMillen 1933).

Richmond Terrace, which today forms the western boundary of the project area, was known as Shore Road or Trail (Leng & Davis 1896). The early route of this road is shown on the Plan No. 31 du Camp Anglo-Hessois dans Staten Island 1780-1783, and noted on McMillen's 1933 Map of Staten Island During the Revolution. According to one late 19th century source, Shore Road or Richmond

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Terrace was "said to have been an Indian trail" which "formerly ran all the way around the shore from Mariner's Harbor to the old Tompkinsville Landing, but when the Quarantine hospitals were built, that end of the road was closed" (Morris 1898:396). Richmond Terrace numbers amongst the "old picturesque lanes" of Staten Island that "have changed little in their paths during the last 150 years" (McMillen 1933). The earliest road record documenting Richmond Terrace dates to 1704 (McMillen 1946:15). C.H. Blood's 1845 Map of New Brighton, Tompkinsville, Stapleton and Clifton shows Richmond Terrace running along the northeastern section of the Island's coastline and ending at the northern limits of "Quarantine Ground". Later, during the 19th century, when land filling activities related to the development of transport facilities at St. George begin to appear on historic maps and atlases, Jay Street became the southern extension of Richmond Terrace (see Figures 6 and 7a). Some time after 1912, Jay Street was renamed Richmond Terrace (see Figure 1).

The 19th and 20th Centuries:

The cartographic and documentary evidence has indicated that the project area's general locality developed during the 19th century initially as a resort area and then later as a focal point for Staten Island's transportation system and its local government. The project area itself consists, for the most part, of landfill built up during the latter part of the 19th century to accommodate the needs of the Baltimore and Ohio Railroad and the Staten Island Rapid Transit Railroad yards. The southwestern portion of the project area, which on 19th century maps and atlases is bounded on the west by Jay Street, and on the east by the area's original coastline, represents the only parcel of fast land within the project area with the possible exception of a narrow strip of beach adjacent and parallel to Richmond Terrace. It extends roughly 400 feet south of the foot of Wall Street. An examination of the 19th and 20th century cartographic evidence presented below notes changes and structures relevant to this portion of the project area.

By the mid 1830's, the area east of New Brighton Dock, and along sections of Richmond Terrace that now bound the area built up by landfill within which the St. George Railyard is located, had begun to acquire a "resort-like" character, with the construction of several waterside hotels. The Pavilion, advertised in the New York Herald in 1835, appears to have been the largest of the hotels that lined Richmond Terrace and overlooked New York Bay. The Pavilion, with its impressive bath-house, was located just north of the project area. An 1835 Map of New Brighton shows three structures along Richmond Terrace, adjacent to the northern portion of the project area (see Figure 4b). This map also appears to show one structure within the project area's portion

of fast land, located on the south side of Wall Street, roughly midway between Jay and "Madison" Streets (the latter appears to be a proposed street that was never built) (see Figure 4b). Due to the poor quality of the map reproduction available to us, it is not possible to determine with certainty, whether or not the mark visible at this location does in fact represent a structure.

The 1835 Map of New Brighton also shows four bath houses located within the project area between St. Peter's Place and Wall Street (see Figure 4a). An engraving dating to the following year, housed in the archives of the Staten Island Institute of Arts and Sciences, presents the viewer with a somewhat idealized or fanciful representation of New Brighton's waterfront development (see Figure 4a). This 1836 engraving does, nonetheless, represent the stately structures that then lined Richmond Terrace as well as two of the bath houses shown on the 1835 map noted above, and of which one is undoubtedly that of the Pavilion Hotel (see Figures 4a and 4b).

Blood's 1845 Map of New Brighton shows only one bath house along the shore, apparently that of the Pavilion (see Figure 5). This map, however, does show what appear to be two small lots with structures within the project area's southwestern portion (see Figure 5). Although these lots and the structures they enclose cannot be discerned satisfactorily due to the lack of clarity characterizing this map reproduction, it would be safe to conclude that two to three structures were depicted within the lots which are shown adjacent to Richmond Terrace and somewhat north of Wall Street.

Although it does provide some information relevant to the project area's development during the 19th century, Butler's 1853 Map of Staten Island is, on the whole, of dubious accuracy. Butler's depictions of the coastline between New Brighton Dock and Quarantine Landing and of the layout of roads adjacent to this stretch of coastline do not concur with any of the other 19th century cartographic evidence examined (see Figures 4a, 5, 6 and 7). Butler's 1853 map shows one structure located within the project area's southwestern portion which may well be one of the structures shown on the 1845 map noted above (see Figures 5 and 6). This 1853 map also shows one "Bathing House" just west of "Papillion" (undoubtedly the Pavilion Hotel). On the basis of the literary evidence examined there is no reason to believe that landfilling activities in this area date to the 1850's (McMillen 1952; Bayles 1887). The depiction of the shoreline and its relation to Richmond Terrace on Butler's 1853 map can be safely interpreted as misrepresentation resulting from inaccuracy.

Walling's 1859 Map of Staten Island shows a number of proposed roads south of the junction of Jay Street and Richmond Terrace and extending out beyond the shoreline, between New Brighton Dock

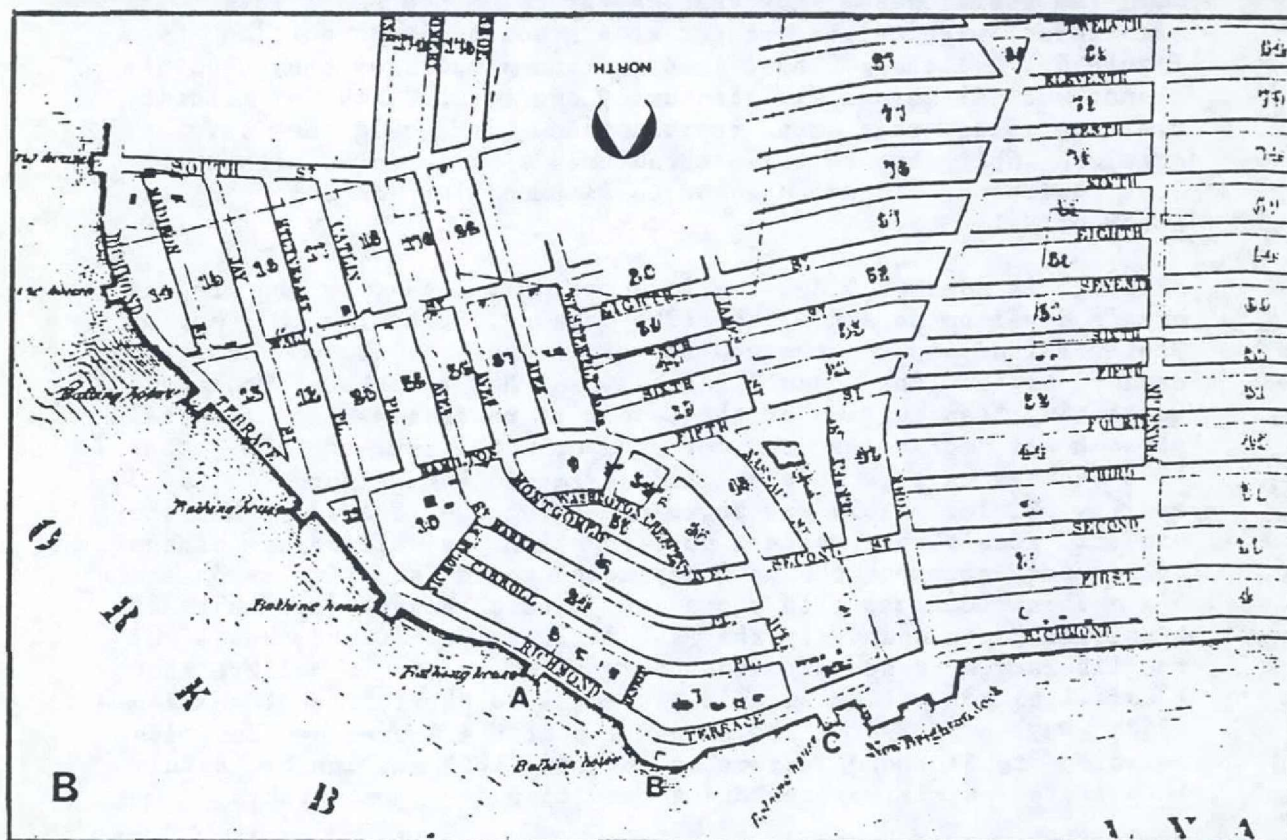
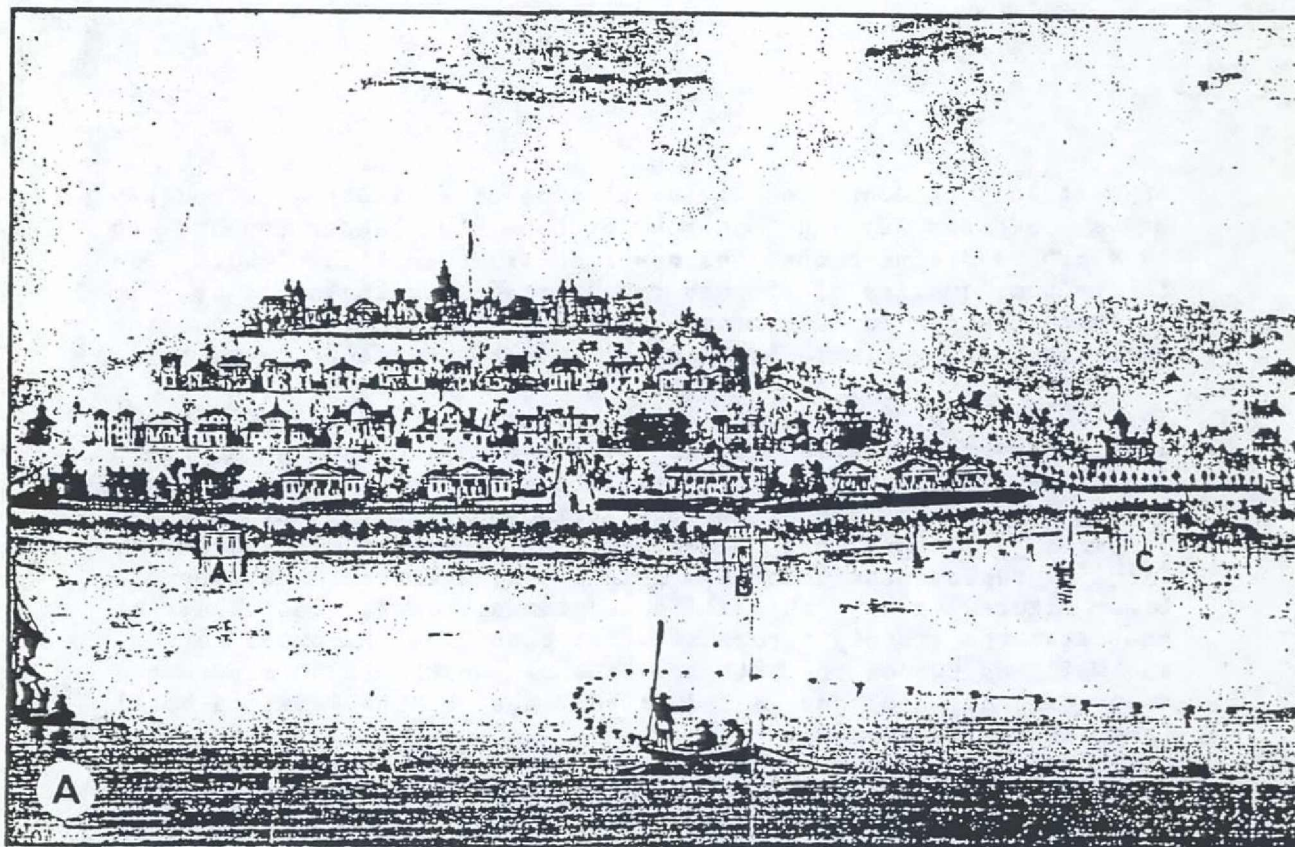


Figure 4 A) A view of New Brighton from an 1836 engraving. Bathhouses identified by letters A-C are indicated on B) which is taken from a contemporary map of New Brighton by James Lyons 1835.

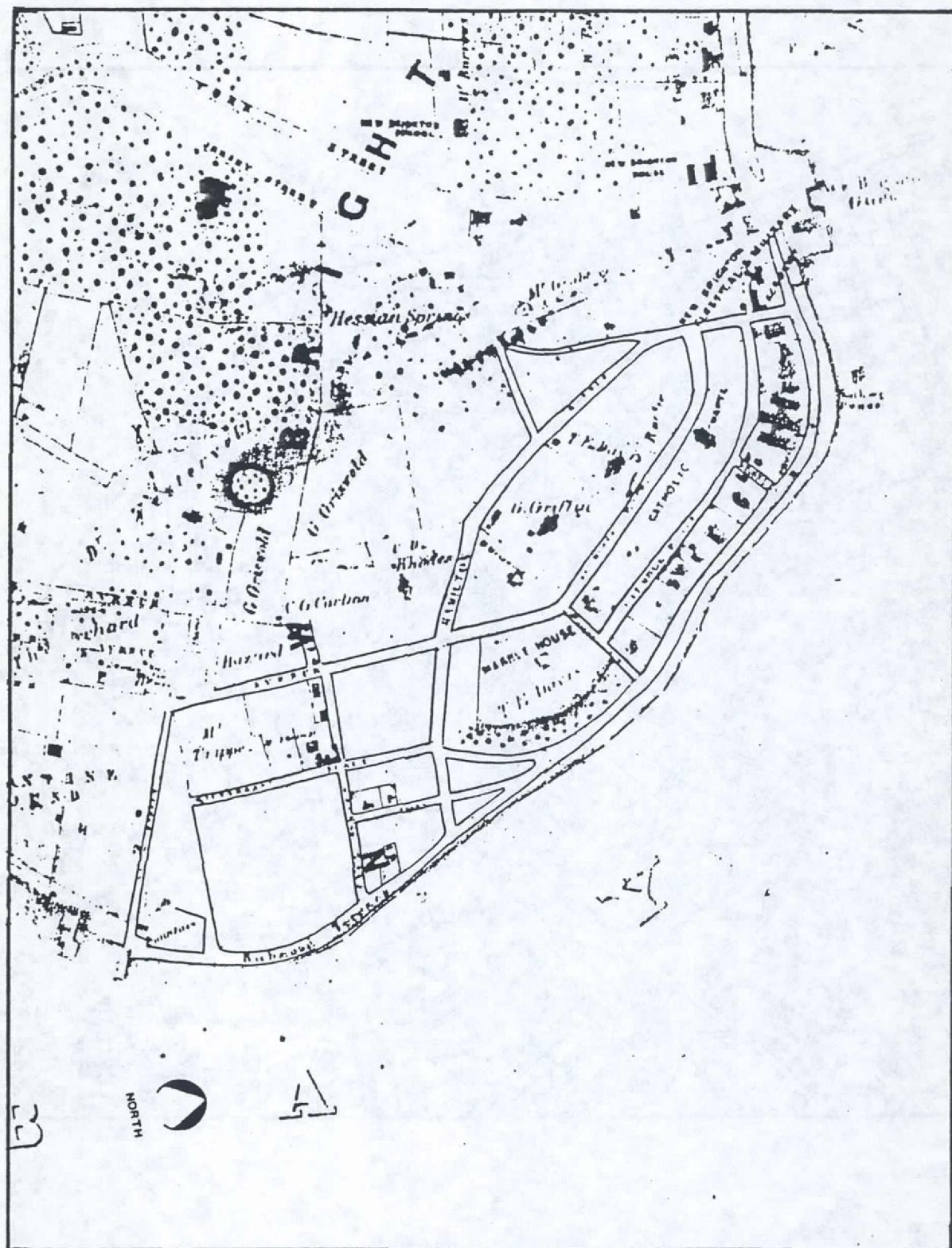


Figure 5 Vicinity of Project Area taken from a portion of C.H. Blood's 1845 Map of New Brighton, Tompkinsville, Stapleton and Clifton. Some street lines are retraced.

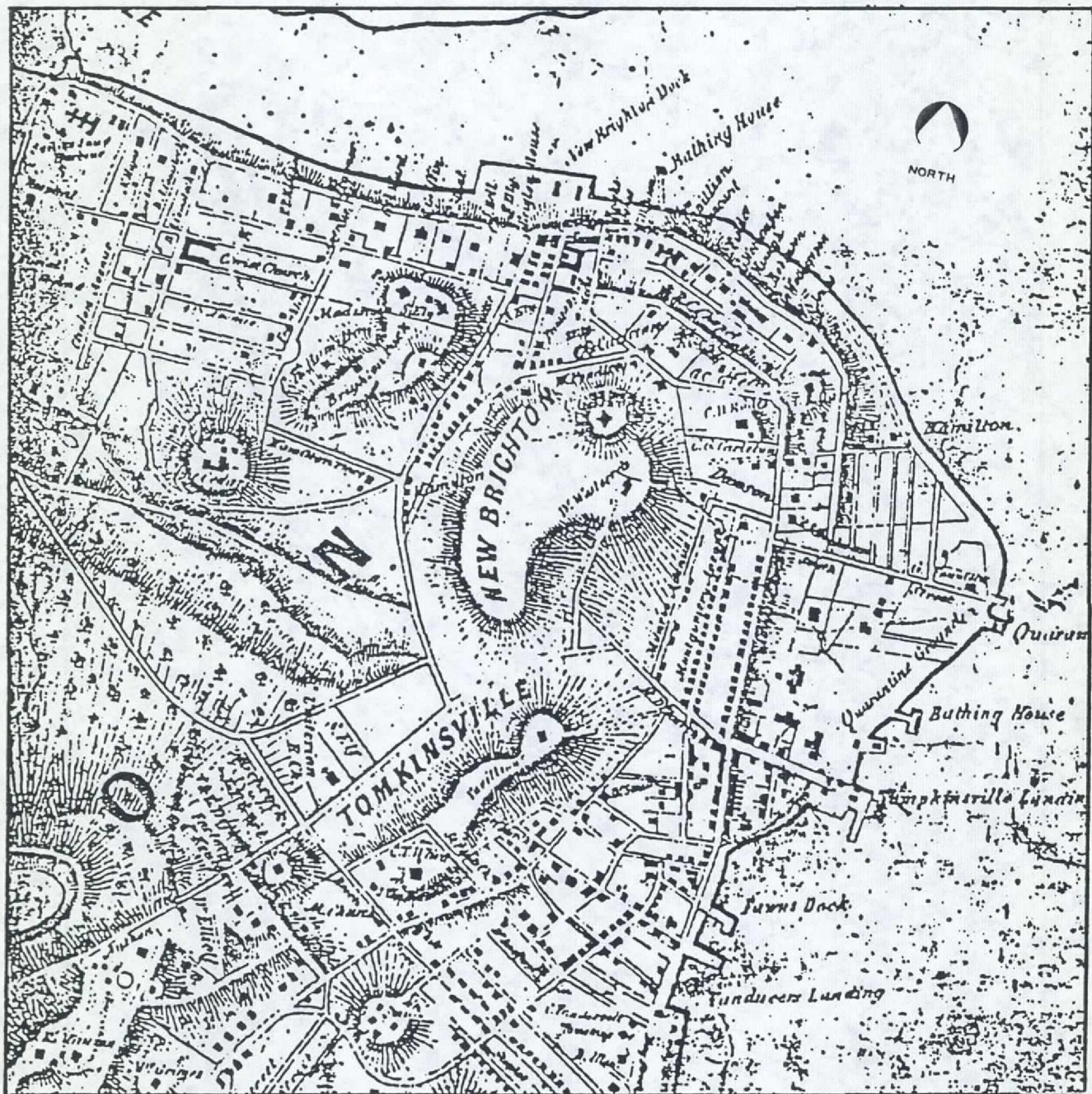


Figure 6 Portion of Butler's 1853 Map of Staten Island showing New Brighton waterfront area.

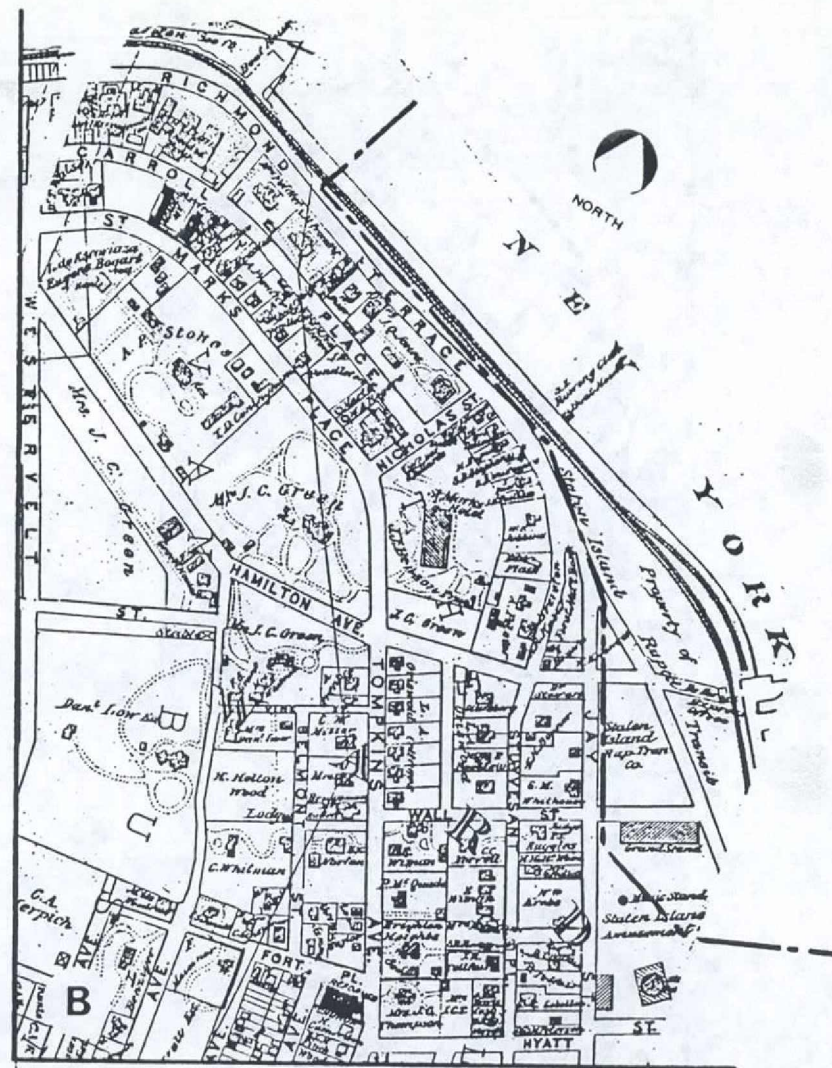
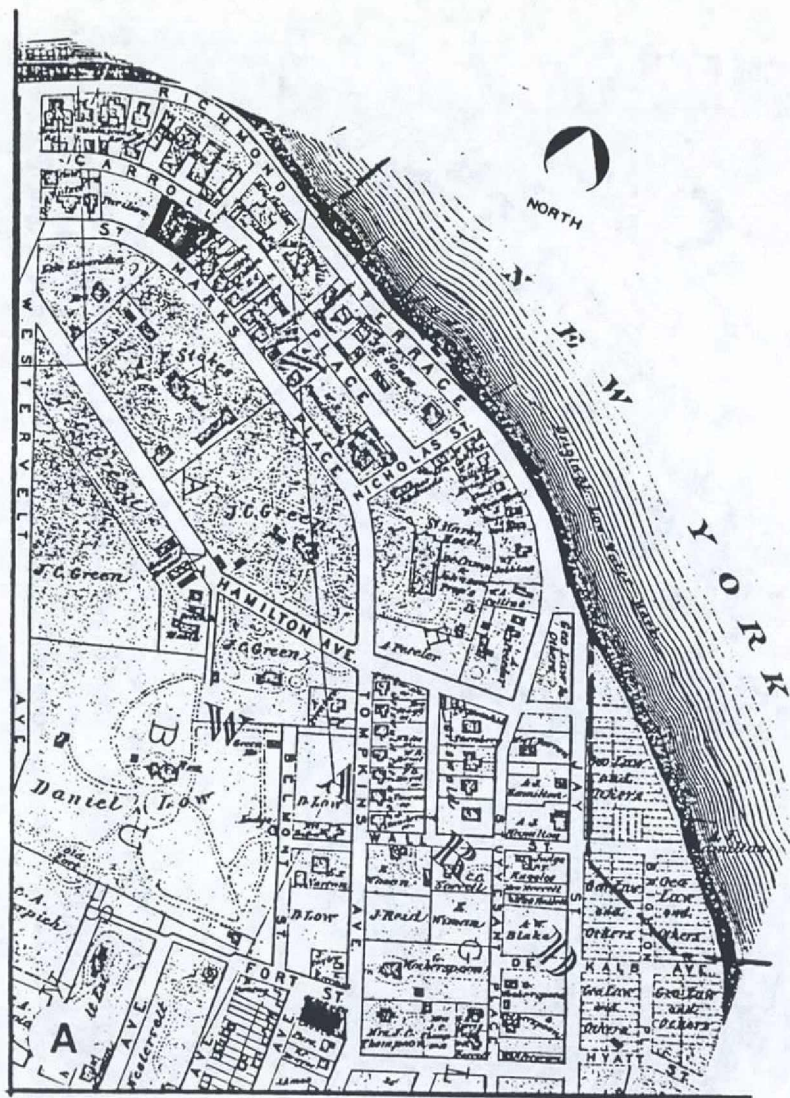


Figure 7 A) Portion of Beer's 1874 Atlas of Staten Island, showing approximate boundary (bold dashed line) of Project Area.
B) Portion of Beer's 1887 Atlas of Staten Island, showing approximate boundary (bold dashed line) of Project Area.

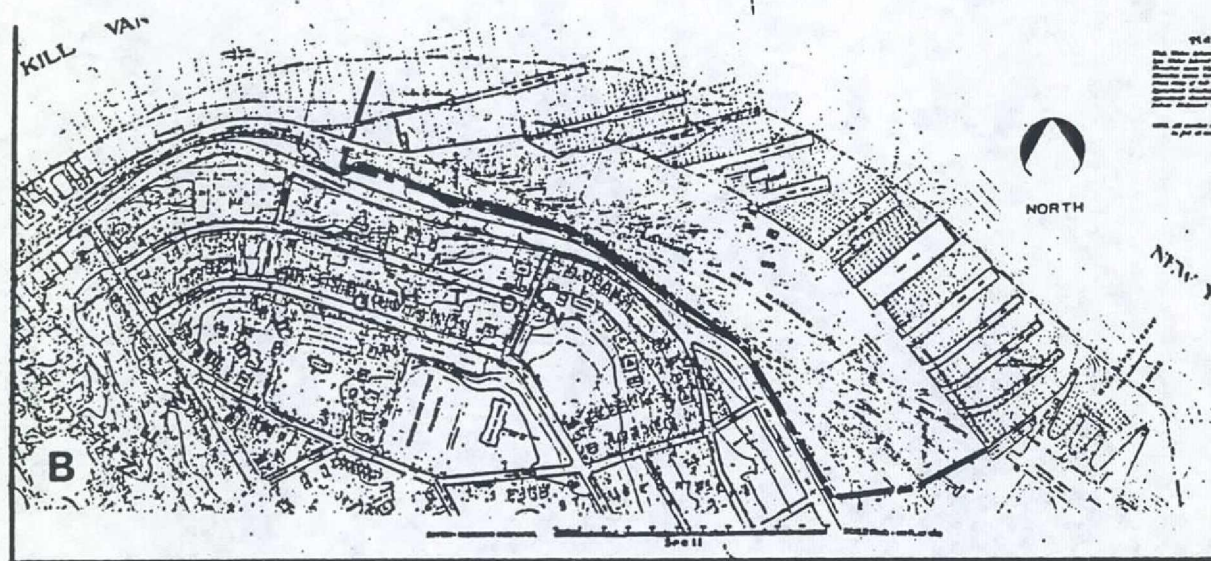
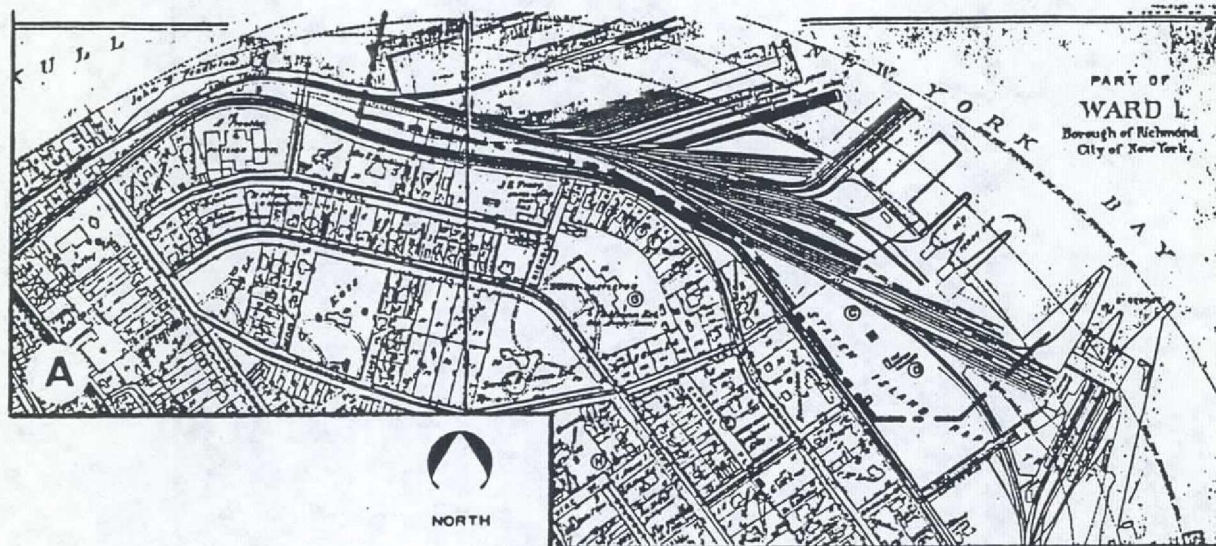


Figure 8 A) Portion of Robinson's 1898 Atlas of the Borough of Richmond, showing approximate boundary of Project Area (bold dashed line).
 B) Portion of the Borough of Richmond 1912 Topographical Survey of NY, showing approximate boundary of Project Area (bold dashed line).

and South Street. The layout of proposed streets shown on Walling's Map indicates that plans to build up an area by landfill along this portion of the coast were being considered at this early date (1859), though not in connection with the railyards that eventually required land extension at this location. The Walling 1859 map shows two structures on either side of Jay Street about midway between Hamilton Avenue and Wall Street. The two structures are both designated J.G. Clarkson. The structure shown set back somewhat from the east side of Jay Street may well be the same as that noted on earlier maps within the project area's southwestern portion (Figures 5 and 6). The second structure designated J.G. Clarkson on the Walling 1859 map appears to correspond in location to a structure shown on Butler's (1853) map and Blood's (1845) on the west side of Jay Street (figures 5 and 6). Unfortunately, the literary sources examined did not provide any information on the Clarkson family name.

Beers' 1874 Atlas of Staten Island shows a proposed street and lot lay out within the southwest portion of the project area (see Figure 7a). No structures are shown within this area, but the proposed lots are designated "George Law and Others" (see Figure 7a). The water rights in this area are here shown to be in the name of A.J. Hamilton.

Beers' 1887 Atlas of Staten Island is the earliest of the cartographic sources examined to show evidence of landfilling operations between Westervelt Avenue and South Street (see Figure 7b). The landfill area shown here between St. Peters Place and, at some points approximately 400 feet south of Wall Street, covers part of the present project area and is designated the property of the Staten Island Rapid Transit Company (see Figure 7b). The Beers Atlas of 1887 shows one structure within the project area's southwestern portion, a grand stand, on the northern side of Wall Street. The structure forms part of the Staten Island Amusement Company's facilities that were in operation at that date, and which extended beyond the project area's southern boundary to Hyatt St. (Leng & Davis 1930:319). This 1887 atlas also shows a boat house within what is now part of the project area. It is situated near the foot of Nicholas Street and designated the property of the Staten Island Rowing Club.

As mentioned above, the larger part of the land now covered by the project area that was already present by 1887 is shown on the Beers Atlas of that date to be owned by the Staten Island Rapid Transit Company. A company was organized in 1883 to construct the railroad along the north and east shores (Leng & Davis 1930:318). The company was "incorporated under the general railroad law of the state" and grading was well under way by the spring of 1884 (Bayles 1887:689). The first locomotive and train

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carrying invited guests ran from Tompkinsville to Clifton on July 31, 1884 (Leng & Davis 1930:38). On the same day, the railroad to Tompkinsville became part of the Rapid Transit system. The Staten Island Rapid Transit Railroad Company effected a 99 year lease of the Staten Island Railroad's property (Bayles 1887:689). Despite obstacles, "work was now pushed on with vigor at St. George....an area of several acres of ground has been made out from the shore to afford room for terminal facilities" (op. cit.:691). The Staten Island Rapid Transit railway was opened as far as Elm Park on Feb. 22 or 23, 1886, and the bridge over the Arthur Kill opened June 13, 1889 (Leng & Davis 1930:715). The Baltimore and Ohio railroad company, which at that time controlled and owned the Staten Island Rapid Transit Company, assisted greatly in the completion of the abovementioned bridge required to connect the former railroad company with Staten Island (op. cit.:319).

Prior to the organization and incorporation of the S.I. Rapid Transit Railroad Company, the scheme of concentrating the ferry traffic "into one line of boats running to one point on the island, that point being the one nearest New York City, and connecting with arms of railroad which should reach out and deliver passengers along either shore", had been "brewing" and developing from some time (Bayles 1887:689).

Erastus Wiman, a former prominent Island developer, "had been among the first to see that the destiny of the island was linked to the great city of New York and during the 1880's and 1890's...began the centering of the island's transportation facilities at St. George" (McMillen 1952:3). Wiman's vision of the St. George facilities included the concept of creating various means "of attracting people to use them and thus become acquainted with Staten Island" (Leng & Davis:319). These attractions included the Staten Island Amusement Company, which on the Beers 1887 Atlas noted above, is shown covering the southwestern portion of the project area (below Wall Street) (ibid: Figure 7b). The grand stand, also mentioned above as shown within the project area on the 1887 atlas, apparently provided space for "Cappa's Seventh Regiment Band of Sixty Pieces", which, together with illuminated fountains, a spacious casino, and other attractions such as "Buffalo Bill's Wild West Show", served as entertainment for tourists and local railroad passengers (op. cit.:319).

Erastus Wiman was also responsible for the beginning of Central Station Electric Service on Staten Island: "a power plant located near the corner of Richmond Terrace and South Street was placed in operation during the summer of 1886 to serve the various amusement features at St. George in which Mr. Wiman was interested" (Leng and Davis 1930:730). The power station, which undoubtedly supplied electricity for the abovementioned

fountains, was located outside the project area and to its south. "Picturesque Staten Island", issued by the Staten Island Amusement Company in 1886, contains the following description of the fountains:

...wonderful fountains, illuminated by electric light.....all illuminated from the mysterious subterranean chamber by powerful electric lights, shining through lenses of all colors, changed with kaleidoscopic rapidity. (op. cit.:319)

Wiman's grandiose plans for St. George did not, however, last for very long. The fountain did not prove a lasting attraction, and in May 1887, The Edison Electric Illuminating Company purchased the power station and "made a bid for village lighting" (Leng & Davis 1930:320). The power station consisted of two engine driven generators with a combined capacity of approximately one hundred horse power (ibid). Mr. Wiman "became financially embarrassed and involved to the extent of being arrested for alleged illegal actions", though many Staten Islanders reserved a great deal of sympathy for him "in the face of action taken by his creditors" (ibid). By 1897, the small power station that had originally formed a part of Mr. Wiman's plans for St. George was no longer in use. In the beginning of that year, the New York and Staten Island Electric Company affected a consolidation of the several existing companies, including the Edison Electric Illuminating Company, and operated from the then new plant at Livingston (op. cit.:731, 1006).

Robinson's 1898 Atlas of the Borough of Richmond is proof of the Amusement Company's short-lived venture, as the area shown on the Beers 1887 atlas as property of that company has, by the date of this Robinson atlas, apparently left no trace (see Figures 7b and 8a). This 1898 atlas shows Jay Street as the southern extension of Richmond Terrace, and the area east of Jay Street to the full extent of the piers and ferry station shown as the property of the Staten Island Rapid Transit Company. Robinson's 1898 atlas also attests to further landfilling which took place during the decade prior to this atlas date as well as to a considerable multiplication of railway lines in this area during the same decade (figure 7b and 8a). The 1898 atlas shows the St. George Ferry Terminal adjacent to the project area's southern limits, and an "old ferry slip" roughly across from the foot of Hamilton Avenue. The Beers 1887 atlas also shows a ferry slip at this approximate location. This designation does not, however, appear on later cartographic sources, and by the early 20th century, appears to have been transformed into two of the many piers then in use (see Figures 7b, 8a and 8b). When discussing the work involved in creating ground space required by the first terminal facilities, one local historian writing in the late 1880's notes that "piers have been erected, extending some 600 feet into the

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water, and terminating in two large ferry slips" (Bayles 1887:691). The literary source cited above may well have been referring to the "old ferry slip" noted on the Robinson 1898 atlas.

The Robinson 1898 atlas shows four structures within the project area, of which three are undesignated and presumably related to railway operations. One structure, designated "The Staten Islander", is shown within the railyard area roughly across from the foot of Wall Street. This structure was in some way related to the newspaper of the Republican organization of the Borough of Richmond, which originally began as a weekly in 1889 and ceased publication in July 1928 (NYPL catalogue).

The early 20th century cartographic evidence examined does not appear to show further land extension and, aside from changes made in the numbers and sizes of piers, shows the same relationship between the extent of the landfill area and the bulkhead line that is shown on Robinson's 1898 atlas (figures 8a and 8b). Robinson's 1907 atlas of the Borough of Richmond does not show the structure previously owned by the Staten Islander, nor any other structure within that portion of the project area. The structures that are shown to lie within the project area on this 1907 atlas are undesignated and are probably railyard sheds and/or repair shops.

The 1912 Borough of Richmond Topographical Survey notes that the Staten Island Rapid Transit Company received water grants in this area on April 5, 1900, and shows the terminal yard to be the property of the Baltimore and Ohio Railroad Company (see Figure 8b). Several railway related structures are shown on the 1912 map located within the project area. The four structures are shown near to pier numbers 6 and 7; two are designated "Repair Shop", one as "Office" and the fourth as "Ice House".

The present day Ferry Terminal at St. George was erected in 1905, shortly after the original terminal had been destroyed by fire (McMillen 1952:3). At the same time, "street gradings, along Bay Street and Richmond Terrace and surrounding Borough Hall were made...in connection with the construction of the 'Great Wall' above the railroad tracks" (ibid). On the whole, the literary and cartographic evidence examined indicates that few changes have affected the present St. George Railyard project area following landfilling operations and construction dating to the later 19th and early 20th centuries.

CONCLUSIONS AND RECOMMENDATIONS

The above text has documented that the St. George Railyard

Project Area probably preserves archaeological evidence from the historic period. It is also a possibility that the project area preserves archaeological evidence of the prehistoric period. The earliest historic structures that could be documented for the project area occur on the 1835 Lyons Map (included here as Figure 4b). This map shows one possible structure on the south side of Wall Street between Jay and Madison, as well as four bathing or fishing houses located on the beach adjacent to Richmond Terrace. By the date of the next available view, the 1845 Blood Map (included here as Figure 5) all these structures have disappeared. However, one property containing two or three structures, is shown on the west side of Richmond Terrace just north of Wall Street. It is probable that one of these structures is shown on Butler's 1853 Map (Figure 6), in the same general location. The 1859 Walling Map continues to show a structure on this block, which is now labeled J.G. Clarkson. It is possible that this structure is the one shown on Butler's 1853 Map, although it could also represent a new building. This structure is definitely gone by 1874, as the Beers Atlas of that year (Figure 71), shows no structures within the project area. By the date of the next available view, the 1887 Beers Atlas (included here as Figure 7b), three new structures have been constructed. A grand stand is shown on the south side of Wall Street, east of Jay Street, a ferry slip is shown at the foot of Hamilton Avenue, and a small boat house belonging to the Staten Island Rowing Club has been built north of Richmond Terrace slightly east of Nicholas Street. Figure 8a, taken from Robinson's 1898 Atlas shows that the ferry slip still exists although the other two structures have been demolished. By 1912, the ferry slip is gone and has been replaced by several piers, as evidenced by the Topographic Survey (included here as Figure 8b). The only other structures shown within the project area are four railroad related buildings.

It is our conclusion that the earliest structures described above, including the four bathing or fishing houses shown in Figure 4b, and the series of structures near the intersection of Jay and Wall Streets shown on Figures 4b, 5 and 6 are not potentially significant historic resources. Although most of these structures are more than one century in age, their ownership and use could not be documented. The grand stand and the railway sheds were probably built entirely of wood, and therefore are likely to have left only a few postholes and beam slots if any evidence of them survives in the ground. The railroad sheds are less than one century old. Both the grandstand and the railroad sheds are types of structures that are well understood and exist elsewhere.

It is also possible that evidence of a prehistoric site may be preserved along the old beach that existed adjacent and parallel to Richmond Terrace prior to the landfill. Such a site would probably be a small fishing camp which would include shell middens. A series of soil borings completed during January 1989 indicates that within the central portion of the project near to the intersection of Richmond Terrace and

G.

Stuyvesant Place sandy soil layers exist. The top of these deposits ranges from four to six feet below the present surface (F.C. Hart Associates Inc. 1989:boring logs R-SB4, 5 and 17).

It is our recommendation that a Phase 1B archaeological testing program be undertaken to search for evidence of the presence or absence of these potential prehistoric cultural resources. It is our recommendation that the search for potential prehistoric cultural resources be limited to a strip approximately 100 feet in width immediately north and east of the present Richmond Terrace, beginning opposite the corner of Nicholas Street and Richmond Terrace and running down to a point approximately opposite Wall Street. We suggest that a series of mechanically excavated linear trenches would be the most expedient method to search for these prehistoric remains, which would probably be marked by shell deposits. It is also possible that such a survey would reveal evidence of the former boat houses along the now buried beach, although their remains would probably be fairly insubstantial.

We are not recommending any testing of the remainder of the project area, which consists primarily of late nineteenth century landfill.

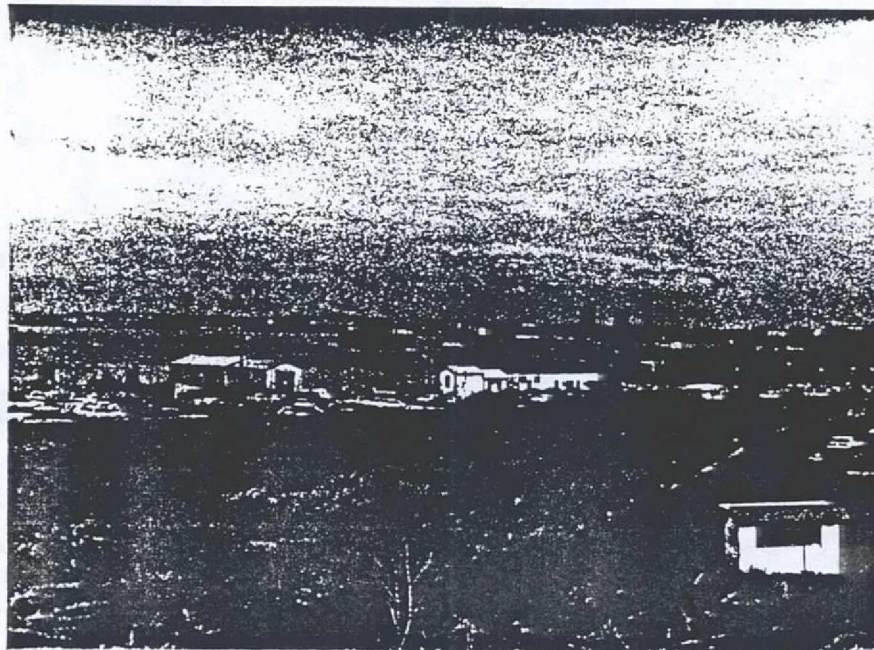


Plate 1: View of project area looking southeast showing parking lot and Staten Island Ferry Terminal in background.

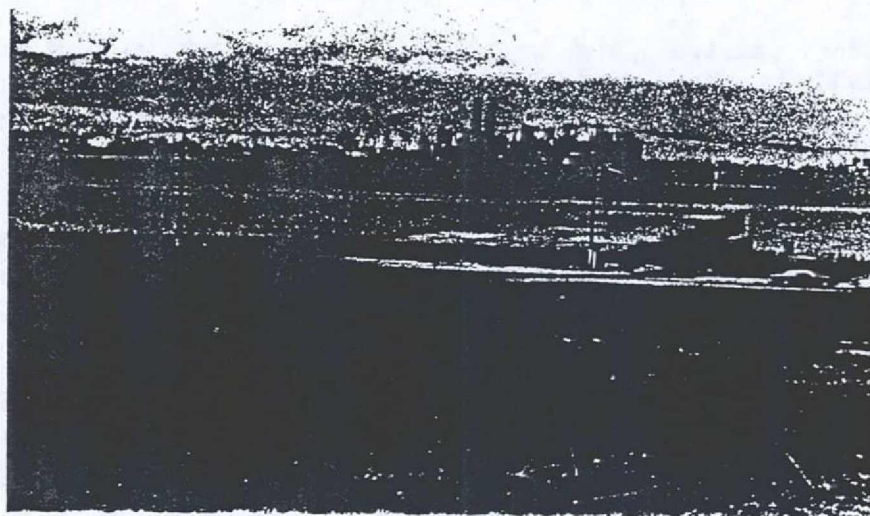


Plate 2: View of project area looking northeast showing disused pier with Manhattan Island in background.

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SOIL BORING REPORT
ST. GEORGE SEAPORT
STATEN ISLAND, NEW YORK

Prepared for:

St. George Seaport Associates

Prepared by:

Fred C. Hart Associates, Inc.
530 Fifth Avenue
New York, New York 10036

December 27, 1989

SOIL BORING AND SOIL SAMPLE COLLECTION AT
ST. GEORGE SEAPORT, STATEN ISLAND, NY

December 18, 1989

1.0 PURPOSE

The objectives of this investigation were to examine subsurface soils to a minimum of 14 feet or bedrock, and to allow the archeologists from Greenhouse Consultants Inc. to obtain soil samples to determine if any sandy layers in the area of previous borings, R-SB4, R-SB5, and R-SB17 contained shell middens or remnants of archeological significance.

2.0 PROCEDURES

Four soil borings were drilled with a 2800 drill rig using 2 1/4 inch internal diameter (ID) augers. A standard split spoon was advanced ahead of the augers and used a 140 pound hammer to collect subsurface samples and view the soil stratification. Most of the borings were sampled continuously from a depth of 3'-5' down to bedrock. The contents of each split spoon were logged on boring log forms and any environmental concerns in the soils were documented. The archeologist took various samples from each boring to identify any archeological significance for different strata. Copies of the test boring logs are provided in the appendix and delineate the soil stratification of the area of concern.

3.0 RESULTS

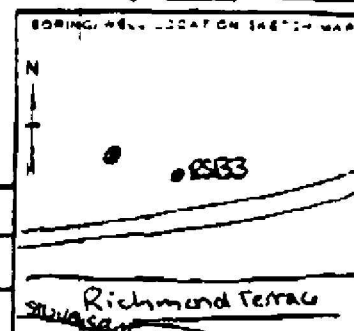
The top layer of material from 0-5 feet is primarily coal slag fill. From 6 feet to bedrock are various inconsistent grades of material. The existence of clays and silts in a sandy matrix intermittent with yellow and green micaceous material and talc in the majority of the borings supports the previous findings that the native materials have been reworked. The bedrock occurs at approximately 11-13 feet and is serpentine rock. There was no indication in any of the borings of an

undisturbed consistent sandy unit which might contain shell middens or materials of archeological significance.

APPENDIX
TEST SOIL BORING LOGS



FRED C. HART ASSOCIATES, INC.



BORING NO. L-581		TEST BORING LOG	
PROJECT NO. NAME 11160-00-00001-03		LOCATION STATEN ISLAND	
DRILLING CONTRACTOR, DRILLER HART - D. ROCHE			
HART GEOLOGIST, OFFICE L. EISELE - NYC			
DRILLING EQUIPMENT, METHOD		SIZE/TYPE OF BIT	SAMPLING METHOD SS
WELL INSTALLED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		CASING MAT./DIA. TYPE	SCREEN MAT.
ELEVATION OF: (FT. ABOVE M.S.L.)		GROUND SURFACE	TOP OF WELL CASING
REMARKS:		TOP & BOTTOM SCREEN	GW SURFACE
		DATE	12/14/89

LOG OF TEST BORING				WELL CONST.	GRAPHIC LITHO LOG
DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	DESCRIPTION		
1.9	SS1	1.9	0'-11" - gray silty sand 5.0-5.9 - black silty sand w/trace clay and coal frags 5.9-6.0 - brown silty sand + brick		
2.1	SS2	2.1	Brown silty sand to silty clay to clay w/ coal and brick fragments. Saturated		
1.3'	SS3	1.3'	8-9 - silty? gravelly brown sand. 9-10 - clay w/ a silt/sand matrix 9-9 - coarse sand matrix for clay		
1.6'	SS4	1.6'	10-6 - Blk silty sand/gravel w/ trace clay coal + brick 11-12 - yellow brown micaceous rock fragments		
			Refusal E.O.B.		

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core



FRED C. HART ASSOCIATES, INC.

BORING WELL LOCATION ON 1:62,500 MAP

N
↑BS
MWBORING NO.
L-3B 3

TEST BORING LOG

PROJECT NO. NAME

00160-00-00001-03- ST. GEORGE

LOCATION

STATEN ISLAND

DRILLING CONTRACTOR/DRILLER

HART- D. ROOHE

HART GEOLOGIST OFFICE

L. EISELE - NYC

RICHMOND TERR

DRILLING EQUIPMENT METHOD

SIZE TYPE OF BIT

SAMPLING METHOD

SS

START FINISH DATE

12/19/89

WELL INSTALLED?

YES ☐ NO ☒

CASING MAT./DIA.

SCREEN:

TYPE

MAT.

LENGTH

DIA.

SLOT SIZE

ELEVATION OF:

GROUND SURFACE

TOP OF WELL CASING

TOP & BOTTOM SCREEN

GW SURFACE

DATE

(FT. ABOVE M.S.L.)

REMARKS:

LOG OF TEST BORING				WELL CONST.	GRAPHIC LITHO LOG
DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	DESCRIPTION		
			Coal slag fill, black sand		
	SS1 1.9		3.5-4- Black silty sand w/ coal slag 4-5- Red brown fine to coarse sand w/ trace gravel		
	SS2 1'	▼	6'- Red brown silty clay 6.5-7- brown/black/gray clayey silt	Saturated	
	SS3 6"		2"-black sandy silt 4"- Red/brown fine-coarse sand w/ trace green talc	Wet	
10	SS4 1.6		9.6-9.9- Red/brown sandy silt w/ coal frags 10-11- Red brown clay intermittent green talc		
15			E.O.B. Refusal		
20					

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-60%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core



FRED C. HART ASSOCIATES, INC.

Page 1 of 1

BORING NO. L-534		TEST BORING LOG				NW 0 •34	
PROJECT NO., NAME 00160-00-00001-03 - ST. GEORGE			LOCATION STATEN ISLAND				
DRILLING CONTRACTOR, DRILLER HART - D. ROOTE							
HART GEOLOGIST, OFFICE L. EISELE						RICHMOND	
DRILLING EQUIPMENT, METHOD			SIZE, TYPE OF BIT		SAMPLING METHOD SS		START, FINISH DATE 12/19/89
WELL INSTALLED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		CASING MAT./DIA. NO 35	SCREEN TYPE	MAT.	LENGTH	DIA.	SLOT SIZE
ELEVATION OF: (FT. ABOVE M.S.L.)		GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	DATE	
REMARKS:							

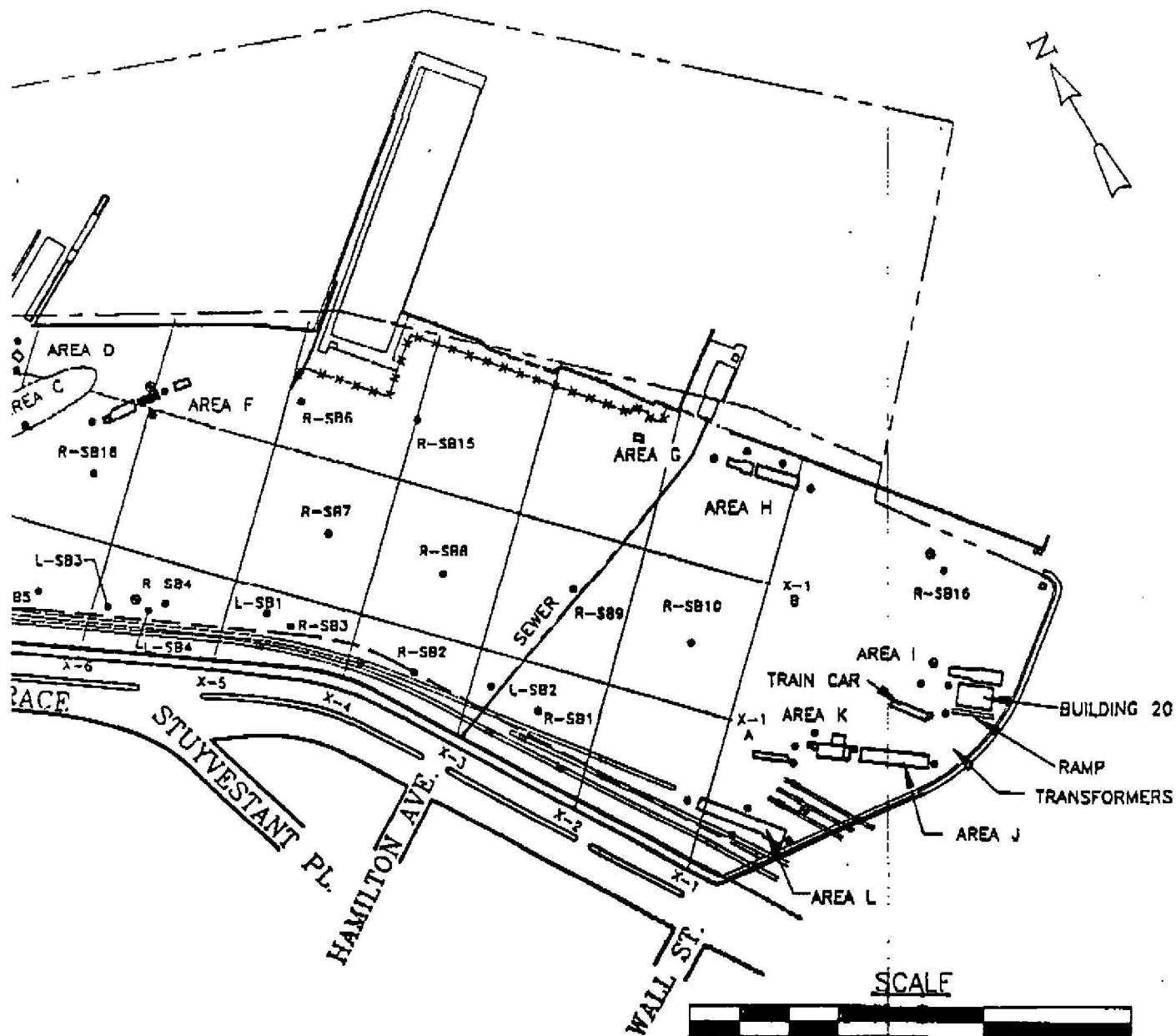
LOG OF TEST BORING				WELL CONST.	GRAPHIC LITHO LOG
DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
				Brown / Black Sand Coal Slag	
5	SS1	1.9	▽	5.6-6 - coal black sand 6-7 - dense moist brown/gray silty clay w/ metamorphosed coal + layer of talc	wet
	SS2			7-8 - gray/brown clayey, silty sand w/ coal fragments 8-9 - red/brown/gray - layers of silt + clay green sandy weathered serpentine at end.	moist
10	SS3			9-9.6 - gray/brown silty, clayey sand 9.6-10 - yellow/red/brown coarse - fine sandy material w/ layers of talc 10-11 - weathered serpentine w/ red clay	
15				E.O.B.	

Proportions Used. Trace = 0-10%, Little = 10-20%, Some = 30-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, C2C = Continuous Soil Core

APPENDIX
SITE PLAN

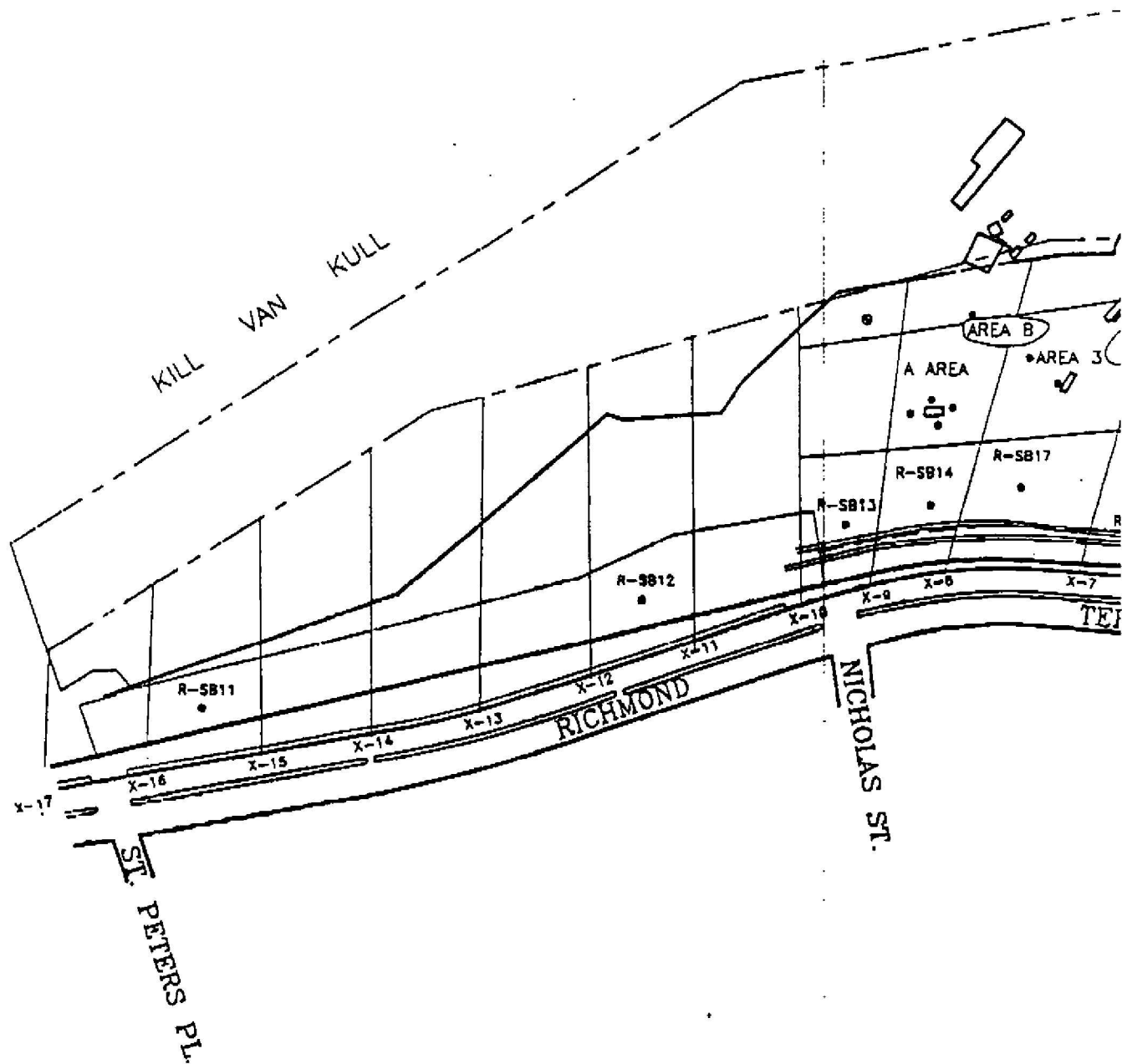
Block 2 L 1



SOURCE:

ETTLINGER & ETTLINGER P.C.
DATE: DECEMBER 30, 1985

<p>SCALE</p> <p>0 205 410 615 FEET</p> <p>REVISED 1/8/90</p>	
<p>FIGURE</p> <p>TEST BORING LOCATIONS</p>	
<p>ST GEORGE SEAPORT ASSOCIATES</p>	
<p>FRED C. HART ASSOCIATES, INC. NEW YORK CITY, NEW YORK</p>	
<p>DRWN: S.T.S.</p>	<p>CHK'D: B.E.</p>
<p>SCALE: AS SHOWN</p>	<p>DATE: 01-08-90</p>



LEGEND

• MONITORING WELL

— PROPERTY LINE

54 Stone Street
Penthouse Suite
New York, New York 10004
212 514-9520

3 January 1990

Mr. Victor Fahrner
Ethan Eldon Associates, Inc.
40 Cutter Mill Road
Suite 401
Great Neck, New York 11021

Dear Victor,

This letter provides our analysis of four soil borings within the proposed location of the St. George Railyard project in Staten Island, New York. On the 18th of December 1989 William I. Roberts IV and Linda Stone of Greenhouse Consultants Incorporated monitored the four borings completed by Fred C. Hart Associates, Inc. Logs for these borings were completed by Lauren Eisele, geologist with F. C. Hart Associates, and forwarded to our offices. All four of the borings were located within 100 feet of the retaining wall along Richmond Terrace between Nicholas and Wall Streets, which was specified as having the potential for preserving prehistoric archaeological evidence in our Phase IA Sensitivity Evaluation of this project. They were continuously sampled using slit spoons from approximately 3 feet below surface to bedrock, which was encountered at between 11 and 15 feet below grade.

The former beach deposits at these locations were represented by thin lenses or layers of sand with inclusions of silt and clay. No thick deposits of sand were encountered. No shells were seen in any of the four borings. It is our conclusion that no potential prehistoric archaeological deposits were encountered. No shell middens were present at these locations and no prehistoric artifacts were recovered. It is our recommendation that no further archaeological investigations are necessary within this portion of the St. George project area.

Sincerely,



William I. Roberts IV
Principal Investigator

cc: Mark Elmendorf
H. Thomas Dunck

Greenhouse CONSULTANTS Incorporated
Adams New York