

HP
USF
1104K
1989

CEQR

LONG ISLAND COLLEGE HOSPITAL PARKING GARAGE

CEQR No. 87-013K - 1989

ARCHAEOLOGICAL ASSESSMENT REPORT

(227)
227

HISTORICAL
PERSPECTIVES INC.



P.O. Box 331 Riverside, Connecticut 06878

PHASE 1A ARCHAEOLOGICAL ASSESSMENT REPORT
for the
LONG ISLAND COLLEGE HOSPITAL PARKING GARAGE SITE,
BROOKLYN, NEW YORK: CEQR NO. 87-013K

Prepared

FOR: Allee King Rosen & Fleming Inc.
117 East 29th Street
New York, New York 10016

BY: Historical Perspectives, Inc.
P.O. Box 331
Riverside, Connecticut 06878

DATE: February 1989

ACKNOWLEDGEMENTS

The authors would like to thank the following people for their help in tracking down information for the Long Island College Hospital Parking Garage site project in Cobble Hill, Brooklyn. They include: Derryl Lang at Allee King Rosen & Fleming, who not only photographed the atlases and fire insurance maps but also checked the Department of Transportation files; Claire Lemars at the Brooklyn Historical Society, who found the Brooklyn 1810 tax roll and the Brooklyn 1840-1841 tax assessment records in their Manuscript Archives; Ken Cobb at the Municipal Archives, who explained that for the project area, 1866 was the first year for which they have tax records; Steve Rizick at the Map File Department at the Parks Department Olmsted Center, who checked through information on both the development of the city playground and the construction of the BQE; and Dina Lokshina at the Brooklyn Bureau of Sewers, who could discern permit numbers even though the sewer and hook-up information was erased from the appropriate page after the buildings on the project site were demolished to make way for the city playground and the BQE.

Project Directors and Primary Authors

Betsy Kearns
Cece Kirkorian

Contributing Author

Nancy Dickinson

TABLE OF CONTENTS

INTRODUCTION.....	1
METHODOLOGY.....	2
Documentary Resources.....	2
Site Visit.....	3
Informants.....	3
PHYSICAL ENVIRONMENT.....	4
Prehistoric Period.....	4
Historical Period.....	5
LAND-USE HISTORY: OVERVIEW.....	7
Prehistoric Period.....	7
Historical Period.....	10
LAND-USE HISTORY: PROJECT SITE SPECIFIC.....	17
Prehistoric Period.....	17
Historical Period.....	18
CONCLUSIONS AND RECOMMENDATIONS.....	36
Prehistoric Period.....	36
Historical Period.....	36
REFERENCES.....	39
MAP REFERENCES.....	44
PHOTOGRAPHS	
MAPS	
PLATES	
APPENDIX A: SHPO SITE-FILE RESEARCH RESULTS	
APPENDIX B: POST-CIVIL WAR PERIOD LAND USE AND OCCUPANTS FOR LOTS IN ARCHAEOLOGICALLY SENSITIVE AREA	

LIST OF MAPS

- Map 1: Sanborn 1988
- 2 Cobble Hill Historic District (Wolfe 1983:400)
- 3 Ratzer 1767
- 4 Ralph Patchen's Real Estate 1829
- 5 Perris 1855
- 6 Robinson 1886
- 7 Bromley 1893
- 8 Hyde 1898
- 9 Hyde 1903
- 10 Hyde 1907
- 11 Hyde 1916
- 12 Hyde 1920
- 13 Hyde 1929
- 14 Department of Parks 1943
- 15 Possible Areas of Disturbance on the Project Site
- 16 Six Lots with Archaeological Potential
- 17 Bolton 1934, Indian Sites for Brooklyn
- 18 Grumet 1981, Indian Sites for Brooklyn
- 19 Hagstrom 1987

INTRODUCTION

The Van Voorhees Park, a city playground at the southwest corner of Atlantic Avenue and Hicks Street, is one block west of the Cobble Hill Historic District of Brooklyn, across Hicks Street from the Long Island College Hospital (LICH), and immediately east of the Brooklyn-Queens Expressway (BQE). This park is the site of the LICH's proposed parking garage (Maps 1 -2). See Photos 1-4. The proposed redevelopment project (CEQR #87-013K) would involve constructing a nine-level above-ground and one-level below-ground parking garage on a parcel of park land that, in 1989, includes both active and passive recreational areas. In exchange for the use of the park land along Hicks Street, LICH would develop recreational areas on two publicly accessible open spaces, both fronting on Henry Street, one block to the east of Hicks Street.

Based on the initial map and atlas research conducted by Allee King Rosen & Fleming, Inc. (AKRF), the New York City Landmarks Preservation Commission (LPC) requested that a Phase 1A Archaeological Sensitivity Assessment be initiated for the proposed LICH parking-garage site, hereafter called the project site, on Blocks 283 and 289 in Ward 6 of Brooklyn. Following the LPC's general guidelines, Historical Perspectives, Inc. (HPI) presents the following report that relied on the documentary record for: 1) an outline of the changes in land use through prehistoric and historical time periods; 2) an identification of the lots where there has been little known surface and subsurface disturbance; 3) an indication of which of these lots contain possibly significant archaeological resources; and 4) a recommendation whether or not further research is warranted.

METHODOLOGY

Obtaining the information necessary to make the required assessment involved various avenues of research which will be described in the following text.

Documentary Resources

The project site has been an area of agricultural, military, and commercial/residential activities since at least the first third of the eighteenth century (Maps 3-13, presented in chronological order). Documentary research concerning the project site which contained all or portions of 21 lots on two blocks (Map 13) involved gathering data from post-1729 land deeds. The 21 lots are those shown on Map 13, a 1929 Atlas. Block numbers and lot numbers (and sizes) changed over time; the disturbance record summary and the identification of potentially significant areas has been keyed to the lot numbers on this 1929 map both for convenience and because they are the designations used in Block and Lot files. They are Lots 1, 3, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19 on Block 283 and Lots 12, 13, 13 1/2, 14, 15, 17, 18, and 19 on Block 289. Information about land use and ownership was gleaned from deed abstracts, transcribed in 1898, that are on file at the Brooklyn Historical Society.

Additionally, published maps and atlases, as well as manuscript maps of the last third of the eighteenth century and the first third of the nineteenth century, helped to connect the descriptions in the deed abstracts with actual locations on the landscape. The New York Public Library, Brooklyn Historical Society, County Clerk's Office in Brooklyn, and Department of Parks-Olmsted Center in Queens were good resource centers. A pre-1868 photograph from the Brooklyn Historical Society provided a way to visualize the streetscape that appeared on a mid-nineteenth century fire insurance maps through the atlases of the first third of the twentieth century. Since the buildings on the project site were demolished between 1939 and 1942, such graphic evidence was important because of the lack of certain detail in mid-nineteenth century maps and because the Brooklyn Buildings Department began recording and keeping Block and Lot information only in 1868.

Even though Block and Lot records storage began in the last third of the nineteenth century, and would presumably allow researchers to document any new buildings and alterations since then, there was, in actuality, only a limited amount of information on file. Nonetheless, those Block and Lot files provided some information, as did water supply/tapping and sewer lines/hook-up records, that was not available elsewhere. Of

particular interest in the Block and Lot files were the early twentieth-century blueprint renderings of completed plumbing and drainage alterations on the project site that specified interior space and listed the names and/or functions of the rooms in the dwellings with stores at street level.

At the Brooklyn Historical Society, Municipal Archives, and New York Public Library, the tax-assessment and federal-census records, both dating from 1810, filled in some other gaps about the buildings and the owners and/or tenants on the project site. The names of non-owner occupants were difficult to find in the documents before 1880 even though they made up the bulk of the residents of the project site from 1834 on, when the two to five story brick, mixed commercial and residential buildings were being constructed. Brooklyn city directories that were organized by street ("reverse directories") began in 1877 and were called "elite directories" because that was whom they listed. However, the directories of the 1870s used the north side of Atlantic Avenue as the cut-off point. The project site is across the street on the southern side of Atlantic Avenue.

Nevertheless, the corroborative, complementary, and supplementary nature of these sorts of documentary records provide enough information to study the agricultural, military, and commercial/residential activities on the project site. Taken together with the secondary descriptive literature of the nineteenth century and the interpretive literature of the twentieth century, the primary documentary resources support the assertion that colonial and early federal period household and farming activities probably left material remains on the project site. Revolutionary War burials may also be encountered on the project site. Also inhabitants of the project site during the nineteenth century may have left material evidence before public utilities were provided.

Site Visit

A site visit was made and appropriate photographs were taken of the area. See Photos 1 - 7.

Informants

In the quest for documentary material and/or other forms of data, a number of persons were interviewed including archivists, librarians, and personnel of various New York City departments such as Parks and the Metropolitan Transit Authority.

PHYSICAL ENVIRONMENT

Soil-boring data from the New York City Department of General Services, detailed subsurface geological information so that earlier physical environments can be postulated for the project site and the general area of Cobble Hill (or South Ferry) in Brooklyn.

The large wall map in the Subsurface Exploration Section of the New York Department of General Services coded the project site as a transitional zone between the glacial deposits that included till and lacustrine outwash, sand, silt, clay, and boulders on the east and the marsh and swamp deposits that developed along the shore where Buttermilk Channel washes the western coast of Brooklyn. Department of Transportation soil borings indexed in 1935 corroborated this (U.S. Works Progress Administration, City of New York, 1935:Index Map 15, Soil Borings 88-89) as did the 1968 Department of Public Works soil borings (City Department of Public Works..., 1968:PW 152/570, Sheet 11 of 20, Soil Boring 93).

There were pre-1935 profile drawings of two cores within 150 feet of the project site taken along the edges of Atlantic Avenue to the northeast and west. The layers in the boring to the northeast showed various mixtures of clay, gravel, and sand down to about 50 feet.

These soil borings did not mention any cultural material, but according to Joseph Breen, A.C.E., of the Metropolitan Transit Authority, the pre-World War II coding systems are of little use because of the lack of standardization (personal communication, July 14, 1988). Subsequent late 1960s soil borings taken approximately 200 feet west of the project site along the west side of Columbia Street denoted a 5 foot peat layer immediately below a 25 feet of concrete, fill, sand, gravel, and brick. The peat overlay 15 feet of compact fine brown sand, some silt, with little trace of gravel. It should be noted that the water level was about 13 feet above the peat layer.

Prehistoric Period

Although these soil borings document the broad geological history near the project site, they neither confirm nor deny the prehistoric or historical activities in the general area, other than suggesting that landfilling took place there. For the prehistoric landscape, anthropologists have looked to general patterns based on archaeological evidence and other scientific ecological studies.

Such evidence is outlined in the prehistoric period land-use history overview section that follows this physical environment section, but a few sentences here will describe the changes in climate, with the concomitant rise in sea level over the last 10,000 years. These changes led the aboriginal population both to seek dry and higher land and to exploit other natural resources that benefited from the warming temperatures. For the last 7,000 years or so, the climate and indigenous natural resources have been much the same. With the exception of the landfilling 200 feet west of the project site and hill-leveling approximately 600 feet to the east, the topography of this section of Atlantic Avenue, like its climate, has also remained generally the same for the last 7,000 years, even when the construction of the BQE is considered (Maps 3-14; and also Colton 1839; (New York) Board of Health 1875; City of New York, Department of Parks 1941, 1944, 1962; BHS Photograph Collection, Cobble Hill Neighborhood). The northeastern corner of the project site is an elevated area with a downward slope to the west and south.

Historical Period

Historical maps catalogued both changes on the landscape and landfilling episodes between 1767 and 1943 (Maps 3-14; (New York) Board of Health 1875). For more than 200 years Atlantic Avenue, the northern boundary of the project site, has been a roadway that sloped down to the west to the shore of Brooklyn on Buttermilk Channel (Map 3; and also Anonymous 1778; Johnson mid-19c/1776; Fields 1869/1776). The roadway passed between two semi-circular ridges (Map 3; and also Anonymous 1778).

This information coincided with data from published atlases and municipal departments' blueprints. A comparison of elevations (above mean sea level at Sandy Hook [City of New York, Department of Parks 1941]) indicated that there is as much as a 21 foot difference between the northeast corner of the project site at the corner of Atlantic Avenue and Hicks Street and 200 feet west on Columbia Street which runs along the shore, perpendicular to Atlantic Street (Maps 6-14, 19; City of New York, Department of Parks 1941).

Plate 1 illustrates the downward slope westward along Atlantic Avenue toward the shore. The roofs of the project site buildings are to the left. The photograph would have been taken no later than 1868 when the Brooklyn Flint Glass Works dismantled its equipment and moved it to upstate New York (Brown and Ment 1980:10-12). What became Columbia Street and the land further to the west was under water along the shore of Buttermilk Channel as recently as 1834 (Martin 1834 and also Map 6).

Although Columbia Street was planned for in 1834, it was not until some time between 1839 and 1850, or at least four years after the buildings on the project site were being constructed, that there was enough landfill to create Columbia Street at the foot of Atlantic Street. Thus, except for the landfill there at the foot of Atlantic Avenue, which post-dated the construction of brick commercial/residential buildings on the project site, the topography has remained very similar to what it had been when the semi-nomadic Native Americans roamed in small bands among the hills and valleys, along the shore, and in the meadows and woods that became the Cobble Hill area.

LAND-USE HISTORY: OVERVIEW

Prehistoric Period¹

To understand the prehistoric sequence within the vicinity of the project area, it is necessary to establish regional chronologies and patterns throughout prehistory. Since settlement patterns varied with resource availability, it is also necessary to describe the prehistoric environment and the degree of likelihood that the native populations would have exploited such an environment. The archaeological record for Kings County includes information gathered by amateur and professional archaeologists over the last century. This data base has been enhanced by early ethnographic accounts of the Native American population.

Paleo-Indian Period. The earliest inhabitants of southern New York, Paleo-Indians, occupied the area between 10,000 and 13,000 years ago. It is postulated that these early inhabitants subsisted on post-pleistocene megafauna such as caribou, mammoth, and bison. Alternative hypotheses support the idea that Paleo-Indian settlement and subsistence was based on a diverse array of resources (Eisenberg 1978:10). Sites in southern New York have been located along the Hudson River and tributaries on bluffs and ridges, and on the ridge tips where deciduous trees dominated (Ibid.). However, on Long Island it is often difficult to locate sites as the rise in the sea level since that time period has inundated coastal sites (Saxon 1978:202). Fluted Points, diagnostic of Paleo-Indian populations, have not been found in Kings or Queens County (Saxon 1978:252).

Early Archaic Period. The subsequent Early Archaic Stage (9,000 years ago) is scantily represented in the archaeological record of Long Island. Often artifacts of this period are found in multi-component sites also representing the later Middle and Late Archaic periods (8,000 to 4,000 years ago). These multi-component sites are often situated on tidal inlets, coves, and bays (Kearns and Kirkorian 1986:7). By about 7,000 years ago environmental changes had promoted the establishment of seasonally available resources, and the flora and fauna of Long Island were much as they are today. The area became populated with white-tail deer, elk, and other mast-eaters as well as abundant

¹ The prehistoric land-use overview is taken for the most part from HPI's 1989 Phase 1A Archaeological Assessment on the 504 BOE Site, Brooklyn. Ms. on file, Historical Perspectives, Inc., P.O. Box 331, Riverside, CT 06878.

water fowl. The established biotic communities provided a stable resource base for Archaic Indians, and settlement patterns began to reflect a seasonal pattern of resource exploitation.

Late Archaic Period. By the Late Archaic Period the sea level was near its present level. As a result, sites of this period were not inundated, and numerous ones have been encountered. The established shellfish beds between Cobble Hill and the Gowanus-Creek to the south would have provided a stable resource, easily utilized during periods of low resource availability, and midden sites of this period confirm this activity. Midden sites have largely been found along the coast, with the exception of those found along inland salt creeks (Skinner 1932:16).

Transitional Archaic Period. Following the Late Archaic, the Transitional Archaic is represented by the Snook Kill phase on Long Island. Artifacts of this period include soap-stone bowls. This period, dating between 4,000 and 3,000 years ago, is represented at sites found on high sandy river terraces. The majority of sites appear to be along rivers and streams, while the number of inland sites recovered is minimal (Kearns and Kirkorian 1986:8).

Early Woodland Period. The following Early Woodland period (3,000 to 2,000 years ago) is marked by the introduction of the bow and arrow, and ceramics. Crude cord marked Vinette I pottery diagnostic of this period has been found at sites on knolls and well-drained terraces, in proximity to fresh water resources. Early Woodland/Middlesex phase sites have been most often discovered during sand or gravel mining operations near a river or lake (Ritchie 1980:201).

Middle and Late Woodland Periods. The Middle and Late Woodland periods (2,000 to 500 years ago) are represented by more elaborate ceramic styles, including scallop marking and shell tempering. Toward the end of the Woodland period, and possibly not until the later Contact period, maize horticulture was introduced into the Native American subsistence practices. Sites of this period are usually found on second terraces or well drained soils along fresh water sources (Ritchie 1980:265). Sites of the Windsor tradition of the Late Woodland period include the North Beach site at Laguardia Field, and the Grantville site at College Point (Smith 1950:102). Both sites yielded refuse pits associated with extended habitation. Sites of the Windsor tradition also tend to be located on bays and tidal streams (Ibid.:129).

Contact Period. The impact of European colonization of Long Island drastically altered the life-styles of Native Americans. With the introduction of metal and glass, aboriginal tools and artifacts were slowly replaced. The shoreline location

for late prehistoric sites suggests that it is an extension of the settlement patterns utilized during earlier periods (Kearns and Kirkorian 1986:8). Alternative hypotheses suggest that the desire to produce wampum for economic exchange resulted in many Long Island groups settling year round along the coast. It is also thought that this same motivation may have been the reason for the adoption of maize as a staple resource base. Wampum manufacturing sites have been reported from the western part of the island (Ceci 1982:9).

At the time of European contact, Native American populations spanned Long Island. Western Long Island was inhabited by Native Americans of the Delaware group, speaking a Munsee dialect, while those on the eastern part of the island were more closely related to the Connecticut groups (Salwen 1978:160). Ethnographic reports of Indian villages at the time of contact show that there were large settlements along Newtown Creek in Queens and a number along Jamaica Bay. Another village reported is Quandus (Quaricus) along the Newtown Creek in the town of Bushwick. To the south along the East River the Rinnegaconck occupied a tract of land near Wallabout Bay.

While numerous prehistoric sites have been found in Brooklyn, none have been recovered in the vicinity of the project area. Bolton's map of Indian sites in Brooklyn shows no sites in the Cobble Hill area, and the closest reported at that time are located in the vicinity of Brooklyn Heights (Bolton 1934:145; Maps 17-18). Although no sites have yet been found near the study area, this does not mean that the site was not occupied at some time prehistorically.

Archaeologists working on Long Island have recently recognized the fact that the majority of data available regarding settlement and subsistence was obtained from midden sites (Lightfoot 1985:59). Since these sites have the highest visibility, they have received the majority of attention historically. In an attempt to develop an unbiased model of settlement and subsistence, and intensive survey of Shelter Island was performed. The results indicate that while the large visible shell midden sites do exist, they are only a part of a broader subsistence system which includes the use of numerous short-term special purpose camps (Ibid.:78). While this has only been confirmed with the data from Shelter Island, it is plausible that the same settlement system was in operation on Long Island, and that small short term campsites have largely gone unnoticed.

The predictive models and archaeological reports about 10,000 years of human habitation in coastal New York describe the possibility of encountering subsurface remains of Native American

activities; an overview of the more recent past puts into focus the activities of the European-Americans who developed or occupied the project site and study area.

Historical Period

Colonial Period. During the colonial period, farm land and estates with formal gardens dotted the landscape in the area around the pier at the shore end of what became the project area along Atlantic Avenue (Map 3). Noted Brooklyn historian, Henry Reed Stiles, quoted the language of the 1640s land patents for the "territory afterwards occupied by the Remsen and Philip Livingston estates, Ralph Patchen...and others" (Stiles 1867-1870:72). The seventeenth-century patents cited "maize-land...beach...hill...woods...Salt River...water-side...." (Stiles 1867-1879:69-72), as well as "first meadow" (Stiles 1884:82). The Livingstons and Patchen were subsequent landowners of the project site.

According to deed abstracts, in 1730 the land of which the project site is now a part was passed from the Patentees of the Town of Brooklyn to the Freeholders of Brooklyn (1898 Deed Abstracts cite Liber 5, p.96). Between then and 1767 the land passed to the Livingston family who established mansions, formal gardens, and cultivated fields (Map 3). The project area can be located on the Rutzer map (Map 3) because someone at the Subsurface Exploration Section, Bureau of Building Design, Department of General Services has made an acetate overlay with a twentieth-century street grid to fit over the eighteenth-century colonial map. "[Twentieth-century engineers] have had occasion to trust him [Rutzer]" (Lawrence Ebbitt, personal communication, October 24, 1988).

The Rutzer map of 1767 is difficult to decipher (Map 3), so the following description delineates the project site within its surroundings. It lay to the east of the pier projecting into Buttermilk Channel at the foot of the road just south of R.G. Livingston's formal gardens. The project site included two or three apparent structures, but probably did not extend to the dark rectangles to the east and south of the road.

During the Revolutionary War the project site may have been part of an area used for sheds and huts that housed the sick as well as a burying ground for military personnel who had been hospitalized at the Livingston mansion on the estate immediately to the north (Furman 1865;1825:vii-viii; Stiles 1867-1870:305-306). What became Atlantic Avenue was the dividing line between the Livingston property and the farm land that a Ralph Patchen bought in 1804 and 1808 (1898 Deed Abstracts cite Liber 8, p. 84; Liber 9, p.280).

Federal Period. According to the 1898 deed abstracts, what was to become the project site remained in the hands of Robert G. and Catharine Livingston until 1783 when Jacob Hicks bought the land (1898 Deed Abstracts cite Liber 6, p. 476). The name of Ralph Patchen, who was probably born some time between 1764 and 1788, did not appear in the deed abstracts for the project area during the eighteenth century, but by 1796 Ralph Patchen was listed in a Brooklyn directory as a dairyman (1810 Census, call no. *ZI-104, p. 74; Stiles 1867-1870:450-451). In 1804 Patchen bought the land from Jacob and Elizabeth Hicks (1898 Deed Abstracts cite Liber 8, p. 84), and in 1808 he purchased other land from William and Cornelia Cornell (1898 Deed Abstracts cite Liber 9, p. 280) in what was to become the project area.

The project site remained in Ralph Patchen's name until 1829 when the project area was subdivided into blocks and lots and deeded as three parcels with many lots to Sarah Ann Martin, George M. Patchen, and Henry Patchen (Maps 4 and 15; 1898 Deed Abstracts cite Liber 26, p. 222, Liber 22, p. 219; Town Council [of Brooklyn] Map 1829, TC 319A). Sarah Ann Martin received the northernmost 12 lots, George Patchen received the middle 14, and Henry Patchen also received 12 lots, the southernmost on the project block. Nearby lots that stood on the northern side of Atlantic Avenue were deeded to Ralph Patchen (Deed Abstracts cite City Map 42, Liber 42, p. 131; Town Council [of Brooklyn] Map 1829, TC 319A).

Antebellum Period. The beginning of the shift from agricultural land-usage to commercial/residential land-usage for the project site in the late 1820s coincided with other changes in the immediate area earlier in the decade. On May 1, 1823, with great fanfare, there was the laying of the cornerstone for Brooklyn Flint Glass Works one block north of the project site, on the north side of what became Atlantic Avenue. Until late 1868 it occupied a large proportion of the block and produced at various times not only blown glass, but also cut glass and pressed glass (Brown and Ment 1980:10-12).

As early as 1825 several men of Manhattan, who had land interests in South Brooklyn, were petitioning the New York City Common Council for permission to begin ferry service between lower Manhattan and the foot of Atlantic Avenue, within 300 feet of the project site. The Common Council thwarted the effort, but in 1835 the Legislature voted its approval for a ferry service from Whitehall, rather than Old Slip, to the foot of Atlantic Street. The New Ferry or South Ferry, as it was called, first opened for travel on May 16, 1836 (Stiles 1884:439-441).

Two years prior to the initiation of the South Ferry, the project blocks included "Twelve Lots of Ground with Buildings which Said Lots Are [illegible] and Distinguished on a Map of the Real Estate of the said Ralph Patchen...." (1898 Deed Abstracts cite City Map 42, Liber 42, p. 131; Town Council [of Brooklyn] Map 1829, TC 319A; Map 4). The lots occupied the northern portion of Block 283 and are indicated on Map 16. Thus, in 1834, ten years before the Long Island Rail Road tunnel was dug under Atlantic Avenue directly north of the project site, the narrow lots were being developed (Wolfe 1983:402-403; Plate 2).

A shifting back and forth of aggregates of parcels among people with the same last names or else with other recent owners was repeated several times into the 1860s. Archival documentation revealed that the owners were absentee landlords during this period.

From the 1840 tax roll we learned that on the northern boundary of the project block there were "12 Lots & 10 Houses (unfinished)..." [The same 12 lots as noted above.] For the rest of the site we had to rely on a Brooklyn mid-century atlas to indicate that the project area was largely made up of "brick.. ..dwellings with stores under" by 1855 (Map 5; Perris 1855). We could not turn to Brooklyn Buildings Department Blocks and Lots files because they did not begin data gathering until 1868. Nonetheless, there is little reason to believe that the housing stock noted in the 1855 atlas did not reflect the first-generation of building development for the project site begun in 1834. A comparison of the neighborhood's mixed commercial and residential buildings shown on Plate 1 with Photos 4-7 and with the architectural rendering of the facade of a building on the project site (Plate 3) lends credence to the notion that the housing stock on the project site was very similar to the north face of Atlantic Avenue across the street from the project site shown in Plate 1.

As to the economic status of inhabitants of the study area, only aggregate data were available about occupation in the 1840, 1850, and 1860 censuses. In the 6th Ward where the project site was located, for every three people working in commerce, manufacturing, and trades there were two working in agriculture in 1840. Those involved in navigation of any kind were a far distant third and nearly tied with those in the category that placed fourth, the learned professions and engineers (1840 Census, call no. *2I-107, reel 9, p. 715). Thus, the assumption is that the tenants of the brick buildings on the project site were likely to be workers in the commercial and manufacturing concerns along the western end of Atlantic Avenue and near the South Ferry.

In brief, during the mid-nineteenth century, the project area housed working people in brick and frame dwellings that had stores on the street level.

The Reverend H.W. Beecher (1813-1887) reminisced about Brooklyn of the 1840s and 1850s when he spoke at the opening of the Mercantile Library building on January 19, 1869. Stiles, writing two years later, quoted some of Beecher's remarks:

Twenty-two years ago I first came to Brooklyn. Then we found our way through the street by the light of oil lamps. Gas came in first about the time I did....and it was marvelous how much benefit you derived from both....The next thing I remember in association with my labors in Brooklyn was carrying water from creaking, long handled pumps, and I remember thinking that, if we could only get water, Brooklyn would be made a city [Stiles 1871:14].

At least until 1858, like the Reverend Beecher, who lived and preached in Brooklyn Heights somewhat to the north of the project area, the workers and residents on the project site would have carried water from pumps if they did not have wells or cisterns. In 1858 water mains were laid along Atlantic Avenue and Hicks Street along the perimeter of the project site. If there were Brooklyn water-tapping records of that date, they are not extant, in fact they are non-existent until the 1920s (DEP-Water: n.d., Brooklyn Index Map 49; DEP-Water, Brooklyn Tapping). So, from c.1834 to c.1858 the residents and workers on the project site used some combination of pumps, cisterns, and wells.

On the eve of the Civil War, according to the Reverend Beecher's definition, Brooklyn, and by association, the project area, was a city: it had water.

Post-Civil War Period. Circa 1868, the perimeter of the project site had, not only water mains, but also sewer lines. What records were available concerning the sewer lines and hook-ups were literally erased from the index map after the buildings on the project site were demolished between 1939 and 1942, yet Dina Lokshina of the Brooklyn Sewer-Hook-up Section was able to infer the circa-1868 date for the sewer lines by reading the barely discernible permit numbers. Those numbers predated the earliest records in the Brooklyn House Connections Book (personal communication, January 17, 1989). Thus, the residents and workers on the project site relied on private means of sewage disposal for at least 34 years, from c.1834 to c.1868, before public service was available in the neighborhood.

For the second half of the nineteenth century, in terms of the built environment, the landscape remained much the same on the project site (Dripps 1850; Maps 5-8; Brooklyn [City of and Borough of] tax records: 1873-1876, 1891-1895, 1895-1899). Changes occurred, though, in the ownership of the project site. The properties were sold in smaller parcels, such as units of one, two, or three lots, and the 1880 census confirmed that some of these owners were occupants of the dwellings and that there were one to eight families living in the two to five story brick buildings on the project site (1880 Census, call no. *ZI-50, reel 38, pp. 196-197, 211-212; Brooklyn [City of and Borough of] tax records: 1873-1876; 1891-1895, 1895-1899).

In 1880 the census enumerator listed not only the occupation or school-status of everyone visited, but he also noted nativity of two generations of people. By and large, the project site was home and/or occupation place for immigrant or first-generation Americans who fit under the same broad occupational categories of commerce, manufacturing, and trades that the aggregate data of the 1840 census had listed.

We get a glimpse into the living arrangements and conditions of these families from a second-generation Cobble Hill dweller who was born in 1885. In a collection of his privately published memories, William Coackley reminisced about his boyhood homes "with a house full of kids." He listed 142 Atlantic Avenue, no more than one-and-a-half blocks east of the project site, as one place that he had lived. He remembered that he and his family had the

Entire first floor above a store, no bath. Iron coal range in kitchen and a large coal stove in front parlor. All lighting by oil lamps. Rent \$25.00 a month [Coackley 1973:n.p.]

Other memories about other places in Cobble Hill where he lived as a child included

80 Schermerhorn Street...brownstone, Parlor floor and basement. No bath room. The Toilet was in the back yard heated in the winter by an oil lamp. The house had three tenants....Gas lighted. Coal range in kitchen. The living room had a Baltimore heater on one side....This range also heated up the parlor floor. Our rent was \$18.00 a month.

206 Dean Street. A three-family brownstone with modern facilities. We had the parlor floor and basement all gas lighted and coal heaters. The rent was \$25.00....Back in 1906 the owner offered to sell us the house for \$500.00 down and a low cost mortgage of \$4,000.00. We did not have the cash but a house full of kids [Coackley 1973:n.p.]

Twentieth Century Period. The project site in the early twentieth-century remained much as it had during the last third of the nineteenth century. It had the same housing stock with only a few changes in the buildings' footprints (Maps 9-13; Brooklyn [Borough of] tax records:1915, 1925, 1935). The 1900 manuscript census seemed to be very similar to the 1880 and 1840 censuses in terms of occupational categories. The surnames may have changed, but working families continued to live in these multiple-family dwellings on the project site (1900 Census, call no. *ZI-263, reel 1044).

Although there was spotty demolition in previous years, the majority of the buildings on Blocks 283 and 289 were razed between 1939 and 1942 in conjunction with the construction of the Brooklyn-Queens Expressway. According to the Brooklyn President's Report for 1949, the section of the BQE "along Hicks

Street, from Atlantic Avenue to Congress Street, was completed on December 22, 1949, at a contract cost of \$306,823.50." Based on comparisons of existing structures (Photos 4 - 7), a series of atlases, demolition plans, a blueprint drawing of a house once on the project site, and the buildings in the nearby Cobble Hill Historic District, it is reasonable to infer that the buildings which were razed were the original structures with whatever subsequent additions were made over the decades.

LAND USE HISTORY: PROJECT SITE SPECIFIC

Prehistoric Period

The New York State Museum (NYSM) files contain no information about prehistoric sites within a one-mile search area of the project site (B.W., NYSM, personal communication, August 26, 1988). A site-file search conducted at the State Historic Preservation Office in Albany yielded three historic inventoried sites on the extreme perimeter of the one-mile search area: #A047-01-0074, #A047-01-0179, #A047-01-0102. Included as Appendix A are the three site reports and a locational map. No prehistoric sites were in the SHPO files.

The project site is on an elevated area within 200 feet of the eighteenth and early nineteenth-century shoreline. It is recognized that Native Americans preferred elevated knoll sites near a large and reliable water resource. However, as cited above, the project site appears to actually be on the sloping edge of a high knoll, arguing against a large and intact camp or village site. Also, there is no cartographic or ethnographic indication that this location either supported a wetland or was part of a protected embayment, both known settlement pattern preferences. Certain features of the LICH site are consistent with the predictive models that suggest that Native Americans appreciated such areas for their vantage point and proximity to a large water resource. However, the northerly and northwesterly winds coming down the Hudson and East Rivers and across the Buttermilk Channel probably mitigated against any long-time encampment or occupation as did both the lack of a large wetland resource and the site incline. Therefore, while there is a chance for evidence of an occasional tool, food preparation artifact or midden, there is little likelihood for significant prehistoric material cultural remains to be found on the project site.

Historical Period

Project Site Disturbance. This section of the report will list the known disturbances to the lots on the project site or else explain why a lot on the project site has been excluded from consideration as having archaeological potential. Several kinds of documentary resources provided the information about these 21 lots. The published sources included atlases and maps that date from 1850 to 1929 (Maps 5-13; and also Dripps 1850). Municipal records such as Deed Abstracts, Blocks and Lots files, and tax assessment records that date between 1808 and 1935 also informed the description as did the 1941 Parks Department demolition records for the project site.

For the following descriptions the block and lot numbers will be those found on Map 13 (1929) and correspond to the numbering system used in the Brooklyn Buildings Department Blocks and Lots files. According to Map 13 (1929), the project site includes all or portions of what were 21 lots on 2 blocks. On the northern block, Block 283, they were lots 1, 3, 9 - 19. On the southern block, Block 289, they were lots 12, 13, 13 1/2, and 14 to 19. (The 1903 atlas, Map 9, is the first time we found these lot numbers in usage; prior to 1903 they were different.)

In effect, the following listing describes what is depicted on Map 15, a created map that overlays information found on Map 13 (1929) onto Map 4 (1829). Originally drawn to the same scale, the Maps 13 and 4 incorporate the location of farm period buildings, 1829 lot lines, and 1929 structures and roadways. Other disturbances to the landscape, known from Maps 6-12, as well as from Blocks and Lots files, tax assessments, and Parks Department demolition records, were also noted on Map 15. The areas on the project site where the commercial/residential buildings stood were apt to be disturbed because of the tendency to construct cellars or basements below those buildings fronting on Atlantic Avenue and Hicks Street. Therefore, the resultant "white space" denotes the relatively undisturbed areas of the project site.

Block 283

Lot 1. Lot 1 was excluded from consideration because only a very tiny part (5 to 7 feet at the widest section; see Map 13) of the lot lay within the project site. Until 1903 Lot 1 was known as Lot 14 (Maps 6-8).

Lot 3. Lot 3 was excluded from consideration because of the adverse impact of the one story structure that covered the section of Lot 3 that was on the project site. The

structure appeared between 1920 and 1929 (Maps 12-13). In 1938 there was a factory on Lot 3 (Block 283, Lot 3, blueprint August 19, 1938). Until 1903 Lot 3 was known as Lot 15 (Maps 6-8).

Lot 9. Lot 9 was excluded from consideration because of the adverse impact not only of the three story brick dwelling with store at street level on the front of the lot (Map 5; Block 283, Lot 9, Alt. Appl. No. 21880, December 19, 1922), but also because of the adverse impact of the structure that covered the backyard section of Lot 9 on the project site some time between 1920 and 1929 (Maps 12-13).

The building fronting on Lot 9 had a "cellar" (Block 283, Lot 9, Alt. Appl. No. 21880, December 19, 1922).

As one of the 12 lots that faced Atlantic Avenue and Hicks Street that was developed between 1833 and 1850, it is likely that the brick building on Lot 9 was constructed similarly to those on Lots 10-12. According to tax records, the buildings on the adjacent Lots 10-12 were coded "3B", that is, had three stories and a basement (Tax records [Borough of] Brooklyn, 1915, 1925, 1935). A comparison of several kinds of municipal records suggests that the stories referred to the number of floors at and above street level. The excavation for a cellar or basement would have had an adverse impact on any archaeological resources within and around the building footprint. Until 1903 Lot 9 was known as Lot 3 (Maps 6-8).

Lot 10. Lot 10 is considered to have the potential for intact subsurface remains because the backyard of the three story brick dwelling with store at street level has remained open space since at least 1855, the date of the first known atlas with any degree of detail about housing stock (Maps 5-13; Tax records [City and Borough of], 1873-1876, 1915, 1925, 1935). The area is approximately 20' x 40'.

The building on Lot 10 was known to have had a basement (Tax records cited, 1915, 1925, 1935), which would have had an adverse impact on any archaeological resources within and around the building footprint. Until 1903 Lot 10 was known as Lot 4 (Maps 6-8). Its address was 58 Atlantic Avenue (Maps 6-13).

Lot 11. Lot 11, like Lot 10, is considered to have the potential for intact subsurface remains because most of the backyard of the brick dwelling with store at street level has remained open space since at least 1855, and presumably

before (Maps 5-13; Block 283, Lot 11, Demolition Permit No. 38, February 6, 1942).

The "cellar in main building" (Block 283, Lot 11, Appl. No. 2232/109, May 13, 1904) would have had an adverse impact on any archaeological resources within and around the building footprint. It is not known whether there was a real distinction between a cellar and a basement at the turn of the century, but the building was coded as "3B" in the tax records (1915, 1925, 1935), that is, the structure had a basement and three stories at and above street level (Tax records cited). Like a cellar, the excavation for a basement would have had an adverse impact on any archaeological resources within and around the building footprint.

There was only a small addition attached to the rear of the residence/store between 1920 and 1929 (Maps 12-13). Until 1903 Lot 11 was known as Lot 5 (Maps 6-8). Its address was 60 Atlantic Avenue (Maps 6-13).

Lot 12. Lot 12 is considered to have the potential for intact subsurface remains because most of the backyard of the three story brick dwelling with store at street level has remained open space since at least 1855 (Maps 5-13; Block 283, Lot 12, Demolition Permit No. 38, February 6, 1942). It is an irregularly shaped area about 20' x 30'.

The building on Lot 12 was known to have had a basement which would have had an adverse impact on any archaeological resources within and around the building footprint (Tax records cited, 1915, 1925, 1935).

A small, two story addition was attached to the rear of the residence/store from 1903 on (Maps 9-13). Until 1903 Lot 12 was known as Lot 6 (Maps 6-8). Its address was 62 Atlantic Avenue (Maps 6-13).

Lot 13. Lot 13 is considered to have the potential for intact subsurface remains because the backyard of the three story brick dwelling with store at street level has remained open space since at least 1855 (Maps 5-13; Block 283, Lot 13, Appl. No. 1991, March 30, 1917; Block 283, Lot 13, Demolition Permit No. 38, February 6, 1942). The open backyard area was a space of approximately 20 feet by 20 feet.

A basement is presumed for the building on Lot 13 because this lot was part of the 1833-1850 development of the project site. Adjacent Lots 10-12, also developed before 1850, are known to have had basements. The excavation for a basement would have had an adverse impact on any archaeological resources within and around the building footprint. Until

1903 Lot 13 was known as Lot 7 (Maps 6-8). Its address was 64 Atlantic Avenue (Maps 6-13).

Lot 14. Lot 14 was excluded from consideration because of the adverse impact of the three story brick dwelling/store with presumed basement (Block 283, Lot 14, Demolition Permit No. 38, February 6, 1942) as well as the building addition that covered the backyard section of Lot 14 some time between 1920 and 1929 (Maps 12-13).

A basement is presumed because Lot 14 was part of the 1833-1850 development of the project site. Nearby Lots 10-12 that also faced on Atlantic Avenue are known to have had basements (Tax records cited, 1915, 1925, 1935). The excavation for a basement would have had an adverse impact on any archaeological resources within and around the building footprint. Until 1903 Lot 14 was known as Lot 8 (Maps 6-8).

Lot 15. Lot 15 was excluded from consideration because of the adverse impact of the brick dwelling with store at street level that covered the entire lot from 1886 on (Maps 6-13).

Like Lots 13-14, a basement is presumed for the building on Lot 15 for the same reasons. Similarly, archaeological resources would have been disturbed by any excavation for a basement. Until 1903 Lot 15 was known as Lot 9 (Maps 6-8).

Lot 16. Lot 16 was excluded from consideration because of the narrowness of the backyard space (approximately 10 feet; see Map 13) behind the five story brick dwelling with store at street level on the front of the lot (Maps 6-13; Block 283, Lot 16, Alt. Appl. No. 14150, July 30, 1913; Block 283, Lot 16, Appl. No. 205, January 6, 1931; Block 283, Lot 16, Demolition Permit No. 38, February 6, 1942).

In 1913 "the depth of foundation walls [were] below curb level 8.0 [feet]" (Block 283, Lot 16, Alt. Appl.No. 4150, July 30, 1913).

Other known disturbances for Lot 16 include the replacement of a frame "toilet house...6 ft. from building" with a new one as well as adding a brick toilet house to the rear of the first floor. The toilet in the frame toilet house had been connected with the public sewer running along Hicks Street. The new toilet house was to have "Compartments to be lighted in daytime by windows...and at night by gas.... (Block 283, Lot 16, Permit No. 1569, June 14, 1905). Until 1903 Lot 16 was known as Lot 10 (Maps 6-8).

Lot 17. Lot 17 is considered to have the potential for intact subsurface remains because the backyard of the three story brick dwelling with store at street level has remained open since at least 1855 (Maps 5-12) except for a small detached building constructed some time between 1920 and 1929 (Maps 12-13). The backyard area is approximately 30' x 60'.

The building was known to have had a basement (Maps 9-13; Tax records 1915, 1925, 1935). The excavation for a basement would have had an adverse impact on any archaeological resources within and around the building footprint. Until 1903 Lot 17 was known as Lot 11 (Maps 6-8). Its address was 342 Hicks Street (Maps 6-13).

Lot 18. Lot 18 is considered to have the potential for intact subsurface remains because a large portion of the backyard of the two story brick dwelling with store at street level has remained open since at least 1855 (Maps 5-13). This open space was probably the work area for the junk dealer whose family owned and occupied the lot from 1867 until at least 1935 (1898 Deed Abstracts; Tax records, 1873-1876, 1891-1895, 1895-1899, 1915, 1925, 1935). The open space was between a front and a rear building and measures approximately 20' x 30'.

The rear building noted from 1886 on (Maps 6-13) may have been the one cited in the Blocks and Lots files (1881). Without locating the building(s) on Lot 18, a permit for 1881 noted a building "Altered to 2 stories...1 building as shop...base concrete 8" thick, no piers, foundation walls 20" thick...." (Block 283, Lot 18, NB No. 329, August 18, 1881).

The same New Building permit noted a "cellar" (Ibid.) An 1918 alteration listed a building on Lot 18 as having 2 stories and a basement (Block 283, Lot 18, Alt. No. 7828, December 1, 1918). 1929 atlas (Map 13) marked the building fronting on Hicks Street on Lot 18 as having two stories and a basement. An excavation for a basement would have had an adverse impact on archaeological resources within and around the building footprint.

Two small additions attached to the rear of the residence/store appeared in 1927 (Maps 12-13; Blocks and Lots files, 1927). Blocks and Lots files noted that the additions housed indoor toilets, eliminating the need for the outhouse hooked-up to the city sewer specified in the blueprints (1927). Until 1903 Lot 18 was known as Lot 12 (Maps 6-8). Its address was 344 Hicks Street.

Lot 19. Lot 19 was excluded from consideration because of the adverse impact of the several changes in the footprints of the two buildings on the lot during the twentieth century (Maps 9-13).

While no basement is specifically mentioned in the Blocks and Lots files, in 1892 the depth of the brick foundation walls of one of the buildings was three feet (Block 283, Lot 19, Alt. No. 783, August 19, 1892). On Maps 9-10 (1903, 1907) the rear building was listed as having three stories and a basement.

Maps 9-13 noted three stories for the building fronting on Hicks Street on Lot 19, and there were three configurations for this building's footprints within 43 years (Maps 6-13). Lot 19 was vacant in 1938 (Block 283, Lot 1, blueprint August 19, 1938), and permission was granted "To clean and prepare the above mentioned vacant space (Lots 1 and 19) for day and night parking...." (Block 283, Lot 1, Building Permit No. 8395, May 25, 1939). Until 1903 Lot 19 was known as Lot 13 (Maps 6-8).

Pacific Street

The Pacific Street roadway is excluded from consideration because of the subsurface disturbance caused by water mains, sewer lines, and other utility installations beneath the roadbed. Grading for road building would also have had an adverse impact on any archaeological resources.

It was probably Pacific Street that was laid out across the project site, as the "part of the road" to which the 12 lot land transaction from Ralph and Elizabeth Patchen to James Underhill was subject in 1834 (1898 Deed Abstracts cite Liber 42, p. 131).

In 1834 the western terminus of Pacific Street was one block to the east of the project site, where Pacific intersected Henry Street (Martin 1834). By 1839 Pacific Street had been put through to the water's edge, then some one and one-half blocks to the west of the project site (Colton 1839). On the Colton map the intervening blocks were shaded to denote development. Thus, the location of Pacific Street on the 1829 map (Maps 4 and 16) reflects a planning stage for street location rather than the actual placement of the roadbed. This explains the disparity revealed when Map 16 is compared to Map 15 where Pacific Street is indicated by a cross-hatched pattern.

Block 289

Lot 12. Lot 12 was excluded from consideration because only a very small part of the lot lay within the project site, and that portion was covered by a five story brick building at one time.

Maps 10-13 and the 1941 blueprint of the demolition of Block 289 listed the building on Lot 12 within the project site as having been a four story brick building with party walls and a cellar elevation (Department of Parks [DoP] 1941). Until 1903 Lot 12 was known as Lot 1 (Maps 6-8).

Lot 13 (and 13 1/2). Lot 13 was a double lot (50 feet wide) on which stood two buildings, side by side. Lot 13 and 13 1/2 was excluded from consideration because of not only the adverse impact of the four story brick commercial/residential buildings with basements that fronted on Hicks Street (Tax records [Borough of Brooklyn], 1915, 1925, 1935), but also because those buildings appeared to have covered the double lot in 1886 (Map 6). Subsequent maps (Maps 7-13) show a varying sized open backyard, but it is presumed that the 1886 development of the lot would have had an adverse impact on any earlier subsurface cultural resources.

The tax records coded Lot 13 as "4B", that is, as having four stories at or above street level and a basement (Tax records cited). In 1939 the southern building was vacant and demolished by WPA labor (Block 289, Lot 13 1/2, Demolition NO. 577, June 19, 1939; DoP 1941). Lot 13's building on the southwest corner of Pacific and Hicks Street, like most of the rest of the project site, was razed in 1942. Until 1907 Lot 13 and 13 1/2 was known as Lots 4-5 (Maps 6-9).

Lot 14. Lot 14 was excluded from consideration because only a narrow strip (approximately 7 feet wide by 50 feet long) along the southern side of the four story brick commercial/residential building remained as open space from at least 1886 on (Maps 6-13). The two, semi-circular bays, along the south side were probably exterior staircases. In 1927 alterations to the tenement with a store on the first floor (street level) increased the housing capacity from 15 to 16 families without changing the building footprint (Block 289, Lot 14, Alt. Permit No. 11327). In the process interior spaces were changed so that a "chamber" and "kitchen & dining room" were created on the first floor in what had been two rooms with six toilets. Instead, a toilet was in-

stalled in each apartment (Ibid.). Plate 3 depicts the front elevation of the building on Lot 14 in 1927.

In 1941, just before the demolition of the housing stock on the block, the structure on Lot 14 was called a four story brick dwelling with a cellar that had an elevation of 21.6 feet (DoP 1941). The excavation for the cellar would have had an adverse impact on any archaeological resources within or around the building footprint. Until 1903 Lot 14 was known as Lot 6 (Maps 6-8). There was no Lot 15 on Block 289.

Lot 16. Lot 16 was excluded from consideration because only a very small part of the lot with any open space lay within the project site (Maps 8-13). Otherwise, the maps show the four story brick building as covering the section of Lot 16 that is on the project site (Maps 6-7).

From maps we learn that the four story brick structure on Lot 16 had a basement (Maps 10-13). Excavation for a basement would have had an adverse impact on the archaeological resources within and around the building footprint. WPA labor demolished the building in 1939 (Block 289, Lot 16, Demolition Permit No. 578, June 19, 1939). This was corroborated by the notation "earth" on Lot 16 on the 1941 Department of Parks blueprint that detailed both the above and below ground features on Block 289 just before the remaining five of the seven buildings on the block were razed (DoP 1941). Until 1903 Lot 16 was known as Lots 7-8 (Maps 6-8).

Lot 17. Lot 17 was excluded from consideration because there was no open space on that part of the lot that fell within the project site (Maps 6-13). The part of Lot 17 included in the project site was the location of a four story brick dwelling with a basement or cellar (Maps 10-13; DoP 1941).

According to the 1941 demolition plans the elevation of the "cellar" was 25.1 feet (DoP 1941). An excavation for a cellar or basement would have had an adverse impact on archaeological resources within or around the building footprint.

The house on this lot was the only one standing in 1941 on Block 289 that had two steps down to the cellar or basement floor and a staircase of five steps up to the first floor above ground level (DoP 1941).

Although the 1941 blueprint labelled the lowermost level as "cellar el. 25.1," the 1940 renovation plans referred to

the lowermost level as the "basement floor" (Block 289, Lot 17, Blueprint 3740, Job No. 1493, February 13, 1940). Here the floors above the basement one were called "2nd, 3rd, and 4th" (Ibid.). Within two years this newly renovated center hall apartment building was demolished with the rest of the standing structures on the block (DoP 1941). In 1886 Lot 17 was known as Lot 10 (Map 6). Until 1898 Lot 17 was known as Lot 27 (Maps 7-8), and thereafter as Lot 17 (Maps 9-13).

Lot 18. Lot 18 was excluded from consideration because there was no open space on that part of the lot that fell within the project site, and a four story building with a cellar stood on the lot (Maps 6-13; DoP 1941). These maps note that a four story brick building fronted on Hicks Street on Lot 18, but there is no mention of a basement (Maps 6-13). Nonetheless, from the 1941 plan we know that on the lot stood a "4 sty brick store & dwelling cellar el. 19.8" (DoP 1941). There was a party wall between Lot 18 and 19 (Ibid.).

An excavation for a cellar would have had an adverse impact on archaeological resources within and around the building footprint. In 1886 Lot 18 was known as Lot 10 (Map 6). Between then and 1898 Lot 18 was known as Lot 27 (Maps 7-8), and thereafter as Lot 18 (Maps 9-13).

Lot 19. Lot 19 was excluded from consideration because there was no open space on that part of the lot that fell within the project site (Maps 6-13), and a four story brick building with cellar stood on the lot (DoP 1941). Maps 6-13 note that a four story brick building fronted on Hicks Street on Lot 19, but there is no mention of a basement (Maps 6-13). Nonetheless, from the 1941 plan we know that on the lot stood a "4 sty brick store & dwelling cellar el. 19.5" (DoP 1941). There was a party wall between Lot 18 and 19 (Ibid.).

In 1911 the building was said to have four stories and to house six families and stores (Block 289, Lot 19, Alt. Permit No. 6349, October 4, 1911). That year the foundation below curb was eight feet (Ibid.). On a 1940 blueprint the street level store was part of the "1st Floor Plan" (Block 289, Lot 19, C/O 98422, October 11, 1940).

An excavation for a cellar would have had an adverse impact on archaeological resources within and around the building footprint. In 1886 Lot 19 was known as Lot 12 (Map 6). Between then and 1898 Lot 19 was known as Lot 30 (Maps 7-8); thereafter it was known as Lot 19 (Maps 9-13).

Thus, 15 of the 21 lots or sections of those lots on the project site have been excluded from consideration as having intact subsurface remains because of a combination of reasons: either there was not sufficient potentially undisturbed open area or else excavations for cellars or basements would have had an adverse impact on archaeological resources. The remaining six lots that have the potential for intact subsurface remains because of the possibility of archaeological integrity include, on Block 283, Lots 10, 11, 12, 13, 17, and 18. There are no lots on Block 289 that are considered to have large enough open spaces or other undisturbed areas. The reader should consult Map 15 for a graphic representation of the results of the site disturbance record study.

Summary. As far as can be told, unlike the development on some other lots on the project site, the identified six lots remained two to four story brick buildings with stores at street level and dwellings on the upper floors with open areas in the backyards until they were demolished in 1942 (Blocks and Lots folders for Blocks 283 and 289; New York City Department of Parks Drawing B-T-50-101, November 14, 1941).

Activities on these identified six lots probably added to the archaeological record in terms of refuse pits, wells, cisterns, and privies. At the same time as the building and out-building construction took place on the identified six lots there did not seem to have been any construction in the open backyard areas. Therefore, these six identified lots' backyards maintained their archaeological integrity through the pre-1829 farm period and post-1829 mixed commercial/residential period until perhaps even after the project site was razed between 1939 and 1942 to make way for a city playground and the construction of the BQE.

Landfilling and leveling seems to have been minimal. In January 1989 the Van Voorhees playground is at street level, and street level has changed little in over 100 years. Elevations at the corners of the six city blocks that encompass the project site varied little between 1886 when they appeared on an atlas (Map 6) and 1943, a year after demolition, when they were listed on an architectural rendering for a proposed playground (Map 14). Compare Maps 6 through 13. The datum was the mean sea level at Sandy Hook (Col. Geoffrey Fulton, personal communication, February 8, 1988; New York City Department of Parks Drawing B-T-50-101, November 14, 1941).

The following discussion of the time periods from which significant cultural resources may remain will naturally encompass the entire project site, but the focus on the actual areas from which material may be extracted will be narrowed to the six identified lots.

Colonial Period. The land that became the project site on the south side of Atlantic Avenue has been part of the built landscape since at least 1767. With the exception of the Revolutionary War period, the project area prior to 1804-1808 was farm land held by patentees or freeholders or estate builders such as Philip Livingston (as shown on Map 3). Jacob and Elizabeth Hicks, Robertt G. and Catharine Livingston, and William and Cornelia Cornell were couples who sold parts of their estates to Ralph Patchen in the early nineteenth century. It was presumably on the land that Patchen bought from these people that the British built huts and sheds to house sick soldiers and sailors buried dead military personnel as the following paragraphs describe.

The following quotations come from two local historians of the nineteenth century. Writing in 1867-1870, Henry Reed Stiles (1832-1909) borrowed heavily and directly from Gabriel Furman's (1800-1854) geographical and historical notes of 1825 that were reprinted posthumously in 1865. Stiles also added some other details from an as yet unknown source while excluding others that Furman had included in an appendix in the 1865 reprint of his 1825 history. As we shall see, William Furman, William Cornell, or Hezekiah P. Pierrepont, all local residents who were alive during the time, may have provided some of the information as first-hand witnesses. The Ratzler map (Map 3) and the Hagstrom map (Map 19) help locate the area on the landscape. Furman wrote:

This, then the mansion of Philip Livingston, Esq., was appropriated by the British as a naval hospital, probably as a retaliatory measure, its owner being at the time a member of the Continental Congress. Attached to the house was an extensive garden, which the well known taste and abundant means of Mr. Livingston had made the finest in this part of America, and which - to their credit - was kept in good repair by the physicians and officers of the hospital. The mansion, however, although at that time, and for many years afterwards, the largest in town - proved not to be sufficiently extensive for the accommodation of the sick belonging to the large fleet of them at this station. Other buildings were accordingly erected on the farm, (known as the Ralph Patchen property), on the

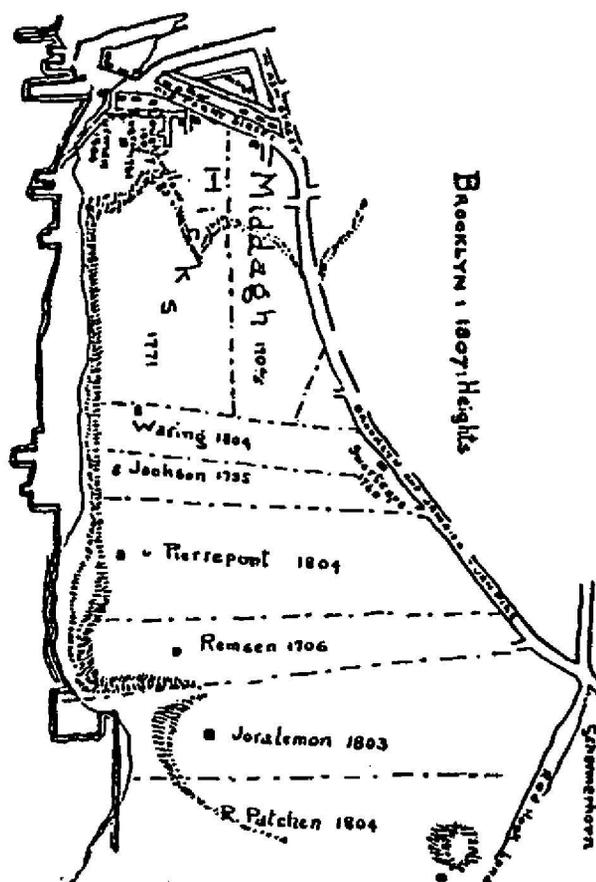
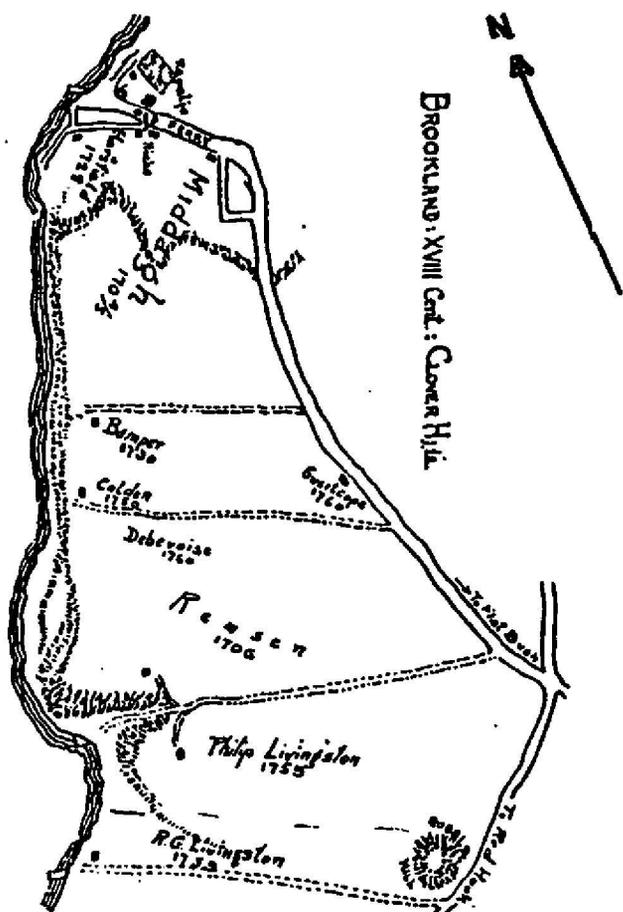
southerly side of the present Atlantic street. The principal disease among the sick was the scurvy, and they were buried from these hospitals to the number of twelve or fifteen a day. For many years afterwards the remains of these poor fellows were, from time to time, disinterred by the caving in of the brow of the hill along that portion of the shore. Mr. William Furman (father of Gabriel Furman) used to relate that he saw ten or twelve buried in one grave from the British hospitals on the Livingston place.

On the banks of the River, a little east of the easterly line of Furman street and between Pacific and Warren [Map 19] was a knoll of land where several hundred British soldiers and sailors were buried in regular rows. The heads of the westernmost row were exposed to the lashing of the waves of the river, by which means they were beaten off from the trunks; and one of Mr. Cornell's negro men subsequently made a considerable amount of money by selling the teeth, taken from these heads, to dentists of New-York City. This same burial-knoll thus enticed, afterwards became Cornell's asparagus bed, where he raised an excellent quality of that vegetable for the New York market [Furman 1865:vii-viii].

Two years after Furman's reprint appeared, Stiles quoted Furman, practically verbatim, without giving him credit. From some other source(s) Stiles added that

...sheds and huts [were] being erected for the sick on the farm (formerly known as the Ralph Patchen property) on the southerly side of Atlantic street. Things remained thus until 1780-1781, when Admiral Arbruthnot assumed command of this station. He instituted various reforms, among which was turning out of the surgeons and physicians from their comfortable quarters in the mansion-house, which was forthwith appropriated to the use of sick sailors....The principal disease among the sick was the scurvy, and they were buried from these hospitals, in the neighboring ground, and that, afterwards, of Hezekiah B. Pierrepont, to the number of 12 and 15 a day. For many years afterwards, the remains of these fellows were from time to time, disinterred by the caving down of the brow of the hill along this portion of the shore....William [Cornell], received a tract of 150 Acres along the river, which afterwards sold to Ralph Patchen....[Stiles 1867-1870:305-307]

According to Town Council Map 319, a survey done by Jeremiah Lott in 1825 and filed in 1829, Patchen's property included Blocks 281, 282, 283, 284, 287, 288, 289, and 290. These are the blocks that extend from Furman Street inland to Hicks Street between Atlantic and Amity Streets and thus contain the project site. The small maps below, reproduced from Meredith Langstaff's **BROOKLYN HEIGHTS: YESTERDAY, TODAY, TOMORROW**, show Patchen's holdings before the street grid. Clearly the bodies which were "exposed to the lashing of the waves of the river" would have emerged from the bluffs along Columbia Street, a block and a half from the project parcel, since Furman Street did not exist during that period. (Shown on the page following this page is a copy of an 1810 map which shows where Furman Street stopped.) But these burials were called the "westernmost row." There are also references to "other buildings," and "sheds and huts," whose location was not noted, except that they were on "the Ralph Patchen property on the southerly side of the present Atlantic Street." Additionally, mention is made of the burial of "twelve to fifteen a day" for an unspecified time period. There is no way of knowing, therefore, how large the number of interments was or over how large an area the burials were spread. It is not unreasonable to postulate that evidence of this Revolutionary War activity may remain in the relatively intact areas designated as archaeologically sensitive.



Federal and Antebellum Periods. As stated previously, Ralph Patchen was listed in a Brooklyn directory of 1796 as a dairyman, but it was not until 1804 that he could be connected with the project site. In that year he purchased property from the Hicks, and in 1808 bought additional parcels from the Cornells. According to the 1810 census, Ralf [sic] Patchen's household consisted of ten people. Besides Patchen and his wife, there were five males under 26 and one female under 16. The remaining two persons were women over 45. So it was as a young family that the Patchens became large landowners, presumably involved in agriculture and dairying, living and working among the buildings shown on Map 4. Map 4 is a copy of the Town Council Map of 1829 which located what appear to be two farm land buildings and one outbuilding in relation to the block and lot system that was part of Patchen's transferral of the property in 1829 and the subsequent development of the farm land into a townscape. The reader should also consult Maps 15 and 16 which used the 1829 map as a base to show how the six lots with archaeological potential fit over the earlier landscape. The backyards of the lots with potential integrity coincide with an area between what seems to have been a dwelling with porch and a large outbuilding, perhaps related to Ralph Patchen's occupation as a dairyman. Material culture remains of this era of land use may well be preserved in the sensitive areas if, in fact, they are as relatively intact as documentary evidence so far indicates.

A single unit of 12 lots went from Ralph Patchen to Sarah Ann Martin in 1829 on the northern third of the block (1898 Deed Abstracts cite Liber 26, p. 222; Map 4:Lot Nos. 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 71, 72). They then reverted to Ralph Patchen in 1833 (1898 Deed Abstracts cite Liber 42, p. 239), only to be sold by Ralph Patchen and his wife Elizabeth to James E. Underhill in 1834, at which time the buildings on the lots were mentioned (1898 Deed Abstracts cite Liber 42, p. 131).

We do not know for sure, though, how many of Ralph Patchen's 12 lots had buildings in 1834. Tax records during the time of the initial development of the lots on the project site are minimal. For the first half of the nineteenth century, tax records for the project site exist for only the years 1810 and 1840-1841 in the Archives Collection of the Brooklyn Historical Society. But from the 1840 tax roll we learned that on the northern boundary of the project block there were "12 Lots & 10 Houses (unfinished)...."

The Perris map of 1855 (Map 5) noted brick and frame dwellings with stores underneath for these six lots. See Photo 4 (1989) and compare it to Plate 1 (probably between 1855 and 1868), which both show the north side of Atlantic Avenue, for pictures of what the south side of Atlantic Avenue, the location

of four of the project site lots that have the potential for intact archaeological remains (Lots 10, 11, 12, and 13). The lots that faced Hicks Street just around the corner from Atlantic Avenue were part of the 12 lots from the 1834 development of the project site, and so would presumably be similar to the Atlantic Avenue buildings (Lots 17 and 18). Photos 5-7 are keyed to Maps 1-2 and provide a further context for the housing stock in the neighborhood during the first half of the nineteenth century. Plate 3 a 1927 architect's rendering, shows the facade of a four-story brick building within the project site (358 Hicks Street, Block 289, Lot 14, Appl. No. 15053, Alteration Permit No. 11327, 1927). This facade was probably quite representative of the early nineteenth-century housing/commercial stock in the neighborhood.

Before Brooklyn public services were available, these buildings on the project site housed and provided employment for residents and workers for at least nearly a quarter of a century. By the time the water mains were installed along Atlantic Avenue and Hicks Street in 1858, there is the probability of 24 years of tenancy on all of the six lots (DEP-Water Supply, Brooklyn Index Map 49). Sewer lines were run along Atlantic Avenue and Hicks Street some time before 1868 (DEP-Sewers, Brooklyn, Map D Register of Permits and House Connections; Dina Lokshina, personal communication, January 17, 1989). So surely there were wells, cisterns, and privies from both the farm period and the early commercial/residential period on the project site. Features of this sort may still exist beneath the playground surface in the areas that could be undisturbed.

As regards the archaeological study of backyard or homelot remains, the LPC has certain guidelines concerning the people who would have deposited the cultural material. (This is discussed in more detail in the final section of this report.) So attempts were made to find information about the occupants of the project site during the period before public utilities were available. The Patchens could be firmly associated with the site for the first quarter of the nineteenth century. But, thereafter, for approximately forty years, the roads one usually travels for documentary research all led to dead ends. Conveyance records were examined, but proved that owners of lots did not live on them. This same situation prevailed in the tax lists, which in any case exist for the year 1840 only between 1810 and 1866. (The 1840 lists cite "non-resident" for owners.) Brooklyn directories for the period did not include the project blocks. There were no block and lot files kept by the Brooklyn Buildings Department prior to 1868. Census records were equally unrewarding. Before 1880 it is difficult to get at anyone in the census records because for Brooklyn's 6th Ward neither street name, number, nor number of household in a building were listed.

The 1860 census like the earlier 1850 and 1840 ones all list dwelling houses and families in chronological order of visit, rather than by street name and number or by block and lot designation, so that getting into the listings was very difficult without an enumerator's travel schedule (1850 Census, call no. *ZI-108, reels 11-12). The difficulty was compounded by the fact that the 1850s, and most of the 1860s, tax records for Brooklyn are not extant. Even a scanning of the 1850 and 1860 censuses of the 6th Ward for names that later on appeared in the 1898 deed abstracts was not productive. Therefore, we could not get at actual surnames and specific household make-up for the residents and workers on the project blocks during this period.

Post Civil War and Twentieth Century Periods. For these periods, the documentary sources enumerated above contained an abundance of information. For example, the owners of buildings tended to live in them. Many of them were immigrants or first generation Americans and the occupational categories leaned heavily toward commerce and trades. The original building stock seemed to remain fairly intact, but additions could be traced on a number of lots. Public utility lines were generally in place although there may have been exceptions. Owner/residents could be identified on three of the lots deemed archaeologically sensitive in the latter decades of the nineteenth century. However, they could not be associated with these properties during the eras prior to utility installation. For this reason, archaeological potential is limited to the periods prior to the last quarter of the nineteenth century. This is because the accepted assumption is that after a household connected with public services, the wells, cisterns, and privies were sealed and the backyards shifted function from an area of subsistence activities, thus - all other factors being equal - restricting the possibility that subsurface cultural deposits which would make a significant contribution to the archaeological record would be found. A synopsis of the data collected for the six potentially sensitive lots is included as Appendix B.

The final chapter of the residential occupation of the project site occurred between 1939 and 1942 when all of the extant buildings were demolished to make way for a segment of the Brooklyn Queens expressway which was opened in 1949. The triangular shaped project site is currently a playground. Efforts to locate records pertaining to the construction both of the BQE and the playground have been unsuccessful. Since 1934, when Robert Moses created the Parks Department, that department has had its own record repository. As far as the Parks Department Map File personnel at Corona Park can tell, there are no renderings of the completed BQE for that section or for the actual playground development. Municipal Archives has no records for the Van Voorhees Park. Derryl Lang of AKRF found Department of Transportation files not helpful (personal communication, January 12, 1989).

CONCLUSIONS AND RECOMMENDATIONS

Prehistoric Period

Predictive models suggest that the project site, as part of an elevated ridge system within 200 feet of a tidal river, could have been an area for Amer-Indians to have visited in their seasonal rounds to exploit the natural resources. Although it is difficult to precisely locate the project block on the earliest available topographic maps, the project site was probably part of the north-facing incline of the ridge system. Settlement pattern data does indicate that Native Americans preferred south-facing, protected sites for encampment and village locations. The project site is on the eastern side of New York Bay just south of where the Hudson and East Rivers converge, and, therefore, would have been exposed to those northerly winds.

Ethnographic data place known Indian trails, planting areas or fields, or habitation sites some distance to the east of the project site. The NYSM site registry office and the SHPO found no known/inventoried prehistoric archaeological sites within a one-mile search area. Therefore, HPI concludes that there is little likelihood for the presence of significant prehistoric archaeological remains on the project site and recommends no further research be conducted.

Historical Period

HPI concludes that there were three phases of land use that may have left material signatures in the archaeological record in the project site. These are: 1) use as a military burial ground during the Revolutionary period; 2) use as a farmstead during the early Federal Period; 3) residential/commercial use before utilities were available.

The project site is composed of parts or wholes of 21 lots. Portions of only 6 of them could be identified as having possibly escaped subsurface disturbance severe enough to have destroyed the integrity of the resources. Maps 15 and 16 show the areas considered to be potentially sensitive.

The preceding sections of this report describe the documentary basis from which these conclusions were derived. In brief, 1) nineteenth century descriptive histories record the use of the general area for the burial of sailors for some duration around the period of 1780. Evidence of the precise location or number of the burials has not been found; it is very likely that such evidence does not exist in the written record. 2) Archival sources reveal that the project site was part of a farm occupied and owned by the Patchen family, c.1808-1829. Recovery of

material remains from an early nineteenth century farmstead in the New York City area is extremely rare and would make a significant contribution to the archaeological record. 3) The archaeological study of homelots - especially backyard features such as privies, cisterns, wells, and trash pits - has produced a considerable body of knowledge about lifeways of nineteenth century New Yorkers that is not available through documents.

On other projects, Landmarks Preservation Commission's concern about homelot resources has required that certain conditions be met before significant archaeological potential can be assumed. Specifically, research must identify one decade of continuous occupancy by a special affinity group about whom data is scarce - such as a Black or Oriental family. Another criterion for further investigation is residency by a single family for at least twenty years. These periods of occupancy must occur prior to the availability of municipal sewer and/or water supplies, which, of course, obviate the need for backyard privies, wells, and cisterns. In this case, the requisite affinity group use or occupancy periods before public utility installation cannot be ascertained - one way or the other - from the usual archival sources of census records, tax lists, land transfer records, or directories. That is, the actual names and compositions of the families who occupied the buildings on the sensitive parcels are not known. The situation is further complicated by the fact that there were commercial enterprises on the first floors.

Based on data produced by urban mixed-use sites, the research implications are rather poor since the linkage between the historical occupation and the archaeological remains is difficult to make using backyard deposits. A discussion in the 1987 Barclay's Bank Site report succinctly states the nature of the problem: "As is clear in this and many recent urban archaeological studies, the research value of historical archaeological materials, especially domestic refuse, decreases when there is no historical context to associate them with.

There are, of course, archaeological remains which can be studied without knowing what specific individual household, or business, produced these remains. This is especially the case for commercial deposits where the historical context of the assemblage is clear" (Berger 1987:VIII-32). In this case, the picture is anything but clear. It is not known what the commercial ventures were or whether or not they were operated by persons living in the buildings. Therefore, to attempt to address socio-economic research topics through recovered artifacts would be simplistic if not incorrect.

In fact, even with extensive knowledge of the historical context, a confident separation of domestic from commercial material on a mixed-use site can be difficult. As an example, the Berger report discussion cites Diana Wall's experience at 144 Pearl Street (lower Manhattan). Although much was known about the historical occupation of the Van Voorhis shop/home lot, it was hard to determine what part of the artifact assemblage came from his residence or shop or both (Berger 1987: VIII-25). There are other examples of problems inherent in this line of inquiry such as Nancy Seasholes 1985 report in which she stated, in part, "This lack of evidence about specific residents is not surprising, for other reports have noted the difficulty in linking artifacts to particular occupants (Moran, Zimmer, and Yentsch 1982:61,166; Starbuck 1980:353)" (Seasholes 1985:68).

In view of data coming from other investigations, therefore, we conclude that the probability of a significant contribution to the archaeological record being obtained from the nineteenth century backyards is too low to warrant further study or testing.

It is not the usual practice of archaeologists to recommend subsurface testing until all pertinent documentary sources have been exhausted because of the expense and complexity of excavating in urban areas. However, in this particular case, since it is highly probable that more research will not produce any substantive discoveries, and since the project site will be excavated anyway, it may be more expedient to perform limited field testing in order to determine the existence, nature, and extent of any significant material remains from the Revolutionary War and early nineteenth century farmstead occupations on the portion of the site containing the sensitive areas.

It is recommended that the testing take place after the hard cover of the site and its surface features have been removed by machinery, but before construction begins. A sufficient amount of time should be allowed in case mitigation should be required.

REFERENCES

- Armbruster, Eugene L.
1912 Eastern District of Brooklyn. Brooklyn.
- Bailey, J.T.
1840 An Historical Sketch of the City of Brooklyn and the Surrounding Neighborhood.... Published by the author, Brooklyn.
- Berger, Louis & Associates, Inc., The Cultural Resource Group
1987 Cultural Resource Investigations of the Barclays Bank Site, 75 Wall Street, Borough of Manhattan, New York City, N.Y. On file at NYCLPC.
- Bolton, Reginald Pelham
1934 Indian Life of Long Ago in the City of New York. Schoen Press, New York.
- Brooklyn (Town of)
1810 The Assessment Roll of the Real and Personal Estate of the Inhabitants in the Township of Brooklyn in the County of Kings...1810.... Ms. on file, Manuscript Archives, Brooklyn Historical Society (MA-BHS), Joseph Sprague Papers.
- Brooklyn (City of)
1840 Tax Rolls-6th Ward. Ms. on file, MA-BHS.
1841 Tax Rolls-3rd Ward. Ms. on file, MA-BHS.
1873 Annual Record of Assessed Valuation of Real Estate, 6th Ward, Blocks 1 to 88. Ms. on file, Municipal Archives (MA).
to 1876
1891 Annual Record of Assessed Valuation of Real Estate, 6th Ward, Blocks 1 to 88. Ms. on file, MA.
to 1895
1895 Annual Record of Assessed Valuation of Real Estate, 6th Ward, Vol. 1, Blocks 1 to 74. Ms. on file, MA.
to 1898
- Brooklyn (Borough of)
1898 Deed Abstracts for Blocks 283 and 289. Ms. on file, BHS.
1915 Annual Record of the Assessed Valuation of Real Estate in the Borough of Brooklyn...., Sec. 2, Vol. 1, Map 1, Blocks 281-332. Ms. on file, MA.
1925 Annual Record of the Assessed Valuation of Real Estate in the Borough of Brooklyn...., Sec. 2, Vol. 1, Blocks 281-332. Ms. on file, MA.

1935 Annual Record of the Assessed Valuation of Real Estate in the Borough of Brooklyn...., Sec. 2, Vol. 1, Map 1, Blocks 281-332. Ms. on file, MA.

Brooklyn (City of and Borough of)
Buildings Department (BBD) Blocks and Lots
Folders. Block 283/Lots:
1,9,10,11,12,13,14,15,16,17,18,19. Ms. on file,
BBD.

Buildings Department (BBD) Blocks and Lots
Folders. Block 289/Lots: 12,13,13 1/2,
14,15,16,17,18,19. Ms. on file, BBD.

Brown, Joshua, and David Ment
1980 Factories, Foundries, and Refineries: A History of Five Brooklyn Industries. Brooklyn Rediscovery, Brooklyn Educational & Cultural Alliance, Brooklyn.

Caro, Robert A.
1975 The Power Broker: Robert Moses and the Fall of New York. Vintage Books, a Division of Random House, New York.

Ceci, Lynn
1982 Method and Theory in Coastal New York: Paradigms of Settlement Patterns. North American Archaeologist 3:5-26.

Coackley, William
1973 The City of Brooklyn & Borough of Brooklyn as I Have Seen Them. Privately published.

Donaldson, Bessie M.
1933 The Long Island College Hospital and Training School for Nurses, 1858-1883-1933. Willis McDonald & Co., Brooklyn.

Eisenberg, Leonard
1978 Paleo-Indian Settlement Patterns in the Hudson and Delaware River Drainages. Occasional Publications in Northeastern Anthropology, Rindge, NH.

Furman, Gabriel
1825 Notes, Geographical and Historical, Relating to the Town of Brooklyn, in Kings County on Long-Island. A. Spooner, Brooklyn.

1865 Notes, Geographical and Historical, Relating to the Town of Brooklyn, on Long-Island...with Notes and a Memoir of the Author. Reprinted. The Faust Club, Brooklyn. Originally published 1824, A. Spooner.

Grumet, Robert Steven

1981 Native American Place Names in New York City. Museum of the City of New York, New York.

Haick, Mary Ann

1976 The Syrian-Lebanese Community in South Ferry, Brooklyn, 1900-1922. Long Island Historical Society Brooklyn Pamphlets 26(11):n.p.

Jewell, John V.

1926 Historic Williamsburgh. The Williamsburgh Savings Bank, Brooklyn.

Kearns, Betsy, and Cecelia Kirkorian

1986 Hunters Point Site, Queens, New York: Phase 1A Archaeological Assessment Report. Prepared for Allee King Rosen and Fleming, Inc.

Kearns, Betsy, Cecelia Kirkorian, and Falene Schneiderman-Fox

1989 Phase 1A Archaeological Assessment on the 504 BQE Site, Brooklyn. Ms. on file, Historical Perspectives, Inc., P.O. Box 331, Riverside, CT 06878.

Landmarks Preservation Commission of the city of New York

1979 A Guide to New York City Landmarks. Landmarks Preservation Commission of the City of New York, New York.

Lightfoot, Kent, Robert Kalin, Owen Lindauer, and Linda Wicks

1985 Coastal New York Settlement Patterns: A Perspective from Shelter Island. Man in the Northeast 30:59-82.

Ment, David

1979 The Shaping of a City: A Brief History of Brooklyn. Brooklyn Rediscovery, Brooklyn Educational & Cultural Alliance, Brooklyn.

- Peterson, Jon A.
 1983 The Impact of Sanitary Reform upon American Urban Planning, 1840-1890. In Introduction to Planning History in the United States, edited by David A. Krueckeberg, pp. 13-39. The Center for Urban Research, New Brunswick, NJ.
- Ritchie, William A.
 1980 The Archaeology of New York State. revised ed. Harbor Hill Books, Harrison, NY.
- Rosner, David
 1982 A Once Charitable Enterprise: Hospitals and Health Care in Brooklyn and New York, 1885-1915. Cambridge University Press, New York.
- Salwen, Bert
 1978 Indians of Southern New England and Long Island: Early Period. In Northeast, edited by Bruce G. Trigger, pp. 160-176. Handbook of North American Indians, vol. 15, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Saxon, Walter
 1978 The Paleo-Indian on Long Island. In The Coastal Archaeology Reader, vol. II, edited by Gaynell Levine. Suffolk County Archaeological Association, Stonybrook, NY.
- Seasholes, Nancy S.
 1985 "Report on the Intensive and Reconnaissance Archaeological Survey of the Hooper-Lee-Nichols Houselot, Cambridge, MA." Boston University Center for Archaeological Studies.
- Skinner, Alanson
 1932 The Indians of Manhattan Island and Vicinity. In The American Museum of Natural History, Guide Leaflet Series, no. 41. The American Museum of Natural History, New York.
- Smith, Carlyle Shreeve
 1950 The Archaeology of Coastal New York. In Antropological Papers of the American Museum of Natural History, vol. 43, no. 2. The American Museum of Natural History, New York.

Stiles, Henry Reed

- 1867 A History of the City of Brooklyn, including the Old Town and Village of Brooklyn, the Town of Bushwick, and the Village and City of Williamsburg. 2 vols. Published by subscription, Brooklyn.

[Stiles, Henry Reed]

- 1871 The City of Brooklyn with Map. J.H. and C.M. Goodsell, New York.

Stiles, Henry Reed, editor-in-chief

- 1884 The Civil, Political, Professional and Ecclesiastical History and Commercial and Industrial Record of the County of Kings and the City of Brooklyn, New York, from 1683 to 1884. 3 vols. W.W. Munsell & Co. Publishers, New York.

U.S. Bureau of Census

- 1810 Census Population Schedules New York, Kings County, Brooklyn. Ms. on microfilm, BHS and NYPL.
- 1820
- 1830
- 1840
- 1850
- 1860
- 1870
- 1880
- 1900

White, Norval, and Elliott Willensky

- 1978 AIA Guide to New York City. revised ed. Collier Books, a Division of Macmillan Publishing Co., Inc., New York.

Wolfe, Gerard R.

- 1983 New York, A Guide to the Metropolis: Walking Tours of Architecture and History. revised ed. McGraw-Hill Book Company, New York.

- Works Progress Administration, The Federal Writers' Project
- 1982 The WPA Guide to New York City: The Federal Writers' Project Guide to 1930s New York. Reprinted, Pantheon Books, New York. Originally published 1939, The Guilds Committee for Federal Writers' Publications, Inc.

MAP RESOURCES

This is a chronological listing of maps used for background research for the land-use history of Blocks 283 and 289, in Cobble Hill, also known as the South Ferry section, of Brooklyn. The starred (*) maps listed here are included as illustrations in the map section.

*Ratzer, Bernard, Lieutenant

- 1767 To...Captain General and Governor in Chief in & over the Province of New York and the Territories depending thereon in America...This Plan of the City of New York... (Source: Office of the Borough President of Manhattan, Topographic Bureau)

Anonymous

- 1778 Part of the City of New York and Part of Long Island, 27th Augt 1778. (Source: Brooklyn Historical Society (BHS))

*Town Council (of Brooklyn)

- 1829 A Map of the Real Estate of Ralph Patchen Situated Partly within and Partly without the Incorporated District of the Village of Brooklyn in the County of Kings on Long Island, Made in the Month of April 1829, Filed August 20th, 1829. Copied and Made to Conform to the Uniform Scale Adopted by the Commissioners of Records 1897 by Fred W. Beers, Surveyor. TC 319A. (Source: Brooklyn County Clerk's Office)

Martin, Alexander

- 1834 Map of Brooklyn, Kings County, Long Island from an Entire New Survey....P. Desoby's, New York. (Source: BHS)

Colton, J.H.

- 1839 Map of the City of Brooklyn...Containing also a Map of the Village of Williamsburgh, and Part of the City of New York...J.H. Colton, New York. (Source: BHS)

Dripps, Matthew

- 1850 Map of the City of Brooklyn, Long Island, Shewing the Streets as at Present Existing with the Buildings...M. Dripps, New York. (Source: BHS)

*Perris, William

- 1855 Maps of the City of Brooklyn. vol. 1. (Source: Allee King Rosen & Fleming (AKRF) and New York Public Library (NYPL))

Bishop

- 1861 Map of the Consolidated City of Brooklyn 1861. For Bishop's Manual of the Corporation...A. Brown, New York. (Source: BHS)

Fields, T.W.

- 1869 Plan of the Positions and Movements of the British and American Army on the 26th & 27th of August 1776 on Long Island with Projections of the Modern Streets, Brooklyn. (Source: BHS)

Johnson, Henry P., compiler

- mid-19c. Plan of the Battle of Long Island and of the Brooklyn Defences, August 27th, 1776, Julius Bien, New York. (Source: BHS)

Beers, F.W.

- 1873 Atlas of Long Island, New York. plates 21 and 22. (Source: BHS)

Beers, J.B. & Co.

- 1874 Farm Line Map of the City of Brooklyn...J.B. Beers & Co., New York. (Source: BHS)

(New York) Board of Health

- 1875 Map Showing the Original High and Low Grounds, Salt Marsh and Shore Lines in the City of Brooklyn. From Original Government Surveys Made in 1776-1777. Probably from the Report of (New York) Board of Health 1875. (Source: AKRF)

Watson, Gaylord

- 1876 Watson's New Map of New York and Adjacent Cities...Gaylord Watson...New York. (Source: BHS)

*Robinson, E.

- 1886 Atlas of the City of Brooklyn. (Source: AKRF and NYPL)

*Bromley, G.W., & Co.

- 1893 Atlas of the City of Brooklyn. (Source: AKRF and NYPL)

*Beers, J.B., & Co.

- 1897 Map of the Enlarged City of Brooklyn...J.B. Beers, New York. (Source: BHS)

*Hyde & Company

- 1898 Atlas of the Borough of Brooklyn. vol. 1. (Source: AKRF and NYPL)

- *Hyde, E. Belcher
1903 Atlas of the Borough of Brooklyn. vol. 1.
(Source: AKRF and NYPL)
- *Hyde, E. Belcher
1907 Atlas of the Borough of Brooklyn. vol. 1.
(Source: AKRF and NYPL)
- *Hyde, E. Belcher
1916 Atlas of the Borough of Brooklyn. vol. 1.
(Source: AKRF and NYPL)
- *Hyde, E. Belcher
1920 Desk Atlas of the Borough of Brooklyn. vol. 1.
(Source: AKRF and NYPL)
- *Hyde, E. Belcher
1929 Desk Atlas: Borough of Brooklyn. vol. 1.
(Source: AKRF and NYPL)
- *Bolton, Reginald Pelham
1934 Indian Life of Long Ago in the City of New York.
Joseph Graham [Bolton's Books], New York, p. 144.
- U.S. Works Progress Administration, City of New York
1935 Rock Line Map, Borough of Brooklyn, Index Map 15,
Project 165-97-6999 (6036-1024). Borings 85
through 90. (Source: Subsurface Exploration
Section of the City of New York Department of
General Services [DGS])
- City of New York, Department of Parks
1941 ...Topographic Division, Topographic Map Portion
of Van Voorhies Park Columbia Congress Hicks &
Pacific Streets Borough of Brooklyn, Nov. 14,
1941. Drawing B-T-50-101. (Source: Department of
Parks, Olmsted Center, Map File (DoP, OC))
- *City of New York, Department of Parks
1943 Van Voorhies Park Borough of Brooklyn Proposed
Playgrounds...Drawing B-LSK-50-203. (Source: DoP,
OC)
- City of New York, Department of Parks
1944 ...This Drawing Supersedes Dwg # B-L-50-208 Van
Voorhees Park Hicks St. - Columbia St. - Congress
St. - Atlantic Ave. Development Plan for 1944
Capital Budget Request Dwg B-L-50-209....
(Source: DoP, OC)

City of New York, Department of Parks

1962 Map Showing a Change of the Lines & Grade within the Area Bounded by...Atlantic Ave., Hicks St., and Baltic St. and Establish a Permanent Sewer Easement for Atlantic Avenue West of Furman St. DWG B-RW-50-2 Y-1566.... (Source: DoP, OC)

City of New York Department of Public Works, Division of Engineering Services, Subsurface Exploration Section

1968 Record of Borings for Red Hook Water Pollution Control Project, Borough of Brooklyn, PW 152/570, Sheet 11 of 20, Borings 88-97. (Source: DGS)

USGS

1979 Brooklyn Quad. (Source: AKRF)

*Grumet, Robert Steven

1981 Native American Place Names in New York City. Museum of the City of New York, New York, pp. 68 and 70.

*Wolfe, Gerard R.

1983 Cobble Hill Historic District. (Source: Gerard R. Wolfe, New York, A Guide to the Metropolis: Walking Tours of Architecture and History. McGraw-Hill Book Company, New York, 1983:400)

*Hagstrom

1987 New York City 5 Borough Atlas. plate 10. Hagstrom Map Company, Inc., Maspeth, NY. (Source: AKRF)

*Sanborn

1988 Project Site Map of Proposed Long Island College Parking Garage on Block 283 in Cobble Hill, Brooklyn. (Source:AKRF)

New York City-Department of Environmental Protection-Bureau of Sewers, Brooklyn (DEP-Sewers, Brooklyn)

n.d. House Connections Books-Registry of Permits for Index Map D. (Source:DEP-Sewers, Brooklyn)

New York City-Department of Environmental Protection-Bureau of Water Supply and Wastewater Collection (DEP-Water)

n.d. Brooklyn Index Map 49. (Source: DEP-Water)

Photograph 1
Project Site from South to North

View: South to North

From left to right: BOE, the project site, Hicks Street, and Long Island College Hospital (LICH). In February 1989 the project site is a city playground, Van Voorhees Park, at the southwest corner of Atlantic Avenue and Hicks Street, Brooklyn. Photograph taken January 14, 1989.



Project Site from Northeast to Southwest

View: Northeast to Southwest

Atlantic Avenue in the foreground. Top from left to right: a corner of LICH, Hicks Street, the project site (Van Voorhees Park), Atlantic Avenue. Bottom from left to right: Atlantic Avenue and the buildings on the north side of Atlantic Avenue. Photograph taken January 14, 1989.



Photograph 3

Project Site from Northwest to Southeast

View: Northwest to Southeast

Atlantic Avenue in the foreground. From left to right:
LICH, the project site (Van Voorhees Park), and BOE.
Photograph taken January 14, 1989.



Photograph 4
Project Site from South to North

View: South to North

Playground area and equipment in the foreground. Housing stock on north side of Atlantic Avenue in background. Compare photograph with Plate 1. Photograph taken January 14, 1989.



Photographs 5A and 5B

Atlantic Avenue Commercial/Residential Streetscape

View: Toward South Side of Atlantic Avenue

Shows, left to right, 94-92-90 Atlantic Avenue with three, five, and four story brick buildings that are probably similar to the mixed commercial and residential buildings that predated the playground on the project site. See Maps 1-2 for the location of these buildings in relation to the project site and the Cobble Hill Historic District. Photograph taken January 14, 1989.



Photographs 6A and 6B

Pacific Street Residential Streetscape

View: Toward South Side of Pacific Street

Shows 122 Pacific Street, "the oldest house in the neighborhood, built before 1833" (Wolfe 1983:406). These dwellings were probably contemporaries of the commercial/residential stock that stood on the project site. In the streetscape, 122 Pacific Street, has a mansard roof and Christmas wreaths. See Maps 1-2 for the location of these buildings in relation to the project site and the Cobble Hill Historic District. Photograph taken January 14, 1989.



Photographs 7A and 7B

Amity Street Residential Streetscape

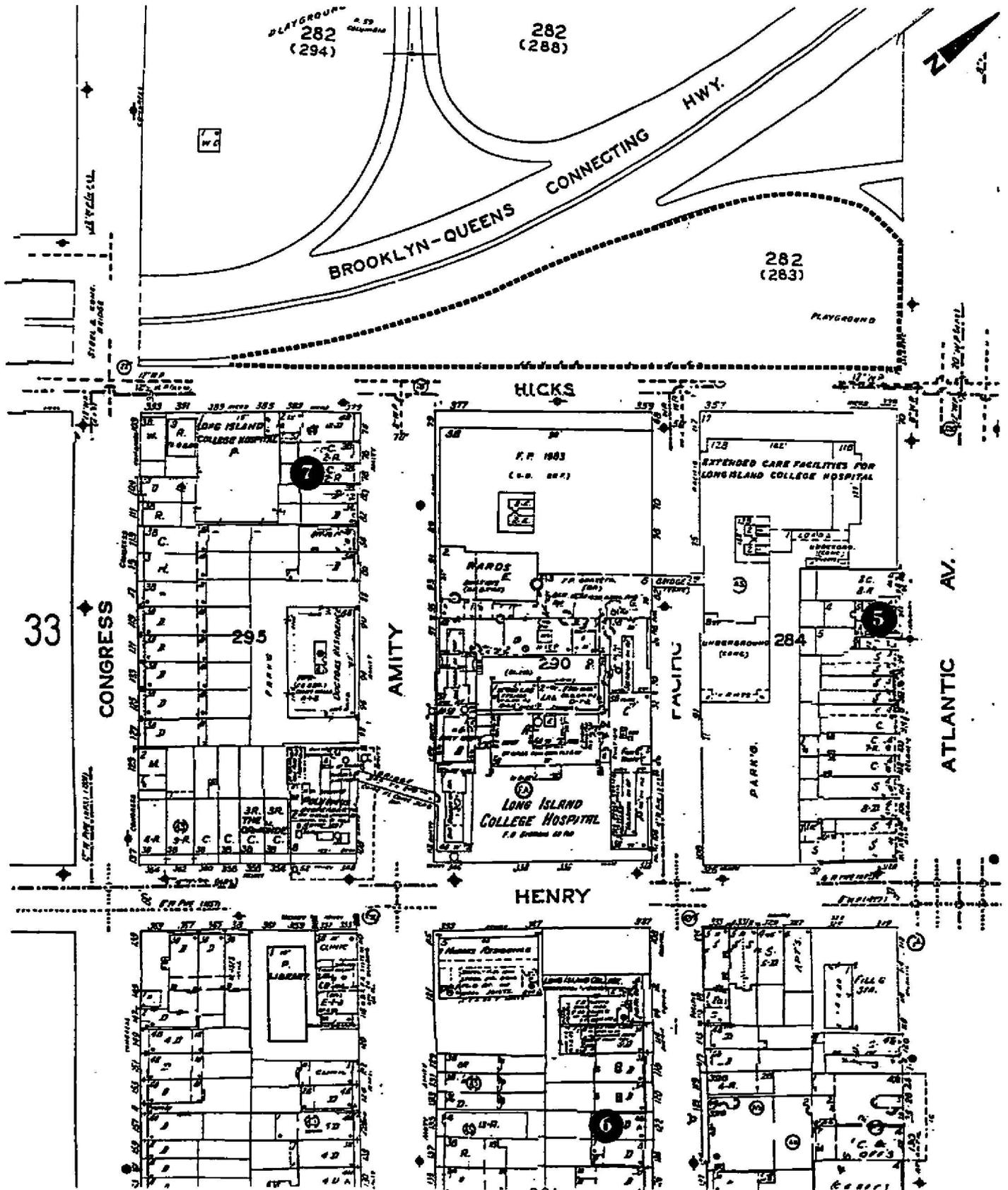
View: Toward the South Side of Amity Street

Shows 78 Amity Street, originally a residential building. This block of Amity Street probably dates to a similar time period as the commercial/residential buildings that stood on the project site. See Maps 1-2 for the location of these buildings in relation to the project site and the Cobble Hill Historic District. Photograph taken January 14, 1989.



Sanborn

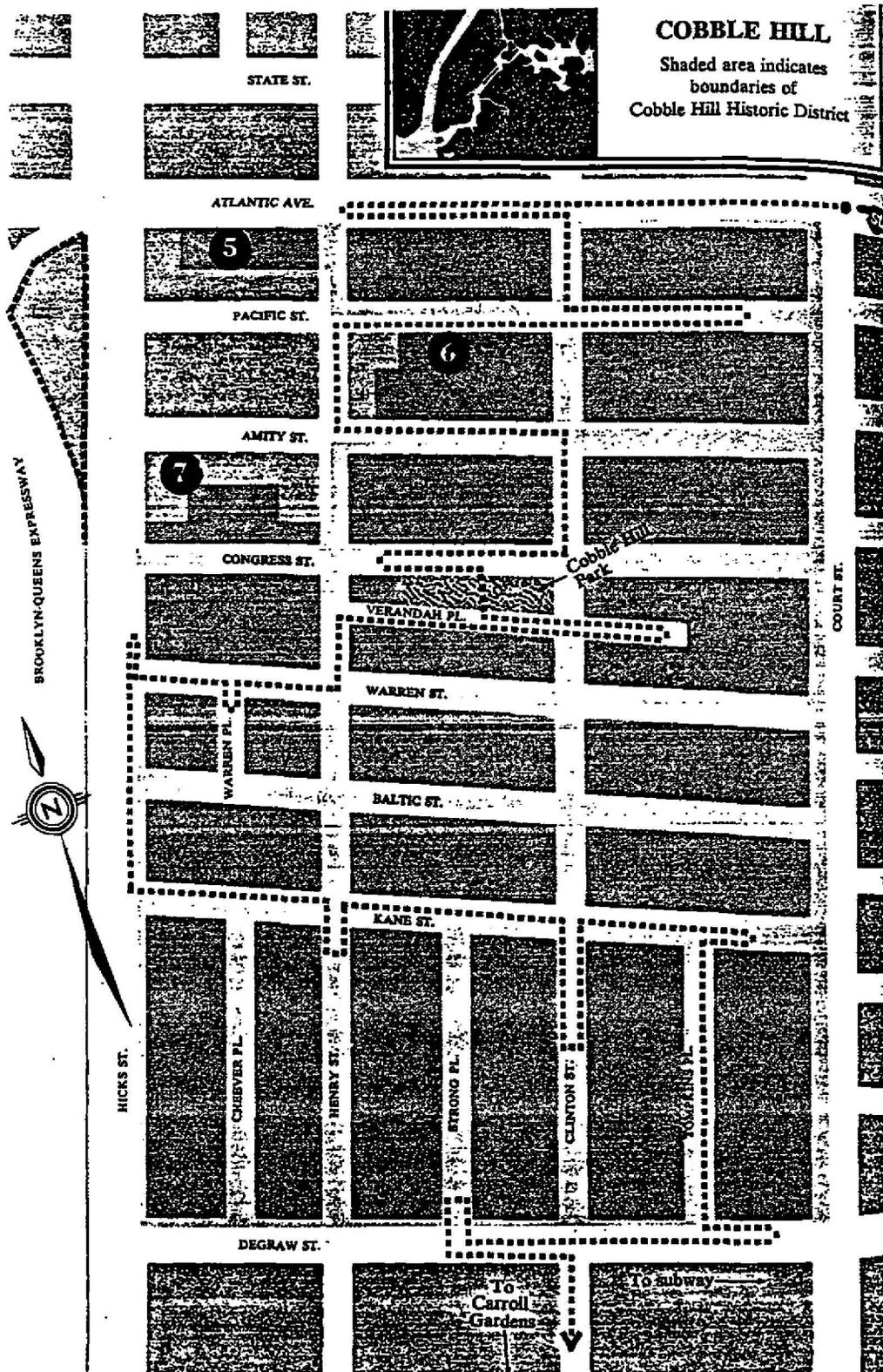
1988 Project Site Map of Proposed Long Island College Parking Garage on Block 283 in Cobble Hill, Brooklyn.
(Photocopy. Source: AKRF). The black circles are keyed to Photographs 5-7.



Map 2
Cobble Hill Historic District

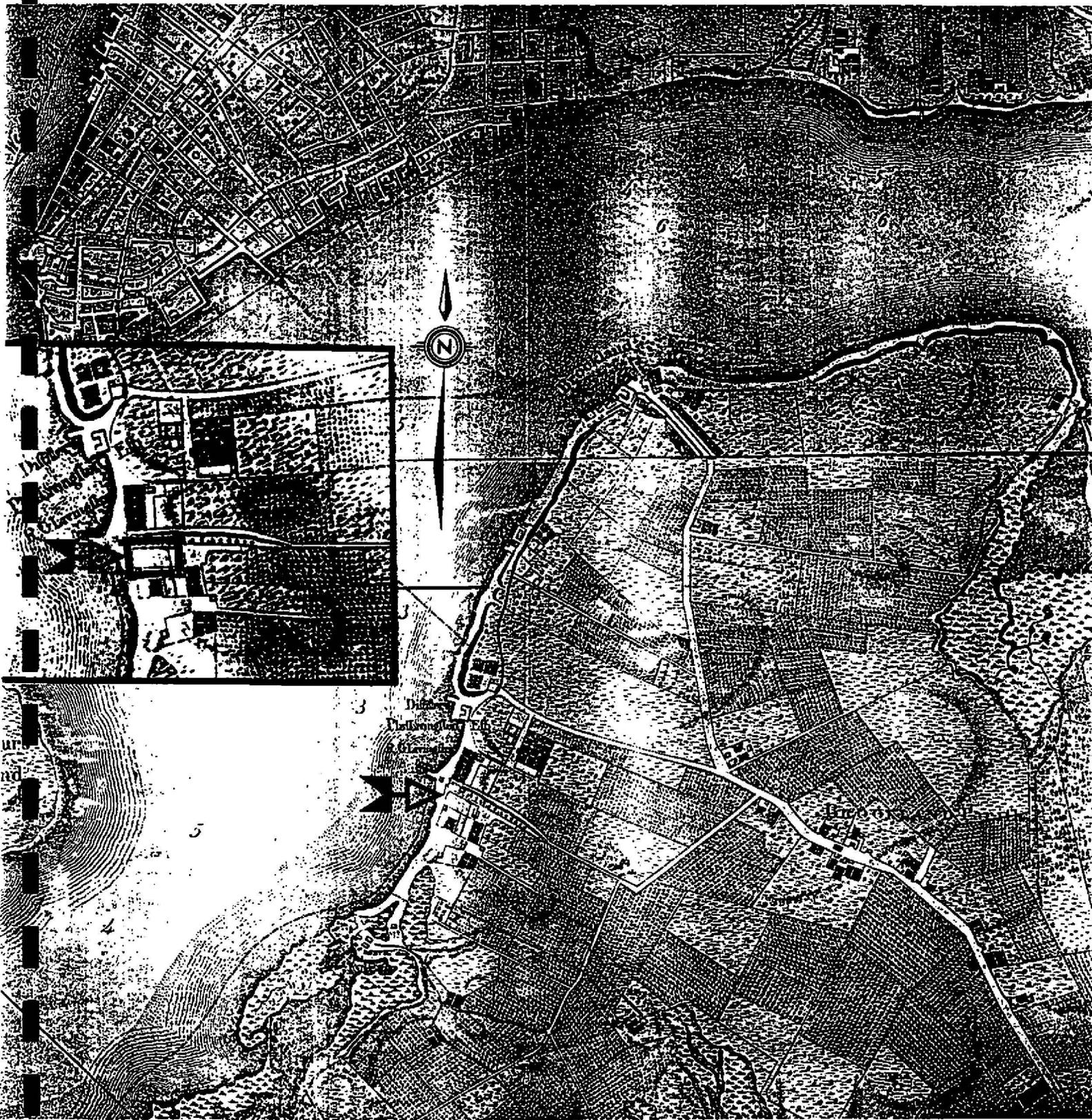
Wolfe, Gerard R.

1983 Cobble Hill Historic District. (Photocopy. Source: Gerard R. Wolfe, New York, A Guide to the Metropolis: Walking Tours of Architecture and History. McGraw-Hill Book Company, New York, 1983:400). The black circles are keyed to Photographs 5-7.



Ratzer, Bernard, Lieutenant

1767 To...Captain General and Governor in Chief in & over the Province of New York and the Territories depending thereon in America...This Plan of the City of New York... (Photocopy. Source: Office of the Borough President of Manhattan, Topographic Bureau)



Map 5
Perris 1855

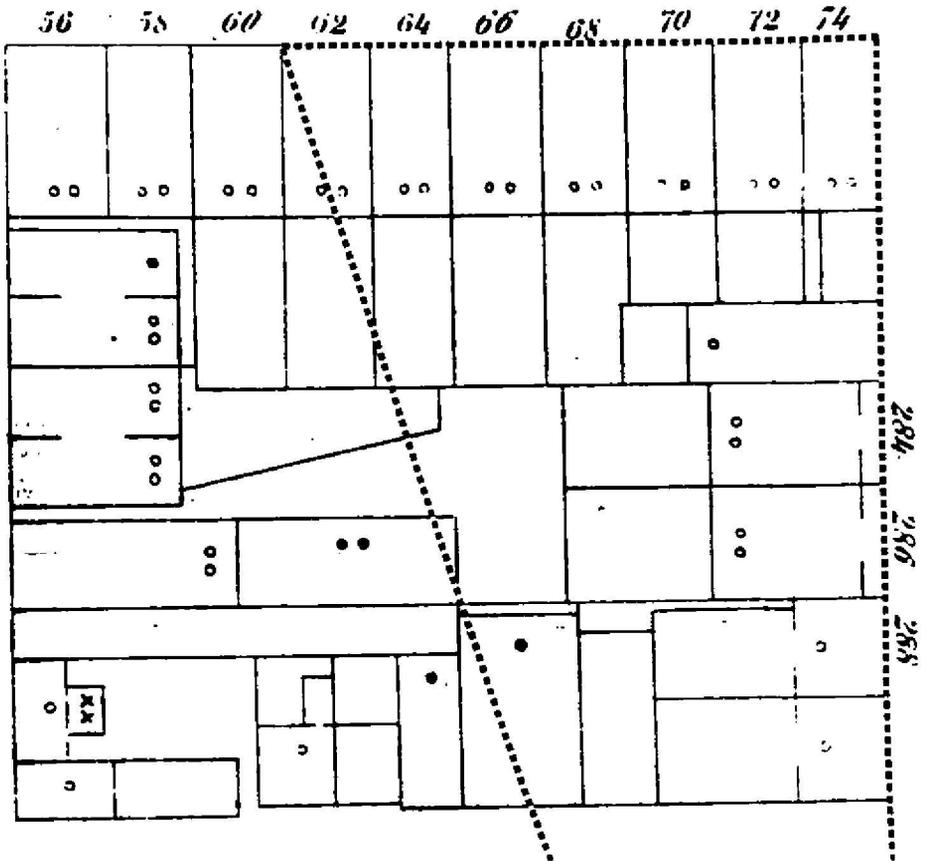
Perris, William

1855 Maps of the City of Brooklyn. vol. 1. (Photograph.
Source: Allee King Rosen & Fleming (AKRF) and New York
Public Library (NYPL))

03 04 05 06 07 08 09 11 13

Street

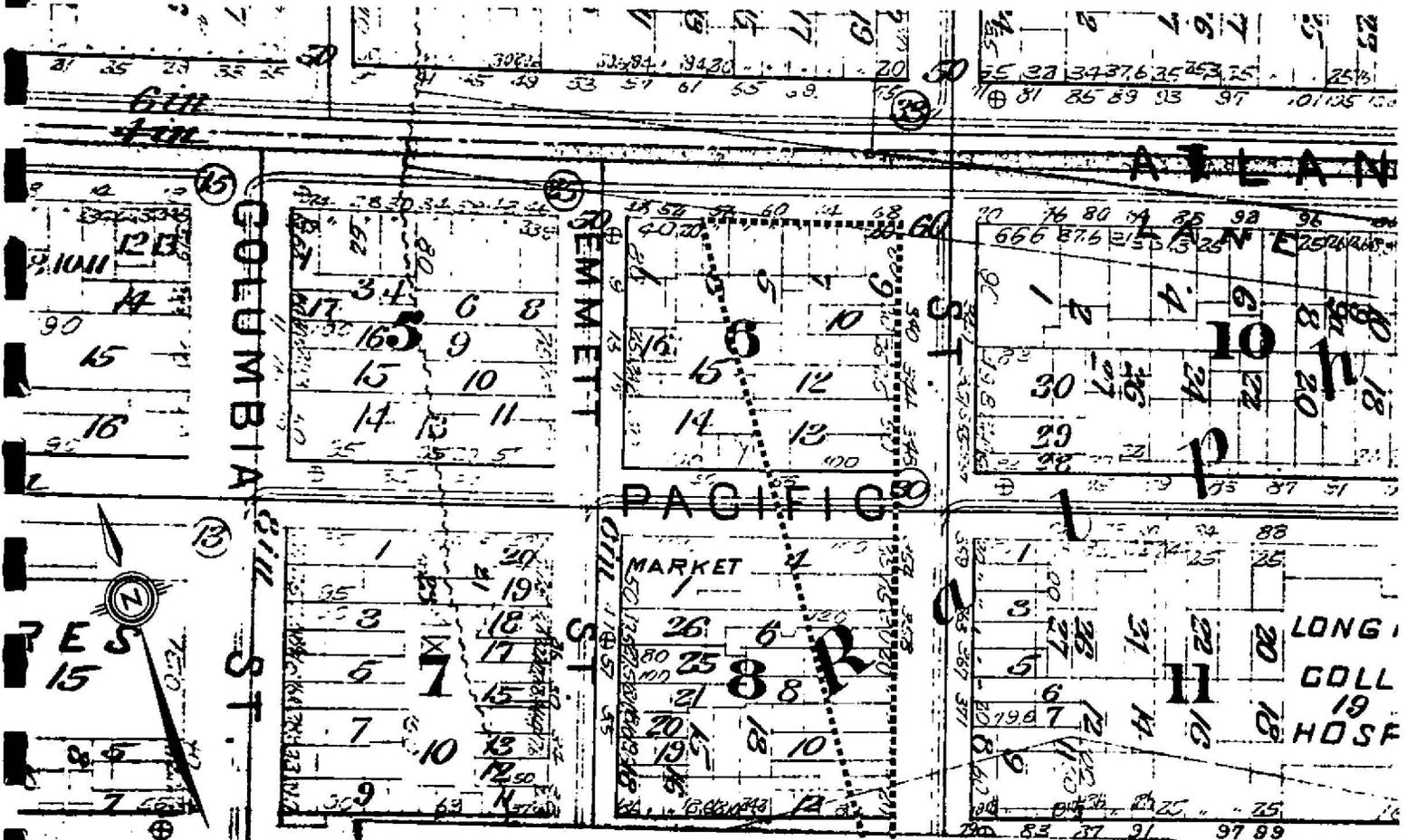
Willow Street



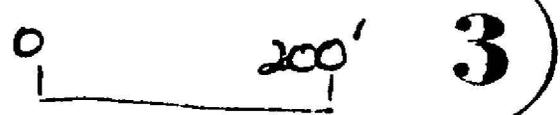
William Perris
Maps of the City of Brooklyn
1855



Robinson, E.
1886 Atlas of the City of Brooklyn. Photograph. Source:
AKRF and NYPL)



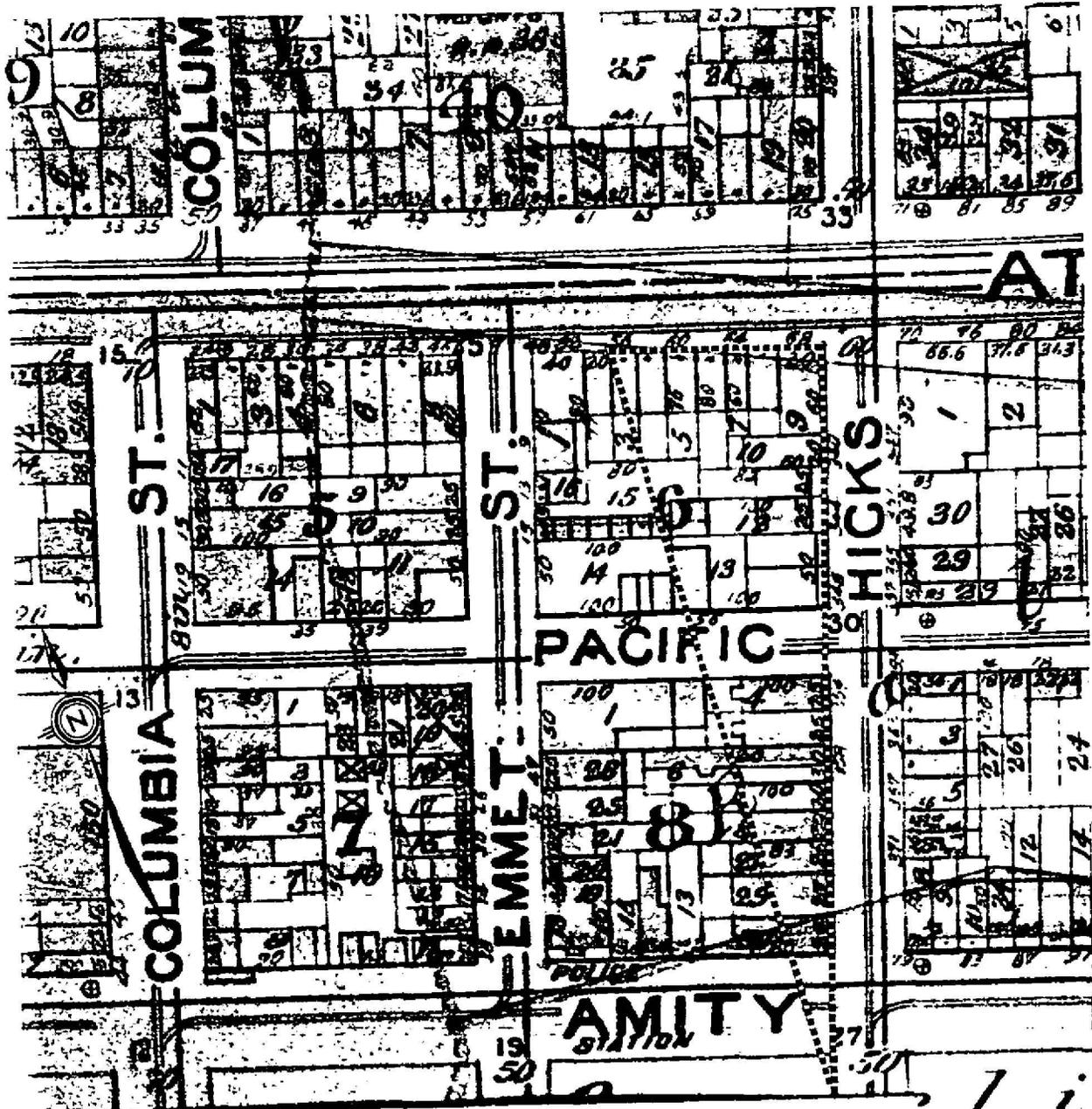
E. Robinson
Atlas of the City of Brooklyn
1886



s
3

Bromley, G.W., & Co.

1893 Atlas of the City of Brooklyn. (Photograph. Source:
AKRF and NYPL)



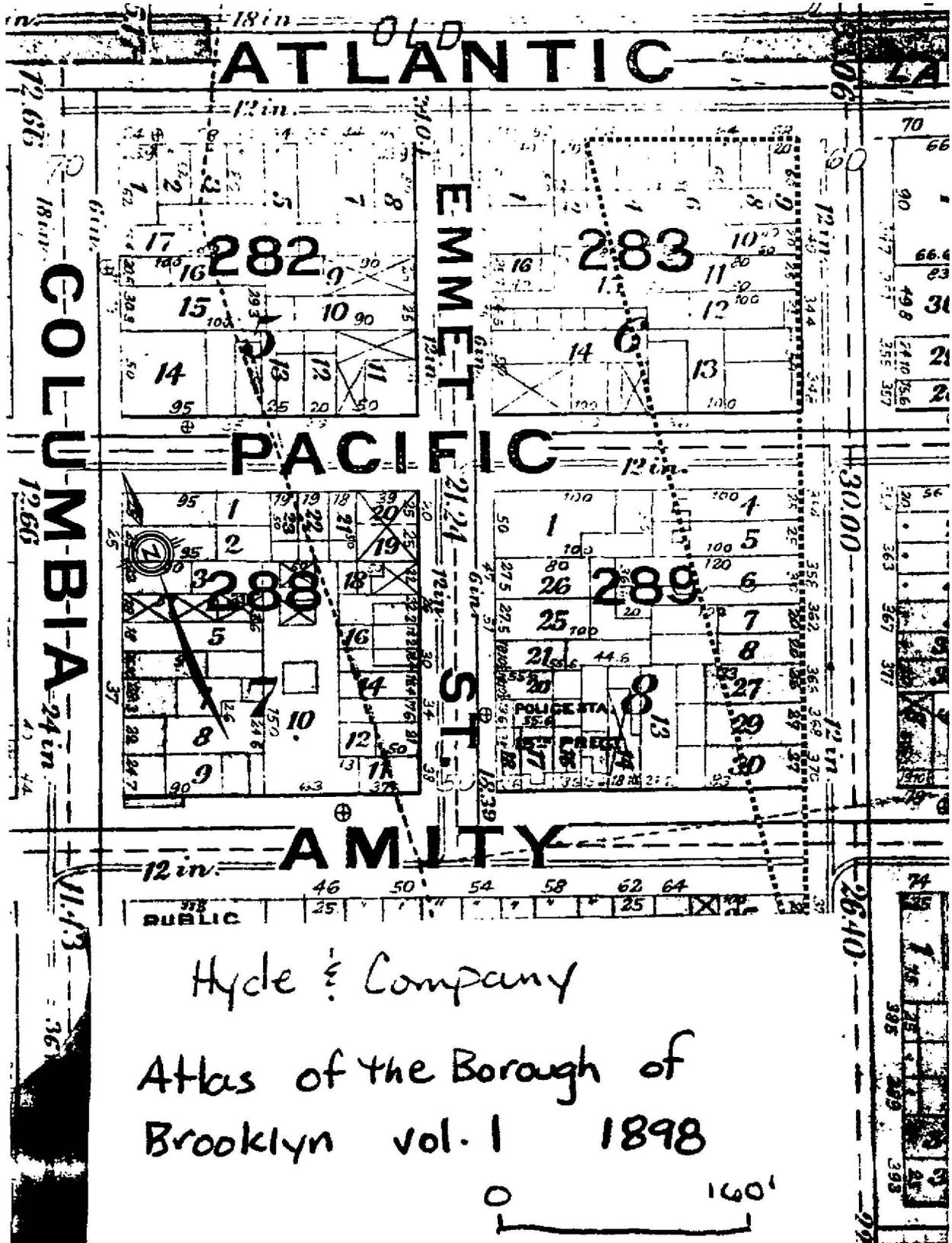
G.W. Bromley & Co.
Atlas of the City of
Brooklyn 1893

200'

Hyde & Company

1898 Atlas of the Borough of Brooklyn
(Photograph. Source: AMRF and NYPL)

Vol. 1.



Hyde & Company
 Atlas of the Borough of
 Brooklyn vol. 1 1898

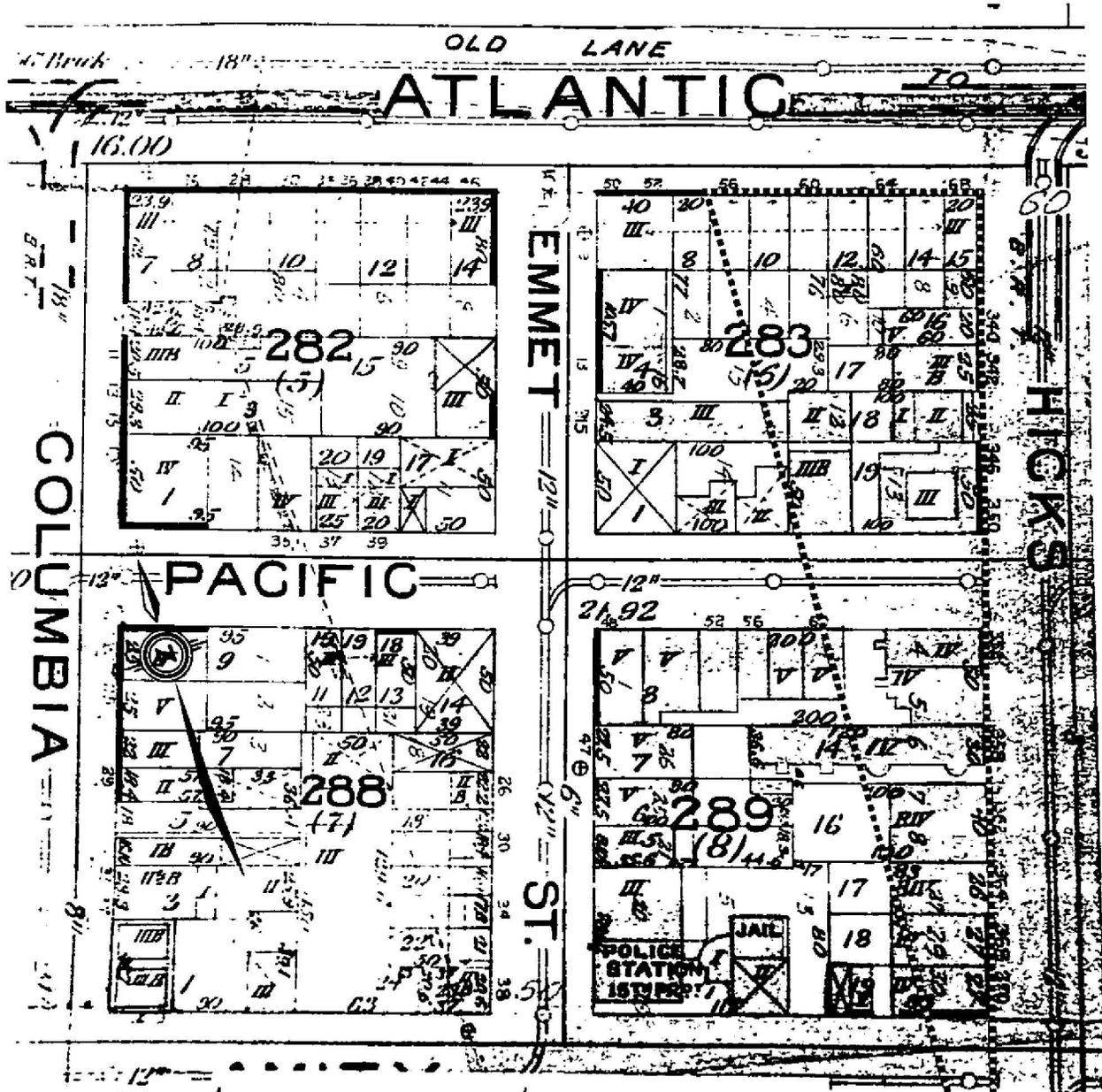


Hyde, E. Belcher

1903 Atlas of the Borough of Brooklyn

vol. 1.

(Photograph. source: AKRF and NYPL)

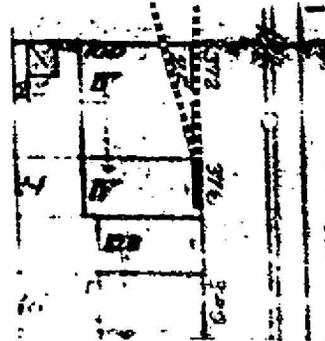


PUBL
SCHOC
NO. 21

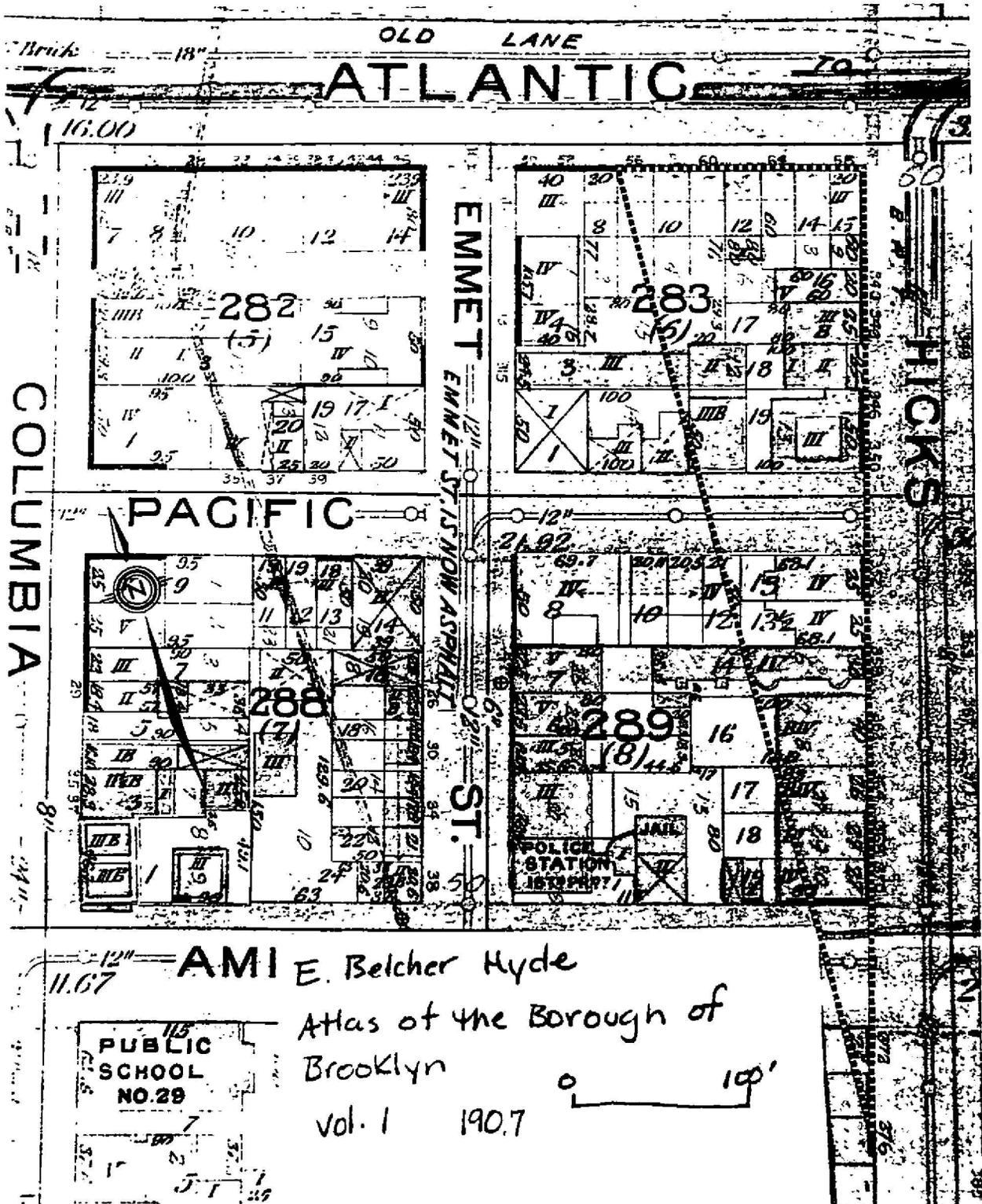
Atlas of the Borough of
Brooklyn

101 1 1103

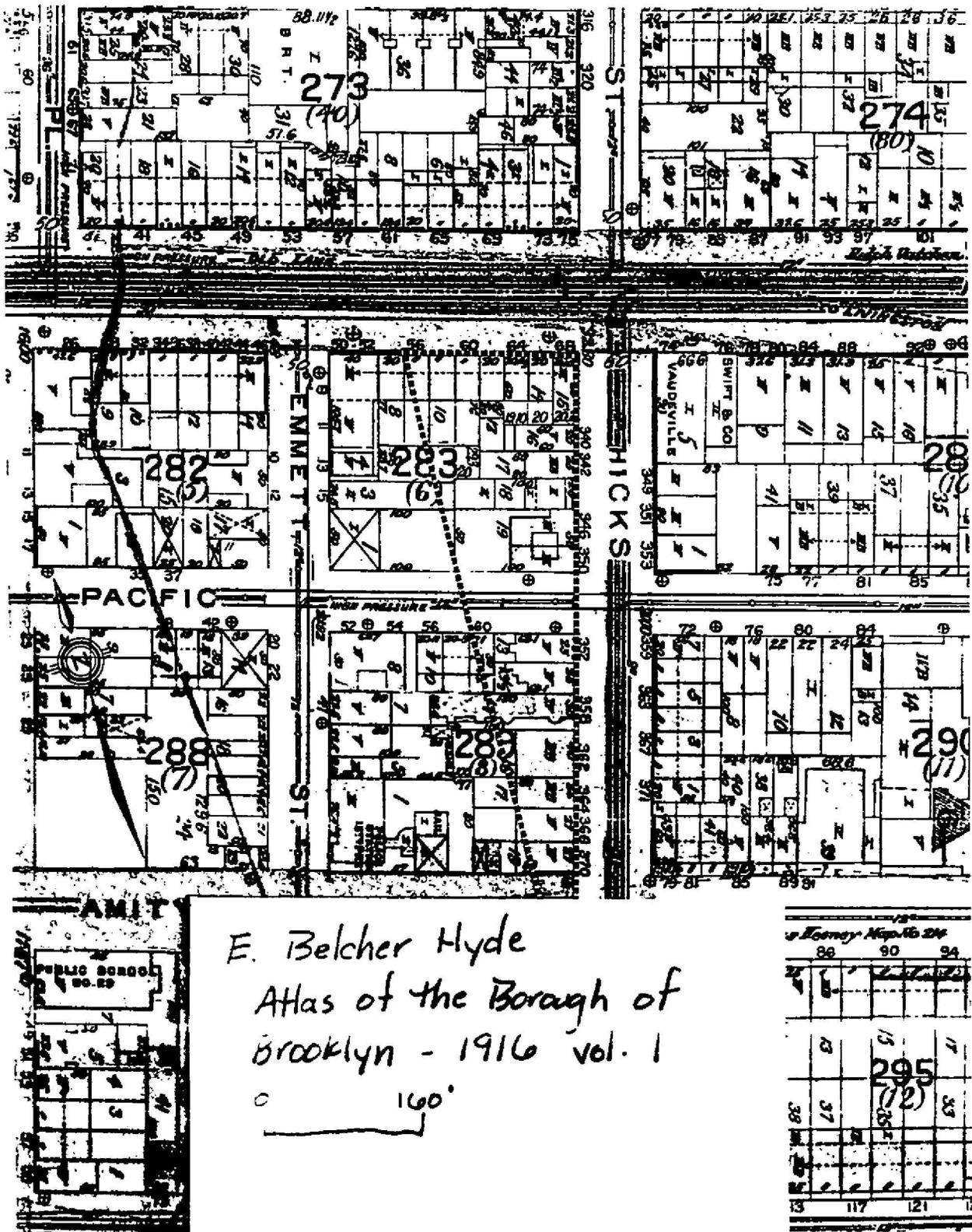
100'



Hyde, E. Belcher
1907 Atlas of the Borough of Brooklyn. vol. 1.
(Photograph. Source: AKRF and NYPL)

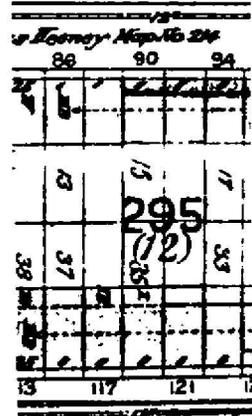


Hyde. E. Belcher
1916 Atlas of the Borough of Brooklyn, vol. 1. (Photograph.
Source: AKRF and NYPL)

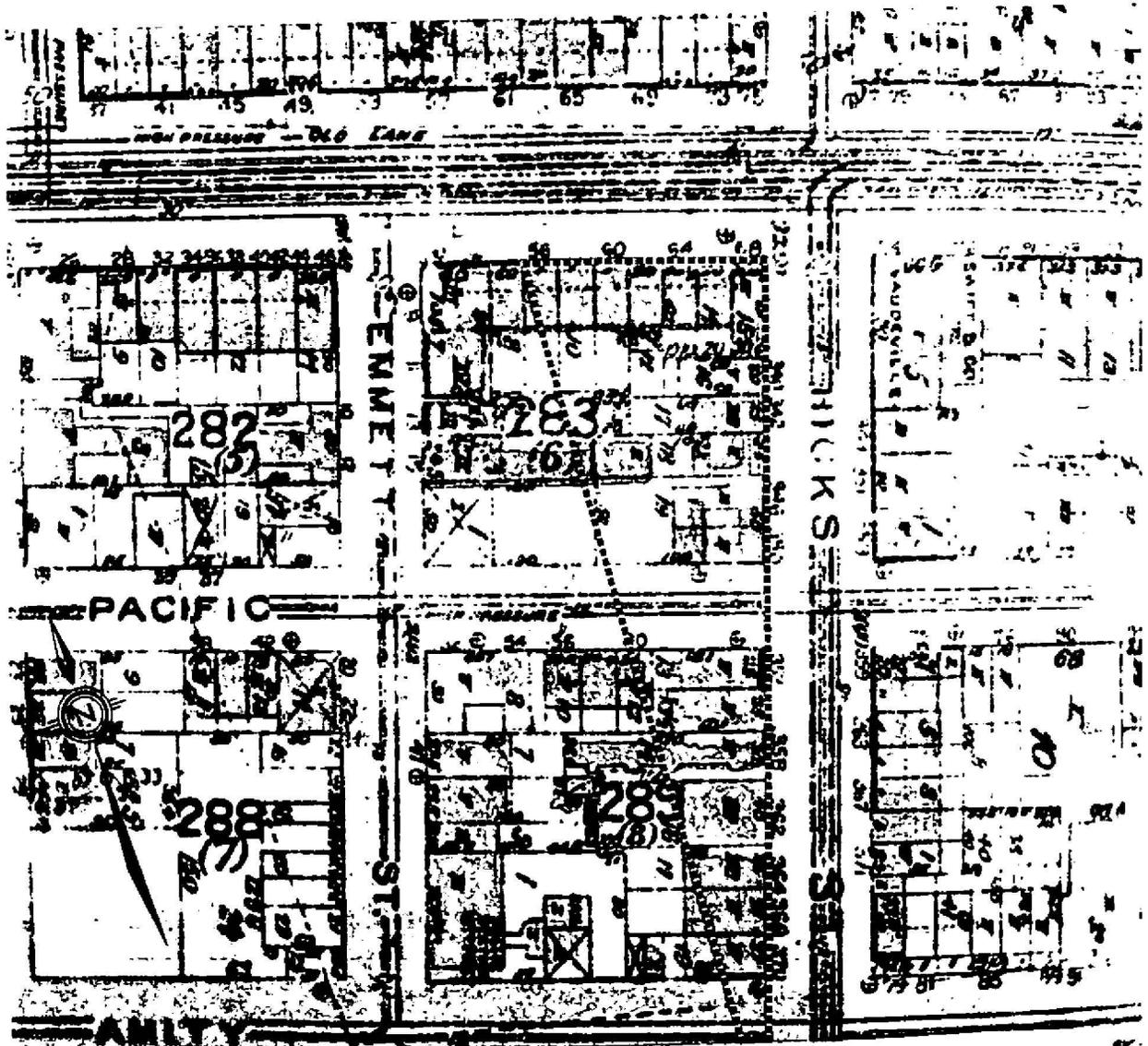


E. Belcher Hyde
Atlas of the Borough of
Brooklyn - 1916 vol. 1

100'



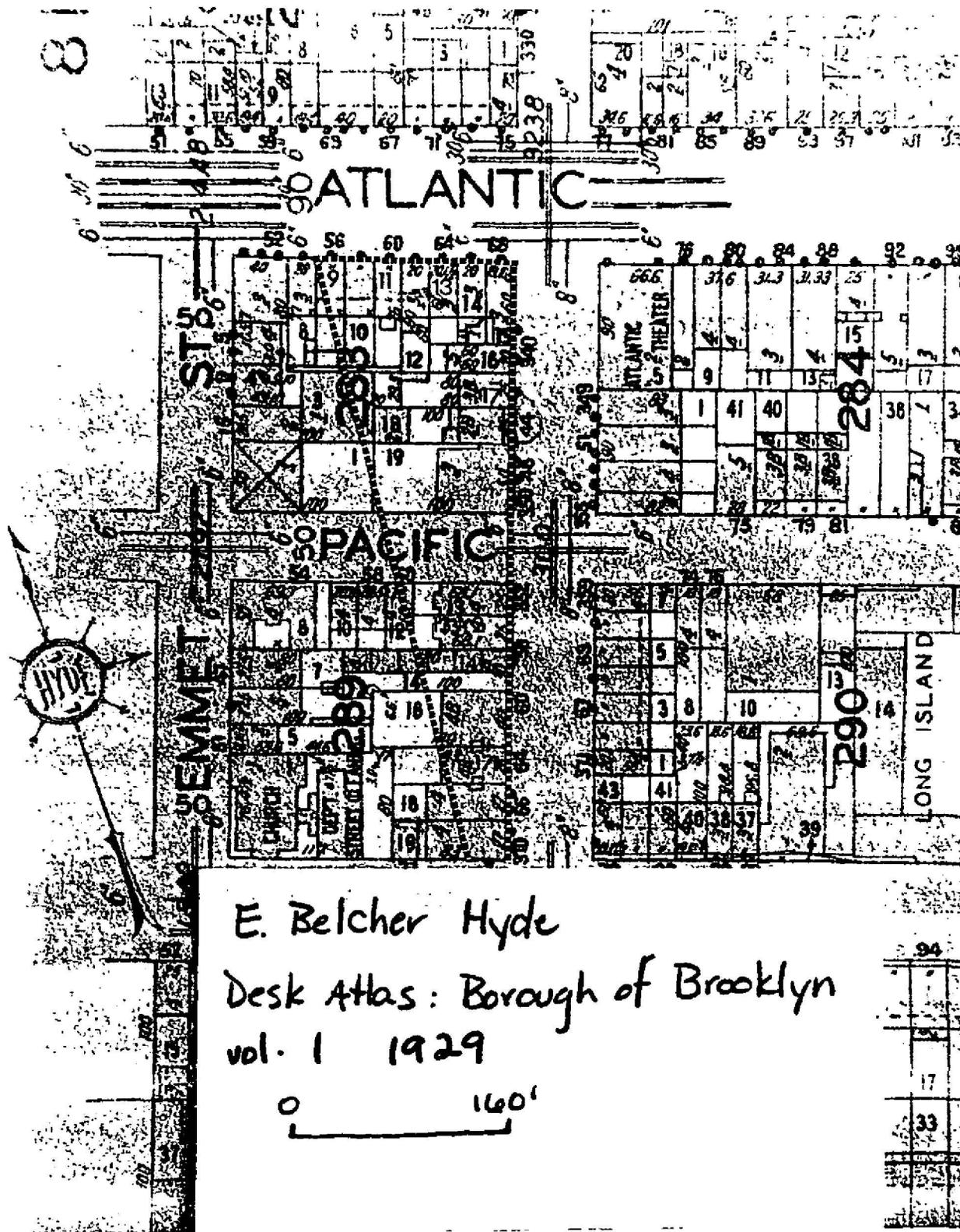
Hyde, E. Belcher
1920 Desk Atlas of the Borough of Brooklyn, vol. 1.
(Photograph. Source: AKRF and NYPL)



E. Belcher Hyde
Desk Atlas of the Borough
of Brooklyn
vol. 1 1920

Hyde, E. Belcher

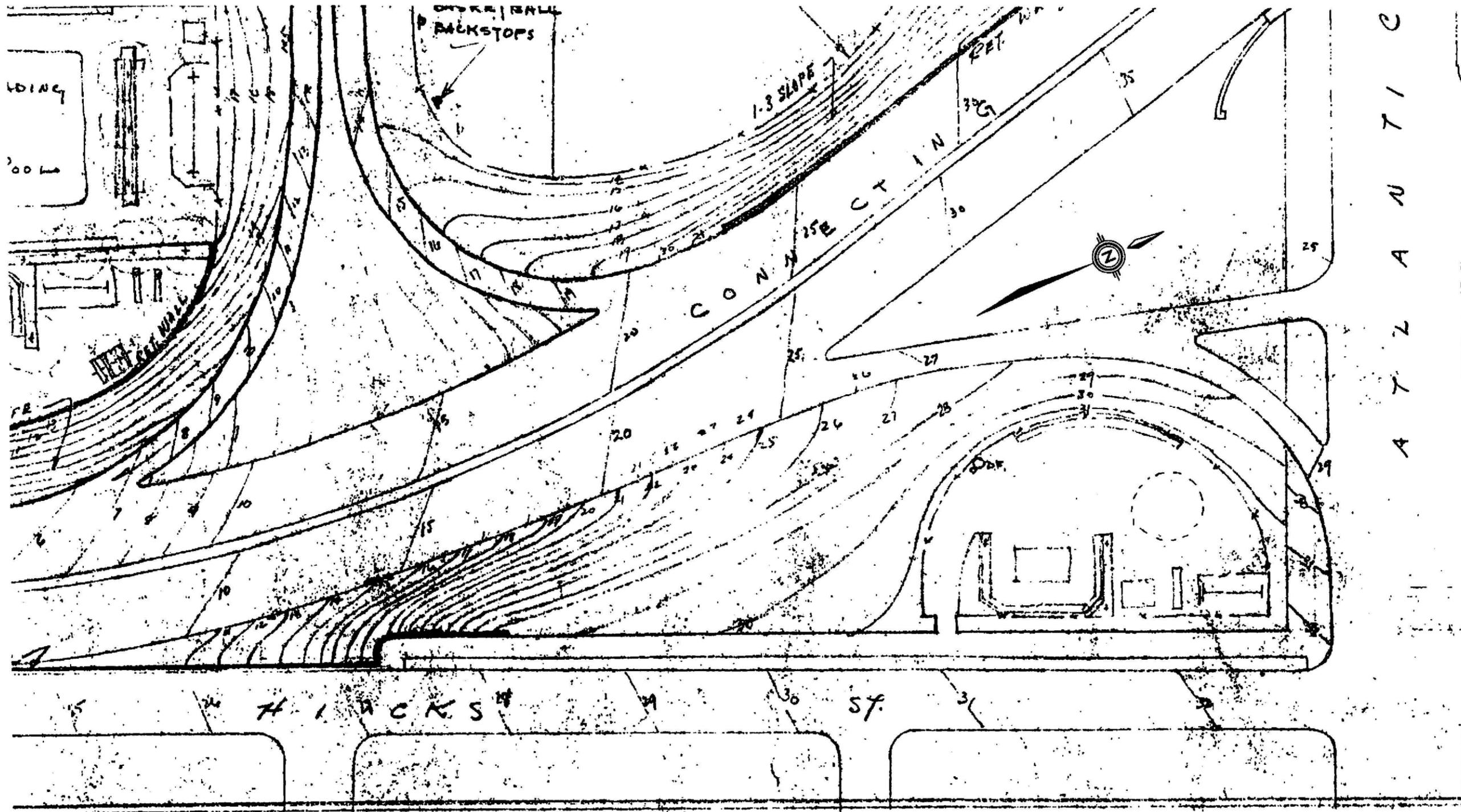
1929 Desk Atlas: Borough of Brooklyn. vol. 1. (Photograph.
Source: AKRF and NYPL)



E. Belcher Hyde
Desk Atlas: Borough of Brooklyn
vol. 1 1929

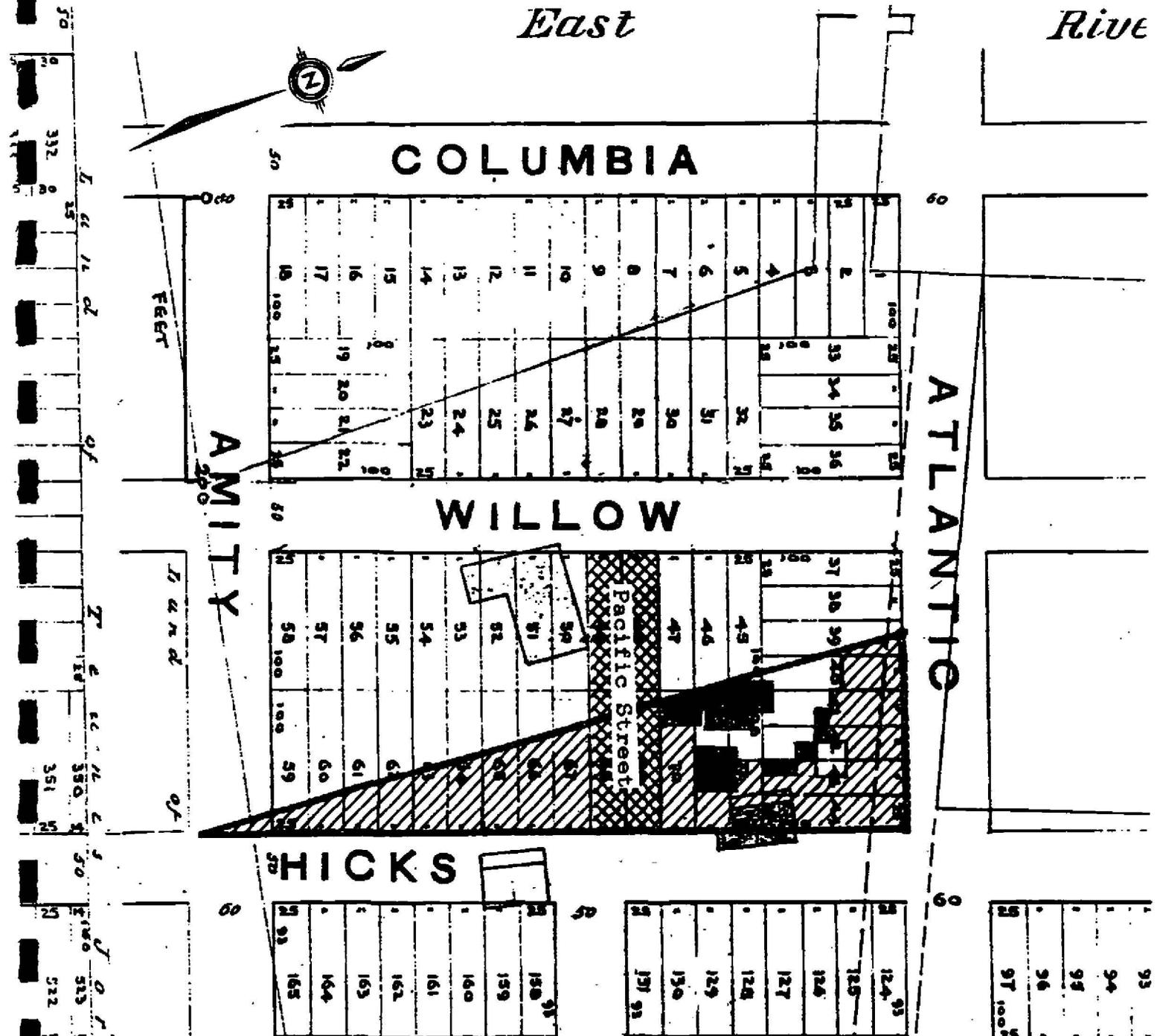
0 160'

City of New York, Department of Parks
1943 Van Voorhies Park Borough of Brooklyn Proposed
Playgrounds...Drawing B-LSK-50-203. (Photocopy of
blueprint. Source: DoP, OC)



Possible Areas of Disturbance on the Project Site

This created map is based on Maps 4 (1829) and 13 (1929), each of which was originally drawn to the same scale. It shows the three groups of lots that Ralph Patchen sold to Sarah Ann Martin (37-46, 71-72), George M. Patchen (57-52, 65-70), and Henry Patchen (53-64) in 1829. The triangular shape is the project site. Two kinds of cross-hatching denote buildings and roadways on the project site in 1929. The blackened areas reflect any changes in buildings' footprints noted on Maps 6-12 or else from Brooklyn Buildings Department Blocks and Lots files. The remaining "white spaces" are the backyard areas that have the potential for intact archaeological remains.



--- Area with Archaeological Potential

█ 12 lots developed between 1833-1850

River

East

COLUMBIA

WILLOW

HICKS

ATLANTIC

AMITY



FEET

Land of

Land of

Tennell

JOP

93
94
95
96
97

124
125
126
127
128
129
130
131

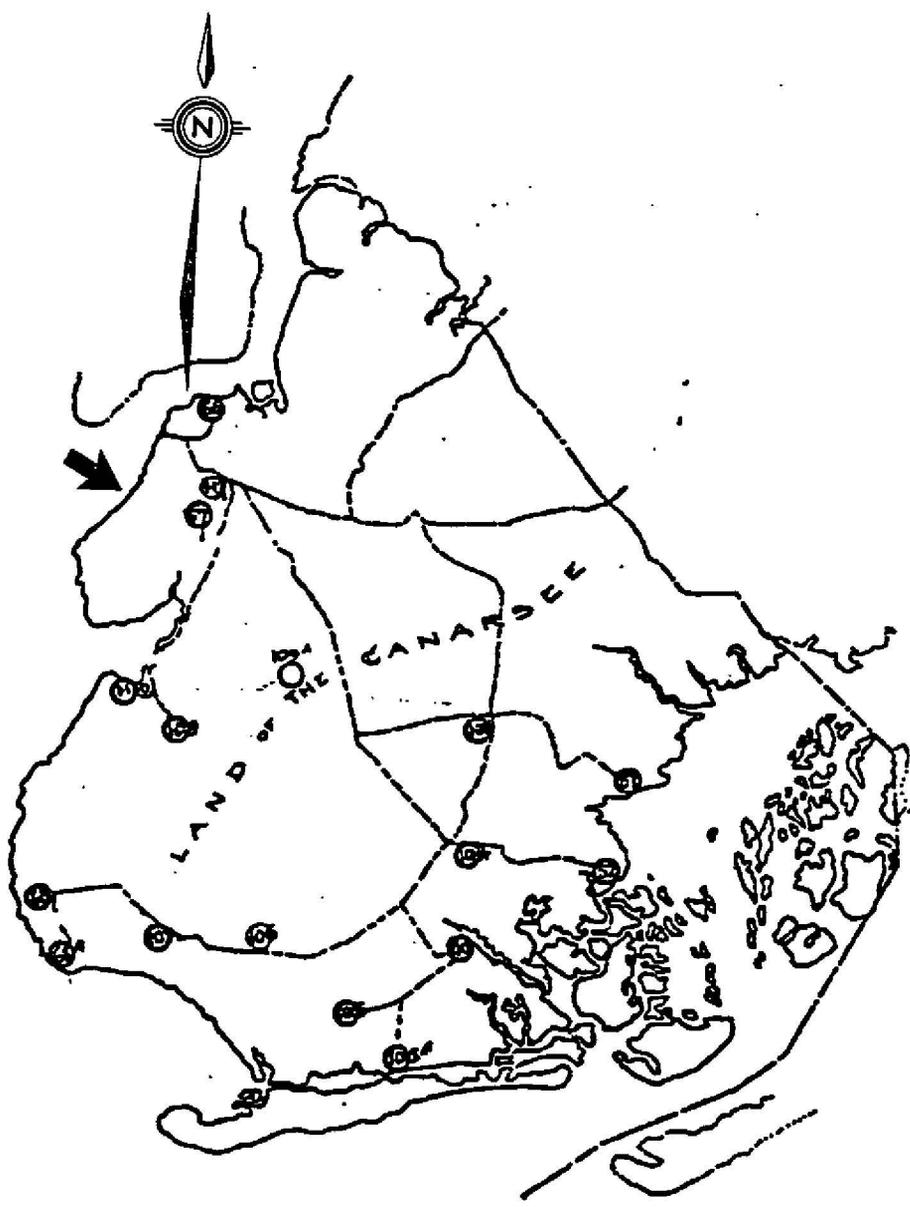
158
159
160
161
162
163
164
165

2	33	34	35	36
3	37	38	39	40
4	41	42	43	44
5	45	46	47	48
6	49	50	51	52
7	53	54	55	56
8	57	58	59	60
9	61	62	63	64
10	65	66	67	68
11	69	70	71	72
12	73	74	75	76
13	77	78	79	80
14	81	82	83	84
15	85	86	87	88
16	89	90	91	92
17	93	94	95	96
18	97	98	99	100

37	38	39	40	41	42	43	44
45	46	47	48	49	50	51	52
53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68
69	70	71	72	73	74	75	76
77	78	79	80	81	82	83	84
85	86	87	88	89	90	91	92
93	94	95	96	97	98	99	100

332	351	353	523	522	521
-----	-----	-----	-----	-----	-----

Bolton, Reginald Pelham
1934 Indian Life of Long Ago in the City of New York.
Joseph Graham [Bolton's Books], New York, p. 144. See
the following page for the key to this map. Photocopy.



INDIAN SITES IN THE BOROUGH OF BROOKLYN

Bolton, Reginald Pelham
1934 Indian Life of Long Ago in the City of New York.
Joseph Graham [Bolton's Books], New York, p. 144.
Photocopy.

INDIAN SITES IN KINGS COUNTY

(The numbers are those which appear on the accompanying map.)

66. RINNEGOKONCK

At Bridge Street, a site evidenced by waste materials, fire pits and implements described by Furman in "Antiquities of Long Island."

67. WERPOS

At Hoyt and Baltic Streets, Brooklyn, there was once a site having the same name as the village on Manhatten Island which was abandoned by the natives upon the sale of that island, and this place may have been in part their refuge. (See Number 68.)

117. MARECHAWIK

Supposed to have been an important village, in which the local sachem made his home, situated at Gallatin Place and Elm Place, Brooklyn. (See Colonial Documents of New York, Vol. XIV.)

110. GOWANUS BAY

There was an Indian station, marked by extensive shell beds, at 37th Street, near Third Avenue.

109A. SAND HILL

A sand hill, with buried pottery, arrowheads and broken clay pipes was uncovered in 1826, and is described by Furman in "Antiquities of Long Island."

109. SUNSET PARK

Around Benny-water Pond in Sunset Park, an old Indian site existed, extending to 37th Street near Sixth Avenue. See the Journal of Stuyver and Dankers.

108. MUSKYTTEHOOL

A site at Bedford Creek, or Paardegat, at the crossing of the Flatlands Road, is referred to as a "boundary place."

51. CANARSIE or CANARSEE

A village site, and extensive planting field, extended back from Canarsie Beach Park as far as Avenue J, centered on East 92nd Street.

52. WINNIPAGUE BERGEN BEACH

There are extensive shell beds on this island, and stone implements have been found there. Its favorable situation indicates an important station of the Canarsie chieftaincy.

104. KESKAECHQUEREN KNOWN TO THE DUTCH AS AMERSFOORT AND NOW FLATLANDS

An important settlement at this place on which the paths converged, was a place of meeting and conference. There was also a burying-ground, and its location and the paths connecting it with other places indicate a place of considerable importance to the Canarsie and perhaps other chieftaincies. (See Colonial Documents, Vol. XIV.)

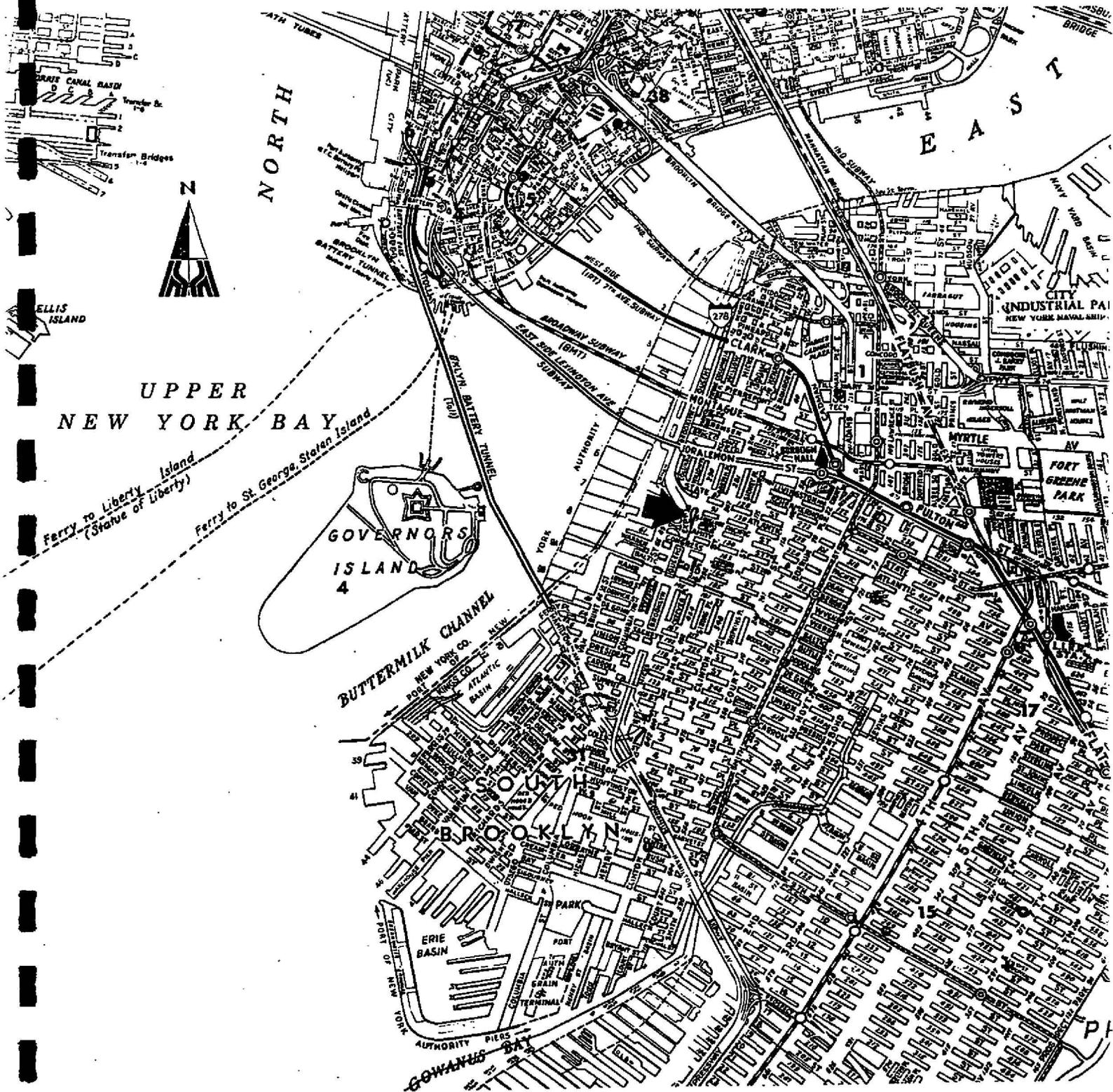
50. SHANSCOMACOCKE GERRITSEN BASIN RYDERS POINT

A native village existed here, indicated by many stone implements which were plowed up on the Ryder farm and are preserved in the Ryder homestead nearby. Burials were disturbed in the opening of Avenue U.

105. MASSABARKEM now GRAVESEND

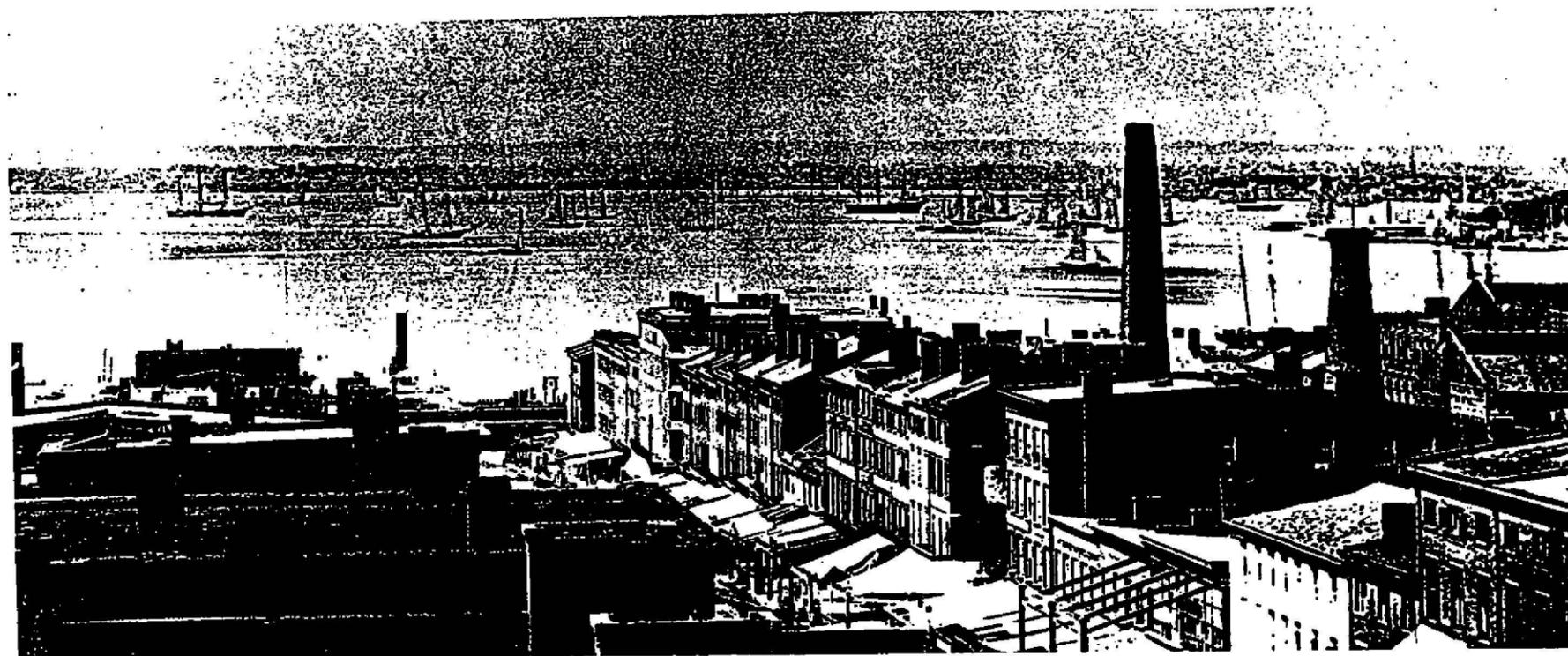
A scattered settlement, in which old Lady Deborah Moody and her refugees from New England planted themselves. (Munsell, History of Kings County.)

Hagstrom
1987 New York City 5 Borough Atlas, plate 10. Hagstrom Map
Company, Inc., Maspeth, NY. Photocopy.



Atlantic Avenue in the Second-third of the Nineteenth Century

Plate 1 shows the downward slope of Atlantic Avenue to the waterfront on Buttermilk Channel as well as, to the left, the roof tops of the buildings on the project site, and to the right, the commercial/residential buildings on the north side of Atlantic Avenue. The chimney stacks at right midground are those of the Brooklyn Flint Glass Works, on that site between 1823 and 1868 (Brown and Ment 1980:10-12). Compare this plate with Photograph 4. Photocopy courtesy of the Brooklyn Historical Society.



Long Island Rail Road Tunnel under Atlantic Avenue

Plate 2 shows the Long Island Rail Road tunnel under Atlantic Avenue, from an engraving, circa 1844. "The grade up Atlantic Avenue proved to be too steep for the...locomotives, and in 1844 construction was begun on a half-mile-long tunnel under the street, extending from Columbia Street almost to Boerum Hill" (Wolfe 1983:402). The railroad remained in operation for only 16 years, and the tunnel is still in existence under Atlantic Avenue (Ibid.). Photocopy from Wolfe 1983:403.

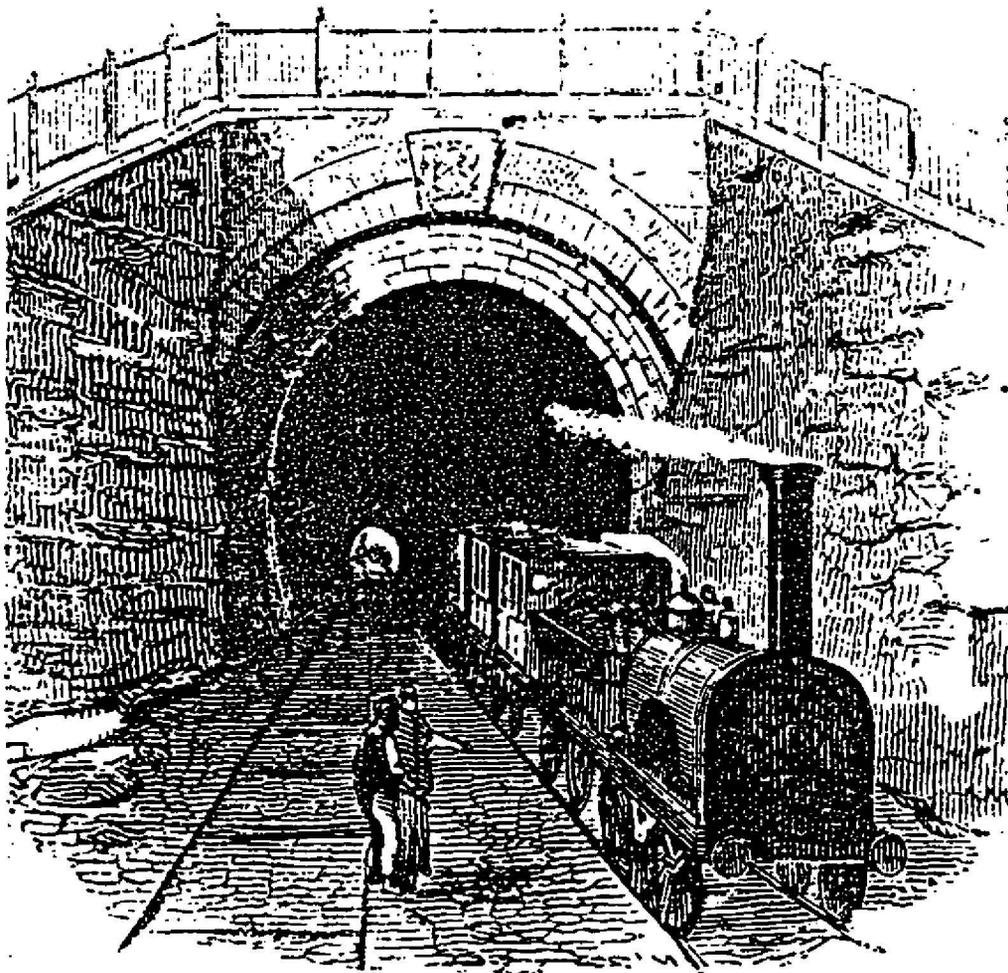
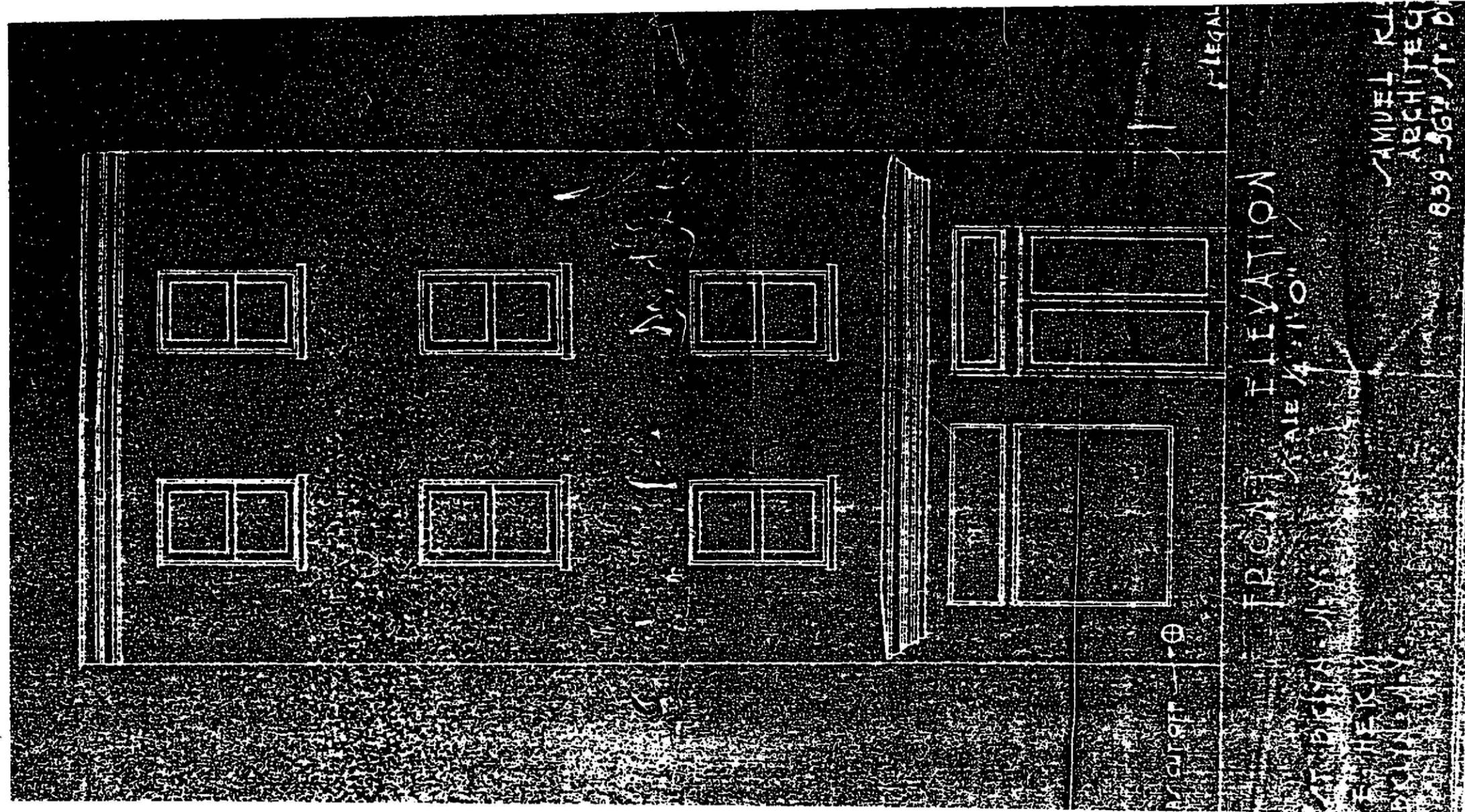


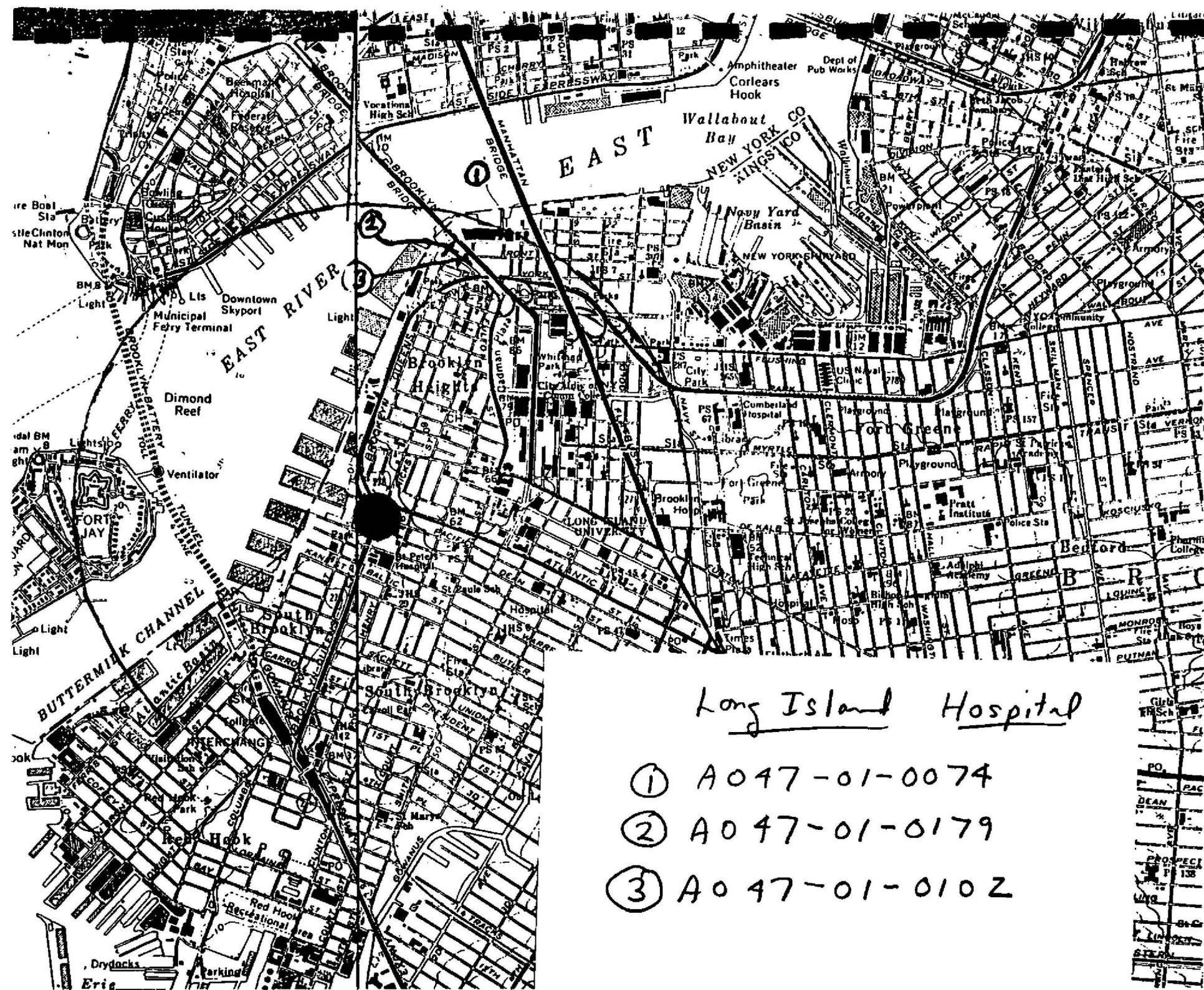
Plate 3 shows the facade of the commercial/residential building at 358 Hicks Street, on the project site, in 1927. Photocopy from Brooklyn Building Department Blocks and Lots files, Block 289, Lot 14.



APPENDIX A

State Historic Preservation Office, Albany, NY

Site-File Research Results



Long Island Hospital

- ① A047-01-0074
- ② A047-01-0179
- ③ A047-01-0102

ARCHEOLOGICAL SITE INVENTORY FORM

FOR OFFICE USE ONLY

DIVISION FOR HISTORIC PRESERVATION
NEW YORK STATE PARKS AND RECREATION
ALBANY, NEW YORK

518 474-0479

UNIQUE SITE NO. A047-01-0179
QUAD. Brooklyn
SERIES U.S.G.S. 7 1/2'
NEG. NO. _____

REPORTED BY: Ralph S. Solecki, Ph.D.

YOUR ADDRESS: _____ TELEPHONE: _____

ORGANIZATION (if any): Columbia University

DATE: 1/5/81

.....

1. SITE NAME: Dock remnant

2. COUNTY: Kings TOWN/CITY: Brooklyn VILLAGE: _____

3. LOCATION: In Fulton St. opposite Everitt St. at soldier
beam # 2.

4. PRESENT OWNER: _____

5. OWNER'S ADDRESS: _____

6. DESCRIPTION, CONDITION, EVIDENCE OF SITE:

- STANDING RUINS
- CELLAR HOLE WITH WALLS
- SURFACE TRACES VISIBLE
- WALLS WITHOUT CELLAR HOLE
- UNDER CULTIVATION
- EROSION
- UNDERWATER
- NO VISIBLE EVIDENCE
- OTHER _____

7. COLLECTION OF MATERIAL FROM SITE:

- SURFACE HUNTING BY WHOM _____ DATE _____
- TESTING BY WHOM _____ DATE _____
- EXCAVATION BY WHOM Solecki DATE 1978-79
- NONE

PRESENT REPOSITORY OF MATERIALS: Columbia University

8. PREHISTORIC CULTURAL AFFILIATION OR DATE: historic 17th Century

9. HISTORICAL DOCUMENTATION OF SITE:

Salecki, Ralph S. (Jan. 5, 1981) Stage II Archaeological Survey. The Archaeology and History of Lower Fulton and Joralemon Streets, Brooklyn, New York W-152 Real Hawk Water Pollution Control Project Contract 1A.

10. POSSIBILITY OF SITE DESTRUCTION OR DISTURBANCE:

11. REMARKS:

12. MAP LOCATION

7 1/2 MINUTE SERIES QUAD. NAME: Brooklyn

15 MINUTE SERIES QUAD. NAME: _____

U.S.G.S. COORDINATES: _____

D.O.T. COORDINATES: (if known) _____

ATTACH SKETCH, TRACING OR COPY OF MAP

SOURCE OF MAP:

13. PHOTOGRAPHS (optional)

ARCHEOLOGICAL SITE INVENTORY FORM

FOR OFFICE USE ONLY

DIVISION FOR HISTORIC PRESERVATION
NEW YORK STATE PARKS AND RECREATION
ALBANY, NEW YORK
518 474-0479

UNIQUE SITE NO. A047-01-0102
QUAD. Brooklyn
SERIES J.U.S.G.S. 7 1/2'
NEG. NO. _____

REPORTED BY: Ralph Selecki

YOUR ADDRESS: _____ TELEPHONE: _____

ORGANIZATION (if any): _____

DATE: 3/28/77 & 1/5/81

.....

1. SITE NAME: Cooperation House

2. COUNTY: Kings TOWN/CITY: Brooklyn VILLAGE: _____

3. LOCATION: Fulton St - presumably marked by Waxman Building & eastern parking lot - opposite

4. PRESENT OWNER: Elizabeth St.

5. OWNER'S ADDRESS: _____

6. DESCRIPTION, CONDITION, EVIDENCE OF SITE:

- STANDING RUINS
- SURFACE TRACES VISIBLE
- UNDER CULTIVATION
- NO VISIBLE EVIDENCE
- CELLAR HOLE WITH WALLS
- WALLS WITHOUT CELLAR HOLE
- EROSION
- OTHER _____
- UNDERWATER

7. COLLECTION OF MATERIAL FROM SITE:

- SURFACE HUNTING BY WHOM _____ DATE _____
- TESTING BY WHOM _____ DATE _____
- EXCAVATION BY WHOM Selecki DATE 1978-1979
- NONE

PRESENT REPOSITORY OF MATERIALS: Columbia

8. PREHISTORIC CULTURAL AFFILIATION OR DATE: Historic Yawer foundation -
1750-1812

9. HISTORICAL DOCUMENTATION OF SITE:

Stiles 1884: The Civil, Political, Professional + Ecclesiastical History + Commercial + Industrial Record of the County of Kings + City of Brooklyn, New York, from 1863 to 1884

2 Vols. W.W. Munsell Co.

Solucki, Ralph S (Jan. 5, 1981) Stage II Archaeological Survey, The Archaeology and History of Lower Fulton and Joralemon Streets, Brooklyn, New York W.P.-152 Red Hook Water Pollution Control Project Contract 1A.

10. POSSIBILITY OF SITE DESTRUCTION OR DISTURBANCE:

11. REMARKS: Stage 1 Arch. Survey Fulton St., Atlantic Ave, Furman St., Joralemon St., Main + Plymouth St. - Contract 1A Red Hook Water Pollution Control Project

12. MAP LOCATION

7 1/2 MINUTE SERIES QUAD. NAME: Brooklyn

15 MINUTE SERIES QUAD. NAME: _____

U.S.G.S. COORDINATES: _____

D.O.T. COORDINATES: (if known) _____

ATTACH SKETCH, TRACING OR COPY OF MAP

See U.S.G.S. Topo.

SOURCE OF MAP:

13. PHOTOGRAPHS (optional)

6. Site inventory:

- a. date constructed or occupation period ca. 1810
- b. previous owners, if known
- c. modifications, if known

(append additional sheets, if necessary)

7. Site documentation (append additional sheets, if necessary):

a. Historic map references

- 1) Name _____ Date _____ Source _____
Present location of original, if known _____
- 2) Name _____ Date _____ Source _____
Present location of original, if known _____

b. Representation in existing photography

- 1) Photo date _____ Where located _____
- 2) Photo date _____ Where located _____

c. Primary and secondary source documentation (reference fully)

See Archaeological report cited in "5."

d. Persons with memory of site:

- 1) Name _____ Address _____
- 2) Name _____ Address _____

8. List of material remains other than those used in construction (be as specific as possible in identifying object and material):

If prehistoric materials are evident, check here and fill out prehistoric site form. _____

9. Map References: Map or maps showing exact location and extent of site must accompany this form and must be identified by source and date. Keep this submission to 8 1/2"x11", if feasible. See Plot on U.S.G.S. Topo. Sheets

USGS 7 1/2 Minute Series Quad. Name Brooklyn

For Office Use Only--UTM Coordinates _____

10. Photography (optional for environmental impact survey): Please submit a 5"x7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet.

NEW YORK STATE HISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

For Office Use Only--Site Identifier A047-01-0074

Project Identifier Empire Stores Monitoring Date 3/2/84
 Your Name Betsy W. Kearns Phone () _____
 Address Cecilia Kirkerian

 Zip _____

Organization (if any) Historical Perspectives

1. Site Identifier(s) Empire Stores (within the Fulton Ferry Historic District)
 2. County Kings One of following: City Brooklyn
 Township _____
 Incorporated Village _____
 Unincorporated Village or Hamlet _____

3. Present Owner New York State
 Address _____

 Zip _____

4. Site Description (check all appropriate categories):
 Structure/site
 Superstructure: complete partial collapsed not evident
 Foundation: above below (ground level) not evident
 Structural subdivisions apparent Only surface traces visible
 Buried traces detected
 List construction materials (be as specific as possible):

Grounds man-made land in the East River
 Under cultivation Sustaining erosion Woodland Upland
 Never cultivated Previously cultivated Floodplain Pastureland
 Soil Drainage: excellent good fair poor
 Slope: flat gentle moderate steep
 Distance to nearest water from structure (approx.) _____
 Elevation: _____

5. Site Investigation (append additional sheets, if necessary):
 Surface--date(s) _____
 Site Map (Submit with form*)
 Collection
 Subsurface--date(s) August/September 1982
 Testing: shovel coring other backhoe trenching unit size _____
 no. of units 7 (Submit plan of units with form*)
 Excavation: unit size 3x3' no. of units 3
 (Submit plan of units with form*)

* Submission should be 8 1/2"x11", if feasible

Investigator Betsy W. Kearns & Cecilia Kirkerian
 Manuscript or published report(s) (reference fully):
1982 Empire Stores Report on Archaeological Monitoring of the ...
Trees Management Company, Kings County, ...

Present repository of materials _____

APPENDIX B

Post-Civil War Period Land Use and Occupants for Lots in Archaeologically Sensitive Area

The documentary record for the project site and the six identified lots with the potential for intact subsurface remains for the period from 1867 to 1942 is much fuller than for earlier periods. Evidence from deed abstracts, tax records, manuscript census, city atlases, and Blocks and Lots information were the resources for the description that follows on a lot by lot basis from c.1867 until 1942 when the buildings on the project site were demolished.

The six identified lots with the potential for intact archaeological remains on the project site are listed according to the block, lot, and address system used in the Blocks and Lots folders (Map 13). By overlaying Map 16 on Map 13, one can locate two different numbering systems and the farm period buildings on the landscape. Only the 1929 numbering system will be used in the text. The addresses were 58, 60, 62, and 64 Atlantic Avenue (Lots 10-13), and 342 and 344 Hicks Street (Lots 17 and 18).

Lot 10: 58 Atlantic Avenue

On this lot in 1855 there was a brick dwelling with a store underneath and a slate or metal roof not coped (Map 5; Photo 4; Plates 1 and 3). In 1873 it was listed as a lot with a with a three-story building (Tax records [City of Brooklyn], Block 6, Lot 4, 1873-1876:11). Census records for 1880 noted four households residing at 58 Atlantic Avenue (1880 Census, call no. *ZI-50, reel 38:196). The 1900 census noted only two households (1900 Census, call no. *ZI-263, reel 1044:6931B).

In 1915 through 1935 the building at 58 Atlantic Avenue was listed as having three stories and a basement (Tax records [Borough of Brooklyn], Block 283, Lot 10, 1915:5; 1925:5; 1935:5). Contemporary atlases agreed with the three stories, but did not list a basement (Maps 9-11).

Lots 11 and 12: 60 and 62 Atlantic Avenue

The 1942 demolition records did not include 58 Atlantic Avenue, but a cross-reading of the map and municipal records for the two contiguous lots to the east, 60 and 62 Atlantic Avenue, suggest a similar construction history with similar gaps in the data, except for the demolition data (Maps 9-11; tax records 1873-1876, 1891-1895, 1895-1899, 1915, 1925, 1935; manuscript census 1880, 1890; Block 283, Lot 11: 1904, 1917, 1925, 1934). As for the number of households residing at 60 Atlantic Avenue in 1880, six were listed (1880 Census, call no. *ZI-50, reel 38:196-197). Four households were listed for 62 Atlantic Avenue, including the owner-occupants, the Lindbergs (Loc. cit., p. 197).

In 1904 the building at 60 Atlantic Avenue was listed as a three-story brick building with cellar that housed three families (Block 283, Lot 11, Appl. No. 2232/109, May 13, 1904, for the erection of a building for w.c.s). By 1917 the building was described as being brick three stories high and housing a store and two families, with "one family on 1st floor and 2nd floor and store on first floor" (Block 283, Lot 11, Appl. No. 3051, May 24, 1917).

A 1925 blueprint of the floor plans for the three stories at 60 Atlantic Avenue showed a two-roomed store plus w.c. on the first floor and a one-family apartment on each of the second and third floors. The apartments had five rooms apiece plus an inside w.c. apiece (Block 283, Lot 11, Appl. No. 20592, October 20, 1925). The 1935 tax records coded 58, 60, and 62 Atlantic Avenue as "tenements without elevators."

There was "No record" for the floor plans of the apartment floors at the time of demolition for these two buildings (Block 283, Lots 12, 13, 14, 16, 17, 18, Demolition Permit No. 38, February 6, 1942), but the 1942 demolition records for 60 and 62 Atlantic Avenue described the buildings as being three-storied brick buildings with two apartments and one store. There were 15 rooms in the building at 60 Atlantic Avenue and 12 rooms in the building at 62 Atlantic Avenue (Block 283, Lots 12, 13, 14, 16, 17, 18, Demolition Permit No. 38, February 6, 1942).

Lot 13: 64 Atlantic Avenue

Like Lots 10-12, Lot 13 was developed by 1850 (Dripps 1850). In 1855 there was a brick dwelling with a store underneath and a slate or metal roof not coped (Map 5; Photo 4; Plates 1 and 3). No mention is made of a basement on either the atlases or in the Block and Lot files for Lot 13, yet there was assumed to be one because, like Lots 10-12, Lot 13 was developed as commercial/residential property some time after 1833 but probably before 1840 (1898 Deed Abstracts cite Liber 42, p.

239 [1833], and Liber 42, p. 131 [1834]; Brooklyn [City of], Tax Rolls - 6th Ward, p.20). Lots 10-12 were known to have had basements (Brooklyn [Borough of] tax records, 1915, 1925, 1935; Block 283, Lot 11, Appl. No. 2232/109, May 13, 1904).

Like Lots 10-12, Lot 13 was transferred as part of a 7-lot parcel at least 10 times between 1829 and 1861 (1898 Deed Abstracts for Lots 40-44, 71-71 [the lot-numbering system was according to the 1829 map, Map 4]). In 1867 Lots 12 and 13 were purchased by an individual landowner, Henry Lindenberg, who, with his wife and tenants, lived in the brick building on Lot 12 (1880 Census, call no. *ZI-50, reel 38:197). In 1880 Henry Lindenberg continued to own both Lots 12 and 13 (Deed Abstracts). According to the 1880 census, four households, totaling 20 people, lived in the building on Lot 13 (Ibid.).

In 1917 Blocks and Lots files noted that the brick building on Lot 13 had a store on the "1st floor," one family on the "2nd floor," and one family on the "3rd floor," for a total of "1 store and 2 families" (Block 283, Lot 13, Appl. 1991, March 30, 1917). A blueprint accompanying this application noted that a new w.c. was added to one that was "now in" in the store (Ibid.). New w.c.s and partitions were also installed on the upper two floors (Ibid.). The blueprint also noted a 20 foot addition to the rear of the building on Lot 13, but not one on Lot 12 (Ibid.).

The 1942 demolition records listed the building on Lot 13 as a 3 story brick building with 2 apartments containing 12 rooms and 1 store (Block 283, Lots 12, 13, 14, 16, 17, 18, Demolition Permit No. 38, February 6, 1942). Division of Housing personnel noted that there was "no record" about the division of interior space (Ibid.).

Thus, from the last third of the nineteenth century into the first third of the twentieth century these four buildings on Atlantic Avenue seemed to have remained three-story brick dwellings with stores that housed an increasingly fewer number of families through time with an increasing number of "modern facilities" as William Coackley referred to the indoor toilet facilities (Coackely 1973:n.p.).

Lot 17: 342 Hicks Street

The lot at 342 Hicks Street, like the three Atlantic Avenue lots to the north as well as 344 Hicks Street, one lot to the south, was developed between 1833 and approximately 1840. In 1855 the 342 Hicks Street lot housed a set-backed brick building with a store under and a slate or metal roof not coped (Map 5). The 1873-1876 tax records listed the building at 342 Hicks Street as being two stories plus basement (Brooklyn [City of] tax

records, 1873-1876, Block 6:12). The 1880 census indicated that there were seven households living in the building, including the Butlers who were the owner-occupants (1880 Census, call no. *ZI-50, reel 38:211).

By 1891 the structure at 342 Hicks Street was listed as a three story brick building with basement which it remained until at least 1899 (Brooklyn [City of] tax records, 1891-1895, Block 6:11; 1895-1899, Block 6:11). The set-back from the street disappeared as of the 1898 atlas (Maps 1-13).

In 1915 through 1935 it was listed as a three and one-half story brick building with basement (Maps 11-13; Brooklyn [Borough of] tax records 1915, Block 283:5; 1925, Block 283:5; 1935, Block 283:5). Like the three lots on Atlantic Avenue, 342 Hicks Street was listed as a "tenement without elevators" in 1935 (Brooklyn [Borough of] tax records, 1935, Block 283:5). The demolition record of 1942 noted that 342 Hicks Street was "OL" or an Old Law Tenement (pre-1901) with a basement and three stories. It did note that the building was brick that had 6 apartments, 19 rooms, and 1 store. Interior floor plans were not described (Block 283, Lots 12, 13, 14, 16, 17, 18, Demolition Permit No. 38, 1942, February 6, 1942).

Lot 18: 344 Hicks Street

The next lot to the south, at 344 Hicks Street, also has the potential for relatively undisturbed subsurface remains. It, too, was part of the initial pre-1855 development of brick buildings with stores under and slate or metal roof not coped on the project site (1898 Deed Abstracts cite Liber 42, p. 131, August 4, 1834; Brooklyn [City of] tax roll, 6th Ward, 1840:19). Like its next-door neighbor to the north, the residence at 344 Hicks Street seemed to have only a few changes in the building footprint (Maps 9-13). Tax records listed the house height as two stories plus basement from 1873 through 1935 (Brooklyn [City of and Borough of] tax records:1873-1876, 1891-1895, 1895-1899, 1915, 1925, 1935).

The 1880 census records listed three households at 344 Hicks Street, including the Duffys who were owner-occupants (1880 Census, call no. *ZI-50, reel 38:211B). The following year a New Building permit for 344 Hicks Street mentioned a building being "altered to 2 stories", "1 building as shop", and "cellar", but it is unclear exactly what and where the changes were (Block 283, Lot 18, New Building Appl. No. 329, August 18, 1881). Perhaps it had to do with the rear building that appeared on the 1886-1929 maps (Maps 6-13). Perhaps it had to do with Duffy's occupation as a junk dealer, and the 1903-1920 maps' noted changes to the building on the front of the lot (Maps 9-12). Nonetheless, the one story rear part of the two story building that appeared on the 1903-1920 maps (Maps 9-12)

stayed within the building lines established in 1853 for the building fronting on Hicks Street (Maps 5-12).

While the street set-back remained at 344 Hicks Street, there were small additions on the rear of building in 1929 (Map 13). This addition noted on the 1929 atlas (Map 13) may have reflected the addition of indoor toilets noted on a 1918 architectural blueprint (Block 283, Lot 18, Alt. No. 7828, December 1, 1918). The blueprint also noted the removal of a backyard w.c. that hooked-up to the sewer in front of the house facing Hicks Street. The installation of the two indoor w.c. cubicles was about two feet below backyard level, enclosed in the addition attached at the rear of the house (Ibid.).

The 1918 alteration notice mentioned a "store in the basement with the rest of the house one family...total 1 store and one family" (Ibid.). The 1935 tax records coding system listed 344 Hicks Street as one of the "one-family dwellings, designated as such, however used."

The 1942 demolition records for 344 Hicks Street noted that the building to be demolished was a 2 story brick house containing 1 apartment with 14 rooms and no store. A Division of Housing note on the margin stated that there was no record of the interior use of space for 344 Hicks Street (Block 283, Lots 12, 13, 14, 16, 17, 18, Demolition Permit No. 38, February 6, 1942). Again, over time there seems to have been a reduction of the number of households living in any one building.

Thus, for 342 and 344 Hicks Street there is documentation for similar building footprints through time while there were also additions, as well as reductions, to the number of stories of the brick buildings. A backyard disturbance, in the form of an outdoor toilet attached to a public sewer in front of 344 Hicks Street, is specified on a blueprint so that the area of the backyard could be avoided if any archaeological field testing is considered.

Therefore, as far as can be told, unlike the development on some other lots on the project site, the identified six lots remained two to four story brick buildings with stores at street level and dwellings on the upper floors with open areas in the backyards until they were demolished in 1942 (Blocks and Lots folders for Blocks 283 and 289; New York city Department of Parks Drawing B-T-50-101, November 14, 1941).

As for occupants during the same period, by 1873 three of the six lots with archaeological potential had owners living on the properties. Harry and Ann Lindenberg lived at 62 Atlantic Avenue, and John and Mary Butler and their daughter Mary, Jr. lived at 342 Hicks Street. John and Ellen Duffy and their three sons, one daughter, one daughter-in-law, and one servant, Bernard Keney, who worked in the junk store, made up one of the three households at 344 Hicks Street. Lindenberg, 52, had no occupation; Butler, 60, was a dock builder; and Duffy, 40, was a junk dealer. No archival evidence was found to associate these families with these lots prior to 1867,

In 1880 the owner-occupants and their tenants tended to live with immediate family and kin in the multiple-family dwellings on the six lots with archaeological potential. The owners and their tenants tended to be immigrants and first-generation Americans. Their occupations included being a dressmaker, printer, accountant, tailor, laborer, truck driver, messenger, clothes dealer, laundress, domestic servant, brush maker, fruit seller, shoe maker, dock laborer, grocery store keeper, sugar sampler, watchman in mill, sugar boiler, house painter, shirt maker, junk dealer, worker in junk store, glass blower, grain trimmer, leather trimmer, longshoreman, book folder, laborer, glass polisher, shoemaker's apprentice, grocery peddler, barber, hairdresser, tobacco sampler, and worker in tobacco factory.