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Jan, 1996

ARCHAEOLOGICAL/HISTORICAL SENSITIVITY EVALUATION
EL JARDIN DEL PARAISO COMMUNITY PARK
BOROUGH OF MANHATTAN
CITY OF NEW YORK, NEW YORK

321 E 4th St

95 DPR 001M

B 374 L 59

Prepared for:
The New York City Department of Parks and Recreation
Olmsted Center, Flushing Meadows-Corona Park
Flushing, New York 11368

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January 1996

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INTRODUCTION

This Stage 1A archaeological/historical sensitivity study documents the potential for prehistoric and historic sensitivity of the proposed El Jardin del Paraiso Community Park through the review of existing archival, cartographic and published references. In order to provide a context for evaluating any identified resources within the parcel itself, this survey includes a synthesis of published and unpublished prehistoric resources in the immediate area surrounding the project area and a summary of the history of this location. The location of the El Jardin del Paraiso Community Park project area is in Manhattan's Lower East Side at 341 East Fourth Street between Avenues C and D. The project area consists Lot 59, Block 374. See Figure 1 for the location of the project area. The study was conducted on behalf of the New York City Department of Parks and Recreation by Greenhouse Consultants of New York.

The organization of this study is in the following manner: first, a section describes the geography and physical setting; second, a section on the prehistoric sensitivity of the area; third, a review of the historic sensitivity of the area; fourth, the sensitivity study results and conclusions, with recommendations for testing should such be needed. William I. Roberts IV served as principal investigator and Paula Crowley as documentary researcher.



GEOGRAPHY AND PHYSICAL SETTING

Manhattan lies within the New England Upland Physiographic Province which is a division of the Appalachian Highlands. There are two prongs or projections of the New England Upland Physiographic Province. The smaller, eastern prong is known as the Manhattan Prong which extends through southwestern Connecticut, Westchester County and into New York City, stopping at the southern tip of Manhattan Island. Manhattan's bedrock is igneous and primarily metamorphosed and underlies the whole of the island. The most recent formation, as well as the closest to the surface, is the Manhattan formation. This bedrock is composed mainly of mica schist and extended through almost all of Manhattan south of 110th Street. Since it is a medium to high grade of metamorphic rock and close to the surface, it is particularly advantageous for supporting large buildings (Schubert 1968:10, 65-66).

During September 1995 the Principal Investigator visited the El Jardín del Paraíso project area. During this visit the project area consisted of a vacant lot surrounded by a chain link fence. There are no permanent structures within the lot which is currently used as a garden. See Plate 1 for a view of the project area.

→ Ross (1970:171) described the area, bounded by East Fourteenth Street, the East River, Rivington Street and Clinton/Avenue B as originally being two-thirds salt marshes or covered by the East River prior to drainage and filling early in the nineteenth century. Sand hills bordered the marshes, which were used for the marsh fill. Three creeks were in the district, the course of the first crossed Stanton Street near Clinton from outside the district, then Houston near Sheriff, and Second Street near Houston, finally entering the East River at Third Street. The second creek began around Avenue A and Fourth Street, ran to Sixth and Eighth Streets and entered the East River near Ninth Street. The third stream ran in a northeast direction through Eleventh to Fourteenth Streets between Avenues B and C, and emptying into the East River at Fourteenth Street. None of these water courses crossed the project area. See Figures 2 and 3.

*needs
references*

The Subsurface Exploration Section of the New York City Department of General Services provided information on soil borings near the project area. The nearest soil borings were completed during 1988 under East 5th Street between Avenues C and D (Subsurface Exploration Section 1988:Job 1912). Eight borings were completed on this block. All eight borings show either peat, or fine organic sand and silts described as bull's liver. These deposits lie from ten to fourteen feet below the present grade. These deposits probably represent the surface of the former salt marsh that was at this location.



PREHISTORIC SENSITIVITY

As part of the project evaluation process, this sensitivity study has surveyed published and unpublished sources in the files of the New York State Museum Division of Historical and Anthropological Services, the Research Branch of the New York Public Library, the New York State Office of Parks, Recreation and Historic Preservation, as well as material on file at Greenhouse Consultants Incorporated.

The only two confirmed Manhattan prehistoric sites located within two miles of the project area are New York State Museum Site Numbers 4059 and 4060. Arthur C. Parker described both sites as villages. Unfortunately, Parker provided no description of the artifacts recovered, so assignment of date range or cultural affiliation is not possible (Parker 1922). Judging from Parker's description of these sites as villages, it is probable that they date to the Woodland Period, but no information exists to confirm this. Both are located next to the most substantial fresh water course that could be documented within the two mile radius of the project area, the former stream that ran near the present course of Canal Street. See Figure 4 for the location of these sites relative to the project area.

The only other locations within two miles of the project area that may have supported prehistoric occupation are suggested on the basis of linguistic evidence by Robert S. Grumet in his book *Native American Place Names in New York City* (1981). This work provides the name "Sapokanikan" for an area north of Houston Street and south of West 14th Street in western Greenwich Village. Grumet notes cultivated fields here with a habitation site along the north side, which indicates an occupation during the Woodland Period. The location of this settlement and its associated fields is shown on Figure 4 as two ovals. The project area is located approximately 1.2 miles to the southeast. Unfortunately no archaeological evidence exists to confirm this location as a former planting field. Grumet supplies several other native place names within two miles of the project area, but these evidently refer to geographic features and not settlements (Grumet 1981:49-50).

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

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



Using the Ratzer map surveyed in 1767 and presented here as Figure 3, the location of the El Jardin del Paraiso project area is depicted within the salt meadows (Ratzer 1776). Boring evidence confirms the location as former salt meadows.. Several borings along Fifth Street between Avenues C and D show an organic peat deposit, probably derived from the salt meadow (Subsurface Exploration Section 1988:Job #1912).

This survey has documented the recorded or published locations of two prehistoric archaeological sites within two miles of the project area. Neither of the locations is within nor immediately adjacent to portions of the project area. This area lay within the salt marshes. The locations had no well-drained land, although fresh water could have been brought the 500 feet from one of the streams feeding the salt marsh. It is much more likely that a location slightly to the west on the high ground would have been used as a hunting camp.

TABLE 1
Prehistoric Sites in the Vicinity of El Jardin del Paraiso

	Site Name	NYSM#	Parker#	Reference	Period(s)	Description
A	—	4060	ACP-NYRK	Parker 1922:Pl. 192	Woodland(?)	Village
B	Shell Point	4059	ACP-NYRK-9	Parker 1922:627	Woodland (?)	Village, Shell heaps

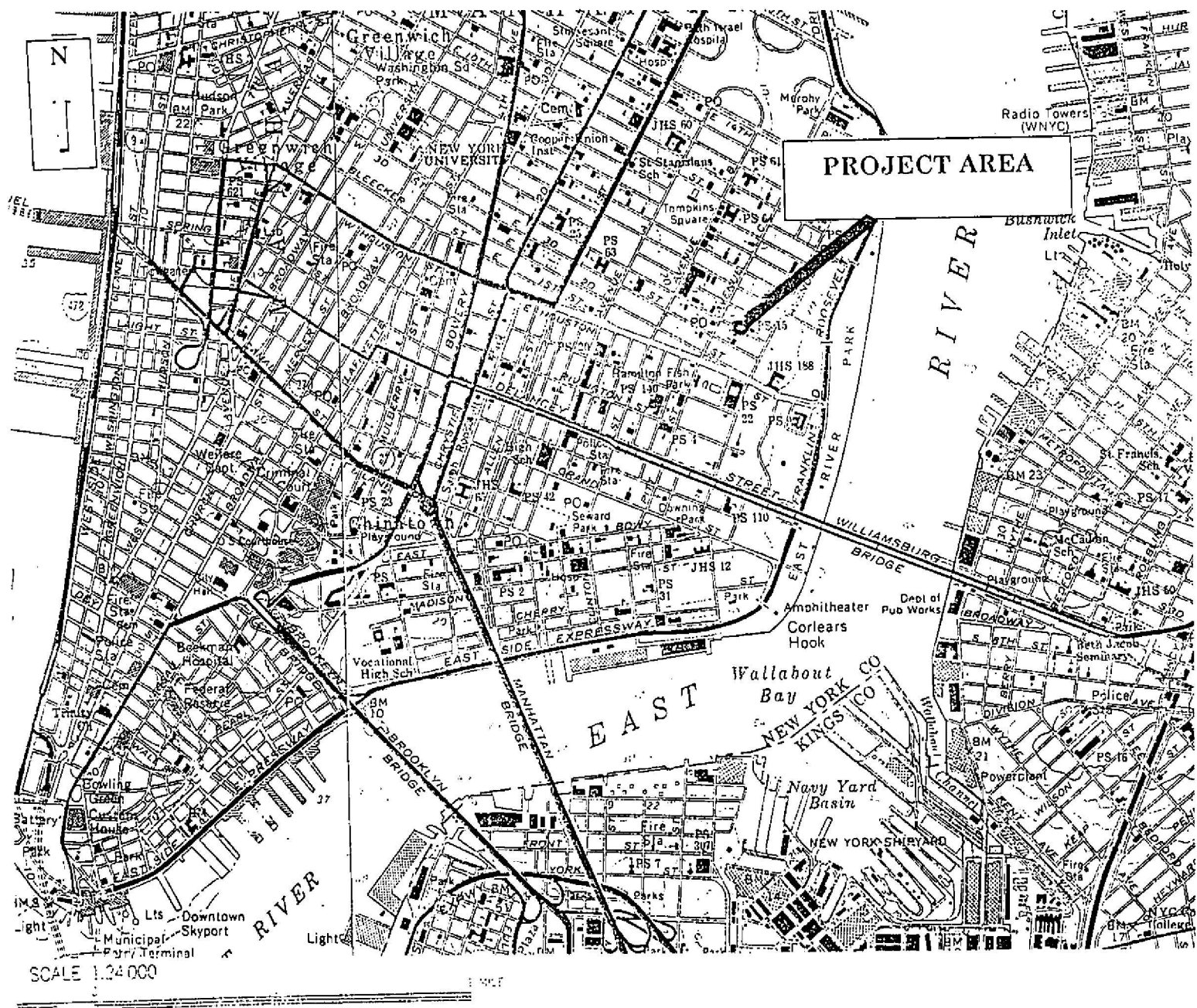


Figure 1 Portion of the U.S.G.S. Brooklyn, New York and Jersey City, New Jersey-New York 7.5 minute quadrangles showing the location of the El Jardin project area.

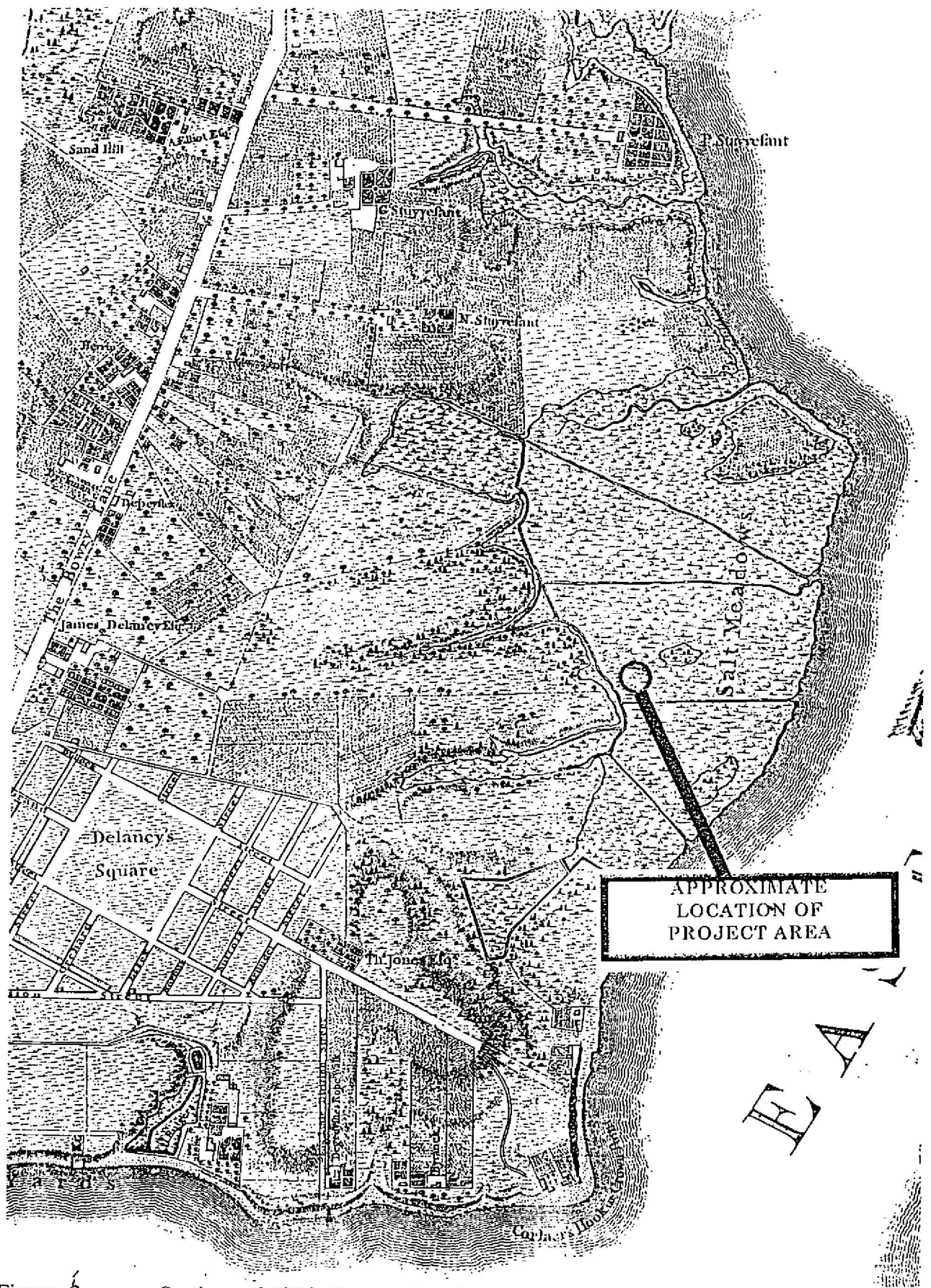


Figure 2 Section of 1776 Ratzer plan illustrating the topography of the project area in the late eighteenth century.

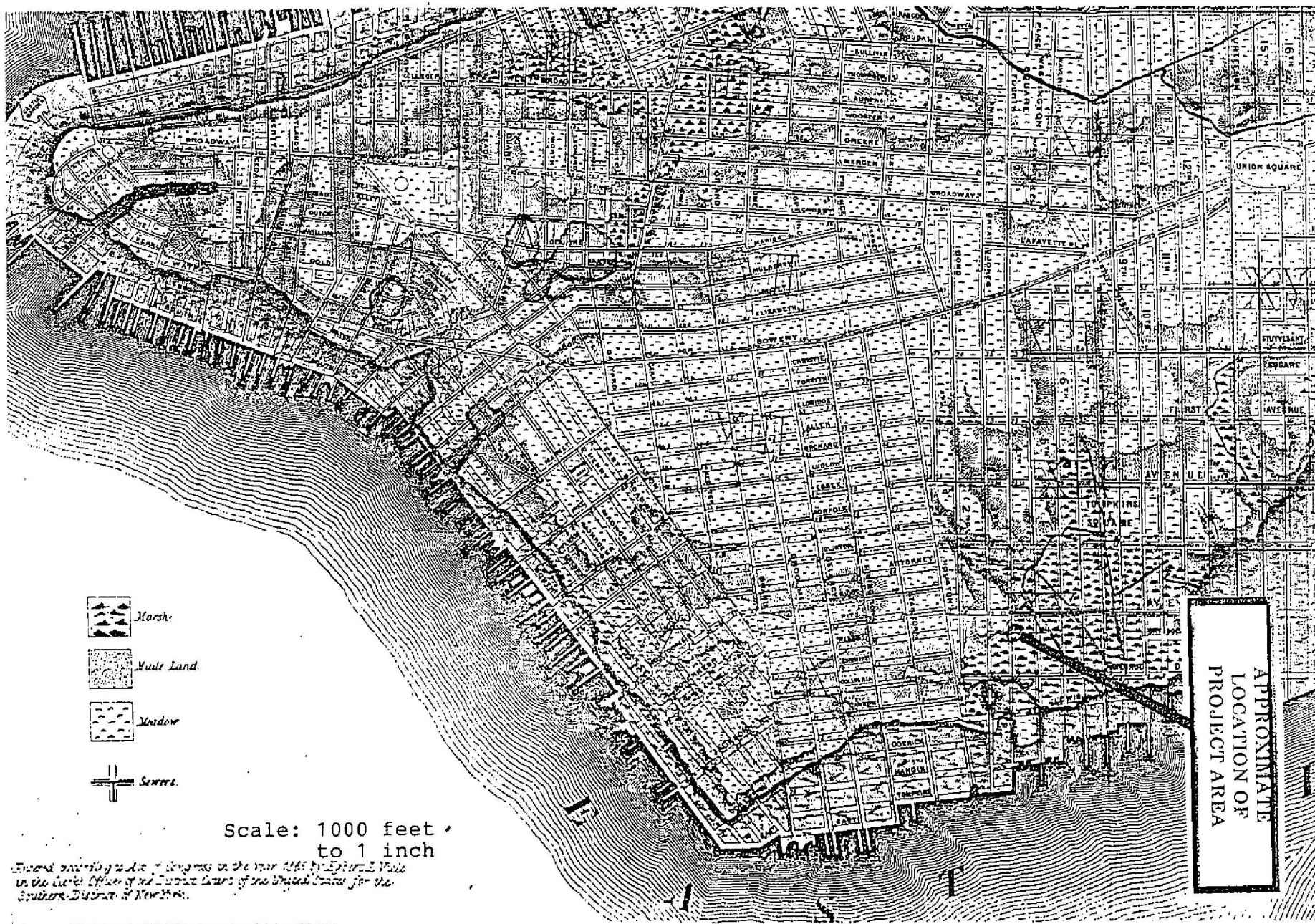


Figure 3

Section of 1865 Viele topographical map illustrating the position of the project area within the former meadowland and the current street grid.



Figure 4 Location of prehistoric sites within a two-mile radius of the project area.



Figure 5

Illustration from the Old Farm Map, 1853, showing the project area in relation to the seventeenth century settlement.

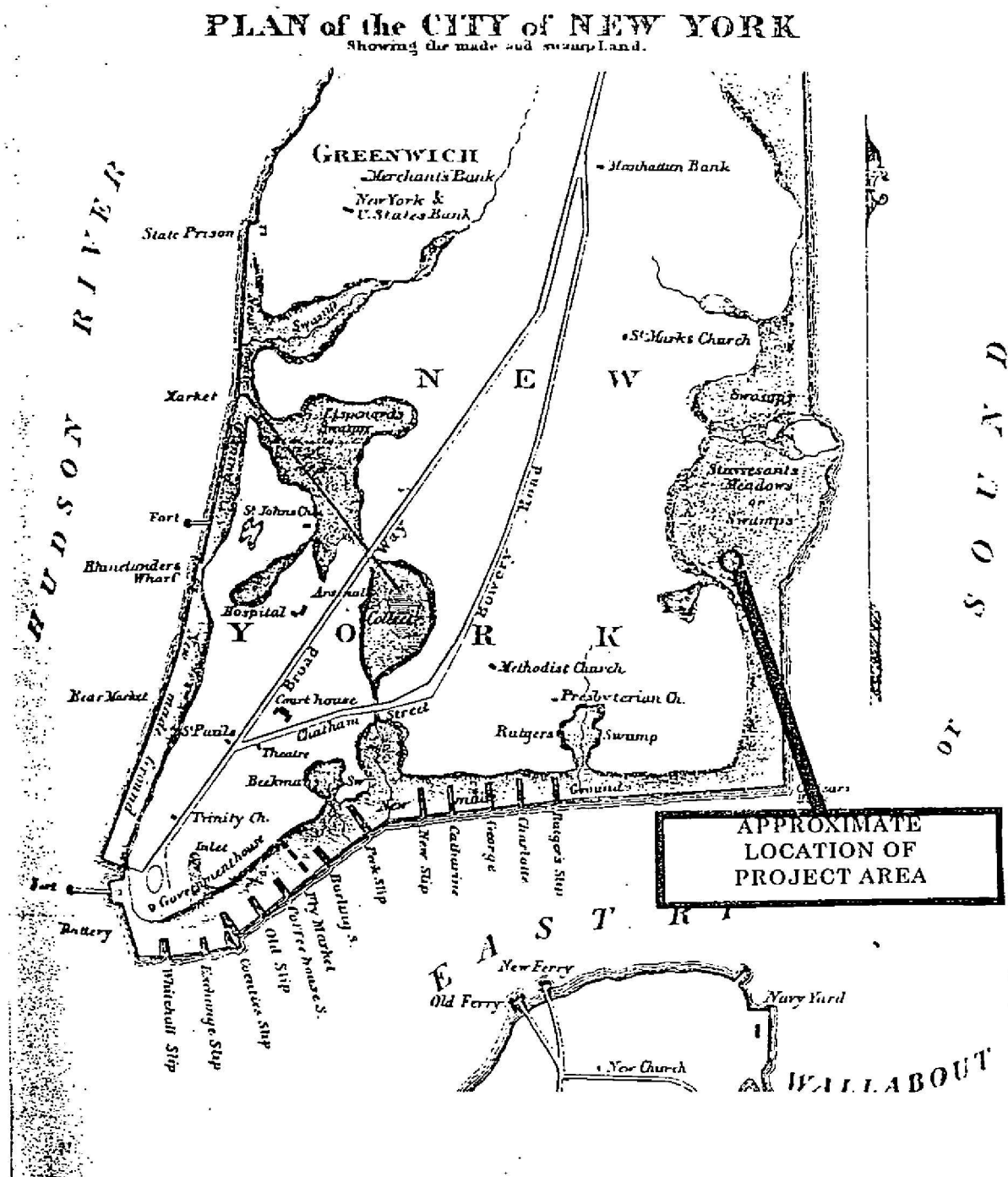


Figure 6 Illustration from 1810 map of made and swamp land showing project area in Stuyvesant's Meadow.

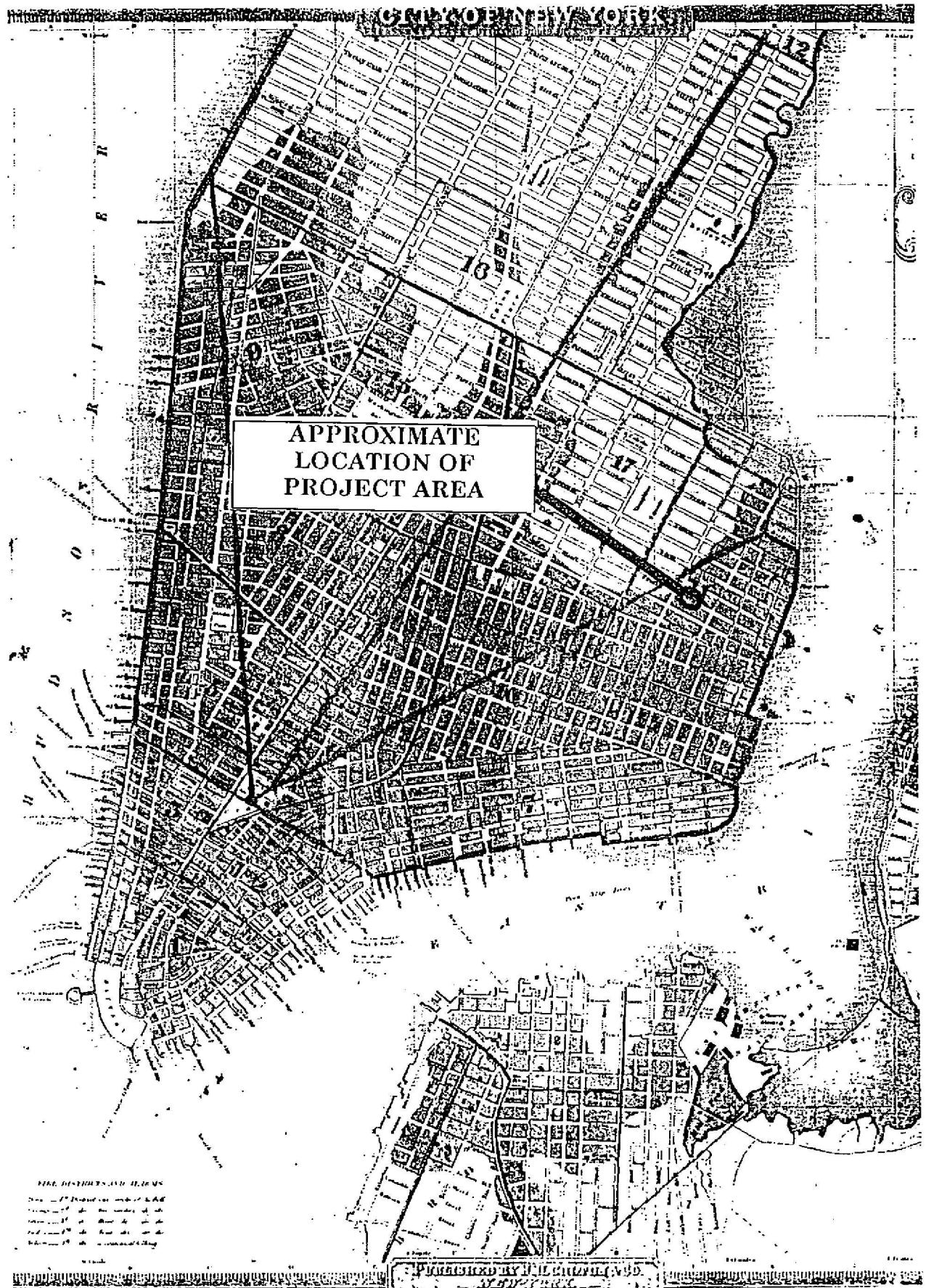


Figure 7 Burr map of 1839 mid-nineteenth century development in Ward 11.

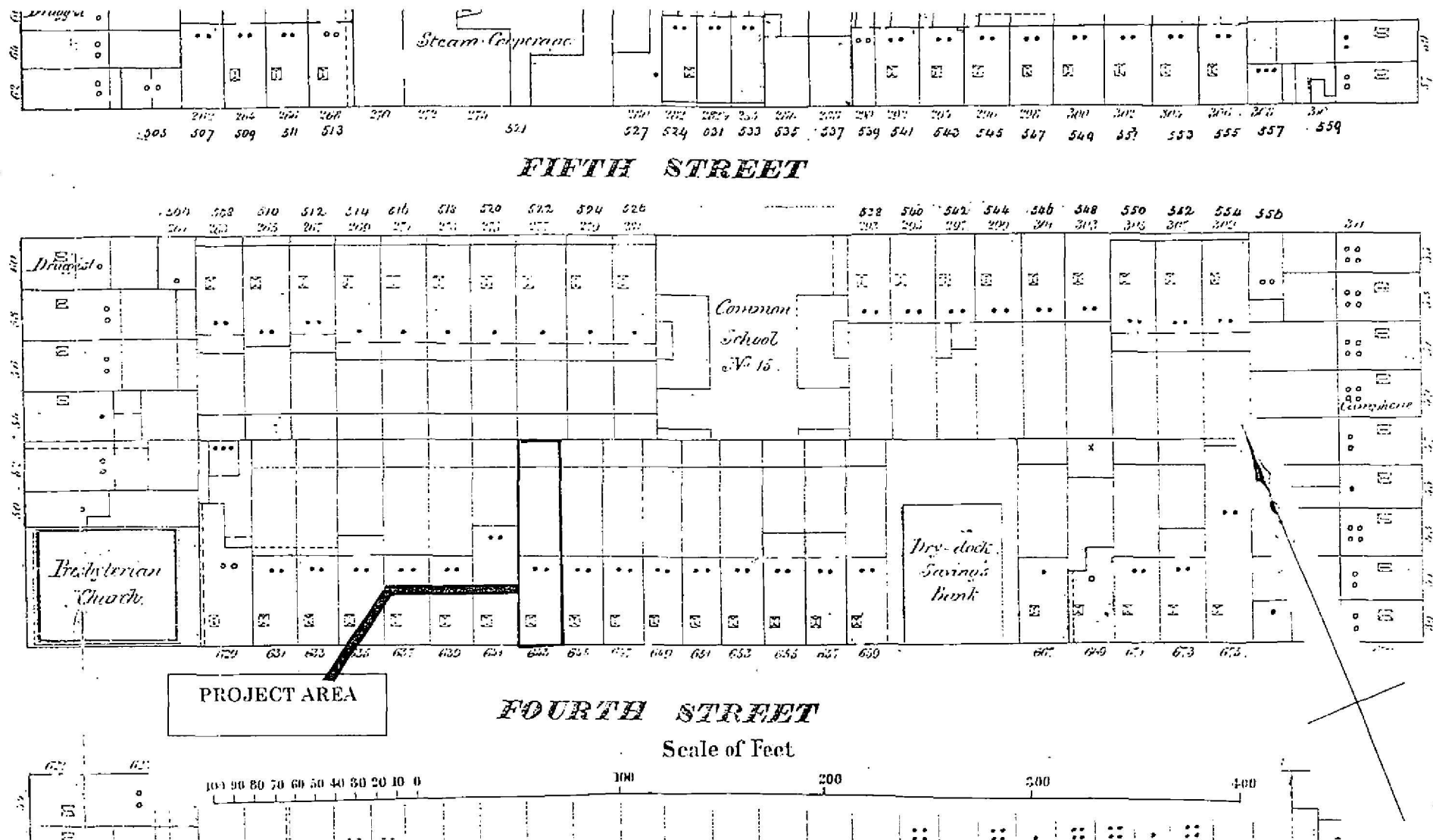


Figure 8

Section of 1857-62 Perris map showing project area as 643 East Fourth Street.

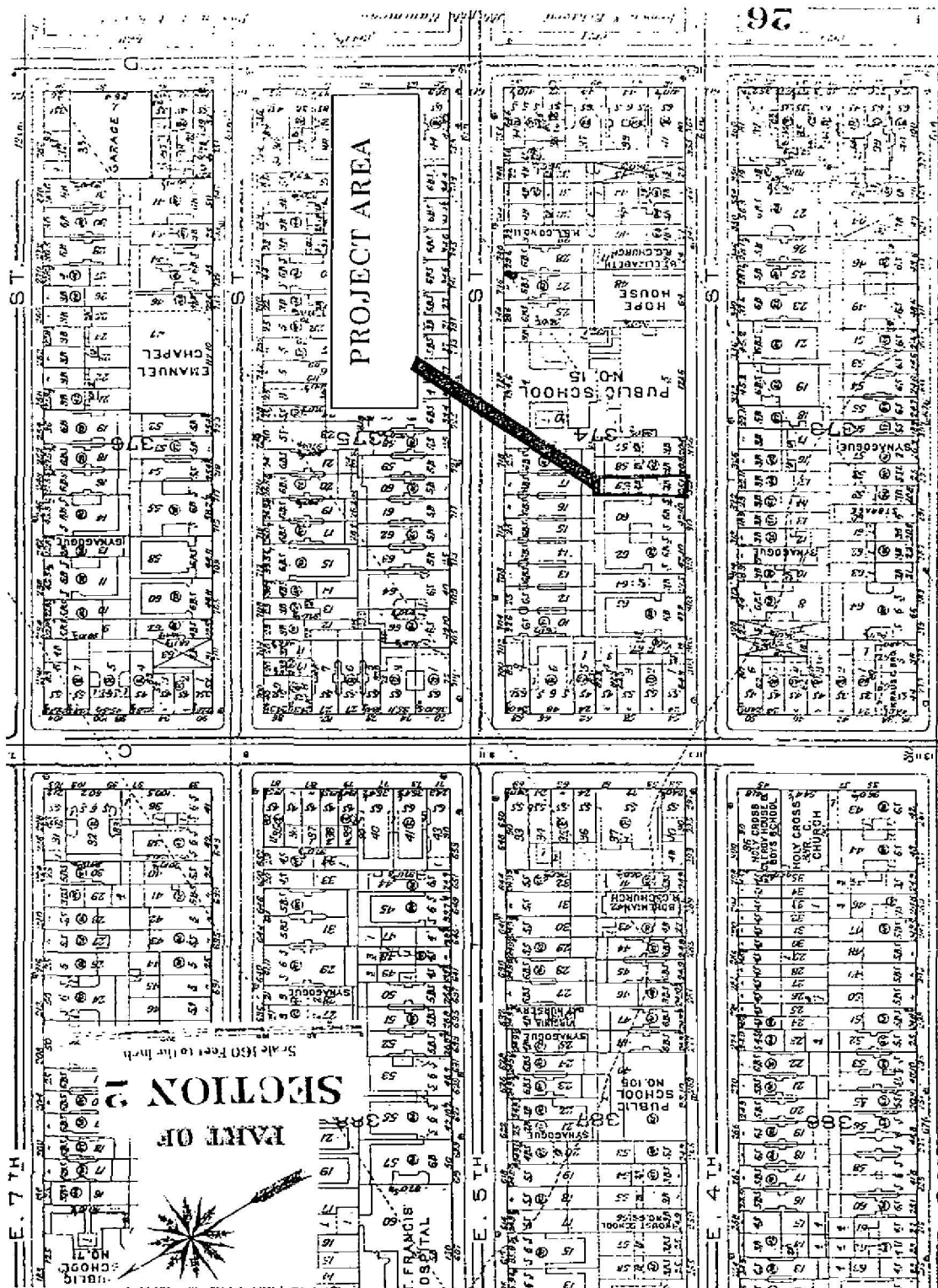


Figure 10 Section of 1916 Bromley map illustrating project area.

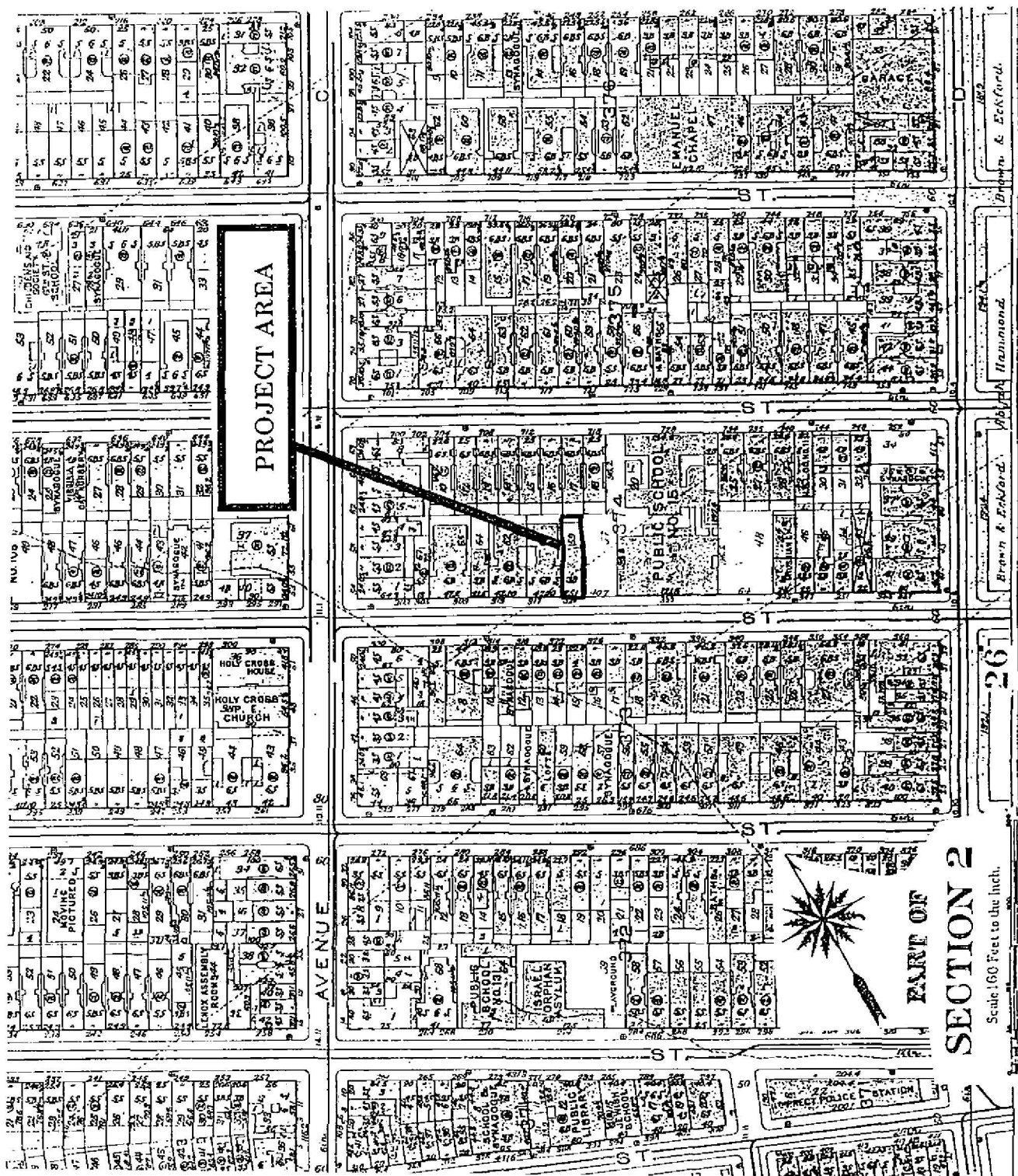


Figure 11

Section of 1934 Bromley map illustrating project area.

HISTORIC SENSITIVITY



The Eleventh Ward in Manhattan History

Lot 59, Block 374 is situated in Eleventh Ward on the East Side of Manhattan. The area is first recorded on maps as adjacent to the east-northeast of the Leandert Farm, the property of Leandert Arenden, one of the first proprietors of the Dutch West India Company (Valentine 1853:381n n.43). See Figure 5. Peter Stuyvesant probably received the property of the Great Bouwery on March 12, 1651 (Innes 1902:119, n.1). In the seventeenth century the area was referred to as Stuyvesant's Meadow, (see Figure 6) with Lot 59 approximately 120 feet away from higher ground lying to the southwest of the lot. The vicinity consisted of meadow and salt marshes, often inundated by the river. Since the location lay well outside the colonial city, the nearest settlement appears to have been on the Bowery to the west. Valentine (1853:69) describes a settlement of three or four houses on the road leading to Harlem which were located near Stuyvesant's farm. Valentine (1853:69-70) refers to several plantations being located on the island with three farms rented to tenants lying between Chatham Street and the Bowery.

The next recorded information about the property lay in the Manhattan Conveyance Deed Indices Books. Property lines appear to have been set up diagonally crossing the salt marshes from northeast to southwest. According to the indices introduction, Nicholas Bayard transferred to Abijah Hammond, a diagonal strip of meadowland that crossed Block 374 from the northeast corner to the middle of the south side of the block on June 25, 1793. This strip included the southeast corner of Lot 59 according to the current tax map. Hendrick Rutgers owned meadowland strips on either side of the Bayard strip on this block. On February 4, 1804, the heirs of Hendrick Rutgers transferred this land to Thomas Ten Eyck. Thomas L. and Martha Ogden transferred property to Peter MacIntyre on December 14, 1821 and Perkins Nichols becomes a partner on August 2, 1822.

According to Duffy (1968:405-406) filling of Stuyvesant's Meadow began circa 1826. Initially the plan was to fill in the meadow area thereby raising its level. As this procedure was proving costly, the city considered draining the land as more economically feasible, either through an open canal or through underground drains. Owners objected to the drainage plan because they felt that such features would become health nuisances and lower the property values. As landfilling continued however, the owners discovered that filling areas caused other portions to flood due to the natural drainage patterns being blocked. A report of the Board of Health on August 17, 1826 found that cellars flooded when it rained and 343 residents petitioned for a drainage plan (1968:406).

Development occurred rapidly in the Lower East Side after filling. In the upper part of the Eleventh Ward development was due primarily to the rapid expansion of the

shipbuilding industry, becoming known as the Drydock area. The Burr Map of 1839 (See Figure 7) shows that development was from east to west, progressing inward from the shore (Blackmar 1989:198). Albion (1939:287) states that the East River was the site of the greatest amount of shipbuilding in the country and that the industry was concentrated on a one mile stretch of the river, from just below Corlear's Hook to 13th Street (1939:292-93). Smith and Dymons' shipyard was situated between Fourth and Fifth Streets, Westervelt and Mackay's between Seventh and Eighth Streets and Brown's yard was at 11th to 12th Streets (Dripps 1852). The shipyard of the firm Bergh-Westervelt was at the foot of Scammel Street, Bell and Brown were at Stanton Street and the Eckford-Webb yard lay between Fifth and Seventh Streets. Such an industry required a large number of workers, so many that "When these yards were in full blast, ... it was almost impossible to pass through the streets at noon, as an army of from 6,000 to 7,000 men would leave the yards in regiments to go home to their dinners" (Giegerich 1920:213). Carpenters, caulkers, riggers, sailmakers, sawyers, blacksmiths, and shipwrights were but a minute portion of the skilled artisans required for ship building, repair and its associated industries. Nadel (1990:32) says that the Eleventh Ward was the site of a major slaughterhouse district, "... where more than half of the hogs slaughtered in the built-up portion of the city were killed."

Spann (1981:154) states that 1200 buildings were built in the Eleventh and Seventeenth Wards between 1846 and 1850. The population doubled in the wards doubled between 1845 and 1855 due to immigration and the demand for workers. The neighborhoods were primarily middle and working class, situated between the industrial waterfront and the wealthier areas located further inland (1981:108). German immigrants fueled the population settling the Eleventh Ward. Nadel (1990:29) described the Eleventh Ward as the center of Little Germany which then expanded in the Tenth, Thirteenth and Seventeenth Wards. Ernst (1979:42) located the center between Canal and Rivington Streets and from Elizabeth to Eldridge. In 1845, seventeen percent of the residents were born in Germany (1979:167) while in 1856, 44 percent were German (1979:42).

While developers constructed housing rapidly, the rate did not keep up with demand. Blackmar (1989:197) states that eleven people occupied the two-story dwellings below Houston Street by 1830, while above Houston an average of nine people occupied larger dwellings. By 1854 the Eleventh Ward possessed the highest average number of families per dwelling in the city (Spann 1981:465, note 37).

Nadel described the physical layout of Little Germany as one where the streets were unpaved or paved with cobblestones. Structures ranged from two to four stories and were made of brick, wood or stone. Shops were at ground level facing the street. While the lower part of the ward below Houston Street was a maze of alleyways and buildings, the upper part of the ward formed along a regular east-west, north-south pattern. Structures erected in the upper section were larger and

usually of brick or stone (1990:34-35). Blackmar states that 'new-style' tenements were erected in the Eleventh Ward where builders planned for the most efficient use of the lot, i.e. covering most or all of the space. Spann notes that much of the construction was shoddy (1981:154), citing a nineteenth century observer as saying that "...they [the structures] could not stand alone, and, like drunken men, require the support of each other to keep them from falling'." On the other hand, the newer dwellings did offer plumbing, sanitation and heating (Blackmar 1989:197). Samuel Gompers described housing in the ward as,

The tenement houses of Kleindeutschland, especially those north of Houston Street, were large structures designed to get the greatest possible use out of each lot. They were generally five or six stories tall and built with bricks. A double-lot structure, fifty feet wide and seventy feet deep, held forty-eight apartments and accommodated at least that many families. Each floor had eight apartments with four facing the street and four facing the rear.

(Nadel 1990:35)

The report of the Fifteenth Sanitary Inspection District of 1866 included the 71 blocks of the Eleventh Ward in the district. Ross described some buildings on the reclaimed land as built on piles. Other structures, because the water table was so high, had shallow cellars, with some having a constant supply of standing water, especially east of Avenue C and Ridge Street. (1970:171-172). By 1860 all of the avenues in the district had sewers and most of the streets. Some street sewers, however, were below tidewater and when high tide occurred, the sewers backed up. Many houses or privies were not connected to the sewers (1970:173). In 1860 the population for the district was 59,571 distributed over 3,190 building lots (1970:171). A total of 2,769 dwellings was present in the ward. Structures consisted of 617 private houses, 825 stores, six churches, eight schools (one located on the north center side of Block 374), one public market, nineteen slaughterhouses, 159 stables and 432 rear houses (1970:173). The number of tenant houses was 2,152, most of which were of brick construction, while one-tenth were made of wood (1970:173-74). Dr. Ross painted a miserable, dismal picture of the Eleventh Ward as one being overridden by crowding and unsanitary conditions. Dwellings were filthy, unventilated, dark filled with inhabitants suffering from typhus, measles, smallpox, pulmonary diseases, and cholera, sharing their living quarters with stables and in the immediate vicinity of slaughterhouses.

*downside of the
in 1860s 1890s.*

Data regarding the first installation of water mains under this block of East Fourth Street between Avenues C and D was sought at the Central Mapping and Records Division of the New York City Department of Environmental Protection. The date of initial installation could not be determined from available information. The Detailed Distribution Map that includes the project block has the general comment that all undated mains were installed prior to 1870, so a date in the 1850s or 1860s

appears likely. The present service is from a 12-inch main laid during 1910, which must have replaced the original.



A similar search for information regarding the first installation of sewers under this section of East Fourth Street was made at the Borough of Manhattan Sewer Department. Sheet B37 of the map of the Constructed Sewage System of the City of New York, Borough of Manhattan was consulted. The present sewer under East Fourth Street between Avenues C and D was installed during 1940. As was the case for the water main, this must be a replacement of the original.

Giegerich, reminiscing in 1920 about living in the ward after the Civil War, describes a different situation from that of the social historians and public health officials. Rather than crowded, filthy tenements, he describes the area as one where,

Neat brick dwelling houses containing at most two families occupied the greater portion of the area lying between Third and Ninth Streets and Avenue C and the East River and there were also many such houses in other parts of the ward. A few houses of that kind are still standing in Seventh Street, between Avenues C and D, where I lived for many years, in Fourth Street, between the same avenues, where I lived just after my marriage and where my children were born; in Third Street, between Avenues C and D, and in Seventh Street, between Avenue D and Lewis Street.

{1920:211}

Maps from the second half of the nineteenth century support Mr. Giegerich's description for the block. The Dripps 1852, Perris 1857-1862 (see Figure 8), Galt and Hoy 1879, and Robinson 1885 (see Figure 9) illustrate the south side of Block 374 as having 2-3 story row houses which occupied only the front half of the lots. Sheds were located directly behind open space at the rear of the lots. A public school is illustrated on the 1852 Dripps map, located on the north central side of the block. The 1857-1862 Perris map shows a Presbyterian church located on the southwest corner of the block at East Fourth Street and Avenue C. One of the major institutions of the ward, The Dry Dock Savings Bank, is located east of Lot 59 (643 East Fourth Street) at 661-665 East Fourth Street. Of the eight blocks illustrated on Plate 35, two Methodist churches are located on nearby blocks, as well as a Baptist church, an Episcopal church, and a Dutch Reformed Church. Each block usually contains a druggist. Some industrial usage is apparent in the form of an iron foundry located on the northwest corner of East Third Street and Avenue C. The Union Market was located two blocks away on Avenue D between Houston and East Second Streets. The Galt and Hoy (1879) two dimensional image of the city shows rowhouses on the south side of Block 374, either two or three stories in height. The 1885 Robinson Atlas illustrates similar usage of the block and surrounding area west of Avenue D. However, east of Avenue D, the waterfront has undergone a profound change in usage from the 1850s and 1860s. Gone are the



shipyards, replaced by New York Mutual Gas Light Company, lumber yards, sawmills, iron foundries, coalyards and support industries of shipping.

During the twentieth century the Bromley maps of 1916 (see Figure 10), 1925, 1934 (see Figure 11), and 1955 (see Figure 12) show similar use of the lot. The 1916 Bromley indicates that the structure at the front of the lot has expanded to cover two-thirds of the lot, still leaving an open space between the front structure and the backshed. This extension was two stories with a basement. This extension would have destroyed any subsurface features within its footprint. The front portion of the house was three stories with a basement. The same situation continues in 1925, 1934 and 1955. The mixed land use of the block and vicinity continues in the twentieth century. Public School No. 15 expanded by 1916 to run the center of the block from Fifth to Fourth Streets. The Dry Dock Savings Bank has been replaced, in part, by the school's expansion, and the Hope House and St. Elizabeth's Roman Catholic Church on the south side of the block along East Fourth Street. A synagogue appears on the south side of East Fourth Street across the street from Lot 59. The 17th Precinct Police Station replaces the Union Market. Rather than Protestant denomination churches present on Plate 25, Roman Catholic and Jewish related religious facilities are evident: St. Bridget's, St. Francis' Hospital, St. Elizabeth's, Bohemian Roman Catholic Church, Holy Cross Clergy House, Boys School and Church, the Israel Orphan Asylum, Emanuel Chapel, the Jewish School, and at least six synagogues. For entertainment in the area, the Moving Pictures arrives at 238 East Third Street along with the Volks Lyceum for more educational entertainment. The same conditions prevail in 1934 and to a lesser extent in 1955 which shows more expansion of schools, garages and commercial establishments along the avenues.



Project Area: Block 374, Lot 59

According to the indices introduction, Nicholas Bayard transferred to Abijah Hammond on June 25, 1793, a diagonal strip of meadowland that crossed Block 374 from the northeast corner to the middle of the south side of the block. This strip included the southeast corner of Lot 59 according to the 19- Tax Map. Hendrick Rutgers owned meadowland strips on either side of the Bayard strip on this block. On February 4, 1804, the heirs of Hendrick Rutgers transferred this land to Thomas Ten Eyck. Thomas L. and Martha Ogden transferred property to Peter McIntyre on December 14, 1821 and Perkins Nichols becomes a partner on August 2, 1822. The indices stated that,

Perkins Nichols conveyed the southerly half of their property to Thomas Ogden July 27, 1822, who exchanged gores with Abijah Hammond to make the boundry [sic] line conform with the present street layout, November 3, 1822.

Although this property was divided into two parts between Thomas L. Ogden and Perkins Nichols, and each conveyed individually, they both remained equally interested in the entire tract, and benefited equally from all sales made by them as individuals. The unconveyed portion of the property, including this block, was partitioned between them in city lots November 18, 1823.

1654-1803

No instruments of record.

1805-1814

No instruments of record.

1816-1820

No instruments of record.


Grantor	Grantee	Recording Date	Liber:Page	Comments
Rutgers, Henry Banker, Anna McCrea, Mary Bedlow, Henry Beekman, John & Mary Crosby, John P. & William B.	Ten Eyck, Thomas	October 29, 1804	68:212	Not lotted
Ten Eyck, Thomas & Margaret	Rutgers, Henry	October 29, 1804	68:215	Not lotted
Rutgers, Henry	Eckford, Henry Brown, Adam	December 15, 1815	111:541	Not lotted
Ogden, Thomas L. & Martha	McIntyre, Peter	December 14, 1821	155:306	Not lotted
Nichols, Perkins	Ogden, Thomas L.	August 2, 1822	161:224	Not lotted



Grantor	Grantee	Recording Date	Liber:Page	Comments
Eckford, Henry Mead, Henry Lovett, George (Commissioners in Partition)	Nichols, Perkins	August 3, 1822	162:261	Not lotted
Eckford, Henry & Marion	Ogden, Thomas - - Ludlow	December 4, 1822	163:85	Not lotted
Hammond, Abijah & Margaret	Ogden, Thomas L. & Martha	December 12, 1822	164:5	Exchange of gores
McIntire, Peter McIntire, Elizabeth McIntyre (signs)	Nichols, Perkins Ogden, Thomas - - Ludlow	February 8, 1823	165:66	Not lotted
Ogden, Thomas L. & Martha	Minturn, Jonas Pell, William	September 1, 1824	179:354	Not lotted (By this date the eastern half of block, 20-53, is lotted)
Minturn, Jonas Pell, William	Pell, Alfred S.	November 15, 1825	194:315	Lot 59 is not mentioned in this exchange, but Lots 1, 2, 3, 6, 7, 14, 15, 16, 17- 20, 52-58, 66, 67 are conveyed
Pell, Alfred S. & Adelia D.	Codwise, David	March 23, 1827	218:75	Convey entire block
Pell, Alfred S. & Adelia D.	Codwise, David	March 23, 1827	218:80	Convey entire block
Pell, William F. & Mary S.	Hall, David P.	May 30, 1828	238:53	Lot 59 Also conveyed: 1, 4, 5, 8, 10, 12, 13, 14, 16, 59- 67 incl.
Clark, Benjamin (Master in Chancery) William F. Pell (defendant)	Hall, David P.	August 22, 1828	239:498	Lot 59 Also conveyed: 1, 4, 5, 8, 10, 12, 13, 15, 16, 20, 59-67 incl.



Grantor	Grantee	Recording Date	Liber:Page	Comments
Protection Fire Insurance Company	Hall, David P.	October 27, 1830	266:577	Lot 59 Also conveyed: 6, 7, 8, 10, 12, 13, 16, 20, 59-66 incl.
Hall, David P. & Caroline M.	Beare, Thomas M.	December 8, 1835	346:179	Lots 59-65 incl.
Beare, Thomas & Mary S.	Murray, Hamilton	April 3, 1837	375:147	Lots 59-65 incl.
Murray, Hamilton	Chase, Alanson H.	February 9, 1839	390:518	Lot 59
Chase, Alanson H. & Mary Jane	Stebbins, William	July 26, 1839	397:485	Lot 58
Chase, Alanson H. & Mary Jane	Seaton, Henry	October 8, 1839	398:585	Lot 52
Chase, Alanson H. & Mary Jane	Slocum, William L. Taylor, William (assignees)	January 8, 1840	405:119	Not lotted General assignment
Stebbins, William & Bridget E.	Seaton, Mannin	March 2, 1843	433:456	Lots 52, 59
Slocum, William S. Taylor, William (assignees for Alanson H. Chase)	Cornell, John F.	June 20, 1845	463:282	Lot 59
Taylor, William	Slocum, William S. Taylor, William (assignees for Alanson H. Chase)	June 20, 1845	463:283	Lot 59 Release of mortgage L234 Mp467 (none on block circa 1828)
Tichenor, Elizabeth F. & Francis M.	Bruning, Henry F.	May 21, 1886	1968:99	Lot 59 L463 Cp282
Bruning, Henry F. & Emma	Frankenthaler, Abraham & Sophia	July 31, 1888	2162:40	Lot 59
Frankenthaler, Abraham & Sophia	Mandel, Adolf	April 14, 1902	95:319	Lot 59
Mandel, Adolf & Fanny	Kompert, Ray	March 15, 1904	117:497	Lot 59



Grantor	Grantee	Recording Date	Liber:Page	Comments
Kompert, Ray	Senft, Elias	May 29, 1906	162:24	Lot 59
Senft, Elias, Senft, Reisel	Greif, Joseph Greif, Benjamin Greif, Morris	March 29, 1907	170:349	Lot 59
Greif, Rose	Grief, Benjamin	June 6, 1917	3020:356	rel. of D.
Greif, Joseph Greif, Lillie Greif, Benjamin Greif, Anna Greif, Morris Greif, Antonia	Greif, Joseph Greif, Benjamin	April 17, 1926	3536:475	Lot 59
Grief, Benjamin	Greif, Annette	September 18, 1931	3806:229	Lot 59
Cyn-Dan Realty Corp	Artsis, Albert	November 2, 1961	6008:602	Lot 59
Brooks, William C.	Flushing Estate Corp.	February 27, 1962 March 6, 1968	6034.641 11:414	Mortgage Discharged satisfaction
Flushing Estate Corp.	Fleck, Arthur ✓ Edwin	February 27, 1962	6034.645	

Since the chain of title lacked continuous information on ownership/occupancy between June 20, 1845 and May 21, 1886, it was necessary to seek other sources of information regarding the occupants and/or owners of 321 East Fourth Street. The two reverse directories for Manhattan during the latter half of the nineteenth century were consulted. These directories provided the names of residents at the location in 1850 and 1882, which were then traced in the other Manhattan directories. Compounding the problem, the street address changed between 1850 and 1882. During 1850/51 W.A. Walter is listed at 643 Fourth Street with an occupation as physician (Doggett 1850:180). During 1882 Robert V. Mackey and George F. Mackey are listed at 321 East Fourth Street (Official Directory Company 1882:98). W.A. Walter could not be found in the directories for 1852 through 1855 but Ruth Walters, widow of William A., was listed. She is listed as a druggist at 111 Houston Street with a home in Bedford, New York. She does not appear on Fourth Street again (Rode 1852:533; Wilson 1852:634; Rode 1853:667; Wilson 1853:718; Rode 1854:733; Wilson 1855:856).

A search of the directories for the Mackeys, proceeded by working backwards from 1880. Robert V. Mackey is listed consistently from 1865 to 1880 at 321 East

Fourth Street with various occupations, usually without a business address. George F. Mackey does not appear. During 1879 and 1880 Robert V. Mackey was listed as an inspector at 2 Fourth Avenue. From 1874 through 1877 he appears as a builder without a business address, excepting 1874 when he was at 92 Norfolk Street. His occupation during 1873 appears as "merchant," and during 1872 as "ribbons." During 1868, 1869 and 1871 he was a fireman. Mackey was listed as an inspector in 1870, and in 1867 he was an engineer. In the 1865 directory he is listed as a carpenter (Wilson 1865:636; 1867:675; 1868:711; 1869:724; 1870:789; 1871:748; 1872:786; 1873:848; Wilson *et al.* 1874:848; 1875:868; 1876:893; 1877:917; 1878:945; 1879:991; 1880:1014). The 1862 directory lists Robert V. Mackey as a builder at 515 Fifth Street with his home at 643 Fourth Street (Wilson 1862:570). This address proves that the present 321 East Fourth Street was formerly numbered 643 Fourth Street, and is the earliest entry that places Mackey in the project location. During 1861 Mackey appears as a builder at 515 Fifth Street, living at 131 Suffolk Street (Wilson 1861:558). Prior to this date Mackey is listed as a builder at 125 Norfolk Street, living at 131 Suffolk Street (Wilson 1859:560; 1860:562).

The 1870 United States Census provided further information on the Mackey family and other residents of the lot. Robert Mackey was the head of the household at 321 East Fourth Street. He was 44 years old and born in New York State. His occupation was Assistant Chief Engineer with the New York Fire Department. His wife Eliza was 40 years of age. They had three children: Emma, aged 18; George, aged 17; and Theodore, aged 8. Eliza and the children were also born in New York. Also living at 321 East Fourth Street were Eliza Gion (?), aged 68; Jane Thompson, aged 64; Benjamin Straus, aged 24; Mary Friedman, aged 23 and the Arens family. Friedman and Straus were born in Germany (their state or principality is not listed), and the others in New York. Aron Arens was head of the Arens family. He worked as a City Marshall, was born in Baden and was 32 years old. His wife Julia was 27, born in New York. They had four children: Louis, aged 8; James, aged 6; Rebecca, aged 3; and Samuel, aged 1. All were born in New York (U.S. Census Bureau 1870 second enumeration: Reel 1026, Page 104). We can now confirm that the Mackey family occupied the project area from 1862 until 1882 or later. This period may well include the period of sewer and water hook-ups. During 1870 the Arens family and four individual boarders also lived there.



CONCLUSIONS AND RECOMMENDATIONS

The purpose of this sensitivity evaluation was to determine the potential archaeological significance of the El Jardin del Paraiso project area at 321 East Fourth Street. A general review of the prehistory of lower Manhattan indicated that the project area has little potential for use during prehistory. This location was part of a salt marsh during the contact period and probably also during the preceding Woodland period. Although the marsh would have occasionally attracted game, the higher ground to the west would have been much better suited for a hunting camp.

Research into the history of 321 East Fourth Street indicates that this location remained part of the salt marsh until the second quarter of the nineteenth century. A house was constructed prior to 1852, perhaps during the 1840s. Water and sewer service was probably installed under East Fourth Street during the late 1850s or early 1860s, although exact dates could not be obtained. It appears quite likely that 321 East Fourth Street was constructed with both a cistern and a privy. The probable cistern location was destroyed by a later extension or rebuilding of the house, but the potential for a privy location at the rear of the lot exists at the location of a one-story shed. A privy may survive beneath the surface of the rear ten feet of this lot. Unfortunately the chain-of-title for this lot is not clear for the period of the late 1850s through 1870, the time that the privy would mostly likely have been filled. The lot was occupied by the Mackey family from 1862 through at least 1882. They were born in New York State but were likely of British or Irish extraction. During 1870 the Arens family and four individuals also lived there. These people were either of German extraction or born in New York State.

It is our recommendation that archaeological testing be undertaken at the rear of the El Jardin del Paraiso project area lot prior to any construction activities there. This assumes that construction of the proposed project will require ground disturbance here. If this is not the case, then testing will not be needed at this time since the privy, should it survive, will remain undisturbed beneath the surface.



Plate 1 View of 321 East Fourth Street looking north showing its use as a garden during September 1995.



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MAPS AND ATLASES

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