



**Phase IA Archaeological Assessment
NYCHA Fulton Houses Addition
Block 716, Lot 17
New York, New York**

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New York, New York**

Prepared For:

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April 2007

MANAGEMENT SUMMARY

SHPO Project Review Number (if available): **none**

Involved State and Federal Agencies: **New York City Housing Authority (NYCHA)**

Phase of Survey: **Phase IA Archaeological Assessment**

Location Information

Location: **Block 716, Lot 17, New York, New York. The project site is located on the north side of West 18th Street between Ninth and Tenth Avenues.**

Minor Civil Division: **06101, Manhattan**

County: **New York**

Survey Area

Length: **92 feet**

Width: **100 feet**

USGS 7.5 Minute Quadrangle Map: **Jersey City**

Archaeological Survey Overview

Number & Interval of Shovel Tests: **N/A**

Number & Size of Units: **N/A**

Width of Plowed Strips: **N/A**

Surface Survey Transect Interval: **N/A, urban area with paved surfaces**

Results of Archaeological Survey

Number & name of precontact sites identified: **None**

Number & name of historic sites identified: **None**

Number & name of sites recommended for Phase II/Avoidance: **None**

Report Authors(s): **Julie Abell Horn, M.A. R.P.A., Historical Perspectives, Inc.**

Date of Report: **April 2007**

EXECUTIVE SUMMARY

The New York City Housing Authority (NYCHA) is proposing to construct a 17-story building with 100 units and a community facility in the Chelsea neighborhood of Manhattan. The project site is located on Block 716, Lot 17, on the north side of West 18th Street between Ninth and Tenth Avenues (Figures 1 and 2). The 9,200 square foot site is presently used for two compactors and parking for 26 cars associated with NYCHA's Fulton Houses development. Historically, the project site included lots 17-20. Because the proposed project includes the complete 92 by 100 foot property, the entire project site is considered the Area of Potential Effect (APE).

Historical Perspectives, Inc. (HPI) has undertaken a Phase IA Archaeological Assessment of the Fulton Houses Addition project site in order to: 1) identify any potential archaeological resources that might have been present on the site, and 2) examine the construction history of the study site in order to estimate the probability that any such potential resources might have survived and remain on the site undisturbed.

The archival research indicated that based on the degree of disturbance to the project site from construction and use of the former buildings on the APE, there is virtually no likelihood that the natural landform and original ground surface of the property survives beneath the present parking lot. Due to this extensive disturbance, any potential precontact resources would likely have been destroyed. For these reasons, HPI concludes that the project site does not possess precontact archaeological sensitivity.

Determination of historic period archaeological sensitivity for the project site involves a comparison of lot history data with known disturbances to the original ground surface on the property.

The archival research revealed that each of the four historic lots within the project site had different construction and occupational histories (Appendix B). The earliest of the lots to be developed was lot 19, which had a house on it by 1836. Lot 18 had a house by 1839-1840, while lots 17 and 20 had a house and shop, respectively, by 1842. Occupants residing or working in the various structures for more than five years could be traced for lot 17 (John Thomson and family from ca. 1842-1867), lot 19 (Benjamin Burdett and family and Jacob Dubois and family from before 1839-1851) and lot 20 (John Thomson, builder, from ca. 1842-1859). Lot 20 was later part of the Greenwich Pottery complex holdings. However, the research indicated that lots 18, 19, and 20 all had multiple episodes of construction on them that largely destroyed former yard areas where potential archaeological resources would have been located. Rear yard shaft features would not have been situated more than 15 feet below grade (the soil borings for the block indicated that the modern water table is only about 15 feet below grade, and the historic water table depth may have been higher), and excavation for basements of the multiple-story buildings that were later situated on the lots likely also extended this far below the ground surface, therefore eliminating any archaeological potential in these areas.

Additionally, there is no indication that any pottery-related archaeological resources could survive on lot 20, as the entire lot was covered by a building during the period that it was used by the Greenwich Pottery. Because there was no open yard area at this time, is it unlikely that any potential features such as wells, cisterns, or dumping areas would have existed here. The kilns and furnaces for the pottery appear to have been located off the APE, several doors down the block. Furthermore, although brick-lined clay vaults, which were used for storing and ripening clay, were sometimes located beneath standing factory buildings (Cotter et al. 1992), the construction of the later apartment building basement on lot 20 and its associated large builder's trench, which would have extended at least 10-15 feet below grade, would have destroyed any potential remaining vault features. Last, any pottery-related machinery that did not have a subsurface component likely would have been removed when the building was razed.

Lot 17, home to the Thomson family from ca. 1842-1867, was the only one of the four historic lots that retained an open yard area throughout its history, and although the original ca. 1842 house was enlarged over time, it does not appear that it was ever demolished and replaced with a completely different structure. Figure 9, an overlay of building episodes on the four historic lots that comprised the project site, also shows the portion of lot 17 that contained an open yard.

Records show that public water was available under West 18th Street in 1842 and sewers were laid under the street in 1847 (Board of Aldermen 1857). It is likely that the house on lot 17 was hooked up to available city water at the time it was erected, negating the need for private wells or cisterns in the rear yard. However, there was at least a five-year gap

between construction of the house and availability of public sewers, implying that the Thomsons would have needed some sort of sewage disposal on the property. This likely consisted of either privies or a cesspool to drain sewage from an indoor bathroom. These features would have been located behind the house, in the former yard area. While privies were usually located as far away from houses as was possible (frequently hugging the rear lot line), cesspools could have been situated anywhere within the yard area. Archaeological resources associated with the Thomson family, such as domestic artifacts and refuse, may have been deposited in the privies and/or cesspools, either during their use lives or after municipal sewers became available and these shaft features were no longer needed. Often the features would be quickly filled with refuse after abandonment, providing a valuable time capsule of stratified deposits for the modern archaeologist. Artifacts deposited in rear yard shaft features have the potential to contain resources which may furnish information about past lifeways, urban residential settlement patterns, socio-economic status, class distinctions, ethnicity and consumer choice issues.

Last, it appears that excavation for the 1960s Fulton Houses complex may not have extended into the former boundaries of lot 17, in part because this portion of the project site is adjacent to two extant privately owned buildings (on the west and north). As noted above, DOB records show that this lot contained the Fulton Houses project “field office” in 1963. Photographs of the Fulton Houses construction were reviewed at the NYCHA archives, and although no photograph of Block 716 was available, a photograph of Block 714 two blocks to the south (between West 16th and West 17th Streets, Ninth and Tenth Avenues) which has a similar building layout, shows that the field offices were also located in roughly the same location on the block, and that excavations did not extend into areas that bordered existing buildings (NYCHA 1963).

Based on these findings, HPI concludes that there is little to no historic period archaeological sensitivity remaining on former lots 18, 19, and 20, but that the former yard of lot 17, which may not have been disturbed from building or later earthmoving activities, may contain remains from privies or cesspools and therefore is archaeologically sensitive. Figure 9 shows the archaeologically sensitive area of the project site where these resources could be located.

HPI recommends archaeological testing within the former rear yard area of historic lot 17, an area that measures 25 feet in width and about 35 feet in length based on the final building footprint on the lot. Such testing would consist of backhoe trenching to discern the locations of any features such as privies or cesspools, at precise locations to be determined based on field conditions by archaeological personnel. All Phase IB archaeological testing should be conducted according to OSHA regulations and applicable archaeological standards (New York Archaeological Council 1994; NYSOPRHP 2005; LPC 2002). Professional archaeologists, with an understanding of and experience in urban archaeological excavation techniques, would be required to be part of the archaeological team.

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PHOTOGRAPHS

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1. Project site showing surface parking lot with enclosed compactor area on right. View looking northeast across West 18th Street.
2. Project site showing detail of surface parking lot with iron swing gate at entrance and metal bollards along parking spaces. View looking north across West 18th Street.
3. Project site showing detail of parking lot. View looking northwest from interior of site.
4. Project site showing detail of compactor area. View looking southwest from interior of site.

I. INTRODUCTION

The New York City Housing Authority (NYCHA) is proposing to construct a 17-story building with 100 units and a community facility in the Chelsea neighborhood of Manhattan. The project site is located on Block 716, Lot 17, on the north side of West 18th Street between Ninth and Tenth Avenues (Figures 1 and 2). The 9,200 square foot site is presently used for two compactors and parking for 26 cars associated with NYCHA's Fulton Houses development. Historically, the project site included lots 17-20. Because the proposed project includes the complete 92 by 100 foot property, the entire project site is considered the Area of Potential Effect (APE).

Historical Perspectives, Inc. (HPI) has undertaken a Phase IA Archaeological Assessment of the Fulton Houses Addition project site in order to: 1) identify any potential archaeological resources that might have been present on the site, and 2) examine the construction history of the study site in order to estimate the probability that any such potential resources might have survived and remain on the site undisturbed.

This Phase IA Archaeological Assessment was prepared to satisfy the requirements of New York State's environmental review process and Section 106 of the National Historic Preservation Act, and complies with the standards of the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) (New York Archaeological Council 1994; NYSOPRHP 2005) and the Landmarks Preservation Commission (LPC) (LPC 2002). The HPI project team consisted of Julie Abell Horn, M.A., R.P.A., who assisted with the research and wrote the report; Nancy Dickinson, who conducted the site visit and the majority of the research; and Cece Saunders, M.A., R.P.A. who managed the project and provided editorial and interpretive assistance.

II. METHODOLOGY

The present study entailed review of various resources.

- Historic maps were reviewed at the Map Division of the New York Public Library and using various online websites. These maps provided an overview of the topography and a chronology of land usage for the study site.
- Selected deeds and other records pertaining to the property were reviewed at the Manhattan Borough City Register's Office. Emphasis was placed on nineteenth-century records.
- New York City Department of Building (DOB) and selected nineteenth-century tax assessment records for the property were reviewed at the New York City Municipal Archives and additional building records were reviewed at the Manhattan Borough Department of Buildings.
- City directory and federal census records pertaining to the property's former owners and occupants were reviewed at the New York Public Library and using online resources.
- Soil borings were provided by NYCHA. These borings are discussed below and included in their entirety as Appendix A.
- Photographs and other materials relating to the Fulton Houses development were reviewed in the NYCHA Collection, housed at the LaGuardia and Wagner Archives at LaGuardia Community College (CUNY) in Long Island City, Queens.
- Previous archaeological sites and surveys were reviewed using data available from the NYSOPRHP and the New York City Landmarks Preservation Commission (LPC).
- Last, a site visit was conducted on February 7, 2007 to assess any obvious or unrecorded subsurface disturbance (Photographs 1-4).

III. BACKGROUND RESEARCH

A. CURRENT CONDITIONS

As described in the Introduction, the project site, an approximately 92 by 100 foot parcel, is presently used primarily as a surface parking lot for the Fulton Houses complex (Photographs 1-3). There is an area bordering the West 18th Street sidewalk that contains two compactors; it is enclosed on three sides by a low concrete wall and fencing (Photograph 4). There is an iron swing gate along the West 18th Street side of the site, and there are additional fold-down barriers for each of the parking spaces contained in vertical metal bollards located along the space dividers.

The project site is bounded by a two-story (with basement) building to the west, a seven/eight-story building (with basement) and a four-story building (with basement) to the north, and additional surface parking areas on the east. Beyond the parking lot to the east is Building 9 of the Fulton Houses complex (which is 25 stories high with a basement).

B. TOPOGRAPHY AND HYDROLOGY

According to Viele's 1865 *Sanitary and Topographic Atlas of the City of New York* (Figure 3), the project site was originally less than half a block from the Hudson River shoreline (which ran roughly along the modern line of Tenth Avenue). The project site was situated near a small promontory, but otherwise was shown as reasonably level meadowland. The map indicates that the Ninth Avenue frontage of the block was at elevation 13 feet. Today, this frontage is at elevation 14 feet, suggesting that the ground surface was not raised appreciably over time (Sanborn 1951).

C. GEOLOGY

Manhattan Island lies within the Hudson Valley region and is considered to be part of the New England Upland Physiographic Province (Schubert 1968:10). The underlying geology is made up of gneiss and mica schist with heavy, intercalated beds of coarse grained, dolomitic marble and thinner layer of serpentine. During the three known glacial periods, the land surface in the Northeast was carved, scraped, and eroded by advancing and retreating glaciers. With the final retreat during the Post-Pleistocene, glacial debris, a mix of sand, gravel, and clay, formed the many low hills or moraines that constitute the present topography of the New York City area (USDA 2005).

D. SOILS

In 2005, the Natural Resources Conservation Service published its first comprehensive soil survey for New York City. Much of lower Manhattan, including the project site, is mapped as "Pavement and buildings, outwash substratum, 0-5 percent slopes." This mapping unit is described as:

Nearly level to gently sloping, highly urbanized areas with more than 80 percent of the surface covered by impervious pavement and buildings, over glacial outwash; generally located in urban centers (USDA 2005:14).

Prior to construction of the present Fulton Houses public housing complex on the block, a number of soil borings were completed (NYCHA 1962a). These soil borings are reproduced as Appendix A. None of the soil borings were located specifically within the project site, but several borings were located within the future footprint of Building 9, located just east of the project site, and it is useful to note those conditions.

The soil borings within the westernmost portion of the Building 9 footprint (which is the closest set of borings to the project site) showed that the upper soil stratum consisted of mixed fill, to depths of 10-14 feet below grade. Below the fill was a stratum described as brown coarse-medium sand, with some gravel and occasional boulders, which was 17-20 feet thick. This stratum was probably part of the natural soil column, although likely was not the original ground surface, but rather a lower stratum. The third stratum was noted as red brown fine sandy silt and silty fine sand with seams of gray clay, and extended another 15-20 feet. In some cases there was a final stratum of glacial till. Depth of bedrock varied, but ranged from about 50-60 feet below grade. The water table was measured at about 15 feet below grade.

E. ARCHAEOLOGICAL SITES WITHIN A ONE MILE RADIUS

Research conducted using data from the NYSOPRHP, the LPC, and the library of HPI revealed no precontact period archaeological sites within the project site or within a one mile radius. However, there are several historical sites within a one-mile radius of the project site. These sites are listed below.

NYSOPRHP Site Number	Site Name/Description	Location	Site Type/Time Period
A06101.009530	Baruch College Site	Southeast of 25 th and Lexington Ave.	19 th century horse stable, brick drains and cobble floor
A06101.001273	Sheridan Square	Christopher Street	18 th /19 th century features
A06101.013209	219-227 W. 4 th Street	219-227 W. 4 th Street	Unknown
A06101.013210	229 W. 4 th Street	229 W. 4 th Street	Unknown
A06101.015243	3-5 Weehawken Street	3-5 Weehawken Street, Far West Village	Unknown
A06101.015244	304 W. 10 th Street	304 W. 10 th Street, 1 Weehawken Street, Far West Village	Unknown
A06101.001286	Sullivan Street Historic Site	Sullivan Street	Early 19 th century resources
A06101.001303	Greenwich Mews Site	Unknown	Unknown

F. HISTORY OF THE PROJECT SITE

Historic documents and maps identify the project block as being part of the original Thomas Clarke estate, purchased in 1750, which included the land between modern day West 14th to West 29th Streets, between Eighth and Tenth Avenues (Burrows and Wallace 1999). This large estate, called “Chelsea,” passed to his grandson Clement Clarke Moore by the early nineteenth century. Farm maps indicate that the project site remained undeveloped during the Clarke and Moore ownership (Holmes 1869; Shyrma n.d.).

The first conveyances on file for the project site block at the City Register date to 1830, when records show that Samuel Boyd and his wife sold a number of lots that they had previously acquired from an unknown source (although perhaps from Clement Moore). Included in Boyd’s holdings were the four historic lots (17-20) that became the project site. Since these four historic lots were owned and occupied by different individuals for much of the remaining nineteenth century, it is useful to address each lot separately for this period. Appendix B summarizes the data presented below in table format.

Historic Lot 17 (433 West 18th Street)

This historic lot is the westernmost of the four lots that now comprise the project site. It was 25 feet wide and 92 feet deep. From 1836-1838, it was known as 114 West 18th Street, from 1839 through the late 1850s it was 271 West 18th Street, and from ca. 1857 through 1860+ it was 277 West 18th Street. By at least the 1880s, the lot was known as 433 West 18th Street, which remained its address through the twentieth century.

Lot 17 was sold four times from 1830-1841, but remained vacant during this period (Liber 264, 1830:112; Liber 282, 1832:621; Liber 302, 1833:512; Liber 300, 1833:354; Liber 416, 1841:404). In 1841, builder John Thomson purchased the lot and appears to have constructed the first building on the property. By 1842, tax assessment records indicate the lot contained a house. The 1860 tax assessment notes that the house was two stories high, and measured 25 feet wide and 42 feet deep. Although Thomson conveyed lot 17 to Eleazer Parmly in 1842 (Liber 423, 1842:500), city directory and census records show that Thomson and his family were the occupants of the house on the lot through at least 1867. The Thomson family eventually sold the house and lot (after several lawsuits with the Parmly family) in 1876 (Liber 1123, 1870:618; Liber 1184, 1871, 101; Liber 1197, 1871:16, 19; Liber 1385, 1876:39).

Historic maps show the house on Lot 17 beginning in 1852 (Dripps 1852, Figure 4). The house was sited flush against the West 18th Street lot line; the 1859 Perris map (Figure 5) confirms the house location and indicates that the structure was made of brick and had a small frame section on the rear. Maps made through the nineteenth century continued to show the house on Lot 17, although the frame addition off the rear appears to have been replaced with a brick ell-shaped addition over time (Bromley 1879; Robinson 1883, 1885). The 1895 Sanborn map (Figure 6) shows that by this time, the original two-story house had been raised to three stories and the addition off

the back had been enlarged and was one story high. The 1904 Sanborn map (Figure 7) clarified that both the house and the addition contained basements. There was no change to the building on any of the subsequent Sanborn maps (Sanborn 1921 (Figure 8); 1951).

In 1962, DOB records noted a demolition permit to raze the building at 433 West 18th Street. The permit notes that the structure was three stories high and contained five apartments. During construction of the Fulton Houses complex in 1963 on the block, DOB records also note that this lot was the location of the field office for the project, and that permission was requested to install an above-ground 275-gallon fuel oil tank and oil burner to service this temporary building. The location of the field office on this historic lot suggests that the deep excavations for the Fulton Houses complex did not extend into this area. Construction of the Fulton Houses complex on the block was completed in 1965. Since that time, historic lot 17 has been used as part of the surface parking lot on the project site.

Historic Lot 18 (431 West 18th Street)

This historic lot is located next to historic lot 17. It was 25 feet wide and 92 feet deep. From 1836-1838, it was known as 115 West 18th Street, from 1839 through the late 1850s it was 269 West 18th Street, and from ca. 1857 through 1860+ it was 275 West 18th Street. By at least the 1880s, the lot was known as 431 West 18th Street, which remained its address through the twentieth century.

Samuel Boyd and his wife sold lot 18 to Joseph Webster in 1830, and Webster and his wife then sold the lot to Stephen Martindale in 1831 (Liber 264, 1830:152; Liber 275, 1831:490). The Martindale family continued to own the lot until 1883, although appear never to have lived on the property themselves (Liber 1758, 1883:494).

The first building on the lot was constructed by ca. 1840. Tax assessment records note that the lot was vacant through 1839 (and still attributed to Webster), but city directory and federal census records show that tenant George Crawford and his family were living on the lot in 1840. Subsequent tax assessment records confirm a house on the lot, now attributed to Stephen Martindale, and by at least 1854, show that a second house had been constructed on the lot. The 1860 tax assessment for the lot indicates that one house was four stories and the other was two stories. Each measured 25 feet wide and 26 feet long. Although city directory and federal census records confirmed various occupants in the houses over time, none could be traced in the records for more than a year or two, suggesting there was frequent turnover of tenants during this period.

The historic maps show a house on Lot 18 beginning in 1852 (Dripps 1852, Figure 4). The house was sited flush against the West 18th Street lot line; the 1859 Perris map (Figure 5) shows the locations of the original house as well as the second house at the rear of the lot noted in the tax assessments. Both houses were made of brick; there was an addition off the street-fronting house. A small yard area was located between the two houses. Maps made through the nineteenth century continued to show the two houses on Lot 18, although the building footprints were depicted in various configurations, which may be due to mapping errors (Bromley 1879; Robinson 1883, 1885). The 1895 Sanborn map (Figure 6) shows that the original street-fronting house now was three stories and the rear house was four stories. A small yard area continued to exist between the two structures. The 1904 Sanborn map (Figure 7) clarified that the street-fronting house contained a basement, and indicated another small addition off its rear wall. There was no change to the buildings on any of the subsequent Sanborn maps (Sanborn 1921 (Figure 8); 1951).

In 1962, DOB records noted a demolition permit to raze the two buildings at 431 West 18th Street. The permit notes that each of the structures contained six apartments. Construction of the Fulton Houses complex on the block was completed in 1965. Since that time, historic lot 18 has been used as part of the surface parking lot on the project site.

Historic Lot 19 (429 West 18th Street)

This historic lot is located immediately to the east of historic lot 18. It was 25 feet wide and 92 feet deep. From 1836-1838, it was known as 116 West 18th Street, from 1839 through the late 1850s it was 267 West 18th Street, and from ca. 1857 through 1860+ it was 273 West 18th Street. By at least the 1880s, the lot was known as 429 West 18th Street, which remained its address through the twentieth century.

Samuel Boyd and his wife sold lot 19 to William Seaman in 1830, and Seaman then sold the lot to Henry Moore in 1835 (Liber 264, 1830:590; Liber 330, 1835:556). That same year, Henry Moore and his wife sold the lot to Benjamin Burdett (Liber 340, 1835:320). Burdett owned the lot until 1852, when he and his wife sold it to William Goodheart (Liber 607, 1852:225). The Goodhearts owned the lot through the mid-1880s.

Tax assessment records indicate that there was a house on lot 19 by 1836 (still attributed to William Seaman). It appears that the house was built some time between 1830 and 1836. By 1839, the house was listed in the tax records under Burdett's name, and by 1854 in Goodheart's name. The 1860 tax record showed that the house was two stories high and measured 22 feet wide by 26 feet long. City directories and federal censuses show that Benjamin Burdett, a carter, and his family lived on the lot along with Jacob Dubois, a cabinetmaker, and his family, from at least 1839-1851, and possibly from 1835, when Burdett purchased the lot. During the 1850s, residents of the house included the Toms family and at least for a time, members of the Goodheart family.

Historic maps illustrate the sequence of building episodes on the lot. The 1852 Dripps map (Figure 4) shows a structure sited flush against the West 18th Street side of the lot. The 1859 Perris map (Figure 5) confirms the location of the house, and shows that it was a frame building. By the 1880s, the house appears to have received a new brick façade, but otherwise is still shown as a frame dwelling (Robinson 1883).

The original house on lot 19 had been demolished by 1895, when the Sanborn map (Figure 6) shows a much larger five-story building on the property, with only a small yard area remaining behind the structure. By 1904, a one-story outbuilding had been constructed behind the five-story building, all but eliminating the last of the original yard area on the lot (Sanborn 1904; Figure 7). Sanborn maps from 1921 (Figure 8) and 1951 continued to show this same configuration of buildings on the lot. Although the Sanborn maps do not specifically indicate a basement for the building, it appears that in fact there was one, suggesting that the documentation on the map was incomplete.

Like the other lots on the project site, in 1962, DOB records noted a demolition permit to raze the building at 429 West 18th Street. The permit notes that the structure was five stories high and contained 20 apartments. Original plans for the Fulton Houses complex on Block 716 indicate that former lots 19 and 20 were intended to be a surface basketball court next to the paved parking lot (NYCHA 1962b). However, it is unclear whether this court was ever built, or if the lot was immediately included as part of the parking lot, as it is today.

Historic Lot 20 (427 West 18th Street)

This historic lot is located east of historic lot 19, and is the easternmost of the four historic lots that comprise the project site. It was 25 feet wide and 92 feet deep. From 1836-1838, it was known as 117 West 18th Street, from 1839 through the late 1850s it was 265 West 18th Street, and from ca. 1857 through 1860+ it was 271 West 18th Street. By at least the 1880s, the lot was known as 427 West 18th Street, which remained its address through the twentieth century.

Samuel Boyd and his wife sold lot 20 (along with adjoining lot 21) to James Cahill in 1830, and Cahill and his wife then sold the two lots to Joel Hall in 1832 (Liber 264, 1830:155; Liber 287, 1832:178). In 1835, Hall and his wife sold the two lots to Alexander Masterton and Robert Smith, who with their wives in turn sold the two lots to John Thomson later that year (Liber 332, 1835:234; Liber 342, 1835:171). As with lot 17, Thomson and his wife conveyed lots 20 and 21 to Eleazer Parmly in 1842 (Liber 423, 1842:500). Parmly sold lots 20 and 21 to Washington Smith in 1859, who retained ownership of them until 1870 (Liber 786, 1859:204; Liber 1138, 1870:118).

By 1842, tax assessment records show that John Thomson had a shop on Lot 20; subsequent tax records alternately labeled this structure a house and a shop. It appears, though, that Thomson's business was located on lots 20 and 21, as city directory entries note "Thomson and Ordway, Builders" at these two addresses by 1851. Thomson continued to do business here until at least 1857. The 1860 tax record showed that the building on lot 20 was three stories high and measured 25 feet wide by 96 feet long, covering the entire footprint of the lot and leaving no open yard area. Historic maps confirm that the original structure on lot 20 covered all but a small strip of the lot and that by at least 1859 the building footprint had expanded to include the entire lot (Dripps 1852 [Figure 4]; Perris 1859 [Figure 5]).

The gray color of the building on the 1859 Perris map (Figure 5) indicates that it was used as a “store.” The map appears to show the lot as part of the Greenwich Pottery complex, which was located immediately east of the project site in 1852. City directories indicate that Washington Smith was the operator of a stoneware pottery on the adjoining lots to the east by at least 1839 (he had purchased the lots on which the original pottery stood in 1833). Smith’s early products included clay stoves, drainpipes, tiles, and stove flues. By the 1840s the pottery was producing stoneware bottles (Graci and Rotilie n.d.). With Smith’s purchase of lots 20 and 21 in 1859, he seems to have expanded his operation, taking over the shop formerly operated by Thomson and Ordway. However, the 1859 Perris map suggests that the main manufacturing area of the pottery (where kilns and furnaces would have been located) was located off the project site APE, presumably in proximity to the smokestack shown on the map, several doors down.

The 1879 Bromley map continued to show lot 20 as part of the Greenwich Pottery holdings, but by issuance of the 1883 Robinson map, the building footprints had changed and the structures were simply labeled “Greenwich.” It appears that despite the nomenclature, the pottery buildings had been replaced by this period by apartments. The 1895 Sanborn map (Figure 6) shows a series of connected five-story buildings, with the westernmost building situated on lot 20. There was a small amount of yard area behind these buildings. No change to the buildings was shown on any of the subsequent Sanborn maps (1904 [Figure 7], 1921 [Figure 8]), although by 1921 the maps clarified that the buildings all had basements.

427 West 18th Street was included in the DOB demolition permit request from 1962, which notes that the structure on the lot was five stories high and contained ten apartments. Original plans for the Fulton Houses complex on Block 716 indicate that former lots 19 and 20 were intended to be a surface basketball court next to the paved parking lot (NYCHA 1962b). However, it is unclear whether this court was ever built, or if the lot was immediately included as part of the parking lot, as it is today.

IV. CONCLUSIONS

A. PRECONTACT SENSITIVITY AND DISTURBANCE RECORD

Based on the degree of disturbance to the project site from construction and use of the former buildings, there is virtually no likelihood that the natural landform and original ground surface of the property survives beneath the present parking lot. Due to this extensive disturbance, any potential precontact resources would likely have been destroyed. For these reasons, HPI concludes that the project site does not possess precontact archaeological sensitivity.

B. HISTORIC PERIOD SENSITIVITY AND DISTURBANCE RECORD

Determination of historic period archaeological sensitivity for the project site involves a comparison of lot history data with known disturbances to the original ground surface on the property.

The archival research revealed that each of the four historic lots within the project site had different construction and occupational histories (Appendix B). The earliest of the lots to be developed was lot 19, which had a house on it by 1836. Lot 18 had a house by 1839-1840, while lots 17 and 20 had a house and shop, respectively, by 1842. Lot 20 was later part of the Greenwich Pottery complex holdings. Occupants residing or working in the various structures for more than five years could be traced for lot 17 (John Thomson and family from ca. 1842-1867), lot 19 (Benjamin Burdett and family and Jacob Dubois and family from before 1839-1851) and lot 20 (John Thomson, builder, from ca. 1842-1859). However, the research indicated that lots 18, 19, and 20 all had multiple episodes of construction on them that largely destroyed former yard areas where potential archaeological resources would have been located. Rear yard shaft features would not have been situated more than 15 feet below grade (the soil borings for the block indicated that the modern water table is only about 15 feet below grade, and the historic water table depth may have been higher), and excavation for basements of the multiple-story buildings that were later situated on the lots likely also extended this far below the ground surface, therefore eliminating any archaeological potential in these areas.

Additionally, there is no indication that any pottery-related archaeological resources could survive on lot 20, as the entire lot was covered by a building during the period that it was used by the Greenwich Pottery. Because there was no open yard area at this time, it is unlikely that any potential features such as wells, cisterns, or dumping areas would have existed here. The kilns and furnaces for the pottery appear to have been located off the APE, several

doors down the block. Furthermore, although brick-lined clay vaults, which were used for storing and ripening clay, were sometimes located beneath standing factory buildings (Cotter et al. 1992), the construction of the later apartment building basement on lot 20 and its associated large builder's trench, which would have extended at least 10-15 feet below grade, likely would have destroyed any potential remaining vault features. Last, any pottery-related machinery that did not have a subsurface component would have been removed when the building was razed.

Lot 17, home to the Thomson family from ca. 1842-1867, was the only one of the four historic lots that retained an open yard area throughout its history, and although the original ca. 1842 house was enlarged over time, it does not appear that it was ever demolished and replaced with a completely different structure. Figure 9, an overlay of building episodes on the four historic lots that comprised the project site, also shows the portion of lot 17 that contained an open yard.

Records show that public water was available under West 18th Street in 1842 and sewers were laid under the street in 1847 (Board of Aldermen 1857). It is likely that the house on lot 17 was hooked up to available city water at the time it was erected, negating the need for private wells or cisterns in the rear yard. However, there was at least a five-year gap between construction of the house and availability of public sewers, implying that the Thomsons would have needed some sort of sewage disposal on the property. This likely consisted of either privies or a cesspool to drain sewage from an indoor bathroom. These features would have been located behind the house, in the former yard area. While privies were usually located as far away from houses as was possible (frequently hugging the rear lot line), cesspools could have been situated anywhere within the yard area. Archaeological resources associated with the Thomson family, such as domestic artifacts and refuse, may have been deposited in the privies and/or cesspools, either during their use lives or after municipal sewers became available and these shaft features were no longer needed. Often the features would be quickly filled with refuse after abandonment, providing a valuable time capsule of stratified deposits for the modern archaeologist. Artifacts deposited in rear yard shaft features have the potential to contain resources which may furnish information about past lifeways, urban residential settlement patterns, socio-economic status, class distinctions, ethnicity and consumer choice issues.

Last, it appears that excavation for the 1960s Fulton Houses complex may not have extended into the former boundaries of lot 17, in part because this portion of the project site is adjacent to two extant privately owned buildings (on the west and north). As noted above, DOB records show that this lot contained the Fulton Houses project "field office" in 1963. Photographs of the Fulton Houses construction were reviewed at the NYCHA archives, and although no photograph of Block 716 was available, a photograph of Block 714 two blocks to the south (between West 16th and West 17th Streets, Ninth and Tenth Avenues) which has a similar building layout, shows that the field offices were also located in roughly the same location on the block, and that excavations did not extend into areas that bordered existing buildings (NYCHA 1963).

Based on these findings, HPI concludes that there is little to no historic period archaeological sensitivity remaining on former lots 18, 19, and 20, but that the former yard of lot 17, which may not have been disturbed from building or later earthmoving activities, may contain remains from privies or cesspools and therefore is archaeologically sensitive. Figure 9 shows the archaeologically sensitive area of the project site where these resources could be located.

V. RECOMMENDATIONS

As described above, HPI concluded that a portion of former lot 17 is sensitive for the recovery of historic period archaeological resources. Based on this information, HPI recommends archaeological testing within the former rear yard area of historic lot 17, an area that measures 25 feet in width and about 35 feet in length based on the final building footprint on the lot. Such testing would consist of backhoe trenching to discern the locations of any features such as privies or cesspools, at precise locations to be determined based on field conditions by archaeological personnel. All Phase IB archaeological testing should be conducted according to OSHA regulations and applicable archaeological standards (New York Archaeological Council 1994; NYSOPRHP 2005; LPC 2002). Professional archaeologists, with an understanding of and experience in urban archaeological excavation techniques, would be required to be part of the archaeological team.

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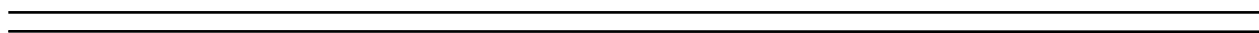
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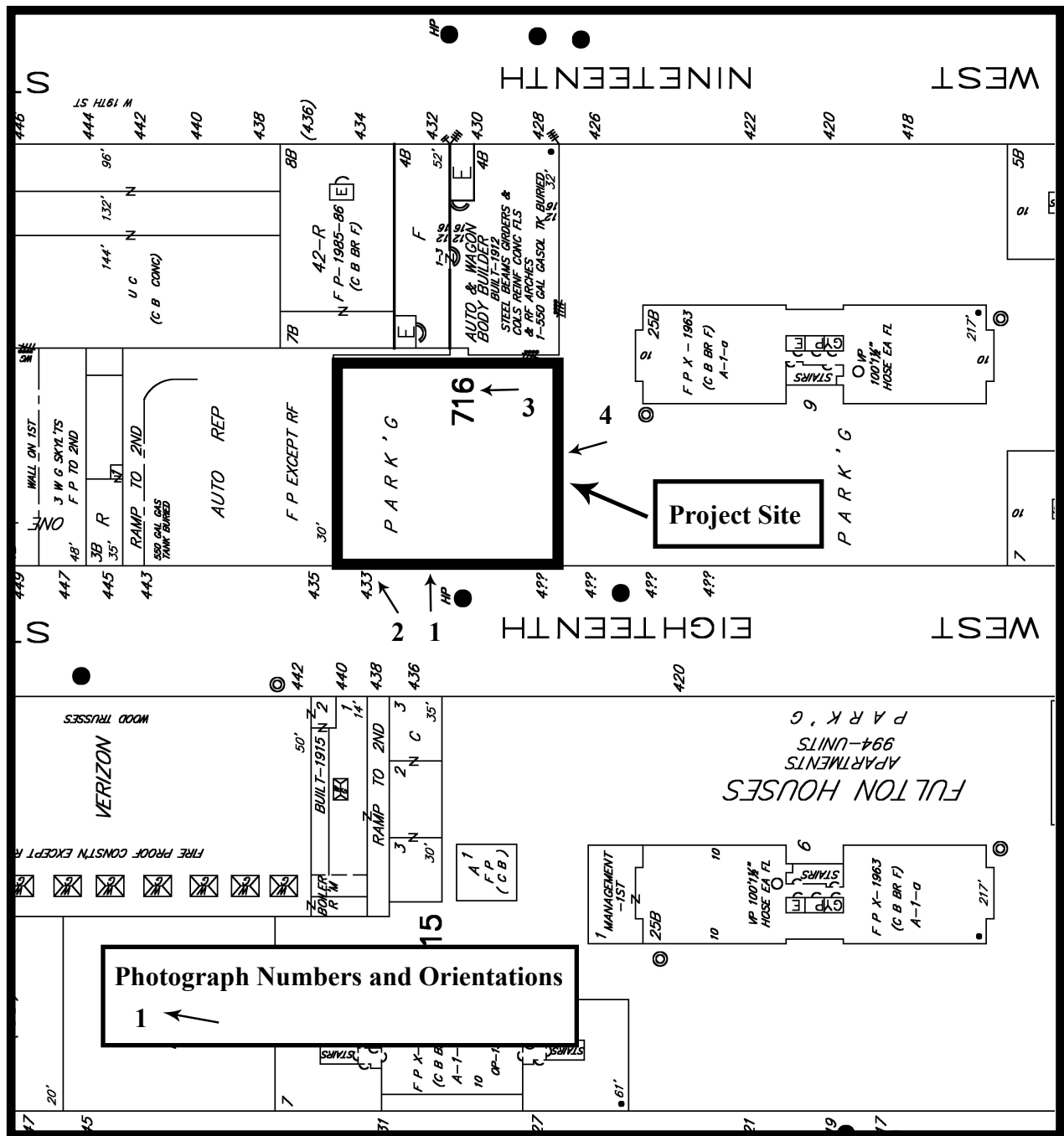
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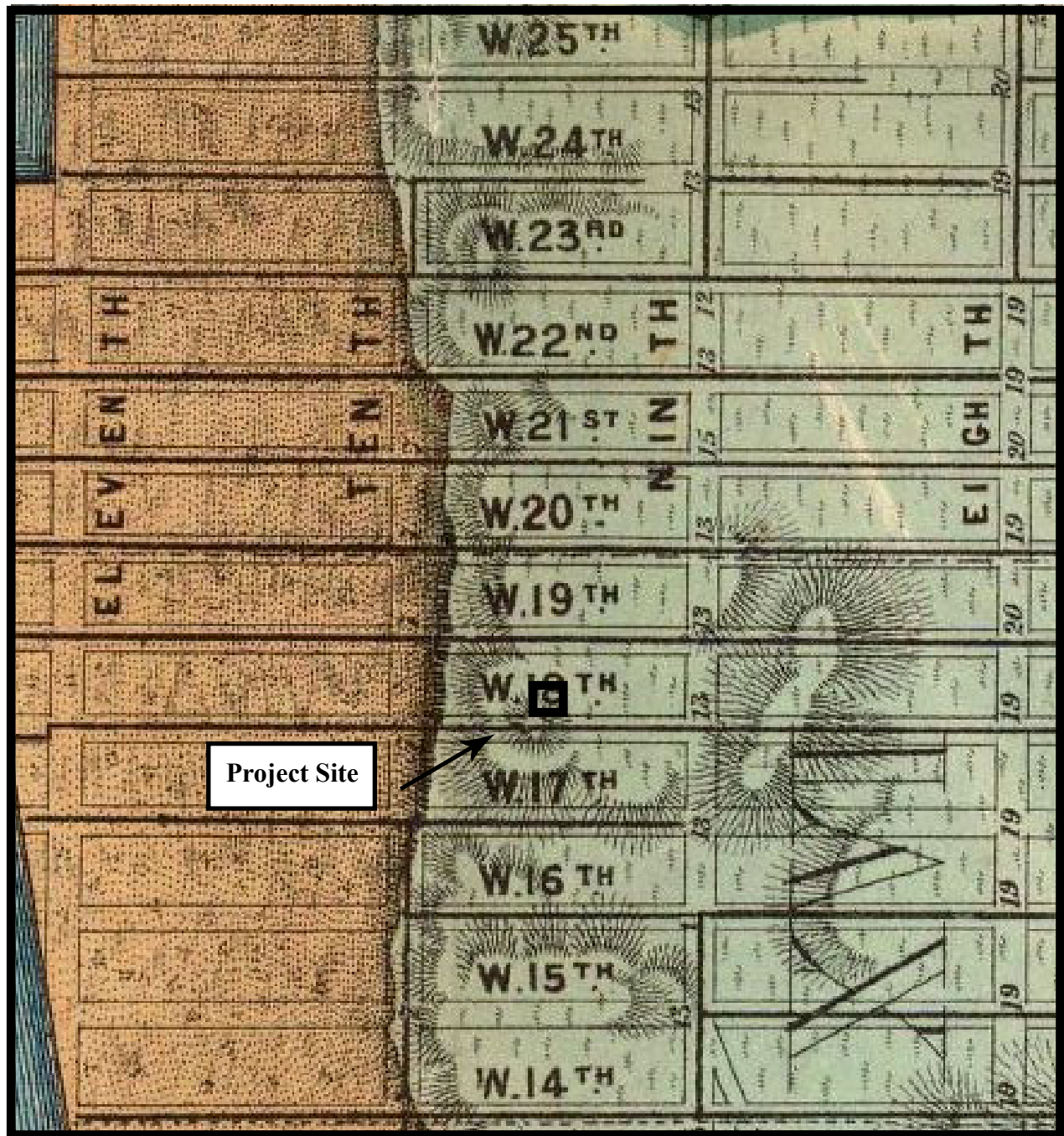


**PHASE IA ARCHAEOLOGICAL INVESTIGATION
NYCHA FULTON HOUSES ADDITION
BLOCK 716, LOT 17, NEW YORK, NY**

FIGURE 2: Project site and photograph locations on modern Sanborn map.

0 25 50 75 100 125 FEET





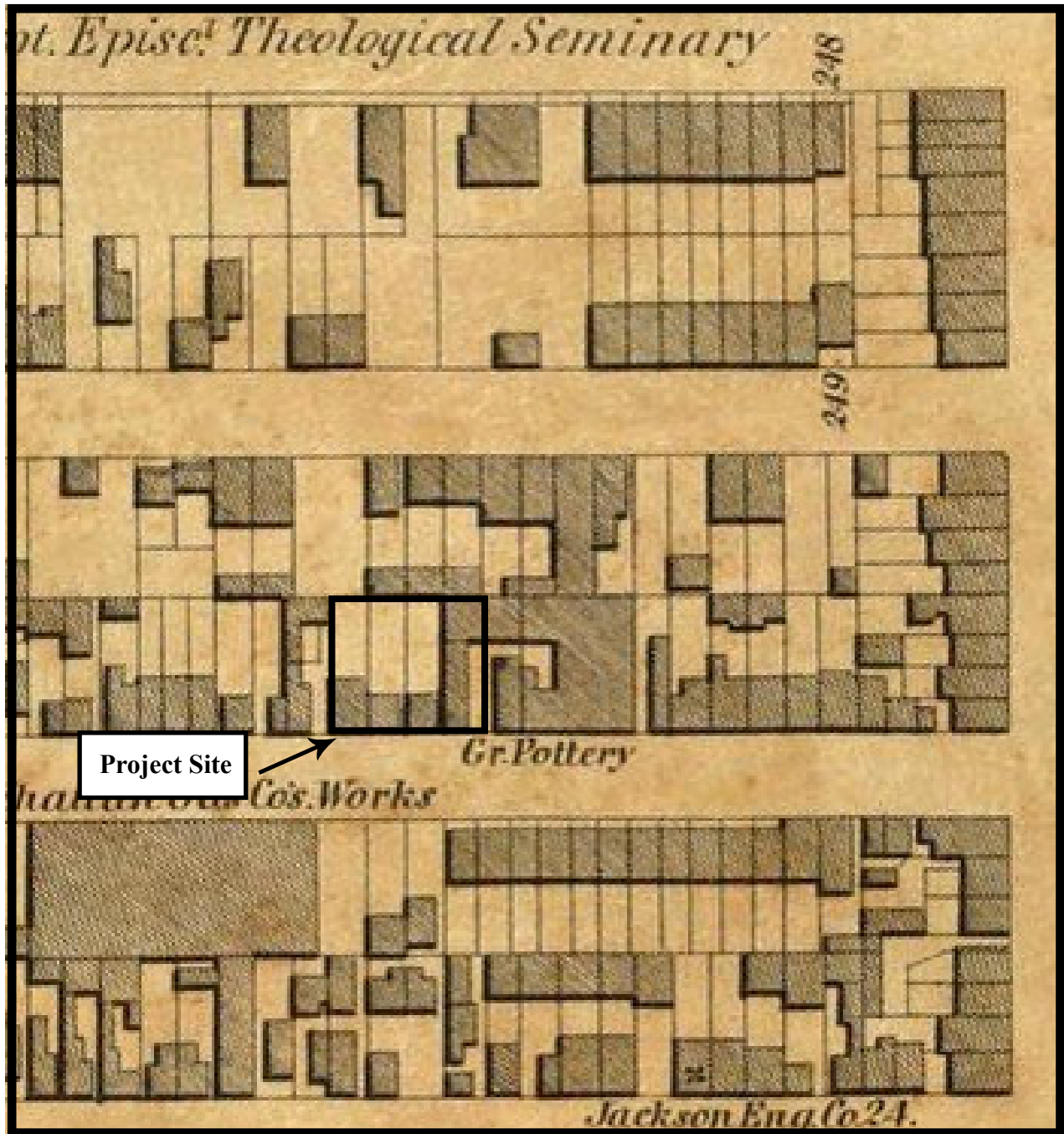
**PHASE IA ARCHAEOLOGICAL INVESTIGATION
NYCHA FULTON HOUSES ADDITION
BLOCK 716, LOT 17, NEW YORK, NY**

FIGURE 3: *Sanitary and Topographic Atlas of the City of New York* (Viele 1865).



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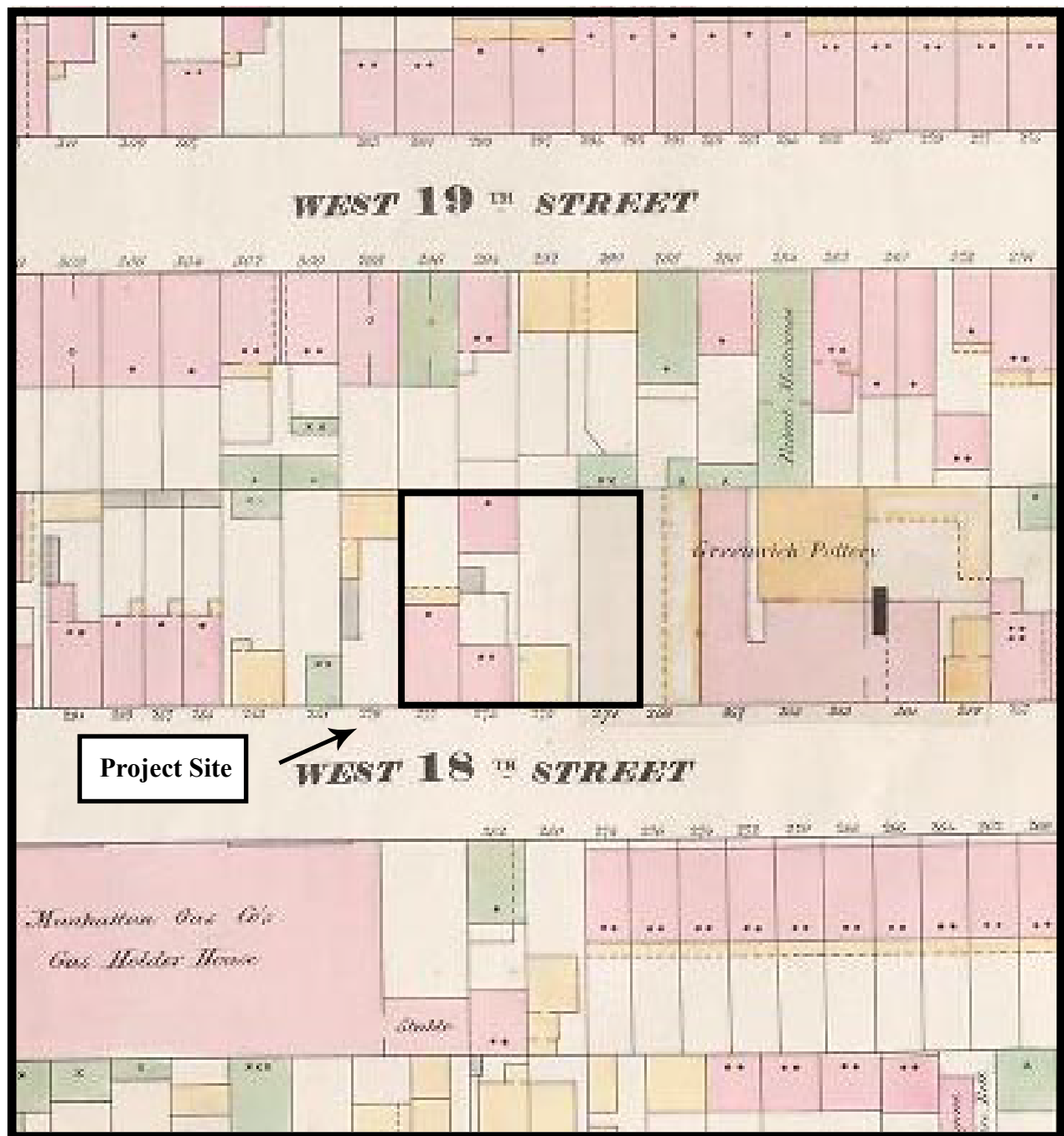


**PHASE IA ARCHAEOLOGICAL INVESTIGATION
NYCHA FULTON HOUSES ADDITION
BLOCK 716, LOT 17, NEW YORK, NY**

FIGURE 4: Map of the City of New York Extending Northward to 50th Street (Dripps 1852).

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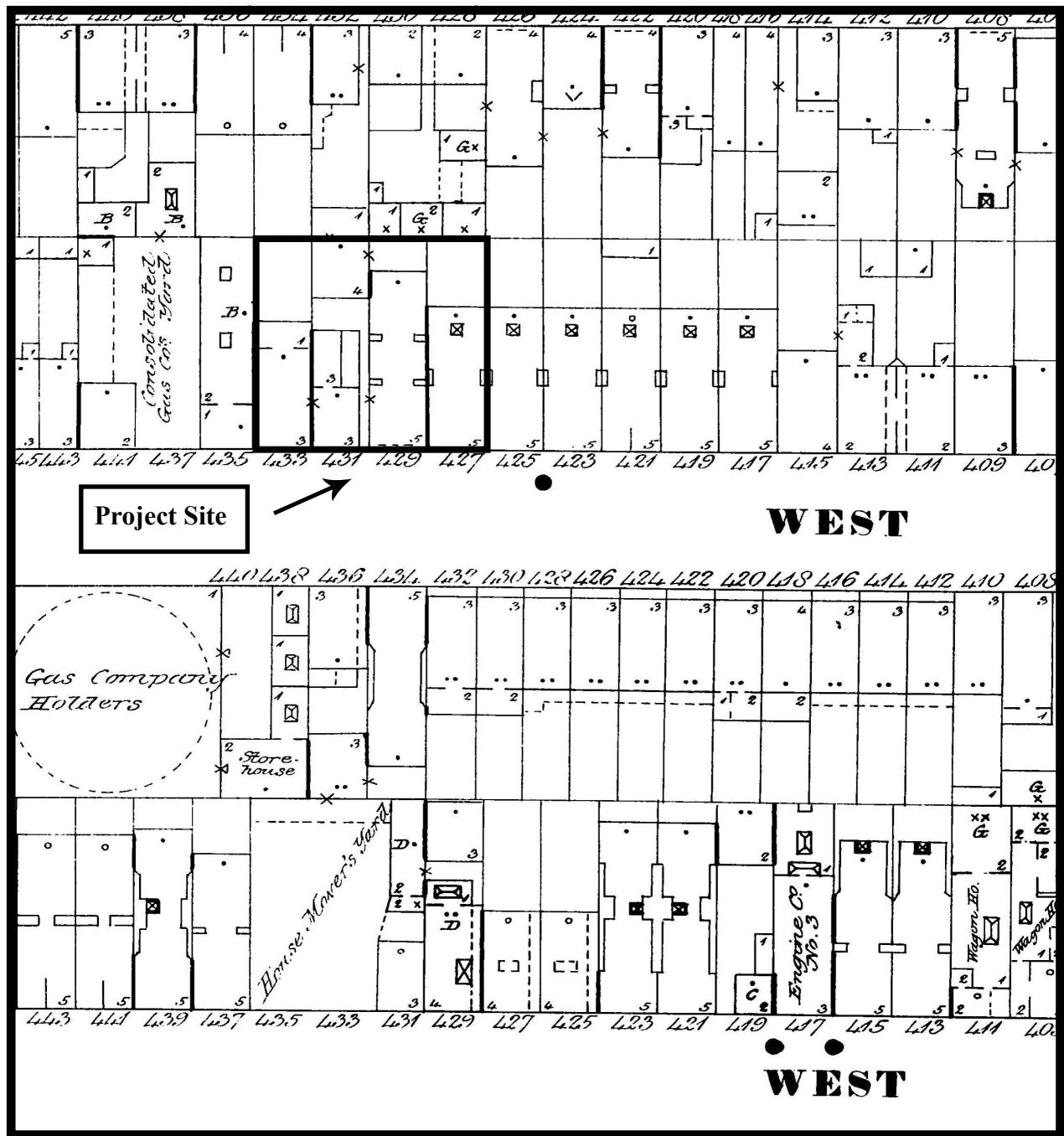


**PHASE 1A ARCHAEOLOGICAL INVESTIGATION
NYCHA FULTON HOUSES ADDITION
BLOCK 716, LOT 17, NEW YORK, NY**

FIGURE 5: Maps of the City of New York (Perris 1859).



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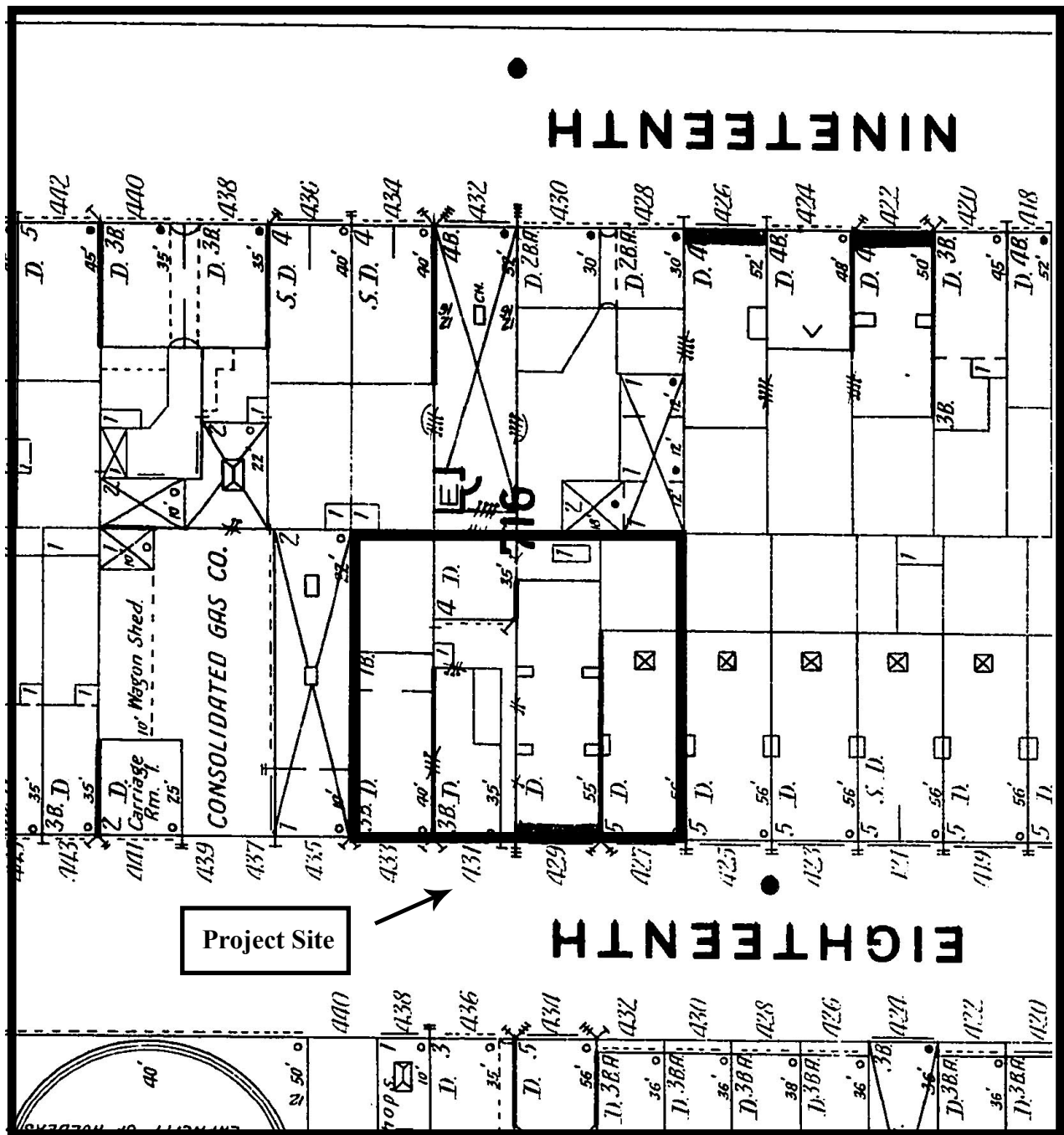


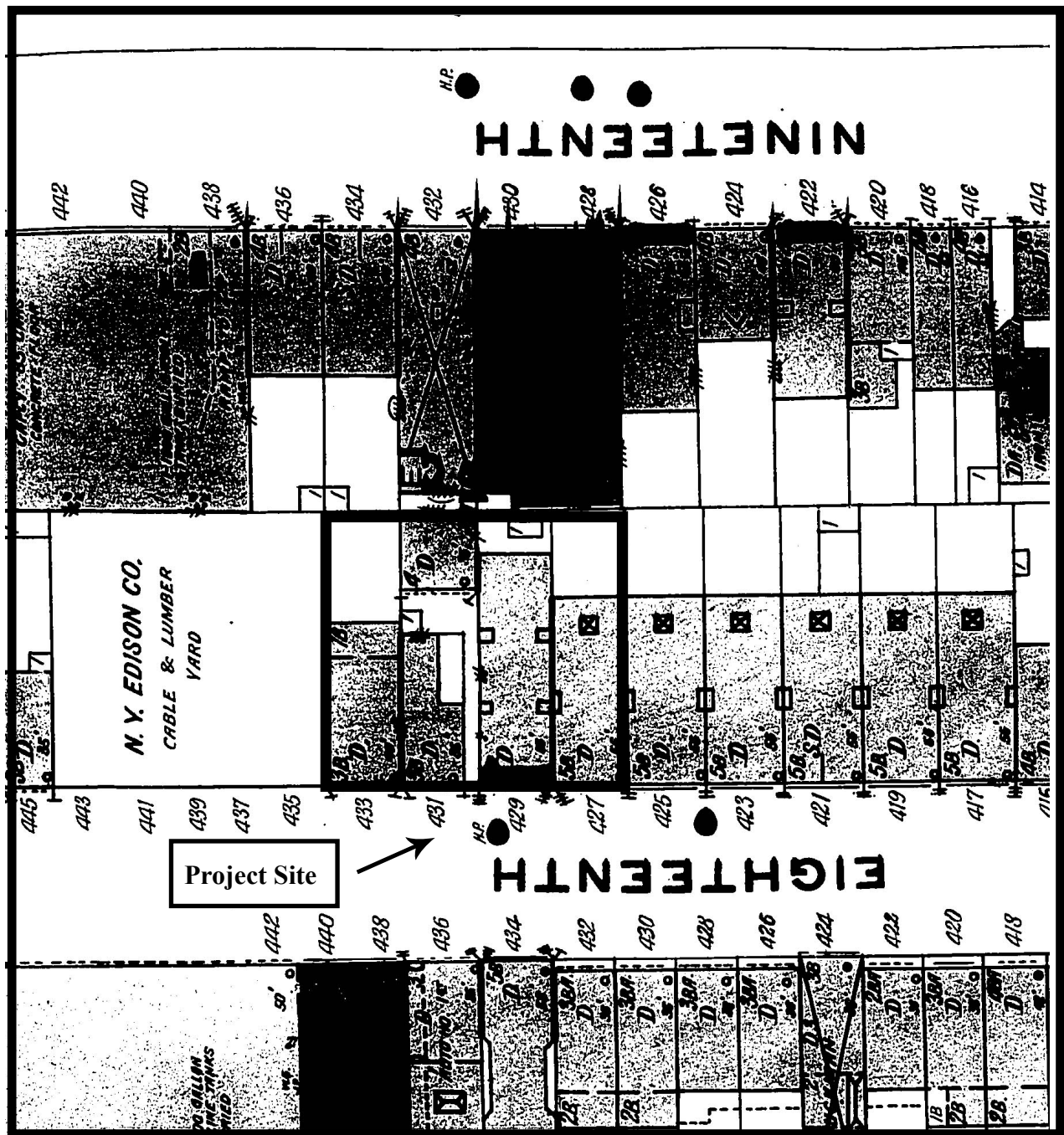
PHASE IA ARCHAEOLOGICAL INVESTIGATION
 NYCHA FULTON HOUSES ADDITION
 BLOCK 716, LOT 17, NEW YORK, NY

FIGURE 6: Insurance Maps of New York City (Sanborn 1895).

0 25 50 75 100 125 FEET







PHASE IA ARCHAEOLOGICAL INVESTIGATION
 NYCHA FULTON HOUSES ADDITION
 BLOCK 716, LOT 17, NEW YORK, NY

FIGURE 8: Insurance Maps of New York City (Sanborn 1921).

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Photograph 1: Project site showing surface parking lot with enclosed compactor area on right. View looking northeast across West 18th Street.



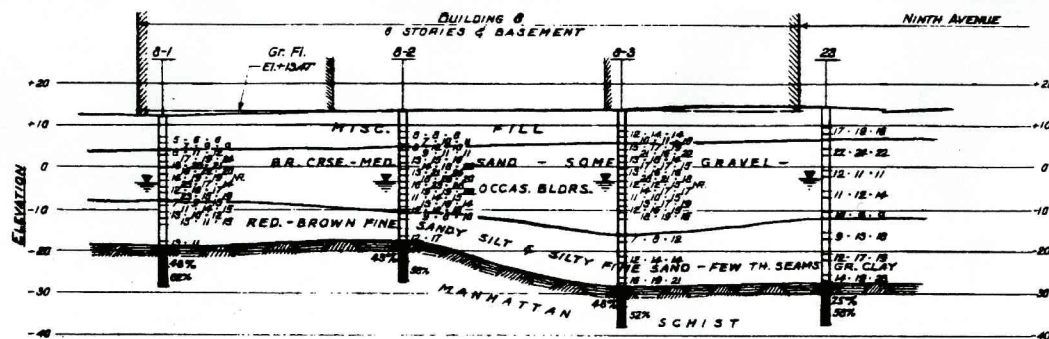
Photograph 2: Project site showing detail of surface parking lot with iron swing gate at entrance and metal bollards along parking spaces. View looking north across West 18th Street.



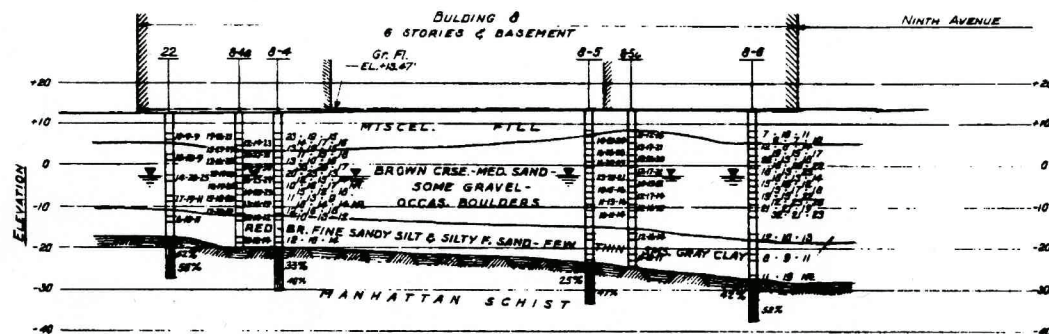
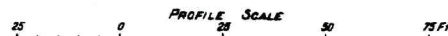
Photograph 3: Project site showing detail of parking lot. View looking northwest from interior of site.



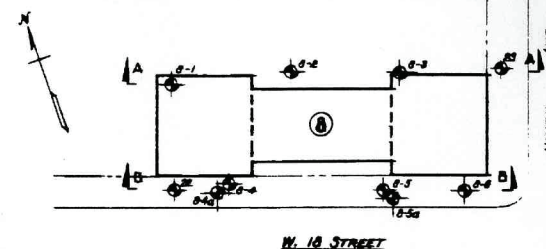
Photograph 4: Project site showing detail of compactor area. View looking southwest from interior of site.



SECTION A-A



SECTION B-B



BORING LOCATION PLAN



LEGEND AND NOTES

⊙ Boring location.

Sample location - Adjacent figures indicate blows per 6" of penetration (unless otherwise noted) of 2" o.d. sampler, using 140 lb. hammer falling 30", except where 'X' indicates 300 lb. hammer falling 18".

⊙ Boulder

NR = No recovery. OE = Open end sample.
P = Push or press. W = Wash sample.

Rock core - Adjacent figures indicate amount of recovery in percent of total core.

Boring Nos. 1 to 20 made by Walsh Drilling Co. between 12-7-59 and 2-4-60.

Boring Nos. 1-1 to 11-7A & G-1 made by W.M. Walsh Co. between 4-7-61 and 3-15-62.

Boring UD-1 and 4-8 made under M.P.M. & R. supervision by W.M. Walsh Co. between 6-24-61 and 9-5-61.

All elevations based on Boro. Pres. Manhattan datum, which is 2.75' above U.S.C. & G.S. datum = M.S.L. Sandy Hook.

CERTIFICATION

We have examined and classified soil samples recovered from borings made and supervised by others on this site. We certify that the soil classifications shown on the several pages of this drawing represent our interpretation of the soil conditions prevailing as disclosed by the soil samples. The profiles are interpolations between boring locations and samples in borings and do not necessarily indicate actual variations in subsurface conditions between borings.

Our classifications of the soils are made independently of and therefore may or may not agree with the data of other borings.

MORAN, PROCTOR, MUESER & PUTLEDGE

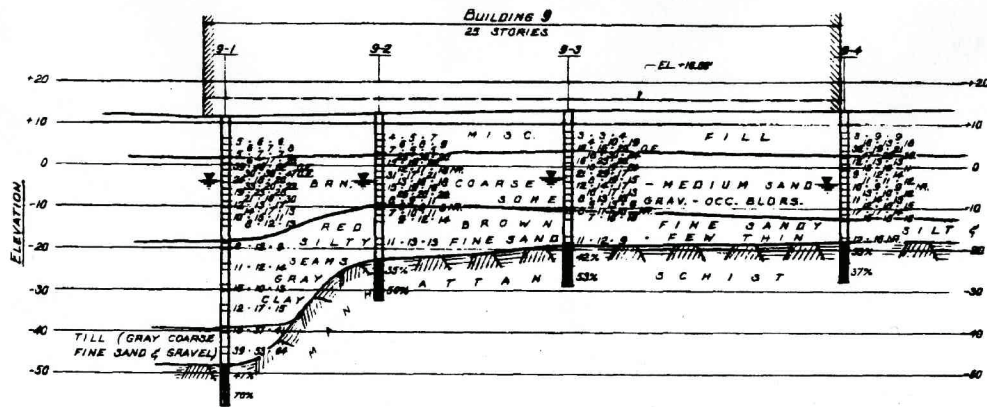
By *[Signature]*

JAMES D. FARRER

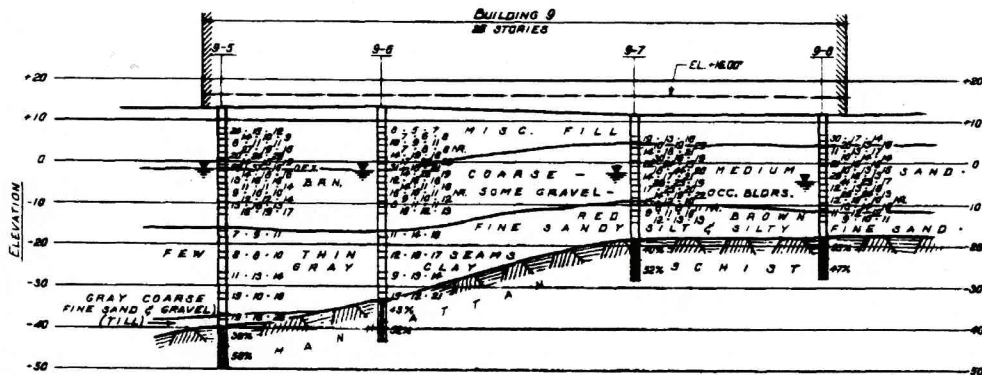


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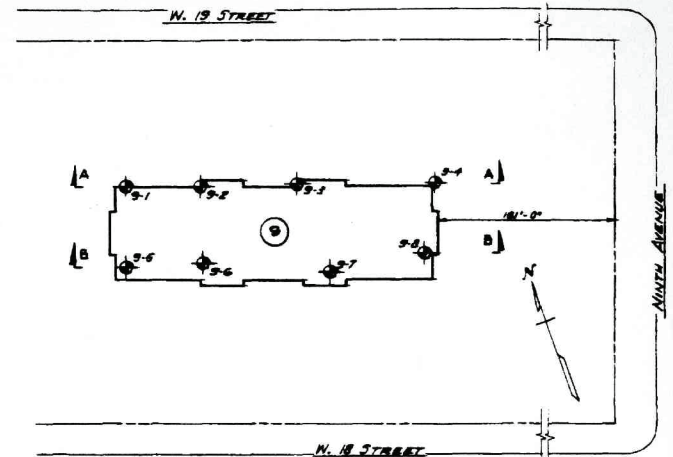
ROBERT FULTON HOUSES BUILDING 8 NEW YORK CITY HOUSING AUTHORITY			
MORAN, PROCTOR, MUESER & PUTLEDGE CONSULTING ENGINEERS 415 MADISON AVE., NEW YORK 17, N. Y.			
SCALE SHOWN	MADE BY I. E. SUE	DATE MAY 3-22-62	FILE NO. 2251
BORING LOCATION PLAN AND GEOLOGIC SECTIONS			DRAWING NO. G5-8



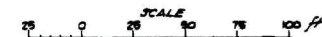
SECTION A-A



SECTION B-B



BORING LOCATION PLAN



LEGEND AND NOTES

◆ Boring location.

Sample location - Adjacent figures indicate blows per 6" of penetration (unless otherwise noted) of 2" o.d. sampler, using 140 lb. hammer falling 30", except where 'X' indicates 300 lb. hammer falling 15".

⬮ Boulder

— Ground water level.

NR = No recovery. OE = Open end sample.
P = Push or press. W = Wash sample.

Rock core - Adjacent figures indicate amount of recovery in percent of total core.

Boring Nos. 1 to 20 made by Walsh Drilling Co. between 12-7-59 and 2-4-60.

Boring Nos. 1-1 to 11-7A & G-1 made by N.M. Walsh Co. between 4-7-61 and 3-15-62.

Boring 10H and 4-8 made under M.P.M. & R. supervision by N.M. Walsh Co. between 8-24-61 and 9-5-61.

All elevations based on Boro. Pres. Manhattan datum, which is 2.75' above U.S.C. & G.S. datum = M.S.L. Sandy Hook.

CERTIFICATION

We have examined and classified soil samples recovered from borings made and supervised by others on this site. We certify that the soil classifications shown on the several profiles on this drawing represent our interpretation of the soil formations prevailing as disclosed by the soil samples. The profiles are interpolations between boring locations and samples in borings and do not necessarily indicate actual variations in soil conditions between borings.

Our classifications of the soils are made independently of and therefore may or may not agree with the defined classifications.

MORAN, PROCTOR, MUESER & RUTLEDGE

By JAMES B. PARSONS



ROBERT FULTON HOUSES
BUILDING 9
NEW YORK CITY HOUSING AUTHORITY

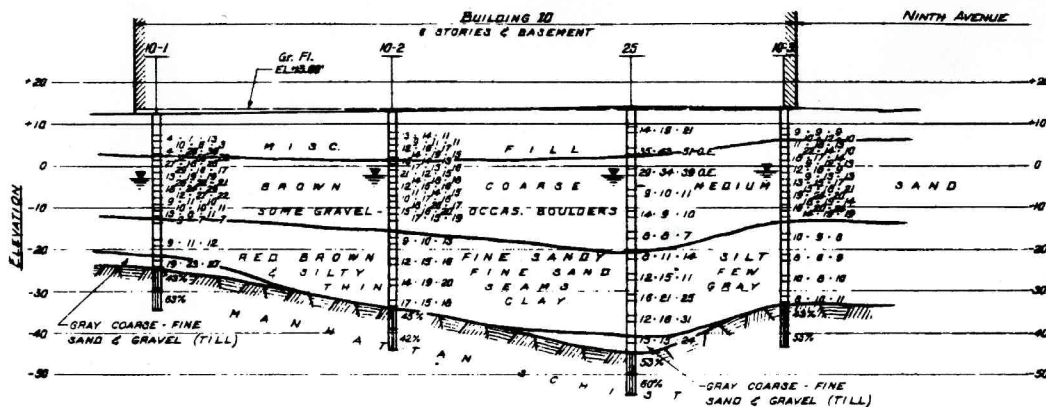
MORAN, PROCTOR, MUESER & RUTLEDGE
CONSULTING ENGINEERS

415 MADISON AVE. NEW YORK 17, N. Y.

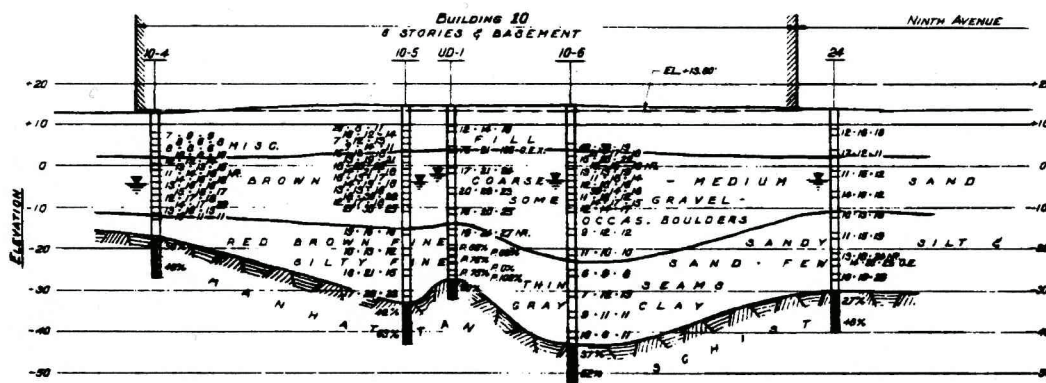
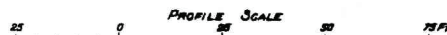
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BORING LOCATION PLAN
AND
GEOLOGIC SECTIONS

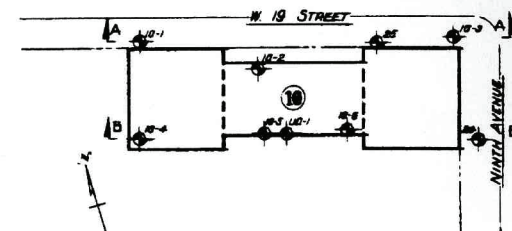
DRAWING NO.
G5-9



SECTION A-A



SECTION B-B



BORING LOCATION PLAN



LEGEND AND NOTES

Boring location.



Sample location - Adjacent figures indicate blows per 6" of penetration (unless otherwise noted) of 2" o.d. sampler, using 140 lb. hammer falling 30", except where 'X' indicates 300 lb. hammer falling 18".

Boulder
Ground water level.

NR = No recovery. OE = Open end sample.
P = Push or press. W = Wash sample.

Rock core - Adjacent figures indicate amount of recovery in percent of total core.

Boring Nos. 1 to 26 made by Walsh Drilling Co. between 12-7-59 and 2-4-60.

Boring Nos. 1-1 to 11-7A & G-1 made by W.M. Walsh Co. between 4-7-61 and 3-15-62.

Boring UD-1 and 4-8 made under M.P.M. & R. supervision by W.M. Walsh Co. between 8-24-61 and 9-5-61.

All elevations based on Boro. Pres. Manhattan datum, which is 2.75' above U.S.C. & G.S. datum = M.S.L. Sandy Hook.

CERTIFICATION

We have examined and classified soil samples recovered from borings made and supervised by others on this site. We certify that the soil classifications shown on the several profiles on this drawing represent our interpretation of the soil conditions prevailing as indicated by the soil samples. The profiles are interpolations between boring locations and samples in borings and do not necessarily indicate actual variations in subsoil conditions between borings.

Our classifications of the soils are made independently of and therefore may or may not agree with the driller's classifications.

MORAN, PROCTOR, MUESER & RUTLEDGE

By JAMES D. PARSONS



252 1

ROBERT FULTON HOUSES
BUILDING 10
NEW YORK CITY HOUSING AUTHORITY

MORAN, PROCTOR, MUESER & RUTLEDGE
CONSULTING ENGINEERS

415 MADISON AVE., NEW YORK 17, N. Y.

SCALE MADE BY I.E. DATE
SHOWN CIVIL BY JAB DATE 3-23-62

BORING LOCATION PLAN
AND
GEOLOGIC SECTIONS

FILE NO.
2251
DRAWING NO.
G5-10

Appendix B: Individual Lot History Tables

Lot 17, 114 (1836-1838), 271 (1839-1850s), 277 (1857-1860+), 433 W. 18th Street

Year	Grantor	Grantee	Tax	Census	Directory
1830	Samuel and Anna Maria Boyd	Benjamin G. Wells			
1832	Benjamin G. and Rebecca Wells	William Hall			
1833	William and Elizabeth Hall	John A. Bunting			
1833	John A. Bunting	John C. Merritt			
1836			John Merit, 1 lot, \$2000, (114 18 th)		
1837			John C. Merritt, 1 lot (114 18 th)		
1839-40			John C. Merritt, 1 lot (114 18 th)	No data	John Thomson, carpenter, 264 18 th
1841	John C. Merritt	John Thomson			
1842	John and Christiana Thomson	Eleazer Parmly (Lots 17, 20, 21)	Jno Thompson, house and lot, \$4500		
1845			Jno. Thompson, house and lot, \$5000		
1848			John Thompson, house and lot, \$4000		
1850				John Thomas, builder, and family	
1851			John Thomson, house and lot, 271 18 th , \$4000		John Thomson, 271 18 th
1854			John Thompson, house and lot, \$4800		
1857			John Thompson, house and lot, \$4800		John Thomson, carpenter, 271 W. 18 th , h. 277 W. 18 th
1857					John H. Thomson, builder, 269 W. 18 th , h. 277 W. 18 th
1860			Dr. E. Parmly, lot is 25'x92', house is 25'x42', 2 stories high, 277 18 th , \$4800	John Thompson, carpenter, and family	
1866-1867					John Thomson, builder, 411 W. 25 th , h. 277 W. 18 th
1870	Thomson heirs	Ehrich Parmly			

Lot 18, 115 (1836-1838), 269 (1839-1850s), 275 (1857-1860+), 431 W. 18th St.

Year	Grantor	Grantee	Tax	Census	Directory
1830	Samuel and Anna Maria Boyd	Joseph V. Webster			
1831	Joseph V. and Ellen Webster	Stephen Martindale			
1836			Webster, 1 lot, \$2000 (115 18 th)		
1837			Webster, 1 lot (115 18 th)		
1839-40			Webster, 1 lot (115 18 th)	George Crawford and family	George Crawford, 111 Broad, h. 269 18 th
1842			Stephen Martindale, house and lot, \$2800		
1845			S. Martindale, house and lot, \$2800		
1848			Stephen Martindale, house and lot, \$2500		
1850				Roswell Steans, Agent, and family?	
1851			Stephen Martindale, house and lot, 269 18 th , \$2300		R.H. Stone, 269 18 th
1854			Stephen Martindale, 2 houses and lot, \$1500 and \$2500		
1857			Rev'd Stephen Martindale, 2 houses and lot, \$1500 and \$2800		No entries for 1860 census names on lot
1860			S. Martindale, lot is 25'x92', 2 houses are each 25'x26', one is 4 stories, one is 2 stories, 275 18 th , \$4300	Burk, Mulloney, Scott, Kelly, Callahan, Curry, Sweeney families (eight households; all but one headed by laborers)	
1869	Martindale heirs	Mary Martindale			

Lot 19, 116 (1836-1838), 267 (1839-1850s), 273 (1857-1860+), 429 W. 18th St.

Year	Grantor	Grantee	Tax	Census	Directory
1830	Samuel and Anna Maria Boyd	William S. Seaman			
1835	William S. Seaman	Henry Moore			
1835	Henry and Abby Moore	Benjamin J. Burdett			

Year	Grantor	Grantee	Tax	Census	Directory
1836			William Seaman, 1 house and lot, \$3500		
1837			William Seaman, 1 house and lot (116 18 th)		
1839-40			Benj. Burdett, 1 house and lot (personal estate \$8000)	Benjamin Burdett and family, Jacob Duboise and family	Benjamin J. Burdett, carter, 267 18 th Jacob B. Dubois, cabinetmaker, h. 267 18 th
1842			Benj. J. Burdett, house and lot, \$2100		
1845			S. Burdett, house and lot, \$2100		
1848			S. Burdett, house and lot, \$2000		
1850				Benjamin Burdett and family, Jacob Dubois, carpenter, and family	
1851			B.J. Burdett, house and lot, 267 18 th , \$2100		B.J. Burdett, J.B. Dubois, carpenter, 267 18 th
1852	Benjamin J. and Naomi Burdett	William C. Goodheart			
1854			Wm. C. Goodheart, house and lot, \$2400		
1857			Wm. C. Goodheart, house and lot, \$2400		Phebe Toms, widow Joseph, h. 273 W. 18 th
1860			W. C. Goodheart, lot is 25'x92', house is 22'x26', 2 stories, 273 18 th , \$2500	Charles Toms and Phebe Toms, William (butcher) and Eliza Goodheart	
1866-1867					Toms and Goodhearts have moved

Lot 20, 117 (1836-1838), 265 (1839-1850s), 271 (1857-1860+), 427 W. 18th St.

Year	Grantor	Grantee	Tax	Census	Directory
1830	Samuel and Anna Maria Boyd	James Cahill (Lots 20 and 21)			
1832	James and Margaret Cahill	Joel Hall (Lots 20 and 21)			
1835	Joel and Hannah Hall	Alexander Masterton and Robert Smith (Lots 20 and 21)			

Year	Grantor	Grantee	Tax	Census	Directory
1835	Alexander and Euphenes Masterson and Robert and Agnes Smith	John Thomson (Lots 20 and 21)			
1836			John Thomson, 2 lots, \$2000 each		
1837			John Thomson, 2 lots		
1839-1840			John Thomson, 2 lots	No data	No data
1842	John and Christiana Thomson	Eleazer Parmly (Lots 17, 20, 21)	John Thompson, shop and 2 lots, \$3200 total		
1845			Jno. Thompson, house and lot, \$1500 (shop is to east)		
1848			John Thompson, house and lot, \$1500		
1850				No data	
1851			John Thomson, shop and lot, \$1400		Thomson & Ordway, builders, John Thomson, G.D.T. Ordway, 263 & 265 18 th [note, pottery is at 261 18 th]
1854			John Thompson, shop and lot, \$1800		
1857			John Thompson, shop and lot, \$1800		John Thomson, carpenter, 271 W. 18 th , h. 277 W. 18 th
1859	Eleazer Parmly	Washington Smith			
1860			Wash. Smith, lot is 25'x92', bldg is 25'x92', 3 stories, 271 18 th , \$1800	No data	
1866-1867					Washington I. Smith & Co., pottery, 261 W. 18 th , h. 259 W. 19 th
1870	Washington T. Smith	Martha Ridaback (Lots 20-25)			