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LANDMARKS PRESERVATION
COMMISSION

ARCHITECTURAL/HISTORICAL SENSITIVITY EVALUATION
OF THE 641 WEST 59TH STREET
TV CITY PROJECT,
MANHATTAN, NEW YORK

Prepared For:
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INTRODUCTION

The purpose of this sensitivity evaluation is to determine whether the structure that presently stands along the north side of 59th Street between 11th and 12th Avenues is in fact the Hamersley Forge, and to document and evaluate its potential historic significance. As part of this evaluation process, an assessment of the potential for significant archaeological deposits in and around the structure will also be included.

The Principal Investigator and Architectural Historian visited the project area on the 18th of November 1986. During this visit, the exterior and interior of the structure were inspected, described and photographed. A second visit to the site was made on the 10th of February, 1987, by Greenhouse Consultants staff members in order to solve specific questions raised by the historic and cartographic evidence.

This report is organized in the following manner: first, the sections describing the exterior and interior of the structure; second, sections assessing the architectural and historical significance; third, a review of the archaeological potential; and fourth, the conclusions.

ARCHITECTURAL DESCRIPTION

Exterior:

The building in question, 641 West 59th Street, the site of the Hamersley Forge, is located within the block bounded by 59th and 60th Streets and 11th and 12th Avenues. It is a 3 story, multiple bay, rectangular plan, brick bearing structure of mid-nineteenth century construction with a later addition to the east.

The south facade (59th Street) is the primary facade of the structure and contains the public entrance (see Plate 1). The 12 bay, 3 story brick facade is laid in common bond, stuccoed and painted light brown. Attached to it, at its eastern end, is a 6 bay, 2 story later addition. Segmentally arched brick window lintels and brownstone sills are the chief embellishments of the main (older) section of the facade. Most of the windows (except for two) have been infilled and parged. The interesting thing to note about this facade is that identical window lintels are found in the basement level of the eastern addition (there are fifteen bays in the addition). The brick bonding becomes irregular in



coursing above these windows, indicating that the upper brick wall was added at a later date. The windows of the upper floor are industrial steel sash. The entrance bay has been inappropriately stuccoed and half-timbered and contains a wooden portico surmounted by a hanging sign.

The 3 story west facade is 11 bays wide with a slightly gabled roofline (see Plate 2). The wall fabric is brick, laid in a common bond with a lime mortar. The first floor has had alterations including infilled openings, new concrete window sills and much replacement brick. The second and third floor windows have been filled with terra cotta firebrick or inappropriate replacement windows, however the bluestone sills have been retained. Other openings, such as door and arched openings of unknown function, have also been infilled or altered (see Plate 3). The presence of joist pockets on the second and third floor levels, and a large loading-type door on the second floor, tenth bay from the north, indicates a possible previous extension on the west side. Plain cast iron tie rod plates exist throughout the facade but are most noticeable at the southwest corner. The most decorative feature of the west facade is its slight corbelled cornice at the roofline. Each individual corbel is composed of three stepped and superimposed molded bricks supporting a belt course of single brick laid end-to-end. Most of the belt course is missing. Above the cornice is a slight parapet.

The 3 story north facade is 12 bays wide with 6 additional bays in the east addition (see Plate 4). Within this stuccoed brick facade, all of the original windows have been infilled or stepped down to accommodate smaller inappropriate replacement windows, however, as in other facades, the bluestone sills remain. The original windows are surmounted by segmentally arched brick lintels supported by molded brick corbels at both ends. The slight corbelled brick cornice is also present. Tie rod plates exist throughout this facade. The 6 bays of the east addition contain industrial steel sash windows.

The 3 story east exterior wall is an addition to the original structure. The common bond brick wall contains three openings, the southernmost opening is the present vehicular entrance. The facade is devoid of ornamentation except for a stepped parapet wall with terra cotta coping and plain exterior pilaster strips containing cut-off steel "I" beams immediately below the roofline. The roof of the building is slightly pitched in the center. It appears that a section of the building was torn off in the northeast corner.



Interior:

The 3 story original interior is divided into basement, first and second floor. The interior of the addition is one large opening containing a car ramp leading from the ground floor of the addition to the second floor studio of the main building.

The basement level is one large open space interrupted by large square wooden support columns at regular intervals. The bare brick walls contain infilled windows with wooden sills and two large infilled brick arches opposite each other in the north and south walls (see Plate 5). Most of the visible floor has a poured concrete slab over it. The wooden support columns are typical of those in the rest of the building but are more massive. These in turn support massive wooden joists. Between each pair of columns is a reverse truss constructed of iron rods with a king post at the upside-down apex of each truss (see Plate 6). This pattern of floor support is repeated at the second and third floor levels where the columns are slightly smaller in dimensions.

The first floor level of the older section of the structure is finished in modern materials such as dry wall, linoleum floor and dropped ceilings. Office spaces have been partitioned with the use of both dry wall and cinder block walls. None of the original construction is visible; even the column supports have been boxed out (see Plate 7). This floor is used for office and support space for the second floor television studio.

The second floor of the older section of the building is the most interesting area of the structure. Here the bare brick walls have been left exposed and the truss and open joist ceiling system is visible. The wooden support columns are approximately 12" x 12" square and appear to be machine sawn. The arms extending from each column at 45 degree angles are 6" x 6" pieces of wood attached with square head nails (see Plate 8). The joists are 24" apart on center. Due to a whitish residue on the joists, it is possible that the ceiling was whitewashed at one time. There is tongue and groove flooring of approximately 5" wide boards throughout. The interior lintels of the infilled windows are wooden. Plain brick pilasters, which line up with the columns and form the end supports of the reverse trusses, flank each of the windows. A double row of joist pockets is visible in the south and west walls at floor level. The bottom row supports the present floor. At either end of the east wall are large arched



openings. This space is used as a television studio and workshop for scenery construction and storage.

The interior of the east addition consists of bare brick common bond walls with industrial steel sash windows with frosted glass lights and concrete lintels, and a poured concrete floor. A wooden automobile ramp leads from this space to the second story studio. This section of the building is used for recreational vehicle and other vehicle storage.

ARCHITECTURAL AND HISTORICAL SIGNIFICANCE

Architectural Significance:

In its present state, the building in question possesses little architectural significance due to its compromised integrity. However, its limited ornamental features are characteristic of the Italianate influence on architecture prevalent in the United States between 1840 and 1885. The interior support system is of interest and does not appear to have been altered. The structure has undergone a succession of building expansions and alterations, and without physical and archaeological testing, it would be impossible to determine the exact progression. The eastern addition appears to be circa 1925, while the basement level of this same section appears to be contemporaneous with the remainder of the building. There also seems to be a large section of the structure missing to the east. The basement level has a poured concrete floor, hiding traces of previous uses.

Architectural investigation of the present structure indicates that it was indeed built in the mid-nineteenth century. However, there is no visible physical evidence to prove that the building was ever used as a foundry or a bone black manufactory.

Historical Significance: The Forge

A literature search through relevant published resources produced the first reference to the existence of a forge on Block 240 (presently numbered 1171). The following is found in Mott (1908:11): "Lebbeus B. Ward, the mechanic, lived in a handsome Gothic cottage, at the northwest corner of 59th Street and 10th Avenue....He carried on business at the foot of the street at the river's edge, where he founded the "Hamersley Forge", the first establishment in this country fitted with furnaces and steam hammers of sufficient size to manufacture shafts and cranks for

steamer and steamboat use".

A preliminary search for listings of the "Hamersley Forge" in the N.Y.C. Directories from the years 1838-1867 was unsuccessful. The forge was also not listed in the Commercial Register, found at the back of the Directory volumes. The cartographic evidence was examined next.

The only map reference to the existence of a forge on this block was found on Matthew Dripps 1854 Topographical Map of the City of New York, north of 50th Street (see Figure 3). A rectangular building, centrally located on the block, is depicted. To the south, three smaller buildings are shown fronting the north side of 59th Street. This four building complex is labeled by Dripps as "Hamersley Forge". The N.Y.C. Directories were again searched to provide additional information about and confirmation of the existence of this establishment.

Mott (1908:11) documents that the owner of the forge was one Lebbeus B. Ward. The deed evidence shows that Ward received the property in 1839 from one William T. Cock (see Appendix 1). The directories of 1838 and 1839 do not list Ward in both residential and business categories for New York City. The 1840-41 Longworth Directory is the first to list Ward as having a residence and business in New York City. "Ward, L. B., Engineer n. Av. 10th n.23", "Ward & Co. L.B. Forge and Iron Works, 59th at North River" (Longworth 1841). By 1843, Ward's residence is the northwest corner of 59th Street and 10th Avenue (Longworth 1843; Mott 1908). Ward's residence and iron works continue to be listed in the directories until 1849-50 (Doggett 1850). The directories for 1851-1870 were searched, but the forge and/or iron works are no longer listed. It can therefore be supposed that the forge had a relatively short lifetime of operation from 1840-1850. Further corroboration of its operation during the 1840's was found in the literature. In Mott's discussion of Lebbeus Ward, he states "Here was forged the "Peacemaker", the famous gun which was invented by Ericsson and which was mounted on the USS Princeton. At its trial on the Potomac River in 1844, it was very successful, but later at a final discharge, it exploded, killing two secretaries of Tyler's cabinet. The President himself narrowly escaped. It is proper to add that Ward disapproved of the construction method of the gun, which was much larger than had theretofore been in the navy." (Mott 1908:11).

Additional research regarding persons associated with this forge was conducted next. John Ericsson, the Swedish-American inventor and engineer, moved to N.Y. in 1839 and became a U.S. citizen in 1848 (Encyclopedia Britannica 1964). He designed the first practical screw propeller which was used in all subsequent warships (ibid.). "In 1844 he built the USS Princeton, the first metal hulled, screw propelled warship, and the first engines below the waterline for protection (Encyclopedia Americana 1976, Vol. 10:547). This is the warship upon which Mott (1908) states the "Peacemaker" gun was mounted in 1844.

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John Ericsson was not the sole designer of the USS Princeton. Robert Field Stockton, a US naval officer and later politician, co-designed the warship. Stockton was responsible for obtaining the charter and financing the construction of the Delaware and Raritan Canal, of which he was President (Ency. Britt. 1964). "With John Ericsson, later designer of the (USS) Monitor, he drew up the plans for the Princeton, the first warship to be driven by a screw propeller, designing himself one of its guns, the largest in the US fleet" (Ency. Britt. 1964 Vol. 21:427). Stockton subsequently became the commander of land and sea forces during the war with Mexico, after the annexation of Texas in 1845.

Although Ward's Hamersley Forge had a relatively short period of operation, it had been associated with persons and events important to our industrial/technological history.

The Bone Black Manufactory:

The cartographic research shows that by 1862, the primary commercial operation on Block 240 (1171) was a bone black manufactory (see Figure 4). The Perris 1862 Atlas of the City of New York shows a complex of brick and frame buildings related to the bone black manufactory covering the central portion of the block, extending into both streets. Although there are other building complexes on the block, this is the only one identified. A large boiler is shown in the central and largest of these brick buildings and an even larger smokehouse is shown nearer 60th Street, in an adjacent, connected building. The 1871 Perris and Brown Atlas also depicts the bone black manufactory with the same basic configuration as the 1862, with a few additional frame/iron sheds on 60th Street. The lot to the east is labeled "stone yard" and to the west are "Glycerine Factory" and a "Curled Hair Factory". At the river's edge is a complex of predominantly frame buildings, labeled "Building Materials".

Bone black, also known as ivory black, is produced by the calcination of animal bones, and contains 10-20% carbon within a matrix of calcium phosphate (Ency. Britt. 1964 Vol. 17:72). Bone black was utilized by several types of industries. "Most bone black is used in the manufacture of cane sugar....Bone black is also used in the purification of edible oils, alcoholic beverages, drinking water, and chemicals and as a pigment in paints and varnishes" (Ency. Amer. 1976, Vol. 4:205). It is interesting to note that several breweries and a varnish factory were in operation in the immediate vicinity of the block during this time period (Perris 1862; Perris & Brown 1871).



A limited number of references were located which discuss the actual process involved in the manufacture of bone black. However, it was ascertained through Lambert (1913) that a bone black manufactory would have required a large space for the various steps needed in producing the end product of animal char. The furnace or furnaces, commonly called benches, containing the retorts arranged in a horizontal fashion, would most likely have been in the basement. Space would also have been allotted for the trimming of bones brought to the charging floor, a cooling shed for the cooling down of the red-hot char in sealed cannisters, a multi-level space for the bone black grading and cutting mill, and storage space for the bagged black prior to its going to market. Room was also needed for the distillation of discharged gases (Lambert 1913:16-28).

A search through the commercial register at the rear of the Directories 1850-1875 did not produce any listings of a bone black manufactory at this location. The 1864 Trow Directory does list a bone black business. It is located, however, at 36th Street between 10th and 11th Avenues. From this information, it is evident that the Block 240 manufactory was not unique in New York City during the 19th century. The map research remains the sole line of evidence of this operation on Block 240 (1171). This evidence shows the manufactory was in operation at least from 1862-1871, however, it is not clear if it began immediately following the closing of the Hamersley Forge, circa 1850. Since the next atlas ((Robinson 1882)) depicts a totally different commercial operation on the block, (that of stockyards), it is also uncertain when bone black manufacture ceased. Lebbeus B. Ward, however, sold the property to William H. Vanderbilt in 1874, and this may perhaps mark the change in commercial use of the block.

The Stockyards:

The Robinson 1882 Atlas of the City of New York shows "stock pens" covering approximately 80% of the block. It would appear that a large brick building, beginning approximately 200 feet west of 11th Avenue and extending through to 12th Avenue, had been constructed, which was evidently divided into stalls based on the interior trusswork (see Figure 5). These interior subdivisions are approximately 25 feet wide and 100 feet deep and are sequentially numbered from 1-64. There exists an apparent alley or perhaps cartway, approximately 600+ feet west of 11th Avenue. The line of this 'alley', however, has been designated with stall numbers (9 and 56), but it is most probable that it separates two individual brick buildings, the smaller of which faces 12th Avenue. One and three story frame structures are



adjacent to the east and there are brick structures which front onto 11th Avenue. This large brick building, however, covers the entire central and western portion of the block; the former locations of both the bone black manufactory and the earlier Hamersley Forge. It is interesting to note that the block across 59th Street to the south is labeled "Abbitoir" - slaughter house. The Robinson 1889 Atlas shows the same building configuration and "stock yards". The Bromley 1891 Atlas of the City of New York shows the same configuration and the operation is labeled "Union Stock Yards". The yards now cover the study block and extend northward to 64th Street. The block number is changed to 1171, which is what it is known as today. The block across 59th Street to the south is, in 1891, "Eastman's Dressed Beef Co."

The 1907 Sanborn Atlas of New York City shows the "Union Stock Yards and Market" and "Live Stock Pens:." on the central portion of the block (see Figure 6). The portion of the block west of the alley, fronting onto 12th Avenue, is labeled "Rossiter's Stores Terminal Warehouse Co.". To the east there are standing structures. The overall dimensions of the Union Stock Yards building appear to be the same as in 1882.

In an attempt to clarify questions resulting from previous research, members of the Greenhouse Consultants staff visited the block for the second time. The purpose was to develop a plan of existing conditions (see Figure 7).

Section "A", the three-story brick structure is what remains of the original Union Stock Yards and Market building seen on Robinson 1882 and Sanborn 1907 (see Figures 5 and 6). It was constructed sometime after 1871 and prior to 1882, based on the historic atlas research (see Figures 4 and 5). This is well within the time frame of 1840-1885 suggested by the architectural historian.

Section "B" is a one-story brick building surmounting the truncated basement remains of the original Union Stock Yards and Market building. The architectural historian has suggested a ca. 1925 date. At some point after the initial, partial demolition of Section "A" and subsequent building of Section "B", it was altered, as seen in its east facade.

ARCHAEOLOGICAL POTENTIAL



The Principal Investigator inspected the area adjacent to the structure and the interior of its basement in an attempt to assess the potential of these locations for yielding archaeological data relevant to the historic uses of the site as a forge and a bone black factory. This inspection did not yield any positive results. All of the areas adjacent to the exterior of the structure were paved, either with macadam or concrete, so no subsurface deposits could be observed. The same situation applied to the basement of the structure. Here, a concrete floor covered all possible locations of forge or bone black related deposits. The potential archaeological remains of the forge might include foundations and other structural supports needed for the furnace, power driven hammer and other machinery. Associated deposits might include slag, cinders and scrap iron. The potential remains of a bone black manufactory would probably include fragments of animal bone, burnt bone remnants, and possibly petroleum product related deposits (such as benzene or naphtha). Structural remains would be similar to those of a foundry including massive foundations, retort and machinery supports and miscellaneous parts. Although no relevant archaeological deposits were observed, either around the exterior of within the basement of the structure, this is not meant to imply that such deposits do not exist. Without physical testing to search for these deposits, it cannot be stated whether or not such resources exist.

CONCLUSIONS

It was primarily through a study of historic maps of the project area that the standing structure under consideration in this report was recommended for further study (Rothschild and Dublin 1985:10-16). A series of these historic maps illustrating various uses for this parcel at 641 West 59th Street in Manhattan are included here as Figures 2 through 6. The earliest of these maps shows the area previous to the construction of the Hamersley Forge building. The parcel that later becomes the site of this building is part of a farm belonging to the "Somendyke" family according to the 1807 Bridges Map which was published in 1811 (See Figure 2). This is presumably the same family as that of John and Ann Somerindyck who held deed to this land from 1785 to 1809 (See Appendix 1). The earliest map to show a structure at the 641 West 59th Street location is Figure 3, the Dripps Map of 1854, which shows a building labeled the Hamersley Forge here. This is the establishment described by Mott. Mott states that this forge was the first in the country with furnaces and steam powered hammers massive enough to produce parts for steamships and the facility that cast the "Peacemaker" (Mott 1908:10-11).

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Figure 4 illustrates that by 1864 the entire central portion of the block including the parcel under study has become part of a "Bone Black Manufactory". This process is discussed above in the section on Historical Significance. Greenhouse Consultants researched the forge and the bone black manufactory and the results are explained above.

Figure 5, the Robinson Atlas of 1882, illustrates that by this date the bone black manufactory has been replaced by a stock yard. The bone black manufactory structure has evidently been replaced by a much larger building which covers the entire central portion of this block from 59th to 60th Streets.

As stated above, the Architectural Historian has concluded that the standing structure was built during the nineteenth century. The map evidence indicates that this construction took place after 1874 and prior to 1882. The physical evidence of the structure itself provides nothing that would contradict these dates. Since the maps indicate that the original forge structure was replaced, it is not possible that the building standing at 641 West 59th Street is the Hamersley Forge. No physical evidence was found during the inspection of the structure and its site that would prove that it was ever used as a foundry or a bone black manufactory.

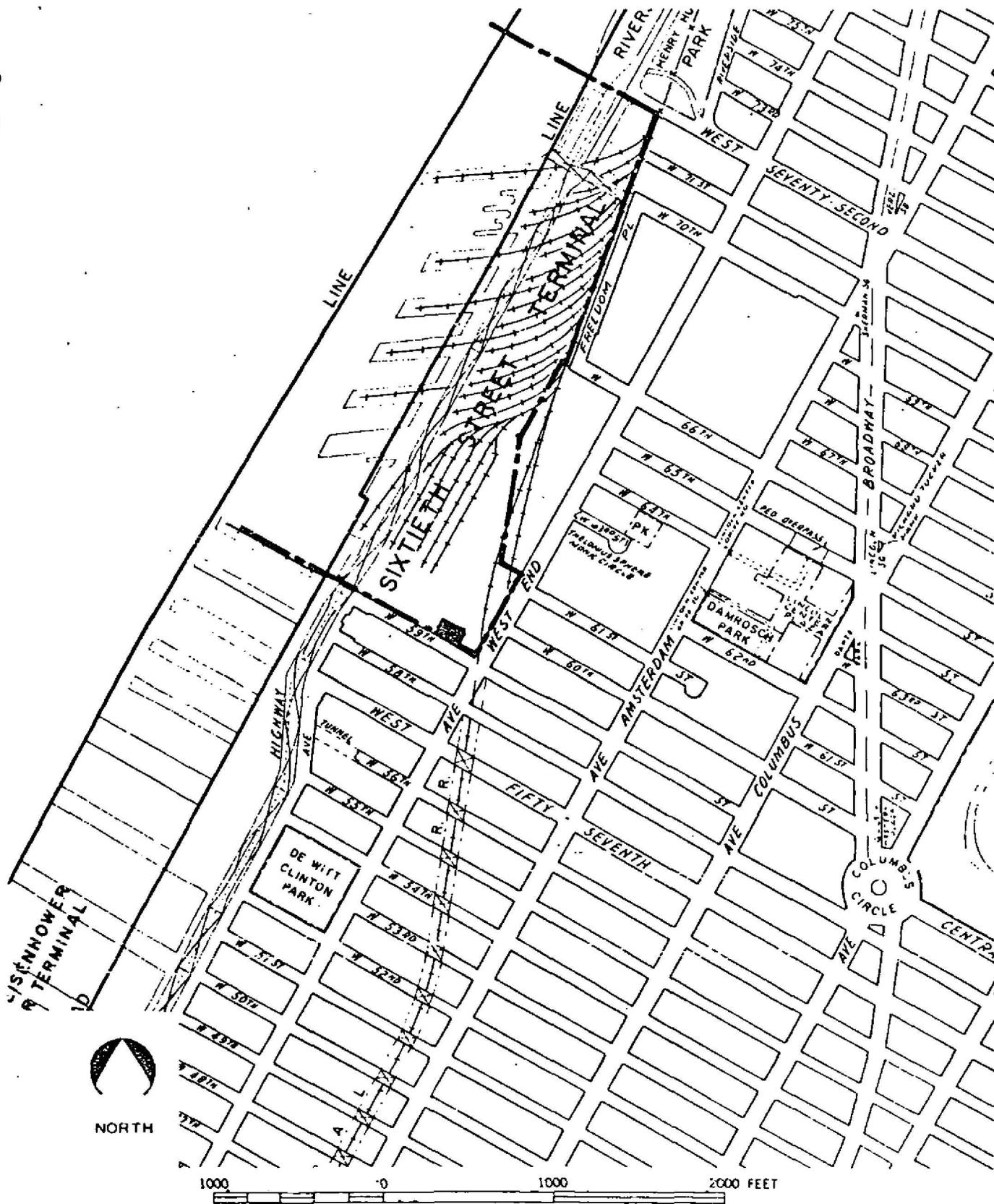


Figure 1 Project Area (indicated by bold line) shown on 1982 New York City Mapped Streets: Section 8. Black rectangle in southeast corner indicates approximate location of structure at 641 West 59th Street.

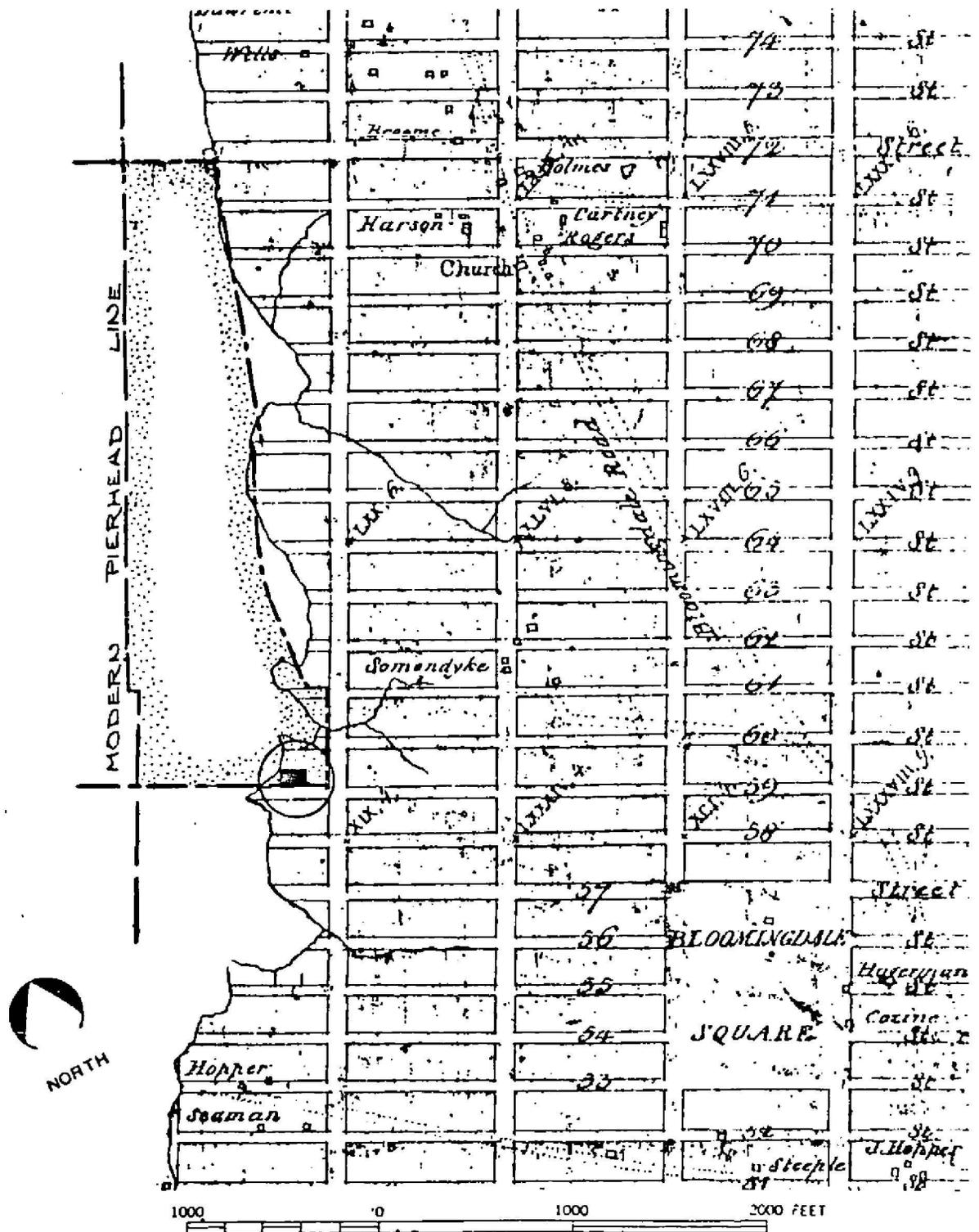


Figure 2 Project Area (stippled boundary) shown on portion of Bridges' 1807 Map of the City of New York. Black rectangle within circle at southeast corner of Project Area indicates location of structure under study at 641 West 59th Street.

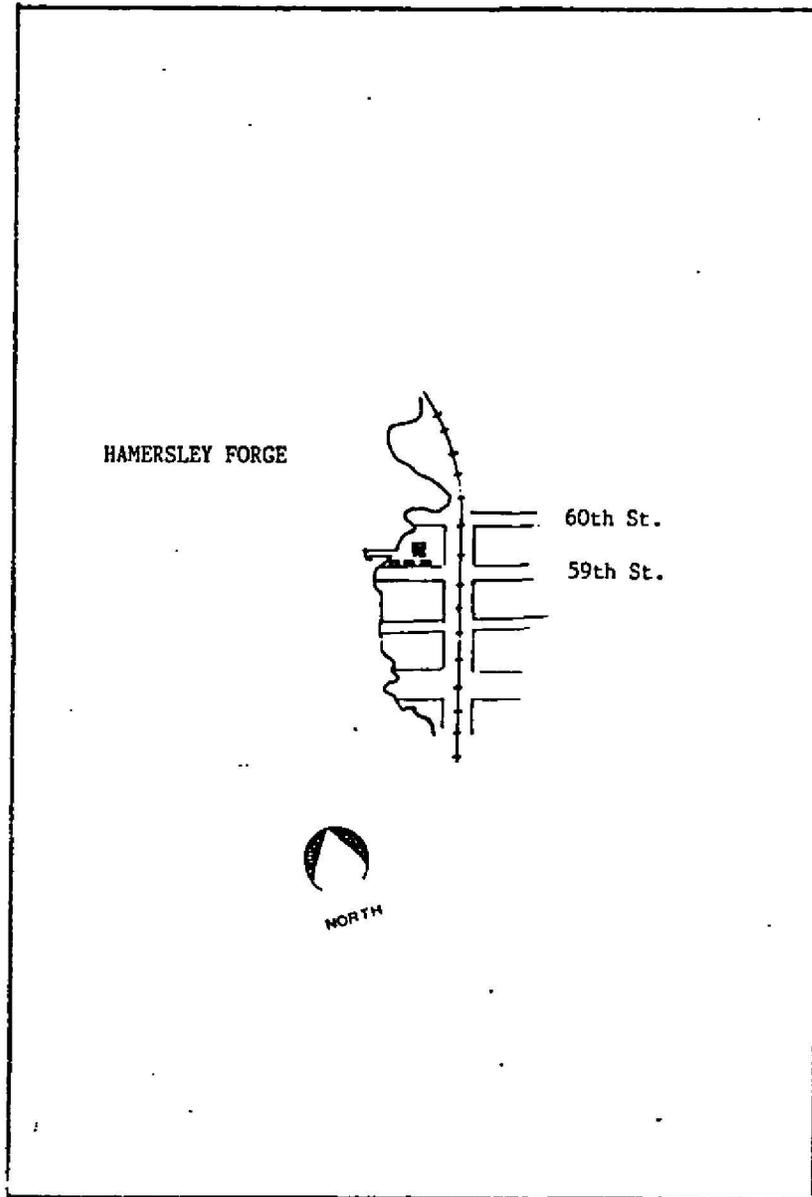


Figure 3 Tracing of portion of Dripps' 1854 Topographical Map of the City of New York, North of 50th Street, showing the Hamersley Forge structures.

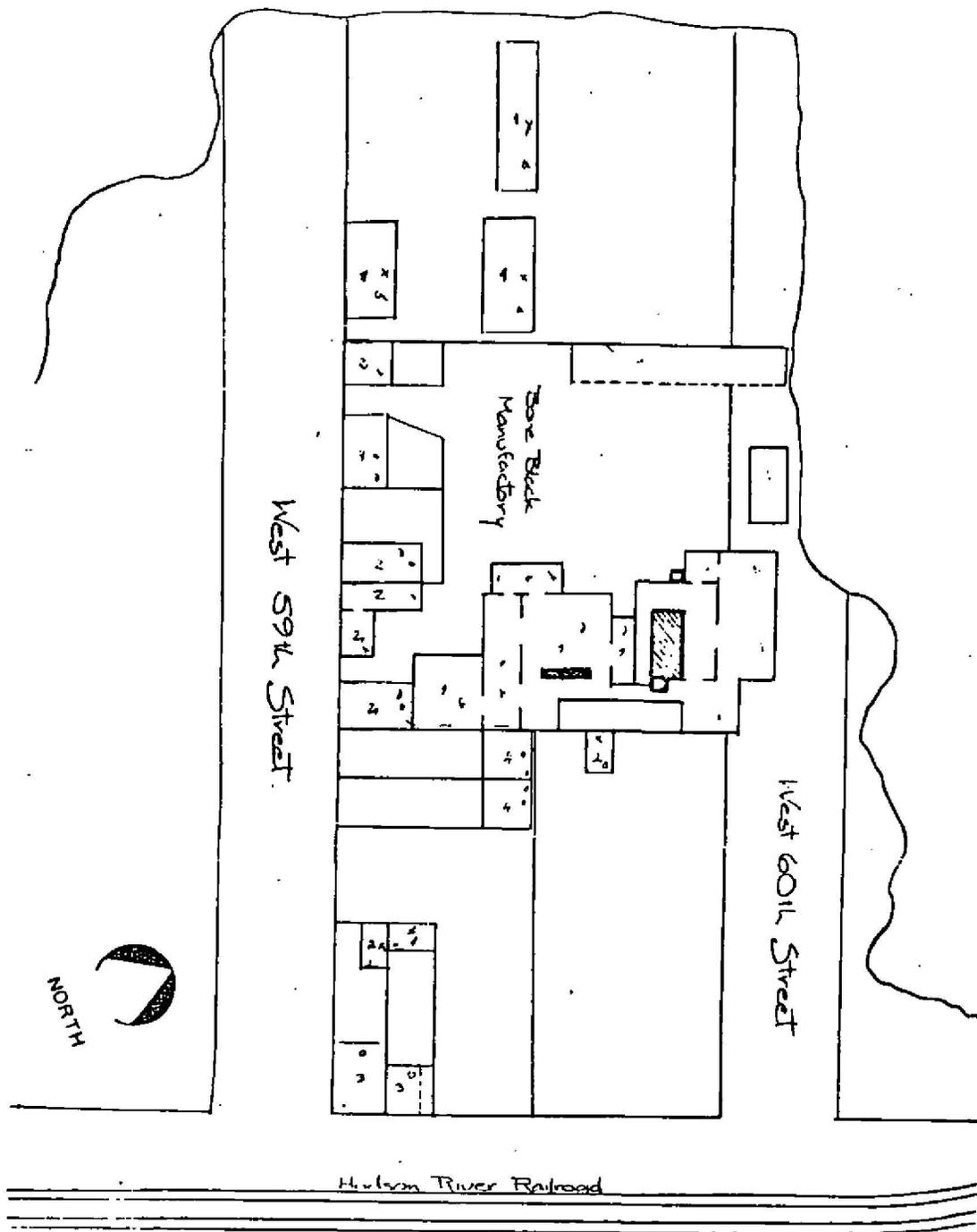
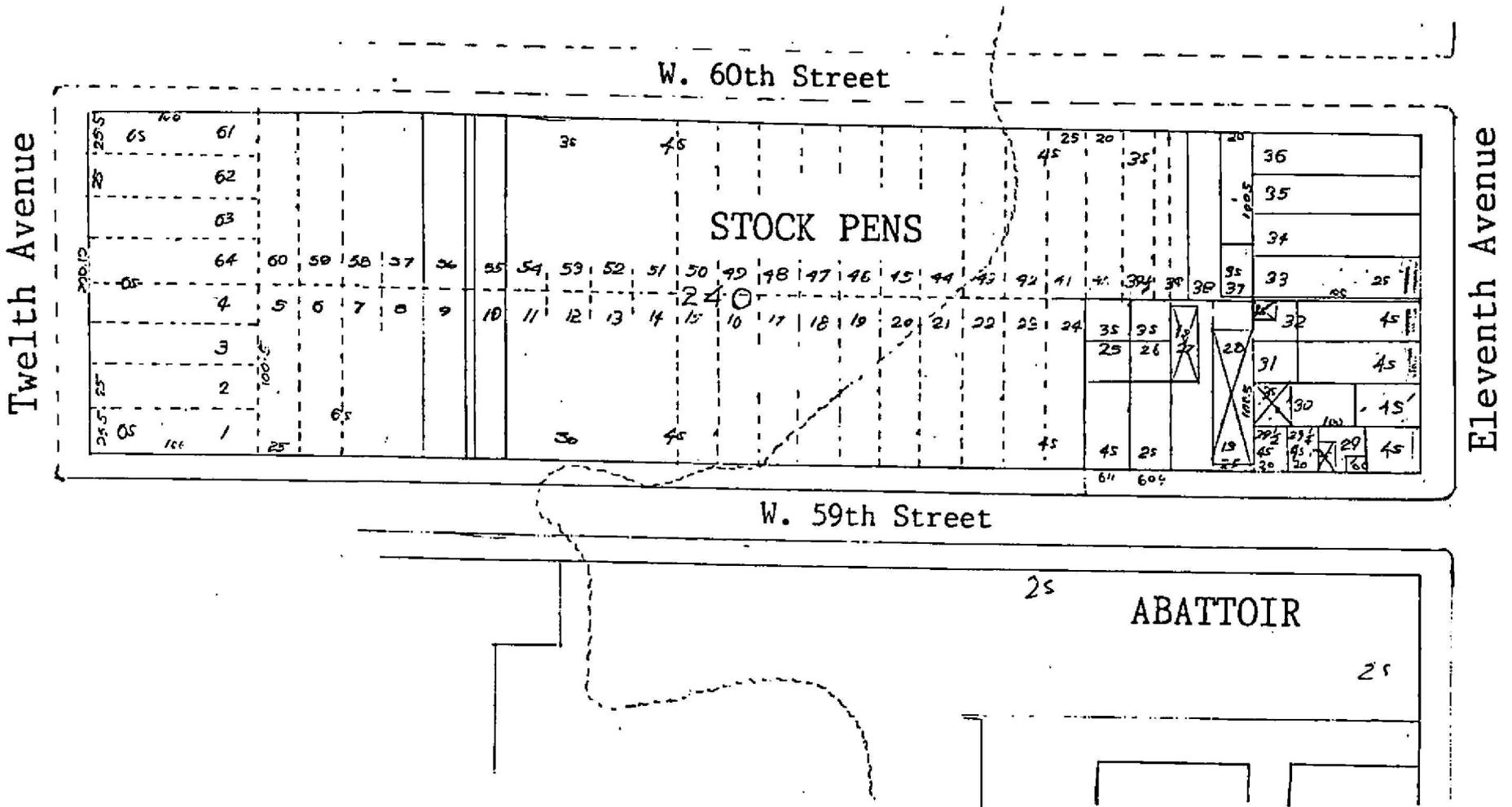


Figure 4 Tracing from Perris 1862 Maps of the City of New York showing "Bone Black Manufactory".



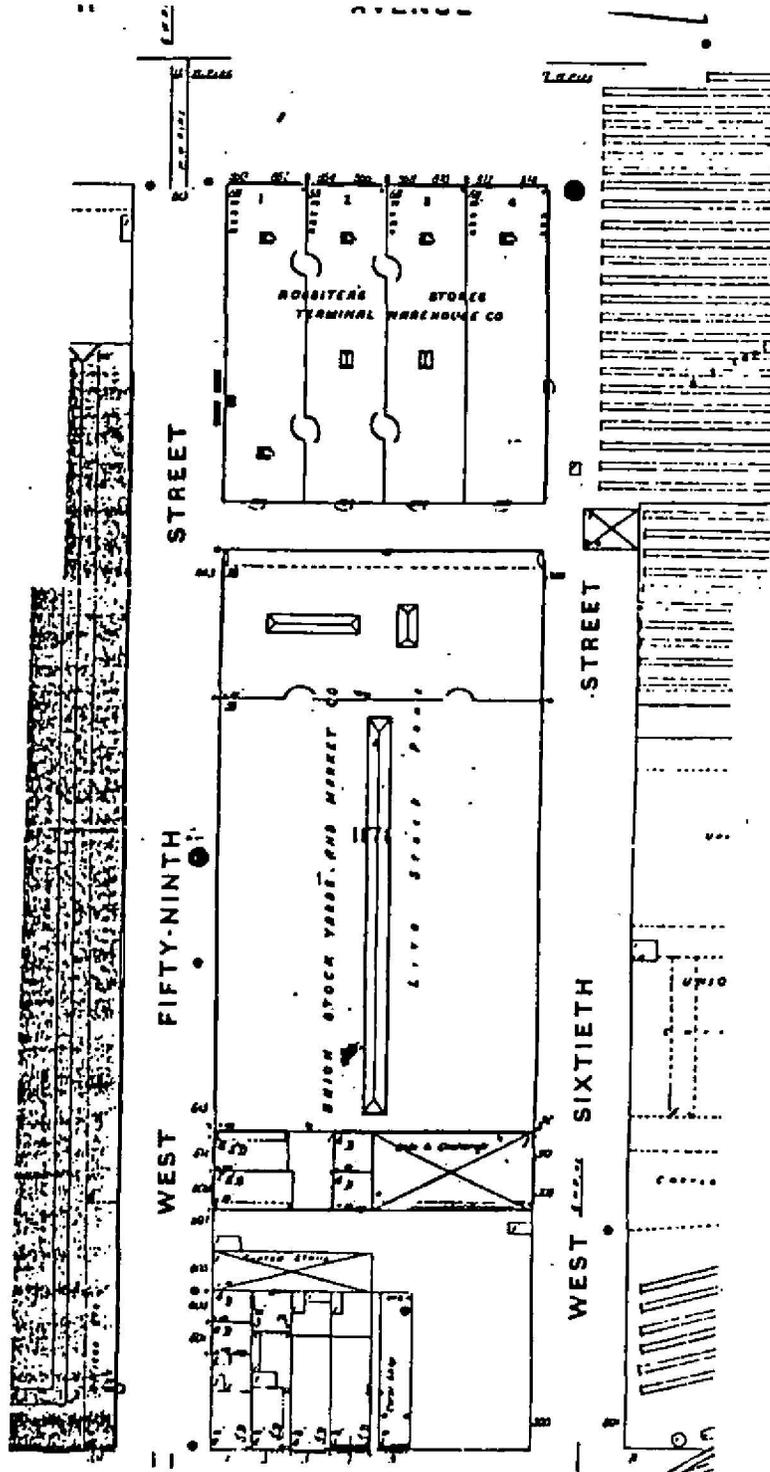


Figure 6 Portion of sheet from Sanborn 1907 Atlas of New York City showing facilities of the Union Stock Yards and Market.

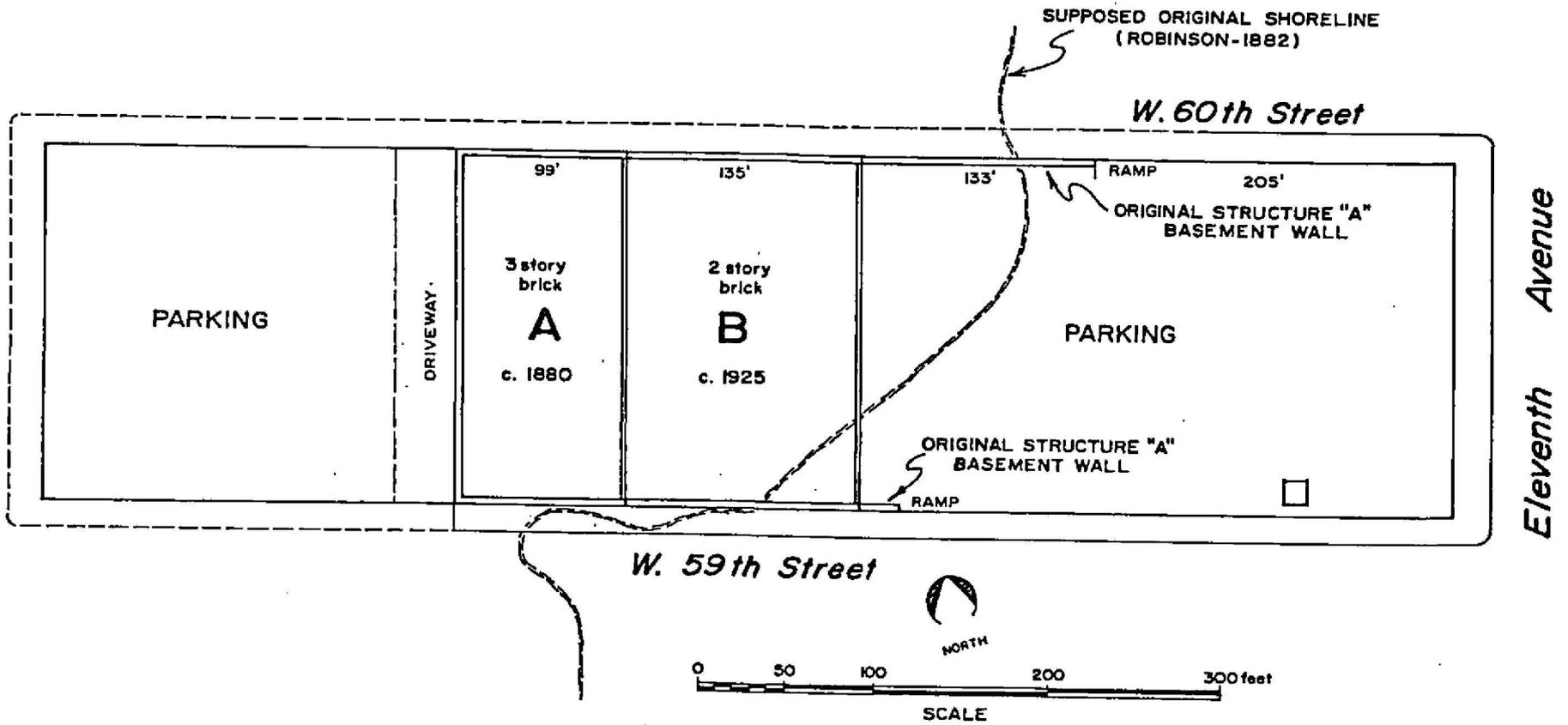


Figure 7 Existing conditions based on field inspection.



Plate 1: View of the south facade of 641 West 59th Street.

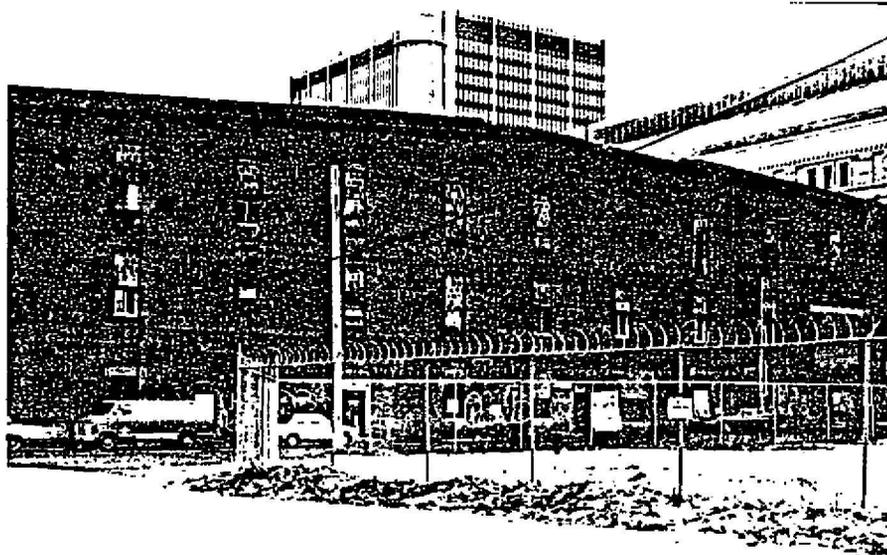


Plate 2: View of the west facade.

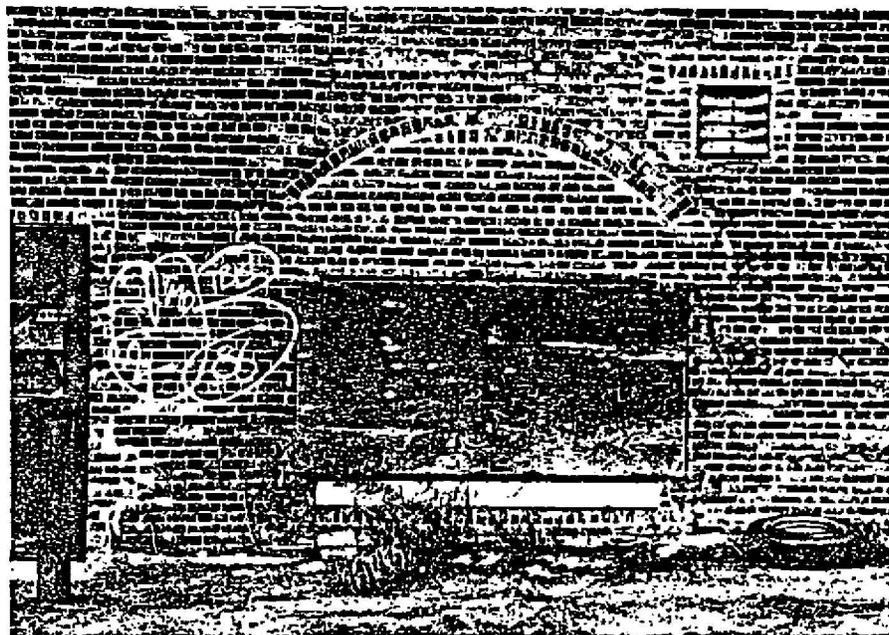


Plate 3: Detail of infilled opening in west facade.

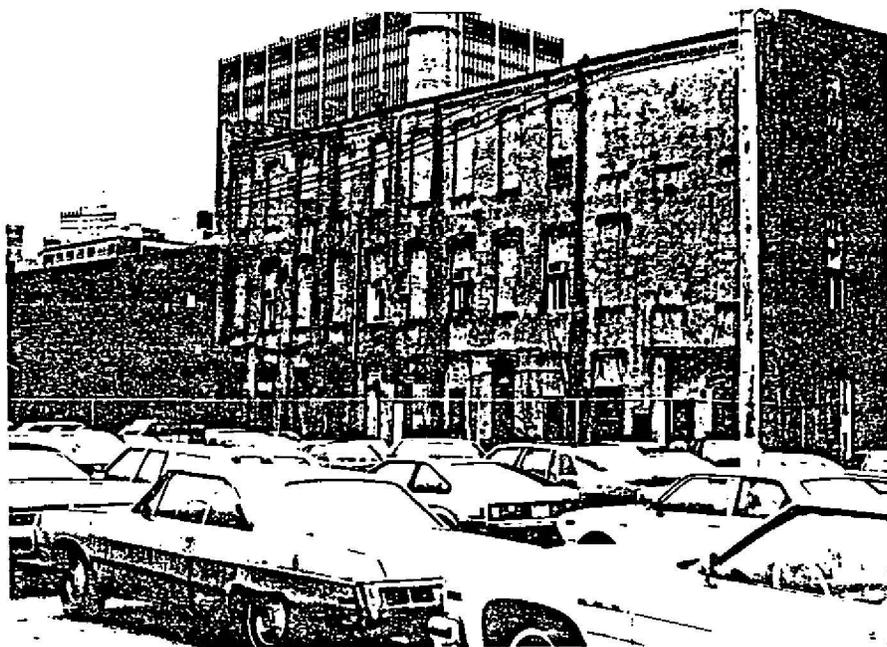


Plate 4: View of the north facade.

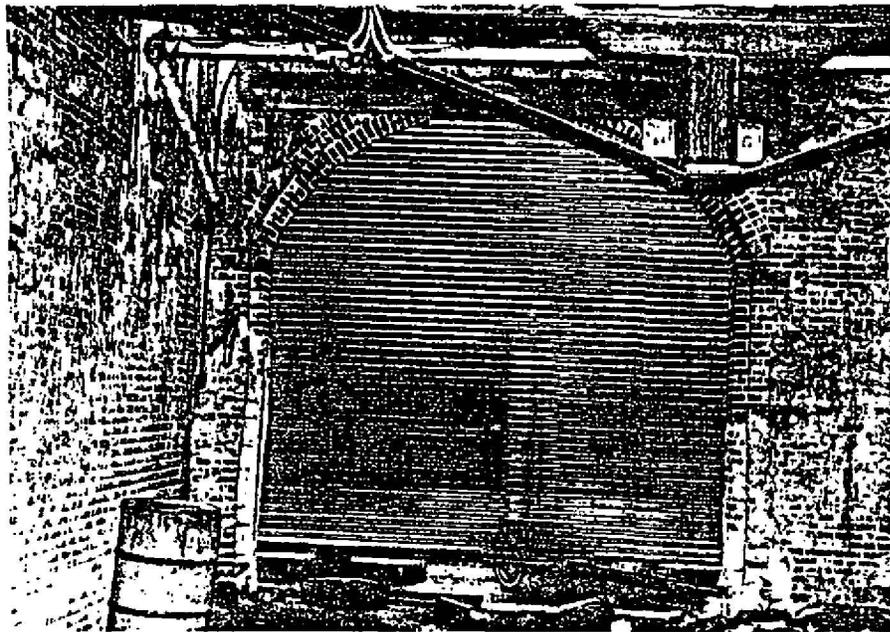


Plate 5: Arched doorway in north facade, from interior of basement.

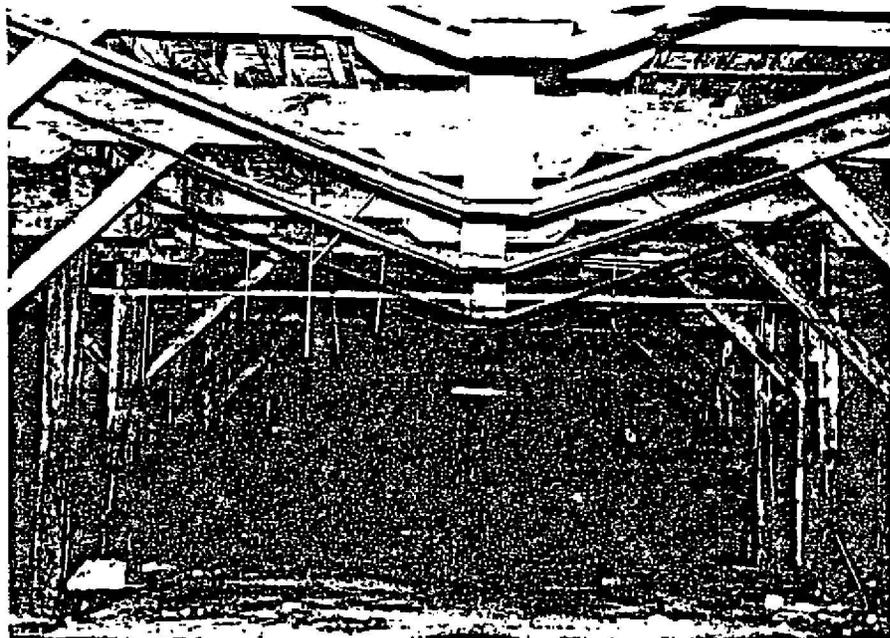


Plate 6: Detail of reverse trusses in basement.

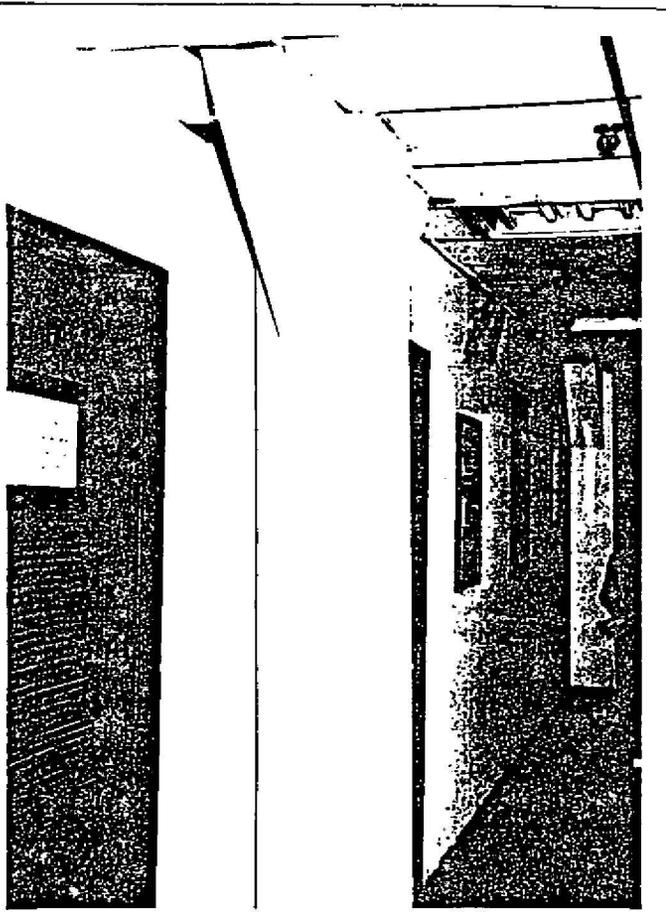


Plate 7: Boxed out
column support
on 1st floor.

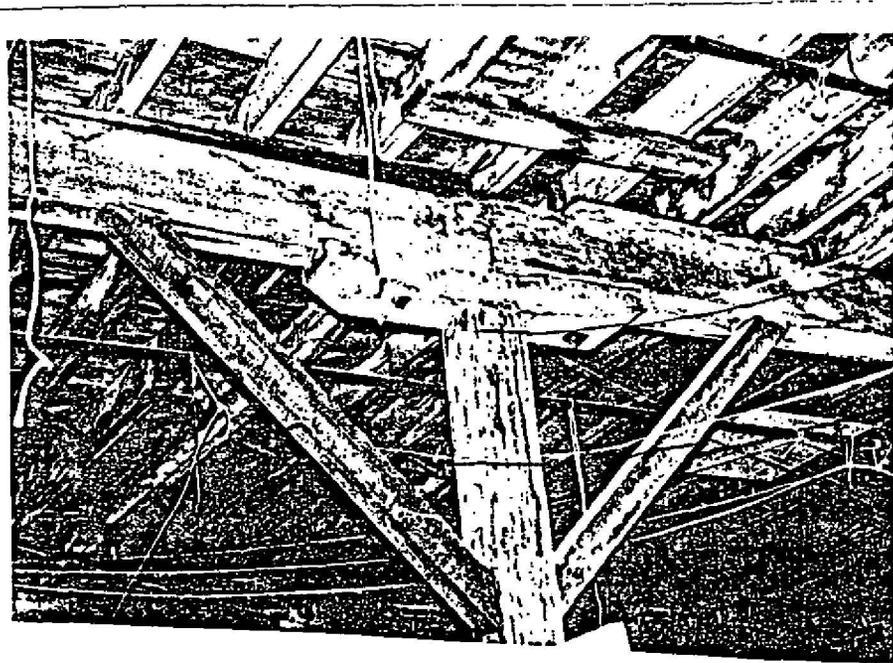


Plate 8: Top of support column on 2nd floor.



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- Sanborn Map Co.
1907
Manhattan Land Book of the
City of New York.

APPENDIX 1

CHAIN OF TITLE FOR THE HADDERSLEY FORGE LOT (from 1667 to 1874)*

Governor Richard Nicholls	to	Thomas Hall	1667
Thomas Hall	to	Theunis C. Stille	1696
Theunis C. Stille	to	John Harpendincke (mortgage)	1720
(John Harpendincke)	to	Stephen Delancey	ca. 1729
Stephen Delancey	to	James Delancey, Peter Delancey, Oliver Delancey, Susannah Warren & Ann Watt	1745
Peter Delancey et al	to	James Delancey	1747
James Delancey	to	James Delancey (Jr.)	1760
confiscated under laws of forfeiture by the State of N.Y.			1779
Sold by State of N.Y.	to	John Somerindyck	1785
Ann Somerindyck	to	William & Abigail Cock	1809
William T. Cock	to	Lebbeus B. Ward	1839
Lebbeus B. Ward	to	William H. Vanderbilt	1874

*(Rothschild & Dublin 1985:10-11, 13-15).