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CULTURAL RESOURCE EVALUATION
REVERE SUGAR SITE

[Erie Basin]

Thomas R. Flagg
Historical Documentation Services

June 25, 1991

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SUMMARY

The Revere Sugar site presently contains New York City's last intact sugar refinery, a remnant of an industry once important in the city. This refinery has been in continuous operation since early in the century and contains elements from all eras. As such, it is (in its present condition) significant and potentially eligible for the State and National Registers.

One of the individual Revere Sugar structures, plus some other structures within the site boundaries (the site extends beyond the property owned by Revere) are also potentially eligible for the State and National Registers.

THE SITE

Plan 1 shows the boundaries of the overall site and shows the structures on the site with large letters to identify them.

All of the site south of Beard Street is occupied by a Revere Sugar refinery which has been closed down and is being dismantled. A site visit was made on May 9, 1991, with the assistance of Mr. Viosdado Ordunez, site manager for Revere.

The parcels of the site north of Beard Street are not owned by Revere, although Revere leases some of them, as well as some structures on them. Other structures are owned and used by other parties. These were viewed only from the outside. Some are in active industrial use at the present time.

EVOLUTION OF SITE

Industrial development of the neighborhood including this site began about 1864 when William Beard and Jeremiah and George Robinson developed the land around their newly created Erie Basin. Between 1864 and 1885 24 warehouse structures were completed in the immediate area, the Erie Basin Dock Co. constructed dry docks and other ship repair facilities, and various manufacturers moved to the blocks inland from the Erie Basin; these blocks included those within the present site, directly north of Beard Street. Although the enterprises here were owned independently of Beard they were dependent on Beard's Erie Basin for freight access (Stiles, 1870, 580-81; Stiles, 1884, vol 2, 637; Raber et al., 1984, pp. 63-69).

Evolution of Site South of Beard Street: Richards Street Bulkhead

The land south of Beard Street and extending into Erie Basin, termed the "Richards Street bulkhead" area, was probably created by 1880 and possibly by 1870. The southern portion of this land was originally used for warehousing. On it were built several one-story brick warehouses, of a traditional Brooklyn type, by 1880. These were numbered 18 through 21. In addition, a five-story brick and stone warehouse was built by 1886. As associated pier, Pier A, extended south from the land holding these warehouses, and was a small open pier until it was enlarged and given a wooden pier shed between 1880 and 1885 (Raber et al., 1984, 69-70).

Some time after 1910 the use of the Richards Street bulkhead was changed. Instead of serving for general cargo it came to serve a single industry: sugar refining. By 1915 some of the property was in use by the American Molasses Company; by 1931 all of it was. In 1931 American Molasses was using the original buildings on the site, storing its raw sugar in bags in the low warehouses 18-21 and using the five-story building for various purposes including barrel making. A set of scales on the apron area just west of these warehouses indicates that sugar was probably brought in on barges just west of these warehouses. In addition, the company had constructed a three-story refining building and several others. In the 1950's American Molasses had become a division of Sucrest Sugar and purchased the property it had been leasing (1915 Sanborn, 1931 Sanborn, Raber et al., 1984, 72; 88).

Later, Revere Sugar bought the site from Sucrest, but the operations apparently continued much as before (according to Ordunez). Some of the equipment now on the site still bears the Sucrest name.

During the years as a sugar refinery, changes were made in the structures and in the process machinery. There are remains of the original buildings and of many of the intermediate stages. These evidences of the past could be valuable in revealing the course of the evolution of the sugar industry in its methods and its economic fortunes.

Sugar Refining

"Raw sugar" is the conventional form of sugar produced from sugar cane in the world's sugar-producing countries. It is about 95% pure, and can therefore be shipped great distances without much waste. Since it is not yet in pure edible form, it can be shipped in bulk, simply loaded into the cargo hull of a ship. A sugar refinery takes raw sugar and converts it into the pure, white, free flowing form known as granulated sugar. At the same time, it produces other grades such as brown sugar, molasses, etc. Since there is a fairly narrow margin of price between raw and refined sugar, a refinery must operate very efficiently. To do this requires a sizable operation and a good location. In the U.S. there have historically been only about 20 or 30 sugar refineries, mostly in seaports, where they can receive the raw sugar from many different sources and usually find a major local market for the product (Spencer and Meade). New York City once occupied a major position in this industry, but there is little, if any, refinery capacity now remaining there.

At the Revere refinery raw sugar was received by ship and unloaded into two bins on the west side of Pier A. From there it went by conveyer to a large steel storage bin with a cone-shaped top, where it was held for refining. In brief, the operation of a refinery such as Revere's is as follows. The first step is to remove the molasses film that coats raw sugar and gives it its yellowish-brown color. The molasses is washed off, then separated by centrifuge from the sugar and sold to be made into alcohol, cattle feed, and other products. The washed sugar is dissolved and treated with lime and phosphoric or carbonic acid to precipitate some impurities. Next it is filtered through carbon to remove remaining impurities. The liquid sugar goes to evaporating pans where it is boiled at a relatively low temperature by using a partial vacuum (to prevent scorching); the evaporation forms the sugar into crystals. It is again centrifuged to drive out syrup, then further dried in heated rotating drums (set on their sides) called granulators which also separate the grains from each other to produce a free flowing product. It is then packaged for market (Spencer and Meade; World Book Encyclopedia).

SIGNIFICANCE OF REVERE SUGAR REFINERY SITE AS A WHOLE

This site has a tradition of use for sugar processing since 1915 or earlier. Despite changes in ownership, there is a continuity of use on the site that makes it a significant entity. Sugar refining was once a major component of Brooklyn's industry, with major installations in several areas. The Revere site was probably the last of these. As such, in its present state, it has the potential to yield important historical information, some of which is embodied in the very changes that destroyed the walls of the earliest stores buildings on the site (Stores 18-21, in the area now labeled G on the map), and affected Building A. For example, there are tracks let into the floor of the first story of Building A whose function is presently unclear, but is presumably related in some way to the requirements of sugar processing.

As a whole, then, the site contains structures and equipment (such as process machinery and materials handling apparatus) from many eras, with important indicators of the evolution of the process since the turn of the century, and is significant because it is representative of the sugar industry in the region. In its present state it is a good source of information important in understanding the history of that industry. On these accounts it is potentially eligible for the State and National Registers under Criterion C (the different criteria for the Registers are provided in the Appendix).

If the city were to acquire the site in its condition as of the date of the field visit, clearing the site would destroy its significance. Documentation of the site to HAER (Historic American Engineering Record) standards would mitigate this impact.

Since it is possible that destruction of the integrity of the site and the removal of most remains of processing equipment will occur before city acquisition of the property, negating the significance of the site as a whole, it is necessary to consider individual structures on the Richards Street bulkhead site which might be left intact.

SIGNIFICANCE OF INDIVIDUAL STRUCTURES

South of Beard Street: Richards Street Bulkhead Area

Pier A

A report prepared by Raber, et al. for the Army Corps of Engineers (1984, p. 92) previously judged the wooden shed on this pier as eligible for State and National Registers. The field visit confirmed (see photos) that this structure retains its integrity as probably the only surviving 19th century wooden piershed in New York Harbor.

As a part of the sugar refinery this pier served as a tie-up point for ships bringing bulk sugar. To it were added two metal hoppers for receiving bulk dry sugar, and a conveyer system to bring the sugar to the round storage tower. These systems are part of its contribution to the industrial evolution of the site as a whole.

Building A

Building A, shown in the attached photographs, was built c. 1890 by Beard or his heirs as a warehouse, probably to serve the local shipyards. It was leased to American Molasses by 1915 (Raber, et al., 1984, 70; 88). It most recently served Revere as offices for management, sales, and marketing people (Ordunez).

This structure is one of the last of the traditional stone and brick warehouses to be constructed in this area of Brooklyn. Originally it stood by itself and at 5 stories it was taller than most such warehouses. It has a mix of stone and brick in the facade, with a somewhat uneven interface, as though the structure were begun in stone and finished in brick; it is not clear why this was done. Other Beard warehouses (on the "Warehouse Pier," just south of Van Brunt Street and immediately north of the Revere Sugar project site, for example) also use both stone and brick in their construction, but not usually as part of the same wall.

The original interior of this structure remains fairly intact, especially in the first two floors but also behind the dropped ceilings and plasterboard walls added to the upper three floors to convert them into offices. Elevators and other utilities have been added to the interior. The addition of modern rectangular windows on the south and north facades has significantly altered those facades and deprives them of some integrity. The arched windows on the west facade, with their massive cast iron keystones, still link the structure with the traditional vernacular industrial architecture of 19th century Brooklyn.

Despite the added windows, externally this structure retains the powerful structural form and expression of functional purpose cited by Raber et al., 1984, in finding other traditional Brooklyn warehouses significant.

The intact original interior column and beam structure adds significance to this structure. Overall, it should be considered eligible for the State and National Registers, in that it embodies the distinctive characteristics of the vernacular industrial warehouse building in Brooklyn in the second half of the

19th century. When considered together with Pier A, for which it served as warehouse, it is clearly part of a grouping that represents an important part of our industrial maritime heritage.

It may also meet the criteria for New York City Landmarks Commission designation for the reasons given above, as well as its association with an important New York City industry.

Non-Significant Structures Within the Richards Street Bulkhead Area

Pier B and its steel pier shed, immediately south of the site currently proposed, are not eligible for the State and National Registers.

Structure H on the map (see photos) was originally the northernmost of a set of four one-story masonry warehouses with wood post and beam interior structure, built by 1880 and possibly by 1870 (Raber, et al., 1984, 69). It was Store 21, and retained that number as its designator in the Revere Sugar site plan, and in a sign on the building. It consists of one story with wood posts holding up a wood truss and wood roof. Its north wall is stone while the others are of brick. It is essentially intact, including its interior, except for changes in the Richards Street facade to add doors. However it has been taken out of context by the demolition of the its three fellow warehouses to the south, which retain only a few wall fragments. Other traditional Brooklyn warehouses of its type and size are still intact as a group, located in the vicinity (Raber, et al., 1984). If the refinery site as a whole remains intact and thus eligible, this structure will contribute importantly to its significance, but by itself it is not eligible for the State and National Registers.

All other structures south of Beard Street are not individually significant. These include Buildings B, C, D, E, F, G, and I, and structures in area J.

Structures North of Beard Street

Brooklyn Fire Brick Works (structures L, M, and O):

These structures (see photos) are important remains of a Brooklyn industry (making of firebrick from clays of the Arthur Kill area), and are of great age and architectural distinction. They exhibit considerable integrity, showing little interior or exterior modification since built. They are thus potentially eligible for the State and National Registers. These buildings also have pending status with the New York City Landmarks Preservation Commission, independent of a finding of potential eligibility for the State and National Registers.

Other Structures

Structures S and T (see photos) appear externally as typical examples of late 19th and very early 20th century vernacular industrial architecture. The interiors may show considerable integrity as well, if they have been used primarily as open shop areas. At least one of these buildings (T) has been here from 1886, when it was a "saltpetre works" (Sanborn 1886). Later they

appear to have constituted a soap factory (Sanborn 1915). Both have brick exterior walls, and wood post and beam construction. Pending more complete inspection of their interiors, they should be considered potentially eligible for the State and National Registers. Although they are for sale, they are currently being used as shop facilities, in an unintentional form of adaptive reuse that fits in well with the historic industrial character of the neighborhood.

Structures X, Y and Z, while not individually of sufficient integrity to be eligible, nonetheless are integral parts of a traditionally industrial neighborhood, still functioning, and contribute to its character.

The remaining buildings north of Beard Street within the site boundaries do not meet criteria for eligibility for the State and National Registers.

Neighborhood as a Whole

This neighborhood has a human scale and a quality of industriousness that gives it character. While there are many vacant buildings, a number of small factories and other small-scale industrial uses continue the industrial tradition here. Although it is possible that a sludge plant can be an appropriate and relatively small-scale industrial operation that can fit into a neighborhood like this, it would seem most consistent with New York City's economic objectives that it should do so with as little disruption of current private industrial operations as possible, at the same time in a way that would serve the historic industrial character of the neighborhood best.

Off-Site: Nearby Historic Resources

The impact of a redevelopment of this site on several historic resources in the neighborhood must be considered. The report prepared by Raber, et al., for the Army Corps of Engineers, 1984, describes a number of these: the "Warehouse Pier" directly west of the site is a major one. In addition there are other traditional Brooklyn warehouse structures nearby, for example, just west of Van Brunt Street, west of the Warehouse Pier, which are potentially eligible for the State and National Registers. Several buildings in the Todd Shipyard site just east of the present site must also be considered potentially eligible historic resources, particularly the row of old brick buildings along Beard Street and the oldest dry dock (No. 1).

Another potential site is in Block No. 605. A vacant lot that is part of the site borders a complex of structures (labeled "W. W. Ramberg, Inc." on the current Sanborn, see Plan 1) just east of this, on Dwight Street between Van Dyke and Beard Street, parts of which appear to date back at least to the 1886 Sanborn map, when this was the site of the Erie Iron Works, serving the dry docks across Beard Street.

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MAPS

1886 Sanborn

1904 Sanborn: Brooklyn; Plate 23

1915 color atlas Sanborn

1915 Hyde

1931 Sanborn

1939 Hyde

1990-91 Sanborn: Redi-Map version

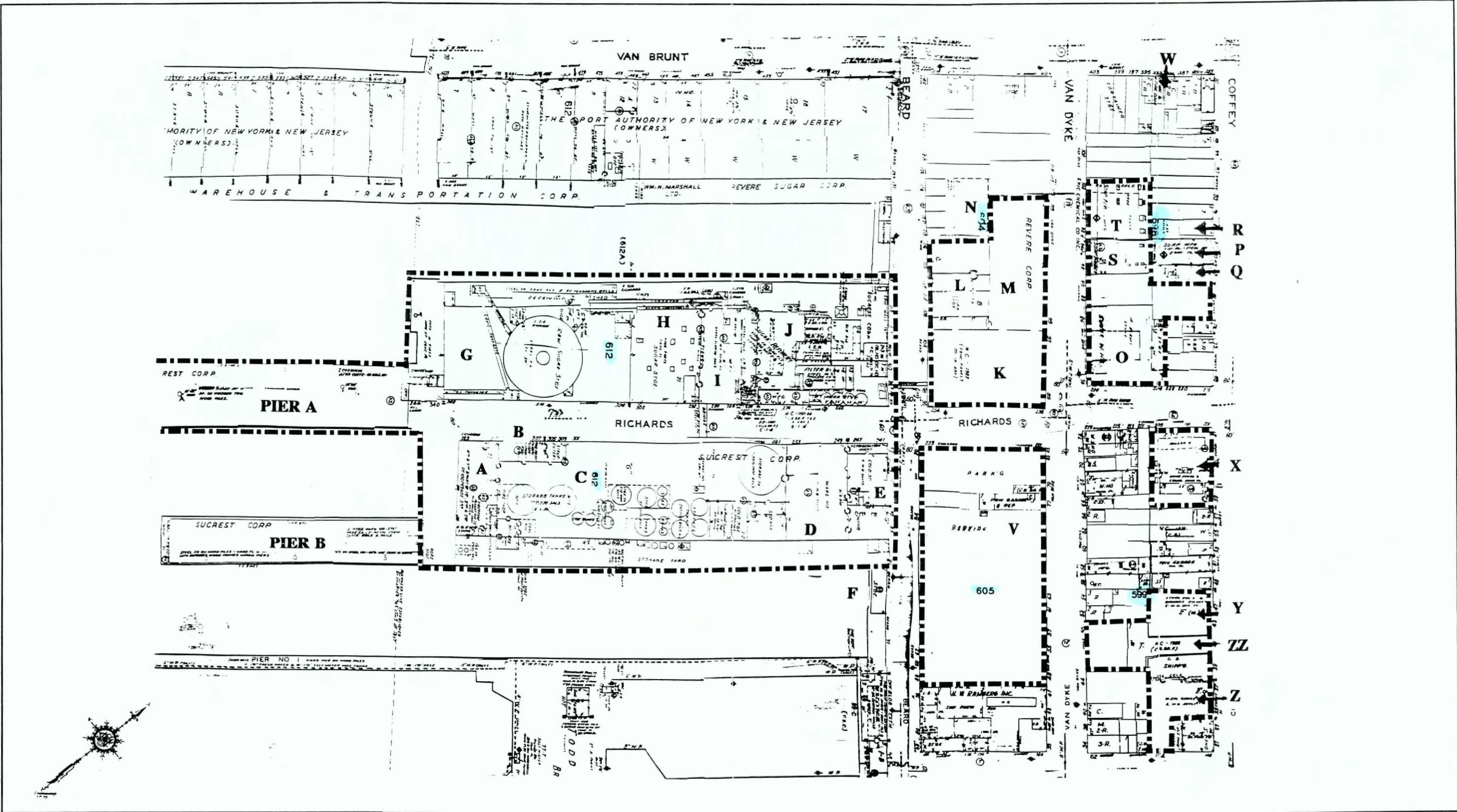
PHOTOGRAPHS

1. Building E, view toward west
2. Building complex J, view to west from Beard Street
3. Building M, 99 Van Dyke Street, view to west
4. Building O, north corner of Richards and Van Dyke Sts., view to north
5. Buildings S and T, 92 and 98 Van Dyke Street, view to north
6. Building T, 98 Van Dyke Street, view to east
7. Building V, 77 Van Dyke Street, view to N.W.
8. Building X, 201 Richards Street, view to south
9. Building Z (and Y beyond), 35 Coffey, view to west
10. Interior of Pier A, view to south
11. Interior of Pier A, showing office area, view to east
12. Pier A, view to west
13. Building A, view to east
14. Building A, detail of N.W. facade
15. Building A, view to east
16. Building A, detail of post and beam, first floor
17. Building A, interior of first floor, view to south; function of "tracks" on floor as yet unknown
18. View from Building A toward N.E., showing Revere site. To right are roofs of Buildings B and C; in center are Buildings H and I.
19. Building H (Store 21), view to north
20. Building H (Store 21), interior
21. Building I (Store 22), interior, showing sugar refining process equipment still in place
22. Building L (112-116 Beard Street), view to north
23. Building M (99 Van Dyke St), interior

APPENDIX A: STATE AND NATIONAL REGISTERS CRITERIA FOR EVALUATION

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in the past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history.



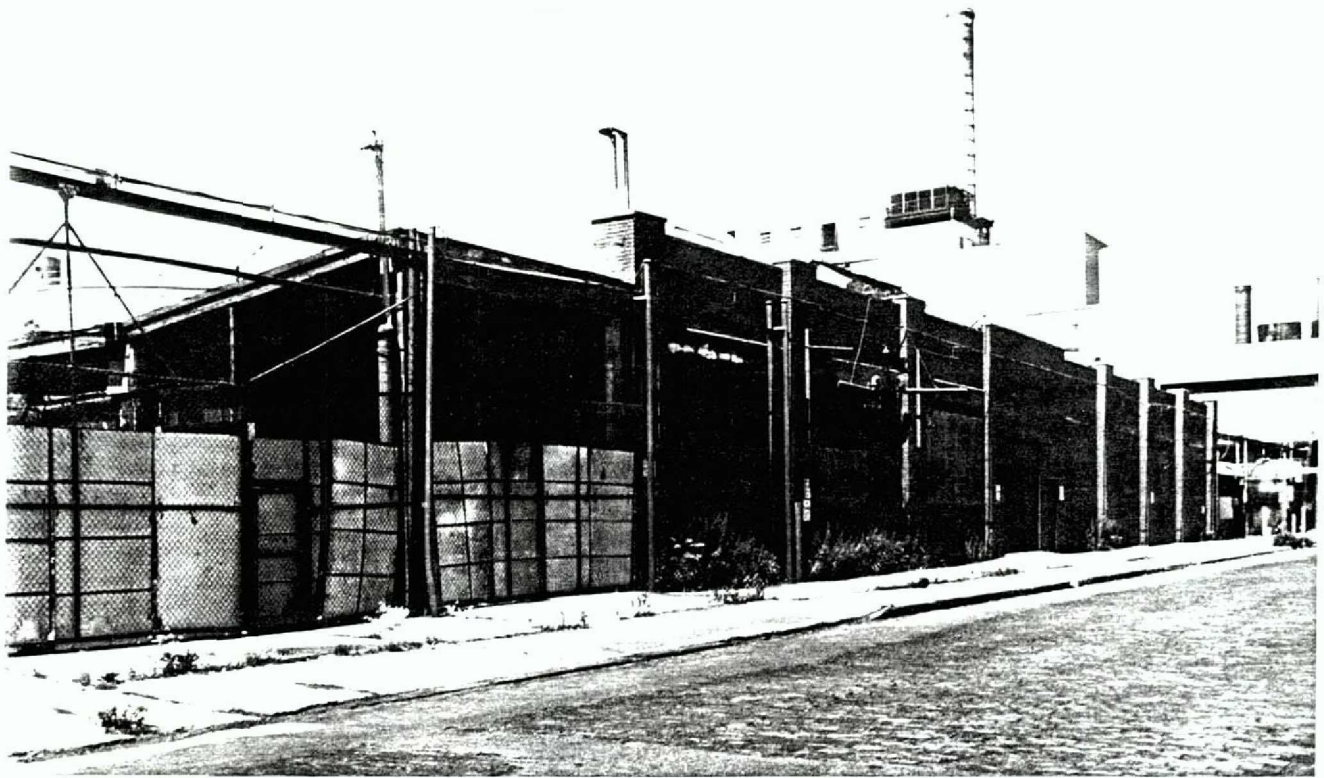


PHOTO 1: Building E, view toward west

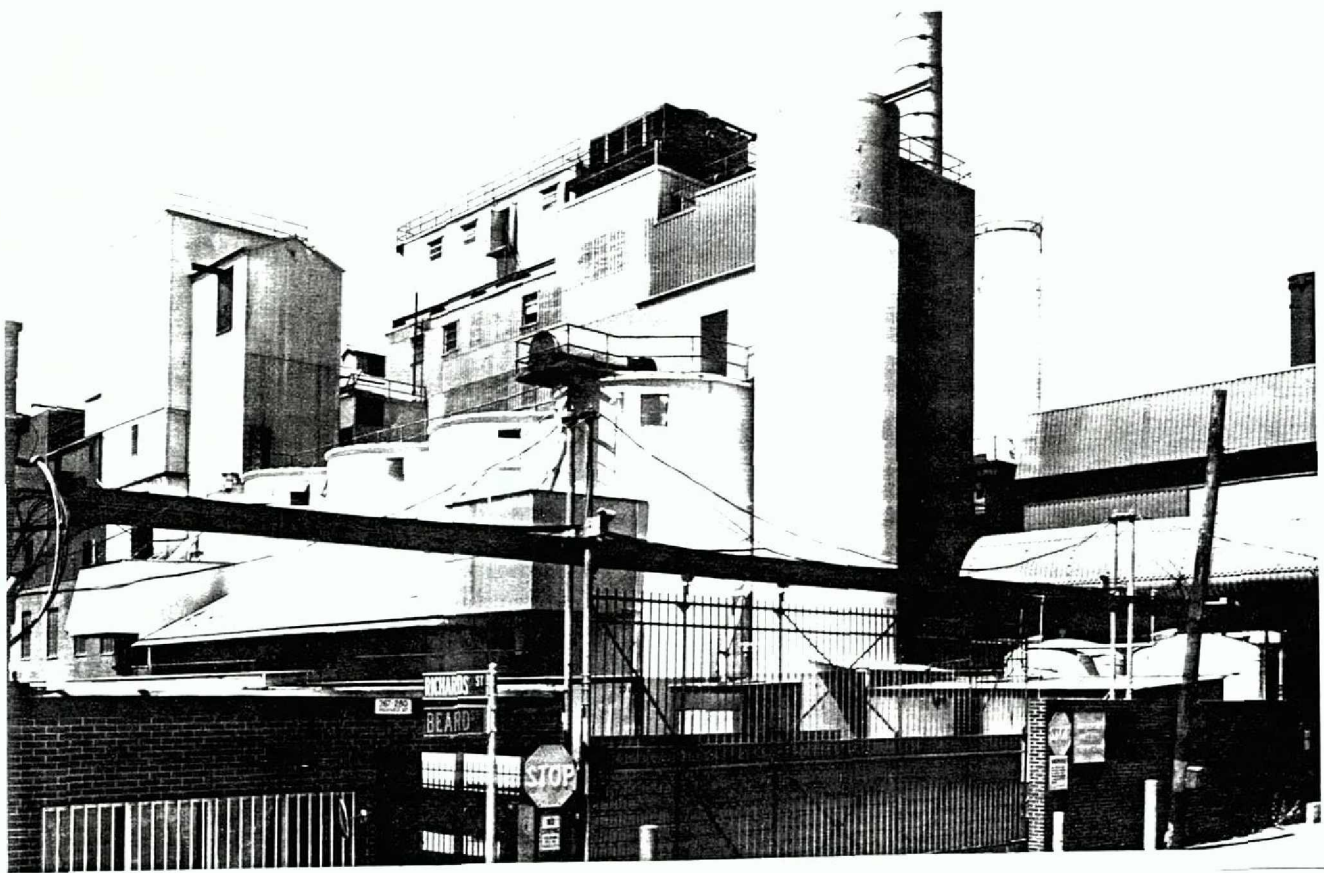


PHOTO 2: Building complex J, view to west from Beard St.

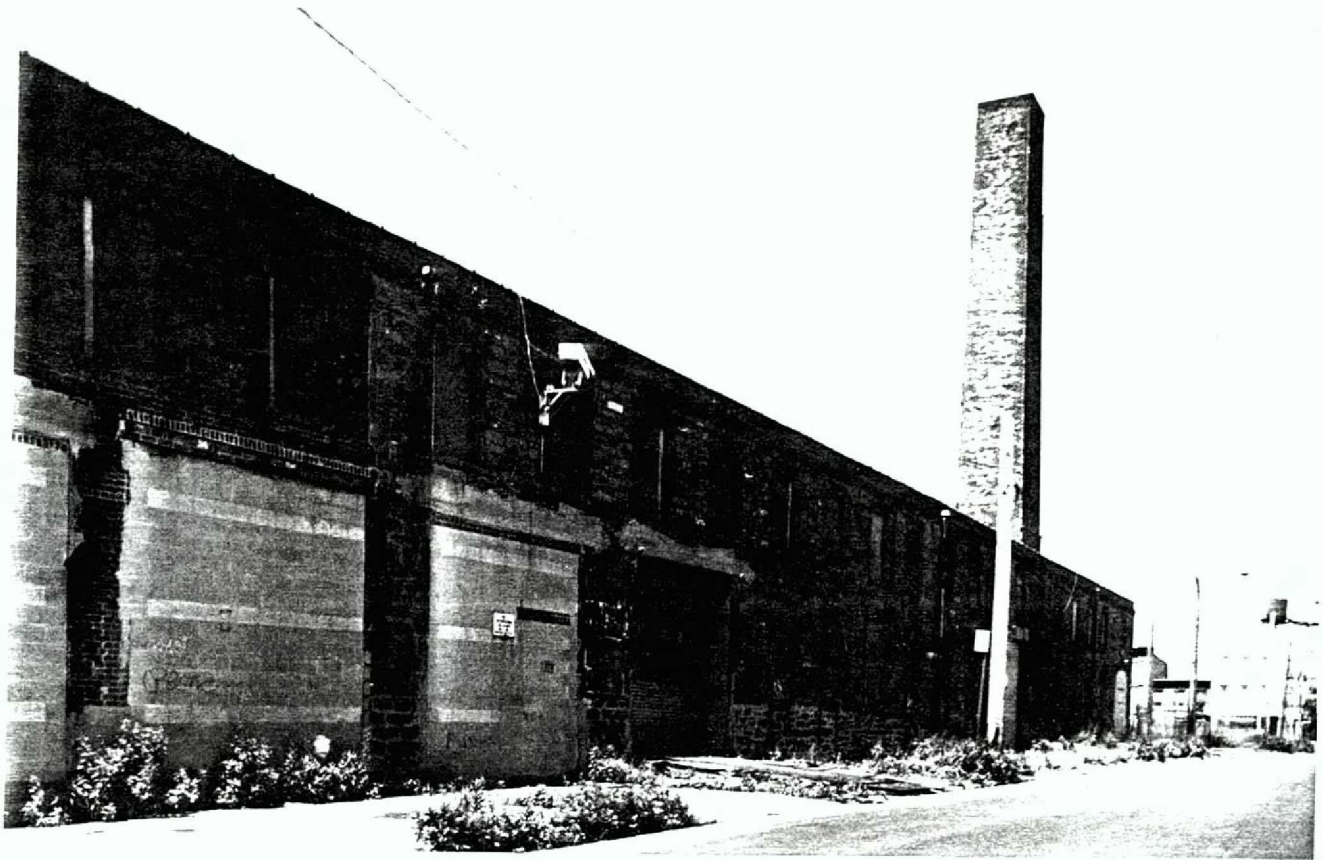


PHOTO 3: Building M, 99 Van Dyke St., view to west



PHOTO 4: Building O, north corner of Richards and Van Dyke Sts., view to north



PHOTO 5: Buildings S and T, 92 and 98 Van Dyke St., view to north



PHOTO 6: Building T, 98 Van Dyke St., view to east

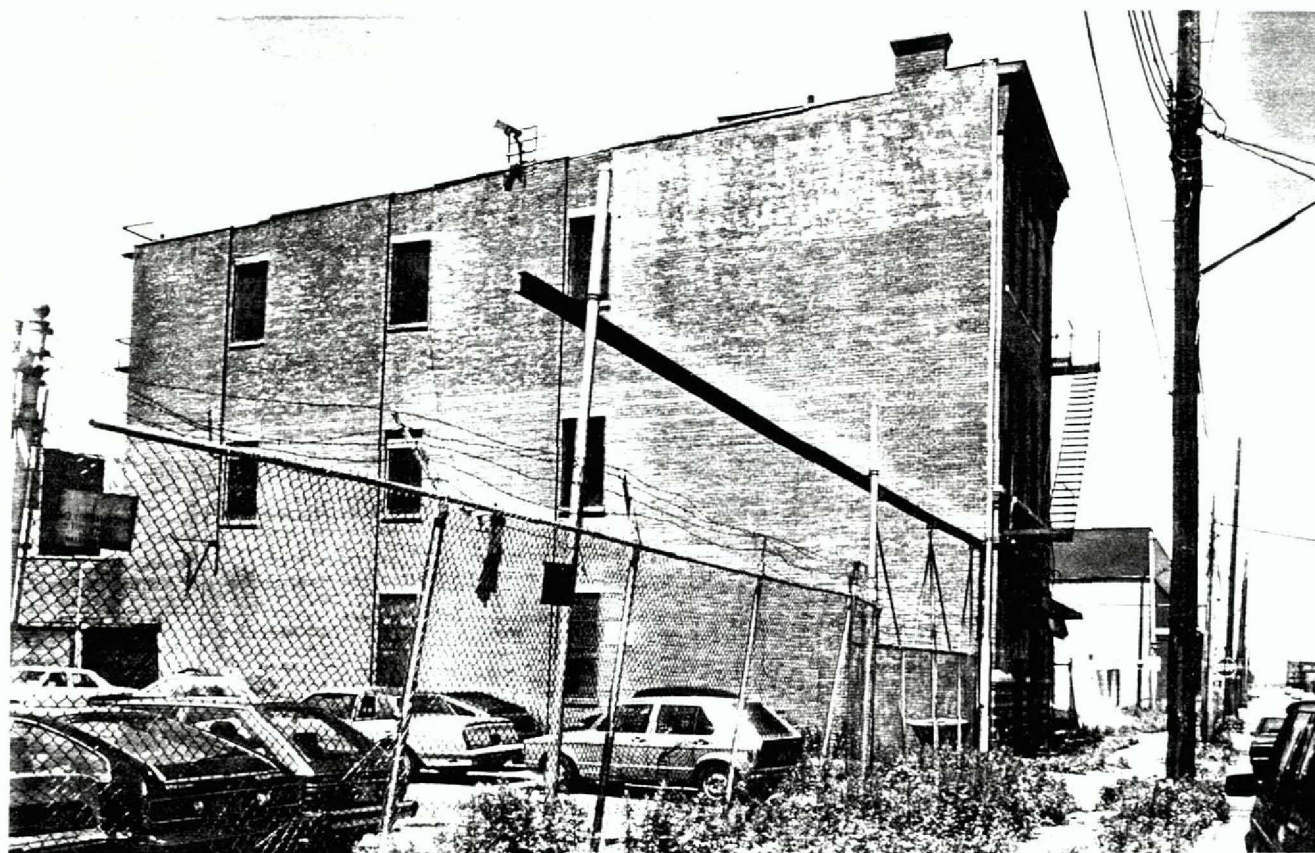


PHOTO 7: Building V, 77 Van Dyke St., view to northwest



PHOTO 8: Building X, 201 Richards St., view to south

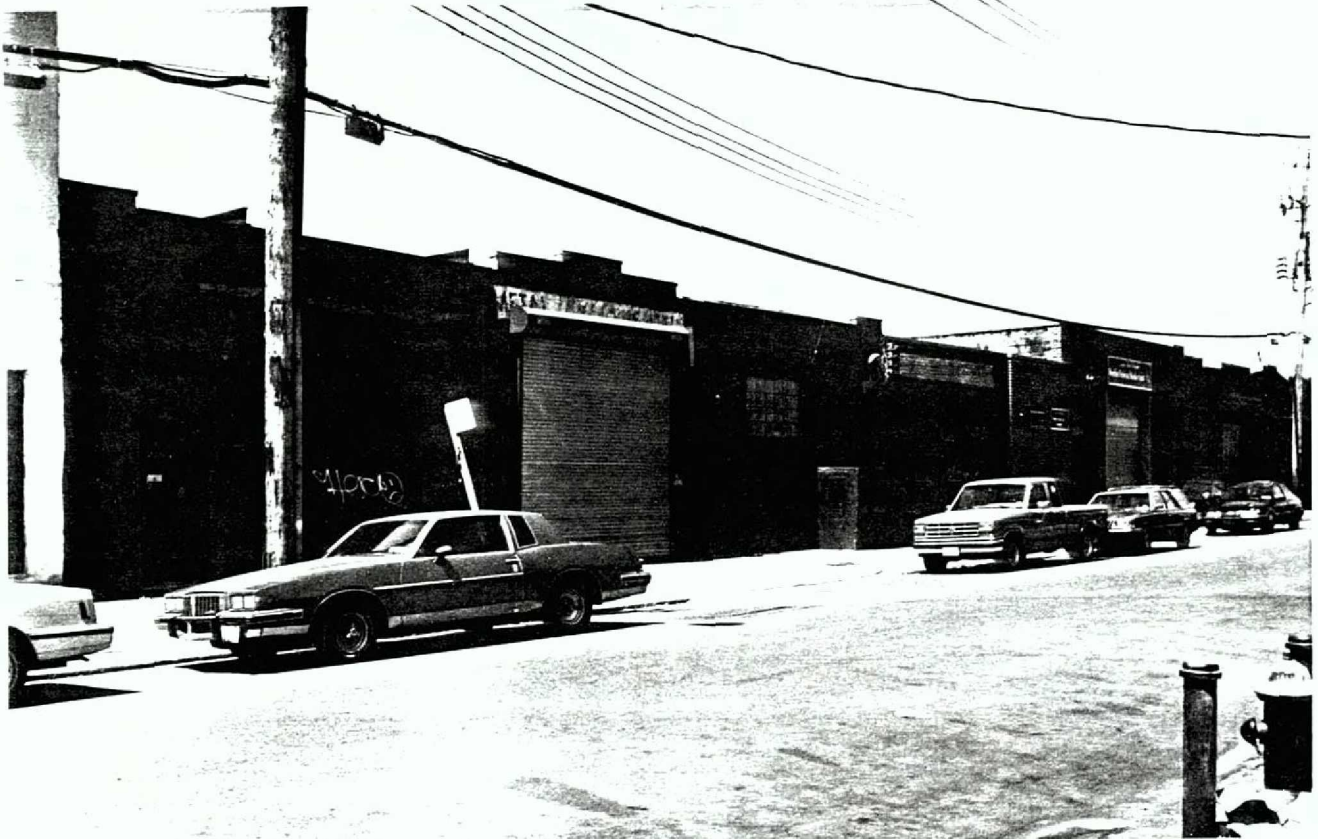


PHOTO 9: Building Z (and Y beyond), 35 Coffey, view to west

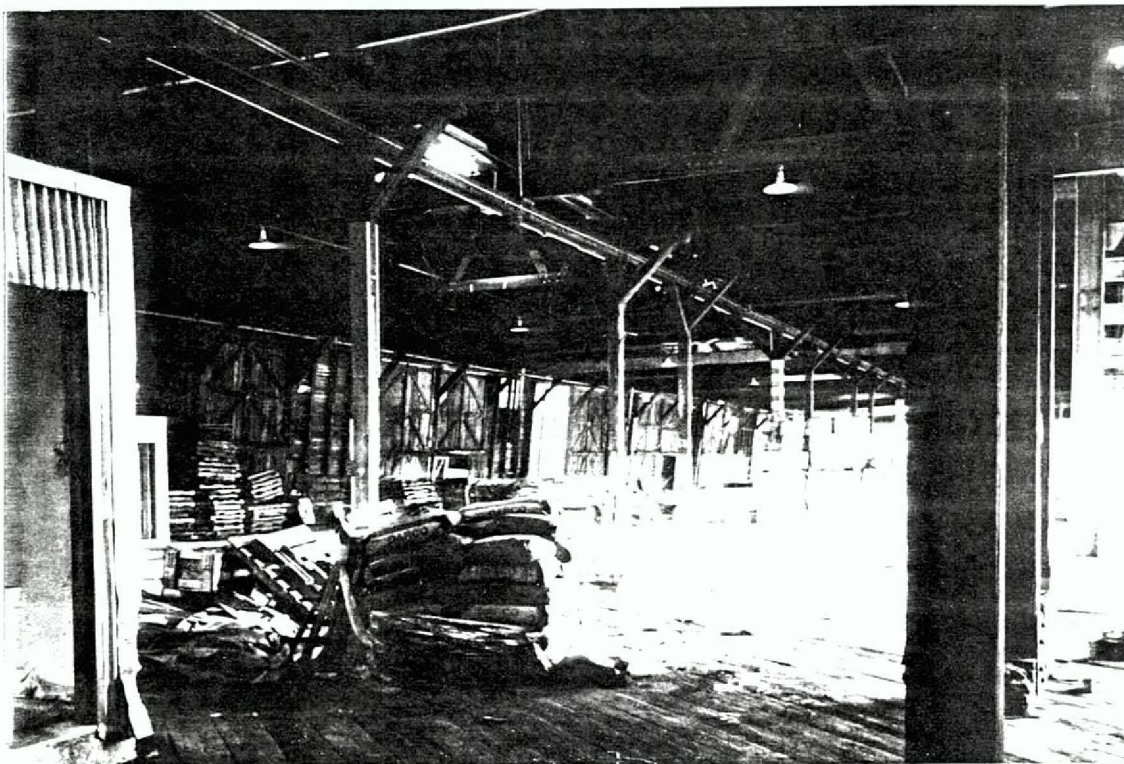


PHOTO 10: Interior of Pier A, view to south

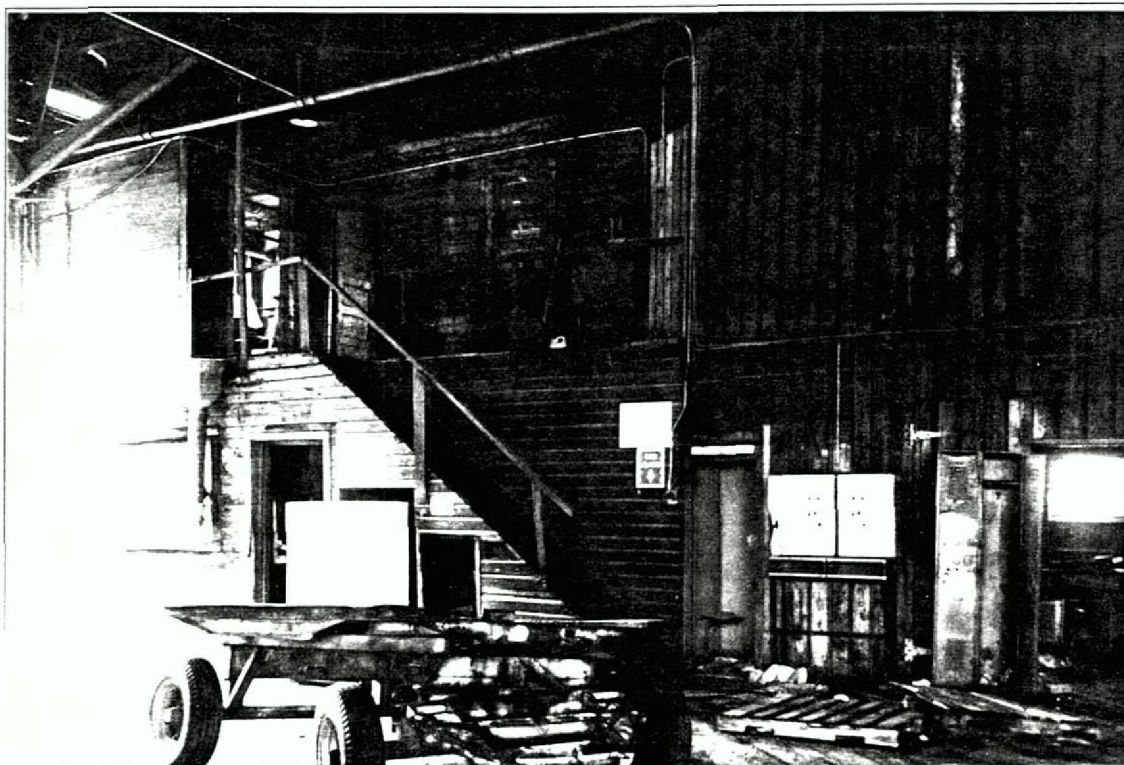


PHOTO 11: Interior of Pier A, showing office area, view to east

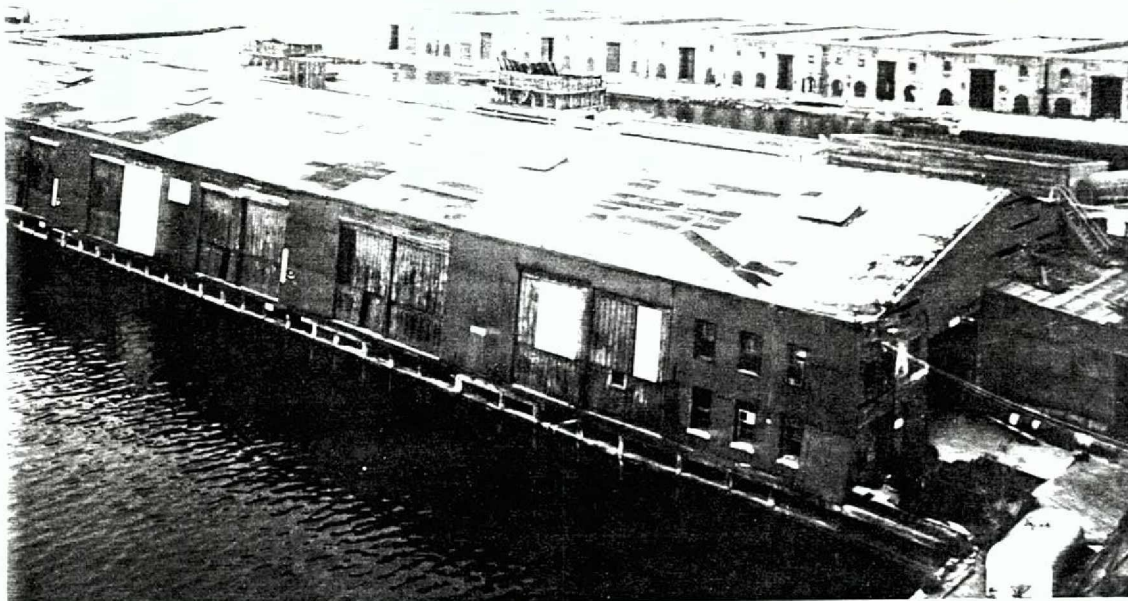


PHOTO 12: Pier A, view to west



PHOTO 13: Building A, view to east

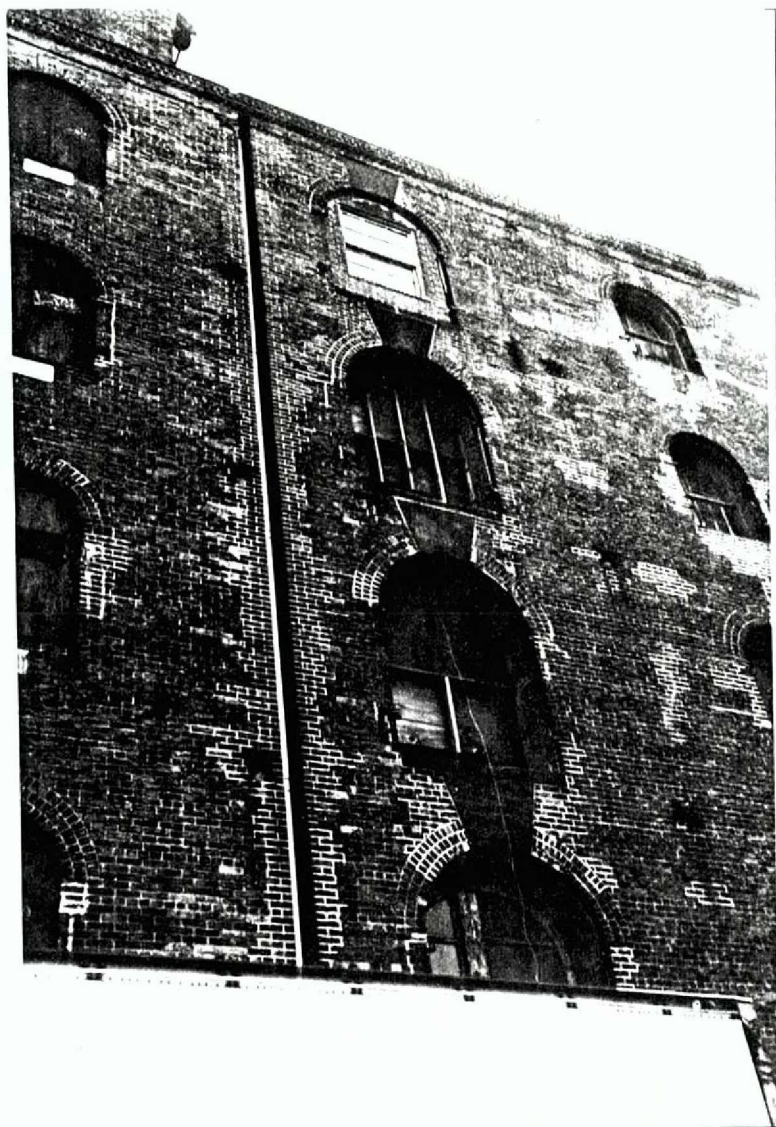


PHOTO 14: Building A, detail of N.W. facade

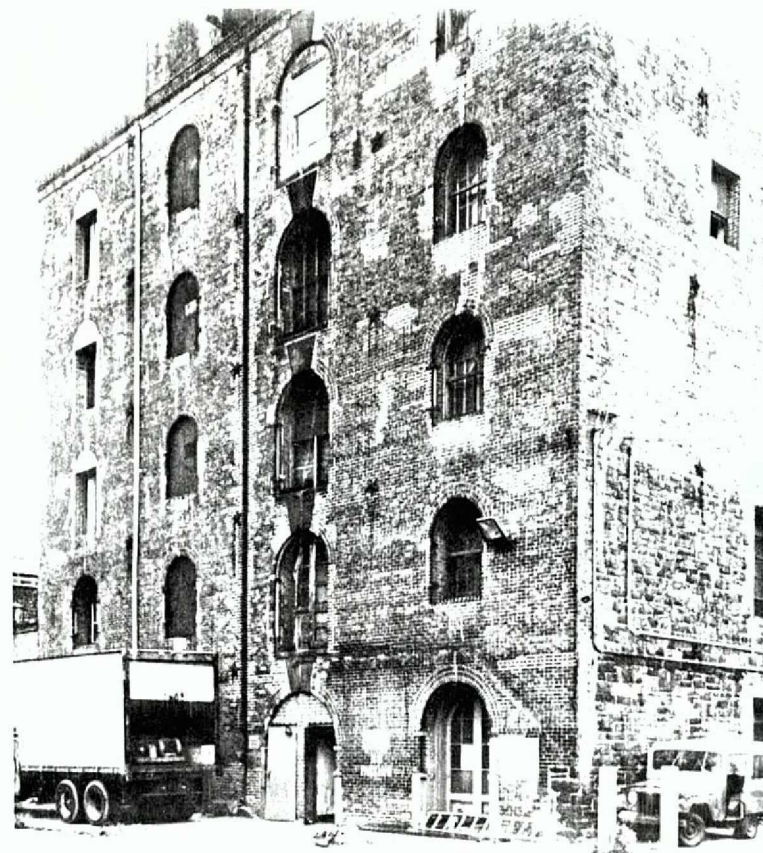


PHOTO 15: Building A, view to east

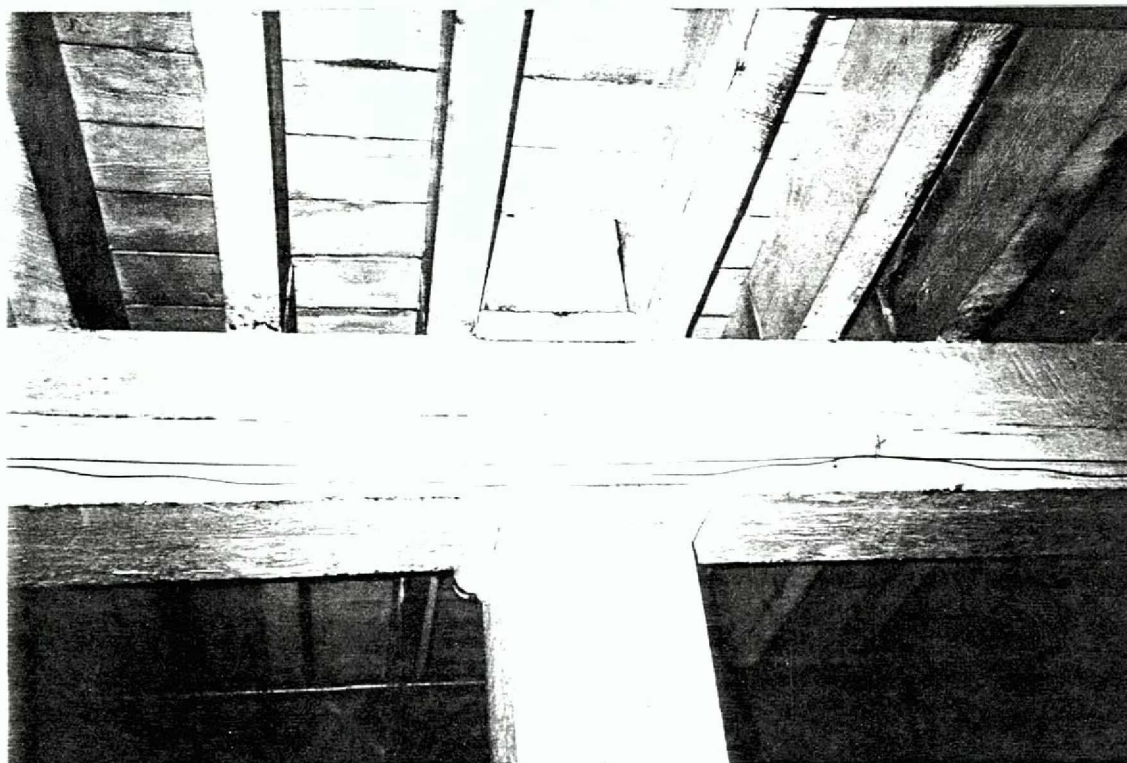


PHOTO 16: Building A, detail of post and beam, first floor

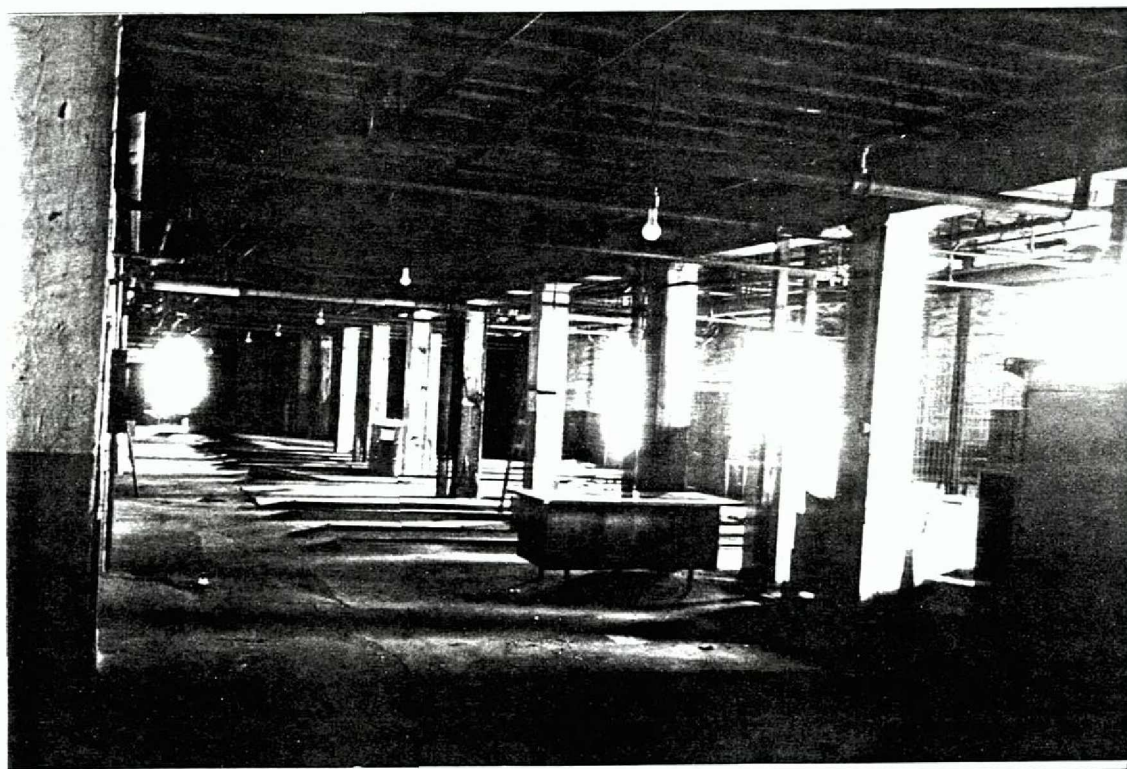


PHOTO 17: Building A, interior of first floor, view to south; function of "tracks" on floor is unknown

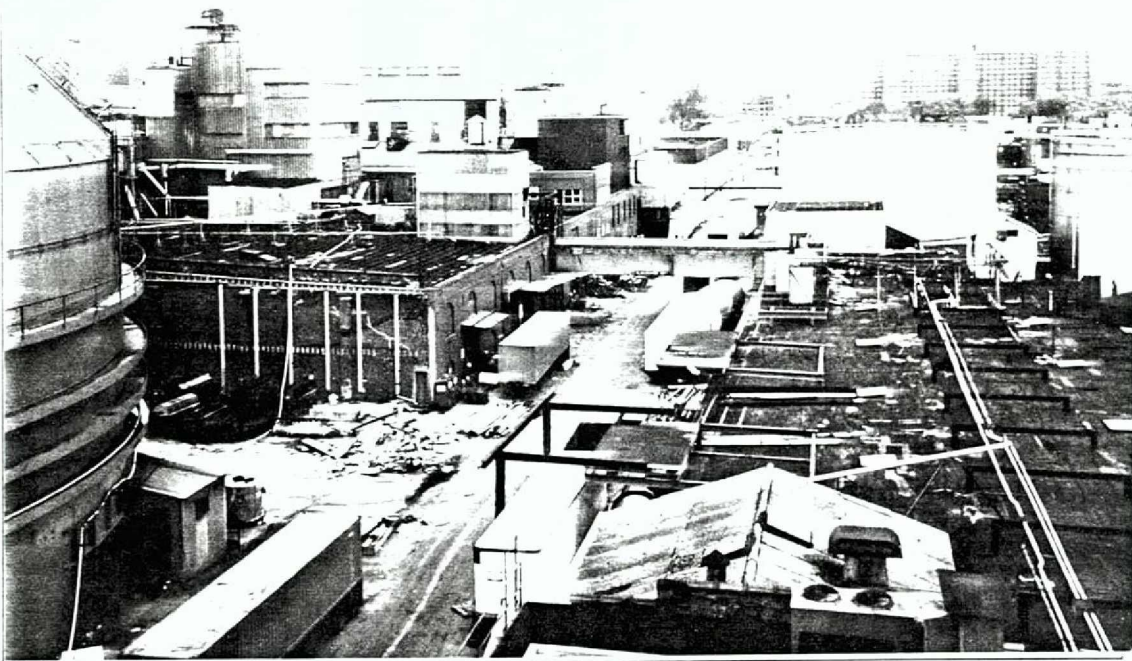


PHOTO 18: View from Building A towards N.E., showing Revere site. To right are roofs of Buildings B and C; in center are Buildings H and I

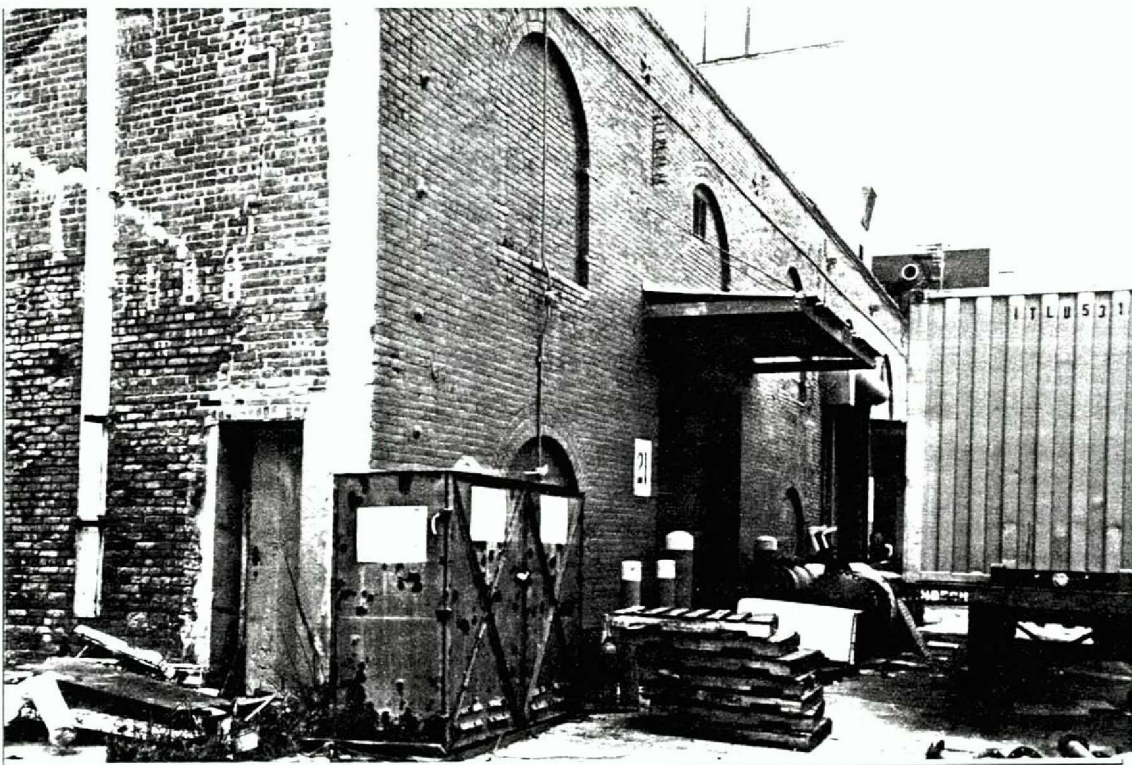


PHOTO 19: Building H (Store 21), view to north

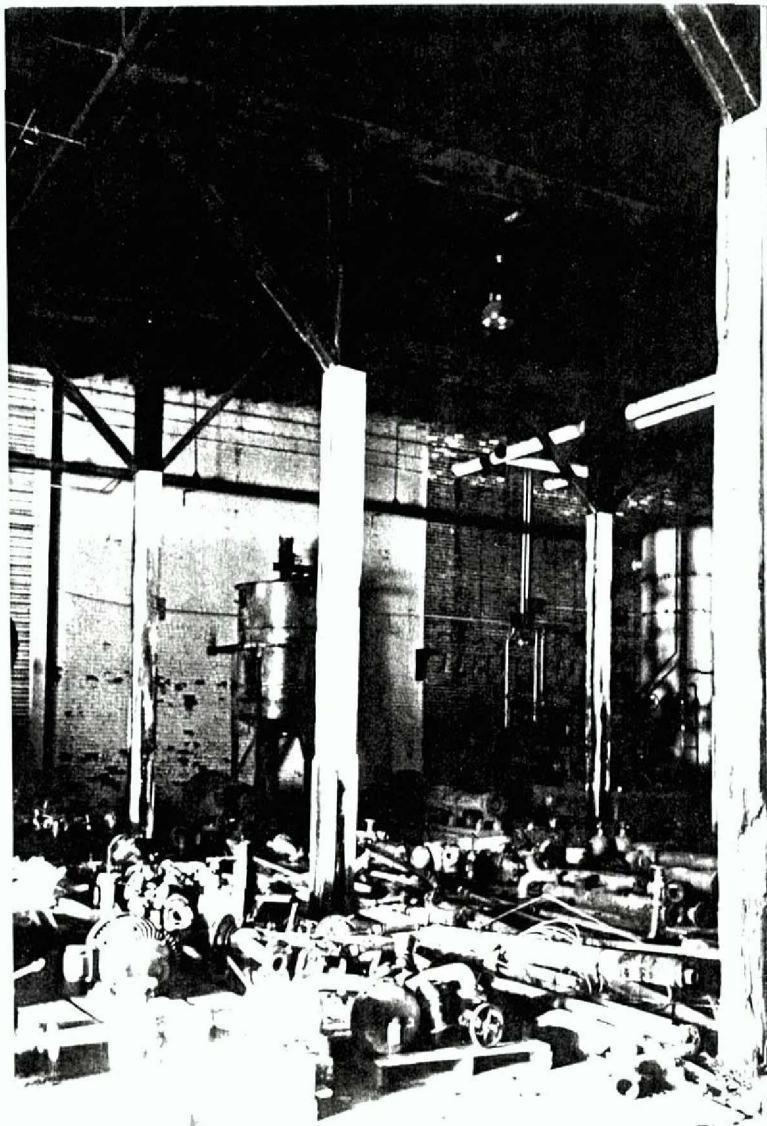


PHOTO 20: Building H (Store 21), interior

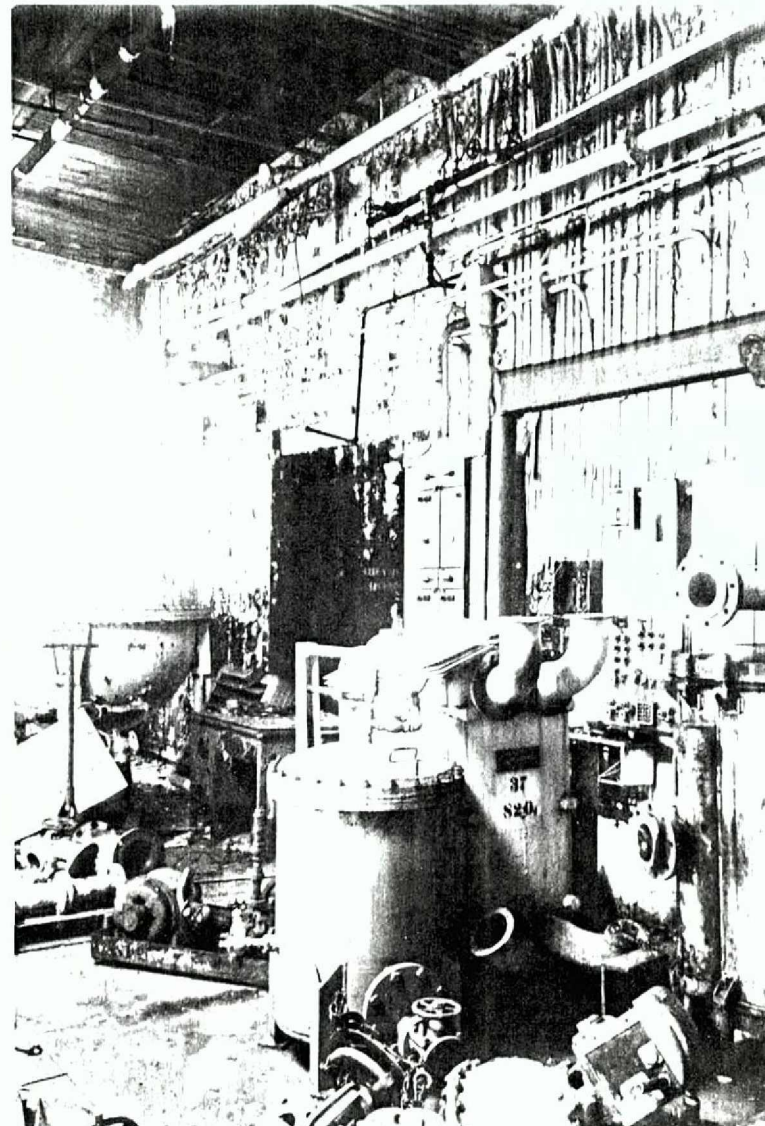


PHOTO 21: Building I (Store 22), interior, showing sugar refining process equipment still in place

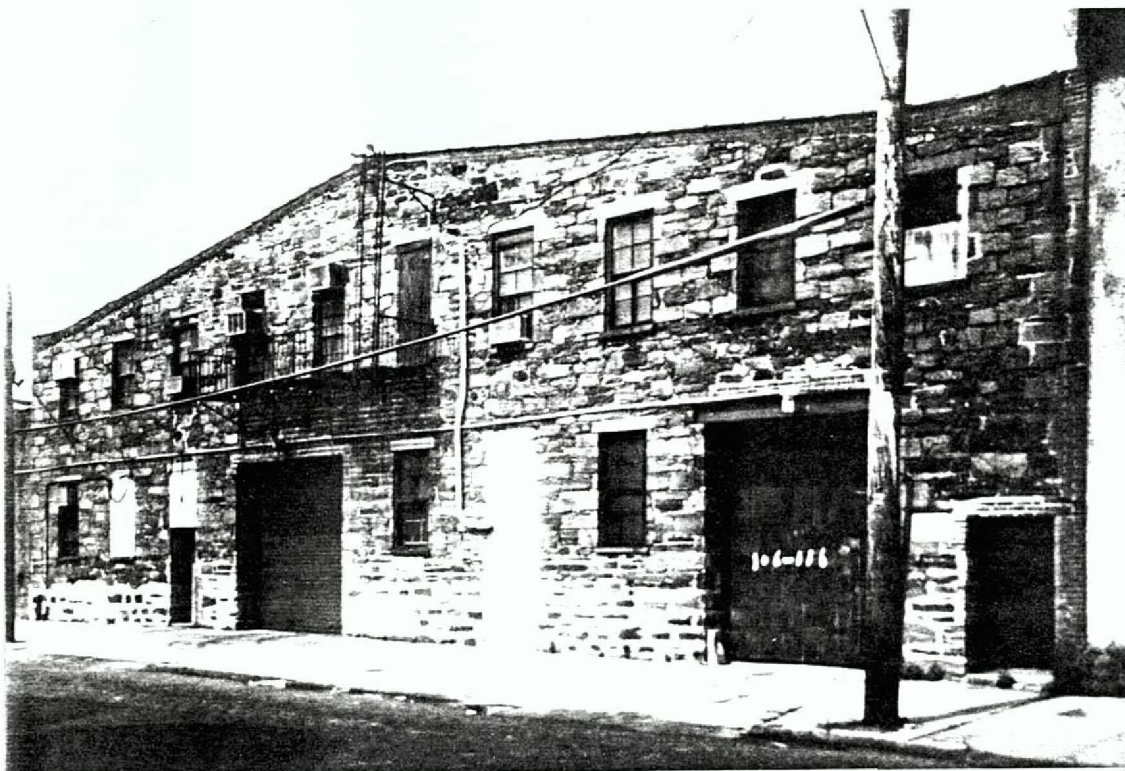


PHOTO 22: Building L (112-116 Beard St.), view to north

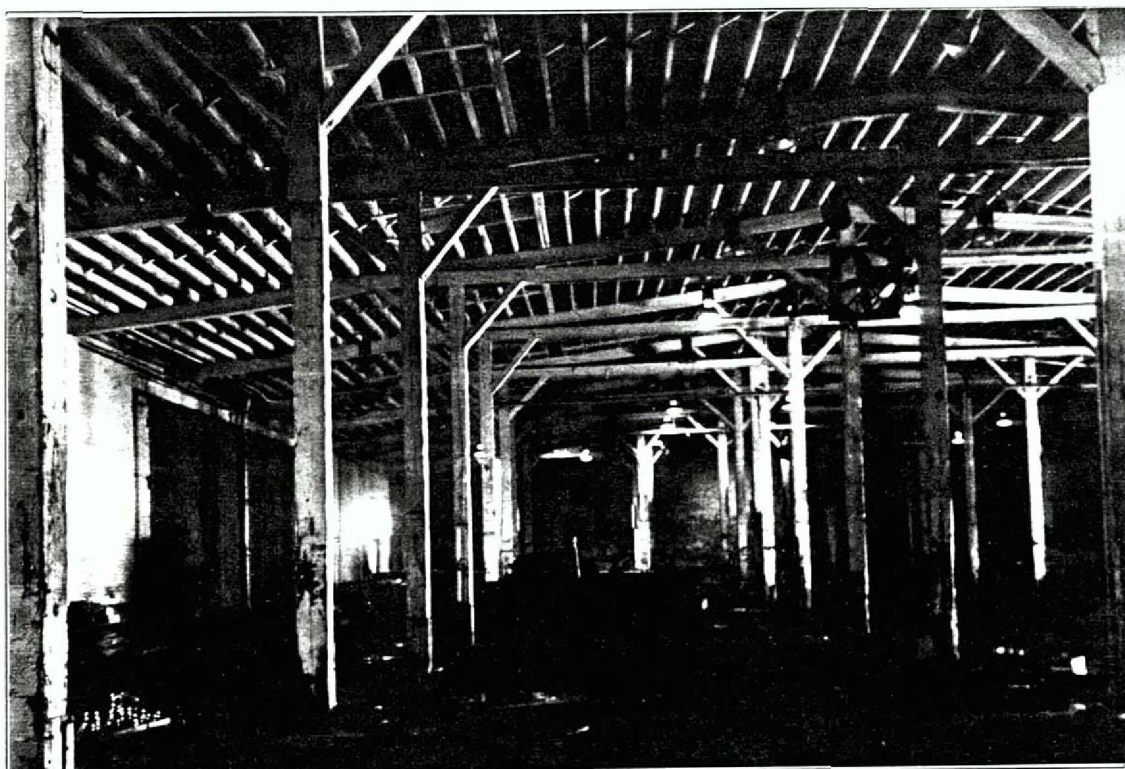


PHOTO 23: Building M (99 Van Dyke St.), interior