

# Preserving the Former IRT Powerhouse

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## A Preservation Plan

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Columbia University Graduate School of Architecture,  
Planning & Historic Preservation





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2009

Department of Historic Preservation of the Graduate School of Architecture, Planning &  
Historic Preservation at Columbia University.

Studio Advisor: Kate WOOD

Studio Group: Gillian CONNELL  
Emilie EVANS  
Justin GREENAWALT  
Kate HUSBAND  
Tom RINALDI  
Barbara ZAY

<http://www.arch.columbia.edu/hp/>

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Preserving the Former IRT Powerhouse is a project of the Department of Historic Preservation of the Graduate School of Architecture, Planning & Historic Preservation at Columbia University.

Director: Andrew Scott Dolkart  
Studio Advisor: Kate Wood  
Studio Group: Gillian Connell  
Emilie Evans  
Justin Greenawalt  
Kate Husband  
Tom Rinaldi  
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**Opposite:** The former IRT powerhouse viewed from the corner of Eleventh Avenue and West 58th Street, May 2009.

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Most of the historic photographs herein from the New York Public Library collection are the work of photographer Percy Loomis Sperr.





T. RINALDI

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# **"A BRICK AND TERRA-COTTA TEMPLE TO POWER . . ."**

NORVAL WHITE & ELLIOT WILLINSKY, *AIA Guide to NYC*, 1978

**" . . . the most high-style piece  
of design for the subway system."**

David J. Framberger, *Historic American Engineering Record*, 1978

**" . . . something in which New Yorkers  
will take no little pride."**

Interborough Rapid Transit Co., *New York Times*, 1904

**"Fortunately, the city has one splendid  
example of industrial work by a leading  
firm, the old IRT power station . . ."**

Henry Hope Reed, *Beaux-Arts Architecture in New York*, 1988

**" . . . attests to the careful attention  
given by early 20<sup>th</sup>-century designers to  
even the most utilitarian structures."**

Landmarks Preservation Commission, 1979

**" . . . designed so that it will be an  
attractive structure and in keeping  
with its surroundings, whatever  
development may take place."**

*Street Railway Journal*, Dec. 1, 1902

**"If the Woolworth Building is a Cathedral  
of Commerce, this is a Palace of Power."**

David Garrard Lowe, *Stanford White's New York*, 1992

**" . . . a monument to the engineers and architects  
who planned and built New York City's first  
successful underground transit system."**

Landmarks Preservation Commission, 1979

**" . . . an ornament to the west side and  
enhances rather than diminishes the  
value of the surrounding property. But  
for its stacks, it might suggest an art  
museum or a public library rather than a  
power house."**

J.C. Bayles, *New York Times*, Oct. 30, 1904

# Acknowledgements

We would like to thank several people and groups who have taken the time to meet with us and contribute their unique expertise and experience to our study.

Paul Elston, Paul Willen and Sean O'Brien of the Riverside South Planning Corporation offered us their expert advice and guidance on issues relating to the Riverside South development and neighborhood planning initiatives, as well as information concerning ConEd's steam system and cogeneration. Brenda Levine (Extell Development Company) and Helena Durst (the Durst Organization) outlined development prospects in the neighborhood of the Powerhouse and engaged in discussion with us about the role of historic preservation.

Susan Tunick of Friends of Terra Cotta helped us assess the condition of the terra cotta ornament that adorns the Powerhouse façades and explained the unique history and characteristics of these elements and their contribution to the building's significance. Robert Hammond of Friends of the High Line contributed his firsthand experience in successful preservation advocacy. Jimmy Finn, Paul Kelterborn and William Candelaria of the Hudson River Powerhouse Group have already been hard at work advocating for the Powerhouse and have encouraged us in our work.

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T. RINALDI



# Statement of Purpose

The goal of this preservation plan is to explain the impetus and urgency for preserving the historic architectural features of the former IRT Powerhouse and to present practical strategies for its preservation. This plan will:

- **Review** the historical, architectural, and social significance of the building.
- **Identify** the building's most significant architectural features.
- **Propose** a series of preservation guidelines for the building's future stewardship and care.
- **Recommend** the most effective strategies for preserving the Powerhouse and other historic resources in the area.

The former Interborough Rapid Transit (IRT) Powerhouse holds a place marked by dramatic contrasts in both its physical environment and in the minds of those who have a stake in its use and history. Located between Eleventh and Twelfth Avenues and 58th and 59th Streets, it stands within an area that is comprised of both significant historic fabric and emerging contemporary development, making it difficult to chart a course for its future role in the community. There is also a multi-faceted and largely ideological debate over its use and historicity. These contrasting elements present opportunities and challenges to the process of preserving the Powerhouse. In order to assess the

highest and best treatment of the structure, external factors must be considered.

This preservation plan is a call for action to preserve the architectural and historic significance of the former IRT Powerhouse. The need to implement preservation guidelines and a plan to preserve the former IRT Powerhouse is becoming increasingly urgent: this plan was created in response to several threats which, if not mitigated, will compromise the magnificent McKim, Mead & White structure.

The current trend in powerhouse demolitions throughout the tri-state area and around the country places the building in a precarious situation, especially because of the amount of land it occupies along Manhattan's waterfront, one of the world's most valuable real estate locales. The building currently uses half of its allowable floor-area-ratio, making it a potential target for hungry developers. The Powerhouse cannot become a part of this trend in demolition at the expense of an ill-considered opportunity for development.

The rapid development of the neighborhood surrounding the former IRT Powerhouse also presents a threat to the structure and to the neighborhood's surrounding historic resources by casting shadows and increasing vehicular traffic, as well as being subjected to the possibility of falling debris of proximate construction. Increased land values resulting from increased residential development

**Opposite:** The former IRT powerhouse viewed from the corner of Eleventh Avenue and West 59th Street, May 2009.



N-YHS



T. RINALDI

in the area may also put pressure on the former IRT Powerhouse owner to sell the property for maximum profit, which could lead to its demolition to make way for more development space.

Over the past 40 years, several of the building's characteristic features have been stripped. These lost features include the smokestacks and its cornice; the building maintains many other original characteristic features that, with the proper stewardship, will not be lost in the future.

The proper checks and balances will ensure that this building will continue to be a celebrated icon of the area and that its historic fabric will be preserved. This plan attempts to establish those checks and balances by putting forward the following guidelines and recommendations, which are explained herein:

**Guidelines:**

- 1. Preserve Character Defining Architectural Features**
- 2. Preserve and Utilize Vast Interior Space**
- 3. Incorporate Public Access into any Future Plans**
- 4. Restore Lost Features at the First Opportunity**
- 5. Consideration of 58th/59th Street Corridors**
- 6. Establish Maintenance Program to Avoid Future Loss of Historic Fabric**
- 7. Later Additions should be Included in LPC's Discussion of Landmark Designation**
- 8. Preserve Neighborhood Context**

Based upon these principles, the studio considered the most useful preservation tools in relation to

the Powerhouse and puts forward the following recommendations for the building's preservation:

**Recommendations:**

- 1. Advocate for the Preservation of the Building**
- 2. Landmark Designation**
- 3. National Register Listing**
- 4. Modify Special Clinton District**
- 5. Donate an Easement**
- 6. Hold an "Ideas Competition" for Potential Adaptive Reuse Project**





T. RINALDI (ALL)

# Statement of Significance

The former Interborough Rapid Transit Powerhouse holds a unique position in the history, life and physical fabric of New York City. It was constructed to house the operations and generate power for the city's first subway line, which opened in 1904. As such, the building's architectural magnificence served as a symbol for both the company's presence in the city and its extraordinary feat of construction. The installation of the subway marked the beginning of an era in which the city's five boroughs were consolidated and its neighborhoods became physically integrated and more easily accessible.

The Powerhouse was called the largest in the world at the time it opened and its size and monumentality represent a footprint that is still rare in New York City. This was no small achievement in 1901 – the year that the New York Times reported on IRT's plan for a new powerhouse. The newspaper stated that "...the power house of the city's great rapid transit system will be something in which New Yorkers will take no little pride and that such a structure should have as commanding a site as possible." The site chosen commanded an entire city block and its graceful smokestacks rose high above the surrounding low-rise neighborhood.

Its design also attests to its historical and aesthetic significance. The exterior was designed by architect Stanford White, of the revered New York office of McKim, Mead & White, and was one of the firm's only industrial structures to be realized. The building's grand façades are magnificent examples of the Beaux-Arts style, whose employment was popular for civic projects as part of the City Beautiful movement at that time. Its decorative features, such as a repeated pattern of arched windows and rich use of terra cotta, Roman brick and granite, present a striking overall contribution to the cityscape. After 105 years and several alterations, these features and the building itself remain largely intact and in good condition.

Despite recent changes and development pressures in its immediate vicinity, the structure's exterior still commands attention and speaks to its rich legacy. However, the loss of many other New York City powerhouses renders the battle for the former IRT Powerhouse all the more timely and pertinent. As one of the city's remaining vestiges of a once thriving network of industrial waterfronts, this structure simultaneously reminds us of the ingenuity of those who modernized New York and of the many other powerhouse structures that have been lost over time. In addition, the Powerhouse is part of an exclusive network of contiguously constructed monumental civic projects, including the New York Public Library, The Metropolitan Museum of Art, Grand Central Terminal and the now demolished Pennsylvania Station. This series of heroic architectural statements directly contributed to the city's transformation into a cultural world capital in the 20th century.

Given its rich architectural, historical and contextual significance, it is clear that it deserves to be protected as a permanent part of New York City's architectural landscape. In making the case for preservation, we are reminded of the Powerhouse's cultural contribution and impact on its neighborhood and the city as a whole. Historic resources such as this foster a dynamic environment that, in turn, can lead to opportunities for tourist revenue, job creation by way of greater commercial opportunities, and enhancement of community environment. In effect, this building facilitates the well being of the area's residents and visitors by providing a higher quality of life. By stripping a neighborhood of the resources that define its character, we mitigate its desirability as a place to live and work. The Powerhouse provides this anchor for the neighborhood, and it is in the interest of all to allow it to continue to thrive and serve its community.

**Opposite:** Character-defining architectural details of the former IRT powerhouse, including its rich terra-cotta ornament, monumental arched windows and metal window units remain intact.

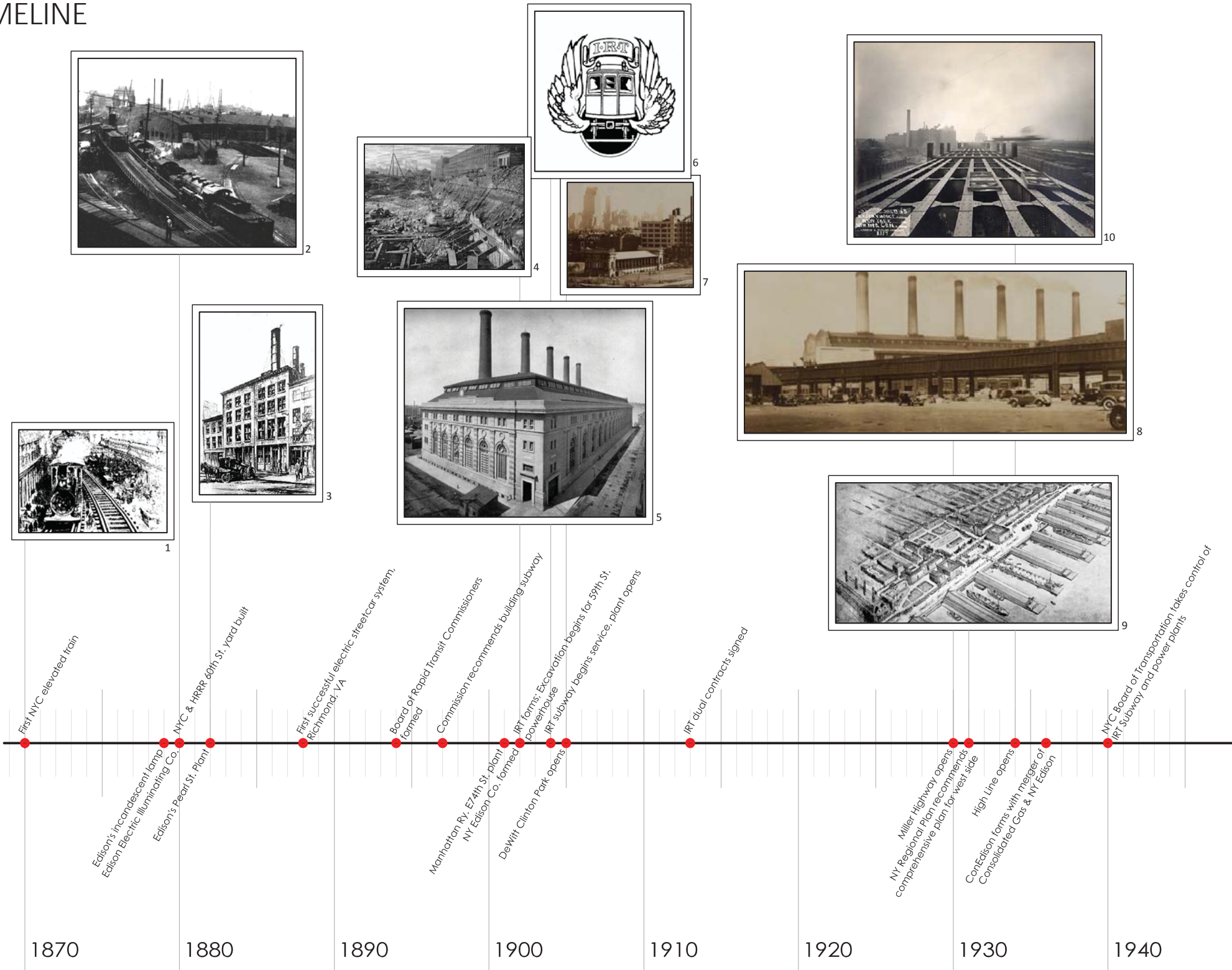
**Below:** Detail of typical terra-cotta keystone.



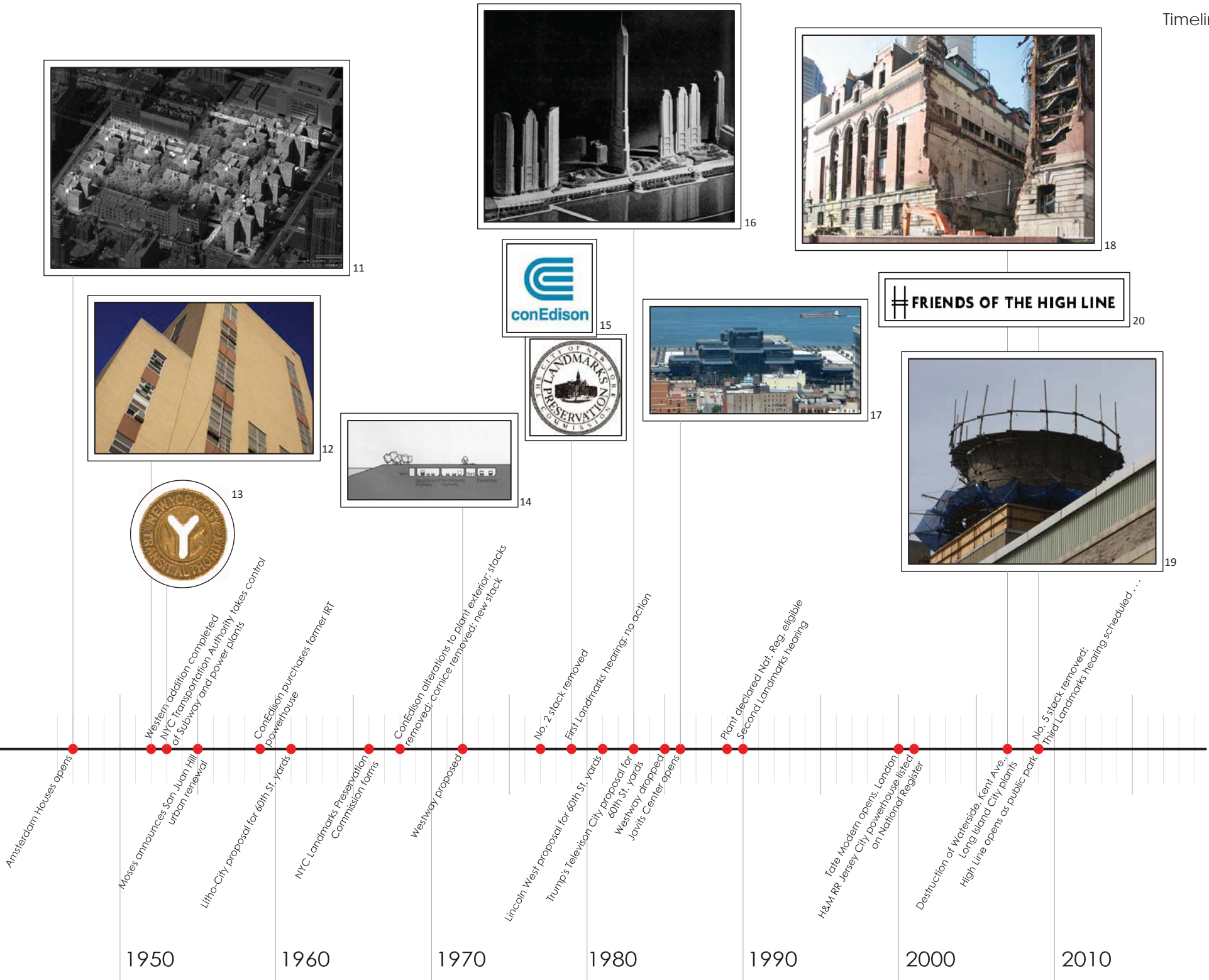
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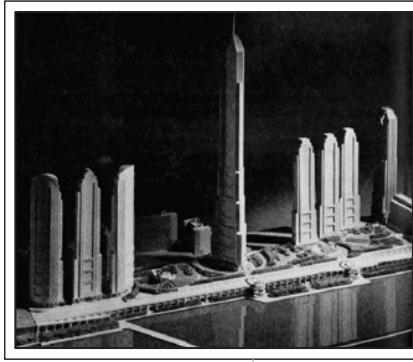
TIMELINE







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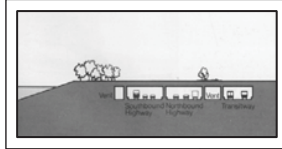
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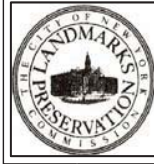
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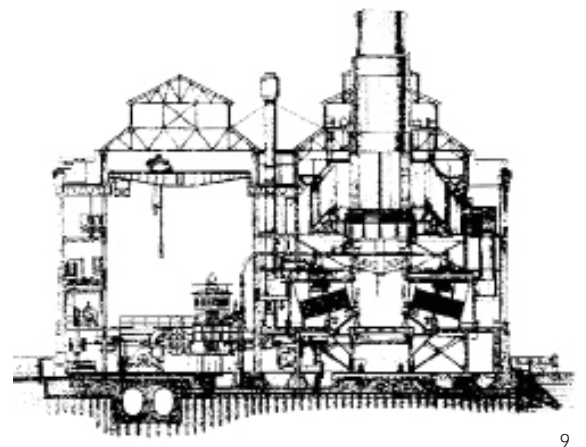
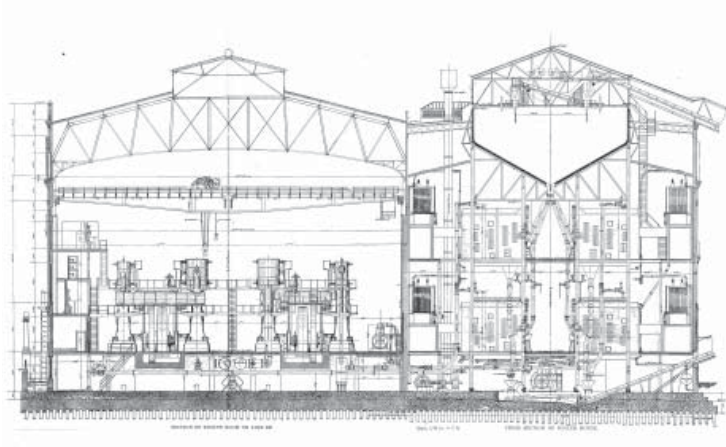
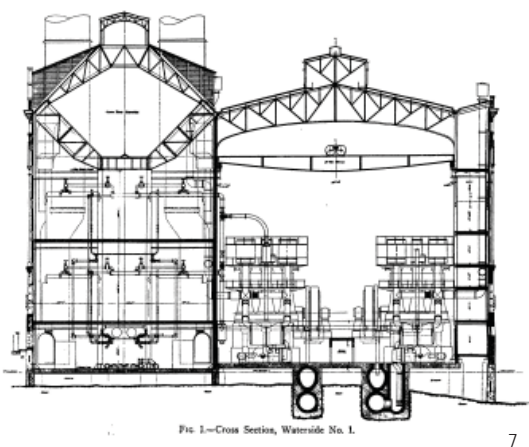
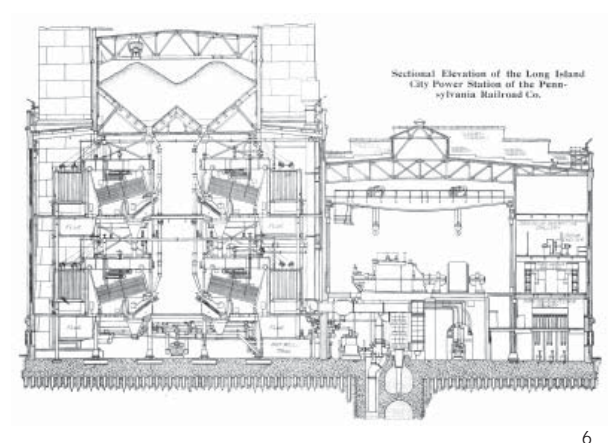
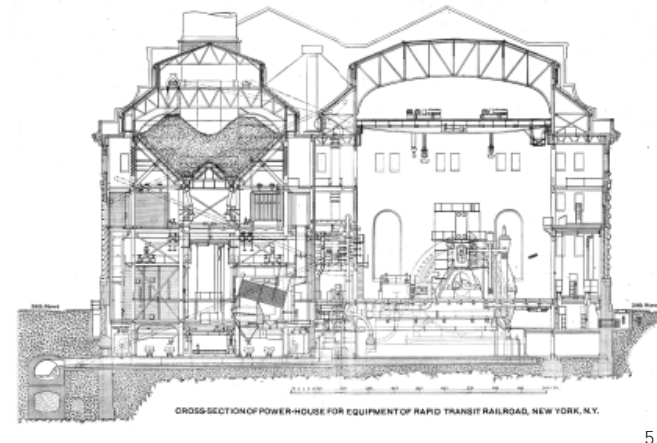
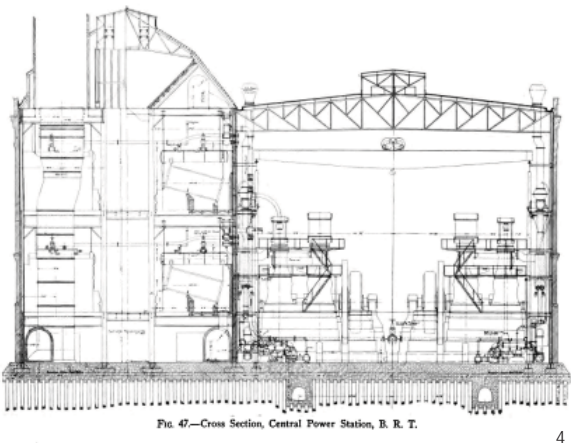
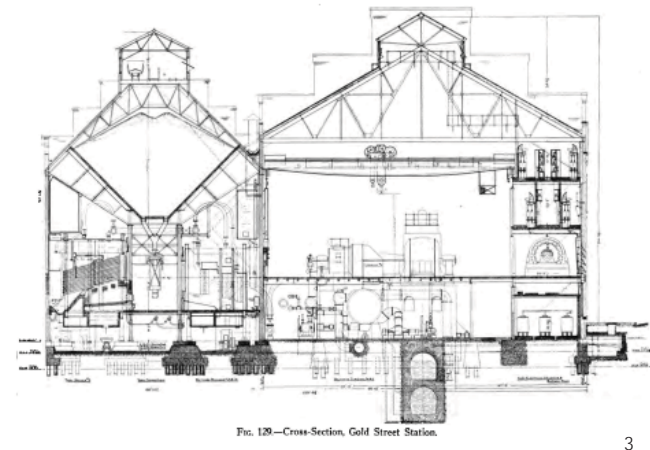
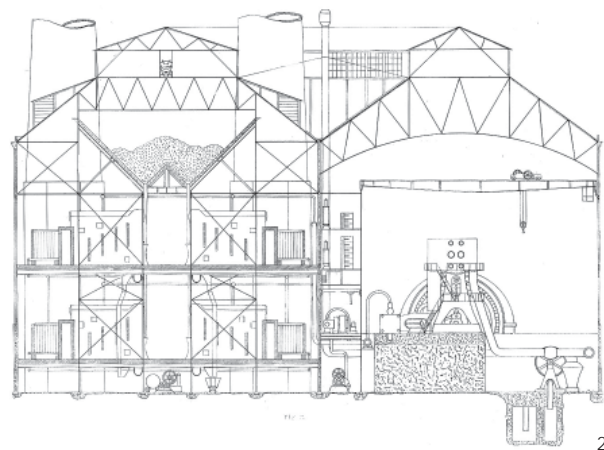
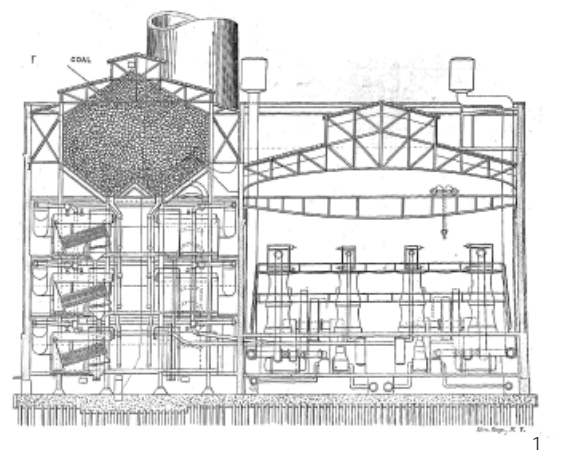
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# History

Completed in 1904, the former IRT powerhouse at West 59<sup>th</sup> Street in Manhattan is of unique significance as a work of architecture and engineering. Designed by Stanford White of McKim, Mead & White, it is among a small handful of industrial buildings produced by what was then the most prominent architectural firm in New York. One of the first large-scale electric generating facilities in the city, it is also among the most architecturally sophisticated examples of this building type ever created. Built to supply power for the city's first subway system, it is further significant for its critical relevance to an infrastructure that has become symbolic of the city itself. Despite various interior and exterior alterations, the essential character of this building survives intact to make it perhaps the most important historic structure on the industrial waterfront of Manhattan's west side.

## ARCHITECTURAL DESCRIPTION

The former IRT powerhouse occupies the entire city block between Eleventh and Twelfth Avenues and 58<sup>th</sup> and 59<sup>th</sup> Streets in Manhattan. Its principal elevation faces east onto Eleventh Avenue. The building's Beaux-Arts facades are composed of buff-colored Roman brick and rich terra-cotta ornament set over a plinth of pink granite, and are characterized by rows of monumental arched windows framed by projecting pilasters and terra-cotta stringcourses, topped by twin gable roofs with clerestory monitors. The building's

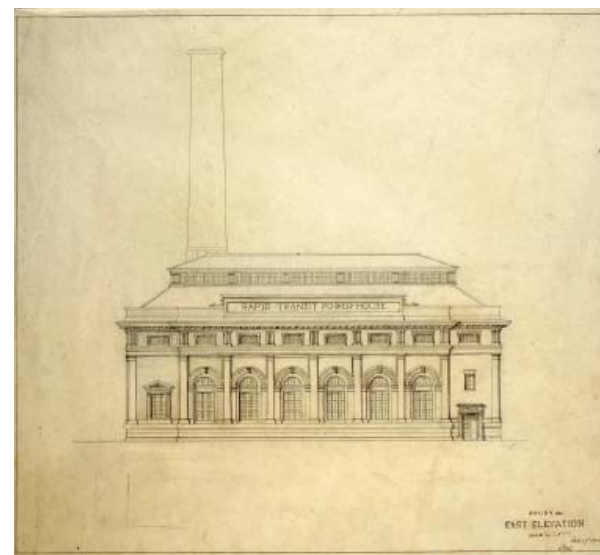
four corners are anchored by slightly offset rectangular masses characterized by more restrained fenestration and ornamentation. A large, unornamented addition completed in 1952 adjoins the original building at the westernmost end of the site.

The east-facing elevation on Eleventh Avenue stretches eight bays across. It is arranged around a central composition of six monumental arched windows set above the granite base. The windows are punctuated by rusticated pilasters built of stacked, alternating masses of roman brick and projecting terra-cotta units. Elaborate terra-cotta surrounds emphasize the monumentality of the arched windows above the springline. The composition is framed by slightly recessed corner masses at the outermost bays. The main entrance to the building faces onto Eleventh Avenue at the northeastern corner of the site. A terra-cotta stringcourse demarks an attic storey above the arched windows, with paired rectangular windows centered over the arched openings below. The elevation was crowned by a projecting terra-cotta cornice (since removed). Above the cornice, a stepped parapet wall provides space for an elongated terra-cotta tablet bearing the words INTERBOROUGH RAPID TRANSIT COMPANY.

Long rows of seventeen monumental arched windows characterize the north and south elevations, continuing the horizontal arrangement of the east façade without

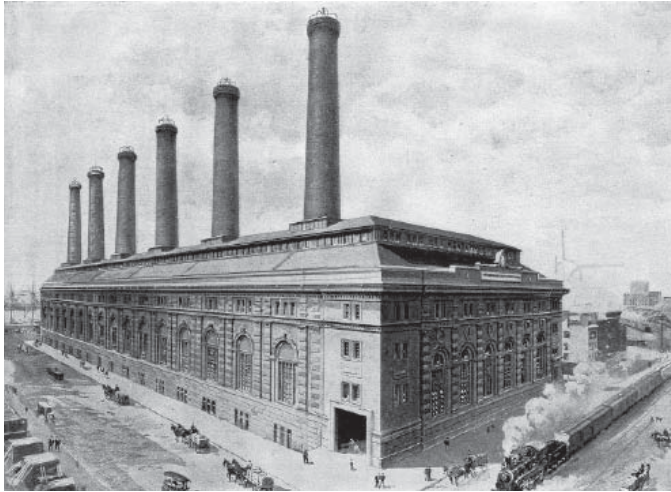
**Opposite:** Section drawings showing distinct typology of early power plant design.

**Below:** McKim, Mead and White, study elevation for the Eleventh Avenue facade, dated February 17, 1902.



NYHS





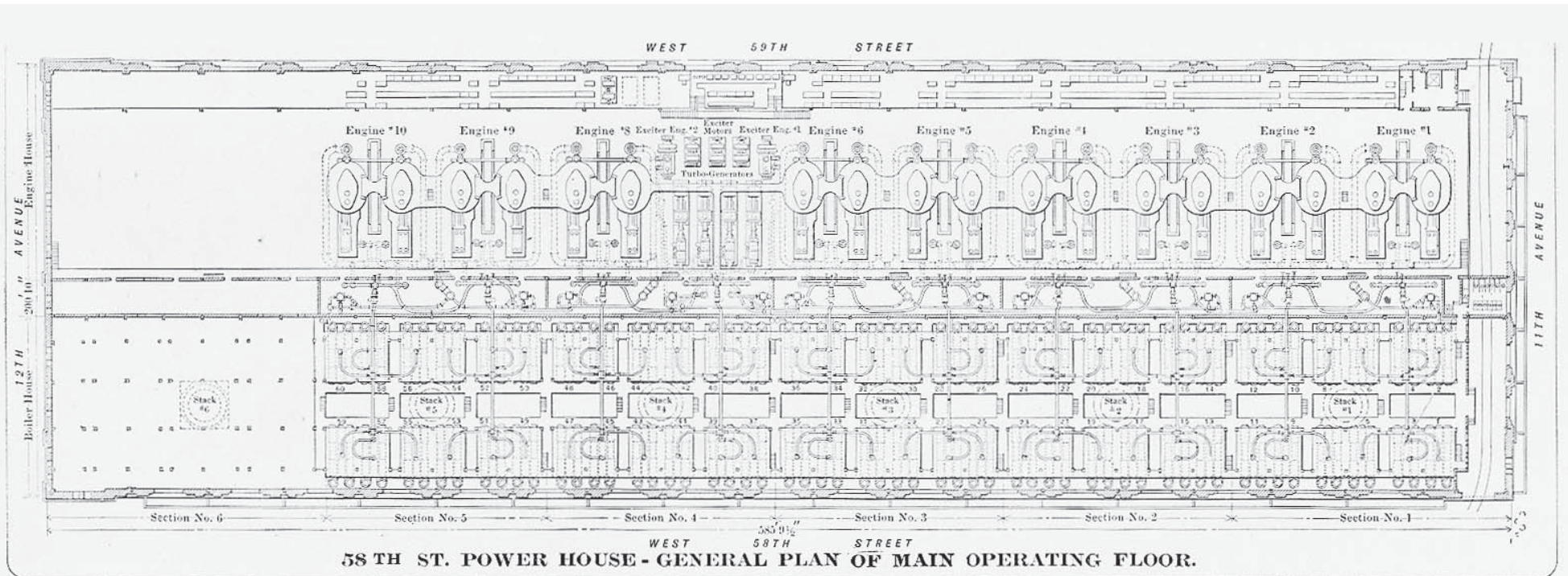
interruption across the length of the building albeit with somewhat more restrained terra-cotta ornament. The windows of the side elevations are broader and taller than those of the east facade, and are punctuated by paired rusticated pilasters. The long run of arched windows is flanked at each end by slightly projecting corner masses corresponding to those of the east elevation, for a total of nineteen bays. Triplet sets of small rectangular windows are centered above the arched windows in the attic storey, over which the alignment of the terra-cotta cornice and brick parapet wall carries across from the east elevation. Large street-level openings at the east end of the building allowed a service siding of the New York Central & Hudson River Railroad's West Side freight line to pass through the structure.

Effuse terra-cotta ornament accents the three street facing elevations of the original building. The terra-cotta bears various ornamental motifs including holly

leaf details, medallions and swags, elaborate keystones with perched eagles over each of the arched windows, and curious winged lightning bolt details centered in escutcheons ornamenting the capitols atop each of the pilasters.

The original west elevation was built as a temporary bulkhead with the expectation that it would be demolished to facilitate the extension of the building toward the western boundary of the site at Twelfth Avenue. Accordingly, photographs show that this elevation carried the general fenestration pattern but not the rich terra-cotta ornament of the other facades.

Parallel gable roof structures run the length of the building from east to west, divided horizontally by long clerestory monitors. The gables are linked at their easternmost ends by a north-south oriented roof structure to create the effect of a hip roof over the Eleventh Avenue elevation when seen from below.

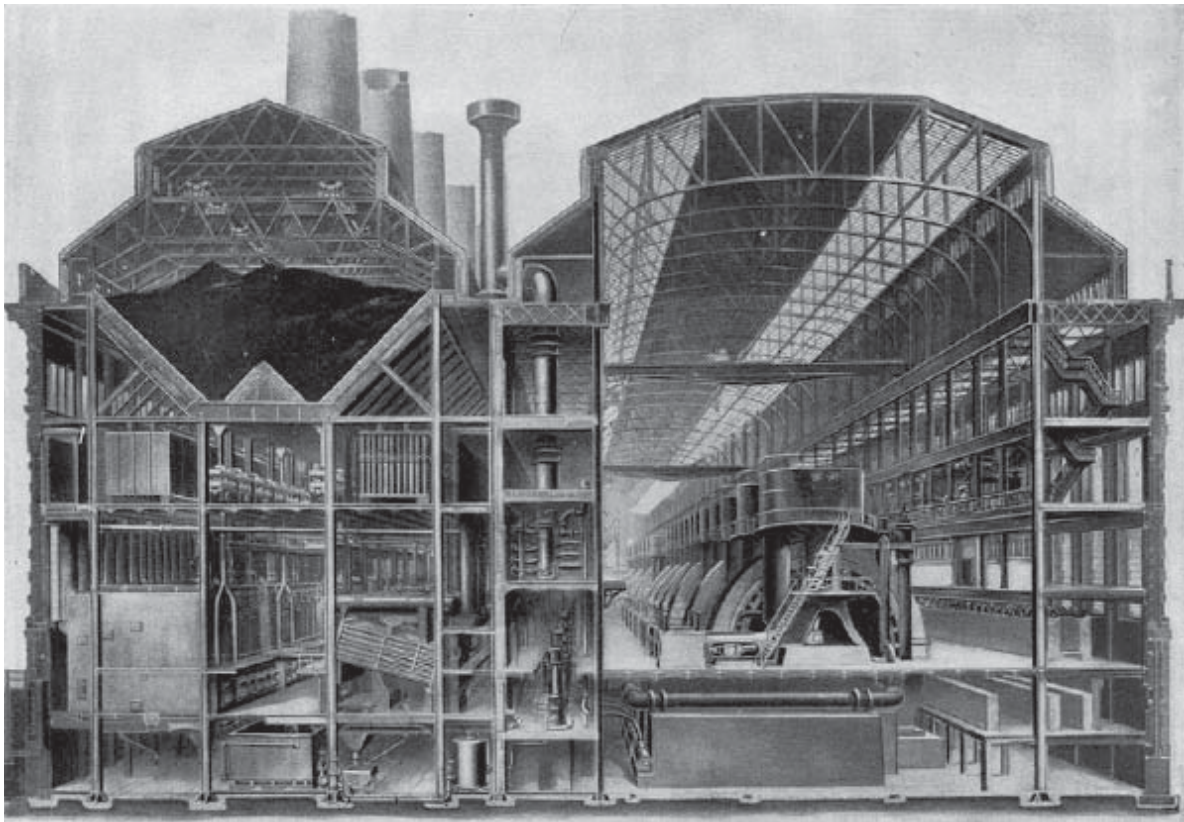


Period documentation indicates that the roofs were originally sheathed in green tiles that have since been removed.<sup>1</sup> Six tapered brick smokestacks aligned over the boilers stood over the ridge of the southern gable above the boiler room. The westernmost stack post-dated the other five and was somewhat distinct in appearance from its counterparts. Ornamental cast iron cages supplied by the Millikin Brothers iron works crowned each of the original five smokestacks.<sup>2</sup>

The building's interior is divided into two long spaces running the length of the structure beneath each of the gable roofs, effectively dividing the powerhouse into two buildings sharing a single masonry party wall. The boiler room occupied the space beneath the southern gable, and was densely filled with high pressure boilers, coal bunkers, and a robust system of steel girders supporting the coal bunkers and masonry smokestacks above. The broader north gable sheltered

the generating hall, a vast open space as bright and airy as the boiler room was dark and packed with machinery.

In the late 1940s, increased demand finally led to the construction of the planned westernmost addition to the original building. Discarding Stanford White's provisional scheme for the planned addition, the new building is readily distinct in massing and materials from the older building to the east. The addition is comprised of tiered rectangular masses built of buff brick with limestone copings approximately matching the color of the roman brick and terra-cotta of the original building. Typical fenestration includes tall rectangular openings for metal-framed windows separated by spandrel panels. The design is typical for the architecture of power plants of its period but contrasts markedly with that of the older building to which it is attached.



STREET RAILWAY JOURNAL (ALL)

**Opposite Top:** Rendering, view to the northwest.

**Opposite Bottom:** Plan, showing positioning of machinery.

**Left:** Perspective section, view to the west.



### Technical Characteristics

As originally conceived, the IRT power station was to house five interdependent generating sections, arranged in a linear fashion along the length of the building. The IRT extended the building to house a sixth section as work neared completion in 1904, but documentation suggests that machinery for this section was not installed for several years after the building entered service.

Coal reached the plant by barges handled at Pier 98, at the foot of West 58<sup>th</sup> Street. (This facility was purpose-built for the IRT by the city's Department of Docks.) From the pier, coal entered the building by means of an underground tunnel beneath Twelfth Avenue. Once inside the plant, a series of conveyors distributed the coal to seven storage hoppers with a maximum total capacity of 16,000 tons, housed in the attic above the boiler room.<sup>3</sup>

Coal fed from the hoppers into the boilers below. Each generating section included twin banks of six Babcock and Wilcox boilers, which vented into the stacks above. Ash filtered down into hopper cars in the basement, which were delivered back to the pier to be loaded onto barges for removal. Steam produced in the boilers was forced into reciprocating engines supplied by the Allis-Chalmers company of Milwaukee, which were housed in the neighboring generating hall. Each engine produced 12,000 horsepower at 75 revolutions per minute. The engines were paired in groups of two per generating section, and were each rigged to Westinghouse electric generators rated at a maximum capacity of 5,000 kilowatts per unit.

The only deviation from this general scheme was the specification of turbo generators and exciter machinery in the place of the number seven reciprocating engine, specifically intended to power electric lights throughout the system. The five (and later six) smokestacks clearly demarked each generating section within, thus translating the plant's internal arrangement to the architectural form of the exterior.

Alternating current from the Westinghouse electric generators was fed into a switching station housed in galleries lining the north side of the generating hall, from whence it was distributed to eight substations strategically positioned throughout the system. (Additional substations were added later in phases as demand increased and the system expanded.) Rotary converters housed in the substations stepped-down the 11,000 volt alternating current generated in the plant to 625 volt direct current which powered the trains by way of a newly-developed device known as the "third rail."

### Subsequent Alterations

Apart from the western addition, the 59<sup>th</sup> Street powerhouse underwent no significant exterior alterations up until the building's acquisition by Consolidated Edison (ConEdison) in 1959. Immediately upon taking control of the plant, ConEdison embarked on a series of mechanical improvements executed over the course of the next decade. In addition to the removal of superannuated machinery, this resulted in the creation of a number of new street level openings in the building's north and south elevations, the removal of four of the plant's six original smokestacks, and the addition of a modern, 500-foot reinforced concrete stack in place of the number 1 smokestack in 1968. ConEdison removed the building's cornice that same year. The number 2 stack was removed in the late 1970s and the number 5 stack in 2009. The green roofing tiles, window units of the clerestory, and some original window units on the 59<sup>th</sup> Street and Eleventh Avenue elevations have also been replaced, but otherwise the building appears today much as it did upon its completion.

### HISTORY

#### The Development of Large-Scale Electric Generating Plants

The IRT powerhouse belongs to a building type that emerged with the beginnings of large scale electric power generation at the end of the nineteenth century. Thomas Edison (1847 – 1931) built what is considered

**Below:** Edison's Pearl Street power station opened in 1882.





the prototype for the modern electric power station on Pearl Street in lower Manhattan in 1882. Similar in appearance to a small industrial loft building or even a large row house, the plant had a production capacity of some 600 kw.<sup>4</sup>

Electric generating technology evolved rapidly over the remainder of the century, as ever larger power plants began to appear in New York and throughout the country. In the 1890s, Edison's production model calling for numerous direct current generating stations to power localized distribution districts gave way to a system of large, centralized stations that produced alternating current for distribution throughout a network of vast, interconnected power grids. In the meantime, streetcar lines and many industrial and institutional facilities such as schools and hospitals found it more efficient to build their own small power plants than to rely on the developing electric utilities. (Important examples of such facilities survive in Brooklyn at the campus of the Pratt Institute, and at the former Brooklyn Heights Railroad Co. power station on 52<sup>nd</sup> Street in Sunset Park.) Not until 1901 did the New York Edison Company open its first truly large-scale power station on the East River at 38<sup>th</sup> Street, known

as the Waterside generating station. A second plant, Waterside No. 2, opened four years later one block to the north.<sup>5</sup>

Railways played a critical role in the development of large-scale electric power generation during this period. The total mileage of electrified track in the United States grew from just 35 in 1887 to 21,920 in 1902.<sup>6</sup> Early electric utilities simply could not meet the requirements of even small electric streetcar systems, and these companies opted to generate their own electricity rather than wait for the utilities to catch up. Between 1899 and 1910, no fewer than eleven large new power stations were erected for various railways serving New York, including those of the Metropolitan Street Railway Company at East 96<sup>th</sup> Street (c.1899); the Manhattan Railway Company at East 74<sup>th</sup> Street (1901); the Brooklyn Rapid Transit Company on the Gowanus Canal (1903) and at Williamsburg, Brooklyn (1905); the Third Avenue Railway Company at Kingsbridge, Manhattan (1904); the Interborough Rapid Transit Company at West 59<sup>th</sup> Street (1904); the Pennsylvania Railroad at Long Island City, Queens (1905); the New York Central and Hudson River Railroad at Yonkers and in the Port Morris section of the Bronx (1906); the New York, New



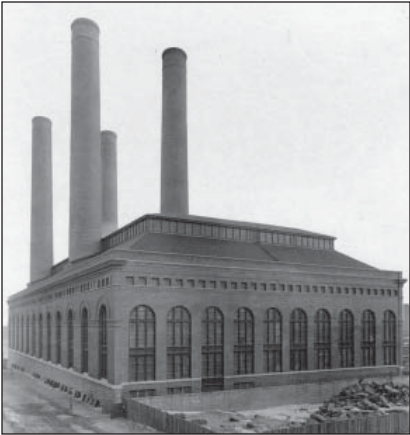
T. RINALDI

**Left:** Former Brooklyn Heights Railroad powerhouse on 52<sup>nd</sup> Street in Sunset Park (1892). A rare surviving prototype for larger power plants built later.

RAILROAD POWER PLANTS



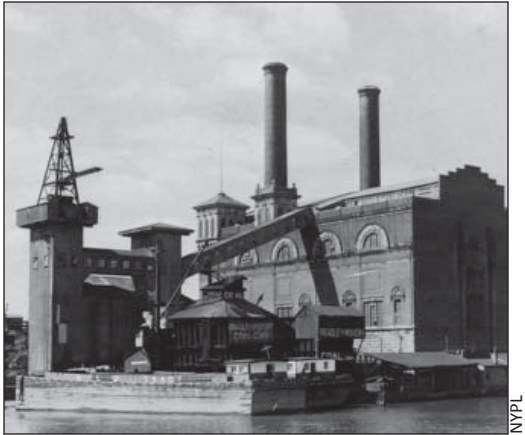
① DEMOLISHED NYPL



② IN SERVICE NYPL

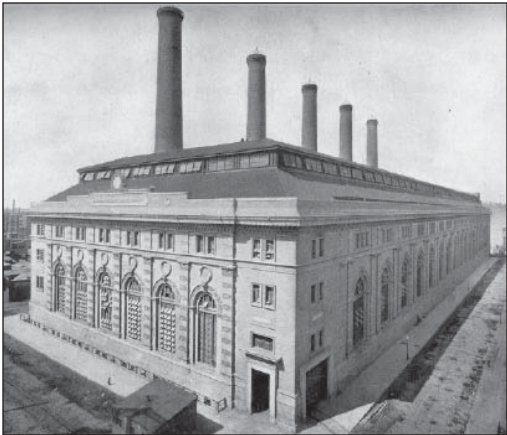


③ ABANDONED MURRAY / ELECTRIC POWER PLANTS



④ DEMOLISHED NYPL

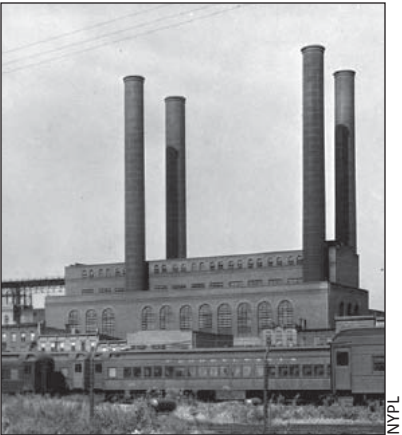
Large scale electric power plants emerged as a distinct building type at the turn of the century. Typical architectural features, such as rows of monumental arched windows and clerestory roofs, characterized their external appearance and made them recognizable to passersby. All were located by navigable water bodies for access to fuel and water to cool machinery. Only a handful of these buildings survive in New York today.



⑤ IN SERVICE ARCHITECTURE



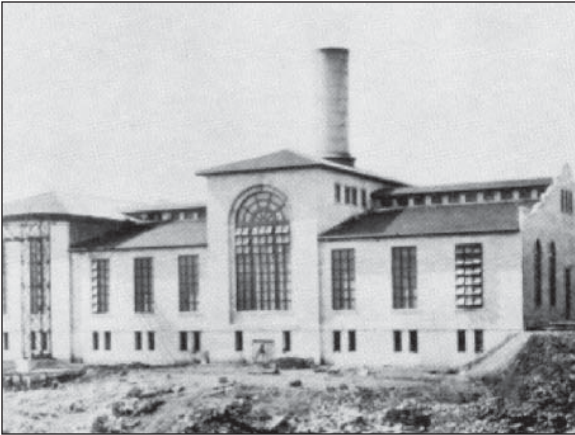
⑥ DEMOLISHED MURRAY / ELECTRIC POWER PLANTS



⑦ DEMOLISHED NYPL



⑧ ABANDONED; DEMO'D NYCRR HISTORICAL SOCIETY

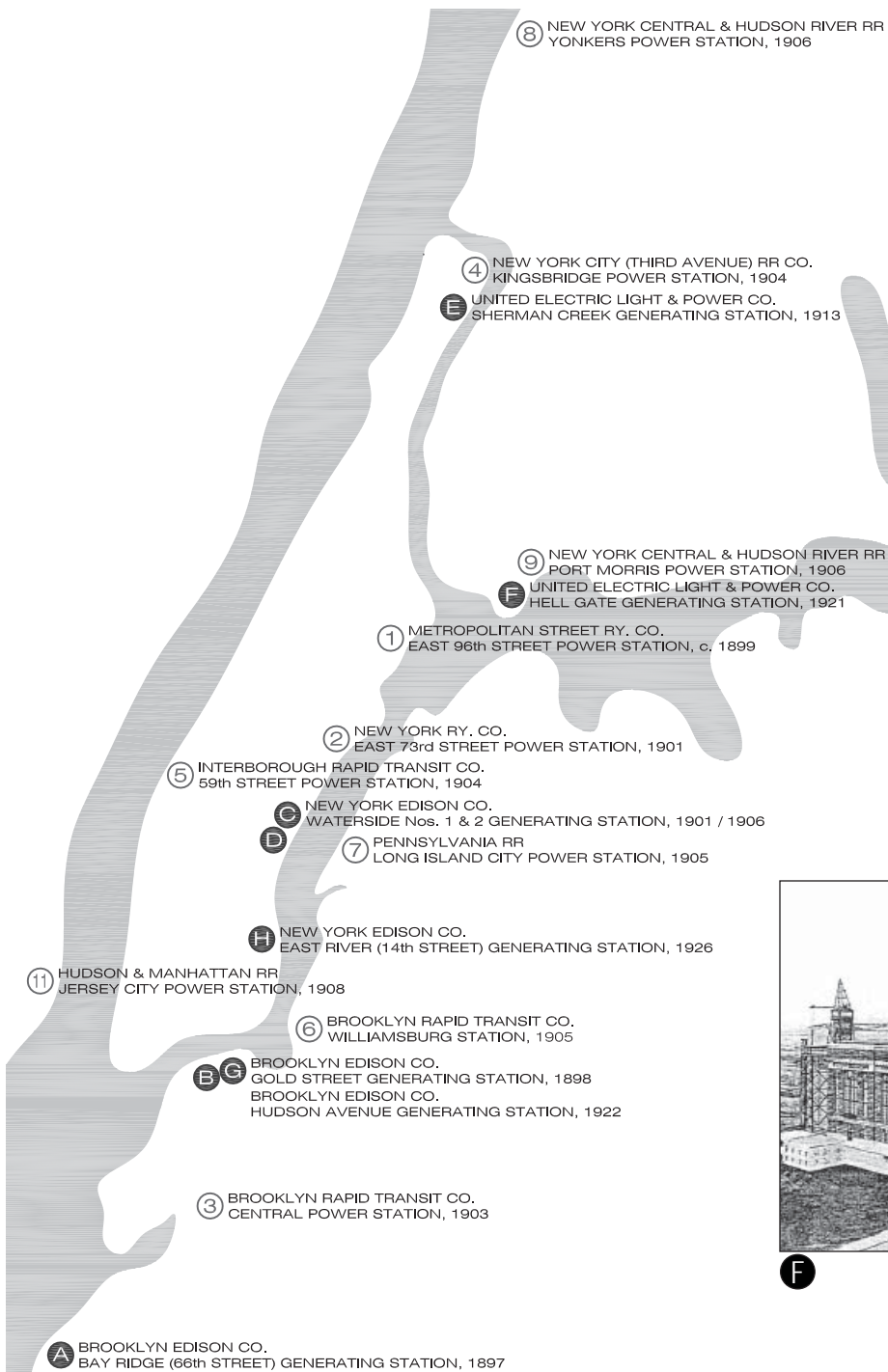


⑩ DEMOLISHED AM. SOC. OF MECH. ENGINEERS



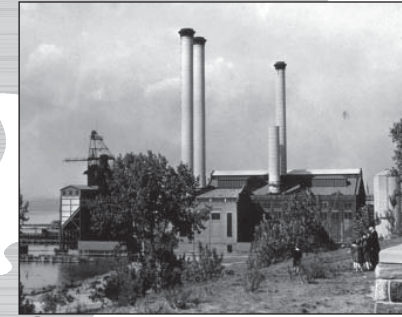
⑪ ABANDONED T. RINALDI





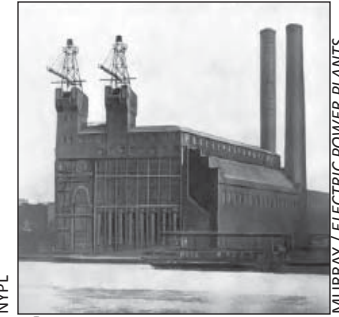
10 NEW YORK, NEW HAVEN & HARTFORD RR  
COS COB POWER STATION, 1907

## PUBLIC UTILITY POWER PLANTS



A

DEMOLISHED



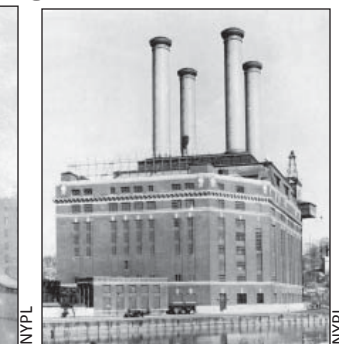
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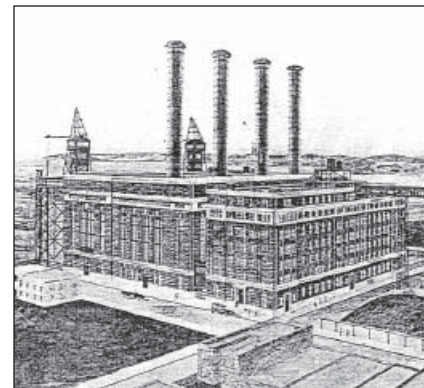
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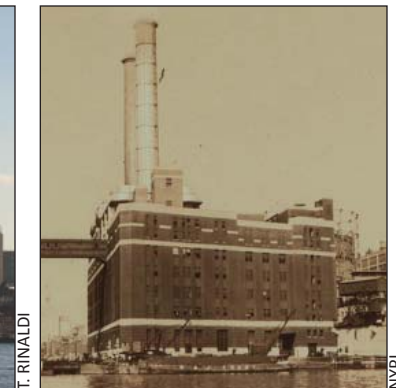
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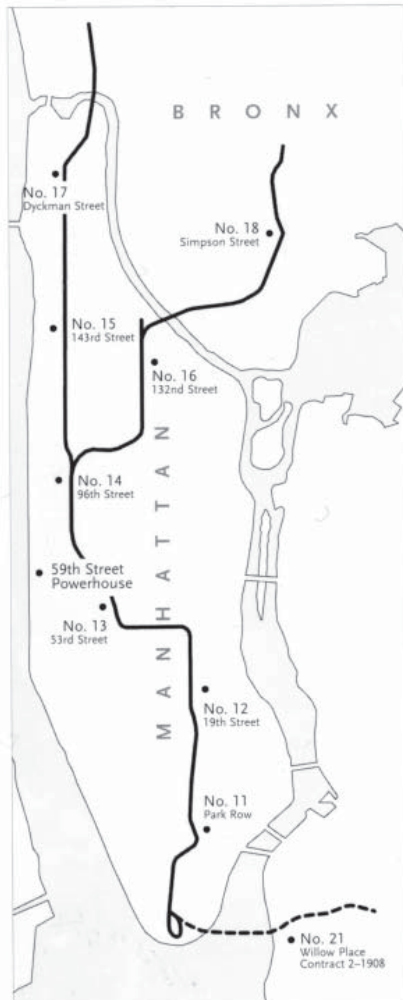
## LARGE SCALE ELECTRIC POWER PLANTS IN NEW YORK, 1895 - 1930





**Right:** The IRT's winged subway logo, 1904.

**Below:** Map showing original route of IRT subway relative to substations and powerhouse.



PAYNE / NEW YORK'S FORGOTTEN SUBSTATIONS

Haven and Hartford Railroad at Cos Cob, Connecticut (1907), and the Hudson and Manhattan Railroad in Jersey City (1908). In the case of the New York Central and the Pennsylvania railroads, electrification facilitated the construction of new station facilities (Grand Central Terminal and Pennsylvania Station) served by underground tracks.<sup>7</sup>

### Formation of the IRT

The Interborough Rapid Transit Company formed in 1902 to administer the completion and operation of New York's first underground rapid transit system, an infrastructure whose very existence was predicated upon the development of large-scale electric power generation.<sup>8</sup> Planning for the subway began in 1894, with the creation of the Board of Rapid Transit Railroad Commissioners. Under the leadership of August Belmont Jr. (1853 – 1924) and Chief Engineer William Barclay Parsons (1859 – 1932), the commissioners first set about charting a route for the proposed subway, ultimately laying out an underground right of way starting at City Hall and heading uptown under Park Avenue as far as Grand Central depot (the Terminal did not open until 1913), then turning west under 42<sup>nd</sup> Street to Times Square, where the line turned north to head uptown under Broadway to West 96<sup>th</sup> Street. From there the line split, with one branch continuing north under Broadway and crossing into the Bronx at Marble Hill, the other branching east to enter the Bronx at Mott Haven.

In 1900 the commissioners hired the newly formed Rapid Transit Construction Company to begin building the system, under the direction of John B. McDonald (1844 – 1911) who had previously helped supervise the construction of a portion of the New York Central and Hudson River Railroad's Park Avenue tunnel. Having concluded that the railroad would need to generate its own electric power, the company set about selecting a site for a new power station. Already, it had become standard practice for builders of large electric generating facilities to situate these buildings adjacent to navigable water bodies in order to facilitate coal delivery (and ash removal) by boat, and to use

river water to cool machinery inside the plant. The powerhouse would ideally be sited near the load center of the system.

Additionally, the commissioners articulated a desire that the building be given a prominent location where it would stand out as an important civic landmark. "The power house of the city's great rapid transit system will be something in which New Yorkers will take no little pride," said Douglas Robinson of the Rapid Transit Construction Company in 1901: "such a structure should have as commanding a site as possible."<sup>9</sup> Four large power plants had already taken sites on Manhattan's eastern shoreline.<sup>10</sup> After considering sites in Long Island City and at East Ninth Street in Manhattan, in September of 1901 the commissioners announced that they would build their plant on the North River at West 59<sup>th</sup> Street, where they acquired the entire 200-by-800-foot city block bounded by Eleventh and Twelfth Avenues and 58<sup>th</sup> and 59<sup>th</sup> Streets, then occupied by the stockyards and slaughterhouse of T.C. Eastman's Dressed Beef Company. The block sat near the northernmost reach of the industrial waterfront of the west side of Manhattan, at the northwestern fringe of a rough-and-tumble, blue-collar, industrial neighborhood that had become known as Hell's Kitchen not long before.

### Planning the 59<sup>th</sup> Street Powerhouse

In planning various technical aspects of the new plant, the Rapid Transit Construction Company studied power stations throughout North America and Europe and considered a range of production models for the building to follow. Its design would represent a collaborative effort by a group of prominent electrical, mechanical and structural engineers, including William Barclay Parsons; Lewis B. Stillwell, who had served as electrical director for the Niagara Falls Power Company and as consulting engineer for the Manhattan Railway Company; John B. McDonald, director of the Rapid Transit Construction Company; and Solomon L.F. Deyo, John Van Vleck, William C. Phelps, and Paul C. Hunter, members of the company's in-house engineering and architectural staff. Van Vleck had previously served as chief electrician and consulting engineer to the Edison

Electric Illuminating Company, helping to design the utility's Duane Street plant, opened in 1891, and the first Waterside plant, which opened ten years later.

Ultimately, the company modeled its new plant closely after the power station of the Manhattan Railway Company, which opened on East 74th Street in Manhattan in 1901, hiring some of the same engineers (including Stillwell) who had overseen the design and construction of that plant. Both plants adhered to the prevailing scheme in power plant design which called for the facility to be divided into two main interior spaces, one housing the boiler room, the other given over to the plant's generating equipment.

Both plants likewise followed the prevailing trend toward the production of alternating rather than direct current. In the 1890s, alternating current triumphed over direct current as the accepted standard for most commercial and household applications because it could be distributed across greater distances, thus facilitating a system of large, central power stations to serve broad distribution areas. But direct current remained favored for electric railways, primarily because it allowed trains to accelerate more quickly than alternating current. To address this problem, it became the accepted practice for railroads to produce alternating current in a central generating facility, from which power could be efficiently distributed to a series of strategically-positioned substations where it was converted to direct current for transmission throughout the system by means of overhead wires or (in the case of the IRT) the third rail.

The Rapid Transit Company engineers had to choose between more conventional reciprocating steam engines and ascendant steam turbine machinery to drive the generators. In 1901, steam turbines represented a developing technology that was yet essentially untested on the scale required for the IRT plant. Here again, the engineers followed the precedent of the Manhattan Railway plant in specifying reciprocating engines. Almost immediately afterwards, steam turbine technology developed to a point where it superceded reciprocating engines for electric power

generation by the time the plant opened in 1904. One important departure from the design of the Manhattan Railway plant was in the arrangement of the boiler room. Partly to save space, many early power plants were built with boilers stacked on two or more levels. Early on, the planners of the IRT plant decided to position all equipment in a linear arrangement on a single level to maximize operating efficiency, even if this mandated the acquisition of a larger site. This innovation was adopted by designers of successive power stations, notably the twin plants of the New York Central and Hudson River Railroad, opened at Yonkers and in the Port Morris section of the Bronx in 1906.

### Architectural Treatment of the 59<sup>th</sup> Street Plant

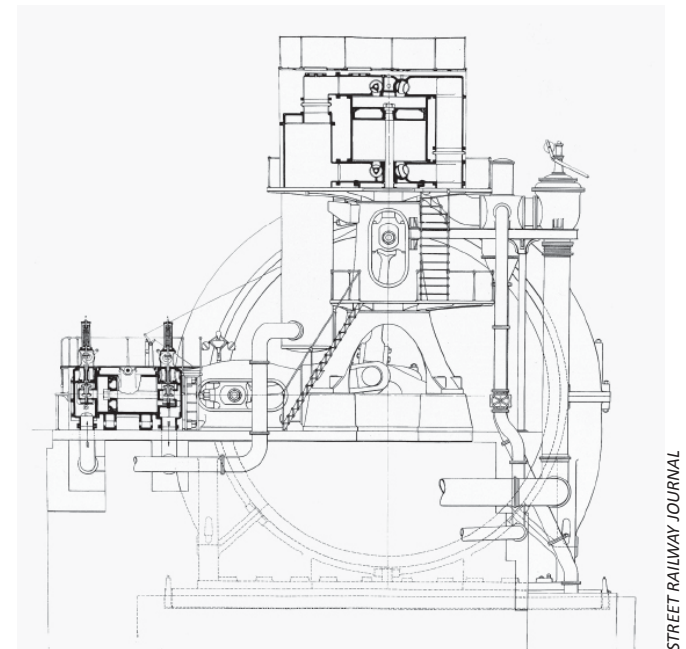
With the site selected and basic parameters set for the technical arrangement of the new plant, it remained to develop an architectural scheme for the building's exterior. The commissioners of the IRT articulated a sense that the subway would count among the greatest and most influential civic improvements in the history of New York. In the spirit of the City Beautiful movement that shaped American cities after the Columbian Exposition of 1893, the builders of important civic institutions sought to create works of architecture whose monumentality would attest to the good taste and prosperity of their patrons. In New York, this spirit produced such landmarks as the New York Public Library (Carrere & Hastings, 1911), Grand Central Terminal (Reed & Stem and Warren & Wetmore, 1913) and the Fifth Avenue elevations of the Metropolitan Museum of Art (Richard Morris Hunt, 1890-1902; McKim, Mead & White, 1906-1926).

But the subway, with its infrastructure largely underground, offered little opportunity for the creation of a monumental civic building. Except, the commissioners surely noted, for the power plant. To design its passenger stations, the commission contracted the architects George Lewis Heins (1860 – 1907) & John LaFarge (1862 – 1938), whose respected practice had already received commissions for prominent buildings including the Cathedral of St. John the Divine (begun 1891, not completed) and the



**Left:** The IRT based its design for the 59th Street plant on that of the Manhattan Railway Company's power station at East 74th Street.

**Below:** Allis-Chalmers reciprocating steam engine for IRT powerhouse, elevation drawing.









Bronx Zoo (1899 – 1910). The substations were left in the hands of John Van Vleck and Paul C. Hunter, members of the IRT's in-house staff. Like nearly all important buildings of the period, these structures bore the influence of the Beaux-Arts in their materials and architectural details.

The architectural design of the powerhouse meanwhile was charged to Stanford White (1853 – 1906) of McKim, Mead & White, then the most prominent architects practicing in New York and arguably in the country. Their commissions included mansions and country homes for the city's most prominent residents, such as the Villard Houses on Madison Avenue (1882); public buildings, such as Madison Square Garden (1891), Pennsylvania Station (1910), and the Pierpont Morgan Library (1906); and civic buildings and monuments, including the Municipal Building (1915) and the Washington Square Arch (1895).<sup>11</sup> As architectural historian David Framberger wrote later in an overview of the architecture of the IRT for the *Historic American Engineering Record*, the 59<sup>th</sup> Street powerhouse would stand as “the most high-style piece of design for the subway system.”<sup>12</sup>

From the outset, the builders of the Rapid Transit Subway stated their desire that the new plant express the very best architecture and engineering of its day: it would be “representative of the best known practices in power plants for the attainment, not only of the highest degree of reliability and efficiency from an electrical and mechanical standpoint, but also of the most pleasing and satisfactory effect when viewed as an architectural achievement.”<sup>13</sup> The commissioners may also have taken into account the construction of DeWitt Clinton Park just a few blocks to the south, begun in 1898 and completed in 1905 as an attempt to civilize Hell's Kitchen, which by then had come to be seen as one of the most notorious slums in New York City.<sup>14</sup> Perhaps forecasting a time when such civic initiatives might bring to the far west side the same intense development then rapidly changing the character of midtown Manhattan, the IRT also asserted that “the exterior of the building has been designed so that it will be an attractive structure and in keeping with its surroundings, whatever development may take place.”<sup>15</sup>

The company issued a thorough account of its planning for the 59<sup>th</sup> Street powerhouse in the souvenir dedication book it published upon the opening of the system in 1904:

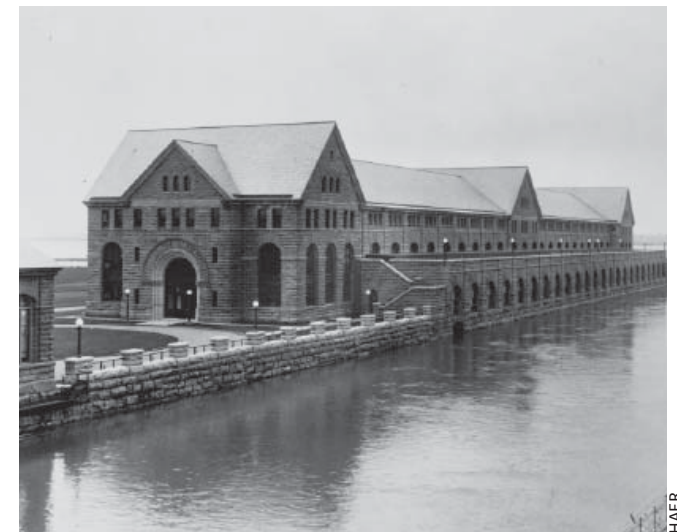
The design of the facework of the power house received the personal attention of the directors of the company, and its character and the class of materials to be employed were carefully considered. The influence of the design on the future value of the property and the condition of the environment in general were studied, together with the factors relating to the future ownership of the plant by the city. Several plans were taken up looking to the construction of a power house of massive and simple design, but it was finally decided to adopt an ornate style of treatment by which the structure would be rendered architecturally attractive and in harmony with the recent tendencies of municipal and city improvements from an architectural standpoint. At the initial stage of the power house design Mr. Stanford White, of the firm of McKim, Mead & White, of New York, volunteered his services to the company as an adviser on the matter of the design of the facework, and, as his offer was accepted, his connection with the work has resulted in the development of the present exterior design and the selection of the materials used.<sup>16</sup>

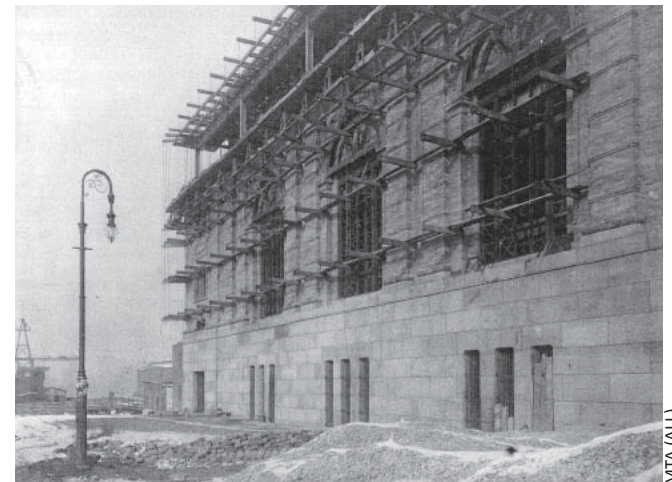
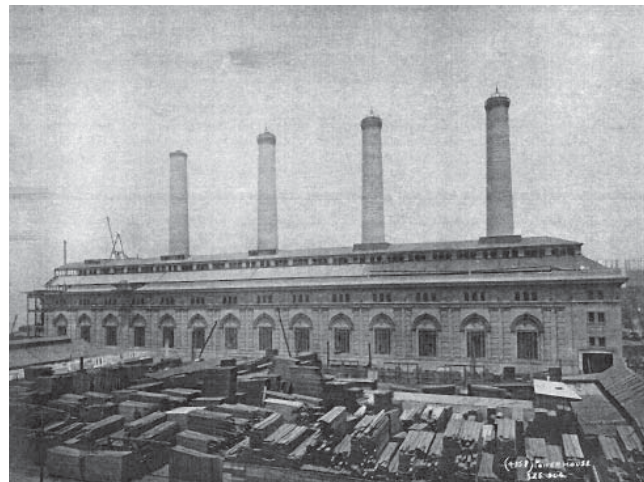
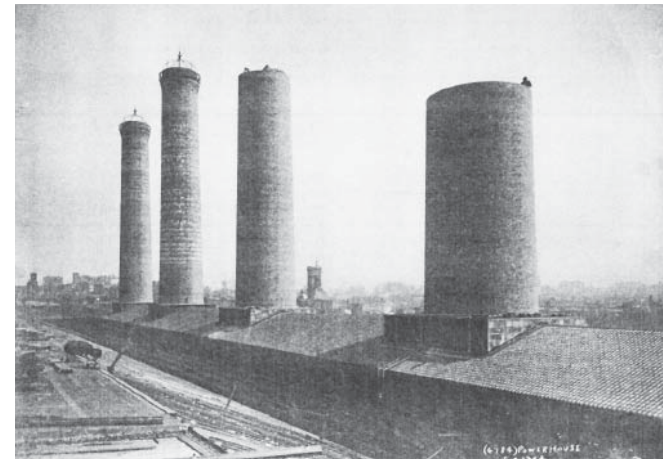
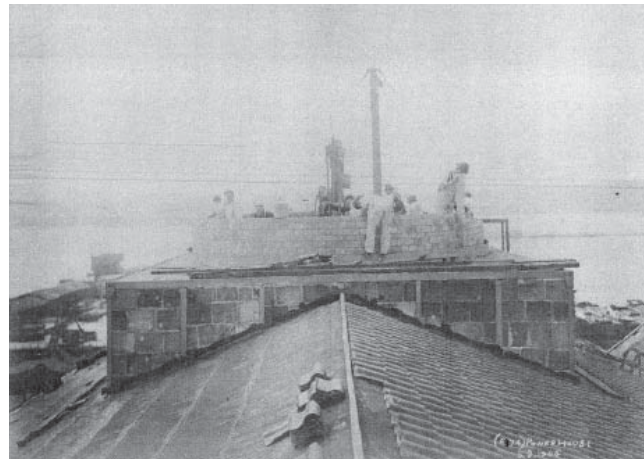
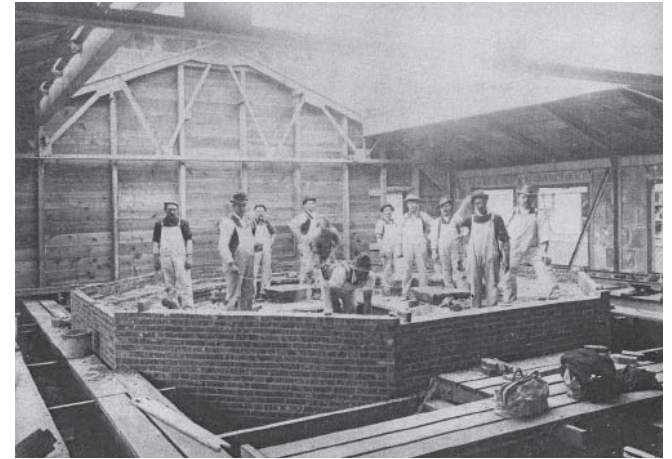
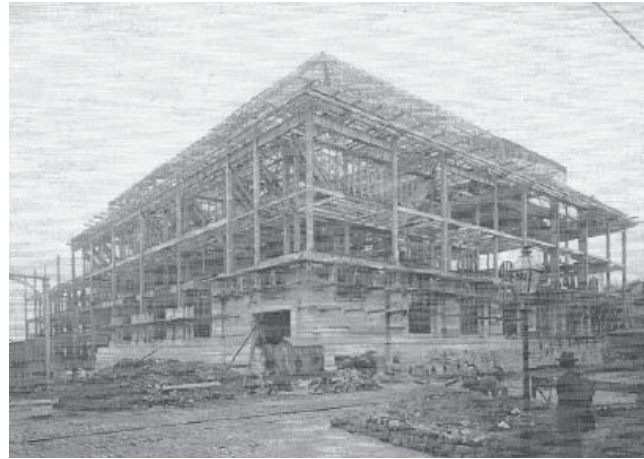
Records at the New-York Historical society indicate that White received a flat fee of \$3,500 for the commission, so it remains unclear in what sense he involved himself as a “volunteer.” By all accounts, White's role was limited to the building's exterior elevations, while the steel structure of the building's interior was designed by the in-house staff of the IRT, likely under the direction of John Van Vleck and Paul C. Hunter (a photograph published in the July, 1906 edition of *Architecture* names Hunter as the architect). Although this was not the only powerhouse designed in such a collaborative manner, it underscores the emphasis placed on this building by the commissioners of the IRT both for its literal importance as the source of power for the system, and for its monumental civic presence in the urban landscape. As a marriage of architecture and engineering, the IRT powerhouse was analogous to other structures from the same period, such as Pennsylvania Station and Grand Central Terminal, and to the great bridges then rising over the East River. The Manhattan Bridge (opened

**Opposite (Clockwise from top left):**

Architecture of the IRT Subway. Iron kiosk, City Hall; 72nd Street head-house; Electrical substation; Detail, 59th Street Station; City Hall Station

**Below:** Edward D. Adams power station at Niagara Falls, NY (partially demolished). McKim, Mead & White, 1895.





**Right:** The construction of the IRT powerhouse is thoroughly documented in historic photographs. From top: Erecting the steel frame, June 17, 1903; Building base for stack, May 18, 1904; Roof and stack construction, June 3, 1904; Nos. 1 - 4 stacks, May 4, 1904; South elevation, May 25, 1904; Building new western bays, December 6, 1904.

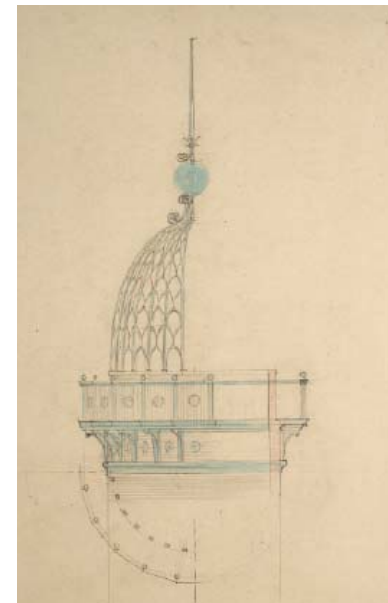
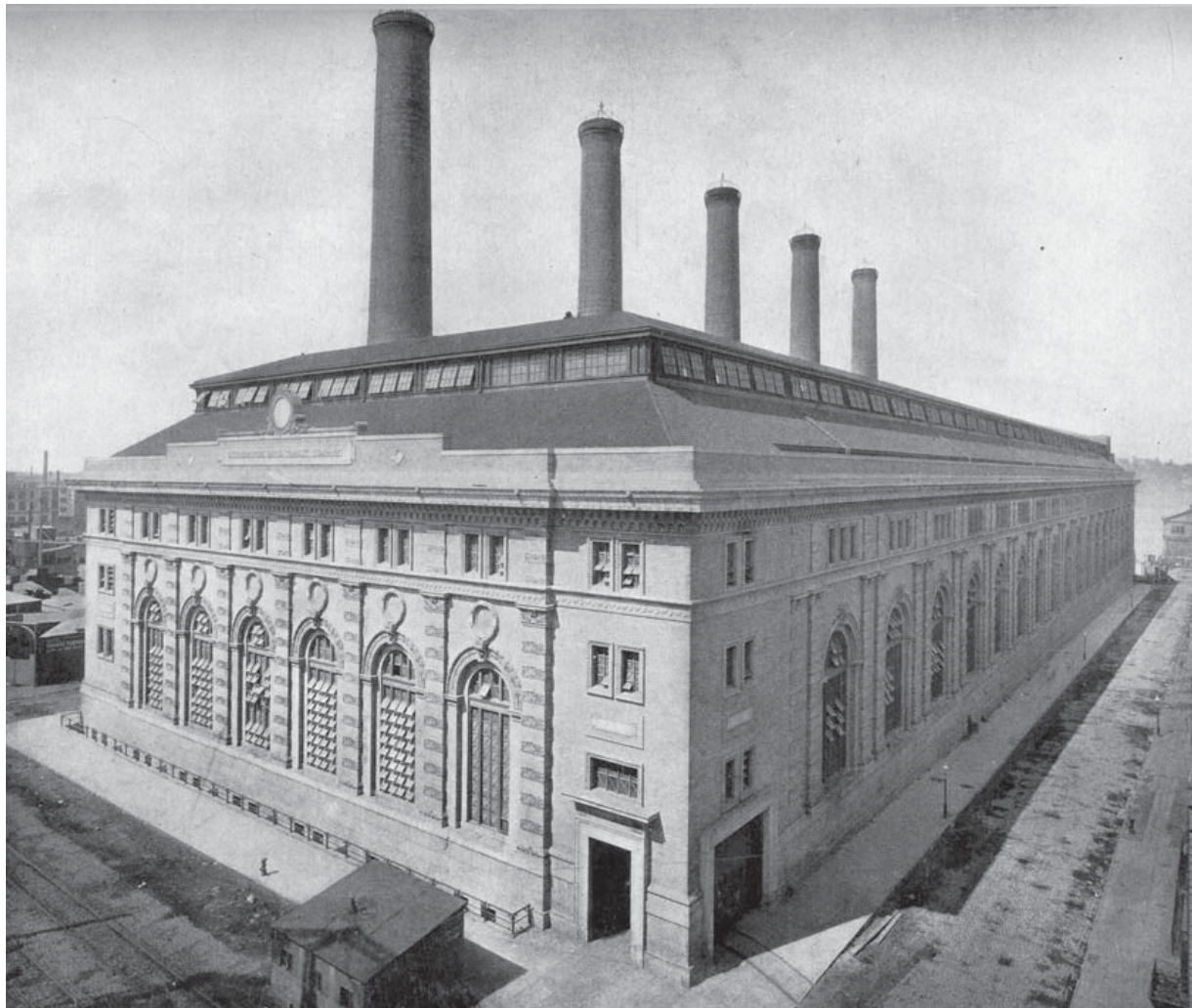


in 1909), with an ornamented steel superstructure by Gustav Lindenthal and monumental masonry approach structures designed by Carrere and Hastings, was similarly a product of the same conscious movement to make the City Beautiful, a movement which had prompted the creation of the city's Art Commission in 1898.

Upon its completion, the design of the powerhouse won the enthusiastic praise of the *New York Times*:

The Interborough management is entitled to a compliment for the civic spirit shown in adopting

a design for the power house which makes it an ornament to the neighborhood in which it is placed. By reason of the attention given to the chaste and admirable scheme of decoration and the building of its stacks of the same kind of bricks employed in its facades, the necessarily large cost of the plant was increased some \$55,000. It cannot be doubted, however, that this liberality was repaid. The building is an ornament to the west side and enhances rather than diminishes the value of the surrounding property. But for its stacks, it might suggest an art museum or a public library rather than a power house.<sup>17</sup>



**Far Left:** The plant upon completion, view to the southwest.

**Top:** View from Twelfth Avenue, showing west elevation, May 21, 1936

**Center:** Study for metal cage atop stack.

**Bottom:** Metal cage as executed, May 25, 1904.





T. RINALDI

Stanford White's materials palate for the IRT powerhouse **(above)** relates the building to other prominent works by McKim, Mead and White **(below, left to right)**: Judson Memorial Church, 1890; Madison Square Garden, 1891; Madison Square Presbyterian Church, 1906.

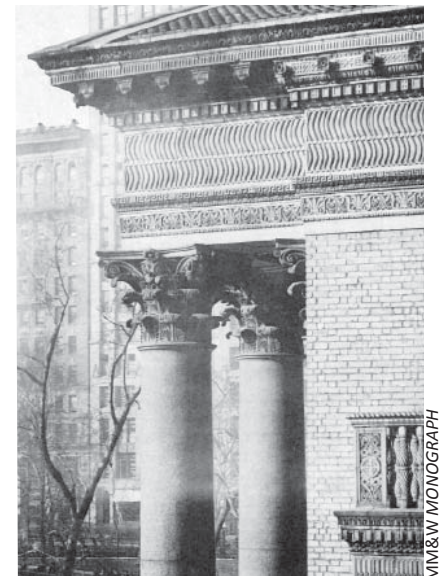
The IRT was not alone in planning a new power station of some architectural distinction. Partly because of their monumental scale and partly to honor the technological achievement of the machinery housed within, early electric power plants often benefited from more elaborate architectural treatment than typical industrial buildings of the same period. Stanford White had already been retained to design the hydro-electric power station of the Niagara Falls Power Company, opened in 1895.<sup>18</sup> The New York Central & Hudson River Railroad assigned the design of its New York power stations to the firm of Reed and Stem, who were also charged with the design of Grand Central Terminal.<sup>19</sup> In London, both the Battersea (1935) and Bankside (1952) power stations were the work of Sir Giles Gilbert Scott (1880-1960).

More typically, however, the architectural design of these buildings was left to staff architects working under the direction of the engineers responsible for plant's mechanical configuration. In New York, the most prolific of these figures was undoubtedly Thomas E. Murray (1860-1929), an engineer and inventor who is credited with the design of the Williamsburg and Gowanus power stations of the Brooklyn Rapid Transit Co. (1903, 1905), and nearly every plant built for they

city's public utilities in the early part of the century, including the New York Edison Company's Waterside plants (1901, 1906), and plants at Gold Street, Brooklyn (1898), Sherman Creek, Manhattan (1913), Hell Gate, the Bronx (1921), Hudson Avenue, Brooklyn (1922), and East 14<sup>th</sup> Street in Manhattan (1926).<sup>20</sup>

Nearly all of these buildings shared certain definitive architectural characteristics that by the turn of the century made electric power plants readily identifiable from the exterior. Rows of monumental arched windows, often set above massive, sometimes rusticated or battered plinths, reflected the vast spaces within. Clerestory monitors provided additional light and ventilation. Tall smokestacks over the boiler room meanwhile left no doubt as to their industrial purpose. Massing and ornament typically bore the influence of the same Beaux-Arts design ideals that characterized nearly all important civic buildings of the period.

Grand as these buildings were, no power station serving New York ever matched the level of architectural sophistication and refinement achieved by Stanford White's powerhouse for the IRT. As it did in its engineering, the IRT plant bore the influence of the Manhattan Railway power station in adopting the basic



MM&W MONOGRAPH

architectural template that defined the appearance of nearly all large power plants of the period, with rows of tall arched windows set above a granite base, an attic story and clerestory roof above. But White took its design a step further, punctuating the windows with rusticated pilasters and richly decorating the building's facades with extraordinary amounts of terra-cotta ornament in the form of capitals, window surrounds, stringcourses and the cornice.

White's materials palate for the building, comprised of a grayish-buff Roman brick with matching architectural terra-cotta ornament, evoked a number of prominent commissions for which he specified the same exterior finishes. These included the Madison Square Presbyterian Church (1906), planned as the power plant was under construction; the Judson Memorial Church (1890), at Washington Square; and most notably the 1891 iteration of Madison Square Garden (1891), where White was assassinated in 1906. Of these only

the Judson Memorial Church and the IRT power plant survive.

### Operational History

After the selection of the site in the autumn of 1901, construction began in 1902 and the IRT powerhouse formally entered service with the opening of the IRT Subway on October 27, 1904 with a production capacity in the range of 50,000 kw. As originally planned, the powerhouse was to occupy only about two-thirds of the block upon which it was situated, stretching 546 feet from the building line at Eleventh Avenue, with the expectation that the building would be extended to the lot line at Twelfth Avenue as demand increased. While construction was still underway, the IRT decided to extend the building according to White's scheme with the addition of three more bays, bringing the plant to a completed overall length of 694 feet in 1905. The west elevation was erected as an unadorned, temporary

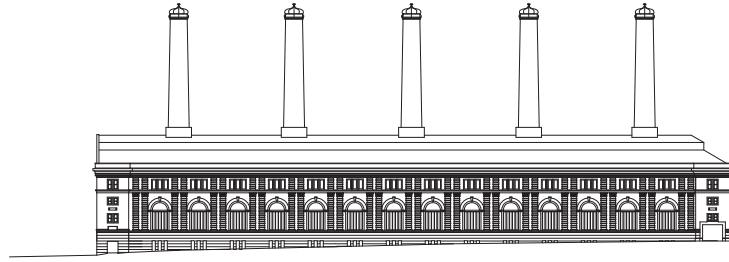


Left: IRT powerhouse viewed from West 59th Street, October 3, 1933.

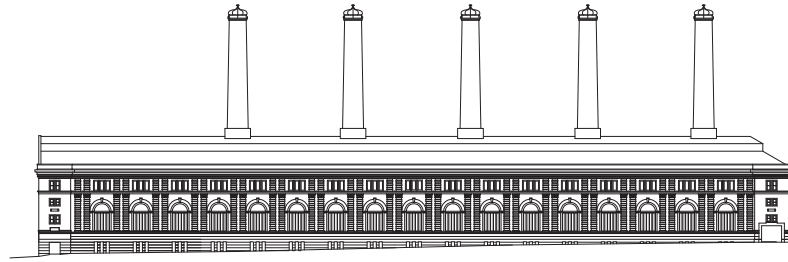


## EVOLUTIONARY STUDY

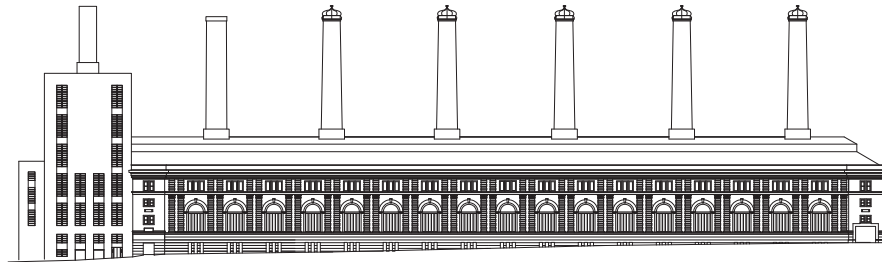
1902  
As Conceived



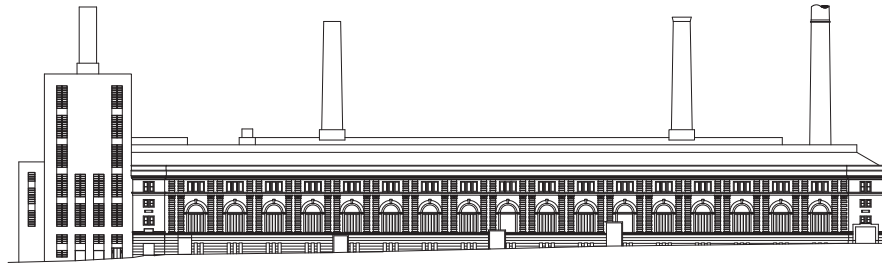
1904-05  
As Completed



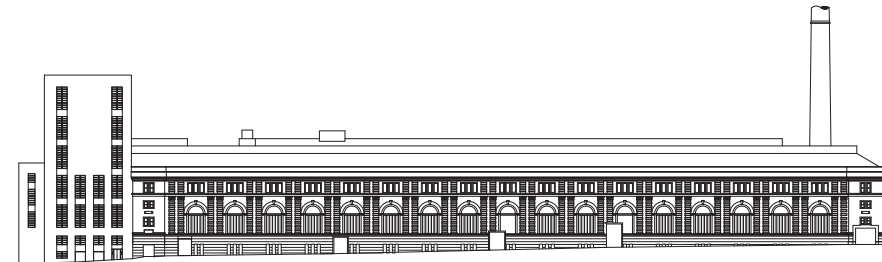
1952  
Western Addition



1968  
ConEdison Alterations



2009  
Existing Condition



bulkhead intended to be demolished when the time came to further extend the building to occupy the full 800-foot length of the block.<sup>21</sup>

Power plant engineering continued to evolve at a breakneck pace in the years following the plant's commissioning: "the resulting economies are completing the work of retiring to the junk pile stations which, ten years ago, were considered the last possible word in power generation and models which were studied by engineers from all over the world," wrote Clifton Wilder in the *Engineering Magazine* in 1916.<sup>22</sup>

For some time, the IRT met increased demand for power simply by upgrading machinery within its existing powerhouses. By 1910 the rated capacity of the 59<sup>th</sup> Street plant had increased to 67,500 kw.<sup>23</sup> The company had absorbed the Manhattan Railway Company along its power station at East 74<sup>th</sup> Street in 1903. In 1917, with the IRT's dual contracts program underway to extend service in Manhattan, Brooklyn, Queens and the Bronx, the company carried out further improvements at the 59<sup>th</sup> Street plant which included the installation of three General Electric turbo-generators, whose combined capacity of 105,000-kilowatts was more than double that of the original plant.<sup>24</sup> Four years earlier the company had carried out an extensive retrofit of the East 74<sup>th</sup> Street plant, removing three of the station's 12-year-old reciprocating engines and selling them for "slightly more than their actual value as junk," to be replaced with turbo-generator units rated at six times the capacity of the originals to raise the plant's output from 60,000 to 240,000 kw, a four-fold increase.<sup>25</sup>

In 1940 the IRT was taken over by the New York City Board of Transportation, which had operated the city's Independent (IND) subway network since that system opened in 1932. Upon taking control of the IRT, the city began to investigate ways to upgrade its newly-acquired rapid transit power plants. After the Second World War it commissioned the construction of a new addition at the 59<sup>th</sup> Street plant that would finally bring the building to the lot line at Twelfth Avenue.

Completed in 1952, the addition did not adhere to Stanford White's intended architectural scheme for the building's eventual completion, and instead its unadorned brick walls and tiered massing contrasted sharply against the original building to the east.

In June 1953 the city placed the administration of the subway under the newly formed New York City Transportation Authority (the TA). Despite various upgrades undertaken since 1940, a study prepared by the J.G. White Engineering Company in 1954 characterized the former IRT powerhouse as "an engineering museum piece."<sup>26</sup> The TA continued to make piecemeal improvements to the plant, but by the late 1950s the agency realized that it was simply more efficient to purchase its energy from the public utility than to generate its own power. The various electric utilities serving New York had evolved so rapidly that most railroads serving the city had abandoned their own power stations by World War II. The *Engineering Magazine* noted that the railway power plants at Kingsbridge and East 96<sup>th</sup> Street had already been taken offline as early as 1916: "The Third Avenue Railway Co., which operated the former, now purchases power from the New York Edison Co., and the load formerly carried by the Ninety-sixth street station is now supplied by the Seventy-fourth street station."<sup>27</sup> The 96<sup>th</sup> Street plant passed to New York Edison by the 1920s, and was razed not long thereafter. The New York Central Railroad sold its Yonkers plant to a subsidiary of Consolidated Edison in the 1930s; the company's Port Morris plant was demolished around the same time. The Pennsylvania Railroad's Long Island City power station was sold and adapted for new use; the Hudson & Manhattan plant at Jersey City was simply abandoned.

### ConEdison Acquires the Former IRT Powerhouse

In 1959, the TA sold the 59<sup>th</sup> Street plant along with the older power station at East 74th Street to Consolidated Edison. ConEdison had formed in 1936 with the merger of New York's principal gas and electric utilities, the Consolidated Gas Company



**Left:** The Former IRT powerhouse and "luxury liner row," c. 1963.



and the New York Edison Company. The company expressed an interest in the 59<sup>th</sup> Street plant as early as the 1940s. Immediately upon its acquisition of the site in 1959, ConEdison made plans for the plant's complete modernization. A series of systematic mechanical upgrades began the following year with the replacement of the plant's old low pressure boilers. Five original Allis-Chalmers reciprocating steam engines still operating in 1959 were quickly shut down and dismantled for scrap.<sup>28</sup> (The Smithsonian took parts of one engine and commissioned working scale models for display the National Museum of American History at the time of their decommissioning.)

ConEdison's modernization of the plant also made visible changes to the building's exterior. By 1968, the plant was completely converted from coal- to oil and gas-fired,<sup>29</sup> and a modern 500-foot stack built of reinforced concrete replaced the number 1 smokestack at the east end of the building. The installation of more efficient boilers obviated the need for most of the original six smokestacks, resulting in the removal of stacks 3, 4 and 6. The building's terra-cotta cornice was also removed in 1968, ostensibly to avoid costs associated with its upkeep.<sup>30</sup> A number of large openings were introduced to the north and south elevations at around the same time, probably to facilitate various mechanical upgrades within the structure. ConEdison removed the number 2 smokestack around the year 1976.

Despite these interventions, the 59<sup>th</sup> Street power station could not compete with modern generating facilities in efficiency. By the 1960s, the production capacity of modern power plants was no longer measured in kilowatts but in megawatts (one megawatt is equal to 1,000 kilowatts). Opened in 1965, ConEdison's "Big Allis" plant at Ravenswood, Queens had a production capacity of 1,000 megawatts, roughly 20 times the original capacity of the IRT plant when it opened 60 years earlier (the Ravenswood plant earned its nickname for an enormous turbo-generator manufactured by the same firm that had produced the IRT plant's reciprocating engines at the beginning of the century). Ultimately, ConEdison ceased producing electricity at 59<sup>th</sup> Street, opting instead to use the plant to produce steam for the

company's district steam heating system.<sup>31</sup> (The East 74th Street plant likewise now produces steam only.) A 2007 study indicates that the 59th Street plant's current steam output is 1,331 mlbs/hr, roughly ten percent of the system requirements and the fourth-largest of the system's nine steam generating facilities.<sup>32</sup>

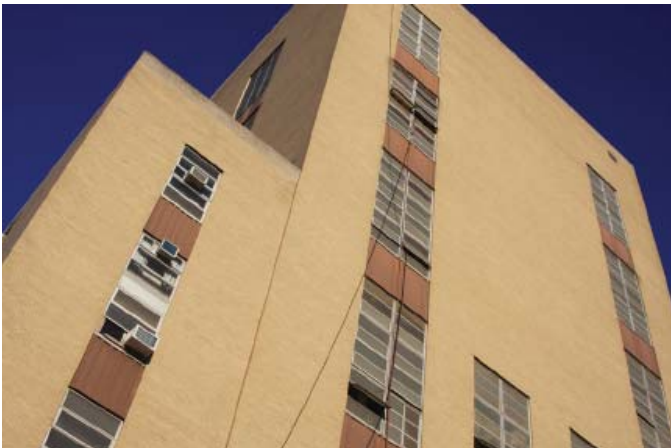
### Recognition for Historic Merit

Interest in the historic significance of the former IRT powerhouse began to manifest itself as early as the late 1950s, when the Smithsonian acquired parts of the plant's original equipment for display at the American History museum in Washington. In anticipation of the 75<sup>th</sup> anniversary of the IRT in 1979, the powerhouse was documented along with the entire original IRT system in an extensive report for the federal government's Historic American Engineering Record. The following year the city's Landmarks Preservation Commission considered designating the 59<sup>th</sup> Street power plant and some of the original IRT passenger stations as protected landmarks.

The commission extended landmark status to portions of the original stations in October of that year. But ConEdison vociferously opposed the designation of the 59<sup>th</sup> Street plant, testifying that the building had lost significant architectural features and that Landmark designation could prolong service disruptions if emergency repairs were required to undergo the commission's approval process. The Landmarks Commission deferred on the matter, leaving the building "calendared" for designation with the understanding that any building permits for significant alterations to the property would be subject to its review.<sup>33</sup> The issue was raised again before the commission eleven years later, but ConEdison reiterated its objections to Landmark designation and the commission again left the matter unresolved.

In 1989 the New York State Historic Preservation Office declared the plant eligible for listing on the National Register of Historic Places, as part of a survey of historic properties along the Route 9A corridor.<sup>34</sup> Three years later a number of the original IRT passenger stations

**Below:** The western addition was completed in 1952.



T. RINALDI

were also added to the National Register. A sampling of the city's rapid transit electrical substations were added to the register in 2005, with letters of support from the Landmarks Preservation Commission.

In the meantime, generally neglected for their significance as a building type, most of New York's early power stations have vanished entirely. Of eleven large-scale power stations built to serve New York's railroads between 1899 and 1910, only five survive today, three of them in ruins. (Only three of these five stand within the city limits.) The city's early public utility power stations have fared even worse, with only two of eight plants built in New York between 1900 and 1935 still standing today. Some of these disappeared as they became outmoded and were decommissioned decades ago. But four of New York's oldest surviving plants were destroyed between the years 2005-2008 alone, including ConEdison's Waterside plants on the East River, the former BRT plant at Williamsburg, and the former Pennsylvania Railroad plant at Long Island City. In 2001, the U.S. Department of the Interior added the long-abandoned Jersey City power station of the Hudson and Manhattan Railroad to the National Register. In 2008 the Preservation League of New

York State placed the long-abandoned Yonkers Power Station on its state-wide list of New York's "seven-to-save" most threatened historic sites.

In 2008, a citizens committee called the Hudson River Powerhouse Group formed to petition the Landmarks Commission to finally grant landmark status to the 59<sup>th</sup> Street powerhouse. A variety of community groups, civic organizations and local politicians quickly issued letters supporting the designation. They cited ConEdison's record of insensitive alterations to the plant and the recent loss of four of the city's most historic power stations as further justification to protect the building from demolition or further insensitive alterations. That same year, ConEdison obtained a permit to demolish the building's last remaining original smokestack. Work to remove the structure began the following spring. This most recent episode in the building's long history demonstrates that despite various gestures in recognition of its great historic significance, the future of the former IRT powerhouse remains in question and the structure is still vulnerable to the same fate that continues to destroy New York's last remaining examples of this important building type.



## ENDNOTES

1. Van Vleck describes the roofing surface as "Spanish roll tiles which are enameled green on the exposed surface." *Street Railway Journal*. October 8, 1904, 605.
2. Ibid, 607.
3. *American Electrician*. October, 1904, 506.
4. The building may indeed have been converted from an existing structure. It was shut down and scrapped in 1895. For a history of Edison's Pearl Street station, see "The Historic Pearl Street Generating Station," *General Electric Review*. October, 1932, pp 500 – 502. A smaller plant, built in 1880 for the Brush Electric Illuminating Company at 133 West 24<sup>th</sup> Street, preceded Edison's Pearl Street station by two years.
5. For a brief overview of the evolution of electric power generation in New York, see "Light and Power" in Kenneth T. Jackson's *Encyclopedia of New York City*, and "The Power Behind New York: The Technical and Economic Aspects of the New York Edison System" in *Power Plant Engineering*, June 1, 1931, pp 586 – 596. More in-depth history on the subject is provided in *Thirty Years of New York*, and *Forty Years of Edison Service*, two histories of the New York Edison Company published in 1913 and 1922, respectively.
6. Hood, 80.
7. A concise overview of electric railway infrastructure in New York can be found in Wilder, Clifton W. "Power Developments for Urban Transportation." *The Engineering Magazine*. May, 1916, pp 260 – 271.
8. Published histories of the IRT Subway are numerous. See Cudahy, Brian J. *A Century of Subways: Celebrating 100 Years of New York's Underground Railways*. New York: Fordham University Press, 2003.
9. "Power House Site for Rapid Transit." *New York Times*. September 27, 1901.
10. New York Edison's Waterside plants at East 38<sup>th</sup> St; the Manhattan Railway Co. at East 74<sup>th</sup> St; the Metropolitan Ry. Co. at East 96<sup>th</sup> St; and the Third Avenue Ry. Co. at Kingsbridge, Manhattan.
11. For an overview of the works of McKim Mead & White, see Roth, Leland M. *McKim, Mead & White, Architects*. New York: Harper & Row, 1983.
12. HAER, 17.
13. Rice, *The Engineer*, December 1, 1902, 774.
14. See Warsh, 42-54. The early history of Hell's Kitchen is discussed in Otto Cartwright, "The Middle West Side: A Historical Sketch" and Ruth True, "Boyhood and Lawlessness," in *West Side Studies*, Vol's 1 & 2, Pauline Goldmark, ed., 1914.
15. Ibid.
16. Interborough Rapid Transit, 74.
17. Bayles, *New York Times*, October 30, 1904.
18. Much of this plant was demolished in the early 1960s. The Pennsylvania Railroad's power plant at Long Island City (1909) has also been attributed to McKim Mead and White, though this attribution has been disputed.
19. Reed & Stem ultimately shared the latter commission with the firm of Warren & Wetmore.
20. See Murray, Thomas Edward. *Electric Power Plants: A Description of a Number of Power Stations*. New York, 1910. and *Power Stations*. New York, 1922.
21. *Report of the Rapid Transit Railroad Commissioners for year ending December 31, 1904*, 257, and Van Vleck, 603.
22. Wilder, *The Engineering Magazine*, May 1916, 260.
23. Ibid.
24. HAER, 316.
25. Ibid, 262.
26. Quoted in HAER, 316.
27. Ibid.
28. HAER, 316.
29. HAER, 328.
30. DOB records.
31. The Consolidated Gas Co. acquired a controlling interest in the New York Steam Company in 1932. The New York Steam Company was fully absorbed into ConEdison in 1954.
32. Ascher, 118.
33. See Gray, Christopher. "Streetscapes: The IRT Generating Plant on 59<sup>th</sup> Street; The Power of Design Vs. Con Ed Power." *New York Times*. November 17, 1991.
34. The SHPO's evaluation form declared the building eligible for the National Register under the mistaken conclusion that all of its original smokestacks had been removed.

# Area History

The former IRT powerhouse is situated at the north end of Manhattan's west side industrial waterfront, an area that has been dynamic and ever-changing. Development in recent decades have left the powerhouse among a scattered handful of buildings that stand as a testament for the early twentieth century development of the area. From the laying-out of the street grid with the Commissioner's Plan of 1811 and the opening of the Hudson River Railroad in 1849 to the establishment of the automobile industry in the early part of twentieth century and the current trend towards residential development, the area has a history of both industrial and residential development that has shaped the character of the region.

The area remained almost completely undeveloped through the first half of the nineteenth century. The shoreline of the Hudson River on the western edge of Manhattan naturally meandered along the alignment of Eleventh Avenue, and the land was sparsely developed with wooden structures south of 57th Street. Country estates occupied parts of the Hudson River shoreline.

The opening of the Hudson River Railroad in 1849 provided the impetus for greater development. The railroad stretched from Chambers Street up the west side of Manhattan along Eleventh Avenue and then followed the east bank of the Hudson River 75 miles north to Poughkeepsie, before being completed to Albany in 1851. The 1857 Land Map shows the middle-

west side of Manhattan still relatively undeveloped above 52nd Street. "This tract of land is perhaps the most melancholy and mysterious spot in the whole city," wrote Fitz James O'Brien in the early 1850s: "The different streets that cross the island pull up here, as it were, suddenly on reaching this dreary place, seemingly afraid to trust themselves any further."<sup>1</sup>

The area filled in with various industrial concerns over the course of the next quarter century. Industrial buildings began to dot the landscape as industries that relied on the transportation of goods in and out of the city were drawn to the proximity of the rail yard, including breweries, beef exporters, coal and lumber yards, oil refineries, iron foundries and flax mills.<sup>2</sup> The establishment of industry in the area led to a chain reaction in construction activity at the end of the nineteenth century, as housing for workers in the businesses surrounding the rail yard was developed. Tenth Avenue became the dividing line in the area's character, as almost strictly residential and institutional buildings were constructed east of Tenth Avenue while a mix of residential and industrial buildings characterized the west side of the Avenue.

In 1869 the Hudson River Railroad merged with the New York Central, diverting nearly all of its passenger service to Grand Central Depot on the east side and leaving the west side line for freight. Land filling prior to 1885 created a more uniform shoreline and also

**Below:** View west on 58th Street, May 20, 1927.



NYPL



extended the street grid to Twelfth Avenue. The man-made shoreline allowed the construction of freight rail yards at 30th Street and 60th Street between 1877 and 1882. The freight yards became important marine-rail transfer zones and brought more industry to the area as they provided movement of freight both across the Hudson River and along the rail lines of the company.<sup>3</sup>

By the end of the nineteenth century, two neighborhoods began to define the area and converge around the future site of the powerhouse. The neighborhood stretching between the rail yards from 30th to 59th Streets between Eighth Avenue and the Hudson River became known as Hell's Kitchen by the early 1880s, a name thought to have been derived from a notorious rookery on West 54th Street. In the last decades of

the nineteenth century, Hell's Kitchen became infamous as one of the worst slums in the city, notorious for its gang violence and high crime rate. The area was said to have seven times more saloons than schools and churches.<sup>4</sup> European immigrants, mostly German and Irish, lived here in crowded tenement buildings.

San Juan Hill, a predominantly African American community developed at the end of the century in the area bounded roughly by 59th to 64th Streets between Tenth Avenue and the Hudson River.<sup>5</sup> It later became a center for Puerto Rican immigrants. Racial tensions between the residents of Hell's Kitchen and San Juan Hill were high as the neighborhoods overflowed into one another.<sup>6</sup> In addition to tensions between the residents, these neighborhoods were plagued by

**Below:** The rookery known as "Hell's Kitchen," depicted by Jacob Riis in *How the Other Half Lives*, 1890.

**Center:** The 60th Street rail yard opened around 1880.

**Above Right:** "Death Avenue," May 20, 1927.

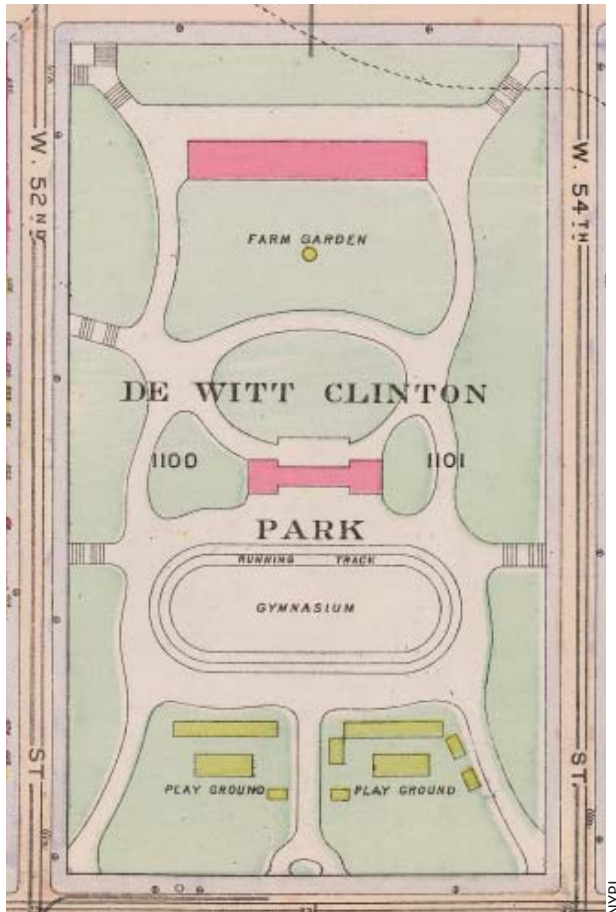
**Below Right:** West 67th Street between Amsterdam and West End Avenues, 1923. Typical tenement courtyards in San Juan Hill.



dangerous living conditions. Eleventh Avenue became known as “Death Avenue” as pedestrians were regularly killed by passing trains when crossing the dangerous street, further tarnishing the area’s reputation. <sup>7</sup>

The crowded tenement buildings in this area were occupied by working class men and women with jobs closely tied to the industry and the piers located west of Tenth Avenue. In the early years of the twentieth century, residents of Hell’s Kitchen and San Juan Hill held jobs at the docks, rail yards, piano factories, and textile mills. Boat builders, longshoreman, piano makers, lumber yard laborers, and coal yard laborers were a few of the occupations of the men and women living in the two neighborhoods in the 1900s to the 1910s.<sup>8</sup>

The unwholesome character of these neighborhoods caught the attention of the reform movement as early as the 1860s. Jacob Riis published a photograph of the rookery known as Hell’s Kitchen in *How the Other Half Lives* in 1890. Later in the decade, Riis helped convince the city to purchase two blocks in the neighborhood for the construction of DeWitt Clinton Park. Located between Eleventh and Twelfth Avenue and 52nd and 54th Street, the park was planned beginning in 1898 and opened in 1905 as part of a movement to reform the city through public works. The site was chosen to provide open space for an area which by the end of the nineteenth century was considered one of the worst slums in the city. The park featured a Beaux-Arts pavilion by architects Barney and Chapman, a children’s garden, and recreational space planned by



**Far Left:** DeWitt Clinton Park opened in 1905.

**Above Left:** The Miller Highway opened in phases beginning in 1930.



**Below Left:** The New York Central Railroad’s West Side Improvement program finally removed the tracks from Eleventh Avenue in the 1930s.

**Below:** Amsterdam Houses opened in 1948.

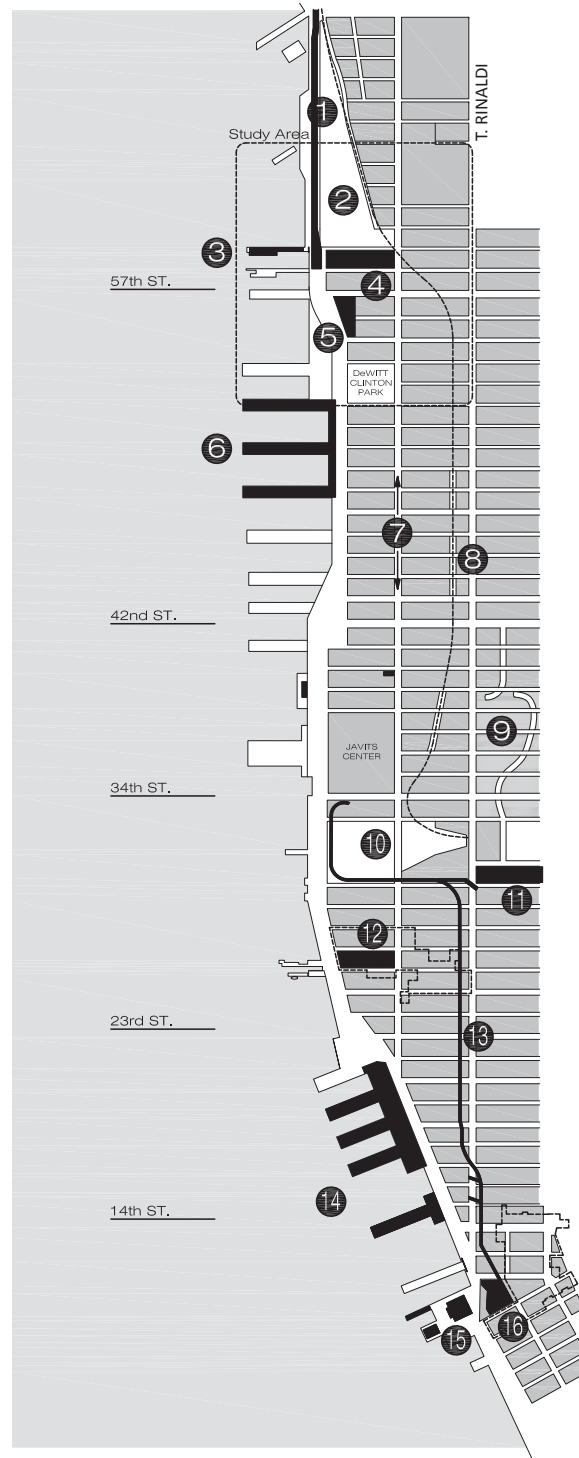




## THE IRT POWERHOUSE IN CONTEXT: The Industrial Waterfront of Manhattan's West Side Above Greenwich Village

- 1) West Side (Miller) Highway
- 2) Site of 60th Street Rail Yards
- 3) 59th Street Waste Transfer Station
- 4) Former IRT Powerhouse
- 5) Dept of Sanitation Destructor Site & Vehicle Storage
- 6) Passenger Ship Terminal
- 7) "Automobile Row"
- 8) West Side Improvement (Underground Right-of-Way)
- 9) Lincoln Tunnel
- 10) Hudson (30th Street) Rail Yards
- 11) Morgan Postal Processing & Distribution Center
- 12) Starrett-Lehigh Building
- 13) The High Line
- 14) Chelsea Piers
- 15) Gansevoort Peninsula Waste Transfer Station
- 16) Gansevoort Market

**Below:** Pier 98, North River, with IRT power-house at left. May 29, 1931.



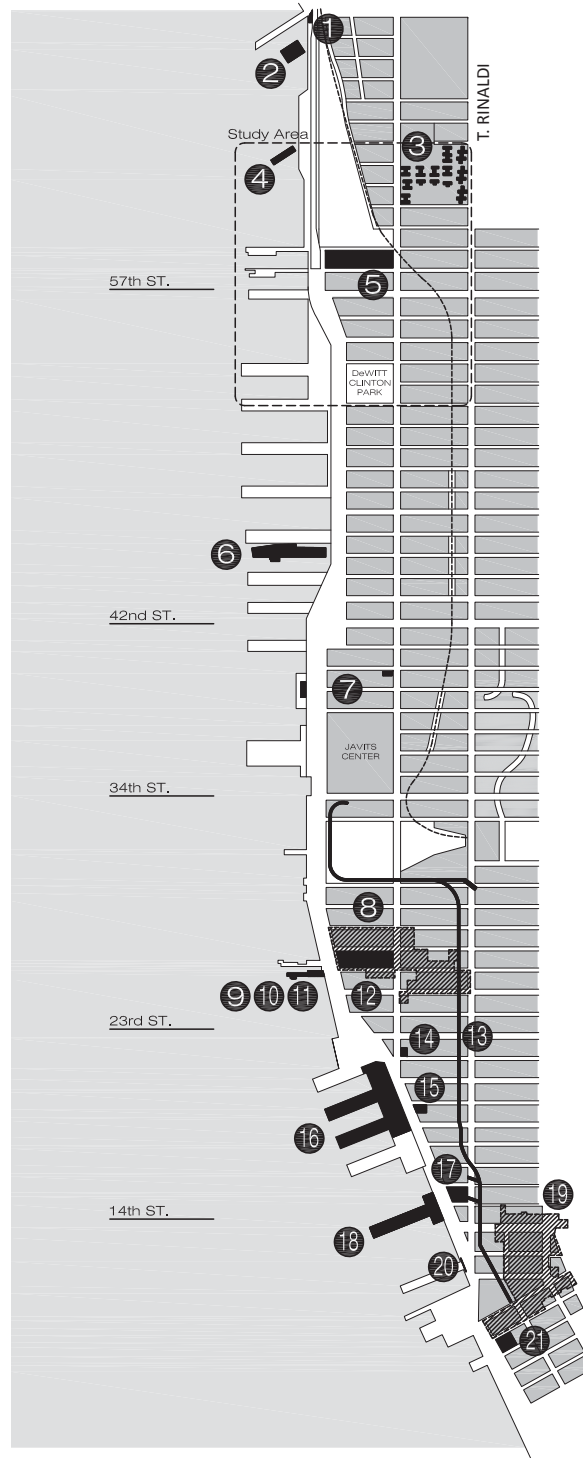
landscape architect Samuel Parsons.<sup>9</sup> It was the first in a long series of ambitious plans for grand civic improvements to improve the character of the area. Its planning was immediately preceded by the opening of Hartley House, the area's first settlement house, and immediately followed by the opening of the DeWitt Clinton High School at 59th Street and Tenth Avenue in 1903 (C.B.J. Snyder, architect) and a public bath house on West 60th Street between Tenth and Eleventh Avenues, designed by Werner and Windolph and opened in 1906.

The IRT powerhouse opened as the park neared completion. Its builders may have intended to acknowledge the city's efforts to improve the neighborhood in stating their intent that the powerhouse stand as a great civic structure, and in hiring McKim Mead and White – then the city's most prominent architectural firm – to ensure that the building would be an "ornament to the neighborhood in which it is placed." One of the city's most architecturally refined industrial structures, the powerhouse anchored the north end of the industrial waterfront of the west side of Manhattan.

By the 1910s and into the 1920s, the proliferation of the automobile transformed the architecture and the businesses around the IRT Powerhouse. Garages, service stations, and taxi cab companies began to characterize the makeup of the area by the 1920s. More than thirty garages appear in the vicinity of the powerhouse on the 1916 Land Map. The 1935 Land Map shows at least 70 garages and service stations along the Eleventh Avenue corridor at the west end of Hell's Kitchen. Many of these facilities serviced the showrooms of "Automobile Row," which lined Broadway between 50th and 72nd Streets. Census records show that the residents of the surrounding neighborhoods began to hold occupations such as taxi company chauffeurs, truck drivers, garage mechanics, and subway laborers, indicating a more transportation-oriented industrial area as well as the rise of the subway as an important part of the fabric of New York City.<sup>10</sup>

Plans for an elevated structure to remove the railroad tracks from Eleventh Avenue were put forward as early as early as 1907. "For many years the situation has been growing worse," wrote the state's Public Service Commission of the scene on "Death Avenue" in its report for that year: "children are killed; needed streets are rendered almost impassible, traffic is constantly impeded by freight trains, and a large portion of an important section of the City finds its progress retarded."<sup>11</sup> The proposal took decades to materialize. (A 1916 preliminary plan for this reconstruction suggested using the IRT powerhouse to screen a new livestock handling area as part of a reconstructed 60<sup>th</sup> Street rail yard.<sup>12</sup>) By the 1920s, the proposal had evolved to call for a two-deck structure carrying both an elevated railroad line and a vehicular highway. In 1926 the proposal was split, with plans advanced by Manhattan Borough President Julius Miller for an elevated highway to be built along the western edge of the island from the Battery northwards connecting with Riverside Drive above the 60th Street rail yard. Construction began in 1929 and the Miller Highway, as it became known, opened in phases from 1930 to 1951. Its alignment impinged on the western end of DeWitt Clinton Park, prompting the park's complete reconstruction in the late 1930s.<sup>13</sup>

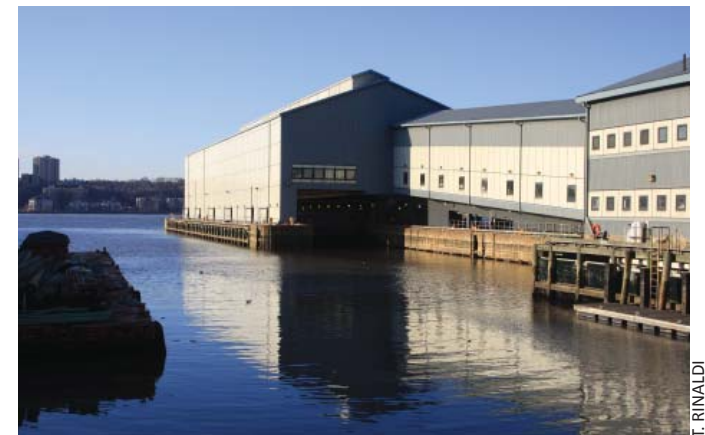
The New York Central Railroad meanwhile moved forward with its own plan for a massive program to replace the grade-level "Death Avenue" tracks of the old west side freight line. Known as the West Side Improvement, the plan called for the tracks to be decked-over above 72nd Street, allowing for the extension of Riverside Park. Through Hell's Kitchen, the stretch between the rail yards at 60th and 30th Streets would be moved to an underground right of way aligned between Tenth and Eleventh Avenues. Below the 30th Street rail yard, the tracks would be moved to an elevated structure known as the High Line terminating at a reconstructed freight terminal at Spring Street. The railroad implemented the plan in phases beginning in 1934. The following year, a new complex of 1,000-foot piers to accommodate modern ocean liners opened in the area between West 45th



## THE IRT POWERHOUSE IN CONTEXT: Historic Resources of Manhattan's West Side Industrial Waterfront Above Greenwich Village

- 1) Miller Highway Structure
- 2) 69th Street Car Float Bridge (National Register, 2003)
- 3) Amsterdam Houses (Nat. Reg. Eligible)
- 4) Pier D
- 5) Former IRT Powerhouse (Nat. Reg. Eligible)
- 6) USS Intrepid (National Register, Nat. Hist. Landmark, 1986)
- 7) Lincoln Tunnel Ventilator Structures (Nat. Reg. Eligible)
- 8) West Chelsea Historic District (LPC)
- 9) Frying Pan (National Register, 1999)
- 10) John J. Harvey (National Register, 2000)
- 11) B&O Railroad Car Float Bridge (National Register)
- 12) Starrett-Lehigh Building (LPC)
- 13) The High Line (Nat. Reg. Eligible)
- 14) Terminal Hotel (Nat. Reg. Eligible)
- 15) Seaman's Home YMCA (Nat. Reg. Eligible)
- 16) Piersheds of Piers 60 & 61 (Nat. Reg. Eligible)
- 17) Merchants Refrigerating Co. Warehouse (National Register)
- 18) Pier 57 (National Register, 2004)
- 19) Gansevoort Historic District (LPC)
- 20) Pier 54 Structure
- 21) Gansevoort Pumping Station

**Below:** Pier 99, North River, view toward the west. January, 2009.





and 52nd Streets. At the same time, the city cleared several entire blocks in the vicinity of West 40th Street for the construction of the Lincoln Tunnel's Manhattan terminus, opened in 1937.

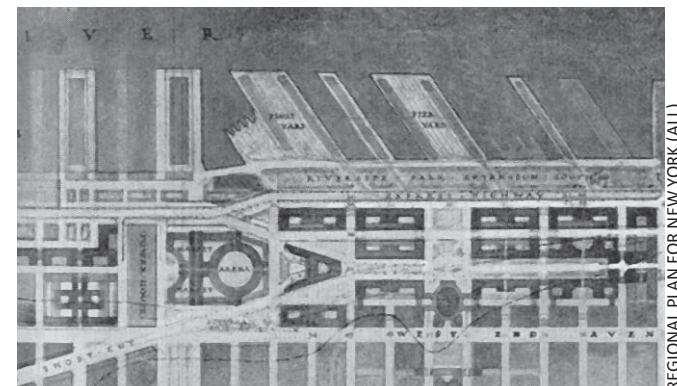
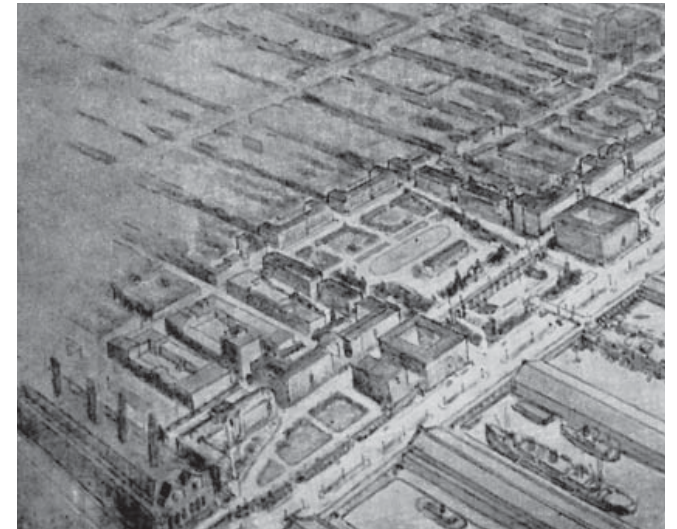
Still more ambitious civic improvement proposals were made from the 1920s onwards, though most were never realized. The 1931 Regional Plan of New York and its Environs proposed decking over the 60th Street rail yard to allow for the construction of a monumental new "Terminal District" that would include new residential buildings, park land, an art center, stadium, public market and transit hub comprising a passenger rail terminal served by a new tunnel under the Hudson River. (The plan also condemned the construction of the west side elevated highway.<sup>14</sup>) Though these plans

did not materialize, they foreshadowed what was to come.<sup>15</sup>

In 1940, construction began on the Amsterdam Houses, a Moses-era slum clearance initiative for the complete redevelopment of the area bounded by Eleventh and Tenth Avenues between West 61st and West 64th Streets in San Juan Hill. Completed in 1948 and designed by architect Grosvenor Atterbury (who had once worked in the office of McKim Mead and White) with landscape architects Gilmore Clarke and Michael Rapuano, the Amsterdam Houses were a prelude to even larger redevelopment plans in the following decade.<sup>16</sup>

The Broadway debut of Leonard Bernstein and Stephen Sondheim's *West Side Story* in 1957 depicted San Juan

**Right:** The 1931 Regional Plan for New York and its Environs included plans and renderings for the complete reconstruction of the industrial waterfront of Manhattan's west side, including construction over the 60th Street rail yard. Note powerhouse in the proposed aerial perspective rendering and plan.





Hill in its final days as a predominantly Puerto Rican immigrant community weary of old racial tensions. In 1955, Robert Moses declared the area a slum and included the entire neighborhood in the 14-acre Lincoln Square Urban Renewal Area. Arguably the largest Moses-era urban renewal project executed in Manhattan, the project led to the relocation of nearly 17,000 area residents, erasing the tenements of San Juan Hill from the map and constructing in their place a vast suite of new buildings erected over the course of the 1960s for housing and public schools. Its centerpiece was Lincoln Center, a complex of cultural institutions that included a new home for the Metropolitan Opera.<sup>17</sup> In 1960 Hell's Kitchen was renamed Clinton, a reference to DeWitt Clinton Park, in an attempt to shake lingering stigmas of its troubled history.

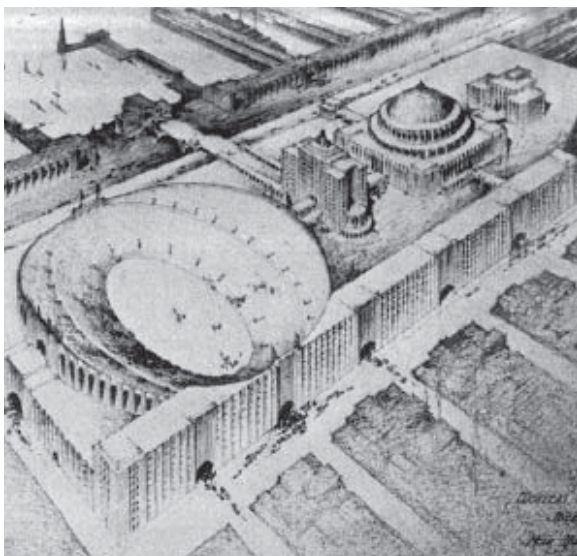
In 1961, the Amalgamated Lithographers Union announced plans to build a 36-acre affordable housing complex including 5,300 dwelling units using the air rights over the 60th Street railroad yard. The plan never materialized.<sup>18</sup> The following year the city's Department of Marine and Aviation released a master plan for the complete redevelopment of the west side industrial waterfront, calling for the construction of a new passenger ship terminal and convention center on the Hudson River waterfront in west Clinton.<sup>19</sup> On December 15, 1973, a section of the aging Miller Highway gave way, sending a loaded dump truck carrying asphalt for ongoing repairs to the structure crashing into the street below.<sup>20</sup> The following year the New York State Department of Transportation released a proposal for Westway, an underground interstate

**Top:** Litho-City proposal (note powerhouse at far right).

**Bottom (Left to Right):** Proposal for construction over 60th Street rail yards, Warren & Wetmore, architects, July 1929; Proposal for west side convention center, 1962; Donald Trump's Television City proposal, 1985, with powerhouse at far right.



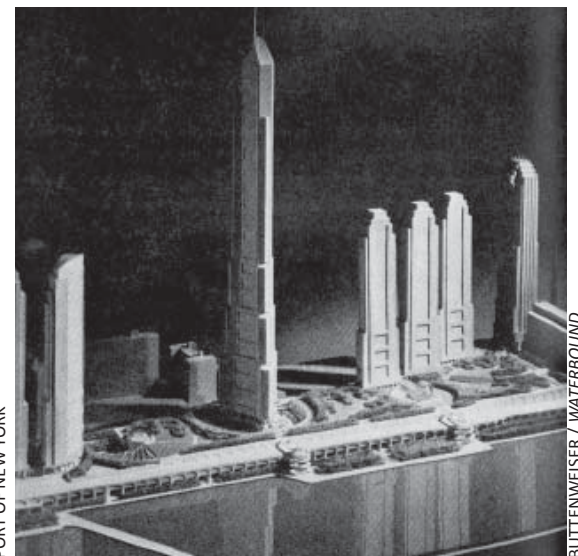
D. GUTMAN



BUTTENWEISER / WATERBOUND



PORT OF NEW YORK



BUTTENWEISER / WATERBOUND



**Above:** Apartment towers of Trump Place and Riverside South, Costas Kondylis, architect.

highway that would replace the old Miller Highway and completely reshape the western shoreline of Manhattan Island.

Such large scale redevelopment plans prompted a backlash of public protest. Fearing displacement, area residents banded together and succeeded in creating the Clinton Special District, a zoning regulation enacted in 1974 with the intention of preserving affordable housing in the neighborhood formerly known as Hell's Kitchen. The district was tailored to allow the completion of urban renewal projects for affordable housing, including Harbor View Terrace on West 54th Street, finished in 1977. It left the industrially-zoned area west of Tenth Avenue largely unregulated. In the meantime, a scaled-back reconstruction of the passenger ship terminal opened in 1974. The proposed convention center eventually materialized in the form of the Jacob K. Javits Convention Center, designed by I.M. Pei and opened in 1986. During the same period, the automobile showrooms of Broadway's "Automobile Row" decamped to the Eleventh Avenue corridor, making use of the existing garage and auto service facilities in West Clinton. The Department of Transportation dropped plans for Westway one year earlier, ultimately demolishing the elevated highway to be replaced with a landscaped, limited-access boulevard and public park.<sup>21</sup>

In 1981 yet another proposal surfaced for residential development over the 60th Street rail yard. By this time the yard was almost inactive, and the ailing New York Central Railroad had merged to form the Penn Central, which was subsequently absorbed into a conglomerate of bankrupt railroads called Conrail. A consortium of real estate developers sought to purchase and remove the yard and build in its place Lincoln West, a 62-acre mixed-use development that would include more than 4,000 mostly high-end residential units. The project obtained necessary zoning variances but failed for lack of funding. In 1985 the defunct yard was purchased by real estate developer Donald Trump.<sup>22</sup> Trump, who had earlier obtained an option on the property in the 1970s, proposed an enormous redevelopment of the site to be known as Television City, which would feature the world's tallest building and vast facilities for television

studios in a complex that would include a shopping mall and 7,600 residential units.<sup>23</sup>

Neighborhood opposition resulted in the formation of the Riverside South Planning Corporation to help mediate between the Trump Organization and the interests of the community. Ultimately, Trump scaled back the proposal by some 40 percent, abandoning plans for the world's tallest building and shopping center. A revised proposal, known first as Riverside South and later as Trump Place, called for the extension of Riverside Park and the construction of a row of 30-to-40-story residential buildings designed by architect Costas Kondylis. The last remaining section of the elevated highway, stretching from 59th to 72nd Streets, would be moved underground and Riverside Park would be extended south to 59th Street, with designs by landscape architect Thomas Balsley. The plan received approval from the city in 1992, entered construction in 1997 and began to open in phases the following year. The costly removal of the elevated highway was later shelved. The Trump Organization afterwards sold its interest in the property to the Extell Development Company, which continues to plan the completion of the project in 2009.

In the first decade of the 21st century, old warehouses and industrial buildings in the area surrounding the powerhouse have begun to make way for new high-rise construction for luxury residential units. Though development has been less intense in the area zoned for manufacturing below 59th Street, plans for large scale residential construction in the west end of the Clinton Special District are engaged in the city's Uniform Land Use Review process in 2009. It is noteworthy that throughout the area's history, ambitious plans for civic improvement have all incorporated or sought to capitalize on the presence of the former IRT powerhouse, fulfilling the vision of its builders that it be "an attractive structure and in keeping with its surroundings, whatever development may take place." Without landmark protection, it remains to be seen how this building will weather the ongoing development that continues to redefine the character of its urban context.



## ENDNOTES

1. Quoted in Warsh, from Otto Cartwright, "The Middle West Side: A Historical Sketch," in *West Side Studies*, Vol. I (New York: Survey Associates, 1914), 34.
2. 1885 Robinson and Pidgeon Atlas of the City of New York.
3. Philip Lopate, *Waterfront* (New York: Crown Publishers, 2004), 142.
4. Warsh, 48.
5. Cary D. Wintz, Paul Finkelman, "Encyclopedia of the Harlem Renaissance," (New York, Taylor and Francis: 2004), 1083.
6. Kirkley Greenwell, "Hell's Kitchen History," [www.nyc-architecture.com/MID/MID-HellsKitchen.htm](http://www.nyc-architecture.com/MID/MID-HellsKitchen.htm).
7. Lopate, 142.
8. 1900 Federal Census.
9. See Warsh, " 'The Truest Reform Work': The Children's School Farm, New York City, 1902-1931" (Masters Diss., Bard College, 2007), 158.
10. 1920 Federal Census.
11. Smith, *West Side Improvement*, 17.
12. Smith, *West Side Improvement*, 42.
13. Lopate, 80.
14. See Adams, *Regional Plan of New York and its Environs*, 351.
15. Ibid, 389-392.
16. *Lincoln Square*, 4.
17. Ibid, 5-8.
18. *Lincoln West Draft Environmental Impact Statement*, III1-III5
19. *The Port of New York*, 30.
20. *West Side Highway Project Draft Environmental Impact Statement*, 119.
21. Lopate, 139 – 152.
22. Vitullo-Martin, *The West Side Rethinks Donald Trump's Riverside South*. January, 2004. [http://www.manhattan-institute.org/email/crd\\_newsletter01-04.html](http://www.manhattan-institute.org/email/crd_newsletter01-04.html)
23. Ibid, 144.







# Contextual Historic Resource Study

The area immediately adjacent to the former Interborough Rapid Transit Powerhouse exhibits a complex, multilayered character and is composed of a stylistically disparate, though functionally cohesive building stock that has resulted from the area's almost constant state of flux from its inception to the present.

## THE STUDY

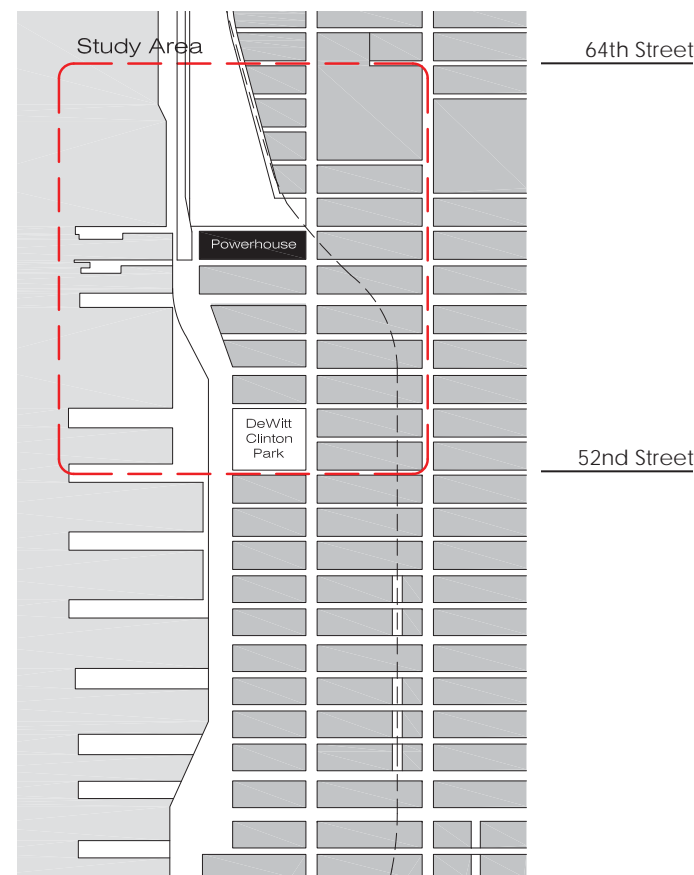
The former IRT Powerhouse must be studied in context to understand its impact on the surrounding area both historically and presently. Prior research of the area, historically known as San Juan Hill and Hell's Kitchen, may be considered sparse. New York City--in particular Manhattan--is so widely published that the overall lack of documentation of the area adjacent to the former IRT Powerhouse is noteworthy; this being especially true given the area's close proximity to such major urban loci as Columbus Circle and Times Square. The primary goal of the study was to identify historic resources that set the former IRT Powerhouse within a contiguous aesthetic and historical context. In addition to identifying the context of the former IRT Powerhouse, the buildings that comprise the context itself are vanishing resources deserving of documentation and preservation.

Upon the completion of the former IRT Powerhouse in 1904, the building was lauded as being of such architectural refinement that it would serve to accentuate any development that should grow around it, whether that development be industrial or otherwise.

In examining the context of the former IRT Powerhouse, the question of development and the nature of that development was among the primary motivators of the study.

The study focuses on a 100 year period spanning 1850 to 1950. The year 1850 was chosen as the commencing year due to the noticeable increase in development of the area at that time. Development in this case refers to the concerted effort of those operating in the area to increase the density and amount of built fabric. While buildings did exist in the study area prior to 1850, the most prevalent building stock was comprised of wooden out-buildings for agricultural activity. The year 1850 marks a distinct shift in the type of building being constructed from agricultural to urban, while 1950 was chosen as the ending year for the study due to its proximity to the end of the Powerhouse's period of significance as the IRT Powerhouse.

The study is by no means intended to be exhaustive, but rather as a means of highlighting the significant development typologies that characterized the area across various periods in its history. Information presented in this study has been cross-referenced with Historic Land Maps and City Business Directories.



Above: Study Area Boundaries  
Opposite: New York Land Map, 1935

## STUDY AREA BOUNDARIES

To best examine the former IRT Powerhouse and its relationship to its surroundings, a set of study area boundaries were established. The northern boundary was set at West 64th Street, the southern boundary was set at West 52nd Street, the eastern boundary was set at 10th Avenue, and the Hudson River was set as the western boundary.

In addition to these boundaries being selected for their proximity to the former IRT Powerhouse, they were also selected for the unique functions that each plays in defining the area. The 10th Avenue boundary in the east was selected due to its function, both historically and currently, in serving as a land-use dividing line. The topography of the area changes at the point of 10th Avenue as well; sloping downward to meet the river. This area east of 10th Avenue is distinct from that to the west as it currently contains smaller lot sizes and lower building heights in contrast to the areas east of 10th Avenue where larger lots exist, thus facilitating high-rise development. The northern boundary was established to include all of the Amsterdam Houses, which are situated two blocks north of the Powerhouse and have been an established component of the area for the past 60 years. The southern boundary was established at 52nd Street to include De Witt Clinton Park which, having been built in 1905, is a contemporary of the Powerhouse and is a comparable example of another Beaux-Arts, City Beautiful project of the time.



Phase 1 Historic Resources (Red)



504 and 506 West 57th Street  
c. 1855

## HISTORICAL DEVELOPMENT PHASE 1: 1850-1870

A review of historic maps dating between 1850 and 1870 reveals the prevalent typology of the study area to have been residential, although pastoral would generally have been a more accurate description. Wood-frame buildings and remnants of the city's agricultural past are dispersed throughout the area, but the established city grid is apparent to the east. The sole forms of recognizable development in the area are a brewery and five adjacent rowhouses.

Selected Buildings:

**504 and 506 West 57th Street**  
**Date: c. 1855**  
**Architect: Unknown**  
**Block: 1086 Lot: 136**

Dating from the mid 1850s, 504 and 506 west 57th street are the earliest examples of built fabric still extant in the study area. The rowhouses exist today as the only remnant of development from the 1850-1870 period. The buildings exhibit typical aesthetic attributes of New York City rowhouses dating from the period: three stories atop a raised garden level. The physical fabric of the buildings is of brick masonry construction and brownstone sills, lintels, and decorative elements.

Two structures of an original row of five, the buildings are representative of the earliest wave of speculative development in the vicinity. An early land map dating from 1857 shows the houses as being a moderate density development in an area characterized by small, detached houses, nascent waterfront/port activity, and a brewery adjacent to the rowhouse site.

By the 1930s, 504 was being utilized as a commercial storefront. A New York City Tax photograph from the period depicts the first floor (and what was presumably the garden floor) as having been replaced entirely with glazing; suggesting that interior floor levels have been significantly altered. The rowhouse at 506 maintains the remnants of a stoop. Slender wooden Greek Revival columns flank what is believed to have been the original entrance. The most obvious alterations have been the removal of both cornices, the insertion of an incongruous



ribbon window in 504, and the replacement of all original wooden windows in both buildings. The brownstone clad garden levels of each building are believed to be a later alteration; however, evidence from tax photos reveal that the brownstone on 504 is an alteration post-dating the 1930s.

## HISTORICAL DEVELOPMENT PHASE 2: 1870-1890

Light industry begins to appear in the study area during the last quarter of the 19th century. Port activity continues its northward push along the shoreline while residential development expands into the area from east of 10th avenue. The industrial/residential development typical of this era would have been paramount to the success and functionality of the district, as the majority of urban dwelling people during this period lived in close proximity to their place of employment. The topography of the study area also changes dramatically during this period as the shoreline is regularized through the use of landfill. In comparison to the previous era, a more substantial cross-section of built fabric exists from this era.

Selected Buildings:

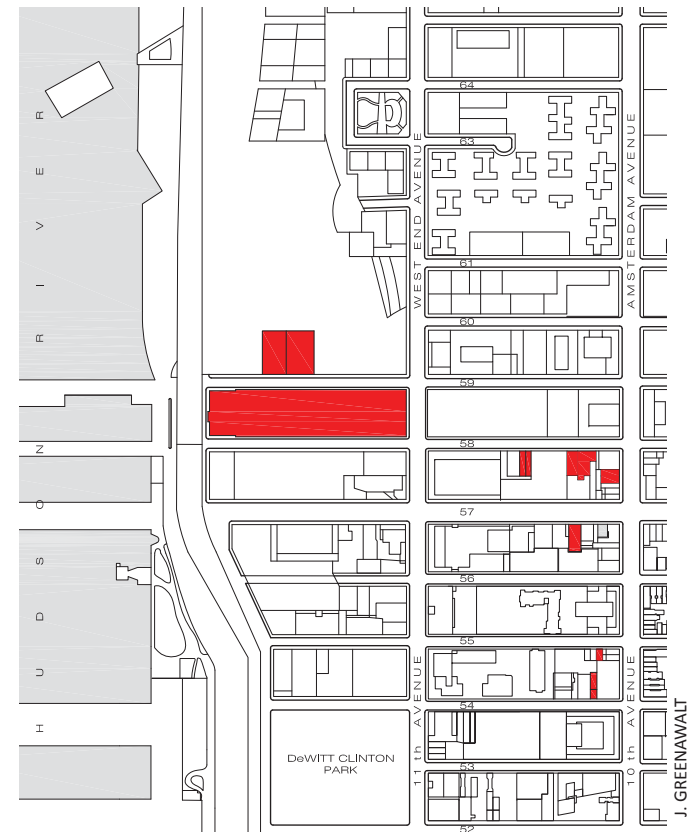
**514 West 57th Street**  
**Former Conrad Stein's Sons Malt House**  
**Date: c. 1875**  
**Architect: Unknown**  
**Block: 1085 Lot: 39**

The former Conrad Stein Malt House building is a six story structure situated on the south side of West 57th Street, between 10th and 11th avenues. The building is composed of brick. It is entered through an arched doorway centered in the north-facing street elevation. This façade is divided vertically into three bays, and is surfaced in stucco at the street level. Above this, the façade is characterized by triplet sets of small, equally sized arched windows, stacked one atop the other in each of the three bays, with projecting brick surrounds. The uppermost floor is delineated by a projecting string course. A brick and sheet metal cornice crowns the elevation, housing an arched panel in the center bay in

which the words CONRAD STEIN'S SONS MALT HOUSE can be discerned beneath layers of paint.

The building's exact construction date is unclear. It is shown on an 1885 land map of Manhattan, suggesting that its construction coincided with the initial development of the surrounding area in the preceding decade. Earlier land maps show the site unoccupied in 1857. An 1867 map indicates that the first significant development on this site housed a brewery for C. Schaefer. By 1885 the brewery had passed to Conrad Stein, and expanded with the construction of a number of buildings occupying a significant part of the block between 57th and 56th streets, including the structure described herein.

The 1916 land map identifies the entire complex as belonging to the "Slawson-Decker Co. Dairy." The New York Times reported that the buildings were transferred that year to the Willys-Overland Co., a manifestation of the increasing presence in the area of various automotive concerns. In 1952 the Columbia Broadcasting System acquired the former brewery and several adjacent buildings and outfitted them to house a broadcast center. The building still serves this function today. On site observations indicate that the ground floor fenestration has been altered but that otherwise the building's visible elevations have changed little from the time of their construction.



Phase 2 Historic Resources (Red), Previous Periods (Gray)



514 West 57th Street  
c. 1875



512 West 58th Street  
c. 1890

## Preserving The Former IRT Powerhouse



Phase 3 Historic Resources (Red), Previous Periods (Gray)



534 West 58th Street  
1893



242, 244 West 61st Street  
c. 1890-1895

### 512 West 58th Street

**Date: c. 1890**

**Architect: Unknown**

**Block: 1086 Lot: 4**

512 West 58th street is a late nineteenth century two story, seven bay building of a warehouse/stable typology. The building is designed in the Italianate mode complete with decorative brick patterning beneath the roofline and 5-part arched lintels above the original window openings; the voisoirs and keystones are presumably of stone. An adjacent, attached structure believed to date from a later period exhibits remnants of the Seal of the City of New York, suggesting this building may have once served a civic purpose.

The building is representative of both the automotive past of the area as well as the current neighborhood fabric. A map dating from 1921 lists the building under the classification of "Autos" and many of the surrounding building were used as garages, taxi cab inspections, or repair shops. The building is currently used as studio space.

Concerning addition and alterations, it is unclear if the eastern portion of the building was removed and later replaced or if an unsympathetic remodeling was undertaken. However, it is clear from historic photographs and land maps that the building was originally symmetric in design.

### HISTORICAL DEVELOPMENT PHASE 3: 1890-1910

Residential and industrial uses are still co-mingling in the area during the period spanning 1890 to 1910; however, trends in development would appear to suggest that both residential and industrial uses are vying for a stake in the area. The juxtaposition of the two largest developments of the period function to illustrate this point: the former IRT Powerhouse and DeWitt Clinton Park— both illustrating the concepts of the Beaux Arts and City Beautiful Movements, but each in a decidedly different fashion. Development of the waterfront increased rapidly during this period. As a direct result of waterfront activity, the industrial warehouse typology emerges. Countering these industrial developments are

the installations of numerous public amenities in addition to DeWitt Clinton Park such as the DeWitt Clinton high school (now the John Jay College of Criminal Justice) and a bath house and recreation center.

Selected Buildings:

### 534 West 58th Street

**Date: 1893**

**Architect: Unknown**

**Block: 1086 Lot: 50**

The building at 534 West 58th Street is a three bay, six story structure, presumably of steel framed construction with a brick façade. The steel framed windows of the building appear to be original or a sympathetic replacement. The building is exemplary of the industrial/warehouse typology that is common throughout the area during the 1890-1910 period. The building has been utilized in the past as a factory used and owned by International Flavors and Fragrances, Inc.

### 242 and 244 West 61st Street

**Date: c. 1890-1895**

**Architect: Unknown**

**Block: 1152 Lot: 56, 57**

The structures at 242 and 244 West 61st Street in Manhattan are a pair of nearly identical five-story tenement apartment buildings. Both are composed of brick, with stone trim employed for architectural details such as sills, string courses, and lintels. The street façade of 242 is surfaced in buff brick, while that of 244 is surfaced in red brick. Otherwise the buildings are built to the same basic design. Each street facing façade is divided into three bays. The street level of each is composed of two large windows flanking a central main entrance. Above this, the bays are demarked by projecting brick piers. The wider center bay accommodates two large windows, flanked by single windows in the bays to each side. The outer windows on the third and fifth floors are accented by round arches; all others are topped by flat lintels. The buildings bear similar stamped sheet metal cornices with typical details. Unadorned metal fire escapes are mounted to the center bay of each building.



Records on these buildings are scant. The buildings appear on an 1897 map, apparently developed as a set of five buildings stretching from 236 to 244 West 61st Street. An 1885 Manhattan land map shows the site still vacant, but almost the entire block developed with masonry townhouses and apartment buildings (two adjacent developments on the same block are identified as the “Riverview” and the “Palisade”).

Subsequent development projects throughout the twentieth century brought the demolition of the three neighboring buildings at 236, 238 and 240, along with all other row houses and apartment buildings on the block. The buildings at 242 and 244 West 61st Street are the only structures shown on the 1897 land map that survive on this block today. Apart from the installation of modern aluminum replacement windows, their facades appear unchanged from their initial construction.

#### **235-247 West 63rd Street**

##### **Phipps Houses**

**Date: 1906**

**Architect: Whitfield & King**

**Block: 5320 Lot: 22**

235-247 West 63rd Street is comprised of four six-storey brick and stone tenements that make up one continuous structure with 158 habitable rooms. Three distinct sections characterize the façade of the building. Each is divided by stone quoins running vertically, which form borders along each section. The building's original top floor is distinguished from those below it by a denticulate cornice. The original roof cornice presents a more ornately decorated version of the one below it. The 7th floor and penthouse were added in 1999 and were designed by Arcstone Architects, P.C. The addition continues the style and form of the building, yet the primary material has been chosen to match the stone quoins below, rather than copying the exact materials and color scheme of the original. In this way, the addition presents a sensitive and respectful differential between the original and the modern alteration that skirts the implications of dishonest continuity of design.

The building was owned and commissioned by the Phipps Houses Corporation and designed by Whitfield &

King, who also designed a garage for Andrew Carnegie on East 90th Street and the Engineers' Club on West 40th Street, in 1904 and 1905, respectively. Thelonius Sphere Monk, renowned Jazz pianist, lived in the structure from 1926 to 1971. In 1983, the city council voted to dual name the cul-de-sac after Monk, who had died the year before.

#### **622 West 57th Street**

**Date: 1908**

**Architect: F.M. Andrews & Co.**

**Block: 1104 Lot: 44**

The building at 622 West 57th street is a four-story brick and stone garage built in 1908 by F.M. Andrews & Co. for New York Taxi Cab Co. The New Building number is 178-08 and the listed uses are factory and auto storage. The building was originally cited as having three stories; the existing four story height can be traced to 1924.

The building was constructed on what had been a stone yard. In 1897, Bromley's Atlas shows that the stone yard comprised the entire block of 1104. In the 1911 Bromley Atlas, 622 W 57th Street is present and labeled as a brick building owned by the New York Taxi Cab Co., but had been transferred to the Mason-Seamon Transportation by 1916.

A 1935 Certificate of Occupancy states the use of the building as being a factory, shipping entity, auto service station, and non-storage garage. In 1927, the first floor was appended to be “garage for more than 5 autos”.

By 1956, the 622 W. 57th Street Garage was using the entire building, including the roof and basement, for automobile storage with an additional use of servicing motor vehicles.

#### **HISTORICAL DEVELOPMENT PHASE 4: 1910-1930**

Development between the years of 1910 to 1930 is characterized almost exclusively by an industrial and commercial flavor. Whereas some residential development does occur, it would appear that these individual examples are outliers and generally reflect a hold-over of earlier trends. The prevalent commercial use



235-247 West 63rd Street  
1906



622 West 57th Street  
1908

E. EVANS

E. EVANS

## Preserving The Former IRT Powerhouse



Phase 4 Historic Resources (Red), Previous Periods (Gray)

in the areas is for automobile showrooms and garages. As for industrial uses, waterfront and rail activity predominate. For this particular era, it is important to be mindful of new methods of transportation that prevail such as the automobile and most importantly in the study of the former IRT Powerhouse, the subway. No longer is it necessary for one to live where one works. Even though this study cannot definitively conclude that transportation has served as the direct cause of the end of residential development in the study area, the marked absence of new residential structures may be demonstrative of this new trend in increased mobility.

Selected Buildings:

### **500 West 57th Street**

**c. 1912**

**Architect: Unknown**

**Block: 5203 Lot: 5**

The building at 500 West 57th Street is sited at the southwestern corner of 57th Street and 10th Avenue. The building is a seven story brick and limestone construction designed with Neo-Classical detailing. The building exhibits the tripartite division of base, shaft, and capital typical of tall buildings of its era. The earliest documentation for 500 West 57th Street is a plumbing permit filed with the Department of Buildings in 1912. For a significant period of time, 500 West 57th Street served as the Sanger Nursing Home.

The present exterior condition of the building is excellent. In consulting the New York City Tax Photographs, it would appear as if the windows are original, date from the 1930s, or are, at very least, a highly sympathetic replacement.

### **80 West End Avenue**

**Year: 1912**

**Architect: L.C. Holden**

**Block: 1154 Lot: 7501**

80 West End Avenue is a seven story brick and stone building with terra cotta trim. The building fronts onto West End Avenue, but also provides access to West 63rd and West 64th.

Lansing C. Holden is listed as an architect for 7 buildings in the years ranging from 1911 to 1920. Russell, the owner of 80 West End Avenue, is the owner listed for three of Holden's projects.

In the 1916 Bromley Atlas, 80 West End Avenue is present and labeled as International motor Co. Garage. A terracotta emblem of a shield on the parapet of the building is emblazoned with the letters IMC.



500 West 57th Street  
c. 1912



80 West End Avenue  
1912



211 West 61st Street  
1926/27



**211 West 61st Street****Date:** 1926 / 1927**Architects:** Frank S. Parker / Edward P. Doyle**Block:** 5315 Lot: 16

The garage structure at 211 west 61st street was built in two phases with two separate owners and architects. The building's two distinct wings with a middle partition could possibly reflect the disjointed process of its construction. Its primary materials are brick and concrete and was originally intended to function as a garage. One of its exceptional features is its retention of its original windows, which are of a steel frame construction with small interior panels of glass. The structure rises six stories and its interior contains seven units.

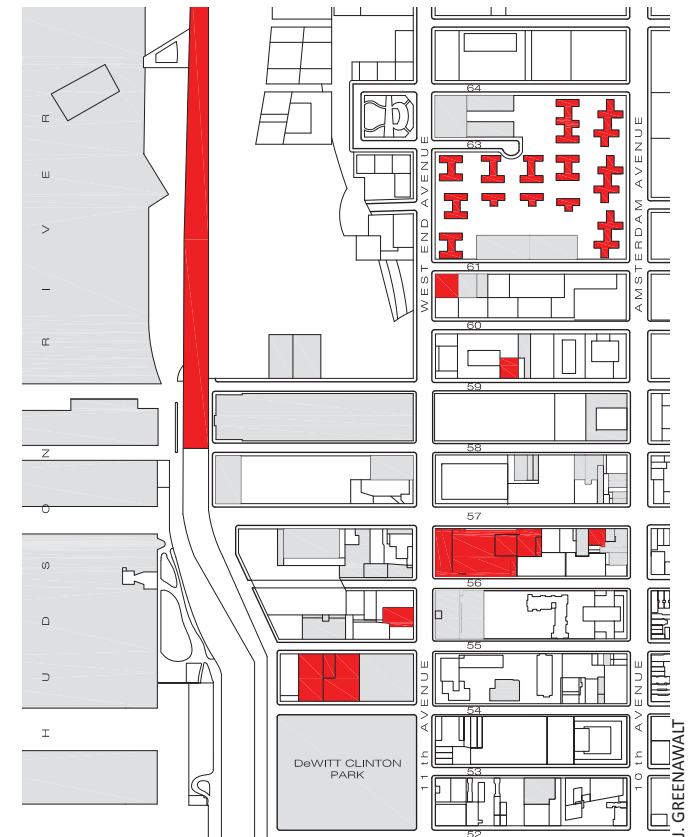
The Alvin Ailey Dance Company & School rented studios on two of the building's floors from 1989 until 2004, before it opened its own building at West 55th Street and 9th Avenue. The interior held a dance performance space, which was called Theater 61.

**HISTORICAL DEVELOPMENT PHASE 5: 1930-1950**

While the automotive industry first appears in the area from 1910 to 1930 with various small garages and showrooms, from 1930 to 1950, the automobile sales industry asserts itself as the predominant form of new construction. Whereas the garage and auto showroom existed in the area prior to 1930, a fair number of the most prominent examples extant today date from this period. In 1947, the study indicates a reemergence in the construction of residential structures in the neighborhood with the completion of the Amsterdam Houses—a 1947 public housing initiative which replaced buildings that the city had determined to be sub-standard. Although considered to be slum clearance and not technically representative of the natural evolution of the area, this incarnation of humane housing commences a return of the area to residential use—a trend that continues in the high-rise, glass towers of today.

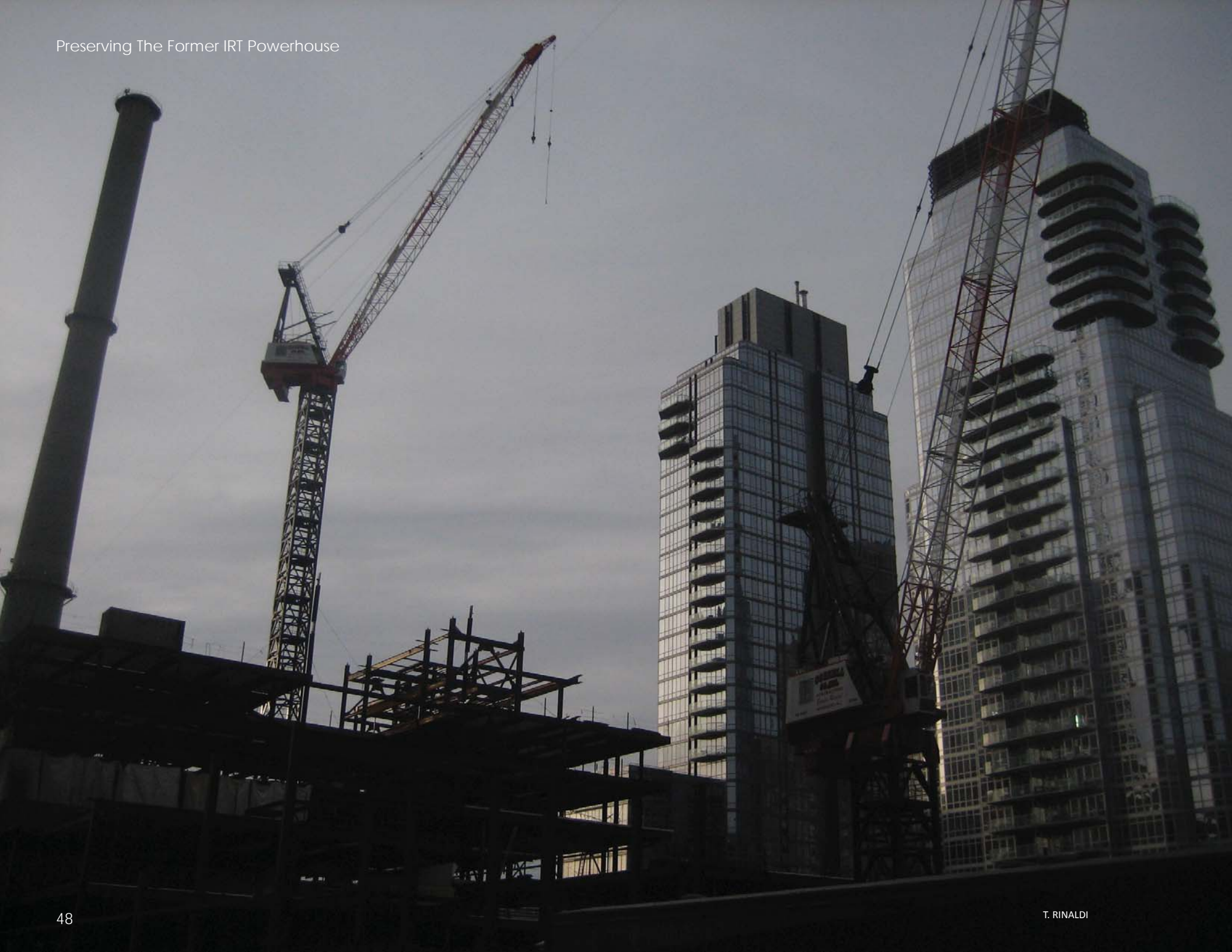
**40 Amsterdam Avenue****Date:** 1947**Architects:** Grosvenor Atterbury, Harvey C. Wiley Corbet, Arthur Holden**Landscape Architects:** Gilmore Clarke, Michael Rapuano**Block:** 5323 Lot: 25

The Amsterdam Houses were among New York City's earliest attempts at providing for a uniform standard in housing. The goal in constructing the 1947 complex was to remedy the quality-of-housing issues plaguing the City at the time and to create humane housing in light of the urban housing crisis that ensued following World War II. Completed in 1947, the Amsterdam Houses cleared vast areas of the San Juan Hill district of the city; an area that had been cited as exhibiting slum conditions. The complex consists of thirteen buildings in total. Each building exhibits either a cruciform plan, a "T" plan, or an "H" plan. The buildings are situated in a super-block scheme with open, landscaped space interspersed. The complex is National Register eligible.



Phase 5 Historic Resources (Red), Previous Periods (Gray)

40 Amsterdam Avenue  
1947





# Current Neighborhood Conditions

The former IRT Powerhouse sits on the border of New York City Community Boards Four and Seven, although it is actually situated in Community Board Four.

Current zoning within the study area is a mix of residential, manufacturing/industrial, and commercial. Community Board Seven (north of the Powerhouse) is primarily zoned for residential and commercial uses. Community Board Four is zoned primarily for manufacturing/industrial uses, with some residential. These land uses are not stagnant. The study area is becoming increasingly residential: between 1990 and 2000 the area's population increased by 40%. Although no current population statistics are available, in the past 10 years there has been significant high-rise residential development, implying that the area's population has continued to rise.

In both Community Boards, rezoning over the last few years has encouraged residential development by allowing for increased residential density and height in some zoning lots and by modifying some lots previously zoned exclusively for commercial uses to lots that permit a mix of commercial and residential uses.

Five major developments are currently occurring within the study area – all but one emphasizes residential use. Two Trees Management Co. has plans to erect a 27 story 900 apartment residential tower – the Clinton Park Development - on the lot immediately east of DeWitt Clinton Park. Ten Arquitectos are the

project architects; in addition to the residential units, the building will also have an auto showroom, a horse stable, a neighborhood market, a health club and 200 parking spaces. The development is currently in the City's land use review process (ULURP) to rezone the site from a manufacturing zone to a zone that permits both commercial and residential uses.

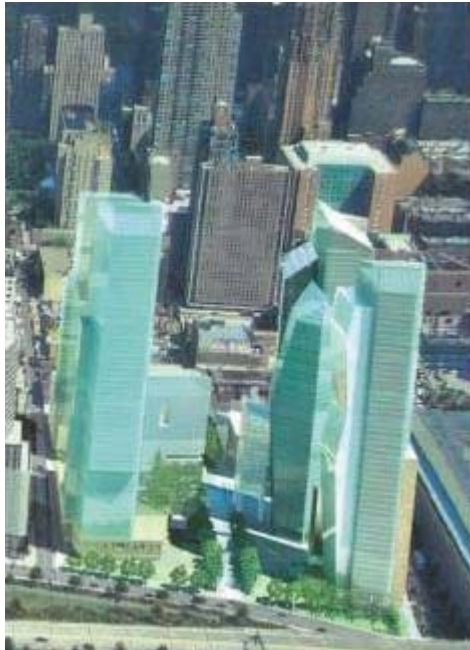
The Durst Organization has recently completed a residential tower, the Helena, on the corner of Eleventh Avenue and 58th Street immediately south of the former IRT Powerhouse. The Helena is a 37-story residential tower, which opened in March 2005. The Durst Organization also possesses ownership of the entire block upon which the Helena sits. The block is currently zoned for one residential building (the Helena) and one commercial building (not yet built); the Durst Organization reports that it has not yet determined how they will use the remainder of the lot.

Immediately east of the former IRT Powerhouse, on Eleventhth Avenue between 58th and 59th Streets, the John Jay College for Criminal Justice is in the process of constructing a 620,000 square foot 14-story addition to house classrooms, lecture halls, laboratories, campus and academic support services. Skidmore, Owings & Merrill is the architect.

239 West 60th Street has, since 2006, been redeveloped by West End Enterprises into a 250-unit building including a nine-story condo.

**Opposite:** New construction is redefining the urban context of the powerhouse in the 21st century.  
**Below:** Aerial photo of Riverside South Development; recent high-rise residential development has occurred proximate to the Powerhouse (circled in yellow).





**Above:** Extell plans to build high-rise buildings by architect Christian de Portzamparc that maintain the street grid due north of the Powerhouse.

**Below:** RSPC proposes that construction due north of the Powerhouse is buffered from the building with open space.



Immediately north of the Powerhouse are three land parcels that belong to the Extell Development Company; these parcels comprise the southern-most end of the Riverside South Development, a 56-acre residential development extending from 59th Street to 72nd Street. In total, the Riverside South Development will have 17 buildings, 5,700 apartments, and 1.8 million square feet of commercial space. Excluding the three parcels adjacent to the former IRT Powerhouse, the entire Riverside South Development has been either planned or developed. How this site will be developed is in contest and still faces ULURP. On these parcels, Extell intends to construct high-rise residential and commercial buildings that are punctuated with open spaces that maintain the structure of the New York City street grid. The Riverside South Planning Corporation (RSPC), a non-profit planning organization, has proposed an alternate development strategy for the site. They propose that Extell use the parcels so that the residential and commercial buildings on the lots are buffered from the Powerhouse with green space. Debate around what should happen on this site is highly contested right now and the NYC Department of City Planning has expressed a desire that whatever development occurs on the site does not “turn its back” on the Powerhouse.

Another factor impacting development proximate to the former IRT Powerhouse is the existence of two Special Purpose Districts. In New York City, a Special Purpose District is a type of zoning overlay intended to achieve specific urban planning and design goals in areas with unique characteristics. The provisions of these districts may be modified over time. Two Special Purpose Districts intersect with our group’s study area: The Special Lincoln Square District and the Special Clinton District. The Special Lincoln Square District was adopted into the New York City zoning code in 1969; it lies on the border of our group’s study area and is just beyond the scope of our project.

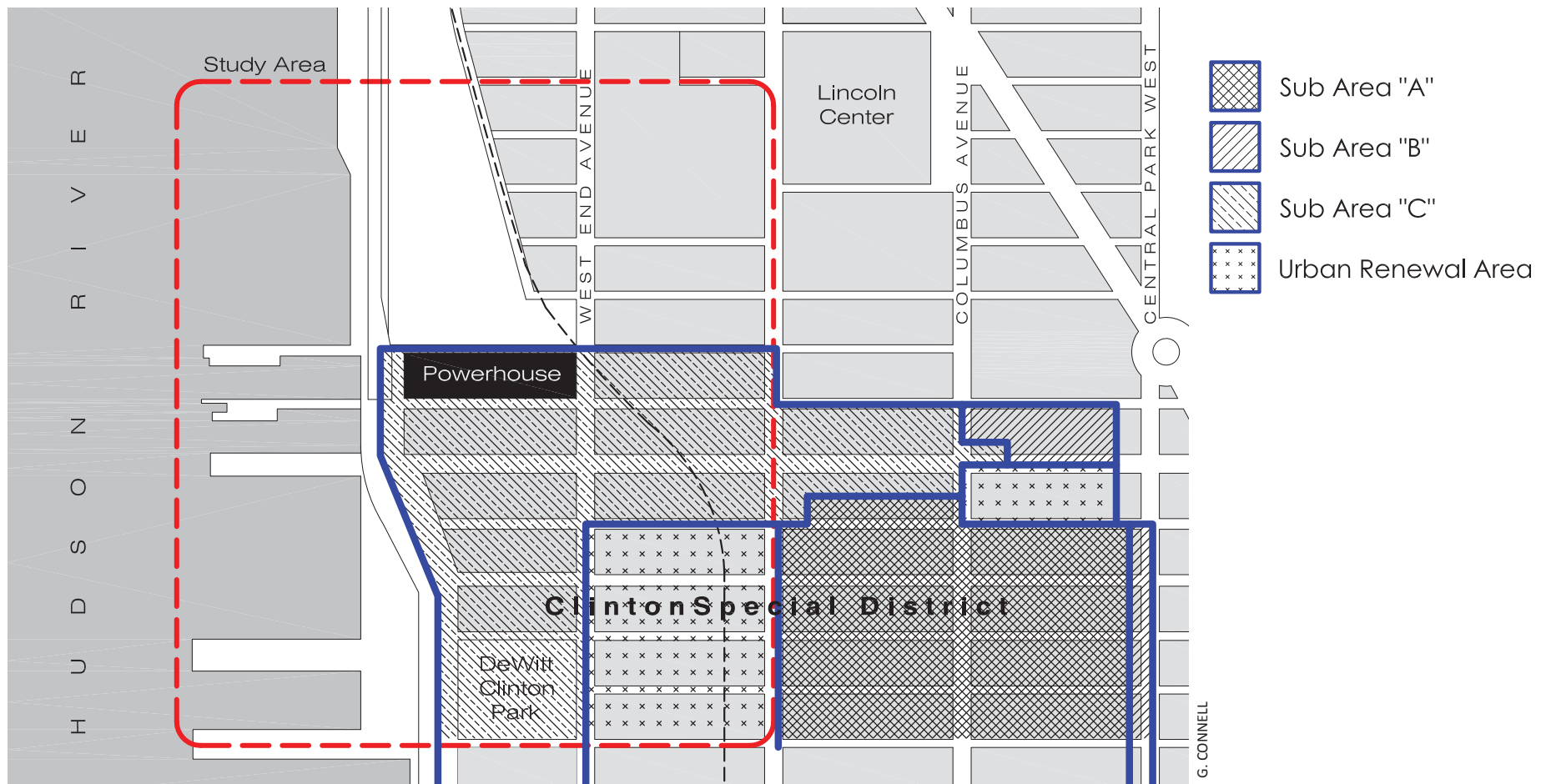
The northern portion of the Special Clinton District lies within our group’s study area. The Special Clinton District was adopted into the NYC Zoning Code in 1974 and covers an area which extends from 41st Street in

the south to 59th Street in the north and Twelfth and Eighth Avenues in the east and west, respectively. It was implemented in response to development pressures in the area; currently the area is again facing large development pressures. The general purpose of this District is to maintain and strengthen the residential character of the community and to preserve affordable housing.

The District is divided into three areas (a. Preservation, b. Perimeter, and c. Other) and has two Urban Renewal areas (“Clinton Community Urban Development Area”) within its bounds which are excluded from its provisions. The Preservation area has the strongest regulations for preserving housing and specifically regulates floor area, lot coverage, yard size, dwelling units, building height, existing storefronts and street wall continuity, demolitions, and new construction. The Perimeter area regulates floor area, enacts special curb cuts and parking requirements, and regulates the relocation of housing and the demolition of buildings. The Other area (the area in which the former IRT Powerhouse lies) must only comply with the Districts underlying zoning regulations and with the general provisions which apply to the entire district: the entire district has mandatory tree planting provisions and provisions regarding bulk modifications to parking garages (garages may be updated by special permit from the Department of City Planning if modifications are needed for the propose design and operation of the garage and that modifications will not adversely affect the character of adjacent areas). The entire area may also, by special Department of City Planning permit, convert buildings to residential use in a manner that exceeds the residential floor area permitted by the applicable district regulations as long the building includes social or recreational space primarily for the use of residential tenants which also may be made available to the community.



**Below:** Map showing Special Clinton District and sub-areas.





T. RINALDI



NYPL



# Preservation Guidelines

Through careful analysis of the topics outlined in this document, the group has established eight guidelines for the stewardship of the former IRT Powerhouse. These guidelines can be carried out by ConEdison, its current owner, and certainly carried forward by whomever might succeed them. They will be carried forward into the plan's recommendations for how ConEdison or future owners can proactively preserve the former IRT powerhouse.

## 1. PRESERVE CHARACTER DEFINING ARCHITECTURAL FEATURES

Despite various alterations since ConEdison's acquisition of the building in 1959, the important character defining architectural features of the powerhouse remain intact and should be protected. These features include the building's general massing, fenestration pattern, details such as the buff roman brick and terracotta facades, clerestory roof, granite plinth and original entryways.

## 2. PRESERVE AND UTILIZE THE VAST INTERIOR SPACE

A characteristic feature of early electric generating plants, the colossal generating hall of the former IRT powerhouse survives as one of New York's great interior spaces. In the event that the plant is adaptively reused, any new program for the building's interior should preserve this unique space and capitalize on its potential as a monumental civic amenity.

## 3. INCORPORATE PUBLIC ACCESS

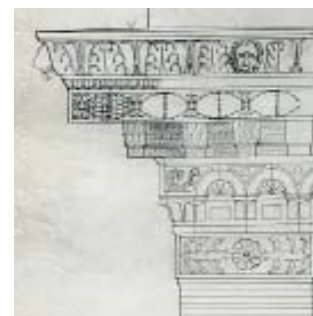
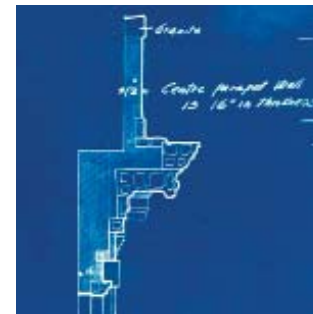
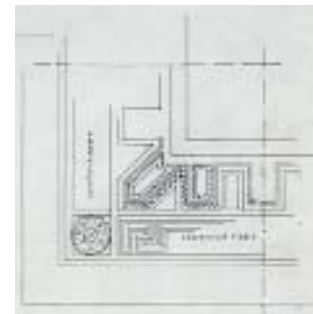
The former IRT powerhouse was the aboveground, monumental face of New York City's first major subway system that served to unite the communities of differing neighborhoods through its underground tunnels. In the spirit of the IRT's civic service, any current or future tenant of the Powerhouse should incorporate public access into the buildings program.

## 4. RESTORE LOST FEATURES

Architectural features that have been lost or altered should be restored at the earliest opportunity. While any future re-purposing of the facility would present a prime opportunity to undertake such restoration work, opportunities exist for ConEdison to pursue this objective should the company continue its use of the building. Some features that could be restored include the cornice, roofing tiles and metal window units. Appropriate architectural representations of the lost smokestacks could also be desirable.

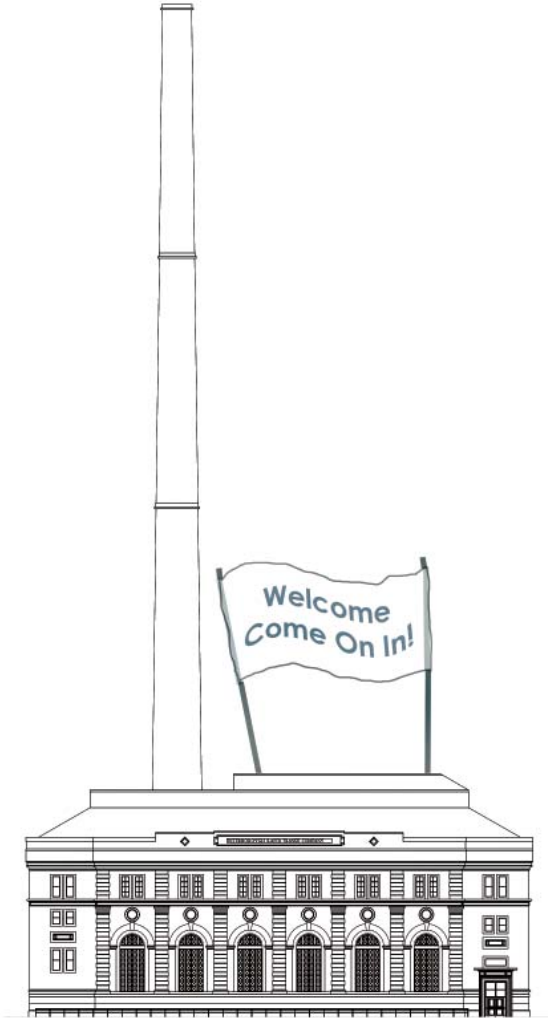
## 5. GIVE SPECIAL CONSIDERATION TO THE 58TH AND 59TH STREET CORRIDORS

There are several undeveloped parcels of land both immediately north and south of the building directly across 58th and 59th Streets whose development will have a major impact on the setting of this historic building. Future development along these corridors



N-YHS (ALL)

**Opposite Top:** View down West End Avenue, October 25, 2008.  
**Opposite Bottom:** View down West End Avenue, December 13, 1937.  
**Left:** Original section and detail drawings of the cornice, removed by ConEdison in 1968, that could be used to recreate it in the future.



The Powerhouse should incorporate public access and be welcoming to pedestrian traffic.

should consider the Powerhouse and welcome pedestrian traffic, rather than turn its back to the building and transform these streets into alley-like service corridors.

### 6. ESTABLISH A MAINTENANCE PROGRAM

It is incumbent upon ConEdison or any future owner to ensure that the character defining features of the building are maintained and, particularly if the building becomes a landmark, kept in a state of good repair.

### 7. LATER ADDITIONS: CHIMNEY NO. 1 AND THE WESTERN ADDITION

In 1968, ConEdison added Chimney #1 on the eastern end of the building. Though drastically different from White's design for the original 6 smokestacks, all of which are now gone, the chimney is symbolic of the ongoing function within the building and should be kept so long as it serves this function.

The original 1904-05 building designed by Stanford White was always intended to have an addition built on its western end. Although stylistically disparate, the 1952 western addition is an aesthetic interpretation of an industrial building reflecting its time of construction. However, this addition is not necessarily representative of a noteworthy piece of architecture or a particularly significant event in New York City history.

While it is true that to remove the addition would be to selectively edit the chronological history of the building, it is the consensus of this studio that removal

or alteration would not compromise the features we've identified as significant. The later addition has the potential to accommodate appropriate change without compromising the overall integrity of the Powerhouse and thus provides an opportunity to direct any future development away from the 1904-1905 portion of the building.

### 8. PRESERVE THE WATERFRONT NEIGHBORHOOD CONTEXT

The former IRT Powerhouse exists as part of larger industrial waterfront neighborhood that emerged in connection with the Hudson Rail yards, which in turn was directly connected to the Hudson River, and included factories, manufacturers and businesses. In addition, the neighborhood has a historic relationship with transportation that includes the Powerhouse as well as stables and an influx of garages beginning in the 1910s.

The result is a layered neighborhood of buildings that reflect both the changing industries and modes of transportation in New York City and gives context to the Powerhouse's history.

There should be comprehensive planning for this area that looks at preserving these significant buildings that contribute to the contextual understanding and the perpetuation of the linkages between the powerhouse and its surrounding environment.



# Recommendations

Effective and useful guidelines for the care, maintenance, and protection of the former IRT Powerhouse can be carried out through specific recommendations that utilize various preservation tools. Among the recommendations for the Powerhouse are local and national mechanisms that can benefit the powerhouse through safeguarding measures and financial incentives for the property owner. Our recommendations are:

1. **ADVOCATE** FOR THE PRESERVATION OF THE BUILDING
2. **DESIGNATE** THE FORMER IRT POWERHOUSE AS A NEW YORK CITY LANDMARK
3. **LIST** THE FORMER IRT POWERHOUSE ON THE NATIONAL REGISTER OF HISTORIC PLACES
4. **MODIFY** THE SPECIAL CLINTON DISTRICT
5. **DONATE** AN EASEMENT ON THE FORMER IRT POWERHOUSE
6. **CREATE** AN “IDEAS COMPETITION”

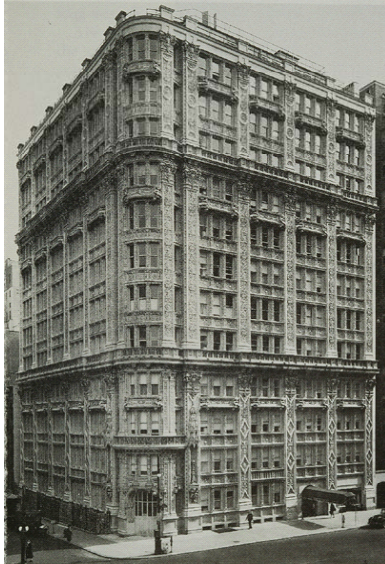
Advocacy is the starting point of any preservation cause, and tools such as designating the building a landmark and listing on the National Register of Historic Places both recognize the importance of the building while safeguarding its future and opening the doors to other preservation incentives. Modifying the Special Clinton District will also safeguard the historic fabric of the building as well as the surrounding neighborhood. A preservation easement and tax mechanisms could benefit both the powerhouse and the property owner by ensuring the constant care and maintenance of the building. Lastly an ideas competition would foster new thinking about the building and its potential for the future.

## Preserving The Former IRT Powerhouse

**Right:** Many historic buildings in New York have been Landmarked despite insensitive alterations. Alwyn Court, on Broadway at 58th Street, was Landmarked after its cornice was removed. An approximation of the lost cornice was later restored with the approval of the Landmarks Commission.



COURTESY WALTER B. MELVIN ASSOCIATES



NYPL

### ADVOCATE FOR THE PRESERVATION OF THE BUILDING

An important aspect of advocating for the preservation of the former IRT Powerhouse is to involve the community, preservation groups, and the general public to garner recognition of the important historical and architectural contributions of the building to ensure that it is protected in the future. There are several ways to advocate for the preservation of an important building in the fabric of New York City. Many of these recommendations have already been initiated by a volunteer advocacy organization called the Hudson River Powerhouse Group, who is working with more seasoned groups such as the Riverside South Planning Corporation, Landmark West! and the Municipal Art Society.

1. Organize a letter writing campaign for local citizens to voice their opinion about the preservation of the building.
2. Create a petition to collect signatures of those in the community and around the city who would like to see the building recognized as an important landmark and want to ensure its protection in the future.
3. Gain support from local community boards, elected officials, and council members to write letters in support

of designating the building a landmark to submit to the Landmarks Preservation Commission.

4. Meet with the building's owner to discuss preservation of the building and preservation tools available.
5. Encourage preservation groups to lead the cause into the press to generate a buzz about the building, as well as organize community involvement.
6. Build a website and email network to keep people informed.
7. Display compelling images of the building.
8. Collect quotes from distinguished experts who comment on the building.
9. Create a pitch to talk about the building with various people.
10. Hold public presentations about the goals for landmark designation and protecting its future.
11. Have the building considered for listing on preservation organizations' watch lists of buildings to be saved or that may be endangered.
12. Hold an ideas competition to foster creative thinking about the building and its future.

## DESIGNATE THE FORMER IRT POWERHOUSE AS A NEW YORK CITY LANDMARK

One of the most important preservation tools to employ is designation of the former IRT Powerhouse as a New York City landmark. Landmarking a building formally recognizes that it is an important part of New York City's fabric for its architectural, historical, social, and cultural contributions to the city, and offers some protection in terms of alterations that would be proposed for the building. The actual landmark designation should apply to the 1904 structure, as opposed to designating the entire mass which includes the 1950s addition on the western elevation. The landmark designation should be based on the historical and architectural fabric of the building related to the McKim, Mead & White Beaux-Arts design as well as the historical role of the powerhouse in the IRT Subway system.

Deciding on what aspect of the former IRT Powerhouse structure to consider for designation as a New York City landmark was based on an analysis of the significance of the structure and why it is an important architectural and historical building. The importance of the 1950s addition to the historic fabric of the building was debated by the members of the studio group. Although the addition represents the industry of the 1950s, it does not reflect the original Beaux-Arts architecture of McKim, Mead & White or the history of the building as a powerhouse for the IRT Subway system in the early twentieth century. It is also not an exceptional work of 1950s architecture or a rare example of industrial architecture. Therefore when considering designating the building as a landmark, only the 1904 original Beaux-Arts portion of the building should be designated. Decisions to designate only certain aspects of a structure have occurred in the past, the most recent being the Domino Sugar Refinery in Brooklyn, in which the Pan, Filter, and Finishing House of the complex were designated landmarks that reflect the industry of the plant in the late 19th and early 20th centuries.<sup>1</sup> Although the Landmarks Preservation Commission is being sued for this move, the concept of designating only parts of a complex is still an option. The same is true for the IRT Powerhouse. Although

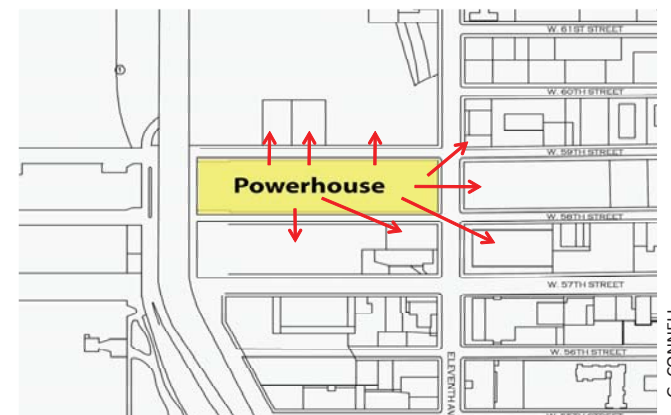
there are additions and alterations to the building, the main 1904 core is the most important architecturally and historically. However, it is the responsibility of the 11-member Landmarks Preservation Commission to look at the entire site and decide what is appropriate for calendaring and designation.

The process to designate the former IRT Powerhouse is already under way. The Hudson River Powerhouse group filed a request with the Landmarks Preservation Commission for designation. The Powerhouse is scheduled for a July 14, 2009 public hearing. If landmarked, any alterations to the building would have to be approved by the LPC, which would ensure that the historic fabric of the building is preserved and that any alterations that do occur respect the historic fabric of the building. If the building becomes a landmark, the process of submitting alterations to the structure would be heard before the 11-member Commission, who then approve or deny the alterations, such as removing an architectural element or constructing an addition to the building.

The powerhouse has been considered for designation twice in the past: once in 1979 and once in 1990. ConEdison opposed the designation both times, stating that a landmark designation might prevent operation of the building as a steam generating facility, such as demolishing part of the façade in order to reach the equipment in the event of an emergency. The company also felt that the building was not worth preserving, and that only one façade was important. This is not true, and steps can be taken to work with ConEdison to designate the Powerhouse a landmark while allowing flexibility with the owner.

Possible under landmark designation is the creation of a master plan, which would establish certain rules by which ConEdison could continue to adapt the building to its needs while not compromising its architectural integrity. A master plan should also establish an ongoing maintenance and restoration plan, and can be realized through the standard Certificate of Appropriateness process or through 74-711 and 74-79 special permit processes, which allow for flexible modification of bulk

**Below:** 74-79: Shift of unused development rights





and transfer of development rights. Under 74-711, an owner has exemption from certain zoning provisions to allow for flexibility in shifting unused bulk from one part of a lot to another. For the Powerhouse, bulk could be shifted to the western addition, thus safeguarding the 1904 building from development occurring above the roofline. The studio strongly encourages potential construction, should there be a need, to be directed towards the western addition. 74-711 special permits must serve a preservation purpose, which in this case would be to preserve the 1904 building as well as establish a master plan for restoration and ongoing maintenance. Under 74-79, ConEdison may transfer their unused development rights across the street or intersection to another lot. Under current zoning ConEdison has an unused floor area ratio of 1, the equivalent of 160,000 square feet that it could transfer. However if the powerhouse lot were to be rezoned it could be more. 74-79 special permits must ensure a “harmonious relationship” between new development and the landmark.

Organizations that support the designation of the Powerhouse as a New York City landmark:

1. The Beaux Arts Alliance
2. City Council member Gail Brewer
3. Community Board 4
4. Community Board 7
5. Friends of the High Line
6. The Historic Districts Council
7. Hudson River Powerhouse Group
8. Landmark West!
9. The Municipal Art Society
10. The New York Landmarks Conservancy
11. The Riverside South Planning Corporation
12. New York State Senator Tom Duane
13. Society for the Industrial Archaeology  
(Roebling Chapter)

## **LIST THE FORMER IRT POWERHOUSE ON THE NATIONAL REGISTER OF HISTORIC PLACES**

The National Register of Historic Places (National Register), is a very useful tool in the preservation of the Powerhouse. As laid out in the guidelines, the building's character-defining features are important in retaining the architectural essence of the structure. The listing triggers certain planning reviews that take into consideration the building, and the opportunities offered through the National Register's historic rehabilitation incentives could be employed by the building's current or future owner(s) in order to care for its physical needs without exorbitant costs.

Due to ConEdison's objection to a listing on the National Register, the Powerhouse is currently only National Register eligible. This means that it meets the criteria to be listed on the National Register and needs to go through the process of actual listing, which requires owner consent. A listing on the National Register provides clearly stated rights for the owners of historic properties. There are no restrictions on the use, treatment, transfer or disposition of the property, no public acquisition or public access, and no necessary compliance with local historic district zoning or landmark designation. While National Register eligibility or listing does not provide the same level of mandatory review and protection as local landmark designation, it does have benefits.

National Register eligibility or listing triggers environmental review of the impacts of new development involving government funding or special permits, as with Extell's Riverside South project just to the north of the Powerhouse. This "hook" presents the opportunity for the City Planning Commission to shape development on adjacent properties where special permits are sought in ways that benefit, or at least do not harm, the Powerhouse. City Planning should pay careful attention to the 58<sup>th</sup> and 59<sup>th</sup> Street corridors and the relationship between new development and the Powerhouse. The Riverside South Planning Corporation's park proposal is an example of how planning and urban design can consider the Powerhouse.

Financial incentives are also a benefit of National Register listing. A property must be "certified historic" by the National Park Service in order to be awarded tax credits for rehabilitation work. "Certified historic" means that the building must be either individually listed on the National Register or located within a historic district that is certified by the National Park Service. Therefore, the Powerhouse is not currently eligible for government funding. However, public, private and not-for-profit grants are commonly awarded to eligible structures.

Financial aid from public, private, and not-for-profit sources would enable the Powerhouse's owner(s) to perform necessary rehabilitation work and provide an incentive to complete the process of obtaining a listing on the National Register. Funding options provide feasibility to the argument in favor of replacing the building's lost physical features. A largely subsidized rehabilitation project would result in a much more valuable and commanding structure at relatively small cost. In addition, the impending utilization of this mechanism would deter the removal of any of the Powerhouse's architectural elements due to the cost of replacement down the road.

There are significant benefits associated with inclusion on the National Register. Recognition and documentation of historical and architectural significance encourage preservation by raising awareness and engendering respect for a listed property. The financial incentives for the preservation and care of historic structures provide more tangible benefits that can result in a positive outcome for owners, communities and the properties themselves. These incentives include:

- Federal investment tax credits
- State tax incentives and grants
- Government, public, and not-for-profit grants for planning and rehabilitation
- Preservation easements to nonprofit organizations

**Opposite (From Top):** Typical early 20th century- industrial buildings in West Clinton, seen in historic photographs. Reinforced concrete automobile garage, 211-225 West 61st Street; Reo Motor Car Co. building, 623-625 West 55th Street; Gottfried Baking Co. building, 715-719 11th Avenue. All of these buildings survive in 2009 but face an uncertain future in the context of rising pressure for residential development.

#### Tax Credit Programs:

Tax credits lower the amount of tax owed to the government and, hence, provide compensation for substantial rehabilitation work performed on a depreciable historic property.

#### Federal Investment Tax Credit Program for Income Producing Properties:

Commercial properties may be eligible for a 20% credit for performing substantial rehabilitation work. The amount granted is based on the cost of the rehabilitation. In addition, the government pays for 20% of the cost of the work. In order to qualify, the work must meet the Secretary of the Interior's Standards for Rehabilitation and be approved by the National Park Service. Non-historic, non-residential structures built before 1936 can also be eligible for a 10% credit for rehabilitation work.

#### New York State Historic Tax Credit Program for Income Producing Properties:

State tax credits are awarded in addition to Federal tax credits on projects that qualify for Federal aid. These credits represent an additional 30% of the value of the Federal credit up to \$100,000. There is no separate application or paperwork process once the Federal credit is approved.

#### Grants and Funding Options:

In order for a property to qualify as a recipient of grant programs, it must be listed or eligible for listing on the National Register, or be designated a local landmark.

#### Government Grants:

Some municipal agencies distribute federal, state and local funding in the form of loans and grants to aid historic property rehabilitations of privately owned properties. Most often, projects that receive this kind of funding are those that intend to create facilities for the public good, such as affordable housing, or that

provide employment opportunities. The focus is most often not on preserving historic resources, but creating opportunities for community enhancement. If the Powerhouse were to be repurposed so that it creates opportunities for the surrounding community in the form of jobs, education or housing, for example, its owner(s) could apply for municipal funding to help defray the costs of carrying out this conversion.

#### Public & Not-for-Profit Grants:

Public and Not-for-Profit grant programs provide sources of funding for preservation planning and development projects. These grants vary by state. Listed below are some of those sources of funding in New York State:

- New York Landmarks Conservancy – Historic Properties Fund: Provides low interest loans for property owners in historic districts
- New York State Office of Parks, Recreation & Historic Preservation (OPRHP) – Environmental Protection Fund: EPF provides assistance/funding to municipal agencies and non-profit organizations for acquisition, development and improvement of historic properties, grants of up to 50% of eligible project costs
- New York State Legislature – funding available by contacting the State Legislator
- New York State Council on the Arts (NYSCA) - non-profit organizations and municipalities can apply for funding
- The National Trust for Historic Preservation – several grants available
- Preservation League of New York State – Preserve New York grant program
- Save America's Treasures – grant programs available



### Multiple Property Submission (Thematic Districts)

In addition to individual listing on the National Register, Multiple Property Submission (MPS) allows nomination of groups of related significant properties that share themes, trends, and patterns of history. The Multiple Property Documentation Form is not a nomination in its own right but serves as a basis for evaluating National Register criteria for related properties, each of which will have its own individual nomination form completed.

Inclusion of the former IRT Powerhouse and related properties in a MPS is a powerful preservation planning tool. It allows preservation priorities to be established based on historical significance within a greater context and evaluation on a comparative basis within a geographic area. Having multiple associated properties listed helps to protect the larger theme within that geographic area from being lost to the pressures of redevelopment that every city faces.

To prepare a MPS, the following four headings must be completed. This summary in addition to the individual property nomination forms are submitted to the New York State Historic Preservation Office (SHPO):

#### A. Multiple property listing name

B. Associated historic contexts – there can be multiple historic contexts listed that correspond to three key elements: a historical theme, geographical area, and chronological period.

C. Associated property type – analyzes the building within the general historic context such as architectural styles.

D. National Register Registration Forms – each individual property associated in the larger group would be listed here and their completed NR Forms would be sent along with the MPS.

We have identified two possible thematic groupings that would successfully include the nomination of the former IRT Powerhouse.

The first is within the historic industrial context of West Clinton and its relationship to both the evolution of transportation in the area and how that evolution was directly tied to the 60th Street rail yards and the waterfront. Through our neighborhood buildings survey, multiple properties were identified as potentially being National Register eligible as well as placed within the larger historic theme of industry and transportation. An example of a Multiple Property Designation Form for this nomination could look as follows:

#### A. Multiple property listing name

Historic Industrial Resources in West Clinton,  
Manhattan, New York

#### B. Associated historic contexts

Manhattan West Side Industrial Waterfront  
The IRT Transit System 1904 – 1940  
Automobile Garages 1900 – 1940  
Transportation Service Infrastructure  
Manufacturing and Industry in West Clinton  
Manhattan 1900 – 1940

#### C. Associated property types

Beaux Arts Style  
Art Deco Style Garages  
Commercial Bakery  
Garages  
Vernacular Industrial Buildings  
Malt House

#### D. National Register Registration Forms

This multiple property submission encompasses nomination forms on a malt house, powerhouse, baking company, garages and other industrial structures.

Former IRT/59th Street Powerhouse  
Conrad Stein & Sons Brewery – 514 W. 57<sup>th</sup>  
Street



NYPL (ALL)

## Preserving The Former IRT Powerhouse



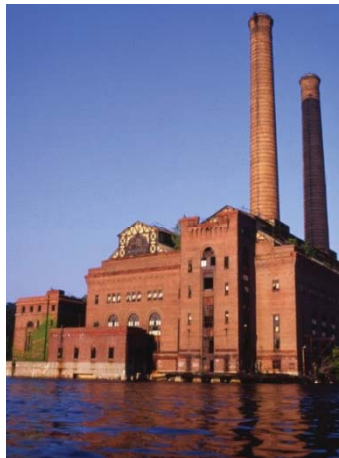
T. RINALDI



T. RINALDI



T. RINALDI



R. VASINSAC

Packard Motor Co. Building – 787 11<sup>th</sup> Ave.  
International Motor Company Garage – 80  
West End Avenue  
Gottfried Baking Company – 711 11<sup>th</sup> Ave.  
New York Taxi Cab Co. Garage – 622 W. 57<sup>th</sup>  
Street  
Lincoln Tunnel Ventilator Structures

Secondly, the former IRT Powerhouse was one of a group of powerhouses that served both the railroads and public utilities of New York City. The threat to this building type—whether through purposeful razing or demolition by neglect—is visible in their dwindling numbers. At and around the time of its construction, no fewer than eleven large-scale railroad powerhouses and at least seven large-scale public utility powerhouses were built to serve New York City. Among those still standing that could be NR eligible are two public utility plants and four railroad plants, including the former IRT powerhouse. In 2001, the Jersey City Powerhouse was listed individually and through an MPS it could also be included in the larger thematic designation. It is important that these massive structures and the vital role they played in our industrial history be preserved, and a MPS is a way to accomplish that.

An example of a Multiple Property Designation Form for this nomination could look as follows:

- A. Multiple property listing name  
Historic Powerhouses of New York
- B. Associated historic contexts  
The IRT Transit System  
Railroad Electrification  
Electric Generation and Distribution  
McKim, Mead & White  
Thomas E. Murray
- C. Associated property types  
Beaux Arts Style  
Large-scale Powerhouses
- D. National Register Registration Forms  
This multiple property submission encompasses nomination forms on seven powerhouses in the New York area.  
Former IRT/59<sup>th</sup> Street Powerhouse  
Yonkers Power Station (New York Central & Hudson River Railroad)  
East 73<sup>rd</sup> Street Power Station (New York RY. Co.)  
East River 14th Street Generating Station (ConEdison)  
Central Power Station (Brooklyn Rapid Transit Co.)  
Hudson Avenue Generating Station (ConEdison)  
Jersey City Power Station—Hudson & Manhattan Railroad (Designated Individually)

**Left (From Top):** New York's historic powerhouses can be placed on the National Register of Historic Places as part of a thematic district. Former Central Powerhouse of the Brooklyn Transit Company on the Gowanus Canal; Former Hudson and Manhattan Railroad Jersey City powerhouse; Former Manhattan Railway East 74th Street powerhouse; Yonkers Power Station, Yonkers, NY.

## MODIFY THE SPECIAL CLINTON DISTRICT

The revision of the current Special Clinton District aids the preservation of the Former IRT Powerhouse by legally establishing it as a character-defining feature of the area and as an essential architectural piece of NYC which reflects its history as an industrial building as well as its Beaux Arts architecture. The changes also recognize that certain structures in the area can provide general welfare and amenity to the area's many new residents and contributes to a sense of neighborhood history to foster an enhanced sense of community.

In New York City, a Special Purpose District is a type of zoning overlay implemented to achieve specific planning and urban design objectives in defined areas with unique characteristics.<sup>2</sup> Over time, Special Purpose Districts may be modified or eliminated. Two Special Purpose Districts intersect with our studio group's study area: The Lincoln Square District and the Special Clinton District.

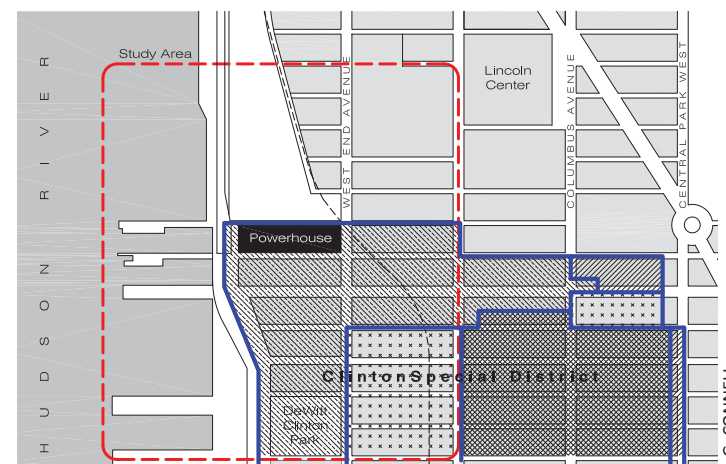
The Lincoln Square Special Purpose District was adopted into the NYC Zoning Code in 1969 and it was established to enhance the character of the area surrounding Lincoln Center as an international center for the performing arts. The District regulates building wall height along certain streets and the types of commercial uses permitted at street level. The Lincoln Square District lies on the border of our studio group's study area, just beyond the scope of our project.

The northern portion of the Special Clinton District lies within our study area. The Special Clinton District was adopted into the NYC Zoning Code in 1974 and the District roughly covers an area from 41st Street in the South to 59th Street in the north and 12th and Eighth Avenues in the East and West, respectively.

The objective of the Special District is to "...promote and protect public health, safety, general welfare and amenity." The District seeks to accomplish that objective using the following goals:

- to preserve and strengthen the residential character of the community
- to permit rehabilitation and new construction within the area in character with the existing scale of the community and at rental levels which will not substantially alter the mixture of income groups presently residing in the area
- to preserve the small-scale character and variety of existing stores and activities and to control new commercial uses in conformity with the existing character of the area
- to provide an appropriate transition between the character of the District to the adjacent lower-scale residential development and to adjacent Special Districts.

The District is divided into three areas: A. Preservation, B. Perimeter, and C. Other (See map). The Preservation area has the most stringent regulations of the three areas, regulating floor area, lot coverage, yards, dwelling units, height, existing storefronts, demolition and new construction. The Perimeter area regulates floor area, enacts special curb cuts and parking requirements, and the relocation of housing and the demolition of buildings. The Other area (the area in which the Former IRT Powerhouse lies) must only comply with the Districts underlying zoning regulations. The entire Special District must comply with mandatory tree planting provisions and provisions regarding bulk modifications to parking garages (they may be updated by special permit from Department of City Planning (DCP) if modifications are needed for the proper design and operation of the garage and that modifications will not adversely affect the character of adjacent areas). The entire area also may, by special DCP permit, convert buildings to residential use in a manner that exceed the residential floor area permitted by the applicable district regulations as long as the building includes social or recreational space primarily for the use of residential tenants which also may be made available to the community.



Above: Special Clinton District, highlighting area "C".



Sub Area "C"



We recommend that the current "Other" area of the Special Clinton District, under which area "C" falls, be modified so that, in addition to complying with underlying Special District Provisions includes provisions: "To preserve the architectural character of structures related to the area's history as an industrial, manufacturing, and transportation-related district, safeguarding the form that makes the Clinton area distinct." Provisions might include:

An owner of one of the historic resources must apply to DCP for a special permit to modify their building. As a condition of approval, the Commission shall find:

- that because the site and building limitations are such modifications are necessary for the proper design and functioning of the building
- that such modifications will not unduly compromise the building's historic character

## DONATE AN EASEMENT ON THE FORMER IRT POWERHOUSE

Many governmental agencies use easements as a means of securing special rights from private property owners. Historic preservation easements are a legal, voluntary means for property owners to protect historic and archeological sites, as well as various other cultural resources. In the specific case of the former IRT Powerhouse, a façade easement would be one of the most relevant types of historic preservation easements to consider.

A façade easement is one of the many tools that a property owner might use to restore certain aspects of his or her historic property or to lessen the tax burden on a given property. Historic preservation easements can only be acquired by certified 501(c)(3) nonprofit organizations. In the relationship between the nonprofit organization and the property owner, the nonprofit organization accepts the façade easement from the property owner along with a prearranged amount of money with which to enforce the legal attributes of the easement. Typically, easements stipulate that a property owner must keep the façade in question in good repair and seek guidance in any proposed alteration. Should any unsympathetic alteration to the façade in question be undertaken that is outside the prearranged agreement between the property owner and nonprofit, the nonprofit organization holding the easement has not only the right, but the obligation to pursue legal action to correct the infraction—using the monies which accompanied the easement to pay court fees.

The benefits of easements are two-fold. The property owner, in giving an easement, receives tax benefits for the total worth of the easement. Easements are valued by an independent appraiser and fluctuate greatly from building to building. The value of a façade easement is not dependant on the value of the building. The appraised amount may then be deducted from future taxes. The nonprofit organization receiving the easement benefits in receiving the money necessary to enforce the legal attributes associated with the easement and although

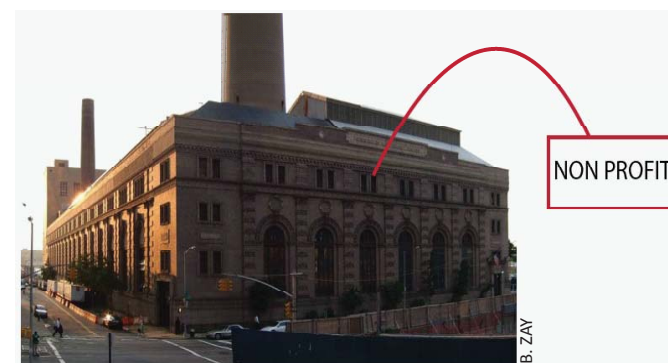
there are no stipulations regarding how the nonprofit organization uses the funds, the money must be available for use in the event of an infraction.

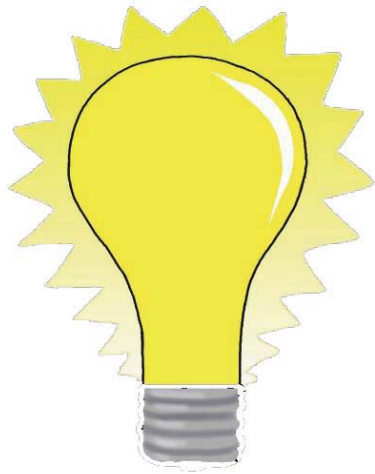
A façade easement for the Powerhouse would be relevant due to the importance and relative completeness of the McKim, Mead & White façade. A façade easement would also not require that the building be listed on the National Register of Historic Places. Money from the tax benefits for such an easement could be used to replace certain lost elements of the façade or, should the property owner choose, be simply absorbed into the updating and maintaining of the plant—the use of the tax money received from an easement may be utilized at the discretion of the property owner. Another applicable easement is an air rights easement, which stresses the importance of keeping the general massing of the 1904 building intact and unaltered by additions on the roof of the building.

### CREATE AN “IDEAS COMPETITION”

Despite ConEdison's plans to stay in the building for an indefinite amount of time, it is still an effective exercise in envisioning the building's potential. An ideas competition can benefit ConEdison, if for some reason they wanted to expand their building to the west and construct a new addition in place of the 1950s addition. Should ConEdison ever vacate the building, an “ideas competition” may also be effective to imagine a new use for the Powerhouse. An “ideas competition” request for proposal would prioritize a world class design that adheres to this plan's outlined preservation guidelines and complements the 1904 building, as well as preserves the interior space that is characteristic of this building type. The studio has identified that the western addition is the most ideal location around which to focus a potential ideas competition. There are many examples of other powerhouses in which an addition placed onto the top of a main structure compromises the integrity of the whole, as with the case study Station B Powerplant in San Diego or the Long Island City powerplant, where tall structures were placed directly onto the top of the building. By directing alterations to the western addition, the original 1904 structure will not be compromised. Any new addition

**Below:** Former IRT Powerhouse  
Façade Easement





that might come out of an ideas competition directed to the western elevation should be the same height as the 1904 building in an effort to maintain continuity of the building height and to protect the form of the

1904 structure from becoming overshadowed by a larger structure. Should ConEdison leave the building, a request for proposal would also prioritize finding a use most appropriate for the Powerhouse.

### ENDNOTES

1. "Domino Sugar Refinery Named a New York City Landmark," The New York City Landmarks Preservation Commission, September 25, 2007.
2. NYC DCP [http://www.nyc.gov/html/dcp/html/zone/zh\\_special\\_purp\\_dist.shtml](http://www.nyc.gov/html/dcp/html/zone/zh_special_purp_dist.shtml)



# Appendix A: Case Studies

In considering our preservation guidelines how the former IRT Powerhouse as well as how it might someday be repurposed, it was important to look at how other similar structures were approached and how the outcomes of those projects could inform decisions for Powerhouse moving forward.

The goal of the case studies is to identify how other powerhouses and large-scale industrial buildings and their character defining features have been preserved, what methods assisted in that preservation, and to consider how this preservation is relevant to that of the Former IRT Powerhouse.

## *Criteria for Case Study Selection*

Relevancy to the powerhouse was initially determined using a base set of criterion we considered to be key features of and specific circumstances around the former IRT Powerhouse. We refined our selection of case studies by identifying other powerhouses and other large, industrial buildings that have been preserved or reused and that intersect with these important elements of the Powerhouse. Our selection was largely limited to cases that have been published, publicized, or studied in the past. These criteria included but were not limited to:

- Comparable building footprint and interior square footage
- Set within an urban context and even more specifically, with major development taking place nearby; in a changing neighborhood; or with a relationship to a park
- Waterfront proximity
- Shared magnitude and architectural distinction

- Buildings that maintain a connection to their original use
- Community involvement and input in the project

## *Examples Chosen*

In total, seventeen case studies were selected to review. Of those, seven were considered to be the most germane and represent a strong cross-section of ways the former IRT Powerhouse could be architecturally preserved or reused.

In comparing these seven most relevant case studies against our preservation guidelines for the Powerhouse, there were many connections that act as sort of “lessons learned”. The treatments these case studies received yielded insights both into how the IRT Powerhouse could similarly benefit from such practices and how particular approaches would not be ideal treatments for our building.

## The Power Plant

Inner Harbor, Baltimore, MD / 1900-1909

**Original Use:** Power plant for United Railways and Electric Company to power city's trolley system

**Architects:** Francis Baldwin and Josias Pennington (original)

**Date Decommissioned:** 1973

**Context:** Urban / Waterfront

**Floor Area:** 180,000 sq. ft.

**Current Use:** Commercial / Entertainment / Offices

**Re-opened:** 1997

**Owner:** Public

**Listing:** National Register (1987)

**Awards / Recognition:** Urban Land Institute Award of Excellence (2000)

### Relevance:

United Railways and Electric Company commissioned the power plant to power the city's trolley system. It is located on the water in the center of a historically industrial area of Baltimore.

The power plant has a large boiler room topped by four smokestacks 250-feet tall and 28-feet wide, nearly identical in size to the six original smokestacks. Two smaller engine houses that were fueled by coal delivered on barges flank the central boiler room.

By the early 1920s, Consolidated Electric Co, a forerunner of Baltimore Gas & Electric, bought the power plant and converted to a steam generation plant to heat downtown buildings until 1973. The building sat vacant for a number of years. Baltimore's Inner Harbor was eyed as an area ripe for tourist development and in 1977 the city bought the power plant for \$1.65 million. A number of failed attempts were made to rehabilitate and reuse the Power Plant until, in 1995, Cordish Company began a \$30 million renovation and converted the Power Plant into a commercially viable entertainment hub.

Cordish Co. has an affinity for power plants because, they say, these structures are good candidates for

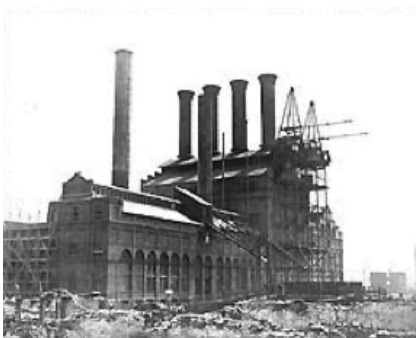
redevelopment, often located at the heart of prime urban areas and that, when done right, power plants are unforgettable settings for retail, replete with character.

Cordish utilized and simultaneously maintained this character in their renovation choices. Parts of the brick walls were replaced with glass to open up the building and allow patrons a view of the interior as they approach the building. The expansive floor plates of the power plant were kept open rather than subdivided, creating large commercial space for the three most prominent tenants: Barnes & Noble, ESPN Zone and Hard Rock Café.

In the boiler room, the location of Barnes & Noble, structural support was re-engineered to expand usable floor and ceiling area by replacing the original X-bracing supports with moment frames.

The four original smokestacks were preserved atop the boiler room. On the front smokestack, Hard Rock hung a 65-foot neon guitar, their trademark signage. This move has been highly controversial primarily for aesthetic reasons. Many in the preservation community see this advertisement as cheapening the significance of this historic power plant. However, preference

**Below:** The power plant c. 1909 during reconstruction after a fire



aside, the developers used the smokestacks to their advantage and in doing so, preserved these original industrial features that speak to the structure's original use as a power plant. Additionally, Barnes & Noble moved the coal chutes at the base of each stack and converted two of them into reading rooms on the first floor.

In the renovation, the original character defining industrial features such as smokestacks, coal chutes and large windows were preserved and utilized to the developers and tenant's advantage. The immense open floor plates and vast interior space was preserved and utilized by the larger commercial tenants and the public

is able to interact with and experience these historic spaces. This Renovation has made the historic power plant a major draw to the now vibrant Inner Harbor. The renovation, completed in 1999, has created a gathering destination for the city, giving the Inner Harbor a sense of place.

In 2000, The Power Plant won an Urban Land Institute Award of Excellence for the rehabilitation project. The award states "The Power Plant is a prime example of the conversion of a functionally obsolete building into a successful, modern project. The developer saved the four towering smokestacks – visual reminders of Baltimore's industrial past..."



Above: The Power Plant, 2008.



## Bankside Power Station /Tate Modern

London, England / 1947-1963

**Original Use:** Power Plant

**Architects:** Sir Giles Gilbert Scott (original); Herzog & de Mueron (renovation)

**Date Decommissioned:** 1981

**Context:** Urban / Waterfront

**Floor Area:** 225,000 sq. ft.

**Current Use:** Museum

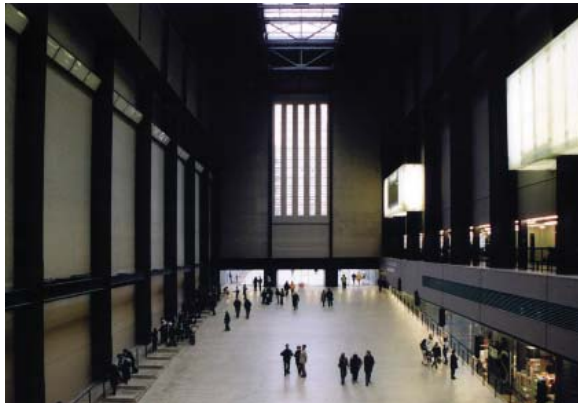
**Re-opened:** 2000

**Listing:** Not Listed

**Owner:** Private

**Top:** Enormous former turbine room is now main entrance area.

**Bottom:** The Tate Modern today.



T. RINALDI



BUSINESS WEEK

### Relevance:

The Bankside Power Station was originally designed by Sir Giles Gilbert Scott and constructed in two phases, the first completed in 1952 and the second in 1963. It was closed in 1981 due to rising oil prices rendering the station operation uneconomic.

The power station consisted of a huge turbine hall, 660 feet long with the boiler house parallel to it, a similar configuration to the former IRT Powerhouse. It is a steel framed structure with brick exterior. A central chimney stands at 320 feet tall.

Bankside Power Station was at the brink of being demolished, despite a great deal of the community campaigning for its reuse, until the Tate Gallery announced in 1994 that the Bankside Station would be their new location.

To select the design and architects for the conversion, an international architectural competition was held attracting entries from practices all over the world. The winning architectural firm was Herzog & de Meuron. Their design won them the Pritzker Prize in 2001.

The majority of the building's internal industrial structure was preserved and reused. The vast turbine hall,

which retained the overhead traveling crane, became a dramatic entrance area, with ramped access, as well as a display space for very large sculptural projects. The boiler house became the galleries, which are on three levels running the full length of the building.

The Tate Modern has become an internationally recognized icon that integrates historic preservation, industrial architecture and arts and culture. It is one of the UK's top three tourist attractions and hosts roughly five million visitors a year. Additionally, the Tate Modern generates £100 million in economic benefits to London annually and generated 4,000 new jobs. Its conversion is a celebration of industrial architecture and the defining features powerhouses offer and brought attention to a primarily industrial area of London.

## Kingsbridge Armory

Bronx, NY / 1912-1917

**Original Use:** Home of 258th Field Artillery (Eighth Regiment)

**Architects:** Pilcher & Tachau (original)

**Context:** Urban

**Floor Area:** 575,000 sq. ft.

**Anticipated Use:** Mixed-use; Restaurants, cinema, retail, community space, et al  
(Re-open date unknown)

**Owner:** Public

**Listing:** New York City Landmark (1974); National Register (1982)

### Relevance:

The Kingsbridge Amory was built as the home of the 258th Field Artillery (Eighth Regiment) to provide more space than their previous location at Park Avenue and 66th Street in Manhattan. It is reportedly the largest armory in the world.

Kingsbridge is a Romanesque style building with massive towers and a tapestry of architectural features including crenellation, turrets, cupolas, angled walls and slit windows. The building is composed of lecture halls, an auditorium, fitness rooms, vehicle storage areas in the cellar and the massive 300 by 600 feet drill hall with a glass and metal roof.

The Armory has sat nearly vacant for decades and throughout that time the community around it has aspired to have it repurposed. The Kingsbridge Armory Redevelopment Alliance (KARA) formed in 2007 to ensure that whatever development occurs there it both involves the community and meets the community's multilayered needs. The group is composed of community leaders from neighborhood associations, businesses, community institutions, unions, congregations and elected officials who want to see the Armory developed into a mixed-use community-oriented facility.

In 2008, the New York City Economic Development Corp. announced that it selected Related Properties as the firm to redevelop the Armory. Related Properties plans to turn the building into a mixed-use commercial and entertainment site and they expect to invest about \$310 million to acquire and redevelop the Armory. They will strive to achieve at least a LEED Silver rating for the core and shell using low-impact and green technology. They also must get a number of approvals from NYC Landmarks Preservation Commission as well as NYSHPO.

This case study is discussed because it is a unique example as one of the few buildings in addition to the former IRT Powerhouse that encompasses a full block in New York City. Though renovation has yet to begin, it is likely that by the time the former IRT Powerhouse is able to be repurposed, this project will be completed and its active role in the community can be assessed. Some decisions that will be made in the Armory renovation may be useful to study when considering approaches to the former IRT Powerhouse. The Armory offers an opportunity to see how vast open interior spaces are utilized in an urban area and how that use is received in the community it serves.

**Below:** The Kingsbridge Armory, Bronx, New York



## Preserving The Former IRT Powerhouse



flickr.com/CITYSKIP

**Above:** The Armory's enormous drill hall

**Right:** Close up of two massive tourits that straddle the main entryway.



flickr.com/CITYSKIP

As it is repurposed, it is likely that this tremendous buildings unique character defining features will be preserved. Its enormous drill hall and other large spaces will be utilized. The mixed-use interior will be almost entirely geared towards the public including among other things a cinema, recreational facility,

community space, restaurants and a seasonal farmers market. It is also, so far in theory only, an example of how community pressure behind a project can get its repurpose to meet their goals and how existing large-scale urban architecture can continue to move forward as a positive anchor to its community.



# Grain Belt Brewery

Minneapolis, MN / 1891

**Original Use:** Beer Brewery

**Architects:** William L. Lehle and Frederick W. Wolff (original); RSP Architects (renovation)

**Date Decommissioned:** 1975

**Context:** Urban / Waterfront

**Floor Area:** 110,000 sq. ft.

**Current Use:** Offices

**Re-opened:** 2002

**Listing:** City Landmark (1977) National Register (1990)

**Awards / Recognition:**

National Preservation Award from National Trust for Historic Preservation (2005); AIA Minnesota Honor Award; NAIOP Award of Excellence; Preservation Alliance of Minnesota Honor Award; Adaptive Reuse Preservation Award, Minneapolis Heritage Preservation Commission; CUE Award, Minneapolis Committee on Urban Environment (2002)

## Relevance:

In 1891 the merging of four brewers resulted in the "Grain Belt" beer label and construction of their new brewery began, a massive Romanesque structure along the Mississippi River in the heart of Minneapolis.

As the company grew, additional buildings were added to the bottling plant including warehouses, offices and other commercial and industrial buildings. The Brewery became vacant in 1975 when company moved to St. Louis. The brew house had four different sections, including a 1910 addition with eight grain silos, and extensive damage from 25 years of vacancy and neglect.

Similarly to Midtown West, the neighborhoods surrounding the complex were considered mixed-use, with some single-family homes, businesses, apartment buildings and industrial uses, but the area was becoming more gentrified and demand for new space was growing. The City bought the Grain Belt Brewery in 1989 as part of a proposed 29-acre redevelopment plan

for the area that included the 14-acre brewery complex and sought investors in the properties. Included in the plan was a large public park with bike paths and waterfront access.

Community involvement in the project was high. An official Development Objectives Committee was formed to ensure the decisions made with the brewery and surrounding area met the community's needs and wishes. A representative from each of the neighborhoods affected by the redevelopment sat on the committee along with representatives from other local interest groups including the Planning Department, Heritage Preservation Commission, the Park Board, City Finance Department and local business associations.

In 2000, the city sold the main brew house to Ryan Companies to rehabilitate the space and RSP Architects redesigned it to become their new corporate headquarters. Financing for the project came from a variety of sources including private, city and federal funds. It is a good example of how rehabilitation can



HENNEPIN COUNTY LIBRARY PHOTO ARCHIVES



flickr.com/COPPERBOOM

**Top:** Grain Belt Brewery c. 1970 and c. 2001, post-restoration

**Bottom:** Detail of architectural details

## Preserving The Former IRT Powerhouse



flickr.com/COPPERBOOM

occur successfully when a municipal government realizes the benefits of supporting a reuse project and make funds available for the private owners.

The city paid for \$3 million of environmental remediation costs including mold abatement, lead-based paint removal and containment of asbestos-contaminated debris before Ryan bought the property. Ryan Companies contributed \$8.5 million to the project; \$20.3 million came through grants, funds, private and city financing. Also acquired was \$965,000 from Tax Increment Financing through Grain Belt's

status as a National Landmark, an action within the recommendations for the former IRT Powerhouse.

Through this renovation, the buildings unique architectural features were preserved and four original windows and doorways were re-opened. The project was completed in February 2002 and its renovation was a motivator for the reuse of many of the other buildings. Its successful preservation of significant architectural features and adaptive reuse won it eight awards, including the National Preservation Award from the National Trust for Historic Preservation in 2005.

## Seaholm Power Plant

Austin, Texas / 1950-1958

**Original Use:** Power Plant

**Architects:** Burns & McDonnell Engineering Co. (original)

**Date Decommissioned:** 1996

**Context:** Urban / Waterfront

**Floor Area:** 110,000 sq. ft.

**Anticipated Use:** Mixed-use, Restaurants and retail space

**Re-opened:** 2011 (anticipated)

**Listing:** Not Listed

**Owner:** Private

### Relevance:

The Seaholm Power Plant sits on the bank of the Colorado River in downtown Austin, Texas. The building features a towering turbine room 110' by 235', with clerestory windows and five smokestacks. The power plant complex has been deemed eligible for the National Register.

It stopped functioning as a power plant in 1989 and in 1996 the citizens group, 'Friends of Seaholm', prevailed in a campaign to get the Austin City Council to direct the City owned Electric Utility to decommission the plant. This dedicated group of local citizens that saw promise in converting the obsolete power plant into a new public use was the driving force for its adaptive reuse.

In November 1999, City Council passed a resolution directing the City Manager "to make recommendations outlining next steps for decommissioning the Seaholm Power Plant and soliciting proposals for the reuse of the plant."

The Seaholm Redevelopment Team was chosen to handle the development in 2005 and is in the process of developing the 7.8-acre site to have a mixed use of office space, retail, condos, a boutique hotel, event

space, a terrace and one acre of open public park space adjacent to it will be created. This park will heavily emphasize and encourage pedestrian and bicycle traffic, further attracting visitors to the area.

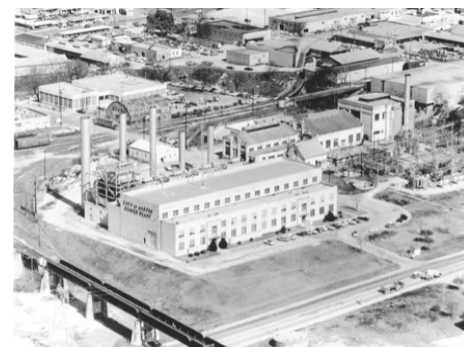
What is most relevant about this example is that the area of redevelopment is specifically planned around the power plant, highlighting it as an anchor for attracting residential and commercial tenants, visitors and overall attention to the space. The five original smokestacks and other key industrial features will be preserved and the large interior turbine hall will become mixed-use commercial and entertainment spaces.

The reuse project at the Seaholm Power Plant presents an informative case study because the driving force for adaptive reuse has been the general public, which resulted in the City Council's decommissioning of the plant, and the subsequent reuses were guided by community input.

**Top:** Shortly after construction c. 1952

**Center:** The large former turbine hall stands empty prior to renovation.

**Bottom:** Rendering of the future the mixed-use Seaholm site



SEAHOLM POWER, LLC



SEAHOLM POWER, LLC



SEAHOLM POWER, LLC



## The Wharf at Rivertown

Chester, PA / 1918

**Original Use:** Power Station for Delaware County Electric Co.

**Architects:** John T. Windrim (original); Hillier Architects (renovation)

**Date Decommissioned:** 1981

**Context:** Suburban / Waterfront

**Floor Area:** 396,000 sq. ft.

**Current Use:** Offices

**Re-opened:** 2005

**Owner:** Private

**Listing:** National Register (2005); HABS documentation

**Awards / Recognition:** Commonwealth Award issued by a statewide nonprofit (2006)

**Below:** The Wharf, shown here post-restoration, sits on the Delaware River



flickr.com/PODOLUX



BP GROUP

### Relevance:

The Chester Power Station generated electric power for a subsidiary of the Philadelphia Electric Company from its completion in 1918 to its retirement in 1981. It is located on the Delaware River.

Following decades of inactivity, it was sold to a private sector developer for adaptive reuse as a facility for corporate offices. The building re-opened in 2005 following a \$60 million reconstruction carried out by Preferred Real Estate Investments of Conshohocken, PA.

The large former turbine hall was partially retained intact to house a coffee bar and café. Hillier Architects, the designers, incorporated elements such as switch panels, transformers and water condensers into the design. The project won a 2006 Commonwealth Award issued by a statewide nonprofit organization in recognition of its contribution to "land use policies and actions that will enable Pennsylvania to strengthen its diverse urban, suburban and rural communities reduce sprawl." The city government has recognized the project for having brought more than 1,500 jobs to the community.

This is an excellent example of a reuse project that has restored and maintained the existing built fabric.

Extensive care was taken to preserve the important interior and exterior architectural features of the building during the conversion, and the building was subsequently listed on the National Register of Historic Places.

## Station B / Electra Condominiums

San Diego, CA / 1911

**Original Use:** Powerhouse for San Diego Electric Railway Company

**Architects:** Eugene Hoffman (original); Chris Dikeakos (renovation)

**Date Decommissioned:** 1980s

**Context:** Urban / Waterfront

**Floor Area:** 55,800 sq. ft.

**Current Use:** Residential

**Re-opened:** 2008

**Owner:** Private

**Listing:** City Landmark (1998)

### Relevance:

San Diego Electric Railway Company was a burgeoning streetcar company in 1911 when they commissioned the powerhouse. The powerhouse's site was selected for its proximity to existing railroad spurs that allowed for easy access to fuel. The powerhouse was also sited two blocks from the San Diego bay. The power plant was originally comprised of only two buildings designed in Classical Revival mode with grand arched windows to light the interior turbine gallery.

The building underwent subsequent additions in 1938, 1939, and 1941 after the San Diego Gas & Electric Company (SDG&E) bought the property. Upon the completion of the additions in 1941, the building occupied an entire city block measuring approximately 310' by 180'. The powerhouse would hereafter become known as "Station B."

By the 1980s technological innovations had rendered the powerhouse obsolete and SDG&E began weighing considerations for reuse of the building. In light of the desire to adaptively reuse the building, San Diego's preservation-minded citizens decided to landmark the building in 1998 with the hope of maintaining the character of the city's downtown. Maintaining an industrial air was considered important despite the

fact that the powerhouse's ten smokestacks had been removed as early as 1994.

The Bosa Development Company of Vancouver, British Columbia acquired the property with the intention of developing on the site a 42-story, 248-unit condominium project. To accomplish this within a landmarked building, everything from within the four outer walls was demolished leaving only the façade. The large original turbine hall was demolished but that volume of space, a signature powerhouse feature, was rebuilt as an approximation of the original.

This case study represents an example of powerhouse adaptive reuse and of façade-only preservation. But the key features of the IRT Powerhouse our group recommends for preservation form part of a whole, and single elements of the composition cannot be singled out for preservation. This plan's recommendations include the preservation of features such as the clerestory, original expansive turbine hall, and overall building profile, thereby precluding the kind of treatment Station B received.



ELECTRA CONDOS/BOSA DEVELOPMENT

**Above:** Station B c.1940 and the 1911 turbine Hall

**Below:** Renderings of the rebuilt turbine hall and current apartment complex with the power plant



ELECTRA CONDOS/BOSA DEVELOPMENT

## “Lessons Learned”

Analyzing these case studies indicates that there are many approaches that can be taken when preserving the historical and architectural fabric of Powerhouses and other industrial buildings.

While most of these case studies are “lessons learned” in reuse strategies, this plan does not suggest that reuse is necessary in order to preserve the former IRT Powerhouse. The “lessons learned” reflect the preservation guidelines which most intersected with the case studies. The plans additional preservation guidelines that are not heavily addressed in the case studies—restoration of lost features, establishing a maintenance program and guidelines for later additions—are aspects that represent best practices for the former IRT Powerhouse. The “lessons learned” are as follows:

- Key industrial and architectural features of the building can be reused and thereby preserved. Furthermore, seemingly disadvantageous elements such as the smokestack or internal elements like coal hoppers can be repurposed to the owner or tenants’ advantage.
- The vast open space of the turbine halls is a vital and desirable feature to maintain as part of the powerhouse identity and allow for great versatility in repurposing.
- Public access can effectively be incorporated into these buildings and their size and floor plates lend themselves well to commercial and entertainment uses. Even private repurposing, such as offices or residences, can incorporate publicly accessible spaces in lobbies or cafés.
- Redevelopment projects that purposefully include the buildings make the structures integral parts of the neighborhoods as they move forward—often preserving the buildings

context—and further creating a draw to that area. This process is directly related to this plans preservation guidelines regarding the preservation of the 58th/59th Street corridors and the Powerhouse’s neighborhood context in that these inclusive redevelopment projects prevented the structures from becoming ancillary. Enacting this practice with the Powerhouse would encourage development north and south to include the powerhouse, keeping corridors open and inviting to pedestrians. Case studies that took this approach also had a high correlation with community involvement. A powerful tool in the future of the Powerhouse is to get the neighborhoods of Midtown West and the Upper West Side as well as others to better realize the uniqueness of this building.

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### *A List of All Seventeen Selected Case Studies Considered*

- Battersea Power Station (UK)
- Bellefield Boiler Plant (Pittsburgh, PA)
- Casula Powerhouse (Liverpool, AUS)
- Chelsea Piers (NY, NY)
- Georgetown Power Plant (Seattle, WA)
- Grain Belt Brewery (Minneapolis, MN)
- Kingsbridge Armory (Bronx, NY)
- Lots Road Power Station (UK)
- Museo Central Montemartini (Rome, Italy)
- Museu da Electricidade (Lisbon, Portugal)
- The Power Plant (Baltimore MD)
- San Diego Consolidated Gas (San Diego, CA)
- Seaholm Power Plant (Austin, TX)
- Sydney Powerhouse Museum (Sydney, AUS)
- The Tate Modern (UK)
- Toronto Power Plant (Toronto, CAN)
- The Wharf at Rivertown (Chester, PA)



# Appendix B: Organization Profiles

The future of the former IRT Powerhouse and its surrounding neighborhood relies on a variety of companies and organizations who are interested in the powerhouse. Below are many of the groups that are directly and indirectly involved with the Powerhouse, as well as a list of those who support the designation of the building as a New York City landmark.

## CONSOLIDATED EDISON

Consolidated Edison, a subsidiary of Consolidated Edison, Inc., provides electric services to New York City and Westchester County as well as natural gas to Manhattan, the Bronx, Queens, and West Chester. ConEdison's steam system in Manhattan is the world's largest district steam system. Con Edison purchased the former IRT Powerhouse from the City of New York in 1959 to become a steam generating facility for the system. ConEdison was unresponsive to requests from students and faculty to participate in this studio.

Website: [www.coned.com](http://www.coned.com)

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## DURST ORGANIZATION

The Durst Organization is a real estate developer involved in residential and commercial buildings. The Durst Organization recently constructed a 39 story residential high rise building known as the Helena at

601 West 57th Street, directly south of the Powerhouse. The residential structure is an environmentally friendly building that uses energy conservation and water recycling techniques to provide its residents with a green building. The Durst Organization is interested in the development of the residential and commercial neighborhood.

Website: [www.durst.org](http://www.durst.org)

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## EXTELL DEVELOPMENT COMPANY

Extell Development is a large real estate development company in Manhattan. The company is involved in developing commercial and residential properties, including the Riverside South development occurring immediately north of former IRT Powerhouse. The company designed 10,000 new homes as well as retail and a 21 acre riverside park named Riverside Park South, most of which has been built. Parcels L, M, and N located immediately north of the former IRT Powerhouse are still undeveloped, which will become Extell's Riverside Center and will include residential, retail space, and restaurants.

Website: [www.extelldev.com](http://www.extelldev.com);  
[www.riverside-south.com](http://www.riverside-south.com)

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### THE HUDSON RIVER POWERHOUSE GROUP

The Hudson River Powerhouse Group is an organization concerned with the future of the former IRT Powerhouse formed by James Finn, Paul Kelterborn, and John Egnatios-Beene. The organization is involved in generating publicity for the building as well as advocating for a New York City Landmarks Designation. In April 2009 the Powerhouse Group submitted a formal request to the Landmarks Preservation Commission to designate the former IRT Powerhouse a New York City Landmark. The group runs the website [www.hudsonriverpowerhouse.com](http://www.hudsonriverpowerhouse.com) to garner community support for preserving the powerhouse.

Website: [www.hudsonriverpowerhouse.com](http://www.hudsonriverpowerhouse.com)

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### LANDMARKS PRESERVATION COMMISSION

The Landmarks Preservation Commission is involved in designating the city's landmarks as well as historic districts. Once a building is designated a landmark, eleven Commissioners regulate the alterations to designated structures. Among the goals of the LPC are to safeguard historic, cultural, and aesthetic heritage, foster civic pride in the past, and promote the use of landmarks for educational purposes in the community. The Powerhouse is scheduled for a July 14, 2009 public hearing.

Website: <http://www.nyc.gov/html/lpc/html/home/home.shtml>

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### MANHATTAN COMMUNITY BOARD 4

Community Board 4 represents the Clinton/Hell's Kitchen neighborhood stretching from West 14th to West 59th Street and from Sixth Avenue to the Hudson River up to West 26th Street and Eighth Avenue to the Hudson River from West 26th to West 59th Street. Community Board 4 is responsible for involving community members in governmental decisions that affect the community, such as land use, zoning, and

budgets. Community Board 4 supports the Landmark designation of the former IRT Powerhouse.

Website: [www.manhattancb4.org](http://www.manhattancb4.org)

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### MANHATTAN COMMUNITY BOARD 7

Community Board 7 represents the Upper West Side stretching from West 60th to West 110th Street and Central Park West to the Hudson River. Community Board 7, like Community Board 4, is responsible for involving community members in governmental decisions that affect the community, such as land use, zoning, and budgets. Community Board 7 supports the Landmark designation of the former IRT Powerhouse.

Website: <http://www.nyc.gov/html/mancb7/html/home/home.shtml>

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### NEW YORK CITY DEPARTMENT OF CITY PLANNING

The Department of City Planning is involved in land use and environmental review. In the vicinity of the former IRT Powerhouse, the Department of City Planning has been involved in rezoning the area to allow for residential and commercial development as well as reviewing Environmental Impact Statements for developments such as Riverside South and the Helena. The development of the area has been closely monitored to ensure that the needs of the community and proper land use are met.

Website: <http://www.nyc.gov/html/dcp/>

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### RIVERSIDE SOUTH PLANNING CORPORATION

RiversideSouthPlanningCorporation (RSPC) was created in 1991 as a result of concern from the community about the proposed developments on the West Side. The stretch of 75-acres of waterfront land ranging from 59th Street to 72nd Street and West End Avenue to the Hudson River was the former site of the Penn

Central rail yards that had been vacated in the 1980s. Development proposals for the area—“a city within a city”—outraged community and civic organizations that were in opposition of such a large-scale development. A coalition of civic organizations that included the Parks Council, Regional Plan Association, Riverside Park Fun, Natural Resources Defense Council and Westpride, led by the Municipal Arts Society, concluded that since development was unavoidable, an effort should be made to guide the project towards a more reasonable scale, density and neighborhood friendly result.

The coalition of civic organizations attended meetings with Mr. Trump, and he agreed to their alternative plan and joined the not-for-profit group, Riverside South Planning Corporation run by the president Paul Elston. Two major components of this plan were the reduction of square footage to 7.4 million and the construction of a 23 acre public waterfront park. Ultimately, the main objective of RSPC is to ensure that as development of Riverside South continues, developers abide by the set of guidelines outlined in the Restrictive Declaration, a document compiled by RSPC with input from other organizations and agreed to by Trump. All obligations of the Declaration are transferred to subsequent owners of the property—Hudson Waterfront and currently Extell Development.

Website: [www.riverside-south.org](http://www.riverside-south.org)

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the National Historic Preservation Act of 1966 under Executive Order 11593; however, no federal funding has, to date, been used in the project.

Website: <http://nysparks.state.ny.us/shpo/>

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Organizations that support the designation of the Powerhouse as a New York City landmark:

1. The Beaux Arts Alliance
2. City Council member Gail Brewer
3. Community Board 4
4. Community Board 7
5. Friends of the High Line
6. The Historic Districts Council
7. Hudson River Powerhouse Group
8. Landmark West!
9. The Municipal Art Society
10. The New York Landmarks Conservancy
11. The Riverside South Planning Corporation
12. New York State Senator Tom Duane
13. Society for the Industrial Archaeology (Roebbling Chapter)

## STATE HISTORIC PRESERVATION OFFICE

The priorities of the New York State Historic Preservation Office are to “help communities identify, evaluate, preserve, and revitalize their historic, archeological, and cultural resources.” Dividing the state into districts on the basis of counties, the State Historic Preservation Office is better equipped to provide for the state’s preservation needs. The State Historic Preservation Office acknowledges the former IRT Powerhouse and the Amsterdam Houses as eligible for the State and National Historic Registers. Having been determined eligible, the former IRT Powerhouse and the Amsterdam Houses benefit from protection under Section 106 of



View north toward IRT powerhouse  
from West 55th Street, May 8, 1935.



NYPL / PL. SPERR

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