# MASTER PLAN SUMMARY

Chapter 1

*The MTA's John D. Caemmerer West Side Yard and the block located south of the Convention Center comprise the largest site available for development in Midtown Manhattan. The yard , completed in 1987, was built to store and maintain commuter rail cars, but it was designed to accommodate air rights development. This thirty acre, publicly-owned site presents a unique opportunity to plan comprehensively for the creation of a new neighborhood. A successfully planned and implemented project can achieve a broad range of public benefits including new housing, parks and waterfront recreation, transit to serve the Convention Center, support uses to enhance the Convention Center's marketability, and office space to accommodate large employers who require unobstructed development sites. Revenues that result from development can provide a significant ongoing contribution to the MTA capital program.*

## INTRODUCTION

The MTA's John D. Caemmerer West Side Yard and the block south of the Convention Center comprise a thirty acre site located on the Hudson River west of Pennsylvania Station. This large site presents a unique opportunity for the public to plan comprehensively for the development of a new urban neighborhood. The MTA commissioned the preparation of a master plan in order to assess a broad range of planning issues related to the site's development.

Completion of the West Side Yard in 1987 by the Long Island Rail Road, an operating unit of the MTA, eliminated the need to send empty trains back through the East River tunnels. This has enabled the LIRR to begin a series of major service improvements. While development above the rail yard was anticipated when the track layout was designed, the initial impetus for the master plan grew out of a proposal to relocate Madison Square Garden on this site. A key objective and challenge of that planning effort was to determine how a new arena complex could be successfully integrated in a mixed use development while balancing a range of other public goals. Although the owners of Madison Square Garden decided to renovate the existing structure rather than move, a solid technical basis for future planning was established. It is from that foundation that the current plan was developed.

This master plan report is a synthesis of the work prepared to date and incorporates analyses in the areas of urban design, transportation, market/economics, and engineering. Consultants in each of these disciplines identified key issues, opportunities and constraints, and formulated development principles which guided the generation of the master plan. All considerations were reviewed within the constraints imposed by building over the recently completed Long Island Rail Road Yard.

This master plan is intended to establish a framework for public discussion which can contribute to the plan's ultimate form. The final plan will become the basis for analysis in an Environmental Impact Statement (EIS) which is a prerequisite to the public approval process.

The master plan also provides a structure for the process of soliciting proposals from private developers who will construct the project components. The master plan offers the opportunity to define public benefits prior to developer solicitations. Included among the benefits that development of the site can provide are new housing, new parks and waterfront recreation, transit to serve the Convention Center, support uses to enhance the Convention Center's marketability, and office space to accommodate large employers who require unobstructed development sites. A successfully planned and implemented project will also significantly contribute to the MTA's capital program.

This chapter summarizes the selected master plan. The remainder of the master plan report consists of six technical summaries: Urban Design and Planning Framework, Transportation, Market, Engineering, Development Principles and Master Plan Technical Description.

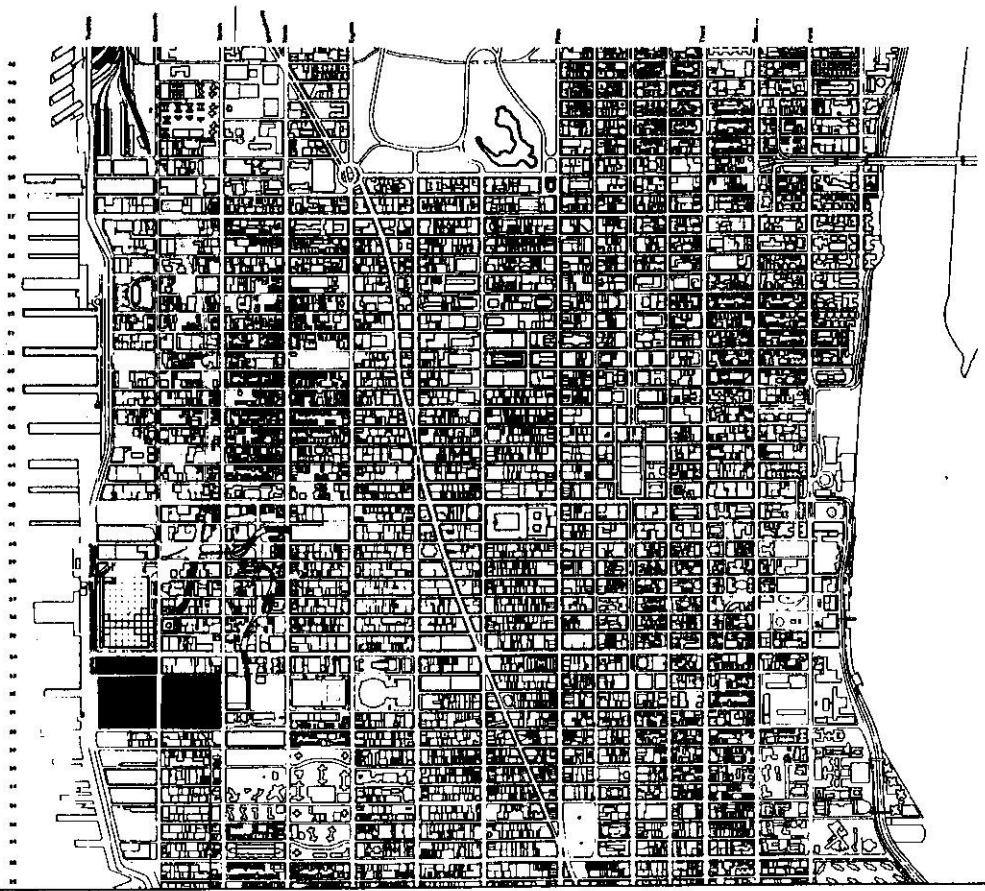
# SITE LOCATION

The Caemmerer West Side Yard is bounded by West 30th and West 33rd Streets, Tenth and Twelfth Avenues on Manhattan's West Side as shown on the "Site Location" map. Site A is between Eleventh and Twelfth Avenues and Site B is between Tenth and Eleventh Avenues. The vacant block owned by the Convention Center (Site C) bounded by West 33rd and West 34th Streets, Eleventh and Twelfth Avenues, is incorporated within the site for purposes of this plan.

The entire site occupies the equivalent of seven city blocks (thirty acres) and lies within a broadly defined industrial area located just outside the City's established Midtown office core, south of 34th Street and adjacent to the Hudson River.

Directly to the north of the site is the Jacob K. Javits Convention Center; to the northeast, the Garment District; to the east, Pennsylvania Station; to the southeast, the Chelsea residential community; to the south, vacant lots and industrial uses; and to the west, the Hudson River.

The LIRR Caemmerer West Side Yard is a storage and maintenance complex for the Long Island Rail Road's electric commuter car fleet, with thirty storage tracks, and miscellaneous support facilities such as maintenance shops, power substations and control facilities. The completion of the Yard has enabled LIRR to begin a series of major service improvements such as extension of electrification along the main line to Ronkonkoma. Site C, the Convention Center block, contains construction trailers and truck marshalling functions.



MASTER PLAN
CAEMMERER WEST SIDE YARD
New York, New York

Site Location

METROPOLITAN TRANSPORTATION AUTHORITY

# MASTER PLAN DESCRIPTION

### *Land Use*

The site plan for the seven-block development consists of a clearly organized mix of uses. The Twelfth Avenue frontage, with views of the Hudson River, is a residential community of 3,600 dwelling units. The office core and ancillary retail (a total of 8,300,000 square feet) are on Tenth and Eleventh Avenues. A 718-room convention hotel is proposed for the corner of 34th Street and Eleventh Avenue, adjacent to the Convention Center. Parking for 2,900 cars is located on the perimeter of the site, primarily on 30th Street between Tenth and Twelfth Avenues and on 34th Street.

A key planning challenge was locating the mix of uses so that they enhance each other and contribute positively to the overall plan. Successfully establishing a diversity of uses - residential, office, hotel and retail - will create an asset for New York City: a new cosmopolitan urban environment. The diversity will also improve the market absorption of the project's components. However, judging the site's ability to function successfully within the neighborhood will ultimately depend on more detailed traffic, transportation and pedestrian studies. These studies may show that the long term viability of the site depends on improved mass transit.

### *Open Space*

Open space is an organizing element of the site plan. The office park on Eleventh Avenue (197.5 feet x 400 feet) forms a focal point for the seven office towers much like the plaza creates a sense of place at Rockefeller Center. The office park, which is half the size of Bryant Park, creates a relationship to the Convention Center by mirroring its plaza. The office buildings on Eleventh Avenue are set back ten feet from the property line, creating twenty-five foot wide sidewalks. The sidewalk widening and arcades in the base of the hotel and along the perimeter of the office park provide pedestrian orientation. These streetscape improvements link the major Eleventh Avenue uses, including the office buildings and the Javits Convention Center, to a proposed transit system.

West 32nd Street is introduced into the superblock between Tenth and Eleventh Avenues as an 80 foot wide two-way street with eighteen foot wide sidewalks. West of the office towers via this new, retail-lined 32nd Street, is a two-acre residential park (235 feet x 350 feet). Similarly to Rector Park at Battery Park City, it creates a recognizable identity for the new residential community while encouraging public access to the platform level promenade facing the Hudson River. The promenade is seventy feet wide: fifty feet within the property line and twenty feet as a cantilever over the sidewalk below. It is 970 feet long (four blocks). Off the residential park and the promenade are additional secondary residential courtyards. The northern courtyard is built over a portion of 33rd Street. The promenade is connected to a waterfront park by a bridge over Twelfth Avenue and sidewalk crossings at 30th and 34th Streets.

A retail court building on Tenth Avenue and 33rd Street acts as a gateway to the development providing the closest access point to Pennsylvania Station and the existing subways.

### *Streets and Building Form*

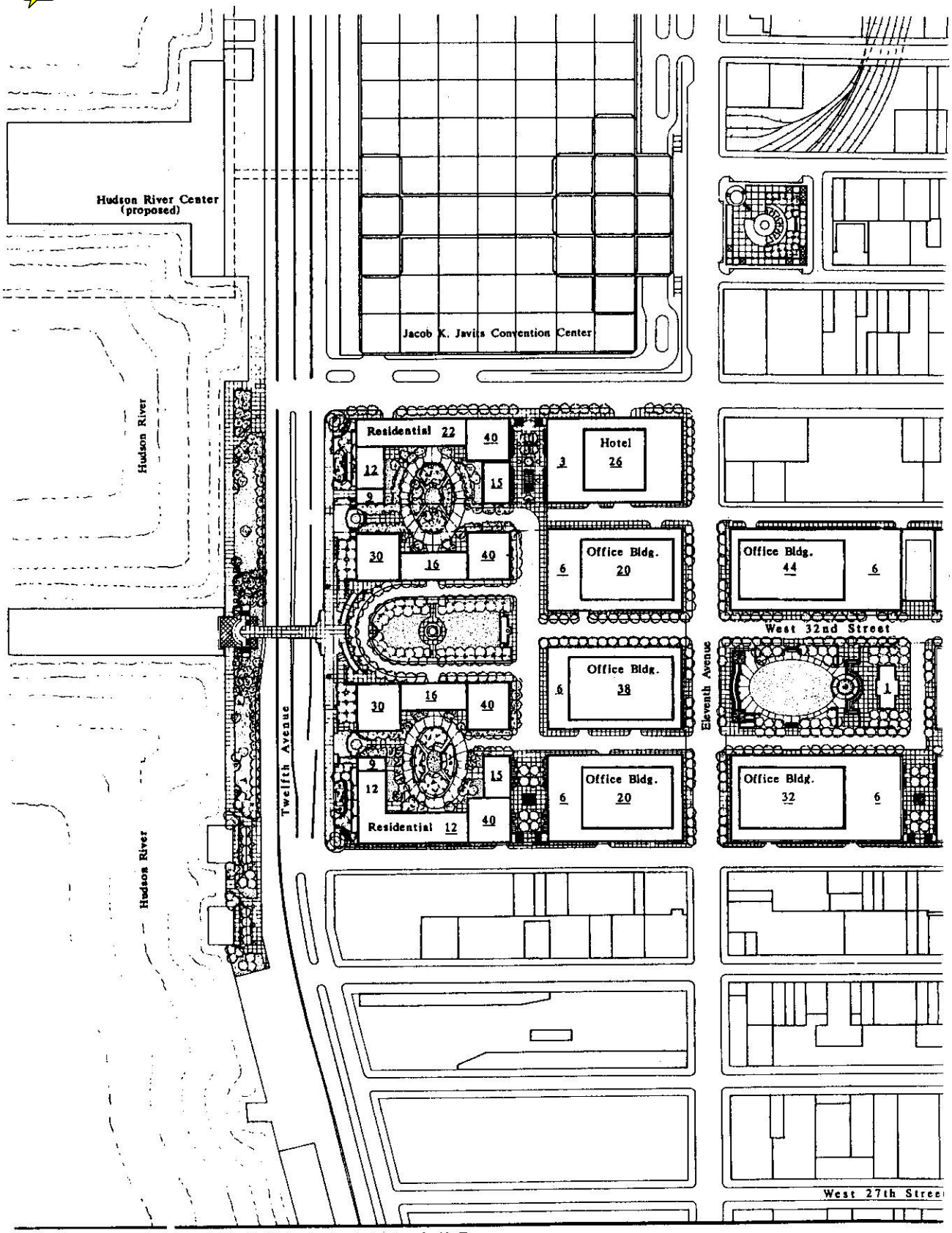
The traditional New York street grid is introduced into the site along Eleventh Avenue and partly along Tenth Avenue, where clearances above the tracks are adequate to permit streets to penetrate the site. The resulting block frontages establish a familiar context and scale for the new development.

Building massing is sensitive to its waterfront location and to the need to make a transition between the commercial core and the residential area. The commercial core relates in scale and use to the emerging 34th Street/Pennsylvania Station development corridor. The seven office towers consist of four taller buildings adjacent to the office park and three lower ones flanking the higher towers. Each building consists of a tower above a larger six story base. The residential buildings step down in height from 34th Street to the south and from the commercial core at Eleventh Avenue toward the waterfront, with six point towers. The hotel tower relates to the Convention Center by setting back above its base.

The residential buildings are based on the full block Upper West Side apartment buildings but provide larger interior courtyards (approximately 235 feet x 220 feet). By expanding the configuration to extend a block and a half, more light and air enter the courtyards. Enlarging the courtyards also makes them more publicly accessible while retaining the sense of being a neighborhood space. The residential building forms follow the traditional New York City relationship in which building walls define public areas. The buildings here also establish view corridors on 31st, 32nd, and 33rd Streets.

The Eleventh Avenue streetscape will be experienced as a broad boulevard. Framed by the six story bases of the office towers, generous twenty-five-foot sidewalks with a row of trees will extend the sense of a civic boulevard south from the Convention Center.

A newly created West 32nd Street, which would be twenty feet wider than a typical crosstown street, establishes a strong east-west axis through the site. A truss structure spanning the rail yard's lead tracks would enable 32nd Street to connect to Tenth Avenue. The office park, located off this axis, creates a new center for the office buildings. West 32nd Street terminates on the residential park and promenade.



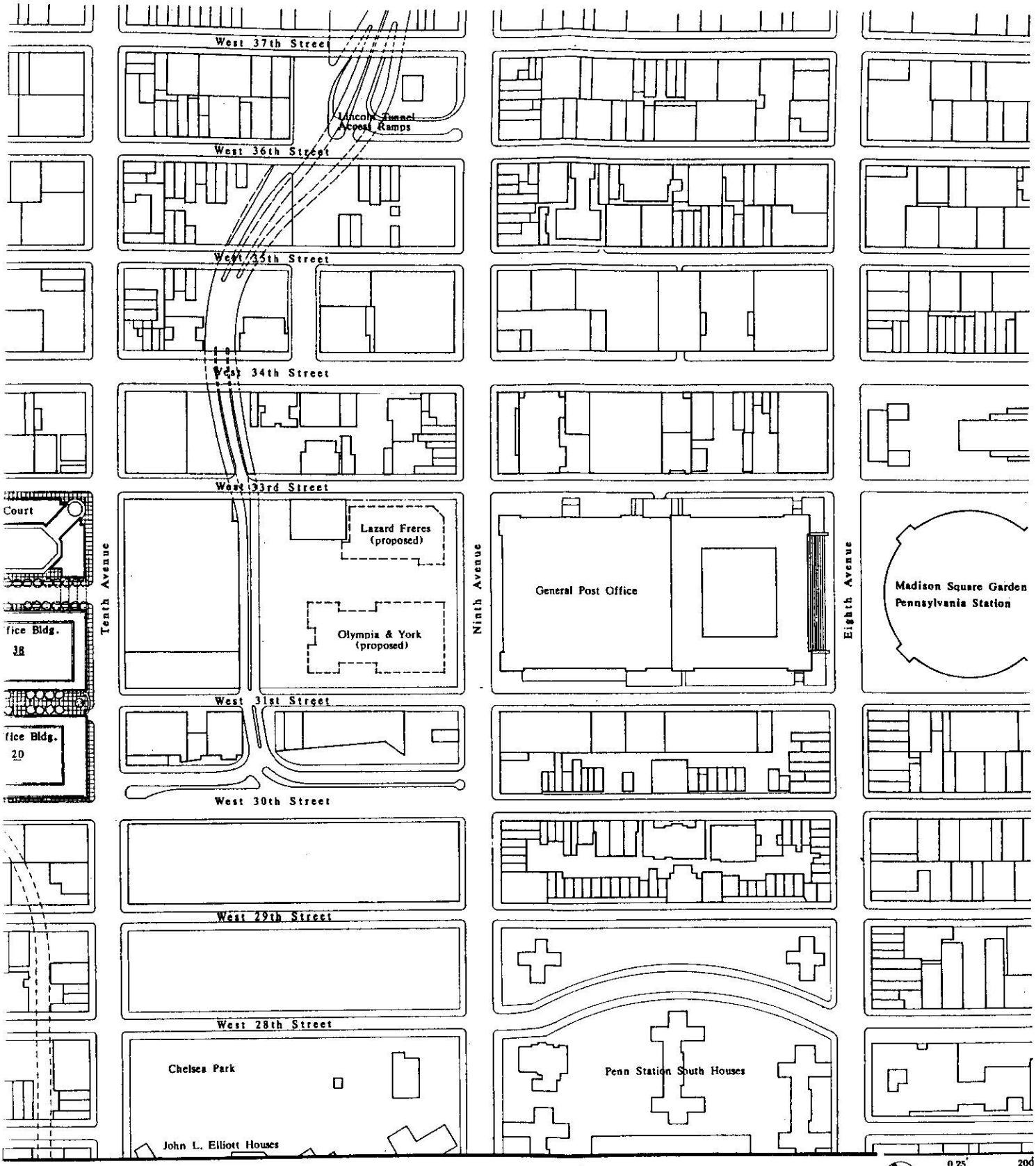

# MASTER PLAN

## CAEMMERER WEST SIDE YARD

New York , New York

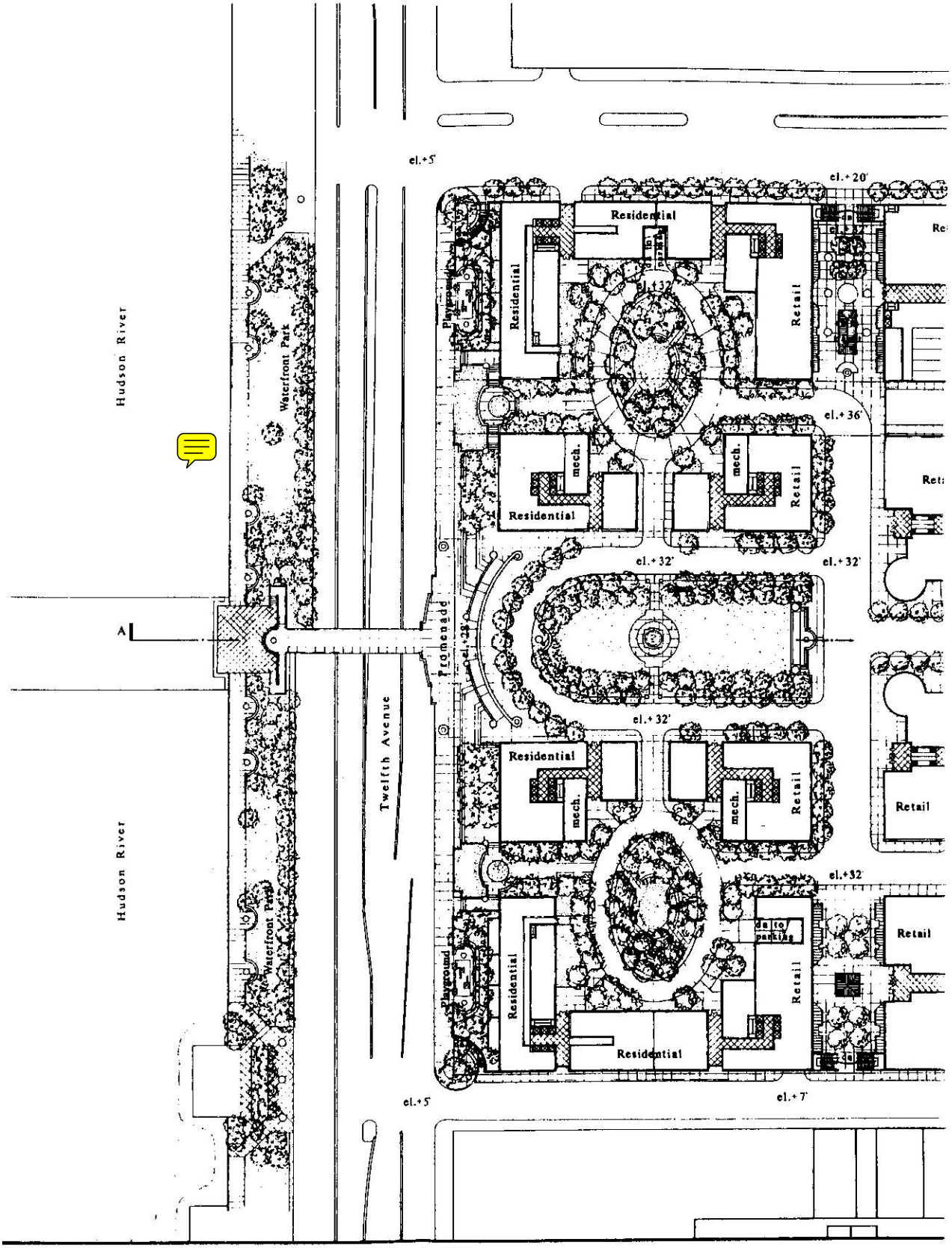
## METROPOLITAN TRANSPORTATION AUTHORITY


Beyer Blinder Belle
Architects & Planners
STV/Seelye Stevenson Value & Knecht
Engineers
CA Partners Incorporated
Rail Consultants
Eng-Wong, Taub & Associates
Transportation Consultants
M. Paul Friedberg & Partners
Landscape Architects




# Site Plan

1" = 100'-0"
July 1, 1989
963.03




Beyer Blinder Belle
Architects & Planners

STV/Seelye Stevenson Value & Knecht
Engineers

CA Partners Incorporated
Market Consultants

Eng-Wong, Taub & Associates
Transportation Consultants

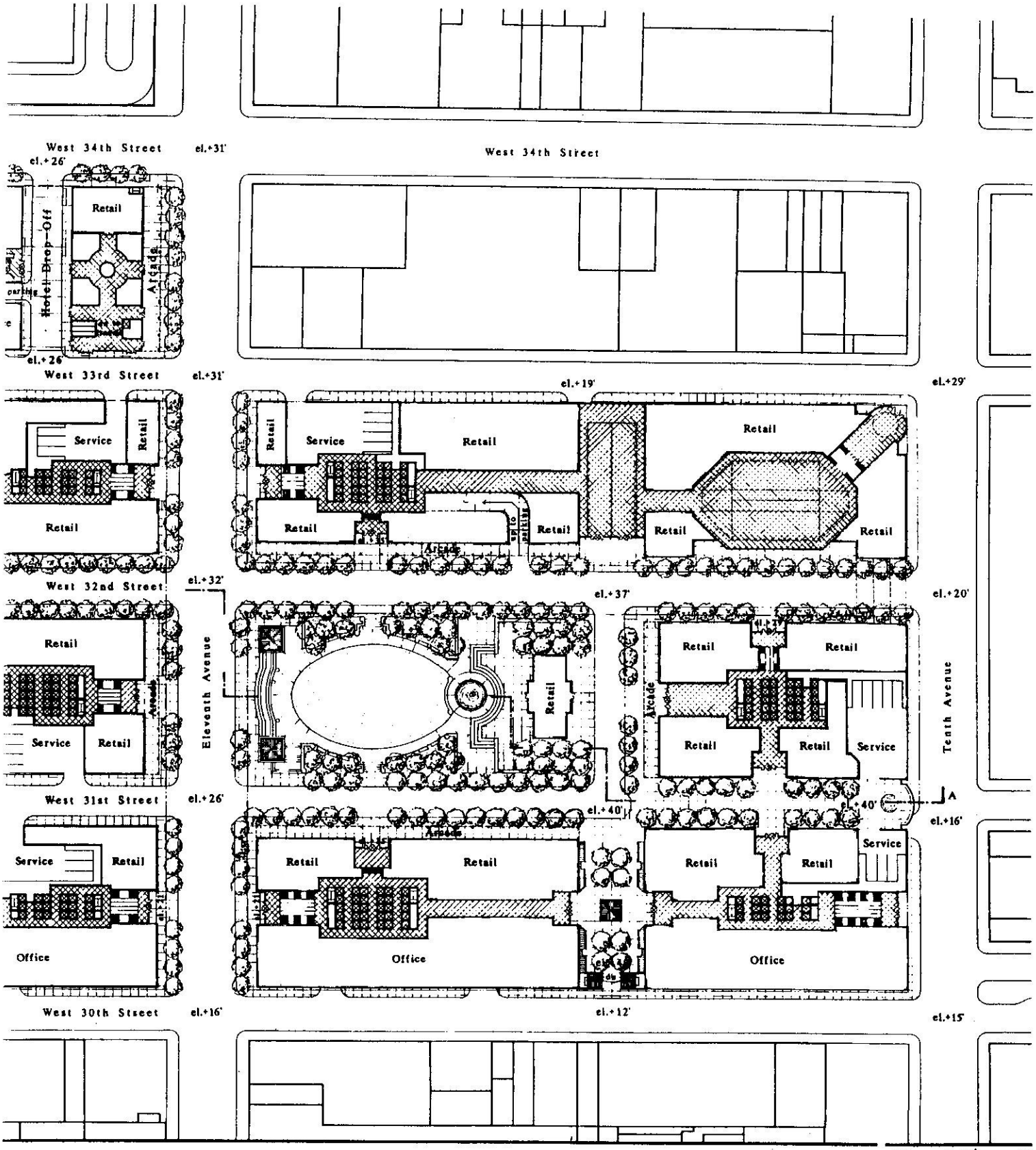
M. Paul Friedberg & Partners
Landscape Architects

# MASTER PLAN

## CAEMMERER WEST SIDE YARD

New York , New York

METROPOLITAN TRANSPORTATION AUTHORITY




# Street Level Plan

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50'

1" = 50'-0"
July 1, 1989
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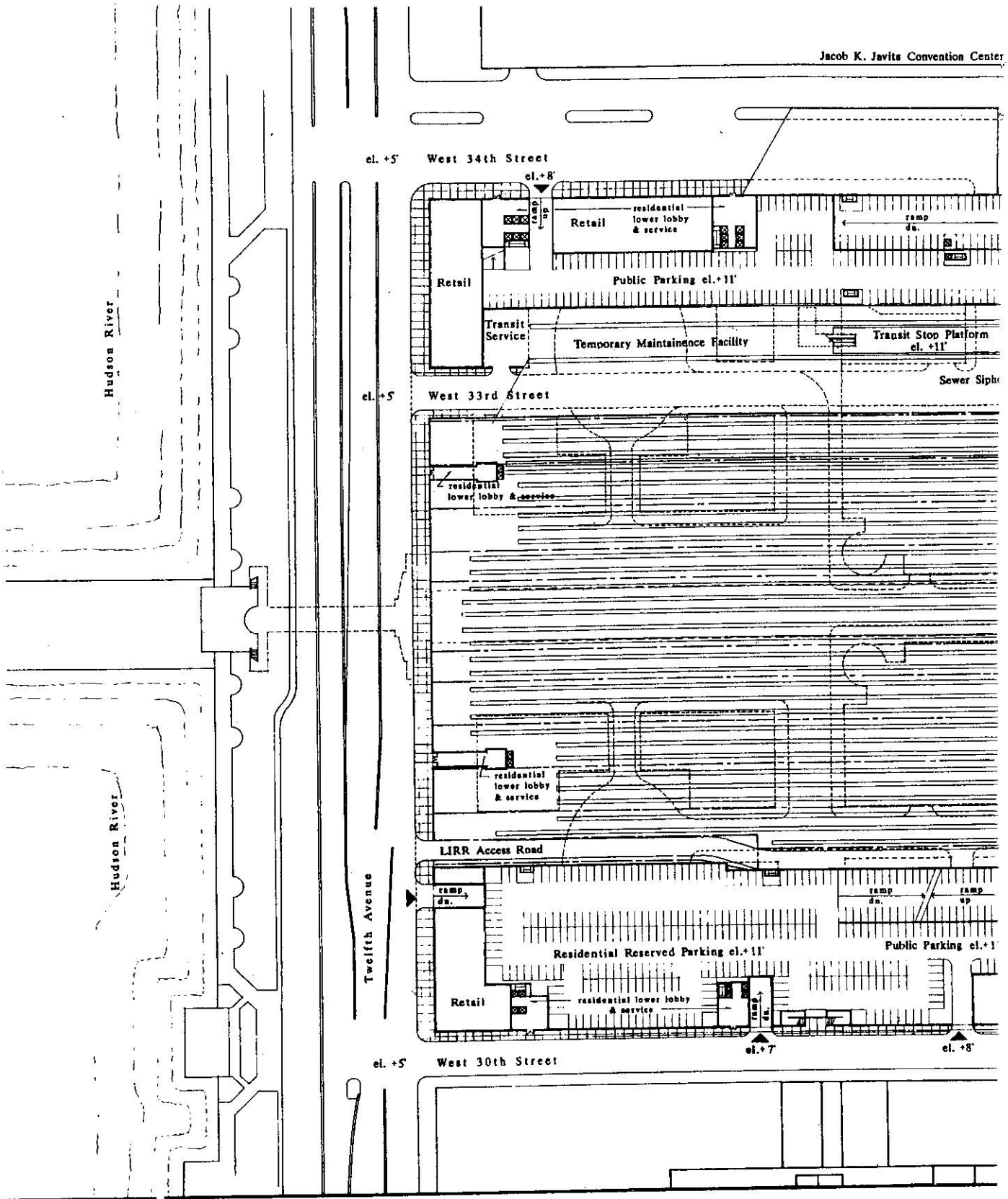



Beyer Blinder Belle
Architects & Planners

STV/Sverdrup Stevenson Value & Knecht
Engineers

GA Partners Incorporated
Market Consultants

Eng-Wong, Taub & Associates
Transportation Consultants

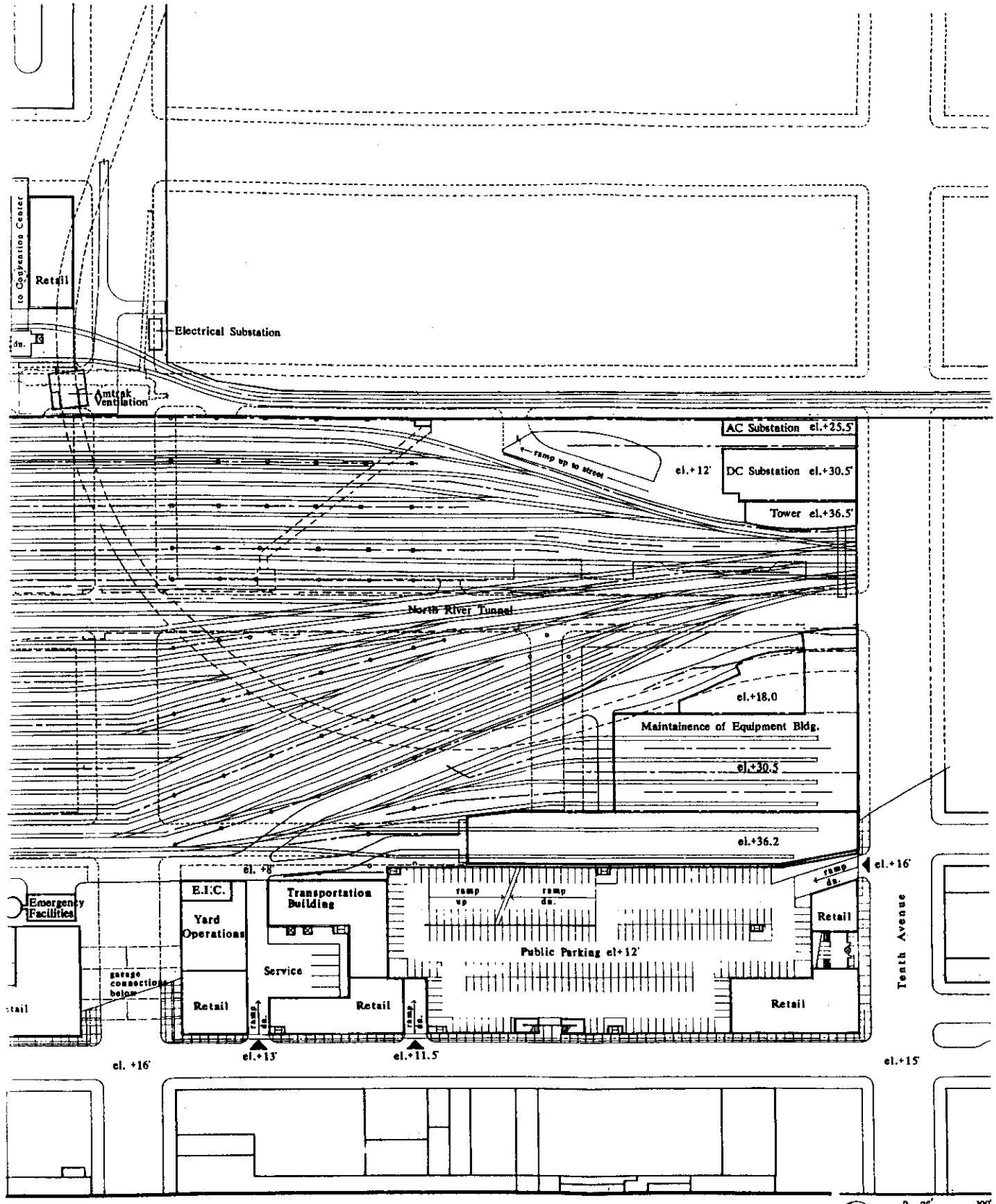
M. Paul Friedberg & Partners
Landscape Architects

# MASTER PLAN

## CAEMMERER WEST SIDE YARD

New York , New York

METROPOLITAN TRANSPORTATION AUTHORITY

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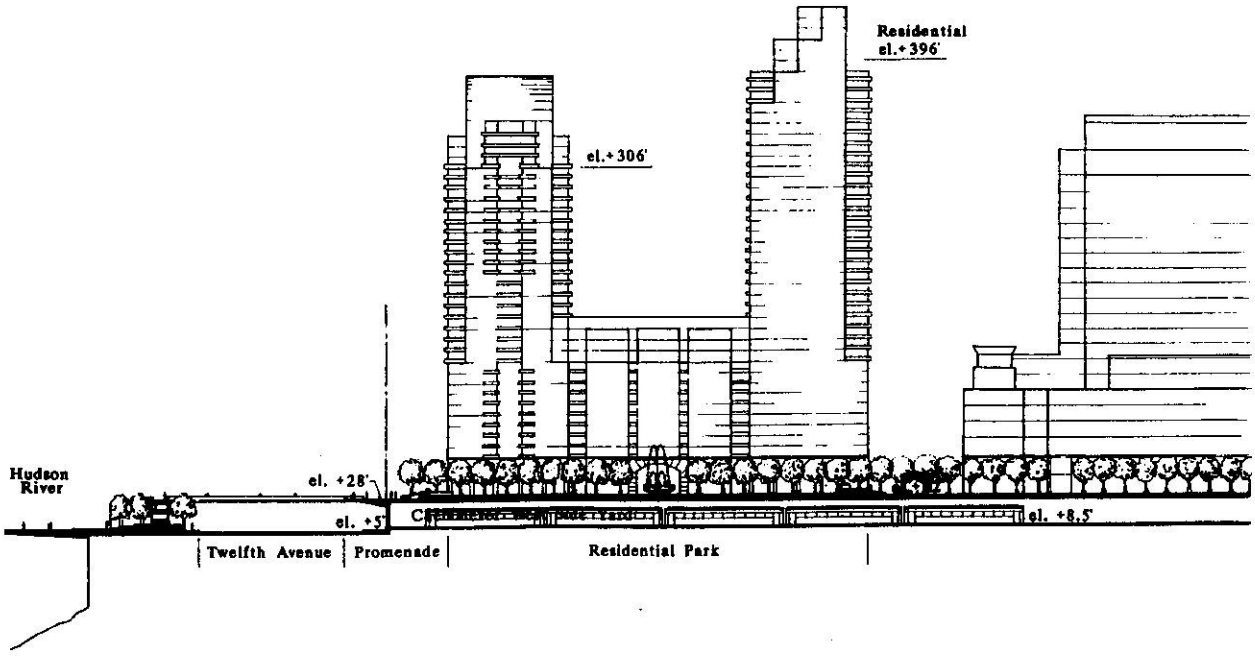
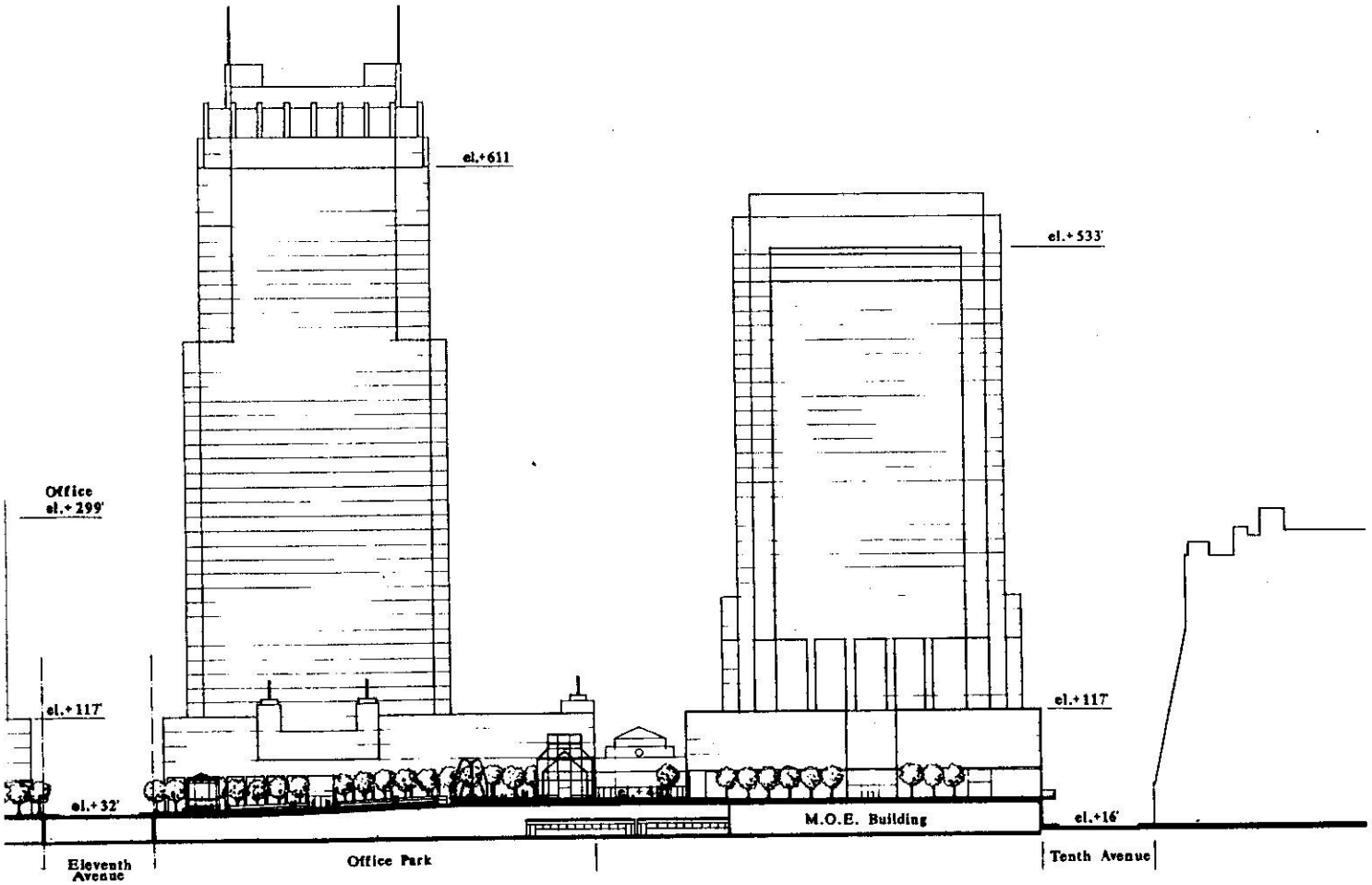



Beyer
Blinder
Belle
Architects & Planners
STV/Seelye Stevenson Value & Knecht
Engineers
GA Partners Incorporated
Economic Consultants
Eng-Wong, Taub & Associates
Structural Engineers
M. Paul Friedberg & Partners
Landscape Architects

# MASTER PLAN
## CAEMMERER WEST SIDE YARD
New York , New York

METROPOLITAN TRANSPORTATION AUTHORITY




# Section A-A

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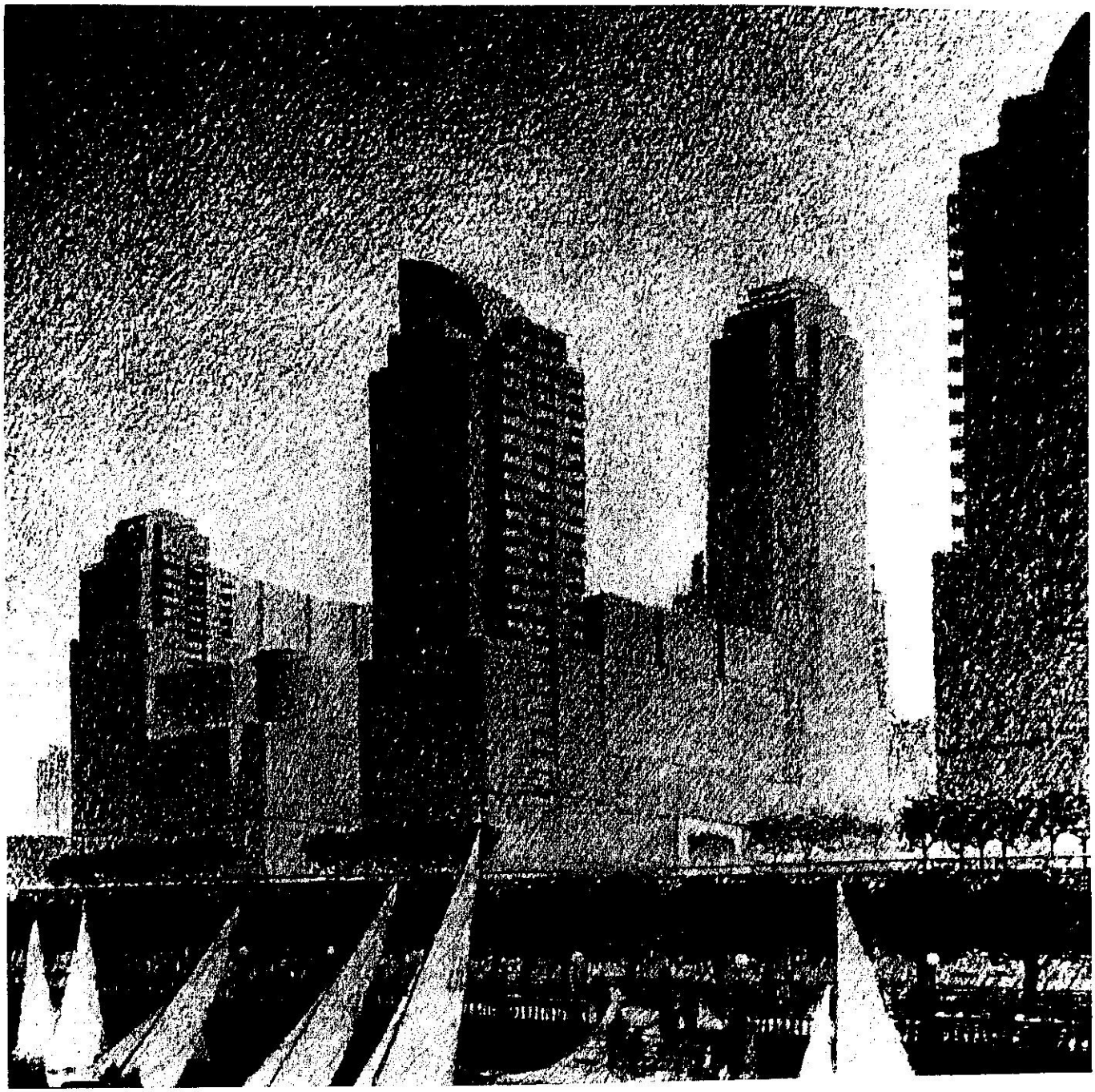
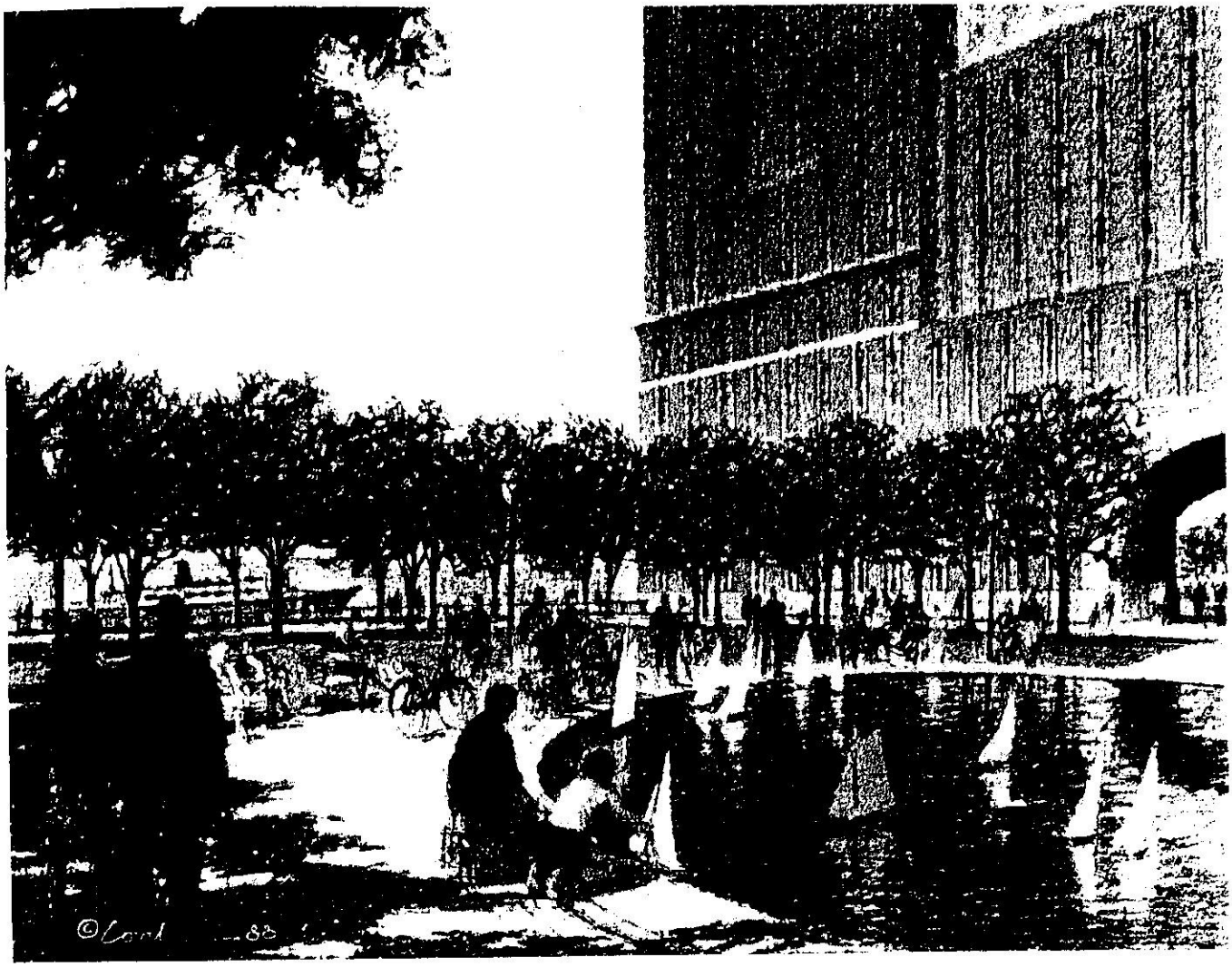
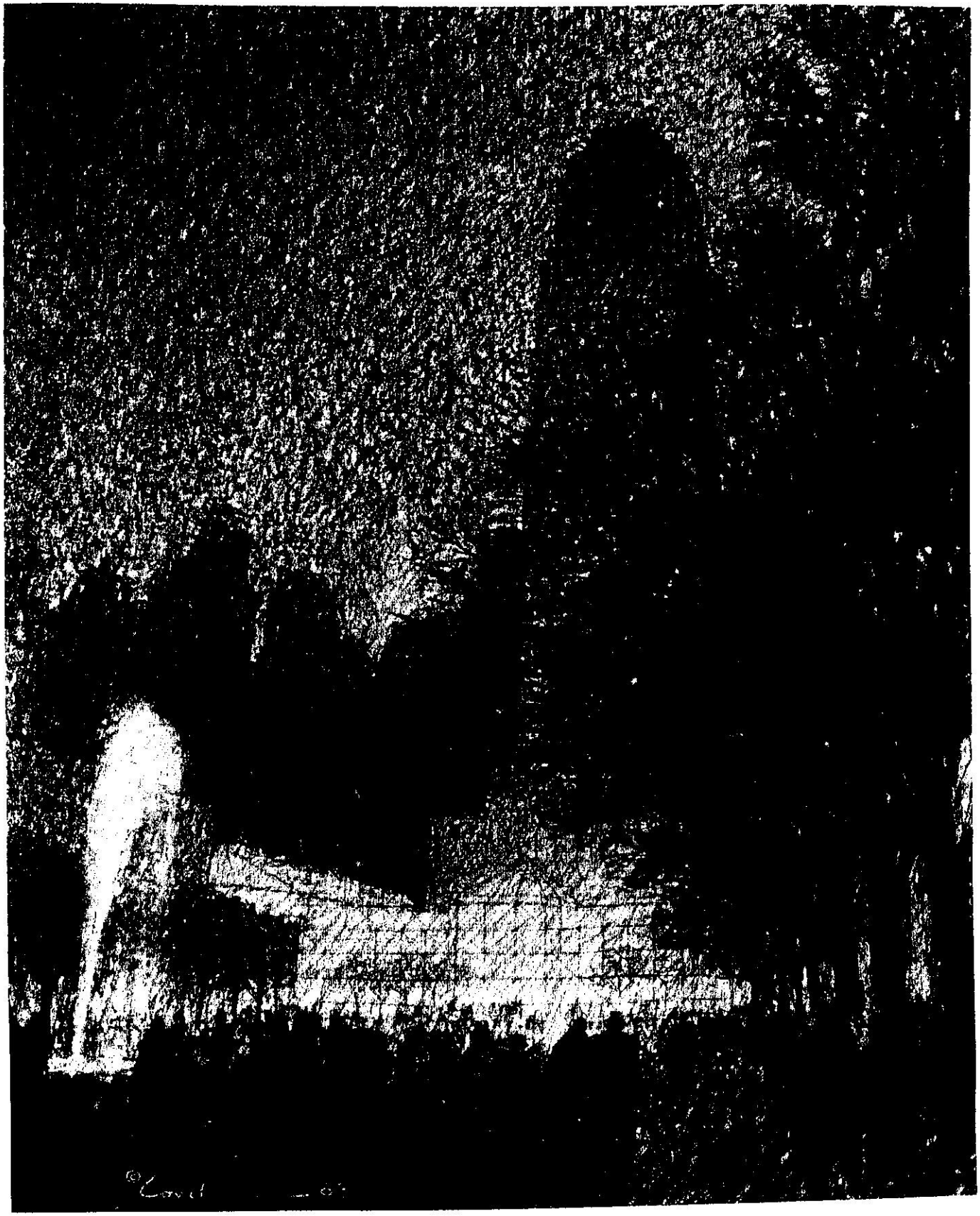


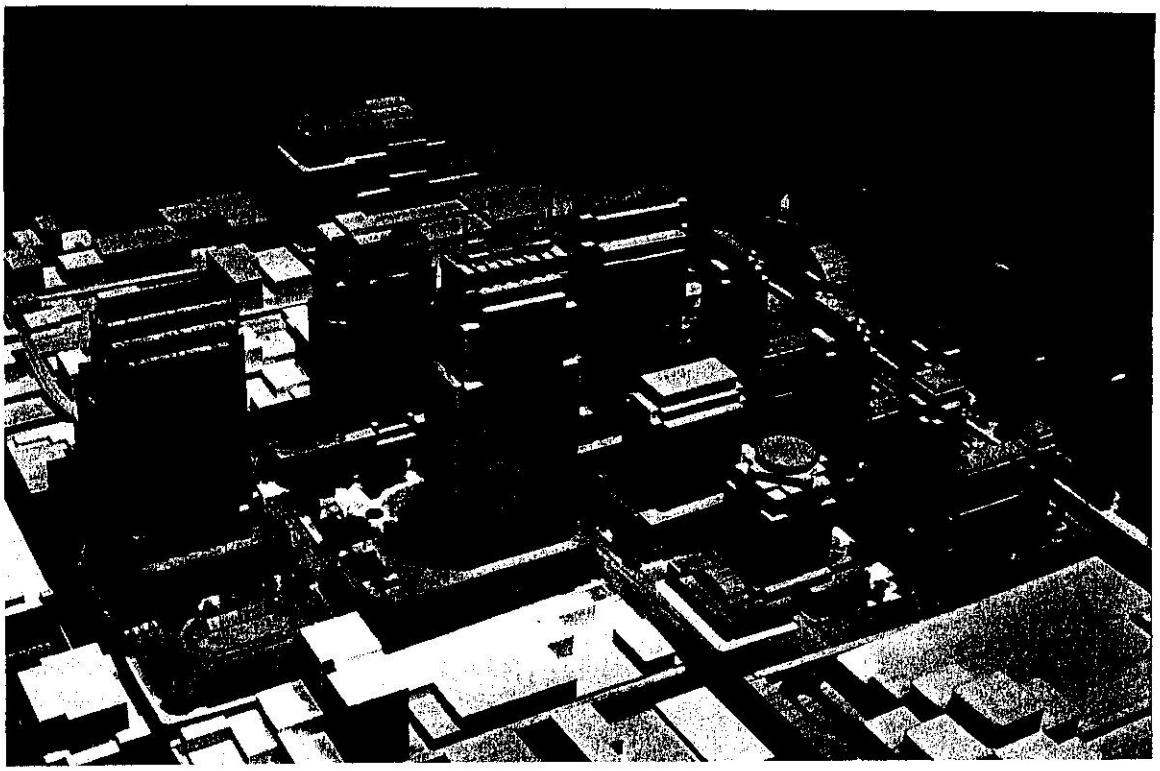
View of the residential buildings from the Hudson River looking northeast.



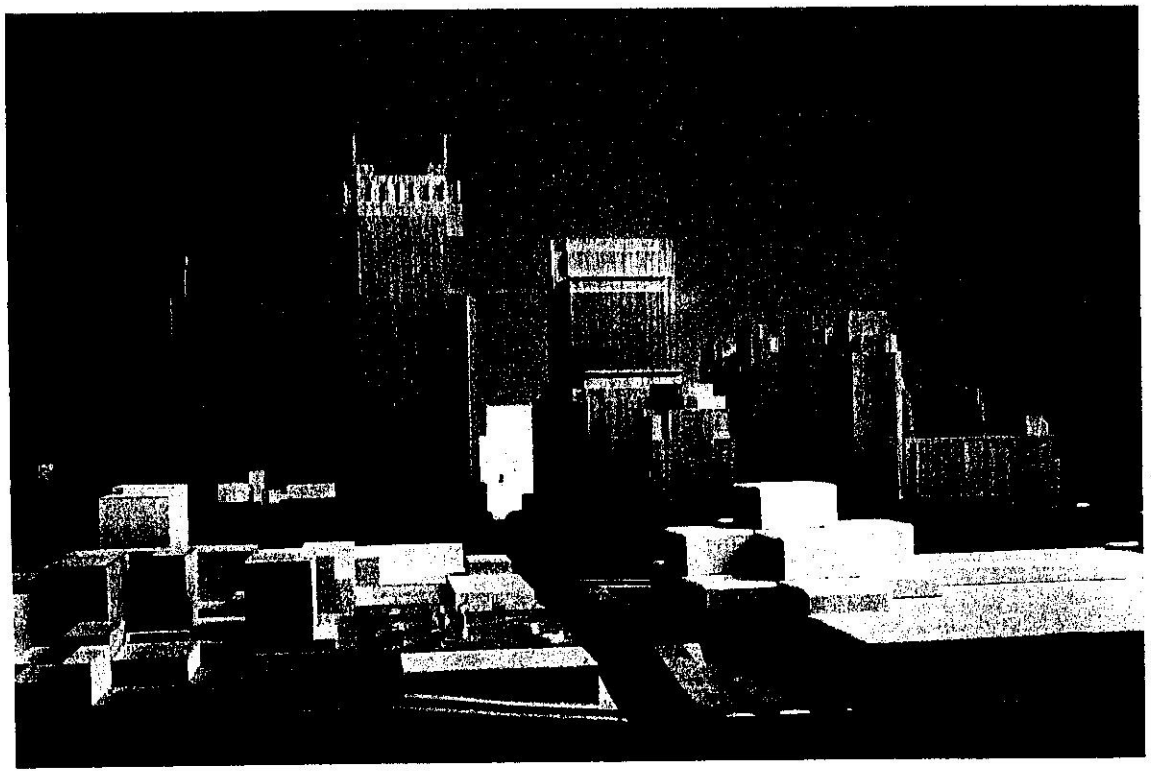
View of the residential park looking toward the Hudson River.



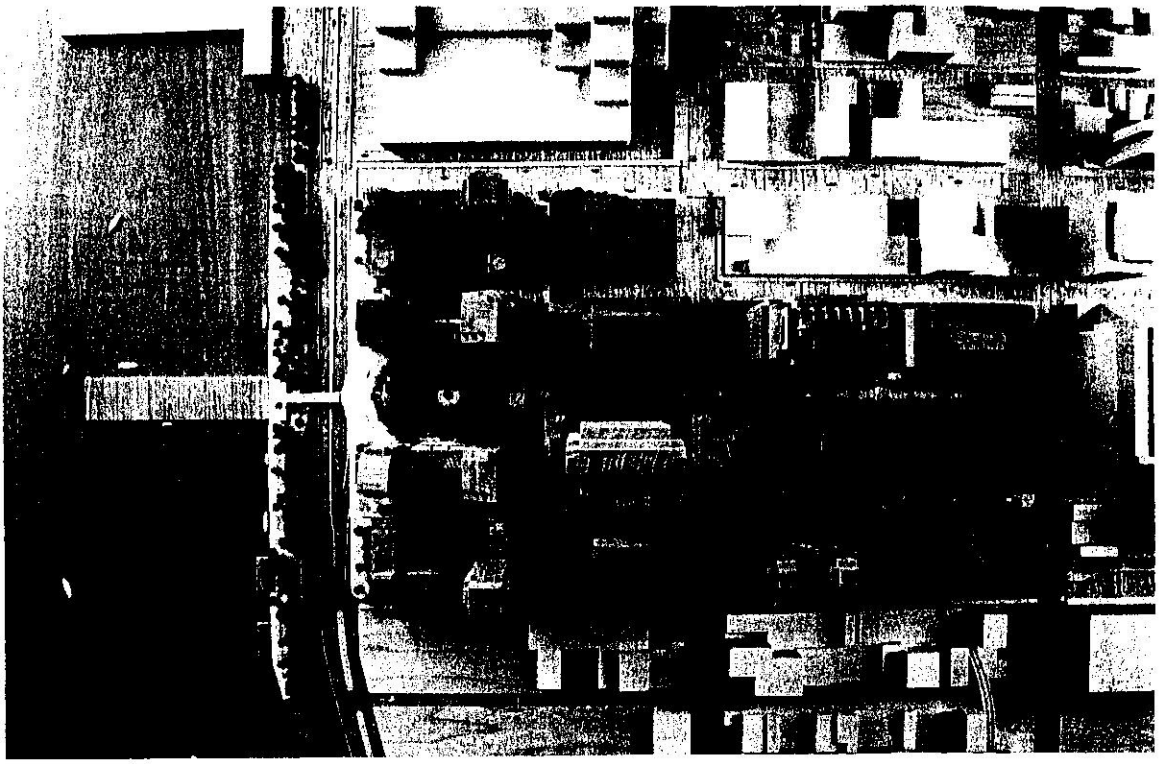
View of the office park and office building from Eleventh Avenue looking northeast.



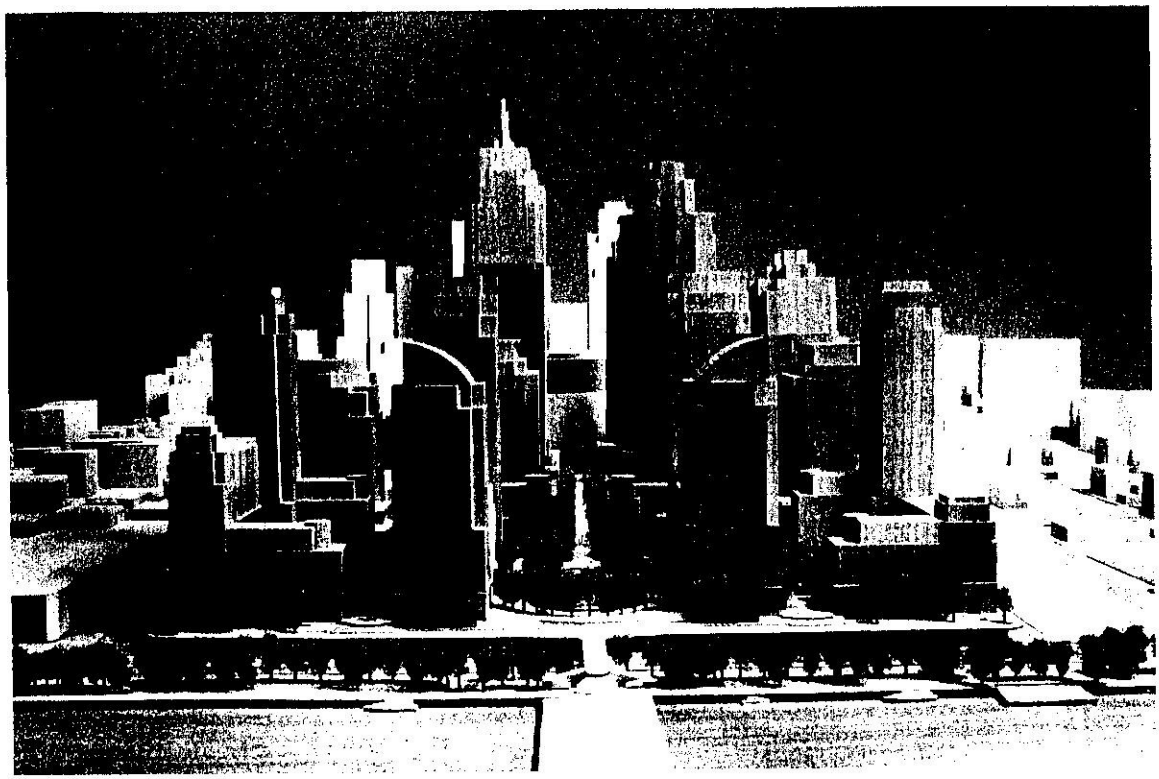
Photograph of model: aerial view from Midtown looking southwest.



Photograph of model: view of Eleventh Avenue looking south.



Photograph of model: site plan.

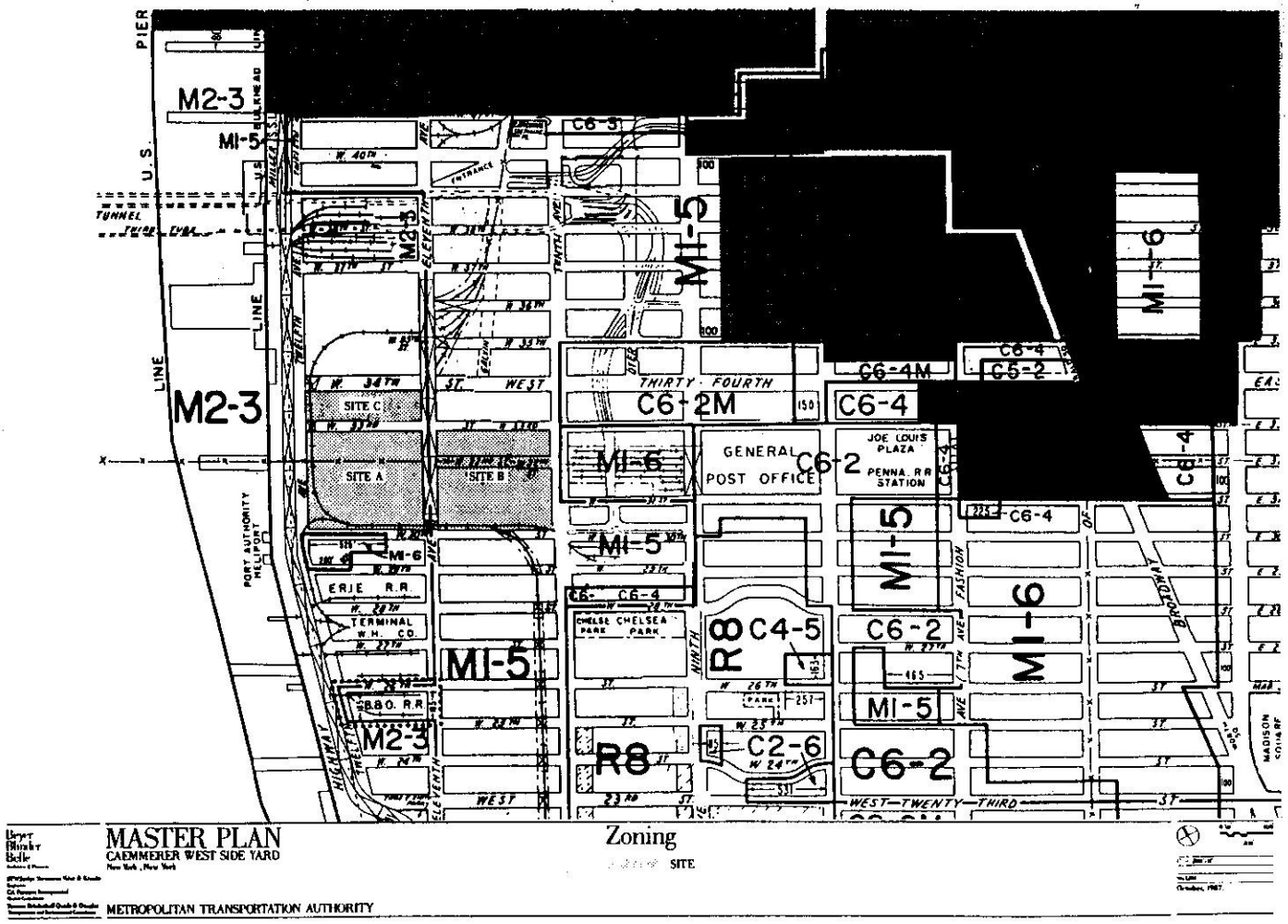


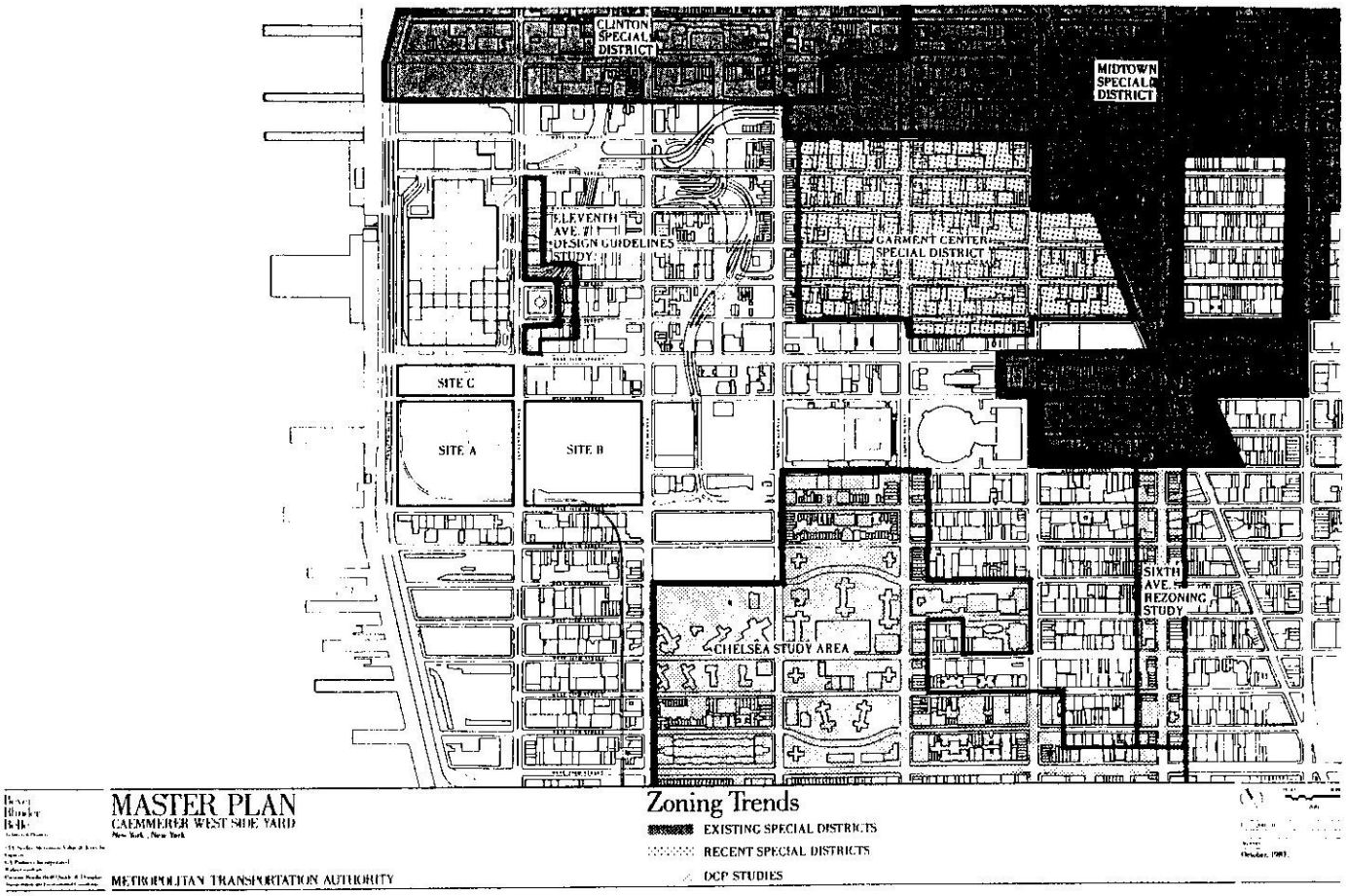
Photograph of model: view from the Hudson River looking east.

# URBAN DESIGN and PLANNING FRAMEWORK

Chapter 2

*This chapter provides a review of the urban design and planning framework for the West Side Yard study area and the site. This analysis, in conjuction with the other technical disciplines discussed below, formed the basis for development principles which guided the generation of the master plan proposal .*






# AREA ANALYSIS

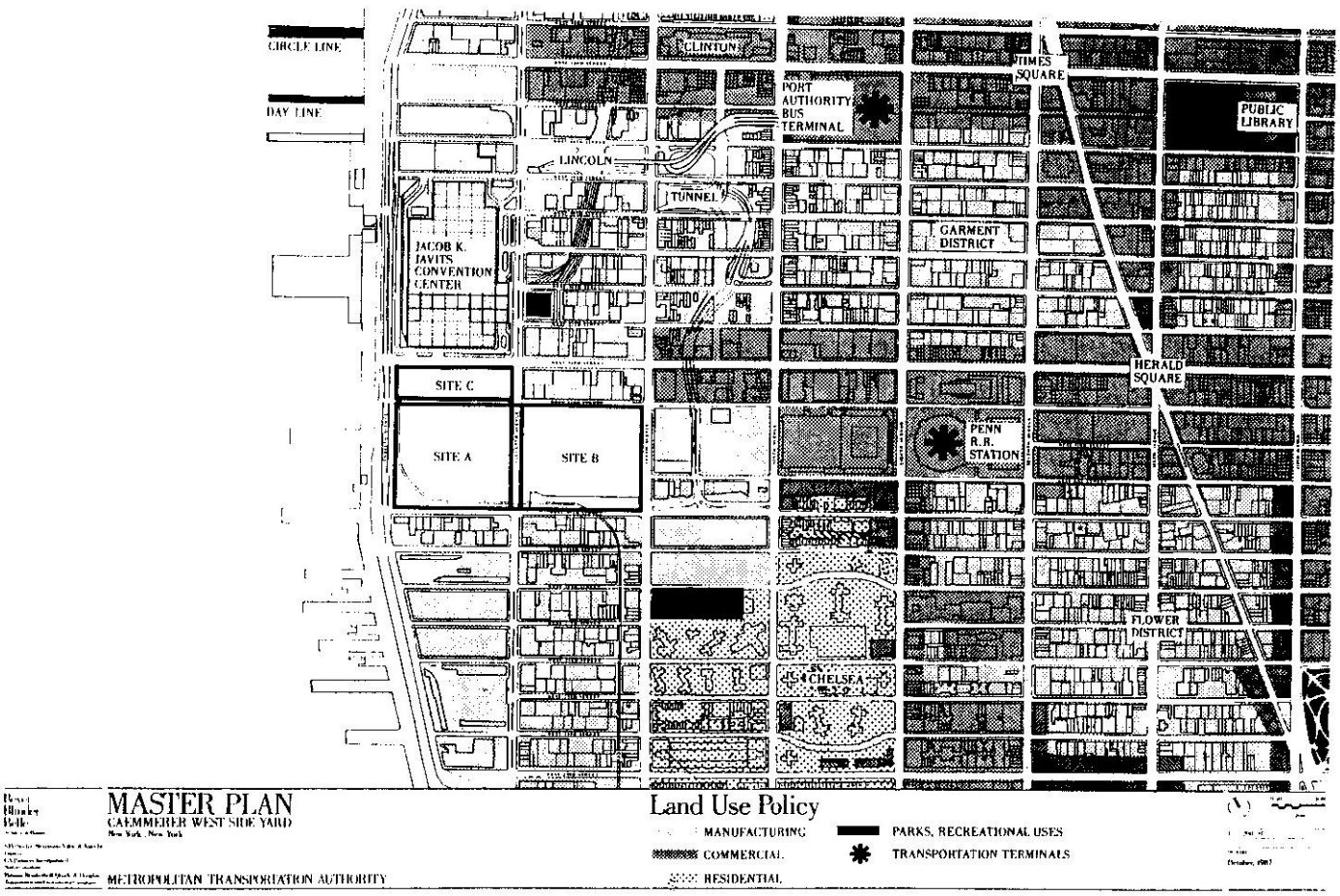
The study area is bounded by West 43rd Street, West 23rd Street, Fifth Avenue and the Hudson River. Presented below is a description of this area's zoning trends, land use policy, and development and growth trends.

### *Existing Zoning and Zoning Trends*

The site is shown on the existing "Zoning" map (page 15). The "Zoning Trends" map highlights existing Special Districts: Clinton (CL), the Midtown Special District (MiD), and the Garment Center Special District (GC). Some Department of City Planning (DCP) study areas are also noted including the Eleventh Avenue Urban Design Guidelines Study, the Chelsea Study and the Sixth Avenue Rezoning Study.

The waterfront blocks of the study area are generally zoned M2-3 which permits a Floor Area Ratio (FAR) of 2.0. This medium manufacturing use reflects the industrial and transportation history of Manhattan's waterfront. The superblock directly to the east of the site is M1-6 which permits 10.0 FAR bonusable to 12.0 FAR as-of-right. Other blocks to the east are generally zoned M1-5 for light manufacturing. This permits an FAR of 5.0 and constitutes a transition zone to the commercial districts of Midtown to the northeast, and to the residential districts of Chelsea to the southeast and Clinton to the northeast. The block to the south of Site A is zoned predominantly M1-6 (FAR 10). Sites A and C are currently zoned M2-3 (FAR 2.0); Site B is zoned M1-5 (FAR 5.0).

In July 1984, the Department of City Planning issued a report, "The Convention Center Area: Recommendations for Land Use, Zoning and Development". The report identified land use and development strategies to support the Convention Center and complement existing land uses. The study recommended more substantial development in areas close to the Convention Center including Eleventh Avenue, the waterfront and the 34th and 42nd Street corridors. In conformance with this strategy, the full block bounded by 41st and 42nd Streets, Eleventh and Twelfth Avenues was rezoned to C6-4 (FAR 10/12) in 1989. The study acknowledged that high-density zoning would be required to finance the large infrastructure costs imposed by development of the West Side Yard, but indicated a need for further study of the site.




### *Land Use Policy*

The "Land Use Policy" map identifies manufacturing, commercial and residential areas as permitted by zoning, as well as parks, open spaces and points of reference. It does not identify specific uses by building, but does indicate generalized land use.

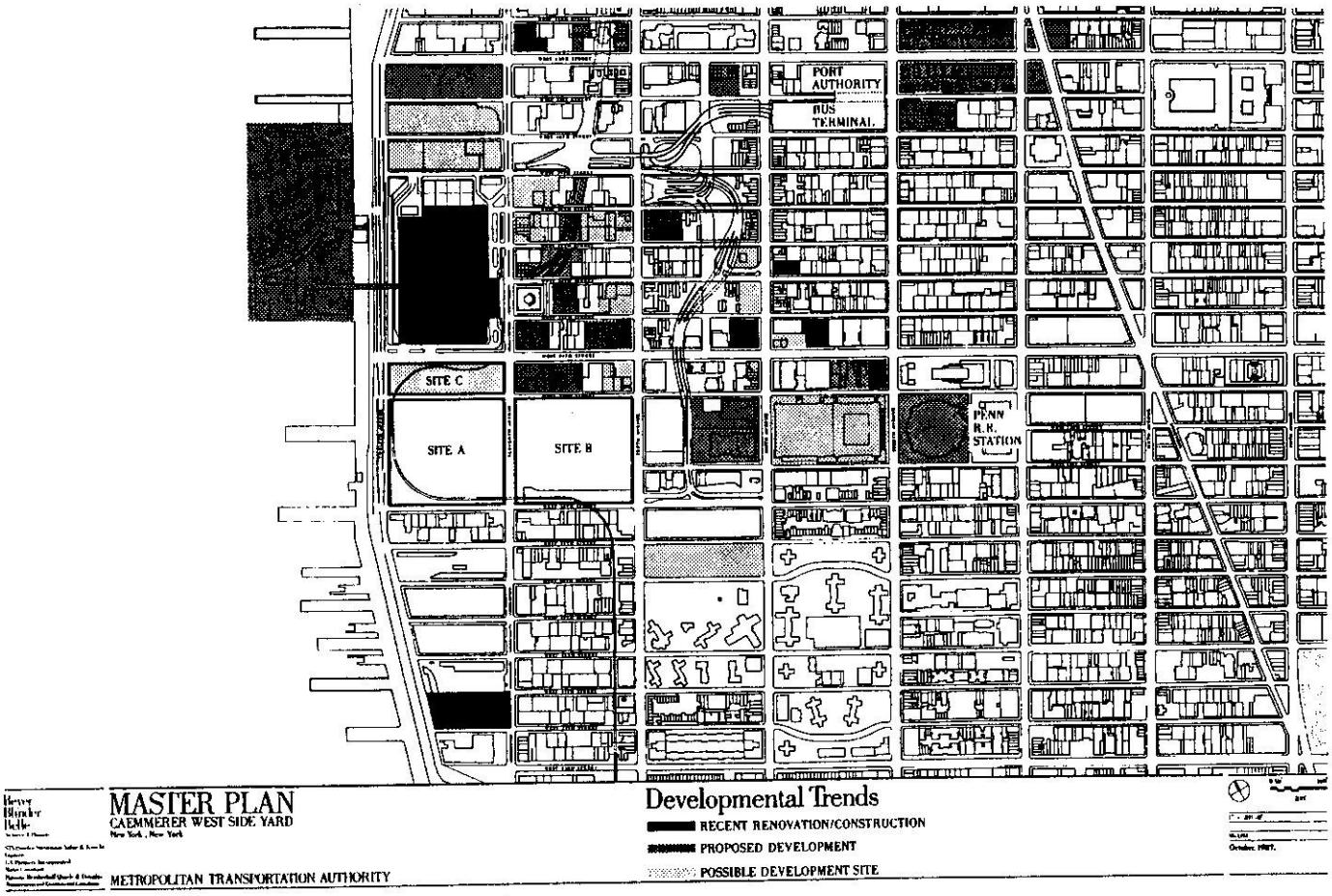
The West Side Yard site is located in an industrial and transportation-related area adjacent to the Hudson River. Light manufacturing activities primarily provide support to the Garment District. To the east is the 34th Street corridor with Pennsylvania Station, office buildings and the regional retail shopping area of Herald Square. To the northeast is the Port Authority Bus Terminal, the Garment District, Times Square and Theatre District, hotels and the Midtown office core. The residential areas of Clinton and Chelsea are to the northeast and southeast, respectively.

The site's immediate neighbor to the north is the newly completed 1.8 million square foot Jacob K. Javits Convention Center. Railroad tracks run in a cut between Tenth and Eleventh Avenues, emerging at the Convention Center block to become the elevated High Line across the West Side Yard, continuing south to Greenwich Village. The Lincoln Tunnel and Port Authority ramps form a physical barrier between Ninth and Tenth Avenues to the east.

The piers on the Hudson River contain the Superliner Terminal (cruise ships) north of 46th Street, the Intrepid Sea-Air-Space Museum, the concert pier, Circle Line and Day Line cruise boats, Lincoln Tunnel ventilation shafts, a ferry terminal, the automobile tow-away facility (1500 cars), the 30th Street heliport, a concrete mixing plant and World Yacht at 23rd Street. Pedestrian access to these riverfront activities is difficult.

There is little park land or public open space; the only public open spaces are the Convention Center plaza currently in construction on Eleventh Avenue between 35th and 36th Streets, Chelsea Park on West 28th Street between Ninth and Tenth Avenues and, further away, Bryant Park behind the Public Library and Madison Square Park on Fifth Avenue between 23rd and 26th Streets.

The major crosstown streets (23rd, 34th and 42nd Streets) are commercial spines reaching west of Broadway. The strength of residential and commercial uses, combined with the decline of manufacturing, has resulted in the steady encroachment on industrial areas; hence City Planning initiatives to preserve manufacturing space in the most job-intensive areas.

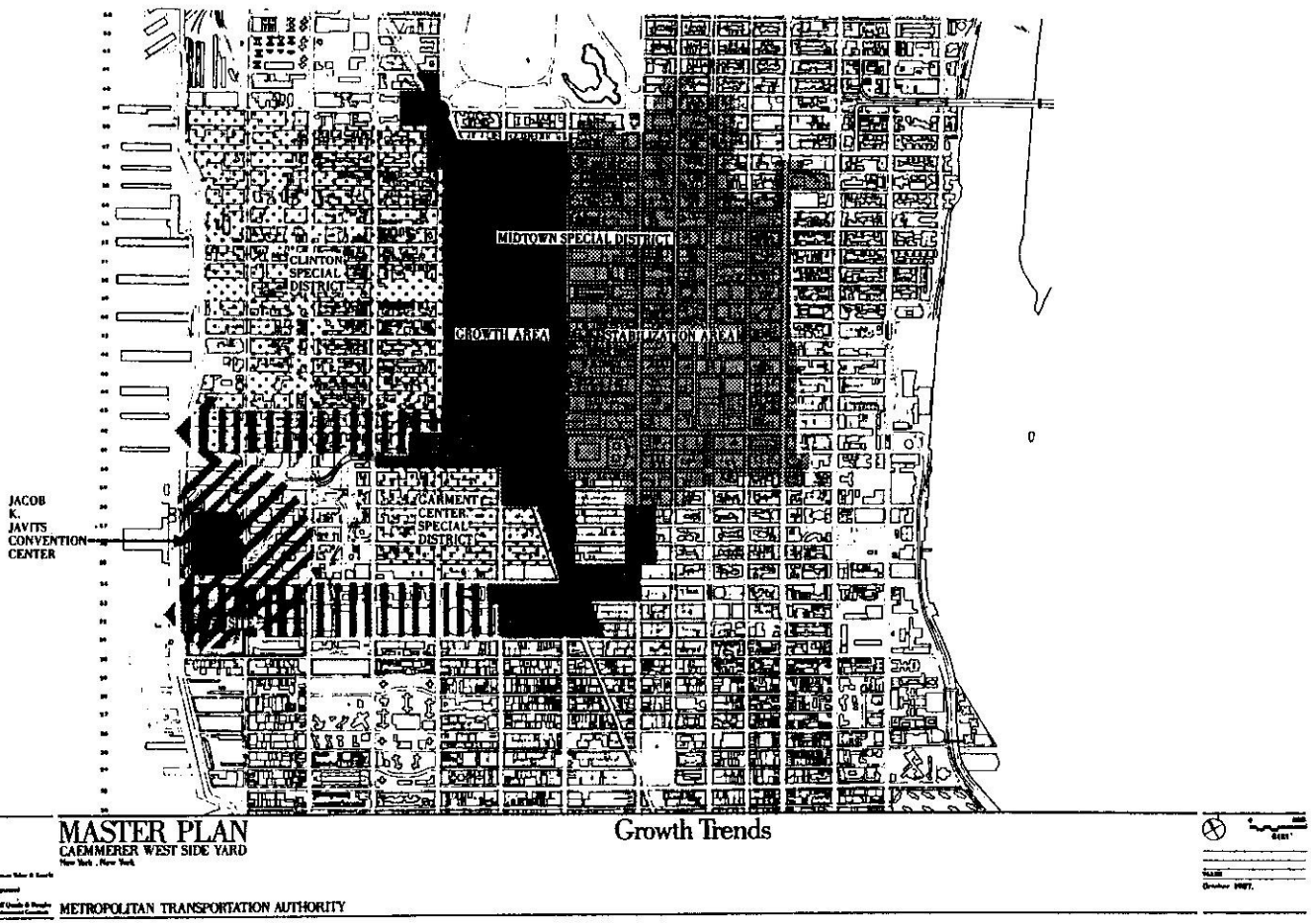



### *Development and Growth Trends*

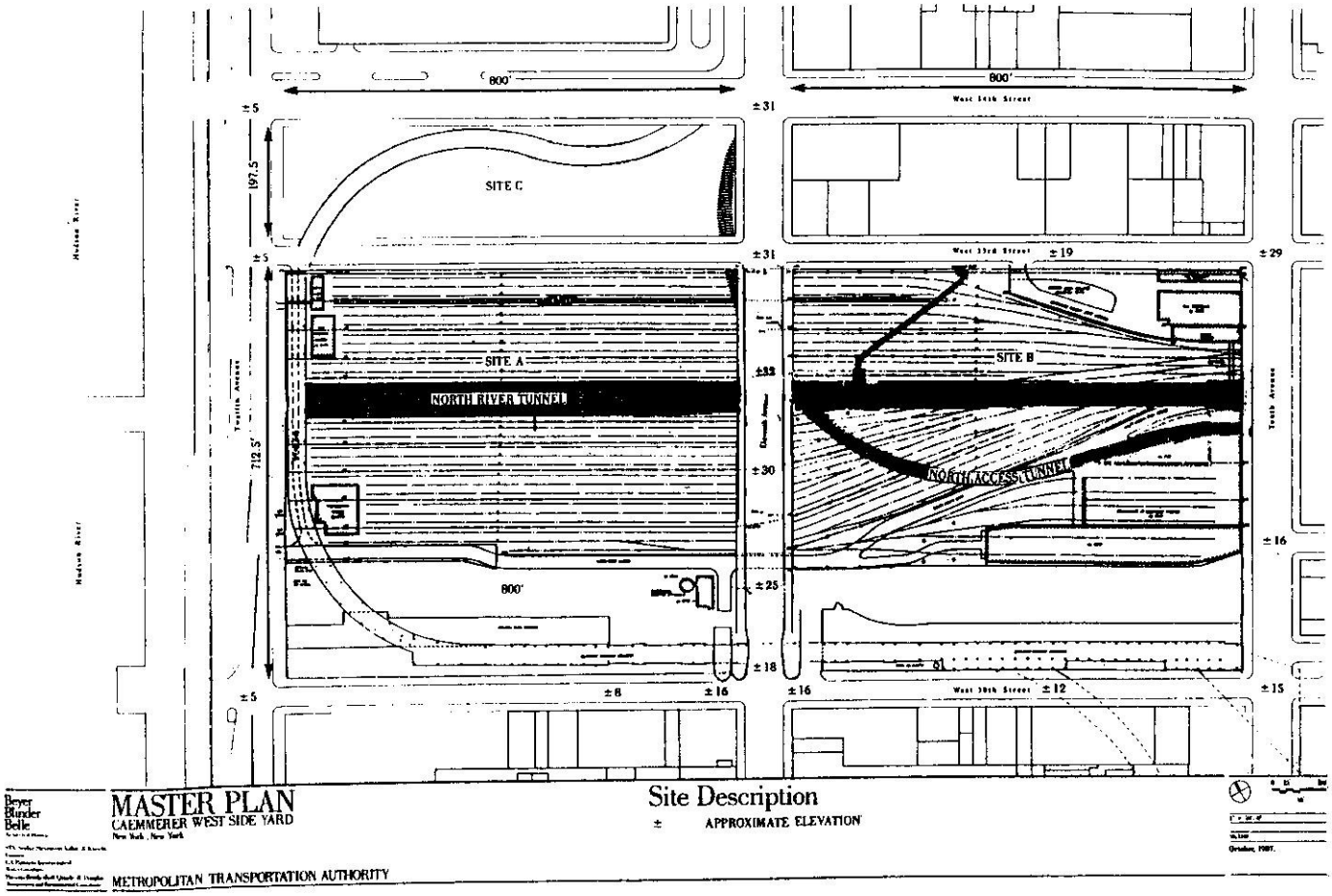
The "Development Trends" map identifies recent renovation and construction projects, proposed development and possible development sites.

Completion of the Javits Convention Center has begun to focus development interest on this part of west Midtown. Actual construction has been limited to the areas northwest of Pennsylvania Station and on 42nd Street. The new 44-story Riverbank West apartment building on Eleventh Avenue and 42nd Street is one example. However, major new developments are proposed all around the Convention Center. Hudson River Center on Pier 76, just west of the Convention Center, is proposed by the Public Development Corporation for hotel and other uses. The block between West 41st and West 42nd Streets, Eleventh to Twelfth Avenues, is proposed to be a mixed use development with apartments, health club, retail and parking. The air rights above the railroad cut between West 36th and West 38th Streets, Tenth to Eleventh Avenues are proposed for hotel, apartments, retail and public parking.

Development interest is also high in the 34th Street/Penn Station corridor. Between 33rd and 34th Streets west of Eighth Avenue the Macklowe organization is proposing an office building. Still further to the west, between Ninth Avenue and the Lincoln Tunnel ramps, are the Lazard Realty site (a proposed office building of 1.0 million square feet) on West 33rd Street and the Olympia & York site (a proposed office building of 1.6 million square feet) on West 31st Street. Both projects will require a special permit for construction above rail yards.




The "Growth Trends" map identifies the site location as the confluence of two zones of growth: the vicinity of the Javits Convention Center and the 34th Street/Penn Station corridor. Because City policy to encourage growth in the west Midtown area is limited by the Clinton and Garment Center Special Districts, the major crosstown streets of 34th Street and 42nd Street take on greater importance as corridors of development.




# SITE ANALYSIS

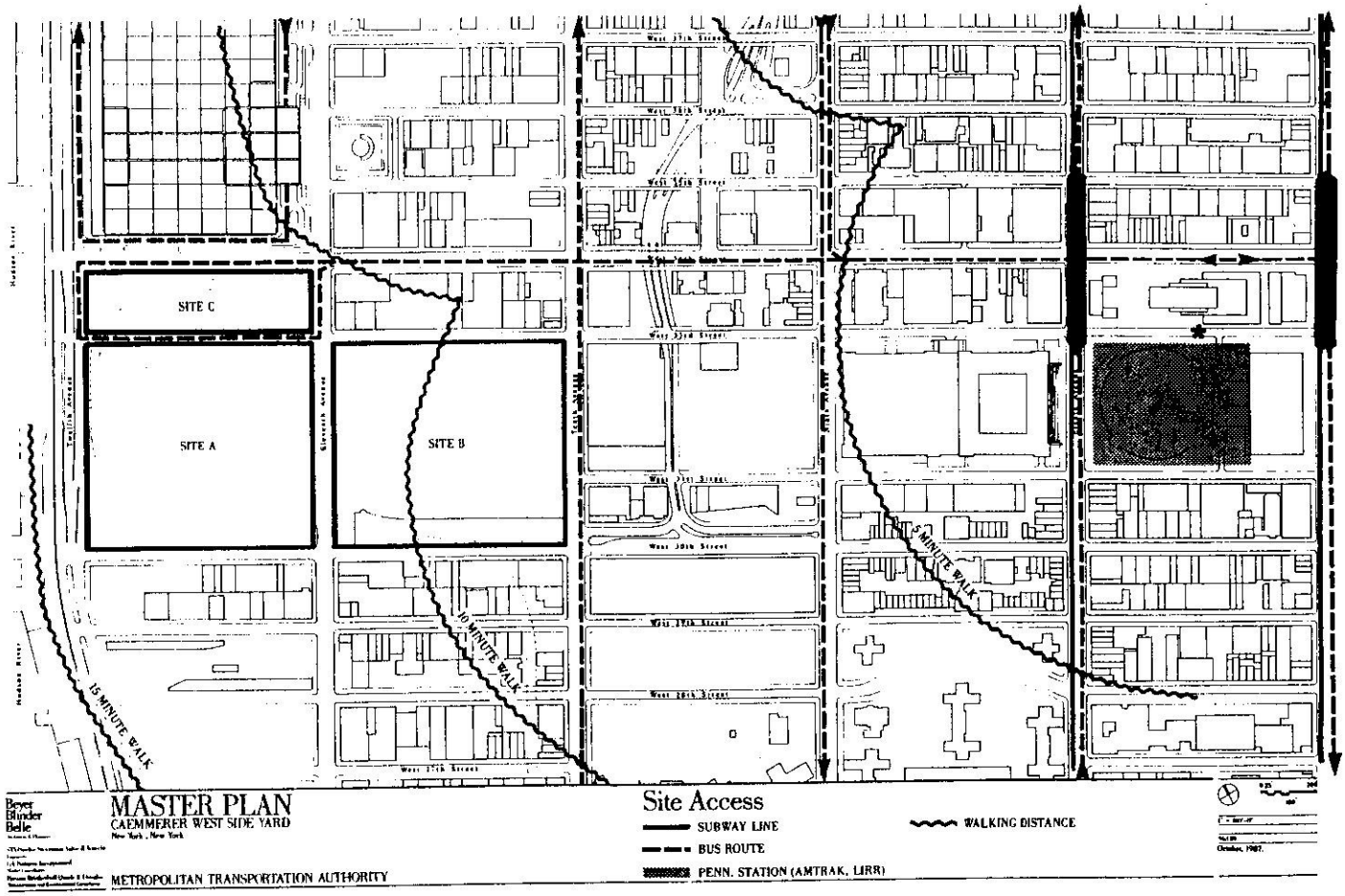
The site and an area in the immediate vicinity of the site (bounded by West 27th Street, West 37th Street, Seventh Avenue and the Hudson River) were analyzed. Data on site description, site access, platform access, building limitations and links and barriers are summarized below.

### *Site Description*

The "Site Description" plan identifies the different parcels of the site and shows the existing conditions at the West Side Yard. The site is defined as the two superblocks "Site A" and "Site B", bounded by West 30th and West 33rd Streets and the Convention Center block (Site C). Site A lies between Eleventh and Twelfth Avenues, Site B is between Tenth and Eleventh Avenues, and the Convention Center block is north of Site A.

The two superblocks, Sites A and B, are each 712.5 feet by 800 feet; Site C is 197.5 feet by 800 feet. The total site area is approximately 30 acres.

The bulk of Sites A and B contain the recently completed Long Island Rail Road (LIRR) electric commuter car storage and maintenance complex. The tracks and access roads extend some 525 feet south of West 33rd Street. The area south of the tracks contain miscellaneous structures and the High Line. Tracks were not placed in the area just north of 30th street because an access ramp for Westway was to have been built there. The official abandonment of Westway in 1986 and the LIRR's recent acquisition of a warehouse on this property allows the area to be included in this plan. Assuming demolition of existing structures, construction here can occur at grade. Site C, directly north of Site A, currently contains construction offices in trailers for the Convention Center and its plaza, the portion of the High Line descending into the railroad cut, and truck marshalling.



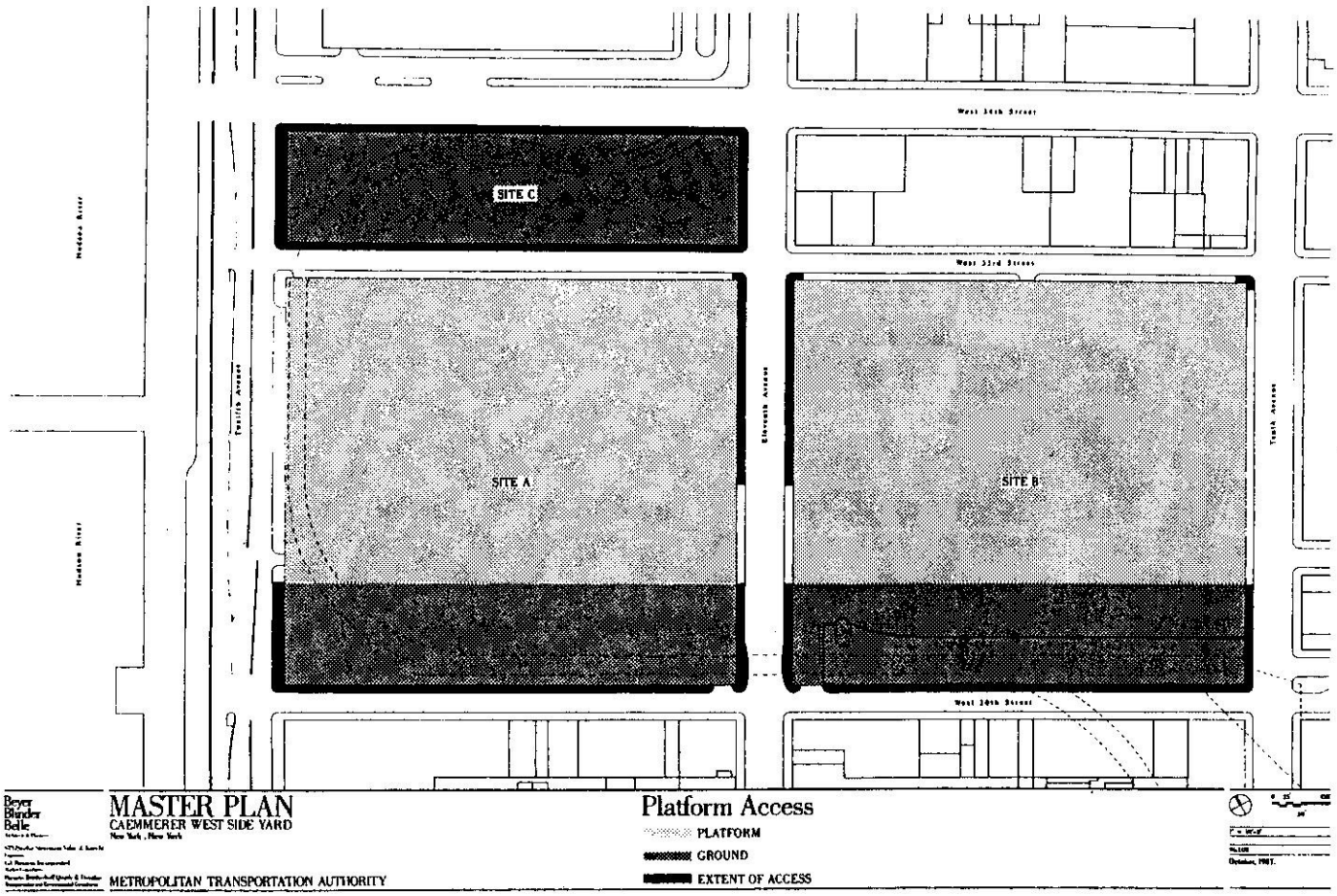

### *Site Access*

The "Site Access" map indicates bus routes, Pennsylvania Station (Amtrak, LIRR and NJ Transit) and the closest subway lines and walking distance to the site.

The West Side Yard is about a 10-to-15 minute walk from the Eighth Avenue subway line (A,E,C) and Pennsylvania Station and a 15-to-20 minute walk from the Port Authority Bus Terminal. The site's distance from existing transit prompted the MTA to study the feasibility of constructing a transit link between the site and Pennsylvania Station. A set of alternative transit proposals is discussed elsewhere in this report.

West 33rd Street is likely to carry pedestrian traffic to the site because of Pennsylvania Station and the Eighth Avenue line (A,E,C) subway exits. West of Eighth Avenue, West 33rd Street currently presents a bleak environment for pedestrians, with the block-long General Post Office, parking lots, Lincoln Tunnel access ramps, industrial buildings, and blank walls surrounding the LIRR West Side Yard. If mass transit is brought to the site, pedestrian orientation could be completely transformed so that Eleventh Avenue and a new north-south boulevard on Site A would provide the primary pedestrian orientation.

Vehicular access to the site for service vehicles, taxis and parking is primarily via Tenth, Eleventh and Twelfth Avenues, the Lincoln Tunnel "expressway" connection, 30th and 34th Streets. Eleventh Avenue, West 34th and West 33rd Streets are all viaducts adjacent to the site. West 32nd Street does not exist east of the site to Seventh Avenue, due to the three superblocks.

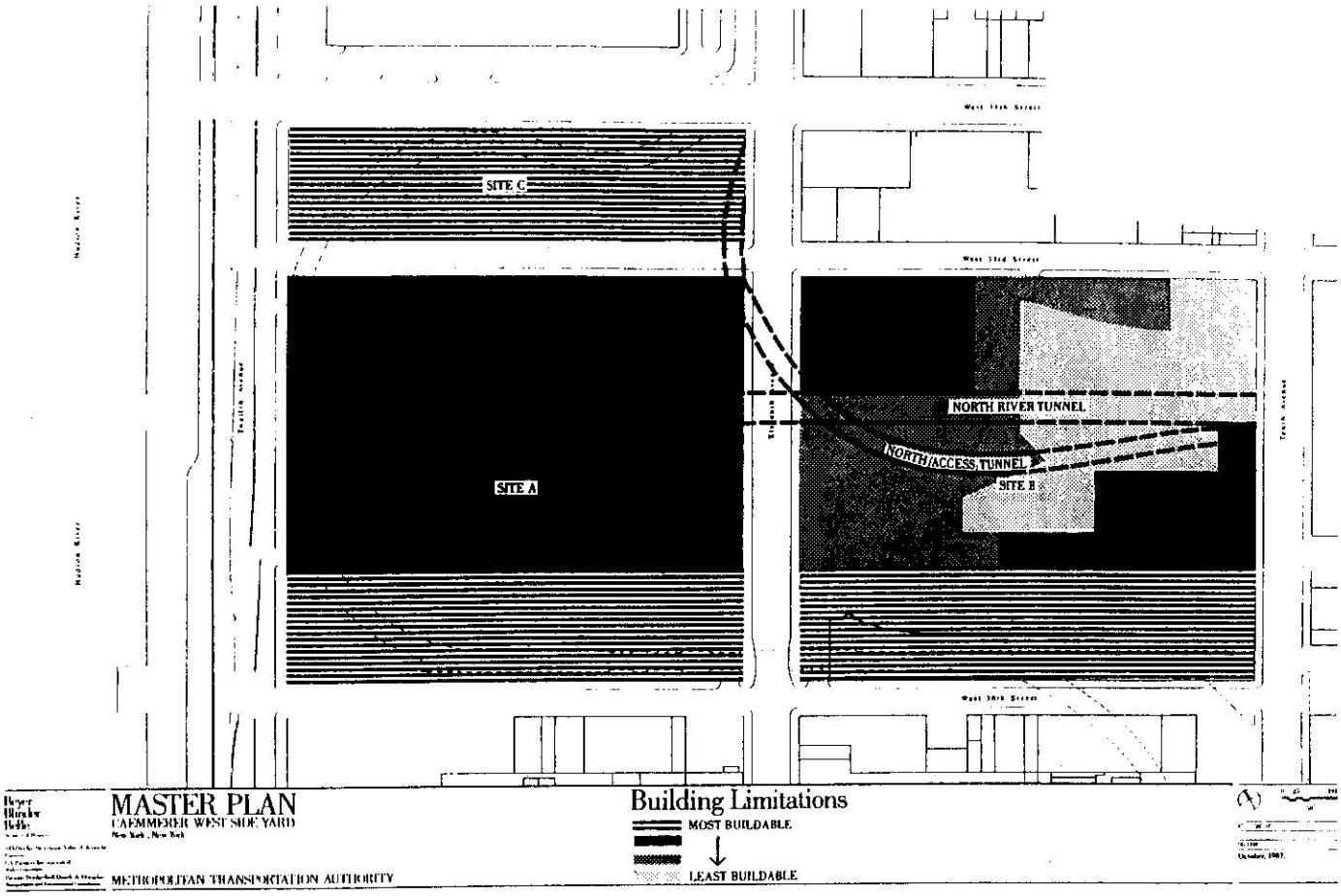



### *Platform Access*

The "Platform Access" plan shows the extent of the platform to be constructed above the LIRR West Side Yard, the remainder of the site which is at grade, and the extent of access to each.

Due to the LIRR rail yard operation, construction on a large portion of the site will be on a platform. Access to this platform is primarily from Eleventh Avenue and from the northeast corner of Site B, because of adjacent curb elevations, depth of platform structure and ventilation ducts. Increasing the amount of access is important for development flexibility.

Assuming depth for structure and ducts, the Site A platform can be at elevation +32.0 feet, although this may vary across the site, while the Site B platform varies in its depth due to the irregular column grid. Approximately 300 feet east of Eleventh Avenue, it is similar to Site A, with the remainder at higher elevations.




### *Building Limitations*

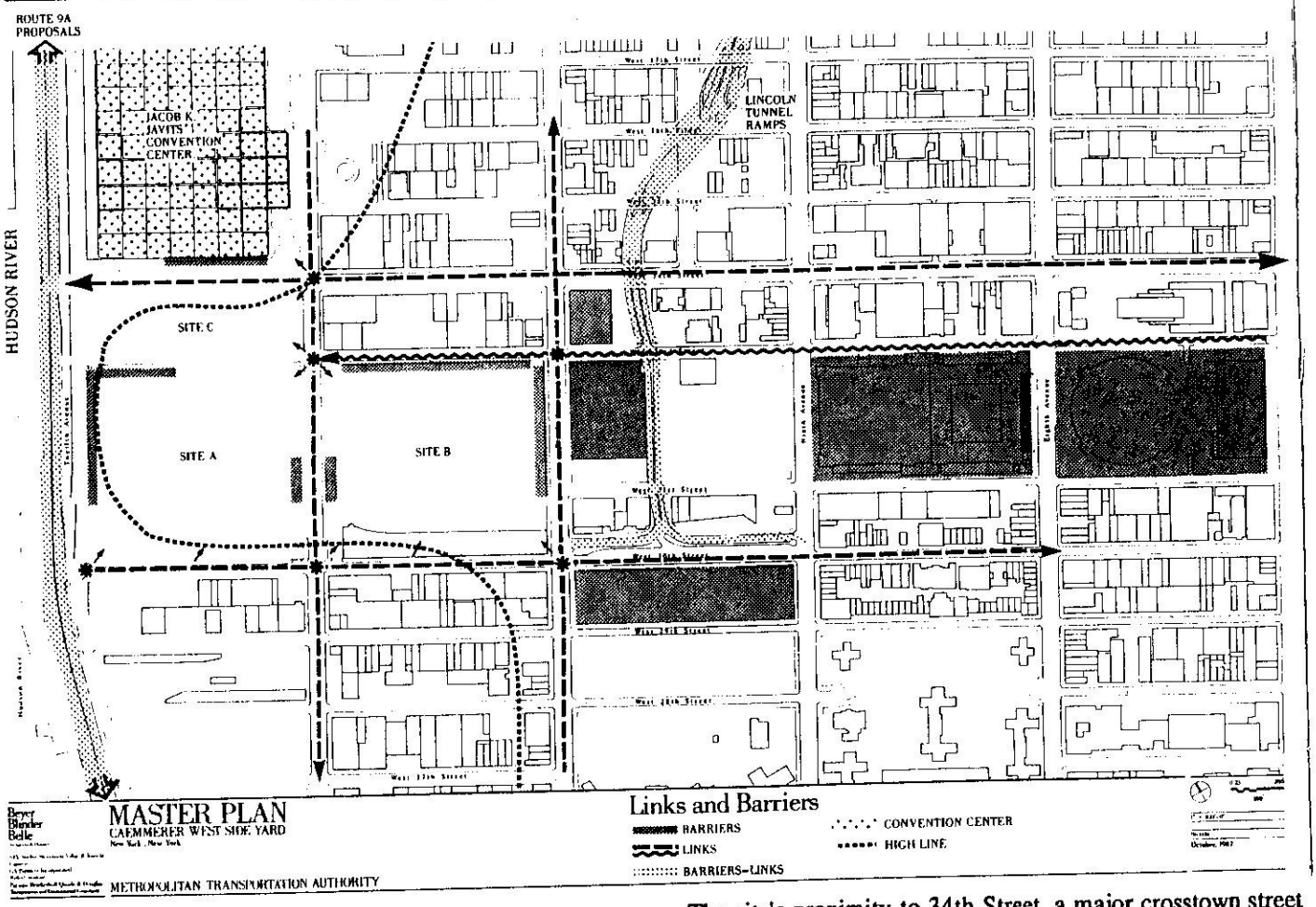
The "Building Limitations" plan shows four gradations of difficulty of construction, from the most buildable to the least buildable portions of the site. This plan is based upon an assessment of the many physical constraints to development above the operating LIRR rail yard which are discussed more fully below. The most difficult area to build over is the northeast portion of Site B, over the throat of the Yard, the operating control room and the power substation. The areas without tracks are the easiest to build over if the High Line is removed.

The LIRR track layout dictates placement of column lines for foundations. Site A has a regular grid generally on 50-foot centers running east-west. Site B has much more irregular and more widely spaced column lines, since the tracks converge into a four-track throat at Tenth Avenue, and several tunnels and substantial structures are located here. These include the Maintenance of Equipment Building, the operating control room, the power substation, and major yard access roads. Bedrock is between 10 and 20 feet below grade at both Tenth and Eleventh Avenues, and between 90 and 120 feet below grade at Twelfth Avenue.

Three tunnels run under the site. The North (Hudson) River Tunnel provides two tracks for Amtrak and New Jersey Transit passenger service. An evacuation tunnel exits from the North River Tunnel at West 33rd Street between Tenth and Eleventh Avenues. The North Access Tunnel curves across Site B, touching the northeast corner of Site A and the eastern edge of Site C. The North Access Tunnel is a single-track, 1,500 foot tunnel which crosses above the North River Tunnel. It is intended for routing of Amtrak trains up the West Side for the direct Albany-New York feeder link to the Northeast Corridor service.

The various support buildings for the Yard and access roads require headroom which will affect the elevation of the platform over the LIRR Yard. The rail elevation is assumed at +8.5 feet. The top of rail clearance envelope is at elevation +26.0 feet. The ventilation ducts for the rail operation and column spacing for the platform and buildings above determine the top of the platform elevation, assumed to be at minimum elevation +32.0 feet.

The High Line, an elevated two-track rail line which is currently unused, traverses the perimeter of the site. Removing the High Line over the site would simplify structural requirements and enable the platform to be generally level between Eleventh and Twelfth Avenues. There can, however, be no certainty at this time as to whether the High Line can be removed. If it is not, the structure would need to be integrated into the development on the site.




### *Links and Barriers*

The "Links and Barriers" map is a summary of the site's relationship to its surroundings. Eleventh Avenue is an important access point to the site since it is the location of the Convention Center's "front door" and the point at which the platform is most accessible. Twelfth Avenue is significant because it faces the Hudson River. The superblocks to the east of the site eliminate West 32nd Street to Seventh Avenue, reducing the accessibility of the site. The Lincoln Tunnel ramps and Twelfth Avenue (Route 9A) are both links to the regional traffic system and barriers to neighborhood areas. Similarly, the High Line, if retained, would be a site constraint for construction and waterfront views. If extended along a new elevated structure on 30th/31st Streets it could provide a transit alignment to the site.

The site's proximity to 34th Street, a major crosstown street for both vehicular and pedestrian traffic, is a positive link to Midtown activity and transportation. Pennsylvania Station and subway exits on Eighth Avenue and West 33rd Street may also reinforce West 33rd Street as an important link to the site. Other positive links are with the Convention Center and the waterfront.

# TRAFFIC and TRANSPORTATION

Chapter 3

*Traffic and transportation issues were central to the development of the proposed master plan. The traffic analysis contributed to a master plan that responds to access needs and that anticipates potential traffic problems. The proposed master plan addresses these issues by incorporating a number of traffic and transportation elements as discussed below.*

## ISSUES

***Transit and pedestrian access.*** The nearest subway lines, at Eighth and Seventh Avenues, require extensive walking distances to the western-most end of the site. Development of this site provides the opportunity to create more attractive pedestrian paths and to enhance transit access from existing services to this area of the West Side.

***Parking capacity to serve the site as well as the adjacent Javits Convention Center.*** The site will need to provide much of its own parking supply, and the location, capacity, and configuration of parking facilities will ultimately "drive" the traffic design.

***Street capacity on the periphery of the site.*** This is generally good, especially with the New York City Department of Transportation's (NYCDOT) conversion of Eleventh Avenue to one-way operation. Major traffic constraints exist away from the site, especially in the east-west direction due to the influence of Herald Square, the General Post Office, and the Garment District. A traffic access plan will probably need to be implemented to provide increased capacity crosstown as well as to eliminate constraints along Twelfth Avenue. Independently of this project, plans are underway to upgrade Route 9A (Twelfth Avenue). Improvements to Route 9A adjacent to the site may potentially benefit this project.

***Separating on-site circulation from non-site through traffic and providing adequate loading and queuing space on site.*** Even within the site itself, it is important to design separate facilities for the various uses and the various vehicle types that will serve the site. These include such items as the design of front-in and front-out truck loading areas, adequate queuing space within parking facilities, adequate queuing space on-street for taxis/black cars/ limousines expected to service the site, and a street system that allows for good internal circulation.

## TRAFFIC ELEMENTS IN THE MASTER PLAN

***The proposed circulation system separates internal traffic from external through traffic, and residential traffic from commercial traffic.*** Each "half" of the site is subdivided by an extension of the grid street system prevalent through the rest of Midtown. It thus allows for direct penetration of the site by vehicles going to each building. Each "half" of the site has a loop system which allows vehicles to enter and exit and then either park, pick up, drop off, load and unload without infringing on non-site traffic. Residential traffic is, for the most part, separated from heavy commercial traffic, with separate parking facilities provided for each.

***The proposed access system provides multiple site and garage access locations, with direct connections to major regional throughfares wherever possible.*** The site plan includes two major garages along 30th Street, which is the street that is most capable of being widened to provide the extra capacity necessary for accommodating the large volumes expected. The site plan also includes smaller accessory parking garages within most of the proposed buildings in order to distribute the load of incoming and outgoing vehicles. Garage entrances and exits were carefully selected to ensure minimum impact on adjacent traffic flows; therefore, most of these entrance/exit points are situated along the newly formed internal streets. An additional feature of the parking and access plan is the linkage of the two major garages via connecting ramps under the Eleventh Avenue viaduct, along with exits from the garages to Tenth Avenue (immediately across from the Lincoln Tunnel "expressway" system) and Twelfth Avenue. Thus vehicles parking within the western-most garage along Twelfth Avenue could, for example, pass through the garage under Eleventh Avenue and exit directly onto Tenth Avenue across from the Lincoln Tunnel ramps, and would not have to circulate through on-street intersections and get caught in, and contribute to, traffic back-ups.

***The site and development program may require additional measures to alleviate traffic impacts.*** The proposed project will generate additional traffic. While street capacity on the periphery of the site is generally good, major constraints exist away from the site. A number of measures are likely to be required to eliminate potential problems. In addition to the benefits of the site plan itself, a comprehensive package of capacity improvements may be needed to achieve the proposed program. The following are candidates for consideration in a mitigation package which would be developed after preparation of an EIS:

- Standard traffic engineering improvements and capacity enhancement measures. These improvements would include "daylighting" at intersections, enforcement of maximum possible clear lanes of traffic, signal system modifications, turn prohibitions, etc. Installation of a traffic signal at the Twelfth Avenue/33rd Street intersection would be required.

- Major crosstown corridor improvements. One improvement would be to make 34th Street an "express street" by prohibiting all (or nearly all) turns with substantial enforcement along a major segment of the street, making it one-way or perhaps one-way with a transitway, as the counterpart to NYCDOT's proposed 42nd Street transitway. Another improvement would be the "promotion" of 31st Street as a major westbound alternative to 33rd and 34th Streets. Westbound 31st Street has substantial traffic capacity; motorists approaching the site would divert back to a widened 33rd Street via northbound Tenth Avenue.

Additionally and independently of this project, reconstruction of Route 9A is being investigated. If improvements such as grade separation at 30th, 34th and 42nd Streets are included, it is potentially a benefit to the project. Without grade separation, double left turn lanes may be required from southbound Twelfth Avenue to 34th and 30th Streets, as would additional lanes at 42nd Street. Devices to balance volumes better between the main roads and service roads would also be advisable.

# PASSENGER DISTRIBUTION SYSTEM (PDS)

Another opportunity to enhance overall access to the site would be the extension of transit service to the site from Pennsylvania Station via an underground passenger distribution system (PDS) along 33rd Street. The MTA retained the PRC Engineering Group to conceptualize and evaluate alternative Passenger Distribution System (PDS) alignments, stations and applicable technologies for a PDS connecting the site to Pennsylvania Station. The transit link would tie into the existing mass transit system in order to encourage the use of transit and to reduce reliance on the use of automobiles and the consequent need for parking in west Midtown.

The most promising alignment that emerged from this study is an underground route. It would begin at Eighth Avenue and proceed under 33rd Street until it terminates at Site C. Stations would be located west of Eight and Eleventh Avenues. The portion of this alignment between Eighth and Ninth Avenues was excavated when Pennsylvania Station was built. The next two blocks would require tunneling and excavation.

Implementation of this PDS is expected to reduce site-generated vehicle trips by one-fourth to one-third, and provide a linkage to Midtown that is more attractive than walking or bus alternatives.

The Department of City Planning, which has been studying transit alternatives to serve the far West Side, has proposed linking the underground 33rd Street alignment into a larger system which would resemble a "J" configuration. Their preferred transit route would consist of a 42nd Street transitway running from First to Twelfth Avenues, continuing down Twelfth Avenue, and connecting into the 33rd Street below grade alignment.

The transportation analysis conducted for this master plan, while extensive, is still preliminary in nature. It is subject to change as additional data is collected. Impacts from the project as well as potential mitigation measures will have to be analyzed in an EIS. Accordingly, all transit and transportation improvements identified in this report are based on sound planning principles but are not presumed to be mitigation for environmental purposes. However, it is clear that a workable site plan has been developed which embodies sound principles of access and circulation planning.

# MARKET

Chapter 4

*Two key attributes of the site - its large, unobstructed size and its location on the Hudson River - provide important market advantages and help to shape the program. The scale and character of the West Side Yard offer a unique opportunity for meeting user needs. The office building floor plates have been designed to optimize operating efficiencies required by large tenants, a decided advantage in relation to less adaptable Midtown parcels. Proximity to the river and waterfront views provide a primary resource in marketing the residential units.*

## GENERAL MARKET APPROACH

A mixed use program is proposed for the West Side Yard. The program includes a substantial office core, a new residential neighborhood, a convention oriented hotel, and support retail uses.

This program itself will be a major factor contributing to the success of the West Side Yard development. Providing substantial amounts of both office and residential space shortens the anticipated absorption period when compared with a single use program. The variety of uses also complement and reinforce each other and create a degree of self-sufficiency to enable this development to create a sense of place that will increase the level of acceptance and confidence of tenants moving to this area of the West Side. Amenities in the form of a generous network of open space and a transit connection to Midtown could contribute to marketing the development.

## TENANT SPACE NEEDS

A competitive advantage of the site is the ability to provide large development parcels. Foremost among targeted office tenant groups are financial service firms in the securities, banking and insurance sectors. These operations typically require extensive space for their trading floors and related back office functions, with floor plates of 50,000 square feet or more. Professional service firms, who have begun to locate in a number of Manhattan submarkets, are another primary target market. These users have been comfortably accommodated in floor plates ranging from 25,000 to 35,000 square feet.

The project's residential units average approximately 1,000 square feet, thereby allowing for a unit mix ranging from relatively spacious family-sized to more economical units. Potential residents will include persons committed to long term tenancy and attracted to the unique views as well as first time buyers of shorter term duration.

One logical site for a hotel is directly south of the Convention Center. Such a hotel could be geared to serve the needs of Convention Center attendees with such facilities as business suites available for meetings and ancillary eating and drinking establishments.

Retail tenants are likely to include restaurants, comparison and convenience shopping for employees and residents, and various business services.

## ABSORPTION AND PHASING

The office absorption on an annual and cumulative basis anticipates project completion approximately fourteen years after startup, including preleasing in advance of initiating construction on the first office building. Demand for office space on the site should reflect general Manhattan trends. While a short term three to five year adjustment from recent high levels of demand is anticipated, overall the Manhattan market has strong prospects into the 1990's. The annual absorption rate for the site has been projected to range from a low of just over 200,000 square feet in the early years to a high of about 700,000 square feet as the development matures and gains increased market acceptance.

For residential development, it will be essential to capitalize on the proximity to water in the initial stages of development when transportation linkages and other services are first beginning to emerge and the overall planned environment is only partially in place. In orienting marketing to the waterfront, ownership units are anticipated to be the form of residential development in the first phase. Rental housing could be introduced after an initial stage of development, when the project has become more established. Annual sales of tenant-owned units are expected to range from one hundred-plus units in the early years to a high of 200 to 250 units in later years. Absorption of rental units would be in addition to the projected absorption of ownership units and would average between 150 and 200 new units per year.

The convention-oriented hotel would need to be developed early in order to gain market advantage. If it is delayed and other convention area hotels are developed first, its success may require the establishment of the office core to generate sufficient demand.

The programmed retail areas would become available as the site is developed.

# ENGINEERING

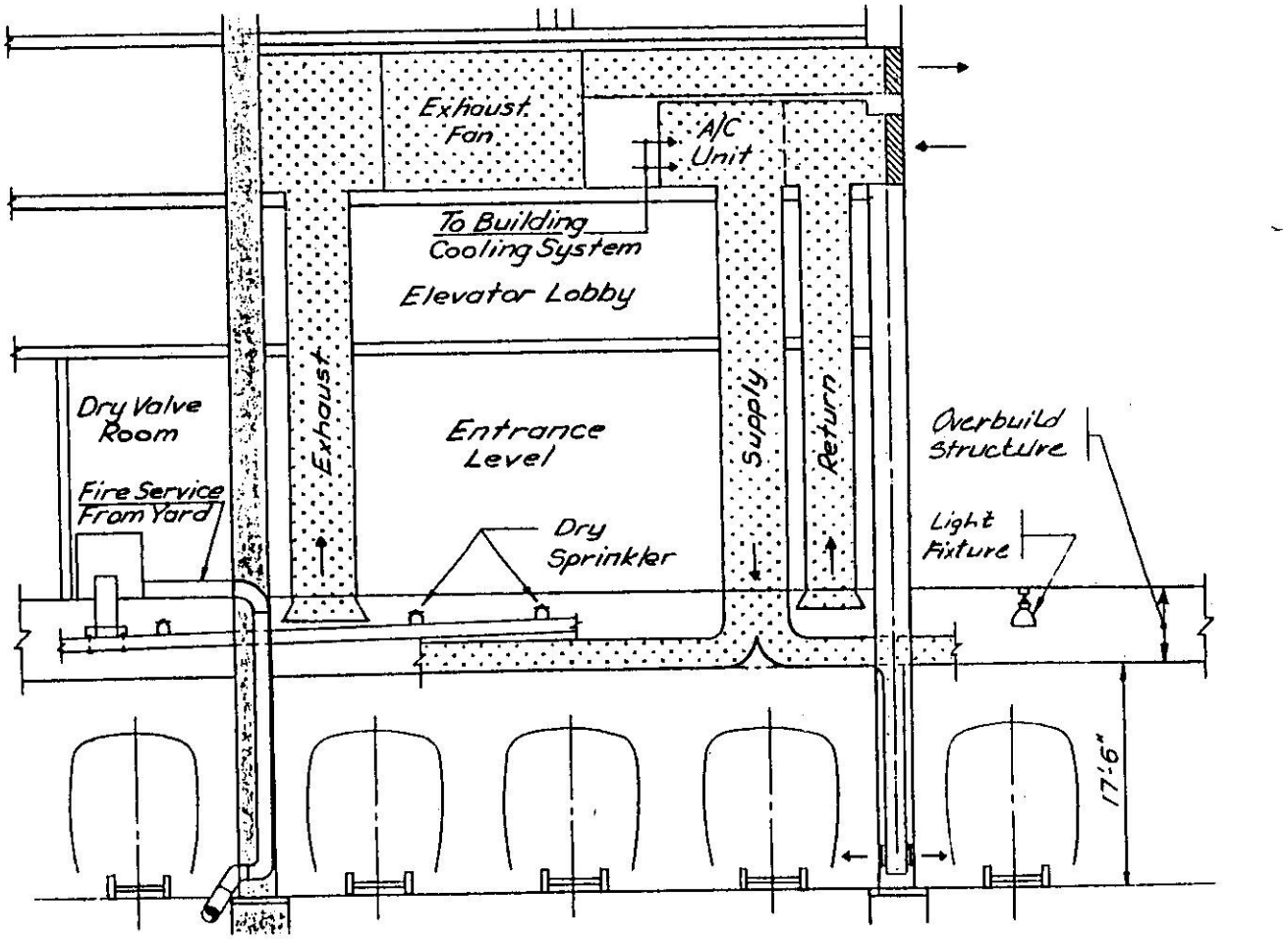
Chapter 5

*The placement of a deck above the existing West Side Yard places a barrier between the Yard and the outdoors and removes any basement for the buildings above. This chapter discusses several distinct impacts that the deck has on the Yard below and buildings above. A number of engineering fields were investigated to establish the background conditions and criteria for the master plan. These include LIRR design criteria and engineering base data for geotechnical, structural, utilities and drainage conditions.*

## LONG ISLAND RAIL ROAD DESIGN CRITERIA

Several meetings have been held with representatives of the LIRR Capital and Operating Departments to determine the preferred design criteria for decking over the active rail yards. These criteria will provide for safety considerations and insure reliable train operations with a minimum of disruption of service.

Development for the portion of the site containing the LIRR West Side Yard can only occur on a deck above the operating railroad storage and maintenance facility. The functioning of the Yard for LIRR operations must be protected during and after construction of the development. The placement of a deck above the existing West Side Yard creates a barrier between the Yard and the outdoors. The Yard, in effect, becomes the basement of the new development. Approximately 300 train movements occur daily within the Yard. This total is likely




**Typical Section: Ventilation, Fire Protection and Lighting for the Yard**

to increase in the future. Design criteria are being developed with Long Island Rail Road with regard to both safety and productivity. (See page 29 "Typical Section: Ventilation, Fire Protection and Lighting for the Yard"). Examples of areas of concern are discussed below.

### *Yard Ventilation*

The major source of heat below the deck will come from the air conditioning systems of trains stored in the Yard. In addition, wheels and motors can register temperatures above 200 degrees Farenheit.

A preliminary heating, ventilating and air conditioning (HVAC) analysis was conducted which studied heat output of trains, operating characteristics of the Yard, required working conditions, and operating and construction costs for various HVAC systems. The study showed that an air conditioning system, rather than a mechanical ventilation system, meets design criteria at lower construction and operating costs.

The HVAC system can be installed incrementally as development of the site occurs. The space required to house equipment can be located above the deck, either in separate mechanical buildings, a central plant or in the buildings comprising the development. Twenty-two rooms, each approximately 54' x 28', are required for supply/return units; twenty-two rooms, each approximately 60' x 15' are required for exhaust fan units. These rooms can be incorporated into each newly developed building and linked to that building's HVAC equipment.

### *Fire and Smoke Control*

Fire and smoke control are critical safety issues. Various nationally developed standards will form the basis of the design criteria for final design of a smoke-control system. The proposal for fire control calls for a dry pipe sprinkler system tying into the existing system which would be augmented for higher capacities. Smoke control can be accomplished using the air conditioning equipment by strategically placing the supply and exhaust equipment to create a series of zones. Each 36,400-square-foot zone can either be supplied or exhausted. In this way, smoke emanating from a single zone will be contained and removed by exhausting smoke from that zone and supplying fresh air to the surrounding zones. A control system and an installation plan will need to be developed with the LIRR and appropriate parties. The entire fire protection system under the new deck would need to be interconnected with the existing Yard and building fire alarm systems.

### *Track Outages*

In order to maintain a high standard of commuter service, track outages must be minimized during construction. Construction will need to be staged so that only four tracks are out of service at one time. The railroad will need to review cases which require additional tracks on a case-by-case basis, with work possibly performed at night or on weekends.

### *Crash Walls*

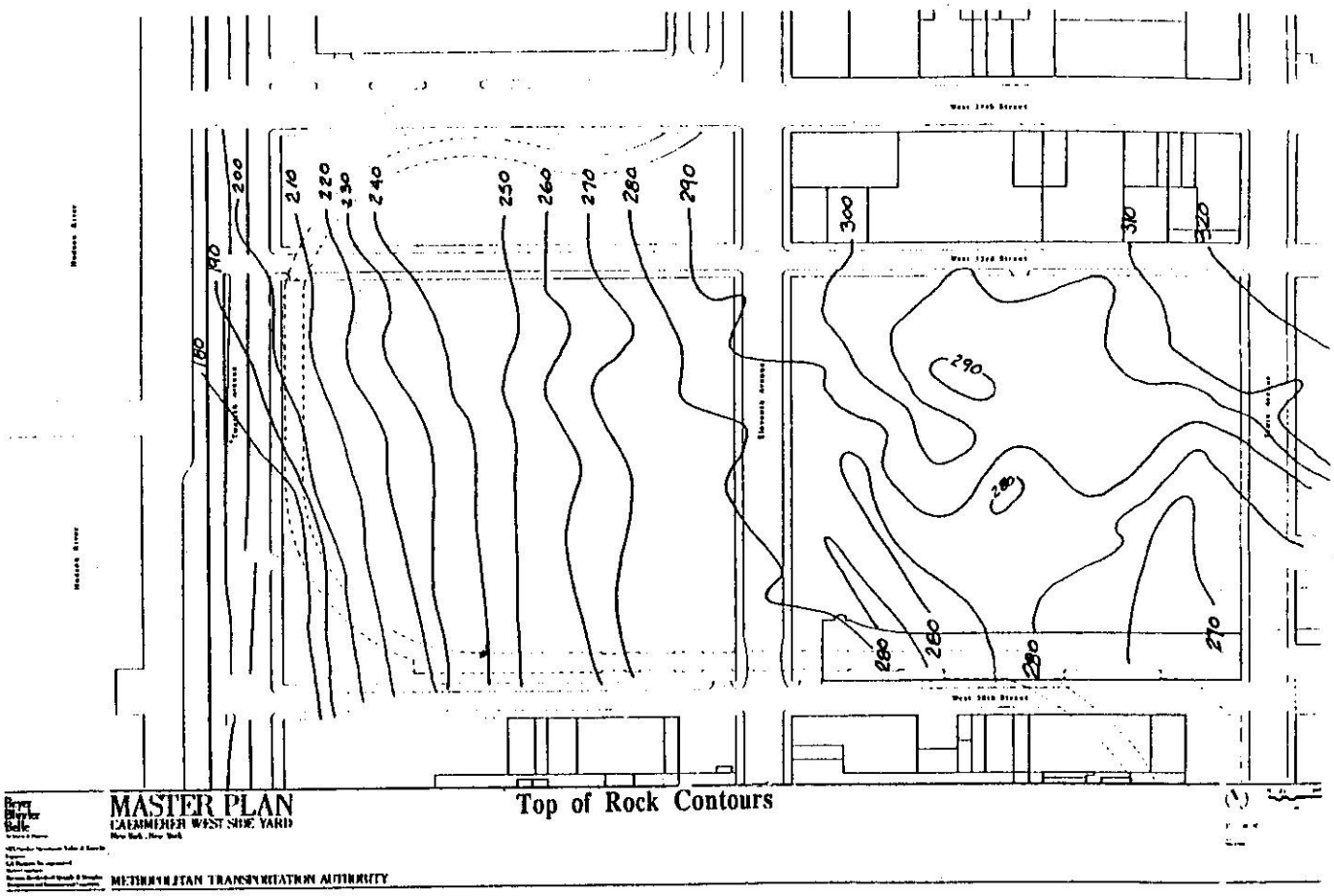
Crash walls are required to protect columns which support the deck and/or superstructure. Crash walls are concrete barriers that redirect trains away from columns in the event of a derailment.

### *Lighting Level*

When the Yard is built over, lighting will be required for LIRR operations. In general, lighting would need to be provided throughout the Yard, with higher levels and task lighting provided where required.

### *Operating Control Tower and Substation*

Neither the control tower nor substation functions can be disturbed during or after construction.




# ENGINEERING BASE DATA

### *Geotechnical Data*

The geotechnical features of the site have an impact on what can be built with reasonable economy. Extensive geotechnical data was obtained in conjunction with design and construction of the West Side Yard.

The project site straddles the edge of the former western boundary of Manhattan Island. Bedrock is covered by various glacial materials and man-made fill. The fill consists of cinders, bricks, cobbles, wood, sand, gravel and boulders. West of Eleventh Avenue the fill may include remnants of old piers, stone filled cribs and sunken barges.

Structural columns will be supported by caissons that need to be socketed into bedrock, the depth of which is indicated on the map "Top of Rock Contours". Elevation 300' on this map is approximately equal to elevation 0' as used elsewhere in this report.

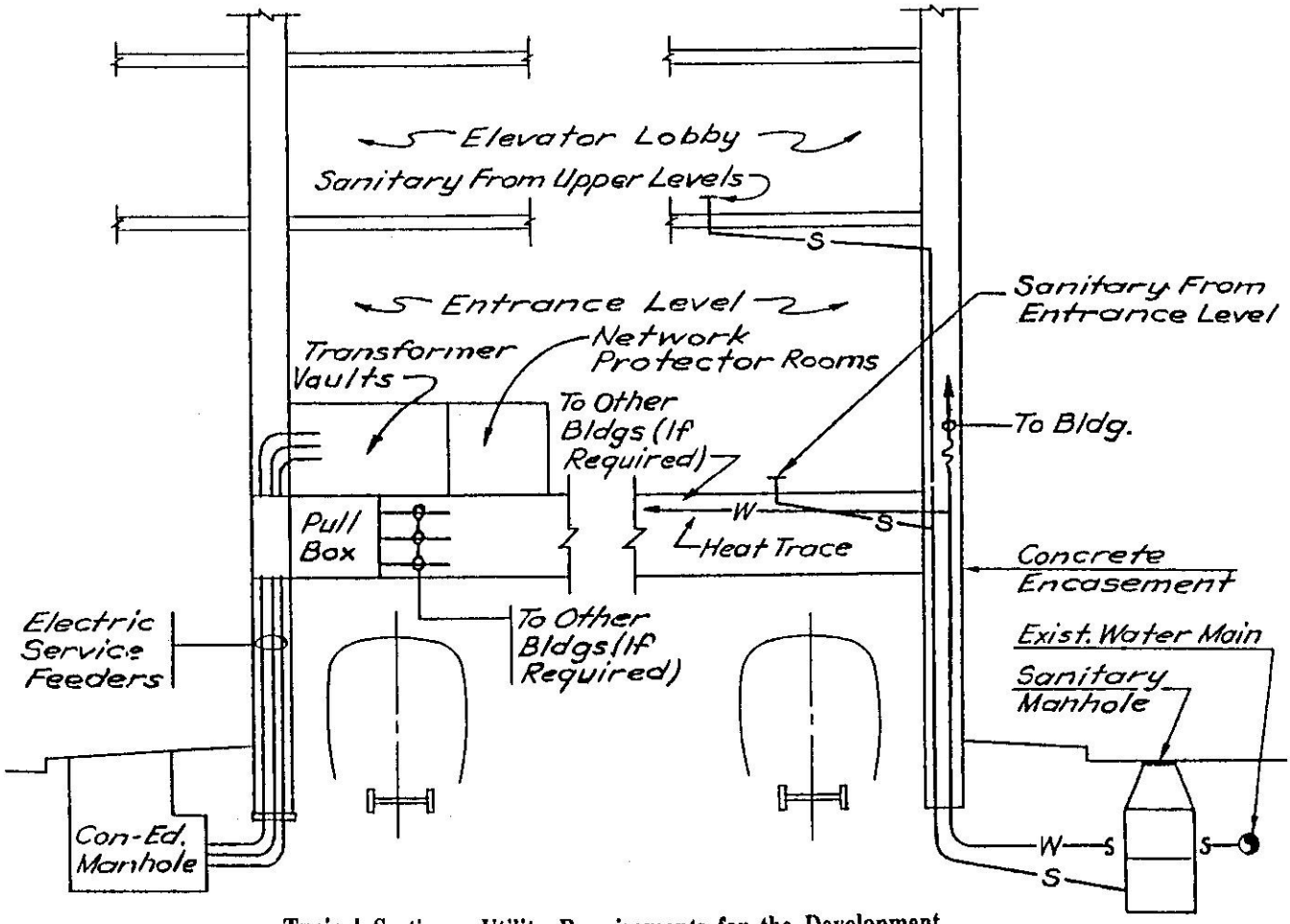
### *Structural Considerations*

The key to developing over the West Side Yard is the ability to install foundations and columns which maintain appropriate clearances between trains and structure so as not to hinder Yard operations. Where possible, track layout was designed to permit placement of two-foot square columns. However, where the storage tracks converge to a four track "throat" which leads into Pennsylvania Station, or where underground utilities are located, the column spacing becomes irregular, necessitating long-span construction.

Track spacing on Site A between Eleventh and Twelfth Avenues allows a fairly regular column grid, which is generally 50 feet in the north-south direction. Spacing in the east-west direction would vary depending on the structure above. Closer spacing is required for high-rise structures and longer spacing can be used in areas which have no development above the deck.

Site B, the area between Tenth and Eleventh Avenues, contains many restrictions to the construction of foundations such as the Yard throat, the substations, the Amtrak Tunnels and the operating control tower building. The long spans between columns in this area are able to support only low rise structures above. However, a reconfiguration of switches in the throat would enable a new column line to be introduced, allowing for taller structures.

Since column spacing for high-rise structures is normally 25' x 25' or 30' x 30', one floor in each structure will be dedicated to transferring the column spacing. This floor can also provide space for mechanical rooms to serve the building and Yard requirements below the platform.




Typical Section: Utility Requirements for the Development

***Utilities and Drainage***

There will be a demand for all of the standard utilities (electric, water, sewer, telephone and gas) for the various structures which will be built above the Yard. These utilities will require a service route from their source to each of the buildings. The service and utility rooms cannot be placed in the basement and, therefore, require an overall plan to establish the appropriate location and route of service. The location of major utilities feeding into the site is a major determinant of the appropriate route.

During design of the Yard, plans, sketches and other information were obtained from public and private utilities and the collected information was field checked and plotted. Most major utilities, except steam, are available at some point along the perimeter of the sites, with the exception of the Eleventh Avenue viaduct.

It is anticipated that larger capacity lines for certain utilities would have to be constructed from Tenth or Twelfth Avenues along 30th and 33rd Streets to service the site. It is anticipated that the various options for the site could be efficiently serviced from the available utilities. However, as design progresses and service demand loads are established, the most efficient systems can be developed. Options to be explored could also include on-site cogeneration facilities.

Utilities would run below the deck with appropriate protection provided for this type of installation (such as heat tracing for water lines). Space required for both Yard and building utility services may not have to be located at the deck level. Instead, they may be placed within buildings or away from sensitive track locations. (See "Typical Section: Utility Requirements for the Development").

The existing Yard drainage system was designed for 100 percent storm water runoff. The Yard is drained by a system of catch basins and underground piping which outfalls into the city's combined sewer system. For the new development, storm water will be collected by roof drains and routed into the existing system under the Yard. All piping will run below the deck and drop at new column locations for connection to the existing system. No new underground storm piping will be required, except for short runs needed to connect to the existing system.

# DEVELOPMENT PRINCIPLES

Chapter 6

*A set of development principles were established after an initial assessment of the site and its context. The principles helped to guide the development of the master plan.*

### *Context*

The appropriate scale, density and mix of uses on the site should be keyed to the 34th Street/Pennsylvania Station development corridor and to the adjacent Convention Center area rather than the low scale industrial uses to the south of the site.

### *Uses*

The plan should provide for a mix of uses which reinforce each other to create a cosmopolitan urban environment, enhance the ability of the site to function as a destination, and enable the real estate markets to absorb the space more rapidly. Housing should capitalize on the riverfront as an amenity.

### *Site Access and Circulation*

The location of the site relative to the core of the Midtown CBD may require access improvements:

- Pedestrian links to the site, the viability of which depends on the sidewalk and streetscape environment between Eighth Avenue and Eleventh Avenue
- Vehicular access which should maximize the potential of Route 9A and the Lincoln Tunnel connections
- New transit services to connect the site to major existing transit modes may need to be provided. Any new transit should be planned so that it serves the Convention Center.

The site plan should include an internal street or loop system that provides maximum access within the site and keeps site-related traffic separate from through traffic as much as possible. The plan should also provide pick up/drop off/queuing space needed by taxis and radio cabs that are expected to serve the site. Parking spaces should be distributed within several facilities on the site (none of which should have more than 1500 spaces), rather than concentrated in a single facility, in order to disperse traffic as much as possible and avoid potentially significant environmental impacts.

### *Avenues and Streets*

The plan should reflect the traditional New York City grid to the extent allowed by site conditions. Eleventh Avenue bisects the site and can provide direct access at the level of the deck. The Convention Center's "front door" on Eleventh Avenue establishes this avenue's civic presence. Eleventh Avenue should therefore provide higher bulk and "address" locations. The public character and associated "street life" of cross streets should be introduced into the superblocks of the site, although the elimination of 32nd Street between Seventh Avenue and the site, and structural constraints of the site along Tenth Avenue diminish the power of the traditional grid to organize the site.

### *Riverfront*

The plan should capitalize on riverfront views as an amenity, and should establish a physical relationship between the site and the riverfront.

### *Open Space*

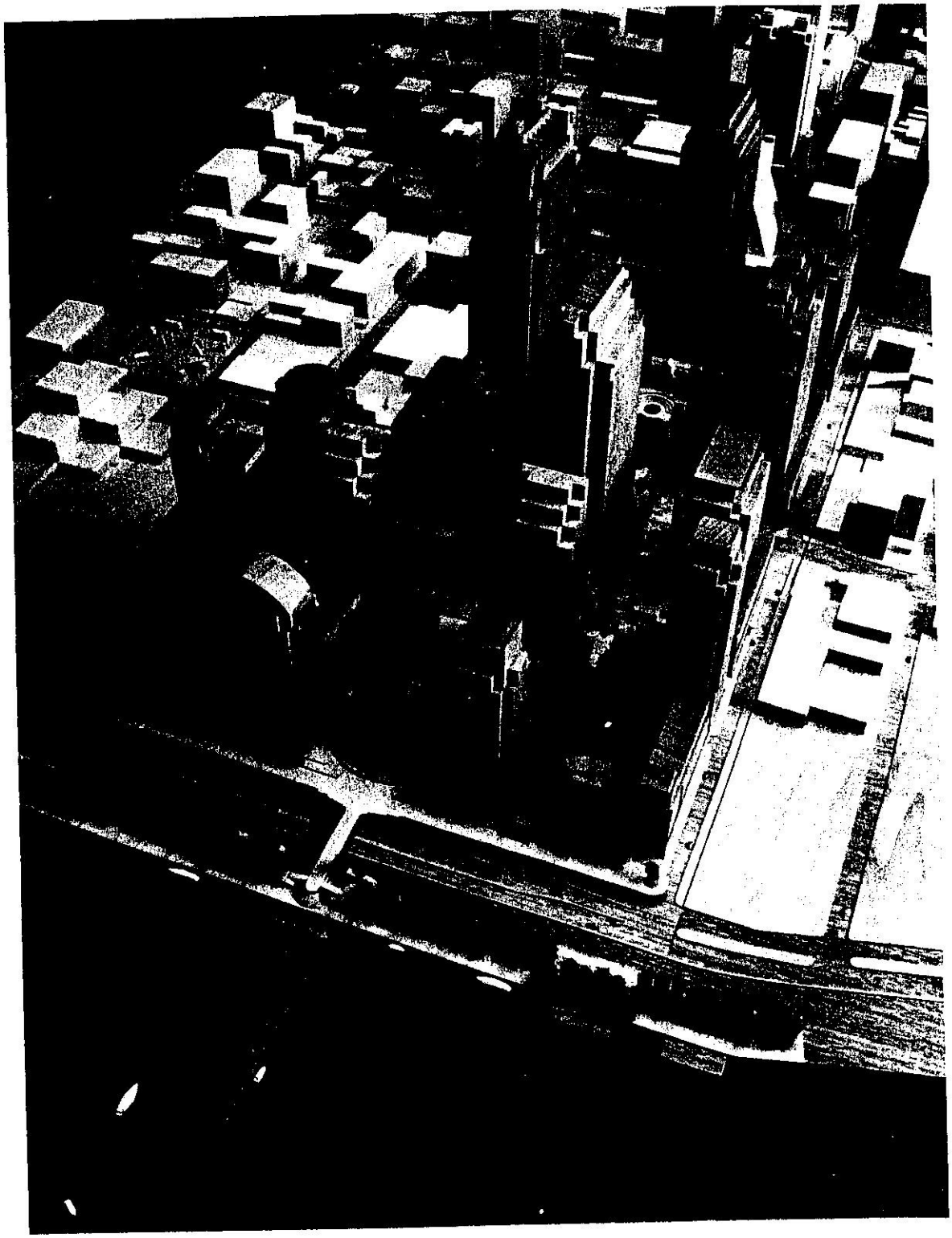
Open space should organize and provide a theme or focus to the plan in a manner that is appropriate to the specific uses and pedestrian linkages of the plan. Open space should provide a public amenity to the Convention Center and Chelsea neighborhoods, while generating added value to development parcels within the site.

### *Protection of Long Island Rail Road*

LIRR infrastructure and operating capacity must be protected during and after each phase of construction so that the level of service which the public experiences is not diminished. In particular, the plan must accommodate the physical constraints posed by lead tracks, substations, control tower, shop and utilities.

### *Phasing*

The overall master plan should be flexible and achievable in phases to accommodate fluctuating programs and markets. The individual parts must have the ability to function separately as well as a whole, given the probability that any phase may have to stand alone prior to completion of the balance of the master plan.



Photograph of model: view from the Hudson River looking northeast.

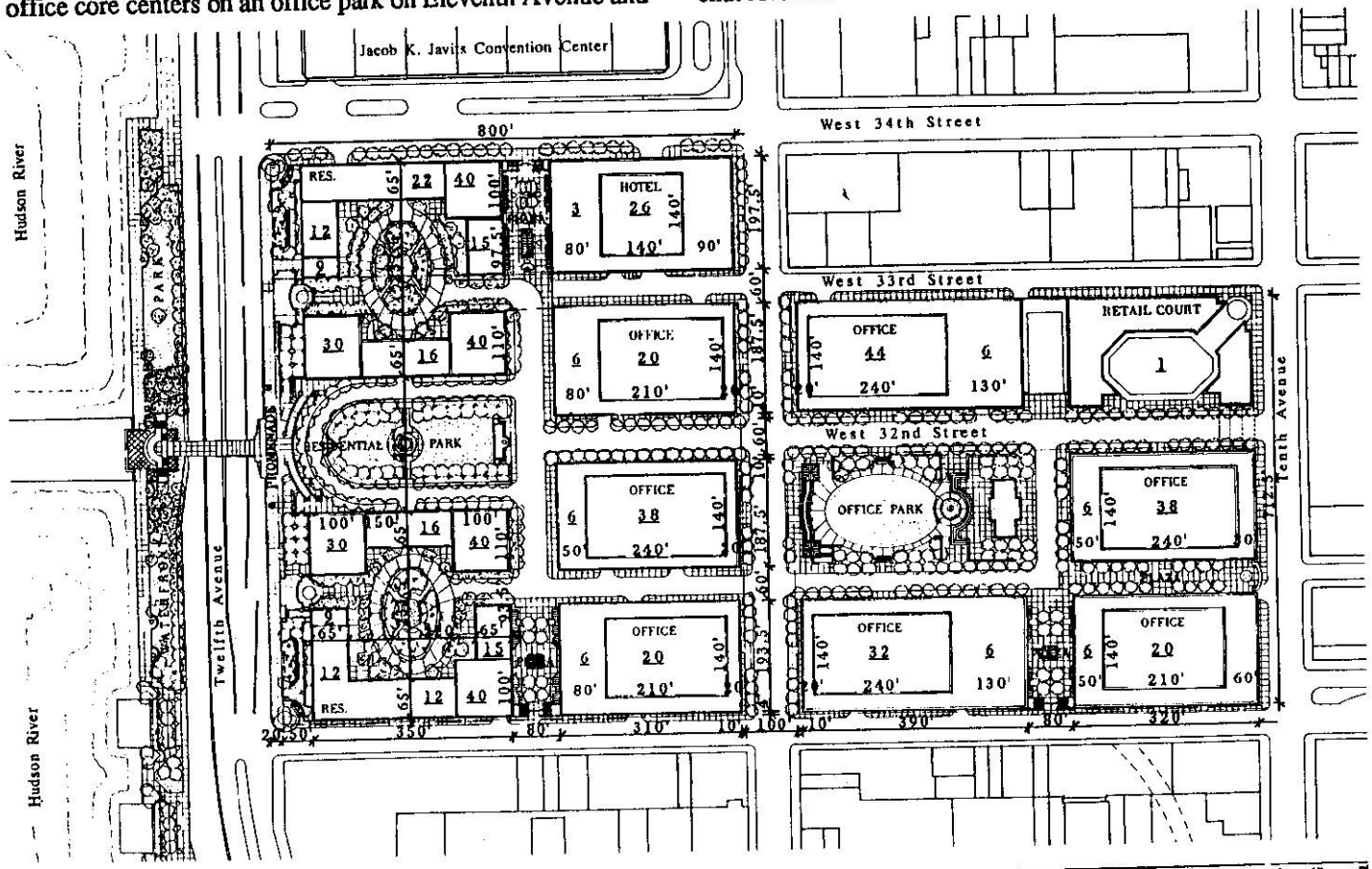
Chapter 7

# MASTER PLAN TECHNICAL DESCRIPTION

*This report is intended to establish framework for public discussion which can contribute to modifications and refinements of the master plan. Zoning and map changes by the City of New York and the approval of the project by the MTA will be necessary to implement the plan. These governmental actions will require detailed environmental analysis and public review to ensure that the broad range of public concerns are fully addressed. The technical description of the master plan including land use, open space, circulation, parking, floor area calculations and phasing are discussed below.*

## LAND USE

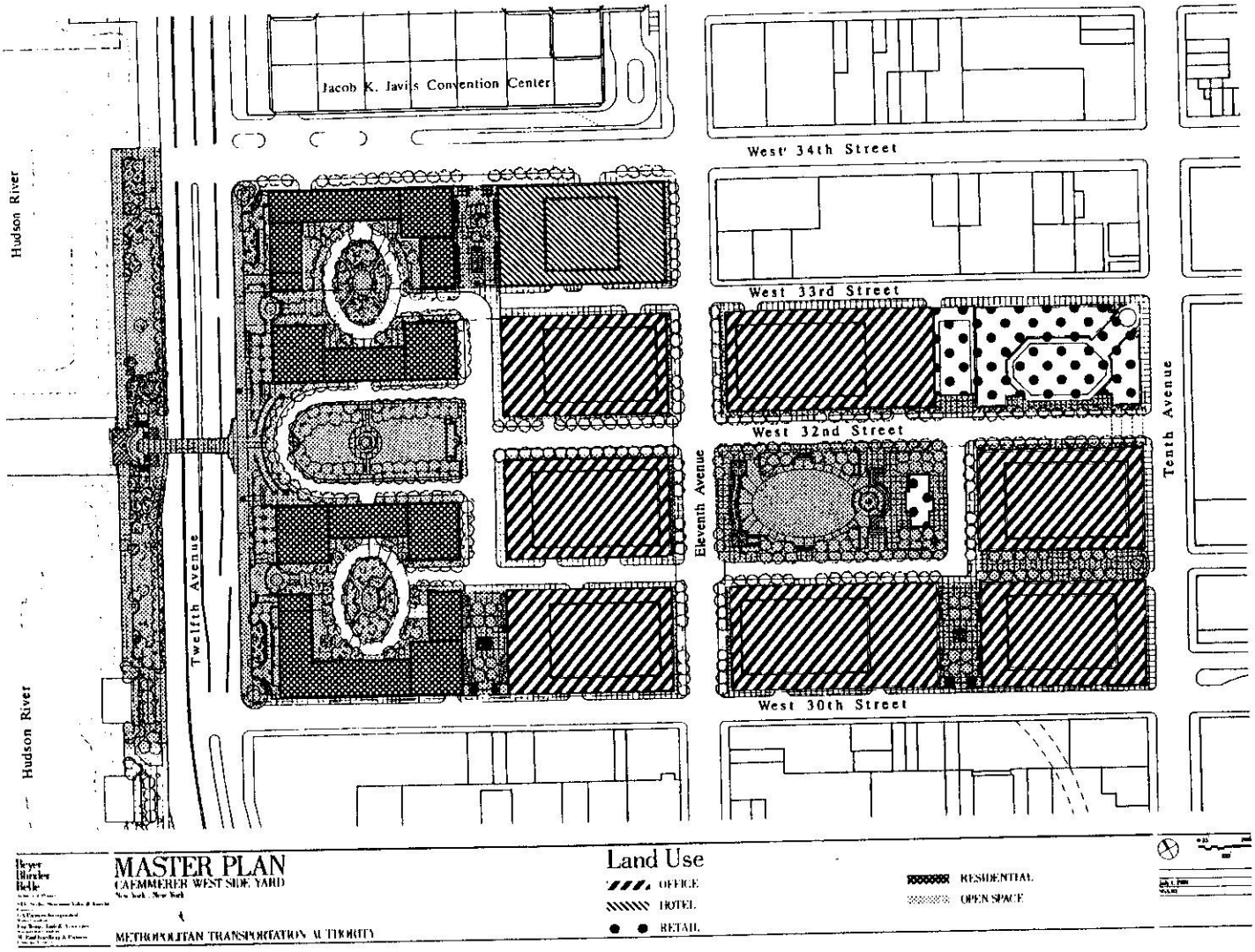
The site plan has a simple and clear land use pattern. A residential community of 3,600 dwelling units extends four blocks along the Hudson River. The buildings are organized around two large courtyards and a central residential park. The office core centers on an office park on Eleventh Avenue and is comprised of seven buildings of varying sizes. Retail to serve these principle uses is along Eleventh Avenue, 32nd Street, a retail court on Tenth Avenue between 33rd and 32nd Streets and a new north-south boulevard that runs from 33rd Street to 31st Street on Site A. A 718-room hotel is located across from the Convention Center at 34th Street and Eleventh Avenue.




Master Plan Description

MASTER PLAN
CAEMMERER WEST SIDE YARD
New York, New York

METROPOLITAN TRANSPORTATION AUTHORITY




# OPEN SPACE

As an urban design principle, building on the site has been organized around major open spaces. The buildings define these spaces which, in turn, provide a sense of place and identity to the buildings. Beyond this urban design role, the variety of open spaces meets a broad range of user needs.

Open space within the master plan can be broken down into the categories indicated on the "Master Plan Description" plan on page 35. Each category, with its associated generic characteristics, is described below.

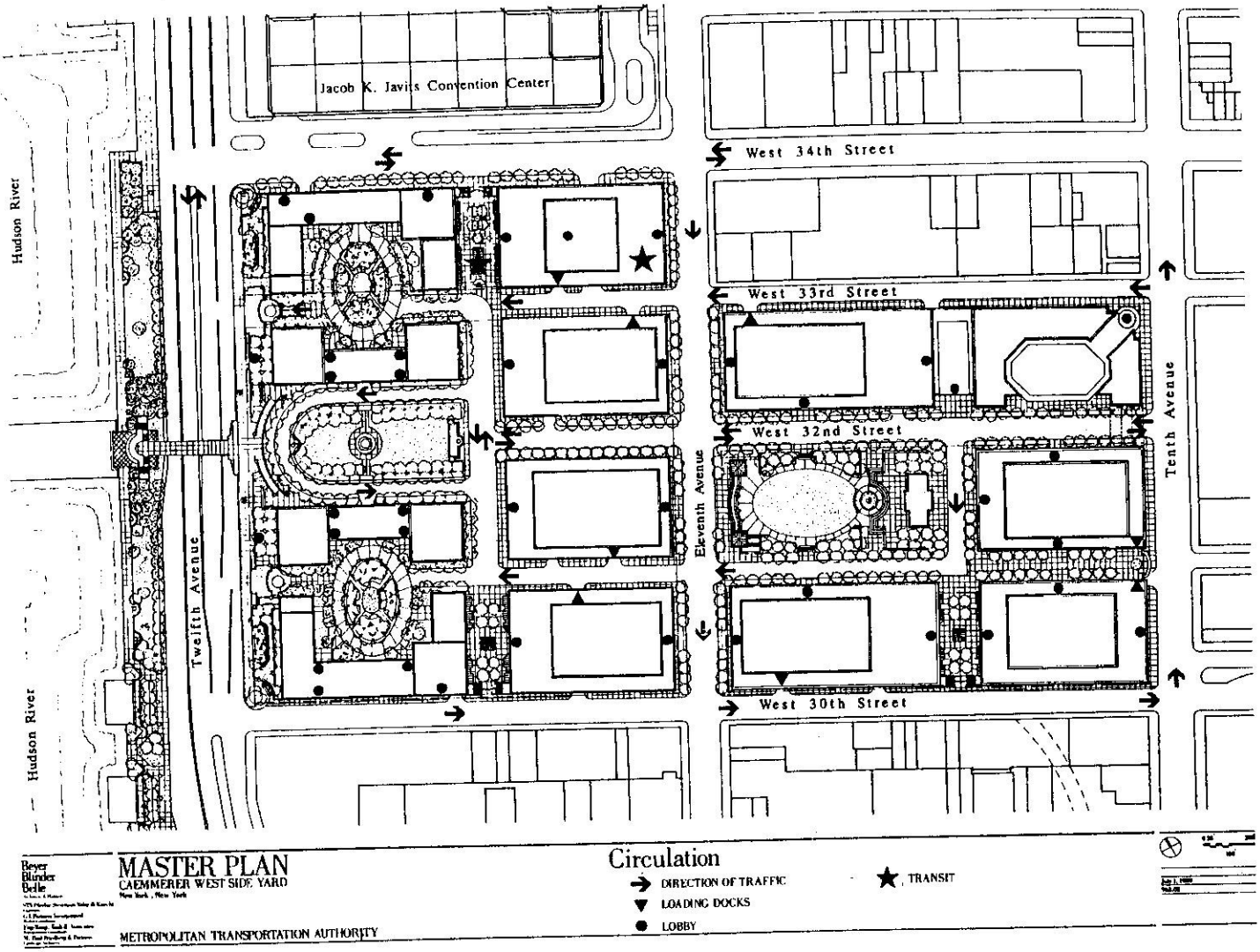
*Residential Courtyards* - passive, green open space surrounded by residential buildings. Primarily geared to residential uses and users. The spaces should have intimate, small scale characteristics within an overall open space framework which is of a scale suitable to the site. The park areas will be passive/visual spaces of semi-public nature, embellished with sculpture, fountains, or other "garden" elements. These park areas will accommodate a variety of uses which will include sitting, strolling, people watching, etc.

*Residential Park* - passive/visual, public open space connecting the promenade with the commercial sector of the site. Activities within the residential park would include sitting, strolling, people watching, frisbee throwing, small concerts, etc.

*Promenade* - semi-active open space serving as a conduit between the inboard open space and the outboard waterfront area. This promenade would accommodate activities which include tot lots, sitting, strolling, people watching, viewing of boats and Hudson River, part of jogging loop, etc.

*Waterfront Park* - semi-active, green and hard-paved open space. This area represents one of the open space anchor nodes of the master plan. Eventually tying into a larger north/south waterfront park system, it will provide an opportunity for passive and active events to take place: sitting, strolling, frisbee throwing, fishing, boat watching, concerts, etc.

*Office Park* - active and passive green space adjacent to Eleventh Avenue. This space is the other anchor node of the open




space system and serves as the centerpiece and activity center of the office complex. The open space will accommodate active events such as concerts, dances, celebrations and dining as well as passive events such as sitting and strolling.

*Retail Plazas* - semi-active, hard surface, urban space, adjacent to retail/commercial areas and, in one instance, adjacent to the transit stop. These spaces will provide an opportunity for retail activities to spill out onto the adjacent plaza, i.e., bookstores, dining, art galleries, etc.

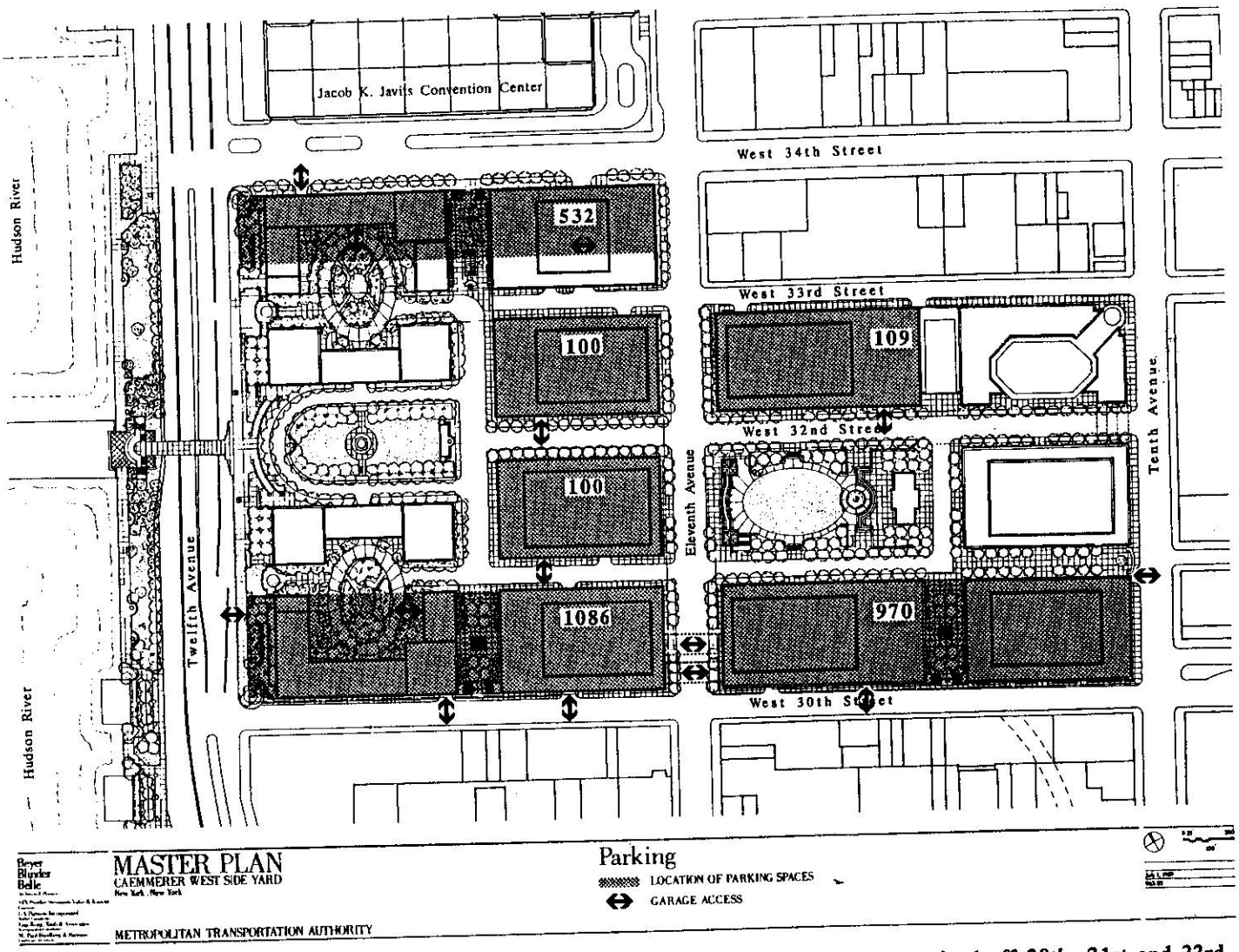
*Eleventh Avenue Sidewalk Widening* - active, hard surface, urban space, serving primarily as the north/south pedestrian link to areas outside the project. This sidewalk widening is embellished with street trees, creating a pedestrian scale streetscape at the foot of the office towers.

*32nd Street Sidewalk Widening* - active, hard surface, urban space, serving primarily as the east/west pedestrian link to areas outside the project. This sidewalk widening is embellished with ornamental trees, creating a pedestrian scale streetscape at the foot of the office towers.

# CIRCULATION

The street grid is introduced into the superblocks of the site to the extent possible. While the elevation of the platform above the LIRR storage and maintenance yard permits access primarily at Eleventh Avenue, a new 32nd Street can connect between Tenth and Eleventh Avenues. A transit station for the people-mover system is contemplated for the site at Eleventh Avenue. At the eastern end of the Eleventh Avenue station an arcade leads to the Convention Center and a sidewalk widening leads to the office buildings; at the western end, a plaza leads to the residential buildings as well as the office buildings via a new mid-block north-south street.

Vehicular access to the office buildings is by a street system off Eleventh Avenue and the new 80 foot wide, two way 32nd Street. Two new 80 foot wide, north-south streets are proposed mid block on Sites A and B. West 33rd Street continues to Twelfth Avenue under the northern residential courtyard.




Access to the residential buildings is via the proposed north-south street and driveways. Secondary access for all the residential buildings occurs off Twelfth Avenue, 30th and 34th Streets. The north residential complex has primary access from 34th Street and an internal driveway in its courtyard. Primary access to the south residential complex is via a similar driveway and West 31st Street. Hotel drop-off is west of and parallel to Eleventh Avenue between 33rd and 34th Streets. Access to the major garage is via 30th Street, which is widened to permit four lanes (44 feet) with sidewalks reduced to 10 feet each. The buildings on the site provide a 4-foot sidewalk easement along 30th Street in order to accommodate the wider roadway. Additional access to this garage occurs from Tenth and Twelfth Avenues, as well as the residential courtyards.

The office buildings are serviced off 30th, 31st and 33rd Streets. The hotel is serviced off 33rd Street. The residential buildings are serviced both at the platform level and at grade level on Twelfth Avenue, 30th and 34th Streets.

# PARKING

Approximately 2,900 parking spaces are dispersed throughout the site. The major garage is at 30th-31st Streets between Tenth and Twelfth Avenues. Generally there are three levels in the garage to the platform level. The garages have multiple points of entry/exit from adjacent streets and the platform level, with direct connections to the Lincoln Tunnel, Route 9A and connections between the garages under Eleventh Avenue. The garages on Site C do not cover the full block because of the transit station and temporary transit maintenance facility. In addition, there are smaller garages on the second floor of the three office buildings not located above major garages.

The current use of Site C, truck marshalling for the Convention Center events, may be partially displaced to the extent that basement space is required for parking and transit station and maintenance facilities. Alternative locations for this function would need to be identified; one possibility is the pier north of the Superliner Terminal.

Parking spaces were generated on the basis of 20-25% of the dwelling units (716-895 reserved spaces); 15% of the hotel rooms (108 reserved spaces); and the offices, retail, and Convention Center sharing general public parking spaces (1894-2073).

# FLOOR AREA CALCULATIONS

The site, less the area of W. 32nd Street between Tenth and Eleventh Avenues, totals 1,250,000 square feet. A density at a Floor Area Ratio (FAR) of 10 was established for planning purposes. This yields a program of 12,500,000 square feet.

A 10 FAR density was chosen as a reasonable starting point for planning analysis because it is in keeping with City treatment of similar sites and it is within a range considered reasonable by the traffic, engineering and marketing consultants after they had reviewed the site planning issues in a preliminary fashion.

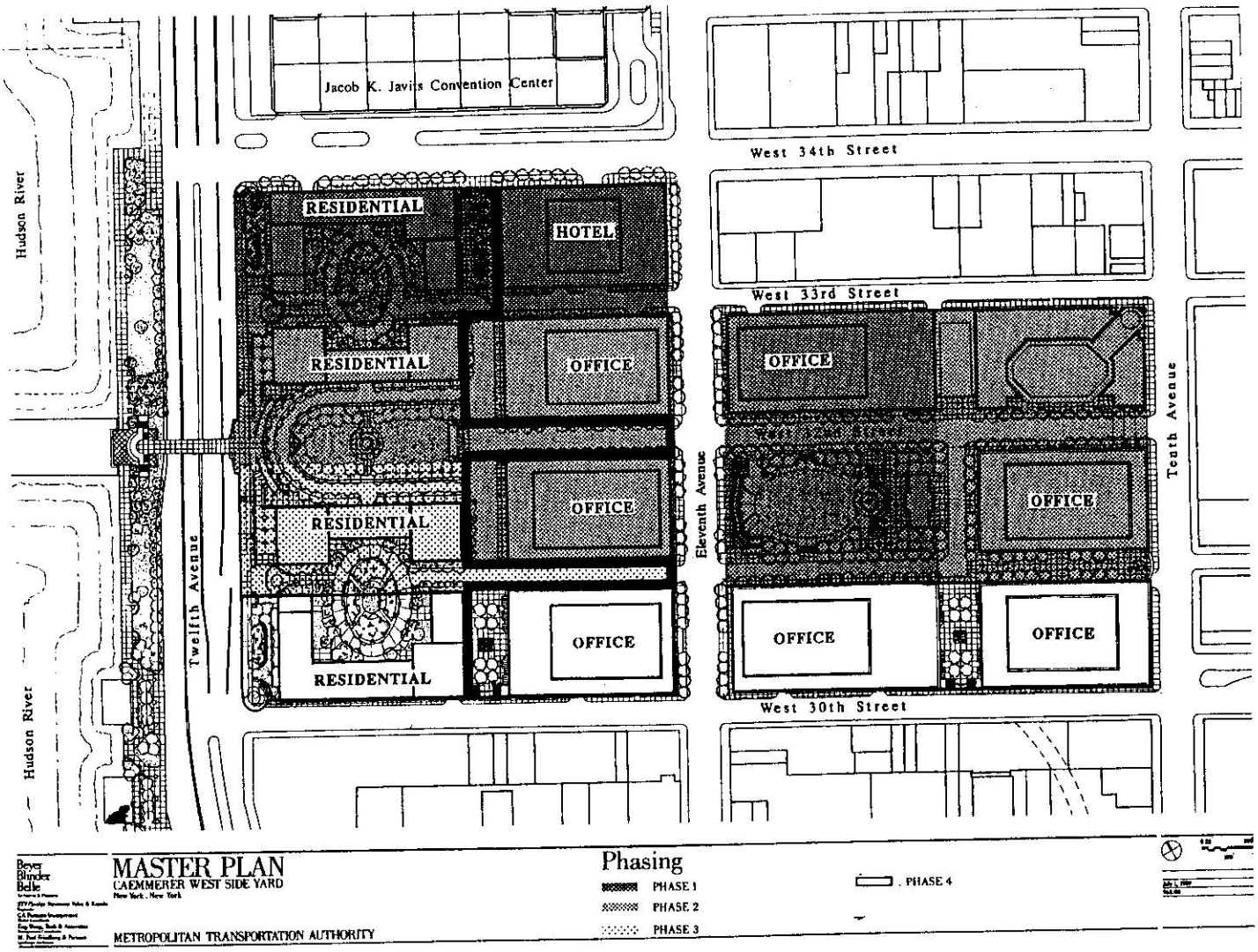
In particular, 10 FAR is the typical moderate-high density found in Manhattan outside the CBD. For example, the residential Upper West and East Sides are zoned 10 (bonusable to 12 FAR) on the avenues. The Olympia and York and Lazard superblock adjacent to the Caemmerer Yard site is zoned M1-6 or 12 FAR which includes a 2 FAR as-of-right plaza bonus. Other sites just outside of the core, which were recently rezoned to 10 FAR or 12 FAR equivalent, include the full block north of the Convention Center at 42nd Street, the former S. Klein site at Union Square, a number of large residential sites on First Avenue and the full block site of the old Madison Square Garden at 49th Street and Eighth Avenue. In addition, several enduring large scale New York City developments of the past have densities of 10 FAR or greater. Examples include Tudor City (10 FAR) and the original Rockefeller Center (13 FAR).

In the range of 10 FAR plus or minus 2 FAR, site plans would not vary with respect to land use patterns, open space, circulation systems or building location. Generally, within that range, density changes would primarily affect building heights and massing. Therefore, a 10 FAR seemed appropriate for site planning analysis.

If future environmental or other considerations demonstrate that a different density is called for, building sizes can be altered within the framework of the proposed site plan.

| USE* | SITE A | SITE B | SITE C | TOTAL | | |
|---|---|---|---|---|---|---|
| | Sq. Ft. | Sq. Ft. | Sq. Ft. | Sq. Ft. | Units | Parking Spaces |
| *Office* | *2,955,810* | *5,334,190* | - | *8,290,000* | - | *2,073* |
| *Hotel* | - | - | *632,000* | *632,000* | *718 Rms.* | *108* |
| *Residential* | *2,630,000* | - | *948,000* | *3,578,000* | *3,578 Apts.* | *716* |
| ***Total*** | ***5,585,810*** | ***5,334,190*** | ***1,580,000*** | ***12,500,000*** | - | ***2,897*** |

** Retail at 200,000 square feet is a component of office, hotel and residential uses.*




## PHASING

The master plan will be developed in phases. While the specific timing of each phase will be determined by future market conditions, a general sequence of building can be anticipated based upon constructability, marketing and financing considerations. A conceptual framework which divides the project into four phases each for residential and office use (which may be concurrent) is shown in the "Phasing" map. Each phase consists of building and a designated portion of the street and open space system. This framework enhances the project's viability by minimizing up-front infrastructure costs and by locating the first buildings near existing streets and utilities.

The components of the first residential phase will need to provide a large enough population to establish a sense of place and will require sufficient street access and open spaces. Thirty-fourth Street can be used to establish a presence for approximately 950 residential units. The first office phase at Eleventh Avenue and 33rd Street will provide the office park to establish a focus for subsequent office development.

To the extent that the plan is modified during the course of its review, other phasing schemes may prove to be more attractive. These will be explored more rigorously as the plan is refined.

# NOTES

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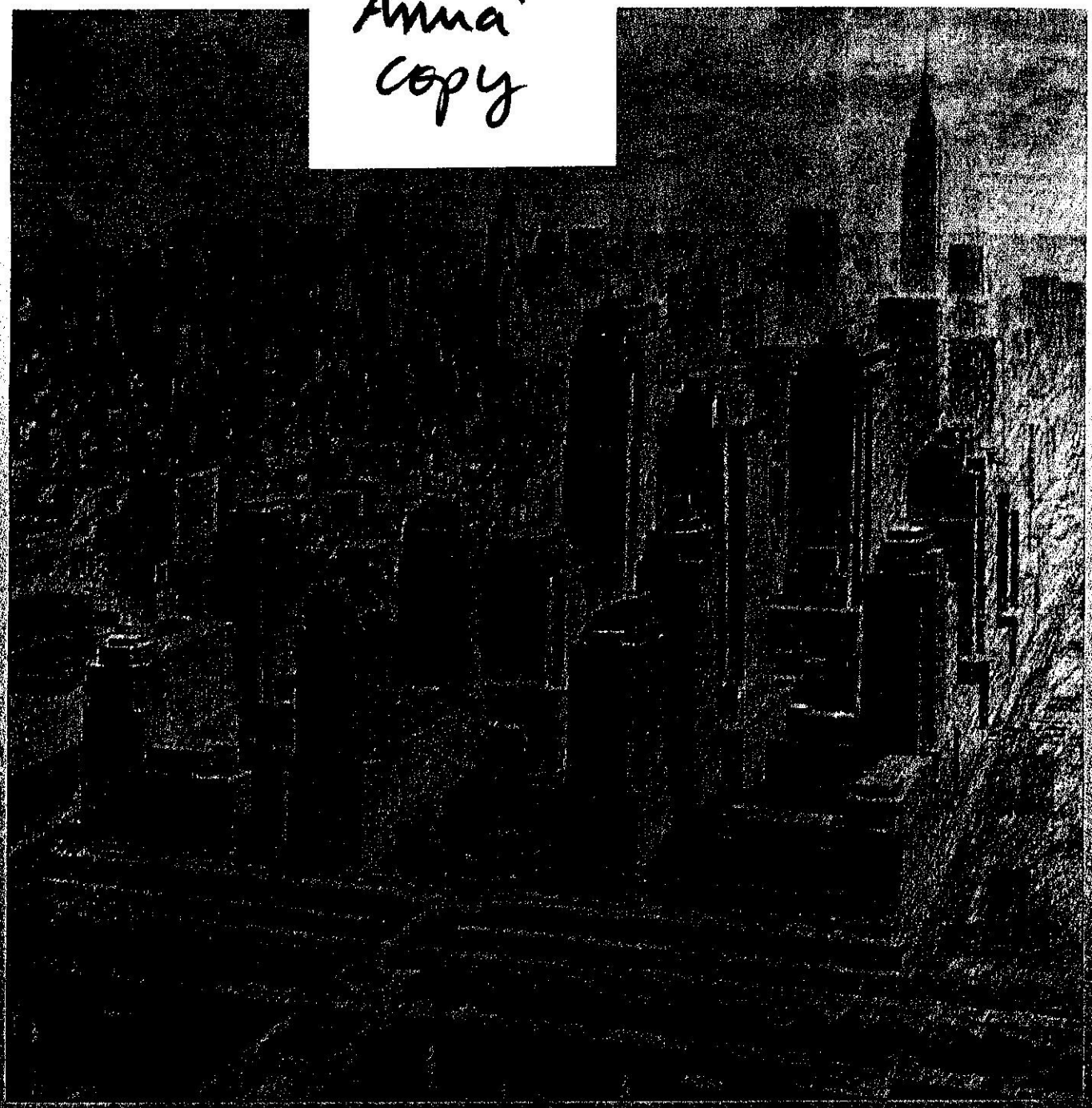

# MASTER PLAN
## CAEMMERER WEST SIDE YARD
New York, New York

August, 1989


Beyer Blinder Belle
Architects & Planners

STV/Seelye Stevenson Value & Knecht
Engineers

GA/Partners Incorporated
Market Consultants

Eng-Wong, Taub & Associates
Transportation Consultants

M. Paul Friedberg & Partners
Landscape Architects

Metropolitan Transportation Authority

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*Landscape Architects*



Metropolitan Transportation Authority

# TABLE OF CONTENTS

# LIST OF EXHIBITS

# LIST OF PARTICIPANTS

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| Edward Helenius | *Urban Designer* |

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| John Tomann | *Civil Engineer* |
| Walter Shapiro | *Structural Engineer* |

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| Julius S. Levine | *Executive Vice President* |
| R. Bruce Gamble | *Vice President* |

## Eng-Wong, Taub & Associates, Transportation Consultants

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|---|---|
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## M. Paul Friedberg & Partners, Landscape Architects

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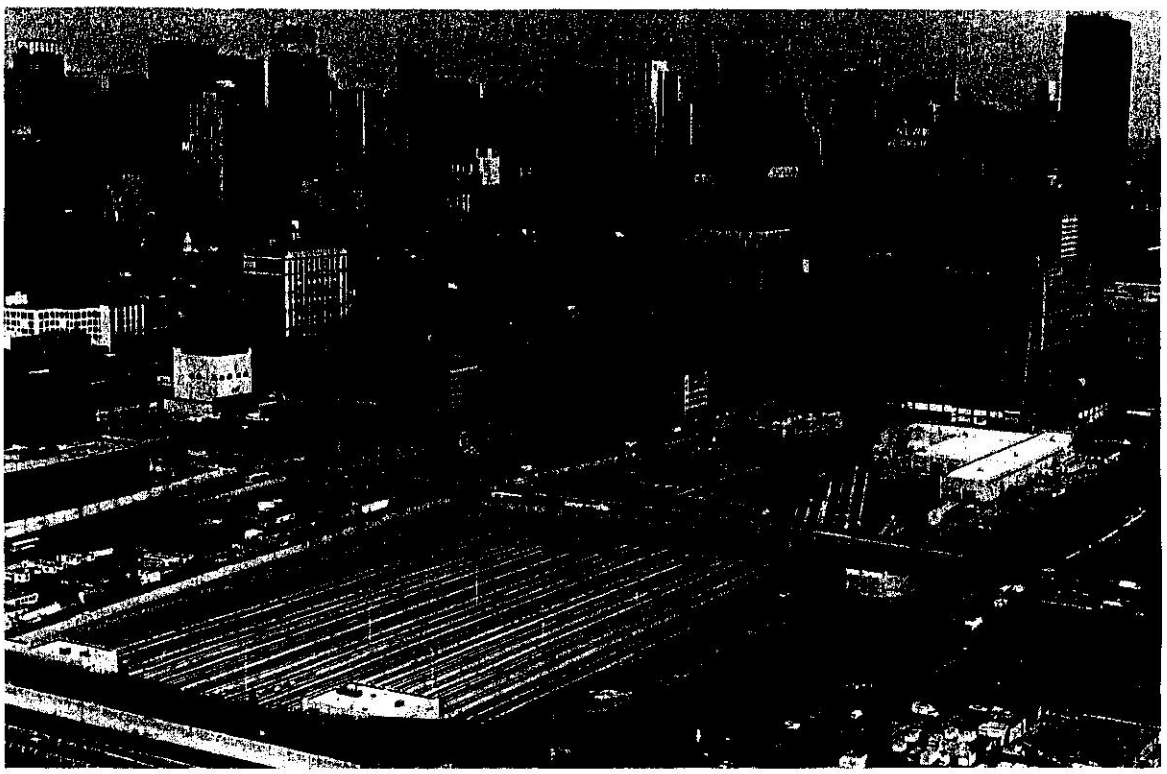
|---|---|
| M. Paul Friedberg | *Principal* |
| Mark Sullivan | *Associate* |
| Kyriacos Pierides | *Designer* |

## Richard Lovelace, Architectural Delineator

## 3-D Design, Modelmaker

The Site, looking southeast



The Site, looking northeast