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REDEFINING BRANDING IN ARCHITECTURE

CASE STUDY: WESTSIDE RAILYARDS DEVELOPMENT NEW YORK CITY, USA

By: Andrew Vuono



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I. Problem: Redefining Branding in Architecture

Project Title: The West Side Rail Yards/ Highline Development

Roger Williams University
Masters of Architecture

Date: May 2009

Name: Andrew Vuono

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Date

Graduate Thesis Advisor: Andrew Cohen

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Date

Dean Stephen White

Signature

Date

II. Introduction

Recently, cities such as Bilbao, Shanghai, and Dubai have all successfully used architecture to enhance their image and elevate their position in the world. Also, buildings that are currently under construction in the Far East, the Middle East, the United States, and Europe are attempts to redefine urban, regional, and even national identities. One can observe how important architecture is to branding and vice versa.

In order to understand Branding in Architecture we first need to define a brand. What is a brand?

1. A trademark or distinctive name identifying a product or a manufacturer.
2. Kind, grade, or make, as indicated by a stamp, trademark, or the like
3. A kind or variety of something distinguished by some distinctive characteristic
4. A distinguishing symbol, mark, logo, name, word, sentence, or a combination of these items that companies use to distinguish their product from others in the market.

-Source: Dictionary.com

Famous Brand/Product Slogans

<i>Company</i>	<i>Slogan</i>
Sprite	Image is nothing. Thirst is everything. Obey your thirst.
Nike	Just Do it
Coca Cola	The Real Thing
L'Oreal	Because you're worth it.
VISA	It's everywhere you want to be
Apple Computer	Everything is easier on a Mac
Dell Computer	Easy as Dell
eBay	The World's Online Market Place
Yellow Pages	Let your fingers do the walking.
McDonald's	I'm loving it!

-Source: <http://www.buzzle.com/articles/famous-advertising-slogans.html>

What is your favorite marketing slogan?
My favorite, Sprite “Image is nothing. Thirst is everything. Obey your Thirst”. If you break down the words it implies that Sprite doesn’t have an image and it’s more about the beverage or product. Dissecting these statements, it doesn’t make sense



because the image or “hook” is that they don’t have an image, but that is not true because not having an image, is the image therefore defeating the purpose of trying not to have a marketing gimmick.

Together, products and technological media form a potent formula that has transformed into the art of shopping. Shopping is the medium by which the market has solidified its grip on our spaces, buildings, activities, and lives. Shopping is arguable one of the last remaining forms of public activity; more specifically in the teenage years. The Generation Y (1982-1994) and Z (1995-present) are a large demographic, as are the supposed potential future generations. Within the last few decades it has become the trend to gather at the “mall”. It seems as if this shopping trend will only grow into every intergenerational pastime.

Shopping has had the ability to colonize, almost every aspect of urban life. Every project type now has some form of shopping (product/brand) ie, town centers, suburbs, streets, train stations, museums, hospitals, schools and even the military. Airports are becoming more profitable by converting travelers to shoppers. Even museums are turning to shopping to survive. Since 1992, gallery space in the United States has increased 3% while museum stores space has increased by 29%.

-Source: Harvard Design School Guide to Shopping: Project on the City 2

Some architects disapprove of using branding as a way to market a product to a building. Yet they use shopping configurations to help aid the attendance in museums and universities, so why not bring branding to the forefront rather than being ashamed of it? Other architectural firms, such as

Perkins and Will, and Gensler, have been using branded environments. They have a special research team that helps define the product, buyer, and the seller, and analyzes how spaces should be configured to best suit those needs.

The Branded Environments group of Perkins+Will helps clients get closer to their customers. Branded Environments has delivered strategic brand communications, sales tools and environments for the nation's most recognized brands. Organizations such as Hallmark, DuPont Antron, Ogilvy & Mather, Haworth, Northwestern University, Chicago Tribune and Tootsie Roll have all benefited from branded environment innovations. This research-driven creative service is internationally recognized for leveraging design as a corporate asset. Compelling two and three-dimensional contact points are created to communicate the company's brand, enhance culture and achieve corporate goals. A dedicated, multi-disciplinary team includes specialists in strategic consulting, brand development, research, marketing communications, graphic design and interior architecture.

-Source: perkinswill.com

Branded environments extend the experience of an organization by having distinguishing characteristics as expressed in names, symbols and designs. Components can include, but not limited to: finish materials, environmental graphics, way-finding devices and signage and/or identity systems. The benefits include improved brand position and communication, better customer recognition, differentiation from competitors and higher perceived value from investors.

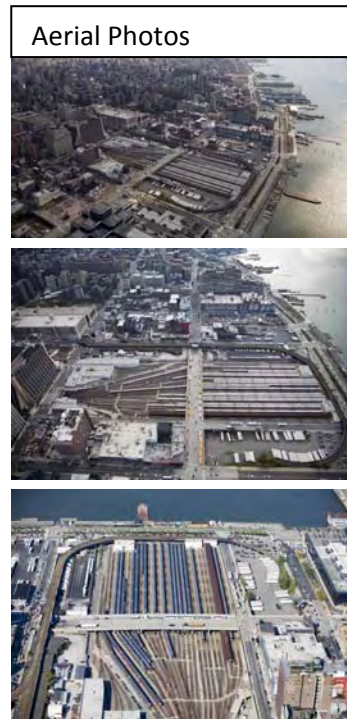
The role that architecture can play as catalyst in marketing product's and its users has been a largely underutilized resource. Branded Architecture can make positive strides in the way we associate, learn, and think about specific cities, towns, neighborhoods, and even individual buildings.

III. Problem Statement

Using Architecture as a branding strategy often fails to establish sensitive connections to particular contexts by imposing standardized forms and formulas on the urban landscape. I want to reexamine the relationship between branding in architecture. True branding elements are more site and project specific than in previous works. The fundamental goal in redefining branding in architecture is creating specific spaces or environments that engage the public all while sending the message of the brand via programmatic, structural, and/or architectural issues. These elements mentioned are just a few components, however, they can help in enforce company's goals or product and the user's activities within the strategic designed spaces.

IV. Project Statement

I am proposing a Master Plan of a 26 acre (1.4 million sq. ft.) development on top of the West Side Railyards near Midtown Manhattan. Midtown Manhattan in and of itself has a brand and I would like to design within it.



V. Program Outline/ Interrelations and Adjacencies/ Narrative

Narrative

Modeling other urban developments (such as Rockefeller Center and the World Trade Center Redesign), developing an ongoing program based upon strategic spaces that start connecting to the surrounding context. The primary focus will be creating a destination that anchors the Highline in connection with public green space. While examining Manhattan, there seems to be a lack of green space towards the Midtown area, so many of the programmatic issues will address this problem.

Interrelations and Adjacencies

Program Elements will be governed by pedestrian accessibility

- **The Highline** (1.5 miles of existing elevated railway spanning from Greenwich Village to the Westside Railyards).
- Subway (7- line extension)
- Bus Stops (near the Javits Center)
- Javits Center (public exhibition space)
- Penn Station
- Madison Square Garden
- The Empire State Building (popular tourist attraction in Manhattan)
- 34th Street District (multiple blocks of retail)
- Surrounding Residential Neighborhoods (Hell's Kitchen, West Chelsea, and Farley Corridor)

Program Outline/ Area Allocations:

- Connection to the Highline and a Pier that bridges over highway
- Housing.....1,000,000 sq. ft
- Office Space.....1,100,000 sq. ft.
- Cultural Center.....75,000 sq. ft.
- Retail/Commercial Space.....875,000 sq. ft.
- Fitness Center.....50,000 sq. ft.

Total: 3,000,000 sq. ft.

VI. Program Themes/ Architectural Intentions

The goal is to create a series of towers that specifically focus on anchoring the Highline as a destination all while enhancing the “New York Experience” of the surrounding context. One missing component in New York City is a self-guided exploration while above the ground. There are instances where you can go to the observation decks of buildings and look out, ie Empire State Building and the Top of the Rock (Rockefeller Center), even taking a helicopter ride to name some examples. However there isn’t a way of experiencing Manhattan above ground level whereby the pedestrian can engage its surrounds in a more dynamic way. This was until the announcement of the Highline being restored and made into a pedestrian walkway that links Greenwich Village to the Westside Railyards. Currently, this elevated railway terminates at the Westside Railyards site. I want to use this under-utilized walkway as the anchor of my development and specifically create spaces that embrace

The brand will be re-identifying the unused railyards, due to its proximity to the highline, Javits Center, Pennsylvania Station, Madison Square Garden, the Hudson River, and is the intersection of the West Chelsea, Hell’s Kitchen Neighborhoods, and the Farley Corridor. It’s ability to adapt and mold all of these elements in a new innovative way will be the product of the brand. It will harness the potential destination of the Highline as a way to draw more people into the development which includes retail, exhibition, mixed use, and public spaces. Each of these programmatic elements are then made into towers to aid in the visible connection to Midtown Manhattan; which truly is a series of elevated skyscrapers.

VII. Site Identification and Rationale

The vision for the Hudson Rail Yards in New York's far west side is to transform this underused area into a place where New Yorker's and tourists will want to live, work, play, and visit.



The location will allow for the expansion of midtown's central business district and to secure the city's economic future. The Hudson Yards will provide opportunities for the desperately needed office space, convention center expansion, and residential growth that the city will need to see in the next few decades. The New York region anticipates that they will need to accommodate over 440,000 new workers that will require a total of 111million square feet of office space by the year 2025. There are not many sites left in Midtown that can accommodate new office buildings. Studies show that at most New York only has 20 million square feet left for the needs of these office buildings. The Hudson Rail Yards in one of the last frontiers available in Manhattan. This area has enough acres to meet the public responsibility to keep providing job and housing opportunities for all New Yorker's. The footprint is larger than Rockefeller Center's and the potential for more commercial and residential space than ground zero. As said by Manhattan's governor David Patterson that the future development would "send an enormous signal of confidence in New York City's future."

The site context of the Hudson Rail Yards is located on Manhattan's West Side between the west side highway and 10th avenue and between 30th and 33rd streets. The site is 26 acres of rail yards where dozens of tracks leading in and out of Pennsylvania Station carve through the site. It is 6 square blocks where a string of parking lots and old industrial buildings flank the tracks to the south.

***A. Comparison to Future BRAND Development in Manhattan:
The World Trade Center Redesign***

The new World Trade Center is to be completed over the next decade providing nearly 10 million square feet of commercial space. The site context of the World Trade Center is approximately 16 acres. On these 16 acres is the new Freedom Tower that will taper into eight tall isosceles triangles forming a perfect octagon at the center. The top will be illuminated to evoke the torch of the statue of liberty. The Freedom Tower will retain the height of the earlier design at 1,776 feet tall. This symbolizes the year that the United States declared its independence as well as a memorial to the twin towers. There will also be a memorial built in remembrance of the events of September 11, 2001. There are entrances on all four sides of the tower which are open, accessible, and connected to the community and street life. The building's base is shrunk to 200 square feet same as the original and is set back 90 feet from the street to add more grade level space for emergency vehicles as compared to only a 25 foot setback in the original. This building is meant to be the country's safest with a steel frame vertical core that is enveloped by 2 feet of solid concrete. In the core there is an emergency fireman's lift as well as emergency systems like generators, pressurized ventilation systems, and high capacity water storage for the sprinklers. Other notable features about this design proposal is that it also strives for high sustainability levels by using state of the art energy saving technology.



Looking at the World Trade Center proposal it comparison to the Hudson Rail Yards proposal brings up several similarities and differences. First the similarities: both designs serve as models of energy saving technology and also strive to both go to high levels is LEED certification. Both proposals are critical in New York's economy and its future. They both provide plenty of office space as well as retail space and world class restaurants. The proposals give great importance to open space for the public since there is always a need for more

outdoor spaces in the city. They also provide transit access by subway. Finally both proposals have the power to drastically change the skyline of New York City with brilliantly designed skyscrapers that define our current modern period.

There are also many ways in which these two proposals are different from one another. Partly the fact that the size of the Hudson Rail Yard site is almost twice the size as the World Trade Center site is why there can be more needs met. The biggest difference I see is that the World Trade Center proposal is mostly about retaining several of the same elements of the old towers. This new design is a remembrance to the past. It is a memorial to what use to be. It is also highly defined by safety features and also very symbolic of our country while the Hudson Rail Yards are a gesture to help New York's economy and need for more space to provide work space and housing.

B. Comparison to previous BRAND development: Rockefeller Center

Rockefeller Center, a "city within a city" which attracts millions of visitors and native New Yorkers every year. The Center is a combination of two building complexes: the older and original 14 Art Deco office buildings from the 1930s, and a set of four International-style towers built along the west side of Avenue of the Americas during the 1960s and 1970s. Construction of the 14 buildings in the Art Deco style began on May 17, 1930 and was completed on November 1, 1939. In the late 1920s, New York's Metropolitan Opera became interested in the twelve acres of land between 48th and 51st Streets and Fifth and Sixth Avenues in mid-town Manhattan for the construction of its new home, along with several office towers. The project sought to replace the shabby brownstones and speakeasies in the area with modern skyscrapers, creating a new cultural and commercial center in the heart of the city's fastest growing section.



Rockefeller Center was the first development in the world to include offices, retail stores, restaurants, broadcasting studios, and entertainment venues in one complex. Among the latter, Radio City Music Hall (opened in 1932) stunned the audiences of the time with its breathtaking gold-leafed proscenium arch. Another crowd-pleaser, the skating rink, was built in 1936, after Rockefeller discovered that a system had just been invented that would make artificial ice for one of his family's favorite pastimes. New technology was widely used throughout the complex, which for the first time featured high-speed elevators, air conditioning, and an elaborate underground concourse and parking lot.

Highline Background and Documentation



Highline Background and Documentation



HIGH LINE FACT SHEET

Total Surface Area: 296,000 square feet

Total Acreage: 6.7 acres

Total Length:

1.45 miles without Post Office spur

1.52 miles with Post Office spur

Columns: approximately 475

Buildings Traveled Through: 2

Buildings Traveled Over: 13

Building Sidings: 9

City Blocks Crossed: 22

Publicly Owned Lots Traversed: 2

Privately Owned Lots Traversed: 31

Total Street Crossings: 25

Maximum Width: 88 feet

Minimum Width: 30 feet

Rail Easement: 20 feet above the track

Load Capacity: 4 fully loaded freight trains

Height: 0 feet to 29 feet above grade

Materials: Steel frame, reinforced concrete deck,
gravel ballast, metal handrails





Near the corner of 11th Avenue and 34th Street in Manhattan, a stone's throw from the side door of the Jacob K. Javits Convention Center, the High Line elevated rail viaduct rises from a cut near the 30th Street Rail Yards and ramps up on brawny steel columns, creating a three-block-long, curved balcony overlooking Hudson River. (Fig 4)

No trains have traveled its tracks since the early 1980s. The elevated rail bed is carpeted by meadow grass and wildflowers. Still, a visitor walking along the High Line can sense the wonder an engineer on the newly-built structure might have felt as his locomotive pushed up from the dark cut, into the light, and ran around the edge of the busy rail yards. The river below would have been crowded with ferries, tugboats, and barges. The just-completed Empire State Building would have loomed up in front of him as his train turned east, at 30th Street. (Fig 5) Then the curving tracks would have gently spun him south, into industrial West Chelsea, steering him between warehouses that accepted deliveries directly from the High Line, and through factories that were specifically constructed to allow his train to run in their interiors. (Fig 6)

The High Line was the first completed stage of the West Side Improvement, a massive urban infrastructure project undertaken by the New York Central Railroad, in partnership with the City of New York. (Fig 7) In later stages, under the stewardship of Robert Moses, the Improvement built platforms over the rail lines north of 72nd Street, expanded Riverside Park on top of them, and constructed the Henry Hudson Parkway. The entire Improvement cost more than \$175 million in 1930s dollars.

The High Line's elevation of the rail lines was a potent symbol of modernity. Solving the city's traffic problems—at least theoretically—by stacking different transport forms on different levels and weaving them into the buildings they served was a commonly held vision of the time. Nowhere was there a greater need for a traffic-sorting system than on the West Side. Before the High Line, 10th Avenue was known as “Death Avenue” for the many accidents caused by New York Central trains running at grade. Cars, pedestrians, and horse-drawn carts thronged around the Hudson River passenger terminals, such as the Chelsea Piers, where Cunard and White Star ships docked. Loaded freight cars from rail lines in New Jersey were ferried across the Hudson and rolled off barges via floating bridges onto a network of street-level tracks. From there they were pulled to nearby yards and industrial buildings, such as the Starrett-Lehigh Building, where elevators hauled loaded freight cars up to 19 factory and warehouse floors.

But the premise on which all these structures were based—that the West Side would continue to be a place where trains, ships, and industry came together, proved elusive. The mid-century rise of air travel and trucking brought a decline in ocean and rail traffic. Major infrastructure for ships and trains in Manhattan was abandoned. McKim, Mead & White's Pennsylvania Station was declared an outmoded relic and demolished. The southernmost portion of the High Line was torn down. Piers burned or fell into disuse.

After decades of neglect, these discarded transportation systems have returned to prominence on Manhattan's West Side. Their skeletons are being used as the framework for some of the most dramatic redevelopment projects taking place in New York City. On and between the

surviving piers of the once-active waterfront, the Hudson River Park is currently laying down ribbons of grass and paved trails for pedestrians and cyclists. The bones of the Chelsea Piers have provided the shell for a large athletics complex of the same name. A high-speed ferry terminal has been proposed for an old New York Central Railroad float bridge at the former 60th Street Rail Yards, at Riverside Park South. Plans have been made to create a new Pennsylvania Station atop the rail lines that fed the hallowed original.

The factory and warehouse buildings that were designed to interact with the railroads have been similarly transformed. The Starrett-Lehigh Building is now occupied by a growing number of art galleries, photo studios, and Internet businesses. (Fig 8) The Spear & Company Warehouse, which had a private loading platform to accept deliveries directly from the High Line, has been converted to luxury lofts. Art museums, galleries, performance spaces, restaurants, and nightclubs vie for turf in the one-story garages and larger warehouse buildings that once housed railroad-related manufacturing and distribution operations. The Nabisco factory building, once served by the High Line, is called the Chelsea Market and is filled with retail/wholesale food companies and media-related businesses. The High Line, unused, still runs through its interior.

The 30th Street Rail Yards, edged by the High Line, has become one of the most hotly discussed redevelopment sites in the city. (Fig 9) Competing elected officials stand behind different proposals: for office towers, a sports stadium, an expansion of the Jacob K. Javits Convention Center, or a mixed-use commercial/residential complex. Any of these would require the construction of a platform over the rail yards, a concept that was part of the West Side Improvement's original plans.

Sitting at the nexus of so many redevelopment initiatives with transportation infrastructure at their hearts, many of which have a historical link—and in some cases a physical link—to the High Line, this elevated viaduct is primed for reuse.

In 1999, a not-for-profit group of neighborhood residents, business-owners, design professionals, and civic groups joined to form Friends of the High Line (FHL). Their mission is to bring the out-of-use viaduct into the federally sanctioned rail-banking program, which would open the rail deck to the public for use as a walkway. Over 11,000 rail-trails have already been created nationwide, the result of legislation designed to protect transportation corridors that could never be recreated in today's economy and which one day may be needed again. Preserving the High Line as an elevated walkway does not preclude continued development in the area. The viaduct was designed to encourage new buildings to connect to or encompass the structure, which would still be the case if pedestrians replaced trains as users of the transportation corridor. FHL asserts that the structure is fit for reuse; engineers have examined it and found it to be structurally sound, though in need of paint, concrete repairs, and maintenance to its drainage system.

A group of private landholders, Chelsea Property Owners (CPO) wants the High Line torn down and has been working since the mid-1980s to achieve that goal. CPO members own land directly beneath the High Line. Most owners purchased their land at prices that reflected the existence of the High Line's easement, and they expect the value of their land to increase if the structure is removed. They also assert that the High Line is a blight and that its poor maintenance creates hazardous conditions. CPO does

concede that if the High Line were converted to a public promenade, nearby property values would rise. However, the group continues to pursue demolition as the most expedient method of accomplishing its goals.

CSX, the railroad company that owns the High Line, currently takes a neutral position. It is bound by a 1992 ruling from the Interstate Commerce Commission (ICC) ordering Conrail, which then owned the High Line, to abandon and allow demolition of the line only if CPO meets extensive financial and legal conditions. In the decade since that ruling, CPO has not been able to meet the conditions. CSX is required to continue negotiating with CPO towards a possible demolition agreement, but at the same time CSX remains open to viable rail-banking proposals from government agencies and not-for-profit groups, such as Friends of the High Line.

In late 2000, Friends of the High Line submitted a proposal for a comprehensive planning study to the Design Trust for Public Space, an independent not-for-profit organization that works in partnership with public agencies and community groups on projects to improve the design of New York City's public space. The Design Trust accepted the proposal based on the High Line's extraordinary value to the neighborhood as potential public open space and its universal significance as a precedent for the rehabilitation of disused infrastructure. Fellowships were awarded to two architects to conduct separate, innovative investigations into the High Line's rich possibilities.

Casey Jones undertook an eight-month-long study of the High Line's history and physical conditions, local zoning, current land use, and community needs. Informed by this research, Jones led a series of advisory sessions with

community members, development experts, and design professionals to evaluate the feasibility of reuse alternatives, including transportation, commercial, arts-oriented, and open space reuse scenarios, as well as demolition. In June 2001, the Design Trust hosted a forum on the High Line—part of its Public Space Maker event series. A panel of experts in the fields of politics, finance, and the physical design of public sector infrastructure addressed the viaduct's unique reuse potential and challenges. Working with the results of the Public Space Makers forum, the advisory sessions, and the extensive data Jones assembled in his months of research, the Design Trust and Friends of the High Line jointly developed recommendations for the reuse of the High Line. These recommendations, as well as Jones's data, are included in the pages that follow.

The second fellowship was awarded to Keller Easterling, who created a web site comprising four speculative environments for the High Line. Because Easterling's project is not limited to attainable possibilities, its purely conjectural environments provide a counterpoint to Jones's fact-based study. The user can experience the High Line from the perspective of a developer, an animal, a tourist, and a party-goer. Easterling's work can be accessed at <http://www.thehighline.org>.

The tragic events of September 11, 2001 occurred just as the Design Trust and Friends of the High Line were formulating the recommendations outlined in this report. It is still too early to know what direction New York City's rebuilding efforts will take. But it is clear that all new construction in Manhattan, of private buildings and public spaces alike, has a vital role to play in our city's recovery. Any brick put down or any tree planted must recharge the urban economy; it must attract

new businesses, residents, and visitors by creating appealing, healthful, safe work and home environments; it must spark financial activity, raise property values, and generate tax revenues.

Preserving open land and creating new public spaces boosts property values and generates higher property tax revenues. Manhattan is built around the proof of this principle: Central Park. In the mid-1800s, the City's expenditure for land in Central Park was quickly compensated by the taxes generated by the increased value of adjacent property. Urban bikeways and walkways function in a similar manner; in Seattle, homes bordering the 12-mile Burke Gilman trail sell for 6 percent more than houses of comparable size in other locations.

The High Line was built to be a working structure that boosted New York City's economy, feeding it with raw materials and carrying away the finished goods it sold. Reusing this transportation corridor as public space for pedestrian use can—and must—nourish our city in a similar manner. Buildings should be constructed next to and around the High Line to take advantage of the unique benefits it offers. This was the plan when the High Line was first constructed, and the possibilities it offers are greater than ever today.



USES AND PROGRAMMING

Below the High Line

Many spaces under the High Line are privately owned. Bold designs and feasible economic plans must be presented to underlying landowners to encourage uses and programming under the High Line that serve community needs and create a welcoming environment. These should include current manufacturing uses, green markets, arts programming, and commercial/retail opportunities. (Fig 18, 19)

Of the spaces under public control, most are street crossings. These must be made to function as safe, aesthetically pleasing environments for daily pedestrian and vehicular passage. Maintenance, lighting, and netting to discourage birds are all required.

Other public spaces under the High Line include the Gansevoort Market Meat Center building and the 30th Street Rail Yards. Uses and programming at these sites should serve the surrounding community and the objectives of the governmental agencies that control the sites. Public access to the High Line's upper deck should be maximized.

Many light manufacturing uses and commercial uses are currently located under and around the High Line. These include auto repair facilities, auto body shops, and storage/warehouse uses. The transportation and industrial history of this neighborhood dictates that we respect these uses and promote their continued presence in spaces beneath the High Line.

On Top of the High Line

Pedestrian use is the best possible transportation option for the upper deck of the High Line. Other options, such as subway, light rail, and bicycle, have been studied, but each presents



Small Retail Features

The High Line's predominant identity must be as an open public space that serves the public's transportation, recreational, and contemplative needs. It must not become a mall. But limited commercial uses—adjacent to the High Line's walkway and in spaces below the structure—are both necessary and desirable. They will stimulate use, create variety and excitement, help create a secure environment with storefronts providing “eyes and ears” on the walkway, and generate revenue for maintenance of the public space. (Fig 26, 27)

New York City Models:

- **Chelsea Market:** Businesses that manufacture, distribute, and sell foods—both wholesale and retail—flank a linear corridor in a former Nabisco factory that was once served by the High Line. The continuation of the neighborhood's manufacturing/ food processing history; the development of independent retail outlets that are needed by the community; the attractiveness as a visitor destination; and the celebration of the neighborhood's industrial architecture are all desirable in any commercial facilities designed to complement the High Line's public open space.
- **59th Street Bridgemarket:** Retail and restaurant uses occupy renovated spaces beneath the Queensboro Bridge, complemented by a new public plaza. A collaboration among a private developer, the New York City Economic Development Corporation, the New York City Department of Transportation, and private historic preservation groups resulted in this combination of active transportation uses, public space, and commercial facilities.
- **Greenmarkets:** There are 13 greenmarkets in Manhattan's parks, playgrounds, parking lots, closed streets, and other available open

spaces. The largest is at Union Square, where up to 70 regional farmers sell foods they grow or raise themselves. The program is run by the Council on the Environment of New York City, a privately funded citizens organization in the Office of the Mayor.

- **Rockefeller Center:** Retail storefronts face a linear public space—the Channel Gardens—resulting in one of New York City's most visited sites.
- **Chelsea Carwash/Gas Station:** The High Line itself provides the structure for a commercial use at 14th Street and 10th Avenue that meets a basic need of residents, workers, and visitors.

International Models:

- **Promenade Plantée/Viaduc Des Arts, Paris:** When the Paris government converted an elevated rail viaduct to a public park, it leased the underlying spaces to artists, artisans, and craftspeople who make and sell their work there.
- **The Seine, Paris:** Alongside a riverside walkway, book vendors create culturally important retail opportunities with minimal footprint and investment.
- **Ponte Vecchio, Florence, and Rialto Bridge, Venice:** These bridges are developed with small shops to transform transportation infrastructure into social centers.
- **Galeries St. Hubert, Brussels; Galleria Vittorio Emanuele II, Milan; Galleria Umberto I, Naples:** These 19th-century, urban glass-covered arcades provide public, inter-block pedestrian corridors protected from the weather and flanked by retail spaces.



EXISTING CONDITIONS

CURRENT USE

The last train rode the High Line's tracks in 1980. Since that time it has sat unused. Overgrown with plant life, the upper deck now resembles an elevated green carpet, weaving between buildings as it makes its way from the 30th Street Rail Yards to the Gansevoort Meat Packing District.

The underlying property on which the structure stands is held separately by a number of owners, including New York State, New York City, and more than 20 private landholders. Many of the underlying properties are occupied by active industrial uses. Eleven of the twenty two

blocks over which the High Line runs are dedicated to automotive uses—nine of those are parking lots. Other adjoining property uses include the Long Island Rail Road Yards, a metal scrap yard, a beer distributorship, a specialty market place, and a collection of wholesale meat markets. Only one adjacent site is unoccupied. (Fig 52)

MAINTENANCE/STRUCTURAL INTEGRITY

CSX, the railroad company that owns the High Line, regularly dispatches engineers to inspect the structure. Their 1999 engineering study of the High Line, by the firm of Hardesty & Hanover LLP, found it to be fundamentally sound, with the line's main structure—the columns and beams supporting the rail platform—in good condition. Originally designed to carry the weight of four fully loaded freight trains, the High Line is still capable of withstanding a tremendous load. It was last painted in 1968 and its steel appears rusty; nonetheless it remains structurally sound.

In 1999, when CSX first assumed ownership of the line, there were 63 violations cited by the New York City Department of Buildings, all of which CSX has corrected in the last two years. There are currently no outstanding violations.

Chelsea Property Owners (CPO) has criticized CSX, asserting that the railroad does not sufficiently maintain the structure. CPO contends that water damage has weakened the structure, patches of concrete fall from the underside of the decking, metal plates have rusted, and rivets have loosened, creating hazards.

In the past the concrete rail bed has experienced limited spalling, a condition that occurs when moisture penetrates concrete. Over time, with repeated freezing and thawing, cracks form and widen until isolated pieces separate

and fall. This is a common problem on bridges and elevated highways, which freeze more quickly in winter. Any reuse plans for the High Line will require proper maintenance to prevent all future spalling.

The High Line was originally equipped with proper drainage, but much of the piping is now missing or corroded. During heavy rains, water pours out of the drainage holes on the underside of the rail bed in some locations. Repairing the drainage system will be a requirement of any plan to reuse the line.

In some sections of the High Line, pigeons roost between the beams that hold up the rail bed. The unsanitary condition they create is a nuisance, especially at street crossings, where pedestrians must cross beneath the structure. Correcting the problem will not be difficult or expensive. At some locations on the line, wire mesh has been attached to the underside of the structure to address this concern. This mesh must be maintained over time to ensure pigeons do not take hold in the future, and similar corrective treatments should be employed all along the line.

The Chelsea Carwash, a gas station and car wash directly under the line at 14th Street and 10th Avenue, has repaired and maintained the underside of the High Line in an exemplary manner. The station uses the structure of the High Line as its canopy. As part of the 1996 renovation, which was permitted by the railroad, the owners repaired the concrete platform and painted the steel structure. They reattached the missing piping to the drainage systems and stabilized the concrete spall by waterproofing on top of the concrete platform. Five years later, the structure is in good condition with only minor maintenance needed.

COMMERCIAL REUSE (Fig 67)

The High Line was originally designed as an economic engine for the city, feeding businesses in the factories and warehouses through which it passed. Still attached to numerous buildings containing commercial operations, and able to be connected to many more, the structure has potential as a commercial corridor. But how much commercial activity, and what type, would be most beneficial?

Reuse as a single commercial operation, such as a unified retail environment, is not practical or desirable. The structure's elevation and linearity poses a challenge to stocking and merchandising procedures. In addition, if rail-trail mechanisms are used to acquire the line, regulations will restrict commercial operations in the transportation corridor itself. The community has repeatedly expressed opposition to large-scale retail operations, preferring independent stores with smaller footprints.

Conceiving of the High Line as a linear mall, with a publicly accessible transportation corridor at the center, flanked by a series of retail uses along its length, might appeal to economic development interests and provide a revenue stream to support the public space, but it would compromise many of the line's most appealing features: its contemplative quality, its ability to convey its history of transportation use, and its sense of a place apart from the city as we commonly experience it. It would be unappealing to the community, which values open-space that is not over-commercialized.

Limited commercial activity, however, can generate revenues for maintenance of the open space and provide security, acting as eyes and ears on the line. In addition, the presence of well-placed, well-chosen commercial operations can increase usage, which also serves to increase security. For that reason, commercial reuse as a limited component of the overall reuse plan—but not its primary focus—is recommended by this study.

OPEN SPACE REUSE (Fig 68)

Reusing the High Line structure as a public open space conveys a great pool of benefits to a large number of people.

There is need for open space in the neighborhoods surrounding the High Line. Of 59 Community Boards in New York City, Board 4, which contains most of the High Line, is currently ranked fourth from the bottom in terms of open space. It has less than one-fifth of an acre of open space per thousand residents, compared with a citywide average of 2.5 acres per thousand. The completion of the Hudson River Park will add open space to the area, but even the temporary walkway/bikeway along the Hudson River's edge is already one of the most heavily trafficked open spaces in the city. The Hudson River Park does not negate the need for more open space in the area but illustrates the demand for it.

Reuse as open space will convey economic value to properties adjoining the structure, as it has consistently done in New York since the establishment of Central Park. This will increase the tax revenues collected and serve to entice new businesses and residents to the area.

Open space is regularly one of the subjects of negotiation between community and economic development interests. When the Department



of City Planning presented potential rezoning scenarios to Community Board 4's Preservation and Planning Committee, the calls for additional open space were consistent and strong.

Open space reuse is consistent with rail-banking, the most viable and most cost-effective plan for acquiring the easement.

Open space reuse opens up the possibility of numerous related initiatives that could enhance the far West Side as it grows in upcoming decades. It would complement any of the redevelopment proposals at the 30th Street Rail Yards. It would create the opportunity to organize growth on the far West Side around public open space and sustainable transportation. It would encourage arts-related uses, reinforcing the neighborhood's reputation as a cultural hub.

Open space reuse of the High Line offers a clear, aesthetic benefit to the community and the city. This is illustrated by the High Line's current condition, a park-like setting created spontaneously by nature.

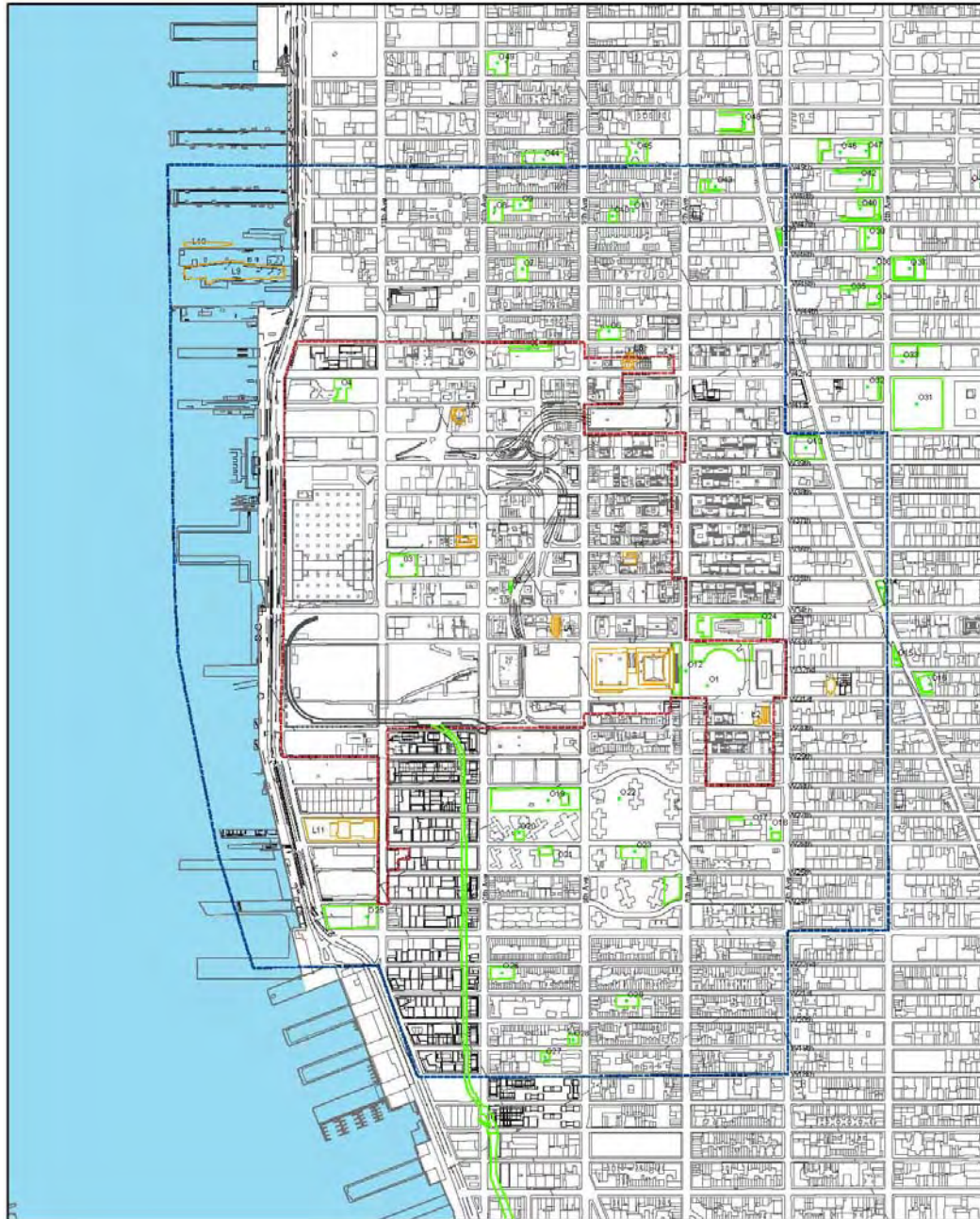
MOVING FORWARD

This study represents the first step of many towards the High Line's reuse as a public open space and pedestrian transportation corridor. Its recommendations will form the base of a design competition, to be sponsored by Friends of the High Line in 2002.

The design process should be an evolutionary one, as it was for the High Line's original construction. The first call to raise the New York Central Railroad's tracks off New York City streets came more than a half-century before the High Line was built, and plans for the structure changed many times during the decades of public discussion that led to its construction.

MTA Hudson Yards Rezoning Analysis

Chapter 8: Shadows



Open Space Resources

Res. No.	Resource Name
O01	12th Park
O02	10th Park
O03	14th Park
O04	16th Park
O05	18th Park
O06	20th Park
O07	22nd Park
O08	24th Park
O09	26th Park
O10	28th Park
O11	30th Park
O12	32nd Park
O13	34th Park
O14	36th Park
O15	38th Park
O16	40th Park
O17	42nd Park
O18	44th Park
O19	46th Park
O20	48th Park
O21	50th Park
O22	52nd Park
O23	54th Park
O24	56th Park
O25	58th Park
O26	60th Park
O27	62nd Park
O28	64th Park
O29	66th Park
O30	68th Park
O31	70th Park
O32	72nd Park
O33	74th Park
O34	76th Park
O35	78th Park
O36	80th Park
O37	82nd Park
O38	84th Park
O39	86th Park
O40	88th Park
O41	90th Park
O42	92nd Park
O43	94th Park
O44	96th Park
O45	98th Park
O46	100th Park
O47	102nd Park
O48	104th Park
O49	106th Park
O50	108th Park
O51	110th Park
O52	112nd Park
O53	114th Park
O54	116th Park
O55	118th Park
O56	120th Park
O57	122nd Park
O58	124th Park
O59	126th Park
O60	128th Park
O61	130th Park
O62	132nd Park

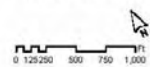
Res. No.	Resource Name
H01	12th Park
H02	10th Park
H03	14th Park
H04	16th Park
H05	18th Park
H06	20th Park
H07	22nd Park
H08	24th Park
H09	26th Park
H10	28th Park
H11	30th Park
H12	32nd Park
H13	34th Park
H14	36th Park
H15	38th Park
H16	40th Park
H17	42nd Park
H18	44th Park
H19	46th Park
H20	48th Park
H21	50th Park
H22	52nd Park
H23	54th Park
H24	56th Park
H25	58th Park
H26	60th Park
H27	62nd Park
H28	64th Park
H29	66th Park
H30	68th Park
H31	70th Park
H32	72nd Park
H33	74th Park
H34	76th Park
H35	78th Park
H36	80th Park
H37	82nd Park
H38	84th Park
H39	86th Park
H40	88th Park
H41	90th Park
H42	92nd Park
H43	94th Park
H44	96th Park
H45	98th Park
H46	100th Park
H47	102nd Park
H48	104th Park
H49	106th Park
H50	108th Park
H51	110th Park
H52	112nd Park
H53	114th Park
H54	116th Park
H55	118th Park
H56	120th Park
H57	122nd Park
H58	124th Park
H59	126th Park
H60	128th Park
H61	130th Park
H62	132nd Park

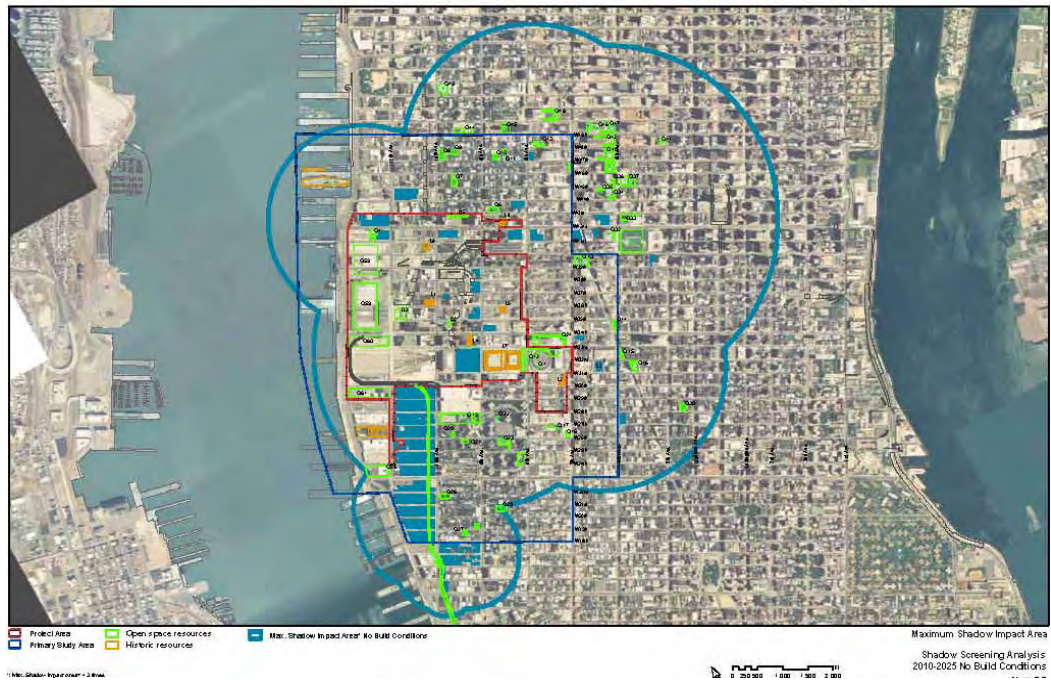
Res. No.	Resource Name
H01	12th Park
H02	10th Park
H03	14th Park
H04	16th Park
H05	18th Park
H06	20th Park
H07	22nd Park
H08	24th Park
H09	26th Park
H10	28th Park
H11	30th Park
H12	32nd Park
H13	34th Park
H14	36th Park
H15	38th Park
H16	40th Park
H17	42nd Park
H18	44th Park
H19	46th Park
H20	48th Park
H21	50th Park
H22	52nd Park
H23	54th Park
H24	56th Park
H25	58th Park
H26	60th Park
H27	62nd Park
H28	64th Park
H29	66th Park
H30	68th Park
H31	70th Park
H32	72nd Park
H33	74th Park
H34	76th Park
H35	78th Park
H36	80th Park
H37	82nd Park
H38	84th Park
H39	86th Park
H40	88th Park
H41	90th Park
H42	92nd Park
H43	94th Park
H44	96th Park
H45	98th Park
H46	100th Park
H47	102nd Park
H48	104th Park
H49	106th Park
H50	108th Park
H51	110th Park
H52	112nd Park
H53	114th Park
H54	116th Park
H55	118th Park
H56	120th Park
H57	122nd Park
H58	124th Park
H59	126th Park
H60	128th Park
H61	130th Park
H62	132nd Park

Res. No.	Resource Name
H01	12th Park
H02	10th Park
H03	14th Park
H04	16th Park
H05	18th Park
H06	20th Park
H07	22nd Park
H08	24th Park
H09	26th Park
H10	28th Park
H11	30th Park
H12	32nd Park
H13	34th Park
H14	36th Park
H15	38th Park
H16	40th Park
H17	42nd Park
H18	44th Park
H19	46th Park
H20	48th Park
H21	50th Park
H22	52nd Park
H23	54th Park
H24	56th Park
H25	58th Park
H26	60th Park
H27	62nd Park
H28	64th Park
H29	66th Park
H30	68th Park
H31	70th Park
H32	72nd Park
H33	74th Park
H34	76th Park
H35	78th Park
H36	80th Park
H37	82nd Park
H38	84th Park
H39	86th Park
H40	88th Park
H41	90th Park
H42	92nd Park
H43	94th Park
H44	96th Park
H45	98th Park
H46	100th Park
H47	102nd Park
H48	104th Park
H49	106th Park
H50	108th Park
H51	110th Park
H52	112nd Park
H53	114th Park
H54	116th Park
H55	118th Park
H56	120th Park
H57	122nd Park
H58	124th Park
H59	126th Park
H60	128th Park
H61	130th Park
H62	132nd Park

- Project Area
Primary Study Area
Open Space Resources
Historic Resources

Open Spaces and
 Historic Resources
 Shadow Analysis
 No Build Conditions







Open Space Resources

Res. No.	Resource Name
001	2 Penn Plaza
002	Bolsa Park
003	Isabel Plaza
004	640 W 2nd St Plaza
005	Gregory J.M. Portley Plaza
006	McCaffrey Playground
007	Max Matthews Playground
008	Hells Kitchen Park
009	Clinton Community Garden
010	Ramon Aponte Park
011	Martin S. Heisler Garden
012	Parkside Plaza
013	Golda Meir Square
014	Herald Square
015	Green Square
016	1230 Broadway Plaza
017	220 W 2nd St Park
018	211 Plaza

Res. No.	Resource Name
019	Chelsea Park
020	Elkorthouse Open Space
021	Chelsea House Open Space
022	Penn South House Open Space
023	Penn South House Playground
024	1 Penn Plaza
025	Chelsea Waterside Park
026	Clement Clarke Moore Park
027	Brand Park
028	1095 Sixth Avenue Plaza
029	Green Plaza
030	1155 Avenue of the Americas Plaza
031	DeShaw & Co. Plaza
032	1177 Avenue of the Americas Plaza
033	1165 Ave. of the Americas Plaza
034	1165 Ave. of the Americas 30th Street Tower
035	Pathe Duffy Square
036	225 W 2nd St Plaza

Res. No.	Resource Name
037	High School of Graphic Communication Design
038	Worldwide Plaza
039	1455 Avenue of the Americas Plaza
040	1251 Ave. of the Americas Plaza
041	1633 Broadway Paramount Plaza
042	W. 24th-25th Streets
043	W. 25th-26th Streets
044	W. 26th-27th Streets
045	W. 27th-28th Streets
046	W. 28th-29th Streets
047	W. 30th-31st Streets
048	Hudson River
049	Hudson River Park
050	Greenwich Village Rooftop Park
051	Multi-Use Facility Park
052	Block 675 Park
053	High Line

Historic Resources

Res. No.	Resource Name
L1	Hill Building
L2	St. John the Baptist Roman Catholic Church
L3	St. Francis Roman Catholic Church
L4	St. Michael's Catholic Church
L5	Christ Church Memorial
L6	St. Ignace Roman Catholic Church
L7	The James A. Farley Building
L8	Holy Cross Roman Catholic Church
L9	US-5 Bridge
L10	US-5 Edison
L11	Street Length

Project Area
Primary Study Area
Key for Shadows:
Existing Conditions

Open Space Resources
Historic Resources

March 21, 7:36AM
Shadow Analysis
Existing Conditions





Open Space Resources

Res. No.	Resource Name
O1	1 Penn Plaza
O2	Radio Park
O3	Twente Plaza
O4	640 W 42nd St Plaza
O5	Gregory J. M. Porter Plaza
O6	McCarthy Playground
O7	May Marrow Playground
O8	Healy Kitchen Park
O9	Clinton Community Garden
O10	Ramon Abente Park
O11	Meyerson Historical Garden
O12	Port Office Stairs
O13	Columb Mail Square
O14	Heard Square
O15	Greenly Square
O16	1120 Broadway Plaza
O17	1200 W 27th St Park
O18	ET Plaza

Res. No.	Resource Name
H19	Chelsea Park
H20	8 Holtzman Open Space
H21	Chelsea Houses Open Space
H22	Penn South Houses Open Space
H23	Penn Station South Houses Playground
H24	1 Penn Plaza
H25	Chelsea Waterfront Park
H26	Clinton Chelsea Moore Park
H27	Brant Park
H28	1093 South Avenue Plaza
H29	Green Plaza
H30	1155 Avenue of the Americas Plaza
H31	Daphne & Co. Plaza
H32	1177 Avenue of the Americas Plaza
H33	1166 Ave. of the Americas Plaza
H34	1163 Ave. of the Americas 40th Street Tower
H35	Parkway Plaza
H36	220 W 4th St Plaza

Res. No.	Resource Name
H37	High School of Graphic Communication Plaza
H38	Worldwide Plaza
H39	945 Seventh Ave. Plaza
H40	1251 Ave. of the Americas Plaza
H41	163 Broadway Paramount Plaza
H42	W 33rd-34th Streets
H43	W 34th-35th Streets
H44	W 35th-36th Streets
H45	W 36th-37th Streets
H46	W 37th-38th Streets
H47	W 38th-39th Streets
H48	W 39th-40th Streets
H49	W 40th-41st Streets
H50	W 41st-42nd Streets
H51	Hub on River
H52	Hudson River Park
H53	Convention Center Rooftop Park
H54	Multi-Use Facility Park
H55	Block 125 Park
H56	High Line

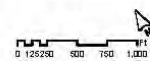
Historic Resources

Res. No.	Resource Name
H1	4th Building
H2	St. John the Baptist Roman Catholic Church
H3	St. Francis Roman Catholic Church
H4	St. Michael's Catholic Church
H5	Christ Church Memorial
H6	St. Ignace's Roman Catholic Church
H7	The James A. Farley Building
H8	Holy Cross Roman Catholic Church
H9	USPS Intrepid
H10	USPS Edison
H11	St. Bartholomew

Project Area
 Primary Study Area
 Key for Shadows:
 Existing Conditions

Open Space Resources
 Historic Resources

March 21, 1:59PM
 Shadow Analysis
 Existing Conditions





Open Space Resource

Res. No.	Resource Name
O1	2 Penn Plaza
O2	Boldt Park
O3	Jaume Plats
O4	440 W 42nd St Plaza
O5	Gregory J.M. Portey Plaza
O6	McCaffrey Playground
O7	May Matthews Playground
O8	Healy Kitchen Park
O9	Clinken Community Garden
O10	Baroness Jacobs Park
O11	Marion S. Heistel Garden
O12	Port Office Plaza
O13	Griffin Mott Square
O14	Herold Square
O15	Graily Square
O16	11-20 Broadway Plaza
O17	220 W 27th St Park
O18	RTTP Plaza

Res. No.	Resource Name
O19	Chelsea Park
O20	Elbow House Open Space
O21	Chelsea Houses Open Space
O22	Penn South House Open Space
O23	Penn Station South House Playground
O24	1 Penn Plaza
O25	Chelsea Waterside Park
O26	Clement Clarke Moore Park
O27	Brant Park
O28	1005 South Avenue Plaza
O29	Grace Plaza
O30	1115 Avenue of the Americas Plaza
O31	Rockwell & Co. Plaza
O32	1177 Avenue of the Americas Plaza
O33	1165 Ave. of the Americas Plaza
O34	1165 Ave. of the Americas Westpoint Stevens Twp.
O35	Patner Duffy Square
O36	225 W 46th St Plaza

Res. No.	Resource Name
O37	High School of Graphic Communications Plaza
O38	Worldwide Plaza
O39	945 Seventh Ave. Plaza
O40	1251 Ave. of the Americas Plaza
O41	1633 Broadway/Paramount Plaza
O42	W. 23rd-24th Streets
O43	W. 24th-25th Streets
O44	W. 25th-26th Streets
O45	W. 26th-27th Streets
O46	W. 27th-28th Streets
O47	W. 28th-29th Streets
O48	W. 29th-30th Streets
O49	W. 30th-31st Streets
O50	W. 31st-32nd Streets
O51	W. 32nd-33rd Streets
O52	W. 33rd-34th Streets
O53	W. 34th-35th Streets
O54	W. 35th-36th Streets
O55	W. 36th-37th Streets
O56	W. 37th-38th Streets
O57	W. 38th-39th Streets
O58	W. 39th-40th Streets
O59	W. 40th-41st Streets
O60	W. 41st-42nd Streets
O61	W. 42nd-43rd Streets
O62	W. 43rd-44th Streets

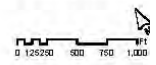
Historic Resources

Res. No.	Resource Name
H1	Madison Square
H2	St. John the Baptist Roman Catholic Church
H3	St. Francis Roman Catholic Church
H4	St. Michael's Catholic Church
H5	Christ Church Memorial
H6	St. Ignace's Roman Catholic Church
H7	The James A. Farley Building
H8	Holy Cross Roman Catholic Church
H9	USPS Edison
H10	USPS Edison
H11	St. Bartholomew

Project Area
Primary Study Area
Key for Shadows:
Existing Conditions

Open Space Resources
Historic Resources

March 21, 4:29PM
Shadow Analysis
Existing Conditions





Open Space Resources

Res. No.	Resource Name
O1	2 Penn Plaza
O2	Bols Park
O3	Travis Plaza
O4	140 W 2nd St Plaza
O5	Granger J.M. Porter Plaza
O6	McCaffrey Playground
O7	May Marston Playground
O8	Healy Kitchen Park
O9	Clinson Community Garden
O10	Benson North Park
O11	Mission St. Hospital Garden
O12	Penn Office Tower
O13	Griffin Hall Square
O14	Harold Square
O15	Gravelly Square
O16	1120 Broadway Plaza
O17	120 W 27th St Park
O18	FTT Plaza

Res. No.	Resource Name
O19	Chelsea Park
O20	18 Bowhouse Open Space
O21	Chelsea House Open Space
O22	Penn South House Open Space
O23	Penn Station South House Playground
O24	1 Penn Plaza
O25	Chelsea Water Park
O26	Clinton Square Moore Park
O27	Brant Park
O28	1095 South Avenue Plaza
O29	Green Plaza
O30	1155 Avenue of the Americas Plaza
O31	Reisner & Co. Plaza
O32	1177 Avenue of the Americas Plaza
O33	146 Ave. of the Americas Plaza
O34	1185 Ave. of the Americas at Equinox Stevens Ter.
O35	Patricia Duffy Square
O36	125 W 48th St Plaza

Res. No.	Resource Name
O37	High School of Graphic Communication Board.
O38	Widow's Plaza
O39	245 Seventh Ave. Plaza
O40	1201 Ave. of the Americas Plaza
O41	162 Broadway Paramount Plaza
O42	W. 23rd-24th Streets
O43	W. 24th-25th Streets
O44	W. 25th-26th Streets
O45	W. 26th-27th Streets
O46	W. 27th-28th Streets
O47	W. 28th-29th Streets
O48	W. 29th-30th Streets
O49	W. 30th-31st Streets
O50	W. 31st-32nd Streets
O51	W. 32nd-33rd Streets
O52	W. 33rd-34th Streets
O53	W. 34th-35th Streets
O54	W. 35th-36th Streets
O55	W. 36th-37th Streets
O56	W. 37th-38th Streets
O57	W. 38th-39th Streets
O58	W. 39th-40th Streets
O59	W. 40th-41st Streets
O60	W. 41st-42nd Streets
O61	W. 42nd-43rd Streets
O62	W. 43rd-44th Streets
O63	W. 44th-45th Streets
O64	W. 45th-46th Streets
O65	W. 46th-47th Streets
O66	W. 47th-48th Streets
O67	W. 48th-49th Streets
O68	W. 49th-50th Streets
O69	W. 50th-51st Streets
O70	W. 51st-52nd Streets
O71	W. 52nd-53rd Streets
O72	W. 53rd-54th Streets
O73	W. 54th-55th Streets
O74	W. 55th-56th Streets
O75	W. 56th-57th Streets
O76	W. 57th-58th Streets
O77	W. 58th-59th Streets
O78	W. 59th-60th Streets
O79	W. 60th-61st Streets
O80	W. 61st-62nd Streets
O81	W. 62nd-63rd Streets
O82	W. 63rd-64th Streets
O83	W. 64th-65th Streets
O84	W. 65th-66th Streets
O85	W. 66th-67th Streets
O86	W. 67th-68th Streets
O87	W. 68th-69th Streets
O88	W. 69th-70th Streets
O89	W. 70th-71st Streets
O90	W. 71st-72nd Streets
O91	W. 72nd-73rd Streets
O92	W. 73rd-74th Streets
O93	W. 74th-75th Streets
O94	W. 75th-76th Streets
O95	W. 76th-77th Streets
O96	W. 77th-78th Streets
O97	W. 78th-79th Streets
O98	W. 79th-80th Streets
O99	W. 80th-81st Streets
O100	W. 81st-82nd Streets
O101	W. 82nd-83rd Streets
O102	W. 83rd-84th Streets
O103	W. 84th-85th Streets
O104	W. 85th-86th Streets
O105	W. 86th-87th Streets
O106	W. 87th-88th Streets
O107	W. 88th-89th Streets
O108	W. 89th-90th Streets
O109	W. 90th-91st Streets
O110	W. 91st-92nd Streets
O111	W. 92nd-93rd Streets
O112	W. 93rd-94th Streets
O113	W. 94th-95th Streets
O114	W. 95th-96th Streets
O115	W. 96th-97th Streets
O116	W. 97th-98th Streets
O117	W. 98th-99th Streets
O118	W. 99th-100th Streets
O119	W. 100th-101st Streets
O120	W. 101st-102nd Streets
O121	W. 102nd-103rd Streets
O122	W. 103rd-104th Streets
O123	W. 104th-105th Streets
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O126	W. 107th-108th Streets
O127	W. 108th-109th Streets
O128	W. 109th-110th Streets
O129	W. 110th-111th Streets
O130	W. 111th-112th Streets
O131	W. 112th-113th Streets
O132	W. 113th-114th Streets
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O134	W. 115th-116th Streets
O135	W. 116th-117th Streets
O136	W. 117th-118th Streets
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O138	W. 119th-120th Streets
O139	W. 120th-121st Streets
O140	W. 121st-122nd Streets
O141	W. 122nd-123rd Streets
O142	W. 123rd-124th Streets
O143	W. 124th-125th Streets
O144	W. 125th-126th Streets
O145	W. 126th-127th Streets
O146	W. 127th-128th Streets
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O148	W. 129th-130th Streets
O149	W. 130th-131st Streets
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O159	W. 140th-141st Streets
O160	W. 141st-142nd Streets
O161	W. 142nd-143rd Streets
O162	W. 143rd-144th Streets
O163	W. 144th-145th Streets
O164	W. 145th-146th Streets
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O182	W. 163rd-164th Streets
O183	W. 164th-165th Streets
O184	W. 165th-166th Streets
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O240	W. 221st-222nd Streets
O241	W. 222nd-223rd Streets
O242	W. 223rd-224th Streets
O243	W. 224th-225th Streets
O244	W. 225th-226th Streets
O245	W. 226th-227th Streets
O246	W. 227th-228th Streets
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O302	W. 283rd-284th Streets
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O318	W. 299th-300th Streets
O319	W. 300th-301st Streets
O320	W. 301st-302nd Streets
O321	W. 302nd-303rd Streets
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O382	W. 363rd-364th Streets
O383	W. 364th-365th Streets
O384	W. 365th-366th Streets
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O391	W. 372nd-373rd Streets
O392	W. 373rd-374th Streets
O393	W. 374th-375th Streets
O394	W. 375th-376th Streets



Open Space Resources

Res. No.	Resource Name
01	2 Penn Plaza
02	Bolsa Park
03	Heine Plaza
04	640 W 2nd St Plaza
05	Gregory J.M. Portey Plaza
06	McCafferty Playground
07	Max Matthews Playground
08	Heine Kitchen Park
09	Clinton Commons Garden
10	Baron Aponte Park
11	Marion S. Heine Garden
12	Penn Plaza
13	Golda Meir Square
14	Heine Square
15	Grady Square
16	1230 Broadway Plaza
17	1230 W 2nd St Park
18	211 Plaza

Res. No.	Resource Name
019	Chelsea Park
020	110th Street Open Space
021	Chelsea House Open Space
022	Penn South House Open Space
023	Penn Station South House Playground
024	11th Plaza
025	Chelsea Waterside Park
026	Clement Clarke Moore Park
027	Bravo Park
028	1092 10th Avenue Plaza
029	Grace Plaza
030	1112 Avenue of the Americas Plaza
031	De Shaw & Co. Plaza
032	1177 Avenue of the Americas Plaza
033	1166 Ave. of the Americas Plaza
034	1185 Ave. of the Americas Westpoint Steeple Tower
035	Patricia Duffy Square
036	1230 W 2nd St Plaza

Res. No.	Resource Name
044	High School of Graphic Communication Plaza
045	Worldwide Plaza
046	942 5th Ave. Plaza
047	1251 Ave. of the Americas Plaza
048	1432 Broadway/Perman Plaza
049	W. 23rd-24th Streets
050	W. 24th-25th Streets
051	W. 25th-26th Streets
052	W. 26th-27th Streets
053	W. 27th-28th Streets
054	W. 28th-29th Streets
055	W. 29th-30th Streets
056	W. 31st-32nd Streets
057	Hudson River
058	Hudson River Park
059	Commerce Center Plaza
060	Multi-Use Facility Park
061	Block 675 Park
062	High Line

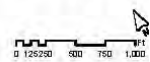
Historic Resources

Res. No.	Resource Name
L1	Mill Building
L2	St. John the Baptist Roman Catholic Church
L3	St. Francis Roman Catholic Church
L4	St. Michael's Catholic Church
L5	Christ Church Memorial
L6	St. Ignace Roman Catholic Church
L7	The James A. Farley Building
L8	Holy Cross Roman Catholic Church
L9	USPS Building
L10	USPS Building
L11	St. Bartholomew

Project Area
 Primary Study Area
 Key for Shadows:
 Existing Conditions

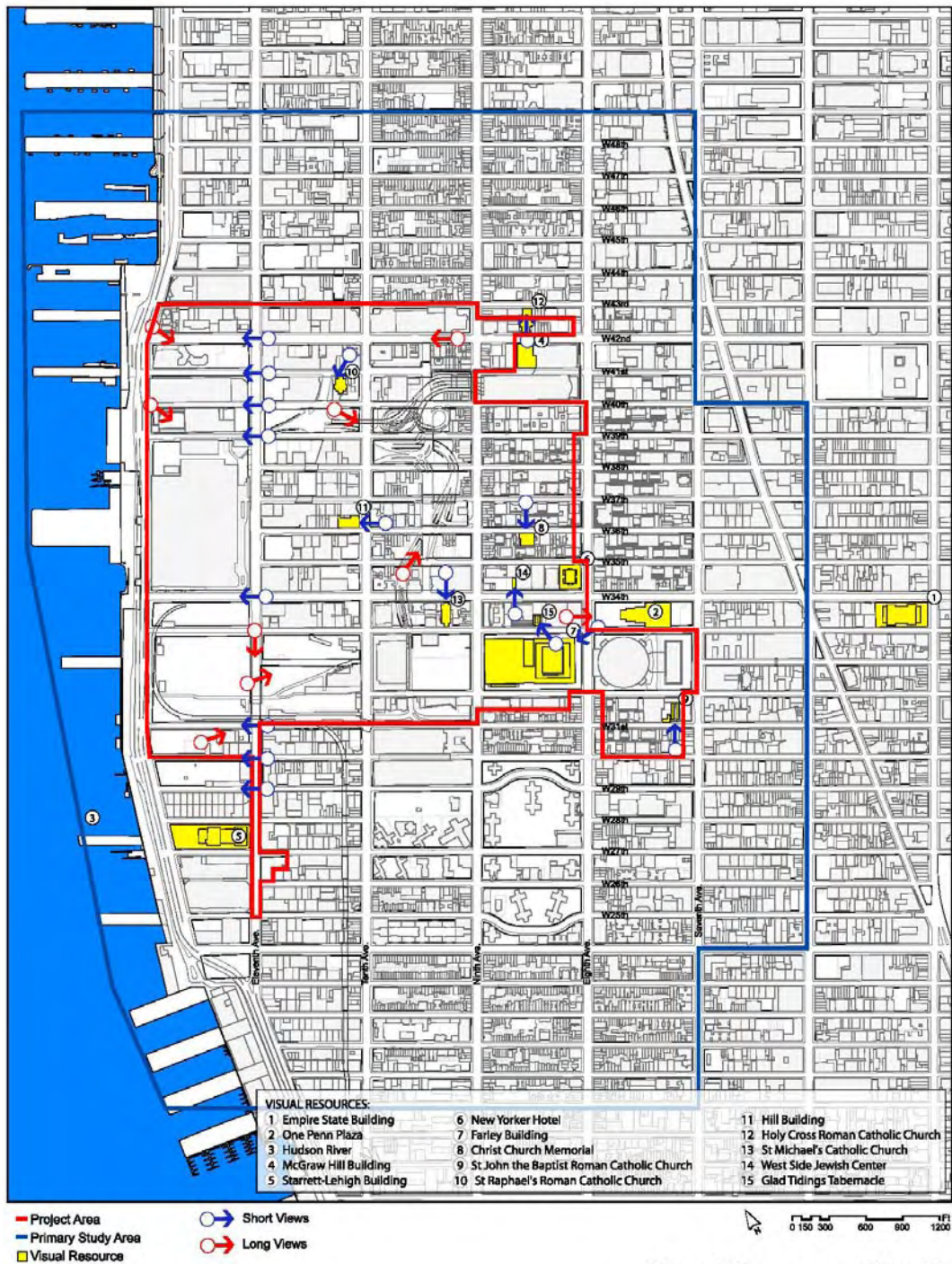
Open Space Resources
 Historic Resources

May 6, 11:00AM
 Shadow Analysis
 Existing Conditions



MTA Hudson Yards Rezoning Analysis
Chapter 11: Urban Design and Visual Resources





Visual Resources Key Map



View from West 42nd Street, facing West



View from West 30th Street, facing West



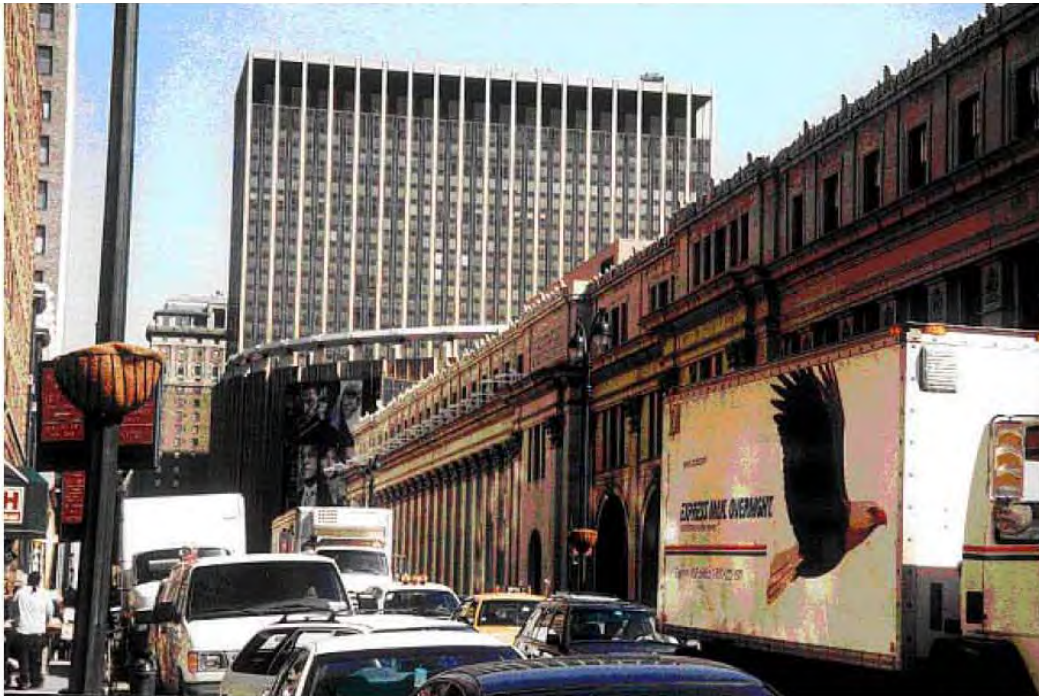
View of Caemmerer Yard, facing West

Constructed Topography of Hudson Yards



View of the Starrett-Lehigh Building from Eleventh Avenue & West 33rd Street, facing South

Visual Resource



Farley Building, MSG & Two Penn Plaza. View from West 33rd Street & Ninth Avenue, facing East



View of the Farley Building from Eighth Avenue & West 33rd Street, facing Southwest



Farley Corridor (Subdistrict B): Westyard Distribution building.
View from Eleventh Avenue & West 33rd Street, facing East



Tenth Avenue Corridor (Subdistrict D): View of Hill Building on Tenth Avenue, facing Northwest



View of the High Line from West 30th Street & Eleventh Avenue, facing East



View of the High Line from West 30th Street & Twelfth Avenue, facing Northeast



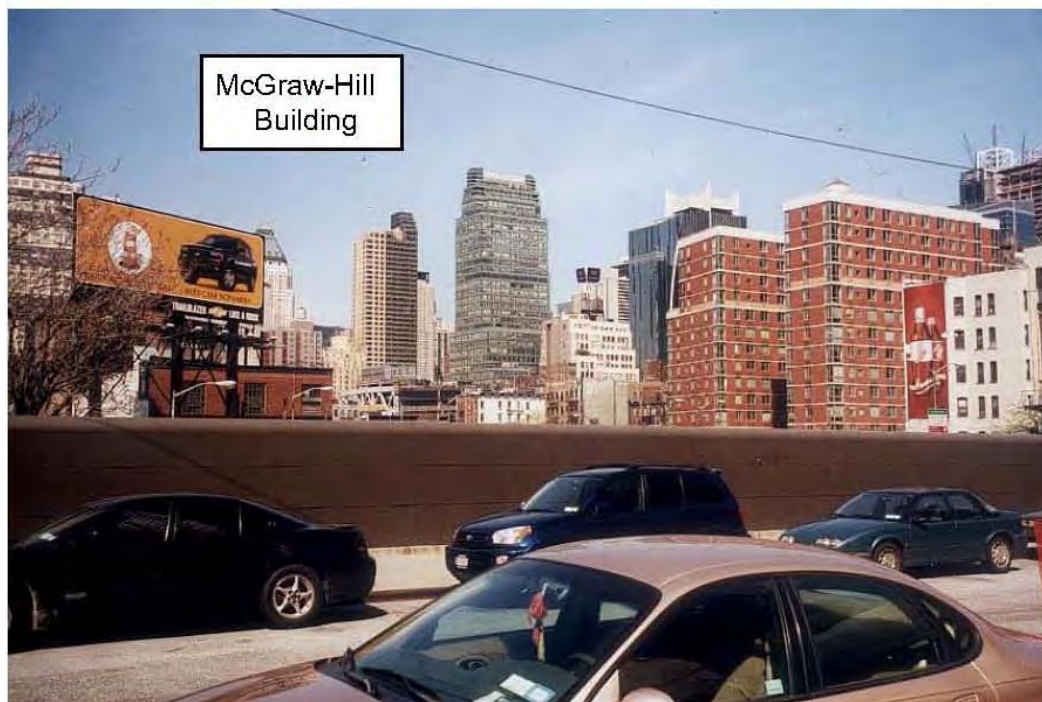
View of Convention Center from Eleventh Avenue & West 39th Street, facing Southwest



View of Convention Center along Twelfth Avenue, facing Northeast



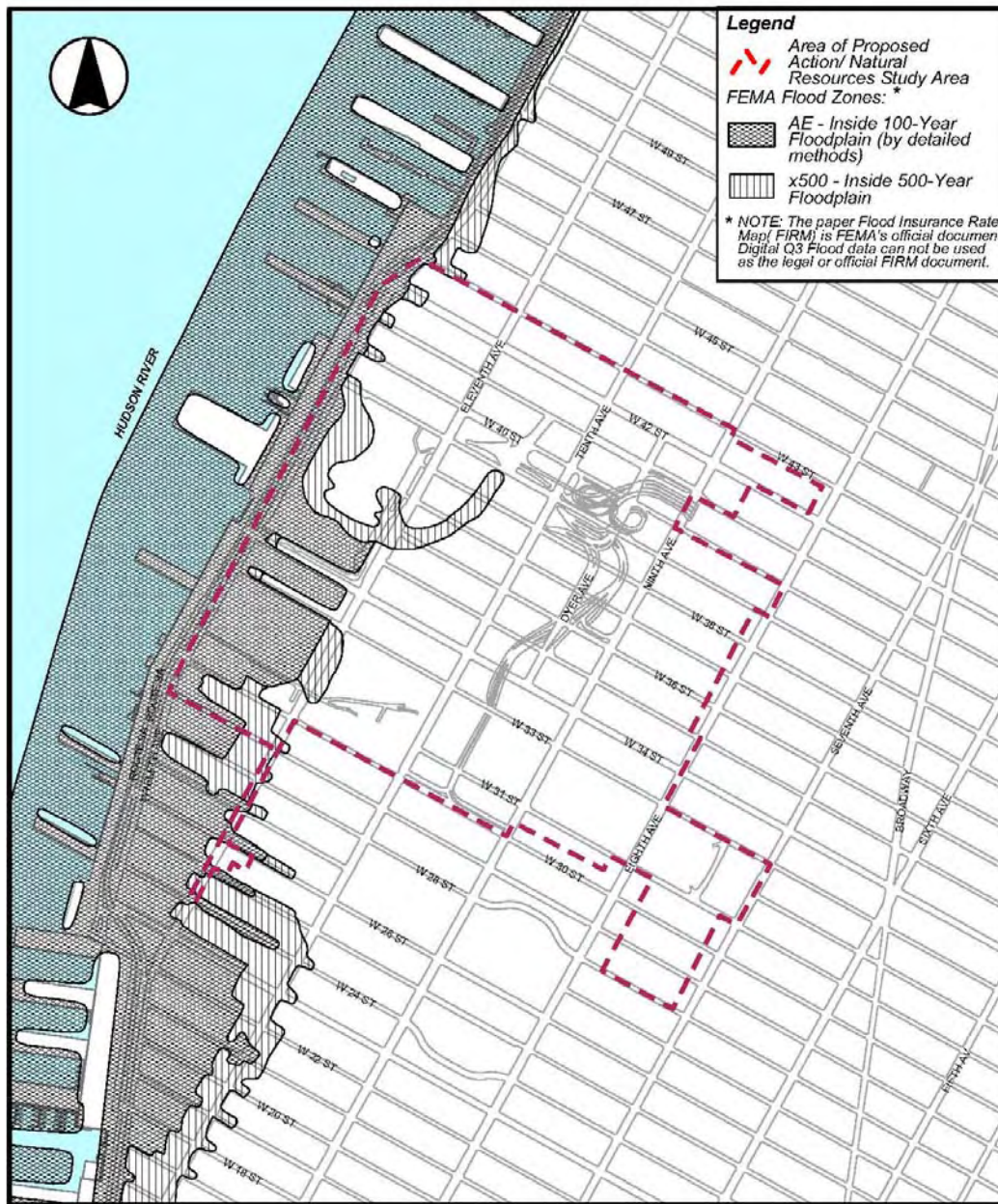
View of the Empire State Building from West 30th Street & Eleventh Avenue, facing East



View of the McGraw-Hill Building from West 35th Street, between Ninth & Tenth Avenues, facing Northeast

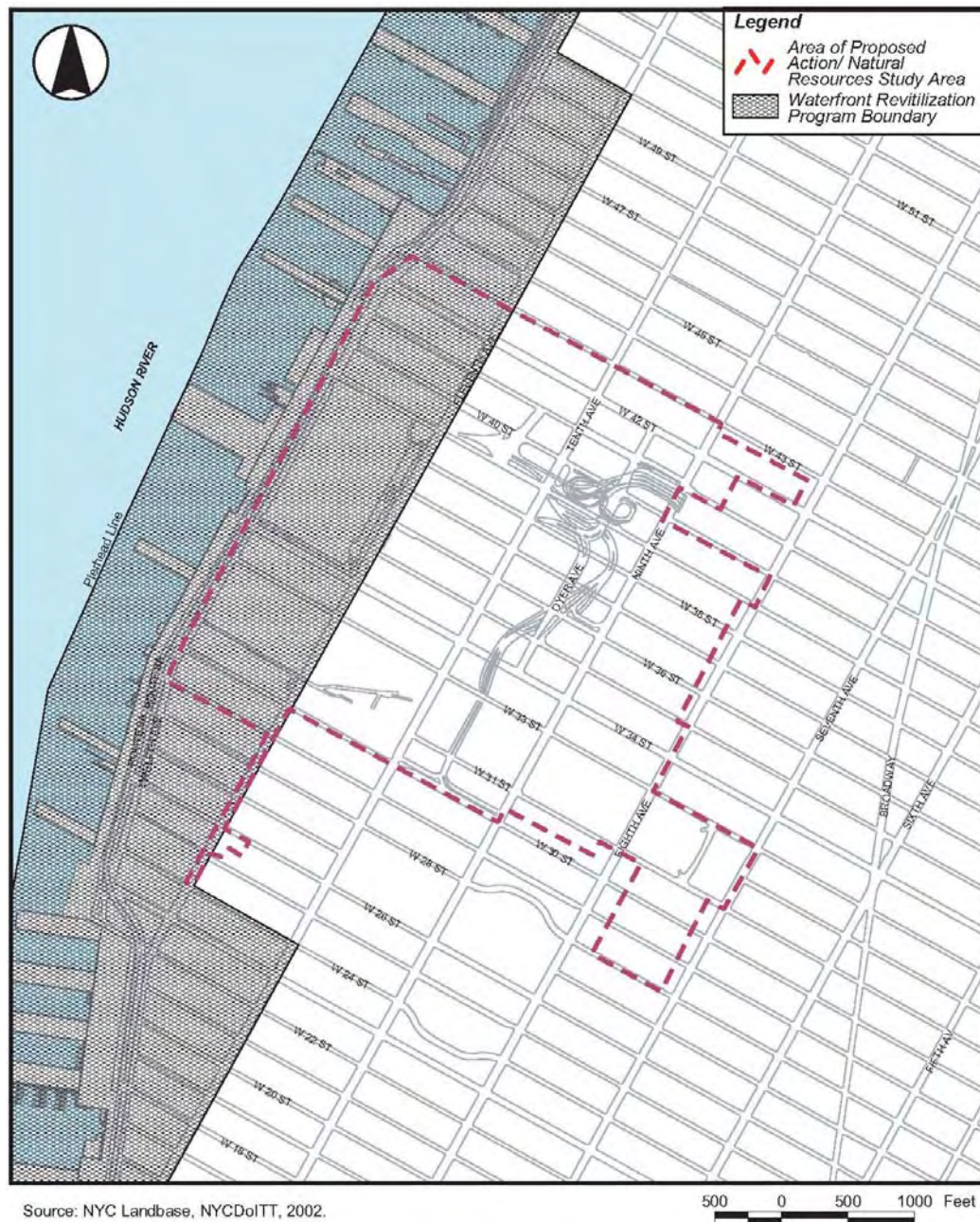
MTA Hudson Yards Rezoning Analysis

Chapter 13: Natural Resources



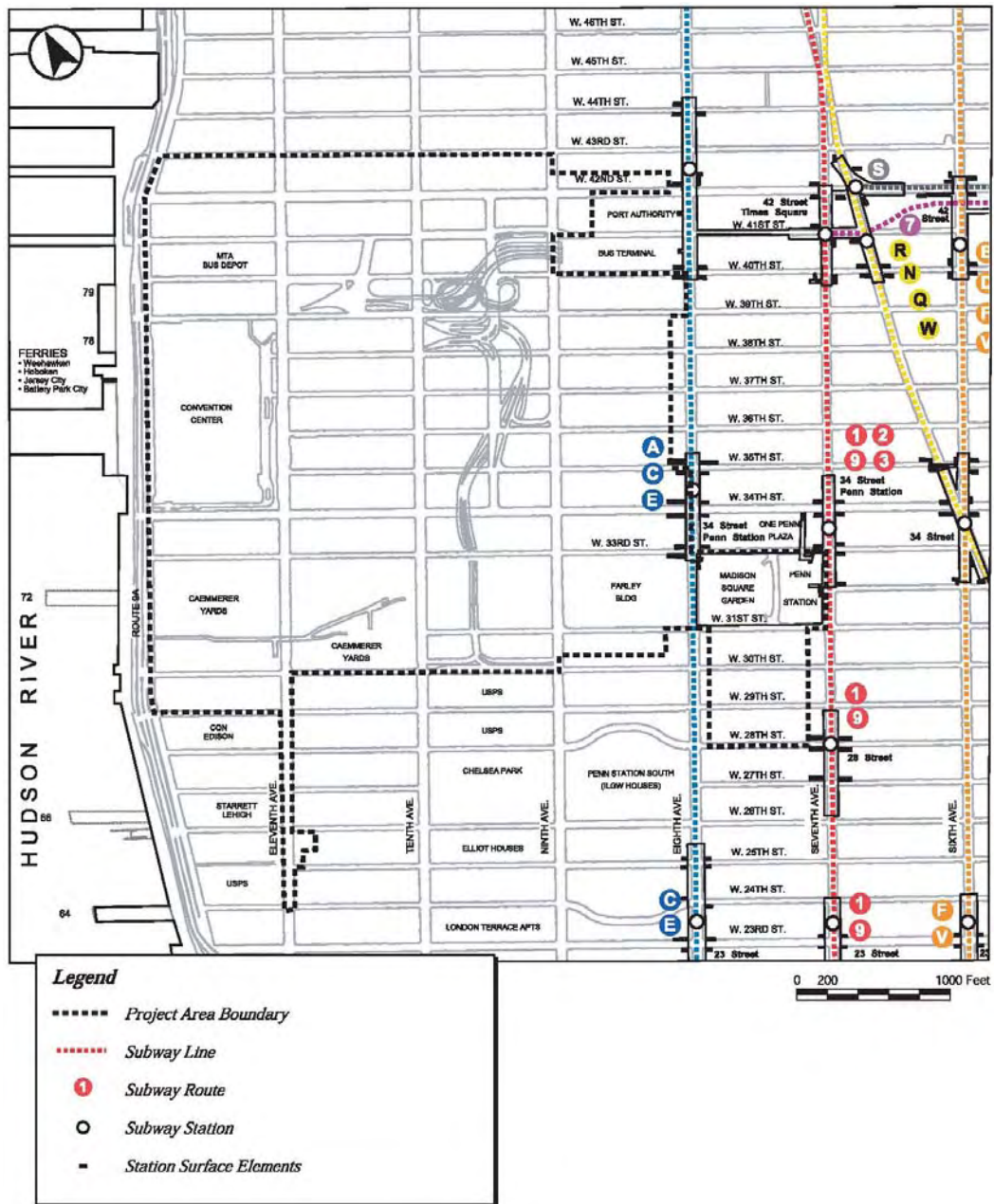
Sources: NYC Landbase, NYCDot, 2002;
Federal Emergency Management Agency
(FEMA) Digital Q3 Data, 1999.

FEMA Flood Zones

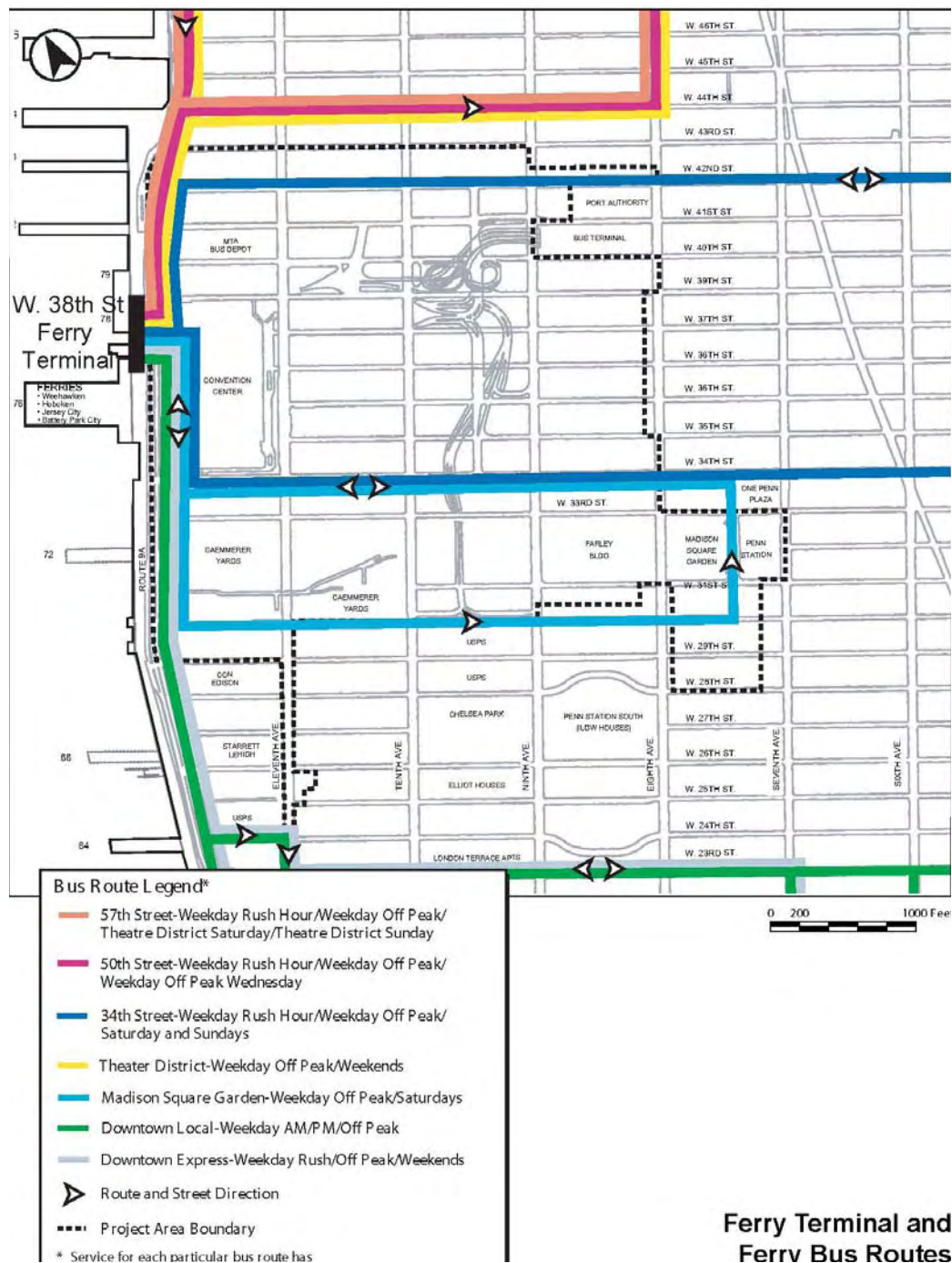


Waterfront Revitalization Program

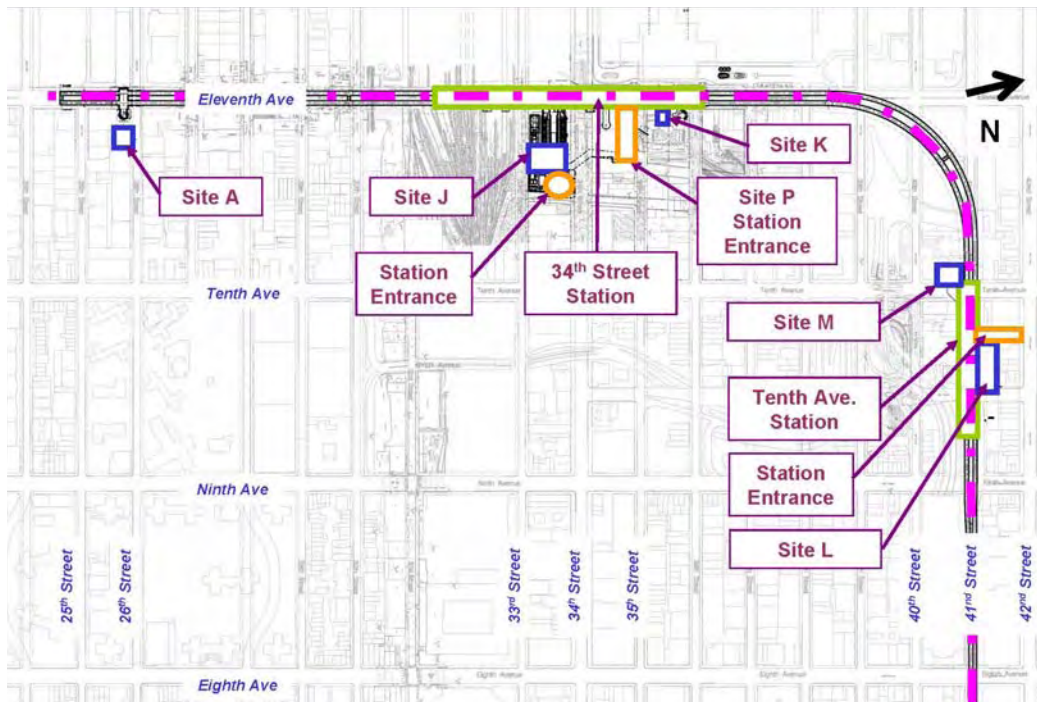
MTA Hudson Yards Rezoning Analysis
Chapter 20: Transit and Pedestrians

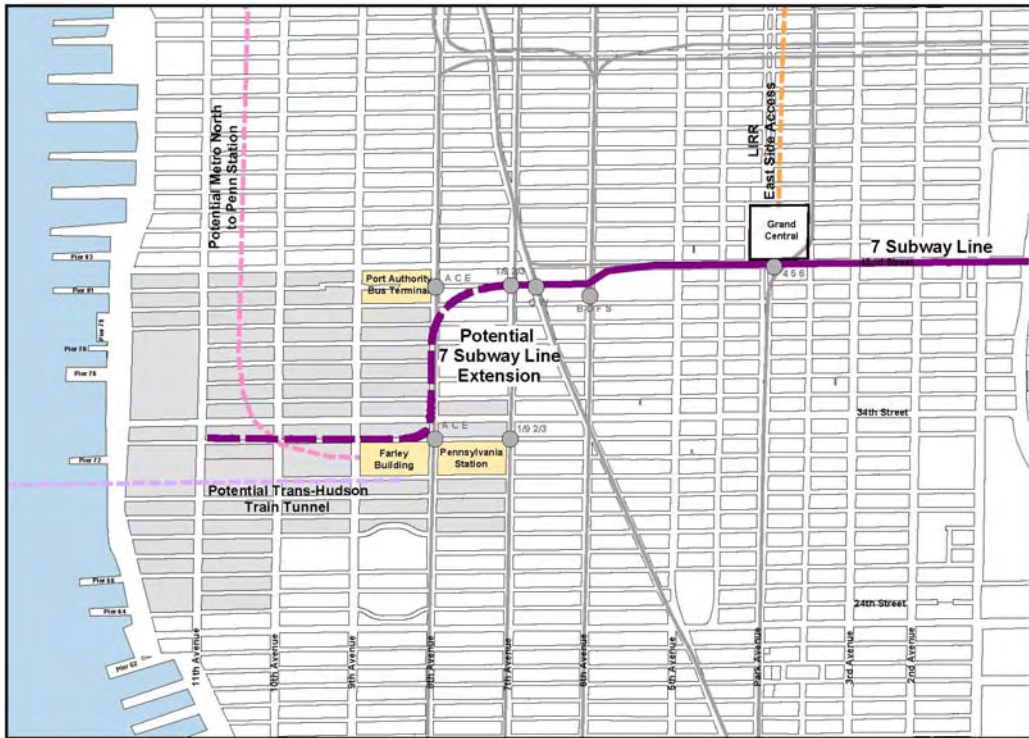


Existing Subway Lines and Station Surface Elements



Hudson Yards Development Corporation
Section1: Zoning and Site Analysis





Proposed Large Scale System Improvements

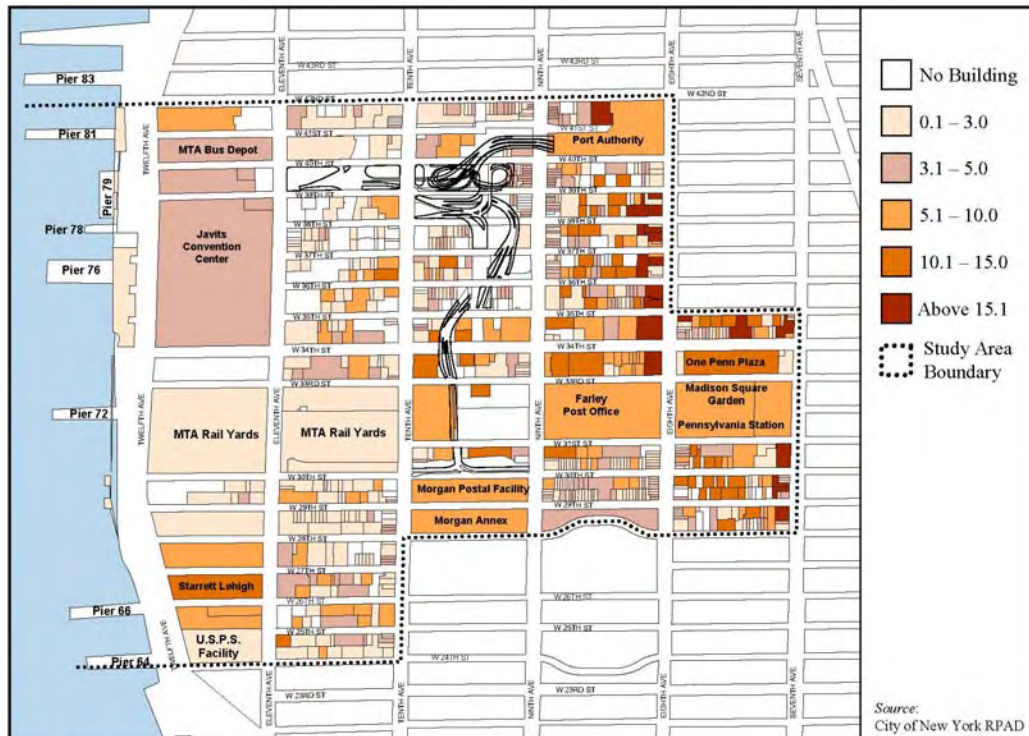


Figure 4: Existing Floor Area Ratio (FAR)

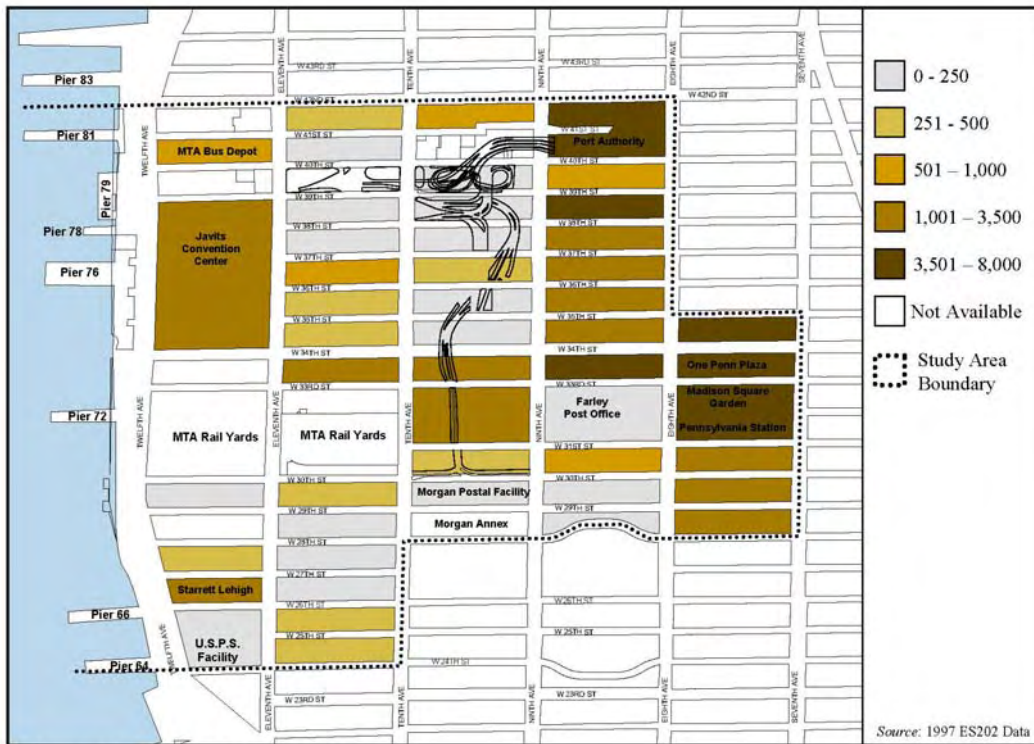


Figure 6: 1997 Jobs (per block)

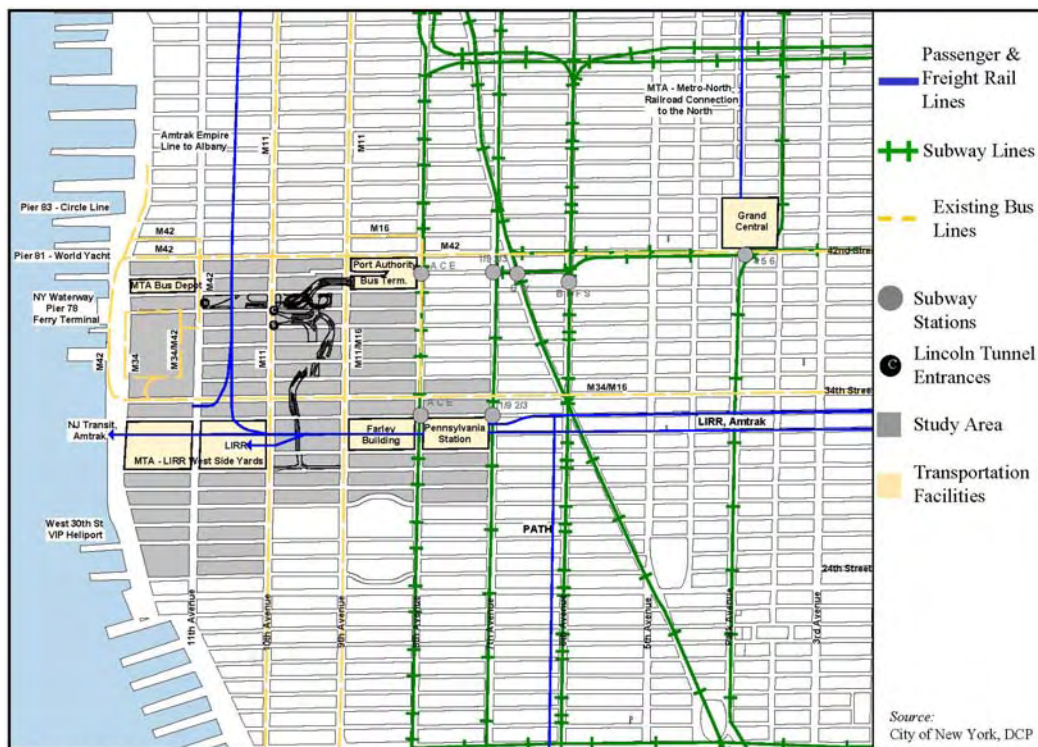


Figure 8: Existing Transportation Infrastructure

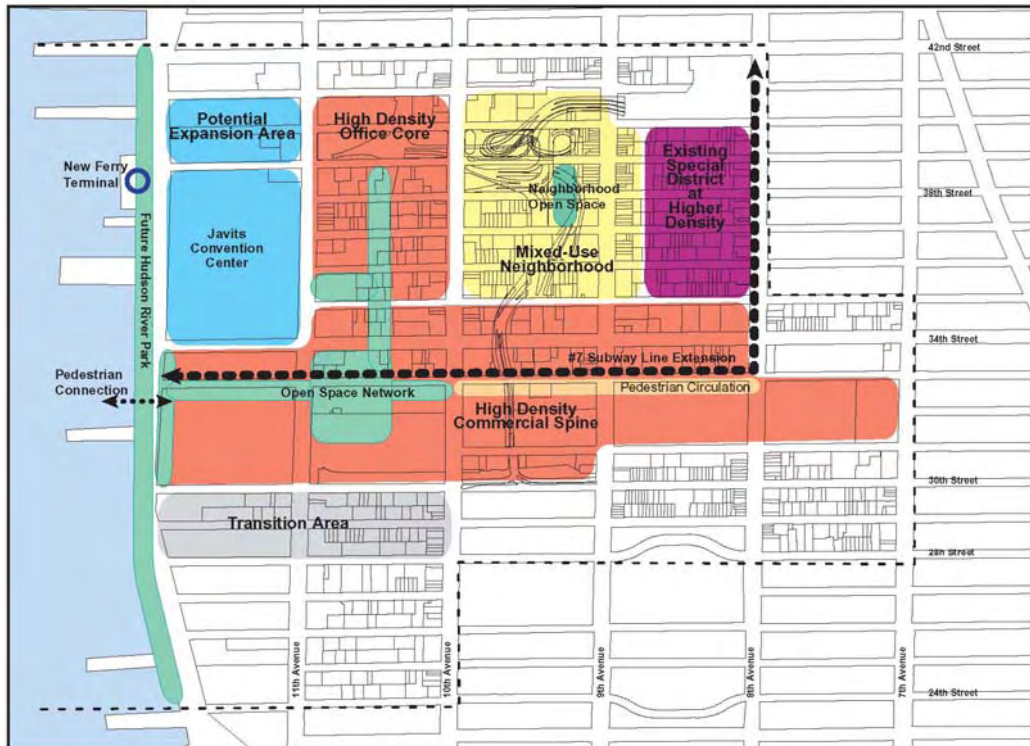


Figure 11: Conceptual Development Framework

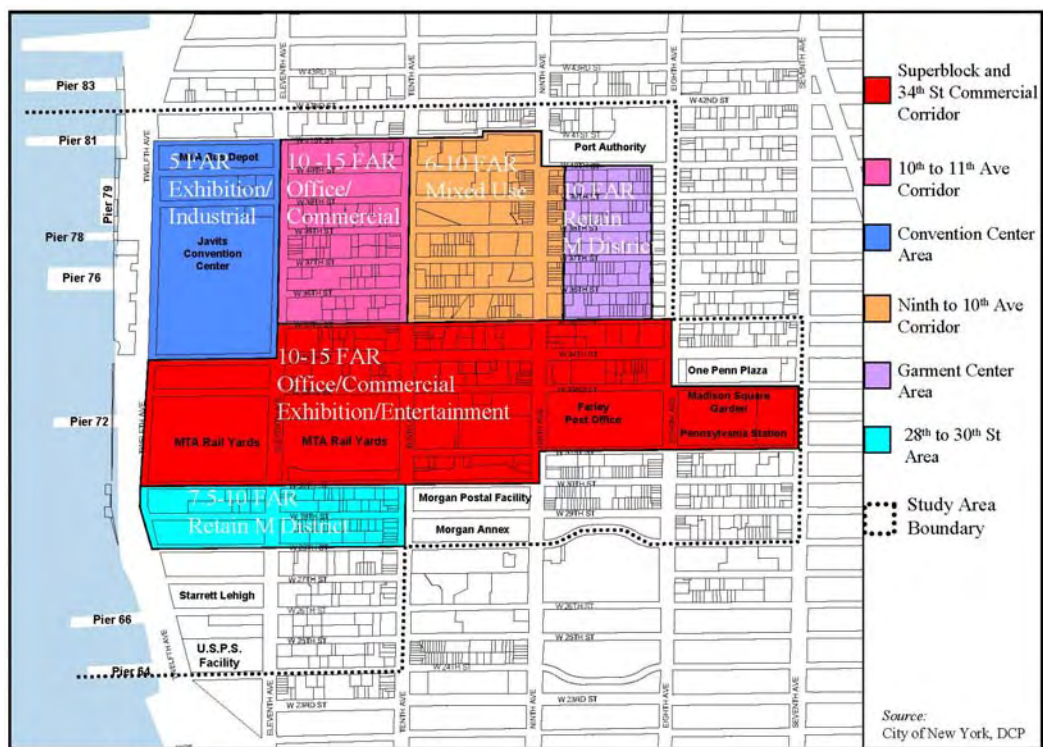


Figure 12: Proposed Land Use and Density

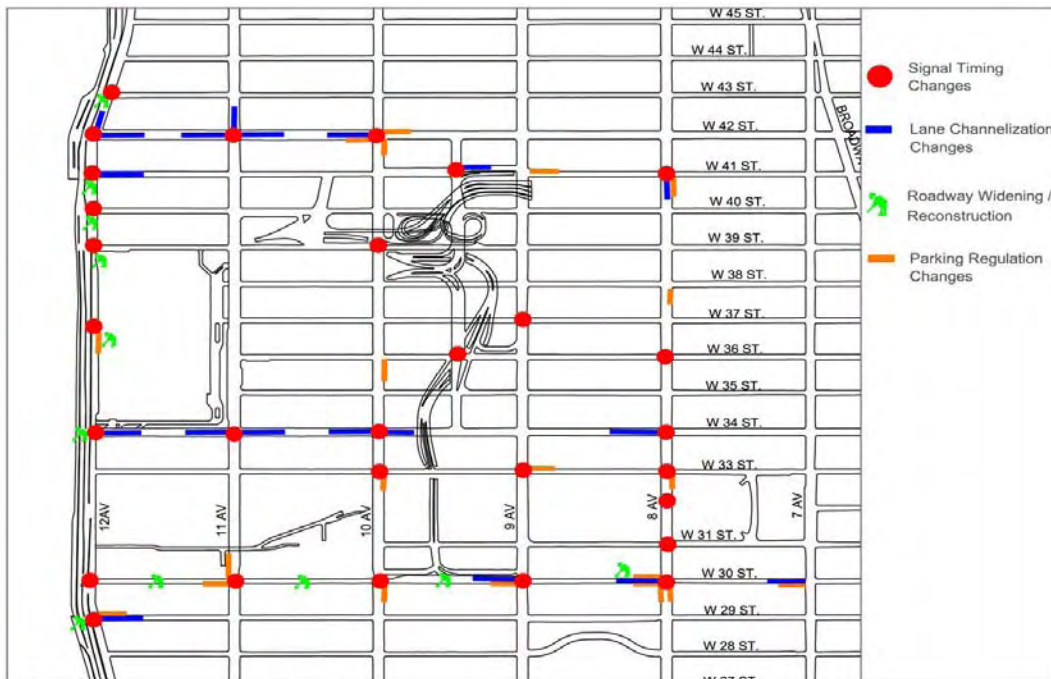


Figure 18: Proposed Traffic Improvement Measures, Office-Use Alternative

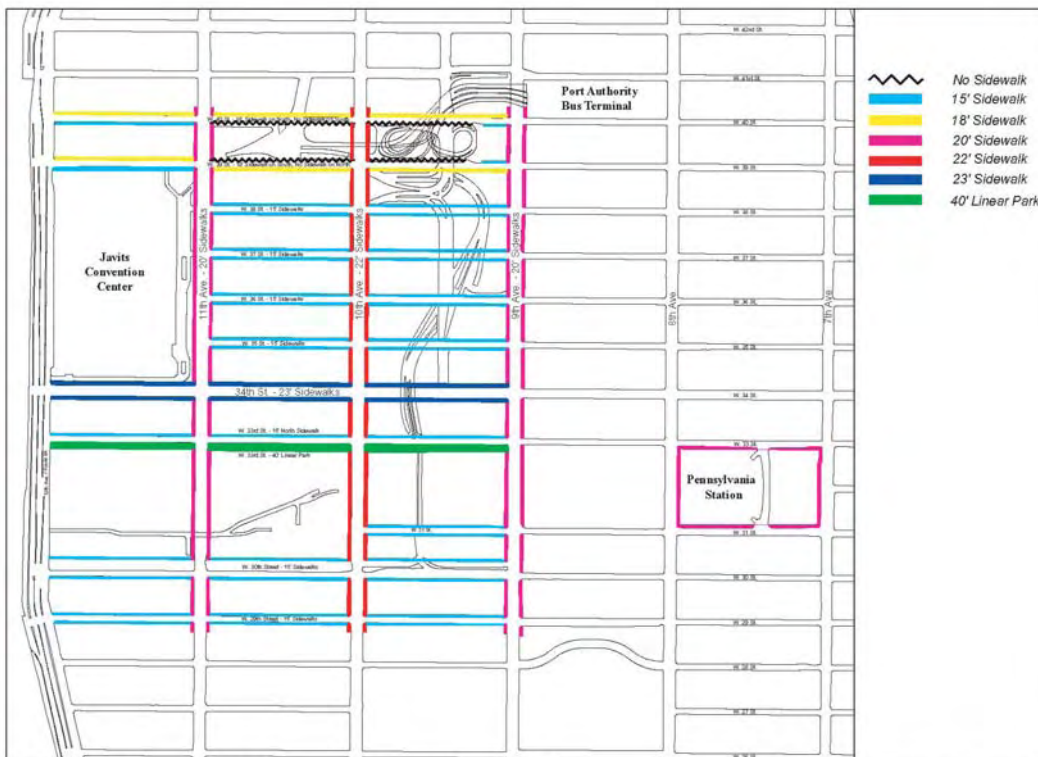
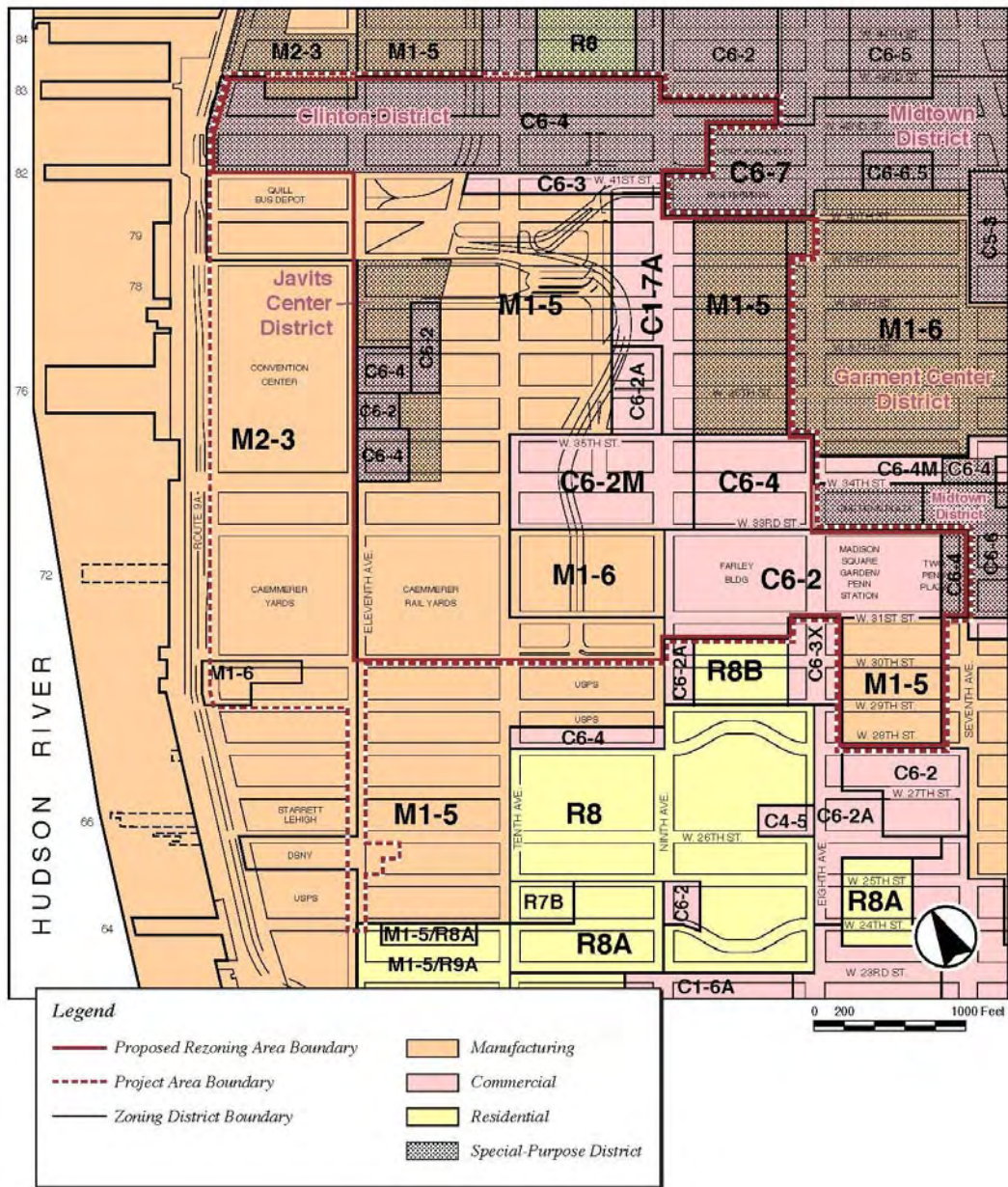
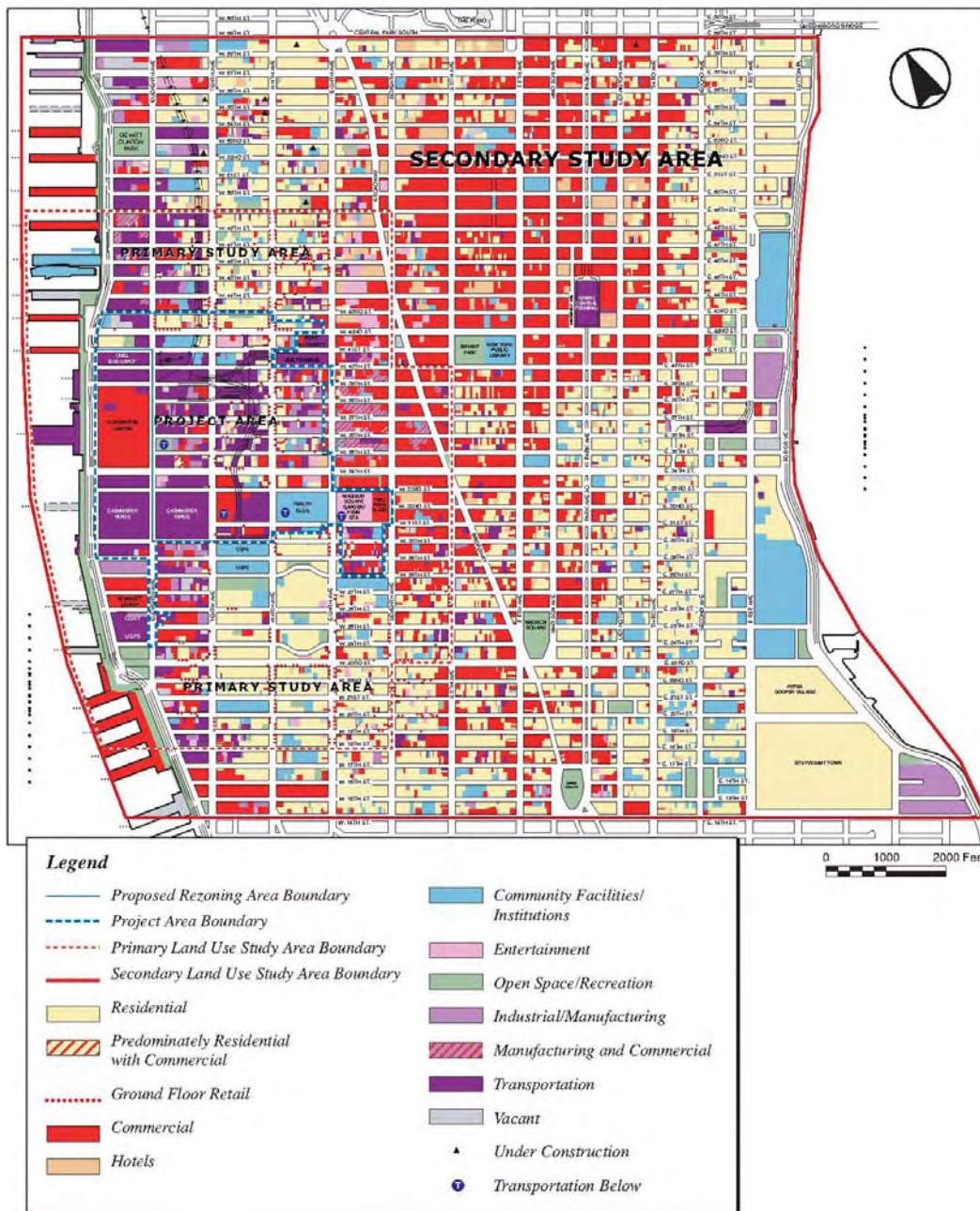


Figure 19: Proposed Sidewalk Improvement Measures, Multi-Use Facility Alternative



Existing Zoning – Project Area



Existing Land Use – Secondary Study Area

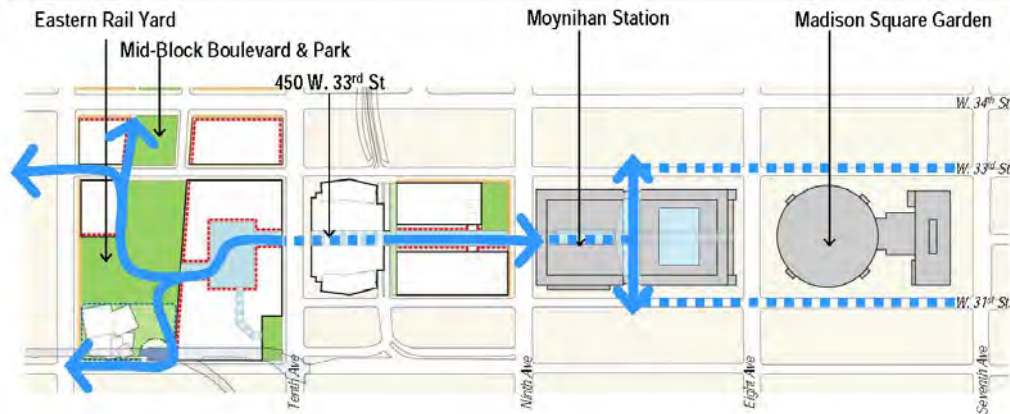
Hudson Yards Development Corporation
Section 2: Development Framework

Improvement of Public Transportation and Access (cont.)

Farley Corridor Connection to Hudson Yards

Will help integrate Hudson Yards with local and regional transportation hubs along a 32nd St. Pedestrian Corridor, connecting Penn Station to Hudson Yards

Will use zoning incentives to create the corridor



Development of MTA's Eastern Rail Yard



illustrative

Construction of a platform over Eastern Rail Yard (ERY) between 10th and 11th Aves. and 30th and 33rd Sts. will accommodate up to approximately 5 million SF of on-site commercial space, 1.7 million SF of on-site residential space and a major cultural center.

Additional components of development include:

- New public squares (similar in size to Bryant Park)
- New pedestrian connection, linking site with Farley Corridor
- Retail development along public areas to enhance pedestrian experience
- Connection to renovated High Line, for access to the Chelsea gallery district
- 450-space below-grade public garage

RFP for engineering services for platform to be issued Summer 2005. RFP for Master Developer will be issued in 2006.

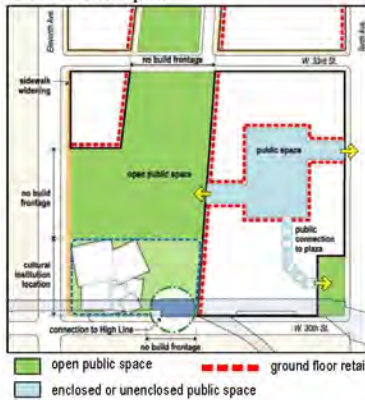
Eastern Rail Yard

Tenth to Eleventh avenues between West 30th to 33rd Streets



Existing conditions, looking north from 30th Street

Illustrative site plan



Block/Lot: 702/1,50 & 704/1,5,6

Zoning: C6-4

Total Lot Area (SF): 570,000

Max FAR (on-site): 11.0

(consisting of a max of 9.0 Comm., 3.0 Res., and/or 2.0 Com. Facility)

Max. ZFA (SF): 6,270,000

Bonus FAR: NA **ERY Transfer FAR:** NA

Ownership: Lot is publicly owned, will be developed pursuant to RFP

Assemblage required: No

Design Controls: sidewalk widening, ground floor retail and transparency, street trees, required street wall, mandated public open space and plaza,

Parking Requirement: approximately 450 spaces

Height Limits: None

Site Attributes: Convenient access to future mass transit, Javits Convention Center, and NYSCC; accommodates large floor plate commercial uses; large regional open space; publicly funded platform

Site Challenges: MTA-LIRR railroad storage yards, maintenance facility, and substation will be below this site



Suggested Site

33

subdistrict | Large-Scale Plan

Eastern Railyards:

FAR: MAX: 19

9 - 11 FAR on site

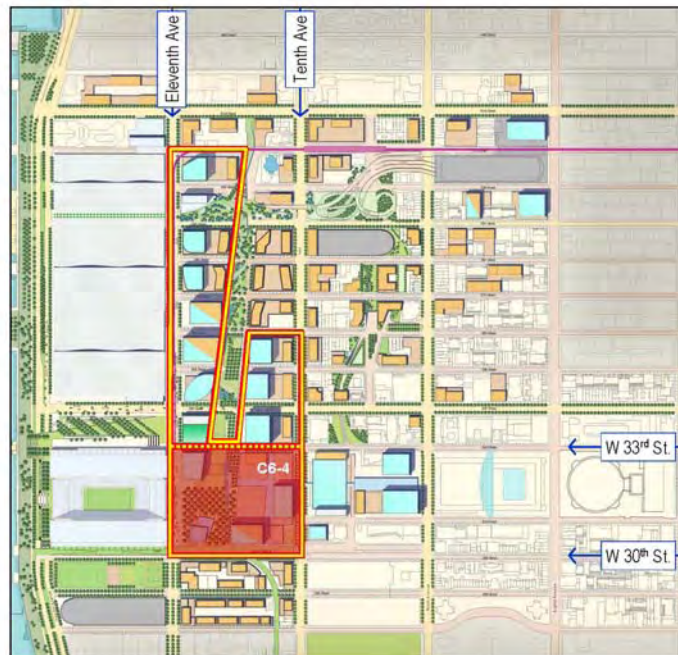
8 - 10 FAR distributed within Large-Scale Plan

USE (on site):

commercial: 9 FAR

residential: 3 FAR

community facility: 2 FAR

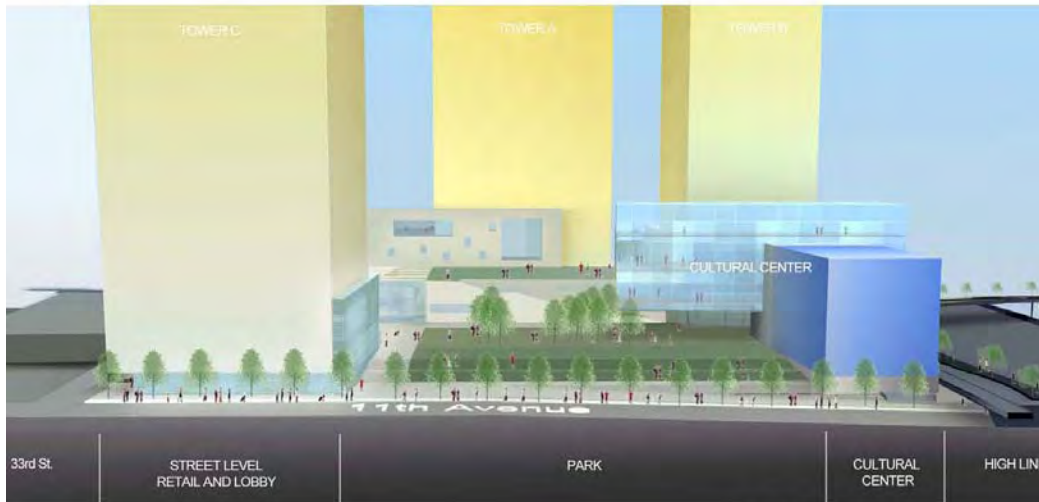
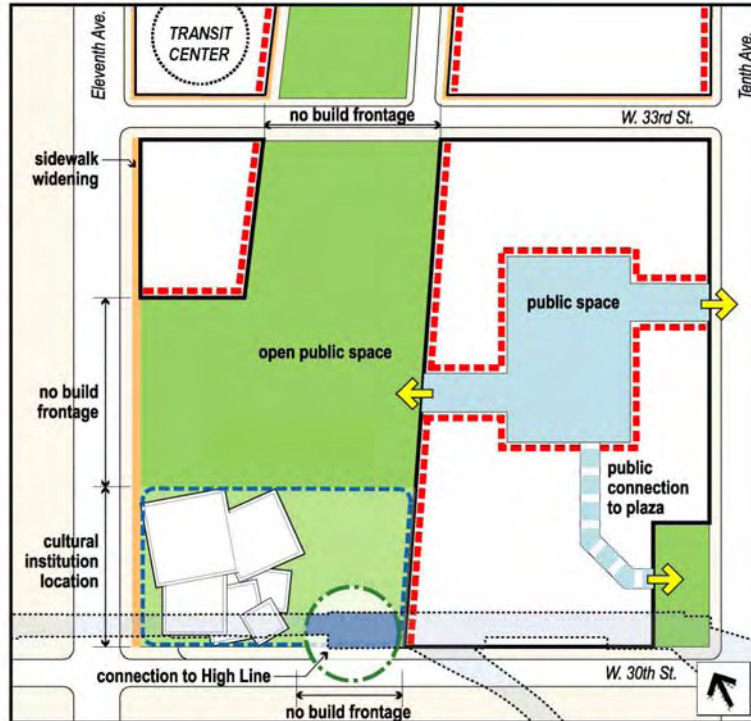


Large-Scale Plan

Eastern Railyards

- * 55% public space
- * Plaza at 10th Ave and 30th Street
- * Connection and Bridge east to Farley corridor
- * High Line Connection
- * Major cultural facility
- * Retail requirements along public places

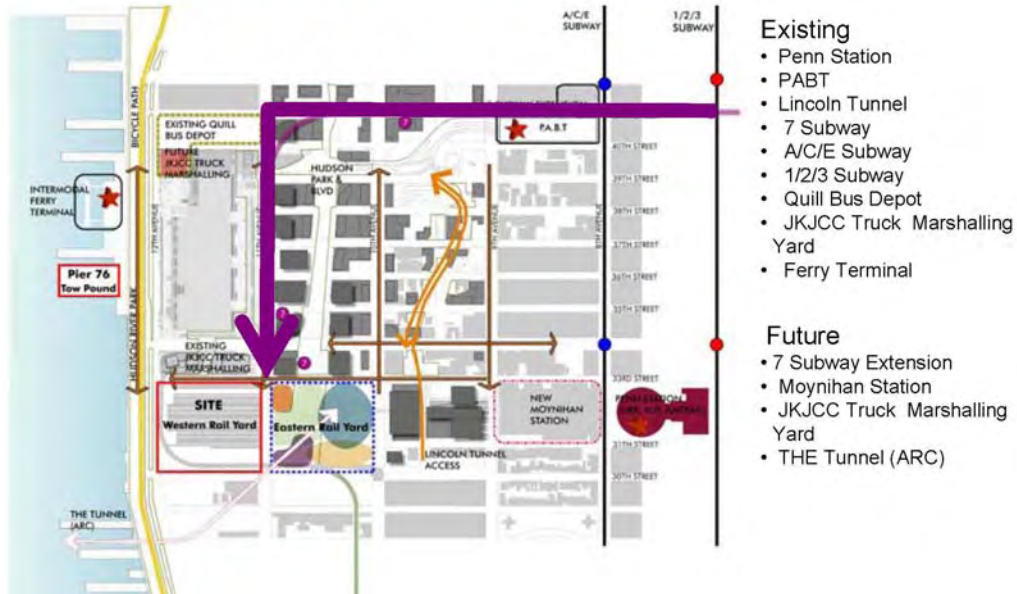
- open public space
- enclosed or unenclosed public space
- ground floor retail frontage required



Eastern Railyard - view looking east

Hudson Yards Development Corporation
Section 3: Preliminary Diagrams

Transportation Facilities



Existing

- Penn Station
- PABT
- Lincoln Tunnel
- 7 Subway
- A/C/E Subway
- 1/2/3 Subway
- Quill Bus Depot
- JKJCC Truck Marshalling Yard
- Ferry Terminal

Future

- 7 Subway Extension
- Moynihan Station
- JKJCC Truck Marshalling Yard
- THE Tunnel (ARC)

Parks & Open Space



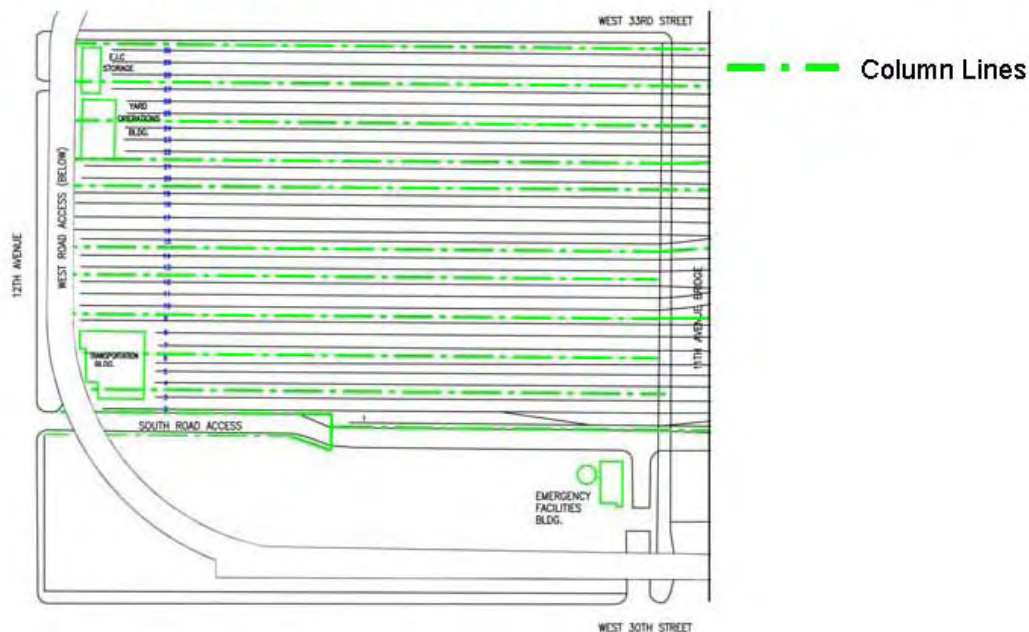
- Hudson River Park
- Pier 76
- Hudson Park and Boulevard
- High Line Park
- JKJCC Green Space
- 33/34 site
- Western Rail Yard
- ERY

Hudson Yards Development Corporation
Section 4: Structural Issues

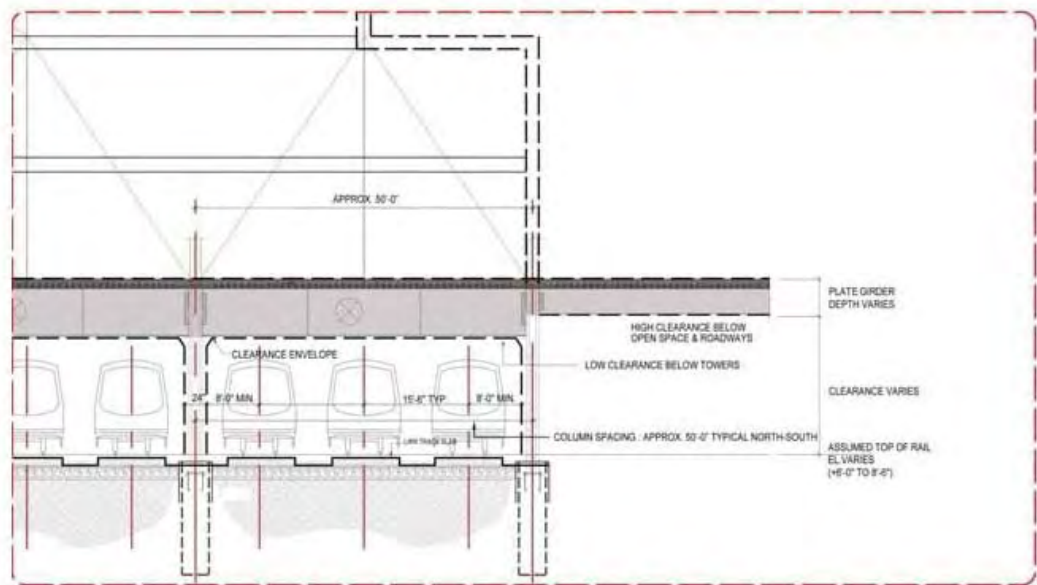
Structural Issues

- Rail Yard must maintain 24/7 operations, including track outages for construction
- Track spacing results in 50' typical north-south spans
- Average "ceiling" clearances for Rail Yard below platform to be as high and as close to 22' as possible
- Platform and columns act like a table on "legs"
- Bedrock 100'+ deep plus at western end of site
- There is no "generic" platform
- The structural needs of the platform, new buildings, open spaces and roads all need to be integrated

Column Location Diagram



Illustrative Platform Section



CONCEPTUAL PLATFORM AT TOWERS LOOKING WEST (PERPENDICULAR TO TRACKS)

Illustrative Platform Perspective



Illustrative Platform Section



Illustrative Platform Section



Surrounding Site Context: Source AIA Guide to New York City

Surrounding Site Context: Source AIA Guide to New York City

MADISON SQUARE GARDEN TO THE JAVITS CENTER

In 1904 the Pennsylvania Railroad opened its tunnel under the Hudson and cut a broad swath to its monumental 2-block-square station (opened 1910), erasing some of the Hell's Kitchen tenements. (In the 1930s Lincoln Tunnel approaches cut down more.) The new station quickly attracted the equally monumental General Post Office, some major hotels, and a cluster of middle-class department stores, which found the precinct an ideally convenient goal for their march up Sixth Avenue from 14th Street. By the 1920s garment manufacturing had moved from the Lower East Side into the streets surrounding these pivot points. Today's garment industry is concentrated in the West 30s and 40s between Sixth and Eighth Avenues, with suppliers of fabrics, trimmings, and such located to the east as far as Madison Avenue.

In the 1980s the precinct was reactivated, with, most prominently, the Javits Center as its economic if not spiritual leader.

[J1] **Hotel Pennsylvania**/sometime New York Penta/onetime Statler/originally Hotel Pennsylvania, 401 Seventh Ave., bet. W. 32nd and W. 33rd Sts. W side. 1918. **McKim, Mead & White**.

Like its neighbor to the south, the former Equitable Building—not to be confused with its downtown namesake—this Classical block is set back 15 feet from the building line in response to the old Pennsylvania Station colonnade that faced it. It was a center for the big bands of the 1930s, and **Glenn Miller** wrote a tune called “Pennsylvania 6-5000,” still the hotel's phone number, now converted to all digits.

[J2] **Madison Square Garden Center**, W. 31st to W. 33rd St., Seventh to Eighth Aves. 1968. **Charles Luckman Assocs.**

Anybody who remembers the vast Roman Revival waiting room and even vaster iron-and-glass train shed of **Charles McKim's** (**McKim, Mead & White**) 1910 Penn Station will feel bereaved here.

The replacement entertainment and office complex covering two blocks includes a 20,000-seat “garden,” a 1,000-seat “forum,” a 500-seat cinema, a 48-lane bowling center, a 29-story office building, an exposition “rotunda,” an art gallery, and the usual dining, drinking, and shopping areas—all above the railroad station, which was underground to begin with but had a ceiling 150 feet high. The present “garden,” the third one and closer to Madison Square than the second, is housed in a precast concrete-clad cylinder and roofed by a 425-foot-diameter cable structure that only physically replaces its magnificent noble predecessor.

At one time it was to be demolished and moved two blocks west to make room for a high-rise office tower in the form of a fish by Los Angeles architect **Frank Gehry**. Too bad the plan fell through.



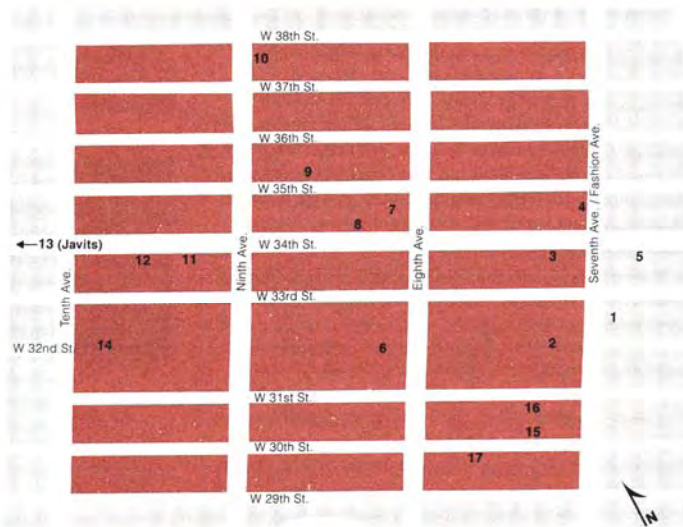
J1



Surrounding Site Context: Source AIA Guide to New York City

MADISON SQUARE GARDEN TO THE JAVITS CENTER

see pages 235–238



***The Underground Pennsylvania Station:** It was still called Penn Station, up till its reincarnation in the old General Post Office building across Eighth Avenue. From 1963 until 2000 it occupied little more than a rabbit warren under the 2-square-block Penn Plaza office building and Garden.*

*On August 2, 1962 a band of architects picketed—alas, unsuccessfully—against the demolition of the **McKim, Mead & White's** grand Roman cum Modern glass-and-steel train shed Penn Station. Organized by AGBANY, the Action Group for Better Architecture in New York, a group of young New York architects including **Norval White, Jim Burns, Jordan Gruzen, Norman Jaffe, Diana Kirsch, Jan Rowan, Peter Samton, and Elliot Willensky**, among others, picketed with posters prepared by students at all of the city's architectural schools. Among the architectural notables it attracted for picketing and television interviews were **Philip Johnson, Peter Blake, Aline Saarinen, John Johansen**, and board members of the Museum of Modern Art.*



J3



J4



J6

[J3] Long Island Railroad Entrance Pavilion, W. 34th St. bet. Seventh and Eighth Aves. 1990–1994. **R. M. Kliment & Frances Halsband**, in association with TAMS.


An ethereal cage of metal and glass signals the entrance to Long Island transit. Elegant.

[J4] Nelson Tower (offices), 450 Seventh Ave., bet. W. 34th and W. 35th Sts. W side. 1931. **H. Craig Severance**.

That slim, mysterious office tower with a rich Art Deco bas-relief at its crown, innocuous close up, is properly savored from afar.

[J5] Old Navy (clothing shop), 150 W. 34th St., bet. Seventh Ave. and Broadway. S side. 1999. **James McCullar & Assocs.**

An Art Deco Navy blimp hangar for the hot air of modern merchandising? Glass fiber-reinforced concrete simulates this imagery.

[J6] James A. Farley Building/originally General Post Office, Eighth Ave. bet. W. 31st and W. 33rd Sts. W side. 1913. **McKim, Mead & White**. Annex to W, 1935.  Converted to New Pennsylvania Station, 2001. **Skidmore, Owings & Merrill; Parsons, Brinckerhoff; Hardy Holzman Pfeiffer**.

Surrounding Site Context: Source AIA Guide to New York City

Madison Square Garden to Javits Center: see map p. 236 237

The 2-block row of twenty 53-foot Corinthian columns, and what is probably the world's longest inscription, once faced the equally long, somewhat stubbier row of Penn Station's Doric columns.

The near future will reincarnate Pennsylvania Station within these **McKim, Mead & White** folds (but entered on the side streets), a block west from where **Charles McKim** originally planted it, and within yet another embrace of Roman splendor. The embrace will be punctuated by soaring high-tech glass, rending the Post Office's body from 31st to 33rd Streets, and providing a traveler's place of arrival again worthy of this city.



J7

[J7] Originally **New Yorker Hotel**, 481 Eighth Avenue, bet. W. 34th and W. 35th Sts. W side. 1930. **Sugarman & Berger**.

An Art Deco relic, and a popular economy-priced hotel. In its heyday it boasted 92 "telephone girls" at the 41st-floor switchboards, and a 42-chair barber shop with 20 manicurists. In 1976 it became a property of **Rev. Sun Myung Moon's** World Unification Church.

[J8] **Manhattan Center Studios**/formerly Manhattan Center/originally Manhattan Opera House, 311 W. 34th St., bet. Eighth and Ninth Aves. 1906. Altered.

A traditional gathering place for union-contract debate and votes. And what about the incised lettering: Ancient Accepted Scottish Rite. Masons? When were they here?

Sound films were still experimental when Warner Brothers, collaborating with Bell Laboratories, exhibited them at the Manhattan Center in 1926, when it was still known as the Manhattan Opera House. Warner created elsewhere, but here was a vast auditorium that preceded by several years Radio City, the Roxy, and other mass places of mesmerization.

[J9] **Midtown South Precinct, N.Y.C. Police Department**, 357 W. 35th St., bet. Eighth and Ninth Aves. 1970. **Frost Assocs.**

A freestanding temple to incarceration; its dark brown brick adds to the gloom of this loft-shadowed side street.

For the Hungry:

[J10] **Manganaro's Grosseria**/originally Ernest Petrucci's (food shop/restaurant), 488 Ninth Ave., bet. W. 37th and W. 38th Sts. E side. 1893.

The architecture of food: pendant, stacked, glazed, bottled, canned—a symphony of color, texture, patina, and aroma. If you pass through, you will reach the Old World (self-service) restaurant. A special place.


Paddy's Market: A stretch of Ninth Avenue, between 36th and 42nd Streets, was for almost 50 years full of pushcart food vendors, banished by Mayor La Guardia in the late 1930s. The market soon revived however, as indoor shops with big outdoor displays featuring fresh fruit and vegetables, Italian, Greek, Polish, Spanish, and Philippine products.



J9



J11

 [J11] **St. Michael's Church**, 424 W. 34th St., bet. Ninth and Tenth Aves. 1892. Rectory, 1906.

Romanesque Revival limestone church, the wall in rock-face ashlar, the arches and details smoothly contrasting.

[J12] **Spearin Preston & Burrows, Inc.** (offices), 446 W. 34th St. bet. Ninth and Tenth Aves. 1967. **Edelman & Salzman**.

A diminutive office block occupying a curious sliver of land left over to one side of the Lincoln Tunnel approaches.



J12

Surrounding Site Context: Source AIA Guide to New York City

238 Midtown Manhattan [M]



J13

[J13] **Jacob Javits Convention Center**, Eleventh to Twelfth Aves. bet. W. 34th and W. 37th Sts. 1986. **James Ingo Freed of I. M. Pei & Partners. Lewis Turner Assocs.**, associate architects.

Aspiring to be the Crystal Palace of our generation, this shiny black multifaceted set of forms conjures thoughts of geodes, those geological broken remnants that are wondrous but opaque. The ball-jointed space frames within are impressive, a complex world of filigrees against the glass-shielded sky. The first pavilion of this ilk was that of the great London exhibition of 1851, gardener **Joseph Paxton**'s fantastically inflated greenhouse, which housed **Prince Albert**'s attempts to display Britain's industrial revolution to the world. Here the events are more mundane: those of conventioners both professional and commercial, presenting ideas or products. Paradoxically, the conventions proper are within sealed boxes (artificial controlled light for displays), and only the circulation and access occurs within the transparent shell.

At night, glowing lights give a sense of the Center's sometime transparency; by day the building might just as well be a set of opaque obsidian prisms.



J15

[J14] Originally **Westyard Distribution Center**, Tenth Ave. bet. W. 31st and W. 33rd Sts. E side. (a/k/a 450 West 33rd Street). 1970. **Davis, Brody & Assocs.** Lobby upgrade, 1990. **Der Scutt.**

A gutsy concrete structure that spans the Penn-Central tracks below. Its penthouse once sheltered ice skating, Sky Rink, since removed to sea level at the Chelsea Piers.



J17

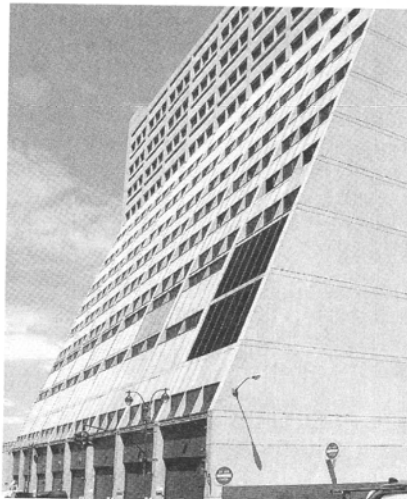
[J15] **St. John the Baptist Church** (Roman Catholic), 211 W. 30th St., bet. Seventh and Eighth Aves. 1872. **Napoleon LeBrun.**

[J16] **Capuchin-Franciscan Friary**, 210 W. 31st St. 1975. **Genovese & Maddalene.**

Lost in the Fur District is this exquisite single-spired brown-stone church, a Roman Catholic midtown Trinity. The interior, of white marble, radiates light. Worth a special visit. The friary is a banal new work on the opposite block front.

[J17] **Fire Patrol No. 1**, W. 30th St., bet. Seventh and Eighth Aves. 1874.

A mildly ornate eclectic "row house" for the Insurance Company funded patrols that attend major fires, protecting the goods that might potentially be damaged by smoke and, particularly, water.



J14

VII. Precedent Analysis

A. Developments

1. Rockefeller Center, New York City, USA
2. World Trade Center Redesign, New York City, USA
3. Roppongi Hills, Tokyo, Japan
4. Gare Montparnasse, Paris, France

B. Parks

1. Bryant Park
2. Union Square

Rockefeller Center, New York City

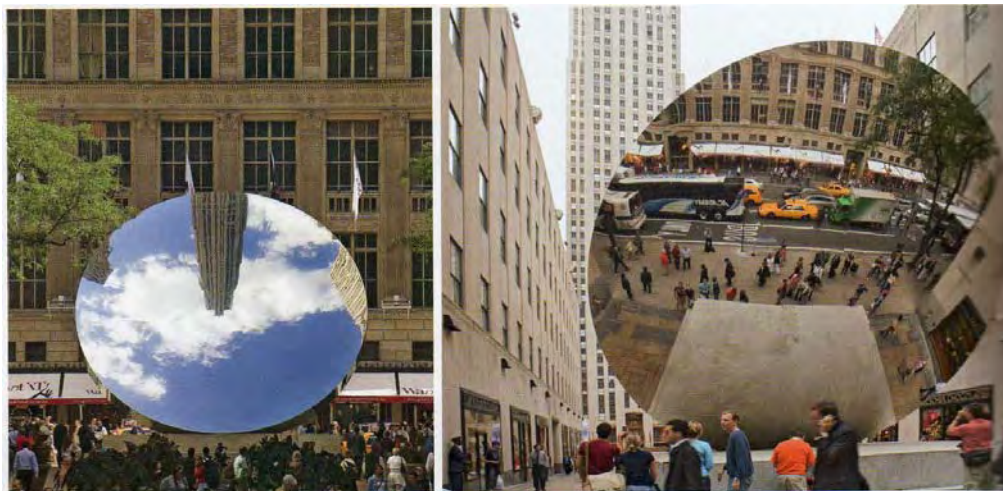


Rockefeller Center is a complex of 19 commercial buildings covering 22 acres between 48th and 51st streets in New York City.

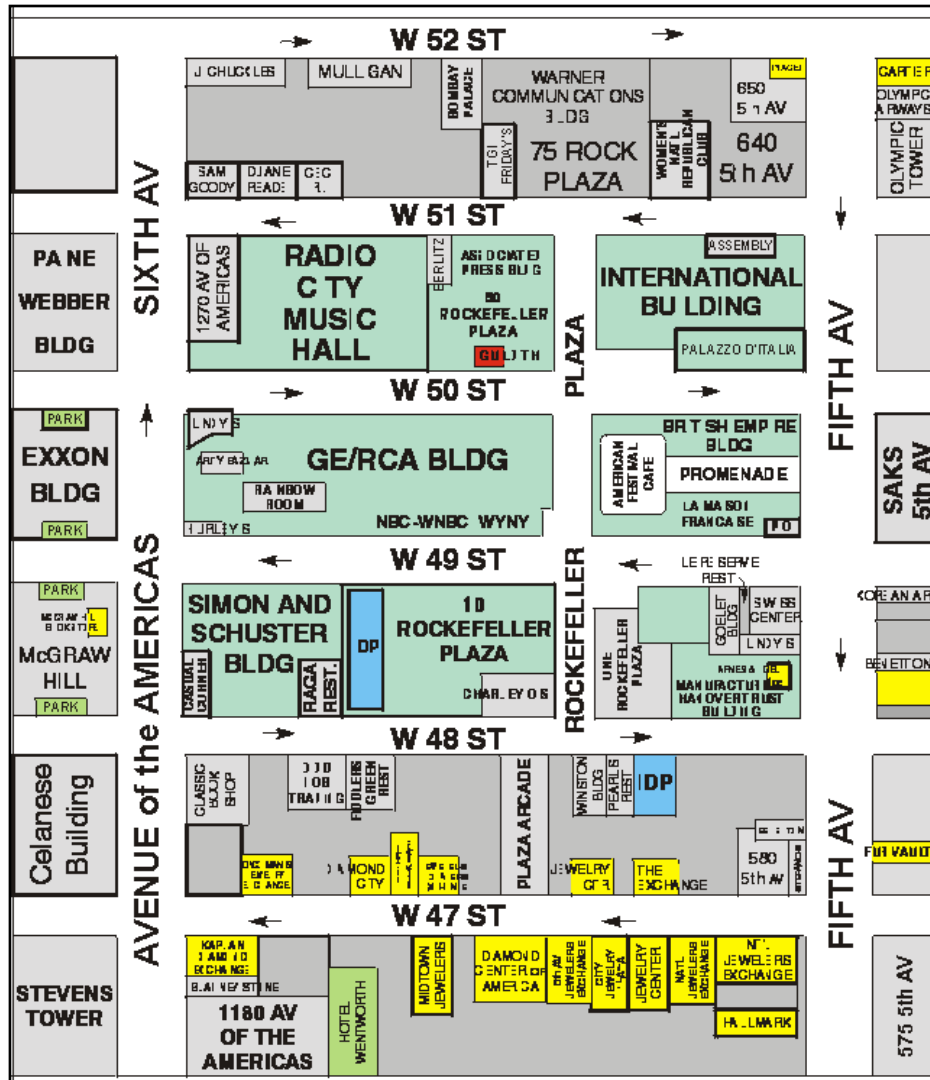
Built by the Rockefeller family, it is located in the center of Midtown Manhattan, spanning between 5th Avenue and 7th Avenue

It was declared a National Historic Landmark in 1987.

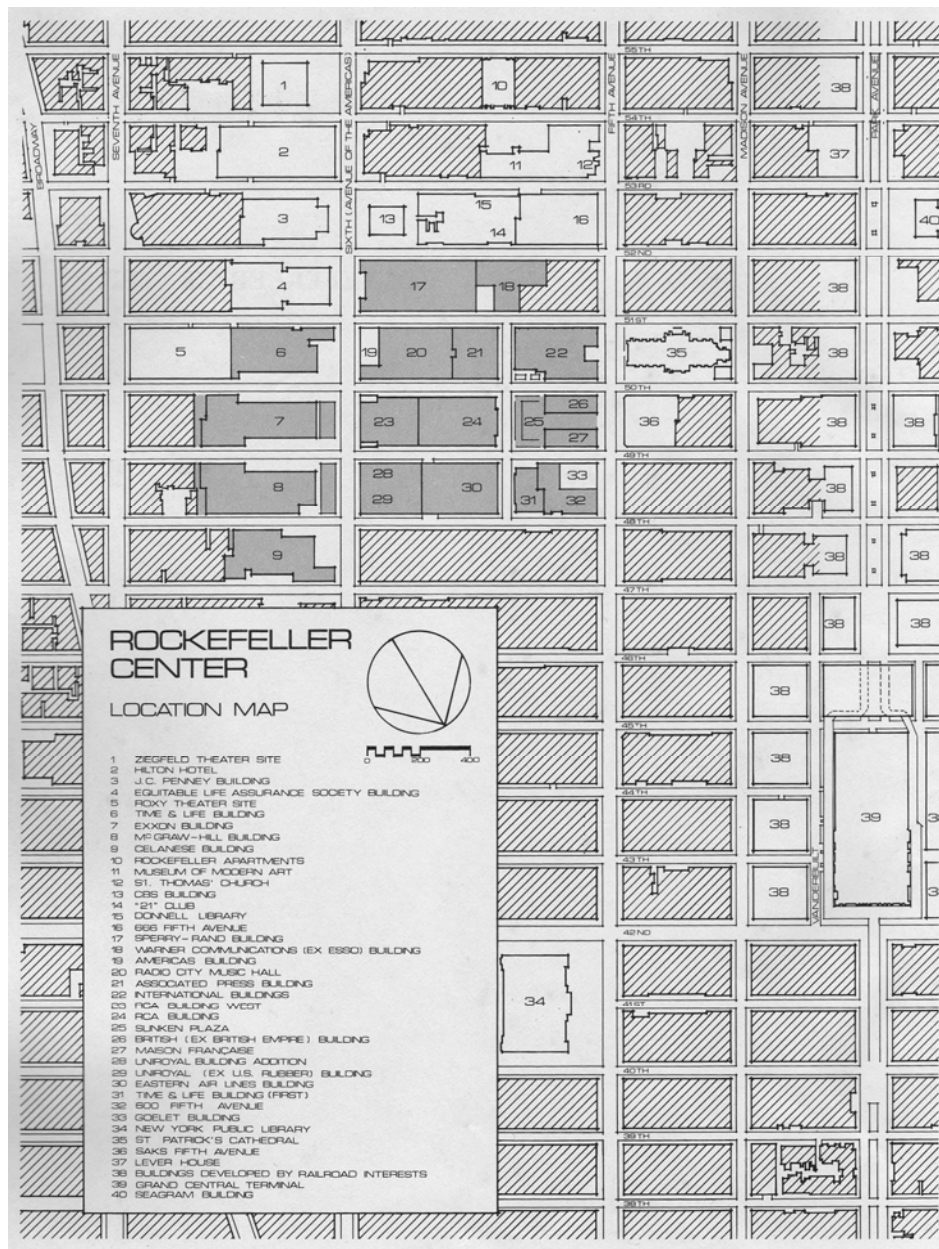
It is the largest privately held complex of its kind in the world, and an international **BRAND**.



Map of Rockefeller Center

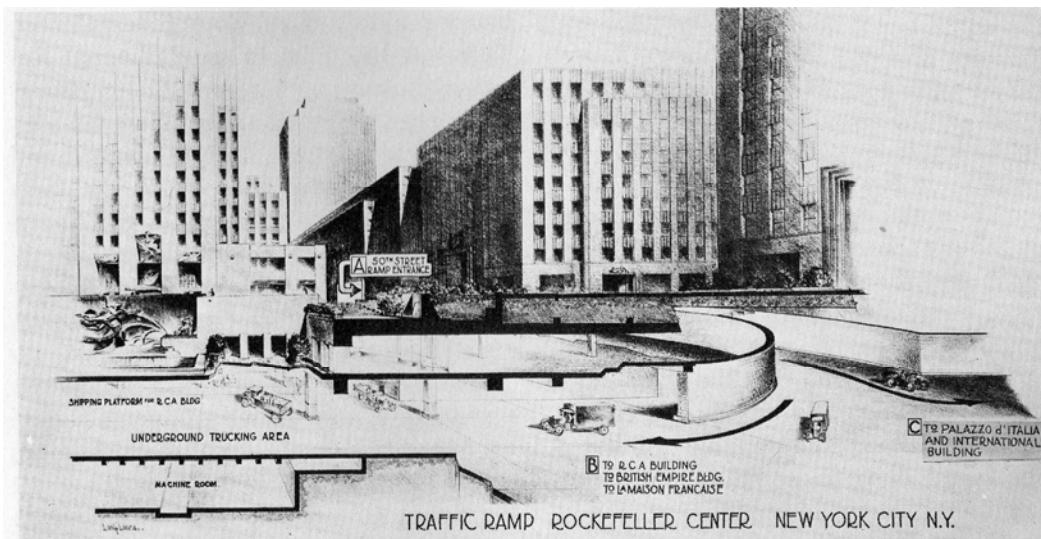


Map of Rockefeller Center with Context

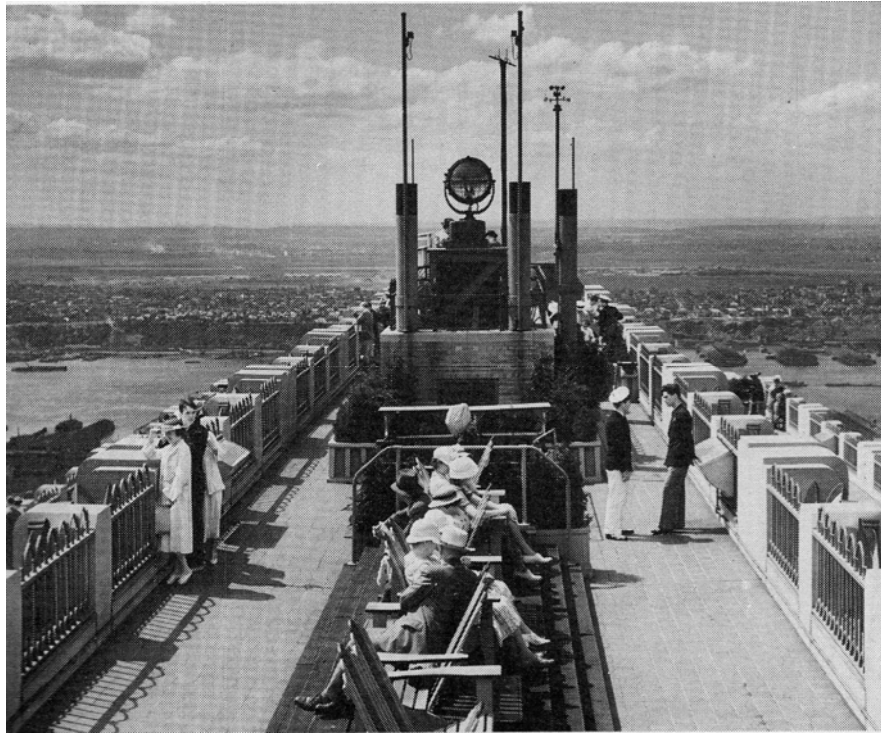


List of Buildings at Rockefeller Center

- One Rockefeller Plaza (608,000 sq ft)
- 10 Rockefeller Plaza (288,000 sq ft) The Today Show studios
- 15 Rockefeller Plaza: Nintendo World Store
- 30 Rockefeller Plaza (30 Rock): GE Building(2.9 million square ft)
- 50 Rockefeller Plaza: Bank of America Building (481,000 sq ft)
- 1230 Avenue of the Americas: Simon & Schuster Building (706,000 sq ft)
- 1260 Avenue of the Americas: Radio City Music Hall
- 1270 Avenue of the Americas (528,000 sq ft)
- 600 Fifth Avenue (409,000 sq ft)
- 610 Fifth Avenue: La Maison Francaise (130,000 sq ft)
- 620 Fifth Avenue: British Empire Building (130,600 sq ft)
- 626 Fifth Avenue: Palazzo d'Italia (120,000 sq ft)
- 630 Fifth Avenue: International Building (1.2 million square ft)
- 636 Fifth Avenue: International Building North (120,000 sq ft)
- 1271 Avenue of the Americas (Time-Life Building)
- 1251 Avenue of the Americas (Originally the Standard Oil [NJ] Building.
- 1221 Avenue of the Americas (McGraw-Hill Building)
- 1211 Avenue of the Americas
- 745 Seventh Avenue (Barclays Capital)



Observation Deck at Rockefeller Center



Roppongi Hills, Tokyo, Japan

Tokyo's urban condition of narrow streets, sprawling low-rise buildings and few parks did not offer its citizens a high quality of life. What's more, the horizontally oriented cityscape did not stack up against other international cities. Renowned developer Minoru Mori envisioned a mid-town district that would afford citizens a better lifestyle and become a cultural center attracting people from all over the world. That vision is Roppongi Hills, Japan's largest private real estate development. Roppongi Hills integrates a full range of uses, offices, a world-class museum, residential towers, a luxury hotel, cinema, retail, a subway station and restaurants into a walkable community. Jerde made it a community people would want to walk by knitting the high-volume buildings with wide pedestrian pathways and generous open spaces - a rare sight in the crowded city. Additionally, Jerde incorporated natural materials and landscaping into the pedestrian-level uses. Since opening in April, Roppongi Hills has been embraced by the people of Tokyo as a new symbol of culture and urbanity. It has also established an important green district with ground-level parks and rooftop gardens.

-Source: <http://www.jerde.com/projects/project.php?id=85>



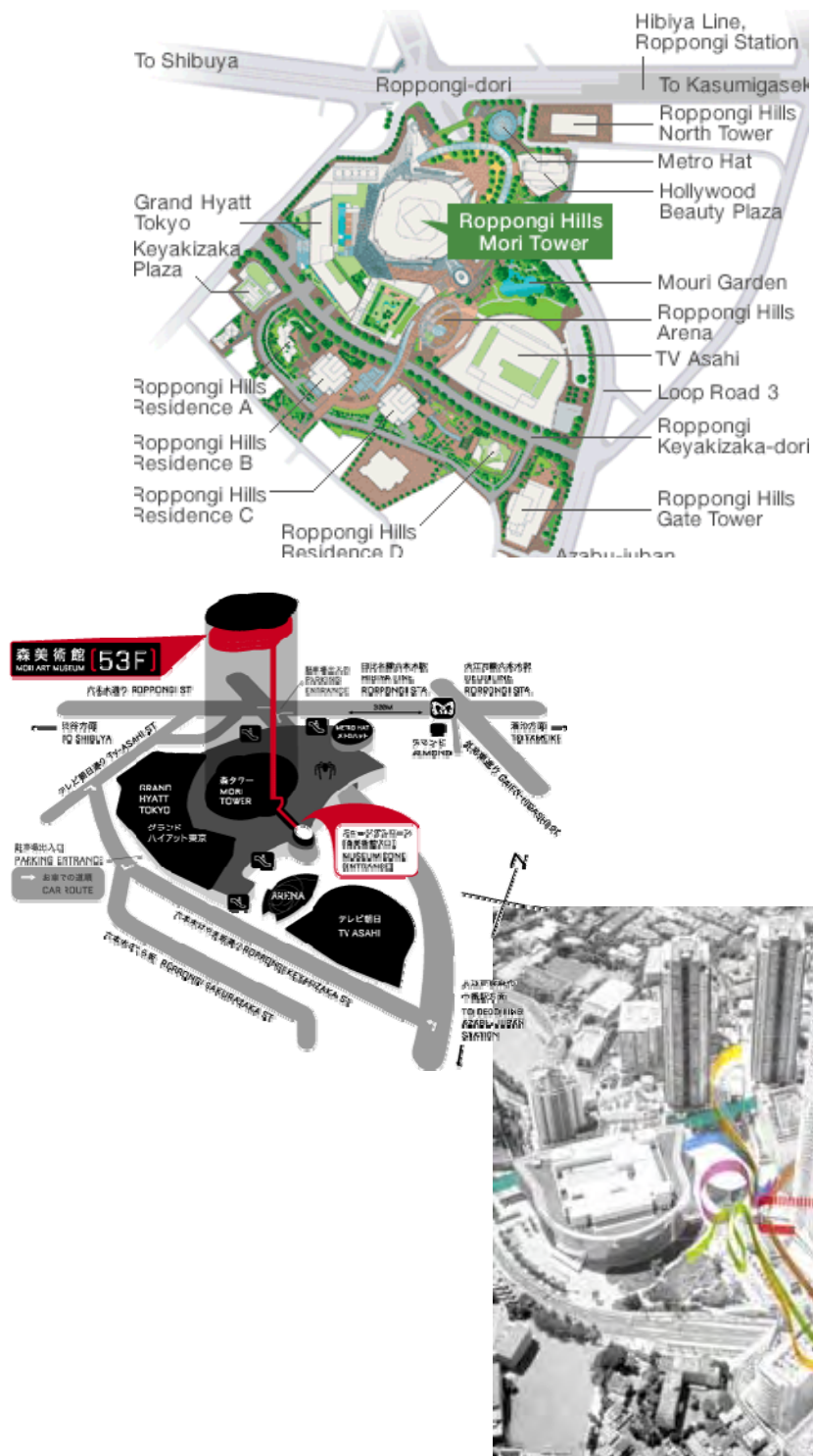
Site Area	28.4 acres
Total Building Area	724,000 sq meters
Program	380,000 sq meters Office
	148,000 sq meters Residential (840 units)
	53,000 sq meters Hotel (390 rooms)
	30,000 sq meters Retail
	150,000 sq meters Restaurants
	6,300 sq meters Cultural



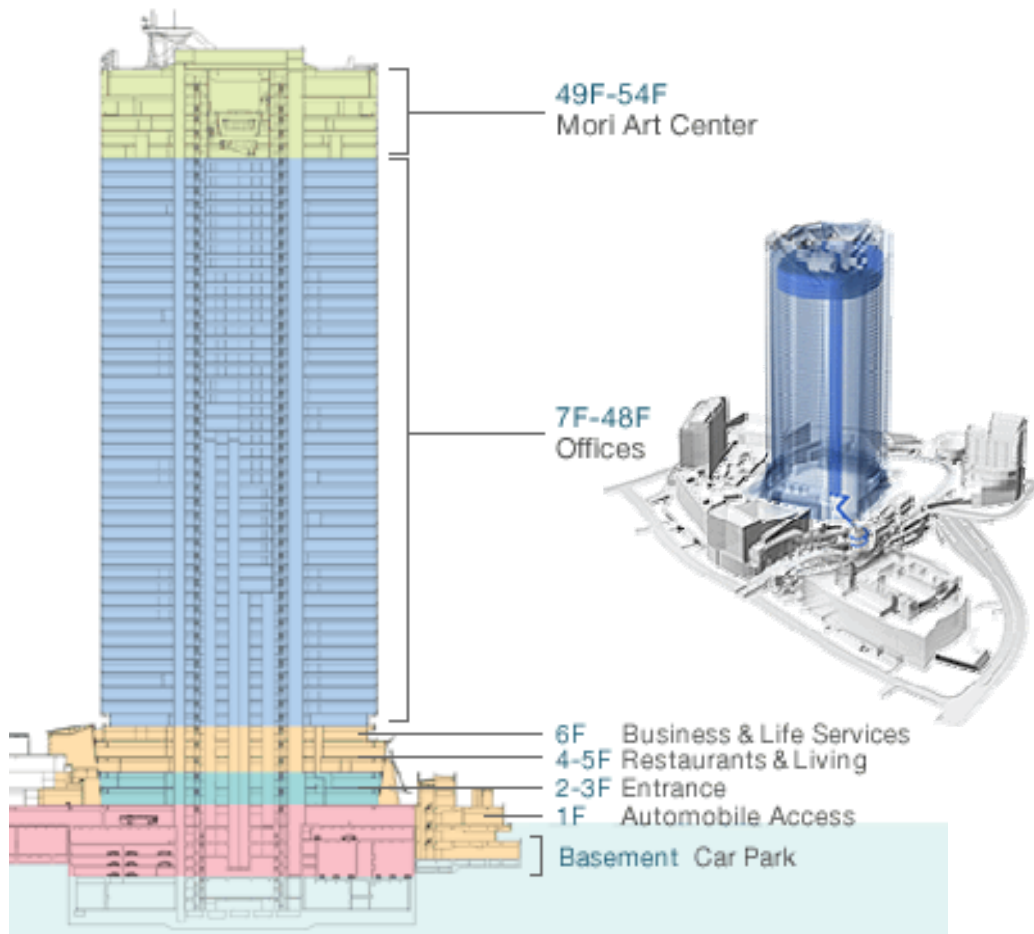
Artelligent City Roppongi Hills



Maps, Diagrams



Sectional Diagram and Renderings

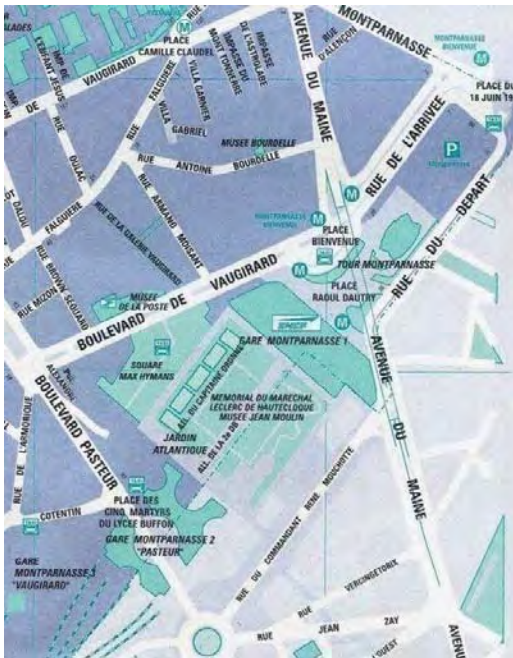
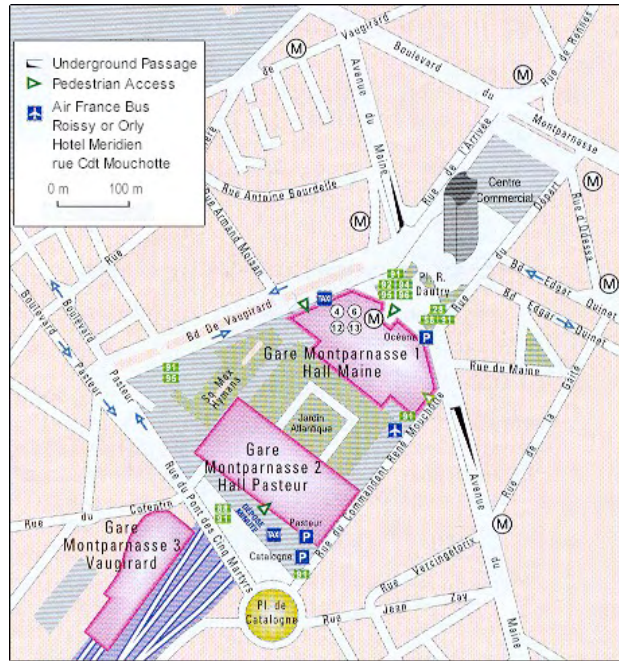


Gare Montparnasse, Paris, France

The Gare Montparnasse is one of the six large terminus train stations of Paris, located in the Montparnasse area, in the XVe arrondissement.

The station is used for the intercity TGV trains to destinations in the west and south-west of France including Tours, Bordeaux, Rennes and Nantes. Additionally, it is served by several suburban and regional services on the Transilien Paris – Montparnasse routes. There is also a metro station, and a high-speed moving sidewalk.





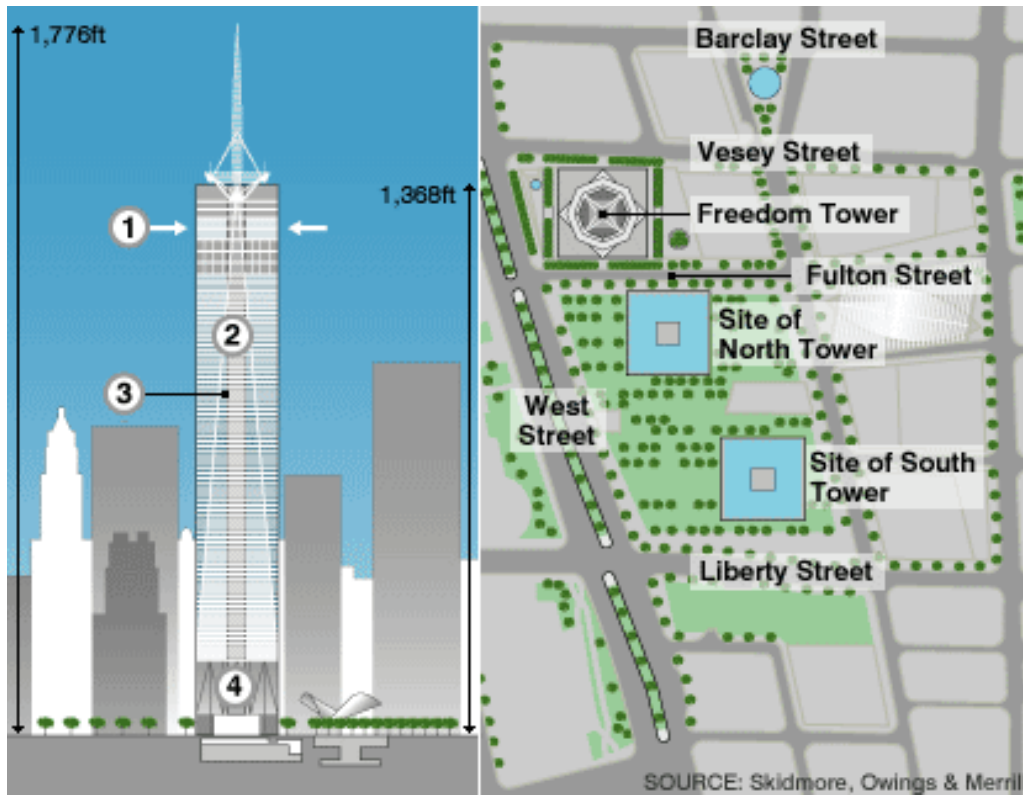
Before



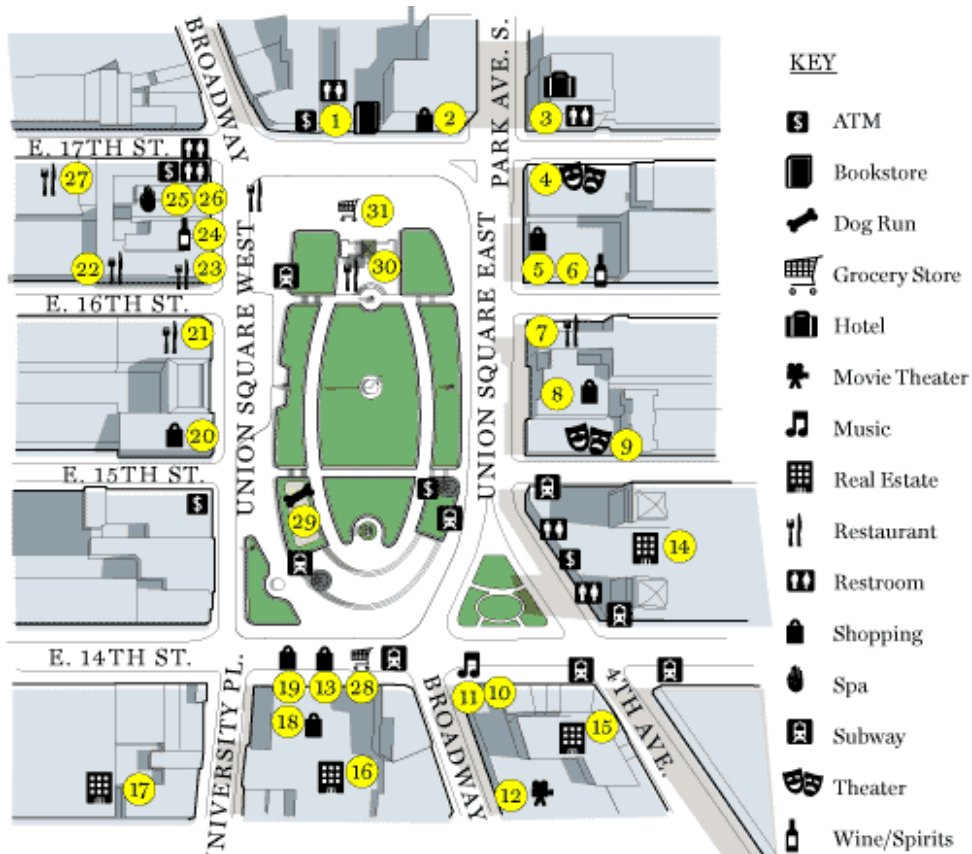
After



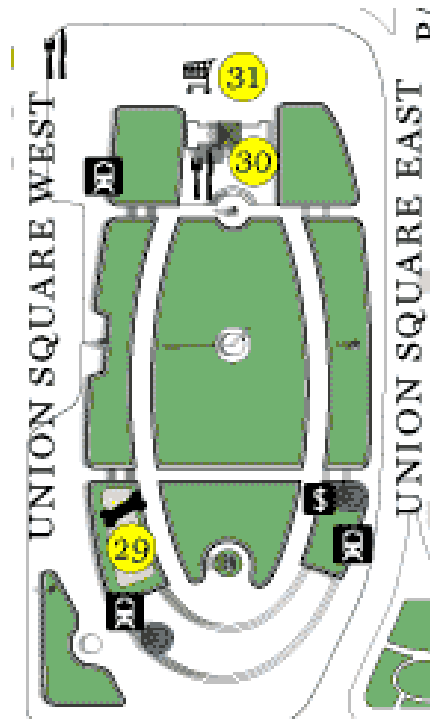
World Trade Center Redesign, NYC



Union Square, New York City

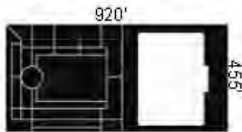


Comparison to other Green Spaces in Manhattan



Bryant Park

Approximately 6 acres



Madison Square Park

Approximately 6 acres



Union Square

Approximately 5 acres



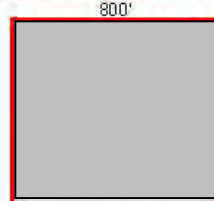
Rockefeller Center

Approximately 2 acres



Western Rail Yard

Approximately 5 acres

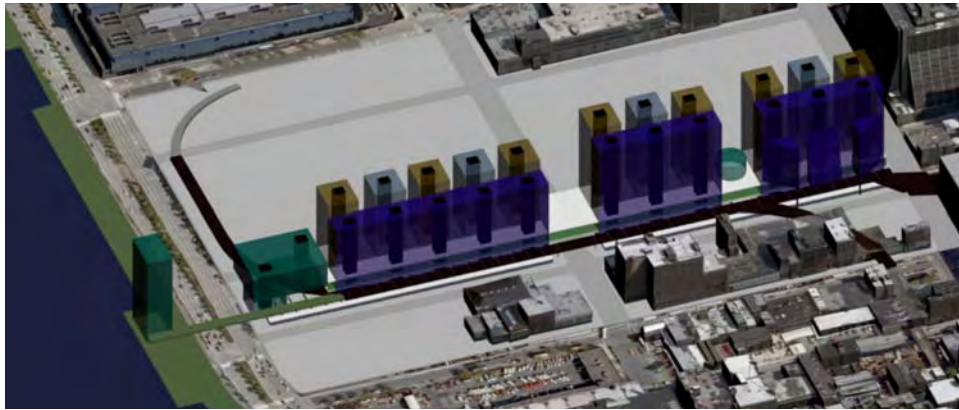


Eastern Rail Yard

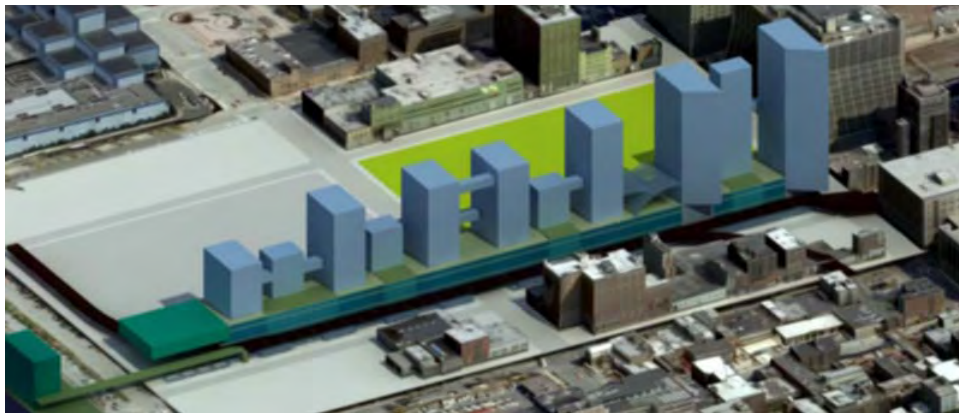
Approximately 6 acres



IX. Design Process – Master Plan Conceptual Configurations



Scheme 1: 12 equal towers with only 1 large connection parallel to Highline



Scheme 2: 12 stepping towers with small connection bridges

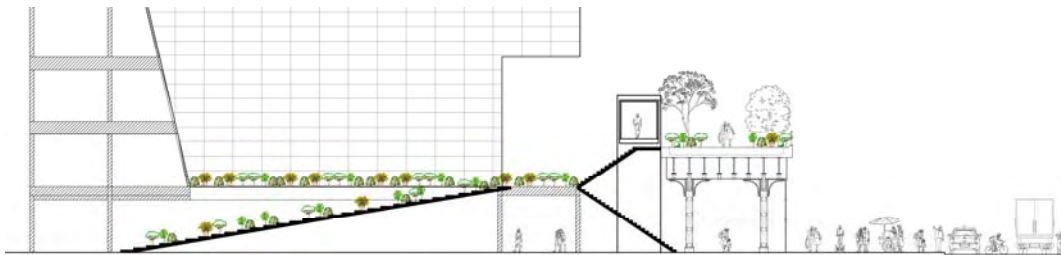


Scheme 3: 7 stepping towers with large connection bridges

Configurations on transitioning onto Highline



Scheme 1: Mall atrium to transition to Highline



Scheme 2: Concrete Pavers to transition from grade to platform to Highline

X.



Zoning around Highline



Open / Green Space Diagram



SURROUNDING NEIGHBORHOODS DIAGRAM

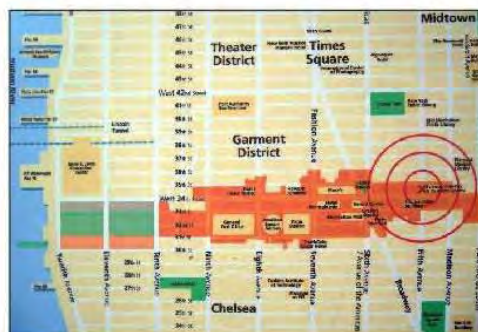


DIAGRAM SHOWING OUTER CONTEXT



AERIAL VIEW OF SITE

3D Zoning Diagram

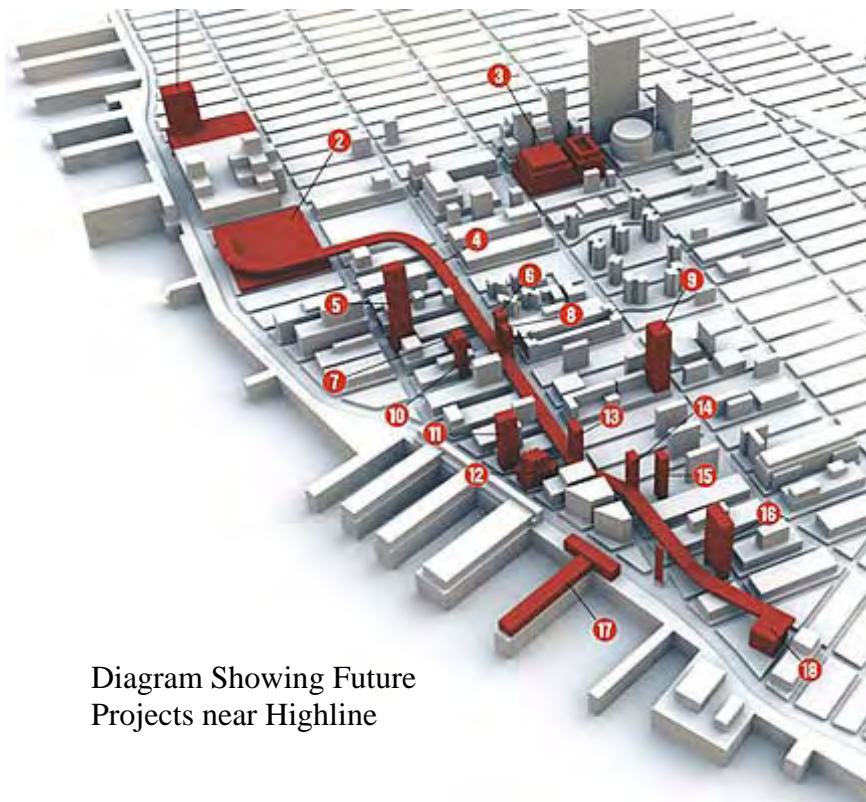
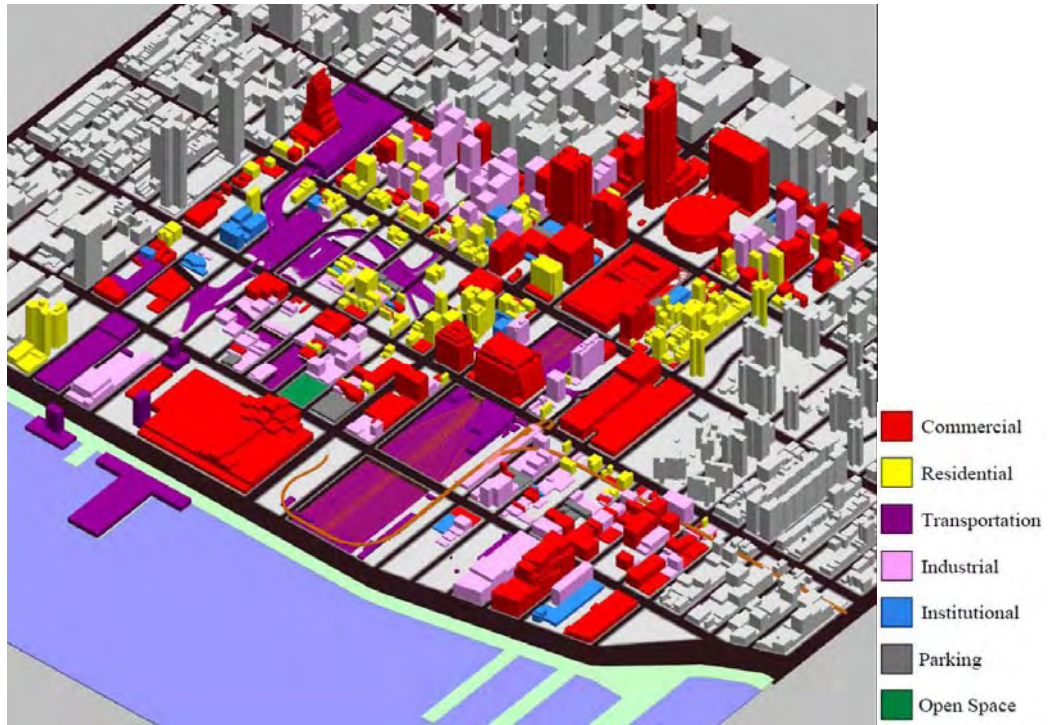
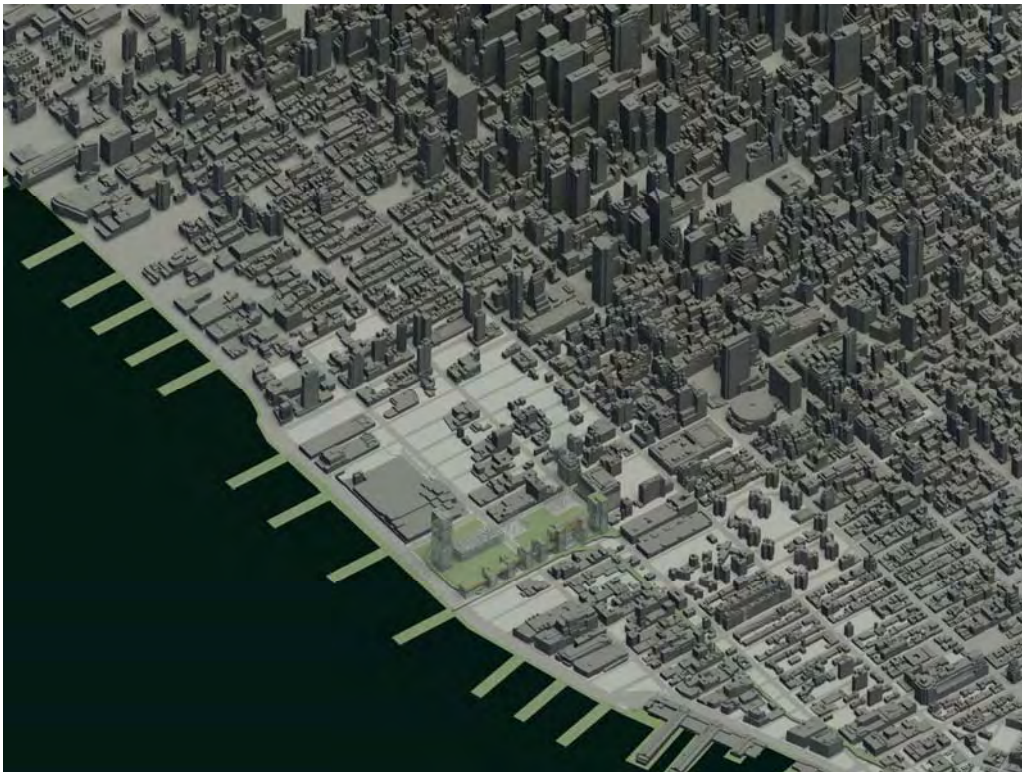


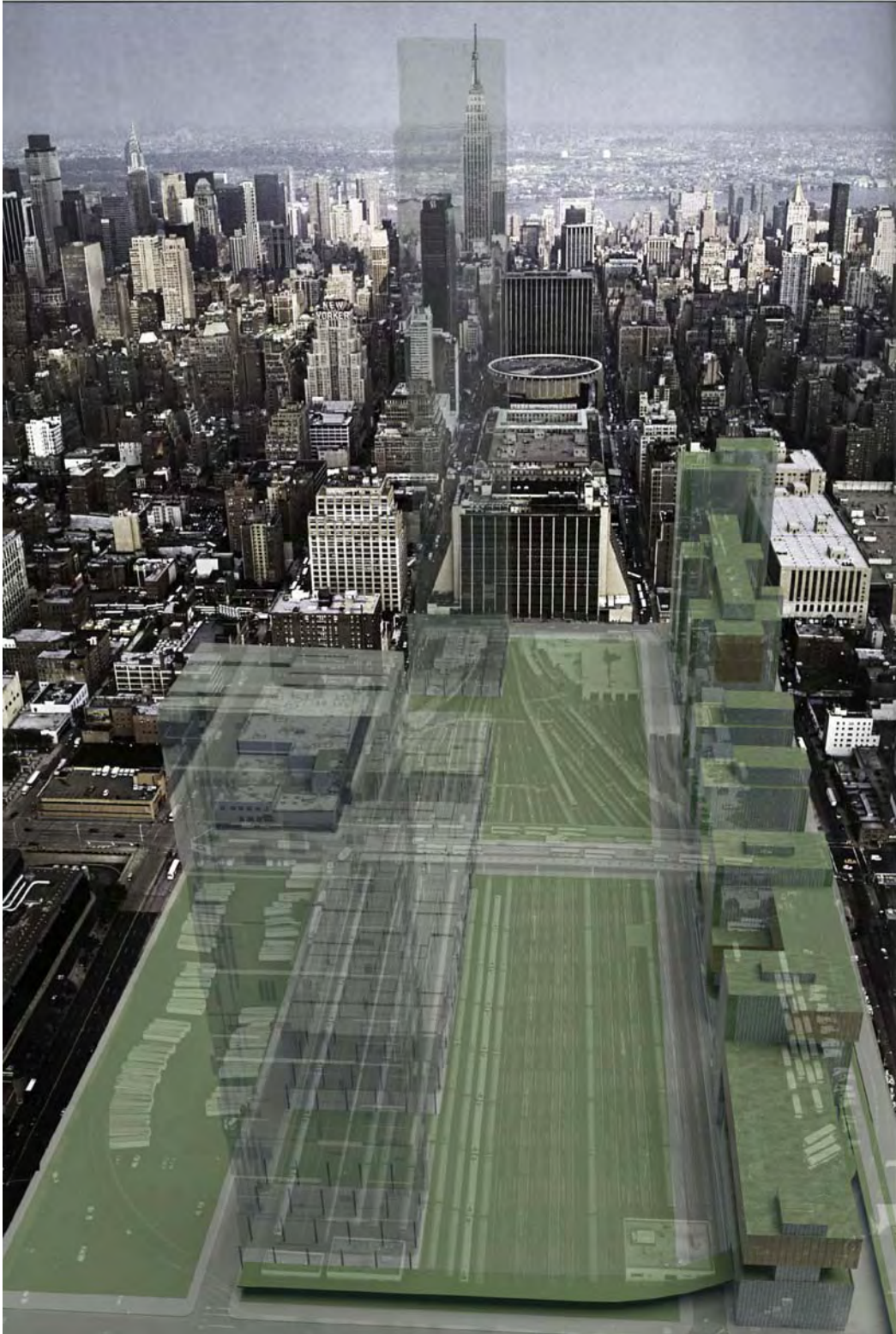
Diagram Showing Future Projects near Highline



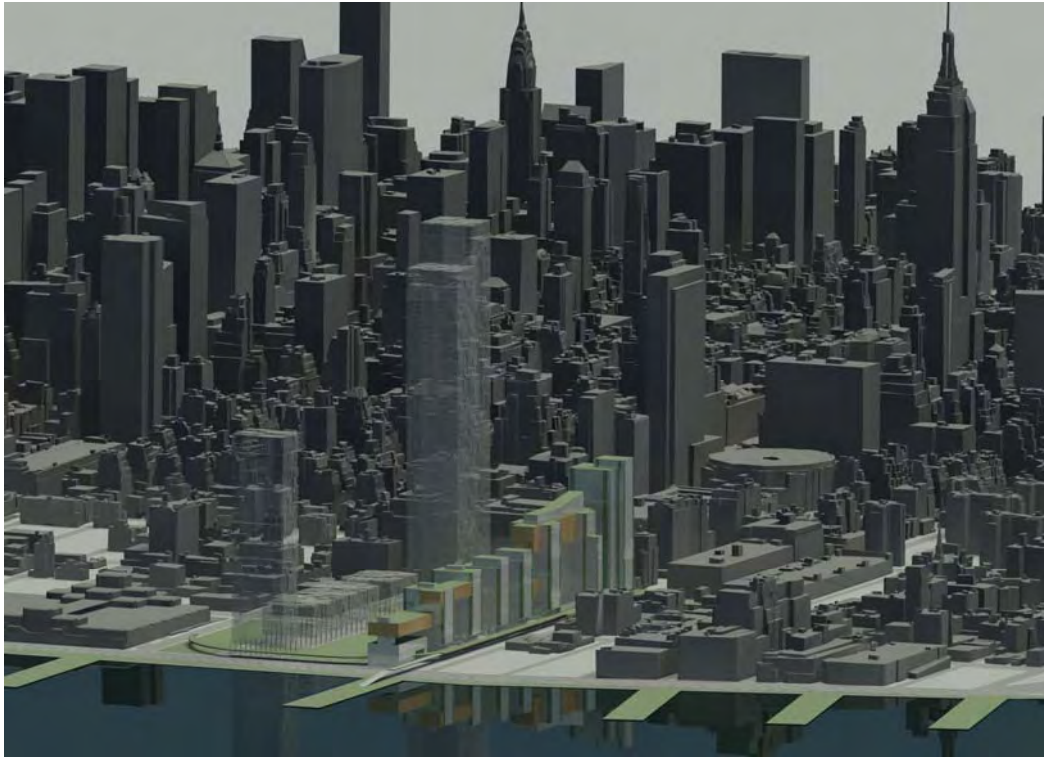
Aerial View showing extent of Highline



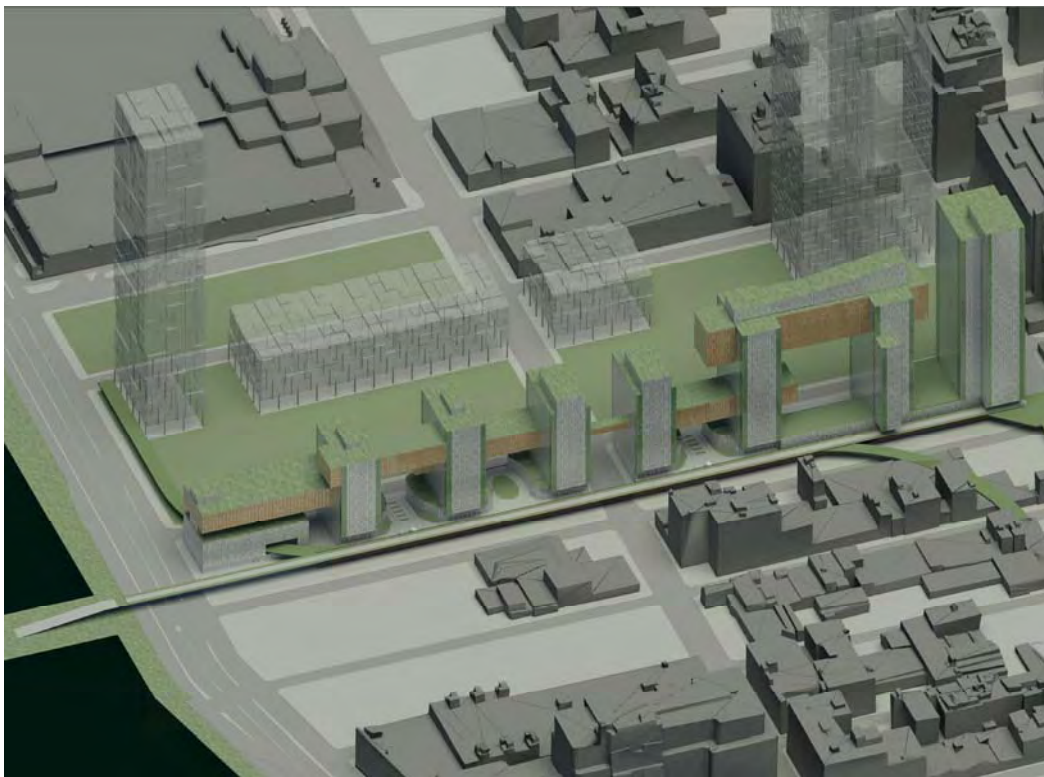
Aerial View showing Midtown Manhattan



Aerial View showing projected development



Aerial Views showing site context and overall layout



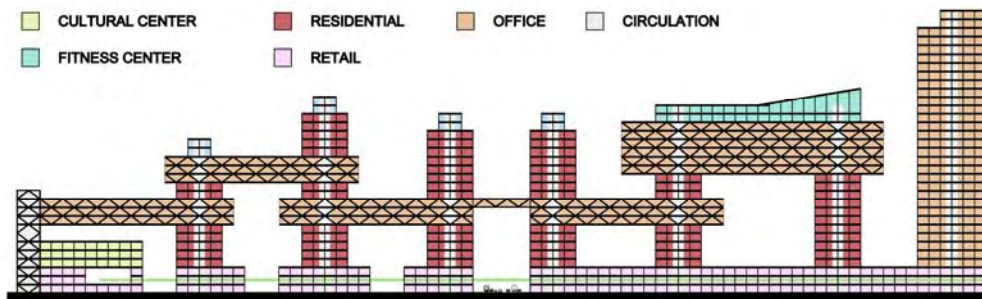


Aerial View



Site Plan

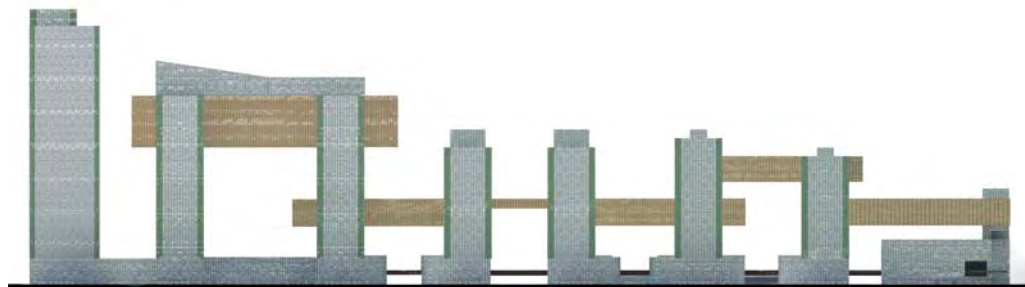




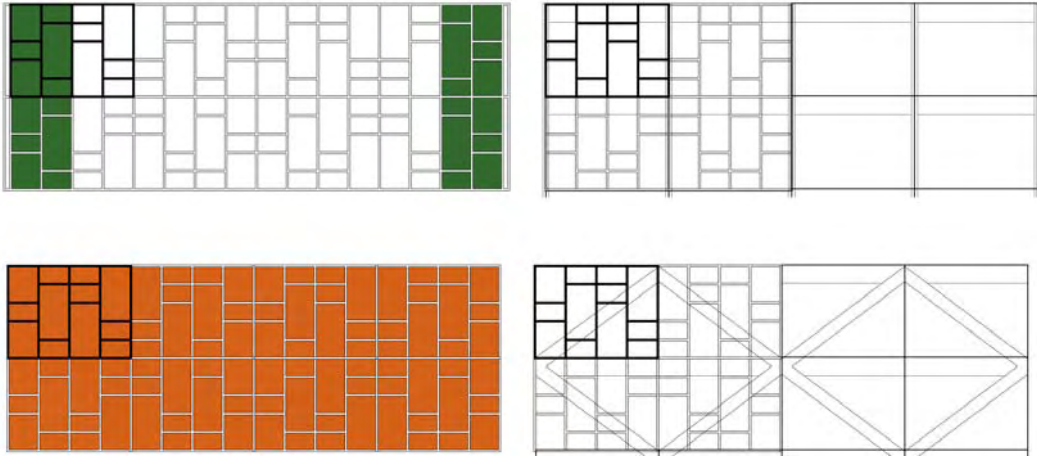
Section Diagram



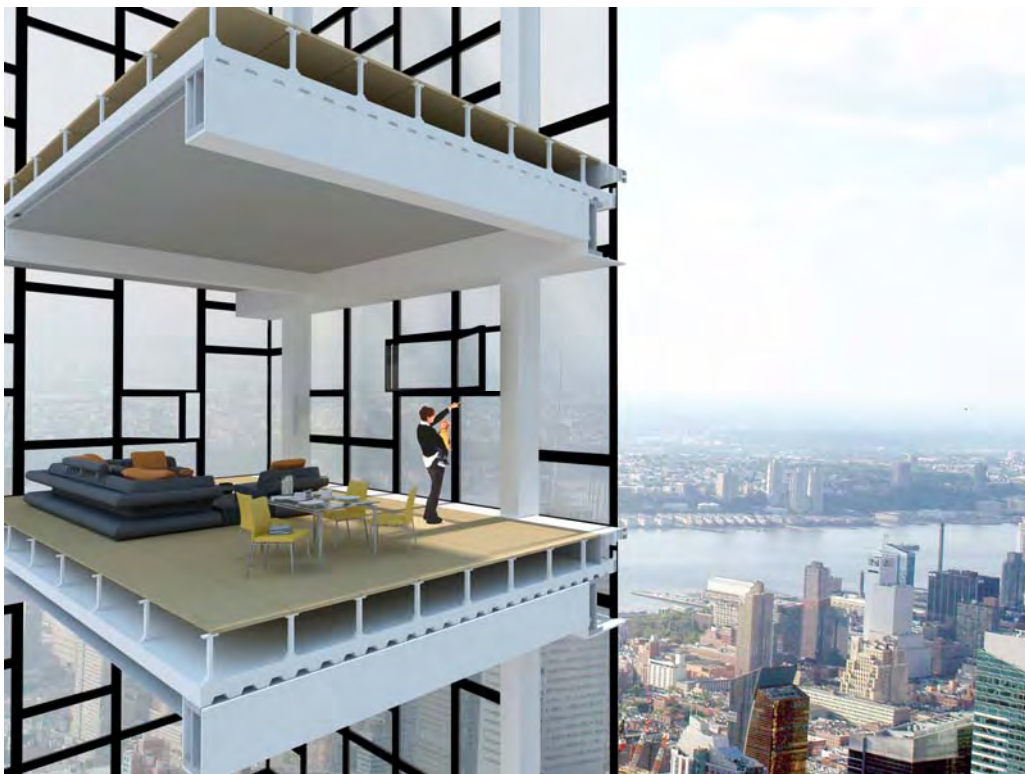
30th Street Projected Elevation



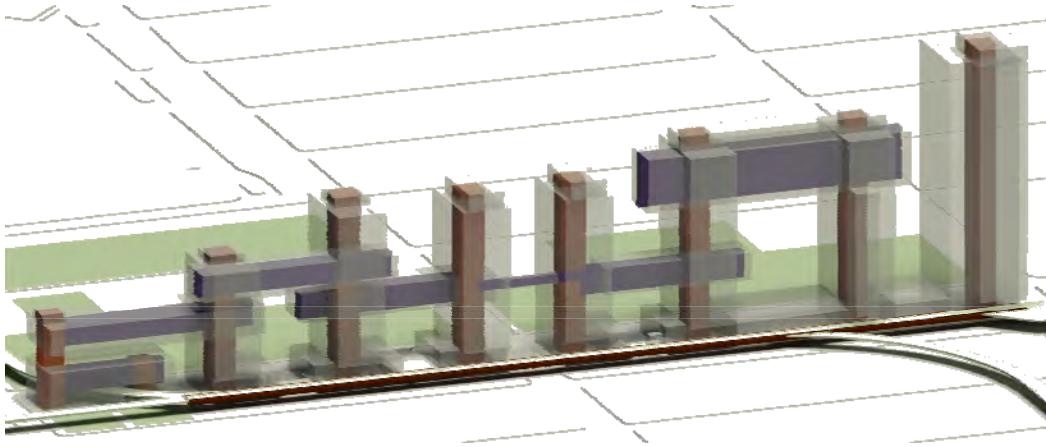
31st Street Projected Elevation



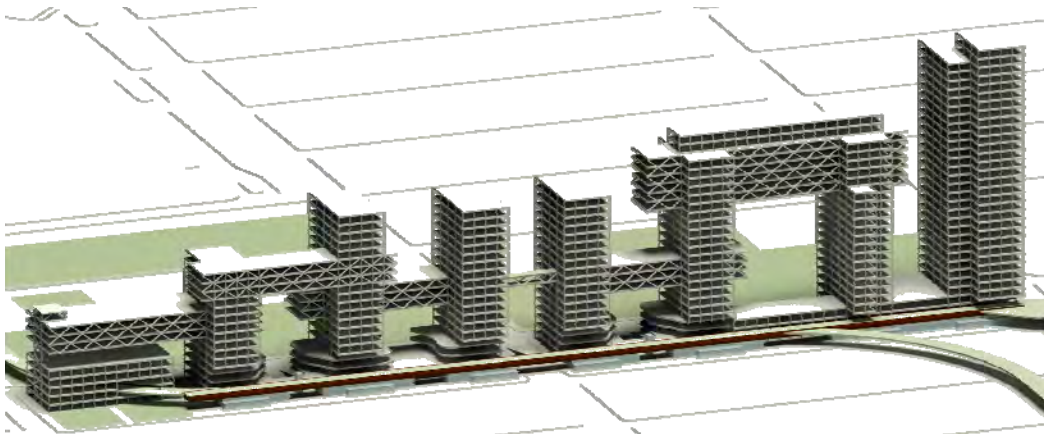
Façade Elevation Study



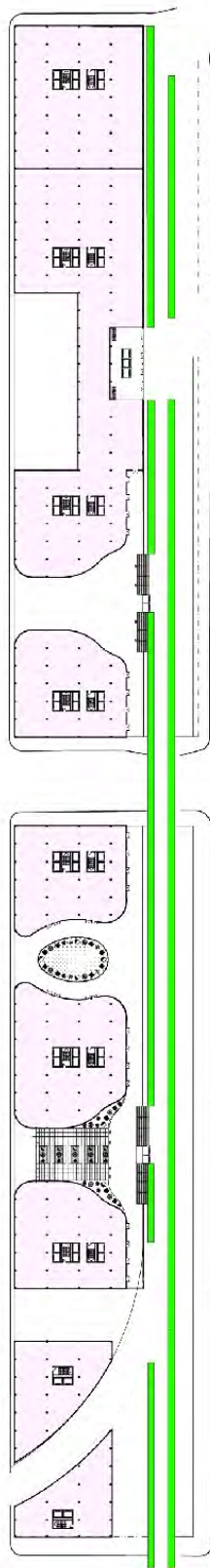
Structural Axonometric



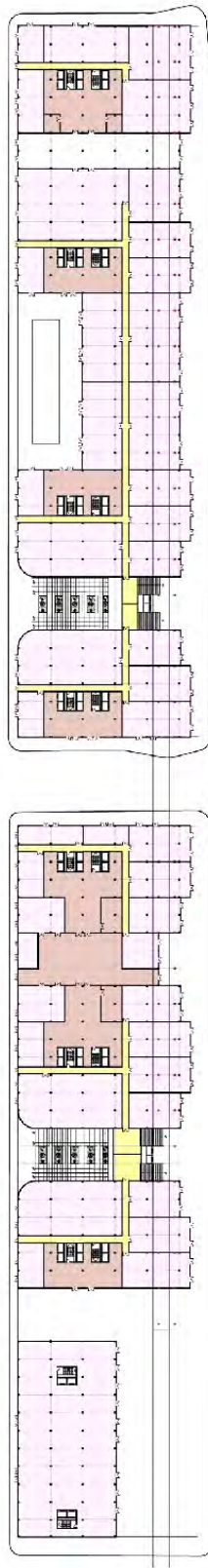
Circulation Diagram



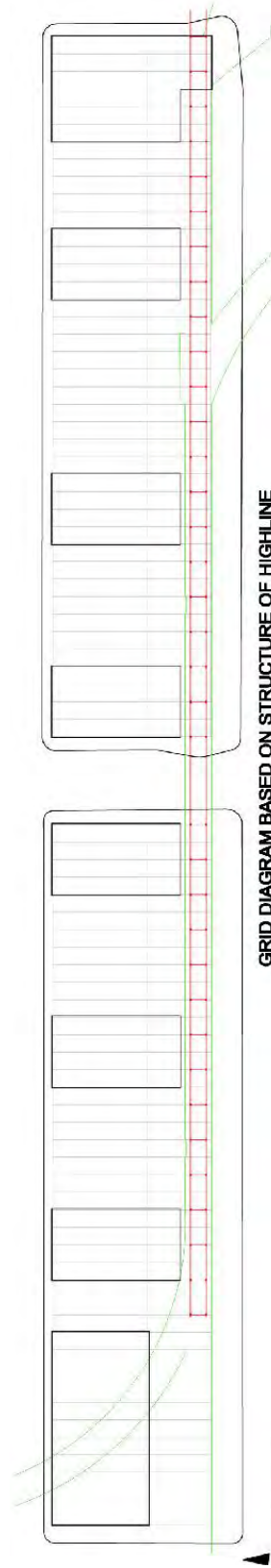
Structural Axonometric

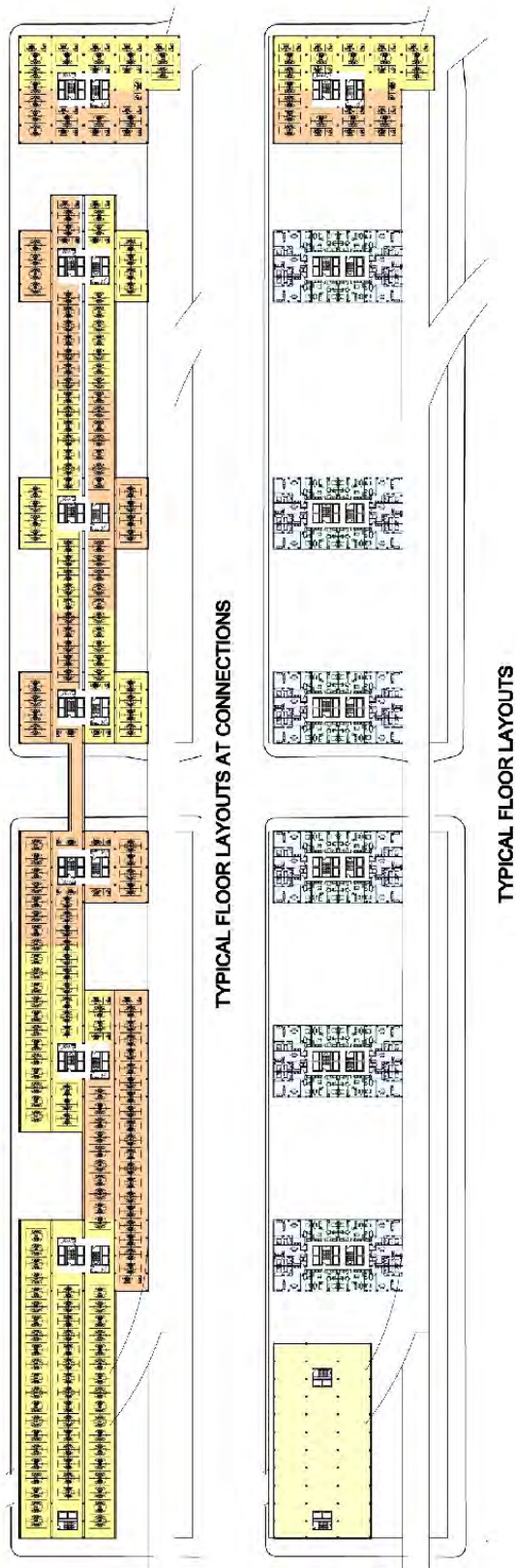


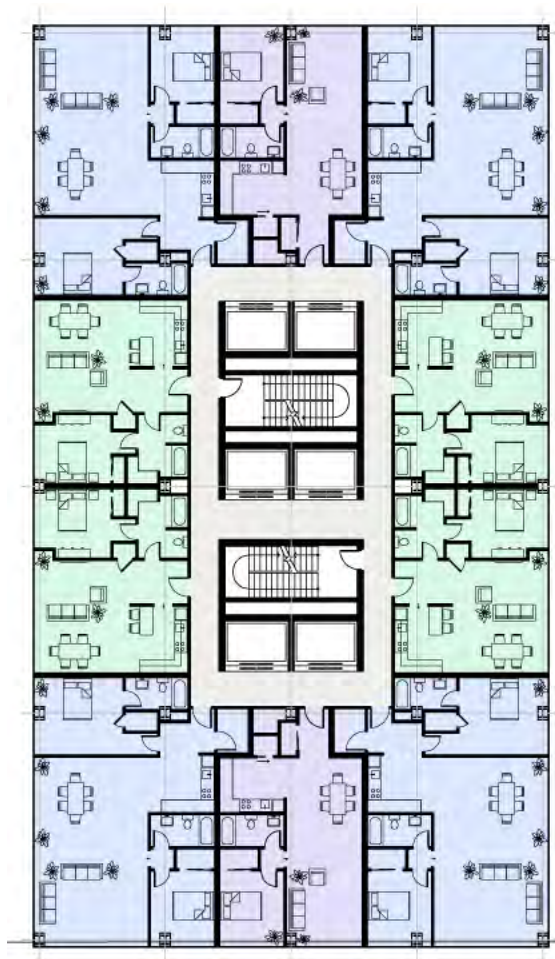
FIRST FLOOR PLAN



GROUND FLOOR PLAN

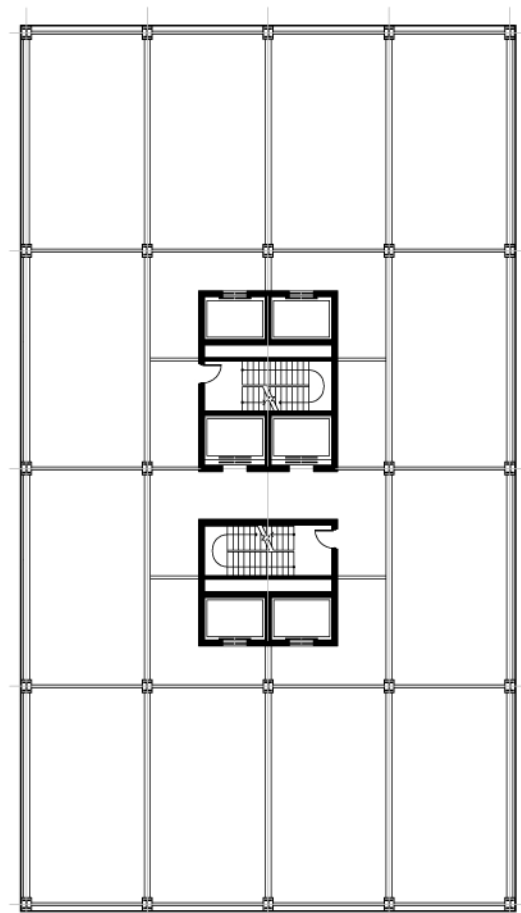






Typical Floor Layouts

- TYPE "A" - ONE BEDROOM
- TYPE "B" - ONE BEDROOM
- TYPE "C" - TWO BEDROOMS



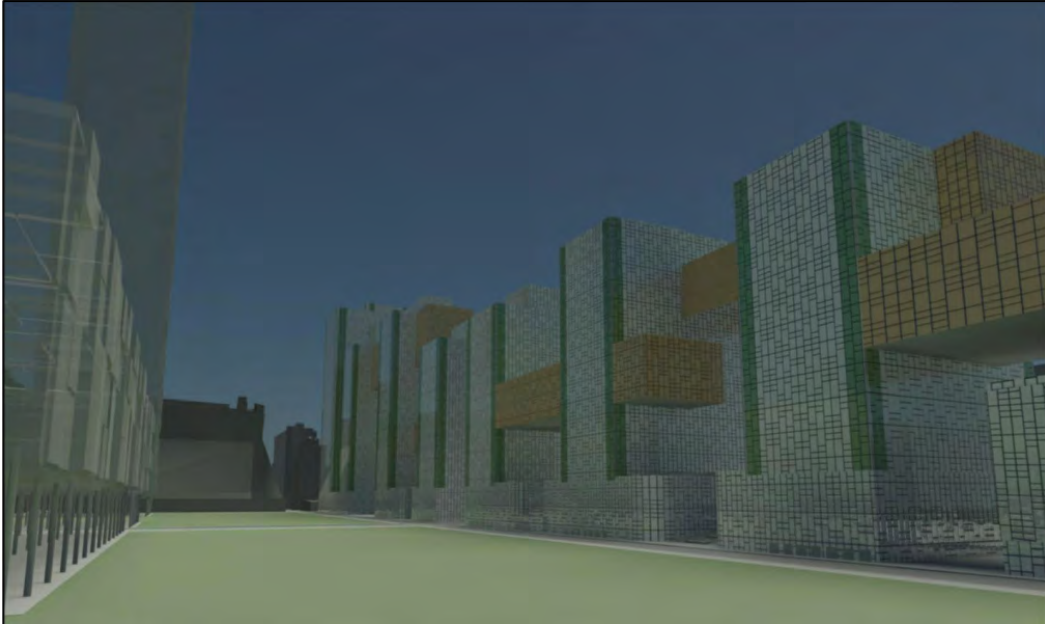
Structure Diagram



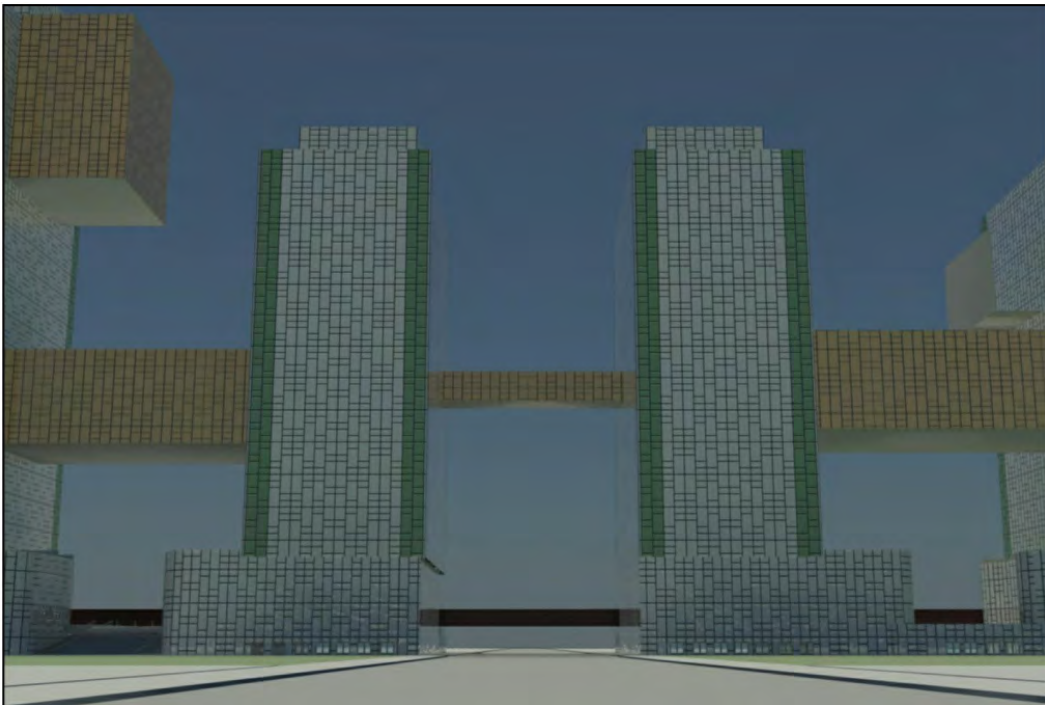
Interior Perspective of Living Room



Interior of Office Space



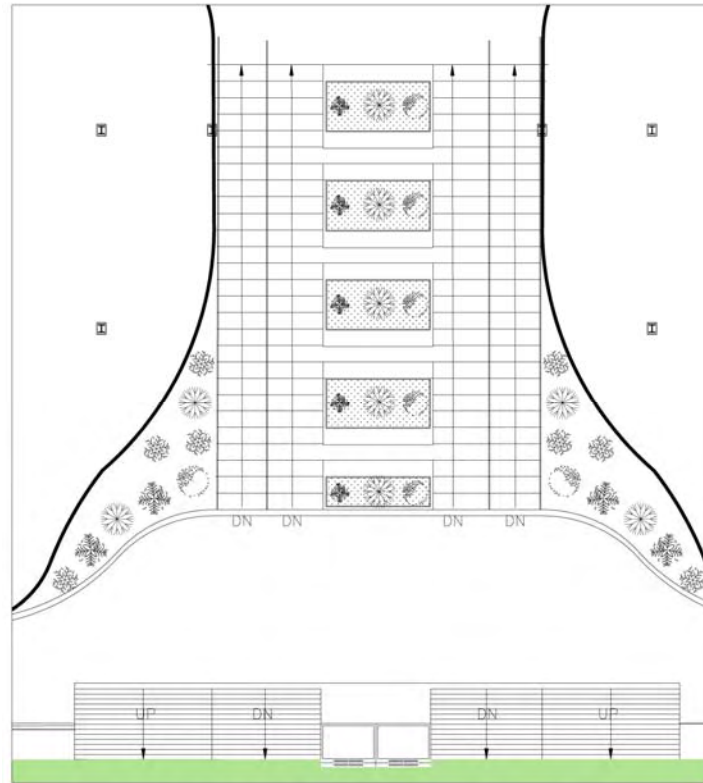
Pedestrian Views



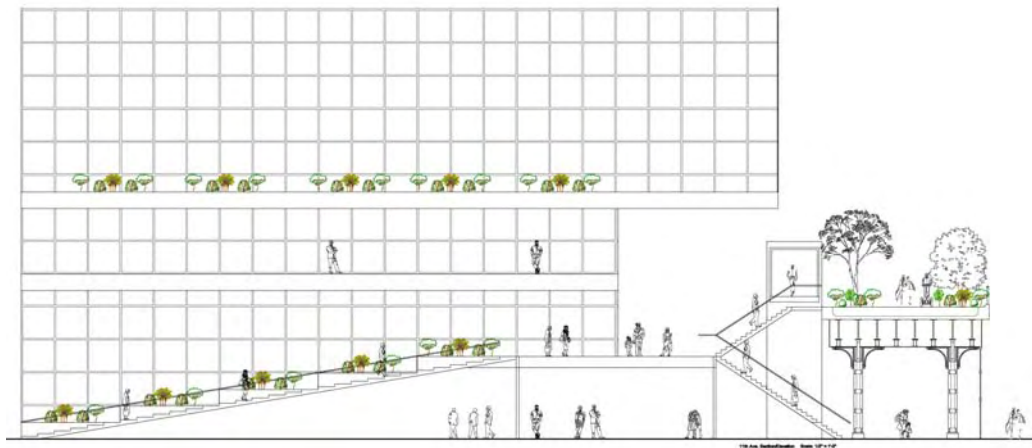


Views showing pedestrian circulation onto platform and Highline





PLAN OF PEDESTRIAN CIRCULATION ONTO PLATFORM



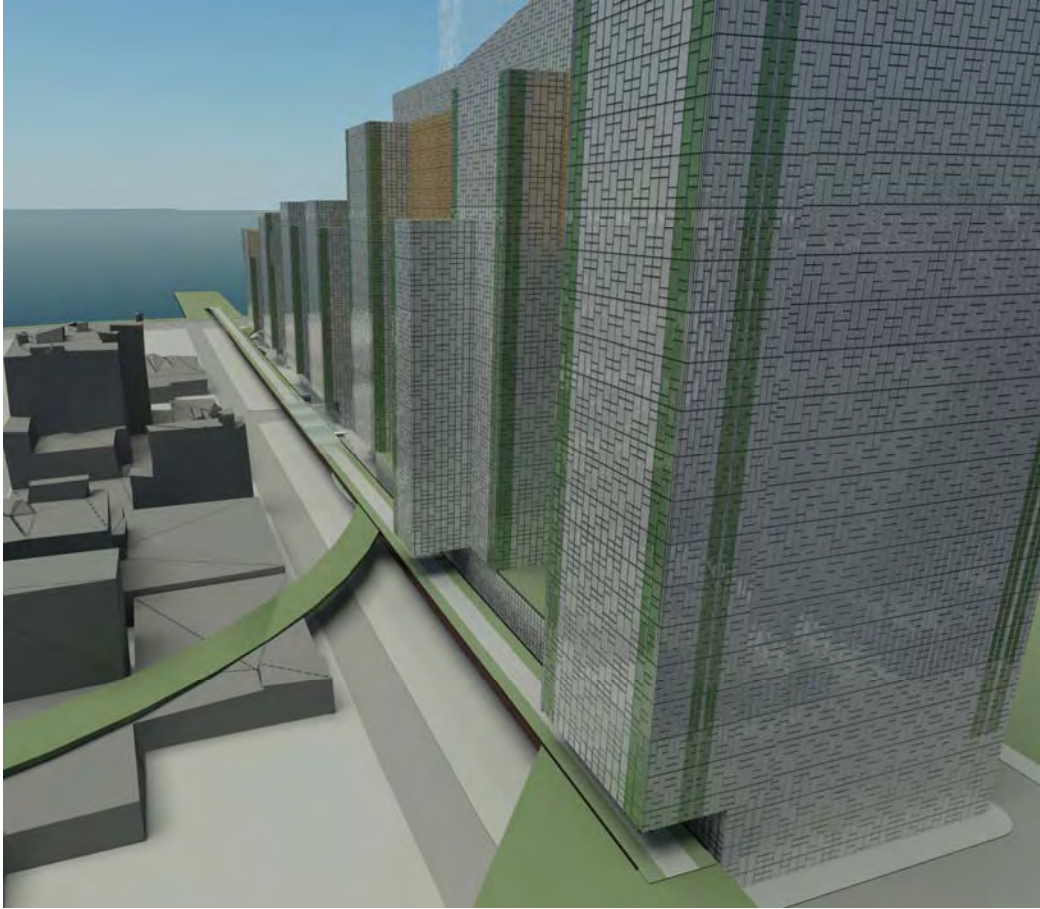
SECTION OF PEDESTRIAN CIRCULATION ONTO PLATFORM AND HIGHLINE



Perspective showing retail below Highline



Perspective of pedestrian circulation onto platform and Highline



XI. Conclusion

Looking back, I have accomplished many things throughout the totality of the project. The biggest challenge was using the Highline in a way that was architectural rather than exploitive. As well as transitioning up to the Highline and what the elements and features one should experience. There were many different usage types such as residential, pedestrian on street access, elevated pedestrian plaza with access to Highline, commercial spaces, office spaces, and services. All while structuring a complex program that services many of the previously mentioned users needs. Other challenges included but are not limited to the project size and scope of work.

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