

A photograph of the High Line in New York City. In the foreground, there is a lush green field with tall grass and some yellow wildflowers. A dark metal railing runs across the middle ground. In the background, a tall, cylindrical brick smokestack stands prominently. To the left of the smokestack, there are several multi-story brick buildings, and the Empire State Building is visible in the far distance. To the right of the smokestack, there are more brick buildings, including one with a water tower on its roof. The sky is filled with soft, white and grey clouds, suggesting a late afternoon or early morning setting. The overall image has a slightly desaturated, artistic feel.

RECLAIMING THE HIGH LINE

A PROJECT OF THE
DESIGN TRUST FOR PUBLIC SPACE
WITH FRIENDS OF THE HIGH LINE

Reclaiming the High Line is a project of the Design Trust for Public Space, with Friends of the High Line.

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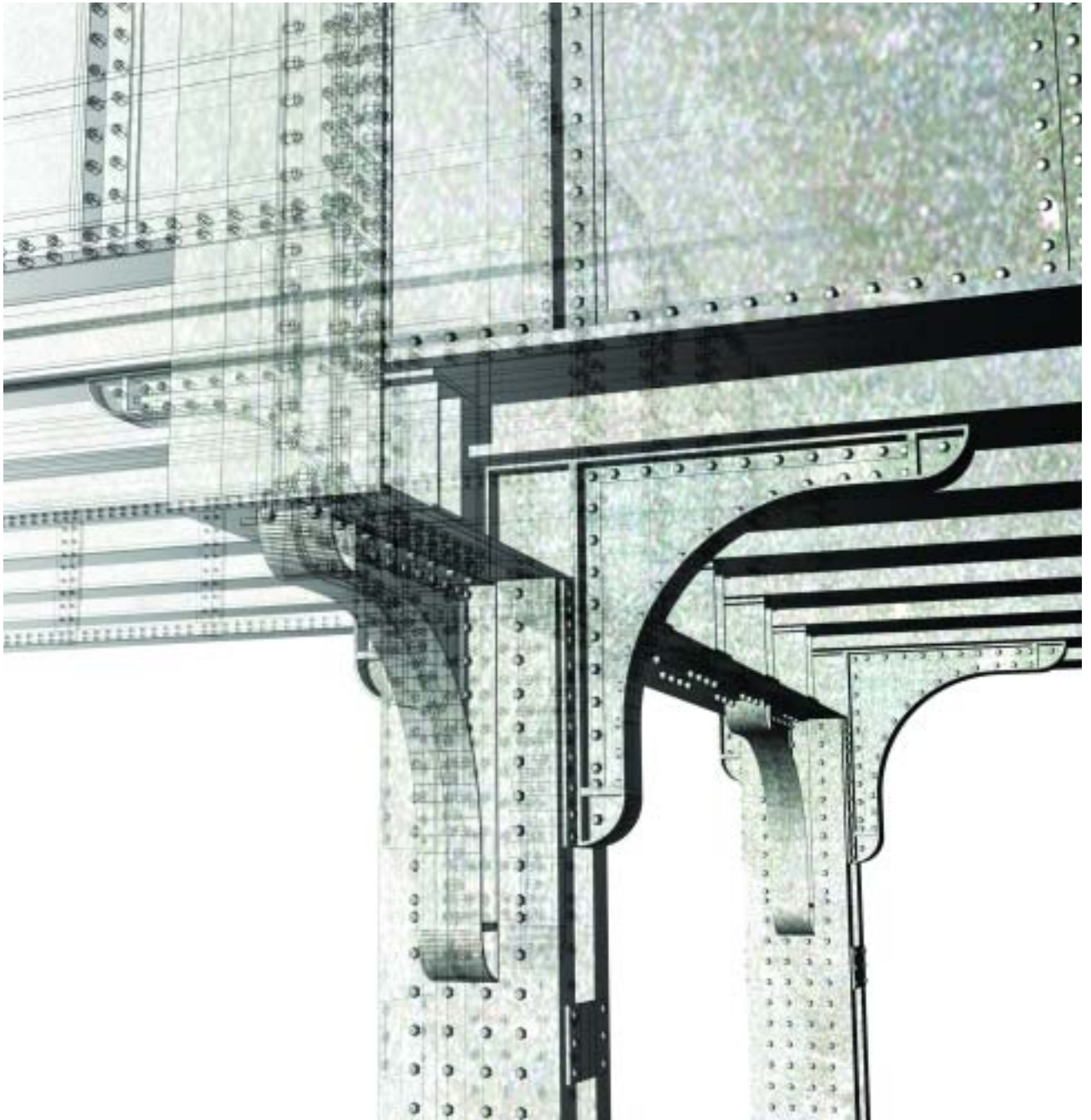
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CONTENTS

FOREWORD	4
by New York City Mayor Michael R. Bloomberg	
HIGH LINE MAP AND FACT SHEET	6
INTRODUCTION	8
RECOMMENDATIONS FOR PUBLIC REUSE	17
Why Save the High Line?	
Recommendations for a Preserved, Reused High Line	
HISTORY OF THE HIGH LINE	44
Early Rail Transit	
West Side Improvement	
Decline of Rail Commerce	
The Call for Trail Reuse	
EXISTING CONDITIONS	56
Current Use	
Maintenance/Structural Integrity	
PHYSICAL CONTEXT	58
Zoning	
Surrounding Land Use	
Upcoming Development	
COMPETING OWNERSHIP PLANS	70
Demolition Efforts by Chelsea Property Owners	
Reuse Efforts by Friends of the High Line	
Political Climate	
EVALUATION OF REUSE OPTIONS	74
Demolition/Redevelopment	
Transit Reuse	
Commercial Reuse	
Open Space Reuse	
Moving Forward	
THE HIGH LINE AND THE CITY AS PALIMPSEST	82
by Elizabeth Barlow Rogers	
BIBLIOGRAPHY	84
PROJECT PARTICIPANTS	86

FOREWORD

New York City would be unlivable without its parks, trees, and open spaces. They provide aesthetic relief, enhance our health, add to our enjoyment, and increase our property values. Where parks have been revitalized, the neighborhoods have blossomed with new life. Where public open spaces have been renovated, the surrounding areas have become cleaner and more secure. With new plantings, our City has become both more exciting and more tranquil.

Today, on the West Side of Manhattan, we have an opportunity to create a great, new public promenade on top of an out-of-use elevated rail viaduct called the High Line. This would provide much-needed green space for residents and visitors, and it would attract new businesses and residents, strengthening our economy. We know it can work. The City of Paris paved the way for this concept when it converted a similar viaduct into an elevated park ten years ago. Engineers assert that the High Line is structurally fit for similar reuse. New York's leading architects have recognized the opportunities the viaduct offers as a catalyst for urban planning of the highest caliber.

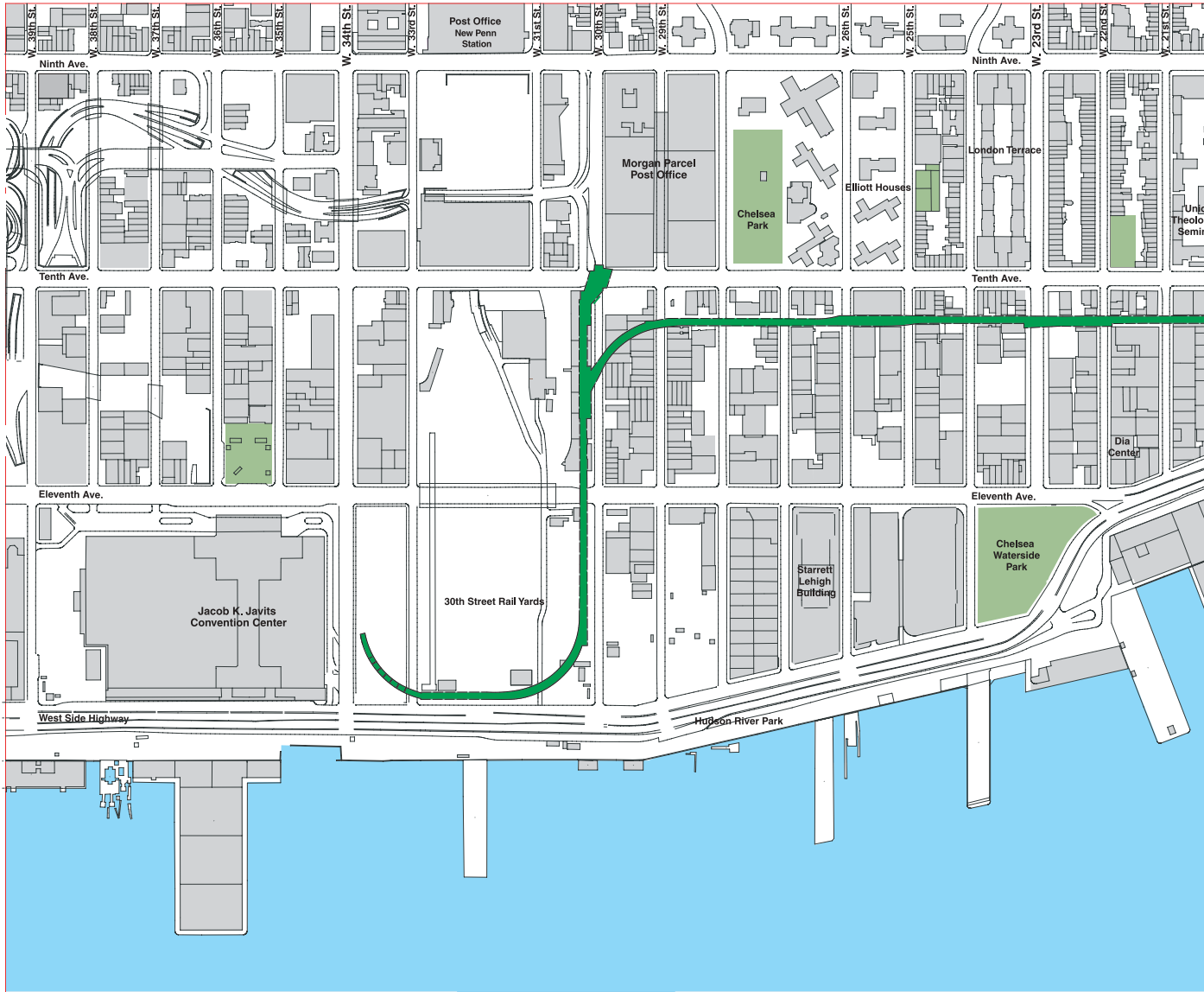
When I was running for office, I supported the efforts of Friends of the High Line, a not-for-profit coalition of local residents, businesses, civic groups, and design professionals whose mission is to transform the High Line into a public open space. As Mayor of the City of New York, I look forward to working with Friends of the High Line and other interested parties to develop a feasible reuse scenario. As we rebuild our city, we must keep improving the urban landscape. New York can be the model of how to do it right.

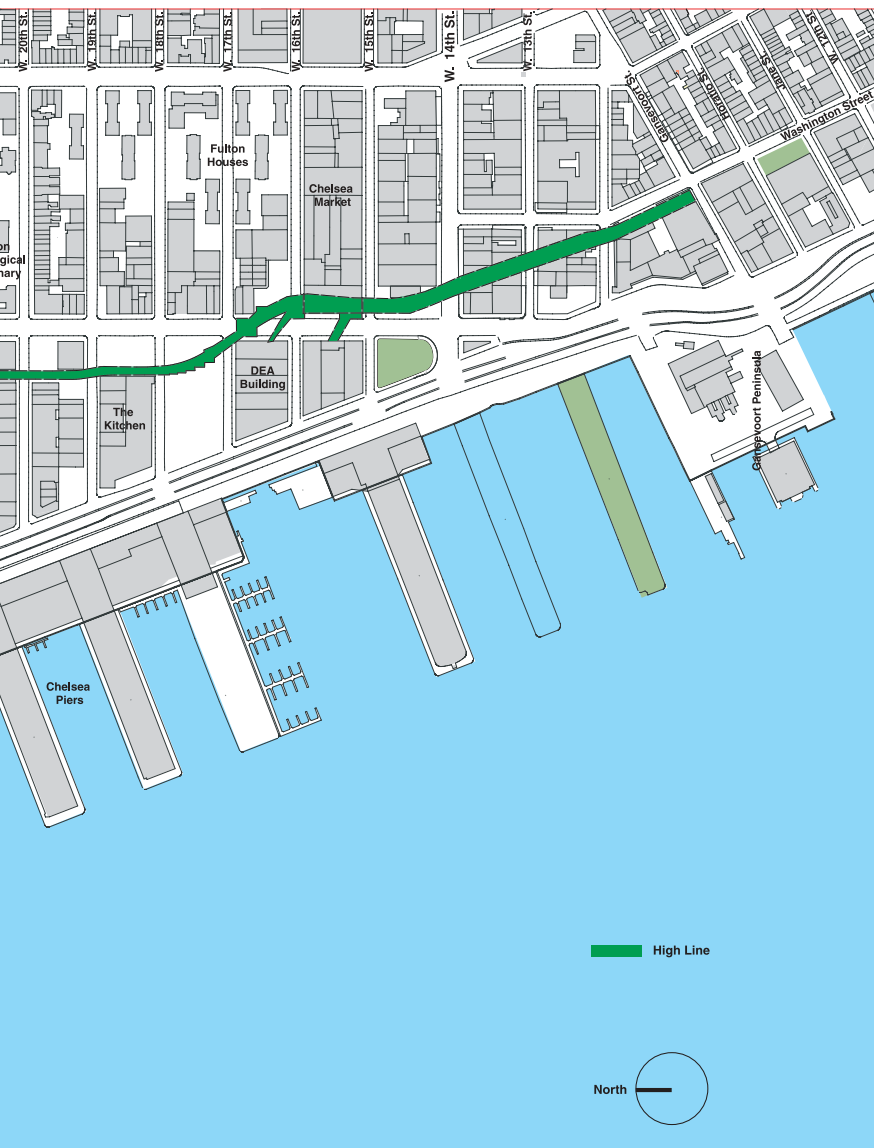
Michael R. Bloomberg
Mayor of New York City





2. Looking north from 17th Street, 1934





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

INTRODUCTION

Between the start of the last century and the beginning of this one, monumental systems for the movement of passengers and freight by rail and by ship were built, rebuilt, and then abandoned on the West Side of Manhattan. The High Line elevated rail viaduct is one of these colossal but forsaken systems. It was constructed in the 1930s to make a transportation-fueled urban economy perform more profitably and to improve conditions in New York City's most heavily used public open spaces—its streets. Nearly 70 years later, it again offers us a chance to better the city's economy and to improve our public realm. The following study, undertaken by the Design Trust for Public Space, in collaboration with Friends of the High Line, examines the potential offered by this historic structure to connect communities, generate economic activity, inspire bold design solutions to site-specific challenges, and improve the urban condition through the creation of a 1.45-mile-long, 6.7-acre, elevated public space.





4. Traveling up the ramp at 33rd Street



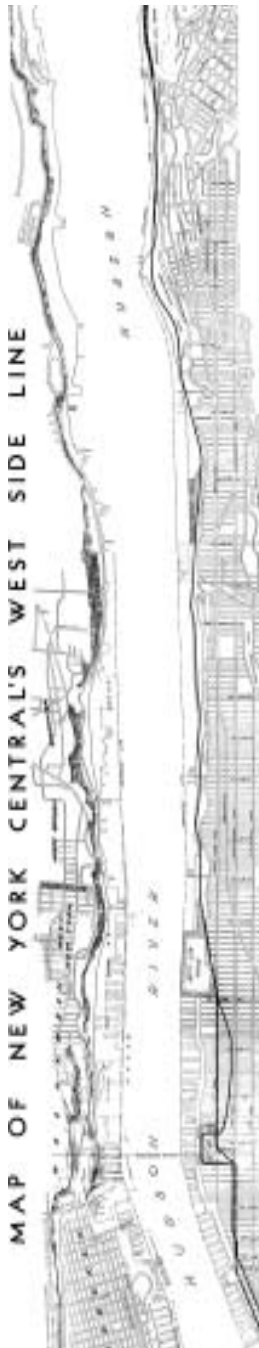
5



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.



8



9

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.





RECOMMENDATIONS FOR PUBLIC REUSE

WHY SAVE THE HIGH LINE?

Irreplaceable Opportunity

The High Line is an irreplaceable piece of New York City infrastructure, 1.45 miles in length, linking three Manhattan neighborhoods, with 6.7 acres of open space atop its elevated rail deck. (Fig 10) If the structure is destroyed, its rail easement will also be destroyed, as will the myriad transportation and open-space opportunities that the easement represents. These transportation and open-space opportunities could never be recreated in today's real estate market.

Public Benefit

The High Line was paid for in part with public monies and is regulated by a public entity. It offers the public enormous potential benefit as a transportation corridor and as a public open space.

Unique Linear Experience

The High Line provides a unique, elevated linear perspective on New York City. (Fig 11) No other open space or transportation corridor in the five boroughs allows a pedestrian to walk for 22 blocks without crossing a single street, to pass through the center of city blocks, to view from a floating vantage point the Hudson River, midtown skyscrapers, and the muscular industrial architecture of the lower West Side.

Strengthening Community

The High Line can use the creation of a new open space to mediate among the demands of competing constituencies in districts that are sure to experience significant growth in the coming decade.

Economic development interests can profit from the higher property values derived from frontage on a public open space; from the increased tax revenues these higher property values generate; and from the financial activity created by new businesses and residents attracted by the open space.

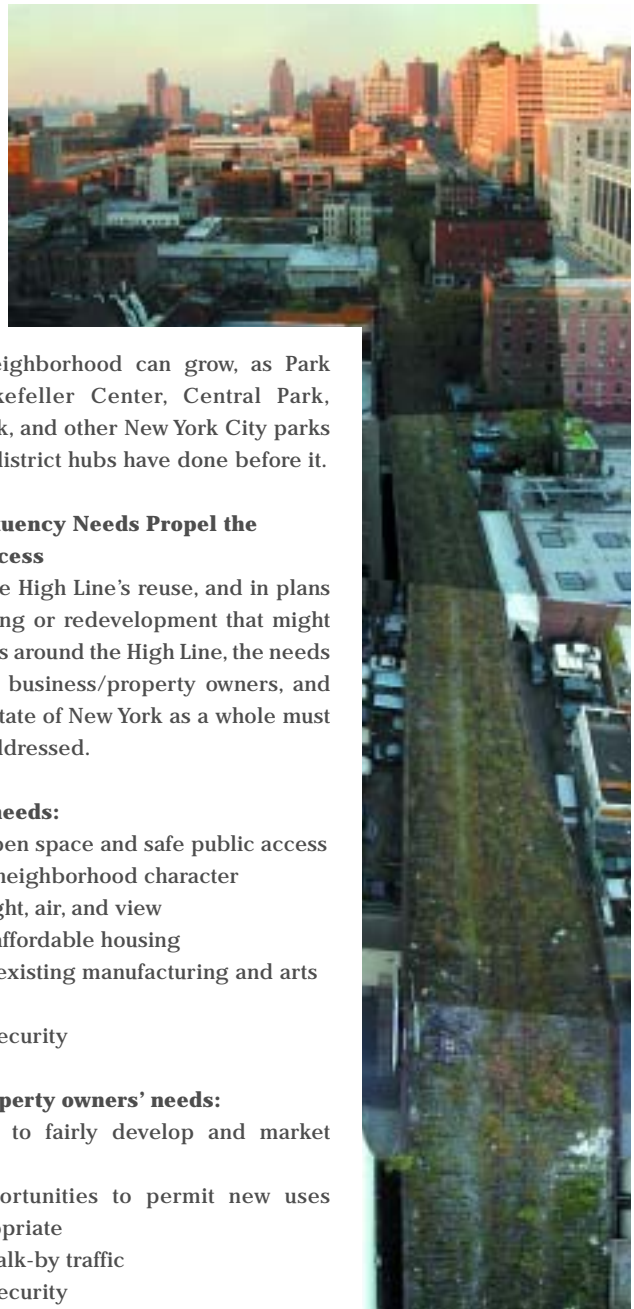
Community residents and parks advocates who might otherwise be forced to negotiate with development interests for small parcels of park land are guaranteed a huge public open space—it already exists and cannot become a mirage in the planning process that shrinks or disappears as implementation progresses.

RECOMMENDATIONS FOR A PRESERVED, REUSED HIGH LINE

Plan a Stronger Community using Open Space

The preserved, reused High Line should treat the creation of new public open space as the central, organizing principle around which an attractive, socially constructive, economically

11



productive neighborhood can grow, as Park Avenue, Rockefeller Center, Central Park, Gramercy Park, and other New York City parks that serve as district hubs have done before it.

Make Constituency Needs Propel the Planning Process

In plans for the High Line's reuse, and in plans for any rezoning or redevelopment that might occur in blocks around the High Line, the needs of community, business/property owners, and the City and State of New York as a whole must all be fairly addressed.

Community needs:

- Maximum open space and safe public access
- Respect for neighborhood character
- Maximum light, air, and view
- Creation of affordable housing
- Support for existing manufacturing and arts uses
- Safety and security

Business/property owners' needs:

- Opportunity to fairly develop and market properties
- Zoning opportunities to permit new uses where appropriate
- Maximum walk-by traffic
- Safety and security

City and State needs:

- Flexibility to redevelop the 30th Street Rail Yards site to its highest and best use
- Maximum tax-generating office space, residences, and commercial facilities
- Added value for existing and/or expanded convention center facilities
- Parking for cars and buses
- Transportation alternatives to mitigate auto congestion and air pollution
- Private sector participation in securing capital funds
- Public sector participation in financing and managing ongoing maintenance

DESIGN PRINCIPLES

Build upon New York City Planning Models Plans for the reused High Line, and for neighboring new construction, should capitalize on benefits shown by related models of community development in New York City.



12

- Park Avenue: Like the original park of Park Avenue (which has been significantly narrowed since inception to accommodate car traffic), the High Line would be public open space made possible by an underlying rail corridor. New development around the High Line should maximize the economic and aesthetic value to be gained by frontage on such a linear park. (Fig 12)
- Rockefeller Center: Here a linear public space creates visual drama and mixes business with retail and tourist uses, to create lucrative mid-block retail opportunities.
- Broadway: This diagonal thoroughfare shows how disruptions of Manhattan's street grid can create a chain of spectacular public spaces.
- Lincoln Center, Columbus Circle, Times Square, Herald Square, and Union Square. In a similar manner, the High Line offers linked opportunities to create plazas over avenues, balconies over cross streets, and passageways through building interiors.
- Gantry Plaza State Park: The 2.5-acre park, built in 1998 at the Queens West waterfront redevelopment, shows how historic railroad infrastructure can form the framework for boldly designed public spaces. (Fig 13) Four piers and two historic gantry float bridges, formerly used to move rail freight off barges, have been integrated into the park's design.



13

Build on Rail-Trail Conversion Models

Adaptive reuse plans should reference and improve upon similar linear parks or walkways created on out-of-use rail corridors, with an emphasis placed on urban rail-trails, rail-trails in industrial areas, and rail-trails that make use of large, elevated structures.



bridge, called the West Side Milling District, based on the area's industrial heritage. Vacant manufacturing buildings once served by the railroad were converted to residential and commercial uses. Trail funding came from the federal Transportation Enhancement Program, the State of Minnesota, the City of Minneapolis, and the Minnesota Department of Transportation.

Support Pioneering Design Concepts

The High Line's elevated viaduct was built as a vital component of a modern, multi-level "City of Tomorrow." Illustrated by H.M. Petit in his "King's Dream" drawing, this fantastic vision was predicated on the idea that transportation systems of the future should be separated from one another, and depicted tall towers connected by elevated skywalks beneath an armada of floating airships. Elevated on platforms above street level, trains, pedestrians, and trolleys would slip by each other, relegated to their own individual concourses.

- Promenade Plantée, Paris: A lushly planted park was created atop an out-of-use, elevated rail viaduct running through the 12th arrondissement, in Paris. (Fig 14) It was constructed in segments from 1988 to 1995. Financing was achieved through a public-private partnership led by the City of Paris. Plentiful stair and elevator access was created; security was provided with a combination of patrolling forces and closed-circuit cameras; the spaces underneath were filled with attractive shops and artisan studios; and the area surrounding the new park became attractive for new development.
- Stone Arch Bridge, Minneapolis, Minnesota: This 1883 railroad bridge, 2,176 feet in length, crossing the Mississippi River in downtown Minneapolis, opened as a public walkway and bikeway in 1994. (Fig 15) A new urban district was created around the

Today, standing on Manhattan's West Side, the High Line is one of the last remaining fragments of that world view. New development should expand upon this historic and architectural identity, which is still a defining characteristic of the neighborhood. Designs that relate to existing architectural conditions and designs that could be considered pioneering in contemporary terms should both be encouraged. (Fig 16, 17)

Plan for Uses Below and On Top of the High Line

Creating attractive, safe, well-functioning spaces under the High Line must be given equal or greater attention as programming for the High Line's upper deck. Being under, next to, or atop the High Line must all add to a user's appreciation of the urban environment.



15

Create a Unified Design Responsive to Local Conditions

The High Line is one body—a specific construction in a particular built environment. Its public areas should be conceived so that a user experiences the High Line as a continuous whole.

Within the single linear space that is the High Line, the visitor should enjoy a variety of environments. Openness of views, density of surrounding development, and landscape design should vary in subtle and dramatic ways.

Current neighborhood conditions—uses, density, building types—should provide the framework for such variations. Proposed access locations, which create natural starts and finishes to visitors' experiences, should inform programming choices for spaces above and below the High Line.



16



17

14. Promenade Plantée, Paris, France 15. Stone Arch Bridge rails to trails conversion, Minneapolis, Minnesota 16. "A View in the New York of the Future" 17. "How You May Live and Travel in the City of 1950"

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 them to promote 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





19

obstacles not easily overcome given the structure's height, width, and length. (See page 76) Uses and programming for pedestrians on top of the High Line should include greenway/trailway uses, arts-related programming, and small retail features. (Fig 20)

Greenway / Trailway Uses

Greenway/trailway uses will be confined to the top of the High Line, because they depend upon the unbroken linear transportation corridor provided by the rail easement.

Variety should be planned into planting beds and planting materials. To minimize maintenance and water demands, designs should favor attractive, hardy, drought-tolerant plants, with consideration given to the self-seeded, self-sufficient plant life now found on the High Line. Space must be reserved for tools/materials storage and passage of maintenance vehicles on the walkway. Efficient irrigation and drainage systems are essential. Greenway programming options include:

- “Natural” environment: The self-seeded meadows and grasslands that have spontaneously grown atop the High Line are loved by many visitors today. (Fig 21-24) Recreating a facsimile of this condition in one or more sections of the greenway is recommended.



- **Botanical Garden:** The Horticultural Society of New York has expressed interest in the High Line's potential as the site for a botanical garden. Manhattan is the only borough that does not have such a garden, which could feature a range of specimens suited to the environmental conditions on the High Line.
- **Bird/Butterfly Habitat:** Many bird and butterfly species are regularly observed on the High Line. Greenway programming can and should encourage bird/butterfly visits with hospitable plantings and water sources.

A plan for greenway uses should be designed for implementation in stages. The first stage should be the construction of a simple, smooth-surfaced walkway atop the High Line. (Fig 25) This will be less costly and will make the upper deck publicly accessible more quickly; landscaping can then be introduced as more funds become available. Base requirements include repairing the structure as needed, removing plant life, enhancing existing railings to meet City requirements, and installing a suitable surface material over the entire 1.45 mile length. Ballast and track can either be removed or built over, depending on design and financial objectives. Sustainability should be integral to design and material choices.



25

Arts-related Programming

West Chelsea is already home to a thriving art gallery and museum district. Arts uses should be part of designs for spaces atop and below the High Line.

- **Exhibition:** Spaces atop and below the structure should be used for exhibition of outdoor artworks on a temporary or permanent basis.
- **Performance:** Creating spaces suitable for performances atop and below the High Line, to be viewed from the street, from the High Line's upper walkway, or from buildings adjoining the High Line, should be explored.
- **Light:** Projects involving light projection, lasers, and other illuminating techniques should be encouraged to create interest and safety on top of and beneath the structure.

When planning and designing arts facilities and programming for the High Line, reference should be made to related models of industrial sites given over to arts uses. In each case the buildings have been creatively redeveloped as art exhibition space while retaining their existing industrial character. Examples include:

- **Dia Permanent Collection,** a former box-printing factory in Beacon, New York
- **Mass MoCa,** a former mill complex in North Adams, Massachusetts
- **Tate Modern,** a former power station in London, England



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:

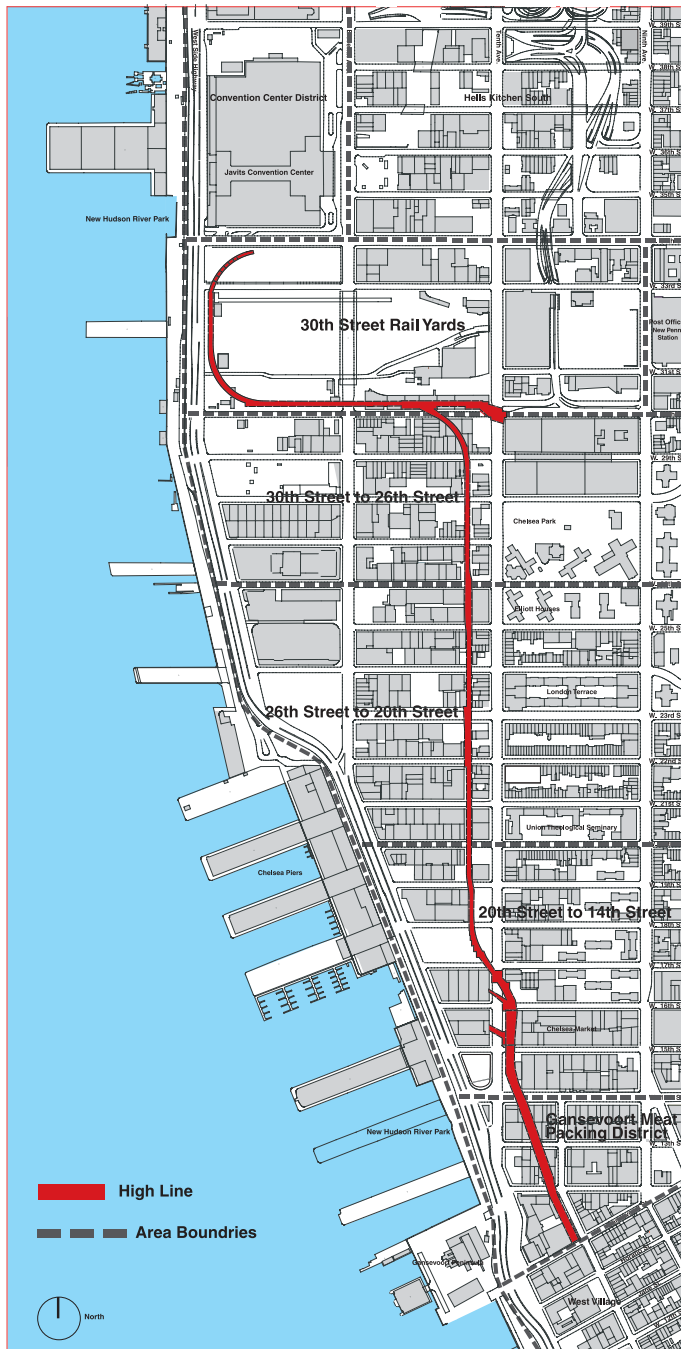
- **Chelsea Market:** Businesses that manufacture, distribute, and sell foods—both wholesale and retail—flank a linear corridor in a former Nabisco factory that was once served by the High Line. The continuation of the neighborhood's manufacturing/ food processing history; the development of independent 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.



NEIGHBORHOOD-SPECIFIC RECOMMENDATIONS

34th Street to 30th Street

The 30th Street Rail Yards are owned by a combination of state-controlled agencies. Numerous parties, including the State and the City of New York, have made clear their desire to redevelop the site. Proposals include new office space, an expansion of the Jacob K. Javits Convention Center, a sports facility, or a mixed-use development. (Fig 29) The elevated open space offered by the High Line must be designed to maximize the economic potential and user appeal of any rail yard redevelopment.

If it serves to improve overall design and function of the rail yards redevelopment, a portion of the High Line could be demolished, as was done when the Jacob K. Javits Convention Center was built, so long as the potential for future rail traffic on the remaining line is not irreversibly eliminated by the alteration. That said, this study recommends preserving the High Line to the greatest extent possible, because of its historic and aesthetic appeal, and its ability to add economic value to the rail yard redevelopment.

Direct High Line access to and from proposed offices, convention center buildings, residences, sport facilities, and retail complexes should be maximized to ensure vibrancy for the public space and add value to the new construction. Through such interconnectivity, the High Line will become a place where workers relax at lunch, pedestrians stroll and browse shop windows, residents and visitors enjoy the river views, and pedestrians move between the rail yards redevelopment to Penn Station, West Chelsea and the Gansevoort Meat Packing District without crossing city streets.

Strong linkage with the Hudson River Park, creating a loop itinerary from the rail yards to 14th Street, will benefit the park, the High Line, and the rail yards redevelopment. At the rail yards, a dedicated pedestrian bridge should cross the West Side Highway from the High Line to the park. Alternately, a well-protected grade-level crossing should connect the park to a High Line access point. The structure's curve at 30th Street and the West Side Highway leaves open ample ground-level space for either treatment. (Fig 30)

In the rail yards segment, two levels of potential “street front” retail space will be created by redevelopment adjacent to the High Line—at street level, along 30th Street and the West Side Highway; and along the High Line’s upper deck. The programmatic and economic bene-



fits made possible by this condition should be exploited to the full extent desirable.

The northwest corner of 10th Avenue and 30th Street presents the opportunity to construct a building or buildings that can be seen from as far down the High Line as 18th Street. (Fig 31) An existing warehouse near the southwest corner demonstrates this condition. A building of sufficient stature to attract pedestrians up from the blocks south of here will create drama and increase traffic into the rail yards redevelopment.

A High Line spur that originally connected to the Morgan Parcel Post Office building forms an elevated square raised above 10th Avenue and 30th Street. This should be emphasized in the design of a major access point at this location (see page 42). It may be desirable to accentuate this square's visual connection down the corridor of 10th Avenue to a similar elevated square created by the High Line, at 17th Street.

30th Street to 26th Street

The blocks between 30th Street and 26th Street offer the potential to act as a gateway and a buffer between the redeveloped rail yards and the quieter blocks just to the south.

The viaduct's curve, as it crosses 30th Street and heads down 10th Avenue, creates an exciting environmental condition: the grid of the city seems to slowly rotate, turning visitor from east to south in a revelatory manner. Designs for this part of the line should consider the dramatic potential of the curve, its relation to the rail yard redevelopment, and its proximity to a major access point at 30th Street and 10th Avenue.

There are benefits to be considered in designing the High Line to be flanked by buildings on both sides in the blocks directly south of 30th Street:





- In the rail yards neighborhood just north of 30th Street, the street-front position of the High Line assures light, air, and views to the river and the surrounding streetscape. To build on both sides of the line in the blocks south of the rail yards will create an exciting change in conditions.
- Building on both sides of the High Line in these blocks could create a celebratory gateway to the redeveloped rail yards. A model is Rockefeller Center, where storefronts face linear open space, providing an environment that is alternatively social, contemplative, commercial, or festive, depending on user,







hour, and season. As at Rockefeller Center, there is an opportunity to have a planned canyon with buildings of moderate height adjoining the linear open space and focusing attention on a signature building.

This northern section of West Chelsea is currently used by numerous manufacturing and light industrial businesses. Designs for the High Line and for construction on surrounding sites must consider the industrial history, current industrial uses, and the continued need for manufacturing/industrial operations in Manhattan.

26th Street to 20th Street

The High Line blocks between 26th and 20th Streets are an international art world hub, home to a concentration of museums, galleries, and performance spaces. This part of the line should be treated as a unique cultural corridor with opportunities for art uses and quiet areas for contemplation. (Fig 32)

At 23rd Street, the High Line expands in width, with splendid views to the Hudson River, making it an ideal gathering point. A café might be appropriate here, if it is quiet, casual, and in keeping with the residential nature of 23rd and 22nd Streets.

Other parts of the High Line will gain vitality and excitement from retail, dining, and other commercial venues directly fronting the High Line's public space, but in this part of West Chelsea they should be kept to a minimum. Residents in these blocks have accepted one of the largest revenue-generating facilities of the Hudson River Park (the Chelsea Piers athletic complex). The High Line should not duplicate a similar concentration in the same blocks.

Buildings should remain as low as possible on at least one side of the High Line in this area to preserve light, air, and views from the High Line and to respect neighborhood context. From 23rd Street to 19th Street, the structure looks across 10th Avenue to the Chelsea Historic District, where cross streets are predominantly built with townhouses and small apartment buildings of 5 stories or less.

20th Street to 14th Street

Because of its concentration of industrial architecture and its location between the Gansevoort Meat Packing District and the arts-oriented blocks just north, the transitional blocks between 20th Street and 14th Street present compelling design and programming opportunities.

From 18th Street to 16th Street, the High Line forms a snaking curve, moving from mid-block crossings on the west side of 10th Avenue, where undeveloped sites are being speculatively held, to elevated street frontage east of 10th Avenue, where massive prewar factories and warehouse buildings dominate the streetscape. (Fig 33)

An elevated "square" sits directly above 10th Avenue as the viaduct snakes across the avenue between 17th and 18th Streets. The views and open space provided by this square should be used to their full potential. The visual connection up the corridor of 10th Avenue, to the matching, elevated square at 30th Street, should be accentuated.

It might be desirable to treat this elevated square as the central component in a larger, public space, which would comprise the High Line at the front of the 16th-17th Street site, on the east side of 10th Avenue, as well as the High Line's dramatic curve at the front of the 17th-18th Street site, west of 10th Avenue.

The block between 17th and 18th Street west of 10th Avenue is held by a single owner and presents exciting design possibilities. A series of triangular projections created by the curve in the line between 17th and 18th Streets offers the opportunity to create a cluster of intimate, landscaped side areas. (Fig 34) The curve also creates the potential for dramatic spaces, public and/or private, looking diagonally across the street grid, over 10th Avenue, towards the Empire State Building. A builder on this site might also see value in linking the High Line to an interior commercial space at the core of his construction, or running it around the perimeter, creating a second tier of “street-level” retail space.

The High Line has a history of entering or passing through buildings in these blocks. On a limited basis, encouraging new construction to build around the High Line, bringing it into building interiors, may be desirable. Certainly the spectacular interior space in the Chelsea Market building, through which the High Line already passes, offers great potential for use as a space for a restaurant, café, or other commercial use. (Fig 35)

Between 15th and 14th Streets, the views of the Hudson River are spectacular. (Fig 36) This section of the High Line should act as a celebratory link to the riverfront. An original High Line easement permits the construction of a bridge across 10th Avenue down to a new public park, currently unnamed, which sits directly across the West Side Highway from the Hudson River Park. A major access point on this site would allow the High Line to complete the loop itinerary with the river park, which began at the rail yards. Lynden Miller, public garden designer, and Michael Van Valkenburgh Associates, landscape architects, have incorporated a bridge in their preliminary





37



35. Rail spurs entering the Chelsea Market building 36. View of the Hudson River from the High Line at 14th Street
37. High Line crossing 14th Street in the Meat Packing District

plans for Hudson River Park's Segment Five, linking the river park to the High Line.

14th Street to Gansevoort Street

In the Meat Packing District, the open space provided by the High Line should create dynamic interactions with renovated, and redeveloped sites, mediating between the community's desire to preserve the area's historic character and the desire of City, State, and private property owners to create growth opportunities. This is a market district in many senses. Commercial and retail uses should be encouraged, while respecting the meat packing industry's facilities and operations. (Fig 37)

The High Line is an essential part of the district's heritage. Meat packing plants were directly serviced by trains traveling on the High Line. A reused High Line should follow this model, acting as a conduit for commercial activity. If desired, provisions could be made to allow the segment to remain open in evening hours, when the northern sections of the line are closed, with security costs to be shared by businesses that benefit from evening pedestrian traffic.

Maintaining neighborhood character is especially important in this segment, where cobbled streets, loading docks, metal awnings, and evocative signage create a streetscape that is unique in Manhattan. The burly steel columns supporting High Line are stylistically consistent with characteristics that community members wish to preserve and should be emphasized as a dramatic framework for commercial uses beneath the structure: restaurant interiors, shopping arcades, and market stalls.

Spaces atop the High Line could enter building interiors, creating an elevated market level. Alternately, the High Line could open

onto expanded upper decks, looking either east on to Washington Street or west toward the Hudson River, made possible by new construction that preserves a single-story profile in select locations.

The High Line terminates at Gansevoort Street, within the structure of the City-owned Gansevoort Market Meat Center. The access opportunities this offers should be utilized to the fullest extent possible.

IMPLEMENTATION: GOALS, PARTNERS, PROCESS

Creating a public space atop the High Line in a manner that fulfills the needs of the community, City, State, and private property owners will be a complex process—but precedents in New York City show that it is feasible. A wide selection of instruments are currently available to form alliances, plan comprehensively, and create the legal and financial mechanisms that drive open-space creation, economic growth, and preservation of neighborhood character.

Forming Alliances

The following groups must actively participate in developing plans for the High Line's reuse: community members, preservation groups, property owners, City and State agencies, CSX, and the Friends of the High Line. Specific alliances and relationships must be formed to accomplish particular components of the larger plan.

To "rail-bank" the High Line—which would permit the federally sanctioned reuse of the rail corridor as a pedestrian walkway—an alliance must be formed among the Friends of the High Line and City and State agencies to negotiate with CSX to create a successful rail-banking application for submission to the Surface Transportation Board. The active cooperation of

underlying property owners is desirable but not technically required.

To jointly plan for the High Line's reuse, as well as for related preservation and/or growth initiatives, working alliances must evolve from planning teams that have already mobilized around the following objectives: convention center expansion (State of New York); mixed-use development (Manhattan Borough President); "Far West Midtown" development (Department of City Planning); stadium construction (New York Jets, Olympics 2012); community-based 197a plan (Community Board 4); High Line reuse (Friends of the High Line); High Line demolition (Chelsea Property Owners); and Meat Packing District preservation (Save Gansevoort Market). Alliances may be formed as partnerships, trusts, corporations, conservancies, and/or authorities. These alliances must adapt to changing demands as the project moves to financing, construction, and maintenance stages.

District Creation

Many planning and financial models that drive projects of this scope involve some type of district creation. The High Line, linking 22 city blocks with diverse growth and preservation needs, would benefit from such a treatment. District-creating mechanisms include: historic districts, special zoning districts, community-driven 197a plan areas, local development corporations, business improvement districts, and tax increment financing districts.

A High Line district could involve more than one of these district types at different stages. The preservation and restoration of Grand Central Terminal involved two district mechanisms. The New York Department of City Planning's creation of the Grand Central Subdistrict, within the larger framework of the

Special Midtown District, facilitated the transfer of development rights above the station to receiving sites within the subdistrict, subject to conditions and limitations. Local property owners subsequently established a business improvement district, the Grand Central Partnership, which now collects contributions from commercial property owners in the district for capital improvements and privately managed sanitation, maintenance and security operations.

Balancing Preservation, Growth, and Open Space Needs

There is pressure from private property owners and government agencies to modify the zoning designations (predominantly manufacturing) that currently surround the High Line to allow new uses. At the same time, calls come from community members to preserve the character, uses, and architecture that have evolved from the current zoning.

Assuming that growth in select areas, preservation of neighborhood character, and maximum access to an attractive open-space atop the High Line are generally desirable, certain established zoning mechanisms may be considered: establishment of special zoning districts and subdistricts; incentives by special permit for provision of public amenities; and controlled transfer of buildable volume from open-space sites with conditions and limitations.

These tools should be used with the following goals: to maximize air, light, and view at the public space; to preserve community character, to preserve the ability of property owners to fairly develop their holdings; to direct bulk and height in new construction to the sites with the greatest potential for positive economic and aesthetic impact; and to create opportunities for developers to contribute to the construction of public space.

FUNDING OPPORTUNITIES

Funding for the preservation and reuse of the High Line should be assembled from both private and public sources, but in the aftermath of September 11, 2001, private financing has an especially important role to play. With dwindling public resources, private money will likely need to cover a larger share of the construction costs for the public space. In addition, the establishment of a business improvement district around the High Line could be essential for maintaining safety, maintenance, and sanitation needs if there is a need for major cutbacks in city services.

A specific set of working partnerships and alliances, with the State's and the City's active participation, will be required to generate both private and public funding opportunities.

For private financing of capital construction and ongoing maintenance, the State's participation is essential, partly because it controls the largest parcel of developable land beneath the High Line, the 30th Street Rail Yards. The City's participation in private financial planning is required for any linkage between zoning and private contributions to the public space.

State and City participation is required for efficient public funding, too, since the State and the New York Metropolitan Transportation Council (the region's metropolitan planning organization) would necessarily be the applicants for most federal transportation funding programs.

Funds for the entire project do not need to be assembled all at one time. The High Line can be reclaimed and opened in stages, as was done at the Hudson River Park and at the Promenade Plantée in Paris.

Private Funding Mechanisms

Zoning Incentives:

A number of zoning mechanisms can drive private funds towards the creation of public amenities. As part of the redevelopment of the larger Times Square area, the New York City Department of City Planning created a zoning mechanism within the Theater Subdistrict of the Special Midtown district, providing special incentives and controls for the preservation and rehabilitation of theaters, chiefly by the transference of development rights from those theaters to other sites in the subdistrict. In addition, City Planning encouraged the private financing of subway station improvements by granting, via special permit, floor area ratio bonuses to contributing developments. The City's zoning has other established mechanisms for granting special permits, affecting use, bulk, and height controls, to developments that create public spaces. The East River Esplanade was created in this manner, as well as numerous public spaces throughout the city. Zoning incentives have been proposed by the Department of City Planning as a way of partially financing several billion dollars worth of infrastructure improvements for their Far West Midtown plan. Community involvement in the development and implementation of such incentives must be maximized.

Business Improvement District:

A Business Improvement District (BID) empowers local property owners and merchants in a specified district to levy an additional tax assessment on properties within a commercial or industrial area. The funds are collected by the city and returned to the BID to pay for improvements and services beyond those provided by the City. There are 41 BIDs in New York City. The nearest ones to the High Line are the 34th Street BID and the Fashion Center BID. The businesses

that currently surround the High Line might not be numerous or large enough to support a strong BID, but significant business expansion is proposed by most area growth plans.

Tax Increment Financing (TIF):

To use TIF, the City must identify a district with substandard economic performance for revitalization. Bonds can then be issued to make improvements that encourage private investment, and the increased tax revenues resulting from the private investment pay back the debt. Other cities, like Chicago, have far more active TIF programs than does New York. Mayor Michael Bloomberg supports TIF as an economic development engine, and specifically identified it as a public/private funding opportunity for the convention center area. TIF was also targeted by the Department of City Planning as the optimal financing mechanism for several billion dollars in infrastructure improvements required for their Far West Midtown proposal.

Contributed Support:

Friends of the High Line has already had great success raising corporate, foundation, and private donations for the preservation and reuse of the High Line. These forms of giving won't support the entire project, but can fund specific features and programming on the High Line.

Public Funding Opportunities

As a preserved rail corridor, a pedestrian trail, a historic preservation project, and an enhancer of air quality and safety, the High Line qualifies for numerous federal funding streams. Many, though not all, are part of the Transportation Equity Act for the 21st Century (TEA-21), which evolved from the Intermodal Surface Transportation Efficiency Act (ISTEA). TEA-21 enables states to use federal highway funds for bicycle, pedestrian, and preservation projects.

Transportation Enhancements:

Transportation Enhancements provide state funds for transportation projects that improve communities' cultural, aesthetic, and environmental qualities. \$27 million was apportioned to TE projects in New York State in 2001. The High Line qualifies for TE monies in the following project categories:

- Pedestrian and Bicycle Facilities
- Acquisition of Scenic or Historic Easements and Sites
- Historic Preservation
- Preservation of Abandoned Railway Corridors

Congestion Mitigation and Air Quality Improvement Program:

This program is a funding source for transportation projects in Clean Air Act non-attainment ozone and carbon monoxide areas (New York City qualifies). \$160 million was apportioned to New York State in 2001.

Transportation and Community and System Preservation Pilot Program:

Grants may be awarded to states, local governments, and metropolitan planning organizations to plan and implement strategies that improve transportation efficiency; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure access to jobs, services, and trade centers; and examine private sector development patterns and investments that support these goals. \$120 million was authorized for the program for 1999-2003.

Recreational Trails Program:

Funds are provided to develop and maintain recreational trails for motorized and nonmotorized recreational trail users. \$120,000 was apportioned to New York State in 2001.

The Highway Safety Infrastructure Program:

This funding pool benefits safety improvement projects that eliminate hazards at rail/highway grade crossings. Its Hazard Elimination Program funds solutions to safety problems that constitute a danger to motorists, pedestrians, and bicyclists. Hazard Elimination guidelines have been expanded to include any public bicycle or pedestrian pathway or trail. \$11 million was apportioned to New York State in 2001.

The Bicycle Transportation and Pedestrian Walkways:

This is a bike/pedestrian funding category within the National Highway System (NHS). Trails must follow or cross a NHS roadway. \$215 million was apportioned to NHS in New York State in 2001, but the State does not yet have a strong history of applying these funds to trail uses.

Federal Transportation Bill 2003

Demonstration Projects:

This bill provides funds for projects that demonstrate a technique or approach that could possibly be applied to similar projects elsewhere in the country. Apply for allocation with TEA-21 re-authorization in 2003. \$9 billion was authorized for 1,850 projects in TEA-21's 1998 authorization.

Highway Bridge Replacement and Rehabilitation Program:

States receive assistance in their programs to replace or rehabilitate deficient highway bridges and to seismic retrofit bridges located on any public road. \$429 million was allocated to New York State in 2001.

Railroad Rehabilitation and Improvement Financing:

Loans are given for railroad capital projects to state and local governments and government-

sponsored authorities. Projects must enhance public safety and the environment, promote economic development, and be justified by the present and probable future demand for rail services or intermodal facilities. The railroad's participation would be required. Commitments from non-federal sources fund the credit risk premium; loans and loan guarantees cannot exceed \$3.5 billion at any one time.

Transportation and Infrastructure Finance and Innovation Act:

This federal credit program allows the U.S. Department of Transportation to provide credit assistance for surface transportation projects of national or regional significance. The fundamental goal is to leverage federal funds by attracting substantial private and other non-federal co-investment in critical improvements to the nation's surface transportation system. Credit authority remaining for 2002 and 2003 is \$5 billion.

The National Parks Service, the Department of Environmental Protection, State and local agencies offer additional public funding opportunities. Landmark designation for the High Line would further expand the pool of possibilities.





OPERATIONAL REQUIREMENTS

Access

Access to the elevated open space atop the High Line should be plentiful, maximizing visitor numbers, links to community, and interconnectivity with new construction. (Fig 38, 39) Major access points must be developed at the beginning, middle, and end of the line. Supplementary access points should offer a combination of direct-to-street links and links that pass through new construction that is built under, adjacent to, or around the High Line. An access point every three blocks should be the goal. Most proposed access points are in public control. Those that are not require either the purchase of an underlying and/or adjacent property; the purchase of an easement over or through an underlying or adjacent property; or developer incentives to include access in new construction. Access must conform to standards of the Americans with Disabilities Act.

Safety and Security

Like any public space, the High Line must be made safe and secure through a program of common security practices:

Increase the Number of Travelers

This can be accomplished through plentiful access, good links to highly-populated areas, such as rail yard redevelopment and the Hudson River Park; and a combination of programming and uses that attract a multiplicity of visitor types—pedestrian commuters, shoppers, strollers, art-lovers, diners, and tourists.

Restrict After-hours Access

A system of gates must be created to completely close the High Line's public space at night. Because it is elevated, with a controlled number of access points, the public space may be simpler to close than other spaces where access is



Proposed Major Access Points

- 34th Street, between 11th Avenue and the West Side Highway. Provide stair, elevator, and ramp. Structure currently ramps down to grade at this location. Property in public control.
- 30th Street, at the West Side Highway. Provide stair and elevator, with possible bridge to Hudson River Park. Large landing site available just west of structure's curve. Property in public control.
- 30th Street at 10th Avenue. Provide stair, elevator, and ramp. Viable landing locations on traffic island east of 10th Avenue, and within the structure's inset, just west of 10th Avenue. A ramp to 9th Avenue, made feasible by change in grade between 9th and 10th, would be possible with later street-pattern reconfiguration. Property in public control.
- 23rd Street, between 10th and 11th Avenue. Provide stair and elevator. Sidewalk wide enough to permit landing. Property in public control.
- 10th Avenue, between 14th and 15th Streets. Provide stair, elevator, and bridge to park at 14th Street. Property in public control.

Proposed Supplementary Access Points

- 30th Street at 11th Avenue. Provide stair and/or elevator. Property in public control.
- 26th Street, between 10th and 11th Avenue. Provide stair and/or elevator. Property in private control.
- 20th Street, between 10th and 11th Avenue. Provide stair and/or elevator. Property in private control.
- 17th Street, between 10th and 11th Avenue. Provide stair and/or elevator. Property in private control. The High Line's elevated easement right covers the entire 10th Avenue square, from 17th to 16th Street. Currently, only a spur is built, using a part of the space. A major access point may be developable here.
- Washington Street and Gansevoort Street. Provide stair and elevator at City-owned Gansevoort Market Meat Center. Property in public control.

open around the perimeter. The access points themselves must also be designed to enable secure closure. If one segment of the line is designed for a commercial use in evening hours, then a system must be created to keep users from entering adjoining segments.

Provide Access for Emergency Vehicles

Designs for the High Line's upper deck must allow for the storage and unrestricted passage of small emergency vehicles.

Illuminate the High Line

For safety and attractiveness, it is essential that all crossings beneath the High Line be well-lit. Any lighting scheme must cast plentiful light to the sidewalk for safety. It should also highlight the steel skeleton of the supporting structure, to turn what some now see as a negative condition into a positive one. Art installations that use light should also be encouraged. A lighting system should be developed for the upper deck. Even if the upper deck won't be open after dark, providing low levels of light will increase security.

Provide Security Staffing

Major access points should be staffed by park rangers trained to assist visitors with directions and information as well as provide protection. The line should also be patrolled by security personnel who move up and down the line on foot, bicycle, or in a motorized vehicle. After hours, the High Line should be monitored by security guards to prevent trespassing and vandalism. The use of a closed-circuit camera system to extend the reach of security personnel should be considered.

Ensure safety below the High Line Planter beds or other barriers should be installed at rails of the High Line where it crosses over city streets to

keep people a safe distance from the edge. Innovative planting configurations and fencing designs should be encouraged. The comprehensive lighting program developed for the underside of the High Line must emphasize pedestrian security, unlike many New York City lighting programs which are designed for automotive safety.

Maintenance

A strong, sustainable maintenance program is essential to long-term success of the High Line's public space.

Funding

A continual flow of funds for the structure's maintenance should depend on a combination of some or all of the possible maintenance funding sources: a Business Improvement District; a Conservancy, in which a not-for-profit is established with the specific goal of raising money for the maintenance of a public space; and all available public funding sources.

Ongoing Upkeep

Requirements include upkeep on the painted steel surface; concrete integrity; drainage; bird mitigation; walkway surface; lighting systems; and security systems.

Landscape Maintenance

Irrigation must be built into all planted areas of the High Line's upper deck. In addition, a landscape maintenance staff must be established through a High Line conservancy or other suitable organization. Facilities must be built into the upper deck of the High Line to permit storage of landscape maintenance supplies and a small service vehicle.

HISTORY OF THE HIGH LINE

EARLY RAIL TRANSIT

1847

The City of New York authorizes the Hudson River Railroad to lay tracks down Manhattan's West Side as far south as Canal Street.

1851

Trains run day and night between Albany and lower Manhattan. A "West Side Cowboy" leads each train on horseback, waving a red flag to warn pedestrians of the approaching locomotive. (Fig 40)

1866

Conflicts between trains and street traffic are already significant, says a Senate committee. "The traction of freight and passenger trains by ordinary locomotive on the surface of the street is an evil which has already been endured too long and must be speedily abated."

1868

The original St. John's Park Terminal is built at Laight and Varick Streets, to receive Hudson River Railroad freight. (Fig 41)



40



41

1869

Cornelius Vanderbilt consolidates his railroad holdings, including the Hudson River Railroad, to form the New York Central and Hudson River Railroad Company.

1870s

Community anger grows because of noise, smoke, and danger from trains. To pacify residents, crossing guards are stationed at all intersections 24 hours a day.

1896

New York State extends the railroad's franchise from 50 to 500 years.

1908

Congestion of rail, ship, and street traffic strangles commercial activity on the West Side. 500 people protest against the dangerous conditions of "Death Avenue," the name used for the parts of 12th, 11th, and 10th Avenues where the trains run at grade. Citizens' groups form to rally around the cause, including the Social Reform Club's Committee of 50, which later becomes the League to End Death Avenue. (Fig 42)



42

WEST SIDE IMPROVEMENT

1911

At the Municipal Art Society's City Plan Exhibit, Calvin Tompkins, City Commissioner of Docks, unveils his plan for an elevated freight line from 72nd Street to St. John's Park Terminal, as well as a freight terminal with float bridges at 30th Street. West Street would become a three-tiered roadway with trucks, trains and cars divided by level.

1914

The New York Central Railroad and the City agree to construct an elevated rail corridor from 57th Street to Canal Street, and to cover the tracks north of 57th Street to Inwood, creating a platform for Riverside Park.

1916

A model of a plan to remove the West Side's cars and trains from street level is presented at Grand Central Terminal.

1917

Implementation of the grade-crossing elimination plan is delayed by the United States' involvement in World War I.

1924

The New York City Transit Commission orders that all grade crossings must be removed between Spuyten Duyvil, at Manhattan's northern tip, and 60th Street.

1925

Manhattan Borough President Julius Miller outlines a plan for a double-decked elevated highway, running from 72nd Street to Canal Street, for rail and vehicular traffic. It would be paid for by the New York Central Railroad in return for adjusted easements and land rights. The *New York Times* begins to refer to these grade-crossing elimination plans as "the west

side improvement." It later becomes the railroad's and the city's official name for the project.

1926

Governor Al Smith signs an amendment to the New York State constitution into law, allowing \$300 million in bonds to be issued to fund grade-crossing elimination. A companion bill is passed to provide \$50 million for grade-crossing elimination in New York City. Borough President Miller revises his plan, separating the elevated motorway from the railway. Mayor James J. Walker creates the West Side Engineering Committee to work with the railroad to develop a plan to remove rails from West Side streets. Among the plans proposed to him is a scheme by M.H. Winkler consolidating airplane, freight, and ship commerce into one building. (Fig 43)



1927

Governor Smith signs a bill to speed up grade-crossing elimination in New York City. The City and the railroad reach a preliminary agreement for the exchange of real estate and easements that will allow the removal of freight lines from New York City's streets. The railroad proposes the "erection of an elevated line from...Canal Street, north to the Thirtieth Street Yard..."

1928

The New York City Grade Crossing Elimination Act becomes law, creating the legal framework for the West Side Improvement. The West Side

Engineering Committee presents a plan to the New York City Board of Estimate, which includes the elevation of the railroad's tracks from Spring to 30th Street. Hearings on the plan are held before the Transit Commission. The Board of Estimate approves Borough President Miller's elevated auto highway.

1929

The Transit Commission approves an order for 93 New York Central grade-crossings on the West Side, pending final agreements between the City and the railroad. Construction begins on Julius Miller's elevated motorway. The Board of Estimate ratifies the West Side plan, and contracts between the City and the railroad are signed. The *New York Times* predicts a cost of \$175 million, with \$110 million paid by the railroad, \$50 million paid by the City, and \$15 million paid by the State. The plan is approved by the Interstate Commerce Commission, including a "double track viaduct north from Spring Street to Thirtieth Street." The initial construction contract is signed, and the first spikes are removed from the "Death Avenue" tracks by Mayor Walker, "to be gold-plated and preserved as mementos of the happy end to a forty-year controversy between the city and the railroad."

1931

Construction of the new St. John's Park Terminal begins. (Fig 44) It is the southernmost part of the West Side Improvement and is expected to cost \$12 million. The terminal is designed to accept 190 rail cars from the High Line directly into its second story. Its planned 3.6 million square feet of space covers four blocks, bounded by Clarkson, Washington, Spring, and West Streets. The new terminal, combined with the new industrial and warehouse space in the Starrett-Lehigh Building (1931) and the Port Authority's Union Inland Terminal No. 1 (1932), is expected to add



nine million square feet of terminal space to the West Side—but only three of the 12 planned stories of the St. John's Park Terminal are ever built.

The New York Central Railroad contracts James Stewart & Co to build a rail viaduct between West 18th Street and 30th Street, at a cost of \$800,000. By now, the railroad has purchased 95 percent of the land required for its new right-of-way in 350 separate transactions. Less than a dozen have required condemnation.

1933

The first train runs on the High Line, delivering freight to the R.C. Williams & Company warehouse. (Fig 45) Officials toast the train's arrival and listen to a speech by New York Central Railroad president F.E. Williamson: "This simple event today may well mark a transformation of the West Side that will affect its development for the better for decades to come."

At this time, the High Line is referred to simply as an elevated track. The nickname that later becomes its moniker is not commonly used before the late 1980s.

1934

The High Line officially opens on June 28. The *New York Times* estimates its cost at \$85 million. Officials herald it as "one of the greatest public improvements in the history of New York." Railroad president F.E. Williamson calls it an example of the progress possible from "wholehearted cooperation between public authorities and private interests." (Fig 46)

1937

The second phase of the West Side Improvement opens—including the Henry Hudson Parkway and an underground rail cut from 30th Street to 60th Street. The earlier sec-



45



46

tions of the Improvement were spearheaded by Governor Smith, Mayor Walker, and Borough President Miller, but this northern section was largely planned and financed by Robert Moses, head of the State Parks Commission.

1934-1960

The High Line is fully operational.

DECLINE OF RAIL COMMERCE

1960

A decline in rail traffic causes the New York Central Railroad to sell St. John's Park Terminal and to halt service on the southernmost section of the High Line, south of Bank Street.

1961

A plan to demolish the southern section of the High Line is announced, in association with the planned redevelopment of 14 blocks along Hudson Street in the West Village.

1963

The City demolishes the High Line south of Bank Street. (Fig 47) As a result of advocacy by author/urban theorist Jane Jacobs and the Committee to Save the West Village, the Department of City Planning drops plans for a 14-block urban renewal project on land formerly occupied by the rail viaduct. Jacobs's group proposes a low-rise 475-unit development in its place

1968

Penn Central takes over the New York Central Railroad.

1976

West Village Houses, the affordable low-rise residences championed by Jane Jacobs and the Committee to Save the West Village, are



47

completed, though their aesthetic merits are hotly debated.

The federal government forms Consolidated Rail Corporation, or Conrail, from the remains of six rail carriers in the Northeast and Midwest, including Penn Central. The High Line becomes Conrail's property.

1980

The last train runs down the High Line carrying three boxcars of frozen turkeys.

1981

The Northeast Rail Services Act creates a three-phase process for Conrail to divest itself of unprofitable freight lines: 1. Declare it cannot make a profit on the line. 2. File a Notice of Intent to Abandon and wait 90 days for a purchaser who wants to use the line for rail service, with preference given to government agencies seeking to adopt the line for any public purpose. 3. Go through a 120-day waiting period in which the line can be sold to any buyer, regardless of intention, for no less than 75 percent of its value.

1983

Conrail publishes a "notice of insufficient revenues" with regard to the High Line.

The West Side Rail Line Development Foundation is formed by Chelsea resident Peter Obletz, who aims to reestablish rail service as a way of preserving the structure and its easement for the future public good. "City Planning will wake up and find themselves with dense pockets of residential development here," he says. "When the neighborhood grows up, we'd be prepared to turn it over to the Metropolitan Transit Authority."



Congress passes the National Trails System Act, allowing out-of-use rail lines to be “rail-banked”—used as pedestrian or bike trails while held for future transportation needs. Because a rail-banked corridor is not considered abandoned, it can be sold, leased or donated to a trail manager without reverting to adjacent landowners.

The High Line captures the imagination of local architects and planners such as Steven Holl and John di Domenico, who begin to propose innovative schemes for its reuse as a site for housing and commerce. (Fig 48,49)

1984

When Conrail files a Notice of Intent to Abandon the High Line, and no City or State agency comes forward to buy it, Oblatz’s group applies to purchase it for future rail use. The bid is supported by U.S. Congressman Ted Weiss, Assemblymembers Richard Gottfried and Jerrold Nadler, and Councilmember Ruth Messinger, and approved by the Interstate Commerce Commission (ICC). Oblatz negotiates to buy the line from Conrail for \$10 and begins fending off challenges from the State, Rockrose Development Corporation, and the group of underlying land owners that becomes known as Chelsea Property Owners (CPO). CPO is led by Jerome Gottesman of Edison Properties, who owns several sites in the area.

Amtrak begins negotiating to acquire the line’s easement north of 34th Street. When the deal and resulting construction is ultimately completed in the early 1990s it will allow Amtrak to use the former freight line for passenger service and consolidate its operations at Penn Station. South of the 34th Street, the line remains in Conrail’s and/or Oblatz’s control.

1985

The ICC reopens the Oblatz purchase proceeding after multiple legal filings from CPO, Rockrose, and the New York State Department of Transportation. The DOT worries that Oblatz's plan may be an obstacle to Westway, a massive riverside highway project that is later stopped by community opposition.

1986

The City files papers with the ICC opposing the acquisition of the High Line by Oblatz. The petition, supported by an affidavit from Mayor Koch, claims that an active rail line will conflict with the City's plans for West Side redevelopment.

1987

The ICC reverses its earlier decision: it now believes that Oblatz and his foundation do not have the resources to run a railroad. The sale agreement is nullified.

1989

Chelsea Property Owners (CPO) files an application to the ICC requesting an adverse abandonment order for the High Line, which would require Conrail to involuntarily abandon and demolish it.

1990

Community Board 4, which contains most of the High Line, adopts a resolution supporting "retention of Conrail's entire West 30th Street Secondary Track (the so-called "High Line") in Community Board 4 pending further study of reuse options by Conrail or others...."

1991

Rockrose Development Corporation demolishes the southernmost five blocks of the High Line, bringing its terminus to Gansevoort Street. (Fig 50) This is the result of negotiations with

50



Conrail, in which Rockrose agreed to pay for the demolition and the property value of the easement. But CPO's request to the ICC for adverse abandonment of the entire line, which would require the railroad to pay for demolition, is rebuffed.

1992

The ICC allows the High Line to be declared adversely abandoned, but only if CPO can meet a number of conditions ensuring the complete financing and insurance of the line's demolition. Conrail's contribution obligation is capped at \$7 million. CPO would have to prove it could cover all additional costs and indemnify the railroad against any claims related to abandonment or demolition.

THE CALL FOR TRAIL REUSE

1999

CSX Transportation Inc. and Norfolk Southern merge and assume control of Conrail.

CSX commissions a Regional Plan Association (RPA) study: "What to do with the High Line?" Seeking feasible reuse alternatives, RPA rejects the use of the High Line for subway, bus or truck transit, as well as a waste transfer facility and a commuter rail storage facility. The study recommends focusing on light-rail and greenway uses instead.

A not-for-profit group, Friends of the High Line (FHL), forms with the mission of preserving the High Line and reusing it as an elevated public space.

In a *New York Times* article, CSX declares that it is amenable to considering reuse proposals for the line. In response, City Planning Commissioner Joseph Rose says, "That platform has no right to be there except for transportation, and that use is long gone...This has become the Vietnam of old railroad trestles."

2000

FHL submits a proposal for a planning study to the Design Trust for Public Space. The Design Trust awards fellowships to two architects, Casey Jones and Keller Easterling, to undertake two separate investigations of the factors involved in reusing the High Line as a public park. Jones' project results in this publication.

Articles in the *New York Times*, the *Daily News*, the *Village Voice*, and several magazines bring the fight to save the High Line to citywide and national prominence.

The Save Gansevoort Market community group forms to preserve the unique character of the Meat Packing District, which includes part of the High Line.

CPO steps up its efforts to meet the conditions of the 1992 ICC order, lobbying the City and members of their group for financial and legal participation in a demolition agreement.

2001

The Design Trust for Public Space hosts "The Future of the High Line," a panel discussion in its Public Space Makers series, to investigate the legal, political, financial, and design issues of the High Line's reuse. Panelists John Lieber, Charles Shorter, and Marilyn Jordan Taylor offer creative strategies for successfully engaging a government partner for a future Interim Trail Use application and for developing a financially viable reuse plan.

The *New Yorker* brings national attention to the High Line with a story featuring the photographs of Joel Sternfeld. Author Adam Gopnik states, "The most peaceful high place in New York right now is a stretch of viaduct called the High Line.... [It] combines the appeal of those

fantasies in which New York has returned to the wild with an almost Zen quality of measured, peaceful distance." (Fig 51)

51

Editorials in support of the High Line's preservation and reuse appear in the *Daily News* and the *Villager*. Douglas Feiden writes in the *Daily News*, "Such a project would rejuvenate an industrial neighborhood, add an elevated jewel to the city's park system, boost the value of underutilized properties nearby -- and create a corridor to an expanded midtown along a majestic pedestrian walkway at lamppost level."

The Council of the City of New York passes resolution 1747 in favor of reusing the High Line as a public space. The resolution calls "upon the Governor of the State of New York, the Mayor of the City of New York, and the Metropolitan Transportation Authority ('MTA') to take all necessary steps to obtain a Certificate of Interim Trail Use from the United States Surface Transportation Board ('STB') in connection with 'railbanking' the elevated rail viaduct...commonly referred to as the 'High Line.'"

Testimony supporting the resolution is submitted from elected officials including U.S. Senator Hillary Rodham Clinton, U.S. Representative Jerrold Nadler, Manhattan Borough President C. Virginia Fields, State Senator Thomas Duane, State Senator Eric Schneiderman, State Assemblymember Deborah Glick, New York City Comptroller Alan Hevesi, and New York City Public Advocate Mark Green, as well as numerous local residents, civic organizations, open-space advocates, community groups, arts institutions, business owners, architects, artists, and design professionals.





All six of the leading mayoral candidates declare their support for the efforts of Friends of the High Line, including mayor-elect Michael R. Bloomberg, who mentions the benefits of walkway atop the High Line in “Parks Are for People,” his blueprint for park policy.

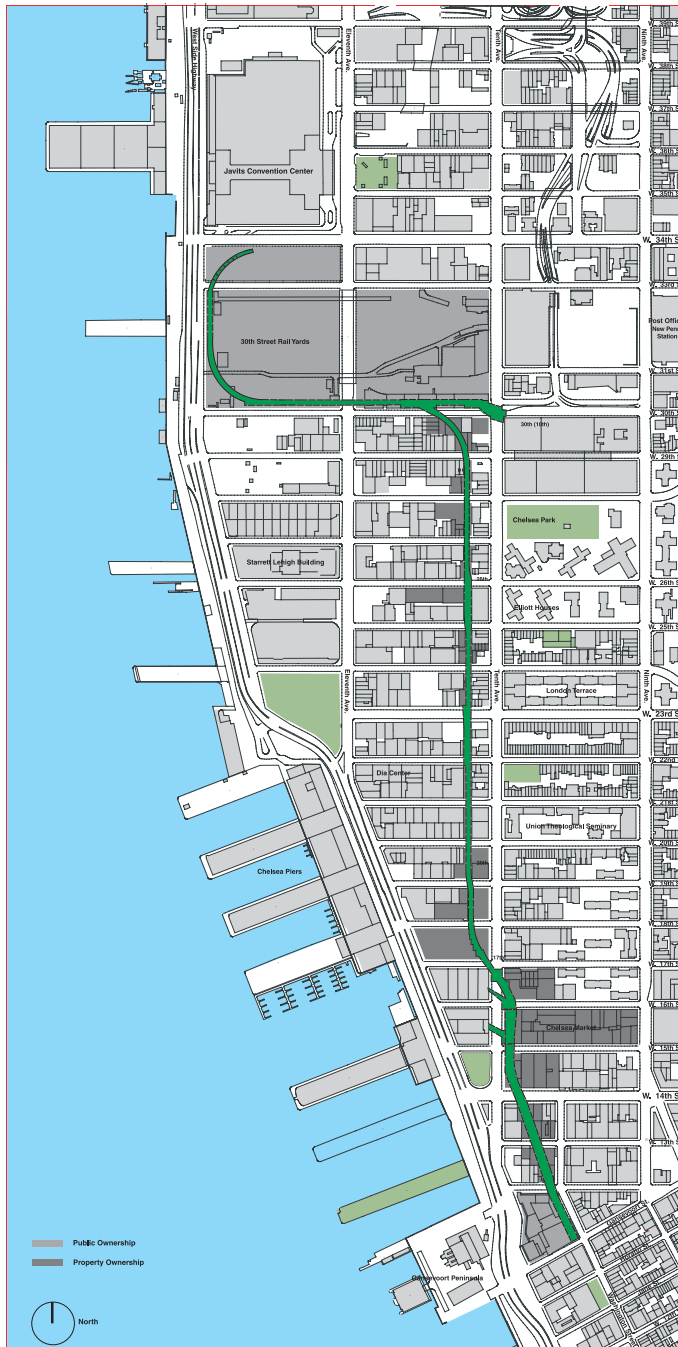
CPO attempts to finalize a demolition agreement with the railroad that will meet the conditions of the 1992 ICC order.

Manhattan Borough President C. Virginia Fields proposes reusing the High Line as part of a public park in a redevelopment plan for the 30th Street Rail Yards.

The New York Jets football franchise and NYC 2012 propose a combined football stadium/Olympic stadium/convention center expansion at the 30th Street Rail Yards, incorporating the High Line, reconstructed around the Stadium, as a pedestrian link to Farley-Penn Station.

Community Boards 2 and 4 protest the City’s participation in CPO’s negotiations to demolish the High Line, asserting the need for community review.

The New York City Council, Manhattan Borough President C. Virginia Fields, Friends of the High Line, and six neighborhood residents and business owners file an Article 78 lawsuit claiming that the City officials who are preparing to commit New York City to demolition are bypassing ULURP, or the Uniform Land Use Review Procedure. ULURP is a six-month-long review process, mandated by the New York City Charter, in which significant land use initiatives are reviewed by the City Council, the Borough President, community boards, and the Department of City Planning.



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.



PHYSICAL CONTEXT

ZONING

Most of the blocks through which the High Line passes are zoned for light manufacturing. M1-5 is the most common zoning designation. (Fig 53)

M1-5 districts are set aside for light manufacturing, including the fabrication or processing of wide range of products from glass and leather to pharmaceuticals and electrical equipment, controlled to meet performance standards; they provide a buffer zone between residential areas and the more intense manufacturing uses of M2 and M3 districts. In addition to manufacturing, an M1-5 district allows community facilities, retail and commercial establishments, hotels, places of assembly, parks, and hospitals. Residential uses are not permitted, except by variance from the

Board of Standards and Appeals. Near the High Line, such variances have allowed a handful of residential buildings in M1-5 blocks, including two luxury-loft conversions on 22nd Street. Scattered residential uses also exist in townhouse and tenement buildings that pre-date zoning restrictions. In an M1-5 district, the maximum allowable floor area ratio (FAR) is 5. Community facilities are the exceptions; they may be developed to an FAR of 6.5. There is no height limitation in M1-5 districts, although setback requirements do apply.

FAR is a zoning term referring to the total square footage that can be built on a lot. The FAR number is multiplied with the total square footage of the lot to arrive at the total allowable gross square footage for the building. Unless there is a specified height limitation, the building may rise as high as a builder desires, with setbacks as needed.

The M1-5 zoning on 23rd Street, between 10th and 11th Avenues, including some 24th Street frontage, was modified in 1999 to encourage residential construction. The new MX-3 zoning allows a mix of uses. Residential R8-A and R9-A zoning designations are included in the mix, as are the previous M1-5 uses. R8-A zones cap building height at 120 feet while R9-A buildings may rise to 135 feet.

At the northern end of the line, west of 11th Avenue, the zoning designation is M2-3, which allows all but the heaviest manufacturing uses. As in M1-5 districts, retail, commercial, and some recreational uses are permitted; residential uses are not. The maximum floor area ratio in an M2-3 district is 2, with setback requirements. No height limitations exist.

Two of the High Line's elevated rail spurs, bridges that connect the line to neighboring

buildings, between 15th and 17th Street, fall within the Waterfront Coastal Zone. This zone was set in 1993 to maintain visual connection and public access to the waterfront, protect historic and natural resources along the waterfront, and control waterfront development.

In 1994, the Chelsea community succeeded in getting one of the City's first 197-a community-based zoning plans approved by the Department of City Planning and incorporated into the City's zoning regulations. The plan sought to preserve the low-scale, residential fabric that defines much of Chelsea. This plan was amended in 1999 to create the new MX-3 district on 23rd Street.

While developing the 197-a plan, the community focused on the area of Chelsea east of 10th Avenue, with the understanding that the area west of 10th Avenue would be examined at a later date. This division reflected the existing zoning and land use patterns for the neighborhood, which is predominantly residential east of 10th Avenue but is characterized by light manufacturing uses west of 10th Avenue.

The Department of City Planning and the Chelsea Preservation and Planning Committee of Community Board 4 have since discussed the possibility of rezoning portions of West Chelsea to permit residential uses. As of this writing, these talks are on hold but may resume in the future.

Community residents considered the zoning change for a number of reasons. They are aware of the development pressure in these blocks and want to have a voice in the shape of new construction. They would also like more low- and moderate-income housing units in the neighborhood.

Some community members believe that an increased residential population west of 10th Avenue will discourage new nightclubs from entering the area. The blocks west of 10th Avenue are popular with clubs because of the large, relatively inexpensive industrial floorplates, and because M1-5 zoning allows clubs. Vocal anti-nightclub groups have formed, complaining about noise and various nuisances they associate with the clubgoers who populate their community at night.

Other residents consider nightclubs to be a crucial element in the life of New York City, and are not bothered by their existence in the neighborhood. In addition, there is a strong pro-manufacturing constituency opposed to residential rezoning. This group believes that rezoning will exert undue pressure on the existing manufacturing uses, which they consider integral to the economic and social fabric of the community. Still others express concern that moving new residents into an area where light manufacturing and nightclub uses already exist is a recipe for conflict. They point to the fiery debate over a single new nightclub in the newly rezoned section of 23rd Street that divided the community in 2001.

SURROUNDING LAND USE

The neighborhood through which the High Line runs is in a state of transition. During the 20 years since trains stopped running on the High Line structure, the traditional industries that once populated the area—warehouses, printers, meat-processing plants, light manufacturers—have declined, while art galleries, restaurants, and nightclubs have been on the rise. (Fig 54) The juxtaposition of long-established manufacturing uses with new, design-oriented businesses gives the area a compelling frisson, but given the development pressure in the area, it's

unclear how long the current balance between manufacturing and newer uses will last. Following is an overview of the different land uses near the High Line:

Residential

West of 10th Avenue, residential buildings are limited by the manufacturing-based zoning designations. The exceptions are: a few mixed-use tenements, mostly between 23rd and 30th Streets, that include residential units; luxury-lofts in converted industrial buildings on 22nd and 23rd Streets; and new residential construction on 23rd and 24th Streets, permitted by the 1999 MX-3 zoning. The most significant blocks of housing are east of 10th Avenue:

- Fulton Houses and Elliott-Chelsea Houses, two large New York City Housing Authority complexes built for lower-income residents, with a combined total of 2,055 residential units.
- London Terrace, a full-block, 18-story Romanesque-revival apartment complex with over 1,700 co-op, market-rate, rent-stabilized, and rent-controlled units.
- The Chelsea Historic District, a neighborhood of townhouses roughly bound by 8th and 10th Avenues, from 23rd Street to 19th Street. It was designated as a protected Historic District by the Landmarks Preservation Commission in 1970; the boundaries were extended in 1981.
- Penn South, a 2,820-unit co-operative, bounded by 8th and 9th Avenues, and 23rd and 29th Streets, built by the garment workers union in the late 1950s. The majority of residents are senior citizens.
- Two new market-rate rental-apartment buildings, built during the strong real estate market of the late 1990s, one at 20th Street and another at 30th Street.

Retail

Retail establishments are found primarily on 10th Avenue and in the Gansevoort Meat Packing District, bounded roughly by 15th Street, Horatio Street, 8th Avenue/Hudson Street, and the West Side Highway. Because 10th Avenue lacks a cohesive run of storefronts, its retail uses—restaurants, mostly—are dispersed without a zone of concentration.

The Meat Packing District has a greater prevalence of retail environments. Streets that fifteen years ago were almost exclusively occupied by meat-processing plants are now dotted with upscale restaurants, bars, and stores for clothing and home furnishings. The rapid transformation of the neighborhood worries some community members, who don't want the unique low-rise, market-based aesthetic to be lost. A preservation group, Save Gansevoort Market, has focused on securing an Historic District designation for the neighborhood, hoping to at least preserve the district's unique architecture, even if the uses in those buildings are destined to change. The southern end of High Line is included in the proposed historic district area. (Fig 55)

Arts

The Chelsea Arts Guide lists 154 galleries between 13th and 29th Street, west of 8th Avenue. In addition, there are several not-for-profit arts institutions in the High Line area, including the Kitchen, the Dia Center for the Arts, and Eyebeam Atelier. The Kitchen and Dia have been in the neighborhood for over ten years, but most of the galleries are newer—the majority are less than five years old. Streets that used to be deserted on weekends now are crowded with visitors. Many ground-floor spaces are occupied by prominent art dealers who have purchased their buildings, while the

upper stories of larger warehouse and factory buildings tend to be rented by smaller or newer galleries. It is these smaller galleries that may suffer if the area is rezoned for new residential uses, since the resulting development pressure may lead to a sharp increase in rents.

Industrial/Manufacturing

Industrial and manufacturing uses are still a significant part of the business community surrounding the High Line. Auto and motorcycle repair shops, stone cutters, metal workers, furniture fabricators, a scrap metal yard, a building supply lot, lumber yards, a major Con Edison equipment storage lot, and several meat packing facilities can all be seen as one walks along the length of the High Line. On weekends, many industrial or manufacturing sites are dormant, leading some casual visitors to underestimate their continued vitality in the neighborhood.

Commercial/Office

During the late 1990s, new media companies made the High Line area one of Manhattan's most popular real estate markets. The Starrett-Lehigh Building, the Chelsea Market Building, and the Port Authority's Inland Terminal all took on new media tenants, including Martha Stewart Living Omnimedia, BarnesandNoble.com, and Oxygen. Internet companies, design studios, photography studios, and fashion showrooms inhabit buildings throughout the High Line district. The Drug Enforcement Agency occupies offices in the Merchants Refrigerating Warehouse building.

Community Facilities

The neighborhood boasts a number of community facilities between 9th Avenue and the Hudson River. These include: the General Theological Seminary (soon to become the national home of the Episcopalian Church), the





Hudson Guild, Chelsea Piers, the Jacob K. Javits Convention Center, a corrections facility, three churches, a food pantry, a recreation center, and a public school.

Transit Yards

The Long Island Rail Road occupies the 30th Street Rail Yards, from 30th Street to 33rd Street, east of 9th Avenue, using it as a storage and maintenance facility for trains running from Penn Station. (Fig 56) Penn Station, between 8th and 9th Avenue, from 31st Street to 33rd Street is also served by Amtrak and New Jersey Transit trains. The A, C, and E subway lines run down 8th Avenue parallel to the High Line. The M23, M10, M34, and M42 bus lines also serve the area. A heliport sits across from the High Line at the Jacob K. Javits Convention Center, and ferries from New Jersey dock at 38th Street, just north of the High Line's terminus.



Parks

Most of the High Line is contained within Community District 4, which currently ranks fourth from last in terms of public open space within New York City districts, according to Community Board 4's 2001 "Platform for Parks." The Hudson River Park, a continuous waterside esplanade stretching from Battery Park City to West 59th Street, will be completed within the next five years. A temporary walkway covering the same route has already become one of the most heavily used open spaces in the city, indicating that the need for additional public space will remain strong even after its completion.

The largest park in the area, with 3.9 acres, is Chelsea Park, between 9th and 10th Avenues, from 27th to 28th Street; it features several large athletic fields.

Two smaller parks have opened in the study area during the past two years. One is a passive green space, with benches and grass for sitting, reading, and relaxing, at 14th Street and 10th Avenue on the site of a former gas station; it has not yet been formally named. The other, the 2.5 acre Chelsea Waterside Park, is an active recreation space, including a playing field, a water feature, and a dog run, at 23rd Street and 11th Avenue; it is an expansion of an existing park. Both of these parks are surrounded by busy automobile traffic on all sides. The 0.5-acre Clement Clark Moore Park, at 10th Avenue and 22nd Street, is more tranquil, though its 10th Avenue frontage results in near-constant traffic noise. The quietest open outdoor space in the area is the garden of the General Theological Seminary, which is open to the public for a few hours each day.

Landmarks and Historic Properties

The Merchants Refrigerating Warehouse, on 10th Avenue between 16th and 17th Street, is the only

property in the area listed on the National Historic Register. (Fig 57) A High Line railroad spur bridging over 10th Avenue, which once allowed trains to run directly into the building, is included in the designation despite being constructed after the warehouse was built.

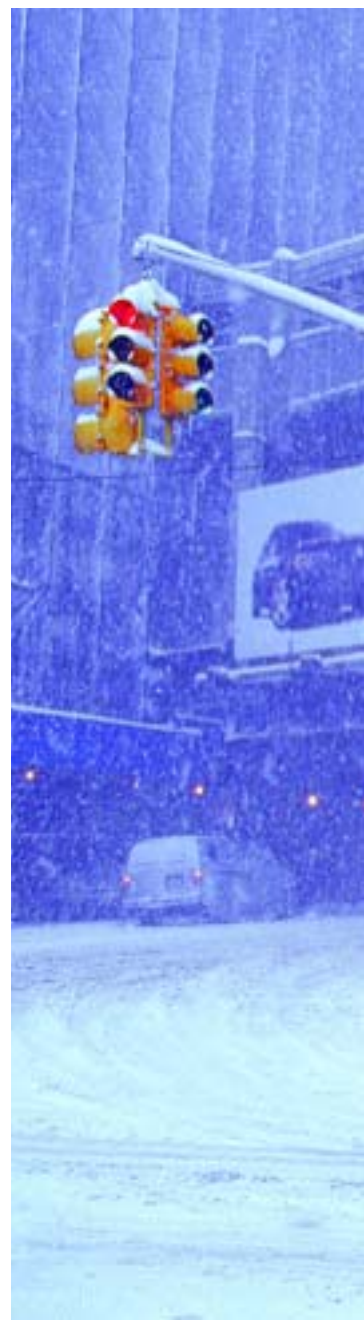


57

Other historic structures in the neighborhood include the Church of the Guardian Angel and its rectory on 10th Avenue between 21st and 22nd Street, designed by John V. Van Pelt. The church was constructed by the New York Central Railroad to replace an earlier wood-frame church that stood on the north side of 23rd Street and was torn down to make way for the High Line.

Across the street, the General Theological Seminary occupies a full block between 9th and 10th Avenue, from 20th to 21st Street. The seminary is a red brick collegiate Gothic complex constructed over the course of the 1800s. The seminary originally turned its back on 10th Avenue because of the at-grade freight trains and other service vehicles that used to populate it. It is the focal point of the Chelsea Historic District.

Chelsea Piers and Chelsea Market are both historically important. The Piers were constructed to receive passenger ships and sea cargo. Remodeled several times since, it is now a sports complex. Chelsea Market occupies the



58



57. Merchants Refrigerating Company at West 17th Street, 1942 58. Chelsea Market



original National Biscuit Company (or Nabisco) factory, where the first Oreo cookie is said to have been made. Today it is a thriving commercial center with new media businesses on its upper floors and a food marketplace on the ground floor. (Fig 58)

The Starrett-Lehigh Building, designed by Russell G. and Walter M. Cory with Yasuo Matsui in 1931, was the terminal building for the Lehigh Valley Railroad. It is currently occupied by new media businesses, art galleries, and photo studios.

The Gansevoort Meat Packing District is currently being proposed for Historic District status by Save Gansevoort Market, a preservation group, due to its unique concentration of low-rise, market-oriented buildings. The High Line is a prominent feature in this neighborhood. (Fig 59)

The High Line itself is eligible for placement on the National Register of Historic Places.



Prominent architectural historians state that it fits National Register Criteria A, for its association with events that have made a significant contribution to the broad patterns of the nation's history; and Criteria C, for its embodiment of the distinctive characteristics of a type, period, or method of construction, with transportation and industry as specific areas of significance.

UPCOMING DEVELOPMENT

The economic boom of the late 1990s resulted in much new construction in New York City. However, in the blocks surrounding the High Line most development was limited to the conversion of existing structures to new uses, in part because existing zoning did not permit the new residential buildings preferred by many developers. When a portion of 23rd Street zoned for manufacturing was rezoned to allow residential uses, new construction occurred almost immediately.





Prior to September 11, 2001, the conversion of manufacturing sites to galleries and offices, the proliferation of upscale retail establishments along 10th Avenue, and the push for residential rezoning seemed likely to continue spurring new construction. Now a constricting economy will most likely slow redevelopment in the High Line area, as it will across the entire city. But governmental agencies and real estate professionals continue to characterize the High Line area as underutilized and capable of increased economic activity. A change in zoning or a redevelopment plan could produce significant beneficial development activity around the High Line in a short period of time.

Following are some of the key sites with development currently planned or under consideration:

Farley-Penn Station

A portion of the James A. Farley General Post Office, at 8th Avenue between 31st and 33rd Streets, will soon be converted into a new train station for Amtrak. (Fig 60) Former Senator Daniel Patrick Moynihan championed the \$788 million project. Following a plan developed by Skidmore Owings & Merrill, platforms will be created underneath the McKim Mead & White-designed building. The mid-block ticketing hall will be covered by a curved glass canopy.

30th Street Rail Yards

Building atop the 30th Street Rail Yards was part of the West Side Improvement's original plans—a provision for growth that never occurred in the sectors of rail-freight and urban manufacturing. Now the rest of the borough is much more densely built, and the yards, in combination with low-lying industrial blocks to the north and south, adjacent to major auto and rail transportation facilities, are often called “the last frontier” for development

in Manhattan. A number of redevelopment scenarios—all of which involve creating a platform over the working yards, then building atop the platform—have been proposed by various elected officials and business interests:

- **Jacob K. Javits Convention Center Expansion:** The Javits Center is the eleventh largest convention facility in the country and falling in rank. The State, which controls the center through the New York Convention Center Development Corporation, believes that the center must expand to remain competitive. The State currently favors extending the building northward to 42nd Street, but the rail yards site has also been discussed as a component of the expansion, possibly for a bus- and car-parking facility.
- **NYC 2012 and the New York Jets:** A group of business leaders, heads of cultural institutions, and other influential New Yorkers, funded by major corporations and banks, have joined to promote New York City as the host city for the 2012 summer Olympic Games. Because an Olympic Stadium is essential to their plans, they share an objective with the New York Jets, who wish to return to New York City and build a stadium over the 30th Street Rail Yards. Olympic and football stadiums are different sizes, so the design by Kohn Pedersen Fox would allow for a one-time expansion to an adjoining platform beyond the rail yards boundaries, to be permanently closed after the 2012 Olympic games. After, it would function as a football stadium and a convention hall, with movable roof and seats to accommodate both uses. The design currently tears down the High Line at the rail yards site but recreates its easement with a newly constructed elevated walkway, connecting to the original structure, as well as to Farley-Penn Station. (Fig 61)



- “A Vision for the West Side Rail Yards”:⁶² Manhattan Borough President C. Virginia Fields has proposed a mixed-use development at the rail yards. An elevated park would parallel the Hudson River, backed by low-, mid-, and high-rise development containing affordable housing, market-rate housing, and new office space. The Borough President’s plan, developed by Buckhurst Fish & Jacquemart, reuses the High Line in three ways: as a pedestrian promenade connected to a larger park within the rail yards development, as a bridge to the new Hudson River Park, and as a frame for street-level retail development. (Fig 62,63)
- The Far West Side Central Business District: In June 2001 the Group of 35, a coalition of business leaders, real estate developers, planners, and government representatives led by U.S. Senator Charles Schumer, released a plan citing the need to add 60 million feet of new commercial office space to New York City by 2020. 20 million square feet of this office space is slated for the “Far West Side Central Business District,” west of 9th Avenue, from 28th Street to 42nd Street. The district would include high- and mid-rise office buildings, mixed-income housing, open spaces, hotels, and industrial facilities. The plan recommends using a deck over the rail yards for commercial office space and/or “other large scale uses.”
- Far West Midtown: Framework for Development: In December 2001, the New York Department of City Planning released plan for a “transit-oriented, pedestrian-friendly urban central business district,” creating 30 to 40 million square feet of new offices, hotels, entertainment, exhibition, and retail space. It would cover a 59-block area, bounded by 8th Avenue and the West Side Highway, 42nd Street and 24th Street. A northward expansion of the Jacob K. Javits Convention Center, an extension of the num-



ber 7 subway line to Penn Station and to the convention center, and an allowance for a combined Jets/Olympic stadium are all part of the plan.

23rd Street Residential Corridor

As a result of the 1999 zoning change allowing residential construction on a portion of 23rd Street, two new apartment buildings are nearing completion between 10th and 11th Avenue. A third is planned on the same block.

Eyebeam Atelier

A new arts institution whose mission is to “initiate, present, support, and preserve artworks created with computers and other digital equipment” plans to construct a museum on West 21st Street between 10th Avenue and the West Side Highway, just west of the High Line.

Gansevoort Meat Packing District

Stretching from 14th Street to Gansevoort Street and from 9th Avenue to the West Side Highway, the low-rise Meat Packing District has been a marketplace for over a century. As the meat industry has gradually been displaced by restaurants, shops, and bars, development pressure has increased. Even as Save Gansevoort Market works to secure an Historic District designation for the neighborhood, which would maintain its current zoning prohibiting new residential use, builders continue to seek opportunities in an area they perceive both as stylish and underdeveloped. A recent plan by Landmark Development LLC proposes a 32-story apartment tower designed by Jean Nouvel. (Fig 64) The development would reuse the High Line, which runs through the property, as public open space. Though the building’s height is allowable as-of-right, a variance from the Board of Standards and Appeal would be required because residential uses are not allowed under the M1-5 current zoning.



64

COMPETING OWNERSHIP PLANS

For the last two years CSX, the railroad that owns the High Line, has worked steadily with both the Chelsea Property Owners (CPO) and the Friends of the High Line (FHL) in an effort to divest itself of the line. Due to the Interstate Commerce Commission's 1992 order of conditional abandonment, CSX must negotiate with the property owners towards a mutually acceptable demolition agreement, but the 1983 National Trails Systems Act allows FHL to petition the Surface Transportation Board to convert the structure to a rail-trail, even while demolition discussions are preceding. CSX remains open to those petitions.

DEMOLITION EFFORTS BY CHELSEA PROPERTY OWNERS

The 1992 conditional abandonment order issued by the Interstate Commerce Commission (ICC) calls for CSX to work with the property owners toward the abandonment and subsequent demolition of the line. If an agreement is reached, the High Line would be declared abandoned and its easement would revert to underlying property owners, who would then be required to demolish the structure. CSX would contribute up to \$7 million to the demolition costs, with all remaining expenses paid for by CPO.

To bring such an agreement to fruition, CPO must prove to the Surface Transportation Board (the federal body that replaced the ICC) and CSX that it can realistically meet the financial and legal responsibilities necessary to demolish the High Line. There must be a guarantee that once demolition begins, the financial resources have been assembled to complete it. At one point, it was suggested that CPO needed to produce an open-ended or \$100 million surety bond to ensure total demolition. CPO aims to meet this condition through an alliance with a demolition company with enough assets to guarantee completion of the job. In addition, an adequate insurance policy indemnifying the railroad from any possible claims related to the abandonment and demolition must be purchased.

Plans for an action of as large a scope as the High Line's demolition generally pass through a number of review processes before the operations actually commence. According to the City Environmental Quality Review (CEQR) Technical Manual, a socioeconomic assessment is required if an action may reasonably be expected to create substantial socioeconomic changes within the affected area. An environ-

mental assessment is also required if the area under question has important views, natural resources, or historic structures, or if the project changes block form or obstructs streets. Under these terms, the High Line may qualify for review, although CPO argues that the High Line's demolition in and of itself does not change economic or environmental conditions enough to warrant these reviews.

In addition, changes of such scope generally go through ULURP, the City-charter-mandated review process. ULURP takes about six months and requires review by community boards, the Borough President, the Department of City Planning, and the City Council. One condition demanding ULURP is a change to the City Map, which indicates streets, sidewalks, and other major features of importance in the City. CPO claims that ULURP is not required for the High Line's demolition. Friends of the High Line, in conjunction with the City Council and the Manhattan Borough President, has filed an Article 78 lawsuit asserting that demolition will change the City Map and requires ULURP.

CPO estimates that demolition would last from 12 to 18 months. The removal of the line would only involve demolition of the above-grade structure. The footings would be cut to a depth of one foot below grade, but not fully excavated. Because the line was originally covered with lead paint—and because materials containing asbestos have been found on the track bed—special precautions would be required during removal. In addition, demolition could stir up hazardous materials in areas under the line. The Metal Purchasing Warehouse at 501-551 West 30th Street, to be demolished as part of the project, served as a metal foundry and has been found to have PCB and PAH contaminants.

REUSE EFFORTS BY FRIENDS OF THE HIGH LINE

Friends of the High Line (FHL), citing the structure's unique potential to bring 6.7 acres of open space to mid-Manhattan, seeks to have the High Line's easement and structure retained as a public open space. FHL argues that because the High Line was built with public as well as private funds, it should be reused as a public amenity that benefits the entire community, not just private property owners.

There are two ways that trails can be given over to recreational use: through "rail-banking," or through a "rails-to-trails" conversion. Such a conversion would add 1.45 miles of rail-trail to the over 11,000 miles that have already been created nationwide. FHL believes the project could be an international model for the innovative reuse of transportation infrastructure in urban planning.

Rail-banking is part of a federal program established in 1983 by the National Trail Systems Act. Under this legislation, rail companies may voluntarily turn over unused lines to a managing agency for recreational use, while retaining the option to return the line to rail use at a later date. Thus, lines are 'banked' until such time as they need to be reincorporated into the nation's rail system, precluding abandonment. As a federal program, rail-banking, which preserves the easement as an integrated whole, offers stronger protection against adverse possession claims and lawsuits than creating a trail from an abandoned line, which in some cases must be defended, property by property, from individual owners who claim the easement should have reverted to them when rail service stopped. Though the possibility does exist that a rail-banked trail might one day return to rail use, it rarely happens. The financial requirements demanded from a rail carrier who wants to

reclaim a line for rail use are generally prohibitive. Rail-banked trails tend to remain trails.

A rails-to-trails conversion is accomplished by acquiring an abandoned easement. According to the Rails-to-Trails Conservancy, a line is considered abandoned when "[1] rail service is discontinued; [2] the Surface Transportation Board (STB) officially approves the abandonment; and [3] tariffs (pay-schedules) are canceled." Thus a rails-to-trails conversion happens after every possibility of rail service has been explored and determined unfeasible. Then a government agency or a non-profit acquires the corridor and constructs a trail. This method offers more latitude than rail-banking in treatment of the line but is more vulnerable to challenges from property owners whose land the easement adjoins or crosses; they might make individual claims that the easement, having been abandoned, should revert to the underlying property owner.

FHL plans to follow a rail-banking strategy because of its stronger legal framework and to retain the integrity of the transportation corridor. Their first step would be to request a Public Use Condition from the STB, which would allow negotiations with the railroad for a Certificate of Interim Trail Use. To qualify, FHL must convince both CSX and the STB that it can meet the financial and legal responsibilities necessary to assume control of the line. These include an indemnification agreement similar in scope to that asked of CPO in the case of demolition, and an agreement to demolish the line and not hold the railroad responsible should FHL ever choose to abandon it in the future. These requirements could be met or superseded by the State or City joining FHL's application or leading the application on their own. Government agencies lead or participate in

most rail-banking agreements. It's unlikely that a petition for Interim Trail Use would succeed without governmental participation. FHL has made securing City and State partnership its leading objective.

As part of an ongoing effort to define the best possible shape and function for a reused High Line, FHL will sponsor a design competition in 2002. It will use this publication, which documents the results of a year-long planning study, to lay the competition's groundwork. Multi-disciplinary teams of architects, landscape architects, artists, and community members will formulate innovative visions for the structure's reuse. Pending rail-banking approval and the establishment of a design strategy, FHL hopes to convert the structure in stages, estimating that a modest construction plan could begin to open parts of the structure to the public 12 to 18 months after City and State participation is secured.

POLITICS

New York City Mayor Michael R. Bloomberg, U.S. Senator Hillary Rodham Clinton, U.S. Representative Jerrold Nadler, New York City Council Speaker Gifford Miller, Manhattan Borough President C. Virginia Fields, New York City Council Member Christine Quinn, State Senator Tom Duane, State Senator Eric Schneiderman, and State Assembly member Deborah Glick all publicly support the preservation and reuse of the High Line.

New York City

In 2001, the Council of the City of New York passed Resolution 1747 calling for the mayor, the governor, and the Metropolitan Transit Authority to pursue a Certificate of Interim Trail Use from the Surface Transportation Board—the first step toward rail-banking the High Line. At

roughly the same time, Manhattan Borough President C. Virginia Fields developed a plan for the 30th Street Rail Yards incorporating a rail-trail conversion of the High Line.

During the Giuliani administration, City agencies, most notably the Office of the Deputy Mayor of Economic Development and Finance, supported the efforts of CPO. Mayor Michael Bloomberg, however, supports the efforts of Friends of the High Line. FHL hopes to have a productive relationship with the Mayor's Office as it moves ahead with rail-banking and reuse plans.

New York State

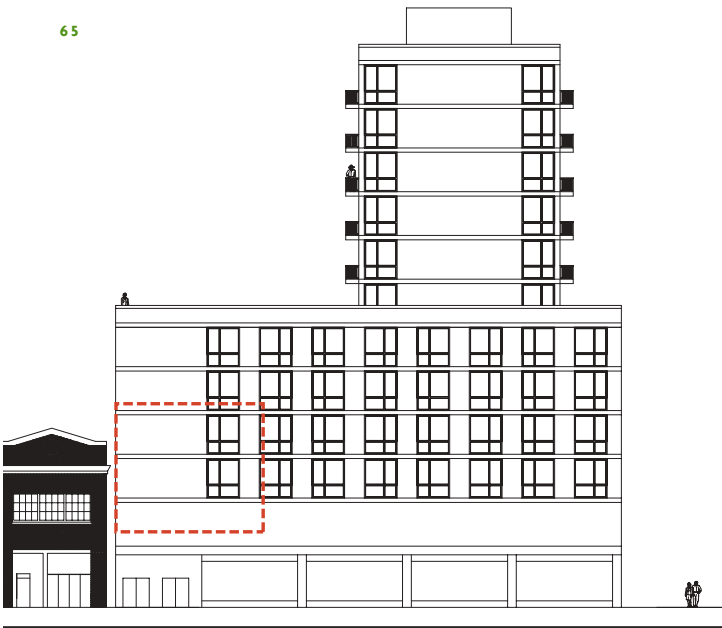
With its ownership of the 30th Street Rail Yards, New York State is the largest single landholder beneath the High Line. It is also in the best position to affect a public-private partnership for reuse through its economic development arm, the Empire State Development Corporation. To date, the State has not taken an official stance on the High Line's demolition or reuse.

Federal Government

Because the High Line is part of the nation's rail infrastructure, the federal government has final jurisdiction over its fate through the Surface Transportation Board (STB). In 1992, the STB's predecessor, the Interstate Commerce Commission, issued a conditional order for adverse abandonment and demolition, but the conditions of that agreement have not yet been met. FHL plans to apply for a Public Use Condition and Interim Trail Use, but City and State participation are needed for the application to be viable. Any final approval to demolish or to rail bank the High Line will ultimately depend on STB approval. U.S. Representative Jerrold Nadler and U.S. Senator Hillary Rodham Clinton have both expressed support for the effort to reuse the High Line as a public park.

EVALUATION OF REUSE OPTIONS

The future visions inspired by the High Line and its unique urban condition seem limitless at times. During the past ten years, various parties have proposed reuse scenarios as divergent as an elevated housing complex, a robotically-controlled parking garage, a waste-transfer rail line, and a theme-oriented tourist train. To better enable planners, architects, landscape architects, and community members to construct the best possible design for the High Line’s reuse, this study set out to concentrate attention on the most feasible future scenarios and those that offer the greatest possible long-term benefit to the greatest number of people.



The study considered four widely held future visions: demolition of the High Line and redevelopment of the underlying land; reuse of the structure for transit; commerce-oriented reuse; and reuse as a public open space. Analysis was based on months of research and input from four advisory sessions that met during the summer of 2001. These sessions included experts in the fields of architecture, open-space design and advocacy, urban planning, transportation, real estate development, and community representatives. In an effort to avoid adversarial rhetoric, neither Friends of the High Line nor the Chelsea Property Owners participated.

Several key determinations emerged from the sessions and became focal points in the recommendations later developed by the Design Trust for Public Space and Friends of the High Line:

- Benefits of preservation and reuse outweigh the benefits of demolition.
- Design for reuse should focus on pedestrians rather than rail, light rail, or bicyclists.
- Commercial potential exists in spaces alongside the High Line, and limited commercial activity offers potential benefits to the High Line, but the High Line must not become a primarily commercial enterprise.
- Reuse as public open space offers the greatest number of benefits to the largest constituency.

DEMOLITION/REDEVELOPMENT (Fig 65)

After weighing the benefits of demolition and redevelopment against those of preservation and reuse, this study determined that preservation offers a greater benefit to the community and City than demolition.

Demolition may offer a benefit to owners of private property who purchased lots encum-

bered by the High Line's easement and who now want to eliminate the restrictions of that easement to maximize profit from new construction. But to make that profit possible, 6.7 acres of future open space in the middle of Manhattan must be forfeited. Public monies helped pay for those 6.7 acres, and a public program exists to open them to public use. The long-term social and environmental benefit of creating a 6.7-acre open space that allows New Yorkers to travel 22 blocks without crossing a single city street is greater than that of a short-term economic windfall to be accrued by a small group of property owners. In addition, a walkway atop the High Line will cause values of adjacent private properties to rise, due to their proximity to a public open space.

Demolition may benefit people who find industrial architecture and/or transportation infrastructure aesthetically objectionable by removing a piece of the built environment and allowing it to be replaced by a different building typology. But, in order to accomplish this, a structure that is integral to the architectural, economic, and social history of the whole West Side must be destroyed. The benefit the High Line offers as the spine of a neighborhood that is just beginning to understand the value of its industrial architecture is greater than the benefit offered by pulling out that spine in order to make the neighborhood conform to a narrow aesthetic hierarchy that does not highly value industrial- or transportation-based structures.

Pedestrians may benefit from the demolition of a structure that casts shadow on some sidewalks. But the shadow cast by the structure is narrow, quickly crossed, and can be mitigated with lighting and other aesthetic improvements. The square-footage of public space provided by the High Line's upper deck, open to the sky,

is many times greater than the square-footage of sidewalk shaded by the structure.

Pedestrians might also benefit from the demolition of a structure that partially obstructs some view corridors to the Hudson River. But the partially obstructed corridors are limited—many corridors are fully obstructed by the Chelsea Piers (17th Street-22nd Street) and by a U.S. Postal Service truck depot (24th Street). The visual benefits offered to pedestrians by the High Line's elevated views—of the Hudson River, the midtown skyline, and the rarely seen interiors of city blocks—outnumber the benefits of removing the partial view-corridor obstructions.

Demolition of the High Line may offer some potential economic benefit to the City through tax revenues that might be generated by resulting construction. But history shows that property facing public open space has greater value and thus generates higher tax revenues. The existence of a 22-block-long public space will raise property values and attract new investment, providing a greater economic benefit than redevelopment without the High Line.

Some demolition advocates claim that tearing down the High Line will prevent tall or high-density new construction from occurring through bonuses or building-rights transfers. The logic of controlling zoning incentives linked to public benefit by removing the feature that creates the public benefit is not reasonable. One would not want to shut down the subway system to eliminate bonuses for station improvements, or demolish Grand Central Station to prevent the transfer of its remaining building rights. In fact, the Department of City Planning, the Board of Standards and Appeals, and/or public entities that might review Uniform Land Use Review Procedure applications or special permits will

determine the height and bulk of new buildings in the neighborhood, whether or not the High Line is demolished. The impact of a bonus or incentive can be weighed by the community against its public benefit in established review proceedings set up for that purpose.

TRANSIT REUSE (Fig 66)

The High Line was built to carry freight trains down the West Side of Manhattan, and so it is natural that reuse as a transportation corridor would be considered by many parties. One of the original High Line preservationists, Peter Obletz, wanted to reinstate rail freight service. Calls for reuse as a subway line or a light-rail line are regularly heard at public discussions of the High Line's future.

This study determined that transportation systems involving freight- or passenger trains, subway trains, light-rail, or motorized, rubber-wheeled vehicles do not currently constitute the most beneficial reuse scenario for the High Line.

The community would vehemently oppose reinstating freight service or initiating passenger rail service on the line, and the utility of both services would be limited. The new Farley-Penn Station, a block from the High Line, will satisfy the neighborhood's passenger-rail needs. Freight service would face unique operational challenges, since buildings that originally accepted freight from the High Line have since been converted to new uses.

Subway reuse might be beneficial, but technical requirements and environmental impacts essentially rule it out. For instance, connecting the proposed extension of the number 7 subway line to 34th Street with the L line, at 14th Street, would be a desirable goal—it would create a subway line moving from Flushing, Queens, to

Canarsie, Brooklyn, by way of the city's central business district. Unfortunately, the two trains run on different track dimensions, and ramping the L train at 14th Street up to the High Line would require demolishing and permanently displacing numerous existing buildings and street surfaces. Even if a simpler subway reuse goal were pursued—bringing the 7 train south on the High Line, terminating at 14th Street—extensive condemnation and demolition would be required to make way for platforms and stations. The High Line is generally 30 feet wide, but the two train lines require 20 feet in width, and platforms require an extra 24 feet, running for approximately two city blocks. Community opposition to any subway reuse would be extremely high.

Light rail might be beneficial to the community at a future date, and a transit system using rubber-tired vehicles with electric motors offers many of light-rail's potential future benefits at a lower cost, but there are not currently enough destinations along the line to merit the investment in either system. Given the potential for density increases along the corridor, designs for the High Line's reuse should consider that light-rail or rubber-wheeled transit may one day be desirable; permanent obstacles to these systems should not be constructed.

Bicycle use initially seems an exciting possibility, but the run is too short to offer cyclists genuine utility.

The strongest transportation option for the High Line is reuse as a pedestrian corridor. It could serve as a north-south connection between three neighborhoods that do not currently have a pleasant pedestrian link. The quiet mid-block passage, without danger from auto traffic, offers distinct advantages over the noisy, trafficked run



66. Massing diagram showing transit reuse

of 10th Avenue. Visitors to the Convention Center area would be offered an invitation to explore neighboring communities on foot. Community opposition would be much lower than for any other transportation-based reuse scenario.

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

67



68



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.

In a similar manner, the designs this study ⁶⁹ inspires will necessarily change shape as the effort to reclaim the High Line progresses, reflecting the advancing needs of community, business, City, and State.

The notion of evolution, the gradual development of an idea into a more complex or better form, is especially important in the case of the High Line, which carries us through time as well as space. Like the most celebrated landmarks in New York City, it would not—and probably could not—be built today. It is an object created by New Yorkers of an earlier era, reflecting their expansive vision of a city built to grow in unprecedented ways.

New York's greatest public spaces—the finest parks, and interiors like Grand Central Terminal, the reading room of the New York Public Library, and Radio City Music Hall—all share this sense of boundless possibility. The richness of experience felt inside such a space comes from its proportions and finish, but also from its history and the accomplishment of an idealistic vision of what New York City could be, achieved through tireless pursuit of a creative vision.

Those who work to transform the High Line into an elevated promenade are called romantics or dreamers by people who want to tear it down. The implication is that an aspiration towards beauty, innovation, or improvement of the public realm is somehow undesirable—but the opposite is true. New York City itself is the physical embodiment of the human dream to create beauty in previously unfathomable ways. What is the Statue of Liberty at the entrance to our harbor, if not a figure from a dream, made real by engineering, planning, and design? What are the cap of the Chrysler Building and





the rotunda of the Guggenheim Museum, if not emblems of human reach, of the desire to create a built environment that delights and enriches the people who inhabit it?

As dreams go, making a walkway atop the High Line is a fairly easy one to realize. The structure already exists. People already walk on it—though they must get permission to do so. The laws have already been written that would allow all New Yorkers to use it as a healthful, sustainable, social way to move about the city and to view it from a new perspective. Financial mechanisms have already been established to fund the physical improvements required to make it widely accessible. In fact, all that remains is for City and State decision-makers to join together to use the High Line in this bold, new way. (Fig 69)

THE HIGH LINE AND THE CITY AS PALIMPSEST

palimpsest (palimp-sest) n.

1. A manuscript, typically of papyrus or parchment, that has been written on more than once, with the earlier writing incompletely erased and often legible.
2. An object, a place, or an area that reflects its history.

—*American Heritage Dictionary*

Textbooks of human intentions, cities make fascinating reading. First one starts with its site, the geo-physical conditions—climate, soil, rivers, harbors, and the presence of various natural resources—that encouraged settlement in the first place. The next element of urban form consists of transportation—docks, terminals, rail lines, and roads—the means of moving products and people to and from the city. What typically justifies a city's existence is its function as a market hub where goods and services can be exchanged. Related to these routes of movement linking cities with their regional hinterlands and the rest of the world, are their internal circulation systems, the grid (or some other pattern) of streets that serves as a city plan, defining the lot-divided blocks that are the basic units for parceling both public and private property.

Then there is the dimension of time. Time means change. Cities and the uses of land within them are both dynamic and stationary, forever being transformed while at the same time maintaining discernible outlines of their original plans. Over time any city becomes a palimpsest, a three-dimensional document in which the primary text has been partially erased, added to, and otherwise amended.

With time, social values change, and economies are transformed. Cities, whose first law of existence is to meet the social and economic needs of their inhabitants, necessarily alter. Sometimes,

due to the destruction of war, civil unrest, or developmental forces, the palimpsest is more one of erasure than of addition and enlargement. Medieval Rome and Detroit after the 1960s riots are examples. In the United States during the second half of the twentieth century, the interstate highway building program rent the fabric of many older American cities while weaving a new tapestry of far-flung suburbs and altering transportation habits as rubber replaced rail. This caused many older cities to become palimpsests of simultaneous extension and erasure as the development of suburban shopping centers and malls vitiated the integrity of the center city, and formerly occupied building lots were converted into parking lots while rail yards, station depots, and the districts around them stagnated.

The palimpsest that is New York is blessed with an unusually high degree of cultural energy and an economy that has in the past proved supple and capable of exploiting new technologies. Because there have always been new uses for old structures, the central city (Manhattan) has never become a reservoir of devalued real estate, with once-proud buildings falling into complete dereliction. The defeat of the proposed Lower Manhattan Expressway saved the warehouse district that became Soho as artists pioneered loft living in old storage and light manufacturing buildings. Today there are many Soho-like districts in other cities and other parts of New York City, one of which is Chelsea, whose warehouses served by the High Line were built when the Hudson River was an active part of the port of New York.

One can rightly deplore the high degree of loss of manufacturing industries and port facilities in New York. The silver lining of the new information-based global economy, however, is the amount of light industrial and waterfront-related

land that has been freed up and the opportunity that this has created to reclaim large portions of the city's shoreline for recreation. The demise of the High Line as a functional rail for freight is part of the transformation of New York's economy from a manufacturing and shipping foundation to one that is more exclusively based on global financial commerce, tourist hospitality and entertainment, creative design services, and media and arts production. This shift is making the city more parklike even at a time when the municipal budget for parks was being continuously and drastically cut. It will not be easy, particularly in light of recent events, to fund the exciting new elevated linear park that is contemplated in this report. But to forego the opportunity to reclaim the High Line for this purpose would run counter to the current trend of making the city greener and more culturally vibrant.

Just as the scholar's eye moves over a palimpsest written on papyrus or paper, reading in the vestiges of an old text new meanings in the light of its subsequent alterations, so we experience the city through movement along corridors that preserve traces of the past even as they accommodate new interpretations of how space should be used. Preventing the High Line's complete erasure is more than merely saving a piece of the city's history. It is preservation at its best: maintaining a portion of the palimpsest so that denizens of this richly layered city can enjoy both past and present simultaneously.

—Elizabeth Barlow Rogers
Founder, Cityscape Institute

BIBLIOGRAPHY

- "—," *Railway Age* Vol. 96 (23 June 1934) 908-914.
- "A Plan to Preserve and Re-Use the Elevated West Side Rail Line," *West Side Rail News* Vol. 1, No.1 (December 1983) 5.
- "Chapter 677," *Laws of New York – by Authority*, New York: 27 March 1928.
- "Conrail to Abandon West Side Rail Line, Demolition of Elevated Section Imminent," *West Side Rail News* Vol. 1, No. 1 (Dec 1983) 1.
- "Death of Death Avenue, Dedication Toast," *New York Times* 29 June 1934, 10.
- "Decision to Landmark Market Should be Easy," Editorial. *Villager* 30 August 2000.
- "Defunct Rail on Right Track," *Metropolis* June 1985.
- "Freight Yard to Shut," *New York Times* 30 January 1960, 9.
- "Gansevoort Market Task Force Established," *The Anthemion* Greenwich Village Society for Historic Preservation, Fall 2000.
- "High Noon for the High Line," Editorial, *Daily News* 30 December 2000.
- "Huge Freight Depot to be Started Soon," *New York Times* 27 November 1931, 26.
- "Mayor Dedicates West Side Project," *New York Times* 29 June 1934, 1+.
- "New York Central Sells West Street Terminal," *New York Times* 8 April 1960.
- "New York Central's Extensive Improvement on West Side of New York," *Railway Age*. Vol. 87 (27 July 1929) 234-240.
- "North Access Tunnel Completed," *West Side Rail News* Vol. 1, No.1(December 1983) 2.
- "Not a Single Sparrow," *Progressive Architecture* June 1963, 61.
- "Rail Road to Tunnel Through Building," *New York Times* 26 November 1931.
- "Renewal and Rebuttal," *Citizens' Housing and Planning Council of New York*.
- "Report of the West Side Improvement Architects' Committee," 29 April 1929.
- "Resolution: West Side Rail Lines," Community Board 7, Manhattan. New York, 4 June 1985.
- "Shift of Business to West Side Seen," *New York Times* 29 June 1934, 10.
- "Statement of District Needs," Community Board 4, Manhattan. 2002.
- "The Village is Saved," *Forum* January/February 1970.
- "Transforming the West Side: A Huge Project Marches On," *New York Times* 8 June 1934.
- "Transport News," *New York Times* 4 December 1957, 62.
- "West Side Improvement Plan," *Chamber of Commerce of the State of New York Minutes*. New York: 3 November 1927.
- "West Side Viaduct Opened to Freight," *New York Times* 2 August 1933.
- "WSRL Director Hall's "Bridge of Houses" in Downtown Whitney Exhibition," *West Side Rail News* Vol. 1, No. 1(December 1983) 4.
- Able, Judy. "Is a New West Side Rail Line on the Way?" *The West Side Spirit* 15 April 1985.
- Allen, Olivier. "When Trains Made Tracks Down Canal Street," *Tribeca Tribune* June 2000.
- Amateau, Al. "History of the Market—from 1600 to now," *The Villager* 2 May 2001, 23+.
- Amateau, Al. "Prostitution is Decreasing but is Still a Problem," *The Villager* 2 May 2001, 22.
- Amateau, Albert. "Two Tracks of Thought at High Line Hearing," *The Villager* 25 April 2001, 3.
- Amelar, Sarah. "From Railway to Greenway," *Architectural Record* (April 1997) 138-142.
- Anderson, Lincoln. "Artists, Officials get On Board Save High Line Effort," *The Villager* 11 April 2001, 26+.
- Anderson, Lincoln. "Boutiques and Bistros Feel at Home in Meat Market," *The Villager* 2 May 2001, 24.
- Anderson, Lincoln. "Meat Business Owners Face Their Uncertain Future," *The Villager* 2 May 2001, 20.
- Anderson, Lincoln. "Rumors of Business and Hotels Swirl in Market," *The Villager* 2 May 2001, 19.
- Baral, Robert. *Turn West on 23rd Street: A Toast to Old Chelsea*. New York: 1965.
- Bartelli, Jan. "Midtown Ferry Plans Coalescing," *Chelsea Clinton News* 14 February 1985.
- Bartelli, Jan. "The West Side Railway Returns," *Chelsea Clinton News* 20-26 December 1986.
- Bartelli, Jane. "Decision Near in Elevated Rail Plans," *Chelsea Clinton News* 24-30 January 1985, 1.
- Board of Estimate and Apportionment. Committee Minutes. New York: 18 January 1928.
- Brewer, Sam P. "Architect Tells of Village Plan," *New York Times* 5 March 1961, 52.
- Brewer, Sam P. "City Reassures 'Village' Groups," *New York Times* 8 March 1961, 28.
- Burnham, Alexander. "Village Group Designs Housing To Preserve Character of Area," *New York Times* 6 May 1963, 1, 42.
- Burns, Ric and James Sanders. *New York, An Illustrated History*. New York: Alfred A. Knopf, 1999.
- Caro, Robert. *The Power Broker*. New York: Knopf, 1974.
- Carroll, Maurice. "State Seeks a Short Cut for Trains to Midtown," *New York Times* 18 March 1985.
- Chapman, Robin C. "From Rail to Trail: New Life for an Old Line," *Norfolk Southern Focus* (Mar. 87) 20-24.
- City Zoning Maps
- Clemens, Mary. "Three Green Miles," *Landscape Architecture* (February 2000) 58-65.
- Collins, Glenn. "Visions of Olympic Glory," *New York Times*, 14 May 2001, B1+.
- Condit, Carl. *The Port of New York*. Chicago: University of Chicago Press, 1980-1981.
- Cook, Karen. "A Fine Line," *Manhattan, Inc.* April 1987, 33-42.
- Dewan, Shaila. "Landmark Status Is Sought for Meatpacking District," *New York Times* 4 June 2001, B1+.
- Dheere, Jessica. "Friends Work to Save High Line Structure," *Architectural Record* (February 2001) 34.
- DiDomenico, John. *Reuse of Urban Infrastructure: Urban Design Alternatives for the West Side Rail Line in New York City*.
- Dunlap, David. "Conrail Looking to a Revival of its Freight Traffic," *New York Times* 20 January 1991, R13.
- Dunlap, David. "In West Village, A Developers' Gold Rush," *New York Times* 29 August 1999 Section 11, 1.
- Dunlap, David. "Which Track for the High Line?" *New York Times* 31 December 2000, Real Estate section 1+.
- Ellis, Edward R. *The Epic of New York City: A Narrative History*. New York: Old Town Books, 1966.
- Environmental Assessment Statement. City of New York, Office of the Deputy Mayor for Economic Development. January 2, 2000
- Feiden, Doug. "Sky's the Limit for West Side," *Daily News* 18 February 2001.
- *Rewer Cars—A More Livable City*. The Institute for Rational Urban Mobility, Inc.
- Fields, Jennifer. "Taking the High Line, Regional Plan Association Analyzes Options."
- Friedman, Rich. "\$10 Railroad Sale Sidetracked by Intrigue," *New York Post* 18 November 1984.
- *Friends of the High Line Development and Financing Plan*. New York: November 2000.
- Gilman, George. "Railroad Viaduct Carried Through Occupied Building," *Engineering News-Record* (30 November 1933)
- Gilmartin, Gregory F. *Shaping the City, New York and the Municipal Arts Society*. New York: Clarkson Potter, 1995.
- Gopnik, Adam. "A Walk on the High Line," *The New Yorker* 21 May 2001, 44-49.
- Gorman, James. "Making the Grade: Meandering Along Old Railroad Trails on a Bike," *New York Times* 30 March 2001, E39.
- Gottlieb, Martin. "Rail Fan Finds Rusting Dream on West Side," *New York Times* 16 Jan. 1984.
- Gray, Katherine. Letter to Jay Cross. 5 April 2001.
- Guiney, Anne. "Chelsea Carwash, New York City," *Architecture* Volume 89, No. 10 (October 2000) 88-91.
- Haikalis, George. Report: *Reconnaissance: North-South Extensions of Proposed 42nd Street Light Rail Line Serving Manhattan's Far West Side*. 21 December 2000.
- Harding, David. "Business Improvement Districts in New York," *Public Finance*. www.publicfinance.co.uk.
- Hart, Bob. "The West Side Freight Line," *Railfan and Railroad* (October 1991) 59-69.
- *Hell's Kitchen South: Developing Strategies*. Draft Report 3 November 2000.
- *Improved and Economic Freight Service for Manhattan*. August 25.
- Interstate Commerce Commission. Docket No. AB-167 (Sub-No. 1094) Chelsea Property Owners – Abandonment—Portion of the Consolidated Rail Corporation's West 30th Street Secondary Track in New York, NY 28 August 1992.
- Jacobs, Karrie. "New Train of Thought," *New York Magazine* (12 October 1988).
- Jensen, Jennifer. "As Pressures Mount, Market is Changing," *The Villager* 2 May 2001, 15-16.
- Jensen, Jennifer. "Task Force Works to Landmark Historic Meat Market," *The Villager* 2 May 2001, 18.
- Johnson, Kirk. "Amtrak Trains to Stop Using Grand Central," *New York Times* 7 July. 1988 B1+.
- Joyce, Frank. Letter to Mayor James Walker from the League to End Death Avenue. 8 October 1927. West Side Improvement File, Mayor Walker Archive, New York City Municipal Archives.
- Kahn, Alan P. and Jack May. *The Tracks of New York*, Number 3.
- Kayden, Jerold S. *Privately Owned Public Space, The New York City Experience*. New York: John Wiley & Sons, 2000.
- Kennedy, Randy. "In Switch, Transit Ridership Outpaces Cars, Study Finds," *New York Times* 8 August 2001.
- Kent, Leticia. "City Disavows Mr. Z Affirms Community Plan," *Village Voice* 1 February 1968, 3.
- Kirk, James. Letter: "A New Jane Jacobs?," *Village Voice* 28 November. 1963, 4.
- Levy, Emilio. Letter to Bernard Deutsch, President, Board of Alderman. 16 June 1935. West Side Improvement File, Mayor Walker Archive, New York City Municipal Archives.

- Lobbia, J.A. "One Track Mind," *Village Voice* (2 January 2001) 25.
- *Lower Manhattan Economic Revitalization Plan*. Downtown Alliance 1997.
- Lueck, Thomas. "Up, But Not Running, on the West Side," *New York Times* 25 July 1999, 23.
- Malian, Kenneth. Letter to Councilwoman Ruth Messinger and Assemblyman Gotfried. 10 May 1985. High Line File. Community Board 4, Manhattan.
- McKinley, Jesse. "A Slab of the Choicest Tenderloin," *New York Times* 29 October 1999.
- Minter, Bobby. "Toot, Toot," *City Business*.
- *Negative Declaration*. City of New York, Office of the Deputy Mayor for Economic Development. March 12, 2001
- *New Jersey and Freight Rail: A New Partnership*. Norfolk Southern and CSX. 1998.
- *NEWS*. New York: West Side Rail Line Development Foundation, Inc., 6 March. 1987.
- *NEWS*. New York: West Side Rail Line Development Foundation, Inc., 1 May. 1986.
- *NEWS*. New York: West Side Rail Line Development Foundation, Inc., 31 December. 1984.
- *NEWS*. New York: West Side Rail Line Development Foundation, Inc., 25 December. 1985.
- *NEWS*. New York: West Side Rail Line Development Foundation, Inc., 17 June. 1985.
- *NEWS*. New York: West Side Rail Line Development Foundation, Inc., 25 March. 1985.
- *NEWS*. New York: West Side Rail Line Development Foundation, Inc., 23 October. 1984.
- Nichols, Mary. "Village Housing Plan: Unslumming Without Tears," *Village Voice*, 30 January 1969, 3.
- Oblatz, Peter. Letter to Gerald Swartz. 1 July 1985. High Line File. Community Board 4, Manhattan.
- Oblatz, Peter. Letter to Neil Selkirk. 8 March 1985. High Line File. Community Board 4, Manhattan.
- Ordway, Samuel. Letter to Mayor James Walker on behalf of the Municipal Art Society. 10 May 1927. West Side Improvement File, Mayor Walker Archive, New York City Municipal Archives.
- *Organizational Framework for the West Side Light Rail / Transitway Study*. New York: Department of City Planning, Manhattan Office. 12 June 1986.
- Papiri, Rudy. "Westside Railroad: A New Life," *Clinton Community Press* February 1985, 3+.
- *Plans and Profiles*. New York: New York Central Rail Road 1927.
- Plunz, Richard. *A History of Housing in New York City*. New York: Columbia University Press, 1990.
- Profile of General Demographic Characteristics: 2000. US Census.
- Rails 2 Trails Website.
- Reiss, Charles. Letter. "Room on the Hudson for 'Homes in the Sky'" *New York Times* 18 February 1984.
- *Report of the West Side Improvement Engineering Committee*. New York: City of New York. 13 May 1927
- Ricci, Jessica. "Enthusiastic Turnout at Market Task Force Kick-off," *Villager* 22 November 2000.
- *Robotic Parking Study*. Forty Plus Rail Road Corporation. 1999.
- Salkin, Allen. "Re-Penned," *Grid* (Summer 1999).
- Sanchis III, Frank E. "From the Executive Director," *The Municipal Art Society News Letter* March/April 2001.
- Schumer Plan.
- Scott, Janny. "City Population Tops 8 Million in Census Count for First Time," *New York Times* 16 March 2001, A1+.
- Sheehan, James. "A Step Closer to a New Railroad to the Village," *The Villager* 22 November 1984.
- Sheehan, James. "Village Railroad a Few Steps Closer to Reality," *The Villager* 7 Feb. 1985, 1.
- Shriver, Jerry. "Meatpackers Sink Hooks into Curious," *New York Times*, 23 Feb. 2001.
- Silver, Nathan. *Last New York*. New York: Wings Books, 1967.
- Sitwop, Sana. "Commercial Real Estate: Chelsea Gallery Building Replacing Former Shop," *New York Times*, 13 June 2001.
- Sokol, David. "Meat Packer Chic," *Grid* (July/August 2001) 78-81.
- *Specifications for Bridges*. New York: New York Central Lines 1917.
- *Status of Conrail West 30th Street Secondary Track*. West Side Rail Line Development Foundation, New York. 31 May 1985.
- Stephens, Suzanne. "Low-rise Lemon," *Progressive Architecture* Vol. 57 (March 1976) 54-57.
- Stern, Robert A.M., Gregory Gilmartin and Thomas Mellins. *New York 1930*. New York: Rizzoli, 1987.
- Stern, Robert A.M., Thomas Mellins and David Fishman. *New York 1960*. New York: Monacelli Press, 1995.
- Straus, Alan and Katherine Schoonover. Letter. "Tear Down the Tracks," *New York Times* 30 January 1984.

- Syracuse, Michael. *Reorganizing the Residue: The Digitalization of the Post Industrial City*. 1999-2000.
- *The City of New York with The New York Central Railroad Company*. Agreement. New York: 1929.
- Times Square: The Bid's First Seven Years -From the website.
- *Transit Commission: Fourteenth Annual Report for the Calendar Year 1934*, New York: Department of Public Service Metropolitan Division 1935.
- Voluntary Abandonment Agreement and for Charitable Contribution. Draft 25 Jan 2001.
- Warren, Roxanne and George Haikalis. "Auto Free Light Rail Boulevard for 42nd Street," *Making Tracks: Newsletter of the Village Crosstown Trolley Coalition*, Vol.6.No.2 (Spring 2000) 2.
- Weiss, Lois. "Developers Have Plans for Chelsea," *New York Post* 27 Feb. 2001.
- *West Side Highway Project Report*. New York State Department of Transportation.
- *West Side Improvement*. New York: New York Central 1934.
- *West Side Light Rail / Transitway Study Newsletter*. New York: Department of City Planning, City of New York, Vol.1, 13 June 1986.
- *What to do with the High Line*. Regional Plan Association. New York: 1999.
- White, Norval and Elliot Willensky. *ALA Guide to New York City*. New York: The Amsterdam Corporation 2000.
- Wilgus, William J. *Proposed New Railway System for the Transportation and Distribution of Freight By Improved Methods in the City and Port of New York*. New York: The Amsterdam Corporation 1908.
- Zimmermann, Karl. "Amtrak's New Empire Connection" *Railfan and Railroad* Volume 10 (September 1991): 55.

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Figure 27	Photograph by Michael Syracuse
Figure 28	Diagram by Casey Jones
Figure 29	Proposal by Buckhurst Fish & Jacquemart Inc for the Office of the Manhattan Borough President
Figure 30	Photograph by Joshua David
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Figure 40	Courtesy of <i>Trains</i> magazine
Figure 41	West Side Improvement brochure, date unknown
Figure 42	Courtesy of <i>Trains</i> magazine
Figure 43	Proposal by M.H. Winkler of the New York Bar, April 6 1928
Figure 44	Courtesy of <i>Trains</i> magazine
Figure 45	West Side Improvement brochure, date unknown
Figure 46	Courtesy of the Museum of the City of New York
Figure 47	Photograph by Michael Syracuse
Figure 48	Proposal by John di Domenico: Reuse of Urban Infrastructure, supported by a grant from the National Endowment for the Arts
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Figure 54	Diagram by Casey Jones
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Figure 57	West Side Improvement brochure, date unknown
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