

**No. 7 Subway Extension—Hudson Yards Rezoning and Development Program
Final Generic Environmental Impact Statement
Executive Summary**

TABLE OF CONTENTS

A.	DESCRIPTION OF THE PROPOSED ACTION.....	ES-2
B.	PROJECT GOALS AND OBJECTIVES.....	ES-8
C.	PROPOSED REZONING.....	ES-9
D.	PROPOSED NO. 7 SUBWAY EXTENSION.....	ES-14
E.	PROPOSED CONVENTION CENTER EXPANSION.....	ES-15
F.	PROPOSED MULTI-USE FACILITY.....	ES-17
G.	OPEN SPACE.....	ES-19
H.	OTHER FACILITIES.....	ES-19
I.	FGEIS STUDY METHODOLOGY AND ASSUMPTIONS.....	ES-20
J.	ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION.....	ES-22
1.	LAND USE, ZONING, AND PUBLIC POLICY.....	ES-22
2.	SOCIOECONOMIC CONDITIONS.....	ES-24
3.	COMMUNITY FACILITIES AND SERVICES.....	ES-29
4.	OPEN SPACE AND RECREATIONAL FACILITIES.....	ES-30
5.	SHADOWS.....	ES-30
6.	ARCHITECTURAL HISTORIC RESOURCES.....	ES-31
7.	ARCHAEOLOGICAL RESOURCES.....	ES-32
8.	URBAN DESIGN AND VISUAL RESOURCES.....	ES-33
9.	NEIGHBORHOOD CHARACTER.....	ES-34
10.	NATURAL RESOURCES.....	ES-35
11.	HAZARDOUS MATERIALS.....	ES-36
12.	WATERFRONT REVITALIZATION PROGRAM.....	ES-37
13.	INFRASTRUCTURE.....	ES-37
14.	SOLID WASTE AND SANITATION SERVICES.....	ES-38
15.	ENERGY.....	ES-39
16.	TRAFFIC AND PARKING.....	ES-40
17.	TRANSIT AND PEDESTRIANS.....	ES-42
18.	AIR QUALITY.....	ES-47
19.	NOISE AND VIBRATION.....	ES-48
20.	CONSTRUCTION IMPACTS.....	ES-49
21.	PUBLIC HEALTH.....	ES-53
22.	UNAVOIDABLE ADVERSE IMPACTS.....	ES-53
23.	GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION.....	ES-54
24.	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES.....	ES-55
25.	ALTERNATIVES.....	ES-56
K.	ACTIONS AND APPROVALS.....	ES-74

LIST OF FIGURES

FIGURE ES-1	LOCATION OF PROPOSED ACTION
FIGURE ES-2	HUDSON YARDS PROJECT AREA
FIGURE ES-3	REZONING AREA
FIGURE ES-4	MULTI-USE FACILITY NORTHEASTERLY VIEW
FIGURE ES-5	CONVENTION CENTER EXPANSION: PHASE 2
FIGURE ES-6	TERMINAL STATION SECTION
FIGURE ES-7	CORONA YARD PLAN

No. 7 Subway Extension—Hudson Yards Rezoning and Development Program
Final Generic Environmental Impact Statement
Executive Summary

Foreword

This Final Generic Environmental Impact Statement (FGEIS) has been prepared by the City of New York City Planning Commission (CPC) and the Metropolitan Transportation Authority (MTA), as co-lead agencies, in compliance with the State Environmental Quality Review Act (SEQRA) and the City Environmental Quality Review (CEQR) for a comprehensive transit-oriented development program, described in the FGEIS as the “Proposed Action,” for the far west side of midtown Manhattan (the “Hudson Yards”).

On June 21, 2004, the co-lead agencies released for public review and comment a Draft Generic Environmental Impact Statement (DGEIS) for the Proposed Action. A public hearing on the DGEIS was held on September 23, 2004, after which written comments on the DGEIS were received by the co-lead agencies through October 4, 2004. Copies of such comments, together with the transcript of the September 23 public hearing, are included as appendices to the FGEIS.

The FGEIS summarizes and responds to all such written and oral comments in a new Chapter 29, “Responses to Comments.” Where appropriate, the FGEIS also includes refined and expanded analyses in response to such comments, incorporates updated information concerning the Hudson Yards and adjacent areas and, as promised in the DGEIS, identifies additional measures to further mitigate significant environmental impacts from the Proposed Action. The FGEIS also includes three new alternatives to the Proposed Action (in addition to the alternatives discussed in the DGEIS), including a new “Alternative S” developed by the Department of City Planning in response to public comments on the Proposed Action during the environmental and land use reviews. Descriptions of the three new alternatives are included in Chapter 26, “Alternatives.”

All substantive changes from the DGEIS text (other than Chapter 29 and the three additional alternatives, for which the text is entirely new) are indicated by underlined text or marginal notations (|) for deletions. To facilitate legibility, changed Figures and Tables have not been so marked but may be regarded as new text to reflect the updated analyses referenced in the text.

The co-lead agencies wish to express their appreciation to the many individuals, organizations, and officials who took the time to comment on the DGEIS and who, by so doing, assisted the co-lead agencies in fulfilling their obligations under SEQRA and CEQR in connection with the environmental review of this important planning initiative for Manhattan’s Hudson Yards.

Introduction

As part of the Proposed Action, the New York City Department of City Planning (DCP) and the MTA propose to promote the transit-oriented redevelopment of the Hudson Yards area (*see Figures ES-1, Location of the Proposed Action, and ES-2, Hudson Yards Project Area.*), generally encompassing the area bounded by West 43rd Street on the north, Hudson River Park on the west, West 28th and West 30th Streets on the south, and Seventh and Eighth Avenues on the east, through: (1) zoning and related land use actions by the CPC that would allow approximately 28 million square feet of commercial development, 12,600 residential units, a new Midblock Boulevard between Tenth and Eleventh Avenues and significant new open spaces (*Figure ES-3, Rezoning Area*); and (2) the extension by the MTA of the No. 7 Subway Line from Times Square to a new terminus at Eleventh Avenue and West 34th Street. The Proposed Action also includes: (3) the expansion by the Convention Center Development Corporation (CCDC) of the Jacob K. Javits Convention Center north to 42nd Street, including construction of a new Convention Center hotel; and (4) development by the New York State Urban Development Corporation d/b/a Empire State Development

Corporation (ESDC) of a new Multi-Use Facility for sports, entertainment, and exposition uses on a platform to be constructed over the MTA Long Island Rail Road's (LIRR) John D. Caemmerer West Side Yard (Caemmerer Yard) between Eleventh and Twelfth Avenues from West 30th to West 33rd Streets (*Figures ES-4 and ES-5, Multi-Use Facility and Convention Center Elevation*). CCDC and ESDC are "involved agencies" under SEQRA.

As discussed below, the Proposed Action has been designed to realize—and would realize—very significant benefits to the City and State, both in the near term and the long term. It is anticipated that by 2010, the Proposed Action would bring the first phase of an expanded Convention Center and Convention Center hotel, the new Multi-Use Facility, the first new commercial and residential buildings contemplated by the Zoning Amendments, significant new open spaces that reinforce existing residential neighborhoods, expanded public views of the Hudson River, the first stage of a new Midblock Park and Boulevard System, the extension of the No. 7 Subway to 34th Street and Eleventh Avenue, and the beginnings of a transformed Hudson Yard neighborhood.

By 2025, the Hudson Yards area would become a vital new part of the City, with new residential, commercial, and recreational uses served by new subway stations, a complete Midblock Park and Boulevard System and other open spaces, and the fully expanded Convention Center. The new Hudson Yards development would also be contributing substantial tax and economic benefit to the City as a whole and helping assure New York's role as the nation's premier urban center and leader in transit-oriented, environmentally responsible development.

These benefits cannot be realized without adverse impacts as well, most of which could be mitigated through the measures described in this FGEIS. During construction (expected to peak in 2006), there would be unmitigated noise and historic resource impacts. After construction is complete, the Proposed Action would have some unmitigated traffic, transit, pedestrian, and historic resource impacts in 2010 when the principal public facilities are completed, and in 2025, when the balance of the development is expected to be completed.

The Co-Lead Agencies have also assessed a broad range of alternatives to the Proposed Action, including alternative zoning, transportation, planning, and facility proposals. Among the alternatives considered, Alternative S was proposed by the DCP largely in response to public comment received in the early phases of the review process. Alternative S is therefore under particularly active consideration. Upon completion of the environmental review process, it is possible that, in accordance with SEQRA and CEQR, Alternative S or another alternative will be selected for approval and implementation.

A. DESCRIPTION OF THE PROPOSED ACTION

The DCP and the MTA propose to promote the transit-oriented redevelopment of the Hudson Yards area. The Hudson Yards area is located on the far West Side of Manhattan, generally encompassing the area bounded by West 43rd Street on the north, Hudson River Park on the west, West 28th and 30th Streets on the south (southern boundary varies), and Seventh and Eighth Avenues on the east (eastern boundary varies). The Hudson Yards area is located between Manhattan's Chelsea and Clinton neighborhoods and lies within Manhattan Community Districts 4 and 5.

The Proposed Action consists of:

- Adoption of zoning map and text amendments to the New York City Zoning Resolution and related land use actions (Zoning Amendments) to permit the development of Hudson Yards as a mixed-use community with new commercial and residential space, and a substantial amount of new open space;
- The construction and operation of an extension of the No. 7 Subway line (No. 7 Subway Extension) to serve Hudson Yards; and
- Other public actions intended to foster such development and serve the City as a whole, including: expansion and modernization of the Convention Center, including construction of

more than one million square feet of new exhibition space, meeting rooms, banquet halls, and other facilities and development of a new hotel with up to approximately 1,500 rooms; a new Multi-Use Facility with approximately 18,000 square feet of permanent meeting room space and the capability to convert into a number of different uses and configurations, including a stadium configuration with a seating capacity of approximately 75,000, an exposition configuration including 180,000 square feet of exhibition space, and a plenary hall configuration that provides a maximum seating capacity of approximately 40,000; and accommodations for other facilities, new or replacement transportation facilities for pedestrian movement, vehicle storage, and other public purposes.

Purpose of the Proposed Action

The Proposed Action is a comprehensive effort to realize the development potential of the Hudson Yards area, as well as to expand, maintain, and improve the competitiveness of existing resources such as the Convention Center. In summary, the purpose of the Proposed Action is to: facilitate the redevelopment and revitalization of the Hudson Yards area; accommodate economic growth over the long term; greatly expand the limited amount of public open space in the Hudson Yards area; and serve both the Hudson Yards area and the City as a whole through the construction and operation of new public facilities intended to contribute to the economic, cultural, and recreational life of New York City and to sustain its role as the world's leading financial, commercial, and entertainment center.

The proposed No. 7 Subway Extension and Zoning Amendments have been designed to help realize this purpose. Expansion, renovation, and modernization of the Convention Center are needed to retain and increase the City's share of the convention and exposition market, meet the increasing demand for larger and higher quality space for trade shows, and increase patronage and visitor spending at City businesses, hotels, restaurants, and entertainment facilities. The Multi-Use Facility would provide a new venue for a broad range of sports, exhibition, and entertainment events, including a new home for the Jets football team, which currently plays in New Jersey due to the absence of a suitable facility in New York City.

The Hudson Yards area presents a unique opportunity to achieve these purposes: it has a large amount of underutilized land; it has the potential to support major transit improvements; and it is close to the Midtown Central Business District (CBD). With enhanced and efficient transit service connected to the MTA's existing transit system, approval of the proposed Zoning Amendments and implementation of the other elements of the Proposed Action, the Hudson Yards area would be transformed into a vital 24-hour neighborhood containing a mix of commercial, residential, retail, open space, and recreational uses contributing significantly to the vitality of the City as a whole.

The Need for Commercial and Residential Space

Finding opportunities to allow for growth is critical to the City's future—to provide jobs and housing for its residents and to support needed City services. A key to the City's and region's economic well-being has been and will continue to be sustaining Manhattan as the nation's center of commerce and business. Economic growth in New York City and the region has been and will also continue to be predominantly driven by the growth in office-based economic sectors.

Manhattan is still the dominant office market in the metropolitan area, accounting for over 60 percent of the total occupied space in the year 2000, but is barely holding its own compared with competing markets, because it is currently absorbing less new growth than its current share of the market.

A critical concern for New York City is that the basic constraint hindering new development in Manhattan is land availability. The Group of 35, a committee of City and State leaders appointed by Senator Charles Schumer to consider the future of New York City, in its report, *Preparing for the Future: A Commercial Development Strategy for New York City*, identified the lack of available land, coupled with inadequate zoning and incomplete assemblages, as the critical barrier for development.

The New York Metropolitan Transportation Council (NYMTC) employment forecasts project that 70-80 million square feet of commercial development would be needed to accommodate this demand. The New York City Economic Development Corporation (EDC) and DCP forecast a level of future demand for Manhattan similar to that of NYMTC. Providing adequate space for development is the best way for the City to accommodate employment and population growth into the future.

There is a strong and growing demand for housing in the City. The City's housing vacancy rate, 3.8 percent in 1991, has declined to 2.94 percent in 2002. This is well below the City and State statutory benchmark of 5 percent, which defines a severe housing shortage.

Needs and Opportunities in the Hudson Yards Area

Although the Hudson Yards offers a unique opportunity to realize the purpose of the Proposed Action, the area's historic development has resulted in a general land use pattern that no longer serves its original purpose (manufacturing and trade along the Hudson River) and, with the exception of the Convention Center, hinders its capability to be fully utilized in the growing and evolving economic base of Midtown Manhattan. In summary, the Hudson Yards area is underutilized, especially given its location near the Midtown central business district (CBD), and constrained by land use patterns and out-of-date zoning regulations, despite the opportunity that it presents to accommodate regional growth, as described below.

With the No. 7 Subway, an east-west route that connects with all of Manhattan's north- and southbound subway service, terminating on its eastern boundary, the Hudson Yards area is also well-placed to accommodate expanded rapid transit service. Finally, a redeveloped Hudson Yards area, well-served by rapid transit, would help support an expanded, modernized Convention Center and would be able to support a new Multi-Use Facility.

In addition, the Proposed Action could accommodate the potential relocation of the Department of Sanitation of the City of New York (DSNY) Gansevoort Facility and the New York City Police Department (NYPD) Tow Pound, to free their current waterfront locations for incorporation into Hudson River Park. These needs and opportunities are discussed separately, below.

Underutilization of Land in the Hudson Yards Area

According to the New York City Economic Development Corporation (EDC), the Hudson Yards area is not contributing substantially to the overall economy of New York City. Between 1990 and 2000, while New York City was in the midst of a robust growth period, the Hudson Yards area experienced a decline in employment and a drop in property tax assessment. Overall employment in the area dropped by about 3 percent, with more severe drops in manufacturing jobs offset somewhat by an increase in retail and service jobs. The tax assessment for the area declined by 7 percent.

Land Use and Zoning Constraints and the Opportunity to Capture Regional Growth

The Hudson Yards area is built below its permitted densities, and its permitted densities are less than what would be expected for real estate located so close to the Midtown CBD. As noted in the *Framework*, zoning in the Hudson Yards area has changed little since the adoption of the 1961 Zoning Ordinance. Approximately 70 percent of the land is zoned for manufacturing use, 27 percent for commercial use, and 3 percent for residential use. The majority of the manufacturing uses are zoned with allowable FAR of 5. This is considerably lower than allowable densities in adjacent areas of the Midtown CBD. Moving eastward from the Hudson Yards area (i.e., into Times Square and West Midtown) the commercial zoning is consistently at densities well over 10, with many areas zoned with FAR densities of 15 to 18 (including bonuses).

As set forth in the *Framework* and other planning assessments of the area, additional physical characteristics of the Hudson Yards area also serve as impediments to new development, including:

- Limited access to the City's mass transit system;
- Lack of open space;

- An industrial streetscape with little character; and
- Isolation from adjacent communities.

The EDC and DCP have concluded that the Hudson Yards area can capture a large proportion of Manhattan's projected population and employment growth. Based on projections of core residential and commercial demand, EDC and DCP also identified a likely retail demand that could be captured in the Hudson Yards area. The need for additional hotel space primarily associated with the needs of the Convention Center has also been examined. In total, EDC and DCP project a likely 30-year build-out of approximately 42 million square feet, including approximately 28 million square feet of office space, 12 million square feet of residential development, 1.5 million square feet of hotel space, and 700,000 square feet of retail space.

Needs and Opportunities for Rapid Transit Improvements to Support Hudson Yards Development

Transportation and urban development patterns are historically linked. Advances in transportation technology enabled the modern city and region to take shape, extending the spatial relationship of where people work, live, and shop. Access to transit has clearly shaped the development of New York City and has been closely aligned with the private real estate market response that flourished along new transit routes during the first half of the past century.

New real estate concepts such as Transit-Oriented Development (TOD) seek to recapture the power of transit- and density-based solutions to chronic traffic congestion that resulted from auto-dependent development patterns. The New York region is a case in point. The work force traveling to Midtown Manhattan is overwhelmingly transit-oriented: in the morning peak hour, 64 percent use subways and buses, 17 percent use commuter rail, 6 percent walk to work, and only 13 percent take autos or taxis (*1990 U.S. Census Journey-to-Work Data for workers in tracts between 23rd and 59th Streets, Third and Eighth Avenues*). In contrast, the journey to work in suburban locations (e.g., New Jersey, Westchester County, Nassau and Suffolk Counties) is strikingly different in that workers are overwhelmingly dependent on auto trips, typically representing well over 90 percent of all trips made to and from suburban office buildings.

The proposed Hudson Yards area redevelopment and the No. 7 Subway Extension is the latest chapter in using transit to help create a new community and attract real estate development interest. Excellent rapid transit access is essential if the development potential of the Hudson Yards is to be successfully realized. The West Side of Manhattan is well-served by public transportation, but this is concentrated at or east of Eighth Avenue. Services include a variety of subway lines, including: Eighth Avenue service (A, C, and E lines); Times Square/ Seventh Avenue/Broadway service (1, 2, 3, 7, 9, N, R, Q, S, and W lines), and Sixth Avenue service (B, D, F, and V lines); as well as PATH trains to 33rd Street; regional bus service to the Port Authority Bus Terminal (PABT) at 42nd Street; and regional and interstate rail service to Pennsylvania (Penn) Station. Within the Hudson Yards area, there are also several bus lines that serve both north-south routes and cross-town routes on 42nd and 34th Streets, as well as West Side ferry service.

However, these existing facilities and routes do not provide adequate transit service to support the medium- to high-density office and residential redevelopment of the Hudson Yards area. The entire area west of Tenth Avenue (which would be the site of the expanded Convention Center, the Multi-Use Facility, and much of the anticipated new commercial and residential development) is too far to be served by the majority of existing transit services (i.e., beyond a 10-minute walk). The plan for redevelopment of the Hudson Yards area must include expanded transit service with sufficient capacity to accommodate the varying levels of demand generated by the new commercial and residential development and other elements of the Proposed Action.

Transit-oriented developments, such as that proposed for the Hudson Yards area, are at the cornerstone of sustainable development initiatives throughout the country, because they reduce urban sprawl and allow travel in a form that uses the least amount of energy per capita and reduces pollution from vehicular emissions.

No. 7 Subway Extension—Hudson Yards Rezoning and Development Program

Extension of the No. 7 Subway line offers the best opportunity to meet the transportation needs of the Proposed Action. In particular, the No. 7 line:

- Has the potential, in combination with other transportation services, to provide the capacity needed to support the anticipated new demand from residents, visitors, and retail and hotel workers.
- Is the closest east-west subway to the Hudson Yards area.
- Could be extended from its current West 41st Street terminus without interfering with other subway lines.
- Already connects to major transportation hubs in Manhattan (Grand Central, Times Square, and PABT).
- Provides connection to all of Midtown Manhattan’s north-south subway lines.
- Would offer direct service between Hudson Yards and Queens.

Needs and Opportunities for the Convention Center Expansion

The Convention Center is New York City’s primary venue for major trade shows, exhibitions, and conventions that are key contributors to the City’s and State’s economies, and support the city’s hotel, tourism, and entertainment industries. Although the Convention Center lacks sufficient amount of prime contiguous exhibition space, lacks a headquarters hotel, is not adjacent or immediately proximate to other hotels, lacks a sufficient number of meeting rooms, lacks an adequate ballroom, is in need of renovation, is isolated from the City’s midtown hotels and restaurants, and is in a largely industrial area, the Convention Center has operated at or near full capacity and has been forced to turn away business. Expanding, modernizing, and renovating the Convention Center, as well as constructing a headquarters hotel, would enable the Convention Center to effectively compete for large-sized, recurring trade shows that the Convention Center cannot now accommodate, as well as enable the Convention Center to be utilized for multiple events concurrently.

The Convention Center is the 18th-largest facility of its kind in the United States and faces strong competition from newer and larger convention centers, some of which are twice the size of the existing Convention Center, have much larger amounts of prime contiguous exhibition space, and contain more numerous and modern meeting rooms, amenities, and support facilities. Additionally, logistics are difficult in and around the Convention Center during move-in and move-out for major events, because there is currently inadequate space for marshalling trucks. As a result, City streets in the vicinity of the Convention Center are used for truck marshalling.

The foregoing both threatens the ability of the Convention Center to retain its current market share and has resulted in missed opportunities for present and future business, in part because it lacks a sufficient amount of prime contiguous exhibition space to accommodate many of the largest trade shows and conventions or multiple shows simultaneously. In addition, the Convention Center has insufficient meeting room space. The proposed expansion would double the amount of contiguous exhibition space, provide 10 times the number of meeting rooms, and add critical components currently lacking in the existing Convention Center.

The Convention Center would be expanded in two phases: an initial expansion, Phase I, from West 34th Street north to West 40th Street, and a subsequent expansion, Phase II, further north to West 41st Street. The initial northward expansion would include the development of a new 1,500-room “headquarters” hotel at the southwest corner of West 42nd Street and Eleventh Avenue. The hotel would not only provide very convenient accommodations for exhibitors and people attending events at the Convention Center, it would provide additional facilities, including a 350-car parking facility, banquet rooms, food and beverage service, and meeting rooms, which would enhance the ability of the hotel to generate business when the Convention Center is not being utilized. In order to enable the second phase of the Convention Center Expansion to be undertaken, the MTA Michael J. Quill Bus Depot (Quill Bus Depot) would be relocated from its present site. This relocation is necessary to

enable the Convention Center to fully expand and provide necessary prime contiguous exhibition space. The Quill Bus Depot would be relocated to a site on both the east and west sides of Eleventh Avenue at West 30th Street. Marshalling facilities for the Convention Center would be located between West 33rd and West 34th Streets, beneath a proposed publicly accessible open space.

Needs and Opportunities for a Multi-Use Facility

New York City is currently unable to host any of a growing number of large-scale sports and entertainment events, because it lacks an appropriately sized facility. The proposed new Multi-Use Facility could serve as a venue for sports, exhibition, and entertainment events, and foster additional tourism and economic activity in New York City. These events often require an enclosed facility capable of seating more than 40,000, and include the NCAA Final Four, indoor and outdoor concerts, NFL regular season and Super Bowl games, and international soccer matches. The western portion of the existing Caemmerer Yard, approximately 13.5 acres located between Eleventh and Twelfth Avenues from West 30th to West 33rd Streets, offers a unique opportunity for New York City to accommodate a Multi-Use Facility in Manhattan without displacing businesses, residents, or other existing uses. The New York Jets football team currently plays its home games at Giants Stadium, located in the Meadowlands Sports and Entertainment Complex in East Rutherford, New Jersey, under a lease that expires in 2008, and it is the desire and intention of the Jets to play its home games at a new Multi-Use Facility in New York City. In addition, if New York City were selected as the site for the 2012 (or subsequent) Olympic Games, the Multi-Use Facility could also serve, for a two- to three-week period, as the site of the Games' opening and closing ceremonies and as a venue for track and field events. Because it would be adjacent to the existing Convention Center, the Multi-Use Facility would be able to provide complementary space to the conventions and trade shows. The Multi-Use Facility would be capable of being reconfigured from a 75,000-seat stadium configuration to a mid-sized convention facility containing 180,000 square feet of exhibition space, and a 5,000-to-40,000-seat plenary hall, and would be equipped with the additional operating capabilities to host conventions and special events above and beyond a stand-alone stadium. It would also contain 18,000 square feet of permanent meeting rooms to serve the needs of conventions and trade shows, and would be connected to the expanded Convention Center. The development of the Multi-Use Facility adjacent and connected to the Convention Center would create a "Convention Corridor" offering a broad range of programmable spaces. The Multi-Use Facility would also foster economic activity and generate tax revenues for the City and State. By locating the proposed Multi-Use Facility adjacent to the expanded Convention Center, the flexibility of the Convention Center would be enhanced and would be able to host very large events requiring seating of up to 40,000 persons. It is expected that the Multi-Use Facility will be used for three days of plenary events annually utilizing the plenary hall in its maximum configuration.

Needs and Opportunities for Tow Pound and Sanitation Facility Relocation

The Department of Sanitation of New York City (DSNY) operates a vehicle maintenance and storage facility on the Gansevoort Peninsula located on the Hudson River just south of West 14th Street. The NYPD operates a vehicle tow pound facility at Pier 76 on the Hudson River. Pier 76 is at West 39th Street and is directly across Twelfth Avenue (Route 9A) from the Convention Center. Both of these facilities are located within Hudson River Park, currently being developed along the waterfront from Battery Place to West 59th Street. The Hudson River Park Act specifically mandates that New York City apply its best effort to relocate these uses so the vacated locations can be integrated into the new park.

While relocation of the DSNY facility and the NYPD Tow Pound remain independent City actions, a potential site for these relocations is within the Hudson Yards area—on block 675, bounded by West 29th and West 30th Streets between Eleventh and Twelfth Avenues. This site offers a good relocation opportunity for both facilities, since it is large enough (156,000 square feet) to accommodate both together in one multi-story structure, is within their service areas, and has access to Twelfth Avenue (Route 9A/West Side Highway), a major traffic artery in Manhattan.

Relocating these municipal facilities to a site within the Hudson Yards area would meet the need to remove these uses from the waterfront while keeping them strategically located on Manhattan's West Side.

Financing

Although project financing is beyond the scope of the FGEIS, the following background information is provided for readers. It is anticipated that the proposed new transit facilities, open space, and public facilities would, over time, be paid for by a borrowing, with the expectation that the borrowing will be repaid through the increased revenues to the City generated by new development resulting from the rezoning and from increased economic activity associated with the Proposed Action. It is anticipated that payments in lieu of taxes on new developments, zoning based fees and contributions, increased property tax receipts, sale of development rights, and/or other actions will be used to repay the financing. The costs of the Convention Center Expansion are expected to be financed by the restructuring and extension of existing Triborough Bridge and Tunnel Authority (TBTA) bonds, a new borrowing backed by a fee charged on hotel rooms in the City, and a capital contribution from the City. The restructuring and extension of the TBTA bonds and the borrowing backed by the hotel fee, and the fee itself, will require authorization by the New York State Legislature. Financing for the platform over the western portion of Caemmerer Yard and for the roof of the Multi-Use Facility would come from two sources: payments to the MTA under a lease of the platform, which would require approval of the MTA, and payments by the City. The New York Jets would finance the balance of the Multi-Use Facility. It is expected that the public costs incurred in developing the platform and the roof of the Multi-Use Facility will be repaid through increased economic activity and taxes.

B. PROJECT GOALS AND OBJECTIVES

Goals. The goals of the Proposed Action are to ensure the future growth of the City through redevelopment of the Hudson Yards area; provide transit services to support the Hudson Yards area redevelopment; and maintain or improve environmental conditions.

Redevelopment Objectives. To ensure the future growth of the City through redevelopment of the Hudson Yards area, the Proposed Action is intended to provide: (1) zoning to permit a mix of uses and densities, including opportunities for new commercial, residential, recreational, and open space uses; (2) new opportunities for significant new office development; (3) zoning that reinforces the existing residential neighborhoods and encourages new housing opportunities; (4) expansion and modernization of the Convention Center to enable it to retain its market share and to ensure its continuation as a major contributor to New York City's economy; (5) development of a new Multi-Use Facility to provide a venue to host a variety of large-scale sports, exhibition, and entertainment events and to serve as a home facility for the New York Jets; (6) potential sites for public facilities needing relocation and/or consolidation; (7) a network of new open spaces; (8) improvement of the pedestrian environment and access to Hudson River Park from upland areas; (9) promotion of transit-oriented development; and (10) opportunities for high-quality architecture and urban design in conformance with sustainable design principles.

Transit Objectives. To provide transit services to support the Hudson Yards area redevelopment, the Proposed Action is intended to provide: (1) transit services to the Hudson Yards area from the rest of New York City and the metropolitan area to accommodate the anticipated level of development and types of uses that would occur as a result of the proposed rezoning; (2) minimal impacts associated with the construction and operation of the new service on overall transit system reliability, capacity, and performance; (3) maximum use of the existing transit infrastructure's capacity and connectivity; and (4) maximum operating and capital cost-effectiveness.

Environmental Objectives. To maintain or improve environmental conditions, the Proposed Action is intended to provide: (1) protection of significant cultural, community, park, and open space resources; (2) relocation of incompatible uses from Hudson River Park; (3) minimal energy

consumption, non-transit vehicle miles of travel, and congestion on City streets by providing enhanced transit access to major regional facilities in the Hudson Yards area; (4) sustainable design and development; (5) minimal community disruption and environmental impacts during construction of new land uses and transit improvements, including impacts on existing businesses and residences, parklands and open space resources, and historic resources; and (6) measures to avoid, minimize, and/or mitigate adverse impacts.

C. PROPOSED REZONING

The rezoning and related land use actions proposed for the Hudson Yards area are intended to foster a mix of uses and densities, provide new publicly accessible open space, offer opportunities for substantial new office development, and reinforce existing residential neighborhoods while encouraging new housing opportunities.

The high-density office development essential to the City's future would be located primarily within a new commercial corridor. Forming an L-shape within the plan, this commercial corridor would be located along a north-south corridor between Tenth and Eleventh Avenues, from West 30th to West 41st Streets, and an east-west corridor above the eastern portion of Caemmerer Yard and the rail right-of-way, between West 31st and West 33rd Streets, from Seventh to Tenth Avenues. This commercial corridor would provide the greatest opportunity for land assemblages and large floor-plate office buildings, while avoiding land use conflict with the established mixed-use community along Ninth Avenue and along West 42nd Street. The planned location of a new terminal subway station at West 34th Street and Eleventh Avenue and substantial new open space would help ensure the success of this area as a premier urban neighborhood. The planned open space would create a continuous north-south pedestrian route beginning at West 42nd Street, through a midblock open space between West 33rd and West 39th Streets, and terminate at a large public square between West 30th and West 33rd Streets, over the eastern portion of Caemmerer Yard between Tenth and Eleventh Avenues.

New development in the commercial corridor of the Hudson Yards area would be restricted principally to commercial use, in order to better ensure adequate land for office buildings. However, to create a vibrant, 24-hour community, some residential use would be allowed in combination with significant office development.

New office development would also be located within existing commercial neighborhoods, where there are both existing and planned public transportation infrastructure, and sufficiently large development sites. These areas include sites near the planned location of a new intermediate subway station for the No. 7 Subway Extension at Tenth Avenue and West 41st Street, sites immediately south of the PABT, and sites within the blocks to the south of Penn Station.

Portions of the Hudson Yards area also contain existing neighborhoods that exhibit a strong mix of uses and distinctive built character. Specifically, Ninth Avenue between West 34th and West 41st Streets typifies a New York City "Main Street," with walk-up apartment buildings and active ground-floor retail; West 34th Street between Ninth and Tenth Avenues contains high-streetwall, pre-war apartment buildings; and West 42nd Street continues to develop with residential towers above a low commercial base. The plan seeks to strengthen these existing neighborhoods by directing compatible, predominantly residential development to these areas, and requiring building bulk envelopes that reinforce each area's distinctive built character.

The residential presence on the midblocks between Ninth and Tenth Avenues, from West 35th to West 40th Streets, would be reinforced with new residential infill development that would be permitted at medium densities and regulated by contextual envelopes with opportunities for creating "pocket parks."

Tenth Avenue would serve as the transition between these midblocks and the predominantly commercial neighborhood to the west. Density and bulk would be at appropriate levels to provide

this transition, with slightly higher density and building height expected along the west side of Tenth Avenue. Predominantly residential use would be permitted along Tenth Avenue.

The Special Garment Center District also offers the opportunity for new in-fill development. A large number of vacant sites are located in the midblocks between Eighth and Ninth Avenues, from West 35th Street to West 40th Street. The majority of built space in this area is occupied by non-garment-related commercial uses. While most of this area would remain in the Special Garment Center District and the preservation controls on existing buildings over 70,000 square feet of floor area would be retained, new residential and commercial uses could be developed on certain vacant and underused sites.

Rezoning Action by District

The proposed zoning would be implemented through the creation of a Special Hudson Yards District and related Zoning Text and Map Amendments. Special zoning districts are created by the City Planning Commission to achieve specific planning and urban design objectives in a limited area. Controls affecting other portions of the Hudson Yards area would be implemented through changes to zoning controls in existing districts or by remapping existing districts in conjunction with zoning text amendments. The rezoning proposal has been configured to avoid overlapping districts.

Special Hudson Yards District

The Special Hudson Yards District would include a variety of use, bulk, and urban design controls. The Special District would be divided into six subdistricts (A - Large Scale Plan, B - Farley Corridor, C - 34th Street Corridor, D - Tenth Avenue Corridor, E - Other Areas, and F - Hell's Kitchen). Some subdistricts would be further divided into subareas. This would result in a large-scale plan area, residential core, and mixed-use areas.

The Special Hudson Yards District (and, to the extent described below, the other special zoning districts within the rezoning area) would permit, in certain zoning districts, floor area ratios (FARs) beyond the underlying zoning district FARs through a District Improvement Bonus (DIB). Contributions deposited in the Hudson Yards District Improvement Fund under the DIB mechanism would support financing of specific capital improvements in the Project Area, or could fund some of these projects directly. In high-density, residential districts the FAR could also be increased through the Inclusionary Housing bonus. Within the Large Scale Plan Subdistrict (Subdistrict A), the transfer of floor area from the eastern portion of Caemmerer Yard to the area north of West 33rd Street between Tenth and Eleventh Avenues would also be permitted.

Underlying Zoning

As a base for the regulations of the Special Hudson Yards District, those areas planned for high-density commercial or mixed commercial/residential redevelopment would be rezoned from their current mix of manufacturing (M1-5 and M1-6) and commercial districts (C6-2, C6-2M, and C6-3), to the commercial district C6-4. Typically, C6-4 districts allow 10 FAR (12 with certain bonuses) for commercial, residential, and community facility uses. The C6-4 zoning district would be mapped in four of the six subdistricts (A, B, C, and E); however, the floor area maximums would be modified in the Special Hudson Yards District.

The areas slated for predominantly residential use, Subdistricts D and F, would be zoned C1-7A and C2-7A (Subdistrict F), and C2-8 (Subdistrict D). These zones allow up to 2 FAR for commercial use. The "A" designation after the district letter and number indicates a contextual district. C1-7A and C2-7A districts allow FARs of 6.02 and 7.52, respectively, for residential and community facility use. C2-8 zones allow 10 FAR (bonusable to 12) for residential and community facility use; however, this would be modified in the Special Hudson Yards District to allow densities up to 13 and 15 FAR.

In addition, the portion of the three blocks south of Penn Station that are within the Special Hudson Yards District (Subarea E-3), currently zoned M1-5 (5 FAR), would be rezoned as M1-6, permitting

manufacturing, office, or certain community facility uses (by special permit) with a maximum FAR of 10 (which could be increased to 12 through the DIB).

Use and Density Regulations

Subdistrict A (the Large Scale Plan) would be substantially commercial in use, with a limited permitted residential and community facility use. Within all of Subdistrict A, community facility use would be limited to 2 FAR.

The eastern portion of Caemmerer Yard (*Subarea A1*) would be zoned to permit a total FAR of 19, including 18 FAR of commercial floor area, 6 FAR of residential floor area, and 2 FAR of community facility floor area. However, since site planning for the eastern portion of Caemmerer Yard includes a significant amount of open space, 10 FAR would be permitted to be transferred northward to the sites along Eleventh Avenue to West 41st Street and along Tenth Avenue to West 36th Street. No more than 9 FAR would be permitted to be developed on the eastern portion of Caemmerer Yard, with a maximum commercial FAR of 9, a maximum residential FAR of 1, and a maximum community facility FAR of 2.

Sites in *Subarea A2* would be permitted a commercial base FAR of 10 above which an additional 8 FAR could be obtained through the DIB. Additional floor area, without limit, could be transferred from the eastern portion of Caemmerer Yard under the regulations of the large-scale development. Above an FAR of 20, up to 4 FAR could be used for residential floor area.

Sites in *Subarea A3* would be permitted a commercial base FAR of 10, above which an additional 8 FAR could be obtained through the DIB. Additional floor area, up to a maximum of 24, could be transferred from the eastern portion of Caemmerer Yard under the regulations of the large-scale development. Above an FAR of 20, up to 4 FAR could be used for residential floor area.

Subdistrict B (the Farley Corridor) would permit uses substantially commercial in use, with a limited permitted residential and community facility use. The base commercial FAR would be 10, and the maximum commercial FAR through the DIB would be 18 west of Dyer Avenue (*Subarea B1*) and 15 between Dyer and Eighth Avenues (*Subarea B2*). In *Subarea B3*, the Penn Station site, the base FAR would be 10, with an increase up to 15 through the DIB and to 19.5 by authorization of the City Planning Commission, in exchange for a major transportation improvement in the Penn Station vicinity. *Subarea B1* would permit up to 6 FAR for residential floor use; the remaining floor area would be required to be commercial, except that up to 2 FAR would be permitted for community facilities. Residential uses would not be permitted in *Subareas B2* or *B3*.

Subdistrict C (the 34th Street Corridor) would allow a mix of uses, with base FARs of 10 for commercial and community facility uses, and 7.5 for residential uses. An additional 3 FAR over the base commercial and community facility FAR of 10 could be achieved through the DIB. An additional 2.5 FAR over the base residential FAR of 7.5 could be achieved through the DIB, and an additional 2 FAR above a residential FAR of 10 through the Inclusionary Housing Program.

Subdistrict D (the Tenth Avenue Corridor) would limit commercial FAR and promote residential development. In *Subarea D1*, the 2 FAR commercial base available in the underlying C2-8 district could be increased to 3 FAR through the DIB. The 7.5 FAR residential base available under the C2-8 district could be increased to 10 FAR through the DIB and from 10 to 12 FAR with an Inclusionary Housing Bonus. The base community facility FAR of 7.5 could be increased to 12 through the DIB. The FAR of all permitted uses combined would be limited to 15. In *Subarea D2* of Subdistrict D, the 2 FAR commercial base available in the underlying C2-8 district could be also increased to 3 FAR through the DIB. The 7.5 FAR residential base available under the C2-8 district could be increased to 10 FAR through the DIB and from 10 to 12 FAR with an Inclusionary Housing Bonus. The base community facility FAR of 7.5 could be increased to 12 through the DIB. The FAR of all permitted uses combined would be limited to 13. However, in Subdistrict D, any building containing residences could exceed 10 FAR only through the Inclusionary Housing Program.

Subdistrict E (Other Areas) is composed of three subareas: *E1*, *E2*, and *E3*. *Subareas E1* and *E2* (sites around the PABT) would not permit residential use. These sites are particularly suitable for large commercial development, because of their location adjacent to the PABT. The maximum commercial FAR would be 18, achieved by adding 8 FAR to the 10 FAR base through the DIB. The maximum community facility FAR would be 2. *Subarea E3*, the midblock portions of the three blocks located south of Penn Station, between Seventh and Eighth Avenues, would permit manufacturing, commercial, and certain community facility uses to a maximum FAR of 12. The 2 FAR above the M1-6 district's base of 10 FAR could be achieved through the DIB.

Subdistrict F (Hell's Kitchen) would make no modifications to floor area regulations of the basic underlying zoning districts, C2-7A and C1-7A. A portion of the subdistrict would be rezoned from C6-2A to C1-7A. Commercial uses would be limited to 2 FAR and residential uses to 7.52 FAR (R9 equivalent) in *Subarea F1*. A 2 FAR maximum for commercial use would prevail in *Subarea F2*, and residential uses would be limited to a maximum FAR of 6.02 (R8 equivalent). Both subareas would have height limitations, as described under "Site Planning, Bulk, and Massing," below.

Site Planning, Bulk, and Massing

The Special Hudson Yards District establishes flexible as-of-right underlying height and setback controls within the predominantly commercial zones to accommodate large commercial/office floor plates and allow for creative design and signature architecture and contextual controls where there is a strong built context or where defined controls would establish a new context and place-making.

Mandatory District Elements and On-Site Improvements

The Special Hudson Yards District would require certain improvements, including:

- Retail use would be required on major corridors in the Special Hudson Yards District. Retail would be allowed in all other areas.
- Streetwall continuity would be required on specified streets, with minimum and maximum streetwall heights based on land use and density.
- Additional design controls would be required for very large sites.
- Pedestrian circulation space would be required for development greater than 70,000 square feet on lots larger than 5,000 square feet in zones permitting a maximum FAR of 12 and above.
- Wide sidewalks would be required on Eleventh Avenue, along the Midblock Boulevard and on designated cross streets.
- Other pedestrian circulation spaces would be required for developments in high-density districts.
- An entrance to commercial buildings would be required on the Midblock Boulevard. Major residential entrances (where applicable) would be required within 100 feet of Tenth Avenue.
- Easements for subway entrances would be mandatory on key sites located adjacent to existing or proposed subway stations.
- All new developments and enlargements would be required to provide and maintain trees.

Parking Requirements

To accommodate the anticipated need for off-street parking in the Hudson Yards area parking would be required for all developments on lots greater than 15,000 square feet. All parking would have to be below grade unless it is screened by commercial, community facility, or residential floor area so that it is not visible from the street. Accessory off-street parking would be required for all commercial development at a rate of approximately one space per 3,000 square feet of commercial floor area. Accessory residential parking would be required for 33 percent of the units, with a maximum of 50 percent of the units. The commercial parking requirements would be waived if fewer than 40 spaces were required on a zoning lot, and the residential parking requirements would be waived if fewer than 15 spaces were required.

Special Jacob K. Javits Convention Center District

As part of the Proposed Action, the Special Jacob K. Javits Convention Center District would be eliminated and replaced by the Special Hudson Yards District.

Special Clinton District

The Special Clinton District covers the area generally bounded by West 41st and West 59th Streets west of Eighth Avenue. The portion of the Special Clinton District that would be within the proposed rezoning area would be in the 42nd Street “Perimeter Area,” with an underlying zoning of C6-4, which permits high-density commercial (10 FAR) and residential (12 FAR with inclusionary housing) development. A portion of the 42nd Street Perimeter Area, between West 42nd and West 43rd Streets and Eleventh and Twelfth Avenues, is currently zoned M2-3. The property owner, under a separate application, is proposing to change the M2-3 zoning district to a C6-4 zoning district.

Use and Density Regulations

The proposed rezoning would change the existing M2-3 district on West 43rd Street west of Eleventh Avenue to C6-4. Elsewhere, the C6-4 district would be retained. This portion of the Special Clinton District would be divided into three subareas within the rezoning area, which collectively would be designated the 42nd Street Perimeter Area. The three subareas would allow maximum FARs of 12, 15, and 18, respectively. In all subareas, residential use up to a maximum FAR of 10 for commercial uses and FAR of 12 with Inclusionary Housing would be permitted. Between West 41st and West 42nd Streets east of Tenth Avenue an FAR of 18 could be achieved for commercial use through the DIB. The subdistrict bounded by Tenth and Eleventh Avenues and West 41st and 42nd Streets would permit a maximum commercial FAR of 15, which would be achieved through the DIB. In the remaining portion of the proposed 42nd Street Perimeter Area, achieving the commercial FAR of 12 would also entail the DIB.

The mandatory district elements and other design and development controls and parking regulations described for the Special Hudson Yards District would apply to the Special Clinton District sub-areas.

Special Garment Center District

The portion of the Special Garment Center District Preservation Area on the midblocks between West 35th and West 40th Streets and Eighth and Ninth Avenues would be rezoned. These midblocks offer an opportunity to provide housing and/or allow commercial development on underutilized parcels and conversions of smaller buildings (virtually all garment-related uses within this area are within buildings containing more than 70,000 square feet of floor area) without compromising the intent of the Special Garment Center District.

Use and Density Regulations

Under the proposed rezoning, the portion of the block between West 39th and West 40th Streets more than 100 feet east of Ninth Avenue (the Ninth Avenue frontage is not within the Special Garment Center District) would be removed from the Special Garment Center District, rezoned from M1-5 and M1-6 to C6-4, and incorporated into the Special Hudson Yards District as Subdistrict E.

South of West 39th Street, the Preservation Area of the Special Garment Center District would be rezoned to C6-4M and new construction of residential, commercial, or community facility uses, as per the underlying zoning district, would be permitted. Conversions to residential, commercial, or community facility uses, as per the underlying zoning district, would be permitted in buildings with less than 70,000 square feet of floor area. For larger existing buildings (70,000 square feet and above), the existing preservation requirements would apply. A CPC authorization would be available for larger buildings to convert and waive preservation requirements, subject to the findings that the space has not been occupied by a manufacturing, wholesale, or showroom use for at least three years,

and that the proposed conversion would not harm the essential character of the Special Garment Center District.

A maximum FAR of 12 above the base FAR of 10.0 for commercial and community facility uses would be achieved through the DIB. Residential use would have a base FAR of 7.5, which could be raised to 10 FAR through the DIB. 12.0 FAR could be achieved through the Inclusionary Housing Bonus.

Bulk, Massing, and Site Planning

Streetwall heights of between 90 and 120 feet would be required for new construction, and an overall height limit of 250 feet would apply. Currently, there are no overall height limits.

Special Midtown District

The eastern portion of the superblock between West 31st and West 33rd Streets and Seventh and Eighth Avenues is currently occupied by the 2 Penn Plaza development. The development is within two zoning districts: its eastern frontage to a depth of 100 feet is within a C6-4 MiD district (10 FAR) of the Penn Center Subdistrict, while the western portion is within a C6-2 district (6.0 FAR). The proposed rezoning would place the Madison Square Garden site, which occupies the western portion of the superblock between West 31st and West 33rd Streets and Seventh and Eighth Avenues, in the Special Hudson Yards District. The proposed rezoning would extend the Midtown C6-6 MiD District (15 FAR), to a depth of 250 feet west of Seventh Avenue.

Additional Rezoning Actions

Additional rezoning actions are proposed in peripheral areas, to create better transitions, in terms of use, bulk, and density, between the Special Hudson Yards District and the surrounding area, as follows:

South Side of West 31st Street between Eighth and Ninth Avenues

This area, from street line to midblock (approximately 100 feet), is currently zoned for C6-2 (6.0 FAR, 7.2 FAR with bonus). The proposed rezoning would extend the existing C6-3X (9.0 FAR) district, which is mapped along both sides of Eighth Avenue between West 29th and West 31st Streets, along West 31st Street to Ninth Avenue. Along West 31st Street, the C6-3X district would be mapped to a line along the midpoint between West 30th and West 31st Streets, permitting commercial and residential development at 9.0 FAR and limiting overall building height to 170 feet.

East Side of Eighth Avenue between West 29th and West 30th Streets

The rezoning proposal would increase the depth of the existing C6-3X from 100 to 150 feet for the one block between West 29th and West 30th Streets to make two existing residential buildings conforming uses and allow a small site to be redeveloped as a residential infill site.

(E) Designations

As part of the zoning map amendments, (E) Designations would be mapped for hazardous materials, air quality, and noise. (E) Designations are applied to specific properties that could require remediation or other measures, should an owner want to demolish, excavate, or otherwise construct on his/her property.

D. PROPOSED NO. 7 SUBWAY EXTENSION

The Proposed Action seeks to foster transit-oriented development in the Hudson Yards Area. The work force traveling to Midtown Manhattan is overwhelmingly transit-oriented: in the morning peak hour, 64 percent use subways and buses, 17 percent use commuter rail, 6 percent walk to work, and only 13 percent take autos or taxis (1990 U.S. Census Journey-to-Work Data for Workers in Tracts

between 23rd and 59th Streets, Third and Eighth Avenues). Rapid transit access is essential if the development potential of the Hudson Yards is to be successfully realized. Existing transit facilities and service are not adequate to support medium- to high-density redevelopment of the Hudson Yards area. The plan for redevelopment of the Hudson Yards area therefore includes expanded transit service with capacity to support the demand generated by the new commercial and residential development.

Extension of the No. 7 Subway line offers the best opportunity to meet the transportation needs of the Proposed Action. The No. 7 line has the potential to provide the capacity, in combination with other transportation services, needed to support the anticipated new demand, as well as new trips by residents, visitors, and retail and hotel workers. As the closest east-west subway to the Hudson Yards area, the No. 7 line could be extended from its current West 41st Street terminus without interfering with other subway lines. The line already connects to major transportation hubs in Manhattan, provides connection to all of Midtown Manhattan's north-south subway lines and Metro-North commuter rail service, and offers direct service between Hudson Yards and Queens. Upon completion of the MTA LIRR's East Side Access project, the No. 7 Line will also provide a transfer connection to LIRR service at Grand Central Terminal.

Alignment. The western end of the existing No. 7 Subway terminates within the West 41st Street right-of-way, 539 feet west of the Times Square Station. The proposed No. 7 Subway Extension would extend westward under West 41st Street, and then turn southward under Eleventh Avenue and continue to West 24th Street, a distance of approximately one mile. The proposed extension would have two new stations: a *Tenth Avenue Intermediate Station* at approximately West 41st Street and Tenth Avenue and a *Terminal Station* on Eleventh Avenue at approximately West 34th Street. (See *Figure ES-6, Terminal Station Section.*) This proposed layout would not preclude a possible future extension southward toward Lower Manhattan or eastward toward Penn Station. Due to factors of clearance, environmental impact minimization, and quality of rock, the proposed No. 7 Subway Extension would be deeper than most existing subway lines in New York City, ranging from approximately 75 feet to some 130 feet below the street. The proposed extension would also include two lay-up tracks located south of the Terminal Station, with the most southerly end of the lay-up tracks ending in the vicinity of West 24th Street. In addition to tracks and stations, the proposed subway extension would require ancillary facilities, such as electrical substations, ventilation facilities, mechanical equipment rooms, and maintenance rooms. Some of these would be within the envelope of the proposed stations; certain facilities would necessarily be located in separate structures. Where several of the facilities would be located on sites that are also identified as projected development sites, the subway facilities could be incorporated into new buildings.

Corona Yard Improvements. No. 7 Subway cars are currently stored and maintained at the Corona Rail Yard and Maintenance Facility (Corona Yard) located in the Flushing section of Queens. The Proposed Action would require the addition of 11 new trains to the existing No. 7 Subway fleet. In order to accommodate these additional trains, approximately six new lay-up tracks would be constructed at Corona Yard (in addition to the two lay-up tracks to be located south of the Terminal Station in Manhattan). (See *Figure ES-7, Corona Yard Plan.*)

Property Acquisitions and Easements. The No. 7 Subway Extension would require acquisition of an estimated 10 properties located at five sites for the construction and permanent operation of the subway stations, ancillary structures, and substations. An estimated 55 temporary and permanent easements would be acquired, including the acquisition of subsurface easements for the tunnel route and ancillary facilities. No fee acquisition or easement would be required at Corona Yard.

E. PROPOSED CONVENTION CENTER EXPANSION

The Convention Center is New York City's primary venue for major trade shows and conventions but lacks sufficient prime exhibition space, meeting rooms, and other facilities to accommodate many of the largest trade shows and conventions or accommodate multiple shows simultaneously. Although well-utilized, an expanded Convention Center could accommodate many of the largest trade shows

and conventions and also realize a greater market share. Beyond size constraints, the Convention Center remains somewhat isolated from Midtown and, in particular, from the hotels that house its exhibitors and patrons. It is not particularly well-served by transit, relying on private bus service or on MTA New York City Transit's (NYCT) M34 and M42 bus routes, which loop north and south, respectively, from West 34th Street and West 42nd Street to serve the Convention Center. These conditions threaten the ability of the Convention Center to retain its current market share and have resulted in missed opportunities for present and future events.

Site Configuration. The Convention Center currently contains about 790,000 square feet of exhibition and meeting space and about one million square feet of support and staging areas on the superblock between West 34th and West 39th Streets from Eleventh to Twelfth Avenues. The new facility would add approximately 4 million square feet of new exhibition, meeting, ballroom, and hotel space, expand to the north from West 39th to West 42nd Streets, and close West 39th, West 40th, and West 41st Streets to through traffic, although a through block pedestrian passageway would be provided on West 40th Street. Truck marshalling areas serving the Convention Center would be located below-grade on the block between West 33rd and West 34th Streets below a publicly accessible open space. In addition, other transportation functions could also be located within this block, including LIRR train storage. These uses would be implemented only upon consideration of the marshalling, parking, and other needs of the Convention Center, and would be subject to additional environmental reviews, if necessary.

The 34th Street sidewalk would be maintained at 20 feet in width from curb to the existing retaining wall. The existing mature street trees and inner roadway would remain along Eleventh Avenue. The Convention Center would be expanded south to the property line to accommodate prefunction areas for the exhibition halls on Level 3. Retail uses are proposed at the corner of 34th Street and Eleventh Avenue. Large display cases, or vitrines, would be used for either electronic or large displays to animate the 34th Street façade at grade. The expansion at Level 3 would be clad in an aluminum and transparent glass curtainwall with the capability to control daylighting and interior views according to program requirements. A separate entry would be provided to the business center as well as current administrative space. The exits from the lower roadway and from the loading docks would remain near the corner of 34th Street and Twelfth Avenue. On the roof of the truck marshaling facility would be 3.6 acres of publicly accessible passive open space.

Project Components. The proposal includes renovation and modernization of the existing facility to add usable space; construction of new prime exhibition space, meeting rooms, service areas, support space, and food service areas contiguous to the existing building; and development of a 1,500-room hotel. The tallest component of the proposed expansion would be the 50-story hotel tower on the southwest corner of Eleventh Avenue and West 42nd Street, which would rise approximately 664 feet. The entire expanded Convention Center would be a sizeable structure, approximately 96 feet high, with a long linear presence on Eleventh and Twelfth Avenues. The exterior dimensions would be 1,965 feet from West 34th to West 42nd Streets and 780 feet from Eleventh to Twelfth Avenues. On completion, the facility would have a total of 3.9 million square feet, including approximately 1.3 million square feet of exhibition space; nearly 1.3 million square feet of meeting rooms, ballrooms, shops, restaurants and public lobbies, concourses, and registration areas; and approximately 1.3 million square feet of support, pre-function (including pre-function space along West 34th Street above the inner roadway), administrative, and service space. Along Eleventh Avenue, there would be approximately 44,000 square feet of non-destination retail space. Including the new hotel, the expanded Convention Center would total approximately 5.8 million square feet.

Quill Bus Depot Relocation. To accommodate the northward expansion of the Convention Center to West 41st Street, the full-block Quill Bus Depot between West 40th and West 41st Streets and Eleventh and Twelfth Avenues would be relocated to a below-grade space on the north side of West 30th Street between Tenth and Twelfth Avenues, underneath the new Multi-Use Facility and new office development. The western half of the Quill Bus Depot, between Eleventh and Twelfth Avenues, would contain one street level (roughly at grade with Twelfth Avenue) and one basement level. The eastern half of the Quill Bus Depot, between Tenth and Eleventh Avenues, would contain

two basement levels and a ramp leading from both basement levels to the street. The basement level of the western half would continue eastward as it slopes down beneath Eleventh Avenue and connects with the lower basement level of the eastern half. In total, the relocated Quill Bus Depot would contain facilities for storage and maintenance of up to 350 buses. Access to the replacement Quill Bus Depot would be from Twelfth Avenue and along West 30th Street between Tenth and Twelfth Avenues.

Phasing of Convention Center Expansion. The expansion of the Convention Center would occur in two phases: Phase I (all work south of West 40th Street, the West 42nd Street hotel, and a walkway connecting the hotel to the rest of the Convention Center) and Phase II (work between West 40th and West 41st Streets, including direct connection between the Phase II expansion and the Phase I work). The phasing allows for flexibility that might be needed to accomplish the actual outfitting of the new Quill Bus Depot at West 30th to 31st Streets between Twelfth and Tenth Avenues, the relocation of bus operations, and demolition of the existing Quill Bus Depot.

Land Assemblage for Convention Center Expansion. In addition to the Quill Bus Depot site, the Convention Center Expansion would require the assemblage of other land to undertake the expansion, including the complete or partial rights-of-way for West 39th, West 40th, and West 41st Streets between Eleventh and Twelfth Avenues, all parcels on the block bounded by West 39th Street and West 40th Street between Eleventh and Twelfth Avenues, and the eastern portion of the block bounded by West 41st and West 42nd Streets and Eleventh and Twelfth Avenues (Block 1089, Lot 3).

Rooftop Garden and Esplanade. The proposed Convention Center Expansion would provide approximately five acres of passive publicly accessible open space on the roof of the Convention Center facility, including a publicly accessible perimeter esplanade along Twelfth Avenue. In addition to the esplanade, passive recreation would be available in other designated areas on the roof. The roof would also contain approximately 15.5 acres of planted area or “visual garden” that would not be accessible to the public; however, portions of these areas could be viewed from the publicly accessible areas. The public open space would be accessible from within the Convention Center, from Twelfth Avenue, and from the hotel, each via stairs and elevators at various locations.

F. PROPOSED MULTI-USE FACILITY

The Proposed Action would include construction of a new Multi-Use Facility on a platform above the western portion of Caemmerer Yard on the blocks bounded by West 30th and West 33rd Streets, between Eleventh and Twelfth Avenues, with an entry portal on West 33rd Street. The proposed new Multi-Use Facility would provide a venue for a variety of sports, exhibition, and entertainment events that cannot currently be accommodated in New York City, fostering additional tourism and economic activity in New York City. These events often require an enclosed facility capable of seating more than 40,000, and include the NCAA Final Four, indoor and outdoor concerts, NFL regular season and Super Bowl games, and international soccer matches. The Multi-Use Facility would also become the home stadium for the New York Jets football team. The Jets currently play home football games at Giants Stadium, located in the Meadowlands Sports and Entertainment Complex in East Rutherford, New Jersey, under a lease that expires in 2008, and it is the desire and intention of the Jets to play their home games at a new stadium in New York City. In addition, if New York City were selected as the site for the 2012 (or subsequent) Olympic Games, the Multi-Use Facility could also serve, for a two- to three-week period, as the site of the Games’ opening and closing ceremonies and as a venue for track and field events. Because it would be adjacent to the Convention Center, the Multi-Use Facility would be able to provide supplementary exhibition space for conventions and trade shows. The development of the Multi-Use Facility adjacent and connected to the Convention Center would create a “Convention Corridor” offering a broad range of programmable spaces.

The proposed Multi-Use Facility would provide three event configurations for three different types of events: Stadium (with a seating capacity of approximately 75,000), Exposition (180,000 square feet of exhibition space), and Plenary (maximum seating capacity of approximately 40,000), and would be

equipped with the additional operating capabilities to host conventions and special events. In order to convert to one of the other two configurations, the field surface would be removed and the lower bowl seating retracted to expose an exhibit floor. The seating bowl could also be reconfigured with a curtaining system or movable end section to create a plenary hall. The Multi-Use Facility would have a retractable roof and movable seats, allowing it to be used year-round for a variety of events. It is expected that the roof would be closed for the majority of events. The roof would be retracted for football games and a few outdoor stadium events (such as summer concerts).

In stadium mode, the Multi-Use Facility would host football, soccer, concerts, or other events. It is anticipated that 17 to 19 event days would be held each year, including approximately ten New York Jets football games and seven to nine other entertainment or sporting events. There also could be one or two national stadium events a year, such as the Super Bowl. In exhibition mode, the facility is projected to host 38, typically three-day, convention or exposition events per year by adding 180,000 square feet of exhibition space to the inventory of space available in the City. The facility would also have the capability to be configured and used for plenary-type events, with a seating capacity of 5,000 to 40,000; the plenary hall would be expected to be used at close to its maximum capacity approximately three times a year. The Multi-Use Facility would also provide approximately 18,000 square feet of permanent meeting room space that would be available for use in any configuration and would complement events at the expanded Convention Center.

The Multi-Use Facility would be approximately 800 feet long in the east-west direction and 710 feet in the north-south direction. The overall roof heights of the main building would be 208 feet above curb for the fixed roof and 240 feet to the top of the retractable roof. As the facility would be designed to incorporate sustainable sources of power, wind turbines located on the roof along the northern and southern ends of the facility would rise to a height of 311 feet above the elevation of Eleventh Avenue. In total, the Multi-Use Facility would comprise approximately 2.2 million gross square feet. Other potential sustainable features that could be incorporated into the facility include photovoltaic panels, solar tubes, fuel-efficient design, rainwater capture, and use of landscaping to offset carbon dioxide production.

The western portion of the existing Caemmerer Yard, approximately 13.5 acres located between Eleventh and Twelfth Avenues from West 30th to West 33rd Streets, offers a unique opportunity for New York City to accommodate a Multi-Use Facility in Manhattan without displacing businesses, residents, or other existing uses. The Multi-Use Facility would be built on a platform that would enable the continued use of the western portion of Caemmerer Yard for transportation-related purposes, while allowing the Multi-Use Facility to be built at the Eleventh Avenue street level. Street level retail shops are expected to be located along Eleventh Avenue. The platform would serve as the roof for Caemmerer Yard and would also accommodate the portion of the relocated Quill Bus Depot beneath the platform between West 30th and West 31st Streets. Major street entrances for the Multi-Use Facility would be located on the north and south sides above street level, and an entrance would be located on the east side facing Eleventh Avenue. A pedestrian promenade access to the southern entrance of the Multi-Use Facility would extend over the sidewalk of West 30th Street and provide access to the High Line in the event that structure is renovated as public open space. An underground pedestrian connection would also be provided between the Multi-Use Facility and the Convention Center.

The proposed No. 7 Subway Extension, ferry, and bus would provide convenient public transportation to the Multi-Use Facility. Patrons and employees would also access the Multi-Use Facility from mass transportation already available at Penn Station – the LIRR, New Jersey Transit, and the subways.

Olympic Configuration. The Multi-Use Facility's design would allow its conversion to an Olympic Stadium if New York City were selected as the site for the 2012 (or subsequent) Olympic Games. The Olympic configuration, which could increase capacity by 10,000 seats, would be the subject of a separate approval procedure relating to the Olympics more generally, and is not part of the Proposed Action.

G. OPEN SPACE

The City proposes two major public open spaces for the Special Hudson Yards District. The *Midblock Park and Boulevard System* would consist of a broad open space and boulevard system in the midblocks between Tenth and Eleventh Avenues, extending from the large public open space on the eastern portion of Caemmerer Yard to West 39th Street. From West 39th Street, the open space would connect via a pedestrian bridge to an open space at West 42nd Street. Acquisition of the properties required to complete the open space and boulevard would be sequenced. Initially, the parcels located between West 33rd and West 36th Streets would be acquired and developed for the mapped City park and boulevard, with improvement for park purposes of the portion located between West 33rd and West 34th Streets anticipated by 2010, improvement of the portion between West 34th and West 36th Streets anticipated following the 2012 completion of the proposed 950-space public parking garage (described in Section H below) located below the Midblock Park and Boulevard System, and the remainder by 2025. In all, this system would add 4.3 acres of open space to the Rezoning Area. In addition, a full-block park (approximately 3.6 acres) for active recreation would be developed on *Block 675*, between West 29th and West 30th Streets, Eleventh and Twelfth Avenues. If that block were to be developed for DSNY and/or NYPD use, the park would be constructed on the roof of such a facility.

The Multi-Use Facility would be located to the south of a publicly accessible open space between West 33rd and West 34th Streets from Eleventh to Twelfth Avenues, above the below-grade Convention Center truck marshalling facility. This open space would comprise approximately 3.6 acres and contain a raised plaza with a series of plantings, trees, and benches. The Multi-Use Facility would be located at the northern elevated terminus of the High Line; the facility design would integrate a pedestrian promenade over the West 30th Street sidewalk into the building's circulation system, on the southern side of the Multi-Use Facility on West 30th Street, allowing pedestrian access to the High Line to the east, if that structure is renovated for public use. Additionally, there would be 5.0 acres of publicly available open space on the roof of the expanded Convention Center.

H. OTHER FACILITIES

Parking Garage

To meet anticipated parking demand from the new commercial and residential development, the City proposes an approximately 950-space public parking garage located below the proposed Midblock Park and Boulevard System between West 34th Street and West 36th Street. The garage would be constructed to accommodate a portion of the parking demand generated throughout the Rezoning Area. Vehicular ingress and egress would be provided at midblock ramps from West 35th Street and West 36th Street.

Potential Accommodation of Multi-Agency Facility

The Proposed Action could also accommodate the relocation and consolidation of other public facilities within Hudson Yards, including the Manhattan Vehicle Tow Pound operated by the NYPD, currently located on Pier 76 at approximately West 36th Street, which currently accommodates approximately 300 vehicles, and a DSNY facility and parking area currently located on the Gansevoort peninsula, between Gansevoort and Bloomfield Streets. Both facilities could be relocated into one shared structure in the Hudson Yards area. A single, three-level shared structure on the full block (*Block 675*) between West 29th and West 30th Streets, Eleventh and Twelfth Avenues, would contain one level for each agency and one level that would be shared by both agencies. The block's topography varies such that the structure would appear to be a one-story building at the corner of Eleventh Avenue and West 30th Street and a two-story building at Twelfth Avenue and West 29th Street. Access for both facilities could be gained from both West 29th and West 30th Streets. If this facility were constructed, a rooftop public park, with open space for active recreation, would be created at approximately the same elevation as the High Line right-of-way (located across the street

on the north side of West 30th Street) and the Multi-Use Facility's southern access point. If the multi-agency facility is not constructed, the park would be developed at grade.

I. FGEIS STUDY METHODOLOGY AND ASSUMPTIONS

This FGEIS generally uses methodologies and follows the guidelines set forth in the *CEQR Technical Manual*, where applicable. These are generally considered to be the most appropriate technical analysis methods and guidelines for environmental impact assessment of projects in New York City and are consistent with SEQRA. The *CEQR Technical Manual* guidelines and reasonable worst-case development assumptions have been used to identify the likely extent and location of future residential, commercial, and community facility growth. This FGEIS provides a description of *Existing Conditions* (2003). It also presents assessments of conditions in the *Future Without the Proposed Action* and the *Future With the Proposed Action*. Identification and evaluation of impacts of the Proposed Action are based on the change from the Future Without the Proposed Action to the Future With the Proposed Action.

Analysis Years. The Proposed Action has multiple elements that would be developed or implemented over a period of 20 years or more. This FGEIS assesses the future conditions for the years 2010 and 2025. These two analysis years were chosen because: (1) the completion and operation in 2010 of the No. 7 Subway Extension, the Convention Center Expansion, the Multi-Use Facility, and a small amount of development (approximately 10 percent of the total projected development) pursuant to the rezoning; and (2) the 2025 analysis year is based on long-term projections of the Hudson Yards area's potential to capture a share of regional growth in office space, hotel rooms, and households, with accompanying increases in retail space. These projections are likely to occur in a 30-year time frame (i.e., by 2035), but are conservatively assumed in this FGEIS to occur by 2025. Construction impacts are also assessed for two years: 2006, when construction activities for the proposed No. 7 Subway Extension and other large-scale elements of the Proposed Action, including the Convention Center Expansion and the Multi-Use Facility, would be under way; and 2017, when substantial development allowed under the proposed rezoning would be under way.

Projected and Potential Development Sites. The sites most likely to be developed over time as a result of the rezoning were identified, based on a set of criteria that focused on appropriate size of site, its location, its current utilization and land use, and the opportunity for assemblages and use of development rights from adjacent properties. The sites most likely to undergo new development have been defined as projected development sites. The approximately 43 million square foot development projection is most likely to be accommodated on the Projected Development Sites; this comprises the reasonable worst-case development scenario (RWCDS) for analysis in this FGEIS. A number of other sites with smaller footprints and less potential for redevelopment or conversion are also addressed in this FGEIS and defined as Potential Development Sites. In all, 99 development sites were identified, 46 of which are considered to be Projected Development Sites, 1 of which could be either projected or potential, and the remaining 52, Potential Development Sites.

Special West Chelsea District. The DCP is pursuing a rezoning initiative for a portion of several manufacturing districts in West Chelsea, from approximately West 30th Street to West 16th Street, between Tenth and Eleventh Avenues. The DCP has identified 20 projected development sites in the Special West Chelsea District likely to be developed by 2013. The southern portion of the Project Area (the Eleventh Avenue right-of-way south of West 28th Street to West 24th Street, as well as two lots located along Eleventh Avenue between West 25th and 26th Streets) is located in the proposed Special West Chelsea District. Therefore, this FGEIS includes development projected under the Special West Chelsea District rezoning in the Future Without the Proposed Action. By 2013, with the rezoning in place, the rezoned West Chelsea area would be developed with approximately 4,700 dwelling units, 300,000 square feet of retail space, and 200,000 square feet of community facility space.

Relocation of Madison Square Garden. The identification of development sites was affected by an uncertainty over the future location of Madison Square Garden (MSG). The development potential

under the proposed rezoning could give the owners of MSG the incentive to move the arena to Ninth Avenue between West 31st and West 33rd Streets. Therefore, for each analysis year, there are two scenarios for projected development sites: with and without the relocation of MSG. The environmental effects anticipated under the Proposed Action were then measured against the more conservative of these two scenarios. Since publication of the DGEIS, MSG has stated that it will remain at its present location.

High Line Reuse. The City of New York and the Friends of the High Line are planning for the conversion of the High Line, an unused, 1.45-mile long, 6.7-acre, elevated rail viaduct located on the west side of Manhattan extending from Gansevoort Street in the south to West 34th Street in the north, into an elevated open space and recreation trail below West 30th Street through the federal “rail banking” program, through which rail companies may voluntarily turn over unused lines to a managing agency for recreation uses, while retaining the obligation to return the line to rail use at a later date under certain circumstances. For purposes of this FGEIS, open space ratios were analyzed with and without the High Line open space.

Port Authority of New York and New Jersey (PANYNJ) Bus Garage. Because the Proposed Action would provide development opportunities for properties owned by the PANYNJ, it is anticipated that as an indirect consequence of the Proposed Action the PANYNJ would, over time, consolidate its bus parking in the Hudson Yards area in a new garage between West 38th and West 39th Streets, Ninth to Tenth Avenues within an approximately 450,000-square-foot structure. This PANYNJ Bus Garage would accommodate the need for additional capacity within the Project Area, and particularly in the area surrounding the PABT. Therefore, operation of this new garage is conservatively assumed, for analytical purposes, in the 2025 Future With the Proposed Action; however, it is not an element of the Proposed Action. The garage is anticipated to include a direct ramp connection to the PABT.

Phasing of Convention Center Expansion. Although Phase II of the Convention Center Expansion is not expected to be completed until after 2010, this FGEIS conservatively assumes, for analytical purposes, full completion of both phases of the Convention Center Expansion by 2010, since such an assumption is generally a more conservative, worst-case scenario. If the second phase of the Convention Center Expansion is not completed by 2010 and would result in greater adverse effects, this FGEIS conservatively assumes completion by 2025.

Construction Sequence. Development arising from the proposed rezoning would occur as market conditions dictate. Major infrastructure improvements would include the platforms over the eastern and western portions of Caemmerer Yard. Construction of the platforms would permit construction of new development, a public open space, and the eastern half of the replacement for the Quill Bus Depot on the eastern portion, and construction of the Multi-Use Facility and the remainder of the Quill Bus Depot replacement on the western portion of Caemmerer Yard. Before the former site of the Quill Bus Depot would become available for construction, the replacement facility would first be constructed, the bus operations relocated, and the existing facility demolished.

Construction Activities. Above-ground construction activities would include delivery and storage of materials, hauling away soil and rock from excavating building foundations and from tunneling activities, construction and maintenance of tunnel access shaft sites, the cut-and-cover construction that would be necessary for a portion of the subway tunnel and for both stations, and construction of building foundations, structure, and superstructures. Much of the construction work for the Proposed Action would occur either below-ground or in areas not currently accessible to the public—for example, the existing Caemmerer and Corona Yards—and therefore in areas where disruption at street level could be minimized to some extent.

Evaluation of Alternatives. This FGEIS analyzes a broad range of alternatives to the Proposed Action, including three new alternatives that grew out of the public comment process. Except where otherwise noted, alternatives were analyzed using the same methods as those applied to the Proposed Action. Among the alternatives considered, Alternative S was proposed by the Department of City Planning largely in response to public comment received in the early phases of the land use review process. Alternative S is therefore under particularly active consideration. Upon completion of the

environmental review process, it is possible that, in accordance with SEQRA and CEQR, Alternative S or another alternative will be selected for approval and implementation.

J. ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

The anticipated environmental impacts of the Proposed Action and alternatives are assessed in detail in Chapters 4 through 28 of this FGEIS and are summarized briefly below.

1. Land Use, Zoning, and Public Policy

The Proposed Action would greatly improve conditions in the Project Area, would not result in significant adverse impacts to land use, and would be consistent with zoning and public policies affecting the study areas.

The Proposed Action is anticipated to result in beneficial effects that would eliminate much of the obsolete manufacturing zoning in areas south of West 42nd Street and west of Dyer Avenue and the Lincoln Tunnel access roads and ramps, reinforce and protect the existing character of established residential land uses in Hell's Kitchen, introduce a new range of uses to create a more vibrant neighborhood in the westernmost midblocks of the Garment Center District, and strengthen the existing mixed-use character of West 34th Street and the Clinton District along West 42nd Street. The rezoning and related land use actions would add more than 23 acres of parkland and public open space, creating a vibrant, mixed-use commercial and residential neighborhood in an area virtually devoid of open spaces and generally characterized by open rail cuts, transportation infrastructure, auto-repair facilities, parking lots, and underutilized sites containing buildings in marginal commercial or manufacturing use.

By 2010 the development contemplated by the Proposed Action would be well under way, and the No. 7 Subway extension and its Terminal Station would be complete, as would the Multi-Use Facility to be built over the western portion of Caemmerer Yard. This analysis assumes that the full Convention Center Expansion would also be complete, extending that facility from West 33rd Street to a new Convention Center hotel on West 42nd Street and including a full-block open space between West 33rd and West 34th Streets plus publicly accessible open space on the Convention Center roof. It is also assumed for purposes of this FGEIS that the Quill Bus Depot would be relocated to West 30th Street. In actuality, it is expected that only the first phase of the Convention Center Expansion would be complete by 2010, when the expansion would extend from West 33rd to West 40th Streets, with a bridge connection over the Quill Bus Depot to the Convention Center Hotel.

Elsewhere in the Project Area, other key components of the Proposed Action would be partially or substantially complete. Approximately five million square feet of office, retail, and residential development would have been constructed in response to the rezoning. The eastern portion of Caemmerer Yard, between West 30th and West 33rd Streets would also be decked over, and contain approximately 7.5 acres of open space. To the north, almost an acre of the Midblock Park would be constructed between West 33rd and West 34th Streets. The block south of the Multi-Use Facility (Block 675) would be constructed to accommodate a three-story multi-agency facility for DSNY and NYPD Tow Pound operations with a full-block, rooftop park containing 3.6 acres of active open space directly accessible from Eleventh Avenue. (If the facility is not built, the park would be fully at grade.) In total, the Proposed Action would generate almost 18 acres of open space by 2010.

By 2025, the FGEIS assumes that the full program anticipated in the reasonable worst-case development scenario would be built, including approximately 29.5 million square feet of commercial space (offices, hotels, and retail), and approximately 12,800 residential units, plus substantial retail and hotel use. The Intermediate Station of the No. 7 Subway at Tenth Avenue and West 41st Street would also have been completed. The remaining portion of the Midblock Park and Boulevard System from West 34th to West 39th Streets would be complete, along with a pedestrian bridge spanning West 39th through West 42nd Streets, linking the open space system to West 42nd Street and the Intermediate Station. In all, the Midblock Park and Boulevard System would add 4.3 acres of open space to the Project Area.

The Proposed Action would create new open space and entertainment uses and permit high-density commercial office, retail development and mid- to high-density residential development, in an area currently occupied by manufacturing and industrial uses, rail cuts, auto-related uses and vehicle storage. Along Tenth Avenue (including lots with frontage along the east side of the Avenue) and west to the Amtrak rail cut, between West 35th and West 41st Streets, the Proposed Action would permit new, high-density residential and community facility uses with limited commercial floor area. This new residential corridor would provide a transition between the high-density, commercial uses to the west and the lower-density residential uses to the east. Like most of the Project Area, these sites are currently occupied by marginal manufacturing, commercial, and auto-related uses. Within the Special Hudson Yards District, development on lots greater than 15,000 square feet would require parking to be located below-grade. Currently, vehicle storage occupies almost 800,000 square feet in the Rezoning Area.

The proposed Midblock Park and Boulevard System would serve to distinguish between the large scale commercial development and entertainment uses along Eleventh Avenue in the Large Scale Plan Subdistrict and the Convention Center Corridor and the new residential corridor along Tenth Avenue. The System, extending essentially from West 30th to West 42nd Streets, would link Hudson Yards to the Clinton and Chelsea neighborhoods to the north and south in concert with the full-block open space between West 33rd and West 34th Streets from Eleventh to Twelfth Avenues.

Along portions of Ninth Avenue (*Subarea F2*), in the Hell's Kitchen Subdistrict, the Proposed Action would protect the existing residential character by retaining existing residential densities and decreasing commercial densities. The residential character of Ninth Avenue would be enhanced by allowing residential uses in the midblocks between Ninth and Tenth Avenues (*Subarea F1*) and in the portion of the Garment Center between Eighth and Ninth Avenues from West 35th to West 39th Streets. Within this portion of the Garment Center, a modified version of the existing preservation requirements would continue to apply to large buildings (70,000 square feet and greater), while allowing for the development of new residential, commercial, and community facility uses on vacant lots. Conversion to residential, commercial, or community facility uses in smaller buildings (less than 70,000 square feet) would be allowed as-of-right.

West 34th Street, characterized by mixed-use commercial and residential buildings, built to densities more typical of Midtown, would be rezoned to reflect its existing built character and allow higher densities and as-of-right conversions to residential use. In Clinton, the Proposed Action would modify the zoning in a portion of the Perimeter Area of the Special Clinton District, but this area would remain within the Special Clinton District. As a result, density would be increased on the blocks between West 41st and West 42nd Streets and Ninth and Eleventh Avenues (and the western portion of the block bounded by Eighth and Ninth Avenues), allowing for additional commercial and residential development. A portion of the block bounded by West 42nd and West 43rd Streets and Eleventh and Twelfth Avenues, currently zoned for manufacturing use, would be rezoned to allow commercial and residential development, consistent with zoning on the remainder of the block. The existing design controls would remain within the portion of the Special Clinton District in the Project Area.

The block located west of the PABT, bounded by West 40th and West 41st Streets and Ninth and Tenth Avenues, would be rezoned to permit high-density commercial development. Residential uses are currently permitted on portions of this block. Under the proposed rezoning, residential uses would not be allowed. The block south of the PABT, between West 39th and West 40th Streets and Eighth and Ninth Avenues, would be rezoned to permit high-density commercial office development. As a result of the Proposed Action, it would be removed from the Special Garment Center District and incorporated into the Special Hudson Yards District. Like the block west of the PABT, residential uses would not be permitted, given the close proximity to the PABT.

Further south, the Proposed Action would increase the commercial and manufacturing density for the midblocks located south of Madison Square Garden between West 28th and West 31st Streets and Seventh and Eighth Avenues. These densities would be increased, consistent with the densities and

zoning designations east of Seventh Avenue. The existing commercial zoning along Eighth Avenue would be extended to the area located along the south side of West 31st Street between Eighth and Ninth Avenues and for a distance of 150 feet east of Eighth Avenue between West 29th and West 30th Streets. In these areas, the Proposed Action would permit residential uses and increase commercial densities.

Development generated as a result of the Proposed Action would substantially change land uses in some portions of the Project Area, while strengthening the existing residential and commercial character of other established neighborhoods like Hell’s Kitchen. Anticipated changes in land use would be most evident west of Tenth Avenue between West 30th and West 42nd Streets, in an area characterized by unsightly uses such as the rail yards and an abundance of auto-related uses. Much of the parking, currently visible and accommodated in surface parking lots, would be located below-grade and hidden from view. With the Proposed Action, a new, vibrant neighborhood would be created, with substantial amounts of new open space. Caemmerer Yard would be decked over to facilitate construction of the Multi-Use Facility, and new buildings and open space would link the Hudson Yards area with neighborhoods to the north and south. These changes would add excitement and vitality to an otherwise drab and characterless area. Overall, the Proposed Action would result in beneficial effects that would be compatible with zoning and consistent with public policy throughout the study areas.

2. Socioeconomic Conditions

The Proposed Action would not result in significant adverse socioeconomic impacts related to direct or indirect residential displacement, to direct or indirect business and institutional displacement, or to specific industries. The Proposed Action would result in substantial economic activities and benefits that would accrue to the New York City and New York State economies.

Direct Residential Displacement

The Proposed Action would directly displace 34 housing units in two residential buildings by 2010 and a cumulative total of 85 housing units in ten residential buildings by 2025. Eight of the ten buildings are located west of Tenth Avenue and seven of these are located between West 34th Street and West 36th Street from Tenth to Eleventh Avenues. These buildings have an estimated population of 139 permanent residents, a very small portion of the current and future population of the Project Area. In summary, the assessment finds that:

- The socioeconomic profile of the permanently displaced residents would be similar to that of the overall area;
- The displaced residents would represent a small percentage of the overall population; and
- The displacement would not result in the substantial loss of a specific component of the population that characterizes the neighborhood.

The Proposed Action could also result in the displacement of an institutional building (the Icahn House Tier II Shelter) which provides temporary shelter for 290 residents. However, it is uncertain that this shelter would still be located at this facility over the next 20 years leading to 2025, given current lease terms. It is expected that temporary residents, if displaced as a result of the Proposed Action, would be housed in other Tier II Facilities.

Based on these findings, the Proposed Action is not likely to result in significant adverse impacts related to direct residential displacement.

Indirect Residential Displacement

A substantial amount of new residential and non-residential development would be added to the Hudson Yards community, a community already in transition with higher income residents moving into the area. Based on an analysis of ongoing existing and projected income and population trends,

the new population introduced by the Proposed Action, and the housing stock still remaining after the Proposed Action, the assessment finds that the Proposed Action would:

- Add a substantial new population, but its socioeconomic character would not differ from that of the current and projected population;
- Enable the redevelopment of parcels that could otherwise be considered a “blighting” influence, and the resulting high value development sites would accommodate substantial increases in new residential and commercial uses, meeting new demand and generating increases in property values specifically on these sites rather than all parcels equally;
- Not displace substantial elements of one or more components of the population so as to alter the socioeconomic composition of the area;
- Introduce substantially more housing into the area, but this housing would not be more costly compared to existing housing and the housing forecast in the Future Without the Proposed Action;
- Generate a critical mass of non-residential uses (e.g., new commercial development, Multi-Use Facility, and Convention Center Expansion), thereby creating new residential demand, but such new uses would be accompanied by the proposed rezoning, which would allow more housing to be built in areas that currently prohibit new housing construction; and
- Not result in new land uses that would offset positive trends in the area or lead to disinvestment.

Based on these findings, the Proposed Action is not likely to result in significant adverse impacts on indirect residential displacement.

Direct Business and Institutional Displacement

The cumulative displacement effects of the Proposed Action on businesses and institutions (i.e., hospitals, charities, and other non-profit organizations) and their employment could include the displacement of up to 225 private businesses and an estimated 4,269 private employees.

By 2010, this could include about 1,500 employees and between 87 and 97 businesses located throughout the Project Area but somewhat clustered around key public improvements and the initial private development of projected development sites, including: from West 39th to West 42nd Streets between Eleventh and Twelfth Avenues (Convention Center Expansion); from West 29th to West 30th Streets between Eleventh and Twelfth Avenues (relocation of the Department of Sanitation facility and Tow Pound); from West 33rd to West 36th Streets between Tenth and Eleventh Avenues and West 41st to West 42nd Streets between Ninth and Tenth Avenues (the No. 7 Subway Extension station areas and the Midblock Park and Boulevard); and along Ninth Avenue between West 38th and 39th Streets (Projected Development Site 22).

Between 2010 and 2025, the Proposed Action would be expected to displace directly, in addition to the firms and employees discussed in the previous paragraph, up to approximately 2,700 workers and 125 businesses (assuming that these business and current employment levels would remain in place through 2025). This would primarily be based on the build-out of the projected development sites and completion of the Midblock Park and Boulevard System. Most of the displacement would occur between Tenth and Eleventh Avenues between West 36th and West 42nd Streets. There would be less displacement between Ninth and Tenth Avenues and far fewer displaced businesses to the east of Ninth Avenue.

The analyses presented in the chapters indicate that the total of employment displaced would be far lower than the total of new employment generated, and would be a small proportion of the existing and future employment base. The range of job types of the displaced employment would be similar to the characteristics of the overall existing employment base, indicating that the Proposed Action would not specifically affect any one type or category of employment. In summary, the assessment of this potential displacement finds that:

- The displaced businesses do not collectively represent substantial economic value to the City and could reasonably be relocated within New York City;
- The majority of displaced businesses would not be those subject to specific public policy to preserve and protect such employment; and
- The displaced businesses do not serve to define neighborhood character.

Based on these findings, the Proposed Action is not likely to result in significant adverse impacts on direct business and institutional displacement.

Indirect Business and Institutional Displacement

A substantial amount of new residential and non-residential development would be added to the Hudson Yards area. The direct business and institutional displacement is only a limited proportion (under 10 percent) of the overall current employment base and a far smaller proportion (less than 3 percent) of the future employment base in the Future With the Proposed Action. The detailed assessment of existing and future employment and market trends finds that the Proposed Action is likely to:

- Introduce a substantial amount of new economic activity in the Project Area, but would not eliminate much of the existing employment base and ongoing economic activity;
- Not add to the concentration of any particular sector of the local economy;
- Enable the redevelopment of parcels that could be considered a “blighting” influence, but the resulting high value development sites would accommodate substantial increases in new residential and commercial uses, meeting new demand and generating increases in property values specifically on these sites, rather than on surrounding properties not to be redeveloped;
- Not displace enough existing uses to remove support for businesses in the area or eliminate a customer base for existing and future local businesses;
- Not displace enough existing businesses or residents to eliminate a customer base for existing and future businesses; and
- Not result in new land uses that would offset positive trends in the area or lead to disinvestment.

Based on these findings, the Proposed Action is not likely to result in significant adverse impacts on indirect business and institutional displacement.

Effects on Specific Industries — Apparel Industry

The Proposed Action is adjacent to and overlaps with the western portions of the Special Garment Center District, the focal point for the economically important apparel industry. The Rezoning Area would alter the context of this overlap area by introducing new commercial and residential uses adjacent to this portion of the Special Garment Center District. To date, the zoning mapped over the Special Garment Center District has precluded such as-of-right development.

Based on the analysis of both Projected Development Sites (with only modest levels of direct displacement of fewer than 50 apparel jobs) and Potential Development Sites (with more potential displacement based on individual site locations, but likely offset by Preservation Area requirements), the potential apparel job displacement from the Proposed Action is far less than one percent of the overall apparel jobs in the industry (estimated at over 61,000). Other project elements, including the new Multi-Use Facility and the expansion and modernization of the Convention Center, would have no significant adverse effect on this industry.

Effects on Specific Industries — Theater Industry

As analyzed by The League of American Theatres and Producers, the industry generates some \$4.4 billion dollars in annual economic activity in the City (*Broadway’s Economic Contribution to New York City, 2001*). This economic activity supports about 40,000 jobs and generates about \$139

million in local tax revenues. The Proposed Action is unlikely to adversely affect the adjacent Theater District, in that there would be little direct displacement of theater-related activities and only modest displacement of the businesses that support the industry. Theater support businesses are scattered throughout the neighborhoods surrounding the Theater District, and most are located outside the Project Area. At the same time, the new level of economic activity and the potential patrons drawn to or living in the new Hudson Yards community can be expected to have a positive influence in supporting the Theater District. The Proposed Action would result in additional traffic and parking demand in areas adjacent to the Theater District, but would not have a significant adverse effect on the theater industry. The Proposed Action would instead have a beneficial effect on the theater industry by generating new theater patrons.

Economic Benefits

The Proposed Action is anticipated to generate substantial economic benefits that would accrue to the New York City and New York State economies. This would result from the initial public and private investment in the construction of the Proposed Action, as well as from the future year operational characteristics of the Hudson Yards community. The economic benefits summarized below are specific to the Proposed Action. The Proposed Action is a comprehensive approach developed by the DCP to accommodate and plan for the commercial and residential development necessary to sustain the City's economy. The Proposed Action's public investment in new infrastructure (No. 7 Subway Extension, the Convention Center Expansion and Modernization, and the Multi-Use Facility) is expected to leverage a far greater amount of private investment in the new real estate development opportunities created by the proposed rezoning.

In the absence of the Proposed Action, it is likely that new development would occur elsewhere in Manhattan in order to meet future employment and residential demand. Hudson Yards offers the best opportunity to create the development sites associated with this level of economic activity, and the alternate locations could be far costlier and more disruptive, thereby complicating the City's efforts to realize or capture the economic growth expected over the next two decades.

Construction Period

The Proposed Action involves the capital expenditure, in 2003 dollars, of about \$6.9 billion by 2010 and another nearly \$16.6 billion in mostly private real estate development between 2010 and the completion of development (assumed to be the 2025 analysis year). In total, the Proposed Action involves capital expenditures of approximately \$23.5 billion through a combination of public and private investment. As noted above, in summarizing the basic economic benefits likely to accrue over a 20-year period, the most relevant basis is presenting the results in current 2003 dollars (when the analyses were principally conducted). Mitigation measures for the Proposed Action are estimated to cost in the range of \$300 million to \$400 million.

This substantial construction effort would have profound beneficial economic effects for the local and State economies in terms of employment demand, wages and salaries, and overall impact on the local economy. The associated fiscal effects from new tax revenues for New York City and New York State from the Proposed Action are estimated to generate approximately \$1.47 billion. Of these tax revenues, the largest portion would come from personal income taxes, and corporate, business, and related taxes on direct and induced economic activity. New York State would receive about \$939.1 million of the tax revenues generated by construction of the entire development program, and New York City would receive about \$689.4 million of these tax revenues.

Operational Period

Each development component of the Proposed Action is expected to result in significant economic activity on an annual basis. Each major component of the Proposed Action has an analysis of economic benefits based on independent studies provided by the EDC, the Convention Center Operating Corporation (CCOC), and the New York Jets. These are summarized below.

(a) Projected Private Sector Redevelopment

As estimated by the EDC, the full buildout would generate an estimated 111,148 direct new jobs in Hudson Yards. Together with indirect or induced employment, the total project-generated employment in New York City is estimated at 10,163 jobs for the year 2010. Cumulatively, the projected development would result in 225,941 direct and indirect jobs in New York City. *Direct* employment represents those employed specifically at the new development resulting from the Proposed Action. *Indirect* employment represents those jobs created by the demand for goods and services by new direct employment and economic activity. For the analysis year 2010, the direct wages and salaries associated with the Proposed Action are estimated at \$348.1 million annually (in 2003 dollars); the total *direct* and *indirect* wages and salaries in New York City are estimated at \$538.8 million; and, in the broader New York State economy, total *direct* and *indirect* wages and salaries are estimated at \$610.4 million annually. For 2025, the direct wages and salaries associated with the Proposed Action are estimated at \$8.0 billion annually (in 2003 dollars); total *direct* and *indirect* wages and salaries in New York City are estimated at \$12.7 billion annually; and, in the broader New York State economy, total direct and generated wages and salaries are estimated at \$13.9 billion annually.

By 2010, the projected development would generate annual tax revenues of approximately \$39.3 million for New York City, and an additional \$50.8 million for New York State. At full buildout assumed in 2025, the projected development would generate annual tax revenues of approximately \$689.4 million for New York City, and an additional \$939.2 million for New York State. These estimates include revenues from real property taxes, sales and use taxes, hotel occupancy taxes, personal income taxes, corporation and other business taxes, utility taxes, and commercial rent taxes.

(b) Convention Center Expansion

As established in studies undertaken independently by the CCOC, the expansion and modernization of the facility would create substantial economic and fiscal benefits for the City of New York by increasing visitor spending and jobs in Manhattan and indirectly throughout the City. The incremental total *direct* and *indirect* employment from the expansion of the Convention Center is projected to equal 7,400 jobs in New York City. In the broader New York State economy, due to greater *indirect* and generated employment, the total *direct* and *indirect* employment from the expansion of the Convention Center is projected to equal 9,000 jobs. The operation of the expanded Convention Center is projected to create incremental total *direct* and *indirect* income equal to approximately \$277.0 million annually in New York City and \$284.0 million annually in New York State (all in 2003 dollars).

The operation of the expanded Convention Center is projected to have a *direct* incremental effect on the local economy, measured as economic output or demand for local industries, equal to approximately \$390.7 million annually and *indirectly* generate another \$258.3 million in total economic activity, thereby resulting in a cumulative total *direct* and *indirect* incremental effect from the operation of the expanded Convention Center projected at \$649.0 million annually in New York City. In the broader New York State economy, the total *direct* and *indirect* incremental effect from the operation of the expanded Convention Center is projected at \$692.0 million annually. The operation of the expanded Convention Center is projected to create incremental tax revenues of approximately \$25.8 million annually for New York City.

These projected economic benefits to be realized by the Convention Center are independent of the remainder of the Proposed Action, and would be the same if the Convention Center were a free-standing economic development initiative.

(c) Multi-Use Facility

As established in studies undertaken independently by the New York City Economic Development Corporation (EDC) and the New York Jets, the Multi-Use Facility would generate significant economic and fiscal benefits for the City of New York by increasing visitor spending and creating direct and indirect jobs. The combined operations of stadium, national events, and exhibitions would

create a total of 6,710 jobs, including about 5,248 direct jobs and an additional 1,462 indirect jobs. Operation of the Multi-Use Facility would generate approximately \$348.5 million annually in wages and salaries in New York City, including about \$230.1 million paid to *directly* generated jobs, and an additional \$117.5 million going to *indirectly* generated employment from activities at the Multi-Use Facility.

The total demand for goods and services (total output) in New York City created by the operation of the Multi-Use Facility would equal about \$604.5 million annually, with about \$398.6 million in direct demand for goods and services and \$205.8 million in indirect demand.

The operation of the Multi-Use Facility would generate annual tax revenues of approximately \$25.6 million in New York City and \$28.5 million for New York State, for a total of approximately \$54.1 million.

These projected economic benefits to be realized by the Multi-Use Facility are independent of the remainder of the Proposed Action and would be the same if the Multi-Use Facility were a free-standing economic development initiative.

3. Community Facilities and Services

Population growth expected as a result of the Proposed Action could have a significant impact on firefighting services in the area. The Proposed Action would require new elementary and intermediate school capacity serving the Project Area. The Proposed Action is expected to increase the number of children eligible for publicly funded day care, which could have a significant adverse impact on local publicly funded day care centers.

The Proposed Action would increase the demand for services provided by public or publicly funded community facilities. It is anticipated that in 2010 the No. 7 Subway Extension, the Convention Center Expansion, the Multi-Use Facility, and a small portion of the commercial and residential development, with a net increase in residential development of approximately 844 dwelling units anticipated with the rezoning, would be finished and operating. It is conservatively assumed that the redevelopment of the Project Area would be substantially complete by 2025, including the new open space, an increment of approximately 9,899 additional dwelling units, and about 27 million square feet of commercial, retail, and hotel space. In addition, the Proposed Action could allow up to 192 low- to moderate-income housing units in 2010 (or 22.75 percent of the total new housing units) and up to 1,368 additional low- to moderate-income units (or 15.11 percent of total new units) by 2025.

Police—In the Future With the Proposed Action, it is anticipated that the NYPD would continue to evaluate its staffing needs and assign personnel based on population growth, area coverage, crime levels, and other local factors. The NYPD expects that an expansion of its police communication system would be required with the extension of the No. 7 Subway service, but does not anticipate significant adverse impacts on its operations.

Fire—While the Proposed Action is not expected to displace existing fire station houses, the new worker, residential, and visitor populations expected as a result of the Proposed Action could have a significant impact on firefighting services in the area in both 2010 and 2025. The Proposed Action has been reviewed for potential impacts on fire protection services, and the New York City Fire Department (FDNY) believes it would need additional resources, including a new firehouse, to continue to provide adequate fire protection with the Proposed Action.

Public Schools—In the 2010 Future With the Proposed Action, a significant adverse impact is expected to occur for elementary and intermediate schools serving the Project Area, requiring mitigation. It is anticipated that by 2025 in the Future With the Proposed Action, there would not be a sufficient number of school seats to accommodate new elementary and intermediate school students in the area. Therefore, the Proposed Action would result in significant adverse impacts to public elementary and intermediate schools, requiring mitigation. To alleviate the impact of increased school enrollments, mitigation measures that could be applied would include: adjusting school catchment areas (attendance zones) within the District to relieve overcrowding in the affected

schools; and creating additional capacity in Region 3 of Community School District (CSD) 2 by building additional capacity at existing schools or leasing additional school space (2010 without West Chelsea) and constructing new schools (2010 with West Chelsea and 2025 with or without West Chelsea).

Libraries—No significant adverse impacts to libraries in 2010 or 2025 are expected with the Proposed Action.

Outpatient and Emergency Health Care Facilities—The Proposed Action is not expected to result in any significant adverse impacts to outpatient and emergency health care facilities in either 2010 or 2025. The population increase with the Proposed Action is a relatively small incremental change measured against the hundreds of thousands of annual visits to the many hospital emergency rooms and outpatient services serving the study area. No significant increases in utilization of publicly funded outpatient facilities are expected as a result of the Proposed Action.

Day Care—The Proposed Action is expected to increase the number of children eligible for publicly funded day care by 2010 and 2025. This could have a significant adverse impact on local publicly funded day care centers. The full potential increment would be somewhat reduced by the day care focus on children aged 5 and under, even though children up to age 12 are eligible. To alleviate the impact, the demand for day care could be partially mitigated by the increasing availability of family day care alternatives and vouchers for private group day care, and mitigation for this impact could include providing a new day care facility or adding capacity to existing facilities in or near the Project Area.

4. Open Space and Recreational Facilities

The Proposed Action would add over 23 acres of open space to the Project Area and would not result in significant adverse impacts on open space and recreational facilities.

Although the Proposed Action would introduce large new residential and non-residential populations, it would also add over 23 acres of new active and passive open spaces. Both the Existing and Future Without the Proposed Action ratios of open space to user populations fall below the City's open space guidelines. In both the 2010 and 2025 analysis years in the Future With the Proposed Action, most open space ratios would increase (with the exception of the active open space ratio per 1,000 residents in 2025), although all open space ratios, with the exception of passive open space for the residential population, would remain below the City's open space guidelines. The new open space created by the Proposed Action would provide greater accessibility and connectivity to existing and future open spaces in the study area, as well as communities to the north and south of the Project Area.

5. Shadows

There would be no significant adverse shadow impacts as a result of the Proposed Action, except for the incremental shadowing on two historic resources: the James A. Farley Building and St. Raphael's RC Church.

Most existing open space resources are in shadow for the Existing and Future Conditions Without the Proposed Action. Additional shadowing on existing open space resources would not be significant.

The incremental shadowing created by the Proposed Action would result in significant adverse impacts to two historic resources: the historic landmark James A. Farley Building (Farley Building) and St. Raphael's RC Church, which is eligible for listing on the New York City and State Registers for Historic Places.

The Farley Building, which currently serves as the General Post Office, is a New York City Landmark and is also listed on the State and National Registers for Historic Places. It occupies a superblock between Eighth and Ninth Avenues from West 31st to West 33rd Streets. The Eighth Avenue façade is considered the most sensitive element of the resource, and the sunlight that is cast upon it articulates the architectural features that distinguish this public building. Its colonnade and

portico are reached by an almost block-wide flight of stairs, and light effects on the colonnade contribute to the articulation of the rhythm of the columns and the depth of the entrance. On the Eighth Avenue façade, the proposed developments would lead to one and one-half hour of additional shadow in March, over three hours of additional shadow in May, and four hours of additional shadow in June.

St. Raphael's RC Church is eligible for designation as a New York City Landmark and eligible for listing on the State and National Registers for Historic Places. The church is considered a sensitive resource for shadow impacts because of its rose windows, though its architectural setting is substantially disrupted by the changes in its context which have altered its setting since its construction. St. Raphael's would be affected by incremental shadows during the 2025 Future With the Proposed Action. The rose windows would be affected by a significant adverse impact from additional shadows resulting from the projected 500-foot residential tower between West 40th and 41st Streets (Projected Development Site 14) and the commercial and residential towers projected on Tenth and Eleventh Avenues between West 38th and 39th Streets (Projected Development Sites 12 and 13). The proposed developments would lead to eight hours of additional shadow in March, almost seven and one-half hours of additional shadow in May, three and one-half hours of additional shadow in June, and almost five hours of additional shadow in December.

Mitigation measures for each of these historic resources were considered, including the reduction of the heights of the projected developments around each resource. Such reductions were determined to be unreasonable and infeasible, as they would result in substantially reduced development at three projected development sites and shifts in development that would not be in keeping with the zoning and urban design plan of the proposed rezoning. Following this, the placement of remote lighting to simulate the non-shadowed condition was considered. For the Farley Building Eighth Avenue façade, this condition would require a bank of lighting at Projected Development Site 45, but the intensity required to create a simulation of sunlight would be extreme, creating a visual impact that would be unacceptable. At St. Raphael's RC Church, lighting could be mounted at the westerly face of Projected Development Site 14 to light the east transept rose window, and because of the proximity of the projected development site and the church, this mitigation could be feasible without adverse visual impacts or spillover effects. Similar lighting was considered to light the west transept rose window at Projected Development Sites 12, 13, or 16, or at the Lincoln Tunnel Portal block, but each was determined to be too remote from St. Raphael's to be effective in simulating sunlight without creating other disturbing visual effects. Such measures would not be reasonable or feasible means to avoid or mitigate shadow impacts upon the Farley Building Eighth Avenue façade or to the westerly rose window of St. Raphael's RC Church, and the significant adverse impacts of the Proposed Action on these historic resources would remain unmitigated.

6. Architectural Historic Resources

The Proposed Action would not result in significant adverse impacts on any NYC-designated landmark (except as noted above with respect to shadows), but would have significant adverse impacts on the High Line and impacts on other architectural historic resources in 2010 and 2025.

The Proposed Action aims to beneficially transform the largely underutilized Project Area into an area characterized by significant open spaces, an improved pedestrian environment, and a mix of uses, densities, and building forms. The proposed zoning changes would encourage new development that would be compatible with the existing scale of areas such as the Garment Center and Hell's Kitchen, while allowing design flexibility and promoting architectural excellence throughout the rezoning area. Although the Proposed Action would positively transform the urban design of the Project Area, new development would occur on or near sites containing designated and eligible architectural resources, potentially causing adverse physical and contextual impacts, as discussed below.

By 2010, construction of the Multi-Use Facility between Eleventh and Twelfth Avenues would partially remove sections of the High Line viaduct north of West 30th Street and west of Eleventh

Avenue. This would constitute a significant adverse impact. Construction of a deck to accommodate development on the eastern portion of Caemmerer Yard between Tenth and Eleventh Avenues and/or relocation of the Quill Bus Depot to Caemmerer Yard immediately north of West 30th Street would also remove a section of the High Line along West 30th Street, which would also constitute a significant adverse impact. Two separate Letters of Resolution (LORs) with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) specify mitigation for the adverse impacts to the High Line that includes photographic documentation and salvage. Although construction of the proposed No. 7 Subway Extension would occur adjacent to ten architectural resources, there would be no adverse construction-related impacts to them, because MTA NYCT would take protection measures to avoid inadvertent damage, as stipulated in the MTA LOR.

Construction on the projected development sites could cause inadvertent construction damage to six architectural resources, because development would occur as-of-right on these sites, and thus the neighboring eligible (but not designated) resources would not be afforded any special protections, except the basic structural protections provided by the New York City Department of Buildings (DOB) regulations.

By 2025, one eligible architectural resource would be removed for construction of the proposed open space corridor; this would constitute an unavoidable adverse impact. Although four architectural resources are adjacent to the open space corridor, close enough to be affected by construction-related activities, the City would implement protection measures to avoid inadvertent damage to them. Likewise, MTA NYCT would implement protection measures to avoid accidental construction damage to two resources located adjacent to the proposed Intermediate Station of the No. 7 Subway Extension, which would not be constructed until after 2010.

By 2025, construction on the projected development sites could remove or significantly alter six eligible architectural resources, potentially causing significant adverse impacts. An additional 18 architectural resources could experience accidental damage from construction on adjacent projected development sites.

If development were to occur on potential development sites, four architectural resources could be removed or significantly altered. Since it is unlikely that more than a few of the potential sites, if any, would be developed, significant adverse impacts from potential development would be less likely to occur. Up to 30 architectural resources could experience accidental damage from construction on adjacent potential development sites, but, as previously mentioned, direct impacts to architectural resources from potential development would be less likely to occur.

The Proposed Action would change the context of the area's architectural resources, for the most part improving their settings by replacing the existing incoherent mix of parking lots, transportation facilities, and non-descript buildings with new structures and open space in a consistent urban form. However, new development on some of the projected and potential development sites (if they are developed) would block views of two visually prominent architectural resources. For two other resources, the alteration of their context would be considered adverse, although not significant.

7. Archaeological Resources

By 2025, the Proposed Action would have the potential to cause unavoidable significant adverse impacts to possible archaeological resources relating to a former 19th-century home and school, through site redevelopment.

In the Future With the Proposed Action in 2025, Projected Development Sites 11 and 41 were identified for the potential to contain archaeological resources. These resources could be affected during construction activities on these sites.

There are no reasonable or feasible means to avoid or mitigate impacts to potential archaeological resources on Projected Development Sites 11 and 41 because development would occur on private property. If archaeological resources are present, this would be a significant adverse impact of the

Proposed Action. No significant adverse impacts on archaeological resources would occur on other projected or potential development sites.

No other elements of the Proposed Action would result in significant adverse impacts to archaeological resources.

8. Urban Design and Visual Resources

The Proposed Action is expected to substantially improve the urban design and have no significant adverse impacts on visual resources.

The Proposed Action would fundamentally alter and dramatically improve the urban form of the Project Area, replacing drab and underutilized urban landscape with a mix of new office, residential, convention, entertainment, and recreational facilities, and a substantial amount of open space integrated into the built environment. The proposed covering of Caemmerer Yard, the Amtrak Cut, and below-grade access to the Lincoln Tunnel would greatly improve the visual quality and urban form of the Project Area and enhance the distinct urban forms and visual resources of the various neighborhoods currently located in the Project Area. No significant adverse impacts to urban design in the primary study area would be anticipated.

The portion of the Project Area west of Eleventh Avenue would be transformed into a Convention Center Corridor highlighted by the expanded Convention Center and the Multi-Use Facility, which would replace the unappealing mix of transportation facilities and manufacturing buildings that currently exist in the area. Covering of the depressed Convention Center truck marshalling yard and western portion of Caemmerer Yard would dramatically improve the urban design of the Convention Center Corridor, and allow for the removal of the tall concrete walls currently lining Eleventh Avenue enclosing the two facilities. Expansion of the Convention Center would result in the extension of the superblock on which the Convention Center is currently located.

Within the substantially underutilized and treeless Large Scale Plan and Tenth Avenue Corridor Subdistricts, the Proposed Action would result in new, high-density, mixed-use development with substantial open space, improving the urban design and visual character of both areas.

The moderate-density residential development that would result from the Proposed Action within the Hell's Kitchen neighborhood along Ninth Avenue would be at an appropriate scale relative to existing structures in the area, and would serve to strengthen existing residential character along Ninth Avenue. This residential development would also serve to fill gaps in the streetscape and eliminate underutilization of existing midblock sites to the west of Ninth Avenue.

The residential district in the Tenth Avenue Corridor would serve as an appropriately scaled transition between the large commercial buildings in the Large Scale Plan and the more moderately sized residential buildings in Hell's Kitchen to the east. Similarly, the high-density, primarily residential buildings that would be developed in the Clinton District/42nd Street Corridor would be compatible with the primarily residential areas of Clinton to the north.

The new Midblock Park and Boulevard System would cover the existing Amtrak Cut and connect to an extensive integrated system of publicly accessible open space and pedestrian ways, connecting West 42nd Street to locations as far south as the Gansevoort Market, and greatly enhancing the urban form of the area.

The commercial buildings that would be developed adjacent to the PABT would be compatible with the existing scale and density of buildings in the area and serve to promote a strong commercial core.

Although all effects on urban design would not occur by 2010, dramatic change would occur by this date in the western portion of the Project Area, particularly within the Convention Center Corridor, in which the expanded Convention Center, Multi-Use Facility, new publicly accessible open space, and extended No. 7 Subway would be in place. By 2025, there would be equally significant and more extensive changes east of Eleventh Avenue, including completion of the remainder of the new development that would be allowed under the Proposed Action, and the completion of the Midblock

Park and Boulevard System. This would result in a significant beneficial change to the visually unappealing area that currently exists west of Tenth Avenue. This would also result in significant improvements to the pedestrian environment. The introduction of new commercial and residential uses would provide local sources of pedestrian activity in this nearly isolated portion of the City, while other new uses would create a destination area for visitors.

Based on guidance provided in the *CEQR Technical Manual*, the visual resources analysis indicated that the Proposed Action would not result in any significant adverse impacts on existing visual resources of merit or important views from public or publicly accessible locations within or near the Project Area. Conversely, the analysis indicated that the Proposed Action would greatly enhance the overall visual quality of the area through the covering of visually unappealing transportation facilities, development of an integrated system of new development and open space, covering of Caemmerer Yard and the Convention Center truck marshalling yard, and removal of the tall concrete walls that enclose those two facilities.

The Visual Resources analysis identified 15 resources of visual significance. All are within or immediately adjacent to the Project Area, except for the Empire State Building, which is located several blocks east of the Project Area. There are very few public or publicly accessible locations within the Project Area from which there are views of these resources. Many of these locations do not permit the full enjoyment of these views due to the unappealing context within which the viewing locations are found. Similarly, there are few views of the limited number of important visual resources within the Project Area from public or publicly accessible locations outside of the Project Area. As a consequence, the Proposed Action would affect these views. However, based on criteria provided in the *CEQR Technical Manual*, none of these impacts would be considered to be significantly adverse.

The northward expansion of the Convention Center would block some existing views of the Hudson River from Eleventh Avenue and crosstown streets that terminate at Twelfth Avenue. Views of the Hudson River from publicly accessible locations along West 31st and West 33rd Streets are currently limited by high concrete walls enclosing the Convention Center truck marshalling yard and the eastern and western portions of Caemmerer Yard and, therefore, would not be changed due to development of the Multi-Use Facility. Enhanced views of the Hudson River would be provided from publicly accessible open space on the roof of the Convention Center and from publicly accessible open space immediately north and south of the Multi-Use Facility.

Certain long views of the Empire State Building from publicly accessible locations within the Project Area would be eliminated as a result of the Proposed Action. However, enhanced views of the building would be provided from new publicly accessible open space that would be developed between West 33rd and West 34th Streets between Eleventh and Twelfth Avenues, from the park to be developed on Block 675 immediately south of the Multi-Use Facility, from publicly accessible open space to be developed over the eastern portion of Caemmerer Yard, and from publicly accessible open space to be developed on a portion of the roof of the expanded Convention Center.

9. Neighborhood Character

The Proposed Action would dramatically improve neighborhood character in the Project Area and have no significant adverse neighborhood character impacts. Large areas of underutilized urban landscape would be replaced with the dense, new, active and lively 24-hour mixed-use Hudson Yards community.

The Proposed Action would strongly enhance the distinct character of the Project Area's several neighborhoods. In areas where transportation infrastructure disrupts the street grid and prevents orderly development, the Proposed Action would build over that infrastructure, creating new developments, facilities, streets, and open space. In areas such as the Convention Center Corridor, Large Scale Plan and the Tenth Avenue Corridor, where the land is greatly underutilized and where there are few trees and almost no public open space, the Proposed Action would promote new, dense, mixed-use development with substantial open space, thus creating a strong new neighborhood

character. In areas such as the 34th Street Corridor, Hell's Kitchen, Clinton District/42nd Street Corridor, and the Garment Center District, new development would close gaps in the streetscape and eliminate underutilization. The use and form of the new development in these areas would be compatible with the existing character and would support, rather than change or detract from, neighborhood character. More specifically, the Proposed Action would:

- Transform the Large Scale Plan and Farley Corridor Subdistricts into major, high-density Manhattan commercial districts with a mix of retail, entertainment, and residential uses, served by the No. 7 Subway Extension.
- Sustain and enhance the Hell's Kitchen neighborhood on Ninth Avenue by promoting moderate-density, primarily residential redevelopment on Ninth Avenue and in the adjacent portion of the Garment Center District area to the east, and in areas to the west of Ninth Avenue.
- Create a moderate- to high-density residential district in the Tenth Avenue Corridor with a supporting mix of commercial and retail uses, which would serve as a transition between the Large Scale Plan and the largely residential Clinton District/42nd Street Corridor to the north, and Hell's Kitchen to the east.
- Support the mixed-use and dense urban development in the 34th Street Corridor, building on its strong residential neighborhood with appropriate zoning and development and with lively uses directly to the north and south on Ninth and Tenth Avenues.
- Allow for strong commercial development adjacent to the PABT and the proposed No. 7 Subway Extension Intermediate Station at Tenth Avenue and West 41st Street.
- Strengthen the Clinton District/42nd Street Corridor as a high-density, primarily residential district with a strong entertainment and retail component.
- Change the Garment Center District's land use pattern between Eighth and Ninth Avenues to a viable mix of commercial, manufacturing, and residential uses, by permitting a limited amount of new development that is consistent with surrounding densities.
- Create a convention, entertainment, and sports-related corridor at the western edge of Hudson Yards, strengthening the existing convention center use and providing a strong economic contributor and land use resource to the area.
- Provide a vital, 24-hour community that would support the newly expanded Convention Center and its patrons, as well as the Multi-Use Facility, both of which would be completed by 2010.

10. Natural Resources

The Proposed Action would not cause significant adverse natural resources impacts.

There would be no significant adverse impacts to water quality conditions in the Hudson River due to the small incremental changes to water quality conditions from increased effluent flows from the North River WPCP as a result of the Proposed Action in 2010 and 2025. Similarly, there would be no significant adverse impacts to water quality conditions in the Hudson or Harlem Rivers due to the small incremental changes to water quality conditions from CSO discharges as a result of the Proposed Action in 2010 and 2025. As a result of the insignificant changes to water quality, there would be no significant adverse impacts to aquatic biota.

□The proposed green roofs and other open spaces would have a positive effect on wildlife in the Hudson Yards Project Area. The additional open space areas would complement those that would be developed as part of the Hudson River Park project in terms of creating additional compatible upland habitat for native plants and wildlife such as birds and butterflies. Similarly, minor filling of wetlands at Corona Yard would not result in significant adverse impacts to natural resources. Nevertheless, a natural resources plan would include wetland creation/ restoration/ enhancement to compensate for the minor loss of wetlands at that location.

11. Hazardous Materials

The Proposed Action is not anticipated to result in any significant adverse impacts with respect to hazardous materials.

The initial evaluation of hazardous materials was completed through performance of an Area Hazardous Materials Screening Study (AHMSS). This broad screening method identified potentially contaminated sites (PCSs) that could affect implementation of the Proposed Action. Subsequent to this evaluation, further screening and assessment methods were employed on a project element basis to determine the likely presence of hazardous materials. Hazardous materials within soil, soil gas, groundwater, and building materials resulting from historical construction, manufacturing, and industrial operations could be encountered during construction or demolition associated with the Proposed Action. Since the late 1800s, the Project Area has been occupied by factories, foundries, rail yards, filling stations, and other facilities that used, stored, or disposed of hazardous materials. Hazardous materials that could have been released into the subsurface environment include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, coal tars, and cyanide. Naturally Occurring Asbestos (NOA) could be present in bedrock that would be excavated. Additionally, hazardous building materials, including asbestos-containing material (ACM), lead-based paint (LBP), and PCB-containing equipment are expected to be present in structures that would be deconstructed as a result of the Proposed Action.

Phase II Environmental Site Assessments (ESAs) or other appropriate site investigations have been or will be performed for sites where the AHMSS, Phase I ESAs, or the Geotechnical Boring Screening have revealed the potential presence of hazardous materials. For sites owned by the public agencies sponsoring the Proposed Action, Phase II ESAs or other appropriate site investigations have been performed, and the results indicate environmental conditions typical of urban settings, with some localized petroleum and SVOCs. With respect to other sites, appropriate site investigations would be conducted prior to construction to more fully characterize possible contamination in the area and to identify any further action, investigation, or management that would be required if the Proposed Action were to proceed. In order to avoid adverse impacts to human health or to the environment, any such required action, investigation, or management would be conducted in accordance with applicable law, and any additional regulatory requirements of the New York State Department of Environmental Conservation (NYSDEC) or the New York City Department of Environmental Protection (DEP), as appropriate.

Implementation of the major public project elements of the Proposed Action would not result in significant adverse impacts, because the Phase II ESAs or other appropriate site investigations have identified the further actions, investigations, or management required for the affected project elements to proceed. In addition, hazardous materials would be managed, isolated, and/or removed during construction, in accordance with the Construction Environmental Protection Program (CEPP). Measures implemented during construction would also eliminate the potential for adverse hazardous materials impacts during the operational phase of the Proposed Action.

A CEPP would be developed and implemented for the construction of each of the major public project elements of the Proposed Action, such as the Multi-Use Facility, the Convention Center Expansion, and the No. 7 Subway Extension, including construction in Corona Yard. The CEPPs would have provisions to prevent or minimize hazardous materials exposures to workers and the general public, as well as define the handling, storage, transportation, and disposal of hazardous materials during construction. The CEPP would also identify measures to be taken to address contaminated material that would not be removed as part of construction and therefore would remain in place. Such measures could include the implementation of impermeable barriers to achieve isolation from contaminants such as SVOCs. Elements of the CEPP include Health and Safety Plans (HASPs), Soil, Soil Gas, Spoils, and Groundwater Management Plans. The HASPs would be prepared to protect both project workers and the public during the construction phase. The provisions of the HASPs would be mandatory for contractors and subcontractors engaged in on-site construction activities.

The proposed Zoning Amendments also would not result in significant adverse impacts on development sites identified with the potential to contain hazardous materials. No significant adverse hazardous materials impacts are anticipated as a result of the zoning map amendment, because (E) Designations would be placed on the Zoning Map for all tax lots containing the potential to result in hazardous materials contamination. The (E) Designation would require that the fee owner of an (E) designated site conduct a testing and sampling protocol, and management where appropriate, to the satisfaction of the DEP before the issuance of a building permit by the Department of Buildings (pursuant to Section 11-15 of the Zoning Resolution-Environmental Requirements). The (E) Designation also includes mandatory construction-related HASPs, which must also be submitted for approval by the DEP.

12. Waterfront Revitalization Program

The Proposed Action would be consistent with Local Waterfront Revitalization Program (LWRP) policies.

The Proposed Action would encourage public access to the Hudson River waterfront, water-dependent uses, and other commercial and recreational waterfront uses of the Project Area. The Proposed Action would not result in adverse impacts to the aquatic life and water quality of the Hudson River and Flushing Bay ecosystems. The Proposed Action would also be generally consistent with all other LWRP policies.

The NYPD Tow Pound (Pier 76) and DSNY facilities could be relocated within the Hudson Yards area as an associated element of the project. Relocation of these facilities from the shoreline would provide the opportunity to create additional public open space and recreational space that would further enhance visitor experience of Hudson River Park.

13. Infrastructure

No significant adverse impacts relating to infrastructure would result from the Proposed Action.

On a peak day, the Proposed Action in 2025 would require approximately 8.6 million gallons per day (mgd) of potable water and generate an equivalent amount of wastewater. During peak periods of air-conditioning use, an additional estimated 4.5 mgd of water would also be required for the full-build of the Proposed Action. The projected development of approximately 28 million square feet of commercial office space and approximately 12.6 million square feet of residential space would require approximately 7.3 mgd of potable water and generate an equivalent amount of wastewater. Peak air conditioning usage would require approximately 3.4 mgd of water. There would be no increase in stormwater volumes as a result of the Proposed Action, because the amount of impervious surfaces in the Project Area would be reduced, due to the construction of open space and other green areas.

The expansion of the Convention Center would result in a net increase in water usage and wastewater generation of approximately 0.3 mgd. The Multi-Use Facility would result in a net increase in potable water demand and wastewater generation of approximately 0.4 mgd. Peak air conditioning operations would occur when the retractable roof is closed, resulting in approximately 0.3 mgd of water usage. These projections assume fully occupied facilities and peak events, which would occur only a limited number of times per year.

Extension of the No. 7 Subway Line would generate an increased demand of approximately 78,000 gallons per day (gpd) for potable water and wastewater generation on a peak day. Most of this demand would be required for four cooling towers to cool the systems buildings. Other elements of the Proposed Action (relocation of the MTA Quill Bus Depot, NYPD Tow Pound, and consolidation of DSNY facilities) would not result in significant increases in the demand on infrastructure services relative to existing conditions.

The Proposed Action would require improvements to the existing water and sewer infrastructure of the Project Area. The DEP is currently developing a Manhattan Trunk Main Master Plan (hereafter

referred to as “Trunk Plan”). The Trunk Plan is being developed as an overview of the rehabilitation required to the existing, aging trunk water main system in Manhattan (20 inches and larger). Improvements, mainly connections to Water Tunnel No. 3, which are presently under construction, will be included in this plan. Water supply improvements necessitated by the Proposed Action will be accounted for in this plan and implemented. With the Trunk Plan improvements in place, there would be no significant adverse impacts on water pressure or water availability. The DEP has advised that there will be adequate water supply to accommodate the demand of the Proposed Action and future background growth in 2025.

The City is preparing an Amended Drainage Plan that will identify specific upgrades to the combined sewer system to accommodate the Proposed Action. Those upgrades would be sufficient to accommodate the Proposed Action. As part of the Amended Drainage Plan, the City has identified four sub-drainage areas within the Project Area where storm sewer separation would be implemented. These separate storm sewers would discharge storm water directly to the Hudson River and thus reduce flows being directed to the combined sewer system. In addition, the City would modify, as required, the regulators receiving flow from the Project Area. The DEP has indicated that the existing North River Wastewater Pollution Control Plant (WPCP) would have sufficient capacity within its current permit to handle the increased wastewater generated by the Proposed Action in 2025.

Changes to the MTA Corona Yard would not result in a significant increase in water demand or the volume of wastewater requiring treatment, since the changes at Corona Yard would be limited to providing increased train storage. The changes in Corona Yard would not result in a significant increase in the volume or rate of stormwater, because the proposed improvements would only minimally increase the amount of impervious surface at the facility.

14. Solid Waste and Sanitation Services

No significant adverse impacts relating to solid waste or sanitation services would result from the Proposed Action.

The projected development of approximately 28 million square feet of commercial office space and 12.5 million square feet of residential space would generate approximately 266 tons per week (tpw) of municipal solid waste and 1,044 tpw of commercial solid waste.

The municipal solid waste generated by the Proposed Action would require two additional collection trucks and 12 additional sanitation workers. These additional resource requirements would not result in significant adverse effects on DSNY operations. The DSNY has indicated that the municipal solid waste management system, as described in the current SWMP and the October 2004 Draft New SWMP, would accommodate the projected quantities of municipal solid waste that would be generated by the Proposed Action on 2025.

A peak capacity event at the Multi-Use Facility, with 75,000 patrons in attendance, would result in approximately 11.5 tons of solid waste, while the average weekly volume of solid waste would be an estimated 25 tons. A peak event at the expanded Convention Center would result in approximately 23 tons of solid waste daily, while the typical weekly volume of solid waste would be approximately 58 tons. Both the Multi-Use Facility and Convention Center use private carters to dispose of solid waste.

Operation of the extended No. 7 Subway Line would generate approximately 10 tpw of solid waste, principally from the Terminal and Intermediate Stations. The modification of Corona Yard to house the additional trains required by the Proposed Action would result in a minimal increase in the amount of solid waste. MTA NYCT uses private carters to dispose of solid waste collected at subway stations.

15. Energy

No significant adverse impacts relating to energy supply or use would result from the Proposed Action.

The full build of the Proposed Action by 2025 would require approximately 309 Megawatts (MW) during peak electrical demand, based on Con Edison estimates of the identified buildings and facilities that are expected to be in place. Of the four principal project elements, the anticipated residential and commercial developments allowed under the proposed rezoning would result in the greatest demand for electricity.

A peak capacity event at the Multi-Use Facility would require approximately 10 MWh or 34 million British Thermal Units (70 billion BTUs annually); a peak event at the expanded Convention Center would call for approximately 36 MWh or 123 million BTUs (341 billion BTUs annually).

Operation of the No. 7 Subway Extension, the Terminal Station (West 34th Street and Eleventh Avenue), Intermediate Station (West 41st Street and Tenth Avenue), and associated systems buildings of the No. 7 Subway Extension would require approximately 21,040 MWh (75 billion BTUs) of electrical consumption annually. Modification of Corona Yard would result in a minimal increase demand for energy services. The modified Corona Yard operation is estimated to require 69 KW units for auxiliary power.

During the No. 7 Subway Extension construction, equipment required for excavation and construction of the subway tunnel, stations, and associated facilities would require approximately 12 megawatts (MW) of electricity. The power would be supplied by approximately six, 13.2 Kilovolt feeder cables which would power the Tunnel Boring Machine (TBM), conveyor belt removing spoil, tunnel ventilation fans, and other construction equipment. Coordination with Con Edison to provide the necessary electrical power for construction activities is ongoing.

Con Edison has indicated that improvements to the existing energy distribution system would be required to accommodate the projected demand for energy services generated by the Proposed Action. Con Edison has estimated that one area substation within the Project Area would need to be in operation by 2013 and a second area substation would be needed by 2021. A new transmission substation would be needed by 2013 to service the Project Area and background growth in the surrounding communities. The transmission substation would serve the two new area substations, but would not have to be located within the Project Area. As specific designs for future residential and commercial developments within the Rezoning Area are prepared, coordination with Con Edison will be necessary to identify electric utility upgrades. Under the Zoning Text Amendments, existing provisions of the Zoning Resolution would continue to allow for electrical utility substations through the following provisions: as-of-right in manufacturing zoning districts; in residential and commercial zoning districts, through a special permit of the Board of Standards and Appeals where there is no conflict with the retail continuity requirements of the Zoning Text Amendments, and by special permit of the City Planning Commission where waiver or modification of the retail continuity requirements is sought (Appendix A.1, Proposed Zoning Text and Map Amendments).

Con Edison has estimated that the incremental gas load of the Proposed Action is projected to be 4 million cubic feet per hour (CFH) by 2025. The peak natural gas demand for the expanded Convention Center would be approximately 150,000 CFH or 150 million BTUs. The Multi-Use Facility would be approximately 90,000 CFH of natural gas during peak events and approximately 63,000 therms annually.

Con Edison's gas transmission and distribution facilities would be used to deliver natural gas to the Project Area. There would have to be upstream modifications and enhancements to the transmission and distribution system to meet the increased demand. Locally, new gas mains, service lines and metering will need to be constructed to support the new customer load.

Con Edison's district steam system could potentially provide an alternative source of heating and cooling for the Project Area. Utilization of steam as an alternative could reduce some of the

forecasted peak loads for electric and gas mentioned above. The district steam system provides steam for heating and cooling in parts of Manhattan but it is not currently available in most of the Project Area. Con Edison's steam plants and underground distribution piping would be used to generate and deliver steam to the area. There would have to be modifications and enhancements to these systems, including extending and enhancing distribution mains, service lines and metering stations, to serve additional customers. Con Edison has estimated an incremental steam load of approximately 750,000 to 1,000,000 pounds per hour by 2025, if all the newly developed properties in the area utilized Con Edison's district steam system for heat and hot water. Under the steam rate plan recently approved by the New York State Public Service Commission, which was supported by the City of New York and others, a Steam Business Development Task Force will be formed. The Task Force will include representatives from the City, and among its assignments will be to examine the potential for steam service in major developments like the Hudson Yards area.

16. Traffic and Parking

The Proposed Action would have significant adverse traffic impacts in 2010 and 2025; most, but not all, of these impacts could be mitigated through traffic engineering improvements and other mitigation measures.

No significant adverse impacts are expected relating to parking in either 2010 or 2025 as result of the Proposed Action.

The Proposed Action would result in significant commercial and residential development, resulting in an increase in the number of trips into and out of the Project Area every day. These additional trips, as well as those generated by the proposed Multi-Use Facility and the expanded Convention Center, formed the basis of the traffic and parking impact evaluations. The traffic impact analysis was conducted using an extensive network that included 229 signalized intersections in 2010 and 238 signalized intersections in 2025 and five unsignalized intersections, each in five separate peak hours (AM, Midday, PM, weeknight Special Event, and Sunday Special Event). The analysis indicated that increases in trips during weekday peak hours would be generated for the most part by the rezoning and redevelopment action, while increases in trips during the less frequent Special Event peak hours (approximately 19 times per year) would be related to the proposed Multi-Use Facility, and to a lesser extent, the expanded Convention Center, the rezoning, and the expansion of MSG.

Highly conservative combinations of events and vehicular trip assumptions were factored into the analysis methodology to ensure that the analysis determined potential impacts of the reasonable worst-case scenario. Examples of the combination of conservative assumptions included simultaneous high-attendance events at the Convention Center, Multi-Use Facility, and MSG; full development of the commercial and residential uses contemplated by the Proposed Action; and an annual increase of background traffic of 0.5 percent for each year through 2025 (a cumulative background increase of approximately 11 percent).

2010 Traffic Analysis

In the 2010 Future With the Proposed Action, the Proposed Action is expected to have significant adverse traffic impacts at 33 intersections in the weekday AM peak hour, 35 intersections in the Midday peak hour, and 39 intersections in the weekday PM peak hour. All of these impacts could be mitigated through the implementation of standard traffic engineering improvements, including traffic signal timing changes, lane channelization improvements, the elimination of on-street parking on intersection approaches, and prohibition of turn movements. Upon implementation of the proposed mitigation measures, no unmitigated significant adverse impacts would occur in the AM, Midday, or PM peak hours.

Of the 51 signalized intersections studied for the Special Event peak periods for 2010, 22 intersections would have significant impacts in the weeknight Special Event peak hour (which would occur approximately 10 to 11 times per year) and 26 intersections would have significant impacts in the Sunday Special Event peak hour (which would occur approximately 8 to 9 times per year between

August and January). Most of these impacts could be mitigated through the implementation of standard traffic engineering improvements, including traffic signal timing changes, lane channelization improvements, the elimination of on-street parking on intersection approaches, and prohibition of turn movements. However, four intersections would continue to have unmitigated significant impacts during both the weeknight and Sunday Special Event peak hours. The intersections with significant impacts which could not be mitigated during the Special Event peak hours would be West 34th Street at Eleventh, Tenth, Ninth, and Eighth Avenues.

Of the four unsignalized intersections remaining in the 2010 Future With the Proposed Action compared to the 2010 Future Without the Proposed Action, none would have significant impacts in the AM and Midday peak hours, and one, Twelfth Avenue at West 47th Street, would have such an impact in the PM peak hour. This intersection would be mitigated through installation of a traffic signal (if determined to be warranted).

In 2010 the Proposed Action would not have any significant adverse impact to river crossings during the weekday AM, Midday, and PM peak hours. One facility, the Lincoln Tunnel, would have an impact in the westbound direction during the Sunday Special Event peak hour.

As part of the anticipated office and residential developments included in the Future Without the Proposed Action, off-street parking is anticipated to be more highly utilized in the future. Sufficient parking is anticipated to be available during all peak periods.

2025 Traffic Analysis

In the 2025 Future With the Proposed Action, the Proposed Action is expected to have significant adverse impacts at 122 intersections in the AM peak hour; 99 intersections in the Midday peak hour; and 134 intersections in the PM peak hour. Most of these impacts could be mitigated through the implementation of standard traffic engineering improvements, including traffic signal timing changes, lane channelization improvements, the elimination of on-street parking on intersection approaches, and prohibition of turn movements. However, six intersections would have unmitigated significant impacts during the AM peak hour, two intersections would have unmitigated significant impacts during the Midday peak hour, and seven intersections would have unmitigated significant impacts during the PM peak hour.

Of the 60 signalized intersections studied for the Special Event peak hours for the 2025 Future With the Proposed Action, 26 intersections would have significant impacts in the weeknight Special Event peak hour and 34 intersections would have significant impacts in the Sunday Special Event peak period. As with the 2010 Future With the Proposed Action, these conditions would occur approximately 19 times per year, namely ten to eleven weeknights, and eight to nine Sunday afternoons. Most of these impacts could be mitigated through the implementation of standard traffic engineering improvements, including traffic signal timing changes, lane channelization improvements, the elimination of on-street parking on intersection approaches, and prohibition of turn movements. However, four intersections would still have unmitigated significant impacts during both the weeknight and Sunday Special Event peak hours.

Of the four unsignalized intersections remaining in the 2025 Future With the Proposed Action compared to the 2025 Future Without the Proposed Action, none would have a significant impact in the AM peak, one intersection would have a significant impact in the Midday peak hour (Twelfth Avenue at West 47th Street), and one intersection would have a significant adverse impact in the PM peak hour (Twelfth Avenue at West 45th Street). Installation of a traffic signal at each location would mitigate each of these projected impacts (if determined to be warranted).

While there would be significant impacts at six river crossings in 2025, and the Queens Midtown Tunnel would be over capacity outbound in the weekday PM peak hour, it is likely that these facilities would be less congested than projected, because the crossings serve a regional function and many drivers associated with the Proposed Action would likely use these facilities for other Manhattan destinations even in the absence of the Proposed Action.

As part of the anticipated office and residential developments included in the Future Without the Proposed Action, off-street parking is anticipated to be more highly utilized in the future. Demand for parking in the 2025 Future With the Proposed Action would be the result of the new office and residential development and the demand generated by parking displaced as existing parking facilities are redeveloped. Sufficient parking is anticipated to be available during all peak periods, except the Midday peak period, when a shortfall of approximately 52 parking spaces in the study area is anticipated due to demand generated by a combination of office and residential uses, and convention events. The projected shortfall would be insignificant when compared to the total capacity during this time period (i.e., a shortfall of 52 out of a total capacity of 31,067 spaces in the study area, which would be less than ½ of one percent of the total and distributed over numerous parking facilities).

17. Transit and Pedestrians

The Proposed Action would have no significant adverse impacts on subway line haul, ferry operations, or bicycle routes. The Proposed Action would have significant adverse impacts relating to individual subway station elements, bus routes, and pedestrian elements in 2010 and 2025; many, but not all, of these impacts could be mitigated.

Analyses of transit and pedestrian conditions included operations of subway lines (line-haul) and subway stations elements (stairways, passageways, turnstiles and High Entrance/Exit Turnstiles, or HEETs), commuter railroad stations, bus services, and ferry services, as well as pedestrian elements (sidewalks, corners, crosswalks, and bicycle routes). The Proposed Action would cause significant adverse impacts to certain subway station elements, bus services, and pedestrian elements. Most of these could be mitigated through implementation of the measures described in this FGEIS. In the absence of such measures, these impacts would remain unmitigated. No significant impacts are projected for subway line-haul, ferry operations, and bicycle routes.

Multiple conservative assumptions were factored into the 2010 and 2025 transit and pedestrian analyses set forth in this FGEIS. Assumptions for the Special Event peak periods include a simultaneous 85th percentile event at the expanded Convention Center and full-attendance events at the Multi-Use Facility and at MSG (full attendance events at MSG, assumed to be expanded by 2025, calculated at 95% occupancy of any individual Rangers or Knicks game, with a no-show rate of five percent). This scenario is unlikely to occur more than once a year.

Subway Stations – 2010

For 2010, 311 subway station elements were analyzed for the AM and PM peak hours, including 232 stairways, three corridors, 27 escalators, 32 turnstiles, and 17 HEETs. For the weeknight and Sunday Special Event peak hours, 49 subway station elements were analyzed, including 31 stairways, 3 corridors, and 15 escalators.

In 2010, the Proposed Action would result in significant impacts at nine station elements in the AM peak hour. Two stairways could be mitigated through widenings, four stairways could be mitigated through the construction of new stairways, one stairway could be mitigated through the construction of a new escalator, and one HEET array could be mitigated through the installation of an additional HEET (increase from two to three HEETs). Mitigation measures would not be available to sufficiently mitigate the anticipated impacts at one station element (one stairway at the 42nd Street–Grand Central station providing access to/from the No. 7 line platform). Therefore, one unmitigated significant adverse impact would occur in the AM peak hour.

In the PM peak hour, four station elements would be subject to significant impacts. Three of these elements would be stairways at the Times Square–42nd Street station providing access to the Seventh Avenue platform. These three could be mitigated through widening the stairways and constructing a new stairway. In addition, the HEET at the 42nd Street–PABT station which would be subject to impacts could be mitigated by the installation of an additional HEET (increase from two to three HEETs). Therefore, of the 311 subway station elements analyzed, all significant adverse impacts would be mitigated for the PM peak hour.

In the weeknight Special Event peak hour, the Proposed Action would have a significant adverse impact at three locations. One of these locations, an escalator providing access to/from the No. 7 line platform at the 42nd Street–Grand Central station, could be mitigated through the installation of a higher speed escalator. All other elements would operate at sufficient levels, so no unmitigated significant impacts would occur during the 2010 weeknight Special Event peak hour.

In the Sunday Special Event peak hour, the Proposed Action would have a significant adverse impact at two subway station elements. One of these locations, an escalator providing access from the No. 7 line platform at the 42nd Street–Grand Central station, could be mitigated through the installation of a higher speed escalator. All other elements would operate at sufficient levels, so no unmitigated significant impacts would occur during the 2010 Sunday Special Event peak hour.

Subway Stations – 2025

For 2025, 311 subway station elements were analyzed for the AM and PM peak hours, including 232 stairways, 3 corridors, 27 escalators, 32 turnstiles, and 17 HEETs. For the weeknight and Sunday Special Event peak hours, 49 subway station elements were analyzed, including 31 stairways, 3 corridors, and 15 escalators.

In 2025, the Proposed Action would result in significant adverse impacts at 21 station elements in the AM peak hour (consisting primarily of stairways at the Times Square–42nd Street station and at the 42nd Street–Grand Central station). All of these elements could be mitigated through implementation of mitigation measures. Five stairways could be mitigated through widenings, eight stairways could be mitigated through the construction of new stairways, four stairways and two escalators could be mitigated by reconstructing stairways which have been removed or reopening stairways which have been closed, one stairway could be mitigated through the construction of a new escalator, and one HEET array could be mitigated through the installation of an additional HEET (increase from two to three HEETs). The unmitigated impact previously identified in the 2010 Future with the Proposed Action AM peak hour would not be a significant impact in 2025 due to increased transit services (e.g., Second Avenue subway line), which would shift demand to different locations.

In the PM peak hour, the Proposed Action would result in significant adverse impacts at 14 station elements (consisting primarily of stairways at the Times Square–42nd Street station and escalators at the 34th Street–Herald Square station). All of these elements could be mitigated through implementation of mitigation measures. Of these 14 locations, four could be mitigated through the construction of new stairways, three could be mitigated through the widening of stairways, three stairways and two escalators could be mitigated by reconstructing stairways which have been removed or reopening stairways which have been closed, one escalator could be mitigated through replacement with a higher speed escalator, and one location could be mitigated through the installation of an additional HEET (from two to three HEETs).

In the weeknight Special Event peak hour, the Proposed Action would result in one significant adverse impact. The potential impact at Escalator E209 (providing access to/from the No. 7 line platform at the 42nd Street–Grand Central station) could be mitigated by replacing the escalator with a higher-speed model. All other elements would operate at sufficient levels, so no unmitigated significant adverse impacts to subway elements would result.

In the 2025 Future With the Proposed Action, Sunday Special Event peak hour, the Proposed Action would result in one significant adverse impact. The potential impact at Escalator E207 (providing access from the No. 7 line platform at the 42nd Street–Grand Central station) could be mitigated by replacing the escalator with a higher-speed model. All other elements would operate at sufficient levels, so that no unmitigated significant adverse impacts to subway elements would result.

Bus Routes – 2010

The twenty-four bus routes (twelve in two directions each) currently providing service within a ½-mile radius of the redevelopment area were analyzed for existing service conditions and potential significant adverse impacts from increased utilization in the 2010 Future With the Proposed Action.

In the AM peak hour, 22 bus routes currently serving the study area would provide sufficient capacity based on the existing service plans. Two routes, the M-11 (southbound) and the M-34/M-16 (westbound) would not be able to provide sufficient capacity, based on the existing service plans. Sufficient capacity could be provided by adding more standard buses to each of these routes (four more vehicles and one more vehicle, respectively). If these measures are implemented, no unmitigated impacts would occur to bus service.

In the PM peak hour, 22 bus routes currently serving the study area would provide sufficient capacity based on the existing service plans. The M-11 (northbound) and the M-34/M-16 (eastbound) would not be able to provide sufficient capacity, based on the existing service plans. Sufficient capacity could be provided by adding more standard buses to each of these routes (four and three more vehicles, respectively). If these measures are implemented, no unmitigated impacts would occur to bus service.

In the weeknight Special Event peak hour, 23 bus routes currently serving the study area would provide sufficient capacity based on the existing service plans. One route, the M-34/M-16 (westbound) would not be able to provide sufficient capacity, based on the existing service plan. Sufficient capacity could be provided by adding 11 additional vehicles to this route. If this measure is implemented, no unmitigated impacts would occur to bus service.

In the Sunday Special Event peak hour, 21 bus routes currently serving the study area would provide sufficient capacity based on the existing service plans. The M-11 (north- and southbound) and the M-34/M-16 (eastbound) would not be able to provide sufficient capacity, based on the existing service plans. Sufficient capacity could be provided by adding more standard buses to each of these routes (one, three, and ten more vehicles, respectively). If these measures are implemented, no unmitigated impacts would occur to bus service.

Bus Routes – 2025

The twenty-four bus routes (twelve in two directions each) currently providing service within a ½-mile radius of the redevelopment area were analyzed for existing service conditions and potential impacts from increased utilization in the 2025 Future With the Proposed Action.

In the AM peak hour, six routes, including the M-10/M-20 (southbound), M-11 (north- and southbound), M-34/M-16 (westbound), M-42 (westbound), and Q-32 (westbound) would not be able to provide sufficient capacity, based on the existing service plans. Sufficient capacity could be provided by adding more standard buses to the M-10/M-20 (four more vehicles), M-42 (14 more vehicles), and Q-32 (two more vehicles), and by converting the M-11 and M-34/M-16 to articulated service and adding additional vehicles (23 and 18 more vehicles, respectively). If these measures are implemented, no unmitigated impacts would occur to bus service.

In the PM peak hour, eight routes, including the M-10/M-20 (northbound), M-11 (north- and southbound), M-34/M-16 (east- and westbound), M-42 (east- and westbound), and Q-32 (eastbound) would not be able to provide sufficient capacity, based on the existing service plans. Sufficient capacity could be provided by adding more standard buses to the M-10/M-20 (13 more vehicles), M-42 (19 more vehicles eastbound and four more vehicles westbound), and Q-32 (three more vehicles), and by converting the M-11 and M-34/M-16 to articulated service and adding additional vehicles (27 and 19 more vehicles, respectively). If these measures are implemented, no unmitigated significant adverse impacts would occur to bus service.

In the weeknight Special Event peak hour, 21 bus routes currently serving the study area would provide sufficient capacity, based on the existing service plans. The M-11 (north- and southbound)

and the M-34/M-16 (westbound) would not be able to provide sufficient capacity, based on the existing service plan. Sufficient capacity could be provided by adding additional vehicles to the M-11 and M-34/M-16 routes. If these measures are implemented, no unmitigated impacts would occur to bus service.

In the Sunday Special Event peak hour, 17 bus routes currently serving the study area would provide sufficient capacity, based on the existing service plans. The M-10/M-20 (northbound), M-11 (north- and southbound), the M-34/M-16 (east- and westbound), and the M-42 (east- and westbound) would not be able to provide sufficient capacity, based on the existing service plans. Sufficient capacity could be provided by adding additional vehicles to the M-10/M-20, M-42, M-11, and M-34/M-16 routes. If these measures are implemented, no unmitigated impacts would occur to bus service.

Ferry Routes – 2010

Six New York Waterway ferry routes currently provide service to the Project Area at Pier 78. Ferry utilization in the 2010 Future With the Proposed Action is projected to increase compared to demand in the 2010 Future Without the Proposed Action. The capacity of the new ferry terminal at West 39th Street (with six slips and a capacity of 28,000 people per hour, scheduled to open in Spring 2005) would be sufficient to accommodate the additional demand on all six of its routes, including the additional demand of approximately 200 riders in the commuter peak hour and approximately 7,000 riders during the Special Event peak hours. For the 2010 Future With the Proposed Action, the increases in peak hour weekday ridership are projected to vary from approximately one percent (Belford, New Jersey to Pier 78, New York, requiring a transfer at Pier 11/Wall Street, New York) to 96 percent (Lincoln Harbor, New Jersey to Pier 78, New York). By providing weekday peak hour service during the Special Event peak hours plus eight additional ferry trips, the additional demand generated by the Proposed Action could also be accommodated.

Ferry Routes – 2025

Ferry utilization in the 2025 Future With the Proposed Action is projected to significantly increase compared to demand in the 2025 Future Without the Proposed Action. The existing capacity of current New York Waterway ferry services is not anticipated to be sufficient to accommodate the additional demand on three of the six routes. Demand for the following routes is projected to be greater than the existing service provides:

- Lincoln Harbor, New Jersey to Pier 78, New York (AM and PM peak hours);
- Hoboken, New Jersey to Pier 78, New York (AM peak hour); and
- Colgate, New Jersey to Pier 78, New York (AM and PM peak hour).

Each of these deficits could be satisfied by adding one additional run per hour. By providing weekday peak hour service during the Special Event peak hours plus eight or nine additional ferry trips (in the weeknight and Sunday Special Event peak periods, respectively), the additional demand generated by the Proposed Action could also be accommodated.

The new ferry terminal at West 39th Street (with six slips and a capacity of 28,000 people per hour, scheduled to open in Spring 2005) would be sufficient to accommodate the additional demand for ferry services in 2025, including the additional demand of approximately 700 riders in the commuter peak hour and approximately 7,000 during the Special Event peak hours. This increased demand is therefore not anticipated to significantly impact service operations.

Pedestrian Elements – 2010

A total of 750 pedestrian elements were analyzed for the AM, Midday, and PM peak hours for the 2010 Future With the Proposed Action, including 380 sidewalks, 170 corners, and 193 crosswalks. A total of 317 pedestrian elements were analyzed for the weeknight and Sunday Special Event peak hours, including 160 sidewalks, 75 corners, and 82 crosswalks.

In the AM peak hour in the 2010 Future With the Proposed Action, 746 elements are anticipated to operate without impacts, two would have significant adverse impacts that could be mitigated, and two (the northwest corner of Eighth Avenue and West 33rd Street and the southeast corner of Eighth Avenue at West 42nd Street) would have significant adverse impacts that could not be mitigated.

In the Midday peak hour, 746 elements would not have significant adverse impacts, one would have a significant adverse impact that could be mitigated, and three would have significant adverse impacts that could not be mitigated. The unmitigated significant adverse impacts would include three corners (the northeast corner of Ninth Avenue at West 42nd Street, the southeast corner of Eighth Avenue at West 39th Street, and the southeast corner of Eighth Avenue at West 42nd Street).

In the PM peak hour, 742 elements would not have significant adverse impacts, six would have significant adverse impacts that could be mitigated, and two would have significant adverse impacts that could not be mitigated. These two unmitigated significant adverse impacts would include the northeast corner of Ninth Avenue at West 42nd Street and the east crosswalk at Eighth Avenue at West 33rd Street.

In the weeknight Special Event peak hour, 280 elements would not have significant adverse impacts, 26 would have significant adverse impacts that could be mitigated, and 11 would have significant adverse impacts that could not be mitigated. The unmitigated significant adverse impacts would include six corners and five crosswalks, mostly between West 30th and West 34th Streets along Eighth, Ninth, Tenth, and Eleventh Avenues.

In the Sunday Special Event peak hour, 270 elements would not have significant adverse impacts, 29 would have significant adverse impacts that could be mitigated, and 18 would have significant adverse impacts that could not be mitigated. The unmitigated significant adverse impacts would include three sidewalks, six corners, and nine crosswalks, concentrated mostly between West 30th and West 34th Streets along Ninth, Tenth, and Eleventh Avenues.

Pedestrian Elements – 2025

Due to the implementation of the proposed Midblock Boulevard, additional pedestrian elements were analyzed for the 2025 Future With the Proposed Action. A total of 819 pedestrian elements (413 sidewalks, 192 corners, and 214 crosswalks) were analyzed for the AM, Midday and PM hours; 386 pedestrian elements (193 sidewalks, 90 corners, and 103 crosswalks) were analyzed for the 2025 weeknight and Sunday Special Event peak hours.

In the AM peak hour in the 2025 Future With the Proposed Action, 786 elements are anticipated to operate without significant adverse impacts, 18 would have significant adverse impacts that could be mitigated, and 15 would have significant adverse impacts that could not be mitigated. The unmitigated significant adverse impacts would include eight corners (along multiple avenues at 33rd, 35th, and 42nd Streets) and seven crosswalks (mostly between 33rd and 37th Streets, on multiple avenues).

In the Midday peak hour, 741 elements would not have significant adverse impacts, 37 would have significant adverse impacts that could be mitigated, and 41 would have significant adverse impacts that could not be mitigated. The unmitigated significant adverse impacts would include 19 corners (most heavily concentrated along Tenth Avenue from West 30th to West 37th Streets) and 22 crosswalks (mostly along 31st, 33rd, and 34th Streets). No sidewalk locations would have significant adverse impacts.

In the PM peak hour, 766 elements would not have significant adverse impacts, 22 would have significant adverse impacts that could be mitigated, and 31 would have significant adverse impacts that could not be mitigated. These significant adverse impacts would include one sidewalk (at Tenth Avenue and West 33rd Street), 18 corners (mostly along West 33rd and West 34th Streets, between Sixth and Tenth Avenues), and 12 crosswalks (mostly along West 33rd and West 34th Streets, between Seventh and Tenth Avenues).

In the weeknight Special Event peak hour, 364 elements would not have significant adverse impacts, 13 would have significant adverse impacts that could be mitigated, and nine would have significant adverse impacts that could not be mitigated. The unmitigated significant adverse impacts would include three sidewalks (at Eleventh Avenue at West 33rd Street and West 34th Street, and Ninth Avenue at West 33rd Street), two corners (at Tenth Avenue at West 33rd Street and Eighth Avenue at West 34th Street), and four crosswalks (at West 33rd and West 34th Streets along Eighth, Ninth, Tenth, and Eleventh Avenues).

In the Sunday Special Event peak hour, 356 elements would not have significant adverse impacts, 15 would have significant adverse impacts that could be mitigated, and 14 would have significant adverse impacts that could not be mitigated. The unmitigated significant adverse impacts would include three sidewalks (at Eleventh Avenue at West 33rd Street and West 34th Street, and Ninth Avenue at West 33rd Street), four corners (at West 33rd and West 34th Streets at Ninth, Tenth, and Eleventh Avenues), and seven crosswalks (at West 33rd and West 34th Streets along Eighth, Ninth, Tenth, and Eleventh Avenues).

18. Air Quality

The Proposed Action would not result in any significant air quality impacts in either 2010 or 2025.

Mobile Source Analysis – Microscale Intersections

The mobile source air quality analysis builds on the highly conservative traffic assumptions and conditions used for the Traffic and Parking analyses. In addition, the FGEIS air quality analysis utilized two levels of analysis: (1) a Tier I analysis, which is usually conducted for one or more peak traffic periods with the assumption that the peak hour traffic conditions will persist for each hour of the 8-hour, 24-hour, and annual time periods that correspond to the National Ambient Air Quality Standards (NAAQS) for each pollutant; and (2) a Tier II analysis, which uses traffic volumes, speeds, vehicular emissions, and signalization data for each hour of the peak 24-hour period (as opposed to the one-hour requirement for the Tier I analysis). The results of the Tier II analysis are a more realistic prediction of likely pollutant concentrations.

The more detailed Tier II analysis was conducted for the Proposed Action for those analysis sites and for those pollutants where potential exceedances of either an air quality standard (i.e., PM₁₀) or significant impact threshold (i.e., PM_{2.5}) were identified in the DGEIS:

- Site 1 Route 9A & West 57th Street: Tier I
- Site 2 Route 9A & West 42nd Street: Tier II
- Site 3 Route 9A & West 34th Street: Tier II
- Site 4 Eleventh Avenue & West 37th Street: Tier I
- Site 5 Eleventh Avenue & West 42nd Street: Tier II
- Site 6 Eleventh Avenue & West 34th Street: Tier II
- Site 7 Tenth Avenue & West 34th Street: Tier II
- Site 8 Tenth Avenue & West 39th/West 40th Streets (Lincoln Tunnel access): Tier II
- Site 9 Herald Square (Broadway and West 34th Street): Tier II
- Site 10 Eighth Avenue & West 42nd Street: Tier I
- Site 11 Second Avenue & East 36th Street (Queens Midtown Tunnel): Tier I
- Site 12 Route 9A & Canal Street: Tier II
- Site 13 Tenth Avenue & West 42nd Street: Tier II
- Site 14 Ninth Avenue & West 34th Street: Tier II

The results of the mobile source analysis for the Proposed Action indicate the following:

Carbon Monoxide (CO) – The Proposed Action is not predicted to cause any exceedance of the NAAQS for CO or any significant CO impacts of the New York City Department of Environmental Protection (DEP) de minimis criteria in either 2010 or 2025.

Particulate Matter (PM₁₀) – The Proposed Action is not predicted to cause any exceedances of either the 24-hour or annual NAAQS for PM₁₀ in either 2010 or 2025.

Fine Particulate Matter (PM_{2.5}) – The Proposed Action is not predicted to cause exceedances of the 24-hour NAAQS for PM_{2.5}. Although background concentrations exceed the annual NAAQS for PM_{2.5}, the Proposed Action is not predicted to cause any increases above the DEP 24-hour or annual interim Significant Threshold Value (STV) for PM_{2.5} in either 2010 or 2025.

Mobile Source Analysis – Parking Facilities

Emissions associated with the new parking facilities and the relocated Quill Bus Depot, DSNY Maintenance Garage, and NYPD Tow Pound facilities included in the Proposed Action are not expected to cause an exceedance of any NAAQS or any significant adverse CO, PM₁₀, or PM_{2.5} impacts.

Mobile Source Analysis – Lincoln Tunnel Ventilation Building and Portals

Emissions associated with the Lincoln Tunnel ventilation buildings and portals by themselves would not have any significant CO, PM₁₀, or PM_{2.5} impacts or cause any NAAQS exceedances.

Mobile Source Analysis – Convention Center Truck Marshalling Facility

Emissions associated with the Convention Center Truck Marshalling Facility would not have any significant CO, PM₁₀ or PM_{2.5} impacts or cause any NAAQS exceedances.

Stationary Source Analysis – HVAC and Air Toxics

The analysis of combustion exhausts and air toxics from industrial sources at the Multi-Use Facility, expanded Convention Center, and Quill Bus Depot demonstrated that the Proposed Action would not result in any significant air quality impacts for 2010 or 2025 other than SO₂ and spray booth emissions from the Quill Bus Depot, both of which will be avoided or mitigated through operational procedures by NYCT. Impacts would be avoided by placing (E) Designations on properties through the rezoning, where warranted, that would either restrict the stack location or fuel type for HVAC systems of projected and potential developments. In addition, it should be noted that, since the height of HVAC sources would be equal to the proposed building heights, the pollutant concentrations at ground-level receptors would be inconsequential, and therefore would not contribute to predicted ground-level impacts from mobile sources (nor would mobile sources concentrations affect impacts at elevated receptors near the height of HVAC sources).

19. Noise and Vibration

The Proposed Action has the potential to result in significant adverse noise impacts, all of which are expected to be avoided or mitigated through application of (E) Designations and City-sponsored window-replacement programs.

The Proposed Action would introduce additional noise-sensitive land uses, including a substantial amount of new residences, to an area with current noise levels that can be classified as “Marginally Unacceptable” or “Clearly Unacceptable” as defined under City Noise Exposure Guidelines. These noise levels are typical of the noise levels currently found in many areas in Manhattan. The application of (E) Designations for new developments would avoid significant adverse impacts as a result of the introduction of these uses.

In addition, the Proposed Action’s increased traffic would cause noise levels in the study area to increase by more than 3 dBA (the increment that is acceptable to humans and therefore considered

significant) at 6 of the 19 analysis locations in 2010 and at 8 of the 19 analysis locations in 2025 during at least one of the five periods for which estimates for noise levels were completed. Maximum increases in noise levels in 2010 and 2025 with the Proposed Action would occur principally at locations along West 34th Street and Ninth, Tenth, and Eleventh Avenues. Implementation of a City-sponsored window replacement program for existing residences and community facilities, and furnishing alternate means of ventilation, would mitigate all such significant noise impacts.

Noise from Special Events at the Multi-Use Facility would not result in a significant adverse impact on noise levels in the Project Area. The contribution of noise emanating from the Multi-Use Facility when operating in open stadium mode to noise levels at sidewalk locations throughout the Study Area and at the nearest noise-sensitive land uses would be insignificant.

The operation of the No. 7 Subway Extension is not expected to result in any increase in noise or vibration levels above ground in the Project Area, because subway operations would occur deep below ground or in specially designated enclosures with no significant airborne contribution to noise or vibration. Neither vibration nor ground-borne noise levels would exceed the FTA vibration criterion levels at sensitive receptors. An increase in the frequency of subway service along the elevated portion of the No. 7 Subway alignment would not result in a significant adverse impact on noise levels in Queens.

20. Construction Impacts

During construction, the Proposed Action would have significant adverse impacts on air quality, noise, traffic, and historic resources. The air quality and traffic impacts would be mitigated; historic resource impacts could be addressed by Letter of Resolution with the OPRHP.

Construction-related impacts are expected within the Project Area and potentially along truck routes outside the Project Area. Table ES-1 identifies the major construction activities at each major component of the Proposed Action that could result in construction-related impacts.

**TABLE ES-1
CONSTRUCTION ACTIVITY AND ACTIVITY LOCATION**

Area/ Activity	Excavation and Backfill	Pile Install	Tunnel Boring Machine	Cut-and-Cover	Demolition	Caisson Installation	Superstructure	Spills Removal	Drilling and Blasting	Paving
No. 7 Subway Extension:										
Launch Site – 25th & 26th Sts. at 11th Ave.	•	•	•					•	•	
Launch Site to Terminal Station			•							
Terminal Station	•	•	•		•			•	•	
Terminal Station to Intermediate Station			•							
Intermediate Station	•	•	•	•	•			•	•	
Retrieval Site – 41st Street and 10th Ave.	•	•	•		•			•	•	
Intermediate Station to Times Sq.		•	•	•	•			•	•	
Convention Center Expansion	•	•			•	•	•	•		•
Quill Bus Depot	•				•			•		
Relocated Quill Bus Depot	•	•			•	•	•	•	•	•
Multi-Use Facility					•	•	•	•		•
Eastern Caemmerer Yard Development	•					•	•	•		•
Midblock Park and Boulevard System	•				•			•		•
Midblock Parking Garage	•				•		•	•	•	•
Anticipated Private Development	•	•			•	•	•	•		
DSNY/Tow Pound Facility (Block 675)	•	•			•	•	•	•	•	

Air Quality During Construction

The results of the updated cumulative air quality analysis for on-site activities (i.e., the effects of deconstruction, excavation activities, spoil and rock removal, and construction equipment) and off-site activities (e.g., the effects of traffic, including project-related truck trips and lane closures) indicated that the effect of these activities during the peak (reasonable worst case) construction period would not cause exceedances of the National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO), nitrogen dioxide (NO₂) and particulate matter smaller than 10 microns (PM₁₀) and 2.5 microns (PM_{2.5}) if Ultra-Low Sulfur Diesel (ULSD) fuel is used for all construction equipment and would not result in significant adverse impacts with respect to these pollutants. The results also show that, absent the mitigation measures described below, construction-phase impacts on PM_{2.5} levels would exceed the Significant Threshold Values (STVs) established by the New York City Department of Environmental Protection (DEP) and would therefore be significant. Because of this potential for significant adverse impacts of emissions from diesel-powered construction equipment on PM_{2.5} levels, the project sponsors are committed to the implementation of mitigation measures to reduce emissions from diesel engines and dust-generating activities. The emission reduction measures selected include requirements for contractors to use construction equipment that will comply with EPA's Tier 2 emission standards (post model year 2001/2003), retrofitting the equipment with diesel particulate filters (or, where that is not feasible, diesel oxidation catalysts or equivalent technology), and electrification of compressors, pumps, and welders. A description of the effects of these emission control measures is presented in the Emission Reduction Measures Section. With implementation of these mitigation measures, the construction-phase impacts would not exceed the PM_{2.5} STVs established by the New York City DEP and, therefore, would not have a significant adverse impact on air quality.

Noise and Vibration During Construction

Construction activities associated with the Proposed Action are expected, at times, to cause noticeable and significant increases in noise and vibration levels. Residences located in the following areas are expected to experience significant adverse impacts due to construction of elements of the Proposed Action: along Tenth Avenue north of West 42nd Street (as a result of construction of the Intermediate Station and private residential development on Projected Development Site 14); on West 40th Street between Eighth and Ninth Avenues (as a result of construction of the fan plant at Site N); at the corner of Dyer Avenue and West 41st Street (as a result of construction of the Intermediate Station and private residential development on Projected Development Site 14); between West 41st and West 42nd Streets east of Twelfth Avenue (as a result of construction of the Convention Center Hotel); and on West 35th Street between Tenth and Eleventh Avenues (as a result of construction of the Midblock Park and Boulevard System, the platform over Caemmerer Yard, and the Convention Center expansion).

Contractors for projects included in the Proposed Action would be required to strictly adhere to the applicable provisions of the New York City Noise Control Code and good engineering practices (e.g., proper maintenance and operation with muffling devices, shutting off idling machinery when not in use, etc.). Three categories of noise control approaches would also be explored and implemented: design considerations and project layout; sequence of operations; and alternative construction methods. New York City Transit (NYCT), through its Construction Environmental Protection Program (CEPP), would also develop mitigation measures that would reduce and, where practicable, eliminate significant construction noise impacts due to construction of the No. 7 Subway Extension. While these measures would minimize noise levels as a result of the Proposed Action, there would likely still be significant noise impacts at one or more sensitive receptors during the construction period at times throughout construction.

With the exception of pile driving, caisson drilling, and bulldozing, all of the vibration values for the types of equipment likely to be used during construction at distances greater than 20 feet are below the vibration damage threshold criteria for fragile buildings and for extremely fragile historic buildings. For construction at sites where there are fragile structures or vibration-sensitive uses

within the threshold distances, mitigation measures including blasting regulations and contract specification, site- and structure-specific vibration monitoring, programs responding to community feedback and concerns, and other site-specific control measures would be implemented.

Traffic During Construction

For the AM peak period, Eleventh Avenue at West 34th Street is the only intersection expected to have significant adverse impacts from construction-related traffic. For the Midday peak period, the intersections of West 34th Street with both Tenth and Eleventh Avenues are projected to have significant adverse impacts. For the PM peak period, Twelfth Avenue at West 34th Street is the only intersection expected to have significant adverse impacts from construction-related traffic. These impacts would result from (1) reduced roadway capacity due to lane closures adjacent to construction sites associated with the No. 7 Subway Extension development, as well as development of the Multi-Use Facility and the expansion of the Convention Center, and (2) as a result of increased truck traffic associated with construction of all elements of the Proposed Action. All such impacts could be mitigated through standard mitigation measures.

Land Use and Neighborhood Character During Construction

Construction activities occurring prior to 2010 would affect land use and neighborhood character in the vicinity of construction activities. The effects on land use and neighborhood character would be temporary – limited to the duration of the construction period – and would not constitute significant adverse impacts. Barriers and fencing surrounding construction sites, and MPT plans would reduce or eliminate these effects.

Socioeconomic Conditions During Construction

Construction activities related to the subway extension would, at some construction sites, temporarily affect socioeconomic conditions in the vicinity of above-ground construction. Some businesses could be affected where construction activities require temporary closing of lanes or portions of the sidewalk in front of businesses relying on pedestrian traffic. This situation would be temporary prior to 2010, and would be limited to two areas: (1) the south side of West 40th Street from the corner of Eighth Avenue extending west to a point approximately midway between Eighth and Ninth Avenues, which is anticipated to be closed from early 2005 to late 2009; and (2) along the north side of West 41st Street extending west from Tenth Avenue for approximately 200 feet. This stretch is anticipated to be closed for approximately four months starting in early 2006. Businesses located on the south side of West 40th Street, both those situated at street level and those on upper floors, rely on their visibility and accessibility to pedestrians to attract customers and generate sales. Both visibility and accessibility would be restricted due to sidewalk closures required for construction of ventilation components of the proposed subway extension. Along West 41st Street near Tenth Avenue, access to a parking garage would be restricted, and traffic congestion due to cut-and-cover construction for the Intermediate Station would deter some motorists from using the facility. At this location, construction would be scheduled such that the parking garage entrance would be disrupted for as brief a time as practicable. In instances where lane and sidewalk closures would be required, access to business would be maintained.

Effects of Construction on Historic Resources

For construction prior to 2010, there would be no significant adverse physical impacts to properties on State and National Registers of Historic Places (S/NR) or New York City Landmark (NYCL) properties within 90 feet of proposed construction activities, because they would be protected by compliance with TPPN #10/88 and other New York City Building Code regulations. There would be no adverse physical impacts to architectural resources from construction of the Midblock Park and Boulevard System and the No. 7 Subway Extension, because the City and NYCT would take protection measures (e.g., underpinning, limiting blast intensity, chemical rock splitting techniques, etc.) against inadvertent construction damage that could result from construction activities under the

control of a public agency. However, development could have adverse physical impacts on six architectural resources that are anticipated to remain on projected development sites or are located close enough (within 90 feet of proposed construction activities) to projected development sites to potentially experience adverse construction-related impacts from ground-borne construction-period vibrations. In addition, construction of the Multi-Use Facility, and development on the eastern portion of Caemmerer Yard, would result in the demolition of the High Line north of West 30th Street. The High Line has been identified by the State Historic Preservation Office (SHPO) as an historic resource, and Letters of Resolution have been entered into with SHPO with respect to mitigating this significant adverse impact. A portion of this structure could be rebuilt and integrated into the southern entrance to the Multi-Use Facility, partially mitigating this significant adverse impact (see Chapter 9, “Historical Resources”).

Effects of Construction on Transit and Pedestrians

Construction of the No. 7 Subway would require connecting the existing tracks in Times Square to the new tracks for the proposed alignment. During the period when this connection is made, service on the No. 7 Subway could be affected: either the frequency of service on the No. 7 Subway line would be reduced, or it is possible that No. 7 Subway would terminate at Queensboro Plaza in Queens. In order to minimize passenger inconvenience, this construction would occur during the weekends. In the event that service would be terminated at Queensboro Plaza, shuttle bus service would be provided to those stations in Queens where service would be precluded (i.e., 45th Road/Court House Square, Hunters Point Avenue and Vernon Boulevard/Jackson Avenue).

The subway mitigation at the Times Square station would require periodic outages on the Nos. 2 and 3 express tracks on selected nights and weekends for a period of approximately two years in order to complete the extended mezzanines and new stairways included in that mitigation.

Additionally, service to the Eighth Avenue Subway line could be affected by construction in the abandoned lower level of the Eighth Avenue Subway. During several weekends the number of available tracks would be reduced from two uptown and two downtown tracks to one set of tracks in each direction. Significant adverse impacts to subway operations are not expected.

Pedestrian traffic would be altered in the vicinity of construction sites where sidewalks would be closed or reduced in width. The locations of closed lanes and sidewalks are identified later in this chapter. In all cases, pedestrian access to businesses, residences, and community facilities would be maintained, with provisions for pedestrian safety (such as barriers, signage, sidewalk sheds, etc.) implemented as required by City building codes and the NYCDOT. No significant adverse impacts are anticipated.

Effects of Construction on Natural Resources

Construction activity would be located east of Route 9A, with the exception of two pedestrian bridges connecting the waterfront and the upland, and would not cause significant adverse impacts to the Hudson River or natural resources within the Project Area. Construction at Corona Yard would affect wetlands in the vicinity of Flushing Creek. Any loss of wetlands would be compensated by appropriate wetland creation/restoration/enhancement, and the use of best management practices would ensure the site’s water quality functions (see Chapter 13, “Natural Resources”).

Long Island, including Queens and portions of Brooklyn, is located above an EPA-designated sole source aquifer that supplies drinking water for southeastern Queens and Long Island, though Corona Yard is not located above the aquifer. Geotechnical and hazardous materials investigations, would be conducted prior to construction activity at Corona Yard in order to avoid any significant impacts on the environment.

Hazardous Materials During Construction

No significant adverse hazardous materials impacts are anticipated through construction of elements of the Proposed Action, because appropriate measures would be taken to limit worker and public exposure to hazardous materials through implementation of the CEPP and other measures.

21. Public Health

No significant adverse impact to Public Health is expected as a result of the Proposed Action.

Construction Period – During the worst case construction period, 2006, the Proposed Action would not cause exceedances of the health based National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO), nitrogen dioxide (NO₂) and particulate matter smaller than 10 microns (PM₁₀) and 2.5 microns (PM_{2.5}) if Ultra-Low Sulfur Diesel (ULSD) fuel is used for all construction equipment. The results also show that, absent the mitigation measures, construction-phase impacts on PM_{2.5} levels would exceed the Significant Threshold Values (STVs) established by the New York City Department of Environmental Protection (DEP) and would therefore be significant. With implementation of emission reduction measures, the construction-phase impacts would not exceed the PM_{2.5} STVs established by the New York City DEP and, therefore, the Proposed Action would not have a significant adverse impact on public health.

The Proposed Action would result in significant adverse construction period noise effects. However, it is anticipated that most of these noise impacts could be mitigated and that there would be no significant adverse impacts on public health. Accordingly, no significant adverse impacts regarding public health are expected as a result of construction activities.

Operational Period – The Proposed Action is not expected to result in any significant adverse effects on hazardous materials or solid waste and sanitation services. The Proposed Action would result in significant adverse impacts on noise. However, all such impacts could be mitigated. With such mitigation, the Proposed Action is not expected to result in any significant adverse impacts to public health during the operational period in either 2010 or 2025.

22. Unavoidable Adverse Impacts

Most of the potential significant adverse impacts of the Proposed Action could be avoided or mitigated through the implementation of a broad range of measures. However, there are a number of significant adverse impacts for which there are no reasonably practical mitigation measures or reasonable alternatives that would eliminate the impacts and meet the purpose and need of the Proposed Action.

Architectural Historic Resources – Construction of the Multi-Use Facility would partially remove sections of the High Line viaduct north of West 30th Street and west of Eleventh Avenue by 2010. Except for partial demolition of the High Line, a structure identified by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) as having historic significance, no adverse impacts to designated (architectural) cultural resources in the Project Area are anticipated by 2010 due to avoidance, protective, and mitigation measures that would be implemented during the design and construction phases of the project. Letters of Resolution (LORs) with OPRHP specify mitigation for the adverse impacts to the High Line, including photographic documentation and salvage. By 2025, the Proposed Action would result in an unavoidable adverse impact on one additional architectural resource that would be removed for constructing the open space corridor. Mitigation for this impact could include documentation according to Historic American Buildings Survey (HABS) standards. The Proposed Action would also result in unmitigated significant adverse impacts on eleven architectural resources that could be removed or altered for projected or potential development. These impacts would be unmitigated, because there are no mechanisms for implementing mitigation measures for as-of-right development. The Proposed Action would result in shadow impacts on the Eighth Avenue façade of the Farley Building, for which there would be no reasonable or feasible means of avoidance or mitigation. Additionally, impacts on St. Raphael's RC

Church could be partially mitigated. There is no feasible mitigation for the impacts on the church's west transept rose window.

Archaeological Resources – The Proposed Action could potentially result in significant unmitigated adverse impacts at two sites where archaeological resources could be present.

Traffic Levels – In 2010, the Proposed Action would result in unmitigated adverse impacts at four intersections during the weeknight and Sunday Special Event peak hours. In addition, in 2010 a significant impact is identified at the Lincoln Tunnel river crossing. In 2025, unmitigated traffic impacts could occur at six intersections during AM peak hours, two intersections at Midday peak hours, and seven intersections during the PM peak hour as a consequence of traffic that would be generated by the Proposed Action. Unmitigated adverse impacts would also occur at four intersections during the weeknight and Sunday Special Event peak hours.

Transit and Pedestrians – In 2010 the Proposed Action would result in significant unavoidable adverse pedestrian impacts at two intersections during the weekday AM peak hour, three intersections during the Midday peak hour, and two intersections during the PM peak hour in 2010. In addition, during the weeknight and Sunday Special Event peak hours, the Proposed Action would result in unmitigated pedestrian impacts at six and nine intersections, respectively. In 2025, unmitigated pedestrian impacts would result at six intersections during the AM peak hour, 21 intersections during the Midday peak hour, and 11 intersections during the PM peak hour. In addition, five intersections would have unavoidable pedestrian impacts during the weeknight and Sunday Special Event peak hours. Fewer Special Event peak hour impacts are projected for 2025 than for 2010, because the completion of the East Side Access project by 2025 would reduce the number of Long Island Rail Road passengers projected to walk from the Multi-Use Facility to Penn Station. One unavoidable adverse subway station element impact would result in the AM peak hour in 2010 at Stairway PL6 at Grand Central-42nd Street station, which provides access from the lower mezzanine to the No. 7 line platform. This unmitigated impact would not occur in 2025 due to increased transit services (i.e., Second Avenue subway line and East Side Access), which would shift demand to different locations.

Construction Period Noise – The Proposed Action has the potential to cause significant noise impacts during construction at five locations. Noise impacts would be mitigated or avoided to the maximum extent possible through adherence to the NYC Noise Control Code, good engineering practices, and other noise reduction measures.

23. Growth-Inducing Aspects of the Proposed Action

The Proposed Action is not expected to have significant spillover or secondary effects resulting in substantial new development in nearby areas.

The Proposed Action is intended to provide additional office, retail, and residential space needed to meet projected demands for these uses within the Hudson Yards area for the next 25 to 30 years. As a consequence, the Proposed Action would result in more intensive land uses (generating many new residents, daily workers, and visitors) supported by needed transportation improvements within Hudson Yards. However, it is not anticipated that it would have significant spillover or secondary effects resulting in substantial new development in nearby areas since:

- The proposed rezoning has been developed to be responsive to observed and projected land use trends and would result in transit-oriented development with sufficient available density to meet all projected demands for projected commercial and residential development in the Far West Side of Midtown Manhattan.
- The intense pressure to create new commercial office sites and new residential units has been an observed trend in and nearby Hudson Yards due to their close proximity to the Manhattan CBD. As manufacturing uses continue to decline in Manhattan, the conversion of buildings and the redevelopment of vacant sites have become more frequent throughout Chelsea, Clinton, and the Project Area. Hudson Yards is an underutilized area with a significant amount of land available

for new commercial and residential development, compared to other areas in Midtown Manhattan which are substantially built-out with fully developed infrastructure and few opportunities for new development. By providing a significant new supply of market rate housing and new office space in the Project Area, the Proposed Action would help stabilize or reduce the pressure for new development and changes in land use in areas adjoining the Project Area.

- Given its proposed alignment, the proposed extension of the No. 7 Subway would principally serve the transit-oriented development proposed for the Project Area. The extension would not be a catalyst for development of other areas that are substantially distant from the two stations included in the proposed extension. Development in the Clinton and West Chelsea neighborhoods and within the West 42nd Street corridor would continue to be consistent with past and current trends.
- The Proposed Action would help relieve the pressure for the conversion of Garment Center related uses to other uses by providing substantial opportunities for new commercial and residential development in areas outside of the Garment Center.
- The Proposed Action would help protect the existing residential areas in Clinton by providing substantial opportunities for new commercial development within the Hudson Yards Area.

Current zoning in areas adjacent to Hudson Yards, including the mandated controls in the Special Garment Center and Special Clinton Districts and the proposed controls for the West Chelsea area, would protect existing uses and substantially limit the type and amount of new development in those areas.

24. Irreversible and Irretrievable Commitments of Resources

Certain environmental resources would be irretrievably committed due to the implementation of the Proposed Action and, consequently, would not be available for reuse for another purpose.

Approximately 567,000 cubic yards of concrete, asphalt, sand, and gravel and 3,000 precast concrete segments, approximately 357,000 tons of steel and other construction materials, approximately 9.5 million square feet of glass and dry wall, and approximately \$5.8 billion of funds (2003 dollars) would be irretrievably committed to the No. 7 Subway Extension, the Convention Center Expansion and the construction of the Multi-Use Facility, together with other public infrastructure and relocation of the Quill Bus Depot. The construction of the approximately 40 million square feet of commercial and residential development that would result from the proposed rezoning and related land use actions would also require the irreversible and irretrievable commitment of energy, construction materials, human effort, and funds.

Approximately 9.7 trillion BTUs of energy would be needed annually to operate the various elements of the Proposed Action. The commitment of energy from depletable sources during construction of the No. 7 Subway Extension will be minimized through the application of MTA NYCT Design for Environment guidelines, New York State Executive Order No. 111, and other mandated state and city requirements. In addition, both the Multi-Use Facility and the expanded Convention Center would incorporate design measures in accordance with Executive Order No. 111, and other sustainable design measures intended to reduce those facilities' dependencies on depletable sources of energy.

The land use changes associated with the proposed rezoning and related land use actions would be considered an irretrievable and irreversible loss of resources, since the anticipated development that would be allowed under the Proposed Action would render use of the development sites for another purpose as infeasible. Funds committed to the design, construction, and operation of the various elements of the Proposed Action would not be available for the development of other projects. The fire, safety, educational, and medical public services required to serve the Proposed Action would

also constitute a commitment of resources that might otherwise be used for other programs or projects, although the Proposed Action would generate tax revenues needed to fund such services.

Although the Proposed Action would require the irreversible and irretrievable commitment of resources during construction of the No. 7 Subway Extension, the Convention Center Expansion, the development of the Multi-Use Facility, and the development permitted under the proposed rezoning and related land use actions, these commitments would be off-set by the long-term gains in public access to the Hudson Yards area and the Hudson River waterfront including Hudson River Park, the economic gains derived from the new and expanded facilities, and the development of a new, vibrant, mixed-use community in the Hudson Yards area of Midtown Manhattan. The extension of the No. 7 Subway would offer improved transportation service and travel time savings for commuters employed in the Hudson Yards area, thereby limiting the use of depletable energy resources that would otherwise be used for motor vehicles. Expansion of the Convention Center would allow New York City to continue to successfully compete with other venues for the highly lucrative convention and tourist-related activities, while construction of the Multi-Use Facility would support activities at the Convention Center, provide a venue for a broad range of sports and entertainment uses that can not be currently held in New York City because of the lack of a viable venue, and result in increased tourist and entertainment-related revenues to the region.

25. Alternatives

As part of this FGEIS, the Co-Lead Agencies have assessed a broad range of 21 alternatives to the Proposed Action. The alternatives selected for analysis were derived from options suggested during the public scoping process, developed in previous land use and transportation studies, identified through the internal planning processes of the project sponsors, or suggested in comments on the DGEIS. Six alternative zoning actions would vary the boundaries or use provisions of the proposed Zoning Amendments, while six alternative transportation proposals would add transit (or pedestrian) connections to Penn Station or the Farley Building or substitute an alternative transit mode for the No. 7 Subway Expansion. Still other planning alternatives would reduce or re-orient the commercial and residential development contemplated by the Proposed Action, while another set of alternatives would eliminate either the Convention Center Expansion or the Multi-Use Facility (or both) or relocate the Multi-Use Facility outside of the Hudson Yards area. Alternatives analyzed in the DGEIS included Alternative A, the No Action Alternative, as well as Alternatives B-R, which were grouped in the following categories: alternative zoning actions, alternative transportation actions, alternative planning initiatives, and alternative development actions. For the FGEIS, three additional alternatives (Alternatives S, T, and U) that reflect or respond to public comments on the DGEIS and the Proposed Action are also considered.

Each of these alternatives analyzed seeks to enhance the benefits of the Proposed Action, to reduce one or more of its environmental impacts, or to achieve one or more of its goals in a different way. Many such alternatives, if feasible at all, would have environmental impacts substantially similar to or greater than the Proposed Action. While the alternative linking the Proposed Action's open space to Hudson River Park would facilitate access to the waterfront and active recreation for New Yorkers and visitors and thus advance the goals of the Proposed Action, that alternative would require independent review and approval by relevant State and federal agencies. Among the alternatives considered, Alternative S was proposed by the Department of City Planning largely in response to public comment received in the early phases of the land use review process. Alternative S is therefore under particularly active consideration. Upon completion of the environmental review process, it is possible that, in accordance with SEQRA and CEQR, Alternative S or another alternative would be selected for approval and implementation.

Table ES-2 describes each of these alternatives.

**TABLE ES-2
ALTERNATIVES TO THE PROPOSED ACTION**

Alternative Designation/Name	Description
A. No Action	Development in the Project Area would continue to be controlled by the existing zoning, and there would be no extension of the No. 7 Subway, expansion of the Convention Center or development of a Multi-Use Facility.
Alternative Zoning Actions	
B. Proposed Action Without Modification of Special Districts	The Proposed Action would not include text amendments or mapping changes to the Special Clinton District, Special Garment Center District, or Special Midtown District. There would be no project-generated development within any of these districts under this alternative, nor would development within these three special districts be subject to the bulk, massing, parking, and design controls included in the Proposed Action.
C. Proposed Action Without Modification of the Special Garment Center District	The Proposed Action would not include text amendments or mapping changes to the Special Garment Center District. The proposed amendments to the Special Clinton and Midtown Districts would continue to be included in the Proposed Action. There would be no project-generated development within the Special Garment Center District, nor would development within this district be subject to the bulk, massing, parking, and design controls included in the Proposed Action.
D. Proposed Action With Zoning Text Amendment to Allow Light Manufacturing Uses in High-Density Buildings	The Proposed Action would allow high-performance manufacturing uses, subject to strict performance standards, in addition to the commercial and residential uses allowed under the Proposed Action in buildings with an FAR of 10 and over within Subdistricts A (Large Scale Plan), B (Farley Corridor), C (34th Street Corridor), D (Tenth Avenue Corridor), and E (Other Areas), of the Special Hudson Yards District. This alternative would not result in additional commercial or residential development within the Special Hudson Yards District beyond that included in the Proposed Action
Alternative Transportation Actions	
E. Proposed Action With Below-Grade Connection (Moving Walkway) to Penn Station	The Proposed Action would include a below-grade moving walkway under West 33rd Street between Eighth and Eleventh Avenues connecting the 34th Street Terminal Station of the No. 7 Subway Extension and Penn Station. The other elements of the Proposed Action would remain unchanged.
F. Proposed Action With Elevated Connection (Pedestrian Walkway) to Penn Station	The Proposed Action would include an elevated pedestrian concourse above West 31st Street between Eighth Avenue and the High Line in the vicinity of Tenth Avenue, connecting the High Line and the Farley Building. The other elements of the Proposed Action would remain unchanged.
G. Proposed Action With Subway Connection to Penn Station	The No. 7 Subway extension would extend from its current terminus at Times Square west under West 41st Street, south under Eleventh Avenue and east under West 31st Street to a terminal station at Penn Station. The other elements of the Proposed Action would remain unchanged.
H. Proposed Action With Light Rail Transit	An at-grade light rail transit (LRT) system would be constructed in lieu of the extension of the No. 7 Subway. The LRT would extend along West 42nd Street westward from Sixth Avenue, southward along Eleventh Avenue and east along West 33rd Street to a terminus at Seventh Avenue. The other elements of the Proposed Action would remain unchanged.
Alternative Planning Initiatives	
I. Lower Density Plan	The level of commercial, retail, residential, and hotel development allowed in the Project Area would be limited to 60 percent of that allowed by the proposed rezoning element of the Proposed Action. Given the lower demand for transit use that would be generated by this lower level of development, the LRT system included in Alternative H would be developed in lieu of the extension of the No. 7 Subway. The other elements of the Proposed Action would remain unchanged.
J. Community Organization Plan	The Project Area would be redeveloped to the same total density as that with the Proposed Action but would conform to an alternative land use plan and related zoning map and text amendments. This plan would include an expansion of the Convention Center and new commercial development over the western portion of Caemmerer Yard rather than development of a Multi-Use Facility. The initial transportation improvement included as part of this alternative would be a dedicated subway connection between Penn Station and Eleventh Avenue. Extension of the No. 7 Subway would be completed as a later phase as necessary to support the ultimate level of development permitted under the alternative.

**TABLE ES-2
ALTERNATIVES TO THE PROPOSED ACTION**

Alternative Designation/Name	Description
K. Manhattan Borough President Plan	The Project Area would be redeveloped in accordance with a plan based on the <i>Vision for the West Side Rail Yards</i> study prepared in 2001 for the Manhattan Borough President. The total level of development allowed under this plan would be substantially less than that allowed under the Proposed Action. This plan would include the expansion of the Convention Center, but would not include the development of a Multi-Use Facility. The transit elements included as part of this alternative would include development of a light rail system between First Avenue and Eleventh or Twelfth Avenue as Phase I, followed by extension of the No. 7 Subway as Phase II if necessary to support the ultimate level of development permitted under the alternative.
Alternative Development Actions	
L. Proposed Action Without Convention Center Expansion	This alternative would be the same as the Proposed Action, except that it would not include the expansion of the Convention Center. The elements of the Proposed Action would remain unchanged.
M. Proposed Action Without Multi-Use Facility	This alternative would be the same as the Proposed Action, except that it would not include the development of a Multi-Use Facility. The other elements of the Proposed Action would remain unchanged.
N. Proposed Action Without Convention Center Expansion Or Multi-Use Facility	This alternative would be the same as the Proposed Action, except that it would not include either the expansion of the Convention Center or the development of a Multi-Use Facility. The other elements of the Proposed Action would remain unchanged.
O. Convention Center Expansion Only	This alternative would include only the expansion of the Convention Center as included in the Proposed Action.
P. Multi-Use Facility Only	This alternative would include only the development of a Multi-Use Facility as included in the Proposed Action.
Q. Proposed Action with Development of a Deck Over Route 9A between the Multi-Use Facility and Hudson River Park	This alternative would augment the Proposed Action with a deck over Route 9A between the Multi-Use Facility and Hudson River Park.
R. Proposed Action with Development of Multi-Use Facility in Queens	This alternative would include all the elements of the Proposed Action except that the Multi-Use Facility would be developed in Flushing, Queens rather than over the western portion of Caemmerer Yard. Accordingly, Caemmerer Yard would remain in its current use as an open air rail facility.
Public Comments Alternatives	
S. <u>Revised Zoning Alternative</u>	<u>This alternative would adjust the Proposed Action so as to retain the same overall level of new development but with more residential and approximately 2 million square feet less office use, increase the potential for mixed-use developments, and shift development from the Clinton District/42nd Street Corridor to the Farley Corridor. The rezoning area would be reduced by eliminating the three blocks south of Penn Station between Seventh and Eighth Avenues. Alternative S also would create a zoning floor area bonus for new theater space created in the Clinton District/West 42nd Street corridor.</u>
T. <u>Revised Community Organization Alternative</u>	<u>This revised community organization alternative continues to provide for an overall level of development comparable to the Proposed Action (although with significantly less commercial development in the mix). It does not include the Multi-Use Facility and would incorporate the expansion of the Convention Center over the western portion of Caemmerer Yard. The eastern portion of the Caemmerer Yard would contain open space as with the Proposed Action. Virtually all commercial development would occur along a corridor extending westward from Penn Station. Transit improvements would be phased, beginning with a below-grade moving sidewalk connecting Penn Station to Eleventh Avenue, and incorporating the No. 7 Subway extension at a later time. The Midblock Park and Boulevard System would be replaced with a smaller network of open space to be constructed over open rail cuts.</u>

**TABLE ES-2
ALTERNATIVES TO THE PROPOSED ACTION**

Alternative Designation/Name	Description
U <u>LandBridge Alternative</u>	<p><u>This alternative would concentrate future development on a structure covering the entire area from Ninth to Twelfth Avenues generally between West 30th and 34th Streets (approximately 2.57 million square feet). A new convention center and, as an option, a new sports stadium would be built on this platform. The existing Convention Center would be torn down, and street access between West 34th and West 39th Streets and Eleventh and Twelfth Avenues would be restored. Transportation would be provided by an elevated automated rapid transit (ART) loop on an east-west access from Sixth Avenue through to the western terminus of the Land Bridge. The No. 7 Subway Extension is not included in the proposal, although it purports to allow for that in the future.</u></p>

The following is a summary of the analysis of each alternative. Chapter 26, “Alternatives,” analyzes each alternative and compares it to the Proposed Action.

Alternative A: No Action. The No Action Alternative would not meet the purpose and need of the Proposed Action as identified in Chapter 1, “Project Purpose and Need.” The Project Area would continue to remain in its current state, with a significant amount of undeveloped and underutilized land, a substantial lack of public open space and park land, inadequate transit access, and no venue for major sports and entertainment uses or a New York home for the Jets football team. The size of the Convention Center would continue to be inadequate to host many major events and lack the meeting room space needed to meet the needs of the business community. The majority of the Project Area would continue to be drab and dominated by transportation-related uses. The observed trend of conversion of manufacturing buildings to as-of-right commercial uses or to residential uses through the application of variances from the Board of Standards and Appeals would likely continue. The Project Area would not be transformed into a vital community, nor would the area support the anticipated growth of employment over the long term in Manhattan.

Alternative B: Proposed Action Without Modification of Special Districts. Differences in development patterns under Alternative B would be limited to relatively minor changes in the locations of some of the commercial and residential development compared to the Proposed Action. The total amount of residential and commercial development would be the same under Alternative B and the Proposed Action. All other elements of the Proposed Action, including the expansion of the Convention Center, the development of the Multi-Use Facility and the extension of the No. 7 Subway, would be the same with Alternative B as the Proposed Action. As a consequence, it is anticipated that Alternative B would result in substantially the same effects as the Proposed Action and would require substantially the same mitigation measures although the precise location might differ.

New development within the portions of the Clinton District/42nd Street Corridor and Special Garment Center District included in the Proposed Action would continue to be controlled by current zoning requirements and not derive the beneficial effects of the design and massing controls of the Proposed Action. Under Alternative B current development trends within the Special Garment Center District west of Eighth Avenue would continue to result in the conversion of apparel industry-related uses in the area to non-apparel industry-related uses. Unlike the Proposed Action, opportunities to provide new residential uses conforming to zoning in portions of the Special Garment Center District would not be provided with Alternative B.

Exclusion of the Perimeter Area of the Special Clinton District and the five-block portion of the Special Garment Center District would redistribute development into the Special Hudson Yards District, thereby slightly changing vehicular circulation patterns from those patterns associated with the Proposed Action. The overall number of motor vehicles in the Project Area with Alternative B would be the same as with the Proposed Action, resulting in generally the same overall traffic impacts. However, by 2025, it is anticipated that Alternative B would result in an off-street parking

shortfall of 3,123 spaces during the weekday Midday period compared to a small shortfall of parking spaces with the Proposed Action, due, in part, to the displacement of approximately 2,250 additional off-street parking space (e.g., Site 49 alone contains a 1,500 space parking facility that would be displaced) and the construction of approximately 320 fewer off-street parking spaces (e.g. Site 51 parking requirement would be waived because of lot size) when compared to the Proposed Action. Parking demand would also vary between the Proposed Action and Alternative B as a result of the displacement of different existing uses. The total number of pedestrians and demand for transit would be generally the same with Alternative B as the Proposed Action. However, the greater concentration of development in a smaller rezoning area with Alternative B would result in a larger number of pedestrian impacts than with the Proposed Action.

Alternative C: Proposed Action Without Modification of the Special Garment Center District.

Differences in development patterns under Alternative C compared to the Proposed Action would be limited to changes in the locations of some of the commercial and residential development. The total amount of residential and commercial development would be the same under Alternative C as the Proposed Action. All other elements of the Proposed Action, including the expansion of the Convention Center, the development of the Multi-Use Facility and the extension of the No. 7 Subway, would be the same with Alternative C as the Proposed Action.

As a consequence, it is anticipated that Alternative C would result in substantially the same effects as the Proposed Action and would require substantially the same mitigation measures as the Proposed Action for all impact categories directly dependent on the total amount of residential and commercial development in the Project Area. Alternative C is not anticipated to result in greater retention of apparel-related uses within the Special Garment Center District or to encourage the development of new manufacturing uses in that area, compared to the Proposed Action. Unlike the Proposed Action, development within the portion of the Special Garment Center District excluded from the rezoning under Alternative C would continue to occur on an ad hoc basis, including continuation of the observed trend of conversion of manufacturing buildings to commercial uses or to residential uses either illegally or through variances from the Board of Standards and Appeals. Unlike the Proposed Action, Alternative C would fail to provide for the as-of-right development of residential uses in underutilized sites in the portion of the Special Garment Center District that lies within the Project Area. Unlike the Proposed Action, undeveloped and/or underutilized development sites within that portion of the Special Garment Center District would continue to exist under Alternative C.

Exclusion of the five-block portion of the Special Garment Center District would redistribute development into other portions of the Special Hudson Yards District, slightly changing vehicular circulation patterns from those associated with the Proposed Action. However, the overall number of motor vehicles in the Project Area with Alternative C would be the same as the Proposed Action, resulting in substantially the same overall traffic and air quality effects as the Proposed Action. By 2025, it is anticipated that Alternative C would result in an off-street parking shortfall of 1,120 spaces during the weekday Midday period compared to a 20 space parking surplus with the Proposed Action, due, in part, to the displacement of approximately 750 additional off-street parking spaces and the construction of approximately 190 fewer off-street parking spaces with Alternative C when compared with the Proposed Action. Parking demand would also vary between Alternative C and the Proposed Action as a result of the displacement different existing land uses. The total number of pedestrians and demand for transit would be generally the same with Alternative C as the Proposed Action. However, the greater concentration of development in a smaller rezoning area would result in a greater number of pedestrian impacts.

Alternative D: Proposed Action With Zoning Text Amendment to Allow Light Manufacturing Uses in High-Density Buildings.

While Alternative D would permit high-performance light manufacturing within newly constructed buildings in the Project Area, it is not expected that new light manufacturing uses would materialize in the Project Area to any significant degree, given the observed lack of investment in manufacturing uses in the Project Area over the last several decades. Use Groups 16 and 17 include uses that are generally incompatible with new commercial and residential development, although the required high-performance requirements would avoid the

potential for significant adverse impacts on public health. There is little likelihood that such uses would be incorporated in the Class A office space anticipated for the area, given the increased costs of constructing mixed-use buildings to accommodate the special requirements of manufacturing, such as greater floor loads and separate ventilation systems, elevators, and loading areas. Therefore, it is anticipated that Alternative D would produce the same amount of commercial and residential development as the Proposed Action, but would not succeed in retaining existing manufacturing uses or attracting new manufacturing to the Project Area.

Alternative E: Proposed Action With Below-Grade Connection (Moving Walkway) to Penn Station. Alternative E would result in substantially the same significant adverse impacts as the Proposed Action, but inclusion of the below-grade moving walkway would result in a higher cost (\$400 million to \$500 million beyond the cost of the Proposed Action at Year 2006 midpoint of construction). It is anticipated that street entrances to the below-grade moving walkway would be incorporated into the new proposed developments along the south side of West 33rd Street. Alternative E would reduce the number and extent of significant adverse pedestrian impacts that would result from the Proposed Action by providing increased pedestrian circulation capacity. However, Alternative E would result in the same significant adverse impacts on traffic as the Proposed Action since it would not substantially lessen the total number of vehicles traveling through the Project Area nor reduce pedestrian volumes in areas with adverse traffic impacts that could not be mitigated. The below-grade moving walkway is projected to serve up to 7,500 pedestrians during the AM peak hour and up to 8,500 pedestrians during the PM peak hour in 2025, reducing pedestrian volumes on east-west sidewalks, street corners and crosswalks primarily on West 34th, West 31st and West 30th Streets between Eighth and Eleventh Avenues. This would result in a beneficial effect on traffic operations. Since these intersections could be mitigated in the Proposed Action, they could also be mitigated in Alternative E. However, like the Proposed Action, Alternative E would result in unmitigated impacts at the intersections of West 34th Street and Ninth, Tenth and Eleventh Avenues during the PM peak hour in 2025. Pedestrians entering and exiting the below-grade moving walkway using stairs and elevators at Ninth, Tenth and Eleventh Avenues would result in increases in pedestrian volumes at those locations compared to the Proposed Action. For example, during the 2025 PM peak hour, traffic operations would be somewhat improved and turns facilitated through a reduction in pedestrian crosswalk volumes. However, the three 2025 PM peak hour significant adverse impacts that could not be mitigated (i.e., West 34th Street at Eleventh, Tenth and Ninth Avenues) would remain unmitigated even with this reduction in pedestrian volumes. Similarly, during the 2025 Special Event periods, traffic operations would improve somewhat, but significant traffic impacts would remain at four intersections (i.e., West 34th Street at Eleventh, Tenth, Ninth, and Eighth Avenues) and at the outbound Queens Midtown Tunnel during the PM peak hour. Reduction in pedestrian volumes on the street would result in fewer unmitigated significant adverse pedestrian intersection impacts with Alternative E than with the Proposed Action. Alternative E would result in one additional unmitigated significant adverse impact to the stairs leading from the Eighth Avenue Subway to the LIRR concourse during the AM peak hour compared to the Proposed Action. Parking conditions with Alternative E would be essentially the same as the Proposed Action. Construction period effects would be greater with Alternative E than the Proposed Action due to the cut-and-cover construction that would be used to develop the tunnel in which the moving walkway would be located.

Alternative F: Proposed Action With Elevated Connection (Pedestrian Walkway) to Penn Station. Alternative F would provide a weather-protected pedestrian connection between the midblock between Eighth and Ninth Avenues at the Amtrak Station at the Farley Building, and the High Line at Tenth Avenue, from which pedestrians could gain connection to the Multi Use Facility. Stairway and sidewalk connections would be available from the walkway to the Farley Building and the development included along the corridor. However, Alternative F would result in the same significant adverse traffic impacts that could not be mitigated as the Proposed Action since it would not substantially lessen the total number of vehicles traveling through the Project Area nor reduce pedestrian volumes in areas with unmitigated traffic impacts. The elevated pedestrian walkway is projected to serve up to 2,000 pedestrians during the AM peak hour and up to 3,000 pedestrians

during the PM peak hour in 2025, reducing pedestrian volumes on east-west sidewalks, street corners and crosswalks primarily on West 34th, West 31st and West 30th Streets between Eighth and Eleventh Avenues. This would result in a beneficial effect on traffic operations. Since these intersections could be mitigated in the Proposed Action, they could also be mitigated in Alternative F. Similarly, the 2025 peak hour traffic impacts at the river crossings would remain. Pedestrians entering and exiting the elevated walkway using stairs and elevators at Ninth, Tenth and Eleventh Avenues would result in increases in pedestrian volumes at those locations compared to the Proposed Action. Overall, transit and parking conditions would be essentially the same as the Proposed Action. The elevated walkway would result in a higher cost (\$150 million to \$200 million beyond the cost of the Proposed Action at Year 2006 midpoint of construction) than the Proposed Action and have the potential to result in significant visual impacts and street network disruptions due to the elevated structure and required columns for the walkway between Eighth and Tenth Avenues.

Alternative G: Proposed Action With Subway Connection to Penn Station. Unlike the Proposed Action, Alternative G would include an additional extension of the No. 7 Subway under West 31st Street from Eleventh Avenue to Eighth Avenue and would provide a direct subway connection between Penn Station, the proposed Farley Building/Moynihan Station, the proposed Multi-Use Facility, and the Convention Center, as well as a direct subway under Alternative G between Grand Central Terminal and Penn Station. However, the additional subway extension would result in a substantially higher cost (\$1.4 billion to \$1.6 billion beyond the cost of the Proposed Action at Year 2006 midpoint of construction) for Alternative G than the Proposed Action and would have the potential to create additional impacts associated with the more extensive subway construction.

About 90 percent of the riders who would board the No. 7 Subway extension at Penn Station under Alternative G, would otherwise transfer to the No. 7 Subway at Times Square under the Proposed Action. That is, most of the passengers projected to use the additional station at Penn Station would not be new riders but passengers who would otherwise board the No. 7 at Times Square in the absence of a new station. Moreover, at Penn Station the depth of the No. 7 Subway would require time consuming and inconvenient pedestrian transfers. The time it would take a pedestrian to make the transfer, wait for a train and ride, would be equivalent to walking (approximately 15 minutes) as with the Proposed Action. As a consequence, it is estimated that there would be a net increase of fewer than 750 additional transit trips during the morning and evening peak hours with Alternative G compared to the Proposed Action. Alternative G would result in the same significant adverse impacts on traffic as the Proposed Action since it would not substantially lessen the total number of vehicles traveling through the Project Area nor reduce pedestrian volumes in areas with unmitigated traffic impacts. Parking and pedestrian conditions would be essentially the same as with the Proposed Action.

Alternative H: Proposed Action With Light Rail Transit (LRT). The proposed LRT alignment under Alternative H would provide connections among Penn Station, the Farley Building, the Multi-Use Facility, the Convention Center, Times Square, and Herald Square but would not directly connect with any subway or Grand Central Terminal. The LRT would cost less than the proposed No. 7 Subway Extension included in the Proposed Action (\$750 million and \$950 million, versus \$1.96 to \$2.33 billion, based on Year 2006 midpoint of construction). However, unlike the Proposed Action, the limited capacity of the LRT system (approximately 20,000 passengers per hour) could not support the approximately 30,000 peak-hour LRT riders expected with the 2025 Future With the Proposed Action. This limited capacity is unlikely to support commercial and residential development at levels consistent with the goals and objectives of the Proposed Action. Due to its location along the street network, Alternative H would also result in longer travel times than the No. 7 Subway Extension and would be subject to delays resulting from heavy pedestrian and automobile volumes crossing the LRT alignment at intersections.

Construction of LRT facilities on 42nd Street, Eleventh Avenue, and West 33rd Street would severely reduce automobile, taxi, and truck access to land uses fronting on the LRT's alignment including the Convention Center and Multi-Use Facility. In addition, the LRT would be located at-grade, resulting in large traffic diversions and significant disruptions to surface traffic in the Project Area. The LRT

would not have the capacity to handle the demand anticipated before and after events at the Multi-Use Facility. It is anticipated that the LRT alignment along West 33rd Street would encounter heavy pedestrian traffic before and after special events at the Multi-Use Facility, potentially reducing its effectiveness and making street space unavailable for pedestrian use before and after these events

The LRT would also require the development and operation of a full-block car storage and maintenance facility, the location for which is currently uncertain. This would result in additional construction and operation-related impacts beyond those of the Proposed Action. Depending on the location of this facility, additional significant traffic impacts may result from the at-grade track connections required to access the facility.

Alternative I: Lower Density Plan. Alternative I would not provide the level of commercial office space needed to support the long-term economic growth of the City, a significant goal of the Proposed Action. In particular, Alternative I would result in 18 million square feet of new commercial office development instead of 28 million square feet of new commercial office space under the Proposed Action.

Overall, the impacts of Alternative I would be similar to those of the Proposed Action, and would not substantially reduce the number of significant adverse impacts on community facilities, traffic and air quality as compared with the Proposed Action. In general, the traffic benefits associated with the lower level of development envisioned are offset by the traffic disruptions associated with closing westbound 42nd Street, all of 33rd Street, and half of Eleventh Avenue to traffic in order to accommodate the LRT system included in this alternative.

Alternative J: Community Organization Plan. Given the overall similarity in bulk of the Alternative J and the Proposed Action development programs, many of the impacts of Alternative J would be similar to those of the Proposed Action. Like the Proposed Action, Alternative J would result in major improvements to land use, neighborhood character, urban design and visual resources in the Project Area although the form of those improvements would be different from the Proposed Action. Effects on open space, historic architectural and archaeological resources would not be substantially different with Alternative J compared to the Proposed Action. Except on the nineteen special event weeknights and Sundays occurring each year, when trip generation would be greatly influenced by the Multi-Use Facility included in the Proposed Action, traffic impacts with Alternative J would be similar to those of the Proposed Action. Since Alternative J does not include a Multi-Use Facility, most or all of the significant adverse traffic impacts that would occur in the weeknight and Sunday afternoon peak periods under the Proposed Action would likely not occur under Alternative J.

Unlike the Proposed Action, Alternative J would not include a 950-space municipal garage under the Midblock Park and Boulevard System. Overall, the redistribution of development in the Project Area, would result in a parking shortfall of approximately 460 parking spaces with Alternative J, compared to a slight parking surplus (approximately 20 spaces) during the weekday Midday peak with the Proposed Action. Construction of a 460 space parking facility in the vicinity of the Hudson Yards could offset this shortfall. The concentration of commercial uses in the 34th Street Corridor, which is already heavily used, would produce seven more unmitigated pedestrian impacts during the Midday peak hour under 2025 conditions than the Proposed Action.

Alternative J assumes a phased development of transit investment, beginning with an east-west connection in the Penn Station corridor with a delayed investment in the No. 7 Subway Extension. The proposed first phase shuttle, to be completed by 2010, is assumed to operate on LIRR "C" Yard tracks 9C and 10C in the lower level of Penn Station. Operation of an LIRR shuttle would be further constrained by FRA regulations that require time-consuming inspection of a commuter train every time it changes direction. However, the proposed shuttle is ultimately infeasible because operations on the LIRR tracks are currently at or near capacity, and imposition of the shuttle would cause unacceptable impacts to existing LIRR service.

It also would be infeasible to operate the proposed shuttle as a subway line on the LIRR tracks. This would require removal of the tracks from LIRR jurisdiction because, due to their differing size and

weight, subway and commuter rail cars cannot safely operate on the same tracks. As noted above, LIRR operations at Penn Station and Caemmerer Yard are currently at or near capacity and these tracks are necessary to maintain current LIRR service. In addition, the subway shuttle would require a connection to the rest of the subway system in order to gain access to a storage and maintenance facility. The feasibility of constructing such a connection is uncertain and would be extremely costly to build even if feasible. Even if such a shuttle could be constructed, the additional cost of at least \$1.9 to \$2.1 billion for a shuttle that would attract few riders is not fiscally prudent.

Alternative J would not realize any of the socioeconomic benefits from the construction and operation of the Multi-Use Facility in the Project Area, including construction-related jobs over the four-year construction period and approximately 6,710 direct and indirect jobs resulting from operation of the Facility. Alternative J would not create a new venue with the capabilities to host major plenary events or other national sports and entertainment events, such as the Super Bowl and Final Four. Nor would it provide an alternative exposition facility for events that cannot be accommodated at the Convention Center. As a result, Alternative J would not realize the projected benefits of \$54.1 million per year in tax revenues for New York City and State that would be derived from the Multi-Use Facility. In addition, Alternative J would not realize the resulting annual wages and salaries (up to \$348.5 million), or the up to \$604.46 million in annual demand for additional goods and services generated by operation of the Multi-Use Facility. However, the cost of platforming over the Yards would be the same as under the Proposed Action (all in 2003 dollars).

Alternative J also would not satisfy the Convention Center's need for expansion. It is critical that the Convention Center expand in a manner that enables it to approximately double its prime contiguous exhibition floor space. Otherwise, the Convention Center would not be able to accommodate the very large trade shows that currently cannot utilize the Convention Center, or maximize the number of trade shows, conventions, and other events that the Convention Center would be able to conduct simultaneously. Alternative J would add only a modest amount of prime contiguous exhibition space to the Convention Center, all of which would be located in the one-block northerly expansion of the facility. The vast majority of the new exhibition space with Alternative J would be located south of West 34th Street. Such space would not be contiguous with the remainder of the facility to the north. The pedestrian connection linking the Alternative's proposed southerly expansion with the existing Convention Center would physically connect separate exhibition spaces, but would not create a large contiguous exhibition space. The large contiguous exhibition space can only be created by a northward expansion.

Unlike the Proposed Action, Alternative J does not include the improvements to the existing Convention Center open air truck marshalling facility between West 33rd and West 34th Streets. Instead, with Alternative J, the Convention Center would be required to purchase additional property for truck marshalling purposes. As a consequence, it is possible that, unlike the Proposed Action, the Convention Center would potentially continue to marshal trucks on surrounding City streets rather than develop a new truck marshalling facility.

Unlike the Proposed Action, Alternative J does not contemplate a headquarters hotel for the Convention Center on West 42nd Street. Such a hotel is needed to maximize connections with and benefits for Times Square and the Theater District.

Overall, the Convention Center would generate substantially fewer economic benefits with Alternative J than under the Proposed Action.

Alternative K: Manhattan Borough President Plan. Although Alternative K would result in the redevelopment of the Project Area, its level of development would fall significantly short of fulfilling the established goals and objectives of the Proposed Action. Because Alternative K would not fully meet the Purpose and Need of the Proposed Action, it has not been carried forward for detailed analysis. While the Proposed Action is framed as a comprehensive effort to realize the development potential of the Project Area, Alternative K contemplates a neighborhood-level redevelopment effort that would create high-end, low-density housing that would not respond to demonstrated demand for housing in the City. Similarly, commercial development would not be undertaken at levels

commensurate with the demand foreseen for the City, while transit services would be provided at levels far exceeding the demands of the ultimate development.

The overarching purpose of the Proposed Action is to contribute to the economic and recreational life of the City and to sustain its role as the world's leading financial, commercial and entertainment center. An assessment of the potential of Alternative K to fulfill the goals of the Proposed Action and to meet its Purpose and Need is provided below.

Goal 1: Ensure the Future Growth of the City through the Redevelopment of the Hudson Yards

Alternative K would include some of the elements of the Proposed Action. Under Alternative K, the Project Area would be rezoned to provide new commercial, residential, and institutional uses; however, with FARs that would not exceed 8.0, it would not be able to provide the density needed to absorb the forecast demand for 28 million square feet of commercial space and 12.6 million square feet of residential demand (12,600 dwelling units) over the next 20 to 30 years. Alternative K would only provide 3 million square feet of commercial office use and 4.2 million square feet of residential use (between 5,000 and 6,000 new housing units).

As a consequence, unlike the Proposed Action, Alternative K would not accommodate the anticipated demand for commercial and residential uses in the Project Area. Although no financing plan was suggested for Alternative K, it is anticipated that projected project revenues would not be adequate to support development of the LRT system, the No. 7 Subway Extension, or the platform over the eastern and western portions of Caemmerer Yard. Absent identified funding sources, there would be no certainty of their implementation, and without them, the actual potential for redevelopment would be uncertain, as well.

Alternative K would include the expansion of the Convention Center, but the plan does not include a new Convention Center Hotel. The lack of a Convention Center Hotel is considered a “long-standing deficiency.”

Alternative K would also not meet the project purpose and need, since it does not include a Multi-Use Facility that would provide a venue to host a variety of large-scale sports, exhibition, and entertainment events. The exclusion of the Multi-Use Facility from the Proposed Action would also eliminate its 180,000 square feet of convertible exhibition space and 18,000 square feet of meeting rooms from the City's inventory of convention facilities and exhibition space, as well as its large plenary hall capacity. There would be no other facility in proximity to the Convention Center to accommodate the estimated 38 events annually that are projected to utilize the Multi-Use Facility's exhibition space and meeting rooms. Eliminating the Multi-Use Facility would reduce the opportunity to attract new convention and exhibition business beyond that which could be generated by the expansion of the Convention Center and would deprive the City and State of the additional revenues attributable to such business.

Goal 2: Provide Transit Services to Support Hudson Yards Redevelopment

Alternative K proposes a wide range of transit services, including the No. 7 Subway extension as in the Proposed Action. In addition, Alternative K proposes a LRT loop serving much of Midtown Manhattan and expanded bus services. The density of development included in Alternative K would not provide a mechanism to fund the contemplated transit actions. As a consequence, it is unlikely that Alternative K would meet the need to provide adequate transit services to support Hudson Yards redevelopment.

Goal 3: Maintain or Improve Environmental Conditions

Alternative K would meet this goal in a number of regards, particularly in that it would provide an extensive open space program and a limited amount of development in the Project Area, limiting its potential for significant adverse environmental impacts.

Alternative L: Proposed Action Without Convention Center Expansion. Like the Proposed Action, Alternative L would result in long-term benefits to the Project Area due to the development

that would result as a consequence of the proposed rezoning, the extension of the No. 7 Subway and the construction of the Multi-Use Facility. As a consequence, Alternative L would achieve a major goal of the Proposed Action to transform the Hudson Yards from an area dominated by transportation uses and underutilized land into a mixed-use neighborhood with substantial amount of new open space. Exclusion of the expansion and modernization of the Convention Center would not meet one of the principal objectives of the Proposed Action and would deny New York City and New York State the very considerable economic and other benefits to be realized from that undertaking.

Unlike the Proposed Action, Alternative L would not result in the long-term benefits to land use, socioeconomic conditions, open space resources, urban design and neighborhood character that would result from the expansion and modernization of the Convention Center. Expansion and modernization of the Convention Center and related tourism facilities are required to enable the Convention Center to retain its market share and to ensure its continuation as a major contributor to New York City's economy. Unlike the Proposed Action, Alternative L would not result in the development of new publicly accessible open space on the roof of the expanded Convention Center or on the block between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets. Instead, the open truck marshalling facility would remain in its current state surrounded by concrete walls, reducing the urban design benefits of the Proposed Action. Failure to expand the Convention Center to the north would leave a number of land uses and structures between West 38th and West 42nd Streets that are incompatible with the residential and commercial uses and urban design of the development that would be developed as a consequence of the rezoning included in the Proposed Action.

Unlike the Proposed Action, Alternative L would not result in the substantial economic benefits from the \$1.8 billion expansion and modernization of the Convention Center. As established in studies undertaken independently by the Convention Center Operating Corporation (CCOC), the expansion and modernization of the facility would create substantial economic and fiscal benefits for the City of New York by increasing visitor spending and jobs in Manhattan and indirectly throughout the City. The incremental total *direct* and *indirect* employment from the expansion of the Convention Center is projected to equal 7,400 jobs in New York City. In the broader New York State economy, due to greater *indirect* and generated employment, the total *direct* and *indirect* employment from the expansion of the Convention Center is projected to equal 9,000 jobs. The operation of the expanded Convention Center is projected to create incremental total *direct* and *indirect* income equal to approximately \$277.0 million annually in New York City and \$284.0 million annually in New York State (all in 2003 dollars).

The operation of the expanded Convention Center is projected to have a *direct* incremental effect on the local economy, measured as economic output or demand for local industries, equal to approximately \$390.7 million annually and *indirectly* generate another \$258.3 million in total economic activity, thereby resulting in a cumulative total *direct* and *indirect* incremental effect from the operation of the expanded Convention Center projected at \$649.0 million annually in New York City. In the broader New York State economy, the total *direct* and *indirect* incremental effect from the operation of the expanded Convention Center is projected at \$692.0 million annually. The operation of the expanded Convention Center is projected to create incremental tax revenues of approximately \$25.8 million annually for New York City. None of these benefits would accrue with Alternative L. However, Alternative L would not require the public expenditure of \$1.8 billion for expansion and modernization of the Convention Center (all in 2003 dollars).

The Convention Center Expansion is projected to generate a relatively small percentage of total 2025 trip growth in the Project Area. Similarly, the Convention Center Hotel parking facility capacity is negligible relative to the Project Area's total parking supply. Unlike the Proposed Action, West 39th and 40th Streets would remain open and West 41st Street would not be realigned. Retaining these streets in the traffic network would increase roadway capacity in the vicinity of the Convention Center.

Alternative M: Proposed Action Without Multi-Use Facility. Alternative M would result in substantially the same overall benefits and significant adverse impacts as the Proposed Action, except those associated with the development of the Multi-Use Facility. Alternative M would also require substantially the same measures to mitigate significant adverse impacts as the Proposed Action.

Exclusion of the Multi-Use Facility would not meet the objective of the Proposed Action to provide a venue for the growing number of large-scale sports and entertainment events which New York City is currently unable to host.

Exclusion of the Multi-Use Facility from the Proposed Action would eliminate its 180,000 square feet of convertible exhibition space, 18,000 square feet of meeting rooms and plenary hall from the inventory of convention facilities and exhibition space. There would be no other facility in proximity to the Convention Center to accommodate the estimated 38 events annually that are projected to utilize the Multi-Use Facility's exhibition space and meeting rooms. Eliminating the Multi-Use Facility would reduce the opportunity to attract new convention and exhibition business beyond that which could be generated by the Convention Center's expansion and would deprive the City and State of the additional revenues attributable to such business. Pursuing Alternative M would reduce the City's ability to host the estimated three conventions per year that would require the seating capacity of the plenary hall configuration.

Unlike the Proposed Action, Alternative M would not result in the projected benefits of \$54.1 million per year in tax revenues for the City and State. In addition, unlike the Proposed Action, Alternative M would not realize the resulting annual wages and salaries, up to \$348.5 million, and overall economic activity that is expected with the Multi-Use Facility. However, Alternative M would not require the public expenditure of \$600 million for development of the platform over the western portion of Caemmerer Yard and the roof of the Multi-Use Facility.

Unlike the Proposed Action, the western portion of Caemmerer Yard under Alternative M would remain as an open transportation facility. Such an open facility would be inconsistent with the proposed land uses for the surrounding area and may impair the full development of the eastern portion of Caemmerer Yard and other development sites across Eleventh Avenue. The areas in which Alternative M would result in different impacts from those of the Proposed Action are discussed below.

Alternative M would result in the same number of unmitigated significant adverse traffic impacts as the Proposed Action during the AM and PM peak hours in 2010 and 2025. At Midday, Alternative M would result in one less unmitigated significant impact in 2010 (i.e., no impacts) and the same number of unmitigated significant adverse impacts in 2025 (i.e., five). However, the absence of the Multi-Use Facility in Alternative M would result in 70 percent less traffic during the weeknight and Sunday Special Event peak hours than the incremental traffic generated under the Proposed Action during approximately 19 times a year that special events are projected to occur at the Multi-Use Facility in 2025. There would likely be no unmitigated significant adverse traffic impacts during the Sunday peak period under Alternative M.

Alternative N: Proposed Action Without Convention Center Expansion Or Multi-Use Facility. Alternative N would result in the same significant adverse impacts and benefits as the Proposed Action except those related to the expansion of the Convention Center and development of the Multi-Use Facility. As such, it would not result in the benefits to land use, socioeconomics, open space, urban design, and neighborhood character that would accrue as a result of expansion of the Convention Center or development of the Multi-Use Facility, and would result in fewer significant adverse traffic, transit and pedestrians, and air quality impacts than the Proposed Action.

Exclusion of the expansion and modernization of the Convention Center would not meet one of the principal objectives of the Proposed Action and would deny New York City and New York State the very considerable economic and other benefits to be realized from that undertaking. Exclusion of the Multi-Use Facility would not meet the objective of the Proposed Action to provide a venue for large-scale sports and entertainment events which New York City is currently unable to host, nor would it

provide a venue for the New York Jets to play their home football games. Alternative N would result in substantial differences in the land use, open space, urban design, and neighborhood character in the Convention Center Corridor in comparison to the Proposed Action, since the existing transportation facilities that would be displaced or removed as a consequence of the expansion of the Convention Center would still be in place. The existing Convention Center open-air truck marshalling facility and western portion of Caemmerer Yard would remain in their current state, there would be no publicly accessible open space on the roof of the expanded Convention Center or on the block between West 33rd and West 34th Streets between Eleventh and Twelfth Avenues, and concrete walls would continue to surround the existing open air Convention Center truck marshalling facility and western portion of Caemmerer Yard.

Unlike the Proposed Action, Alternative N would not result in the substantial construction-period employment benefits from the \$1.8 billion expansion and modernization of the Convention Center and \$1.4 billion creation of the Multi-Use Facility. Nor would Alternative N realize the substantial operational period benefits of an expanded and modernized Convention Center or the Multi-Use Facility that would result from the Proposed Action. These include additional direct and indirect employment of 7,000 jobs in the City and 9,000 jobs in the broader New York State for the Convention Center and a total of 6,710 direct and indirect jobs associated with the Multi-Use Facility.

As established in studies undertaken independently by the Convention Center Operating Corporation (CCOC), the expansion and modernization of the facility would create substantial economic and fiscal benefits for the City of New York by increasing visitor spending and jobs in Manhattan and indirectly throughout the City. The incremental total *direct* and *indirect* employment from the expansion of the Convention Center is projected to equal 7,400 jobs in New York City. In the broader New York State economy, due to greater *indirect* and generated employment, the total *direct* and *indirect* employment from the expansion of the Convention Center is projected to equal 9,000 jobs. The operation of the expanded Convention Center is projected to create incremental total *direct* and *indirect* income equal to approximately \$277.0 million annually in New York City and \$284.0 million annually in New York State (all in 2003 dollars).

The operation of the expanded Convention Center is projected to have a *direct* incremental effect on the local economy, measured as economic output or demand for local industries, equal to approximately \$390.7 million annually and *indirectly* generate another \$258.3 million in total economic activity, thereby resulting in a cumulative total *direct* and *indirect* incremental effect from the operation of the expanded Convention Center projected at \$649.0 million annually in New York City. In the broader New York State economy, the total *direct* and *indirect* incremental effect from the operation of the expanded Convention Center is projected at \$692.0 million annually. The operation of the expanded Convention Center is projected to create incremental tax revenues of approximately \$25.8 million annually for New York City. None of these benefits would accrue with Alternative N. However, Alternative N would not require the public expenditure of \$1.8 billion for expansion and modernization of the Convention Center (all in 2003 dollars).

Unlike the Proposed Action, Alternative N would not result in the projected benefits of \$54 million per year in tax revenues for the City and State from the Multi-Use Facility. In addition, unlike the Proposed Action, Alternative N would not realize the resulting annual wages and salaries (up to \$348.5 million) or the up to \$604.46 million in annual demand for additional goods and services that is expected with the Multi-Use Facility (all in 2003 dollars).

However, Alternative N would not require the public expenditure of \$600 million for the platform over the western portion of Caemmerer Yard and the roof of the Multi-Use Facility, the public expenditure of \$1.8 billion for the expansion of the Convention Center, or the public expenditure for relocation of the Quill Bus Depot.

Unlike the Proposed Action, the open western portion of Caemmerer Yard under Alternative N would be inconsistent with the surrounding land uses proposed for this area and may impair the full development of the eastern portion of Caemmerer Yard and other development sites across Eleventh Avenue. Retaining the Convention Center Corridor in its current condition would present a

significant barrier between redeveloped areas to the east and the Hudson River and Hudson River Park.

Alternative N would result in lower overall traffic volumes in 2010 and 2025, particularly during the Special Event peak hours, and retain West 33rd, West 39th, West 40th, and West 41st Streets in the traffic network. The combination of lower traffic volumes and greater street capacity would result in generally better traffic operations during the AM, Midday, and PM peak hours than the Proposed Action. Parking, transit, and pedestrian and air quality impacts would also be less. Weeknight and Sunday Special Event peak hour conditions would be significantly better on the 19 days that Special Events are anticipated. Traffic volumes on river crossings would be lower during the weeknight and Sunday Special Event peak hours with Alternative N. However, the unmitigated significant adverse impact to the river crossings in 2025 would remain.

Alternative O: Convention Center Expansion Only. Alternative O would not provide for the long-term economic growth of the City. In particular, there would be no new commercial office development or new residential development with Alternative O beyond that identified in the 2010 or 2025 Future Without the Proposed Action. The projected growth that would be accommodated by the Proposed Action would occur elsewhere in the City, potentially requiring redevelopment of existing office areas at significantly higher densities or expansion of Manhattan's CBD into adjoining residential neighborhoods. The projections for growth as well as City policies and proposals in other CBDs, such as Downtown Brooklyn and Long Island City, already see economic growth strong enough to absorb zoned and proposed capacity in these areas. These locations would, therefore, be less attractive candidates to absorb the 28 million square feet of commercial office development that would not be accommodated under Alternative O. In addition, the decrease in market rate and affordable housing production under Alternative O could place upward pressure on housing prices in Manhattan.

Alternative O would not include the extension of the No. 7 Subway and therefore would not improve transit access to the West Side. Consequently, the beneficial modal shift for Convention Center patrons from automobile to transit associated with the No. 7 Subway Extension would not be realized and additional automobile trips in the area would partially offset the reduction in total trip generation associated with the reduced development program.

Alternative P: Multi-Use Facility Only. Alternative P would not result in the extensive benefits that would result from the expansion and modernization of the Convention Center or the proposed rezoning nor would it provide for the long-term economic growth of the City that would be realized with the Proposed Action. Fewer jobs would be accommodated in the Project Area—6,710 direct and indirect jobs under Alternative P compared to approximately 127,155 under the Proposed Action. To accommodate this growth elsewhere in the City could require redevelopment of existing office areas at significantly higher densities or expansion of Manhattan's central business district (CBD) into adjoining residential neighborhoods.

The projections for growth as well as City policies and proposals in other CBDs, such as Downtown Brooklyn and Long Island City, already see economic growth strong enough to absorb zoned and proposed capacity in these areas. These locations would, therefore, be less attractive candidates to absorb the 28 million square feet of commercial office development that could not be accommodated under Alternative P. In addition, the decrease in market rate and affordable housing production under this alternative could place upward pressure on housing prices in the borough.

Alternative P would result in the projected benefits of \$54.1 million per year in tax revenues for the City and State. In addition, Alternative P would realize the resulting annual wages and salaries, of up to \$348.5 million or the up to \$604.46 million in annual demand for additional goods and services that is expected with the Multi-Use Facility (all in 2003 dollars).

Unlike the Proposed Action, the eastern portion of Caemmerer Yard under Alternative P would remain as an open transportation facility while the western portion would be improved by the Multi-

Use Facility. The categories in which Alternative P would result in different effects from those of the Proposed Action are discussed below.

Neither Alternative P nor the Proposed Action would result in any significant unmitigated adverse traffic impacts during the AM, Midday and PM peak hours in 2010. During the weeknight and Sunday Special Event peak hours both Alternative P and the Proposed Action would result in two and four adverse impacts that could not be mitigated, respectively, during approximately 19 times a year that special events are projected to occur at the Multi-Use Facility.

Alternative P would not include the extension of the No. 7 Subway and therefore would not improve transit access to the West Side. Consequently, the beneficial modal shift from automobile to transit associated with the No. 7 Subway Extension would not be realized and additional automobile trips in the area would partially offset the reduction in total trip generation associated with the reduced development program.

Alternative Q: Proposed Action with Development of a Deck Over Route 9A between the Multi-Use Facility and Hudson River Park. Alternative Q would develop a deck over Route 9A that would connect the Multi-Use Facility and Hudson River Park, providing continuous public open space between Hudson River Park and areas to the east of Route 9A and improving pedestrian connections among those open spaces. The potential for significant adverse air quality impacts at the portals of the tunnel would be avoided by an appropriately designed ventilation system. Increases in noise levels would be limited to the areas beneath the deck and at its portals. As a result, Alternative Q would not substantially differ from the Proposed Action with regard to noise. Unlike the Proposed Action, Alternative Q would require substantial construction over Route 9A, temporarily affecting traffic operations and creating temporary increases in localized noise and air pollutant levels. Significant adverse impacts would be avoided with appropriate maintenance and protection of traffic and construction phase environmental management plans developed in coordination with the NYSDOT. The construction of a deck over Route 9A would negate the need for a pedestrian overpass over Route 9A at West 34th Street to mitigate projected traffic and pedestrian impacts under the Proposed Action. This alternative would require independent review and approval by relevant State and federal agencies.

Alternative R: Proposed Action with Multi-Use Facility in Queens. Alternative R would relocate the Multi-Use Facility from the Project Area in Manhattan to Willets Point, Queens. The effect on the Project Area from the elimination of the Multi-Use Facility is discussed in Alternative M. In Queens, Alternative R would displace all of the commercial uses in Willets Point; by comparison, the Proposed Action would have no displacement attributable to the Multi-Use Facility. The project site under Alternative R is filled-in marshland and would require deep pilings to support the structure of the Multi-Use Facility. Because of the need for extensive land acquisition, infrastructure improvements, potential environmental clean-up, highway improvements, development of parking structures, and a pedestrian walkway, and deep pilings, the proposed facility would be approximately as costly to build as the Multi-Use Facility in Manhattan under the Proposed Action. However, were the convention component to be eliminated, some savings would be possible if the facility could be constructed without a retractable roof.

Alternative R would have the potential to significantly increase traffic congestion on local and regional roadways and would require construction of new ramps, parking structures, and other improvements to the roadway system and may require improvements to the Willets Point-Shea Stadium subway station.

Development of a Multi-Use Facility at Willets Point is consistent with the recommendations included in the *Downtown Flushing Development Framework Study (Flushing Framework Study)*, and would benefit the urban design, visual quality, and neighborhood character of the area.

Development of a Multi-Use Facility or football stadium at the Willets Point site would require a significant amount of land acquisition and displacement of existing businesses, although the displacement would not constitute a significant adverse impact on socioeconomics. The type of

businesses that would be displaced are found in numerous locations in the City, and there would be a substantial number of opportunities for their relocation. Displacement of the uses would not endanger the viability of any of the industries of which they are a part. However, acquisition of these businesses and related site cleanup would require substantial public investment (approximately \$270 million). Unlike the Proposed Action, the New York Jets have indicated that they would not participate in the development of a Multi-Use Facility or football stadium in Queens. The entire investment for facility development (approximately \$1.4 billion) would need to be provided through public sources, unless an alternative private investor could be identified. By comparison, the public contribution for the Multi-Use Facility in the Project Area would be approximately \$600 million.

A Multi-Use Facility at Willets Point is unlikely to attract comparable convention or exhibition events or to make the economic contribution to New York City and New York State that is projected for a Multi-Use Facility at Hudson Yards.

Alternative S: Revised Zoning Alternative. *[entirely new]* Given the similarity in overall density of the Alternative S and Proposed Action development programs, many of the impacts of Alternative S would be similar to or less than those of the Proposed Action. Like the Proposed Action, Alternative S would result in major improvements to land use, neighborhood character, urban design and visual resources in the Project Area. The socioeconomic benefits from the construction and operational periods under Alternative S would be similar to those of the Proposed Action. Like the Proposed Action, Alternative S would have significant adverse impacts on schools, daycare, and historic resources requiring the same mitigation as the Proposed Action. Effects on open space and archaeological resources would also be substantially the same with Alternative S as with the Proposed Action. Like the Proposed Action, Alternative S with (E) Designations would have no significant hazardous materials impacts. Like the Proposed Action, Alternative S would have no significant adverse impacts on natural resources, infrastructure, solid waste or sanitation services or energy, and would be consistent with the City's Waterfront Revitalization Program.

In all time periods, the traffic impacts of Alternative S would be nearly identical to those of the Proposed Action. The only perceptible differences would be in the 2025 Weeknight and Sunday Special Event periods (one additional unmitigated impact in Alternative S for each period) and in 2025 Midday (one less unmitigated impact in Alternative S). These differences are attributed to the difference in development patterns between Alternative S and the Proposed Action in the West 34th Street area.

Like the Proposed Action, Alternative S would provide adequate off-street parking under all conditions in 2010. Under 2025 conditions, Alternative S would result in a parking surplus in all periods, while the Proposed Action would result in a small shortfall in the Midday peak period.

Alternative S would result in significant adverse impacts to subway station elements, all of which could be mitigated with the same measures identified for the Proposed Action. Unlike the Proposed Action under which there would be one unmitigated impact, all such impacts could be mitigated under Alternative S. Absent mitigation, Alternative S would, like the Proposed Action, result in significant adverse impacts on subway transit. Alternative S would require fewer additional buses than the Proposed Action.

Alternative S would result in a small number of additional unmitigated pedestrian intersection impacts in 2010 compared to the Proposed Action (due to new residential development at West 31st Street), but fewer unmitigated pedestrian intersection impacts in 2025 (due to the shift from commercial to residential development in this area compared to the Proposed Action).

Like the Proposed Action, Alternative S would have no significant adverse impacts on air quality. Alternative S would have substantially the same noise impacts as the Proposed Action and would require the same (E) Designations and other mitigation measures. Construction impacts would be equivalent for both Alternative S and the Proposed Action and would require the same mitigation.

Alternative T: Revised Community Organization Plan: *[entirely new]* Although Alternative T proposes development on levels equivalent to those of the Proposed Action, it would reduce the level

of commercial development by 25 percent. Thus, Alternative T would not fully meet the public goals of the Proposed Action of accommodating long-term growth of employment in the Project Area. The delayed phasing of the No. 7 Subway Extension would make unlikely even the proposed reduced level of office development due to the lack of access

Like the Proposed Action, Alternative T would result in major improvements to land use, neighborhood character, urban design and visual resources in the Project Area. Compared to the Proposed Action, Alternative T would have greater significant impacts on schools and daycare, requiring more mitigation than the Proposed Action. Alternative T would provide approximately 6.1 more acres of open space than the Proposed Action, but 3.34 of those acres would require acquisition of Port Authority property to be mapped as City parkland, which is not regarded as feasible. Although Alternative T does not propose a Midblock Park and Boulevard System like the Proposed Action, it does propose a different configuration of open spaces generally in the midblock between Tenth and Eleventh Avenues. Like the Proposed Action, Alternative T would not have an adverse impact on open space.

Effects on historic architectural and archaeological resources would be substantially the same with Alternative T compared to the Proposed Action. Like the Proposed Action, with (E) Designations, Alternative T would have no hazardous materials impacts. Like the Proposed Action, Alternative T would have no adverse impacts on natural resources, infrastructure, solid waste and sanitation services would be similar, and it would be compatible with the City's Waterfront Revitalization Program.

Alternative T also would not satisfy the Convention Center's need for expansion in a manner that enables it to approximately double its prime contiguous exhibition floor space. As a result, the Convention Center would not be able to accommodate the very large trade shows that currently cannot utilize the Convention Center, or maximize the number of trade shows, conventions, and other events that the Convention Center would be able to conduct simultaneously. Alternative T would add only a modest amount of prime contiguous exhibition space to the Convention Center, all of which would be located in the one-block northerly expansion of the facility. The vast majority of the new exhibition space with Alternative T would be located south of West 34th Street. Such space would not be contiguous with the remainder of the facility to the north. The pedestrian connection linking the Alternative's proposed southerly expansion with the existing Convention Center would physically connect separate exhibition spaces, but would not create a large contiguous exhibition space. Thus this alternative would not realize the full economic benefits of expanding the Convention Center compared to the Proposed Action.

Alternative T also would not realize any of the socioeconomic benefits from the construction and operation of the Multi-Use Facility in the Project Area, including the \$1.4 billion construction investment and approximately 6,710 direct and indirect jobs resulting from operation of the Facility. Alternative T would not create a new venue with the capabilities to host major plenary events or other national sports and entertainment events, such as the Super Bowl and Final Four. Nor would it provide an alternative exposition facility for events that cannot be accommodated at the Convention Center. As a result, Alternative T would not realize the projected benefits of \$54.1 million per year in tax revenues for New York City and State that would be derived from the Multi-Use Facility. In addition, Alternative T would not realize the resulting annual wages and salaries (up to \$348.5 million) and overall economic activity generated by the Multi-Use Facility. However, the public cost of building a platform over the western portion of Caemmerer Yard to support the proposed uses would be the same as under the Proposed Action. This alternative would save the public cost of the Multi-Use Facility roof.

Alternative T would produce approximately 20 percent fewer peak hour vehicular trips than the Proposed Action. Like the Proposed Action, during the 2010 weekday AM, Midday, and PM peak hours, Alternative T would not result in any unmitigated significant adverse impacts. However, Alternative T would produce more unmitigable traffic impacts than the Proposed Action during the 2025 AM and PM peak hours, due to its greater concentration of development along the western

portion of Caemmerer Yard and along the Farley Corridor. Since Alternative T would not include a Multi-Use Facility, most or all of the significant adverse traffic impacts that would occur in the Special Event weeknight and Sunday afternoon peak periods under the Proposed Action would likely not occur under Alternative T.

Unlike the Proposed Action, Alternative T would not include a 950-space public parking garage under the Midblock Park and Boulevard System. Overall, the redistribution of development in the Project Area would result in a significant parking shortfall of approximately 2,400 parking spaces with Alternative T, compared to a slight parking deficit during the 2025 weekday Midday peak with the Proposed Action. Alternative T would result in slightly more intersections with unmitigated pedestrian impacts in the West 34th Street area in 2010 than the Proposed Action and slightly fewer intersections with unmitigated pedestrian impacts during the 2025 conditions than the Proposed Action. The moving walkway provided by this alternative would not connect to the Sixth Avenue, Broadway, Lexington Avenue, or No. 7 subways or to MetroNorth, and it would, therefore, be of limited utility.

Like the Proposed Action, Alternative T would have no significant impacts on air quality. As with the Proposed Action (E) Designations on development sites would assure that noise levels would be attenuated in new development. For existing development to remain, significant adverse noise impacts from Alternative T would be similar to those of the Proposed Action, requiring similar mitigation. Construction impacts would be equivalent for both Alternative T and the Proposed Action, but at different times, since the No. 7 Subway extension would be built in the later years.

Alternative U: Land Bridge Alternative. *[entirely new]* By concentrating development on a 2.57-million-square-foot megastructure (the LandBridge), Alternative U purports to include all of the program elements of the Proposed Action. However, principally for the reasons summarized below, it does not meet critical goals and objectives of the Proposed Action and is infeasible.

The LandBridge megastructure would effectively create a city-within-a-city which would relate poorly to surrounding neighborhoods, despite the attempt to make its edges compatible with existing streetscapes. This is because the LandBridge would function differently and in isolation from at-grade development. The massive LandBridge structure would in fact create a new and forbidding barrier between existing neighborhoods. The concept of the elevated LandBridge therefore would not fulfill a major project goal to create a vital, 24-hour community throughout the Hudson Yards area.

The proposed transportation system would be infeasible and inadequate, and would not promote transit-oriented development. A proposed elevated automated rapid transit (ART) loop would not have the capacity to handle transit needs at the LandBridge. The proposal does not include the No. 7 Subway Extension, but purports to allow for it at a later stage of development. However, given the subsurface conditions and various tunnels and other major infrastructure in the Project Area, it would not be possible to later extend the No. 7 Subway to a station at grade level on the LandBridge structure, as described in Alternative U.

Alternative U would degrade the pedestrian environment by turning four avenues – Ninth through Twelfth – into tunnels. Further, the elevated ART loop, running above West 31st Street and West 33rd Street from Sixth Avenue to the west side of Ninth Avenue, would adversely affect these streets.

The proposed design for the expanded Convention Center under Alternative U is not functional, because nearly half of the exhibition space lacks contiguous prefunction space, has no or inadequate loading docks and service areas, and would require structure and diagonal trusses, so that the space would not be open and unimpeded. It fails to provide dedicated circulation systems, requiring convention attendees and the general public to use the same circulation elements, and does not provide for a grand entry that could service all the exhibition areas. Alternative U would also provide hundreds of thousands of square feet of unnecessary meeting and ballroom space.

Alternative U also fails to provide sufficient Convention Center marshalling space or to identify any way for the trucks in the proposed below-grade marshalling yard to reach the above-grade loading docks on the proposed main convention floor. The arrangement of the LandBridge and its

components would require that all the trucks and buses from the Convention Center, stadium, relocated Quill Bus Depot and Fed Ex facility, and proposed big-box retail funnel onto Twelfth Avenue, where the combination could significantly impede the Convention Center from providing the quality of truck ingress, marshalling and egress required by its exhibitors (as well as block north-south traffic). Moreover, the space planned under the LandBridge for the relocated Quill Bus Depot appears to be half the size required and is not feasible.

The proposed location of the stadium on the roof of the Convention Center raises questions about the feasibility and cost associated with the structural requirements for both facilities and the ability of the stadium to move people in and out safely and quickly. It also appears that there could be no truck service to the stadium, which would make certain events impossible.

The footprint of the stadium would be reduced by a full block under Alternative U in the north-south direction and would not be adequate to accommodate the basic stadium and event program. The proposed circulation (Convention Center and stadium together) would not work for either facility. Separate vertical transportation systems would have to be developed, which would likely further reduce the area available to the stadium.

Given the placement of rail tracks between Tenth and Eleventh Avenues on the eastern portion of Caemmerer Yard, the structural systems assumed under Alternative U would not be feasible, because the required foundation caissons could not be installed without permanent removal of a large number of tracks. Review of the plans also indicates that these caissons would be too small to support the structural loads of the buildings.

Cost would be a major issue with Alternative U. The public sector cost would total between \$7.6 billion (if the No. 7 extension does not take place) and \$9.6 billion (if the No. 7 extension does take place). This would represent an enormous increase in cost over the Proposed Action. Moreover, the estimated costs appear to be understated for a variety of reasons, including that Alternative U does not appear to factor in relocation and fixture compensation costs; property acquisition and condemnation costs; or the cost of building streets and other infrastructure on the site of the existing Convention Center necessary to support the proposed residential mixed-use neighborhood.

K. ACTIONS AND APPROVALS

Rezoning and Related Land Use Actions

- ULURP approval for area-wide zoning map amendments (e.g., new Special Hudson Yards District; amendments to existing Special Garment Center District, Special Clinton District, and Special Midtown District; and elimination of the Special Jacob K. Javits Convention Center District); City Map amendments (e.g., mapping of new parks and a new boulevard roadway); acquisition of property for park and street purposes; and site selections and acquisitions of property for a public parking garage, a multi-agency municipal facility for DSNY and NYPD Tow Pound operations, and other acquisitions/dispositions of property. ULURP approval would be sought for the acquisition of property for the No. 7 Subway Extension by the City on behalf of the MTA.
- City Council and CPC approval of zoning text amendments pursuant to Sections 200 and 201 of the New York City Charter.
- CPC determination of consistency with the LWRP.
- Amtrak consent for the City to build a portion of the Midblock Park and Boulevard System over the Empire Line railroad right-of-way.
- PANYNJ approval for the pedestrian bridge in the Midblock Park and Boulevard System between West 39th and West 41st Streets from Tenth to Eleventh Avenues.

No. 7 Subway Extension

- MTA Board approval of the No. 7 Subway Extension.

- Acquisition of property for the No. 7 Subway Extension by the City on behalf of the MTA.
- City transfer to the MTA NYCT of property required for the No. 7 Subway Extension.
- PANYNJ approval to construct the No. 7 Subway Extension under the PABT.
- Possible NYSDEC water quality or wetlands permits for additional rail storage facilities at MTA's Corona Yard.
- Possible United States Army Corps of Engineers wetlands permit for additional rail storage facilities at MTA's Corona Yard.

Convention Center Expansion

- CCDC or ESDC approval for General Project Plan of the Convention Center Expansion, including override of the City Map to discontinue and acquire West 33rd, West 39th, West 40th, and the eastern half of West 41st Streets between Eleventh and Twelfth Avenues.
- Approval of financing for the Convention Center Expansion by one or more State agencies or public benefit corporations.
- CCDC or ESDC acquisition of private land, possibly including condemnation through the EDPL for the Convention Center Expansion.
- MTA approval to relocate the Quill Bus Depot as a consequence of the Convention Center Expansion.
- Possible NYSDEC stationary source air permits for the relocated Quill Bus Depot and Convention Center Expansion.
- New York State Department of State Coastal Zone Certification.
- Amtrak approval for Convention Center use of existing unused portion of rail right-of-way next to Empire Line.

Multi-Use Facility

- ESDC adoption of GPP for development of the Multi-Use Facility and related project actions, and override of provisions of the New York City Zoning Resolution and override of City Map to discontinue and acquire West 33rd Street and a volume of air space above the northern sidewalk of West 30th Street.
- MTA TBTA approval of lease arrangements for the western portion of Caemmerer Yard, for development of the Multi-Use Facility.
- ESDC acquisition of leasehold interest in air space over the western portion of Caemmerer Yard.
- ESDC lease of such air space to the New York Jets or an affiliate for construction and operation of Multi-Use Facility.
- City approvals related to financing of the platform and roof of the Multi-Use Facility.
- Possible NYSDEC stationary source air permits for the Multi-Use Facility.
- New York State Department of State Coastal Zone Certification.
- Public Authorities Control Board approval of the acquisition of the leasehold interest of the air space over the western portion of the Caemmerer Yard. ❖